



City of Arvada

City Council Agenda

SEPTEMBER 13, 2021
CITY COUNCIL CHAMBERS
Regular Business

Councilmembers:

Marc Williams, Mayor
Dot Miller, Mayor Pro-Tem
Bob Fifer, At large
Nancy Ford, District 1
David Jones, District 4
John Marriott, District 3
Lauren Simpson, District 2

Staff Members Usually Present:

Mark Deven, City Manager
Lorie Gillis, Deputy City Manager
Rachel Morris, City Attorney
Don Wick, Director of Public Works
Sharon Israel, Director of Utilities
Ryan Stachelski, Dir. of Community & Economic Development
Bryan Archer, Director of Finance
Rob Smetana, Manager of City Planning & Development
Ben Irwin, Chief Communications Manager
Kristen Rush, City Clerk

Info: 720-898-7550

CITY COUNCIL MEETING – CITY COUNCIL CHAMBERS 6:00 PM

1. Call to Order - 6:00 PM
2. Moment of Reflection and Pledge of Allegiance - Councilmember Simpson
3. Roll Call of Councilmembers
4. Approval of Minutes
 - A. August 16, 2021 City Council Meeting
5. Recognitions and Communications
 - A. Proclamation for Arvada Wheat Ridge Service Ambassadors for Youth (AWRSAY) - Presented by Councilmember Fifer
 - B. Proclamation for Constitution Week - Presented by Councilmember Marriott
6. Presentations
 - A. Arvada Parks Advisory Committee Quarterly Update
7. Public Comment on Issues not Scheduled on Agenda - Three Minute Limit
8. New Business
 - A. Consent Agenda
 1. R21-110 A Resolution Accepting Certain Acquired Property Interests Related to the

Completion of the Ralston Road Phase 1 Project

2. R21-111 A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation
3. R21-112 A Resolution Authorizing an Employment Agreement Between the City of Arvada and Charles W. Tingle Appointing Him as a Relief Judge for the Municipal Court
4. R21-113 A Resolution Authorizing the Submission of the 2021 Justice Assistance Grant Application for the Arvada Police Department
5. R21-114 A Resolution Authorizing a Construction Contract By and Between the City of Arvada and Insituform Technologies, LLC, for the 2021 Trenchless Sewer Main Replacement Project, in an Amount Not to Exceed \$1,283,574.00, Project No. 21-SR-02
6. R21-115 A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$396,194 to Honnen Equipment Co. for the Purchase of One 2019 Voegle SUPER 1700 Paver
7. R21-116 A Resolution Authorizing an Agreement by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00

B. Resolutions

1. R21-117 A Resolution Authorizing the Fourth Budget Amendment to the 2021 Operating and Capital Budget to Increase the Budget by \$5,537,909.00 for the funds received from the American Rescue Plan Act
2. R21-118 A Resolution Authorizing the City of Arvada to Enter into an Intergovernmental Agreement with the City of Westminster for Fleet Maintenance and Repair Services
3. R21-119 A Resolution Authorizing an Intergovernmental Agreement Between Jefferson County, Colorado and the City of Arvada for Access to Content Provided Through an Agreement with Pictometry International Corp.
4. R21-120 A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for CARES Act Funding in the Amount of \$682,995.00

C. Ordinances (First Reading) - None

9. Other - None

10. Public Hearings - 6:15 PM

- A. CB21-029 An Ordinance Repealing Chapter 10, Amusements and Entertainment, of the Arvada City Code (Ordinance No. 4776)
- B. Community Comments on the Application Process for the 2022 Community Development Block Grant 2022 Annual Action Plan and 2022 Human Services Funding Pool

11. Workshop

- A. Land Development Code Update

12. Public Comment - Five Minute Limit

13. Reports from City Council

- A. Council Committee Reports

14. Reports from City Manager

A. Review of Future Workshops and Presentations

15. Reports from City Attorney
16. Adjournment



SUMMARY OF MINUTES OF THE MEETING OF THE ARVADA CITY COUNCIL HELD AUGUST 16, 2021

1. Executive Session - Third Floor Conference Room - 5:00 p.m.
 - A. Legal Advice, Pursuant to CRS 24-6-402(4)(b) Relating to Denver Water Board and Instructions to Negotiators, Pursuant to CRS 24-6-402(4)(e) Relating to IGA Renewal with Apex

Councilmember Simpson moved to go into Executive Session for Legal Advice, Pursuant to CRS 24-6-402(4)(b) Relating to Denver Water Board and Instructions to Negotiators, Pursuant to CRS 24-6-402(4)(e) Relating to IGA Renewal with Apex

The following votes were cast on the Motion:

Those voting Yes: Williams, Miller, Fifer, Ford, Jones, Marriott, Simpson

The Motion was Approved

2. Call to Order - 6:00 p.m.

This Arvada City Council meeting was held in the City Council Chambers and remotely using webinar technology. Mayor Williams, Mayor Pro Tem Miller, Councilmember Ford, Councilmember Jones, Councilmember Marriott, and Councilmember Simpson were present in the council chambers.

Members of the public were given notice with instructions on how to participate with public comment.

3. Moment of Reflection and Pledge of Allegiance
4. Roll Call of Councilmembers

Those Present: Mayor Marc Williams, Mayor Pro Tem Dot Miller, Councilmember Bob Fifer, Councilmember Nancy Ford, Councilmember David Jones, Councilmember John Marriott, Councilmember Lauren Simpson

Also Present: Mark Deven, City Manager; Rachel Morris, City Attorney; Lorie Gillis, Deputy City Manager; Ryan Stachelski, Director of Community and Economic Development; Bryan Archer, Director of Finance and Kristen Rush, City Clerk.

5. Approval of Minutes of the August 2, 2021 City Council Meeting

The minutes stand approved.

6. Recognition and Communication –

Councilmember Jones said that tonight are recognizing Justin Andrade, a graduate of A-West and Adams State University in Alamosa, Colorado. Justin, who ran cross country and track for Adams State, decided to embark on a journey in memory of his friend Cameron Holland. Cameron died in a car accident in

Arvada on December 7, 2019 at the age of 17. He was a high school senior just five months away from graduation. Justin and Cameron had been friends since elementary school. Shortly following his death Cameron's family decided to start the Cameron Holland Scholarship and asked for donations in lieu of flowers. In the spring of 2020, the family partnered with The Denver Foundation to administer the Scholarship.

Following Justin's graduation from Adams State, he decided to embark on a journey in memory of his friend by running 280 miles over seven days, from Alamosa to his home in Arvada to raise money for the Scholarship Fund.

He set out from Alamosa on Memorial Day, May 31, and arrived home in Arvada the following Sunday, June 6 averaging 40 miles per day, refueling with one candy bar and one bottle of water per hour. From Alamosa, Justin ran over La Veta pass (elevation 9,426') in the Sangre de Cristo Mountains of south-central Colorado to Walsenburg, Colorado. Heading north from there he passed through Colorado City, Pueblo, Colorado Springs, Monument, and Sedalia before reaching the Denver Metro area to complete the final legs of his journey through Littleton, Lakewood, and into Arvada. Staying with friends along the way, Justin would go to bed at 7 p.m. each night, waking at 4:30 a.m. each day to beat the heat. Some days he ran long stretches alone while other days he had support from other runners, bikers, or friends driving along the route.

Upon his return, Justin was welcomed by family, friends, and the community as he ran the home stretch along the Ralston Creek Trail to Cameron's roadside memorial sign near W. 72nd Avenue and Indiana.

Justin raised over \$7,000 for his ultra- marathon-like efforts, with another \$3,300 pledged for the Cameron Holland Scholarship Fund. Cameron's family deeply appreciates the donations and is in awe of Justin's determination and strength to run nearly 300 miles across the ranging Colorado landscape to raise funds for the Scholarship.

7. Presentations –
A. 2021 Mid-Year Financial Report

Bryan Archer, Director of Finance, presented the mid-year financial report. This included updates on specific performance measures, an overview of the major revenue categories in the General Fund, a high level look at the other major funds, a review of the City's investment portfolio and finally a preliminary look at the American Rescue Plan funds.

8. Public Comment
A. Katie Winner, Arvada Resident, addressed council regarding the Charter Review Committee
B. Mark McGoff, Arvada Resident, addressed council regarding the Charter Review Committee.

9. New Business
A. Consent Agenda
1. R21-101 A Resolution Authorizing an Agreement By and Between the City of Arvada and LAZ Parking Midwest, LLC in an Amount not to Exceed \$258,380.00 in the First Year for Parking Enforcement Services
2. R21-102 A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$245,887 to Honnen Equipment Co. for the Purchase of One 2021 John Deere 644 P Loader

3. R21-103 A Resolution Approving the Eighth Amendment to an Employment Agreement By and Between the City of Arvada and Mark G. Deven as City Manager
4. R21-104 A Resolution Approving the First Amendment to an Employment Agreement By and Between the City of Arvada and Rachel A. Morris as City Attorney
5. R21-105 A Resolution Approving the First Amendment to an Employment Agreement By and Between the City of Arvada and Kathryn C. Kurtz as Presiding Municipal Court Judge
6. R21-106 A Resolution Authorizing Assignment to the Colorado Housing and Finance Authority of A Private Activity Bond Allocation of the City of Arvada Pursuant to the Colorado Private Activity Bond Ceiling Allocation Act

Councilmember Marriott moved that R21-101, A Resolution Authorizing an Agreement By and Between the City of Arvada and LAZ Parking Midwest, LLC in an Amount not to Exceed \$258,380.00 in the First Year for Parking Enforcement Services; R21-102, A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$245,887 to Honnen Equipment Co. for the Purchase of One 2021 John Deere 644 P Loader; R21-103, A Resolution Approving the Eighth Amendment to an Employment Agreement By and Between the City of Arvada and Mark G. Deven as City Manager; R21-104, A Resolution Approving the First Amendment to an Employment Agreement By and Between the City of Arvada and Rachel A. Morris as City Attorney; R21-105, A Resolution Approving the First Amendment to an Employment Agreement By and Between the City of Arvada and Kathryn C. Kurtz as Presiding Municipal Court Judge; R21-106, A Resolution Authorizing Assignment to the Colorado Housing and Finance Authority of A Private Activity Bond Allocation of the City of Arvada Pursuant to the Colorado Private Activity Bond Ceiling Allocation Act, be approved.

The following votes were cast on the Motion

Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott, Simpson

The Motion was Approved

B. Resolutions –

1. R21-107 A Resolution Authorizing Intergovernmental Agreements by and between the City of Arvada and the Counties of Adams and Jefferson for the Regular Municipal Election on November 2, 2021.

Mark Deven, City Manager, reviewed this resolution with council.

Councilmember Ford moved that R21-107, A Resolution Authorizing Intergovernmental Agreements by and between the City of Arvada and the Counties of Adams and Jefferson for the Regular Municipal Election on November 2, 2021, be approved.

The following votes were cast on the Motion

Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott, Simpson

The Motion was Approved

2. R21-108 A Resolution Authorizing a Second Amendment to the Intergovernmental Agreement Between the City of Arvada and the Arvada Urban Renewal Authority

Mark Deven, City Manager, reviewed this resolution with council.

Councilmember Marriott moved that R21-108, A Resolution Authorizing a Second Amendment to the Intergovernmental Agreement Between the City of Arvada and the Arvada Urban Renewal Authority, be approved.

The following votes were cast on the Motion

Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott,

Simpson

The Motion was Approved

3. R21-109 A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for Community Development Block Grant Funding In the Amount of \$455,945.00

Mark Deven, City Manager, reviewed this resolution with council.

Councilmember Simpson moved that R21-109, A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for Community Development Block Grant Funding In the Amount of \$455,945.00

The following votes were cast on the Motion

Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott,

Simpson

The Motion was Approved

C. Ordinances (First Reading)

1. CB21-029, A Ordinance Repealing Chapter 10, Amusements and Entertainment, of the Arvada City Code (Public Hearing to be set for September 13, 2021 at 6:15 p.m.)

Mayor Pro Tem Miller moved that CB21-029, A Ordinance Repealing Chapter 10, Amusements and Entertainment, of the Arvada City Code, be approved on first reading, ordered published in full, and a public hearing set for September 13, 2021 at 6:15 p.m.

The following votes were cast on the Motion

Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott,

Simpson

The Motion was Approved

10. Other – none

11. Public Hearings
A. CB21-020 An Ordinance Amending Chapter 54, Motor Vehicles and Traffic, of the Arvada City Code (Ordinance No. 4772)

Mayor Williams opened the public hearing on CB21-020.

Mark Deven, City Manager and John Firouzi, Mobility & Planning Innovations (MPI) Division Manager, reviewed this ordinance with council.

No one wishing to speak for or against, the public hearing was closed.

Councilmember Marriott moved that CB21-020, An Ordinance Amending Chapter 54, Motor Vehicles and Traffic, of the Arvada City Code, be approved on final reading, numbered 4772 and ordered published by title only.

The following votes were cast on the Motion
Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott,
Simpson
The Motion was Approved

- B. CB21-026 An Ordinance Enacting and Amending Certain Provisions of Division 3, Smoking Restricted in Public Places, of Article VII, Air Pollution, of Chapter 38, Environment, of the Arvada City Code to Prohibit Persons Under the Age of 21 From Entering Smoking Businesses, to Prohibit the Sale or Distribution of Tobacco Products to Persons Under the Age of 21, and to Prohibit Self Service Displays of Tobacco Products (Ordinance No. 4773)

Mayor Williams opened the public hearing on CB21-026.

Mark Deven, City Manager, reviewed this ordinance with council.

Sworn Testimony: Mary Szamach,

Mayor Williams closed the public hearing.

Mayor Pro Tem Miller moved that CB21-026, An Ordinance Enacting and Amending Certain Provisions of Division 3, Smoking Restricted in Public Places, of Article VII, Air Pollution, of Chapter 38, Environment, of the Arvada City Code to Prohibit Persons Under the Age of 21 From Entering Smoking Businesses, to Prohibit the Sale or Distribution of Tobacco Products to Persons Under the Age of 21, and to Prohibit Self Service Displays of Tobacco Products, with an amendment to the original ordinance be approved on final reading, numbered 4773 and ordered published in full. The proposed amendment would exclude smoking businesses as defined in the ordinance from the ordinances self-service prohibition but retain the prohibition on vending machines for smoking businesses.

Councilmember Fifer made a friendly amendment to strike the statement within section 38-304 that says and person who is, and currently we are amending that to 21 years of age or older, may use or operate an electronic smoking device within a specialty vaping store as defined in section 38-303, I would like that exception scratched from the ordinance. Mayor Pro Tem Miller accepted the friendly amendment.

The following votes were cast on the Motion

Those voting yes: Williams, Miller, Fifer, Ford, Jones, Simpson
Those voting no: Marriott
The Motion was Approved

- C. CB21-027 An Ordinance Repealing and Reenacting Chapter 82, Purchasing and Contracts, of the Arvada City Code (Ordinance No. 4774)

Mayor Williams opened the public hearing on CB21-027.

Mark Deven, City Manager, reviewed this ordinance with council.

No one wishing to speak for or against, the public hearing was closed.

Councilmember Ford moved that CB21-027, An Ordinance Repealing and Reenacting Chapter 82, Purchasing and Contracts, of the Arvada City Code, be approved on final reading, numbered 4774, and ordered published by title only.

The following votes were cast on the Motion
Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott,
Simpson
The Motion was Approved

- D. CB21-028 An Ordinance Submitting Proposed Amendments to Sections 4.3, 4.6, 5.13 and 5.14 of the Charter for the City of Arvada to the Registered Electors at the November 2, 2021 Regular Municipal Election and Setting Ballot Titles (Ordinance No. 4775)

Mayor Williams opened the public hearing on CB21-028.

Rachel Morris, City Attorney, reviewed this ordinance with council.

No one wishing to speak for or against, the public hearing was closed.

Councilmember Simpson moved that CB21-028, An Ordinance Submitting Proposed Amendments to Sections 4.3, 4.6, 5.13 and 5.14 of the Charter for the City of Arvada to the Registered Electors at the November 2, 2021 Regular Municipal Election and Setting Ballot Titles, be approved on final reading, numbered 4775, and ordered published by title only.

12. Public Comment - Five Minute Limit - none
13. City Council Reports
A. Appointment to the Community Corrections Board

Councilmember Marriott moved to appoint David Jones to the Community Corrections Board.

The following votes were cast on the Motion
Those voting yes: Williams, Miller, Fifer, Ford, Jones, Marriott, Simpson
The Motion was Approved

14. City Manager Reports - none
15. City Attorney Reports – none
16. Adjournment at 8:15 p.m.

Marc Williams, Mayor

SEAL:

Kristen R. Rush, City Clerk



REPORT TO CITY COUNCIL

AGENDA ITEM
5.A.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Proclamation for Arvada Wheat Ridge Service Ambassadors for Youth (AWRSAY) - Presented by Councilmember Fifer

Report in Brief

The Arvada Wheat Ridge Service Ambassadors for Youth (AWRSAY) is celebrating its 20th Anniversary this year. City Council will issue a Proclamation recognizing the organization, its founders and the volunteers from twenty community organizations.

Duane Youse and Diane Hegeman will be present to accept the Proclamation.

Prepared by:

Chris Koch, CCO Admin

Reviewed by:

Toni Riebschlager, Law Office Administrator 8/20/2021

Approved by:

Rachel Morris, City Attorney 8/23/2021

Lorie Gillis, Deputy City Manager 8/31/2021

Mark Deven, City Manager 9/1/2021

Enclosure, exhibits & attachments required to support the report

Proclamation



CITY OF ARVADA

WHEREAS, Arvada Wheat Ridge Service Ambassadors for Youth was founded in 2001 by Duane Youse and Bill Johnson, Arvada residents, and Diane Hegeman, Dean of the Arvada Campus of Red Rocks Community College; and

WHEREAS, the mission of this volunteer driven organization is to facilitate the ongoing recognition, educational and leadership opportunities for Arvada and Wheat Ridge youth who have overcome adversity; and

WHEREAS, the purpose of this organization is to ensure that youth who have overcome adversity receive public recognition and opportunities to help them achieve their potential; and

WHEREAS, from 2001 to 2021, a total of 1,538 youth of the Arvada and Wheat Ridge communities have been recognized by this organization in annual ceremonies, have been issued certificates of recognition and had their names placed in the United States Congressional Record; and

WHEREAS, from 2001 to 2021, a total of 401 of the recognized youth have been awarded scholarships to Red Rocks Community College; and

WHEREAS, Arvada Wheat Ridge Service Ambassadors for Youth will be celebrating its twenty years of existence and the many contributions it has made to the betterment of Arvada and Wheat Ridge in a celebratory event in the Community Room at Red Rocks Community College in Lakewood on October 21, 2021, from 5:30 to 8:30 p.m.

NOW, THEREFORE BE IT RESOLVED that the Arvada City Council wishes to recognize Arvada Wheat Ridge Service Ambassadors for Youth, to honor its founders and the volunteers from twenty community organizations who have sustained this organization for two decades, and to congratulate the young people who have become confident members and leaders of our community because of this unique and special program.

Dated this 13th day of September, 2021

Marc Williams, Mayor

David Jones, Councilmember

Dot Miller, Mayor Pro Tem

John Marriott, Councilmember

Bob Fifer, Councilmember

Lauren Simpson, Councilmember

Nancy Ford, Councilmember



REPORT TO CITY COUNCIL

AGENDA ITEM
5.B.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Proclamation for Constitution Week - Presented by Councilmember Marriott

Report in Brief

The United States Constitution stands as a testament to the tenacity of Americans throughout history to maintain their liberties, freedoms, and inalienable rights. The Daughters of the American Revolution began the tradition of celebrating the Constitution for one week in September, beginning in 1955. During Constitution Week citizens are asked to reflect on their responsibility to protect and defend the Constitution and study the historical events which led to the framing of the Constitution on September 17, 1787.

The Doctor Susan Anderson Chapter, National Society of the Daughters of the American Revolution was organized in Arvada in 2008. As a non-profit service organization, the society promotes historic preservation, education, and patriotism. Members of the chapter are present to accept this proclamation for Constitution Week, with Regent Chrissi Ruby as the spokesperson.

Chapter Regent, Chrissi Ruby will be present to accept the Proclamation.

Prepared by:

Chris Koch, CCO Admin

Reviewed by:

Toni Riebschlager, Law Office Administrator 8/16/2021

Approved by:

Rachel Morris, City Attorney 8/23/2021

Lorie Gillis, Deputy City Manager 8/31/2021

Mark Deven, City Manager 9/1/2021

Enclosure, exhibits & attachments required to support the report

Proclamation



CITY OF ARVADA

WHEREAS, the Constitution of the United States of America, the guardian of our liberties, embodies the principles of limited government in a Republic dedicated to rule by law; and

WHEREAS, September 17, 2021 marks the 234th anniversary of the framing of the Constitution of the United States of America by the Constitutional Convention; and

WHEREAS, it is fitting and proper to officially recognize this magnificent document, its anniversary, and patriotic celebrations which will commemorate it; and

WHEREAS, public law 915 guarantees the issuing of a proclamation each year by the President of the United States of America designating September 17 through 23 as Constitution Week;

NOW, THEREFORE, BE IT PROCLAIMED that the Mayor and City Council of the City of Arvada, Colorado, hereby recognize the week of September 17-23, 2021 to be **CONSTITUTION WEEK** and ask our citizens to reaffirm the ideals the Framers of the Constitution had in 1787 by vigilantly protecting the freedoms guaranteed to us through this guardian of our liberties.

Dated this 13th day of September, 2021

Marc Williams, Mayor

Dot Miller, Mayor Pro Tem

Bob Fifer, Councilmember

Nancy Ford, Councilmember

David Jones, Councilmember

John Marriott, Councilmember

Lauren Simpson, Councilmember



REPORT TO CITY COUNCIL

AGENDA ITEM
6.A.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Arvada Parks Advisory Committee Quarterly Update

Report in Brief

Arvada Parks Advisory Committee (APAC) member Michael McMahon will provide a mid-year update on behalf of the entire Committee. The Committee has prepared a PowerPoint presentation that is included in the agenda packet.

Prepared by:

Rosa Kougl, Executive Assistant

Reviewed by:

Approved by:

Gordon Reusink, Director of Vibrant Community and Neighborhoods	8/23/2021
Bryan Archer, Director of Finance	8/23/2021
Gail Walker, Legal Specialist-Contracts	8/23/2021
Kylie Justus, Assistant City Attorney	8/25/2021
Rachel Morris, City Attorney	8/25/2021
Lorie Gillis, Deputy City Manager	8/31/2021
Mark Deven, City Manager	9/1/2021

Enclosure, exhibits & attachments required to support the report



Michael McMahon

APAC Member



PARKS



NATURE



WELLNESS



COMMUNITY

**Supporting the
City's Vision
through the lens of
the Parks Master Plan**



Mid Year 2021 Committee Report

- Welcomed new committee members:
Jackie Marquis
Travis Torline
- Outgoing committee members
Ed Johnson
- COVID-19 restriction/limitations
 - In person meetings started July 2021
 - Volunteer/project events



Accomplishments

- **173** volunteer hours between 16 members
- **6** \$5,000 Matching Grant Program
 - Secrest - shade structure –outdoor classroom
 - Thompson - boulder seating, climbing structure
 - Peck - shade structure – outdoor classroom
 - Excel – Webbing for Space net climbing structure
 - Moore Middle – Blacktop maintenance for BB court
- **One** \$3500 Matching Grant Program
 - West Woods - \$3500 -2 outdoor tables



Accomplishments

- 10 Park Assessments
- Park E-mobility
- Parks & Golf Drought Management Plan
- Community education/outreach
- Collaboration with City team members
 - Presentations by : Pomona Bike Park request
 - Trails update From Karen, Pomona parcel



Accomplishments

- Goal setting in January following the 2016 Parks, Trails, and Open Space Master Plan:
 - 4 Pillars: Community, Wellness, Parks, and Nature



Community

MP Focus:	Help increase existing volunteer opportunities, advise wayfinding/signage themes, promote/activate/celebrate park, trail, and open spaces, partner with APEX to seek out programming opportunities, and encourage digital participation of residents about their parks.
APAC Goals:	1. Brainstorm a comprehensive branding campaign for the park system with City staff. • Create an identity for Arvada's trail system and signage while keeping conservation, stewardship, and healthy lifestyle in mind. • Look into Cotrex app/all trails app - include Arvada Trails • Develop ideas for public education/outreach: trail etiquette education. - Release 1 video annually - Posters along trails (brainstorm funding) - Continual etiquette outreach - Consider funding • Art incorporated with wayfinding along trails/in parks (wayfinding on electric boxes). element of art that leads back to Olde Town 2. Increase volunteer opportunities for the Ranger Program • Coordinate with City staff to discuss expansion needs and ideas to overcome challenges (new vehicles, supervision, storage, etc) - Bike Rangers - Consider funding - Create/brainstorm an annual maintenance budget for Trails Ranger Program. 3. Diversity, Equity, and Inclusion - Needs to be considered for all goals
Interests:	The Ranger Program (Jason, Ed), Trail/Park Clean Up (Erin, Jeri), School Grant Program (Julie, Stacy), Signage Standards - inclusion () City Council Representative, APEX Representative, Publications Writer,
Members:	Grace Dowling, Jaime Sandoval, Max Koxholt, Ed Johnson, Stacy Parcell, Michael Miller



Nature

MP Focus: Evaluate park/open spaces for sustainable opportunities for maintenance/design. Refine stewardship practices for open space areas, work with maintenance to adopt new practices, and advise on future open space stewardship plan.

APAC Goals:

1. Advance Implementation of Drought Management Plan
2. [Placeholder] - Community Outreach/education for water-use/drought
3. Investigate the need and feasibility for creating a community volunteer program for certain areas in our parks that can be maintained by specialized individuals (example: Demonstration garden at MVNC)

Interests: Jefferson County Open Space Advisory Committee (Julie, Jeri), Drought Management (Jeri, Julie, Stacy, Abby, Erin)

Members: Jeri Sampson, Jaime Sandoval, Abby Mcneal, Stacy Parcell, Julie



Wellness

MP Focus:	Provide research/recommendations for pedestrian, equestrian, and bicycle circulation, trail gap priorities, and new trail amenities. Strategize partnerships/funding opportunities for trail connections.
APAC Goals:	1. Understand local equestrian group recommendations for safety and trail gap priorities. 2. Work with City staff to determine priorities for trail gap location focus along canals or irrigation ditches - April target • Internal City discussion needs to happen first to determine partners, outreach steps, and legal strategy
Interests:	Bike friendly Arvada (),
Members:	Max koxholt, Tim Sloan, Michael Miller, Jason Anderson, Justin Holstein, Erin Newton, Julie JorDan, Melissa Lloyd



Parks

Parks

MP Focus:	Assist in land acquisition strategies for new parks/open space, promote/prioritize community agriculture sites, encourage private/public partnerships, advise the Taking Lasting Care program, and increase funding and volunteering.
APAC Goals:	1. Brainstorm ways to gain support and understand the need for a Full Service Bike Park • Opportunity to host a 1/2 day meeting conversation with special interest groups related to bikes (single track, BMX, etc). • Efforts as part of the Arvada Blunn/Pioneer Master Plan. 2. Park Assessments Review
Interests:	Community Agriculture (Erin), Arvada Arts and Culture Commission (Stacy, Grace), APEX (Abby), Local Bike Advocacy Groups (), Park Assessments Form Review, Bike Friendly Arvada
Members:	Abby Mcneal, Todd Munson, Tim Sloan, Grace, Jaime Sandoval



REPORT TO CITY COUNCIL

AGENDA ITEM
8.A.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Consent Agenda

Report in Brief

8.A.1. R21-110 A Resolution Accepting Certain Acquired Property Interests Related to the Completion of the Ralston Road Phase 1 Project

8.A.2. R21-111 A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation

8.A.3. R21-112 A Resolution Authorizing an Employment Agreement Between the City of Arvada and Charles W. Tingle Appointing Him as a Relief Judge for the Municipal Court

8.A.4. R21-113 A Resolution Authorizing the Submission of the 2021 Justice Assistance Grant Application for the Arvada Police Department

8.A.5. R21-114 A Resolution Authorizing a Construction Contract By and Between the City of Arvada and Insituform Technologies, LLC, for the 2021 Trenchless Sewer Main Replacement Project, in an Amount Not to Exceed \$1,283,574.00, Project No. 21-SR-02

8.A.6. R21-115 A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$396,194 to Honnen Equipment Co. for the Purchase of One 2019 Voegele SUPER 1700 Paver

8.A.7. R21-116 A Resolution Authorizing an Agreement by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00

Suggested Motion: Moved by: _____

I move that the Consent Item(s), Number(s) R _____ be (Removed from the Consent Agenda and Heard Upon Item _____) (Referred to a Workshop) (Postponed Indefinitely).

YES _____ NO _____ ABSENT _____

That All/Remaining Consent Items be (Approved) (Rejected).

YES _____ NO _____ ABSENT _____

Prepared by:
Chris Koch, CCO Admin

Reviewed by:

Approved by:

Enclosure, exhibits & attachments required to support the report



REPORT TO CITY COUNCIL RESOLUTION

**AGENDA ITEM
8.A.1.**

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-110 A Resolution Accepting Certain Acquired Property Interests Related to the Completion of the Ralston Road Phase 1 Project

Report in Brief

In 2017, City Council adopted Ordinance No. 4592 authorizing the acquisition of certain property along Ralston Road, generally between Yukon and Upham Streets, for roadway improvements associated with Ralston Road Reconstruction, Project No. 15-ST-30. The forty-five property interests have been acquired, construction is complete, and this resolution will provide a clear record of the acquired property interests for this project. Copies of the recorded documents can be found in the City Clerk's Office.

The Arvada team recommends that the City Council approve R21-110, A Resolution Accepting Certain Acquired Property Interests Related to the Completion of the Ralston Road Phase 1 Project.

Financial Impact

There is no financial impact to the City of Arvada associated with this resolution.

Background

On May 15, 2017, City Council adopted Council Bill No. 17-014, Ordinance No. 4592 authorizing the acquisition of certain property along Ralston Road, generally between Yukon Street and Upham Street, for the construction of street, sidewalk, utility, drainage, and/or related improvements, as part of the Ralston Road Reconstruction, Project No. 15-ST-30. This project is also known as Ralston Road Phase I as this work has been coordinated with the bond-funded project that will extend the roadway improvements to Garrison Street.

The forty-five property interests, both right-of-way and permanent easements, have been acquired and construction is completed. This resolution will provide a clear record of the acquired property interests for this project.

Discussion

The benefits associated with the City Council's approval of this resolution will be a clear record of the property interests acquired for Ralston Road Reconstruction, Project 15-ST-20.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

N/A

Strategic Alignment

The recommended action aligns with the following Principle within the Infrastructure Priority Area of the City Council Strategic Plan:

Provides safe and efficient connections to modes of transportation, including transit, streets, sidewalks, and bikeways with a focus on enhanced technology at high-priority intersections, improving safety and minimizing traffic congestion.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that the City Council approve R21-110, A Resolution Accepting Certain Acquired Property Interests Related to the Completion of the Ralston Road Phase 1 Project.

Suggested Motion:

I move that R21-110, A Resolution Accepting Certain Acquired Property Interests Related to the Completion of the Ralston Road Phase 1 Project, be (approved)(rejected).

Prepared by:
Alecia Cope, Civil Engineer III

Reviewed by:

Approved by:

Jacqueline Rhoades, Civil Engineer III	8/24/2021
Don Wick, Director of Public Works	8/25/2021
Bryan Archer, Director of Finance	8/25/2021
Tammy Hedlund, Legal Specialist	8/26/2021
Erika Pierce, Litigation Paralegal	8/30/2021
Jessica Morales, Assistant City Attorney	8/30/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-110

A RESOLUTION ACCEPTING CERTAIN ACQUIRED PROPERTY INTERESTS RELATED
TO THE COMPLETION OF THE
RALSTON ROAD PHASE 1 PROJECT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The City of Arvada hereby accepts the following property interests, acquired in accordance with Council Bill No. 17-014, Ordinance No. 4592, related to the completion of Ralston Road Phase 1. These documents are available for viewing upon request.

<u>Record Number</u>	<u>Document Type/ Property Interest</u>	<u>Grantor</u>	<u>Location</u>
2018115486	Warranty Deed	Christopher A. Gfell	RW-1 7701 Ralston Rd, Arvada, CO 80002 NE1/4,SW1/4, SEC.11,T3S,R69W
2018115487	Permanent Easement	Christopher A. Gfell	PE-1 7701 Ralston Rd, Arvada, CO 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019093116	Warranty Deed	Patricia M. Littman/ Kevin Schaeffer	RW-2 7609 Ralston Rd., Arvada, CO 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019093118	Permanent Easement	Patricia M. Littman/ Kevin Schaeffer	PE-2 7609 Ralston Rd., Arvada, CO 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019033668	Warranty Deed	Barbara B. Ilyes	RW-3 7607 Ralston Road, Arvada, CO, 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W

2019033669	Permanent Easement	Barbara B. Ilyes	PE-3 7607 Ralston Road, Arvada, CO, 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019CV30239	Fee Simple Absolute	Arvada Electronics LLP	RW-4 7605 Ralston Road, Arvada, CO, 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019CV30239	Permanent Easement	Arvada Electronics LLP	PE-4 7605 Ralston Road, Arvada, CO, 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019CV30239	Fee Simple Absolute	Arvada Electronics LLP	RW-5 7603 Ralston Road, Arvada, CO, 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019CV30239	Permanent Easement	Arvada Electronics LLP	PE-5 7603 Ralston Road, Arvada, CO, 80002 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019CV30239	Fee Simple Absolute	Arvada Electronics LLP	RW-6 5801 Wadsworth Blvd. Arvada, CO 80003 NE1/4, SW1/4, SEC. 11, T3S, R69W
2019CV30239	Permanent Easement	Arvada Electronics LLP	PE-6 5801 Wadsworth Blvd. Arvada, CO 80003 NE1/4, SW1/4, SEC. 11, T3S, R69W

2019092682	Warranty Deed	Bailey Company LLLP	RW-7 5800 Wadsworth Blvd. Arvada, CO 80003 NW1/4, SE1/4 SEC. 11, T3S, R69W
2019092684	Permanent Easement	Bailey Company LLLP	PE-7 5800 Wadsworth Blvd. Arvada, CO 80003 NW1/4, SE1/4 SEC. 11, T3S, R69W
2019092683	Warranty Deed	Bailey Company LLLP	RW-8 7505 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W
2019092685	Permanent Easement	Bailey Company LLLP	PE-8 7505 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W
2019092685	Permanent Easement	Bailey Company LLLP	RW-9 7503 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W
2019092683	Warranty Deed	Bailey Company LLLP	PE-9 7503 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W
2019064070	Warranty Deed	Wai Dun Wong & Rui Fang Li	RW-10 7501 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W

2019064071	Permanent Easement	Wai Dun Wong & Rui Fang Li	PE-10 7501 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W
2020016794	Warranty Deed	Elaine M. Huffman & Elaine C Paulson	RW-11 7405 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W
2020016796	Permanent Easement	Elaine M. Huffman & Elaine C Paulson	PE-11 7405 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4 SEC. 11, T3S, R69W
2019078006	Warranty Deed	Allo LLC	RW-12 7401 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4, SEC. 11, T3S, R69W
2019078009	Permanent Easement	Allo LLC	PE-12 7401 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4, SEC. 11, T3S, R69W
2019030982	Permanent Easement	Compass Bank	PE-13 7375 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4, SEC. 11, T3S, R69W
2019041449	Permanent Easement	Gray's Cornerstone LLC	PE-14 7355 Ralston Rd., Arvada, CO 80002 NW1/4, SE1/4, SEC. 11, T3S, R69W

2019030956	Warranty Deed	Montoya Holdings LLC	RW-15 5715 Upham St., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019030960	Permanent Easement	Montoya Holdings LLC	PE-15 5715 Upham St., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019040314	Warranty Deed	Daniel L. Marquez	RW-16 7312 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019040315	Permanent Easement	Daniel L. Marquez	PE-16 7312 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019037276	Warranty Deed	Full Draw LLC	RW-17 7314 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019037277	Permanent Easement	Full Draw LLC	PE-17 7314 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019072120	Warranty Deed	Marie L. Nadeau	RW-18 7400 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W

2019072122	Permanent Easement	Marie L. Nadeau	PE-18 7400 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019065559	Warranty Deed	Gail M. & Danny Politica	RW-19 7402 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019065561	Permanent Easement	Gail M. & Danny Politica	PE-19 7402 Ralston Rd., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2020017007	Warrantee Deed	The Archdiocese of Denver	RW-20 7403 Grant Pl., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2020017007	Warrantee Deed	The Archdiocese of Denver	RW-20A 7403 Grant Pl., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2020017008	Permanent Easement	The Archdiocese of Denver	PE-20 7403 Grant Pl., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2020017010	Warranty Deed	The Archdiocese of Denver	RW-21 7555 Grant Pl., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W

2020017011	Permanent Easement	The Archdiocese of Denver	PE-21 7555 Grant Pl., Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019 CV 30333	Permanent Easement	Old Town Investors LLC	PE-22 REV 5770 Wadsworth Blvd. Arvada, CO 80002 SW1/4, SE1/4, SEC. 11, T3S, R69W
2019CV30315	Permanent Easement	ROP-Olde Town Plaza LLC	PE-23 5773 Wadsworth Blvd. Arvada, CO 80002 SE1/4, SW1/4, SEC. 11, T3S, R69W
2019031276	Warranty Deed	CP Training LLC	RW-24 5790 Yukon St., Arvada, CO 80002 SE1/4, SW1/4, SEC. 11, T3S, R69W
2019031278	Permanent Easement	CP Training LLC	PE-24 5790 Yukon St., Arvada, CO 80002 SE1/4, SW1/4, SEC. 11, T3S, R69W

Section 2. This resolution shall be effective upon its approval by the City Council.

[Signatures on next page.]

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____



REPORT TO CITY COUNCIL RESOLUTION

**AGENDA ITEM
8.A.2.**

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-111 A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation

Report in Brief

Christian Dinsdale as Manager of Ralston Valley Land Partners, LLC, is petitioning the City of Arvada for annexation. The applicant is requesting that the 25.5-acre property be annexed into the City with a zoning of Planned Unit Development (PUD).

The Arvada team recommends that the City Council approve R21-111, A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation.

Financial Impact

There is no financial impact associated with the proposed action.

Background

The subject property is located on the east side of Indiana Street and on the north side of W 82nd Avenue. The property is a single vacant parcel containing 25.5 acres and is commonly known as 8200 Indiana Street, although it does not have an assigned address. The annexation petition also includes the right-of-way of W 82nd Avenue between Indiana Street and Alkire Street containing 5.9 acres of land.

Discussion

The proposed land to be annexed is within the City's planning area boundary as identified on the Comprehensive Plan Future Land Use map. The proposed zoning of PUD with a maximum density of 1.5 du/ac complies with the current Comprehensive Plan Future Land Use map designation of Low-Density Residential, which allows for up to 1.5 du/ac. The proposal also requires applications for a PUD Development Plan and a Major Subdivision Preliminary Plat, which have been submitted to the City and scheduled for a public hearing on October 18, 2021.

Public Contact

The required neighborhood meeting for this project took place virtually on October 7, 2020. The applicant, Arvada team members, and approximately 34 neighbors were in attendance. This item was also posted on the City Council agenda and will have four publications after the meeting.

SUBJECT: R21-111 A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation

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ITEM: 8.A.2.

Commission Recommendation

The Planning Commission public hearing is scheduled for September 7, 2021. The Arvada team will update the City Council regarding the Planning Commission's consideration of this matter.

Strategic Alignment

The recommended action is consistent with the following Principle within the Community and Economic Development Priority Area within the City Council Strategic Plan:

Uses the Comprehensive Plan to guide planning, land use code decisions, development management, and informational and resource services that are delivered to residents, businesses, the development community, decision-making bodies, and neighborhood partners to achieve a well-planned, aligned, sustainable and livable community for current and future generations.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that Council approve R21-111 A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation.

Suggested Motion:

I move that R21-111, A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation be (approved)(rejected).

Prepared by:
Abigail Ogg, Administrative Specialist

Reviewed by:

Approved by:

Jonathan Moore, Planner I

8/23/2021

Robert Smetana, Manager of City Planning and Development

8/25/2021

SUBJECT: R21-111 A Resolution Accepting an Annexation Petition Concerning the Northeast Corner of Indiana Street and W 82nd Avenue, Also Known As 8200 Indiana Street, Finding Said Petition Substantially Compliant with C.R.S. 31-12-107(1), and Setting a Public Hearing for October 18, 2021, 6:15 P.M. for City Council to Determine Whether the Area Meets the Requirements of C.R.S. 31-12-104 and 105, and Is Considered Eligible for Annexation

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Ryan Stachelski, Director of Community and Economic Development	8/25/2021
Gail Walker, Legal Specialist-Contracts	8/25/2021
Emily Grogg, Senior Assistant City Attorney	8/30/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-111

A RESOLUTION ACCEPTING AN ANNEXATION PETITION CONCERNING THE NORTHEAST CORNER OF INDIANA STREET AND W 82ND AVENUE, ALSO KNOWN AS 8200 INDIANA STREET, FINDING SAID PETITION SUBSTANTIALLY COMPLIANT WITH C.R.S. 31-12-107(1), AND SETTING A PUBLIC HEARING FOR OCTOBER 18, 2021, 6:15 P.M. FOR CITY COUNCIL TO DETERMINE WHETHER THE AREA MEETS THE REQUIREMENTS OF C.R.S. 31-12-104 AND 105, AND IS CONSIDERED ELIGIBLE FOR ANNEXATION

WHEREAS, the owner of certain property located in Jefferson County, Colorado, filed a petition for annexation with the City Clerk of the City of Arvada, Colorado (the “City”), for annexation of property more particularly described below (the “subject property”), into the City limits;

WHEREAS, having received the petition for annexation, the City Council of the City of Arvada is required under the Municipal Annexation Act of 1965, as amended, to determine whether said petition is in substantial compliance with C.R.S. Sections 31-12-107 (1), 31-12-105, 31-12-104, and if so, to follow the procedure set forth in C.R.S. Sections 31-12-108 through 111;

WHEREAS, the City Council of the City of Arvada, having examined the filings and the petition for annexation of the subject property, and being duly advised by the City planning team, finds as follows:

1. On its face, the annexation petition is in substantial compliance with C.R.S. §31-12-107(1), as the petition contains the following:
 - a. An allegation that it is desirable and necessary that the area be annexed to the City of Arvada;
 - b. An allegation that the requirements of §§ 31-12-104 and 31-12-105 C.R.S. exist or are met.
 - c. An allegation that the signer of the petition comprises the landowners of more than 50 percent of the territory included in the area and own more than fifty percent of the area proposed to be annexed, exclusive of streets and alleys and any land owned by the annexing municipality.
 - d. A request that the City of Arvada approve the annexation of the area proposed to be annexed.

- e. The signature of such landowner.
 - f. The mailing address of such signer.
 - g. The legal description of the land owned by such signer.
 - h. The date of signing of each signature.
 - i. The affidavit of the circulator of the petition stating that each signature therein is the signature of the person whose name it purports to be.
2. That the annexation petition was filed with an annexation map containing the following information, and is in substantial compliance with the Municipal Annexation Act:
- a. A written legal description of the boundaries of the area proposed to be annexed;
 - b. A map showing the boundary of the area proposed to be annexed;
 - c. Within the annexation boundary map, a showing of the location of each ownership tract in unplatted land and, if part or all of the area is platted, the boundaries and the plat numbers of plots or of lots and blocks;
 - d. Next to the boundary of the area proposed to be annexed is drawn the contiguous boundary of the City of Arvada, and that the dimensions of the contiguous boundary are shown on the map.
3. That no signature on the petition is dated more than 180 days prior to the date of filing of the Petition for Annexation with the City Clerk of the City of Arvada, State of Colorado.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1 That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above, and finds that the annexation petition on its face is in substantial compliance with the requirements of C.R.S. §31-12-107(1).

Section 2. That the City Council hereby accepts the annexation petition for the following described unincorporated territory, situated in the County of Jefferson and State of Colorado, to wit:

See Exhibit A

Section 3. That a public hearing shall be held on the 18th day of October, 2021 at 6:15 p.m. at the Arvada City Hall and/or virtually for the purpose of determining and finding whether the areas proposed to be annexed meet the applicable requirements of §§31-12-104 and 31-12-105 C.R.S. and are considered eligible for annexation.

Section 4. This resolution shall be effective five days after its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

Publication Dates: September 16, 2021
 September 23, 2021
 September 30, 2021
 October 7, 2021

EXHIBIT A
LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30, TOWNSHIP 2 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF JEFFERSON, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 30 BEING ASSUMED TO BEAR NORTH 88°26'57" EAST, A DISTANCE OF 2524.92 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

-THE 60' WITNESS CORNER TO THE CENTER QUARTER CORNER OF SECTION 30 BEING A FOUND #6 REBAR & 2.5" ALUMINUM CAP PLS 28286 IN RANGE BOX MATCHING MONUMENT RECORD FILED 3/29/04.

-THE WEST QUARTER CORNER OF SECTION 30 BEING A FOUND #6 REBAR & 2.5" ALUMINUM CAP PLS 28286 MATCHING MONUMENT RECORD FILED 4/28/07

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 30 FROM WHENCE THE WEST QUARTER CORNER OF SECTION 30 BEARS NORTH 00°28'43" WEST, A DISTANCE OF 2644.86 FEET;

THENCE ALONG THE WEST LINE OF SAID SOUTHWEST QUARTER OF SECTION 30 NORTH 00°28'43" WEST, A DISTANCE OF 1,344.41 FEET;

THENCE NORTH 89°23'08" EAST, A DISTANCE OF 50.00 FEET TO THE EASTERLY RIGHT-OF-WAY OF INDIANA STREET AND THE EASTERLY LINE OF ORDINANCE #4325 BEING ALSO THE POINT OF BEGINNING;

THENCE ALONG SAID EASTERLY LINES AND ALSO THE EAST LINE OF ORDINANCE #4324 NORTH 00°28'43" WEST, A DISTANCE OF 678.69 FEET TO THE SOUTHERLY RIGHT-OF-WAY, BOOK 727, PAGE 474;

THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY SOUTH 84°45'14" EAST, A DISTANCE OF 2,238.36 FEET TO THE NORTHWEST CORNER OF THAT PARCEL DESCRIBED AT RECEPTION NO. 2010042014;

THENCE ALONG THE WEST LINE OF SAID PARCEL SOUTH 00°29'57" EAST, A DISTANCE OF 385.15 FEET TO THE SOUTHWEST CORNER THEREOF BEING ALSO A POINT ON THE NORTHERLY RIGHT-OF-WAY OF WEST 82ND AVENUE;

THENCE ALONG SAID NORTHERLY RIGHT—OF—WAY THE FOLLOWING EIGHT (8) COURSES AND DISTANCES;

1. THENCE NORTH 89°05'34" EAST, A DISTANCE OF 190.31 FEET;

2. THENCE NORTH 89°34'35" EAST, A DISTANCE OF 224.19 FEET;
3. THENCE NORTH 89°34'09" EAST, A DISTANCE OF 199.19 FEET;
4. THENCE NORTH 89°33'28" EAST, A DISTANCE OF 300.47 FEET;
5. THENCE NORTH 89°23'13" EAST, A DISTANCE OF 399.57 FEET;
6. THENCE NORTH 89°33'20" EAST, A DISTANCE OF 500.03 FEET;
7. THENCE NORTH 89°20'31" EAST, A DISTANCE OF 577.43 FEET;
8. THENCE NORTH 89°20'54" EAST, A DISTANCE OF 300.91 FEET TO THE
EASTERLY LINE OF SAID SOUTHWEST QUARTER OF SECTION 30;

THENCE ALONG SAID EASTERLY LINE SOUTH 00°58'07" EAST, A DISTANCE OF 49.43 FEET
TO THE NORTHERLY LINE OF ORDINANCE #3582 AND THE SOUTHERLY RIGHT-OF-WAY OF
SAID 82ND/ AVENUE;

THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY AND THE NORTHERLY LINES OF
ORDINANCE #3582, #3583 AND 3584 SOUTH 88°58'40" WEST, A DISTANCE OF 1,799.00 FEET
TO THE EASTERLY LINE OF THAT PARCEL DESCRIBED AT RECEPTION NO. 85074569;

THENCE ALONG SAID EASTERLY LINE, BEING ALSO THE RIGHT-OF-WAY OF SAID 82ND/
AVENUE NORTH 00°57'54" WEST, A DISTANCE OF 13.15 FEET;

THENCE CONTINUING ALONG SAID SOUTHERLY RIGHT-OF-WAY THE FOLLOWING NINE
(9) COURSES AND DISTANCES;

1. THENCE SOUTH 89°33'00" WEST, A DISTANCE OF 106.38 FEET;
2. THENCE SOUTH 89°34'12" WEST, A DISTANCE OF 596.64 FEET;
3. THENCE SOUTH 89°09'08" WEST, A DISTANCE OF 607.45 FEET;
4. THENCE SOUTH 89°52'03" WEST, A DISTANCE OF 299.55 FEET;
5. THENCE SOUTH 89°17'42" WEST, A DISTANCE OF 599.53 FEET;
6. THENCE SOUTH 89°21'13" WEST, A DISTANCE OF 149.73 FEET;
7. THENCE SOUTH 89°19'33" WEST, A DISTANCE OF 149.99 FEET;
8. THENCE SOUTH 89°23'59" WEST, A DISTANCE OF 596.61 FEET;
9. THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 15.00 FEET,

A CENTRAL ANGLE OF 89°51'01", WHOSE CHORD BEARS SOUTH 44°26'47" WEST A
DISTANCE OF 21.19 FEET, FOR AN ARC DISTANCE OF 23.52 FEET TO THE POINT OF
BEGINNING.

CONTAINING 1,369,062 SQUARE FEET OR 31.429 ACRES, MORE OR LESS.

NAME OF ANNEXATION: **Whitewing at Ralston Summit**

APPROXIMATE LOCATION: **W 82nd Avenue and Indiana Street**

**PETITION FOR ANNEXATION OF UNINCORPORATED TERRITORY
IN THE COUNTY OF JEFFERSON, STATE OF COLORADO,
TO THE CITY OF ARVADA, STATE OF COLORADO**

TO THE MAYOR AND THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

The undersigned in accordance with the Municipal Annexation Act of 1965, Chapter 31, Article 12, C.R.S. 1973, as amended, hereby petitions the City Council of the City of Arvada for annexation to the City of Arvada of the following described unincorporated territory located in the County of Jefferson, State of Colorado, to wit:

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30, TOWNSHIP 2 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF JEFFERSON, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 30 BEING ASSUMED TO BEAR NORTH 88°26'57" EAST, A DISTANCE OF 2524.92 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

-THE 60' WITNESS CORNER TO THE CENTER QUARTER CORNER OF SECTION 30 BEING A FOUND #6 REBAR & 2.5" ALUMINUM CAP PLS 28286 IN RANGE BOX MATCHING MONUMENT RECORD FILED 3/29/04.

-THE WEST QUARTER CORNER OF SECTION 30 BEING A FOUND #6 REBAR & 2.5" ALUMINUM CAP PLS 28286 MATCHING MONUMENT RECORD FILED 4/28/07

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 30 FROM WHENCE THE WEST QUARTER CORNER OF SECTION 30 BEARS NORTH 00°28'43" WEST, A DISTANCE OF 2644.86 FEET;

THENCE ALONG THE WEST LINE OF SAID SOUTHWEST QUARTER OF SECTION 30 NORTH 00°28'43" WEST, A DISTANCE OF 1,344.41 FEET;

THENCE NORTH 89°23'08" EAST, A DISTANCE OF 50.00 FEET TO THE EASTERLY RIGHT-OF-WAY OF INDIANA STREET AND THE EASTERLY LINE OF ORDINANCE #4325 BEING ALSO THE POINT OF BEGINNING;

THENCE ALONG SAID EASTERLY LINES AND ALSO THE EAST LINE OF ORDINANCE #4324 NORTH 00°28'43" WEST, A DISTANCE OF 678.69 FEET TO THE SOUTHERLY RIGHT-OF-WAY, BOOK 727, PAGE 474;

THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY SOUTH 84°45'14" EAST, A DISTANCE OF 2,238.36 FEET TO THE NORTHWEST CORNER OF THAT PARCEL DESCRIBED AT RECEPTION NO. 2010042014;

THENCE ALONG THE WEST LINE OF SAID PARCEL SOUTH 00°29'57" EAST, A DISTANCE OF 385.15 FEET TO THE SOUTHWEST CORNER THEREOF BEING ALSO A POINT ON THE NORTHERLY RIGHT-OF-WAY OF WEST 82ND AVENUE;

THENCE ALONG SAID NORTHERLY RIGHT-OF-WAY THE FOLLOWING EIGHT (8) COURSES AND DISTANCES;

1. THENCE NORTH 89°05'34" EAST, A DISTANCE OF 190.31 FEET;
2. THENCE NORTH 89°34'35" EAST, A DISTANCE OF 224.19 FEET;
3. THENCE NORTH 89°34'09" EAST, A DISTANCE OF 199.19 FEET;
4. THENCE NORTH 89°33'28" EAST, A DISTANCE OF 300.47 FEET;
5. THENCE NORTH 89°23'13" EAST, A DISTANCE OF 399.57 FEET;
6. THENCE NORTH 89°33'20" EAST, A DISTANCE OF 500.03 FEET;
7. THENCE NORTH 89°20'31" EAST, A DISTANCE OF 577.43 FEET;
8. THENCE NORTH 89°20'54" EAST, A DISTANCE OF 300.91 FEET TO THE EASTERLY LINE OF SAID SOUTHWEST QUARTER OF SECTION 30;

THENCE ALONG SAID EASTERLY LINE SOUTH 00°58'07" EAST, A DISTANCE OF 49.43 FEET TO THE NORTHERLY LINE OF ORDINANCE #3582 AND THE SOUTHERLY RIGHT-OF-WAY OF SAID 82ND/ AVENUE;

THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY AND THE NORTHERLY LINES OF ORDINANCE #3582, #3583 AND 3584 SOUTH 88°58'40" WEST, A DISTANCE OF 1,799.00 FEET TO THE EASTERLY LINE OF THAT PARCEL DESCRIBED AT RECEPTION NO. 85074569;

THENCE ALONG SAID EASTERLY LINE, BEING ALSO THE RIGHT-OF-WAY OF SAID 82ND/ AVENUE NORTH 00°57'54" WEST, A DISTANCE OF 13.15 FEET;

THENCE CONTINUING ALONG SAID SOUTHERLY RIGHT-OF-WAY THE FOLLOWING NINE (9) COURSES AND DISTANCES;

1. THENCE SOUTH 89°33'00" WEST, A DISTANCE OF 106.38 FEET;
2. THENCE SOUTH 89°34'12" WEST, A DISTANCE OF 596.64 FEET;
3. THENCE SOUTH 89°09'08" WEST, A DISTANCE OF 607.45 FEET;
4. THENCE SOUTH 89°52'03" WEST, A DISTANCE OF 299.55 FEET;
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6. THENCE SOUTH 89°21'13" WEST, A DISTANCE OF 149.73 FEET;
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8. THENCE SOUTH 89°23'59" WEST, A DISTANCE OF 596.61 FEET;
9. THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 15.00 FEET, A CENTRAL ANGLE OF 89°51'01", WHOSE CHORD BEARS SOUTH 44°26'47" WEST A DISTANCE OF 21.19 FEET, FOR AN ARC DISTANCE OF 23.52 FEET TO THE POINT OF BEGINNING.

CONTAINING 1,369,062 SQUARE FEET OR 31.429 ACRES, MORE OR LESS.

In support of the said Petition, your Petitioner alleges that:

1. It is desirable and necessary that the above-described territory be annexed to the City of Arvada.
2. No less than one-sixth of the perimeter of the area proposed to be annexed is contiguous with the City of Arvada.
3. A community of interest exists between the territory proposed to be annexed and the City of Arvada.
4. The territory proposed to be annexed is urban or will be urbanized in the future.
5. The territory proposed to be annexed is integrated or is capable of being integrated with the City of Arvada.
6. No land held in identical ownership, whether consisting of one tract or parcel of real estate or two or more contiguous tracts or parcels of real estate:
 - a. is divided into separate parts or parcels without the written consent of the landowner or landowners thereof.
 - b. comprising twenty acres or more which, together with the buildings and improvements situated thereon, has an assessed value in excess of two-hundred thousand dollars for an ad valorem tax purpose for the year preceding the annexation is included within the territory proposed to be annexed, without the written consent of the landowner or landowners thereof.
7. No annexation proceedings have been commenced by another municipality for the annexation of part or all of the area proposed herein to be annexed to Arvada.
8. Annexation of the territory proposed to be annexed will not result in detachment of area from any school district and the attachment of the same to another school district.
9. Annexation of the area proposed to be annexed will not have the effect of extending the City of Arvada's municipal boundary more than three miles in any direction from any point of such municipal boundary in any one year.
10. No portion of a platted street or alley lies within the boundaries of the area proposed to be annexed, unless the entire width of said street or alley has been included within the boundaries of the area to be annexed.
11. The Signer(s) of the Petition comprise(s) the landowner(s) of one hundred percent of the territory included in the area proposed to be annexed, exclusive of streets and alleys and any land owned by the annexing municipality.
12. All other requirements of Section 31-12-104 and 31-12-105, C.R.S., exist or have been met.
13. The mailing address of the Signer, the legal description of the land owned by such signer, and the date of signing of such signature are all shown on this Petition.
14. Attached to this Petition is the Affidavit of Circulator of this Petition that the signature hereon is the signature of the person whose name it purports to be.

Your Petitioner(s) further request(s) that the City of Arvada approve the annexation of the area proposed to be annexed.

Legal Owner's Printed Name

Christian Dinsdale

Legal Owner's Signature

[Signature]

Title

Manager (of Ralston Valley Land Partners, LLC)

Address Street Number/Name

1660 17th St.

City/State/Zip Code

Denver, CO, 80202

Date Signed

8/24/2021

AFFIDAVIT OF CIRCULATOR

STATE OF COLORADO)

COUNTY OF Jefferson) ss.

Joseph A. John

, being duly sworn, upon oath, deposes and states:

1. That the affiant circulated the Petition for Annexation for the purpose of obtaining the signature(s) of the above Petitioner(s).
2. That each signature thereon is the signature of the person whose name it purports to be.

[Signature]
Circulator

NOTARY CERTIFICATE

STATE OF COLORADO)

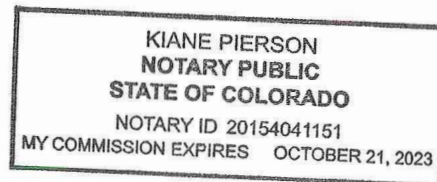
COUNTY OF Jefferson) ss.

Subscribed and sworn to before me this 24th day of August, 2021.

(SEAL)

Witness my hand and seal: Kiane Pierson

My commission expires: 10/21/2023



WHITEWING ANNEXATION MAP
A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30,
TOWNSHIP 2 SOUTH, RANGE 69 WEST, 6TH P.M.,
COUNTY OF JEFFERSON, STATE OF COLORADO
SHEET 1 OF 2

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30, TOWNSHIP 2 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF JEFFERSON, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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–THE WEST QUARTER CORNER OF SECTION 30 BEING A FOUND #6 REBAR & 2.5" ALUMINUM CAP PLS 28286 MATCHING MONUMENT RECORD FILED 4/28/07

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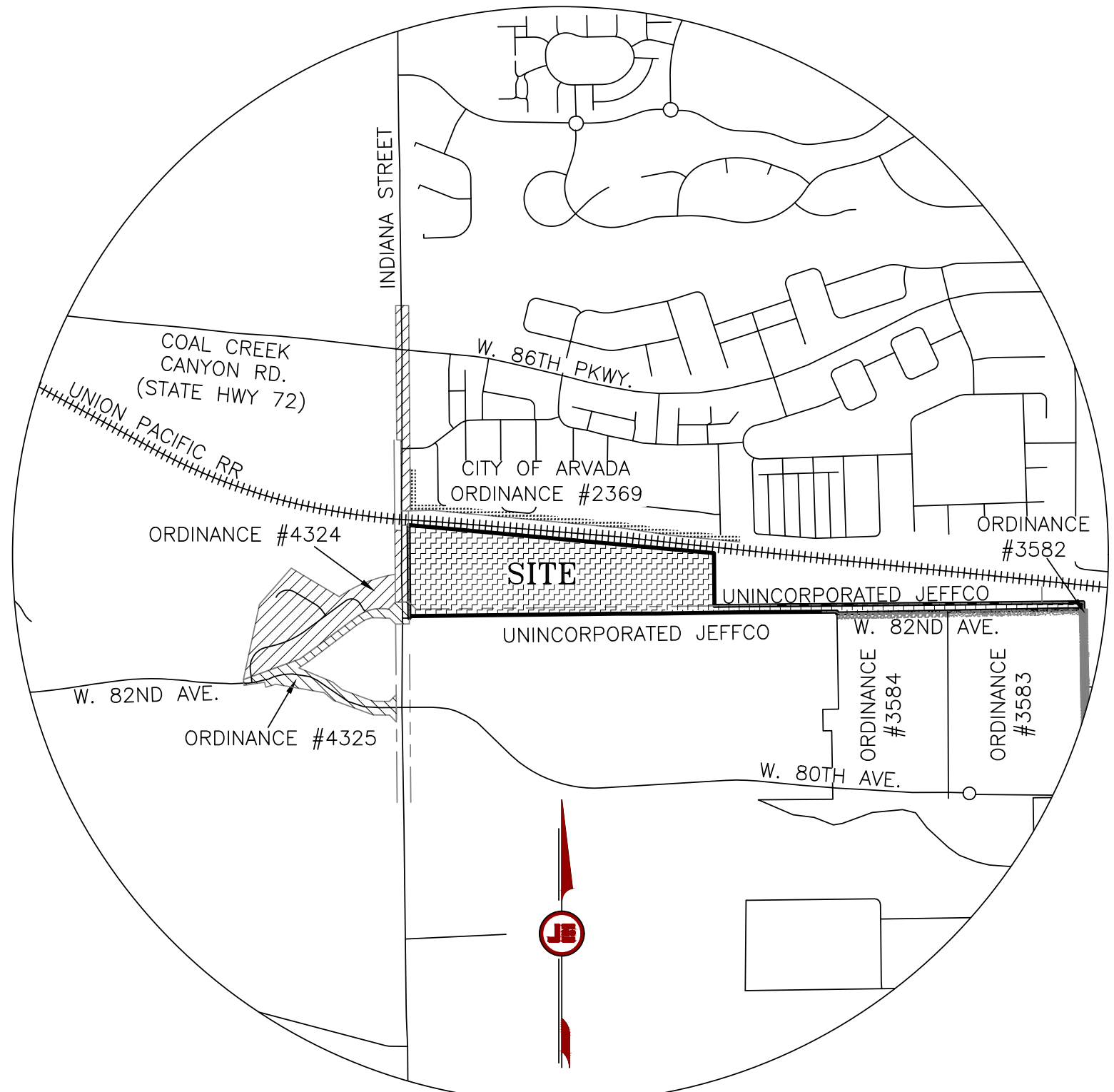
NOTES

1. BASIS OF BEARINGS: BEARINGS ARE BASED ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SECTION 30 BEING ASSUMED TO BEAR NORTH 88°26'57" EAST BETWEEN MONUMENTS AS SHOWN WITHIN THIS MAP.

2. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

3. THIS MAP IS NOT A MONUMENTED LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT AS DEFINED IN C.R.S. 38–51–106. THE PURPOSE OF THIS MAP IS TO SHOW THE AREA TO BE ANNEXED INTO THE CITY OF ARVADA.

4. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY JEHN ENGINEERING TO DETERMINE OWNERSHIP OF EASEMENTS OF RECORD. FOR ALL INFORMATION REGARDING EASEMENTS, RIGHTS–OF–WAY AND TITLE OF RECORD, JEHN ENGINEERING RELIED UPON COMMITMENT FOR TITLE INSURANCE, POLICY NO. CO–FWCO–IMP–72306–1–21–C2054638, ISSUED BY CHICAGO TITLE OF COLORADO AND HAVING AN EFFECTIVE DATE OF AUGUST 17, 2021 AT 11:29 A.M.



VICINITY MAP
1"=1000'

CONTIGUITY STATEMENT

TOTAL PERIMETER OF AREA CONSIDERED FOR ANNEXATION=10,985.27 LF

ONE–SIXTH OF TOTAL PERIMETER=1,830.87 LF (16.67%)

PERIMETER OF THE AREA CONTIGUOUS WITH EXISTING CITY LIMITS=4,716.05 LF (42.93%)

ANNEXATION EXCEEDS THE ONE–SIXTH PERIMETER REQUIREMENT.

SURVEYOR’S CERTIFICATE

I ROBERT J. HENNESSY, A PROFESSIONAL LAND SURVEYOR LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS WHITEWING ANNEXATION MAP WAS MADE BY ME OR DIRECTLY UNDER MY SUPERVISION, AND THAT IT IS A TRUE AND CORRECT REPRESENTATION OF THE AREA TO BE ANNEXED TO THE CITY OF ARVADA, COLORADO. THE ABOVE DESCRIBED LAND IS CONTIGUOUS TO THE CITY OF ARVADA AND MEETS THE REQUIREMENTS SET FORTH IN COLORADO REVISED STATUTES 1973, 31–12–104–(1) (A) THAT ONE–SIXTH OR MORE OF THE PERIMETER TO BE ANNEXED IS CONTIGUOUS WITH THE ANNEXING MUNICIPALITY. THE SURVEY IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED.

ROBERT J. HENNESSY, P.L.S. 34580, LICENSED COLORADO LAND SURVEYOR
FOR AND ON BEHALF OF JEHN ENGINEERING, INC.

APPROVAL CERTIFICATE

APPROVED FOR FILING BY THE CITY OF ARVADA THIS _____ DAY OF _____, 20____.

MAYOR _____ ATTEST: _____
CITY CLERK

ORDINANCE NUMBER _____

CLERK AND RECORDER’S CERTIFICATE

RECEPTION NUMBER _____

ACCEPTED FOR FILING IN THE OFFICE OF THE CLERK AND RECORDER OF JEFFERSON COUNTY, AT GOLDEN COLORADO ON THIS _____ DAY OF _____, 20____ AT _____ O’CLOCK.

JEFFERSON COUNTY CLERK AND RECORDER

BY: DEPUTY CLERK



WEST 1/4 CORNER OF SECTION
30 FOUND #6 REBAR & 2.5"
ALUMINUM CAP PLS 28286 IN
RANGE BOX MATCHING
MONUMENT RECORD FILED
4/28/07

N88°26'57"E 2524.92'

N. LINE OF THE SW 1/4 SECTION 30
BASIS OF BEARINGS

60' WITNESS CORNER TO THE
CENTER 1/4 CORNER OF
SECTION 30 FOUND #6 REBAR
& 2.5" ALUMINUM CAP PLS
28286 IN RANGE BOX
MATCHING MONUMENT RECORD
FILED 3/29/04

60'

CENTER 1/4 CORNER SECTION 30

ARVADA CITY LIMITS

LEFT

ANNEXATION ORDINANCE NO. 4324

ANNEXATION ORDINANCE NO. 4325

ANNEXATION ORDINANCE NO. 2369

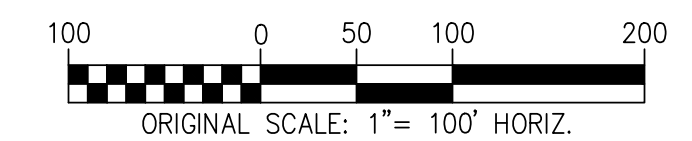
ANNEXATION ORDINANCE NO. 3582

ANNEXATION ORDINANCE NO. 3583

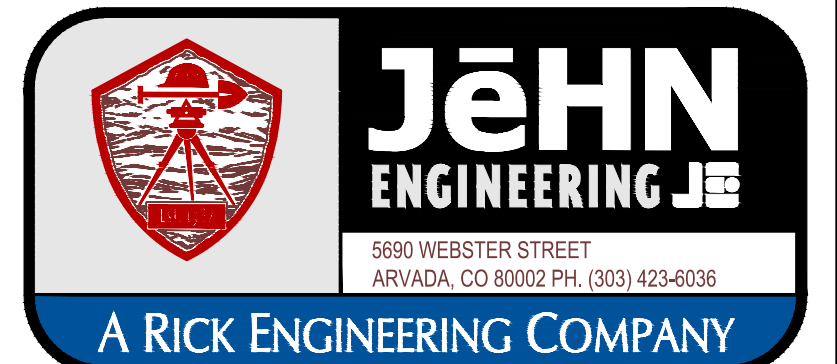
ANNEXATION ORDINANCE NO. 3584

WHITEWING ANNEXATION

SEE BELOW LEFT



ALKIRE
STEET





REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.3.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-112 A Resolution Authorizing an Employment Agreement Between the City of Arvada and Charles W. Tingle Appointing Him as a Relief Judge for the Municipal Court

Report in Brief

The Presiding Judge of the Municipal Court, Kathryn Kurtz, must attend various meetings and functions from time to time. The municipal court must continue to process cases and to hear matters when Judge Kurtz is unavailable. The City Council may appoint relief judges to substitute for the presiding judge in accordance with A.C.C. 58-74.

The Arvada team recommends that the City Council approve R21-112, A Resolution Authorizing an Employment Agreement Between the City of Arvada and Charles W. Tingle Appointing Him as a Relief Judge for the Municipal Court.

Financial Impact

This employment agreement will be funded from the existing Municipal Court budget for relief judge services.

Background

The municipal court has identified Charles W. Tingle as an appropriate person to serve as a relief judge. Mr. Tingle has the required skills and knowledge to serve as a Relief Judge for the Municipal Court. Mr. Tingle is a resident of the City as required by the City Charter.

Discussion

The presiding judge must occasionally attend to various administrative and community functions which prevent her from hearing all cases that come before the Arvada Municipal Court. A.C.C. 58-74 provides that the City Council may appoint relief judges to hear municipal court cases when the Presiding Judge is absent. The Court identifies appropriate candidates to serve as relief judges from time to time in accordance with the City Charter. The Court has identified Charles W. Tingle as a person who meets all requirements for the position of Relief Judge for the Arvada Municipal Court.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

NA

Strategic Alignment

The appointment of relief judges aligns with the following Principle within the Safe Community Priority Area of the City Council Strategic Plan:

Provides an independent, fair and impartial justice system that efficiently processes the court docket, renders fair and just decisions, and holds all stakeholders accountable.

Alternative Courses of Action

NA

Recommendation for Action

The Arvada team recommends that the City Council approve R21-112, A Resolution Authorizing an Employment Agreement Between the City of Arvada and Charles W. Tingle Appointing Him as a Relief Judge for the Municipal Court.

Suggested Motion:

I move that R21-112, A Resolution Authorizing an Employment Agreement Between the City of Arvada and Charles W. Tingle Appointing Him as a Relief Judge for the Municipal Court, be (approved) (rejected).

Prepared by:
Aaron Jacks, Assistant City Attorney

Reviewed by:

Approved by:

Alyssa Gleinn, Legal Specialist-Prosecution	8/16/2021
Kathryn Kurtz, Municipal Judge	8/18/2021
Rachel Morris, City Attorney	8/23/2021
Lorie Gillis, Deputy City Manager	8/31/2021
Mark Deven, City Manager	9/1/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21- 112

A RESOLUTION AUTHORIZING AN EMPLOYMENT AGREEMENT
BETWEEN THE CITY OF ARVADA AND CHARLES W. TINGLE
APPOINTING HIM AS A RELIEF JUDGE FOR THE MUNICIPAL COURT

WHEREAS, under Section 58-74 of the Arvada City Code, the City Council may appoint relief judges to substitute for the presiding judge; and

WHEREAS, the City Council wishes to appoint Charles W. Tingle as a relief judge for the municipal court, and Charles Tingle has agreed to serve as a relief judge.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The Mayor or the Mayor Pro Tem is authorized to sign and the City Clerk to attest, in form approved by the City Attorney, an Employment Agreement between the City of Arvada and Charles W. Tingle Appointing Him as a Municipal Court Relief Judge. The Agreement is in substantially the same form as that attached hereto.

Section 2. This resolution shall in no way restrict the authority of the City Council to terminate this employment agreement or prohibit Charles W. Tingle from voluntarily resigning at any time.

Section 3. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

**AN EMPLOYMENT AGREEMENT BETWEEN THE CITY OF ARVADA AND
CHARLES W. TINGLE APPOINTING HIM AS A
MUNICIPAL COURT RELIEF JUDGE**

THIS AGREEMENT is made and entered into this ____ day of _____, 2021, between the City of Arvada, Colorado, a municipal corporation ("City"), and Charles W. Tingle, Colorado Attorney Registration #14329 ("Contract Employee"), both of whom understand as follows:

WHEREAS, The City has appointed Kathryn Kurtz as presiding municipal judge of the City of Arvada, as provided in Section 8.2 of the Arvada Home Rule Charter and Section 58-72 of the Arvada City Code for the City of Arvada; and

WHEREAS, under Section 58-74 of the Arvada City Code, the city council may appoint relief judges to substitute for the presiding judge from time to time; and

WHEREAS, the city council wishes to appoint Charles W. Tingle as a municipal court relief judge, and Charles W. Tingle wishes to serve in that capacity.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, the parties agree as follows:

1.0 DUTIES. The city council appoints and Contract Employee accepts appointment as a municipal court relief judge for the City of Arvada. The city council authorizes the Contract Employee to perform and the Contract Employee agrees to perform the functions and duties specified in Section 8.2 of the Home Rule Charter of the City of Arvada; C.R.S. § 13-10-101, *et seq.*, as amended; and in Chapter 58 of the Arvada City Code, as amended, and to perform such other legal and proper duties and functions as the city council shall from time to time assign.

2.0 TERM.

2.0 The term of this Agreement shall be effective commencing on the date of appointment by city council as evidenced by adoption of a resolution approving this Agreement, and ends when this Agreement is either not renewed by action of the city council prior to the last calendar day of 2021, or when Contract Employee is terminated or resigns, whichever occurs first.

2.1 Nothing in this Agreement shall prevent, limit, or otherwise interfere with the right of the city council to terminate the services of the Contract Employee at any time.

3.0 COMPENSATION. The City agrees to pay Contract Employee for services rendered as a municipal court relief judge at a rate of \$90.00 per hour worked, to be paid at the same time as are other employees of the City. Contract Employee shall not receive

4.0 COLORADO CODE OF JUDICIAL CONDUCT. Contract Employee shall comply with the Colorado Code of Judicial Conduct. In addition, and in order to maintain the integrity and independence of the judiciary in Arvada, Contract Employee shall refrain from engaging in any political activity except on behalf of measures to improve the law, the legal system, the administration of justice, registering to vote, or voting. All other local or municipal political activity is expressly prohibited. City council may impose discipline on Contract Employee for conduct city council deems in violation of the Code of Judicial Conduct, or otherwise as city council sees fit.

5.0 HOURS OF WORK. The hours of work are generally between 8:00 a.m. through 5:00 p.m. Monday through Friday (lunch hours excepted) on an as-needed basis, and as agreed upon by the Contract Employee and the municipal court administrator or designee thereof. Both parties acknowledge that on days with a light docket, Contract Employee may not be required to work a full day. Both parties acknowledge that occasional after hours work may be required.

6.0 EVALUATION OF JOB PERFORMANCE. The city council may evaluate Contract Employee at any time.

7.0 GENERAL PROVISIONS.

- 7.0** The parties agree, except as specifically provided herein, that Contract Employee is not an employee of the City of Arvada, and nothing herein shall be deemed to have vested such status upon Contract Employee.
- 7.1** Contract Employee is not entitled to unemployment insurance benefits unless unemployment compensation coverage is provided by Contract Employee.
- 7.2** This Agreement contains the complete understanding of the parties hereto and may not be amended, supplemented, or varied except by instrument in writing, and may not be assigned or transferred without the written consent of city council.
- 7.3** This Agreement, upon execution, shall be binding upon the parties, their heirs, successors, and assigns, as the case may be.
- 7.4** If any provision or any portion thereof, contained in this Agreement is held to be unconstitutional, invalid, or unenforceable, the remainder of this Agreement, or portion thereof, shall be deemed severable, shall not be affected, and shall remain in full force and effect.
- 7.5** Nothing herein shall be deemed a promise of continued appointment, or to have created a right in or to such future appointment.

IN WITNESS WHEREOF, the City of Arvada, Colorado, has caused this Agreement to be signed and executed on its behalf by its Mayor, and duly attested by its City Clerk, and the Contract Employee has signed and executed this Agreement as of the date set forth above.

CITY OF ARVADA, a Colorado home
rule municipal corporation

Marc Williams, Mayor
8101 Ralston Road
Arvada, CO 80002

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

CONTRACT EMPLOYEE

Charles W. Tingle,
Colorado Attorney Reg. #14329
cwtingle@comcast.net



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.4.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-113 A Resolution Authorizing the Submission of the 2021 Justice Assistance Grant Application for the Arvada Police Department

Report in Brief

The Federal Department of Justice (DOJ) issues Justice Assistance Grants (JAG) to local jurisdictions by a formula allocation based on local population and crime. The Arvada Police Department's 2021 allocation is \$22,861. The Arvada PD Command intends to apply this funding for equipment and supplies for Mobile Field Force and SWAT operations.

The Arvada team recommends that the City Council approve R21-113, A Resolution Authorizing the Submission of the 2021 Justice Assistance Grant Application for the Arvada Police Department.

Financial Impact

The selected items are expected to be fully covered by the DOJ grant funding. There is no required match for JAG grants and we expect that there will be no fiscal impact on the City. The items in the grant proposal are all currently unbudgeted and the grant is intended to be the source of funding.

Background

The Justice Assistance Grant is awarded on a formula, non-competitive basis by the US Department of Justice to local police departments and jurisdictions determined by population and crime data. The 2021 allocation for the City of Arvada is \$22,861. In order to receive our allocation, we must submit a formal application and receive documented approval from our governing body for the funding request.

For 2021, Arvada PD command officers have selected to utilize this funding for supplies and equipment for Mobile Field Force and SWAT. This will include a trailer to haul equipment behind the PD Utility Terrain Vehicle; an interior drone to provide audio-visual capabilities inside structures during critical incidents where officer entry could be life-threatening; and small equipment for SWAT and Mobile Field Force (MFF) including headsets, comm stations, tactical vests with plates, voice amplifiers and fingerprint scanners.

Discussion

The funding request is based on recent training exercises for the Police Department in MFF and SWAT scenarios where deficiencies were noted due to lack of sufficient equipment and supplies for possible scenarios.

Public Contact

Posting of the City Council agenda

Commission Recommendation

NA

Strategic Alignment

In order to maintain a safe community and respond adequately to critical incidents, the Arvada PD requires equipment and supplies that will ensure readiness.

Alternative Courses of Action

Recommendation for Action

The Arvada team recommends that the City Council approve R21-113, A Resolution Authorizing the Submission of the 2021 Justice Assistance Grant Application for the Arvada Police Department.

Suggested Motion:

I move that R21-113, A Resolution Authorizing the Submission of the 2021 Justice Assistance Grant Application for the Arvada Police Department, be (approved) (rejected).

Prepared by:
Stephen Padilla, Grants Administrator

Reviewed by:

Approved by:

Link Strate, Chief of Police	8/23/2021
Jenna Belec, Executive Assistant	8/23/2021
Bryan Archer, Director of Finance	8/23/2021
Gail Walker, Legal Specialist-Contracts	8/23/2021
Kylie Justus, Assistant City Attorney	8/23/2021
Rachel Morris, City Attorney	8/23/2021
Lorie Gillis, Deputy City Manager	8/31/2021
Mark Deven, City Manager	9/1/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-113

A RESOLUTION AUTHORIZING THE SUBMISSION OF THE 2021 JUSTICE
ASSISTANCE GRANT APPLICATION FOR THE ARVADA POLICE DEPARTMENT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The Mayor or Mayor Pro Tem is authorized to sign and the City Clerk to attest, in a form approved by the City Attorney, the submission of the 2021 Justice Assistance Grant Application for the Arvada Police Department to the Department.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

I. Abstract

The Arvada Police Department is requesting the use of JAG funding to purchase a Utility Terrain Vehicle (UTV). The project identifiers of Law Enforcement are: 1) Equipment-Tactical 2) Crime Scene Investigation and 3) Officer Safety. The purchased materials will ensure APD had adequate preparation for any potential SWAT maneuvers. The interior drone will enable special units to have audio/visual capabilities inside of structures during critical incidents of high risk. Additional supplies will increase the safety of officers and effectiveness during critical incidents where SWAT, Mobile Field Force, or Critical Incident Response Team are deployed.

II. Program Narrative

The City of Arvada, adjacent to and part of the Denver Metro area, is home to a rapidly growing population 120,000 residents. APD has 187 sworn officers who employ a decentralized community oriented policing model across four police sectors; headquarters and three community stations. Arvada PD also runs many programs including Code Enforcement, Animal Management and Community Outreach Response and Enforcement (CORE). The CORE program's focus is on the growing homeless population in Arvada.

The purpose of this grant is to purchase supplies and equipment for use by the APD Mobile Field Force (MFF) and SWAT. During our recent training exercises, we identified several items that will aid in readiness and effectiveness of these units in deployment incidents.

Our previous year JAG allocation was utilized to purchase a Utility Terrain Vehicle (UTV) that can be used in areas where police vehicles cannot access, including all pedestrian areas of the City's downtown and green belt areas. This has been a great asset for the APD, and we intend to purchase with this funding request a trailer that can be pulled by the UTV and carry additional supplies for critical incident response where the UTV is utilized.

For equipment, the PD is requesting to utilize JAG funding to purchase an interior drone specifically designed to operate where walls and interference may be a factor. By having interior drones, we increase officer safety by being able to send in a drone prior to a person to obtain information and identify any dangers.

Supplies PD intends to purchase with 2021 JAG allocation will include: headset communicators for the Critical Incident Response Team; a tactical pick for breaching entryways;

Arvada Police Department
2021 JAG Funding Local Solicitation

3 tactical vests and radio pouches for the Criminal Investigations Bureau detectives as well as 6 level 3 plates for these vests; a postmortem digital fingerprint scanner for SWAT operations; and 5 avon gas mask voice amplifiers for officers who are wearing gas masks are able to be audibly understood issuing commands or speaking through radio.

These equipment and supplies are items the PD does not current have that we have identified through training simulations may be required in a variety of critical incidents.

Goal 1: Arvada PD Specialized units including SWAT, Mobile Field Force, and Critical Incident Response Team, and Criminal Investigations will have improved safety and efficacy during emergency and critical incidents

- Objective 1.1: Arvada PD will have fully equipped special unit capabilities through tactical supplies and equipment
 - Activity 1.1: Procure Arvada PD tactical supplies and equipment
 - Activity 1.2: Activity reports will be written each time MFF and SWAT are deployed with selected supplies and equipment.
 - Activity 1.3: Activity reports will be reviewed quarterly and annually

Project Evaluation

Activity reports will be completed for all SWAT and MFF cases. These reports will be tracked and evaluated quarterly and annually for number of times the equipment was used, reason for use and effectiveness. The project will be reviewed annually for effectiveness. Activity reports t will enable incident reports demonstrating effectiveness.

Arvada Police Department
2021 JAG Funding Local Solicitation

III. Budget Worksheet 2021 JAG LOCAL FUNDS Year 1*			
A. PERSONNEL			
		Base	Total
N/A			
B. FRINGE BENEFITS			
		Base	Total
N/A			
Total Personnel & Fringe Benefits			\$ -
C. TRAVEL			
N/A			
Total Travel			\$ -
D. EQUIPMENT			
Interior Drone			\$ 9,955.00
Total Equipment			\$ 9,955.00
E. SUPPLIES			
Item	Unit Cost	#	Total
UTV Trailer	\$ 4,000.00	1	\$ 4,000.00
SWAT Headsets	\$ 967.00	4	\$ 3,868.00
Headset Comm Stations	\$ 338.00	2	\$ 676.00
Tactical Pick	\$ 250.00	1	\$ 250.00
Tactical Vest	\$ 241.00	3	\$ 723.00
Tactical Vest Pouch	\$ 38.00	3	\$ 114.00
Level 3 plates for vest	\$ 355.00	6	\$ 2,130.00
Avon Voice Amplifier	\$ 469.00	5	\$ 2,345.00
Finger Print Scanner	\$ 1,100.00	1	\$ 1,100.00
Total Supplies			\$ 15,206.00
F CONSTRUCTION			
N/A			\$ -
Total Construction			\$ -
G. Subawards			
N/A			
Total Subawards			
H. CONSULTANTS/CONTRACTS			
Total Contracts			\$ -
I. OTHER COSTS			
N/A			
Total Other Costs			\$ -
J. INDIRECT COSTS			
N/A			\$ -
Total Indirect Costs			\$ -
2021 JAG Allocation			\$ 22,861.00
City of Arvada Local Match			\$ 2,300.00
TOTAL			\$ 25,161.00

Arvada Police Department
2021 JAG Funding Local Solicitation

*APD intends to utilize all JAG funding within Year 1.

IV. Budget Narrative

A. PERSONNEL: \$ 0

B. FRINGE BENEFITS: \$0

C. TRAVEL: \$0

D. EQUIPMENT: \$9,955.00

Interior Drone: \$9,955.00

Interior drones are specifically designed to operate where walls and interference may be a factor. By having interior drones, we increase officer safety by being able to send in a drone prior to a person to obtain information and identify any dangers.

E. SUPPLIES: \$15,206.00

Trailer for Mobile Field Force: \$4,000

Trailer than can be pulled by the UTV containing MFF supplies including those listed below.

SWAT Headsets: \$3,868.00

Communication is essential during SWAT operations and the Arvada PD needs to replace two current headsets, Operators need to be certain they are receiving info and able to relay info.
\$967 unit cost x 4 headsets = \$3,868.00

Headset Communicator Stations: \$676.00

When we have major investigations, such as a Critical Incident Response Team (Officer involved shooting) we need to be able to allow several different parties to listen to different interviews. These stations will enable us to do so.
\$338 unit cost x 2 stations = \$676.00

Tactical Pick: \$250.00

Provides a breaching capability when serving search warrants or in exigent circumstances

Cyre Tactical Vest: \$723.00

Our Criminal Investigations Bureau executes search warrants and arrest warrants that may pose a risk, but does not elevate to the level of a SWAT Team. This equipment provides added protection to our detectives

Arvada Police Department
2021 JAG Funding Local Solicitation

\$241 unit costs x 3 vests = \$723.00

Cyre Tactical Vest Radio Pouch: \$114.00

Radio pouches for the tactical vests for detectives.

\$38 unit costs x 3 vests = \$114.00

Level 3 Plates for Tactical Vests: \$2,130.00

Two plates for each purchased vests

\$355 unit cost x 6 plates = \$2,130.00

Post-Mortem Digital Fingerprint Scanner: \$1,100.00

Fingerprinting deceased persons can be difficult, this product allows us to obtain fingerprints and print them on the official fingerprint cards for deceased person. It would also provide us that ability in cases of mass arrests, such as at a riot.

Avon Gas Mask Voice Amplifiers: \$2,345.00

Wearing a gas mask for operations severely limits communication abilities. It is often muffled when speaking into the radio and hard to hear when standing close to people This amplifier projects the user voice so they can be heard more clearly.

\$469 unit cost x 5 voice amplifiers = \$2,345.00

F. CONSTRUCTION: \$0

G. SUB AWARDS: \$0

H. PURCUREMENT CONTRACTS: \$ 0

I. OTHER COSTS: \$0

J. INDIRECT COSTS: \$0

V. Governing Body Review and Opportunity to Comment

This proposal will be made available to all members of Arvada City Council, including the Mayor, for discussion at the September 13, 2021 business meeting. We project that the 2021 JAG proposal will be discussed and/or approved by City Council on this date in August. City Council business meetings are open to all members of the public, who have the ability to comment on pending items and bring concerns before Council. The agenda, including this item, will be posted online for the public at least two weeks in advance, and all meeting minutes will be posted following the meeting. Additionally, all City Council meetings are locally broadcast within the City of Arvada by KATV, and will be uploaded to the City's YouTube channel following the broadcast.

Arvada Police Department
2021 JAG Funding Local Solicitation

VI. Applicant Disclosure of Pending Applications

The City of Arvada and the Arvada Police Department do not have pending applications submitted within the last 12 months for federally funded or other assistance that include requests for funding to support the same projects being proposed under this solicitation and will cover the identical cost items outlined in the budget narrative and worksheet in the application under this solicitation.



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.5.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-114 A Resolution Authorizing a Construction Contract By and Between the City of Arvada and Insituform Technologies, LLC, for the 2021 Trenchless Sewer Main Replacement Project, in an Amount Not to Exceed \$1,283,574.00, Project No. 21-SR-02

Report in Brief

Council action is requested on the attached resolution authorizing a construction contract (sample attached) with Insituform Technologies, LLC, in the amount of \$1,283,574.00. This is an annual project that involves installation of a cured in place pipe inside existing vitrified clay pipe sanitary sewer mains to extend the life of the sewer mains.

This year's construction project involves replacement of 41,786 linear feet of 6-inch through 15-inch sanitary sewer main in various locations around the City, as well as the replacement of 35 linear feet of 18" stormwater drainage. The attached map highlights the repair areas.

The Arvada team recommends that the City Council approve R21-114, A Resolution Authorizing a Construction Contract by and between the City of Arvada and Insituform Technologies, LLC, for the 2021 Trenchless Sewer Main Replacement Project, in an Amount Not to Exceed \$1,283,574.00, Project No. 21-SR-02.

Financial Impact

Financial Impact: \$1,283,574.00

This is a one-time request for Project Construction Cost.

Funding Source:

Type: Enterprise Fund

Fund: Wastewater Fund Financial Account No. 42-734040-58105

Background

This is an annual project that involves installation of a cured in place pipe inside existing vitrified clay pipe sanitary sewer mains to extend the life of the sewer mains. This year's construction project involves replacement of 41,786 linear feet of 6-inch through 15-inch sanitary sewer main in various locations, and the replacement of 35 linear feet of 18-inch stormwater drainage.

Bids for this project were opened at 11:00 AM on July 15, 2021 and a total of two bids were received. Detailed bid tabulations are attached and the bids are summarized here as follows:

- 1 Insituform Technologies, LLC \$1,283,574.00
- 2 Granite Inliner, LLC \$1,535,636.00
- 3 Engineers Estimate \$1,965,340.00

Discussion

Insituform Technologies, LLC has successfully completed Trenchless Sewer Main Replacements for the City of Arvada in previous years. This work is expected to take 150 days to complete with a construction completion date anticipated by early Spring 2022. The construction bids show competitive pricing and the Arvada team is recommending approval. Funding for this project is available within Wastewater Fund Financial Account No. 42-734040-58105.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

N/A

Strategic Alignment

The Utilities Department has a performance measure to update and improve the City wastewater collection system. This action also aligns with the following Principle within the Infrastructure Priority Area of the City Council Strategic Plan:

Provides the community with a safe, reliable, high-quality water supply, drainage system, and wastewater disposal services for full City build-out, as defined by the Comprehensive Plan. This includes maintaining utility rates at the lowest practical levels with accurate billing that supports replacement of aging infrastructure in order to maintain robust utility systems.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that the City Council approve R21-114, A Resolution Authorizing a Construction Contract by and between the City of Arvada and Insituform Technologies, LLC, for the 2021 Trenchless Sewer Main Replacement Project, in an Amount Not to Exceed \$1,283,574.00, Project No. 21-SR-02.

Suggested Motion:

I move that R21-114, A Resolution Authorizing a Construction Contract by and between the City of Arvada and Insituform Technologies, LLC, for the 2021 Trenchless Sewer Main Replacement Project, in an Amount Not to Exceed \$1,283,574.00, Project No. 21-SR-02, be (approved) (rejected).

Prepared by:
Jennifer Ventura, Civil Engineer

Reviewed by:

Approved by:

Jacqueline Rhoades, Civil Engineer III	8/24/2021
Don Wick, Director of Public Works	8/25/2021
Bryan Archer, Director of Finance	8/25/2021

SUBJECT: R21-114 A Resolution Authorizing a Construction Contract By and Between the City of Arvada and Insituform Technologies, LLC, for the 2021 Trenchless Sewer Main Replacement Project, in an Amount Not to Exceed \$1,283,574.00, Project No. 21-SR-02

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Gail Walker, Legal Specialist-Contracts	8/25/2021
Erika Pierce, Litigation Paralegal	8/25/2021
Jessica Morales, Assistant City Attorney	8/26/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-114

A RESOLUTION AUTHORIZING A CONSTRUCTION CONTRACT BY AND BETWEEN
THE CITY OF ARVADA AND INSITUFORM TECHNOLOGIES, LLC, FOR THE 2021
TRENCHLESS SEWER MAIN REPLACEMENT PROJECT, IN AN AMOUNT NOT TO
EXCEED \$1,283,574.00, PROJECT NO. 21-SR-02

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The Mayor or Mayor Pro Tem is authorized to sign and the City Clerk to attest, in form approved by the City Attorney, a Construction Contract Agreement, which is in substantially the same form as that attached hereto, by and between the City of Arvada and Insituform Technologies, LLC for the 2021 Trenchless Sewer Main Replacement Project, in an amount not to exceed \$1,283,574.00, Project No. 21-SR-02.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

BID TAB

City of Arvada Project: 2021 Trenchless Sewer Main Replacement
 Project Engineer: Jennifer Ventura

Project No. 21-SR-02
 Bid Opening: July 19, 2021

				Engineer's Estimate		Granite Inliner, LLC		Insituform Technologies, LLC	
Item No.	Item Description	Bid Qty	Unit	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total
1	CIPP for 6" VCP	641.00	LF	\$35.00	\$22,435.00	\$60.00	\$38,460.00	\$100.00	\$64,100.00
2	CIPP for 8" VCP	38,366.00	LF	\$40.00	\$1,534,640.00	\$31.00	\$1,189,346.00	\$23.00	\$882,418.00
3	CIPP for 15" VCP	2,779.00	LF	\$60.00	\$166,740.00	\$50.00	\$138,950.00	\$49.00	\$136,171.00
4	CIPP for 18" RCP Storm Drainage	35.00	LF	\$70.00	\$2,450.00	\$280.00	\$9,800.00	\$481.00	\$16,835.00
5	Trenchless Point Repiar	2.00	EA	\$3,500.00	\$7,000.00	\$2,300.00	\$4,600.00	\$2,160.00	\$4,320.00
6	Open Cut Point Repair	2.00	EA	\$20,000.00	\$40,000.00	\$20,000.00	\$40,000.00	\$10,800.00	\$21,600.00
7	Protruding Taps	5.00	EA	\$300.00	\$1,500.00	\$230.00	\$1,150.00	\$211.00	\$1,055.00
8	Sewer Service Reconnections	761.00	EA	\$75.00	\$57,075.00	\$30.00	\$22,830.00	\$75.00	\$57,075.00
9	Citizen Notification	1.00	LS	\$3,500.00	\$3,500.00	\$7,500.00	\$7,500.00	\$1,000.00	\$1,000.00
10	Traffic Control	1.00	LS	\$75,000.00	\$75,000.00	\$33,000.00	\$33,000.00	\$51,500.00	\$51,500.00
11	Mobilization	1.00	LS	\$15,000.00	\$15,000.00	\$10,000.00	\$10,000.00	\$7,500.00	\$7,500.00
12	Minor Contract Revisions	40,000.00	EA	\$1.00	\$40,000.00	\$1.00	\$40,000.00	\$1.00	\$40,000.00
BID TOTAL				\$1,965,340.00		\$1,535,636.00		\$1,283,574.00	

KEY	DESCRIPTION	SHT.
	COVER SHEET	0
A	NORTH & SOUTH OF W. 84TH AVENUE FROM GARRISON STREET TO POMONA DRIVE	1
B	NORTH & SOUTH OF POMONA DRIVE FROM WADSWORTH BLVD. TO ALLISON COURT	2
C	WEBSTER DRIVE W. 87TH WAY TO TELLER STREET	3
D	VANCE DRIVE WADSWORTH BLVD. TO W. 81ST AVENUE 8016 W. 78TH WAY (STORM DRAINAGE PIPE)	4
E	W. 79TH AVENUE - WEBSTER WAY TO PEIRCE STREET W. 80TH DRIVE - W. 80TH CIRCLE TO LAMAR DRIVE	5
F	POMONA DRIVE TO W. 84TH WAY HARLAN COURT TO QUAY DRIVE	6
G	W. 79TH AVE. TO W. 79TH PL. - DEPEW TO GRAY ST. GRAY DR. & W. 69TH AVE. - EAST TO EATON ST. 8340 W. 67TH AVENUE	7
H	ALLENDALE DRIVE - QUAIL ST. TO NELSON ST. NELSON STREET - W. 60TH AVE. TO ALLENDALE DR.	8

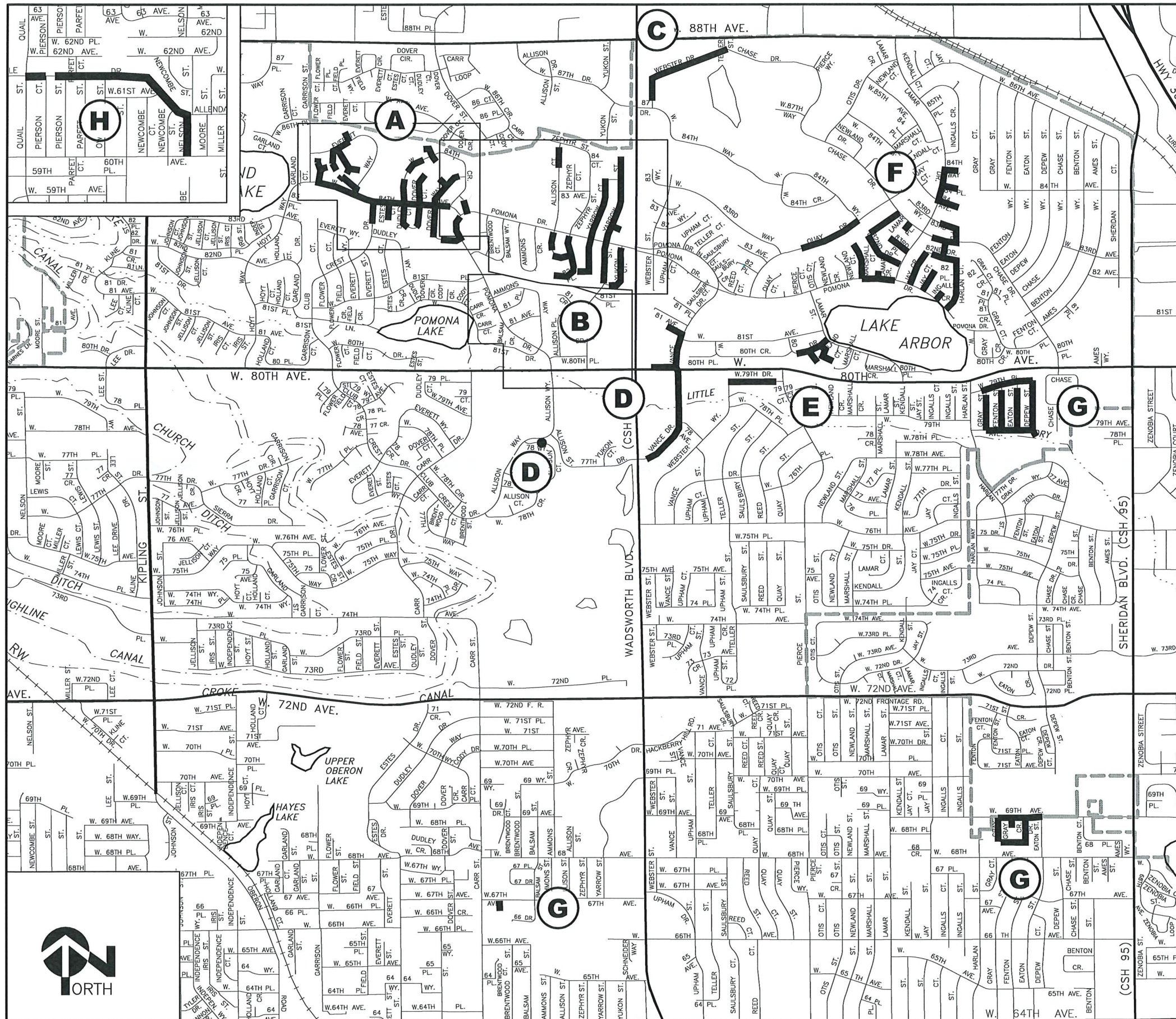
BID SET

GENERAL NOTES:

- All contractors and subcontractors shall be licensed with the City of Arvada Engineering Division and obtain individual no charge public improvement permits from the city of Arvada.
- The Engineering Division shall be notified (720-898-7640) a minimum of 24 hours prior to any construction along with the traffic division (720-898-7740).
- The contractor is responsible for all project safety including, but not limited to, trench excavation and shoring, traffic control and security.
- The contractor is to coordinate the operation of all valves, fire hydrants and other appurtenances with the City Water Division, through the City's inspector.
- All construction shall be to current City of Arvada Standard Specifications.
- The contractor shall have a set of approved drawings and current City of Arvada Standard Specifications on site at all times.
- Contractor shall notify all affected parties, City Utility and Engineering Divisions, a minimum of 24 hours prior to any water or sewer service interruption.
- Pipe lengths shown are actual laying lengths. Stationing is based on manhole centerlines.
- As built drawings shall be submitted to the City prior to the start of any warranty period.
- All dry service connections are not to be re-established.
- The Engineer assumes no responsibility for buried utilities. Utility lines indicated on the plans have been plotted using the best available information and do not necessarily reflect all utilities which may be encountered during construction or the exact location of all utilities which may be encountered during construction. The contractor is responsible to verify the location of all existing utilities prior to construction and to protect them during construction.

APPROVED BY:

Jacqueline Rhoads 7-13-2021
CITY ENGINEER DATE



**AN AGREEMENT BETWEEN THE CITY OF ARVADA AND INSITUFORM
TECHNOLOGIES, LLC FOR THE 2021 CIPP TRENCHLESS SANITARY SEWER MAIN
PROJECT IN AN AMOUNT NOT TO EXCEED \$1,283,574.00**

This Agreement made this ____ day of _____, _____, by and between the City of Arvada, a home rule municipal corporation (“Arvada” and/or “City”) and Insituform Technologies, LLC, a Limited Liability Company formed in Missouri (“Contractor”).

WITNESSETH: That for and in consideration of the covenants, promises, and payments hereinafter mentioned:

1. Contractor will commence and complete the 2021 CIPP Trenchless Sanitary Sewer Main Project described in the Contract Documents relating to CSB-21-SR-02, issued July 15, 2021, (“the Work”).
2. Contractor will furnish all material, supplies, tools, equipment, labor, and other services necessary for the completion of the Work.
3. Contractor will commence the work required by the Contract Documents within ten (10) calendar days after the date of Notice to Proceed.
4. Contractor will complete the work required by the Contract Documents by **150 consecutive calendar days** after the date of the Notice to Proceed unless the period for completion is extended otherwise by the Contract Documents.
5. Contractor agrees to perform all of the work described in the Contract Documents for an amount not to exceed **\$1,283,574.00** for the Work.
6. The term “Contract Documents” means and includes the following:
 - A. Arvada’s Request for the 2021 CIPP Trenchless Sanitary Sewer Main Project, CSB-21-SR-02 (“CSB”);
 - B. CSB Exhibits (if any);
 - C. CSB Addenda (if any);
 - D. Contractor’s Response to CSB-21-SR-02, Advertisement for Bid, Bid Proposal, Bid Schedule, Bid Bond;
 - E. Notice of Award;
 - F. Performance and Payment Bond;
 - G. Notice to Proceed;
 - H. Change Orders (if any);
 - I. City of Arvada Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements;
 - J. Project special provisions prepared or issued by City of Arvada (or its Consultant if applicable);
 - K. Detail drawings and Bid Documents prepared or issued by City of Arvada (or its Consultant if applicable);
 - L. Specification Illustrations and attachments; and
 - M. All supplementary requirements regarding wage rates, E.E.O., affirmative action and all other Federal-State requirements as outlined in the specifications.

7. INVOICES AND COMPENSATION. Contractor will follow Bid schedule and partial payments will be made accordingly NET fifteen (15) but no later than NET thirty (30).

8. GENERAL TERMS AND CONDITIONS, SPECIAL TERMS AND CONDITIONS, INSURANCE REQUIREMENTS, PROJECT SPECIAL PROVISIONS, AND OTHER CSB REQUIREMENTS. Contractor affirms that it has read and is familiar with the Contract Documents, including but not limited to the General Terms and Conditions, Special Terms and Conditions, Insurance Requirements, Project Special Provisions, and other CSB requirements, and agrees to be bound by those terms and conditions.

9. CHANGE ORDERS. Contractor shall perform the Work as described in the Contract Documents or as amended by the mutual consent of the parties in writing. Should the parties agree in writing to a change in the scope of services, then the parties will timely execute any applicable Change Order, which will address changes in scope of services, completion date, contract amount, any applicable material modifications, and any other matters that the parties deem necessary.

10. PREFERENCES IN EMPLOYMENT OF COLORADO LABOR. To the extent that obligations and responsibilities may be established by C.R.S. § 8-17-101 *et seq.*, as amended, with respect to certain public entities and those contracting therewith as to the procurement of services:

- a. Colorado labor shall be employed to perform eighty percent (80%) of the work.
- b. Any waiver of this requirement must comply with C.R.S. § 8-17-101 *et seq.*, as amended.

11. PERFORMANCE MEASURES. The Performance Measures for this Agreement shall be those outlined by Arvada in Section 22 of Special Terms and Conditions for Bidders in the CSB, which are included in the Contract Documents that are exhibits to this Agreement.

12. ADDITIONAL DOCUMENTS OR ACTION. The parties agree to execute any additional documents and to take any additional action that is necessary to carry out this Agreement.

13. BINDING EFFECT. This Agreement shall inure to the benefit of, and be binding upon, the parties, their respective legal representatives, successors, heirs, and assigns; provided, however, that nothing in this paragraph shall be construed to permit the assignment of this Agreement except as otherwise expressly authorized herein.

14. PARAGRAPH CAPTIONS. The paragraph captions in this Agreement are set forth only for the convenience and reference of the parties and are not intended in any way to define, limit, or describe the scope or intent of this Agreement.

15. INTEGRATION, AMENDMENT, AND SEVERABILITY. This Agreement represents the entire agreement between the parties, and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect if the essential terms and conditions of this Agreement for both parties remain valid, legal, and enforceable.

16. NOTICES. Any notice or notification required or permitted by the Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or

registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the signature page below, or at such other address as has been previously furnished in writing, to the other party or parties. Such notice or notification shall be deemed to have been given when deposited in the United States mail.

17. **BINDING AUTHORITY.** Contractor represents and affirms that the signature page hereof accurately states the full legal name of Contractor (whether as a corporation, partnership, limited liability company, sole proprietorship, or other), contains all requisite signature(s) on behalf of Contractor, has been properly acknowledged by attestation, notary acknowledgment, or both, and in all other respects is effective to bind Contractor, in accordance with all applicable statutes, regulations, resolutions, rules, bylaws, agreements, or similar sources of authority or limitation. This Agreement may be executed in counterpart(s), each of which shall be deemed to be an original, and all of which, taken together, shall constitute one instrument.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement which shall be deemed an original on the date first above written.

CITY OF ARVADA, COLORADO

Marc Williams, Mayor
8101 Ralston Road
Arvada, CO 80002

ATTEST/WITNESS:

City Clerk

APPROVED AS TO FORM:

For Rachel A. Morris, City Attorney

By: _____

CONTRACTOR

Whitney Schulte
Contracting and Attesting Officer

EXHIBIT A

Arvada's Request for the 2021 CIPP Trenchless Sanitary Sewer
Main Project, CSB-21-SR- 02 ("CSB")



CITY OF ARVADA

COMPETITIVE SEALED BID

BID #: CSB – 21-SR-02

Title: 2021 CIPP Trenchless Sanitary Sewer Main

CSB Issued: 7/15/2021

Bids Due By: 8/5/2021 2:00 pm local time

Questions Deadline: 7/29/2021 2:00 pm local time
Submit Questions on BidnetDirect.com

Delivery Date: 150 days after notice to proceed

Delivery address: **Electronic Submissions must be submitted online at BidNetDirect.com.**

Questions and submission documents must be uploaded to Bidnetdirect.com unless otherwise directed. Please submit as (1) PDF and your company name must start the uploaded file name! Late responses will not be considered for award.

For additional administrative information NOT related to the scope, contact: Nancy Allen, nallen@arvada.org

Documents included in this BID:

Cover Page	page 1
Advertisement for Bidders	page 2
General Terms and Conditions	page 3
Special Terms and Conditions for Bidders	page 6
Insurance Requirements	page 8
Project Special Provisions	page 9
Submittal Forms to be Completed and Returned	
• Bid Bond (<u>Upload to BidnetDirect</u>)	page 21
• Bid Proposal	page 22
• Bid Schedule	page 23
Submittal Checklist and References to be Completed and Returned	page 24
Preview of Documents if Awarded	page 25

ARVADA'S VISION MISSION AND VALUES

VISION: We dream big and deliver.

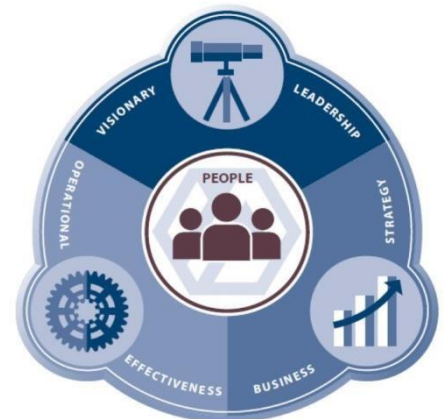
MISSION: We are dedicated to delivering superior services to enhance the lives of everyone in our community.

VALUES:

Innovation – We excel in creativity, flexibility and the use of best practices while valuing diverse backgrounds, ideas and perspectives.

Passion – We are a high performing, inclusive team inspiring each other to pursue excellence.

Opportunity – We value our diversity, embrace possibilities, face challenges, persevere and take action to deliver quality results.



ADVERTISEMENT FOR BIDS

Submit bids electronically on Bidnetdirect.com for the construction of City of Arvada, Project No.21-SR02, Project Title: 2021 Trenchless Sewer Main Replacement

The BID DOCUMENTS, consisting of Advertisement for Bids, General Terms and Conditions, Special Terms and Conditions, Insurance Requirements, Project Special Provisions, Addendum when issued, Bid Bond, Bid Proposal, Bid Schedule, Performance and Payment Bond, Submittal Checklist and References, Sample documents, and the Project Drawings may be examined at the following location:

- www.bidnetdirect.com

No cost bid documents may be obtained at www.bidnetdirect.com on or after July 15, 2021

ESTIMATED QUANTITIES OF THE MAJOR ITEMS OF WORKARE:

641 LF	CIPP for 6" VCP SEWER MAIN
38366 LF	CIPP for 8" VCP SEWER MAIN
2779 LF	CIPP for 15" VCP SEWER MAIN
35 LF	CIPP for 18" RCP STORM DRAINAGE PIPE

Miscellaneous items include citizen notification, traffic control, and other appurtenances.

Bidders, subcontractors and suppliers must be familiar with the current City of Arvada *Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements*, dated January 12, 2016, which will be combined with the Bid Documents to form the Contract Documents for the Project. A copy of the Standards may be obtained from the office of the City Engineer upon a non-refundable payment of \$50.00. Holders will be notified when supplemental revisions and additions are available as they are adopted. The Standards are also available at no cost on the City's web site at www.arvada.org. Holders are responsible for keeping current their City of Arvada Engineering Code of Standards and Specifications.

Date: 7-13-2021

CITY OF ARVADA



Jacqueline
Rhoades

City Engineer
8101 Ralston Road
Arvada, Colorado 80002

GENERAL TERMS AND CONDITIONS

1. PAYMENTS TO CONSTITUTE CURRENT EXPENDITURES. Financial obligations of the City of Arvada, if any, after the current fiscal year are contingent on funds for that purpose being appropriated, budgeted and otherwise made available by the City Council for the City of Arvada. The City of Arvada's obligations under the Agreement shall be from year to year only and shall not constitute a multiple-fiscal year direct or indirect debt or other financial obligation of the City of Arvada within the meaning of Article X, Section 20 of the Colorado Constitution.

2. TAXES. The City of Arvada is not subject to taxation. Contractor shall not invoice Arvada for any state, federal or local taxes whatsoever. Upon written notification by the City of Arvada, Contractor shall reimburse the City of Arvada in a timely manner for any taxes erroneously paid by the City of Arvada. The Colorado Department of Revenue, Certification of Exemption for Colorado State Sales/Use Tax account number for the City of Arvada is 98-01789-0000. An exemption certificate will be provided, where applicable, upon request.

3. NO INDEMNIFICATION BY ARVADA. The City of Arvada is prohibited by Article XI, Section 1, Colorado Constitution, from indemnifying anyone. Therefore, notwithstanding any provision in the response to solicitation or proposed contract, lease, escrow agreement or any other type of agreement to the contrary, the City of Arvada does not indemnify Contractor or anyone else under this Agreement.

4. INDEMNIFICATION OF CITY.

A. Contractor: Notwithstanding any provision in the response to solicitation or proposed contract, lease, escrow agreement or any other type of agreement to the contrary, Contractor agrees to investigate, defend, indemnify and hold harmless Arvada, its elected officials, officers, employees, agents, insurers, and representatives from and against any claims, costs, losses, expenses, demands, actions, or causes of action, including reasonable attorney fees and other costs and expenses of litigation, which may be asserted against or incurred by Arvada or for which Arvada may be liable, arising from the negligence, willful misconduct, or other fault of Contractor or its employees, agents, or subcontractors in performance of the Agreement. Nothing herein is intended to constitute a covenant, promise, or agreement to indemnify and hold harmless Arvada from any liability or damages directly caused by or attributable to Arvada's own negligence. Nothing herein intended to be nor may be construed as a waiver of the immunities, protections, or limitations on damages provided to Arvada by the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101 *et seq.*, as it may from time to time be amended.

(or)

B. Architect, Engineer, Surveyor Services for Public Works Construction: Contractor agrees to hold harmless and indemnify Arvada, its officers and employees, from and against any liability or any claims, suits, or actions arising out of, made, or asserted for any damage to persons or property resulting from errors, omissions or fault of Contractor in connection with the performance by Contractor of obligations under this solicitation and any subsequent Agreement with Arvada. Nothing herein is intended to constitute a covenant, promise, or agreement to indemnify and hold harmless Arvada from any liability or damages directly caused by or attributable to Arvada's own negligence. Nothing herein is intended to be nor construed as a waiver of the immunities, protections, or limitations on damages provided to Arvada by the Colorado Governmental Immunity Act, C.R.S. §§24-10-101 *et seq.*, as it may from time to time be amended.

5. NO OPINION OF COUNSEL LETTERS. Pursuant to Section 8.1 of the Arvada City Charter, the City Attorney provides advice to the City Council and City Officials in matters relating to their official powers and duties, and will perform such other duties as City Council may prescribe by ordinance or resolution. The City Attorney will not issue opinion of counsel letters, memoranda or statements to third parties, including, but not limited to that any contract or lease is binding on the public entity, enforceable, etc.

6. CONFIDENTIAL DOCUMENTS. Contractors may designate specific pages or sections within their submission as trade secret or confidential commercial information or as otherwise protected by law ("Confidential Information"). Documents and data that are considered Confidential Information shall be clearly marked as such and separated from the rest of the solicitation submission documents. Comingling is not acceptable. The City does not favor blanket assertions of Confidential Information. Please note that blanket assertions that merely classify and/or broadly claim information is confidential are insufficient as a matter of law. See, *International Brotherhood of Electrical Workers Local 68 v. Denver Metropolitan Major League Baseball Stadium District*, 880 P.2d 160 (Colo. App. 1994). Any information that will be included in any resulting contract cannot be considered Confidential. Under no circumstances may submission pricing information be considered Confidential. In the event a formal contract is entered into with the City and a portion of the Proposal/Response carries a designation indicating the Contractor believes it is Confidential Information, then the City agrees that it will use its best efforts to forward any request for the disclosure of the Confidential Information to the Contractor. By its submission of the Proposal/Response, Contractor agrees to promptly respond to the request for disclosure with any objections and reasons therefor in accordance with the Colorado Open Records Act C.R.S. §§24-72-101 *et seq.* and any other applicable law. Further, Contractor agrees to assume the obligation to defend, hold harmless, and indemnify the City in any legal proceeding that arises from non-disclosure of documents or data pursuant to the Contractor's objection.

7. OWNERSHIP OF WORK PRODUCT. The originals of all plans, reports, studies, data, or other materials or information relating to the Work that are produced by Contractor shall be delivered to and become the property of Arvada. Contractor may retain copies of any originals; however, no plans, reports, studies, data, or other materials or information relating to the Work shall be released to any person or entity without the prior written consent of Arvada. Nothing in this clause is intended to affect Contractor's right to use generic know-how learned in the course of providing services under the Agreement for the future benefit of the City of Arvada or others.

8. ASSIGNMENT. Contractor shall not assign the Agreement without the prior written consent of the City of Arvada, which will not be unreasonably withheld, conditioned, or delayed. Contractor may assign the Agreement to any successor to the business of the party by merger, consolidation, or sale of assets. No assignment shall be permitted that enlarges any duty, responsibility or obligation of the City of Arvada, or that limits, curtails, or diminishes any right or privilege of the City of Arvada without the City of Arvada's express written consent.

9. NO THIRD PARTY BENEFICIARIES. It is expressly understood and agreed that enforcement of the terms and conditions of the Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Arvada and Contractor and nothing contained in the Agreement shall give or allow any such claim or right of action to any other third party on the Agreement. It is the express intention of Arvada and Contractor that any person other than Arvada or Contractor receiving services or benefits under the Agreement shall be deemed to be an incidental beneficiary only.

10. INDEPENDENT CONTRACTOR. Contractor and Arvada hereby represent that Contractor is an independent contractor for all purposes hereunder. As such, Contractor is not covered by any worker's compensation insurance or any other insurance maintained by Arvada except as would apply to members of the general public. Contractor shall not create any indebtedness on behalf of Arvada.

11. SUBCONTRACTING. Contractor shall not award work to subcontractor(s) in excess of fifty percent of the total contract price without Arvada's prior written approval. Contractor shall be responsible for any failure by any subcontractor or subcontractor personnel to perform in accordance with the Agreement or to comply with any duties or obligations imposed on Contractor under the Agreement to the same extent as if such failure to perform or comply was committed by Contractor or Contractor's personnel. Contractor shall be Arvada's sole point of contact regarding the services, including with respect to payment.

12. ILLEGAL ALIENS; PUBLIC CONTRACTS FOR SERVICES. To the extent that obligations and responsibilities may be established by C.R.S. §§8-17.5-101 *et seq.*, (as amended) (the "Act"), with respect to certain public entities and those contracting therewith as to the procurement of services:

- A. Successful Vendor ("Contractor") shall not knowingly employ or contract with an illegal alien to perform work under the Agreement or enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under the Agreement. Contractor confirms the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify Program or Department Program (the "Program").
- B. Contractor is prohibited from using Program procedures to undertake pre-employment screening of job applicants while the Agreement is being performed.
- C. If Contractor obtains actual knowledge that a subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, Contractor shall be required to:
 - (i). Notify the subcontractor and the City of Arvada within three (3) days that Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and
 - (ii). Terminate the subcontract with the subcontractor if within three (3) days of receiving the above notice the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the subcontract if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
- D. Contractor shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation that the department is undertaking pursuant to the authority established in the Act.
- E. Any provision of the Agreement to the contrary notwithstanding, if Contractor violates any provision of this Section, the City of Arvada may terminate the Agreement, without breach or default by the City of Arvada, and Contractor shall be liable for actual and consequential damages to the City of Arvada arising out of such violation.
- F. Contractor represents that, prior to executing the Agreement, Contractor has certified that at the time of the certification, Contractor does not knowingly employ or contract with an illegal alien who will perform work under this public contract for services and Contractor will participate in either the E-Verify Program or Department Program in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services. By execution of this Agreement, Contractor shall be deemed to have renewed such certification.
- G. Contractor acknowledges its responsibility to comply with the certification requirement pursuant to C.R.S. §8-17.5-102(2)(b)(I) (as amended).

13. NO WAIVER OF GOVERNMENTAL IMMUNITY. Nothing contained in this or any of the exhibits attached thereto shall be construed as a waiver of any of the immunities, limitations, privileges, rights, procedures, or requirements contained in the Colorado Governmental Immunity Act, C.R.S. §§24-10-101 *et seq.*

14. RIGHT TO TERMINATE. The City of Arvada shall have the right to terminate, without cause, the Agreement. Any such termination shall not be considered a breach of the Agreement or any extension thereof. In the event of termination by the City of Arvada for convenience, Contractor will be paid for requested work performed up until the time of termination by the City of Arvada, not to exceed the total amount of the contract price agreed upon by the parties.

15. COMPLIANCE WITH ALL LAWS. All of the services performed under this Agreement by Contractor shall comply with all applicable laws, rules, regulations and codes of the United States and State of Colorado, and with the charter, ordinances, rules and regulations of the City of Arvada.

16. WAIVER OF BREACH. A waiver by any party to the Agreement or the breach of any term or provision of the Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

17. GOVERNING LAW AND VENUE. Notwithstanding any provision in the response to solicitation or proposed contract, lease, escrow agreement or any other type of agreement to the contrary, the Agreement shall be governed by the laws of the State of Colorado. Venue for any action arising under the Agreement or for the enforcement of the Agreement shall be in the appropriate court for Jefferson County, Colorado.

18. FORCE MAJEURE. Any delays in or failure of performance by any party of his or its obligations under the Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations or orders of civil or military authorities, shortages of labor or materials, or other causes, similar or dissimilar, which are beyond the control of such party.

19. BINDING ARBITRATION PROHIBITED. The City of Arvada does not agree to binding arbitration by any extra-judicial body or person. Any provision to the contrary in response to the solicitation, or incorporated by reference, shall be null and void.

20. EQUAL EMPLOYMENT OPPORTUNITY. Contractor shall not refuse to hire, discharge, promote or demote, or discriminate in matters of compensation against any person otherwise qualified solely because of race, creed, sex, color, national origin or ancestry, religion, disability, age, sexual orientation, gender identity, veteran status, or any other basis prohibited by federal, state, or local law.

21. BINDING AUTHORITY. Contractor represents and affirms that the signature page hereof accurately states the full legal name of Contractor (whether as a corporation, partnership, limited liability company, sole proprietorship, or other), contains all requisite signature(s) on behalf of Contractor, has been properly acknowledged by attestation, notary acknowledgment, or both, and in all other respects is effective to bind Contractor, in accordance with all applicable statutes, regulations, resolutions, rules, bylaws, agreements, or similar sources of authority or limitation.

22. PREFERENCES IN EMPLOYMENT OF COLORADO LABOR. To the extent that obligations and responsibilities may be established by C.R.S. § 8-17-101 *et seq.*, as amended, with respect to certain public entities and those contracting therewith as to the procurement of services:

- a. Colorado labor shall be employed to perform eighty percent (80%) of the work.
- b. Any waiver of this requirement must comply with C.R.S. § 8-17-101 *et seq.*, as amended.

23. RETAINAGE REQUIREMENTS. Contractor agrees to submit monthly invoices together with any retainage requirements as prescribed by Colorado state statutes (*see e.g.*, C.R.S. §§24-91-101 *et seq.*). Payment from Arvada will traditionally be paid NET (15) days but no later than NET thirty (30) days. Invoices will accurately reflect actual work completed by Contractor.

SPECIAL TERMS AND CONDITIONS FOR BIDDERS

1. RECEIPT AND OPENING OF BIDS. Bids submitted electronically on the BidnetDirect.com web site only become available to the City of Arvada after the Bid closes.

Bidder shall assume full responsibility for timely upload of bid to the Bidnetdirect web site. The City reserves the right, where its best interest will be served, to accept or reject any conditional or qualified Bid.

2. QUANTITY AND NATURE OF THE WORK. Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid Schedule by examination of the site and a review of the drawings and specifications including Addendum. After Bids have been submitted the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or of the nature of the work to be done.

3. CONTENTS OF BID. Contractors are required to submit Bids with the following conditions:

- 1) Contractors shall make all investigations necessary to inform themselves of the sites affected and the work required by the Solicitation.
- 2) Any official interpretation of the Solicitation may only be issued by an authorized agent of the City. The City shall not be responsible for other interpretations offered by employees not authorized.
- 3) The City shall issue Addenda if substantial changes are required which may impact the content and submission of Bids. A copy of such addenda will be publicly posted with the original CSB posting.
- 4) The apparent silence or omissions within this Solicitation regarding a detailed description of the materials or services shall be interpreted to mean that only the best commercial practices are to prevail and that only materials and workmanship of first quality are to be provided.

4. BID SECURITY. Each Bid must be accompanied by a PHOTO of the Bid Bond, on the form attached to these contract documents, payable to the City for five (5) percent of the total amount of the Bid. As soon as the bid Prices have been compared, the City will notify an intent to award on the Bidnetdirect.com web site. The vendor who is named as the intent to award Contractor must submit the physical Bid Bond within 10 days or the intent to award may be revoked. The Bid Bond of the successful Bidder will be retained until the Payment and Performance Bond has been executed and approved after which it will be returned. A certified check may be used in lieu of a Bid Bond.

5. POWER OF ATTORNEY. Attorneys-in fact who sign Bid Bonds or Payment and Performance Bonds must file with each bond a certified and effective dated copy of their power of attorney.

6. QUALIFICATION OF BIDDER. The City may make such investigation as it deems necessary to determine the ability of the Bidder to perform the work. The City reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the City that such Bidder is properly qualified to carry out the obligation of the Contract Agreement and to complete the work contemplated therein. The City reserves the right, before awarding the contract, to require a Contractor to submit evidence of its qualifications including, but not limited to, financial, technical and other qualifications, as well as past performance with the City, for consideration in making the award in the best interest of the City.

7. AWARD OF CONTRACT. Bids shall be awarded to the lowest-priced responsible and most responsive bidder whose bid meets the requirements and criteria set forth in the CSB within the limits of funds available and that best serves the City's interest. The City, within seven (7) calendar days of receipt of acceptable Contract Security and triplicate copies of the Contract Agreement, signed by the Bidder to whom the Contract was awarded, shall sign the Contract Agreement and return to the Bidder an executed copy of the Contract Agreement. Should the City not execute the Contract Agreement within such period, the Bidder may, by written notice, withdraw his signed Contract Agreement. Such notice of withdrawal shall be effective upon receipt of the written notice by the City.

8. NOTICE OF AWARD AND FAILURE TO ENTER INTO CONTRACT. The party to whom the Contract is to be awarded will be required to execute the Contract Agreement in triplicate, obtain Certificates of Insurance and a Performance and Payment Bond, as Contract security, within five (5) calendar days from the date the Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the Contract Agreement and the necessary Performance and Payment Bond forms. In case of failure of the bidder to execute the Contract Agreement and provide satisfactory Insurance and Contract Security, the City may at his option, consider the Bidder in default, in which case the Bid Bond accompanying the Proposal shall become the property of the City.

9. CONTRACT DOCUMENTS. The Contract Documents consisting of the Bid Documents, which include the Advertisement for Bids, Information for Bidders, General Terms and Conditions, Special Terms and Conditions, Insurance Requirements, Project Special Provisions, Addendum, Bid Bond, Bid Proposal, Bid Schedule, Vendor Submittal Form, Construction Drawings, Supplemental Specifications and the City of Arvada "Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements", dated January 12, 2016, which include the Measurement and Payment specifications, and the attached Notice of Award form, Contract Agreement form, Performance and Payment Bond form, Notice to Proceed form, and Change Order form, when combined, contain the provisions required for the construction of the Project. Information obtained from an agent or employee of the City or any other person shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the contract.

10. TERM OF CONTRACT. This contract shall commence on the date of the purchase order or contract execution and shall remain in effect until such time as the commodities, equipment and/or services acquired in conjunction with this Bid have been accepted by the City's authorized representative. Any required warranty period which exceeds this term shall remain in full force for the duration of the warranty period.

11. PRICING SHALL BE FIXED AND FIRM. The prices offered by the Contractor shall remain fixed and firm for at least 90 ninety days. No changes in the Bid shall be allowed after the date and time of the Bid deadline due to error by the Contractor.

12. CONTRACT SECURITY. A Performance and Payment Bond, on the form attached to these contract documents, in the amount of 100% of the Contract price, with a corporate surety approved by the City, will be required for the faithful performance of the Contract.

13. NOTICE TO PROCEED. The Notice to Proceed shall be issued within seven (7) calendar days of the execution of the Contract Agreement by the City. Should there be reason why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the City and the Contractor. In the event the Notice to Proceed has not been issued within the seven day period or within the period mutually agreed upon the Contractor may terminate the Contract Agreement without further liability on the part of either party.

14. MODIFICATION OR WITHDRAWAL OF BIDS BY CONTRACTOR.

Modifications to Bids- Changes to the Bid after the submission deadline shall be allowed only when the Contractor can show convincing evidence that an unintentional factual mistake was made. Modification requests must be made in writing. Any modification submitted to the City must have the Contractor's name, address, Solicitation Number and title included.

Withdrawal of Bids- If a Bid is withdrawn by Contractor after the Bid Opening, the City may, at its option, suspend the Contractor for a six (6) month period following the withdrawal. Withdrawal of the Bid after the Bid Opening will result in the Contractor forfeiting the provided Bid Bond.

15. REJECTION OF OFFERS BY CITY.

- A. The City may reject a Bid, in whole or in part, for reasons including, but not be limited to:
 - 1) The Contractor misstates or conceals any material fact in its Proposal;
 - 2) The Contractor's Bid does not strictly conform to the law or requirements of the Solicitation;
 - 3) The Bid expressly requires or implies a conditional award that conflicts with the method of award stipulated in the Special Conditions;
 - 4) The Bid does not include documents which are required for submission with the Bid; or
 - 5) The Bid has not been executed by the Contractor through an authorized signature.
- B. The City may, at its sole and absolute discretion:
 - 1) Reject all or parts of Bids submitted by prospective Contractors;
 - 2) Re-advertise this Solicitation;
 - 3) Postpone or cancel the Solicitation;
 - 4) A Bid may not be accepted from, nor any contract be awarded to, any person or firm which
 - a) is in arrears to the City for any debt or Contract, or is a defaulter as surety for any obligation to the City.
 - b) has failed to perform faithfully any previous contract with the City, State or Federal governmental for a minimum period of one (1) year after this previous Contract was terminated for cause.
 - c) has pending litigation against the City on the date and time that the Solicitation is due.

16. CLARIFICATION AND MODIFICATIONS. The contract resulting from this solicitation will be subject to the Solicitation materials, City Ordinance, State and Federal Statutes. When conflicts occur, the highest authority shall prevail. Contractors are required to indicate any variances to the terms, conditions, requirements and specifications of this Solicitation; no matter how slight. If variations are not stated in the Contractor's Bid, it shall be agreed that the Contractor's Bid fully complies with all conditions identified in this Solicitation.

17. ELIGIBILITY OF CONTRACTORS: MUST BE ENGAGED IN SUPPLYING PRODUCTS OR SERVICES RENDERED. Bids will only be considered from firms which have been engaged in the business of manufacturing or distributing the goods and/or performing services described in this Solicitation. Contractors must be able to produce evidence that they have an established satisfactory record of performance for at least two (2) years and have sufficient finances and structure to ensure that they can satisfactorily execute the Contract requirements, as determined by authorities of the City. The City reserves the right, before awarding the contract, to require a Contractor to submit evidence of its qualifications including, but not limited to, financial, technical and other qualifications, as well as past performance with the City, for consideration in making the award in the best interest of the City.

18. ELECTRONIC PAYMENT METHODS - CITY OF ARVADA SINGLE USE ACCOUNT.

Contractors are encouraged to consider the following method of payment.

Single Use Account: The City incorporates the use of Single User Accounts as an option to seamlessly process payment of larger dollar purchase orders and contracts to vendors/contractors/providers. A secure, one-time payment transaction account processes to pay invoices via the Contractor's merchant bank. Invoice payments have an enhanced speed-of-pay cycle that can significantly benefit cash flow.

19. CONDITIONS OF WORK AND OBLIGATION OF BIDDER. Each Bidder is responsible for independently inspecting the site and for reading and being thoroughly familiar with the Contract Documents and for providing the names of major suppliers and sub-contractors in the space provided on the Bid Proposal form. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve the Bidder from any obligation in respect to his Bid Proposal.

20. CONTRACTOR LICENSE. The Contractor to whom the contract is awarded and any subcontractors employed by the Contractor must have or acquire the appropriate Contractor's license issued by the City of Arvada Engineering Division, including submittal of license bond, necessary insurance certificate, and license fee before initiating any work. The Contractor and any subcontractors will also be required to obtain a no charge Public Improvements Permit from the City of Arvada Engineering Division prior to initiating any and all work on this project.

21. PERFORMANCE MEASUREMENTS FOR SERVICES MORE THAN \$15,000.

The City has incorporated Performance Management into its organizational culture. The City will monitor and report on the following performance measures. These measures will determine, in part, renewals and eligibility for future awards. Measures include: (a) safety as defined by observation and OSHA reportable injuries, (b) quality of contracted work, (c) work completed within required schedule, (d) administration and coordination of estimates, RFIs, ASIs, change orders, pay requests and close out documents, (e) fair and justifiable change orders, (f) responsiveness and follow through on requests.

SERVICES means: the furnishing of labor, time, effort, maintenance, etc., by a vendor/contractor/consultant, with an initial contract amount of more than \$15,000.

22. PREPARATION AND SUBMISSION.

Bids will be prepared as follow:

- 1) A blank shall be construed as "No Bid/not offered". Where there is a discrepancy between the unit price and the extension of prices, the unit price shall prevail.
- 2) Contractors will not knowingly participate in solicitations where there exists a conflict of interest with their firm and a member of City staff or their immediate family.
- 3) The only authorized version of this Bid is posted on WWW.BIDNETDIRECT.COM. Registration is available to receive email notification of new solicitations, addenda, and communications.

INSURANCE REQUIREMENTS

The following listed insurance requirements shall be carried by the selected Contractor for the entirety of the contract. Applicable requirements for this solicitation are identified by completed check boxes.

1. ☒ **Commercial General Liability**, written on an occurrence form, for limits not less than \$1,000,000.00 for bodily injury and property damage for each occurrence and not less than \$2,000,000.00 aggregate. Coverage shall include premises and operations liability, blanket contractual, broad form property damage, products and completed operations and personal injury endorsements.
2. ☒ **Workers' Compensation and Employers Liability** as required by statute. Employers Liability coverage is to be carried for a minimum limit of \$1,000,000.00 per accident.
3. ☒ **Automobile Liability** for limits not less than \$1,000,000.00 combined single limit for bodily injury and property damage for each occurrence. Coverage shall include owned, non-owned and hired automobiles.
4. ☒ **Umbrella Liability** of \$5,000,000.00, following form to the Commercial General Liability.
5. ☐ **Pollution Legal Liability Insurance** for limits not less than \$1,000,000 per occurrence (or claims made) and not less than \$1,000,000 aggregate for bodily Injury, personal Injury and property Damage.

Additional Insurance Requirements:

- Contractor will be required to, at its own expense, keep in full force and effect during the term of the Agreement, and during the term of any extension or amendment of the Agreement, insurance reasonably sufficient to insure against the liability assumed by Contractor pursuant to the provisions of the solicitation sent by the City of Arvada or as determined by the City of Arvada Risk Manager.
- All coverage must be written with carriers holding a minimum A.M. Best rating of A-VII, and authorized to do business in Colorado. Coverage shall be primary, and any insurance held by the City of Arvada is excess and non-contributory.
- Issuance of a Purchase Order/Contract is contingent upon the receipt of the insurance documents. Work shall not commence before this requirement is met. If the Contractor fails to submit the required insurance documents within 15 calendar days after notice to submit such policies is given to the Contractor by a City representative, the Contractor may be in default of the Award.
- Except for Workers Compensation, Employer's Liability insurance, Automobile Liability and Professional Liability insurance, the City of Arvada must be endorsed as an additional insured on a Certificate of Insurance.
- The City, through its Risk Manager, reserves the right to require additional insurance coverage and other requirements.

SPECIAL CONDITIONS

City of Arvada Project No. 21-SR-02, Project Title 2021 Trenchless Sewer Main Replacement.

Conditions peculiar, but essential, to the successful performance and acceptance of the work on this project are itemized below. As such, they shall take precedence over the City of Arvada Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements.

A. GENERAL CONSIDERATIONS

- SC-A-1** **MINIMUM REQUIRED QUALIFICATIONS:** Evidence of these qualifications must be submitted.
1. Successful installation of 100,000 lineal feet or more of CIPP lining in the Front Range of Colorado in each of the last three calendar years. Front Range of Colorado is defined as Fort Collins to Pueblo.
 2. All references must be from Colorado entities. At least two references must be on projects for the proposed project manager. At least one references must be on projects for the proposed superintendent.
 3. Resumes for the proposed superintendent and project manager must be provided.
- SC-A-2** **CONTRACT TIME AND LIQUIDATED DAMAGES:** This project is to be completed, including cleanup, within 150 consecutive calendar days after the date to be specified in the Notice to Proceed, unless the contract time is adjusted by change order. The Contractor shall agree to pay to the Owner, as liquidated damages, the sum of \$2000.00 for each consecutive calendar day that the work exceeds the allotted contract time.
- SC-A-3** **MEASUREMENT AND PAYMENT:** Measurement of the work performed and payment, at the unit or lump sum price quoted in the Bid Schedule, shall be made in accordance with requirements of the Measurement and Payment Section of the Contract Documents or as hereinafter stated in the Special Conditions.
- SC-A-4** **NON CONFORMITY OF MATERIAL OR FINISHED PRODUCT:** Where materials installed or the finished product fails to meet the minimum requirements of these Contract Documents, the basis of determining final payment to the Contractor shall be determined in accordance with the current revised Section 105.03 of the Colorado Department of Transportation Standard Specifications.
- SC-A-5** **OSHA REQUIREMENTS:** Observing the rules and regulations required by the Occupational Health and Safety Administration (OSHA) is the responsibility of the Contractor on this project.
- SC-A-6** **CITY HOLIDAYS:** The Contractor, when performing work on a city holiday, Saturday, Sunday, or in excess of ten (10) hours on a weekday, in accordance with Section 27-174(b)(2) of the Code of the City of Arvada, agrees to reimburse the Owner for the inspector's time at the following rate:

First 2 hours, or fraction thereof: \$195.00

Each additional 2 hours or fraction thereof: \$195.00

Payment shall be made payable to the City of Arvada within ten days of the date of invoice from the Owner.

- SC-A-7** **MINOR CONTRACT REVISIONS:** Miscellaneous modifications in the work, ordered by the Project Engineer in the form of a field order, will be considered a minor contract revision. Payment for accepted work performed under this pay item "Minor Contract Revision" will be made in accordance with General Conditions and 2.16 and 2.17 of the Arvada Engineering Code of Standards and Specifications. If the contractor feels that a field order issued by the Engineer entitles the contractor to a change in the total contract price or time, or both, (i.e. the contractor feels that the field order involves costs over and above the amount available in the Minor Contract Revisions bid item) then the Contractor shall notify the Engineer, in writing, within 15 days after receipt of the field order. The Contractor shall not execute any such field order changes ordered by the Engineer pending the receipt of a written Change Order document executed either by the City Manager or Mayor authorizing an increase in the total contract price. Any such work completed by the contractor prior to receipt of an executed Change Order will be at the contractor's risk and be subject to removal by the contractor should a Change Order not be approved and executed by the City Manager or Mayor for such work.
- SC-A-8** **FIELD ORDERS:** An authorized representative of the contractor shall acknowledge receipt of field orders by promptly signing all written field orders delivered to the job site. Verbal field orders given by the Engineer will be recorded in writing in the municipal inspector's daily report that is to be signed by the contractor's authorized representative.
- SC-A-9** **PROJECT STATUS MEETINGS:** Project status meetings will be held as necessary for scheduling, communication, and problem solving throughout the duration of the project. Contractor shall ensure that the project manager, superintendent or foreman is present and prepared to furnish the City with the schedule of work operations at each of these meetings as requested by the Engineer throughout the project.
- SC-A-10** **CHANGE OF METHOD:** Any cost due to a change in construction method will be the responsibility of the contractor.
- SC-A-11** **INSPECTION OF PIPELINE:** The contractor is responsible for being knowledgeable of the existing pipe condition prior to submitting a bid and initiating construction. The contractor may view available video of the pipe at the City's Wastewater Shops, 5555 West 56th Avenue. Call 720-898-7770 to coordinate a viewing schedule.
- SC-A-12** **CONSTRUCTION WATER:** All construction water will be provided by the City free of charge through existing City owned fire hydrants. Contractor will be required to obtain a hydrant meter from the City Utilities division which will require a \$2,000 refundable meter deposit upon return of the meter in acceptable working condition.
- SC-A-13** **STORMWATER CONSTRUCTION PERMIT:** As a subsidiary obligation of the contract, the Contractor shall obtain a Stormwater Construction Permit from the Colorado Department of Public Health and Environment, Water Quality Control Division, Permit Enforcement Section, prior to clearing, grading, or excavating a site of one (1) acre or more. A copy of the approved permit must be submitted to the City of Arvada Engineering Division prior to the start of clearing, grading or excavating of the site. A copy of the approved permit must also be available on the project site at all times during construction. Contractor shall also obtain a Colorado state Construction Dewatering Discharge Permit from the Colorado Department of Public Health and Environment for all areas where trench dewatering is required and water is

discharged into a storm sewer, channel, irrigation ditch or any waters of the United States. A copy of the approved permit must be submitted to the Engineer prior to the start of any dewatering. A copy of the approved permit must also be available on the project site at all times during construction.

In addition, the Contractor shall be required to obtain a City of Arvada Site Development Permit from the Arvada Stormwater Utility Division. For permit requirements go to Arvada.org/services and click on Building/Development. Contractor shall implement best management practices that include inlet protection for all inlets affected by the work as well as stockpile protection in order to control runoff from stockpiles. Contractor shall also be required to perform daily street sweeping to limit tracking from the work site. Uncontrolled releases of dirt or silt from the project into drainage ways, which includes the gutter or stormwater inlets, constitutes a violation of Arvada Ordinance punishable by up to \$999 per day per incident. No additional payment will be made for obtaining a City of Arvada Site Development Permit and implementing best management practices required to prevent uncontrolled releases of dirt or silt from the project into drainage ways, which includes the gutter or stormwater inlets.

SC-A-14 **APPROVED METHODS:** All bidders on this project must construct the CIPP and any manhole rehabilitation and coating with a process that has been approved by the City Engineer prior to bid opening. All approved methods must meet the specifications in the City of Arvada *Engineering Code of Standards and Specifications* and these Special Conditions. Any proposed deviations from the specifications must be submitted in writing for approval at least seven (7) calendar days prior to the bid opening. Any and all departures from the specifications must be pointed out and shown on the material submitted.

The approval of other processes as equal to that specified will only be made in writing in the form of an Addendum issued by the City Engineer.

If an alternate process is approved, the contractor shall accept the responsibility for the performance of the installation and if it does not meet the intent or standard of the specified process/installer the City reserves the right to have the installation removed and reinstalled or corrected at the Contractor's expense.

Glass Reinforced Plastic (GRP) cured in place thermosetting resin pipe supplied and installed in accordance with ASTM F2019 that is cured with ultraviolet light will be considered an acceptable alternative process for the work on this project.

CONSTRUCTION CONSIDERATIONS

SC-B-1 **LOCATIONS AND PRIORITIES:** The City reserves the right to add, delete, or modify construction locations, priority order and portions of the work without change in the contract agreement prices, per General Condition 2.16 of the Arvada Engineering Code of Standards and Specifications.

SC-B-2 **PRE-CONSTRUCTION AND SCHEDULING:** A pre-construction meeting will be scheduled prior to the start of work. Attendance by the contractor's project manager and/or construction superintendent will be required. A construction schedule shall be submitted by the contractor to the project engineer at least three (3) days prior to the pre-construction meeting. The schedule shall be in bar chart form and shall at a minimum indicate the start and completion

dates of work at each construction location. The contractor shall also provide the City with an after-hours emergency contact phone number at the pre-construction meeting.

SC-B-3 **MINIMIZING WORK ZONE DAMAGES:** During all phases of construction including cleanup, contractor shall operate all equipment and utilize personnel so as to minimize or prevent damages to public or private property. Contractor shall limit operation of heavy equipment to safe prudent speeds and minimize operation of equipment over concrete sidewalks, curbs and gutters. Contractors shall also conduct operations to avoid dings, nicks, gouges, scrapes, etc., on streets and concrete curb, gutter and sidewalks as well as other facilities in the construction area. Should contractors' operations cause damages, contractor shall be fully responsible for repairs at no cost to the City.

All public or private property damaged during the construction process must be repaired within two weeks of street and right-of-way clean-up. Should repair items not be completed within two weeks, city may initiate and complete the repair work; deducting costs to complete the work from total contract.

SC-B-4 **LIMITATION ON CONSTRUCTION ZONE:** Unless otherwise permitted by the Engineer, installation of the CIPP shall be completed such that no more than two segments of pipe are under construction at any one time. A segment of pipe is defined as the length of pipe between two consecutive manholes. Construction shall include, but not be limited to, inversion and curing of the CIPP and/or any construction that requires sanitary sewer service interruptions.

SC-B-5 **TRAFFIC CONTROL AND STREET RESTRICTIONS:** Traffic control methods shall conform to Arvada Engineering Code of Standards and Specifications and the FHA Manual for Uniform Traffic Control Devices and Colorado Supplement thereto. When working in State Highway right-of-way, traffic control methods shall meet the requirements of the Colorado Department of Transportation (CDOT). Contractor's traffic control plan is subject to CDOT approval prior to commencing work on State Highway right-of-way. No hand painted traffic control devices will be permitted. After award of the contract and prior to the start of construction, contractor shall submit two copies of the traffic control plans for approval encompassing all locations of the project. The contractor shall modify the installation to meet requirements of the City of Arvada Traffic Department, if so required.

The contractor shall notify the Arvada Traffic Division (720-898-7740) of all closures, either partial or complete, of any public street, road, highway or alley per Section 50 of Arvada's Engineering Code of Standards and Specifications. Notification shall be made a minimum of 24 hours in advance of the actual closure; except on commercial, parkway, and collector streets, where a minimum three (3) day advance notice will be required. All streets in the project will be considered for closure to thru traffic (local traffic only allowed) except for the following:

1. Garrison Street - Collector
2. West 84th Avenue – Collector
3. Club Crest Drive - Collector
4. Pomona Drive – Collector
5. Yarrow Street (West of Pomona Drive) – Collector

6. Webster Drive – Collector
7. Vance Drive – Collector
8. West 80th Avenue – Arterial
9. Allison Way - Collector
10. Lamar Drive – Collector
11. Quay Drive – Collector
12. Chase Drive - Collector
13. West 69th Avenue – Collector
14. Allendale Drive – Arterial
15. Quail Street - Collector

The above streets are classified as arterial and collector streets. All other streets in the project are classified as local streets. Work hours shall be as outlined below.

MEASUREMENT: The traffic control shall be a lump sum item for all aspects of the traffic control plan. Payment for traffic control shall be full compensation for the traffic control and labor, equipment and materials required to implement the traffic control plan.

PAYMENT: Prorated payment of the contract amount bid for traffic control will be made monthly. The percentage paid shall be equal to the percentage of the total contract dollar amount completed that month. In no case shall payment be more than 100% of the amount bid for Traffic Control.

SC-B-6 **STREET CLOSURE RESTRICTIONS:** Lane closures in various street classifications are as follows:

ARTERIAL STREETS:	Lane closures 8:30 am – 3:30 pm only Construction activities: 8:30 am – 3:30 pm only Must maintain one lane each way at all times
COLLECTOR STREETS:	Lane closures 8:30 am – 3:30 pm only Construction activities: 7:00 am – 7:00 pm only Must maintain one lane with adequate flagging
LOCAL STREETS:	Lane closures 7:00 am – 7:00 pm only Construction activities: 7:00 am – 7:00 pm only May be closed to thru traffic unless otherwise noted (during working hours)

If contractor violates these working time limitations without prior authorization from the Engineer, Engineer may give written notice to stop work on the project at the beginning of the next day's work and work may not resume until contractor provides written explanation for the violation and assurance to the City that there will not be a reoccurrence of the violation. If subsequent working time violations occur, Engineer will notify contractor in writing that there will be a price reduction for each incidence of unauthorized violation in accordance with this specification. Price reduction will not be imposed where changed contract conditions are encountered during the specific period or the violation in question was a result of circumstances beyond contractor or subcontractor's control. The price reduction will not

constitute a penalty but will be considered a failure to perform traffic control in accordance with the contract.

An incident is any violation up to 30 minutes in duration. Each 30 minutes or increment thereof will be considered an incident. A price reduction will be assessed for each successive or cumulative 30 minute period in violation of the working time limitations, as determined by the Engineer. The price reduction for each incident will increase at a progressive rate starting with \$150 for the second incident and increasing to \$600 for the fourth and subsequent incidents in accordance with the following schedule. A 15 minute grace period will be allowed at the beginning of the second incident on the project before the price reduction is applied. The 15 minute grace period applies only to the second incident. The number of incident charges will be accumulative throughout the duration of the contract.

PRICE REDUCTION SCHEDULE

<u>INCIDENT</u>	<u>INCIDENT RATE</u>	<u>TOTAL PRICE REDUCTION</u>
1 st	Notice to Stop Work	\$0
2 nd	\$150	\$150
3 rd	\$300	\$450
4 th	\$600	\$1,050
5 th	\$600	\$1,650
6 th	\$600	\$2,250
ETC.	\$600	\$2,850
	ETC.	ETC.

SC-B-7 PROTECTION AND RESTORATION OF EXISTING LANDSCAPING: The contractor shall protect or remove and replace, all shrubs, decorative rock, sod, underground sprinklers, signs, landscaping, fences or other private or public improvements within or adjacent to the project area. Disturbed areas shall be restored to condition equal to or better than that which existed prior to construction. All sod shall be new unless approved by the municipal inspector to re-use existing sod.

If branches of trees or shrubs will be in the path of the proposed construction, as verified by the municipal inspector prior to construction, the contractor shall prune these branches under the supervision of the City Forester.

Also, if tree or shrub roots are exposed in the construction area, the contractor shall saw cut the roots within 24 hours after the roots are exposed. The contractor shall not cut the roots with the backhoe. If the roots are improperly cut or exposed longer than 24 hours, then the tree or shrub will be considered as damaged and the contractor will be responsible for replacement at his cost.

PAYMENT: No separate payment will be made for protection and/or restoration of existing sod, decorative rock, shrubs, trees, landscaping, underground sprinklers, fences, signs and other private or public improvements in the project. This work shall be considered as subsidiary to the cost of sewer main rehabilitation (CIPP).

SC-B-8 TRENCHLESS REHABILITATION: Rehabilitation of the sanitary sewer mains at the locations as shown on the Project Drawings shall be completed using a City of Arvada approved CIPP process as described in Section 25.4 of the *Engineering Code of Standards and Specifications*. Sliplining will not be allowed. Glass Reinforced Plastic (GRP) cured in place thermosetting resin pipe supplied and installed in accordance with ASTM F2019 that is cured with ultraviolet light will be considered an acceptable alternative process for the work on this project.

Costs for this work shall include cleaning any existing root intrusion or other dirt or debris inside the pipe prior to the installation of the CIPP. All 8" felt CIPP liner shall be minimum 0.21" wall thickness or in accordance with ASTM F1216, Appendix X.1, whichever results in a greater wall thickness. The minimum Modulus of Elasticity of the felt CIPP liner per ASTM F1216 shall be 250,000 psi. CIPP shall be designed assuming no bonding to the original pipe wall. All CIPP shall be designed assuming a fully deteriorated condition of the existing pipe.

For UV cured glass reinforced plastic liner only:

All UV cured-in-place glass reinforced plastic lining products shall comply with ASTM F2019 or intent thereof as determined by the Engineer, minimum finished liner thickness 3 mm and maximum of 6 mm up to 15 inch diameter (M liner). Wall thicknesses shall be a minimum of 3 mm to a maximum of 10 mm from 18 inch to 33 inch diameter (S liner) (except for services).

The Contractor shall furnish a general purpose, polyester or vinyl ester UV Curing resin and catalyst system compatible with the Ultra Violet Light Curing process that provides cured physical strengths specified herein.

Liner material shall be manufactured with resins pre impregnated within the liner to eliminate the possibility of air bubbles and voids.

The reconstruction tube will be vacuum impregnated with UV Curing Resins in the manufacturing facility prior to installation. The Contractor shall allow the Owner to inspect the materials before installation.

The Pre Impregnated UV Light Fiberglass Liner shall be inserted through the existing manhole or other approved access by means of a pull in place process by means of a winch in which will fully extend it to the next designated manhole or termination point. The Fiberglass Liner shall be inflated in place slightly with air to the manufacturer's specification for installing the UV Chain. The Ultra Violet Light Chain, with built in safety air loss shut off sensors, as provided by the ProKasro UV light chain, Shall then be installed into the liner and the gates are then to be closed. The Fiberglass liner will then be inspected with a camera mounted on the UV Chain as it is pulled to the end of the liner. After inspection and complete inflation to manufacturer's specifications, the UV light bulbs will be turned on. The curing will commence at a rate specified by the manufacturer according to the total dimensions of the size of the liner.

As the liner is curing the UV Curing System shall record all curing data in DVD format for the viewing of the City.

Initial cure shall be deemed to be complete when the UV Chain arrives at the initial entry point of insertion.

The Contractor shall apply a hydrophilic seal at the terminus of each segment. The seal shall be of a material compatible with the CIPP material.

SC-B-9 DEWATERING AND BYPASSING SEWAGE: The contractor shall furnish and set up all equipment, labor and materials to properly handle and divert sewage flow for the purpose of sewer main rehabilitation. The pumps and bypass lines shall be of adequate capacity and size to handle all flows. The contractor shall handle all sewage necessary to bypass or otherwise cause sewage flow to be harmless to the work and adjoining public and private property. Raw sewage shall not be allowed to contaminate groundwater. The contractor shall provide all energy required for power equipment; temporary installation of bypass pipes under the pavement of cross streets as may be required for traffic; repaving of cross streets after removal of temporary bypass pipes; and all other related labor, equipment and materials required to bypass sewage until completion of the sewer rehabilitation and manhole replacement process in accordance with these specifications and bid documents.

Bypassed sewage shall only be discharged into a downstream sanitary sewer manhole.

Diversion of sewage or groundwater by means of diesel or gasoline pumps will only be allowed during daylight hours. No pumps, except City approved electrical pumps are to be operated at night.

If sewage backup occurs and enters residences or buildings, the Contractor shall be responsible for clean-up, repair, property damage, cost and claims.

If trench dewatering is required to rehabilitate the sewer main, a Colorado State Construction Dewatering Discharge Permit will be required if water is discharged into a storm sewer, channel, irrigation ditch or any waters of the United States. Contractor shall be responsible for obtaining a dewatering permit from Colorado Department of Health (CDOH) if required by CDOH before construction begins.

MEASUREMENT AND PAYMENT: No separate measurement or payment will be made for dewatering, bypassing sewage or obtaining a state Construction Dewatering Discharge Permit. This shall be considered subsidiary to the cost of sewer main rehabilitation and shall not be a separate pay item.

SC-B-10 TRENCHLESS POINT REPAIRS: The measurement for payment of this item will be the actual number of trenchless point repairs required in locations where the existing pipe is fully deteriorated, damaged or blocked and where rehabilitation by installation of the CIPP cannot be completed without first performing a trenchless point repair. Only those sections authorized by the Engineer shall be repaired and measured for payment.

Prior to starting this work, contractor shall submit in writing the exact method he proposes to employ. Such submittal shall be approved by the Engineer prior to commencement of this item of work. In addition, samples of materials for this item may be required to be submitted

for approval by the Engineer prior to starting this work. The contractor shall have previously employed the method he intends to use or a similar method of trenchless point repair and provide documentation of previous successful repair installations.

MEASUREMENT AND PAYMENT: The unit price bid for each trenchless point repair shall include, but not be limited to, inspection of the fully deteriorated pipe by means of closed circuit television, removal of all foreign material from the sewer pipe wall, remote expansion and restoration of the existing deformed pipe to its original circular shape and diameter, installation of a supporting sleeve or other structural means to maintain roundness of the pipe and all other related labor, equipment and materials required to complete this item in accordance with these specifications and bid documents.

If it is deemed necessary by the Engineer that a manhole or other structure should be repaired, removed or replaced, a cost will be negotiated for the repair or removal and replacement and a field or change order will be issued.

SC-B-11 OPEN CUT POINT REPAIRS: The measurement for payment of this item will be the actual number of point repairs required in locations where the existing pipe is fully deteriorated, damaged or blocked and where rehabilitation by installation of CIPP cannot be completed. Each point repair shall be measured on the basis of a maximum installation of 10 feet of pipe. Pipe installed in excess of this amount shall be prorated to compensate for the extra length of pipe. Only those sections authorized by the Engineer shall be open cut repaired and measured for payment.

MEASUREMENT AND PAYMENT: The unit price bid for each open cut point repair shall include, but not be limited to, excavation, removal of existing features including concrete, curb, gutter, sidewalk, fences, landscaping, asphalt paving, removal and disposal of the existing damaged pipe, utility relocations, replacement and installation of pipe using SDR 35 PVC and appropriate couplers, pipe bedding, backfill, select backfill, replacement of asphalt paving, pavement striping and markings, concrete, curb, gutter, sidewalk, landscaping, fences or other features that are removed or damaged by this construction, and all other related labor, equipment and materials required to complete this item in accordance with these specifications and bid documents.

SC-B-12 CURED IN PLACE PIPE (CIPP): The unit price bid per linear foot for this item shall include, but not be limited to, furnishing and setting up all equipment, labor and materials necessary for the construction process; furnish water and energy required for the pipe process; furnish and apply thermal setting resin and impregnating the CIPP pipe material; curing and trimming; testing and laboratory costs; inspection of pipelines and videotaping (before and after CIPP installation) and sewer line cleaning as referenced in other sections of these specifications; and all other related and necessary labor, equipment and materials required to complete this item in accordance with these specifications, the City of Arvada *Engineering Code of Standards and Specifications* and these bid documents.

SC-B-13 INSPECTION AND TESTING: CIPP samples shall be prepared and physical properties tested in accordance with ASTM F1216 or ASTM F1743, Section 8, using either method proposed. The flexural properties must meet or exceed the values listed in Table 1 of the applicable ASTM standard.

Wall thickness of samples shall be determined as described in Paragraph 8.1.6 of ASTM F1743. The minimum wall thickness at any point shall not be less than 95% of the minimum design wall thickness as calculated in paragraph 5.6 of ASTM F1743.

If the deviation in thickness of the finished CIPP is less than 5%, no adjustment in payment will be made. If the deviation in thickness is measured to be between 5% and 10%, a 10% reduction in the CIPP unit cost will be applied. If the deviation in thickness is greater than 10% the entire run will be rejected and the line segment shall either be relined or replaced at the contractor's cost at the discretion of the Engineer.

SC-B-14 SEWER LINE CLEANING: No separate measurement or payment shall be made for sewer line cleaning of lines to be rehabilitated using trenchless technology but shall be considered a part of the unit price bid per linear foot of CIPP installed.

Sewer line cleaning shall include, but not be limited to, furnishing and setting up all the equipment and labor necessary to clean the sewer to be rehabilitated; to furnish water for jetting; furnish energy required for derooting equipment; and other power cleaning machines' removal of all foreign material from the sewer pipe walls that will prevent the proper installation of the CIPP; transporting sediment for proper disposal; payment of any and all landfill fees; and all other related labor, equipment and materials required to complete this item in accordance with these specifications and bid documents. If hazardous materials are encountered during the sewer line cleaning and testing, a cost will be negotiated for handling of these materials, and a field order or change order will be issued.

SC-B-15 INSPECTION OF PIPE LINES AND VIDEOTAPING: No separate measurement or payment shall be made for pre and post construction inspection and videotaping of pipelines to be restored using trenchless technology but shall be considered a part of the unit price bid per lineal foot of CIPP installed. Post construction videos shall be submitted weekly showing the segments completed the previous week.

Inspection of pipelines and videotaping both prior to and after installation of the CIPP shall include, but not be limited to, furnishing and setting up all equipment and labor necessary to inspect the sewer to be rehabilitated by closed circuit television, record on video tape the TV inspections; determine, identify and locate live sewer taps; determine extended sewer taps that require trimming; locate and identify structural deficient pipe sections that may be considered for point repairs; supply energy required for all equipment and all other related labor, equipment and materials required to complete this item in accordance with these specifications and bid documents. The video camera rate of travel shall not exceed 30 feet per minute.

SC-B-16 PROTRUDING TAPS: The measurement and payment of this item will be the actual number of existing sanitary sewer service taps that are protruding in the existing sanitary sewer main and require cutting in order to properly install the CIPP. These taps shall be verified by the Engineer by inspection of the video tape prior to cutting.

The unit price bid shall include, but not be limited to, furnishing and setting up all equipment, labor and materials necessary for locating the existing protruding sanitary sewer service taps,

cutting the protruding tap, removal and disposal of all debris, and all other related and necessary labor, equipment and materials required to complete this item in accordance with these specifications and bid documents.

SC-B-17 SEWER SERVICE RECONNECTIONS: The measurement and payment of this item will be the actual number of sanitary sewer service taps to be cut and reactivated as determined to be active per the video tape inspection.

The unit price bid shall include, but not be limited to, furnishing and setting up all equipment, labor and materials necessary for locating and reactivating existing active sanitary services, cutting the CIPP to reactivate the sewer service connections, removal and disposal of all debris and all other related and necessary labor, equipment and materials required to complete this item in accordance with these specifications and bid documents.

No service connection shall remain out of service for more than 12 hours at a time unless the contractor, at his expense, has provided temporary facilities or hotel accommodations for the affected citizens.

In no event shall the contractor cut and reactivate a dry service tap unless receiving prior approval by the Engineer. It will be the responsibility of the contractor, by dye test or whatever other means he deems appropriate, to determine if the service tap is active or not. Such determination shall be considered subsidiary to this item of work and no separate payment shall be made.

Any damage to the liner or lateral while reinstating services will be repaired by a hat or injection sealing method, no grouting will be allowed and no separate payment shall be made for such repair.

SC-B-18 ACCESS TO MANHOLES: Under certain circumstances, it may be necessary for the contractor to remove and replace obstructions in order to gain access to a manhole. Prior to any construction, the contractor shall be responsible for discussing and obtaining permission from the appropriate property owners for gaining access to a manhole and for any obstruction removals and replacements that may be necessary on the property. Obstruction removals and replacements may include, but not be limited to, removing and replacing landscaping, sod, decorative rock and fences. The contractor shall replace an obstruction to existing or better conditions, unless otherwise approved by the property owner, in writing. Costs for gaining access to manholes and removing and replacing any obstructions shall be considered a subsidiary obligation of the contract and no separate payment shall be made.

B. OBLIGATIONS TO PUBLIC

SC-C-1 DRIVEWAY ACCESS: Contractor shall coordinate the work and minimize inconveniences to citizens and affected property owners. Residents shall be notified by the contractor 24 hours prior to the time that access must be denied to their driveway or when driveway will be blocked for any period of time. Residents shall be provided access to their driveways between 5:00 pm and 7:30 am, and at all times on weekends or holidays or when work is not occurring.

SC-C-2 **SERVICE INTERRUPTION:** The contractor shall notify all parties that will be affected, a minimum of twenty-four (24) hours prior to the time he will disconnect or interrupt known sewer or water service or immediately upon the interruption of a service not shown on the plans. All services interrupted or damaged shall be immediately repaired and service restored. No services shall be left inoperative overnight.

The City of Arvada Utilities Division will operate all existing water valves, hydrants, blowoffs, and curb stops. No valve or other control on the existing water system shall be operated for any purpose by the contractor. The contractor shall advise all water customers prior to interrupting flows, so they may make provisions to store sufficient water for their interim needs. Service termination periods shall not exceed four (4) hours. Interruption of water service shall be limited to the hours between 8:30 am and 3:00 pm unless prior approval is received from the Engineer.

SC-C-3 **NOTIFICATION OF ADJACENT PROPERTY OWNERS AND MANAGERS:** The contractor shall notify property managers, owners, tenants, or responsible parties that work or dwell in buildings adjacent to the construction site, in writing, not less than seven days prior to construction of the impending construction activity.

The contractor shall prepare a written notification describing the method, location and likely duration of construction. It shall also include both a phone number where a representative of the contractor can be reached during normal business hours and the name and telephone number of City's project engineer and municipal inspector. The written notice shall be approved by the project engineer prior to distribution. Distribution shall be coordinated with the City's municipal inspector.

Contractor shall also provide written notification to residents 24 hours prior to the start of construction on each street and also notify residents once individual sewer service laterals are reinstated. The contractor shall also notify residents as necessary should the construction schedule change due to unforeseen circumstances.

PAYMENT: Prorated payment of the contract amount bid for citizen notification will be made monthly. The percentage paid shall be equal to the percentage of total contract dollar amount completed that month. In no case will payment be more than 100% of the amount bid for Citizen Notification.

BID BOND

We, the undersigned _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto the City of Arvada, Colorado, in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

THE CONDITION of this obligation is such that whereas the Principal has submitted to the City of Arvada, Colorado the accompanying Bid Proposal, and hereby made a part hereof to enter into a Contract Agreement for the construction of City of Arvada Project No. 21-SR-02, 2021 Trenchless Sanitary Sewer Main Replacement.

WHEREAS, the City, as a condition for receiving said Bid Proposal, requires the Principal to deposit with the City a Bid Proposal Guaranty, equivalent to not less than 5 Percent of the amount of said Bid Proposal.

NOW THEREFORE,

- (A) If said Bid Proposal shall be rejected; or in the alternate,
- (B) If said Bid Proposal shall be accepted and the Principal shall execute and deliver a Contract Agreement (properly completed in accordance with said Bid Proposal) and shall furnish a Performance and Payment Bond upon the forms prescribed by the City for the faithful performance of said Contract; and for the payment of all persons performing labor or furnishing materials in connection therewith; and shall in all other respects perform the agreement created by the acceptance of said Bid Proposal;

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the City may accept such Bid and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, this _____ day of _____, 2021, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

PRINCIPAL

Name: _____

Address: _____

By: _____

Title: _____

SURETY

_____.

_____.

By: _____.

Title: _____.

Attorney-in-Fact:

(SEAL)

NOTE: Surety Companies executing bonds must be authorized to transact business in the State of Colorado and be acceptable to the City.

BID PROPOSAL

TO: City of Arvada, Colorado (hereinafter called "CITY").

FROM: _____ (hereinafter called "BIDDER"), organized and existing under the laws of the State of _____ doing business as (a corporation), (a partnership), (an individual).

The Bidder, in compliance with your Advertisement for Bids, hereby proposes to perform all Work in strict accordance with the Contract Documents, for the construction of City of Arvada Project No. **21-SR-02** entitled **2021 Trenchless Sewer Main Replacement** within the time set forth therein, and at the prices stated on the included Bid Schedule as totaled herein.

By submission of this Bid Proposal, each Bidder certifies, and in the case of a joint venture each party thereto certifies as to his/her own organization, that this Bid Proposal has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid Proposal with any other Bidder or with any competitor.

Bidder acknowledges receipt of **Addendum Nos.** Initials: _____

Bidder states that his:

Major Material Suppliers are:

Material They Will Supply

Major Subcontractors are:

Work They Will Perform

CONTRACT TIME AND LIQUIDATED DAMAGES: All work shall be completed, including clean-up, within **150** working days after the date to be specified in the Notice to Proceed. A Notice to Proceed is anticipated to be issued on or about October 1, 2021. The bidder shall agree to pay the owner the sum of \$2,000 for each calendar day that the work exceeds the allotted contract time. Contract time may be adjusted by Change Order.

Total from included Bid Schedule:

TOTAL BID \$ _____

SUBMITTED BY:

Company Name: _____

Contact Names: _____

Address: _____

Phone: (_____) _____ Email(s): _____

The undersigned hereby affirms that:

- He/she is a duly authorized agent of the Contractor;
- He/she has read all Terms and Conditions and technical specifications made available in conjunction with this solicitation and fully accept and acknowledge this bid is consistent with the specifications and terms and conditions.
- The bid is in all respects fair, without outside collusion or otherwise illegal action.

By: _____
Signature of Authorized Agent Date FEIN

Typed/Printed Name of Agent Title of Agent Agent email

PAYMENT TERMS: The City standard is net thirty (30) days but every effort is made to meet net fifteen (15) days after the approved partial payment date when the contractor is satisfactorily performing the contract. The final 5% of total payment will be paid once the contract is completed satisfactorily, advertisement for final settlement is complete, and the project is accepted by the City. Payment is the date of the check mailing or date of the credit card transaction.

2021 Trenchless Sewer Main Replacement

Project No. 21-SR-02



Bid Schedule

Contractor: _____

Address, City, Zip: _____

Telephone: _____ Bid Prepared By: _____

M&P	ITEM	TOTAL Quantity	Unit	Unit Cost	Extension
PIPE					
1 SC-B-8	CIPP for 6" VCP	641.00	LF		\$0.00
SC-B-12	Sanitary Sewer Main				
2 SC-B-8	CIPP for 8" VCP	38,366.00	LF		\$0.00
SC-B-12	Sanitary Sewer Main				
3 SC-B-8	CIPP for 15" VCP	2,779.00	LF		\$0.00
SC-B-12	Sanitary Sewer Main				
4 SC-B-8	CIPP for 18" RCP Storm Drainage Pipe	35.00	LF		\$0.00
SC-B-12	Stormwater Drainage				
INCIDENTALS					
4 SC-B-10	Trenchless Point Repair	2.00	EA		\$0.00
5 SC-B-11	Open Cut Point Repair	2.00	EA		\$0.00
6 SC-B-16	Protruding Taps	5.00	EA		\$0.00
7 SC-B-17	Sewer Service Reconnections	761.00	EA		\$0.00
PRORATA					
8 SC-C-2,3	Citizen Notification	1.00	LS		\$0.00
9 3. 46	Traffic Control	1.00	LS		\$0.00
SC-B-5					
10 3.49	Mobilization	1.00	LS		\$0.00
REVISIONS, ADDITIONS					
11 SC-A-7	Minor Contract Revisions	40,000.00	EA	\$1.00	\$40,000.00

TOTAL BID \$ _____

REQUIRED CONTRACTOR SUBMITTAL FORM

SUBMITTAL CHECKLIST:

Proposals shall be submitted in the order listed below with each section clearly identified.

- └ Submit completed City Submittal Forms including this sheet, Bid Bond, Bid Proposal, Bid Schedule, and any other attachments requested.
- └ Submit implementation timeline and warranties, if applicable.
- └ Attach Contractor's Licensing, if applicable.
- └ Insurance – Checking this box accepts that the insurance requirements listed by the City are acceptable.
- └ Evidence of Minimum Contractor qualifications (see **SC-A-1** of Special provisions)
- └ Please initial to acknowledge Addenda, if any, have been considered in your proposal:

#1 _____ #2 _____

REFERENCES:

- └ Check here if Contractor's standard reference sheet is attached, otherwise, use the space below.

Name: _____ Contact Person: _____

Address: _____

Telephone No: _____ Email: _____

Describe type of work/service performed or items supplied: _____

Name: _____ Contact Person: _____

Address: _____

Telephone No: _____ Email: _____

Describe type of work/service performed or items supplied: _____

Name: _____ Contact Person: _____

Address: _____

Telephone No: _____ Email: _____

Describe type of work/service performed or items supplied: _____

PERFORMANCE AND PAYMENT BOND

Bond No. _____

(Firm) _____

(Address) _____

(an Individual), (a Partnership), (a Corporation), hereinafter called Principal; and

(Firm) _____

(Address) _____

hereinafter called Surety, are held and firmly bound unto the City of Arvada, a Colorado municipal corporation, 8101 Ralston Road, Arvada, Colorado 80002, hereinafter called the City, in the penal sum of _____, Dollars, _____, in lawful money of the United States, for the payment of such sum will and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION are such that the Principal entered into a certain Contract with the City, dated the _____ day of _____, 2021, a copy of which is hereto attached and made a part hereof, for the performance of City of Arvada Project No.'s 21-SR-02, 2021 Trenchless Sewer Main Replacement.

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the City, with or without Notice to the surety and during the life of the guaranty period, and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the City from all cost and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the City all outlay and expense which the City may incur in making good any default, and if he shall promptly make payment to all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, repairs on machinery, equipment and tools, consumed, rented or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in anyway affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between City and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three counterparts, each one of which shall be deemed an original, this the _____ day of _____, 2021.

IN PRESENCE OF:

PRINCIPAL _____

By _____

Address _____

(Corporate Seal)

OTHER PARTNERS

(Surety Seal)

SURETY _____

Attorney _____ in _____ Fact _____

Address _____

Note: If Contractor is Partnership, all partners should execute Bond.

Important: Surety Company must be authorized to transact business in the State of Colorado and be acceptable to the City.

NOTICE OF AWARD

Date

Company
Address
City, State Zip

RE: Project No. 21-SR-02, 2021 Trenchless Sewer Main Replacement

Dear Representative of _____:

The City of Arvada, Colorado (hereinafter called "City") has considered the Bid Proposals submitted for referenced work in response to its Advertisement for Bids dated _____ and Information for Bidders.

You are hereby notified that your Bid Proposal has been accepted, for items and prices stated in the Bid Schedule, in the amount of \$ _____.

You are required to execute the Contract, the Insurance Certificates and a Performance and Payment Bond within seven (7) days from the date of this Notice to you.

The Performance and Payment Bond needs to be filled out, returned (one original must be returned to the City), and accompanied by the Power of Attorney from your surety company. Also, please make sure that the insurance certificate is in the minimum amounts set forth in the Contract Documents and the City of Arvada is named as an additional insured for the specific Project Number and Title. An Additional Insured endorsement certificate should also be attached.

If you fail to execute said Contract and furnish the necessary Insurance Certificates and Bond within the time allotted from this date, the City will be entitled to consider all your rights arising out of the City's acceptance of your Bid Proposal as abandoned and as a forfeiture of your Bid Bond. The City will be entitled to such other rights as may be granted bylaw.

You are required to return an acknowledged copy of this Notice of Award and enclosures to the Project Engineer.

CITY OF ARVADA, COLORADO

City Engineer

BIDDER

Company

Receipt of above Notice of Award accompanied with a Performance and Payment Bond form and a copy of the Contract is hereby acknowledged.

This _____ day of _____, 20____.

By: _____

Name: _____

Title: _____

NOTICE TO PROCEED

Date

Company
Address
City, State Zip

RE: Project No. 21-SR-02, 2021 Trenchless Sewer Main Replacement

Dear Representative of _____:

You are hereby notified to commence work on referenced Project, in accordance with the Contract dated _____
on or before _____, and you are to complete the Work, including cleanup within 150 calendar days thereafter.

The date of completion of all Work is therefore _____.

CITY OF ARVADA, COLORADO

City Engineer

BIDDER

Receipt of this Notice to Proceed is hereby acknowledged this _____ day of ____, 20 ____.

Company

By: _____

Title: _____

**AN AGREEMENT BY AND BETWEEN THE CITY OF ARVADA AND

FOR _____
IN AN AMOUNT NOT TO EXCEED \$_____.00**

This Agreement made this _____ day of _____, 20____ by and between the City of Arvada, a home rule municipal corporation (“Arvada” and/or “City”) and _____, a _____ (“Contractor”).

WITNESSETH: That for and in consideration of the covenants, promises, and payments hereinafter mentioned:

1. Contractor will commence and complete the _____ described in the Contract Documents relating to CSB-_____, issued _____, 20 , (“the Work”).
2. Contractor will furnish all material, supplies, tools, equipment, labor, and other services necessary for the completion of the Work.
3. Contractor will commence the work required by the Contract Documents within ten (10) calendar days after the date of Notice to Proceed.
4. Contractor will complete the work required by the Contract Documents by _____ after the date of the Notice to Proceed unless the period for completion is extended otherwise by the Contract Documents.
5. Contractor agrees to perform all of the work described in the Contract Documents for an amount not to exceed \$_____.00 for the Work.
6. The term “Contract Documents” means and includes the following:
 - A. Arvada’s Request for [Project Title], CSB-_____ (“CSB”);
 - B. CSB Exhibits (if any);
 - C. CSB Addenda (if any);
 - D. Contractor’s Response to CSB-_____, Advertisement for Bid, Bid Proposal, Bid Schedule, Bid Bond, Certificate of Insurance;
 - E. Notice of Award;
 - F. Performance and Payment Bond;
 - G. Notice to Proceed;
 - H. Change Orders (if any);
 - I. City of Arvada Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements;
 - J. Project special provisions prepared or issued by City of Arvada (or its Consultant if applicable);
 - K. Detail drawings and Bid Documents prepared or issued by City of Arvada (or its Consultant if applicable);
 - L. Specification Illustrations and attachments; and
 - M. All supplementary requirements regarding wage rates, E.E.O., affirmative action and all other Federal-State requirements as outlined in the specifications.
7. INVOICES AND COMPENSATION. Contractor will follow Bid schedule and partial payments will be made accordingly NET 15 but no later than NET 30.

8. GENERAL TERMS AND CONDITIONS, SPECIAL TERMS AND CONDITIONS, INSURANCE REQUIREMENTS, PROJECT SPECIAL PROVISIONS, AND OTHER CSB REQUIREMENTS. Contractor affirms that it has read and is familiar with the Contract Documents, including but not limited to the General Terms and Conditions, Special Terms and Conditions, Insurance Requirements, Project Special Provisions, and other CSB requirements, and agrees to be bound by those terms and conditions.

9. CHANGE ORDERS. Contractor shall perform the Work as described in the Contract Documents or as amended by the mutual consent of the parties in writing. Should the parties agree in writing to a change in the scope of services, then the parties will timely execute any applicable Change Order, which will address changes in scope of services, completion date, contract amount, any applicable material modifications, and any other matters that the parties deem necessary.

10. PREFERENCES IN EMPLOYMENT OF COLORADO LABOR. To the extent that obligations and responsibilities may be established by C.R.S. § 8-17-101 *et seq.*, as amended, with respect to certain public entities and those contracting therewith as to the procurement of services:

- a. Colorado labor shall be employed to perform eighty percent (80%) of the work.
- b. Any waiver of this requirement must comply with C.R.S. § 8-17-101 *et seq.*, as amended.

11. PERFORMANCE MEASURES. The Performance Measures for this Agreement shall be those outlined by Arvada in Section 21 of Special Terms and Conditions for Bidders in the CSB, which are included in the Contract Documents that are exhibits to this agreement.

12. ADDITIONAL DOCUMENTS OR ACTION. The parties agree to execute any additional documents and to take any additional action that is necessary to carry out this Agreement.

13. BINDING EFFECT. This Agreement shall inure to the benefit of, and be binding upon, the parties, their respective legal representatives, successors, heirs, and assigns; provided, however, that nothing in this paragraph shall be construed to permit the assignment of this Agreement except as otherwise expressly authorized herein.

14. PARAGRAPH CAPTIONS. The paragraph captions in this Agreement are set forth only for the convenience and reference of the parties and are not intended in any way to define, limit, or describe the scope or intent of this Agreement.

15. INTEGRATION, AMENDMENT, AND SEVERABILITY. This Agreement represents the entire agreement between the parties, and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect if the essential terms and conditions of this Agreement for both parties remain valid, legal, and enforceable.

16. NOTICES. Any notice or notification required or permitted by the Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the signature page below, or at such other address as has been previously

furnished in writing, to the other party or parties. Such notice or notification shall be deemed to have been given when deposited in the United States mail.

17. **BINDING AUTHORITY.** Contractor represents and affirms that the signature page hereof accurately states the full legal name of Contractor (whether as a corporation, partnership, limited liability company, sole proprietorship, or other), contains all requisite signature(s) on behalf of Contractor, has been properly acknowledged by attestation, notary acknowledgment, or both, and in all other respects is effective to bind Contractor, in accordance with all applicable statutes, regulations, resolutions, rules, bylaws, agreements, or similar sources of authority or limitation. This Agreement may be executed in counterpart(s), each of which shall be deemed to be an original, and all of which, taken together, shall constitute one instrument.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement which shall be deemed an original on the date first above written.

CITY OF ARVADA, COLORADO

8101 Ralston Road
Arvada, CO 80002

ATTEST/WITNESS:

City Clerk

APPROVED AS TO FORM:

For Rachael Morris, City Attorney

By: _____

CONTRACTOR

Name:
Title:

CHANGE ORDER

No. _____

TO:

Upon Contractor acceptance and City approval, the work and Contract Documents for City of Arvada, Project No. _____, entitled _____ will be adjusted to include the following:

<u>Item</u>	<u>Description</u> <u>ADD</u>	<u>Qty.</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Add/Delete</u>
--------------------	--	--------------------	--------------------	-------------------------	--------------------------

- 1.
- 2.
- 3.
- 4.

TOTAL ADD

\$

Adjustments to Contract Price & Time

Contract
Dollars

Calendar
Days

Contract Totals through and including

\$

Previous Change Orders

Adjustments this Change Order

\$

(Increase)

Contract Totals to Date – Including

Change Order No. _____

\$

Contract Time Expires on:

APPROVED FOR CITY

ATTEST:

8101 Ralston Road
Arvada, CO 80002

City Clerk

ACCEPTED FOR CONTRACTOR

APPROVED AS TO FORM:

For Rachael Morris, City Attorney

By: _____

Title: _____

Date: _____

By: _____

EXHIBIT B

CSB Exhibits (if any)

EXHIBIT C

CSB Addenda (if any)

EXHIBIT D

**Contractor's Response to CSB-21-SR-02, Advertisement for
Bid, Bid Proposal, Bid Schedule, Bid Bond**

BID BOND

We, the undersigned Insituform Technologies, LLC as Principal, and Travelers Casualty and Surety Company of America as Surety, are hereby held and firmly bound unto the City of Arvada, Colorado, in the penal sum of Five Percent (5%) of the Amount Bid for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

THE CONDITION of this obligation is such that whereas the Principal has submitted to the City of Arvada, Colorado the accompanying Bid Proposal, and hereby made a part hereof to enter into a Contract Agreement for the construction of City of Arvada Project No. 21-SR-02, 2021 Trenchless Sanitary Sewer Main Replacement.

WHEREAS, the City, as a condition for receiving said Bid Proposal, requires the Principal to deposit with the City a Bid Proposal Guaranty, equivalent to not less than 5 Percent of the amount of said Bid Proposal.

NOW THEREFORE,

- (A) If said Bid Proposal shall be rejected; or in the alternate,
- (B) If said Bid Proposal shall be accepted and the Principal shall execute and deliver a Contract Agreement (properly completed in accordance with said Bid Proposal) and shall furnish a Performance and Payment Bond upon the forms prescribed by the City for the faithful performance of said Contract; and for the payment of all persons performing labor or furnishing materials in connection therewith; and shall in all other respects perform the agreement created by the acceptance of said Bid Proposal;

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the City may accept such Bid and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, this 5 day of August, 2021, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

PRINCIPAL

Name: Insituform Technologies, LLC

Address: 17988 Edison Avenue, Chesterfield, MO 63005

By: 

Title: Whitney Schulte, Contracting & Attesting Officer

SURETY

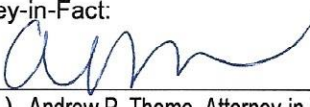
Travelers Casualty and Surety Company of America

One Tower Square, Hartford, CT 06183

By: 

Title: Andrew P. Thome, Attorney-in-Fact

Attorney-in-Fact:


(SEAL) Andrew P. Thome, Attorney-in-Fact

NOTE: Surety Companies executing bonds must be authorized to transact business in the State of Colorado and be acceptable to the City.

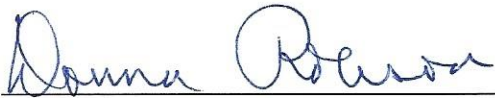
State of Missouri
County of St. Louis

On 8/05/2021, before me, a Notary Public in and for said County and State, residing herein, duly commissioned and sworn, personally appeared Andrew P. Thome known to me to be Attorney-In-Fact of

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

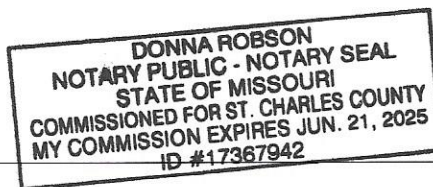
a corporation described in and that executed the within and foregoing instrument, and known to me to be the person who executed the said instrument in behalf of said corporation, and he duly acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in this certificate above.



Donna Robson, Notary Public

My Commission Expires: _____





**Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company**

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Andrew P. Thome**, of **Chesterfield, Missouri**, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **3rd** day of **February**, **2017**.



State of Connecticut

City of Hartford ss.

By: _____

Robert L. Raney
Robert L. Raney, Senior Vice President

On this the **3rd** day of **February**, **2017**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, **2021**



Marie C. Tetreault
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **05** day of **August**, **2021**



Kevin E. Hughes
Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.**

BID PROPOSAL

TO: City of Arvada, Colorado (hereinafter called "CITY").

FROM: Insituform Technologies, LLC (hereinafter called "BIDDER"), organized and existing under the laws of the State of Delaware doing business as (a corporation), (a partnership), (an individual).

The Bidder, in compliance with your Advertisement for Bids, hereby proposes to perform all Work in strict accordance with the Contract Documents, for the construction of City of Arvada Project No. **21-SR-02** entitled **2021 Trenchless Sewer Main Replacement** within the time set forth therein, and at the prices stated on the included Bid Schedule as totaled herein.

By submission of this Bid Proposal, each Bidder certifies, and in the case of a joint venture each party thereto certifies as to his/her own organization, that this Bid Proposal has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid Proposal with any other Bidder or with any competitor.

Bidder acknowledges receipt of **Addendum Nos. 1, 2** Initials: 1WS 2WS

Bidder states that his:

Major Material Suppliers are:

Insituform Technologies, LLC
AOC

Material They Will Supply

Insitutube Felt Material
Resin

Major Subcontractors are:

Guildner Pipeline Maintenance
Lucky Dog Contracting

Work They Will Perform

CCTV Clean & Pre-Video / Trenchless Point Repairs
Excavated Point Repairs

CONTRACT TIME AND LIQUIDATED DAMAGES: All work shall be completed, including clean-up, within **150** working days after the date to be specified in the Notice to Proceed. A Notice to Proceed is anticipated to be issued on or about October 1, 2021. The bidder shall agree to pay the owner the sum of \$2,000 for each calendar day that the work exceeds the allotted contract time. Contract time may be adjusted by Change Order.

Total from included Bid Schedule:

TOTAL BID \$ \$1,283,574.00

SUBMITTED BY:

Company Name: Insituform Technologies, LLC

Contact Names: Whitney Schulte, Contracting & Attesting Officer

Address: 17988 Edison Avenue, Chesterfield, MO 63005

Phone: (636) 530-8000 Email(s): WSchulte@Aegion.com

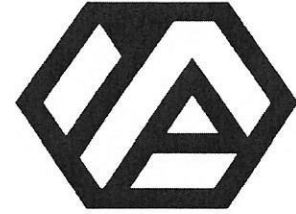
The undersigned hereby affirms that:

- He/she is a duly authorized agent of the Contractor;
- He/she has read all Terms and Conditions and technical specifications made available in conjunction with this solicitation and fully accept and acknowledge this bid is consistent with the specifications and terms and conditions.
- The bid is in all respects fair, without outside collusion or otherwise illegal action.

By: Whitney Schulte August 5, 2021 13-3032158
Signature of Authorized Agent Officer Date FEIN
Whitney Schulte Contracting & Attesting Officer WSchulte@Aegion.com
Typed/Printed Name of Agent Officer Title of Agent Officer Agent email Officer

PAYMENT TERMS: The City standard is net thirty (30) days but every effort is made to meet net fifteen (15) days after the approved partial payment date when the contractor is satisfactorily performing the contract. The final 5% of total payment will be paid once the contract is completed satisfactorily, advertisement for final settlement is complete, and the project is accepted by the City. Payment is the date of the check mailing or date of the credit card transaction.

2021 Trenchless Sewer Main Replacement
Project No. 21-SR-02



Bid Schedule

Contractor: Insituform Technologies, LLC

Address, City, Zip: 17988 Edison Avenue, Chesterfield, MO 63005

Telephone: 636-530-8000

Bid Prepared By: Whitney Schulte, Contracting & Attesting Officer

M&P	ITEM	TOTAL Quantity	Unit	Unit Cost	Extension
PIPE					
1 SC-B-8	CIPP for 6" VCP	641.00	LF	\$100.00	\$64,100.00
SC-B-12	Sanitary Sewer Main				
2 SC-B-8	CIPP for 8" VCP	38,366.00	LF	\$23.00	\$882,418.00
SC-B-12	Sanitary Sewer Main				
3 SC-B-8	CIPP for 15" VCP	2,779.00	LF	\$49.00	\$136,171.00
SC-B-12	Sanitary Sewer Main				
4 SC-B-8	CIPP for 18" RCP Storm Drainage Pipe	35.00	LF	\$481.00	\$16,835.00
SC-B-12	Stormwater Drainage				
INCIDENTALS					
4 SC-B-10	Trenchless Point Repair	2.00	EA	\$2,160.00	\$4,320.00
5 SC-B-11	Open Cut Point Repair	2.00	EA	\$10,800.00	\$21,600.00
6 SC-B-16	Protruding Taps	5.00	EA	\$211.00	\$1,055.00
7 SC-B-17	Sewer Service Reconnections	761.00	EA	\$75.00	\$57,075.00
PRORATA					
8 SC-C-2,3	Citizen Notification	1.00	LS	\$1,000.00	\$1,000.00
9 3. 46	Traffic Control	1.00	LS	\$51,500.00	\$51,500.00
SC-B-5					
10 3.49	Mobilization	1.00	LS	\$7,500.00	\$7,500.00
REVISIONS, ADDITIONS					
11 SC-A-7	Minor Contract Revisions	40,000.00	EA	\$1.00	\$40,000.00

TOTAL BID \$ \$1,283,574.00

REQUIRED CONTRACTOR SUBMITTAL FORM

SUBMITTAL CHECKLIST:

Proposals shall be submitted in the order listed below with each section clearly identified.

- ☒ Submit completed City Submittal Forms including this sheet, Bid Bond, Bid Proposal, Bid Schedule, and any other attachments requested.
- ☐ Submit implementation timeline and warranties, if applicable.
- ☐ Attach Contractor's Licensing, if applicable.
- ☒ Insurance – Checking this box accepts that the insurance requirements listed by the City are acceptable.
- ☒ Evidence of Minimum Contractor qualifications (see **SC-A-1** of Special provisions)
- ☒ Please initial to acknowledge Addenda, if any, have been considered in your proposal:

#1 WS #2 WS

REFERENCES:

- ☒ Check here if Contractor's standard reference sheet is attached, otherwise, use the space below.

Name: City and County of Denver - Globeville Improvements Contact Person: Paula Stokes, Project Manager

Address: 1437 Bannock Street, Denver, CO 80202

Telephone No: 303-446-3435 Email: Paula.stokes@denvergov.org

Describe type of work/service performed or items supplied: 66,766 LF of 6" - 18" CIPP in the Globeville

Neighborhood

Name: City & County of Denver - 2019 Preventive & Critical Contact Person: Paul Bountry, P.E. Construction Eng.

Address: 1437 Bannock Street, Denver, CO 80202

Telephone No: 303-446-3719 Email: paul.bountry@denvergov.org

Describe type of work/service performed or items supplied: 113,000 LF of 8" - 12" CIPP in the Ruby Hill

Neighborhood

Name: City of Thornton, CO Contact Person: Kristin Schwartz

Address: 12450 Washington Street, Thornton, CO 80241

Telephone No: 720-977-6208 Email: Kristin.schwartz@thorntonco.gov

Describe type of work/service performed or items supplied: Thornton Annual Term Release Project - 5 years

City budgets between \$500,000 and \$1,000,000 each year for CIPP projects. Currently working on year 2

25,000 LF of 8" CIPP

INSITUFORM TECHNOLOGIES, LLC

**PRESIDENT APPOINTMENT OF
CONTRACTING AND ATTESTING OFFICERS**

The undersigned, being the President of Insituform Technologies, LLC, a Delaware Limited Liability Company (the "Company"), and pursuant to the authority set forth in the Limited Liability Company Operating Agreement of the Company, hereby determines that:

1. Christlanda Adkins, Gina Gurrieri, Janet Hass, Jana Lause, Diane Partridge, Whitney Schulte, and Ursula Youngblood are appointed as Contracting and Attesting Officers of the Company, each with the authority, individually and in the absence of the others, subject to the control of the Board of Managers of the Company, to: (i) certify and attest to the signature of any officer of the Company; (ii) enter into and bind the Company to perform pipeline rehabilitation activities of the Company and all matters related thereto, including the maintenance of one or more offices and facilities of the Company; (iii) execute and to deliver documents on behalf of the Company; and (iv) take such other action as is or may be necessary and appropriate to carry out the project, activities and work of the Company.
2. Any person previously appointed or serving as a Contracting and Attesting Officer of the Company prior to the date hereof and who is not named above is hereby removed from any such appointment.

Dated: March 6, 2020



Ralph E. Western
President

Education:

US Military Academy, West Point NY
BS, 2002

Colorado State University, MBA 2015

Years of Industry Experience:

- 12 Years

Years of Similar Project Experience:

- 15 Years

Certifications:

- OSHA 10
- First Aid/CPR
- Respiratory Protection

Contact:

Eric Huss
9654 Titan Court
Littleton, CO 80125
303-512-3523
Ehuss@aegion.com

OVERVIEW

Eric Huss has 12 years of field and operational experience with cured in place (CIPP) installations at Insituform Technologies. His operational experience includes specializing in {small/medium/large} diameter Over-the-Hole (OTH) wetout and installation applications. Eric has served as Project Manager since June 2009

His specific duties and responsibilities include:

- Develop construction cost and work plan at pre-bid environment
- Plans, direct and manages all activities of assigned CIPP project for customer satisfaction, safety, quality, production, revenue and profit. Responsible for the project management system and tools from the time a project is acquired throughout the final payment of closed projects.
- Oversees four Field Engineers and one Construction Manager
- Schedules projects and coordinates with clients and other affected departments.
- Schedules and coordinates subcontractors
- Attends/organizes pre-bid, pre-construction, site specific, project progress, and closeout meetings
- Prepares and submits monthly billings and customer invoices
- Scheduling of projects and backlog management for Rocky Mountain Region

HIGHLIGHTS OF RELATED PROJECT EXPERIENCE

Denver Metro Wastewater Par 1332 #170990

8,261 LF 78", 890 LF 60" 574 LF 24", 844 LF 8" with slip lining of 90" and 72" and Over the Hole Wet-Out Installation

City and County of Denver Globeville Improvements 2018 #179052

66,766 LF 6" - 18" CIPP

Denver 2019 Preventative & Critical Lining (Ruby Hill) #170975

113,000 LF 8" – 12" CIPP

City of Arvada Term Project 2018 #177941

70,508 LF 8" – 30" CIPP

OVERVIEW

Years of Industry Experience:

- 15 Years

Years of Similar Project Experience:

- 15 Years

Certifications:

- OSHA 10
- First Aid / CPR
- Confined Space Air Monitoring
- DOT
- Class A CDL License
- Forklift
- Trenching / Shoring
- Respiratory Protection
- Scaffolding
- PACP Certified

Contact:

Joe Sanchez
9654 Titan Court
Littleton, CO 80125
303-242-4900
Jsanchez971@aegion.com

Joe has 15 years of field and operational experience with cured in place (CIPP) installations at Insituform Technologies. His operational experience includes specializing in {small/medium/large} diameter Over-the-Hole (OTH) wetout and installation applications. Prior to becoming a Superintendent, Joe performed the roles of CCTV Van Operator and Foreman

His specific duties and responsibilities include:

- Responsible for crew of six to seven field personnel
- Oversees and provides support for all CIPP installations of specific project
- Public Relations
- Record keeping of all field documents, including wet-out /cure reports and payroll
- Operation and maintenance of equipment used for CIPP installation
- Mobilization/demobilization for field crew
- Material orders and shipping coordination

HIGHLIGHTS OF RELATED PROJECT

City and County of Denver Globeville 2018

66,766 LF of 6", 8", 10", 12", 18" with 3,000 Service laterals

City of Denver 2019 Preventive & Critical Lining (Ruby Hill)

113,000 LF 8", 10", and 12"

City of Arvada, CO 2019 Trenchless Sewer Main Project

35,587 LF of 8", 10", 12", and 15" CIPP

Contract Qualification Closed Projects (2013 - Present) - Parameter Summary

Company Code:	00170	
Region:		
Owner State:		
Project Material Family:		
Project Manager:		
Project Number:		
Role:		
Value Range:	Start	End
Project Value (\$)		
Bid Proposal Date:		
Project Closed Date:	01-01-2018	08-03-2021
Diameter:		
Linear Feet:		

Contract Qualification Closed Projects (2013 - Present) - Summary

	AIS	ILS	OLY	PPL	SIT	SR	STD	UVG	Total	SR's (laps)
6	10,809	5,686	0	0	0	0	190	0	16,685	13,833
8	223,283	376,167	0	3,434	0	0	19,652	2,541	625,077	
10	51,562	443	0	0	100	0	517	0	52,622	
12	39,897	352	0	0	0	0	1,068	0	41,317	
15	27,998	0	0	0	0	0	415	0	28,413	
16	0	0	0	0	0	0	405	0	405	
18	14,198	0	0	0	0	0	0	0	14,198	
21	11,993	0	0	0	0	0	3,527	0	15,520	
24	6,892	0	0	0	0	0	849	0	7,741	
27	370	0	0	0	0	0	0	0	370	
30	9,918	0	0	0	0	0	0	0	9,918	
36	6,817	0	0	0	0	0	0	0	6,817	
39	5,391	0	0	0	0	0	0	0	5,391	
42	3,066	0	0	0	0	0	3,402	0	6,468	
48	9,786	0	0	0	0	0	0	0	9,786	
54	3,748	0	0	0	0	0	0	0	3,748	
57	0	0	140	0	0	0	0	0	140	
60	916	0	0	0	0	0	0	0	916	
Total	426,644	382,648	140	3,434	100	0	30,025	2,541	845,532	

Contract Qualification Closed Projects (2013 - Present) - Detail

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170742	Prime	GREELEY, CO-FL13-03-072 (2013) TRENCHLESS REHAB.,P.O.13000923	JC	\$545,073	\$549,207

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-12-2013	09-20-2019

	AIS	ILS	SR	STD	Total	SR's
6	1,011	4,197	0	0	5,208	463
8	4,406	12,234	0	767	17,407	
Total	5,417	16,431	0	767	22,615	

Customer	Owner
City of Greeley,CO-*Main	City of Greeley,CO-*Main
1101 1st Avenue Weld Greeley CO 80631	1101 1st Avenue Weld Greeley CO 80631
+1 970 3361205	+1 970 3361205

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
17078105	Prime	THORNTON, CO (CO#10),17-38A PJ 17-38A SANIT.SEWER REHAB	JC	\$571,430	\$601,168

Project Manager	Bid Date	Project Close Date
Huss, Eric D	03-29-2017	01-09-2018

	AIS	SR	Total	SR's
6	446	0	446	137
8	9,821	0	9,821	
10	4,162	0	4,162	
15	2,057	0	2,057	
Total	16,486	0	16,486	

Customer	Owner
City of Thornton, CO-Washington St	City of Thornton, CO-Washington St
12450 Washington St. Adams Thornton CO 80241	12450 Washington St. Adams Thornton CO 80241
+1 720 9776553	+1 720 9776553

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
17078106	Prime	THORNTON, CO (CO#15),18-38A PJ 18-38A SANIT.SEWER REHAB	JC	\$346,898	\$561,416

Project Manager	Bid Date	Project Close Date		AIS	SR	Total	SR's
Huss, Eric D	12-22-2017	12-17-2018	6	62	0	62	10
			8	2,519	0	2,519	
			10	290	0	290	
			12	3,501	0	3,501	
			15	2,393	0	2,393	
			24	220	0	220	
			Total	8,985	0	8,985	

Customer	Owner
City of Thornton, CO-Washington St	City of Thornton, CO-Washington St
12450 Washington St. Adams Thornton CO 80241	12450 Washington St. Adams Thornton CO 80241
+1 720 9776553	+1 720 9776553

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170888	Prime	SOUTH ADAMS COUNTY W/S DIST. 2017 SACWSD WW SYS. REHAB	JC	\$863,199	\$851,654

Project Manager	Bid Date	Project Close Date		AIS	ILS	SR	STD	Total	SR's
Camacho, Bernie	03-30-2017	01-05-2018	8	0	14,255	0	3,245	17,500	386
			10	2,851	0	0	263	3,114	
			Total	2,851	14,255	0	3,508	20,614	

Customer	Owner
South Adams County Water And Sanitation District-Commerce City, CO	South Adams County Water And Sanitation District-Commerce City, CO
6595 E 70th Avenue Adams Commerce City CO 80022	6595 E 70th Avenue Adams Commerce City CO 80022
+1 303 2882646	+1 303 2882646

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170891	Prime	ARVADA, CO #17-SR-02 (2017) 2017 TRENCHLESS SWR MAIN REPLC	JC	\$1,021,618	\$1,006,789

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	04-05-2017	07-09-2018

	AIS	ILS	SR	Total	SR's
6	0	599	0	599	1,010
8	390	33,630	0	34,020	
10	3,039	0	0	3,039	
Total	3,429	34,229	0	37,658	

Customer	Owner
City of Arvada, CO	City of Arvada, CO
8101 Ralston Road Jefferson Arvada CO 80001	8101 Ralston Road Jefferson Arvada CO 80001
+1 720 8987000	+1 720 8987000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170892	Prime	DANIELS SANI DIST. -LAKEWOOD 2017 SS IMPVMTS #16350.C.15	JC	\$426,626	\$424,322

Project Manager	Bid Date	Project Close Date
Huss, Eric D	05-05-2017	03-28-2018

	AIS	ILS	SR	STD	Total	SR's
8	335	5,402	0	1,023	6,760	92
Total	335	5,402	0	1,023	6,760	

Customer	Owner
Daniels Sanitation District-Denver,CO	Daniels Sanitation District-Denver,CO
1002 Kipling Street Jefferson Denver CO 80215-4617	1002 Kipling Street Jefferson Denver CO 80215-4617
+1 303 2332182	+1 303 2332182

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170894	Sub	MOLTZ CONSTRUCTION -PAR 1259 PAR 1259 -METRO WWRD DIGESTER	JC	\$94,485	\$91,457

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	03-07-2017	05-18-2018

	SIT	Total	SR's
10	100	100	0
Total	100	100	

Customer	Owner
Moltz Construction	Metro Wastewater Reclamation District-Denver,CO
8807 County Road 175 PO Box 729 Chaffee	6450 York Street Adams Denver CO 80229
+1 970 3303248	+1 303 2863000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170897	Sub	71 CONSTRUCTION,LANDER WY 2017 SEW. REHAB,JOB#17-1721	JC	\$466,760	\$785,934

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	04-12-2017	06-11-2018

	AIS	SR	STD	Total	SR's
8	971	0	0	971	105
12	2,349	0	402	2,751	
15	380	0	415	795	
21	1,761	0	0	1,761	
24	2,091	0	0	2,091	
Total	7,552	0	817	8,369	

Customer	Owner
71 Construction-Casper, WY	City of Lander, WY
7072 Barton Dr. Natrona Casper WY 82604	240 Lincoln St 240 Lincoln Street Fremont Lander WY 82520
+1 307 2352922	+1 307 3322870

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170899	Prime	PUEBLO, CO,#17-019 (WW 1503) 2017 SELENIUM REDUCTION J-1	JC	\$1,320,766	\$487,368

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-20-2017	04-03-2018

Customer	Owner
City of Pueblo, CO-*Main	City of Pueblo, CO-*Main
211 E D Street Pueblo Pueblo CO 81003	211 E D Street Pueblo Pueblo CO 81003
+1 719 5532295	+1 719 5532295

	AIS	ILS	SR	STD	Total	SR's
8	3,329	6,940	0	1,936	12,205	173
10	0	0	0	152	152	
12	1,376	0	0	0	1,376	
15	1,893	0	0	0	1,893	
18	1,502	0	0	0	1,502	
Total	8,100	6,940	0	2,088	17,128	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170902	Prime	SOUTHWEST METRO W/S DIST., CO 2017 SS MAIN-HERRICK-DALE SUBD	JC	\$98,838	\$93,831

Project Manager	Bid Date	Project Close Date
Huss, Eric D	07-14-2017	04-03-2018

Customer	Owner
Southwest Metropolitan Water & Sanitation District	Southwest Metropolitan Water & Sanitation District
8739 West Coal Mine Avenue Jefferson Littleton CO 80123	8739 West Coal Mine Avenue Jefferson Littleton CO 80123
+1 303 9792333	+1 303 9792333

	AIS	SR	Total	SR's
8	1,295	0	1,295	28
Total	1,295	0	1,295	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170907	Sub	T. LOWELL-WESTMINSTER, CO LITTLE DRY CREEK INTERCEPTOR	JC	\$57,119	\$56,967

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	06-08-2017	12-18-2018

	AIS	Total	SR's
12	28	28	0
18	303	303	
Total	331	331	

Customer	Owner
City of Westminster, CO-Public Works Dept	City of Westminster, CO-Public Works Dept
4800 W 92nd Ave Adams Westminster CO 80031-6387	4800 W 92nd Ave Adams Westminster CO 80031-6387
+1 303 4302400	+1 303 4302400

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170910	Prime	AURORA, CO - No. 5573A No. 5573A -ANNUAL REHAB TASK 1	JC	\$548,081	\$542,722

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-29-2017	06-05-2018

	AIS	ILS	SR	Total	SR's
8	8,095	6,510	0	14,605	73
10	504	0	0	504	
12	615	0	0	615	
15	691	0	0	691	
Total	9,905	6,510	0	16,415	

Customer	Owner
City of Aurora, CO-*Main	City of Aurora, CO-*Main
15151 E Alameda Parkway 3rd Floor Arapahoe Aurora CO 80012	15151 E Alameda Parkway 3rd Floor Arapahoe Aurora CO 80012
+1 303 7397000	+1 303 7397000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170914	Prime	TRINIDAD CO,PROJECT#03-2017 PROJ #03-2017 SEW.SLIP LINING	JC	\$654,588	\$208,102

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	08-28-2017	06-26-2018

	AIS	SR	Total	SR's
8	1,938	0	1,938	81
10	2,398	0	2,398	
Total	4,336	0	4,336	

Customer	Owner
City of Trinidad, CO	City of Trinidad, CO
Las Animas Trinidad CO 81082-0880	Las Animas Trinidad CO 81082-0880
+1 719 8469843	+1 719 8469843

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
17091401	Prime	TRINIDAD CO,PROJECT#03-2017 ADD'L SCOPE 2020 AS CO#1	JC	\$440,125	\$405,848

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-09-2020	01-30-2021

	AIS	Total	SR's
8	2,205	2,205	0
10	4,834	4,834	
12	190	190	
Total	7,229	7,229	

Customer	Owner
City of Trinidad, CO	City of Trinidad, CO
Las Animas Trinidad CO 81082-0880	Las Animas Trinidad CO 81082-0880
+1 719 8469843	+1 719 8469843

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170915	Sub	SHAW CONST-ST. MARY'S HOSPITAL ST. MARY'S HOSP GRAND JUNCTION	JC	\$64,483	\$64,483

Project Manager	Bid Date	Project Close Date		AIS	SR	Total	SR's
Camacho, Bernie	01-09-2018	02-06-2018	18	136	0	136	1
			Total	136	0	136	

Customer	Owner
St. Mary's Hospital Grand Junction	St. Mary's Hospital Grand Junction
N/A Mesa Grand Junction CO 81507	N/A Mesa Grand Junction CO 81507
+1 970 0000000	+1 970 0000000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170919	Prime	SUBURBAN DITCH CO.(GREELEY,CO) 2017 SUBURBAN DITCH 15" CIPP	JC	\$208,128	\$217,713

Project Manager	Bid Date	Project Close Date		AIS	SR	Total	SR's
Camacho, Bernie	09-25-2017	12-07-2018	12	1,592	0	1,592	3
			Total	1,592	0	1,592	

Customer	Owner
Suburban Ditch Company	Suburban Ditch Company
31 Alles Drive Weld Greeley CO 80631	31 Alles Drive Weld Greeley CO 80631
+1 970 3240849	+1 970 3240849

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170920	Prime	LARAMIE WY, 2018 PROJECT 2018 CIPP PROJECT	JC	\$378,239	\$440,726

Project Manager	Bid Date	Project Close Date
Huss, Eric D	07-25-2017	09-11-2018

Customer	Owner
City of Laramie, WY	City of Laramie, WY
405 Grand Ave Albany Laramie WY 82073	405 Grand Ave Albany Laramie WY 82073
+1 307 7215230	+1 307 7215230

	AIS	SR	Total	SR's
8	3,117	0	3,117	2
10	135	0	135	
15	2,984	0	2,984	
21	370	0	370	
27	370	0	370	
Total	6,976	0	6,976	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170926	Prime	METRO W/W RECL DIST (PAR 1305) INTERCEPTOR REHAB-2017	JC	\$6,377,620	\$6,594,052

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-31-2017	12-17-2018

Customer	Owner
Metro Wastewater Reclamation District-Denver, CO	Metro Wastewater Reclamation District-Denver, CO
6450 York Street Adams Denver CO 80229	6450 York Street Adams Denver CO 80229
+1 303 2863000	+1 303 2863000

	AIS	SR	STD	Total	SR's
10	2,164	0	0	2,164	9
12	397	0	352	749	
30	4,205	0	0	4,205	
36	952	0	0	952	
39	5,391	0	0	5,391	
42	2,019	0	3,402	5,421	
48	6,808	0	0	6,808	
Total	21,936	0	3,754	25,690	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170928	Prime	CRESTVIEW W/S DIST DENVER 2017 2017 CAPITAL IMPROVEMENT PRJT	JC	\$256,153	\$258,817

Project Manager	Bid Date	Project Close Date
Huss, Eric D	10-25-2017	01-30-2018

	AIS	ILS	SR	Total	SR's
8	0	3,887	0	3,887	98
12	741	0	0	741	
15	1,474	0	0	1,474	
Total	2,215	3,887	0	6,102	

Customer	Owner
Crestview Water & Sanitation District-Denver, CO	Crestview Water & Sanitation District-Denver, CO
7145 Mariposa Adams Denver CO 80221	7145 Mariposa Adams Denver CO 80221
+1 303 4304644	+1 303 4304644

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170929	Prime	COLORADO SPRINGS CO,SHELLEY AV CIPP LINER SHELLEY AVE#T008820	JC	\$830,483	\$830,483

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	07-13-2017	03-08-2018

	AIS	SR	Total	SR's
24	35	0	35	4
48	1,323	0	1,323	
60	916	0	916	
Total	2,274	0	2,274	

Customer	Owner
City of Colorado Springs, CO	City of Colorado Springs, CO
107 N Nevada Avenue El Paso Colorado Springs CO 80901-1575	107 N Nevada Avenue El Paso Colorado Springs CO 80901-1575
+1 719 3852489	+1 719 3852489

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170930	Prime	PUEBLO WEST METRO DIST.,2017 2017 CIPP PROJ., IFB-2017-1108	JC	\$148,187	\$146,150

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	12-06-2017	03-02-2018

	AIS	SR	Total	SR's
8	6,135	0	6,135	74
Total	6,135	0	6,135	

Customer	Owner
Pueblo West Metropolitan District- Pueblo West,CO	Pueblo West Metropolitan District- Pueblo West,CO
109 E Industrial Boulevard Pueblo Pueblo West CO 81007	109 E Industrial Boulevard Pueblo Pueblo West CO 81007
+1 719 5475000	+1 719 5475000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170931	Prime	AVONDALE W/S DIST.,2017 PROJ. 2017 SANIT. SEWER CIPP PROJECT	JC	\$122,784	\$110,784

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	11-01-2017	03-23-2018

	AIS	SR	STD	Total	SR's
8	0	0	3,277	3,277	10
10	225	0	0	225	
Total	225	0	3,277	3,502	

Customer	Owner
Avondale Sewer & Sanitation District- Avoncafe,CO	Avondale Sewer & Sanitation District- Avoncafe,CO
321 Third Street Pueblo Avondale CO 81003	321 Third Street Pueblo Avondale CO 81003
+1 719 5825588	+1 719 5825588

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170932	Sub	OLDCASTLE SW GRP, CO DOT 1-70 EXIT 49 GRAND MESA	JC	\$0	\$182,680

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	12-18-2017	05-11-2018	24	284	284	0
			Total	284	284	

Customer	Owner
Oldcastle Inc.-Montrose,CO	Department of Transportation - State of Colorado, CO-Division - Region 3 - Grand Junction
13279 6200 Road Montrose CO 81401	606 S. 9th Street 222 South Sixth St., Room 100 Mesa Grand Junction CO 81501
+1 970 2491818	+1 970 6836284

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170933	Prime	EAST CHERRY CREEK VALLEY W&SAN 2018 CAPITAL IMPROV.PROG(CIP)	JC	\$235,058	\$240,421

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Camacho, Bernie	02-06-2018	08-24-2018	18	1,947	1,947	0
			Total	1,947	1,947	

Customer	Owner
East Cherry Creek Valley Water & Sanitation District-Aurora, CO	East Cherry Creek Valley Water & Sanitation District-Aurora, CO
6201 S Gun Club Road Arapahoe Aurora CO 80016-2768	6201 S Gun Club Road Arapahoe Aurora CO 80016-2768
+1 303 6933800	+1 303 6933800

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170934	Prime	APPLEWOOD SANI DIST - 2018 2018 SS LINE EXCAVATION	JC	\$174,205	\$180,271

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	03-02-2018	06-04-2018

	ILS	SR	Total	SR's
8	4,321	0	4,321	55
Total	4,321	0	4,321	

Customer	Owner
Applewood Sanitation District-Lakewood,CO	Applewood Sanitation District-Lakewood,CO
2700 Youngfield Jefferson Lakewood CO 80215	2700 Youngfield Jefferson Lakewood CO 80215
+1 303 2326883	+1 303 2326883

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170936	Prime	GRAND COUNTY W & SANIT,DIST.#1 SEWER LINING PROJECT	JC	\$465,588	\$563,292

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-16-2018	08-21-2018

	AIS	SR	Total	SR's
8	8,930	0	8,930	93
15	3,306	0	3,306	
Total	12,236	0	12,236	

Customer	Owner
Grand County Water and Sanitation-Winter Park,CO	Grand County Water and Sanitation-Winter Park,CO
unknown Grand Winter Park CO 80482	unknown Grand Winter Park CO 80482
+1 970 7265583	+1 970 7265583

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170937	Prime	COLUMBINE W/S DIST - 2018 2018 SANITARY SWR REHAB PJT	JC	\$271,676	\$270,851

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-20-2018	07-16-2018

	AIS	ILS	PPL	SR	Total	SR's
8	340	2,886	3,434	0	6,660	74
Total	340	2,886	3,434	0	6,660	

Customer	Owner
Columbine W&s District	Columbine W&s District
8739 W Coal Mine Avenue Jefferson Littleton CO 80123-4001	8739 W Coal Mine Avenue Jefferson Littleton CO 80123-4001
+1 303 9792333	+1 303 9792333

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170939	Prime	LAKEWOOD, CO ITB #4383 2018 CURED IN PLACE PIPE PRGM	JC	\$180,982	\$275,339

Project Manager	Bid Date	Project Close Date
Huss, Eric D	05-08-2018	12-14-2018

	AIS	SR	Total	SR's
6	1,829	0	1,829	159
8	4,554	0	4,554	
18	210	0	210	
36	205	0	205	
Total	6,798	0	6,798	

Customer	Owner
City of Lakewood, CO	City of Lakewood, CO
445 S Allison Parkway Jefferson Denver CO 80226-3106	445 S Allison Parkway Jefferson Denver CO 80226-3106
+1 303 9877500	+1 303 9877500

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170940	Prime	SOUTH ADAMS CO. W/S DIST.2018 2018 SACWSD WW SYS. REHAB	JC	\$1,939,503	\$1,852,243

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-26-2018	02-26-2019

Customer	Owner
South Adams County Water And Sanitation District-Commerce City, CO	South Adams County Water And Sanitation District-Commerce City, CO
6595 E 70th Avenue Adams Commerce City CO 80022	6595 E 70th Avenue Adams Commerce City CO 80022
+1 303 2882646	+1 303 2882646

	AIS	ILS	SR	Total	SR's
8	5,929	14,386	0	20,315	276
10	8,962	44	0	9,006	
12	4,240	0	0	4,240	
15	1,859	0	0	1,859	
Total	20,990	14,430	0	35,420	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170941	Prime	ARVADA, CO #18-SR-02 (2018) 2018 TRENCHLESS SWR MAIN REPLC	JC	\$1,910,180	\$1,870,562

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	04-02-2018	01-31-2019

Customer	Owner
City of Arvada, CO	City of Arvada, CO
8101 Ralston Road Jefferson Arvada CO 80001	8101 Ralston Road Jefferson Arvada CO 80001
+1 720 8987000	+1 720 8987000

	AIS	ILS	SR	Total	SR's
8	0	36,607	0	36,607	1,186
10	3,220	0	0	3,220	
12	2,392	0	0	2,392	
15	2,224	0	0	2,224	
30	1,078	0	0	1,078	
Total	8,914	36,607	0	45,521	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170942	Prime	DIAMOND CONT.,GOLDEN CO-2018 2018 CIPP A,B,C,E & F	JC	\$238,065	\$227,496

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	04-09-2018	07-12-2018

	AIS	ILS	SR	STD	Total	SR's
6	1,226	0	0	0	1,226	24
8	900	3,084	0	0	3,984	
12	0	0	0	186	186	
Total	2,126	3,084	0	186	5,396	

Customer	Owner
City of Golden, CO	City of Golden, CO
911 10th Street Jefferson Golden CO 80401-1097	911 10th Street Jefferson Golden CO 80401-1097
+1 303 3848000	+1 303 3848000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170945	Prime	MEADOWBROOK FAIRVIEW METRO 2018 CAPITAL IMPRVMT PROJECT	JC	\$41,881	\$41,881

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-15-2018	11-02-2018

	SR	STD	Total	SR's
8	0	1,629	1,629	23
Total	0	1,629	1,629	

Customer	Owner
Meadowbrook-Fairview Metropolitan District-Littleton CO	Meadowbrook-Fairview Metropolitan District-Littleton CO
Littleton- Not Available Not Available Jefferson Littleton CO 80162	Littleton- Not Available Not Available Jefferson Littleton CO 80162
+1 555 5555555	+1 555 5555555

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170946	Prime	COLLEGE PARK W&S DIST.,GOLDEN CIPP LINING - WEST BAYAUD DR.	JC	\$39,075	\$39,075

Project Manager	Bid Date	Project Close Date
Huss, Eric D	05-18-2018	10-24-2018

	SR	STD	Total	SR's
8	0	524	524	5
Total	0	524	524	

Customer	Owner
College Park Water & Sewer District-Golden,CO	College Park Water & Sewer District-Golden,CO
14799 West 6th Avenue 14799 West 6th Avenue Unit A-5 Unit A-5 Jefferson Golden CO 80401	14799 West 6th Avenue 14799 West 6th Avenue Unit A-5 Unit A-5 Jefferson Golden CO 80401
+1 303 3848000	+1 303 3848000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170947	Prime	RIVERGLEN HOME OWNERS ASSOC. HOA 8" CIPP PROJECT	JC	\$29,121	\$75,016

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-10-2018	01-19-2019

	ILS	SR	Total	SR's
8	1,958	0	1,958	16
Total	1,958	0	1,958	

Customer	Owner
Riverglen HOA-Berthoud, CO	Riverglen HOA-Berthoud, CO
PO Box 1251 Larimer Berthoud CO 80513	PO Box 1251 Larimer Berthoud CO 80513
+1 970 5551212	+1 970 5551212

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170948	Prime	GREELEY CO, #FL 18-327-1 (2018) TRENCHLESS MAIN & COL.FL183271	JC	\$444,142	\$409,371

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	06-28-2018	04-18-2019

Customer	Owner
City of Greeley, CO-*Main	City of Greeley, CO-*Main
1101 1st Avenue Weld Greeley CO 80631	1101 1st Avenue Weld Greeley CO 80631
+1 970 3361205	+1 970 3361205

	AIS	ILS	SR	Total	SR's
6	1,392	210	0	1,602	102
8	0	4,431	0	4,431	
10	545	0	0	545	
12	482	0	0	482	
15	943	0	0	943	
18	971	0	0	971	
21	1,047	0	0	1,047	
Total	5,380	4,641	0	10,021	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170949	Prime	DENVER CITY/CO CO, 2018 2018 ANNUAL LINING #201842703	JC	\$2,777,708	\$2,888,118

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	07-12-2018	06-11-2020

Customer	Owner
City and County of Denver, CO	City and County of Denver, CO
1437 Bannock Street Denver Denver CO 80202-5337	1437 Bannock Street Denver Denver CO 80202-5337
+1 303 6405555	+1 303 6405555

	AIS	ILS	SR	STD	Total	SR's
8	4,153	43,550	0	2,054	49,757	1,897
10	1,154	0	0	0	1,154	
12	8,018	0	0	0	8,018	
15	3,938	0	0	0	3,938	
18	4,328	0	0	0	4,328	
21	1,872	0	0	0	1,872	
24	281	0	0	0	281	
Total	23,744	43,550	0	2,054	69,348	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170950	Prime	NORTHWEST LAKEWOOD SANI D.2018 2018 SS IMPROV,PJ#17.0638.C.03	JC	\$1,439,215	\$1,384,736

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-26-2018	08-30-2019

Customer	Owner
Northwest Lakewood Sanitation District-Denver,CO	Northwest Lakewood Sanitation District-Denver,CO
141 Union Boulevard Suite 150 Jefferson Denver CO 80228-1898	141 Union Boulevard Suite 150 Jefferson Denver CO 80228-1898
+1 303 9870835	+1 303 9870835

	AIS	ILS	SR	STD	Total	SR's
6	0	290	0	190	480	171
8	201	5,715	0	3,886	9,802	
10	0	306	0	0	306	
12	1,912	352	0	0	2,264	
18	556	0	0	0	556	
24	168	0	0	0	168	
Total	2,837	6,663	0	4,076	13,576	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170951	Sub	DRC CONSTR SERV.,CROOK CO COLL.SYST.REHAB,PO#18104-ITI	JC	\$201,817	\$127,330

Project Manager	Bid Date	Project Close Date
Huss, Eric D	05-11-2018	11-29-2018

Customer	Owner
Town of Crook, CO	Town of Crook, CO
Logan Crook CO 80726	Logan Crook CO 80726
+1 303 9710030	+1 303 9710030

	ILS	SR	Total	SR's
6	390	0	390	58
8	4,462	0	4,462	
Total	4,852	0	4,852	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170952	Prime	DENVER CITY/CO CO,- GEN. SANI. GLOBEVILLE IMPVMNTS #201843190	JC	\$1,490,064	\$1,381,943

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-09-2018	08-04-2019

Customer	Owner
City and County of Denver, CO	City and County of Denver, CO
1437 Bannock Street Denver Denver CO 80202-5337	1437 Bannock Street Denver Denver CO 80202-5337
+1 303 6405555	+1 303 6405555

	AIS	ILS	SR	Total	SR's
8	0	28,837	0	28,837	1,271
10	987	93	0	1,080	
12	1,288	0	0	1,288	
15	372	0	0	372	
18	465	0	0	465	
Total	3,112	28,930	0	32,042	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170953	Sub	APC CONST.CO, LLC - CO DOT SH177 ARAPAHOE TO HAMPDEN	JC	\$37,505	\$37,505

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-28-2018	12-04-2018

Customer	Owner
APC Construction-Golden,CO	Department of Transportation - State of Colorado, CO-Division - Region 1- Denver, CO
6569 Highway 93 Jefferson Golden CO 80403	2829 W. Howard Pl. Denver Denver CO 80204
+1 303 3452000	+1 303 9885474

	AIS	Total	SR's
15	65	65	0
Total	65	65	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170954	Sub	RMS UTILITIES,SAGUACHE CO. SAGUACHE SEWER COLL. SYST.REH.	JC	\$219,534	\$219,184

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	06-14-2018	10-31-2018

	ILS	SR	Total	SR's
8	5,537	0	5,537	132
Total	5,537	0	5,537	

Customer	Owner
Town of Saguache, CO	Town of Saguache, CO
504 San Juan Avenue Saguache Saguache CO 81149-0417	504 San Juan Avenue Saguache Saguache CO 81149-0417
+1 719 6552232	+1 719 6552232

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170955	Prime	DENVER CITY/CO CO,CHERRY CREEK CHEERY CREEK CONTR#201843656	JC	\$2,133,827	\$2,114,782

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-30-2018	01-03-2020

	AIS	ILS	SR	Total	SR's
8	379	29,434	0	29,813	1,741
10	1,169	0	0	1,169	
12	2,060	0	0	2,060	
15	338	0	0	338	
18	119	0	0	119	
Total	4,065	29,434	0	33,499	

Customer	Owner
City and County of Denver, CO	City and County of Denver, CO
1437 Bannock Street Denver Denver CO 80202-5337	1437 Bannock Street Denver Denver CO 80202-5337
+1 303 6405555	+1 303 6405555

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170956	Prime	SOUTH ARAPAHOE SANI DIST. 2018 2018 CAPITAL IMPVMNT PROGRAM	JC	\$439,677	\$440,325

Project Manager	Bid Date	Project Close Date
Huss, Eric D	09-10-2018	01-04-2019

	AIS	SR	Total	SR's
8	1,902	0	1,902	50
10	301	0	301	
21	2,047	0	2,047	
Total	4,250	0	4,250	

Customer	Owner
South Arapahoe Sanitation District-Greenwood Village, CO	South Arapahoe Sanitation District-Greenwood Village, CO
8390 East Crescent Parkway Suite 600 Arapahoe Greenwood Village CO 80111	8390 East Crescent Parkway Suite 600 Arapahoe Greenwood Village CO 80111
+1 303 7795710	+1 303 7795710

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170957	Prime	GLENWOOD SPRINGS, CO (2018) WW COLL SYS-ITB 2018-043	JC	\$104,819	\$104,819

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	08-30-2018	11-10-2018

	AIS	SR	Total	SR's
8	1,769	0	1,769	70
Total	1,769	0	1,769	

Customer	Owner
City of Glenwood Springs, CO	City of Glenwood Springs, CO
806 Cooper Avenue Garfield Glenwood Springs CO 81601-3428	806 Cooper Avenue Garfield Glenwood Springs CO 81601-3428
+1 970 3846400	+1 970 3846400

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170959	Sub	MOLTZ CONSTRUCTORS, INC., NM BRADNER RESEVOIR- LAS VEGAS,NM	JC	\$202,303	\$204,100

Project Manager	Bid Date	Project Close Date		STD	Total	SR's
Camacho, Bernie	07-18-2018	12-06-2018	16	405	405	0
			Total	405	405	

Customer	Owner
Moltz Construction	City of Las Vegas,NM-Utilites
8807 County Road 175 PO Box 729 Chaffee	1700 N Grand Ave Las Vegas San Miguel Las Vegas NM 87701-0160
+1 970 3303248	+1 505 4541401

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170960	Prime	WESTRIDGE SANI DIST. 2018 SWR MAIN CAPITAL IMPROVMENTS	JC	\$157,479	\$114,140

Project Manager	Bid Date	Project Close Date		AIS	ILS	SR	Total	SR's
Huss, Eric D	09-14-2018	12-31-2018	8	1,757	1,240	0	2,997	55
			Total	1,757	1,240	0	2,997	

Customer	Owner
Westridge Sanitaton District-Wheat Riege,CO	Westridge Sanitaton District-Wheat Riege,CO
4635 Kipling Street Camelot South 6 4635 Kipling Street Camelot South 6 Jefferson Wheat Ridge CO 80033	4635 Kipling Street Camelot South 6 4635 Kipling Street Camelot South 6 Jefferson Wheat Ridge CO 80033
+1 303 4249467	+1 303 4249467

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170961	Prime	FORT LEWIS COLLEGE, DURANGO, CO FORT LEWIS COLLEGE 8" LINE	JC	\$65,635	\$70,618

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-21-2018	11-09-2018

	ILS	SR	Total	SR's
8	365	0	365	1
Total	365	0	365	

Customer	Owner
Fort Lewis College	Fort Lewis College
1000 Rim Drive LaPlata Durango CO 81301	1000 Rim Drive LaPlata Durango CO 81301
+1 970 2476330	+1 970 2476330

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170962	Prime	FEDERAL HEIGHTS, CO (2018) 2018 CIPP LINING #111802	JC	\$99,477	\$107,214

Project Manager	Bid Date	Project Close Date
Huss, Eric D	09-14-2018	12-28-2018

	AIS	ILS	SR	Total	SR's
8	381	2,199	0	2,580	2
Total	381	2,199	0	2,580	

Customer	Owner
City of Federal Heights, CO	City of Federal Heights, CO
2380 W 90th Avenue Adams Denver CO 80260-6700	2380 W 90th Avenue Adams Denver CO 80260-6700
+1 303 4283526	+1 303 4283526

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170963	Prime	STERLING,CO PO#18-008 SEWER LINE RECONSTR. #18-008	JC	\$87,281	\$87,420

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Camacho, Bernie	10-11-2018	02-22-2019	6	969	969	0
			8	1,032	1,032	
			Total	2,001	2,001	

Customer	Owner
City of Sterling, CO	City of Sterling, CO
421 North 4th Street Logan Sterling CO 80751-0400	421 North 4th Street Logan Sterling CO 80751-0400
+1 970 5229700	+1 970 5229700

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170964	Sub	RICOR SERVICES-GREEN MOUNTAIN 2018 WATER&SAN SWR IMPROVEMENT	JC	\$166,475	\$228,134

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Evans, Chantal M	06-19-2018	02-13-2019	8	6,904	6,904	0
			Total	6,904	6,904	

Customer	Owner
Ricor Inc.-Arvada, CO	Green Mountain W&S District- Denver,CO
6255 W. 52nd Ave. Jefferson Arvada CO 80002	13919 W Utah Avenue Jefferson Denver CO 80228-4174
+1 303 4670909	+1 303 9851581

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170965	Prime	CLEAR CREEK VALLEY W & S DIST 2018 SS IMPROV,PJ#13.0860.C.12	JC	\$89,818	\$89,818

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	12-06-2018	02-21-2019	8	937	937	0
			Total	937	937	

Customer	Owner
Clear Creek Valley Water & Sanitation District-Arvada,CO	Clear Creek Valley Water & Sanitation District-Arvada,CO
5420 Harlan Street Jefferson Arvada CO 80002	5420 Harlan Street Jefferson Arvada CO 80002
+1 303 4244194	+1 303 4244194

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170966	Prime	AURORA CO.,No 5626A,SAND CREEK SAND CRK INTERC.CIPP No. 5626A	JC	\$1,281,520	\$1,329,149

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Camacho, Bernie	01-15-2019	06-01-2020	36	3,698	3,698	0
			Total	3,698	3,698	

Customer	Owner
City of Aurora, CO-*Main	City of Aurora, CO-*Main
15151 E Alameda Parkway 3rd Floor Arapahoe Aurora CO 80012	15151 E Alameda Parkway 3rd Floor Arapahoe Aurora CO 80012
+1 303 7397000	+1 303 7397000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170967	Prime	ARVADA, CO #19-SR-02 (2019) 2019 TRENCHLESS SWR MAIN REPLC	JC	\$1,289,022	\$1,232,660

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	11-16-2018	05-15-2020

Customer	Owner
City of Arvada, CO	City of Arvada, CO
8101 Ralston Road Jefferson Arvada CO 80001	8101 Ralston Road Jefferson Arvada CO 80001
+1 720 8987000	+1 720 8987000

	AIS	ILS	SR	Total	SR's
8	0	33,113	0	33,113	872
10	1,602	0	0	1,602	
12	495	0	0	495	
15	377	0	0	377	
Total	2,474	33,113	0	35,587	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170968	Prime	AMERICAN MECHANICAL SVCS STATE PARKING GARAGE DQ1	JC	\$39,100	\$38,250

Project Manager	Bid Date	Project Close Date
Camacho, Bernie	11-09-2018	05-01-2019

Customer	Owner
State of Colorado-Colorado Dept. of Personnel & Administration, Contracts & Procurement Unit	State of Colorado-Colorado Dept. of Personnel & Administration, Contracts & Procurement Unit
1525 Sherman Street 5th. Floor Denver Denver CO 80203	1525 Sherman Street 5th. Floor Denver Denver CO 80203
+1 303 8663752	+1 303 8663752

	AIS	Total	SR's
18	95	95	0
Total	95	95	

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170970	Prime	SILVERTHORNE/DILLION JSA,PH1&2 SILVERTHORNE PH.1&2 CIPP REHAB	JC	\$96,589	\$103,051

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	02-14-2019	04-25-2019	18	1,334	1,334	0
			Total	1,334	1,334	

Customer	Owner
Joint Authority Silverthorne Dillon Sanitation District-Silverthorne, CO	Joint Authority Silverthorne Dillon Sanitation District-Silverthorne, CO
264 Brian Avenue Summit Silverthorne CO 80498	264 Brian Avenue Summit Silverthorne CO 80498
+1 970 4686152	+1 970 4686152

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170971	Sub	SUN CONST. & FACILITY SVCS. ORACLE PHASE 2B COURTYARD	JC	\$116,340	\$117,675

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	12-20-2018	05-03-2019	18	499	499	0
			24	181	181	
			Total	680	680	

Customer	Owner
Sun Construction Co-Colorado Springs, CO	Oracle Broomfield Campus-Broomfield,CO
4004 Mark Dabbling Boulevard El Paso Colorado Springs CO 80907-4202	500 Eldorado Blvd Jefferson Broomfield CO 80021
+1 719 5334004	+1 303 4644000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170972	Prime	GRAND COUNTY W & SANIT.DIST.#1 SEWER LINING PROJECT	JC	\$407,774	\$392,421

Project Manager	Bid Date	Project Close Date
Huss, Eric D	03-13-2019	08-22-2019

	AIS	SR	Total	SR's
8	7,886	0	7,886	73
Total	7,886	0	7,886	

Customer	Owner
Grand County Water and Sanitation-Winter Park,CO	Grand County Water and Sanitation-Winter Park,CO
unknown Grand Winter Park CO 80482	unknown Grand Winter Park CO 80482
+1 970 7265583	+1 970 7265583

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170973	Prime	TORRINGTON, WY 2019 IMPRVMNTS 2019 SEWER LINE IMPROVEMENTS	JC	\$400,085	\$439,498

Project Manager	Bid Date	Project Close Date
Huss, Eric D	03-20-2019	06-17-2019

	AIS	SR	Total	SR's
8	7,423	0	7,423	102
Total	7,423	0	7,423	

Customer	Owner
City of Torrington,WY	City of Torrington,WY
702 W 29th Ave Goshen Torrington WY 82240	702 W 29th Ave Goshen Torrington WY 82240
+1 307 5323577	+1 307 5323577

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170974	Prime	LAKEHURST W & S DIST-LITTLETON HAMPDEN & CARR 24" SS REHAB	JC	\$570,316	\$556,372

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-10-2019	08-20-2019

	AIS	SR	Total	SR's
24	3,227	0	3,227	9
Total	3,227	0	3,227	

Customer	Owner
Lakehurst Water And Sanitation District-Salida,CO	Lakehurst Water And Sanitation District-Salida,CO
7995 W Quincy Avenue Jefferson Littleton CO 80123	7995 W Quincy Avenue Jefferson Littleton CO 80123
+1 303 9857895	+1 303 9857895

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170976	Prime	SOUTHWEST SUBURBAN DENVER W&S 2019 CAPITAL IMPV#14.0350.C44	JC	\$143,426	\$219,507

Project Manager	Bid Date	Project Close Date
Huss, Eric D	05-03-2019	09-04-2019

	ILS	SR	Total	SR's
8	3,772	0	3,772	77
Total	3,772	0	3,772	

Customer	Owner
Southwest Suburban Denver W&S District-Evergreen,CO	Southwest Suburban Denver W&S District-Evergreen,CO
2922 Evergreen Parkway Suite 320 Jefferson County Evergreen CO 80439	2922 Evergreen Parkway Suite 320 Jefferson County Evergreen CO 80439
+1 303 9863231	+1 303 9863231

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170977	Sub	DIAMOND CONT.,GOLDEN CO., 2019 2019 UTILITY REPLACEMENT	JC	\$109,769	\$105,239

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-24-2019	07-16-2019

	AIS	SR	Total	SR's
8	3,578	0	3,578	4
Total	3,578	0	3,578	

Customer	Owner
Diamond Contracting Co-Arvada, CO	City of Golden, CO
18300 W. Hwy 72 Suite 2 Jefferson Arvada CO 80007	911 10th Street Jefferson Golden CO 80401-1097
+1 303 4567666	+1 303 3848000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170978	Prime	LAKEWOOD, CO ITB #4587 CURED IN PLACE PIPE PROGRAM	JC	\$238,890	\$230,731

Project Manager	Bid Date	Project Close Date
Fonov, Oleksandr	04-25-2019	08-09-2019

	AIS	SR	Total	SR's
8	5,714	0	5,714	121
10	243	0	243	
15	789	0	789	
Total	6,746	0	6,746	

Customer	Owner
City of Lakewood, CO	City of Lakewood, CO
445 S Allison Parkway Jefferson Denver CO 80226-3106	445 S Allison Parkway Jefferson Denver CO 80226-3106
+1 303 9877500	+1 303 9877500

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170979	Prime	WALDEN, CO - SEWER LINING PRJT 2019 SEWER LINING PROJECT	JC	\$362,664	\$378,157

Project Manager	Bid Date	Project Close Date
Huss, Eric D	05-22-2019	10-01-2020

	AIS	SR	Total	SR's
6	2,741	0	2,741	145
8	3,758	0	3,758	
10	720	0	720	
Total	7,219	0	7,219	

Customer	Owner
Town of Walden, CO	Town of Walden, CO
Walden- Not Available Jackson Walden CO 80480-0489	Walden- Not Available Jackson Walden CO 80480-0489
+1 970 7234662	+1 970 7234662

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170981	Prime	SOUTH ARAPAHOE SANI DIST. 2019 2019 CAPITAL IMPVMNT PROGRAM	JC	\$313,935	\$374,663

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-06-2019	11-07-2019

	ILS	SR	Total	SR's
8	11,240	0	11,240	243
Total	11,240	0	11,240	

Customer	Owner
South Arapahoe Sanitation District- Greenwood Village, CO	South Arapahoe Sanitation District- Greenwood Village, CO
8390 East Crescent Parkway Suite 600 Arapahoe Greenwood Village CO 80111	8390 East Crescent Parkway Suite 600 Arapahoe Greenwood Village CO 80111
+1 303 7795710	+1 303 7795710

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170982	Prime	GLENWOOD SPRINGS, CO (2019) WW COLL SYS-BD 2019-045	JC	\$59,818	\$59,818

Project Manager	Bid Date	Project Close Date
Huss, Eric D	07-12-2019	10-08-2019

	AIS	SR	Total	SR's
8	694	0	694	6
Total	694	0	694	

Customer	Owner
City of Glenwood Springs, CO	City of Glenwood Springs, CO
806 Cooper Avenue Garfield Glenwood Springs CO 81601-3428	806 Cooper Avenue Garfield Glenwood Springs CO 81601-3428
+1 970 3846400	+1 970 3846400

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170983	Prime	MOUNTAIN VIEW, CO - 2019 2019 SWR SYS IMPRVMNTS PROJECT	JC	\$592,446	\$577,240

Project Manager	Bid Date	Project Close Date
Fonov, Oleksandr	06-24-2019	11-14-2019

	ILS	SR	Total	SR's
8	1,723	0	1,723	163
Total	1,723	0	1,723	

Customer	Owner
Town of Mountain View,CO	Town of Mountain View,CO
4176 Benton Street Jefferson Mountain View CO 80212	4176 Benton Street Jefferson Mountain View CO 80212
+1 303 4217282	+1 303 4217282

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170984	Prime	THORNTON, CO(MSA)RELEASE #1 2019 SS Improvements #19-38A	JC	\$1,073,985	\$995,905

Project Manager	Bid Date	Project Close Date
Fonov, Oleksandr	07-17-2019	12-13-2019

	AIS	ILS	SR	Total	SR's
8	0	18,175	0	18,175	44
30	1,932	0	0	1,932	
Total	1,932	18,175	0	20,107	

Customer	Owner
City of Thornton, CO-Washington St	City of Thornton, CO-Washington St
12450 Washington St. Adams Thornton CO 80241	12450 Washington St. Adams Thornton CO 80241
+1 720 9776553	+1 720 9776553

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170985	Prime	WESTRIDGE SANI DIST. 2019 SWR MAIN CAPITAL IMPROVEM. PRJ	JC	\$133,484	\$137,427

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-16-2019	09-27-2019

	ILS	SR	STD	Total	SR's
8	3,102	0	373	3,475	67
Total	3,102	0	373	3,475	

Customer	Owner
Westridge Sanitaton District-Wheat Riege,CO	Westridge Sanitaton District-Wheat Riege,CO
4635 Kipling Street Camelot South 6 4635 Kipling Street Camelot South 6 Jefferson Wheat Ridge CO 80033	4635 Kipling Street Camelot South 6 4635 Kipling Street Camelot South 6 Jefferson Wheat Ridge CO 80033
+1 303 4249467	+1 303 4249467

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170986	Prime	COLORADO SPRINGS,CO- TEJON ST. CIPP LINER CONT.#T009650	JC	\$845,124	\$1,150,798

Project Manager	Bid Date	Project Close Date
Huss, Eric D	07-24-2019	03-13-2020

	AIS	SR	Total	SR's
48	927	0	927	5
54	370	0	370	
Total	1,297	0	1,297	

Customer	Owner
City of Colorado Springs, CO	City of Colorado Springs, CO
107 N Nevada Avenue El Paso Colorado Springs CO 80901-1575	107 N Nevada Avenue El Paso Colorado Springs CO 80901-1575
+1 719 3852489	+1 719 3852489

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170987	Prime	WINDSOR, CO -2019 CIPP 2019 CIPP PROJECT	JC	\$98,860	\$96,960

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-15-2019	11-29-2019

	AIS	Total	SR's
8	452	452	0
15	928	928	
Total	1,380	1,380	

Customer	Owner
Town of Windsor, CO	Town of Windsor, CO
922 North 15th. Street Weld Windsor CO 80550-5141	922 North 15th. Street Weld Windsor CO 80550-5141
+1 970 6867476	+1 970 6867476

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170988	Prime	NORTH PECOS W & S DISTRICT 2019 CIPP SS REHAB. PROJECT	JC	\$255,466	\$256,909

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-12-2019	10-25-2019

	ILS	SR	STD	Total	SR's
8	7,170	0	0	7,170	47
10	0	0	102	102	
Total	7,170	0	102	7,272	

Customer	Owner
North Pecos Water & Sanitation District-Denver,CO	North Pecos Water & Sanitation District-Denver,CO
6900 N Pecos Street Adams Denver CO 80221	6900 N Pecos Street Adams Denver CO 80221
+1 303 4295770	+1 303 4295770

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170991	Sub	MECHANICAL SYS., INC- BOPU, WY 2019 SWR REHAB PRJT.	JC	\$930,928	\$957,130

Project Manager	Bid Date	Project Close Date
Fonov, Oleksandr	07-30-2019	06-19-2020

	AIS	STD	Total	SR's
8	2,108	0	2,108	0
12	810	0	810	
21	2,211	3,527	5,738	
24	0	849	849	
Total	5,129	4,376	9,505	

Customer	Owner
Mechanical Systems	City of Cheyenne, WY
1313 W Lincoln Way Laramie Cheyenne WY 82001	2406 Snyder Avenue Laramie Cheyenne WY 82003-1469
+1 307 6347419	+1 307 6376416

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170992	Prime	PUEBLO WEST METRO DIST.,2019 2019 CIPP #IFB-2019-WW-002	JC	\$216,220	\$215,234

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-28-2019	11-05-2019

	AIS	SR	STD	Total	SR's
8	7,209	0	483	7,692	82
Total	7,209	0	483	7,692	

Customer	Owner
Pueblo West Metropolitan District- Pueblo West,CO	Pueblo West Metropolitan District- Pueblo West,CO
109 E Industrial Boulevard Pueblo Pueblo West CO 81007	109 E Industrial Boulevard Pueblo Pueblo West CO 81007
+1 719 5475000	+1 719 5475000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170993	Sub	JERRY BORNHOFT CONST.-LANDER LANDER INFILTRATION 2ND ST	JC	\$214,757	\$231,681

Project Manager	Bid Date	Project Close Date
Fonov, Oleksandr	07-15-2019	05-22-2020

	AIS	SR	Total	SR's
8	508	0	508	69
12	2,908	0	2,908	
Total	3,416	0	3,416	

Customer	Owner
Jerry Bornhoft Construction	City of Lander, WY
2787 Monroe Avenue Fremont Riverton WY 82501	240 Lincoln St 240 Lincoln Street Fremont Lander WY 82520
+1 307 8573171	+1 307 3322870

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170995	Prime	CHEROKEE METRO DISTRICT 8" CIPP LINING PROJECT	JC	\$96,751	\$96,751

Project Manager	Bid Date	Project Close Date		AIS	SR	Total	SR's
Huss, Eric D	08-29-2019	11-05-2019	8	2,721	0	2,721	7
			Total	2,721	0	2,721	

Customer	Owner
Cherokee Metropolitan District, CO-Colorado Springs,CO	Cherokee Metropolitan District, CO-Colorado Springs,CO
6250 Palmer Park Boulevard El Paso Colorado Springs CO 80915-2842	6250 Palmer Park Boulevard El Paso Colorado Springs CO 80915-2842
+1 719 5975080	+1 719 5975080

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170996	Sub	RAY'S BACKHOE SVC.-ALEXANDER D DAWSON SCHOOL-LAFAYETTE,CO	JC	\$47,400	\$47,400

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	10-01-2019	10-15-2019	8	302	302	0
			Total	302	302	

Customer	Owner
Ray's Backhoe Service-Longmont,CO	Alexander Dawson School-Lafayette,CO
6698 McCall Dr Boulder Longmont CO 80503	10455 Dawson Drive Boulder Lafayette CO 80026
+1 303 7766190	+1 303 6656679

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170997	Prime	GREELEY CO, FL19-327-2 (2019) TRENCHLESS MAIN & COL.FL193272	JC	\$446,824	\$446,824

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-25-2019	02-07-2020

	AIS	Total	SR's
6	395	395	0
8	2,316	2,316	
21	2,184	2,184	
Total	4,895	4,895	

Customer	Owner
City of Greeley,CO-*Main	City of Greeley,CO-*Main
1101 1st Avenue Weld Greeley CO 80631	1101 1st Avenue Weld Greeley CO 80631
+1 970 3361205	+1 970 3361205

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170998	Prime	COLLEGE PARK W&S DIST-2019 CIPP LINING- MAPLE & DEFRAME	JC	\$241,489	\$331,895

Project Manager	Bid Date	Project Close Date
Huss, Eric D	09-12-2019	01-31-2020

	AIS	ILS	SR	Total	SR's
8	0	786	0	786	7
12	322	0	0	322	
Total	322	786	0	1,108	

Customer	Owner
College Park Water & Sewer District-Golden,CO	College Park Water & Sewer District-Golden,CO
14799 West 6th Avenue 14799 West 6th Avenue Unit A-5 Unit A-5 Jefferson Golden CO 80401	14799 West 6th Avenue 14799 West 6th Avenue Unit A-5 Unit A-5 Jefferson Golden CO 80401
+1 303 3848000	+1 303 3848000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
170999	Prime	NORTHWEST LAKEWOOD SANI D.2019 2019 SS IMPROV,PJ#17.0635.C.04	JC	\$1,272,849	\$1,301,513

Project Manager	Bid Date	Project Close Date
Huss, Eric D	11-18-2019	06-02-2020

	AIS	SR	STD	Total	SR's
8	10,803	0	233	11,036	40
12	1,312	0	128	1,440	
24	215	0	0	215	
Total	12,330	0	361	12,691	

Customer	Owner
Northwest Lakewood Sanitation District-Denver,CO	Northwest Lakewood Sanitation District-Denver,CO
141 Union Boulevard Suite 150 Jefferson Denver CO 80228-1898	141 Union Boulevard Suite 150 Jefferson Denver CO 80228-1898
+1 303 9870835	+1 303 9870835

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171000	Prime	CASTLE ROCK, CO - 2019 PROJECT 2019 CIPP PROJ.SOUTH ST&MEMMEN	JC	\$284,729	\$305,561

Project Manager	Bid Date	Project Close Date
Huss, Eric D	11-21-2019	06-30-2020

	AIS	Total	SR's
8	9,372	9,372	0
15	305	305	
Total	9,677	9,677	

Customer	Owner
Town of Castle Rock, CO-Public Works Dept	Town of Castle Rock, CO-Public Works Dept
175 Kellogg Court Douglas Castle Rock CO 80104	175 Kellogg Court Douglas Castle Rock CO 80104
+1 303 6601367	+1 303 6601367

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171002	Prime	GREELEY CO, FL19-327-2 TRENCHLESS MAIN STORMWATER	JC	\$237,773	\$237,773

Project Manager	Bid Date	Project Close Date
Fonov, Oleksandr	11-21-2019	05-01-2020

	AIS	Total	SR's
24	190	190	0
36	240	240	
Total	430	430	

Customer	Owner
City of Greeley, CO-*Main	City of Greeley, CO-*Main
1101 1st Avenue Weld Greeley CO 80631	1101 1st Avenue Weld Greeley CO 80631
+1 970 3361205	+1 970 3361205

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171003	Prime	DENVER CITY/CO CO,CT#201951838 35th & LINCOLN PARK SAN IMPRVM	JC	\$2,326,427	\$2,316,477

Project Manager	Bid Date	Project Close Date
Huss, Eric D	12-05-2019	03-13-2021

	AIS	SR	Total	SR's
21	501	0	501	8
30	2,589	0	2,589	
42	1,047	0	1,047	
48	728	0	728	
54	2,202	0	2,202	
Total	7,067	0	7,067	

Customer	Owner
City and County of Denver, CO	City and County of Denver, CO
1437 Bannock Street Denver Denver CO 80202-5337	1437 Bannock Street Denver Denver CO 80202-5337
+1 303 6405555	+1 303 6405555

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171004	Prime	SOUTH ADAMS CO. W/S DIST.2020 2020 SACWSD WW SYS. REHAB	JC	\$2,271,937	\$2,202,900

Project Manager	Bid Date	Project Close Date
Huss, Eric D	01-30-2020	05-22-2021

	AIS	SR	Total	SR's
6	205	0	205	166
8	28,923	0	28,923	
10	529	0	529	
Total	29,657	0	29,657	

Customer	Owner
South Adams County Water And Sanitation District-Commerce City, CO	South Adams County Water And Sanitation District-Commerce City, CO
6595 E 70th Avenue Adams Commerce City CO 80022	6595 E 70th Avenue Adams Commerce City CO 80022
+1 303 2882646	+1 303 2882646

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171005	Prime	LAKEWOOD, CO- BID #4587 CIPP PROGRAM - 2020	JC	\$211,830	\$208,723

Project Manager	Bid Date	Project Close Date
Huss, Eric D	02-25-2020	06-10-2020

	AIS	Total	SR's
6	457	457	0
8	5,473	5,473	
Total	5,930	5,930	

Customer	Owner
City of Lakewood, CO	City of Lakewood, CO
445 S Allison Parkway Jefferson Denver CO 80226-3106	445 S Allison Parkway Jefferson Denver CO 80226-3106
+1 303 9877500	+1 303 9877500

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171006	Prime	FORT MORGAN,CO - 2020 2020 WW COLLECTION SYS RELINE	JC	\$137,755	\$141,663

Project Manager	Bid Date	Project Close Date
Huss, Eric D	02-13-2020	09-04-2020

	UVG	Total	SR's
8	2,541	2,541	0
Total	2,541	2,541	

Customer	Owner
Town of Fort Morgan, CO	Town of Fort Morgan, CO
Fort Morgan- Not Available Not Available Morgan Fort Morgan CO 80701-0100	Fort Morgan- Not Available Not Available Morgan Fort Morgan CO 80701-0100
+1 970 5423900	+1 970 5423900

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171008	Prime	SOUTHEAST METRO STORMWTER AUTH PARKER RD& JEWEL,C#CPR1900007-	JC	\$129,143	\$130,961

Project Manager	Bid Date	Project Close Date
Huss, Eric D	03-12-2020	05-08-2020

	AIS	Total	SR's
54	190	190	0
Total	190	190	

Customer	Owner
South East Metro Storm Water Authority-Centennial,CA	South East Metro Storm Water Authority-Centennial,CA
76 Inverness Drive East Suite A Arapahoe Centennial CO 80015	76 Inverness Drive East Suite A Arapahoe Centennial CO 80015
+1 720 8746500	+1 720 8746500

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171009	Prime	LA SALLE, CO (2020) 12" CIPP LINING PROJECT	JC	\$52,250	\$54,250

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Wilcher, Michael Lee	03-26-2020	06-23-2020	12	700	700	0
			Total	700	700	

Customer	Owner
Town of La Salle, CO	Town of La Salle, CO
128 North Second Strete Weld La Salle CO 80645-3305	128 North Second Strete Weld La Salle CO 80645-3305
+1 970 2846931	+1 970 2846931

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171010	Prime	LITTLETON, CO -2020 SS (20-07) 2020 CITY PRJT No. 20-07	JC	\$1,057,591	\$1,000,743

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	04-14-2020	08-14-2020	54	986	986	0
			Total	986	986	

Customer	Owner
City of Littleton, CO	City of Littleton, CO
2255 West Berry Avenue Arapahoe Littleton CO 80165-0001	2255 West Berry Avenue Arapahoe Littleton CO 80165-0001
+1 303 7953865	+1 303 7953865

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171011	Prime	LITTLETON, CO -2020 SS (20-13) 2020 CITY PRJT No. 20-13	JC	\$287,791	\$282,175

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-16-2020	06-12-2020

	AIS	ILS	Total	SR's
6	76	0	76	0
8	0	5,445	5,445	
10	329	0	329	
Total	405	5,445	5,850	

Customer	Owner
City of Littleton, CO	City of Littleton, CO
2255 West Berry Avenue Arapahoe Littleton CO 80165-0001	2255 West Berry Avenue Arapahoe Littleton CO 80165-0001
+1 303 7953865	+1 303 7953865

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171012	Prime	DIAMOND EXCAVATING, INC. ADAMS 12 NEW CAREER TECH FAC	JC	\$56,772	\$56,772

Project Manager	Bid Date	Project Close Date
Huss, Eric D	10-25-2019	05-14-2020

	AIS	Total	SR's
10	995	995	0
Total	995	995	

Customer	Owner
City of Thornton, CO-Washington St	City of Thornton, CO-Washington St
12450 Washington St. Adams Thornton CO 80241	12450 Washington St. Adams Thornton CO 80241
+1 720 9776553	+1 720 9776553

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171013	Prime	SILVERTHORNE/DILLION JSA,PH1&2 SILVERTHORNE PH.1&2 CIPP REHAB	JC	\$80,416	\$80,416

Project Manager	Bid Date	Project Close Date
Huss, Eric D	04-17-2020	09-04-2020

	AIS	SR	Total	SR's
18	663	0	663	9
Total	663	0	663	

Customer	Owner
Joint Authority Silverthorne Dillon Sanitation District-Silverthorne, CO	Joint Authority Silverthorne Dillon Sanitation District-Silverthorne, CO
264 Brian Avenue Summit Silverthorne CO 80498	264 Brian Avenue Summit Silverthorne CO 80498
+1 970 4686152	+1 970 4686152

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171014	Prime	CHEROKEE METRO DIST. 2020 8" CIPP LINING PRJT. 2020	JC	\$219,183	\$208,925

Project Manager	Bid Date	Project Close Date
Huss, Eric D	02-17-2020	07-23-2020

	AIS	Total	SR's
8	3,382	3,382	0
10	3,223	3,223	
Total	6,605	6,605	

Customer	Owner
Cherokee Metropolitan District, CO-Colorado Springs,CO	Cherokee Metropolitan District, CO-Colorado Springs,CO
6250 Palmer Park Boulevard El Paso Colorado Springs CO 80915-2842	6250 Palmer Park Boulevard El Paso Colorado Springs CO 80915-2842
+1 719 5975080	+1 719 5975080

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171015	Prime	GREEN MOUNTAIN W & S DISTRICT 2020 SANITARY SWR REHAB	JC	\$620,187	\$616,553

Project Manager	Bid Date	Project Close Date
Wilcher, Michael Lee	04-10-2020	01-30-2021

	AIS	SR	Total	SR's
8	5,653	0	5,653	73
10	1,754	0	1,754	
Total	7,407	0	7,407	

Customer	Owner
Green Mountain W&S District-Denver, CO	Green Mountain W&S District-Denver, CO
13919 W Utah Avenue Jefferson Denver CO 80228-4174	13919 W Utah Avenue Jefferson Denver CO 80228-4174
+1 303 9851581	+1 303 9851581

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171017	Prime	SOUTH ARAPAHOE SAN DIST-2020 CAPITAL IMPRVMENTS PROGRAM CIP	JC	\$239,898	\$244,557

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-09-2020	09-15-2020

	AIS	SR	Total	SR's
8	5,812	0	5,812	51
10	1,003	0	1,003	
Total	6,815	0	6,815	

Customer	Owner
South Arapahoe Sanitation District-Greenwood Village, CO	South Arapahoe Sanitation District-Greenwood Village, CO
8390 East Crescent Parkway Suite 600 Arapahoe Greenwood Village CO 80111	8390 East Crescent Parkway Suite 600 Arapahoe Greenwood Village CO 80111
+1 303 7795710	+1 303 7795710

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171018	Prime	LOVELAND, CO -W20020G BID No. 2020-53 CIPP PROJECT	JC	\$1,325,393	\$1,316,471

Project Manager	Bid Date	Project Close Date
Wilcher, Michael Lee	06-04-2020	02-20-2021

	AIS	ILS	SR	Total	SR's
8	303	19,021	0	19,324	987
10	2,371	0	0	2,371	
12	1,546	0	0	1,546	
Total	4,220	19,021	0	23,241	

Customer	Owner
City of Loveland, CO	City of Loveland, CO
500 E 3rd Street Larimer Loveland CO 80537-5773	500 E 3rd Street Larimer Loveland CO 80537-5773
+1 970 9622000	+1 970 9622000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171019	Prime	GRAND COUNTY W & SANIT,DIST.#1 SEWER LINING PROJECT	JC	\$159,760	\$249,518

Project Manager	Bid Date	Project Close Date
Huss, Eric D	06-11-2020	10-09-2020

	AIS	SR	Total	SR's
8	5,806	0	5,806	21
Total	5,806	0	5,806	

Customer	Owner
Grand County Water and Sanitation-Winter Park,CO	Grand County Water and Sanitation-Winter Park,CO
unknown Grand Winter Park CO 80482	unknown Grand Winter Park CO 80482
+1 970 7265583	+1 970 7265583

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171020	Sub	GOLDEN TRIANGLE CONST.DENVER DPS HILL MIDDLE SCHOOL RENOVAT	JC	\$29,855	\$29,855

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	07-02-2020	07-17-2020	8	48	48	0
			10	228	228	
			Total	276	276	

Customer	Owner
Golden Triangle Construction	Denver Public Schools
9777 Pyramid Court, Suite 105 Arapahoe Englewood CO 80112	1860 Lincoln Street Denver Denver CO 80203
+1 303 6849264	+1 720 4233200

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171021	Prime	WINDSOR, CO -2020 REHAB 2020 SS REHAB PROJECT	JC	\$99,039	\$99,039

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	07-08-2020	09-21-2020	8	441	441	0
			15	661	661	
			Total	1,102	1,102	

Customer	Owner
Town of Windsor, CO	Town of Windsor, CO
922 North 15th. Street Weld Windsor CO 80550-5141	922 North 15th. Street Weld Windsor CO 80550-5141
+1 970 6867476	+1 970 6867476

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171022	Prime	NEDERLAND, CO CIPP PROJECT 2020 CIPP 10" PROJECT	JC	\$24,221	\$25,106

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Wilcher, Michael Lee	02-28-2020	09-15-2020	10	236	236	0
			Total	236	236	

Customer	Owner
Town of Nederland, CO	Town of Nederland, CO
45 West First Street Boulder Nederland CO 80466-0396	45 West First Street Boulder Nederland CO 80466-0396
+1 303 2583266	+1 303 2583266

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171023	Prime	GREELEY, CO - FL19-327-3 TRENCHLESS MAIN & COLLECTION	JC	\$434,076	\$458,453

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Wilcher, Michael Lee	07-15-2020	11-13-2020	36	1,529	1,529	0
			Total	1,529	1,529	

Customer	Owner
City of Greeley,CO-*Main	City of Greeley,CO-*Main
1101 1st Avenue Weld Greeley CO 80631	1101 1st Avenue Weld Greeley CO 80631
+1 970 3361205	+1 970 3361205

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171024	Prime	SOUTHEAST METRO STORMWTER AUTH COUNTY LINE RD. & I-25 STORM	JC	\$247,941	\$367,863

Project Manager	Bid Date	Project Close Date
Wilcher, Michael Lee	07-14-2020	02-20-2021

	AIS	Total	SR's
15	21	21	0
18	790	790	
30	114	114	
36	193	193	
Total	1,118	1,118	

Customer	Owner
South East Metro Storm Water Authority-Centennial,CA	South East Metro Storm Water Authority-Centennial,CA
76 Inverness Drive East Suite A Arapahoe Centennial CO 80015	76 Inverness Drive East Suite A Arapahoe Centennial CO 80015
+1 720 8746500	+1 720 8746500

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171025	Prime	LOUISVILLE, CO - 2020 PROJ #502498-660183	JC	\$198,078	\$193,022

Project Manager	Bid Date	Project Close Date
Huss, Eric D	07-28-2020	09-30-2020

	AIS	Total	SR's
8	3,891	3,891	0
Total	3,891	3,891	

Customer	Owner
Town of Louisville, CO	Town of Louisville, CO
749 Main Street Boulder Louisville CO 80027	749 Main Street Boulder Louisville CO 80027
+1 303 6666565	+1 303 6666565

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171028	Prime	PUEBLO WEST METRO DIST.,2020 2020 IFB-2020-WW-003	JC	\$189,604	\$189,868

Project Manager	Bid Date	Project Close Date
Huss, Eric D	08-26-2020	02-06-2021

	AIS	SR	Total	SR's
8	6,393	0	6,393	83
Total	6,393	0	6,393	

Customer	Owner
Pueblo West Metropolitan District-Pueblo West,CO	Pueblo West Metropolitan District-Pueblo West,CO
109 E Industrial Boulevard Pueblo Pueblo West CO 81007	109 E Industrial Boulevard Pueblo Pueblo West CO 81007
+1 719 5475000	+1 719 5475000

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171029	Sub	RME LTD dba ELITE SURFACE INFR FC REPR SEWER 700 & 8000 AREAS	JC	\$79,940	\$111,709

Project Manager	Bid Date	Project Close Date
Wilcher, Michael Lee	06-26-2020	12-21-2020

	AIS	SR	STD	Total	SR's
8	1,624	0	222	1,846	1
10	649	0	0	649	
Total	2,273	0	222	2,495	

Customer	Owner
Rocky Mountain Excavating-Castle Rock,CO	US Army - Fort Carson,CO
1199 Atchison Ct Douglas Castle Rock CO 80109	6151 Specker Ave Fort Carson Army Base El Paso Fort Carson CO 80913
+1 303 8410292	+1 719 5265811

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171030	Prime	MONTROSE, CO - 2020 REHAB 2020 CIPP REHAB PROJECT	JC	\$191,933	\$191,933

Project Manager	Bid Date	Project Close Date
Huss, Eric D	09-08-2020	01-08-2021

	AIS	Total	SR's
8	3,682	3,682	0
10	400	400	
12	164	164	
Total	4,246	4,246	

Customer	Owner
City of Montrose, CO-*Main	City of Montrose, CO-*Main
433 South First Street Montrose Montrose CO 81402-0790	433 South First Street Montrose Montrose CO 81402-0790
+1 970 2401484	+1 970 2401484

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171031	Prime	GLENWOOD SPRINGS, CO (2020) WW COLL SYS-BD 2020-028	JC	\$113,695	\$113,695

Project Manager	Bid Date	Project Close Date
Huss, Eric D	09-03-2020	01-30-2021

	AIS	SR	Total	SR's
8	772	0	772	6
10	340	0	340	
12	459	0	459	
18	280	0	280	
Total	1,851	0	1,851	

Customer	Owner
City of Glenwood Springs, CO	City of Glenwood Springs, CO
806 Cooper Avenue Garfield Glenwood Springs CO 81601-3428	806 Cooper Avenue Garfield Glenwood Springs CO 81601-3428
+1 970 3846400	+1 970 3846400

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171033	Sub	JITA CONTRACTING, DURANGO, CO NORTH NARROW GAGE LINING	JC	\$74,524	\$68,414

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	08-11-2020	11-25-2020	8	1,190	1,190	0
			Total	1,190	1,190	

Customer	Owner
Jita Contracting-Durango,CO	City of Durango, CO
? 1140A Main Ave La Plata Durango CO 81301	1474 Main Ave. 1474 Main Avenue La Plata Durango CO 81302-1880
+1 970 3757699	+1 970 2471845

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171034	Prime	LOUISVILLE, CO - 2020 PROJ #501499-660236	JC	\$68,400	\$76,152

Project Manager	Bid Date	Project Close Date		OLY	Total	SR's
Huss, Eric D	09-17-2020	12-11-2020	57	140	140	0
			Total	140	140	

Customer	Owner
Town of Louisville, CO	Town of Louisville, CO
749 Main Street Boulder Louisville CO 80027	749 Main Street Boulder Louisville CO 80027
+1 303 6666565	+1 303 6666565

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171035	Prime	MEAD, CO - 4TH & 5TH STREET ALLEY SANITARY REHAB	JC	\$98,474	\$88,740

Project Manager	Bid Date	Project Close Date		ILS	SR	Total	SR's
Wilcher, Michael Lee	09-17-2020	12-22-2020	8	750	0	750	25
			Total	750	0	750	

Customer	Owner
Town of Mead, CO	Town of Mead, CO
441 3rd Street Weld Mead CO 80542-0626	441 3rd Street Weld Mead CO 80542-0626
+1 970 5354477	+1 970 5354477

JDE Job Number	Role	Project Description	Project Status	Contract Value	Final Contract Amount
171037	Prime	ALEXANDER DAWSON SCHOOL 8" CIPP LINING PROJECT	JC	\$51,383	\$51,383

Project Manager	Bid Date	Project Close Date		AIS	Total	SR's
Huss, Eric D	07-30-2020	03-27-2021	8	422	422	0
			Total	422	422	

Customer	Owner
Alexander Dawson School- Lafayette, CO	Alexander Dawson School- Lafayette, CO
10455 Dawson Drive Boulder Lafayette CO 80026	10455 Dawson Drive Boulder Lafayette CO 80026
+1 303 6656679	+1 303 6656679

Contract Qualification Closed Projects (2013 - Present) - Detail Contract Value

Project JDE Job Number	Contract Value	Final Contract Amount
170742	\$545,072.50	\$549,206.50
17078105	\$571,430.30	\$601,168.38
17078106	\$346,897.70	\$561,416.32
170888	\$863,198.80	\$851,654.47
170891	\$1,021,618.40	\$1,006,789.30
170892	\$426,626.00	\$424,322.15
170894	\$94,485.00	\$91,457.00
170897	\$466,760.00	\$785,933.98
170899	\$1,320,765.70	\$487,368.43
170902	\$98,838.00	\$93,831.00
170907	\$57,118.66	\$56,967.00
170910	\$548,081.20	\$542,721.91
170914	\$654,588.22	\$208,102.16
17091401	\$440,124.70	\$405,847.60
170915	\$64,483.42	\$64,483.42
170919	\$208,128.00	\$217,712.92
170920	\$378,239.00	\$440,725.63
170926	\$6,377,620.00	\$6,594,051.83
170928	\$256,153.00	\$258,817.00
170929	\$830,483.00	\$830,483.00
170930	\$148,187.00	\$146,150.00
170931	\$122,784.00	\$110,784.00
170932	\$0.00	\$182,680.32
170933	\$235,058.00	\$240,420.95
170934	\$174,205.00	\$180,271.25
170936	\$465,588.00	\$563,291.85
170937	\$271,676.00	\$270,851.00
170939	\$180,982.00	\$275,339.00
170940	\$1,939,503.00	\$1,852,243.42
170941	\$1,910,179.50	\$1,870,561.50
170942	\$238,065.46	\$227,496.00
170945	\$41,881.00	\$41,881.00
170946	\$39,075.00	\$39,075.00
170947	\$29,121.10	\$75,016.00
170948	\$444,142.00	\$409,371.08

Project JDE Job Number	Contract Value	Final Contract Amount
170949	\$2,777,707.89	\$2,888,117.50
170950	\$1,439,215.00	\$1,384,735.61
170951	\$201,817.10	\$127,330.00
170952	\$1,490,063.58	\$1,381,942.80
170953	\$37,505.00	\$37,505.00
170954	\$219,534.00	\$219,184.00
170955	\$2,133,827.24	\$2,114,782.30
170956	\$439,677.00	\$440,325.00
170957	\$104,819.00	\$104,819.00
170959	\$202,303.00	\$204,100.00
170960	\$157,479.00	\$114,140.00
170961	\$65,635.00	\$70,618.00
170962	\$99,477.00	\$107,214.33
170963	\$87,281.40	\$87,420.00
170964	\$166,474.80	\$228,134.20
170965	\$89,817.50	\$89,817.50
170966	\$1,281,520.00	\$1,329,149.41
170967	\$1,289,021.75	\$1,232,660.28
170968	\$39,100.00	\$38,250.00
170970	\$96,589.20	\$103,050.52
170971	\$116,340.00	\$117,675.00
170972	\$407,774.00	\$392,421.00
170973	\$400,084.50	\$439,497.89
170974	\$570,316.00	\$556,372.00
170976	\$143,426.00	\$219,507.00
170977	\$109,769.03	\$105,238.50
170978	\$238,890.00	\$230,731.19
170979	\$362,664.00	\$378,157.00
170981	\$313,934.70	\$374,663.06
170982	\$59,818.00	\$59,818.00
170983	\$592,446.00	\$577,240.25
170984	\$1,073,985.00	\$995,905.48
170985	\$133,484.00	\$137,426.89
170986	\$845,124.00	\$1,150,798.27
170987	\$98,860.00	\$96,960.00
170988	\$255,466.00	\$256,909.22
170991	\$930,928.00	\$957,130.00
170992	\$216,220.00	\$215,234.00

Project JDE Job Number	Contract Value	Final Contract Amount
170993	\$214,757.00	\$231,680.75
170995	\$96,751.00	\$96,751.00
170996	\$47,400.00	\$47,400.00
170997	\$446,824.00	\$446,824.00
170998	\$241,489.00	\$331,895.00
170999	\$1,272,849.00	\$1,301,512.78
171000	\$284,729.46	\$305,561.18
171002	\$237,773.00	\$237,773.00
171003	\$2,326,427.00	\$2,316,477.00
171004	\$2,271,936.70	\$2,202,900.14
171005	\$211,830.30	\$208,722.60
171006	\$137,755.20	\$141,663.20
171008	\$129,143.00	\$130,960.63
171009	\$52,250.00	\$54,250.00
171010	\$1,057,591.00	\$1,000,742.81
171011	\$287,790.50	\$282,175.00
171012	\$56,772.00	\$56,772.00
171013	\$80,416.00	\$80,416.00
171014	\$219,182.50	\$208,924.50
171015	\$620,187.20	\$616,553.40
171017	\$239,897.50	\$244,556.50
171018	\$1,325,393.00	\$1,316,470.50
171019	\$159,760.00	\$249,518.00
171020	\$29,855.00	\$29,855.00
171021	\$99,039.00	\$99,039.00
171022	\$24,220.50	\$25,105.50
171023	\$434,076.00	\$458,453.00
171024	\$247,941.00	\$367,863.20
171025	\$198,077.60	\$193,021.60
171028	\$189,604.00	\$189,868.00
171029	\$79,940.00	\$111,709.00
171030	\$191,933.00	\$191,933.00
171031	\$113,695.00	\$113,695.00
171033	\$74,524.40	\$68,414.00
171034	\$68,400.00	\$76,152.00
171035	\$98,474.00	\$88,740.00
171037	\$51,383.00	\$51,383.00
Total	\$55,019,619.21	\$55,299,203.86

EXHIBIT E

Notice of Award

EXHIBIT F

Performance and Payment Bond

EXHIBIT G

Notice to Proceed

EXHIBIT H

Change Orders (if any)

EXHIBIT I

City of Arvada Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements

EXHIBIT J

**Project special provisions prepared or issued by City of
Arvada (or its Consultant if applicable)**

EXHIBIT K

**Detail drawings and Bid Documents prepared or issued by
City of Arvada (or its Consultant if applicable)**

EXHIBIT L

Specification Illustrations and attachments

EXHIBIT M

**All supplementary requirements regarding wage rates,
E.E.O., affirmative action and all other Federal-State
requirements as outlined in the specifications**



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.6.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-115 A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$396,194 to Honnen Equipment Co. for the Purchase of One 2019 Voegele SUPER 1700 Paver

Report in Brief

Fleet Services utilizes a fifteen point tracking system that is part of the FASTER fleet software system to identify vehicle replacement needs. This system tracks and assesses points based on three categories including vehicle age, mileage, and maintenance costs. An accumulation of fifteen points renders the vehicle no longer cost effective to retain for service. As part of the 2021 Vehicle Replacement Program, Fleet Services has identified Streets Division Paver S380 as in need of replacement.

The Arvada team recommends that the City Council approve R21-115, A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$396,194 to Honnen Equipment Co. for the Purchase of One 2019 Voegele SUPER 1700 Paver.

Financial Impact

This new unit will be purchased in the amount of \$396,194 as part of the 2021 Vehicle Replacement budget with available funds from the New Vehicle and Equipment Acquisitions Program account number 54.731010.58207 and is a one-time cost. Equipment prices have increased substantially since we received this quote and are forecast to increase again next year, making the timing of this purchase even more advantageous.

The new unit will be purchased in accordance with Sourcewell Contract # 032119-JDC and meets all City requirements and specifications.

Background

Unit S380 is used by the Streets team for City paving operations such as streets, alleys, parking lots, and addressing citizen patch requests. The current unit is twenty-seven years old and is becoming more challenging to maintain due to part availability and cost concerns. This paver is no longer cost effective to operate, has long exceeded its useful life, and has been identified to be in need of replacement. The new Voegele paver will include many technological features to improve efficiency and most importantly enhance the safety of our Streets staff while performing hazardous paving operations.

Discussion

Approval of this resolution and procurement of this unit will enable the Streets Division to continue to maintain their level of paving operations which are critical to the City's roadway infrastructure. In addition, the procurement of these units will enable the Fleet Services team to maintain equipment in an efficient and cost effective manner which focuses on preventive maintenance with minimum equipment downtime.

Public Contact

Posting of the City Council Agenda

Commission Recommendation

N/A

Strategic Alignment

This vehicle replacement aligns with the following Principle within the Infrastructure Priority Area of the City Council Strategic Plan:

Maintains existing roads and the transportation network in tandem with snow and ice control services to ensure swift and sure transportation modes for the community.

In addition, this action supports performance measures within the Fleet Services Division by obtaining safe and environmentally efficient fleet vehicles.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that the City Council approve R21-115, A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$396,194 to Honnen Equipment Co. for the Purchase of One 2019 Voegele SUPER 1700 Paver.

Suggested Motion:

I move that R21-115, A Resolution Authorizing the Issuance of a Purchase Order in the Amount of \$396,194 to Honnen Equipment Co. for the Purchase of One 2019 Voegele SUPER 1700 Paver, be (approved)(rejected).

Prepared by:
Ike Miller, Fleet Services Manager

Reviewed by:

Approved by:

Sharon Israel, Director of Utilities	8/23/2021
Bryan Archer, Director of Finance	8/23/2021
Tammy Hedlund, Legal Specialist	8/24/2021
Erika Pierce, Litigation Paralegal	8/24/2021
Jessica Morales, Assistant City Attorney	8/24/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-115

A RESOLUTION AUTHORIZING THE ISSUANCE OF A PURCHASE ORDER IN THE AMOUNT OF \$396,194 TO HONNEN EQUIPMENT CO. FOR THE PURCHASE OF ONE 2019 VOEGELE SUPER 1700 PAVER

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The city manager is hereby authorized to issue a purchase order in the amount of \$396,194 to Honnen Equipment Co. for the purchase of one (1) 2019 Voegel Super 1700 Paver.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

Quote Id: 25093151

Prepared For:
CITY OF ARVADA



Prepared By: **MIKE STEHLE**

Honnen Equipment Co.
5055 E. 72nd Avenue
Commerce City, CO 80022

Tel: 303-287-7506
Fax: 303-288-2215
Email: mikestehle@honnen.com

Date: 20 August 2021

Offer Expires: 29 October 2021

Confidential

Quote Summary**Prepared For:**

CITY OF ARVADA
5555 W 56TH AVE
ARVADA, CO 80002
Business: 303-431-3908
tmorahan@arvada.org

Prepared By:

MIKE STEHLE
Honnen Equipment Co.
5055 E. 72nd Avenue
Commerce City, CO 80022
Phone: 303-287-7506
mikestehle@honnen.com

The source well contract # **032119-JDC**

Quote Id: 25093151
Created On: 20 August 2021
Last Modified On: 20 August 2021
Expiration Date: 29 October 2021

Equipment Summary	Selling Price	Qty	Extended
2019 VOEGELE SUPER 1700 - 1982.0165	\$ 396,194.00 X	1 =	\$ 396,194.00

Equipment Total	\$ 396,194.00
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Quote Summary

Equipment Total	\$ 396,194.00
SubTotal	\$ 396,194.00
Total	\$ 396,194.00
Balance Due	\$ 396,194.00

Salesperson : X _____

Accepted By : X _____

Selling Equipment

Quote Id: 25093151**Customer:** CITY OF ARVADA

2019 VOEGELE SUPER 1700 - 1982.0165

Hours: 26
Stock Number: 63850

Code	Description	Qty
A39682	SUPER 1700 8' RUBBER TRACK ASPHALT PAVER W/ CARLSON SCREED	1

Standard Options - Per Unit

0010	VOEGELE TRACKED PAVER SUPER 1700-3i (4f)	1
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Dealer Attachments

0020	Dual Grade	1
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REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.7.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-116 A Resolution Authorizing an Agreement by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00

Report in Brief

City Council action is requested on the attached resolution authorizing a construction contract with Coblaco Services, Inc., in an amount not to exceed \$306,805.00. The project involves the Repair, Sealing and Recoating of the Ralston Water Treatment Reaction Tank concrete and metal surfaces. The tank serves as a critical part of the pretreatment process. The Reaction Tank work is needed to protect the integrity of the tank, ensure continued functionality and extend the life of the tank for an additional ten years.

The Arvada team recommends that the City Council approve R21-116, A Resolution Authorizing an Agreement by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00.

Financial Impact

The Tank Repair And Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00 is budgeted in the Water Fund, account number 41.735010.58202 as project "Reaction Tank Rehab", CIP Project No. 97594. This is a one-time expected cost for the tank project. The contract is for a two-year term for initial project with an option for an additional three consecutive one-year terms if Arvada chooses to renew for similar projects.

Background

In April of 2020, the City completed project #18WA22 (CIP Project #97581) "Reaction Tank Bypass". This allows the reaction tank to be completely isolated from the treatment process in the winter months for proper rehabilitation of the entire tank.

A formal request for proposals, RFP-21-Tank Repair and Seal, was issued on February 25, 2021 and closed on March 18, 2021. A Pre-bid walk-through was conducted on March 10, 2021. Four (4) proposals were received with four City team members evaluating the proposals. The team finished the evaluation of the proposals in July 2021 and had a Professional Engineer ensure the coating system proposed was adequate for the Water Treatment Tank needs. The City team unanimously selected Coblaco Services, Inc. This selection was based on Cobalco's qualifications and value to the City based on their competitive quote.

Discussion

The repair, sealing and recoating of the Reaction Tank will repair concrete cracks, remove corrosion and reseal the entire tank to ensure the integrity and reliability of the tank for several more years. The Reaction Tank is a key component to the pretreatment process for water treatment and the repairs made will ensure continued success in producing safe and high quality drinking water for the Citizens of Arvada.

The Reaction Tank is an in-line feature that is necessary during the peak summer months. Failure to maintain the tank would

SUBJECT: R21-116 A Resolution Authorizing an Agreement by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00

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lead to a catastrophic failure of the City's main water treatment plant processes and the ability to produce adequate drinking water supply during the mid-spring to mid-fall months.

The work is expected to begin in November of 2021 and be completed no later than March 11, 2022. Sufficient funds for this project are available in the Utilities Water Treatment Operations Project #97594 "Reaction Tank Rehab", CIP account No. 41.735010.58202.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

N/A

Strategic Alignment

This project was identified as a priority in the 2019 Water Treatment Master Plan and will ensure continued production of safe high quality drinking water for the City. This project also aligns with the following Principle within the Infrastructure Priority Area of the City Council Strategic Plan:

Provides the community with a safe, reliable, high-quality water supply, drainage system, and wastewater disposal services for full city build-out, as defined by the Comprehensive Plan. This includes maintaining utility rates at lowest practical levels with accurate billing that supports replacement of aging infrastructure in order to maintain robust utility systems.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that the City Council approve R21-116, A resolution Authorizing a Construction Contract by and between the City of Arvada and Coblaco Services, Inc. for the Tank Repair And Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00.

Suggested Motion:

I move that R21-116, A Resolution Authorizing an Agreement by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00, be (approved) (rejected).

Prepared by:
Brad Wyant, Water Treatment Manager

Reviewed by:

Approved by:

Sharon Israel, Director of Utilities

8/24/2021

SUBJECT: R21-116 A Resolution Authorizing an Agreement by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an Amount Not To Exceed \$306,805.00

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Bryan Archer, Director of Finance	8/24/2021
Tammy Hedlund, Legal Specialist	8/25/2021
Erika Pierce, Litigation Paralegal	8/30/2021
Jessica Morales, Assistant City Attorney	8/30/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-116

A RESOLUTION AUTHORIZING AN AGREEMENT BY AND BETWEEN THE CITY OF ARVADA AND COBLACO SERVICES, INC. FOR RFP-21 TANK REPAIR AND SEAL WATER TREATMENT TANK AND APPARATUS REPAIR IN AN AMOUNT NOT TO EXCEED \$306,805.00

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The Mayor or Mayor Pro Tem is authorized to sign and the City Clerk to attest, in form approved by the City Attorney, an Agreement, which is in substantially the same form as that attached hereto, by and between the City of Arvada and Coblaco Services, Inc. for RFP-21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair in an amount not to exceed \$306,805.00.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

**AN AGREEMENT BETWEEN THE CITY OF ARVADA AND
COBLACO SERVICES, INC., FOR RFP- 21 TANK REPAIR AND
SEAL WATER TREATMENT TANK AND APPARATUS REPAIR
IN AN AMOUNT NOT TO EXCEED \$306,805.00**

- 1. PARTIES.** The parties to this Agreement are the City of Arvada, a Colorado home rule municipal corporation, whose mailing address is 8101 Ralston Road, Arvada, CO 80002 (“Arvada”) and Coblaco Services Inc. whose place of business is located at 11905 124th Avenue, Henderson, CO 80640 (“Contractor”).
- 2. RECITALS AND PURPOSE.**
 - 2.1. Arvada requires a qualified firm to repair, clean, seal and coat an outdoor pretreatment water purification tank and internal piping, weir, skirt, and associated apparatus in order to address current and future leaks and corrosion issues.
 - 2.2. On or about February 25, 2021, Arvada issued a Request for Proposals for Tank Repair and Seal, RFP-21-Tank Repair and Seal, seeking proposals for the repair, cleaning, sealing, and coating of an outdoor pretreatment water purification tank and internal piping, weir, skirt, and associated apparatus in order to address current and future leaks and corrosion issues.
 - 2.3. Contractor has extensive experience in surface preparation, media blasting, and industrial coating services. On or about March 31, 2021, Contractor submitted its Proposal to RFP-21-Tank Repair and Seal (“Proposal”).
 - 2.4. Arvada has determined that Contractor has the requisite background, skill, expertise, and insurance to provide the requested professional services and other related services, under the terms and conditions more fully set forth below.
 - 2.5. Arvada and Contractor acknowledge and agree that Arvada contemplates using Contractor to perform the Work as described in the Contract Documents. However, Arvada and Contractor acknowledge and agree that Arvada may, at its own discretion, use other City approved contractors to perform similar professional services, and that this Agreement in no way limits Arvada from hiring other contractors or constitutes a contract for exclusive services from Contractor.
- 3. CONTRACT DOCUMENTS AND EXHIBITS.** The Contract Documents shall consist of this Agreement together with the following:

Exhibit 1: Arvada’s RFP-21-Tank Repair and Seal; and

Exhibit 2: Contractor’s Proposal.

All exhibits referred to in this Agreement are attached hereto and are, by reference, incorporated herein for all purposes. In the event any matter, term, provision, or condition that is the subject of this Agreement requires clarification or is in dispute, or is the subject of a difference of opinion, the purpose and intent of the Agreement shall be first ascertained by reference to the Contract Documents in their entirety. In the event of any dispute or

differences between the respective documents that constitute the Contract Documents, then Contractor shall secure the written instructions from Arvada before proceeding with the performance of the services affected by such conflicts, omissions, or discrepancies.

4. PAYMENTS TO CONSTITUTE CURRENT EXPENDITURES. Financial obligations of Arvada, if any, after the current year are contingent on funds for that purpose being appropriated, budgeted, and otherwise made available by the City Council for the City of Arvada. Arvada's obligations under the Agreement shall be from year to year only and shall not constitute a multiple-fiscal year direct or indirect debt or other financial obligation of Arvada within the meaning of Article X, Section 20 of the Colorado Constitution.

5. SCOPE OF SERVICES. Contractor shall perform the work as described in the Contract Documents or as amended by the mutual consent of the parties in writing ("Work"). Should the parties agree in writing to a change in the scope of services, then the parties will timely execute any applicable Change Order, which will address necessary start and end dates, any applicable deliverables and associated due dates, reporting requirements, documentation requirements, and any other matters that the parties deem necessary.

6. TERM.

6.1. This Agreement will become effective and binding on all parties upon Arvada's execution of the Agreement, which will occur within a reasonable time following Arvada's receipt of the executed Agreement from Contractor.

6.2. The term of the Agreement shall be for two years from Arvada's execution of the Agreement as described in Sec. 6.1, subject to availability of funds, or Arvada's termination for convenience under Sec. 9.0.

6.3. This Agreement may be renewed by Arvada for three consecutive one-year terms. If Arvada chooses to renew the Agreement, Arvada will notify Contractor in writing, 30 days prior to the Agreement termination date.

6.4. While Arvada has listed its major requirements for its solicitation in the RFP, Arvada may, during the term of this Agreement, wish to purchase other related services identified and offered by Contractor, based upon the pricing/fee contained in the Contract Documents. Arvada reserves the right to award these ancillary items to Contractor or another top rated Bidder based upon the negotiated scope of work and fee structure. This option, if exercised, in no way obligates Arvada to pursue additional services with Contractor.

7. PROJECT TIMELINE

7.1. Arvada anticipates the Work starting in early November 2021.

7.2. Contractor must complete the Work no later than March 11, 2022.

8. COMPENSATION. Arvada shall pay Contractor for the Work requested by Arvada and rendered by Contractor under this Agreement. If a project becomes necessary for Arvada to

complete or repair, Arvada and Contractor shall agree to an amendment to this Agreement to set the specific project requirements and compensation. At the time of amendment, Contractor may be required to deliver a performance and payment bond, executed by a surety company authorized to do business in the state, in an amount equal to 100 percent of the price specified in the amendment. Contractor agrees to submit monthly invoices for actual services completed to Arvada, and payment from Arvada will be due NET 30 days, unless otherwise stated and agreed to by the parties in the Contract Documents.

- 9. RIGHT TO TERMINATE.** Arvada shall have the right to terminate, without cause, this Agreement. Any such termination shall not be considered a breach of this Agreement or any extension thereof. In the event Arvada terminates this Agreement without cause, Arvada shall pay for all authorized services rendered by Contractor up through the date of termination by Arvada, not to exceed the total amount of the contract price as outlined in this Agreement and any applicable Change Order(s).

10. CHANGE ORDER PROCESS.

10.1. If Arvada wishes to add services, Arvada may so request in writing. Email will suffice as a writing for this purpose. If Contractor is not able to accommodate Arvada, it will promptly notify Arvada.

10.2. When both parties have agreed on the contents of a Change Order, both parties shall so indicate by signing the Change Order.

10.3. Once a Change Order has been agreed to in writing, signed by the parties, the Change Order shall be deemed a part of this Agreement. Any such Change Orders shall be subject and subordinate to the terms of this Agreement and incorporated herein, unless otherwise agreed to in writing, signed by the parties.

- 11. STAFF DIRECTION.** Arvada designates Brad Wyant as Arvada's Project Manager. Mr. Wyant will be Arvada's responsible staff member to provide direction to Contractor during the course of the Work. Arvada reserves the right to change the Project Manager(s) at its own discretion and will promptly notify Contractor of any such change in writing.

- 12. QUALITY OF WORK.** The Work performed by Contractor shall be done in accordance with generally accepted professional practices and to the level of competency presently maintained by other practicing professional consultants in the same type of work in the Denver metropolitan community.

- 13. TERMS AND CONDITIONS IN SOLICITATION.** Contractor affirms that it has read and is familiar with the Contract Documents, including but not limited to the General Terms and Conditions, Special Terms and Conditions, Insurance Requirements, and other RFP requirements, and agrees to be bound by those terms and conditions.

- 14. INDEPENDENT CONTRACTOR.** Contractor shall perform its duties under the Agreement as an independent contractor and not as an employee. Neither Contractor nor any agent or employee of Contractor shall be deemed to be an agent or employee of Arvada. Contractor shall not have authorization, express or implied, to bind Arvada to any agreement, liability, or

understanding, except as expressly set forth herein. Contractor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through Arvada and Arvada shall not pay for or otherwise provide such coverage for Contractor or any of its agents or employees. Contractor shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to the Agreement. Contractor shall: (i) provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law; (ii) provide proof thereof when requested by Arvada; and (iii) be solely responsible for its acts and those of its employees and agents.

15. PERFORMANCE MEASURES. The Performance Measures for this Agreement shall be as stated in Exhibit 2 – Contractor's Proposal.

16. ADDITIONAL DOCUMENTS OR ACTION. The parties agree to execute any additional documents and to take any additional action that is necessary to carry out this Agreement.

17. BINDING EFFECT. This Agreement shall inure to the benefit of, and be binding upon, the parties, their respective legal representatives, successors, heirs, and assigns; provided, however, that nothing in this paragraph shall be construed to permit the assignment of this Agreement except as otherwise expressly authorized herein.

18. PARAGRAPH CAPTIONS. The paragraph captions in this Agreement are set forth only for the convenience and reference of the parties and are not intended in any way to define, limit, or describe the scope or intent of this Agreement.

19. INTEGRATION, AMENDMENT, AND SEVERABILITY. This Agreement represents the entire agreement between the parties, and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect if the essential terms and conditions of this Agreement for both parties remain valid, legal, and enforceable.

20. NOTICES. Any notice or notification required or permitted by the Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the signature page below, or at such other address as has been previously furnished in writing, to the other party or parties. Such notice or notification shall be deemed to have been given when deposited in the United States mail.

21. BINDING AUTHORITY. Contractor represents and affirms that the signature page hereof accurately states the full legal name of Contractor (whether as a corporation, partnership, limited liability company, sole proprietorship, or other), contains all requisite signature(s) on behalf of Contractor, has been properly acknowledged by attestation, notary acknowledgment, or both, and in all other respects is effective to bind Contractor, in accordance with all applicable statutes, regulations, resolutions, rules, bylaws, agreements, or similar sources of authority or limitation. This Agreement may be executed in counterpart(s), each of which shall be deemed to be an original, and all of which, taken together, shall constitute one instrument.

DATED this _____ day of _____, 2021.

CITY OF ARVADA, a Colorado home rule
municipal corporation

Marc Williams, Mayor
8101 Ralston Road
Arvada, CO 80002

ATTEST:

City Clerk

APPROVED AS TO FORM:

Rachel A. Morris, City Attorney

By: _____

COBLACO SERVICES INC.

Alfonso Trujillo, Executive Vice President
11905 124th Avenue
Henderson, CO 80640
Email: alfonso@coblaco.com

Exhibit 1

Arvada's RFP-21-Tank Repair and Seal



REQUEST FOR PROPOSAL

Proposal #: RFP-21-Tank Repair and Seal

Title: Water Treatment Process Tank and Apparatus Repair

RFP Issued: 2/25/2021

Pre-proposal Meeting: March 9, 2021 12:30pm – Attendance is REQUIRED to submit.

Question Deadline: 3/10/2021 3:00 p.m. local time
Questions and responses will be posted on BidnetDirect.com. This is the ONLY VALID source for postings regarding this solicitation.

Proposals Due By: 3/18/2021 3:00 p.m. local time

Electronic Submissions must be submitted as (1) PDF online at BidNetDirect.com.
Your company name must be the first word naming the pdf file.
Late responses will not be considered for award.

Projected Start Date: Fall 2021

Submit administrative questions NOT related to the scope to: Nancy Allen at nallen@Arvada.org
Direct contact with the requesting department may result in vendor disqualification.

Arvada Vision: We dream big and deliver.

Mission: We are dedicated to delivering superior services to enhance the lives of everyone in our community.

Values:

Innovation – We excel in creativity, flexibility and the use of best practices while valuing diverse backgrounds, ideas and perspectives.

Passion – We are a high performing, inclusive team inspiring each other to pursue excellence.

Opportunity – We value our diversity, embrace possibilities, face challenges, persevere and take action to deliver quality results.

Documents included in this Request:

Cover Page	page 1
General and Special Terms and Conditions	page 2-6
Insurance Requirements	page 7
Administrative instructions and Evaluation Criteria	page 8-9
Scope of Work	page 9
Submittal Forms, submittal checklist	page 10-11
Attachments/Exhibits, including Performance Measures for services!	

GENERAL TERMS AND CONDITIONS

1. **NO MULTI-YEAR FISCAL OBLIGATION.** Financial obligations of Arvada payable after the current fiscal year are contingent on funds for that purpose being appropriated, budgeted, and otherwise made available by the City Council for Arvada. Arvada's obligations under the Agreement shall be from year to year only and shall not constitute a multiple-fiscal year direct or indirect debt or other financial obligation of Arvada within the meaning of Article X, Section 20 of the Colorado Constitution (TABOR).
2. **TAXES.** Arvada shall not be liable for the payment of any excise, sales, or use taxes. Arvada is exempt from federal excise taxes under I.R.C. Chapter 32 (26 U.S.C., Subtitle D, Ch. 32) and from State and local government sales and use taxes under §§39-26-704(1), *et seq.*, C.R.S. (Colorado Sales Tax Exemption Identification Number 98-01789). Contractor shall not invoice Arvada for any state, federal or local taxes. Upon written notification by Arvada, Contractor shall reimburse Arvada in a timely manner for any taxes erroneously paid by Arvada.
3. **NO INDEMNIFICATION BY ARVADA.** Arvada is prohibited under Article XI, Section 1 of the Colorado Constitution from indemnifying anyone. Despite any provision in any contract document to the contrary, Arvada does not indemnify Contractor or anyone else under the Agreement.
4. **INDEMNIFICATION OF ARVADA.** Contractor shall indemnify, defend, and hold harmless Arvada, its employees, agents and assignees (the "Indemnified Parties"), against any and all costs, expenses, claims, damages, liabilities, court awards, and other amounts (including attorneys' fees and related costs) arising from or related to any act or omission by Contractor, or its employees, agents, Subcontractors, or assignees in connection with the Agreement.
 - 4.1. **Confidential Information Indemnification.** Disclosure or use of Arvada Confidential Information by Contractor may be cause for legal action by third parties against Contractor, Arvada, or their respective agents. Contractor shall indemnify, defend, and hold harmless the Indemnified Parties, against any and all claims, damages, liabilities, losses, costs, expenses (including attorneys' fees and costs) incurred by Arvada in relation to any act or omission by Contractor, or its employees, agents, assigns, or subcontractors.
 - 4.2. **Intellectual Property Indemnification.** Contractor shall indemnify, save, and hold harmless the Indemnified Parties, against any and all costs, expenses, claims, damages, liabilities, and other amounts (including attorneys' fees and costs) incurred by the Indemnified Parties in relation to any claim that any Deliverable, Good or Service, software, or Work provided by Contractor under the Agreement (collectively, "IP Deliverables"), or the use thereof, infringes a patent, copyright, trademark, trade secret, or any other intellectual property right. Contractor's obligations shall not extend to the combination of any IP Deliverables provided by Contractor with any other product, system, or method, unless the other product, system, or method is (a) provided by Contractor or Contractor's subsidiaries or affiliates; (b) specified by Contractor to work with the IP Deliverables; (c) reasonably required in order to use the IP Deliverables in its intended manner and the infringement could not have been avoided by substituting another reasonably available product, system, or method capable of performing the same function; or (d) is reasonably expected to be used in combination with the IP Deliverables.
5. **GOVERNMENTAL IMMUNITY.** Liability for claims for injuries to persons or property arising from the negligence of Arvada, its departments, boards, commissions, committees, bureaus, offices, employees and officials shall be governed by the provisions of the Colorado Governmental Immunity Act, §§24-10-101, *et seq.*, C.R.S. (CGIA). No term or condition of the Agreement shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions contained in the CGIA.
6. **OPEN RECORD REQUESTS.** Arvada is obligated to comply with the Colorado Open Records Act (C.R.S. §§24-72-200.1 *et seq.*)(CORA), which may require Arvada to disclose all or a portion of communications relating to the Agreement, any transaction under the Agreement, and other related matters. Contractor has been advised to familiarize itself with CORA. Any confidentiality provisions in any contract documents are subject to the provisions of CORA.
7. **PROTECTION OF PERSONAL IDENTIFYING INFORMATION.** In the event the Agreement includes or requires Arvada to disclose to Contractor any Personal Identifying Information as defined in C.R.S. § 24-73-101, Contractor shall comply with the applicable requirements of C.R.S. §§ 24-73-101, *et seq.*, relating to third-party service providers.
8. **NO THIRD PARTY BENEFICIARIES.** The Agreement does not and is not intended to confer any rights or remedies upon any person or entity other than Arvada and Contractor. Enforcement of the Agreement and all related rights and obligations are reserved solely to Arvada and Contractor. Any services or benefits which third parties receive as a result of the Agreement are incidental and do not create any rights for such third parties.
9. **ASSIGNMENT.** Contractor's rights and obligations under the Agreement are personal and may not be transferred or assigned without the prior, written consent of Arvada. Any attempt at assignment or transfer without such consent shall be void. Any assignment or transfer of Contractor's rights and obligations approved by Arvada shall be subject to the provisions of the Agreement. Any provision of an assignment that enlarges any duty, responsibility, or obligation of Arvada, or that limits, curtails, or diminishes any right or privilege of Arvada, without Arvada's express written consent, shall be void.

10. **BINDING EFFECT.** This Agreement shall inure to the benefit of, and be binding upon, the parties, their respective legal representatives, successors, heirs, and assigns.
11. **SURVIVAL.** Any provision of the Agreement that imposes an obligation on a party after the Agreement's termination or expiration shall survive the termination or expiration and shall be enforceable by the other party.
12. **SUBCONTRACTS.** Contractor shall not subcontract any of its responsibilities without Arvada's prior written approval, which will not be unreasonably withheld. Contractor shall submit to Arvada a copy of each such subcontract upon Arvada's request. All subcontracts Contractor enters into in connection with the Agreement shall comply with all applicable federal, state, and local laws and regulations, shall provide that they are governed by the laws of the State of Colorado, and shall be subject to all provisions of the Agreement. Contractor agrees it is fully responsible for subcontractors performing services under the Agreement. Contractor shall be Arvada's sole point of contact regarding the services, including with respect to payment.
13. **INDEPENDENT CONTRACTOR.** Contractor shall perform its duties under the Agreement as an independent contractor and not as an employee. Neither Contractor nor any agent or employee of Contractor shall be deemed to be an agent or employee of Arvada. Contractor shall not have authorization, express or implied, to bind Arvada to any agreement, liability, or understanding, except as expressly set forth herein. **Contractor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through Arvada and Arvada shall not pay for or otherwise provide such coverage for Contractor or any of its agents or employees. Contractor shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to the Agreement. Contractor shall: (i) provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law; (ii) provide proof thereof when requested by Arvada; and (iii) be solely responsible for its acts and those of its employees and agents.**
14. **LICENSES, PERMITS, AND OTHER AUTHORIZATIONS.** Contractor shall secure, prior to the effective date, and maintain at all times during the term of the Agreement, at its sole expense, all licenses, certifications, permits, and other authorizations required to perform its obligations under the Agreement, and shall ensure that all employees, agents and subcontractors secure and maintain at all times during the term of their employment, agency or subcontract, all license, certifications, permits and other authorizations required to perform their obligations in relation to the Agreement.
15. **STANDARD AND MANNER OF PERFORMANCE.** Contractor shall perform its obligations under the Agreement in accordance with the highest standards of care, skill, and diligence in Contractor's industry, trade, or profession.
16. **TIME OF THE ESSENCE.** Contractor acknowledges and agrees that time is of the essence for this Agreement and that it is an essential term of this Agreement that Contractor maintain a rate of progress in the Services that will result in completion of the Services in accordance with this Agreement. To that end, Contractor agrees to proceed with all due diligence to complete the Services in a timely manner in accordance with this Agreement, and further agrees that failure to complete any of the Services during the Term of this Agreement, or as may be more specifically set forth in an attachment, exhibit, or modification, shall be deemed a breach.
17. **WAIVER OF BREACH.** A waiver by any party to the Agreement of a breach of any Agreement term shall not operate or be construed as a waiver of any subsequent breach by either party.
18. **RIGHT TO TERMINATE.** Arvada shall have the right to terminate, without cause, the Agreement. Any such termination shall not be considered a breach of the Agreement or any extension. In the event Arvada terminates for convenience, Arvada will pay Contractor for requested work performed up until the time of termination, not to exceed the total amount of the contract price agreed upon by Arvada and Contractor.
19. **EXTERNAL TERMS AND CONDITIONS.** Notwithstanding anything to the contrary, Arvada shall not be subject to any provision included in any terms, conditions, or agreements appearing on Contractor's or a subcontractor's website or any provision incorporated into any click-through or online agreements related to the Work unless that provision is specifically referenced in the Agreement.
20. **PROHIBITED TERMS.** Any term included in the Agreement that requires Arvada to indemnify or hold Contractor harmless; requires Arvada to agree to binding arbitration; limits Contractor's liability for damages resulting from death, bodily injury, or damage to tangible property; or that conflicts with this provision in any way shall be void ab initio. Any term included in the Agreement that limits Contractor's liability that is not void under this section shall apply only in excess of any insurance to be maintained under the Agreement, and no insurance policy shall be interpreted as being subject to any limitations of liability of the Agreement.

21. **COMPLIANCE WITH ALL LAWS.** Contractor shall comply with all applicable federal, Colorado and Arvada laws, rules, regulations, policies and procedures in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.
22. **BINDING ARBITRATION PROHIBITED.** Arvada does not agree to binding arbitration by any extra-judicial body or person. Any provision to the contrary shall be null and void.
23. **GOVERNING LAW AND VENUE.** Colorado law, rules, and regulations shall be applied in the interpretation, execution, and enforcement of the Agreement. Any provision included or incorporated herein by reference which conflicts with said laws, rules, and regulations shall be null and void. All suits or actions related to the Agreement shall be filed and proceedings held in the State of Colorado and exclusive venue shall be in Jefferson County.
24. **OWNERSHIP OF WORK PRODUCT.** The originals of all plans, reports, studies, data, or other materials or information relating to the Work that are produced by Contractor shall be delivered to and become the property of Arvada. Contractor may retain copies of any originals; however, no plans, reports, studies, data, or other materials or information relating to the Work shall be released to any person or entity without the prior written consent of Arvada. Nothing in this clause is intended to affect Contractor's right to use generic know-how learned in the course of providing services under the Agreement for the future benefit of Arvada or others.
25. **SOFTWARE PIRACY PROHIBITION.** Arvada or other public funds payable under the Agreement shall not be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. Contractor hereby certifies and warrants that, during the term of the Agreement and any extensions, Contractor has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If Arvada determines that Contractor is in violation of this provision, Arvada may exercise any remedy available at law or in equity or under the Agreement, including, without limitation, immediate termination of the Agreement and any remedy consistent with federal copyright laws or applicable licensing restrictions.
26. **PUBLIC CONTRACTS FOR SERVICES. §§8-17.5-101, et seq., C.R.S.**
- 26.1. Contractor certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under the Agreement and will confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform work under the Agreement, through participation in the E-Verify Program or the Colorado verification program established pursuant to §8-17.5-102(5)(c), C.R.S.
- 26.2. Contractor shall not knowingly employ or contract with an illegal alien to perform work under the Agreement or enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.
- 26.3. Contractor shall not use E-Verify Program or the program procedures of the Colorado Department of Labor and Employment (CDLE) ("Department Program") to undertake pre-employment screening of job applicants while the Agreement is being performed.
- 26.4. If Contractor obtains actual knowledge that a subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, Contractor shall:
- 26.4.1. notify the subcontractor and Arvada within 3 days,
- 26.4.2. terminate the subcontract if a subcontractor does not stop employing or contracting with the illegal alien within 3 days of receiving the notice, and
- 26.4.3. comply with reasonable requests made in the course of an investigation the CDLE takes pursuant to §8-17.5-102(5), C.R.S.
- 26.5. If Contractor participates in the Department Program, Contractor shall:
- 26.5.1. deliver to Arvada a written, notarized affirmation that Contractor has examined the legal work status of such employee, and
- 26.5.2. comply with all of the other requirements of the Department Program.
- 26.6. If Contractor fails to comply with any requirement of this provision or §§8-17.5-101, et seq., C.R.S., Arvada may terminate the Agreement for breach and Contractor shall be liable for damages.
27. **PUBLIC CONTRACTS WITH NATURAL PERSONS, §§24-76.5-101, et seq., C.R.S.** Contractor, if a natural person eighteen (18) years of age or older, hereby swears and affirms under penalty of perjury that Contractor (i) is a citizen or otherwise lawfully present in the United States pursuant to federal law, (ii) shall comply with the provisions of §§24-76.5-101, et seq., C.R.S., and (iii) has produced one form of identification required by §24-76.5-103, C.R.S. prior to the effective date of the Agreement.

SPECIAL TERMS AND CONDITIONS

1. PRICES FIXED AND FIRM FOR THE TERM OF THE CONTRACT:

Prices proposed by the vendor shall remain fixed and firm during the term of the contract; however, the vendor may offer incentive discounts from the fixed price. This contract shall commence upon the date specified in the Contract or Purchase Order and shall remain in effect until such time as all items/services purchased in conjunction with this solicitation have been delivered and accepted by the City's authorized representative. It shall be understood and agreed that any warranty period which exceeds this term shall remain in full force for the duration of the warranty period.

2. OPTION TO RENEW FOR SUBSEQUENT YEARS

The prices or discounts quoted in this Solicitation shall prevail for one year from the effective date of the contract, at which time the City shall have the option to renew the contract for 4 additional one year periods; provided that the vendor provided satisfactory performance during the contract period. Continuation of the contract beyond the initial period is a City prerogative and not a right of the vendor. Unless otherwise notified in writing, the option period shall become automatic at the end of the original period.

During the option period, the City will not consider an adjustment to the pricing structure. For consideration, the vendor must document that it was subject to a price adjustment by the product manufacturer or a direct wholesale supplier. Any price adjustments shall not exceed the amount being passed on.

3. CONTENTS OF OFFER. Vendors are required to submit offers with the following conditions:

- 1) Vendors shall make all investigations necessary to inform themselves of the facilities affected by the delivery of products and services required by the Solicitation.
- 2) Any official interpretation of the Solicitation may only be issued by an authorized agent of the City. The City shall not be responsible for other interpretations offered by employees not authorized.
- 3) The City shall issue Addenda if substantial changes are required which may impact the content and submission of Offers. A copy of such addenda will be publicly posted with the original RFP posting.
- 4) The apparent silence or omissions within this Solicitation regarding a detailed description of the materials or services shall be interpreted to mean that only the best commercial practices are to prevail and that only materials and workmanship of first quality are to be provided.

4. CLARIFICATION AND MODIFICATIONS. The contract resulting from this solicitation will be subject to the Solicitation materials, City Ordinance, State and Federal Statutes. When conflicts occur, the highest authority shall prevail. Vendors are required to indicate any variances to the terms, conditions, requirements and specifications of this Solicitation; no matter how slight. If variations are not stated in the vendor's Offer, it shall be agreed that the vendor's Offer fully complies with all conditions identified in this Solicitation.

5. ELIGIBILITY OF VENDORS: MUST BE ENGAGED IN SUPPLYING PRODUCTS OR SERVICES RENDERED.

Offers will only be considered from firms which have been engaged in the business of manufacturing or distributing the goods and/or performing services described in this Solicitation. Vendors must be able to produce evidence that they have an established satisfactory record of performance for at least two (2) years and have sufficient finances and structure to ensure that they can satisfactorily execute the Contract requirements, as determined by authorities of the City. The City reserves the right, before awarding the contract, to require a vendor to submit evidence of its qualifications including, but not limited to, financial, technical and other qualifications, as well as past performance with the City, for consideration in making the award in the best interest of the City.

6. CONFIDENTIAL DOCUMENTS

Vendors may designate specific pages or sections within their submission as trade secret or confidential commercial information or as otherwise protected by law ("Confidential Information"). Documents and data that are considered Confidential Information shall be clearly marked as such and separated from the rest of the solicitation submission documents. Comingling is not acceptable. The City does not favor blanket assertions of Confidential Information. Please note that blanket assertions that merely classify and/or broadly claim information is confidential are insufficient as a matter of law. See, *International Brotherhood of Electrical Workers Local 68 v. Denver Metropolitan Major League Baseball Stadium District*, 880 P.2d 160 (Colo.App. 1994). Any information that will be included in any resulting contract cannot be considered Confidential. Under no circumstances may submission pricing information be considered Confidential. In the event a formal contract is entered into with the City and a portion of the Proposal/Response carries a designation indicating the Vendor believes it is Confidential Information, then the City agrees that it will use its best efforts to forward any request for the disclosure of the Confidential Information to the Vendor. By its submission of the Proposal/Response, Vendor agrees to promptly respond to the request for disclosure with any objections and reasons therefor in accordance with the Colorado Open Records Act C.R.S. §§24-72-101 *et seq.* and any other applicable law. Further, Vendor agrees to assume the obligation to defend, hold harmless, and indemnify the City in any legal proceeding that arises from non-disclosure of documents or data pursuant to the Vendor's objection.

7. COOPERATIVE PURCHASING

The City of Arvada encourages and participates in cooperative purchasing endeavors undertaken by or on behalf of other governmental agencies including the Multiple Assembly of Procurement Officials (MAPO) and the Cooperative Educational Purchasing Council (CEPC).

We hereby request that any member of MAPO/CEPC be permitted to avail itself of this contract and purchase, as specified by the contract resulting from this RFP, at the contract prices established therein. Each governmental entity would establish its own contract, issue its own orders, be invoiced directly, make its own payments and issue its own exemption certificates as required. It is understood and agreed that the City of Arvada is not a legally binding party to any contractual agreement made between another governmental entity and the successful vendor as a result of this solicitation. The City shall not be liable for any costs or damages incurred by any other entity.

8. MODIFICATIONS TO EXISTING CONTRACT

Terms and conditions may be added, modified, and deleted upon mutual agreement between authorized agents of the City and the vendor provided that such terms and conditions remain within the scope and original intent of the Solicitation. Said terms and conditions may include, but are not limited to, additions or deletions of service levels and/or commodities, and increases or decreases in the time limits for an existing contract. Any and all modifications must be signed by authorized agents of the City and the vendor prior to the enactment of such modifications.

9. DELIVERY

Quoted prices and deliveries are to be FOB Destination freight prepaid and shall require inside delivery unless otherwise specified in the Special Conditions of this Solicitation. Title and risk of loss shall pass to the City upon inspection and acceptance by the City at its designated point of delivery; unless otherwise specified in the Special Conditions.

10. CONDITION OF MATERIALS AND PACKAGING

All materials and products supplied by the vendor in conjunction with this solicitation shall be new (unless otherwise specified in the Special Conditions), warranted, free from defects, and consistent with industry standards.

The Solicitation price shall include commercial packaging. The materials and products shall be delivered to the City in excellent condition for inspection by City representatives. If the product(s) is damaged or a number of items or components are missing during shipment, the vendor shall either replace the damaged items (if shipped by the vendor) or be responsible for filing, processing and collecting all damage claims (if shipped by a contractor of the shipper). In the event that any of the materials and products supplied to the City by the vendor are found to be defective or do not conform to the specifications, the City reserves the right to return the product to the vendor at no cost to the City; either as an exchange for suitable merchandise or for full credit.

INSURANCE REQUIREMENTS

The following listed insurance requirements shall be carried by the selected vendor for the entirety of the contract. Applicable requirements for this solicitation are identified by completed check boxes.

1. ☒ **Commercial General Liability**, written on an occurrence form, for limits not less than \$1,000,000 for bodily injury and property damage for each occurrence and not less than \$2,000,000 aggregate. Coverage shall include premises and operations liability, blanket contractual, broad form property damage, products and completed operations and personal injury endorsements.
2. ☒ **Workers' Compensation and Employers Liability** as required by statute. Employers Liability coverage is to be carried for a minimum limit of \$1,000,000 each accident/disease and \$1,000,000 aggregate.
3. ☒ **Automobile Liability** for limits not less than \$1,000,000 combined single limit for bodily injury and property damage for each occurrence. Coverage shall include owned, non-owned and hired automobiles.
4. ☐ **Umbrella Liability** of \$ _____, following form to the Commercial General Liability.
5. ☐ **Builders Risk or Course of Construction** Purchased by contractor to cover physical damage to property in construction or rehab. Contractors will ensure that City and subcontractors will be covered as additional insureds,

excluding their own machinery, tools and equipment.

6. ☐ **Professional Liability** Professional Liability insurance in an amount of not less than One Million Dollars and No cents (\$1,000,000.00) per occurrence, covering the professional work contemplated under this proposal. The coverage shall have an extended reporting period of three (3) years following the date of substantial completion of the work for reporting of claims.
7. ☐ **Pollution Legal Liability Insurance** for limits not less than \$1,000,000 per occurrence (or claims made) and not less than \$1,000,000 aggregate for bodily Injury, personal Injury and property Damage.
8. ☐ **Privacy/Network/Cyber Liability Insurance** for limits not less than \$1,000,000 for any firm providing product or services associated with IT, software, communication, or network.

Additional Insurance Requirements:

- Contractor will be required to, at its own expense, keep in full force and effect during the term of the Agreement, and during the term of any extension or amendment of the Agreement, insurance reasonably sufficient to insure against the liability assumed by Contractor pursuant to the provisions of the solicitation sent by the City of Arvada or as determined by the City of Arvada Risk Manager.
- Issuance of a Purchase Order/Contract is contingent upon the receipt of the insurance documents. Work shall not commence before this requirement is met. If the vendor fails to submit the required insurance documents within fifteen (15) calendar days after notice to submit such policies is given to the vendor by a City representative, the vendor may be in default of the Award.
- Except for Workers Compensation, Employer's Liability insurance, Automobile Liability and Professional Liability insurance, the City of Arvada must be endorsed as an additional insured on a Certificate of Insurance.
- All coverage must be written with carriers holding a minimum A.M. Best rating of A-:VII, and authorized to do business in Colorado. Coverage shall be primary, and any insurance held by the City of Arvada is excess and non-contributory.
- The City, through its Risk Manager, reserves the right to require additional insurance coverage and other requirements.

ADMINISTRATIVE INFORMATION

1. PURPOSE - TO OBTAIN PROPOSALS:

The purpose of this Solicitation is to provide qualified vendors with sufficient information regarding the City's needs in order to adequately prepare and submit a Proposal.

Proposals must be received by the date and time established in this solicitation. Once the deadline has passed, the Proposals will not be accepted and will be returned to the vendor.

Proposals are proprietary working documents offered by prospective vendors and, as such, are not subject to public inspections until an official award is made.

2. PREPARATION AND SUBMISSION

Offers will be prepared as follow:

- 1) A blank shall be construed as "No Bid/not offered". Where there is a discrepancy between the unit price and the extension of prices, the unit price shall prevail.
- 2) Vendors will not knowingly participate in solicitations where there exists a conflict of interest with their firm and a member of City staff or their immediate family.
- 3) Solicitations and addenda are available at WWW.BIDNETDIRECT.COM. Registration is available to receive email notification of new solicitations, addenda and communications.
- 4) Vendors who qualify their Offers by requiring alternate contractual terms and conditions as a stipulation for contract award, must include such alternate terms and conditions in its Offer. The City reserves the right to declare the vendor's Offer as non-responsive if any of these alternate terms and conditions are in conflict with the City's terms and conditions, or its best interest. Once Offers have been opened, the City shall not consider any subsequent submissions of alternate terms and conditions.

3. MODIFICATION OR WITHDRAWAL OF OFFERS

Modifications to Offers- Changes to the Offer after the submission deadline shall be allowed only when the vendor can show convincing evidence that an unintentional factual mistake was made. Modification requests must be made in writing. Any modification submitted to the City must have the vendor's name, address, Solicitation Number and title included.

Withdrawal of Offers- Offers may not be withdrawn after the deadline for the Solicitation for a period of ninety (90) calendar days. If an Offer is withdrawn by the vendor during this ninety (90) day period, the City may, at its option, suspend the vendor and may not accept any Offer from the vendor for a six (6) month period following the withdrawal.

REJECTION OF OFFERS

- A. The City may reject an offer, in whole or in part, for reasons including, but not be limited to:
 - 1) The vendor misstates or conceals any material fact in its Proposal;
 - 2) The vendor's Offer does not strictly conform to the law or requirements of the Solicitation;
 - 3) The Offer expressly requires or implies a conditional award that conflicts with the method of award stipulated in the Special Conditions;
 - 4) The Offer does not include documents which are required for submission with the Offer; or
 - 5) The Offer has not been executed by the vendor through an authorized signature.
- B. The City may, at its sole and absolute discretion:
 - 1) Reject all or parts of Offers submitted by prospective vendors;
 - 2) Re-advertise this Solicitation;
 - 3) Postpone or cancel the Solicitation;
 - 4) An Offer may not be accepted from, nor any contract be awarded to, any person or firm which
 - a) is in arrears to the City for any debt or Contract, or is a defaulter as surety for any obligation to the City.
 - b) has failed to perform faithfully any previous contract with the City, State or Federal governmental for a minimum period of one (1) year after this previous Contract was terminated for cause.
 - c) has pending litigation against the City on the date and time that the Solicitation is due.

BEST VALUE AGENCY

The City of Arvada is a best value agency. The intent of this solicitation is to award to the lowest responsive, responsible proposer that meets or exceeds the specifications and requirements incorporated in these solicitation documents. It is solely incumbent on the staff of the City of Arvada to conduct due diligence to determine best value prior to award.

METHOD OF AWARD - BEST EVALUATIVE SCORE BASED ON WRITTEN PROPOSAL:

It is the intent of the City to award a contract to the vendor(s) who receives the highest score from the City's RFP Evaluation Committee.

The Committee will score written Proposals by reviewing documentation submitted by the vendors. Evaluation will be based on the following criteria:

- 1) Firm Capabilities& assigned staff experience
- 2) Scope of submission
- 3) Effective Project Approach, safety and compliant products designated for use.
- 4) Effectiveness of implementation, or installation, plan.
- 5) Price/total cost of ownership to support best value for services and/or products provided.
- 6) Performance Measures included in the proposal if a service over \$15,000.

Exceptions to specifications or terms and conditions may result in submission being deemed non-responsive.

PRESENTATIONS:

A second phase MAY be incorporated, in which the Committee will invite a limited number of vendors who received high scores during phase one, to provide an oral presentation. The evaluative score from the oral presentations will determine the top rated vendor(s).

SCOPE OF WORK

The City of Arvada's Ralston Water Treatment Facility is seeking to have an outdoor pretreatment water purification tank and internal piping/weir/skirt, repaired/cleaned/sealed and coated to address current and future leaks and corrosion issues. The area to coat is approximately 15,682 square feet. The Tank is used as part of the City's water treatment efforts; therefore, the coating MUST meet drinking water standards (NSF61 compliant).

Please include product warranty period and estimated product life span.

The Ralston Water Treatment Plant is located at 6750 Dunraven St. Arvada, CO 80007 and a pre-

proposal inspection of the tank is scheduled.

The City anticipates work to be completed in the fall with completion date by December 31, 2021.

REQUIRED VENDOR SUBMITTAL FORM

SUBMITTED BY:

Company Name: _____

Contact Names: Sales/Customer Service _____

Address: _____

Phone: (____) _____ Email(s): _____

The undersigned hereby affirms that:

- He/she is a duly authorized agent of the vendor;
- He/she has read all Terms and Conditions and technical specifications made available in conjunction with this solicitation and fully accepts and acknowledges this offer is consistent with the specifications and terms and conditions, unless specific variations have been clearly and expressly listed in the offer.
- The Offer is in all respects fair, without outside collusion or otherwise illegal action.

By: _____	_____	_____
Signature of Authorized Agent	Date	FEIN
_____	_____	_____
Typed/Printed Name of Agent	Title of Agent	Agent email
_____	_____	_____
Typed/Printed Name of Witness	Title of Witness	Witness email

PAYMENT TERMS: If the vendor does not accept a percentage discount, the City standard is net thirty (30) days after the date that the City receives an accurate invoice and has accepted the product or service. Payment is the date of the check mailing or date of the credit card transaction.

Discount: ____% ____ Days, Net: 30 Days, Accept Visa without additional fee? _____

VARIATIONS: The vendor shall identify all variations and exceptions to any RFP documents. Submittal of a Vendor Contract is considered excessive in Variations and may be cause for determining that the Bid/Offer is non-responsive and ineligible for award. For each variation listed, reference the applicable section of the solicitation document as per the example below. If no variations are listed here, it is understood that the vendor's Offer fully complies with all terms and conditions. Attach additional Variation sheets in the same format as below after starting the first three on this page.

Page #: _____	Item # or Section: _____
Variance _____	

Page #: _____	Item # or Section: _____
Variance _____	

Page #: _____	Item # or Section: _____
Variance _____	

SUBMITTAL INSTRUCTIONS:
Proposals shall be submitted in the order listed below with each section clearly identified.

- ☐ Submit ON-LINE at BidnetDirect.com
- ☐ Cover & Executive Summary.
- ☐ Detail Firm's and employees' Capabilities, Experience, Licensing, and Certifications.
- ☐ Details of Proposal – **Proposed CERTIFIED PRODUCTS** & services, implementation timeline and warranties.
- ☐ Completed City Submittal Forms including this sheet and all other attachments specifically requested.
- ☐ Pricing – All fee and costs associated with the proposal.
- ☐ Performance Measures Form, when an applicable service.
- ☐ Insurance – Checking this box accepts that the insurance requirements listed by the City are acceptable unless listed in the variations on the previous page.

- ☐ CONFIDENTIAL information, if any, MUST be stamped as such on each page and submitted separately.
- ☐ Please initial to acknowledge Addenda, if any, have been considered in your proposal:
#1 _____ #2 _____ #3 _____

REFERENCES:

- ☐ Check here if Firm's standard reference sheet is attached, otherwise, use the space below.

Name: _____ Contact Person: _____

Address: _____

Telephone No: _____ Email: _____

Describe type of work/service performed or items supplied: _____

Name: _____ Contact Person: _____

Address: _____

Telephone No: _____ Email: _____

Describe type of work/service performed or items supplied: _____

Name: _____ Contact Person: _____

Address: _____

Telephone No: _____ Email: _____

Describe type of work/service performed or items supplied: _____

PERFORMANCE MEASURES FORM INSTRUCTIONS:

The City has incorporated Performance Management into its organizational culture. When vendors submit offers to the City in response to solicitations for **Services** (not associated with the primary purchase of goods, supplies, or software), they shall identify the methods and goals by which they will monitor and report their performance providing those services to the City. Vendor's performance shall be documented as to (a) Price/Cost, (b) Punctuality/Responsiveness (c) Quality/Reliability, and (d) Sustainability/or Innovation.

1. Vendor will define 1-2 measures for (a) Price/Cost, (b) Punctuality/Responsiveness (c) Quality/Reliability, and (d) Sustainability/or Innovation, that follow S.M.A.R.T goals: Specific, Measurable, Achievable, Relevant, and Timely, per category.

2. The awarded vendor will self-score their defined metrics within a score card emailed from purchasing 2 months prior to contract renewal. The department will review the vendor's self-scored measures.

SERVICES means: the furnishing of labor, time, effort, maintenance, etc., by a vendor/contractor/consultant, with an initial contract amount of more than \$15,000.

(a) Price/Cost

Example Measure: Consultant will submit detailed invoices substantiating amounts requested.

1. _____
2. _____

(b) Punctuality/Responsiveness

Example Measure: Reporting of project status will occur monthly with the City and consultant's Project Manager.

1.

2.

(c) Quality/Reliability

Example Measure: Revisions are drafted within two weeks, and no more than 3 revisions prior to final draft.

1.

2.

(d) Sustainability and/or Innovation

Example Measure: Digital reports delivered to the City 95% of the time will to reduce the use of paper.

1.

2.

Performance measures will be queried for every year of the contract. Performance measures reporting will partially inform re-contracting with or renewing a contract with a vendor.

Exhibit 2

Contractor's Proposal

COBLACO

SERVICES, INC.

PROPOSAL

City of Arvada

RFP- 21 Tank Repair and Seal Water Treatment Tank and Apparatus Repair



Coblaco Services Inc. - 11905 124th Avenue, Henderson, CO 80640 - (303) 690-7148



REQUIRED VENDOR SUBMITTAL FORM

SUBMITTED BY:

Company Name: Coblaco Services, Inc.

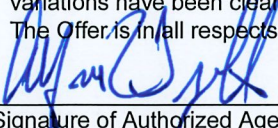
Contact Names: Sales/Customer Service Javier Gonzales, Estimator / Marcie Thorpe, Account Services Manager

Address: 11905 E 124th Ave., PO Box 609, Henderson, CO 80640

Phone: (303) 659-1958 Email(s): javier@coblaco.com / marcie@coblaco.com

The undersigned hereby affirms that:

- He/she is a duly authorized agent of the vendor;
- He/she has read all Terms and Conditions and technical specifications made available in conjunction with this solicitation and fully accepts and acknowledges this offer is consistent with the specifications and terms and conditions, unless specific variations have been clearly and expressly listed in the offer.
- The Offer is in all respects fair, without outside collusion or otherwise illegal action.

By: 	<u>03/31/2021</u> Date	<u>84-0759046</u> FEIN
Signature of Authorized Agent		
<u>Alfonso Trujillo</u> Typed/Printed Name of Agent	<u>Executive VP</u> Title of Agent	<u>alfonso@coblaco.com</u> Agent email
<u>Alyssa Sordo</u> Typed/Printed Name of Witness	<u>Administrator</u> Title of Witness	<u>alyssa@coblaco.com</u> Witness email

PAYMENT TERMS: If the vendor does not accept a percentage discount, the City standard is net thirty (30) days after the date that the City receives an accurate invoice and has accepted the product or service. Payment is the date of the check mailing or date of the credit card transaction.

Discount: N/A% N/A Days, Net: 30 Days, Accept Visa without additional fee? Yes

VARIATIONS: The vendor shall identify all variations and exceptions to any RFP documents. Submittal of a Vendor Contract is considered excessive in Variations and may be cause for determining that the Bid/Offer is non-responsive and ineligible for award. For each variation listed, reference the applicable section of the solicitation document as per the example below. If no variations are listed here, it is understood that the vendor's Offer fully complies with all terms and conditions. Attach additional Variation sheets in the same format as below after starting the first three on this page.

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- ☐ Detail Firm's and employees' Capabilities, Experience, Licensing, and Certifications.
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- ☐ Completed City Submittal Forms including this sheet and all other attachments specifically requested.
- ☐ Pricing – All fee and costs associated with the proposal.
- ☐ Performance Measures Form, when an applicable service.
- ☒ Insurance – Checking this box accepts that the insurance requirements listed by the City are acceptable unless listed in the variations on the previous page.
- ☐ CONFIDENTIAL information, if any, MUST be stamped as such on each page and submitted separately.
- ☐ Please initial to acknowledge Addenda, if any, have been considered in your proposal:
#1 Addendum 1, 2/25/21 #2 Addendum 2, 3/10/21 #3 Addendum 3, 3/25/21

REFERENCES:

- ☐ Check here if Firm's standard reference sheet is attached, otherwise, use the space below.

Name: Hydro Construction Company Contact Person: Jim Urich

Address: 77 Northwest Frontage Road, Fort Collins, CO 80524

Telephone No: (970) 225-2211 Email: jim@hydroconstruction.com

Describe type of work/service performed or items supplied: Multiple Coating and Lining projects

Name: Harrison Western Construction Contact Person: Tom Fryc

Address: 1208 Quail Street, Lakewood, CO 80215

Telephone No: (303) 234.0273 Email: tfryc@harwest.com

Describe type of work/service performed or items supplied: Multiple coating and lining projects

Name: Board of Water Works Pueblo Contact Person: Steve Anselmo

Address: 319 W. 4th Street, Pueblo, CO

Telephone No: (719) 584-0439 Email: sanselmo@pueblowater.org

Describe type of work/service performed or items supplied: Prepare and line concrete filter basins

PERFORMANCE MEASURES FORM INSTRUCTIONS:

The City has incorporated Performance Management into its organizational culture. When vendors submit offers to the City in response to solicitations for **Services** (not associated with the primary purchase of goods, supplies, or software), they shall identify the methods and goals by which they will monitor and report their performance providing those services to the City. Vendor's performance shall be documented as to (a) Price/Cost, (b) Punctuality/Responsiveness (c) Quality/Reliability, and (d) Sustainability/or Innovation.

1. Vendor will define 1-2 measures for (a) Price/Cost, (b) Punctuality/Responsiveness (c) Quality/Reliability, and (d) Sustainability/or Innovation, that follow S.M.A.R.T goals: Specific, Measurable, Achievable, Relevant, and Timely, per category.

2. The awarded vendor will self-score their defined metrics within a score card emailed from purchasing 2 months prior to contract renewal. The department will review the vendor's self-scored measures.

SERVICES means: the furnishing of labor, time, effort, maintenance, etc., by a vendor/contractor/consultant, with an initial contract amount of more than \$15,000.

(a) Price/Cost

Example Measure: Consultant will submit detailed invoices substantiating amounts requested.

1. Invoices will be submitted monthly and will include an AIA schedule of values.

2. Invoices will reflect work performed during the past month.

(b) Punctuality/Responsiveness

Example Measure: Reporting of project status will occur monthly with the City and consultant's Project Manager.

1. Our project manager will provide at least one monthly report.

2. Our project manager will be available for questions or concerns throughout the duration of the project.

(c) Quality/Reliability

Example Measure: Revisions are drafted within two weeks, and no more than 3 revisions prior to final draft.

1. Our project narrative will only consist of one final submission.

2.

(d) Sustainability and/or Innovation

Example Measure: Digital reports delivered to the City 95% of the time will to reduce the use of paper.

1. Coblaco's daily inspection reports and quality control documents will be provided weekly to the owner.

2.

Performance measures will be queried for every year of the contract. Performance measures reporting will partially inform re-contracting with or renewing a contract with a vendor.

Coating Contractor:

Coblaco Services Inc.
11905 E. 124th Ave., Henderson, CO 80640
P: 303-690-7148
F: 303-750-5170

Company Officials:

Steve Davis – President & CEO
Phone: 303-868-7132
Alfonso Trujillo – Executive Vice President & GM
Phone: 720-822-3459
Jason Becker – Director of Sales & Estimating
Phone: 303-868-7148
Greg Smith – Director of Operations
Phone: 303-868-7145
Tedd Kersey – Vice President of Compliance
Phone: 303-880-9206
Andrew Sexton – CFO
Phone: 303-579-4563

Project Oversight:

Jack O'Dell – Project Manager/Competent Person
Mobile: 303-908-0342
Jaime Rangel - General Superintendent/Competent Person
Mobile: 303-710-1408
Chester Simmons – Project Coordinator
Mobile: 720-302-3305

Project Supervision & Staff:

TBD

Corporate Headquarters

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Water Treatment Process Tank and Apparatus Repair

Executive Summary

Coblaco Services Inc. appreciates the opportunity to work with the City of Arvada on the Water Treatment Process Tank and Apparatus Repair Project. It was our objective from the first introduction to the project to be included in the procurement process. After completing a site visit, our goal was to provide a narrative that clearly depicts a path for success. In that regard we offer the following:

- A brief description of the project.
- An introduction of Coblaco Services Inc., to include Company Qualifications and Staff Qualifications.
- A detailed project narrative.
- Preliminary work durations that will be used to create a comprehensive project schedule.
- Proposed pricing per bid items.
- General overview of our quality control program and project level quality control management.
- Our safety program sections that apply to the primary project specific safety concerns. This will include preliminary site-specific lead exposure control, environmental compliance and waste management plans as part of our hazardous materials control plan and general project specific safety.
- Finally, we will include all appropriate and applicable support documentation to include company certifications, work history and staff qualifications.

It is our belief that our work experience, the team that we will assemble and commit to the project, the equipment, the understanding of the scope that will separate us from the competition. As a 40+ year Colorado based company we recognize long-term relationships are worth taking risks for and that trust is not given but earned. It is our intention to earn that trust and garner a relationship that it is equally beneficial for all sides.

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Water Treatment Process Tank and Apparatus Repair

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Attachments

Attachment A	SSPC QP1 & QP2 Certificates
Attachment B	Coblaco Services Inc. Work History Summary
Attachment C	Key Company Officials & Staff Resumes
Attachment D	Coblaco Services Inc. Quality System Manual
	Quality Control Forms
Attachment E	Coblaco Services Inc. Occupational Safety and Health Compliance Manual
Attachment F	Product Data Sheets

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Water Treatment Process Tank and Apparatus Repair

I. Project Description:

Coblaco Services, Inc. (hereafter referred to as CSI) offers the following work plan as part of the proposal to perform all surface preparation and coating to the structural steel and concrete surfaces of the Water Treatment Process Tank and Apparatus Repair project. All painted surfaces shall be cleaned, prepared and coated using coatings that are NSF 61 compliant. Coatings will be applied as per the specification and in accordance with the manufacturer's recommendations.

II. Contractor Introduction & Qualifications

Coblaco Services, Inc. (CSI) is a second-generation owned, Colorado-based company that has been recognized as best-in-class in surface preparation, media blasting, and industrial coating services for over 42 years. CSI partners with the top coating manufacturers in the world and is certified in the latest coating technologies. We have developed relationships with many of the manufacturers in the industry to ensure you and your customers receive the best product application possible for each specific project for the best price.

CSI's Administrative Offices and Production Facility are located in Henderson, Colorado. Our Production Facility spans over 30 acres and includes more than 30,000 square feet of climate-controlled coating areas, including a 100' by 40' downdraft spray booth. The facility complements Coblaco's field services by providing a unique solution to customers, offering both field-based, on-location service, as well as providing CSI with experience and expertise performing industrial surface preparation and coating in fixed facilities and in mobile field applications.

CSI is committed to safety, service, performance, and integrity. We have a complete OSHA compliance safety program including Hazardous Materials Control and substance abuse screening. We retain the services of Hellman & Associates for our safety training, health & safety plans (HASP), and information on the latest OSHA & EPA requirements.

CSI holds both the Society for Protective Coatings (SSPC) QP 1 and QP 2 Certifications, see Attachment A. The SSPC QP 1 certification is a nationally recognized program that evaluates the practices of industrial painting contractors in key areas of business. The complex nature of coating systems and the specific surface preparations required for these systems have made the QP 1 guidelines vital to the longevity of applied protective coatings. The QP 2 program recognizes contractors who possess specialized skills, knowledge, policies and practices that make them experts in the **removal and disposal of lead and lead-based coatings**.

CSI has extensive experience in the logistics management of complex projects. We have qualified staff to set up and supervise crews at various points of a project's location to simultaneously perform different scopes of work. Further, our communication process is such that crew leads can update Project Managers at regular intervals, who then collect and coordinate the information and serve as the central point of communication for Owners and/or General Contractors. This ensures up-to-date reporting of job progress. Work history that supports CSI's ability to confidently quote and complete the required scope has been outlined in Attachment B, Coblaco Services Work History Summary. Specific projects that are most relevant include a narrative to explain in greater detail how the scope was planned and completed.

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States that CSI is currently licensed to work in include, but are not limited to: Alaska, Arizona, California, Colorado, Florida, Idaho, Kansas, Kentucky, Maryland, Missouri, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wisconsin & Wyoming.

Staff Qualifications

Coblaco Services is also actively involved with the National Association of Coating Engineers (NACE), having seventeen Coblaco employees who are NACE CIP certified, six of whom are CIP Level III certified. Coblaco's President is a NACE Instructor and SSPC Train-The-Trainer certified, allowing in-house training to the Coating Application Specialist (CAS) standard. Additionally, CSI has an extensive employee development program designed in accordance with the SSPC QP1 Company Certification and SSPC CAS Certified Application Specialist Certification. CSI's Industrial Coating Specialist (ICS) program helps technicians move from an onboarding or apprentice status, through an ICS Level 3 & 4 or Journeyman status.

Key Company Officials & Staff

- Steve Davis – President & Owner
25 Years Industry Experience
NACE CIP Instructor ▫ NACE CIP Level III Certified ▫ SSPC Train The Trainer Certified
- Jason Becker – Director of Sales/Estimating
17 Years Industry Experience
NACE CIP Level III Certified ▫ SSPC Quality Control Supervisor
- Greg Smith – Director of Operations
9 Years Industry Experience
NACE CIP Level III Certified ▫ SSPC C3/C5 Lead Abatement Competent Person ▫ SSPC Quality Control Supervisor ▫ SSPC Bridge Coating Inspector Level II
- Tedd Kersey – Vice President – Compliance & Infrastructure
12 Years Industry Experience
NACE CIP Level III Certified
- Jack O'Dell – Project Manager
5 Years Industry Experience
NACE CIP Level II Certified ▫ SSPC C3/C5 Lead Abatement Competent Person
- Jaime Rangel – General Superintendent
24 Year Industry Experience
NACE CIP Level I Certified ▫ SSPC Certified Application Specialist - Level 2 ▫ SSPC Quality Control Inspector
▫ SSPC C3/C5 Lead Abatement Competent Person
- Andrew Salyards - Supervisor
27 Years Industry Experience
NACE CIP Level III Certified ▫ SSPC Quality Control Supervisor ▫ SSPC C3/C5 Lead Abatement Competent Person

Additional staff experience and certifications will be provided for all CSI team members working on the Water Treatment Process Tank and Apparatus Repair. Resumes for key company officials and staff noted above are included in Attachment C.

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Water Treatment Process Tank and Apparatus Repair

Equipment

CSI has identified equipment specifically needed for the project and plans to mobilize that equipment during an initial mobilization. All necessary equipment is owned and maintained by CSI. CSI intends on leaving the necessary equipment onsite for the duration of the project to ensure timely project completion.

- 1600 CFM Diesel Compressor
- 10 Ton Trailer Mounted Blast Pot
- 20,000 CFM Dust Collector
- 2400 CFM Trailer Mounted Industrial Vacuum
- Graco Reactor Plural Component Sprayer – Mounted In Self-Contained Tractor/Trailer
- Graco Airless Spray Pumps
- 8k Telehandler Forklift
- Multiple Work Trucks
- Enclosed Gooseneck Work Trailer

III. Project Narrative

The methods outlined below include preliminary plans based on known information provided during the pre-bid presentation, project specification and discerned during the site visit. Additionally, alternate plans may be applied due to changing and developing circumstances.

Location: Steel Surfaces and Concrete Surfaces**General Considerations**

Staging/Work Progression - Multiple tasks will be required to prepare the work areas to ensure that all preparation and painting work will be completed in accordance with the specifications and the manufacturer's recommendations. Work progression shall be daily surface preparation, cleaning and immediately followed by coating application on steel surfaces, while concrete surfaces will be coated according to project schedule. Weather conditions shall be monitored daily to ensure adequate cure time will be achieved in the event of inclement weather. A crane will be used to facilitate the lowering of lifts into the concrete structure to allow access to elevated and overhead structures.

Containment – A single main containment will be required for the duration of the project. A "Circus" type tent shall be constructed over the Reaction Tank to ensure proper containment of dust and debris, per compliance with OSHA Lead & Silica Standards, and to provide the ability for climate control. It may also be necessary for additional smaller isolated enclosures.

Engineering Controls will be a key factor in the safe and efficient completion of the work. Ventilation equipment considerations are based on containment size and design. Proper ventilation will require air supply intake, input airflow, air pressure and exhaust air flow. There is no definitive guidance on required airflow, however general guidance (based on ACGIH guidelines) states that crossdraft airflow should average 100fpm. Given the size and configuration of the containment planned a 20,000 CFM Dust Collector shall be sufficient. Special considerations will then be made for containment configuration, ducting and makeup air to ensure

proper pressure differentials and airflow in order to maintain Level 0 Emissions in conformance with 40 CFR Part 60, Appendix A, Method 22, as outlined in SSPC Technology Update No. 7.

Steel surface preparation will include determination of existing surface conditions, pre-cleaning where applicable, and dry abrasive blasting. Opening to pipes and other surfaces not being prepared or coated will be protected prior to media blasting. The steel surfaces will receive preparation in conformance with the Joint Surface Preparation Standard SSPC-SP10/NACE NO.2 – Near-White Metal Blast Cleaning, to a minimum profile of 3 mils. All surface preparation will be completed per industry best practices and in accordance with the specification and manufacturer’s recommendation for surface cleanliness and profile.

Metal weld repair-contingency upon completion of metal surface preparation, existing metal surfaces will be visually inspected. In the event areas where the metal has completely corroded, a 6” x 6” quarter inch thick plate will be fillet welded in place. A contingency of 3 days has been included in the pricing table for repairs that may arise.

Concrete surface preparation will include determination of existing surface conditions, pre-cleaning where applicable, and dry abrasive blasting. The concrete will receive surface preparation in conformance with the Surface Preparation Standard SSPC-SP13, Preparation of Concrete, to a minimum ICRI CSP of 4.

Concrete major crack repair-contingency will include completion of concrete surface preparation and visual inspection being performed to address existing cracks. The paint manufacturer shall determine the status of the cracks and possible repair procedures. A contingency of 4 days has been included in the pricing table for concrete crack repairs beyond the provided filler and paint materials.

Exterior concrete wall – Bid Adder shall be pressure washed to remove dirt, debris and biologic contaminants.

Steel coating application of the center well, submerged pipe and flash mixer shall receive one (1) prime coat of Sherwin Williams Duraplate 235 PW at 5-7 mils DFT. One (1) stripe coat of Sherwin Williams Duraplate 235 PW to all corners, edges, welds and irregular surfaces. One (1) top coat of Sherwin Williams Duraplate 235 PW at 5-7 mils DFT. Coatings will be applied in accordance to SSPC PA1 and applied to manufacturer’s recommendations.

Steel coating application in the metal surfaces of the weir shall receive One (1) top coat of Sherwin Williams Sherplate at 25-30 mils DFT. Coatings will be applied in accordance to SSPC PA1 and applied to manufacturer’s recommendations.

Concrete application to interior concrete floor and walls, launder, effluent box, flash mixer and waste sump shall receive a cementitious filler skim coat of Sherwin Williams Cemtec MSM. One (1) top coat of Sherwin Williams Sherplate at 25-30 mils DFT. Coatings will be applied in accordance to SSPC PA1 and applied to manufacturer’s recommendations.

Exterior concrete wall aesthetic painting – Bid Adder shall receive one (1) aesthetic coat of Sherwin Williams Industrial Acrylic to match existing plant color.

IV. Preliminary Schedule Durations

The durations listed below are considered preliminary. Durations are considered using the specified work hours and Monday – Friday only. These durations take into consideration anticipated production rates, item square footage and complexity of the surfaces. They do not include possible down time for necessary ancillary inspection or repair that may be necessary on welds and other item components or the anticipated weather delays. CSI will work closely with owner and contractor to review overall project schedule, inspection schedule and critical path schedule to ensure the project is completed in the shortest time possible.

Durations Breakdown

Schedule	Duration	Crew Size
Steel and concrete coatings	8 weeks	4-5
Weather Delays, unforeseen containment repairs	1 Week	N/A
Contingency repair days	1 Week	N/A

I. Item Pricing

Item	Description	QTY	Unit	Unit Price	Total Price
1	Mobilization	1	EACH	\$7,000.00	\$7,000.00
2	Construct Ventilated Containment	1	EACH	\$25,300.00	\$25,300.00
3	OSHA Lead Monitoring/HASP/EMP	1	EACH	\$1,583.00	\$1,583.00
4	Metal Surface Preparation	1	EACH	\$52,676.00	\$52,676.00
5	Concrete Surface Preparation	1	EACH	\$72,980.00	\$72,980.00
6	Metal Coating Application	1	EACH	\$42,611.00	\$42,611.00
7	Concrete Coating Application	1	EACH	\$89,555.00	\$89,555.00
				TOTAL	\$291,705.00
Contingencies					
8	Weld Repair	3	DAYS	\$950.00	\$2,850.00
9	Concrete Crack Repair	4	DAYS	\$1,800.00	\$7,200.00
10	Heat	15	DAYS	\$1,325.00	\$1,650.00
Bid Adder					
11	Exterior Wall Aesthetic Painting	1	EACH	\$3,400.00	\$3,400.00

V. Notes and Exclusions

- **Proposal includes a two (2) year CSI Labor/Workmanship warranty.**
- Contingencies shall be charged per unit price as needed.
- Proposal contingent upon owner providing sufficient space or laydown area for the necessary equipment.
- Proposal contingent upon owner providing potable water for cleaning.

VI. Quality Control

CSI is a SSPC QP1 & QP2 certified contractor and will perform all work in strict adherence to those program rules. The CSI Quality Control Program Manual is included with this plan as Attachment E. The general quality control plan outlined below is preliminary and will be updated to include Inspection test plans for all Items by system. The inspection test plans outline the project specific hold points and test standards to be followed for each Item and system.

1. Training

- a. The CSI Quality Control Program includes training of all personnel on the job site for the specified requirements for the cleaning, surface preparation, and painting on the project, as well as the potential environmental and physical hazards onsite.

2. QC Personnel

- a. Quality Control Oversight - Quality Control Supervisor

- i. Name: Greg Smith
- ii. Credentials:
 - a. NACE Coatings Inspector – Level 3 Certified Cert No.439903
 - b. SSPC QCS
 - c. SSPC C3/C5
 - d. SSPC BCI Level II

3. CSI Quality Control Inspectors

- a. Per the specification, all inspections shall be performed by individuals qualified to NACE Level 2 or approved equivalent.
- b. By virtue of their NACE certifications as Coatings Inspectors and their experience with Industrial Coatings, the above-listed CSI employees are certified to perform the duties of Quality Control Inspector for CSI.
 - i. Steve Davis: NACE Level 3 #6710
 - ii. Greg Smith: NACE Level 3 #43990
 - iii. Tedd Kersey: NACE Level 3 #38582
 - iv. Jason Becker: NACE Level 3 #19984
 - v. John Garcia: NACE Level 3 #13706
 - vi. Andrew Salyards: NACE Level 3 #13715
 - vii. Jim Eckelberry: NACE Level 2 #17556
 - viii. Albert Rangel: NACE Level 2 #38589
- c. The following are certified to perform Quality Control Testing and Inspection per CSI Quality Program and could do so under the supervision of a NACE Level 2 or higher, listed above, on this project.
 - i. Jaime Rangel: NACE Level 1 #51911
 - ii. Rich Valdez: NACE Level 1 #51498
 - iii. Doug Henderson: NACE Level 1 #43992
 - iv. Don Wasielewski: NACE Level 1 #17569
 - v. Javier Gonzalez: NACE Level 1 #74595
 - vi. Chester Simmons: NACE Level 1#82509

- vii. Alfonso Trujillo: NACE Level 1 #58964
- 4. Procedures
 - a. CSI QC Inspectors will perform daily Quality Control Inspection procedures during all phases of surface preparation, coating application, corrective action and punch list activities. Inspection data and results will be documented on the CSI Quality Control Forms, to include:
 - i. COB-QMF-001 – PROJECT TRANSMITTAL FORM
 - ii. COB-QMF-002 - DAILY INSPECTION REPORT
 - iii. COB-QMF-003 – DAILY WORK LOG
 - iv. COB-QMF-004 – CORRECTIVE ACTION REPORT
 - v. COB-QMF-010 - DFT MEASUREMENT WORKSHEET
- 5. In Process CSI Hold Point Inspections
 - a. Shall be conducted as standard practice to verify that surface preparation and coating application procedures are conducted in accordance with project specifications and industry standards. The Daily Coating Inspection Report form uses Hold Points to identify all critical phases of the daily operations and to verify proper adherence to the manufacturer's recommendations and project specifications, and to document work performed.
 - i. Pre Surface Preparation/Condition and Cleanliness – The CSI Industrial Coating Specialist (ICS) will inspect the condition of the surface to be worked on prior to any work. This will include visible surface deposits (grease, oil, etc.), and concrete moisture test per ASTM D4263, Plastic Sheet Method. The existing surface condition will be noted on the Daily Coating Inspection Report and any necessary/required pre-cleaning methods shall be determined by the ICS and/or inspector and performed and documented.
 - ii. Surface Preparation Monitoring – The CSI ICS will monitor the progress of the surface preparation and document environmental readings. All information for surface preparation equipment will also be documented during this step to include type of abrasive used, size of compressor, size of blast hose, and size of blast nozzle. The inspector will ensure that all equipment is in good working order and is being operated per the manufacturer's operating instructions.
 - iii. Post Surface Preparation/Cleanliness and Profile – Following the completion of surface preparation procedures, the CSI ICS will check the cleanliness and profile achieved and document conformance or non-conformance with the applicable SSPC/NACE joint standard. Steel surface profile will be measured and documented in accordance with the applicable standard (e.g. ASTM D 4417 Method C or NACE RP0287), generally using the Elcometer 224 Digital Surface Profile Gauge, or Test Ex Replica Tape. Concrete surface profile shall be inspected using a Concrete Surface Profile Chip Set. Cleanliness and profile achieved will be documented on the Daily Coating Inspection Report.
 - iv. Pre Application Preparation/Surface Cleanliness - After completion of surface preparation, but prior to application of any coating, the CSI ICS will confirm that the surface to be coated is in conformance with the specified cleanliness and profile, and all dust and debris has been removed.

- v. Application Monitoring/Wet Film Thickness (WFT) – The CSI ICS will monitor the progress of the application process and document environmental readings. The ICS will document material storage conditions, monitor and document mixing procedures and document all material data from the Product Data Sheets. During application the ICS will monitor to assure proper application techniques are used (generally in accordance with SSPC PA 1: Shop, Field, and Maintenance Painting of Steel). The ICS will ensure all equipment is in good working condition, is being used per the manufacturer’s instructions and document the size/type of equipment being used. The ICS will also ensure that the proper Wet Film Thickness (WFT) calculations have been made and they are being checked regularly during application using WFT Gauges, per ASTM D4414.
 - vi. Post Application/Application Defects - Throughout the curing process the CSI ICS will check for any defects in the coating to include: non-drying film, blushing, runs, sags, curtains, wrinkles, discontinuities, holidays, missed areas, chalking, cratering, air voids, pinholes, discoloration, blistering, checking, flaking, etc. Any nonconformance will be documented and corrective action taken. Post Application/Application Defects will be checked again following any required corrective actions, with all work documented on the Daily Coating Inspection Form.
 - vii. Post Cure/Dry Film Thickness (DFT) - After the coating has cured to an acceptable level the CSI ICS will measure the Dry Film Thickness of the applied coating in accordance with contract documents and/or applicable standard. The primary standard used for measuring Dry Film Thicknesses is SSPC PA2, level 2. Thickness measurements will be made using an electronic Type II Gauge, the Defelsko Positector 6000 or equal. The inspector will maintain calibration certificates and perform tests to verify accuracy of the gauge on-site. All DFT readings will be documented on the DFT Measurement Worksheet.
 - viii. Nonconformance/Corrective Actions Follow-up - Any nonconformance item identified will be corrected and documented on the Non-Conformance Report in accordance with the CSI Quality Control Program. The follow-up shall include any necessary re-work and inspection until all areas are in conformance with the specification.
 - ix. Final Inspection - The final inspection will include any other project requirements not previously addressed and will be used to ensure the entire scope of work has been completed in conformance with the specification/contract documents.
6. Inspection Equipment and Accuracy Verification
- a. CSI ICSs and Inspectors are equipped with all necessary inspection tools and accuracy verification standards. Inspection equipment is calibrated annually, or as required by the equipment manufacturer, and accuracy is verified onsite on a daily basis. CSI Inspectors are provided all coating inspection equipment as required by project specifications. The following table (Table 1.0) lists the inspection steps and associated instrumentation that may be used by CSI QC Inspectors.

Table 1.0

Inspection Check Point	Instrumentation
Ambient Conditions	Sling or Battery Powered Psychrometer
	Electronic Psychrometer
	Dew Point/Relative Humidity Charts
	Surface Temperature Thermometers
	Wind Meter
	Recording Hygrometer
Surface Preparation – Productivity	N/A
Surface Preparation – Abrasive Cleanliness	N/A
Surface Preparation – Air Cleanliness	N/A
Surface Preparation – Profile	Visual Comparator
	Depth Micrometer (digital or analog)
	Replica Tape, Portable Stylus Equipment
Surface Preparation – Cleanliness	SSPC VIS 1, 3, 4, 5
Paint Temperature	Paint Temperature Thermometer
Wet Film Thickness	Wet Film Thickness Gauge
Dry Film Thickness	Type 1 Magnetic Pull-Off Gauge
	Type 2 Electronic Gauge
	Coating Thickness Standards
	Plastic Shims (foils)
Adhesion	N/A
Pinhole/Holiday Detection	Low Voltage (wet sponge) Holiday Detector
	High Voltage (spark) Holiday Detector
Illumination	N/A
Hardness	N/A

7. QC Documentation

- a. Daily Coating Inspection Reports are completed, signed and dated by the CSI ICS and/or QC Inspector. Copies of all reports are maintained at both the home office and project site office and reviewed prior to filing. The original Daily Coating Inspection Reports will be reviewed and signed by the CSI Quality Control Supervisor (QCS) in accordance with CSI's QC Program and sent to the Owner/Client's designated Project Engineer.

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Water Treatment Process Tank and Apparatus Repair

VII. Safety Program and Hazardous Materials Controls

The personal health and safety of all CSI staff is always the top priority. CSI also recognizes that much of the work will be conducted removing hazardous materials. All prudent and reasonable measures will be taken to establish and maintain safe working conditions during this project.

General Health and Safety

A Health and Safety Plan identifies some of the key safety issues and potential hazards associated with the project and the actions that will be taken to minimize or eliminate those hazards. A “**SAMPLE**” Lead Exposure Control Plan and Environmental Compliance and Waste Management Plan has also been included below. These safety plans will be comprehensive and as detailed as possible based on information provided by City of Arvada and learned during the site visit. It is anticipated that conditions may change leading up to the start of the project, and even once the project is initiated, which may warrant modification of these plans. As a result, prior to each new phase of the project these plans should be reviewed and changed or modified as necessary. A copy of CSI most current Occupation Safety and Health Compliance Program can be found in Attachment E. Modification of these preliminary plans will be the responsibility of the CSI Project Managers and CSI’s Safety and Health Consultants, Hellman & Associates and provide for approval prior to any work. All onsite workers will be trained to these plans and any modifications.

Responsibilities

CSI project personnel will include a Project Manager, Safety and Health Consultant, and Site Supervisor.

1. The Project Manager’s responsibilities will include:
 - a. Ensuring adherence to the Health and Safety Plans;
 - b. Modification of the plans as warranted;
 - c. Conducting and documenting daily and weekly health and safety meetings;
 - d. Performance to the scope of work; and
 - e. Assisting with incident investigation, if necessary.
2. The Safety and Health Consultant responsibilities will include:
 - a. Providing oversight for the project;
 - b. Providing periodic site support as needed;
 - c. Recommending changes to plans or procedures as warranted;
 - d. Assisting with incident investigation if necessary; and
 - e. Providing Industrial Hygienist support and oversight as necessary.
3. The Supervisor’s responsibilities will include:
 - a. Day-to-day on-site implementation and adherence to plans;
 - b. Conduct a job specific Safety Walk Through form at least weekly;
 - c. Conducting air monitoring as directed by the plans; and
 - d. Conducting incident investigations should they become necessary.

Abrasive Blasting

1. Nozzle, Blast Hose and Coupling Hazards
 - a. Nozzles, blast hose, couplings, and nozzle holders present a high potential for injury due to internal wear, high pressure, atmospheric exposure and general rough handling. Special attention must be given to monitoring the condition of nozzles, blast hose and couplings to avoid injuries. Daily inspections will take place on the condition of nozzles, blast hoses, and couplings. Whip lines will be installed on all air hose connections. Blasting equipment that has a leaking nozzle holder, couplings, or blast hose will not be operated.
2. Hazards from Air Compressor Operation
 - a. Air compressors produce powerful pressures and require careful attention. Broken or damaged airlines or fittings can unleash strong forces that may damage equipment or cause serious injury. Compressors will be properly maintained as recommended by the manufacturer. Hoses and fittings will be regularly inspected and replaced when there are any signs of damage or wear. The pressure setting will not be set above the blast equipment maximum working pressure rating of 125 psi. Compressed air will not be used for cleaning purposes except where reduced to less than 30 PSI, and then only when effective chip guarding and personal protective equipment is in use by the employee.
3. Respiratory Hazards
 - a. While facts are known concerning the chemical composition of blast abrasive, unknowns exist about the materials being removed in the blasting process. Dust formed during the blasting process may be toxic or potentially cause long term damage if employees are unprotected. Care must be taken to understand both the blast media and substrate makeup so that adequate PPE can be selected, and correct procedures followed prior to work beginning.
 - b. Operators are protected by their supplied air helmet during blasting but need to safeguard their respiratory system before and after the process. Air for abrasive-blasting respirators must be free of harmful quantities of dusts, mists, or noxious gases, and must meet the requirements for supplied-air quality and use specified in 29 CFR 1910.134(i). Very small dust particles may linger in the air well after operations are complete and employees should be aware of their presence. To reduce the exposure to any suspended particulates, employees will only remove their supplied air hoods after leaving the immediate blasting area. Proper respirators must also be selected for clean-up operations based on the hazards or other available dust controls.
 - c. The principal health hazard associated with abrasive blasting is exposure to the blasting media and debris removed from the surface. Among this debris are metal alloys contained in the surface, such as chromium, nickel, and beryllium, and metals plated onto the surface for corrosion purposes, such as cadmium. In addition, toxic materials in the surface coatings, such as hexavalent chromium and lead, can present inhalation hazards to workers.
4. Equipment Handling and Operating Safety
 - a. Operator Training

- i. The blast operator is the most important element of a manually-operated blasting system. Therefore, the operator will be trained on the safe operation of the equipment. The training topics shall include:
 - a. the proper use all safety devices;
 - b. how to properly inspect the equipment for proper connection and defects in equipment;
 - c. emergency shutdown procedures;
 - d. how to perform regularly scheduled maintenance;
 - e. proper operation of various media blasting accessories; and,
 - f. a complete understanding of the form, fit, and function of all aspects of the blasting machinery.
- ii. In addition, the operator must understand and be trained on the hazards involved with blasting operations, including the use of personal protective equipment (PPE).
- iii. Blasting equipment nozzles shall be equipped as required with an operating valve which must be held open manually or have a "Deadman valve" installed.
- b. Lifting, Loading, and Moving of Materials and Equipment
 - i. Blast equipment is heavy and bulky and shall be loaded, lifted, or moved by some mechanical means. Prior to moving, all parts shall be disconnected, as is practicable, and stowed neatly and properly secured to prevent damage in transit. Equipment will not be loaded or unloaded until a suitable, level, uncluttered storage or work area is located to which the equipment may then be mechanically moved.
- c. Required Hearing Protection
 - i. The required air-supplied blasting helmet will block some of the hazardous noise from reaching an operator's ears. However, the operator should not rely on this helmet as a sole source of protection. Hearing protection is to be worn under the helmet to reduce noise levels under the Action Level of 85 dBA. Employees working within 200 feet of the blasting operations shall also wear hearing protection as levels may exceed 85 dBA.
- d. Protective Clothing
 - i. Abrasive moving at high velocity can inflict serious injury upon unprotected operators while blasting. Therefore, it is essential that operators wear long sleeve shirts and pants, canvas or leather gloves, and safety shoes. Specially designed blast suits are ideal as they provide maximum protection. The air-fed blasting hood serves as head and face protection while supplying a safe source of breathing air. Equipment for protection of the eyes and face must be supplied to the operator by Coblaco when the respirator design does not provide such protection and to any other personnel working in the vicinity of abrasive blasting operations.

Airless Spray Operations

Airless paint sprayers operate at very high pressures and can very easily cause injuries if you spray your skin or any part of your body. You may actually inject paint into your tissues or bloodstream through your skin without having an obvious cut or bleeding. The skin can open up and allow the passage of the paint

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through and then close off again making it appear that nothing is wrong. This is a “fluid injection injury” and should be reported to your supervisor directly and treated by a medical professional immediately.

1. Operating Precautions

- a. Never put fingers near spray tip or aim gun toward any part of the human body.
- b. Never attempt to stop leakage with your hand or any part of your body. If a leak occurs in the paint hose or at any fitting, immediately shut off the unit.
- c. Never operate the sprayer without the tip guard complete and in place.
- d. Never spray in the vicinity of open flame, pilot lights, electrical outlets, or any other source of ignition.
- e. Never allow paint hose to become kinked or to vibrate against rough or sharp surfaces.
- f. Never leave the unit unattended without first shutting off the unit and triggering the gun to relieve all pressure.
- g. Never clean or service any part of the equipment with the system under pressure. To relieve pressure, shut off the sprayer, trigger the gun, and open the pressure drain valve.
- h. Always follow all safety precautions and operating instructions completely.
- i. Always check connections and fittings for tightness before operating the unit.
- j. Always wear the proper PPE including respirator and safety glasses when operating the unit.
- k. Always observe good housekeeping and keep the spray area free from unnecessary obstructions.
- l. Always be aware that certain chemicals may react with aluminum, carbide or other components in the pump system.
- m. Always make repairs on the pump, hose and gun using only parts rated for the output pressure that that system is capable of delivering. If you are unclear as to the equipment rating, consult the manufacturer’s operating and maintenance manual to determine the maximum output pressure before replacing parts on the system.
- n. Though not required, it is recommended that reversible tips be used to facilitate safe removal of clogs in the spray tip.

Respiratory Protection

1. To provide adequate respiratory protection, respirators must be donned before entering the work area and should not be removed until the worker has left the area, or as part of a decontamination procedure. All employee respirators worn at the work site must be placed in a plastic bag during storage and be thoroughly cleaned before being worn again. Cleaning should include inspection of the respirator and replacement of worn parts. Fit checks shall be done each time the respirator is worn.
2. Each employee using a respirator must be medically qualified, have received annual training on their use, care, and maintenance, and have been fit tested to the respirator in use at least annually. Additionally, each employee using a negative pressure respirator must be clean shaven in order for the respirator to properly seal.

Hazardous Materials Controls

Coblaco Services Inc. holds a current certification for Industrial Hazardous Paint Removal, SSPC QP2. There are three primary areas of concern when dealing with lead abatement on industrial coating projects. Worker protection, as dictated by OSHA, Environmental Protection and Waste Management, as dictated by EPA, RCRA, HMTA, CERCLA, NAAQS, etc. The following are preliminary site-specific plans for employee Lead Exposure Control, as well as Environmental Compliance and Waste Management. Prior to starting work CSI will finalize and submit the site-specific Lead Exposure Control Plan and an Environmental Compliance & Waste Management Plan to address all project specific concerns related to worker protection, environmental control and waste management.

LEAD EXPOSURE CONTROL PLAN

1. Competent Person (*To be determined. CSI has six SSPC C3/C5 Certified Supervisor/Competent Person for Deleading of Industrial Projects on staff*), will be on-site and will act as the competent person for occupational health and safety issues. The Competent Person will conduct inspections of the work areas on a daily or weekly basis, and/or as needed, to ensure that control measures, work practices, personal protective equipment, and hygiene facilities are used as prescribed in this document.
2. Schedule
 - a. Duration
 - i. Lead abatement procedures are anticipated to last from (*Work hours anticipated to be 4-6 hours per day, 5 days per week*)
 - b. Shift Length
 - i. Daily work shifts will be from *7am-6pm*
3. Exposure Producing Activities
 - a. Potential Lead Sources

During the cleaning and removal of lead-based paint projects, several job categories may have potential exposure to lead dust. Each job category with potential exposures to lead will be subject to initial exposure monitoring to determine if exposures are within acceptable levels. This determination will also dictate what additional requirements or corrective measures, or actions might be taken.
 - b. Abrasive Blasting and Cleaning Operations
 - i. Job Categories
 - a. Abrasive Blaster – The person on the end of the nozzle performing the actual removal of paint from the substrate. This person has the potential for the highest exposure to lead.
 - b. Equipment Operator – Runs the abrasive blast equipment which includes blast pots, compressors, air dryers and lifts. Also oversees the loading of abrasive. Exposures vary but are typically below the Action Level with work being performed outside of the Regulated Area.
 - c. Support Workers – Assist the equipment operator, blasters or Supervisor during abrasive blasting operations. Their exposures vary based on the types of tasks they are performing.

- d. Supervisor/Competent Person: Performs many tasks while onsite and exposures will vary based on the types of tasks being performed.
 - e. Alternate Competent Person: Remains outside the blast area during blast operations and maintains general oversight of the project and site safety. There should be no exposure to lead above the OSHA Action Level.
 - f. Quality Control Inspector – May be required to enter the work area during abrasive blast operations. Inspects the substrate to verify compliance with project specifications.
 - c. Hand Tool and Power Tool Cleaning Operations
 - i. Job Categories
 - a. Tool Operator – The person on the end of the nozzle performing the actual removal of paint from the substrate. This person has the potential for the highest exposure to lead.
 - b. Support Workers – Assist the equipment operator, blasters or Supervisor during abrasive blasting operations. Their exposures vary based on the types of tasks they are performing.
 - c. Supervisor/Competent Person: Performs many tasks while onsite and exposures will vary based on the types of tasks being performed.
 - d. Alternate Competent Person: Remains outside the blast area during blast operations and maintains general oversight of the project and site safety. There should be no exposure to lead above the OSHA Action Level.
 - e. Quality Control Inspector – May be required to enter the work area during abrasive blast operations. Inspects the substrate to verify compliance with project specifications.
- 4. Crew
 - a. Competent Person/Supervisor
 - i. (TBD)
 - b. Alternate CP
 - i. (TBD)
 - c. Crew List and Designations
 - i. (TBD)
- 5. Action Level
 - a. The Action Level (AL) for lead is $30\mu\text{g}/\text{m}^3$ without regard to respiratory protection. Exposures at or above the AL trigger the following requirements of the OSHA Lead in Construction Standard (1926.62):
 - i. Written Worker Protection Plan
 - ii. Exposure Monitoring
 - iii. Housekeeping
 - iv. Employee Medical Surveillance and Medical Removal Protection
 - v. Employee Information and Training
 - vi. Signs and Regulated Areas

- vii. Record Keeping
- 6. Permissible Exposure Limit
 - a. The Permissible Exposure Limit (PEL) for lead is $50\mu\text{g}/\text{m}^3$ averaged over 8-hours without regard to respiratory protection. In addition to the requirements above noted for exposure above the AL, the following requirements/protective measures are required:
 - i. Engineering and Work Practice (Administrative) Controls
 - ii. Respiratory Protection
 - iii. Protective Clothing and Equipment
 - iv. Hygiene Facilities and Practices
 - v. Record Keeping
 - a. Detailed records of the exposure will be kept in compliance with 29 CFR 1926.62, as given below. All personal air sampling results will be maintained by CSI for at least 30 years.
 - i. The date(s), number, duration, location and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
 - ii. A description of the sampling and analytical methods used and evidence of their accuracy.
 - iii. The type of respiratory protective devices worn.
 - iv. Name, social security number, and job category of the employee monitored and all other employees whose exposure the measurement is intended to represent.
 - v. The environmental variables that could affect the measurement of employee exposure.
- 7. Respiratory Protection
 - a. Prior to wearing any respirator, employees must comply with Chapter 7 of the CSI Health and Safety Manual and the OSHA Respirator Standard 29 CFR 1910.134.
 - b. Selection of Respiratory Protection
 - i. Dry Abrasive Blasting and Cleaning Operations
 - a. Assumed Exposure Level = $>2,500\mu\text{g}/\text{m}^3$
 - i. Respirator – Bullard or Nova Blast Hood with APF of 1000
 - ii. Vacuuming/Cleaning after Abrasive Blast Operations
 - a. Assumed Exposure Level = $>50\mu\text{g}/\text{m}^3$ and $<500\mu\text{g}/\text{m}^3$
 - i. Respirator – 3m (or equal) half-face air purifying respirator with P100 filters
 - iii. Support Workers Outside Regulated Area
 - a. Assumed Exposure Level = $<50\mu\text{g}/\text{m}^3$
 - i. Respiratory protection is not required
- 8. Regulated Areas/Delineated Areas
 - a. Work areas, support areas and break areas will be delineated using signs or tape to prevent inadvertent contamination from leaving the site and to minimize exposure or contamination to

workers during the work shift. Work areas include all areas involved in lead paint removal, clean-up, set-up or equipment involved in these operations.

The work area will be a regulated area with limited access and signage posted. Work areas access will be limited to workers that have received the training, medical surveillance and are wearing the proper personal protective equipment for the job they will be performing. Supervisors, Inspectors and Authorized visitors meeting these criteria may also gain access to work areas. Absolutely NO food, beverages, or tobacco products are to be present or consumed in the work area.

The support area shall be located outside of the regulated area. Area monitoring results shall be used to verify exposure levels are well below the AL in the support area. In the case that periodic or additional monitoring is required or performed, the support area delineations may be adjusted.

9. Lunch Area

- i. A lunch area will be established in a clean area near the work area, away from all sources of contamination. The lunch area will be outside the regulated areas. All work clothing must be cleared of loose dust by vacuuming with HEPA vacuum, or by blowing down with <30psi clean air while in the entry hatch with ventilation in operation, to minimize transporting any hazardous waste around the support and clean areas.

10. Signage

- a. Signs will be used to identify work areas where exposures could exceed the AL. Signs will read as follows:

DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY
OR THE UNBORN CHILD
CAUSES DAMAGE TO THE
CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR
SMOKE IN THIS AREA

11. Engineering Controls

- a. All feasible engineering controls will be used to minimize the lead dust exposure. Additional measures may be implemented based on results of air monitoring once the project begins. The following engineering controls will be used.
 - i. Job Task
 - a. Abrasive Blasting and Cleaning
 - b. Hand Tool Cleaning and Power Tool Cleaning
 - ii. Control Method
 - a. Dust collector with natural ventilation
 - b. Additional Air Moving equipment for airflow

- b. Engineering controls noted above are the industry standard. When new technology is produced that would reduce worker exposures and costs, CSI will evaluate that method or will seek others in the industry for their evaluation. Additional control measures will be re-evaluated if exposures are found to exceed the protection factor of the respiratory protection normally used for this type of work.

12. Administrative Controls

- a. Job rotation on a lead abatement project typically is not feasible due to the limited amount of qualified personnel. However, CSI will implement work practice controls including, but not limited to the following: hygiene facilities, personal protective clothing and respiratory protection.

13. Hygiene Facilities

- a. Hand wash stations will be located between the Work and Break area located in the support area. Hands and face, at a minimum, must be washed before consuming any food, beverage or smoking.

14. Medical Surveillance Program

- a. As a condition of employment with CSI, all workers exposed to lead at or above the OSHA Action Level are required to enter the medical surveillance program to reveal medical conditions which could predispose an individual to excessive risk from working on this job and provide clearance to wear a negative-pressure respirator.
- b. The Program Elements listed below are for exposures above the Action Level to lead. Additional testing may be required if exposed to other toxic metals.
 - i. Each worker must have blood testing for lead and zinc protoporphyrin before starting a new project, unless previous testing was completed within 60 days prior to starting a new project.
 - ii. After initial testing, bi-monthly testing will be conducted for the first six months and semi-annually thereafter.
 - iii. Blood lead testing will be performed by an OSHA approved laboratory.
 - iv. When blood testing reveals 50 µg/dl of whole blood or more, and that level does not decrease upon subsequent testing within two weeks, that worker will be removed from Coblaco Services lead projects until two consecutive blood tests result in levels below 40 µg/dl.
 - v. Whenever blood testing reveals 40 µg/dl or greater of lead in whole blood, workers will be offered a medical evaluation, be retrained, and reminded about medical removal protection. PPE will be upgraded, if necessary, to provide a higher level of protection.
 - vi. Each worker must receive authorization from a physician or other licensed health care professional for wearing respiratory protection. The authorization will be maintained by CSI in the employee's file.
 - vii. The OSHA Medical Removal Program is for workers who have a blood lead level of 50 µg/dl after two tests within two weeks.

- viii. Post-employment or yearly physical examinations, as outlined for baseline exams, will be provided for all workers whose blood levels at any time during the duration of the job reach or exceed 40 µg/dl whole blood.
 - ix. Workers can request another physician to review the findings (multiple physician review) or to have another physician conduct examination. The physician must have knowledge about lead exposures.
 - c. Exit Medical Examination
 - i. Workers will be offered an exit medical examination consisting of a blood lead level and zinc protoporphyrin and a physical exam within five days of exiting a project or during extended project shutdowns. All offers will be made either at the job site, mailed via certified mail with return receipt or sent with employee pay stubs. All exit medical examination offers, whether accepted or declined, will be retained with the CSI Project Records.
 - d. Notification of Workers
 - i. All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within five working days after CSI has received the results.
 - ii. Notification will be completed by the worker signing the original medical results form or the employee notification of biological monitoring results form. The signed form will be maintained in the worker's records.
 - e. Recordkeeping
 - i. Medical records will be maintained for the duration of the employment plus 30 years, or a total of 30 years, whichever is longer. Workers, or their appointed representatives, will be able to access those records upon written request to CSI. Access will be provided within 15 days after the employee's request, unless CSI states the reason for the delay and the earliest date when the records will be available. Those records will include, but not be limited to, the following items:
 - a. Name, social security number and job description
 - b. Copy of physician's written opinion, including a clearance to wear a respirator.
 - c. Results of exposure monitoring and medical testing and examinations.
 - d. Records of medical complaints related to lead exposure.
15. Training for Lead
- a. All workers must be trained prior to starting any project where the exposures will be above the OSHA Action Level for lead and on an annual basis thereafter, on the hazards of lead. Signed and dated training records will be required indicating that each worker has received the training. Copies of OSHA Lead Standard, and site-specific safety plans will be made available to all workers. Training will include:
 - i. The OSHA Lead Standard 29 CFR 1926.62
 - a. Health Effects of Exposure to Lead
 - b. Routes of Exposure
 - c. Personal Protective Equipment
 - d. Personal Hygiene and Decontamination

- e. Medical Surveillance and Removal Programs
- f. Exposure Monitoring
- g. Engineering Controls and Work Practice
- h. Information Regarding Chelating Agents
- i. Employee Rights to Information
- ii. Health and Safety Plan
- iii. Hazardous Waste Procedures
- iv. Emergency Response
- v. The OSHA Hazard Communication Standard 29 CFR 1926.59
- vi. Respiratory Protection Standard 29 CFR 1910.134
- vii. Basic Safety and Health Training 29 CFR 1926.21

ENVIRONMENTAL COMPLIANCE PLAN

1. Introduction

- a. This Environmental Compliance Plan has been developed to address project specific environmental compliance requirements on Water Treatment Process Tank and Apparatus Repair project.
- b. Visible Emissions Evaluations
 - i. Visible Emissions Evaluations will be completed in accordance with 40 CFR 60, Appendix A, Method 22. Emissions will be monitored continuously by all support personnel outside of the tank.
 - ii. Planned visible emissions will be equal to Level 0 Emissions. Any Level 1 Emissions identified will be reviewed and appropriate adjustments to the containment and mechanical ventilation system setup will be made.
 - a. Level 0 Emissions – No Visible Emission.
 - b. Level 1 Emissions – Random emissions of a cumulative duration of not more than 1 percent of the workday.
- b. Evaluation of Mechanical Ventilation Systems
 - i. Periodic assessments will be made by CSI Employees to verify the effectiveness of the mechanical ventilation system installed on the project. At a minimum, the following visual inspections will be completed each day or week:
 - a. Inspection of ductwork for clogging or plugging.
 - b. Inspection of ductwork for deterioration or damage.
 - c. Inspection of ductwork for excessive bends or elbows.
 - d. Checking dust collection system fan and filters.
 - e. Inspection of makeup air flaps and seals.
 - f. Inspection of entry air hatch and seals.
 - g. Inspection of tarp condition.
 - h. Inspection of negative pressure inside the containment (visual check at tarp locations).

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Water Treatment Process Tank and Apparatus Repair

2. Water Quality Sampling – N/A
3. Ground Quality Sampling - N/A
 - a. Contingency Plan
 - i. All site-specific contingency planning will be as directed by the Owner, or in direct coordination with the Owner's and GE's onsite plans and procedures.
 - ii. Prior to starting work, CSI will provide all necessary equipment and/or supplies to prevent or minimize potential emergency situations. Potential emergencies on this project include; fire, containment breach, dust collections system failure, supplied air system failure, fuel spills and employee injury.
 - iii. Emergency Contacts for the project are listed in Appendix A of this plan and will be posted on site with an additional copy maintained in this document in a central location on site.
 - iv. All employees will be trained on the emergency procedures and at least one CSI employee will have current First Aid and CPR training.
 - v. Directions to the nearest emergency medical center are included in Appendix B of this document and will be posted with the Emergency Contact information on the site.
 - vi. Lines of Authority - the project Supervisor/Competent Person will be responsible for taking appropriate measures to ensure the safety of all employees, site personnel and the public. Should an emergency situation arise the supervisor will have the primary responsibility of responding to and correcting any emergency situation. The responding emergency response service shall assume responsibility upon arrival on site.
 - b. Emergency equipment and supplies on site will include the following:
 - i. Absorbent material
 - ii. Long Handle Shovel(s) (at least one)
 - iii. Fire extinguishers (as required by equipment)
 - iv. Appropriate fuel storage containers
 - v. First aid kit
 - vi. 5-Gallon buckets
 - c. Evacuation & Emergency Medical Procedures
 - i. If any system failure or chemical release/spill, or any other emergency situation is observed on the job site, it will be immediately brought to the attention of the site supervisor.
 - ii. The Site supervisor will make the determination if an evacuation of the area is necessary. The primary factor of this determination will be to protect the safety and health of all employees, site workers, visitors, the community and the environment.
 - iii. The supervisor will contact CSI Office to inform of emergency situation and request any necessary assistance.
 - iv. Situation Deemed Safe

- a. If the supervisor determines it is safe to do so, work will continue, and immediate steps will be taken to identify, contain, treat, and properly dispose of any materials involved.
- v. Situation Deemed Unsafe
 - a. In the event the supervisor deems it necessary to evacuate the area, the following procedure will be implemented:
 - i. All workers will proceed to the closest designated safe area which will be a minimum of 100' upwind of the hazard.
 - ii. All personnel will remain in the safe area until the supervisor authorizes departure, which will not happen until the supervisor has completed roll call of workers and the situation is no longer deemed dangerous.
- d. Emergency Medical Response
 - i. Employees are to inform the supervisor immediately if any person on the job site becomes injured.
 - ii. The supervisor will determine if emergency services are required. The employee on site with current First Aid and CPR will be summoned to assist the injured person.
 - iii. The supervisor will ensure that any injured person sent or transported to the nearest emergency medical center has copies of the applicable MSDS's for any materials they have been exposed to at the site. If the person cannot take a copy with them, a copy will be given directly to the ambulance or hospital staff.
 - iv. If three or more persons are transported to the hospital and require more than first aid, or if there is a fatality at the site, the supervisor will inform CSI Management to determine who will contact the local office of OSHA.
- e. Dust Collection or Supplied Air Systems Failure
 - i. In the event of a dust collection system failure or supplied air system failure, all workers involved in those operations shall immediately be summoned to a safe area outside of the containment. The same evacuation procedures as outline above will be followed and the situation will be evaluated by the supervisor.
- f. Fire or Explosion
 - i. In the event of a fire or explosion, the local fire department will be notified and summoned immediately.
 - ii. If it is safe to do so, all equipment will be shut down and operations will be stopped.
 - iii. The superintendent will notify the fire commander upon their arrival of the location, nature, and identification of hazardous materials on site.
 - iv. If it is safe to do so, site personnel may use firefighting equipment available on site to control or extinguish the fire, and/or remove or isolate flammable or hazardous materials that may contribute to the fire.
 - v. If the warning system to evacuate is initiated, all employees will report to the designated safe area until the superintendent provides further information.
- g. Chemical Spills or Leaks
 - i. In the event of a spill or a leak, site personnel will:

- a. Prevent further spillage (i.e. close container or set upright).
- b. Contain the spill from spreading.
- c. Use appropriate material to clean up the spill.
- d. Place waste or rags containing flammable or combustible liquids that could create a fire hazard in a covered metal container or other equivalent container with flame containment characteristics.
- e. Properly dispose of all materials used to contain and clean the spill.
- ii. Chemical Spills or Releases
 - a. CSI will report chemical spills or releases when required based on the following guidelines:
 - i. The requirement to report a chemical spill is based on the potential for harm to human health or the environment from the spill. Emergencies involving chemical releases off-site or into streams should be reported to the National Response Center immediately. They can be reached at 1-800-424-8802.
 - ii. Necessary local departments may also be contacted.

2. Emergency Contacts

- a. Ambulance
 - i. 911
- b. Local Police
 - i. 911
 - ii. (720) 898-6900
- c. Local Fire Department
 - i. 911
 - ii. (303) 424-3012
- d. Poison Control Center
 - i. 1-800-222-1222
- e. National Response Center (CERCLA)
 - i. 1-800-424-8802
- f. Emergency Services & Disaster Agency
 - i. 1-800-782-7860

ATTACHMENT A
Contractor Certifications



Coblaco Services
of
Aurora, CO

*has met or exceeded the requirements set forth in the
SSPC Painting Contractor Certification Program for*

**FIELD APPLICATION OF COATINGS
COMPLEX STRUCTURES**

SSPC - QP1



.....
President, SSPC
March 31, 2020– March 31, 2021
.....
Validation Period



Certification for dates listed above to Coblaco Services, Aurora, CO
Owners are advised to contact SSPC at 412-281-2331 ext. 2235 or ext. 2209 to verify authenticity of certification.

SSPC 800 Trumbull Dr. Pittsburgh, PA 15205. PCCP rules V. July 2019



Coblaco services

of

Aurora, CO

*has met or exceeded the requirements set forth in the
SSPC Painting Contractor Certification Program for*

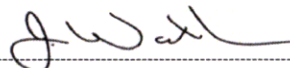
**INDUSTRIAL HAZARDOUS
PAINT REMOVAL
SSPC-QP2**

"A"

Category

March 31, 2020 – March 31, 2021

Validation Period


President, SSPC



Certification for dates listed above to Coblaco Services, Aurora, CO
Owners are advised to contact SSPC at 412-281-2331 ext. 2235 or ext. 2209 to verify authenticity of certification.

SSPC 800 Trumbull Dr. Pittsburgh, PA 15205. PCCP rules V. July 2019



ATTACHMENT B

With over 42 years of service in the industrial coatings industry, CSI has completed thousands of blasting and coating projects. These projects have served many different industrial markets including Water & Wastewater Treatment, Transmission and Storage, Power & Energy, Oil & Gas, Structural Steel, Food & Beverage, Bridge, and Civil. Every project completed has added to the experience, knowledge and expertise of our team.

The relevant projects included herein have been selected to highlight our experience with the specified material, on long duration projects, on complex timelines, in secure facilities and in confined spaces, in an effort to demonstrate our ability to scale and execute. A list of these projects is highlighted in the table below.

Finally, a matrix of major projects completed in the last 5 years has been included. Additional information, or additional project experience descriptions are available upon request.

Relevant Work History – Using Specified Material

Filter #11&12 Concrete Coating

Owner: Board of Water Works of Pueblo * Contractor: Coblaco * Project Manager: Jack O'Dell

Project Date: June/July 2019 * Contract Value: \$269K

The filter rehabilitation project required a full containment over the basin. Complete blast removal of existing coating and the application of filler coat with 30-40 mils DFT of Sherwin-Williams Sherplate. The project was completed on time with a successful application.

Greeley BL Baffles Process IM Filter Basins Rehabilitation Project

Owner: City of Greeley * Contractor: Hydro Construction * Project Manager: Jack O'Dell

Project Date: February/May 2019 * Contract Value: \$521K

The rehabilitation project required a full containment over each filter basin. Containment was constructed to rehabilitate 2 filters simultaneously. The scope was to provide complete blast removal of existing coating and the application of filler coat with 30-40 mils DFT of Sherwin-Williams Sherplate. The project was completed on time with a successful application.

16714 FCWTF Filters 12-17 (Soldier Canyon)

Owner: Fort Collins Water Treatment Facility * Contractor: Hydro Construction * Project Manager: Jack O'Dell

Project Date: April/July 2017 * Contract Value: \$298K

The rehabilitation project required a full containment over each filter basin. The scope was to provide complete blast removal of existing coating and the application of filler coat with 30-40 mils DFT of Sherwin-Williams Sherplate. The project was completed on time with a successful application.

Job Name	Contractor	Contact/ Phone #	Owner	Location	Original Contracted Amount	Change Orders	Total Billed	% Self-Performed	Start Date	Completion Date
Rueter-Hess WTP	Western Summit	Dan Eckdahl 303.298.9500 x6838	Parker Water & Sanitation District	Parker,CO	\$407,340.30	\$66,035.02	\$473,375.32	100%	12.2012	3.2016
Raw Water Transmission SDSPDC1B & PWC-Mussel Control Lining	Garney	John Miller 970.443.8969	City of Colorado Springs	Pueblo, CO	\$485,486.00	\$8,270.00	\$493,756.00	84%	12.2013	5.2014
PAR 1088 South Platte Interceptor 168th Ave & Hwy 85	Western Summit	Jamie Davis 303.649.6835	Metro Wastewater Reclamation District	Brighton, CO	\$725,670.25	\$91,196.44	\$816,866.69	100%	7.2014	7.2015
So Adams Co 64th & Quebec Water Tank Repair Project	South Adams County Water & Sanitation District	John Francisco 303.204.1506	South Adams County Water & Sanitation District	Commerce City, CO	\$254,251.00	-\$5,271.00	\$248,980.00	79%	12.2013	5.2014
JOB 660720 Sunoco Mariner East Skid (16 total)	ESS Metron	Don Nass 303.592.1903	ESS Metron	Henderson Facility	\$230,025.60	-\$14,376.60	\$215,649.00	100%	3.2014	10.2014
22,705 lf of 4" & 39,494 lf of 6" Pipe - Internal Lining	Encana Oil & Gas	Ken Kimminau 720.876.3731	Encana Oil & Gas	Henderson Facility	\$1,179,384.21	\$74,680.00	\$126,171,812.00	100%	9.2014	1.2015
DIA Cooling Tower Steel Coating Removal T&M	RK Specialties	Jeremy Owen 970.443.4818	City & County of Denver, DIA	DIA - Denver, CO	\$305,407.86	-\$17,609.24	\$287,798.62	100%	11.2014	3.2015
Town of Granger Water Storage Tank Rehab Project	Tetra Tech	John Faulkner 303.772.5282	Town of Granger	Granger, WY	\$312,045.75	\$1,954.29	\$314,000.04	74%	8.2015	12.2015
Altamont Plant BLEVE Mitigation Project AFE- 203893	Kinder Morgan	Garrett Taylor 435.454.4263	Kinder Morgan	Altamont, UT	\$1,496,387.00	\$0.00	\$1,490,065.62	100%	8.2015	10.2015
Horse Creek Flume Rehabilitation	Northwest Pipe	Jayson Snortland 720.644.4549	Fort Lyon Canal Co.	Henderson & NW Pipe Facility	\$277,039.00	\$0.00	\$277,039.00	100%	11.2015	12.2015
DIA Cooling Tower Rehab	RK Mechanical	Mark Rawlings 303.785.6770	City & County of Denver, DIA	Denver International Airport	\$455,000.00	-\$211,332.47	\$243,667.53	100%	4.2016	6.2017
Noosa Yoghurt WWTP	Moltz	Cassidy Cirks 970.330.3248	Noosa Yoghurt LLC	Bellvue, CO	\$250,441.00	-\$41,067.00	\$209,374.00	100%	1.2016	3.2017
Basin C Aerial Sewer Rehab	East Cherry Creek Valley Water & Sanitation Dist	Justin Blair 303.515.9598	East Cherry Creek Valley Water & Sanitation District	Cherry Creek Reservoir/ Parker Road @ the Dog Park	\$220,246.25	\$0.00	\$220,246.25	100%	6.2016	9.2016
Broncos Logo Seating Bowl	Stadium Management Company	Zach Myhra 303.914.4300	Stadium Management Company	Denver, CO	\$244,000.00	\$0.00	\$244,000.00	100%	6.2016	7.2016
Woodmen Valley Tank Coating	Colorado Springs Utilities	Oscar Soto 719.668.5908	Colorado Springs Utilities	Colorado Springs, CO	\$417,705.00	\$15,831.87	\$433,536.87	93%	6.2016	4.2017
RTD IFB 36DP005 Colorado Station	RTD	Matt Richey 303.299.6000	RTD	Denver, CO	\$217,842.00	-\$1,306.54	\$216,535.46	100%	8.2016	10.2016
Olde Town Arvada Water Tower Painting & Repairs	City of Arvada	Kim Vagher 720.390.1428	City of Arvada	Arvada, CO	\$236,187.00	\$1,121.00	\$237,308.00	100%	9.2016	1.2017
FCWTF Presedimentation Basin Phase II - Base Bid, Option 1 & Option 2	Hydro	Jim Urich 970.225.2211	City of Fort Collins	LaPorte, CO	\$231,874.00	\$0.00	\$231,874.00	100%	9.2016	11.2016
Conduit 20 Aerial Crossing Waterton Canyon	Denver Water	Antonio Flori 720.203.5949	Denver Water	Littleton, CO	\$352,848.00	\$951.93	\$353,799.93	94%	9.2016	1.2017
UV Protection Pipe Painting at Stratton & Windsor	NGL Energy Partners LP	Greg Blais 303.815.1011	NGL Energy Partners LP	Stratton, CO & Windsor, CO	\$448,824.55	\$11,321.96	\$460,146.51	100%	9.2016	11.2016
Flatiron Penstock Coatings Repair	Bureau of Reclamation	Larry Ketcham 406.671.8457	Bureau of Reclamation Great Plains Region	Loveland, CO	\$215,992.72	\$117,478.23	\$333,470.95	94%	3.2017	7.2017
Glenwood Spgs Repair & Painting of Canyon Water Storage Tanks (2)	City of Glenwood Springs	Ricky Smith 970.384.6445	City of Glenwood Springs	Glenwood Springs, CO	\$380,000.00	-\$2,561.00	\$377,439.00	100%	11.2016	7.2017
FCWTF Filters 12-17 (Soldier Canyon)	Hydro Const	Jim Urich 970.225.2211	City of Fort Collins	Fort Collins, CO	\$298,628.00	\$0.00	\$298,628.00	100%	2.2017	4.2017
Olmsted Hydroelectric Power Plant Replacement Project	AMES	Brandon Evans 801.910.5999	Central Utah Water Conservancy District	Orem, UT	\$221,901.00	-\$15,281.34	\$206,619.66	100%	12.2017	9.2018
WI-Grandfather Falls Hydro Penstock	Garney	Matt Foster 816.746.7219	Wisconsin Public Service	Merrill, WI	\$263,914.00	\$6,499.70	\$270,413.70	100%	7.2017	1/10/00
WTP Clearwell No 2 Interior Recoat	KLJ Engineering	Douglas Whitney 406.245.5499	City of Billings	Billings, MT	\$549,410.50	-\$14,967.48	\$534,443.02	92%	7.2017	8.2017

<i>Job Name</i>	<i>Contractor</i>	<i>Contact/ Phone #</i>	<i>Owner</i>	<i>Location</i>	<i>Original Contracted Amount</i>	<i>Change Orders</i>	<i>Total Billed</i>	<i>% Self-Performed</i>	<i>Start Date</i>	<i>Completion Date</i>
Gore Valley Tank 1 & Intermountain WST	Eagle River Water & Sanitation	Becky Peterson 970.471.0298	Eagle River Water & Sanitation	Vail, CO	\$353,126.00	\$85,607.00	\$438,733.00	86%	8.2017	6.2018
South Boulder Diversion Dam Gate Rehab	Gracon LLC	Austin Hensley 970.667.2203	Denver Water	Eldorado Springs, CO	\$385,947.20	\$0.00	\$385,947.20	97%	9.2017	3.31.18
FCWTF Filters 18-23	Hydro Construction	Jim Eurich 970.225.2211	City of Fort Collins	Fort Collins, CO	\$319,721.00	\$0.00	\$319,721.00	100%	1.2018	2.2018
Antero Dam Rehabilitation Phase IV	Moltz Construction	Ted Senter 719.539.7319	Denver Water	Anterior Reservoir, Park County	\$236,000.00	\$0.00	\$236,000.00	100%	10.2017	10.2017
Sports Authority Field at Mile High Level 1 Stair Coating South Stand	Stadium Management	Zach Myhra 720.258.3054	Stadium Management - Denver Broncos	Denver, CO	\$319,865.00	-\$600.00	\$319,265.00	100%	4.2018	7.2018
Moffat Collection System Jim Creek Siphon Rehab 7200000293	Western Summit	Joe Houtz 303.475.9701	City & County of Denver, Board of Water Commissioners	Winter Park, CO	\$863,717.00	\$121,992.91	\$985,709.91	100%	6.18.18	10.2018
U2 360 Tour Stage Paint	Loveland Living Planet Aquarium	Jon Hawkins 719.495.9497	Loveland Living Planet Aquarium	Henderson Facility	\$340,524.00	\$10,000.00	\$350,524.00	100%	4.2018	2.2019
6" Internal Lining	Crestone Peak Resources	Manya Miller	Crestone Peak Resources	Henderson Facility	\$332,700.00	-\$10,335.88	\$322,364.12	100%	7.2018	9.2018
Mary Rhodes Pipeline Phase II - Paint & Coatings	Garney Construction	Robert Fults 816.741.4600	City of Corpus Christi	Corpus Christi, TX	\$413,540.00	\$8,059.00	\$421,599.00	100%	5.2014	3.2016
TX Section 14 of IPL	Garney Construction	David Burkhart 816.741.4600	Tarrant Regional Water District	Fort Worth, TX	\$280,080.00	\$244,600.00	\$524,680.00	100%	1.2016	3.2018

ATTACHMENT C
Key Staff Resumes



Steven R. Davis

Employment

Coblaco Services, Inc.

Henderson, CO

President

2005 – present

Plans, develops, organizes, implements, and assesses the organization's performance. Establishes policies and strategies for long-range planning, processes optimization, as well as new programs and systems, all with consideration for budget and revenue forecasting. Provides resolutions to business challenges, both large and small, utilizing internal and external resources. Advises on any contracts into which the Corporation may enter. Manages the performance of direct reports for continual improvement and professional opportunities. Prepares and/or reviews bid proposals.

NACE Instructor

2010 – present

Participates in the Coating Inspector Program by teaching CIP Level 1 and Level 2 courses worldwide. Presents written materials, guides hands-on practical training at a coating facility, and leads team exercises. Administers oral and written exams to students.

Vice President

2000 – 2005

Provided strategic leadership for the company by working with the President and other management to establish long-range goals, objectives, strategies, plans and policies. Responsible for profitability, operations, procurement, and leadership development for Operations. Managed vendor relationships and subcontracts for organization.

Operations Manager

1998 – 2000

Directed projects, personnel, and equipment for all technical coating and media blasting projects.

Health, Safety, and Employee Development Manager

1996 – 1998

Managed company health and safety program. Conducted coating application, media blasting and equipment maintenance training.



Steven Davis

Employment (continued)

Industrial Painter/Linings Specialist

1993 – 1995

Extensive experience in all phases of technical coating applications.

Education

Abilene Christian University, Abilene, TX

BA, Business Administration

Certifications

NACE Certified Coatings Inspector, #6710

DOT Internal Tank Inspector

First Aid and CPR certified

Training

SSPC T-11 Rigging and Staging of Industrial Structures

OSHA Training

RCRA

OSHA 1926.62 Lead in Construction Training Program

Fall Protection

OSHA Suspended Scaffolding

Hazardous Waste Operations and Emergency Response

SSPC T-29 Working in Confined Spaces and Quality Control Inspection

DOT Hazardous Materials

Emergency Safety and Fire



Greg Smith

Employment

Coblaco Services, Inc.
Henderson, CO

Field Operations Manager
March, 2015 – Present

Oversees the day to day work of the Project Managers assigned to off-site projects and, indirectly his/her Supervisors, who supervise facility industrial cleaning, media blasting, and industrial coating projects. Communicates daily with his/her subordinates, and as needed, executive management about the status of projects. Responsible for managing all phases of multiple short- and long-term projects including scheduling, personnel, operations, and financial aspects. Interface with various departments in creating efficient information flow to operations. Implement project management methodologies for varied scopes of work in order to minimize cost as well as provide the required liaison, documentation, and everyday management of projects.

Madison Coating Company, Inc.
Hammond, IN
April 2013 – March 2015

Quality Control and Safety Operations Manager

Responsible for developing, managing and evaluating all general operations of quality control and safety programs.

Coblaco Services, Inc.
Henderson, CO
August 2012 – April 2013

Manager of Quality, Safety and Training

Supervised on-going coating projects for quality control and assurance. Managed site safety and compliance plans for all field projects, including lead abatement projects. Responsible for creating monthly schedules for guest lectures and internal training sessions.

Education

University of Colorado at Boulder – Leeds School of Business
B.S. in Business, Major: Information Systems



Greg Smith

Certifications

SSPC C3/C5

NACE Certified Coating Inspector, #43990

Airline Transport Pilot Cert. # 2791206

First Aid/CPR/AED

OSHA 30 Construction Training

Projects Managed:

Project Name: PAR 1088 Sewer Interceptor Manholes

Project Location: Denver, CO

Dates of Work: July, 2013 – August, 2015

Project Contact: Western Summit, Jeremy Trujillo, (303) 854-8927

Scope of Work: Media blast, fill, prime and apply 100% solids plural component Sauereisen epoxy at 125 mils

PM Supervisor: Tedd Kersey, Coblaco Services, 11905 East 124th Avenue, Henderson, CO 80640
(303) 659-1958

Project Name: Horse Creek Flume Rehabilitation

Project Location: Las Animas, Colorado

Dates of Work: August, 2015 – December, 2015

Project Contact: Northwest Pipe, John Moore, (303) 289-4080

Scope of Work: Preparation, coating and lining of a 123" diameter steel pipe 392 lf with a 100% solids Tnemec epoxy

PM Supervisor: Tedd Kersey, Coblaco Services, 11905 East 124th Avenue, Henderson, CO 80640
(303) 659-1958

Project Name: ECCV Basin C Aerial Sewer Rehabilitation

Project Location: Aurora, CO

Dates of Work: June, 2015

Project Contact: East Cherry Creek Water Valley District, Justin Blair 303-515-9598

Scope of Work: 30" ID/OD, 100% solids Plasite 4500

PM Supervisor: Tedd Kersey, Coblaco Services, 11905 East 124th Avenue, Henderson, CO 80640
(303) 659-1958



Greg Smith

Projects Managed (continued):

Project Name: Altamont Plant Bleve Mitigation Project
Project Location: Altamont, UT
Dates of Work: July, 2015 – October, 2015
Project Contact: Kinder Morgan, Mark Robben, (719) 520-4605
Scope of Work: Surface preparation and application of Pitt-Char XP Intumescent Fireproofing
PM Supervisor: Tedd Kersey, Coblaco Services, 11905 East 124th Avenue, Henderson, CO 80640 (303) 659-1958

Project Name: Big Thompson Diversion Structure
Project Location: Loveland, CO
Dates of Work: September, 2015 – February, 2016
Project Contact: Lillard & Clark, Paul Wagner, (303) 761-3170
Scope of Work: Gate rehabilitation included the removal and disposal of coatings that contained heavy metals. Gates were re-coated with high-performance, high-solids epoxy.
PM Supervisor: Tedd Kersey, Coblaco Services, 11905 East 124th Avenue, Henderson, CO 80640 (303) 659-1958

Project Name: Pueblo Dam Gate Repairs
Project Location: Pueblo, CO
Dates of Work: March, 2016 – March, 2016
Project Contact: Garney Companies, John Miller, (719) 475-8064
Scope of Work: Four (4) Gate Guides: scope included the removal of existing coating from the gates, the re-coating of the gates with 100% solids epoxy.
PM Supervisor: Tedd Kersey, Coblaco Services, 11905 East 124th Avenue, Henderson, CO 80640 (303) 659-1958



Jason Becker

Employment

Coblaco Services, Inc.,
Aurora, CO
February, 2005 – Present

Director of Sales & Estimating, NACE Inspector

August, 2012 – Present

Provide estimating and proposals to clients. Manage project information from awarded project to field operations.

Project Manager

January, 2009 – August, 2012

Manage projects, personnel, and equipment for all technical coating and media blasting projects.

Industrial Painter/Media Blaster

February, 2005 – January, 2009

Extensive experience in all phases of technical coating applications (3-coat systems and plural component).

Industrial Colorado

Private Contractor

January, 2000 – February, 2005

Perform private contracting for home remodeling, home additions, and yard renovations. Construction of fences, decks, patios, and back-out framing for Pulte and Lange Homes.

Education

Colorado State University, CO
Business

Certifications

SSPC Quality Control Supervisor
NACE CIP Level 3, #19984



Training

Fall Protection

OSHA Suspended Scaffolding

OSHA Training

Hazardous Waste Ops and Emergency

RCRA

SSPC T-29 Confined Spaces and QC

OSHA 1926.62 Lead in Construction Training Program

DOT Hazardous Materials

Fall Protection

Emergency Safety and Fire



Jacob O'Dell

Employment

Coblaco Services, Inc.
Henderson, CO

Project Manager

January, 2018 - present

Responsible for planning and oversight of multiple field industrial coating project. Communicates with general contractors, owners and engineers throughout planning, execution and closeout phases. Enables and supports field supervisors and crews in the delivering finished products in accordance with expectations/specifications. Performs and oversees quality procedures and testing for given projects.

Project Coordinator

April, 2016 – January, 2018

Responsible for scheduling, planning and logistics of multiple ongoing industrial coating projects. Provides guidance and troubleshooting in the field to enable supervisors, technicians and laborers to perform their functions safely and efficiently. Regularly communicates with all parties involved in coating projects.

Education

University of Colorado
Bachelor of Arts

Certifications

NACE CIP Level 2, #68375
CPR/First Aid/AED

Training

Confined Space
Respiratory Protection
Fall Protection
Scaffolding
Personal Protective Equipment
Hazardous Communication



Jaime Rangel

Employment

Coblaco Services, Inc.

Henderson, CO

March, 1996 – present

Project Manager

2010-present

Responsible for oversight and execution of multiple ongoing industrial coating projects throughout the Mountain West Region. Organizes field work day-to-day of field supervisors, technicians and laborers for industrial cleaning, media blasting, internal pipe grouting, and industrial coating projects. Communicates daily with field supervisors, and operation managers about the status of projects.

Shop Foreman

2000-2010

Manage projects, personnel, and equipment for all shop coating and media blasting projects.

Industrial Painter/Sandblaster

1996-2000

Extensive experience in all phases of technical coating applications (3-coat systems and plural component).

Education

Aims Community College, Fort Lupton, CO

Bi-Lingual (Spanish/English)

Certifications

SSPC Quality Control Inspector

NACE CIP Level I, #51911

SSPC Certified Application Specialist - Level 2

Training

OSHA 30 Construction Training

RCRA

OSHA 1926.62 Lead in Construction Training Program

Fall Protection

OSHA Suspended Scaffolding

Hazardous Waste Operations and Emergency Response



Jaime Rangel

Training (continued)

SSPC T-29 Working in Confined Spaces and Quality Control Inspection
DOT Hazardous Materials
Emergency Safety and Fire

Projects Managed:

Project Name: Par 1259 Digester Complex
Project Location: 6450 York Street, Denver, Colorado
Dates of Work: June, 2019 – September, 2019
Project Contact: Moltz Construction Cole Jorgenson, 303-901-1371
Scope of Work: Media blast and apply substrate repair material Sauereisen Restokrete208 and spray 100% solid Sauereisein sewerguard 210xhb at 125 mils
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO (303) 868-7145

Project Name: Hillcrest Powerhouse Pipe Lining
Project Location: 4200 South Happy Canyon Road, Denver, Colorado
Dates of Work: July, 2014 – September, 2015
Project Contact: USA Construction, Joe Hallenbeck, (970) 416-1175
Scope of Work: Media blast and apply 100% solids plural component Carboline 767 polyurethane material at 40 mils
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO (303) 868-7145

Project Name: FCWTF T3 Phase 2, Water Filter Basins
Project Location: Fort Collins, CO 80521
Dates of Work: December, 2014 – April, 2015
Project Contact: Hydro Construction, Jim Eurich, (970) 225-2211
Scope of Work: Media blast, fill and apply Sherwin-Williams 100% solids plural component material to 3 concrete basins
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO (303) 868-7145



Jaime Rangel

Projects Managed (continued):

Project Name: Digester Lid Interior
Project Location: Fort Collins, CO
Dates of Work: April, 2015 – November, 2015
Project Contact: Hydro Construction, Stan Javernick, (970) 225-2211
Scope of Work: Media blast, prime and apply 100% solids plural component
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO
(303) 868-7145

Project Name: Sedimentation Basins at Eisenhower Tunnel
Project Location: Dillon, CO
Dates of Work: May, 2013 – June, 2013
Project Contact: Clearwater Cleanup, Doug Michener, (970) 453-8875
Scope of Work: Media blast, fill and apply Sherwin-Williams 100% solids plural component material to 3 concrete basins
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO
(303) 868-7145

Project Name: Soldier Canyon Tank #2 Repair
Project Location: Fort Collins, CO
Dates of Work: December, 2012 – June, 2013
Project Contact: Ditesco Engineering, Bill Renz, (970) 219-0157
Scope of Work: Weld repairs and preparation and lining with Sherwin-Williams Sherplate Plural Component Material
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO
(303) 868-7145

Project Name: PAR 1088 Sewer Interceptor Manholes
Project Location: Denver, CO
Dates of Work: July, 2013 – August, 2015
Project Contact: Western Summit, Jeremy Trujillo, (303) 854-8927
Scope of Work: Media blast, fill, prime and apply 100% solids plural component Sauereisen epoxy at 125 mils
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO
(303) 868-7145



Jaime Rangel

Projects Managed (continued):

Project Name: Altamont Plant Bleve Mitigation Project
Project Location: Altamont, UT
Dates of Work: July, 2015 – October, 2015
Project Contact: Kinder Morgan, Mark Robben, (719) 520-4605
Scope of Work: Surface preparation and application of Pitt-Char XP Intumescent Fireproofing
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO
(303) 868-7145

Project Name: ECCV Basin C Aerial Sewer Rehabilitation
Project Location: Aurora, CO
Dates of Work: June, 2015
Project Contact: East Cherry Creek Water Valley District, Justin Blair (303) 515-9598
Scope of Work: 30" ID/OD, 100% solids Plasite 4500
PM Supervisor: Greg Smith, Coblaco Services, 11905 East 124th Avenue, Henderson, CO
(303) 868-7145



Andrew Salyards

Employment

Coblaco Services, Inc.

Henderson, CO

July, 1993 – present

Project Supervisor

2012-present

Responsible for oversight and execution of multiple ongoing industrial coating projects throughout the Mountain West Region. Organizes day-to-day work of field supervisors, technicians and laborers for industrial cleaning, media blasting, internal pipe grouting, and industrial coating projects. Communicates daily with field supervisors, and operation managers about the status of projects.

Field Foreman

2009-2012

Responsible for oversight and execution of ongoing industrial coating projects throughout the Rocky Mountain and Far West Region. Organizes the daily work of technicians and laborers for industrial cleaning, media blasting, internal pipeline grouting and industrial coating projects. Communicates daily with Project Manager about the status of current projects.

Site Foreman

1993-2012

Media Blaster/Painter with extensive experience in all phases of media blasting and painting: High Performance Coatings, Plural Component for Polyureas, and High Solid Coatings.

Military Service

ICMB Facility Manager, 1989 -1993

US Air Force, Active Duty, 1984 -1993

Master Sergeant – Superintendent of Fuels: Manage personnel and equipment. Establish and maintain fuel stations.

US Air Force National Guard, 1993 - present

Two Tours of Duty, Iraq

Service with Honor with Conflicts in Russia, Saudi Arabia, Kuwait, Qatar, and Iraq

Military tour United Arab Emirates



Education

High School Diploma, Mt. Jackson, VA

Junior Non-Commissioned Officer Academy FE, Warren Air Force Base, 1987

Non-Commissioned Officer Academy, Ellsworth Air Force Base, 1992

Senior Non-Commissioned Officer Academy, Sheppard Air Force Base, 2003

Certifications

SSPC Quality Control Supervisor (QCS)

NACE CIP Level 3, #13715

SSPC Certified Application Specialist – Level 2

US Air Force First Responder

Training

OSHA Training

OSHA Lead Awareness Training

Hazardous Waste Operations and Emergency Response

ASHI Approved CPR and Universal First Aid

SSPC C-3 Lead Abatement Competent Person

ATTACHMENT D

Quality Manual



Quality System Manual

Document: COB-QM-I1-Rev6.0
Review Date: 05/08/2020

CSI is a second generation; Colorado based company whose mission is dedication to the highest quality of customer services delivered through actions of integrity, tenacity, perseverance, experience, reliability, capacity, facilities and equipment.

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1.1 GENERAL**1.2 Controlled Copy Issued**

Unless otherwise indicated, this document is an uncontrolled copy of Coblaco Services, Inc. (CSI) Quality Manual. Controlled copies are issued a copy number, registered with and controlled by CSI.

If this is a controlled copy, changes and additions to this manual will be forwarded to the recipient. Recipients of uncontrolled copies will not receive updates. This manual and individual procedures or documents referenced throughout are considered company property, private and confidential and are not to be loaned, duplicated or distributed except when duly authorized by the Vice President of compliance.

DOCUMENT TITLE: Quality Manual

DOCUMENT I.D.: QM-Rev _____

CONTROLLED COPY NUMBER: _____

ISSUED TO: _____ **DATE:** _____

TITLE: _____ **COMPANY:** _____

ACKNOWLEDGEMENT OF RECEIPT

If this document has been issued as a controlled copy, the recipient must sign, date and photocopy this page. The photocopy must then be forwarded to the CSI Compliance department where it will be kept as a record of receipt.

Recipient's Signature

Date

The Quality System Manual shall be distributed to the following:

Vice President of Compliance

NOTE: When issued internally to authorize employees, this manual, referenced procedures and documents must be surrendered to the Vice President of Compliance prior to separation from CSI.

1.3 Document Control

Document ID:		Reviewed By:		Approved By:	Date:
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1.4 Company Introduction

The Corporate Headquarters and production facility for CSI are located at 11905 East 124th Avenue, Henderson, Co 80640.

1.4.1 History of Organization

CSI was formed in March of 1978 in Denver, Colorado to satisfy customer requirements for industrial coating services in the heavy equipment industry. This business has developed well and is expanding successfully.

In 1991, CSI expanded into the oil and gas market through acquisition of RBI in Platteville Co. CSI became a certified DOT lining and inspection shop.

In 1998 CSI personnel achieved certified coating inspector status (CIP) through NACE. By 2000, CSI had two (2) CIP Level 3 Inspectors on staff. As evidence of its unparalleled commitment to training and growth, CSI currently employs several NACE CIP inspectors at all levels from CIP 1 to CIP 3.

CSI acquired American Pipe Lining in 2005, creating opportunities in the water transmission market and expanding the line of coatings to include cement mortar linings. Rapid geographical growth in 2006, positioned CSI as a company with a national presence.

This Quality Management System (QMS) applies to the full range of company activities.

1.4.2 Mission Statement

“As a leading industrial specialty services provider, Coblaco Services will create value for our customers, employees and ownership through Smart Growth, Financial Stability, Operational excellence, Employee development and Safety.”

2.1 POLICY AND OBJECTIVES

2.2 Purpose

CSI's quality policy is to achieve sustained, profitable growth by providing services which consistently satisfy the needs and expectations of its customers.

2.3 Scope

This level of quality is achieved through adoption of a system of procedures that reflect the competence of CSI to existing customers, potential customers, and independent auditing authorities.

2.4 Policy

Achievement of this policy involves all staff, who are individually responsible for the quality of their work, resulting in a continually improving working environment for all. This policy is provided and explained to each employee at the time of hire by the CSI management.

To achieve and maintain the required level of assurance, the Vice President of Compliance and Infrastructure, through the Coblaco Compliance department retains responsibility for the Quality Management System (QMS) with daily operation controlled by the Compliance Manager and Compliance Supervisor.

The objectives of the Quality Management System Quality Management System are:

- To achieve and maintain a level of quality which enhances CSI's reputation with customers.
- To ensure compliance with relevant statutory and safety requirements.
- To endeavor, at all times, to maximize customer satisfaction with the services provided by CSI.
- To maintain an effective Quality Management System (QMS) complying with SSPC's QP requirements.

2.5 References

None

3.0 QUALITY MANAGEMENT SYSTEM

3.1 General Requirements

3.1.1 Purpose

The objectives of this manual are to provide our company's personnel and customers with a single source of information regarding CSI's policies and procedures for assuring and controlling service quality, and the continual improvement of the Quality Management System (QMS).

3.1.2 Scope

This manual establishes CSI's management policy concerning quality and refers to Quality Management Procedures (QMPs). These procedures have been developed to ensure the quality of service in strict accordance with contractual and regulatory requirements. The policies contained within this manual and the methodologies defined within each referenced procedure are applicable to contracts performed by CSI.

This document is divided into 20 (twenty) sections. From this point forward, each section contains the following blocks of information:

- **PURPOSE:** Identifies the objective to be achieved by the section.
- **SCOPE:** Describes the extent to which the section applies.
- **POLICY:** Defines company policy regarding the section topic.
- **REFERENCES:** Identifies documents which are referenced or applicable to the section.

3.1.3 Policy - General

3.1.3.1 - Nothing within this manual relieves CSI from complying with the provisions of awarded contracts including work performed by company suppliers and subcontractors.

3.1.3.2 - In the event of an inconsistency between this document and specific contract requirements, the contract requirements shall prevail.

3.1.3.3 - The words "shall", "will" and "must" have been used to indicate a mandatory internal requirement. Where the word "should" has been used, it is to be interpreted as meaning a preferred approach.

3.1.3.4 - This manual and documents referenced within shall be reviewed at least once a year for relevance.

3.1.4 Policy - Our Quality Management System (QMS)

3.1.4.1 - The QMS is documented, implemented, maintained and continuously improved in effectiveness per our stated policies to ensure that services provided to customers conform to contractual and quality requirements and meet or exceed their needs and expectations.

3.1.4.2 - The processes that make up the QMS as well as their application, sequence and interaction are identified throughout this manual.

3.1.4.3 - The criteria and methods used to ensure the effective operation and control of these processes are defined in Section 3 of this manual.

3.1.4.4 - Information and resources necessary to support the operation, monitoring, measurement and analysis of these processes are defined within sections 3 and 5.

3.1.4.5 - Actions considered necessary to achieve planned results and continual improvement shall be taken by CSI as defined within sections 3 and 5.

3.1.4.6 - Purchased products or outsourced processes shall be controlled as defined within Section 5.

3.1.4.7 - Processes that make up the QMS shall be managed as defined within this manual.

3.1.4.8 - Quality records and documents which furnish objective evidence of activities performed and results achieved will be maintained and specified in procedures and/or work instruction level documents, as applicable.

3.1.5 References

3.1.5.1 Quality Management Procedures (QMP)

3.1.5.2 Quality Management Forms (QMF)

3.2 Quality Management System Documentation

3.2.1 Purpose

To define the quality system documentation structure and its management and to reference specific procedures and documents that apply to this subject. The Quality Management System applies to all activities of CSI.

3.2.2 Scope

This section describes the QMS documentation used to ensure service compliance to quality and contractual requirements and includes the control, review, approval and storage of these documents and quality records.

3.2.3 Policy - General

The documentation structure of the QMS consists of three levels of documents with each subsequent level designed to provide the reader with additional detail, as required, based on the complexity of the function or process being addressed:

3.2.3.1 - **Level 1** - Quality Manual (QM)

The Quality Manual is a single stand-alone controlled document. It defines the quality policy, quality objectives, commitment to customer satisfaction, and continual improvement. It also addresses each of the QMS processes established by CSI.

3.2.3.2 - **Level 2** - Operating Procedures and Forms

- 3.2.3.2.1 – Quality Management Procedures (QMP)

Consists of numerous stand-alone documents to ensure the effective planning, operation and control of company processes. It defines who is responsible for what, when it would apply and why it is being done. QMPs cross-reference other procedures and make reference to third-tier groups of detailed instructions or related documents and may contain or reference specific forms to aid the reader in establishing required records.

- 3.2.3.2.2 - Detailed Instructions, Checklists and Forms

Numerous stand-alone documents including instructions for inspection and testing, calibration, and production as well as quality system forms, checklists, workmanship standards and quality plans. It defines details as to how specific tasks must be performed and records to be produced when not covered by QMPs. Instructions cross-reference other third-tier documents and contain specific forms to be used when required.

These documents describe the actual process, and controls applied, to all activities concerned with the attainment of a quality assured contracting service.

3.2.3.3 - **Level 3** - Quality Planning

As CSI provides a wide range of services, customer satisfaction and quality are driven through its operations in accordance with this quality management system. For each project, job-specific requirements are identified and documented during the contract review process. In turn, these requirements are communicated to the Project Managers, crew leads, and employees working on the project so as to ensure that the customer's declared needs are met.

3.2.4 Policy – Quality Manual (QM)

3.2.4.1 - This QM has been established and shall continue to be maintained in order to provide the reader with a reference to documented QMPs as defined under paragraph 3.2.4.3.1 And provide description of the interaction between the processes which make up the QMS.

3.2.4.2 - The distribution of this QM shall be controlled as defined under paragraph 3.2.5 of this section, and, where applicable, shall be submitted to customers and external jurisdictions and agencies for acceptance.

3.2.4.3 - Quality Management Procedures (QMP)

- 3.2.4.3.1 - QMPs have been devised to reflect the policies statements established in the QMS. They are intended to be implemented within CSI as Standard Operating Procedures.

3.2.5 Policy – Control of QM Documents

3.2.5.1 - Documents required for the QMS such as this manual, QMPs, instructions, checklists and quality system forms shall be developed, reviewed, approved in accordance with this policy, including documents of external origin, such as standards, specifications and customer drawings.

3.2.5.2 - Original documents shall be reviewed for adequacy and completeness and approved by the departments and personnel responsible prior to issue.

3.2.5.3 - Each department creating new or revised procedural documents shall forward a draft to the Vice President - Operations for approval by the QA/AC Committee prior to distribution. The Quality Control Supervisor (QCS) will keep a master list of all approved procedures. This master listing shall be made readily available to CSI personnel and shall identify the current revision status of each document and its effective revision date.

3.2.5.4 - Prior to release, revisions to previously approved documents and data shall require the same authorizations and approvals as the original.

3.2.5.5 – Changes, or additions, to previously authorized QMS documents and data shall be identified as such within the documents or appropriate attachments as they are initiated. Typographical errors and minor editorial changes are not considered changes for the purposes of this procedure.

3.2.5.6 – All documents having internal or external use shall be legible, readily identifiable and retrievable.

3.2.5.7- Invalid and/or obsolete documents shall be promptly removed from points of issue or use. Once updated, obsolete project- specific documents held in the active, on-

Site "Job File" shall be replaced with the more recent data and destroyed. Obsolete project-specific data held in the active, "Office Record File" shall be marked as "Obsolete" and retained in the "Archive" Section of the "Office Record File".

3.2.5.8 – Upon request and/or as required by contract, CSI will provide QMS policy and procedures and other relevant project-specific data to third parties for review and evaluation.

3.2.5.9 - When proposed changes to project-specific documents are initiated by CSI, the proposal shall be prepared and submitted in writing.

3.2.5.10 - Project-specific documents requiring review and approval by third parties shall not be distributed or implemented within CSI or released to partners, sub-contractors, vendors or suppliers until such approval has been received and acknowledged by the Sales Manager.

3.2.5.11 - Once approved and reviewed for completeness by the Sales Manager, the most current project-specific documents, with changes, shall be distributed to the Field Operations Manager who, in turn, will distribute them to the Project Manager/Crew Lead and Quality Control Inspector responsible for the project. All such transmittals will be documented in writing.

4.1 ORAGANIZATION

4.2 Purpose

CSI is committed to identifying and communicating clear lines of responsibility of all personnel within the organization.

4.3 Scope

Lines of responsibility will be defined by name, title and will reflect practice and roles in a format consistent with a standard organizational chart.

4.4 Policy

4.4.1 - The organizational chart (COB-PR-0003) will be reviewed, signed and dated at least annually by Executive Management.

4.4.2 – A signed and dated copy will be kept at both facilities: Company Headquarters and Yard Facility.

4.5 References

COB-PR-003 – ORGANIZATION CHART

5.0 AUTHORITY & RESPONSIBILITIES

5.1 Purpose

To define the responsibilities and authority of CSI management, the methods used for communication and to reference specific procedures and documents that apply to this subject.

5.2 Scope

This section covers the managerial responsibilities, authority and interrelationships within CSI as well as internal communication.

5.3 Policy

5.3.1 Authority

5.3.1.1 - All employees are granted the authority to safely and effectively complete their assigned responsibilities consistent with the standards established. The following provides a summary of the principal responsibilities of each job role, which are clarified in greater detail within the Craft Worker Training and QMPs.

5.3.1.2 - All employees are granted the authority and responsibility of identifying non-compliances, based on the standards established for the task, as well as recommending improvements, and communicating these instances in a time and manner that corrective action can be taken, both to rectify the immediate situation and to prevent recurrence.

5.3.1.3 - Senior Leadership and Operations Management will review CSI's resources to ensure that adequate staffing, equipment and materials are available to meet customer requirements.

5.3.1.4 - The Compliance Manager will manage the day-to-day operations of the QMS including continuous improvement of all internal quality control procedures.

5.3.2 QMS Responsibilities

5.3.2.1 - Executive Vice President / General Manager

- Member of the QA/QC Committee.
- Evaluates the Annual Review of the QMS and its policies and procedures.
- Directs long-term strategic planning and budgeting ensuring that experienced staff are assigned to adequately manage daily operations and contractual commitments consistent with the QMS policies and procedures established..
- Evaluates compensation and recruitment relative to QMS objectives.
- Evaluates subordinates' skills development necessary to sustain QMS standards.
- Consistent with established QMS policies and procedures bids and authorizes contracts, evaluating annual sales forecasts and budgets, marketing strategies and liaisons with customers, sub-contractors and business partners.

5.3.2.2 - Vice President - Compliance & Infrastructure /EHS Officer

- Reports directly to the Executive Vice President / General Manager.
- Executive responsible for CSI's environment, health and safety programs.
- Member of the QA/QC Committee.
- Reflecting the policies of the QMS, has responsibility and authority for establishing employee safety standards, regulatory compliance, and related financial analysis for CSI. Consistent with QMS policies is responsible for annual performance evaluations, employee development and training.
- Promotes and monitors operational compliance with the QMS policies and procedures.
- Evaluates and recommends changes to the QMS policies and procedures. Represents CSI in the resolution of matters pertaining to quality with suppliers, customers and representatives from external regulatory and jurisdictional bodies; evaluates quality-related re-occurring nonconformance are documented, investigated and corrected in accordance with the QMS.
- Participates in the Annual Review of the QMS and its policies and procedures.

5.3.2.3 - Director of Operations

- Implements and monitors and enforces daily operational compliance with the QMS policies and procedures.
- Recommends and implements approved changes to the QMS policies and procedures.
- Directs day to day compliance with QMS procedures relating to supplier selection and purchasing.
- Evaluates and disciplines employee quality related performance relative to their compliance with QMS and associated policies and procedures.
- Establishes schedules, schedules trainers and Craft Worker Training and evaluation and verifies documentation as required.

5.3.2.4 - Compliance Manager (QCS)

- Is a member of the QA/QC Committee
- Establishes, directs and audits compliance with and operational adherence to QMS policies and procedures
- Resolution of QMS related discrepancies. Controls the distribution of the QM
- Maintains, distributes and implements through CSI's management structure revisions to the QM and QMS policies and procedures. Represents CSI in the resolution of matters pertaining to quality with suppliers, customers and representatives from external regulatory and jurisdictional bodies;
- Ensures that quality-related recurring non-conformances are adequately documented, investigated and corrected.
- Initiates the Annual Review of the QMS and its policies and procedures.

5.3.2.5 - Compliance Supervisor

- Under the direction of the Compliance Manager / QCS, establishes, directs and audits compliance with and operational adherence to QMS policies and procedures
- Provides initial resolution of Quality Management System conflicts
- Under the direction of the Compliance Manager / QCS, administers CSI's Quality Management System by organizing miscellaneous QMS activities including, but not limited to, Craft Worker Training and test equipment calibration logs.
- Under the direction of the QCS assists in developing and leading Craft Worker training and development.

5.3.2.6 - Director of Sales and Estimating

- Responsible for bid preparation consistent with the policies and procedures of the QMS.
- With projects secured, incorporates QMS policies and procedures in establishing and documenting job-specific contacts, communications and clarifications with the customer representatives to establish how CSI will comply with the project specification following approved methods of procedure and using approved materials.
- During the pre-construction phase of the project communicates and documents internal and external flows of information including, but not limited to, email correspondence, job specifications, submittals and drawings, material product data sheets and MSDS, material and methods approval, change orders, RFIs relevant to the project consistent with QMS policies and procedures. During the construction phase, acts as a point of contact between Operations Management, on-site personnel and the customers representatives to clarify and, as necessary, document changes in methods and materials and treatment of non-conformances consistent with the QMS policies and procedures.
- At project close out, receives the on-site project Job File. Prepares job close out documentation and assembles the Record Job File for completeness consistent with QMS policies and procedures.

5.3.2.7 - Project Manager (PM)

- The Project Manager plans and conducts the day to day operations of the project consistent with approved project documents and QMS policies and procedures. This includes, but is not limited to ordering of material, assigning and directing personnel, establishing work standards and procedures, establishing, scheduling and monitoring hold points, monitoring and documenting required environmental test schedules, communicating with the customer's representative, verifying that calibrated test equipment is available, completing and documenting specified quality testing, responding when non-conformances occur. During the construction phase, completing all job-specific documentation consistent with the QMS.
- As QCI, the Project Manager establishes and incorporates and applies the specified and relevant quality procedures and tests as defined in the contract documents and the QMS.

- At job close out, verifying that the on-site Job File project documentation is complete and transferring the file to the Sales Manager for archiving.

5.3.2.8 - Quality Control Inspector (QCI)

- The Project Manager plans and conducts the day to day operations of the project consistent with approved project documents and QMS policies and procedures. This includes, but is not limited to ordering of material, assigning and directing personnel, establishing work standards and procedures, establishing, scheduling and monitoring hold points, monitoring and documenting required environmental test schedules, communicating with the customer's representative, verifying that calibrated test equipment is available, completing and documenting specified quality testing, responding when non-conformances occur. During the construction phase, completing all job-specific documentation consistent with the QMS.
- As QCI, the Project Manager establishes and incorporates and applies the specified and relevant quality procedures and tests as defined in the contract documents and the QMS.
- At job close out, verifying that the on-site Job File project documentation is complete and transferring the file to the Sales Manager for archiving.

5.4 References

5.4.1 - CSI Job Descriptions

- 5.4.1.1 Executive Vice President/General Manager JD (COB-JD-001)
- 5.4.1.2 Vice President Compliance & Infrastructure /EHS Officer (COB-JD-002)
- 5.4.1.3 Controller (COB-JD-003)
- 5.4.1.4 Director of Sales and Estimating (COB-JD-004)
- 5.4.1.5 Director of Operations (COB-JD-005) & (COB-JD-007)
- 5.4.1.6 Project Manager (COB-JD-007)
- 5.4.1.8 Supervisor (COB-JD-008)

5.4.2 - EHS Officer Designation Letter

5.4.3 - Quality Control Supervisor Designation Letter

6.1 MANAGEMENT COMMITMENT

6.2 Purpose

To define the management commitment of CSI and its subsidiaries to the development and improvement of the Quality Management System (QMS).

6.3 Scope

This section describes the commitment made by CSI's management to the development, implementation and continuing improvement of the QMS and identifies evidence of this commitment.

6.4 Policy

6.4.1 – CSI management believes that adherence to the QMS will enhance our overall business objectives. Thus, we as managers are committed to the policies and procedures described and referenced within the QM, to the ongoing development and continual improvement of the QMS as implemented, and to the following quality management principles:

- **6.3.1.1 - Customer Focus:** As a customer-focused organization, every employee must strive to understand our customer's current and future needs. As an organization, we are committed to not only meeting these needs but striving to exceed our customers' quality expectations.
- **6.3.1.2 - Leadership:** The aim of CSI management is to establish a unity of purpose, a direction and a stable environment for our employees in order that the organizational goals and quality-related practices we set will be realized.
- **6.3.1.3 - Involvement of People:** Our Managers and Supervisors must ensure that our employees are fully involved and informed in order to enable them to use their abilities to further our overall business objectives through compliance with our QMS policies and procedures
- **6.3.1.4 - Process Approach:** Our Operations and Project Managers have the responsibility to ensure that job-specific resources and activities are organized so that the work process efficiently achieves the desired result.
- **6.3.1.5 - System Approach to Management:** All management levels must understand and manage the interrelated processes of our QMS to achieve not only job-specific quality standards but to support CSI's overall business objectives.
- **6.3.1.6 - Continual Improvement:** Management at all levels must ensure that continual improvement is a permanent objective of CSI.

- 6.3.1.7 - **Factual Approach to Decision Making:** CSI management must ensure that decisions are effective and are based on a thorough analysis of relevant data and information.
- 6.3.1.8 - **Mutually Beneficial Supplier Relationship:** Our managers must strive to create value by fostering mutually beneficial relationships with our suppliers.

6.4.2 - To reinforce this commitment, management shall ensure that:

- 6.3.2.1 - The need to meet customer, regulatory and internal policy requirements is effectively and consistently communicated using a variety of means throughout the organization.
- 6.3.2.2 - The procedures identified under section 3.2.4 of this manual continue to remain relevant and consistent with the overall organizational policies and provide a suitable framework for realizing job-specific quality objectives.
- 6.3.2.3 – Job-specific quality standards continue to be identified for the relevant functions and levels within CSI as defined according to the QMS and that they remain measurable and consistent with CSI's overall quality goals.
- 6.3.2.4 - Quality Management Annual Reviews are conducted, as defined under section 5.6 of this manual, to ensure the continuing suitability, effectiveness and efficiency of the QMS.
- 6.3.2.5 - Necessary resources to implement and improve the processes of the QMS and to promote customer satisfaction are made available, as defined under section 6.1 of this QM.

6.4 References

None

7.0. DISTRIBUTION OF POLICIES

7.1 Purpose

The management of CSI is committed to promoting employee awareness of quality and safety policies and the vitality to its success as a company. With this commitment CSI makes relevant safety and quality policies and procedures available to employees in a variety of ways.

7.2 Scope

This section describes the commitment made by CSI's management to the development, implementation and continuing evaluation of the QMS and identifies evidence of this commitment.

7.3 Policy

7.3.1 New Hires

7.3.1.1 - Upon hire, each new employee will be instructed in basic safety policies and practices by means of a computer-based training program (CBT). Reference COB-TR- 008 Safety Orientation.

7.3.1.2 - A copy of COB-GD-001 Employee Guidelines will be given to each new hire. Annually this document will be updated and given to each current employee. As updated revisions are made available, all prior versions are to be destroyed.

7.3.1.3 - Quality Awareness (COB-GD-002) will be provided to each new hire.

7.3.1.4 - The CSI/APS Safety and Health Manual and CSI Quality Manual will be distributed to each supervisor and manager. A copy will be available for the use of all employees in the scheduling trailer, shop break room and at all off-site Ritchie Brothers Auctions locations. Additionally a current copy will be available at to all employees at each job-site location.

7.3.2 Employee

7.3.2.1 - Safety and health programs and policies contained in the "CSI/APS Occupational Health and Safety Manual" will be reviewed at employee training sessions periodically and as often as required in accordance with OSHA, other regulatory agencies and company policy.

7.3.2.2 - The quality policy requirements of the QMS and established quality objectives shall be reviewed with each employee on-site, during Craft Worker training sessions and through other means as needed.

7.3.3 Policy Review, Compliance and Distribution

To ensure that the quality policy, QMS requirements and quality objectives are adequately understood, implemented and maintained within the organization:

- 7.3.3.1 - A current controlled version of the Quality Manual will be distributed to each Supervisor and Manager.
- 7.3.3.2 - A current controlled version of the Quality Manual shall be kept in the Technical Standards Library.
- 7.3.3.3 - A current controlled version will be available at each SSPC QP eligible job-site location.
- 7.3.3.4 - Additional controlled copies of applicable quality procedures will be available in the Scheduling Trailer and Shop Break Room.
- 7.3.3.5 – Executive management, Operations Managers and Project Managers are to review QM at least annually.
- 7.3.3.6- As part of the feedback loop, the Quality Control Supervisor shall ensure that the effectiveness of the QMS processes and accomplishment towards company quality objectives are properly communicated to the various levels and functions within the organization through:
 - Team briefings and departmental meetings;
 - Postings on bulletin boards; and
 - Quality training sessions and presentations.
- 7.3.3.7 - These policies and procedures will be reviewed and updated per section 7 of this manual to reflect compliance with current regulatory requirements. Copies will be distributed in their most current form in accordance with Section 7.3.3. As updated revisions are made available, all prior versions are to be destroyed.

7.4 References

7.4.1 COB-GD-002 – BASIC QUALITY AWARENESS

7.4.2 COB-PR-001 – NEW EMPLOYEE CHECKLIST

8. MANAGEMENT REVIEW and INTERNAL AUDIT

8.1 Purpose

The management of CSI is committed to the relevance and improvement of CSI's quality and safety policies. With this commitment, CSI systematically audits and reviews the QMS policies and procedures.

8.2 Scope

Management review of the relevance and effectiveness of the QMS will take place at least once per year. During the review process, recommendations and changes will be documented to record the continuing progression of CSI's QMS.

8.3 Policy

8.3.1 Review/Audit of Policy and Procedures

8.3.1.1 - Establish that the QMS is achieving the expected results and meeting CSI's internal quality requirements, continuing to conform to the SSPC-QP1 standards, continuing to satisfy the customer's needs and expectations, and functioning in accordance with the established business objectives.

8.3.1.2 - Expose irregularities or defects in the System, identify weaknesses and evaluate possible improvements.

8.3.1.3 - Review the effectiveness of previous corrective actions, and to review the adequacy and suitability of the QMS for current and future operations of CSI.

8.3.1.4 - Review all recurring deficiencies recorded, identify the cause and recommend corrective action, if required.

8.3.1.5 - Review the findings of external audits and identify sources of recurring lack of performance.

8.3.1.6 - Review the reports of nonconforming items and trend information to identify areas of improvement.

8.3.1.7 - Informal audits of the Quality System are undertaken as required annually to confirm that CSI personnel are adhering to CSI's policies and procedures. A systematic audit review is completed under the direction of the QA/QC Committee at least annually.

8.4 References

None

9. CONTRACT REVIEW

9.1 Purpose

This section describes the process and commitment made by CSI's management to the development, implementation and continuing improvement of the contract review process and identifies evidence of this commitment.

9.2 Scope

CSI offers specialized services to meet each project. Specialized service requirements differ from one customer to another (and from one contract to another), therefore each tends to be quoted for the specific contract.

9.3 Policy

Once a proposal is accepted by the customer, or an order for services is placed, it is recorded and reviewed to establish that the requirements of the order request are adequately defined and documented.

9.3.1 - Any differences from the proposal are resolved (in accordance with QMS Section 10 Document and Change Control) and CSI is capable of fully satisfying job-specific requirements.

9.3.2 - In addition to the original order/ contract specification, the customer representatives may also request addition/ variation work to be undertaken by CSI. In these circumstances, the change in scope is documented and agreed upon with the customer's representatives prior to execution to ensure that no ambiguity exists.

9.3.3 - CSI operates on a computerized order processing system to ensure rapid fulfillment of customer service requests.

9.4 References

None

10. DOCUMENTATION & CHANGE CONTROL

10.1 Purpose

All documentation utilized within CSI related to the QMS itself, or to the execution of individual project contracts, is controlled to ensure that it is issued to the appropriate personnel, is under the correct level of authority, is revised and reissued as necessary, and that all obsolete versions are removed from the point of use.

10.2 Scope

In the case of material and services data received unrelated to an active project, when an update, replacement or revision document (product data sheet, MSDS, operating manual, etc.) is received from the manufacturer, vendor or supplier that has a published date and/or revision number more recent than the most recent copy on record, the copies of the earlier version will be removed from the technical standards library and/or job-site and office record documentation and replaced with the more current version. The earlier versions will be designated as "Archived" from the on-site Job File and Office Record File, and then placed in the "Archived" section of each.

Such documentation typically includes:

- Specifications
- Customer Orders
- Plans/ Drawings
- Job-specific Customer Quality Specifications/ Methods of Procedures
- National Industry Standards and Codes of Practice

10.3.1 Policy - Pre-Bid

Once a request for services is received, CSI Operations Management and Sales and Estimating Management will review feasibility congruent with CSI capabilities and goals. During the Pre-bid process, the Director of Sales and Estimating is responsible for initiating and controlling project documentation processes in conjunction with the Quality Control Supervisor.

10.3.1.1 - Requirements are reviewed by Sales and Operations with a determination made whether CSI is capable of performing the contracted work to acceptable standards.

10.3.1.2 – Exceptions to specifications or other clarifications such as omissions, errors and conflicting requirements shall be addressed accordingly:

10.3.1.2.1 – Clarifications shall be requested in writing in letter form or e-mail to Contractor, Engineer or Owner prior to bid. Requests for clarifications will be reside in the Office Record File.

10.3.1.2.2 – Responses to clarification letters are recorded in the Job Record File and the on-site Job File.

10.3.1.2.3 – Pre-bid omissions and conflicting requirements shall be noted on the Proposal for Services under the heading of "Notes and Exclusions".

10.3.1.2 - Pre-bid project information is compiled by the Sales Department electronically or in hard copy. Hardcopy receipt and transmittal of request, plans and specifications will be documented using (COB-QMF-001 - Project Transmittal Form) with printed copies retained in the Office Record File will document electronic receipt and transmittal of data.

10.3.1.3 - Upon award of services, two comprehensive project packages will be generated for: a) job Record File and b) on-site Job-File.

10.3.1.4 - Relevant project documents will include, but not be limited to, Sales Long Form (COB-QMF-003), project plans and specifications, change orders, miscellaneous project documents as applicable (JSAs, HASPS, MSDS, Material PDS, approved methods of procedures, Draw Downs, etc.) COB-QMF-001 - Project Transmittal Form, COB-QMF- 002 – Daily Inspection Report.

10.3.1.5 - The Job-Site Documentation Package is distributed to the applicable Operations Manager (Field or Facility) for review and distribution to the Project Manager/Crew Lead responsible for the project.

10.3.1.5.1 - Transmittal of each on-site Job File shall be recorded with the appropriate signatures and dates on the COB-QMF-001 - Project Transmittal Form, copies of which remain with each packet.

10.3.1.5.2 - Upon receipt of the Job File packet, a signed copy of the Project Transmittal Form acknowledging receipt shall be delivered to the Administrative Offices located at 700 Billings Street, Unit L Aurora, CO 80011 attention "Sales Manager" for archiving in the specific Job File. A copy will be retained in the project-specific Job File.

10.3.1.5.3 - Office Job Record Files are located in the office of the Sales Manager until project completion. Job-Site Documentation Packages are located with the assigned PM/QC Inspector throughout the duration of the project.

10.3.1.5.4 - At the close-out of the project, the completed on-site Job File will be delivered to the Administrative Offices located at 700 Billings Street, Unit L Aurora, attention "Sales Manager" for archiving in the specific Job Record File.

10.3.1.5.5 - Each contract has a File which contains all relevant information. Applicable electronic information is also held on CSI's computer system for ease of access and manipulation.

10.3.2 Policy - Work Control Documents

The applicable job-specific documents related to an on-going project, including changes to QM policies and procedures will be distributed, as approved, by the Quality Control Supervisor who ensures that the appropriate items, at the correct revision levels, are issued to all who need them within CSI.

10.3.2.1

10.3.2.1- As regards material and product data received in reference to an active project, the more recent data will be added to the Office Job Record File and Job-Site Documentation Package.

10.3.2.2 - Earlier versions will not be replaced but will be retained in these files, marked as "ARCHIVED" and placed in the "ARCHIVED DATA" section of the files to complete the paper trail necessary to record the relevant changes in material and products made over the life of the job. Both the earlier and more recent data will be retained in their respective files for the life of the project files.

10.3.2.4 - National/Industry standards and/or Best Practices, will reside as part of the Technical Standards Library. They will be maintained by the Director of Operations who will ensure that appropriate documents are available within CSI and are issued in their most current revisions.

10.3.2.5 - The Director of Operations will ascertain, as needed, that external suppliers of documentation are contacted, as required, to verify that documents held are the most current.

10.3.2.6 - In the case of specifications, drawings, engineering standards and change orders that pertain to a planned or active project; the more recent revision by date or revision number will be added to the Office Job Record File and to the Job-Site Document Folder.

10.3.2.6.1 – Changes to scope of work or specification established on-site by Owner/Customer shall be documented by the on-site Project Manager / Crew Lead using the Daily Inspection Report and delivered to Filed Operations Manager and Sales Manager.

10.3.2.6.2 - In both files, the earlier versions will be marked as "ARCHIVED" data and placed in the "ARCHIVED DATA" section of the respective files to complete the paper trail necessary to record the relevant changes to specifications, drawings and engineering standards made over the life of the job. Both the earlier and more recent data will be retained in their respective files for the life of the project files.

10.3.2.8 - Each contract has a File which contains all relevant information. Information is also held on CSI's computer system for ease of access and manipulation.

10.4 References

None

11. PURCHASING

11.1 Purpose

This section describes the process and commitment made by CSI's management to the development, implementation and continuing improvement of the purchasing process.

11.2 Scope

Products, materials and services, where unspecified by contract or customer preference, will be selected based on the ability to meet CSI's internal standards, given due consideration to the quality, regulatory requirements, timeframe, personnel, equipment and cost.

11.3 Policy

All supplies and sub-contracts are subject to the terms of CSI's authorized Purchase Order providing complete specification of the type and extent of product or service required.

11.3.1 - A list of approved suppliers and sub-contractors is maintained which is compiled on the following criteria:

11.3.1.1 - Previous performance in support of similar specifications and requirements.

11.3.1.2 - Compliance with an approved third party product/ quality standard.

11.3.1.3 - Recommendation by other similar purchasers or manufacturers.

11.3.1.4 - A trial order, test and/or performance evaluation.

11.3.2 - Should a supplier, not appearing on the Approved Suppliers List be proposed, they will be analyzed by capability and subject to acceptance on the authority of the Director of Operations or Director of Sales & Estimating.

11.3.3 - Purchasing documents clearly and completely describes ordered products, including quality requirements. Purchasing documents are reviewed and approved prior to release.

11.4 References

None

12. SUBCONTRACTING

CSI is a fully equipped industrial coating company capable of performing all cleaning and coating-related work in-house and without the use of subcontractors to perform its primary services.

13. PROCESS CONTROL

13.1 Purpose

This section describes the process and commitment made by CSI to insure coating and related operations are performed in accordance with contract requirements, project specifications and/or industry best practices.

13.2 Scope

All work is planned and undertaken in accordance with CSI's QMS policies and procedures as well as approved project-specific documentation, including manufacturer-supplied data.

13.2.1 - Any project specific documentation, as approved by the customer's representatives, will define the work process.

13.2.2 - Alternatively, where such specification of work is not specifically provided, industry "best practices" and CSI's QMS policies and procedures will apply.

13.3 Policy

13.3.1 –Methods of procedure are planned by the Director of Sales & Estimating , Quality Control Supervisor, the assigned Project Manager and Product Manufacturer (if applicable) prior to commencement of work in a pre-job conference.

13.3.2 – All project-specific documentation are reviewed and documented verifying receipt using COB-QMF-001 – Project Transmittal Form.

13.3.3 – Discrepancies, if identified are documented and corrected with the goal being a collective understanding of the project requirements and the methods planned to complete the work.

13.3.4 – Hold point inspections are identified to ensure each major industry related operation is properly performed and documented in accordance with project specific requirements and industry best practices.

13.3.4.1 – Major industry related operations typically specified are surface preparation, primer application, intermediate coat application, final coat application and cure testing.

13.3.4.2 – CSI's minimum inspection requirement for applications requiring immersion service shall include environmental, surface blast profile, measurement of dry film thickness, and holiday inspection per the most recent industry standard released by NACE.

13.3.4.3 – Hold point events are summarized on COB-QMF-002 – Daily Inspection Reports and/or inspection report form provide by specification, third party inspector, or owner.

13.3.5 - All completed inspection data shall be retained in their respective files for the life of the project files and retained at the corporate office.

13.3.6 - Documentation from the pre-job conference is kept in the project file and made available to the QCS and Quality Control Inspector (QCI).

13.4 References

COB-QMF-001 – PROJECT TRANSMITTAL FORM

COB-QMF-002 – DAILY INSPECTION REPORT

14. NON-CONFORMANCE: PREVENTATIVE & CORRECTIVE ACTION

14.1 Purpose

This section describes the process and commitment made by CSI to insure proper actions are taken when coating and related operations are not conducted in accordance with contract requirements, project specifications and/or industry best practices. Should the items not be acceptable against the established contract criteria they will be repaired, replaced or identified for subsequent evaluation and decision. All repaired items are subject to a re-inspection to ensure acceptability per the established standards.

14.2 Scope

Once a non-conformance has been identified, the non-conforming work and repair will be documented. Requests for deviations from contract requirements will be routed through the proper channels and documented verifying acceptance of the engineer of record and/or an authorized representative of the owner.

14.3.1 Policy – Non-Conformance

14.3.1.1 – Non-conformances will be marked and identified or otherwise segregated from the on-going work, to identify their current status.

14.3.1.1.1 – The non-conformance will be documented on the Daily Inspection Report Form (COB-QMF-002 – DAILY INSPECTION REPORT) and the Daily Work Log (COB-QMF-003 – DAILY WORK LOG)

14.3.1.1.2 – All occurrences of a non-conformance will be communicated to the QC Inspector on-site. The QC Inspector on-site will communicate the occurrence to the QCS.

14.3.1.2 – Once repaired, all recurring non-conformances are subject to further review and evaluation by the QCS and the QA/QC Committee. The type and extent of such recurring non-conformances will be documented using The Corrective Action Report Form (COB-QMF-004 – CORRECTIVE ACTION REPORT) to substantiate trends and identify possible areas for improvement.

14.3.1.3 - The corrective action taken to prevent further recurrence will be documented, and its effective implementation monitored. Once corrected, the corrective action taken will be subsequently re-inspected to ensure compliance with project-specific and/or industry standards.

14.3.1.4 - All employees are encouraged to suggest improvements in methods, materials, suppliers, and sub-contractors. CSI has established procedures for review of all production activities in order to further improve methods/materials and its procedures.

14.3.2 Policy – Deviations from Contract

14.3.2.1 – All request for deviations from the original scope of work as defined by contract requirements, project specifications or otherwise will be routed through QC Inspector on-site and QCS.

14.3.2.2 – CSI will maintain written correspondence of the deviation recording acceptance by the engineer of record or an authorized representative of the owner.

14.4 References

COB-QMF-002 – DAILY INSPECTION REPORT

COB-QMF-003 – DAILY WORK LOG COB-QMF-

004 – CORRECTIVE ACTION REPORT

15. RECEIVING INSPECTION

15.1 Purpose

This section outlines CSI's commitment to extending the quality program into all facets of the Coblaco business supply chain to include receipt of supplies and materials.

15.2 Scope

All CSI receiving areas are maintained as secure as practical. All coatings and supplies received are identified based on the shipping papers/packing slips, and are inspected for condition, correct identity, and quantity based on the purchase order, and any signs of damage or loss.

15.3 Policy

The receipts of all coating goods are documented. In the event of non-conformance, the items are placed in a reject area or labeled to ensure proper tracking. The extent of the non-conformance is noted on the shipping papers by the inspecting party. Final disposition is determined by the Inventory Specialist or PM responsible for the purchase.

15.4 References

None

16. INSPECTION AND TESTING

16.1 Purpose

This section identifies CSI's commitment to insuring the quality of work conducted meets customer expectations, project specifications and industry best practices regarding inspection and testing of coating operations.

16.2 Scope

Inspection and testing is carried out as required by project specifications or based on industry "best practices", with results being documented.

16.3.1 Policy – Inspection and Testing

16.3.1.1 - Throughout the job process, the frequency of inspection and testing of work will be based on "hold points" established according to the contract documents and as agreed to with the customer's project Engineer and/or inspector.

16.3.1.2 - The inspection/test methods will be as directed by the contract documents. Alternatively, where such inspection and testing procedures are not specifically provided, industry "best practices" and CSI's QMS policies and procedures will apply.

16.3.1.3 - On completion of installation and maintenance works, the customer is also invited to check the work performed to ensure full acceptability.

16.3.2 Policy – Inspection Equipment Calibration

16.3.2.1 – Inspection/testing instruments shall require periodic calibration as required by the manufacturer.

16.3.2.1.1 – Calibration frequency is determined by equipment manufacturer.

16.3.2.1.2 - Calibration certification shall be performed by manufacturer or third party testing agency.

16.3.2.1.3 - Instruments will be labeled in conformance with industry standards and inventoried showing manufacturer, model #, serial #, certification date and date of re-certification.

16.3.2.1.4 - Calibration records will be located at the yard office as well as at the project site, as required by contract specifications.

16.3.2.2 – Periodic field checks to verify test instrument calibration will be performed and documented, using QMS forms, in accordance with either equipment manufacturer's instructions or industry standards. See Section 17 Equipment Maintenance.

16.3.2.3 – The frequency of test instrument calibration and/or field checks will take place as defined by job-specific requirements. Lacking specific job-specific requirements, the frequency will be according to the manufacturer’s recommendation or according to industry “best practice” but at least annually.

16.4 Reference

None

17. EQUIPMENT MAINTENANCE

17.1 Purpose

This section states CSI's commitment to the preventive maintenance of all production and test equipment to ensure a safe and effective work environment and identifies evidence of this commitment.

17.2 Scope

Production and test equipment will be maintained in good condition and capable of safe and effective operation. Test and measuring equipment will be inspected and/or calibrated based on project-specific requirements and/or the manufacturer's recommendation to ensure that it is capable of accurate operation. Traceability will be established according to contract documents and, in their absence, industry "best practices."

17.3 Policy – Preventive Maintenance Program

17.3.1 – Maintenance and repairs of all major equipment used in surface preparation and coating operations are performed in accordance to the equipment manufacturer's recommendations. Where such recommendations are not accessible "best practice" and historical maintenance records and usage will apply.

17.3.2 – Maintenance schedule – All major equipment is scheduled for regular maintenance by the Facility Operations Manager in accordance to the equipment manufacturer's recommendations or "best practice." Each piece of equipment is identified by a unit number that enables the maintenance to be tracked for the life of the piece. All maintenance records are kept in a locked filing cabinet in the yard shop. After each service the technician responsible for the maintenance will update the equipment file.

17.3.3 – Written equipment maintenance records in hard copy or electronic format are maintained by the Maintenance Supervisor. CSI maintains equipment manufacture's maintenance manuals at the Henderson Facility in the main shop mechanics work area which is accessible during normal business hours and, on an emergency basis, after-hours.

17.3.4 - Copies of equipment manufacturer's standard operating and safety procedures are available in electronic and hard-copy formats for reference by craft workers.

17.4 References

COB-PR-002 – MOBILE BLAST START-UP/SHUTDOWN

18. RECORD STORAGE

Record storage facilities, located at CSI's Corporate Offices, will be such that all stored records remain identifiable and retrievable, and the storage areas are free from moisture and other agents which could cause premature deterioration of the files. The files retained will be identifiable according to job #, project title contractor/manufacturer name and year of completion.

Where records are maintained electronically, and these are subject to "back-up" at regular intervals, with the "back-up" information being stored in a protected location to ensure security from loss/ damage of active data.

All records are retained for a minimum of 5 years.

19. EMPLOYEE TRAINING

19.1 Purpose

This section is to state CSI's practices and procedures followed to assess general training needs of newly hired craft workers, evaluate existing worker qualifications and verify compliance with contract-specific worker training/task qualification requirements.

19.2 Scope

To ensure that all CSI craft personnel are trained to the extent necessary to undertake their assigned activities and responsibilities effectively and safely, CSI seeks to recruit employees possessing the technical skill, experience and educational requirements needed.

All employees are encouraged to recommend the training needs of subordinate employees. Operations Management is responsible for ensuring that all employees' assigned specific tasks are suitably qualified to execute those tasks. Once training needs are identified, training is provided under the direction of the QCS Training Supervisor.

19.3 Policy - Newly Hired Experienced Craft Workers

The CSI New Hire Craft Training Program consists of computer-based training, instructor moderated orientation and/or hands-on evaluations to develop a minimum standard of competency of all CSI's craft workers.

19.3.1 – New Employee Orientation - Each CSI new hire is required to complete the New Employee Orientation prior to entering the workflow process. New Employee Orientation includes:

- 19.3.1.1 – CBT Safety Training
- 19.3.1.2 – COB-GD-001 – EMPLOYEE GUIDELINES
- 19.3.1.3 - COB-GD-002 – BASIC QUALITY AWARENESS

19.3.2 – Employees completing New Employee Orientation, including Yard Orientation Training, and New Hire Training, including Introductory Sandblaster Training, Introductory Painter Training and Introductory Pressure Washer Training, will be assessed by the Supervisor conducting the training under the direction of the Operations Manager. CBT test results and related documentation will be reviewed by Operations management then be recorded and filed in the Office Employee file.

19.3.3 – Upon successful completion of the New Employee Orientation, the employee will be assigned to supervision within CSI's Yard Facility located at 11905 East 124th Avenue, Henderson, CO 80604.

19.4 Policy – Craft Worker Training

The CSI Craft Worker Training Program consists of multi-level training that focuses on sandblasting and painting skills. Skill assessment in each area is documented by written tests and/or hands-on evaluations to assess employee-specific skills and technical knowledge established according to job-specific specifications and industry standards established according to SSPC and NACE training curriculum.

19.4.1 – Hands-on Training - CSI employees will be introduced to a variety of industrial painting industry tasks and practices under the direct supervision of the Training Supervisor or his qualified designee.

19.4.1.1 – As the worker completes, or asserts competence in, each level of training, the employee will formally apply to the Training Supervisor to be tested for the appropriate knowledge and skills. The testing will be scheduled and conducted within a reasonable timeframe by a qualified trainer under the direction of the Training Supervisor.

19.4.1.2 – Hands on Skill Evaluation –As required to establish competency, hands-on skill evaluations will be held conducted in the yard or in the field. At minimum, Level 1 abrasive blasters shall be qualified using CSI’s Basic Media Blasting Training (COB-TR-002 ABRASIVE BLASTING) equivalent to the SSPC C-7 hands on skill assessment protocol.

19.4.3 – Written Tests - Written tests will verify the employee’s technical knowledge of the trade and the qualifications of the individual tested to perform job-specific tasks.

19.4.4 - Specialty curricula, testing and hand-on skills assessment for processes including UHP water jetting, insulation spray or plural component spray shall be developed in house or outsourced based on material and/or equipment supplier recommendations and “best practices” when industry standard training does not exist.

19.4.5 – Previously Trained Workers - Employees previously trained or qualified by who have left CSI’s work force, but return to work within a one-year period do not require re-assessment of their skills as a qualification assessment.

19.4.6 – Assessment – Each craft worker employed by CSI will be re-evaluated at least annually to verify that the minimum task-specific requirements of their skill set are being met. Employees who do not meet minimum craft standards will undergo remedial training until the minimum task-specific standard is met or will be terminated.

19.4.7 - All CSI personnel will be assigned to projects based on project-specific needs and the skill sets for which the employee has qualified.

19.4.8 – Records - Training records, including tests results and evaluations, will be retained in the respective employee Office Employee file.

19.5 References

None

20. REFERENCES

20.1 CSI Job Descriptions

20.2 EHS Officer Designation Letter

20.3 QC Supervisor Designation Letter

20.4 QC Inspector Designation Letter

20.5 Forms

ATTACHMENT E

Safety Manual

OCCUPATIONAL SAFETY AND HEALTH COMPLIANCE MANUAL

Coblaco Services, Inc.

American Pipeline Services

October 29, 2019

Revision 14.2

Prepared by:



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Intentions and Limitations

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Material in this document has been peer reviewed by Mr. Mitchel Little, MS, CIH, CSP, and Principal EHS Consultant with Hellman & Associates.

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Revision Record

Revision Date	Corrections By	Changes Made	Reasons For Changes
10/15/03	Hellman & Associates (H&A)	New Document	OSHA Compliance
1/29/07	H&A	Internal procedures	Compliance and update
5/5/07	H&A	Internal procedures	Compliance and update
4/24/08	Coblaco and H&A	Internal procedures, claims mgmt., OSHA contact info	Compliance and update
5/27/08	H&A	Fall protection lanyard length	Update
5/29/08	H&A	Add American Pipeline Services	Customer request
1/20/09	H&A – Dave Ruddy	Internal procedures	Customer request
4/27/11	H&A – Dave Ruddy	Update to CSE Procedures, Spray Painting Safety Additions and Formatting	Compliance and update of info.
1/17/12	H&A – Dave Ruddy	Updates to safety glasses use, illumination in CSE, ladder safety, scaffolding, pneumatic tool and grinder safety, and manual material handling	Updates to meet PICS Auditing requirements
3/30/12	H&A – Dave Ruddy	No Smoking Statement on pg. 31	Requirement by management
5/31/13	H&A – Mike Rose	Updates to Hazcom section to include GHS, Revised drug and alcohol policy.	Required by 2012 OSHA Hazcom standard changes, H&A FMCSA program review comments.
9/10/13	H&A – Mike Rose	Updates to lead and asbestos chapters	Revised to reflect ISN requirements.
8/8/14	H&A – Mike Rose	Updates to Chapters 3, 4, 6, 8, 13, 18, 20, 23, added chapter on Subcontractor Management.	Revised to reflect ISN requirements. Updated Lead chapter to reflect new strategy in IH monitoring.

Revision Date	Corrections By	Changes Made	Reasons For Changes
2/3/15 Rev. 10	H&A – Mike Rose	Updates to Chapters 2 and 8 to reflect respiratory exposures during hot work and abrasive blasting. Added section in chapter 2 to cover environmental conditions. Updates to 3 OSHA Reporting and Confined Space Ch. 9.	Revised to reflect PICS requirements. OSHA program changes and safety team discussion.
6/9/15 Rev. 10.4	H&A – Mike Rose	Added Traffic Control Chapter, Changed company references to include Anderson Services, Added forms appendix	Revised to include Anderson Services as part of CSI
10/7/15 Rev. 10.5	H&A – Mike Rose	Updated wash pad PPE, Drug policy and Lead Program	Safety Team discussion and ISN
1/29/16 Rev. 10.6	H&A – Mike Rose	Updated incident investigation procedures	ISN Requirements
4/29/16 Rev. 11.0	H&A – Mike Rose	Added severe weather plan, Removed references to Anderson Services, Added scaffold assembly instructions, Added Hazwaste area inspection section, Created workplace violence/ lockdown chapter	Safety Team discussions/ Annual review.
7/19/16 Rev. 11.1	Joey Belmudez – Coblaco Services	Added minor bullet points to Chapter 19 for the fleet vehicle and safe driving program under Employee responsibilities.	ISN Requirements
1/17/17 Rev. 11.2	Joey Belmudez – Coblaco Services	Added clarifying narratives to chapter 16 in regards to scrap materials evaluation, spill response and training.	ISN Requirements

5/25/17 Rev. 12.0	H&A – Mike Rose	Shortened the Hazcom chapter, removed some non-applicable electrical safety info (qualified electrical), clarified BBP exposure, and added a chapter on bio-solids exposure.	
2/5/18 Rev. 12.1	Joey Belmudez – Coblaco Services	Added fatigue management program outline to chapter 2	Increased employee safety and ISNetwork requirement.
3/19/18 Rev. 13.0	H&A – Mike Rose	Added policy on radios and headphones to chapter 3, removed TVing and Jetting PPE sections.	Annual review, pipeline services no longer operating cleaning equipment.
6/4/18 Rev. 13.1	H&A – Mike Rose	Updated fleet vehicle chapter, updated confined space contractor coordination section, added 1910 walking working surfaces language to Fall Protection chapter. Moved ladders and scaffolds from chapter 2 to fall protection chapter. Created Silica exposure chapter. Added PSM awareness section to chapter 2.	New company vehicles policy, PRCS updates to reflect 1926 AA standard, fall protection updates to reflect new OSHA standard. New chapter per new silica standard requirements. PSM was added per PICS requirement.
11/26/18 Rev. 13.2	H&A – Kassey Braun	Changed medical evaluations for respirator users from annually to every three years.	Not required to be annually, only conduct annually if suggested by the physician reviewing the medical questionnaire.

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CHAPTER 1 INTRODUCTION

Chapter 1 - Introduction

POLICY STATEMENT

The Management Team at Coblaco Services, Inc., inclusive of American Pipeline Services (all companies referred to herein as CSI) believes that our people are our most important asset and that the preservation of employee safety and health must remain a constant consideration in every phase of our business. It is our intent to provide a work environment as free of hazards as possible.

This Occupational Safety and Health Manual has been adopted to provide a standardized, uniform program for all employees. This manual is developed to meet occupational safety and health regulations and has management's highest priority, support, and participation. Its policies and procedures represent the minimum acceptable standards for CSI and its subcontractors. Where customers' and third parties' safety and health policies are more stringent, they will apply whenever CSI employees and/or subcontractors are working on the customer's site.

CSI management will make every effort to provide a safe and healthy work environment and ask its employees to assist in this effort. All employees are responsible for working safely and productively, always remaining aware of hazards in their jobs and following recognized safe work practices, including the use of personal protective equipment (PPE). CSI's success in any program is dependent on cooperation and commitment from all of our employees.

All CSI employees and visitors are required to comply with these programs. Each newly hired employee will be made aware of the contents of this Safety and Health Manual as part of their initial orientation. Additional policies and specialized safety orientations will also be provided.

Let us work together to ensure a safe and healthy work environment.



Steve Davis
President

January 17, 2017
Date

SCOPE AND APPLICABILITY

CSI provides industrial coatings and inspections for all businesses and industries including:

- Construction / Mining – structures and equipment, both new and used, such as scrapers, mockers, storage tanks, trucks, backhoes, graders, etc.
- Industrial / Petroleum – such as oil-well work over and exploration rigs, natural gas processing facilities and water treatment plants.
- Farming – equipment and storage such as tractors and silos
- Pipelines – internal and external coating of concrete/steel water piping and steel gas and liquids piping.

This Safety Program applies to all CSI employees, subcontractors, consultants, utility installers, servicemen, and visitors.

RESPONSIBILITIES

The ultimate responsibility for safety lies with each individual. All CSI and subcontractor personnel shall comply with the rules and procedures set forth in this manual.

CSI Management

The President, Safety and Health Coordinator, Facility Operations Manager and Field Operations Manager of CSI, respectively, are responsible for directing, administering, and implementing the management of all aspects of all Company programs involving employee safety, health, and environmental protection. Through their subordinates they will ensure that all job tasks receive appropriate health and safety review before commencement of activities, and that necessary equipment and facilities are available to implement the safety program. They will further ensure that all employees consistently comply with this safety program and the Company's commitment to safety.

CSI supervision will make all personnel cognizant of the hazards associated with their work and to understand and implement the methods for reducing the risk of injury and illness to themselves, the general public, and the environment.

CSI, Inc Safety Consultant

CSI's Safety and Health Consultant is responsible for monitoring activities pertinent to occupational safety and environmental health, and for ensuring that all personnel employed by the company perform work in a safe manner. The Safety Consultant's responsibilities include:

- Periodic but frequent monitoring of the workplace for concerns regarding employee safety and recommending appropriate safeguards
- Monitoring the work place for hazardous materials, chemicals, and unsafe conditions and compliance/non-compliance issues
- Conducting on-site safety meetings/briefings to management and employees
- Maintaining required reports and records regarding industrial safety and accidents
- Monitoring removal and packaging of hazardous materials

EMPLOYEE STOP-WORK AUTHORITY

- As part of an employee's onboarding and orientation they are notified and trained concerning their stop work authority.
- If an employee determines that a problem exists in complying with an established safety directive, or observes an unsafe work practice/condition, then the employee may stop work, and must also notify those individuals involved in the subject task to stop work. No employee will be reprimanded for exercising his or her authority to stop work due to valid safety concerns.
- The employee shall then inform the first line supervisor that work has been stopped and that a resolution of the problem is necessary. The supervisor and employee will complete a SOR (safety observation report) with all details including the work stoppage. The SOR and all supporting documents are submitted to the employee based safety committee (Zero In On Safety – ZIOS).
- The supervisor and employee(s) involved shall discuss the problem and develop a solution. No work will resume until all issues and concerns have been addressed.
- The supervisor shall then present a resolution of the problem to the employees and if there is a disagreement, the supervisor must inform the next higher level of management of the problem and need for review of the situation including any documents or pictures.
- The supervisor, employee(s), and manager shall discuss the problem and if there is still no agreement on a resolution, the matter shall be brought to the attention of the Director of operations who will determine the appropriate course of action.
- The ZIOS committee reviews all SOR submissions monthly at minimum and determines when and what corrective actions are needed to reduce or eliminate safety risks to employees. All review findings are shared with company personnel via the monthly company safety meeting.

CHAPTER 2

SAFETY RULES PROGRAM

Chapter 2 - Safety Rules Program

POLICY STATEMENT

All employees shall use the personal protective equipment prescribed by governmental agencies and CSI's rules and regulations to control or eliminate any hazard that may cause injury or illness. Any employee who willfully refuses to use the prescribed personal protective equipment, or willfully damages such equipment, shall be subject to disciplinary action which may lead to immediate termination.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual, including, but not limited to, the "Personal Protective Equipment (PPE) Program" section.

RESPONSIBILITY

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator has administrative responsibility for coordinating the development and review of program elements, content, and employee training.

The Facility Operations Manager and Field Operations Manager are jointly and individually responsible for coordinating implementation of the program; for recommending the development of training materials, for providing technical assistance and guidance to executive management and supervision and record keeping.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

As a condition of employment with CSI, each employee is required to abide by the following safety rules:

Hearing Protection

Appropriate hearing protection shall be worn during blasting or working within 200 feet of blast areas.

Goggles, Safety Glasses, and Face Shields

As determined by periodic Job Hazard Assessments, appropriate eye/face and head protection shall be worn by every employee when:

- Welding, burning, or cutting with torches
- Using abrasive wheels, portable grinders, or files
- Chopping concrete, stone or metal
- Working with any materials subject to scaling, flaking, or chipping
- Soldering, handling or working with hazardous liquids, powders or other substances
- Drilling or working under dusty conditions
- Sand or water blasting
- Waterproofing
- Using power-actuated fastening or nailing tools

- Working with compressed air or other gases
- Working in the main shop and in the Spray Booth
- Working on or near any project in the Henderson yard or off site
- Working near any of the operations listed above

Respirators

Approved respirators will be used when excessive dusts, mists, fumes, gases, or other atmospheric impurities may be harmful to health.

Footwear

All yard and off-site field employees will wear steel-toed (or equivalent) safety shoes. Steel-toed safety boots worn in cold weather may be optional based on the project supervisor and the JSA.

Return of Company Owned PPE

Company owned protective equipment such as safety goggles, safety harnesses, respirators, or rubber clothing furnished by CSI will be returned to the job-site office when terminating employment. Individuals will be responsible for proper care and to not lose or damage this equipment.

HOUSEKEEPING

Each employee will be responsible for keeping his/her work area clean and safe at all times. Extension cords, air hoses, welding leads, or oxygen and acetylene hoses will not be placed where they create tripping hazards for employees. Each will keep himself/herself; the equipment being operated or are using and the workplace as clean as practicable. Practice good housekeeping at all times.

Clean up or eliminate slipping hazards such as grease, oil, water, ice, snow or other liquids on walkways, ladders, stairways, scaffolds or other access-ways, or working areas.

Deposit trash, refuse, debris, lunch papers and other wastes in the proper refuse containers.

Oily rags, waste or other combustible debris shall be kept in covered, metal containers provided for that purpose.

HAND TOOLS

Always use the proper tools and equipment, whether provided by the employee or company, for any task you may be assigned to do. For example, do not use a wrench as a hammer or a screwdriver as a chisel. If you are unsure of how a tool is to be used, seek assistance from your supervisor. Only use tools that you are properly trained to use.

Tools should be inspected prior to use. Do not use broken, defective, burned, or mushroomed tools, clevises or chains, or frayed or cut slings. Report defective tools to your supervisor and turn the tool in for replacement. Defective tools should be removed from the work area and tagged out as unsafe.

Keep tools and equipment in their proper storage place when not in use. Do not leave tools or equipment where they might present a tripping hazard, fall on somebody or be stolen. Do not carry sharp-edged tools in your pockets.

Guards shall be in place and operable at all times while the tool is in use. Guards may not be manipulated in such way that will compromise its integrity or compromise the protection intended.

Pneumatic hand tools shall be lubricated prior to use in accordance with the manufacturer's requirements. Operating air pressure must not exceed the recommended pressure as determined by the manufacturer. Anti-whip restraints or self-locking fittings must be used on air hoses to prevent the tool or air hose from flying through the air should the tool become disengaged from the air hose. Safety glasses and hearing protection must be worn as appropriate for the hazard of the work environment as identified in the JHAs.

Portable grinders and abrasive wheel tools shall be used with the guard in place at all times. Abrasive wheels must be rated and manufactured for the tool they are used on. The abrasive wheel must be inspected for defects prior to being installed. Safety glasses and hearing protection must be worn while operating any abrasive tool. Care must be taken to ensure sparks and/or flying debris does not cause a hazard to other employees on-site.

SITE ENVIRONMENTAL CONDITIONS

Heat Stress

On very hot days, employees should take adequate precautions to prevent heat stress-related illnesses. Employees should take breaks as frequently as necessary and hydrate frequently. Supervisors should closely monitor all employees for symptoms of heat stress.

Cold Stress

On very cold days, employees should take adequate precautions to prevent cold-related illnesses including hypothermia or frostbite. Employees should take breaks as frequently as necessary to warm up inside a building or in a company vehicle.

Site Lighting

If work is performed at night, adequate site lighting must be used. The lighting should illuminate more than the object the employee is working on. All potential site hazards in the immediate vicinity of the employee should be illuminated.

JOBSITE SECURITY

Safety is a priority at Coblaco Services and the company is committed to providing a safe work environment for the facility or field work. Each employee is informed of the company jobsite safety requirements during the hiring and onboarding process.

Safety in the facility is reviewed annually at minimum to determine if there are any corrective measures needed to increase or maintain security levels. For field work each job undergoes a jobsite security evaluation as part of the jobsite safety analysis (JSA). If it is not determined that a site can be reasonably secured during the scope of work required CSI will not accept the project and perform the work.

To maintain jobsite security and reduce incidents there are a number of measures that are in place. All visitors must check in and check out of the facility or the job site each time they enter or leave. Upon employment employees are supplied with a reflective work vest that carries the Coblaco or American Pipeline Services name and logos. These vest must be worn when working outside the facility so that jobsite personnel can be properly accounted for. Some jobsites will also require the use of badging to gain access or egress.

Any employee that witnesses or experiences a security incident during the course of work must notify their supervisor or manager immediately. Upon notification the Supervisor or Manager will work with the employee to document the security incident and submit the documentation to the Compliance Department Manager for review and determination of corrective action required if any.

FATIGUE MANAGEMENT PROGRAM

Fatigue usually results from inadequate sleep, but can also result for the following reasons:

- Being awake at times of the day when most people are asleep (e.g., 2am to 5am);
- Having a heavy workload;
- Having poor physical fitness; and
- Working in harsh work environments (e.g.; high temps and humidity, cold temps, etc.)

Fatigue can be considered a form of impairment and may impact workplace performance and safety. Employees who are fatigued at work can present hazards to themselves and their co-workers as they may experience:

- Reduced mental and physical functioning;
- Impaired judgement and concentration;
- Lowered motivation;
- Slowed reaction times; and
- Increased risk-taking behaviors

Coblaco Services Inc. will take the following steps to prevent employees from becoming fatigued:

- Provide adequate training and supervision over employees who are likely to experience fatigue based on schedule or scope of work.
 - In situations where higher fatigue risks are identified, Managers and Supervisors will be kept informed on an ongoing basis about signs of fatigue and ensure that employees are not being overworked.
 - Managers and Supervisors are also responsible for making sure that adequate personnel resources are allocated to projects to control individual employee workloads.
- Ensure that employees are evaluating work tasks for fatigue risk factors, when applicable, as part of the Job Hazard Analysis (JHA) process or before tasks are performed.
 - When fatigue risk factors are identified, employees are expected to determine which control measures are appropriate (e.g., if ergonomic friendly equipment is necessary to prevent musculoskeletal fatigue or if additional breaks should be taken to allow for adequate mental or physical rest or recovery).

- Require that employees take breaks at regular intervals during their work shift and recommend that additional breaks to be taken, as deemed necessary.
- Managers and supervisors will control job/task rotation schedules to limit worker fatigue. In the event rotation is not feasible work hours will be limited as deemed necessary.
- Require that employees avoid using over the counter or prescription drugs or any other products that may affect their ability to perform work safely.
- Require that employees report early signs or symptoms of fatigue to their manager or supervisor so that a more serious problem or safety hazard doesn't develop.
- Ensure that employees are fit for duty and understand that they should not report to work or continue working if they are fatigued to the point where they could put themselves and others at risk of injury or other serious consequences.

Employee Training

Coblaco Services Inc. will provide all employees with training on the fatigue risk factors, preventative measures, and their responsibilities under this program upon initial hire and on a tri-annual basis thereafter. Additional training needs will be evaluated on an ongoing basis.

The goal of this training is to make employees aware and feel empowered about managing their own fitness for duty related to fatigue and report any risk factors or ill health effects to their manager or supervisor.

Managers and supervisors will participate in separate, more detailed training as deemed required.

PROCESS SAFETY MANAGEMENT (PSM) AWARENESS

Process Safety Management (PSM) is a program which provides information and procedures to prevent or minimize an accidental release of large quantities of hazardous chemicals. This program attempts to anticipate future problems by identifying, evaluating, and preventing failures of the process that could result in a release.

Some customer sites where CSI may perform work fall under Process Safety Management (PSM) requirements. All CSI employees and subcontractors must be trained on the site-specific hazards and safe work practices needed to perform the contracted work. This training is generally provided by the PSM site and must also include CSI's roles in the site emergency action plan. This training must be documented and include the date of training, employee names and means used to verify employee understanding of the topics.

Management of Change

The Process Safety Management Standard requires written procedures to manage certain changes to the critical systems, such as additions of new equipment or changes in operating, maintenance or other procedures. The purpose of evaluating changes to the process is to assess their potential impact on safety and health, to determine whether the changes should trigger changes to operating procedures or safe work practices, and to ensure that employees are notified of changes and given appropriate training.

Any changes made to critical equipment by CSI must first be brought to the attention of the host site management for them to determine the need for a Management of Change (MOC) review.

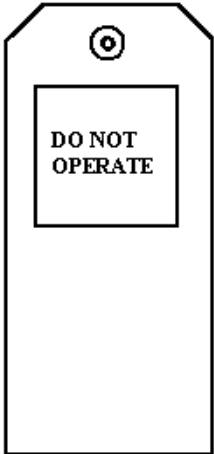
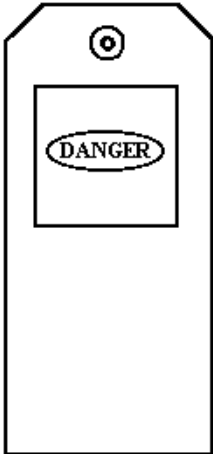
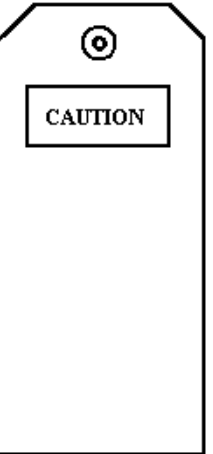
ACCIDENT PREVENTION TAGS, SIGNS, & SIGNALS

Appropriate tags, signs, and signals should be used to assist in the prevention of injury to employees and the prevention of damage to equipment. These devices should be visible to employees in such a manner as to positively identify the hazard. Once the hazard has been eliminated, these devices should be removed or covered.

Signs and tags should be designed to meet the requirements in Table G-1 below and used as follows:

- Danger signs should only be used where an immediate hazard exists.
 - Danger signs should have red as the predominating color for the upper panel; black outline on the borders; and a white lower panel for additional wording.
- Caution signs should be used only to warn against potential hazards or to caution against unsafe practices.
 - Caution signs should have yellow as the predominating color; black upper panel and borders; yellow lettering of "caution" on the black panel; and the lower yellow panel for additional wording. Black lettering shall be used for additional wording.
- Accident prevention tags should be used as a temporary means of warning employees of an existing hazard, such as defective tools, equipment, etc. They should not be used in place of, or as a substitute for, accident prevention signs.

Table G-1

			
White tag - White letters on a red square	White tag - White letters on red oval with a black square	Yellow tag - Yellow letters on a black background	White tag - White letters on a black background

Basic Stock (Background)	Safety Colors (Ink)	Copy Specification (Letters)
White	Red	Do Not Operate
White	Black and Red	Danger
Yellow	Black	Caution
White	Black	Out of Order Do Not Use

EQUIPMENT AND VEHICLES

Keep clear of all heavy equipment. Particular points of danger are blind spots to sides and rear of vehicles and in swing radius of cranes.

Be alert to avoid swinging or suspended loads. Keep yourself and your co-workers in the clear at all times. Use a tag line on the load and do not get into tight quarters or a potential pinch point.

Jumping on or off equipment or vehicles, either moving or stationary, is prohibited. When climbing on or off machinery, face the unit and use secure hand and foot holds to prevent slips or falls. Maintain 3 points of contact at all times.

Operators of CSI vehicles on public roads must possess and carry a current and valid driver's license.

No machine shall be operated unless all guards are in place. Guards are not to be removed except when necessary to make repairs, and are to be replaced before equipment is again put into operation.

Only authorized and properly trained and supervised personnel are permitted to operate equipment, vehicles, valves, electrical switches and other similar machinery. Refer to the equipment operating manual for appropriate safety procedures. Specialized equipment includes, but is not limited to, sand blasting equipment, forklifts, scissor lifts, aerial lifts, earth moving equipment, gas monitoring detectors, ultra-high-pressure water jet machine, generators, compressors, and cranes.

When parking equipment, lower all blades, buckets and fork attachments to the ground. If it is moveable, place it on the ground. If equipped, the parking or emergency brake should be set. Equipment that is shut down for repairs must be locked and tagged out.

No non-employees shall be allowed to ride in Company vehicles or equipment unless authorized by CSI management.

Each operator is responsible for checking the condition of equipment or vehicle and load characteristics before operating it. You must be sure the vehicle has not been damaged and that all safety equipment is intact and in good working order. If there are any problems that could affect safety, they must be repaired before going to work. Ask your supervisor for help if you are not sure how to make the inspection.

- At the start-up or if you have been off your equipment, even for a short break, walk around it before starting it up. Someone may have parked in a blind spot or someone may be working on it in a location that is out of your sight. You are responsible for seeing that the area is clear before moving equipment. You should sound your horn before moving equipment, but do not depend on the horn alone to clear everyone out of the area.

When operating any equipment, never place speed above safety. Considering that roads are affected by weather, various conditions and traffic, use caution. Do not overrun your own capabilities for handling and stopping equipment.

If vehicle or equipment is equipped with seat belts, the operator and passengers **MUST** use them.

Ride only in vehicles that are designated and outfitted, including safety equipment, for transporting personnel. Do not ride on running boards, fenders, or other projections and do not extend legs, feet, arms, hands, or other body parts over the edge of the truck bed, cabs or operator's cage.

WELDING AND CUTTING

Only qualified employees/subcontractors are authorized to do welding, burning or cutting. Contract employees shall not perform hot work until a hot work permit is obtained from the employer (host facility/ client) Hot work shall not be performed without a hot work permit. The permit shall document that provisions of 29 CFR 1910.252(a) have been met.

When cutting or welding must be done near combustibles, such materials must first be removed from the area where possible. If removal is not possible, cover combustibles with a non-combustible material. When welding near or on any combustible material, another employee must be posted to serve as fire watch. Make sure this person has a fire extinguisher available and keep him/her in the area after welding and inspection is over and all danger of fire has passed.

Place compressed gas cylinders in an upright position and secure them in that position to prevent dropping or falling. Handle with extreme care and do not store near any sources of heat.

When opening valves on acetylene or oxygen tanks that have regulators installed, be sure the pressure adjustment screw is all the way out and do not stand in front of the regulator. An internal failure can rupture the regulator and cause the adjustment screw to become airborne.

Do not cut, weld, or burn on tanks or drums that have contained flammable or combustible liquids or grease until they have been cleaned and other safety precautions taken.

At no time shall cutting, welding or burning be done in areas that contain explosive gases, fumes or vapors without first testing for a hazardous atmosphere. Should flammable or combustible liquids be present or the test otherwise indicates a concentration of explosive gases, fumes or vapors, the area shall be cleared by ventilation or other means before the work is started. Once cleared, the atmosphere in the work area shall continue to be monitored periodically until the work is complete.

Always inspect the work area for fire hazards and proper ventilation before welding or cutting.

Avoid welding or cutting sparks and hot slag. Be alert to hot surfaces and avoid touching metal surfaces until they have cooled.

When working in the vicinity of welding operations, wear the appropriate approved goggles or face shields and avoid looking directly at the flash as flash burns could result.

Respiratory Hazards While Performing Hot Work

Welding produces visible smoke that contains harmful metal fume and gas by-products. Different alloys and coatings may produce by-products that are more harmful such as stainless steel and cadmium coated parts. CSI requires local ventilation for all welding tasks to reduce this exposure. The following are chemicals that may be present on CSI hot work projects:

Cadmium Awareness

Cadmium and its compounds are highly toxic and exposure to this metal is known to cause cancer and target the body's cardiovascular, renal, gastrointestinal, neurological, reproductive, and respiratory systems. Cadmium is used as corrosion resistant plating and can be found on many vehicle and trailer components. Parts that appear yellowish or green are most likely coated with cadmium. If possible, repairs should not be made on these parts. If necessary, the CSI safety consultant will determine the correct level of respiratory protection for the work.

Hexavalent Chromium Awareness

Hexavalent chromium or Cr(VI) is a toxic form of chromium that can cause severe health effects to workers, including lung cancer. Welding and hot working stainless steel, high chrome alloys and chrome-coated metal will produce Cr(VI) fumes. If possible, repairs should not be made on these parts. If necessary, the CSI safety consultant will determine the correct level of respiratory protection for the work.

AIRLESS SPRAY PAINT SYSTEMS SAFETY

Airless paint sprayers operate at very high pressures and can very easily cause injuries if you spray your skin or any part of your body. You may actually inject paint into your tissues or bloodstream through your skin without having an obvious cut or bleeding. The skin can open up and allow the passage of the paint through and then close off again making it appear that nothing is wrong. This is a “fluid injection injury” and should be reported to your supervisor directly and treated by a medical professional immediately.

Operating Precautions

- Never put fingers near spray tip or aim gun toward any part of the human body.
- Never attempt to stop leakage with your hand or any part of your body. If a leak occurs in the paint hose or at any fitting, immediately shut off the unit.
- Never operate the sprayer without the tip guard complete and in place.
- Never spray in the vicinity of open flame, pilot lights, electrical outlets, or any other source of ignition.
- Never allow paint hose to become kinked or to vibrate against rough or sharp surfaces.
- Never leave the unit unattended without first shutting off the unit and triggering the gun to relieve all pressure.
- Never clean or service any part of the equipment with the system under pressure. To relieve pressure, shut off the sprayer, trigger the gun, and open the pressure drain valve.
- Always follow all safety precautions and operating instructions completely.
- Always check connections and fittings for tightness before operating the unit.
- Always wear the proper PPE including respirator and safety glasses when operating the unit.
- Always observe good housekeeping and keep the spray area free from unnecessary obstructions.
- Always be aware that certain chemicals may react with aluminum, carbide or other components in the pump system.
- Always make repairs on the pump, hose and gun using only parts rated for the output pressure that that system is capable of delivering. If you are unclear as to the equipment rating, consult the manufacturer’s operating and maintenance manual to determine the maximum output pressure before replacing parts on the system.
- Though not required, it is recommended that reversible tips be used to facilitate safe removal of clogs in the spray tip.

SPRAY AREAS

Only intrinsically safe electrical equipment will be used in the paint booth and other designated interior or confined space paint areas while painting. In the event non-intrinsically safe electrical

equipment (i.e. scissor lift) is to be used in a spray area, additional precautions will be taken to ensure the atmosphere does not exceed 10% of the lower explosive limit of the flammable or combustible liquids and/or gasses that are present.

SUBSTANCE ABUSE AND PROHIBITED ITEMS

CSI prohibits the use, possession, concealment, transportation, promotion or sale of the following items or substances on company premises:

Reference the regulated and non-regulated employee drug and alcohol policies for more information. These policies should be signed by all applicable employees at the time of hire or revision.

MANUAL MATERIAL HANDLING

CSI encourages employees to use mechanical material handling devices when possible to help prevent soft tissue and repetitive motion injuries to muscle groups such as the back, neck, shoulder, legs, and arms. Material handling by employees should be limited to 50 lbs. Employees should follow the following guidelines when moving material by hand:

- Never twist while handling/carrying a load;
- Look at the walking surface pathway and make sure it is free of tripping hazards;
- Make sure to know where the material will be placed before lifting it;
- Keep the load close to your body and use your legs to lift the load;
- Do not make the same motion constantly, change positions as often as possible;
- Keep yourself out of the line of fire so material will not fall on you or towards you; and,
- Get assistance when you feel uncomfortable with moving the load by yourself.

OCCUPATIONAL HEALTH

Before working with any hazardous material all employees must:

- Be trained in the CSI Hazard Communication Program;
- Locate and review the material's Safety Data Sheet (SDS)
- Be familiar with the material's health effects;
- Know how to protect yourself;
- Wear the specified personal protective equipment (PPE);
- Know where to get additional information.

Wear appropriate gloves, suits, respirators, and goggles and/or face shields, consistent with the hazards identified in the material's SDS.

All chemical containers containing hazardous materials must be approved and properly labeled.

Do not store hazardous materials in containers that are either not approved or not properly labeled.

Prior to using the hazardous material each employee must know where the eyewash stations, showers or other appropriate emergency facilities/spill response equipment are located.

Employees will wash their hands thoroughly before eating or going to the toilet to keep their body free from the effects of the chemicals being handled.

If asbestos-containing material is suspected to be present, the suspect material is not to be disturbed. Supervision/ or site management will be notified immediately. Only authorized workers who are properly trained, equipped and use appropriate controls, may work with asbestos.

Employees may be asked to wear monitoring equipment that measures the worker's exposure to noise or air contaminants. Cooperation with these requests is mandatory. Following analysis of the data, employees will be notified of the results.

FORMS

All forms are located at the end of this manual

Hot Work Permit

CHAPTER 3

HEALTH AND SAFETY PROGRAM

Chapter 3 - Health & Safety Program

MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION

It is CSI's belief that any safety and health program must have total employee involvement. Therefore, all employees are responsible for working safely and productively, always remaining aware of hazards in their jobs and following recognized safe work practices, including the use of Personal Protective Equipment (PPE).

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the "Personal Protective Equipment (PPE) Program" section.

COMPANY GOALS

Safety begins at the top and involves everyone in the company. CSI's primary goal is to have an accident-free and injury-free work place. This can be achieved by delegating responsibility and accountability to all involved in the company's operation. Management will use additional benchmarks as necessary to help achieve this goal.

Responsibility: Having to answer for activities and results.

Accountability: The active measurement by management to ensure compliance or management doing something to ensure action.

Using this foundation, to reach our goal of a safe work place, everyone must take responsibility and everyone will be held accountable.

Benefits of achieving our goals are:

- Minimizing all injury accidents
- Minimizing loss to property and equipment
- No fatalities
- No permanent disabilities
- Having the best safety & health conditions possible
- Improving overall business operations to make us more competitive in the marketplace

The safety and health program shall be reviewed annually by management and employees, and be revised, updated or changed at that time, if needed.

MANAGEMENT COMMITMENT

The management of CSI is committed to the company's safety policy, and to provide direction and motivation by:

- Executive management's appointment of a Safety and Health Coordinator;
- Executive management's retaining of a Safety and Health Consultant;
- Establishing Company safety goals and objectives;
- Maintaining this written health and safety plan;
- Enforcement of health and safety disciplinary procedures for employees;
- Support the Health and Safety program with people, authority and training;

- Establishing accountability and responsibility for management and employees to follow.

RESPONSIBILITIES

CSI Safety Consultant

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

Safety and Health Coordinator

CSI will designate a Safety and Health Coordinator, reporting to executive management. It shall be the duty of the Safety and Health Coordinator to support executive management, the Facility Operations Manager, Operations Manager and supervisors in the initiation, education, and execution of an effective health and safety program, and more specifically, the following:

- Ensure that management and line supervision introduce the safety program to new employees;
- Be thoroughly familiar with the company health and safety program and support supervision/management in the execution of standard policies;
- Coordinate follow up on recommendations, suggestions, etc. made at the monthly employee safety meetings and/or ensure that hazards reported by employees are evaluated by management and corrected consistent with applicable regulatory standards and overall company and safety objectives in a timely manner;
- Coordinate the conduct of safety inspection investigation reports; and
- Maintain the required elements of CSI's written safety and health programs and ensure all required safety inspections and training are conducted.

Operations Managers

Through their subordinates, the Facility Operations Manager and Field Operations Manager will establish an operating atmosphere that ensures that health and safety is managed in the same manner and with the same emphasis as customer service, cost, and quality. Specific tasks include, but are not limited to the following:

- Define, if necessary, responsibilities for health and safety of all subordinates and hold each person accountable for their results;
- Regularly emphasize that accident and health hazard exposure prevention is a condition of employment;
- Maintain safe work practices and safe working conditions within the area under his/her supervision;
- Spend time with each person hired explaining the safety policies and the hazards of his/her particular work;
- Never short-cut safety for expediency, nor allow workers to do so;
- Enforce safety rules consistently, and follow company's discipline/enforcement procedures;
- Conduct daily job site walk-through and correct noted safety violations;
- Ensure that appropriate PPE is provided and used where required;
- Support line supervisors/managers in maintaining adequate stocks of first aid supplies and other safety equipment to ensure their immediate availability;
- Address all hazards or potential hazards as needed;

- Ensure all hazards identified by employees are addressed in a timely manner;
- Record keeping.

Supervisors

Through their subordinates, Supervisors will coordinate safe work practices for the employees immediately under their supervision. This should be accomplished by establishing a culture where safety and production go hand in hand to produce a quality product. No task is so important that safety can be overlooked in order to finish a task on or ahead of schedule.

Specific tasks include, but are not limited to, the following:

- Uphold applicable health and safety rules for the project with each employee on the project;
- Regularly consult the health and safety manual when questions arise about health and safety regulations;
- Regularly emphasize that accident and health hazard exposure prevention is a condition of employment;
- Conduct weekly safety meetings for employees on the job; and,
- Perform safety observations of employees while in the performance of the project tasks.

Employees

The duty of each and every employee is to know the safety rules and conduct his work in compliance with these rules. Disregard of the safety and health rules shall be grounds for disciplinary action up to and including termination. It is the duty of each employee to make full use of the safeguards provided for their protection. Every employee will receive an orientation when hired and receive a “New Employee Health and Safety Packet”. Specific responsibilities include, but are not limited to, the following:

- Read, understand and follow health and safety rules and procedures;
- Wear all personal protection equipment (PPE) required for the job at hand;
- At all times, wear work clothes appropriate for the job at hand;
- Work in a manner which will avoid accident/injury to either themselves or other workers and immediately correct their method of operation in favor of safer methods when directed to do so;
- Report all injuries, no matter how slight to their supervisor immediately, and seek necessary treatment promptly;
- Be aware of the location of first aid, eyewash, firefighting equipment, and other safety devices;
- Report all safety and environmental hazards to your supervisor;
- Attend all required bi-monthly health and safety meetings;
- Follow all procedures identified in the health and safety program;
- Perform potentially hazardous tasks or use any hazardous material only after receiving and adequate training.

SAFETY TEAM

Select employees shall participate on the “Zero In on Safety” safety team for an indefinite period of time.

The team will meet monthly and have the following responsibilities:

- Discuss safety policies and procedures with management and make recommendations for improvements.
- Serve as liaison between workers and management in safety matters.
- Provide technical reference material.
- Review accident investigation reports on all accidents.

DISCIPLINE POLICY

All of levels of management including Project Managers, Direct Supervisors and Foreman are responsible for enforcing the safety policies contained in this document. Supervisors will address employees observed working in an unsafe manner. The first violation of a health and safety rule, directive or policy, written or verbally communicated will result in a verbal warning and explanation. A second violation of the same rule will result in a written reprimand that will go into the employee's permanent file. The third violation may result in immediate termination. When the severity of the infraction/circumstance's warrants, management reserves the option of imposing more severe discipline related to a specific infraction up to, and including, immediate termination.

Examples of safety violations include not wearing the required PPE, horseplay, use of equipment without the required guards in place and abuse of safety equipment.

WORKPLACE JOB SAFETY ANALYSIS

Workplace Survey and Walkthrough

At least monthly, physical inspections (Safety Walk Throughs) will be conducted by qualified safety personnel to review compliance status and recognize any inconsistencies and deficiencies. The walkthroughs will be documented and if necessary, include an action plan for corrective actions.

Hazard Analysis and Safe Work Permits

When hazards are identified, a hazard analysis may be done to further assess the risks of specific jobs, processes, and/or phases of work. The hazard analysis is an orderly process for locating and evaluating hazards that are most probable and have the severest consequences. The hazard analysis will review each step of the process, identify existing or potential hazards (both safety and health), and recommend changes or controls are implemented to eliminate or reduce the hazards identified. A hazard analysis will be conducted for each major functional area or operation to determine the need for, and proper selection of, personal protective equipment.

All hazard analysis will be documented on a Job Hazard analysis form or Safe Work Permit and reviewed at least annually or when the process or operation changes. A Safe Work Permit is required at minimum for all high-risk and non-routine tasks. The Safe Work Permit shall be issued and executed before work begins on the task. The employee in charge is responsible for completing and reviewing the permit with employees at the beginning of each shift. All employees working under the permit will sign the permit after the review is complete.

The Safe Work Permit must be reassessed or revised once the work scope changes or new hazards are identified. If an accident, injury, or illness is associated with a specific job or process, the hazard analysis should be reviewed to determine whether changes are needed.

Exposure Monitoring

When the job analysis identifies existing and potential health hazards, exposure monitoring may be required and will be the basis for evaluating the employee's level of exposure.

As necessary, personal samples will be used to measure noise exposure and air contaminants in the employee's breathing zone and will be collected to represent actual working conditions.

CSI will use a qualified safety and health consultant to supervise all exposure monitoring.

ACCIDENT AND SAFETY RECORD REPORTING**OSHA 300 Log**

Every OSHA recordable injury and illness shall be recorded on an OSHA 300 log within seven working days from the time the employer learns of the injury or illness. This log is maintained on a calendar year basis and shall be retained for five years.

CSI will post an annual summary of recordable injuries and illnesses and include the calendar year, certification signature, title and date. The summary covering the previous calendar year shall be posted no later than February 1 and remain in place until April 1.

In addition to posting, CSI will submit information from their annual summary form (Form 300A) electronically to OSHA or OSHA's designee annually, as required by 1904.41(a)(2). Forms will be submitted by March 2nd of each year.

Accident Investigations

When an injury, or accident involving property loss or near miss occurs, a "First Report of Accident" or "First Report of Injury" will be filled out by the employee and the employee's immediate supervisor as soon as practicable. Where the immediate supervisor is not available the report may be completed by another supervisor or member of the "Zero In On Safety" employee safety committee.

Employees must immediately report all accidents, injuries and near misses to a supervisor and to the client site company representative if working at another company. An incident investigation will be initiated within 48 hours. Resolutions and corrective actions must be documented and maintained for 5 years at the main office under the control of the Safety Coordinator. All personal injuries, property damage, fire, and near-miss incidents fall under these investigation requirements. Depending upon the severity of the incident, the Health and Safety Consultant may be contacted to assist in the on-site investigation.

The CSI Safety and Health Coordinator with the assistance of others including the supervisor in the area of occurrence who is on duty at the time of occurrence, select members of the employee safety committee, the Safety and Health Consultant and all employees directly involved in or witnessing the incident will investigate all injury, property damage, fire, and near-miss accidents.

Investigation results will be reported in writing on the CSI “Accident Investigation Report Form”. The report must be forwarded immediately to the Facility Operations Manager for further disposition.

In the event an injury is, or has the possibility of being a fatality, or there is serious or fatal injury to a non-employee, or there are multiple serious injuries or extensive damage to any property, IMMEDIATE notification will be made to CSI Safety and Health Consultant, who will assume responsibility for the investigation.

Investigation Procedure

The Supervisor or designee will take the following actions in the event of an incident:

- Provide first aid, call emergency medical care, if required;
- If further medical treatment is required, arrange to have an employee accompany the injured employee to the medical facility;
- Secure area, equipment and personnel from injury and further damage;
- Investigate the incident (injury): Gather all pertinent facts, take employee and witness statements, take pictures of incident site and equipment involved, and take pictures or draw maps with the position and location of equipment or personnel. All CSI employees on sites will have a digital camera with them. Additional investigation equipment (i.e. investigation forms, tape measure, caution tape, etc.) can be found in the project equipment boxes on-site.
 - It is vital that the investigation begin as soon as possible after the event and employees have received medical attention. Depending upon the severity or complexity of the incident, the investigation may take a significant period of time. However, an initial identification of evidence immediately following the incident might include a listing of people, equipment, and materials involved and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, and physical factors such as fatigue, age, and medical conditions. These factors might change over the course of the investigation and should be immediately documented or secured and preserved.
 - The actions listed above, as well as listed on the incident investigation forms, are part of a root cause analysis incident investigation program that looks to get at all the contributing elements that led to the incident.
 - The collection of witness statements through interviews is essential to the investigation. All CSI supervisors are authorized to give interviews with the understanding that this activity is not designed to assign blame; this will help provide unbiased testimony. Interviews should be private and held in a comfortable location. Follow-up interviews may be conducted to clarify points or ask additional questions that may arise during the investigation.
- If the incident resulted in an employee fatality, an in-patient hospitalization (i.e., defined as admittance) amputation, or loss of eye, then report it to OSHA at 1-800-321-6742. The following information needs to be provided:
 - Establishment name;
 - Location of the incident;

- Time of the incident;
- Number of fatalities or hospitalized employees;
- Names of any injured employees;
- Contact person and their phone number; and
- A brief description of the incident.
- Hospitalizations or fatalities related to incidents involving motor vehicles or public transportation systems do not need to be reported. Also, if the hospitalization or fatalities occurs after 30 days of the incident then no reporting is required.
- In the event of a fatality to one or more employees, the CSI Health and Safety Consultant will contact the appropriate OSHA office within eight hours of the incident. In the event of an inpatient hospitalization, amputation, or loss of eye in one or more employees, the CSI Health and Safety Consultant will contact OSHA within 24 hours of the incident. Incidents will also be reported to the host client by the Project Manager or supervisor as soon as possible, but no later than 24 hours after the incident.
- Complete a written incident investigation report form within 24 hours whenever possible and provide the report to the Facility Operations Manager upon completion.
- Ensure that corrective actions are identified to prevent a recurrence is taken.
- Discuss incident, where appropriate, in safety and other employee meetings with the intent to prevent recurrence.

Training on Incident Investigation

All Supervisors will receive an orientation on the incident investigation detailed procedures above, and key elements for conducting an effective incident investigation. This training will occur before assignment of incident investigation responsibilities. Recurring training will take place if the elements of the incident investigation procedure change or any deficiencies in the procedures are identified.

Claims Management

Fear and uncertainty are primary reasons for injured employees to delay reporting injuries. This may be due to concern over medical bills, lost income or even the loss of employment. The following procedure will be conducted to alleviate these fears and ensure that workers' compensation claims will be handled in a fair and expeditious manner.

1. All employees will be provided with an explanation of the workers' compensation system and the benefits it will provide.
2. In the event of a work-related injury or illness, the injured employee must report it to their immediate supervisor or the safety coordinator before the end of the work shift.
3. If the injured employee needs immediate medical attention, they will be driven or sent to the nearest appropriate hospital or clinic.
4. If the injury is not an emergency, an appointment will be made with the designated medical provider as soon as possible.
5. An accident investigation will be conducted following all work-related injuries. The supervisor, safety coordinator, or human resources will be responsible for interviewing the injured employee and all witnesses.
6. The Safety Coordinator or qualified CSI office personnel will report the claim by phone to the appropriate insurance provider and client 24 hours of the accident.

7. If the incident involved an employee death, OSHA must be notified within eight hours of the accident. If the incident involved an employee in-patient hospitalization, amputation, or loss of eye, OSHA must be notified within 24 hours.
8. The safety coordinator will use information from the accident investigation to identify changes that may help prevent future incidents.
9. For lost time claims, the supervisor will contact the injured employee at least once a week to answer questions, keep the injured employee informed of organization activities, and discuss return-to-work options.
10. The safety coordinator or human resources will contact the medical provider after each appointment to keep current on the employee's work status, medical progress, and to ensure that appointments are being kept.
11. Modified duty procedures will be as follows:
 - The medical restrictions will be evaluated by the employee's supervisor who will determine if the employee can return to their regular job duties.
 - If the employee is unable to return to normal job duties, the supervisor will determine if the employee's position can be temporarily modified to accommodate the restrictions.
 - If the job cannot be modified, the safety coordinator will evaluate other tasks or positions the employee may be able to perform until the medical restrictions are lifted.
 - If the employee is unable to return safely to a modified position, the medical restrictions will be re-evaluated after each doctor's visit to ensure the employee is returned to work as soon as possible.
12. An entry will be made on the OSHA 300 Log for all cases involving medical treatment. Accurate records will be kept for all workers' compensation claims. This file will document all communications regarding the claim and all records from the medical providers and insurance carrier.

HAZARD PREVENTION AND CONTROL

Engineering Controls

Engineering controls involve physical changes to the workstation, equipment, facility, or other relevant aspect of the work environment.

Engineering controls are the preferred method for controlling hazards.

CSI will utilize engineering controls whenever possible.

Administrative Controls

Administrative Controls are procedures, which significantly limit daily exposure by control or manipulation of the work schedule, or manner in which work is performed.

Administrative controls do not eliminate or limit the hazard. Consequently, the controls must be consistently used and enforced.

Personal Protective Equipment (PPE)

PPE includes specialized clothing or equipment worn by an employee for protection against a hazard. Appropriate work clothing, steel-toed boots and standard work gloves are the

employee's responsibility and are considered to be the employee's personal property. All other PPE is provided at company expense and is to be considered company property.

PPE will be used as directed in this health and safety manual. Standard PPE will be further supplemented when other engineering and work practice controls are not feasible to minimize the hazards of the job or until other controls can be implemented to minimize the risk of property loss or personal injury. Employees that use hand and power tools and are exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases shall be provided with and required to use PPE necessary to protect them from the hazard.

All company-supplied PPE is identified in this PPE program and is accessible and provided in appropriate sizes at no cost to the employee.

Equipment and Facilities Maintenance

Equipment maintenance is essential to the health and safety program to prevent hazardous breakdowns.

A preventive maintenance schedule exists for equipment and follows all manufacturers' and industry "best practices" recommendations and standards for maintenance frequency.

All repairs for safety-related items shall be expedited and all safety device checks shall be documented.

Lockout-Tag out

Required equipment and facility service and maintenance may be contracted out to licensed professionals. Whether undertaken by qualified employees, third party contractors on CSI, or customer owned equipment, all necessary service and maintenance undertaken will include following applicable lockout-tag out procedures as specified in the program below.

Safety Rules and Procedures

- No employee is to undertake a job until that person has received adequate training.
- Smoking within 50 feet of the huts, shop, spray booth, or fuel island or anywhere in the yard where fuel, solvents or paint are present, including where stored or being mixed, thinned or applied from an open container or sprayed from conventional or airless equipment is strictly prohibited. Smoking is only allowed in designated areas around the yard.
- All employees shall be trained regarding the potential hazards that they could be exposed to and directed about how to protect themselves.
- No employee is required to work under conditions, which are unsanitary, dangerous or hazardous to their health.
- Only qualified and trained personnel are permitted to operate machinery or equipment.
- All near misses, accidents and personal injuries must be reported to supervision management.
- Manufacturer's specification, limitations and instructions shall be followed.

- All manufacturer-supplied equipment and tool guards shall be maintained and not removed.
- Employees working on tasks and/or in areas that require PPE shall use the designated PPE as outlined in this policy.
- All hand and power tools and similar equipment, whether furnished by the employer or the employee shall be maintained in a safe condition.
- All materials stored in tiers shall be stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling or collapse.
- All electrical equipment, when operated, shall be free from recognized hazards that are likely to cause death or serious physical harm to employees.
- The facility shall be kept clean and the floor of every work area shall be maintained, so far as practicable, in a dry condition; standing water shall be removed.
- To facilitate cleaning, every floor, working place, and passageway shall be kept free of hazards.
- If it is safe to do so and allowed in the work area, music must be played at low volume so that it does not impede verbal warnings. Listening to music over headphones is not allowed.

SAFETY AND HEALTH TRAINING

Training is an essential component to CSI's health and safety program. The company is committed to providing required training for all applicable OSHA standards.

Job-specific safety training meetings shall be conducted quarterly and as necessary to meet contractor requirements, for all CSI employees. These training meetings are mandatory, and supervisors are responsible for ensuring that all of their employees who are not present receive make-up training as soon as they return to work.

Documented attendance records shall be maintained, and supervisors will be notified of all employees who were not in attendance to ensure that they are scheduled for and receive make-up training.

New Employee Safety Orientation/Training

Supervisors are responsible for ensuring that new employees are thoroughly trained on all aspects of CSI safety and environmental health policies and procedures, and that they are also oriented on management's philosophy as it relates to day-to-day operations. Upon hire, the new employee shall receive a "New Employee Health and Safety Packet" and complete a computer-based training module (available in English and Spanish).

Supervisors are also responsible for ensuring that all necessary forms relating to safety training and orientation are completed by the new employee.

Specialized Training

Specialized training shall be conducted as the need arises, and at times and places where there is a minimum interruption of work.

Specialized training consists of:

- Permit-required Confined Space Entry and Rescue;
- Forklift Training per OSHA 29 CFR 1910.178;
- Special projects which are site-specific, pre-work safety training.
- Process Safety Management – the process of educating affected employees regarding the identification and prevention or minimization of, and emergency response to, the consequences of a catastrophic release of toxic, reactive, flammable or explosive chemicals at PSM compliant facilities.
 - Contractor employees shall abide by employers' safety work practices during operations such as lockout/tag out, confined space entry, opening process equipment or piping and controls over entrance to facility.
 - The contract employer shall advise the employer of any unique hazards presented by the contract employer's work, or of any hazards found by the contract employer's work.
 - Documentation identifying the contract employee, the date of training and the means used to verify that the employee understood the training.
 - All contract employers must respect the confidentiality of trade secret information when the process safety information is released to them.

PROGRAM REVIEW AND EVALUATION

The CSI health and safety program will be reviewed annually to ensure health and safety program elements are in place. Additionally, goals and objectives shall be reviewed to measure performance of the program and its elements.

FORMS

All forms are located at the end of this manual

Accident and Incident Investigation Form

CHAPTER 4

EMERGENCY PREPAREDNESS & RESPONSE PLAN

Chapter 4 - Emergency Preparedness & Response Plan

POLICY STATEMENT

This plan applies to all employees of CSI and identifies the minimum actions to be taken in response to foreseeable emergencies.

The types of foreseeable emergencies addressed in this plan are hazardous substances and waste releases, fire, and explosions.

The Emergency Preparedness & Response Plan is introduced to all employees during orientation and is part of the annual safety training provided by CSI. The plan is available to all employees to review at any time.

Employees requiring additional information regarding the plan should contact the CSI Compliance Manager at 303-690-7148

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager will be the Designated Emergency Response Coordinator under this plan and will be responsible for implementing this plan and record keeping.

Supervisors are responsible for controlling fuel sources and maintaining accumulations of flammable and combustible waste materials in their areas.

In the event that employees must be notified of an emergency supervisors and managers will utilize the CSI Emergency Notification System to provide notice. Notification and Evacuation drills are to be held once annually at minimum.

This plan is intended to meet OSHA standards 29 CFR 1910.38 and, when applicable, 1910.120.

DEFINITIONS

Decontamination means the removal of hazardous substances from employees and their equipment to the extent necessary to preclude the occurrence of foreseeable adverse health effects.

Hazardous Substance means any substance listed below this definition that exposure to which, results, or may result, in adverse effects on the health or safety of employees.

- Any substance defined under section 101(14) of CERCLA;
- Any biological agent and other disease-causing agent as defined in section 101(33) of CERCLA;

- Any substance listed by the U.S. Department of Transportation as a hazardous material under 49 CFR 172.101 and appendices;
- Hazardous waste as herein defined;
- A waste or combination of wastes as defined in 40 CFR 261.3; or,
- Those substances defined as hazardous waste in 49 CFR 171.8.

Health Hazard means a chemical, mixture of chemicals or a pathogen from which there is statistically significant evidence, based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees.

PRE-EMERGENCY PLANNING

Identification of Hazardous Substances and Predominant Hazardous Materials

- Gasoline
- Diesel
- Solvent Blends
- Propane
- Paints

Location of Hazardous Substances

- Gasoline & Diesel – Fuel Island on the NE side of property
- Solvent Blends – Storage area on NE side of property
- Propane – 10,000-gallon tank on hill to the W side of property, 1,000-gallon tank at the office, 500-gallon tank at the wash ramp, 500-gallon tank next to the East Quonset hut, and 1,000-gallon tank in the indoor blasting area
- Paints – Trailers on the E side of property

Emergency Telephone Numbers

Emergency Response Coordinators

- Facility Operations Manager - 303-880-9206 (cell)
- Manager of Safety, Quality and Training – 303-518-1205 (cell)
- Facility and Equipment Manager - 303-868-7135 (cell)

Fire Department, #911

Acute care: – Primary Licensed Health Care Professional (PLHCP):

The following health care providers have been chosen for treating work-related injuries:

Colorado Occupational Medicine
Physicians, P.C. (COMP)
8515 Pearl St., Suite 300
Thornton, CO 80229
(303) 853-8989

Concentra Medical Centers –
Thornton
500 East 84th Avenue, Suite B14
Thornton, CO 80229
(303) 287-7070

For work-related injuries that happen during normal business hours, contact your Supervisor so that he can direct you to the appropriate worker's comp provider.

In the event of a non-emergency, after-hours injury, contact one of the providers at the non-emergency numbers listed above.

In the unfortunate event of a life-or-limb threatening emergency, you should go to the nearest emergency medical facility. However, one of the medical providers designated above must provide follow-up care.

Hospital – Platte Valley Medical Center
1600 Prairie Center Parkway
Brighton, CO 80601
303-598-1600

Occupational Safety and Health Administration, Region 8
Denver Area Office
1391 Speer Boulevard, Suite 210
Denver, Colorado 80204-2552
(303) 844-5285
(303) 844-6676 FAX

EMERGENCY NOTICE:

If you have an EMERGENCY (ex: to report a fatality or imminent life-threatening situation) -- Contact OSHA's toll-free number immediately: 1-800-321-OSHA (6742)

State Department of Health
Colorado Department of Public Health and Environment (CDPHE)
1-877-518-5608

National Response Center
1-800-424-8802

EPA Region VIII, Emergency Response Branch
1-800-227-8917

EMERGENCY RESPONSE COORDINATOR (ERC)

The individual in charge of the incident first response will be the acting Emergency Response Coordinator. The acting Emergency Response Coordinator will function as the company liaison with the responding party to provide assistance in the response until a more senior official of the company, or the Designated Emergency Response Coordinator, responds to the emergency.

Authority

The Emergency Response Coordinator has the authority, during an emergency, to take such action as is necessary to protect personnel, property, and the environment from hazardous

substances and for coordinating any and all recovery procedures with the appropriate local, state and/or federal agencies.

Specifically, the Emergency Response Coordinator has authority to take all reasonable measures to ensure that fires, explosions, and releases do not occur, reoccur, or spread to other areas where hazardous materials are generated, accumulated and/or stored.

When to Notify

The Designated Emergency Response Coordinator, or executive management, must be notified whenever there is an incident involving hazardous material or waste so that a decision can be made whether to implement this Plan. The Plan is to be implemented in the event of fires, explosions, and any unplanned release of hazardous material or waste.

Emergency Response Team

CSI does not maintain a trained Emergency Response Team and will use the Local Fire Department for all emergencies as defined in 1910.120(q).

EMERGENCY RECOGNITION AND EVACUATION

Recognition

The largest purchased, accumulated, moved, or stored container of hazardous material is 10,000 gallons of Propane and 4,000 gallons of diesel. Consequently, the maximum likely hazardous materials release would be 10,000 gallons of propane or a spill of 4,000 gallons of diesel.

As this plan will be implemented only to the extent that a spill creates an imminent or actual incident that could threaten human health or the environment, the Emergency Response Coordinator is expected to use professional judgment to determine how best to implement this plan below. This judgment will take into account the character, exact source and size of the spill and its potential impact to CSI employees, facilities and the public.

Reporting an Emergency

Any fire, explosion, medical emergency, or release of hazardous substances must be reported immediately. Employees should report all information to their immediate supervisor and/ or the Emergency Response Coordinator. The Emergency Response Coordinator will make decisions regarding implementation of the plan up to and including evacuation of the premises.

The following information should be given to the Dispatcher who answers your 911 call:

DO NOT HANG UP FROM THE CALL UNTIL THE DISPATCHER INSTRUCTS YOU TO DO SO!

- Your name and telephone number.
- Nature of the emergency - Fire, explosion, oil/chemical spill, etc.
- Location of the emergency - be as precise as possible, giving County line road coordinates.
- If available, numbers of person(s) who are injured.
- Extent of injuries to personnel (moderate, severe, life threatening).
- State the hazards that the response team may be exposed to (fire, explosive, combustible or toxic materials).

Emergency Evacuation/Rescue/Medical Emergency

In the event of an emergency, all personnel shall evacuate the work area through the nearest exit if they are in the shop. Employees working outside should evacuate via the safest pathway to the office trailer. Employees are not expected to use portable fire extinguishers to attempt to put out a fire prior to evacuation.

All employees will meet at the main office trailer to take an accurate head count of all employees. The ERC is responsible for notifying the responding Fire/Rescue Incident Commander of any missing employees.

The responding Fire/Rescue service will be solely responsible for ANY and ALL rescue and medical duties. Employees are NOT expected to perform rescue and medical duties.

FIRE PREVENTION EQUIPMENT PROVIDERS

The Facilities and Equipment manager is responsible for maintaining all equipment and systems provided to prevent or control ignition or fires.

The Facilities and Equipment manager is responsible for maintaining equipment and systems designed to prevent accidental ignition of combustible materials installed on heat producing equipment in the painting booth.

FIRE PREVENTION

Major workplace fire hazards are gasoline, diesel, propane, paints, and solvents.

All containers of flammable liquids must be kept closed except when in use.

Flammable liquids are stored in approved cabinets or buildings throughout the facility.

Department supervisors are responsible for controlling fuel sources and to maintain accumulations of flammable and combustible waste materials in their areas.

Equipment and systems designed to prevent accidental ignition of combustible materials installed on heat producing equipment will be maintained according to manufacturers' instructions.

CSI has a housekeeping policy to remove paper, trash, and other combustibles on a daily basis.

TRAINING

Employees will be instructed in the hazards related to their job and potential fire, explosive or toxic release hazards.

Employees will be trained on the general principles of fire extinguisher use and the hazards involved in incipient stage firefighting. This training will occur upon initial assignment, and at least annually thereafter.

First line supervisors in each department are trained to assist in the safe and orderly emergency evacuation of employees.

Supervisors and other individuals who have responsibilities under this plan will be trained upon initial assignment and if elements of the program change thereafter.

FIRE EXTINGUISHERS

Portable fire extinguishers in the work place are provided for employees use. Employees are not required to use an extinguisher if they feel they are in danger of being overtaken by the fire.

The CSI Safety Consultant will provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved in incipient stage firefighting. This education will take place on an annual basis in a classroom setting.

All fire extinguishers are inspected on a monthly basis and an annual service maintenance check.

Fire extinguishers are located on the perimeter walls of the shop, paint booth and huts and in the scheduling trailer and office trailer near the main entrances. Fire extinguishers are also located in each company vehicle.

SEVERE WEATHER

Lightning

If a lightning storm becomes severe, notify all employees and visitors of the hazard, cease all operations and seek shelter in a building or vehicle if possible.

Tornado

If a tornado warning has been issued near the yard, seek shelter in the paint booth bathroom. If off site and no immediate shelter is available, drive away from the storm and seek shelter in a low laying area or drive at a 90-degree angle away from the storm.

High Wind

In a high wind event, notify all employees and visitors of the hazard, cease all outside operations and seek shelter in a building or truck.

FIRST AID/CPR

As our work area can and does cover several different states/areas, a designated facility based in our work area will be chosen before project initiation. Prior to the commencement of any work activity, the phone number to gain assistance of emergency medical services will be known and posted in the absence of 911 services. The route to the nearest emergency room will be posted in the work site office or available via the superintendent's job file.

In the event of a life-or-limb-threatening emergency, the employee will be sent to the nearest emergency medical facility. This requires that the proper equipment for prompt transportation of the injured person to a physician or hospital or a communication system for contacting necessary ambulance service shall be provided.

Proper equipment (typically company vehicles) for prompt transportation of the injured person to a physician or hospital, or a communication system for contacting necessary ambulance service shall be provided.

In the absence of an infirmary, clinic, hospital, or physician that is reasonably accessible in terms of time and distance to the worksite, which is available for the treatment of injured employees, a person who has a valid certificate in first aid shall be available at the worksite to render first aid.

The certificate in first aid training is obtained from the American Red Cross or equivalent training that can be verified by documentary evidence.

First aid supplies shall be easily accessible when required.

First aid kits shall consist of appropriate items, which will be adequate for the environment in which they are used. The contents of the first aid kits will be checked before being sent out to each job & at least weekly on each job to ensure that the expired items are replaced. First aid kits shall consist of appropriate items and stored in a weather proof container with individual sealed packages of each type of item.

The contents of the first aid kit will be, at a minimum, for a crew of 10 workers:

- 16 - 1x3 adhesive bandages;
- 1 box of absorbent gauze compress;
- 1 triangular sling/bandage;
- 4 boxes of 3x3 gauze;
- Dressing pads;
- 1 box of antiseptic wipes;
- 2 rolls of adhesive medical tape;
- 2 pairs of exam gloves;
- 6 packets of burn relief packs;
- 1 instant cold compress; and,
- First aid pocket book.

The Health and Safety Coordinator will ensure the availability of adequate first aid supplies, and periodically reassess the demand for supplies and adjust their inventories. First aid kits shall be checked before being sent out to each job, and at least monthly, where applicable.

Where the eyes or body of any person may be exposed to injurious corrosive materials, eyewash and shower facilities shall be provided within the immediate work area. Suitable facilities are defined as the ability to have the eyes and or body flushed with water continuously for at least 15 minutes. This water must be available within 10 seconds.

Any follow-up care beyond emergency response must be provided by one of the company-designated medical provider(s). If an unauthorized medical provider treats an employee, the employee will be responsible for payment of said treatment.

CHAPTER 5

HAZARD COMMUNICATION PROGRAM

Chapter 5 - Hazard Communication Program

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the OSHA Hazard Communication standard, Title 29 CFR 1910.1200.

This written program applies to all CSI work operations and locations where employees may be exposed to hazardous substances under normal working conditions or during an emergency situation. A written Hazard Communication plan will be developed, maintained, and followed in each work site as applicable.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager are individually and jointly responsible for implementing the program, for assisting in the development of training materials and methods, and for providing technical support to management and supervisors and recordkeeping.

Management and supervision shall become familiar with the hazard communication procedures and shall supervise use of the procedures in the tasks for which they are responsible.

DEFINITIONS

Carcinogen - A chemical is considered carcinogenic if:

- It has been evaluated by the International Agency for Research on Cancer and found to be a carcinogen or potential carcinogen; or,
- It is listed as a carcinogen or potential carcinogen in the *Annual Report on Carcinogens*; OSHA regulates it as a carcinogen.

Combustible liquids have a flashpoint at or above 100°F (37.8°C) but below 200°F (93.3°C). The only exceptions are mixtures having components with flashpoints of 200°F (93.3°C) or higher, the total volume of which makes up 99% or more of the volume of the mixture.

Common name means any designation or identification such as code name, code number, trade name, brand name, or generic name used to identify a chemical other than by its chemical name.

Compressed gas means:

- a gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70°F (21.1°C); or
- a gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130°F (54.4°C) regardless of the pressure at 70°F (21.1°C); or,

- a liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C).

Corrosive chemicals cause visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. This term does not refer to action on inanimate surfaces.

Explosives cause a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Exposure or exposed refers to an employee who has been subjected (by any route of entry) during the course of employment to a chemical that is a physical or health hazard.

Flammables are chemicals that fall into one of the following categories:

- *aerosol, flammable* means an aerosol that yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;
- *gas, flammable* means:
 - a gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13% by volume or less; or,
 - a gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than 12% by volume, regardless of the lower limit;
- *liquid, flammable* means any liquid having a flashpoint below 100°F (37.8°C). The only exceptions are mixtures having components with flashpoints of 100°F (37.8°C) or higher, the total of which make up 99% or more of the total volume of the mixture;
- *solid, flammable* means a solid, other than a blasting agent or explosive that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if it ignites and burns with a self-sustained flame at a rate greater than 1/10 of an inch per second along its major axis.

Flash point refers to the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite. Organic peroxides, which undergo auto accelerating thermal decomposition, are excluded from any of the flashpoint determination methods.

Hazard category means the division of criteria within each hazard class, e.g. oral acute toxicity includes five hazard categories and flammable liquids includes four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazardous chemical means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Health hazard means a chemical for which there is statistically significant evidence to indicate that acute or chronic effects may occur in an exposed employee. “Health hazard” includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants,

corrosives, sensitizers, hepatotoxins, nephrotoxins, and neurotoxins, agents which act on the hematopoietic system and agents which damage the lungs, skin, eyes, or mucous membranes.

Hazard not otherwise classified (HNOC) means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Highly Toxic chemicals fall within any of the following categories:

- a chemical that has a median lethal oral dose (LD₅₀) of 50 milligrams or less;
- a chemical that has a median lethal dermal dose (LD₅₀) of 200 milligrams or less; or
- a chemical that has a median lethal concentration (LC₅₀) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust.

Irritants which are not corrosives, cause a reversible inflammatory effect on living tissue by chemical action at the site of contact.

Physical hazard means a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to §1910.1200 -- Physical Hazard Criteria.

Pictogram means a picture symbol that represents a distinct hazard(s) shown on the material label based on the chemical hazard classification. There are nine pictograms specified by OSHA.

Health Hazard	Flame	Exclamation Point
 ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity	 ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides	 ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)

Gas Cylinder  ▪ Gases Under Pressure	Corrosion  ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals	Exploding Bomb  ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides
Flame Over Circle  ▪ Oxidizers	Environment (Non-Mandatory)  ▪ Aquatic Toxicity	Skull and Crossbones  ▪ Acute Toxicity (fatal or toxic)

Pyrophoric gas means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

Safety Data Sheets (SDS), formerly known as Material Safety Data Sheets, are the primary means of determining the hazards of any chemical. They summarize the characteristics of a chemical and any safety information that may be used in the workplace to prevent employee exposure. The GHS requires a standard 16-section format.

Sensitizer means a chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

Signal word means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The GHS uses 'Danger' and 'Warning'.

Simple asphyxiant means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed.

Target Organ Effects: The following is a table illustrating some examples of target organ affecting chemicals.

HAZARD	TARGET ORGAN EFFECT	SIGNS/SYMPTOMS	EXAMPLE HAZARDOUS CHEMICALS
Hepatotoxins	liver damage	jaundice; liver enlargement	carbon tetrachloride; nitrosamines
Nephrotoxins	kidney damage	edema; proteinuria	halogenated hydrocarbons; uranium
Neurotoxins	nervous system	narcosis; behavioral changes; loss of motor function	mercury; carbon disulfide
Agents that act on the blood or hematopoietic system	decrease hemoglobin function; deprive body tissues of oxygen	cyanosis; loss of consciousness	carbon monoxide; cyanides

HAZARD	TARGET ORGAN EFFECT	SIGNS/SYMPTOMS	EXAMPLE HAZARDOUS CHEMICALS
Reproductive toxins	affect reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis)	birth defects; sterility	lead; DBCP
Cutaneous hazards	affect dermal layer of the body	defatting of the skin; rashes; irritation	ketones; chlorinated compounds
Eye hazards	affect eye or visual capacity	conjunctivitis; corneal damage	organic solvents; acids
Agents that damage the lungs	irritation or damage of pulmonary tissue	cough; tightness in chest; shortness of breath	silica; asbestos

Toxic: Chemicals are toxic if they fall into any of the following categories:

- A chemical that has a median lethal oral dose (LD50) of more than 50 milligrams but less than 500 milligrams;
- A chemical that has a LD50 of more than 200 milligrams but less than 1,000 milligrams; or
- A chemical that has a median lethal concentration (LC50) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than 2 milligrams but less than 20 milligrams per liter of mist, fume, or dust.

LIST OF HAZARDOUS CHEMICALS

The Facility Operations Manager will maintain a list of all hazardous chemicals and related work practices used in the facility. This list will be reviewed annually and updated as necessary.

The list will be kept in the SDS binder located in the facility main office.

SAFETY DATA SHEETS

With the adoption of the GHS, OSHA has changed the requirement for Material Safety Data Sheets (MSDS) to Safety Data Sheets (SDS). The SDS has a standard 16-part format which includes the following:

- Section 1, Identification;
- Section 2, Hazard(s) identification;
- Section 3, Composition/information on ingredients;
- Section 4, First aid measures;
- Section 5, Fire-fighting measures;
- Section 6, Accidental release measures;
- Section 7, Handling and storage;
- Section 8, Exposure controls/personal protection;
- Section 9, Physical and chemical properties;
- Section 10, Stability and reactivity;
- Section 11, Toxicological information;
- Section 12, Ecological information;
- Section 13, Disposal considerations;

- Section 14, Transport information;
- Section 15, Regulatory information; and
- Section 16, Other information, including date of preparation or last revision.

SDSs will be maintained for all hazardous chemicals used in the facility and at off-site locations.

SDSs are the primary source for health and safety information. The following information can be found on the SDS:

- The identity of the chemical as used on the label.
- Whether the chemical is a single chemical or a mixture of chemicals.
- Physical and chemical characteristics of the hazardous chemical. The physical hazards of the chemical including the potential for fire, explosion, and reactivity.
- The health hazards of the chemical including sign and symptoms of exposure, and any predisposing medical conditions.
- The primary routes of entry.
- The OSHA permissible exposure limits, the threshold exposure limit values, and any other pertinent exposure data.
- Whether the chemical has been listed as a potential carcinogen.
- Precautions for safe handling and use including: hygienic practices, protective measures, and procedures for cleanup of spills.
- Measures to control exposures such as engineering controls, work practices, and personal protective equipment.
- Emergency and first aid procedures.
- The date of preparation of the SDS or latest revision.
- The name, addresses, and telephones number of the manufacturer, importer or distributor.

All CSI employees who purchase chemicals are responsible for acquiring and maintaining SDSs as necessary.

The master list of SDSs is kept in the yard training center.

LABELS

The Facility Operations Manager, as delegated through subordinates, will ensure that all hazardous chemicals in the plant are properly labeled and updated as necessary.

All labels on the manufacturer's containers are required to have a pictogram(s), signal word, hazard and precautionary statement(s), the product identifier, and supplier identification (including name, address, and telephone number of the manufacturer, importer or responsible party).

All portable/secondary containers must be labeled appropriately to include product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals.

All manufacturers' labels will be checked upon receipt to verify that all containers are properly identified.

The employee transferring chemicals from a labeled container is responsible for ensuring the new container is properly labeled. If the container is intended for immediate use, no label is required.

NON-ROUTINE TASKS

When hazardous non-routine tasks are to be performed (e.g. cleaning tanks) and existing procedures do not address the hazards associated with the chemicals, a hazard analysis shall be performed and a pre-job meeting held including involved supervisors, employees and appropriate safety personnel.

The pre-job meeting will utilize SDSs to inform employees about any hazards present that are associated with the hazardous materials to which they may be exposed and the proper precautions to take to reduce or avoid such exposure.

TRAINING

The purpose of training is to reinforce and affirm the right of workers to be informed of the chemical hazards they face in the work place and how they can protect themselves from those hazards.

Training is required for newly hired personnel prior to assignment to an area that uses hazardous chemicals and whenever a new hazard is introduced to a work area.

Training will be conducted in a classroom setting and include the following:

The Hazard Communication Standard

- Purpose and requirements of the standard
- The Company's approach to carrying out these requirements
- Details of the written hazard communication program
- Availability of the Company's written programs

Hazardous Chemicals

- Introduction to physical and health hazards
- How to identify hazardous chemicals in the work area
- The classification of hazardous chemicals
- Physical and health hazards associated with hazardous chemicals in the work area
- Safety procedures to use with each class of hazardous chemical

Safety Data Sheets

- Availability of SDSs
- Location of SDSs in the work area
- How to use SDSs

Labeling

- How to read and use information on the warning labels
- Secondary container labeling

Employee Protection Measures

- Measures that employees may take to protect themselves from hazardous chemicals
- Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area
- Emergency procedures to follow if a release or an exposure occurs

All training records will be kept in the training file at the CSI Health and Safety Consultant's office.

CONTRACTORS

The Facility Operations Manager and/his subordinates will advise outside contractors directly of any chemical hazards that may be encountered in the normal course of their work on the premises.

The labeling system, location of the SDS binder, protective measures and safety handling procedures will be communicated to the contractor.

The Hazard Communication program will be provided to contractors, employees and/or the authorized representative as requested or necessary.

All contractors working on site must provide to the Facility Operations Manager a copy of their Hazard Communication Program, as well as the SDSs for, and approximate amount of each hazardous material brought on site.

NON-ENGLISH-SPEAKING EMPLOYEES OR CONTRACTOR

Non-English-speaking employees will be trained by an interpreter in their native language as requested and deemed necessary by the Safety Coordinator or Operations Manager. Labels will include pictograms, be legible and in English.

CHAPTER 6

PERSONAL PROTECTIVE EQUIPMENT PROGRAM

Chapter 6 - Personal Protective Equipment Program

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the OSHA Personal Protection Equipment Standard, Title 29 CFR 1910.132.

This program applies to all of CSI's work operations whether at CSI's site or the customer's site, where physical and chemical hazards may be reduced or eliminated using personal protective equipment.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the "Safety Rules" and "Health and Safety Program" sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through their respective subordinates, have individual and joint responsibility for implementing this program and record keeping.

HAZARD ASSESSMENT AND EQUIPMENT SELECTION

OSHA requires employers to conduct inspections of all workplaces to determine the need for personal protective equipment (PPE) and to select the proper PPE for each task performed. For each work type, a certificate must be completed which lists the findings of the inspection and the specific protective equipment utilized.

Prior to the commencement of work site activities, qualified CSI personnel will conduct a walk-through hazard assessment of work areas, consider the work tasks done in that area and identify potential hazards that may not be adequately controlled with traditional means, such as engineering, work practice and administrative controls. These hazards may result in injuries to the face, eyes, hands, arms, feet or legs, or illnesses affecting the lungs, skin or other body systems and organs. Each survey will be documented with the Personal Protective Equipment Hazard Assessment Form.

Prior to working at off-site (customer) facilities, qualified CSI supervision will evaluate the work area identifying potential hazards that may exist and specify to the CSI employees working there of the PPE that will be used to minimize or eliminate those hazards. As part of this evaluation, CSI personnel, on-site, will inquire of the customer, and where applicable, will incorporate into the plan as a minimum standard, the PPE requirements the customer has already prescribed for the work area or tasks. But, if after review, where CSI's PPE requirements for the work area or tasks are deemed stricter than those of the customer's, CSI's PPE requirements will be followed.

Once the hazards of a workplace, on-site or off-site, have been identified, the CSI Safety and Health Consultant will determine the suitability of the PPE presently available and as necessary, select new or additional equipment, which ensures a level of protection greater than the minimum required to protect the employees from the hazards. Care will be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards will be provided.

PROTECTIVE DEVICES

All personal protective clothing and equipment will be of safe design and construction for the work to be performed and shall be maintained in a sanitary and reliable condition. Only those items of protective clothing and equipment that meet NIOSH or ANSI (American National Standards Institute) standards will be procured or accepted for use. With prior management approval, employees may use PPE that the employee purchases. CSI will ensure that employee purchased PPE meets adequacy requirements and receives the same maintenance, inspection and sanitation requirements as company owned PPE.

Newly purchased PPE must conform to the updated ANSI standards which have been incorporated into the OSHA PPE regulations, as follows:

- Eye and Face Protection ANSI Z87.1-1989;
- Head Protection ANSI Z89.1-1986;
- Foot Protection ANSI Z41.1-1991; and
- Hand Protection. There are no ANSI standards for gloves; however, selection must be based on the performance characteristics of the glove in relation to the tasks to be performed.

Careful consideration will be given to comfort and fit of PPE in order to ensure that it will be used. Protective devices are generally available in a variety of sizes. Care should be taken to ensure that the right size is selected.

EYE AND FACE PROTECTION

Prevention of eye injuries requires that all persons who may be in eye hazard areas wear protective eyewear. This includes employees, visitors, customers, or others passing through an identified eye hazard area. To provide protection for these personnel, CSI shall procure a sufficient quantity of goggles and/or ANSI-approved safety glasses, which afford the appropriate amount of protection. If these personnel wear personal glasses, they shall be provided with a suitable secondary eye protector to wear over them.

Suitable protectors shall be used when employees are exposed to hazards from flying particles, molten metal, acids or caustic liquids, chemical liquids, gases, or vapors, bio-aerosols, or potentially injurious light radiation.

Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment.

Safety glasses with side protectors shall be used when there is a hazard from flying objects.

Goggles and face shields shall be used when there is a hazard from chemical splash.

Face shields shall be worn over primary eye protection (safety glasses or goggles) as specified in the hazard assessment for that task/area.

For employees who wear prescription lenses, eye protectors shall either incorporate the prescription in the design (paid for by employee) or fit properly over the prescription lenses (supplied by Coblaco).

Protectors shall be marked to identify the manufacturer.

Equipment fitted with appropriate filter lenses shall be used to protect against light radiation. Tinted and shaded lenses are not filter lenses unless they are marked or identified as such.

PRESCRIPTION EYE WEAR

OSHA regulations require that each affected employee who wears prescription lenses while engaged in operations that involve eye hazards shall wear eye protection that incorporates the prescription in its design or shall wear eye protection that can be worn over the prescription lenses (goggles, face shields) without disturbing the proper position of the prescription lenses or the protective lenses.

EMERGENCY EYEWASH FACILITIES

Emergency eyewash facilities meeting the requirements of ANSI Z358.1 are provided in the east hallway of the paint booth. For off-site work, emergency eyewash equipment will be located in CSI's paint trailer or other means of transport present on the job. Additional emergency eyewash locations may be provided by the customer and the location of which should be identified to the CSI employees in the initial tailgate meeting.

FOOT PROTECTION

Safety shoes shall be worn in the facility by all employees. All safety footwear shall comply with ANSI Z41-1991, "American National Standard for Personal Protection - Protective Footwear."

Safety shoes or boots with impact protection are required to be worn in work areas where carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and for other activities where objects might fall onto the feet. Safety shoes or boots with compression protection are required for work activities involving skid trucks (manual materials handling cars) or other activities in which materials or equipment could potentially roll over an employee's feet.

HAND PROTECTION

Suitable gloves shall be worn when hazards from chemicals, cuts, lacerations, abrasions, punctures, burns, biologicals, and harmful temperature extremes are present. Glove selection shall be based on performance characteristics of the gloves, conditions, duration of use, and hazards present. One type of glove will not work in all situations.

The first consideration in the selection of gloves for use against chemicals is to determine, if possible, the exact nature of the substances to be encountered. Read instructions and warnings on chemical container labels and SDSs before working with any chemical. Recommended glove types are often listed in the section for personal protective equipment.

All glove materials are eventually permeated by chemicals. However, they can be used safely for limited time periods if specific use and other characteristics (i.e., thickness and permeation rate and time) are known.

CLEANING, MAINTENANCE, CARE AND INSPECTION

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE should be inspected, cleaned, and maintained at regular intervals so that the PPE provides the requisite protection. Personal protective equipment shall not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible.

It is also important to ensure that contaminated PPE, which cannot be decontaminated, is disposed of in a manner that protects employees, the environment and the public from exposure to hazards.

PPE will be inspected prior to use. Any PPE found to be defective shall not be used and will be disposed of. If company provided, new PPE will be provided to the employee at no cost.

TRAINING

Any worker required to wear PPE shall receive training in the proper use and care of PPE. Periodic retraining will be conducted when the workplace activities or configuration change, or when observations of employees show lack of understanding for proper use of PPE. The training will include, but not necessarily be limited to, the following subjects:

- When PPE is necessary to be worn
- What PPE is necessary
- How to properly don, doff, adjust, and wear PPE
- The limitations of the PPE
- The proper care, maintenance, useful life and disposal of the PPE

After the training, the employees shall demonstrate that they understand the components of the PPE Program and how to use PPE properly, or they shall be retrained.

The training will be documented with the date of training, the instructor, and the subject matter trained on.

MINIMUM PPE SPECIFICATIONS BY JOB TASK

The following Personal Protective Equipment are arranged according to the relevant job task and represent the PPE devices that are the minimum degree of protection that the employee will use

when doing this kind work in the CSI yard. When working off-site, as at the customer's facility, additional PPE may be required and is expected to be used when the customer's PPE requirements are stricter, and use of additional PPE will not interfere with CSI requirements.

Material Handling

Eye and Face Protection – Safety glasses (blowing dusts from yard and blasting)

Hand Protection – Abrasion resistant work gloves (handling sharp edged materials)

Foot Protection – Steel-toed safety shoes, or equivalent

Painting

Eye and Face Protection – Safety glasses or goggles are required (spray painting)

Hand protection – Chemical resistant gloves (handling/contact with paints and solvents)

Upper Body/Arms/Legs Protection – Coveralls, Tyvek suits, FRC coveralls (in potentially flammable atmospheres)

Foot Protection – Steel-toed safety shoes

Shop/Prep Area

Eye and Face Protection – Safety glasses, goggles and/or face shield (employees' duties vary so the eye protection requirements will also vary. For further information, see "EYE AND FACE PROTECTION" section in this chapter.)

Hand protection – Chemical resistant gloves (handling/contact with paints, solvents and caustics)

Upper Body/Arms/Legs Protection - Shirt with sleeves and jeans and/or coveralls

Foot Protection – Steel-toed safety shoes

Maintenance

Eye and Face Protection – Safety glasses, goggles and/or a face shield (employees' duties vary so the eye protection requirements will also vary. For further information, see "EYE AND FACE PROTECTION" section in this chapter.)

Hand protection – Chemical resistant gloves (handling/contact with paints, solvents and caustics); Abrasion resistant work gloves (material handling)

Upper Body/Arms/Legs Protection - Shirt with sleeves; pants or jeans that fully cover the legs, or coveralls.

Foot Protection – Steel-toed safety shoes

Welding

Eye and Face Protection – **Safety glasses, welding goggles and/or face shield or hood.**

(Employees' duties vary depending on the specific task; i.e. grinding vs. cutting, baizing, arc welding, etc. so the eye protection requirements will also vary with the task. For further information, see "EYE AND FACE PROTECTION" section in this chapter.)

Hand protection – Chemical Fire-resistant gloves, gauntlets and long sleeve shirt with no cuffs or pockets (slag catchers)

Upper Body/Arms/Leg Protection - Heat resistant leather apron, vest or clothing; wear long sleeved shirt outside of jeans or coveralls; keep shirt sleeves and collar buttoned

Foot Protection – Steel-toed safety shoes

Washing Area (when using chemical cleaners)

Eye and Face Protection – Splash goggles, and/or face shield (exposure to high-pressure water and chemical splash)

Foot Protection – Fire boots equipped with steel toes (exposure to high-pressure water and chemicals)

Hand protection – Cloth gloves worn under rubber gloves (exposure to high-pressure hot water and some cold temperature exposure and chemicals)

Upper Body/Arms/Legs Protection - Chest waders and slicker jackets (exposure to high-pressure water and chemicals)

Blasting Area

Eye and Face Protection – Supplied air hoods provide eye and face protection (high pressure blasting material exposure)

Hand protection – Abrasion resistant work gloves (high pressure blasting material exposure and some cold temperature exposure)

Upper Body/Arms/Legs Protection - Long sleeved shirts with supplied air hood provides arm and torso coverage (high pressure blasting material exposure); jeans that fully cover the legs or coveralls; FRC coveralls (in potentially flammable atmospheres)

Foot Protection – Steel-toed safety shoes

FORMS

All forms are located at the end of this manual

PPE Hazard Assessment Form

CHAPTER 7 RESPIRATORY PROTECTION PROGRAM

Chapter 7 - Respiratory Protection Program

COMPANY POLICY

The purpose of this program is to establish that CSI is complying with the Respiratory Protection Standard, Title 29 CFR 1910.134.

This program applies to all work operations at CSI where employees are required to wear respiratory protection in order to protect them against harmful airborne contaminants and oxygen deficient atmospheres.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Personal Protective Equipment (PPE) Program,” “Safety Rules,” and “Health and Safety Program” sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator will coordinate development and review of program content and training.

The Facility Operations Manager and Field Operations Manager are the program administrators. The program administrator must be knowledgeable of the respiratory hazards at CSI, be able to assess those hazards, and determine the level of respiratory protection necessary. The program administrator shall oversee the program, including recordkeeping, and conduct the required evaluations of the program effectiveness. Through subordinates, the program administrator has responsibility for implementation of the program including, but not limited to, the following:

- Providing only NIOSH/MSHA approved respirators whenever such equipment is determined necessary to protect the health of an employee.
- Ensuring that all respiratory protection equipment provided is maintained and cared for in a manner consistent with the requirements of this program.
- Issuing respiratory protective equipment at no cost to the employee, but only to those persons who have received the required training.
- Issuing respiratory protective equipment only to those persons who are medically approved to wear such protection.
- Ensuring prompt correction of any deficiencies noted as a result of program audits and personal observation.
- Identifying the personnel who require respiratory protection and making arrangements for completion of qualification criteria (e.g., medical evaluation, training, fit testing).
- Monitoring the periods of time in which respirators are worn continuously and that the overall duration of use does not itself create a health hazard. Authorizing work breaks that allow respirator users temporary relief from wearing respirators as necessary.
- Monitoring this procedure for proper compliance by respirator users.

The CSI Safety and Health Consultant is responsible for the following:

- Maintaining all the necessary training records.
- Ensuring that respiratory protection programs of CSI subcontractors, prior to the commencement of any work, are adequate, and that they have been developed in accordance with the requirements of this program, and OSHA 29 CFR 1910.134, and 29 CFR 1926.103.
- Conducting periodic program audits to evaluate compliance with applicable OSHA, NIOSH, and ANSI standards.

Employees using respirators are responsible for the following:

- Complying with procedure requirements for obtaining, using and returning respiratory protection devices.
- Performing pre-use inspection and qualitative fit tests as required by procedure.
- Ensuring unused respiratory protection equipment is returned to the issue point.
- Immediately leaving the work area in the event of respiratory protection equipment malfunction or unplanned deterioration in hazardous conditions.
- Immediately reporting any malfunction of respiratory protection equipment to a supervisor.
- Keeping assigned respiratory equipment and respirators clean and in proper working order.
- Related tasks and requirements as assigned.
- Leaving the work area to wash or change cartridges.

DEFINITIONS

Airline Respirators are atmosphere-supplying respirators in which breathing air is delivered through a supply hose connected to the wearer's face-piece or enclosure.

Air-purifying Respirators are respirators with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

End of Service Life Indicator (ESLI) is a system that warns the respirator user that the absorbing material in an air purifying cartridge or canister is saturated and no longer provides adequate protection.

Immediately Dangerous to Life or Health (IDLH) is an atmosphere that is an immediate threat to life, would cause irreversible adverse health effects or would impair an individual's ability to escape from a dangerous atmosphere.

Negative Pressure Respirator is a respirator that has pressure in the face piece that is lower than outside air pressure. Breathing resistance is increased.

Oxygen Deficiency occurs when the level of oxygen in breathing air is less than 19.5% by volume. Oxygen deficiency can occur in confined spaces by displacement of air by other gases and vapors or due to processes which consume air such as fire, rusting, aerobic bacteria, etc.

Positive Pressure Respirator is a respirator that has breathing air supplied to the face-piece creating a slight positive pressure inside the mask. Breathing resistance is minimal.

Pressure Demand Respirator is a positive pressure, atmosphere-supplying respirator that delivers breathing air to the face-piece when the user inhales.

Qualitative Fit Test is a pass/fail fit test to check respirator fit that relies on the respirator user's sensory response to detect a challenge agent.

Quantitative Fit Test is a fit test used to measure respirator fit by using an instrument to measure the challenge agent inside and outside the face piece.

Respirator is a device designed to protect the user from inhalation of hazardous atmospheres. This includes air-purifying respirators (e.g. half-mask with filter cartridges and disposable paper-type devices) or air-supplied respirators (e.g. SCBA or airline respirators).

Self-Contained Breathing Apparatus (SCBA) is an atmosphere-supplying respirator in which the user carries the air supply.

Supplied Air Respirator (SAR) is a class of respirators that supplies a respirable atmosphere, independent of the workplace atmosphere (e.g. SCBA or air-line respirator).

Hazard Assessment

The Safety and Health Consultant shall determine, using objective data and process or task knowledge, when respiratory protection is necessary. This evaluation shall include a reasonable estimate of employee exposures to respiratory hazards and identification of the contaminants' chemical state and physical form. When identification or a reasonable estimation of the employee's exposure is uncertain, the atmosphere shall be considered ***immediately dangerous to life or health*** (IDLH).

Prior to any employee being assigned respiratory protection or wearing a respirator, the Program Administrator, in consultation with the Safety and Health Consultant, shall determine, based on the information available and work to be performed, the type of respiratory protection that is necessary. This selection will be based on respiratory hazards to which the worker is exposed under routine and reasonably foreseeable emergency situations, workplace, and user factors that affect respirator performance and reliability. Once the determination is made that respiratory protection is necessary, the program administrator will ensure that the employee has received and completed:

- A medical evaluation;
- A respirator fit test; and,
- Appropriate respiratory protection training.

Hazard Control

Respirators are considered the last line of defense for protecting employee health and should only be used when control techniques are not successful in adequately reducing personal exposures to hazardous atmospheres. The following are examples of control techniques that may be used to reduce airborne contamination as low as practical (listed in order of preference depending on the nature of the hazard):

- Substitution: Replacing hazardous materials with materials that have a lower hazard potential (e.g. substituting a chlorinated solvent with a non-chlorinated solvent).
- Local exhaust ventilation: Capturing hazardous materials at the point of generation by means of exhaust ventilation (e.g. exhaust ventilation hood).

Evaluation for Hazardous Atmospheres

CSI has an established EHS Program that provides a number of ways to identify potential hazardous atmospheres.

- Routine workplace inspections conducted on a periodic basis.
- Industrial hygiene air monitoring conducted to determine where respiratory protection is required. This monitoring will typically consist of air sampling and analysis. Where air monitoring is not possible, appropriate calculations will be completed to determine potential exposure to the respiratory hazard in question. Chemical Hazard Communication and Respiratory Protection training providing employees with knowledge about identification and control of respiratory hazards.
- Working within an IDLH atmosphere is not authorized by CSI employees.

Medical Evaluation

Prior to the employee being issued a respirator, or being fit tested, the employee must complete the questionnaire provided in Appendix C of the OSHA standard or undergo a medical evaluation, at no cost to the employee, to determine his/her ability to wear a respirator. All medical evaluations will be administered by the designated CSI Primary Licensed Health Care Professionals (PLHCP).

When the questionnaire option is used, the employee will be provided with a means to send it to the PLHCP for confidential review. Normally this will be accomplished by providing the questionnaire to the employee along with a pre-paid, pre-addressed envelope.

The medical questionnaire shall be administered in a manner that ensures the employee understands its content.

The medical questionnaire and/or examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee.

If the medical examination required, the employee's direct supervisor will help coordinate any needed medical examinations.

At the time of the examination, the employee will be provided an opportunity to discuss the questionnaire and examination results with the PLHCP.

Subsequent medical examinations will be provided every three years and will be coordinated through the employee's immediate supervisor. If the PLHCP suggests a follow-up examination sooner than three years, an exam can be performed on a more frequent basis.

CSI will provide the following information to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use a respirator:

- The type and weight of the respirator to be used by the employee;
- The duration and frequency of the respirator use;
- The expected physical work effort;
- Additional protective clothing and equipment to be worn;
- Temperature and humidity extremes that may be encountered; and
- A copy of this written program and a copy of the OSHA respirator standard.

The PLHCP will provide a written recommendation regarding the employee's ability to use the respirator. A follow-up evaluation may be required if an employee gives a response to any question that may indicate the user's inability to safely wear a respirator or whose initial examination demonstrates the need for a follow-up medical examination.

These records are confidential and maintained in accordance with 29 CFR 1910.1020. The records are kept at the Coblaco yard office and maintained by the Facility Operations Manager and Field Operations Manager.

Respirator Selection

Upon completing the medical examination and acquiring approval for the use of a respirator, an appropriate respirator shall be selected depending upon the hazards present in the work area. The type of respiratory protection necessary will be based on the respiratory hazards to which the employee is exposed.

There are two general types of respirators made available at CSI; air-purifying and air-supplied. Air-purifying respirators filter and/or absorb contaminants from the air, and include half mask, full face-piece and disposable respirators. Air-supplied respirators supply a respirable atmosphere and include SCBAs and air-line respirators. **Only NIOSH approved** respirators shall be used and the protective device must be used in compliance with the conditions of its certification.

- Air-purifying respirators shall not be worn for protection against airborne chemicals that have poor warning properties, create an atmosphere that is ***immediately dangerous to life or health*** (IDLH), or in an oxygen deficient atmosphere.
- Air-purifying and air-supplied respirators shall not be worn if facial hair comes between the sealing surface of the face-piece and the face or if facial hair interferes with the valve function. The respirator shall not be worn with any obstructions that may interfere with the seal of the respirator to the face. When evaluation of the job hazard requires that such respirators be used, the user shall be clean shaven in the sealing area of the respirator face piece and so that facial hair does not interfere with the valve function.
- Respirator selection shall be appropriate for the chemical state and physical form of the contaminant.
- For protection against particulate matter, CSI will provide SARs or and APR equipped with HEPA filters. Filters shall be monitored by the user and changed when increased breathing resistance is encountered.
- The use of disposable respirators will only be permitted for protection against non-hazardous or nuisance dust conditions (e.g. mowing grass, sweeping floors).

Respirator Fit Testing

If the medical questionnaire review or a physical examination indicates that the employee is fit for respirator use, a fit test shall be performed utilizing appropriate fit test methodologies. The CSI Safety Consultant or other designated supervisor will conduct a qualitative respirator fit test to determine the ability of the individual to obtain a satisfactory fit. The results of the fit test shall be recorded on the respirator fit test data form.

Employees strictly using only air supplied respirator hoods do not need to be fit tested.

Initial Fit Testing

Before any employee may be required to wear a respirator, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. The fit test shall be conducted using an OSHA accepted fit test protocol (see Appendix A of the OSHA standard).

If, after passing the fit test, the employee notifies their supervisor that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator face-piece and must be re-tested.

Periodic Fit Testing

Fit testing shall be repeated whenever a different respirator is used and at least annually. Fit testing shall also be conducted whenever the employee reports, or a nurse, supervisor or program administrator makes visual observations of changes in the employees' physical condition that could affect respirator fit. Such conditions include, but are not limited to, the presence of facial hair, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

Respirator Maintenance

Only individuals specifically trained in respiratory protection repair shall repair respiratory protective equipment. Replacement parts supplied by the manufacturer shall be used to repair the product.

Supplied Air Respirators (SAR)

SARs have a breathing air source other than the immediate atmosphere the respirator user is in. The breathing air source will be supplied from portable and truck-mounted compressors. The air provided by these sources must meet Grade D breathing air specifications (ANSI/CGA's Commodity Specification for Air, G-7.1-1989).

The following minimum specifications for Grade D breathing air are:

- Oxygen 19.5 - 23.5%;
- Carbon monoxide ≤ 10 parts per million (ppm);
- Hydrocarbon ≤ 5 milligrams per cubic meter (mg/m³);
- Carbon dioxide $\leq 1,000$ ppm; and
- Lack of noticeable odor.

Oil-lubricated compressors shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall

be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm.

Breathing air quality will be periodically confirmed by testing the air using an OSHA approved breathing air test kit such as from Trace Analytics.

The compressor will be constructed and situated so as to:

1. Prevent entry of contaminated air into the air supply system;
2. Located at least 100 feet from any carbon monoxide source (i.e., exhaust outlets, loading docks, or roadways); and,
3. Have suitable in-line air-purifying filters to remove oil mists, odors, particulate matter and water vapor.
4. Hose connections are incompatible with non-respirable gases and containers.

The filters must be maintained and replaced or refurbished periodically according to manufacturer's specifications (replaced every three months based on a normal 40-hour work week). Filters will be replaced sooner if the users detect objectionable odors, the filters pass moisture through the outlets, or the outlet pressure decreases significantly. A tag will be placed on the beds/filters and marked with the last change date (as shown below).



Inspection, Cleaning, Maintenance and Storage

Air-purifying Respirators

- Each air-purifying respirator issued will be inspected prior to and following each use. All defects noted shall be reported to supervisor. Defective respiratory protection shall not be used.
- Employees shall use only those respirators that are appropriate for the hazards present, and those they have been trained to use. Each respirator user will perform a positive-negative pressure fit test to check for adequate face seal. Conditions that can interfere with the seal include: facial hair, facial scars, missing dentures, or corrective glasses or other personal protective equipment.
- Respirators shall be cleaned and disinfected periodically to provide sanitary protection for the wearer. Respirators used by more than one person must be cleaned and disinfected before being used by different personnel. Respirators maintained for use in emergencies must be cleaned and disinfected following each use. Respirators can be cleaned in warm water with a mild cleaner. The use of alcohol for cleaning shall be limited due to alcohol's ability to deteriorate face seals with repeated use.
- Respirators shall be stored in a bag or appropriate container to protect it from dust, sunlight, heat, extreme cold, excessive moisture or damaging chemicals. The respirator shall be stored in a manner that will not distort the original shape of the respirator or the valves.
- It is the responsibility of the respirator wearer to clean and inspect their respirator. The program administrator will ensure cleaning and inspection of respirators is completed on a regular basis.

Training

Before an employee is assigned a respirator, mandatory training on proper use is required at no cost to the employee. The training must be comprehensive and be reviewed annually. After completion of the training the employee must be able to demonstrate knowledge of the following:

- Why the respirator is necessary and how improper fit, use, or maintenance can compromise the protective effect of the respirator;
- What the limitations and capabilities of the respirator are;
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to inspect, put on and remove, use, and check the seals of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators;
- Respiratory hazards they may be subjected to as part of their work at CSI, both in routine and emergency situations;
- The general requirements of the standard.

Respiratory Protection Specifications by Job

Blasting

All employees participating in blasting operations are required to wear a supplied air hood.

Painting

All employees participating in solvent based painting operations are required to wear a half-face air purifying respirator with the appropriate organic vapor cartridge.

Tank Lining (Confined Space Entry)

As determined by a pre-job hazard assessment and testing, CSI employees otherwise, will use the specified respiratory protection for confined space entry, based upon the work being performed. The atmosphere inside the confined space will be evaluated and the appropriate respiratory protection will be selected based upon that data. The type of respiratory protection selected for the job will be properly documented on the confined space entry permit. In all cases, ventilation will be provided.

Respirator Organic Vapor Cartridge Change Out Schedule

Employees who perform painting operations for CSI shall wear respirators with NIOSH certified organic vapor cartridges, such as manufactured by 3M and Binks-Sames.

The suggested change out schedule for organic vapor cartridges is based on previous air monitoring results for Xylene, a commonly used solvent in CSI's painting operations. Using a breakthrough concentration of 5% of the OSHA PEL for Xylene (435 mg/m³) and the calculation available on the MSA (Mine Safety Appliances) website, it is recommended that the respirator cartridges be changed out every 100 hours of use, or every 2 weeks, whichever comes first.

Program Evaluation

At a minimum, an annual evaluation of this Program shall be conducted by the Program Administrator to ensure it is effective in protecting employee health. Employees, including members of the "Zero In On Safety" team, will be consulted in the evaluation to assess their views on the Program's effectiveness and to identify problems. Comments relating to this Program should be communicated to the Program Administrator.

FORMS

All forms are located at the end of this manual

Medical Examination Questionnaire
Respiratory Protection Medical Evaluation Form
Respirator Fit Test Data Form

CHAPTER 8

ABRASIVE BLASTING SAFETY

Chapter 8 - Abrasive Blasting Safety

POLICY STATEMENT

This program applies to all work operations at CSI where employees perform media blasting tasks. Implementation of this program requires adherence to relevant issues addressed in other sections of this manual including, but not limited to, the “Personal Protective Equipment (PPE) Program,” and “Respiratory Protection Program” sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program, as regulations require.

The Safety and Health Coordinator will coordinate development and review of program content and training.

The Facility Operations Manager and Field Operations Manager, through their respective subordinates, have individual and joint responsibility for implementation of the program and record keeping.

GENERAL HAZARDS

Blast Media and Equipment Handling

Severe back injuries may occur from improperly handling abrasives, portable blasting machines and pots, hoses and other heavy components. Employees shall not attempt to manually move a blast machine or pot, or bag of greater than 60 lbs. containing abrasive material. A forklift or some other mechanical means will be used to transport such material or equipment. Whenever hazardous substances such as dusts, fumes, mists, vapors, or gases exist or are produced in the course of construction work, their concentrations will not exceed the limits specified in 1926.55(a). Blast media containing silica is prohibited. When ventilation is used as an engineering control method, the system will be installed and operated according to the requirements of 1926.55. Dust shall not be permitted to accumulate on the floor or on ledges outside of an abrasive-blasting enclosure, and dust spills will be cleaned up promptly. Aisles and walkways will be kept clear of steel shot or similar abrasive which may create a slipping hazard.

Falling and Tripping Hazards

Precautions will be taken at work sites to eliminate hazards that may result from the workers' mobility. Blasters are susceptible to tripping and falling when their work surface is wet, uneven, unstable, and/or cluttered with hoses or other obstructions. Work areas will be kept smooth and clean, remove water, oil, and other liquids, and fill in any surface holes.

During elevated work over 6 feet off the lower walking area, blast operators will be protected from falling by approved guardrails or a personal fall arrest system. In elevated work done off ladders, employees will maintain 3 fixed points of contact when blasting.

Hazards of Electrical Shock and Static Electricity

Blast operators will not work near power lines because contact with high voltage exposed wires may result in serious injury or death. Power lines shall be de-energized prior to starting any blasting work. Use dust-tight, moisture-free connectors on all electrical fittings and keep electrical cords away from water and other liquids.

Static electricity may cause explosions in the presence of heavy concentrations of flammable gas. Static-dissipating blast hose and coupling gaskets to prevent static electricity buildup will be used where the potential for a flammable atmosphere exists. Blast nozzles shall be bonded and grounded to prevent the buildup of these charges. Organic abrasives which are combustible will be used only in automatic systems. Where flammable or explosive dust mixtures may be present, the construction of the equipment, including the exhaust system and all electric wiring, will conform to the requirements of American National Standard Installation of Blower and Exhaust Systems for Dust, Stock, and Vapor Removal or Conveying, Z33.1-1961 (NFPA 91-1961), and Subpart S of 29CFR1910.

Hazards from Air Compressor Operation

Air compressors produce powerful pressures and require careful attention. Broken or damaged airlines or fittings can unleash strong forces that may damage equipment or cause serious injury. Compressors will be properly maintained as recommended by the manufacturer. Hoses and fittings will be regularly inspected and replaced when there are any signs of damage or wear. The pressure setting will not be set above the blast equipment maximum working pressure rating of 125 psi. Compressed air will not be used for cleaning purposes except where reduced to less than 30 psi., and then only when effective chip guarding and personal protective equipment is in use by the employee.

Nozzle, Blast Hose and Coupling Hazards

Nozzles, blast hose, couplings, and nozzle holders present a high potential for injury due to internal wear, high pressure, atmospheric exposure and general rough handling. Special attention must be given to monitoring the condition of nozzles, blast hose and couplings to avoid injuries. Daily inspections will take place on the condition of nozzles, blast hoses, and couplings. Whip lines will be installed on all air hose connections. Blasting equipment that has a leaking nozzle holder, couplings, or blast hose will not be operated.

RESPIRATORY HAZARDS

While facts are known concerning the chemical composition of blast abrasive, unknowns exist about the materials being removed in the blasting process. Dust formed during the blasting process may be toxic or potentially cause long term damage if employees are unprotected. Care must be taken to understand both the blast media and substrate makeup so that adequate PPE can be selected and correct procedures followed prior to work beginning.

Operators are protected by their supplied air helmet during blasting but need to safeguard their respiratory system before and after the process. Air for abrasive-blasting respirators must be free of harmful quantities of dusts, mists, or noxious gases, and must meet the requirements for supplied-air quality and use specified in 29 CFR 1910.134(i). Very small dust particles may linger in the air well after operations are complete and employees should be aware of their

presence. To reduce the exposure to any suspended particulates, employees will only remove their supplied air hoods after leaving the immediate blasting area. Proper respirators must also be selected for clean-up operations based on the hazards or other available dust controls.

The principal health hazard associated with abrasive blasting is exposure to the blasting media and debris removed from the surface. Among this debris are metal alloys contained in the surface, such as chromium, nickel, and beryllium, and metals plated onto the surface for corrosion purposes, such as cadmium. In addition, toxic materials in the surface coatings, such as hexavalent chromium and lead, can present inhalation hazards to workers. The list below describes some of the common products that can be found in significant quantity on CSI projects.

Lead

Lead is a paint component frequently found in coatings installed prior to 1978. Coatings containing lead will be identified prior to work beginning and will require special procedures identified in Lead Projects Chapter of this H&S Manual. Additional information about lead exposure can also be found in that chapter.

Silica

Exposure to respirable crystalline silica dust during abrasive blasting can cause serious or fatal respiratory disease including silicosis. A common source of silica exposure is the use of sand as a blast media. Although CSI does not use sand for blasting, abrasive blasting of concrete or masonry surfaces with any blast media will produce airborne respirable silica. The supplied air blast hood respirator is adequate to prevent exposure.

Cadmium

Cadmium and its compounds are highly toxic and exposure to this metal is known to cause cancer and targets the body's cardiovascular, renal, gastrointestinal, neurological, reproductive, and respiratory systems. Most steel structure paint coatings applied before 1980 contained toxic metals such as lead, cadmium and chromium. These additives were used to protect the steel from harsh conditions and to provide a long-lasting protective coating. Blasting operations can produce significant levels of this dust, but CSI supplied PPE is adequate to prevent overexposure.

Hexavalent Chromium

Hexavalent chromium or Cr(VI) is a toxic form of chromium that can cause severe health effects to workers, including lung cancer. Chromium compounds are added to paints and primers to provide corrosion protection and reflective properties. Blasting operations can produce significant levels of this dust, but CSI supplied PPE is adequate to prevent overexposure.

EQUIPMENT HANDLING AND OPERATING SAFETY

Operator Training

The blast operator is the most important element of a manually-operated blasting system. Therefore, the operator will be trained on the safe operation of the equipment. The training topics shall include:

- the proper use all safety devices;
- how to properly inspect the equipment for proper connection and defects in equipment;

- emergency shutdown procedures;
- how to perform regularly scheduled maintenance;
- proper operation of various media blasting accessories; and,
- a complete understanding of the form, fit, and function of all aspects of the blasting machinery.

In addition, the operator must understand and be trained on the hazards involved with blasting operations, including the use of personal protective equipment (PPE).

Blasting equipment nozzles shall be equipped as required with an operating valve which must be held open manually or have a “Deadman valve” installed.

Lifting, Loading, and Moving of Materials and Equipment

Blast equipment is heavy and bulky and shall be loaded, lifted, or moved by some mechanical means. Prior to moving, all parts shall be disconnected, as is practicable, and stowed neatly and properly secured to prevent damage in transit. Equipment will not be loaded or unloaded until a suitable, level, uncluttered storage or work area is located to which the equipment may then be mechanically moved.

Required Hearing Protection

The required air-supplied blasting helmet will block some of the hazardous noise from reaching an operator’s ears. However, the operator should not rely on this helmet as a sole source of protection. Hearing protection is to be worn under the helmet to reduce noise levels under the Action Level of 85 dBA. Employees working within 200 feet of the blasting operations shall also wear hearing protection as levels may exceed 85 dBA.

Protective Clothing

Abrasive moving at high velocity can inflict serious injury upon unprotected operators while blasting. Therefore, it is essential that operators wear long sleeve shirt and pants, canvas or leather gloves, and safety shoes. Specially designed blast suits are ideal as it provides maximum protection. The air-fed blasting hood serves as head and face protection while supplying a safe source of breathing air. Equipment for protection of the eyes and face must be supplied to the operator by Coblaco when the respirator design does not provide such protection and to any other personnel working in the vicinity of abrasive blasting operations.

CHAPTER 9

PERMIT-REQUIRED CONFINED SPACE

Chapter 9 - Permit-Required Confined Space Program

COMPANY POLICY

This section of the health and safety manual addresses OSHA's confined space standard for construction (29 CFR Subpart AA: 1926.1200-.1213) and General Industry 1910.146.

CSI projects may require employees to enter and perform work inside confined spaces. This program applies to all work operations at CSI where employees may be exposed to hazards associated with confined spaces such as pits, silos, tanks and other structures that meet the definition of a confined space. Prior to each project, acceptable entry conditions and appropriate sections of this plan will be implemented.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the "Safety Rules", "Health and Safety Program", "Personal Protective Equipment Program" and "Respirator Protection Program" sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

On-site, the Facility Operations Manager, through his subordinates, has responsibility for implementing this program and record keeping. Off-site, the Field Operations Manager, through his subordinates, has responsibility for implementing this program and record keeping.

DEFINITIONS

Acceptable entry conditions means the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

Atmosphere-controlled confined space means a permit-required confined space in which potential or actual atmospheric hazards can be eliminated prior to entry or can be controlled with continuous forced mechanical ventilation.

Attendant means an individual stationed outside the permit spaces who monitors the authorized entrants and who performs attendant's duties as required by this program.

Confined space is any space that is large enough and so configured that an employee can bodily enter and perform assigned work, has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy.

- Confined spaces include, but are not limited to: storage tanks, pits, vats, vessels, sewer manholes, electrical manholes, vaults, pump or lift stations, septic tanks, boilers, pipelines, tunnels, ventilation and exhaust ducts, trenches, and excavations.

- Hazards associated with confined space entry include: oxygen deficient atmospheres, flammable/explosive atmospheres, toxic atmospheres, engulfment/ entrapment hazards, and/or chemical, electrical or mechanical hazards.

Control Measures means a system or device used, or action taken, to control or prevent the introduction of physical hazards into a confined space. Control measures include:

Blanking or blinding means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Double block and bleed means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Inerting means the displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

Note that this procedure produces an oxygen-deficient atmosphere that is **immediately dangerous to life or health (IDLH)** and that can only be entered using self-contained breathing apparatus (SCBA).

Isolation means the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tag out of all sources of energy; or blocking or disconnecting all mechanical linkages.

Engulfment means the surrounding of a person by finely divided solids or a liquid. A worker in a storage tank filled with sawdust, for example, could fall into an air pocket, be completely surrounded by sawdust, and suffocate to death.

Entry means any action resulting in any part of the employees' body breaking the plane of any opening of the permit-required confined space and includes any work activities inside the confined space.

Hazardous Atmosphere means an atmosphere presenting a potential for death, disablement, injury, or acute illness from one or more of the following causes:

- A flammable gas, vapor or mist in excess of 10% of its lower flammable limit (LFL)
- An oxygen deficient atmosphere containing less than 19.5% oxygen by volume or an oxygen enriched atmosphere containing more than 23.5% oxygen by volume
- Airborne combustible dust at a concentration that meets or exceeds its LFL (airborne combustible dust which obscures vision at five feet or less)
- An atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, *Occupational Health and Environmental Control*, or in subpart Z, *Toxic and Hazardous Substances*, which could result in an employee exposure in

excess of its dose or permissible exposure limit, and that could cause death, incapacitation, impairment of ability to self-rescue, injury or acute illness.

- Any other atmospheric condition that is immediately dangerous to life or health (IDLH).
- Pipe systems which may contain water or other fluids that could cause engulfment hazards.

Immediately Dangerous to Life or Health (IDLH) means any condition that poses an immediate or delayed threat to life, or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

Non-permit required confined space means a confined space that does not contain or have the potential to contain any hazard capable of causing death or serious physical harm. ***Safe Work Permits*** will be used to define and control all entry-related activities occurring in a non-permit required confined space.

Permit-required confined space means a confined space that has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere;
- Contains a material that has the potential for engulfing an entrant;
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section, or,
- Contains any other recognized serious safety or health hazard (such as noise, electricity, radiation, or moving parts of machinery).

Prohibited condition means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

Qualified person means a CSI employee, or contractor, who is trained to recognize and evaluate the anticipated hazard(s) of the confined space and who shall be capable of specifying necessary control measures to assure worker safety.

- The company has trained specific supervisors and “lead” employees as qualified persons for the purposes of assuring safe confined space entry procedures and practices at a specific site. The qualified person may also be an entrant when permissible according to this standard. However, a qualified person cannot simultaneously be both the Entry Supervisor and Entrant.

Rescue Team means those persons whom the employer has designated prior to any permit-required confined space entry to perform rescues from confined spaces. For onsite projects, CSI management has determined the local fire department will be used as the rescue team. For off-site rescues, the rescue team will be designated in consultation with the customer’s safety professionals.

Retrieval System means the equipment used for non-entry rescue of persons from permit spaces, and includes retrieval lines, chest or full body harness, and a lifting device or anchor. A retrieval line is primarily of use in vertical confined spaces and shall not be used in confined spaces

consisting of horizontal tunnels or spaces where obstructions could increase the hazard to the entrant during emergency non-entry removal.

PROGRAM ELEMENTS

Identification of Permit-Required Confined Spaces

For on-site projects, the CSI Safety Consultant, in conjunction with the Facility Operations Manager, shall conduct a survey of the facility to inventory, identify and assess all potential permit-required confined spaces.

For off-site projects, qualified CSI personnel, in conjunction with the customer's qualified safety personnel, shall conduct a survey of the customer's facility to identify and assess all potential permit-required confined spaces associated with the project.

The on-site inventory will be maintained and updated as needed. The inventory shall include an assessment of the hazard(s) associated with each permit-required space.

The current on-site inventory is included in this document, which shall be maintained by the Facility Operations Manager.

On-site permit-required spaces, which are obvious and/or could be inadvertently entered, will be labeled at all potential points of entry as a "Permit-required Confined Space." Signs shall read as follows:

**DANGER
PERMIT-REQUIRED CONFINED SPACE
DO NOT ENTER**

PRE-ENTRY PLANNING

General Procedures and Precautions

Planning for both permit-required and non-permit required confined space entry shall include procedures, site specific plans and training that address the following:

- Continuous air quality monitoring and control in the confined space.
- Maintaining communication between the entrant and the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space
- Alerting the attendant/entrant whenever:
 - 1) The attendant or entrant recognizes any warning sign or symptoms of exposure to a dangerous situation, or
 - 2) The attendant or entrant detects a prohibited condition.
- Requirement to evacuate whenever so ordered by the entry supervisor or attendant, whenever the attendant or entrant recognizes any warning sign or symptom of exposure to a dangerous situation, if the attendant or entrant detects a prohibited condition, or whenever an evacuation alarm is activated.
- Site-specific extraction procedures and an action plan including both emergency and non-entry rescue methods and plans and methods for calling rescue services.

- Any unauthorized entry of a confined space, a hazard not covered by the permit, the occurrence of an injury or near miss, or employee complaints will be investigated and properly addressed prior to re-entry of a permit required confined space.

TRAINING AND DUTIES OF PROGRAM PARTICIPANTS

All personnel involved in confined space work shall receive appropriate training in hazard recognition, personal protective equipment, safety equipment, communications equipment, procedures for calling rescue services, and proper use of rescue equipment (if applicable). The training will also include provisions & procedures for pedestrian, vehicle & other barriers as necessary to protect entrants from external hazards & a method for verifying that conditions in the permit space are acceptable for entry during its duration. Each affected employee must be trained prior to initial assignment, prior to a change in assigned duties, if a new hazard has been created or special deviations have occurred.

Training shall be performed before the employee is assigned duties in permit-required confined spaces.

Training will be conducted under the coordination and supervision of the CSI Safety Consultant or direct supervisor.

Retraining will be performed at least annually.

CSI will certify and maintain all training records. These records shall include the date(s) of the training program, the instructor(s) of the training program, and the names of the employee(s) to whom the training was given. Certification of training is available to employees & their authorized representative.

Training and Duties of the Authorized Entrants

All personnel involved in entry into permit-required confined spaces shall receive appropriate training, which shall include, at a minimum:

- The requirements of this program and the conditions that must be met for entry into a permit-required confined space.
- The conditions or work practices that may produce a hazard in a non-permit confined space that may require that the space be re-evaluated by the Supervisor prior to entry.
- Hazard recognition and use of atmospheric testing devices, including information on the mode, signs or symptoms, and consequences of exposure.
- The use of personal protective equipment including rescue harnesses, respiratory protection, and so forth.
- Should the entrant or their representative request additional testing of the space, it will be conducted anytime it is requested

Training and Duties of the Attendant

The attendant shall receive the Worker Training detailed above and shall, in addition, receive training on the following:

- a) Hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure

- b) Possible behavioral effects of hazard exposure in authorized entrants.

The attendant shall:

- Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the means used to identify authorized entrants accurately identifies who is in the permit space.
- Remain outside the permit space during entry operations until relieved by another attendant.
- Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.
- Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - 1) If the attendant detects a prohibited condition
 - 2) If the attendant detects behavioral effects of hazard exposure in the authorized entrants.
 - 3) If the attendant detects a situation outside the space that could endanger the authorized entrant.
 - 4) If the attendant cannot effectively and safely perform the requirements of this section.
- Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
- Warns unauthorized persons to stay away from the permit space, advises the unauthorized persons that they must exit immediately if they have entered the permit space, and informs the authorized entrants and the entry Supervisor if unauthorized persons have entered the permit space.
- Performs non-entry rescues as specified herein.
- Performs no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.
- A single attendant is assigned to each entry when multiply entries are taking place simultaneously.

Training and Duties of the Entry Supervisor

The entry Supervisor shall receive training as for attendant, above and additional training as required to evaluate confined space hazards. The entry Supervisor shall:

- Know the hazard(s) that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
- Terminate the entry and cancel the permit when either the entry operations covered by the entry permit have been completed or a condition that is not allowed under the entry permit arises in or near the permit space.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove unauthorized entrants.
- Determine, whenever responsibility for a permit space entry operation is transferred, and at intervals dictated by the hazards and operations performed within the space that entry

operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

Training and Duties of Rescue and Emergency Services

For on-site projects, the local Fire Department will be used as the rescue team. Training of the rescue workers will be managed by the local fire department. For off-site projects a trained rescue team must be readily available if professional EMS is not. The rescue team will be as specified in consultation with the customer's safety personnel. Training of their rescue team will be managed by their local rescue professionals and according to the customer's policies and procedures. Outside services will be given an opportunity to examine the entry site, practice rescue, and decline as appropriate. If there is reliance on the client host rescue services for use, this **MUST** be stated and agreed to in contract language. Employees must have PPE at no cost, as well as training and practice rescues consistent with company procedures at least every 12 months.

CONFINED SPACE PERMITS

Prior to entry into a permit-required confined space or an atmosphere-controlled confined space a qualified person will be selected and identified as the Entry Supervisor.

Consistent with the entry conditions of the confined space, and prior to entry, the Entry Supervisor will prepare either a fully completed "Permit-Required Confined Space Entry" permit or a "Safe Work" permit. **NOTE: A copy of each can be found at the end of this chapter.** Permits can also be obtained from the Facility Operations Manager or Field Operations Manager. The qualified Entry Supervisor will be responsible for all entry and other confined space-related activities.

Entry Supervisor and Permit

The qualified Entry Supervisor will ensure that the permit specifies the location, type of work, personal protective measures, authorized entrants, monitoring equipment, hazards of the permit space, and control measures. If rescue equipment is required, it will be so noted on the permit and will be available on-site. The procedure and site-specific plans for emergency and non-emergency extraction, including the procedures and means to contact rescue services, will also be included on the permit.

The permit will be dated and carry an expiration time limiting the work to one shift.

The Entry Supervisor shall sign the permit prior to allowing entry and ensure that entry operations remain consistent with the terms on the permit. The entry will be terminated if a potential hazardous situation occurs which exceeds the conditions authorized on the permit.

The permit will be available at the work site outside the confined space.

Hot work (potential ignition sources) will be authorized on a separate Hot Work Permit and will be reviewed by all on-site personnel and attached and noted on the entry permit.

The individual authorizing entry into the confined space may not serve as an Entrant but may serve as an Attendant if properly trained. Only if their responsibility as Entry supervisor is reassigned to other properly trained personnel may they enter the permit-required confined space.

Completion of the Confined Space Work

After entry has been completed the permit will be canceled by the Entry Supervisor. In this instance only, cancellation of the permit indicates that the space is ready to be returned to its normal operation.

After the work is completed, all Permit-Required Confined Space Entry permits and/or Safe Work permits” will be kept in the job file with the job order at the Main Office. The permits and related information will be kept for a minimum of three years.

The Safety and Health Coordinator will review entry permits annually. The program will be revised as necessary to ensure that the health and safety of employees is not compromised.

ENTRY PROCEDURES FOR ALL PERMIT REQUIRED CONFINED SPACES

All confined spaces shall be treated as a permit-required confined space and will require completion of a “Permit-Required Confined Space” permit prior to entry until verifiable air monitoring of the space demonstrates that it can be reclassified otherwise.

No confined space shall be entered until the potential hazards of the space are identified and have been evaluated and either a “Permit-Required Confined Space” permit or a “Safe Work” permit has been completed, reviewed, signed by those entering or supporting the confined space work and has been posted at the designated entrance to the confined space.

Any entry into a permit-required confined space will require continuous atmospheric testing for oxygen content, flammable gases, and potential toxic air contaminants by a properly trained individual.

During any confined space entry, all safety rules and Confined Space Entry Procedures will be followed. There will be no smoking in a confined space. Any use of chemicals, welding, soldering or cutting must be pre-approved by the Facility Operations Manager or a qualified subordinate. Consistent with the existing hazards, adequate lighting will be provided.

Personal protective equipment, including air-supplied breathing apparatus, will be provided to workers as necessary for safe entry into the permit-required confined space.

- All PPE must be approved by the Facility Operations Manager or a qualified subordinate.
- An air- supplied breathing apparatus will be used for entry into an unknown atmosphere. The Rescue Team, or qualified emergency responders, with self-contained breathing apparatus immediately available, must be present on-site if entry is into an atmosphere that is actually or potentially ***immediately dangerous to life or health (IDLH)***.

Electrical equipment used in the confined space will be appropriate for the hazard and meet the requirements of the National Electric Code if a hazardous atmosphere is present.

Any condition making it unsafe to remove an entrance cover will be eliminated before the cover is removed.

- When the cover has been removed, the opening(s) shall be promptly marked and isolated to prevent accidental fall into the opening and prevent objects from falling into the opening.
- Appropriate vehicle and pedestrian barriers will be used to protect workers.

Contractors

Contractors who send their employees into confined spaces under the control of the company will be informed of the potential hazards, safety rules, and emergency procedures. A copy of CSI's "Confined Space Entry Program" will be made available. The Contractors will verify compliance with the training and procedural requirements of this program including completion and posting of the appropriate confined space permits.

Atmospheric Testing

The atmosphere in all potential permit-required confined space atmospheres shall be tested for oxygen concentration, combustible gases, carbon monoxide and any known or suspected toxic substances prior to entry. Only a currently calibrated direct reading gas monitor in proper working order will be used. Direct reading gas detector tubes or other acceptable means may also be used to test potentially toxic atmospheres.

Each atmospheric testing instrument shall be calibrated on a schedule and in the manner recommended by the manufacturer.

Each atmospheric testing instrument will be field checked immediately prior to use to ensure that it is operating properly.

Initial air sampling will be conducted from outside the structure and will be performed when possible at various levels within the confined space (e.g. at least top, middle and bottom), and around all conduits, pipes, or cables.

The atmosphere will be tested in the following order: oxygen concentration, combustible gases, and toxic materials. Results will be written on the entry permit.

Entrants of the space must be informed of the monitoring results and potential hazards; they must participate in the permit review and signing. Ventilation must be used & testing must be conducted before entry & during work.

Atmospheric conditions will be considered unacceptable if:

- Oxygen levels are less than 19.5% or greater than 23.5% by volume,
- If a combustible gas is present at greater than 10% of its lower explosive limit (LEL),
- If a toxic substance exceeds an OSHA or American Conference of Governmental Industrial Hygienists (ACGIH) limit where exposure could result in death, acute illness, or impairment of ability to self-rescue,
- If an airborne combustible or non-combustible dust obscures vision to five feet or less
- If any atmospheric condition recognized as ***immediately dangerous to life or health*** (IDLH) is present.

On-site, the Facility Operations Manager or his designated representative, and off-site the Field Operations Manager or his designated representative, must be notified immediately if atmospheric conditions are unacceptable. Entry will be prohibited until:

- A suitable confined space entry plan is developed and the “Permit-required Confined Space Entry” permit is completed and signed by the employees on-site.
- All equipment required according to the confined space entry permit is on site and operable.
- Conditions are brought into acceptable limits by purging, cleaning and/or ventilating the space.
- Appropriate respiratory equipment is worn. The respiratory protection proposed for the entry must be approved by the Facility Operations Manager or a qualified subordinate.
- When ventilation of the confined space is used to minimize the hazards, re-testing is required after purging of the space before entry will be allowed.
- Testing of the air quality in the confined space will be continuous unless potential atmospheric hazards in or around the space have been **eliminated** through the use of positive engineering controls; i.e., the disconnection of pipe segments and installation of blind flanges, etc.
- Otherwise, continuous air monitoring will be performed whenever the potential for a hazardous atmosphere exists. An atmospheric testing device capable of continuously monitoring and measuring the airborne concentrations of oxygen, carbon monoxide, flammable gases and hydrogen sulfide shall be in-service during entry into, and while working inside, sewer piping and during welding operations in confined spaces. This device shall be equipped with an audible alarm feature that is operational.
- All atmospheric test results must be recorded on the entry permit.

Ventilation

Continuous forced mechanical ventilation shall be considered a “best practice” to be used, where practicable, in all permit-required confined spaces that contain a known or potential atmospheric hazard.

Mechanical ventilation must be used regardless of initial monitoring results if the potential for development of a hazardous atmosphere exists. On-site, the Facility Operations Manager or a qualified subordinate will determine the potential for a hazardous atmosphere to develop. Off-site, the customer’s qualified safety and operations personnel will make that determination.

If a hazardous atmosphere is detected, employees will not enter the space until the hazardous atmosphere has been eliminated by continuous forced air ventilation, as verified by continuous monitoring, and after a confined space permit has been completed and posted.

The forced air will be directed to the immediate vicinity where an employee is, or will be, within the space. Ventilation shall continue until all employees have left the space. If mechanical ventilation should fail during entry operations, all employees shall immediately evacuate the space until ventilation is restored, and re-testing indicates acceptable entry conditions.

The appropriate method and equipment used for this procedure will depend on the size of the confined space and opening, the gases exhausted, and the source of make-up air. Ventilation equipment and associated lighting equipment used in flammable atmospheres will be explosion-proof and appropriately rated for the hazard.

Local exhaust ventilation shall be used during welding, cutting or other similar operations in confined spaces as necessary to remove harmful gases, vapors, smoke and fumes. The confined space will be continuously monitored and ventilated if a toxic substance is used in the operation.

Bottled oxygen will not be used to ventilate a confined space.

Fully Regulated Permit-Required Confined Spaces

Prior to entry into a permit-required confined space a “Permit-Required Confined Space Entry” permit will be completed, reviewed and signed by those entering or supporting the confined space work and posted at the designated entrance to the confined space by the Entry Supervisor or his designated representative. **NOTE: A copy of the “Permit-Required Confine Space” permit and related documents are included at the end of this program section.**

Entrants

Only properly trained and authorized individuals will be allowed to enter a permit-required confined space.

While in the confined space all authorized entrants will maintain contact with their attendant using the specified means and procedures identified in the “Permit-required Confined Space Entry” permit.

Attendants

As defined in the confined space permit, one or more attendants will be assigned to remain outside the permit required confined space at all times during entry operations. The attendant will remain in constant communication with the entrants and order the workers to leave if a suspected hazard occurs or a toxic reaction is observed in a worker. The attendant will also warn unauthorized persons not to enter the confined space. The attendants will not be assigned any task or take on any duties that distracts them from their primary function which is to remain in constant contact with the entrants for whom they are responsible.

The attendants will be equipped with appropriate voice communications equipment and know who to contact in an emergency.

Attendants will receive training in hazard recognition and rescue procedures.

Except as the confined space permit allows, and as properly trained, and as possessing the proper breathing equipment and rescue devices, the attendants will not enter the confined space for rescue purposes until help has arrived, and only after other qualified attendants are on-site.

Retrieval Systems

Workers entering a confined space containing a hazardous atmosphere or other uncontrolled serious health or safety hazard will wear full retrieval equipment except as allowed otherwise by the confined space permit.

Full retrieval equipment must be worn if it is likely that a hazardous atmosphere will develop, return or be created because of the work being conducted.

Retrieval equipment will be secured to an anchor point or lifting device outside of the entry portal and readily accessible by the attendant. The anchor point shall not be a motor vehicle. When vertical retrieval may be necessary, a lifting device such as a tripod or davit equipped with either a powered hoist or a manual hoist will be used. Where a manual hoist is used, the hoist shall offer at least a three-to-one pull ratio.

While considered a “best practice,” a retrieval line is not required if:

- A permit-required confined space has obstructions or turns that would prevent the attendant’s pull on the retrieval line from being transmitted to the entrant, or,
- A permit-required confined space from which an employee being rescued with the retrieval system has projections which would injure the employee if forcefully contacted, or,
- A permit space is to be entered by an entrant using an air supplied respirator, and retrieval lines, if used, could not be controlled so as to prevent an entanglement hazard.

Whenever possible, the “best practice” preference will be to alter the conditions and methods of the work in the permit-required confined space as well as the conditions of the entry itself to accommodate the use of a retrieval line for each entrant.

Atmosphere-controlled Confined Spaces

If the **only** hazard posed by the permit space is an actual or potential hazardous atmosphere that can be controlled by continuous forced air ventilation alone, then workers may enter the space without retrieval equipment or an attendant.

Criteria of an Atmosphere-controlled Confined Space

- Flammable air contaminants must be less than 50% of a “hazardous atmosphere” (20% of LEL) to qualify as an atmosphere-controlled space.
- Continuous monitoring must be performed. Monitoring results must be documented on the entry permit every hour.
- There may be *no* hazardous atmosphere within the space whenever any employee is inside of the space.
- If at entry, or while confined space-related work is occurring, a hazardous atmosphere is detected, each employee shall leave the space immediately;
- The space shall be evaluated to determine how the hazardous atmosphere developed; and,
- Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent re-entry takes place.

Once established as an “Atmosphere-controlled Confined Space” based on testing for all potential atmospheric hazards, the confined space-related work activities will be planned and documented

using the back of the Confined Space entry permit on the Alternative Entry Procedures Certification. A copy of the forms are included at the end of this program section.

Prior to entry, the Entry Supervisor shall verify that ventilation equipment is in place and operable, as necessary, and that the space is safe for entry. At this point, any previously completed “Permit-required Confined Space” permit can be replaced with a completed “Safe Work” permit. This re-certification shall remain in effect until the work is completed, the end of the shift or until a change in confined space conditions require reclassification of the space, whichever occurs first.

The Entry Supervisor, or a designated qualified person, shall document air monitoring results and pre-entry safety precautions to be followed on the “Safe Work” permit. Prior to entry, it shall be reviewed by all on-site personnel, signed and shall be posted at the designated entry point. During the work period it shall be made available to each employee entering the confined space.

Reclassification of an Atmosphere-Controlled Confined Space to a Permit-Required Confined Space

When there are changes in an atmosphere-controlled confined space that may increase the hazards, the space shall be reevaluated and classified as a permit-required space if necessary.

Reclassification would be required, for example:

- During application of solvents, paints, chemicals or other materials that could potentially create a hazardous atmosphere in a confined space.
- During welding, cutting, brazing or soldering in some confined spaces with limited ventilation.

The Facility Operations Manager or his qualified subordinate, on-site, or a qualified entry supervisor, off-site shall re-evaluate and reclassify confined spaces as necessary depending upon the work activities to be performed in these spaces.

Lockout Tagout to Control Hazards

In many instances, lockout/tagout is utilized to isolate or control hazardous energy that may make a confined space, a permit required confined space. If a space contains moving components, water flow, live electrical or other hazards, CSI must utilize lockout/tagout (in the form of locks, blinds, etc.) to control the energy.

If working in an open-ended pipe, and liquid can still flow into the system with pumps in use to control filling of the pipe space, an attendant must be utilized to monitor employee safety when working in a piping system.

CONTRACTOR AWARENESS, DUTIES, AND RESPONSIBILITIES

For the purpose of this section, host employers are generally considered site owners, controlling contractors are considered general contractors and/or site owners, and CSI is considered the entry employer.

Contractor Awareness, Duties and Responsibilities

When CSI arranges to have employees of another employer perform work that involves permit space entry, or CSI will be performing work in a host employer's and/or controlling contractor's confined space, CSI shall inform the contractor of the following:

- The location of each confined space that will be entered;
- The hazards associated with each space; and
- The precautions that have been taken to control, isolate, or eliminate those hazards to protect employees entering each space.

The Confined Space Entry Coordination Form can be used for gathering this information. If host employers and/or controlling contractors are unable to provide permit space information, CSI recognizes that, as the entry employer, the sole responsibility for obtaining the above information falls on the company.

Before starting entry operations, CSI specifies to the controlling contractor and/or host employer what program provisions will be implemented to control, isolate, or eliminate actual or anticipated hazards prior to and during entry.

At the conclusion of entry operations, CSI will provide information to the controlling contractor and/or host employer about the effectiveness of any program provisions that were implemented and if additional hazards were encountered during entry operations.

Each Contractor who is retained to perform work that will require permit space entry operations shall:

- Obtain any available information regarding permit space hazards and entry operations,
- Coordinate entry operations with CSI when both the Contractor and company personnel that will be working in or near permit spaces, and
- Inform CSI of the permit space program that the Contractor will follow and of any hazards confronted or created in permit spaces, either during a debriefing or during entry operations.

Additional coordination will be instituted between CSI and affected host employers, controlling contractors, and/or other entry employers in the following circumstances:

- Activities performed by other employers and contractors at the worksite could foreseeably introduce hazards to confined space entrants during confined space operations.
- If specific employer and contractor confined space programs require the provision of additional information and further coordination between affected employers and contractors.

All records associated with the above section shall be maintained as a part of the permanent record with the terminated entry permit(s).

RESCUE PROCEDURES

If it is necessary to rescue workers from a confined space on-site, the attendant or Entry Supervisor or designated personnel will immediately notify the local fire department using 911 that a confined space emergency has occurred. If rescue is necessary at an off-site project, the entry attendant, Entry Supervisor, or designated personnel will contact the qualified rescue professionals as directed by the customer's qualified safety/operations personnel.

The qualified responding rescue professionals will coordinate the rescue effort.

Under no circumstance will the attendant enter the confined space until help has arrived, and then only with the proper rescue equipment and after a qualified attendant is on site to take over his attendant duties.

CSI employees participating in rescue efforts must have received specialized training in confined space rescue techniques. This specialized training will consist of entry and mock rescue of an injured employee into similar types of tanks, vaults, vats, manholes and pipelines that CSI performs coating operations on annually. This annual mock rescue should occur annually and will be evaluated by the CSI Safety Consultant employed by Coblaco Services Inc.

CSI rescue team members will be trained in the proper use of PPE, retrieval systems and the hazards of confined space entry as outlined in this manual prior to being designated as a rescue team member.

At least one member of the CSI onsite rescue team will be trained in basic first aid and CPR. This member must hold a current certificate of training by the American Red Cross or similarly recognized organization.

Rescue attempts by CSI will only be made in a confined space that does not have a hazardous atmosphere. At no time will rescue attempts be made into a space that is considered IDLH or has the potential to become IDLH. Examples of confined spaces that CSI may attempt a rescue include new pipe lines, new tanks, new vaults, new man holes or existing similar structures that are deemed to be free of atmospheric hazards by a competent person such as the Confined Space Entry Supervisor.

Third party rescuers entering an ***immediately dangerous to life or*** health (IDLH) or unknown atmosphere will wear a self-contained breathing apparatus or a positive pressure airline respirator with a ten-minute escape bottle of air. Rescuers will, where practical, be connected to a safety line attached to a point outside the confined space. An attendant will remain outside the confined space during rescue efforts. Rescuers will wear appropriate protective clothing.

Air-purifying respirators shall ***not*** be used in confined space rescues.

Rescue breathing equipment will not be required if the emergency is not due to the presence of a hazardous atmosphere.

PERMIT-REQUIRED CONFINED SPACE INVENTORY

LOCATION	DESCRIPTION	HAZARDS
ON-SITE		
Southwest Yard	Media Silo	Tapered floors / Engulfment
Southeast Yard	Media Silo	Tapered floors / Engulfment
North Yard	Media Silo	Tapered floors / Engulfment
East Yard	Small Media Silo	Engulfment
OFF-SITE		
Various	Tanks, silos, pipes etc.	Will be document on permit

FORMS

All forms are located at the end of this manual

Confined Space Entry Permit and Alternative Entry Procedures Certification Form
Confined Space Entry Coordination Form

CHAPTER 10

HEARING CONSERVATION PROGRAM

Chapter 10 - Hearing Conservation Program

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the OSHA Hearing Conservation standard, Title 29 CFR 1910.95.

CSI will conduct initial noise monitoring using sound level meters and/or noise dosimeters periodically to determine employee noise exposures in those areas or operations where noise may produce hazards to employees.

When monitoring indicates employees are exposed to noise levels above the Action Level, CSI will implement this hearing conservation program.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules”, “Health and Safety Program” and, “Personal Protective Equipment Program” sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have individual and joint responsibility for implementing this program and record keeping.

DEFINITIONS

Action Level (AL) is 85 decibels (dBA) averaged over an 8-hour shift, 83.4 dBA averaged over a 10-hour shift or 82.1 dBA averaged over a 12-hour shift without regard to the use of personal protective equipment (hearing protection).

A-weighted decibels (dBA) means a measured noise using the A-weighting network on a sound level meter or dosimeter.

Baseline Audiogram is an audiometric test that is conducted within six months of an employee’s hire date or within six months of an employee moving into a job position that is included in the hearing conservation program.

Permissible Exposure Limit (PEL) is 90 dBA averaged over an 8-hour shift.

Standard Threshold Shift (STS) is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000 and 4000 Hertz frequencies in either ear.

MONITORING

All continuous, intermittent and impulsive sound levels at 80 dBA and above will be captured by the monitoring equipment.

Monitoring equipment will be calibrated before and after measurements are taken to ensure accuracy. Monitoring will be repeated whenever there is a change in production, process, equipment or controls which may increase noise levels so that additional employees may be exposed over the AL or hearing protectors in use may not offer adequate protection.

Employees who are exposed to noise over the Action Level (AL) will be enrolled in the hearing conservation program and notified of the monitoring results via a written memo within one week of collecting the data.

Employees are required to participate in all noise monitoring efforts.

AUDIOMETRIC TESTING PROGRAM

Baseline tests are made available, at no cost, for all employees enrolled in the hearing conservation program. Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Employees will also be advised to avoid high levels of noise outside of the work place. This test will be completed within the first 6 months of exposure equal to or greater than the AL.

Annual audiometric tests are made available, at no cost, to all employees enrolled in the hearing conservation program.

Audiometric tests are performed by our occupational health provider or other authorized health professionals:

Colorado Occupational Medicine Physicians
8515 Pearl St.
Thornton, CO 80229
303-853-8989

Concentra Medical Center – Thornton
500 E. 84th Ave Suite B-14
Thornton, CO 80229
303-287-7070

All tests will be conducted and evaluated as required by 29 CFR 1910.95(g).

If the employee has experienced a standard threshold shift they will be notified via memo within 21 calendar days and hearing protection will be re-evaluated for the employee to include a possible medical evaluation.

HEARING PROTECTION

At least two different types of hearing protectors (plugs and muffs) are made available to all employees by CSI. All types of hearing protection available must have an adequate noise reduction rating (NRR) for our operations and are provided at no cost to employees. Hearing protection is replaced as necessary to assure proper protection of employees hearing abilities.

Employees cannot provide or bring their own hearing protection devices unless specifically approved by the CSI Supervisor.

The use of hearing protection is required in areas that are posted throughout the facility.

Supervisors are required to ensure that hearing protection is being properly utilized in their functional areas.

TRAINING

All employees enrolled in the hearing conservation program will participate in an annual training program which shall be updated to reflect changes in the PPE and work processes.

Employees are informed of the effects of noise on hearing, the purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use and care, and the purpose of the audiometric testing and an explanation of the test procedures.

The Facility Operations Manager will post a copy of the noise standard (1910.95) in work areas where employees are enrolled in the hearing conservation program.

Copies of the noise standard are also available to employees through the CSI Safety Consultant.

RECORDKEEPING

All audiometric tests conducted for employees are maintained by CSI for the duration of the employee's employment.

These records will contain the following items:

- Employee's name and job classification
- Date of the audiogram
- Examiner's name
- Date of the last calibration of the audiometer
- Employee's most recent noise exposure assessment
- Background sound pressure levels in the audiometric test room

All employee exposure assessments conducted by CSI will be maintained by the company for at least two years.

Employees, former employees, and representatives of these employees may have access to their individual noise assessment results and audiometric test results upon request.

CHAPTER 11

POWERED INDUSTRIAL TRUCK PROGRAM

Chapter 11 - Powered Industrial Truck Program

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the Powered Industrial Truck Standard, Title 29 CFR 1910.178.

This program applies to all powered industrial trucks used to carry, push, pull, lift, stack, or tier material e.g., a forklift, stock picker, or powered pallet jack. It does not include front-end loaders or skid steer loaders.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules”, “Health and Safety Program” and, “Personal Protective Equipment Program” sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through respective subordinates, have individual and joint responsibility for implementing this program and record keeping.

DEFINITIONS

Authorized Industrial Truck Operator is an employee who holds a current license or has been authorized by the Facility Operations Manager to operate a specific industrial truck.

Authorized Operator Trainer is an authorized operator who has successfully completed the requirements of a powered industrial truck trainer and has been authorized to conduct the operator evaluations, practical exercises, and driver examinations.

Powered Industrial Truck is a mobile, power-propelled truck used to carry, push, pull, lift, stack, or tier material e.g., a forklift, stock picker, or powered pallet jack. It does not include front-end loaders or skid steer loaders.

OPERATOR RESPONSIBILITIES

The employee must have a current, state-issued driver’s license.

Operators of powered industrial trucks are responsible for successfully completing all licensing requirements. If the employee does not have a valid driver’s license, the employee may proceed with the industrial truck licensing requirements with approval of the Facility Operations Manager.

Operators of powered industrial trucks are responsible for safe operation of the equipment. Unsafe or improper operation of a powered industrial truck can result in death; or serious injury to the operator or others; damage to the powered industrial truck or other property.

Unauthorized personnel must not operate or be directed to operate powered industrial trucks.

PROCEDURES TO OBTAIN OPERATOR CERTIFICATION

The employee must complete a training class administered by the Authorized Operator Trainer which includes classroom training and practical operation test.

The employee must pass the written exam.

If the employee does not pass the written examination, the employee and an Authorized Operator Trainer will be required to review training materials with the employee and evaluate their competence in each problem area.

The trainee must pass a practical driving examination given by an Authorized Operator Trainer.

The operator must pass the driving examination.

If the employee does not pass the driving examination, the employee will be required to repeat the practical training and driver's examination.

Practical instruction and re-examination should emphasize problem areas.

Upon successful completion of the training requirements, a powered industrial forklift license will be issued to the employee for the specific type(s) of equipment the trainee has been qualified to operate.

TRAINING

Initial classroom-type instruction and practical training must consist of at least the following (except in topics which the employer can demonstrate are not applicable in the workplace):

- Characteristics of the powered industrial truck(s) the employee will be allowed to operate.
- Similarities to and differences from the automobile
- Controls and instrumentation e.g., location, what they do, and how they work
- Engine or motor operation and maintenance
- Steering and maneuvering
- Visibility, including restrictions due to loading
- Fork and/or attachment adaptation, operation, and limitations
- Vehicle capacity and stability
- Vehicle inspection and maintenance
- Refueling and/or charging, recharging batteries
- Operating limitations
- Operating instructions, warnings and precautions for the type(s) of truck the operator will be authorized to operate

Features of the operating environment such as:

- Surface conditions where the vehicle will be operated
- Composition of probable loads and load stability
- Load manipulation, stacking, and unstacking
- Pedestrian traffic
- Narrow aisles and restricted place operation
- Hazardous (classified) locations where the vehicle will be operated
- Ramps and other sloped surfaces which would affect the stability of the vehicle
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust
- Other unique or potentially hazardous environmental conditions which exist or may exist in the workplace

Powered industrial truck operator training must meet the requirements of the OSHA Standard, 29 CFR 1910.178.

Certification

The Facility Operations Manager, upon the recommendation to an authorized operator trainer, shall certify that each operator has received the required training, has been evaluated as required, has demonstrated competency in the performance of operator's duties, and has satisfactorily completed all required examinations.

The certification (operator license) must include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training and/or evaluation).

Refresher Training and Evaluation

Refresher training will be conducted to ensure that operators retain the skills necessary to operate a powered industrial truck safely.

Refresher training in relevant topics will be provided to the operator when:

- The operator has been observed to operate the vehicle in an unsafe manner
- The operator has been involved in an accident or near-miss incident
- The operator has received an evaluation that reveals he/she is not operating the truck safely
- The operator is assigned to drive a different type of truck
- A condition in the workplace changes in a manner that could affect safe operation of the truck.

Refresher training will be based on the training needs of the operator and may include any of the following:

- Classroom-type training (e.g., lecture, discussion, videos, interactive computer learning, written materials).

- An oral and/or written examination to evaluate the effectiveness of the refresher training.
- Practical driving training.
- Completion of a practical driving examination given by an authorized operator trainer to evaluate the effectiveness of the refresher training.

An evaluation of the performance of each operator will be conducted at least every three (3) years and will include:

- Observation of the operator during normal operations to determine if the operator is performing safely.

Avoidance of Duplicative Training

An operator who has previously received powered industrial truck instruction in any one of the elements specified above may not need to be retrained on those elements if:

- The Facility Operation Manager, as verified by an Authorized Operator Trainer, will certify that the operator has been evaluated and found competent to operate the truck safely.
- Previous training is appropriate to the type of truck and working conditions encountered in the workplace.

Record keeping

Training records on current personnel must be kept indefinitely.

Training records on former employees shall be kept for at least three years from the date the employee last worked for CSI.

CHAPTER 12

FALL PROTECTION & WALKING WORKING SURFACES PROGRAM

Chapter 12 - Fall Protection & Walking Working Surfaces Program

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the OSHA Fall Protection Standard, Title 29 CFR 1926.500 and 1910.23 Walking Working Surfaces Standard. All CSI personnel shall adhere to the requirements of this program.

All work six feet or more above an adjacent level on construction projects and four feet on non-construction sites requires fall protection on construction sites, whether this protection is a permanent platform, a properly constructed scaffold, or one of the other types of protection discussed in this program. The CSI Safety Consultant shall be consulted for interpretation of this program.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules”, “Health and Safety Program” and, “Personal Protective Equipment Program” sections.

The CSI Safety Consultant will provide training for each employee who might be exposed to fall hazards. This training will enable each employee to recognize the hazards of falling & will train each employee in the procedures to follow to minimize these hazards.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require. The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed. All accidents and serious incidents (near misses) will be investigated. If changes to the fall protection plan are determined to be necessary, they will be communicated, trained on, and implemented immediately.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training. The qualified CSI Safety Consultant, along with the Facilities Operations Manager and Field Operations Manager, will prepare all fall protection plans. CSI will plan for rescue in the event of a fall. Rescue will be self-performed or by EMS as deemed appropriate, by each specific job site evaluation.

The Facility Operations Manager and Field Operations Manager, through respective subordinates, have individual and joint responsibility for implementing this program and record keeping.

CSI employees and employees of subcontractors must abide by all requirements of this program when in areas requiring fall protection. Any deficiencies in this program, which are identified by an employee, shall be brought to the attention of the employee’s immediate supervisor.

DUTY TO HAVE FALL PROTECTION

CSI will determine if the walking/working surfaces on which its employees are to work have the strength and structural integrity to support employees safely. Employees will be allowed to work on those surfaces only when the surfaces have the requisite strength and structural

integrity to support the employee(s), tools, equipment and machinery. CSI will prevent employee exposure to fall and falling object hazards for walking-working surfaces with an unprotected edge that is four feet or greater above a lower level (six feet on construction sites). Protection may be achieved by one or more of the following:

- Guardrail systems
- Safety net systems and/or
- Personal fall protection systems

Each employee will be protected from falling into a hole, gap or void that is 2 inches or more in its least dimension, in a floor, roof, or other walking/working surface. Covers will be securely attached in place and identified with the word “HOLE” on the cover.

GUARDRAIL SYSTEMS

Employers must ensure that guardrails are installed 42 inches (plus or minus three inches) above the walking working surface. Guardrails must have a midrail installed between the walking-working surface and the top edge of the guardrail system. All guardrail systems must be capable of withstanding a force of at least 200 pounds.

When guardrail systems are used to prevent materials from falling from one level to another, any openings must be small enough to prevent passage of potential falling objects. No materials or equipment shall be stored within four feet of working edges.

PERSONAL FALL PROTECTION SYSTEMS

Personal fall arrest systems (PFAS) must be used when working from aerial lifts and other elevated areas where a fall hazard exists. PFAS must be rigged to prevent the employee from striking the ground or any other object in the event of a fall. This may require a self-retracting lifeline instead of a standard six-foot lanyard. PFAS must be rigged to an anchor point that will support at least 5,000 pounds.

When purchasing additional fall protection equipment, the equipment shall meet applicable ANSI and/or ASTM requirements.

This equipment must be inspected prior to each use. Body harnesses, lifelines, and lanyards with deep cuts or with portions worn through, shall not be used. Hardware should be examined, and worn parts replaced. Lanyards shall not be used if cuts or fraying are present. Once a lanyard is used in a fall, it is no longer safe and must be cut up and discarded.

Body harness and lanyards shall have all straps and connectors properly fastened at all times when in use.

Rescue

Whenever personal fall arrest systems are used, the implementation of this fall protection will include a discussion of how to provide prompt rescue of employees in the event of a fall or assure that employees are able to rescue themselves. Any incidents involved in fall will be investigated.

LADDERS

Only portable ladders purchased by CSI will be used on any job site. These ladders will be for commercial use and be extra-heavy-duty type I-A. Ladders will not be loaded beyond their maximum intended load. Job-made ladders will not be used on any job site. Ladders will be visibly inspected prior to use by a competent person. Any defective ladder will be removed from service immediately and tagged out.

Select the right ladder for the job. Do not use a ladder with missing or defective rungs, split side rails, or other weaknesses. Broken or damaged ladders must not be used. Ladders needing repair must be reported to your supervisor, tagged out, and removed from the work area. Ladders will only be used for their intended purpose. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced when the ladder is in position for use.

The following safe work practices should be followed when using a ladder:

- Ladders should only be used for the manufacturer intended purpose and not modified.
- All types of ladders are available on the job-site for your use. There is no excuse for using makeshift means of access to a work area.
- Portable ladder feet shall be placed on a substantial base, and the area around the top and bottom of the ladder shall be kept clear.
- When working from ladders do not overreach or work beyond the second rung from the top.
- Open stepladders fully and lock the spreaders. Do not stand or step on the top step and keep loose tools off step.
- Ladders shall not be placed in access ways or other locations where they may be displaced unless protected by barricades or guards.
- In ascending or descending ladders, employees should face the ladder and use both hands to hold on to side rails. Materials and tools should be lowered or raised by a rope or other mechanical means.
- Extension ladders shall be set up at a 4:1 ratio of height to distance to the wall. The angle with the ground must not be less than 75 degrees. The top of the ladder must extend at least three feet above the top of the landing surface.
- Make sure the top of the ladder is tied off or otherwise secured to prevent slipping or falling. The side rails shall extend a minimum of 36 inches above the landing. When this is not practical, grab rails, which provide a secure grip for an employee moving to or from the point of access, should be installed.
- All new or replacement fixed ladders/ladder sections installed after January 17, 2019 must be equipped with a personal fall arrest system or ladder safety system. Existing fixed ladders over 24 feet, must be equipped with a cage, well, personal fall arrest system or ladder safety system by January 17, 2019 if they do not have any fall protection.
- All cages and wells on fixed ladders over 24 feet must be replaced with ladder safety or personal fall arrest systems by January 17, 2037.

SCAFFOLDS

Scaffolds shall be designed by a qualified person and will be constructed and loaded in accordance with that design. Scaffolding, including aerial lifts, will not be field modified

unless the modification is approved in writing by the manufacturer. If a modification is authorized by the manufacturer, a qualified or competent person must oversee the modification and inspect it prior to use by employees once it is completed.

Using an aerial lift as a crane is prohibited unless specifically permitted by the manufacturer.

Training

Each employee who performs work while on a scaffold will be trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The training will be conducted prior to any employee performing work from a scaffold to include an aerial lift or scissors lift.

The training will be conducted by a qualified person and retraining will be conducted as necessary to ensure employees understand the requirements associated with working on scaffolding. This training will be documented and maintained by the Safety Consultant.

The training will include the following areas, as applicable:

- Fall hazards and falling object hazards in the work area;
- Procedures for dealing with electrical hazards;
- Erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used;
- The proper use of the scaffold, and the proper handling of materials on the scaffold;
- The maximum intended load and the load-carrying capacities of the scaffolds used;
- Base plate and mudsill requirement to be used to balance and support the scaffold;
- Uprights must be level and plumb and screw jacks must be tight;
- All cross bracing installed and diagonal bracing to prevent racking as necessary;
- Uprights are pinned, outriggers and attachments secured;
- Toe boards in place 3.5 inches tall withstanding 50 lbs.;
- Tiebacks in place when height is 4x smallest base;
- First step onto scaffold is less than 24”;
- Areas above 10’ have fall protection;
- Handrails 38-45”; mid-rails halfway between;
- Planking does not sag more than 1/60 of length of plank;
- Platforms capable of supporting 4 times the intended load;
- Planks 10’ or less overlap supports 6-12”;
- Leading edge of scaffold not more than 14” from building face; and
- Tagging of defects, when found by competent persons, and requirement that employees comply with tagging until the defect is corrected.

Assembly and Disassembly

Scaffolding will be assembled, disassembled and moved only under the supervision of a competent person who has been trained on the type of scaffolding being used. All employees assisting in the assembly, disassembly or moving of scaffolding must be trained in the hazards associated with the work in question. The training shall include the following topics, as applicable:

- The nature of scaffold hazards;

- The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question;
- The design criteria, maximum intended load-carrying capacity and intended use of the scaffold; and
- Any other pertinent hazards.

Large-area scaffolding used by CSI will be assembled and disassembled by a vendor who specializes in this type of scaffolding.

Inspections

Scaffolding, including aerial lifts, will be inspected by a competent person prior to employees performing work from the scaffolding. This inspection will be conducted daily and whenever a defect(s) in the scaffolding components is found by employees. The defect(s) found in the inspection will be documented on a tag that is visible to employees who would attempt to work from the scaffolding. If the defect(s) causes the scaffolding to be unsafe, as determined by the competent person, the scaffolding will be Red Tagged and placed out of service immediately.

When climbing on or exiting from scaffolding, use a ladder. Do not climb the cross end or end frames. Do not climb on or work from the cross bracing, top rail, or mid rail. Use safety belt if guardrails are not used.

Do not overload a scaffold. Make sure it will hold the intended load.

Do not work on scaffolds without adequate guardrails and toe boards.

- Install top guardrail approximately 42" high and mid rails beginning with the first lift. Guardrails are to be at least 2 x 4 lumber, ½" wire rope tight, 1 1/2" OD pipe, 2 x 2 angle iron, or patented members. Do not use fiber or synthetic rope guardrails.
- Toe boards are to be installed at a minimum height of 4" where it is practical to do so.
- Screening of ½" hardware cloth is to be installed from top rail to planking when people are required to pass underneath the scaffold and no other protection is provided.

Keep trash and excess material off scaffolding so the maximum amount of walking and working space is available.

Makeshift scaffolds are not permitted. Scaffolds shall be constructed in safe manner using approved scaffold planking or other material. Make certain the scaffold is placed on a firm footing.

Scaffold planks are purchased for that particular purpose. No other planking is to be used. Deck the full width of the scaffold (at least two planks wide). Cleat planks or anchor down to prevent slipping off supports.

Dismount scaffold when it is to be moved. Be sure to lock the wheels before remounting. Also remove or secure tools and materials before moving the scaffold.

AERIAL LIFT WORK AND FALL PROTECTION

A safety lanyard attached to the boom or basket is required at all times. Coblaco recommends the use of a self-retraction lanyard or a 2-foot work positioning lanyard.

The brakes shall be set, and outriggers, when used, shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline.

An aerial lift shall not be moved when the boom is in an elevated position unless the lift was specifically designed for this type of operation as specified in the vehicle's operating manual.

CRANE OR DERRICK HOISTED PERSONNEL PLATFORMS

The use of a crane or derrick to hoist employees on a personnel platform is prohibited, except when the erection, use, and dismantling of conventional means of reaching the worksite, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform, or scaffold, would be more hazardous, or is not possible because of structural design or worksite conditions.

If such a platform is anticipated, preplanning is necessary due to the complex requirements and procedures that must be used.

Mobile cranes shall not be used to hoist personnel platforms.

Personnel platforms shall not be used without the approval of the Facility Operations Manager or Field Operations Manager.

PERSONNEL PLATFORMS**Design Criteria**

The personnel platform and suspension system shall be designed by a qualified engineer or a qualified person competent in structural design.

The suspension system shall be designed to minimize tipping of the platform due to movement of employees occupying the platform.

The personnel platform itself, except the guardrail system and body belt/harness anchorages, shall be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

Platform Specifications

Each personnel platform shall be equipped with a guardrail system which meets the requirements of Subpart M, OSHA 29 CFR 1926.500, and shall be enclosed at least from the toe board to mid-rail with either solid construction or expanded metal having openings no greater than ½ inch (1.27 cm).

A grab rail shall be installed for the entire perimeter of the personnel platform.

Access gates, if installed, shall not swing outward during hoisting.

Access gates, including sliding or folding gates, shall be equipped with a restraining device to prevent accidental opening.

Headroom shall be provided which allows employees to stand upright in the platform.

In addition to the use of hard hats, employees shall be protected by overhead protection on the personnel platform when employees are exposed to falling objects.

All rough edges exposed to contact by employees shall be surfaced or smoothed in order to prevent injury to employees from punctures or lacerations.

A qualified welder familiar with the weld grades, types and material specified in the platform design shall perform all welding of the personnel platform and its components.

The personnel platform shall be conspicuously posted with a plate or other permanent marking which indicates the weight of the platform and its rated load capacity or maximum load.

CONTROLLED ACCESS ZONES AND SAFETY MONITORING

When conventional fall protection is not used, these locations must be identified and classified as controlled access zones. Where no other alternate methods have been implemented, a safety monitoring system shall be implemented (1926.502(h)). A written fall protection plan shall be created specifically for each situation and clearly define the strategy and personal responsibilities.

A competent person will be assigned to:

1. Recognize fall hazards,
2. Warn employees if they are unaware of a fall hazard or are acting in an unsafe manner,
3. Be on the same working surface and in visual sight of workers,
4. Stay close enough for verbal communication, and
5. Not have other assignments that would take their attention away from the monitoring function.

TRAINING

All employees potentially exposed to fall hazards will be trained in the following areas by a qualified person:

- Recognition of the nature of fall hazards in the work area;
- The correct procedures for erecting, maintaining, using, disassembling, storing and inspecting fall protection systems to prevent the fall hazard;
- The use and operation of guardrail, personal fall arrest, warning line, and safety monitoring systems; and
- Employee's role in the fall protection program.

Re-training shall be provided when the following are noted:

- Deficiencies in training;

- Physical configuration of the work area changes; and
- Fall protection systems or equipment changes that render previous training obsolete.

Written certification records will be maintained showing the employee trained, dates of training, and signature of the instructor (showing his approval that the training was deemed adequate).

CHAPTER 13

ELECTRICAL SAFETY PROGRAM

Chapter 13 - Electrical Safety Program

POLICY STATEMENT

The purpose of this program is to ensure the proper installation, maintenance, and inspection of equipment grounding conductors on the job in order to minimize injuries due to electrical ground faults.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules”, “Health and Safety Program” and, “Personal Protective Equipment Program” sections.

CSI does not employ any qualified or licensed electricians.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require. The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager, through his subordinates, has responsibility for implementing this program and record keeping.

Only qualified electricians or electrical contractors will be responsible for the installation and maintenance of CSI’s electrical systems and equipment. Only qualified persons may work on electric circuit parts or equipment that has not been de-energized. Such persons will be made familiar with the use of special precautionary techniques, PPE, insulating and shielding materials and insulated tools.

Employees who face a risk of electric shock but who are not qualified persons will be trained & familiar with electrically related safety practices. Employees will be trained in safety related work practices that pertain to their respective job assignments to include clearance distances.

INSTALLATION AND MAINTENANCE

All 120-volt, single phase, 15- and 20-ampere receptacles are of a grounding type, and their ground contacts are grounded by connection to the equipment-grounding conductor of the circuit supplying the receptacles in accordance with the applicable requirements of Article 210-7 (c) and 305-4 (d) of the National Electrical Code.

All 120-volt flexible cord sets (extension cords) shall have an equipment-grounding conductor that is connected to the grounding contacts of the connector(s) on each end of the cord. Ground Fault Circuit Interrupters (GFCIs) will be used on all extension cords and plug sets in use on construction sites or in wet applications. All GFCI applications will be inspected on a daily basis. Defective equipment is to be removed from service immediately.

The exposed non-current carrying metal parts of 120-volt cord and plug connected tools and equipment such as long dimensional conductor objects (ducts or pipes), that are likely to become energized shall be grounded in accordance with the applicable requirements of Article 250-45 and 250-59 of the National Electrical Code.

Upon installation of any electrical power service to any apparatus or device, grounding circuits will be run and checked via resistance ohm-meter (i.e., Megger) for continuity of ground circuit prior to energizing the circuit, whether the purpose for energizing is for temporary test or permanent run-in.

Employees may not enter spaces containing exposed energized parts unless illumination is provided that enables the employees to work safely.

Protective shields, protective barriers or insulating materials will be used as necessary when working in confined or enclosed work spaces where electrical hazards may exist.

Portable ladders shall have non-conductive side rails.

Conductive items of jewelry or clothing shall not be worn unless they are rendered non-conductive by covering, wrapping or other insulating means.

OVERHEAD POWER LINES

When work is to be performed near overhead lines, the lines shall be de-energized and grounded. If this is not possible, then other protective measures shall be taken before the work is started.

Arrangements shall be made with the person or organization that operates or controls the electric circuits when lines are to be de-energized and grounded.

Protective measures used (i.e., guarding, isolating, or insulating) shall prevent direct contact by the qualified person or indirect contact through conductive materials, tools, or equipment. Only qualified persons of power transmission and distribution organizations are allowed to install insulating devices on overhead power transmission and distribution lines.

Unqualified persons, vehicles, mechanical equipment, and conductive objects used by unqualified employees, may not approach closer than the minimum distance specified in the table below when working in an elevated location near unguarded, energized overhead lines. Unqualified persons working on the ground are not allowed to bring any conductive object or any insulated object that does not have the proper insulating rating closer to unguarded, energized overhead lines than the distance allowed in the following table:

Voltage to Ground	Minimum Approach Distance
50 KV or less	10 Feet
Over 50 kV	10 feet + 4 inches for every 10 kV over 50 kV

CHAPTER 14

LOCKOUT/TAGOUT PROGRAM

Chapter 14 - Lockout/Tagout Program

GENERAL COMPANY POLICY

The purpose of this program is to establish compliance with the OSHA's 29 CFR 1910.147, Control of Hazardous Energy standard.

This program applies to all work operations where employees may be exposed to potentially stored energy during maintenance and servicing on equipment and machinery.

The Facility Operations Manager and Field Operations Manager are the Lockout/Tagout Program Coordinators who, through respective subordinates, have individual and joint responsibility for implementing and monitoring the program.

DEFINITIONS

Affected employee is an employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized employee is a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

Capable of being locked out means an energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

Energized means connected to an energy source or containing residual or stored energy.

Energy isolating device is a mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker, a disconnect switch, a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors. In addition, no pole can be operated independently without a line valve, a block, and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

Energy source is any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy.

Lockout is the placement of a lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device is a device that utilizes a positive means such as a lock, either key or combination type, to hold an energy-isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

Normal production operations means the utilization of a machine or equipment to perform its intended production function.

Servicing and/or maintenance means workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization, startup of the equipment or release of hazardous energy.

Setting up means any work performed to prepare a machine or equipment to perform its normal production operation.

Tagout means the placement of a tagout device on an energy-isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

RESPONSIBILITIES

Authorized employees are the managers and technicians who are skilled to perform maintenance, repair or service on a machine, piece of equipment or a system and who have the responsibility to use this procedure prior to servicing, maintenance or repair.

Affected employees are all employees(s) and any other visiting trades into the facility whose interaction with equipment being serviced is secondary to the maintenance activities. Affected employees' responsibilities are to recognize and adhere to all lockout/tagout warnings.

The Facility Operations Manager and Field Operations Manager will ensure all locks and tags used will be standardized according to color, shape, and size. Locks and tags used to comply with the provisions of this program will be used only for the purpose of controlling energy and that all devices meet the minimum requirements of the standard.

All Authorized and Affected employees will receive training upon initial assignment. Annually, the Safety Consultant will conduct an inspection to ensure procedures and requirements are being followed.

PREPARATION FOR LOCKOUT/TAGOUT

Identify equipment to be locked-out/tagged-out and determine if it has multiple energy sources. Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled and the methods or means to control the energy.

If the equipment has multiple energy sources, a specific procedure will be included at the end of this written program.

Locate and select the control device based on the type of energy to be isolated and/or controlled.

SEQUENCE OF LOCKOUT/TAGOUT SYSTEM PROCEDURE

Authorized employees will conduct the following when lockout tagout procedures are necessary:

1. Immediately notify affected employees that a lockout system is going to be utilized and the reasons therefore.

2. If machine or equipment is operating, shut it down by the normal stopping procedures.
3. Utilize one of the following isolating/control devices based on the energy, which requires control.
 - Electrical Energy isolation/control is accomplished by placing manually operated electrical circuit breakers, disconnect switches, a manually operated switches in the “off” position. A lockout device such as a “Plugout” or “Lock a Plug” for plug-in equipment or a hasp and lock for disconnect switches shall be used.
 - Pneumatic energy isolation/control is accomplished by disconnecting the air supply from the equipment and using a device such as a “Plugout” or “Lock a Plug” for the end of the air source.
 - Potential energy involving gravity isolation/control is accomplished by placing blocks made of wood, metal or others suitable materials under the mechanism or by pinning the linkages in a position where gravity will not cause the mechanism to fall.
 - Energy involving springs isolation/control is accomplished by blocking the spring in a safe position, either by pinning or clamping, or by securing the device in some other manner to eliminate the potential unrestricted or undesired movement.
 - Hydraulic energy isolation/control is accomplished by identifying the energy source for the hydraulic pump and controlling that energy source. The residual pressure in the system must be released.
 - Thermal energy and potential energy involving pressure isolation/control is accomplished by closing valves and maintaining an open-bleed condition in the system to prevent energy build-up. Residual thermal energy for example in a heat sealer should be given adequate time to disperse the energy prior to servicing.
 - Tanks and piping systems isolation/control is accomplished by closing valves. The pipes should be disconnected and a pipe blank inserted in the pipeline. After the tank or lines have been drained, they may still need to be flushed out to purge them of any remaining chemicals. If possible, lockout drain ends to prevent back feed. If the pipe is open ended, but liquid can still flow into the system, and pumps are being used to control filling of the pipe space, an attendant must be utilized to monitor employee safety when working in a piping system.
4. An Authorized employee must affix appropriate and effective lockout and/or tagout devices to each energy-isolating device. Lockout devices shall be affixed in a manner that will hold the energy-isolating device in a “safe” or “off” position. Tagout devices cannot be used when the equipment can accept locking devices except in rare circumstances when additional precautions are taken. Devices are to be affixed in such a manner that will clearly indicate that the operation or movement of energy isolating devices from the “safe” or “off” position is prohibited.
5. Where tagout devices are used with energy isolating devices designed with the capability of being locked, the tag attachment shall be fastened at the same point at which the lock would have been attached.

6. Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the device in a position that will be immediately obvious to anyone attempting to operate the device.
7. Lockout/tagout the energy isolating device(s) as required with assigned individual lock(s) and/or signature on the device.
8. Stored or residual energy, such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic system, air, gas, steam or water pressure must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, or any other approved method.
9. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate. Return operating controls to neutral or “off” position after verifying the isolation of the equipment.

Once the machine and/or equipment has been isolated, locked-out, properly tagged, and energy released or controlled, the repair, maintenance, or service can be initiated.

In situations where lockout devices must be temporarily removed from the energy isolating device or when an energy isolating device cannot be applied due to the need to operate the equipment during maintenance activities, the Authorized employee must maintain control of the energy sources at all times. If at any time during the maintenance activities the Authorized employee must leave the machine, all systems must be de-energized and energy control measures must be used.

The Authorized employee should determine the exposure status of individual group members. Each employee shall attach a personal lockout or tagout device to the group's device while he/she is working and then remove it when finished. The use of a group lockout device such as a lockbox or a department lockout device shall be used during shift changes which occur during the continued maintenance or servicing of equipment.

SEQUENCE OF LOCKOUT/TAGOUT REMOVAL

Prior to removal of lockout devices, authorized employees must inspect the work area to ensure that components are operationally intact and all nonessential items are removed.

Prior to removal of lockout devices, the work area must be checked to ensure that all employees have been safely positioned or removed.

Once the area and equipment have been inspected thoroughly, authorized employees can proceed to remove the lockout and tagout with the following steps:

1. Begin the lockout/tagout removal by starting at the most “downstream” switch or valve, checking to see that everything is in the “OFF” position or closed.

2. Remove all blanks and reconnect all pipes or air supply.
3. Remove all locks and tags.
4. Make sure all guards are in place, the work site is clean, all tools are removed, and all personnel are accounted for and in a safe position.
5. Refer to the Standard Operating Procedures for the correct start-up procedures and return the equipment to service.

PERIODIC INSPECTIONS

An Authorized employee, other than those involved in performing the procedure being inspected, will conduct periodic compliance of these procedures at least annually. Certification, signed by the Operations Manager authorizing the inspection will be completed to indicate the equipment on which the energy control procedure was utilized, the date of the inspection, the employees included in the inspection and the person performing the inspection.

RECORD KEEPING

Record keeping for employee equipment assignments shall be maintained by the Facility Operations Manager and Field Operations Manager and audited periodically.

CHAPTER 16

HAZARDOUS WASTE MANAGEMENT PROGRAM

Chapter 16 - Hazardous Waste Management Program

POLICY STATEMENT

The purpose of this procedure is to establish uniform methods for the management of hazardous waste at CSI's facilities and for the management of CSI-generated wastes at off-site customer's facilities.

It applies to all CSI employees who produce, handle, or dispose of hazardous waste and covers the proper management of the following waste streams: paint, solvent, and solvent soaked rags.

The wastes created by CSI on behalf of the customer as part of their contracted duties remain the responsibility of the customer unless otherwise negotiated.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the "Safety Rules", "Health and Safety Program" and, "Personal Protective Equipment Program" sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require. The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have individual and joint responsibility for implementing this program and record keeping.

PROGRAM ELEMENTS

Paint and Chemical storage

All paints and chemicals will be stored per manufacturer's recommendations for handling. Paints and chemicals in use or being stocked will be stored in a manner that minimizes the potential for spilling. Regular Facility and job site audits will take place to ensure that best management and housekeeping practices are being utilized to properly store materials and prevent spills.

Potential Project Waste Assessment

Prior to starting the project, the potential wastes, trash, and/or scrap materials will be identified and a plan made to properly dispose of scrap materials will be reviewed. Once determined, the disposal plan will be conveyed to the work team at the start of the project.

Paint Waste Management

Buckets containing waste paint must be dumped and scraped to RCRA empty (2% or less of original volume of liquid) by the close of business every day, without exceptions. A tote exists for 'Off-Site' project waste and 'On-Site' waste. These will be marked as such.

Once the waste paint is dumped and any excess is scraped into the paint tote, the bucket must be placed under the tarp to dry completely.

Any buckets containing paint waste waiting to be dumped must be covered by their cap and tarp provided. Under no circumstances shall open buckets of paint be left out uncovered.

Once the remaining paint material has dried, the empty bucket may be disposed as unregulated waste in the dumpster.

The lid on the paint waste tote must be replaced after the paint has been dumped. Unless you are adding paint to the tote, the lid must be kept closed.

The paint tote will be provided with a label identifying it as “Hazardous Waste”, providing an accumulation start date, and identifying the waste with the codes D001, F003, and F005.

Solvent Soaked Rag Waste Management

All rags used for painting, cleaning, detailing, etc. which are soaked in any of the solvents used at CSI are included in this procedure.

Solvents included are:

- MEK
- MS – 1
- MS – 2
- JB – 2

All solvent soaked rags used for production purposes shall not be set out and allowed to evaporate.

Approved containers have been provided at the facility and shall be used solely for the disposal of solvent soaked rags. These containers are metal, with self-closing lids, and are color-coded red. These containers shall also display a yellow and red “Hazardous Waste” label with the F005 waste code.

When you are done using the rag(s), dispose of them immediately into one of these approved containers.

The contents of these containers shall be emptied at the end of business every day into an accumulation drum located outside in the paint waste area.

The accumulation drum must be provided with a label identifying it as “Hazardous Waste”, providing an accumulation start date, and identifying the waste with the code F005.

Solvent Waste Management

All solvent waste created at the facility will be managed through the Uniram paint gun cleaning station equipped with a solvent recycling system.

All paint gun equipment is to be cleaned at the Uniram station. Under no circumstances shall open containers of solvent be used to soak and clean paint gun parts.

This process cleans the paint guns and moves excess solvents directly and through a closed system into the solvent recycler.

Any excess solvents shall be dumped directly into the solvent recycler and shall not be dumped into the paint tote.

There will be absolutely NO SMOKING around the area of the gun cleaning station and solvent recycler and a NO SMOKING sign shall be conspicuously posted.

Equipment Requirements

The paint tote station will be provided with Neoprene gloves, safety glasses with side shields, and a sturdy scraping mechanism for the paint scraping process.

The paint gun cleaning station will be provided with Neoprene gloves for handling equipment coming out of the cleaning process and for dumping spent solvent into the recycler. Safety glasses with side shields and chemical splash goggles will also be provided for eye protection.

Inspections

A trained CSI employee inspects the facility for malfunctions and deterioration, operator errors, and any spills or discharges which may be causing or may lead to the release of hazardous chemical constituents to the environment, or which may pose a threat to human health. The inspections are conducted weekly in an effort to identify problems in time to correct them before a significant potential to harm human health or the environment exists.

The time frame for corrective actions will depend on the nature of the problem. For problems which involve the possibility of an environment or human health incident, immediate corrective action will be taken. For minor problems, such as equipment malfunction, further use of equipment shall not take place until corrective actions have been taken.

Additional monitoring methods, beyond the routine visual inspections, are not used at the facility.

Spill Response

- Spill response materials will be stocked and properly maintained in all areas that spills may be anticipated.
- Employees shall receive training on spill prevention and proper response in the event of a spill as part of the company wide safety training.
- In the event of a spill that is deemed to exceed that of a minor designation, proper communication must be carried out as part of the response plan. The following communication should happen immediately following spills that are more than minor in nature:
 - Notify all employees within the immediate work area and ask them to leave the area until spill response has been completed.

- Notify the supervisor of the area that a spill has occurred that needs evaluation for response.
 - Notify the ERC (Emergency Response Coordinator) to evaluate and coordinate the appropriate response and resolution to the spill.
- NOTE: In the event of a spill that is an immediate threat to life or limb 911 should be called and utilized as the response.

Training

All CSI employees who produce or dispose of hazardous waste shall be trained on the requirements of this waste management procedure. This shall include:

- An annual refresher for all facility personnel in the hazardous waste regulations.
- Instruction of the applicable Colorado (Part 262 – Standards Applicable to Generators of HW) and EPA regulations.
- Contingency plan implementation.
- Employees will receive training within 6 months of hire. New employees will not work unsupervised until training is provided.

Training will be provided by Hellman & Associates, Inc., our Safety and Health Consultants, who are qualified to teach the hazardous waste management regulations.

CHAPTER 17

CONTINGENCY PLAN FOR INCIDENTS INVOLVING HAZARDOUS MATERIALS OR WASTE

Chapter 17 - Contingency Plan for Incidents Involving Hazardous Materials or Waste

POLICY STATEMENT

In order to reduce hazards to employees and property in the event of an incident involving hazardous materials or waste at its on-site (yard) or at off-site work areas, CSI has developed the following contingency plan. This program is used in conjunction with the CSI programs on Hazard Communication and Emergency Preparedness.

This plan will be implemented if a fire, explosion, or release of hazardous materials or waste which threatens public health or the environment occurs at 11905 E. 124th Avenue, Henderson, CO 80640 or at a CSI off-site project.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules Program”, “Health and Safety Program” and, “Hazard Communication Program” sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require. The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have joint and individual responsibility for implementing this program and record keeping.

Spill Reporting Amount

The predominant chemicals at the facility and used by our field workers off-site consist of fuels, paints, oils and solvents, and abrasive blast media. Although most are not acutely toxic to human health, CSI strives to prevent any health or environmental exposures. To this end, we ask that employees report all spills that enter the outside environment (soils, waterways, sewers, etc.) regardless of the quantity.

Spill Plan On-Site

Once a spill or leak is detected, immediate action must be taken with sorbent material from the facility’s spill kit to stop the spread of the spill. Once contained, supervisors or the Emergency Response Coordinator (ERC) will be notified immediately. Based upon the material and quantity involved, supervisors and/or the ERC will make the determination to clean the spill area or evacuate and allow emergency response personnel or a contractor to manage the spill.

This plan will not be implemented unless a spill creates an imminent or actual incident that could threaten human health or the environment. Supervisor and/or Emergency Response Coordinator will use professional judgment to determine whether to implement this plan. This judgment will

be based upon the toxicity, exact source, environmental exposure, amount and actual extent of the emergency.

Spill Plan Off-Site

If a field worker observes/creates a spill at a customer site, and the spill originates from a CSI equipment leak or employee activity, the CSI employee is to immediately assess the potential health and environmental hazards associated with the spill. Immediate action to contain the spill must be taken with any sorbent material in the truck's spill kit (if available) to stop spread of the spill. Contact the local contractor's contact as well as CSI supervision and provide the following information:

- Type of chemical
- Approximate amount of chemical spilled
- Area of the spill
- Any contamination of soils, water, vegetation, or sewers.

Once the spill is contained, the supervisor and Emergency Response Coordinator will make the determination as to whether or not CSI employees can effectively clean up the spill or if an outside contractor will manage the spill cleanup. A customer representative will be informed of the spill as soon as possible and may review the intended clean-up plan if they request to do so.

On-Site Evacuation

In the event of a release or spill-related emergency of sufficient severity to justify evacuation of the area, all personnel in the shop and/or paint huts shall evacuate the work area through the nearest exit. Employees working outside should evacuate via the safest pathway to the office trailer. Employees will be alerted by word of mouth or cell phone. In the event of fire, employees are directed to not use portable fire extinguishers or move vehicles or equipment prior to evacuation.

On-site employees will meet at the office trailer to take an accurate head count of all employees. The Emergency Response Coordinator is responsible for notifying the responding Fire/Rescue Incident Commander of any missing employees.

Off-Site Evacuation

In the event of a release or spill-related emergency of sufficient severity to justify evacuation of the area as determined by the customer or CSI personnel, all personnel in the work area shall exit to a safe area through the nearest exit. Employees shall meet at a safe location outside the affected area as directed in the customer's emergency response plan or as determined by on-site CSI personnel. In the event of fire, employees are directed to not use portable fire extinguishers or move vehicles or equipment prior to evacuation.

Additional Procedures

When the spill area is deemed to be safe to enter and as necessary, the following additional precautions should be taken during the spill response.

- Eliminate all sources of ignition (i.e. fork lifts, welding, grinders, generators, air compressors, etc.)
- All drains, sewers, and areas susceptible to spill runoff will be diked or covered with absorbent as a precaution.

- An approved open lid container should be available for storage of the spilled chemical and response cleaning tools. On-site, 55-gallon drums are available in the facility's storage yard area. If used, the container shall be marked with the chemical identity and any hazard warnings.
- Off-site, the appropriate containers will be procured as required to contain the collected waste.

Determination to Call an Outside Hazardous Materials Contractor

The determination to contact local emergency response personnel or an outside contractor to help handle an on-site or off-site hazardous materials spill will be based upon the following:

- Information obtained from the SDS on potential health/environment toxicity. *Unknown chemicals will require a contractor response;*
- Amount of the spill and the ability of the available spill kits to handle it;
- Customer input, if provided; and,
- Site requirements.

If the release of hazardous materials or waste cannot be contained by CSI personnel, notify the fire department and call SERVPRO 24/7 Emergency service at 1.800. 797.8776, or another qualified contractor. In the event of a hazardous material or waste spill or fire on-site, the hazardous material spill contractor and the Brighton/Henderson Fire Department.

In the event of a hazardous material or waste spill or fire off-site, dial 911.

Disposal

- The chemical and cleanup material should be properly stored according to applicable local, state, and federal regulations and, if off-site, customer requirements. Regulatory instructions may be found on the Safety Data Sheet (SDS).
- The Emergency Response Coordinator will be responsible for contacting an outside contractor for disposal of the waste.

Emergency Response Coordinator (ERC)

In case of a fire, explosion, or chemical release involving a hazardous material or waste, the Facility Operations Manager, or a qualified alternate, will act as the Emergency Response Coordinator (ERC). If you are unable to reach this individual, then contact one of the alternates.

Emergency Response Coordinators

Facility Operations Manager	303-880-9206 (cell)
Manager of Safety, Quality, & Training	303-518-1205 (cell)
Facility and Equipment Manager	303-868-7135 (cell)

On-site Coordinator Duties

The following is a listing of the Emergency Response Coordinator's duties during a fire, explosion, or chemical spill involving hazardous material or waste:

1. Available 24 hours a day to respond to an emergency within a short period of time.
2. Responsible for coordinating all emergency response measures.

3. Familiar with:
 - all aspects of the facility's contingency plan.
 - All facility operations and activities.
 - Locations and characteristics of wastes handled.
 - Location of all hazardous waste records within the facility.
 - Facility layout.
4. Authority to commit the resources needed to carry out the contingency plan.

Incident Report

At the completion of the spill response and clean-up, the safety committee will conduct an incident investigation. The investigation will focus on the root cause of the spill and recommend corrective actions. The report will use the CSI Accident Investigation form.

List of Emergency Equipment

The following is a list of the emergency equipment available on-site:

1. ABC rated 5, 10, and 20 lb. fire extinguishers throughout the site and on company commercial motor vehicles.
2. Spill kits containing adequate spill materials located a) in the NE corner of the shop, next to the paint gun cleaner, and b) on the hillside behind the storage tanks.
3. First aid kits restocked monthly in the paint booth building and office areas.

CHAPTER 18

LEAD CONTAINING MATERIALS WORK PROGRAM

Chapter 18 - Lead Containing Materials Work Program

POLICY STATEMENT

The purpose of this program is to protect the health of all employees exposed to lead, as well as the public and the environment, and to outline the management of lead containing materials removal and disposal at CSI. The information presented in this program represents minimum safety requirements. CSI's engineering controls and work practices are designed to reduce employee exposure to below the OSHA Action Level. This program establishes methods for complying with 29 CFR 1926.62 - OSHA's Lead Construction Standard. Project specific concerns will be addressed using the Project Specific Compliance Plan contained herein.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the "Safety Rules", "Health and Safety Program" and, "Personal Protective Equipment Program" sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require. The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, subordinates, have individual and joint responsibility for implementing this program and record keeping.

The Competent Person(s) will be in direct control of the implementation of this program for all assigned projects containing lead. The Competent Person is authorized to stop work when a serious hazard or any non-conforming coating removal operation is identified and must approve corrective action before work may be resumed.

CSI's policy is that no lead removal operations will be performed by Subcontractors. However, in any case where a subcontractor is working under the direct control of CSI on a project where lead-based paint removal activities are being performed, and employees may be exposed above the Action Level, the subcontractor must provide all manpower, supplies, equipment, training, and medical examination and testing necessary to comply with this program.

DEFINITIONS

Action Level - An OSHA occupational exposure limit (without regard to the use of respirators) for airborne contaminants. For lead, it is 30 micrograms per cubic meter of air ($30 \mu\text{g}/\text{M}^3$) for an 8-hour Time-Weighted Average (TWA). Employees whose exposure is above the Action Level for more than 30 days per year are required to be in a medical surveillance program.

Affected Employee- Any employee whose exposure is at or above the Action Level.

ALARA- As Low as Reasonably Achievable. CSI policy is to keep employee chemical exposure as low as feasible.

Competent Person – One who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions, and who has authorization to take prompt corrective measures to eliminate them.

HEPA- a High Efficiency Particulate Air Filter capable of filtering 0.3 micron particles with 99.97 percent efficiency.

Lead- Metallic lead, all inorganic lead compounds (e.g., laboratory reagents, solder), and organic lead soaps. All other organic lead compounds, such as tetraethyl lead, are excluded from this definition.

Lead Paint- Paint containing greater than 0.06 % (600 ppm) lead.

NIOSH- National Institute for Occupational Safety and Health. Federal agency which conducts research on safety and health issues and tests and certifies respirators.

Permissible Exposure Limit (PEL) - An OSHA occupational exposure limit (without regard to the use of respirators) for airborne contaminants. For lead, it is 50 micrograms per cubic meter of air ($50 \mu\text{g}/\text{m}^3$) for an 8-hour Time-Weighted Average (TWA). Exposure to airborne lead above the PEL triggers requirements such as housekeeping, engineering controls, showers, change and lunch rooms, area posting, personal protective equipment, and respiratory protection.

PPE - Personal Protective Equipment. Company provided safety equipment worn by employees; may include safety glasses, respirators, coveralls, blast hoods, etc.

TWA- 8-hour Time Weighted Average concentrations of airborne contaminants. This is the employee's average airborne exposure in any 8-hour work day. A formula is used to calculate the PEL if an employee is exposed to lead for more than 8-hours in any work day. The employees' allowable exposure to lead, as a time weighted average (TWA) for that day, is reduced according to the following formula:

$$\text{Allowable Employee Exposure in } \mu\text{g}/\text{m}^3 = \frac{400}{\text{Number of Hours Worked in the Day}}$$

$\mu\text{g}/\text{dl}$ - Micrograms per deciliter of whole blood. Common units for reporting concentrations of lead in blood samples. Also reported as $\mu\text{g}/100\text{g}$ (micrograms per 100 grams) of whole blood.

$\mu\text{g}/\text{m}^3$ - Micrograms per cubic meter of air. Common units for reporting airborne concentrations of lead.

HEALTH EFFECTS OF LEAD

Common symptoms of acute lead poisoning are loss of appetite, nausea, vomiting, stomach cramps, constipation, difficulty in sleeping, fatigue, moodiness, headache, joint or muscle aches, and anemia. Long term (chronic) overexposure to lead may result in severe damage to the blood-forming, nervous, urinary, and reproductive systems.

ACTION LEVEL

The Action Level refers to employee exposure, without regard to the use of respirators, to an airborne concentration of lead of $30\mu\text{g}/\text{m}^3$, calculated as an 8-hour time weighted average (TWA).

Whenever workers' airborne lead exposures exceed or are expected to exceed the Action Level, the following portions of this program are implemented for the work project:

- Competent Person
- Employee Information and Training
- Employee Medical Surveillance and Medical Removal Protection
- Initial and Periodic Exposure Assessment
- Record Keeping
- Regulated Areas

Exposures above the Action Level may be encountered where lead-containing coatings or paint are present, and the following activities are performed: abrasive blasting, cleanup of spent abrasives, containment movement and removal, spray painting with lead paint, manual scraping, manual sanding, power tool cleaning with and without dust collection systems, water jetting, chemical stripping, and heat gun applications. Some non-painting related activities that may result in exposures above the Action Level include: manual demolition of structures; welding, cutting, torch burning, or rivet busting; installation, removal or demolition of lead containing materials; lead burning; and lead contamination/emergency cleanup operations.

Hand washing facilities will be placed in near proximity to the work area on all jobs where employees are potentially exposed to lead at any level.

PERMISSIBLE EXPOSURE LIMIT

The Permissible Exposure Limit (PEL) for airborne lead exposure is $50\mu\text{g}/\text{m}^3$, as an 8-hour TWA concentration. This is the maximum 8-hour average concentration of lead that an employee may be exposed to during each work day. For work days longer than 8 hours, the PEL is reduced using the following formula:

$$\text{Permissible Exposure Limit} = (\text{PEL} \times 8) + (\text{hours worked in a day})$$

Whenever workers' airborne lead exposures exceed or are expected to exceed the PEL, without regard to the use of respirators, in addition to the requirements of Section 1.2 above, the following portions of this program are implemented for the project:

- Compliance Program
- Engineering/Work Practice Controls

- Respiratory Protection
- Protective Clothing and Equipment
- Hygiene Facilities and Practices
- Warning Signs
- Housekeeping Procedures

The following methods are used as feasible for maintaining airborne lead exposures below the PEL:

- Engineering controls to minimize dust generation during the coating removal process.
- Work practices, such as wearing protective clothing, using hygiene facilities, and effective housekeeping procedures.
- Respiratory protection is worn in work areas where the PEL may be exceeded.
- No eating, drinking, smoking, or chewing of tobacco products is permitted in work areas or anywhere that lead exposures may exceed the PEL.
- Hygiene facilities appropriately sized and positioned for use prior to entering any clean areas.
- Administrative controls such as job/shift rotation.

COMPETENT PERSON

The competent person is involved in both the planning and performance of projects where employee airborne lead exposures may exceed the Action Level.

The competent person is a designated employee with training, SSPC C3 and/or current SSPC C5 training certification, and experience in conducting jobs involving lead exposure. The competent person has the capability of identifying hazards and the authority to take immediate corrective action.

The competent person will be onsite during all activities that could result in exposures to lead. The competent person will fill a supervisory role on the project and will not perform hazardous paint removal operations or tasks that he/she is required to oversee.

The competent person will perform all required worksite inspections on a frequent and regular schedule for hazards or deficiencies and document those inspections accordingly.

EXPOSURE MONITORING

CSI (or its agents) determines worker exposures to lead through historical data or by instrument monitoring in order to establish the specific worker protection measures necessary for the project.

Note: Historical Data is seldom used as it must; be taken within the previous 12 months, have similar workplace conditions, environmental conditions, work practices, and the lead content of coating being removed must be essentially identical.

When previously collected sampling data of the same operations under similar conditions has conclusively determined that current job condition exposure levels will be less than the Action Level, initial exposure monitoring is not performed.

When previously collected sampling data of the same operations under similar conditions has conclusively established the exposure levels that will occur on the project, initial monitoring is not performed. Protection and work practices are implemented consistent with the pre-established exposure levels.

When conclusive historical monitoring data is not available, personal air samples are collected on a per-job basis to determine airborne lead exposures for employees performing tasks which may involve lead exposure. Representative air samples are collected for each job activity or worker classification. Sampling information is recorded, and a chain-of-custody form is completed to accompany the samples to the laboratory.

During sampling and assessment, worker protection will be provided in accordance with the table shown below. These protective measures include but are not limited to: protective clothing, training, change areas, medical surveillance and hygiene facilities and practices. Appropriate respiratory protection will also be provided based on the tasks being performed and the APF rating for the respirator.

Activity	Presumed Exposure Level
Manual demolition of structures (e.g., dry wall) Manual scraping Manual sanding Heat gun applications Power tool cleaning with dust collection systems Spray painting with lead paint	50 - 500 $\mu\text{g}/\text{m}^3$
Using lead containing mortar Lead burning Rivet busting Power tool cleaning without dust collection systems Clean-up activities where dry, expendable abrasives are used Abrasive blasting enclosure movement and removal	500 - 2,500 $\mu\text{g}/\text{m}^3$
Abrasive blasting Welding Torch cutting or burning	Above 2,500 $\mu\text{g}/\text{m}^3$

Where initial monitoring indicates that exposures are below the Action Level, and where work activities and conditions will remain the same as at the time of initial sampling, additional monitoring is not repeated for that work activity. In addition, the initial protective measures implemented can be discontinued, with the exception of the hand wash facility.

For projects where initial monitoring indicates that lead exposures are at or above the Action Level but below the PEL, additional representative exposure monitoring is conducted at least once every six (6) months for that work activity.

Where initial monitoring indicates that lead exposures are at or above the PEL, additional representative exposure monitoring is conducted at least once every three (3) months.

All air samples are collected and analyzed according to NIOSH Method 7082 or an equivalent method. All samples are analyzed by appropriate testing laboratories accredited by the American Industrial Hygiene Association (AIHA) for metals analysis.

All employees whose exposure is represented by the air monitoring results will be notified within five (5) days of receipt of results.

When the results indicate that employees will be exposed to lead above the PEL, a description of the corrective measures to be taken to ensure the employee is adequately protected will also be provided to all exposed employees.

BIOLOGICAL MONITORING

All employees who may be exposed to lead above the Action Level on any single day of the year are provided with initial biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin (ZPP).

Initial medical surveillance consisting of blood sampling and analysis for lead and zinc protoporphyrin (ZPP) are provided to all new employees who may be exposed at any time (1 day) above the Action Level. Periodic blood sampling and analysis is performed when any worker may be exposed to lead above the Action Level for more than thirty (30) days in any twelve-month period (e.g., per year).

All employees are removed from lead exposure above the Action Level due to elevated blood lead levels (at or above 50 µg/dl confirmed by a follow-up test within 2 weeks of the first), or at the recommendation of a physician

Removed employees may be reassigned to other job duties that do not involve exposure to lead above the Action Level. They are returned to lead exposure work above the Action Level only when their blood lead drops below 40 µg/dl, measured by two tests taken at least two weeks apart, or when the physician indicates that it is no longer necessary to limit exposure (when the removal was not caused by elevated blood lead levels). Coatings Unlimited, Inc. provides employees up to eighteen (18) months of medical removal protection benefits on each occasion that an employee is removed from exposure to lead. The benefits are provided for up to 18 months or as long as the job the employee was removed from continues and it is determined that they cannot be reassigned to other job duties that do not involve exposure to lead.

All exposed employees are notified in writing of the biological monitoring results within 5 days after receiving the results. When the results indicate that employees' BLL are above 40 micrograms per deciliter (µg/dl), CSI includes a description of the medical removal program procedures in the written notification.

Medical examinations are provided:

- At least annually for each employee for whom a blood sampling test conducted at any time during the preceding twelve months indicated a blood lead level at or above 40 µg/dl.

- As soon as possible, upon notification by an employee that he/she has developed signs or symptoms commonly associated with lead intoxication.
- The employee has demonstrated difficulty in breathing during a respirator fit test or during use.
- As medically appropriate for each employee either removed from exposure to lead due to a risk of sustaining material impairment to health, or otherwise limited pursuant to a final medical determination.

Content of Medical Examinations - Medical examinations may include:

- A detailed work and medical history with particular attention to past lead exposure (occupational and non-occupational), personal habits (smoking, hygiene), reproductive history and plans, and past problems involving the cardiovascular, nervous or digestive systems, liver, kidneys, blood, or lungs.
- A thorough physical examination with particular attention to the teeth, gums, heart, lungs, digestive system, liver, kidneys, blood, and nervous system.
- Pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV1) for employees required to wear a negative pressure respirator.
- Tests for blood pressure and resting heart rate.
- Blood sample and analysis for blood lead level, hemoglobin and hematocrit determinations, red cell indices, peripheral smear morphology, zinc protoporphyrin, blood urea nitrogen, and serum creatinine.
- Routine urinalysis with microscopic examination.
- Other examinations or tests deemed necessary by the examining physician.

All medical examinations are conducted by or under the supervision of a licensed physician.

All medical examinations are provided at no cost to the employee and at a reasonable time and place.

Records of medical examinations and tests are confidential medical records. Access to these records by employees, their designated representatives, or other parties, is according to 29 CFR 1926.33, Access to Employee Exposure and Medical Records.

CSI provides a copy of the examination and test results and the physician's written opinion to the employee within five (5) working days after its receipt.

CSI informs employees of the right to seek a second medical opinion after each occasion that an initial physician conducts a medical examination or consultation.

Medical records of examinations and tests are retained by CSI for the employee's length of employment plus thirty years.

Blood Lead Monitoring

Initial Blood Monitoring

Initial medical surveillance consisting of blood sampling and analysis for lead and zinc protoporphyrin (ZPP) are provided to all new employees who may be exposed at any time (1 day) above the Action Level.

After this initial monitoring, all employees who may be exposed at any time (1 day) above the Action Level for more than thirty (30) days per year are provided with blood lead and ZPP tests every six months thereafter, except as specified in the following section.

Follow-Up Blood Monitoring

For each new employee who may be exposed at or above the Action Level for more than 30 days in any consecutive twelve months, biological monitoring for blood lead and ZPP is provided at least every two months for the first six months of employment followed by testing at six-month intervals thereafter, except as specified in 10.13.2.2 and 10.13.2.3.

Employees with blood lead levels above 40 µg/dl but below 50 µg/dl are provided blood lead tests every two months until two consecutive blood lead levels are below 40 µg/dl. At that time, the frequencies return to six-month intervals.

Employees who are identified with a blood lead level at or above 50 µg/dl are provided with a follow-up blood lead test within two weeks. If the blood lead level remains at or above 50 µg/dl, medical removal is initiated (see 10.14), and blood lead testing is provided at least monthly until two consecutive blood lead levels are at or below 40 µg/dl. Six-month test frequencies are then resumed.

Employees are informed in writing of their blood test results within five (5) working days after receiving results. Employees whose blood lead levels exceed 40 µg/dl are informed in writing that they must be temporarily removed from lead exposure jobs and may be reassigned to other duties not involving lead exposure if their blood lead levels reach 50 µg/dl or greater.

Laboratory Analysis

Blood lead analysis is performed by laboratories approved by OSHA or licensed by the U.S. Center for Disease Control (CDC) and which have received a satisfactory grade in blood lead proficiency testing from the CDC in the prior twelve months.

Medical Removal Program

Employees with blood lead levels at or above 50 µg/dl are temporarily removed from any work where airborne lead exposure may exceed the Action Level. They may be assigned to other duties on-site or at a location where there is no lead exposure above the Action Level.

If employees cannot be assigned to other duties that do not result in lead exposure, CSI provides employees up to eighteen (18) months of medical removal protection benefits on each occasion that an employee is removed from a work site due to exposure to lead resulting in an elevated blood lead level or a final medical determination. The benefits are provided in accordance with

29 CFR 1926.62. The employee benefits remain in effect as long as the job the employee was removed from continues (up to eighteen months). The benefits end when the employee is approved to return to work in accordance with Section 10.14.5 below.

Employees determined by a physician to be at increased risk of health impairment from exposure to lead are also temporarily removed from any work where airborne lead exposure may exceed the Action Level. Coatings Unlimited, Inc. implements and acts consistent with the physician's recommendations for any special protective measures or lead exposure limitations for the employees.

Any employee temporarily removed from lead exposure activities due to elevated blood lead levels or a physician's recommendation is provided with blood lead tests at least monthly.

Employees temporarily removed from lead exposure activities are returned to their normal lead exposure duties after two (2) consecutive blood lead tests indicate that blood lead levels are at or below 40 µg/dl, or when the physician indicates it is no longer necessary to limit exposure (for those workers removed due to a medical determination rather than elevated blood level).

ENGINEERING, ADMINISTRATIVE & WORK PRACTICE CONTROLS

CSI utilizes engineering, administrative and work practice controls to reduce employee exposures to the lowest feasible level.

When high levels of lead dusts are generated, ventilation systems are used. Alternate methods of control are considered and may involve the use of wet removal methods to minimize dusting, vacuum shrouded tools, or others. Decisions are based upon contract requirements, quality of surface preparation and productivity required, effectiveness of the control of lead emissions, and other project-specific considerations.

When mechanical ventilation systems are used to control lead exposures, CSI evaluates the performance of the system to maintain its effectiveness in accordance with the following information:

Visual Inspection

Visual inspections may include periodic assessments of the following items:

- Inspecting the inside of the ductwork for clogging or plugging by material.
- Inspecting ductwork for deterioration.
- Inspecting flexible ductwork for excessive bends or elbows.
- Checking exhaust fan conditions including the fan belt.
- Checking exhaust system filters.
- Inspecting make-up air louvers, baffles, or flap seals.
- Verifying that containment tarps are in good condition.
- Verifying that joints are sealed tightly where containment tarps are connected (to each other and to the structure being painted).
- Inspecting the containment for signs of leakage or evidence of lapse in negative pressure (e.g., walls not concave).

Air Velocity Measurements

Measurements of air velocity are made with velometers inside the containment for comparison with accepted or design criteria. Velometers are used in accordance with the manufacturer's instructions.

Since air velocity through a containment is not uniform, several measurements are made in equal sub-sections of the cross-sectional area. These air velocity measurements are averaged and multiplied by the cross-sectional area at the point of measurement to determine the total volume of air exhausted in cubic feet of air per minute (cfm). This data is then compared to design criteria to assess the exhaust system effectiveness.

In the event that measured air velocities or calculated total exhaust air volumes are detected significantly below the design, work activities are immediately stopped until corrective measures are implemented.

Static Pressure Measurements

Visual inspection will include assessment of collapsed tarpaulin material or using smoke bombs or tubes (recognizing effects of wind direction and speed).

Periodic measurements of static pressure may also be completed using a magnehelic gauge to assess negative pressure inside the containment in accordance with SSPC Guide 6. Static pressure measurements may also be used to identify malfunctioning equipment, clogged ducts, dirty or broken filters, and damaged exhaust system components.

In the event negative pressure is lost or degraded, work activities are immediately stopped until corrective measures are implemented.

Reporting & Record Keeping

The results of the visual inspections and instrument verifications will be appropriately documented by the CP. Records will be maintained for the length of the project plus three (3) years.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Respiratory Protection

Respirators are worn by all CSI employees who may be exposed to airborne lead at or above the Permissible Exposure Limit.

The selection, use, maintenance, and inspection of respirators is performed according to Chapter 7-Respiratory Protection Program.

Respirators are provided in work situations: a) during the exposure assessment until the results of the assessment are received, b) engineering controls and work practices are not sufficient to reduce exposures to below the PEL, and c) whenever an employee requests a respirator.

Respirator Selection

- Respirators are selected from those approved for protection against lead aerosols (dusts, mists, and fumes) and tested by the National Institute for Occupational Safety and Health.
- Selection of the proper respirator is based upon the known or expected concentration of airborne lead, the need for eye or face protection, the presence of any other hazardous gases, vapors, dusts, mists, or fumes, potential heat stress, and the need for worker mobility, visibility, and communication. In every case, the respirator selected for use is one that will maintain employee's actual inhalation exposures below the PEL.
- Selection of the proper respirator for a specific job is based upon the guidelines contained in this program and other reliable and accurate information sources regarding lead and respiratory protection. Assistance is obtained, as necessary, from other qualified industrial hygienists or respiratory protection specialists.

Contaminated respirator cartridges are disposed of as hazardous or nonhazardous, as appropriate.

Additional PPE

Protective clothing and equipment are worn by all employees whose airborne lead exposures may exceed the PEL. Protective clothing and equipment are provided at no cost to the employee.

Protective clothing includes washable or disposable work clothing and/or full body coveralls. Other protective equipment includes eye protection, face shields, hats, gloves, shoes or disposable shoe covers, and hearing protection, as appropriate.

Clean work clothes are provided daily to employees whose airborne exposure levels (without regard to use of a respirator) are over 200 µg/m³ of lead as an 8-hour TWA. Employees whose exposure levels are less than 200 µg/m³ are provided clean work clothing at least weekly.

Disposable protective clothing is used for no more than one work day. It is disposed of as hazardous or non-hazardous waste as appropriate.

Clothing is collected at the end of each work day in closed bags or containers. Reusable clothing which is contaminated with lead is cleaned according to applicable federal, state, or local regulations pertaining to lead-contaminated laundry and water discharge. If the clothing is not washed on site, it is sent to an authorized laundry.

All containers of lead-contaminated laundry are labeled as follows:

DANGER: CLOTHING AND EQUIPMENT CONTAMINATED WITH LEAD MAY DAMAGE FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM. DO NOT EAT, DRINK OR SMOKE WHEN HANDLING. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

Lead-contaminated clothing, shoes, shoelaces, hard hats, gloves, or equipment do not go home with any employee unless decontaminated at the end of the project. Removal of any

contaminated items from the site by any employee is strictly prohibited. HEPA vacuums or wet methods may be used to clean worker's personal items before leaving the site.

HOUSEKEEPING

Employees are not permitted to remove lead-containing dust from protective clothing or equipment by blowing, shaking, or by any other means which disperses lead into the air, unless removal is performed inside of the containment with the ventilation system operational.

HEPA equipped vacuum cleaners are used for cleaning heavy dust contamination from protective clothing and equipment. HEPA vacuum cleaners and/or wet methods are used to maintain good housekeeping practices in the change areas and designated eating areas.

The use of compressed air for cleanup around the work area is strictly prohibited.

CSI prohibits the use of compressed air for cleaning in the work area, unless it is used in conjunction with a ventilation system.

PERSONAL HYGIENE FACILITIES & PRACTICES

All employees whose airborne lead exposures exceed the PEL wear coveralls into work areas to prevent any contamination of personal clothing or are provided with separate work clothing which allows the employee to work without wearing street clothing beneath.

Clean change areas are provided for all projects where employee airborne lead exposures may exceed the Permissible Exposure Limit. The clean change areas are equipped with storage facilities for street clothing and a separate area for the removal and storage of lead contaminated clothing and equipment. The change areas are designed and used so that contamination of street clothing does not occur. Airborne lead exposures in the change area are maintained below the Action Level.

When employee lead exposures exceed the Permissible Exposure Limit, shower facilities are provided where feasible. Shower facilities comply with the requirements of the OSHA Sanitation Standard ((29 CFR 1926.51). When showers are provided, all employees whose airborne lead exposures exceed the PEL shower at the end of each work shift. Shower facilities are provided with hot and cold running water. Where showers are not feasible, the employer shall assure that employees wash their hands, face and hair at the end of the work-shift.

Hand wash facilities are made available on all jobs involving potential exposure to lead. Hand wash facilities are placed in near proximity to the work site and are equipped with running water, cleansing agents and towels. In addition to washing, all employees remove or clean their protective clothing by vacuuming before eating, drinking or smoking.

All employees exposed to any amount of lead on the job thoroughly wash their hands, face and forearms before eating, drinking, or smoking, and at the end of each work shift.

Eating, drinking, smoking, or chewing tobacco are prohibited in work areas and in any area where lead exposure may exceed the PEL.

TRAINING

All employees who work on projects where airborne lead exposures are known to be or expected to be at or above the Action Level on any single day are provided information and training on the hazards of lead and measures for controlling these hazards and protecting their health.

Employees receive initial comprehensive lead training before performing work that may involve airborne lead exposure. This training is repeated annually as a refresher course.

The content of lead training includes:

- An overview of the OSHA Construction Industry Lead Standard and the adverse health effects of lead, with particular emphasis on reproductive hazards.
- The specific nature of the operations which could result in exposure to lead above the action level.
- The purpose, proper selection, fitting, use, and limitations of respirators.
- The purpose and a description of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead (with particular attention to the adverse reproductive effects on both males and females, hazards to the fetus and additional precautions for employees who are pregnant).
- The engineering controls and work practices associated with the employee's job assignment, including training of employees to follow relevant good work practices.
- The contents of any compliance plan in effect.
- Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.
- The employee's right of access to records under 29 CFR 1910.20.
- Training in site-specific issues, including but not limited to:
 - Review of operations expected to have exposures greater than the Action Level.
 - Review of operations expected to have exposures greater than the Permissible Exposure Limit.
 - Review of the engineering controls to be utilized on the project.
 - Review of the work practices and decontamination procedures to be utilized on the project.
 - Review of the personal protective equipment (PPE) associated with specific job assignments.
 - Training records of all employees are maintained and kept on file.

SIGNAGE

Warning signs are posted around work area activities where lead exposures may exceed the Action Level (NOTE: this exceeds the OSHA mandate for signs at the Permissible Exposure Limit). The work areas are demarcated by ropes, tape, walls, containments, or other visible means, and are designated as regulated area or zones.

The signs are posted in locations that are easily visible from a distance, enabling employees or bystanders to take necessary protective measures before entering the work area.

Signs will read as follows per CFR 1926.62:

**DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR SMOKE IN THIS AREA**

The Competent Person controls access of persons into work areas.

Persons entering work areas where warning signs are posted must comply with the requirements of this or a comparable program and wear appropriate protective clothing and respirators.

All production process equipment or containers containing lead (e.g. grit recyclers, dust collector, HEPA vacuums), except for containers labeled as hazardous waste, are labeled with the following:

DANGER: CLOTHING AND EQUIPMENT CONTAMINATED WITH LEAD. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM. DO NOT EAT, DRINK OR SMOKE WHEN HANDLING. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

OBSERVATION MONITORING

CSI provides affected employees or their designated representatives (assuming adequate training, medical surveillance and PPE are documented) an opportunity to evaluate the monitoring of the lead exposures. The employee or designated representative is entitled to an explanation of the monitoring procedures, an opportunity to observe all steps related to the monitoring and record the results obtained or receive copies of the results when returned by the laboratory.

PROJECT SPECIFIC REQUIREMENTS

The specific worker protection requirements for each lead removal project are determined by CSI in accordance with this program and project specifications. A site-specific lead compliance plan will be developed for each work operation involving lead containing materials. A template for this compliance plan is located at the end of this chapter.

Each site-specific lead compliance program is reviewed and updated at least annually.

RECORDKEEPING

All records relating to training, medical examinations, blood lead monitoring, exposure monitoring, and project specific requirements are maintained by CSI for the employees' length of employment plus 30 years.

FORMS

All forms are located at the end of this manual.

Project Specific Lead Compliance Plan for CSI, Inc.

CHAPTER 19

COMPANY FLEET VEHICLE PROGRAM

Chapter 19 - Company Fleet Vehicle Program

This Assigned Company Vehicle Policy form must be completed and on file prior to use of a company vehicle, no exceptions. If you are assigned a vehicle and intend to allow another employee to use the vehicle, make sure they have also completed this form, performed a Vehicle Condition Report to transfer custodial responsibility, and received approval from your direct supervisor or manager before allowing someone to drive.

Any driver of a company vehicle (or driving on company business in any manner) must meet the following requirements:

- Possess a valid driver's license
- Maintain an acceptable driving record
- Follow the guidelines stated in this policy at all times

USE OF VEHICLE

You are the assigned custodian of a Coblaco company vehicle primarily to assist you in your job. Company vehicles are to be used for business purposes only. Written permission must be obtained from Coblaco Executive Leadership before you are allowed to use your company vehicle for personal use. Personal use without prior permission will not be tolerated and could result in termination.

Loaning the vehicle to friends, neighbors, relatives or anyone else is in violation of company policy.

From time to time, you may have a need to carry business associates or customers; however, transporting strangers or hitchhikers is a violation of company policy.

VEHICLE CARE

Use of a company vehicle for transportation is a privilege that you should not take for granted. You, as the assigned custodian, are responsible for the assigned equipment/vehicle's:

- Cleanliness;
- Condition;
- Maintenance; and
- Operation.

All company-provided vehicles are designated as "non-smoking" areas. You are expected to keep your vehicle in a clean, well-maintained condition at ALL times. It is not acceptable to blame our work environment on the condition and care of our equipment.

Periodic cleanliness inspections shall be conducted by the Facility Equipment Manager or designee. A clean vehicle not only makes a good impression on customers, it preserves the value of Coblaco equipment.

TIRE CARE AND REPLACEMENT

Tire mileage is directly proportional to driver techniques, alignment, tire pressure and wheel balance. All of these factors are under your control. Tire pressures must be checked regularly (and kept at a PSI level as designated in the vehicle manual or as designated on the inside door panel of the vehicle) and tires visually inspected. Alignment and wheel balance problems must be corrected immediately to avoid drastic tire wear.

MAINTENANCE AND REPAIR

Neglecting to maintain a vehicle could result in the driver being charged for any resulting repairs. Unusual wear and tear above industry average or the failure to maintain your company-provided vehicle may result in the loss of your company assigned vehicle and further disciplinary action at the discretion of Coblaco's Executive Leadership.

It is the driver's responsibility to have the scheduled maintenance performed at the designated intervals to ensure maximum vehicle performance for safety, operating efficiency and extended life of the vehicle. If there is any question regarding the scheduled maintenance, check with the Equipment Manager. Examples of scheduled maintenance follow:

- Changing oil according to manufacturer's suggested maintenance schedule
- Keeping tires inflated to the proper PSI rating
- Having tires rotated with each oil change
- Frequently inspecting belts and hoses for cracks, leaks or loose fittings

Driver safety checklists should be performed prior to each use. Drivers should additionally inspect all safety-related equipment, including headlights, taillights, brake lights, turn signals, running lights, license plate lights, etc.

Also, check tire tread for proper tread depth, windshield wipers and horn operation.

FEDERAL MOTOR CARRIER SAFETY REGULATIONS

Maintain records of all maintenance performed on vehicles in accordance with Federal Motor Carrier Safety Regulations, Part 396 (Inspection, Repair and Maintenance). A separate file for each vehicle should be maintained to document the repair and maintenance history of each vehicle.

Vehicles subject to Federal Motor Carrier Safety Regulations (DOT vehicles) should have written pre-trip and post-trip safety inspections by the driver according to Part 396.11.

ACCIDENTS

A valid insurance card and vehicle registration shall be carried in the vehicle at all times. In the event that you are involved in an accident, please follow these instructions:

1. Remove yourself from harm's way, then notify your manager immediately
2. When an accident involves another vehicle, obtain the following information:
 - Driver's name (and owner's name if different from the driver)
 - Address
 - Telephone number

- Name of insurance company and policy number
 - VIN, vehicle year, make and model
 - Vehicle license plate number
3. If possible, obtain names, addresses and telephone numbers of any witnesses, including name, badge number, department name and address of any investigating law enforcement agency.
 4. Identify yourself and show your driver's license and insurance identification card. Do not discuss insurance policy. Do not assume the blame for the accident and, above all, do not agree to any settlement.
 5. Cooperate with the investigating law enforcement officers. Answer their questions factually and avoid commentary beyond that. Do not insist that a citation be issued to the other operator. Despite your opinion, the officer may be trying to decide responsibility for the accident and an overly aggressive attitude on your part may result in a decision against you. In a given situation, the officer might ask if you want a citation issued to the operator. If so, answer in the affirmative and explain that this is your company's preference.
 6. Note if there are any injuries reported by anyone involved in the accident.
 7. If an adjuster or any other representative from the other driver's insurance company contacts you for a statement (either written or recorded), refer that person to Coblaco Services' Management.
 8. If you are found to be under the influence of drugs or alcohol at the time of the accident, regardless of whether you are found at fault or not, your employment will be terminated.

TRAFFIC AND PARKING VIOLATIONS

Fines for parking or moving violations are the personal responsibility of the assigned operator. The company will not condone nor excuse ignorance of traffic citations that result in court summons being directed to itself as owner of the vehicle.

Each driver is required to report all moving violations to their immediate supervisor within 24 hours. This requirement applies to violations involving the use of any vehicle (company, personal or other) while on company business. Failure to report violations will result in appropriate disciplinary action.

Please be aware that traffic violations incurred during non-business (personal use) hours will affect your driving status as well and are subject to review. Each driver is responsible for prompt payment of any fine incurred as a result of unlawful operation or illegal parking of the company vehicle. If an unpaid fine reaches judgment status, the fine plus a \$50.00 penalty will be deducted from your paycheck.

Minor violations

Three minor violations within a 12-month period or five minor violations during a three-year period could have the potential to result in loss of company-provided vehicle and losing the privilege of driving for/on company business, in any manner. It may also subject the driver to further disciplinary action, including possible employment termination. Examples of minor violations include, but are not limited to:

- Speeding less than 25 mph over the limit
- Failure to wear a seat belt
- Failure to stop at a stop sign or stop light

Major violations

If you receive a major driving violation conviction, it will result in loss of your company-provided vehicle and you will lose the privilege of driving on company business in any manner. It may also subject you to further disciplinary action, including possible employment termination. Examples of major violations include, but are not limited to:

- Driving under a suspended or revoked license
- Texting while driving
- Hit and run or leaving the scene of an accident
- Vehicle theft due to negligence; including failure to park the vehicle in a secure, well-lit area or parking garage, failure to lock doors, leaving keys in plain view, or leaving a vehicle running while unattended
- Vehicular manslaughter, homicide or assault arising out of the operation of a motor vehicle
- Use of false motor vehicle documents, such as license or registration
- Failure to obey school crossing guard or any school bus violation
- Passing on the wrong side, on a hill or where prohibited
- Reckless, careless or negligent driving
- Driving on the wrong side of a divided highway
- Participating in racing or a speeding contest
- Driving while under the influence of alcohol, even if under the legal limit, driving while intoxicated at the legal limit or above, and/or driving while under the influence of drugs, whether prescription drugs or any controlled/illegal substances
- Speeding more than 24 mph over the limit
- Eluding a police officer
- Failure to keep an acceptable motor vehicle record

Company-provided vehicle privileges or driving on company business in any manner may be reinstated after 12 months from the date of loss of privilege, provided a clean driving record (no moving violations or at-fault accidents) has been maintained, at the discretion of Coblaco Services' Management.

SAFETY

It is company policy that seat belts be used at all times, not only by the driver but by all passengers as well. Drivers are prohibited from overloading and/or overcrowding a vehicle that

may result in unsafe operation. It is the guideline to not carry more passengers than the number of occupant safety restraint systems in the vehicle. Drivers are responsible for wearing and enforcing the use of safety restraints by all occupants.

- Driving is a full-time job. Avoid all distractions. Concentrate on the other driver by assuming that person will not do what is expected.
- Roads are crowded. Consider all vehicles as potential accidents looking for a place to happen.
- Beware when entering intersections. Always count to two before entering an intersection from a stoplight or stop sign.
- Signal entry onto freeways and stay in the center or inside lane for ease of emergency maneuvering.
- Do not insist on the right-of-way. Assume the other driver will.
- During winter driving, use caution as bridges and overpasses are slippery and will freeze before roads do, since they lack the warmth of the ground under them.
- Drivers must operate a vehicle only at a speed appropriate to the road, traffic and weather conditions.
- Loose items that could be blown out of pickup boxes or off the trailer should be secured before driving the vehicle.
- Prior to backing a vehicle with a trailer, a large truck or tractor/trailer, the driver should get out of the cab and assess the area into which the vehicle is to be backed. Look for obstructions such as low hanging electrical wires, tree branches, parked cars, pedestrians or people in the area, and any potential for traffic to pass behind while backing. Roll down the window and turn off the air conditioner and radio while backing so any warning sounds can be heard. Try to obtain a “spotter” to help back into the space.
- Use turn signals for parking, lane changes, and all turns in shopping and office center parking lots.
- Always keep a full level of windshield washer solvent.
- Before night driving, wipe off your headlights.
- If you are wondering whether or not you should turn on your headlights, turn them on.

CELL PHONE USAGE

- Keep cell phone and blue tooth off while the vehicle is moving.
- Allow voicemail to handle your calls and return them when safe.
- If you need to place or receive a call, pull off the road to a safe location and stop the vehicle before using your phone.
- Ask a passenger to make or take the call.
- Inform regular callers of the best time to reach you based upon your driving schedule.
- Under no circumstances is texting while driving allowed.

Any accident resulting from negligence due to phone or hands-free device usage will be subject to the at-fault conditions as described in the accident section of this manual.

MOTOR VEHICLE RECORD CHECK

Continued eligibility to drive a company-provided vehicle, or driving on company business in any manner, requires each driver to maintain a safe and clean driving record. This means that Coblaco Services, Inc. reserves the right to review driving records at least once every year.

OTHER COMPANY POLICIES

Firearms or other weapons are not allowed on owned or leased company premises including company vehicles. Possession of weapons on company property by anyone other than a licensed law enforcement officer is grounds for termination.

Drivers are not to transport any hazardous material or waste in company vehicles or in any vehicle while on company business unless such hazardous materials are ordinarily handled by the company as part of normal business operations. Non-hazardous materials transported in a company vehicle, or in any vehicle while on company business that may potentially cause injury because of sudden impact must be properly secured.

Employees using personal vehicles on behalf of the business should provide a certificate of insurance from their personal auto carrier with minimum limits of \$100/300/100 or \$300,000 CSI.

Vehicles should be locked when parked on the premises, job sites, stopping temporarily such as at convenience stores, or anytime that the vehicles are left unattended.

Under no circumstances should radar detectors, laser detectors or any other radar-detecting devices be used in a company vehicle.

If you are negligent in the care of a company-provided vehicle resulting in financial loss or excessive repair, we will charge back to you the fair market value of that cost.

FORMS

All forms are located at the end of this manual.

Company Vehicle Policy Form

CHAPTER 20

EXCAVATION & TRENCHING PROGRAM

Chapter 20 - Excavation & Trenching Program

POLICY STATEMENT

It is not the policy of CSI employees to engage in excavation or trenching operations. In all cases where these construction activities are necessary, CSI will subcontract to other contractors who are established in excavation and trenching operations.

RESPONSIBILITIES

Underground installations and utilities must be located prior to any excavation. CSI or its subcontractor shall call Colorado 811 or the local One Call Locates phone number prior to all excavations.

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require. The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have joint and individual responsibility for implementing this program and record keeping.

PROGRAM ELEMENTS

Employee Awareness

Company employees will be trained to the excavation and trenching awareness level. Training will include the definition of an excavation, trench and protective system, the different soil types, access and egress requirements, protective system designs and the requirements of trench inspections.

CSI employees working in or around excavations shall request, from the contractor, or excavating personnel on-site, the location and related information, including potential hazards concerning buried utility lines located in the vicinity of the work.

Excavation Components:

- Excavation – any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.
- Trench – a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m). If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet (4.6 m) or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

- Protective system – method of protecting employees from falling into the excavation themselves as well as protecting them from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.
- Each soil and rock deposit will be classified by a competent person as Stable Rock, Type A, Type B, or Type C soil.

Means of egress from trench excavations such as a stairway, ladder, ramp or other safe means of egress will be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.

Where workers or equipment are required or permitted to cross over excavations over six feet in depth and wider than 30 inches, walkways or bridges guardrails shall be installed.

Protection of employees is required for any trench that is 5 feet or more in depth or when the competent person deems it is necessary for the protection of employees in shallower trenches. Protective systems consist of sloping or benching the soil or providing trench shielding or shoring in accordance with 29 CFR1926 Subpart P.

Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person **prior to the start of work** and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

Adequate means including drainage, pumps or other systems must be used to keep water from accumulating in the bottom of an excavation.

When exposed to vehicular traffic, the employees shall be provided reflective vests, cones, flaggers and other safety devices and personnel to control and minimize the exposure.

Employees shall not work under loaded booms or buckets of digging or material handling equipment.

Employees working in or around excavations shall request from the contractor, or excavating personnel on-site, the location and related information, including potential hazards, concerning buried utility lines located in the vicinity of the work.

CHAPTER 21

CRANES AND RIGGING EQUIPMENT

Chapter 21 - Cranes and Rigging Equipment

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the OSHA Standard for cranes and rigging equipment. All CSI personnel shall adhere to the requirements of this program.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules”, “Health and Safety Program” and, “Personal Protective Equipment Program” sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require. The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have joint and individual responsibility for implementing this program and record keeping.

OPERATIONS

CSI will comply with the manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks. Where manufacturer's specifications are not available, the limitations assigned to the equipment will be based on the determinations of a qualified engineer who is trained to make such determinations. These determinations will be appropriately documented and recorded. Attachments used with cranes will not exceed the capacity, rating, or scope recommended by the manufacturer.

Crane Requirements

CSI operates a mobile truck crane with a capacity of 3 tons which meets the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5-1968, Safety Code for Crawler, Locomotive and Truck Cranes.

Rated load capacities, recommended operating speeds and special hazard warnings or instructions are conspicuously posted on all equipment. Instructions and warnings shall be visible to the operator while he/she is at his control station. No modifications or additions to the crane or equipment are authorized unless made only with the manufacturer's written authorization.

Inspections of the crane are completed by the designated competent person who is a qualified crane operator. Any deficiencies are corrected before the crane is placed in service. This inspection is conducted prior to the crane being used. A thorough annual inspection is completed

by an outside source competent in crane inspections. The inspection record is maintained on file at the main office. These records are maintained by the Field Operations Manager.

At no time is the crane to be operated where toxic levels of exhaust gases or an oxygen deficient atmosphere can accumulate to dangerous levels.

A fire extinguisher is immediately available to the crane operator. The fire extinguisher is rated a 5BC and is located in the cab of the crane.

Hand signals – All hand signals will conform to the requirements of the applicable ANSI standard and will be visible to the rigger and crane operator. Only trained and qualified employees will provide hand signals to the crane operator.

Operators must meet the physical qualifications, pass a physical, a written examination, and understand and be able to use a load chart as well as calculate loads for the crane type.

RIGGING REQUIREMENTS

Rigging equipment will be inspected to ensure it is safe. Rigging equipment for material handling will be inspected prior to use on each shift and as necessary during its use to ensure that it is safe. Upon inspection, if defective rigging is identified, it will be removed from service and discarded or repaired by a qualified company. At no time will employees be authorized to “repair” any rigging or component thereof.

Rigging equipment in use includes synthetic straps, chain, wire rope, nylon rope, shackles, hooks and load securing devices. Rigging equipment will not be loaded beyond the rated capacity. All equipment not in use will be removed from the immediate work area so as to reduce the tripping hazards.

Tag lines will be used unless they create a greater hazard themselves. Tag line training will be conducted for employees involved in crane operations.

Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be of a type that can be closed and locked, eliminating the hook throat from opening accidentally.

All employees shall be kept clear of loads about to be lifted and of suspended loads. Employees will not turn their backs on loads that are lifted or ready to be lifted.

CHAPTER 22

HYDROGEN SULFIDE (H₂S)

Chapter 22 - Hydrogen Sulfide (H₂S)

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the OSHA Standard for H₂S. All CSI personnel shall adhere to the requirements of this program.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules”, “Health and Safety Program” and, “Personal Protective Equipment Program” sections.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have individual and joint responsibility for implementing this program and record keeping.

PROCEDURES AND TRAINING

Hydrogen Sulfide (H₂S) is toxic, colorless gas, with the odor of rotten eggs at low concentrations, is soluble in water, contains toxic by-products and is flammable.

H₂S health effects include eye irritations and affects the nerve centers of the brain which control breathing respiratory issues.

The methods of detecting H₂S include the use of fixed or portable monitors which will alarm at the appropriate permissible exposure limits of 20 PPM for General Industry or 10 PPM for the Construction Industry.

Approved self-contained breathing apparatus or airline respirators with escape SCBA are the only respiratory protection authorized to be used in an environment that is contaminated with H₂S.

Employees must be trained on the owner’s contingency plan provisions. Should the alarm sound, all employees are to immediately evacuate the area and muster at the designated gathering place.

Employees may be exposed to H₂S during their job functions in the following areas:

- Drilling operations;
- Recycled drilling mud, water and hydrocarbon liquids from sour crude wells, and blowouts;

- Tank gauging (tanks at producing, pipeline & refining operations);
- Field maintenance of production and/or processing facilities; and
- Tank batteries, wells and associated wellhead equipment.

CHAPTER 23

BLOODBORNE PATHOGENS

Chapter 23 - Bloodborne Pathogens Program

GENERAL COMPANY POLICY

The purpose of this program is to establish that CSI complies with the OSHA's 29 CFR 1910.1030, Bloodborne Pathogens standard.

CSI has determined that its workers are not normally exposed to blood or bloodborne pathogens. As a result, the company has determined that only some projects need to comply with all aspects of OSHA's Bloodborne Pathogen standard. Many job sites are located where rapid emergency response services are readily available. OSHA has long interpreted that emergency care must be available within no more than 3-4 minutes from the workplace. If a site is more remote than this, at least two first aid trained employees are required to be on-site.

If any blood or other potentially infectious material needs to be cleaned up after an incident, then a qualified subcontractor will be hired.

First aid classes have been provided to employees. Bloodborne pathogen awareness training will be provided by the first aid training service provider if first aid training is required by the site. Voluntary training is also available to employees.

RESPONSIBILITIES

The Safety Coordinator is the Bloodborne Pathogens Program Coordinator and is responsible for coordinating the development and review of program elements, content and employee training.

The CSI Safety Consultant will assist in the oversight of the implementation of this plan.

The Facility Operations Manager and Field Operations Manager, through subordinates, have individual and joint responsibility for implementing this program and record keeping.

SCOPE

This program covers any and all operations and processes that involve work or potential contact with human blood and other potentially infectious materials (OPIM) as defined in the OSHA standard.

DEFINITIONS

Bloodborne Pathogens (BBP) are microorganisms present in blood that can cause disease in humans including, but not limited to, hepatitis B (HBV), and human immunodeficiency virus (HIV).

Other Potentially Infectious Materials (OPIM) are human body fluids including; semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures and any bodily fluid that is visibly contaminated with blood.

Contaminated means the presence or reasonably anticipated presence of blood or OPIM.

Sharps are any object(s) that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes and exposed ends of dental wires.

Decontamination means to use physical or chemical means to remove, inactivate or destroy BBP on a surface or item.

Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties.

Occupational Exposure means any reasonably anticipated skin, eye, mucous membrane or other parenteral contact with blood or OPIM that may result from the performance of an employee's duties not considering the use of personal protective equipment.

Parenteral means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites or scratches, cuts, abrasions, etc.

Regulated Waste is liquid or semi-liquid blood or OPIM, contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed, items that are caked with dried blood or OPIM and are capable of releasing them during handling and contaminated sharps.

Sterilize means use of physical or chemical means to destroy all microbiological life including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control where all human blood and OPIM are treated as if known to be infectious for HIV, HBV and other BBPs.

EXPOSURE JOB CLASSIFICATIONS AND TASKS

Employees who perform first aid assistance may have occupational exposure. This would consist of foreman and supervisors. Under normal working conditions, employees are not expected to have exposure to bloodborne pathogens.

METHODS OF COMPLIANCE

Universal Precautions will be observed at all times when working with blood or OPIM.

Hand washing facilities and an antiseptic cleanser and clean cloth or paper towels must be readily available when working with blood or OPIM.

Supervisors must ensure that employees working with blood or OPIM wash their hands immediately after the task is complete or after they remove any personal protective equipment (PPE).

Used needles must not be sheared, bent or recapped in any procedure before placing them in an appropriate Sharps container.

Mouth pipetting/suctioning of blood or OPIM is prohibited.

Broken glass that is potentially contaminated must be picked up with a broom and dustpan. Broken glass must not be picked up by hand.

At no cost to the employee, appropriate rubber (or disposable) gloves, laboratory coats, eye protection and other PPE are made available to the employees listed above.

The company provides appropriate equipment such as sharps containers and regulated waste containers, which meet or exceed the OSHA requirements.

Eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses is prohibited in locations where blood or OPIM materials are present.

No article of PPE is to be taken out of the area by an employee. CSI is responsible for cleaning, disinfecting and/or replacing used PPE.

Disposable gloves must be properly discarded in the biohazard waste container after each use.

HOUSEKEEPING

All blood-soaked bandages, specimens or residue of blood or other potentially infectious fluids or materials are to be contained in leak proof bags for handling, storage and transport.

All re-usable containers that may become contaminated will be inspected and decontaminated immediately after each case of exposure or when they are visibly contaminated.

Any sharp object that may be contaminated will be immediately discarded in the sharps container.

Sharps containers must be kept in the immediate areas where needed and kept closed when not in use.

Biohazard waste containers must be kept in the immediate areas where needed and kept closed when not in use.

Biohazard and sharps containers are disposed of before they are full.

Work surfaces that become visibly contaminated with blood or OPIM will be decontaminated immediately at the conclusion of rendering first aid. Incidental spills that may be contaminated must be wiped up and decontaminated immediately.

HEPATITIS B VACCINATION AND POST-EXPOSURE EVALUATION AND FOLLOW-UP

CSI makes Hepatitis B vaccinations available to all employees listed above in this program within 10 days of initial assignment to working in areas with potential risk of exposure. Vaccines are provided during normal working hours and free of charge to employees.

If an employee declines the vaccination, they must sign a copy of Appendix A of the OSHA standard. An employee who has declined the vaccine can change their mind at any time and CSI will then provide it.

All employees must report any exposure incident to their supervisor immediately.

Post-exposure follow-up and prophylaxis (if medically indicated) will be performed by our medical provider.

CSI will receive a written opinion containing required information according to the OSHA standard within fifteen (15) days of the medical evaluation.

COMMUNICATION OF HAZARDS TO EMPLOYEES

All biohazard waste containers and sharp containers used at CSI are color coded red and have the biohazard symbol adhered to them.

BIOHAZARD SYMBOL

CSI provides interactive training to all employees listed above in this program before they are assigned duties that may result in occupational exposure.

Training is provided by at no cost to the employee and during working hours. Re-training is provided annually and whenever tasks and procedures are modified that may result in different hazards or procedures. Employees will have access to a copy of this exposure control plan.

RECORDKEEPING

CSI maintains confidential medical records for all employees listed above in this procedure in accordance with the OSHA standard. Records will be kept by the medical provider for the duration of employment plus thirty (30) years.

CSI maintains training records for all employees trained in this procedure for a minimum of three (3) years from the date of the class.

Medical and training records are available to the individual employee and anyone having written consent from the employee and the Area OSHA Director in accordance with 1910.1020.

CHAPTER 24

ASBESTOS AWARENESS PROGRAM

Chapter 24 - Asbestos Awareness Program

POLICY STATEMENT

CSI is not a general abatement contractor and will not remove or disturb any asbestos containing material above the limits established by federal, state, or local agencies for an Asbestos Operations/Maintenance Worker. Asbestos containing material (ACM) is defined as any material that contains more than 1% asbestos and includes surfacing materials, thermal system insulation, and miscellaneous materials (e.g., floor tile).

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have individual and joint responsibility for implementing this program and record keeping.

PROGRAM ELEMENTS

Regulatory Guidance

CSI will comply with safe work procedures established by federal, state, and local agencies. Regulations that apply to asbestos operations include OSHA's General Industry and Construction asbestos standards 29 CFR 1910.1001 and 29 CFR 1926.1101 respectively and the Environmental Protection Agency (EPA) 40 CFR 763. State and local requirements will vary, in Colorado, the Colorado Department of Public Health and Environment (CDPHE) Regulation 8, Part B is applicable.

Regulatory Review

Prior to the start of any project involving the disturbance of ACM, CSI will review regulations established by the state and local agencies where work is being performed and also by any local agency regulation established.

Training

All federal, state and local agencies require training for employees performing any operation causing agitation of ACM. Any employee working with asbestos is required to take the Asbestos Operations/Maintenance Worker course. The Asbestos Operations/Maintenance Worker course is a 16-hour initial course, which fulfills all the requirements, except site-specific training, outlined by federal, state, and local agencies. Site-specific training will include, but is not limited to, the actual location of ACMs at the worksite and the structure of the asbestos management program. This training will be provided at the time of assignment and annually thereafter.

CSI will ensure that all employees who are exposed to ACM are trained as Class III Operations and Management Asbestos workers in compliance with regulations established in OSHA's 29 CFR 1910.1001 and the EPA 40 CFR 763. CSI will also ensure that a competent person responsible for the health and safety of the working crew will be present on site while work is being performed. The supervising employee will undergo additional training described below.

Class III asbestos work is defined as repair and maintenance activities involving intentional disturbance of ACM, including incidental cutting away of small amounts of ACM. Initial training will be provided prior to operations that will disturb ACM. Employees will participate in a 4-hour refresher course at least annually. The initial training program will be conducted to ensure that each employee is informed of the following:

- Information regarding various uses and forms of asbestos;
- Information on the health effects associated with asbestos exposure to include smoking and the relationship with lung cancer;
- Locations of asbestos containing material in the area where operations are performed
- Recognition of damaged and deteriorated ACM;
- The availability and location of the asbestos management plan;
- Descriptions of the proper methods of handling ACM;
- Information on the use of respiratory protection as contained in the EPA/NIOSH Guide to Respiratory Protection for the Asbestos Abatement Industry and other personal protection measures;
- Hands-on training in the use of respiratory protection, other personal protection measures;
- The provisions of the EPA asbestos regulations in 40 CFR 763, OSHA regulations 29 CFR 1910.1001 and 29 CFR 1926.1101, and all other applicable state and local agency regulations;
- Required training and limitations of training; and
- Good work practices.

The competent person responsible for overseeing any work with ACM will receive four additional hours which includes:

- Pre-work activities and considerations;
- Assessment of the work area;
- Notification, Recordkeeping, and Disposal; and,
- Supervising Workers.

Medical Monitoring

CSI will maintain a medical surveillance program for all employees performing work that involves the disruption of ACM that are exposed to levels of airborne asbestos fibers at or above the time-weighted average (TWA) PEL and/or excursion limit. In addition, employees who are involved in asbestos work for a combined total of thirty (30) or more days per year for over an hour should also be involved in the medical surveillance program. OSHA has established a TWA at 0.1 fibers per cubic centimeter and a 30-minute excursion limit value of 1.0 fibers per cubic centimeter. The medical surveillance program will include the following elements:

- The content of OSHA's 29 CFR 1910.1001(l) and 29 CFR 1926.1101(m);

- The names, addresses and phone numbers of public health organizations which provide information, materials and/or conduct programs concerning smoking cessation; and
- The requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels.

All medical examinations are performed by licensed physician and are provided without cost to the employee at a reasonable time and place. Baseline evaluations of each employee performing work involving disturbance of ACM will be conducted prior to the start of the employee's first task involving ACM. Periodic evaluations of the individual will be conducted annually.

- CSI will provide any employee who has been exposed to asbestos fibers at or above the TWA PEL and/or excursion limit a medical examination upon termination of employment. Employees will be informed of the results of the medical evaluations within thirty (30) days of the employer receiving the results.

Work Practices

CSI will ensure that all asbestos work performed by its employees will be conducted using all feasible engineering and work practice controls to minimize exposure to employees according to OSHA's 29 CFR 1926.1101. Work practices will be conducted using the following precautions:

- *Prior to Drilling*
 - Complete and submit the Work Authorization Form for Asbestos.
 - Barricade removal area with caution tape and post asbestos warning signs.
 - All non-asbestos trained personnel are to be removed from the area.
 - To the extent feasible, the work shall be performed using local exhaust ventilation.
- *Drilling*
 - If monitoring data results in exposures at or above the TWA and or excursion limit, wear respiratory protection with HEPA filters.
 - Use wet methods. Spray asbestos material that will be disturbed with a liquid or other wetting agent repeatedly until it cannot absorb any more. Miscellaneous materials that don't absorb water readily (e.g. floor tiles) are only required to have wetted surfaces.
 - Surfactant chemicals can be added to water to reduce the surface tension of the water, thereby increasing its ability to penetrate the asbestos containing materials and surround the asbestos fibers. The EPA recommends the use of a 50:50 mixture of polyoxyethylene ester and polyoxyethylene ether, or the equivalent, in a 0.16 percent solution (1 ounce to 5 gallons) of water in "Guidance for Controlling Asbestos Containing Materials in Buildings", EPA-560/5-85-024 (Purple Book).
 - Shaving cream can be used for holes approximately one-inch in diameter. For larger holes, wet core drilling should be performed to accomplish the task.
 - A misting sprayer will be used to diminish airborne asbestos fibers.
 - If applicable, use impermeable drop cloths below the removal site.
 - Wear rubber gloves.
 - Removal of mastic is best performed with products that dissolve the mastic.

- *Clean-up*
 - Place all asbestos material into labeled and double-bagged disposal bag. Removal is limited to one 60-inch by 60-inch glove bag or waste bag only. Polyethylene bags must be at least 6 mils in thickness.
 - Clean up with vacuums equipped with HEPA filters. Never dry sweep or use compressed air.
 - Wash hands when work is completed.
- *Disposal*
 - Meet state and local requirements.
 - Coordinate with the designated third-party contractor for proper disposal of ACM after work is complete.
- *Respiratory protection*
 - NIOSH approved respirators will be used in the following circumstances and will be provided to employees at no cost.
 - Normal work practice controls and operations to reduce employee exposure when working above the TWA; and,
 - In the event of an emergency.
- *Personal Protective Equipment to be Used*
 - Gloves, coveralls, head covering, foot covering, face shield and vented goggles.
- *Housekeeping activities*
 - Employees who perform housekeeping activities will be covered by this plan as well
 - Signs & Labels will be posted that meet the requirements of 29CFR1910.1001(j)(3) and/or 29CFR1926.1101(k)(7)

Workplace Monitoring

CSI has identified specific operations that have potential for exposure to employees. Exposure monitoring should be used to evaluate the employee's level of exposure. Personal samples measure airborne asbestos fibers in the employee's breathing zone and will be collected to represent actual working conditions. CSI will use a consultant to conduct all exposure monitoring.

Monitoring will be performed to establish a representative eight-hour TWA employee exposure. Representative exposure values can be determined with one or more samples representing full-shift exposures of each operation involving asbestos containing materials. Employee exposure will also be monitored during operations that are most likely to produce high exposures, will be compared to the 30-minute excursion limit and will be representative of all similar tasks. If exposure values to any employee are foreseen to exceed the TWA PEL or the excursion limit, frequent monitoring of that employee will be conducted every six months.

In the event that the operation process changes, additional monitoring will be performed if CSI suspects an increase in employee exposure level.

If employees working immediately adjacent to a Class I asbestos jobs are exposed to asbestos due to the inadequate containment of such job, CSI/ APS shall either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

Recordkeeping

Records of exposure monitoring, medical evaluations and employee training will be maintained by CSI. Each type of record is maintained as follows:

- *Employee Monitoring*

Data records for measurements taken to monitor employee exposure to asbestos should include:

- Date of monitoring;
- Exposure value;
- Name and social security number of the employee monitored;
- The asbestos-disturbing operation that was monitored;
- Sampling and analytical method;
- Quantity and duration of samples; and
- Type(s) of respiratory protection worn by employees during work operations.

- *Medical Monitoring*

Medical evaluations for each employee will be maintained by CSI and will include the following:

- The name and social security number of the employee;
- Physician's written opinions;
- Any employee medical complaints related to exposure to asbestos; and
- A copy of the information provided to the physician.

- *Training*

Employee training documents will be kept for at least one year after the employee's last date of employment with CSI.

CSI allows all employees access to any training materials and a copy of the OSHA regulations at no cost to the employee. Furthermore, employees, former employees, and representatives of these employees may have access to their individual exposure, medical evaluation records upon request. CSI will maintain the employee monitoring and medical records for the duration of employment plus thirty (30) years, in accordance with OSHA's 29 CFR 1910.1020, Access to Employee Exposure and Medical Records.

CHAPTER 25

BENZENE AWARENESS PROGRAM

Chapter 25 - Benzene Awareness Program

POLICY STATEMENT

The purpose of this program is to establish that CSI is complying with the OSHA Standard for safe work practices when benzene is present in the work place. All CSI personnel shall adhere to the requirements of this program.

Proper interpretation of this program will incorporate relevant issues addressed in other sections of this manual including, but not limited to, the “Safety Rules”, “Health and Safety Program” and, “Personal Protective Equipment Program” sections.

BENZENE AWARENESS

Benzene vapor is toxic, colorless, has an aromatic odor, is not soluble in water and is flammable. Benzene liquid is highly flammable and vapors may form explosive mixtures in air. Health effects of benzene include eye and skin irritations, breathlessness, irritability, euphoria and it is a known human carcinogen.

Benzene is present in petroleum refining sites, while performing tank gauging (tanks at producing, pipeline and refining operations) and during field maintenance operations.

RESPONSIBILITIES

The CSI Safety Consultant is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The CSI Safety Consultant is authorized to stop work when a serious hazard to safety is identified and must approve corrective action before work may be resumed.

The Safety and Health Coordinator is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have individual and joint responsibility for implementing this program and record keeping.

PROGRAM ELEMENTS

Regulatory Guidance

CSI will comply with safe work procedures established by federal, state, and local agencies. The regulation that applies to benzene is OSHA’s General Industry Benzene standards 29 CFR 1910.1028. State and local requirements will vary.

Regulatory Review

Prior to the start of any project involving the presence of Benzene, CSI will review regulations established by the state and local agencies where work is being performed and also by any local agency regulation established.

Training

All CSI employees who are working around benzene will be trained as to the hazards in accordance with the facility/project owner and the SDS. Employees will be provided with personal protective equipment at no cost to the employee. Employees must understand the contingency plan for the host facility and any additional safety rules that may be in force. Employees will conduct evacuation training as deemed necessary by the plant owner.

Personal Protection

Eye and face protection, Proper safety boots, gloves and aprons are required when working with Benzene. It is not anticipated that CSI employees will be working directly with benzene in its original state.

Benzene liquid is highly flammable and vapors may form an explosive atmosphere. Smoking is strictly prohibited when working where benzene is used or stored. A fire extinguisher must be readily available.

CHAPTER 26

SUBCONTRACTOR AND SHORT SERVICE EMPLOYEE MANAGEMENT PROGRAM

Chapter 26 - Subcontractor and Short Service Employee Management Program

Short Service Employee (SSE) – A newly placed full-time or temporary employee or subcontractor with less than six months' experience in his/her assigned job.

Management Responsibilities

All subcontractors will be pre-qualified by reviewing their current safety programs, safety training documents and safety statistics. If a program and training are not in place, then the subcontractor will be held accountable to the CSI policies. These qualifications will be measured and used as criteria for selection of sub-contractors. In addition, safety metrics such as EMR number, OSHA recordable rates, documented training and drug testing policy will be used as selection criteria by CSI.

CSI management shall ensure the following:

- Short service employees may not work alone.
- The client/host facility must be notified when a SSE will be working at their site.
- Short Service Employees must wear uniquely colored vest from CSI employees or use another way to identify them as an SSE.
- Short Service Employees must be monitored for compliance with either their own or CSI/APS policies and procedures.
- Newly placed or temporary employees will be mentored by an experienced or knowledgeable CSI employee.

Subcontractor and SSE Responsibilities

Subcontractors and SSE must adhere to the following requirements. Subcontractors will be included, and expected to attend, any pre-job kick-off meetings and safety orientations. In addition, subcontractors will be included in safety meetings, job safety analysis or hazard assessments. All subcontractors will participate in post-job safety performance reviews.

Subcontractors are required to provide:

- Training to employees as needed for the employee to do their job.
- Instruction in the hazards related to employee jobs and in potential fire, explosive or toxic release hazards.
- Documented training of all employees.

Subcontractors also must:

- Ensure that process safety management is observed to prevent or minimize consequences of catastrophic releases of toxic, reactive, flammable or explosive chemicals.
- Ensure that safe work practices are followed during operation (i.e. – lockout/tagout, confined space entry, opening process equipment, piping and control over entrance to facility).
- Advise employer of any hazards found or unique hazards presented by the contract employer's work.
- Obtain a hot work permit before hot work permits and state hot work is performed.

- Report all incidents and near misses immediately.
- Keep confidential any employer or client trade secret information.

Subcontractor Safety Management Plan

1. Overview

- 1.1 Coblaco Services, Inc. (Coblaco) has established the following procedures to ensure that subcontractor safety programs, training, procedures and initiatives coordinate with the Company's own standards of safety.
- 1.2 The process is intended to establish that, in the event subcontractors are utilized by Coblaco as part of a work project, each subcontractor's safety programs, OSHA compliance, training, confirmations, documentation and statistical results of previous safety performances are in accordance with the requirements of both Coblaco and our customer.
- 1.3 Under this program and its associated processes, all subcontractors will be reviewed and qualified by Coblaco, prior to participating in a Coblaco Services' project.

2. Subcontractor Safety and Health Requirements

- 2.1 Pre-qualification by the Company will include:
 - 2.1.1 Review of the subcontractor's OSHA 300 log for the last three years, or from the date the subcontractor began doing business, if that time is less than three years;
 - 2.1.2 OSHA experience regarding any previous inspections or citations;
 - 2.1.3 Written safety and health programs, as required by Coblaco Services and/or its respective customer;
 - 2.1.4 Written subcontractor procedures for any work-related incident, injury, illness and emergency response, reporting and investigation requirements;
 - 2.1.5 Workers' compensation insurance EMR (Experience Modification Rating) information for the past three years, or fewer, if business was started less than three years prior;
 - 2.1.6 Proof of general liability, workman's comp and auto insurance documented by a current Certificate of Insurance from the subcontractor's insurance agent(s) with Coblaco Services, Inc. added as the additional insured and including current and completed operations;
 - 2.1.7 Documentation of required safety training of subcontractor's employees that will be assigned to the respective project, including supervisor, competent person training and site safety representative training. Training records will include the course name, date of training, list of attendees, and name and signature of the trainer;

- 2.1.8 Documentation of required Operator Qualification (OQ) training and other individual qualifications or certifications as may be required by the project; and,
- 2.1.9 Documentation, as available, to explain the subcontractor's previous safety performance using OSHA recognized or other industry-approved statistical method.
- 2.2 Review and evaluation will be performed by Coblaco's Safety Manager, or a qualified third party, as designated by the Vice President - Operations.
- 2.3 Written materials, submissions, results and documentation of subcontractor pre-qualification reviews will be maintained by the Safety Coordinator/Safety Consultant in a file for a period to be determined in conjunction with Coblaco's designated safety consultant.

3. Measurements of Workplace Safety and Health Results

- 3.1 Coblaco measures safety performance and uses the results as a tool to identify and eliminate job-specific hazards, mitigate risks and protect employees and other individuals from workplace injuries and illnesses.
- 3.2 For purposes of this program, a safety metric will be defined as any OSHA-approved measure of safety performance, including relevant injury/illness/incident prevention behavioral statistics and ratios.
- 3.3 Specific subcontractor pre-qualification safety metrics to be considered will include, but are not limited to, items 2.1.1 through 2.1.9 above. Primary consideration will be given to EMR, TRIR and OSHA history.
- 3.4 Safety metrics will be utilized to help evaluate when, where and how safety programs and initiatives have been successful, and also to identify areas that require additional attention. The expectation is that subcontractors will have a current EMR of 1.0 or less, and a 3-year average TRIR of 3.0 or less.
- 3.5 Subcontractor safety performance will be reviewed and evaluated considering both the subcontractor's safety metrics, and historical safety trend lines, as identified by Coblaco.
- 3.6 Subcontractors evidencing safety metrics that are not in accordance with project requirements will not be utilized for that specific project. Rather, they may be utilized in roles and assignments that have lower levels of risk deemed acceptable to Coblaco and its customer.
- 3.7 All determinations of acceptability of a subcontractor's safety record, as requested and reviewed in accordance with this program, will be made by Coblaco, consistent with the requirements of the customer for the specific project.

4. Inclusion and participation of subcontractors in project safety initiatives

- 4.1 Subcontractors assigned by Coblaco to a project will attend pre-job safety and planning meetings, job-site safety orientations, and emergency response planning and coordination meetings.
- 4.2 Subcontractor personnel will participate in these and other such activities as required in preparation for working safely at the project location.
- 4.3 Subcontractor personnel will utilize, cooperate with, attend and enforce all job-specific components of their safety programs and procedures; conduct safety orientation and training according to OSHA recommendations and/or industry “best safety practices;” maintain all personnel and equipment qualifications and/or certification requirements as required by the project scope of work; conduct periodic on-site tailgate and awareness activities; conduct site-specific safety inspections, implement incident reporting and investigation procedures and other such safety, health and incident prevention initiatives as may be required or appropriate for all workers on the project.
- 4.4 Subcontractor personnel will review and comply with the determinations of the project-specific Job Hazard Analysis/Job Safety Analysis (JHA/JSA) provided, Coblaco’s on-site weekly Safety Walk Through (SWT) report (or equivalent subcontractor’s weekly documented on-site hazard review), Safety Observations Reports (SOR), and other pertinent safety performance requirements as established by Coblaco or its customer for the project.

5. Requirements for reporting hazards, incidents, injuries and illnesses

- 5.1 All subcontractor employees are responsible for reporting any observed near-miss, hazard or unsafe behavior of another person when there is a potential for causing an incident, chemical release, injury or illness in the project workplace.
- 5.2 After the incident is contained and all parties requiring immediate medical attention are under care, a report to the subcontractor’s and/or Coblaco’s on-site personnel should be made without delay to help facilitate intervention and additional preventive measures. Accordingly, the first report will be made verbally to the subcontractor’s on-site supervisor, and to Coblaco’s designated on-site contact, prior to the end of the shift in which the incident occurs or is reported. All injuries or illnesses that require medical attention by a physician or professional medical provider will be reported immediately to the Company contact person after the individual(s) requiring treatment are in route to medical care.
- 5.3 Within 24 hours, the subcontractor’s representative will provide to the Coblaco on-site contact a written “First Report of Incident,” in the format provided to the subcontractor’s workman’s compensation carrier. The data will be reviewed by Coblaco safety personnel and the on-site contact, so that necessary modifications to project safety procedures and/or the work plan can be implemented, as necessary, to prevent recurrence.
- 5.4 Subcontractors will notify and investigate all first aid injuries, incidents, injuries or illnesses in the project workplace in accordance with requirements established for the project. In the case of incidents requiring more than first-aid treatment to injured

employees, that result in employee job duty restrictions or lost days, or is otherwise an OSHA recordable event, the subcontractor will provide to Coblaco Service's on-site contact, the written results of a formal incident investigation, including text, photos and root cause analysis, within 72 hours of the first report of incident.

6. Post-project review of subcontractor safety performance and results

- 6.1 On conclusion of a project, Coblaco will make a timely review of each subcontractor's safety performance, incident and injury experience, and other factors that will be helpful in evaluating the subcontractor's suitability for future projects.
- 6.2 In the event that a subcontractor exits or is terminated from a project that remains in progress, a similar timely review as explained in 6.1 will be performed.
- 6.3 Post-project evaluations will be performed by Coblaco's Safety Manager/Safety Consultant in coordination with Company managers and supervisors who worked with the subcontractor during the specific project under review.

CHAPTER 27

TRAFFIC CONTROL PROGRAM

Chapter 27 – Traffic Control Program

GENERAL REQUIREMENTS

Before CSI employees begin work in a traffic work zone, control devices such as barricades, traffic signs, flagging, etc. shall be properly placed. These control devices will conform to the “Manual on Uniform Traffic Control Devices,” which are incorporated by OSHA reference in 1926.200(g) (2) and approved traffic control plans when required. CSI may rely on qualified subcontractors to perform this work, but such subcontractors must be capable of recognizing safety hazards associated with traffic control.

Highway and street work pose a variety of safety problems not encountered in any other field of our work. The hazards normally associated with such work are multiplied by the fact that the work area is either shared by, or in close proximity to, the moving stream of traffic. Our safety responsibility is fivefold. We must provide the safety of the:

- Public - motorist, pedestrian, resident
- CSI workers, subcontractors and customers
- Construction equipment
- Public utilities
- Completed work

In protecting against these hazards, the public interest and convenience must be adequately considered. It may be safer, more convenient, and less costly to the project to divert or interrupt the movement of traffic. On the other hand, because they increase the productivity of those using them, uncongested public roadways are essential means that allow the users to get their particular jobs done. Unnecessary inconvenience and delay to the highway user is often not only uneconomical in the overall view, but also poor public relations.

OSHA and the Department of Transportation require compliance with the “Manual on Uniform Traffic Control Devices.”

Work activities on roads and streets often present motorists with unexpected and potentially hazardous situations. Traffic control principles and procedures, which may enhance the safety of motorists and workers at these work areas, include the following:

- Traffic safety should be an integral and high priority element of every project, from planning through design and construction.
- Whenever possible, traffic should be routed through work areas with traffic control devices comparable to those employed for normal situations.
- Traffic movement should be restricted as little as possible.
- Motorists should be guided in a clear and positive manner while approaching and traversing work areas.
- Routine inspection of the traffic control elements should be performed to ensure acceptable levels of traffic operations and device maintenance.

Typical problems that may develop in a traffic control pattern are as follows:

- Insufficient advance warning
- Inadequate guidance through the work zone
- Unprotected hazards
- Distractions to the motorist
- Congestion and capacity problems

TRAINING

All flaggers will have received the Colorado Department of Transportation flagger safety training before conducting any flagging activities on site. This certification card will be present with the flagger while flagging on the site.

All persons responsible for the development, design, implementation, and inspection of traffic control will be adequately trained as Traffic Control Supervisors in accordance with the “Manual on Uniform Traffic Control Devices.”

TRAFFIC CONTROL PLAN

A traffic control plan is a plan for handling traffic through a specific highway or street work zone or project. A plan will be developed prior to any work beginning. The plan will discuss the process of advising motorists as to detailed requirements or conditions affecting road use at specific places and times, in order that proper action may be taken and accidents or delays avoided. The plan will also include the types of traffic control devices that will be used to slow or warn motorists of changes or possible changes in conditions. These devices will be used to direct the traffic control process.

When required by the customer and/or jurisdictional authorities, a written traffic control plan will be developed. Responsibility for creation of the plan will be determined mutually between CSI and the customer.

All employees implementing a traffic control plan will be familiar with traffic zone symbols, barricades, markers, and colors used, including the identification of workers on foot in the roadway from equipment near the work area.

Equipment operators will not move machinery or vehicles without making positive visual contact with any workers on foot near the vehicle.

All equipment back up alarms will be in operation and employees will abide by their warning signal.

TRAFFIC CONTROL ZONE

A traffic control zone is the entire area of the roadway which encompasses all traffic control devices used to regulate or guide motorists' behavior. A traffic control zone will be established on each site which interferes or may interfere with traffic.

Appropriate signs will be used to advise and warn the motorists and to instruct them as to how to proceed through the work site.

TYPES OF PLATES AND SIGNS

Advisory Speed Plates - Advisory speed plates are square shaped and inform traffic of a safe and appropriate speed to travel through the traffic control zone.

Description Plates - Description plates are rectangular with the long dimension horizontal. They inform the traffic of activities they should be aware of.

Guide Signs - Guide signs show destinations, directions, designations, distances, services, points of interest and other geographical or cultural information. These signs are rectangular with their long dimension horizontal. The standard color is white legend upon a green background.

Regulatory Signs - Regulatory signs may be used at construction and maintenance work sites to advise motorists of applicable laws and regulations. These signs are typically rectangular in shape with the long dimension vertical. The standard color scheme is black lettering on a white background.

Supplemental Warning Plates - Supplemental plates may be added to warning signs to provide additional information. When used they shall be placed immediately below the diamond main sign. They are not to be used by themselves.

Warning Signs - Warning signs are used to give notice of conditions that are potentially a hazard to traffic. These signs are typically diamond-shaped with one diagonal vertical. Permanent warning signs have a black legend on a yellow background. The orange color is used to indicate the temporary nature of the condition and the additional potential hazard of the work site.

STANDARD COLORS OF SIGNS

The color-coding of traffic signs is as follows:

RED- stop or prohibition

GREEN- indicates movements permitted; guidance for direction

BLUE - motorist services guidance

BLACK- regulation

WHITE- regulation

ORANGE- construction & maintenance warning

BROWN- public recreation and scenic guidance

CHANNELIZING DEVICES

Channelizing devices are used to guide the motorist through the work site, to indicate hazardous areas and to exclude traffic from the actual work zone. Channelization devices are placed in or adjacent to the roadway to control the flow of traffic. They have distinct purposes:

Taper: Force movement of traffic from one lane to another.

Delineate: Guide the motorist to and along the safe path of travel.

Types of Channelizing Devices

Cones - Conical in shape with broadened base; minimum height is 18 inches (greater on high speed roads), orange or fluorescent red-orange or yellow-orange color.

Drums - Approximately 36 inches in height and a minimum of 18 inches in diameter, horizontal, circumferential orange and white reflectorized stripes with a minimum of two orange and white stripes.

Barricades - 8 to 12 inch wide rails reflectorized with orange and white stripes on a 45-degree angle; stripes slope downward towards the side on which traffic is to pass, minimum height is three feet.

Barrier Wall - Portable concrete barriers may be used to provide a physical device which traffic cannot penetrate. The most widely used concrete barrier is the pre-cast New Jersey "safety shape." This device is usually ten feet long and weighs approximately 5,300 pounds.

Arrow Boards - The arrow board is used when a lane is closed. It tells the motorist that he should merge into the adjacent lane as shown by the direction of the arrow.

LIGHTING OR BARRICADE LIGHTS

Work at night will include proper illumination for the workspace, while controlling glare from workers and passing traffic.

All flaggers will be illuminated by a spot light.

Barricade lights are used to indicate hazards and to delineate the safe path of travel. There are three types of barricade lights:

- Type A - Type A lights are low intensity flashing lights that are generally mounted on barricades. They are effective only at night.
- Type B - Type B lights are high intensity flashers which are effective both day and night.
- Type C - Type C lights are steady burning low-wattage lights which are used at night for delineation. They are commonly mounted on barricades or drums.

CHAPTER 28

WORKPLACE VIOLENCE/COMPANY EMERGENCY LOCKDOWN PLAN

Chapter 28 - Workplace Violence/Company Emergency Lockdown Plan

BACKGROUND

Workplace violence can be any act of physical violence, threats of physical violence, harassment, intimidation or disruptive behavior. A number of different actions can trigger or cause an incident such as an abusive employee, manager, or supervisor and can involve visitors and contractors as well. Non-work-related incidents such as domestic violence can also lead to a workplace incident.

Workplace violence incidents, especially those escalating to active shooter attacks are dynamic incidents that vary greatly from one attack to another. Most cases involving armed intruders show no pattern or method in their selection of victims.

There is no single set of best practices for private security or employee response to these incidents. All information contained herein should be used as a guideline in the unlikely event of this type of incident.

PROCEDURE

- Identify multiple evacuation routes, and post evacuation routes in conspicuous locations throughout the facility and ensure to account for individuals with special needs and disabilities.
- Designate shelter locations with thick walls, solid doors with locks, minimal interior windows, first aid emergency kits and a phone line.
- Designate contact persons who have knowledge of the floor plan and interior offices to act as a point of contact and liaise with police and emergency responders.
- If the incident becomes stationary in an office or an isolated area, establish a central command post for incident commanders and corporate management team.

EMPLOYEE NOTIFICATION AND RESPONSE

The most important component of any plan is immediate notification to all employees of an emergency situation. CSI will use verbal communication, cell phones and two-way radios to inform all employees on site of a situation. Employees should call 911 as soon as possible.

Evacuate: Employees should evacuate the facility if safe to do so; evacuees should leave behind belongings, visualize their entire escape route before beginning to move. Do not impede emergency egress. Ensure all exits are free of blockage and that doors are in proper working order.

Hide: If evacuating the facility is not possible, employees should hide in a secure area, lock and blockade the door with heavy furniture, turn off all lights, silence electronic devices, lie on the floor and remain silent.

Take Action: If neither evacuating the facility nor seeking shelter is possible, occupants should attempt to disrupt and/or incapacitate the armed intruder by throwing objects or using aggressive force with nearby objects (fire extinguishers etc.)

TRAINING

Basic awareness and response training will be conducted for all employees.

Employees will also be trained on how to respond when law enforcement arrives on the scene; including:

- Following all official instructions, remain calm;
- Keeping hands empty and visible at all times; and
- Avoiding making sudden or alarming movements.

CHAPTER 29

BIOSOLIDS EXPOSURE PROGRAM

Chapter 29 – Biosolids Exposure Program

POLICY STATEMENT

The purpose of this program is to outline the management of biosolids exposure during wastewater treatment facility work including digester blasting activities. The information presented in this program represents minimum safety requirements. CSI's engineering controls and work practices are designed to reduce employee exposure to prevent occupational diseases caused by exposure to biological hazards.

RESPONSIBILITIES

The CSI Safety and Health Coordinator is responsible for interpreting program compliance and recommending modifications to the program as regulations require.

The Health and Safety Consultant is responsible for coordinating the development and review of program elements, content and employee training.

The Facility Operations Manager and Field Operations Manager, through subordinates, have individual and joint responsibility for implementing this program and must approve corrective actions before work may be resumed in the event of a stop work order.

All employees are expected to stop work when a serious hazard to safety is identified,

DEFINITIONS

Biosolids – The residual, semi-solid material produced as a by-product during sewage treatment of industrial or municipal wastewater.

HEPA- a High Efficiency Particulate Air Filter capable of filtering 0.3 micron particles with 99.97 percent efficiency.

PPE - Personal Protective Equipment. Company provided safety equipment worn by employees; may include safety glasses, respirators, coveralls, blast hoods, etc.

HEALTH EFFECTS OF BIOSOLIDS EXPOSURE

Common symptoms of biohazards exposure (including bacterial, parasitic, fungal, and viral) are loss of appetite, nausea, vomiting, stomach cramps, diarrhea, fatigue, and headache, weakness, skin rashes, burning eyes or throat, fever and a runny nose. No long-term effects are known.

CSI EMPLOYEE EXPOSURE

Water treatment facility employees or contractors generally clean out digesters prior to CSI employees entering the tank. Biosolids exposure may still exist after this process due to residual biological hazards being released into the air during abrasive blasting or other dry-cleaning activities.

There are currently no OSHA regulations regarding permissible exposure limits to airborne particles containing biosolids. CSI will reduce employee exposure as much as feasibly possible as a best practice.

OPERATIONAL CONTROLS

Though these controls reduce employee exposures, personal hygiene is just as important to further minimize employee exposure. Employees performing these tasks will not eat, drink, smoke, etc., while performing these tasks. They will also wash their hands and face before taking breaks or otherwise leaving the area.

Engineering Controls:

- Wet methods such as power washing should be used to clean work areas as much as possible prior to work beginning.
- Dust exposure should be controlled as much as possible to the work area using isolation methods.
- Local exhaust ventilation equipped with HEPA (or equivalent) filtration is strongly recommended when performing this type of work.

Administrative Controls:

- All employees shall be trained in the hazards and controls outlined in this program prior to work.
- Support employees should stay out of exposure areas as much as possible and wear minimum PPE if dust is observed outside of the control area.

Personal Protective Equipment:

- Supplied air respirator, as appropriate, for abrasive blasting.
- An N-95 dust mask or half face respirators with HEPA cartridges for scraping, sanding, sweeping or other means of dry cleaning or when airborne dust is visible.
- Face shields or N-95 masks for wet cleaning methods.
- Safety glasses or goggles.
- Ear plugs.
- Safety shoes.

It is important to avoid the contamination of personal clothing, and to ensure that sludge contaminated materials do not leave the work area unless they are sealed. Non-disposable protective equipment (i.e. supplied air hoods) and employee clothing will be HEPA vacuumed before removal from site. Employees should change all clothing at the end of their shift. Contaminated clothing should be washed separately.

Adequate hand and face washing facilities shall be present on site. Employees are required to wash their hands and face at the end of the work-shift and before each break.

PREVENTING ILLNESS

Following work at wastewater treatment facilities, CSI employees are required to:

- Wear respirators at all times when potential exposure exists.
- Wash hands thoroughly immediately following completion of work.
- Refrain from touching nose, mouth eyes or ears.
- Do not smoke, eat, drink, apply cosmetics or chew gum while in the work area.

- Change out of work clothes before leaving the work area.
- Clean everything that came in contact with biosolids including tools and footwear.
- Report any injury or illness thought to arise from work exposure.

IMMUNIZATIONS

Tetanus-diphtheria immunizations are required for work in wastewater treatment facilities.

Immunizations or booster shots will be provided at no cost to the employee. While hepatitis A shots are not required, they will be provided for no cost at the request of the employee.

CHAPTER 30

SILICA EXPOSURE CONTROL PROGRAM

CHAPTER 30 – SILICA EXPOSURE CONTROL PROGRAM

This section of the health and safety manual addresses OSHA's respirable crystalline silica (RCS) standard for construction (29 CFR 1926.1153).

The CSI Safety and Health Consultant has been designated as the competent person to oversee this program and conduct periodic inspections of work tasks recognized for exposure or possible exposure to RCS.

Any work that exposes or has the potential of exposing workers to RCS will either be monitored using air sampling methods specified in the standard or controlled based on the approved engineering, work practice, and PPE controls presented in Table 1 of the standard.

CSI will utilize the controls specified in Table 1 as preferred methods of control whenever tasks conform to those listed in the Table. If tasks do not conform to the Table, CSI will conduct air monitoring to determine employee exposure, as required.

- If a specific construction operation is very similar to one of the eighteen tasks described in Table 1, then CSI will implement and follow the specified engineering, work practice, and PPE controls for that operation.
- If a specific construction operation is not similar or comparable to one the eighteen tasks described in Table 1, then CSI will conduct air monitoring of the operation.

Tasks Recognized for Exposure or Possible Exposure to Respirable Crystalline Silica

Task Description	List of Table 1 Controls in Use	Air Monitoring Required (Y/N)	Air Monitoring Results (Above OELs or Below OELs)	Respirator Use Required $\geq$ 30 days/year (Y/N)
Sweeping	Wet methods; sweeping compound	N	N	N

To further reduce the likelihood of silica exposures on the work site, CSI will maintain consistent and ongoing communication with employees and contractors and use soft barricades and/or signage to delineate exposure areas. Both of these measures, if diligently followed and enforced, will go a long way towards keeping unauthorized personnel from becoming needlessly exposed.

ALLOWED ENGINEERING, WORK PRACTICE AND PPE CONTROLS

Table 1 specifies the allowable engineering, work practice, and PPE controls by task. The required type and level of protection offered by one or more of these controls can vary depending on the location and anticipated time to complete a designated or closely-related task.

AIR MONITORING FOR RESPIRABLE SILICA EXPOSURES

For construction tasks not covered or closely related to those presented in Table 1, CSI will conduct air monitoring to determine employee exposure to respirable crystalline silica. Initial employee exposure monitoring will be conducted as specified in the standard or CSI will rely on objective data that may be available from industry and/or trade associations for the task. Additional monitoring will be conducted if the initial monitoring indicates employees might be, or are, exposed in excess of the OSHA Action Level or Permissible Exposure Limit.

Current Occupational Exposure Limits (OELs):

- The OSHA Action Level (AL) is 25 micrograms of silica (all three forms) per cubic meter of air ($\mu\text{g}/\text{m}^3$).
- The OSHA Permissible Exposure Limit (PEL) is 50 micrograms of silica (all three forms) per cubic meter of air ($\mu\text{g}/\text{m}^3$).

If air monitoring results indicate that employees are exposed in excess of the PEL, then engineering, work practice, and/or PPE controls will be implemented to reduce exposures to safe levels.

If engineering controls are infeasible, do not provide an adequate level of protection for employees, or are in the process of being installed, then CSI will protect its employees by requiring the use of appropriate NIOSH-approved respirators. Respirators will have an Assigned Protection Factor (APF) that is high enough to reduce actual exposures below the PEL. Respirators will be provided by CSI and assigned, used, and maintained in accordance with the Respiratory Protection Program.

MEDICAL MONITORING REQUIREMENT

CSI will offer an on-going medical surveillance program to all employees who are required to wear a respirator for thirty (30) or more days per year.

CSI will partner with its designated medical providers to offer baseline medical evaluations for all employees within thirty (30) days of hire and on an on-going basis, if those employees, who are required to wear a respirator, choose to participate in the medical monitoring program.

The medical monitoring process will involve the following:

- A discussion of an employees' medical and work history;
- A physical examination and chest x-ray;
- A pulmonary function test;
- A latent tuberculosis test; and
- Other tests requested by the physician.

If employees elect to participate in the medical monitoring program, they will receive regular evaluations at least once every three years.

HOUSEKEEPING

CSI employees are prohibited from using dry sweeping methods to clean the work area when debris may contain silica-containing dust. Only vacuum or wet cleanup methods are permitted.

The use of compressed air is prohibited to clean work surfaces or employee clothing that may be contaminated with silica-containing dust unless there is a ventilation system in place to capture airborne silica dust or all other cleanup and supplemental control measures are shown to be infeasible.

RECORDKEEPING

CSI will ensure that designated occupational health physicians have access to a copy of the silica standard for construction (29 CFR 1926.1153).

- If employees are enrolled in the medical monitoring program, CSI will provide the physician with a list of the relevant controls utilized onsite and/or by the employee, along with any records of previous medical evaluations.

CSI will maintain the following records in accordance with the requirements of a written exposure control plan:

- A list of tasks that expose or could expose employees to respirable crystalline silica;
- The processes by which task exposures are controlled and/or monitored;
- A list of engineering, work practice, and PPE controls implemented to lessen employee exposures and air monitoring results, when applicable; and
- A written protocol for keeping unauthorized persons out of identified exposure areas.

TRAINING

CSI will ensure that affected employees receive adequate training on the requirements of OSHA's silica standard.

The silica standard training must convey the following information:

- The human health effects from silica exposure;
- Tasks recognized for exposure or possible exposure to silica;
- Specific measures that are currently being used or could be implemented to control employee exposures to silica (e.g., engineering, work practice, and PPE); and
- A description of the medical monitoring process, if applicable.

ANNUAL REVIEW

This program will be reviewed on an annual basis or more frequently if new tasks are introduced or task controls change.

FORMS APPENDIX

Accident and Incident Investigation Forms
PPE Hazard Assessment Form
Medical Examination Questionnaire
Respiratory Protection Medical Evaluation Form
Respirator Fit Test Data Form
Hot Work Permit Form
Confined Space Entry Permit & Alternate Entry Procedure Certification Form
Confined Space Entry Coordination Form
Project Specific Lead Compliance Plan for CSI, Inc.
Company Vehicle Policy Form



MANUFACTURER

A.W. Cook Cement Products
242 Amy Industrial Lane
Hoschton, GA. 30548
Phone (706) 654-3677
Fax (706) 654-3662

DESCRIPTION

MICROSILICA MORTAR is a blend of Portland cement, graded silica sand, fibers and silica fume. The mortar may be hand or spray applied, usually from ½" to 2" in depth. Uses include repairing concrete walls, ceilings, lining brick or concrete manholes and lift stations, etc. Microsilica Mortar provides an extremely dense matrix and will accept coatings at earlier ages than typical Portland cement repair products.

SURFACE PREPARATION

Remove all loose concrete, brick or mortar from affected area by mechanical means. Surfaces shall be free of paints, oils, dirt, dust, curing compounds, sealers, form release agents or any material that would prevent mortar from coming into contact with the open pores of the concrete. Shot blasting, sandblasting, chipping and high pressure water blasting are all excellent surface preparation methods. Smooth concrete surfaces may require etching with muriatic or sulfamic acid, then thoroughly cleaned with pressure washer. Dampen area to achieve a saturated, surface dry condition (SSD). Leaving no puddles.

MIXING & APPLICATION

NOTE: [The material will flash set if contaminated with calcium aluminate cement.] Make sure all equipment for mixing, pumping, etc. are free from any calcium aluminate cement or products that contain calcium aluminate cement. Begin by adding 1 gallon clean water to mixing vessel and then add 1 bag (60#) Microsilica Mortar. Adjust water as needed (up to 1.4 gallons) to provide proper consistency for placing by hand or pump sprayer. Apply in successive lifts to desired thickness. Use brush, float or trowel to achieve desired texture.

SILATEC MSM MICROSILICA MORTAR

CURING

Damp curing or use of a curing compound, that complies with ASTM C-309, may be necessary to prevent rapid drying of mortar. Curing compounds may need to be removed prior to coating. Replace manhole cover as soon as troweling is finished.

LIMITATIONS

Ambient and surface temperatures must be 38° F and rising during application. Protect from rain until initial set has been achieved. To avoid flash setting, Do Not contaminate Silatec MSM with Cemtec Hydraulic cement, Rapid Cure Vertical or Silatec CAM.

Minimum thickness: ½ inch

Maximum thickness: 4 inches in successive applications

STORAGE & HANDLING

Shelf life: 12 months in the original unopened container.

Storage: Store in a dry area away from direct sunlight. The product should be conditioned to between 40° F and 95° F before use.

PRECAUTIONS

Contains Portland cement-avoid eye contact or prolonged contact with skin, Wash thoroughly after handling. In case of eye contact, flush with water for at least 15 minutes. Consult a physician immediately. Keep out of reach of children. Contains free silica- DO NOT breathe dust. May cause delayed lung injury. Follow OSHA safety and health standards for crystalline silica (quartz). See material safety data sheet for detailed information.

Spills: Collect in appropriate container. Uncured material may be removed with water.

Disposal: Dispose of in accordance with local, state or federal regulations.

PACKAGING

60 lb. / 27 kg multiwall bags.



SILATEC MSM MICROSILICA MORTAR

TECHNICAL DATA

COMPRESSIVE STRENGTH

ASTM C-109

24 Hr. 4310 PSI

7 Day 6000 PSI

28 Day 10000 PSI

SHRINKAGE

ASTM 596

28 Day (0.001)

BOND STRENGTH

ASTM C-882 (modified)

28 Day 2500 PSI

FLEXURAL STRENGTH

ASTM C-293

24 Hour 720 PSI

7 Day 850 PSI

28 Day 1695 PSI

SPLITTING TENSILE

ASTM C-496

24 Hour 420 PSI

28 Days 750 PSI

CHLORIDE PERMEABILITY

ASTM C-1202

28 Day 205 Coulombs

MODULUS OF ELASTICITY

ASTM 469-02

24 Hour 3,433,333

28 Day 4,533,333

FREEZE/THAW

ASTM C-666

300 cycles – No Damage

Unit Weight 128.3 PCF



Protective
&
Marine
Coatings



DURA-PLATE® 235 PW MULTI-PURPOSE EPOXY

PART A
PART B

B67X-235
B67VX235

SERIES COLORS
HARDENER

Revised: March 5, 2020

PRODUCT INFORMATION

4.68

PRODUCT DESCRIPTION

Dura-Plate 235 PW Multi-Purpose Epoxy is a modified epoxy phenalkamine, certified by NSF to Standard 61 as a tank lining for potable water storage tank.

- Self-priming
- Low temperature application
- Cures at temperatures as low as 0°F (-18°C)
- Approved as a primer under MIL-PRF-23236D, Type V, Class 7, Grade C
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Mill White, Red Oxide and Buff
Volume Solids:	68% ± 2%, mixed
Weight Solids:	79% ± 2%, mixed
VOC (EPA Method 24):	Unreduced: <280g/L; 2.33 lb/gal Reduced 10%: <327 g/L; 2.72 lb/gal
Mix Ratio:	4:1 by volume

Recommended Spreading Rate per coat:

	Standard		AWWA	
	Min.	Max.	Min.	Max.
Wet mils (microns)	6.0 150	120 300	4.4 110	8.8 220
Dry mils (microns)	4.0 100	8.0* 200*	3.0 75	6.0* 150*
~Coverage sq ft/gal (m²/L)	136 3.3	272 6.6	181 4.4	362 8.8
Theoretical coverage sq ft/gal (m²/L) @ 1 mil/25 micron dft	1088 (26.6)			

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

*See Recommended Systems on reverse side

Drying Schedule @ 6.0 mils wet (150 microns):

	@ 0°F/-18°C	@ 40°F/4.5°C	@ 77°F/25°C*	@ 120°F/49°C
To touch:	18 hours	3.5 hours	2 hours	20 minutes
To handle:	36 hours	14 hours	3.5 hours	40 minutes
To recoat:				
minimum:	36 hours	14 hours	3.5 hours	40 minutes
maximum:	6 months	6 months	6 months	6 months
Cure to service:	30 days	28 days	7 days	3 days

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life: 16 hours 8 hours 4 hours 1 hour

Sweat-in-time: 1 hour 30 minutes 15 minutes 5 minutes

*For Potable Water Service, allow a minimum cure to service for given temperature. Sterilize and rinse per AWWA C652.

Shelf Life:	36 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	116°F (47°C) PMCC, mixed
Reducer/Clean Up:	Reducer R7K104

RECOMMENDED USES

Immersion Service - Potable water: Meets NSF Standard 61 for use in potable water storage for composition of coatings used in potable water.

For potable water use per NSF Std 61, dry times and minimum recoat times

- 3.5 hour recoat, 7 day final cure (25°C): 1500 gallon tank, 36" pipe

Recommended uses include:

- Fabrication and new construction
- Acceptable for use with cathodic protection systems
- Conforms to AWWA D102 ICS #1, #2, and #5, and OCS #5.***

*** Refer to respective systems

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

2 cts. Dura-Plate 235 PW @ 5.0 mils (125 microns) dft/ct

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060 CS17 wheel, 1000 cycles, 1 kg load	65 mg loss
Adhesion	ASTM D4541	850 psi
Direct Impact Resistance	ASTM D2794	10 in lb
Dry Heat Resistance	ASTM D2485	250°F (121°C)
Immersion ¹	5 year potable water	Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
Immersion	18 months fresh and salt water	Passes, no rusting, blistering, or loss of adhesion
Moisture Condensation Resistance	ASTM D4585, 100°F (38°C), 2000 hours	Rating 10 per ASTM D610 for rusting; Rating 10 per ASTM D714 for blistering
Pencil Hardness	ASTM D3363	H

IMMERSION (Ambient temperature)

- Salt Water Recommended
- Fresh Water Recommended
- Potable Water Recommended

Epoxy coatings may darken or yellow following application and curing.

Footnotes:

¹ Galvacpac/2 cts. Dura-Plate 235 NSF



Protective & Marine Coatings



Certified to
NSF/ANSI 61

DURA-PLATE® 235 PW MULTI-PURPOSE EPOXY

PART A
PART B

B67X-235
B67VX235

SERIES COLORS
HARDENER

Revised: March 5, 2020

PRODUCT INFORMATION

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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Immersion,*Steel:		
*AWWA D102: Inside Coating System No. 1		
minimum AWWA	8.0	(200)
1 ct. Dura-Plate 235 PW	3.0	(75)
1 ct. Dura-Plate 235 PW	5.0	(125)
*AWWA D102: Inside Coating System No. 2		
minimum AWWA	12.0	(300)
1 ct. Dura-Plate 235 PW	3.0	(75)
1 ct. Dura-Plate 235 PW	4.0	(100)
1 ct. Dura-Plate 235 PW	5.0	(125)
*AWWA D102: Inside Coating System No. 5		
minimum AWWA	10.0	(250)
1 ct. Corothane I – Galvapac NSF	2.0	(50)
1 ct. Dura-Plate 235 PW	4.0	(100)
1 ct. Dura-Plate 235 PW	4.0	(100)
Atmospheric, Steel:		
*AWWA D102: Outside Coating System No. 5		
minimum AWWA	6.0	(150)
1 ct. Dura-Plate 235 PW	2.0	(50)
1 ct. Dura-Plate 235 PW	2.0	(50)
1 ct. Acrolon 218HS	2.0	(50)
*AWWA D102: Outside Coating System No. 6		
minimum AWWA	6.0	(150)
1 ct. Corothane I – Galvapac NSF	2.0	(50)
1 ct. Dura-Plate 235 PW	2.0	(50)
1 ct. Acrolon 218HS	2.0	(50)
Concrete/ Masonry Smooth		
2cts. Dura-Plate 235 PW	4.0-8.0	(100-200)

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

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SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:
Atmospheric: SSPC-SP2/3 or SSPC-SP12/NACE No. 5, WJ-4
Immersion: SSPC-SP10, 2 mil (50 micron) profile or SSPC-SP-12/NACE No. 5, WJ-2/NV-2

Concrete & Masonry:
Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3
Immersion: SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R, CSP 1-3

Galvanized, atmospheric: SSPC-SP1
Ductile Iron Pipe:
Atmospheric: NAF 500-03-03 Power Tool Cleaning
Buried & Immersion: NAF 500-03-04 Abrasive Blast Cleaning
Cast Ductile Iron Fittings: NAF 500-03-05 Abrasive Blast Cleaning

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Rusted	D St 2	D St 2	SP 2	-
Pitted & Rusted	C St 3	C St 3	SP 3	-
Rusted	D St 3	D St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 0°F (-18°C) minimum, 120°F (49°C) (air and surface) maximum
At least 5°F (2.8°C) above dew point
Material should be at least 40°F (4.5°C) for optimal performance.
Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:
Part A: 1 gallon (3.78L) and 4 gallons (15.1L) in a 5 gallon (18.9L) container
Part B: 1 quart (0.94L) and 1 gallon (3.78L)
Weight: 11.3 ± 0.2 lb/gal ; 1.35 Kg/L, mixed may vary with color

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



Protective & Marine Coatings



DURA-PLATE® 235 PW MULTI-PURPOSE EPOXY

PART A
PART B

B67X-235
B67VX235

SERIES COLORS
HARDENER

Revised: March 5, 2020

APPLICATION BULLETIN

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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Carbon Steel, Immersion Service:

Clean and degrease the surface prior to abrasive blasting per SSPC-SP 1 Solvent Cleaning. Methods described in SSPC-SP 1 include solvents, alkali, detergent/water, emulsions, and steam. The surface shall be abrasive blasted to SSPC-SP10/NACE No. 2 Near-White Blast Cleaning with a 2-3 mil (50-75 micron) profile. The anchor pattern shall be sharp with no evidence of a polished surface. The finished surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter with no more than 5% staining. After blasting, all dust and loose residue should be removed from the surface by acceptable means. Coat steel the same day as it is prepared and prior to the formation of rust.

Iron & Steel, Atmospheric Service:

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

Ductile Iron Pipe, Atmospheric Service:

Minimum surface preparation is Power Tool Clean per NAF 500-03-03. Remove all oil and grease from surface by Solvent Cleaning per NAF 500-03-01.

Ductile Iron Pipe, Buried and Immersion Service:

Minimum surface preparation is Abrasive Blast Cleaning per NAF 500-03-04. Ductile iron pipe external surfaces, in some cases, can be damaged by excessive abrasive blast cleaning beyond this standard. Remove all oil and grease from surface by Solvent Cleaning per NAF 500-03-01.

Ductile Iron Fittings:

Minimum surface preparation is Abrasive Blast Cleaning of Cast Ductile Iron Fittings per NAF 500-03-05. Remove all oil and grease from surface by Solvent Cleaning per NAF 500-03-01.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/NACE 6 Surface Preparation of Concrete.
ICRI No. 310.2R Concrete Surface Preparation.

Concrete, Immersion Service:

For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 1-3.

Previously Painted Surfaces:

If in sound condition, clean the surface of all foreign material. Scarify the surface to create the desired surface profile. Apply coatings on a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary.

APPLICATION CONDITIONS

Temperature: 0°F (-18°C) minimum, 120°F (49°C) maximum
(air and surface)
At least 5°F (2.8°C) above dew point
Material should be at least 40°F (4.5°C) for optimal performance.

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean UpReducer R7K104

Airless Spray

Unit.....30:1 Pump
Pressure.....2400 - 2800 psi
Hose.....1/4" - 3/8" ID
Tip0.015" - .019"
Filter60 mesh
Reduction.....As needed, up to 10% by volume

Brush

Brush.....Natural Bristle
Reduction.....Not recommended

Roller

Cover3/8" woven with solvent resistant core
Reduction.....Not recommended

Recommended Spreading Rate per coat:

	Standard	AWWA
Wet mils (microns):	6.0 (150) - 12.0 (300)	4.4 (110) - 8.8 (220)
Dry mils (microns):	4.0 (100) - 8.0* (200)	3.0 (75) - 6.0* (150)
Coverage:	136 (3.3) - 272 (6.6) sq ft/gal (m²/L)	181 (4.4) - 362 (8.8)

*See recommended systems on Product Information page.

If specific application equipment is not listed above, equivalent equipment may be substituted.

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-



Protective & Marine Coatings



DURA-PLATE® 235 PW MULTI-PURPOSE EPOXY

PART A
PART B

B67X-235
B67VX235

SERIES COLORS
HARDENER

Revised: March 5, 2020

APPLICATION BULLETIN

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly using low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Standard		AWWA	
	Min.	Max.	Min.	Max.
Wet mils (microns)	6.0 150	12.0 300	4.4 110	8.8 220
Dry mils (microns)	4.0 100	8.0* 200*	3.0 75	6.0* 150*
Coverage sq ft/gal (m ² /L)	136 3.3	272 6.6	181 4.4	362 8.8
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil/25 micron dft	1088 (26.6)			

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

*See Recommended Systems on reverse side

Drying Schedule @ 6.0 mils wet (150 microns):

	@ 0°F/-18°C	@ 40°F/4.5°C	@ 77°F/25°C* 50% RH	@ 120°F/49°C
To touch:	18 hours	3.5 hours	2 hours	20 minutes
To handle:	36 hours	14 hours	3.5 hours	40 minutes
To recoat:				
minimum:	36 hours	14 hours	3.5 hours	40 minutes
maximum:	6 months	6 months	6 months	6 months
Cure to service:	30 days	28 days	7 days	3 days

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life: 16 hours 8 hours 4 hours 1 hour

Sweat-in-time: 1 hour 30 minutes 15 minutes 5 minutes

*For Potable Water Service, allow a minimum cure to service for given temperature. Sterilize and rinse per AWWA C652.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer R7K104. Clean tools immediately after use with Reducer R7K104. Follow manufacturer's safety recommendations when using any solvent.

DISCLAIMER

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PERFORMANCE TIPS

Stripe coat crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion, and NSF 61 approval.

Insufficient ventilation, incomplete mixing, miscatalyzation, and external heaters may cause premature yellowing.

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment and premature coating failure.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R7K104.

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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WARRANTY

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Protective
&
Marine
Coatings



SHERPLATE PW EPOXY

WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62W260	WHITE
PART A	B62L260	BLUE
PART B	B62V260	HARDENER
PART B	B62V265	OAP HARDENER

Revised: December 9, 2020

PRODUCT INFORMATION

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PRODUCT DESCRIPTION

SherPlate PW Epoxy is an edge retentive, ultra high solids epoxy amine coating engineered for immersion service in potable water pipes and storage tanks. The rapid return to service and high build, edge retentive properties of this coating provide superior protection.

- One or two coat protection
- Fast return to service
- Low odor
- Dry to walk-on within four hours
- Designed for plural-component application equipment
- Greater than 70% edge build retention
- NSF approved to standard 61 for potable water (tanks of 100 gallons or greater and pipes of 6" diameter or greater)

PRODUCT CHARACTERISTICS

Finish: Gloss

Color: White-Base and Blue (OAP Hardener can be used with either color)

Volume Solids: 100%, mixed

Weight Solids: 100%, mixed

VOC (EPA method #24): <85 g/L; 0.71 lb/gal, mixed

Mix Ratio: 1:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Tank Lining mils (microns)	16.0 (400)	50.0 (1250)
Pipe Lining mils (microns)	16.0 (400)	50.0 (1250)
~Coverage sq ft/gal (m ² /L)	100 (2.5)	32 (0.8)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	1604 (39.4)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 20.0-50.0 mils wet (500-1250 microns):

	@ 40°F/4.5°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	6 hours	1 hour	35 minutes
To handle:	8-12 hours	3 hours	55 minutes
To recoat:			
minimum:	6 hours	1 hour	35 minutes
maximum:	14 days	14 days	14 days
Foot traffic:	8-12 hours	3 hours	1 hour
To cure:	36 hours	24 hours	12 hours

If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.
Sterilize and rinse per AWWA C652.

Pot Life: 7 minutes

Sweat-in-Time: None required

Shelf Life: 24 months
Store indoors at 40°F (4.5°C) to 100°F (38°C).

Flash Point: 230°F (110°C), PMCC, mixed

Reducer: Not recommended

Clean Up: MEK (R6K10) or Reducer R7K104

RECOMMENDED USES

For use over prepared steel or masonry surfaces for water including potable water.

- Where rapid return to service and edge protection film build properties are required
- Part B Hardener available with OAP (optically active pigment)
- Meets or exceeds the requirements of AWWA C210-15
- Meets or exceeds AWWA D102
- A component of INFINITANK
- Suitable for use in the Mining & Minerals Industry
- Meets MIL-PRF-23236, Type VII, Class 9/18 requirements for single coat application in potable water tanks
- Refer to www.nsf.org website for allowable tank size listing

PERFORMANCE CHARACTERISTICS

System Tested:

1 ct. SherPlate PW Epoxy @ 30.0 mils (750 microns) dft

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060	22.4 mg loss
Adhesion	ASTM D4541	>2,000 psi
Cathodic Disbondment	ASTM G8	Passes AWWA C210-15 requirements ; 7.7 mm (average)
Edge Retention	MIL-PRF-23236C	80%+ (average)
Elongation	ASTM D638	3.3%
Flexibility	ASTM D522	1/2" (24 hour cure)
Flexural Modulus	ASTM D790	2560 psi
Flexural Strength	ASTM D790	7458 psi
Moisture Condensation Resistance	ASTM D4585, 2000 hours	Passes
Pencil Hardness	ASTM D3363	3H
Shore D Hardness	ASTM D2240	83
Water Vapor Permeance	ASTM D1653, Method B, Condition C	0.259 ± 0.380 grains/(hr ft ² in Hg)

Immersion (ambient temperature) for the following:

- Deionized Water*.....No effect
- Fresh Water.....Recommended
- Potable Water.....Recommended
- Salt Water.....Recommended
- Sulfuric Acid @ 1% by wt.*.....No effect
- Sodium Hydroxide @ 1% by wt.*.....No effect
- 1% Solution of Sodium Hypochlorite.....Recommended
- AWWA C210-15 Chemical Solutions.....Recommended

*30 days @ ambient (passes AWWA C210-15)

Epoxy coatings may darken or yellow after application and curing.



Protective
&
Marine
Coatings



SHERPLATE PW EPOXY

WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62W260	WHITE
PART A	B62L260	BLUE
PART B	B62V260	HARDENER
PART B	B62V265	OAP HARDENER

Revised: December 9, 2020

PRODUCT INFORMATION

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils (Microns)
Steel, Immersion (AWWA C210-15):		
1-2 cts. SherPlate PW Epoxy		16.0-50.0 (400-1250)
Steel, Immersion (AWWA D102):		
1 ct. Optional Primer	*	
1-2 cts. SherPlate PW Epoxy		20.0-50.0 (500-1250)
Steel, Immersion/Vapor Space (AWWA D102):		
1 ct. Corothane I GalvaPac (optional)		2.5-4.0 (63-100)
1 ct. SherPlate PW Epoxy		12.0-20.0 (300-500)
Concrete, Immersion:		
1 ct. Primer	**	
1-2 cts. SherPlate PW Epoxy		20.0-50.0 (500-1250)
Steel, Atmospheric:		
1-2 cts. SherPlate PW Epoxy		20.0-50.0 (500-1250)

*Acceptable Primers for Steel:

Macropoxy 5500LT Primer
Corothane I Gavapac 1K Zinc Primer
Corothane I Galvapac 2K Zinc Primer
Dura-Plate UHS Primer
Zinc Clad PCP Ultra

**Acceptable Primers for Concrete:

Macropoxy 240
Corobond 100
Corobond HS
Dura-Plate 235
Dura-Plate UHS Primer

The systems listed above are representative of the product's use, other systems may be appropriate.

SAFETY PRECAUTIONS

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SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:	
Atmospheric:	SSPC-SP6/NACE 3, 2 mil (50 micron) profile or SSPC-SP12/NACE No. 5, WJ-3/SC-2
Immersion:	SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) profile or SSPC-SP12/NACE No. 5, WJ-2/SC-2
Concrete & Masonry:	
Atmospheric:	SSPC-SP13/NACE 6, or ICRI 310.2R CSP2-4
Immersion:	SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI 310.2R CSP2-4

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
	Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:
air and surface: 40°F (4.5°C) minimum, 110°F (43°C) maximum

For application at 35°F (1.7°C) to 40°F (4.5°C), specific guidelines are required:

- Air & Surface temperature conditions must be expected to remain stable or improve for a period of four hours
- Environmental controls (dehumidification, heating, forced-air ventilation) are recommended to maintain acceptable application conditions

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging

Part A:	5 gallon (18.9L) pails and 50 gallon (189L) drums*
Part B:	5 gallon (18.9L) pails and 50 gallon (189L) drums*

*White (Part A) and Standard Hardener (Part B) only

Cartridge: 300 x 300 mL and 750 x 750 mL

Weight: 11.71 ± 0.3 lb/gal ; 1.4 Kg/L, mixed

WARRANTY

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Protective
&
Marine
Coatings



SHERPLATE PW EPOXY

WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62W260	WHITE
PART A	B62L260	BLUE
PART B	B62V260	HARDENER
PART B	B62V265	OAP HARDENER

Revised: December 9, 2020

APPLICATION BULLETIN

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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel (atmospheric service)

Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3 or SSPC-SP12/NACE No. 5. For surfaces prepared by SSPC SP6/NACE 3, first remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). For surfaces prepared by SSPC-SP12/NACE No. 5, all surfaces shall be cleaned in accordance with WJ-3/SC2. Pre-existing profile should be approximately 2 mils (50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel (immersion service)

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2, or SSPC-SP12/NACE No. 5. For SSPC-SP10/NACE 2, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). For SSPC-SP12/NACE No.5, all surfaces to be coated shall be cleaned in accordance with WJ-2/SC2 standards. Pre-existing profile should be approximately 2 mils (50 microns). Remove all weld spatter. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 2-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required. For surface preparation of Concrete, Immersion Service, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 2-3.

Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2R Concrete Surface Preparation.

Surface Preparation Standards				
Condition of Surface	ISO 8501-1 BS7099:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 6	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Rusted	D St 2	D St 2	SP 2	-
Pitted & Rusted	C St 3	C St 3	SP 3	-
Rusted	D St 3	D St 3	SP 3	-
Power Tool Cleaning	P St 3	P St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:
air and surface: 40°F (4.5°C) minimum, 110°F (43°C) maximum

For application at 35°F (1.7°C) to 40°F (4.5°C), specific guidelines are required:

- Air & Surface temperature conditions must be expected to remain stable or improve for a period of four hours
- Environmental controls (dehumidification, heating, forced-air ventilation) are recommended to maintain acceptable application conditions

The material should be 85°F-130°F / 29°C-54°C (vary as needed) at the mixing block for optimal atomization based on tip size and pump pressure..Do not heat above 140°F (60°C).

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reduction Not recommended
Clean Up MEK (R6K10) or R7K104

Plural Component Equipment:

Pump WIWA DUOMIX 1:1, Graco Extreme Mix, or Graco XP70
Pressure 4000 psi
Hose 3/8" ID
Tip021" - .025"
Pump heater setting 110°F-130°F (43°C-54°C)*
Material temperature
at gun tip 110°F-130°F (43°C-54°C), vary as needed

Brush For stripe coating and repair only
Brush Nylon/Polyester or Natural Bristle

Roller For stripe coating and repair only
Cover 3/8" woven with solvent resistant core

*Material should be preheated to 110°F (43°C) prior to spraying.

If specific application equipment is not listed above, equivalent equipment may be substituted.



Protective & Marine Coatings



SHERPLATE PW EPOXY WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62W260	WHITE
PART A	B62L260	BLUE
PART B	B62V260	HARDENER
PART B	B62V265	OAP HARDENER

Revised: December 9, 2020

APPLICATION BULLETIN

4.82

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix contents of each component thoroughly using low speed power agitation. Make certain no pigment remains on the bottom or the sides of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation.

To ensure that no unmixed material remains on the sides or bottom of the cans after mixing, visually observe the container by pouring the material into a separate container.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Tank Lining mils (microns)	16.0 (400)	50.0 (1250)
Pipe Lining mils (microns)	16.0 (400)	50.0 (1250)
~Coverage sq ft/gal (m ² /L)	100 (2.5)	32 (0.8)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	1604 (39.4)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 20.0-50.0 mils wet (500-1250 microns):

	@ 40°F/4.5°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	6 hours	1 hour	35 minutes
To handle:	8-12 hours	3 hours	55 minutes
To recoat:			
minimum:	6 hours	1 hour	35 minutes
maximum:	14 days	14 days	14 days
Foot traffic:	8-12 hours	3 hours	1 hour
To cure:	36 hours	24 hours	12 hours

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Sterilize and rinse per AWWA C652.

Pot Life:	7 minutes
Sweat-in-Time:	None required

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with MEK, R6K10. Clean tools immediately after use with MEK, R6K10. Follow manufacturer's safety recommendations when using any solvent.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

PERFORMANCE TIPS

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross-coat spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

No reduction of material is recommended as this can affect film build, appearance, and adhesion.

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

Remove and solvent clean tip housing every 20-30 minutes.

For Immersion Service: (if required) Holiday test in accordance with NACE SP0188.

OAP fluorescent pigment can be used as a one or two coat system. When using OAP in a two coat system, use OAP hardener in first coat.

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.B.1.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-117 A Resolution Authorizing the Fourth Budget Amendment to the 2021 Operating and Capital Budget to Increase the Budget by \$5,537,909.00 for the funds received from the American Rescue Plan Act

Report in Brief

The American Rescue Plan Act of 2021 (ARPA) was signed into law on March 11, 2021. The City of Arvada's share of the local funding is \$11,075,818. These dollars will be sent to the City in two different increments, with the first one totaling \$5,537,909 received in May of 2021 and the second one to be received after the funding from the first one has been exhausted. There are four broad categories that the funds can be used for, including Revenue Replacement, COVID-19 related expenditures, premium pay for essential workers and investments in water, sewer and broadband infrastructure. Each one of the broad categories has additional criteria that must be met before an expenditure can be deemed eligible for reimbursement. The funds must be spent or encumbered by December 31, 2024.

The City team is asking the City Council to approve the receipt of the first installment and allocating \$2,500,000 for specific projects and programs as described herein.

The Arvada team recommends that the City Council approve R21-117, A Resolution Authorizing the Fourth Budget Amendment to the 2021 Operating and Capital Budget to increase the Budget by \$5,537,909 for the funds received by the American Rescue Plan Act.

Financial Impact

The approval of this resolution would formalize the receipt of the first half of the ARPA funds, which is \$5,537,909. A total of \$2,500,000 would be allocated at this time to fund risk-pay bonuses estimated at \$1,000,000 and the Olde Town Street Closure improvements estimated at \$1,500,000. The source of the funds is a Federal Grant and is one-time in nature. There would be no effect on the current General Fund budget.

Background

As was stated earlier, the first installment of the ARPA funds was received in May of 2021. The City team has been working internally to identify appropriate uses for these funds. Over \$70 million dollars worth of projects were identified as possible uses for the ARPA funds. This list has been narrowed down to just over \$41 million dollars and was shared with the City Council in July. The City team would like to move forward with two specific items on the list that have been deemed appropriate for reimbursement. These items include the implementation of premium pay (also called risk or hazard pay) and the Olde Town Street Closure improvements. The combined cost of these items is \$2,500,000.

Other items that remain under consideration and will be recommended to the City Council in the future include increased technology to support remote work environments, support for local businesses and non-profits, support for regional homeless efforts and implementation of additional security measures. Please note that the Arvada team will review all proposed ARPA expenditures with the City Council and provide recommendations for your consideration and approval before authorizing any additional expenditures.

Discussion

Approval of this resolution will allow the City team to allocate the ARPA funds to the highest priority needs. This action will also allow the Finance team to submit appropriate expenditures for reimbursement to the Treasury.

Allocation of the funds to provide premium pay will compensate team members for their work during the previous surges of the COVID-19 pandemic. The premium pay will be applied as risk-pay bonuses to the many team members that were on the front lines, in the field, and at higher risk of exposure to the COVID-19 virus throughout the pandemic period from March 2020 through March 2021.

Each department's leadership used a set of criteria and definitions to determine the level of risk experienced by team members. The bonuses, which range from \$500 to \$3,000, are scaled based on the level of risk faced by the employee. The eligible employees must be currently employed and actively working. They also must have worked in their essential roles during the pandemic period from March 2020 through March 2021. Employees who worked less than 90% of this time frame will receive a prorated bonus based on time worked. The City Council's approval of this resolution on September 13 will enable the eligible employees to receive their risk pay bonuses on their October 8 paycheck.

As a result of the 2020 COVID-19 pandemic, many businesses, and restaurants in particular, needed to look for ways to increase their seating capacity outside. In May, 2020, the City team began working on a plan to close several streets in Olde Town, for what was intended to be a temporary period of time. The closure in Olde Town started on June 12, 2020 and was originally slated to end on Labor Day. As the pandemic continued, the need to continue the Olde Town street closures was identified. Feedback from Olde Town businesses and the BID received in March, 2021, was largely positive and generated direction to continue the closures into the future.

In response, the City team, in collaboration with the BID and other Olde Town stakeholders, developed and are now completing execution of a plan to construct a "semi-permanent" street closure. This work does not make any significant changes to the overall public infrastructure of Olde Town; however, it enhances the infrastructure in order to integrate the appearance of the closures into the historic district. This work has added decorative concrete medians, parklets, additional seating and other amenities which enhance Olde Town as a retail and entertainment destination for Arvada and the region.

Public Contact

Posting of the City Council agenda

Commission Recommendation

N/A

Strategic Alignment

The resolution aligns with the following Principle included in the Organization and Service Effectiveness Priority Area of the City Council Strategic Plan:

"Provides a well-managed, fiscally responsible government that operates effectively and efficiently while identifying revenue requirements to sustain current service levels and achieve future requested levels of service."

The resolution also aligns with the following Principle in the Community and Economic Development Priority Area of the City Council Strategic Plan:

"Supports the community's vision by cultivating an environment that attracts and retains private-sector investment, a talented workforce, and an engaged business community".

Alternative Courses of Action

SUBJECT: R21-117 A Resolution Authorizing the Fourth Budget Amendment to the 2021 Operating and Capital Budget to Increase the Budget by \$5,537,909.00 for the funds received from the American Rescue Plan Act

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N/A

Recommendation for Action

The Arvada team recommends that the City Council approve R21-117, A Resolution Authorizing the Fourth Budget Amendment to the 2021 Operating and Capital Budget to increase the Budget by \$5,537,909 for the funds received by the American Rescue Plan Act.

Suggested Motion:

I move that R21-117, A Resolution Authorizing the Fourth Budget Amendment to the 2021 Operating and Capital Budget to increase the Budget by \$5,537,909, be (approved) (rejected).

Prepared by:
Bryan Archer, Director of Finance

Reviewed by:

Approved by:

Jenna Belec, Executive Assistant	8/24/2021
Bryan Archer, Director of Finance	8/25/2021
Gail Walker, Legal Specialist-Contracts	8/30/2021
Kylie Justus, Assistant City Attorney	8/30/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-117

A RESOLUTION AUTHORIZING THE FOURTH BUDGET AMENDMENT TO THE 2021 OPERATING AND CAPITAL BUDGET TO INCREASE THE BUDGET BY \$5,537,909.00 FOR THE FUNDS RECEIVED FROM THE AMERICAN RESCUE PLAN ACT

WHEREAS, the American Rescue Plan Act of 2021 (ARPA) was signed into law on March 11, 2021; and

WHEREAS, the City of Arvada's share of the local funding is \$11,075,818.00 with the dollars being sent to the City in two different increments - the first one totaling \$5,537,909.00 and received in May of 2021; the second one to be received after the funding from the first one has been exhausted; and

WHEREAS, there are four broad categories that the funds can be used for, including Revenue Replacement, COVID-19 related expenditures, premium pay for essential workers, and investments in water, sewer, and broadband infrastructure; and

WHEREAS, a total of \$2,500,000.00 will be allocated at this time to fund the following: (1) Risk-pay bonuses estimated at 1,000,000.00; and (2) Olde Town street closure improvements estimated at \$1,500,000.00; and

WHEREAS, the source of funds is a one-time federal grant and there will be no effect on the General Fund budget.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF ARVADA COLORADO:

Section 1. Pursuant to the provision of Chapter 2, Article 7, Section 2-295 of the Arvada City Code, the Council hereby authorizes the Fourth Budget Amendment to the 2021 Operating and Capital Budget to Increase the Budget by \$5,537,909.00 for the funds received from the American Rescue Plan Act.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.B.2.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-118 A Resolution Authorizing the City of Arvada to Enter into an Intergovernmental Agreement with the City of Westminster for Fleet Maintenance and Repair Services

Report in Brief

In the event that unforeseen circumstances cause a shutdown, the City of Arvada currently does not have an organized contingency plan to maintain vehicles and equipment that are essential for providing services to our community. Having an IGA for Fleet Services would ensure that vehicle and equipment maintenance continue seamlessly without adverse effects on the City team and the public who depend on them. This IGA with Westminster is new and unprecedented; however, the recommended action positions both cities to remain resilient in case of emergency.

The Arvada team recommends that the City Council approve R21-118, A Resolution authorizing the City of Arvada to enter into an Intergovernmental Agreement with the City of Westminster for fleet maintenance and repair services.

Financial Impact

Vehicle maintenance expense is already included in the approved operating budget and this IGA is structured to have no significant financial impact on either city. All billing for Arvada vehicles serviced by the City of Westminster will be charged to the unit using the vehicle maintenance fund 54 under program numbers 731020 and 731030.

Background

Arvada Fleet Services provides essential service to the City by maintaining its expansive and diverse fleet of vehicles and equipment. These vehicles require technicians to have extensive knowledge and experience to maintain them effectively, making municipal Fleet Equipment Technicians highly desirable for safe and efficient vehicle maintenance. The City currently has no organized contingency plan in the event that circumstances arise that make the Arvada Fleet team unable to report or provide services. Circumstances that may cause Fleet Services to shut down, such as a pandemic, natural or man-made disasters, and other unforeseen events could be detrimental to the City's critical Infrastructure and Safe Communities teams that utilize vehicles and equipment to provide essential services to the community.

The City of Westminster is willing and able to partner with Arvada by entering into an intergovernmental agreement to support each other's Fleet Services needs if an event were to occur that caused one of the City's Fleet Maintenance operations to be shut down. The scope of services provided would be on demand in accordance with DOT regulations and/or appropriate repair standards, and authorized only by Fleet Services management with the right to terminate at any time. Authorization of this IGA improves our ability to continue to provide superior services to our community in the event of a shutdown.

Discussion

We are at an unprecedented time in history in the midst of a pandemic. Vehicles and equipment are critical tools for City team members to be able to support the community and not having an organized contingency plan for vehicle services could have severe consequences.

The intent of this IGA is to provide mutual support at a break-even cost point so that each City may continue to provide

essential fleet services for their communities in the event of a shut down. Therefore, the labor rates for services provided will be charged to both cities at an estimated burden rate of \$105 per hour. Parts expenses will be expensed and reimbursement at cost and all third party services will be invoiced directly to the requesting party.

Public Contact

Posting of the City Council Agenda

Commission Recommendation

NA

Strategic Alignment

This IGA supports the City Council Strategic Plan for Safe Communities, Infrastructure, Community and Economic Development, Vibrant Community and Neighborhoods, and Organizational and Service Effectiveness by maintaining the vehicles and equipment that are utilized to achieve each work system's strategic results.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that City Council approve R21-118, A Resolution authorizing the City of Arvada to enter into an Intergovernmental Agreement with the City of Westminster for fleet maintenance and repair services.

Suggested Motion:

I move that R21-118, A Resolution Authorizing the City of Arvada to Enter into an Intergovernmental Agreement with the City of Westminster for Fleet Maintenance and Repair Services, be (approved) (rejected).

Prepared by:
Ike Miller, Fleet Services Manager

Reviewed by:

Approved by:

Sharon Israel, Director of Utilities	8/23/2021
Bryan Archer, Director of Finance	8/23/2021
Gail Walker, Legal Specialist-Contracts	8/24/2021
Erika Pierce, Litigation Paralegal	8/24/2021
Emily Grogg, Senior Assistant City Attorney	8/24/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021

SUBJECT: R21-118 A Resolution Authorizing the City of Arvada to Enter into an Intergovernmental Agreement with the City of Westminster for Fleet Maintenance and Repair Services

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Mark Deven, City Manager

9/2/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-118

A RESOLUTION AUTHORIZING THE CITY OF ARVADA TO ENTER INTO AN
INTERGOVERNMENTAL AGREEMENT WITH THE CITY OF WESTMINSTER FOR
FLEET MAINTENANCE AND REPAIR SERVICES

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The Mayor or Mayor Pro Tem is authorized to sign and the City Clerk to attest, in form approved by the City Attorney, an Agreement, which is in substantially the same form as that attached hereto, by and between the City of Arvada and the City of Westminster for fleet maintenance and repair services.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

**INTERGOVERNMENTAL AGREEMENT FOR FLEET MAINTENANCE AND
REPAIR SERVICES BETWEEN
CITY OF WESTMINSTER AND CITY OF ARVADA**

THIS AGREEMENT, made and entered into this ____ day of _____ 2021 between the City of Westminster, a Colorado home rule municipal corporation, hereinafter called “Westminster,” by and through its city Fleet Management Division, whose mailing address is 4800 W. 92nd Avenue, Westminster, CO 80031 and the City of Arvada, a Colorado home rule municipal corporation, by and through its Fleet Maintenance Division, whose mailing address is 8101 Ralston Road, Arvada, CO 80002 hereinafter called “Arvada,” and collectively, the “Parties or Cities” is as follows:

WHEREAS, it is in the interest of each of the Parties that they may have service of and from the other party to aid and assist them for the purpose of providing vehicle maintenance and repair services on an as-needed basis during a time when staff shortages are necessary due to shutdowns and lockdowns;

WHEREAS, in accordance with Colorado Revised Statutes, §29-1-203, governments may cooperate or contract with another to provide any function, service or facility lawfully authorized to each of the respective units of government; and

WHEREAS, this Agreement covers the scope of services each Party will provide in connection to the maintenance and repair of vehicles owned by the other; and

WHEREAS, the parties acknowledge and agree that while each Party contemplates using the other on an as-needed basis for the fleet services described in **Appendix A**, the Parties also acknowledge and agree that either Party may, at its own discretion, use other approved contractors to perform similar services, and that this Agreement no way limits either Party from hiring other advisors or constitutes a contract for exclusive services from the other Party.

NOW, THEREFORE, in consideration of the mutual understandings and agreements set forth, Westminster and Arvada agree as follows:

I. THE PROJECT

A. Westminster and Arvada agree to perform maintenance and repairs on vehicles owned and operated by the other Party by request and on an as-needed basis (“the Project”) as more specifically described in the Scope of Services, attached hereto and incorporated herein as **Appendix A**.

B. The Cities will only perform services pursuant to **Appendix A** (the “Services”) on vehicles owned by the other Party as resources permit. The Cities shall promptly inform the other Party if the Party cannot perform any requested Services or if there will be a delay in rendering the requested Service(s). In the event a requested Service(s) cannot be performed or

there is a delay, the Party requesting Service(s) has no obligation to seek Services exclusively from the other Party. If resources permit, and higher priorities do not interfere, Services shall be rendered as follows:

1. The repairs or replacement parts required will depend on part availability and magnitude of the repairs. These will be coordinated with each Party's Fleet Supervisor/Manager as listed below.

If the repair involves the securing of parts not stocked by either Party or by local private parts vendors, the downtime can be several days. In any case, the Cities will reasonably communicate any delays to the other Party in a timely manner.

City of Westminster

Chad Paugh, Fleet Supervisor
6405 W. 88th Ave
Westminster, CO 80031
Office: 303-658-2517

Emergency On-Call/After Hours
303-658-2512

City of Arvada

Ike Miller, Fleet Manager
8101 Ralston Rd
Arvada, CO 80002
Office: 720-898-7702

Emergency/After Hours
720-898-7446

2. The hours of operation for the Westminster Fleet Services are M-F, 6:00 a.m. to 5:00 p.m. No Services are available when Westminster offices are closed on weekends and for all Federal and Westminster Holidays, except for emergency services as set forth below.
 - a. Westminster makes its Services, outside of normal business hours, available to Arvada 24-hours a day, 7 days a week, every day of the year. Unless otherwise directed by Westminster and at Arvada's request, Westminster will dispatch a tow truck to pick up a disabled Arvada owned-vehicle and bring the vehicle to Fleet Management located at 6405 W. 88th Avenue, Westminster, CO 80031. If necessary, Westminster will dispatch the on-call mechanic to address the needed repairs. The minimum bill rate for such services is two

hours.

- b. Turnaround time for preventative maintenance is generally one business day. Maintenance, repairs, or other tasks requiring work/assistance by a higher classification (e.g. mechanic II or EVT) may be negatively impacted by demands associated with emergency vehicles. Westminster will prioritize emergency vehicles over Arvada vehicles and this may delay the turnaround time. Westminster shall communicate any delays to Arvada. If during inspections deficient items are noted, they will be completed as schedules permit. These additional repairs will be reported to Arvada by Westminster and an estimated time of returning to service will be given. Additional repairs will not be undertaken without approval from Arvada and Arvada agrees to provide a timely response and direction. In the event Arvada elects to not proceed with any Service(s) due to delay, the Parties shall coordinate with Arvada retrieval of the vehicle.
3. The hours of operation for Arvada Fleet Services are M-F, 7:00 a.m. to 3:30 p.m. No services are available when Arvada offices are closed on weekends and for all Federal and Arvada Holidays except for emergency services as set forth below.
 - a. Arvada makes its Services, outside of normal business hours, available to Westminster 24-hours a day, 7 days a week, every day of the year. Unless otherwise directed by Arvada, Arvada will dispatch a tow truck to pick up a disabled vehicle and bring the vehicle to Arvada Fleet Facilities located at 7800 W. 62nd Avenue, Arvada, CO 80004 or 6701 Indiana Street, Arvada, CO 80002 at the option of Arvada staff. If necessary, Arvada will dispatch the on-call mechanic to address the needed repairs. The minimum bill rate for such services is two hours.
 - b. Turnaround time for preventative maintenance is generally one business day. Maintenance, repairs, or other tasks requiring work/assistance by a higher classification (e.g. Master Technician) may negatively impact those demands. Arvada shall not provide, and Westminster shall not request Arvada to provide, any Service requiring a Certified Emergency Vehicle Technician. Arvada will prioritize emergency vehicles over Westminster vehicles and this may delay the turnaround time. Arvada shall communicate any delays to Westminster. If deficient items are noted during inspections, they will be completed as schedules permit. These additional repairs will be reported to Westminster and an estimated time of returning to service will be given. Additional repairs will not be undertaken without approval from Westminster and Westminster agrees to provide a timely response and direction. In the event Westminster elects to not proceed with any Service(s) due to delay, the Parties shall coordinate retrieval of the vehicle.

4. Westminster shall perform all Services on Arvada vehicles at its Fleet Facilities located at 6405 W. 88th Avenue, Westminster, CO 80031.
5. Arvada shall perform all Services on Westminster vehicles at its Fleet Facilities located at 7800 W. 62nd Avenue, Arvada, CO 80004 or 6701 Indiana Street, Arvada, CO 80002 at the option of Arvada staff.

II. TERMS & CONDITIONS

- A. **TERM & TERMINATION.** This Agreement will become effective and binding on all parties upon Arvada's execution of the Agreement, which will occur within a reasonable time following Arvada's receipt of the executed Agreement from Westminster. The term of the Agreement shall be for 12 months from Arvada's execution of the Agreement, unless otherwise agreed to in writing by the Parties, subject to the availability of funds, or either Party's termination for convenience.
- B. **RENEWALS.** This Agreement may be renewed by either Party for four consecutive one-year terms, and the renewals shall be automatic unless a Party gives the other Party thirty days' written notice to terminate the Agreement.
- C. **NON-APPROPRIATION.** This Agreement shall not be interpreted to impose a multi-year obligation on the Parties. Financial commitments of the Parties under this Agreement payable after the current fiscal year are contingent upon funds for this Agreement being appropriated, budgeted, and otherwise made available by a Party. If funds for this Agreement are not budgeted and appropriated in any year subsequent to the fiscal year of execution of this Agreement, a Party may immediately terminate its participation in this Agreement by giving the other Party notice of such non-appropriation.
- D. **RIGHT TO TERMINATE.** Either Party shall have the right to terminate, without cause, this Agreement. Any such termination shall not be considered a breach of the Agreement or any extension. In the event either Party terminates for convenience, each Party shall pay the other for requested work performed up until the time of termination, in accordance with the Invoicing provisions in **Appendix A**.
- E. **NO EMPLOYMENT RELATIONSHIP.** By entering into and performing under this Agreement, no Party is acting as an agent, servant, or employee of any other Party.
- F. **ASSIGNMENT.** This Agreement shall not be assigned by either Party without the prior written consent of the other Party.

- G. **NO THIRD PARTY BENEFICIARIES.** It is expressly understood and agreed that enforcement of this Agreement, and all rights of actions relating to such enforcement, shall be strictly reserved to Arvada and the Westminster and nothing contained in this Agreement shall give or allow any such claim or right of action by any other third party on such Agreement. It is the express intention of the Parties that any person other than Arvada or the Westminster receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.
- H. **GOVERNING LAW AND VENUE.** This Agreement shall be governed by the laws of the State of Colorado. Venue for any action arising under this Agreement or for the enforcement of this Agreement shall be in the appropriate court for Jefferson County, Colorado.
- I. **GOVERNMENTAL IMMUNITY & COOPERATION.** The Parties hereto intend that nothing herein shall be deemed or construed as a waiver by either party of any rights or protections afforded to them under the Colorado Governmental Immunity Act (Section 24-10-101, C.R.S. *et seq*). The Parties agree that in the event any claim or suit is brought against either or both Parties by any third party as a result of the operation of this Agreement that both Parties will cooperate with each other, and with the insuring entities of both Parties, in defending such claim or suit.
- J. **FORCE MAJEURE.** Any delays in or failure of performance by either Party of its obligations under this Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations, or orders of civil or military authorities, shortage of labor or materials, or other causes, similar or dissimilar, which are beyond the control of either Party.
- K. **BINDING EFFECT.** This Agreement shall inure to the benefit of, and be binding upon, the Parties, their respective legal representative, successors, heirs, and assigns; provided however, that nothing in this paragraph shall be construed to permit the assignment of this Agreement except as otherwise expressly authorized herein.
- L. **NOTICES.** Any notice required or permitted by this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the person signing this Agreement, or at such other address as has been previously furnished in writing to either Party. Such notice shall be deemed to have been given when deposited in the United States Mail.
- M. **PARAGRAPH CAPTIONS.** The captions of the paragraphs are set forth only for the convenience and reference of the Parties and are not intended in any way to define, limit, or describe the scope or intent of this Agreement.

- N. **INTEGRATION AND AMENDMENT.** This Agreement represents the entire agreement between the Parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing and signed by the Parties. If any other provision of the Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and affect.
- O. **DEFAULT.** Time is of the essence. If any payment or any other condition, obligation, or duty is not timely made, tendered, or performed by either Party, and such delay has not been mutually agreed-upon by the Parties, then the Agreement may be terminated by the nondefaulting Party, in which case the nondefaulting Party may recover such damages as may be proper. If the nondefaulting Party elects to treat this Agreement as being in full force and effect, the nondefaulting Party shall have the right to an action for specific performance or damage or both.
- P. **WAIVER OF BREACH.** A waiver by either Party to the Agreement of the breach of any term or provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either Party.
- Q. **SIGNATURE IN COUNTERPART.** This Agreement may be executed in several counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument.
- R. **INSURANCE REQUIREMENTS.** Arvada and Westminster are “public entities” within the meaning of the Colorado Governmental Immunity Act, C.R.S. §24-10-101 (“CGIA”). Both Parties shall, at all times during the term of this Agreement, maintain any such liability insurance, whether by commercial policy or self-insurance, as is necessary to meet any liability under the CGIA. Each Party shall be responsible for any suits, demands, costs, or actions at law resulting from its own acts or omissions and may insure against such possibilities as appropriate related to this Agreement.
- S. **NO ASSUMPTION OF LIABILITIES.** By entering into and performing under this Agreement, no Party is assuming any liability for the acts or omissions of any other Party or third parties.

APPENDIX A

- I. Scope of Services. Westminster's Fleet Management Division (hereinafter "Westminster" or "Westminster Fleet Services") and Arvada's Fleet Management Division (hereinafter "Arvada" or "Arvada Fleet Services") agree to provide mutual vehicle maintenance and emergency mechanical support services to the other Party as described in the following list by request and on an as-needed basis. The Party requesting Services shall be identified as the "Requesting Party" and the Party performing the Service shall be identified as the "Performing Party." The list is not to be considered all-inclusive:
 - A. Vehicle lube, oil, and oil filter service
 - B. Tire repair and replacement
 - C. Alignments.
 - D. Brake maintenance and repairs
 - E. Engine and body electrical
 - F. Suspension maintenance and repair
 - G. Preventative maintenance services
 - H. Tune up service
 - I. A/C maintenance and repair
 - J. Fuel system service and repair
 - K. Cooling system maintenance and repair
 - L. Transmission maintenance and light repair
 - M. General vehicle checks. Vehicles will be checked over generally by the Performing Party. The Performing Party shall advise the Requesting Party of any problems that are identified.
- II. The Performing Party will not repair any problems found that are safety related to the operation of the vehicle without consultation with the Requesting Party.
- III. All problems reported by Requesting Party, will be repaired by the Performing Party, as parts and resources permit, subject to the terms of the Agreement.
- IV. All preventive maintenance performed by Westminster will be done according to current City of Westminster guidelines. DOT required periodic inspections will be conducted IAW 49 CFR 393 and 396.
- V. All preventive maintenance performed by Arvada will be done according to current City of Arvada guidelines. DOT required periodic inspections will be conducted IAW 49 CFR 393 and 396.
- VI. Any Out of Service (OOS) defects identified, IAW regulatory requirements, industry standards, technical data, and/or common shop practices, will result in

the vehicle being placed OOS and the Requesting Party will be notified, until necessary repairs are made.

VII. Parts Procurement.

- A. Parts used for Services rendered by Westminster will be provided by the Westminster's on-site parts store Factory Motor Parts. Arvada agrees to pay the Westminster's cost for parts used in rendering the Services. Westminster shall invoice Arvada according to the Invoicing Section listed below.
- B. Parts used for Services rendered by Arvada will be provided by the on-site, in-house Arvada Parts Department. Westminster agrees to pay Arvada's cost for parts used in rendering the Services. Arvada shall invoice Westminster according to the Invoicing Section listed below.

VIII. Vended Work

- A. All 3rd party vended work will require written authorization by the Requesting Party, before being sent to the 3rd party vendor.
- B. All 3rd party vended work quoted will require written authorization by the Requesting Party, before being approved for repair.
- C. The Requesting Party will be responsible for paying all 3rd party vended invoices, directly to the vendor.

IX. Operating Vehicles and Equipment

- A. Only Westminster Fleet Management employees shall be authorized to drive or operate Arvada vehicles and equipment provided to Westminster for Services. Westminster Fleet Management employees must hold a valid Class A CDL to operate an Arvada vehicle requiring a CDL.
- B. Only Arvada Fleet Management employees shall be authorized to drive or operate Westminster vehicles and equipment provided to Arvada for Services. Arvada Fleet Management employees must hold a valid Class A CDL to operate a Westminster vehicle requiring a CDL.

X. Labor Rate

- A. Arvada agrees to pay Westminster a standard labor rate of \$105.00 per hour, for documented labor in performance of the Services. In the event Westminster's mechanics must respond after normal duty hours, Arvada agrees to pay 1.5 times the standard labor rate of \$105, or \$152.50 per hour, at a 2-hour minimum, for documented labor. The hourly labor rate will be prorated for all documented labor which falls short of each hour.
- B. Westminster agrees to pay Arvada a standard labor rate of \$105.00 per hour for documented labor in performance of the Services. In the event Arvada's mechanics must respond after normal duty hours, Westminster agrees to pay 1.5 times the standard labor rate of \$105.00, or \$152.50 per hour, at a 2 hour minimum, for documented labor. The hourly labor rate will be prorated for all documented labor which falls short of each hour.

- C. Any billing for labor shall be invoiced in accordance with the Invoicing Section below.

XI. Work Order Documentation

- A. All labor and parts will be documented by Westminster by using an Indirect Work Order in Westminster's Fleet Management Information System, FASTER. All work will be explained, in detail, in the notes section of the work order. Westminster shall send a copy of the work order to Arvada at imiller@arvada.org or other email address as agreed upon by the Parties.
- B. All labor and parts will be documented by Arvada by using an Indirect Work Order in Arvada's Fleet Management Information System, FASTER. All work will be explained, in detail, in the notes section of the work order. Arvada shall send a copy of the work order to Westminster at cpaugh@cityofwestminster.us or other email address as agreed upon by the Parties.

XII. Invoicing

- A. Invoicing to Arvada. Westminster Fleet Management staff will fill out an Invoice Request form, which is located on COWNET under Forms & Reference/Finance and titled Invoice Request. The invoice request form is sent to Accounts Receivable (Chris Howrey (FIN AR)), along with any supporting documents for invoice generation. Once received Accounts Receivable will create the invoice and directly mail to:

Arvada Fleet Services
8101 Ralston Road
Arvada, CO 80002

If requested, copies of the supporting documentation will be sent. A remittance envelope will be sent for Arvada to use for mailing in their payment. Standard due date is 30 days but alternate due dates can be requested. At this time, we do not accept any payment type other than check.

- B. Invoicing to Westminster. Arvada Fleet Management staff will fill out a Request for Invoice form, obtained through Finance. The request for invoice form will be sent to Accounts Receivable Technician, Stephanie Eakins, along with any supporting documents for invoice generation. Once received, Accounts Receivable will create the invoice and directly mail to:

Westminster Fleet Management
6405 W. 88th Ave
Westminster, CO 80031

If requested, copies of the supporting documentation will be sent. Standard due date is 30 days but alternate due dates can be requested. At this time, Arvada does not accept any payment type other than a check.

- C. All invoices from the Performing Party to the Requesting Party shall itemize all pricing for parts and documented labor occurring as part of the Services rendered. The Parties agree that both Arvada and Westminster are tax exempt entities. As such, neither Arvada, nor Westminster, shall be liable for the payment of any excise, sales, or use taxes. Neither Party shall invoice the other for any state, federal, or local taxes. Parties shall reimburse the other Party for any taxes charged.

XIII. Warranty & Quality of Work

- A. Any Service(s) rendered by the Performing Party shall be done in accordance with generally accepted professional practices and to the level of competency presently maintained by other automotive service and repair practicing professionals in the Denver metropolitan community.
- B. The Performing Party shall provide a limited warranty for any Services rendered to the Requesting Party under the terms of this Agreement. This warranty period shall last for a period of one calendar year from the completion of the Service(s). During the warranty period, the Performing Party shall, at its sole cost and expense, correct any defects in workmanship related to the Services rendered under this Agreement. This warranty covers labor only, and does not extend to any parts used as part of the Services. Any warranty for parts is offered through the vendor of the part.

REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK

In Witness Whereof, the Cities hereto have caused this Agreement to be executed on the day and year first above written.

CITY OF ARVADA, a Colorado home rule
municipal corporation

Marc Williams, Mayor
8101 Ralston Road
Arvada, CO 80002

ATTEST:

Kristen Rush, City Clerk for Arvada

APPROVED AS TO FORM FOR
ARVADA:
Rachel A. Morris, City Attorney

By: _____

CITY OF WESTMINSTER

Joe Murzynsky, Fleet Manager
City of Westminister
4800 W. 92nd Avenue
Westminster, CO 80031

ATTEST:

City Clerk for Westminister

APPROVED AS TO LEGAL FORM & CONTENT
FOR WESTMINSTER:

City Attorney



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.B.3.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-119 A Resolution Authorizing an Intergovernmental Agreement Between Jefferson County, Colorado and the City of Arvada for Access to Content Provided Through an Agreement with Pictometry International Corp.

Report in Brief

The purpose of this Intergovernmental Agreement is to allow the City of Arvada to enter into a software sharing agreement with the Jefferson County Assessor. Pictometry is an aerial imagery service that Jefferson County Assessor's office purchases and allows other agencies to use at no additional cost. This imagery can be used by Police, Planning, Code Enforcement, along with other City Departments. This agreement allows for the City of Arvada to approve Jefferson County's terms and conditions for this software.

The Arvada team recommends that the City Council approve R21-119 A Resolution Authorizing an Intergovernmental Agreement Between Jefferson County, Colorado and the City of Arvada for Access to Content Provided Through an Agreement with Pictometry International Corp.

Financial Impact

There is no financial impact on the City in association with the recommended action.

Background

Pictometry software has been used by City team members for around 10 years. Previous to this agreement, the software was provided by the JCECA (911) board to public safety agencies and organizations. The JCECA board did not require an agreement that formalized the terms and conditions to access the software content. Recently, the Jefferson County Assessor's office purchased Pictometry software and has allowed cities within its boundaries to also use the software. This agreement formalizes the terms and conditions for having access to the content provided by Pictometry International Corp.

Discussion

Our team evaluated the benefits of an Intergovernmental Agreement between the City of Arvada and Jefferson County and determined the joint use of this technology is in the best interest of the City. The imagery provided by Pictometry is valuable in many ways to the City team. For example, the City's GIS team will be able to access imagery software that will support engineering and design services in association with capital projects and development applications. Approving this agreement will allow team members to use this useful resource at no cost to the City.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

N/A

Strategic Alignment

This action aligns with the following Principle included within the Infrastructure Priority Area of the City Council Strategic Plan:

Provides computer-aided drafting, design services, special analysis, GIS applications, and enterprise system integration for the workforce to better visualize spatial relationships for informed decisions, while maintaining and/or replacing infrastructure and accommodating new construction projects.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that the City Council approve R21-119 A Resolution Authorizing an Intergovernmental Agreement Between Jefferson County, Colorado and the City of Arvada for Access to Content Provided Through an Agreement with Pictometry International Corp.

Suggested Motion:

I move that R21-119, A Resolution Authorizing an Intergovernmental Agreement Between Jefferson County, Colorado and the City of Arvada for Access to Content Provided Through an Agreement with Pictometry International Corp., be (approved) (rejected).

Prepared by:
Tammy Hedlund, Legal Specialist

Reviewed by:

Approved by:

Jason O'Keefe, Utilities Customer Information Manager	8/24/2021
Sharon Israel, Director of Utilities	8/24/2021
Bryan Archer, Director of Finance	8/25/2021
Tammy Hedlund, Legal Specialist	8/26/2021
Erika Pierce, Litigation Paralegal	8/26/2021
Brad Moloney, Deputy City Attorney	8/26/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

SUBJECT: R21-119 A Resolution Authorizing an Intergovernmental Agreement Between Jefferson County, Colorado and the City of Arvada for Access to Content Provided Through an Agreement with Pictometry International Corp.

PAGE: 3

ITEM: 8.B.3.

RESOLUTION NO. R21-119

A RESOLUTION AUTHORIZING AN INTERGOVERNMENTAL AGREEMENT
BETWEEN JEFFERSON COUNTY, COLORADO AND THE CITY OF ARVADA FOR
ACCESS TO CONTENT PROVIDED THROUGH AN AGREEMENT WITH PICTOMETRY
INTERNATIONAL CORP.

WHEREAS, The COUNTY OF JEFFERSON, STATE OF COLORADO (“Jefferson County”) entered into a contract with PICTOMETRY INTERNATIONAL CORP. (“Pictometry”) dated March 1, 2017, for the delivery of imagery, software, and associated services relating to aerial mapping of the County (“Pictometry Agreement”); and

WHEREAS, The CITY OF ARVADA (“Arvada”) wishes to access content provided by Pictometry to Jefferson County pursuant to the Pictometry Agreement; and

WHEREAS, Jefferson County wishes to share the content acquired from the Pictometry Agreement at no cost to local agencies located partially or fully within the County of Jefferson, State of Colorado; and

WHEREAS, Jefferson County is permitted to authorize Arvada’s access to content provided.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The Mayor or Mayor Pro Tem is authorized to sign and the City Clerk to attest, in form approved by the City Attorney, an Agreement, which is in substantially the same form as that attached hereto.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris, City Attorney

By: _____

CONTRACT FOR ACCESS TO CONTENT

THIS CONTRACT FOR ACCESS TO CONTENT (this “Contract”), dated for reference purposes only this 6th day of May, 2021, is made and entered into by and between the **COUNTY OF JEFFERSON, STATE OF COLORADO**, a body politic and corporate (the “County”), and the **CITY OF ARVADA**, a body politic and corporate (the “Local Agency”).

RECITALS

- A. The County entered into a contract with **PICTOMETRY INTERNATIONAL CORP.** (“Pictometry”) dated March 1, 2017, for the delivery of imagery, software, and associated services relating to aerial mapping of the County (“Pictometry Agreement”).
- B. The Local Agency wishes to access content provided by Pictometry to the County pursuant to the Pictometry Agreement.
- C. The County wishes to share the content acquired from the Pictometry Agreement at no cost to local agencies located partially or fully within the County.
- D. The County is permitted to authorize Local Agency’s access to Delivered Content provided it agrees to be bound by the terms and conditions of the Pictometry Agreement.

AGREEMENT

NOW, THEREFORE, for and in consideration of the covenants and conditions set forth herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the County and the Local Agency agree as follows:

- 1) **CONTRACT DOCUMENTS.** The “Contract Documents” consist of the following, all of which are incorporated herein by this reference:
 - a) This Contract; and
 - b) The Pictometry Agreement, attached as Exhibit A.
- 2) **DESIGNATION AS AN AUTHORIZED SUBDIVISION.** The County hereby designates Local Agency as an Authorized Subdivision as that term is defined in Exhibit B to the Pictometry Agreement. Local Agency accordingly agrees to comply with the terms and conditions set forth in the Pictometry Agreement.
- 3) **TERM.** This Contract shall be effective upon the date of full execution by the parties as indicated below and shall continue in perpetuity until the expiration or termination of the Pictometry Agreement, unless earlier terminated by either party upon thirty (30) days prior written notice.
- 4) **MISCELLANEOUS PROVISIONS.**
 - a) Notices. Notices shall be sent to the address or email below:

Notice to the Local Agency shall be delivered to:

Name: City of Arvada

Attn: Sargent McDonald

Address: 8101 Ralston Rd., Arvada, CO 80002

Tele: 720-898-7769

Email: samcdonald@arvada.org

Notice to the County shall be delivered to:

Jefferson County Assessor's Office

Attn: Senior GIS Analyst

100 Jefferson County Parkway

Golden, CO 80419

Tele: 303-271-8640

Email: jnhansen@co.jefferson.co.us

With a copy to:

Jefferson County Attorney

100 Jefferson County Parkway Suite 5500

Golden, CO 80419

Email: CAOContracts@jeffco.us

- b) Entire Agreement. This Contract represents the entire agreement between the parties and supersedes any other negotiations, agreements, and understandings, whether prior or collateral, written or oral.
- c) Defined Terms. Capitalized terms not otherwise defined herein shall have the meaning set forth in the Pictometry Agreement.
- d) Governing Law and Venue. This Contract shall be interpreted in accordance with the laws of the State of Colorado. Venue for any action relating to or arising under this Contract shall lie in the County of Jefferson, State of Colorado.
- e) Colorado Governmental Immunity Act. The parties agree that nothing in this Contract shall be deemed or construed as a waiver by either party of any rights, limitations, or protections afforded to them under the Colorado Governmental Immunity Act (C.R.S. §§ 24-10-101, et seq.) as now or hereafter amended or otherwise available at law or equity.
- f) Modification. No modification of this Contract shall be effective unless agreed to in writing by the Authorized Subdivision and the County.

- g) Counterparts. This Contract may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument. Electronic delivery of a fully executed copy of the signature pages below shall constitute an effective and binding execution of this Contract.
- h) Successors and Assigns. Except as otherwise provided herein, this Contract shall inure to the benefit of and be binding upon the parties and their respective successors and assigns.
- i) Assignment. This Contract may not be assigned by any party without the prior written consent of the other.
- j) Third-Party Beneficiaries. Pictometry is an intended third-party beneficiary of this Contract. Other than Pictometry, this Contract will not confer rights or remedies upon any person or entity other than the parties and their successors and assigns. Any benefit that inures to a non-party other than Pictometry is purely incidental and such non-party shall be deemed an incidental beneficiary only.
- k) Electronic Signatures. The parties approve the use of electronic signatures for execution of this Contract. All use of electronic signatures shall be governed by the Uniform Electronic Transactions Act, C.R.S. §§24-71.3-101 – 121.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be duly authorized and executed.

COUNTY OF JEFFERSON,
STATE OF COLORADO

By: _____

Scot Kersgaard
Jefferson County Assessor

Date: _____

APPROVED AS TO FORM:

By: _____

Kelsey M. Hall,
Assistant County Attorney

CITY OF ARVADA, a Colorado home rule
municipal corporation

Marc Williams, Mayor
8101 Ralston Road
Arvada, CO 80002

ATTEST:

City Clerk

APPROVED AS TO FORM:

Rachel A. Morris, City Attorney

By: _____

EXHIBIT A

The Pictometry Agreement

CONTRACT FOR PRODUCTS AND ASSOCIATED SERVICES AND SOFTWARE

THIS CONTRACT FOR PRODUCTS AND ASSOCIATED SERVICES AND SOFTWARE (this "Contract"), dated for reference purposes only this 1st day of March, 2017, is made and entered into by and between the **COUNTY OF JEFFERSON, STATE OF COLORADO**, a body politic and corporate (the "County" or "Customer"), and **PICTOMETRY INTERNATIONAL CORP.**, a Delaware corporation (the "Vendor" or "Pictometry").

RECITAL

The County wishes to enter into a contract with the Vendor for the delivery of imagery and associated services and software for access to that imagery through a series of up to three Projects (as hereinafter described).

AGREEMENT

NOW, THEREFORE, for and in consideration of the covenants and conditions set forth herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the County and the Vendor agree as follows:

1. **CONTRACT DOCUMENTS.** The "Contract Documents" consist of the following, all of which are incorporated herein by this reference: this Contract; the Product Descriptions, Prices and Payment Terms attached as "Exhibit A"; the Delivered Content Terms and Conditions of Use attached as "Exhibit B"; the Pictometry Online Services General Terms and Conditions attached as "Exhibit C"; the Pictometry Software License Agreement attached as "Exhibit D"; the Insurance Requirements attached as "Exhibit E"; and the Sector Map(s) attached hereto as "Exhibit F". If there is any conflict between this Contract and the other Contract Documents, this Contract shall control.

2. **DESCRIPTION OF PRODUCTS AND ASSOCIATED SERVICES AND SOFTWARE.** The Vendor shall furnish the Products specified in Exhibit A in accordance with the Product Descriptions and the Project parameters set forth therein for each Project by the conclusion of the Capture Season specified in those parameters. For each product for which it is so indicated in the respective Product Description set forth on Exhibit A, the Delivered Content Terms and Conditions of Use set forth in Exhibit B shall govern the use of such products delivered to the County.

The Product Descriptions for each Project include associated services and software to be provided by the Vendor in conjunction with its delivery of the Products as follows: (a) Pictometry Connect including Pictometry Connect Early Access available for the County to access in accordance with the terms set forth in Exhibit C; (b) Oblique Imagery Bundle available to the County to use in accordance with the terms and conditions set forth in Exhibit D; and (c) Rapid Access Disaster Response Program services as more specifically described on the last page of Exhibit A.

Commencing within fourteen (14) days following full execution of this Contract and continuing for so long as County has access to the Pictometry Connect service pursuant to the existing Jefferson County E-911 Emergency Communications Authority agreement with Vendor (the "E-911 Contract") or this Contract, the imagery made available to County in the Pictometry Connect service shall include, at a minimum, all imagery of Jefferson County, Colorado that is (a) provided by Vendor to the Jefferson County E-911 Emergency Communications Authority pursuant to the E-911 Contract, (b) delivered by Vendor to County pursuant to this Contract, or (c) delivered by Vendor to other governmental agencies and departments of the County pursuant to prior contracts between those agencies or departments and Vendor. Vendor may, at its discretion from time-to-time, make additional imagery available to County in the Pictometry Connect service and, to the extent it does so, County may use such additional imagery pursuant to the terms of Exhibit C.

3. AUTHORIZED REPRESENTATIVE. The County designates the Senior GIS Analyst for the Assessor's Office as the "County Representative" under this Contract. The Vendor designates Blaes Baker, Operations Project Manager, as "Vendor Representative" under this Contract. The Vendor Representative shall be responsible for advising the County Representative of the status of the Products and associated services and software and agrees to take direction only from the County Representative and to comply promptly and fully with the reasonable requests and directives issued by the County Representative from time to time that are consistent with this Contract.

The Vendor shall provide the County with prompt notice of substitutions of the Vendor Representative by the Vendor during the term of this Contract.

4. ACCEPTANCE OF THE PRODUCTS. The County Representative shall judge the sufficiency of the Products delivered by the Vendor for acceptance based on the Product Descriptions contained in Exhibit A, the Project Parameters for each Project outlined in Exhibit A, and reasonable industry standards. Such acceptance shall not be unreasonably withheld. Standard Ortho Mosaic Products will be provided "as is" with respect to visible cut-lines along mosaic seams resulting from the types of artifacts itemized in Exhibit A. The Delivered Content shall contain true and usable copies of the imagery described in Exhibit A as of the date of capture.

5. PRICE AND PAYMENT. For all Products and associated services and software the following terms and conditions shall apply:

- a. Payments shall be made in accordance with the Payment Schedule included in Exhibit A.
- b. The County's obligation to make the First Anniversary Payment set forth for each Project is subject to appropriation as set forth in Section 20 of this Contract.
- c. The County shall have no obligation to make the payments listed for the Second Project or the Third Project if it does not exercise the options to renew for those respective Projects as set forth in Section 6 below.

6. TERM, TERMINATION AND DAMAGES.

a. Term. The term of this Contract shall commence on execution of this Contract by both parties (the "Start Date") and, shall continue to and including December 31, 2019 subject to the non-appropriation provisions set forth in Section 20 and unless otherwise sooner terminated in accordance with the terms hereof.

b. Option to Renew. The County reserves the option to renew this Contract for up to two (2) additional two-year terms by providing to Vendor written notice of exercise of its option to renew not less than ninety (90) days prior to the expiration date of the then-current Term. If the County does not timely exercise its option to renew this Contract for any renewal term, this Contract shall automatically terminate at the end of the then-current term.

c. Termination.

i. This Contract may be terminated by either party if the other fails to perform or comply with any material provision of the Contract provided that a party intending to terminate under this provision will provide written notice to the applicable defaulting party, and termination based thereon will only be effected if the defaulting party fails to rectify the specified default within thirty (30) days after receipt of such notice.

ii. If either party ceases to conduct business in the normal course, becomes insolvent, makes a general assignment for the benefit of creditors, suffers or permits the appointment of a receiver for its business or assets or avails itself of or becomes subject to any proceeding under the bankruptcy or

insolvency laws, or any other laws relative to insolvency or the protection of rights of creditors, of any jurisdiction, then, at the option of the other party and on five (5) days prior written notice, this agreement will terminate.

iii. **Effect of Termination.** Upon termination of this Contract for uncured default by the County under (i) or insolvency by the County under (ii), all license, use and access to the Products shall cease and the Products shall be destroyed or returned to the Vendor. Upon termination of this Contract for uncured default by the Vendor under (i) or insolvency by Vendor under (ii), the license granted to the Products as Delivered Content per the terms of Exhibit B shall continue. Ownership to the copies of the imagery shall be as described in Section 17 herein. A prorated portion of any prepaid fees shall be returned to the County by the Vendor.

7. **ASSIGNMENT.** This Contract, and any or all rights, duties, or obligations under this Contract may not be assigned, charged or delegated by either Party without the prior consent in writing of the other Party, such consent not to be unreasonably withheld. Any attempt at such assignment or delegation will be void. In addition to all other remedies the Parties may have at law or in equity, if there is an assignment to which the non-assigning party has not consented, the non-assigning Party may terminate this Contract.

8. **INDEPENDENT CONTRACTOR STATUS, TAXES, AND INSURANCE.** In performing the services under this Contract, Vendor and its employees act as an independent contractor responsible for calculating, withholding and paying all federal and state taxes, and for obtaining adequate insurance coverage, including the minimum insurance coverage required in Section 9 below, and for complying with all terms and conditions hereof. Vendor shall not become an employee, agent, or servant of the County by reason of this Contract. Vendor shall not be entitled to unemployment insurance benefits unless unemployment compensation coverage is provided by the Vendor or some other entity.

9. **INSURANCE.** The Vendor and its subcontractors shall purchase and maintain such insurance in a company or companies licensed to do business in the State of Colorado as will protect them from claims which may arise out of or result from operations under the Contract, whether such operations be by themselves or by any subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. The insurance required in this paragraph shall be written for not less than the amounts set forth in Exhibit E attached hereto. The Vendor shall provide certificates evidencing such coverage to the County Representative prior to commencing the Work and during the term of this Contract shall provide the County written evidence of continuing insurance coverage within three (3) business days of a request from the County. The Vendor shall provide the County no less than thirty (30) days prior written notice of any proposed change to, or cancellation of the insurance coverage. Any proposed change to the insurance coverage shall comply with the terms of this Contract. If requested by the County, the Vendor shall request from its insurance company an endorsement to the insurance policy for this Contract, in a form approved by the County Attorney's Office, which will require the insurance company to provide the County with notice of cancellation of the policy. The Vendor shall promptly comply with all terms of the endorsement and shall pay the cost of the endorsement.

10. **INDEMNIFICATION.** Vendor agrees to and does hereby indemnify, defend and hold the County, its agents, employees and officials harmless from and against any and all claims, damages, losses, injuries and expenses (including attorneys' fees), related to or arising out of: (a) the Vendor's performance or failure to provide the Products or to perform the services, or any omission or error caused by Vendor's performance hereunder; (b) any breach of a covenant, representation or warranty made by Vendor under this Contract; or (c) use by the Vendor of any intellectual property in connection with the Contract (whether such intellectual property is owned by the Vendor or a third party). This indemnity shall survive the termination of this Contract.

11. LIMITATION OF LIABILITY. Except for payments due from the County to Vendor pursuant to this Agreement, as specified in Exhibit A, in no event shall either party be liable, under any cause of action of any kind arising out of or related to this Contract (including under theories involving tort, contract, negligence, strict liability, or breach of warranty), for any lost profits or for any indirect, incidental, consequential, punitive, or other special damages suffered by the other party or others, even if a party has been advised of the possibility of such damages.

With respect to any claims that either party may have or assert against each other on any matter relating to this Contract the total liability of Vendor shall, in the aggregate, be limited to the aggregate amount received by the Vendor pursuant to this Contract and the total liability of the County shall, in the aggregate, be limited to the aggregate amount received by or, if not received, payable to the Vendor pursuant to this Contract.

The foregoing limitation of liability shall not apply to a party's indemnity obligations under this Contract.

12. EQUAL EMPLOYMENT OPPORTUNITY. The Vendor shall not refuse to hire, discharge, promote or demote, or discriminate in matters of compensation against any person otherwise qualified solely because of race, creed, sex, color, national origin or ancestry, religion, disability, age, sexual orientation, or any other basis prohibited by federal, state or local law.

13. OFFICIALS NOT TO BENEFIT. No member of the County government, whether elected or employed thereby, shall be paid or receive, directly or indirectly, any share or part of this Contract or any benefit that may arise therefrom.

14. AMENDMENT. Except as expressly provided herein, the Contract may not be modified or amended except by an agreement in writing signed by the parties. For purposes of clarity, the terms and conditions of any Vendor invoice, Vendor time sheet, or other form, including but not limited to indemnification, limitation of liability or cancellation fees shall be void and of no effect against the County notwithstanding any signature on such form by a County employee. The Vendor's rights and obligations shall be solely governed by the terms and conditions of the Contract and the Contract documents. Any County employee's signature on Vendor's form shall be effective only to establish receipt of services.

This Contract constitutes the entire understanding of the parties hereto with respect to the subject matter hereof. No representations, promises, terms, conditions or obligations whatsoever referring to the subject matter hereof, other than those expressly set forth herein, shall be of any binding legal force and effect whatsoever.

15. WARRANTIES. The Vendor represents and warrants that:

- a. It is duly organized and validly existing under the laws of the state of Delaware, and is in good standing as a foreign corporation under the laws of the State of Colorado;
- b. The execution, delivery and performance of this Contract by the Vendor does not and will not: (1) require the consent of any undisclosed person or entity, (2) violate any legal requirement or (3) conflict with, or constitute a breach or violation of (a) its entity's organizational documents, if any, or (b) the terms or provisions of any other agreement, instrument or understanding by which the Vendor is bound or affected;
- c. The Products described in Exhibit A that are provided to the County as Delivered Content, through online access or otherwise and any other methodologies, proprietary software including the Software described in Exhibit D or proprietary products produced, provided or used by the Contractor pursuant to this Contract were independently developed by it or duly licensed from third parties and shall

neither infringe upon nor violate any patents, copyrights, trade secrets or other proprietary rights of any other party;

d. Warranties with respect to the Products and the services are set forth in Exhibit B, Exhibit C and Exhibit D, attached hereto and incorporated herein.

16. RIGHTS IN IMAGERY. Upon payment to Vendor in full of all fees due pursuant to this Contract with respect to each Project, the County shall hold a perpetual license to use the copy of the imagery delivered to the County with respect to such Project in accordance with the terms of Exhibit B without accounting to the Vendor. Vendor shall own copies of that same imagery and may use, reproduce, and redistribute copies of that imagery in any manner without accounting to the County.

17. LICENSE. The terms and conditions of Exhibit B, Exhibit C and Exhibit D govern the access to and use of the Products by the County.

18. NOTICES.

a. Key Notices" under this Contract are notices regarding Contract default, contractual dispute, or termination of the Contract. Key Notices shall be given in writing delivered by any of: (i) personal delivery; (ii) certified mail, return receipt requested, postage prepaid; or (iii) overnight courier service. Such notices are deemed to have been delivered at the time received or at the time delivery is refused. All other communications or notices between the parties that are not Key Notices may be done via electronic transmission. Notice shall be given to the parties at the following addresses:

The Vendor:

Pictometry International Corp.
Attn: Contract Administration
25 Methodist Hill Drive
Rochester, NY 14623
Tele: 585-486-0093
Email: justine.bachison@eagleview.com

The County:

John Hansen, Senior GIS Analyst
Jefferson County Assessor's Office
100 Jefferson County Parkway
Golden, CO 80419
Tele: 303-271-8640
Email: jnhansen@co.jefferson.cojeffco.us

with a copy to:

Jefferson County Attorney
100 Jefferson County Pkwy.
Golden, Colorado 80419-5500
Tele: 303-271-8900
E-Mail: CAOContracts@jeffco.us

All Key Notices to the County shall include a reference to the Contract including the Vendor's name and the date of the Contract.

b. Electronic Transmissions. The parties agree that: (i) any notice or communication transmitted by electronic transmission, as defined below, shall be treated in all manner and respects as an original written document; (ii) any such notice or communication shall be considered to have the same binding and legal effect as an original document; and (iii) at the request of either party, any such notice or

communication shall be re-delivered or re-executed, as appropriate, by the party in its original form. The parties further agree that they shall not raise the transmission of a notice or communication, except for Key Notices, by electronic transmission as a defense in any proceeding or action in which the validity of such notice or communication is at issue and hereby forever waive such defense. For purposes of this Contract, the term "electronic transmission" means any form of communication not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process, but specifically excluding facsimile transmissions and texts.

19. MISCELLANEOUS PROVISIONS.

a. Appropriation of Funds. Financial obligations of the County, payable after the current fiscal year, are contingent upon funds for such purposes being appropriated, budgeted and otherwise made available during any such subsequent year. If funds are not so appropriated, budgeted and made available, the County may terminate this Contract by providing notice to the Vendor. As of the date hereof, the County's fiscal year is the calendar year. During the term of this Contract, the County will provide written notice to the Vendor of the adoption of each yearly budget within ten (10) days following such adoption, such notice to indicate whether or not funding for the County obligations arising under this Contract for that budget year was included in the budget adopted.

b. Compliance with Laws. Vendor shall observe and comply with all federal, state and local laws or ordinances that affect those employed or engaged thereby, or the materials or equipment used, or the conduct of the work hereunder and shall procure all necessary licenses and permits.

c. Conflict of Interest. Vendor will not knowingly perform any act which would conflict in any manner with the performance of services required to be performed hereunder. By execution of this Contract, Vendor certifies that it is engaged in no current project or business transaction, directly or indirectly, nor has it any interest, direct or indirect, with any person or business which might result in a conflict of interest in the performance of the services under this Contract.

d. Confidentiality. During the course of Vendor's performance of the Contract, Vendor may have access to certain confidential and proprietary information owned by the County that may be disclosed to Vendor and Vendor's employees, agents, representatives, assigns or subcontractors orally, in writing or by observation. All such information disclosed to Vendor or Vendor's employees shall be maintained in strict confidence, shall not be used except as necessary for the performance of the Contract and shall not be disclosed to any third party without prior written approval of the County unless required under the Colorado Public Records Act or other law. All tangible items or material made available to Vendor or Vendor's employees, agents, representatives, assigns, or subcontractors hereunder shall be delivered to the County promptly upon the cancellation, termination or completion of this Contract.

e. Records Retention. All records, including work papers, notes and financial records shall be maintained by the Vendor and made available to the County for inspection and audit for a period of five (5) years from the date of termination unless the Vendor is notified in writing by the County of the need to extend the retention period. Copies of such records shall be furnished to the County upon request without charge by the Vendor.

f. Governing Law and Forum. This Contract and the rights and duties of the parties hereunder shall be interpreted in accordance with the laws of the State of Colorado applicable to contracts made and to be performed entirely within such State, and the Courts of such State shall have sole and exclusive jurisdiction of any disputes or litigation arising hereunder.

g. Venue. Venue for any and all legal actions arising hereunder shall lie in the District Court in and for the County of Jefferson, State of Colorado.

h. Waiver. This Contract or any of its provisions may not be waived except in writing by a party's authorized representative. The failure of a party to enforce any right arising under this Contract on one or more occasions will not operate as a waiver of that or any other right on that or any other occasion.

i. Certificates of Insurance. All certificates of insurance and guarantees required by this Contract shall be submitted by the Vendor to the County Representative at the address provided in Section 18.

j. Survival. Notwithstanding anything to the contrary, the parties understand and agree that all terms and conditions of this Contract which require continued performance or compliance beyond the termination date of this Contract shall survive such termination date and shall be enforceable as provided herein in the event of a failure to perform or comply by a party to this Contract.

k. Effect. Subject to the limitations hereinbefore expressed, this Agreement will enure to the benefit of and be binding upon the parties and their respective successors and assigns.

l. Force Majeure. Neither party will be liable for any costs or damages due to nonperformance under this Contract arising out of any cause not within the reasonable control of such party and without its fault or negligence. Neither party will be liable for any delay or failure in the performance of its obligation under this Contract that directly results from any failure of the other party to perform its obligations as set forth in this Contract.

m. Execution by Counterparts; Electronic Signatures. This Contract may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument. The Parties approve the use of electronic signatures for execution of this Contract. Only the following two forms of electronic signatures shall be permitted to bind the Parties to this Contract: (1) Electronic or facsimile delivery of a fully executed copy of a signature page; (2) The image of the signature of an authorized signer inserted onto PDF format documents. All documents must be properly notarized, if applicable. All use of electronic signatures shall be governed by the Uniform Electronic Transactions Act, C.R.S. §§24-71.3-101 to -121.

n. Proper Execution. Each party represents that all procedures necessary to authorize such party's execution of this Contract have been performed and that the person signing for such party has been authorized to do so.

[Signatures to appear on next page]

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed.

COUNTY OF JEFFERSON
STATE OF COLORADO

By: Ron Sandstrom
Ron Sandstrom, Assessor

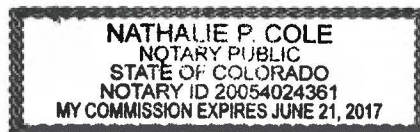
STATE OF COLORADO
COUNTY OF JEFFERSON

The foregoing Contract was acknowledged before me this 13 day of MARCH,
2017, by Ron Sandstrom, Assessor, County of Jefferson, State of Colorado.

Nathalie Cole
Notary Public
6/21/2017
Commission Expires

APPROVED AS TO FORM:

Kurtis Behn
Kurtis Behn for
Joanne L. Kortendick
Assistant County Attorney

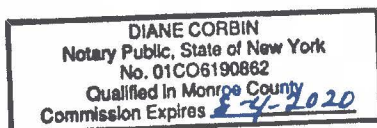


PICTOMETRY INTERNATIONAL CORP.

By: [Signature]
Name: Linda K. Salpini
Title: Corporate Vice President

STATE OF New York
COUNTY OF Monroe

The foregoing Contract was acknowledged before me this 10th day of March,
2017, by LINDA K. SALPINI as CORPORATE VICE PRESIDENT of Pictometry International Corp.



Diane Corbin
Notary Public
8/4/2020
Commission Expires

EXHIBIT A**PRODUCT DESCRIPTIONS, PRICES AND PAYMENT TERMS**

Pictometry International Corp.
25 Methodist Hill Drive
Rochester, NY 14623

ORDER #

C191960

BILL TO
Jefferson County, CO
Ron Sandstrom, Assessor
100 Jefferson County Pkwy
Golden, CO 80419
(303) 279-6511
rsandstr@co.jefferson.co.us

SHIP TO
Jefferson County, CO
John Hansen, Senior GIS Analyst
100 Jefferson County Parkway
Golden, CO 80419
(303) 271-8640
jnhansen@co.jefferson.co.us

CUSTOMER ID	SALES REP	FREQUENCY OF PROJECT
A239398	jbrown	Biennial

FIRST PROJECT					
QTY	PRODUCT NAME	PRODUCT DESCRIPTION	LIST PRICE	DISCOUNT PRICE (%)	AMOUNT
384	IMAGERY - NEIGHBORHOOD - 4-way (N5) (3in) Per Sector as shown on the County's Sector Map (Exhibit "F")	Product includes: 3-inch GSD oblique frame images (4-way), 3-inch GSD orthogonal frame images, 1-meter GSD ortho mosaic sector tiles and one area-wide 1-meter GSD mosaic (ECW format). Orthogonal GSD: 0.25 feet/pixel; Nominal Oblique GSD (all values +/-10%): Front Line: 0.24 feet/pixel, Middle Line: 0.28 feet/pixel, Back Line: 0.34 feet/pixel. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$450.00	\$405.00 (10.0%)	\$155,520.00
841	IMAGERY - COMMUNITY - 4-way (C5) (9in) - Per Sector as shown on Exhibit F	Product includes 9-inch GSD oblique frame images (4-way), 9-inch GSD orthogonal frame images, 1-meter GSD ortho mosaic sector tiles and one area-wide 1-meter GSD mosaic (ECW format). Orthogonal GSD: 0.75 feet/pixel; Nominal Oblique GSD (all values +/-10%): Front Line: 0.74 feet/pixel, Middle Line: 0.85 feet/pixel, Back Line: 1.00 feet/pixel. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$75.00	\$67.50 (10.0%)	\$56,767.50
1	High Elevation Project Fee	The High Elevation Project Fee is for any wide-area imagery projects for which any of the Community imagery sectors cover ground elevations in the range of 7,500 ft to 12,500 ft. Applicable Terms and Conditions: Order Form	\$25,000.00	\$20,000.00 (20.0%)	\$20,000.00
1	Pictometry Connect - CA - 100	Pictometry Connect - CA - 100 (Custom Access) provides up to 100 concurrent authorized users the ability to login and access the Pictometry-hosted custom imagery libraries specified elsewhere in this Agreement via a web-based, server-based or desktop integration. The default deployment is through web-based Pictometry Connect. Term commences on date of activation. License Term: 1 Year(s) commencing upon activation by County following expiration of Pictometry Connect access pursuant to the E-911 Contract Applicable Terms and Conditions: Online Services General Terms and Conditions; Software License Agreement	\$3,300.00	\$2,475.00 (25.0%)	\$2,475.00
841	Tiles - Standard (9in GSD; GeoTIFF format) Per Sector as shown on Exhibit F	Available with corresponding 9" GSD imagery purchase. 9-inch GSD Mosaic Tiles in GeoTIFF Format. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$10.00	\$5.00 (50.0%)	\$4,205.00
384	Tiles - Standard (3in GSD; GeoTIFF format) Per Sector as shown of Exhibit F	Available with corresponding 3" GSD imagery purchase. 3-inch GSD Mosaic Tiles in GeoTIFF Format. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$20.00	\$10.00 (50.0%)	\$3,840.00
384	Mosaic - Area Wide (3in GSD; MrSID format;	Available with purchase of corresponding tile product. New processing or re-processing to MrSID of individual	\$2.00	\$1.00 (50.0%)	\$384.00

	individual) Per Sector as shown on Exhibit F	tiles of 3-inch GSD imagery. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use			
841	Mosaic - Area Wide (9in GSD; MrSID format; individual) Per Sector as shown on Exhibit F	Available with purchase of corresponding tile product. New processing or re-processing to MrSID of individual tiles of 9-inch GSD imagery. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$0.50	\$0.25 (50.0%)	\$210.25
1	Oblique Imagery Bundle with Two (2) Years of EFS Maintenance & Support	Includes digital copy of the Licensed Documentation for the License Software, two (2) End User Training Sessions, one (1) Advanced User Technical Training, one (1) Administration / IT Training Session, ten (10) hours of telephone support, one copy of Pictometry Electronic Field Study (EFS) software, latest version, on the storage media specified herein, and access to download updated versions of the EFS Licensed Software for a period of two years from the initial date of shipment of the EFS software, along with a copy of the updated documentation. Applicable Terms and Conditions: Software License Agreement	\$0.00		\$0.00
1	Pictometry Connect - Early Access	Pictometry Connect - Early Access provides authorized users the ability to login and access imagery captured as part of a specific Project immediately following preliminary processing and quality control checks and prior to final processing of the imagery from the Project. Imagery will be posted to Pictometry Connect - Early Access incrementally as captured and processed, typically within two weeks following capture, and will remain available until final, fully processed imagery for the entire Project is made available through other access means. This offering requires purchase of imagery Project and an active Pictometry Connect Account. Applicable Terms and Conditions: Online Services General Terms and Conditions	\$10,000.00	\$0.00 (100.0%)	\$0.00
1	RapidAccess - Disaster Response Program	RapidAccess - Disaster Response Program is an emergency response program offering flights after an emergency or disaster. Refer to the attached detailed description of the Disaster Response Program. Applicable Terms and Conditions: Order Form	\$0.00		\$0.00
1	Media Drive Capacity 931G - Drive Model 1T - EXTPOWER	External USB 2.0 / eSATA Externally Powered. Delivery media prices include copying a complete image library onto media. Sub-warehousing sold separately. Applicable Terms and Conditions: Order Form	\$199.00	\$0.00 (100.0%)	\$0.00
SUBTOTAL - FIRST PROJECT					\$243,401.75

SECOND PROJECT					
QTY	PRODUCT NAME	PRODUCT DESCRIPTION	LIST PRICE	DISCOUNT PRICE (%)	AMOUNT
384	IMAGERY - NEIGHBORHOOD - 4-way (N5) (3in) Per Sector as shown on Exhibit F	Product includes: 3-inch GSD oblique frame images (4-way), 3-inch GSD orthogonal frame images, 1-meter GSD ortho mosaic sector tiles and one area-wide 1-meter GSD mosaic (ECW format). Orthogonal GSD: 0.25 feet/pixel; Nominal Oblique GSD (all values +/-10%): Front Line: 0.24 feet/pixel, Middle Line: 0.28 feet/pixel, Back Line: 0.34 feet/pixel. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$450.00	\$405.00 (10.0%)	\$155,520.00
841	IMAGERY - COMMUNITY - 4-way (C5) (9in) - Per Sector as shown on Exhibit F	Product includes 9-inch GSD oblique frame images (4-way), 9-inch GSD orthogonal frame images, 1-meter GSD ortho mosaic sector tiles and one area-wide 1-meter GSD mosaic (ECW format). Orthogonal GSD: 0.75 feet/pixel; Nominal Oblique GSD (all values +/-10%): Front Line: 0.74 feet/pixel, Middle Line: 0.85 feet/pixel, Back Line: 1.00 feet/pixel. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$75.00	\$67.50 (10.0%)	\$56,767.50
1	High Elevation Project Fee	The High Elevation Project Fee is for any wide-area imagery projects for which any of the Community imagery sectors cover ground elevations in the range of 7,500 ft to 12,500 ft. Applicable Terms and Conditions: Order Form	\$25,000.00	\$20,000.00 (20.0%)	\$20,000.00

1	Pictometry Connect - CA - 100	Pictometry Connect - CA - 100 (Custom Access) provides up to 100 concurrent authorized users the ability to login and access the Pictometry-hosted custom imagery libraries specified elsewhere in this Agreement via a web-based, server-based or desktop integration. The default deployment is through web-based Pictometry Connect. Term commences on date of activation. License Term: 2 Year(s) Applicable Terms and Conditions: Online Services General Terms and Conditions; Software License Agreement	\$6,600.00	\$4,950.00 (25.0%)	\$4,950.00
841	Tiles - Standard (9in GSD; GeoTIFF format) Per Sector as shown on Exhibit F	Available with corresponding 9" GSD imagery purchase. 9-inch GSD Mosaic Tiles in GeoTIFF Format. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$10.00	\$5.00 (50.0%)	\$4,205.00
384	Tiles - Standard (3in GSD; GeoTIFF format) Per Sector as shown on Exhibit F	Available with corresponding 3" GSD imagery purchase. 3-inch GSD Mosaic Tiles in GeoTIFF Format. Tiles are with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$20.00	\$10.00 (50.0%)	\$3,840.00
384	Mosaic - Area Wide (3in GSD; MrSID format; individual) Per Sector as shown on Exhibit F	Available with purchase of corresponding tile product. New processing or re-processing to MrSID of individual tiles of 3-inch GSD imagery. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$2.00	\$1.00 (50.0%)	\$384.00
841	Mosaic - Area Wide (9in GSD; MrSID format; individual) Per Sector as shown on Exhibit F	Available with purchase of corresponding tile product. New processing or re-processing to MrSID of individual tiles of 9-inch GSD imagery. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$0.50	\$0.25 (50.0%)	\$210.25
1	Oblique Imagery Bundle with Two (2) Years of EFS Maintenance & Support	Includes digital copy of the Licensed Documentation for the License Software, two (2) End User Training Sessions, one (1) Advanced User Technical Training, one (1) Administration / IT Training Session, ten (10) hours of telephone support, one copy of Pictometry Electronic Field Study (EFS) software, latest version, on the storage media specified herein, and access to download updated versions of the EFS Licensed Software for a period of two years from the initial date of shipment of the EFS software, along with a copy of the updated documentation. Applicable Terms and Conditions: Software License Agreement	\$0.00		\$0.00
1	Pictometry Connect - Early Access	Pictometry Connect - Early Access provides authorized users the ability to login and access imagery captured as part of a specific Project immediately following preliminary processing and quality control checks and prior to final processing of the imagery from the Project. Imagery will be posted to Pictometry Connect - Early Access incrementally as captured and processed, typically within two weeks following capture, and will remain available until final, fully processed imagery for the entire Project is made available through other access means. This offering requires purchase of imagery Project and an active Pictometry Connect Account. Applicable Terms and Conditions: Online Services General Terms and Conditions	\$10,000.00	\$0.00 (100.0%)	\$0.00
1	RapidAccess - Disaster Response Program	RapidAccess - Disaster Response Program is an emergency response program offering flights after an emergency or disaster. Refer to the attached detailed description of the Disaster Response Program. Applicable Terms and Conditions: Order Form	\$0.00		\$0.00
1	Media Drive Capacity 931G - Drive Model 1T - EXTPOWER	External USB 2.0 / eSATA Externally Powered. Delivery media prices include copying a complete image library onto media. Sub-warehousing sold separately. Applicable Terms and Conditions: Order Form	\$199.00	\$0.00 (100.0%)	\$0.00
SUBTOTAL -- SECOND PROJECT					\$245,876.75

THIRD PROJECT					
QTY	PRODUCT NAME	PRODUCT DESCRIPTION	LIST PRICE	DISCOUNT PRICE (%)	AMOUNT

384	IMAGERY - NEIGHBORHOOD - 4-way (N5) (3in) Per Sector as shown on Exhibit F	Product includes: 3-inch GSD oblique frame images (4-way), 3-inch GSD orthogonal frame images, 1-meter GSD ortho mosaic sector tiles and one area-wide 1-meter GSD mosaic (ECW format). Orthogonal GSD: 0.25 feet/pixel; Nominal Oblique GSD (all values +/-10%): Front Line: 0.24 feet/pixel, Middle Line: 0.28 feet/pixel, Back Line: 0.34 feet/pixel. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$450.00	\$405.00 (10.0%)	\$155,520.00
841	IMAGERY - COMMUNITY - 4-way (C5) (9in) - Per Sector as shown on Exhibit F	Product includes 9-inch GSD oblique frame images (4-way), 9-inch GSD orthogonal frame images, 1-meter GSD ortho mosaic sector tiles and one area-wide 1-meter GSD mosaic (ECW format). Orthogonal GSD: 0.75 feet/pixel; Nominal Oblique GSD (all values +/-10%): Front Line: 0.74 feet/pixel, Middle Line: 0.85 feet/pixel, Back Line: 1.00 feet/pixel. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$75.00	\$67.50 (10.0%)	\$56,767.50
I	High Elevation Project Fee	The High Elevation Project Fee is for any wide-area imagery projects for which any of the Community imagery sectors cover ground elevations in the range of 7,500 ft to 12,500 ft. Applicable Terms and Conditions: Order Form	\$25,000.00	\$20,000.00 (20.0%)	\$20,000.00
I	Pictometry Connect - CA - 100	Pictometry Connect - CA - 100 (Custom Access) provides up to 100 concurrent authorized users the ability to login and access the Pictometry-hosted custom imagery libraries specified elsewhere in this Agreement via a web-based, server-based or desktop integration. The default deployment is through web-based Pictometry Connect. Term commences on date of activation. License Term: 2 Year(s) Applicable Terms and Conditions: Online Services General Terms and Conditions; Software License Agreement	\$6,600.00	\$4,950.00 (25.0%)	\$4,950.00
841	Tiles - Standard (9in GSD; GeoTIFF format) Per Sector as shown on Exhibit F	Available with corresponding 9" GSD imagery purchase. 9-inch GSD Mosaic Tiles in GeoTIFF Format. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$10.00	\$5.00 (50.0%)	\$4,205.00
384	Tiles - Standard (3in GSD; GeoTIFF format) Per Sector as shown on Exhibit F	Available with corresponding 3" GSD imagery purchase. 3-inch GSD Mosaic Tiles in GeoTIFF Format. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$20.00	\$10.00 (50.0%)	\$3,840.00
384	Mosaic - Area Wide (3in GSD; MrSID format; individual) Per Sector as shown on Exhibit F	Available with purchase of corresponding tile product. New processing or re-processing to MrSID of individual tiles of 3-inch GSD imagery. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$2.00	\$1.00 (50.0%)	\$384.00
841	Mosaic - Area Wide (9in GSD; MrSID format; individual) Per Sector as shown on Exhibit F	Available with purchase of corresponding tile product. New processing or re-processing to MrSID of individual tiles of 9-inch GSD imagery. Tiles are provided with the limits described in the Product Parameters. Applicable Terms and Conditions: Delivered Content Terms and Conditions of Use	\$0.50	\$0.25 (50.0%)	\$210.25
I	Oblique Imagery Bundle with Two (2) Years of EFS Maintenance & Support	Includes digital copy of the Licensed Documentation for the License Software, two (2) End User Training Sessions, one (1) Advanced User Technical Training, one (1) Administration / IT Training Session, ten (10) hours of telephone support, one copy of Pictometry Electronic Field Study (EFS) software, latest version, on the storage media specified herein, and access to download updated versions of the EFS Licensed Software for a period of two years from the initial date of shipment of the EFS software, along with a copy of the updated documentation. Applicable Terms and Conditions: Software License Agreement	\$0.00		\$0.00
I	Pictometry Connect - Early Access	Pictometry Connect - Early Access provides authorized users the ability to login and access imagery captured as part of a specific Project immediately following preliminary processing and quality control checks and prior to final processing of the imagery from the Project. Imagery will be posted to Pictometry Connect - Early Access incrementally as captured and processed, typically within two weeks following capture, and will remain available until final, fully	\$10,000.00	\$0.00 (100.0%)	\$0.00

		processed imagery for the entire Project is made available through other access means. This offering requires purchase of imagery Project and an active Pictometry Connect Account. Applicable Terms and Conditions: Online Services General Terms and Conditions			
1	RapidAccess - Disaster Response Program	RapidAccess - Disaster Response Program is an emergency response program offering flights after an emergency or disaster. Refer to the attached detailed description of the Disaster Response Program. Applicable Terms and Conditions: Order Form	\$0.00		\$0.00
1	Media Drive Capacity 931G - Drive Model 1T - EXTPOWER	External USB 2.0 / eSATA Externally Powered. Delivery media prices include copying a complete image library onto media. Sub-warehousing sold separately. Applicable Terms and Conditions: Order Form	\$199.00	\$0.00 (100.0%)	\$0.00
SUBTOTAL – THIRD PROJECT					\$245,876.75

FEES; PAYMENT TERMS

All amounts due to Pictometry pursuant to this Agreement ("Fees") are expressed in United States dollars and do not include any duties, taxes (including, without limitation, any sales, use, ad valorem or withholding, value added or other taxes) or handling fees, all of which are in addition to the amounts shown above and, to the extent applicable to purchases by Customer, shall be paid by Customer to Pictometry without reducing any amount owed to Pictometry unless documents satisfactory to Pictometry evidencing exemption from such taxes is provided to Pictometry prior to billing.

FIRST PROJECT

Due at Initial Shipment of Imagery (subject to potential downward adjustment per the provision set forth at * below)	\$121,700.87
Due at First Anniversary of Shipment of Imagery (subject to potential downward adjustment per the provision set forth at * below)	\$121,700.88
Total Payments	\$243,401.75

SECOND PROJECT

Due at Initial Shipment of Imagery (subject to potential downward adjustment per the provision set forth at * below)	\$122,938.37
Due at First Anniversary of Shipment of Imagery (subject to potential downward adjustment per the provisions set forth at * below)	\$122,938.38
Total Payments	\$245,876.75

THIRD PROJECT

Due at Initial Shipment of Imagery (subject to potential downward adjustment per the provision set forth at * below)	\$122,938.37
Due at First Anniversary of Shipment of Imagery (subject to potential downward adjustment per the provisions set forth at * below)	\$122,938.38
Total Payments	\$245,876.75

PRODUCT PARAMETERS

FIRST PROJECT

IMAGERY

Product:
Elevation Source:
Leaf:

IMAGERY - NEIGHBORHOOD - 4-way (N5) (3in) Per Sector
Public Avail - NED/USGS/GeoBase
Leaf Off: Less than 30% leaf cover – Spring of 2017 Capture Season

Product:
Elevation Source:
Leaf:

IMAGERY - COMMUNITY - 4-way (C5) (9In) - Per Sector
Public Avail - NED/USGS/GeoBase
Leaf Off: Less than 30% leaf cover – Spring of 2017 Capture Season

CONNECT

Product:
Admin User Name:
Admin User Email:
Requested Activation:
Geofence:

Pictometry Connect - CA - 100
John Hansen
jnhansen@jeffco.us
upon execution
CO Adams CO Arapahoe CO Boulder CO Broomfield CO Clear Creek CO Denver CO Douglas CO
Gilpin CO Park CO Teller CO Weld

SECOND PROJECT IMAGERY

Product:
Elevation Source:
Leaf:

IMAGERY - NEIGHBORHOOD - 4-way (N5) (3In) Per Sector
Public Avail - NED/USGS/GeoBase
Leaf Off: Less than 30% leaf cover – Spring of 2019 Capture Season

Product:
Elevation Source:
Leaf:

IMAGERY - COMMUNITY - 4-way (C5) (9In) - Per Sector
Public Avail - NED/USGS/GeoBase
Leaf Off: Less than 30% leaf cover –Spring of 2019 Capture Season

CONNECT

Product:
Admin User Name:
Admin User Email:
Requested Activation:
Geofence:

Pictometry Connect - CA - 100
John Hansen
jnhansen@jeffco.us
upon execution
CO Adams CO Arapahoe CO Boulder CO Broomfield CO Clear Creek CO Denver CO Douglas CO
Gilpin CO Park CO Teller CO Weld

THIRD PROJECT IMAGERY

Product:
Elevation Source:
Leaf:

IMAGERY - NEIGHBORHOOD - 4-way (N5) (3In) Per Sector
Public Avail - NED/USGS/GeoBase
Leaf Off: Less than 30% leaf cover –Spring of 2021 Capture Season

Product:
Elevation Source:
Leaf:

IMAGERY - COMMUNITY - 4-way (C5) (9In) - Per Sector
Public Avail - NED/USGS/GeoBase
Leaf Off: Less than 30% leaf cover – Spring of 2021 Capture Season

CONNECT

Product:
Admin User Name:
Admin User Email:
Requested Activation:
Geofence:

Pictometry Connect - CA - 100
John Hansen
jnhansen@jeffco.us
upon execution
CO Adams CO Arapahoe CO Boulder CO Broomfield CO Clear Creek CO Denver CO Douglas CO
Gilpin CO Park CO Teller CO Weld

STANDARD ORTHO MOSAIC PRODUCTS

Pictometry standard ortho mosaic products are produced through automated mosaicking processes that incorporate digital elevation data with individual Pictometry ortho frames to create large-area mosaics on an extremely cost-effective basis. Because these products are produced through automated processes, rather than more expensive manual review and hand-touched corrective processes, there may be inherent artifacts in some of the resulting mosaics. While Pictometry works to minimize such artifacts, the Pictometry standard ortho mosaic products are provided on an 'AS IS' basis with respect to visible outlines along mosaic seams resulting from the following types of artifacts:

- i. Disconnects in non-elevated surfaces generally caused by inaccurate elevation data;
- ii. Disconnects in elevated surfaces (e.g., roadways, bridges, etc.) generally caused by elevated surfaces not being represented in the elevation data;
- iii. Building intersect and clipping generally caused by buildings not being represented in the elevation data;
- iv. Seasonal variations caused by images taken at different times during a season, or during different seasons;
- v. Ground illumination variations caused by images taken under different illumination (e.g., sunny, high overcast, morning light, afternoon light, etc.) within one flight day or during different flight days;
- vi. Single GSD color variations caused by illumination differences or multiple-aircraft/camera captures;
- vii. Mixed GSD color variations caused by adjacent areas being flown at different ground sample distances (GSDs); and
- viii. Water body color variations caused by multiple individual frames being used to create a mosaic across a body of water (e.g., lakes, ponds, rivers, etc.).

Other Pictometry products may be available that are less prone to such artifacts than the Pictometry standard ortho mosaic products.

RapidAccess—Disaster Response Program ("DRP")

Customer is eligible for DRP described below from the Start Date of the Contract through the second anniversary of the initial Project delivery. Following payment to Pictometry of amounts due with respect to each subsequent Project, Customer will be eligible for the then-current DRP for a period of two years from delivery of such subsequent Project. Customer must be in good-standing with Pictometry to maintain eligibility for DRP.

- A. **Disaster Coverage Imagery at No Additional Charge** – Pictometry will, upon request of Customer and at no additional charge, provide standard quality imagery of up to 200 square miles of affected areas (as determined by Pictometry) upon the occurrence of any of the following events during any period Customer is eligible for DRP:
- ☐ **Hurricane:** areas affected by hurricanes of Category 2 and higher.
 - ☐ **Tornado:** areas affected by tornados rated EF4 and higher.
 - ☐ **Terrorist:** areas affected by damage from terrorist attack.
 - ☐ **Earthquake:** areas affected by damage to critical infrastructure resulting from earthquakes measured at 6.0 or higher on the Richter scale.
 - ☐ **Tsunami:** areas affected by damage to critical infrastructure resulting from tsunamis.
- B. **Discounted Rate** – Coverage for areas affected by the events set forth above exceeding 200 square miles will be, subject to Pictometry resource availability, offered to Customer at the then current DRP rates. Also, coverage for areas affected by hurricanes below Category II, tornadoes below EF4 or earthquakes rated below 6.0 on the Richter scale will be, subject to Pictometry resource availability, offered to Customer at the then current DRP rates.
- C. **Online Services – Use of Pictometry Connect Explorer™** – Pictometry's DRP includes the use of Connect Explorer for a term of ninety days from the date of delivery of the DRP imagery. Customer shall have access to the DRP imagery for as long as they maintain an active Connect account.

*The payment amounts set forth above for each Project are based upon capture of the entire Imagery coverage described for that Project during the respective Capture season identified in the corresponding Project Parameters. If not all of the Imagery coverage described for a Project is captured during the respective Capture season specified, payments due with respect to that Project (both Initial and First Anniversary) will be reduced by an amount determined as follows. The separately calculated price for each Imagery product (Neighborhood 4 way and the corresponding tiles and mosaic, and Community 4 way and the corresponding tiles and mosaic) for the affected Project shall be reduced by a percentage of the original price for such respective Imagery product set forth above equal to the percentage of coverage of that specific Imagery product not captured during the Capture season specified. Such reduction in payment amounts shall constitute the County's sole and exclusive remedy for that failure of the Vendor to capture the Imagery coverage described for such Project.

**PICTOMETRY DELIVERED CONTENT
TERMS AND CONDITIONS OF USE**

These Pictometry Delivered Content Terms and Conditions of Use (the "Delivered Content Terms and Conditions"), in combination with the Contract for Products and Associated Services between Jefferson County and Pictometry (the "Contract") into which these terms are incorporated, collectively set forth the terms and conditions that govern use of Delivered Content (as hereinafter defined) for use within computing environments operated by parties other than Pictometry. As used in the Delivered Content Terms and Conditions the terms "you" and "your" in uppercase or lowercase shall mean the Customer that entered into the Agreement into which the Delivered Content Terms and Conditions are incorporated.

1. DEFINITIONS

- 1.1 "Authorized Subdivision" means, if you are a county or a non-state consortium of counties, any political unit or subdivision located totally or substantially within your boundaries that you authorize to have access to Delivered Content pursuant to the Delivered Content Terms and Conditions.
- 1.2 "Authorized System" means a workstation or server that meets each of the following criteria (i) it is owned or leased by you or an Authorized Subdivision, (ii) it is located within and only accessible from facilities that are owned or leased by you or an Authorized Subdivision, and (iii) it is under the control of and may only be used by you or Authorized Subdivisions.
- 1.3 "Authorized User" means any employee of you or Authorized Subdivisions that is authorized by you to have access to the Delivered Content through an Authorized System.
- 1.4 "Delivered Content" means the images, metadata, data layers, models, reports and other geographic or structural visualizations or embodiments included in, provided with, or derived from the information delivered to you by or on behalf of Pictometry pursuant to the Agreement.
- 1.5 "Project Participant" means any employee or contractor of persons or entities performing services for compensation for you or an Authorized Subdivision that has been identified by written notice to Pictometry prior to being granted access to Delivered Content and, unless Pictometry expressly waives such requirement for any individual, has entered into a written agreement with Pictometry authorizing such access.

2. GRANT OF RIGHTS; RESTRICTIONS ON USE; OWNERSHIP

- 2.1 Subject to the terms and conditions of the Agreement, you are granted nonexclusive, nontransferable, limited rights to:
 - (a) install the Delivered Content on Authorized Systems;
 - (b) permit access and use of the Delivered Content through Authorized Systems by:
 - (i) Authorized Users for performance of public responsibilities of you or Authorized Subdivisions that are to be performed entirely within facilities of you or Authorized Subdivisions;
 - (ii) Project Participants under the supervision of Authorized Users for performance of tasks or preparation of materials using only hard copies (or jpg copies) of Delivered Content solely for fulfilling public responsibilities of you or Authorized Subdivisions to be performed entirely within facilities of you or Authorized Subdivisions; and
 - (iii) individual members of the public, but only through Authorized Users and solely for the purpose of making hard copies or jpg copies of images of individual properties or structures (but not bulk orders of multiple properties or structures) to the individual members of the public requesting them.
- 2.2 You may not reproduce, distribute or make derivative works based upon the Delivered Content in any medium, except as expressly permitted in the Delivered Content Terms and Conditions.
- 2.3 You may not offer any part of the Delivered Content for commercial resale or commercial redistribution in any medium.
- 2.4 You may not distribute or otherwise make available any Delivered Content to Google or its affiliates, either directly or indirectly.
- 2.5 You may not exploit the goodwill of Pictometry, including its trademarks, service marks, or logos, without the express written consent of Pictometry.
- 2.6 You may not remove, alter or obscure copyright notices or other notices contained in the Delivered Content.
- 2.7 All right, title, and interest (including all copyrights, trademarks and other intellectual property rights) in Delivered Content in all media belong to Pictometry or its third party suppliers. Neither you nor any users of the Delivered Content acquire any proprietary interest in the Delivered Content, or any copies thereof, except the limited use rights granted herein.

3. OBLIGATIONS OF CUSTOMER

- 3.1 **Geographic Data.** You agree to provide to Pictometry geographic data that you choose in industry standard format (e.g., shape, DBF) including, but not limited to, digital elevation models, street centerline maps, tax parcel maps and centroids, which data, to the extent practicable, shall be incorporated into the Delivered Content. You agree that any of this data that is owned by you may be distributed and modified by Pictometry as part of its products and services, provided that, with the exception of elevation data, such other geographic data provided by you shall only be accessible by You and Authorized Subdivisions and Project Participants, and provided further that at no time shall Pictometry claim ownership of that data.
- 3.2 **Notification.** You shall (a) notify Pictometry in writing of any claims or proceedings involving any of the Delivered Content within ten (10) days after you learn of the claim or proceeding, and (b) report promptly to Pictometry all claimed or suspected defects in Delivered Content.
- 3.3 **Authorized User Compliance.** You shall at all times be responsible for compliance by each Authorized User with the Delivered Content Terms and Conditions.
- 3.4 **Authorized Subdivision Compliance.** You shall require each Authorized Subdivision to maintain compliance with the Delivered Content Terms and Conditions through execution of an agreement binding each Authorized Subdivision to those terms and naming Pictometry as a third party beneficiary of such agreement.
- 3.5 **Project Participants.** Each notice to Pictometry identifying a potential Project Participant shall include a detailed description of the scope and nature of the Project Participants' planned work and the intended use of the Delivered Content in such work. Pictometry retains the right to restrict or revoke access to Delivered Content by any Project Participant who does not comply with the terms of the Delivered Content Terms and Conditions.

4. LICENSE DURATION; EFFECT OF TERMINATION

- 4.1 **Term.** The license granted to you in the Delivered Content Terms and Conditions is perpetual, subject to Pictometry's right to terminate the license for any uncured breach by you including non-payment in full of the Fees specified elsewhere in the Contract, for any reason other than non-renewal.
- 4.2 **Effect of Termination.** Upon termination of the license granted to you in the Delivered Content Terms and Conditions for non-payment or other uncured breach by you as described in 4.1 above, you shall immediately cease all use of the Delivered Content, promptly purge all copies of the Delivered Content

from all workstations and servers on which any of it may be stored or available at the time, and return hard drive/media containing Delivered Content to Pictometry.

5. TRADEMARKS; CONFIDENTIALITY

- 5.1 Use of Pictometry's Marks.** You agree not to attach any additional trademarks, trade names, logos or designations to any Delivered Content or to any copies of any Delivered Content without prior written approval from Pictometry. You may, however, include an appropriate government seal and your contact information so long as the seal and contact information in no way obscure or deface the Pictometry marks. You further agree that you will not use any Pictometry trademark, trade name, logo, or designation in connection with any product or service other than the Delivered Content. Your nonexclusive right to use Pictometry's trademarks, trade name, logos, and designations are coterminous with the license granted to you in the Delivered Content Terms.
- 5.2 Confidentiality of Delivered Content.** The Delivered Content consists of commercially valuable, proprietary products owned by Pictometry, the design and development of which reflect an investment of considerable time, effort, and money. The Delivered Content is treated by Pictometry as confidential and contains substantial trade secrets of Pictometry. You agree that you will not disclose, provide a copy of, or disseminate the Delivered Content (other than as expressly permitted in the Delivered Content Terms and Conditions or the Contract) or any part thereof to any person in any manner or for any purpose inconsistent with the license granted to you in the Delivered Content Terms and Conditions. You agree to use your best efforts to assure that your personnel, and any others afforded access to the Delivered Content, protect the Delivered Content against unauthorized use, disclosure, copying, and dissemination, and that access to the Delivered Content and each part thereof will be strictly limited.

6. LIMITED WARRANTY; DISCLAIMER OF WARRANTIES

- 6.1 Limited Warranties; Exclusive Remedy.** Pictometry warrants that the Delivered Content will contain true and usable copies of the designated imagery as of the date of capture. As the sole and exclusive remedy for any breach of the foregoing warranty, Pictometry shall use reasonable efforts to correct any deficiency that precludes use of the Delivered Content in the manner intended.
- 6.2 Disclaimer of Other Warranties.** Except as provided in Section 6.1, above and in the Contract, THE DELIVERED CONTENT IS PROVIDED TO YOU "AS IS" AND "WITH ALL FAULTS." PICTOMETRY MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND, EXPRESS, IMPLIED, OR STATUTORY. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND ACCURACY, ARE HEREBY DISCLAIMED AND EXCLUDED BY PICTOMETRY.
- 6.3 Limitation of Liability.** Other than claims arising out of Pictometry's Infringement Indemnity obligations as set forth in the Contract, with respect to any other claims that either party may have or assert against each other on any matter relating to the Delivered Content, the total liability of Pictometry shall, in the aggregate, be limited to the aggregate amount received by Pictometry in payment for Delivered Content pursuant to the Contract and your total liability shall, in the aggregate, be limited to the aggregate amount received by or, if not received, payable to the Pictometry pursuant to the Contract.

7. MISCELLANEOUS PROVISIONS

- 7.1 Restricted Rights.** Delivered Content acquired with United States Government funds or intended for use within or for any United States federal agency is provided with "Restricted Rights" as defined in DFARS 252.227-7013, Rights in Technical Data and Computer Software and FAR 52.227-14, Rights in Data-General, including Alternate III, as applicable.
- 7.2 Governing Law.** This License Agreement shall be governed by and interpreted in accordance with the laws of the State of Colorado, excluding its conflicts of law principles.

[END OF DELIVERED CONTENT TERMS AND CONDITIONS]

**PICTOMETRY ONLINE SERVICES
GENERAL TERMS AND CONDITIONS**

These Pictometry Online Services General Terms and Conditions (the "General Terms and Conditions"), in combination with the Contract for Products and Associated Services and Software between Jefferson County and Pictometry (the "Contract"), into which these terms are incorporated, collectively constitute the license agreement (the "License Agreement") that governs your use of the Pictometry online services (the "Online Services"), the images available in the Online Services, and all associated metadata and data layers included in, provided with, or derived from those images (the "Licensed Content") provided by Pictometry International Corp. and its affiliated companies (collectively, "Pictometry"). The terms "you" and "your" in uppercase or lowercase shall mean the individual, entity (e.g., corporation, limited liability company, partnership, sole proprietor, etc.) or government agency entering into the License Agreement.

1. GRANT OF RIGHTS; RESTRICTIONS ON USE; OWNERSHIP

- 1.1 You are granted a nonexclusive, nontransferable, limited right to access and use the Online Services and the Licensed Content obtained or derived from the Online Services solely for your internal business purposes and not for resale or redistribution. The rights granted to you include, subject to the restrictions set forth below, the right to copy limited portions of the Licensed Content specific to individual properties onto your computer to facilitate preparation of hard copy and electronic work product records and the right to make hardcopies and electronic copies of such property-specific work product in the course of performing your governmental responsibilities, provided that the Licensed Content and the permitted copies thereof may not be sold, leased, loaned, distributed, or copied for use by anyone other than you and Eligible Users (as hereinafter defined).
- 1.2 You may not make the Online Services available to any other party other than an Eligible User.
- 1.3 You may not copy the Licensed Content or portions thereof onto any computer or storage device or media for the purpose of creating or maintaining one or more databases of that content for use in substitution for subsequent access to the content through the Online Services.
- 1.4 You may not distribute or otherwise make available any Licensed Content to Google or its affiliates, either directly or indirectly.
- 1.5 You may not exploit the goodwill of Pictometry, including its trademarks, service marks, or logos, without the express written consent of Pictometry.
- 1.6 You may not remove, alter or obscure copyright notices or other notices contained in the Licensed Content.
- 1.7 You may not offer any part of the Online Services or the Licensed Content for commercial resale or commercial redistribution in any medium.
- 1.8 You may not use the Online Services or the Licensed Content to compete with any businesses of Pictometry.
- 1.9 You may not use information included in the Online Services or the Licensed Content to determine an individual consumer's eligibility for (a) credit or insurance for personal, family, or household purposes; (b) employment; or (c) a government license or benefit. The term "consumer" is defined in the United States Fair Credit Reporting Act at 15 USC §1681.
- 1.10 You may not access the Online Services via mechanical, programmatic, robotic, scripted or any other automated means. Unless otherwise agreed by Pictometry in writing, use of the Online Services is permitted only via manually conducted, discrete, human-initiated individual search and retrieval activities.
- 1.11 All right, title, and interest (including all copyrights, trademarks and other intellectual property rights) in the Online Services and the Licensed Content in all media belong to Pictometry or its third party suppliers. Neither you nor any users of the Online Services or the Licensed Content acquire any proprietary interest in the Online Services, the Licensed Content, or any copies thereof, except the limited use rights granted herein and in the Contract.

2. ACCESS TO SERVICES

- 2.1 Only you, your employees, and temporary or contract employees dedicated to performing work exclusively for you as well as each Authorized User and Project Participant as defined in Exhibit "B" to the Contract (each, an "Eligible User" and collectively, the "Eligible Users") are eligible to access and use the Online Services and the Licensed Content pursuant to the License Agreement. Each Eligible User to be provided access to the Online Service shall be assigned a unique login/password ("Pictometry Credential") for purposes of accessing the Online Services. You agree that each Pictometry Credential shall only be used by the Eligible User to whom it was originally assigned and that Pictometry Credentials may not be shared with, or used by, any other person, including other Eligible Users. You will promptly deactivate an Eligible User's Pictometry Credential in the event you become aware that the Eligible User no longer meets the eligibility requirements or you otherwise wish to terminate the Eligible User's access to the Online Services. You are responsible for all use of the Online Services accessed with Pictometry Credentials issued to your Eligible Users, including associated charges, whether by Eligible Users or others. This responsibility for access by Authorized Subdivisions and Project Participants as defined in Exhibit "B" to the Contract shall be satisfied by requiring those Authorized Subdivisions and Project Participants to enter into an agreement binding them to these terms. You will use reasonable commercial efforts to prevent unauthorized use of Pictometry Credentials assigned to your Eligible Users and will promptly deactivate any Pictometry Credentials you suspect are lost, stolen, compromised, or misused.
- 2.2 The Online Services, the Licensed Content, and features and functionality within the Online Services may be enhanced, added to, withdrawn, or otherwise changed by Pictometry without notice.
- 2.3 You are aware and understand that any user data collected or stored by the Online Services may be accessed by US law enforcement agencies under the US PATRIOT Act. You hereby release Pictometry from, all claims against Pictometry with respect to such access.

3. DISCLAIMERS

- 3.1 The Online Services and the Licensed Content are provided for visualization purposes only, are not authoritative or definitive, and do not constitute professional engineering or surveying services.
- 3.2 The Online Services and the Licensed Content are not to be relied upon to precisely locate or determine property boundaries and should not be used in lieu of a professional survey where the accuracy of measurements, distance, height, angle, area and volume, may have significant consequences.
- 3.3 All measurements and reports generated by the Online Services or from the Licensed Content are based upon second order visualization and measurement data that do not provide authoritative or definitive measurement results suitable for professional engineering or surveying purposes.
- 3.4 Contour information obtained from the Online Services or contained in the Licensed Content is generated from undersampled elevation data, is provided for informational purposes only, and is not suitable for use as the basis for hydrographic computations, estimations or analyses.
- 3.5 While the Online Services and the Licensed Content may be considered useful supplements for life critical applications, they are not designed or maintained to support such applications and Pictometry and its third party suppliers of the Online Services and the Licensed Content hereby disclaim all liability for damages claims and expenses arising from such use.
- 3.6 Your reliance on the Online Services and the Licensed Content should only be undertaken after an independent review of their accuracy, completeness, efficacy, timeliness and adequacy for your intended purpose.
- 3.7 Pictometry and each third party supplier of any portion of the Online Services or the Licensed Content assume no responsibility for any consequences resulting from the use of the Online Services or the Licensed Content if provided in accordance with the terms and conditions of the Contract.

4. LIMITED WARRANTY

- 4.1 Pictometry represents and warrants that it has the right and authority to make the Online Services and the Licensed Content available to you and your Eligible Users as authorized expressly by this License Agreement.
- 4.2 EXCEPT AS OTHERWISE PROVIDED IN SECTION 4.1 and in the Contract, THE ONLINE SERVICES AND LICENSED CONTENT ARE PROVIDED ON AN "AS IS", "AS AVAILABLE" BASIS AND PICTOMETRY AND EACH THIRD PARTY SUPPLIER OF LICENSED CONTENT EXPRESSLY DISCLAIM ALL OTHER WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

5. LIMITATION OF LIABILITY

- 5.1 "Covered Party" means (a) Pictometry and any officer, director, employee, subcontractor, agent, successor, or assign of Pictometry; and (b) each third party supplier of any Licensed Content, third party alliance entity, their affiliates, and any officer, director, employee, subcontractor, agent, successor, or assign of any third party supplier of any Licensed Content or third party alliance entity and their affiliates.
- 5.2 TO THE FULLEST EXTENT PERMISSIBLE BY APPLICABLE LAW, UNDER NO CIRCUMSTANCES WILL THE AGGREGATE LIABILITY OF THE COVERED PARTIES IN CONNECTION WITH ANY CLAIM ARISING OUT OF OR RELATING TO THE ONLINE SERVICES OR THE LICENSED CONTENT OR THIS LICENSE AGREEMENT EXCEED THE LESSER OF YOUR ACTUAL DIRECT DAMAGES OR THE AMOUNT YOU PAID UNDER THE CONTRACT. YOUR RIGHT TO MONETARY DAMAGES IN THAT AMOUNT SHALL BE IN LIEU OF ALL OTHER REMEDIES WHICH YOU MAY HAVE AGAINST ANY COVERED PARTY. THE FOREGOING LIMITATIONS SHALL NOT APPLY TO INDEMNIFICATION OBLIGATIONS UNDER THE CONTRACT AND THE OBLIGATIONS SET FORTH IN 5.4 BELOW. YOUR TOTAL LIABILITY IN CONNECTION WITH ANY CLAIM ARISING OUT OF OR RELATING TO THE ONLINE SERVICES, THE LICENSED CONTENT, OR THIS LICENSE AGREEMENT SHALL, IN THE AGGREGATE, BE LIMITED TO THE LESSER OF PICTOMETRY'S ACTUAL DIRECT DAMAGES OR THE AGGREGATE AMOUNT RECEIVED BY OR, IF NOT RECEIVED, PAYABLE TO PICTOMETRY PURSUANT TO THE CONTRACT.
- 5.3 TO THE FULLEST EXTENT PERMISSIBLE BY APPLICABLE LAW, NEITHER YOU NOR THE COVERED PARTIES WILL BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ATTORNEYS' FEES) IN ANY WAY DUE TO, RESULTING FROM, OR ARISING IN CONNECTION WITH THE ONLINE SERVICES, THE LICENSED CONTENT, OR THE FAILURE OF ANY COVERED PARTY TO PERFORM ITS OBLIGATIONS. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT APPLY TO A PARTY'S INDEMNITY OBLIGATIONS UNDER THIS CONTRACT OR YOUR INFRINGEMENT OF INTELLECTUAL PROPERTY OR MISAPPROPRIATION OF PROPRIETARY DATA BELONGING TO PICTOMETRY OR ITS THIRD PARTY SUPPLIERS.
- 5.4 Notwithstanding anything to the contrary in this Section 5:
 - (a) If there is a breach of the warranty in Section 4.1 above, then Pictometry, at its option and expense, shall either defend or settle any action and hold you harmless against proceedings or damages of any kind or description based on a third party's claim of patent, trademark, service mark, copyright or trade secret infringement related to use of the Online Services or the Licensed Content, asserted against you by such third party provided: (i) all use of the Online Services and the Licensed Content was in accordance with this License Agreement; (ii) the claim, cause of action or infringement was not caused by you modifying or combining the Online Services or the Licensed Content with or into other products, applications, images or data not approved by Pictometry; (iii) you give Pictometry prompt notice of such claim; and (iv) you give Pictometry the right to control and direct the investigation, defense and settlement of such claim. You, at Pictometry's expense, shall reasonably cooperate with Pictometry in connection with the foregoing.
 - (b) In addition to Section 5.4(a), if the Online Services, the operation thereof or the Licensed Content become, or in the opinion of Pictometry are likely to become, the subject of a claim of infringement, Pictometry may, at its option and expense, either: (i) procure for you the right to continue using the Online Services or the Licensed Content, (ii) replace or modify the Online Services or the Licensed Content so that they become non-infringing; or (iii) terminate the License Agreement on notice to you and grant you a pro-rata refund for any pre-paid fees or fixed charges.
 - (c) The provisions of Sections 5.4(a) and (b) shall constitute your sole and exclusive remedy for the respective matters specified therein.

6. MISCELLANEOUS

- 6.1 The terms and conditions of this License Agreement may be changed from time to time immediately upon notice to you. If any changes are made to this License Agreement, such changes will: (a) only be applied prospectively; and (b) not be specifically directed against you or your Eligible Users but will apply to all similarly situated Pictometry customers using the Online Services. You may terminate this License Agreement upon written notice to Pictometry if any change to the terms and conditions of this License Agreement is unacceptable to you. For termination to be effective under this Section 6.1, written notice of termination must be provided to Pictometry within 90 days of the effective date of the change. Continued use of the Online Services following the effective date of any change constitutes acceptance of the change, but does not affect the foregoing termination right. Except as provided above, this License Agreement may not be supplemented, modified or otherwise revised unless signed by duly authorized representatives of both parties. Furthermore, this License Agreement may not be supplemented, modified or otherwise revised by email exchange, even if the email contains a printed name or signature line bearing signature-like font. The foregoing does not prohibit the execution of electronic contracts bearing electronic signatures of authorized representatives of both parties, provided such signatures include digital certifications or are otherwise authenticated.
- 6.2 In the event of a breach of this License Agreement by you, any Eligible User or someone using the Pictometry Credential of an Eligible User, Pictometry may temporarily suspend or discontinue providing access to the Online Services to any or all Eligible Users with notice.
- 6.3 The failure of you, Pictometry, or any third party supplier of the Online Services or any Licensed Content to enforce any provision hereof shall not constitute or be construed as a waiver of such provision or of the right to enforce it at a later time.
- 6.4 Neither you nor any Eligible User may assign or otherwise transfer your rights or delegate your duties under this License Agreement without the prior written consent of Pictometry. Any attempt by you or any Eligible User to assign, transfer or delegate your rights or obligations under this License Agreement without Pictometry's consent shall be void, and shall also void the limited license granted to you by this License Agreement. This License Agreement and any amendment thereto shall be binding on, and will inure to the benefit of the parties and their respective successors and permitted assigns.

- 6.5 The Jurisdiction and Venue provisions of the Contract shall control with respect to disputes arising out of this License Agreement between Pictometry and you. This License Agreement shall be governed by and interpreted in accordance with the laws of the State of Colorado, excluding its conflicts of law principles.
- 6.6 This License Agreement will be enforced to the fullest extent permitted by applicable law. If any provision of this License Agreement is held to be invalid or unenforceable to any extent, then (a) such provision will be interpreted, construed and reformed to the extent reasonably required to render it valid, enforceable and consistent with its original intent and (b) such invalidity or unenforceability will not affect any other provision of this License Agreement.
- 6.7 Where applicable, each affiliated company of Pictometry and each third party supplier of the Online Services or any Licensed Content has the right to assert and enforce the provisions of this License Agreement directly on its own behalf as a third party beneficiary.
- 6.8 This License Agreement and the Contract constitute the entire agreement of the parties with respect to its subject matter and replaces and supersedes any prior written or verbal communications, representations, proposals or quotations relating to that subject matter.

[END OF ONLINE SERVICES GENERAL TERMS AND CONDITIONS]

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5. **LIMITATION OF LIABILITY.** TO THE FULLEST EXTENT PERMISSIBLE BY APPLICABLE LAW, UNDER NO CIRCUMSTANCES WILL THE AGGREGATE LIABILITY OF PICTOMETRY IN CONNECTION WITH ANY CLAIM ARISING OUT OF OR RELATING TO THE PICTOMETRY SOFTWARE EXCEED THE LESSER OF YOUR ACTUAL DIRECT DAMAGES OR THE AMOUNT YOU PAID UNDER THE CONTRACT. YOUR RIGHT TO MONETARY DAMAGES IN THAT AMOUNT SHALL BE IN LIEU OF ALL OTHER REMEDIES WHICH YOU MAY HAVE. YOUR TOTAL LIABILITY IN CONNECTION WITH ANY CLAIM ARISING OUT OF OR RELATING TO THE PICTOMETRY SOFTWARE IN THE AGGREGATE SHALL BE LIMITED TO THE LESSER OF PICTOMETRY'S ACTUAL DIRECT DAMAGES OR THE AGGREGATE AMOUNT RECEIVED BY OR, IF NOT RECEIVED, PAYABLE TO PICTOMETRY PURSUANT TO THE CONTRACT. IN NO EVENT WILL PICTOMETRY OR YOU BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, LOSS OF DATA, BUSINESS INTERRUPTION OR ANY OTHER COMMERCIAL DAMAGES OR LOSSES ARISING OUT OF OR RELATED TO YOUR USE OR INABILITY TO USE THE PICTOMETRY SOFTWARE, HOWEVER CAUSED, REGARDLESS OF THE THEORY OF LIABILITY (CONTRACT, TORT OR OTHERWISE), EVEN IF PICTOMETRY OR YOU HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING LIMITATIONS SHALL NOT APPLY TO INDEMNIFICATION OBLIGATIONS UNDER THE CONTRACT. THE FOREGOING LIMITATIONS WILL APPLY EVEN IF THE ABOVE STATED REMEDY FAILS OF ITS ESSENTIAL PURPOSE.
6. **TERMINATION.** The termination provisions of the Contract shall govern termination of this License.
7. **MISCELLANEOUS PROVISIONS.**
 - A. **Restricted Rights.** Pictometry Software acquired with United States Government funds or intended for use within or for any United States federal agency is provided with "Restricted Rights" as defined in DFARS 252.227-7013, Rights in Technical Data and Computer Software and FAR 52.227-14, Rights in Data-General, including Alternate III, as applicable. Pictometry must be notified in advance of any license grants to United States federal governmental entities. The Pictometry Software is developed for general use in a variety of applications and is not developed or intended for use in any inherently dangerous applications or applications that could lead to property damage, personal injury or death. If you use the Pictometry Software in such applications, then you will be responsible for taking all appropriate fail-safe, backup, redundancy, and other measures to ensure the safe use of the Pictometry Software in such applications, including but not limited to, in any nuclear, aviation, mass transit, public safety or medical applications.
 - B. **Foreign Trade Restrictions.** The parties acknowledge that certain information, software technology, accompanying documentation and technical information may be subject to United States export control laws. You will not directly or indirectly export or re-export the Pictometry Software in violation of the Export Administration Regulations of the U.S. Department of Commerce.
 - C. **Governing Law.** This License will be governed by and interpreted in accordance with the laws of the State of Colorado, excluding its conflict of laws principles.
 - D. **Assignment.** You may not assign this License without Pictometry's prior written consent. Any assignment in violation of this License will be null, void and of no force and effect. For all purposes under this License, any merger, consolidation, spin-off, acquisition or change-in-control will be deemed an assignment.

- E. **Partial Invalidity; Survival.** If any provision of this License is held invalid or unenforceable by competent authority, that provision will be construed so as to be limited or reduced to be enforceable to the maximum extent compatible with the law as it will then appear. The total invalidity or unenforceability of any particular provision of this License will not affect its other provisions and this License will be construed in all respects as if the invalid or unenforceable provision were omitted. The provisions of this License that by their nature would survive its termination will survive indefinitely.
- F. **Force Majeure.** Neither party will be liable for any costs or damages due to nonperformance under this License arising out of any cause not within the reasonable control of such party and without its fault or negligence. Neither party will be liable for any delay or failure in the performance of its obligations under this License that directly results from any failure of the other party to perform its obligations as set forth in this License.
- G. **Waiver.** No waiver of a breach of any term of this License will be effective unless in writing and duly executed by the waiving party. No such waiver will constitute a waiver of any subsequent breach of the same or any other term of this License. No failure on the part of a party to exercise, and no delay in exercising any of its rights hereunder will operate as a waiver thereof, nor will any single or partial exercise by a party of any right preclude any other or future exercise thereof or the exercise of any other right. No course of dealing between the parties will be deemed effective to modify, amend or discharge any part of this License or the rights or obligations of any party hereunder.
- H. **Entire Agreement; Construction.** This License and the Contract contain the entire understanding of the parties with respect to the subject matter hereof and supersedes any prior or contemporaneous understandings regarding that subject matter. No amendment to or modification of this License will be binding unless in writing and signed by Pictometry. There are no representations, warranties, or obligations of any party not expressly contained herein. The headings in this License are for convenience only. They do not constitute a portion of this License and will not be used in any construction of it.

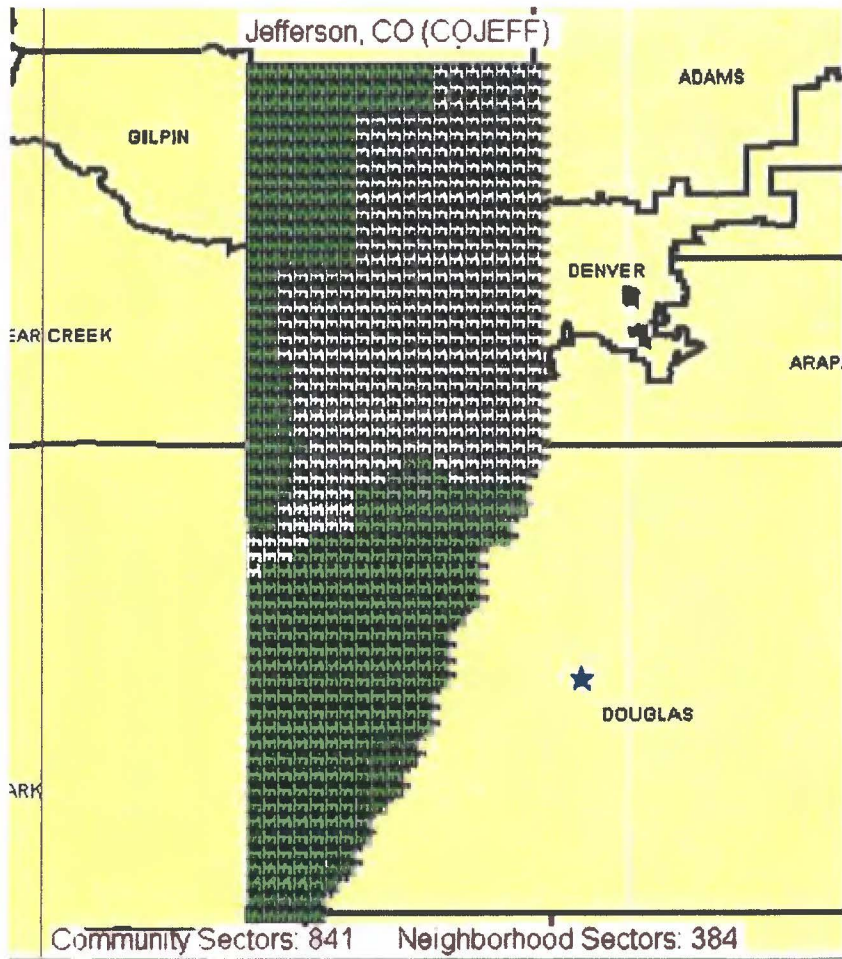
[END OF SOFTWARE LICENSE AGREEMENT]

EXHIBIT E

	INSURANCE REQUIREMENTS –	GENERAL
I	Prior to the commencement of any work the vendor shall forward certificates of insurance to the department specified in the award document.	
II	Certificate Holder must be Jefferson County, Colorado.	Required
II	Jefferson County must be added as an additional insured to general liability, auto liability, and any excess liability policies.	Required
III	Insurance - Minimum requirement	
	Workers compensation - statutory limits provided by an insurance carrier that is licensed to do business in Colorado. The policy shall contain a Waiver of Subrogation on behalf of Jefferson County. Employer's liability - \$100,000 each accident \$500,000 disease policy limit \$100,000 disease each employee	Required
	Commercial General Liability - on an Occurrence Form The policy must not exclude or reduce coverage for mobile equipment, personal injury; blanket contractual; and death. Personal injury coverage must have the employee exclusion deleted. The policy shall contain a Waiver of Subrogation on behalf of Jefferson County.	Required \$1M ea occurrence \$2M general aggregate
	Commercial automobile liability insurance - including hired and non-owned vehicles, if autos are used in the performance of work under this agreement. Combined single limit for bodily injury and property damage.	Required \$1M CSL per accident
	All deductibles or self-insured retentions (SIRs) in excess of \$5,000 must be listed on the certificate of insurance	Required
	The insurance requirements specified by the county shall remain in effect for the full term of the contract and/or agreement and any extension thereof. Updated Certificates of Insurance shall be sent to the county during the full term of the contract and/or agreement and any extension thereof.	Required
	The county reserves the right to reject any insurer it deems not financially acceptable on insurance industry resources. Property and liability insurance companies shall be licensed or approved to do business in Colorado and shall have an A.M. Best rating of not less than A-/VII. Additionally the county reserves the right to reject any insurance with relatively large deductibles or self-insured retentions (SIRs), deemed by the county to pose too high a risk based on the size of the contractor, financial status or rating of the contractor, or based on the size or type of the project and the exposure.	Required
	Any deviations below the standards given above must be approved by Jefferson County Risk Management	Required
IV	Any subcontractors must meet the same insurance requirements for the contract or purchase order unless Risk Management has approved a deviation	Required
V		

EXHIBIT F

SECTOR MAP(S)





REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.B.4.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: R21-120 A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for CARES Act Funding in the Amount of \$682,995.00

Report in Brief

The purpose of this Intergovernmental Agreement is to allow the City of Arvada to enter into a funding agreement with the U.S. Department of Housing and Urban Development (HUD) to accept the Community Development Block Grant Coronavirus funds in the amount of \$682,995 (this is a combination of Round 1 funds \$276,525 and Round 3 funds \$406,470). All Round 2 funding went to the State. The agreement supports the Vibrant Community and Neighborhoods strategic result to improve access to quality housing, affordable for a broad range of income levels.

The Arvada team recommends that the City Council approve R21-120, A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for CARES Act Funding in the Amount of \$682,995.00.

Financial Impact

The City of Arvada will receive \$682,995.00 in Community Development Block Grant Rounds 1 and 3 Coronavirus funding from the Department of Housing and Urban Development to support services for low to moderate income families in Arvada for COVID-19 relief.

Background

The U.S. Department of Housing and Urban Development (HUD) requires all entitlement communities receiving CDBG funds to prepare and submit a Consolidated Plan every five years to establish a unified, strategic vision for economic development, housing and community development actions. The Consolidated Plan encompasses the analysis of local community needs and coordinates appropriate responses to those needs and priorities. The Consolidated Plan is carried out through Annual Action Plans which provide a concise summary of the actions, activities, and the specific federal and non-federal resources that will be used each year to address the priority needs and specific goals in the Consolidated Plan.

The City must submit an Annual Action Plan to HUD no later than November 15th of each year during the five-year period. Per the City's Citizen Participation Plan, a substantial amendment to an Action Plan is required when a "substantial" change is proposed that impacts funding priorities, proposed activities, goals and objectives. This substantial amendment to the 2020 Action Plan is necessary because the City has been allocated new CDBG funding through the March 27, 2020 CARES Act. In accordance with the purpose of the CARES Act, the Arvada team proposes to allocate these funds to activities which support the immediate and long-term aid and recovery efforts for Arvada residents impacted by the Coronavirus.

As required by the regulations outlined in the CARES Act, a 5-day public review and comment period beginning June 24, 2021 and ending July 1, 2021 was provided and a public notice published in the Arvada Press and on the City's website. On August 2, 2021, Arvada City Council approved Resolution R21-012 allowing for the submission of a substantial amendment to the 2020 Community Development Block Grant (CDBG) program to allocate additional CDBG funds made available through the

Coronavirus Aid, Relief and Economic Securities Act (CARES Act). The substantial amendment was submitted to HUD and HUD has issued a funding agreement to the City of Arvada for signature. This funding agreement of \$682,995 includes \$276,525 of CDBG CARES Round 1 funding that was approved by Arvada City Council on April 11, 2021 and \$406,470 of CDBG CARES Round 3 funding that Arvada City Council approved on August 2, 2021.

Discussion

Our team evaluated the benefits of an intergovernmental agreement between the City of Arvada and the U.S. Department of Housing and Urban Development and determined this is in the best interest of the City and in support of Strategic Results and Milestones within the Vibrant Community and Neighborhoods Priority Area. These funds will support programs such as rent and mortgage assistance, utility payment assistance, homeless services associated with the Jefferson County Regional program and similar human services programs.

Public Contact

As required by the regulations outlined in the CARES Act, a 5-day public review and comment period beginning June 24, 2021 and ending July 1, 2021 was provided and a public notice published in the Arvada Press and on the City's website.

Commission Recommendation

N/A

Strategic Alignment

Approval of this resolution authorizing an Intergovernmental Agreement with the Department of Housing and Urban Development aligns with the Vibrant Community and Neighborhoods Priority Area within the City Council Strategic Plan. Specifically, the recommended action aligns with the following Principle:

"Improves access to quality housing that is affordable for a broad range of income levels and provides resources, housing and neighborhood assistance services for Arvada residents, neighborhoods, property owners, and stakeholders."

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that the City Council approve R21-120, A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for CARES Act Funding in the Amount of \$682,995.00.

Suggested Motion:

I move that R21-120, A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for CARES Act Funding in the Amount of \$682,995.00, be (approved) (rejected).

Prepared by:
Rosa Koughl, Executive Assistant

Reviewed by:

SUBJECT: R21-120 A Resolution Authorizing an Intergovernmental Agreement By and Between the City of Arvada and the U.S. Department of Housing and Urban Development for CARES Act Funding in the Amount of \$682,995.00

PAGE: 3
ITEM: 8.B.4.

Approved by:

Carrie Espinosa, Manager of Housing Preservation and Resources	8/23/2021
Gordon Reusink, Director of Vibrant Community and Neighborhoods	8/23/2021
Bryan Archer, Director of Finance	8/23/2021
Gail Walker, Legal Specialist-Contracts	8/23/2021
Kylie Justus, Assistant City Attorney	8/23/2021
Rachel Morris, City Attorney	8/23/2021
Lorie Gillis, Deputy City Manager	9/1/2021
Mark Deven, City Manager	9/1/2021

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R21-120

A RESOLUTION AUTHORIZING AN INTERGOVERNMENTAL AGREEMENT BY AND BETWEEN THE
CITY OF ARVADA AND THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT FOR
CARES ACT FUNDING IN THE AMOUNT OF \$682,995.00

WHEREAS, the City of Arvada has the opportunity to enter into an Intergovernmental Agreement with the U.S. Department of Housing and Urban Development (HUD) for funding from the 2020 Community Development Block Grant, specifically for additional Coronavirus relief funds in the amount of \$682,995; and

WHEREAS, the agreement supports the Vibrant Community and Neighborhoods strategic result to improve access to quality housing affordable for a broad range of income levels.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. The Mayor or Mayor Pro Tem is authorized to sign and the City Clerk to attest, in a form approved by the City Attorney, an Agreement, which is in substantially the same form as attached intergovernmental agreement by and between the City of Arvada and the U.S. Department of Housing and Urban Development.

Section 2. This resolution shall be effective upon its approval by the City Council.

APPROVED AND ADOPTED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel Morris, City Attorney

By: _____

Funding Approval/Agreement

Title I of the Housing and Community
Development Act (Public Law 930383)
HI-00515R of 20515R

U.S. Department of Housing and Urban Development

Office of Community Planning and Development
Community Development Block Grant Program

OMB Approval No. 2506-0193
exp 5/31/2018

1. Name of Grantee (as shown in item 5 of Standard Form 424) Arvada	3a. Grantee's 9-digit Tax ID Number 846000633	3b. Grantee's 9-digit DUNS Number 085285138
2. Grantee's Complete Address (as shown in item 5 of Standard Form 424) 8001 Ralston Road Arvada, CO 80002-0000	4. Date use of funds may begin 03/04/2021	
	5a. Project/Grant No. 1 B-20-MW-08-0001	6a. Amount Approved \$682,995
	5b. Project/Grant No. 2	6b. Amount Approved

Grant Agreement: This Grant Agreement between the Department of Housing and Urban Development (HUD) and the above named Grantee is made pursuant to the authority of Title I of the Housing and Community Development Act of 1974, as amended, (42 USC 5301 et seq.). The Grantee's submissions for Title I assistance, the HUD regulations at 24 CFR Part 570 (as now in effect and as may be amended from time to time), and this Funding Approval, including any special conditions, constitute part of the Agreement. Subject to the provisions of this Grant Agreement, HUD will make the funding assistance specified here available to the Grantee upon execution of the Agreement by the parties. The funding assistance specified in the Funding Approval may be used to pay costs incurred after the date specified in item 4 above provided the activities to which such costs are related are carried out in compliance with all applicable requirements. Pre-agreement costs may not be paid with funding assistance specified here unless they are authorized in HUD regulations or approved by waiver and listed in the special conditions to the Funding Approval. The Grantee agrees to assume all of the responsibilities for environmental review, decision making, and actions, as specified and required in regulations issued by the Secretary pursuant to Section 104(g) of Title I and published in 24 CFR Part 58. The Grantee further acknowledges its responsibility for adherence to the Agreement by sub-recipient entities to which it makes funding assistance hereunder available.

U.S. Department of Housing and Urban Development (By Name) Katy Burke		Grantee Name (Contractual Organization) Arvada	
Title CPD Director		Title	
Signature 	Date (mm/dd/yyyy) 08/12/2021	Signature 	Date (mm/dd/yyyy)
Signed by: KATHLEEN BURKE			

7. Category of Title I Assistance for this Funding Action: Entitlement, Sec 106(b)	8. Special Conditions (check one) ☐ None ☒ Attached	9a. Date HUD Received Submission 08/12/2021	10. check one ☐ a. Orig. Funding Approval ☒ b. Amendment Amendment Number
		9b. Date Grantee Notified 08/12/2021	
		9c. Date of Start of Program Year 01/01/2020	
11. Amount of Community Development Block Grant			
a. Funds Reserved for this Grantee		FY (2020) \$682,995	
b. Funds now being Approved			
c. Reservation to be Cancelled (11a minus 11b)			

12a. Amount of Loan Guarantee Commitment now being Approved N/A	12b. Name and complete Address of Public Agency Arvada 8001 Ralston Road Arvada, CO 80002-0000
Loan Guarantee Acceptance Provisions for Designated Agencies: The public agency hereby accepts the Grant Agreement executed by the Department of Housing and Urban Development on the above date with respect to the above grant number(s) as Grantee designated to receive loan guarantee assistance, and agrees to comply with the terms and conditions of the Agreement, applicable regulations, and other requirements of HUD now or hereafter in effect, pertaining to the assistance provided it.	12c. Name of Authorized Official for Designated Public Agency N/A
	Title N/A
	Signature N/A

HUD Accounting use Only

Batch	TAC	Program	Y	A	Reg	Area	Document No.	Project Number	Category	Amount	Effective Date (mm/dd/yyyy)	F
	153											
	176											
			Y					Project Number		Amount		
			Y					Project Number		Amount		
Date Entered PAS (mm/dd/yyyy)	Date Entered LOCCS (mm/dd/yyyy)	Batch Number	Transaction Code	Entered By	Verified By							

Additional CDBG-CV Requirements

In addition to the terms and conditions in the Funding Approval/Agreement, the following requirements apply to Grantees receiving CDBG-CV funds in accordance with the Coronavirus Aid, Relief and Economic Security Act (CARES Act) (Pub. L. 116-136).

- 1) The Grantee agrees to comply with the requirements in the CARES Act that apply to CDBG-CV grants and must use the CDBG-CV grant funds to prevent, prepare for and respond to coronavirus.
- 2) The grantee agrees to comply with the requirements of the Housing and Community Development Act of 1974 (42 USC 5301 et seq.) and implementing regulations at 24 CFR part 570, as now in effect and as may be amended from time to time, and as modified by the rules, waivers and alternative requirements published by HUD from time to time. Rules, waivers and alternative requirements of Federal Register notices applicable to CDBG-CV grants are hereby incorporated into and made a part of the grant agreement.
- 3) The Grantee may use CDBG-CV funds as reimbursement for previously incurred costs, provided that those costs are allowable and consistent with the CARES Act's purpose to prevent, prepare for and respond to coronavirus.
- 4) The grantee agrees to establish and maintain adequate procedures to prevent any duplication of benefits as required by section 312 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5155), as amended by section 1210 of the Disaster Recovery Reform Act of 2018 (division D of Public Law 115-254; 132 Stat. 3442).
- 5) The period of performance for the funding assistance specified in the Funding Approval/Agreement ("Funding Assistance") shall be six years. It shall begin on the date specified in item 4 in the Funding Approval/Agreement and shall end six years later, on the month and day specified in item 4. The Grantee shall not incur any obligations to be paid with the Funding Assistance after this period of performance.
- 6) The Recipient shall attach a schedule of its indirect cost rate(s) in the format set forth below to the executed Funding Approval/Agreement that is returned to HUD. The Recipient shall provide HUD with a revised schedule when any change is made to the rate(s) described in the schedule. The schedule and any revisions HUD receives from the Recipient shall be incorporated herein and made a part of this Funding Approval / Agreement, provided that the rate(s) described comply with 2 CFR part 200, subpart E.

Administering		Direct
<u>Department/Agency</u>	<u>Indirect cost rate</u>	<u>Cost Base</u>
_____	_____ %	_____
	_____ %	

Instructions: The Recipient must identify each agency or department of the Recipient that will carry out activities under the grant, the indirect cost rate applicable to each department/agency (including if the de minimis rate is used per 2 CFR §200.414(f)), and the type of direct cost base to which the rate will be applied (for example, Modified Total Direct Costs (MTDC)). Do not include indirect cost rates for subrecipients.

- 7) In addition to the conditions contained in the Funding Approval/Agreement (form HUD 7082), the grantee shall comply with requirements established by the Office of Management and Budget (OMB) concerning the Dun and Bradstreet Data Universal Numbering System (DUNS); the System for Award Management (SAM.gov.); the Federal Funding Accountability and Transparency Act as provided in 2 CFR part 25, Universal Identifier and General Contractor Registration; and 2 CFR part 170, Reporting Subaward and Executive Compensation Information.
- 8) The grantee shall ensure that no CDBG-CV funds are used to support any Federal, State, or local projects that seek to use the power of eminent domain, unless eminent domain is employed only for a public use. For the purposes of this requirement, public use shall not be construed to include economic development that primarily benefits private entities. Any use of funds for mass transit, railroad, airport, seaport or highway projects as well as utility projects which benefit or serve the general public (including energy-related, communication-related, water- related and wastewater-related infrastructure), other structures designated for use by the general public or which have other common-carrier or public-utility functions that serve the general public and are subject to regulation and oversight by the government, and projects for the removal of an immediate threat to public health and safety or brownfield as defined in the Small Business Liability Relief and Brownfields Revitalization Act (Public Law 107–118) shall be considered a public use for purposes of eminent domain.
- 9) The Grantee or unit of general local government that directly or indirectly receives CDBG-CV funds may not sell, trade, or otherwise transfer all or any such portion of such funds to another such entity in exchange for any other funds, credits or non-Federal considerations, but must use such funds for activities eligible under title I of the Act.
- 10) E.O. 12372-Special Contract Condition - Notwithstanding any other provision of this agreement, no funds provided under this agreement may be obligated or expended for the planning or construction of water or sewer facilities until receipt of written notification from HUD of the release of funds on completion of the review procedures required under Executive Order (E.O.) 12372, Intergovernmental Review of Federal Programs, and HUD's implementing regulations at 24 CFR Part 52. The recipient shall also complete the review procedures required under E.O. 12372 and 24 CFR Part 52 and receive written notification from HUD of the release of funds before obligating or expending any funds provided under this agreement for any new or revised activity for the planning or construction of water or sewer facilities not previously reviewed under E.O. 12372 and implementing regulations.
- 11) CDBG-CV funds may not be provided to a for-profit entity pursuant to section 105(a)(17) of the Act unless such activity or project has been evaluated and selected in accordance with Appendix A to 24 CFR 570 - "Guidelines and Objectives for Evaluating Project Costs and Financial Requirements." (Source – This condition is included as requirement on the use of fiscal year 2020 CDBG funds by the Community Development Fund heading, Department of Housing and Urban Development Appropriations Act, 2020, Public Law 116-94, and is made applicable to this grant by the CARES Act).



REPORT TO CITY COUNCIL

AGENDA ITEM
9.A.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Oath of Office for Charles W. Tingle, Arvada Municipal Court Relief Judge

Report in Brief

Charles W. Tingle will be sworn in as a relief judge for the Arvada Municipal Court.

Prepared by:

Chris Koch, CCO Admin

Reviewed by:

Toni Riebschlager, Law Office Administrator 9/7/2021

Approved by:

Rachel Morris, City Attorney 9/8/2021

Lorie Gillis, Deputy City Manager

Mark Deven, City Manager

Enclosure, exhibits & attachments required to support the report

Oath of Office

STATE OF COLORADO)
Jefferson and Adams Counties)
City of Arvada)

I, Charles Tingle, do solemnly swear that I will support the Constitution of the United States, the Constitution of the state of Colorado, and the laws of the state of Colorado, and will faithfully perform the duties of the office of Municipal Court Relief Judge for the City of Arvada, upon which I am about to enter to the best of my ability.

Charles Tingle

Subscribed and sworn to before me this 13th day of September, 2021.

Marc Williams
Mayor



REPORT TO CITY COUNCIL PUBLIC HEARING

AGENDA ITEM
10.A.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: CB21-029 An Ordinance Repealing Chapter 10, Amusements and Entertainment, of the Arvada City Code (Ordinance No. 4776)

Report in Brief

The Arvada City Council initially adopted ordinances regulating amusement arcades and other similar businesses in the 1960's, before the proliferation of handheld electronic devices, gaming systems, smartphones, tablets, and other types of technology that allow ease of access to games and entertainment. Because of the changes in this industry and to better compete with neighboring jurisdictions in order to encourage business in Arvada, the Arvada team recommends that the current City Code provisions in Chapter 10, relating to Amusements and Entertainment be repealed.

The Arvada team recommends that the City Council approve CB21-029, An Ordinance Repealing Chapter 10, Amusements and Entertainment, of the Arvada City Code.

Financial Impact

Revenue would be decreased by approximately \$4,000 per year.

Background

The City of Arvada has regulated amusement and entertainment establishments since the early 1960's. At the time the ordinance was first adopted, these types of establishments were very popular in municipalities and became a place for young people to gather. It was necessary at that time to put into place regulations addressing disturbances of public peace, use of alcohol on the premises, and hours of operation for minors. Background investigations were also required for the managers and officers of corporations. Yearly license fees were established, along with a device fee as a way to cover the costs of processing applications, renewals, background investigations and disturbances. The City currently has 15 amusement establishments which produce approximately \$4,000 per year in revenue. Four of these establishments pay the bulk of the fees, all of which are small businesses. The remaining eleven pay \$100.00 per location for the ability to have 1 or 2 small coin-operated machines, such as a toy claw machine.

Discussion

The City of Arvada promotes and facilitates the establishment and growth of businesses in the City. There have been recent inquiries from individuals wanting to open an amusement type facility in Arvada and were discouraged by the regulations and fees in our City Code, and in fact, found they could go to almost any surrounding municipality in the Denver metro area without having to comply with any Code provisions or pay any fees. The Arvada team finds that it is in the best interest of the City to compete with neighboring jurisdictions in order to encourage business in Arvada and that the fee-based revenue received from these amusement establishments is minimal compared to the cost of processing applications, renewals, and licensure fees. The team also feels that the regulatory provisions in this ordinance are outdated and no longer needed in the City.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

N/A

Strategic Alignment

The recommended action aligns with the Community and Economic Development Priority Area and specifically supports the following Principle:

Supports the community's vision by cultivating an environment that attracts and retains private-sector investment, a talented workforce, and an engaged business community.

Alternative Courses of Action

City Council could choose not to repeal Chapter 10 of the Arvada City Code. The City can continue to regulate and charge fees for amusement establishments, however we may continue to lose businesses to other jurisdictions in the metro area.

Recommendation for Action

The Arvada team recommends that the City Council approve CB21-029, An Ordinance Repealing Chapter 10, Amusements and Entertainment, of the Arvada City Code.

Suggested Motion:

I move that CB21-029, An Ordinance Repealing Chapter 10, Amusements and Entertainment, of the Arvada City Code, be (approved on final reading, numbered 4776 and ordered published by title only)(rejected).

Prepared by:
Chris Koch, CCO Admin

Reviewed by:

Approved by:

Rachel Morris, City Attorney	8/23/2021
Lorie Gillis, Deputy City Manager	9/1/2021
Mark Deven, City Manager	9/1/2021

Enclosure, exhibits & attachments required to support the report

COUNCIL BILL NO. 21-029

ORDINANCE NO. 4776

AN ORDINANCE REPEALING CHAPTER 10, AMUSEMENTS AND ENTERTAINMENT,
OF THE ARVADA CITY CODE

WHEREAS, the City Council has determined that Arvada is a municipality that seeks to facilitate the establishment and growth of businesses; and

WHEREAS, Council finds that it is in the best interest of the city to compete with neighboring jurisdictions in order to encourage business in Arvada; and

WHEREAS, Council finds that is important to respond to changes in industry; and

WHEREAS, Council initially adopted the ordinances regulating amusement arcades and other similar businesses in the 1960's, before the proliferation of handheld electronic devices, gaming systems, smartphones, tablets, and other types of technology that allow ease of access to games and entertainment; and

WHEREAS, Council finds that the revenue received from amusement centers, arcades, and devices is minimal compared to the cost of processing applications, renewals, and licensure fees.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. Chapter 10, Amusements and Entertainment, of the Arvada City Code is hereby repealed in its entirety.

Section 2. This ordinance shall be effective five days after publication following final passage.

INTRODUCED, READ, AND ORDERED PUBLISHED this 16th day of August, 2021.

PASSED, ADOPTED, AND APPROVED this 13th day of September, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

Rachel A. Morris, City Attorney

By: _____

Publication Dates: August 19, 2021
September 16, 2021

Chapter 10 AMUSEMENTS AND ENTERTAINMENT¹

¹Cross reference(s)—Businesses, ch. 22.

State law reference(s)—Power of city council to regulate obscene, etc., performance, C.R.S. § 31-15-401; power of city council to license, tax and regulate amusements and places of amusements generally, C.R.S. § 31-15-501.

ARTICLE I. IN GENERAL

Secs. 10-1—10-30. Reserved.

ARTICLE II. AMUSEMENT DEVICES

DIVISION 1. GENERALLY

Sec. 10-31. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Amusement arcade means a place of business where an individual, association, partnership or corporation maintains more than ten amusement devices.

Amusement center means a place of business where an individual, association, partnership or corporation maintains less than 11 amusement devices either as a sole business or in conjunction with some other business.

Amusement device means any device which, upon insertion of a coin, slug, token, plate or disc, or payment of a consideration, may be used by the public as a game, entertainment, amusement, a test of skill, either mental or physical, whether or not registering a score, which shall include but shall not be limited to: Foosball tables and pinball machines; but shall not include radios, devices that provide music only, bowling lanes, pool or snooker tables, television carrying commercial broadcasts only or fixed-stand coin-operated kiddie rides.

Applicant means any individual, association, partnership or corporation requesting a license pursuant to this article.

Manager means an individual who manages, directs, supervises, oversees and administers the acts and transactions of the agents or servants of any establishment governed by this article, or who, through his own actions, directs, oversees and administers the affairs of any such establishments.

(Code 1960, § 5-1; Code 1981, § 5-11; Ord. No. 2637, § 1, 8-7-1989)

Cross reference(s)—Definitions, § 1-2.

Sec. 10-32. Hours of operation; minors.

No establishment licensed pursuant to the provisions of this article shall permit any person under the age of 18 years to operate any amusement device except between the hours of 10:00 a.m. and 11:00 p.m., Sunday through Thursday, and between the hours of 10:00 a.m. and midnight, Friday and Saturday, unless such person is accompanied by a parent or guardian. Each such establishment shall post in a conspicuous place on its premises, notice of the permitted hours of operation of amusement devices for minors. Failure of any such establishment to comply with the requirements of this section shall be grounds for revocation of the establishment's license.

(Code 1960, § 5-8.3; Code 1981, § 5-12; Ord. No. 1903, § 3, 1-17-1983; Ord. No. 1908, § 1, 4-18-1983)

Sec. 10-33. Gambling.

Nothing in this article shall be construed to permit any unlawful gambling or wagering within the city.

(Code 1960, § 5-8.2; Code 1981, § 5-13)

State law reference(s)—Gambling, C.R.S. § 18-10-101 et seq.

Sec. 10-34. Registration of owner and devices.

It shall be the duty of any owner or lessee of any premises in the city upon which any amusement devices are kept to register with the city clerk the owner and serial number of each amusement device kept on the premises.

(Code 1981, § 5-14; Ord. No. 1903, § 4, 1-17-1983)

Sec. 10-35. Reporting of disorderly conduct.

- (a) *Definitions.* The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Assault is defined as set forth in section 62-31.

Disorderly conduct is defined as set forth in section 62-50.

Harassment is defined as set forth in section 62-31.

Premises, for purposes of this section, is defined as the interior and indoor portions of the amusement arcade business, including those areas not open to the public.

- (b) *Reports.* It shall be unlawful for any amusement arcade licensee, or any agent, manager, or employee thereof, to fail to immediately report any disorderly conduct, assault, harassment, or any other criminal activity occurring on or within the premises.
- (c) *Warning signs shall be displayed.* Each amusement arcade licensee shall post and keep at all times visible to the public in a conspicuous place on the premises, a sign to be provided by the city clerk's office which shall be in the following form:
- "WARNING: The city police department must be notified of all disturbances, including assault, disorderly conduct, harassment, and any other criminal activities which occur on or within the premises of this establishment."
- (d) *Absence of licensee not a defense.* It shall not be a defense to a prosecution of an amusement arcade licensee under this section that the licensee was not personally present on the premises at the time such unlawful or disorderly act, conduct, or disturbance was committed; provided, however, that an agent, servant, or employee of the licensee shall not be responsible hereunder when such agent, servant, or employee is absent from the premises.
- (e) *Criminal offense.* A violation of this section is also a criminal offense, punishable by a fine as provided in section 1-5.

(Code 1981, § 5-15; Ord. No. 3479, § 1, 8-31-1998)

Secs. 10-36—10-60. Reserved.

PART II - CODE OF ORDINANCES
Chapter 10 - AMUSEMENTS AND ENTERTAINMENT
ARTICLE II. - AMUSEMENT DEVICES
DIVISION 2. LICENSE

DIVISION 2. LICENSE

Sec. 10-61. Required.

No amusement arcade shall conduct business within the city without a valid amusement arcade license. No amusement center operator shall allow any amusement device on the premises to be operated without first obtaining a valid amusement center license; provided, however, that the provisions of sections 10-62 through 10-65 and 10-70 shall not apply to amusement center licenses issued pursuant to this article.

(Code 1960, § 5-2(A); Code 1981, § 5-21; Ord. No. 1903, § 4.1, 1-17-1983)

Sec. 10-62. Application; contents.

An application for an amusement arcade license shall be filed with the city clerk and shall be accompanied by the fees required by this article and shall contain the following information:

- (1) The name and address of the amusement arcade.
- (2) The name and address of the applicant, with his age, date and place of birth.
- (3) Evidence from the planning director that the location of the proposed amusement arcade meets all of the zoning requirements of the city.
- (4) Where applicant is a corporation, association, partnership or private club, the information required in subdivision (2) shall be furnished as to each member of the association, or each officer of the corporation, and members of the board of directors of the corporation and the holders of ten percent or more of the corporate stock of any class.
- (5) Prior conviction of any of the persons listed in this section of any law except traffic violations, if any.
- (6) The number of amusement devices to be maintained at the amusement arcade.
- (7) The name, age and prior felony convictions of any proposed manager of the establishment.

(Code 1960, § 5-3; Code 1981, § 5-22)

Sec. 10-63. Review by city manager.

An application for the license required by this article shall be reviewed by the city manager. The city manager shall have an investigation conducted by the police department, sufficient to verify all the information required by this division. On completion of this investigation, the city manager shall either approve or disapprove the application.

(Code 1960, § 5-4(A); Code 1981, § 5-23)

Sec. 10-64. Refusal.

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- (a) The city manager may refuse to issue any license for an amusement arcade if the city manager should find any of the following:
 - (1) That the applicant is under the age of 21 years; or
 - (2) That the applicant, manager or any of them has made false statements upon the application; or
 - (3) That the applicant, manager or any of them is not of good moral character.
 - (b) No license shall be issued for an amusement arcade located within 500 feet of any grade school, junior high school or senior high school.
 - (c) In the event the city manager disapproves a license application, the city manager shall make written findings of fact stating the reasons for the disapproval.

(Code 1960, § 5-4(B), (C); Code 1981, § 5-24; Ord. No. 1712, § 1, 1-5-1981)

Sec. 10-65. Approval.

No license under this article shall be issued to any applicant unless approved by the city manager.

(Code 1960, § 5-4(B); Code 1981, § 5-25)

Sec. 10-66. Fees.

- (a) Applicants for or holders of an amusement arcade license shall pay a yearly license fee of \$500.00. Applicants for or holders of an amusement center license having six to ten amusement devices on the premises shall pay a yearly license fee of \$250.00. Applicants for or holders of an amusement center license having five or fewer amusement devices on the premises shall pay a yearly license fee of \$100.00.
- (b) Operators of amusement arcades shall pay a yearly fee of \$35.00 per amusement device maintained upon the premises, and operators of amusement centers shall pay a yearly fee of \$70.00 per amusement device maintained upon the premises; provided, however, that in the event that any amusement device for which the amusement device fee has been paid is removed from the premises, the fee paid shall be transferable to any replacement device brought on to the premises during the same calendar year and no additional fee shall be payable. In no event shall the operator of an amusement arcade or amusement center be entitled to a refund of any fees in the event that the number of amusement devices maintained upon the premises is reduced during a calendar year.
- (c) Applicants for an amusement arcade license shall pay an investigation fee of \$300.00 to cover the cost of investigation required by this article.
- (d) The city clerk shall issue a receipt for the payment of these fees.
- (e) Effective January 1, 1985, any operator of an amusement center who maintains two or fewer amusement devices upon licensed premises shall not be subject to payment of the yearly fee, as provided in subsection (b) of this section, for amusement devices maintained upon such licensed premises.

(Code 1960, § 5-7; Code 1981, § 5-26; Ord. No. 1903, §§ 5, 6, 1-17-1983; Ord. No. 2054, § 1, 4-16-1984)

Sec. 10-67. Payment of fees.

No amusement arcade shall conduct business within the city without first paying the fee placed upon amusement devices imposed by this article, and no amusement center operator shall allow any amusement

devices upon the premises to be operated without first paying the fee placed upon amusement devices by this article.

(Code 1960, § 5-2(B); Code 1981, § 5-27; Ord. No. 1903, § 7, 1-17-1983)

Sec. 10-68. Display.

The holder of any license or receipt issued pursuant to the terms of this article shall prominently display the same upon the premises for which the license is issued.

(Code 1960, § 5-8.1; Code 1981, § 5-28)

Sec. 10-69. Transfer.

Any license or receipt issued pursuant to the terms of this article shall not be transferable to any other location in the city. In the event of transfer of ownership of the business at the same location for which a license or tax receipt is issued pursuant to the terms of this article, a license may be transferred to the new owner of the business; provided, however, that if the transfer involves an amusement arcade license, application therefor stating the same information as required by section 10-62 is first presented to the city manager for approval or disapproval, accompanied by the \$500.00 license fee and the \$300.00 investigation fee, as required by section 10-66. Approval or disapproval of such transfer shall be upon the same terms as approval or disapproval of a license as required by the terms of this article.

(Code 1960, § 5-8.1; Code 1981, § 5-29; Ord. No. 1903, § 8, 1-17-1983)

Sec. 10-70. Suspension or revocation.

- (a) The city manager may, after giving the licensee a reasonable opportunity to be heard in accordance with section 2-171 et seq., suspend or revoke any license granted pursuant to this article upon a finding of any of the following factors:
- (1) That any of the amusement devices maintained upon the premises are being used for gambling purposes.
 - (2) That repeated disturbances of public peace, involving patrons, employees or the holder of the license of the establishment, have been occurring within the licensed establishment or upon any parking areas, sidewalks, walkways, accessways or grounds immediately adjacent to the licensed premises.
 - (3) That the holder of the license or any employees thereof are illegally offering for sale, or illegally allowing to be consumed upon the licensed premises, or upon any parking areas, sidewalks, walkways, accessways or grounds immediately adjacent to the licensed premises, narcotics or dangerous drugs.
 - (4) That the holder of the license or an approved manager is not upon the licensed premises at all times.
 - (5) That the use of the amusement devices in the licensed establishment occurs during the hours when such operation is prohibited pursuant to section 10-32.
 - (6) That malt, vinous or spirituous beverages or fermented malt beverages are being consumed by the patrons of the licensed establishment upon any parking areas, sidewalks, walkways, accessways or grounds immediately adjacent to the licensed premises.
 - (7) That malt, vinous or spirituous beverages are being consumed by patrons of the licensed establishment upon the licensed premises unless:

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- a. The only alcoholic beverages being consumed are malt and vinous beverages as defined by the Colorado Liquor Code; and
 - b. Not less than 50 percent of the weekly gross receipts of said licensed establishment are derived from the sale of food and nonalcoholic beverages; and
 - c. The sale of malt and vinous beverages does not exceed 20 percent of the weekly gross receipts of the licensed establishment; and
 - d. Malt or vinous beverages are not sold, served, brought to or consumed in any room or area in which amusement devices are located.
- (8) That a person under the age of 19 years is a manager of the licensed establishment.
- (9) That the holder of the license, or his agent, manager, or employee has been found guilty of, pleaded guilty to, pleaded no contest to, or entered into a plea bargain related to a violation of section 10-35.
- (b) Nothing in this article shall prohibit the city from taking any other enforcement action provided for by this Code or the laws of the state or of the United States.
- (Code 1960, § 5-8; Code 1981, § 5-30; Ord. No. 1690, § 1, 9-2-1980; Ord. No. 1903, § 9, 1-17-1983; Ord. No. 3479, § 2, 8-31-1998)

Sec. 10-71. Term.

- (a) All licenses granted pursuant to this article shall expire at midnight on December 31 of each year.
- (b) When an application for an amusement arcade license or amusement center license is submitted after the expiration of part of the current license year, the license fee shall be prorated by quarters and the fee paid for each quarter during which the business has been or will be conducted.
- (Code 1960, § 5-5; Code 1981, § 5-31; Ord. No. 1903, § 10, 1-17-1983)

Sec. 10-72. Renewal.

Renewal of any of the licenses granted pursuant to this article may be had by payment of the licensing fee along with a statement that the information listed on the original license application is still true and correct to the applicant's knowledge, or a statement listing those items of information required for a license application which have changed in the year since the license was granted or last renewed. No license shall be renewed unless and until all fees and taxes due are paid.

(Code 1960, § 5-6; Code 1981, § 5-32; Ord. No. 1903, § 11, 1-17-1983)

Secs. 10-73—10-90. Reserved.

DIVISION 3. SPECIAL EVENT PERMITS

Sec. 10-91. Special permits authorized.

The city manager may issue a special event permit to an establishment licensed pursuant to the provisions of this article, to permit the use by minors of amusement devices after normal hours of operation as regulated by section 10-32.

(Code 1981, § 5-45; Ord. No. 1929, § 1, 5-2-1983)

Sec. 10-92. Grounds for issuance of special permits.

A special event permit may be issued only upon a satisfactory showing by an organization that use by minors of amusement devices after normal hours of operation is necessary by reason of the nature of the special event being scheduled.

(Code 1981, § 5-46; Ord. No. 1929, § 1, 5-2-1983)

Sec. 10-93. Application fees for special permits.

Special event permit fees are:

- (1) Ten dollars for a special event whose sole purpose is to raise funds for a charitable purpose.
- (2) Twenty-five dollars for all other special events.

(Code 1981, § 5-47; Ord. No. 1929, § 1, 5-2-1983)

Sec. 10-94. Applications for special permit.

Every application for a special event permit shall be accompanied by the following:

- (1) An information sheet containing the following information:
 - a. Name and address of the person who will be in charge of the special event.
 - b. Nature and purpose of the event, including whether its sole purpose is to raise funds for a charitable purpose.
 - c. Information outlining proposed supervision of minors after normal hours to ensure against the creation of any disturbance of the public peace, sale or consumption of any narcotics or dangerous drugs, or consumption of any malt, vinous or spirituous beverage by any such minor, within the licensed establishment or upon any parking areas, sidewalks, walkways, accessways or grounds immediately adjacent to the licensed premises.
- (2) Applicable application fee.

(Code 1981, § 5-48; Ord. No. 1929, § 1, 5-2-1983)

Sec. 10-95. Restrictions related to permits.

- (a) Each special event permit shall be issued for a specific time and location and is valid only for that time and location.
- (b) A special event permit may not be issued to any licensed establishment for more than ten occasions in one calendar year.
- (c) No issuance of a special event permit shall have the effect of requiring the city manager to issue such a permit upon any subsequent application by a licensed establishment.

(Code 1981, § 5-49; Ord. No. 1929, § 1, 5-2-1983)

Sec. 10-96. Grounds of denial of special permit.

The city manager may deny the issuance of a special event permit upon the grounds that such issuance would be injurious to the public welfare by reason of the nature of the special event, its location within the community, or the failure of the applicant in a past special event to conduct such event in compliance with applicable laws and regulations.

(Code 1981, § 5-50; Ord. No. 1929, § 1, 5-2-1983)



REPORT TO CITY COUNCIL PUBLIC HEARING

**AGENDA ITEM
10.B.**

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Community Comments on the Application Process for the 2022 Community Development Block Grant 2022 Annual Action Plan and 2022 Human Services Funding Pool

Report in Brief

The Housing team is preparing the proposed 2022 Annual Action Plan required by the US Department of Housing and Urban Development to obtain the City's 2022 Community Development Block Grant (CDBG). The proposed Annual Action Plan for 2022 should be submitted to the US Department of Housing and Urban Development by November 15, 2021.

The City Human Services Advisory Committee is also preparing recommendations for the use of year 2022 funding from the Human Services Funding Pool. A combined public hearing is needed where the community, public agencies and other interested parties are allowed an opportunity to: 1) Present proposals to City Council for the use of 2022 CDBG or other funds the City may access to meet community housing and community development needs; 2) Review past CDBG Program performance; 3) Present proposals to the City Council for the use of 2022 funding from the Human Services Funding Pool and 4) Comment on the proposed 2022 Annual Action Plan.

The Arvada team recommends that the public hearing be opened, public testimony taken, and the hearing closed.

Financial Impact

This application process for the 2022 Community Development Block Grant and 2022 Human Services Funding Pool is funded through the following allocation of sources:

\$450,000 CDBG
\$110,000 Human Services Fund
\$75,000 HODAG loan repayment

Background

The deadline for City application forms for the 2022 CDBG and Human Services Funding Pool was September 3, 2021. A public hearing notice was published in the Arvada Press on August 26 and September 2, 2021 for this public hearing. Notices were emailed to a list of current and potential entities that receive City CDBG or Human Services Funding Pool assistance or have expressed an interest in such funding. Notifications were also provided utilizing social media and the City webpage.

Discussion

The funding process associated with the 2022 Community Development Block Grant and 2022 Human Services Funding Pool is summarized as outlined below:

CDBG - Following this public hearing, a notice will be published in the Arvada Press notifying the public of the availability of the proposed 2022 Annual Action Plan for review, followed by a 30-day period for public comment. A resolution will be prepared for consideration by the City Council on November 1, 2021 approving the Annual Action Plan that designates which projects will be funded and the amount of CDBG funding for each. Review of applications for 2022 CDBG funding for public

services will be considered by the City Human Services Advisory Committee for the preparation of recommendations to the City Council on November 1, 2021. The current estimate for City 2022 CDBG funding is \$450,000.

HUMAN SERVICES FUNDING POOL - The Human Services Advisory Committee will consider public service funding applications for the 2022 Human Services Funding Pool and 2022 CDBG funds and prepare recommendations that will be presented for a vote by City Council on November 1, 2021. The amount of the 2022 Human Services Funding Pool and 2022 CDBG funding combined is estimated at \$260,000. The Public Notice used for the 2022 CDBG and 2022 Human Services Funding Pool funding proposals is attached for your general information. The instructions and application were made available on the City web page. No City Council action is needed on this item at this hearing.

Seeking citizen comments on the 2022 Annual Action Plan, Proposed Use of Year 2022 CDBG Funds and Year 2022 Funding from the Human Services Funding Pool is an important step to determine community needs prior to the allocation of approximately \$635,000 of Federal and City resources. Following the Public Hearing, Arvada team members and the Human Services Advisory Committee will begin the process associated with evaluating funding requests.

Public Contact

The Public Notice for 2022 CDBG and 2022 Human Services Funding Pool funding proposals is attached for your general information.

Commission Recommendation

N/A

Strategic Alignment

The proposed action aligns with the following Principle included within the Vibrant Community and Neighborhoods Priority Area within the City Council Strategic Plan:

Improves access to quality housing that is affordable to a broad range of income levels and provides resources, housing and neighborhood assistance to Arvada residents, neighborhoods, property owners, and stakeholders.

Alternative Courses of Action

N/A

Recommendation for Action

No City Council action is needed on this item at this hearing. The Arvada team recommends that the public hearing be opened, public testimony taken, and the hearing closed.

Suggested Motion:

N/A

Prepared by:
Rosa Kougl, Executive Assistant

Reviewed by:

Approved by:

Carrie Espinosa, Manager of Housing Preservation and Resources	8/23/2021
Gordon Reusink, Director of Vibrant Community and Neighborhoods	8/23/2021
Bryan Archer, Director of Finance	8/23/2021
Gail Walker, Legal Specialist-Contracts	8/23/2021
Kylie Justus, Assistant City Attorney	8/23/2021
Rachel Morris, City Attorney	8/23/2021
Lorie Gillis, Deputy City Manager	9/1/2021
Mark Deven, City Manager	9/1/2021

Enclosure, exhibits & attachments required to support the report

**NOTICE OF PUBLIC HEARING AND FUNDING APPLICATION PROCESS
FOR THE COMMUNITY DEVELOPMENT BLOCK GRANT 2022 PROPOSED ANNUAL ACTION
PLAN AND THE 2022 HUMAN SERVICES FUNDING POOL**

The US Department of Housing and Urban Development requires local jurisdictions receiving certain grant funds to prepare an Annual Action Plan for Housing and Community Development Programs.

The City of Arvada is preparing its proposed 2022 Annual Action Plan and is encouraging citizen participation in the preparation of the 2022 Annual Action Plan. The 2022 Annual Action Plan will outline the proposed use of an estimated \$450,000 in 2022 Community Development Block Grant Funds (CDBG).

The City invites all citizens and other interested parties who desire to provide comments on City housing and community development needs including priority non-housing community development needs; use of 2022 CDBG; or past program performance; and/or to make comments regarding use of 2022 funding from the Human Services Funding Pool to do so at a public hearing:

At 6:15 P.M., September 13, 2021
in City Council Chambers, Arvada Municipal Building,
8101 Ralston Road, Arvada, Colorado.

If you wish to attend the meeting via Zoom, please contact Kevin Luy at kluy@arvada.org with the meeting date.

Program information is available by contacting the Housing Preservation and Resources Division, Arvada City Hall, 8101 Ralston Road, between the hours of 8 a.m. and 5 p.m. Monday through Friday, or call 720-898-7494. Information is also available on our website <https://arvada.org/residents/city-neighborhoods/cdgb-funds-at-work-in-arvada>

CDBG AND HUMAN SERVICES FUNDING POOL APPLICATION PROCESS

All parties which desire to apply for year 2022 CDBG or year 2022 Human Services Funding Pool funding from the City of Arvada must submit an online application by 5:00 PM on September 3, 2021. Please contact the person listed below for further questions. The application form and instructions are available at: <https://arvada.org/residents/city-neighborhoods/cdgb-funds-at-work-in-arvada>

FOR FURTHER INFORMATION:

Please contact Carrie Espinosa at: caespinosa@arvada.org or call 720-898-7494, between 8:00 A.M. to 5:00 P.M., weekdays.

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August 26, 2021 and September 2, 2021



REPORT TO CITY COUNCIL WORKSHOP

AGENDA ITEM
11.A.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Land Development Code Update

Report in Brief

The latest version of the Land Development Code was adopted in May of 2020. Since that time, the City team, members of the development community and residents of Arvada have identified a small number of modifications to the Code that would make it more functional and easier to understand.

Background

There are 16 proposed changes to the Land Development Code that the City team has identified as significant and warrant discussion with the Planning Commission and City Council. In addition, there are several other minor changes, such as spelling errors and incorrect references that have been provided in the attached redlines.

The significant proposed changes include the increase in parking required for townhome units; clarification of landscape and amenity requirements; modification of off-site and bicycle parking regulations; revised lighting standards; the addition of electric vehicle charging station regulations; and revisions to definitions, including those related to Heavy Logistics Centers and Light Industry.

The City team has included the attached PowerPoint identifying the significant modifications and will provide a detailed explanation of each during the workshop.

The team will also be open to consideration of any additional topics the Planning Commission and City Council feel need to be addressed in this set of Land Development Code amendments.

Strategic Alignment

The project is consistent with the City Council Strategic Plan principles for the Community and Economic Development work system.

Next Steps

Public hearings for the 2021 Amendments to the Land Development Code have been scheduled for October 5th with the Planning Commission and October 18th with the City Council. Amendments will be proposed based on Planning Commission and City Council feedback.

Prepared by:

Josie Suk, Development Systems and Administrative Manager

Reviewed by:

Approved by:

Robert Smetana, Manager of City Planning and Development	8/25/2021
Ryan Stachelski, Director of Community and Economic Development	8/25/2021
Gail Walker, Legal Specialist-Contracts	8/25/2021
Emily Grogg, Senior Assistant City Attorney	8/30/2021
Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

COUNCIL BILL NO. 21-
ORDINANCE NO.

AN ORDINANCE AMENDING THE LAND DEVELOPMENT CODE, OF THE ARVADA
CITY CODE

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ARVADA, COLORADO:

Section 1. Chapter 2, Zoning Districts, of the Land Development Code, of the Arvada City Code is hereby amended:

Table 2-1-3-3A: Residential Neighborhood Lot and Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-3-3A: Residential Neighborhood Lot and Building Standards								
Standard		Subdistrict						
		RN-32.5	RN-12.5	RN-7.5	RN-6	RN-4	RN-D	
Residential Uses								
Housing Type		Single-Family	Single-Family	Single-Family	Single-Family	Single-Family	Single-Family	Duplex
Lot Standards								
	Min. Lot Area	32,500 sf.	12,500 sf.	7,500 sf.	6,000 sf.	4,000 sf.	6,000 sf.	9,000 sf.
A	Min. Lot Width	100 ft.	100 ft.	75 ft.	50 ft.	40 ft.	60 ft.	75 ft.
	Min. Lot Width (Corner)	100 ft.	100 ft.	85 ft.	60 ft.	40 ft.	75 ft.	85 ft.
	Max. Lot Coverage	25%	35%	40%	40%	40%	40%	30%
Setback Standards								
B	Min. Front	30 ft.	30 ft.	20 ft.	18 ft.	18 ft.	18 ft.	25 ft.
C	Min. Street Side ¹	25ft.	25 ft.	20 ft.	13 ft.	13 ft.	13 ft.	20 ft.
D	Min. Interior Side	15 ft.	10 ft.	7.5 ft.	5 ft.	5 ft.	5 ft.	10 ft.
E	Min. Rear	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.	10 ft.	10 ft.
	Min. Rear, Alley ¹	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.
	Min. Arterial Setback ²	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.
Building Standards								
F	Max. Height, Principal Building	35 ft.	28 ft.	28 ft.	28 ft.	28 ft.	28 ft.	28 ft.
	Max. Height, ADU (detached)	30 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	-
G	Max. Height, Accessory Building except for Barns and Stables	20 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.
	Max. Height, Barns and Stables	35 ft.	30 ft.	-	-	-	-	-
	Max. Height, Mini Structures	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.
Nonresidential Uses								
Lot Standards								
	Min. Lot Area	1 ac.	1 ac.	10,000	10,000	10,000	10,000 sf.	

Table 2-1-3-3A: Residential Neighborhood Lot and Building Standards

Standard		Subdistrict					
		RN-32.5	RN-12.5	RN-7.5	RN-6	RN-4	RN-D
				sf.	sf.	sf.	
A	Min. Lot Width	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.
	Max. Lot Coverage	25%	25%	40%	40%	40%	40%
Setback Standards							
B	Min. Front	30 ft.	30 ft.	25 ft.	18 ft.	18 ft.	18 ft.
C	Min. Interior Side	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.	10 ft.
D	Min. Street Side	30 ft.	30 ft.	25 ft.	18 ft.	18 ft.	18 ft.
E	Min. Rear	15 ft.	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.
	Min. Rear (Alley) ¹	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.
	Min. Arterial Setback ²	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.
Building Standards							
F	Max. Height, Principal Building	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.
G	Max. Height, Accessory Building	20 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.
	Max. Height, Mini Structure	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.
TABLE NOTES: ¹ The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion. ² Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks.							

Section 2-1-3-4 R6: Residential 6 is hereby amended in its entirety to read as follows:

- A. **“Purpose.** The purpose of the Residential 6 (R6) zoning district is to allow for new residential development of a variety of housing products up to a gross density of six units per acre along with supporting community and institutional uses.
- B. **Relationship to the Comprehensive Plan.** The R6 zoning district generally implements the “Suburban Residential” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the R6 zoning district are set out in Table 2-1-3-4A, Residential 6 Lot and Building Standards and Division 2-1-8, Housing Palette.

Figure 2-1-3-4: Illustrative Residential 6 Lot and Building Standards

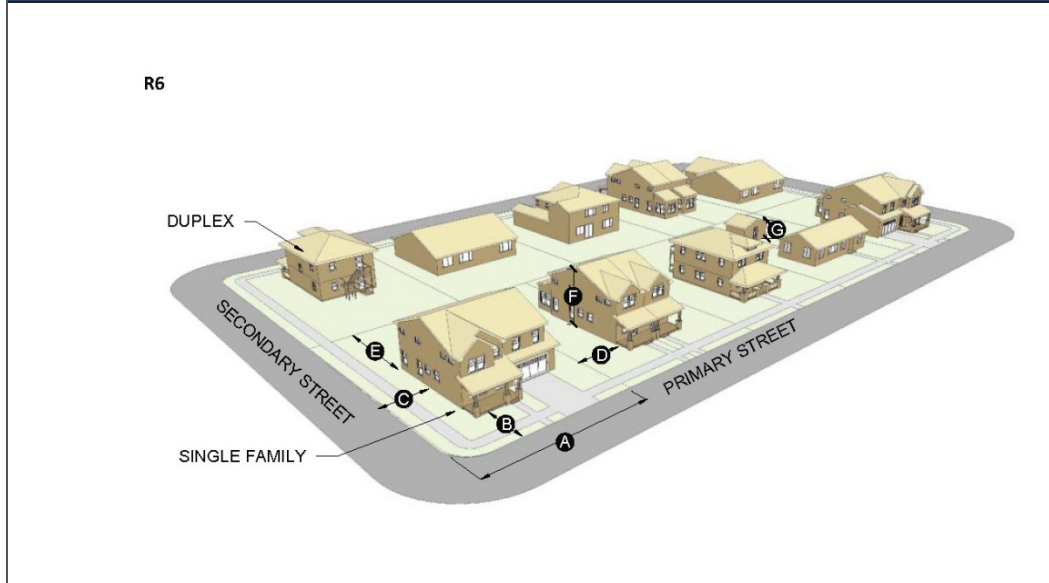


Table 2-1-3-4A: Residential 6 Lot and Building Standards

Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Building and Parking Siting Standards			
B	Min. Front	See Subsection D., below, and Division 2-1-8, Housing Palette	25 ft.
C	Min. Street Side		25 ft.
D	Min. Interior Side		10 ft.
E	Min. Rear		15 ft.
	Min. Arterial Setback ¹	100 ft.	No Minimum
	Min. Parking Setback	20 ft. ²	20 ft.
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
G	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	Min. Landscape Surface Area, Amenitized ³	5%	-
Density Standards			
	Max. Density	6 u/a	-

TABLE NOTES:

¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks.

² Except for driveways associated with single family and duplex units and multiplex buildings.

Table 2-1-3-4A: Residential 6 Lot and Building Standards		
Standard	Lot Type	
	Residential	Nonresidential
³ Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.		

- D. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R6 zoning district:
1. Single-Family Detached: Small General; General; Small Suburban; Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban Type
 5. Multiplexes
 6. Clustered Housing: Micro Homes; Cottage Types.
- E. **Cross-References.** The cross-references in Table 2-1-3-4B, Cross-References for Residential 6, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-4B: Cross-References for Residential 6	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units
Accessory Buildings	Section 5-1-5-3, Accessory Buildings
Satellite Dishes, Antennas, and Amateur Radio	Section 5-1-5-4, Satellite Dishes and Antennas; Amateur Radio Antennas
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Accessory Buildings (Non- Residential and Multifamily)	Section 5-1-6-1.E, Number of Accessory Buildings or Free- Standing Accessory Structures"

Section 2-1-3-5 R13: Residential 13 is hereby amended in its entirety to read as follows:

- A. **“Purpose.** The purpose of the Residential 13 (R13) zoning district is to allow for new residential development of a variety of housing products up to a gross density of 13 units per acre.

- B. **Relationship to the Comprehensive Plan.** The R13 zoning district generally implements the “Medium Density Residential” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the R13 zoning district are set out in Table 2-1-3-5A, Residential 13 Lot and Building Standards and Division 2-1-8, Housing Palette.

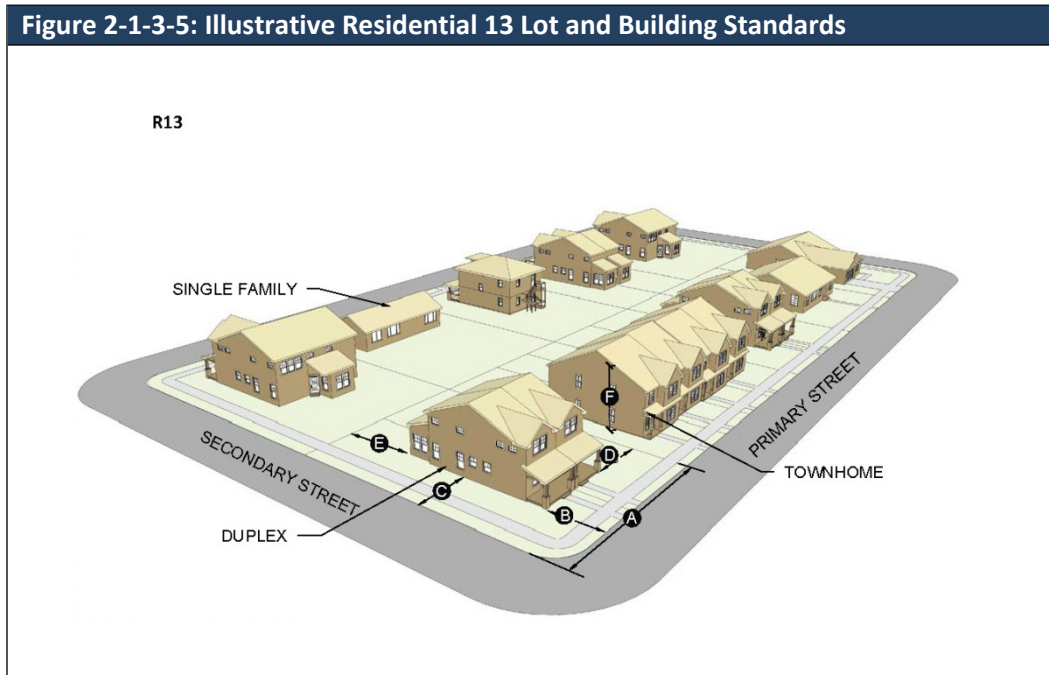


Table 2-1-3-5A: Residential 13 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Setback Standards			
B	Min. Front	See Subsection D., below, and Division 2-1-8, Housing Palette	20 ft.
C	Min. Street Side		20 ft.
D	Min. Interior Side		10 ft.
E	Min. Rear		15 ft.
	Min. Arterial Setback ¹	100 ft.	-
	Min. Parking Setback	20 ft. ²	20 ft.
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			

Table 2-1-3-5A: Residential 13 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
	Min. Landscape Surface Area	20%	30%
	Min. Landscape Surface Area, Amenitized ³	5%	-
Density Standards			
	Max. Density	13 u/a	-
TABLE NOTES: ¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks. ² Except for driveways associated with single family and duplex units and multiplex buildings. ³ Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.			

- D. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R13 zoning district:
1. Single-Family Detached: Small Urban; Urban; Small General; General; Small Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban; Urban
 5. Multiplexes
 6. Multifamily: General
 7. Clustered Housing: Micro; Cottages Types.
- E. **Cross-References.** The cross-references in Table 2-1-3-5B, Cross-References for Residential 13, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-5B: Cross-References for Residential 13	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units
Accessory Buildings	Section 5-1-5-3, Accessory Buildings
Satellite Dishes, Antennas, and Amateur Radio	Section 5-1-5-4, Satellite Dishes and Antennas; Amateur Radio Antennas
Renewable Energy Systems	Section 5-1-4-4, Renewable Energy Systems

Table 2-1-3-5B: Cross-References for Residential 13	
Topic	Reference
(e.g., Solar Panels)	
Accessory Buildings (Non-Residential and Multifamily)	Section 5-1-6-1.E, Number of Accessory Buildings or Free-Standing Accessory Structures”

Section 2-1-3-6 R24: Residential 24 is hereby amended in its entirety to read as follows:

- A. **“Purpose.** The purpose of the Residential 24 (R24) zoning district is to allow for new residential development of a variety of moderate to higher density housing products, up to a gross density of 24 units per acre.
- B. **Relationship to the Comprehensive Plan.** The R24 zoning district generally implements the “High Density Residential” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the R24 zoning district are set out in Table 2-1-3-6A, Residential 24 Lot and Building Standards and Division 2-1-8, Housing Palette.

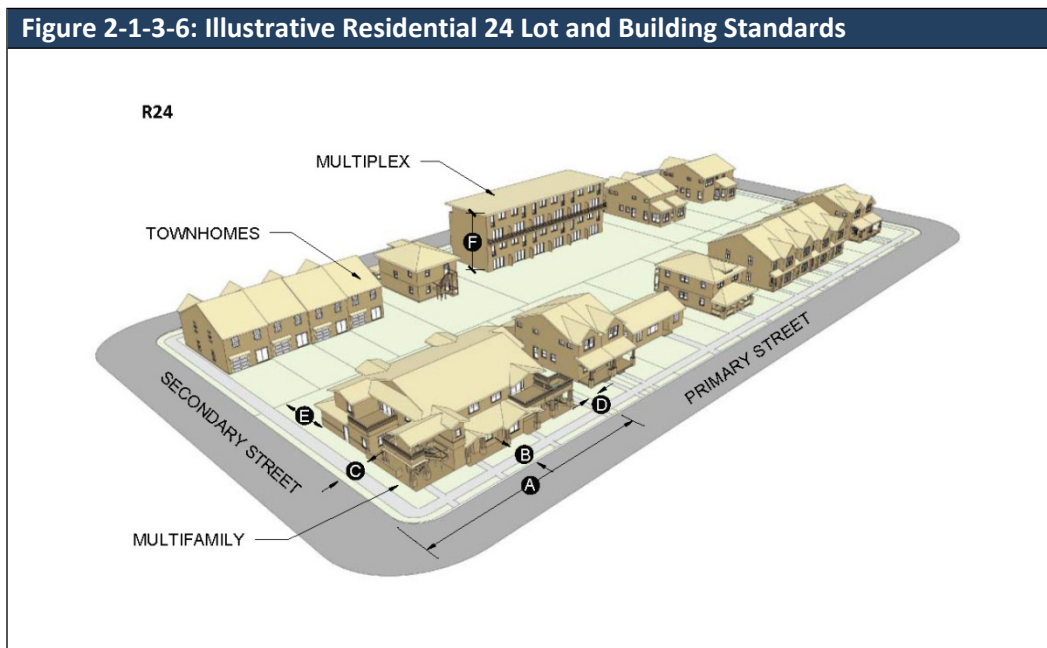


Table 2-1-3-6A: Residential 24 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Building and Parking Siting Standards			
B	Min. Front	See Subsection D., below, and Division	20 ft.
C	Min. Street Side		20 ft.
D	Min. Interior Side		10 ft.

Table 2-1-3-6A: Residential 24 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
E	Min. Rear	2-1-8, Housing Palette	15 ft.
	Min. Arterial Setback ¹	100 ft.	-
	Min. Parking Setback	20 ft. ²	20 ft.
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	Min. Landscape Surface Area, Amenitized ³	5%	-
Density Standards			
	Max. Density	24 u/a	-
TABLE NOTES:			
¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks.			
² Except for driveways associated with single family and duplex units and multiplex buildings.			
³ Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.			

- D. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R24 zoning district:
1. Single-Family Detached: Small Urban; Urban; Small General; General; Small Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban; Urban
 5. Multiplexes
 6. Multifamily: General; Urban
 7. Clustered Housing; Micro Homes; Cottages Types.
- E. **Cross-References.** The cross-references in Table 2-1-3-6B, Cross-References for Residential 24, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-6B: Cross-References for Residential 24	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting

Table 2-1-3-6B: Cross-References for Residential 24	
Topic	Reference
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units
Accessory Buildings	Section 5-1-5-3, Accessory Buildings
Satellite Dishes, Antennas, and Amateur Radio	Section 5-1-5-4, Satellite Dishes and Antennas; Amateur Radio Antennas
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Accessory Buildings (Non-Residential and Multifamily)	Section 5-1-6-1.E, Number of Accessory Buildings or Free-Standing Accessory Structures"

Table 2-1-4-1A: Mixed-Use, Neighborhood Lot and Building Structures is hereby amended in its entirety to read as follows:

Table 2-1-4-1A: Mixed-Use, Neighborhood Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed-Use
Lot Standards			
A	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	6,500 sf.
	Min. Lot Width		60 ft.
	Max. Lot Coverage	70%	70%
Building and Parking Siting Standards			
B	Frontage Zone (min./max.)	For min. refer to Division 2-1-8, Housing Palette / 25 ft.	5 ft. / 25 ft.
	Min. Front Build-to width within Frontage Zone	50%	50%
C	Street Side Setback (min. / max.)	See Subsection D., below, and Division 2-1-8, Housing Palette	10 ft. / -
D	Min. Interior Side Setback		5 ft.
E	Min. Rear Setback, without alley		10 ft.
	Min. Rear Setback, with alley		2 ft. ²
F	Min. Front Parking Setback	15 ft. ³	15 ft.
	Min. Arterial Street	See Section 2-1-9-2, Arterial Street Setbacks	-
Building Standards			
G	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
	Max. Height, Accessory Building	18 ft.	-
	Max. Height, Mini-structure	12 ft.	12 ft.

Table 2-1-4-1A: Mixed-Use, Neighborhood Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed-Use
Site Standards			
	Min. Landscape Surface Area ¹	15%	20%
	Min. Landscape Surface Area, Amenitized ^{1,4}	5%	-
Density Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	
TABLE NOTES:			
¹ For the development parcel.			
² The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicant's discretion.			
³ Except for driveways associated with single family and duplex units and multiplex buildings.			
⁴ Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.			

Table 2-1-4-2A: Mixed Use, Suburban Lot and Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-4-2A: Mixed-Use, Suburban Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that Includes Residential	Nonresidential or Non-Residential Mixed-Use
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	-
A	Min. Lot Width		-
	Max. Lot Coverage ¹	60%	60%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette / 35 ft.	10 ft. / 35 ft.
	Min. Front Build-to Width within Frontage Zone	20%	20%
C	Min. Street Side Setback (min. / max.)	See Subsection D., below, and Division 2-1-8, Housing Palette	10 ft. / 35 ft.
D	Min. Interior Side Setback		10 ft.
E	Min. Rear Setback		20 ft.
F	Min. Parking Setback (front)	20 ft. ²	20 ft.
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	None

Building Standards			
G	Max. Height	45 ft.	45 ft.
	Max. Height, ADU (detached)	30 ft.	
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
		-	
Site Standards			
	Min. Landscape Surface Area	25%	25%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1,3}	2,500 sf.	
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,3}	10 percent of the net parcel area	5,000 sf. or 5 percent of the net parcel area, whichever is greater
Density Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.
TABLE NOTES:			
¹ For the development parcel.			
² Except for driveways associated with single family and duplex units and multiplex buildings.			
³ In addition to principal buildings, Small Urban Parks may count toward the Front Building Facade within Frontage Zone requirement.			

Table 2-1-4-3A: Mixed-Use, Urban Lot and Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-4-3A: Mixed-Use, Urban Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed-Use
Lot Standards			
	Min. Lot Area	See Subsection E., below, and Division 2-1-8, Housing Palette	None
A	Min. Lot Width		None
	Max. Lot Coverage ¹	75%	75%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette/20 ft.	0 ft. / 20 ft.
	Min. Front Build-to Width within Frontage Zone	35%	35%
C	Min. Street Side Setback (min. / max.)	See Subsection E., below, and Division	0 ft. / 20 ft.
D	Min. Interior Side Setback		0 ft.

E	Min. Rear Setback	2-1-8, Housing Palette	0 ft.
F	Min. Parking Setback (front)	20 ft. ²	20 ft.
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	—
Building Standards			
G	Max. Height, Principal Building	as identified on the Official Zoning Map	as identified on the Official Zoning Map
	Max. Height, ADU (detached)	30 ft.	
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	15%	15%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1, 3}	2,500 sf.	
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,3}	10 percent of the net parcel area	5,000 sf. or 5 percent of the net parcel area, whichever is greater
Subdivision Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	
TABLE NOTES: ¹ For the development parcel. ² Except for driveways associated with single family and duplex units and multiplex buildings. ³ In addition to principal buildings, Small Urban Parks count toward the Front Building Façade within Frontage Zone requirements.			

Table 2-1-4-4A: Mixed-Use, Transit Lot and Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-4-4A: Mixed-Use, Transit Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed Use
Lot Standards			
	Min. Lot Area	See Subsection E., below, and Division 2-1-8, Housing Palette	None
A	Min. Lot Width		None
	Max. Lot Coverage	80%	80%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette / 20 ft.	0 ft. / 20 ft.

Table 2-1-4-4A: Mixed-Use, Transit Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed Use
	Min. Front Build-to Width within Frontage Zone	60%	60%
C	Street Side Setback (min. / max.)	See Subsection E., below, and Division 2-1-8, Housing Palette	0 ft. / 20 ft.
D	Min. Interior Side Setback		0 ft.
E	Min. Rear Setback		0 ft.
F	Min. Parking Setback (front)	20 ft. ⁶	20 ft.
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	—
Building Standards			
	Min. Height ²	1 story	1 story
G	Max. Height	As identified on the Official Zoning Map	As identified on the Official Zoning Map
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
	Min. Ground Floor Height ⁴	13 ft. 6 in.	13 ft. 6 in. ³
Site Standards			
	Min. Landscape Surface Area ⁴	10%	10%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1,5}	2,000 sf.	2,000 sf.
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,5}	8 percent of the net parcel land area	3,000 sf. or 4 percent of the net parcel land area, whichever is greater
Subdivision Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	
TABLE NOTES:			
¹ For the development parcel.			
² See Section 5-1-3-1, Pedestrian Priority Streets, for minimum height requirement.			
³ For areas required by Section 5-1-3-1, Pedestrian Priority Streets.			
⁴ Rooftop and upper level deck amenities (except individual private balconies) may be counted towards the landscape surface ratio requirement.			
⁵ In addition to principal buildings, small urban parks count toward the Front Building Façade within Frontage Zone requirements.			
⁶ Parking is not allowed in the frontage zone.			

Table 2-1-5-4D: Mixed-Use Building type Placement and Building Width is hereby amended in its entirety to read as follows:

Table 2-1-5-4D: Mixed-Use Building Type Placement and Building Width

Standard		Context	Unit	Sub-District of OT Zoning District						
				E	EY	GV	OW	RN ¹	RR	W
A	Frontage Zone (min / max)	Generally, except as specified below	ft.	0 / 15	0 / 15	0 / 15	0 / 15	0 / 15	0 / 15	0/15
A	Frontage Zone (min / max)	Ralston Road frontage	ft.	10 / 25	10 / 25	-	10 / 25	10 / 25	10 / 25	10 / 25
A	Frontage Zone (min / max)	Robinson Way or Yukon Street frontage	ft.	10 / 25	10 / 25	-	10 / 25	10 / 25	10 / 25	-
A	Frontage Zone (min / max)	Mcllvoy Park frontage	ft.	10 / 20	10 / 20	10 / 20	10 / 20	10 / 20	10 / 20	10/20
A	Frontage Zone (min / max)	Olde Town Plaza frontage	ft.	-	-	-	0/20	-	-	0 / 20
B	Build-to (min)	Building Façade at Front Setback Line	% ²	75	85	85	75	75	75	85
B	Total Building Width (max)	Generally, except as specified below	ft.	150	180	80	80	180	120	180
B	Total Building Width (max)	Wadsworth Bypass frontage	ft.	240	-	-	-	-	240	-
B	Total Building Width (max)	Mcllvoy Park frontage ³	ft.	120	-	35	-	-	-	120

TABLE NOTES:

¹ The Mixed-Use building form is allowed in this subdistrict only as provided in Section 2-1-5-2, Building Types.² Percent of lot width. See Section 2-1-5-3, Generally Applicable Lot and Building Standards.³ Applies where property is directly adjacent to or across the street from Mcllvoy Park.

Table 2-1-6-1A: Commercial, General Lot and Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-6-1A: Commercial, General Lot and Building Standards		
Standard		All Lot Types
Lot Standards		
	Min. Lot Area	5,000 sf.
A	Min. Lot Width	50 ft.
	Max. Lot Coverage	35%
Setback Standards		
B	Min. Front	20 ft.
C	Min. Street Side	20 ft.
D	Min. Interior Side	10 ft.
E	Min. Rear	20 ft.
	Min. Front Parking	20 ft.
Building Standards		
F	Max. Height, Principal Building	45 ft.
	Max. Height, Accessory Building	18 ft.
	Max. Height, Mini-structure	12 ft.
Site Standards		
	Min. Landscape Surface Area	20%
	Max. Outdoor Display	5% of enclosed retail floor area
	Max. Outdoor Storage	5% of lot area
Height Transition Zone		
	Min. Height Transition Zone Depth	See Section 2-1-10-3, Height Transition to

Table 2-1-6-1A: Commercial, General Lot and Building Standards		
Standard		All Lot Types
	abutting RA and RN districts	RA and RN Zoning Districts.

Table 2-1-6-2A: Industrial, Light Lot and Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-6-2A: Industrial, Light Lot and Building Standards		
Standard		All Lot Types
Lot Standards		
	Min. Lot Area	None
	Min. Lot Width	None
	Max. Lot Coverage	50%
Setback Standards		
A	Min. Front	20 ft.
B	Min. Street Side	20 ft.
C	Min. Interior Side	5 ft. ¹
D	Min. Rear Setback	5 ft. ¹
	Min. Front Parking	20 ft.
Building Standards		
E	Max. Height, Buildings	40 ft.
	Max. Height, Mini-structures	12 ft.
Site Standards		
	Min. Landscape Surface Area	15%
	Max. Outdoor Display	10% of enclosed retail floor area
	Max. Outdoor Storage	35% of lot area
TABLE NOTES:		
¹ Side and rear setbacks shall be 20 ft. where adjacent to a single-family detached use in unincorporated Jefferson County.		

Table 2-1-6-3A: Industrial, General Lot and Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-6-3A: Industrial, General Lot and Building Standards		
Standard		All Lot Types
Lot Standards		
	Min. Lot Area	None
	Min. Lot Width	None
	Max. Lot Coverage	60%
Setback Standards		
A	Min. Front	20 ft.
B	Min. Street Side	10 ft.
C	Min. Interior Side	10 ft. ¹
D	Min. Rear	10 ft. ¹
	Min. Front Parking	10 ft.
Building Standards		

Table 2-1-6-3A: Industrial, General Lot and Building Standards		
Standard		All Lot Types
E	Max. Height, Buildings	45 ft.
	Max. Height, Mini-structures	12 ft.
Site Standards		
	Min. Landscape Surface Area	10%
	Max. Outdoor Display	90% of enclosed retail floor area
	Max. Outdoor Storage	90% of lot area
TABLE NOTES:		
¹ Side and rear setbacks shall be 20 ft. where adjacent to a single-family detached use in unincorporated Jefferson County.		

Table 2-1-8-7: Townhome Building Standards is hereby amended in its entirety to read as follows:

Table 2-1-8-7: Townhome Building Standards										
Lot Type	Vehicular Access	Minimum						Maximum		
		Unit Width	Street Setback	Alley Garage Setback	Non-street Frontage Perimeter Setback	Building Separation , side to side	Building Separation , all others	Units Per Building	Building Coverage	Height
Suburban	Alley or Parking Court	20 ft.	15 ft. ¹	2 ft. ²	15 ft.	10 ft.	30 ft. ³	8	100%	35 ft.
	Street	28 ft.	18 ft.	-	15 ft.	10 ft.	30 ft. ³	8	100%	35 ft.
Urban	Alley or Parking Court	16 ft.	10 ft. ¹	2 ft. ²	10 ft. ⁴	10 ft.	20 ft.	10	100%	35 ft.
TABLE NOTES:										
¹ Where garage access is directly from a side street, the minimum garage setback shall be 18 ft.										
² The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion.										
³ Building separation can be reduced to 20 feet if buildings are one or two stories.										
⁴ If more than one-half of the units in a townhome building are adjacent to a non-street frontage perimeter, then the minimum setback shall be 15 feet.										

Table 2-1-10-1: Permitted Encroachments into Required Setbacks is hereby amended in its entirety to read as follows:

Table 2-1-10-1: Permitted Encroachments into Required Setbacks	
Structure or Feature	Permitted Locations in Setbacks
Single-story covered front porches	Permitted to extend outward from the building 8 feet into a front setback, but no closer than 12 feet to the front property line. This encroachment shall only apply to the front setback, not the street side setback. ¹

Table 2-1-10-1: Permitted Encroachments into Required Setbacks	
Structure or Feature	Permitted Locations in Setbacks
All other covered porches, decks, terraces, and patios and are not enclosed Covered stairs that provide below grade access to a building	Permitted to extend outward from the building 8 feet into a rear setback, but no closer than 8 feet from the rear property line. Permitted to extend outward from the building 4 feet into a side setback, but no closer than 3 feet from the side property line.¹
Uncovered porches, decks, patios, concrete slabs, and other flatwork, provided that such items are no more than 30 inches in height above grade	Permitted anywhere in setbacks. ¹
Uncovered balconies, decks, and outside stairs more than 30 inches above grade	Permitted to extend outward from building 6 feet into a front or rear setback, but no closer than 12 feet to the front property line and 8 feet to the rear property line. Permitted to extend outward from the building 4 feet into a side setback, but no closer than 3 feet from the property line.¹
Bay windows, window sills, eaves, cantilevers, cornices, fireplace chimneys, roof overhangs, and architectural and ornamental features	Permitted to extend outward from building up to 2 feet into any setback. ¹
Clotheslines and clothesline poles	Permitted in rear or side setback only, but not closer than 18 inches from any side or rear property line. ¹
Driveways	Permitted anywhere in setbacks.
Trash containers	Permitted in side and rear setbacks when not adjacent to residential use. Not permitted in the OT and MX districts frontage zone.
Fences and walls	See Article 4-7, Fences and Divisional Walls.
Flagpoles, lighting poles, and other poles not otherwise covered in this table	Permitted in any setback, provided that the height of any such pole, except for flagpoles, shall not exceed the distance from the base of the pole to the nearest property line. Flag poles are subject to the height and setback restrictions set forth in Section 6-1-2-3. Amateur radio antennas shall not be located in a front setback.
One accessory building not larger than 600 square feet or an attached garage addition provided that the garage addition will not result in more than a cumulative total of 600 square feet of attached garage The encroachment shall apply to the accessory building, or an attached garage addition, but does not apply to both	Permitted in any side or rear setback in the RN zoning district only, but not closer than 5 feet from any side or rear property line.

Table 2-1-10-1: Permitted Encroachments into Required Setbacks	
Structure or Feature	Permitted Locations in Setbacks
Landscaping, including trees, shrubs, flowers, hedges, and other features	Permitted anywhere in setbacks, subject to city standards governing sight distances. See Section 4-4-3-4 Intersection Visibility.
Little Library	If no more than 3 square feet and 5'5 feet high, may encroach into front setback but not closer than one-foot from the front property line or public sidewalk, whichever is closer.
Mini-structures	See Section 5-1-4-3, Mini Structures.
Mobility access ramps and lifts for existing single-family detached dwelling units, duplex, and townhomes	Allowed as necessary upon written request to the Director.
Signs	See Chapter 6, Signs.
Swimming pools	See Section 5-1-4-2 Swimming Pools, Hot Tubs, and Spas.
Air conditioning units	Permitted in side and rear setbacks but not in a front setback.
Counterforts	Permitted in any setback provided it does not encroach more than 5 feet into a front or rear setback and 3 feet into the side setback.
Window wells	Permitted in any side setback provided it does not exceed 15 square feet and does not encroach more than 3 feet into the side lot setback easement.
Window awnings	Permitted in any setback, but not closer than 10 feet from the rear property line or 18 inches from a side property line.
Wireless Communications Facilities	See Chapter 7, Wireless Communications Facilities.
TABLE NOTES: ¹ The maximum encroachment noted is measured from the building wall, or in the case of pergolas, carports, or other structures without walls, the maximum encroachment is measured from the vertical structural element such as a post.	

The remaining portions of Chapter 2 shall remain unchanged.

Section 2. Chapter 3, Use Regulations, of the Land Development Code, of the Arvada City Code is hereby amended:

Table 3-1-2-5: Commercial Land Use by Zoning District is hereby amended in its entirety to read as follows:

Table 3-1-2-5: Commercial Land Use by Zoning District																					
Land Use	Open Space and Residential						Mixed-Use				Olde Town						Commercial and Industrial			Reference	
	OS	RA	RN	R6	R13	R24	MX-N	MX-S	MX-U	MX-T	OT-E	OT-EY	OT-GV	OT-OW	OT-RN	OT-RR	OT-W	CG	IL		IG
Animal Day Care / Training		C					L	L	L	L								L	L		3-1-3-5
Animal Hospital (Large		A																			-

Table 3-1-2-5: Commercial Land Use by Zoning District																					
Land Use	Open Space and Residential						Mixed-Use				Olde Town							Commercial and Industrial			Reference
	OS	RA	RN	R6	R13	R24	MX-N	MX-S	MX-U	MX-T	OT-E	OT-EY	OT-GV	OT-OW	OT-RN	OT-RR	OT-W	CG	IL	IG	
Animal)																					
Art Studio / Makerspace		A					A	A	A	A	L	L	L	L	L	L	L	A	A	A	3-1-3-5
Auction House or Yard																			L	L	3-1-3-5
Continuing Care Facility					A	A	A	A	A	A	A	A	A	A		A	A	C			
Kennel		C																	L	A	3-1-3-5
Office, General or Professional							A	A	A	A	A	A	A	A	A	A	A	A	A	A	-
Retail Sales and Services Type 1 ¹							L	L	L	L	L	L	L	L	L	L	L	L	L		3-1-3-5
Retail Sales and Services Type 2 ¹								L	L	L								L	L		3-1-3-5
Veterinary Offices or Clinics		C					L	L	L	L	L	L	L		L	L	L	L	L		3-1-3-5
Workshop							A	A	A	A								A	A	A	3-1-3-5
TABLE NOTES:																					
¹ All drive-through facilities are subject to the standards in Section 5-1-6-2, Drive-Through Facilities, which may prohibit a drive-through in certain locations.																					

Section 3-1-3-5 Commercial Standards is hereby amended in its entirety to read as follows:

A. “Animal Day Care / Training.

1. In the MX and CG zoning districts, the use shall be located entirely indoors.
2. In the IL zoning district, if the use is located within 300 feet of a residential zoning district, no outdoor activities related to the use shall occur between the hours of 9:00 PM and 7:00 AM.

B. Art Studio / Makerspace.

Such use shall not exceed 5,000 square feet unless located within a vertically mixed-use building.

C. Auction House.

All business activities shall be conducted within an entirely enclosed building.

D. Kennel.

1. In the RA and IL zoning districts, a kennel facility shall be subject to the following:
 - a. Outdoor facilities, including outdoor runs, shall not be located within 150 feet of any adjacent residential zoning district.
 - b. If the use is located within 300 feet of residentially zoned property, no outdoor activities related to the use shall occur on the subject property between the hours of 9:00 PM and 7:00 AM.
 - c. The parts of a building where animals are boarded shall be fully enclosed and shall be sufficiently insulated so no unreasonable noise or odor can be detected off premises.

- d. All kennels shall be licensed by the City of Arvada pursuant to Article VIII, "Kennel License," of Chapter 14 of the Arvada Code of Ordinances.
 - 2. A residence for a caretaker is allowed, subject to the requirements of Section 5-1-6-7, Custodial Unit.
- E. **Retail Sales and Services, Type 1.**
- 1. **Retail Sales Uses – General.**

Retail sales uses must take place within a completely enclosed building, except that accessory outdoor display of merchandise, and accessory outdoor customer seating/dining areas are permitted, subject to the following standards:

 - a. Outdoor display areas must comply with the minimum street setback requirements of the subject zoning district.
 - b. Outdoor display areas may not occupy or use required parking space or drive aisle unless approved by the Director.
 - c. Outdoor seasonal temporary sales display requires a temporary use permit.
- F. **Retail Sales and Services, Type 2.**
- 1. **Convenience Lending Operations.**

All convenience lending operations except national banks and those operating as of the effective date of this Code shall comply with the following locational restrictions and standards:

 - a. It shall be unlawful to operate or cause to be operated a convenience lending operation within 2,500 feet of another convenience lending operation.
 - b. It shall be unlawful to operate or cause to be operated a convenience lending operation within 300 feet of any residentially-zoned property.
 - c. The distance between any two such operations shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which each such operation is located, and the distance between a convenience lending operation and a residentially-zoned property shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which the operation is located to the nearest property line of the residentially-zoned property, excluding public street rights of way.
 - 2. **Used Merchandise Stores and Donation Centers (retail, used - primarily donated; retail, used - primarily non-donated; used merchandise donation center).**
 - a. Used merchandise stores that accept donated goods on the premises and used merchandise donation centers shall:
 - i. Coordinate delivery and acceptance of donations, during business hours only, either inside the store or center, or outside the store or center as long as donations are moved inside immediately after drop-off;
 - ii. Sort and store donations only inside the store or center;
 - iii. Patrol the store or center premises as the need arises to remove any donations left outside after hours; and

- iv. Remove donations left outside of the store or center after business hours no later than 7:00 AM the next morning.
- b. A used merchandise store shall devote more than 50% of its floor area to retail sales.
- c. The arrangement of activities inside a used merchandise store shall be such to preserve a retail character when it is viewed from the outside. Where the building façade includes windows or doors, the areas within the building visible through these openings shall be used for retail sales only.
- d. Used merchandise donation centers shall be limited to a maximum gross floor area of 2,500 square feet and a maximum tenant width of 25 feet.
- e. Donation boxes, trailers, containers, or other structures intended and utilized as an exterior, stand-alone receptacle or depository for the donation of goods are prohibited.
 - i. Based upon the generally mobile, temporary, impermanent, and accessory nature thereof, and notwithstanding the provisions of Chapter 9, Nonconformities of this Code, any such box, trailer, container, or structure, or use of such box, trailer, container, or structure, legally established prior to May 12, 2011 shall be permitted to continue in place, but such use, and the lawful status of such structure and use, shall terminate upon the occurrence of any of the following:
 - a. Any change in tenancy, ownership, or management of the structure or user thereof;
 - b. Any cessation of such use, or absence of such structure from the premises, for a period of 30 days or more;
 - c. Any damage or destruction of the structure, by any means, to the extent of more than 50 percent of its structural replacement value prior to such damage or destruction;
 - d. Any enlargement or expansion of such structure or use;
 - e. Any alteration (beyond that necessary for routine maintenance and repair) or relocation of the structure on the premises, other than that which, in the sole discretion of the Director, is determined appropriate; or
 - f. A failure to register the structure or use within the allotted time period, as provided in below.
- 3. The owner of any such box, trailer, container, or structure legally established prior to May 12, 2011, and the user thereof (if different than the owner), must have registered such structure or use with the Director prior to December 30, 2011.

G. Veterinary Office or Clinic.

- 1. All veterinary offices or clinics shall be subject to the following requirements:
 - a. All facilities, including all treatment rooms, cages, pens, training rooms, and exercise runs, shall be within a completely enclosed, soundproof building.
 - b. Short-term overnight boarding associated with the medical treatment and post-operative care of animals shall be allowed, provided such boarding is contained within a completely enclosed building.

H. Workshop.

1. The use shall not exceed 5,000 square feet unless located within a vertically mixed-use building.

Section 3-1-3-7 Industrial, Processing, Recycling, Storage, and Disposal Standards is amended to read as follows:

A. Brewery / Winery / Distillery.

1. In the MX-S zoning districts warehousing is prohibited.

B. Heavy Logistic Center Industry

1. All buildings shall be a minimum of 300 feet from any residential district.
2. Landscaping and barriers shall be provided and located such that no part of parked vehicles will extend beyond the yard space or into the setback space from a lot line abutting a residential lot or separated therefrom by a street.
3. An Option B landscape bufferyard, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
4. Barriers shall be provided and located such that no part of parked vehicles will extend beyond the yard space or into the setback space from a lot line abutting a residential lot or separated therefrom by a street.

C. Light Industry.

1. Bakery.

- a. In the IL and IG zoning districts, no more than 50 percent of the gross floor area of a bakery shall be devoted to retail sales.

2. Manufacturing, Light Trade and Technical Uses.

- a. In the IL and IG zoning districts, the following shall apply:
 - i. Loading and unloading of shipments shall be permitted.
 - ii. The land uses inside the building shall preserve a commercial, retail or office character viewed from the outside.
 - iii. All industry, manufacturing and production uses shall utilize the best industry standard, maintenance, and control available to maintain the lowest possible measurement of emission of odorous gases.
- b. In the MX-N, MX-S, MX-U, MX-T, and CG zoning districts:
 - i. Primary manufacturing, processing, and fabrication uses shall be completely enclosed within a building.
- c. In the MX-N, MX-S, and MX-U zoning districts:
 - i. If the use is located within 200 feet of a residential district, the use shall not operate between the hours of 9:00 PM and 7:00 AM.

3. Office, General Contractor.

- a. Office uses with storage related to construction shall only be permitted in the IL and IG zoning districts, and the following requirement shall apply:
 - i. Any outdoor storage area shall be screened with an Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options.

4. Research, Development, and Testing Laboratories.

- a. In the CG, IL and IG zoning districts:

- i. Laboratories shall not contain or utilize toxic or explosive materials.
- ii. All facilities shall be completely enclosed.

5. Warehousing and Distribution.

- a. In the CG and IL zoning districts, retail sales in conjunction with a permitted warehouse establishment may be allowed subject to the following conditions:
 - i. All retail sales shall be conducted within the same structure housing the principal warehouse use, and no outdoor retail sales activity shall be allowed.
 - ii. Parking for the retail accessory use shall be provided in accordance with the off-street parking standards for retail uses in Section 4-5-2-2, Parking Requirement Tables.

6. Wholesale Establishments.

- a. Wholesale establishments with stock may be permitted in the IG zoning district except for the following:
 - i. Live animals;
 - ii. Commercial explosives;
 - iii. Flammable or combustible liquids are permitted provided their use, dispensing, mixing, and storage complies with all the requirements of the currently adopted edition of the applicable Building Code, Fire Code, Plumbing Code, Mechanical Code, and National Electrical Code and all applicable State and Federal laws;
 - iv. Flammable gases are permitted provided their use, dispensing, mixing, and storage complies with all of the requirements of the currently adopted edition of the applicable Building Code, Fire Code, Mechanical Code, Plumbing Code, and National Electrical Code, and all applicable State and Federal laws.
- b. Retail sales in conjunction with wholesale establishments may be allowed, provided that:
 - i. Not more than 20 percent of floor area or sales volume of any individual user or tenant may be devoted to retail operations. Notwithstanding this 20 percent limitation, furniture and carpet wholesalers may have greater than 20 percent of their floor area or sales volume devoted to retail operations.
 - ii. All retail sales shall be conducted within the same structure housing the principal wholesale use, and no outdoor retail sales activity shall be allowed.
 - iii. Parking for the retail accessory use shall be provided in accordance with the off-street parking standards for retail uses as set forth in Section 4-5-2-2, Parking -Requirement Tables.

D. Recycling Drop-Off (Attended).

- 1. The facility shop shall be located at least 500 feet from a residential zone district. This requirement may be reduced or eliminated by the Director if the Applicant proves that the proposed use, site design, its traffic generation, and other external effects indicates a reduced separation will have no significant effect on the nearby residential zone district.
- 2. The use shall comply with the screening and enclosure requirements of Division 5-1-6-3, Outdoor Storage and Outdoor Retail Display.

E. Resource Extraction (Minerals).

The following applies in all zoning districts:

1. Permitting Requirements.

- a. The Applicant shall be responsible for securing all other permits or approvals required by any other governmental agency that may have jurisdiction over the proposed use.
- b. It shall be unlawful for any person, firm, or other entity to process, crush, blast or similarly treat earth materials on any approved borrow pit site.
- c. In addition to the standards specified in this Section and in Chapter 2, Zoning Districts of this Code, the proposed use shall be evaluated using the applicable standards that the state or federal government use to evaluate a permit request for the specific use. Additionally, all annual or other reports required by another governmental agency shall be simultaneously submitted to the City.

2. Mining Operations.

- a. Mining equipment, except for reservoir construction equipment, shall be considered mechanical equipment and, in lieu of the screening standards set forth in Article 4-6, Landscaping and Buffering, such equipment shall be subject to the following requirements:
 - i. All mining equipment and operation areas shall be screened from sight from adjacent properties or right-of-way by the use of berms or by other equivalent means; and
 - ii. All mining equipment shall be located behind building setback lines.
- b. All roadways longer than 100 feet used for ingress and egress from the public roadway to the area of mining operations shall be cleaned and maintained to minimize the fugitive dust which is generated by vehicles.
- c. All mining operations, except for reservoir construction, shall be at least 200 feet from the property line. No open pit mine shall be deeper than 200 feet. No reclaimed open pit mine shall be left deeper than 100 feet.
- d. No finished grade shall exceed slopes of one foot of rise in three feet of horizontal distance. A diverse permanent vegetative cover shall be established on all disturbed areas to achieve erosion control equal to pre-mining levels. The cover shall be predominantly of native species. Disturbed areas shall be kept to a minimum. Reclamation shall commence within one growing season after slopes reach final grade.
- e. Mining, processing, or transporting operations, except for reservoir construction, shall be within the time limits of 7:00 a.m. to 6:00 p.m., with no operations on Sunday. Maintenance operations are not subject to this provision.
- f. The use of explosives is subject to all state and federal standards and restricted to a maximum of five calendar days per year. All blasting shall be conducted in a manner which will not cause a peak particle velocity on any adjacent property which exceeds one-half inch per second. A blast over pressure shall not exceed 130 db peak measured at 6 Hz or lower flat response at the property line.
- g. Quarrying of hard rock aggregate is prohibited.

- h. Sediment caused by accelerated soil erosion shall be removed from runoff water before leaving the site. Runoff shall not be discharged from the site in quantities or at velocities above those occurring before mining.
- 3. **Exempt Activities.** The following burrowing and hauling of earth material may be done without obtaining a conditional use permit from the City:
 - a. Minor projects which have cuts or fills each of which is less than five feet in vertical depth at its deepest point measured from the existing ground surface, which include the following:
 - i. Less than 50 cubic yards of earth material; or
 - ii. The removal of less than 10,000 square feet of vegetation.
 - b. Minimum excavation required in connection with a building or other structure authorized by a valid building permit.
 - c. Grading work being done pursuant to an approved grading plan in conjunction with an approved recorded plat, development plan or over lot grading plan being done on the same property.
 - d. Trenching incidental to the construction and installation of approved underground pipeline, septic tank, disposal lines, electrical or communication facilities, and drilling or excavation for approved wells or fence posts.
 - e. Grading or excavation in accordance with plans incorporated in an approved conditional use permit.
 - f. Maintenance and cleaning of ditches, lakes, ponds, and water storage reservoirs.
- F. **Resource Extraction (Oil and Gas).**
 - 1. Reserved.
- G. **Salvage Yard.**
 - 1. The following applies:
 - a. Salvage yards shall not be located on property adjacent to any of the following streets:
 - i. 52nd Avenue;
 - ii. 60th Avenue;
 - iii. Lamar Street; and
 - iv. Sheridan Boulevard.
 - b. The use shall not be located closer than 25 feet to an adjacent street right-of-way.
 - c. The subject property shall be surrounded by an Option C or D buffer, per Section 4-6-5-3, Bufferyard Options.
 - d. Best management practices for stormwater quality must be implemented and maintained on-site.
- H. **Self-Storage.**
 - 1. The following shall apply to all Self-Storage facilities:
 - a. Public access to any storage unit within 150 feet of any residential zoning district or lot containing a residential use in any mixed-use zoning district is not allowed between 10:00 PM and 7:00 AM.
 - b. The use is not allowed at the intersection of two arterial streets.

- c. Self-storage facilities are subject to the design standards in Section 5-1-2-8, Industrial, Self-Storage, or Distribution.
- 2. In the MX-S and CG zoning districts:
 - a. All storage shall be within a building, and access to individual storage units shall be from interior corridors. Storage units with access from the exterior building may be permitted on non-street frontage facades. No outdoor storage of goods or vehicles is allowed.
 - b. The use shall be located a minimum of 150 feet from any residential zoning district.
- 3. In the IL and IG zoning districts:
 - a. The use may have multiple buildings with storage units and / or storage units in free-standing buildings.
 - b. Doors to individual storage units shall not be directly accessible from any street frontage.
 - c. Individual storage units shall face the interior of the site. This does not apply to storage units within an enclosed structure.
 - d. A residence for a caretaker is allowed, subject to the requirements of Section 5-1-6-7, Custodial Unit.
- 4. Operation and Activities.
 - a. The incidental retail sale of products associated with the business (e.g., boxes, moving supplies) is allowed.

I. Storage Yard.

- 1. In the IG zoning districts:
 - a. The use shall not be located closer than 25 feet to an adjacent street right-of-way.
 - b. No storage or accumulation of waste products, including paint, stain, oils, grease, or other flammable, toxic, or hazardous materials, or stagnant water, shall be permitted as part of any storage yard use if they exceed the currently adopted fire code requirements. Flammable liquids or gases in excess of 1,000 gallons shall be stored underground.
 - c. Suitable containers for rubbish shall be placed on the premises. *See* Section 5-1-6-5, Trash Collection and Compaction.
 - d. There shall be at least one 24 feet access drive that shall be wide enough to accommodate two vehicles side-by-side.
 - e. No storage yards shall be located closer than 300 feet from any lot line that abuts a residential zoning district or single-family detached residential uses in unincorporated Jefferson County.
 - f. In areas that adjoin a residential use, there is no height limit on the outdoor storage provided that the storage yard is screened from view from the closest point of the adjacent residential structure or right-of-way.
 - g. Permitted hours of operation shall be 7:00 AM to 7:00 PM.
 - h. There shall be no height restriction for machinery, vehicles, and cranes licensed, leased, and/or titled to a business conducted on the property.

- i. Storage of customer vehicles for a period not to exceed 90 days is exempt from the screening height restrictions.

J. Waste Removal Fleet Storage and Administration.

- 1. In the IL and IG zoning districts:
 - a. The use shall not be located closer than 25 feet to an adjacent street right-of-way.
 - b. No storage yards shall be located closer than 300 feet from any lot line that abuts a residential zoning district or dwelling unit.
 - c. Permitted hours of operation shall be 7:00 AM to 7:00 PM.

K. Waste Transfer Station.

- 1. In the IG zoning district:
 - a. The use shall not be located within one-half mile of a residential zoning district.
 - b. The subject property shall be surrounded by an Option C buffer, per Section 4-6-5-3, Bufferyard Options.”

Section 3-1-3-8 Motor Vehicle Use Standards is hereby amended in its entirety to read as follows:

A. “Fueling / Service Station.

1. Fueling / Service Station Requirements

- a. When permitted:
 - i. The use shall be located within 660 feet of an intersection of arterial streets unless it is associated with a retail use (e.g., a grocery store or warehouse club) that is at least 45,000 square feet in floor area.
 - ii. No more than two service stations or convenience stores with fuel sales may be located within 660 feet of a single Arterial/Arterial intersection. Where more than two service stations or convenience stores exist at the time of the adoption of this Code, they shall be considered an allowed use.
 - iii. Vehicle access to such uses shall be limited to a maximum of one curb cut per street frontage.
 - iv. On-site vehicle access and circulation shall be designed so that adjacent residential uses or properties are not disturbed, either by day or night, by the movement of vehicles or the lights from vehicles.
 - v. Fueling pump canopies shall comply with the requirements of Subsection 5-1-2-3-C-9, Canopies and Port-Cochères.
 - vi. In the MX-S, MX-U and MX-T zoning districts, options for the site design of the fueling / service station are set out in Subsection 4-3-3-4F, Fueling / Service Station Site Design.
 - vii. A service station with a convenience store shall provide adequate space to allow a minimum of three cars to stack in a line for fuel dispensing services without using or obstructing any portion of an adjacent public sidewalk or right-of-way.

2. Minimum Lot Dimensions.

- i. Minimum lot area: 12,000 square feet.
- ii. Minimum lot width (street frontage): 120 feet.

- iii. Limits on Number of Service Bays and Pump Islands. A service station or convenience store with fuel sales may have a maximum two service bays and two pump islands on a 12,000 square foot lot. One service bay or one pump island may be added for each additional 2,000 square feet of lot area, provided that the total number of service bays shall not exceed five per lot and the number of pump islands shall not exceed five per lot.

3. Building and Equipment Setbacks and Buffers.

- i. Fuel pumps, pump islands, detached canopies, compressed air connections, and similar equipment, shall be set back a minimum of 40 feet from all street rights-of-way and from all property lines abutting a residential zoning district or a parcel containing residential uses.
- ii. When the service station use abuts a residential zoning district, use, or property, an Option C or D buffer shall be required, per Section 4-6-5-3, Bufferyard Options.

4. Service Station with Vehicle Repair.

- a. When permitted:
 - i. Hydraulic hoists, pits, and all lubrications, greasing, automobile washing, or repairing equipment shall be entirely enclosed within a building. When any such building or portion of a building faces, abuts, or is adjacent to residentially zoned property, the closest, adjacent building wall or face shall consist of a solid blank wall with no openings other than those required by applicable building codes.
 - ii. All repair work, vehicle washing, lubrication, and installation of parts and accessories shall be wholly performed within an enclosed building or structure.
 - iii. All vehicle parts, dismantled vehicles, and similar materials, and all discarded materials such as tires, cans, and drums, shall be stored within an enclosed building or totally screened from view by a solid, opaque fence. *See* Division 4-7-2, Fences and Divisional Walls for acceptable fence/wall materials.
 - iv. All vehicles awaiting repair shall be stored onsite in approved parking spaces and under no circumstances shall such vehicles be stored outside in an inoperable condition or stored on or obstruct access to a public right-of-way.

B. Motor Vehicle Repairs and Service, Heavy.

- 1. When permitted:
 - a. All repair and vehicle storage shall be completely enclosed within a building.
 - b. An Option B buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
 - c. An Option C or D buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district or MX with residential uses.
 - d. Overhead bay doors that face residential zoning districts shall be set back at least 60 feet from the residential zoning district boundary.

- e. The use shall not operate between 7:00 PM and 7:00 AM if it is located within 300 feet of a residential zoning district, measured from the outside building wall that encloses the use to the zoning district boundary.

C. Motor Vehicle Repairs and Service, Light.

- 1. In the MX-N, MX-S, CG, and IL zoning districts:
 - a. All vehicle repair uses shall be conducted within a completely enclosed building.
 - b. The use shall not operate between 7:00 PM and 7:00 AM if it is located within 300 feet of a residential zoning district, measured from the outside building wall that encloses the use to the zoning district boundary. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options is required between the use and any adjoining residential zoning district.
 - c. Storage of vehicles on the premises shall not exceed 15 days.
 - d. Open storage of wrecked or inoperable cars, discarded tires, auto parts, or similar materials shall be prohibited.
 - e. Garage bays shall not face a street.

D. Motor Vehicle Storage.

- 1. In the IL and IG zoning districts;
 - a. An Option B landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
 - b. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district.
 - c. The use shall be located behind the principal building, unless the stored motor vehicles are inventory that is for sale or for rent.

E. Motor Vehicle Towing Services.

- 1. In the IL and IG zoning district:
 - a. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the yard and adjoining right-of-way and any adjoining residential zone district.
 - b. Vehicular ingress-egress shall be limited to one point for each side of property abutting any street.
 - c. All vehicles and activities not within fully enclosed buildings shall be enclosed by a solid fence or wall at least six feet in height, including point of ingress or egress.
 - d. No vehicle repair, maintenance, or body work shall take place.
- 2. In the IL zoning district:
 - a. The site shall not be more than two acres in size.

F. Motor Vehicle Wash.

- 1. Motor vehicle wash facilities including automotive detail facilities shall comply with the following conditions:
 - a. **General Requirements.**
 - i. A motor vehicle wash facility is prohibited at the intersection of two arterial streets, unless it is located in a center occupying at least two acres and

- containing other commercial establishments occupying at least 12,000 square feet gross floor area.
 - ii. The motor vehicle wash facility, including all driveways, entrances and appurtenant structures, must be set back a minimum of 20 feet from any adjacent street. The entire 20-foot setback must be landscaped to provide a buffer from adjacent streets.
 - iii. No motor vehicle wash facility shall be located on a corner lot.
 - b. **Open Bay Motor Vehicle Wash Facility.**
 - i. No new motor vehicle wash facility may be located within one-half mile of any other existing motor vehicle wash facility having two or more car wash bays within the city limits of Arvada.
 - c. **Enclosed Motor Vehicle Wash Facility.**
 - i. All enclosed motor vehicle washing bays must have bay doors. No bay door shall face the adjacent street or an adjacent residential district.
 - ii. All enclosed motor vehicle wash facilities must be self-contained, except those services such as drying, polishing or vacuuming which may be performed outdoors. Exterior vacuums must have the machinery located within the main wash building with only vacuum hoses located outside.
- G. **Parking Lot Surface, Stand-Alone.** Where identified as a conditional use, a stand-alone surface parking lot shall be subject to the following requirements:
 - 1. A stand-alone surface parking lot shall not front an arterial or collector street.
 - 2. The stand-alone surface parking lot shall meet all the landscaping requirements of Article 4-6, Landscaping and Buffering.
 - 3. A stand-alone surface parking lot associated with an adjacent primary use shall also comply with the requirements of Section 4-5-3-4, Off-Site Parking.
- H. **Parking Garage, Structured.** Refer to Section 5-1-6-8.
- I. **Vehicle Equipment Sales or Rentals.**
 - 1. **Vehicle Sales and Rentals.**
 - a. In the MX-S, MX-U, MX-T, CG, and IL zoning districts:
 - i. All vehicles used for sales display or inventory must be stored indoors.
 - ii. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district.
 - iii. Overhead bay doors that face residential zoning districts shall be set back at least 60 feet from a residential zoning district boundary.
 - b. In the MX-T zoning district, only automobile rentals shall be permitted and only in principal hotel and motel uses with surface parking limited to a maximum number of 10 parking spaces dedicated to the use.
 - 2. **Equipment Sales and Rentals.**
 - a. In the MX-S, MX-U, MX-T, CG, and IL zoning districts:
 - i. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district.
 - ii. Overhead bay doors that face residential zoning districts shall be set back at least 60 feet from the residential zoning district boundary.”

Section 3-1-4-5 Food and Retail Truck Vending is hereby amended in its entirety to read as follows:

- A. **“Generally.** Food and retail truck vending is allowed as provided in this Section.
- B. **Where Permitted.**
 - 1. Food and retail truck vending is permitted in the following areas and under the following circumstances:
 - a. On private property as provided in Section 3-1-4-2, Temporary Uses by Zoning District;
 - b. In any park or public space (regardless of zoning district), if approved by the governmental entity exercising ownership or control thereof; and
 - c. In a public street right-of-way (regardless of zoning district), subject to the limitations established in Subsection D.2., below.
 - 2. Notwithstanding any provision herein to the contrary, allowing food and retail truck vending in a park, public space, or public street right-of-way shall be in the sole discretion of the governmental entity exercising ownership or control thereof.
- C. **Permit Required.** Except as otherwise provided herein, no person may engage in activities of food or retail truck vending without first obtaining a City of Arvada business license and a Food Truck Permit for food vendors or a Retail Vending Truck Permit. The approved temporary use permit shall be permanently displayed to the public in the food handling area of the food truck vending operation or in the retail area of a retail vending truck.
- D. **Standards.** The following rules and requirements shall apply to all food and retail truck vending:
 - 1. Hours of Operation. Hours of operation shall be between 6:00 a.m. and 11:00 p.m. unless a different time is specified in the temporary use permit.
 - 2. Location.
 - a. Operations shall not obstruct the visibility of motorists, nor obstruct parking lot circulation or block access to a public street, alley, or sidewalk.
 - b. Operations shall be located at least 50 feet from any residential use or mixed-use buildings where residential units are on the first floor as measured from the closest point of the food truck to the nearest property line of the residential unit, except as may otherwise be permitted pursuant to subsection B.1.c., where permitted above.
 - c. Food and retail trucks may operate on private property provided they meet the following requirements:
 - i. The operator must obtain prior written permission from the private property owner.
 - ii. The food or retail truck must be parked on a paved surface outside of the public right-of-way.
 - d. Operations are prohibited on public street rights of way, except for the following:

- i. Food and retail truck vending may be allowed in a public street right-of-way closed to vehicular traffic when a Special Event Permit has been issued for a special event requiring such closure.
- 3. Refuse.
 - a. Operators shall be responsible for the storage and daily disposal of all trash, refuse, and litter. All areas used for food and retail trucks shall be maintained in a safe and clean condition.
 - b. Operators shall not cause any liquid wastes used in the operation, with the exception of clean ice melt, to be discharged from the vehicle or structure.
 - c. The food and retail trucks shall not be washed on location.
- 4. Health Department Certificate.
 - a. Operators shall obtain a Health Department Certificate required by the Colorado Department of Public Health and Environment and other state and local agencies to operate a mobile retail food establishment.”

Section 3-1-5-3 Short-Term Rentals is hereby amended in its entirety to read as follows:

- A. **“License Required.** Short Term Rental is prohibited within the City unless a license has been duly issued therefore pursuant to this Section 3-1-5-3 and in compliance with the Code, including without limitation, Chapter 98, Article V, Division 2, Lodging License.
- B. **Application.**
 - 1. An application for a license shall be submitted to the Director and shall be signed by the fee owner of record of the property to be licensed or an individual authorized in writing by the fee owner of record. All license applications shall be submitted on a form supplied by the Director, which shall include such information as is reasonably necessary for the Director to act on such application, together with an application fee as authorized under Section 74-31 of the Code. The applicant must specify which portions of the Dwelling Unit, Dwelling Unit or Accessory Dwelling Unit, Residential (“ADUR”) will constitute the licensed premises available for use by renters.
 - 2. The applicant shall self-certify that the information on the application is accurate and truthful under penalty of perjury under the laws of the State of Colorado. Applicants shall inform the Director in writing of any material change to the information submitted on an application for a license within thirty (30) calendar days of such change.
- C. **Term of License and Renewal.** An application fee shall be received by the City prior to issuance of a license. Licenses issued pursuant to this Section shall be valid for a period of one (1) calendar year from the date of issuance. Licenses must be renewed annually. Applications for renewals of a Short Term Rental license are subject to all application, fees, licensing and operation requirements set forth in this Section that apply to new licenses. In the Financial Officer's discretion, after consultation with the Director, the Financial Officer may impose conditions upon a license at the time of renewal to address non-compliance with the terms of the license, the provisions of this Section, or any other applicable provision of federal, state, or local law. Failure to comply with such conditions may result in suspension, revocation, or non-renewal of the license.
- D. **License Regulations.**

1. The licensee shall comply with all applicable Code provisions and state and federal law including, but not limited to, Chapter 18, Buildings and Building Regulations, and Chapter 38, Article III, Nuisances, and Chapter 98, Taxation.
2. The licensee shall ensure that renters of a Short Term Rental Unit shall only be allowed access to the portions of the Dwelling, Dwelling Unit or ADUR identified in the license.
3. During the term that a Short Term Rental Unit is occupied by a short-term tenant, the owner and/or the local contact person designated by the owner shall be available twenty-four (24) hours per day, seven (7) days per week, for the purpose of responding within one (1) hour to complaints regarding the condition or operation of the Short Term Rental Unit or the conduct of short term tenants. If the local contact person designated by the owner changes, then the owner shall update the license on file within five (5) business days. For the purposes of this section, "local contact person" means an individual located within thirty (30) miles of the Short Term Rental Unit, during the entire length of the Short Term Rental period, who has access to the licensed premises and is authorized to make decisions regarding the licensed premises.
4. Each Short Term Rental Unit shall provide two brochures to its guests:
 - a. The first brochure shall include the licensee's contact information, the local contact party's contact information, and any necessary emergency contact information. The brochure shall also provide information pertinent to the neighborhood where the Short Term Rental Unit is located including, but not limited to, parking restrictions, trash collection schedule, relevant water restrictions, fire evacuation routes, and any other information, as required by the Director, applicable to the Short Term Rental Unit and the surrounding neighborhood.
 - b. The second brochure will be provided by the city and include relevant local ordinances, rules, and regulations that apply to all residences in the city. The licensee must display the city's brochure in each Short Term Rental Unit as it is made available and updated by the city.

E. Licensing Requirements.

1. *Number of Short Term Rentals Units per lot.* If a lot contains more than one legal Dwelling, Dwelling Unit or ADUR, only one Dwelling, Dwelling Unit or ADUR on such lot is eligible for licensure as a Short Term Rental Unit.
2. *Permitted structures.* Short Term Rental Units are allowed in primary and accessory structures with finished living space. All structures shall comply with the regulations for primary and accessory structures, including maximum size, height, lot coverage, and setbacks, for the property's zoning district. In the case of a multifamily property, the property owner is allowed one (1) Short Term Rental Unit. In the case of condominiums or buildings held in similar common ownership, each owner shall be limited to one (1) Short Term Rental Unit per property.
3. *Reservations.* Only one Short Term Rental reservation to one party at a time is allowed.
4. *Parking requirements.* One additional on-site parking space shall be required if a portion of a primary structure is used for Short Term Rental.

5. *Safety requirements.* Each Short Term Rental Unit shall be equipped with an operational smoke detector, carbon monoxide detector, and fire extinguisher on the licensed premises. The Director or his or her designee may inspect the Dwelling, Dwelling Unit or ADUR prior to issuance of a license and during the term of any license issued to verify compliance with such requirements, Code provisions and state and federal law. Refusal by the applicant to allow such inspection shall be grounds for denial, non-renewal or revocation of a license.
 6. *Occupancy.* The occupancy of a Short Term Rental Unit shall not exceed the total number of unrelated persons that are otherwise permitted to occupy property in the City.
 7. *Prohibited uses.* Use of the Short Term Rental Unit for any commercial or large social events or gatherings, such as weddings, is prohibited.
 8. *Trash collection.* The owner shall maintain weekly residential trash collection services for the Short Term Rental Unit.
 9. *Number of days in use.* The maximum number of days per calendar year that a Short Term Rental may be occupied by guests is 240. Upon renewal of the license, the Owner shall provide to the City the number of days that the Short Term Rental was occupied by guests during the previous 365 days. The Owner shall certify that the number reported is accurate.
 10. *Number of Short Term Rentals per Owner.* No applicant may operate more than three individual properties as short term rentals within the City at any one time. Upon renewal of the license, the Owner shall certify that the number operated is in accordance with this regulation.
- F. **Refusal to Grant, Suspension, Revocation, Nonrenewal of License.** The Director may refuse to grant an initial license, or suspend, revoke, or not renew any license requested or issued pursuant to this Section if the Director determines that any of the following have occurred: (i) fraud, material misrepresentation or false statement in the initial application for the license or any renewal application; or (ii) failure to comply with the terms or conditions of the license, the provisions of this Section, or any other application provision of federal, state, or local law including, but not limited to, the Arvada City Code.
1. If the Director finds that a violation of any provision of this Section exists, the Director, after notice to the licensee, may take any one or more of the following actions to remedy the violation:
 - a. Impose a civil penalty according to the following schedule:
 - (i) For the first violation of the provision, \$150;
 - (ii) For the second violation of the same provision, \$300; and
 - (iii) For the third violation of the same provision, \$1,000.
 - b. Revoke the license;
 - c. Issue any order reasonably calculated to ensure compliance with this Section.
 2. The Director's authority under this Section is in addition to any other authority the Director has to enforce this Section, and election of one remedy by the Director shall not preclude resorting to any other remedy as well.

- a. The Director shall not accept a new application from the same licensee for the same Dwelling, Dwelling Unit or ADUR after revocation of a license:
 - (i) For at least one year following the revocation; and
 - (ii) Unless the applicant demonstrates compliance with all licensing requirements.
3. All licensed premises shall be subject to inspection by the Director or his or her designee for the purpose of investigating and determining compliance with the requirements for any license issued under this Section. Where any part of the licensed premises consists of a locked area, such area shall be made available for inspection as provided hereunder, without delay, upon request. Refusal to allow an inspection may result in the license being revoked subject to the following Subsection 5.
4. An applicant or licensee may appeal any decision to grant, not renew, or suspend his or her application or license to the City Manager within 14 consecutive calendar days from the city providing notice of the decision. The City Manager's decision shall be final.
5. An applicant may appeal any decision to revoke his or her license through the city's Administrative Hearing procedure as provided in Chapter 2, Article V, Division 3 of the Arvada City Code. Appeals must be received within 14 consecutive calendar days from the city providing notice of the revocation.
- G. **Administration.** The Financial Officer and Director shall administer the provisions of this Article and are authorized to jointly promulgate rules and regulations for its administration and implementation."

The remaining portions of Chapter 3 shall remain unchanged.

Section 3. Chapter 4, Environmental and Site Design, of the Land Development Code, of the Arvada City Code is hereby amended:

Section 4-2-1-4 Subdivision Requirements and Standards is hereby amended in its entirety to read as follows:

- A. **"General Requirements.**
 1. Every subdivision shall comply with applicable zoning district, design and development standards in this LDC.
 2. Every subdivision shall comply with all other ordinances and regulations of the City of Arvada.
 3. Public infrastructure shall be constructed in accordance with the City of Arvada Engineering Code of Standards and Specifications as approved by the Director.
- B. **Minimum Standards.** The standards in this Article are minimum standards. The City may impose more restrictive standards when it finds that they are necessary to conform the design of a proposed subdivision to sound engineering or design standards or other standards in this LDC.
- C. **Buildable Lots.** All lots created through the subdivision process shall be developable and conform to the minimum zoning, development, and floodplain standards in this LDC. No subdivisions shall create lots that prohibit development due to configuration of

the lots, steepness of terrain, location of watercourses or floodplain, natural physical conditions, or other existing conditions.

- D. **Layout and Design.** The design and layout of the lots shall be dependent upon topography, natural vegetation, soil conditions, drainage, street traffic, or other conditions. The following standards shall apply to:

1. A subdivision of two or more lots;
2. A division of a lot; or
3. Combining lots.

- E. **Lot Size and Configuration.**

1. **Lot Area.** The minimum area and dimensions of all lots shall conform to the requirements of the zoning districts and development standards relating to the zoning district in which the lot is located. *See* Chapter 2 of this Code.
2. **Lot Lines.** Side lot lines shall be substantially at right angles or radial to street lines, except where other terrain makes such design impractical.
3. **Double Frontage Lots.**
 - a. Double frontage lots are discouraged in new subdivisions except where necessary to provide separation of residential development from parkways and arterials, or to overcome specific disadvantages of topography and orientation.
 - b. If approved, double frontage lots shall have an average lot depth of not less than 130 feet.
 - c. Unless waived by the Director, the owner / developer shall construct fences along the rear of double frontage lots. Such fences shall be six feet high, and composed of cedar picket fencing with brick posts not more than 60 feet apart, unless an alternate design or material is approved by the Director.
4. **Flag Lots.** Flag lots and other irregularly shaped lots are discouraged in new and existing subdivisions.
5. **Corner Lots.** Corner lots may be required to be wider than interior lots to provide for setback requirements.

- F. **Drainage.** Lots shall be designed and located to provide positive drainage away from all buildings, shall comply with the standards in Division 4-1-3, Stormwater and Drainage Control, and shall allow for the infiltration of storm water runoff to the maximum extent feasible.

- G. **Access.**

1. Every residential lot shall abut a public or private street or access easement. Access to residential lots shall be from local streets except as specifically authorized by the Director.
2. For subdivisions, at least two points of vehicular access into a proposed subdivision shall be provided, where feasible, unless it can be shown to the satisfaction of the Director that legal, topographical, and / or engineering constraints preclude such access. The Director may allow for additional access supported by traffic impact study and meets all other design criteria.
3. For lot splits, shared common access shall be provided to the maximum extent practicable.

H. Block Layout and Length.

1. Blocks shall normally be at least 400 feet in length and not more than 1,200 feet in length. The Director may approve a shorter or longer block length when necessary to accommodate natural features such as steep slopes, environmentally sensitive lands, and pedestrian linkages.
2. Block lengths and widths shall be suitable for the uses contemplated and the zoning requirements pertaining to minimum lot sizes and dimensions.
3. In blocks over 1,000 feet long, pedestrian, bicycle, and equestrian crosswalks may be required. Said crosswalks shall normally require a six and one-half foot width.
4. Blocks along designated or planned parkways or arterial streets shall not be less than 660 feet in length, unless approved by the Director.

I. Street Design. All public and private streets shall comply with the Article 4-4, Access, Circulation, Mobility, and Utilities, City of Arvada Engineering Code of Standards and Specifications, and the following standards:

1. Coordination of Streets.

- a. All new collector and local streets shall connect with surrounding streets at safe and convenient locations as required by the Director to allow convenient movement of traffic and reasonable access for emergency vehicles.
- b. When connections to surrounding streets are proposed or required by the City, public right-of-way shall be dedicated and streets developed to existing paved rights-of-way.
- c. When developing adjacent to an existing RA or RN-32.5 zoning district where there is no paved street between the subdivision and an existing paved street, an interim street, improved in accordance with local street standards, shall be constructed by the Applicant for developments with densities in excess of one residential unit per acre of land.
- d. Whenever possible, proposed intersections along one side of a street shall coincide with existing or proposed intersections on the opposite side of such street. Where a centerline offset (jog) occurs at an intersection, the distance between centerlines of the intersecting streets shall be not less than required by the City of Arvada Engineering Code of Standards and Specifications.
- e. The street pattern shall not cause adjacent property to be landlocked nor prevent access to public land.

2. Street Intersections.

- a. Streets shall be arranged in relation to existing topography to produce streets of reasonable gradient to facilitate adequate drainage and to produce desirable lots of maximum utility.
- b. Where a subdivision abuts or contains the right-of-way of a drainage way, a limited access highway, or an irrigation ditch, or abuts a commercial or industrial land use, the Director may require the location of a street approximately parallel to and on each side of this right-of-way at a distance suitable for appropriate use of the intervening land. This distance shall be determined with due regard for approach grades, drainage, bridges or future grade separations.

3. Street Design Standards.

- a. Streets shall be related appropriately to the expected use of the property. Minimum requirements for street right-of-way, pavement width, and other standards for public and private streets are set forth in the City of Arvada Engineering Code of Standards and Specifications.
- b. Other designs and materials may be required for the construction of streets, curbs, and sidewalks when, in the determination of the Director, such methods would be more environmentally desirable or more in keeping with the design of the development or neighborhood.
- c. Turnarounds shall be provided at the ends of cul-de-sacs and at elbows on one-way streets. Turnarounds shall meet the minimum requirements of the Fire Protection District.

J. Street Naming and Traffic Control Signs.

- 1. **Continuation of Existing Names.** The City will assign a name subject to final plat, site plan or final development plan approval.
- 2. **Street Signage.**
 - a. All streets in a subdivision shall be named and identified by signs installed at every street intersection.
 - b. These signs shall be standard street signs as indicated in the current edition of the Manual on Uniform Traffic Control Devices.
 - c. All traffic control signs, as well as street name signs, required in a subdivision shall be provided and installed by the City at the expense of the subdivider in conformance with the current edition of the Manual on Uniform Traffic Control Devices, and any relevant Colorado state supplements.

K. Sidewalks, Trails and Bicycle Paths.

- 1. **General Requirements.**
 - a. The layout and design of an interconnected system of sidewalks, trails, and/or bicycle paths shall be consistent with the City of Arvada Transportation Plan and Bicycle Plan, as amended, and all other adopted plans and policies.
 - b. All subdivisions shall comply with the development standards set forth in Section 4-4-2-1, Pedestrian and Bicycle Access and Circulation.
 - c. All subdivisions shall include an interconnected system of sidewalks, trails and or bicycle paths that directly connects to all uses, lots, open space areas, and parks.
- 2. **Trails.**
 - a. The owner/developer shall provide and construct pedestrian, bicycle, or equestrian trail rights-of-way in compliance with Section 4-4-2-1, Pedestrian and Bicycle Access and Circulation, and Section 8-4-3-6, Park and Trail Dedications and Fees-in-Lieu. Additional trail rights-of-way may be required where necessary for access to parks, schools, shopping areas, or other community facilities.
 - b. Trails shall be eight feet wide, unless a wider trail is required by the City. All trails between lots shall be located within a minimum 40-foot wide landscaped strip, which 40-foot wide strip may be dedicated to the City or set aside as private, amenitized landscape surface area.”

Section 4-2-2-1 Cluster Subdivisions is hereby amended in its entirety to read as follows:

- A. **“Generally.** This Division provides optional standards for cluster subdivision development to create more compact development in order to preserve and protect sensitive lands, create amenitized landscape areas, and to implement the Comprehensive Plan and/or adopted specific area plans. A cluster subdivision is a residential or mixed-use subdivision in which some or all of the lots are allowed to be smaller (in area and width) than otherwise required for the underlying zoning district, in exchange for permanent protection of sensitive lands and/or open space.
- B. **Zoning Districts Where Allowed.**
1. The cluster subdivision option is available in the R6, R13, and R24 zoning districts.
- C. **Minimum Parcel Size.** The minimum parcel size for a cluster subdivision shall be three acres.
- D. **Cluster Subdivision Development Standards.**
1. All other standards in the LDC shall apply to cluster subdivisions unless modified by this Section.
- E. **Identification and Maintenance of Protected Lands.**
1. Protected lands as defined in Section 4-1-4-2, Limits of Development, shall be identified on the final subdivision plat with a notation that indicates that those lands shall not be used for future development.
 2. Protected lands shall be identified with appropriate permanent signage markers in order to distinguish these areas from private lots.
 3. Protected lands shall be permanently maintained and preserved as:
 - a. Open space tracts with deed restrictions;
 - b. Land dedicated to the City;
 - c. Land protected through a conservation easement; or
 - d. Land protected by other means approved by the City.
 4. For any protected land not dedicated to the City, the developer shall provide a permanent mechanism acceptable to the City Attorney for the primary purpose of conservation, preservation, and management of protected lands.
 5. There shall be no further subdivision of land in an area approved for cluster subdivision; however, dedication of easements for public purposes may be permitted.
- F. **Use of Protected Lands.**
1. Protected lands shall be left in an undisturbed natural state or landscaped pursuant to Section 4-6-5, Landscape Areas and Bufferyards.
 2. The protected lands shall be used for low-intensity recreation, agriculture, buffers, critical wildlife habitat, or other passive park or open space purposes.
 3. The use of protected lands may be further limited or controlled at the time of final approval where necessary to protect adjacent properties.
- G. **Review and Approval of Cluster Subdivisions.**
1. The review and approval of cluster subdivisions shall follow the procedures for preliminary and final plats. The applicable procedure is dependent on the number of lots proposed in the cluster subdivision.”

Section 4-3-2-2 Common Open Spaces is hereby retitled and amended in its entirety to read as follows:

“4-3-2-2 Landscape Surface Area

- A. **Generally.** Development shall be designed with landscaped areas that support the resource values of the natural open space in terms of its ecological function (e.g., habitat, water quality enhancement, energy efficiency, etc.), aesthetic contribution, recreational value, and buffering value in accordance with Article 4-6 Landscaping and Buffering.
- B. **Site Design.** Site design shall be organized to include, protect or enhance the natural open spaces areas and landmark features of the site.
- C. **Enhancement of Open Space / Open Space Corridors.** Landscaped areas should be organized so as to create integrated systems that connect with dedicated school lands, parklands, other open spaces, or public lands or trails within the subject property or on adjoining property.
- D. **Natural Resource and Hazard Areas.** Natural resources such as water features including lakes, natural ponds, rivers, streams, wetlands, riparian areas, drainage ways, ditches, and flood hazard areas and vistas of natural features including distant peaks and ridges, steep slopes, existing tree canopy, wildlife habitat areas should be undisturbed.”

Section 4-3-2-3 Landscape Surface Area, Amenitized is hereby retitled and amended in its entirety to read as follows:

“4-3-2-3 Landscape Surface Area, Amenitized

- A. **Generally.** Sometimes referred to as “common open space.” Development shall be designed with amenities for the common use or enjoyment of residents, employees, or guests of the development. Any portion of the area intended to meet requirements of small urban parks (Section 4-3-3-4 Mixed-Use) must be publicly accessible. Amenities may include:
 - 1. Passive recreational facilities such as trails, community gardens, courtyards with seating, shaded picnic areas, scenic areas, open grassy areas large enough for recreation, or similar common areas; or
 - 2. Active recreational facilities such as pools, tennis courts, playgrounds, and clubhouses; or
 - 3. Commercial outdoor seating and dining areas, or similar common areas serving employees and/or guests.
- B. **Accessibility.** Areas shall be accessible to all residents, employees, or guests of a development and meet all design requirements of the Americans with Disabilities Act (ADA). “

Section 4-3-3-2 Residential is hereby amended in its entirety to read as follows:

- A. **“Generally.** The standards of this Section apply to residential developments that include more than 10 dwelling units, located in all residential zoning districts and the MX and OT zoning districts, where single-family, duplexes, townhomes, multiplex, and multifamily are permitted, as provided in the following Subsections.
- B. **Arrangement of Landscape Areas and Buildings.**

1. Amenitized landscape areas shall be provided to the extent practicable and situated so that landscaped areas and outdoor recreation amenities are centrally located within the development.
 2. Principal buildings, such as club houses and recreational facilities, and landscaping shall, to the extent practicable, be located and designed so that residents can easily observe the buildings, landscaped areas, circulation paths, and access points into the development.
- C. **Parking.** For multiplex, townhome and multifamily development, at least 50 percent of required off-street parking shall be provided in garages or carports, rather than surface lots. Where surface parking lots are used, they shall to the extent practicable be located between or behind buildings, rather than adjacent to street frontages.
- D. **Single-Family Detached, Duplex, and Multiplex.**
1. **Generally.** Single-family detached, duplex, and multiplex residential subdivisions shall be designed to mitigate the impacts of streets and paved areas on the neighborhood, and to provide comfortable alternative routes for pedestrians and bicyclists, including continuous sidewalks, tree-lined streets, and pedestrian-scaled details.
 2. **Creation of Neighborhoods.** Residential development that includes more than 200 dwelling units shall be designed to create identifiable “neighborhoods” of 30 to 100 units.
 3. **Configuration of Lots.** Lots shall be configured to maximize the number of lots that are:
 - a. Within close proximity to an amenitized landscape area (e.g., playground or trail); and
 - b. Connected by trails or common greens that do not cross streets.
- E. **Townhome.**
1. **Creation of Neighborhoods.** Residential development that includes more than 200 dwelling units shall be designed to create identifiable “neighborhoods” of 30 to 100 units.
 2. **Configuration of Lots.** Lots shall be configured to maximize the number of lots that are:
 - a. Within close proximity to an amenitized landscape area (e.g. playground or trail); or
 - b. Connected by trails or common greens that do not cross streets.
 3. Buildings shall front on and align with:
 - a. Adjacent streets; or
 - b. Meet the minimum Non-Street Frontage Perimeter Setbacks identified in Table 2-1-8-7, Townhome Building Standards.
 4. **Connectivity.**
 - a. Where there is a sidewalk, separation between buildings shall be a minimum of 20 feet wide to allow for a minimum five foot wide sidewalk and landscaping
- F. **Multifamily.** The standards of this Subsection shall apply to all new multifamily residential development.

1. **Street Connectivity.**
 - a. Multifamily sites of 10 acres or more shall include a minimum of one public street (or private drive that is built to City street standards), that is continuous through the subject property, and that connects to a public street on both ends.
 - b. The Director may waive this requirement for a through-access street or drive, if it is demonstrated that:
 - i. There are adequate alternatives available for residents and vehicles to travel through the subject property to adjacent properties and developments; or
 - ii. There are no opportunities for a through-street to safely make such connections.
2. **Landscape Areas.** Landscape areas shall be provided as follows:
 - a. Large landscaped areas should be the fundamental organizing element of the site. Landscaped areas should be well defined by buildings and streets. Buildings should be oriented in such a way as to create courtyards and open space areas.
 - b. Large existing trees and other natural features should be integrated into the landscape areas.
 - c. Landscape areas should be centralized and directly accessible to a majority of the surrounding units. Where possible, it should be linked to adjacent parks, paths, and open space areas.
 - d. The landscape areas shall be useable, non-riparian areas with slopes not exceeding 3:1.
3. **Site Amenities.** In conjunction with the landscape surface area requirements, and the required small urban parks in the MX-S, MX-U and the MX-T zoning districts (*See* Subsection 4-3-3-4E), all multifamily projects shall provide site amenities from the list below for the residents. Amenities shall be centrally located for a majority of the residents, and may be located within the landscape areas. Multifamily projects with less than 50 units shall provide two of the amenities from the list below. Multifamily projects with more than 50 units shall provide three of the amenities from the list below.
 - a. Plaza.
 - b. Swimming pool.
 - c. Sports court, such as tennis, basketball, or volleyball.
 - d. Natural open space area with benches.
 - e. Jogging trail.
 - f. Fountain, art, or sculpture.
 - g. Other amenity as approved by the Director”

Section 4-3-3-3 Clustered Small Housing is hereby amended in its entirety to read as follows:

- A. **“Generally.** The standards of this Section apply to developments of the clustered small housing types that are described in Section 2-1-8-9, Clustered Housing Types.
- B. **Common Green.**

1. Clustered housing types shall be organized around one or two amenitized landscape areas (“green(s)”), with no dimension that is less than the larger of:
 - a. 1.5 times the height of the tallest building that fronts on the common green; or
 - b. 20 feet, for micro homes or 30 feet for cottages.
2. The common green(s) shall be developed and maintained to provide for passive and/or active recreation activities for the residents of the housing cluster.
3. The common green(s) shall be centrally located and easily accessible to all dwelling units within the cluster.
4. The common green(s) shall be surrounded by clustered housing types on at least two sides, which do not have to be opposite sides.
5. Stormwater management facilities are allowed within a common green, if they do not adversely impact access to or use of the common green for all-season pedestrian access to the dwelling units, and for anticipated active and passive recreation activities.

C. Front Porches.

1. Cottages. Each cottage dwelling unit shall have a front porch that is not less than seven feet in any dimension.
2. Micro Homes. Each micro home shall have a front porch that is not less than five feet in any dimension.

D. Private Entry Yards.

1. Each dwelling unit may have a private entry yard, in front of the building elevation that contains the primary entrance to the dwelling unit, that is:
 - a. Not more than 10 feet deep; and
 - b. Enclosed with a fence that is not more than 36 inches in height in front of the front building plane, and not more than 60 inches in height behind the front building plane.
2. Private entry yards may border the common greens, but are not included in the dimensions of the common green.

E. Configuration. Housing clusters shall relate to both the street and to a common green, in that:

1. Each building that is constructed along the principal street side of the subject property shall include architectural features that provide visual continuity with adjoining properties and visual interest from the street, such as a primary or secondary entrance or porch that is oriented to the street.
2. Not less than 50 percent of the dwelling units shall front on a common green.

F. Pedestrian Network.

1. Pedestrian connections shall link all buildings to the street, common green(s), and parking areas.
2. Pedestrian connections from parking areas to common buildings and the front doors of dwelling units shall traverse a common green.
3. If housing clusters share a common building, *see* Subsection G., below, the pedestrian network shall connect the housing clusters.

- G. **Common Building.** A common building with amenities is allowed within clustered housing developments. Amenities may include a kitchen, meeting area, common dining area, indoor recreation facilities, storage (provided that other amenities are also provided in the building), and up to two guest bedrooms. Up to two housing clusters that are connected with pedestrian pathways may share a common building, unless the size of the common building and provided amenities are designed to accommodate additional clusters, the common building is centrally located and within 600 feet of all dwelling units, and the common building is connected to the clusters by pedestrian pathways.
- H. **Individual Storage Buildings.** One individual storage building is allowed for each dwelling unit, provided that:
1. The storage building is not more than 10 feet in height, measured from grade to the peak of the roof;
 2. The storage building is not more than 80 sf. in floor area;
 3. The storage building is located behind the dwelling unit, and set back:
 - a. 20 feet from any street; and
 - b. five feet from any boundary of the housing cluster and
 4. The storage building is screened from the street and a common green.
- I. **Parking Design.**
1. **Generally.**
 - a. Required parking shall be provided in shared surface parking lots, covered parking spaces in shared parking lots, shared detached garage buildings, or directly accessed from an alley.
 - b. No parking space or drive aisle shall be located between a front building elevation and a common green.
 - c. For alley accessed parking, parking spaces shall be located between the alley and rear building planes, and shall not extend into side or front yards of individual buildings.
 2. **Surface Parking and Covered Parking Spaces.**
 - a. Surface parking and covered parking spaces shall be set back from streets as provided in Section 2-1-8-9, Clustered Housing Types.
 - b. Surface parking and covered parking spaces shall be screened from the street and the common green(s) and from individual units with a parking lot bufferyard as provided in Section 4-6-6-3 Parking Area Landscape.
 - c. Surface parking spaces shall be distributed on the site to minimize visual impacts and optimize access to individual units.
 3. **Shared Detached Garage Buildings.**
 - a. Shared detached garage buildings may not exceed four overhead doors per building, and a total floor area of 1,200 square feet.
 - b. Shared detached garage buildings shall be reserved for the parking of vehicles owned by the residents of the development.”

Table 4-5-2-2A: Residential Land Use Parking Standards is hereby amended in its entirety to read as follows:

Table 4-5-2-2A: Residential Land Use Parking Standards	
Land Use	Minimum Required Parking
Standard Housing Types	
Single-Family Detached or Duplex	2 sp. / du ¹
Townhome	2.2 sp. / du ¹
Multifamily and Multiplex	efficiency units: 1.4 sp. / du 1 BR units: 1.6 sp. / du 2 BR units: 2.1 sp. / du ¹ 3+ BR units: 2.5 sp. / du ¹
Multifamily, Affordable ²	efficiency units / 1 BR units: 1.4 sp. / du 2 + BR units: 2.0 sp. / du ¹
Multifamily, Senior ³	1 sp. / du
Clustered Housing Types	
Micro Home	1.25 sp. / du
Cottage	2.25 sp. / du
TABLE NOTES: ¹ Tandem spaces may be counted towards this requirement. ² Projects that receive Low Income Housing Tax Credits. ³ Age restricted projects for residents 62 years and older.	

Section 4-5-3-4 Off-Site Parking is hereby amended in its entirety to read as follows:

- A. **“Generally.** In lieu of locating parking spaces required by Division 4-5-2, Parking and Loading Calculations, on the lot that generates the demand for the required parking, parking spaces may be provided on any lot or premises controlled, *i.e.*, by fee-simple ownership, easement interests, lease interests, or participation in a parking district or other joint venture to provide centralized off-street parking, by the owner of the use that generates the parking demand, provided that:
1. The parking spaces are within 200 feet of the boundaries of the property generating such parking requirements and no required off-street parking space within said parking lot is more than 500 feet from the property it is serving; and
 2. The parking spaces are not already counted towards the parking requirements of another use after application of Section 4-5-2-4, Shared Parking, Section 4-5-2-5, Parking Credits and Reductions, or Section 4-5-2-6, Parking Studies, as may be applicable.
- B. **Exceptions.** Off-site parking is not allowed in:
1. Residential zoning districts, except that manufactured home parks and clustered housing types may utilize centralized parking; and
 2. Locations in which a street with more than two lanes separates the off-site parking area from the subject property.”

Section 4-5-3-6 Vehicle Stacking is hereby amended in its entirety to read as follows:

- A. **“Generally.** Vehicle stacking spaces are used to measure the capacity of a drive-through lane to hold cars while transactions are taking place at drive-through stations. Adequate space must be provided for on-site stacking, storage and queuing of vehicles.
1. The required stacking distance for the site may be distributed between access points serving the site, provided a minimum stacking of 20 feet is provided at all access points.
 2. Stacking spaces must be a minimum of 8.5 feet in width and 20 feet in length.
 3. Electronic devices such as loudspeakers, automobile service order devices, and similar instruments shall not be audible beyond the property line adjacent to a residential zone district.
 4. Stacking spaces for internal drive-through services shall be measured from the point of service and within a designated drive aisle.
 5. Required vehicle stacking spaces shall not interfere with access to parking spaces.
- B. **Drive-Through.** Uses that include drive-through service shall provide the following minimum number of stacking spaces:
1. **Financial institutions, drive-through convenience retail, fueling stations, and pharmacies.** Three stacking spaces.
 2. **Drive-through restaurants.**
 - a. If two service windows are provided (one for payments and one for pick-up):
 - i. Four stacking spaces to each menu board;
 - ii. Three stacking spaces between the menu board and the first window, including the position at the first window; and
 - iii. Two spaces between the first window and the second window, including the position at the second window (*See Figure 4-5-3-6, Illustrative Stacking Requirements*).
 - b. If one service window is provided, for both payments and pick up:
 - i. Six stacking spaces to the menu board; and
 - ii. Three stacking spaces between the menu board and the service window.
 3. **Drive-through only uses in buildings with less than 300 square feet of gross floor area and no separate menu board.** Three stacking spaces per service window.
 4. **Dry cleaners.** Two stacking spaces per service window.
 5. **Vehicle wash.**
 - a. Two stacking spaces for each bay in a self-service vehicle wash facility;
 - b. Five stacking spaces for each in-bay or conveyor vehicle wash facility; and
 - c. If the facility provides detailing, manual drying or polishing, and / or vacuuming, sufficient area to provide those services without creating additional demand for stacking at the vehicle wash entrance.
 6. **Other Uses.** The determination by the Director of stacking spaces necessary for other uses may require a queuing study conducted by a qualified transportation planner or traffic engineer at the Applicant’s expense.
- C. **Design.**

1. Stacking lanes shall be clearly marked, and shall not interfere with on-site or off-site traffic circulation, or access to parking spaces.
2. Stacking areas shall not be located in the front setback or side street.”

Section 4-5-3-7 Design and Use of Off-Street Loading Areas is hereby amended in its entirety to read as follows:

- A. **“Generally.** All required off-street loading spaces shall be designed, constructed, and maintained in accordance with the standards and requirements of this Section.
- B. **Location.**
 1. Loading spaces shall be located on the same lot as the building or structure to which they relate.
 2. No loading space shall be located in any front setback area.
 3. Except where alley loading or over-the-curb loading is allowed, loading areas shall be located and designed to ensure adequate on-site maneuvering area for delivery vehicles.
 4. No loading area shall be designed in a manner that would allow any vehicle to extend into any front setback area or adjacent to any residential zone district while being loaded or unloaded.
 5. Trucks parked in loading areas shall not encroach into required parking spaces or building setbacks.
 6. Parked trucks loading or unloading materials shall not block travel lanes in parking lot or fire lanes.
- C. **Buffering.** Drive-through stacking areas and loading areas, including overhead doors, oriented so to face a residential zone district or a public right-of-way shall be screened from view from all property lines and adjacent streets to the greatest extent possible, as determined by the Director, by the following:
 1. By an opaque fence or wall between six feet and eight feet in height that incorporates at least one of the predominant materials and one of the predominant colors used in the principal building. The fence or wall may exceed eight feet in height when there is a difference in grade between the street and loading area to effectively screen the area. (For a drive-through stacking area, a fence or wall shall only be used when the area is adjacent to a residential zone district).
 2. A landscape berm may be used instead or combined with the required fence or wall.
 3. If such areas are covered, then the covering shall include at least one of the predominant exposed roofing colors on the principal building.
- D. **Surfacing.** All required off-street loading spaces and access drives shall be improved with an asphaltic, concrete, or equivalent surface and shall be graded and drained in order to dispose of all surface water accumulation within such areas, as well as any associated parking area.
- E. **Alleys.** All alleys that are used for loading shall meet the City of Arvada Engineering Code of Standards and Specifications.”

4-5-3-8 Bicycle Parking Design is hereby amended in its entirety to read as follows:

- A. **“Generally.** The bicycle parking spaces that are required by Section 4-5-2-8, Bicycle Parking, shall be designed according to the standards of this Section. The purpose of these design standards is to ensure that bicycle parking is convenient to bicyclists and provides security from theft and damage.
- B. **Standards.**
 1. **Generally.** Bicycle parking shall be designed to ensure that it is convenient to bicyclists and secured from theft and damage.
 - a. Bicycle parking shall be securely locked and safeguarded from accidental or intentional damage.
 - b. Each required bicycle parking space shall be accessible without moving another bicycle.
 - c. There shall be an aisle at least five feet around the perimeter of all bicycle parking areas to allow room for bicycle maneuvering.
- C. **Short-term Bicycle Parking.** Short-term bicycle parking facilities or racks shall accommodate securing a bicycle using an industry-standard bike lock.
 1. Short-term bicycle parking spaces shall be located within 50 feet of the main entrance to the building. Where there is more than one main entrance to a building, short-term spaces should be split between building entrances.
 2. Bicycle racks shall meet the following standards:
 - a. A U-shaped bike rack or variation thereof that allows for the bike to be locked to the rack by the frame and at least one wheel;
 - b. A bicycle that is six feet long can be securely held with its frame supported so that the bicycle cannot be pushed or fall in a manner that will damage the wheel components; and
 - c. The racks are securely anchored to a hard surface.
 3. **MX Zoning Districts.** Multifamily residential, mixed-use, and office uses in the MX-N, MX-S MX-U and MX-T zoning districts shall provide bicycle parking in locations that are covered, secure, and illuminated. Such bicycle parking areas shall be maintained by the property owner, a property owners' association, or a metropolitan district.
 4. **OT and CG Zoning Districts.** Multifamily, schools, retail, and office uses in the OT and CG zoning districts shall provide bicycle parking locations that are secure, illuminated and along traveled ways.
- D. **Long-term Bicycle Parking.** Long-term bicycle parking shall be in a secure and weather-protected place. Long-term parking does not have to be provided on site; however long-term bicycle parking must be within a reasonable distance of a site in order to encourage bicycle use.
 1. Long-term bicycle parking is not required on a site when:
 - a. Non-residential gross building area is less than 5,000 square feet; or
 - b. There are ten or fewer residential units in a development or redevelopment.
 2. Long-term bicycle parking, when required, shall be located within 50 feet of a building entrance and be visible from the building entrance. If the location of the

bicycle parking is not obvious from the building entrance, signs shall be posted that indicate the location of bicycle parking.

3. Long-term bicycle parking is require to be covered and shall be at least one of the following:
 - a. In a locked room;
 - b. In a bicycle locker;
 - c. Under roof overhangs or awnings;
 - d. In an area that is enclosed by a fence with a locked gate;
 - e. A free standing building;
 - f. Within view of an attendant or security guard; or
 - g. In an area that is monitored by a security camera.

E. Surfacing and Clear Area.

1. The surface of bicycle parking spaces shall be of hardscape material such as asphalt, concrete, or other materials approved by the Director.
2. Racks shall be bordered by physical barriers or located a sufficient distance from motor vehicles to prevent damage to parked bicycles.”

Section 4-6-3-1 Applicability is hereby amended in its entirety to read as follows:

- A. **“Generally.** All new construction, including building expansions that increase the footprint of a building by 25 percent or more, and modification to an existing landscape area shall comply with the standards in this Article.
- B. **Exceptions.** Exceptions to this Article are allowed under the following circumstances:
 1. **Interior Tenant Improvement.** The landscaping requirements of this Article shall not apply to existing structures where interior tenant improvements occur and where there is no addition to the number of parking spaces provided.
 2. **Existing Structures.** Where existing structures are situated so as to preclude the installation of required landscaping, the Director may authorize reductions for the required landscaping.
 3. **Physical Limitations of the Site.** The Director may authorize modifications to landscaping requirements for structure additions or tenant improvements where landscaping requirements are not feasible due to physical limitations of the site. Where the landscaping requirements have been modified, the landscaping shall be relocated in the following manner:
 - a. To another portion of the lot;
 - b. Along a property line; or
 - c. To an area, including a nearby public park or other City-owned property, as determined by the Director upon review with the owner or developer.
 4. **Single-Family Detached and Duplex.** Single-family detached and duplex dwelling unit lots, are exempt from landscaping requirements, provided the initial development of the subdivision contains nine or fewer lots of single-family and/or duplex. Common landscape areas, bufferyards, water quality/detention basins, or streetscape areas, shall meet the applicable requirements of this Chapter.
- C. **Site Changes.** Townhome, multiplex, multifamily, mixed-use, commercial, and industrial uses that are part of larger project shall be required to submit a site plan for the

area that is disturbed that meets the requirements of this Article. The Director may require that a site plan covering the entire project area be submitted.

- D. **Parking lot Reconfiguration.** Modifications to any existing parking lot in an amount greater than 20 percent, or expansions of an existing parking lot by 25 spaces or more shall meet the landscaping requirements of this Article for the area being modified or expanded.”

4-6-3-2 General Landscaping Standards is hereby amended in its entirety to read as follows:

- A. **“Landscape Plan Required.** A landscape plan with designated landscaped areas shall be submitted as a part of all development applications where landscaping, buffering, or screening is required, unless the applicable Decision-Making Body determines that compliance with the provisions of this Article can be demonstrated without the use of a landscape plan. Final landscape plans shall be stamped, signed and dated by a State of Colorado Registered Landscape Architect for all projects except residential minor subdivisions as defined in Subsection B.4 above or where the Director determines the scope of the project does not warrant such plans.
- B. **Vegetative Coverage.** Landscaped areas shall be covered with shrubs in combination with lower water consuming ground-level plants, ornamental grasses, or turf for at least 75 percent of the landscape area, at maturity.
- C. **Detention and Retention Ponds.** Detention and retention ponds shall be physically, functionally and visually integrated into adjacent landscape uses through the use of topography, building and parking lot placement, plantings, permanent water features, recreational or open space amenities, or other methods. Slopes shall not exceed a 4:1 ratio or be flatter than 2 percent.
- D. **Steep Slopes.** Grading in landscaped areas shall not exceed slopes greater than 6:1 in the amenitized area of Small Urban Parks and 4:1 for all other areas, except that public maintained shrub beds and native grass areas shall not exceed 3:1 slope.
- E. **Alternative Requirements for Hardscape Features.**
 - 1. In mixed-use and nonresidential districts, pedestrian walks and other hardscape landscape features and amenities, such as Small Urban Parks, outdoor seating areas, and plazas with recreation and entertainment areas, water features, and public art, may comprise up to 50 percent of the landscape area.
 - 2. The Director may approve a greater percentage of hardscape features based on the consideration of the proposed development, mix of uses, and the quality of the proposed landscape design.”

Section 4-6-5-2 Purpose and Applicability is hereby amended in its entirety to read as follows:

4-6-5-2 “Bufferyard Purpose and Applicability

- A. **Purposes of Bufferyards.** A bufferyard is a landscaped area between two differing land uses and is designed to provide a transition between the uses, mitigate or minimize potential nuisances such as noise, light, and glare, protect the character of an area, and protect natural resources from impacts of nearby development.
- B. **Applicability.**

1. **Uses Requiring a Bufferyard.** The following uses require a bufferyard per Section 4-6-5-3, Bufferyard Options, where directly adjacent to a single-family detached dwelling, duplex dwelling or multiplex, or a RN zoning district:
 - a. Multifamily and townhomes;
 - b. Mixed-use buildings;
 - c. Non-residential buildings;
 - d. Drive-through facilities;
 - e. Industrial manufacturing and processing uses, and storage uses in the IL and IG zoning districts; and
 - f. Dead-end drives and turnarounds.
2. **Additional Uses Requiring a Bufferyard.** The following uses require a bufferyard per Section 4-6-5-3, Bufferyard Options, where directly adjacent to a multifamily, townhomes, or other attached residential buildings or a mixed-use building with a residential component:
 - a. Drive-through facilities; and
 - b. Industrial manufacturing, processing uses, and storage uses in the IL and IG zoning districts.”

Section 4-6-6-2 Street Bufferyards is hereby amended in its entirety to read as follows:

A. “Street Bufferyards in Setbacks.

1. In the CG, IL and IG zoning districts, and multifamily in the R13 and R24 zoning districts, the front setback shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas .
2. In the MX and OT zoning districts, if the principal building is set back more than five feet from the property line, then that area shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas. If the building is set back less than five feet, the area shall be hardscaped with paving materials such as concrete, pavers or other quality paving materials, or landscaped with shrubs and ground-level plants. The remainder of all setbacks shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas.”

Section 4-6-6-3 Parking Area Landscaping is hereby amended in its entirety to read as follows:

- A. **“Generally.** Surface parking lots shall be landscaped to reduce the apparent size of the parking area; prevent views of long rows of parked cars; create an impression of smaller, connected parking lots; provide shade for parked cars; reduce the heat island effect of an urbanized area; and define pedestrian access ways, according to the standards of this Section.
- B. **Exceptions.**
 1. The surface parking lot landscape requirements of this Section do not apply to:

- a. Parking lots in the IL and IG zoning districts if the subject property is located south of West 60th Avenue and east of or adjacent to Lamar Street; or
 - b. Surface parking lots with 24 or fewer parking spaces and with 12 or fewer parking spaces in a row.
2. The access point landscape requirements of this Section do not apply to driveways that provide access to individual single-family detached, duplex, multiplex, or townhome lots.

C. Perimeter Landscape Buffer.

1. Required Perimeter Landscape Buffer.

- a. Parking lots adjacent to single-family detached, duplex, multiplex, or townhome uses shall meet the Option C or D bufferyard in Division 4-6-5-3, Bufferyard Options.

2. Exceptions.

- a. The requirements for perimeter landscaping do not apply at points of ingress or egress to the surface parking lot, or to points of cross-access among properties that share a parking lot.

D. Required Surface Parking Lot Landscape Areas.

1. Landscaping shall be installed in the following required landscape areas:

- a. Landscape islands are required at the end of each row of parking spaces in each parking module;
- b. Landscape islands are required and must be distributed throughout the parking lot, at a rate of at least one landscaped island for each 12 consecutive parking spaces;
- c. Vegetated entry medians are required with a minimum of at least 300 square feet in surface area and a minimum five feet in width (not including curbs), if the surface parking lot contains 180 or more parking spaces;
- d. Landscape strips are required at least 14 feet in width (not including curbs) that separate groups of parking modules (along their long edges) into “cells” as provided in Table 4-6-6-3, Parking Module Separation Requirements.

Figure 4-6-6-3: Parking Module Separation Diagram

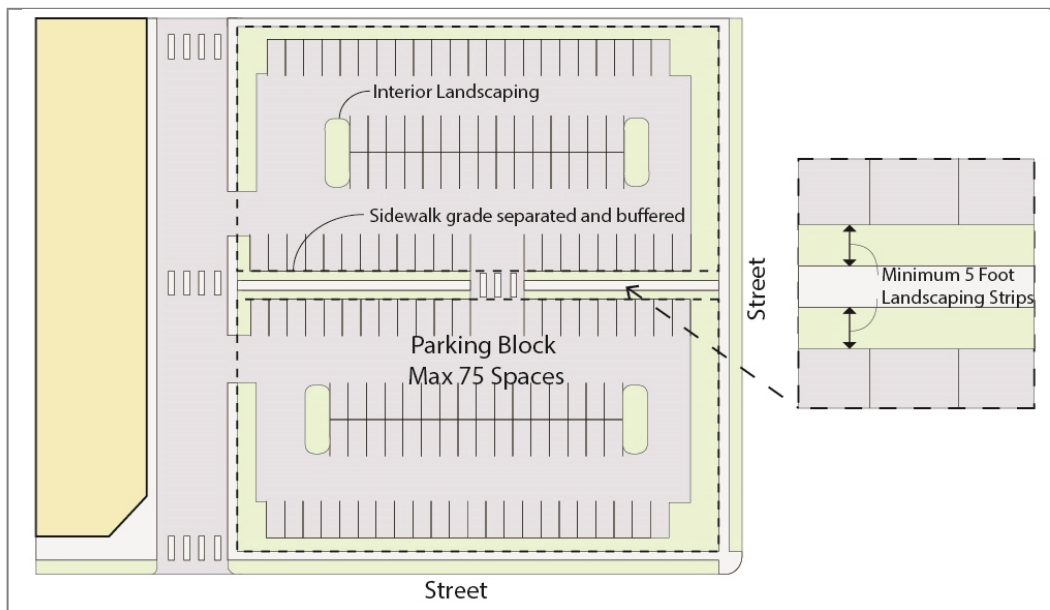


Table 4-6-6-3: Parking Module Separation Requirements

Predominant Type of Land Use	Maximum Number of Parking Spaces in Cell
Residential	50
Nonresidential (except Industrial)	75
Industrial	100 if the parking area is located within 300 feet of a public street; otherwise, no maximum

2. Landscape islands that are used to meet the requirements of Subsection D.1.a. and D.1.b., above, shall be at least eight feet in width (not including curbs) and 16 feet in length, and may be combined (eight feet in width by 32 feet in length) at the ends of adjacent parking modules.
 3. Landscape strips may include sidewalks (and landscape islands may be crossed by sidewalks), but the sidewalks shall be counted as required landscape areas for the purposes of the calculation of planting requirements (*see* Subsection E., below).
 4. A raised sidewalk to connect the parking area with major building entries should be provided between the cells with a five foot planting strip on both sides of the sidewalk. An alternative layout is a sidewalk connection with a central five foot wide landscaped area, flanked with sidewalks on both sides.
- E. **Minimum Planting Requirements.** Required surface parking lot landscape areas shall be planted with one shade tree or two ornamental trees, plus eight shrubs per 300 square feet of required landscape area.”

Section 4-6-6-5 General Landscape Areas is hereby amended in its entirety to read as follows:

- A. **“Generally.** Except as provided in Subsection B., below, the landscaping requirements of this Section apply to all permeable areas of the subject property that are not otherwise a designated required planting area pursuant to Division 4-6-5, Landscape Areas and Bufferyards or Section 4-6-6-1, Street Trees, through Section 4-6-6-4, Foundation Plantings, inclusive.

- B. **Exceptions.** The requirements of this Section do not apply to:
 - 1. Preserved open space; and
 - 2. Irrigation canals, irrigation ditches, reservoirs, and appurtenant maintenance areas (whether owned in fee simple or as easements).
- C. **Planting Requirements.** General landscape areas shall be planted with at least:
 - 1. One canopy or evergreen tree, or two ornamental trees per 3,000 square feet of landscape surface area;
 - 2. A minimum of 10 percent of all trees shall be evergreen; and
 - 3. 75 percent vegetative ground coverage at maturity, excluding tree canopy.
- D. **Shrub Requirements.** Shrubs shall be planted at a maximum spacing of five feet on center.
- E. **Planting on Steeper Slopes.** On slopes greater than 3:1, the following can be planted:
 - 1. Trees and shrubs; and
 - 2. Groundcovers.”

Section 4-7-2-1 Fences and Divisional Walls is hereby amended in its entirety to read as follows:

- A. **“Generally.** All fences and divisional walls shall comply with the requirements of this Division.
 - 1. If a proposed fence or divisional wall is located directly adjacent to a zoning district boundary or on a shared property line, the less restrictive standards shall apply.
- B. **Permits Required.** All fences and divisional walls require fence permits, except for the following:
 - 1. Repair of a fence section not greater than eight linear feet in length.
- C. **Height.** All fences and divisional walls shall comply with the maximum heights shown in the following Table 4-7-2-1, Maximum Height of Fences and Divisional Walls Within Required Setback Areas, unless a different maximum height is explicitly permitted:
 - 1. By this Code or approved through the Minor or Major Modification, or PUD approval process;
 - 2. For an activity field (*i.e.*, tennis court, baseball, football, soccer fields) at the discretion of the Director; or
 - 3. For fences associated with a Utility, Major for security purposes, at the discretion of the Director.
- D. **Location.** All fences and divisional walls may encroach into required yards and setbacks. Fences and wall shall not:
 - 1. Be constructed within a public right-of-way or areas to be dedicated for public right-of-way unless a revocable permit is approved;
 - 2. Conflict with sight distance visibility of intersections or points of ingress/egress;
 - 3. Block or divert a natural drainage flow onto or off of any other property;
 - 4. Block access within an access easement; and

5. Encroach into a utility easement, unless the easement holder has provided written consent. (This specific requirement shall only apply to masonry walls.)

Figure 4-7-2-1A: Fence and Division Wall Location Diagram

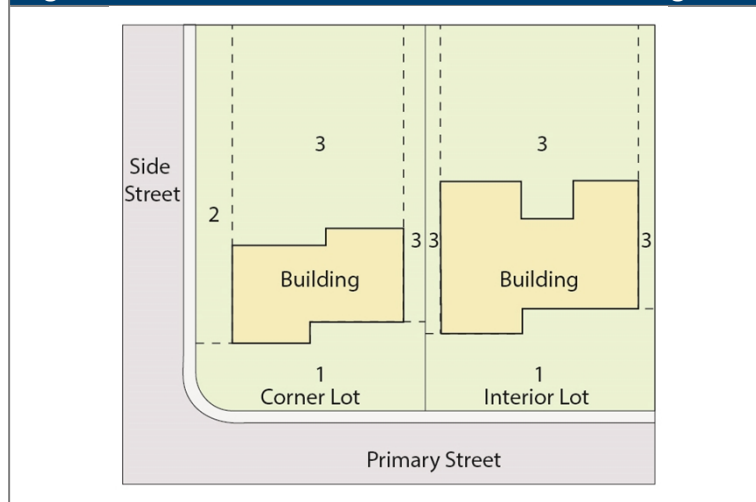


Table 4-7-2-1 : Maximum Height of Fences and Divisional Walls Within Required Setback Areas

Zoning District	Setback		
	Area 1 Front	Area 2 Street Side	Area 3 Rear & Interior Side
OS, RA, RN, R6, R13, R24, MX-N	3 ft. ²	3 ft. ^{2,3,4}	6 ft. ^{4,9}
MX-S, CG	3 ft. ²	3 ft. ^{2,5}	6 ft.
MX-U, MX-T	3 ft. ²	3 ft. ^{2,5}	6 ft.
OT Zoning Districts	3 ft. ^{5,6,7,8}	3 ft. ^{5,6,7,8}	3 ft. ⁸
IL	6 ft.	6 ft.	6 ft.
IG	6 ft.	8 ft.	8 ft.
PUD	Per the approved PUD. If no standards were identified as part of the approved PUD, then the fence standards for the closest zoning district shall be utilized.		

TABLE NOTES:

¹ See Figure 4-7-2-1A, Fence and Divisional Wall Location Diagram.

² Height may be increased to 4 ft. if the fence is at least 50 percent transparent when viewed at a perpendicular angle.

³ Height may be increased to 6 ft. (regardless of opacity) if the fence is set back at least 6 ft. from the property line or 6 ft. from the back of adjacent sidewalk, whichever is greater.

⁴ Height may be increased to 8 ft. for divisional walls that face arterial streets.

⁵ Height may be increased to 6 ft. if a minimum of 50% open for school yards.

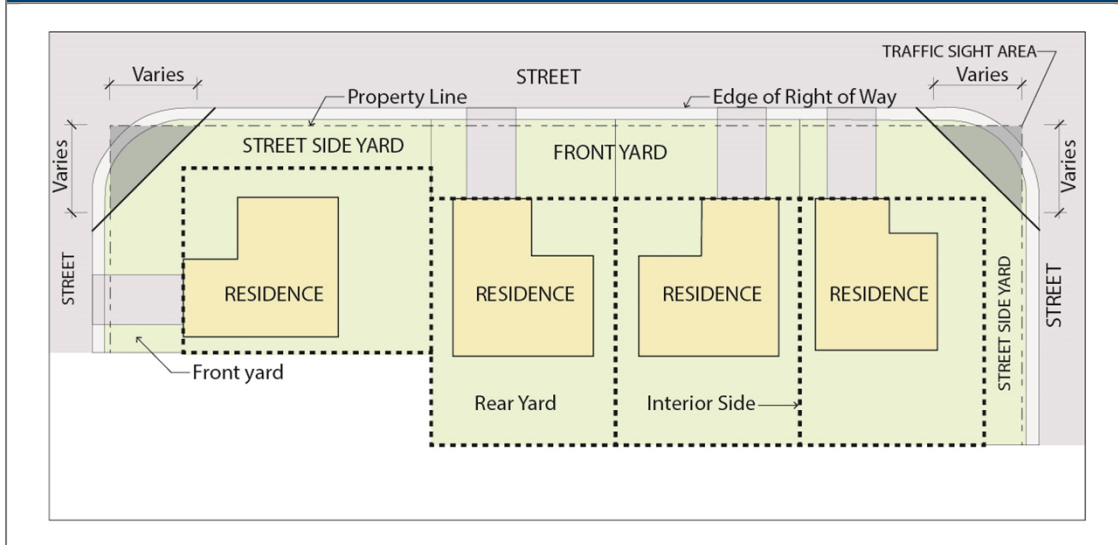
⁶ Height may be increased to 4 ft. if a minimum of 50% open for single-family, duplex or multiplex building types.

⁷ Height may be increased to 4 ft. if a minimum of 50% open for mixed-use building type outdoor dining areas.

⁸ Height may be increased to 6 ft. except within any McIlvoy Park Frontage zone or any side or rear setback adjacent to McIlvoy Park or Olde Town Plaza, or where it would extend in front of a building within any frontage zone.

⁹ Maximum height is 6 ft. for rear yards on double frontage lots.

Figure 4-7-2-1B: General Fence Location



E. Setbacks from Streets, Sidewalks, Open Space, Trails, and Multi-Use Pathways.

1. No solid fence or divisional wall that is between four and eight feet in height shall be installed closer than:
 - a. Eight feet from the flowline of a street; and
 - b. Five feet to the nearest edge of a sidewalk, open space corridor less than 15 feet wide, trail, or multi-use pathway.
2. No solid fence or divisional wall that is more than eight feet in height shall be installed closer than:
 - a. Ten feet from the flowline of a street; and
 - b. Eight feet to the nearest edge of a sidewalk, open space corridor less than 15 feet wide, trail, or multi-use pathway.
3. Fences that exist in the condition identified in Subsection E1 and E2 above prior to the adoption of this Code shall be considered conforming.
4. The area between the fence or divisional wall and the street, sidewalk, trail, or multi-use pathway shall be landscaped with shrubs, groundcover, perennials, ornamental grasses, or turf materials that provide contrast with the sidewalk. Inorganic ground cover such as river rock, cobble rock, or gravel may be used as part of the landscape provided that the ground cover, ornamental grasses or turf which are planted achieve 50 percent coverage at maturity. Hardscape materials are allowed only at points of access through the fence or divisional wall.
5. Fences shall comply with the sight triangle requirements of Section 4-4-3-3, Intersection Visibility.

F. Design of Street-Facing Fences or Divisional Walls.

1. All fences or divisional walls adjacent to a street, open space, trails, and multi-use pathways, the finished surface of the fence shall face towards the street frontage. Non-decorative elements such as fence posts and supporting structures, when visible on one side and not the other, shall face inward.

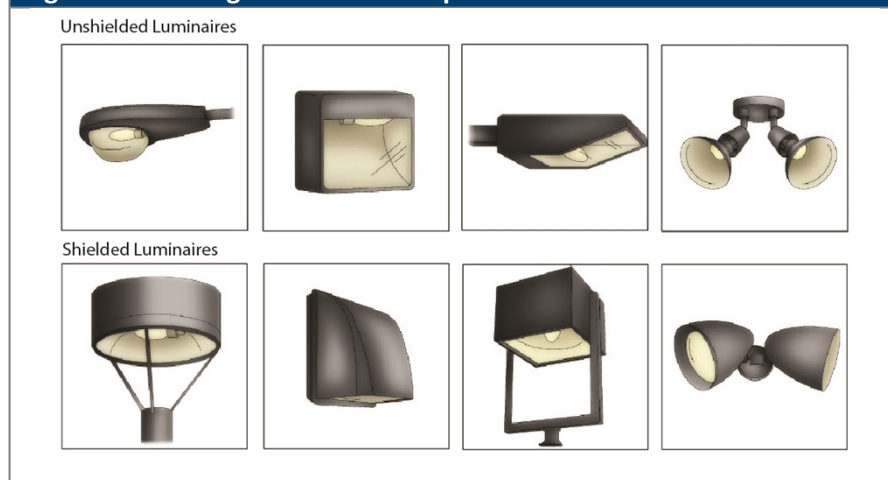
2. No portion of any front yard setback may be fenced for use as an animal pen or dog run.
- G. **Perimeter Fence and Walls.** Perimeter fences and walls along arterial streets or railroad tracks may be constructed up to eight feet in height. Perimeter fencing shall be constructed of Western Red Cedar wood or other material approved by the Director, or masonry. Masonry fence posts two foot by two foot in size, shall be located at property corners but no further than 100 feet apart on-center, and with sloped column caps to drain water to the sides of the posts.
- H. **Security Fencing.**
1. No barbed wire or other sharp-pointed fences or similar security devices on divisional walls shall be installed on any property, except:
 - a. In the IL or IG zoning districts that is used for industrial purposes, upon demonstration to the Director or the Decision Making Body that a substantial security need justifies the installation; or
 - b. In the RA or OS zoning districts on property that is used for agricultural purposes.
 2. Electrically charged fences are not allowed unless necessary for livestock control in an RA zoning district.
- I. **Relationship to State Statutes or Regulations.**
1. Where the Colorado statutes or implementing administrative regulations require fencing or divisional walls that are taller than those that are allowed by Table 4-7-2-1, Maximum Height of Fences and Divisional Walls Within Required Setback Areas, the Director may approve the increased fence or divisional wall height in accordance with the statutes or implementing administrative regulations.
 2. If the fence or divisional wall is located within Area 1 or Area 2 as shown in Figure 4-7-2-1A, Fence and Divisional Wall Location Diagram, then where feasible and consistent with the statute or regulation, the Director shall require landscaping or design treatments to mitigate the visual impacts of the increased height of the fence or garden wall when viewed from the public streets. Mitigation measures may include, but are not limited to, tree, shrub, or hedge plantings; material and color selections that de-emphasize the fence or garden wall; transparency; and additional setbacks for the fence or divisional wall.
- J. **Fence and Wall Materials.**
1. Fences and divisional walls shall be made of high quality, durable materials that require low maintenance and are complementary with the overall design of the principal building and site landscape. The following materials are allowed:
 - a. Wood and composite wood;
 - b. Non-reflective plastic and vinyl fencing;
 - c. Natural stone, stacked stone, brick, stucco, decorative concrete masonry blocks that replicate the appearance of brick, stone, stucco and CMUs;
 - d. Metal iron, metal picket and other metals simulating the appearance of wrought iron, chain-link fencing or aluminum or wrought iron decorative fencing;
 2. The Director may approve other materials that are equal to or surpass the materials listed in this Subsection J. in terms of durability, maintenance, and aesthetics.

3. **Prohibited Material.** Sheet plastic, sheet metal, chicken wire, fabric materials, fiberboard, garage door panels, snow fencing, rope, plywood fences, PVC pipes, and miscellaneous materials not commonly used with residential fences are not allowed.
- K. **Maintenance.** All fences and divisional walls shall be maintained in good condition at all times.”

Section 4-8-2-2 General Design Standards is hereby amended in its entirety to read as follows:

- A. **“Shielding of Lights.** Luminaires shall be shielded and directed to avoid glare and overspill onto adjacent property.
 1. All exterior light fixtures shall be full cutoff fixtures that are directed downward (90 degrees from true vertical) and shall have flat lenses, emitting no more than 10 percent of the total lumens between 80 and 90 degrees from true vertical. Fixtures shall be configured so that lights do not cause glare.
 2. All light fixtures on structures, poles, bollards, stands, or mounted on a building shall have a shield, adjustable reflector, and/or non-protruding diffuser to shield the light source from sight from adjacent residential zoning districts.

Figure 4-8-2-2: Light Fixtures Examples



- B. **Maximum Spill Light Illumination Levels.** Except for public street lighting, all exterior lighting and indoor lighting visible from outside shall be designed to minimize adverse impacts on adjacent properties by minimizing glare and limiting light at the property line and located so that the maximum illumination measured in foot candles at ground level and for mixed-use development without property lines shall be measured a line half-way between buildings of differing uses and shall not exceed the standards in Table 4-8-2-2A, Maximum Illumination Levels.

Table 4-8-2-2A: Maximum Spill Light Illumination Levels

Type of Use Abutting a Lot Line	Maximum Illumination level at Lot Line (Foot Candles)
Single-family dwelling and duplex residential property line in RA, RN, R6, R13, R24, OT districts (-single-family, duplex, multiplex building types), and OS	0.5
Attached dwelling and multifamily residential property line (except mixed-use buildings)	1.0
Mixed-use buildings and non-residential property lines	2.0
Industrial	3.0

1. Maximum Illumination and Lighting Uniformity.

- a. Lighting shall have a uniformity ratio of ten to one (maximum to minimum).
- b. No single lamp shall exceed:
 - i. All zone districts except IL and IG – 16,000 lumens
 - ii. IL and IG zone districts - 20,000 lumens

2. Maximum Light Levels.

- a. The maximum allowed light levels at any point on the property (as measured in foot candles) shall not exceed the following limits:
 - i. Pedestrian areas (when not adjacent to parking lots): 3 Foot Candles.
 - ii. Multiplex, Townhome, and Multifamily Building Entries: 8 Foot Candles.
 - iii. Parking lots and all other non-residential use areas: 8 Foot Candles.
 - iv. Service Canopies (fuel stations, ATMs, Drive-Through's, etc.): 20 Foot Candles.

- C. Maximum Height.** The height of exterior light fixtures, whether mounted on poles, walls, or by other means, shall comply with the standards in Table 4-8-2-2B, Maximum Height for Exterior Lighting.

Table 4-8-2-2B: Maximum Height for Exterior Lighting	
Base Zoning District	Maximum Height ¹
OS, RA, RN, R6, R13, R24, OT, MX-N, MX-S	22 feet
CG, MX –U, MX-T, IL, IG	35 feet
TABLE NOTES: ¹ Porch and balcony lights on residential buildings are exempt from the maximum height. Lighting allowed no more than 12 ft. above the surface of a rooftop deck.	

D. Motion-Activated Security Lighting.

1. Motion-activated security lighting may emit up to 3,000 lumens per fixture.
2. Not more than one motion-activated security light fixture is allowed per 60 linear feet of building elevation.

3. Security lighting shall be timed to turn off after not more than five minutes after motion activation.
- E. **Outdoor Sports or Performance Venue.** Lighting fixtures for outdoor sports areas, athletic fields, and performance areas shall be equipped with a glare control package (e.g., louvers, shields, or similar devices) and aimed so that their beams are directed and fall within the primary playing or performance area.
 1. Lighting fixtures may not be more than 40 feet in height.
- F. **Pedestrian Area Lighting.**
 1. Pole light fixtures for plazas, small urban parks, sidewalks, walkways, trails, and bicycle paths outside of vehicular surface areas (i.e., parking lots) shall:
 - a. Provide at least one foot candles of illumination, but not exceed three foot candles; and
 - b. Have a maximum height of 15 feet.
 - c. No single lamp shall exceed 10,000 lumens.
 2. Pedestrian bollard lamps shall be mounted no higher than four feet above grade and shall not exceed 3 foot candles.
 - a. No single lamp shall exceed 900 lumens.
- G. **Wall Pack Lights.** Wall packs on the exterior of the building shall be fully shielded (e.g., true cut-off type bulb or light source not visible from off-site) to direct the light vertically downward and have a maximum of 1600 lumens.
- H. **Awnings.** Awnings used for building accents over doors and windows shall not be internally illuminated (i.e., from underneath or behind the awning) unless the awning material is entirely opaque.
 1. **Service Canopy Lighting.** Canopy lighting for uses that shelter outside work, full-service areas or porte-cocheres shall have all light fixtures flushed mounted or recessed into the canopy and equipped with flat lenses.
- I. **Decorative Lighting.**
 1. Decorative lighting shall be permitted to enhance the appearance of a building and / or landscape feature provided that:
 - a. All light is cast against the building surface or downward onto a landscape feature;
 - b. All decorative lighting is directed away from residential uses located within 50 feet of the building façade on which the decorative lighting is mounted and is shielded to reduce light trespass on adjacent uses;
 - c. The lamp is not visible from adjacent properties, pedestrian or vehicular traffic; and
 - d. The decorative lighting does not exceed 1600 lumens.
 2. Unshielded Tivoli and patio string lighting with no more than 200 lumens per foot provided that the lighting is turned off between 11:00 PM and 6:00 AM.
- J. **Pole and Fixture Color.**
 1. All poles and fixtures (luminaires) shall be of dark colors including, but not limited to, black, dark gray, dark green or brown. Reflective or light colored poles and fixtures are not allowed.”

The remaining portions of Chapter 4 shall remain unchanged.

Section 4. Chapter 5, Building Design, of the Land Development Code, of the Arvada City Code is hereby amended:

Section 5-1-2-2 Evaluation of Aesthetic Consistency is hereby amended in its entirety to read as follows:

- A. **“Generally.** Where the standards of Division 5-1-5, Supplemental Standards for Residential Land Uses (Except Multifamily), or Division 5-1-6, Supplemental Standards for Nonresidential and Multifamily Land Uses, require aesthetic consistency, aesthetic consistency shall be evaluated in accordance with the standards of this Section.
- B. **Roof Pitch and Form.** As to roof pitch, “consistency” means a roof pitch within 1:12 of the slope of the primary roof structure of the principal building.
- C. **Roofing or Cladding Materials.** As to roofing and cladding materials, “consistency” means a material that is not obviously different in terms of texture or color from a material used for the same purpose on the principal building.
- D. **Window Styles, Window Orientation, and Doors.** As to window styles, window orientation, and doors, “consistency” means windows or doors with a design and aspect ratio that is not materially different from windows or doors on the principal building.
- E. **Color Palette.** As to color palette, “consistency” means colors that are:
 - 1. The same as the principal building;
 - 2. Complimentary to the predominate color(s) of the principal building;
 - 3. Monochromatic variants of the primary color(s) of the principal building.”

Section 5-1-2-3 General Building Design Standards is hereby amended in its entirety to read as follows:

- A. **“Building Orientation.** Primary buildings shall emphasize the location and importance of the entryways.
 - 1. The main entrance or a courtyard leading to the main entrance of each principal building shall be located on the front facade.
 - 2. On corner lots, the main entrance shall face one of the streets or be oriented to the corner.
- B. **Massing.** Primary buildings shall be designed to avoid a monolithic appearance when viewed from the street.
- C. **Facade Materials and Design.**
 - 1. **General Requirements.**
 - a. All building exterior finish materials shall be durable and consistent with the architectural style for that building.
 - b. Where lap siding is used, it shall have a maximum nine-inch exposed board face.
 - c. Siding material shall be continued down to within nine inches of finished grade on any elevation, except that siding shall be allowed to step to follow grade:

- i. Between six to 24 inches; or
 - ii. Within 24 inches maximum from finished grade.
- d. Vinyl siding shall be a VSI (Vinyl Siding Institute) certified product.
- 2. **Prohibited Materials.** The following materials are prohibited:
 - a. Highly reflective opaque materials;
 - b. Natural cinder block, unfinished or smooth concrete block / masonry units or concrete wall;
 - c. Metal panels with a corrugated appearance with exposed fasteners; and
 - d. Unlisted materials that are unsuitable for exterior building applications as determined by the Director.
- 3. **Other Materials.** The Director may permit materials that are not listed in this Section as either allowed or limited, provided that the Director finds that they have comparable aesthetic qualities, durability, and maintenance characteristics. The Director may prohibit materials that are not listed in this Section if the Director finds that they do not have aesthetic qualities, durability, and maintenance characteristics that are comparable to the materials that are allowed or limited under this Section.
- 4. **Side and Rear Facade Design.** Where a side or rear facade of a residential building abuts streets, parks, or open spaces, the facade shall be designed to provide human scale by the use of all of the following:
 - a. At least one change in the vertical or horizontal wall plane within 20 feet above grade;
 - b. At least one change in the color or material of the wall;
 - c. Provision of windows, a porch, or a balcony; and
 - d. Detailing the wall with reveals, belt courses, cornices, projections, or other devices.
- 5. **Rear Facade Design for Double-Frontage Lots.**
 - a. Double-frontage lots shall be required to meet the standards in Section 2-1-10-5, Double-Frontage Lots, for building setbacks or stepped setbacks for taller buildings.
 - b. Structures of two stories or more shall incorporate at least one of the following rear elevation treatments:
 - i. The building façade on the rear elevation shall have brick, stone, or stucco cladding in a minimum amount equivalent to 50 percent of the façade, (excluding windows, doors, trim and vents) from the average grade to the highest eave or 9'-6" above the average grade, whichever is lowest; or
 - ii. At least 50 percent of the area of the building facade shall have a minimum four-foot horizontal difference (plan view) in the rear wall plane at the height of one of the floors.
- 6. **360-Degree Architecture.** All buildings shall incorporate the following design standards to create architectural interest.
 - a. **Materials.**
 - i. Where brick, stone, or stucco cladding is used, they must be applied to the building facade in a manner which begins and ends at edges related to the

structure of the building (such as a window sill level, floor plane lines, or interior corners of projection or similar elements). All brick, stone or stucco cladding shall wrap around all outside building corners a minimum of two feet, and must wrap all sides of a column on which it is used. An architectural treatment shall be used to transition from brick, stone, or stucco to other materials.

b. Windows and Doors.

- i. Windows are encouraged on all elevations, except as provided in Division 2-1-8-5, Zero Lot Line, and unless restricted by the Building Code. On facades facing streets, parks, or open space, a minimum of 20 percent of the façade shall be windows. A greater percentage of windows may be required by other sections of this Code.
- ii. Window and door openings shall be articulated on all elevations of the building through the use of:
 - a. Shutters, awnings or canopies;
 - b. Decorative lintels and/or sills (such as projecting, recessed, those constructed of materials other than the principal building material or ornamentation);
 - c. Overhangs; or
 - d. Surrounds and trims.

7. Façade and Roof Color. Colors used on building exteriors should integrate a building's various design elements or features.

- a. Walls should be subdued in color and not reflective. Bright colors should be used sparingly and limited to accenting a building, and should not be used to act as signs or create "sign buildings". Monotonous color palettes are strongly discouraged.
- b. All building projections, including, but not limited to, gutters, downspouts, chimneys, flues and vents, shall match in color the permanent color of the surface from which they project or match the building's trim color.

8. Rooflines.

- a. Building rooflines visible from a public street, park, or open space shall incorporate features to create a varied and visually distinctive roof form through features, such as prominent cornice or fascia, stepped roofs, emphasized dormers, chimneys, gables, or an articulated roofline.
- b. Roof slopes, excluding covered porches and patios, shall have a minimum pitch of 2:12 unless screened with a parapet wall. Subordinate roofs can be of a lesser pitch. A building of a style that is traditionally associated with flatter roofs, such as Prairie or Modern style, may be allowed as determined by the Director.
- c. The maximum length of a continuous roof ridgeline is 35 feet. Roofs with dormers and other architectural details are exempt from this requirement.
- d. Pitched roofs shall have a minimum eave overhang of at least one-foot.

9. Canopies and Port-Cochères. Canopies and port-cochères that cover vehicular use areas, service areas, or outdoor storage areas shall meet the following standards:

- a. The same architectural treatments utilized on the principal building in terms of cladding materials, roof pitch, roofing materials, and color scheme shall be used on canopies and port-cochères.
 - b. A maximum of 25 percent of each canopy fascia area visible from a public street may be internally illuminated, and no portion of any fascia may be externally illuminated. Each side of a canopy shall be considered a separate fascia area.
10. **Rooftop, Wall Mounted and Ground Mounted Mechanical Equipment, Flues and Exterior Building Elements.**
- a. **Screening.**
 - i. Rooftop mechanical equipment and appurtenances should all be screened from a public street through the use of parapets or enclosures that are equal to, or greater than, the height of the equipment to be screened. The parapet or enclosure shall use one of the predominate materials or colors used on the primary façade of the building.
 - ii. The Director may reduce or waive these screening requirements for building elevations that face substantial changes in grade that make screening impracticable if relocation of the mechanical equipment to a less conspicuous location is also impracticable.
 - iii. All air conditioning compressors shall be completely screened. Screening enclosures shall use at least one of the predominant materials used in the facades of the primary structure where feasible, and one of the predominant colors used in the primary structure.
 - iv. All rooftop and wall vents and flues on a pitched roof or extending above the top of the nearest parapet shall be painted with one of the predominant colors used in the primary structure.
 - v. Wall-mounted utility equipment and meters shall be screened from view from a public street and shall be painted a color to blend with the building façade.
 - b. **Noise attenuation.** Equipment that generates noise perceptible at the adjacent street or property line shall be baffled or otherwise attenuated to direct unavoidable noise upward.”

Section 5-1-2-4 Building Design Standards Applicable to Single-Family Detached, Duplex, and Multiplex is hereby amended in its entirety to read as follows:

- A. **“Generally.** In addition to Section 5-1-2-3, General Building Design Standards, the following standards shall apply to new development or redevelopment of single-family detached, duplex, and multiplex units in all zoning districts.
- B. **Front Façade Design.** In new development of single-family detached and duplex buildings, the front façade shall have significant variation as defined below:
 - 1. No identical home elevation shall be repeated directly across the street or adjacent to the other home.
 - 2. No identical model elevation shall be repeated more than once every three lots.
 - 3. Distinct elevations shall be provided by incorporating at least three of the following:

- a. The use of different materials and color on the front facade;
 - b. Variations in the front wall plane;
 - c. Vary the size and location of the front porch;
 - d. A variation of building types;
 - e. The overall width of the front façade elevation differs by more than four feet;
 - f. The overall height of the front façade elevation differs by more than four feet; and
 - g. Windows size and shapes are substantially different.
- C. **Garages.** All garages for single-family detached and duplex buildings shall comply with Section 5-1-2-2, Evaluation of Aesthetic Consistency, and are subject to the following:
- 1. For each new development containing ten or more single-family or duplex dwelling units in all zoning districts, 50 percent of the total number of lots in the subdivision that have a street-accessed garage shall use at least one of the following garage variations:
 - a. Recessed garage doors facing the street shall be recessed a minimum of four feet behind the front wall plane of the house.
 - b. Side-loaded garages shall be located at a right angle to the street. The design of the garage wall facing the street shall have the same predominate materials used on the front façade.
 - c. Rear garages shall be located to the rear of the property either as a detached structure or part of the house. If constructed as part of the house, the part of the house, the front wall of the garage shall be setback at least 15 feet behind the front façade of the house.
 - 2. Front loading, front-facing garage doors shall not constitute more than 50 percent of the total width of the building.
 - 3. No more than three garage bays shall face the street, except when the bays are located behind the principal buildings.
 - 4. When more than two garage bays exist, all garages doors that face a street shall include at least one two-foot-wide column or a two-foot façade setback separating each garage door.”

Section 5-1-2-6 Nonresidential and Mixed-Use Design Standards is hereby amended in its entirety to read as follows::

- A. **“Generally.** This Section shall apply to any new nonresidential development, mixed-use development, redevelopment, or building expansion in all zoning districts. In addition to Section 5-1-2-5, Building Design Standards Applicable to Townhomes and Multifamily, the following standards shall apply to new development or redevelopment of multifamily and townhome units in the MX zoning districts. In the OT Zoning District, these standards may be modified through the design review process based on the standards in the Olde Town Building Form Standards and Design Guidelines for Olde Town.
- B. **Building Orientation and Configuration.**
 - 1. Structures shall be arranged so that the primary facade, or each facade with a main pedestrian entry, orients onto a public or private street, a public park, open space or

common green, plaza, courtyard, private street-like drive, or a pedestrian passage, in the following order of priority:

- a. A public or private street;
- b. A public park, open space or common green;
- c. A plaza or courtyard; or
- d. A pedestrian walkway.

C. Single-Story Commercial and Mixed-Use Developments.

1. Commercial and mixed-use developments shall break up supporting commercial buildings into a cluster of individual pad and liner buildings at intersections and street edges.
2. Pad and liner buildings located within the frontage zone shall be designed to be “double-fronted”, where at least one entrance shall face the street or public space, following the order of priority in B.1 above. Secondary entries can be oriented to the parking lot.
3. Large commercial or large format buildings with a minimum of 50,000 square feet of gross area, such as a grocery store or big box retail building, may be placed internal to the site.

D. Multi-Building Developments.

1. Multi-building developments that have three or more buildings shall be organized to create pedestrian-friendly spaces and streetscapes. This should be accomplished by placing buildings to:
 - a. Frame and emphasize the corners of street intersections, development entry, or a primary pedestrian street within the development;
 - b. Frame and enclose parking areas on at least two sides;
 - c. Frame and emphasize a plaza, pocket park, square, or other outdoor gathering spaces for pedestrians; and / or
 - d. Frame and emphasize other site improvements as approved by the Director.
2. Developments composed of multiple buildings totaling 100,000 square feet or more of gross floor area shall be configured to break up the site into a series of smaller blocks.

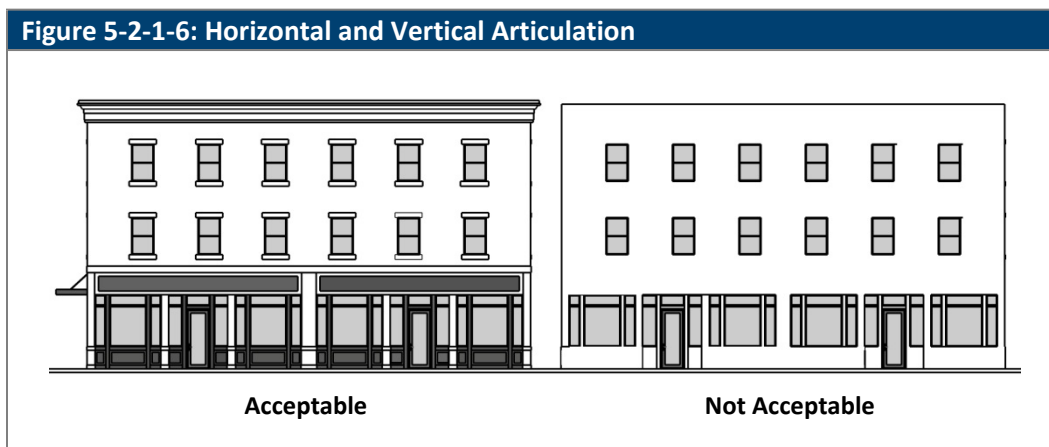
E. Building Design. The following building design standards are intended to provide architectural interest.

1. Design of Facades.

- a. The first floor façade of all buildings, including structured parking facilities, shall be designed to encourage and complement pedestrian-scale interest and activity through the use of elements such as windows, awnings, and other similar features.
- b. Architectural features and treatments shall not be limited to a single façade. All visible sides of a building, whether viewed from public or private property, shall display a similar level of quality and architectural interest, with elements such as windows, awnings, a variety of exterior materials, reveals, and other similar features.

2. Horizontal and Vertical Articulation.

- a. **General Standards.** All buildings shall be designed to include horizontal and vertical articulation by incorporating the following elements:
- i. Single story commercial buildings shall use at least three of the horizontal articulation methods listed below at an interval of 50 feet or less on each façade.
 - ii. Single story industrial buildings shall use at least two of the horizontal articulation methods listed below at an interval of 100 feet or less on each.
 - iii. All multi-story commercial, mixed-use, multifamily, and industrial buildings in the IL zoning district, shall use at least two of the articulation methods listed below at an interval of 50 feet or less on each street-facing building façade.
- b. **Articulation Methods.**
- i. Visual breaks in the façade by incorporating a horizontal wall plane offset or projection of at least three feet extending for at least 20 percent of the average width of the primary façade.
 - ii. A change in materials, colors, textures, or pattern.
 - iii. A change in window sizes, styles, or placement across the façade.
 - iv. A change in roof or parapet height of a least three feet, or a change in roof form.
 - v. Incorporation of a wall notch in combination with at least one option from (i.-iv.) above. Wall notches shall be a minimum of three feet deep and eight feet wide and shall total at least 20 percent of the façade length.
 - vi. Use of masonry such as brick or stone, or other durable material to delineate the ground floor.
 - vii. Use of an arcade, gallery or colonnade to accentuate the ground floor.
 - viii. Use of enhanced architectural detailing or fenestration.
 - ix. Use of cornices or projecting roof lines.
 - x. For multi-story buildings, the horizontal interval may exceed 50 feet if building material changes and/or articulation occur above the first floor.



- F. **Building Transparency.** The entire ground floor of all buildings located within a required building frontage zone that faces a public or private street shall provide transparency to increase pedestrian interest by incorporating window and door openings so that the uses are visible from and to the street. The following shall apply:
1. At least 40 percent of the façade between two feet and 10 feet above grade, must be transparent.
 2. Up to 20 percent of the building transparency requirement may be satisfied with permanent art displays.
- G. **Roofs Materials and Roof Form.**
1. **Roof Materials.** Visible roofs may be constructed of conventional asphalt (3-tab) roofs, architectural metal, or other acceptable material, but roofs constructed of clay or concrete tiles, slate, Masonite, or heavy duty/hail resistant dimensional composition are preferred. All composition shingle roofing shall be constructed using high profile, textured shingles.
 2. **Roof Form.**
 - a. Where sloped roofs are used, at least one of the following elements shall be incorporated into the design for each 100 linear feet of roof to avoid long, flat roof surfaces:
 - i. Projecting gables,
 - ii. Dormers,
 - iii. Hips,
 - iv. Vertical elevation change in roof height of at least two feet, or
 - v. Other similar techniques as approved by the Director.
 - b. Where flat roofs are used, the design or height of the parapet shall include at least one change in setback or height of at least two feet along each 100 linear feet of façade.
 - c. On all structures exceeding three stories in height, all pitched roofs shall be internally drained and external scuppers and wall drains shall be prohibited.
 - d. All sloped roofs shall have overhanging eaves of at least one foot in depth, and roofs with a pitch of less than 2:12 shall be screened by a parapet wall.”

Table 5-1-4-3: Mini-Structure Standards is hereby amended in its entirety to read as follows:

Table 5-1-4-3: Mini-Structure Standards		
Attribute	Standard	Exception
Size (max)	200 sf.	
Height (max)	12 ft.	Tree Houses
Number of Mini-Structures	Maximum 2	Not limited for the following land uses: Amusement, Outdoor; Recreation, Outdoor; Stables and Riding Academies; Cemetery; Day Care Center; Public Lands, Parks, or Buildings; Schools (all); Storage Yard; Community Agriculture

Table 5-1-4-3: Mini-Structure Standards		
Attribute	Standard	Exception
Location of Mini-Structures	Not allowed in front yard; Not attached to principal building	Allowed in the front yard for Recreation, Outdoor; Cemetery; Public Lands, Parks, or Buildings; Schools (all); Storage Yard; Community Agriculture
Design	Roofed structures shall be compatible with principal building in terms of materials and colors	-
Use	Cannot be used for vehicle storage	-

Section 5-1-5-2 Accessory Dwelling Units is hereby amended in its entirety to read as follows:

- A. **“Generally.** Accessory Dwelling Units (“ADUs”) are allowed in conjunction with all single-family detached dwellings in residential, OT and MX zoning districts, subject to the standards in this Section.
- B. **Conformance to Development Standards.** ADUs must meet the same development standards that are required for the principal dwelling unit, except as provided in this Section.
- C. **Classification of ADUs.** For the purposes of this LDC, ADUs are classified as follows:
 1. **Type A.** A Type A ADU is detached from the principal dwelling unit. It is considered a separate dwelling unit for the purposes of the Building Code.
 2. **Type B.** A Type B ADU is located inside in basements, the upper story, or attached to the principal single-family detached building, but the occupants of the ADU and principal dwelling unit do not live together as a single household unit. A Type B ADU is typically rented. Type B ADUs typically have a separate access from the principal dwelling unit. A Type B ADU and the principal dwelling unit into which it is integrated are considered separate dwelling units for the purposes of the Building Code.
- D. **Parking.**
 1. One on-site parking space shall be required for an ADU, in addition to any required parking for the principal dwelling unit.
 2. The required parking space may be in tandem with other required spaces.
 3. Garage space that is constructed for use by the occupant(s) of the ADU shall not exceed 250 square feet.
- E. **Unit Size and Configuration.**
 1. Except as provided in Subsection E.2., below, ADUs shall be:
 - a. No larger than 40 percent of the living space of the principal building; and
 - b. Within the lot size and floor area ranges set out in Table 5-1-5-2, Maximum Floor Area of Accessory Dwelling Unit.

Table 5-1-5-2: Maximum Floor Area of Accessory Dwelling Unit

Lot Size	Maximum Floor Area
6,000 sf. or less	600 sf.
Greater than 6,000 sf. and up to 12,499 sf.	850 sf.
12,500 sf. to 1 acre	1,000 sf.
Greater than 1 acre	1,200 sf.

2. The limitations of Subsection E.1., above, shall not apply to ADUs that are located within the footprint of an existing home as long as the ADU is not larger than 50 percent of the floor area of the principal dwelling unit, including the basement. For example, if a home has a 1,000 square foot basement, an ADU could be established in the basement if the rest of the principal dwelling is at least 1,000 square feet.
 3. ADUs shall be designed and configured as studio, one bedroom, or two bedroom units.
- F. **Location.** Type A ADUs shall be located as follows:
1. For interior lots, at or behind the front plane of the primary building.
 2. On corner lots, ten feet behind the facade of the principal building along both street frontages.
- G. **Number of Accessory Dwelling Units per Lot.** Only one ADU is allowed for each residential lot.
- H. **Design.** The appearance of ADUs built as additions to the existing principal building or as separate structure should continue the residential character and appearance of the principal building.
1. **Type A ADUs.**
 - a. Type A ADUs shall be clearly subordinate to the principal building in terms of floor area.
 - b. Windows that face an adjoining residential property should be designed and configured to protect the privacy of neighbors, unless fencing or landscaping is provided that adequately accomplishes the same purpose.
 - c. Type A ADUs should be designed in a manner that is aesthetically consistent with the principal building in at least four of the following:
 - i. roof pitch;
 - ii. roof form;
 - iii. roofing materials;
 - iv. cladding materials;
 - v. window styles and window orientation;
 - vi. doors; and
 - vii. color palette.
 2. **Type B ADUs.** Type B ADUs are integrated into the principal building. If the ADU involves a modification to the exterior of the building, the modification shall be subject to the same design standards as Type A ADUs (Subsection H.1., above). If the entrance to the ADU is visible from an adjacent street, it shall be designed in a manner as to be clearly subordinate to the entrance of the principal dwelling.

- I. **Outdoor Areas.** The subject property shall provide accessible outdoor space and landscaping for both the principal dwelling unit and the ADU.
- J. **Utility Service Requirements.** ADUs must be connected to the utilities (except telephone, television, electrical, and internet) of the principal dwelling unit and may not have separate services.
- K. **Owner Occupancy.**
 - 1. The property owner, as reflected in title records and evidenced by voter registration, vehicle registration or other similar means, must occupy either the principal dwelling unit or ADU.
 - 2. The Director may waive this requirement for temporary absences of less than one year provided that the owner has maintained the permitted use for a minimum of two years and submits proof of the temporary absence.
- L. **Deed Restriction.** Before obtaining a building permit for an ADU, the property owner shall file with the County Clerk and Recorder, in a form acceptable to the Director, a declaration of restrictions in reference to the deed under which the property was acquired by the present owner stating that:
 - 1. The ADU shall not be sold separately from the principal dwelling unit, nor shall the lot on which it is situated be subdivided unless such subdivision can be accomplished in accordance with all provisions of this Code;
 - 2. The ADU shall be restricted to the approved size;
 - 3. The certificate of occupancy for the ADU shall be in effect only so long as either the main residence, or the ADU, is occupied by the owner of record as their principal dwelling unit, subject to any temporary waiver granted pursuant Subsection L., above;
 - 4. Lack of compliance with deed restrictions may subject the owner of the property to any and all penalties provided for in this Code;
 - 5. The above restrictions are binding upon any successor in ownership of the property;
 - 6. The deed restrictions shall lapse upon removal of the ADU. To effect this intent, and upon verification of such removal, the Director shall record appropriate documentation releasing such encumbrance. The property owner shall pay all required recording fees, and it shall be the Applicant's responsibility to ensure that such recording was successfully completed.
- M. **Existing Development on Lot.** A single-family detached dwelling unit must exist as a principal dwelling unit on the lot or be constructed simultaneously with the ADU. A certificate of occupancy will only be issued for an ADU after it has been issued for the principal dwelling unit.”

Section 5-1-5-3 Accessory Buildings is hereby amended in its entirety to read as follows:

- A. **“Generally.**
 - 1. Storage sheds, studios, cabanas, stables, loafing sheds, barns, and detached garages requiring a building permit shall comply with the standards of this Section. Accessory dwelling units are subject to Section 5-1-5-2, Accessory Dwelling Units, and not this Section.

2. Stables, loafing sheds, and barns are allowed only in RA and RN-32.5 zoning districts.
 3. Except for barns and stables, each Accessory Building shall have a square footage area that is less than the footprint of the living area, excluding attached garage square footage, of the principal dwelling unit.
- B. **Number.** The maximum number of Accessory Buildings that may be constructed or installed upon a residential lot is based on the zoning district and lot size, and shall be as set forth in Table 5-1-5-3A, Maximum Number of Accessory Buildings.

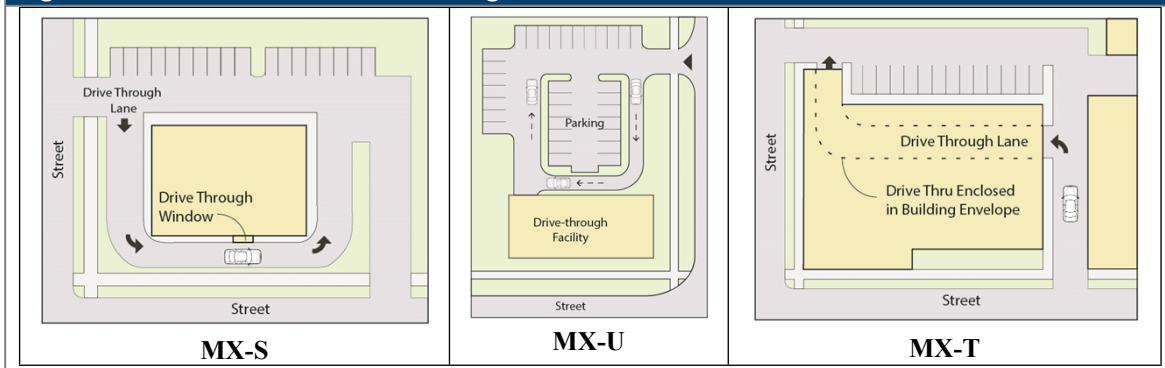
Table 5-1-5-3A: Maximum Number of Accessory Buildings	
Zoning District	Maximum Number of Accessory Buildings
RN-4	2
RN-6, RN-7.5, RN-D	3
RN-12.5	4
RN-32.5	6
RA: lot less than 5 acres	6
RA: lot 5 acres or larger	7
PUD	Per the approved PUD. If no standards were identified as part of the approved PUD, then the maximum number for the closest zoning district shall be utilized.
R6, R13, R24, OT Form, and MX Zoning Districts and Lot Type	
Small Urban, Urban	-
Small General	2
General, Small Suburban, Suburban,	3
Cluster	1

- C. **Building Coverage.** Accessory Buildings are counted towards the combined square footage of the principal building footprint and accessory structure(s) and shall not exceed the zoning district maximum lot coverage limitations.
- D. **Height.** Accessory Buildings shall not exceed the maximum height for accessory buildings identified in the zoning districts in Chapter 2, Zoning Districts.
- E. **Location.**
1. **All Zoning Districts except RA.** Accessory Buildings shall be:
 - a. Located within the setbacks identified in the zoning districts. (*See Chapter 2, Zoning Districts*); and
 - b. Set back at or behind the front plane as the nearest front façade of the principal building.
 2. **RA Zoning District.** Accessory Buildings may be located in any yard, and must meet the required setbacks.
 3. **Accessory Buildings.** With the exception of non-residential gas station canopies, gas station or car wash facilities where allowed, and security/entry booths, accessory buildings shall not be in the front or side yards.
- F. **Design.** The design of accessory buildings shall be aesthetically consistent with the design of the principal building. *See Section 5-1-2-2, Evaluation of Aesthetic Consistency, for applicable standards."*

Section 5-1-6-2 Drive-Through Facilities is hereby amended in its entirety to read as follows:

- A. **“Generally.** Drive-through facilities are subject to the standards of this Section.
- B. **Design Standards.**
 1. **Location.** Uses with drive-through facilities shall be located on properties with frontage on an arterial or collector street. Drive-through facilities are prohibited in the OT zoning district.
 2. **Speakers.**
 - a. Speakers shall not be oriented towards an adjacent residential zone district unless an intervening building exists. Where an intervening building does not exist, the following shall also apply to minimize the speaker noise impact on an adjacent property:
 - i. If the speaker is located within 15 feet or more of the property line, a solid wall with a minimum height of 6 feet shall be installed on the property line.
 3. **CG and MX Zoning Districts.** In CG and MX zoning districts, a drive-through facility shall be subject to the following:
 - a. In CG and MX-S zoning district, a drive-through lane may be located in the area between a building and a public street. The drive-through lane shall be screened from the public street by an Option B bufferyard, per Division 4-6-5-3, Bufferyard Options, or a low decorative wall to a minimum height of 48 inches. If a low screen wall is installed, the construction material shall be aesthetically consistent with the first floor exterior color and materials used on the principal building or provide a comparable level of quality.
 - b. In the MX-U zoning district, a drive-through lane shall not be located in the area between a building and a public street. The drive-through windows shall not face a public street.
 - c. In the MX-T zoning district, a drive-through lane shall be designed so that it is enclosed within the envelope of the building, the drive through windows are not visible from adjacent public streets and the drive-through lane shall not be located in the area between a building and a public street.

Figure 5-1-6-2: Illustrative Drive-Through Facilities in the MX



- C. **Stacking.** Drive-through lanes shall meet the applicable requirements of Section 4-5-3-6, Vehicle Stacking. Additional stacking may be required if the Director finds that, based on pertinent data, the drive-through configuration would likely otherwise create congestion on adjacent streets due to queuing at the drive-in or drive-through stations.”

Section 5-1-6-5 Trash Collection and Compaction is hereby amended in its entirety to read as follows:

- A. **“Generally.** Nonresidential, mixed-use, multifamily, and clustered small housing development shall include a designated trash collection and/or compaction area, which shall be located and designed to ensure adequate on-site maneuvering area for trash collection vehicles. Residential subdivisions may include designated trash collection and/or compaction areas, which, if provided, must also comply with the standards of this Section. Trash collection dumpsters shall not be allowed on individual single-family or duplex lots, unless on a temporary basis associated with construction projects for which a building permit has been issued.
- B. **Location.**
1. Each trash collection, including recycling bins, or compaction area shall be located not less than 20 feet away from lots used for single-family detached, duplex, multiplex, or townhome uses, and at least 20 feet away from streets, sidewalks, and internal pedestrian circulation systems. Such areas shall be located on the site in the following order of priority (highest priority listed first, and higher order priorities are eliminated only if infeasible):
 - a. In a screened enclosure that is connected to or adjacent to the rear of the principal building;
 - b. In the rear yard; or
 - c. In the interior side yard;
 2. Trash collection, recycling bins, or compaction areas shall not be located more than 200 feet from the entrances of uses that they are intended to serve.
- C. **Enclosures.** Each such trash collection area shall be screened from view from all property lines by a non-combustible screen or wall between six feet and eight feet in height. The access to this enclosure shall be screened with an opaque gate. Screening fences and walls (not including gates) shall be aesthetically consistent with one of the predominant materials and one of the predominant colors used in the principal building. Chain-link gates with metal cladding are prohibited.”

Section 5-1-6-7 Custodial Unit is hereby amended in its entirety to read as follows:

- A. **“Generally.** The standards of this section apply to self-storage and kennel facilities with a dwelling unit for an on-site resident manager.
- B. **Design Standards.** Self-storage and kennel facilities with one on-site resident manager/caretaker dwelling shall be meet the following standards:
1. The resident manager / caretaker dwelling unit shall be incorporated into and occupy space on the premises of the self-storage or kennel facility;

2. One off-street, covered parking space shall be required for the exclusive use of the resident manager / caretaker.
3. A landscaped private recreation area, with a minimum area of 750 square feet, shall be provided within the self-storage or kennel facility for the exclusive use of the resident manager / caretaker. The landscaped recreation area shall include:
 - a. A minimum of one 2.5 inch caliper shade tree, turf shrubs, and recreation equipment.
 - b. Recreation equipment shall consist of picnic table and barbeque facilities, or other comparable equipment for use by the resident manager/caretaker.”

Section 5-1-6-9 Electric Vehicle (EV) Charging Stations is added to read as follows:

“5-1-6-9 Electric Vehicle (EV) Charging Stations

- A. **Generally.** The standards of this section shall apply to new developments containing parking stalls or other spaces on-site dedicated to the use of such spaces for the charging of electric vehicles. These standards shall also apply to existing sites that make modifications to build or plan for EV charging stations.
- B. **Location**
 1. For single-family, duplex, or multiplex use, EV charging stations shall be located inside a garage.
 2. For townhome, multifamily, or cottage-home use, EV charging stations and equipment shall be located either in a garage or in a location internal to the site.
 3. For non-residential and mixed-use development containing ten or less EV charging stations, all charging stations and equipment may be allowed anywhere on site provided:
 - a. All equipment adheres to the required minimum parking front setback from all public and private streets.
 4. For non-residential and mixed-use development containing more than ten EV charging stations, all charging stations and equipment shall be located internal to the site and set back at least 40-feet from all public streets.
 5. In the MX zone districts, EV charging stations and equipment shall be located:
 - a. Behind the wall of a front building façade; and
 - b. Outside of a required front parking setback.
 6. In the OT zone district, EV charging stations and equipment shall be located either in a garage or internal to the site, behind a building or buildings, and not visible from a public street.
 7. EV charging stations and equipment may not be located in any portion of a required small urban park or buffer yard.
- C. **Sitting, Site Design, and Screening**
 1. If located along a public or private street, an Option B per Division 4-6-5-3, Bufferyard Options, between all equipment and the front property line shall be provided.

2. The installation of an EV charging station shall not reduce the size of the parking stall in which it is being installed below the minimum size required in Subsection 4-5-3-2, Parking Space and Aisle Standards.
3. Concrete wheel stops shall be used between the parking space and the equipment if the parking is not parallel.
4. If a canopy will be used, the canopy shall comply with the requirements of Subsection 5-1-2-3-C9, Canopies and Port-Cochères.
 - a. In any MX zone district if a canopy is used, the canopy shall comply with the requirements of Subsection 4-3-3-4-F, Fueling/Service Station Site Design.
5. Parking spaces used for EV charging shall be signed for EV vehicles only.”

The remaining portions of Chapter 5 shall remain unchanged.

Section 5. Chapter 8, Development Review Process, of the Land Development Code, of the Arvada City Code is hereby amended:

Section 8-1-1-1 Director of Community and Economic Development is hereby amended in its entirety to read as follows:

- A. **“Generally.** The Director of Community and Economic Development (“Director”) is the member of the City Staff who carries out the planning and zoning functions of the City. The Director shall designate staff members to manage applications through the review process and be points of contact for Applicants. The Director may also delegate review responsibilities to managers or other professional-level staff, or, as appropriate, to consultants selected by the City.
- B. **Duties and Responsibilities.** The Director shall be responsible for the administration of this LDC and the regulations contained herein.
 1. The Director shall have the authority to:
 - a. Interpret and apply the provisions set forth in the LDC, other regulations adopted by the City and planning and engineering best practice. The Director shall have the authority to prepare and update Development Procedures, which may include a checklist for each type of development application, setting forth the information that Applicants must submit in order for the City to review development applications, permits and other developmental approvals under this Code, an application review schedule, fees and other relevant and appropriate materials related to the administration of this Code.
 - b. Make district boundary interpretations when uncertainty as to the district boundaries exists.
 - c. Make each of those decisions shown as a decision of the Director in 8-2-2-2, Decision-Making Tracks by Application Type.
 - d. Review and make recommendations on development applications reviewed and acted upon by the Planning Commission, City Council or other Decision Makers, as applicable, as shown in 8-2-2-2, Decision-Making Tracks by Application Type.

- e. Review all land-use activities, plans involving land-use activity, or applications for land-use activity that are subject to either the Design Guidelines for Olde Town Arvada or the guidelines designated as "mandatory" within the Design Guidelines for the Reno Park Addition Historic District, and take final action to approve, approve with conditions, or deny the issuance of a (CCDG), as appropriate.
 - f. Accept land dedications and easements associated with development applications concerning which final approval has been granted by the Director.
2. The Director shall:
- a. Review applications for Sign Permits and taking final action to approve, approve with conditions, or deny on such applications.
 - b. Maintain the Official Zoning Map, including updates to reflect rezonings.
 - c. Administer the provisions of this LDC and approvals granted hereunder, and coordinate with the Code Enforcement, Neighborhood Services and the City Attorney with regard to enforcement of this LDC.
 - d. Make recommendations regarding amendments to this LDC and to the Comprehensive Plan and other land use or strategic plans approved or adopted by the City.
 - e. Develop or supervise the development of master plans, special area plans, or strategic plans, however titled, as directed by the Planning Commission.
 - f. Provide expertise and technical assistance to the advisory and decision making bodies under this Code, upon request, and as appropriate.
3. The Director shall also determine:
- a. Whether the proposed development creates a need for off-site public improvements;
 - b. Whether required development-related agreements (*see* Division 8-4-5, Development-Related Agreements and Covenants) comply with the requirements of this LDC and the Arvada Municipal Code with respect to the identification of required public improvements and the security provided for said public improvements; and
 - c. Whether proposed public improvements and drainage plans comply with applicable engineering standards.
 - d. Review applications for revocable right-of-way permits and determine as to whether and to what extent the requested encroachment will or could interfere with municipal or public use of the right-of-way.”

Section 8-1-2-2 Planning Commission is hereby amended in its entirety to read as follows:

A. “Powers and Duties; Generally.

- 1. *Decisions.* The Planning Commission shall hear and find facts as to whether the following types of applications comply with the requirements of this LDC:
 - a. Alternative Sign Programs

2. *Recommendations.* The Planning Commission shall consider and recommend to the City Council approval, approval with conditions, or disapproval of the following types of applications or petitions:
 - a. Annexations;
 - b. Height Exceptions;
 - c. Major Subdivision Preliminary Plats;
 - d. Major Modifications;
 - e. Zoning and Rezoning;
 - f. Conditional Uses;
 - g. PUD Development Plans (Planned Unit Developments);
 - h. Combined PUD Development Plans / Final Development Plans (Planned Unit Developments); and
 - i. Vacation of Right-of-Way and Access Easements.
- B. **Powers and Duties; Initiated Land Development Code Amendments and Other Duties.** The Planning Commission may also initiate proposed changes to the LDC and advise the City Council on such proposed changes, and shall perform such other duties as the City Council may be ordinance, resolution or motion prescribe.
- C. **Powers and Duties; Comprehensive Plan.**
 1. *Comprehensive Planning.* Upon request by the City Council, the Planning Commission shall have the power to prepare a Comprehensive Plan as a guide for future zoning and rezoning and shall have lawful and comprehensive studies made in conjunction therewith. Any plan so prepared shall be made with the general purpose of carrying out the objective of providing for the considered planning and orderly physical development of the City and applicable surrounding areas. The Planning Commission shall also actively promote implementation of any such Comprehensive Plan and other adopted plans, through its powers and duties as set out in this Section.
 2. *Other Plans.* Upon request by the City Council or the Director, the Planning Commission shall be responsible for adopting other land use plans, open space/parks/trails plans, special area plans, corridor plans, and similar plans, and any updates or amendments to such plans. The Planning Commission shall also actively promote implementation of the Comprehensive Plan and other adopted plans, through its powers and duties as set out in this Section.”

Section 8-2-2-1 Development Approval Required is hereby amended in its entirety to read as follows:

- A. **“Generally.** Unless specifically exempt from the application of this LDC, development approval is required for all:
 1. Development;
 2. Redevelopment;
 3. Qualifying "land use activity" within areas that are subject to Design Guidelines (*see* Section 8-3-5-4, Certificate of Compliance with or Waiver from Design Guidelines); or

4. Re-grading of:
 - a. Nonresidential property; or
 - b. Property within the Special Flood Hazard Area.

B. **Temporary Uses and Special Events.** Certain temporary uses and special events require Temporary Use Permits. *See* Division 3-1-4, Temporary Uses.

C. **Encroachments into Public Rights-of-Way.** Certain encroachments may be allowed in or over public rights-of-way pursuant to an approved revocable right-of-way license.”

Table 8-2-2-2A: Decision Making Tracks is hereby amended in its entirety to read as follows:

Table 8-2-2-2A: Decision-Making Tracks					
Track	Decision-Maker	Public Hearing	Public Outreach		Administrative Appeal To
			Neighborhood Meeting	Notice	
Track 1	Director ¹	No	No ³	Yes ⁴	Planning Commission or City Council (<i>See</i> Section 8-2-5-2, Appellate Body)
Track 2	Director ²	Planning Commission	Yes	Yes	City Council
Track 3	Planning Commission	Planning Commission	Yes	Yes	City Council
Track 4	City Council	City Council ⁵	No	Yes	-
Track 5	City Council	Planning Commission; City Council	Yes	Yes	-
Track 6	Floodplain Administrator	Floodplain Administrator	No	Yes	Floodplain Hearing Officer
Track 7	Floodplain Hearing Officer	Floodplain Hearing Officer	No	Yes	-
Track 8	Board of Adjustment	Board of Adjustment	No	Yes	-
Track 9	Informational only to Planning Commission and City Council	No	No	No	-

TABLE NOTES:

¹ For Public Improvements Construction Drawings for private development, and is not appealable to the Planning Commission; for Floodplain Development Permits, the decision is by the Floodplain Administrator, and is appealable to the Floodplain Hearing Officer.

² Planning Commission fact-finding is not advisory. Director must issue decision on facts found by Planning Commission as to application’s compliance with the applicable standards of this LDC.

³ At the discretion of the Director, a neighborhood meeting may be required to inform residents of the proposed development in their neighborhood.

⁴ Notice required for Track 1 reviews only as required by Section 8-2-3-8, Notice of Administrative Application. The Director shall have the discretion to waive the notice requirement for applications determined to have minimal impact on the notice area.

⁵ Public hearing not required for Revocable Right-of-Way License Agreements.

Table 8-2-2-2B: Decision-Making Tracks by Application Type is hereby amended in its entirety to read as follows:

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submission Type
1. Annexation, Zoning, and Rezoning					
Annexation	Annexing property into the City	-	Division 8-3-3, Annexation and Disconnection	Track 5 ¹	Project
Disconnection	Removing property from the City limits	-	Division 8-3-3, Annexation and Disconnection	Track 5 ¹	Project
Zoning or Rezoning	Changing the zoning designation of land within the City or establishing initial zoning for land being annexed into the City	-	Division 8-3-4, Zoning and Rezoning	Track 5	Project
2. Land Use					
Limited Use	Establishing a limited use	-	Division 3-1-3, Use-Specific Standards for Primary Land Uses, as applicable to the use	Track 1	Project
Conditional Use	Establishing a conditional use	-	Division 3-1-3, Use-Specific Standards for Primary Land Uses, as applicable to the use; and Section 8-3-5-1, Conditional Use	Track 5	Project
Temporary Use / Special Event	Commencing / conducting certain temporary uses on a subject property	-	Division 3-1-4, Temporary Uses, as applicable to the temporary use or special event; and Section 8-3-5-5, Temporary Use Permit	Track 1	Permit
3. Certificate of Compliance, Site Plans and Site Development					
Certification of Compliance with Design Guidelines	Verifying compliance with or waiver from applicable Design Guidelines, if	As provided in the applicable design guidelines document; <i>see</i> Appendix A:	Applicable design guidelines document; <i>see</i> Appendix A: Design	Track 1, if not processed with another application type; otherwise same track as	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type

Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submission Type
	the subject property is located in an area that is subject to Design Guidelines (e.g., Olde Town or Reno Park)	Design Guidelines for Olde Town Arvada; and Appendix B: Design Guidelines for the Reno Park Addition Historic District	Guidelines for Olde Town Arvada; and Appendix B: Design Guidelines for the Reno Park Addition Historic District; and Section 8-3-5-4, Certificate of Compliance with Design Guidelines	related application. <i>See</i> Sec. 8-3-5-4, Certificate of Compliance with Design Guidelines	
Master Development Plan	Establishing or modifying a plan for a phased project to ensure compliance with the LDC	-	Section 8-3-5-2, Master Development Plan	Track 1	Project
Site Plan or Site Plan Amendment	Establishing or modifying the physical layout of a subject property, including infrastructure, development and architectural standards, parking and loading, landscaping, lighting, grading, drainage, , major structure footprints, and building footprints	Single-family detached and duplex housing types on individual lots in a subdivision of nine or fewer lots. Accessory dwelling units and accessory buildings	Applicable provisions of Chapter 2, Zoning Districts; Chapter 3, Use Regulations;; Chapter 4, Environmental and Site Design; and Chapter 5 Building Design	Track 1	Project
Floodplain Map Amendment	Changing the boundaries of a special flood hazard area	-	As provided by federal regulation	Track 6, as provided by federal regulation	Project
Floodplain Development Permit	Authorizing development within the floodplain or floodway	-	Applicable provisions of Division 4-1-2, Floodplain Regulations; and	Track 6 (<i>see</i> footnote 1 of Table 8-2-2-2.A., above)	Permit

Table 8-2-2-2B: Decision-Making Tracks by Application Type

Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
			Section 8-3-5-6, Floodplain Development Permit		
Miscellaneous Structure Permit	Authorizing the construction or installation of fences, walls, decks, retaining walls, garden walls, accessory buildings, accessory structures or sheds	Mini-structures less than 200 square feet	Section 8-3-5-7, Miscellaneous Structure Permit-	Track 1	Permit
Revocable Right-of-Way License Agreement	Authorizing encroachments within public rights-of-way (e.g., signs, outdoor dining areas, etc.)	Temporary structures that are approved by Temporary Use or Special Event Permits	Section 8-3-5-7, Revocable Right-of-Way License Agreements	Track 4	Project
4. Wireless Communications Facilities					
Small Cell Facilities Permit	Authorizing the co-location of wireless communications facilities; authorizing small-cell facilities in the right-of-way	-	Chapter 7, Wireless Communications Facilities; and Division 8-3-6, Wireless Communications Facilities	Track 1, as modified by Division 8-3-6, Wireless Communications Facilities	Permit
Base Stations and Alternative Tower Structures	Authorizing the installation of a new wireless communications facility on private property	-	Chapter 7, Wireless Communications Facilities; and Division 8-3-6, Wireless Communications Facilities	Track 1, as modified by Division 8-3-6, Wireless Communications Facilities	Project
Free-standing Towers	Authorizing the new installation of a freestanding wireless communications tower	-	Chapter 7, Wireless Communications Facilities; and Division 8-3-6, Wireless Communications Facilities	Track 5, as modified by Division 8-3-6, Wireless Communications Facilities	Project
5. Signs					
Sign Permit	Installing or displaying a sign (may also	Exceptions and exemptions listed in Sec. 6-	Chapter 6, Signs, or an approved Alternative Sign	Track 1	Permit

Table 8-2-2-2B: Decision-Making Tracks by Application Type

Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submission Type
	require Certification of Compliance with Design Guidelines)	1-2-2, Exemptions and Partial Exemptions; and Sec. 6-1-2-3, Permit Exceptions	Program; and Section 8-3-7, Sign Permits		
Alternative Sign Program	Establishing a specific signage program for a particular subject property or development, which may modify some of the standards of Chapter 6, Signs	-	Chapter 6, Signs; and Section 8-3-7-2, Alternative Sign Programs	Track 2	Project
6. Subdivisions, Plats, and Vacations					
Major Subdivision Concept Plan	Providing the City with a generalized land use plan and layout for the area proposed to be included within a subdivision	This review process is available at the Applicant's option	Applicable standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9, Nonconformities	Track 9	Project
Major Subdivision Preliminary Plat	Establishing the preliminary layout of lots, streets, utilities, and open spaces within a subdivision, prior to approval of a major subdivision final plat for 10 or more lots.	-	Applicable standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9, Nonconformities	Track 5	Project
Major Subdivision Final Plat	Establishing the final layout of the lots, tracts, streets, alleys, and easements within a subdivision for 10 or more lots	-	Applicable standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9, Nonconformities	Track 1	Project
Minor Subdivision Plat	Establishing the specific layout	-	Applicable	Track 1	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type

Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submission Type
	of the lots, tracts, streets, alleys, and easements within a subdivision that including nine or fewer new lots or tracts		standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9, Nonconformities		
Vacation of Right-of-Way	Extinguishing Right-of-Way that is held by the City	-	Division 8-3-9, Vacation of Rights-of-Way; Termination of Easements	Track 4	Project
Vacation of Easement	Extinguishing an easement that is held by the City	-	Division 8-3-9, Vacation of Rights-of-Way; Termination of Easements	Track 1	Project
7. Infrastructure Development and Public Improvements					
Public Improvement Construction Drawings	Approving construction drawings for wastewater, water, stormwater, street, and landscaping improvements	Landscaping on individual lots used for single-family detached and duplex housing types	Engineering Code of Standards and Specifications; Division 8-4-4, Public Improvements, Warranties and Utilities	Track 1 (see footnote 1 of Table 4-3-2-2A., above)	Project
Development Agreement	Setting out the timing and terms for the installation of public and private improvements, and providing for security to ensure that the improvements are constructed and warranted	-	Division 8-4-5, Development-Related Agreements and Covenants-	Track 1	Project
Formation of Reimbursement Assessment District and Metropolitan District	Creating reimbursement assessment districts for financing public improvements	Development that does not require a reimbursement assessment district, as determined by the Applicant	-	Track 4	Project
Out-of-City	Any request for	-	Section 8-3-5-8	Track 5	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submission Type
Utility Request	City provision of utility service to property outside City limits				
8. Planned Unit Developments					
PUD Sketch Plan	Providing the City with an early, informal, and generalized land use/site plan for the area proposed to be included within a PUD	This review process is available at the Applicant's option	Section 8-3-10-5, PUD Sketch Plan	Track 9	Project
PUD Development Plan	Establishing the types and total amount of development proposed within a PUD (dwelling units, land uses, and nonresidential floor area), as well as the proposed general plan for pedestrian and vehicular circulation within and connecting to the PUD; may run concurrently with preliminary plat application	-	Section 8-3-10-6, PUD Development Plan	Track 5	Project
PUD Final Development Plan	Establishing or modifying the physical layout of a subject property, including infrastructure, development and architectural standards, parking and loading,		Section 8-3-10-6, PUD Unit Development Plan	Track 1	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type

Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
	landscaping, lighting, grading, drainage, , major structure footprints, and building footprints in accordance with an approved PUD Development Plan				
9. Interpretations, Variances, Modifications, Exceptions, and Interpretations					
Administrative Minor Modifications	Authorizing a minor variation to the standards of the LDC	-	Section 8-3-11-3, Administrative Minor Modifications	Track 1	Project
Major Modification	Authorizing a major variation to the standards of the LDC	-	Section 8-3-11-4, Major Modifications	Track 5	Project
Reasonable Accommodations	Authorizing a minor variation to the standards of this LDC	-	Section 8-3-11-5, Reasonable Accommodations	Track 1	Project
Official Interpretations	Providing an official written interpretation of the provisions of this LDC	-	Section 8-3-11-7, Official Interpretations	Track 1	Project
Height Exception	To exceed building or structure height standards in the LDC	-	Section 8-3-11-1, Height Exceptions	Track 5	Project
Variance or Exception to Standards	Authorizing a departure from the strict application of the standards in the LDC	Where other methods exist for authorizing the modification, such as an administrative minor modification, floodplain variance; or where standards are statutory	Section 8-3-11-2, Variances	Track 8	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
		requirements (e.g., state-mandated subdivision monumentation standards)			
Floodplain Variance	Authorizing a departure from the strict application of Division 4-1-2, Floodplain Regulations	-	Section 8-3-11-6, Floodplain Variances	Track 7	Project
10. Vested Rights					
Early Vested Rights	Obtaining vested rights prior to the approval of a site-specific development plan	-	Section 8-3-12-1, Early Vested Rights	Track 4	Project
Vested Rights (and Extension)	Obtaining vested rights in accordance with Article 68 of Title 24, C.R.S., as amended	-	Section 8-3-12-2, Vested Rights	Track 4	Project
11. Amendments and Terminations					
Annexation Agreement Amendment	Amending an annexation agreement	-		Track 4	Project
Major Comprehensive Plan Amendment	Amending text or Future Land Use Map, where amendment does not fall within the category of "minor"	-	-	Track 3	Project
Minor Comprehensive Plan Amendment	Correcting obvious errors (either text or mapping), and updating outdated data without changing policy	-	-	Track 1	Project
Major LDC Amendment	Changing procedures or standards in the LDC, where	-	-	Track 5	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submission Type
	amendment does not fall within the category of "minor"				
Minor LDC Amendment	Correcting non-substantive clerical or formatting errors in the LDC text or maps, or adding or correcting illustrations	-	Section 8-3-2-2, Text Amendment Requirements	Track 1	Project
Abandonment of Development Approval	Terminating a development approval without a replacement development approval	-	-	Track 1 if development never commenced and there is no development agreement	Project
TABLE NOTES: ¹ As modified by Colorado law pertaining to annexation and disconnection.					

Section 8-2-3-8 Notice of Administrative Application is hereby retitled and amended in its entirety to read as follows:

“8-2-3-8 Notices of Administrative Application and Administrative Decision

A. Purpose and Intent.

1. *Purpose.* The purpose of the notice of administrative application and administrative decision is to inform City residents, businesses and organizations of pending development applications and the date a decision will be made on a development application.
2. *Intent.* The notice of application is intended to provide contact information for the Applicant and City staff where interested members of the community can request information and ask questions regarding a pending development application and provide comments to the Director prior to a decision being made.

B. Notice of Administrative Application. The notice shall be prepared by the Applicant per the requirements of Division 8-2-4, Required Notices, for Master Development Plans, Site Plans and Minor Subdivision Final Plats.

C. Notice of Administrative Decision. A notice may be required at the discretion of the Director. If notice is required, it shall be prepared by the Applicant per the requirements of Division 8-2-4, Required Notices.”

Table 8-2-3-13: Time Limitations is hereby amended in its entirety to read as follows:

Table 8-2-3-14: Time Limitations	
Approval Type	Time Limitation
Conditional Use	5 years
Temporary Use Permit / Special Event Permit	as specified in the permit
Certificate of Compliance with Design Guidelines	3 years, 1 year for signs
Site Plan and Master Development Plan	3 years
Floodplain Development Permit	24 months
Free-Standing Tower	24 months; or as specified in the permit
Miscellaneous Structure Permit	6 months
Sign Permit	1 year
Alternative Sign Program	3 years
Major Subdivision Preliminary Plat	3 years
Public Improvement Construction Documents	2 years
Development Agreement	as specified in development agreement
Reimbursement Assessment District	as specified in documents establishing Reimbursement Assessment District
PUD Development Plan/Final Development Plan	5 years or as specified by development agreement
Height Exception	3 years
Variance	2 years ¹
Minor Modifications from Zoning District and General Development Standards	as specified in approval documents
Minor Modification	as specified in the approval documents
Major Modification	as specified in the approval documents
Floodplain Variance	24 months
Vested Rights (and Extension)	36 months ²
Base Station, Alternative Tower Structure and Freestanding Tower	1 year if site not constructed
Small Cell Facility	Specified as defined in the MLA for each carrier-
TABLE NOTES: ¹ Or at such alternative time specified in the approval. In addition, a variance that has been not been utilized shall automatically lapse and have no further effect if the rights granted by it are discontinued for 180 consecutive days. ² Unless specified otherwise in the approval or by development agreement.	

Section 8-2-4-1 General Notice Requirements is hereby amended in its entirety to read as follows:

- A. **“Computation of Time.** In computing any period of time prescribed for the purpose of giving notice under this Division, the day of the publication, mailing, or posting shall be included. The day of the meeting or hearing shall not be counted. Saturdays, Sundays, and legal holidays shall be counted as any other day.
- B. **Notice Cost.**
 - 1. All costs for providing mail and posted notice as required by this Division shall be the direct responsibility of the Applicant.

2. The City shall provide published notice. The cost of such notice shall be included in the development review fee.
- C. **Applicant's Certification.** Prior to the event that is the subject of a public notice, the Applicant shall provide the Director with an executed affidavit certifying that the requirements as to the Applicant's responsibility for the applicable forms of notice under this Division have been met. The Director shall make available sample certifications that address all applicable forms of public notice required by this LDC.
- D. **Failure to Provide Notice; Defective Notice.**
1. Failure to timely provide the required affidavit, or evidence that a mailing list or notice letter was defective, may be cause to suspend the review process until proper notice is provided. Such suspension may be ordered by the Director or body that is responsible for the meeting, hearing, or decision (*e.g.*, neighborhood meeting, public hearing, or staff decision) that is the subject of the notice.
 2. Minor defects in any notice shall not impair the notice or invalidate proceedings pursuant to the notice if a *bona fide* attempt has been made to comply with applicable notice requirements. In any case in which a question arises at the public hearing regarding the adequacy of notice, consideration shall be given to the nature and extent of the deficiency, the probability of confusion resulting from the deficiency, and the type and variety of notice successfully accomplished in determining whether substantial compliance with the notice requirements of this Code has been met
- E. **Continuation of Hearings and Neighborhood Meetings.** A hearing or neighborhood meeting for which proper notice was given may be continued to a later date without again complying with the public notice requirements of this Division (unless required by Director), provided that the date, time, and location of the continued hearing or meeting is announced to the public at the time of continuance."

Section 8-2-4-2 Required Notice by Application Type is hereby amended in its entirety to read as follows:

"Public notice of administrative applications, neighborhood meetings, or scheduled public meetings or public hearings shall be provided as set out in Table 8-2-4-2, Notice Requirements by Application Type. If an application type is not listed, then no notice is required, unless it is determined to be necessary by the Director.

Table 8-2-4-2: Notice Requirements by Application Type				
Table Key: — Not Required or Not Applicable ✓ Required				
Application Type	Notice Type			
	Published	Posted	Mailed ²	Internet ³
1. Annexation, Zoning and Rezoning				
Annexation or Disconnection ¹	✓	✓	✓	✓
Zoning or Rezoning	✓	✓	✓	✓
City Initiated Remapping	✓	—	—	—
2. Land Use				
Conditional Use	✓	✓	✓	✓
3. Site Plans and Site Development				
Master Development Plan	—	—	✓	✓
Site Plan	—	—	✓	✓
4. Wireless Communications Facilities				
Major Wireless Communications Facility Permit	—	✓	✓	✓
5. Signs				
Alternative Sign Program	✓	✓	✓	✓
6. Subdivisions, Plats, and Vacations				
Major Subdivision Preliminary Plat	✓	✓	✓	✓
Vacation of Right-of-Way and Public Easements	✓	✓	✓	✓
7. Infrastructure Development and Public Improvements				
Formation of Reimbursement Assessment District	✓	—	✓	✓
8. Planned Unit Developments				
PUD Preliminary Development Plan	✓	✓	✓	✓
9. Variances, Modifications, Exceptions, and Conversions				
Height Exception	✓	✓	✓	✓
Variance	✓	✓	✓	✓
Major Modification	✓	✓	✓	✓
Floodplain Variance	—	—	✓	✓
10. Vested Rights				
Vested Rights (and Extension)	✓	✓	✓	✓
11. Amendments				
Land Development Code Text Amendment	✓	—	—	✓
Major Comprehensive Plan Amendment	✓	—	—	✓
Major PUD Amendment	✓	✓	✓	✓
TABLE NOTES:				
¹ As required by applicable provisions of C.R.S. § 31-12-101, et seq.				
² See Subsection 8-2-4-4, Statutory Mineral Estate Notices				
³ See Subsection 8-2-4-3D, Internet Requirements				

A. **Generally.** Contents of the public notice will be determined by the Director.

B. **Public Notice Contents.** All notices required by this Section shall:

1. Indicate the time and place of the public hearing or meeting, if necessary, except for a Notice of Administrative Application;
 2. Sufficiently describe the property involved; for example, by legal description, general vicinity, street address, size, and/or nearest cross street;
 3. Describe the nature, scope, and purpose of the application or proposal being advertised;
 4. Indicate that interested parties may appear and the manner, extent and timing of public participation permitted (*e.g.*, filing written comments with the Director, speaking at the scheduled hearing or meeting, etc.), except for Notice of Administrative Application; and
 5. Indicate where additional information can be obtained.
- C. **Appeal Notices.** Notices of a pending appeal must include a copy of the petition for appeal and a date, time, and location for the appeal hearing, and either a copy of the rules of procedure for the Appellate Body or instructions regarding how to obtain a copy. Such notices shall be mailed to the Applicant (if different from the appellant), the appellant, and any person or entity that has applied for party status.
- D. **Vested Rights Notices.** Notice of a decision to grant vested rights shall be published in accordance with the requirements of C.R.S. § 24-68-101, as it may be amended from time to time.”

8-2-4-3 Specific Requirements by Notice Type is hereby amended in its entirety to read as follows:

A. **“Mailed Notice.**

1. *Mailing List.* The Applicant shall submit a mailing list to the Director, including the names and addresses of all property owners of record of all properties within the Area of Notification described below. If there are homeowners associations and/or neighborhood organization registered with the City within the Notice Area, the Applicant shall also notify them. The list shall be compiled from the names and addresses that appear in the records of the applicable County Assessor not more than 30 days before the date the list is submitted to the Director.
2. *Method of Mailing.* Mailed notice shall be mailed first-class, postage pre-paid by the Applicant, at the Applicant’s expense, to all property owners on the mailing list.
3. *Affidavit of Compliance.* An affidavit of the Applicant’s compliance with the mailing notice requirements shall be provided to the Director prior to the decision or public hearing to which the notice relates.
4. *Preparation/Timing of Notice.* When the provisions of this Code require that written or mailed notice be provided, the Applicant shall be responsible for preparing the written notice, and for mailing the notice at the Applicant's expense. All written notice shall be mailed at least fifteen days prior to the public hearing. Notices shall be prepared pursuant to a written notice form provided by the City.
5. *Deadlines.* For decision-making Tracks 2 through 5 and Track 8, mailed notices shall be postmarked no later than 15 days before a neighborhood meeting, a public hearing, or an appeal hearing. For decision-making Tracks 1, 6, or 7, mailed notice of administrative application shall be postmarked no later than five days after acceptance

of an application. For a notice of administrative decision, mailed notice shall be postmarked no later than ten days prior to the decision date.

6. *Notice Area.*

- a. For purposes of public hearings before the City Council or the Planning Commission, and Notice of Administrative Application, notice shall be mailed to all property owners that are within 500 feet of the boundary of the property that is the subject of the application, except as otherwise provided herein. Ownership information shall be obtained from the applicable County Assessor's Office(s). Where an adjacent property is owned by a subdivision or condominium association, notification shall be to the board of directors of such association, and in addition, to the owners of all units immediately adjacent to the subject property. For street and alley right-of-way and public vehicular access easement vacations, mailed (written) notice shall be sent to all owners of property abutting the right-of-way or access easement to be vacated. Written notice shall also be mailed to any homeowners associations and other neighborhood organization with a known interest in the subject area, or to others who have filed a timely request to receive written notice.
- b. *Notices for Board of Adjustment.* For purposes of public hearings before the Board of Adjustment, notice shall be mailed to all property owners that are adjacent to the property that is the subject of the application. Ownership information shall be obtained from the applicable County Assessor's Office(s). Where an adjacent property is owned by a subdivision or condominium association, notification shall be to the board of directors of such association, and in addition, to the owners of all units immediately adjacent to the subject property.
- c. *Changes to Notification Area.* The Director shall have the sole discretion to expand or contract the notification area based on a consideration of the complexity of the project, the geographic reach of potential adverse impacts, the extent of neighborhood compatibility issues, and similar factors.

B. **Published Notice.** When the provisions of this Code require that notice be published, the City shall be responsible for preparing the content of the notice, and the City shall ensure that notice is published in a newspaper of general circulation in the City, at the Applicant's expense. Notice shall be published at least 15 days prior to any public hearing by the Planning Commission or Board of Adjustment, and at least seven days prior to any public hearing by the City Council.

C. **Posting Requirements.**

1. *Signs to be Posted by Applicant.* Posted notice shall be provided on signs provided by the City at the Applicant's expense. It is the Applicant's responsibility to post the sign(s) on the subject property and ensure that they remain in place from the date of posting to the date of the public hearing.
2. *Minimum Requirements.* Posted notice shall be provided with one sign per street frontage of the applicable property. Additional posting may be required at the Director's discretion. Signs shall be located so that they are clearly visible from the adjoining street. Applicants shall remove all notification signs within one week after the public hearing.

3. *Deadline for Posting.* Notices shall be posted not less than 15 days before the public hearing date.
 4. *Affidavit of Compliance.* An affidavit of the Applicant's compliance with the posted notice requirements shall be provided to the Director prior to the public hearing.
 5. *Posting Log/Maintenance of Signs.* The Applicant shall be responsible for checking the posted signs each day of the posting period and for keeping a log, to be filed with the City at the time of, or prior to, any public hearing on the matter. If a sign has been removed, destroyed, or has fallen, the sign shall be replaced by the Applicant within 48 hours or by the close of the next business day, whichever period is longer. The Applicant shall sign a statement that the sign(s) were checked daily by the Applicant or the Applicant's representative, and the above-stated procedures were followed. Failure to comply with the required posting procedure may require the public hearing to be rescheduled. Such delays shall not prejudice the City regarding the City's compliance with required times to act set forth in this Code.
 6. *City-Initiated Rezoning That Affects Multiple Ownership.* The posting of signs shall not be required when an amendment to the Official Zoning Map is initiated by the City and affects multiple ownerships. At the City's option, notice of a rezoning that affects multiple ownerships may be posted at City Hall.
- D. **Internet Requirements.** The Director will create and maintain web pages upon which the Director may provide timely notice of applications. If a notice is missed by the Director, it shall not void the hearing or approval. “

Section 8-3-5-3 Site Plan is hereby amended in its entirety to read as follows:

- A. **“Generally.** The purpose of the Site Plan is to ensure compliance with the development and design standards and provisions of this Code, while encouraging quality development in the City reflective of the goals, policies, and objectives found in the Comprehensive Plan.
- B. **Site Plans.** All applicable provisions of this Division apply unless specifically listed. A Site Plan is required before a building permit may be issued for all development in the City except those listed below:
 1. Single family detached homes or duplex units in a subdivision of nine or fewer lots within a residential zoning district and that are not part of land for which a Master Development Plan has been approved;
 2. Permitted additions to existing single-family detached dwellings or duplex units; and
 3. Interior improvements and tenant finish.
- C. **Approval Criteria.** A Site Plan shall be reviewed for compliance with the following criteria:
 1. The application complies with the applicable standards of this LDC, other adopted City regulations, any approved Master Plan that includes the property, and any conditions specifically applied to development of the property by the Planning Commission or City Council in a prior decision affecting the property;
 2. The application is consistent with the Comprehensive Plan;
 3. The City's existing infrastructure and public improvements, including but not limited to its water, wastewater, street, trail, and sidewalks systems, have adequate capacity to

- serve the proposed development, and any burdens on those systems have been mitigated to the degree practicable;
4. The application will preserve and protect natural areas, ridgelines, swales, natural landforms, water quality and wildlife habitat of riparian corridors, wetlands and floodplains affected by the proposed development and integrates those areas into site design where practicable;
 5. The application will improve or expand multi-modal connections with adjacent sites, neighborhoods, and urban centers;
 6. The application is similar to surrounding uses in terms of size, scale and building façade materials;
 7. The application mitigates any adverse impacts on the surrounding area to the degree practicable; and
 8. Within the MX, R6, R13 and R24 zoning districts, townhome and multifamily residential uses shall provide appropriate amenities, including recreational facilities, pedestrian facilities, unique aesthetic features and quality design.”

Section 8-3-8-7 Acceptance of Dedications is hereby amended in its entirety to read as follows:

A. **“Generally.**

1. **Major Subdivision Final Plats.** All major subdivision final plats shall be executed by all owners of property within the boundaries of such plat, the surveyor, the attorney or title company who examined the title, and any and all lienholders. Following the approval of a major subdivision final plat, the plat, which shall have all permitted exceptions, waivers, or variances expressly noted thereon, shall be signed by the Director, the City Engineer, and the City Attorney. Dedication, approval, certification, and signature blocks shall be in a form approved by the City Attorney.
2. **Minor Subdivision Plats.** All minor subdivision plats shall be executed by all owners of property within the boundaries of such plat, the surveyor, the attorney or title company who examined the title, and any lienholders. Following the approval of the minor subdivision plat, the plat, which shall have all permitted exceptions, waivers, or variances expressly noted thereon, shall be signed by the Director. Dedication, approval, certification, and signature blocks shall be in a form approved by the City Attorney.

- B. **Method of Acceptance of Dedications; Limitations.** Full execution of the approved major subdivision final plat or minor subdivision plat shall constitute the City’s acceptance of any fee-simple dedication or grant of easement to the City as is referenced on the plat. Acceptance of dedications does not constitute final acceptance of public improvements constructed thereon.”

The remaining portions of Chapter 8 shall remain unchanged.

Section 6. Chapter 11, Measurements, Rules of Construction, and Definitions, of the Land Development Code, of the Arvada City Code is hereby amended:

Division 11-3-3 Definitions is amended or added to read as follows, all defined words not listed here, remain unchanged.

Clustered Subdivision

A cluster lot subdivision is a residential development in which lots are allowed to be smaller or narrow. Cluster lot subdivision is a design technique that concentrates buildings in specific areas on a site to allow the remaining land to be used for recreation or other common use, or preservation of environmentally sensitive areas or agricultural uses.

Electric Vehicle (EV) Charging Station

A public or private parking space and all associated equipment, including electrical transformers, that is served by battery charging station equipment that has its primary purpose to transfer electric energy (by conductive or inductive means) to a battery or other energy storage device in an electric vehicle.

Food and Retail Truck Vending

Food and retail vending from a readily movable wheeled, motorized vehicle designed and equipped to serve food or sell retail goods or a wheeled, non-motorized trailer designed and equipped to serve food or sell retail goods, and towed by a motorized vehicle.

Fueling/Service Station

Any building, land area, or other premises used for the retail dispensing or sales of vehicular fuels; Level 3 DC fast-charging or Level 2 charging of electric vehicles; towing of automobiles and light trucks; and including as an accessory use the sale and installation of lubricants, tires, batteries, brakes, mufflers, and similar vehicle repairs and accessory installations. The phrase “fueling/service station” does not include collision centers, or facilities that provide transmission repair, engine overhauls, or repair of heavy trucks or heavy motorized equipment. If a use that fits this definition also includes the sale of ready-to-eat food products (not intended for on-premises consumption), groceries and sundries, such use shall be classified as a “convenience store.”

Heavy Logistics Center

A wholesaling, warehousing, and/or distribution use that provides a central location for receiving, storing and distributing raw materials, semi-finished goods, or finished goods. Heavy logistics centers may be warehouses in which goods are stored (a.k.a. “product warehouses”), or truck terminals in which goods are transferred between trucks or between trucks and trains or other transportation modes (a.k.a. “truck terminals” or “logistics centers”), or moving warehouses (including indoor storage of portable on-demand storage containers), or wholesaling operations (but not wholesale membership clubs in which memberships are available to the general public). Heavy logistics centers are expected to generate at least 50 semi-trailer truck trips per day. Warehousing and distribution uses that involve fewer than 50 semi-trailer truck trips per day are classified as Light Industry.

Landscape Surface Area

Area that is vegetated per the requirements of Article 4-6, Landscape and Buffering, or reserved for the use of outdoor pedestrian and/or non-vehicular recreation activity areas including sidewalks, trails, patios, decks, amenitized landscape surface area, and small urban parks. Detention areas, buffers, and landscaping within a parking lot may be included.

Landscape Surface Area, Amenitized

Landscape surface area that is designed for the common use or enjoyment of residents, employees, or guests of the development.

Light Industry

Uses that involve research and development, assembly, remanufacturing, compounding, packaging, testing, or treatment of products, generally from previously prepared materials or components, with limited outside storage and limited external impacts or risks such that the use is not defined as heavy industry or heavy logistics center. Light industry also includes wholesaling, warehousing, and distribution uses that involve fewer than 50 semi-trailer truck trips per day. For illustrative purposes, light industrial uses include:

1. Assembly, testing, repair, or refurbishing of products, instruments, electronics, office and computing machines, and fixtures using pre-manufactured components;
2. Offices of general contractors; specialty subcontractors; tradesmen; or telecommunications providers which include:
 - a. Overhead door access to indoor storage of tools, parts, and materials;
 - b. Parking of commercial vehicles or a fleet of cars, vans, or light trucks that are used in the business; or
 - c. Limited outdoor storage areas;
3. Food production (*e.g.*, commercial kitchen or bakery) and packaging, but not:
 - a. Meat processing involving butchering of large animal carcasses;
 - b. Medical marijuana-infused products manufacture; and
 - c. Restaurants;
4. Beverage production (non-alcoholic) and bottling;
5. Furniture making or refinishing;
6. Manufacture of textiles or apparel;
7. Screen printing of apparel (except low volume screen printing at a retail store);
8. Printing and publishing, except copy centers, and except printing presses that require a Stationary Source permit or Title V of the Clean Air Act permit for air emissions;
9. Research, development, and testing laboratories (*e.g.*, for development of products, equipment, or materials), if not classified as office, general or professional, or heavy industry;
10. Disassembly of consumer electronics and / or appliances into component parts, where all operations and storage are within an enclosed building;
11. Manufacture of glass products (*e.g.*, window panes, bottles and jars), including hand-blown products;
12. Fabrication of building materials such as countertops, drywall, and cut stone (if not classified as heavy industry);
13. Manufacture or compounding of pharmaceutical products, dietary supplements, health and beauty products, and herbal products;
14. Packaging of products; or
15. Storing, selling, and/or distributing merchandise for or to retailers; industrial, commercial, institutional, or professional business users; or wholesalers, except that wholesale membership clubs that offer memberships to the general public are not light industrial uses.

Open Space, Common is deleted in its entirety.

Place of Assembly is amended by placing it between the definitions for Personal Services Vending and Porte- Cochère; the definition remains unchanged.

Produce Stand

A temporary or permanent structure used for sale of produce and incidentally used for sale of related items which is located on property used for agriculture or community agriculture.

Retail Sales and Services, Type 1

A use involving the sale, lease, or rental of consumer, home, and business goods to consumers. Such uses include but are not limited to department stores, furniture stores, clothing stores, and establishments providing the following products or services: antiques, appliances, art, art supplies, beauty supplies, bicycles, books, magazines and newspapers, craft supplies, copies, costumes, dry goods, electronics, fabric, framing, garden supplies, gifts, groceries, hardware, home improvement goods, household products, jewelry, music, musical instruments, office supplies, party supplies, pet grooming, pet supplies, pharmaceuticals, phones, photography equipment, produce, signs, sporting goods, stationary, toys, and videos; and new automotive parts and accessories. The phrase also includes services such as banking, picture framing, installation of electronics (*e.g.*, audio systems and navigation systems) into motor vehicles, real estate offices that are open for walk-in traffic; repairs of products sold by the establishment (*e.g.*, a computer store may also repair computers), repairs of consumer electronics, tattoo parlors, and comparable services that are not included in the definition of the phrase “Retail Sales and Services, Type 2.” The phrase “Retail Sales and Services, Type 1” does not include uses that are classified or defined more specifically in this Code, including but not limited to “Retail Sales and Services, Type 2,” “Restaurant,” “Restaurant, Fast Food,” “Adult Entertainment,” “Adult Retail Sales,” “Marijuana Uses,” and “Vehicle / Equipment Sales or Rentals.”

Retail sales and services, type 1 uses are generally conducted indoors. However, the phrase also includes uses in which not more than 25 percent of the area used for storage and display of products is located outside or in partially enclosed structures.

Semi-Trailer Truck Trip

A semi-trailer truck trip involves the inbound and outbound movement of the truck on a site, with both movements being considered a single trip.

Sign, Canopy

A sign with one face affixed to a canopy. For purpose of this definition, a canopy is an attached or detached structure, open on at least one side, which is designed to provide overhead shelter from the sun or weather. Canopies include, but are not limited to, service station canopies, carports, porte-cocheres, arcades and pergolas.

The remaining portions of Chapter 11 shall remain unchanged.

Section 7. Should any provision of this ordinance be declared by a court to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any part thereof, other than the part so declared to be unconstitutional or invalid.

Section 8. This ordinance shall be effective on _____, 2021.

INTRODUCED, READ, AND ORDERED PUBLISHED this_____, 2021.

PASSED, ADOPTED AND APPROVED this 18th day of October, 2021.

Marc Williams, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

Rachael A. Morris, City Attorney:

BY: _____

Publication Dates:

REDLINE/STRIKEOVER VERSION

FOR INFORMATION ONLY -- NOT PART OF THE ORDINANCE

Underlined indicates new material
~~Strikethrough~~ indicates deleted material

Table 2-1-3-3A: Residential Neighborhood Lot and Building Standards								
Standard		Subdistrict						
		RN-32.5	RN-12.5	RN-7.5	RN-6	RN-4	RN-D	
Residential Uses								
Housing Type		Single-Family	Single-Family	Single-Family	Single-Family	Single-Family	Single-Family	Duplex
Lot Standards								
	Min. Lot Area	32,500 sf.	12,500 sf.	7,500 sf.	6,000 sf.	4,000 sf.	6,000 sf.	9,000 sf.
A	Min. Lot Width	100 ft.	100 ft.	75 ft.	50 ft.	40 ft.	60 ft.	75 ft.
	Min. Lot Width (Corner)	100 ft.	100 ft.	85 ft.	60 ft.	40 ft.	75 ft.	85 ft.
	Max. Lot Coverage	25%	35%	40%	40%	40%	40%	30%
Setback Standards								
B	Min. Front	30 ft.	30 ft.	20 ft.	18 ft.	18 ft.	18 ft.	25 ft.
C	Min. Street Side ¹	25ft.	25 ft.	20 ft.	13 ft.	13 ft.	13 ft.	20 ft.
D	Min. Interior Side	15 ft.	10 ft.	7.5 ft.	5 ft.	5 ft.	5 ft.	10 ft.
E	Min. Rear	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.	10 ft.	10 ft.
	Min. Rear, Alley ¹	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.
	Min. Arterial Setback ²	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.
Building Standards								
F	Max. Height, Principal Building	35 ft.	28 ft.	28 ft.	28 ft.	28 ft.	28 ft.	28 ft.
	Max. Height, ADU (detached)	30 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	-
G	Max. Height, Accessory Building except for Barns and Stables	20 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.
	Max. Height, Barns and Stables	35 ft.	30 ft.	-	-	-	-	-
	Max. Height, Mini Structures	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.
Nonresidential Uses								
Lot Standards								
	Min. Lot Area	1 ac.	1 ac.	10,000 sf.	10,000 sf.	10,000 sf.	10,000 sf.	
A	Min. Lot Width	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	

Table 2-1-3-3A: Residential Neighborhood Lot and Building Standards

Standard		Subdistrict					
		RN-32.5	RN-12.5	RN-7.5	RN-6	RN-4	RN-D
	Max. Lot Coverage	25%	25%	40%	40%	40%	40%
Setback Standards							
B	Min. Front	30 ft.	30 ft.	25 ft.	18 ft.	18 ft.	18 ft.
C	Min. Interior Side	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.	10 ft.
D	Min. Street Side	30 ft.	30 ft.	25 ft.	18 ft.	18 ft.	18 ft.
E	Min. Rear	15 ft.	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.
	Min. Rear (Alley) ¹	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.
	Min. Arterial Setback ²	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.
Building Standards							
F	Max. Height, Principal Building	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.
G	Max. Height, Accessory Building	20 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.
	Max. Height, Mini Structure	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.
TABLE NOTES:							
¹ For driveway access must be 18 ft. The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion.							
² Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks.							

2-1-3-4 R6: Residential 6

- F. **Purpose.** The purpose of the Residential 6 (R6) zoning district is to allow for new residential development of a variety of housing products up to a gross density of six units per acre along with supporting community and institutional uses.
- G. **Relationship to the Comprehensive Plan.** The R6 zoning district generally implements the “Suburban Residential” land use category stated in the Comprehensive Plan.
- H. **Lot and Building Standards.** The standards for lots and buildings in the R6 zoning district are set out in Table 2-1-3-4A, Residential 6 Lot and Building Standards and Division 2-1-8, Housing Palette.

Figure 2-1-3-4: Illustrative Residential 6 Lot and Building Standards

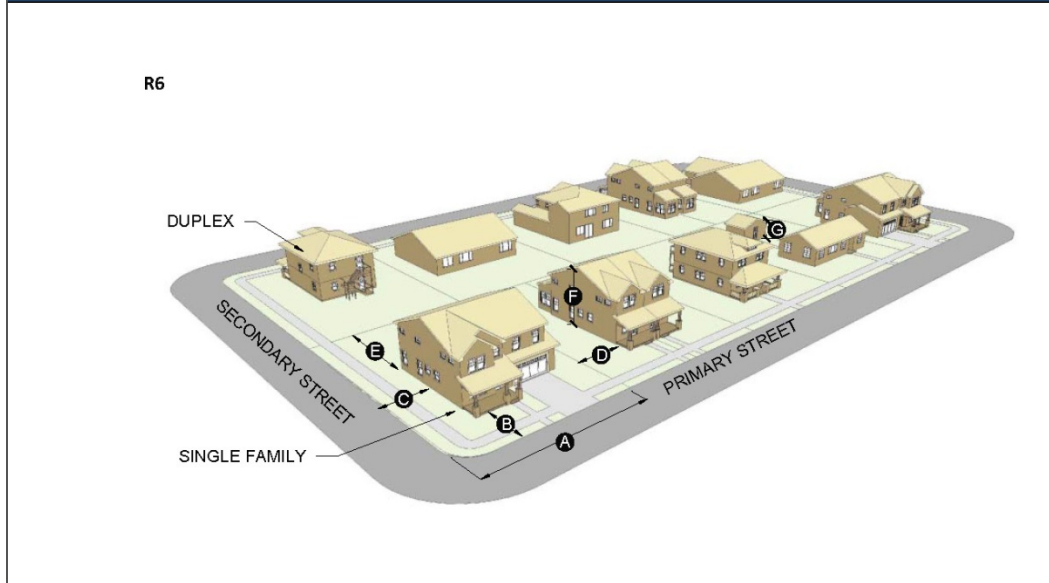


Table 2-1-3-4A: Residential 6 Lot and Building Standards

Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Building and Parking Siting Standards			
B	Min. Front	See Subsection D., below, and Division 2-1-8, Housing Palette	25 ft.
C	Min. Street Side		25 ft.
D	Min. Interior Side		10 ft.
E	Min. Rear		15 ft.
	Min. Arterial Setback ¹	100 ft.	No Minimum
	Min. Parking Setback	20 ft. ²	20 ft.
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
G	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	Min. Landscape Surface Area, Amenitized³	5%	-
Density Standards			
	Max. Density	6 u/a	-

TABLE NOTES:

¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks.

Table 2-1-3-4A: Residential 6 Lot and Building Standards		
Standard	Lot Type	
	Residential	Nonresidential
² Except for driveways associated with single family and duplex units and multiplex buildings. ³ Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.		

- I. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R6 zoning district:
1. Single-Family Detached: Small General; General; Small Suburban; Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban Type; ~~Urban Type~~
 5. Multiplexes
 6. Clustered Housing: Micro Homes; Cottage Types.
- J. **Cross-References.** The cross-references in Table 2-1-3-4B, Cross-References for Residential 6, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-4B: Cross-References for Residential 6	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units
Accessory Buildings	Section 5-1-5-3, Accessory Buildings
Satellite Dishes, Antennas, and Amateur Radio	Section 5-1-5-4, Satellite Dishes and Antennas; Amateur Radio Antennas
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Accessory Buildings (Non- Residential and Multifamily)	Section 5-1-6-1.E, Number of Accessory Buildings or Free- Standing Accessory Structures

2-1-3-5 R13: Residential 13

- F. **Purpose.** The purpose of the Residential 13 (R13) zoning district is to allow for new residential development of a variety of housing products up to a gross density of 13 units per acre.
- G. **Relationship to the Comprehensive Plan.** The R13 zoning district generally implements the “Medium Density Residential” land use category stated in the Comprehensive Plan.
- H. **Lot and Building Standards.** The standards for lots and buildings in the R13 zoning district are set out in Table 2-1-3-5A, Residential 13 Lot and Building Standards and Division 2-1-8, Housing Palette.

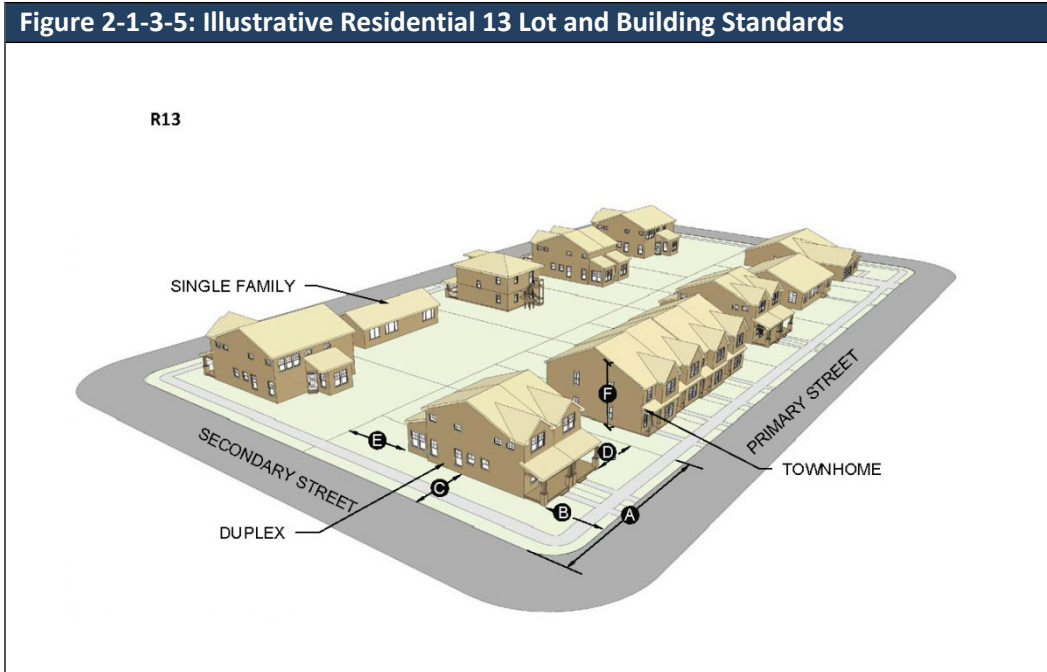


Table 2-1-3-5A: Residential 13 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Setback Standards			
B	Min. Front	See Subsection D., below, and Division 2-1-8, Housing Palette	20 ft.
C	Min. Street Side		20 ft.
D	Min. Interior Side		10 ft.
E	Min. Rear		15 ft.
	Min. Arterial Setback ¹	100 ft.	-
	Min. Parking Setback	20 ft. ²	20 ft.
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-

Table 2-1-3-5A: Residential 13 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	Min. Landscape Surface Area, Amenity ²	50%	-
Density Standards			
	Max. Density	13 u/a	-
TABLE NOTES: ¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks. ² Except for driveways associated with single family and duplex units and multiplex buildings. ³ Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.			

- I. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R13 zoning district:
1. Single-Family Detached: Small Urban; Urban; Small General; General; Small Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban; Urban
 5. Multiplexes
 6. Multifamily: General
 7. Clustered Housing: Micro; Cottages Types.
- J. **Cross-References.** The cross-references in Table 2-1-3-5B, Cross-References for Residential 13, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-5B: Cross-References for Residential 13	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and

Table 2-1-3-5B: Cross-References for Residential 13	
Topic	Reference
	Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units
Accessory Buildings	Section 5-1-5-3, Accessory Buildings
Satellite Dishes, Antennas, and Amateur Radio	Section 5-1-5-4, Satellite Dishes and Antennas; Amateur Radio Antennas
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Accessory Buildings (Non-Residential and Multifamily)	Section 5-1-6-1.E, Number of Accessory Buildings or Free-Standing Accessory Structures

2-1-3-6 R24: Residential 24

- A. **Purpose.** The purpose of the Residential 24 (R24) zoning district is to allow for new residential development of a variety of moderate to higher density housing products, up to a gross density of 24 units per acre.
- B. **Relationship to the Comprehensive Plan.** The R24 zoning district generally implements the “High Density Residential” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the R24 zoning district are set out in Table 2-1-3-6A, Residential 24 Lot and Building Standards and Division 2-1-8, Housing Palette.

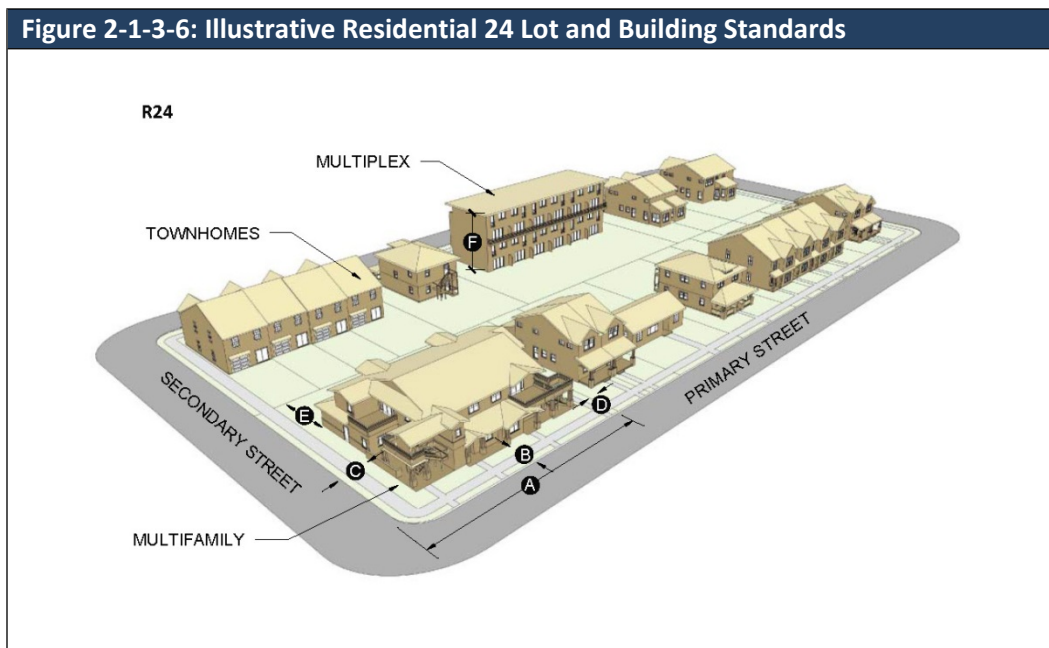


Table 2-1-3-6A: Residential 24 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Building and Parking Siting Standards			
B	Min. Front	See Subsection D., below, and Division 2-1-8, Housing Palette	20 ft.
C	Min. Street Side		20 ft.
D	Min. Interior Side		10 ft.
E	Min. Rear		15 ft.
	Min. Arterial Setback ¹	100 ft.	-
	Min. Parking Setback	20 ft. ²	20 ft.
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	Min. Landscape Surface Area, Amenitized³	5%	-
Density Standards			
	Max. Density	24 u/a	-
TABLE NOTES:			
¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks.			
² Except for driveways associated with single family and duplex units and multiplex buildings.			
³ Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.			

A.D. Housing Palette. The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R24 zoning district:

1. Single-Family Detached: Small Urban; Urban; Small General; General; Small Suburban
2. Zero Lot Line: Small General; General
3. Duplexes: Side-By-Side; Over-Under
4. Townhomes: Suburban; Urban
5. Multiplexes
6. Multifamily: General; Urban
7. Clustered Housing; Micro Homes; Cottages Types.

B.E. Cross-References. The cross-references in Table 2-1-3-6B, Cross-References for Residential 24, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-6B: Cross-References for Residential 24	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units
Accessory Buildings	Section 5-1-5-3, Accessory Buildings
Satellite Dishes, Antennas, and Amateur Radio	Section 5-1-5-4, Satellite Dishes and Antennas; Amateur Radio Antennas
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Accessory Buildings (Non- Residential and Multifamily)	Section 5-1-6-1.E, Number of Accessory Buildings or Free- Standing Accessory Structures

Table 2-1-4-1A: Mixed-Use, Neighborhood Lot and Building Standards			
Standard		Lot Type	
		Residential <u>or</u> <u>Mixed-Use that</u> <u>includes Residential</u>	Nonresidential <u>or</u> <u>Non-Residential</u> <u>Mixed-Use</u>
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	6,500 sf.
A	Min. Lot Width		60 ft.
	Max. Lot Coverage	70%	70%
Building and Parking Siting Standards			
B	Frontage Zone (min./max.)	For min. refer to Division 2-1-8, Housing Palette / 25 ft.	5 ft. / 25 ft.
	Min. Front Build-to-building-Façade <u>width</u> within Frontage Zone	50%	50%
C	Street Side Setback (min. / max.)	See Subsection D., below, and Division 2-1-8, Housing Palette	10 ft. / -
D	Min. Interior Side Setback		5 ft.
E	Min. Rear Setback, without alley		10 ft.
	Min. Rear Setback, with alley		2 ft. ²
F	Min. Front Parking Setback	15 ft. ³	15 ft.

Table 2-1-4-1A: Mixed-Use, Neighborhood Lot and Building Standards			
Standard		Lot Type	
		Residential <u>or</u> <u>Mixed-Use that</u> <u>includes Residential</u>	Nonresidential <u>or</u> <u>Non-Residential</u> <u>Mixed-Use</u>
	Min. Arterial Street	See Section 2-1-9-2, Arterial Street Setbacks	-
Building Standards			
G	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
	Max. Height, Accessory Building	18 ft.	-
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area ¹	15%	20%
	Min. Landscape Surface Area, Amenitized^{1,4}	5%	-
Density Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	

TABLE NOTES:

¹ For the development parcel.

² ~~For driveway access must be 18 ft. The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicant’s discretion.~~

³ Except for driveways associated with single family and duplex units and multiplex buildings.

⁴ [Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.](#)

Table 2-1-4-2A: Mixed-Use, Suburban Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that Includes Residential	Nonresidential or Non-Residential Mixed-Use
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	-
A	Min. Lot Width		-
	Max. Lot Coverage ¹	60%	60%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette / 35 ft.	10 ft. / 35 ft.

	Min. Front Build <u>to Widening Façade</u> within Frontage Zone	20%	20%
C	Min. Street Side Setback (min. / max.)	See Subsection D., below, and Division 2-1-8, Housing Palette	10 ft. / 35 ft.
D	Min. Interior Side Setback		10 ft.
E	Min. Rear Setback		20 ft.
F	Min. Parking Setback (front)		20 ft. ²
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	None
Building Standards			
G	Max. Height	45 ft.	45 ft.
	Max. Height, ADU (detached)	30 ft.	
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
		-	
Site Standards			
	Min. Landscape Surface Area	25%	25%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1,3}	2,500 sf.	
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,3}	10 percent of the net parcel area	5,000 sf. or 5 percent of the net parcel area, whichever is greater
Density Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.
TABLE NOTES:			
¹ For the development parcel.			
² Except for driveways associated with single family and duplex units and multiplex buildings.			
³ In addition to principal buildings, Small Urban Parks may count toward the Front Building Facade within Frontage Zone requirement.			

Table 2-1-4-3A: Mixed-Use, Urban Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed-Use
Lot Standards			
	Min. Lot Area	See Subsection E., below, and Division 2-1-8, Housing	None
A	Min. Lot Width		None

		Palette	
	Max. Lot Coverage ¹	75%	75%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette/20 ft.	0 ft. / 20 ft.
	Min. Front Build <u>to Widthing Façade</u> within Frontage Zone	35%	35%
C	Min. Street Side Setback (min. / max.)	See Subsection E., below, and Division 2-1-8, Housing Palette	0 ft. / 20 ft.
D	Min. Interior Side Setback		0 ft.
E	Min. Rear Setback		0 ft.
F	Min. Parking Setback (front)		20 ft. ²
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	—
Building Standards			
G	Max. Height, Principal Building	as identified on the Official Zoning Map	as identified on the Official Zoning Map
	Max. Height, ADU (detached)	30 ft.	
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	15%	15%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1, 3}	2,500 sf.	
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,3}	10 percent of the net parcel area	5,000 sf. or 5 percent of the net parcel area, whichever is greater
Subdivision Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	

TABLE NOTES:
¹ For the development parcel.
² Except for driveways associated with single family and duplex units and multiplex buildings.
³ In addition to principal buildings, Small Urban Parks count toward the Front Building Façade within Frontage Zone requirements.

Table 2-1-4-4A: Mixed-Use, Transit Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed Use
Lot Standards			
	Min. Lot Area	See Subsection E.,	None
A	Min. Lot Width	below, and Division 2-	None

Table 2-1-4-4A: Mixed-Use, Transit Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed Use
		1-8, Housing Palette	
	Max. Lot Coverage	80%	80%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette / 20 ft.	0 ft. / 20 ft.
	Min. Front Building Façade to width within Frontage Zone	60%	60%
C	Street Side Setback (min. / max.)	See Subsection E., below, and Division 2-1-8, Housing Palette	0 ft. / 20 ft.
D	Min. Interior Side Setback		0 ft.
E	Min. Rear Setback		0 ft.
F	Min. Parking Setback (front)	20 ft. ⁶	20 ft.
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	—
Building Standards			
	Min. Height ²	<u>1 story</u>	1 story ²
G	Max. Height	As identified on the Official Zoning Map	As identified on the Official Zoning Map
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
	Min. Ground Floor Height ⁴	13 ft. 6 in.	13 ft. 6 in. ³
Site Standards			
	Min. Landscape Surface Area ⁴	10%	10%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1,5}	2,000 sf.	2,000 sf.
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,5}	8 percent of the net parcel land area	3,000 sf. or 4 percent of the net parcel land area, whichever is greater
Subdivision Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	
TABLE NOTES:			
¹ For the development parcel.			
² See Section 5-1-3-1, Pedestrian Priority Streets, for minimum height requirement.			
³ For areas required by Section 5-1-3-1, Pedestrian Priority Streets.			
⁴ Rooftop and upper level deck amenities (except individual private balconies) may be counted towards the landscape surface ratio requirement.			
⁵ In addition to principal buildings, small urban parks count toward the Front Building Façade within Frontage Zone requirements.			
⁶ Parking is not allowed in the frontage zone.			

Table 2-1-5-4D: Mixed-Use Building Type Placement and Building Width

Standard		Context	Unit	Sub-District of OT Zoning District						
				E	EY	GV	OW	RN ¹	RR	W
A	Frontage Zone (min / max)	Generally, except as specified below	ft.	0 / 15	0 / 15	0 / 15	0 / 15	0 / 15	0 / 15	0/15
	Frontage Zone (min / max)	Ralston Road frontage	ft.	10 / 25	10 / 25	-	10 / 25	10 / 25	10 / 25	10 / 25
	Frontage Zone (min / max)	Robinson Way or Yukon Street frontage	ft.	10 / 25	10 / 25	-	10 / 25	10 / 25	10 / 25	-
	Frontage Zone (min / max)	Mcllvoy Park frontage	ft.	10 / 20	10 / 20	10 / 20	10 / 20	10 / 20	10 / 20	10/20
	Frontage Zone (min / max)	Olde Town Plaza frontage	ft.	-	-	-	0/20	-	-	0 / 20
B	Build-to (min)	Building Façade at Front Setback Line	% ²	75	85	85	75	75	75	85
B	Total Building Width (max)	Generally, except as specified below	ft.	150	180	60 <u>80</u>	60 <u>80</u>	180	120	180
B	Total Building Width (max)	Wadsworth Bypass frontage	ft.	240	-	-	-	-	240	-
B	Total Building Width (max)	Mcllvoy Park frontage ³	ft.	120	-	35	-	-	-	120

TABLE NOTES:¹ The Mixed-Use building form is allowed in this subdistrict only as provided in Section 2-1-5-2, Building Types.² Percent of lot width. See Section 2-1-5-3, Generally Applicable Lot and Building Standards.³ Applies where property is directly adjacent to or across the street from Mcllvoy Park.**Table 2-1-6-1A: Commercial, General Lot and Building Standards**

Standard		All Lot Types
Lot Standards		
	Min. Lot Area	5,000 sf.
A	Min. Lot Width	50 ft.
	Max. Lot Coverage	35%
Setback Standards		
B	Min. Front	20 ft.
C	Min. Street Side	20 ft.
D	Min. Interior Side	10 ft.
E	Min. Rear	20 ft.
	Min. Front Parking	20 ft.
Building Standards		
F	Max. Height, Principal Building	45 ft.
	Max. Height, Accessory Building	18 ft.
	Max. Height, Mini-structure	12 ft.
Site Standards		
	Min. Landscape Surface Area	20%
	Max. Outdoor Display	5% of enclosed retail floor area
	Max. Outdoor Storage	5% <u>of lot area</u>
Height Transition Zone		
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.

Table 2-1-6-2A: Industrial, Light Lot and Building Standards		
Standard		All Lot Types
Lot Standards		
	Min. Lot Area	None
	Min. Lot Width	None
	Max. Lot Coverage	50%
Setback Standards		
A	Min. Front	20 ft.
B	Min. Street Side	20 ft.
C	Min. Interior Side	5 ft. ¹
D	Min. Rear Setback	5 ft. ¹
	Min. Front Parking	20 ft.
Building Standards		
E	Max. Height, Buildings	40 ft.
	Max. Height, Mini-structures	12 ft.
Site Standards		
	Min. Landscape Surface Area	15%
	Max. Outdoor Display	10% of enclosed retail floor area
	Max. Outdoor Storage of Lot Area	35% <u>of lot area</u>
TABLE NOTES:		
¹ Side and rear setbacks shall be 20 ft. where adjacent to a single-family detached use in unincorporated Jefferson County.		

Table 2-1-6-3A: Industrial, General Lot and Building Standards		
Standard		All Lot Types
Lot Standards		
	Min. Lot Area	None
	Min. Lot Width	None
	Max. Lot Coverage	60%
Setback Standards		
A	Min. Front	20 ft.
B	Min. Street Side	10 ft.
C	Min. Interior Side	10 ft. ¹
D	Min. Rear	10 ft. ¹
	Min. Front Parking	10 ft.
Building Standards		
E	Max. Height, Buildings	45 ft.
	Max. Height, Mini-structures	12 ft.
Site Standards		
	Min. Landscape Surface Area	10%
	Max. Outdoor Display	90% of enclosed retail floor area
	Max. Outdoor Storage	90% <u>of lot area</u>
TABLE NOTES:		
¹ Side and rear setbacks shall be 20 ft. where adjacent to a single-family detached use in unincorporated Jefferson County.		

Table 2-1-8-7: Townhome Building Standards

Lot Type	Vehicular Access	Minimum						Maximum		
		Unit Width	Street Setback	Alley Garage Setback	Non-street Frontage Perimeter Setback	Building Separation, side to side	Building Separation, all others	Units Per Building	Building Coverage	Height
Suburban	Alley or Parking Court	20 ft.	15 ft. ¹	2 ft. ²	15 ft.	10 ft.	30 ft. ³	8	100%	35 ft.
	Street	28 ft.	18 ft.	-	15 ft.	10 ft.	30 ft. ³	8	100%	35 ft.
Urban	Alley or Parking Court	16 ft.	10 ft. ¹	2 ft. ²	10 ft. ⁴	10 ft.	20 ft.	10	100%	35 ft.

TABLE NOTES:
¹ Where garage access is directly from a side street, the minimum garage setback shall be 18 ft.

² The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion.

³ Building separation can be reduced to 20 feet if buildings are one or two stories.

⁴ If **more than** one-half of the units in a townhome building are adjacent to a non-street frontage perimeter, then the minimum setback shall be 15 feet.

Table 2-1-10-1: Permitted Encroachments into Required Setbacks

Structure or Feature	Permitted Locations in Setbacks
Single-story covered front porches	Permitted to extend outward from the building 8 feet into a front setback, but no closer than 12 feet to the front property line. This encroachment shall only apply to the front setback, not the street side setback. ¹
All other covered porches, decks, terraces, and patios and are not enclosed Covered stairs that provide below grade access to a building	Permitted to extend outward from the building 8 feet into a rear setback, but no closer than 8 feet from the rear property line. Permitted to extend outward from the building 4 feet into a side setback, but no closer than 3 feet from the side property line. ¹
Uncovered porches, decks, patios, concrete slabs, and other flatwork, provided that such items are no more than 30 inches in height above grade	Permitted anywhere in setbacks. ¹
Uncovered balconies, decks, and outside stairs of any height more than 30 inches above grade	Permitted to extend outward from building 6 feet into a front or rear setback, but no closer than 12 feet to the front property line and 8 feet to the rear property line. Permitted to extend outward from the building 4 feet into a side setback, but no closer than 3 feet from the property line. ¹
Bay windows, window sills, eaves, cantilevers, cornices, fireplace chimneys, roof overhangs, and architectural and ornamental features	Permitted to extend outward from building up to 2 feet into any setback. ¹
Clotheslines and clothesline poles	Permitted in rear or side setback only, but not closer than 18 inches from any side or rear property line. ¹
Driveways	Permitted anywhere in setbacks.

Table 2-1-10-1: Permitted Encroachments into Required Setbacks	
Structure or Feature	Permitted Locations in Setbacks
Trash containers	Permitted in side and rear setbacks when not adjacent to residential use. Not permitted in the OT and MX districts frontage zone.
Fences and walls	See Article 4-7, Fences and Divisional Walls.
Flagpoles, lighting poles, and other poles not otherwise covered in this table	Permitted in any setback, provided that the height of any such pole, except for flagpoles, shall not exceed the distance from the base of the pole to the nearest property line. Flag poles are subject to the height and setback restrictions set forth in Section 6-1-2-3. Amateur radio antennas shall not be located in a front setback.
One accessory building not larger than 600 square feet or an attached garage addition provided that the garage addition will not result in more than a cumulative total of 600 square feet of attached garage The encroachment shall apply to the accessory building, or an attached garage addition, but does not apply to both	Permitted in any side or rear setback in the RN zoning district only, but not closer than 5 feet from any side or rear property line.
Landscaping, including trees, shrubs, flowers, hedges, and other features	Permitted anywhere in setbacks, subject to city standards governing sight distances. See Section 4-4-3-4 Intersection Visibility.
Little Library	If no more than 3 square feet and 5'5 feet high, may encroach into front setback but not closer than one-foot from the front property line or public sidewalk, whichever is closer.
Mini-structures	See Section 5-1-4-3, Mini Structures.
Mobility access ramps and lifts for existing single-family detached dwelling units, duplex, and townhomes	Allowed as necessary upon written request to the Director.
Signs	See Chapter 6, Signs.
Swimming pools	See Section 5-1-4-2 Swimming Pools, Hot Tubs, and Spas.
Air conditioning units	Permitted in side and rear setbacks but not in a front setback.
Counterforts	Permitted in any setback provided it does not encroach more than 5 feet into a front or rear setback and 3 feet into the side setback.
Window wells	Permitted in any side setback provided it does not exceed 15 square feet and does not encroach more than 3 feet into the side lot setback easement.
Window awnings	Permitted in any setback, but not closer than 10 feet from the rear property line or 18 inches from a side property line.
Wireless Communications Facilities	See Chapter 7, Wireless Communications Facilities.
TABLE NOTES: ¹ The maximum encroachment noted is measured from the building wall, or in the case of pergolas, carports, or other structures without walls, the maximum encroachment is measured from the vertical structural element such as a post.	

Table 3-1-2-5: Commercial Land Use by Zoning District

Land Use	Open Space and Residential						Mixed-Use				Olde Town							Commercial and Industrial			Reference
	OS	RA	RN	R6	R13	R24	MX-N	MX-S	MX-U	MX-T	OT-E	OT-EY	OT-GV	OT-OW	OT-RN	OT-RR	OT-W	CG	IL	IG	
Animal Day Care / Training		C					L	L	L	L								L	L		3-1-3-5
Animal Hospital (Large Animal)		A																			-
Art Studio / Makerspace		A					A	A	A	A	L	L	L	L	L	L	L	A	A	A	3-1-3-5
Auction House or Yard																			L	L	3-1-3-5
Continuing Care Facility					A	A	A	A	A	A	A	A	A			A	A	C			
Kennel		C																	L	A	3-1-3-5
Office, General or Professional							A	A	A	A	A	A	A	A	A	A	A	A	A	A	-
Retail Sales and Services Type 1 ¹							L	L	L	L	L	L	L	L	L	L	L	L	L		3-1-3-5
Retail Sales and Services Type 2 ¹								L	L	L								L	L		3-1-3-5
Veterinary Offices or Clinics		C					L	L	L	L	L	L	L			L	L	L	L		3-1-3-5
Workshop							A	A	A	A								A	A	A	3-1-3-5

TABLE NOTES:
¹ All drive-through facilities are subject to the standards in Section 5-1-6-2, Drive-Through Facilities, which may prohibit a drive-through in certain locations.

3-1-3-5 Commercial Standards

A. Animal Day Care / Training.

1. In the MX and CG zoning districts, the use shall be located entirely indoors.
2. In the IL zoning district, if the use is located within 300 feet of a residential zoning district, no outdoor activities related to the use shall occur between the hours of 9:00 PM and 7:00 AM.

B. Art Studio / Makerspace.

Such use shall not exceed 5,000 square feet unless located within a vertically mixed-use building.

C. Auction House.

All business activities shall be conducted within an entirely enclosed building.

D. Kennel.

1. In the RA and IL zoning districts, a kennel facility shall be subject to the following:
 - ~~1.a.~~ Outdoor facilities, including outdoor runs, shall not be located within 150 feet of any adjacent residential zoning district.
 - ~~2.b.~~ If the use is located within 300 feet of residentially zoned property, no outdoor activities related to the use shall occur on the subject property between the hours of 9:00 PM and 7:00 AM.
 - ~~3.c.~~ The parts of a building where animals are boarded shall be fully enclosed and shall be sufficiently insulated so no unreasonable noise or odor can be detected off premises.
 - d. All kennels shall be licensed by the City of Arvada pursuant to Article VIII, "Kennel License," of Chapter 14 of the Arvada Code of Ordinances.

4.2. A residence for a caretaker is allowed, subject to the requirements of Section 5-1-6-7, Custodial Unit.

E. **Retail Sales and Services, Type 1.**

1. **Retail Sales Uses – General.**

Retail sales uses must take place within a completely enclosed building, except that accessory outdoor display of merchandise, and accessory outdoor customer seating/dining areas are permitted, subject to the following standards:

- a. Outdoor display areas must comply with the minimum street setback requirements of the subject zoning district.
- b. Outdoor display areas may not occupy or use required parking space or drive aisle unless approved by the Director.
- c. Outdoor seasonal temporary sales display requires a temporary use permit.

F. **Retail Sales and Services, Type 2.**

1. **Convenience Lending Operations.**

All convenience lending operations except national banks and those operating as of the effective date of this Code shall comply with the following locational restrictions and standards:

- a. It shall be unlawful to operate or cause to be operated a convenience lending operation within 2,500 feet of another convenience lending operation.
- b. It shall be unlawful to operate or cause to be operated a convenience lending operation within 300 feet of any residentially-zoned property.
- c. The distance between any two such operations shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which each such operation is located, and the distance between a convenience lending operation and a residentially-zoned property shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which the operation is located to the nearest property line of the residentially-zoned property, excluding public street rights of way.

2. **Used Merchandise Stores and Donation Centers (retail, used - primarily donated; retail, used - primarily non-donated; used merchandise donation center).**

- a. Used merchandise stores that accept donated goods on the premises and used merchandise donation centers shall:
 - i. Coordinate delivery and acceptance of donations, during business hours only, either inside the store or center, or outside the store or center as long as donations are moved inside immediately after drop-off;
 - ii. Sort and store donations only inside the store or center;
 - iii. Patrol the store or center premises as the need arises to remove any donations left outside after hours; and
 - iv. Remove donations left outside of the store or center after business hours no later than 7:00 AM the next morning.
- b. A used merchandise store shall devote more than 50% of its floor area to retail sales.
- c. The arrangement of activities inside a used merchandise store shall be such to preserve a retail character when it is viewed from the outside. Where the building façade

includes windows or doors, the areas within the building visible through these openings shall be used for retail sales only.

- d. Used merchandise donation centers shall be limited to a maximum gross floor area of 2,500 square feet and a maximum tenant width of 25 feet.
 - e. Donation boxes, trailers, containers, or other structures intended and utilized as an exterior, stand-alone receptacle or depository for the donation of goods are prohibited.
 - i. Based upon the generally mobile, temporary, impermanent, and accessory nature thereof, and notwithstanding the provisions of Chapter 9, Nonconformities of this Code, any such box, trailer, container, or structure, or use of such box, trailer, container, or structure, legally established prior to May 12, 2011 shall be permitted to continue in place, but such use, and the lawful status of such structure and use, shall terminate upon the occurrence of any of the following:
 - a. Any change in tenancy, ownership, or management of the structure or user thereof;
 - b. Any cessation of such use, or absence of such structure from the premises, for a period of 30 days or more;
 - c. Any damage or destruction of the structure, by any means, to the extent of more than 50 percent of its structural replacement value prior to such damage or destruction;
 - d. Any enlargement or expansion of such structure or use;
 - e. Any alteration (beyond that necessary for routine maintenance and repair) or relocation of the structure on the premises, other than that which, in the sole discretion of the Director, is determined appropriate; or
 - f. A failure to register the structure or use within the allotted time period, as provided in below.
3. The owner of any such box, trailer, container, or structure legally established prior to May 12, 2011, and the user thereof (if different than the owner), must have registered such structure or use with the Director prior to December 30, 2011.

G. Veterinary Office or Clinic.

1. All veterinary offices or clinics shall be subject to the following requirements:
 - a. All facilities, including all treatment rooms, cages, pens, training rooms, and exercise runs, shall be within a completely enclosed, soundproof building.
 - b. Short-term overnight boarding associated with the medical treatment and post-operative care of animals shall be allowed, provided such boarding is contained within a completely enclosed building.

H. Workshop.

1. The use shall not exceed 5,000 square feet unless located within a vertically mixed-use building.

3-1-3-7 Industrial, Processing, Recycling, Storage, and Disposal Standards

A. Brewery / Winery / Distillery.

1. In the MX-S zoning districts warehousing is prohibited.

B. Heavy Logistic Center Industry

1. All buildings shall be a minimum of 300 feet from any residential district.
2. Landscaping and barriers shall be provided and located such that no part of parked vehicles will extend beyond the yard space or into the setback space from a lot line abutting a residential lot or separated therefrom by a street.
3. An Option B landscape bufferyard, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
4. Barriers shall be provided and located such that no part of parked vehicles will extend beyond the yard space or into the setback space from a lot line abutting a residential lot or separated therefrom by a street.

C. Light Industry.

1. Bakery.

- a. In the IL and IG zoning districts, no more than 50 percent of the gross floor area of a bakery shall be devoted to retail sales.

2. Manufacturing, Light Trade and Technical Uses.

- a. In the IL and IG zoning districts, the following shall apply:
 - i. Loading and unloading of shipments shall be permitted.
 - ii. The land uses inside the building shall preserve a commercial, retail or office character viewed from the outside.
 - iii. All industry, manufacturing and production uses shall utilize the best industry standard, maintenance, and control available to maintain the lowest possible measurement of emission of odorous gases.
- b. In the MX-N, MX-S, MX-U, MX-T, and CG zoning districts:
 - i. Primary manufacturing, processing, and fabrication uses shall be completely enclosed within a building.
- c. In the MX-N, MX-S, and MX-U zoning districts:
 - i. If the use is located within 200 feet of a residential district, the use shall not operate between the hours of 9:00 PM and 7:00 AM.

3. Office, General Contractor.

- a. Office uses with storage related to construction shall only be permitted in the IL and IG zoning districts, and the following requirement shall apply:
 - i. Any outdoor storage area shall be screened with an Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options.

4. Research, Development, and Testing Laboratories.

- a. In the CG, IL and IG zoning districts:
 - i. Laboratories shall not contain or utilize toxic or explosive materials.
 - ii. All facilities shall be completely enclosed.

5. Warehousing and Distribution.

- a. In the CG and IL zoning districts, retail sales in conjunction with a permitted warehouse establishment may be allowed subject to the following conditions:

- i. All retail sales shall be conducted within the same structure housing the principal warehouse use, and no outdoor retail sales activity shall be allowed.
- ii. Parking for the retail accessory use shall be provided in accordance with the off-street parking standards for retail uses in Section 4-5-2-2, Parking Requirement Tables.

6. Wholesale Establishments.

- a. Wholesale establishments with stock may be permitted in the IG zoning district except for the following:
 - i. Live animals;
 - ii. Commercial explosives;
 - iii. Flammable or combustible liquids are permitted provided their use, dispensing, mixing, and storage complies with all the requirements of the currently adopted edition of the applicable Building Code, Fire Code, Plumbing Code, Mechanical Code, and National Electrical Code and all applicable State and Federal laws;
 - iv. Flammable gases are permitted provided their use, dispensing, mixing, and storage complies with all of the requirements of the currently adopted edition of the applicable Building Code, Fire Code, Mechanical Code, Plumbing Code, and National Electrical Code, and all applicable State and Federal laws.
- b. Retail sales in conjunction with wholesale establishments may be allowed, provided that:
 - i. Not more than 20 percent of floor area or sales volume of any individual user or tenant may be devoted to retail operations. Notwithstanding this 20 percent limitation, furniture and carpet wholesalers may have greater than 20 percent of their floor area or sales volume devoted to retail operations.
 - ii. All retail sales shall be conducted within the same structure housing the principal wholesale use, and no outdoor retail sales activity shall be allowed.
 - iii. Parking for the retail accessory use shall be provided in accordance with the off-street parking standards for retail uses as set forth in Section 4-5-2-2, Parking - Requirement Tables.

D. Recycling Drop-Off (Attended).

- 1. The facility shop shall be located at least 500 feet from a residential zone district. This requirement may be reduced or eliminated by the Director if the Applicant proves that the proposed use, site design, its traffic generation, and other external effects indicates a reduced separation will have no significant effect on the nearby residential zone district.
- 2. The use shall comply with the screening and enclosure requirements of Division 5-1-6-3, Outdoor Storage and Outdoor Retail Display.

E. Resource Extraction (Minerals).

The following applies in all zoning districts:

1. Permitting Requirements.

- a. The Applicant shall be responsible for securing all other permits or approvals required by any other governmental agency that may have jurisdiction over the proposed use.

- b. It shall be unlawful for any person, firm, or other entity to process, crush, blast or similarly treat earth materials on any approved borrow pit site.
- c. In addition to the standards specified in this Section and in Chapter 2, Zoning Districts of this Code, the proposed use shall be evaluated using the applicable standards that the state or federal government use to evaluate a permit request for the specific use. Additionally, all annual or other reports required by another governmental agency shall be simultaneously submitted to the City.

2. **Mining Operations.**

- a. Mining equipment, except for reservoir construction equipment, shall be considered mechanical equipment and, in lieu of the screening standards set forth in Article 4-6, Landscaping and Buffering, such equipment shall be subject to the following requirements:
 - i. All mining equipment and operation areas shall be screened from sight from adjacent properties or right-of-way by the use of berms or by other equivalent means; and
 - ii. All mining equipment shall be located behind building setback lines.
- b. All roadways longer than 100 feet used for ingress and egress from the public roadway to the area of mining operations shall be cleaned and maintained to minimize the fugitive dust which is generated by vehicles.
- c. All mining operations, except for reservoir construction, shall be at least 200 feet from the property line. No open pit mine shall be deeper than 200 feet. No reclaimed open pit mine shall be left deeper than 100 feet.
- d. No finished grade shall exceed slopes of one foot of rise in three feet of horizontal distance. A diverse permanent vegetative cover shall be established on all disturbed areas to achieve erosion control equal to pre-mining levels. The cover shall be predominantly of native species. Disturbed areas shall be kept to a minimum. Reclamation shall commence within one growing season after slopes reach final grade.
- e. Mining, processing, or transporting operations, except for reservoir construction, shall be within the time limits of 7:00 a.m. to 6:00 p.m., with no operations on Sunday. Maintenance operations are not subject to this provision.
- f. The use of explosives is subject to all state and federal standards and restricted to a maximum of five calendar days per year. All blasting shall be conducted in a manner which will not cause a peak particle velocity on any adjacent property which exceeds one-half inch per second. A blast over pressure shall not exceed 130 db peak measured at 6 Hz or lower flat response at the property line.
- g. Quarrying of hard rock aggregate is prohibited.
- h. Sediment caused by accelerated soil erosion shall be removed from runoff water before leaving the site. Runoff shall not be discharged from the site in quantities or at velocities above those occurring before mining.

3. **Exempt Activities.** The following burrowing and hauling of earth material may be done without obtaining a conditional use permit from the City:

- a. Minor projects which have cuts or fills each of which is less than five feet in vertical depth at its deepest point measured from the existing ground surface, which include the following:

- i. Less than 50 cubic yards of earth material; or
 - ii. The removal of less than 10,000 square feet of vegetation.
- b. Minimum excavation required in connection with a building or other structure authorized by a valid building permit.
- c. Grading work being done pursuant to an approved grading plan in conjunction with an approved recorded plat, development plan or over lot grading plan being done on the same property.
- d. Trenching incidental to the construction and installation of approved underground pipeline, septic tank, disposal lines, electrical or communication facilities, and drilling or excavation for approved wells or fence posts.
- e. Grading or excavation in accordance with plans incorporated in an approved conditional use permit.
- f. Maintenance and cleaning of ditches, lakes, ponds, and water storage reservoirs.

F. Resource Extraction (Oil and Gas).

- 1. Reserved.

G. Salvage Yard.

- 1. The following applies:
 - a. Salvage yards shall not be located on property adjacent to any of the following streets:
 - i. 52nd Avenue;
 - ii. 60th Avenue;
 - iii. Lamar Street; and
 - iv. Sheridan Boulevard.
 - b. The use shall not be located closer than 25 feet to an adjacent street right-of-way.
 - c. The subject property shall be surrounded by an Option C or D buffer, per Section 4-6-5-3, Bufferyard Options.
 - d. Best management practices for stormwater quality must be implemented and maintained on-site.

H. Self-Storage.

- 1. The following shall apply to all Self-Storage facilities:
 - a. Public access to any storage unit within 150 feet of any residential zoning district or lot containing a residential use in any mixed-use zoning district is not allowed between 10:00 PM and 7:00 AM.
 - b. The use is not allowed at the intersection of two arterial streets.
 - c. Self-storage facilities are subject to the design standards in Section 5-1-2-8, Industrial, Self-Storage, or Distribution.
- 2. In the MX-S and CG zoning districts:
 - a. All storage shall be within a building, and access to individual storage units shall be from interior corridors. Storage units with access from the exterior building may be permitted on non-street frontage facades. No outdoor storage of goods or vehicles is allowed.
 - b. The use shall be located a minimum of 150 feet from any residential zoning district.

3. In the IL and IG zoning districts:
 - a. The use may have multiple buildings with storage units and / or storage units in free-standing buildings.
 - b. Doors to individual storage units shall not be directly accessible from any street frontage.
 - c. Individual storage units shall face the interior of the site. This does not apply to storage units within an enclosed structure.
 - d. A residence for a caretaker is allowed, subject to the requirements of Section 5-1-6-7, Custodial Unit.
4. Operation and Activities.
 - a. The incidental retail sale of products associated with the business (e.g., boxes, moving supplies) is allowed.

I. Storage Yard.

1. In the IG zoning districts:
 - a. The use shall not be located closer than 25 feet to an adjacent street right-of-way.
 - b. No storage or accumulation of waste products, including paint, stain, oils, grease, or other flammable, toxic, or hazardous materials, or stagnant water, shall be permitted as part of any storage yard use if they exceed the currently adopted fire code requirements. Flammable liquids or gases in excess of 1,000 gallons shall be stored underground.
 - c. Suitable containers for rubbish shall be placed on the premises. See Section 5-1-6-5, Trash Collection and Compaction.
 - d. There shall be at least one 24 feet access drive that shall be wide enough to accommodate two vehicles side-by-side.
 - e. No storage yards shall be located closer than 300 feet from any lot line that abuts a residential zoning district or single-family detached residential uses in unincorporated Jefferson County.
 - f. In areas that adjoin a residential use, there is no height limit on the outdoor storage provided that the storage yard is screened from view from the closest point of the adjacent residential structure or right-of-way.
 - g. Permitted hours of operation shall be 7:00 AM to 7:00 PM.
 - h. There shall be no height restriction for machinery, vehicles, and cranes licensed, leased, and/or titled to a business conducted on the property.
 - i. Storage of customer vehicles for a period not to exceed 90 days is exempt from the screening height restrictions.

J. Waste Removal Fleet Storage and Administration.

1. In the IL and IG zoning districts:
 - a. The use shall not be located closer than 25 feet to an adjacent street right-of-way.
 - b. No storage yards shall be located closer than 300 feet from any lot line that abuts a residential zoning district or dwelling unit.
 - c. Permitted hours of operation shall be 7:00 AM to 7:00 PM.

K. Waste Transfer Station.

1. In the IG zoning district:

- a. The use shall not be located within one-half mile of a residential zoning district.
- b. The subject property shall be surrounded by an Option C buffer, per Section 4-6-5-3, Bufferyard Options.

3-1-3-8 Motor Vehicle Use Standards.

A. Fueling / Service Station.

1. Fueling / Service Station Requirements

- a. When permitted:
 - i. The use shall be located within 660 feet of an intersection of arterial streets unless it is associated with a retail use (e.g., a grocery store or warehouse club) that is at least 45,000 square feet in floor area.
 - ii. No more than two service stations or convenience stores with fuel sales may be located within 660 feet of a single Arterial/Arterial intersection. Where more than two service stations or convenience stores exist at the time of the adoption of this Code, they shall be considered an allowed use.
 - iii. Vehicle access to such uses shall be limited to a maximum of one curb cut per street frontage.
 - iv. On-site vehicle access and circulation shall be designed so that adjacent residential uses or properties are not disturbed, either by day or night, by the movement of vehicles or the lights from vehicles.
 - v. Fueling pump canopies shall comply with the requirements of Subsection 5-1-2-3-C-9, Canopies and Port-Cochères.
 - vi. In the MX-S, MX-U and MX-T zoning districts, options for the site design of the fueling / service station are set out in Subsection 4-3-3-4F, Fueling / Service Station Site Design.
 - vii. A service station with a convenience store shall provide adequate space to allow a minimum of three cars to stack in a line for fuel dispensing services without using or obstructing any portion of an adjacent public sidewalk or right-of-way.

2. Minimum Lot Dimensions.

- i. Minimum lot area: 12,000 square feet.
- ii. Minimum lot width (street frontage): 120 feet.
- iii. Limits on Number of Service Bays and Pump Islands. A service station or convenience store with fuel sales may have a maximum two service bays and two pump islands on a 12,000 square foot lot. One service bay or one pump island may be added for each additional 2,000 square feet of lot area, provided that the total number of service bays shall not exceed five per lot and the number of pump islands shall not exceed five per lot.

3. Building and Equipment Setbacks and Buffers.

- iii. Fuel pumps, pump islands, detached canopies, compressed air connections, and similar equipment, shall be set back a minimum of 40 feet from all street rights-of-way and from all property lines abutting a residential zoning district or a parcel containing residential uses.

- iv. When the service station use abuts a residential zoning district, use, or property, an Option C or D buffer shall be required, per Section 4-6-5-3, Bufferyard Options.

4. Service Station with Vehicle Repair.

- a. When permitted:
 - i. Hydraulic hoists, pits, and all lubrications, greasing, automobile washing, or repairing equipment shall be entirely enclosed within a building. When any such building or portion of a building faces, abuts, or is adjacent to residentially zoned property, the closest, adjacent building wall or face shall consist of a solid blank wall with no openings other than those required by applicable building codes.
 - ii. All repair work, vehicle washing, lubrication, and installation of parts and accessories shall be wholly performed within an enclosed building or structure.
 - iii. All vehicle parts, dismantled vehicles, and similar materials, and all discarded materials such as tires, cans, and drums, shall be stored within an enclosed building or totally screened from view by a solid, opaque fence. See Division 4-7-2, Fences and Divisional Walls for acceptable fence/wall materials.
 - iv. All vehicles awaiting repair shall be stored onsite in approved parking spaces and under no circumstances shall such vehicles be stored outside in an inoperable condition or stored on or obstruct access to a public right-of-way.

J. Motor Vehicle Repairs and Service, Heavy.

- 1. When permitted:
 - a. All repair and vehicle storage shall be completely enclosed within a building.
 - b. An Option B buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
 - c. An Option C or D buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district or MX with residential uses.
 - d. Overhead bay doors that face residential zoning districts shall be set back at least 60 feet from the residential zoning district boundary.
 - e. The use shall not operate between 7:00 PM and 7:00 AM if it is located within 300 feet of a residential zoning district, measured from the outside building wall that encloses the use to the zoning district boundary.

K. Motor Vehicle Repairs and Service, Light.

- 1. In the MX-N, MX-S, CG, and IL zoning districts:
 - a. All vehicle repair uses shall be conducted within a completely enclosed building.
 - ~~b.~~
 - ~~b. The use shall not operate between 7:00 PM and 7:00 AM if it is located within 300 feet of a residential zoning district, measured from the outside building wall that encloses the use to the zoning district boundary.~~
 - ~~a.c.~~ An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options is required between the use and any adjoining residential zoning district.
 - ~~e.d.~~ Storage of vehicles on the premises shall not exceed 15 days.
 - ~~d.e.~~ Open storage of wrecked or inoperable cars, discarded tires, auto parts, or similar materials shall be prohibited.
 - ~~e.f.~~ Garage bays shall not face a street.

L. Motor Vehicle Storage.

1. In the IL and IG zoning districts;
 - d. An Option B landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
 - e. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district.
 - f. The use shall be located behind the principal building, unless the stored motor vehicles are inventory that is for sale or for rent.

M. Motor Vehicle Towing Services.

1. In the IL and IG zoning district:
 - e. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the yard and adjoining right-of-way and any adjoining residential zone district.
 - f. Vehicular ingress-egress shall be limited to one point for each side of property abutting any street.
 - g. All vehicles and activities not within fully enclosed buildings shall be enclosed by a solid fence or wall at least six feet in height, including point of ingress or egress.
 - h. No vehicle repair, maintenance, or body work shall take place.
2. In the IL zoning district:
 - b. The site shall not be more than two acres in size.

N. Motor Vehicle Wash.

1. Motor vehicle wash facilities including automotive detail facilities shall comply with the following conditions:
 - a. **General Requirements.**
 - i. A motor vehicle wash facility is prohibited at the intersection of two arterial streets, unless it is located in a center occupying at least two acres and containing other commercial establishments occupying at least 12,000 square feet gross floor area.
 - ii. The motor vehicle wash facility, including all driveways, entrances and appurtenant structures, must be set back a minimum of 20 feet from any adjacent street. The entire 20-foot setback must be landscaped to provide a buffer from adjacent streets.
 - iii. No motor vehicle wash facility shall be located on a corner lot.
 - b. **Open Bay Motor Vehicle Wash Facility.**
 - i. No new motor vehicle wash facility may be located within one-half mile of any other existing motor vehicle wash facility having two or more car wash bays within the city limits of Arvada.
 - c. **Enclosed Motor Vehicle Wash Facility.**
 - i. All enclosed motor vehicle washing bays must have bay doors. No bay door shall face the adjacent street or an adjacent residential district.
 - ii. All enclosed motor vehicle wash facilities must be self-contained, except those services such as drying, polishing or vacuuming which may be performed outdoors. Exterior vacuums must have the machinery located within the main wash building with only vacuum hoses located outside.

- O. **Parking Lot Surface, Stand-Alone.** Where identified as a conditional use, a stand-alone surface parking lot shall be subject to the following requirements:
 - 1. A stand-alone surface parking lot shall not front an arterial or collector street.
 - 2. The stand-alone surface parking lot shall meet all the landscaping requirements of Article 4-6, Landscaping and Buffering.
 - 2.3. A stand-alone surface parking lot associated with an adjacent primary use shall also comply with the requirements of Section 4-5-3-4, Off-Site Parking.
- P. **Parking Garage, Structured.** Refer to Section 5-1-6-8.
- Q. **Vehicle Equipment Sales or Rentals.**
 - 1. **Vehicle Sales and Rentals.**
 - b. In the MX-S, MX-U, MX-T, CG, and IL zoning districts:
 - i. All vehicles used for sales display or inventory must be stored indoors.
 - ii. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district.
 - iii. Overhead bay doors that face residential zoning districts shall be set back at least 60 feet from a residential zoning district boundary.
 - c. In the MX-T zoning district, only automobile rentals shall be permitted and only in principal hotel and motel uses with surface parking limited to a maximum number of 10 parking spaces dedicated to the use.
 - 3. **Equipment Sales and Rentals.**
 - a. In the MX-S, MX-U, MX-T, CG, and IL zoning districts:
 - i. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district.
 - ii. Overhead bay doors that face residential zoning districts shall be set back at least 60 feet from the residential zoning district boundary.

3-1-4-5 Food and Retail Truck Vending

- A. **Generally.** Food and retail truck vending is allowed as provided in this Section.
- B. **Where Permitted.**
 - 1. Food and retail truck vending is permitted in the following areas and under the following circumstances:
 - a. On private property as provided in Section 3-1-4-2, Temporary Uses by Zoning District;
 - b. In any park or public space (regardless of zoning district), if approved by the governmental entity exercising ownership or control thereof; and
 - c. In a public street right-of-way (regardless of zoning district), subject to the limitations established in Subsection D.2., below.
 - 2. Notwithstanding any provision herein to the contrary, allowing food and retail truck vending in a park, public space, or public street right-of-way shall be in the sole discretion of the governmental entity exercising ownership or control thereof.
- C. **Permit Required.** Except as otherwise provided herein, no person may engage in activities of food or retail truck vending without first obtaining a City of Arvada business license and a Food

Truck Permit for food vendors or a Retail Vending Truck Permit. The approved temporary use permit shall be permanently displayed to the public in the food handling area of the food truck vending operation or in the retail area of a retail vending truck.

D. Standards. The following rules and requirements shall apply to all food and retail truck vending:

1. Hours of Operation. Hours of operation shall be between 6:00 a.m. and 11:00 p.m. unless a different time is specified in the temporary use permit.
2. Location.
 - a. Operations shall not obstruct the visibility of motorists, nor obstruct parking lot circulation or block access to a public street, alley, or sidewalk.
 - b. Operations shall be located at least 50 feet from any residential ~~zoning-district~~use or mixed-use ~~zoning-districts~~buildings where residential units are on the first floor as measured from the closest point of the food truck to the nearest property line of the residential unit, except as may otherwise be permitted pursuant to subsection B.1.c., where permitted above.
 - c. Food and retail trucks may operate on private property provided they meet the following requirements:
 - i. The operator must obtain prior written permission from the private property owner.
 - ii. The food or retail truck must be parked on a paved surface outside of the public right-of-way.
 - d. Operations are prohibited on public street rights of way, except for the following:
 - i. Food and retail truck vending may be allowed in a public street right-of-way closed to vehicular traffic when a Special Event Permit has been issued for a special event requiring such closure.
3. Refuse.
 - a. Operators shall be responsible for the storage and daily disposal of all trash, refuse, and litter. All areas used for food and retail trucks shall be maintained in a safe and clean condition.
 - b. Operators shall not cause any liquid wastes used in the operation, with the exception of clean ice melt, to be discharged from the vehicle or structure.
 - c. The food and retail trucks shall not be washed on location.
4. Health Department Certificate.
 - a. Operators shall obtain a Health Department Certificate required by the Colorado Department of Public Health and Environment and other state and local agencies to operate a mobile retail food establishment.

3-1-5-3 Short-Term Rentals

- H. **License Required.** Short Term Rental is prohibited within the City unless a license has been duly issued therefore pursuant to this Section 3-1-5-3 and in compliance with the Code, including without limitation, Chapter 98, Article V, Division 2, Lodging License.
- I. **Application.**

1. An application for a license shall be submitted to the Director and shall be signed by the fee owner of record of the property to be licensed or an individual authorized in writing by the fee owner of record. All license applications shall be submitted on a form supplied by the Director, which shall include such information as is reasonably necessary for the Director to act on such application, together with an application fee as authorized under Section 74-31 of the Code. The applicant must specify which portions of the Dwelling Unit, Dwelling Unit or Accessory Dwelling Unit, Residential ("ADUR") will constitute the licensed premises available for use by renters.
 2. The applicant shall self-certify that the information on the application is accurate and truthful under penalty of perjury under the laws of the State of Colorado. Applicants shall inform the Director in writing of any material change to the information submitted on an application for a license within thirty (30) calendar days of such change.
- J. **Term of License and Renewal.** An application fee shall be received by the City prior to issuance of a license. Licenses issued pursuant to this Section shall be valid for a period of one (1) calendar year from the date of issuance. Licenses must be renewed annually. Applications for renewals of a Short Term Rental license are subject to all application, fees, licensing and operation requirements set forth in this Section that apply to new licenses. In the Financial Officer's discretion, after consultation with the Director, the Financial Officer may impose conditions upon a license at the time of renewal to address non-compliance with the terms of the license, the provisions of this Section, or any other applicable provision of federal, state, or local law. Failure to comply with such conditions may result in suspension, revocation, or non-renewal of the license.
- K. **License Regulations.**
5. The licensee shall comply with all applicable Code provisions and state and federal law including, but not limited to, Chapter 18, Buildings and Building Regulations, and Chapter 38, Article III, Nuisances, and Chapter 98, Taxation.
 6. The licensee shall ensure that renters of a Short Term Rental Unit shall only be allowed access to the portions of the Dwelling, Dwelling Unit or ADUR identified in the license.
 7. During the term that a Short Term Rental Unit is occupied by a short-term tenant, the owner and/or the local contact person designated by the owner shall be available twenty-four (24) hours per day, seven (7) days per week, for the purpose of responding within one (1) hour to complaints regarding the condition or operation of the Short Term Rental Unit or the conduct of short term tenants. If the local contact person designated by the owner changes, then the owner shall update the license on file within five (5) business days. For the purposes of this section, "local contact person" means an individual located within thirty (30) miles of the Short Term Rental Unit, during the entire length of the Short Term Rental period, who has access to the licensed premises and is authorized to make decisions regarding the licensed premises.
 8. Each Short Term Rental Unit shall provide two brochures to its guests:
 - a. The first brochure shall include the licensee's contact information, the local contact party's contact information, and any necessary emergency contact information. The brochure shall also provide information pertinent to the neighborhood where the Short Term Rental Unit is located including, but not limited to, parking restrictions, trash collection schedule, relevant water restrictions, fire evacuation routes, and any other information, as required by the Director, applicable to the Short Term Rental Unit and the surrounding neighborhood.

- b. The second brochure will be provided by the city and include relevant local ordinances, rules, and regulations that apply to all residences in the city. The licensee must display the city's brochure in each Short Term Rental Unit as it is made available and updated by the city.

L. Licensing Requirements.

- 11. *Number of Short Term Rentals Units per lot.* If a lot contains more than one legal Dwelling, Dwelling Unit or ADUR, only one Dwelling, Dwelling Unit or ADUR on such lot is eligible for licensure as a Short Term Rental Unit.
- 12. *Permitted structures.* Short Term Rental Units are allowed in primary and accessory structures with finished living space. All structures shall comply with the regulations for primary and accessory structures, including maximum size, height, lot coverage, and setbacks, for the property's zoning district. In the case of a multifamily property, the property owner is allowed one (1) Short Term Rental Unit. In the case of condominiums or buildings held in similar common ownership, each owner shall be limited to one (1) Short Term Rental Unit per property.
- 13. *Reservations.* Only one Short Term Rental reservation to one party at a time is allowed.
- 14. *Parking requirements.* One additional on-site parking space shall be required if a portion of a primary structure is used for Short Term Rental.
- 15. *Safety requirements.* Each Short Term Rental Unit shall be equipped with an operational smoke detector, carbon monoxide detector, and fire extinguisher on the licensed premises. The Director or his or her designee may inspect the Dwelling, Dwelling Unit or ADUR prior to issuance of a license and during the term of any license issued to verify compliance with such requirements, Code provisions and state and federal law. Refusal by the applicant to allow such inspection shall be grounds for denial, non-renewal or revocation of a license.
- 16. *Occupancy.* The occupancy of a Short Term Rental Unit shall not exceed the total number of unrelated persons that are otherwise permitted to occupy property in the City.
- 17. *Prohibited uses.* Use of the Short Term Rental Unit for any commercial or large social events or gatherings, such as weddings, is prohibited.
- 18. *Trash collection.* The owner shall maintain weekly residential trash collection services for the Short Term Rental Unit.
- 19. *Number of days in use.* The maximum number of days per calendar year that a Short Term Rental may be occupied by guests is 240. ~~By December 31st of each calendar year~~Upon renewal of the license, the Owner shall provide to the City the number of days that the Short Term Rental was occupied by guests during the previous 365 days. The Owner shall certify that the number reported is accurate.
- 20. *Number of Short Term Rentals per Owner.* No applicant may operate more than three individual properties as short term rentals within the City at any one time. ~~By December 31st of each calendar year~~Upon renewal of the license, the Owner shall certify that the number operated is in accordance with this regulation.

- M. Refusal to Grant, Suspension, Revocation, Nonrenewal of License.** The Director may refuse to grant an initial license, or suspend, revoke, or not renew any license requested or issued pursuant to this Section if the Director determines that any of the following have occurred: (i) fraud, material misrepresentation or false statement in the initial application for the license or any renewal application; or (ii) failure to comply with the terms or conditions of the license, the provisions of this Section, or any other application provision of federal, state, or local law including, but not limited to, the Arvada City Code.

6. If the Director finds that a violation of any provision of this Section exists, the Director, after notice to the licensee, may take any one or more of the following actions to remedy the violation:
 - d. Impose a civil penalty according to the following schedule:
 - (i) For the first violation of the provision, \$150;
 - (ii) For the second violation of the same provision, \$300; and
 - (iii) For the third violation of the same provision, \$1,000.
 - e. Revoke the license;
 - f. Issue any order reasonably calculated to ensure compliance with this Section.
7. The Director's authority under this Section is in addition to any other authority the Director has to enforce this Section, and election of one remedy by the Director shall not preclude resorting to any other remedy as well.
 - a. The Director shall not accept a new application from the same licensee for the same Dwelling, Dwelling Unit or ADUR after revocation of a license:
 - (iii) For at least one year following the revocation; and
 - (iv) Unless the applicant demonstrates compliance with all licensing requirements.
8. All licensed premises shall be subject to inspection by the Director or his or her designee for the purpose of investigating and determining compliance with the requirements for any license issued under this Section. Where any part of the licensed premises consists of a locked area, such area shall be made available for inspection as provided hereunder, without delay, upon request. Refusal to allow an inspection may result in the license being revoked subject to the following Subsection 5.
9. An applicant or licensee may appeal any decision to grant, not renew, or suspend his or her application or license to the City Manager within 14 consecutive calendar days from the city providing notice of the decision. The City Manager's decision shall be final.
10. An applicant may appeal any decision to revoke his or her license through the city's Administrative Hearing procedure as provided in Chapter 2, Article V, Division 3 of the Arvada City Code. Appeals must be received within 14 consecutive calendar days from the city providing notice of the revocation.
- N. **Administration.** The Financial Officer and Director shall administer the provisions of this Article and are authorized to jointly promulgate rules and regulations for its administration and implementation.

4-2-1-4 Subdivision Requirements and Standards

- A. **General Requirements.**
 1. Every subdivision shall comply with applicable zoning district, design and development standards in this LDC.
 2. Every subdivision shall comply with all other ordinances and regulations of the City of Arvada.
 3. Public infrastructure shall be constructed in accordance with the City of Arvada Engineering Code of Standards and Specifications as approved by the Director.
- B. **Minimum Standards.** The standards in this Article are minimum standards. The City may impose more restrictive standards when it finds that they are necessary to conform the design

of a proposed subdivision to sound engineering or design standards or other standards in this LDC.

- C. **Buildable Lots.** All lots created through the subdivision process shall be developable and conform to the minimum zoning, development, and floodplain standards in this LDC. No subdivisions shall create lots that prohibit development due to configuration of the lots, steepness of terrain, location of watercourses or floodplain, natural physical conditions, or other existing conditions.
- D. **Layout and Design.** The design and layout of the lots shall be dependent upon topography, natural vegetation, soil conditions, drainage, street traffic, or other conditions. The following standards shall apply to:
 - 1. A subdivision of two or more lots;
 - 2. A division of a lot; or
 - 3. Combining lots.
- E. **Lot Size and Configuration.**
 - 1. **Lot Area.** The minimum area and dimensions of all lots shall conform to the requirements of the zoning districts and development standards relating to the zoning district in which the lot is located. See Chapter 2 of this Code.
 - 2. **Lot Lines.** Side lot lines shall be substantially at right angles or radial to street lines, except where other terrain makes such design impractical.
 - 3. **Double Frontage Lots.**
 - a. Double frontage lots are discouraged in new subdivisions except where necessary to provide separation of residential development from parkways and arterials, or to overcome specific disadvantages of topography and orientation.
 - b. If approved, double frontage lots shall have an average lot depth of not less than 130 feet.
 - c. Unless waived by the Director, the owner / developer shall construct fences along the rear of double frontage lots. Such fences shall be six feet high, and composed of cedar picket fencing with brick posts not more than 60 feet apart, unless an alternate design or material is approved by the Director.
 - 4. **Flag Lots.** Flag lots and other irregularly shaped lots are discouraged in new and existing subdivisions.
 - 5. **Corner Lots.** Corner lots may be required to be wider than interior lots to provide for setback requirements.
- F. **Drainage.** Lots shall be designed and located to provide positive drainage away from all buildings, shall comply with the standards in Division 4-1-3, Stormwater and Drainage Control, and shall allow for the infiltration of storm water runoff to the maximum extent feasible.
- G. **Access.**
 - 1. Every residential lot shall abut a public or private street or access easement. Access to residential lots shall be from local streets except as specifically authorized by the Director.
 - 2. For subdivisions, at least two points of vehicular access into a proposed subdivision shall be provided, where feasible, unless it can be shown to the satisfaction of the Director that legal, topographical, and / or engineering constraints preclude such access. The Director may allow for additional access supported by traffic impact study and meets all other design criteria.
 - 3. For lot splits, shared common access shall be provided to the maximum extent practicable.

H. Block Layout and Length.

1. Blocks shall normally be at least 400 feet in length and not more than 1,200 feet in length. The Director may approve a shorter or longer block length when necessary to accommodate natural features such as steep slopes, environmentally sensitive lands, and pedestrian linkages.
2. Block lengths and widths shall be suitable for the uses contemplated and the zoning requirements pertaining to minimum lot sizes and dimensions.
3. In blocks over 1,000 feet long, pedestrian, bicycle, and equestrian crosswalks may be required. Said crosswalks shall normally require a six and one-half foot width.
4. Blocks along designated or planned parkways or arterial streets shall not be less than 660 feet in length, unless approved by the Director.

I. Street Design. All public and private streets shall comply with the Article 4-4, Access, Circulation, Mobility, and Utilities, City of Arvada Engineering Code of Standards and Specifications, and the following standards:

1. Coordination of Streets.

- a. All new collector and local streets shall connect with surrounding streets at safe and convenient locations as required by the Director to allow convenient movement of traffic and reasonable access for emergency vehicles.
- b. When connections to surrounding streets are proposed or required by the City, public right-of-way shall be dedicated and streets developed to existing paved rights-of-way.
- c. When developing adjacent to an existing RA or RN-32.5 zoning district where there is no paved street between the subdivision and an existing paved street, an interim street, improved in accordance with local street standards, shall be constructed by the Applicant for developments with densities in excess of one residential unit per acre of land.
- d. Whenever possible, proposed intersections along one side of a street shall coincide with existing or proposed intersections on the opposite side of such street. Where a centerline offset (jog) occurs at an intersection, the distance between centerlines of the intersecting streets shall be not less than required by the City of Arvada Engineering Code of Standards and Specifications.
- e. The street pattern shall not cause adjacent property to be landlocked nor prevent access to public land.

2. Street Intersections.

- a. Streets shall be arranged in relation to existing topography to produce streets of reasonable gradient to facilitate adequate drainage and to produce desirable lots of maximum utility.
- b. Where a subdivision abuts or contains the right-of-way of a drainage way, a limited access highway, or an irrigation ditch, or abuts a commercial or industrial land use, the Director may require the location of a street approximately parallel to and on each side of this right-of-way at a distance suitable for appropriate use of the intervening land. This distance shall be determined with due regard for approach grades, drainage, bridges or future grade separations.

3. Street Design Standards.

- a. Streets shall be related appropriately to the expected use of the property. Minimum requirements for street right-of-way, pavement width, and other standards for public and private streets are set forth in the City of Arvada Engineering Code of Standards and Specifications.
 - b. Other designs and materials may be required for the construction of streets, curbs, and sidewalks when, in the determination of the Director, such methods would be more environmentally desirable or more in keeping with the design of the development or neighborhood.
 - c. Turnarounds shall be provided at the ends of cul-de-sacs and at elbows on one-way streets. Turnarounds shall meet the minimum requirements of the Fire Protection District.
- J. **Street Naming and Traffic Control Signs.**
 - 1. **Continuation of Existing Names.** The City will assign a name subject to final plat, site plan or final development plan approval.
 - 2. **Street Signage.**
 - a. All streets in a subdivision shall be named and identified by signs installed at every street intersection.
 - b. These signs shall be standard street signs as indicated in the current edition of the Manual on Uniform Traffic Control Devices.
 - c. All traffic control signs, as well as street name signs, required in a subdivision shall be provided and installed by the City at the expense of the subdivider in conformance with the current edition of the Manual on Uniform Traffic Control Devices, and any relevant Colorado state supplements.
- K. **Sidewalks, Trails and Bicycle Paths.**
 - 1. **General Requirements.**
 - a. The layout and design of an interconnected system of sidewalks, trails, and/or bicycle paths shall be consistent with the City of Arvada Transportation Plan and Bicycle Plan, as amended, and all other adopted plans and policies.
 - b. All subdivisions shall comply with the development standards set forth in Section 4-4-2-1, Pedestrian and Bicycle Access and Circulation.
 - c. All subdivisions shall include an interconnected system of sidewalks, trails and or bicycle paths that directly connects to all uses, lots, open space areas, and parks.
 - 2. **Trails.**
 - a. The owner/developer shall provide and construct pedestrian, bicycle, or equestrian trail rights-of-way in compliance with Section 4-4-2-1, Pedestrian and Bicycle Access and Circulation, and Section 8-4-3-6, Park and Trail Dedications and Fees-in-Lieu. Additional trail rights-of-way may be required where necessary for access to parks, schools, shopping areas, or other community facilities.
 - b. Trails shall be eight feet wide, unless a wider trail is required by the City. All trails between lots shall be located within a minimum 40-foot wide landscaped strip, which 40-foot wide strip may be dedicated to the City or set aside as private, amenitized common open space/landscape surface area.

4-2-2-1 Cluster Subdivisions

- A. **Generally.** This Division provides optional standards for cluster subdivision development to create more compact development in order to preserve and protect sensitive lands, create [common-open-spaceamenitized landscape](#) areas, and to implement the Comprehensive Plan and/or adopted specific area plans. A cluster subdivision is a residential or mixed-use subdivision in which some or all of the lots are allowed to be smaller (in area and width) than otherwise required for the underlying zoning district, in exchange for permanent protection of sensitive lands and/or [common](#) open space.
- B. **Zoning Districts Where Allowed.**
 - 1. The cluster subdivision option is available in the R6, R13, and R24 zoning districts.
- C. **Minimum Parcel Size.** The minimum parcel size for a cluster subdivision shall be three acres.
- D. **Cluster Subdivision Development Standards.**
 - 1. All other standards in the LDC shall apply to cluster subdivisions unless modified by this Section.
- E. **Identification and Maintenance of Protected Lands.**
 - 1. Protected lands as defined in Section 4-1-4-2, Limits of Development, shall be identified on the final subdivision plat with a notation that indicates that those lands shall not be used for future development.
 - 2. Protected lands shall be identified with appropriate permanent signage markers in order to distinguish these areas from private lots.
 - 3. Protected lands shall be permanently maintained and preserved as:
 - a. Open space tracts with deed restrictions;
 - b. Land dedicated to the City;
 - c. Land protected through a conservation easement; or
 - d. Land protected by other means approved by the City.
 - 4. For any protected land not dedicated to the City, the developer shall provide a permanent mechanism acceptable to the City Attorney for the primary purpose of conservation, preservation, and management of protected lands.
 - 5. There shall be no further subdivision of land in an area approved for cluster subdivision; however, dedication of easements for public purposes may be permitted.
- F. **Use of Protected Lands.**
 - 1. Protected lands shall be left in an undisturbed natural state or landscaped pursuant to Section 4-6-5, Landscape Areas and Bufferyards.
 - 2. The protected lands shall be used for low-intensity recreation, agriculture, buffers, critical wildlife habitat, or other passive park or open space purposes.
 - 3. The use of protected lands may be further limited or controlled at the time of final approval where necessary to protect adjacent properties.
- G. **Review and Approval of Cluster Subdivisions.**
 - 1. The review and approval of cluster subdivisions shall follow the procedures for preliminary and final plats. The applicable procedure is dependent on the number of lots proposed in the cluster subdivision.

- E. **Generally.** Development shall be designed with landscaped areas that support the resource values of the natural open space in terms of its ecological function (e.g., habitat, water quality enhancement, energy efficiency, etc.), aesthetic contribution, recreational value, and buffering value in accordance with Article 4-6 Landscaping and Buffering.
- F. **Site Design.** Site design shall be organized to include, protect or enhance the natural open spaces areas and landmark features of the site.
- G. **Enhancement of Open Space / Open Space Corridors.** Landscaped areas should be organized so as to create integrated systems that connect with dedicated school lands, parklands, other open spaces, or public lands or trails within the subject property or on adjoining property.
- H. **Natural Resource and Hazard Areas.** Natural resources such as water features including lakes, natural ponds, rivers, streams, wetlands, riparian areas, drainage ways, ditches, and flood hazard areas and vistas of natural features including distant peaks and ridges, steep slopes, existing tree canopy, wildlife habitat areas should be undisturbed.

4-3-2-3 Landscape Surface Area, Amenitized

- C. **Generally.** Sometimes referred to as “common open space.” Development shall be designed with amenities for the common use or enjoyment of residents, employees, or guests of the development. Any portion of the area intended to meet requirements of small urban parks (Section 4-3-3-4 Mixed-Use) must be publically accessible. Amenities may include:
 - 1. Passive recreational facilities such as trails, community gardens, courtyards with seating, shaded picnic areas, scenic areas, open grassy areas large enough for recreation, or similar common areas; or
 - 2. Active recreational facilities such as pools, tennis courts, playgrounds, and clubhouses; or
 - 3. Commercial outdoor seating and dining areas, or similar common areas serving employees and/or guests.
- D. **Accessibility.** Areas shall be accessible to all residents, employees, or guests of a development and meet all design requirements of the Americans with Disabilities Act (ADA).

4-3-2-2 Common Open Spaces

- E. **Generally.** Development shall be designed to include common open spaces and amenities for the enjoyment of residents, employees, and the public in a manner that supports the resource values of the open space in terms of its ecological function (e.g., habitat, water quality enhancement, energy efficiency, etc.), aesthetic contribution, recreational value, and buffering value.
- F. **Formal Open Spaces.** Parks, squares, plazas, courtyards, greens, and other formal gathering open spaces, when required, shall be:
 - 1. Situated as focal points; and
 - 2. Visible and accessible from streets, sidewalks, and / or trails.
- G. **Site Design.** Site design shall be organized to include, protect or enhance the natural open spaces areas and landmark features of the site.
- H. **Enhancement of Open Space / Open Space Corridors.** Open space should be organized so as to create integrated systems that connect with dedicated school lands, parklands, other open spaces, or public lands or trails within the subject property or on adjoining property.
- I. **Natural Resource and Hazard Areas.** Natural resources such as water features including lakes, natural ponds, rivers, streams, wetlands, riparian areas, drainage ways, ditches, and flood

hazard areas and vistas of natural features including distant peaks and ridges, steep slopes, existing tree canopy, wildlife habitat areas should be undisturbed. **Stormwater Management Devices.** Land area occupied by stormwater management including retention and detention ponds and bioretention areas (filters or rain gardens) may be treated as an open space site amenity if the area includes at least one of the following or a combination of the following:

1. Access and pedestrian elements, such as paths and benches, that support passive recreation uses.
2. Gentle slopes, vegetative landscaping, fountains, or water visible water circulation devices, and visually attractive low fencing or other elements that make stormwater management a site amenity.

J. —

K. **Passive and Active Recreational Areas.** Open space areas for passive and active recreational purposes, such as pools, playgrounds, tennis courts, trails, ball fields, and clubhouses, including required public parks and trails should be included in common open space areas.

L. **Stormwater Management Devices.** Land area occupied by stormwater management including retention and detention ponds and bioretention areas (filters or rain gardens) may be treated as an open space site amenity if the area includes at least one of the following or a combination of the following:

1. Access and pedestrian elements, such as paths and benches, that support passive recreation uses.
2. Gentle slopes, vegetative landscaping, fountains, or water visible water circulation devices, and visually attractive low fencing or other elements that make stormwater management a site amenity.

M. **Formal Plantings and Gardens.** Formally planted and regularly maintained open areas that provide passive recreation opportunities, including arranged plantings, gardens, community gardens, green roofs, gazebos and similar structures, and/or roof gardens shall have:

1. At least one direct access to a building, or to a street, bikeway, or walkway accessible to the public or the development's occupants and users.
2. Such feature shall be centrally located and compliment the landscape design to the surrounding development.

4-3-3-2 Residential

A. **Generally.** The standards of this Section apply to residential developments that include more than 10 dwelling units, located in all residential zoning districts and the MX and OT zoning districts, where single-family, duplexes, townhomes, multiplex, and multifamily are permitted, as provided in the following Subsections.

B. **Arrangement of Open Space Landscape Areas and Buildings.**

1. Open space **Amenitized landscape areas** shall be provided to the extent practicable and situated so that **open space landscaped areas** and outdoor recreation amenities are centrally located within the development.
2. Principal buildings, such as club houses and recreational facilities, and landscaping shall, to the extent practicable, be located and designed so that residents can easily observe the buildings, **common open spaces landscaped areas**, circulation paths, and access points into the development.

- C. **Parking.** For multiplex, townhome and multifamily development, at least 50 percent of required off-street parking shall be provided in garages or carports, rather than surface lots. Where surface parking lots are used, they shall to the extent practicable be located between or behind buildings, rather than adjacent to street frontages.
- D. **Single-Family Detached, Duplex, and Multiplex.**
1. **Generally.** Single-family detached, duplex, and multiplex residential subdivisions shall be designed to mitigate the impacts of streets and paved areas on the neighborhood, and to provide comfortable alternative routes for pedestrians and bicyclists, including continuous sidewalks, tree-lined streets, and pedestrian-scaled details.
 2. **Creation of Neighborhoods.** Residential development that includes more than 200 dwelling units shall be designed to create identifiable “neighborhoods” of 30 to 100 units.
 3. **Configuration of Lots.** Lots shall be configured to maximize the number of lots that are:
 - a. Within close proximity to a ~~n “useable” common open space~~ amenitized landscape area (e.g., playground or trail); and
 - b. Connected by trails or common greens that do not cross streets.
- E. **Townhome.**
1. **Creation of Neighborhoods.** Residential development that includes more than 200 dwelling units shall be designed to create identifiable “neighborhoods” of 30 to 100 units.
 2. **Configuration of Lots.** Lots shall be configured to maximize the number of lots that are:
 - a. Within close proximity to a amenitized landscape area ~~“useable” common open space~~ (e.g. playground or trail); or
 - b. Connected by trails or common greens that do not cross streets.
 3. Buildings shall front on and align with:
 - a. Adjacent streets; or
 - b. Meet the minimum Non-Street Frontage Perimeter Setbacks identified in Table 2-1-8-7, Townhome Building Standards.
 4. **Connectivity.**
 - a. Where there is a sidewalk, separation between buildings shall be a minimum of 20 feet wide to allow for a minimum five foot wide sidewalk and landscaping
- F. **Multifamily.** The standards of this Subsection shall apply to all new multifamily residential development.
1. **Street Connectivity.**
 - a. Multifamily sites of 10 acres or more shall include a minimum of one public street (or private drive that is built to City street standards), that is continuous through the subject property, and that connects to a public street on both ends.
 - b. The Director may waive this requirement for a through-access street or drive, if it is demonstrated that:
 - i. There are adequate alternatives available for residents and vehicles to travel through the subject property to adjacent properties and developments; or
 - ii. There are no opportunities for a through-street to safely make such connections.
 2. **Common Open Space** Landscape Areas. Landscape areas ~~Common open space~~ shall be provided as follows:

- a. Large ~~open space~~landscaped areas should be the fundamental organizing element of the site. ~~Common open space~~Landscaped areas should be well defined by buildings and streets. Buildings should be oriented in such a way as to create courtyards and open space areas.
 - b. Large existing trees and other natural features should be integrated into the ~~open space~~landscape areas.
 - c. Common open spaceLandscape areas should be centralized and directly accessible to a majority of the surrounding units. Where possible, it should be linked to adjacent parks, paths, and open space areas.
 - d. The ~~open space~~landscape areas shall be useable, non-riparian areas with slopes not exceeding 3:1.
3. **Site Amenities.** In conjunction with the ~~common open space~~landscape surface area requirements, and the required small urban parks in the MX-S, MX-U and the MX-T zoning districts (See Subsection 4-3-3-4E), all multifamily projects shall provide site amenities from the list below for the residents. Amenities shall be centrally located for a majority of the residents, and may be located within the ~~common open space~~landscape areas. Multifamily projects with less than 50 units shall provide two of the amenities from the list below. Multifamily projects with more than 50 units shall provide three of the amenities from the list below.
- a. Plaza.
 - b. Swimming pool.
 - c. Sports court, such as tennis, basketball, or volleyball.
 - d. Natural open space area with benches.
 - e. Jogging trail.
 - f. Fountain, art, or sculpture.
 - g. Other amenity as approved by the Director

4-3-3-3 Clustered Small Housing

- A. **Generally.** The standards of this Section apply to developments of the clustered small housing types that are described in Section 2-1-8-9, Clustered Housing Types.
- B. **Common Green.**
 - 1. Clustered housing types shall be organized around one or two ~~common open space~~amenitized landscape areas ("green(s)"), with no dimension that is less than the larger of:
 - a. 1.5 times the height of the tallest building that fronts on the common green; or
 - b. 20 feet, for micro homes or 30 feet for cottages.
 - 2. The common green(s) shall be developed and maintained to provide for passive and/or active recreation activities for the residents of the housing cluster.
 - 3. The common green(s) shall be centrally located and easily accessible to all dwelling units within the cluster.
 - 4. The common green(s) shall be surrounded by clustered housing types on at least two sides, which do not have to be opposite sides.

5. Stormwater management facilities are allowed within a common green, if they do not adversely impact access to or use of the common green for all-season pedestrian access to the dwelling units, and for anticipated active and passive recreation activities.
- C. **Front Porches.**
1. Cottages. Each cottage dwelling unit shall have a front porch that is not less than seven feet in any dimension.
 2. Micro Homes. Each micro home shall have a front porch that is not less than five feet in any dimension.
- D. **Private Entry Yards.**
1. Each dwelling unit may have a private entry yard, in front of the building elevation that contains the primary entrance to the dwelling unit, that is:
 - a. Not more than 10 feet deep; and
 - b. Enclosed with a fence that is not more than 36 inches in height in front of the front building plane, and not more than 60 inches in height behind the front building plane.
 2. Private entry yards may border the common greens, but are not included in the dimensions of the common green.
- E. **Configuration.** Housing clusters shall relate to both the street and to a common green, in that:
1. Each building that is constructed along the principal street side of the subject property shall include architectural features that provide visual continuity with adjoining properties and visual interest from the street, such as a primary or secondary entrance or porch that is oriented to the street.
 2. Not less than 50 percent of the dwelling units shall front on a common green.
- F. **Pedestrian Network.**
1. Pedestrian connections shall link all buildings to the street, common green(s), and parking areas.
 2. Pedestrian connections from parking areas to common buildings and the front doors of dwelling units shall traverse a common green.
 3. If housing clusters share a common building, *see* Subsection G., below, the pedestrian network shall connect the housing clusters.
- G. **Common Building.** A common building with amenities is allowed within clustered housing developments. Amenities may include a kitchen, meeting area, common dining area, indoor recreation facilities, storage (provided that other amenities are also provided in the building), and up to two guest bedrooms. Up to two housing clusters that are connected with pedestrian pathways may share a common building, unless the size of the common building and provided amenities are designed to accommodate additional clusters, the common building is centrally located and within 600 feet of all dwelling units, and the common building is connected to the clusters by pedestrian pathways.
- H. **Individual Storage Buildings.** One individual storage building is allowed for each dwelling unit, provided that:
1. The storage building is not more than 10 feet in height, measured from grade to the peak of the roof;
 2. The storage building is not more than 80 sf. in floor area;
 3. The storage building is located behind the dwelling unit, and set back:
 - a. 20 feet from any street; and
 - b. five feet from any boundary of the housing cluster and
 4. The storage building is screened from the street and a common green.

I. Parking Design.

1. Generally.

- Required parking shall be provided in shared surface parking lots, covered parking spaces in shared parking lots, shared detached garage buildings, or directly accessed from an alley.
- No parking space or drive aisle shall be located between a front building elevation and a common green.
- For alley accessed parking, parking spaces shall be located between the alley and rear building planes, and shall not extend into side or front yards of individual buildings.

2. Surface Parking and Covered Parking Spaces.

- Surface parking and covered parking spaces shall be set back from streets as provided in Section 2-1-8-9, Clustered Housing Types.
- Surface parking and covered parking spaces shall be screened from the street and the common green(s) and from individual units with a parking lot bufferyard as provided in Section 4-6-6-3 Parking Area Landscape.
- Surface parking spaces shall be distributed on the site to minimize visual impacts and optimize access to individual units.

3. Shared Detached Garage Buildings.

- Shared detached garage buildings may not exceed four overhead doors per building, and a total floor area of 1,200 square feet.
- Shared detached garage buildings shall be reserved for the parking of vehicles owned by the residents of the development.

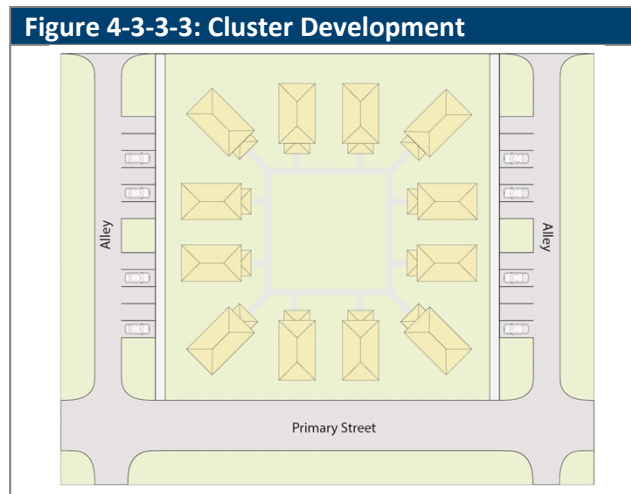


Table 4-5-2-2A: Residential Land Use Parking Standards	
Land Use	Minimum Required Parking
Standard Housing Types	
Single-Family Detached <u>or</u> Duplex	2 sp. / du ¹
Duplex or Townhome	<u>2.2</u> sp. / du ¹
Multifamily and Multiplex	efficiency units: 1.4 sp. / du

Table 4-5-2-2A: Residential Land Use Parking Standards	
Land Use	Minimum Required Parking
	1 BR units: 1.6 sp. / du 2 BR units: 2.1 sp. / du ¹ 3+ BR units: 2.5 sp. / du ¹
Multifamily, Affordable²	efficiency units / 1 BR units: 1.4 sp. / du 2 + BR units: 2.0 sp. / du ¹
Multifamily, Senior³	1 sp. / du
Clustered Housing Types	
Micro Home	1.25 sp. / du
Cottage	2.25 sp. / du
TABLE NOTES: ¹ Tandem spaces may be counted towards this requirement. ² Projects that receive Low Income Housing Tax Credits. ³ Age restricted projects for residents 62 years and older.	

4-5-3-4 Off-Site Parking

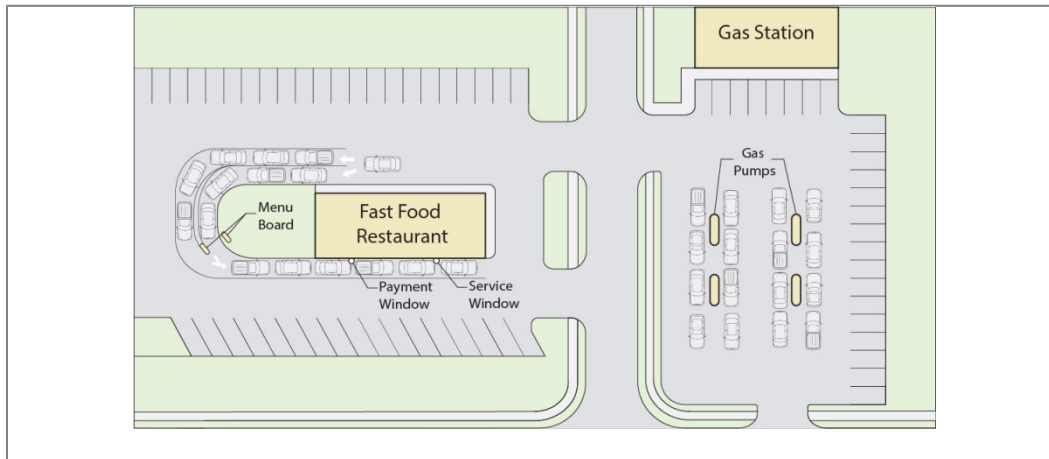
- A. **Generally.** In lieu of locating parking spaces required by Division 4-5-2, Parking and Loading Calculations, on the lot that generates the demand for the required parking, parking spaces may be provided on any lot or premises controlled, *i.e.*, by fee-simple ownership, easement interests, lease interests, or participation in a parking district or other joint venture to provide centralized off-street parking, by the owner of the use that generates the parking demand, provided that:
1. The parking spaces are within 3200 feet of the boundaries of the property generating such parking requirements and no required off-street parking space within said parking lot is more than 500 feet from the property it is serving; and
 2. The parking spaces are not already counted towards the parking requirements of another use after application of Section 4-5-2-4, Shared Parking, Section 4-5-2-5, Parking Credits and Reductions, or Section 4-5-2-6, Parking Studies, as may be applicable.
- B. **Exceptions.** Off-site parking is not allowed in:
1. Residential zoning districts, except that manufactured home parks and clustered housing types may utilize centralized parking; and
 2. Locations in which a street with more than two lanes separates the off-site parking area from the subject property.

4-5-3-6 Vehicle Stacking

- A. **Generally.** Vehicle stacking spaces are used to measure the capacity of a drive-through lane to hold cars while transactions are taking place at drive-through stations. Adequate space must be provided for on-site stacking, storage and queuing of vehicles.
1. The required stacking distance for the site may be distributed between access points serving the site, provided a minimum stacking of 20 feet is provided at all access points.
 2. Stacking spaces must be a minimum of 8.5 feet in width and 20 feet in length.

3. Electronic devices such as loudspeakers, automobile service order devices, and similar instruments shall not be audible beyond the property line adjacent to a residential zone district.
 4. Stacking spaces for internal drive-through services shall be measured from the point of service and within a designated drive aisle.
 5. Required vehicle stacking spaces shall not interfere with access to parking spaces.
- B. **Drive-Through.** Uses that include drive-through service shall provide the following minimum number of stacking spaces:
1. **Financial institutions, drive-through convenience retail, fueling stations, and pharmacies.** Three stacking spaces.
 2. **Drive-through restaurants.**
 - a. If two service windows are provided (one for payments and one for pick-up):
 - i. Four stacking spaces to each menu board;
 - ii. Three stacking spaces between the menu board and the first window, including the position at the first window; and
 - iii. Two spaces between the first window and the second window, including the position at the second window (See Figure 4-5-3-6, Illustrative Stacking Requirements).
 - b. If one service window is provided, for both payments and pick up:
 - i. Six stacking spaces to the menu board; and
 - ii. Three stacking spaces between the menu board and the service window.
 3. **Drive-through only uses in buildings with less than 300 square feet of gross floor area and no separate menu board.** Three stacking spaces per service window.
 4. **Dry cleaners.** Two stacking spaces per service window.
 5. **Vehicle wash.**
 - a. Two stacking spaces for each bay in a self-service vehicle wash facility;
 - b. Five stacking spaces for each in-bay or conveyor vehicle wash facility; and
 - c. If the facility provides detailing, manual drying or polishing, and / or vacuuming, sufficient area to provide those services without creating additional demand for stacking at the vehicle wash entrance.
 6. **Other Uses.** The determination by the Director of stacking spaces necessary for other uses may require a queuing study conducted by a qualified transportation planner or traffic engineer at the Applicant's expense.
- C. **Design.**
1. Stacking lanes shall be clearly marked, and shall not interfere with on-site or off-site traffic circulation, or access to parking spaces.
 2. ~~Stacking areas shall not be located in the front setback or side street setback unless there is a grade change of at least five feet between the centerline of the street and the stacking area or alternatively, a Bufferyard Option in Division 4-6-5-3 is installed between the stacking lane and the street.~~

Figure 4-5-3-6: Illustrative Stacking Requirements



4-5-3-7 Design and Use of Off-Street Loading Areas

- A. **Generally.** All required off-street loading spaces shall be designed, constructed, and maintained in accordance with the standards and requirements of this Section.
- B. **Location.**
 1. Loading spaces shall be located on the same lot as the building or structure to which they relate.
 2. No loading space shall be located in any front setback area.
 3. Except where alley loading or over-the-curb loading is allowed, loading areas shall be located and designed to ensure adequate on-site maneuvering area for delivery vehicles.
 4. No loading area shall be designed in a manner that would allow any vehicle to extend into any front setback area or adjacent to any residential zone district while being loaded or unloaded.
 5. Trucks parked in loading areas shall not encroach into required parking spaces or building setbacks.
 6. Parked trucks loading or unloading materials shall not block travel lanes in parking lot or fire lanes.
- C. **Buffering.** Drive-through stacking areas and loading areas, including overhead doors, oriented so to face a residential zone district or a public right-of-way shall be screened from view from all property lines and adjacent streets to the greatest extent possible, as determined by the Director, by the following:
 1. By an opaque fence or wall between 6six feet and 8eight feet in height that incorporates at least one of the predominant materials and one of the predominant colors used in the principal building. The fence or wall may exceed 8eight feet in height when there is a difference in grade between the street and loading area to effectively screen the area. (For a drive-through stacking area, a fence or wall shall only be used when the area is adjacent to a residential zone district).
 2. A landscape berm may be used instead or combined with the required fence or wall.
 3. If such areas are covered, then the covering shall include at least one of the predominant exposed roofing colors on the principal building.

- D. **Surfacing.** All required off-street loading spaces and access drives shall be improved with an asphaltic, concrete, or equivalent surface and shall be graded and drained in order to dispose of all surface water accumulation within such areas, as well as any associated parking area.
- E. **Alleys.** All alleys that are used for loading shall meet the City of Arvada Engineering Code of Standards and Specifications.

4-5-3-8 Bicycle Parking Design

- A. **Generally.** The bicycle parking spaces that are required by Section 4-5-2-8, Bicycle Parking, shall be designed according to the standards of this Section. The purpose of these design standards is to ensure that bicycle parking is convenient to bicyclists and provides security from theft and damage.

- B. **Standards.**

- 1. **Generally.** Bicycle parking shall be designed to ensure that it is convenient to bicyclists and secured from theft and damage. so that bicycles maybe securely locked and safeguarded from accidental or intentional damage. Bicycle parking shall be provided using bicycle racks that meet the following standards:
 - a. Bicycle parking shall be securely locked and safeguarded from accidental or intentional damage.
 - b. Each required bicycle parking space shall be accessible without moving another bicycle.
 - c. There shall be an aisle at least five feet around the perimeter of all bicycle parking areas to allow room for bicycle maneuvering.
 - a. ~~A U-shaped bike rack or variation thereof that allows for the bike to be locked to the rack by the frame and at least one wheel;~~
 - b. ~~A bicycle that is six feet long can be securely held with its frame supported so that the bicycle cannot be pushed or fall in a manner that will damage the wheel components; and~~
 - e. ~~The racks are securely anchored to a hard surface.~~
- 2. ~~Each required bicycle parking spaces shall be accessible without moving another bicycle.~~
- C. ~~There shall be an aisle at least five feet around the perimeter of all bicycle parking areas to allow room for bicycle maneuvering.~~

D.C. Short-term Bicycle Parking. Short-term bicycle parking facilities or racks shall accommodate securing a bicycle using an industry-standard bike lock.

- 1. Short-term bicycle parking spaces shall be located within 50 feet of the main entrance to the building. Where there is more than one main entrance to a building, short-term spaces should be split between building entrances.
- 2. Bicycle racks shall meet the following standards:
 - a. A U-shaped bike rack or variation thereof that allows for the bike to be locked to the rack by the frame and at least one wheel;
 - b. A bicycle that is six feet long can be securely held with its frame supported so that the bicycle cannot be pushed or fall in a manner that will damage the wheel components; and
 - c. The racks are securely anchored to a hard surface.

2.3. MX Zoning Districts. Multifamily ~~R~~residential, mixed-use, and office uses in the MX-N, MX-S, MX-U and MX-T zoning districts shall provide bicycle parking in locations that are covered, secure, and illuminated. Such bicycle parking areas shall be maintained by the property owner, a property owners' association, or a metropolitan district.

3.4. OT and CG Zoning Districts. Multifamily, schools, retail, and office uses in the OT and CG zoning districts shall provide bicycle parking locations that are secure, illuminated and along traveled ways.

E.D. Long-term Bicycle Parking. Long-term bicycle parking shall be in a secure and weather-protected place ~~to park bicycles~~. Long-term parking does not have to be provided on site; however long-term bicycle parking must be within a reasonable distance of a site in order to encourage bicycle use.

1. Long-term bicycle parking is not required on a site when:
 - a. Non-residential gross building area is less than 5,000 square feet; or
 - b. There are ten or fewer residential units in a development or redevelopment.
2. Long-term bicycle parking, when required, shall be located within 50 feet of a building entrance and be visible from the building entrance. If the location of the bicycle parking is not obvious from the building entrance, signs shall be posted that indicate the location of bicycle parking.
- 2.3. Long-term bicycle parking is require to be covered and shall be at least one of the following: on the site, either in the building or parking garage.
 - a. In a locked room;
 - b. In a bicycle locker;
 - c. UCovered bicycle parking may be provided inside buildings, under roof overhangs or awnings;
 - a.d. In an area that is enclosed by a fence with a locked gate;
 - e. A free standing building;
 - f. Within view of an attendant or security guard; or
 - g. In an area that is monitored by a security camera.
 - b.h. , in bicycle lockers, or within or under other structures. When covered bicycle parking is not located within a building or locker, the cover shall be:
 - i. Designed to protect bicycles from precipitation;
 - i. High enough to provide at least ten feet of clearance above the floor or ground;
 - and
 - ii. Posted with a sign indicating the location of the bicycle parking when not directly visible at a transit facility or main building entrance.
3. To provide security, a long-term facility bicycle parking shall be in at least one of the following locations:
 - a. In a locked room;
 - b.i. In an area that is enclosed by a fence with a locked gate;

F.E. Surfacing and Clear Area.

1. The surface of bicycle parking spaces shall be of hardscape material such as asphalt, concrete, or other materials approved by the Director.
2. Racks shall be bordered by physical barriers or located a sufficient distance from motor vehicles to prevent damage to parked bicycles.
3. ~~Racks shall be installed with sufficient clearance from obstructions so that they can be used according to their design.~~

~~4.—A clear area of three feet minimum shall be maintained on the parking side of the bicycle rack (both sides if the rack is designed and installed to be accessed from both sides). The clear area is measured away from the rack, from the furthest point of the back wheel of a six-foot long bicycle parked in the fashion for which the rack is designed.~~

~~G.—Location of Bicycle Parking Spaces. Bicycle parking facilities should be located within 50 feet of a building entrance and be visible from the building entrance. If the location of the bicycle parking is not obvious from the building entrance, signs shall be posted that indicate the location of bicycle parking.~~

4-6-3-1 Applicability

- A. **Generally.** All new construction, including building expansions that increase the footprint of a building by 25 percent or more, and modification to an existing landscape area shall comply with the standards in this Article.
- B. **Exceptions.** Exceptions to this Article are allowed under the following circumstances:
 - 1. **Interior Tenant Improvement.** The landscaping requirements of this Article shall not apply to existing structures where interior tenant improvements occur and where there is no addition to the number of parking spaces provided.
 - 2. **Existing Structures.** Where existing structures are situated so as to preclude the installation of required landscaping, the Director may authorize reductions for the required landscaping.
 - 3. **Physical Limitations of the Site.** The Director may authorize modifications to landscaping requirements for structure additions or tenant improvements where landscaping requirements are not feasible due to physical limitations of the site. Where the landscaping requirements have been modified, the landscaping shall be relocated in the following manner:
 - a. To another portion of the lot;
 - b. Along a property line; or
 - c. To an area, including a nearby public park or other City-owned property, as determined by the Director upon review with the owner or developer.
 - 4. **Single-Family Detached and Duplex.** Single-family detached and duplex dwelling unit lots, are exempt from landscaping requirements, provided the initial development of the subdivision contains nine or fewer lots of single-family and/or duplex. Common open spaceCommon landscape areas, bufferyards, water quality/detention basins, or streetscape areas, shall meet the applicable requirements of this Chapter.
- C. **Site Changes.** Townhome, multiplex, multifamily, mixed-use, commercial, and industrial uses that are part of larger project shall be required to submit a site plan for the area that is disturbed that meets the requirements of this Article. The Director may require that a site plan covering the entire project area be submitted.
- D. **Parking lot Reconfiguration.** Modifications to any existing parking lot in an amount greater than 20 percent, or expansions of an existing parking lot by 25 spaces or more shall meet the landscaping requirements of this Article for the area being modified or expanded.

4-6-3-2 General Landscaping Standards

A. **Landscape Plan Required.** A landscape plan with designated landscaped areas shall be submitted as a part of all development applications where landscaping, buffering, or screening is required, unless the applicable Decision-Making Body determines that compliance with the provisions of this Article can be demonstrated without the use of a landscape plan. Final landscape plans shall be stamped, signed and dated by a State of Colorado Registered Landscape Architect for all projects except residential minor subdivisions as defined in Subsection B.4 above or where the Director determines the scope of the project does not warrant such plans.

~~B.—Landscape and Open Space Requirements. Landscaped areas may count toward satisfying usable open space requirements specified for the MX-N, MX-S, MX-U, MX-T, CG, IL, and IG zoning districts (See Division 2-1-4, Mixed-Use Districts, and Division 2-1-6, Commercial and Industrial Districts).~~

~~C.B.~~ **Minimum Landscape AreaVegetative Coverage.** Landscaped areas shall be covered with shrubs in combination with lower water consuming ground-level plants, ornamental grasses, or turf for at least 75 percent of the landscape area, at maturity.

~~D.C.~~ **Detention and Retention Ponds.** Detention and retention ponds shall be physically, functionally and visually integrated into adjacent landscape uses through the use of topography, building and parking lot placement, plantings, permanent water features, recreational or open space amenities, or other methods. Slopes shall not exceed a 4:1 ratio or be flatter than 2 percent.

~~E.D.~~ **Steep Slopes.** Grading in landscaped areas shall not exceed slopes greater than 6:1 in the amenitized areaportions of Small Urban Parks and 4:1 for all other areas, except that public maintained shrub beds and native grass areas shall not exceed 3:1 slope.

~~F.E.~~ **Alternative Requirements for Hardscape Features.**

1. In mixed-use and nonresidential districts, pedestrian walks and other hardscape landscape features and amenities, such as Small Urban Parks, outdoor seating areas, and plazas with recreation and entertainment areas, water features, and public art, may comprise up to 50 percent of the landscape area.
2. The Director may approve a greater percentage of hardscape features based on the consideration of the proposed development, mix of uses, and the quality of the proposed landscape design.

4-6-5-2 Bufferyard Purpose and Applicability

A. **Purposes of Bufferyards.** A bufferyard is a landscaped area between two differing land uses and is designed to provide a transition between the uses, mitigate or minimize potential nuisances such as noise, light, and glare, protect the character of an area, and protect natural resources from impacts of nearby development.

B. **Applicability.**

- ~~1.—Uses Requiring a Bufferyard. The following uses require a bufferyard per 4-6-5-3, Bufferyard Options:~~
- ~~2.—Where directly adjacent to single-family detached dwelling or duplex dwelling, or a RN zoning district:~~
 - ~~a.—Multifamily and other attached residential buildings;~~
 - ~~b.—Mixed-use buildings;~~
 - ~~c.—Nonresidential buildings;~~
 - ~~d.—Drive-through facilities; and~~

- e. ~~Industrial manufacturing, processing uses, and storage uses in the IL and IG zoning districts.~~
 - f. ~~Where directly adjacent to a multifamily or other attached residential building or a mixed-use building with residential component:~~
 - i. ~~Drive-through facilities; and~~
 - ii. ~~Industrial manufacturing, processing uses, and storage uses in the IL and IG zoning districts.~~
1. **Uses Requiring a Bufferyard.** The following uses require a bufferyard per Section 4-6-5-3, Bufferyard Options, where directly adjacent to a single-family detached dwelling, duplex dwelling or multiplex, or a RN zoning district:
 - a. Multifamily and townhomes;
 - b. Mixed-use buildings;
 - c. Non-residential buildings;
 - d. Drive-through facilities;
 - e. Industrial manufacturing and processing uses, and storage uses in the IL and IG zoning districts; and
 - f. Dead-end drives and turnarounds.
 2. **Additional Uses Requiring a Bufferyard.** The following uses require a bufferyard per Section 4-6-5-3, Bufferyard Options, where directly adjacent to a multifamily, townhomes, -or other attached residential buildings or a mixed-use building with a residential component;:
 - a. Drive-through facilities; and
 - b. Industrial manufacturing, processing uses, and storage uses in the IL and IG zoning districts.

4-6-6-2 Street Bufferyards

A. Street Bufferyards in Setbacks.

1. In the CG, IL and IG zoning districts, and multifamily in the R13 and R24 zoning districts, the front setback shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas .
2. In the MX and OT zoning districts, if the principal building is set back more than five feet from the property line, then that area shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas. If the building is set back less than five feet, the area shall be hardscaped with paving materials such as concrete, pavers or other quality paving materials, or landscaped with shrubs and ground-level plants. [The remainder of all setbacks shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas.](#)

4-6-6-3 Parking Area Landscaping

- A. **Generally.** Surface parking lots shall be landscaped to reduce the apparent size of the parking area; prevent views of long rows of parked cars; create an impression of smaller, connected parking lots; provide shade for parked cars; reduce the heat island effect of an urbanized area; and define pedestrian access ways, according to the standards of this Section.

B. Exceptions.

1. The surface parking lot landscape requirements of this Section do not apply to:
 - a. Parking lots in the IL and IG zoning districts if the subject property is located south of West 60th Avenue and east of or adjacent to Lamar Street; or
 - b. Surface parking lots with 24 or fewer parking spaces and with 12 or fewer parking spaces in a row.
2. The access point landscape requirements of this Section do not apply to driveways that provide access to individual single-family detached, duplex, multiplex, or townhome lots.

C. Perimeter Landscape Buffer.

1. **Required Perimeter Landscape Buffer.**
 - a. Parking lots adjacent to single-family detached, duplex, multiplex, or townhome uses shall meet the Option C or D bufferyard in Division 4-6-5-3, Bufferyard Options.
2. **Exceptions.**
 - a. The requirements for perimeter landscaping do not apply at points of ingress or egress to the surface parking lot, or to points of cross-access among properties that share a parking lot.

D. Required Surface Parking Lot Landscape Areas.

1. Landscaping shall be installed in the following required landscape areas:
 - a. Landscape islands are required at the end of each row of parking spaces in each parking module;
 - b. Landscape islands are required and must be distributed throughout the parking lot, at a rate of at least one landscaped island for each 12 consecutive parking spaces;
 - c. Vegetated entry medians are required with a minimum of at least 300 square feet in surface area and a minimum five feet in width (not including curbs), if the surface parking lot contains 180 or more parking spaces;
 - d. Landscape strips are required at least 12-14 feet in width (not including curbs) that separate groups of parking modules (along their long edges) into “cells” as provided in Table 4-6-6-3, Parking Module Separation Requirements.

Figure 4-6-6-3: Parking Module Separation Diagram

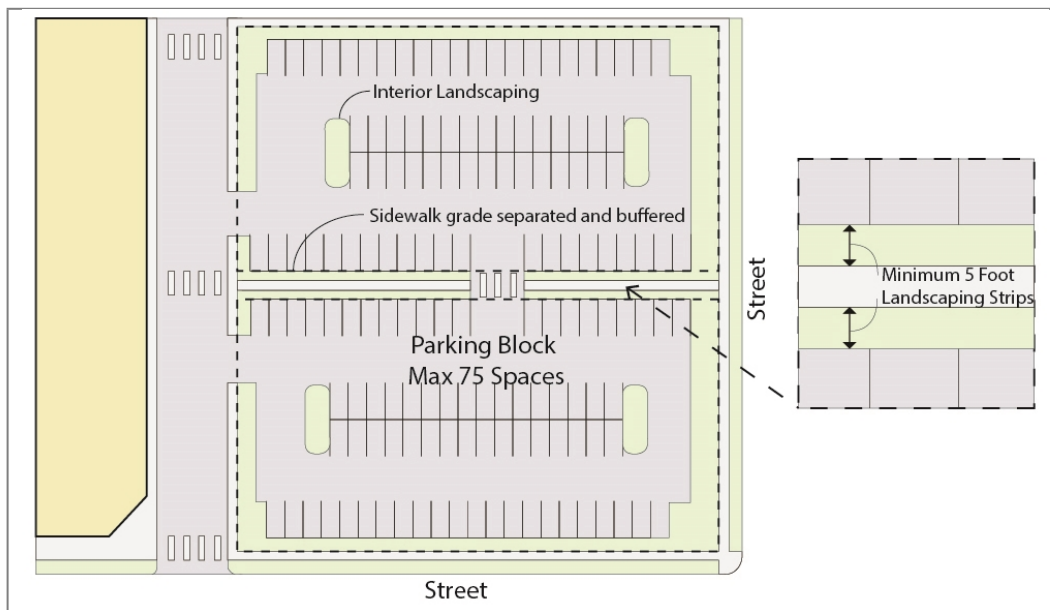


Table 4-6-6-3: Parking Module Separation Requirements

Predominant Type of Land Use	Maximum Number of Parking Spaces in Cell
Residential	50
Nonresidential (except Industrial)	75
Industrial	100 if the parking area is located within 300 feet of a public street; otherwise, no maximum

2. Landscape islands that are used to meet the requirements of Subsection D.1.a. and D.1.b., above, shall be at least eight feet in width (not including curbs) and 16 feet in length, and may be combined (eight feet in width by 32 feet in length) at the ends of adjacent parking modules.
 3. Landscape strips may include sidewalks (and landscape islands may be crossed by sidewalks), but the sidewalks shall be counted as required landscape areas for the purposes of the calculation of planting requirements (see Subsection E., below).
 4. A raised sidewalk to connect the parking area with major building entries should be provided between the cells with a five foot planting strip on both sides of the sidewalk. An alternative layout is a sidewalk connection with a central five foot wide landscaped area, flanked with sidewalks on both sides.
- E. **Minimum Planting Requirements.** Required surface parking lot landscape areas shall be planted with one shade tree or two ornamental trees, plus eight shrubs per 300 square feet of required landscape area.

4-6-6-5 General Landscape Areas

- A. **Generally.** Except as provided in Subsection B., below, the landscaping requirements of this Section apply to all permeable areas of the subject property that are not otherwise a designated required planting area pursuant to Division 4-6-5, Landscape Areas and Bufferyards or Section 4-6-6-1, Street Trees, through Section 4-6-6-4, Foundation Plantings, inclusive.
- B. **Exceptions.** The requirements of this Section do not apply to:

1. Preserved open space; and
 2. Irrigation canals, irrigation ditches, reservoirs, and appurtenant maintenance areas (whether owned in fee simple or as easements).
- C. **Planting Requirements.** General landscape areas shall be planted with at least:
1. One ~~large-canopy or evergreen~~ tree, ~~or two ornamental trees~~ per ~~23,000~~ square feet of ~~permeable-landscape surface~~ area;
 2. A minimum of ~~One small tree or one evergreen per 1,500 square feet of permeable area~~ 10 percent of all trees shall be evergreen; and
 3. 75 percent vegetative ground coverage at maturity, excluding tree canopy.
- D. **Shrub Requirements.** Shrubs shall be planted at a maximum spacing of five feet on center.
- E. **Planting on Steeper Slopes.** On slopes greater than 3:1, the following can be planted:
1. Trees and shrubs; and
 2. Groundcovers.

4-7-2-1 Fences and Divisional Walls

- A. **Generally.** All fences and divisional walls shall comply with the requirements of this Division.
1. If a proposed fence or divisional wall is located directly adjacent to a zoning district boundary or on a shared property line, the less restrictive standards shall apply.
- B. **Permits Required.** All fences and divisional walls require fence permits, except for the following:
1. Repair of a fence section not greater than eight linear feet in length.
- C. **Height.** All fences and divisional walls shall comply with the maximum heights shown in the following Table 4-7-2-1, Maximum Height of Fences and Divisional Walls Within Required Setback Areas, unless a different maximum height is explicitly permitted:
1. By this Code or approved through the Minor or Major Modification, or PUD approval process;
 2. For an activity field (*i.e.*, tennis court, baseball, football, soccer fields) at the discretion of the Director; or
 3. For fences associated with a Utility, Major for security purposes, at the discretion of the Director.
- D. **Location.** All fences and divisional walls may encroach into required yards and setbacks. Fences and wall shall not:
1. Be constructed within a public right-of-way or areas to be dedicated for public right-of-way unless a revocable permit is approved;
 2. Conflict with sight distance visibility of intersections or points of ingress/egress;
 3. Block or divert a natural drainage flow onto or off of any other property;
 4. Block access within an access easement; and
 5. Encroach into a utility easement, unless the easement holder has provided written consent. (This specific requirement shall only apply to masonry walls.)

Figure 4-7-2-1A: Fence and Division Wall Location Diagram

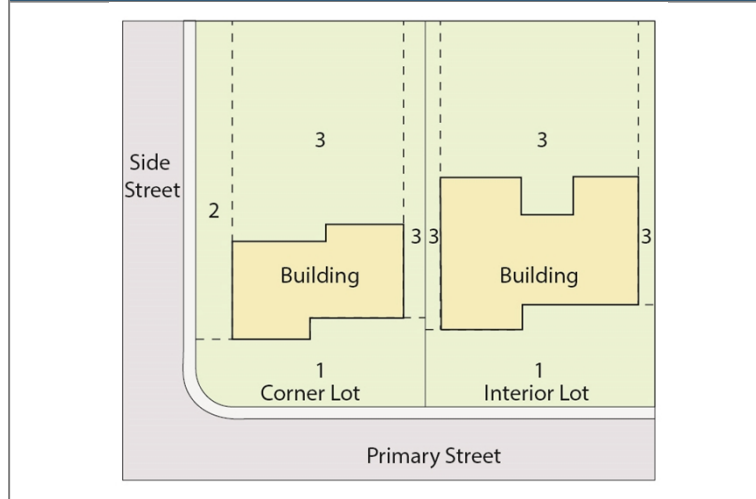


Table 4-7-2-1 : Maximum Height of Fences and Divisional Walls Within Required Setback Areas

Zoning District	Setback		
	Area 1 Front	Area 2 Street Side	Area 3 Rear & Interior Side
OS, RA, RN, R6, R13, R24, MX-N	3 ft. ²	3 ft. ^{2,3,4}	6 ft. ^{4,9}
MX-S, CG	3 ft. ²	3 ft. ^{2,5}	6 ft.
MX-U, MX-T	3 ft. ²	3 ft. ^{2,5}	6 ft.
OT Zoning Districts	3 ft. ^{5,6,7,8}	3 ft. ^{5,6,7,8}	3 ft. ⁸
IL	6 ft.	6 ft.	6 ft.
IG	6 ft.	8 ft.	8 ft.
PUD	Per the approved PUD. If no standards were identified as part of the approved PUD, then the fence standards for the closest zoning district shall be utilized.		

TABLE NOTES:

¹ See Figure 4-7-2-1A, Fence and Divisional Wall Location Diagram.

² Height may be increased to 4 ft. if the fence is at least 50 percent transparent when viewed at a perpendicular angle.

³ Height may be increased to 6 ft. (regardless of opacity) if the fence is set back at least 6 ft. from the property line or 6 ft. from the back of adjacent sidewalk, whichever is greater.

⁴ Height may be increased to 8 ft. for divisional walls that face arterial streets.

⁵ Height may be increased to 6 ft. if a minimum of 50% open for school yards.

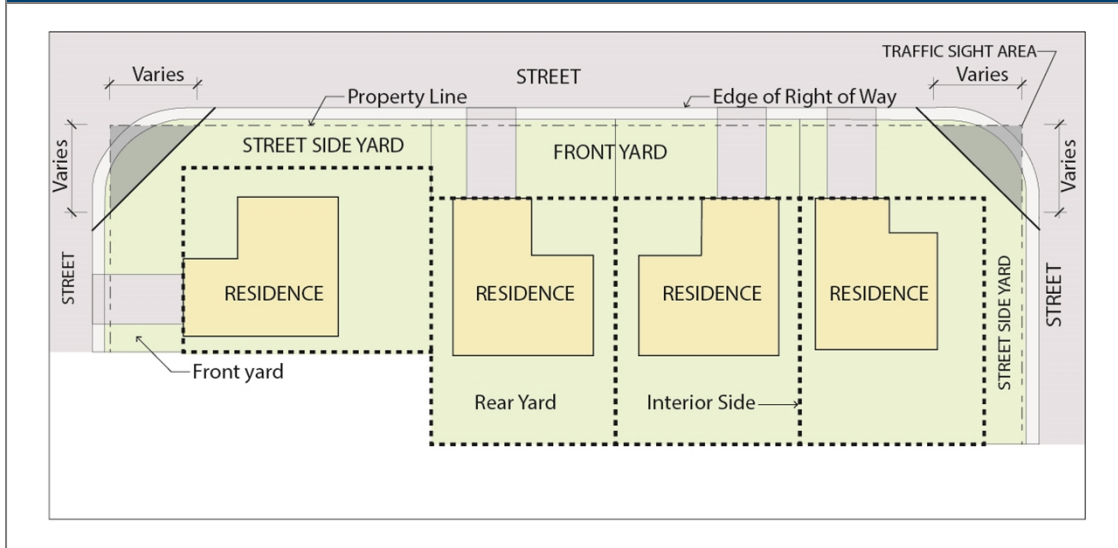
⁶ Height may be increased to 4 ft. if a minimum of 50% open for single-family, duplex or multiplex building types.

⁷ Height may be increased to 4 ft. if a minimum of 50% open for mixed-use building type outdoor dining areas.

⁸ Height may be increased to 6 ft. except within any McIlvoy Park Frontage zone or any side or rear setback adjacent to McIlvoy Park or Olde Town Plaza, or where it would extend in front of a building within any frontage zone.

⁹ Maximum height is 6 ft. for rear yards on double frontage lots.

Figure 4-7-2-1B: General Fence Location



E. Setbacks from Streets, Sidewalks, Open Space, Trails, and Multi-Use Pathways.

1. No solid fence or divisional wall that is between four and eight feet in height shall be installed closer than:
 - a. Eight feet from the flowline of a street; and
 - b. Five feet to the nearest edge of a sidewalk, open space corridor less than 15 feet wide, trail, or multi-use pathway.
2. No solid fence or divisional wall that is more than eight feet in height shall be installed closer than:
 - a. Ten feet from the flowline of a street; and
 - b. Eight feet to the nearest edge of a sidewalk, open space corridor less than 15 feet wide, trail, or multi-use pathway.
3. Fences that exist in the condition identified in Subsection E1 and E2 above prior to the adoption of this Code shall be considered conforming.
4. The area between the fence or divisional wall and the street, sidewalk, trail, or multi-use pathway shall be landscaped with shrubs, groundcover, perennials, ornamental grasses, or turf materials that provide contrast with the sidewalk. Inorganic ground cover such as river rock, cobble rock, or gravel may be used as part of the landscape provided that the ground cover, ornamental grasses or turf which are planted achieve 50 percent coverage at maturity. Hardscape materials are allowed only at points of access through the fence or divisional wall.
5. Fences shall comply with the sight triangle requirements of Section 4-4-3-3, Intersection Visibility.

F. Design of Street-Facing Fences or Divisional Walls.

1. All fences or divisional walls adjacent to a street, open space, trails, and multi-use pathways, the finished surface of the fence shall face towards the street frontage. Non-decorative elements such as fence posts and supporting structures, when visible on one side and not the other, shall face inward.

2. No portion of any front yard setback may be fenced for use as an animal pen or dog run.
- G. **Perimeter Fence and Walls.** Perimeter fences and walls along arterial streets or railroad tracks may be constructed up to eight feet in height. Perimeter fencing shall be constructed of Western Red Cedar wood or other material approved by the Director, or masonry. Masonry fence posts two foot by two foot in size, shall be located at property corners but no further than 100 feet apart on-center, and with sloped column caps to drain water to the sides of the posts.
- H. **Security Fencing.**
 1. No barbed wire or other sharp-pointed fences or similar security devices on divisional walls shall be installed on any property, except:
 - a. In the IL or IG zoning districts that is used for industrial purposes, upon demonstration to the Director or the Decision Making Body that a substantial security need justifies the installation; or
 - b. In the RA or OS zoning districts on property that is used for agricultural purposes.
 2. Electrically charged fences are not allowed unless necessary for livestock control in an RA zoning district.
- I. **Relationship to State Statutes or Regulations.**
 1. Where the Colorado statutes or implementing administrative regulations require fencing or divisional walls that are taller than those that are allowed by Table [2-3-6-24-7-2-1](#), Maximum Height of Fences and [Garden Divisional Walls](#) ~~w~~Within Required Setback Areas, the Director may approve the increased fence or divisional wall height in accordance with the statutes or implementing administrative regulations.
 2. If the fence or divisional wall is located within Area 1 or Area 2 as shown in Figure [2-3-6-24-7-2-1A](#), Fence and Divisional Wall Location Diagram, then where feasible and consistent with the statute or regulation, the Director shall require landscaping or design treatments to mitigate the visual impacts of the increased height of the fence or garden wall when viewed from the public streets. Mitigation measures may include, but are not limited to, tree, shrub, or hedge plantings; material and color selections that de-emphasize the fence or garden wall; transparency; and additional setbacks for the fence or divisional wall.
- J. **Fence and Wall Materials.**
 1. Fences and divisional walls shall be made of high quality, durable materials that require low maintenance and are complementary with the overall design of the principal building and site landscape. The following materials are allowed:
 - a. Wood and composite wood;
 - b. Non-reflective plastic and vinyl fencing;
 - c. Natural stone, stacked stone, brick, stucco, decorative concrete masonry blocks that replicate the appearance of brick, stone, stucco and CMUs;
 - d. Metal iron, metal picket and other metals simulating the appearance of wrought iron, chain-link fencing or aluminum or wrought iron decorative fencing;
 2. The Director may approve other materials that are equal to or surpass the materials listed in this Subsection J. in terms of durability, maintenance, and aesthetics.
 3. Prohibited Material. Sheet plastic, sheet metal, chicken wire, fabric materials, fiberboard, garage door panels, snow fencing, rope, plywood fences, PVC pipes, and miscellaneous materials not commonly used with residential fences are not allowed.
- K. **Maintenance.** All fences and divisional walls shall be maintained in good condition at all times.

4-8-2-2 General Design Standards

- A. **Shielding of Lights.** Luminaires shall be shielded and directed to avoid glare and overspill onto adjacent property.
1. All exterior light fixtures shall be full cutoff fixtures that are directed downward (90 degrees from true vertical) and shall have flat lenses, emitting no more than 10 percent of the total lumens between 80 and 90 degrees from true vertical. Fixtures shall be configured so that lights do not cause glare.
 2. All light fixtures on structures, poles, bollards, stands, or mounted on a building shall have a shield, adjustable reflector, and/or non-protruding diffuser to shield the light source from sight from adjacent residential zoning districts.

Figure 4-8-2-2: Light Fixtures Examples



- B. **Maximum Spill Light Illumination Levels.** Except for public street lighting, all exterior lighting and indoor lighting visible from outside shall be designed to minimize adverse impacts on adjacent properties by minimizing glare and limiting light at the property line and located so that the maximum illumination measured in foot_candles at ground level and for mixed-use development without property lines shall be measured a line half-way between buildings of differing uses and shall not exceed the standards in Table 4-8-2-2A, Maximum Illumination Levels.

Table 4-8-2-2A: Maximum Spill Light Illumination Levels	
Type of Use Abutting a Lot Line	Maximum Illumination level at Lot Line (Foot Candles)
Single-family dwelling and duplex residential property line in RA, RN, R6, R13, R24, OT districts (-single-family, duplex, multiplex building types), and OS	0.5
Attached dwelling and multifamily residential property line (except mixed-use <u>buildingsdwelling</u>)	1.0

Table 4-8-2-2A: Maximum Spill Light Illumination Levels

Type of Use Abutting a Lot Line	Maximum Illumination level at Lot Line (Foot Candles)
Mixed-use buildings and non-residential property lines	2.0
Industrial	3.0

A.3. Maximum Illumination and Lighting Uniformity.

~~1.a.~~ Lighting ~~of pedestrian and vehicular use areas (e.g., parking lots, plazas, and sidewalks)~~ shall have a uniformity ratio of ~~three-ten~~ to one (maximum to minimum).

~~b.~~ No single lamp shall exceed:

~~i.~~ All zone districts except ILG and IGL – 16,000 lumens

~~ii.~~ IL and IG zone districts - 20,000 lumens.

2. Maximum Light Levels.

~~2. a.~~ The maximum allowed light levels at any point on the property (as measured in foot candles) shall not exceed the following limits:

Pedestrian areas (when not adjacent to parking lots) 3 Foot Candles

Multiplex, Townhome, and Multifamily Building Entries 8 Foot Candles

Parking lots, and all other non-residential use areas 8 Foot Candles

Service Canopies (fuel stations, ATMs, Drive-Thru's, etc.) 20 Foot Candles

C. **Maximum Height.** The height of exterior light fixtures, whether mounted on poles, walls, or by other means, shall comply with the standards in Table 4-8-2-2B, Maximum Height for Exterior Lighting.

Table 4-8-2-2B: Maximum Height for Exterior Lighting

Base Zoning District	Maximum Height ¹
OS, RA, RN, R6, R13, R24, OT, MX-N, MX-S	22 feet
CG, MX –U, MX-T, IL, IG	35 feet
TABLE NOTES: ¹ Porch and balcony lights on residential buildings are exempt from the maximum height. Lighting	

D. Motion-Activated Security Lighting.

1. Motion-activated security lighting may emit up to 3,000 lumens per fixture.
2. Not more than one motion-activated security light fixture is allowed per 60 linear feet of building elevation.
3. Security lighting shall be timed to turn off after not more than five minutes after motion activation.

E. **Outdoor Sports or Performance Venue.** Lighting fixtures for outdoor sports areas, athletic fields, and performance areas shall be equipped with a glare control package (e.g., louvers, shields, or similar devices) and aimed so that their beams are directed and fall within the primary playing or performance area.

1. Lighting fixtures may not be more than 40 feet in height.

~~F.~~ Parking Lot Lighting.

- ~~1. Maintained average horizontal illuminance values in parking lots during times when the parking lot is in use shall not exceed four foot candles.~~
- ~~2. The average horizontal illuminance within the parking area shall not exceed 3.5 foot candles when the associated business(es) is closed.~~

~~G.F.~~ Pedestrian Area Lighting.

1. Pole ~~light~~ fixtures for plazas, small urban parks, sidewalks, walkways, trails, and bicycle paths outside of vehicular surface areas (i.e., parking lots) shall:
 - a. Provide at least ~~1.5~~ foot candles of illumination, but not exceed three foot candles; and
 - ~~b.~~ Have a maximum height of 15 feet.
 - ~~b.c.~~ No single lamp shall exceed 10,000 lumens.
2. Pedestrian bollard lamps shall be mounted no higher than four feet above grade and shall not exceed 3 foot candles.

a. No single lamp shall exceed 900 lumens. for any single lamp.

~~1.~~

~~H.G.~~ Wall Pack Lights. Wall packs on the exterior of the building shall be fully shielded (e.g., true cut-off type bulb or light source not visible from off-site) to direct the light vertically downward and have a maximum of 1600 lumens.

~~H.H.~~ Awnings. Awnings used for building accents over doors and windows shall not be internally illuminated (i.e., from underneath or behind the awning) unless the awning material is entirely opaque.

~~B.~~ Service Canopy Lighting. Canopy lighting for uses that shelter outside work, full-service areas or porte-cocheres shall have all light fixtures flushed mounted or recessed into the canopy and equipped with flat lenses.

1. All light fixtures flushed mounted or recessed into the canopy and equipped with flat lenses; and
 - ~~1. A light distribution that does not exceed a 10:1 ratio between the average light levels under the canopy and the average light levels of the area outside the canopy.~~

~~J.I.~~ Decorative Lighting.

1. Decorative lighting shall be permitted to enhance the appearance of a building and / or landscape feature provided that:
 - a. All light is cast against the building surface or downward onto a landscape feature;
 - b. All decorative lighting is directed away from residential uses located within 50 feet of the building façade on which the decorative lighting is mounted and is shielded to reduce light trespass on adjacent uses;
 - c. The lamp is not visible from adjacent properties, pedestrian or vehicular traffic; and
 - d. The decorative lighting does not exceed 1600 lumens.
2. Unshielded Tivoli and patio string lighting with no more than 200 lumens per foot provided that the lighting is turned off between 11:00 PM and 6:00 AM.

~~J.L.~~ Pole and Fixture Color.

- ~~2.~~ 1. All poles and fixtures (luminaires) shall be of dark colors including, but not limited to, black, dark gray, dark green or brown. Reflective or light colored poles and fixtures are not allowed.

5-1-2-2 Evaluation of Aesthetic Consistency

- A. **Generally.** Where the standards of ~~this Division~~, Division 5-1-5, Supplemental Standards for Residential Land Uses (Except Multifamily), or Division 5-1-6, Supplemental Standards for Nonresidential and Multifamily Land Uses, require aesthetic consistency, aesthetic consistency shall be evaluated in accordance with the standards of this Section.
- B. **Roof Pitch and Form.** As to roof pitch, “consistency” means a roof pitch within 1:12 of the slope of the primary roof structure of the principal building.
- C. **Roofing or Cladding Materials.** As to roofing and cladding materials, “consistency” means a material that is not obviously different in terms of texture or color from a material used for the same purpose on the principal building.
- D. **Window Styles, Window Orientation, and Doors.** As to window styles, window orientation, and doors, “consistency” means windows or doors with a design and aspect ratio that is not materially different from windows or doors on the principal building.
- E. **Color Palette.** As to color palette, “consistency” means colors that are:
 - 1. The same as the principal building;
 - 2. Complimentary to the predominate color(s) of the principal building;
 - 3. Monochromatic variants of the primary color(s) of the principal building;

5-1-2-3 General Building Design Standards

- A. **Building Orientation.** ~~All~~Primary buildings shall emphasize the location and importance of the entryways.
 - 1. The main entrance or a courtyard leading to the main entrance of each principal building shall be located on the front facade.
 - 2. On corner lots, the main entrance shall face one of the streets or be oriented to the corner.
- B. **Massing.** Primary B buildings shall be designed to avoid a monolithic appearance when viewed from the street.
- C. **Facade Materials and Design.**
 - 1. **General Requirements.**
 - a. All building exterior finish materials shall be durable and consistent with the architectural style for that building.
 - b. Where lap siding is used, it shall have a maximum nine-inch exposed board face.
 - c. Siding material shall be continued down to within nine inches of finished grade on any elevation, except that siding shall be allowed to step to follow grade:
 - i. Between six to 24 inches; or
 - ii. Within 24 inches maximum from finished grade.
 - ~~ii.d.~~ Vinyl Siding shall be a VSI (Vinyl Siding Institute) certified product.
 - 2. **Prohibited Materials.** The following materials are prohibited:
 - a. Highly reflective opaque materials;

- b. Natural cinder block, unfinished or smooth concrete block / masonry units or concrete wall;
 - c. Metal panels with a corrugated appearance with exposed fasteners; and
 - ~~d. Vinyl siding.~~
 - e.d. Unlisted materials that are unsuitable for exterior building applications as determined by the Director.
- 3. **Other Materials.** The Director may permit materials that are not listed in this Section as either allowed or limited, provided that the Director finds that they have comparable aesthetic qualities, durability, and maintenance characteristics. The Director may prohibit materials that are not listed in this Section if the Director finds that they do not have aesthetic qualities, durability, and maintenance characteristics that are comparable to the materials that are allowed or limited under this Section.
- 4. **Side and Rear Facade Design.** Where a side or rear facade of a residential building abuts streets, parks, or open spaces, the facade shall be designed to provide human scale by the use of all of the following:
 - a. At least one change in the vertical or horizontal wall plane within 20 feet above grade;
 - b. At least one change in the color or material of the wall;
 - c. Provision of windows, a porch, or a balcony; and
 - d. Detailing the wall with reveals, belt courses, cornices, projections, or other devices.
- 5. **Rear Facade Design for Double-Frontage Lots.**
 - a. Double-frontage lots shall be required to meet the standards in Section 2-1-10-5, Double-Frontage Lots, for building setbacks or stepped setbacks for taller buildings.
 - b. Structures of two stories or more shall incorporate at least one of the following rear elevation treatments:
 - i. The building façade on the rear elevation shall have brick, stone, or stucco cladding in a minimum amount equivalent to 50 percent of the façade, (excluding windows, doors, trim and vents) from the average grade to the highest eave or 9'-6" above the average grade, whichever is lowest; or
 - ii. At least 50 percent of the area of the building facade shall have a minimum four-foot horizontal difference (plan view) in the rear wall plane at the height of one of the floors.
- 6. **360-Degree Architecture.** All buildings shall incorporate the following design standards to create architectural interest.
 - a. **Materials.**
 - i. Where brick, stone, or stucco cladding is used, they must be applied to the building facade in a manner which begins and ends at edges related to the structure of the building (such as a window sill level, floor plane lines, or interior corners of projection or similar elements). All brick, stone or stucco cladding shall wrap around all outside building corners a minimum of two feet, and must wrap all sides of a column on which it is used. An architectural treatment shall be used to transition from brick, stone, or stucco to other materials.
 - b. **Windows and Doors.**
 - i. Windows are required encouraged on all elevations, except as provided in Division 2-1-8-5, Zero Lot Line, and unless restricted by the Building Code. On facades facing

streets, parks, or open space, a minimum of 20 percent of the façade shall be windows. A greater percentage of windows may be required by other sections of this Code.

- ii. Window and door openings shall be articulated on all elevations of the building through the use of:
 - a. Shutters, awnings or canopies;
 - b. Decorative lintels and/or sills (such as projecting, recessed, those constructed of materials other than the principal building material or ornamentation);
 - c. Overhangs; or
 - d. Surrounds and trims.
7. **Façade and Roof Color.** Colors used on building exteriors should integrate a building's various design elements or features.
 - a. Walls should be subdued in color and not reflective. Bright colors should be used sparingly and limited to accenting a building, and should not be used to act as signs or create "sign buildings". Monotonous color palettes are strongly discouraged.
 - b. All building projections, including, but not limited to, gutters, downspouts, chimneys, flues and vents, shall match in color the permanent color of the surface from which they project or match the building's trim color.
8. **Rooflines.**
 - a. Building rooflines visible from a public street, park, or open space shall incorporate features to create a varied and visually distinctive roof form through features, such as prominent cornice or fascia, stepped roofs, emphasized dormers, chimneys, gables, or an articulated roofline.
 - b. Roof slopes, excluding covered porches and patios, shall have a minimum pitch of 2:12 unless screened with a parapet wall. Subordinate roofs can be of a lesser pitch. A building of a style that is traditionally associated with flatter roofs, such as Prairie or Modern style, may be allowed as determined by the Director.
 - c. The maximum length of a continuous roof ridgeline is 35 feet. Roofs with dormers and other architectural details are exempt from this requirement.
 - d. Pitched roofs shall have a minimum eave overhang of at least one-foot.
9. **Canopies and Port-Cochères.** Canopies and port-cochères that cover vehicular use areas, service areas, or outdoor storage areas shall meet the following standards:
 - a. The same architectural treatments utilized on the principal building in terms of cladding materials, roof pitch, roofing materials, and color scheme shall be used on canopies and port-cochères.
 - b. A maximum of 25 percent of each canopy fascia area visible from a public street may be internally illuminated, and no portion of any fascia may be externally illuminated. Each side of a canopy shall be considered a separate fascia area.
10. **Rooftop, Wall Mounted and Ground Mounted Mechanical Equipment, Flues and Exterior Building Elements.**
 - a. **Screening.**
 - i. Rooftop mechanical equipment and appurtenances should all be screened from a public street through the use of parapets or enclosures that are equal to, or greater than, the height of the equipment to be screened. The parapet or

enclosure shall use one of the predominate materials or colors used on the primary façade of the building.

- ii. The Director may reduce or waive these screening requirements for building elevations that face substantial changes in grade that make screening impracticable if relocation of the mechanical equipment to a less conspicuous location is also impracticable.
 - iii. All air conditioning compressors shall be completely screened. Screening enclosures shall use at least one of the predominant materials used in the facades of the primary structure where feasible, and one of the predominant colors used in the primary structure.
 - iv. All rooftop and wall vents and flues on a pitched roof or extending above the top of the nearest parapet shall be painted with one of the predominant colors used in the primary structure.
 - v. Wall-mounted utility equipment and meters shall be screened from view from a public street and shall be painted a color to blend with the building façade.
- b. **Noise attenuation.** Equipment that generates noise perceptible at the adjacent street or property line shall be baffled or otherwise attenuated to direct unavoidable noise upward.

5-1-2-4 Building Design Standards Applicable to Single-Family Detached, Duplex, and Multiplex

- A. **Generally.** In addition to Section 5-1-2-3, General Building Design Standards, the following standards shall apply to new development or redevelopment of single-family detached, duplex, and multiplex units in all zoning districts.
- B. **Front Façade Design.** In new development of single-family detached and duplex buildings, the front façade shall have significant variation as defined below:
 - 1. No identical home elevation shall be repeated directly across the street or adjacent to the other home.
 - 2. No identical model elevation shall be repeated more than once every three lots.
 - 3. Distinct elevations shall be provided by incorporating at least three of the following:
 - a. The use of different materials and color on the front facade;
 - b. Variations in the front wall plane;
 - c. Vary the size and location of the front porch;
 - d. A variation of building types;
 - e. The overall width of the front façade elevation differs by more than four feet;
 - f. The overall height of the front façade elevation differs by more than four feet; and
 - g. Windows size and shapes are substantially different.
- C. **Garages.** All garages for single-family detached and duplex buildings shall comply with Section 5-1-2-2, Evaluation of Aesthetic Consistency, and are subject to the following:

1. For each new development containing ten or more single-family or duplex dwelling units in all zoning districts, 50 percent of the total number of lots in the subdivision that have a street-accessed garage shall use at least one of the following garage variations:
 - a. Recessed garage doors facing the street shall be recessed a minimum of four feet behind the front wall plane of the house.
 - b. Side-loaded garages shall be located at a right angle to the street. The design of the garage wall facing the street shall have the same predominate materials used on the front façade.
 - c. Rear garages shall be located to the rear of the property either as a detached structure or part of the house. If constructed as part of the house, the part of the house, the front wall of the garage shall be setback at least 15 feet behind the front façade of the house.
2. Front loading, front-facing garages doors shall not constitute more than 50 percent of the total width of the building.
3. No more than three garage bays shall face the street, except when the bays are located behind the principal buildings.
4. When more than two garage bays exist, all garages doors that face a street shall include at least one two-foot-wide column or a two-foot façade setback separating each garage door.

5-1-2-6 Nonresidential and Mixed-Use Design Standards

- A. **Generally.** This Section shall apply to any new nonresidential development, mixed-use development, redevelopment, or building expansion in all zoning districts. In addition to Section 5-1-2-5, Building Design Standards Applicable to Townhomes and Multifamily, the following standards shall apply to new development or redevelopment of multifamily and townhome units in the MX zoning districts. In the OT Zoning District, these standards may be modified through the design review process based on the standards in the Olde Town Building Form Standards and Design Guidelines for Olde Town.
- B. **Building Orientation and Configuration.**
 1. Structures shall be arranged so that the primary facade, or each facade with a main pedestrian entry, orients onto a public or private street, a public park, open space or common green, plaza, courtyard, private street-like drive, or a pedestrian passage, in the following order of priority:
 - a. A public or private street;
 - b. A public park, open space or common green;
 - c. A plaza or courtyard; or
 - d. A pedestrian walkway.
- C. **Single-Story Commercial and Mixed-Use Developments.**
 1. Commercial and mixed-use developments shall break up supporting commercial buildings into a cluster of individual pad and liner buildings at intersections and street edges.
 2. Pad and liner buildings located within the frontage zone shall be designed to be “double-fronted”, where at least one entrance shall face the street or public space, following the order of priority in B.1 above. Secondary entries can be oriented to the parking lot.
 3. Large commercial or large format buildings with a minimum of 50,000 square feet of gross area, such as a grocery store or big box retail building, may be placed internal to the site.

D. Multi-Building Developments.

1. Multi-building developments that have three or more buildings shall be organized to create pedestrian-friendly spaces and streetscapes. This should be accomplished by placing buildings to:
 - a. Frame and emphasize the corners of street intersections, development entry, or a primary pedestrian street within the development;
 - b. Frame and enclose parking areas on at least two sides;
 - c. Frame and emphasize a plaza, pocket park, square, or other outdoor gathering spaces for pedestrians; and / or
 - d. Frame and emphasize other site improvements as approved by the Director.
2. Developments composed of multiple buildings totaling 100,000 square feet or more of gross floor area shall be configured to break up the site into a series of smaller blocks.

E. Building Design. The following building design standards are intended to provide architectural interest.

1. Design of Facades.

- a. The first floor façade of all buildings, including structured parking facilities, shall be designed to encourage and complement pedestrian-scale interest and activity through the use of elements such as windows, awnings, and other similar features.
- b. Architectural features and treatments shall not be limited to a single façade. All visible sides of a building, whether viewed from public or private property, shall display a similar level of quality and architectural interest, with elements such as windows, awnings, a variety of exterior materials, reveals, and other similar features.

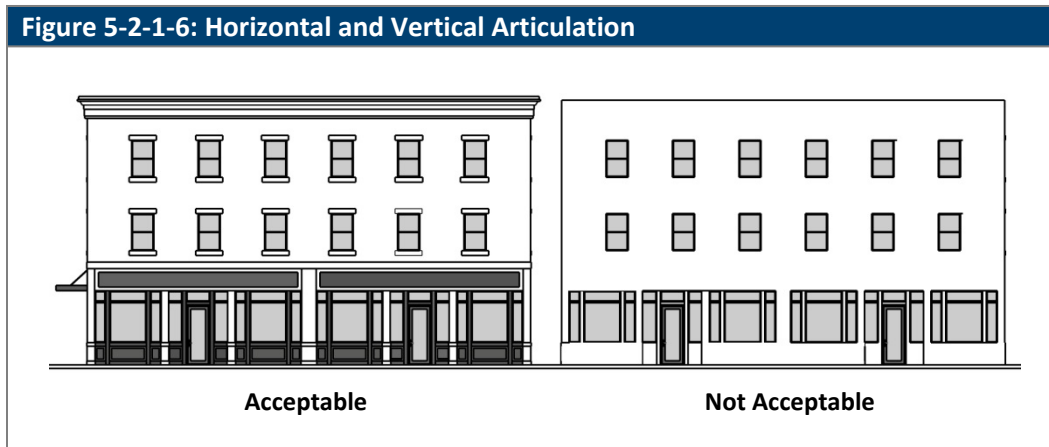
2. Horizontal and Vertical Articulation.

- a. **General Standards.** All buildings shall be designed to include horizontal and vertical articulation by incorporating the following elements ~~such as~~:
 - i. Single story commercial buildings shall use at least three of the horizontal articulation methods listed below at an interval of 50 feet or less on each façade.
 - ii. Single story industrial buildings shall use at least two of the horizontal articulation methods listed below at an interval of 100 feet or less on each.
 - iii. All multi-story commercial, mixed-use, ~~and multifamily buildings~~, and industrial buildings in the I-L zoning district, shall use at least two of the ~~horizontal~~ articulation methods listed below at an interval of 50 feet or less on each street-facing building façade.
- b. **Articulation Methods.**
 - i. Visual breaks in the façade by incorporating a horizontal wall plane offset or projection of at least three feet extending for at least 20 percent of the average width of the primary façade.
 - ii. A change in materials, colors, textures, or pattern.
 - iii. A change in window sizes, styles, or placement across the façade.
 - iv. A change in roof or parapet height of at least three feet, or a change in roof form.
 - v. Incorporation of a wall notch in combination with at least one option from (i.-iv.) above. Wall notches shall be a minimum of three feet deep and eight feet wide and shall total at least 20 percent of the façade length.

- vi. Use of masonry such as brick or stone, or other durable material to delineate the ground floor.
- vii. Use of an arcade, gallery or colonnade to accentuate the ground floor.
- viii. Use of enhanced architectural detailing or fenestration.

ix. Use of cornices or projecting roof lines.

~~ix-x.~~ For multi-story buildings, the horizontal interval may exceed 50 feet if building material changes and/or articulation occur above the first floor.



- F. **Building Transparency.** The entire ground floor of all buildings located within thea required building frontage zone that faces a public or private street shall provide transparency to increase pedestrian interest by incorporating window and door openings so that the uses are visible from and to the street. The following shall apply:
1. At least 40 percent of the façade between two feet and 10 feet above grade, must be transparent.
 2. Up to 20 percent of the building transparency requirement may be satisfied with permanent art displays.
- G. **Roofs Materials and Roof Form.**
1. **Roof Materials.** Visible roofs may be constructed of conventional asphalt (3-tab) roofs, architectural metal, or other acceptable material, but roofs constructed of clay or concrete tiles, slate, Masonite, or heavy duty/hail resistant dimensional composition are preferred. All composition shingle roofing shall be constructed using high profile, textured shingles.
 2. **Roof Form.**
 - a. Where sloped roofs are used, at least one of the following elements shall be incorporated into the design for each 100 linear feet of roof to avoid long, flat roof surfaces:
 - i. Projecting gables,
 - ii. Dormers,
 - iii. Hips,
 - iv. Vertical elevation change in roof height of at least two feet, or
 - v. Other similar techniques as approved by the Director.

- b. Where flat roofs are used, the design or height of the parapet shall include at least one change in setback or height of at least two feet along each 100 linear feet of façade.
- c. On all structures exceeding three stories in height, all pitched roofs shall be internally drained, and external scuppers and wall drains shall be prohibited.
- d. All sloped roofs shall have overhanging eaves of at least one foot in depth, and roofs with a pitch of less than 2:12 shall be screened by a parapet wall.

Table 5-1-4-3: Mini-Structure Standards		
Attribute	Standard	Exception
<u>Size (max)</u>	<u>200 sf.</u>	
Height (max)	12 ft.	Tree Houses
Number of Mini-Structures	Maximum 2	Not limited for the following land uses: Amusement, Outdoor; Recreation, Outdoor; Stables and Riding Academies; Cemetery; Day Care Center; Public Lands, Parks, or Buildings; Schools (all); Storage Yard; Community Agriculture
Location of Mini-Structures	Not allowed in front yard; Not attached to principal building	Allowed in the front yard for Recreation, Outdoor; Cemetery; Public Lands, Parks, or Buildings; Schools (all); Storage Yard; Community Agriculture
Design	Roofed structures shall be compatible with principal building in terms of materials and colors	-
Use	Cannot be used for vehicle storage	-

5-1-5-2 Accessory Dwelling Units

- A. **Generally.** Accessory Dwelling Units (“ADUs”) are allowed in conjunction with all single-family detached dwellings in residential, OT and MX zoning districts, subject to the standards in this Section.
- B. **Conformance to Development Standards.** ADUs must meet the same development standards that are required for the principal dwelling unit, except as provided in this Section.
- C. **Classification of ADUs.** For the purposes of this LDC, ADUs are classified as follows:
 1. **Type A.** A Type A ADU is detached from the principal dwelling unit. It is considered a separate dwelling unit for the purposes of the Building Code.
 2. **Type B.** A Type B ADU is located inside in basements, the upper story, or attached to the principal single-family detached building, but the occupants of the ADU and principal dwelling unit do not live together as a single household unit. A Type B ADU is typically rented. Type B ADUs typically have a separate access from the principal dwelling unit. A Type B ADU and the principal dwelling unit into which it is integrated are considered separate dwelling units for the purposes of the Building Code.
- D. **Parking.**
 1. One on-site parking space shall be required for an ADU, in addition to any required parking for the principal dwelling unit.
 2. The required parking space may be in tandem with other required spaces.

3. Garage space that is constructed for use by the occupant(s) of the ADU shall not exceed 250 square feet.

E. Unit Size and Configuration.

1. Except as provided in Subsection E.2., below, ADUs shall be:
 - a. No larger than 40 percent of the living space of the principal building; and
 - b. Within the lot size and floor area ranges set out in Table 5-1-5-2, Maximum Floor Area of Accessory Dwelling Unit.

Table 5-1-5-2: Maximum Floor Area of Accessory Dwelling Unit	
Lot Size	Maximum Floor Area
6,000 sf. or less	600 sf.
Greater than 6,000 sf. and up to 12,499 sf.	850 sf.
12,500 sf. to 1 acre	1,000 sf.
Greater than 1 acre	1,200 sf.

2. The limitations of Subsection E.1., above, shall not apply to ADUs that are located within the footprint of an existing home as long as the ADU is not larger than 50 percent of the floor area of the principal dwelling unit, including the basement. For example, if a home has a 1,000 square foot basement, an ADU could be established in the basement if the rest of the principal dwelling is at least 1,000 square feet.
3. ADUs shall be designed and configured as studio, one bedroom, or two bedroom units.

F. Location. Type A ADUs shall be located as follows:

1. For interior lots, at or behind the front plane of the primary building.
- ~~A.2.~~ On corner lots, ~~Type A ADUs shall be set back~~ ten feet behind the facade of the principal building along both street frontages.

~~F.G.~~ **Number of Accessory Dwelling Units per Lot.** Only one ADU is allowed for each residential lot.

~~G.H.~~ **Design.** The appearance of ADUs built as additions to the existing principal building or as separate structure should continue the residential character and appearance of the principal building.

1. **Type A ADUs.**
 - a. Type A ADUs shall be clearly subordinate to the principal building in terms of floor area..
 - b. Windows that face an adjoining residential property should be designed and configured to protect the privacy of neighbors, unless fencing or landscaping is provided that adequately accomplishes the same purpose.
 - c. Type A ADUs should be designed in a manner that is aesthetically consistent with the principal building in at least four of the following:
 - i. roof pitch;
 - ii. roof form;
 - iii. roofing materials;
 - iv. cladding materials;
 - v. window styles and window orientation;
 - vi. doors; and
 - vii. color palette.

2. **Type B ADUs.** Type B ADUs are integrated into the principal building. If the ADU involves a modification to the exterior of the building, the modification shall be subject to the same design standards as Type A ADUs (Subsection H.1., above). If the entrance to the ADU is visible from an adjacent street, it shall be designed in a manner as to be clearly subordinate to the entrance of the principal dwelling.

H.I. Outdoor Areas. The subject property shall provide accessible outdoor space and landscaping for both the principal dwelling unit and the ADU.

I.J. Utility Service Requirements. ADUs must be connected to the utilities (except telephone, television, electrical, and internet) of the principal dwelling unit and may not have separate services.

J.K. Owner Occupancy.

1. The property owner, as reflected in title records and evidenced by voter registration, vehicle registration or other similar means, must occupy either the principal dwelling unit or ADU.
2. The Director may waive this requirement for temporary absences of less than one year provided that the owner has maintained the permitted use for a minimum of two years and submits proof of the temporary absence.

K.L. Deed Restriction. Before obtaining a building permit for an ADU, the property owner shall file with the County Clerk and Recorder, in a form acceptable to the Director, a declaration of restrictions in reference to the deed under which the property was acquired by the present owner stating that:

1. The ADU shall not be sold separately from the principal dwelling unit, nor shall the lot on which it is situated be subdivided unless such subdivision can be accomplished in accordance with all provisions of this Code;
2. The ADU shall be restricted to the approved size;
3. The certificate of occupancy for the ADU shall be in effect only so long as either the main residence, or the ADU, is occupied by the owner of record as their principal dwelling unit, subject to any temporary waiver granted pursuant Subsection L., above;
4. Lack of compliance with deed restrictions may subject the owner of the property to any and all penalties provided for in this Code;
5. The above restrictions are binding upon any successor in ownership of the property;
6. The deed restrictions shall lapse upon removal of the ADU. To effect this intent, and upon verification of such removal, the Director shall record appropriate documentation releasing such encumbrance. The property owner shall pay all required recording fees, and it shall be the Applicant's responsibility to ensure that such recording was successfully completed.

L.M. Existing Development on Lot. A single-family detached dwelling unit must exist as a principal dwelling unit on the lot or be constructed simultaneously with the ADU. A certificate of occupancy will only be issued for an ADU after it has been issued for the principal dwelling unit.

5-1-5-3 Accessory Buildings

A. Generally.

1. Storage sheds, studios, cabanas, stables, loafing sheds, barns, and detached garages requiring a building permit shall comply with the standards of this Section. Accessory dwelling units are subject to Section 5-1-5-2, Accessory Dwelling Units, and not this Section.

2. Stables, loafing sheds, and barns are allowed only in RA and RN-32.5 zoning districts.
 3. Except for barns and stables, each Accessory Building shall have a square footage area that is less than the footprint of the living area, excluding attached garage square footage, of the principal dwelling unit.
- B. **Number.** The maximum number of Accessory Buildings that may be constructed or installed upon a residential lot is based on the zoning district and lot size, and shall be as set forth in Table 5-1-5-3A, Maximum Number of Accessory Buildings.

Table 5-1-5-3A: Maximum Number of Accessory Buildings	
Zoning District	Maximum Number of Accessory Buildings
RN-4	2
RN-6, RN-7.5, RN-D	3
RN-12.5	4
RN-32.5	6
RA: lot less than 5 acres	6
RA: lot 5 acres or larger	7
<u>PUD</u>	<u>Per the approved PUD. If no standards were identified as part of the approved PUD, then the maximum number for the closest zoning district shall be utilized.</u>
R6, R13, R24, OT Form, and MX Zoning Districts and Lot Type	
Small Urban, Urban	-
Small General	2
General, Small Suburban, Suburban,	3
Cluster	1

- C. **Building Coverage.** Accessory Buildings are counted towards the combined square footage of the principal building footprint and accessory structure(s) and shall not exceed the zoning district maximum lot coverage limitations.
- D. **Height.** Accessory Buildings shall not exceed the maximum height for accessory buildings identified in the zoning districts in Chapter 2, Zoning Districts.
- E. **Location.**
1. **All Zoning Districts except RA.** Accessory Buildings shall be:
 - a. Located outside-ofwithin the setbacks identified in the zoning districts. (See Chapter 2, Zoning Districts); and
 - b. Set back on-the-sameat or behind the front plane as the nearest front façade of the principal building.
 2. **RA Zoning District.** Accessory Buildings may be located in any yard, and must meet the required setbacks.
 3. **Accessory Buildings.** With the exception of non-residential gas station canopies, gas station or car wash facilities where allowed, and security/entry booths, accessory buildings shall not be in the front or side yards.
- F. **Design.** The design of detached-garagesaccessory buildings shall be aesthetically consistent with the design of the principal building. See Section 5-1-2-2, Evaluation of Aesthetic Consistency, for applicable standards.

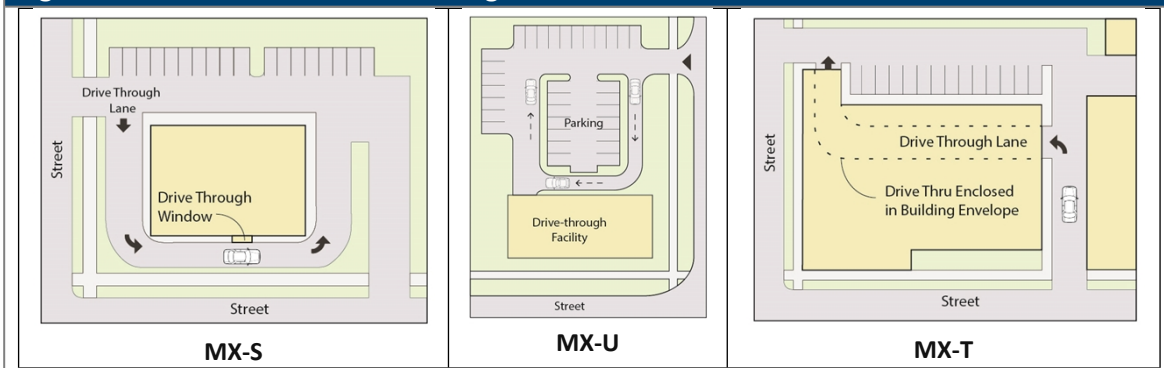
5-1-6-2 Drive-Through Facilities

A. **Generally.** Drive-through facilities are subject to the standards of this Section.

B. **Design Standards.**

1. **Location.** Uses with drive-through facilities shall be located on properties with frontage on an arterial or collector street. Drive-through facilities are prohibited in the OT zoning district.
2. **Speakers.**
 - a. Speakers shall not be oriented towards an adjacent residential zone district unless an intervening building exists. Where an intervening building does not exist, the following shall also apply to minimize the speaker noise impact on an adjacent property:
 - i. If the speaker is located within 15 feet or more of the property line, a solid wall with a minimum height of 6 feet shall be installed on the property line.
3. **CG and MX Zoning Districts.** In CG and MX zoning districts, a drive-through facility shall be subject to the following:
 - a. In CG and MX-S zoning district, a drive-through lane may be located in the area between a building and a public street. The drive-through lane shall be screened from the public street by landscaping an Option B bufferyard, per Division 4-6-5-3, Bufferyard Options, or a low decorative wall to a minimum height of 48 inches. If a low screen wall is installed, the construction material shall be aesthetically consistent with the first floor exterior color and materials used on the principal building or provide a comparable level of quality.
 - b. In the MX-U zoning district, a drive-through lane shall not be located in the area between a building and a public street. The drive-through windows shall not face a public street.
 - c. In the MX-T zoning district, a drive-through lane shall be designed so that it is enclosed within the envelope of the building, the drive through windows are not visible from adjacent public streets and the drive-through lane shall not be located in the area between a building and a public street.

Figure 5-1-6-2: Illustrative Drive-Through Facilities in the MX



C. **Stacking.** Drive-through lanes shall meet the applicable requirements of Section 4-5-3-6, Vehicle Stacking. Additional stacking may be required if the Director finds that, based on pertinent data,

the drive-through configuration would likely otherwise create congestion on adjacent streets due to queuing at the drive-in or drive-through stations.

5-1-6-5 Trash Collection and Compaction

- A. **Generally.** Nonresidential, mixed-use, multifamily, and clustered small housing development shall include a designated trash collection and / or compaction area, which shall be located and designed to ensure adequate on-site maneuvering area for trash collection vehicles. Residential subdivisions may include designated trash collection and / or compaction areas, which, if provided, must also comply with the standards of this Section. Trash collection dumpsters shall not be allowed on individual single-family or duplex lots, unless on a temporary basis associated with construction projects for which a building permit has been issued.
- B. **Location.**
 - 1. Each trash collection, including recycling bins, or compaction area shall be located not less than 20 feet away from lots used for single-family detached, duplex, multiplex, or townhome uses, and at least 20 feet away from streets, sidewalks, and internal pedestrian circulation systems. Such areas shall be located on the site in the following order of priority (highest priority listed first, and higher order priorities are eliminated only if infeasible):
 - a. In a screened enclosure that is connected to or adjacent to the rear of the principal building;
 - b. In the rear yard; or
 - c. In the interior side yard;
 - 2. Trash collection, recycling bins, or compaction areas shall not be located more than 200 feet from the entrances of uses that they are intended to serve.
- C. **Enclosures.** Each such trash collection area shall be screened from view from all property lines by a non-combustible screen or wall between six feet and eight feet in height. The access to this enclosure shall be screened with an opaque gate. Screening fences and walls (not including gates) shall be aesthetically consistent with one of the predominant materials and one of the predominant colors used in the principal building. Chain-link gates with metal cladding are prohibited.

5-1-6-7 Custodial Unit

- A. **Generally.** The standards of this section apply to self-storage and kennel facilities with a dwelling unit for an on-site resident manager.
- B. **Design Standards.** Self-storage and kennel facilities with one on-site resident manager/caretaker dwelling shall meet the following standards:
 - 1. The resident manager / caretaker dwelling unit shall be incorporated into and occupy space on the premises of the self-storage or kennel facility;
 - 2. One off-street, covered parking space shall be required for the exclusive use of the resident manager / caretaker.
 - 3. A landscaped private recreation area, with a minimum area of 750 square feet, shall be provided within the self-storage or kennel facility for the exclusive use of the resident manager / caretaker. The landscaped recreation area shall include:
 - a. A minimum of one 2.5 inch caliper shade tree, turf shrubs, and recreation equipment.

- b. Recreation equipment shall consist of picnic table and barbeque facilities, or other comparable equipment for use by the resident manager/caretaker.

5-1-6-98 Electric Vehicle (EV) Charging Stations

- A. **Generally.** The standards of this section shall apply to new developments containing parking stalls or other spaces on-site dedicated to the use of such spaces for the charging of electric vehicles. ~~T~~Additionally these standards shall also apply to existing sites that make modifications to build or plan for EV charging stations.
- B. **Location**
 1. For ~~any~~ single-family, duplex, or multiplex use, EV charging stations shall be located inside a garage.
 2. For ~~in any~~ townhome, multifamily, or cottage-home use, EV charging stations and equipment shall be located either in a garage or in a location internal to the site.
 3. For ~~all~~ non-residential and mixed-use development containing ten or less EV charging stations, all charging stations and equipment may be allowed anywhere on site provided:
 - a. All equipment adheres to the required minimum parking front setback from all public and private streets.
 4. For ~~all~~ non-residential and mixed-use development containing more than ten EV charging stations, all charging stations and equipment shall be located internal to the site and set back at least 40-feet from all public streets.
 5. In ~~the any~~ MX zone districts, EV charging stations and equipment shall be located:
 - a. Behind the wall of a front building façade.
 - b. Outside of a required front parking setback.
 6. In ~~the any~~ OT zone district, EV charging stations and equipment shall be located either in a garage or internal to the site, behind a building or buildings, and not visible from a public street.
 7. EV charging stations and equipment may not be located in any portion of a required small urban park or buffer yard.
- C. **Sitting, Site Design, and Screening**
 1. If located along a public or private street, a ~~Option Type B per Division 4-6-5-3 B~~ buffer-yard Options between all equipment and the front property line shall be provided.
 2. The installation of an EV charging station shall not reduce the size of the parking stall in which it is being installed ~~for~~ below the minimum size required in Subsection 4-5-3-2, Parking Space and Aisle Standards.
 3. Concrete wheel stops shall be used between the parking space and the equipment if the parking is not parallel.
 4. If a canopy will be used, the canopy shall comply with the requirements of Subsection 5-1-2-3-C9, Canopies and Porte-Cochers.
 - a. In any MX zone district if a canopy is used, the canopy shall comply with the requirements of Subsection 4-3-3-4-F, Fueling/Service Station Site Design.
 5. Parking spaces used for EV charging shall be signed for EV vehicles only.

8-1-1-1 Director of Community and Economic Development

- C. **Generally.** The Director of Community and Economic Development (“Director”) is the member of the City Staff who carries out the planning and zoning functions of the City. The Director shall designate staff members to manage applications through the review process and be points of contact for Applicants. The Director may also delegate review responsibilities to managers or other professional-level staff, or, as appropriate, to consultants selected by the City.
- D. **Duties and Responsibilities.** The Director shall be responsible for the administration of this LDC and the regulations contained herein.
 - 4. The Director shall have the authority to:
 - a. Interpret and apply the provisions set forth in the LDC, other regulations adopted by the City and planning and engineering best practice. The Director shall have the authority to prepare and update Development Procedures, which may include a checklist for each type of development application, setting forth the information that Applicants must submit in order for the City to review development applications, permits and other developmental approvals under this Code, an application review schedule, fees and other relevant and appropriate materials related to the administration of this Code.
 - b. Make district boundary interpretations when uncertainty as to the district boundaries exists.
 - c. Make each of those decisions shown as a decision of the Director in 8-2-2-2, Decision-Making Tracks by Application Type.
 - d. Review and make recommendations on development applications reviewed and acted upon by the Planning Commission, City Council or other Decision Makers, as applicable, as shown in 8-2-2-2, Decision-Making Tracks by Application Type.
 - e. Review all land-use activities, plans involving land-use activity, or applications for land-use activity that are subject to either the Design Guidelines for Olde Town Arvada or the guidelines designated as "mandatory" within the Design Guidelines for the Reno Park Addition Historic District, and take final action to approve, approve with conditions, or deny the issuance of a (CCDG), as appropriate.
 - e.f. Accept land dedications and easements associated with development applications concerning which final approval has been granted by the Director.
 - 5. The Director shall:
 - a. Review applications for Sign Permits and taking final action to approve, approve with conditions, or deny on such applications.
 - b. Maintain the Official Zoning Map, including updates to reflect rezonings.
 - c. Administer the provisions of this LDC and approvals granted hereunder, and coordinate with the Code Enforcement, Neighborhood Services and the City Attorney with regard to enforcement of this LDC.
 - d. Make recommendations regarding amendments to this LDC and to the Comprehensive Plan and other land use or strategic plans approved or adopted by the City.
 - e. Develop or supervise the development of master plans, special area plans, or strategic plans, however titled, as directed by the Planning Commission.
 - f. Provide expertise and technical assistance to the advisory and decision making bodies under this Code, upon request, and as appropriate.
 - 6. The Director shall also determine:

- a. Whether the proposed development creates a need for off-site public improvements;
- b. Whether required development-related agreements (see Division 8-4-5, Development-Related Agreements and Covenants) comply with the requirements of this LDC and the Arvada Municipal Code with respect to the identification of required public improvements and the security provided for said public improvements; and
- c. Whether proposed public improvements and drainage plans comply with applicable engineering standards.
- d. Review applications for revocable right-of-way permits and determine as to whether and to what extent the requested encroachment will or could interfere with municipal or public use of the right-of-way.

8-1-2-2 Planning Commission

D. Powers and Duties; Generally.

1. *Decisions.* The Planning Commission shall hear and find facts as to whether the following types of applications comply with the requirements of this LDC:
 - a. Alternative Sign Programs
2. *Recommendations.* The Planning Commission shall consider and recommend to the City Council approval, approval with conditions, or disapproval of the following types of applications or petitions:
 - a. Annexations;
 - b. Height Exceptions;
 - c. Major Subdivision Preliminary Plats;
 - d. Major Modifications;
 - e. Zoning and Rezoning;
 - f. Conditional Uses;
 - f.g. PUD Development Plans (Planned Unit Developments);
 - g.h. Combined PUD Development Plans / Final Development Plans (Planned Unit Developments); and
 - h.i. Vacation of Right-of-Way and Access Easements.

- E. **Powers and Duties; Initiated Land Development Code Amendments and Other Duties.** The Planning Commission may also initiate proposed changes to the LDC and advise the City Council on such proposed changes, and shall perform such other duties as the City Council may be ordinance, resolution or motion prescribe.

F. Powers and Duties; Comprehensive Plan.

1. *Comprehensive Planning.* Upon request by the City Council, the Planning Commission shall have the power to prepare a Comprehensive Plan as a guide for future zoning and rezoning and shall have lawful and comprehensive studies made in conjunction therewith. Any plan so prepared shall be made with the general purpose of carrying out the objective of providing for the considered planning and orderly physical development of the City and applicable surrounding areas. The Planning Commission shall also actively promote implementation of any such Comprehensive Plan and other adopted plans, through its powers and duties as set out in this Section.

2. *Other Plans.* Upon request by the City Council or the Director, the Planning Commission shall be responsible for adopting other land use plans, open space/parks/trails plans, special area plans, corridor plans, and similar plans, and any updates or amendments to such plans. The Planning Commission shall also actively promote implementation of the Comprehensive Plan and other adopted plans, through its powers and duties as set out in this Section.

8-2-2-1 Development Approval Required

- A. **Generally.** Unless specifically exempt from the application of this LDC, development approval is required for all:
 1. Development;
 2. Redevelopment;
 3. Qualifying "land use activity" within areas that are subject to Design Guidelines (see Section 8-3-4-55-4, Certificate of Compliance with or Waiver from Design Guidelines); or
 4. Re-grading of:
 - a. Nonresidential property; or
 - b. Property within the Special Flood Hazard Area.
- B. **Temporary Uses and Special Events.** Certain temporary uses and special events require Temporary Use Permits. See Division 3-1-4, Temporary Uses.
- C. **Encroachments into Public Rights-of-Way.** Certain encroachments may be allowed in or over public rights-of-way pursuant to an approved revocable right-of-way license.

Table 8-2-2-2A: Decision-Making Tracks

Track	Decision-Maker	Public Hearing	Public Outreach		Administrative Appeal To
			Neighborhood Meeting	Notice	
Track 1	Director ¹	No	No ³	Yes ⁴	Planning Commission or City Council (See Section 8-2-5-2, Appellate Body)
Track 2	Director ²	Planning Commission	Yes	Yes	City Council
Track 3	Planning Commission	Planning Commission	Yes	Yes	City Council
Track 4	City Council	City Council ⁵	No	Yes	-
Track 5	City Council	Planning Commission; City Council	Yes	Yes	-
Track 6	Floodplain Administrator	Floodplain Administrator	No	Yes	Floodplain Hearing Officer
Track 7	Floodplain Hearing Officer	Floodplain Hearing Officer	No	Yes	-
Track 8	Board of Adjustment	Board of Adjustment	No	Yes	-
Track 9	Informational only to Planning	No	No	No	-

	Commission and City Council				
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TABLE NOTES:

¹ For Public Improvements Construction Drawings for private development, and is not appealable to the Planning Commission; for Floodplain Development Permits, the decision is by the Floodplain Administrator, and is appealable to the Floodplain Hearing Officer.

² Planning Commission fact-finding is not advisory. Director must issue decision on facts found by Planning Commission as to application's compliance with the applicable standards of this LDC.

³ At the discretion of the Director, a neighborhood meeting may be required to inform residents of the proposed development in their neighborhood.

⁴ Notice required for Track 1 reviews only as required by Section 8-2-3-8, Notice of Administrative Application. **The Director shall have the discretion to waive the notice requirement for applications determined to have minimal impact on the notice area.**

⁵ **Public hearing not required for Revocable Right-of-Way License Agreements.**

Table 8-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
1. Annexation, Zoning, and Rezoning					
Annexation	Annexing property into the City	-	Division 8-3-3, Annexation and Disconnection	Track 5 ¹	Project
Disconnection	Removing property from the City limits	-	Division 8-3-3, Annexation and Disconnection	Track 5 ¹	Project
Zoning or Rezoning	Changing the zoning designation of land within the City or establishing initial zoning for land being annexed into the City	-	Division 8-3-4, Zoning and Rezoning	Track 5	Project
2. Land Use					
Limited Use	Establishing a limited use	-	Division 3-1-3, Use-Specific Standards for Primary Land Uses, as applicable to the use	Track 1	Project
Conditional Use	Establishing a conditional use	-	Division 3-1-3, Use-Specific Standards for Primary Land Uses, as applicable to the use; and Section 8-3-5-1, Conditional Use	Track 5	Project
Temporary Use / Special Event	Commencing / conducting certain temporary uses on a subject property	-	Division 3-1-4, Temporary Uses, as applicable to the temporary use or special event; and Section 8-3-5-5, Temporary Use Permit	Track 1	Permit
3. Certificate of Compliance, Site Plans and Site Development					
Certification of Compliance with Design Guidelines	Verifying compliance with or waiver from applicable Design Guidelines, if the	As provided in the applicable design guidelines document; <i>see</i>	Applicable design guidelines document; <i>see</i> Appendix A: Design Guidelines for Olde Town Arvada;	Track 1, if not processed with another application type; otherwise same	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type

Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
	subject property is located in an area that is subject to Design Guidelines (e.g., Olde Town or Reno Park)	Appendix A: Design Guidelines for Olde Town Arvada; and Appendix B: Design Guidelines for the Reno Park Addition Historic District	and Appendix B: Design Guidelines for the Reno Park Addition Historic District; and Section 8-3-5-4, Certificate of Compliance with Design Guidelines	track as related application. <i>See</i> Sec. 8-3-5-4, Certificate of Compliance with Design Guidelines	
Master Development Plan	Establishing or modifying a plan for a phased project to ensure compliance with the LDC	-	Section 8-3-5-2, Master Development Plan	Track 1	Project
Site Plan or Site Plan Amendment	Establishing or modifying the physical layout of a subject property, including infrastructure, development and architectural standards, parking and loading, landscaping, lighting, grading, drainage, , major structure footprints, and building footprints	Single-family detached and duplex housing types on individual lots in a subdivision of nine or fewer lots. Accessory dwelling units and accessory buildings	Applicable provisions of Chapter 2, Zoning Districts; Chapter 3, Use Regulations;; Chapter 4, Environmental and Site Design; and Chapter 5 Building Design	Track 1	Project
Floodplain Map Amendment	Changing the boundaries of a special flood hazard area	-	As provided by federal regulation	Track 6, as provided by federal regulation	Project
Floodplain Development Permit	Authorizing development within the floodplain or floodway	-	Applicable provisions of Division 4-1-2, Floodplain Regulations; and Section 8-3-5-6, Floodplain Development Permit	Track 6 (<i>see</i> footnote 1 of Table 8-2-2-2.A., above)	Permit
Miscellaneous Structure Permit	Authorizing the construction or installation of fences, walls, decks, retaining walls, garden walls, accessory buildings, accessory structures or sheds	Mini-structures less than 200 square feet	Section 8-3-5-7, Miscellaneous Structure Permit-	Track 1	Permit
Revocable Right-of-Way License Agreement	Authorizing encroachments within public rights-of-way (e.g., signs, outdoor	Temporary structures that are approved by Temporary Use or Special	Section 8-3-5-7, Revocable Right-of-Way License Agreements	Track 4	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
	dining areas, etc.)	Event Permits			
4. Wireless Communications Facilities					
Small Cell Facilities Permit	Authorizing the co-location of wireless communications facilities; authorizing small-cell facilities in the right-of-way	-	Chapter 7, Wireless Communications Facilities; and Division 8-3-6, Wireless Communications Facilities	Track 1, as modified by Division 8-3-6, Wireless Communications Facilities	Permit
Base Stations and Alternative Tower Structures	Authorizing the installation of a new wireless communications facility on private property	-	Chapter 7, Wireless Communications Facilities; and Division 8-3-6, Wireless Communications Facilities	Track 1, as modified by Division 8-3-6, Wireless Communications Facilities	Project
Free-standing Towers	Authorizing the new installation of a freestanding wireless communications tower	-	Chapter 7, Wireless Communications Facilities; and Division 8-3-6, Wireless Communications Facilities	Track 5, as modified by Division 8-3-6, Wireless Communications Facilities	Project
5. Signs					
Sign Permit	Installing or displaying a sign (may also require Certification of Compliance with Design Guidelines)	Exceptions and exemptions listed in Sec. 6-1-2-2, Exemptions and Partial Exemptions; and Sec. 6-1-2-3, Permit Exceptions	Chapter 6, Signs, or an approved Alternative Sign Program; and Section 8-3-7, Sign Permits	Track 1	Permit
Alternative Sign Program	Establishing a specific signage program for a particular subject property or development, which may modify some of the standards of Chapter 6, Signs	-	Chapter 6, Signs; and Section 8-3-7-2, Alternative Sign Programs	Track 2	Project
6. Subdivisions, Plats, and Vacations					
Major Subdivision Concept Plan	Providing the City with a generalized land use plan and layout for the area proposed to be included within a subdivision	This review process is available at the Applicant's option	Applicable standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9, Nonconformities	Track 9	Project
Major Subdivision Preliminary Plat	Establishing the preliminary layout of lots, streets, utilities, and open spaces within a subdivision, prior	-	Applicable standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9,	Track 5	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type

Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
	to approval of a major subdivision final plat for 10 or more lots.		Nonconformities		
Major Subdivision Final Plat	Establishing the final layout of the lots, tracts, streets, alleys, and easements within a subdivision for 10 or more lots	-	Applicable standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9, Nonconformities	Track 1	Project
Minor Subdivision Plat	Establishing the specific layout of the lots, tracts, streets, alleys, and easements within a subdivision that including nine or fewer new lots or tracts	-	Applicable standards of Chapter 2, Zoning Districts; Chapter 4, Environmental and Site Design; and Chapter 9, Nonconformities	Track 1	Project
Vacation of Right-of-Way	Extinguishing Right-of-Way that is held by the City	-	Division 8-3-9, Vacation of Rights-of-Way; Termination of Easements	Track 4	Project
Vacation of Easement	Extinguishing an easement that is held by the City	-	Division 8-3-9, Vacation of Rights-of-Way; Termination of Easements	Track 1	Project
7. Infrastructure Development and Public Improvements					
Public Improvement Construction Drawings	Approving construction drawings for wastewater, water, stormwater, street, and landscaping improvements	Landscaping on individual lots used for single-family detached and duplex housing types	Engineering Code of Standards and Specifications; Division 8-4-4, Public Improvements, Warranties and Utilities	Track 1 (<i>see</i> footnote 1 of Table 4-3-2-2A, above)	Project
Development Agreement	Setting out the timing and terms for the installation of public and private improvements, and providing for security to ensure that the improvements are constructed and warranted	-	Division 8-4-5, Development-Related Agreements and Covenants-	Track 1	Project
Formation of Reimbursement Assessment District and Metropolitan District	Creating reimbursement assessment districts for financing public improvements	Development that does not require a reimbursement assessment district, as determined by	-	Track 4	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
		the Applicant			
Out-of-City Utility Request	Any request for City provision of utility service to property outside City limits	-	Section 8-3-5-8	Track 5	Project
8. Planned Unit Developments					
PUD Sketch Plan	Providing the City with an early, informal, and generalized land use/site plan for the area proposed to be included within a PUD	This review process is available at the Applicant's option	Section 8-3-10-5, PUD Sketch Plan	Track 9	Project
PUD Development Plan	Establishing the types and total amount of development proposed within a PUD (dwelling units, land uses, and nonresidential floor area), as well as the proposed general plan for pedestrian and vehicular circulation within and connecting to the PUD; may run concurrently with preliminary plat application	-	Section 8-3-10-6, PUD Development Plan	Track 5	Project
PUD Final Development Plan	Establishing or modifying the physical layout of a subject property, including infrastructure, development and architectural standards, parking and loading, landscaping, lighting, grading, drainage, , major structure footprints, and building footprints in accordance with an approved PUD Development Plan		Section 8-3-10-6, PUD Unit Development Plan	Track 1	Project
9. Interpretations, Variances, Modifications, Exceptions, and Interpretations					
Administrative Minor Modifications	Authorizing a minor variation to the standards of the LDC	-	Section 8-3-11-3, Administrative Minor Modifications	Track 1	Project
Major	Authorizing a	-	Section 8-3-11-4,	Track 5	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
Modification	major variation to the standards of the LDC		Major Modifications		
Reasonable Accommodations	Authorizing a minor variation to the standards of this LDC	-	Section 8-3-11-5, Reasonable Accommodations	Track 1	Project
Official Interpretations	Providing an official written interpretation of the provisions of this LDC	-	Section 8-3-11-7, Official Interpretations	Track 1	Project
Height Exception	To exceed building or structure height standards in the LDC	-	Section 8-3-11-1, Height Exceptions	Track 5	Project
Variance or Exception to Standards	Authorizing a departure from the strict application of the standards in the LDC	Where other methods exist for authorizing the modification, such as an administrative minor modification, floodplain variance; or where standards are statutory requirements (e.g., state-mandated subdivision monumentation standards)	Section 8-3-11-2, Variances	Track 8	Project
Floodplain Variance	Authorizing a departure from the strict application of Division 4-1-2, Floodplain Regulations	-	Section 8-3-11-6, Floodplain Variances	Track 7	Project
10. Vested Rights					
Early Vested Rights	Obtaining vested rights prior to the approval of a site-specific development plan	-	Section 8-3-12-1, Early Vested Rights	Track 4	Project
Vested Rights (and Extension)	Obtaining vested rights in accordance with Article 68 of Title 24, C.R.S., as amended	-	Section 8-3-12-2, Vested Rights	Track 4	Project
11. Amendments and Terminations					
Annexation	Amending an	-		Track 4	Project

Table 8-2-2-2B: Decision-Making Tracks by Application Type					
Application Type	Required For	Exceptions	Reference	Decision-Making Track	Submittal Type
Agreement Amendment	annexation agreement				
Major Comprehensive Plan Amendment	Amending text or Future Land Use Map, where amendment does not fall within the category of “minor”	-	-	Track 3	Project
Minor Comprehensive Plan Amendment	Correcting obvious errors (either text or mapping), and updating outdated data without changing policy	-	-	Track 1	Project
Major LDC Amendment	Changing procedures or standards in the LDC, where amendment does not fall within the category of “minor”	-	-	Track 5	Project
Minor LDC Amendment	Correcting non-substantive clerical or formatting errors in the LDC text or maps, or adding or correcting illustrations	-	Section 8-3-2-2, Text Amendment Requirements	Track 1	Project
Abandonment of Development Approval	Terminating a development approval without a replacement development approval	-	-	Track 1 if development never commenced and there is no development agreement	Project
TABLE NOTES: ¹ As modified by Colorado law pertaining to annexation and disconnection.					

8-2-3-8 Notices of Administrative Application and Administrative Decision

A. Purpose and Intent.

1. *Purpose.* The purpose of the notice of administrative application and administrative decision is to inform City residents, businesses and organizations of pending development applications and the date a decision will be made on a development application.
2. *Intent.* The notice of application is intended to provide contact information for the Applicant and City staff where interested members of the community can request information and ask questions regarding a pending development application and provide comments to the Director prior to a decision being made.

B. Notice of Administrative Application. The notice ~~of application~~ shall be prepared by the Applicant per the requirements of Division 8-2-4, Required Notices, for Master Development Plans, Site Plans and Minor Subdivision Final Plats.

B.C. Notice of Administrative Decision. A notice may be required at the discretion of the Director. If notice is required, it shall be prepared by the Applicant per the requirements of Division 8-2-4, Required Notices.

Table 8-2-3-134: Time Limitations	
Approval Type	Time Limitation
Conditional Use	5 years
Temporary Use Permit / Special Event Permit	as specified in the permit
Certificate of Compliance with Design Guidelines	3 years, 1 year for signs
Site Plan and Master Development Plan	3 years
Floodplain Development Permit	24 months
Free-Standing Tower	24 months; or as specified in the permit
Miscellaneous Structure Permit	6 months
Sign Permit	1 year
Alternative Sign Program	3 years
Major Subdivision Preliminary Plat	3 years
Public Improvement Construction Documents	2 years
Development Agreement	as specified in development agreement
Reimbursement Assessment District	as specified in documents establishing Reimbursement Assessment District
PUD Development Plan/Final Development Plan	5 years or as specified by development agreement
Height Exception	3 years
Variance	2 years ¹
Minor Modifications from Zoning District and General Development Standards	as specified in approval documents
Minor Modification	as specified in the approval documents
Major Modification	as specified in the approval documents
Floodplain Variance	24 months
Vested Rights (and Extension)	36 months ²
Base Station, Alternative Tower Structure and Freestanding Tower	1 year if site not constructed
Small Cell Facility	Specified as defined in the MLA for each carrier-
TABLE NOTES: ¹ Or at such alternative time specified in the approval. In addition, a variance that has been not been utilized shall automatically lapse and have no further effect if the rights granted by it are discontinued for 180 consecutive days. ² Unless specified otherwise in the approval or by development agreement.	

8-2-4-1 General Notice Requirements

- A. **Computation of Time.** In computing any period of time prescribed for the purpose of giving notice under this Division, the day of the publication, mailing, or posting shall be included. The day of the meeting or hearing shall not be counted. Saturdays, Sundays, and legal holidays shall be counted as any other day.
- B. **Notice Cost.**
1. All costs for providing mail and posted notice as required by this Division shall be the direct responsibility of the Applicant.
 2. The City shall provide published notice. The cost of such notice shall be included in the development review fee.
- C. **Applicant's Certification.** Prior to the event that is the subject of a public notice, the Applicant shall provide the Director with an executed affidavit certifying that the requirements as to the Applicant's responsibility for the applicable forms of notice under this Division have been met. The Director shall make available sample certifications that address all applicable forms of public notice required by this LDC.
- D. **Failure to Provide Notice; Defective Notice.**
1. Failure to timely provide the required affidavit, or evidence that a mailing list or notice letter was defective, may be cause to suspend the review process until proper notice is provided. Such suspension may be ordered by the Director or body that is responsible for the meeting, hearing, or decision (e.g., neighborhood meeting, public hearing, or staff decision) that is the subject of the notice.
 2. ~~Minor defects in any notice shall not impair the notice or invalidate proceedings pursuant to the notice if a bona fide attempt has been made to comply with applicable notice requirements. Minor defects in notice shall be limited to errors in a legal description or typographical or grammatical errors that do not impede communication or the notice to affected parties. However, in all cases, the requirements for the timing of the notice and for specifying the time, date, and location of a hearing shall be correctively conveyed. In any case in which a question arises at the public hearing regarding the adequacy of notice, consideration shall be given to the nature and extent of the deficiency, the probability of confusion resulting from the deficiency, and the type and variety of notice successfully accomplished in determining whether substantial compliance with the notice requirements of this Code has been met~~
- E. **Continuation of Hearings and Neighborhood Meetings.** A hearing or neighborhood meeting for which proper notice was given may be continued to a later date without again complying with the public notice requirements of this Division (unless required by Director), provided that the date, time, and location of the continued hearing or meeting is announced to the public at the time of continuance.

8-2-4-2 Required Notice by Application Type

Public notice of administrative applications, neighborhood meetings, or scheduled public meetings or public hearings shall be provided as set out in Table 8-2-4-2, Notice Requirements by Application Type. If an application type is not listed, then no notice is required, unless it is determined to be necessary by the Director.

Table 8-2-4-2: Notice Requirements by Application Type				
Table Key: — Not Required or Not Applicable ✓ Required				
Application Type	Notice Type			
	Published	Posted	Mailed ²	Internet ³
1. Annexation, Zoning and Rezoning				
Annexation or Disconnection ¹	✓	✓	✓	✓
Zoning or Rezoning	✓	✓	✓	✓
City Initiated Remapping	✓	—	—	—
2. Land Use				
Conditional Use	✓	✓	✓	✓
3. Site Plans and Site Development				
Master Development Plan	—	—	✓	✓
Site Plan	—	—	✓	✓
4. Wireless Communications Facilities				
Major Wireless Communications Facility Permit	—	✓	✓	✓
5. Signs				
Alternative Sign Program	✓	✓	✓	✓
6. Subdivisions, Plats, and Vacations				
Major Subdivision Preliminary Plat	✓	✓	✓	✓
Vacation of Right-of-Way and Public Easements	✓	✓	✓	✓
7. Infrastructure Development and Public Improvements				
Formation of Reimbursement Assessment District	✓	—	✓	✓
8. Planned Unit Developments				
PUD Preliminary Development Plan	✓	✓	✓	✓
9. Variances, Modifications, Exceptions, and Conversions				
Height Exception	✓	✓	✓	✓
Variance	✓	✓	✓	✓
Major Modification	✓	✓	✓	✓
Floodplain Variance	—	—	✓	✓
10. Vested Rights				
Vested Rights (and Extension)	✓	✓	✓	✓
11. Amendments				
Land Development Code Text Amendment	✓	—	—	✓
Major Comprehensive Plan Amendment	✓	—	—	✓
Major PUD Amendment	✓	✓	✓	✓
TABLE NOTES:				
¹ As required by applicable provisions of C.R.S § 31-12-101, et seq.				
² See Subsection 8-2-4-4, Statutory Mineral Estate Notices				
³ See Subsection 8-2-4-3D, Internet Requirements				

- A. **Generally.** Contents of the public notice will be determined by the Director.
- B. **Public Notice Contents.** All notices required by this Section shall:
1. Indicate the time and place of the public hearing or meeting, if necessary, except for a Notice of Administrative Application;

2. Sufficiently describe the property involved; for example, by legal description, general vicinity, street address, size, and/or nearest cross street;
 3. Describe the nature, scope, and purpose of the application or proposal being advertised;
 4. Indicate that interested parties may appear and the manner, extent and timing of public participation permitted (*e.g.*, filing written comments with the Director, speaking at the scheduled hearing or meeting, etc.), except for Notice of Administrative Application; and
 5. Indicate where additional information can be obtained.
- C. **Appeal Notices.** Notices of a pending appeal must include a copy of the petition for appeal and a date, time, and location for the appeal hearing, and either a copy of the rules of procedure for the Appellate Body or instructions regarding how to obtain a copy. Such notices shall be mailed to the Applicant (if different from the appellant), the appellant, and any person or entity that has applied for party status.
- D. **Vested Rights Notices.** Notice of a decision to grant vested rights shall be published in accordance with the requirements of C.R.S. § 24-68-101, as it may be amended from time to time.

8-2-4-3 Specific Requirements by Notice Type

A. Mailed Notice.

1. *Mailing List.* The Applicant shall submit a mailing list to the Director, including the names and addresses of all property owners of record of all properties within the Area of Notification described below. If there are homeowners associations and/or neighborhood organization registered with the City within the Notice Area, the Applicant shall also notify them. The list shall be compiled from the names and addresses that appear in the records of the applicable County Assessor not more than 30 days before the date the list is submitted to the Director.
2. *Method of Mailing.* Mailed notice shall be mailed first-class, postage pre-paid by the Applicant, at the Applicant's expense, to all property owners on the mailing list.
3. *Affidavit of Compliance.* An affidavit of the Applicant's compliance with the mailing notice requirements shall be provided to the Director prior to the decision or public hearing to which the notice relates.
4. *Preparation/Timing of Notice.* When the provisions of this Code require that written or mailed notice be provided, the Applicant shall be responsible for preparing the written notice, and for mailing the notice at the Applicant's expense. All written notice shall be mailed at least fifteen days prior to the public hearing. Notices shall be prepared pursuant to a written notice form provided by the City.
5. *Deadlines.* For decision-making Tracks 2 through 5 and Track 8, mailed notices shall be postmarked no later than 15 days before a neighborhood meeting, a public hearing, or an appeal hearing. For decision-making Tracks 1, 6, or 7, mailed notice of administrative application shall be postmarked no later than five days after acceptance of an application. For a notice of administrative decision, mailed notice shall be postmarked no later than ten days prior to the decision date.
6. *Notice Area.*
 - a. For purposes of public hearings before the City Council or the Planning Commission, and Notice of Administrative Application, notice shall be mailed to all property owners that are within 500 feet of the boundary of the property that is the subject of the

application, except as otherwise provided herein. Ownership information shall be obtained from the applicable County Assessor's Office(s). Where an adjacent property is owned by a subdivision or condominium association, notification shall be to the board of directors of such association, and in addition, to the owners of all units immediately adjacent to the subject property. For street and alley right-of-way and public vehicular access easement vacations, mailed (written) notice shall be sent to all owners of property abutting the right-of-way or access easement to be vacated. Written notice shall also be mailed to any homeowners associations and other neighborhood organization with a known interest in the subject area, or to others who have filed a timely request to receive written notice.

- b. *Notices for Board of Adjustment.* For purposes of public hearings before the Board of Adjustment, notice shall be mailed to all property owners that are adjacent to the property that is the subject of the application. Ownership information shall be obtained from the applicable County Assessor's Office(s). Where an adjacent property is owned by a subdivision or condominium association, notification shall be to the board of directors of such association, and in addition, to the owners of all units immediately adjacent to the subject property.
- c. *Changes to Notification Area.* The Director shall have the sole discretion to expand or contract the notification area based on a consideration of the complexity of the project, the geographic reach of potential adverse impacts, the extent of neighborhood compatibility issues, and similar factors.

B. **Published Notice.** When the provisions of this Code require that notice be published, the City shall be responsible for preparing the content of the notice, and the City shall ensure that notice is published in a newspaper of general circulation in the City, at the Applicant's expense. Notice shall be published at least 15 days prior to any public hearing by the Planning Commission or Board of Adjustment, and at least seven days prior to any public hearing by the City Council.

C. **Posting Requirements.**

- 1. *Signs to be Posted by Applicant.* Posted notice shall be provided on signs provided by the City at the Applicant's expense. It is the Applicant's responsibility to post the sign(s) on the subject property and ensure that they remain in place from the date of posting to the date of the public hearing.
- 2. *Minimum Requirements.* Posted notice shall be provided with one sign per street frontage of the applicable property. Additional posting may be required at the Director's discretion. Signs shall be located so that they are clearly visible from the adjoining street. Applicants shall remove all notification signs within one week after the public hearing.
- 3. *Deadline for Posting.* Notices shall be posted not less than 15 days before the public hearing date.
- 4. *Affidavit of Compliance.* An affidavit of the Applicant's compliance with the posted notice requirements shall be provided to the Director prior to the public hearing.
- 5. *Posting Log/Maintenance of Signs.* The Applicant shall be responsible for checking the posted signs each day of the posting period and for keeping a log, to be filed with the City at the time of, or prior to, any public hearing on the matter. If a sign has been removed, destroyed, or has fallen, the sign shall be replaced by the Applicant within 48 hours or by the close of the next business day, whichever period is longer. The Applicant shall sign a statement that the sign(s) were checked daily by the Applicant or the Applicant's representative, and the above-stated procedures were followed. Failure to comply with the

required posting procedure may require the public hearing to be rescheduled. Such delays shall not prejudice the City regarding the City's compliance with required times to act set forth in this Code.

6. *City-Initiated Rezoning That Affects Multiple Ownership.* The posting of signs shall not be required when an amendment to the Official Zoning Map is initiated by the City and affects multiple ownerships. At the City's option, notice of a rezoning that affects multiple ownerships may be posted at City Hall.

- D. **Internet Requirements.** The Director will create and maintain web pages upon which the Director may provide timely notice of applications. If a notice is missed by the Director, it shall not void the hearing or approval.

8-3-5-3 Site Plan

- A. **Generally.** The purpose of the Site Plan is to ensure compliance with the development and design standards and provisions of this Code, while encouraging quality development in the City reflective of the goals, policies, and objectives found in the Comprehensive Plan.
- B. **Site Plans.** All applicable provisions of this Division apply unless specifically listed. A Site Plan is required before a building permit may be issued for all development in the City except those listed below:
 1. Single family detached homes or duplex units in a subdivision of nine or fewer lots within a residential zoning district and that are not part of land for which a Master Development Plan has been approved;
 2. Permitted additions to existing single-family detached dwellings or duplex units; and
 3. Interior improvements and tenant finish.
- C. **Approval Criteria.** A Site Plan shall be reviewed for compliance with the following criteria:
 1. The application complies with the applicable standards of this LDC, other adopted City regulations, any approved Master Plan that includes the property, and any conditions specifically applied to development of the property by the Planning Commission or City Council in a prior decision affecting the property;
 2. The application is consistent with the Comprehensive Plan;
 3. The City's existing infrastructure and public improvements, including but not limited to its water, wastewater, street, trail, and sidewalks systems, have adequate capacity to serve the proposed development, and any burdens on those systems have been mitigated to the degree practicable;
 4. The application will preserve and protect natural areas, ridgelines, swales, natural landforms, water quality and wildlife habitat of riparian corridors, wetlands and floodplains affected by the proposed development and integrates those areas into site design where practicable;
 5. The application will improve or expand multi-modal connections with adjacent sites, neighborhoods, and urban centers;
 6. The application is similar to surrounding uses in terms of size, scale and building façade materials;
 7. The application mitigates any adverse impacts on the surrounding area to the degree practicable; and

8. Within the MX, ~~R6, R13 and R24~~ zoning districts, ~~townhome and~~ multifamily residential uses shall provide appropriate amenities, including recreational facilities, pedestrian facilities, unique aesthetic features and quality design.

8-3-8-7 Acceptance of Dedications

A. Generally.

1. **Major Subdivision Final Plats.** All major subdivision final plats ~~and minor subdivision plats~~ shall be executed by all owners of property within the boundaries of such plat, the surveyor, the attorney or title company who examined the title, and any and all lienholders. Following the approval of a major subdivision final plat ~~or a minor subdivision plat, or conditional approval of such plat after all conditions are met~~, the plat, which shall have all permitted exceptions, waivers, or variances expressly noted thereon, shall be signed by the Director, the City Engineer, and the City Attorney. Dedication, approval, certification, and signature blocks shall be in a form approved by the City Attorney.

- ~~F.2.~~ **Minor Subdivision Plats.** All minor subdivision plats shall be executed by all owners of property within the boundaries of such plat, the surveyor, the attorney or title company who examined the title, and any lienholders. Following the approval of the minor subdivision plat, the plat, which shall have all permitted exceptions, waivers, or variances expressly noted thereon, shall be signed by the Director. Dedication, approval, certification, and signature blocks shall be in a form approved by the City Attorney.

- ~~A.B.~~ **Method of Acceptance of Dedications; Limitations.** Full execution of the approved major subdivision final plat or minor subdivision plat shall constitute the City's acceptance of any fee-simple dedication or grant of easement to the City as is referenced on the plat. Acceptance of dedications does not constitute final acceptance of public improvements constructed thereon.

Division 11-3-3 Definitions

Clustered Subdivision

A cluster lot subdivision is a residential development in which lots are allowed to be smaller or narrow. Cluster lot subdivision is a design technique that concentrates buildings in specific areas on a site to allow the remaining land to be used for recreation or other, common use, common open space, or preservation of environmentally sensitive areas or agricultural uses.

Electric Vehicle (EV) Charging Station

A public or private parking space and all associated equipment, including electrical transformers, that is served by battery charging station equipment that has its primary purpose to transfer electric energy (by conductive or inductive means) to a battery or other energy storage device in an electric vehicle.

Food and Retail Truck Vending

Food and retail vending from a readily movable wheeled, motorized vehicle designed and equipped to serve food or sell retail goods or a wheeled, non-motorized trailer designed and equipped to serve food or sell retail goods, and towed by a motorized vehicle.

Fueling/-Service Station

Any building, land area, or other premises used for the retail dispensing or sales of vehicular fuels; Level 3 DC fast-charging [or Level 2 charging](#) of electric vehicles; towing of automobiles and light trucks; and including as an accessory use the sale and installation of lubricants, tires, batteries, brakes, mufflers, and similar vehicle repairs and accessory installations. The phrase “fueling/service station” does not include collision centers, or facilities that provide transmission repair, engine overhauls, or repair of heavy trucks or heavy motorized equipment. If a use that fits this definition also includes the sale of ready-to-eat food products (not intended for on-premises consumption), groceries and sundries, [or 3.2 beer](#), such use shall be classified as a “convenience store.”

Heavy Logistics Center

A wholesaling, warehousing, and / or distribution use that provides a central location for receiving, storing and distributing raw materials, semi-finished goods, or finished goods. Heavy logistics centers may be warehouses in which goods are stored (a.k.a. “product warehouses”), or truck terminals in which goods are transferred between trucks or between trucks and trains or other transportation modes (a.k.a. “truck terminals” or “logistics centers”), or moving warehouses (including indoor storage of portable on-demand storage containers), or wholesaling operations (but not wholesale membership clubs in which memberships are available to the general public). Heavy logistics centers are expected to generate at least 50 [semi-trailer](#) truck trips per day. Warehousing and distribution uses that involve fewer than 50 [semi-trailer](#) truck trips per day are classified as [Light Industry](#).

Landscape Surface Area

[Area that is vegetated per the requirements of Article 4-6, Landscape and Buffering, or reserved for the use of outdoor pedestrian and / or non-vehicular recreation activity areas including sidewalks, trails, patios, and decks. \[Detention areas, buffers, and landscaping within a parking lot may be included. Includes areas dedicated as amenitized landscape surface area and small urban parks.\]\(#\)](#)
~~[Detention areas, buffers, and landscaping within a parking lot may be included.](#)~~

[Open Space, Landscape Surface Area, Amenitized Common](#)

[Landscape surface area that is Open-space within or related to a development, not individually owned or dedicated for public use but generally owned and maintained by a homeowners association, that is designed for and intended for the the common use or enjoyment of the residents, employees, or guests of the development. of the development and their guests, and may include such complementary structures and improvements as are necessary and appropriate. Common open space may include trail areas, gardens, small parks, scenic areas, buffer areas, or similar common areas. Common open space may also include active recreational facilities such as pools, tennis courts, playgrounds, and clubhouses. Common open space shall not include driveways, sidewalks, and parking areas.](#)

Light Industry

Uses that involve research and development, assembly, remanufacturing, compounding, packaging, testing, or treatment of products, generally from previously prepared materials or components, with limited outside storage and limited external impacts or risks such that the use is not defined as heavy industry or heavy logistics center. Light industry also includes wholesaling, warehousing, and distribution uses that involve fewer than 50 [semi-trailer](#) truck trips per day. For illustrative purposes, light industrial uses include:

1. Assembly, testing, repair, or refurbishing of products, instruments, electronics, office and computing machines, and fixtures using pre-manufactured components;
2. Offices of general contractors; specialty subcontractors; tradesmen; or telecommunications providers which include:
 - a. Overhead door access to indoor storage of tools, parts, and materials;

- b. Parking of commercial vehicles or a fleet of cars, vans, or light trucks that are used in the business; or
- c. Limited outdoor storage areas;
- 3. Food production (e.g., commercial kitchen or bakery) and packaging, but not:
 - a. Meat processing involving butchering of large animal carcasses;
 - b. Medical marijuana-infused products manufacture; and
 - c. Restaurants;
- 4. Beverage production (non-alcoholic) and bottling;
- 5. Furniture making or refinishing;
- 6. Manufacture of textiles or apparel;
- 7. Screen printing of apparel (except low volume screen printing at a retail store);
- 8. Printing and publishing, except copy centers, and except printing presses that require a Stationary Source permit or Title V of the Clean Air Act permit for air emissions;
- 9. Research, development, and testing laboratories (e.g., for development of products, equipment, or materials), if not classified as office, general or professional, or heavy industry;
- 10. Disassembly of consumer electronics and / or appliances into component parts, where all operations and storage are within an enclosed building;
- 11. Manufacture of glass products (e.g., window panes, bottles and jars), including hand-blown products;
- 12. Fabrication of building materials such as countertops, drywall, and cut stone (if not classified as heavy industry);
- 13. Manufacture or compounding of pharmaceutical products, dietary supplements, health and beauty products, and herbal products;
- 14. Packaging of products; or
- 15. Storing, selling, and/or distributing merchandise for or to retailers; industrial, commercial, institutional, or professional business users; or wholesalers, except that wholesale membership clubs that offer memberships to the general public are not light industrial uses.

Open Space, Common

~~Open space within or related to a development, not individually owned or dedicated for public use but generally owned and maintained by a homeowners association, that is designed and intended for the common use or enjoyment of the residents of the development and their guests, and may include such complementary structures and improvements as are necessary and appropriate. Common open space may include trail areas, gardens, small parks, scenic areas, buffer areas, or similar common areas. Common open space may also include active recreational facilities such as pools, tennis courts, playgrounds, and clubhouses. Common open space shall not include driveways, sidewalks, and parking areas.~~

Produce Stand

A temporary or permanent structure used for sale of produce and incidentally use for sale of related items which is located on property used for agriculture or community agriculture.

Retail Sales and Services, Type 1

A use involving the sale, lease, or rental of consumer, home, and business goods to consumers. Such uses include but are not limited to department stores, furniture stores, clothing stores, and establishments providing the following products or services: antiques, appliances, art, art supplies, beauty supplies, bicycles, books, magazines and newspapers, craft supplies, copies, costumes, dry goods, electronics, fabric, framing, garden supplies, gifts, groceries, hardware, home improvement goods, household products, jewelry, music, musical instruments, office supplies, party supplies, pet

grooming, pet supplies, pharmaceuticals, phones, photography equipment, produce, signs, sporting goods, stationary, toys, and videos; and new automotive parts and accessories. The phrase also includes services such as banking, picture framing, installation of electronics (e.g., audio systems and navigation systems) into motor vehicles, real estate offices that are open for walk-in traffic; repairs of products sold by the establishment (e.g., a computer store may also repair computers), repairs of consumer electronics, tattoo parlors, and comparable services that are not included in the definition of the phrase "Retail Sales and Services, Type 2." The phrase "Retail Sales and Services, Type 1" does not include uses that are classified or defined more specifically in this Code, including but not limited to "Retail Sales and Services, Type 2," "Restaurant," "Restaurant, Fast Food," "Adult Entertainment," "Adult Retail Sales," "Marijuana Uses," and "Vehicle / Equipment Sales or Rentals."

Retail sales and services, type 1 uses are generally conducted indoors. However, the phrase also includes uses in which not more than 25 percent of the area used for storage and display of products is located outside or in partially enclosed structures.

Semi-Trailer Truck Trip

A semi-trailer truck trip involves the inbound and outbound movement of the truck on a site, with both movements being considered a single trip.

Sign, Canopy

A sign with one face affixed to a canopy. For purposes of this definition, a canopy is an attached or detached structure, open on at least one side, which is designed to provide overhead shelter from the sun or weather. Canopies include, but are not limited to, service station canopies, carports, porte-cocheres, arcades and pergolas.

Table 2-1-3-3A: Residential Neighborhood Lot and Building Standards								
Standard		Subdistrict						
		RN-32.5	RN-12.5	RN-7.5	RN-6	RN-4	RN-D	
	except for Barns and Stables							
	Max. Height, Barns and Stables	35 ft.	30 ft.	-	-	-	-	-
	Max. Height, Mini Structures	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.
Nonresidential Uses								
Lot Standards								
	Min. Lot Area	1 ac.	1 ac.	10,000 sf.	10,000 sf.	10,000 sf.	10,000 sf.	
A	Min. Lot Width	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	
	Max. Lot Coverage	25%	25%	40%	40%	40%	40%	
Setback Standards								
B	Min. Front	30 ft.	30 ft.	25 ft.	18 ft.	18 ft.	18 ft.	
C	Min. Interior Side	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.	10 ft.	
D	Min. Street Side	30 ft.	30 ft.	25 ft.	18 ft.	18 ft.	18 ft.	
E	Min. Rear	15 ft.	15 ft.	15 ft.	10 ft.	10 ft.	10 ft.	
	Min. Rear (Alley) ¹	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	
	Min. Arterial Setback ²	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.	
Building Standards								
F	Max. Height, Principal Building	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	35 ft.	
G	Max. Height, Accessory Building	20 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.	
	Max. Height, Mini Structure	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	12 ft.	
TABLE NOTES:								
¹ For driveway access must be 18 ft. The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion.								
² Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks.								

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- G. **Subdivision of lots in the RN-D Subdistrict.** When a lot is to be subdivided for a duplex, the minimum area after subdivision shall be 3,000 square feet, the minimum lot width shall be 30 feet and the duplex must meet or exceed a combined 9,000 square feet. There shall be no setback required along the common lot line.
- H. **Cross-References.** The cross-references in Table 2-1-3-3B, Cross-References for Residential Neighborhood, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-3B: Cross-References for Residential Neighborhood	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading

Table 2-1-3-4A: Residential 6 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
G	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	<u>Min. Landscape Surface Area, Amenitized³</u>	<u>5%</u>	<u>-</u>
Density Standards			
	Max. Density	6 u/a	-
TABLE NOTES: ¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks. ² Except for driveways associated with single family and duplex units and multiplex buildings. ³ <u>Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.</u>			

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- D. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R6 zoning district:
1. Single-Family Detached: Small General; General; Small Suburban; Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban Type; ~~Urban Type~~
 5. Multiplexes
 6. Clustered Housing: Micro Homes; Cottage Types.
- E. **Cross-References.** The cross-references in Table 2-1-3-4B, Cross-References for Residential 6, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-4B: Cross-References for Residential 6	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units

2-1-3-5 R13: Residential 13

- A. **Purpose.** The purpose of the Residential 13 (R13) zoning district is to allow for new residential development of a variety of housing products up to a gross density of 13 units per acre.
- B. **Relationship to the Comprehensive Plan.** The R13 zoning district generally implements the “Medium Density Residential” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the R13 zoning district are set out in Table 2-1-3-5A, Residential 13 Lot and Building Standards and Division 2-1-8, Housing Palette.

Figure 2-1-3-5: Illustrative Residential 13 Lot and Building Standards



Table 2-1-3-5A: Residential 13 Lot and Building Standards

Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Setback Standards			
B	Min. Front	See Subsection D., below, and Division 2-1-8, Housing Palette	20 ft.
C	Min. Street Side		20 ft.
D	Min. Interior Side		10 ft.
E	Min. Rear		15 ft.
	Min. Arterial Setback ¹	100 ft.	-
	Min. Parking Setback	20 ft. ²	20 ft.
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.

Table 2-1-3-5A: Residential 13 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
	Max. Height, ADU (detached)	30 ft.	-
	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	<u>Min. Landscape Surface Area, Amenitized³</u>	5%	-
Density Standards			
	Max. Density	13 u/a	-
TALE NOTES: ¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks. ² Except for driveways associated with single family and duplex units and multiplex buildings. ³ <u>Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.</u>			

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- D. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R13 zoning district:
1. Single-Family Detached: Small Urban; Urban; Small General; General; Small Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban; Urban
 5. Multiplexes
 6. Multifamily: General
 7. Clustered Housing: Micro; Cottages Types.
- E. **Cross-References.** The cross-references in Table 2-1-3-5B, Cross-References for Residential 13, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-5B: Cross-References for Residential 13	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures
Accessory Dwelling Units	Section 5-1-5-2, Accessory Dwelling Units

2-1-3-6 R24: Residential 24

- A. **Purpose.** The purpose of the Residential 24 (R24) zoning district is to allow for new residential development of a variety of moderate to higher density housing products, up to a **gross** density of 24 units per acre.
- B. **Relationship to the Comprehensive Plan.** The R24 zoning district generally implements the “High Density Residential” land use category stated in the Comprehensive Plan.

Lot and Building Standards. The standards for lots and buildings in the R24 zoning district are set out in Table 2-1-3-6A, Residential 24 Lot and Building Standards and Division 2-1-8, Housing Palette.

Figure 2-1-3-6: Illustrative Residential 24 Lot and Building Standards

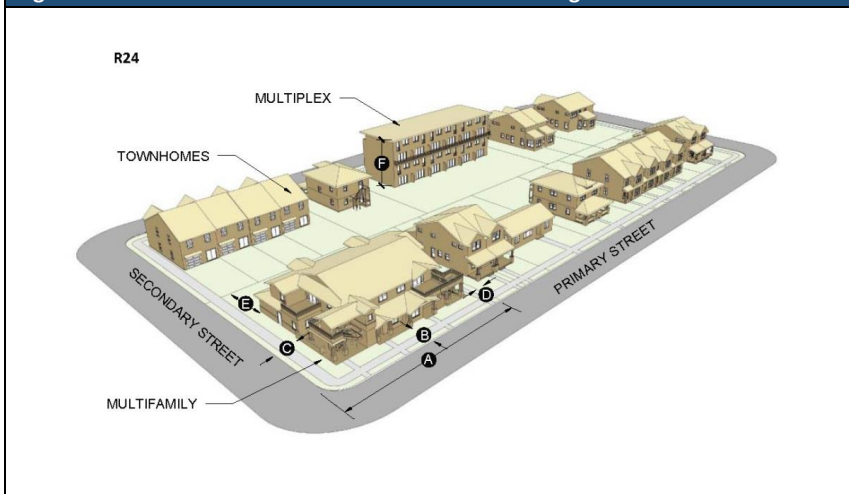


Table 2-1-3-6A: Residential 24 Lot and Building Standards

Standard		Lot Type	
		Residential	Nonresidential
Lot Standards			
	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	10,000 sf.
A	Min. Lot Width		100 ft.
	Max. Lot Coverage		40%
Building and Parking Siting Standards			
B	Min. Front	See Subsection D., below, and Division 2-1-8, Housing Palette	20 ft.
C	Min. Street Side		20 ft.
D	Min. Interior Side		10 ft.
E	Min. Rear		15 ft.
	Min. Arterial Setback ¹	100 ft.	-
	Min. Parking Setback	20 ft. ²	20 ft.

Table 2-1-3-6A: Residential 24 Lot and Building Standards			
Standard		Lot Type	
		Residential	Nonresidential
Building Standards			
F	Max. Height, Principal Building	35 ft.	35 ft.
	Max. Height, ADU (detached)	30 ft.	-
	Max. Height, Accessory Building	18 ft.	18 ft.
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	20%	30%
	<u>Min. Landscape Surface Area, Amenitized³</u>	5%	-
Density Standards			
	Max. Density	24 u/a	-
TABLE NOTES: ¹ Measured from the centerline of the arterial. See Section 2-1-9-2, Arterial Street Setbacks. ² Except for driveways associated with single family and duplex units and multiplex buildings. ³ <u>Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.</u>			

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- A. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the R24 zoning district:
1. Single-Family Detached: Small Urban; Urban; Small General; General; Small Suburban
 2. Zero Lot Line: Small General; General
 3. Duplexes: Side-By-Side; Over-Under
 4. Townhomes: Suburban; Urban
 5. Multiplexes
 6. Multifamily: General; Urban
 7. Clustered Housing; Micro Homes; Cottages Types.
- B. **Cross-References.** The cross-references in Table 2-1-3-6B, Cross-References for Residential 24, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-3-6B: Cross-References for Residential 24	
Topic	Reference
Max. No. of Principal Building	Section 2-1-9-1, One Principal Building per Lot
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Business Use of the Home	Division 3-1-5, Business Use of the Home
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design Standards	Division 5-1-2, Building and Structure Design Standards; and Section 5-1-4-1, Decks, Balconies, and Porches
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures

Figure 2-1-4-1: Illustrative Mixed-Use, Neighborhood Lot and Building Standards



Table 2-1-4-1A: Mixed-Use, Neighborhood Lot and Building Standards

Standard	Lot Type	
	Residential <u>or</u> Mixed-Use that includes Residential	Nonresidential <u>or</u> Non-Residential Mixed-Use
Lot Standards		
Min. Lot Area	See Subsection D., below, and Division 2- 1-8, Housing Palette	6,500 sf.
A Min. Lot Width		60 ft.
Max. Lot Coverage	70%	70%
Building and Parking Siting Standards		
B Frontage Zone (min./max.)	For min. refer to Division 2-1-8, Housing Palette / 25 ft.	5 ft. / 25 ft.
Min. Front Build-to-building <u>Facade width</u> within Frontage Zone	50%	50%
C Street Side Setback (min. / max.)	See Subsection D., below, and Division 2- 1-8, Housing Palette	10 ft. / -
D Min. Interior Side Setback		5 ft.
E Min. Rear Setback, without alley		10 ft.
Min. Rear Setback, with alley		2 ft. ²
F Min. Front Parking Setback	15 ft. ³	15 ft.
Min. Arterial Street	See Section 2-1-9-2, Arterial Street Setbacks	-
Building Standards		
G Max. Height, Principal Building	35 ft.	35 ft.
Max. Height, ADU (detached)	30 ft.	-

Table 2-1-4-1A: Mixed-Use, Neighborhood Lot and Building Standards			
Standard	Lot Type		
	Residential <u>or</u> <u>Mixed-Use that</u> <u>includes Residential</u>	Nonresidential <u>or</u> <u>Non-Residential</u> <u>Mixed-Use</u>	
	Max. Height, Accessory Building	18 ft.	-
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area ¹	15%	20%
	<u>Min. Landscape Surface Area, Amenitized^{1,4}</u>	<u>5%</u>	<u>-</u>
Density Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	
TABLE NOTES:			
¹ For the development parcel.			
² <u>For driveway access must be 18 ft. The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion.</u>			
³ Except for driveways associated with single family and duplex units and multiplex buildings.			
⁴ <u>Percentage of lot. Counts toward Min. Landscape Surface Area. Detached single family and duplex developments with 9 or less units exempt.</u>			

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- D. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the MX-N zoning district:
1. Single-Family Detached: Small Urban; Urban; Small General; General; Small Suburban (See subsection 3-1-3-2A.)
 2. Duplexes: Side-By-Side; Over-Under
 3. Townhomes: Suburban; Urban
 4. Multiplexes
 5. Multifamily: General; Urban.
- E. **Cross-References.** The cross-references in Table 2-1-4-1B, Cross-References for Mixed-Use, Neighborhood, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-4-1B: Cross-References for Mixed-Use, Neighborhood	
Topic	Reference
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design	Division 5-1-2 Building and Structure Design Standards
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini-Structures

Table 2-1-4-2A: Mixed-Use, Suburban Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that Includes Residential	Nonresidential or Non-Residential Mixed-Use
Lot Standards			
A	Min. Lot Area	See Subsection D., below, and Division 2-1-8, Housing Palette	-
	Min. Lot Width		-
	Max. Lot Coverage ¹	60%	60%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette / 35 ft.	10 ft. / 35 ft.
	Min. Front Build-to Widening Façade within Frontage Zone	20%	20%
C	Min. Street Side Setback (min. / max.)	See Subsection D., below, and Division 2-1-8, Housing Palette	10 ft. / 35 ft.
D	Min. Interior Side Setback		10 ft.
E	Min. Rear Setback		20 ft.
F	Min. Parking Setback (front)	20 ft. ²	20 ft.
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	None
Building Standards			
G	Max. Height	45 ft.	45 ft.
	Max. Height, ADU (detached)	30 ft.	
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
		-	
Site Standards			
	Min. Landscape Surface Area	25%	25%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1,3}	2,500 sf.	
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,3}	10 percent of the net parcel area	5,000 sf. or 5 percent of the net parcel area, whichever is greater
Density Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.

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Table 2-1-4-3A: Mixed-Use, Urban Lot and Building Standards			
Standard		Lot Type	
		Residential or Mixed-Use that includes Residential	Nonresidential or Non-Residential Mixed-Use
Lot Standards			
	Min. Lot Area	See Subsection E., below, and Division 2-1-8, Housing Palette	None
A	Min. Lot Width		None
	Max. Lot Coverage ¹	75%	75%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette/20 ft.	0 ft. / 20 ft.
	Min. Front Build- to Width ing Façade within Frontage Zone	35%	35%
C	Min. Street Side Setback (min. / max.)	See Subsection E., below, and Division 2-1-8, Housing Palette	0 ft. / 20 ft.
D	Min. Interior Side Setback		0 ft.
E	Min. Rear Setback		0 ft.
F	Min. Parking Setback (front)	20 ft. ²	20 ft.
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	—
Building Standards			
G	Max. Height, Principal Building	as identified on the Official Zoning Map	as identified on the Official Zoning Map
	Max. Height, ADU (detached)	30 ft.	
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
Site Standards			
	Min. Landscape Surface Area	15%	15%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1, 3}	2,500 sf.	
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,3}	10 percent of the net parcel area	5,000 sf. or 5 percent of the net parcel area, whichever is greater
Subdivision Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	
TABLE NOTES:			
¹ For the development parcel.			
² Except for driveways associated with single family and duplex units and multiplex buildings.			
³ In addition to principal buildings, Small Urban Parks count toward the Front Building Façade within Frontage Zone requirements.			

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Table 2-1-4-4A: Mixed-Use, Transit Lot and Building Standards			
Standard		Lot Type	
		Residential <u>or</u> <u>Mixed-Use that</u> <u>includes Residential</u>	Nonresidential <u>or</u> <u>Non-Residential</u> <u>Mixed Use</u>
Lot Standards			
	Min. Lot Area	See Subsection E.,	None
A	Min. Lot Width	below, and Division 2-1-8, Housing Palette	None
	Max. Lot Coverage	80%	80%
Building and Parking Siting Standards			
B	Frontage Zone (min. / max.)	For min. refer to Division 2-1-8, Housing Palette / 20 ft.	0 ft. / 20 ft.
	Min. Front Building to Width Frontage Façade within Frontage Zone	60%	60%
C	Street Side Setback (min. / max.)	See Subsection E.,	0 ft. / 20 ft.
D	Min. Interior Side Setback	below, and Division 2-1-8, Housing Palette	0 ft.
E	Min. Rear Setback		0 ft.
F	Min. Parking Setback (front)	20 ft. ⁶	20 ft.
	Min. Arterial Setback	See Section 2-1-9-2, Arterial Street Setbacks	—
Building Standards			
	Min. Height ²	-1 story	1 story ²
G	Max. Height	As identified on the Official Zoning Map	As identified on the Official Zoning Map
	Max. Height, Accessory Building	18 ft.	
	Max. Height, Mini-structure	12 ft.	12 ft.
	Min. Ground Floor Height ⁴	13 ft. 6 in.	13 ft. 6 in. ³
Site Standards			
	Min. Landscape Surface Area ⁴	10%	10%
	Max. Outdoor Display	-	5% of enclosed retail floor area
	Min. Area for Small Urban Parks (Lot Area less than 1 ac.) ^{1,5}	2,000 sf.	2,000 sf.
	Min. Area for Small Urban Parks (Lot Area 1 ac. or more) ^{1,5}	8 percent of the net parcel land area	3,000 sf. or 4 percent of the net parcel land area, whichever is greater
Subdivision Standards			
	Max. Density	None	
Height Transition Zone			
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.	
TABLE NOTES: ¹ For the development parcel. ² See Section 5-1-3-1, Pedestrian Priority Streets, for minimum height requirement. ³ For areas required by Section 5-1-3-1, Pedestrian Priority Streets. ⁴ Rooftop and upper level deck amenities (except individual private balconies) may be counted towards the landscape surface ratio requirement. ⁵ In addition to principal buildings, small urban parks count toward the Front Building Façade within Frontage Zone requirements.			

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Table 2-1-4-4A: Mixed-Use, Transit Lot and Building Standards		
Standard	Lot Type	
	Residential <u>or</u> <u>Mixed-Use that</u> <u>includes Residential</u>	Nonresidential <u>or</u> <u>Non-Residential</u> <u>Mixed Use</u>
⁶ Parking is not allowed in the frontage zone.		

- F. **Housing Palette.** The following housing types identified in Division 2-1-8, Housing Palette, are allowed in the MX-T zoning district:
1. Townhomes: Suburban; Urban
 2. Multiplexes
 3. Multifamily: Urban.
- G. **Cross-References.** The cross-references in Table 2-1-4-4B, Cross-References for Mixed-Use, Urban, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-4-4B: Cross-References for Mixed-Use, Transit	
Topic	Reference
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Increased Building Height	Division 2-1-10-4, Incentives for Increased Building Height
Small Urban Parks	Division 4-3-3-4 Mixed-Use
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design	Division 5-1-2 Building and Structure Design Standards
Pedestrian Priority Streets	Division 5-1-3-1, Pedestrian Priority Streets
Mini-Structures (e.g., Playground Equipment)	Section 5-1-4-3, Mini Structure
Satellite Dishes, Antennas, and Amateur Radio	Section 5-1-5-4, Satellite Dishes and Antennas; Amateur Radio Antennas
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Drive-Through Facilities	Section 5-1-6-2, Drive-Through Facilities
Outdoor Storage, Outdoor Retail Display, and Outdoor Dining Areas	Section 5-1-6-3, Outdoor Storage, Outdoor Retail Display, and Outdoor Dining Areas
Signs	Chapter 6, Signs

Table 2-1-5-4D: Mixed-Use Building Type Placement and Building Width

Standard	Context	Unit	Sub-District of OT Zoning District							
			E	EY	GV	OW	RN ¹	RR	W	
A	(min / max)	Street frontage								
	Frontage Zone (min / max)	Mcllvoy Park frontage	ft.	10 / 20	10 / 20	10 / 20	10 / 20	10 / 20	10 / 20	10 / 20
A	Frontage Zone (min / max)	Olde Town Plaza frontage	ft.	-	-	-	0/20	-	-	0 / 20
B	Build-to (min)	Building Façade at Front Setback Line	% ²	75	85	85	75	75	75	85
B	Total Building Width (max)	Generally, except as specified below	ft.	150	180	60 80	60 80	180	120	180
B	Total Building Width (max)	Wadsworth Bypass frontage	ft.	240	-	-	-	-	240	-
B	Total Building Width (max)	Mcllvoy Park frontage ³	ft.	120	-	35	-	-	-	120

TABLE NOTES:

¹ The Mixed-Use building form is allowed in this subdistrict only as provided in Section 2-1-5-2, Building Types.

² Percent of lot width. See Section 2-1-5-3, Generally Applicable Lot and Building Standards.

³ Applies where property is directly adjacent to or across the street from Mcllvoy Park.

- E. **Building and Floor Height.** Building height, floor height, and building width shall be as provided in Table 2-1-5-4E, Mixed-Use Building Type Height and Floor Height.

Figure 2-1-5-4E: Illustrative Mixed-Use Building Type Requirements

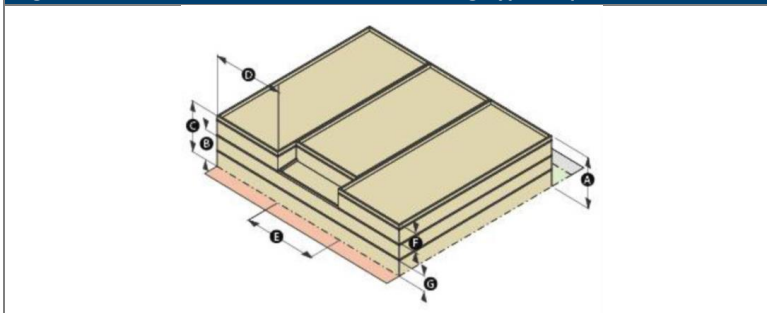


Table 2-1-5-4E: Mixed-Use Building Type Height and Floor Height⁴

Standard		Context	Unit	Sub-District of OT Zoning District						
				E	EY	GV	OW	RN ¹	RR	W
A	Height (max)	Outside Frontage Zone	stories ¹	5	3	2	3	2	3	3
B	Height (max)	Inside Frontage Zone	stories	5	2	2	2	2	2	2
B	Height (max)	Inside Frontage Zone, Mcllvoy Park, Ralston Road frontages	stories	2	2	2	2	2	2	2
-	Height (min)	Generally	stories	2	-	-	-	-	-	-
C	Height of Vertical	Inside Frontage Zone	stories	3	3	-	3	-	3	3

Division 2-1-6 Commercial and Industrial Districts

2-1-6-1 CG: Commercial, General

- A. **Purpose.** The purpose of the Commercial, General (CG) zoning district is to accommodate a wide variety of general retail and service uses, as well as professional and business offices serving both neighborhood and area-wide needs. This zoning district is typically situated along arterial streets, or where other appropriate high-volume vehicular access is available.
- B. **Relationship to the Comprehensive Plan.** The CG zoning district generally implements the “Neighborhood and Community Commercial/Office” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the CG zoning district are set out in Table 2-1-6-1A, Commercial, General Lot and Building Standards.

Figure 2-1-6-1: Illustrative Commercial, General Lot and Building Standards

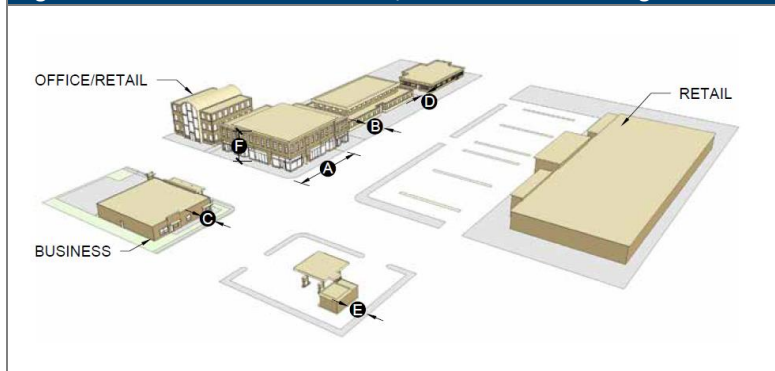


Table 2-1-6-1A: Commercial, General Lot and Building Standards

Standard	All Lot Types
Lot Standards	
Min. Lot Area	5,000 sf.
A Min. Lot Width	50 ft.
Max. Lot Coverage	35%
Setback Standards	
B Min. Front	20 ft.
C Min. Street Side	20 ft.
D Min. Interior Side	10 ft.
E Min. Rear	20 ft.
Min. Front Parking	20 ft.
Building Standards	
F Max. Height, Principal Building	45 ft.
Max. Height, Accessory Building	18 ft.
Max. Height, Mini-structure	12 ft.
Site Standards	
Min. Landscape Surface Area	20%

Table 2-1-6-1A: Commercial, General Lot and Building Standards		
Standard		All Lot Types
	Max. Outdoor Display	5% of enclosed retail floor area
	Max. Outdoor Storage	5% <u>of lot area</u>
Height Transition Zone		
	Min. Height Transition Zone Depth abutting RA and RN districts	See Section 2-1-10-3, Height Transition to RA and RN Zoning Districts.

- D. **Cross-References.** The cross-references in Table 2-1-6-1B, Cross-References for Commercial, General, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-6-1B: Cross-References for Commercial, General	
Topic	Reference
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design	Division 5-1-2, Building and Structure Design Standards
Mini-Structures	Division 5-1-4-3. Mini-Structures
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Drive-Through Facilities	Section 5-1-6-2, Drive-Through Facilities
Outdoor Storage, and Outdoor Retail Display	Section 5-1-6-3, Outdoor Storage, Outdoor Retail Display., and Outdoor Dining Areas.
Signs	Chapter 6, Signs

2-1-6-2 IL: Industrial, Light

- A. **Purpose.** The purpose of the Industrial, Light (IL) zoning district is to provide areas for light manufacturing, assembly and fabrication uses, office, research, food and beverage processing, packaging, or bottling, and compatible recreational activities.
- B. **Relationship to the Comprehensive Plan.** The IL zoning district generally implements the “Industrial/Office” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the IL zoning district are set out in Table 2-1-6-2A, Industrial, Light Lot and Building Standards.

Figure 2-1-6-2: Illustrative Industrial, Light Lot and Building Standards



Table 2-1-6-2A: Industrial, Light Lot and Building Standards

Standard		All Lot Types
Lot Standards		
	Min. Lot Area	None
	Min. Lot Width	None
	Max. Lot Coverage	50%
Setback Standards		
A	Min. Front	20 ft.
B	Min. Street Side	20 ft.
C	Min. Interior Side	5 ft. ¹
D	Min. Rear Setback	5 ft. ¹
	Min. Front Parking	20 ft.
Building Standards		
E	Max. Height, Buildings	40 ft.
	Max. Height, Mini-structures	12 ft.

Table 2-1-6-2A: Industrial, Light Lot and Building Standards		
Standard		All Lot Types
Site Standards		
	Min. Landscape Surface Area	15%
	Max. Outdoor Display	10% of enclosed retail floor area
	Max. Outdoor Storage of Lot Area	35% of lot area
TABLE NOTES: ¹ Side and rear setbacks shall be 20 ft. where adjacent to a single-family detached use in unincorporated Jefferson County.		

- D. **Cross-References.** The cross-references in Table 2-1-6-2B, Cross-References for Industrial, Light, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-6-2B: Cross-References for Industrial, Light	
Topic	Reference
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design	Division 5-1-2, Building and Structure Design Standards
Mini-Structures	Division 5-1-4-3, Mini-Structures
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Outdoor Storage, Outdoor Retail Display, and Outdoor Dining Areas	Section 5-1-6-3, Outdoor Storage, Outdoor Retail Display and Outdoor Dining Areas
Signs	Chapter 6, Signs

2-1-6-3 IG: Industrial, General

- A. **Purpose.** The purpose of the Industrial, General (IG) zoning district is to provide areas for a wide variety of industrial, manufacturing and heavy industries, heavy logistics centers, storage yards, and comparable uses and activities, as well as less intensive industries and supporting uses.
- B. **Relationship to the Comprehensive Plan.** The IG zoning district generally implements the “Industrial” land use category stated in the Comprehensive Plan.
- C. **Lot and Building Standards.** The standards for lots and buildings in the IG zoning district are set out in Table 2-1-6-3A, Industrial, General Lot and Building Standards.

Figure 2-1-6-3: Illustrative Industrial, General Lot and Building Standards

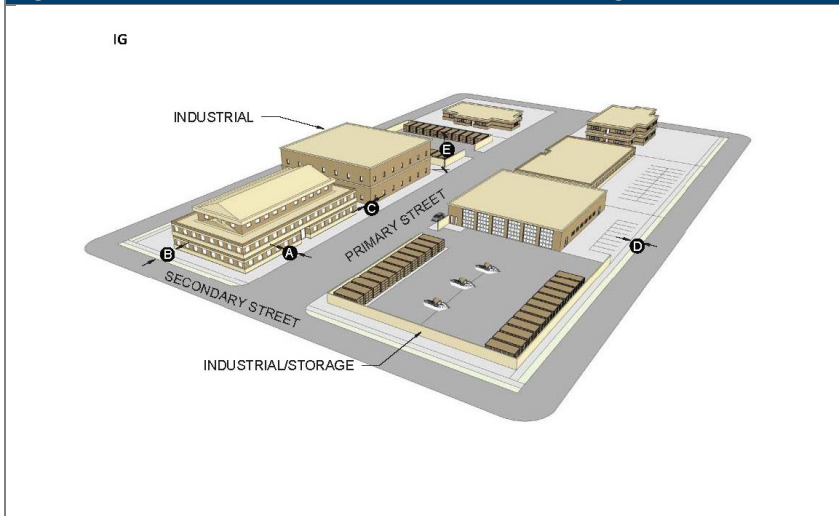


Table 2-1-6-3A: Industrial, General Lot and Building Standards		
Standard		All Lot Types
Lot Standards		
	Min. Lot Area	None
	Min. Lot Width	None
	Max. Lot Coverage	60%
Setback Standards		
A	Min. Front	20 ft.
B	Min. Street Side	10 ft.
C	Min. Interior Side	10 ft. ¹
D	Min. Rear	10 ft. ¹
	Min. Front Parking	10 ft.
Building Standards		
E	Max. Height, Buildings	45 ft.
	Max. Height, Mini-structures	12 ft.

Table 2-1-6-3A: Industrial, General Lot and Building Standards		
Standard		All Lot Types
Site Standards		
	Min. Landscape Surface Area	10%
	Max. Outdoor Display	90% of enclosed retail floor area
	Max. Outdoor Storage	90% <u>of lot area</u>
TABLE NOTES:		
¹ Side and rear setbacks shall be 20 ft. where adjacent to a single-family detached use in unincorporated Jefferson County.		

- D. **Cross-References.** The cross-references in Table 2-1-6-3B, Cross-References for Industrial, General, are provided for the reader's convenience and are not necessarily exhaustive of applicable regulations.

Table 2-1-6-3B: Cross-References for Industrial, General	
Topic	Reference
Land Use Regulations	Division 3-1-2, Land Use by Zoning District
Parking	Article 4-5, Parking and Loading
Landscaping	Article 4-6, Landscaping and Buffering
Fences and Walls	Section 4-7-2-1, Fences and Divisional Walls; and Section 4-7-2-2, Retaining Walls
Exterior Lighting	Article 4-8, Exterior Lighting
Building Design	Division 5-1-2, Building and Structure Design Standards
Mini-Structures	Division 5-1-4-3, Mini-Structures
Renewable Energy Systems (e.g., Solar Panels)	Section 5-1-4-4, Renewable Energy Systems
Outdoor Storage and, Outdoor Retail Display, and Outdoor Dining Areas	Section 5-1-6-3, Outdoor Storage, Outdoor Retail Display, and Outdoor Dining Areas
Signs	Chapter 6, Signs

Table 2-1-8-6: Duplex Lot and Building Standards

Lot Type	Vehicular Access	Minimum							Maximum	
		Lot Area	Lot Width	Lot Width, Corner	Front Setback	Street Side Setback (Building / Garage Door)	Interior Side Setback ³	Rear Setback	Building Coverage	Height
Side-by-Side	Alley	2,550 sf. ¹	30 ft. ¹	40 ft.	12 ft.	12 ft.	5 ft.	2 ft. ⁴	65%	35 ft.
	Street	4,000 sf. ¹	35 ft. ¹	45 ft.	20 ft.	15 ft. / 20 ft.	5 ft.	10 ft.	50%	35 ft.
Over-Under	Alley	4,000 sf. ²	40 ft. ²	50 ft.	15 ft.	15 ft.	5 ft.	2 ft. ⁴	55%	35 ft.
	Street	7,000 sf. ²	60 ft. ²	70 ft.	20 ft.	20 ft.	5 ft.	10 ft.	50%	35 ft.

TABLE NOTES:

¹ Per unit.² Per building.³ For outer building walls (does not apply to common wall).⁴ The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion.**2-1-8-7 Townhomes**

- A. **Lot and Building Standards.** Table 2-1-8-7, Townhome Lot and Building Standards, sets out the lot and building requirements for townhomes.

Table 2-1-8-7: Townhome Building Standards

Lot Type	Vehicular Access	Minimum						Maximum		
		Unit Width	Street Setback	Alley Garage Setback	Non-street Frontage Perimeter Setback	Building Separation, side to side	Building Separation, all others	Units Per Building	Building Coverage	Height
Suburban	Alley or Parking Court	20 ft.	15 ft. ¹	2 ft. ²	15 ft.	10 ft.	30 ft. ³	8	100%	35 ft.
	Street	28 ft.	18 ft.	-	15 ft.	10 ft.	30 ft. ³	8	100%	35 ft.
Urban	Alley or Parking Court	16 ft.	10 ft. ¹	2 ft. ²	10 ft. ⁴	10 ft.	20 ft.	10	100%	35 ft.

TABLE NOTES:

¹ Where garage access is directly from a side street, the minimum garage setback shall be 18 ft.² The rear setback for alley-loaded garages shall be no less than 2 ft. and no more than 4 ft. or a minimum of 18 ft., at the Applicants discretion.³ Building separation can be reduced to 20 feet if buildings are one or two stories.⁴ If more than one-half of the units in a townhome building are adjacent to a non-street frontage perimeter, then the minimum setback shall be 15 feet.**2-1-8-8 Multiplex and Multifamily**

- A. **Lot and Building Standards.** Table 2-1-8-8, Multiplex and Multifamily Lot and Building Standards, sets out the lot and building requirements for multiplex and multifamily.

3. If residential square footage is located above the garage, the setback shall be 100 feet from the centerline.

Division 2-1-10 Exceptions and Adjustments to Lot and Building Standards

2-1-10-1 Exceptions to Setback Standards

The structures and features enumerated in Table 2-1-10-1, Permitted Encroachments into Required Setbacks, may encroach into required setbacks as provided in the table.

Table 2-1-10-1: Permitted Encroachments into Required Setbacks	
Structure or Feature	Permitted Locations in Setbacks
Single-story covered front porches	Permitted to extend outward from the building 8 feet into a front setback, but no closer than 12 feet to the front property line. This encroachment shall only apply to the front setback, not the street side setback. ¹
All other covered porches, decks, terraces, and patios and are not enclosed	Permitted to extend outward from the building 8 feet into a rear setback, but no closer than 8 feet from the rear property line.
Covered stairs that provide below grade access to a building	Permitted to extend outward from the building 4 feet into a side setback, but no closer than 3 feet from the side property line. ¹
Uncovered porches, decks, patios, concrete slabs, and other flatwork, provided that such items are no more than 30 inches in height above grade	Permitted anywhere in setbacks. ¹
Uncovered balconies, decks, and outside stairs of any height more than 30 inches above grade	Permitted to extend outward from building 6 feet into a front or rear setback, but no closer than 12 feet to the front property line and 8 feet to the rear property line. Permitted to extend outward from the building 4 feet into a side setback, but no closer than 3 feet from the property line. ¹
Bay windows, window sills, eaves, cantilevers, cornices, fireplace chimneys, roof overhangs, and architectural and ornamental features	Permitted to extend outward from building up to 2 feet into any setback. ¹
Clotheslines and clothesline poles	Permitted in rear or side setback only, but not closer than 18 inches from any side or rear property line. ¹
Driveways	Permitted anywhere in setbacks.
Trash containers	Permitted in side and rear setbacks when not adjacent to residential use. Not permitted in the OT and MX districts frontage zone.
Fences and walls	See Article 4-7, Fences and Divisional Walls.
Flagpoles, lighting poles, and other poles not otherwise covered in this table	Permitted in any setback, provided that the height of any such pole, except for flagpoles, shall not exceed the distance from the base of the pole to the nearest property line. Flag poles are subject to the height and setback restrictions set forth in Section 6-1-2-3. Amateur radio antennas shall not be located in a front setback.

Table 2-1-10-1: Permitted Encroachments into Required Setbacks	
Structure or Feature	Permitted Locations in Setbacks
One accessory building not larger than 600 square feet or an attached garage addition provided that the garage addition will not result in more than a cumulative total of 600 square feet of attached garage The encroachment shall apply to the accessory building, or an attached garage addition, but does not apply to both	Permitted in any side or rear setback in the RN zoning district only, but not closer than 5 feet from any side or rear property line.
Landscaping, including trees, shrubs, flowers, hedges, and other features	Permitted anywhere in setbacks, subject to city standards governing sight distances. See Section 4-4-3-4 Intersection Visibility.
Little Library	If no more than 3 square feet and 5'5 feet high, may encroach into front setback but not closer than one-foot from the front property line or public sidewalk, whichever is closer.
Mini-structures	See Section 5-1-4-3, Mini Structures.
Mobility access ramps and lifts for existing single-family detached dwelling units, duplex, and townhomes	Allowed as necessary upon written request to the Director.
Signs	See Chapter 6, Signs.
Swimming pools	See Section 5-1-4-2 Swimming Pools, Hot Tubs, and Spas.
Air conditioning units	Permitted in side and rear setbacks but not in a front setback.
Counterforts	Permitted in any setback provided it does not encroach more than 5 feet into a front or rear setback and 3 feet into the side setback.
Window wells	Permitted in any side setback provided it does not exceed 15 square feet and does not encroach more than 3 feet into the side lot setback easement.
Window awnings	Permitted in any setback, but not closer than 10 feet from the rear property line or 18 inches from a side property line.
Wireless Communications Facilities	See Chapter 7, Wireless Communications Facilities.
TABLE NOTES: ¹ The maximum encroachment noted is measured from the building wall, or in the case of pergolas, carports, or other structures without walls, the maximum encroachment is measured from the vertical structural element such as a post.	

2-1-10-2 Exceptions to Maximum Building or Structure Height

- A. The maximum building or structure height limits established shall not apply to the following structures or structural elements:
 1. Chimneys, cornices without windows, cupolas, domes not used for human occupancy, elevator penthouses, roof top decks, monuments, parapet walls, skylights, spires, stairs, steeples, wireless communication facilities, theater scenery lofts, towers, ventilators, water tanks, and similar structures and necessary mechanical appurtenances, provided they:
 - a. Except for roof top decks, not more than 25 percent of the roof area of the structure to which they are attached shall be covered; and

3-1-2-5 Commercial Land Use by Zoning District

The commercial land uses that are allowed in each zoning district are set out in Table 3-1-2-5, Commercial Land Use by Zoning District.

Table 3-1-2-5: Commercial Land Use by Zoning District																					
Land Use	Open Space and Residential						Mixed-Use				Olde Town							Commercial and Industrial			Reference
	OS	RA	RN	R6	R13	R24	MX-N	MX-S	MX-U	MX-T	OT-E	OT-EY	OT-GV	OT-OW	OT-RN	OT-RR	OT-W	CG	IL	IG	
Animal Day Care / Training		C					L	L	L	L								L	L		3-1-3-5
Animal Hospital (Large Animal)		A																			-
Art Studio / Makerspace		A					A	A	A	A	L	L	L	L	L	L	L	A	A	A	3-1-3-5
Auction House or Yard																			L	L	3-1-3-5
Continuing Care Facility					A	A	A	A	A	A	A	A	A	A		A	A	C			
Kennel		C																	L	A	3-1-3-5
Office, General or Professional							A	A	A	A	A	A	A	A	A	A	A	A	A	A	-
Retail Sales and Services Type 1 ¹							L	L	L	L	L	L	L	L	L	L	L	L	L		3-1-3-5
Retail Sales and Services Type 2 ¹								L	L	L								L	L		3-1-3-5
Veterinary Offices or Clinics		C					L	L	L	L	L	L	L	L		L	L	L	L		3-1-3-5
Workshop							A	A	A	A								A	A	A	3-1-3-5
TABLE NOTES: ¹ All drive-through facilities are subject to the standards in Section 5-1-6-2, Drive-Through Facilities, which may prohibit a drive-through in certain locations.																					

3-1-2-6 Community, Civic, Educational, Health Care, and Institutional Land Use by Zoning District

The community, civic, educational, health care, and institutional land uses that are allowed in each zoning district are set out in Table 3-1-2-6, Community, Civic, Educational, Health Care, and Institutional Land Use by Zoning District.

Table 3-1-2-6: Community, Civic, Educational, Health Care, and Institutional Land Use by Zoning District																					
Land Use	Open Space and Residential						Mixed-Use				Olde Town						Commercial and Industrial			Reference	
	OS	RA	RN	R6	R13	R24	MX-N	MX-S	MX-U	MX-T	OT-E	OT-EY	OT-GV	OT-OW	OT-RN	OT-RR	OT-W	CG	IL		IG
Ambulance Services								C										L	L	L	3-1-3-6
Cemetery	C	C	C																		3-1-3-6
Crematorium																			L	L	3-1-3-6
Day Care Center, Adult or Child			C	C	C	C	L	A	A	A					A	L		A	A		3-1-3-6
Funeral Home / Mortuary							L	L								L		L	L		3-1-3-6
Hospital								A	A	A								A			-

All business activities shall be conducted within an entirely enclosed building.

D. Kennel.

1. In the RA and IL zoning districts, a kennel facility shall be subject to the following:

~~2-a.~~ Outdoor facilities, including outdoor runs, shall not be located within 150 feet of any adjacent residential zoning district.

~~3-b.~~ If the use is located within 300 feet of residentially zoned property, no outdoor activities related to the use shall occur on the subject property between the hours of 9:00 PM and 7:00 AM.

~~4-c.~~ The parts of a building where animals are boarded shall be fully enclosed and shall be sufficiently insulated so no unreasonable noise or odor can be detected off premises.

d. All kennels shall be licensed by the City of Arvada pursuant to Article VIII, "Kennel License," of Chapter 14 of the Arvada Code of Ordinances.

~~5-2.~~ A residence for a caretaker is allowed, subject to the requirements of Section 5-1-6-7, Custodial Unit.

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E. Retail Sales and Services, Type 1.

1. Retail Sales Uses – General.

Retail sales uses must take place within a completely enclosed building, except that accessory outdoor display of merchandise, and accessory outdoor customer seating/dining areas are permitted, subject to the following standards:

- a. Outdoor display areas must comply with the minimum street setback requirements of the subject zoning district.
- b. Outdoor display areas may not occupy or use required parking space or drive aisle unless approved by the Director.
- c. Outdoor seasonal temporary sales display requires a temporary use permit.

F. Retail Sales and Services, Type 2.

1. Convenience Lending Operations.

All convenience lending operations except national banks and those operating as of the effective date of this Code shall comply with the following locational restrictions and standards:

- a. It shall be unlawful to operate or cause to be operated a convenience lending operation within 2,500 feet of another convenience lending operation.
- b. It shall be unlawful to operate or cause to be operated a convenience lending operation within 300 feet of any residentially-zoned property.
- c. The distance between any two such operations shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which each such operation is located, and the distance between a convenience lending operation and a residentially-zoned property shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which the operation is located to the nearest property line of the residentially-zoned property, excluding public street rights of way.

2. **Used Merchandise Stores and Donation Centers (retail, used - primarily donated; retail, used - primarily non-donated; used merchandise donation center).**

building or portion of a building faces, abuts, or is adjacent to residentially zoned property, the closest, adjacent building wall or face shall consist of a solid blank wall with no openings other than those required by applicable building codes.

- ii. All repair work, vehicle washing, lubrication, and installation of parts and accessories shall be wholly performed within an enclosed building or structure.
- iii. All vehicle parts, dismantled vehicles, and similar materials, and all discarded materials such as tires, cans, and drums, shall be stored within an enclosed building or totally screened from view by a solid, opaque fence. See Division 4-7-2, Fences and Divisional Walls for acceptable fence/wall materials.
- iv. All vehicles awaiting repair shall be stored onsite in approved parking spaces and under no circumstances shall such vehicles be stored outside in an inoperable condition or stored on or obstruct access to a public right-of-way.

B. Motor Vehicle Repairs and Service, Heavy.

- 1. When permitted:
 - a. All repair and vehicle storage shall be completely enclosed within a building.
 - b. An Option B buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
 - c. An Option C or D buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district or MX with residential uses.
 - d. Overhead bay doors that face residential zoning districts shall be set back at least 60 feet from the residential zoning district boundary.
 - e. The use shall not operate between 7:00 PM and 7:00 AM if it is located within 300 feet of a residential zoning district, measured from the outside building wall that encloses the use to the zoning district boundary.

C. Motor Vehicle Repairs and Service, Light.

- 1. In the MX-N, MX-S, CG, and IL zoning districts:
 - a. All vehicle repair uses shall be conducted within a completely enclosed building.
 - ~~b.~~
 - ~~b.~~ The use shall not operate between 7:00 PM and 7:00 AM if it is located within 300 feet of a residential zoning district, measured from the outside building wall that encloses the use to the zoning district boundary.
 - ~~a-c.~~ An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options is required between the use and any adjoining residential zoning district.
 - ~~c-d.~~ Storage of vehicles on the premises shall not exceed 15 days.
 - ~~d-e.~~ Open storage of wrecked or inoperable cars, discarded tires, auto parts, or similar materials shall be prohibited.
 - ~~e-f.~~ Garage bays shall not face a street.

D. Motor Vehicle Storage.

- 1. In the IL and IG zoning districts;
 - a. An Option B landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and adjoining right-of-way.
 - b. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the use and any adjoining residential zoning district.

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- c. The use shall be located behind the principal building, unless the stored motor vehicles are inventory that is for sale or for rent.
- E. **Motor Vehicle Towing Services.**
 - 1. In the IL and IG zoning district:
 - a. An Option C or D landscape buffer, per Section 4-6-5-3, Bufferyard Options, is required between the yard and adjoining right-of-way and any adjoining residential zone district.
 - b. Vehicular ingress-egress shall be limited to one point for each side of property abutting any street.
 - c. All vehicles and activities not within fully enclosed buildings shall be enclosed by a solid fence or wall at least six feet in height, including point of ingress or egress.
 - d. No vehicle repair, maintenance, or body work shall take place.
 - 2. In the IL zoning district:
 - a. The site shall not be more than two acres in size.
- F. **Motor Vehicle Wash.**
 - 1. Motor vehicle wash facilities including automotive detail facilities shall comply with the following conditions:
 - a. **General Requirements.**
 - i. A motor vehicle wash facility is prohibited at the intersection of two arterial streets, unless it is located in a center occupying at least two acres and containing other commercial establishments occupying at least 12,000 square feet gross floor area.
 - ii. The motor vehicle wash facility, including all driveways, entrances and appurtenant structures, must be set back a minimum of 20 feet from any adjacent street. The entire 20-foot setback must be landscaped to provide a buffer from adjacent streets.
 - iii. No motor vehicle wash facility shall be located on a corner lot.
 - b. **Open Bay Motor Vehicle Wash Facility.**
 - i. No new motor vehicle wash facility may be located within one-half mile of any other existing motor vehicle wash facility having two or more car wash bays within the city limits of Arvada.
 - c. **Enclosed Motor Vehicle Wash Facility.**
 - i. All enclosed motor vehicle washing bays must have bay doors. No bay door shall face the adjacent street or an adjacent residential district.
 - ii. All enclosed motor vehicle wash facilities must be self-contained, except those services such as drying, polishing or vacuuming which may be performed outdoors. Exterior vacuums must have the machinery located within the main wash building with only vacuum hoses located outside.
- G. **Parking Lot Surface, Stand-Alone.** Where identified as a conditional use, a stand-alone surface parking lot shall be subject to the following requirements:
 - 1. A stand-alone surface parking lot shall not front an arterial or collector street.
 - 2. The stand-alone surface parking lot shall meet all the landscaping requirements of Article 4-6, Landscaping and Buffering.
 - 2-3. A stand-alone surface parking lot associated with an adjacent primary use shall also comply with the requirements of Section 4-5-3-4, Off-Site Parking.

- E. **Waste Containers and Litter Control.** Adequate waste containers shall be required and that all litter generated by the event shall be removed at no expense to the City. This shall include adjoining public rights-of-way.
- F. **Parking.** Adequate parking shall be provided on-site or at an alternative location to accommodate the anticipated vehicular traffic.
- G. **Signs.** All proposed signs shall be specified in the special event permit and shall be in compliance with the Temporary Sign regulations. See Division 6-1-6, Temporary Signs.

3-1-4-5 Food and Retail Truck Vending

- A. **Generally.** Food and retail truck vending is allowed as provided in this Section.
- B. **Where Permitted.**
 - 1. Food and retail truck vending is permitted in the following areas and under the following circumstances:
 - a. On private property as provided in Section 3-1-4-2, Temporary Uses by Zoning District;
 - b. In any park or public space (regardless of zoning district), if approved by the governmental entity exercising ownership or control thereof; and
 - c. In a public street right-of-way (regardless of zoning district), subject to the limitations established in Subsection D.2., below.
 - 2. Notwithstanding any provision herein to the contrary, allowing food and retail truck vending in a park, public space, or public street right-of-way shall be in the sole discretion of the governmental entity exercising ownership or control thereof.
- C. **Permit Required.** Except as otherwise provided herein, no person may engage in activities of food or retail truck vending without first obtaining a City of Arvada business license and a Food Truck Permit for food vendors or a Retail Vending Truck Permit. The approved temporary use permit shall be permanently displayed to the public in the food handling area of the food truck vending operation or in the retail area of a retail vending truck.
- D. **Standards.** The following rules and requirements shall apply to all food and retail truck vending:
 - 1. **Hours of Operation.** Hours of operation shall be between 6:00 a.m. and 11:00 p.m. unless a different time is specified in the temporary use permit.
 - 2. **Location.**
 - a. Operations shall not obstruct the visibility of motorists, nor obstruct parking lot circulation or block access to a public street, alley, or sidewalk.
 - b. Operations shall be located at least 50 feet from any residential ~~zoning district~~ use or mixed-use ~~zoning districts~~ buildings where residential units are on the first floor as measured from the closest point of the food truck to the nearest property line of the residential unit, except as may otherwise be permitted pursuant to subsection B.1.c., where permitted above.
 - c. Food and retail trucks may operate on private property provided they meet the following requirements:
 - i. The operator must obtain prior written permission from the private property owner.
 - ii. The food or retail truck must be parked on a paved surface outside of the public right-of-way.

- a. The first brochure shall include the licensee's contact information, the local contact party's contact information, and any necessary emergency contact information. The brochure shall also provide information pertinent to the neighborhood where the Short Term Rental Unit is located including, but not limited to, parking restrictions, trash collection schedule, relevant water restrictions, fire evacuation routes, and any other information, as required by the Director, applicable to the Short Term Rental Unit and the surrounding neighborhood.
- b. The second brochure will be provided by the city and include relevant local ordinances, rules, and regulations that apply to all residences in the city. The licensee must display the city's brochure in each Short Term Rental Unit as it is made available and updated by the city.

E. Licensing Requirements.

1. *Number of Short Term Rentals Units per lot.* If a lot contains more than one legal Dwelling, Dwelling Unit or ADUR, only one Dwelling, Dwelling Unit or ADUR on such lot is eligible for licensure as a Short Term Rental Unit.
2. *Permitted structures.* Short Term Rental Units are allowed in primary and accessory structures with finished living space. All structures shall comply with the regulations for primary and accessory structures, including maximum size, height, lot coverage, and setbacks, for the property's zoning district. In the case of a multifamily property, the property owner is allowed one (1) Short Term Rental Unit. In the case of condominiums or buildings held in similar common ownership, each owner shall be limited to one (1) Short Term Rental Unit per property.
3. *Reservations.* Only one Short Term Rental reservation to one party at a time is allowed.
4. *Parking requirements.* One additional on-site parking space shall be required if a portion of a primary structure is used for Short Term Rental.
5. *Safety requirements.* Each Short Term Rental Unit shall be equipped with an operational smoke detector, carbon monoxide detector, and fire extinguisher on the licensed premises. The Director or his or her designee may inspect the Dwelling, Dwelling Unit or ADUR prior to issuance of a license and during the term of any license issued to verify compliance with such requirements, Code provisions and state and federal law. Refusal by the applicant to allow such inspection shall be grounds for denial, non-renewal or revocation of a license.
6. *Occupancy.* The occupancy of a Short Term Rental Unit shall not exceed the total number of unrelated persons that are otherwise permitted to occupy property in the City.
7. *Prohibited uses.* Use of the Short Term Rental Unit for any commercial or large social events or gatherings, such as weddings, is prohibited.
8. *Trash collection.* The owner shall maintain weekly residential trash collection services for the Short Term Rental Unit.
9. *Number of days in use.* The maximum number of days per calendar year that a Short Term Rental may be occupied by guests is 240. ~~By December 31st of each calendar year~~Upon renewal of the license, the Owner shall provide to the City the number of days that the Short Term Rental was occupied by guests during the previous 365 days. The Owner shall certify that the number reported is accurate.
10. *Number of Short Term Rentals per Owner.* No applicant may operate more than three individual properties as short term rentals within the City at any one time. ~~By December 31st~~

~~of each calendar year~~ Upon renewal of the license, the Owner shall certify that the number operated is in accordance with this regulation.

- F. **Refusal to Grant, Suspension, Revocation, Nonrenewal of License.** The Director may refuse to grant an initial license, or suspend, revoke, or not renew any license requested or issued pursuant to this Section if the Director determines that any of the following have occurred: (i) fraud, material misrepresentation or false statement in the initial application for the license or any renewal application; or (ii) failure to comply with the terms or conditions of the license, the provisions of this Section, or any other application provision of federal, state, or local law including, but not limited to, the Arvada City Code.
1. If the Director finds that a violation of any provision of this Section exists, the Director, after notice to the licensee, may take any one or more of the following actions to remedy the violation:
 - a. Impose a civil penalty according to the following schedule:
 - (i) For the first violation of the provision, \$150;
 - (ii) For the second violation of the same provision, \$300; and
 - (iii) For the third violation of the same provision, \$1,000.
 - b. Revoke the license;
 - c. Issue any order reasonably calculated to ensure compliance with this Section.
 2. The Director's authority under this Section is in addition to any other authority the Director has to enforce this Section, and election of one remedy by the Director shall not preclude resorting to any other remedy as well.
 - a. The Director shall not accept a new application from the same licensee for the same Dwelling, Dwelling Unit or ADUR after revocation of a license:
 - (i) For at least one year following the revocation; and
 - (ii) Unless the applicant demonstrates compliance with all licensing requirements.
 3. All licensed premises shall be subject to inspection by the Director or his or her designee for the purpose of investigating and determining compliance with the requirements for any license issued under this Section. Where any part of the licensed premises consists of a locked area, such area shall be made available for inspection as provided hereunder, without delay, upon request. Refusal to allow an inspection may result in the license being revoked subject to the following Subsection 5.
 4. An applicant or licensee may appeal any decision to grant, not renew, or suspend his or her application or license to the City Manager within 14 consecutive calendar days from the city providing notice of the decision. The City Manager's decision shall be final.
 5. An applicant may appeal any decision to revoke his or her license through the city's Administrative Hearing procedure as provided in Chapter 2, Article V, Division 3 of the Arvada City Code. Appeals must be received within 14 consecutive calendar days from the city providing notice of the revocation.
- G. **Administration.** The Financial Officer and Director shall administer the provisions of this Article and are authorized to jointly promulgate rules and regulations for its administration and implementation.

Division 3-1-6 Oil and Gas Operations.

Reserved.

Adopted May 18, 2020

Amended XXXXXX XX, 2021

 **ARVADA LAND DEVELOPMENT CODE**

PAGE 3.41

This distance shall be determined with due regard for approach grades, drainage, bridges or future grade separations.

3. Street Design Standards.

- a. Streets shall be related appropriately to the expected use of the property. Minimum requirements for street right-of-way, pavement width, and other standards for public and private streets are set forth in the City of Arvada Engineering Code of Standards and Specifications.
- b. Other designs and materials may be required for the construction of streets, curbs, and sidewalks when, in the determination of the Director, such methods would be more environmentally desirable or more in keeping with the design of the development or neighborhood.
- c. Turnarounds shall be provided at the ends of cul-de-sacs and at elbows on one-way streets. Turnarounds shall meet the minimum requirements of the Fire Protection District.

J. Street Naming and Traffic Control Signs.

1. **Continuation of Existing Names.** The City will assign a name subject to final plat, site plan or final development plan approval.
2. **Street Signage.**
 - a. All streets in a subdivision shall be named and identified by signs installed at every street intersection.
 - b. These signs shall be standard street signs as indicated in the current edition of the Manual on Uniform Traffic Control Devices.
 - c. All traffic control signs, as well as street name signs, required in a subdivision shall be provided and installed by the City at the expense of the subdivider in conformance with the current edition of the Manual on Uniform Traffic Control Devices, and any relevant Colorado state supplements.

K. Sidewalks, Trails and Bicycle Paths.

1. **General Requirements.**
 - a. The layout and design of an interconnected system of sidewalks, trails, and/or bicycle paths shall be consistent with the City of Arvada Transportation Plan and Bicycle Plan, as amended, and all other adopted plans and policies.
 - b. All subdivisions shall comply with the development standards set forth in Section 4-4-2-1, Pedestrian and Bicycle Access and Circulation.
 - c. All subdivisions shall include an interconnected system of sidewalks, trails and or bicycle paths that directly connects to all uses, lots, open space areas, and parks.
2. **Trails.**
 - a. The owner/developer shall provide and construct pedestrian, bicycle, or equestrian trail rights-of-way in compliance with Section 4-4-2-1, Pedestrian and Bicycle Access and Circulation, and Section 8-4-3-6, Park and Trail Dedications and Fees-in-Lieu. Additional trail rights-of-way may be required where necessary for access to parks, schools, shopping areas, or other community facilities.
 - b. Trails shall be eight feet wide, unless a wider trail is required by the City. All trails between lots shall be located within a minimum 40-foot wide landscaped strip, which

40-foot wide strip may be dedicated to the City or set aside as private, [amenitized common open space landscape surface area](#).

4-2-1-5 Utility Easements

All utility easements shall conform to the requirements of the appropriate utility company, unless inconsistent with the requirements of the City. Normally, these easements are as follows, unless it is unsuitable due to drainage, irrigation ditches, timber areas, or other obstructions.

1. Non-exclusive utility easements shall be a minimum of eight feet wide within the front property lines running parallel and adjacent to all platted streets in and around the subdivision. Other additional easements, such as side lot line easements, may be required when the developer builds and points of service have become known.
2. Drainage and Utility easements (*eg.*, sewer, water, electricity, telephone, cable and wireless communications facilities) should measure eight feet wide along all rear property lines, five feet wide along the side of lots and eight feet wide along both sides of all streets. Easements adjacent to subdivided property should measure eight feet in width. Easements should normally be 16 feet in width, measuring eight feet on each side of abutting rear lot lines. Sanitary sewer and water line easements should be designed so that sewer and water lines flow under streets and not between lots.
3. Easements required for street lighting should be five feet on all sides of the street light.
4. In all cases, the owner/developer should consult with the utility company regarding requirements for a particular subdivision.

B. Drainage Easements.

1. Where a subdivision is traversed by a watercourse, drainage way, channel, stream or irrigation ditch, dedication of drainage easements or drainage right-of-way shall be required. Such easements shall conform substantially to the lines of such watercourse, and shall be of such width and construction, or both, as will be adequate for the purpose.
2. The owner/developer shall dedicate, either in fee simple via plat or by drainage or conservation easement, land on both sides of existing watercourses, to a distance to be determined by the Director
3. To the maximum extent practicable, the drainage shall be maintained as an open channel with landscaped banks and shall be of adequate width for maximum potential volume of flow and for maintenance.
4. Where topography or other conditions make the inclusion of drainage facilities within street rights-of-way impractical, perpetual and unobstructed easements at least twenty feet in width for such drainage facilities shall be provided across property outside the street lines and with satisfactory access. Easements shall be indicated on the plat. Drainage easements shall be carried from the street to a natural watercourse or other drainage facilities.
5. When a proposed drainage system will carry water across private land outside the subdivision, appropriate drainage rights must be secured.

4-2-1-6 Alternatives to Subdivision Standards

Alternatives to the standards in this Article shall be subject to approval by the Director prior to approval of the subdivision application pursuant to Section 8-3-11-3, Administrative Minor Modifications.

Division 4-2-2 Cluster Subdivisions

4-2-2-1 Cluster Subdivisions

- A. **Generally.** This Division provides optional standards for cluster subdivision development to create more compact development in order to preserve and protect sensitive lands, create ~~common open space~~ **amenitized landscape** areas, and to implement the Comprehensive Plan and/or adopted specific area plans. A cluster subdivision is a residential or mixed-use subdivision in which some or all of the lots are allowed to be smaller (in area and width) than otherwise required for the underlying zoning district, in exchange for permanent protection of sensitive lands and/or ~~common~~ open space.
- B. **Zoning Districts Where Allowed.**
1. The cluster subdivision option is available in the R6, R13, and R24 zoning districts.
- C. **Minimum Parcel Size.** The minimum parcel size for a cluster subdivision shall be three acres.
- D. **Cluster Subdivision Development Standards.**
1. All other standards in the LDC shall apply to cluster subdivisions unless modified by this Section.
- E. **Identification and Maintenance of Protected Lands.**
1. Protected lands as defined in Section 4-1-4-2, Limits of Development, shall be identified on the final subdivision plat with a notation that indicates that those lands shall not be used for future development.
 2. Protected lands shall be identified with appropriate permanent signage markers in order to distinguish these areas from private lots.
 3. Protected lands shall be permanently maintained and preserved as:
 - a. Open space tracts with deed restrictions;
 - b. Land dedicated to the City;
 - c. Land protected through a conservation easement; or
 - d. Land protected by other means approved by the City.
 4. For any protected land not dedicated to the City, the developer shall provide a permanent mechanism acceptable to the City Attorney for the primary purpose of conservation, preservation, and management of protected lands.
 5. There shall be no further subdivision of land in an area approved for cluster subdivision; however, dedication of easements for public purposes may be permitted.
- F. **Use of Protected Lands.**
1. Protected lands shall be left in an undisturbed natural state or landscaped pursuant to Section 4-6-5, Landscape Areas and Bufferyards.
 2. The protected lands shall be used for low-intensity recreation, agriculture, buffers, critical wildlife habitat, or other passive park or open space purposes.
 3. The use of protected lands may be further limited or controlled at the time of final approval where necessary to protect adjacent properties.
- G. **Review and Approval of Cluster Subdivisions.**
1. The review and approval of cluster subdivisions shall follow the procedures for preliminary and final plats. The applicable procedure is dependent on the number of lots proposed in the cluster subdivision.

- C. **Contextual Design Objectives.** If there is an identifiable development pattern in the immediate area of the development, then proposed development shall, to the maximum extent practicable, coordinate elements between adjacent sites, including:
1. Reinforce the existing pattern and site features, particularly at the edges where the proposed development is not separated from existing development by a street or physical separation (i.e., railroad tracks, etc.);
 2. Provide shared driveways for accessing adjoining streets;
 3. Provide linkages of internal vehicular circulation systems;
 4. Provide linkages of interior pedestrian systems;
 5. Provide linkage/continuation of open space systems; and
 6. Integrate drainage and detention facilities.

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4-3-2-2 Landscape Surface Area

- A. **Generally.** Development shall be designed with landscaped areas that support the resource values of the natural open space in terms of its ecological function (e.g., habitat, water quality enhancement, energy efficiency, etc.), aesthetic contribution, recreational value, and buffering value in accordance with Article 4-6 Landscaping and Buffering
- B. **Site Design.** Site design shall be organized to include, protect or enhance the natural open spaces areas and landmark features of the site.
- C. **Enhancement of Open Space / Open Space Corridors.** Landscaped areas should be organized so as to create integrated systems that connect with dedicated school lands, parklands, other open spaces, or public lands or trails within the subject property or on adjoining property.
- D. **Natural Resource and Hazard Areas.** Natural resources such as water features including lakes, natural ponds, rivers, streams, wetlands, riparian areas, drainage ways, ditches, and flood hazard areas and vistas of natural features including distant peaks and ridges, steep slopes, existing tree canopy, wildlife habitat areas should be undisturbed.

4-3-2-3 Landscape Surface Area, Amenitized

- A. **Generally.** Sometimes referred to as "common open space." Development shall be designed with amenities for the common use or enjoyment of residents, employees, or guests of the development. Any portion of the area intended to meet requirements of small urban parks (Section 4-3-3-4 Mixed-Use) must be publically accessible. Amenities may include:
1. Passive recreational facilities such as trails, community gardens, courtyards with seating, shaded picnic areas, scenic areas, open grassy areas large enough for recreation, or similar common areas; or
 2. Active recreational facilities such as pools, tennis courts, playgrounds, and clubhouses; or
 3. Commercial outdoor seating and dining areas, or similar common areas serving employees and/or guests.
- B. **Accessibility.** Areas shall be accessible to all residents, employees, or guests of a development and meet all design requirements of the Americans with Disabilities Act (ADA).

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4-3-2-2 Common Open Spaces

- A. ~~Generally.~~ Development shall be designed to include common open spaces and amenities for the enjoyment of residents, employees, and the public in a manner that supports the resource values of the open space in terms of its ecological function (e.g., habitat, water quality enhancement, energy efficiency, etc.), aesthetic contribution, recreational value, and buffering value.
- B. ~~Formal Open Spaces.~~ Parks, squares, plazas, courtyards, greens, and other formal gathering open spaces, when required, shall be:
1. ~~Situated as focal points; and~~
 2. ~~Visible and accessible from streets, sidewalks, and / or trails.~~
- C. ~~Site Design.~~ Site design shall be organized to include, protect or enhance the natural open spaces areas and landmark features of the site.
- D. ~~Enhancement of Open Space / Open Space Corridors.~~ Open space should be organized so as to create integrated systems that connect with dedicated school lands, parklands, other open spaces, or public lands or trails within the subject property or on adjoining property.
- E. ~~Natural Resource and Hazard Areas.~~ Natural resources such as water features including lakes, natural ponds, rivers, streams, wetlands, riparian areas, drainage ways, ditches, and flood hazard areas and vistas of natural features including distant peaks and ridges, steep slopes, existing tree canopy, wildlife habitat areas should be undisturbed. Stormwater Management Devices. Land area occupied by stormwater management including retention and detention ponds and bioretention areas (filters or rain gardens) may be treated as an open space site amenity if the area includes at least one of the following or a combination of the following:
1. Access and pedestrian elements, such as paths and benches, that support passive recreation uses.
 2. Gentle slopes, vegetative landscaping, fountains, or water visible water circulation devices, and visually attractive low fencing or other elements that make stormwater management a site amenity.
- F.
- G. ~~Passive and Active Recreational Areas.~~ Open space areas for passive and active recreational purposes, such as pools, playgrounds, tennis courts, trails, ball fields, and clubhouses, including required public parks and trails should be included in common open space areas.
- H. ~~Stormwater Management Devices.~~ Land area occupied by stormwater management including retention and detention ponds and bioretention areas (filters or rain gardens) may be treated as an open space site amenity if the area includes at least one of the following or a combination of the following:
1. Access and pedestrian elements, such as paths and benches, that support passive recreation uses.
 2. Gentle slopes, vegetative landscaping, fountains, or water visible water circulation devices, and visually attractive low fencing or other elements that make stormwater management a site amenity.
- I. ~~Formal Plantings and Gardens.~~ Formally planted and regularly maintained open areas that provide passive recreation opportunities, including arranged plantings, gardens, community gardens, green roofs, gazebos and similar structures, and/or roof gardens shall have:
1. ~~At least one direct access to a building, or to a street, bikeway, or walkway accessible to the public or the development's occupants and users.~~

2. ~~Such feature shall be centrally located and compliment the landscape design to the surrounding development.~~

Division 4-3-3 Standards for Specific Development Types

4-3-3-1 Commercial

- A. **Generally.** The standards of this Section shall apply to retail and office development in the CG zoning district that contains retail buildings with at least 50,000 square feet of cumulative gross leasable area.
- B. **Pedestrian Plaza.** Each such development shall include at least one pedestrian plaza at least 5,000 square feet in area as a visual and functional focal point of the development.
- C. **Pedestrian Connections.** For all uses, sidewalks or walkways serving the site shall be designed so that:
1. Each point at which the system of sidewalks must cross a parking lot or internal street or driveway to make a required connection shall be clearly marked in accordance with the standards from the Manual on Uniform Traffic Control Devices (MUTCD), through the use of change in paving materials height, or distinctive colors; and
 2. Where sidewalks required above are providing pedestrian travel along private streets or drives, those sidewalks shall be detached from such private streets or drives for at least 50 percent of the linear distance of those adjacent sidewalks by a tree lawn at least eight feet in width. Sidewalks adjacent to parking spaces shall not be required to be detached; and
 3. All sidewalks shall be a minimum of five feet wide, or seven feet where there is adjacent perpendicular head-in parking.
- ~~3.~~

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4-3-3-2 Residential

- A. **Generally.** The standards of this Section apply to residential developments that include more than 10 dwelling units, located in all residential zoning districts and the MX and OT zoning districts, where single-family, duplexes, townhomes, multiplex, and multifamily are permitted, as provided in the following Subsections.
- B. **Arrangement of ~~Open Space~~Landscape Areas and Buildings.**
1. ~~Open space~~Amenitized landscape areas shall be provided to the extent practicable and situated so that ~~open space~~landscaped areas and outdoor recreation amenities are centrally located within the development.
 2. Principal buildings, such as club houses and recreational facilities, and landscaping shall, to the extent practicable, be located and designed so that residents can easily observe the buildings, ~~common open spaces~~landscaped areas, circulation paths, and access points into the development.
- C. **Parking.** For multiplex, townhome and multifamily development, at least 50 percent of required off-street parking shall be provided in garages or carports, rather than surface lots. Where surface parking lots are used, they shall to the extent practicable be located between or behind buildings, rather than adjacent to street frontages.
- D. **Single-Family Detached, Duplex, and Multiplex.**

1. **Generally.** Single-family detached, duplex, and multiplex residential subdivisions shall be designed to mitigate the impacts of streets and paved areas on the neighborhood, and to provide comfortable alternative routes for pedestrians and bicyclists, including continuous sidewalks, tree-lined streets, and pedestrian-scaled details.
 2. **Creation of Neighborhoods.** Residential development that includes more than 200 dwelling units shall be designed to create identifiable "neighborhoods" of 30 to 100 units.
 3. **Configuration of Lots.** Lots shall be configured to maximize the number of lots that are:
 - a. Within close proximity to an ~~"useable" common open space~~ amenitized landscape area (e.g., playground or trail); and
 - b. Connected by trails or common greens that do not cross streets.
- E. **Townhome.**
1. **Creation of Neighborhoods.** Residential development that includes more than 200 dwelling units shall be designed to create identifiable "neighborhoods" of 30 to 100 units.
 2. **Configuration of Lots.** Lots shall be configured to maximize the number of lots that are:
 - a. Within close proximity to an amenitized landscape area ~~"useable" common open space~~ (e.g. playground or trail); or
 - b. Connected by trails or common greens that do not cross streets.
 3. Buildings shall front on and align with:
 - a. Adjacent streets; or
 - b. Meet the minimum Non-Street Frontage Perimeter Setbacks identified in Table 2-1-8-7, Townhome Building Standards.
 4. **Connectivity.**
 - a. Where there is a sidewalk, separation between buildings shall be a minimum of 20 feet wide to allow for a minimum five foot wide sidewalk and landscaping
- F. **Multifamily.** The standards of this Subsection shall apply to all new multifamily residential development.
1. **Street Connectivity.**
 - a. Multifamily sites of 10 acres or more shall include a minimum of one public street (or private drive that is built to City street standards), that is continuous through the subject property, and that connects to a public street on both ends.
 - b. The Director may waive this requirement for a through-access street or drive, if it is demonstrated that:
 - i. There are adequate alternatives available for residents and vehicles to travel through the subject property to adjacent properties and developments; or
 - ii. There are no opportunities for a through-street to safely make such connections.
 2. ~~Common Open Space~~ Landscape Areas. Landscape areas ~~Common open space~~ shall be provided as follows:
 - a. Large ~~open space~~ landscaped areas should be the fundamental organizing element of the site. ~~Common open space~~ Landscaped areas should be well defined by buildings and streets. Buildings should be oriented in such a way as to create courtyards and open space areas.
 - b. Large existing trees and other natural features should be integrated into the ~~open space~~ landscape areas.

- c. ~~Common open space~~landscape areas should be centralized and directly accessible to a majority of the surrounding units. Where possible, it should be linked to adjacent parks, paths, and open space areas.
- d. The ~~open space~~landscape areas shall be useable, non-riparian areas with slopes not exceeding 3:1.
- 3. **Site Amenities.** In conjunction with the ~~common open space~~landscape surface area requirements, and the required small urban parks in the MX-S, MX-U and the MX-T zoning districts (See Subsection 4-3-3-4E), all multifamily projects shall provide site amenities from the list below for the residents. Amenities shall be centrally located for a majority of the residents, and may be located within the ~~common open space~~landscape areas. Multifamily projects with less than 50 units shall provide two of the amenities from the list below. Multifamily projects with more than 50 units shall provide three of the amenities from the list below.
 - a. Plaza.
 - b. Swimming pool.
 - c. Sports court, such as tennis, basketball, or volleyball.
 - d. Natural open space area with benches.
 - e. Jogging trail.
 - f. Fountain, art, or sculpture.
 - g. Other amenity as approved by the Director

4-3-3-3 Clustered Small Housing

- A. **Generally.** The standards of this Section apply to developments of the clustered small housing types that are described in Section 2-1-8-9, Clustered Housing Types.
- B. **Common Green.**
 - 1. Clustered housing types shall be organized around one or two ~~common open space~~amenitized landscape areas ("green(s)"), with no dimension that is less than the larger of:
 - a. 1.5 times the height of the tallest building that fronts on the common green; or
 - b. 20 feet, for micro homes or 30 feet for cottages.
 - 2. The common green(s) shall be developed and maintained to provide for passive and/or active recreation activities for the residents of the housing cluster.
 - 3. The common green(s) shall be centrally located and easily accessible to all dwelling units within the cluster.
 - 4. The common green(s) shall be surrounded by clustered housing types on at least two sides, which do not have to be opposite sides.
 - 5. Stormwater management facilities are allowed within a common green, if they do not adversely impact access to or use of the common green for all-season pedestrian access to the dwelling units, and for anticipated active and passive recreation activities.
- C. **Front Porches.**
 - 1. Cottages. Each cottage dwelling unit shall have a front porch that is not less than seven feet in any dimension.

building is likely to result in significant increases in on-street parking in any surrounding residential neighborhood.

E. Change in Permitted Use.

1. When a change of use results in an increase in required off-street parking above that required for the prior use, the requirements of this Division shall apply to the increase in required parking.
2. The provisions of Subsection E.1., above, do not apply to any change in use in a commercial center, mixed-use development, or industrial building larger than 50,000 square feet in gross floor area, unless the Director determines that the change of use is likely to create a significant increase in on-street parking in any surrounding residential neighborhood.

F. Maximum Parking in Commercial Centers.

1. For commercial centers containing more than 50,000 square feet of retail and/or office space, the maximum number of off-street parking spaces allowed shall be 115 percent of the requirements shown in Section 4-5-2-2, Parking Requirements Tables.
2. Upon the Applicant's written request, the Director or Decision-Making Body may approve a greater amount of off-street parking spaces if the greater number of spaces provides a greater service to prospective users of the center and a greater benefit to the community as a whole, while minimizing any aesthetic and visual impacts of additional paved parking areas on the surrounding areas. In determining whether to approve a greater number of parking spaces, the Director or Decision-Making Body shall consider the number of employees occupying the buildings or land use, the number and timing of expected customers or clients, the availability (if any) of nearby on-street parking, the availability (if any) of shared parking with abutting, adjacent, or surrounding land uses, the provision of purchased or leased parking spaces in a municipal or private parking lot meeting the requirements of the City, and any other factors unique to the Applicant's development request.

- G. Parking Reductions.** Generally, the total number of required parking spaces is equal to the sum of the required parking for each use of a subject property. However, parking requirements may be reduced according to the methodology of Section 4-5-2-4, Shared Parking, and the provisions of Section 4-5-2-5, Parking Credits and Reductions.

4-5-2-2 Parking Requirements Tables

- A. Residential Land Uses.** The required off-street parking for residential land uses is set out in Table 4-5-2-2A, Residential Land Use Parking Standards.

Table 4-5-2-2A: Residential Land Use Parking Standards	
Land Use	Minimum Required Parking
Standard Housing Types	
Single-Family Detached or Duplex	2 sp. / du ¹
Duplex or Townhome	2.2 sp. / du ¹
Multifamily and Multiplex	efficiency units: 1.4 sp. / du 1 BR units: 1.6 sp. / du 2 BR units: 2.1 sp. / du ¹ 3+ BR units: 2.5 sp. / du ¹

2. Dispersed in a multi-building development or shopping center to ensure easy access, and to minimize the travel distance for the disabled.

D. Marking.

1. Each accessible parking space shall be identified with a sign that includes:
 - a. The International Symbol of Accessibility Parking Space marking per the MUTCD and ADA standards;
 - b. The phrase "Accessible Parking"; and
 - c. The statement "Van Accessible," if the space is a van-accessible parking space.
2. Signs shall be printed with green lettering and symbols on a white background and shall conform to MUTCD standards.
3. Signs shall be one foot wide by 18 inches high, and installed at least five feet, but not more than seven feet, above the finished floor (for parking structures) or ground surface (for surface parking), measured to the bottom of the sign.
4. Signs shall be permanently mounted, with anchor bolts, on a post or on an adjacent structure or wall within ten feet of the disabled parking space, oriented to the center of the front of each handicapped parking space, facing the rear of the space.
5. The symbol of accessibility shall be painted on the pavement of each disabled parking space.

- E. Accessible Routes.** All accessible routes shall serve as emergency exits for disabled individuals and shall be free from obstructions. Required ramps shall be identified with a sign and be made with a permanent material which will provide all-weather access.

4-5-3-4 Off-Site Parking

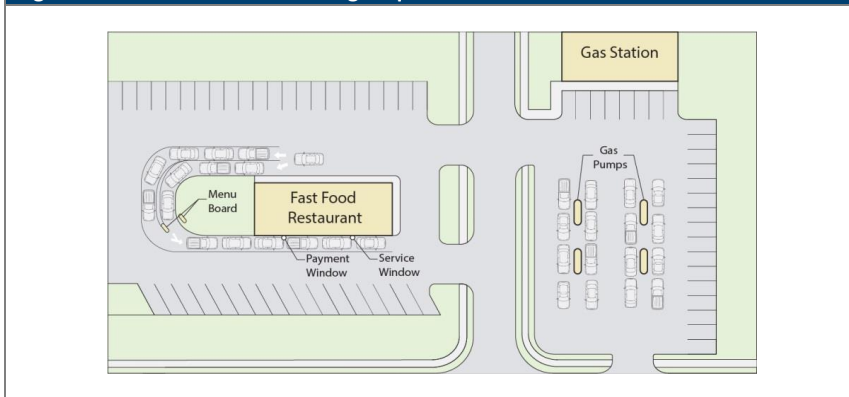
- A. Generally.** In lieu of locating parking spaces required by Division 4-5-2, Parking and Loading Calculations, on the lot that generates the demand for the required parking, parking spaces may be provided on any lot or premises controlled, *i.e.*, by fee-simple ownership, easement interests, lease interests, or participation in a parking district or other joint venture to provide centralized off-street parking, by the owner of the use that generates the parking demand, provided that:
1. The parking spaces are within ~~3200~~ 500 feet of the boundaries of the property generating such parking requirements and no required off-street parking space within said parking lot is more than 500 feet from the property it is serving; and
 2. The parking spaces are not already counted towards the parking requirements of another use after application of Section 4-5-2-4, Shared Parking, Section 4-5-2-5, Parking Credits and Reductions, or Section 4-5-2-6, Parking Studies, as may be applicable.
- B. Exceptions.** Off-site parking is not allowed in:
1. Residential zoning districts, except that manufactured home parks and clustered housing types may utilize centralized parking; and
 2. Locations in which a street with more than two lanes separates the off-site parking area from the subject property.

4-5-3-5 Tandem Parking

- A. Generally.** Tandem parking spaces are counted towards required parking only if they meet the standards of this Section.

- a. Two stacking spaces for each bay in a self-service vehicle wash facility;
 - b. Five stacking spaces for each in-bay or conveyor vehicle wash facility; and
 - c. If the facility provides detailing, manual drying or polishing, and / or vacuuming, sufficient area to provide those services without creating additional demand for stacking at the vehicle wash entrance.
6. **Other Uses.** The determination by the Director of stacking spaces necessary for other uses may require a queuing study conducted by a qualified transportation planner or traffic engineer at the Applicant's expense.
- C. **Design.**
1. Stacking lanes shall be clearly marked, and shall not interfere with on-site or off-site traffic circulation, or access to parking spaces.
 2. Stacking areas shall not be located in the front setback or side street setback ~~unless there is a grade change of at least five feet between the centerline of the street and the stacking area or alternatively, a Bufferyard Option in Division 4-6-5-3 is installed between the stacking lane and the street.~~

Figure 4-5-3-6: Illustrative Stacking Requirements



4-5-3-7 Design and Use of Off-Street Loading Areas

- A. **Generally.** All required off-street loading spaces shall be designed, constructed, and maintained in accordance with the standards and requirements of this Section.
- B. **Location.**
 1. Loading spaces shall be located on the same lot as the building or structure to which they relate.
 2. No loading space shall be located in any front setback area.
 3. Except where alley loading or over-the-curb loading is allowed, loading areas shall be located and designed to ensure adequate on-site maneuvering area for delivery vehicles.
 4. No loading area shall be designed in a manner that would allow any vehicle to extend into any front setback area or adjacent to any residential zone district while being loaded or unloaded.

5. Trucks parked in loading areas shall not encroach into required parking spaces or building setbacks.
6. Parked trucks loading or unloading materials shall not block travel lanes in parking lot or fire lanes.
- C. **Buffering.** Drive-through stacking areas and loading areas, including overhead doors, oriented so to face a residential zone district or a public right-of-way shall be screened from view from all property lines and adjacent streets to the greatest extent possible, as determined by the Director, by the following (For a drive-through stacking area, a fence or wall shall only be used when the area is adjacent to a residential zone district):
 1. By an opaque fence or wall between ~~6~~six feet and ~~8~~eight feet in height that incorporates at least one of the predominant materials and one of the predominant colors used in the principal building. The fence or wall may exceed ~~8~~eight feet in height when there is a difference in grade between the street and loading area to effectively screen the area.
 2. A landscape berm may be used instead or combined with the required fence or wall.
 3. If such areas are covered, then the covering shall include at least one of the predominant exposed roofing colors on the principal building.
- D. **Surfacing.** All required off-street loading spaces and access drives shall be improved with an asphaltic, concrete, or equivalent surface and shall be graded and drained in order to dispose of all surface water accumulation within such areas, as well as any associated parking area.
- E. **Alleys.** All alleys that are used for loading shall meet the City of Arvada Engineering Code of Standards and Specifications.

4-5-3-8 Bicycle Parking Design

- A. **Generally.** The bicycle parking spaces that are required by Section 4-5-2-8, Bicycle Parking, shall be designed according to the standards of this Section. The purpose of these design standards is to ensure that bicycle parking is convenient to bicyclists and provides security from theft and damage.
- B. **Standards.**
 1. **Generally.** Bicycle parking shall be designed to ensure that it is convenient to bicyclists and secured from theft and damage. so that bicycles maybe securely locked and safeguarded from accidental or intentional damage. Bicycle parking shall be provided using bicycle racks that meet the following standards:
 - a. Bicycles parking shall be securely locked and safeguarded from accidental or intentional damage.
 - b. Each required bicycle parking spaces shall be accessible without moving another bicycle.
 - c. There shall be an aisle at least five feet around the perimeter of all bicycle parking areas to allow room for bicycle maneuvering.
 - a. A U-shaped bike rack or variation thereof that allows for the bike to be locked to the rack by the frame and at least one wheel;
 - b. A bicycle that is six feet long can be securely held with its frame supported so that the bicycle cannot be pushed or fall in a manner that will damage the wheel components; and
 - c. The racks are securely anchored to a hard surface.

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- ~~2. Each required bicycle parking spaces shall be accessible without moving another bicycle.~~
~~C. There shall be an aisle at least five feet around the perimeter of all bicycle parking areas to allow room for bicycle maneuvering.~~

~~D-C.~~ **Short-term Bicycle Parking.** Short-term bicycle parking facilities or racks shall accommodate securing a bicycle using an industry-standard bike lock.

1. Short-term bicycle parking spaces shall be located within 50 feet of the main entrance to the building. Where there is more than one main entrance to a building, short-term spaces should be split between building entrances.

2. Bicycle racks shall meet the following standards:

- a. A U-shaped bike rack or variation thereof that allows for the bike to be locked to the rack by the frame and at least one wheel;
- b. A bicycle that is six feet long can be securely held with its frame supported so that the bicycle cannot be pushed or fall in a manner that will damage the wheel components; and
- c. The racks are securely anchored to a hard surface.

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~~2-3.~~ **MX Zoning Districts.** Multifamily ~~R~~residential, mixed-use, and office uses in the MX-N, MX-S MX-U and MX-T zoning districts shall provide bicycle parking in locations that are covered, secure, and illuminated. Such bicycle parking areas shall be maintained by the property owner, a property owners' association, or a metropolitan district.

~~3-4.~~ **OT and CG Zoning Districts.** Multifamily, schools, retail, and office uses in the OT and CG zoning districts shall provide bicycle parking locations that are secure, illuminated and along traveled ways.

~~E-D.~~ **Long-term Bicycle Parking.** Long-term bicycle parking shall be in a secure and weather-protected place ~~to park bicycles~~. Long-term parking does not have to be provided on site; however long-term bicycle parking must be within a reasonable distance of a site in order to encourage bicycle use.

1. Long-term bicycle parking is not required on a site when:
 - a. Non-residential gross building area is less than 5,000 square feet; or
 - b. There are ten or fewer residential units in a development or redevelopment.
2. Long-term bicycle parking, when required, shall be located within 50 feet of a building entrance and be visible from the building entrance. If the location of the bicycle parking is not obvious from the building entrance, signs shall be posted that indicate the location of bicycle parking.

~~2-3.~~ Long-term bicycle parking is require to be covered and shall be at least one of the following: on the site, either in the building or parking garage.

- a. In a locked room;
- b. In a bicycle locker;
- c. U~~Covered bicycle parking may be provided inside buildings,~~ under roof overhangs or awnings;
- ~~a-d.~~ In an area that is enclosed by a fence with a locked gate;
- e. A free standing building;
- f. Within view of an attendant or security guard; or
- g. In an area that is monitored by a security camera.

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~~b.h. , in bicycle lockers, or within or under other structures. When covered bicycle parking is not located within a building or locker, the cover shall be:~~

- ~~i. Designed to protect bicycles from precipitation;~~
- ~~ii. High enough to provide at least ten feet of clearance above the floor or ground; and~~
- ~~iii. Posted with a sign indicating the location of the bicycle parking when not directly visible at a transit facility or main building entrance.~~

~~3. To provide security, a long-term facility bicycle parking shall be in at least one of the following locations:~~

~~a. In a locked room;~~

~~b.i. In an area that is enclosed by a fence with a locked gate;~~

F.E. Surfacing and Clear Area.

1. The surface of bicycle parking spaces shall be of hardscape material such as asphalt, concrete, or other materials approved by the Director.
2. Racks shall be bordered by physical barriers or located a sufficient distance from motor vehicles to prevent damage to parked bicycles.
- ~~3. Racks shall be installed with sufficient clearance from obstructions so that they can be used according to their design.~~
- ~~4. A clear area of three feet minimum shall be maintained on the parking side of the bicycle rack (both sides if the rack is designed and installed to be accessed from both sides). The clear area is measured away from the rack, from the furthest point of the back wheel of a six foot long bicycle parked in the fashion for which the rack is designed.~~

~~G. Location of Bicycle Parking Spaces. Bicycle parking facilities should be located within 50 feet of a building entrance and be visible from the building entrance. If the location of the bicycle parking is not obvious from the building entrance, signs shall be posted that indicate the location of bicycle parking.~~

4-5-3-9 Snow Storage

- A. **Generally.** Parking lots and adjacent or integrated landscaped areas shall be designed and configured so that snow can be efficiently plowed into storage areas on the subject property.
- B. **Standards.** Snow storage areas shall be located and designed so that:
 1. The amount of parking on the site is not reduced below the number of spaces required by Division 4-5-2, Parking and Loading Calculations, when snow is stored on-site;
 2. Storage of snow does not interfere with circulation on the site or with visibility at points of ingress or egress or at street intersections;
 3. The location of the snow storage area does not create an unreasonable risk of snow being pushed into public streets or sidewalks;
 4. The snow storage area is located and configured so that snow can be removed from the site during periods of heavy snowfall that are combined with sub-freezing temperatures; and
 5. Runoff from snowmelt is directed through stormwater best management practices ("BMPs") to slow water and improve its quality.

Division 4-5-4 Use and Maintenance of Parking Areas

4-5-4-1 Use of Parking and Loading Facilities

Adopted May 18, 2020

Amended XXXXXX XX, 2021

ARVADA LAND DEVELOPMENT CODE

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2. During the construction stage of development, the Applicant shall prevent the cleaning of equipment or material or the storage and disposal of waste material such as paints, oils, solvents, asphalt, concrete, motor oil or any other material harmful to the life of a tree within the fenced tree protection zone.
3. No damaging attachment, wires, signs or permits may be fastened to any protected tree.
4. Large property areas containing protected trees and separated from construction or land clearing areas, road rights-of-way and utility easements may be "ribboned off," rather than erecting protective fencing around each tree. This may be accomplished by placing metal t-post stakes a maximum of 50 feet apart and tying ribbon or rope from stake-to-stake along the outside perimeters of such areas being cleared.
5. The installation of utilities, irrigation lines or any underground fixture within the fence tree protection zone shall be accomplished by boring under the root system of protected existing trees at a minimum depth of 24 inches.

Division 4-6-3 General Landscaping Standards

4-6-3-1 Applicability

- A. **Generally.** All new construction, including building expansions that increase the footprint of a building by 25 percent or more, and modification to an existing landscape area shall comply with the standards in this Article.
- B. **Exceptions.** Exceptions to this Article are allowed under the following circumstances:
 1. **Interior Tenant Improvement.** The landscaping requirements of this Article shall not apply to existing structures where interior tenant improvements occur and where there is no addition to the number of parking spaces provided.
 2. **Existing Structures.** Where existing structures are situated so as to preclude the installation of required landscaping, the Director may authorize reductions for the required landscaping.
 3. **Physical Limitations of the Site.** The Director may authorize modifications to landscaping requirements for structure additions or tenant improvements where landscaping requirements are not feasible due to physical limitations of the site. Where the landscaping requirements have been modified, the landscaping shall be relocated in the following manner:
 - a. To another portion of the lot;
 - b. Along a property line; or
 - c. To an area, including a nearby public park or other City-owned property, as determined by the Director upon review with the owner or developer.
 4. **Single-Family Detached and Duplex.** Single-family detached and duplex dwelling unit lots, are exempt from landscaping requirements, provided the initial development of the subdivision contains nine or fewer lots of single-family and/or duplex. Common open spaceCommon landscape areas, bufferyards, water quality/detention basins, or streetscape areas, shall meet the applicable requirements of this Chapter.
- C. **Site Changes.** Townhome, multiplex, multifamily, mixed-use, commercial, and industrial uses that are part of larger project shall be required to submit a site plan for the area that is disturbed that meets the requirements of this Article. The Director may require that a site plan covering the entire project area be submitted.

- D. **Parking lot Reconfiguration.** Modifications to any existing parking lot in an amount greater than 20 percent, or expansions of an existing parking lot by 25 spaces or more shall meet the landscaping requirements of this Article for the area being modified or expanded.

4-6-3-2 General Landscaping Standards

- A. **Landscape Plan Required.** A landscape plan with designated landscaped areas shall be submitted as a part of all development applications where landscaping, buffering, or screening is required, unless the applicable Decision-Making Body determines that compliance with the provisions of this Article can be demonstrated without the use of a landscape plan. Final landscape plans shall be stamped, signed and dated by a State of Colorado Registered Landscape Architect for all projects except residential minor subdivisions as defined in Subsection B.4 above or where the Director determines the scope of the project does not warrant such plans.
- ~~B. **Landscape and Open Space Requirements.** Landscaped areas may count toward satisfying usable open space requirements specified for the MX-N, MX-S, MX-U, MX-T, CG, IL, and IG zoning districts (See Division 2-1-4, Mixed Use Districts, and Division 2-1-6, Commercial and Industrial Districts).~~
- ~~C. B. **Minimum Landscape Area Vegetative Coverage.** Landscaped areas shall be covered with shrubs in combination with lower water consuming ground-level plants, ornamental grasses, or turf for at least 75 percent of the landscape area, at maturity.~~
- ~~D. C. **Detention and Retention Ponds.** Detention and retention ponds shall be physically, functionally and visually integrated into adjacent landscape uses through the use of topography, building and parking lot placement, plantings, permanent water features, recreational or open space amenities, or other methods. Slopes shall not exceed a 4:1 ratio or be flatter than 2 percent.~~
- ~~E. D. **Steep Slopes.** Grading in landscaped areas shall not exceed slopes greater than 6:1 in the amenitized areas portions of Small Urban Parks and 4:1 for all other areas, except that public maintained shrub beds and native grass areas shall not exceed 3:1 slope.~~
- ~~F. E. **Alternative Requirements for Hardscape Features.**~~
1. In mixed-use and nonresidential districts, pedestrian walks and other hardscape landscape features and amenities, such as Small Urban Parks, outdoor seating areas, and plazas with recreation and entertainment areas, water features, and public art, may comprise up to 50 percent of the landscape area.
 2. The Director may approve a greater percentage of hardscape features based on the consideration of the proposed development, mix of uses, and the quality of the proposed landscape design.

Division 4-6-4 Calculation of Landscape Requirements

4-6-4-1 Approved Plant Lists

- A. **Generally.** Only those plants on the approved City's plant list may be used to meet the standards of this Article. Plants that are listed on the City's prohibited plant list shall not be installed, and the City may require their removal as a condition of development approval. Applicants may request that plants that are not listed be included on the approved plant list, and the Director may add them according to the standards in Subsection B.3., below.

1. Within each of the large tree and shrub categories, not more than 30 percent of the trees or evergreens installed on a subject property shall be of a single genus, and not more than 20 percent of the trees or evergreens installed on a subject property shall be of a single species.
 2. A minimum of ten percent of the trees shall be evergreen.
 3. The Director may require biodiversity of street trees that are planted in public rights-of-way in order to serve the purpose of this Section.
- C. **Exceptions.** Exceptions may be made with written permission of the Director upon good cause shown, provided that the Director finds that the exception does not materially undermine the purpose of this Section.

Division 4-6-5 Landscape Areas and Bufferyards

4-6-5-1 Identification of Landscape Areas

- A. **Generally.** This Section sets out several different areas of a subject property in which specific quantities or techniques of landscaping may be required.
- B. **Identification of Landscape Areas in All Development Types.**
1. Bufferyards are areas of a subject property that must be used for buffering the subject property from adjoining lots, parcels, or public rights-of-way. Bufferyards are generally situated along (or close to) property lines, outside of the public right-of-way.
 2. Streetscape areas are areas of a subject property adjacent to right-of-way, or the adjoining right-of-way itself that are used for the planting of street trees and other plant material.
 3. Parking lot landscape areas are those areas within surface parking lots that must be landscaped. Such surface parking areas include access aisles and off-street parking spaces.
 4. Building foundation landscape areas are those areas within 10 feet outward from the exterior walls of principal buildings barring soil restrictions that are identified in the recommendation in a geotechnical report.
 5. Privately-owned open spaces are the areas that qualify as “open space,” and which are subject to an easement or dedication that restricts future development to open space uses.
 6. Residential lot landscape areas are the yards on lots that are intended for individual ownership, or, in the case of common maintenance communities or condominiums, areas around dwelling units that would be located within private lots if the subdivision were platted for fee-simple ownership.

4-6-5-2 Bufferyard Purpose and Applicability

- A. **Purposes of Bufferyards.** A bufferyard is a landscaped area between two differing land uses and is designed to provide a transition between the uses, mitigate or minimize potential nuisances such as noise, light, and glare, protect the character of an area, and protect natural resources from impacts of nearby development.
- B. **Applicability.**
- ~~1. **Uses Requiring a Bufferyard.** The following uses require a bufferyard per 4-6-5-3, Bufferyard Options:~~
 - ~~2. **Where directly adjacent to single-family detached dwelling or duplex dwelling, or a RN zoning district:**~~

- ~~a. Multifamily and other attached residential buildings;~~
 - ~~b. Mixed-use buildings;~~
 - ~~c. Nonresidential buildings;~~
 - ~~d. Drive-through facilities; and~~
 - ~~e. Industrial manufacturing, processing uses, and storage uses in the IL and IG zoning districts.~~
 - ~~f. Where directly adjacent to a multifamily or other attached residential building or a mixed-use building with residential component:~~
 - ~~i. Drive-through facilities; and~~
 - ~~ii. Industrial manufacturing, processing uses, and storage uses in the IL and IG zoning districts.~~
1. **Uses Requiring a Bufferyard.** The following uses require a bufferyard per Section 4-6-5-3, Bufferyard Options, where directly adjacent to a single-family detached dwelling, duplex dwelling or multiplex, or a RN zoning district:
- a. Multifamily and townhomes;
 - b. Mixed-use buildings;
 - c. Non-residential buildings;
 - d. Drive-through facilities;
 - e. Industrial manufacturing and processing uses, and storage uses in the IL and IG zoning districts; and
 - f. Dead-end drives and turnarounds.
2. **Additional Uses Requiring a Bufferyard.** The following uses require a bufferyard per Section 4-6-5-3, Bufferyard Options, where directly adjacent to a multifamily, townhomes, -or other attached residential buildings or a mixed-use building with a residential component:
- a. Drive-through facilities; and
 - b. Industrial manufacturing, processing uses, and storage uses in the IL and IG zoning districts.

4-6-5-3 Bufferyard Options

- A. One of the following bufferyard options shall be installed along any non-street frontage or alley when required by Section 4-6-5-2, Purpose and Applicability, and landscape material shall be from the City's approved plant list to include acceptable buffer trees and shrubs. The options are identified below:
1. **Option A.** A landscaped bufferyard with a minimum width of 30 feet shall be provided along the property line. Canopy shade trees, evergreen trees, and shrubs shall be provided as follows:
 - a. Three trees and 20 shrubs per 100 lineal feet of adjacency. A minimum 20 percent evergreen trees.
 2. **Option B.** A landscaped bufferyard with a minimum width of 20 feet shall be provided along the property line. Canopy shade trees, evergreen trees, and shrubs shall be provided as follows:

2. **Planting Locations.**

- a. Generally, street trees shall be installed in a streetscape area with a minimum width of eight feet between back of curb and sidewalk.
- b. As an alternative to a streetscape area, tree grates or cutouts in sidewalks may be allowed in the MX, and OT zoning districts. Tree cutouts in sidewalks shall be of sufficient size to support healthy tree growth as determined by the Director.
- c. Alternative locations are allowed by approval of the Director according to the standards set out in Subsection A., above.

C. **Setbacks.**

1. The trunks of street trees shall be set back from driveways and alleys outside of the sight triangle.
2. Street trees shall be planted so that:
 - a. Their eventual growth can be reasonably controlled so as to avert interference with or obstruction of any improvements installed for public benefit; and
 - b. Nearby overhead and underground utilities such as water, wastewater, gas, communications, and electrical, will not be disrupted or materially affected by branches or roots.
3. No street trees that are more than 25 feet in height at maturity shall be planted under or within 10 feet (measured horizontally) of any overhead power line, except street light or service lines.

- D. **Maintenance.** Maintenance of street trees shall be the responsibility of the adjacent property owner, unless the Applicant has provided for an alternative perpetual maintenance arrangement that is acceptable to the Director (*e.g.*, via a property owners' association or special district).

4-6-6-2 Street Bufferyards

A. **Street Bufferyards in Setbacks.**

1. In the CG, IL and IG zoning districts, and multifamily in the R13 and R24 zoning districts, the front setback shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas .
2. In the MX and OT zoning districts, if the principal building is set back more than five feet from the property line, then that area shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas. If the building is set back less than five feet, the area shall be hardscaped with paving materials such as concrete, pavers or other quality paving materials, or landscaped with shrubs and ground-level plants. [The remainder of all setbacks shall be landscaped in accordance with Sections 4-6-6-4, Foundation Plantings and 4-6-6-5, General Landscape Areas.](#)

4-6-6-3 Parking Area Landscaping

- A. **Generally.** Surface parking lots shall be landscaped to reduce the apparent size of the parking area; prevent views of long rows of parked cars; create an impression of smaller, connected parking lots; provide shade for parked cars; reduce the heat island effect of an urbanized area; and define pedestrian access ways, according to the standards of this Section.
- B. **Exceptions.**

1. The surface parking lot landscape requirements of this Section do not apply to:
 - a. Parking lots in the IL and IG zoning districts if the subject property is located south of West 60th Avenue and east of or adjacent to Lamar Street; or
 - b. Surface parking lots with 24 or fewer parking spaces and with 12 or fewer parking spaces in a row.
 2. The access point landscape requirements of this Section do not apply to driveways that provide access to individual single-family detached, duplex, multiplex, or townhome lots.
- C. **Perimeter Landscape Buffer.**
1. **Required Perimeter Landscape Buffer.**
 - a. Parking lots adjacent to single-family detached, duplex, multiplex, or townhome uses shall meet the Option C or D bufferyard in Division 4-6-5-3, Bufferyard Options.
 2. **Exceptions.**
 - a. The requirements for perimeter landscaping do not apply at points of ingress or egress to the surface parking lot, or to points of cross-access among properties that share a parking lot.
- D. **Required Surface Parking Lot Landscape Areas.**
1. Landscaping shall be installed in the following required landscape areas:
 - a. Landscape islands are required at the end of each row of parking spaces in each parking module;
 - b. Landscape islands are required and must be distributed throughout the parking lot, at a rate of at least one landscaped island for each 12 consecutive parking spaces;
 - c. Vegetated entry medians are required with a minimum of at least 300 square feet in surface area and a minimum five feet in width (not including curbs), if the surface parking lot contains 180 or more parking spaces;
 - d. Landscape strips are required at least 12-14 feet in width (not including curbs) that separate groups of parking modules (along their long edges) into “cells” as provided in Table 4-6-6-3, Parking Module Separation Requirements.

Figure 4-6-6-3: Parking Module Separation Diagram

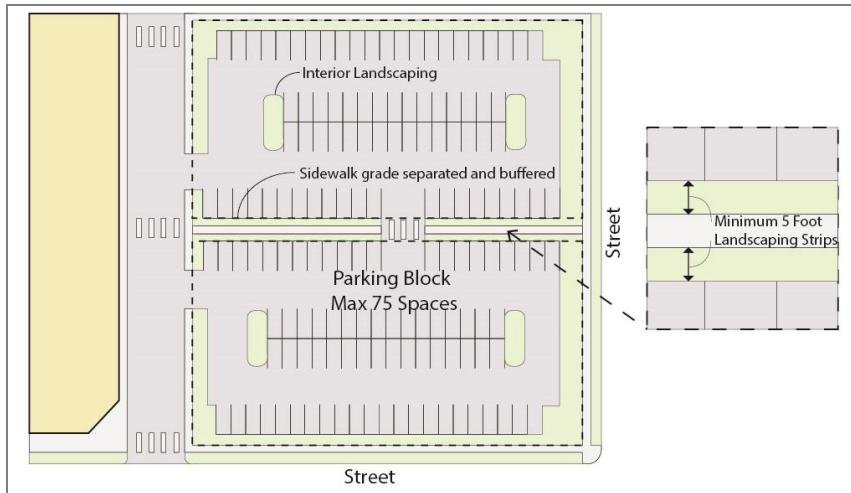


Table 4-6-6-3: Parking Module Separation Requirements

Predominant Type of Land Use	Maximum Number of Parking Spaces in Cell
Residential	50
Nonresidential (except Industrial)	75
Industrial	100 if the parking area is located within 300 feet of a public street; otherwise, no maximum

2. Landscape islands that are used to meet the requirements of Subsection D.1.a. and D.1.b., above, shall be at least eight feet in width (not including curbs) and 16 feet in length, and may be combined (eight feet in width by 32 feet in length) at the ends of adjacent parking modules.
3. Landscape strips may include sidewalks (and landscape islands may be crossed by sidewalks), but the sidewalks shall be counted as required landscape areas for the purposes of the calculation of planting requirements (see Subsection E., below).
4. A raised sidewalk to connect the parking area with major building entries should be provided between the cells with a five foot planting strip on both sides of the sidewalk. An alternative layout is a sidewalk connection with a central five foot wide landscaped area, flanked with sidewalks on both sides.

- E. **Minimum Planting Requirements.** Required surface parking lot landscape areas shall be planted with one shade tree or two ornamental trees, plus eight shrubs per 300 square feet of required landscape area.

4-6-6-4 Foundation Plantings

- A. **Generally.** The foundation planting area is the area of ground that extends 10 feet outward from street-facing principal building elevations, and wrapping five feet around the corners of street-facing principal building elevations. The foundation planting area does not extend into adjacent rights-of-way. Foundation plantings are required for all principal buildings as provided in this Section, except as provided in Subsection B., below.

B. **Exceptions.** Foundation plantings are not required:

1. For principal buildings used for:
 - a. Multi-tenant nonresidential buildings that are designed with an adjacent sidewalk that provides principal public access to the individual tenant entrances;
 - b. Land uses set out in Section 3-1-2-10, Agricultural Land Use by Zoning District.
2. On lots that are developed with single-family, duplex, multiplex, clustered small housing types, and manufactured homes.
3. For principal buildings located less than five feet from the property line.

C. **Planting Requirements.**

1. Foundation planting areas shall be planted with 1 shrub per 5 linear feet of building façade.
2. Foundation plantings shall be used to accent the principal public entry to the building. Foundation plantings may be clustered for this purpose, and to provide interest and accent to other parts of the building, or to provide a foreground object to mitigate the appearance of building mass.
3. Foundation planting areas may include areas with impervious surfaces; however, the area within the foundation planting area that is used for the installation of required landscape materials shall be large enough to support the healthy growth of the plant material.

4-6-6-5 General Landscape Areas

- A. **Generally.** Except as provided in Subsection B., below, the landscaping requirements of this Section apply to all permeable areas of the subject property that are not otherwise a designated required planting area pursuant to Division 4-6-5, Landscape Areas and Bufferyards or Section 4-6-6-1, Street Trees, through Section 4-6-6-4, Foundation Plantings, inclusive.
- B. **Exceptions.** The requirements of this Section do not apply to:
 1. Preserved open space; and
 2. Irrigation canals, irrigation ditches, reservoirs, and appurtenant maintenance areas (whether owned in fee simple or as easements).
- C. **Planting Requirements.** General landscape areas shall be planted with at least:
 1. One ~~large-canopy or evergreen~~ tree, or two ornamental trees per ~~23,000~~ square feet of ~~permeable-landscape surface~~ area;
 2. A minimum of One small tree or one evergreen per 1,500 square feet of permeable area ~~10 percent of all trees shall be evergreen~~; and
 3. 75 percent vegetative ground coverage at maturity, excluding tree canopy.
- D. **Shrub Requirements.** Shrubs shall be planted at a maximum spacing of five feet on center.
- E. **Planting on Steeper Slopes.** On slopes greater than 3:1, the following can be planted:
 1. Trees and shrubs; and
 2. Groundcovers.

4-6-6-6 Single-Family Detached, Duplex, Multiplex, and Townhome Front Yards

Prior to the issuance of a certificate of occupancy, single family, duplex, multiplex, and townhome dwelling units shall be landscaped as follows:

Figure 4-7-2-1A: Fence and Division Wall Location Diagram

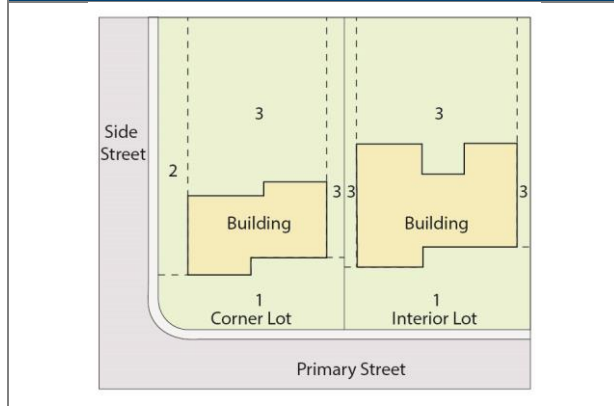


Table 4-7-2-1 : Maximum Height of Fences and Divisional Walls Within Required Setback Areas

Zoning District	Setback		
	Area 1 Front	Area 2 Street Side	Area 3 Rear & Interior Side
OS, RA, RN, R6, R13, R24, MX-N	3 ft. ²	3 ft. ^{2,3,4}	6 ft. ^{4,9}
MX-S, CG	3 ft. ²	3 ft. ^{2,5}	6 ft.
MX-U, MX-T	3 ft. ²	3 ft. ^{2,5}	6 ft.
OT Zoning Districts	3 ft. ^{5,6,7,8}	3 ft. ^{5,6,7,8}	3 ft. ⁸
IL	6 ft.	6 ft.	6 ft.
IG	6 ft.	8 ft.	8 ft.
<u>PUD</u>	<u>Per the approved PUD. If no standards were identified as part of the approved PUD, then the fence standards for the closest zoning district shall be utilized.</u>		

TABLE NOTES:

¹ See Figure 4-7-2-1A, Fence and Divisional Wall Location Diagram.

² Height may be increased to 4 ft. if the fence is at least 50 percent transparent when viewed at a perpendicular angle.

³ Height may be increased to 6 ft. (regardless of opacity) if the fence is set back at least 6 ft. from the property line or 6 ft. from the back of adjacent sidewalk, whichever is greater.

⁴ Height may be increased to 8 ft. for divisional walls that face arterial streets.

⁵ Height may be increased to 6 ft. if a minimum of 50% open for school yards.

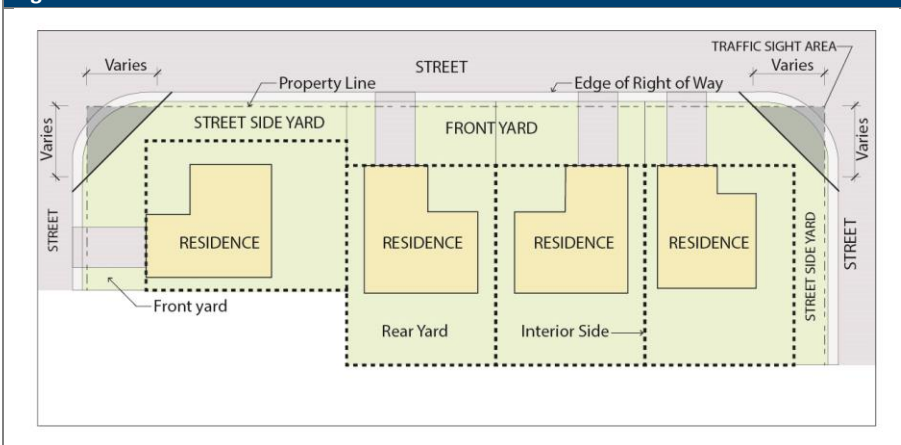
⁶ Height may be increased to 4 ft. if a minimum of 50% open for single-family, duplex or multiplex building types.

⁷ Height may be increased to 4 ft. if a minimum of 50% open for mixed-use building type outdoor dining areas.

⁸ Height may be increased to 6 ft. except within any McIlvoy Park Frontage zone or any side or rear setback adjacent to McIlvoy Park or Olde Town Plaza, or where it would extend in front of a building within any frontage zone.

⁹ Maximum height is 6 ft. for rear yards on double frontage lots.

Figure 4-7-2-1B: General Fence Location



E. Setbacks from Streets, Sidewalks, Open Space, Trails, and Multi-Use Pathways.

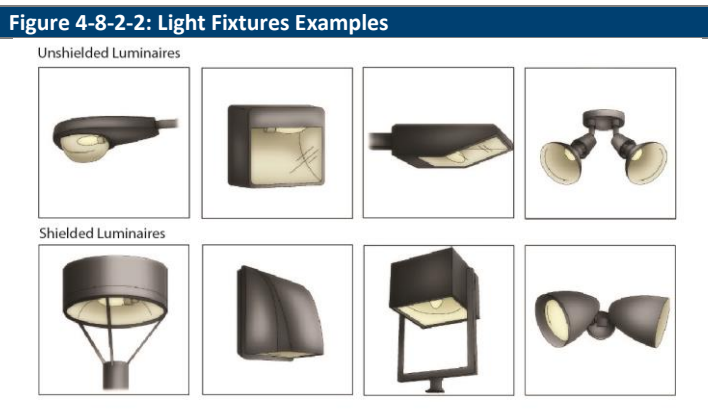
1. No solid fence or divisional wall that is between four and eight feet in height shall be installed closer than:
 - a. Eight feet from the flowline of a street; and
 - b. Five feet to the nearest edge of a sidewalk, open space corridor less than 15 feet wide, trail, or multi-use pathway.
2. No solid fence or divisional wall that is more than eight feet in height shall be installed closer than:
 - a. Ten feet from the flowline of a street; and
 - b. Eight feet to the nearest edge of a sidewalk, open space corridor less than 15 feet wide, trail, or multi-use pathway.
3. Fences that exist in the condition identified in Subsection E1 and E2 above prior to the adoption of this Code shall be considered conforming.
4. The area between the fence or divisional wall and the street, sidewalk, trail, or multi-use pathway shall be landscaped with shrubs, groundcover, perennials, ornamental grasses, or turf materials that provide contrast with the sidewalk. Inorganic ground cover such as river rock, cobble rock, or gravel may be used as part of the landscape provided that the ground cover, ornamental grasses or turf which are planted achieve 50 percent coverage at maturity. Hardscape materials are allowed only at points of access through the fence or divisional wall.
5. Fences shall comply with the sight triangle requirements of Section 4-4-3-3, Intersection Visibility.

F. Design of Street-Facing Fences or Divisional Walls.

1. All fences or divisional walls adjacent to a street, open space, trails, and multi-use pathways, the finished surface of the fence shall face towards the street frontage. Non-decorative elements such as fence posts and supporting structures, when visible on one side and not the other, shall face inward.
 2. No portion of any front yard setback may be fenced for use as an animal pen or dog run.
- G. **Perimeter Fence and Walls.** Perimeter fences and walls along arterial streets or railroad tracks may be constructed up to eight feet in height. Perimeter fencing shall be constructed of Western Red Cedar wood or other material approved by the Director, or masonry. Masonry fence posts two foot by two foot in size, shall be located at property corners but no further than 100 feet apart on-center, and with sloped column caps to drain water to the sides of the posts.
- H. **Security Fencing.**
1. No barbed wire or other sharp-pointed fences or similar security devices on divisional walls shall be installed on any property, except:
 - a. In the IL or IG zoning districts that is used for industrial purposes, upon demonstration to the Director or the Decision Making Body that a substantial security need justifies the installation; or
 - b. In the RA or OS zoning districts on property that is used for agricultural purposes.
 2. Electrically charged fences are not allowed unless necessary for livestock control in an RA zoning district.
- I. **Relationship to State Statutes or Regulations.**
1. Where the Colorado statutes or implementing administrative regulations require fencing or divisional walls that are taller than those that are allowed by Table ~~2-3-6-24-7-2-1~~, Maximum Height of Fences and ~~Garden~~Divisional Walls ~~w~~Within Required Setback Areas, the Director may approve the increased fence or divisional wall height in accordance with the statutes or implementing administrative regulations.
 2. If the fence or divisional wall is located within Area 1 or Area 2 as shown in Figure ~~2-3-6-24-7-2-1A~~, Fence and Divisional Wall Location Diagram, then where feasible and consistent with the statute or regulation, the Director shall require landscaping or design treatments to mitigate the visual impacts of the increased height of the fence or garden wall when viewed from the public streets. Mitigation measures may include, but are not limited to, tree, shrub, or hedge plantings; material and color selections that de-emphasize the fence or garden wall; transparency; and additional setbacks for the fence or divisional wall.
- J. **Fence and Wall Materials.**
1. Fences and divisional walls shall be made of high quality, durable materials that require low maintenance and are complementary with the overall design of the principal building and site landscape. The following materials are allowed:
 - a. Wood and composite wood;
 - b. Non-reflective plastic and vinyl fencing;
 - c. Natural stone, stacked stone, brick, stucco, decorative concrete masonry blocks that replicate the appearance of brick, stone, stucco and CMUs;
 - d. Metal iron, metal picket and other metals simulating the appearance of wrought iron, chain-link fencing or aluminum or wrought iron decorative fencing;

4-8-2-2 General Design Standards

- A. **Shielding of Lights.** Luminaires shall be shielded and directed to avoid glare and overspill onto adjacent property.
1. All exterior light fixtures shall be full cutoff fixtures that are directed downward (90 degrees from true vertical) and shall have flat lenses, emitting no more than 10 percent of the total lumens between 80 and 90 degrees from true vertical. Fixtures shall be configured so that lights do not cause glare.
 2. All light fixtures on structures, poles, bollards, stands, or mounted on a building shall have a shield, adjustable reflector, and/or non-protruding diffuser to shield the light source from sight from adjacent residential zoning districts.



- B. **Maximum Spill Light Illumination Levels.** Except for public street lighting, all exterior lighting and indoor lighting visible from outside shall be designed to minimize adverse impacts on adjacent properties by minimizing glare and limiting light at the property line and located so that the maximum illumination measured in foot_candles at ground level and for mixed-use development without property lines shall be measured a line half-way between buildings of differing uses and shall not exceed the standards in Table 4-8-2-2A, Maximum Illumination Levels.

Table 4-8-2-2A: Maximum Spill Light Illumination Levels at Property Line

Type of Use Abutting a Lot Line	Maximum Illumination level at Lot Line (Foot Candles)
Single-family dwelling and duplex residential property line in RA, RN, R6, R13, R24, OT districts (-single-family, duplex, multiplex building types), and OS	0.50 <u>0.3</u>
Attached dwelling and multifamily residential property line (except mixed-use buildings <u>dwelling</u>)	1.00 <u>0.8</u>

Table 4-8-2-2A: Maximum Spill Light Illumination Levels at Property Line

Type of Use Abutting a Lot Line	Maximum Illumination level at Lot Line (Foot Candles)
Mixed-use buildings and non-residential property lines	2-01.0
Industrial	3-01.5

1. Maximum Illumination and Lighting Uniformity.

- a. Lighting of pedestrian and vehicular use areas (e.g., parking lots, plazas, and sidewalks) shall have a uniformity ratio of three ten to one (maximum to minimum).

- b. No single lamp shall exceed:

i. All zone districts except ILG and IGL – 16,000 lumens

ii. IL and IG zone districts - 20,000 lumens.

2. Maximum Light Levels.

- a. The maximum allowed light levels at any point on the property (as measured in foot candles) shall not exceed the following limits:

Pedestrian areas (when not adjacent to parking lots) 3 Foot Candles

Multiplex, Townhome, and Multifamily Building Entries 8 Foot Candles

Parking lots, and all other non-residential use areas 8 Foot Candles

Service Canopies (fuel stations, ATMs, Drive-Thru's, etc.) 20 Foot Candles

- c. **Maximum Height.** The height of exterior light fixtures, whether mounted on poles, walls, or by other means, shall comply with the standards in Table 4-8-2-2B, Maximum Height for Exterior Lighting.

Table 4-8-2-2B: Maximum Height for Exterior Lighting

Base Zoning District	Maximum Height ¹
OS, RA, RN, R6, R13, R24, OT, MX-N, MX-S	22 feet
CG, MX-U, MX-T, IL, IG	35 feet

TABLE NOTES:

¹ Porch and balcony lights on residential buildings are exempt from the maximum height. Lighting allowed no more than 12 ft. above the surface of a rooftop deck.

D. Motion-Activated Security Lighting.

1. Motion-activated security lighting may emit up to 3,000 lumens per fixture.
2. Not more than one motion-activated security light fixture is allowed per 60 linear feet of building elevation.
3. Security lighting shall be timed to turn off after not more than five minutes after motion activation.

- E. **Outdoor Sports or Performance Venue.** Lighting fixtures for outdoor sports areas, athletic fields, and performance areas shall be equipped with a glare control package (e.g., louvers,

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shields, or similar devices) and aimed so that their beams are directed and fall within the primary playing or performance area.

1. Lighting fixtures may not be more than 40 feet in height.

~~F. Parking Lot Lighting.~~

- ~~1. Maintained average horizontal illuminance values in parking lots during times when the parking lot is in use shall not exceed four foot candles.~~
- ~~2. The average horizontal illuminance within the parking area shall not exceed 3.5 foot candles when the associated business(es) is closed.~~

G.F. Pedestrian Area Lighting.

1. **Pole** Light fixtures for plazas, small urban parks, sidewalks, walkways, trails, and bicycle paths outside of vehicular surface areas (i.e., parking lots) shall:
 - a. Provide at least 1.5 foot candles of illumination, but not exceed three foot candles; and
 - b. Have a maximum height of 15 feet.
 - c. No single lamp shall exceed 10,000 lumens.
2. Pedestrian bollard lamps shall be mounted no higher than four feet above grade and shall not exceed 3 foot candles.
 - a. No single lamp shall exceed 900 lumens. for any single lamp.

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H.G. Wall Pack Lights. Wall packs on the exterior of the building shall be fully shielded (e.g., true cut-off type bulb or light source not visible from off-site) to direct the light vertically downward and have a maximum of 1600 lumens.

I.H. Awnings. Awnings used for building accents over doors and windows shall not be internally illuminated (i.e., from underneath or behind the awning) unless the awning material is entirely opaque.

J. Service Canopy Lighting. Canopy lighting for uses that shelter outside work, full-service areas or porte-cocheres shall have all light fixtures flushed mounted or recessed into the canopy and equipped with flat lenses.

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1. All light fixtures flushed mounted or recessed into the canopy and equipped with flat lenses; and
2. A light distribution that does not exceed a 10:1 ratio between the average light levels under the canopy and the average light levels of the area outside the canopy.

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K.I. Decorative Lighting.

1. Decorative lighting shall be permitted to enhance the appearance of a building and / or landscape feature provided that:
 - a. All light is cast against the building surface or downward onto a landscape feature;
 - b. All decorative lighting is directed away from residential uses located within 50 feet of the building façade on which the decorative lighting is mounted and is shielded to reduce light trespass on adjacent uses;
 - c. The lamp is not visible from adjacent properties, pedestrian or vehicular traffic; and
 - d. The decorative lighting does not exceed 1600 lumens.
2. Unshielded Tivoli and patio string lighting with no more than 200 lumens per foot provided that the lighting is turned off between 11:00 PM and 6:00 AM.

L. Pole and Fixture Color.

1. All poles and fixtures (luminaires) shall be of dark colors including, but not limited to, black, dark gray, dark green or brown. Reflective or light colored poles and fixtures are not allowed.

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4-8-2-3 Single-Family Detached, Duplex, and Multiplex Lighting Standards

- A. **Generally.** Exterior lighting on single-family detached, duplex, and multiplex uses shall conform to the requirements of this section.
- B. **Exterior Fixture Type and Configuration.** Fixtures shall emit no more than 850 lumens.

5-1-2-2 Evaluation of Aesthetic Consistency

- A. **Generally.** Where the standards of ~~this Division~~, Division 5-1-5, Supplemental Standards for Residential Land Uses (Except Multifamily), or Division 5-1-6, Supplemental Standards for Nonresidential and Multifamily Land Uses, require aesthetic consistency, aesthetic consistency shall be evaluated in accordance with the standards of this Section.
- B. **Roof Pitch and Form.** As to roof pitch, “consistency” means a roof pitch within 1:12 of the slope of the primary roof structure of the principal building.
- C. **Roofing or Cladding Materials.** As to roofing and cladding materials, “consistency” means a material that is not obviously different in terms of texture or color from a material used for the same purpose on the principal building.
- D. **Window Styles, Window Orientation, and Doors.** As to window styles, window orientation, and doors, “consistency” means windows or doors with a design and aspect ratio that is not materially different from windows or doors on the principal building.
- E. **Color Palette.** As to color palette, “consistency” means colors that are:
 - 1. The same as the principal building;
 - 2. Complimentary to the predominate color(s) of the principal building;
 - 3. Monochromatic variants of the primary color(s) of the principal building;

5-1-2-3 General Building Design Standards

- A. **Building Orientation.** ~~All~~Primary buildings shall emphasize the location and importance of the entryways.
 - 1. The main entrance or a courtyard leading to the main entrance of each principal building shall be located on the front facade.
 - 2. On corner lots, the main entrance shall face one of the streets or be oriented to the corner.
- B. **Massing.** Primary ~~Bb~~ buildings shall be designed to avoid a monolithic appearance when viewed from the street.
- C. **Facade Materials and Design.**
 - 1. **General Requirements.**
 - a. All building exterior finish materials shall be durable and consistent with the architectural style for that building.
 - b. Where lap siding is used, it shall have a maximum nine-inch exposed board face.
 - c. Siding material shall be continued down to within nine inches of finished grade on any elevation, except that siding shall be allowed to step to follow grade:
 - i. Between six to 24 inches; or
 - ii. Within 24 inches maximum from finished grade.
 - ~~iii. d. Vinyl siding shall be a VSI (Vinyl Siding Institute) certified product.~~
 - 2. **Prohibited Materials.** The following materials are prohibited:
 - a. Highly reflective opaque materials;
 - b. Natural cinder block, unfinished or smooth concrete block / masonry units or concrete wall;
 - c. Metal panels with a corrugated appearance with exposed fasteners; and
 - ~~d. Vinyl siding.~~

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- e. Unlisted materials that are unsuitable for exterior building applications as determined by the Director.
- 3. **Other Materials.** The Director may permit materials that are not listed in this Section as either allowed or limited, provided that the Director finds that they have comparable aesthetic qualities, durability, and maintenance characteristics. The Director may prohibit materials that are not listed in this Section if the Director finds that they do not have aesthetic qualities, durability, and maintenance characteristics that are comparable to the materials that are allowed or limited under this Section.
- 4. **Side and Rear Facade Design.** Where a side or rear facade of a residential building abuts streets, parks, or open spaces, the facade shall be designed to provide human scale by the use of all of the following:
 - a. At least one change in the vertical or horizontal wall plane within 20 feet above grade;
 - b. At least one change in the color or material of the wall;
 - c. Provision of windows, a porch, or a balcony; and
 - d. Detailing the wall with reveals, belt courses, cornices, projections, or other devices.
- 5. **Rear Facade Design for Double-Frontage Lots.**
 - a. Double-frontage lots shall be required to meet the standards in Section 2-1-10-5, Double-Frontage Lots, for building setbacks or stepped setbacks for taller buildings.
 - b. Structures of two stories or more shall incorporate at least one of the following rear elevation treatments:
 - i. The building façade on the rear elevation shall have brick, stone, or stucco cladding in a minimum amount equivalent to 50 percent of the façade, (excluding windows, doors, trim and vents) from the average grade to the highest eave or 9'-6" above the average grade, whichever is lowest; or
 - ii. At least 50 percent of the area of the building facade shall have a minimum four-foot horizontal difference (plan view) in the rear wall plane at the height of one of the floors.
- 6. **360-Degree Architecture.** All buildings shall incorporate the following design standards to create architectural interest.
 - a. **Materials.**
 - i. Where brick, stone, or stucco cladding is used, they must be applied to the building facade in a manner which begins and ends at edges related to the structure of the building (such as a window sill level, floor plane lines, or interior corners of projection or similar elements). All brick, stone or stucco cladding shall wrap around all outside building corners a minimum of two feet, and must wrap all sides of a column on which it is used. An architectural treatment shall be used to transition from brick, stone, or stucco to other materials.
 - b. **Windows and Doors.**
 - i. Windows are requiredencouraged on all elevations, except as provided in Division 2-1-8-5, Zero Lot Line, and unless restricted by the Building Code. On facades facing streets, parks, or open space, a minimum of 20 percent of the façade shall be windows. A greater percentage of windows may be required by other sections of this Code.

- b. Side-loaded garages shall be located at a right angle to the street. The design of the garage wall facing the street shall have the same predominate materials used on the front façade.
 - c. Rear garages shall be located to the rear of the property either as a detached structure or part of the house. If constructed as part of the house, the part of the house, the front wall of the garage shall be setback at least 15 feet behind the front façade of the house.
2. Front loading, front-facing garages s. doors shall not constitute more than 50 percent of the total width of the building.
 3. No more than three garage bays shall face the street, except when the bays are located behind the principal buildings.
 4. When more than two garage bays exist, all garages doors that face a street shall include at least one two-foot-wide column or a two-foot façade setback separating each garage door.

5-1-2-5 Building Design Standards Applicable to Townhomes and Multifamily

- A. **Generally.** In addition to Section 5-1-2-3, General Building Design Standards, the following standards shall apply to new development or redevelopment of multifamily and townhome units in all zoning districts.
- B. **Building Orientation and Configuration.**
 1. **Single-Building Development.** The primary entrance of a single-building development shall face the street.
 2. **Multi-Building Development.** All buildings shall be configured so that principal building entrance are oriented towards one of the following, in order of priority:
 - a. Public streets;
 - b. Internal streets;
 - c. Courtyards; or
 - d. Open space areas.
- C. **Building Design.**
 1. All sides of a building shall display a similar level of quality and architectural detailing as on the front elevation.
 2. There shall be no blank walls. Façades shall incorporate wall offsets, in the form of projections or recesses in the façade plane of at least a two-foot depth.
 3. For projects with more than one building, a variety of front façade elevations shall be provided.
- D. **Horizontal and Vertical Articulation.**
 1. **General Standards.** All multifamily buildings shall be designed to include horizontal and vertical articulation with at least two of the methods listed below for each interval of 50 feet or less on each street-facing building façade.
 2. **Articulation Methods.**
 - a. Visual breaks in the façade by incorporating a horizontal wall plane offset or projection of at least three feet extending for at least 20 percent of the average width of the primary façade.
 - b. A change in materials, colors, textures, or patterns.
 - c. A change in window sizes, styles, or placement across the façade.

- a. Frame and emphasize the corners of street intersections, development entry, or a primary pedestrian street within the development;
 - b. Frame and enclose parking areas on at least two sides;
 - c. Frame and emphasize a plaza, pocket park, square, or other outdoor gathering spaces for pedestrians; and / or
 - d. Frame and emphasize other site improvements as approved by the Director.
2. Developments composed of multiple buildings totaling 100,000 square feet or more of gross floor area shall be configured to break up the site into a series of smaller blocks.
- E. **Building Design.** The following building design standards are intended to provide architectural interest.
- 1. **Design of Facades.**
 - a. The first floor façade of all buildings, including structured parking facilities, shall be designed to encourage and complement pedestrian-scale interest and activity through the use of elements such as windows, awnings, and other similar features.
 - b. Architectural features and treatments shall not be limited to a single façade. All visible sides of a building, whether viewed from public or private property, shall display a similar level of quality and architectural interest, with elements such as windows, awnings, a variety of exterior materials, reveals, and other similar features.
 - 2. **Horizontal and Vertical Articulation.**
 - a. **General Standards.** All buildings shall be designed to include horizontal and vertical articulation by incorporating the following ~~elements-such-as:~~
 - i. Single story commercial buildings shall use at least three of the horizontal articulation methods listed below at an interval of 50 feet or less on each façade.
 - ii. Single story industrial buildings shall use at least two of the horizontal articulation methods listed below at an interval of 100 feet or less on each.
 - iii. All multi-story commercial, mixed-use, ~~and~~ multifamily ~~buildings~~, and industrial buildings in the I-L zoning district, shall use at least two of the ~~horizontal~~ articulation methods listed below at an interval of 50 feet or less on each street-facing building façade.
 - b. **Articulation Methods.**
 - i. Visual breaks in the façade by incorporating a horizontal wall plane offset or projection of at least three feet extending for at least 20 percent of the average width of the primary façade.
 - ii. A change in materials, colors, textures, or pattern.
 - iii. A change in window sizes, styles, or placement across the façade.
 - iv. A change in roof or parapet height of at least three feet, or a change in roof form.
 - v. Incorporation of a wall notch in combination with at least one option from (i.-iv.) above. Wall notches shall be a minimum of three feet deep and eight feet wide and shall total at least 20 percent of the façade length.
 - vi. Use of masonry such as brick or stone, or other durable material to delineate the ground floor.
 - vii. Use of an arcade, gallery or colonnade to accentuate the ground floor.
 - viii. Use of enhanced architectural detailing or fenestration.

ix. Use of cornices or projecting roof lines.

~~ix.~~ For multi-story buildings, the horizontal interval may exceed 50 feet if building material changes and/or articulation occur above the first floor.

Figure 5-2-1-6: Horizontal and Vertical Articulation



- F. **Building Transparency.** The entire ground floor of all buildings located within thea required building frontage zone that faces a public or private street shall provide transparency to increase pedestrian interest by incorporating window and door openings so that the uses are visible from and to the street. The following shall apply:
1. At least 40 percent of the façade between two feet and 10 feet above grade, must be transparent.
 2. Up to 20 percent of the building transparency requirement may be satisfied with permanent art displays.
- G. **Roofs Materials and Roof Form.**
1. **Roof Materials.** Visible roofs may be constructed of conventional asphalt (3-tab) roofs, architectural metal, or other acceptable material, but roofs constructed of clay or concrete tiles, slate, Masonite, or heavy duty/hail resistant dimensional composition are preferred. All composition shingle roofing shall be constructed using high profile, textured shingles.
 2. **Roof Form.**
 - a. Where sloped roofs are used, at least one of the following elements shall be incorporated into the design for each 100 linear feet of roof to avoid long, flat roof surfaces:
 - i. Projecting gables,
 - ii. Dormers,
 - iii. Hips,
 - iv. Vertical elevation change in roof height of at least two feet, or
 - v. Other similar techniques as approved by the Director.
 - b. Where flat roofs are used, the design or height of the parapet shall include at least one change in setback or height of at least two feet along each 100 linear feet of façade.
 - c. On all structures exceeding three stories in height, all pitched roofs shall be internally drained, and external scuppers and wall drains shall be prohibited.

5-1-4-2 Swimming Pools, Hot Tubs, and Spas

- A. **Generally.** Outdoor swimming pools, hot tubs, and spas shall comply with the standards of this Section.
- B. **Location and Setbacks.**
 - 1. No swimming pools, hot tubs, or spas shall be located in a front yard or street side yard setback area.
 - 2. Swimming pools, hot tubs, and spas shall be set back ten feet from property lines.
- C. **Enclosure.** All swimming pools, hot tubs, and spas shall be enclosed as required by Section 303 of the International Property Maintenance Code ("IPMC"). Such enclosures shall be set back from property lines as may be required by Article 4-7, Fences and Divisional Walls.

5-1-4-3 Mini-Structures

"Mini-Structures," including small sheds, playhouses and gazebos, are allowed as provided in Table 5-1-4-3, Mini-Structure Standards.

Table 5-1-4-3: Mini-Structure Standards		
Attribute	Standard	Exception
Size (max)	200 sf.	
Height (max)	12 ft.	Tree Houses
Number of Mini-Structures	Maximum 2	Not limited for the following land uses: Amusement, Outdoor; Recreation, Outdoor; Stables and Riding Academies; Cemetery; Day Care Center; Public Lands, Parks, or Buildings; Schools (all); Storage Yard; Community Agriculture
Location of Mini-Structures	Not allowed in front yard; Not attached to principal building	Allowed in the front yard for Recreation, Outdoor; Cemetery; Public Lands, Parks, or Buildings; Schools (all); Storage Yard; Community Agriculture
Design	Roofed structures shall be compatible with principal building in terms of materials and colors	-
Use	Cannot be used for vehicle storage	-

5-1-4-4 Renewable Energy Systems

- A. **Generally.** Renewable Energy Systems shall comply with the applicable standards of this Section.
 - 1. **Photovoltaic Arrays and Solar Water Heaters.**
 - a. Photovoltaic arrays and solar water heaters may be roof-mounted on buildings and roofed structures in all zoning districts, or installed on building facades.
 - b. Ground-mounted photovoltaic arrays and solar water heaters shall conform to the following standards:
 - i. The installation shall be in a location and configuration that prevents glare that interferes with the use and enjoyment of adjacent property.
 - ii. If the highest point on the panels is more than six feet above grade, the panels shall be set back as if they were detached accessory buildings.

- B. **Conformance to Development Standards.** ADUs must meet the same development standards that are required for the principal dwelling unit, except as provided in this Section.
- C. **Classification of ADUs.** For the purposes of this LDC, ADUs are classified as follows:
1. **Type A.** A Type A ADU is detached from the principal dwelling unit. It is considered a separate dwelling unit for the purposes of the Building Code.
 2. **Type B.** A Type B ADU is located inside in basements, the upper story, or attached to the principal single-family detached building, but the occupants of the ADU and principal dwelling unit do not live together as a single household unit. A Type B ADU is typically rented. Type B ADUs typically have a separate access from the principal dwelling unit. A Type B ADU and the principal dwelling unit into which it is integrated are considered separate dwelling units for the purposes of the Building Code.
- D. **Parking.**
1. One on-site parking space shall be required for an ADU, in addition to any required parking for the principal dwelling unit.
 2. The required parking space may be in tandem with other required spaces.
 3. Garage space that is constructed for use by the occupant(s) of the ADU shall not exceed 250 square feet.
- E. **Unit Size and Configuration.**
1. Except as provided in Subsection E.2., below, ADUs shall be:
 - a. No larger than 40 percent of the living space of the principal building; and
 - b. Within the lot size and floor area ranges set out in Table 5-1-5-2, Maximum Floor Area of Accessory Dwelling Unit.

Table 5-1-5-2: Maximum Floor Area of Accessory Dwelling Unit	
Lot Size	Maximum Floor Area
6,000 sf. or less	600 sf.
Greater than 6,000 sf. and up to 12,499 sf.	850 sf.
12,500 sf. to 1 acre	1,000 sf.
Greater than 1 acre	1,200 sf.

2. The limitations of Subsection E.1., above, shall not apply to ADUs that are located within the footprint of an existing home as long as the ADU is not larger than 50 percent of the floor area of the principal dwelling unit, including the basement. For example, if a home has a 1,000 square foot basement, an ADU could be established in the basement if the rest of the principal dwelling is at least 1,000 square feet.
3. ADUs shall be designed and configured as studio, one bedroom, or two bedroom units.

F. Location. Type A ADUs shall be located as follows;

1. **For interior lots, at or behind the front plane of the primary building.**
2. On corner lots, ~~Type A ADUs shall be set back~~ ten feet behind the facade of the principal building along both street frontages.

G. Number of Accessory Dwelling Units per Lot. Only one ADU is allowed for each residential lot.

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5. The above restrictions are binding upon any successor in ownership of the property;
 6. The deed restrictions shall lapse upon removal of the ADU. To effect this intent, and upon verification of such removal, the Director shall record appropriate documentation releasing such encumbrance. The property owner shall pay all required recording fees, and it shall be the Applicant's responsibility to ensure that such recording was successfully completed.
- M. **Existing Development on Lot.** A single-family detached dwelling unit must exist as a principal dwelling unit on the lot or be constructed simultaneously with the ADU. A certificate of occupancy will only be issued for an ADU after it has been issued for the principal dwelling unit.

5-1-5-3 Accessory Buildings

A. **Generally.**

1. Storage sheds, studios, cabanas, stables, loafing sheds, barns, and detached garages requiring a building permit shall comply with the standards of this Section. Accessory dwelling units are subject to Section 5-1-5-2, Accessory Dwelling Units, and not this Section.
2. Stables, loafing sheds, and barns are allowed only in RA and RN-32.5 zoning districts.
3. Except for barns and stables, each Accessory Building shall have a square footage area that is less than the footprint of the living area, excluding attached garage square footage, of the principal dwelling unit.

- B. **Number.** The maximum number of Accessory Buildings that may be constructed or installed upon a residential lot is based on the zoning district and lot size, and shall be as set forth in Table 5-1-5-3A, Maximum Number of Accessory Buildings.

Table 5-1-5-3A: Maximum Number of Accessory Buildings	
Zoning District	Maximum Number of Accessory Buildings
RN-4	2
RN-6, RN-7.5, RN-D	3
RN-12.5	4
RN-32.5	6
RA: lot less than 5 acres	6
RA: lot 5 acres or larger	7
<u>PUD</u>	<u>Per the approved PUD. If no standards were identified as part of the approved PUD, then the maximum number for the closest zoning district shall be utilized.</u>
R6, R13, R24, OT Form, and MX Zoning Districts and Lot Type	
Small Urban, Urban	-
Small General	2
General, Small Suburban, Suburban,	3
Cluster	1

- C. **Building Coverage.** Accessory Buildings are counted towards the combined square footage of the principal building footprint and accessory structure(s) and shall not exceed the zoning district maximum lot coverage limitations.
- D. **Height.** Accessory Buildings shall not exceed the maximum height for accessory buildings identified in the zoning districts in Chapter 2, Zoning Districts.
- E. **Location.**

1. **All Zoning Districts except RA.** Accessory Buildings shall be:
 - a. Located ~~outside of~~within the setbacks identified in the zoning districts. (See Chapter 2, Zoning Districts); and
 - b. Set back ~~on the same~~at or behind the front plane as the nearest front façade of the principal building.
2. **RA Zoning District.** Accessory Buildings may be located in any yard, and must meet the required setbacks.
3. **Accessory Buildings.** With the exception of non-residential gas station canopies, gas station or car wash facilities where allowed, and security/entry booths, accessory buildings shall not be in the front or side yards.
- F. **Design.** The design of ~~detached garages~~accessory buildings shall be aesthetically consistent with the design of the principal building. See Section 5-1-2-2, Evaluation of Aesthetic Consistency, for applicable standards.

5-1-5-4 Satellite Dishes and Antennas; Amateur Radio Antennas

- A. **Generally.** The standards of this Section apply to satellite dishes and antennas that the Federal Communications Commission ("FCC") has designated as "over-the-air-reception-devices" ("OTARD"), which are typically associated with residential uses; and to amateur ("HAM") radio antennas. These standards are not applicable to facilities that are used for commercial purposes or the provision of personal wireless telecommunication services to people who do not reside on the lot on which the dish or antenna is located.
- B. **TV Antennas, DTV Antennas, Wireless Cable Antennas, and Satellite Dishes One Meter or Less in Diameter.**
 1. The following OTARD are permitted if they are attached to a building or mounted on a mast that extends not more than 12 feet above the highest peak of the roof:
 - a. TV antennas;
 - b. Wireless cable antennas; or
 - c. Satellite dishes that are one meter or less in diameter.
 2. Unless such location is unreasonable in that it does not offer acceptable quality reception or transmission, or it would present an unreasonable expense compared to an alternative location, OTARD shall be mounted on rear building elevations. If the rear building elevation is unreasonable, OTARD shall be mounted on interior side building elevations, as far towards the rear of the building as will not make the location unreasonable. If the interior side building elevation is unreasonable, OTARD shall be mounted on street side building elevations or masts that are as low as possible so as not to be unreasonable. Masts that are not mounted on the building shall be set back from property lines as required for principal buildings.
 3. OTARD shall be mounted as inconspicuously as possible.
 4. Only one satellite dish per dwelling unit is permitted.
 5. Dishes and antennas no longer in use shall be promptly removed.
 6. Subject to operational requirements, the satellite dish color shall be a neutral color (i.e., white or gray), and blend in with the surroundings. No additional signage is permitted on the satellite dish other than the logos of the satellite dish service provider or dish manufacturer.

- D. **Fabric Accessory Structures.** Fabric structures are not allowed, except in the cases of:
1. Mini-structures;
 2. Uses that are located in IL or IG zoning districts;
 3. Temporary uses that are approved according to the standards of Division 3-1-4, Temporary Uses;
 4. Shade structures that cover public recreational uses.

5-1-6-2 Drive-Through Facilities

- A. **Generally.** Drive-through facilities are subject to the standards of this Section.
- B. **Design Standards.**
1. **Location.** Uses with drive-through facilities shall be located on properties with frontage on an arterial or collector street. Drive-through facilities are prohibited in the OT zoning district.
 2. **Speakers.**
 - a. Speakers shall not be oriented towards an adjacent residential zone district unless an intervening building exists. Where an intervening building does not exist, the following shall also apply to minimize the speaker noise impact on an adjacent property:
 - i. If the speaker is located within 15 feet or more of the property line, a solid wall with a minimum height of 6 feet shall be installed on the property line.
 3. **CG and MX Zoning Districts.** In CG and MX zoning districts, a drive-through facility shall be subject to the following:
 - a. In CG and MX-S zoning district, a drive-through lane may be located in the area between a building and a public street. The drive-through lane shall be screened from the public street by landscaping an Option B bufferyard, per Division 4-6-5-3, Bufferyard Options, or a low decorative wall to a minimum height of 48 inches. If a low screen wall is installed, the construction material shall be aesthetically consistent with the first floor exterior color and materials used on the principal building or provide a comparable level of quality.
 - b. In the MX-U zoning district, a drive-through lane shall not be located in the area between a building and a public street. The drive-through windows shall not face a public street.
 - c. In the MX-T zoning district, a drive-through lane shall be designed so that it is enclosed within the envelope of the building, the drive through windows are not visible from adjacent public streets and the drive-through lane shall not be located in the area between a building and a public street.

Figure 5-1-6-2: Illustrative Drive-Through Facilities in the MX

- D. Each bin shall be located on an improved durable, drainable surface. If placed in a parking area, the bin shall not reduce the number of available parking spaces below the minimum number required for the lot.
- E. No bin shall be placed in the following locations:
 - 1. Within a required building setback;
 - 2. Within a site visibility triangle;
 - 3. Within an access easement;
 - 4. In a driveway, sidewalk, or other pedestrian circulation area;
 - 5. Within five feet of any fire hydrant;
 - 6. Within any fire lane;
 - 7. Within required landscaped areas;
 - 8. In whole or in part upon any portion of a public-right-of-way or projecting onto or over any part of a public right-of-way; or
 - 9. On an undeveloped parcel of land.
- F. Each donation collection bin shall be serviced and emptied as needed or within 24 hours of a request by the property owner or city.
- G. Each bin shall be enclosed by use of a one-way receiving door and locked so that the contents of the bin may not be accessed by anyone other than those responsible for the retrieval of the contents.
- H. Each bin shall clearly display a sign indicating that no donated items, garbage or other debris is to be left outside of the bin.
- I. At the time the bin is removed, the site shall be cleaned, all evidence of its use removed, and left in a condition that minimizes adverse impacts to the site itself and to surrounding properties.

5-1-6-5 Trash Collection and Compaction

- A. **Generally.** Nonresidential, mixed-use, multifamily, and clustered small housing development shall include a designated trash collection and / or compaction area, which shall be located and designed to ensure adequate on-site maneuvering area for trash collection vehicles. Residential subdivisions may include designated trash collection and / or compaction areas, which, if provided, must also comply with the standards of this Section. Trash collection dumpsters shall not be allowed on individual single-family or duplex lots, unless on a temporary basis associated with construction projects for which a building permit has been issued.
- B. **Location.**
 - 1. Each trash collection, including recycling bins, or compaction area shall be located not less than 20 feet away from lots used for single-family detached, duplex, multiplex, or townhome uses, and at least 20 feet away from streets, sidewalks, and internal pedestrian circulation systems. Such areas shall be located on the site in the following order of priority (highest priority listed first, and higher order priorities are eliminated only if infeasible):
 - a. In a screened enclosure that is connected to or adjacent to the rear of the principal building;
 - b. In the rear yard; or
 - c. In the interior side yard;

2. Trash collection, recycling bins, or compaction areas shall not be located more than 200 feet from the entrances of uses that they are intended to serve.
- C. **Enclosures.** Each such trash collection area shall be screened from view from all property lines by a non-combustible screen or wall between six feet and eight feet in height. The access to this enclosure shall be screened with an opaque gate. Screening fences and walls (not including gates) shall be aesthetically consistent with one of the predominant materials and one of the predominant colors used in the principal building. Chain-link gates with metal cladding are prohibited.

5-1-6-6 Single-Story Detached Garages as Perimeter Walls

- A. **Generally.** Single-story detached garages may be constructed as perimeter walls of townhome and multifamily sites as provided in this Section.
- B. **Height.** The height of the garage building, measured from the finished grade at the outside building line of the garage shall not exceed:
 1. Six feet to bottom of the eave line on the outside face of the garage building; and
 2. 12 feet to the highest point on the ridge line of the roof.
- C. **Offsets.** The outside-facing walls of the garage buildings ("perimeter walls") shall be interrupted or offset by a distance of at least two feet at intervals of at least 60 feet in facade width. The offset or interruption shall have a width of at least 12 feet.
- D. **Location.** If the outside walls of the garages are used as part of a required bufferyard, they shall be installed on the inside boundary of the bufferyard, with landscaping installed between the garage building and the property line.

5-1-6-7 Custodial Unit

- A. **Generally.** The standards of this section apply to self-storage and kennel facilities with a dwelling unit for an on-site resident manager.
- B. **Design Standards.** Self-storage and kennel facilities with one on-site resident manager/caretaker dwelling shall be meet the following standards:
 1. The resident manager / caretaker dwelling unit shall be incorporated into and occupy space on the premises of the self-storage or kennel facility;
 2. One off-street, covered parking space shall be required for the exclusive use of the resident manager / caretaker.
 3. A landscaped private recreation area, with a minimum area of 750 square feet, shall be provided within the self-storage or kennel facility for the exclusive use of the resident manager / caretaker. The landscaped recreation area shall include:
 - a. A minimum of one 2.5 inch caliper shade tree, turf shrubs, and recreation equipment.
 - b. Recreation equipment shall consist of picnic table and barbeque facilities, or other comparable equipment for use by the resident manager/caretaker.

5-1-6-8 Parking Garage, Structured.

- A. A freestanding garage parking structure or structure that is incorporated into a residential or nonresidential building shall include:
 1. Façade openings that face a public street or open space shall be vertically and horizontally aligned and all floors fronting on those façades shall be level, not inclined.

2. The first floor façade of a parking garage located adjacent to a public street shall be designed to encourage and complement pedestrian-scale interest and activity through the inclusion of at least three architectural elements such as arcades, windows, awnings, overhangs, screens, grills, louvers or other similar non-opaque features.
3. Parking garage shall be designed so that motorized vehicles parked on all levels of the structure are screened to a minimum height of 42 inches.
- B. Within the MX-U zoning district, the ground floor façade of a structured parking facility that abuts a public sidewalk, street, or open space and that is not occupied by entrances, exits, or waiting areas shall be designed and constructed with a minimum unfinished floor to ceiling height of 13.5 feet in order to allow occupancy by uses other than parking that are allowed in the underlying zone district. Within the MX-T zoning district, parking garage facilities located adjacent to a pedestrian priority street shall contain retail or office uses on the first floor fronting the street, or be wrapped with development of equal or greater height than the parking structure. At least 50 percent of a street-level facing a public sidewalk, street, or open space area shall contain retail or office uses to a minimum depth of 60 feet. See Division 5-1-3, Pedestrian Priority Streets.

5-1-6-8 Electric Vehicle (EV) Charging Stations

- A. **Generally.** The standards of this section shall apply to new developments containing parking stalls or other spaces on-site dedicated to the use of such spaces for the charging of electric vehicles. Additionally these standards shall also apply to existing sites that make modifications to build or plan for EV charging stations.
- B. **Location**
 1. For ~~any~~ single-family, duplex, or multiplex use, EV charging stations shall be located inside a garage.
 2. For ~~in any~~ townhome, multifamily, or cottage-home use, EV charging stations and equipment shall be located either in a garage or in a location internal to the site.
 3. For ~~all~~ non-residential and mixed-use development containing ten or less EV charging stations, all charging stations and equipment may be allowed anywhere on site provided:
 - a. All equipment adheres to the required minimum parking front setback from all public and private streets.
 4. For ~~all~~ non-residential and mixed-use development containing more than ten EV charging stations, all charging stations and equipment shall be located internal to the site and set back at least 40-feet from all public streets.
 5. In ~~the any~~ MX zone districts, EV charging stations and equipment shall be located:
 - a. Behind the wall of a front building façade.
 - b. Outside of a required front parking setback.
 6. In ~~the any~~ OT zone district, EV charging stations and equipment shall be located either in a garage or internal to the site, behind a building or buildings, and not visible from a public street.
 7. EV charging stations and equipment may not be located in any portion of a required small urban park or buffer yard.
- C. **Sitting, Site Design, and Screening**

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1. If located along a public or private street, a ~~Option Type B~~ per Division 4-6-5-3 ~~Buffer-yard Options~~ between all equipment and the front property line shall be provided.
2. The installation of an EV charging station shall not reduce the size of the parking stall in which it is being installed ~~for~~ below the minimum size required in Subsection 4-5-3-2, ~~Parking Space and Aisle Standards.~~
3. Concrete wheel stops shall be used between the parking space and the equipment if the parking is not parallel.
4. If a canopy will be used, the canopy shall comply with the requirements of Subsection 5-1-2-3-C9, Canopies and Porte-Cochers.
 - a. In any MX zone district if a canopy is used, the canopy shall comply with the requirements of Subsection 4-3-3-4-F, ~~Fueling/Service Station Site Design.~~
5. Parking spaces used for EV charging shall be signed for EV vehicles only.

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Chapter 8 – Development Review Process

Article 8-1 Development Review Bodies

Division 8-1-1 City Staff and Referral Agencies

8-1-1-1 Director of Community and Economic Development

- A. **Generally.** The Director of Community and Economic Development (“Director”) is the member of the City Staff who carries out the planning and zoning functions of the City. The Director shall designate staff members to manage applications through the review process and be points of contact for Applicants. The Director may also delegate review responsibilities to managers or other professional-level staff, or, as appropriate, to consultants selected by the City.
- B. **Duties and Responsibilities.** The Director shall be responsible for the administration of this LDC and the regulations contained herein.
 - 1. The Director shall have the authority to:
 - a. Interpret and apply the provisions set forth in the LDC, other regulations adopted by the City and planning and engineering best practice. The Director shall have the authority to prepare and update Development Procedures, which may include a checklist for each type of development application, setting forth the information that Applicants must submit in order for the City to review development applications, permits and other developmental approvals under this Code, an application review schedule, fees and other relevant and appropriate materials related to the administration of this Code.
 - b. Make district boundary interpretations when uncertainty as to the district boundaries exists.
 - c. Make each of those decisions shown as a decision of the Director in 8-2-2-2, Decision-Making Tracks by Application Type.
 - d. Review and make recommendations on development applications reviewed and acted upon by the Planning Commission, City Council or other Decision Makers, as applicable, as shown in 8-2-2-2, Decision-Making Tracks by Application Type.
 - e. Review all land-use activities, plans involving land-use activity, or applications for land-use activity that are subject to either the Design Guidelines for Olde Town Arvada or the guidelines designated as "mandatory" within the Design Guidelines for the Reno Park Addition Historic District, and take final action to approve, approve with conditions, or deny the issuance of a (CCDG), as appropriate.
 - e-f. Accept land dedications and easements associated with development applications concerning which final approval has been granted by the Director.
 - 2. The Director shall:
 - a. Review applications for Sign Permits and taking final action to approve, approve with conditions, or deny on such applications.
 - b. Maintain the Official Zoning Map, including updates to reflect rezonings.

3. The City Council shall hear and decide administrative appeals as identified Subsection 8-2-5-2C.
4. City Council shall also ratify, as it determines appropriate, the Comprehensive Plan and other plans for the physical development of the City. If the City Council decides to adopt or approve the Comprehensive Plan or other plans for the physical development of the City, then subsequent amendments to said plans shall be subject to City Council adoption or approval.

8-1-2-2 Planning Commission

A. Powers and Duties; Generally.

1. *Decisions.* The Planning Commission shall hear and find facts as to whether the following types of applications comply with the requirements of this LDC:
 - a. Alternative Sign Programs
2. *Recommendations.* The Planning Commission shall consider and recommend to the City Council approval, approval with conditions, or disapproval of the following types of applications or petitions:
 - a. Annexations;
 - b. Height Exceptions;
 - c. Major Subdivision Preliminary Plats;
 - d. Major Modifications;
 - e. Zoning and Rezoning;
 - f. Conditional Uses;
 - ~~f-g.~~ PUD Development Plans (Planned Unit Developments);
 - ~~g-h.~~ Combined PUD Development Plans / Final Development Plans (Planned Unit Developments); and
 - ~~h-i.~~ Vacation of Right-of-Way and Access Easements.

B. Powers and Duties; Initiated Land Development Code Amendments and Other Duties. The Planning Commission may also initiate proposed changes to the LDC and advise the City Council on such proposed changes, and shall perform such other duties as the City Council may be ordinance, resolution or motion prescribe.

C. Powers and Duties; Comprehensive Plan.

1. *Comprehensive Planning.* Upon request by the City Council, the Planning Commission shall have the power to prepare a Comprehensive Plan as a guide for future zoning and rezoning and shall have lawful and comprehensive studies made in conjunction therewith. Any plan so prepared shall be made with the general purpose of carrying out the objective of providing for the considered planning and orderly physical development of the City and applicable surrounding areas. The Planning Commission shall also actively promote implementation of any such Comprehensive Plan and other adopted plans, through its powers and duties as set out in this Section.
2. *Other Plans.* Upon request by the City Council or the Director, the Planning Commission shall be responsible for adopting other land use plans, open space/parks/trails plans, special area plans, corridor plans, and similar plans, and any updates or amendments to such plans. The

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Article 8-2 General Review Procedures

Division 8-2-1 Purpose and Application of Article

8-2-1-1 Purpose of Article

The purpose of this Article is to set out a standardized process for development review and administrative appeals.

8-2-1-2 Application of Article

- A. **Generally.** All procedures for obtaining development approvals and for appealing decisions of the Director or the Planning Commission are set out in this Article.
- B. **Required Development Approvals.** Division 8-2-2, Required Development Approvals, sets out the approvals and permits required by the City for the use and development of real property. Section 8-2-2-2, Decision-Making Tracks By Application Type, establishes eight decision-making tracks for approval of development applications.
- C. **Standardized Decision-Making Procedures.** Division 8-2-3, Standardized Decision-Making Procedures, sets out the steps in the standardized procedures for development review.
- D. **Required Notices.** Division 8-2-4, Required Notices, details the notice requirements for each type of application that requires one or more public notices.
- E. **Appeals.** Division 8-2-5, Administrative Appeals, sets out the process for appealing a decision of the Director or the Planning Commission.

Division 8-2-2 Required Development Approvals

8-2-2-1 Development Approval Required

- A. **Generally.** Unless specifically exempt from the application of this LDC, development approval is required for all:
 - 1. Development;
 - 2. Redevelopment;
 - 3. Qualifying "land use activity" within areas that are subject to Design Guidelines (*see* Section 8-3-4-55-4, Certificate of Compliance with or Waiver from Design Guidelines); or
 - 4. Re-grading of:
 - a. Nonresidential property; or
 - b. Property within the Special Flood Hazard Area.
- B. **Temporary Uses and Special Events.** Certain temporary uses and special events require Temporary Use Permits. *See* Division 3-1-4, Temporary Uses.
- C. **Encroachments into Public Rights-of-Way.** Certain encroachments may be allowed in or over public rights-of-way pursuant to an approved revocable right-of-way license.

8-2-2-2 Decision-Making Tracks by Application Type

- A. **Generally.** Different types of development applications and land use approvals are subject to different decision-making procedures.
- B. **Decision-Making Tracks.** Table 8-2-2-2A, Decision-Making Tracks, sets out eight procedural tracks for review and approval of development applications.

Table 8-2-2-2A: Decision-Making Tracks					
Track	Decision-Maker	Public Hearing	Public Outreach		Administrative Appeal To
			Neighborhood Meeting	Notice	
Track 1	Director ¹	No	No ³	Yes ⁴	Planning Commission or City Council (See Section 8-2-5-2, Appellate Body)
Track 2	Director ²	Planning Commission	Yes	Yes	City Council
Track 3	Planning Commission	Planning Commission	Yes	Yes	City Council
Track 4	City Council	City Council ⁵	No	Yes	-
Track 5	City Council	Planning Commission; City Council	Yes	Yes	-
Track 6	Floodplain Administrator	Floodplain Administrator	No	Yes	Floodplain Hearing Officer
Track 7	Floodplain Hearing Officer	Floodplain Hearing Officer	No	Yes	-
Track 8	Board of Adjustment	Board of Adjustment	No	Yes	-
Track 9	Informational only to Planning Commission and City Council	No	No	No	-

TABLE NOTES:

¹ For Public Improvements Construction Drawings for private development, and is not appealable to the Planning Commission; for Floodplain Development Permits, the decision is by the Floodplain Administrator, and is appealable to the Floodplain Hearing Officer.

² Planning Commission fact-finding is not advisory. Director must issue decision on facts found by Planning Commission as to application's compliance with the applicable standards of this LDC.

³ At the discretion of the Director, a neighborhood meeting may be required to inform residents of the proposed development in their neighborhood.

⁴ Notice required for Track 1 reviews only as required by Section 8-2-3-8, Notice of Administrative Application. The Director shall have the discretion to waive the notice requirement for applications determined to have minimal impact on the notice area.

⁵ Public hearing not required for Revocable Right-of-Way License Agreements.

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- C. **Decision-Making Tracks by Application Type.** Table 8-2-2-2B, Decision-Making Track by Application Type, provides:
1. A brief purpose and description for each application type;
 2. A reference to where more information can be found regarding each application type;
 3. The decision-making track required for each application type; and
 4. The submittal type.

- b. All supporting documents required by the application form (except any items waived by the Director);
 - c. All supporting documents requested by the Director as a result of the pre-application meeting; and
 - d. All required fees. Fees shall not be required for applications initiated by Director,, Planning Commission, City Council, or other City department head for City projects.
2. Complete applications shall be processed according to the applicable procedures of this LDC.
- C. **Incomplete Applications.**
- 1. Except with respect to sign permits, Wireless Communications Facilities and Small Cell Facilities (which are subject to special provisions in Division 8-3-6, Wireless Communications Facilities):
 - a. Incomplete applications shall not be processed or reviewed. The Director shall provide written notice of the submittal deficiencies. The Applicant may correct the deficiencies and resubmit the application for determination of application completeness. The written notice shall be delivered to the Applicant by electronic mail.
 - 2. Incomplete applications for sign permits, Wireless Communication Facilities and Small Cell Facilities shall be returned Subsection after they are determined to be incomplete pursuant to Section 8-2-3-7, Completeness review.

8-2-3-8 Notices of Administrative Application and Administrative Decision

A. **Purpose and Intent.**

- 1. *Purpose.* The purpose of the notice of administrative application and administrative decision is to inform City residents, businesses and organizations of pending development applications and the date a decision will be made on a development application.
- 2. *Intent.* The notice of application is intended to provide contact information for the Applicant and City staff where interested members of the community can request information and ask questions regarding a pending development application and provide comments to the Director prior to a decision being made.

B. Notice of Administrative Application. The notice ~~of application~~ shall be prepared by the Applicant per the requirements of Division 8-2-4, Required Notices, for Master Development Plans, Site Plans and Minor Subdivision Final Plats.

~~B-C.~~ **Notice of Administrative Decision.** A notice may be required at the discretion of the Director. If the notice is required, it shall be prepared by the Applicant per the applicable requirements of Division 8-2-4, Required Notices.

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8-2-3-9 Inactive Applications

- A. **Generally.** Applications for development approval shall be diligently pursued by the Applicant. This section is intended to delete applications that become inactive due to inaction by the Applicant.
- B. **Expiration of Inactive Applications.** When an action by the Applicant is required for further processing of an application the application shall become void 180 days after the date that the action is requested if the Applicant either fails to take action or fails to request an extension of time pursuant to Subsection C., below.

- b. At the conclusion of the public hearing, approve the application as presented; approve with conditions, or deny the application. The City Council may also defer its decision to obtain additional information, or it may remand the application to the Planning Commission for further consideration.

8-2-3-14 Effect of Approvals

- A. **Generally.** Approval of an application authorizes only the particular use, plan, or other specific activity for which the approval was granted. Approvals run with the land that is the subject of the approval, except that LDC Text Amendments and Comprehensive Plan Text Amendments do not run with the land.
- B. **Writing and Findings Required.** If the application is for an administrative approval, the Director shall provide written notification and shall include findings that support the final decision via personal delivery, electronic mail or first-class mail to the Applicant and make the decision available to the public via the on-line development application. The decision and findings shall be signed by the Director. If the application requires a quasi-judicial hearing, the Director shall provide written notification after a final decision on the application via personal delivery, electronic mail or first-class mail to the Applicant and make the decision available to the public via the on-line development application.
- C. **Expiration of Approvals.** An entitlement shall be valid and shall expire as indicated in Table 8-2-3-13, Time Limitations, for the particular type of application, unless the building permit has been issued. A change in ownership of the land shall not affect the established expiration time period of an approval.

Table 8-2-3-14: Time Limitations	
Approval Type	Time Limitation
Conditional Use	5 years
Temporary Use Permit / Special Event Permit	as specified in the permit
Certificate of Compliance with Design Guidelines	3 years, 1 year for signs
Site Plan and Master Development Plan	3 years
Floodplain Development Permit	24 months
Free-Standing Tower	24 months; or as specified in the permit
Miscellaneous Structure Permit	6 months
Sign Permit	1 year
Alternative Sign Program	3 years
Major Subdivision Preliminary Plat	3 years
Public Improvement Construction Documents	2 years
Development Agreement	as specified in development agreement
Reimbursement Assessment District	as specified in documents establishing Reimbursement Assessment District
PUD Development Plan/Final Development Plan	5 years or as specified by development agreement
Height Exception	3 years
Variance	2 years ¹
Minor Modifications from Zoning District and General Development Standards	as specified in approval documents

- A. **Generally.** It is the policy of the City not to allow successive applications for the same development approval after an application is denied. The provisions of this Section as intended to limit the consideration of successive applications.
- B. **Minimum Interval between Submittal of Substantially Similar Applications.** If an application is denied, the City shall not accept any application that is substantially similar to the denied application as determined by the Director for a period of 12 months, unless:
 - 1. After the application is denied, the City amends the applicable provisions in this LDC in a manner that could reasonably allow for approval of the application; or
 - 2. The City Council waives the minimum interval requirement of this Section for good cause shown; or
 - 3. The denied application is for a sign permit, Wireless Communication Facility, or Small Cell facility.

Division 8-2-4 Required Notices

8-2-4-1 General Notice Requirements

- A. **Computation of Time.** In computing any period of time prescribed for the purpose of giving notice under this Division, the day of the publication, mailing, or posting shall be included. The day of the meeting or hearing shall not be counted. Saturdays, Sundays, and legal holidays shall be counted as any other day.
- B. **Notice Cost.**
 - 1. All costs for providing mail and posted notice as required by this Division shall be the direct responsibility of the Applicant.
 - 2. The City shall provide published notice. The cost of such notice shall be included in the development review fee.
- C. **Applicant's Certification.** Prior to the event that is the subject of a public notice, the Applicant shall provide the Director with an executed affidavit certifying that the requirements as to the Applicant's responsibility for the applicable forms of notice under this Division have been met. The Director shall make available sample certifications that address all applicable forms of public notice required by this LDC.
- D. **Failure to Provide Notice; Defective Notice.**
 - 1. Failure to timely provide the required affidavit, or evidence that a mailing list or notice letter was defective, may be cause to suspend the review process until proper notice is provided. Such suspension may be ordered by the Director or body that is responsible for the meeting, hearing, or decision (e.g., neighborhood meeting, public hearing, or staff decision) that is the subject of the notice.
 - 2. Minor defects in any notice shall not impair the notice or invalidate proceedings pursuant to the notice if a *bona fide* attempt has been made to comply with applicable notice requirements. Minor defects in notice shall be limited to errors in a legal description or typographical or grammatical errors that do not impede communication or the notice to affected parties. However, in all cases, the requirements for the timing of the notice and for specifying the time, date, and location of a hearing shall be correctively conveyed. In any case in which a question arises at the public hearing regarding the adequacy of notice, consideration shall be given to the nature and extent of the deficiency, the probability of

confusion resulting from the deficiency, and the type and variety of notice successfully accomplished in determining whether substantial compliance with the notice requirements of this Code has been met.

- E. **Continuation of Hearings and Neighborhood Meetings.** A hearing or neighborhood meeting for which proper notice was given may be continued to a later date without again complying with the public notice requirements of this Division (unless required by Director), provided that the date, time, and location of the continued hearing or meeting is announced to the public at the time of continuance.

8-2-4-2 Required Notice by Application Type

Public notice of administrative applications, neighborhood meetings, or scheduled public meetings or public hearings shall be provided as set out in Table 8-2-4-2, Notice Requirements by Application Type. If an application type is not listed, then no notice is required, unless it is determined to be necessary by the Director.

2. Sufficiently describe the property involved; for example, by legal description, general vicinity, street address, size, and/or nearest cross street;
 3. Describe the nature, scope, and purpose of the application or proposal being advertised;
 4. Indicate that interested parties may appear and the manner, extent and timing of public participation permitted (*e.g.*, filing written comments with the Director, speaking at the scheduled hearing or meeting, etc.), except for Notice of Administrative Application; and
 5. Indicate where additional information can be obtained.
- C. **Appeal Notices.** Notices of a pending appeal must include a copy of the petition for appeal and a date, time, and location for the appeal hearing, and either a copy of the rules of procedure for the Appellate Body or instructions regarding how to obtain a copy. Such notices shall be mailed to the Applicant (if different from the appellant), the appellant, and any person or entity that has applied for party status.
- D. **Vested Rights Notices.** Notice of a decision to grant vested rights shall be published in accordance with the requirements of C.R.S. § 24-68-101, as it may be amended from time to time.

8-2-4-3 Specific Requirements by Notice Type

A. Mailed Notice.

1. *Mailing List.* The Applicant shall submit a mailing list to the Director, including the names and addresses of all property owners of record of all properties within the Area of Notification described below. If there are homeowners associations and/or neighborhood organization registered with the City within the Notice Area, the Applicant shall also notify them. The list shall be compiled from the names and addresses that appear in the records of the applicable County Assessor not more than 30 days before the date the list is submitted to the Director.
2. *Method of Mailing.* Mailed notice shall be mailed first-class, postage pre-paid by the Applicant, at the Applicant's expense, to all property owners on the mailing list.
3. *Affidavit of Compliance.* An affidavit of the Applicant's compliance with the mailing notice requirements shall be provided to the Director prior to the decision or public hearing to which the notice relates.
4. *Preparation/Timing of Notice.* When the provisions of this Code require that written or mailed notice be provided, the Applicant shall be responsible for preparing the written notice, and for mailing the notice at the Applicant's expense. All written notice shall be mailed at least fifteen days prior to the public hearing. Notices shall be prepared pursuant to a written notice form provided by the City.
5. *Deadlines.* For decision-making Tracks 2 through 5 and Track 8, mailed notices shall be postmarked no later than 15 days before a neighborhood meeting, a public hearing, or an appeal hearing. For decision-making Tracks 1, 6, or 7, mailed notice of administrative application shall be postmarked no later than five days after acceptance of an application. For a notice of administrative decision, mailed notice shall be postmarked no later than ten days prior to the decision date.
6. *Notice Area.*
 - a. For purposes of public hearings before the City Council or the Planning Commission, and Notice of Administrative Application, notice shall be mailed to all property owners that are within 500 feet of the boundary of the property that is the subject of the

8-3-5-2 Master Development Plan

- A. **Generally.** The purpose of the Master Development Plan is to provide a mechanism by which it can be ensured that phased site development including structure placement, vehicular and pedestrian mobility, infrastructure and amenities are developed and phased to conform to this LDC.
- B. **Applicability.** A Master Development Plan shall be required for any site where two or more phases of development are anticipated or when two or more parcels of property are to be developed, unless waived at the discretion of the Director.
- C. **Phasing Plan.** A phasing plan for site grading, installation of site improvements, and landscaping and amenities necessary to support each phase of development must be approved as part of the Master Development Plan. The phasing plan is not required to prescribe a timeline or sequence for development, but shall provide for proportionate installation of improvements and amenities that must be included when each phase of development is constructed.
- D. **Application Requirements.** At a minimum, the master development plan shall include the following information. Additional information may be required at the discretion of the Director:
 - 1. Uses proposed;
 - 2. Intensity or density of uses proposed;
 - 3. Location of public or private open space;
 - 4. Locations of existing and proposed buildings on the site;
 - 5. Vehicular and pedestrian networks proposed;
 - 6. Architectural and landscape guidelines;
 - 7. Master grading and drainage plan;
 - 8. Master utilities plan; and
 - 9. Master traffic study.
- E. **Approval Criteria.** A Master Development Plan shall be reviewed for compliance with the following criteria:
 - 1. The proposed Master Development Plan is consistent with the Comprehensive Plan and other adopted City ordinances, resolutions and regulations.
 - 2. The Master Development Plan establishes logical and orderly development phases that address land use, development, infrastructure, open space and other related improvements, as necessary, in accordance with this LDC.
- F. **Modification.** A modification to a previously approved Master Development Plan shall be treated as a new application, except when the following apply:
 - 1. The modification is within the general scope of the purpose and intent of the original approval;
 - 2. The modification does not add more than 20 percent of the square footage of any building in the original Master Development Plan;
 - 3. The modification does not increase the proposed density beyond that allowed in the zone district; and
 - 4. The modification will not require an updated master grading and drainage plan, master utility plan or master traffic study, as determined by the Director.

8-3-5-3 Site Plan

- A. **Generally.** The purpose of the Site Plan is to ensure compliance with the development and design standards and provisions of this Code, while encouraging quality development in the City reflective of the goals, policies, and objectives found in the Comprehensive Plan.

- B. **Site Plans.** All applicable provisions of this Division apply unless specifically listed. A Site Plan is required before a building permit may be issued for all development in the City except those listed below:
1. Single family detached homes or duplex units in a subdivision of nine or fewer lots within a residential zoning district and that are not part of land for which a Master Development Plan has been approved;
 2. Permitted additions to existing single-family detached dwellings or duplex units; and
 3. Interior improvements and tenant finish.
- C. **Approval Criteria.** A Site Plan shall be reviewed for compliance with the following criteria:
1. The application complies with the applicable standards of this LDC, other adopted City regulations, any approved Master Plan that includes the property, and any conditions specifically applied to development of the property by the Planning Commission or City Council in a prior decision affecting the property;
 2. The application is consistent with the Comprehensive Plan;
 3. The City's existing infrastructure and public improvements, including but not limited to its water, wastewater, street, trail, and sidewalks systems, have adequate capacity to serve the proposed development, and any burdens on those systems have been mitigated to the degree practicable;
 4. The application will preserve and protect natural areas, ridgelines, swales, natural landforms, water quality and wildlife habitat of riparian corridors, wetlands and floodplains affected by the proposed development and integrates those areas into site design where practicable;
 5. The application will improve or expand multi-modal connections with adjacent sites, neighborhoods, and urban centers;
 6. The application is similar to surrounding uses in terms of size, scale and building façade materials;
 7. The application mitigates any adverse impacts on the surrounding area to the degree practicable; and
 8. Within the MX, R6, R13 and R24 zoning districts, townhome and multifamily residential uses shall provide appropriate amenities, including recreational facilities, pedestrian facilities, unique aesthetic features and quality design.

8-3-5-4 Certificate of Compliance with Design Guidelines

- A. **Generally.** A Certificate of Compliance with Design Guidelines (CCDG), is required for the erection, alteration, addition to, renovation, restoration, relocation or demolition of the exterior of a building or structure (collectively, "land use activity") within areas of the City that are subject to Design Guidelines, as provided herein.
- B. **Applicability.**
1. *General Rule.*
 - a. Within the Olde Town Zoning District, no land use activity shall be allowed unless the Director has first issued a CCDG, or has otherwise determined pursuant to the provisions of this Section that a waiver from the Design Guideline(s) may be issued.
 - b. Within the Reno Park Design Guidelines Project Area, any land use activity that is subject to the Design Guidelines designated as "mandatory" within the Design

- B. **Disclosure.** If a plat, pursuant subparagraph A. above, contains the plat note described therein, then the developer, builder, or other person or entity engaged in the initial sale of a lot or dwelling unit within the Multi-Family Development Area of such plat to the intended resident or end user shall be required to include in such contract for purchase and sale a disclosure statement in bold-faced type that is clearly legible and in substantially the following form:

THE RECORDED PLAT OF THE PROPERTY WITHIN WHICH THIS LOT OR UNIT IS SITUATED CONTAINS A RESTRICTION REQUIRING MANDATORY, BINDING ARBITRATION FOR CERTAIN TYPES OF CLAIMS, IN LIEU OF SEEKING REDRESS IN A COURT OF LAW. PURCHASERS SHOULD CAREFULLY READ THE PLAT AND NOTE CONCERNING ARBITRATION, AS THEY ARE DEEMED TO HAVE ACCEPTED AND AGREED TO THE TERMS AND CONDITIONS OF SUCH PLAT NOTE.

- C. **Applicability.** A request for plat note, as provided for in this Section, shall be permitted:
1. Only as to a final plat concerning land for which an application is filed after October 5, 2015. "Application," as used in this Subsection C.1. only, shall mean an application specifically connected to, and submitted to the City as part of, an identified development project and which constitutes the application for the first City approval necessary to such project, excluding annexation and rezoning; and
 2. Only if such request is accompanied by a certification, in form approved by the City Attorney, and executed by the Applicant, that any Declaration of Covenants, Conditions, and Restrictions applicable to the Multi-Family Development Area contains or shall contain a provision or provisions requiring binding arbitration for construction defects claims and prohibiting the amendment or deletion of such provision(s) without the consent of the Applicant.

8-3-8-7 Acceptance of Dedications

A. **Generally.**

1. **Major Subdivision Final Plats.** All major subdivision final plats ~~and minor subdivision plats~~ shall be executed by all owners of property within the boundaries of such plat, the surveyor, the attorney or title company who examined the title, and any and all lienholders. Following the approval of a major subdivision final plat ~~or a minor subdivision plat, or conditional approval of such plat after all conditions are met~~, the plat, which shall have all permitted exceptions, waivers, or variances expressly noted thereon, shall be signed by the Director, the City Engineer, and the City Attorney. Dedication, approval, certification, and signature blocks shall be in a form approved by the City Attorney.

- ~~A-2.~~ **Minor Subdivision Plats.** All minor subdivision plats shall be executed by all owners of property within the boundaries of such plat, the surveyor, the attorney or title company who examined the title, and any lienholders. Following the approval of the minor subdivision plat, the plat, which shall have all permitted exceptions, waivers, or variances expressly noted thereon, shall be signed by the Director. Dedication, approval, certification, and signature blocks shall be in a form approved by the City Attorney.

- B. **Method of Acceptance of Dedications; Limitations.** Full execution of the approved major subdivision final plat or minor subdivision plat shall constitute the City's acceptance of any fee-simple dedication or grant of easement to the City as is referenced on the plat. Acceptance of dedications does not constitute final acceptance of public improvements constructed thereon.

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Chapter 11 – Measurements, Rules of Construction, and Definitions

Article 11-1 Measurements

Division 11-1-1 Purpose and Application of Article

11-1-~~1~~-1 Purpose of Article

- A. The purpose of this Article is to provide general rules for measurement used in this Code.

11-1-~~1~~-2 Rules for Measurement

A. **Density**

1. *Net Density.* Net density shall be calculated by dividing the net acreage of a parcel by the minimum lot area required for each dwelling unit.
2. *Gross Density.* Gross density shall be calculated by dividing the gross acreage of a parcel by the minimum lot area required for each dwelling unit.
3. *Rounding.* When applying a density standard to a parcel land area, all resulting fractions shall be rounded to the next lower whole number.
4. *Maximum Density not Guaranteed.* The number of dwelling units allowed on a site is based on the presumption that all applicable standards shall be met. The maximum density established for a zoning district as identified in Chapter 2 is not a guarantee that such densities may be obtained, nor a valid justification for varying other dimensional or development standards.

B. **Lot Area**

1. Lot area is measured as the amount of gross land area contained within the property lines of a lot or parcel, but not including streets or rights-of-way.

C. **Lot Frontage (Lot Width)**

1. Lot frontage or width refers to the horizontal distance between the side lot lines as measured along a straight line parallel to the front lot line – the lot line abutting the street on which the property has its principal access – or the chord thereof. The minimum lot frontage or width shall be measured between the side lot lines along a line that is parallel to the front lot line and located the minimum front setback distance from the front lot line.

D. **Lot Coverage**

1. *General Rule.* Lot coverage is measured as the percentage of the total lot area covered by buildings. It is calculated by dividing the square footage of building cover by the square footage of the lot.
2. *Exemptions.* The following features shall not be counted for the purpose of determining lot coverage:
 - a. Swimming pools and hot tubs.
 - b. Uncovered decks less than 30 inches above grade.
 - c. Mini-structures under 200 square feet in total area.

E. **Street Frontage**

Cantenna

Any can- shaped equipment shroud typically located at the top of small cell poles for the purposes of housing the antenna, antenna mount, cable connections, and other hardware.

Canopy

A roof-like shelter projecting from a building wall and supported by posts or other devices beyond the building wall, typically constructed of non-rigid materials on a supporting frame.

Cemetery

Land used or intended to be used for the burial of the dead and dedicated for cemetery purposes. A funeral home or mortuary or columbarium may be an accessory use to a cemetery, but a crematory is not an accessory use to a cemetery.

Channel

The physical confine of stream or waterway consisting of a bed and stream banks, existing in a variety of geometries.

Channelization

The artificial creation, enlargement or realignment of a stream channel.

Clustered Subdivision

A cluster lot subdivision is a residential development in which lots are allowed to be smaller or narrow. Cluster lot subdivision is a design technique that concentrates buildings in specific areas on a site to allow the remaining land to be used for recreation or other ,common use, common open space, or preservation of environmentally sensitive areas or agricultural uses.

Code of Federal Regulations (CFR)

The codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to federal regulation.

Co-Housing

A cooperative living arrangement in which people build a cluster of single-family houses around a common building for shared meals, child care, guest rooms and similar amenities.

Collocation

The mounting or installing of a WCF on a pre-existing structure, or modifying a structure for the purpose of mounting or installing a WCF on that structure provided that, for purposes of Eligible Facilities Requests, "collocation" means the mounting or installation of transmission equipment on an eligible support structure for the purpose of transmitting and /or receiving radio frequency signals for communications purposes.

Commercial Use or Development

An activity involving the sale of goods or services carried out for profit, including office, retail, service business, and other similar development.

Digital flood insurance rate map (DFIRM)

FEMA digital floodplain map. These digital maps serve as "regulatory floodplain maps" for insurance and floodplain management purposes.

Director

The Director of the Community and Economic Development or designated staff members.

Drive-In or Drive Through Facilities

A facility used to provide products or services to customers who remain in their vehicles, whether through a window or door in a building, a machine in a building or detached structure (e.g., ATM), or via a mechanical device (e.g., a pneumatic tube system). In addition to the pick-up window or door, drive-through service facilities also may include remote menu boards and ordering stations. Use types that commonly have drive-through service include banks, fast food restaurants, and drugstores.

Duplex

A building containing two dwelling units, located side-by-side and totally separated from each other by an unpierced wall extending from foundation to roof, or located one above the other and totally separated from each other by a floor and separate entry doors.

Dwelling

Any building, or part thereof, occupied, in whole or part, for residential occupancy. Dwelling does not include hotels, motels, tents, recreational vehicles, or other structures designed or used primarily for temporary or transient occupancy.

E**Easement**

A right of use over the property of another for specific purposes, such as access, drainage, conservation, the location of public improvements, or other specified purpose. An easement does not constitute fee simple ownership of the land, or a license.

Eave

The projecting lower edge of a roof.

Electric Vehicle (EV) Charging Station

A public or private parking space and all associated equipment, including electrical transformers, that is served by battery charging station equipment that has its primary purpose to transfer electric energy (by conductive or inductive means) to a battery or other energy storage device in an electric vehicle.

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Elevated Building

A nonbasement building: (i) built, in the case of a building in zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the flow of the water; and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters.

An examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (*i.e.*, mudflow) and / or flood-related erosion hazards.

Floodplain or Flood-Prone Area

Any land area susceptible to being inundated by water from any source, whether or not identified by FEMA (*see* definition of Flood or Flooding).

Floodplain Development Permit

A City-issued permit or document that is used for any development that occurs within a SFHA identified by FEMA or the City. It is used to address the proposed development to ensure compliance with the requirements of Division 4-1-2, Floodplain Regulations.

Floodplain Administrator

The City official designated by this Code to administer and enforce the floodplain management regulations.

Floodproofing

Any combination of structural and non-structural additions, changes, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents. Floodproofing can either be accomplished in the form of dry floodproofing in which the structure is watertight below the levels that need flood protection, or wet floodproofing in permanent or contingent measures applied to a structure that prevent or provide resistance to damage from flooding, while allowing floodwaters to enter the structure or area.

Food and Retail Truck Vending

Food and retail vending from a readily movable wheeled, motorized vehicle designed and equipped to serve food [or sell retail goods](#) or a wheeled, non-motorized trailer designed and equipped to serve food [or sell retail goods](#), and towed by a motorized vehicle.

Food Vending

The vending of any type of edible substance (except marijuana-infused edibles) or non-alcoholic beverage.

Freeboard

The vertical distance in feet above a predicted water surface elevation intended to provide a margin of safety to compensate for unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood such as debris blockage of bridge openings and the increased runoff due to urbanization of the watershed.

Freestanding Towers

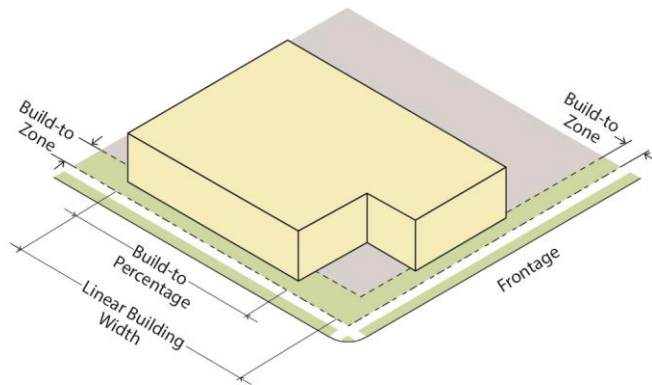
Structures that are designed and constructed to support one or more wireless communications facilities and including all appurtenant devices attached to them. A Freestanding Tower may be designed to be solely supported by attachment to the ground, or supported by direct attachment to the ground and with guy wires, and may be of either lattice or monopole construction.

Frontage

All sides of a lot adjacent to a street shall be considered frontage.

Frontage Zone

The frontage zone is the area on the lot within which the build-to applies. The frontage zone is the area between the minimum and maximum front setback along the public or private streets. The frontage zone must be landscaped or hardscape between the building and the sidewalk.



Fueling/-Service Station

Any building, land area, or other premises used for the retail dispensing or sales of vehicular fuels; Level 3 DC fast-charging or Level 2 charging of electric vehicles; towing of automobiles and light trucks; and including as an accessory use the sale and installation of lubricants, tires, batteries, brakes, mufflers, and similar vehicle repairs and accessory installations. The phrase “fueling/service station” does not include collision centers, or facilities that provide transmission repair, engine overhauls, or repair of heavy trucks or heavy motorized equipment. If a use that fits this definition also includes the sale of ready-to-eat food products (not intended for on-premises consumption), groceries and sundries, or 3.2 beer, such use shall be classified as a “convenience store.”

Funeral Home/Mortuary

A building that is used principally for: (1) human funeral services; (2) embalming and the performance of other services used in the preparation of the dead for burial; or (3) the performance of autopsies and other tests or surgical procedures on human remains. In addition to these functions, funeral homes may also store caskets, funeral urns, hearses and other vehicles used in funeral processions. A funeral home/mortuary may also include a crematorium as an accessory use.

G

Grade

The lowest point or elevation of the finished surface of the ground, paving or sidewalk within the area between the building and the property line, when the property line is more than five feet from the building, or between the building and a line five foot from the building.

Guest House

An accessory dwelling attached to, or detached from, a principal dwelling used to house guests of the occupant of the principal dwelling, and which shall not be rented or leased, or held in ownership by other than the owner of the principal dwelling.

H

Heavy Industry

Industrial uses that are not specifically defined elsewhere in this Code, which can be described in one of the following three ways:

1. Primary processing, manufacturing, assembly or repair operations not specifically defined elsewhere in this Code or this definition, which involve any of the following:
 - a. A material risk of significant environmental contamination, explosion, or fire;
 - b. Perceptible ground vibration at the property line;
 - c. Excessive noise or dust emissions at the property line and downwind;
 - d. Large-scale outdoor storage of inputs or products;
 - e. Significant outdoor installations of processing equipment;
 - f. Outside emission of objectionable odors;
 - g. More than 30 trips by semi-trailer trucks per day; or
2. Processing of minerals (except precious and semi-precious stone cutting for jewelry or precision instruments such as lasers or watches), ores, logs, pulpwood, or fossil fuels; or
3. Activities that are required to undergo New Source Review under the federal Clean Air Act, or are subject to construction or operation permits pursuant to the Colorado Stationary Sources Program or Title V of the federal Clean Air Act.

Heavy Logistics Center

A wholesaling, warehousing, and / or distribution use that provides a central location for receiving, storing and distributing raw materials, semi-finished goods, or finished goods. Heavy logistics centers may be warehouses in which goods are stored (a.k.a. "product warehouses"), or truck terminals in which goods are transferred between trucks or between trucks and trains or other transportation modes (a.k.a. "truck terminals" or "logistics centers"), or moving warehouses (including indoor storage of portable on-demand storage containers), or wholesaling operations (but not wholesale membership clubs in which memberships are available to the general public). Heavy logistics centers are expected to generate at least 50 semi-trailer truck trips per day. Warehousing and distribution uses that involve fewer than 50 semi-trailer truck trips per day are classified as Light Industry.

Historic Structure Any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on the Colorado State Inventory of Historic Places; or

Home Child Care

A facility for child care in a place of residence of a family or person for the purpose of providing less than twenty-four hour care for children under the age of eighteen years old who are not related to the head

or rescued animals are housed and offered for adoption). The term “kennel” does not include the breeding or boarding of animals as an accessory to an agricultural use. Kennels may be accessory to retail uses that principally involve the sale of pets or pet supplies.

L

Landscape Buffer

An area of landscaping separating two distinct land uses, or a land use and a street, and acts to soften or mitigate the effects of one land use on the other.

Landscape Surface Area

Area that is vegetated per the requirements of Article 4-6, Landscape and Buffering, or reserved for the use of outdoor pedestrian and / or non-vehicular recreation activity areas including sidewalks, trails, patios, and decks. Detention areas, buffers, and landscaping within a parking lot may be included. Includes areas dedicated as amenitized landscape surface area and small urban parks. ~~Detention areas, buffers, and landscaping within a parking lot may be included.~~

Open Space, Landscape Surface Area, Amenitized Common

Landscape surface area that is Open space within or related to a development, not individually owned or dedicated for public use but generally owned and maintained by a homeowners association, that is designed for and intended for the common use or enjoyment of the residents, employees, or guests of the development. of the development and their guests, and may include such complementary structures and improvements as are necessary and appropriate. Common open space may include trail areas, gardens, small parks, scenic areas, buffer areas, or similar common areas. Common open space may also include active recreational facilities such as pools, tennis courts, playgrounds, and clubhouses. Common open space shall not include driveways, sidewalks, and parking areas.

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Landscaping

The combination of living plant material (including existing living plants), such as trees, shrubs, vines, ground covers, flowers, vegetables, turf or grass; natural features, such as land and water forms; and structural features, including but not limited to landscaped pedestrian plazas, fountains, reflecting pools, screening, walls, fences and benches.

1. Low-Water-Demand Landscapes means landscapes that require approximately 15% of Reference Evapotranspiration or up to 3 gallons water per square foot during the irrigation season in an average year to maintain optimum appearance. Buffalo Grass is a typical turf type.
2. Moderate-Water-Demand Landscapes means landscapes that require approximately 50% of Reference Evapotranspiration or approximately 10 gallons water per square foot during the irrigation season in an average year to maintain optimum appearance. Turf-type Tall Fescue is a typical turf type.
3. High-Water-Demand Landscapes means landscapes that require approximately 100% of Reference Evapotranspiration or up to 20 gallons water per square foot during the irrigation season in an average year to maintain optimum appearance. Kentucky Bluegrass is the typical turf type.

Letter of Map Revision (LOMR)

FEMA's official revision of an effective flood insurance rate map (FIRM), or flood boundary and floodway map (FBFM), or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA).

Letter of Map Revision Based on Fill ("LOMR-F")

The Federal Emergency Management Agency's ("FEMA's") amendment, by letter, to an effective Flood Insurance Rate Map ("FIRM") where fill was brought in or used to elevate a property, portion of property, or structure above the Base Flood Elevation ("BFE").

Levee

A man-made embankment, usually earthen, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding. For a levee structure to be reflected on the FEMA FIRMs as providing flood protection, the levee structure must meet the requirements set forth in 44 CFR 65.10.

Little Free Library

A free book exchange for anyone to take and usually the size of a large mailbox.

Light Industry

Uses that involve research and development, assembly, remanufacturing, compounding, packaging, testing, or treatment of products, generally from previously prepared materials or components, with limited outside storage and limited external impacts or risks such that the use is not defined as heavy industry or heavy logistics center. Light industry also includes wholesaling, warehousing, and distribution uses that involve fewer than 50 [semi-trailer](#) truck trips per day. For illustrative purposes, light industrial uses include:

1. Assembly, testing, repair, or refurbishing of products, instruments, electronics, office and computing machines, and fixtures using pre-manufactured components;
2. Offices of general contractors; specialty subcontractors; tradesmen; or telecommunications providers which include:
 - a. Overhead door access to indoor storage of tools, parts, and materials;
 - b. Parking of commercial vehicles or a fleet of cars, vans, or light trucks that are used in the business; or
 - c. Limited outdoor storage areas;
3. Food production (e.g., commercial kitchen or bakery) and packaging, but not:
 - a. Meat processing involving butchering of large animal carcasses;
 - b. Medical marijuana-infused products manufacture; and
 - c. Restaurants;
4. Beverage production (non-alcoholic) and bottling;
5. Furniture making or refinishing;
6. Manufacture of textiles or apparel;
7. Screen printing of apparel (except low volume screen printing at a retail store);
8. Printing and publishing, except copy centers, and except printing presses that require a Stationary Source permit or Title V of the Clean Air Act permit for air emissions;
9. Research, development, and testing laboratories (e.g., for development of products, equipment, or materials), if not classified as office, general or professional, or heavy industry;

Nonconforming Use

A use that was legally established prior to the effective date of this Code or subsequent amendment thereof, but that no longer complies with the use regulations that apply within the zoning district in which the use is located.

O

Office, General or Professional

Buildings in which executive, management, professional services, administrative, clerical, brokering, real estate, and limited technical support are provided, or a headquarters of an enterprise or organization, but not including the on-premises sale or retail goods, or any use included in the definitions of personal services.

Open Space

Any parcel or area of land or water essentially unimproved with any residential, commercial, or industrial uses and set aside, dedicated, or reserved for public or private use and enjoyment including recreational, scenic, or environmental purposes. Open space may include agricultural uses and natural features located on a site, including but not limited to meadows, forested areas, steep slopes, floodplains, hazard areas, unique geologic features, ridgelines, unique vegetation and critical plant communities, stream corridors, wetlands and riparian areas, wildlife habitat and migration corridors, areas containing threatened or endangered species and archeological, historical, and cultural resources.

Open Space, Common

~~**Open Space, Common**~~

~~Open space within or related to a development, not individually owned or dedicated for public use but generally owned and maintained by a homeowners association, that is designed and intended for the common use or enjoyment of the residents of the development and their guests, and may include such complementary structures and improvements as are necessary and appropriate. Common open space may include trail areas, gardens, small parks, scenic areas, buffer areas, or similar common areas. Common open space may also include active recreational facilities such as pools, tennis courts, playgrounds, and clubhouses. Common open space shall not include driveways, sidewalks, and parking areas.~~

Ordinary High-Water Mark

The highest point on the bank of a normal stage channel at which the level has been for a sufficient period of time to leave a definite mark.

Ordinary Maintenance or Repair

Any land-use activity undertaken for the purpose of, and in the ordinary course of, maintaining a building, structure, or sign in good condition, and for which a building permit, sign permit, certificate of compliance with design guidelines, or miscellaneous structure permit, is not required by this Code.

OTARD Antenna

An antenna that is designed to receive direct broadcast satellite service, including direct-to-home satellite services, that is one meter or less in diameter; or an antenna that is designed to receive video programming services via multipoint distribution services, including multichannel multipoint distribution

services, instruction television fixed services, and local multipoint distribution services, and that is one meter or less in diameter or diagonal measurement; or an antenna that is designed to receive television broadcast signals.

Outdoor Retail Display

The temporary outdoor display of goods, materials, or other things for sale or rent during a retail establishment's regular business hours.

Outdoor Storage

Storage of materials, merchandise, stock, supplies, machines, operable vehicles, equipment, manufacturing materials, or chattels of any nature that are not kept in a structure having at least four walls and a roof, regardless of how long such materials are kept on the premises. This definition shall not apply to items for sale to the general public such as new and used cars, recreational vehicles, boats, landscape and building materials, where such items are permitted for sale in the zoning district in which they are located. "Outdoor storage" shall not apply to the storage of wrecked or inoperable vehicles. (See "salvage yard".) In addition, "outdoor storage" does not include outdoor parking of motor vehicles regularly used in connection with the operation of an establishment or parked for less than 48 hours for maintenance service.

Overhead Power Lines (110 kV+)

High voltage (110 kilovolts or more) power lines that are used to transmit electricity over long distances.

P

Parapet

An extension of the main exterior walls of a building above the roof level.

Parking, Structured.

A structure that is composed of one or more levels that are used exclusively for the parking of motor vehicles. A parking structure may be totally below grade (underground parking structure); or partially or totally above grade (above-ground parking structure); and may be separate from or integrated into a building that is used for other purposes. Parking structures include parking lifts. Parking structures may include facilities for level 1 or level 2 electric vehicle charging.

Parking, Surface

An area, other than a street or alley, designed or used primarily for the temporary parking of vehicles. Surface parking (a.k.a parking lots) may include facilities for level 1 or level 2 electric vehicle charging. The phrase "parking, surface" does not include driveways on individual lots, nor does it include individual garages or carports.

~~Place of Assembly~~

~~A building in which people assemble for civic, educational, religious, or cultural purposes. This use includes facilities used for worship, meeting halls, event centers, fraternal organizations, and private clubs.~~

Personal Services

An establishment engaged in the provision of informational, instructional, personal improvement, personal care, and similar services, such as portrait shops, photography studios, art and music schools,

licensed massage therapists, driving schools, handicraft or hobby instruction, laundry and dry-cleaning retail outlets, beauty and barber shops, shoe repair, and tailor/alterations shops.

Personal Services Vending

For the purposes of Transient Merchants and Entertainment, the vending of personal services, such as a chair massage, on a one-on-one basis which does not involve the vending of food, merchandise, or entertainment.

Place of Assembly

A building in which people assemble for civic, educational, religious, or cultural purposes. This use includes facilities used for worship; meeting halls; event centers; fraternal organizations; and private clubs.

Porte-cochère

A roofed structure extending from the entrance of a building over an adjacent driveway, used to shelter those getting in or out of vehicles.

Produce Stand

A temporary or permanent structure used for sale of produce and incidentally use for sale of related items which is located on property used for agriculture or community agriculture.

Property

Property may be a single lot, parcel, tract, or plot of land or may be a combination of abutting lots or parcels that will be bound by the approval.

Property Frontage

Property frontage means the length of a front, side, or rear property line that abuts a street right-of-way.

Property Line

The legally described boundary line that indicates the limits of a parcel, tract, lot, or block for the purpose of delineating ownership and setback requirements.

Public Building

Any building held, used, or controlled exclusively for public purposes by any department or branch of government: state, county, municipality or special district, without reference to the ownership of the building or of the realty upon which it is situated.

Public Park or Public Land

Any land or park that is held, used, or controlled exclusively for public purposes by any department or branch of government; state, county, municipality or special district, without reference to the ownership of the building or of the realty upon which it is situated.

Public Space

Property, other than street right-of-way, that is owned or controlled by the City or another governmental entity and intended for or appropriate for use and enjoyment by the general public.

Pushcart

Replacement Pole

A newly constructed and permitted traffic signal, utility pole, street light, flagpole, electric distribution, or street light poles or other similar structure of proportions and of equal height or such other height that would not constitute a substantial change to a pre-existing pole or structure in order to support a WCF or Small Cell Facility or to accommodate collocation and removal of the pre-existing pole or structure.

Resource Extraction (Minerals)

The extraction of coal or other mineral resources (including sand and gravel, but not oil and gas) from the land (surface or subsurface). The phrase “resource extraction, (minerals)” does not include cut and fill operations within a property, construction of canals or reservoirs, or the removal and transportation of fill from one property to another as part of an approved development plan, provided that both properties are controlled by the same landowner.

Resource Extraction (Oil and Gas)

Exploration for and production of oil and natural gas.

Restaurant

An establishment engaged in the sale of food and beverages in a ready-to-consume state, and which may include the production and sale of fermented malt beverages, malt, special malt, and vinous and spirituous liquors for consumption on the premises as an accessory use.

Restaurant, Fast Food

A restaurant whose principal business is the sale of pre-prepared or rapidly prepared food to the customer in a ready-to-consume state for consumption either within the restaurant building or for carry-out with consumption off the premises, and whose design or principal method of operation includes two or more of the following characteristics:

1. The elimination, in whole or in part, of table service, thus requiring customers to place orders at the counter where the orders are filled;
2. The food is served in edible containers or in paper, plastic, foil or other disposable containers; or
3. The facilities for on premises consumption of food are insufficient for the volume of food sold by the establishment.

Retail Sales and Services, Type 1

A use involving the sale, lease, or rental of consumer, home, and business goods to consumers. Such uses include but are not limited to department stores, furniture stores, clothing stores, and establishments providing the following products or services: antiques, appliances, art, art supplies, beauty supplies, bicycles, books, magazines and newspapers, craft supplies, copies, costumes, dry goods, electronics, fabric, framing, garden supplies, gifts, groceries, hardware, home improvement goods, household products, jewelry, music, musical instruments, office supplies, party supplies, pet grooming, pet supplies, pharmaceuticals, phones, photography equipment, produce, signs, sporting goods, stationary, toys, and videos; and new automotive parts and accessories. The phrase also includes services such as banking, picture framing, installation of electronics (e.g., audio systems and navigation systems) into motor vehicles, real estate offices that are open for walk-in traffic; repairs of products sold by the establishment (e.g., a computer store may also repair computers), repairs of consumer electronics, tattoo parlors, and comparable services that are not included in the definition of the phrase “Retail Sales and Services, Type 2.” The phrase “Retail Sales and Services, Type 1” does not include uses that are classified or defined more specifically in this Code, including but not limited to “Retail Sales and

Semi-Trailer Truck Trip

A semi-trailer truck trip involves the inbound and outbound movement of the truck on a site, with both movements being considered a single trip.

Setback

The required minimum distance between the lot line and the closest projection of a building or structure along a line at right angles to the lot line.

Setback, Front

A setback extending across the full width of the front of a lot or site, the required depth of which is measured from the street right-of-way line.

Setback, Rear

A setback that extends across the full width of the rear of a lot, the depth of which is measured from the rear lot line.

Setback, Side

A setback that extends from the front setback line to the rear setback line, the required depth of which is measured from a right angle from the interior side lot line.

Shroud

A protective covering for small cell antennas and related equipment that conceals these components from public view and is generally mounted at the top of Small Cell Facilities.

Sign

Any advertisement, identification, announcement, direction, or communication produced in whole or in part by the construction, erection, affixing or placing of a structure on any land or on any other structure or produced by painting on or posting or placing any printed, lettered, pictured, figured or colored material on any building, structure or surface.

Sign Face

The surface area of a sign which is designed for placement of text, symbols, or images. The sign face does not include the supporting structure, if any, unless the supporting structure is used for the display of text, symbols, or images. For wall signs, the sign face is equal to the sign area of the wall sign, or the area within any frame or color used to define, differentiate, or mount the wall sign, whichever is larger.

Sign, Applied or Painted

A wall sign that is applied to or painted on a building wall, such that the sign appears flush with, or within not more than one inch of, the surface of the wall.

Sign, Attached

A wall sign, a window sign, a roof sign, or a projecting sign.

Sign, Awning

A projecting sign that is integrated into or applied to an awning that is attached to a building.

Sign, Banner

Sign, Banner Frame

A frame that is secured to a building wall and used to stretch banners such that they are tightly stretched and their mounting hardware is hidden from view.

Sign, Cabinet

A sign composed of a frame or external structure with a box-like design that encloses a sign face and other functional elements of the sign, including dimensional or electrical components.

Sign, Canopy

A sign with one face affixed to a canopy. For purpose of this definition, a canopy is an attached or detached structure, open on at least one side, which is designed to provide overhead shelter from the sun or weather. Canopies include, but are not limited to, service station canopies, carports, porte-cocheres, arcades and pergolas.

Sign, Changeable Copy

A sign or any portion of a sign, which is capable of conveying messages to the public by means of changing the images, letters or numbers, either manually or electronically.

Sign, Detached

A sign that is not attached to or located inside of a building.

Sign, Digital Electronic Message Center

A sign with a display surface that is composed of light emitting diodes (LEDs) that is capable of displaying variable messages and graphics, which are generally created on a computer.

Sign, Dimensional Wall

A three-dimensional sign that is attached to a building wall, such that the elements of the sign do not extend more than eight inches from the building wall. Dimensional wall signs include, but are not limited to, channel lettering.

Sign, Feather Flag

A sign made up of a flexible piece of fabric that is attached to a flexible pole along a long edge such that the pole stretches the fabric taut regardless of wind conditions.

Sign, Fin

A projecting sign that is mounted on, or affixed to a building wall, such that the sign face is generally perpendicular to the building wall. In addition to the wall mount or mounts, a fin sign may include ground-mounted support structures.

Sign, Hanging

A sign that is mounted under an awning or canopy, or under a cantilevered portion of a building. Generally, hanging signs are oriented perpendicular to the building wall.

Sign, Informational

An on-premise sign which gives direction, instructions or facility information and does not contain the name or logo of an establishment or contain any advertising copy, such as: parking, exit or entrance signs.

Land Development Code 2021 Proposed Amendments City Council Workshop

September 13, 2021



We Dream Big and
Deliver

WHY THE AMENDMENTS?

After use of the Land Development Code (LDC) for over a year, the City team has identified a number of minor changes and a few major changes that will make the Code easier to understand and administer.

Fine-tuning was anticipated, as new concepts and processes were introduced with the LDC.

Overall, administration of the LDC has been successful.

SUMMARY OF SIGNIFICANT AMENDMENTS

Animal Day Care/Training as a Conditional Use in the RA Zoning District:

- Table 3-1-2-5: Commercial Land Use by Zoning District.
- Kennels are already a Conditional Use.
- Animal Day Care/Training would generally be less impactful.

Caretaker residence for Kennels:

- Section 3-1-3-5: Commercial Standards.
- Clarify that a caretaker residence is allowed and define the requirements.

SUMMARY OF SIGNIFICANT AMENDMENTS

Revise distance Food and Retail Truck Vending can be from residential or mixed-use:

- Section 3-1-4-5: Food and Retail Truck Vending.
- Allow the distance to be measured from a home or building, rather than a zoning district boundary.

Clarification of Landscape Surface Area and Amenitized Landscape Surface Area (Article 4-3):

- Sections 4-3-2-2 and 4-3-2-3 added to replace Common Open Spaces.
- Reduces confusion regarding the difference between active and passive landscape areas.

SUMMARY OF SIGNIFICANT AMENDMENTS

Parking requirement for townhome units:

- Table 4-5-2-2A: Residential Land Use Parking Standards.
- Increase parking requirement from 2 to 2.2 spaces per unit to account for guest parking.

Expand Off-Site Parking distance restriction:

- Section 4-5-3-4: Off-Site Parking.
- Allow parking to be located up to 500 feet from the property it is serving. However, the distance the off-site property is located from the property it is serving has been reduced from 300 to 200 feet.

SUMMARY OF SIGNIFICANT AMENDMENTS

Clarify bike parking requirements:

- Section 4-5-3-8: Bicycle Parking Design.
- Revised standards to better differentiate between short and long term requirements.

Clarify landscape bufferyard location requirements:

- Section 4-6-5-2: Bufferyard Purpose and Applicability.
- Revised situations in which bufferyards are required when new development is located adjacent to various dwelling types and RN zoning districts.

SUMMARY OF SIGNIFICANT AMENDMENTS

Revise exterior lighting requirements and standards:

- Article 4-8: Exterior Lighting.
- The standards and requirements have been simplified and clarified throughout the article to avoid continued confusion.

Clarify the location of Accessory Dwelling Units on interior lots:

- Section 5-1-5-2: Accessory Dwelling Units.
- Clarifies that ADUs shall always be located at or behind the front plane of the primary residential unit regardless of lot type.

SUMMARY OF SIGNIFICANT AMENDMENTS

Add a section related to electric vehicle charging stations:

- Section 5-1-6-8: Electric Vehicle (EV) Charging Stations.
- In response to recent requests for charging stations, and to get ahead of anticipated demand, a section regarding requirements and standards has been added to the LDC.

Revise the minor defects section related to public hearing notice requirements:

- Section 8-2-4-1: General Notice Requirements.
- Allows for more flexibility in determining what constitutes a minor defect in noticing.

SUMMARY OF SIGNIFICANT AMENDMENTS

Expand Site Plan approval criteria related to project amenities to include additional housing types and zoning districts:

- Section 8-3-5-3: Site Plan.
- Added the R6, R13 and R24 zoning districts and townhome development into the approval criteria related to amenities, pedestrian facilities and quality design in order to create more complete neighborhoods.

Add Notice of Administrative Decision:

- Added a discretionary notice by the Director.
- If required, the notice would be mailed by the applicant ten days prior to a decision being made.
- Allows for additional public comment prior to the decision.

SUMMARY OF SIGNIFICANT AMENDMENTS

Add or revise definitions:

- Electric Vehicle (EV) Charging Station
- Food and Retail Truck Vending
- Fueling/Service Station
- Heavy Logistics Center
- Landscape Surface Area
- Landscape Surface Area, Amenitized
- Light Industry
- Produce Stand
- Semi-Trailer Truck Trip

TOPICS FOR DISCUSSION

Appeals Process

Conditional Use Process

Questions/Additional Topics?



REPORT FROM CITY COUNCIL

AGENDA ITEM
13.A.

DATE: September 13, 2021

SUBJECT: Council Committee Reports

Report in Brief

City Council members are appointed to various committees and boards as set out on the attached listing. As meetings are held, individual council members will report back to the full City Council any relevant discussions and issues that occurred.

Prepared by:
Chris Koch, CCO Admin

Reviewed by:

Approved by:

Enclosure, exhibits & attachments required to support the report

Council Member	Committee
Marc Williams	Arvada Urban Renewal Authority E-470 Authority (alternate) Jefferson Parkway Public Highway Authority Northwest Parkway Authority (Associate Member) (alternate) Urban Drainage and Flood Control District West Connect Coalition *Metro Mayors Caucus
Dot Miller	Adams County Economic Development Association Arvada Municipal Court/Judicial Committee CML Policy Committee Jefferson County Community Corrections Board (alternate) Smart City Advisory Committee
Bob Fifer	Apex Coordinating Committee Arvada Fire Protection District Coordinating Committee Arvada Transportation Committee Denver Regional Council of Governments Jefferson County R-1 Schools Coordinating Committee Jeffco Transportation Action & Advisory Group (JEFFTAAG) Smart City Advisory Committee
Nancy Ford	Arvada Center for the Arts and Humanities Arvada Sustainability Advisory Committee Arvada Visitors Center Committee (alternate) Rocky Flats Stewardship Council
David Jones	E-470 Authority (alternate) Jefferson County Community Corrections Board Jefferson County R-1 Schools Coordinating Committee Jefferson Economic Development Council (JEDC) Jefferson Parkway Public Highway Authority Northwest Parkway Authority (Associate Member) (alternate) West Connect Coalition (alternate)
John Marriott	Adams County Economic Development Association (alternate) Apex Coordinating Committee Arvada Audit Committee Arvada Economic Development Association Board Arvada Municipal Court/Judicial Committee CML Policy Committee Denver Regional Council of Governments (alternate) Jeffco Transportation Action & Advisory Group (JEFFTAAG) (alternate) Olde Town Business Improvement (BID) District Rocky Mountain Metropolitan Airport Community Noise Roundtable
Lauren Simpson	Arvada Audit Committee Arvada Fire Protection District Coordinating Committee Arvada Visitors Center Committee Smart City Advisory Committee

*Asterisked committees are not appointed by Council



REPORT TO CITY COUNCIL

AGENDA ITEM
14.A.

TO: THE HONORABLE CITY COUNCIL

DATE: September 13, 2021

SUBJECT: Review of Future Workshops and Presentations

Report in Brief

The City Manager's Office maintains a list of upcoming workshops and presentations to be scheduled for City Council meetings. During City Manager Reports, at the end of City Council business meetings, City Manager, Mark Deven, will review with City Council the tentative schedule and make any adjustments necessary.

Prepared by:
Chris Koch, CCO Admin

Reviewed by:

Approved by:

Rachel Morris, City Attorney	9/2/2021
Lorie Gillis, Deputy City Manager	9/2/2021
Mark Deven, City Manager	9/2/2021

Enclosure, exhibits & attachments required to support the report

2021 CITY COUNCIL WORKSHOPS, PRESENTATIONS AND RETREATS (TENTATIVE)

WORKSHOPS	Date	Lead
LDC Update @ Business Meeting	Sept 13	CED
Water and Sewer Infrastructure Funding @Business Meeting	Sept 20	Utilities
Budget Presentation	Sept 27	Fin
Pay Plan	Oct 11	Fin
Sub-Area Plans	Oct 11	CED
Communications Update	Oct 25	CMO
Bond Project Update	Nov 22	PW
Water Rates – follow up to Aug 23	TBD	
	Dec 13	
2022		
Master Plan Update on Storm and Wastewater	Jan 10	PW
TBD's		
CIP Update	TBD	Finance
Council Retreat Update	TBD	CMO
Pocket Neighborhoods	TBD	
Meyers Pool	TBD	CMO
City Marketing Plan	TBD	CMO
Traffic Violation Fee	TBD	PW
Financial Scenarios for Street Maintenance Deficit/Options for Increasing Maintenance Funds Engage City Council in a discussion around the current street maintenance needs and how the City might fund them. This will include revenue enhancements, future allocations and expenditure realignments.	TBD	PW/Fin/ CMO
Fiber Master Plan The Fiber Master Plan which is also called Arvada Fiber Optic Network (AFON), was first presented to City Council 4/10/2017. City Councils had set a strategic goal to build a fiber network to enable high speed/real-time connectivity to city facilities and assets in order to enhance city operations. This workshop is intended to brief City Council as to the progress of the AFON build out. Updates are intended to cover conduit installation progress, fiber installation progress, current collocate opportunities, IGA member updates, and connections to current assets (city buildings, traffic, signals, utilities, radio, etc.).	TBD	PW
Community Survey Update The purpose of this item is to continue a discussion with Council about the Community Survey results and what the City team is doing to apply what is learned. Discussion will include an update on action plans targeting key drivers of the City's 5-star rating as well as how Worksystems are targeting specific measures.	TBD	CMO
Problem Properties	TBD	P.D.
Water Storage – Plan B (include with master plan presentation)	TBD	Utilities
Activation of Historical Assets	TBD	VCN
N.W. Arvada	TBD	CED
Body Worn Cameras	TBD	PD
Customer Service Philosophy	TBD	CMO
Ask Arvada Update	TBD	CMO
Diversity and Equity Committee	TBD	CMO

COUNCIL JOINT MEETINGS/DINNERS:		
Denver Water Board Apex Board AURA Board Arvada Center Board—Per Coop Agreement - Annually after October 1 of each year Jefferson Parkway Meeting with Jeffco and Broomfield Council Annual Retreat	May 14	