

City of Arvada

City Council Agenda

APRIL 1, 2024

CITY COUNCIL CHAMBERS

Regular Business

Councilmembers:

Lauren Simpson, Mayor
Randy Moorman, Mayor Pro-Tem
Shawna Ambrose, District 2
Sharon Davis, At large
Lisa Feret, At large
Bob Fifer, District 4
John Marriott, District 3

Staff Members Usually Present:

Lorie Gillis, City Manager
Linda Haley, Deputy City Manager
Don Wick, Deputy City Manager
Rachel Morris, City Attorney
Jacqueline Rhoades, Director of Public Works
Sharon Israel, Director of Utilities
Jessica Garner, Director of Community & Econ. Dev.
Bryan Archer, Director of Finance
Gabriella Bommer, Director of Human Resources
Rachael Kuroiwa, Director of Communications & Engagement
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 Moorman
3. Roll Call of Councilmembers
4. Approval of Minutes
 - A. March 18, 2024 City Council Meeting
5. Recognitions and Communications
 - A. Proclamation for Child Abuse Prevention Month - Presented by Councilmember Ambrose
 - B. Proclamation for National Volunteer Month - Presented by Councilmember Fifer
 - C. Recognition of State Champion Wrestlers in Arvada - Presented by Councilmember Marriott
6. Presentations - None
7. Public Comment on Issues not Scheduled on Agenda - Three Minute Limit
8. New Business
 - A. Consent Agenda
 1. R24-034, A Resolution Authorizing a Non-Exclusive Easement Agreement Between the City and County of Denver, Acting by and Through Its Board of Water Commissioners, and the City of Arvada, for Arvada's Raw Water Line and Appurtenances

2. R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000.
3. R24-036, 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 for Marshall Pointe Apartments
4. R24-037, 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 for Ralston Gardens Apartments

B. Resolutions

1. R24-038, A Resolution Authorizing Acceptance of an Intergovernmental Agreement between the Jefferson Parkway Public Highway Authority (JPPHA) and the City of Arvada for the Secondment of an Arvada Employee to JPPHA

C. Ordinances (First Reading)

1. CB24-005, An Ordinance Authorizing an Additional Appropriation for Fiscal Year 2024 (Public Hearing to be set for April 15, 2024 at 6:15 P.M.)
2. CB24-006, An Ordinance Repealing and Reenacting Certain Sections of Chapter 6 Alcoholic Beverages, of the Arvada City Code (Public Hearing to be set for April 15, 2024 at 6:15 p.m.)

9. Other

- A. Appointment to Metro Water Recovery Board

10. Public Hearings - 6:15 PM

- A. CB24-004, An Ordinance Amending the Cable Television Franchise Agreement between the City of Arvada and TDS BAJA Broadband Service LLC to Extend the Term of the Franchise Until July 31, 2025 (Ordinance No. 4870)

11. Public Comment - Five Minute Limit

12. Reports from City Council

- A. Council Committee Reports

13. Reports from City Manager

- A. Review of Future Workshops and Presentations

14. Reports from City Attorney

15. Adjournment



**SUMMARY OF MINUTES OF THE MEETING OF THE ARVADA CITY COUNCIL HELD
MARCH 18, 2024**

1. Executive Session – 5:00 p.m.
 - A. Legal Advice, Pursuant to CRS 24-6-402(4)(b) Relating to General Litigation Strategy and Reporting.

Councilmember Ambrose moved to go into executive session for Legal Advice, Pursuant to CRS 24-6-402(4)(b) Relating to General Litigation Strategy and Reporting.

The following votes were cast on the Motion:

Those voting Yes: Simpson, Moorman, Ambrose, Davis, Feret, Marriott

Those Absent: Fifer

The Motion was Approved

1. Call to Order - 6:20 p.m.

This Arvada City Council meeting was a hybrid meeting using webinar technology. Mayor Simpson, Mayor Pro Tem Moorman, Councilmember Ambrose, Councilmember Davis, Councilmember Feret, Councilmember Marriott were all present in chambers. Members of the public were given notice with instructions on how to participate with public comment.

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

Those Present: Mayor Lauren Simpson, Mayor Pro Tem Randy Moorman, Councilmember Shawna Ambrose, Councilmember Sharon Davis, Councilmember Lisa Feret, Councilmember John Marriott

Councilmember Ambrose moved to excuse Councilmember Fifer from the meeting.

The following votes were cast on the Motion:

Those voting Yes: Simpson, Moorman, Ambrose, Davis, Feret, Marriott

Those Absent: Fifer

The Motion was Approved

Also Present: Lorie Gillis, City Manager; Rachel Morris, City Attorney; Linda Haley, Deputy City Manager; Don Wick, Deputy City Manager; Bryan Archer, Director of Finance; Jessica Garner, Director of Community and Economic Development; Katie Patterson, Communications Manager, Infrastructure, and Kristen Rush, City Clerk.

4. Approval of Minutes – March 4, 2024

The minutes stand approved

5. Recognition and Communication – None

6. Presentations – None

7. Public Comment –

A. Thomas Olschner, Arvada resident, addressed council regarding Mission Arvada.

B. Mary Bresnahan, Arvada resident, addressed council regarding a neighbor dispute.

8. New Business

A. Consent Agenda

1. R24-026 A Resolution Authorizing an Agreement By And Between The City of Arvada And Hallmark, Inc. For Grandview Bridge Repair, Project No. 23-BR-04, in an Amount Not to Exceed \$602,654.00
2. R24-027 A Resolution Authorizing an Agreement Between the City of Arvada and Colorado Designsapes, Inc. for Construction of the Marge Roberts Park & Playground Renovations (CSB 24-VCN-009) In an Amount Not to Exceed \$1,591,486.00
3. R24-028 A Resolution Merging the City of Arvada Executive Defined Contribution Retirement Plan into the City of Arvada Retirement Plan and Amending and Restating the City of Arvada Retirement Plan
4. R24-029 A Resolution Authorizing Amendment No. 1 to "An Agreement By and Between the City of Arvada and AGL Construction Company for Services Related to the Utilities Service Line Investigation and Replacement Project," Awarding Phase II Services to AGL Construction Company, thereby Increasing the Contract Total to an Amount Not to Exceed \$2,000,000.00 for all Services
5. R24-030 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
6. R24-031 A Resolution Authorizing the Submission of a Grant Application to the Colorado Department of Local Affairs for the Marshall Pointe Apartments Project

Councilmember Feret moved that R24-026, A Resolution Authorizing an Agreement By And Between The City of Arvada And Hallmark, Inc. For Grandview Bridge Repair, Project No. 23-BR-04, in an Amount Not To Exceed \$602,654.00; R24-027, A Resolution Authorizing An Agreement Between the City of Arvada and Colorado Designsapes, Inc. for Construction of the Marge Roberts Park & Playground Renovations (CSB 24-VCN-009) In an Amount Not to Exceed \$1,591,486.00; R24-028, A Resolution Merging the City of Arvada Executive Defined Contribution Retirement Plan into the City of Arvada Retirement Plan and Amending and Restating the City of Arvada Retirement Plan; R24-029, A Resolution Authorizing Amendment No. 1 to "An Agreement By and Between the City of Arvada and AGL Construction Company for Services Related to the Utilities Service Line Investigation and Replacement Project," Awarding Phase II Services to AGL Construction Company, thereby Increasing the Contract

Total to an Amount Not to Exceed \$2,000,000.00 for all Services; R24-030, 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; R24-031, A Resolution Authorizing the Submission of a Grant Application to the Colorado Department of Local Affairs for the Marshall Pointe Apartments Project, be approved.

The following votes were cast on the Motion:

Those voting Yes: Simpson, Moorman, Ambrose, Davis, Feret, Marriott

Those Absent: Fifer

The Motion was Approved

B. Resolutions –

1. R24-032 A Resolution Authorizing Amendment No. 1 to an Intergovernmental Agreement Among City of Wheat Ridge and City of Arvada, Regarding Roadway Improvements in the Wheat Ridge - Ward Road Station Area

Jacqueline Rhodes, Public Works Director, reviewed this Resolution with Council

Councilmember Feret moved that R24-032, A Resolution Authorizing Amendment No. 1 to an Intergovernmental Agreement Among City of Wheat Ridge and City of Arvada, Regarding Roadway Improvements in the Wheat Ridge - Ward Road Station Area, be approved.

The following votes were cast on the Motion:

Those voting Yes: Simpson, Moorman, Ambrose, Davis, Feret, Marriott

Those Absent: Fifer

The Motion was Approved

2. R24-033 A Resolution Authorizing the Naming of the New Pool Facility Located at 7904 Carr Drive, Arvada, CO 80003

Katie Patterson, Communications Manager, Infrastructure, reviewed this resolution with council.

Mayor Pro Tem Moorman moved that R24-033, A Resolution Authorizing the Naming of the New Pool Facility as Arvada Aquatics Center, Located at 7904 Carr Drive, Arvada, CO 80003, be approved.

The following votes were cast on the Motion:

Those voting Yes: Simpson, Moorman, Ambrose, Davis, Feret

Those voting No: Marriott

Those Absent: Fifer

The Motion was Approved

C. Ordinances (First Reading) –

1. CB24-004 An Ordinance Amending the Cable Television Franchise Agreement between the City of Arvada and TDS BAJA Broadband Service LLC to Extend the Term of the Franchise Until July 31, 2025 (Public Hearing to be set for April 1, 2024, at 6:15 p.m.)

Mayor Pro Tem Moorman moved that CB24-004, An Ordinance Amending the Cable Television Franchise Agreement between the City of Arvada and TDS BAJA Broadband Service LLC to Extend the Term of the Franchise Until July 31, 2025, be approved on first reading, ordered published in full and a Public Hearing date set for April 1, 2024, at 6:15 p.m.

The following votes were cast on the Motion:

Those voting Yes: Simpson, Moorman, Ambrose, Davis, Feret, Marriott

Those Absent: Fifer

The Motion was Approved

9. Other – None

10. Public Hearings – None

11. Workshops

- A. Diversity, Equity, Inclusion Update - Assessment of City Services

Linda Haley, Deputy City Manager said that the City team is continuing to make steady progress in addressing City Council goals to enhance our services to our community. As a reminder, the team suffered an unfortunate setback when the DEI consultant we hired in 2023 failed to meet the expectations of the contract. However, our internal team remains fully committed to this work. We are in the process of analyzing data and information we have been able to use from 2023 and prior years. With this analysis, we are creating a revised project plan that includes goals and action items for the remainder of 2024.

Ms. Haley provided an overview of the data, themes and patterns we have found from our analysis, including the findings from our community landscape analysis that will help inform our action planning for 2024 and also provided a status update of our progress towards meeting City Council's DEI goals as outlined below:

- Equity audit of services: A formalized and structured review of City services using metrics and done by an outside, experienced neutral group.
- Language tools and translation: Applications, services, and other means to provide City services to residents and guests who do not speak English as a first language.
- Public messaging and events: Supporting communities to varying degrees in order to promote diverse backgrounds through public communications and supporting and/or sponsoring events.
- Relationship building with targeted groups: Examples include stakeholder engagement with community leaders of specific racial/ethnic/religious groups as well as community outreach to discuss City services to get residents' input.
- Reviewing/changing policies: Conduct a thorough review of City policies and procedures

- with internal staff members to determine DEI gaps and recommend improvements.
- Incorporating DEI into our budget – both revenues and expenditures: Examples include hiring staff and/or prioritizing projects that advance equity.

Ms. Haley discussed the challenges and opportunities in furthering this important work.

Next Steps: The City team will continue to advance their work accordingly.

12. Public Comment - Five Minute Limit
 - A. Tom Ullrich, Arvada resident, addressed council regarding tonight's workshop.
 - B. Eric Myers, Arvada resident, addressed council regarding tonight's workshop.
 - C. Jordan Green, Arvada resident, addressed council regarding development, city infrastructure and community connections.
 - D. Jo Burns, Arvada resident, addressed council regarding Island Heat Index and our community.
 13. City Council Reports –
 - A. Councilmember Davis said that she attended the final girder placement at the new aquatic center.
 - B. Councilmember Ambrose reported on the NLC Conference that she, Mayor Simpson, Mayor Pro Tem Moorman and City Manager Lorie Gillis attended.
 - C. Mayor Pro Tem Moorman thanked Linda Haley and her team for their work on the DEI&A presentation.
 - D. Councilmember Moorman invited everyone to his rescheduled Coffee Chat on March 29 from 2-4 p.m. at Sweet Bloom Coffee Roasters, 7745 Wadsworth Blvd.
 - E. Councilmember Feret thanked everyone for their respectful comments tonight.
 - F. Mayor Simpson invited everyone to attend via Zoom, the north Jeffco Town Hall Meeting on Saturday
 - G. Mayor Simpson said that the Joe Hengstler, Director of the Olde Town Business Improvement District has been diagnosed with cancer and that she will be posting fundraising information on her social media to help raise money for he and his family.
 14. City Manager Reports –
 - A. Lorie Gillis, City Manager, reviewed the upcoming workshop schedule.
 15. City Attorney Reports – None
 16. Adjournment at 7:45 p.m.
-

City of Arvada
March 18, 2024
Page 6

Lauren Simpson, Mayor

SEAL:

Kristen R. Rush, City Clerk



REPORT TO CITY COUNCIL

AGENDA ITEM
5.A.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: Proclamation for Child Abuse Prevention Month - Presented by Councilmember Ambrose

Report in Brief

City Council will designate April, 2024 as Child Abuse Prevention Month in Arvada by presenting two Proclamations. Lisa Gallegos, Development Manager for CASA (Court Appointed Special Advocates for Children) will be present to accept the Proclamation for CASA Adams/Broomfield. Michele Fisher will be present to accept the Proclamation for CASA Jeffco/Gilpin.

Prepared by:

Chris Koch, CCO Admin

Reviewed by:

Toni Riebschlager, Law Office Administrator 3/7/2024

Laura Hemler, Assistant City Attorney 3/7/2024

Approved by:

Linda Haley, Deputy City Manager 3/7/2024

Rachel Morris, City Attorney 3/11/2024

Lorie Gillis, City Manager 3/11/2024

Enclosure, exhibits & attachments required to support the report

WHEREAS, although every child deserves to grow up in a nurturing environment, free from harm and fear, all children do not receive appropriate care; in fact, too many children become victims at the hands of abusive perpetrators; and

WHEREAS, Arvada has dedicated individuals and organizations who work daily to counter the problem of child abuse and to help parents obtain the assistance they need; and

WHEREAS, our community is stronger when all citizens become aware of child abuse prevention and become involved in supporting parents to raise their children in a safe and nurturing environment; and

WHEREAS, effective child abuse prevention programs, such as Ralston House, succeed because of partnerships among families, social service agencies, schools, religious and civic organizations, law enforcement agencies and the business community; and it is up to us as a community to work tirelessly to end the abuse through awareness and action; and

WHEREAS, all citizens, community agencies, faith organizations and businesses will work to increase their efforts to support families;

NOW, THEREFORE, BE IT PROCLAIMED that the Mayor and the Arvada City Council hereby designate the month of April 2024 as CHILD ABUSE PREVENTION MONTH. We encourage all Arvada citizens to join in renewing our commitment to preventing child abuse and learning what we can do to promote the safety and well-being of children. Every responsible person will agree that even one abused child is too many.

Dated this 1st day of April, 2024

Lauren Simpson, Mayor

Randy Moorman, Mayor Pro Tem

Shawna Ambrose, Councilmember

Sharon Davis, Councilmember

Lisa Feret, Councilmember

Bob Fifer, Councilmember

John Marriott, Councilmember



REPORT TO CITY COUNCIL

AGENDA ITEM
5.B.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: Proclamation for National Volunteer Month - Presented by Councilmember Fifer

Report in Brief

Arvada resident Kendrick Bass and his son Kyle have stepped up this Winter to shovel for many at-risk neighbors through the City's Snow Buddies Program. They regularly remove snow for two houses and during the most recent snowstorm, they were eager to do more as they took on short-term assignments to shovel for an additional list of houses. Kendrick and Kyle represent the essence of the City's Volunteers, a group of caring and dedicated residents committed to making Arvada a better place.

City Council will proclaim the month of April, 2024 as National Volunteer Month in Arvada.

Prepared by:
Chris Koch, CCO Admin

Reviewed by:
Toni Riebschlager, Law Office Administrator 3/7/2024
Laura Hemler, Assistant City Attorney 3/7/2024

Approved by:

Linda Haley, Deputy City Manager 3/7/2024
Rachel Morris, City Attorney 3/11/2024
Lorie Gillis, City Manager 3/11/2024

Enclosure, exhibits & attachments required to support the report

WHEREAS, in the United States, April is National Volunteer Month – a month dedicated to recognizing the Importance of volunteering and honoring the significant contributions volunteers make by Generously donating their time and talents to worthy causes; and

WHEREAS, more than 700 community members volunteer in Arvada for teams, departments, boards and Commissions all connected to the City of Arvada organization; and

WHEREAS, one of the greatest benefits of an active and engaged community is the byproduct of stronger And more resilient neighborhoods and an increased quality of life; and

WHEREAS, we celebrate all community members in Arvada and beyond who choose to volunteer with any Cause that builds positive connections be it cleaning a creek with Adopt-a-trail, or shoveling Snow for a neighbor in need through the Snow Buddies program; and

WHEREAS, volunteers are crucial to the ability of any community to maximize its potential in creating and Maintaining a great place to live, work and play.

NOW, THEREFORE BE IT PROCLAIMED, by the Mayor and City Council of the City of Arvada that April, 2024 be designated Volunteer Month in Arvada.

Dated this 1st day of April, 2024.

Lauren Simpson, Mayor

Randy Moorman, Mayor Pro Tem

Shawna Ambrose, Councilmember

Sharon Davis, Councilmember

Lisa Feret, Councilmember

Bob Fifer, Councilmember

John Marriott, Councilmember



REPORT TO CITY COUNCIL

AGENDA ITEM
5.C.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: Recognition of State Champion Wrestlers in Arvada - Presented by Councilmember Marriott

Report in Brief

Many student-athletes from Arvada were crowned as state champions during this season's Colorado High School Activities Association state wrestling championships.

Lincoln Gregersen became Ralston Valley High School's first ever individual wrestling state champion this year. Upon graduation, Lincoln will head to Colorado Springs to become a Cadet and will wrestle for the Air Force Academy.

The Pomona High School's Girls Wrestling Team claimed their first ever team state championship this year. The Panthers also won four individual state championships, including Persaeus Gomez becoming the first-ever 4-time state champion in the history of CHSAA Girls Wrestling. The Girls Wrestling Team is led by Head Coach Victor Gomez.

The Pomona High School's Boys Wrestling Team won their 6th consecutive state championship this year. The Panthers have sustained dominance, winning the team state championship in 8 of the past 9 years. This program holds the state record for total points after scoring 278.5 total points during the 2023 CHSAA team state championships. The Boys Wrestling Team is led by Head Coach Sam Federico and all Athletics at Pomona High School are led under the guidance of Athletic Director DJ Yeager.

Prepared by:
Chris Koch, CCO Admin

Reviewed by:
Toni Riebschlager, Law Office Administrator 3/11/2024
Laura Hemler, Assistant City Attorney 3/11/2024

Approved by:

Linda Haley, Deputy City Manager 3/11/2024
Rachel Morris, City Attorney 3/18/2024
Lorie Gillis, City Manager 3/19/2024

Enclosure, exhibits & attachments required to support the report

presented to

LINCOLN GREGERSEN

*In recognition of becoming Ralston Valley High School's first
ever Individual Wrestling State Champion*

Presented this 1st day of April, 2024

Lauren Simpson, Mayor

Randy Moorman, Mayor Pro Tem

Shawna Ambrose, Councilmember

Sharon Davis, Councilmember

Lisa Feret, Councilmember

Bob Fifer, Councilmember

John Marriott, Councilmember

presented to

***POMONA HIGH SCHOOL
GIRLS WRESTLING TEAM***

In Recognition of Winning your 1ST State Championship

Presented this 1st day of April, 2024

Lauren Simpson, Mayor

Randy Moorman, Mayor Pro Tem

Shawna Ambrose, Councilmember

Sharon Davis, Councilmember

Lisa Feret, Councilmember

Bob Fifer, Councilmember

John Marriott, Councilmember

presented to

***POMONA HIGH SCHOOL
BOYS WRESTLING TEAM***

*In Recognition of Winning your 6th Consecutive State
Championship*

Presented this 1st day of April, 2024

Lauren Simpson, Mayor

Randy Moorman, Mayor Pro Tem

Shawna Ambrose, Councilmember

Sharon Davis, Councilmember

Lisa Feret, Councilmember

Bob Fifer, Councilmember

John Marriott, Councilmember



REPORT TO CITY COUNCIL

AGENDA ITEM
8.A.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: Consent Agenda

Report in Brief

1. R24-034, A Resolution Authorizing a Non-Exclusive Easement Agreement Between the City and County of Denver, Acting by and Through Its Board of Water Commissioners, and the City of Arvada, for Arvada's Raw Water Line and Appurtenances
2. R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000.
3. R24-036, A Resolution Approving an Agreement By and Between the City of Arvada and 5442 Augmented Realty, LLC for the Grant of a Revocable Encroachment License to Accommodate a Pedestrian Guardrail along a Portion of the Public Sidewalk adjacent to 5430 Carr Street, Unit A, within the Right of Way
4. R24-037, 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 for Marshall Pointe Apartments
5. R24-038, 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 for Ralston Gardens Apartments

Suggested Motion:

Moved by: _____

I move that the Consent Item(s), Number(s) _____ 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: April 1, 2024

SUBJECT: R24-034, A Resolution Authorizing a Non-Exclusive Easement Agreement Between the City and County of Denver, Acting by and Through Its Board of Water Commissioners, and the City of Arvada, for Arvada's Raw Water Line and Appurtenances

Report in Brief

In preparation for the North Water Treatment Plant construction, Denver Water completed extensive work on their property west of Highway 93. This preparation included relocating the raw water lines serving the Ralston Water Treatment Plant. Denver Water installed a new 42-inch raw water line that connects to the two raw water pipelines feeding Ralston Water Treatment Plant on their property for the City of Arvada, and is granting the City of Arvada an easement for the raw water pipelines.

The Arvada team recommends that City Council approve R24-034, A Resolution Authorizing a Non-Exclusive Easement Agreement Between the City and County of Denver, Acting by and Through Its Board of Water Commissioners, and the City of Arvada, for Arvada's Raw Water Line and Appurtenances.

Financial Impact

There is no financial impact of accepting the easement.

Background

In preparation for the North Water Treatment Plant construction, Denver Water completed extensive work on their property west of Highway 93. This preparation included relocating the raw water lines serving the Ralston Water Treatment Plant. Denver Water installed a new 42-inch raw water line that connects to the two raw water pipelines feeding Ralston Water Treatment Plant on their property for the City of Arvada, and is granting the City of Arvada an easement for the raw water pipelines.

Discussion

In preparation for the North Water Treatment Plant construction, Denver Water completed extensive work on their property west of Highway 93. This preparation included relocating the raw water lines serving the Ralston Water Treatment Plant. Denver Water installed a new 42-inch raw water line that connects to the two raw water pipelines feeding Ralston Water Treatment Plant on their property for the City of Arvada, and is granting the City of Arvada an easement for the raw water pipelines.

The City of Arvada and Denver Water have coordinated an adjustment to the existing easement

Public Contact

Posting of the City Council agenda.

Commission Recommendation

Not applicable

Strategic Alignment

Not applicable

Alternative Courses of Action

Not applicable

Recommendation for Action

The Arvada team recommends that the City Council approve R24-034, A Resolution Authorizing a Non-Exclusive Easement Agreement Between the City and County of Denver, Acting by and Through Its Board of Water Commissioners, and the City of Arvada, for Arvada's Raw Water Line and Appurtenances.

Suggested Motion:

I move that R24-034, A Resolution Authorizing a Non-Exclusive Easement Agreement Between the City and County of Denver, Acting by and Through Its Board of Water Commissioners, and the City of Arvada, for Arvada's Raw Water Line and Appurtenances, be (approved) (rejected).

Prepared by:
Bethany Yaffe, Civil Engineer

Reviewed by:

Approved by:

Mary Stahl, Senior Civil Engineer	3/11/2024
Chris Lisberg, Assistant City Engineer	3/11/2024
Jessica Morales, Assistant City Attorney	3/12/2024
Jacqueline Rhoades, Public Works Director	3/18/2024
Sharon Israel, Director of Utilities	3/18/2024
Bryan Archer, Director of Finance	3/18/2024
Tammy Hedlund, Legal Specialist	3/18/2024
Rachel Morris, City Attorney	3/19/2024
Don Wick, Deputy City Manager	3/20/2024
Lorie Gillis, City Manager	3/20/2024

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R24-034

A RESOLUTION AUTHORIZING A NON-EXCLUSIVE EASEMENT AGREEMENT
BETWEEN THE CITY AND COUNTY OF DENVER, ACTING BY AND THROUGH ITS
BOARD OF WATER COMMISSIONERS, AND THE CITY OF ARVADA, FOR ARVADA'S
RAW WATER LINE AND APPURTENANCES

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 Non-Exclusive Easement Agreement Between the City and County of Denver, Acting by and Through Its Board of Water Commissioners, and the City of Arvada, for Arvada's Raw Water Line and Appurtenances.

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

APPROVED AND ADOPTED this 1st day of April, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

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

BY: _____

NON-EXCLUSIVE EASEMENT AGREEMENT

THIS NON-EXCLUSIVE EASEMENT AGREEMENT (“**Agreement**”) is made between the CITY AND COUNTY OF DENVER, acting by and through its BOARD OF WATER COMMISSIONERS, a municipal corporation of the State of Colorado (“**Board**”), and CITY OF ARVADA, a home rule municipal corporation of the State of Colorado (“**Grantee**”). Each party to this Agreement may be referred to individually as “**Party**,” and collectively as “**Parties**.” The Parties agree as follows:

1. **GRANT OF EASEMENT:** For and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration, the receipt whereof is acknowledged by the Board, the Board grants to the Grantee, its successors and authorized assigns, a non-exclusive, perpetual right to enter, re-enter, occupy, and use the property described in the attached **Exhibit A** (hereinafter referred to as the “**Easement**”) to construct, reconstruct, maintain, repair, and utilize (“**Work**”) a 42” raw water line and its appurtenances (collectively “**Installations**”) within and across the Easement.
2. **EXHIBITS:** The following Exhibits are attached to and incorporated in this Agreement:
Exhibit A – Legal Description and Parcel Map (CAD drawing No. 18446-12) of the Easement.
Exhibit B – Curb Cut and Transition Detail

In the event the survey, the legal description in Exhibit A, and/or the drawing in Exhibit A are found to be inaccurate, the Grantee will comply with the Board’s request to execute, acknowledge, initial, and deliver to the Board any documentation the Board deems necessary to correct such inaccurate documents to fulfill the purposes of this Agreement.

3. **BOARD’S RETAINED INTERESTS:**

- 3.1. The Board reserves unto itself, its successors and assigns, the permanent right to make full use of the Easement, including, but not limited to, entering and re-entering the Easement as may be necessary or convenient in the operation of any of the Board’s “**Facilities**,” which term shall include, but not be limited to, the following under the control of the Board: utilities, water and other pipelines, water works plants and systems, and all underground and surface appurtenances. By way of example and not by way of limitation, the Parties intend to include (i) mains and conduits within the term “**pipeline(s)**,” and (ii) valves, vaults, manholes, hydrants, electric or other related control systems, underground cables, wires, connections, ventilators, and the like within the term “**appurtenance(s)**.”
- 3.2. The Board retains all right to operate, maintain, install, repair, remove, replace, or relocate any of its Facilities within the Easement at any time and in such manner as it deems necessary or convenient.
- 3.3. The Board reserves the right to grant other parties access and other uses of the Easement that will not unreasonably interfere with the Grantee’s rights under this Agreement.
- 3.4. The Board shall also have the right to relocate the Easement and Installations at the Board’s expense, provided that the relocated Easement and Installations can be reasonably used by the Grantee for their intended purpose. The Board will make a reasonable attempt to minimize disruption in Grantee’s water service that may be caused by relocation related work. The Board

may exercise this right by giving Grantee a minimum of Three Hundred Sixty-Five (365) calendar days' prior written notice. In addition, the Board shall consult with Grantee at the initial design phase of any relocation related work and shall provide copies of detailed plans and specifications for such relocation related work at the 30%, 60%, 90% and final design phase, to the Grantee for its review and comment. Grantee shall not unreasonably delay its review and comment. The Board acknowledges that the Installations within the Easement consist of two raw water pipelines that are the primary delivery method of raw water from Denver Water to Grantee. Should the Board exercise its relocation rights, the Board agrees to the following:

3.4.1. At least one pipeline shall be operational between March 1st and November 1st.

3.4.2. If the Board removes both pipelines from service, that shall only occur between November 1st and March 1st. If the Board removes both pipes from service, the Board will comply with any of the Board's then existing contractual water delivery obligations to the Grantee during that time.

3.4.3. The Board shall connect any new pipeline alignment to the existing pipelines in the west casing limits of CDOT's Highway 93 right-of-way.

3.4.4. The Parties understand that this Agreement does not alter, amend, or supersede any applicable existing agreements between the Parties.

4. SURVEYING: The Board may perform all survey work related to the Easement that the Board deems necessary. The Grantee shall reimburse the Board for the survey work the Board performs. All of the Board's survey monuments damaged or destroyed by the Grantee shall be re-installed by a Professional Land Surveyor, licensed by the State of Colorado, at the Grantee's sole expense.

5. WORK PLANS: At least thirty (30) days prior to the proposed date for the commencement of any Work, the Grantee shall submit to the Board for its review and approval copies of final detailed plans and specifications for such Work. No Work shall commence until the Board has approved such plans and specifications in writing.

6. PRE-WORK INSPECTIONS: The Grantee shall notify the Board at least fifteen (15) days prior to the commencement of any Work so that the Board may make any inspections of the Easement the Board deems necessary before such Work begins.

7. PRE-WORK NOTICE: The Grantee shall notify the Board's District Foreman at 303-279-4222 at least 48 hours prior to the commencement of any Work so that the Board may have an inspector present during such Work. From time to time, the Board may designate new District Foreman and/or contact phone number.

8. WORK EXPENSES: All Work shall be performed at no expense to the Board, and the Grantee shall own and maintain the Installations within the Easement.

9. WORK STANDARDS: Unless otherwise approved by the Board as provided in Paragraph 5 above, all Installations and all Work performed within the Easement shall comply with all applicable Board's Engineering Standards and/or Capital Project Construction Standards, as they may be revised from time to time. Any Installation and/or Work that does not comply with such applicable standards may be removed and/or corrected by the Board without liability for damages and at the Grantee's expense.

10. ROADS: The Grantee shall construct and maintain all necessary, in the opinion of the Board, access roads and curb cuts from its Installations to the Board's existing maintenance roads. Any of the Grantee's planned access roads and curb cuts shall be depicted on the plans for any Work, shall be at locations approved in writing by the Board, shall be constructed at no expense to the Board, and shall comply with the Board's curb cut detail, a copy of which is attached as **Exhibit B**. At no time shall the Grantee obstruct the Board's roads or ingress to or egress from such roads.

11. CONSTRUCTION DETOURS: The Grantee shall take whatever steps are necessary to re-route traffic during any Work and provide directions through the use of signs. Any of the Board's roads or an acceptable alternative must be open and accessible to the Board's maintenance personnel and equipment whenever the Grantee is performing any Work.

12. SIGNS: All sign locations and content must be approved by the Board's representative prior to installation.

13. WATER:

13.1. The Grantee shall not discharge, or direct or authorize others to discharge, water into or upon any of the Board's property or Facilities, but the Grantee shall provide for carriage of any water over or across any of the Board's property or Facilities in a manner satisfactory to the Board.

13.2. At no time shall the Grantee interfere, or direct or authorize others to interfere, with the flow of water in the Facilities. The Grantee shall assume all risks incidental to the presence of water in the Facilities and shall be responsible for all damages resulting from any interference with the flow of water in the Facilities by the Grantee or by others at the Grantee's direction or authorization.

14. IRRIGATION SEASON: The irrigation season is from April 1 until November 1 each year, and water may be flowing in the Board's Facilities during this time. Therefore, the Work may not occur during this period unless written authorization is obtained from the Board's Director of Operations and Maintenance prior to commencement of any Work.

15. SURFACE RESTORATION:

15.1. Within twenty (20) days from the date of completion of any Work, the Grantee shall clear the Easement and surrounding property of all construction debris and shall restore the Easement and surrounding property, including any damaged roads and fencing, to their pre-existing condition as nearly as may be possible. Restoration and clearing of the surface shall include, but not be limited to, replacement of the topsoil in cultivated and agricultural areas, removal of any excess earth resulting from the Work, and/or reseeded described in the then current **Capital Projects Construction Standards Section 32 91 00 Planting Preparation and Section 32 92 00 Turf and Grasses**. Restoration of the roads shall include, but is not limited to, resurfacing.

15.2. If the Grantee does not restore and clear the Easement and any surrounding property, including any damaged roads or fencing, to the satisfaction of the Board and within the timeframe set forth in Subparagraph 15.1, the Board may complete the clearing and/or perform the restoration at the sole expense of the Grantee. The Grantee shall pay in full any and all such clearing and/or restoration costs incurred by the Board, no later than thirty (30) days of receiving the bill from the Board.

16. TREES:

16.1. The Grantee shall provide means, acceptable to the Board, to protect the existing trees from any damage or disruption caused by any Work.

17. ENDANGERED SPECIES ACT: Certain Board properties may contain habitat for listed “threatened” or “endangered” species under the Endangered Species Act (“ESA”). The Grantee shall be responsible for determining the presence of such habitat and for complying with the ESA and all other applicable federal laws.

18. ENVIRONMENTAL: The Grantee shall comply with all applicable laws and ordinances and all rules, regulations and requirements of any governmental authority controlling environmental standards and conditions of the Easement. If any such law, ordinance, rule, or regulation is violated as a result of errors, actions, omissions, or negligence of the Grantee’s employees, the Grantee shall be responsible for all penalties, fines, costs, fees, and expenses related to such violation. In addition, but without limiting the foregoing, the Grantee shall comply with the following:

18.1. Grantee’s Duty: The Grantee shall not cause or permit any Hazardous Material to be brought upon, kept or used in or about the Easement by the Grantee, its agents, employees, or contractors without the express written permission of the Board (which the Board shall not unreasonably withhold as long as such Hazardous Material is necessary or useful to the Grantee’s occupation of the Easement and will be used, kept and stored in a manner that complies with all laws regulating any such Hazardous Material).

18.2. Grantee’s Responsibility: If the Grantee breaches the obligations stated in the preceding subparagraph, or if the presence of the Hazardous Material on the Easement caused or permitted by the Grantee results in contamination of the Easement, or if contamination of the Easement by the Hazardous Material otherwise occurs for which the Grantee is legally liable to the Board, then the Grantee shall be responsible for any penalties, fines, costs, fees, and expenses which arise during or after the Easement term in connection with such breach and/or contamination caused by the Grantee’s employees. This responsibility shall include, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal, or restoration work required by any federal, state or local governmental agency or political subdivision because the Hazardous Material is present in the soil or ground water on or under the Easement.

18.3. Cleanup: If the presence of any Hazardous Material on the Easement caused or permitted by the Grantee results in any contamination of the Easement, the Grantee shall, at its sole expense and after obtaining the Board’s written approval, promptly take all actions that are necessary to clean the contamination and return the Easement to the condition existing prior to the introduction of any such Hazardous Material to the Easement. The clean-up of the contamination shall be in compliance with all applicable state and federal standards.

18.4. Definitions: The term “**Hazardous Material**” means any hazardous or toxic substance, material or waste that is or becomes regulated by any local governmental authority, the State of Colorado or the United States, and includes, without limitation, any material or substance that is (i) defined as a “hazardous substance” under appropriate state law provisions; (ii) petroleum; (iii) asbestos; (iv) designated as a “hazardous substance” pursuant to Section 311 of the Federal Water Pollution Control Act (33 U.S.C. § 1321); (v) defined as a “hazardous substance” pursuant to Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. § 9601); (vi) defined as a “hazardous substance” under section 1004 of the Solid Waste Disposal Act as

amended by the Resources Conservation and Recovery Act (42 U.S.C. § 6902); or (vi) defined as a “regulated substance” pursuant to Subchapter IX, Solid Waste Disposal Act (Regulation of Underground Storage Tanks) (42 U.S.C. § 6991).

19. **LIENS**: The Grantee shall pay for all materials joined or affixed to the Easement, shall pay in full all persons who perform labor upon the Easement, and shall obtain and provide to the Board lien releases for all such materials and labor. The Grantee shall not permit any mechanic’s or materialman’s lien of any kind or nature to be enforced against the Easement or other Board property for any Work done and materials furnished at the instance, request or on behalf of the Grantee.

20. **DAMAGE**: The Grantee shall use reasonable care to prevent any loss or damage to the Board or to others, and to the property of the Board or others, resulting from the Work on or use of the Installations. Any repair, modification, relocation or replacement of any of the Facilities made necessary, in the opinion of the Board, because of any of the Grantee’s Work shall be made by the Board at the sole expense of the Grantee.

21. **INSURANCE**: The Grantee shall require its contractors to obtain and maintain the occurrence form of Commercial General Liability insurance for personal injury and property damage, including contractual liability insurance, with combined limits of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate. Such insurance shall include the City and County of Denver, acting by and through its Board of Water Commissioners, as an additional insured and shall be primary and non-contributing with respect to any insurance or self-insurance program of the Board. Upon the Board’s request, the Grantee shall require its contractors to provide the Board with certificate(s) of insurance evidencing coverage required under this Agreement.

22. **LIABILITY AND INDEMNIFICATION**: The Grantee shall require all contractors and subcontractors performing work pursuant to this Agreement to defend, indemnify, and hold harmless the Board, its officers, agents, employees, and insurers against any liability, loss, damage, demand, action, proceeding, cause of action, claim, counterclaim, lien, and expense (including court costs and attorney fees) of every kind and nature, arising out of any act or omission of the Grantee, its officers, agents, or employees (or of the Grantee’s contractors or subcontractors and any of their officers, agents or employees) in any way relating to this Agreement. In addition, Grantee also agrees to be responsible for any errors, acts, omissions, and negligence of the Grantee’s employees in connection with this Agreement.

23. **NOTICES**: Unless otherwise provided in this Agreement, the Parties shall contact the persons listed below, or other persons that may be designated by the Board in writing from time to time, for all matters related to administration of this Agreement. All notices, requests, demands, information and other communications required or permitted to be provided under this Agreement shall be in writing and shall be deemed to have been given and effective: (a) when delivered personally to the other party or (b) seven days after posting in the United States mail, first-class postage prepaid, properly addressed as follows:

If to the Board:

Denver Water
Attention: Chief Engineering Officer
1600 W. 12th Avenue
Denver, CO 80204

with a copy to:

Denver Water
Attention: Director of Engineering-Property
1600 W. 12th Avenue
Denver, CO 80204

If to the Grantee:

City of Arvada
Attn: Director of Public Works.
8101 Ralston Rd.
Arvada, CO 80002

24. GENERAL PROVISIONS:

24.1. Existing Agreements: This Agreement is subject to all prior agreements, licenses, leases, grants, permits, rights-of-way, reservations, and conveyances, whether recorded or unrecorded, related to the property upon which the Easement is located, and it is the Grantee's responsibility to determine the existence of any conflicting rights or uses.

24.2. Successors and Assigns: The parties agree that this Easement runs with the land and that each and every one of the benefits and burdens of this Agreement shall inure to and be binding upon the respective successors and assigns of the parties.

24.3. Construction: This Agreement shall not be construed more strictly against one Party than another merely because it may have been prepared by counsel for one of the Parties.

24.4. Venue and Governing Law: For the resolution of any dispute arising from this Agreement, venue shall be in the courts of the City and County of Denver, State of Colorado. This Agreement shall be governed by and construed under the laws of the State of Colorado, without regard to its conflict of laws principles.

24.5. No Attorneys' Fees and Costs: Except as otherwise expressly stated in this Agreement, in the event there is any litigation, mediation, arbitration or other dispute resolution proceedings arising out of or related to this Agreement, each Party shall pay for its own attorney(s)' and other professional(s)' fees, costs and expenses.

24.6. Severability: If any provision of this Agreement is determined by a court having jurisdiction to be unenforceable to any extent, the rest of that provision and the rest of this Agreement shall remain in full force and effect.

24.7. No Waiver: The failure by any Party to insist upon the strict performance by any other Party of any of the provisions of this Agreement shall not be deemed a waiver of any of the Agreement's provisions, and, notwithstanding such failure, no Party shall be thereby released from any obligations under the Agreement.

24.8. Non-Business Days: Except as otherwise specifically provided, all periods of time set forth in this Agreement shall be calendar days, not business days. If any date for any obligation under this Agreement falls on a Saturday, Sunday or a day that is a "holiday" as such term is defined in CRCP 6, then the relevant date shall be extended automatically until the next business day.

24.9. Headings: The headings contained in this Agreement are included solely for convenience, are not intended to be full or accurate descriptions of the content thereof, and shall not be considered part of this Agreement or affect its interpretation.

24.10. Governmental Immunity Act: The Parties understand and agree that the Parties are relying upon, and have not waived, the monetary limitations of \$350,000 per person, \$990,000 per

occurrence, and all other rights, immunities and protections provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq., as it may be amended from time to time.

24.11. Article X of the Charter: This Agreement is made under and conformable to the provisions of the Charter of the City and County of Denver, which control the operation of the Denver Municipal Water System, consisting of Article X of said Charter. Insofar as applicable, said Charter provisions are incorporated herein and made a part hereof and shall supersede any apparently conflicting provision otherwise contained in this Agreement.

24.12. Entire Agreement: This Agreement constitutes the entire agreement between the Board and the Grantee and replaces all prior written or oral agreements and understandings. The terms of this Agreement may not be changed, waived, modified or varied in any manner whatsoever unless in writing signed by all Parties.

24.13. Counterparts and Originals: A copy of the Agreement may be executed by each Party, separately, and may be delivered by mail or electronic copy, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument.

24.14. Representation of Authority of Signatories: Each individual executing this Agreement on behalf of the Grantee represents and warrants that the execution and delivery of this Agreement and all related documents have been duly authorized by the Grantee for which the individual is signing and that the individual has the legal capacity to execute and deliver this Agreement and thereby bind the Grantee.

24.15. Effective Date: This Agreement shall become effective on the date it is signed by the Board's Director of Engineering.

SIGNATURES FOLLOW ON THE NEXT PAGE

APPROVED AS TO FORM:

T. Spacondreia

Office of General Counsel

CITY AND COUNTY OF DENVER,
acting by and through its
BOARD OF WATER COMMISSIONERS

AWH

By: _____
Amy Heidema Director of Engineering-
Property and Distribution

Date: _____

The undersigned verifies that he/she has read the foregoing Agreement and agrees to accept and abide by all of its terms and conditions.

CITY OF ARVADA,
a home rule municipal corporation

By: _____
Lauren Simpson, Mayor

ATTEST:

City Clerk

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

By: _____

STATE OF COLORADO)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____ 2024, by
_____ as Mayor for City of Arvada, a municipal corporation.

Witness my hand and official seal.

My commission expires: _____

{ S E A L }

Notary Public

EXHIBIT "A"

LEGAL DESCRIPTION

AN EASEMENT OVER AND ACROSS A PORTION OF THAT PARCEL OF LAND AS DESCRIBED UNDER RECEPTION NUMBER 2017089066 OF THE JEFFERSON COUNTY RECORDS, LOCATED IN THE NORTHEAST QUARTER OF SECTION 4, TOWNSHIP 3 SOUTH, RANGE 70 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF JEFFERSON, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

THE EASTERLY LINE OF THE NORTHEAST QUARTER OF SECTION 4, TOWNSHIP 3 SOUTH, RANGE 70 WEST OF THE SIXTH PRINCIPAL MERIDIAN BEARS N0°26'17"W, A DISTANCE OF 2525.69 FEET BETWEEN THE EAST QUARTER CORNER OF SAID SECTION 4, AS MONUMENTED BY A 3 INCH BRASS CAP LS 16398 IN A LAND CORNER BOX, AND THE NORTHEAST CORNER OF SAID SECTION 4, AS MONUMENTED BY A 5 INCH BY 5 INCH TAN COLORED STONE;

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 4;
THENCE N10°56'09"W, A DISTANCE OF 1586.88 FEET TO AN ANGLE POINT ON THE EASTERLY BOUNDARY OF SAID PARCEL OF LAND AS DESCRIBED UNDER RECEPTION NUMBER 2017089066, AND THE POINT OF BEGINNING;

THENCE N68°41'20"W, A DISTANCE OF 61.88 FEET;
THENCE S21°18'40"W, A DISTANCE OF 32.61 FEET;
THENCE S57°05'10"W, A DISTANCE OF 55.64 FEET;
THENCE S28°53'30"W, A DISTANCE OF 118.90 FEET;
THENCE N61°06'30"W, A DISTANCE OF 30.00 FEET;
THENCE N28°53'30"E, A DISTANCE OF 126.43 FEET;
THENCE N57°05'10"E, A DISTANCE OF 53.49 FEET;
THENCE N21°18'40"E, A DISTANCE OF 73.93 FEET;
THENCE S68°41'20"E, A DISTANCE OF 23.57 FEET TO A POINT ON SAID EASTERLY BOUNDARY;
THENCE ALONG SAID EASTERLY BOUNDARY, ALONG THE ARC OF A NON-TANGENT CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 3°07'42", A RADIUS OF 1561.57 FEET, AND AN ARC LENGTH OF 85.26 FEET, THE CHORD OF WHICH BEARS S31°56'40"E, A DISTANCE OF 85.25 FEET TO THE POINT OF BEGINNING;

CONTAINING AN AREA OF 9,127 SQUARE FEET OR 0.210 ACRES, MORE OR LESS.

P:\18446\dwg\PMgt\18446-12_PMG

Daniel J. Thompson, PLS
Newly Created Legal Description
(§ 38-35-106.5, C.R.S.)



Denver Water
1600 West 12th Avenue
Denver, Colorado 80204

SECTION 4, TOWNSHIP 3 SOUTH, RANGE 70 WEST 6th PM
 ----- JEFFERSON COUNTY -----

NW1/4
 NE1/4
 SEC 4

NE1/4
 NE1/4
 SEC 4

N-S & NE1/4 Sec 4

E-W & NE1/4 Sec 4

DENVER WATER
 PROPERTY FOR RALSTON
 RESERVOIR & NSRWTP

See DW CAD 18446-6
 Public Service Co Easement
 for an OH Power Line

SW1/4
 NE1/4
 SEC 4

SE1/4
 NE1/4
 SEC 4

BASIS OF BEARINGS:
 Bearings are based on the
 east line of the northeast
 quarter of Section 4 being
 N00°26'17"W using NAD 83
 State Plane Coordinates.

Point of
 Commencement
 E1/4 Cor Sec 4
 3" DWD BC LS 16398
 in Land Cor Box

S Line NE1/4 Sec 4



NE Cor Sec 4
 5"x5" Tan
 Colored Stone

See DW Dr 67 No 1492
 License to City of Arvada
 for a 30" Water Line

See DW Dr 67 No 914
 License to City of Arvada
 for a 27" Water Line

$\Delta=3^{\circ}07'42''$
 $R=1561.57'$
 $L=85.26'$
 $Ch=S31^{\circ}56'40''E$
 $85.25'$

Point of
 Beginning

N21°18'40"E
 73.93'
 N57°05'10"E
 53.49'
 N28°53'30"E
 126.43'
 N61°06'30"W
 30.00'

S28°53'30"W
 118.90'
 S57°05'10"W
 55.64'
 S21°18'40"W
 32.61'
 N68°41'20"W
 61.88'

N10°56'09"W
 1586.88'

E Line NE1/4 Sec 4
 N00°26'17"W

STATE HWY 93

See DW Dr 68 No 0338
 See DW Dr 67
 No 0014
 See DW Dr 67 No 0420

68TH AVE

Parcel Map Not P.L.S. Stamped or Certified

PARCEL CONTAINS 0.210 ACRE± (9,127 SQ FT)

LEGEND

- EASEMENT GRANTED
- BNDRY EXISTING DW PROP
- BNDRY EXISTING DW ESMT

DOCUMENT DATED:
 SEC'Y FILE DOC.
 RIMS ITEM NO.
 CARD NO.
 DRN. LAB PM. LAB S. SF
 APPD. *[Signature]*
 SHEET 1 OF 1 SHEET

**RALSTON RESERVOIR &
 NWTP**

EASEMENT GRANTED TO
 CITY OF ARVADA

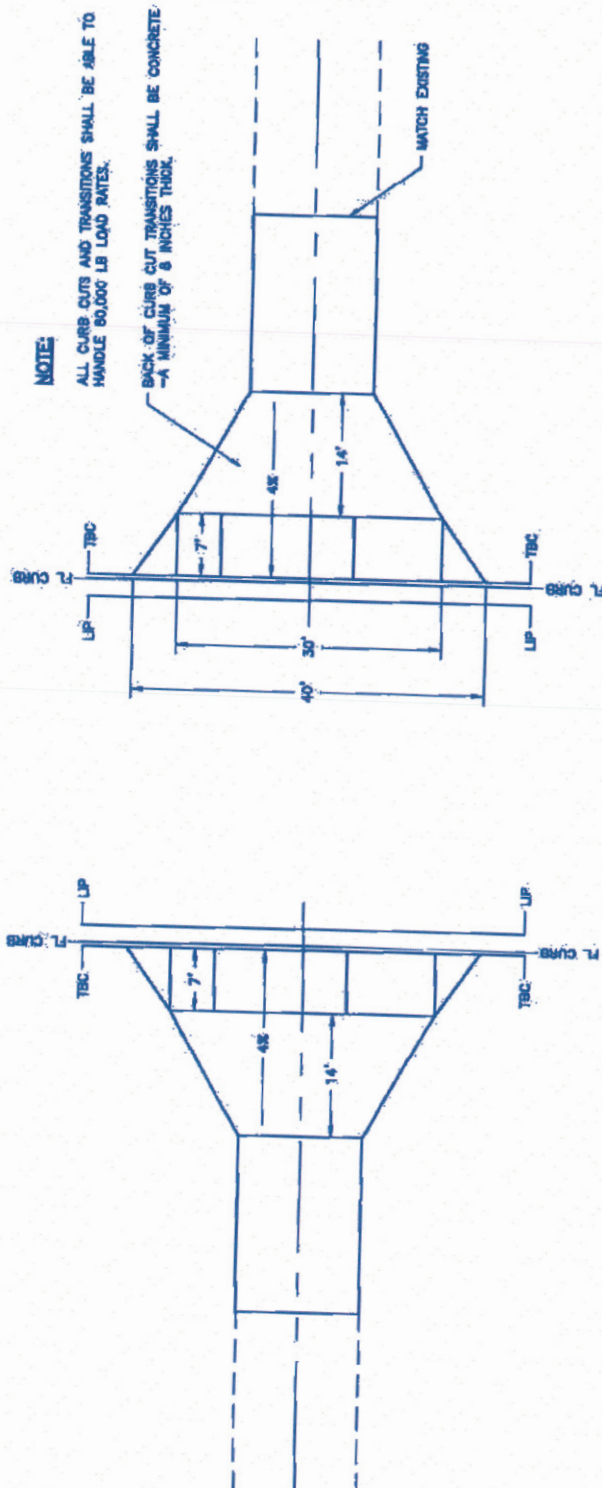
DATE: SEPTEMBER 4,, 2019

DENVER WATER
 1600 West 12th Ave
 Denver, Colorado 80204-3412
 T: 303.628.6000
 F: 303.628.6851
 denverwater.org

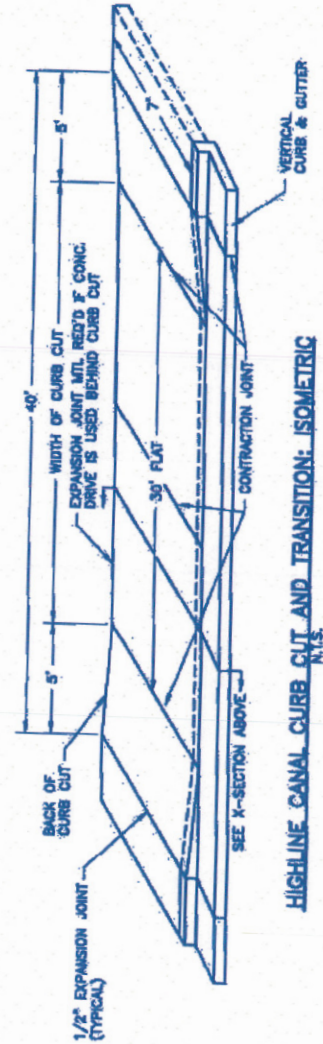
SCALE: 1" = 300'

CAD 18446-12_PMG1

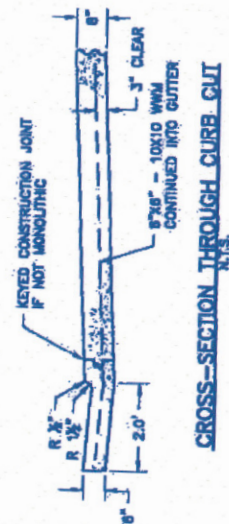
EXHIBIT B CURBCUT AND TRANSITION DETAIL



HIGHLINE CANAL CURB CUT AND TRANSITION:
PLAN VIEW
N.T.S.



HIGHLINE CANAL CURB CUT AND TRANSITION: ISOMETRIC
N.T.S.



CROSS-SECTION THROUGH CURB CUT
N.T.S.



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.2.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000.

Report in Brief

The attached resolution authorizes an agreement with T. Lowell Construction, Inc. for an amount not to exceed \$4,522,000. This project involves the open cut installation of 2,700 linear feet of new 30" sewer main to replace the existing undersized 21" sewer main. This segment was identified in the Arvada Sanitary Sewer Master Plan as Central/Ralston Trunk segment seven (CRT7) and as needing immediate attention to avoid sanitary sewer overflow.

The Arvada team recommends that the City Council approve R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000.

Financial Impact

CIP Project: 23SR11 - CRT7 Simms to Pierson (Bond), CIP Project No. 98555

Financial Impact: \$4,522,000.00

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

Funding Source: UT Wastewater Bond Projects (42)

Type: CIP

Background

The City of Arvada has completed a Sanitary Sewer Master Plan that has identified sections of the Central/Ralston Trunk Sewer that will need to be replaced and upsized to meet the City's Level of Service (LoS) standards. The Master Plan identified that the existing sewer main poses a risk of overflowing during a heavy storm event under current conditions. The sewer will be replaced through Davis Lane Park and connect to the existing sewer at the intersection of W. 71st Drive and W. 71st Ave. This new line will mitigate overflow risks and provide adequate capacity for build out conditions.

Discussion

Bids for this project were opened at 2:00 p.m. on February 6, 2024, and a total of six (6) bids were received. The bids are summarized here as follows:

	Contractor	Bid Amount	Confirmed to Meet Minimum Qualifications as stated in the RFB and Completed Reference Checks
1	Colorado Civil Infrastructure	\$3,234,009.00	No
2	Full Scope Civil	\$3,498,850.00	No
3	T. Lowell Construction	\$4,522,000.00	Yes
4	TWX	\$4,655,629.00	Not evaluated

SUBJECT: R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000.

PAGE: 2
ITEM: 8.A.2.

5	American West	\$4,946,255.00	Not evaluated
6	Native Sun	\$5,433,026.65	Not evaluated

The lowest qualified bidder was T. Lowell Construction, Inc. and they have successfully completed multiple large diameter sewer projects in the last 5 years in the Colorado front range area. This work is expected to begin with a notice to proceed after contract execution and take approximately 250 days to complete for an estimated construction completion timeframe of December 2024.

Funds for this project are available in CIP project: 98555 and are part of the sewer bond issued in December 2022.

This project also provides for replacement of asbestos-cement water line adjacent to the new sewer alignment in W. 71st Ave. This water line has reached the end of useful life; replacing the water line as part of one project is the least disruptive for property owners and residents in the vicinity.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

N/A

Strategic Alignment

The recommended action aligns with the Infrastructure Priority Area within the City Council Strategic Plan. Specifically, the recommended action is consistent with the following Principle included in the Infrastructure Priority Area:

Provides the community with a safe, reliable high quality water supply, drainage system, and wastewater disposal services for full city build-out, as defined in 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 R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000.

Suggested Motion:

I move that R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000, be approved (rejected).

Prepared by:
Daniel Wolff, Civil Engineer 1

Reviewed by:

SUBJECT: R24-035, A Resolution Authorizing an Agreement By and Between the City of Arvada and T. Lowell Construction, Inc., for Construction Services Relating to Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an Amount Not to Exceed \$4,522,000.

PAGE: 3
ITEM: 8.A.2.

Approved by:

Mary Stahl, Senior Civil Engineer	3/11/2024
Chris Lisberg, Assistant City Engineer	3/11/2024
Jacqueline Rhoades, Public Works Director	3/11/2024
Sharon Israel, Director of Utilities	3/15/2024
Bryan Archer, Director of Finance	3/18/2024
Tammy Hedlund, Legal Specialist	3/18/2024
Jessica Morales, Assistant City Attorney	3/18/2024
Rachel Morris, City Attorney	3/19/2024
Don Wick, Deputy City Manager	3/20/2024
Lorie Gillis, City Manager	3/20/2024

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R24-035

A RESOLUTION AUTHORIZING AN AGREEMENT BY AND BETWEEN THE CITY OF ARVADA AND T. LOWELL CONSTRUCTION, INC. FOR CONSTRUCTION SERVICES RELATING TO PROJECT NO. 23-SR-11, CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7), IN AN AMOUNT NOT TO EXCEED \$4,522,000.00

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 T. Lowell Construction, Inc., for construction services relating to Arvada's Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), in an amount not to exceed \$4,522,000.00.

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

APPROVED AND ADOPTED this 1st day of April, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

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

By: _____

**AN AGREEMENT BY AND BETWEEN THE CITY OF ARVADA AND
T. LOWELL CONSTRUCTION, INC. FOR CONSTRUCTION SERVICES
RELATING TO PROJECT NO. 23-SR-11, CENTRAL RALSTON TRUNK LINE
SIMMS TO PIERSON (CRT7), IN AN AMOUNT NOT TO EXCEED
\$4,522,000.00**

This Agreement made this _____ day of _____, 2024, by and between the City of Arvada, a home rule municipal corporation, whose mailing address is 8101 Ralston Road, Arvada, CO 80002 (“Arvada” and/or “City”) and T. Lowell Construction, Inc., a Colorado Corporation, whose principal place of business is located at 3211 S. I-25, Castle Rock, CO 80109 (“Contractor”). The Parties may be referred to individually as a “Party” and collectively as the “Parties.”

WITNESSETH:

WHEREAS, Arvada solicited proposals from interested construction professionals for the provision of construction services relating to Arvada’s Project No. 23-SR-11, Central Ralston Trunk Line Simms to Pierson (CRT7), as described in the Contract Documents (the “Project” or the “Work”); and

WHEREAS, based on Contractor’s submissions, Arvada has selected Contractor for the Project; and

WHEREAS, Arvada and Contractor desire to enter into this Agreement regarding the construction of the Project.

NOW, THEREFORE, for and in consideration of the covenants, promises, and payments hereinafter mentioned, the Parties agree as follows:

ARTICLE 1. GENERAL DESCRIPTION OF SERVICES

- 1.1. **The Services.** Contractor agrees to furnish or arrange for the construction services set forth in the Contract Documents and required for the completion of the Project within the timeframe provided in the Contract Documents. Contractor represents that it is thoroughly familiar with, and understands, the requirements of the Project’s scope and is experienced in the construction of projects of the type and scope contemplated by the Contract Documents. Contractor represents to Arvada that Contractor has all necessary education, skill, knowledge, expertise and experience required for construction of the Project, and will maintain, at all times during the term of this Agreement, such personnel on its staff to provide the services contemplated hereby within the time periods required hereby. In addition, Contractor represents that it or Arvada-approved subcontractors or subconsultants performing services under this Agreement have all applicable licenses required by the State of Colorado to perform such services and all required insurance coverage as required by this Agreement and by law.

- 1.2. **Cooperation.** The Contractor shall endeavor to develop, implement and maintain, a spirit of cooperation, collegiality, and open communication with Arvada, Arvada's Consultants, and Arvada's residents so that the goals and objectives of each are clearly understood, potential problems are resolved promptly, and upon completion, the Project is deemed a success by all interested parties.
- 1.3. **Preparation/Sufficiency of Site.** Before commencing the Project, the Contractor shall (i) visit and thoroughly inspect the Project Site and any structure(s) or other man-made features to be modified and become familiar with local conditions under which the Project will be constructed and operated; (ii) familiarize itself with the survey, including the location of all existing buildings, utilities, conditions, streets, equipment, components and other attributes having or likely to have an impact on the Project; (iii) familiarize itself with Arvada's engineering and design requirements, design objectives, and budget for the Project; (iv) familiarize itself with pertinent Project dates and programming needs, including the Project schedule; (v) review and analyze all Project geotechnical, environmental, and construction materials tests, investigations and recommendations, (vi) review all specifications; and (vii) gather any other information necessary for a thorough understanding of the Project. Claims by Contractor resulting from Contractor's failure to familiarize itself with the Site or pertinent documents shall be deemed waived.
- 1.4. **Contract Documents.** The Contract Documents are incorporated herein by reference. The term "Contract Documents" shall consist of this Agreement together with the following:
- A. Arvada's solicitation entitled Competitive Sealed Bid # 24-ENF-012, *Central Ralston Trunk Line Simms to Pierson (CRT7)*, including all exhibits, attachments and/or addenda ("CSB");
 - B. Contractor's Response to Arvada's CSB, Advertisement for Bid, Bid Proposal, Bid Schedule, Bid Bond ("Contractor's Response");
 - C. Notice of Award;
 - D. Performance and Payment Bond;
 - E. Notice(s) to Proceed;
 - F. Change Orders (if any);
 - G. City of Arvada Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements, dated October 23, 2023;
 - H. Requests for Information and Responses (if any);

- I. All supplementary requirements regarding wage rates, E.E.O., affirmative action and all other Federal-State requirements as outlined in the specifications (if applicable).
- 1.5. **Interpretation of Contract Documents.** In the event of conflicts or discrepancies among the Contract Documents, the documents shall govern in the following order: (1) the Agreement; (2) Arvada's solicitation, entitled Competitive Sealed Bid # 24-ENF-012, *Central Ralston Trunk Line Simms to Pierson (CRT7)*, including all exhibits, attachments and/or addenda; (3) City of Arvada Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements, dated October 23, 2023; (4) Contractor's Response; (5) Change Orders; and (6) Requests for Information and Response.

ARTICLE 2. ARVADA'S DUTIES, OBLIGATIONS AND RESPONSIBILITIES

- 2.1. **Project Information.** Contractor acknowledges that Arvada has provided Contractor with information regarding Arvada's requirements for the Project as set forth in the Contract Documents, including Project Specifications.
- 2.2. **Arvada's Budget.** Arvada has established, and will update, an overall budget for the Project, including amounts allocated for construction, Arvada's other costs, and reasonable contingencies related to these costs as appropriate.
- 2.3. **Arvada's Representative.** Arvada will designate a representative authorized to act on Arvada's behalf with respect to the Project.
- 2.4. **Purpose of Arvada's Review.** Arvada's review, inspection, or approval of any work, Testing Documents, Applications for Payment, or other submittals shall be solely for the purpose of determining whether the same are generally consistent with Arvada's standards, policies and requirements. No review, inspection, or approval by Arvada of such work or documents shall relieve Contractor of its responsibility for the performance of its obligations under the Agreement or the accuracy, adequacy, fitness, suitability, or coordination of its construction services. Approval by any governmental or other regulatory agency or other governing body of any work, Testing Document, or the Construction Documents shall not relieve Contractor of responsibility for the performance of its obligations under this Agreement. Payment by Arvada pursuant to the Agreement shall not constitute waiver of any of Arvada's rights under the Agreement or at law, and Contractor expressly accepts the risk that defects in its performance, if any, may not be discovered until after payment, including final payment, is made by Arvada. Notwithstanding the foregoing, reasonable notice shall be given by Arvada to the Contractor if Arvada becomes aware of any fault or defect in the Project or non-conformance with the Contract Documents.

ARTICLE 3. CONSTRUCTION SERVICES REQUIREMENTS AND STANDARDS

- 3.1. **Quality of Construction Services.** Contractor shall be responsible for the quality, completeness, accuracy, and coordination of the Work. Contractor shall provide construction services that meet all industry standards, including all environmental and regulatory requirements. Arvada will provide and be responsible for all material testing and all other testing if needed.
- 3.2. **Arvada's Right to Carry Out the Work.** If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven calendar day period after written notice from Arvada to commence and continue correction of such default or neglect with diligence and promptness, Arvada may after such seven-day period, without prejudice to other remedies Arvada may have, correct such deficiencies. In such a case, an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for any consultant's additional services and expenses made necessary by such default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to Arvada within ten days of receipt of an invoice for such amounts from Arvada.
- 3.3. **Legal Standard.** Contractor shall furnish construction services in accordance with industry standards currently practiced by construction professionals on projects similar in size, complexity and cost to the Project.
- 3.4. **Construction Standards.** Contractor shall perform all services in accordance with requirements of governmental agencies having jurisdiction over the Project, City of Arvada Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements, and the requirements set forth in the Contract Documents. In addition, the Contractor's work shall comply with all applicable building codes, accessibility laws and regulations, environmental regulations, and other applicable legal requirements in effect at the time of the work. To the extent Arvada's standards exceed applicable legal requirements, such standards shall be met unless Contractor obtains a variance from Arvada in writing.
- 3.5. **Permits.** Contractor shall be responsible for obtaining all necessary permits and other governmental approvals necessary for the development of the Project and shall obtain the same at the times necessary to meet the Project schedule. Contractor's responsibility includes providing environmental services and permitting coordination as further described in the Contract Documents.
- 3.6. **Notice of Non-Compliance.** Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Arvada, and shall at once report to Arvada any errors, inconsistencies or omissions discovered as well as any foreseeable constructability issues arising from the project specifications and/or site conditions. If the Contractor performs any construction activity knowing or should have known it involves an error, inconsistent, omission or constructability issue in the Contract Documents without such notice to Arvada, the Contractor shall assume full responsibility

for such performance and shall bear the full costs for correction, including reimbursement for any delay caused to the Project.

ARTICLE 4. CHANGES TO THE WORK

- 4.1. **Field Engineered Changes.** Arvada may modify the construction plans including changing the slope and alignment of flow lines and appurtenances or modifying other improvements as necessary to accommodate construction around existing utilities or other field conditions. No additional compensation shall be made for minor costs and inconveniences incurred while performing field engineering changes as directed by Arvada or its Consultant. No additional compensation shall be made for any down time encountered while Arvada determines what field engineered changes would be appropriate to accommodate construction around existing utilities or other field conditions. Reasonable time must be allowed for Arvada or its Consultant to design field engineered changes. Any additional costs for performing field engineered construction changes to accommodate existing utilities or other field conditions and for also allowing Arvada reasonable time to design field engineered changes as necessary to complete the work shall be considered a subsidiary obligation of the contract.
- 4.2. **Pre-Construction Meetings.** Contractor agrees to assist in the preparation for and to participate in any pre-construction meetings with Arvada.
- 4.3. **Arvada Change Orders.** Arvada may, by written order signed by Arvada, at any time, and without notice to any surety, and subject to all appropriate adjustments, make changes within the general scope of this Contract in any one or more of the following: (a) changes in scope of services; (b) completion date; (c) contract amount; (d) any applicable material modifications; and, (e) any other matters that the parties deem necessary.
- 4.4. **Contractor Requested Change Orders.** The Contractor may request a Change in the Work ("Requested Change Order"), including one or more of the following: (a) changes in scope of services; (b) completion date; (c) contract amount; (d) any applicable material modifications; and, (e) any other matters that the parties deem necessary.
- 4.5. **Change Order Contents.** Any Requested Change Order shall include (a) a detailed description of the requested change to the original contract; (b) itemized documentation of any subcontractor costs; (c) the total costs associated with the proposed change; (d) the impact on the project completion date, if any, associated with the proposed change; and (e) a statement of the contractual basis for the requested change.
- 4.6. **Basis for Change Order Requests.** The following may be considered a valid basis for requesting a Change Order: (a) Contract Document error or omission; (b) Arvada induced enhancement; (c) unforeseeable constructability issue; (d) unforeseeable geotechnical issue. The following will not be considered a valid basis for requesting a Change Order absent extraordinary circumstances: (a) utility relocation; (b) utility conflicts; (c) foreseeable geotechnical issue; (d) foreseeable constructability issue; (e) defective construction.

- 4.7. **Written Authorization Required.** The Contractor shall not proceed with any change in the Work without the appropriate written authorization.

ARTICLE 5. SUPERVISION AND CONSTRUCTION PROCEDURES

- 5.1. **Supervision.** The Contractor shall supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under this Contract, unless Contract Documents give other specific instructions concerning these matters.
- 5.2. **Acts and Omissions of Subcontractors and Agents.** The Contractor shall be responsible to Arvada for acts and omission of the Contractor's employees, Subcontractors, and their agents and employees, and other persons performing portions of the Work under a contract with the Contractor.
- 5.3. **Inspection and Subsequent Work.** The Contractor shall be responsible for inspection or portions of Work already performed under this Contract to determine that such portions are in proper condition to receive subsequent Work.

ARTICLE 6. COMPENSATION.

- 6.1. **Completion of Services.** Contractor will furnish all material, supplies, tools, equipment, labor, and other services necessary for the completion of the Work within Arvada's timeframe and monetary limitations set forth below:
- 6.1.1. Contractor shall commence the Work required by the Contract Documents within **seven calendar days** after the date of the Notice to Proceed, unless otherwise mutually agreed-upon by the Parties in writing;
- 6.1.2. Contractor shall complete the Work required by the Contract Documents within **250 calendar days** after the date of the Notice to Proceed, unless the period for completion is otherwise extended by the Contract Documents; and
- 6.1.3. Compensation Amount. Contractor agrees to perform the Work for an amount not to exceed **\$4,522,000.00**.
- 6.2. **Term.** This contract shall commence on the date of Arvada's execution of the Agreement and shall remain in effect until such time as the commodities, equipment and/or services acquired in conjunction with this Agreement have been accepted by the City's authorized representative, unless otherwise agreed to in writing by the Parties, subject to availability of funds, or Arvada's termination for convenience under the Contract Documents. Any required warranty period which exceeds this term shall remain in full force for the duration of the warranty period.

- 6.3. **Additional Services.** While Arvada has listed its major requirements for its solicitation in the Contract Documents, Arvada may, during the term of this Agreement, wish to purchase other related services identified and offered by Contractor, based upon the Bid Schedule amounts contained in Contract Documents. Arvada reserves the right to award these ancillary items to Contractor. This option, if exercised, in no way obligates Arvada to pursue additional services with Contractor.
- 6.4. **Payment for Services.** At least 20 calendar days before the date established for each monthly progress payment, the Contractor shall submit to Arvada an itemized Application for Payment for construction completed in accordance with the Bid Schedule. Such application shall be supported by such data substantiating the Contractor's right to payment as Arvada may require, such as copies of invoices or requisitions from subcontractors and material suppliers and reflecting retainage. Arvada shall pay NET 30 days for services performed in accordance with the Bid Schedule and with this Agreement, but in no event shall the total Contract Amount exceed \$4,522,000.00 absent a properly executed Change Order. Measurement of the work performed and monthly payment shall be made in accordance with requirements of the Measurement and Payment Section in the Contract Documents unless otherwise specifically provided herein.
- 6.5. **Non-Conforming Materials or Construction.** Where materials installed or the finished product fails to meet minimum requirements of the Contract Documents, the basis of determining final payment to the Contractor shall be determined by the Arvada project manager.
- 6.6. **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 be paid NET 30 days. Invoices will accurately reflect actual work completed by Contractor and its subconsultants or subcontractors.

ARTICLE 7. MISCELLANEOUS.

- 7.1. **Waiver.** No provision of this Agreement may be waived except by written agreement of the parties. A waiver of any provision on one occasion shall not be deemed a waiver of that provision on any subsequent occasion, unless specifically stated in writing. A waiver of any provision shall not affect or alter the remaining provisions of this Agreement.
- 7.2. **Strict Compliance.** No failure of Arvada to insist upon strict compliance by the Contractor with any provision of the Contract Documents shall operate to release, discharge, modify, change or affect any of the Contractor's obligations.
- 7.3. **Successors and Assigns.** Arvada and Contractor, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement and to the partners, successors and assigns of such other parties with respect to all covenants of this Agreement. Contractor shall not assign (whether partially or wholly) this Agreement whether by operation of law or otherwise, without the written consent of Arvada. If Contractor makes an assignment in accordance with this provision, Contractor

shall nevertheless remain legally responsible for all obligations arising under the Agreement, unless otherwise agreed in writing by Arvada.

- 7.4. **Additional Documents.** The parties agree to execute any additional documents and to take any additional action that is necessary to carry out this Agreement.
- 7.5. **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. All provisions of this Agreement which contain continuing obligations shall survive its expiration or termination.
- 7.6. **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.
- 7.7. **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.
- 7.8. **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 electronically, or 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 electronically sent or when deposited in the United States mail.
- 7.9. **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, 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.
- 7.10. **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:
- 7.10.1. Colorado labor shall be employed to perform eighty percent (80%) of the work.

7.10.2. Any waiver of this requirement must comply with C.R.S. § 8-17-101 *et seq.*, as amended.

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.

(Signatures on next page.)

CITY OF ARVADA, a Colorado home
rule municipal corporation

Lauren Simpson
Mayor
8101 Ralston Road
Arvada, CO 80002

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A. Morris

By: _____

T. Lowell Construction, Inc., a Colorado
Corporation

Tim Lowell II
Vice President
3211 S. I-25
Castle Rock, CO 80109
Tim2@tlowellconstruction.com

24-ENG-012 Full CSB

An Agreement By And Between The City Of Arvada And
T. Lowell Construction, Inc. For Construction Services
Relating To Project No. 23-SR-11, Central Ralston Trunk
Line Simms To Pierson (CRT7), In An Amount Not To
Exceed \$4,522,000.00



COMPETITIVE SEALED BID

BID #: 24-ENG-012

Title: Central Ralston Trunk Line Simms to Pierson (CRT7)

Issue Date: 1/12/2024

Mandatory Pre-bid Meeting: 1/22/2024 - 2:00 pm MT – Via Zoom
<https://arvadaco-gov.zoom.us/j/86925159451?pwd=nlp6kihiFYyp3FOOtKEzaD4GbmJHIE.1>
Meeting ID: 869 2515 9451
Passcode: 611976

Questions Deadline: 1/29/2024 2:00 pm MT
Questions must be submitted through BidnetDirect.com. Responses will be posted on BidNet via addendum.

Bid Due Date: 2/6/2024 2:00 pm MT - Via Zoom

Virtual Opening Info. <https://arvadaco-gov.zoom.us/j/82969673408?pwd=sZwKDgYSpYkGcjOcTd13Tz4g78bKDZ.1>
Meeting ID: 829 6967 3408
Passcode: 929839

Bid Delivery address: Electronic Submissions must be submitted online at BidNetDirect.com by the above date and time. Late responses will not be considered for award.

Project Delivery Date: 12/15/2024

For additional administrative information not related to the project, contact: Cheryl Dye, cdye@arvada.org
Contact with the requesting department may result in vendor disqualification.

Documents included in this Request:

Cover Page	page 1
Advertisement for Bidders	page 2
General Terms and Conditions	page 3
Special Terms and Conditions for Bidders	page 5
Insurance Requirements	page 7
Project Special Provisions	Page 9-39
Submittal Forms to be completed and returned	
• Bid Bond	page 40
• Bid Proposal	page 41
• Bid Schedule	Attachment 5
• Required Contractor Submittal Form	page 42
Preview of Documents if Awarded	page 47

Attachments

Attachment 1 – Preliminary Geotechnical Investigation
Attachment 2 – Project Phasing Plan and Approach
Attachment 3 – Traffic & Pedestrian Detour Approach
Attachment 4 - Construction Drawings
Attachment 5 - Subsurface Utility Engineering Report
Attachment 6 - Bid Schedule - in Excel Format for Bid Submission

ADVERTISEMENT FOR BIDS

Submit bids electronically on Bidnetdirect.com for the construction of City of Arvada, Project No. 23-SR-11
Project Title: Central Ralston Trunk Line Simms to Pierson CRT 7

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 1/12/2024.

ESTIMATED QUANTITIES OF THE MAJOR ITEMS OF WORKARE:

2728	LF	30" SDR35 PVC Sewer - Complete in Place
2	EA	Sanitary Sewer Maintenance Hole - 4' Diameter, Complete in Place
12	EA	Sanitary Sewer Maintenance Hole - 5' Diameter, Complete in Place
2	EA	Sanitary Sewer Maintenance Hole - 6' Diameter, Complete in Place
1	LS	Leyden Creek Sewer Crossing
565	CY	Abandon Sanitary Sewer Pipe (CLSM Fill)
10	EA	Abandon Sanitary Sewer Maintenance Holes
650	LF	Slip line 8" Sanitary Sewer
49	VFT	Protective Lining of Maintenance Holes
1	LS	Removal and Disposal of Tennis Court
422	LF	8" PVC Watermain - Complete in Place
180	LF	Removal and Disposal of Asbestos Cement Pipe
2820	SY	Removal and Replacement of Asphalt Pavement
2169	SY	Removal and Replacement of Concrete Sidewalk and Ramps
6395	SY	Landscaping Restoration
1	LS	Temporary Sanitary Sewer Bypass Pumping
1	LS	Construction Dewatering

Bidders, subcontractors and suppliers must be familiar with the current City of Arvada Engineering Code of Standards and Specifications, dated August 21 ,2023, 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 <https://www.arvadaco.gov/167/Engineering-Code>. Holders are responsible for keeping current their City of Arvada Engineering Code of Standards and Specifications.

Date: 1/10/24

CITY OF ARVADA



Jenny Wolfschlag
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. 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.*

13. 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.

14. 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.

15. 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.

16. 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.

17. FORCE MAJEURE. Any delays in or failure of performance by any party of 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.

18. 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.

19. 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.

20. 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.

21. 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.

22. 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.

23. ACCESSIBILITY COMPLIANCE.

- 23.1 Arvada is obligated to comply with the Colorado Anti-Discrimination Act (C.R.S. §§24-34-300 *et seq.*) ("CADA"), which requires all digital and online platform and content providers to comply with the minimum *Accessibility Standards for Individuals with a Disability*, adopted by the Colorado Office of Information Technology ("OIT") under C.R.S. §24-85-103(2.5). Contractor has been advised to familiarize itself with CADA.
- 23.2 To the extent the Work or any of Contractor's services provided under the Agreement involves digital, technological components, including but not limited to software, websites, applications, digital documents (the "Material"), all Material shall comply with the OIT's currently adopted minimum *Accessibility Standards for Individuals with a Disability* at all times.
- 23.3 Contractor shall indemnify, save, 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) incurred by any of the Indemnified Parties in relationship to Contractor's failure to comply with Section (23.2) above.
- 23.4 Upon Arvada's request, Contractor shall certify to Arvada that its service(s) and digital documents are compliant with Section (23.2) above. Arvada may require Contractor's compliance to the OIT's currently adopted minimum standards of accessibility to be determined by a third party selected by Arvada to attest to Contractor's compliance.

SPECIAL TERMS AND CONDITIONS FOR BIDDERS

1. RECEIPT AND OPENING OF BIDS. Bids submitted electronically on the BidnetDirect.com website 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 website. 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 issue 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. A contract/s shall be awarded to the lowest-priced responsible and most responsive bidder/s 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 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 their 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, 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 its 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 August 21, 2023, 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 Bid;
 - 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 government 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. 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.

18. 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 subcontractors 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 their Bid Proposal.

19. 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.

20. 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.

21. 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 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 \$2,000,000 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 \$1,000,000.00, 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 \$1,000,000 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.
- 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 PROVISIONS

City of Arvada Project No. 22-SR-11, CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

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 Standards and Specifications, 2023 Edition.

01 00 00

SPECIAL CONDITIONS TO THE CONSTRUCTION CONTRACT

PART 1 GENERAL

1.01. PROJECT SIGNS

The Contractor shall provide and install two (2) portable project signs with the name of the project and other information as supplied by the City, to be placed at the areas where construction is active on the street at any given time at locations as determined by the City.

1.02. CONTRACTOR STATEMENT OF QUALIFICATIONS

- A. The contractor shall provide a statement of qualifications to respond to the following minimum qualifications.
- B. For bypass pumping – See 01 57 00, Part 1 – General, item 1.01 Section Summary, item A for qualifications.
- C. For General Contractor
 - 1. Provide two (2) example projects with demonstrated experience installing pipeline with a creek crossing, in open space, with tree management, and pedestrian detours.
 - 2. Provide two (2) example projects with demonstrated experience installing large diameter gravity sewer pipeline (>18-inch diameter and greater), in the Front Range of Colorado in the past five years. Front Range Colorado is defined as Fort Collins to Pueblo. Provide Owner's contact information for all submitted projects.
 - 3. Provide one (1) example project with demonstrated experience in slip-lining a smaller diameter pipe within a larger diameter pipe.
 - 4. Provide two (2) example projects with demonstrated experience installing an 8-inch to 12-inch waterline.
 - 5. Provide three (3) general references - two (2) for the proposed project manager and one (1) for the proposed site superintendent and provide resumes for these team members.

1.03. EXISTING CONDITIONS

The bidder represents that he has carefully examined the contract documents and the site where the work is to be performed in accordance with the provisions of the General Conditions, and that he has familiarized himself with all local conditions and federal, state, and local laws, ordinances, rules, and regulations that may affect the performance of the work. The bidder further represents that he has studied all documents pertaining to the job site, that he has performed such additional surveys and investigations as he deems necessary to assure himself of his ability to complete the work at this bid price, and that he has correlated the results of all such data with the requirements of the contract documents.

The submittal of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, including locality, uncertainty of weather and all other contingencies, and as to the character, quality quantities, and scope of work.

The plans and specifications for the work show subsurface conditions or otherwise hidden conditions as they might be expected to exist; but it is not intended nor is it to be inferred that showing said conditions constitute a representation that such conditions are accurate or complete.

Where the City or the Engineer or their consultants have made investigations of subsurface conditions in areas where the work is to be performed, such investigations were made only for the purpose of study and design. The conditions indicated by such investigations apply only at the specific location of each boring or excavation at the time the borings or excavations were made.

Where such investigations have been made, bidders or Contractors may inspect the records as to such investigations subject to the above limitations. The record of such investigations is not a part of the contract and is provided solely for the convenience of the bidder or Contractor.

No information derived from such inspection of records of investigation or compilation thereof made by the City, the Engineer, or their consultant will in any way relieve the bidder or Contractor from any risk or from properly fulfilling the terms of the contract nor entitle the Contractor to any additional compensation.

1.04. MOBILIZATION

The Contractor shall limit storage equipment and supplies and remain within the limits of disturbance on the Drawings. The Contractor shall supply portable sanitary facilities for the site.

1.05. SURVEYING

The Contractor shall obtain and pay for surveying services for the staking of the project. The surveyor employed will be a Colorado Registered Licensed Surveyor and have the expertise to perform such services. All costs associated with surveying shall be included in the price of the project.

1.06. CONTRACTOR'S WORK HOURS

Contractor (and Subcontractors) regular working hours consist of up to 10 working hours between 7:00 a.m. and 5:00 p.m., on a regularly scheduled basis, excluding Saturdays, Sundays, and holidays, except as required for nighttime bypass work.

1.07. CONNECTIONS TO EXISTING MAINS

It shall be the Contractor's responsibility to verify the location of all existing sanitary and/or water mains, which are to be connected, prior to the start of construction; and also verify the horizontal and vertical locations of all other utilities, sanitary sewers, or water mains that may be affected by work. Procedures for connecting to existing mains shall follow those outlined in the City of Arvada's Utility Standards.

1.08. MAINTENANCE OF ACCESS TO RESIDENCES AND BUSINESSES

Street access to residences and businesses in the vicinity of the construction shall be maintained by the Contractor during the work. At least one 11-foot-wide lane shall be maintained at all times for local traffic and emergency vehicles. At least one 11-foot-wide lane shall be maintained in each direction at all times for traffic on Simms.

1.09. COORDINATION AND NOTIFICATION OF SERVICE DISRUPTION

The Contractor shall personally contact each impacted household and business 48 hours in advance of temporary service disruption, informing residents and businesses of the estimated times and durations. Residents and businesses shall also be notified when service has been restored.

Service disruptions must be coordinated with the City via the Engineer to ensure that there are no additional considerations required with service shutdowns in a particular area at a particular time.

The maximum amount of time that any resident or business may be out of service is four hours.

1.10. COMMUNICATION WITH THE PUBLIC

The City will send out letters to the impacted residences, businesses regarding the construction. The Contractor should plan on continuous communication with residents regarding work schedule for the duration of the project. The Engineer will help facilitate the efforts, but his responsibilities are not a substitute for an adequate communication plan and implementation of that plan by the Contractor.

1.11. COORDINATION WITH CITY STAFF

City Utility Department personnel are familiar with the project and the system and are a valuable resource for information. However, they have many responsibilities, are not available at all times, and individuals may not have all the information available that is needed to make a field decision. The Contractor will only receive direction in the field from the Engineer and/or the City Project Manager.

1.12. LOCATING AND MARKING EXISTING UTILITIES

The Contractor shall have all existing utilities marked prior to construction and verify their location. Existing utility information shown on the Drawings has been confirmed by only limited locate and potholing data, and may not reflect the exact position of existing utilities, and may not show all the utility lines present.

The City will mark City-owned utilities, but other utilities will need to be located. Coordinate utility locates through the Utility Notification Center of Colorado, 811.

City-located utilities will be marked only one time. The Contractor shall be responsible for maintaining the locate marks. The Contractor must request the locates of City-owned utilities periodically as the work progresses rather than as a single event. Requests for locates shall not precede the construction activity in any given area by more than 2 weeks.

Utility potholing for location of existing utilities is required. All potholing must be completed and the information provided to the Project Engineer prior to installing any pipe.

1.13. CONSTRUCTION MATERIAL STOCKPILE REQUIREMENTS

Construction stockpiles for earth, bedding materials and pipe materials should be placed in off-street areas where possible, with prior arrangement with property owners and approval by the City. Limited stockpiling in street areas is permitted, but only in small quantities, limited to two days' worth of work on any street. Street stockpiling shall be on the same side of the street as the trenching where practical. Contractor shall coordinate and review stockpiling with the City prior to the work.

Excavated material and imported backfill material that is not scheduled to be placed as backfill within two days shall be removed from the street stockpile. Stockpiles shall not block the gutter flowline. Measures to control migration of sediment from stockpiles should be put in place, especially if left overnight or over a weekend or other break in the work.

Maintenance hole riser and cone sections, Maintenance hole frames and covers, pipe fittings and valves should not be stored in the street but should be stored in an off-site area until the day it is to be installed. Asphalt millings shall be stored in offsite areas and kept covered.

Stockpiling of materials within the boundary of the regulatory floodway is prohibited. Stockpiled materials within the boundary of the 100-year floodplain shall be anchored and protected against flooding.

1.14. CONSTRUCTION EQUIPMENT

The City has expressed the need to maintain the condition of the existing pavement and concrete infrastructure outside the project work areas, and along equipment and material haul routes. The use of appropriate construction equipment that is adequate to complete the required work for this project while minimizing pavement and concrete damage outside the defined work areas shall be required. The Contractor shall be held responsible for damages outside the defined work areas created by his activities.

1.15. PROTECTION OF EXISTING UTILITIES

Existing utilities that are not scheduled for replacement, removal or relocation shall be protected to avoid disruption of service. Adequate shoring, bracing, and blocking shall be put in place to avoid damage or shifting of the utility lines and trench materials. All repairs required due to the work of the Contractor shall be the responsibility of the Contractor.

1.16. OPERATING EXISTING VALVES AND HYDRANTS

Existing valves and hydrants are to be operated by City Utility Department personnel only. Contractor may operate new valves installed of the line segment they are installed on prior to acceptance by the City. Coordinate with City personnel and the Engineer when operating any new valve adjacent to an existing water line.

1.17. CONSTRUCTION WATER

Use of a fire hydrant to supply construction water will require the Contractor to obtain a hydrant meter using the City's eTRAKiT system. There is no charge for water usage on City projects. The Contractor must not waste water.

1.18. PROTECTION OF EXISTING LANDSCAPING

Existing landscaping in the vicinity of the work areas shall be protected from damage, including lawns, shrubs, and trees. Landscaping that interferes with the work may be removed after discussions with the property owner and approval from the City and must be replaced in a manner satisfactory to the property owner and the Engineer. Damaged landscaping shall be replaced in-kind at the expense of the Contractor.

1.19. END OF WORKDAY SITE CONDITIONS

Pipe trenches shall be backfilled to within a maximum of 5 feet from the end of the pipe at the end of each workday. A solid traffic-duty cover shall be placed over any open trench.

Streets where there is active work and/or stockpiles placed shall be swept daily at the end of the work shift. All backfilled and stabilized trenches shall be checked daily and repaired as required by the Engineer.

END OF SECTION

01 00 10
SUMMARY OF WORK

PART 1 GENERAL

1.01. LOCATION

- A. All work to be performed under this Contract is located at the areas shown on the attached drawings and summarized by the following areas:
1. Within City ROW on W. 71st Ave. from W. 71st Dr. to Simms St., continuing south on Simms St. to Davis Lane Park. (Simms St.)
 2. Within City ROW in Davis Lane Park from Simms St. to the east end of Davis Lane Park. (Davis Lane Park)
 3. Within City ROW in Pierson Ct. from the south end of Davis Lane Park to W 68th Ave., continuing east on W. 68th Ave. to the bridge at Ralston Creek. (Pierson Ct.)
 4. Within City ROW west of Oak St., adjacent to Ralston Creek between W 66th Ave. and W. 65th Way (Oak St.)

1.02. DESCRIPTION OF WORK

- A. The work of this Contract consists of furnishing all labor, materials, equipment, and incidentals required and performing all construction, installation, and testing of all improvements, modifications, and additions, as shown on the Drawings, and specified in these specifications and contract documents. The work includes, but is not necessarily limited to the following:
1. New piping, maintenance holes, and appurtenances
 2. Excavation, dewatering, and backfilling
 3. Connections to existing facilities constructed by others
 4. Pavement patching, paving replacement, curb and gutter replacement, sidewalk replacement
 5. Bypass pumping, miscellaneous work, and site restoration

1.03. CONTRACTOR'S USE OF PREMISES

- A. Contractor shall limit the use of the premises for their work and for storage to allow for through traffic and operation of existing facilities during construction.
- B. Contractor shall coordinate the use of the premises with the Owner. Areas requiring shutdown of existing facilities shall be coordinated with the Owner 48 hours prior to taking those facilities out of service.
- C. Contractor shall assume full responsibility for the security of all their and their subcontractors' materials and equipment stored on the site.
- D. Contractor, if directed by the Owner and/or Engineer, shall move any stored items that interfere with the operations of the Owner.

- E. Contractor shall obtain and pay for use of additional storage if needed to perform the work.

1.04. OWNER OCCUPANCY

- A. The Owner shall occupy premises during performance of the work for their normal operations. Coordinate with the Owner to minimize conflict and to facilitate Owner usage.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

01 20 00
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01. REQUIREMENTS INCLUDED

- A. Measurement and payment shall be as specified in the City's Engineering Code of Standards and Specifications as published on the City website unless modified in this section.
- B. Work to be performed under this contract will be paid for on a unit cost or lump sum basis as indicated under the appropriate Bid Items shown on the Bid Form. No item of work shown on the Drawings or in the Specification will be considered for extra compensation due to a claim that it does not fall within the scope of one of the Bid Items.
- C. Contractor shall, within 10 days of receipt of Notice to Proceed, submit a complete breakdown of lump sum and unit cost bid items (Schedule of Values) showing value assigned to each part of Work. Payment for materials delivered but not fully incorporated in Work will be made only if such materials are listed and assigned a value in Contractor's Schedule of Values.
- D. The work of this Contract consists of furnishing all labor, materials, equipment, and incidentals required and performing all construction, installation, and testing of all improvements, modifications, and additions, all as shown on the Drawings and as specified in these Specifications.

1.02. BID ITEMS

1. Mobilization, Demobilization, Permits, Fees, Licenses, Administration

Shall include all labor, materials, equipment, and incidentals required for the Contractor to mobilize. Shall include all costs for Contractor's insurance and bonds, construction permits and fees, job trailers and site administration expenses, utilities including power, telephone, etc. This item shall not exceed more than ten (10) percent of the Base Bid. This item will be paid as defined in the City of Arvada Engineering Code of Standards and Specifications, latest edition.

2. Traffic and Pedestrian Control

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1180.00 (Lump Sum).

3. Sediment and Erosion Control

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1136.00 (Lump Sum).

4. Utility Locate Potholing

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as a lump sum.

5. Construction Survey

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as a lump sum.

6. Owner Controlled Minor Contract Revisions

Owner controlled allowance of \$180,000 to be applied to address minor work required to provide a fully functioning sewer collection system and community site. Use of allowance will be documented.

7. Native Landscaping & Restoration (Includes Seeding, Topsoil & Mulch)

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1193.00 & 1194.00 (Square Yards).

8. Sod Landscaping & Restoration (Includes Sod and Topsoil)

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1193.00 & 1194.00 (Square Yards).

9. Irrigation System Restoration

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as a lump sum.

10. Reset Private Fence

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1141.00 (Lineal Foot).

11. Reset Sign

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1141.00 (Each).

12. Reset Utility Pedestal

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1141.00 (Each).

13. Temporary Bypass Pumping Sewer

Shall include all labor, materials, equipment, and incidentals required for construction and to meet the requirements of Specification 01 57 00. This item will be paid as a lump sum.

14. Temporary Irrigation

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as a lump sum.

15. Tree Protection Perimeter Fencing

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1167.00 (Lineal Feet).

16. Excavation Dewatering

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as a lump sum. See Note in the City of Arvada Engineering Code of Standards and Specifications, Section 1137.02 and in Section 1146.00.

17. Sanitary Sewer Maintenance Hole - 5-foot Diameter (Depth < 10 feet), Complete In Place

This item is for 5-foot diameter maintenance holes listed in the plans with a depth to invert of less than 10-feet and will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1154.00 (Each).

18. Sanitary Sewer Maintenance Hole - 5-foot Diameter (Depth > 10 feet), Complete In Place

This item is for 5-foot diameter maintenance holes listed in the plans with a depth to invert of greater than 10-feet and will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1154.00 (Each).

19. Sanitary Sewer Maintenance Hole - 5-foot Diameter (Depth > 10 feet), Complete In Place

This item is for 5-foot diameter, outside drop maintenance holes listed in the plans with a depth to invert of less than 10-feet and will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1154.00 (Each). Lining to be measured and paid as a separate item.

20. Sanitary Sewer Maintenance Hole - 5-foot Diameter (Depth > 10 feet), Complete In Place

This item is for 5-foot diameter, outside drop maintenance holes listed in the plans with a depth to invert of greater than 10-feet and will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1154.00 (Each). Lining to be measured and paid as a separate item.

21. Sanitary Sewer Maintenance Hole - 6-foot Diameter, Complete In Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1152.00 & 1154.00 (Each).

22. Protective Lining of 5-foot Maintenance Hole

Furnish all materials, labor, and equipment needed to complete the surface preparation, application, curing, and cleanup of protective coating systems on all inside walls and benches of sanitary maintenance holes, including cone sections and adjusting rings, as specified and otherwise necessary for satisfactory execution of the Work. This item will be measured and paid per vertical linear foot (depth) of manhole (including cone sections and adjusting rings and bench surfaces).

23. 8-inch SDR35 PVC, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.00 (Lineal Foot).

24. 21-inch SDR35 PVC, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.00 (Lineal Foot).

25. 30-inch SDR35 PVC, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.00 (Lineal Foot).

26. Leyden Creek Sewer Crossing

Shall include all labor, materials, equipment, and incidentals required for construction of the reinforced concrete slab and protective rock as detailed in the plans. This item will be paid as a lump sum.

27. Connect to Existing Sanitary Sewer System Main

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.02 (Each).

28. Connect Sanitary Sewer Service

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1141.00 (Each).

29. 6-inch Asphalt Removal and Paving - Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1171.00 & 1173.00 (Square Yards).

30. 10.5-inch Asphalt Removal and Patching - Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1137.01, 1171.00 & 1173.00 (Square Yards).

31. Curb and Gutter Remove and Replace, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1134.00 & 1151.00 (Lineal Feet).

32. 6-inch Thick Concrete Sidewalk Removal and Replacement

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1134.00 & 1151.00 (Square Yards).

33. Concrete Pan, Sidewalk & Curb Ramp Remove and Replace, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1134.00 & 1151.00 (Square Yards).

34. 12-inch Thick, Type VL Riprap

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1174.00 (Cubic Yards).

35. Remove Existing Trees

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1134.00 (Each).

36. Remove and Dispose 12-Inch AC Pipe

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.08 (Lineal Feet).

37. Remove and Replace 15-Inch CMP Drainage Pipe

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1134.00 & 1146.00 (Lineal Feet).

38. Remove and Replace 24-Inch CMP Drainage Pipe

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Sections 1134.00 & 1146.00 (Lineal Feet).

39. Remove 27-inch PVC Sanitary Sewer Pipe

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1134.00 (Lineal Feet).

40. Remove Maintenance Hole

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1134.00 (Lineal Feet).

41. Remove and Dispose Tennis Court

Shall include all labor, materials, equipment, and incidentals required for the full removal and disposal of the existing tennis court, including court surface, fencing, curbs, and other related items. This item will be paid as a lump sum.

42. Abandon Waterline

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as lineal foot.

43. Abandon Sanitary Sewer (Plug)

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as each.

44. Abandon Sanitary Sewer (CLSM Fill)

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be measured and paid per cubic foot.

45. Abandon Sanitary Sewer Maintenance Hole

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be measured and paid as each.

46. Native Landscaping & Restoration (Includes Seeding, Topsoil & Mulch)

SEE ITEM 7 FOR DESCRIPTION.

47. Sod Landscaping & Restoration (Includes Sod and Topsoil)

SEE ITEM 8 FOR DESCRIPTION.

48. Irrigation System Restoration

SEE ITEM 9 FOR DESCRIPTION.

49. Sanitary Sewer Maintenance Hole – 4-foot Diameter (Depth < 10 feet), Complete In Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1154.00 (Each).

50. Protective Lining of 4-foot Maintenance Hole

SEE ITEM 22 for DESCRIPTION.

51. Protective Lining of Existing 5-foot Maintenance Hole

SEE ITEM 22 for DESCRIPTION.

52. 8-Inch SDR35 PVC, Slip-lined, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.07 (Lineal Feet).

53. 8-Inch SDR35 PVC, Complete in Place

SEE ITEM 23 FOR DESCRIPTION.

54. 8-inch C900 PVC, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.00 (Lineal Foot).

55. Connect to Existing Sanitary Sewer Maintenance Hole

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.02 (Each).

56. Connect Sanitary Sewer Service

SEE ITEM 28 for DESCRIPTION.

57. 6-inch Asphalt Removal and Patching - Complete in Place

SEE ITEM 29 for DESCRIPTION.

58. 10.5-inch Asphalt Removal and Patching - Complete in Place

SEE ITEM 30 for DESCRIPTION.

59. 6-inch Thick Concrete Sidewalk Removal and Replacement

SEE ITEM 32 for DESCRIPTION.

60. Concrete Pan, Sidewalk & Curb Ramp Remove and Replace, Complete in Place

SEE ITEM 33 for DESCRIPTION.

61. Remove and Dispose 8-inch AC Pipe

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.08 (Lineal Feet).

62. 8-inch C900 PVC, Complete in Place

This item will be measured and paid according to the City of Arvada Engineering Code of Standards and Specifications, Section 1146.00 (Lineal Foot).

63. 8-Inch 22.5° Bend

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be measured and paid as each.

64. 8-Inch 45° Bend

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be measured and paid as each.

65. 8-Inch Tee

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be measured and paid as each.

66. 8-Inch Gate Valve

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be measured and paid as each.

67. Water Service Tap Reconnection

Shall include all labor, materials, equipment, and incidentals required for construction. This item will be measured and paid as each.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)**

END OF SECTION

01 31 00
CONSTRUCTION SCHEDULES

PART 1 GENERAL

1.01. CONTRACTOR REQUIREMENTS INCLUDED

- A. The Contractor shall submit the proposed Schedule of Work in accordance with the provisions and time frames stated in this Section and in the Contract. Electronic copies of all Schedules and Schedule updates shall be submitted initially and monthly thereafter.
- B. Contractor shall submit updated Schedule of Work monthly or more frequently when required and acceptable to the Engineer. Progress payment shall not be made unless the Contractor submits the monthly schedule update.
- C. Contractor's Schedule is to be considered and used as a working tool and will not become a part of Contract or Contract Documents.

1.02. RELATED REQUIREMENTS

- A. Conditions of Contract
- B. Summary of Work

1.03. FORM OF SCHEDULES

- A. The Schedule of Work shall utilize a Critical Path Method (CPM). Contractor shall prepare, maintain, and furnish current detailed progress and schedule charts using the CPM schedule, which shall support the Contract performance dates. Schedule shall identify Work in Contract in sufficient detail to ensure compliance with Contract dates, schedules, and sequences of construction.
- B. CPM schedule shall be maintained throughout life of Contract. Contractor shall designate an authorized representative within its firm who will be responsible for preparation of the CPM network plan and schedule and for monitoring progress of Project.
 - 1. Schedule submittal: In accordance with the Contract, Contractor shall submit to the Engineer complete CPM schedule. A schedule of estimated monthly progress payments shall be developed by Contractor and submitted with CPM network plan. Contractor shall also submit Schedule of Values and schedule of Shop Drawings and sample submittals.
 - 2. Acceptance of Contractor's Schedule by Engineer will not relieve Contractor from compliance with all conditions of the Contract. Errors and omissions in accepted Contractor's Schedule will not be cause for future claims by Contractor for extra costs or increased Contract Time.
 - 3. Schedule is Contractor's schedule, prepared by him and he remains solely responsible for adherence thereto.

4. Changes to Schedule: Contractor may at any time make changes to its current plan and schedule upon notification to Engineer. Contractor shall submit changes schedule for any of the following reasons:
 - a. When delay in completion of any activity or group of activities indicates an extension of scheduled Project completion including delays which may be involved with change orders, strikes, unusual weather, etc.
 - b. Delays in submittals or deliveries or work stoppage are encountered which make re- planning or rescheduling of Work necessary.
 - 1) Contractor's failure to provide submittal or re-submittal in a timely manner will not be cause for future claims for extra costs or increased Contract Time.
 - 2) Contractor's failure to place orders for equipment and materials in a timely manner following an approved submittal, causing delay in delivery of equipment or materials will not be cause for future claims for extra costs or increased Contract Time.
 - c. Schedule does not represent actual prosecution and progress of Project.
 5. Engineer's acceptance of changes to Schedule and all relevant data is contingent upon compliance with all other paragraphs of this Section and any other previous agreements or requirements by Engineer.
 6. Contractor's cost of revisions to Schedule due to any cause shall be responsibility of Contractor.
 7. Adjustment of Contract Completion: Contract Time will be adjusted only by Change Order for causes specified in this Contract. In the event Contractor requests an extension of Contract Time, he shall furnish such justification, CPM data, and supporting evidence as follows for a determination as to whether Contractor is entitled to an extension of Time under provisions of Contract.
 8. Contractor shall submit a brief narrative report as part of monthly update. Narrative report shall include a description of problem areas; current and anticipated delaying factors and their estimated impact on performance of other activities and completion dates; and an explanation of corrective action taken or proposed.
- C. Contractor failure to comply with this Section shall be a material breach of this Contract.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

01 57 00
TEMPORARY BYPASS PUMPING

PART 1 GENERAL

1.01. SECTION SUMMARY

- A. The Contractor or subcontractor performing the bypass pumping shall have a minimum of five (5) industrial projects of at least equal scope and complexity within the last ten (10) years.
- B. Control and maintain all sanitary sewer flows within the sewer system during the Work. Service will always be maintained.
- C. Precautions shall be taken to prevent potential spillage from reaching the storm water system.
- D. Section Includes:
 - 1. Minimum requirements for bypass pumping for sewage flow control necessary to facilitate sewer line crossing or replacement construction activities.
 - 2. Provide all labor, equipment, supervision, and materials necessary to eliminate flows via bypass pumping through a section or sections of pipe designated at crossing or replacement locations.
 - 3. Contractor may convey existing flows by bypass pumping or other appropriate methods approved by the Engineer.
 - 4. Plugging of sewer lines shall not be permitted without bypassing except for Engineer approved private gravity laterals under specific conditions.
- E. Conform to applicable requirements of the OSHA Standards for Construction.
- F. Contractor shall maintain existing flow capacities at all points of connection and in areas where the existing line conflicts with the construction of the new lines.
- G. Where no right-of-way or easement is shown to accommodate bypass operations, Contractor shall be responsible for coordinating with private property owners.
- H. All bypass operations shall include overflow prevention monitoring and odor control in accordance with this section.

1.02. REFERENCES

- A. Uniform Plumbing Code, most recent accepted edition.

1.03. SUBMITTALS

- A. Submittals: Comply with the Conditions of the Contract.
- B. Submit bypass pumping plan to the Engineer for review and approval 28 days in advance of the bypass work.

- C. Submit a Spill Prevention Containment and Countermeasure Plan (SPCC) in accordance with the Spill Prevention and Emergency Response Planning guidelines.
- D. Contractor shall obtain and submit a copy to the Engineer of all permits required for bypass pumping operation.

1.04. BYPASS PUMPING PLAN

- A. Prepare a detailed Bypass Pumping Plan which describes the measures to be used to control flows. Submit the Plan to obtain approval of the Plan from the Engineer prior to beginning bypass pumping work. Contractor's Plan shall include, but not be limited to the following:
 - 1. Drawings indicating the scheme and location of pumps, suction maintenance hole, suction piping, discharge maintenance hole, discharge piping, temporary sewer plugs, flow diversion structures, dams, odor control, overflow prevention monitors, and related materials and equipment for each of the bypass pumping sites.
 - a. Plan shall show location of all bypass pumping systems, including odor control, and shall discuss phasing, reuse, and movement of systems during construction as applicable.
 - b. Bypass pumping plan shall designate which system/setup will be used where and when as applicable.
 - c. Structures and equipment within the public right-of-way shall be identified as such on the plans.
 - d. Plan shall show the sewer installation or sewer alterations to be accomplished during each bypass pump set up. The plan shall list the order of work requiring bypass pump set ups to verify downstream sewers are ready to accept bypass flows. The order of work shall correspond with the overall Project Schedule.
 - 2. Right of Way Ownership.
 - 3. Contractor shall submit to and obtain appropriate permits from each entity having jurisdiction when the pump bypass plan encroaches into their right of way.
 - 4. Vehicular and pedestrian access to public and private facilities shall be coordinated with the traffic control plan. The traffic control plan shall show how vehicles and pedestrians will be protected from injury resulting from bypass operations.
 - 5. Contractor-performed flow monitoring results.
 - 6. Capacities and sizes of pumps (including backup pumps), standby equipment, and power requirements if applicable.
 - 7. Key operational control factors (i.e., maximum flow elevations upstream of dams).
 - 8. Design calculations proving adequacy of the system and selected equipment, including static lift, friction losses, fitting losses, flow velocity, pump curves

identifying operating range, and pipe thickness calculations. Pipe thickness calculations shall assume an H2O live loading at crossings.

9. Sewer plugging method and type of plug.
 10. Provide location of plug in maintenance hole (upstream or down-stream of maintenance hole).
 11. Method of noise control for each pump and generator.
 12. Thrust restraint block sizes and locations where space is limited.
 13. Method of securing and bracing of sewer plug shall be submitted. At a minimum, the plug must attach to a cable/chain which is then connected/tied off to an immobile object, as approved by the Engineer.
 14. Temporary pipe supports, and anchoring required.
 15. Contingency plan for cleanup and disinfection procedures in the event of a sewer spill. Contingency plan will identify equipment, tools, and manpower necessary to complete clean up, disinfect and repair.
 16. Staffing plan including name and qualifications for on-site operators. Trained bypass pumping personnel (pump operator) shall be present during the entire bypass operation. Logs shall be maintained by the bypass pumping personnel. Submit bypass pumping personnel qualifications for agency review and approval.
 17. Site layout showing all major components.
 18. Wet weather event procedures.
 19. An emergency response plan that addresses containment, notification procedures, and equipment failure procedures. An emergency contact list with 24-hour phone numbers shall be submitted and updated as needed.
 20. Schedule including durations and dates for each sequence.
 21. Protection method for existing utilities.
- B. Number and size of pumps used in bypass pumping shall be such that if the largest pump is out of service, bypass flows will be maintained during the bypass operation.
- C. Contractor may obtain current flow estimates from the Engineer, but shall field verify minimum, maximum, and average flow to be bypassed as detailed in this section.

1.05. NOTIFICATIONS

- A. In addition to providing the Bypass Pumping Plan, Contractor shall notify the Engineer and receive written approval from the City Engineer prior to each bypass operation.
- B. Contractor shall provide written notice to affected properties both 7 days and 24 hours prior to bypass work. The written notice shall list the date and times when sewer service will be affected and when it will be returned to normal service along with a phone number that owners can call for information.

1.06. INTERRUPTION OF SEWER SERVICE

- A. Sewer service shall be maintained to all customers.
- B. Sewer service shall not be stopped.
- C. Service shall not be interrupted, and no bypass operations shall occur during special events, if any, as identified by the City Engineer.
- D. Only 1 pipe segment, and the associated laterals, may be affected at 1 time.
- E. Lateral lines into maintenance holes shall be bypassed from the next upstream structure in which no work is required or has been or is yet to be completed. If the structure upstream is private, Contractor shall notify the Engineer and receive written approval from the City Engineer prior to bypass operations.
- F. Lateral lines tying directly into the pipe shall be bypassed to the next downstream structure in which no work is required for that segment.

1.07. NOISE CONTROL

- A. Noise Control: Contractor shall comply with all local and agency noise limitation requirements.
- B. Contractor shall be required to limit noise production by using special mufflers, barriers, enclosures, equipment positioning, and other approved methods.

1.08. SYSTEM PROTECTION

- A. At each bypassing site, the Contractor shall have the entire bypassing system in place, functional, and tested before bypassing any sewage.
- B. Contractor shall be responsible for all bypass flows. Contractor shall inspect each bypass pumping, piping system, and odor control system in its entirety for leaks or spills on an hourly basis. Each bypass operation shall have a minimum of 1 trained and qualified attendant who shall provide 24/7 coverage and whose only duty is to maintain the bypass pumping and odor control systems until the bypassing of that specific pipeline is no longer required. An inspection log shall be kept at each pumping location.
- C. The attendant shall be qualified to both operate and repair any and all problems that may occur. The attendant shall have a cellular phone for communication between the project engineer and inspector and the site in the event of emergencies. No bypassing to the ground surface, receiving waters, storm drains, or bypassing which results in soil or groundwater contamination or any potential health hazards shall be permitted. In the event of any sewage spill, Contractor shall be responsible for the prompt notification of the project engineer and inspector, cleanup, and disinfecting of the spill as called for in the bypass plan. Contractor shall compensate the City for the cost of fines levied as the result of a spill or unauthorized discharge.
- D. Work stoppage may be required due to a large storm event common to the seasons for which the Work is scheduled.

1.09. QUALITY CONTROL

A. Hydrostatic Pressure Test

1. Bypass lines, fittings and accessories shall withstand twice the maximum pressure of the system or 50 psi, whichever is greater.
2. The test shall run for a period of 4 hours.
3. Contractor shall fill the line with water.
4. The line shall be sealed on the discharge end.
5. The line may be put in service if after the 4-hour period the pressure has been maintained and there are no observable leaks.
6. Notify the Engineer 24 hours prior to testing.

B. Inspection

1. Operator shall inspect temporary bypass pumping and piping system at a minimum of every hour.
2. Inspection Log: Keep at each pumping location.

PART 2 PRODUCTS

2.01. EQUIPMENT

- A. Supply the pumps, conduits, and other equipment to divert the flow of sewage around the sewer(s) or maintenance hole(s) in which work is to be performed.
- B. Pumps used for bypassing shall be capable of passing at least a 3-inch solid sphere, and bypass piping shall have a minimum size of 4-inch diameter.
 1. Furnish the necessary labor and supervision to set up and operate the pumping and bypassing system.
 2. If pumping is required on a 24-hour basis, engines shall be equipped in a manner to keep noise to a minimum, and a spare back-up pump shall be required.
 3. All fuel tanks for pump or generator motors shall be filled by Contractor prior to leaving the job site if bypass pumping must continue.
 4. Do not suspend work for more than 24 hours during operation of a bypassing system, unless otherwise permitted by the Engineer.
- C. Bypass pumping pipe shall be located with the least impact on vehicular and pedestrian traffic, shall have no visible leaks, and shall be restrained as necessary to prevent any movement of the pipe. If the pipe must run perpendicular to traffic, the pipe shall be buried to prevent traffic restrictions. A plan to prevent Sanitary Sewer Overflows (SSOs) shall be approved by the Engineer and a redundant force main shall be provided. Contractor shall submit pipe design calculations and manufacturer information as well as emergency operation procedures to prevent a SSO as part of the Bypass Pumping Plan.

- D. All pumps, generators, and other equipment shall be placed in a secondary containment to protect against and contain spills of petroleum products used by the equipment, or sewage leakage.
- E. Bypass pumping system shall be cleaned and drained prior to being dismantled and moved to the next location. Contractor shall alternate pigging and purging of the system to remove all loose material. After Contractor has cleaned the pipe, and prior to dismantling of the piping for removal from the Project site, Contractor shall disinfect the pipe with 10 percent chlorine and water solution.
- F. No "lay flat" pipe shall be allowed. All pipe shall be rigid pipe.
- G. Overflow prevention monitors shall be field-ready corrosion resistant housings meeting IP67/NEMA 4, 4X standards with cellular communication capability, the ability to send text alerts to at least three user-designated phone numbers, non-confined space installation, and maintenance free operation.

2.02. TEMPORARY OR PERMANENT BYPASS PUMPING FACILITIES

- A. In establishing a bypass pumping facility on private property under a right-of-entry and/or right-of-access agreement, Contractor shall provide preference to an existing access location (maintenance hole and/or cleanout) on the private property to establish the bypass pumping facility. Where an existing access location is utilized, no payment for temporary or permanent bypass pumping facilities will be authorized by the Engineer.
- B. Where an existing access location on private property is not available or would be impractical to use and a right-of-entry and/or right-of-access agreement from the property owner has been obtained, as approved by the Engineer, Contractor shall construct such temporary or permanent access as may be required to establish the bypass pumping facility.
- C. Temporary bypass pumping facility shall comply with the Uniform Plumbing Code and Standard Specifications, as applicable.

PART 3 EXECUTION

3.01. PREPARATION

- A. Contractor shall notify the Engineer 7 days and 24 hours prior to bypassing or diverting flow in any of the pipelines or laterals.
- B. Take precautions to ensure that bypass pumping shall not cause damage to public or private properties.
 - 1. In the event damage occurs, make provisions to correct such damage at no additional cost to the City.
 - 2. Contractor shall be responsible for damages to public or private property, overflows from the sewer system, and violations resulting in fines as a result of the bypass operation.
- C. Contractor shall include 100 percent redundancy for bypass piping; 2 or more pipes (same size or larger) shall be installed. Redundancy shall be such that if 1 line is

damaged during operation a second or third pipe can immediately take its place. Contractor shall include 1 redundant pump with the following minimum requirements.

1. 100 percent redundancy for 2 pump operations, (1 in operation and 1 on standby), each pump with project peak flow capacity.
 2. 50 percent redundancy for 3 pump operations, (2 in operation and 1 standby), each pump with 50 percent project peak flow capacity.
 3. Different arrangements will be allowed with prior approval by the Engineer.
 4. Standby pumps shall be plumbed, fueled, and operational at all times. Standby pumps shall be maintained by Contractor and ready for immediate operation.
- D. The Contractor shall maintain on site a sufficient number of valves, tees, elbows, connections, tools, sewer plugs, piping, and any other spare parts or system hardware to ensure immediate repair or modification of any part of the system as necessary.
- E. Bypassing systems shall not be shut down between shifts, on holidays or weekends, or during work stoppages without written permission from the Engineer.
- F. Overflow prevention monitors shall be programmed to alert the Contractor, the Engineer, and designated City staff.

3.02. BYPASS PUMPING

- A. Contractor's sewage bypass pumping operations shall not harm the City, nor any other public or private party. Any and all penalties, fines, judgments, or injunctions levied due to Sanitary Sewer Overflow (SSO) spills or any other problems caused or related to Contractor's bypass pumping operations, monetary and otherwise, shall be borne and paid by Contractor.
- B. Bypass shall be made by diversion of the flow from at least 1 maintenance hole upstream from section where work is taking place, around the section to be taken from service for new construction, to an existing downstream location, at least 1 maintenance hole beyond the section where work is taking place.
- C. Bypass Pumping Capacity:
1. The average dry day flow from the City of Arvada Sanitary Sewer Master Plan is 1.87 MGD. The assumed peak flow is 2.8 MGD and will be confirmed with flow monitoring.
 - a. Project Peak Flows shall be used to determine the number and size of primary pumps, standby pumps, suction pipes, discharges pipes, redundant discharge pipes, and any other flow related element of the bypass pumping system.
 - b. Pipe velocity through force mains shall be at least 3 fps but not exceed 12 fps.
- D. Bypass Pumping Minimum Procedures:
1. Contractor shall not proceed with bypass pumping when the weather forecast has rain during the bypass operation.

2. Contractor shall provide bypass pumping capable of handling Project Peak/ Maximum and Minimum flow loads for the pipeline(s) to be bypassed.
3. When performing bypass work, ensure that pumping redundancy is onsite with all appurtenances (suction/discharge pipe) attached so that a pump can immediately be started when another pump has to be taken out of service.
4. Provide on-site a minimum of 1 trained and qualified operator for each bypass operation who shall provide 24/7 coverage and possess the experience and knowledge to operate, maintain, repair, refuel, and so forth at all times while bypass pumping systems are required.
5. Install plugs in upstream portion of pipe in maintenance hole, if operation allows. If not, bag or plug shall be secured with length of cable that will extend to the next downstream maintenance hole for retrieval. This is to prevent rogue/runaway bags/plugs from entering the collection system. Opening in retrieval maintenance hole shall be large enough to allow bag/plug removal. Also take into consideration the invert/base construction, 90-degree maintenance holes, offset/angle points, and so forth when determining the retrieval maintenance hole.
6. Pumping systems for laterals shall be designed for frequent pump operation in accordance with the following requirements:
 - a. Contractor shall maintain existing working levels in existing lift station wet wells.
 - b. Sewage level in maintenance holes shall be maintained at as low a level as possible to prevent odor problems and the bypass pumping equipment shall at a minimum pump at the same rate as the flow rate into the maintenance hole.
 - c. All bypass pumping operations shall be individually addressed in the bypass pumping plan.
7. Contractor shall submit a written bypass pumping plan addressing the above requirements before proceeding with work. Provide emergency list of phone numbers.

3.03. REMOVAL

- A. Remove bypass pumping system when no longer needed. The Contractor shall notify the Engineer 48 hours prior to shutting down the bypass system.
- B. After completion of bypass pumping operations, Contractor shall clean disturbed areas, restoring them to their original condition. This operation shall include but not be limited to, pavement restoration and landscaping, at least equal to that which existed prior to start of Work.

END OF SECTION

SECTION 31 23 19 DEWATERING

PART 1 GENERAL

1.01. SUMMARY

- A. The work to be performed in accordance with this Specification consists of furnishing all materials, equipment, supplies, and accessories and of performing all operations required in connection with dewatering activities as shown on the Drawings and specified herein.
- B. Dewatering activities include:
 - 1. Dewatering plan submittal requirements,
 - 2. Permits for dewatering activities,
 - 3. Performance requirements for trench and structure dewatering,
 - 4. Verification of dewatering performance,
 - 5. Dewatering discharge and monitoring requirements, and
 - 6. Termination of dewatering.

1.02. PRICE AND PAYMENT PROCEDURES

- A. Shall include all labor, materials, equipment, and incidentals required for construction. This item will be paid as a lump sum.
- B. Work required to comply with water quality and permit requirements are considered incidental and additional payment will not be made for this work.
- C. Surface rehabilitation performed because of dewatering activities is considered incidental and no additional payment will be made.

1.03. SUBMITTALS

- A. Prior to the preconstruction conference the Contractor shall submit their dewatering plan to the Engineer and Owner to communicate the Contractor's intent regarding dewatering to achieve the required performance contained in these specifications.
- B. Submittal of a dewatering plan shall not be interpreted as an acceptance or approval by the Owner or Engineer of the Contractor's dewatering plan.
- C. The dewatering plan shall include at a minimum:
 - 1. Major components of the dewatering system including size, location, spacing and details of wells, well points, vacuum piping, sumps, interception trenches, pumps, and other major dewatering features the Contractor anticipates utilizing.

2. Details of scheduling of dewatering activities relative to trench excavation and pipe installation along the planned alignment and excavation and structure installation including backfilling and ceasing dewatering activities.
 3. Contingency plans for equipment or power failure.
 4. Procedures for verification that water levels have been lowered to the specified levels prior to trench excavation and pipe installation.
 5. Location of dewatering disposal or discharge locations and the capacity to accept dewatering discharge. Provide a contingency plan for higher than anticipated flows when capacity of planned discharge and disposal locations may conceivably be exceeded.
 6. Location and details of Best Management Practices (BMP's)
 7. Agreements with entities accepting discharges.
 8. All permits obtained by the Contractor including any permit conditions and approvals for the discharge of water generated during the execution of the work.
 9. Other permits required for construction or operation of the dewatering system including the drilling of wells, temporary power drops, etc.
- D. The dewatering plan shall be designed and sealed by a qualified professional engineer registered in the jurisdiction of the project. The Contractor will be responsible for selection and payment of the engineer to perform the dewatering system design.

1.04. PERMITS

- A. Submit a short-term activity exemption application and plan.
- B. Contact Colorado Water Quality Control Division – CDPS Stormwater Discharge Associated with Construction Activities for details.
 1. https://www.colorado.gov/pacific/sites/default/files/WQCD_StormwaterPermit_Re v4.1_App.pdf
- C. Dewatering discharge to or across adjacent canals, drains, right-of-way, and private property outside of the designated limits of construction shall not be allowed unless the Contractor has obtained written approval from agency or property owner having jurisdiction. Provide Agreements with dewatering plan submittal.

1.05. EXISTING CONDITIONS

- A. Information concerning a sub-surface soil investigation by an independent testing laboratory is available and will be furnished by the Owner upon request. The data included therein may be used by the contractor for their general information only. The Engineer will not be responsible for the accuracy or applicability of the data therein.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01. PREPARATION

- A. Furnish, install, and prepare for operation, all necessary machinery, appliances, and equipment to maintain all trench and structure excavations free from water during construction.
- B. Contractor shall provide temporary power sources for all dewatering equipment that requires a power source.

3.02. TRENCH AND STRUCTURE DEWATERING

- A. Dewater and dispose of water in such a manner that it does not cause injury to public or private property or cause a nuisance or a menace to the public.
- B. Comply with Colorado Water Quality Standards, latest edition, for discharge of water to surface water.
- C. The Contractor will be responsible for devising a system to achieve the required level of dewatering. It is anticipated that this system may incorporate wells, well points, interception trenches, sumps, etc. In addition, design and provide dewatering conveyance system to an approved disposal location. The Contractor shall submit details as part of the dewatering plan.
- D. Draw and maintain static water level to at least one foot (1') below the bottom of the excavation prior to excavating below the water table to maintain the undisturbed state of the foundation soils and allow placement of bedding material and backfill to the required density.
- E. Remove all groundwater, seepage, stormwater, and other water that accumulates in the excavation during construction. All trench and structure excavations shall be kept free of water during construction or until otherwise requested by the Contractor and approved by the Engineer.
- F. Prevent softening of the bottom of excavations and the formation of "quick" conditions or "boils" during excavation. The occurrence of such conditions will require over-excavation and subsequent backfilling at no additional cost to the Owner.
- G. Additional cost for trench bottom stabilization resulting from inadequate dewatering and non-compliance with the performance specifications included herein, as determined by the Engineer, will be incidental to the work.
- H. Compact native soil at the bottom of the excavation prior to placing bedding.
- I. Maintain static water level at least one foot (1') below the bottom of the trench until the pipe is placed and the bedding is placed and compacted.
- J. Maintain static water level at least one foot (1') below the bottom of the excavation until the specified foundation and structure is placed in accordance with these specifications.

- K. Maintain water levels at least one foot (1') below the level of backfill during backfilling operations.
- L. Control surface runoff to prevent entry or collection of water in excavations.
- M. Install and operate a dewatering system so that adjacent structures or property are not endangered by the reduction in the groundwater level.
- N. Monitor discharge from dewatering operations for changes in visual or odor components indicating the presence of contaminants including, but not limited to gasoline, pesticides and other hazardous materials and toxins.
- O. Cease dewatering operations and notify Engineer and regulatory agencies immediately upon observation of conditions that may indicate the presence of hazardous contaminants in the dewatering discharge or excavation.

3.03. VERIFICATION

- A. Contractor's superintendent shall routinely observe conditions in excavations where dewatering is being performed on a daily basis to verify performance requirements are being met and that conditions in the excavation are in accordance with the Contract Documents.
- B. Notify Engineer of any observations that may jeopardize the work or are not in accordance with the Contract Documents.
- C. Based on the verification performed by the Contractor and observations made by the Engineer, the Engineer will determine if the performance requirements of the specifications as they relate to dewatering and construction of the improvements are generally being met.
- D. If the Engineer determines that the dewatering related Work is not being performed in accordance with the Contract Documents, the Contractor will be notified and required to cease construction of the affected work. Contractor shall subsequently revise and resubmit the dewatering plan with appropriate adjustments to meet the requirements of the Contract Documents and implement any necessary changes to Contractor's dewatering approach and activities at no additional cost to the Owner.

3.04. DEWATERING DISCHARGE

- A. Comply with all State & Federal requirements, including (at a minimum):
 - 1. Dewatering discharge water quality and quantity.
 - 2. Dewatering discharge monitoring and sampling at the frequency stipulated in the permits, at any locations required therein.
 - 3. Submit monitoring and sampling report to the appropriate agencies.
- B. The Contractor shall be fully responsible for complying with State and Federal water quality requirements.
- C. Contractor shall design a dewatering discharge system to achieve State and Federal requirements.

- D. It is anticipated that stilling basins, geotextile dams, straw bales, silt fences, or siltation channels will be required to meet performance stipulations of the reference permits.
- E. Such temporary facilities may be constructed on-site and will be required to be removed after completion of the work.
- F. Captured sediment must be retained and disposed of at a site furnished by the Contractor. Discharging directly into adjacent surface waters without treatment shall not be permitted.
- G. Contractor will not be allowed to utilize the constructed pipelines at or near the structure excavation to convey dewatering flows. Dewatering down the pipe is prohibited. Contractor shall provide temporary, dedicated dewatering pipe, when necessary, as part of the Contractor's dewatering plan.

3.05. TERMINATION

- A. Allow groundwater to return to static level after excavations are backfilled as necessary to prevent floatation of constructed improvements.
- B. Prevent disturbance of the compacted backfill and prevent floatation or movement of installed pipelines or structure.
- C. Remove or abandon all temporary improvements associated with the dewatering system in accordance with these specifications and any applicable State and Federal rules and regulations.
- D. Provide surface restoration as required to repair/replace any surface impacted by dewatering activities to a condition as good or better than preconstruction conditions at no additional cost to the Owner.
- E. Comply with any dewatering termination requirements of any State and Federal permits.

END OF SECTION

SUPPLEMENTATION TO SPECIFICATIONS

SUPPLEMENTATION TO SECTION 367 BEDDING FOR PIPELINES AND SERVICE LINES

Section 367 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the second and third paragraphs to read:

Bedding material for all PVC, HDPE, CPP, PP and DIP (“flexible pipe”) **with a diameter less than 12-inches**, shall be material that complies with the gradation of “Fine Aggregate” as specified in Section 703.01 of the CDOT Standard Specifications for Road and Bridge Construction, well-graded sand or squeegee sand which complies with the following:

[TABLES REMAIN AS-IS]

Bedding material for all **PVC and RCP with a diameter greater than or equal to 12-inches**, shall consist of materials that meet the gradation of “No. 67 Coarse Aggregate” as specified in Section 703.00 of the CDOT Standard Specifications for Road and Bridge Construction unless otherwise recommended by the Geotechnical Engineer and approved by the City Engineer.

SUPPLEMENTATION TO SECTION 368 BACKFILL FOR PIPELINES AND SERVICE LINES

Section 368 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the second paragraph to read

The following special trench backfill requirements shall apply for utilities located in existing or planned road right-of-ways, **and under existing or planned concrete trails.**

1. Isolated Street Cuts – Service line cuts and other isolated utility repairs or modifications in a paved street area shall be backfilled with Controlled Low Strength Material (CLSM) “flowable fill” or “flash fill” per MGPEC Section 19.
2. Constrained Areas - Areas in which proper backfill compaction cannot be achieved such as utility crossing, under curb and gutter, or any area identified by the Certified Materials Tester or Construction Inspector, shall be backfilled with Controlled Low Strength Material (CLSM) “flowable fill.”
3. **Extensive Street Cuts – Street cuts for new utility trenches within the paved street area shall be backfilled with (pending recommendations from Geotechnical subcontractor to be published in bid addenda).**
4. **Under Concrete Trail – Backfill placed under existing or planned concrete**

SUPPLEMENTATION TO SECTION 368
BACKFILL FOR PIPELINES AND SERVICE LINES

Section 1137.02 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the Payment section to read:

Strike “dewatering” from the paragraph.

Section 1146.00 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the Payment section to read:

Strike “dewatering” from the paragraph.

END OF SECTION

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. _____.

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 _____, 20__, 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

SURETY

Name: _____

_____.

Address: _____

_____.

By: _____

By: _____.

Title: _____

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. _____ entitled _____ 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 their:

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 **250** calendar days after the date to be specified in the Notice to Proceed. A Notice to Proceed is anticipated to be issued on or about **4/8/2024**. 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.

REQUIRED CONTRACTOR SUBMITTAL FORM

SUBMITTAL CHECKLIST:

Bid Proposals shall be submitted in the order listed below with each section clearly identified. **Missing information or required documents may result in submission being deemed non-responsive.**

- ☐ Submit completed Bid Bond, Bid Proposal, Bid Schedule, Required Contractor Submittal, 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.
- ☐ Variations: Checking this box indicates that the contractor has variations to this solicitation. Identify all variations and exceptions to this CSB on a separate sheet/s of paper. If variations are not stated in the contractor's Offer, it shall be agreed that the contractor's Offer fully complies with all conditions identified in this Solicitation. For each variation listed, reference the applicable section of the solicitation document, the page number, and the variance. Submittal of a vendor contract is considered excessive in variations and may be cause for determining that the Bid is non-responsive and ineligible for award.

MINIMUM REQUIRED QUALIFICATIONS:

Evidence of these qualifications must be submitted. All qualification projects must have been completed with the past five years and be within the Front Range of Colorado, as defined as Fort Collins to Pueblo.

- ☐ Provide two example projects with demonstrated experience installing pipeline with a creek crossing.
- ☐ Provide two example projects with demonstrated experience installing large diameter gravity sewer pipeline (>18-inch diameter and greater).
- ☐ Provide one example project with demonstrated experience in slip-lining a smaller diameter pipe within a larger diameter pipe.
- ☐ Provide two example projects with demonstrated experience installing an 8-inch to 12-inch waterline.
- ☐ Provide three general references two for the proposed project manager and one for the proposed site superintendent and provide resumes for these two team members.

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: _____

QUALIFICATION PROJECTS:

☐ Check here if qualifications are attached separately, otherwise, use the spaces below.

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

CONTRACT DOCUMENTS

The following pages contain documents used upon contract award. They are included here for reference and are subject to change.

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 is such that the Principal entered into a certain Contract with the City, dated the _____ day of _____, 20_, a copy of which is hereto attached and made a part hereof, for the performance of City of Arvada Project No.'s _____.

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 _____, 20_.

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. _____, _____

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. _____, _____

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 _____ 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;
 - 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 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

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>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

APPROVED AS TO FORM:

ACCEPTED FOR CONTRACTOR

For Rachael Morris, City Attorney

By: _____

Title: _____

Date: _____

By: _____



CITY OF ARVADA

PURCHASING DIVISION
FACSIMILE: 720-898-7098 ▲ TDD: 720-898-7869
PHONE: 720-898-7099

REQUEST FOR BID OR PROPOSAL- ADDENDUM No. One

Proposal #: 24-ENG-012
Title: Central Ralston Trunk Line – Simms to Pierson
Addendum #: **One**
Today's Date: 02/01/2024
Proposals Due By: 02/06.2024 - **2:00 PM** MDT (NO CHANGE)

Solicitation and all related addenda and communications are available at WWW.BIDNETDIRECT.COM

The following clarifications are provided to be incorporated into the Request for Proposal 24-ENG-012.
All other information shall remain unchanged.

1. The Attendance sheet from the Pre-proposal meeting is included and attached to this Addendum
2. Consultant changes:
 - a. Replace sheet 10 of 40 Attachment 4 in its entirety with this sheet: 0107 – Utility Plan – Utility investigation Plan 2024 01 30.pdf
 - b. Replace the Supplementation to the Specifications (pages 38-39 of the CSB) with "Addendum Supplementation to Specifications 2024 01 31.pdf". Backfill recommendations are updated to reference the revised Geotechnical Investigation.
 - c. Replace Attachment 1 – Preliminary Geotechnical Investigation in its entirety with "Attachment1 - Preliminary Geotechnical Investigation Revised 2024 01 26.pdf". Fill and Backfill recommendations were updated.
 - d. Replace Attachment 5 – Subsurface Utility Engineering Report in its entirety with "Attachment5 – Subsurface Utility Engineering Report (sealed) for Addendum 2024 01 30.pdf". This has been updated with information from additional potholing that was performed.
3. Questions/Answers are included here on attachment.

MANDATORY - PRE-BID MEETING ATTENDANCE SHEET -

Bid # 24-ENG-012 – Central Ralston Trunk Line – Simms to Pierson

Meeting Date/Time: 01-22-2024 – 2:00 pm MT

Facilitator: Danny Wolfe

Place: VIA ZOOM

Company	Representative Name				
American West Constr	Mark Menke				
T. Lowell Constr	Levi Lowell				
Colorado Civil Infrat	Mark LoVecchio				
BT Constr	Colin McCarron				
Diamon Contracting	Chris Redding				
Native Sun Construction	Fredereicksun Barlow				
Miller Pipeline LLC	Jimmy Stephens				
Merrick & Company	Julie Koehler, Catie Bartone, Eric Hein, Nana Annoh,				
Full Scope Civil Group	Eric Goodrich				
Timber Wolf Excavating	Taylor Heitz				
Sun Belt Rentals	Joe Cerretani				

THE AND ANY OTHER ELECTRONIC MEDIA CONTAINED HEREIN IS AN INSTRUMENT OF SERVICE PREPARED BY MERRICK AND COMPANY FOR A DESIGN PROJECT. IT IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE IN WHOLE OR IN PART OR FOR EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE OF THIS DOCUMENT OR ANY PART THEREOF WITHOUT THE WRITTEN CONSENT OF MERRICK AND COMPANY SHALL BE AT THE SOLE RISK OF THE UNAUTHORIZED USER WITHOUT LIABILITY OR LOSS OF USE EXPOSURE TO MERRICK AND COMPANY.

GENERAL NOTES:

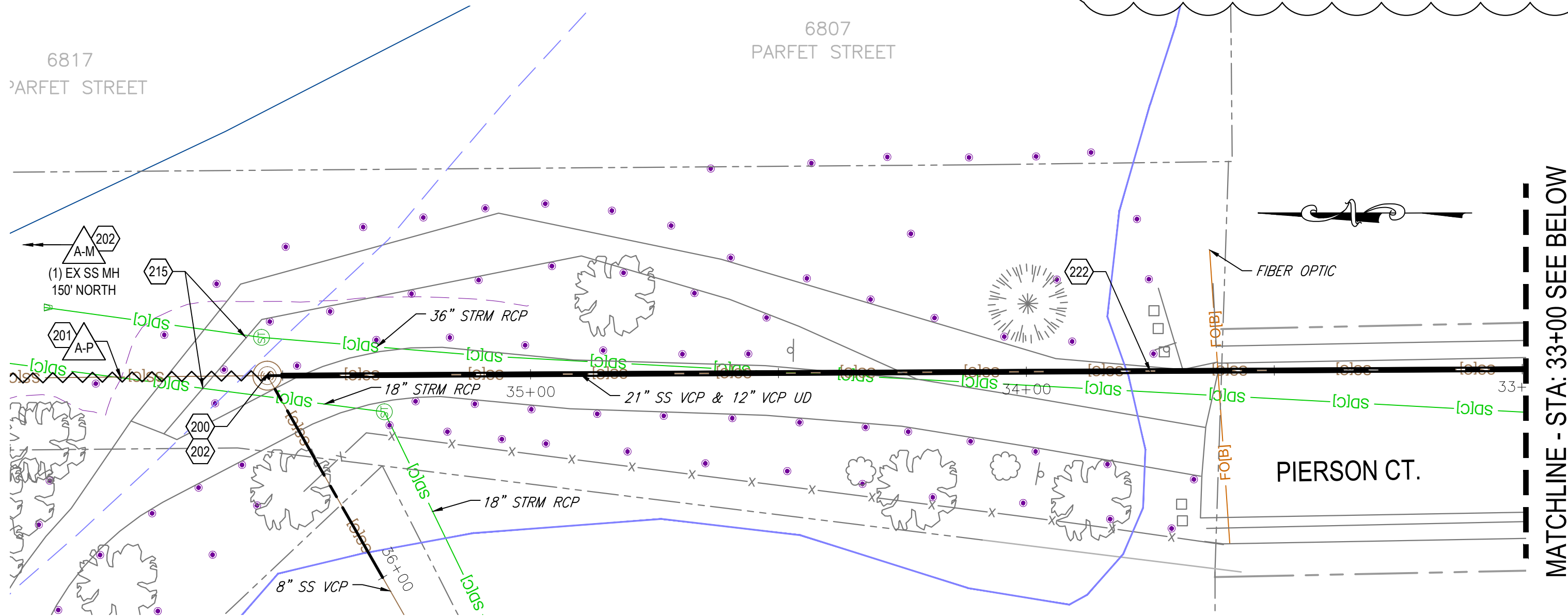
- REFER TO SS P&P SHEETS FOR NEW SEWER CONSTRUCTION.

UTILITY NOTES

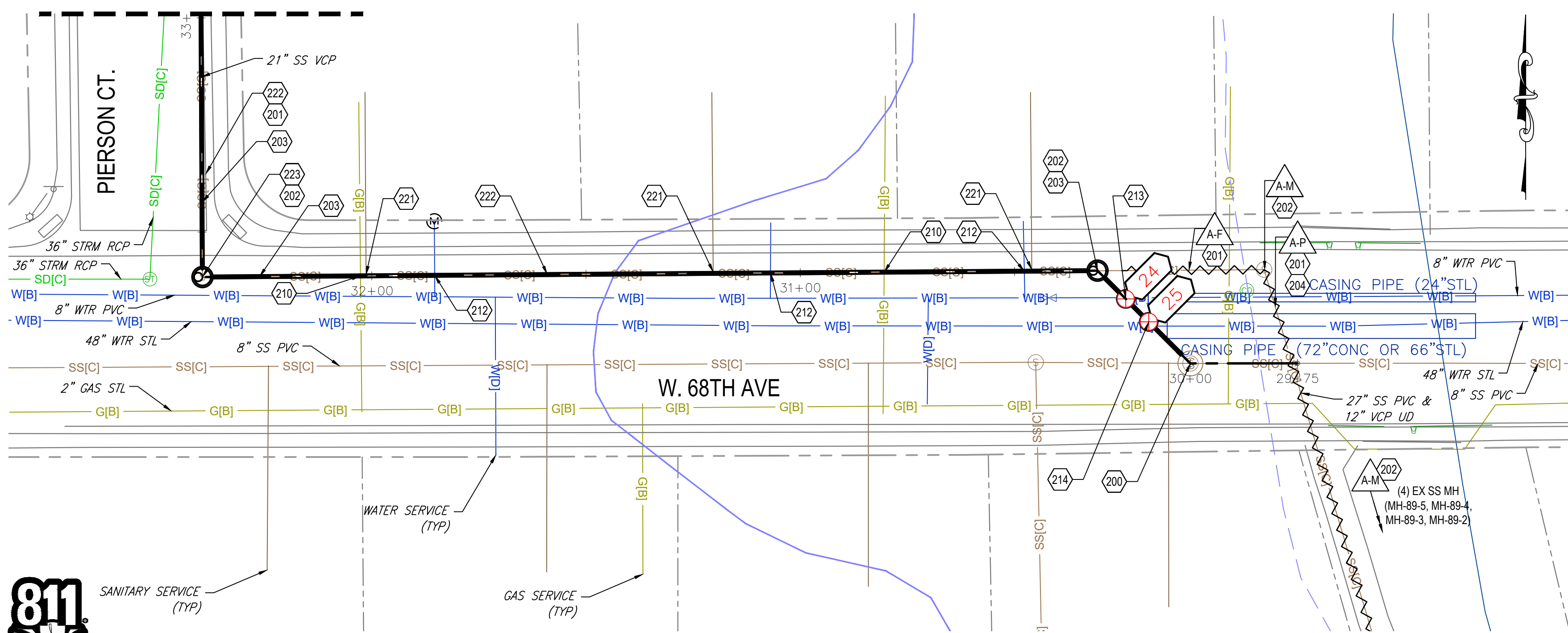
#

- MODIFY EX MH TO ACCEPT NEW 8" PVC SS CONNECTION. SEE SS P&P SHEETS 18 - 20
- PROTECT 12" UNDERDRAIN (UD) PIPELINE ADJACENT TO EX SS IN PLACE (NOT SHOWN). MAINTAIN IN SERVICE. THE EX UD IS GENERALLY LOCATED TO THE SIDE AND APPROX ONE FOOT BELOW THE EXISTING SS PIPELINE.
- IF EX 12" UD PIPELINE IS FOUND TO BE IN CONFLICT WITH EX MANHOLE ABANDONMENT, REMOVAL, OR EX SS PIPELINE REMOVAL ACTIVITIES, REALIGN THE UD PIPELINE AWAY FROM CONFLICT. SAWCUT AND REMOVE THE CONFLICTING SEGMENT AND PROVIDE 2" SDR 35 PVC, (4) 45° PVC BEND FITTINGS, AND FERNCO COUPLINGS TO CONNECT TO THE EX PIPELINE AT EACH END. ADJUSTMENTS SHALL BE IN THE HORIZONTAL PLANE, MAINTAIN THE EXISTING GRADE; IF NOT POSSIBLE WITHOUT VERTIFAL ADJUSTMENT SEEK DIRECTION FROM THE CITY REPRESENTATIVE.
- INSTALL NEW SS MH ON EX 21" SS. SAWCUT AND REMOVE PORTION OF 21" SS INSIDE MH TO REDIRECT FLOW TO NEW 8" SS PVC TO SOUTHEAST. SEE SS P&P SHEET 18
- INSTALL A PLUG "A-P" IN THE ADJACENT MANHOLE SHOWN. NO ADDITIONAL SCOPE TO REMAINING MHS AND PIPE SEGMENTS ALONG RALSTON CREEK BTWN 68TH AVE AND OAK ST.

- PROTECT EX GAS SVC
- PROTECT EX 6" GAS
- PROTECT EX WATER SVC
- PROTECT EX 8" PVC WATER
- PROTECT EX 48" STL WATER
- PROTECT EX RCP STRM
- REMOVE PORTION OF EX 21" VCP SS IN PROPOSED PUSH-PIT FOR JACKING NEW 8" PVC ON CASING SPACERS. SEE SS P&P SHEETS 18 - 20 RECONNECT EX SS SVC TO NEW 8" PVC SS, SEE SS P&P SHEETS
- CLEAN EX 21" VCP SS AND INSTALL NEW 8" PVC SS CARRIER PIPE ON SKIDS
- REMOVE AND REPLACE EX SS MH

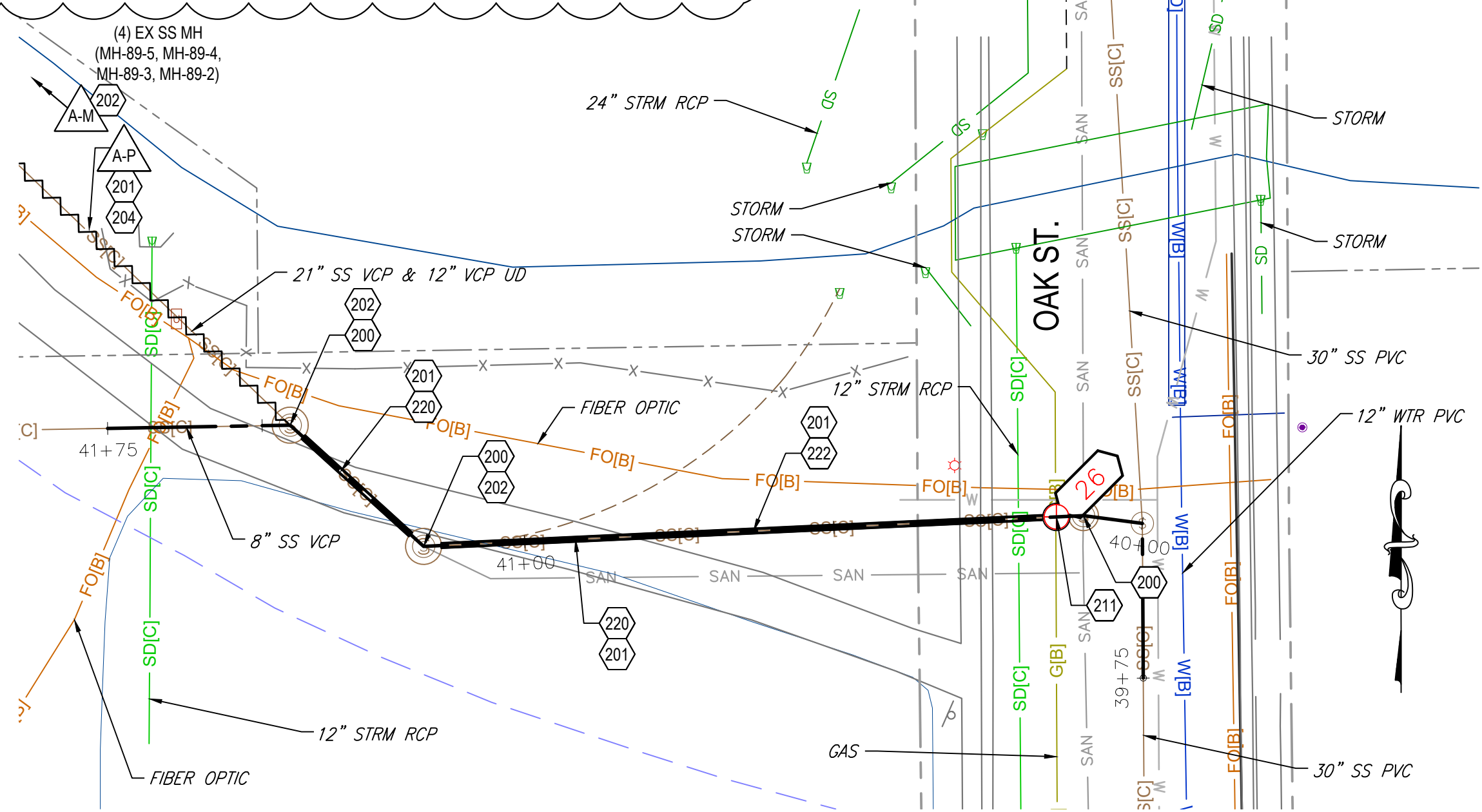


MATCHLINE - STA. 33+00 SEE ABOVE



Know what's below.
Call before you dig.

TEST HOLE TABLE							
PH#	NORTHING (ft)	EASTING (ft)	GROUND ELEVATION (ft)	MEASURE DOWN ELEVATION (ft)	DEPTH	DESCRIPTION	COMMENT
24	724072.28	106864.64	5405.26	NA	NA	NA	Not Dug Due To Inspector Wanting To Talk With Water Dept.
25	724066.93	106870.00	5405.36	NA	5397.36	WATER	Clear To 8.0'
26	723278.64	107759.85	5398.36	3.86'	5394.50	STORM 24" Concrete	Found Storm In Hole With Gas
26	723278.64	107759.85	5398.36	3.18'	5395.18	GAS 6" STL	



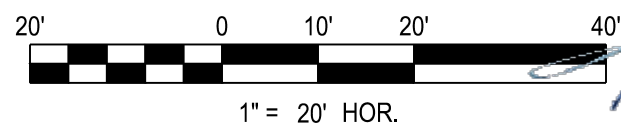
SANITARY SEWER ABANDONMENT NOTES

A-P (ABANDON - PLUG): INSTALL BRICK AND MORTAR OR GROUTED RUBBLE PLUG OF SUFFICIENT SIZE TO EXTEND FROM INVERT TO CROWN A MINIMUM OF 2-FT LONG INSIDE EACH OPEN END OF THE SS PIPE SEGMENT SHOWN TO BE ABANDONED IN PLACE. REMAINDER OF PIPELINE BEHIND THE PLUG DOES NOT NEED TO BE CONTINUOUSLY FILLED.

A-F (ABANDON - FILL): CONTINUOUSLY FILL FROM INVERT TO CROWN THE ENTIRE LENGTH OF SS PIPE SEGMENT SHOWN TO BE ABANDONED WITH CLSM. PIPE SEGMENT TO BE ABANDONED IN PLACE.

A-M (ABANDON - MH): PARTIALLY REMOVE AND ABANDON SS MH IN PLACE. REMOVE AND DISPOSE OF MH FRAME, COVER, AND GRADE RINGS. (**FOR MAINTENANCE HOLES IN THE ROADWAY OR WITHIN PLANNED EXCAVATION, REMOVE AND DISPOSE OF CONE AND BARREL SECTIONS DOWN TO THE BARREL JOINT JUST ABOVE THE SS PIPELINE TO BE ABANDONED**).

CAP UNDERDRAIN ACCESS CLEANOUT INSIDE MH, IF PRESENT, BUT DO NOT CUT OR FILL UNDERDRAIN PIPELINE ITSELF, PROTECT IN PLACE. FILL THE REMAINING MH BASE STRUCTURE WITH CLSM. INSTALL A PLUG "A-P" INSIDE SS PIPE ENDS WITHIN THE MH TO CONTAIN THE CLSM WITHIN THE MH STRUCTURE (UNLESS THE PIPE IS ALSO DESIGNATED TO BE FILLED "A-F"). BACKFILL THE REMAINING EXCAVATION TO GRADE IN ACCORDANCE WITH THE PROJECT REQUIREMENTS.



APPROVED
City of Arvada, Colorado

BY: _____ DATE: _____ PROJECT NO. _____
CITY ENGINEER

REVIEW IS FOR GENERAL COMPLIANCE WITH THE CITY OF ARVADA "ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS". LATEST EDITION. SOLE RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS SHALL REMAIN WITH THE REGISTERED PROFESSIONAL ENGINEER SEALING THESE PLANS. THE CITY DOES NOT ACCEPT LIABILITY FOR FACILITIES DESIGNED BY OTHERS.

SCALE BAR
BAR IS ONE INCH
ON ORIGINAL
DRAWING 1
IF NOT ONE INCH ON
THIS DRAWING
ADJUST SCALES
ACCORDINGLY

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Engineering / Architecture / Design-Build / Surveying / Planning / Geospatial Solutions
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303-964-4333
www.merrick.com

DESIGNED BY: ARW
DRAWN BY: ARW
CHECKED BY: SKD
APPROVED BY: ---

ADDENDUM NO. 1
REVISION DESCRIPTION
DATE
CHND
CHKD
APPR

CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
UTILITY PLAN - STA. 30+00 - 35+50
& 40+00 - 41+50

1/30/24
58362
PROFESSIONAL ENGINEER

PROJECT NUMBER: 100107
DATE: JANUARY 2024
SHEET: 10 OF 40

CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

CITY OF ARVADA PROJECT NUMBER: 23-SR-11

SUBSURFACE UTILITY ENGINEERING REPORT

Prepared For:

CITY OF ARVADA
8101 RALSTON RD, ARVADA, CO 80002
ARVADA, CO 80002
(720)948-0681
CONTACT: DANNY WOLFF, EI

Prepared By:

MERRICK & COMPANY
5970 GREENWOOD PLAZA BLVD.
GREENWOOD VILLAGE, CO 80111
(303) 751-0741
CONTACT: ANDRE WOLFF, PE

Submitted: 01/09/2024, resubmitted 1/30/24

MERRICK PROJECT NO. 100107

Employee Owned



2480 W. 26th Ave. Unit B225
Denver, CO 80211



Tel: +1 303-751-0741



hello@merrick.com
www.merrick.com

TABLE OF CONTENTS

DISCLAIMER REGARDING UNDERGROUND UTILITIES.....3

CERTIFICATION STATEMENT3

PROJECT INTRODUCTION.....4

PROJECT LOCATION.....4

SUE SERVICES PERFORMED.....5

 Utility Designating.....5

 Results and Engineering Discussions6

 Utility Ownership and Mapping8

SUE INVESTIGATION.....9

 Quality Level Descriptions.....9

 Utility Quality Levels9

APPENDICESA1

 Utility MappingA1

 Subsurface Utility Locating Service Documentation.....B1

 811 Colorado Call Confirmation And Formal Response.....C1

DISCLAIMER REGARDING UNDERGROUND UTILITIES

Existing utilities are depicted in this report and in accordance with the achieved "Quality Levels" for each utility as defined in the American Society of Civil Engineers' document ASCE 38-22 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" and as Required by C.R.S. 9-1.5-101 et. seq.

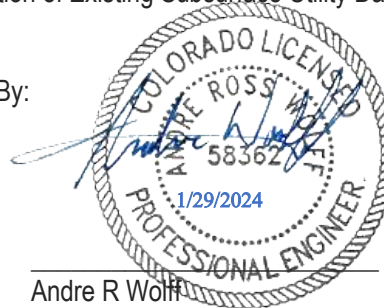
As it applies to the depiction of existing underground utility information, the stamp and seal on this report reflect only that depiction of the existing underground utility meets the noted ASCE 38 quality level, and does not serve as a guaranty, representation, or warranty that the depicted utilities exist in the noted locations. Information presented herein represents data provided to Merrick and does not include all landscape irrigation systems, utility services to residences or businesses, underground storage tanks, wells, traffic detection devices, or any utility not reported to Merrick.

Reliance upon this data for risk management purposes during bidding does not relieve the excavator or utility owner from following all applicable utility damage prevention statutes, policies, and/or procedures during excavation. It is important that the contractor investigates and understand the scope of work and consults with that project owner and the engineer regarding the scope and limits of the investigations leading to these utility depictions.

CERTIFICATION STATEMENT

This subsurface utility engineering report for the **Central Ralston Trunk Line (CRT7)** project was prepared by me or under the direct supervision in accordance with the achieved "Quality Levels" for each utility as defined in the American Society of Civil Engineers' document ASCE 38 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" and as required by C.R.S. 9-1.5-101 et. seq.

By:



Andre R Wolff
Licensed Professional Engineer
State of Colorado No. 58362



SUE SERVICES PERFORMED

Utility Designating

For the purposes of this work, “designate” means to establish by engineering and drafting practices the presence and horizontal location of subsurface utilities using to the fullest extend practical, available records and geophysical detection methods, including, magnetic, electromagnetic, and if authorized, ground penetrating radar techniques. Utilities detected and mapped using geophysical methods are designated as quality level B utilities. Subsurface utility locating service obtained mapping of utilities in the project limits and referenced the mapping to designate underground utilities. Underground Consulting Solutions provided the subsurface utilities locating for this project beginning on October 13, 2023. An 811 Colorado Subsurface Utility Engineering call was placed on October 13, 2023, to determine all underground utility owners in the general proximity of the project site. Results of the call are shown in Table 1.

Table 1-811 Colorado Call Results

Company	Utility Facilities	Notes
CenturyLink	Fiber Optic and Telecommunication	Underground utilities within study area, and within project area.
City of Arvada	Water, Sewer, Storm Sewer, Irrigation	Underground utilities within study area, and within project area.
Comcast	Cable TV & Fiber Optic	Clear; No Conflict.
MCI	Telecommunications	Clear; No Conflict.
Lumen	Underground Fiber & Copper Facilities	Clear; No Conflict.
Xcel Energy Electric & Gas	Electric & Gas	Underground utilities within study area, and within project area.
Xcel Energy HP/IP Dist. Gas	Gas Pipeline	Underground utilities within study area, and within project area.

Tier 1 facilities are required to respond to the 811-investigation call with mapping of requested area. Tier 1 facilities that did not respond to the 811-investigation call were contacted to obtain mapping. Tier 2 facility owners within the project area were contacted to obtain mapping.

Merrick and Company in coordination with Underground Consulting Solutions conducting utility potholing operations which resulted in several iterations, one of which the results were received on October 17, 2023, the second on December 21, 2023. The results have been cross checked against utility mapping provided by the utility companies containing facilities in the project vicinity. These results provide a more accurate depiction of all surface and sub-surface utilities and are documented in this report in the table below.



Table 2: UCS Potholing Data

PH#	Utility	Description	Station	Surface Elevation (ft)	Depth to TOP (ft)	TOP Elev (ft)	Easting (ft)	Northing (ft)	Comments
1	Xcel Energy	Electric	3+28	5416.83	-	-	106446.54	725111.81	Inaccessible
2	Unknown	Fiber Optic	11+42	5422.86	-	-	105662.45	725056.58	Inaccessible
3	Century Link	Fiber Optic	16+64	5429.75	6.62	5423.13	105142.08	725067.72	
4	Xcel Energy	Electric	16+68	5429.93	6.74	5423.19	105138.22	725067.84	
5	Comcast	Fiber Optic	16+70	5430.00	1.92	5428.08	105136.39	725067.84	
6	Century Link	Fiber Optic	16+72	5430.04	-	-	105133.77	725068.25	Inaccessible
7	Xcel Energy	Electric	16+73	5429.99	-	-	105133.23	725068.16	Inaccessible
8	Multiple	Duct	16+80	5429.65	4.12	5425.53	105125.54	725069.07	
9	Xcel Energy	Gas	18+02	5430.10	3.36	5426.74	105111.17	725181.50	
10	Xcel Energy	Electric	18+07	5430.12	5.10	5425.02	105110.79	725186.59	
11	City of Arvada	Water	18+41	5430.13	6.20	5423.93	105110.50	725220.13	
12	City of Arvada	Water	19+99	5430.32	4.18	5426.14	105109.43	725377.95	
13	City of Arvada	Water	20+46	5430.54	4.44	5426.10	105095.21	725423.12	
14	Xcel Energy	Gas	20+57	5430.62	-	-	105094.57	725433.45	Inaccessible; Flow Fill
15	Century Link	Fiber Optic	21+19	5430.67	2.48	5428.19	105088.47	725493.43	
16	Century Link	Fiber Optic	21+29	5430.68	2.58	5428.10	105088.47	725504.57	
17	Century Link	PVC	21+42	5430.69	3.58	5427.11	105088.29	725517.34	
18	Xcel Energy	Gas	22+71	5431.20	-	-	105086.83	725645.93	Inaccessible; Flow Fill
19	Xcel Energy	Gas	23+02	5431.49	3.10	5428.39	105091.90	725668.78	
20	Century Link	Fiber Optic	24+89	5432.40	-	-	104889.07	725649.17	Clear to 6.2'
24	City of Arvada	Water	30+21	5405.26	-	5405.26	106864.64	724072.28	Not dug
25	City of Arvada	Water	30+13	5405.36	-	-	106870.00	724066.93	Clear to 8.0'
26	Xcel Energy	Gas	40+14	5398.36	3.18	5395.18	107759.85	723278.64	
26	City of Arvada	Storm	40+14	5398.36	3.86	5394.50	107759.85	723278.64	Found in hole with Gas

Results and Engineering Discussions

A majority of utility crossings were able to be positively located to Quality Level A, and all located crossings were not in conflict with the proposed work. The below list details each of the utility crossings identified in Table 2 that were not able to be identified to Quality Level A, and a discussion on the relative risks and context that were considered in deciding to not pursue further investigation:

- **PH 1: Xcel Energy (Electric)**
 - Access to the park is limited by 5-ton pedestrian bridges that prohibited UCS equipment from reaching the utility crossing.
 - This line is a small feeder line to a single light pole within the park. The line is assumed to be shallow and will be able to be protected in place during construction.
 - If the line is found to be in conflict during construction, the cost and effort to resolve the conflict is expected to be minimal.
- **PH 2: CenturyLink (Fiber Optic)**



- Access to the park is limited by 5-ton pedestrian bridges that prohibited UCS equipment from reaching the utility crossing.
- This line terminates at a pedestal adjacent to the proposed crossing. The line is assumed to be shallow and will be able to be protected in place during construction.
- The proposed pipe is parallel to and approximately similar in elevation to the existing trunk sewer, therefore it is assumed that there will be no conflict with the proposed sewer.
- If the line is found to be in conflict during construction, the cost and effort to resolve the conflict is expected to be minimal.
- **PH 6: CenturyLink (Fiber Optic)**
 - UCS was unable to penetrate the concrete encasement of the utility which was encountered directly below the initial concrete sidewalk coring.
 - The proposed pipe is approximately 15-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 7: Xcel Energy (Electric)**
 - UCS was unable to penetrate the concrete encasement of the utility which was encountered directly below the initial concrete sidewalk coring.
 - The proposed pipe is approximately 14-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 14: Xcel Energy (Gas)**
 - UCS encountered flowable fill in the test hole location and was unable to positively identify the utility.
 - Utility owner indicated that the line in this area was installed between 3 and 5-foot depths. The same line and connected service line were located at PH 19 & 9 respectively, which corresponds with the owner's provided information.
 - The proposed pipe is approximately 11-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 18: Xcel Energy (Gas)**
 - UCS encountered flowable fill in the test hole location and was unable to positively identify the utility.
 - Utility owner indicated that the line in this area was installed between 3 and 5-foot depths. The same line and connected service line were located at PH 19 & 9 respectively, which corresponds with the owner's provided information.
 - The proposed pipe is approximately 11-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 20: CenturyLink (Fiber Optic)**
 - UCS was unable to vertically locate the utility.
 - The proposed pipe is parallel to and approximately similar in elevation to the existing trunk sewer, therefore it is assumed that there will be no conflict with the proposed sewer.
 - If the line is found to be in conflict during construction, the cost and effort to resolve the conflict is expected to be minimal.
- **PH 24: City of Arvada (Water) 8"**
 - Pothole not dug. Inspector wanting to talk with Water Department.
 - Protect existing 8" PVC water pipe.
- **PH 25: City of Arvada (Water) 48"**
 - Groundwater encountered, clear to 8'.
 - The proposed pipe is approximately 11-feet deep at the location of the pothole, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
 - Protect existing 48" STL water pipe.
- **PH 26: Xcel Energy (Gas) 6" and City of Arvada (Storm) 24"**
 - Gas 3.18' depth to top of pipe.
 - Storm 3.86' depth to top of pipe. UCS notes that the storm pipe was found in the hole with gas.



SUBSURFACE UTILITY ENGINEERING REPORT

Based on the above discussions, all utility crossings that were unable to be positively located to Quality Level A, are reasonably assumed to not conflict with the proposed work. It is assumed that all crossings can be protected in place and will not result in any significant project costs or delays.

Utility Ownership and Mapping

Utility companies listed in the 811 call were contacted and requested to provide maps of all underground facilities or confirm there are no known utilities within the project limits. Table 3 specifies utility ownership and representative contact information for utilities identified within the SUE investigation project limits.

Information is current as of the date of submittal and is subject to change.

Table 3: Utility Contact Information

Utility Company	Contact Name	Phone / Email
CenturyLink	Izzy Miller Capacity Provisioning Specialist	izzy.miller@centurylink.com
CenturyLink	Robert Davis Construction Supervisor	720-854-4341 robert.davis@centurylink.com
CenturyLink	Renee Hester Network Implementation Engineer	720-738-2778 renee.hester@lumen.com
CenturyLink	Kenneth Miller Senior Fiber Optic Engineer	kenneth.r.miller@centurylink.com
CenturyLink	Relocations	relocations@centurylink.com
CenturyLink	Kari Roza Relocations Engineer	kari.roza1@lumen.com
Comcast Construction Supervisors	Scott Moore Construction Manager	720-531-2585 scott_moore@cable.comcast.com
Comcast Construction Supervisors	Miguel Flores Construction Manager	miguel_flores@comcast.com
Comcast	Andy Davis Director of Regulatory & Government Affairs	andy_davis@comcast.com
CORE Electric Cooperative	Brooks Kaufman Lands and Rights of Way Manager	720-733-5493 bkaufman@core.coop
United Power	Steve Barwick ROW Specialist	303-637-1234 sbarwick@unitedpower.com
TDS Telecommunications	Randal Lopez Network Specialist	453-319-4596 row@tdstelecom.com
Colorado 811	Neeley Duran Denver Metro Damage Prevention Liaison	303-513-7616 nduran@co811.com
City of Arvada	Sharon Israel Director of Utilities	720-898-7761 sisrael@arvada.org
City of Arvada Dry Utilities	Engineering Services Division	720-898-7640 engineeringpermits@arvada.org
Xcel Energy	Brett McGrath Senior Siting & Land Rights Agent	303-425-3874 brett.p.mcgrath@xcelenergy.com
Xcel Energy	Jeremy Hutaff Manager, New Business Design	303-425-3823 jeremy.d.hutaff@xcelenergy.com

Utility owner mapping was cross-referenced with the utility locating completed by Underground Consulting Solutions to designate underground utilities and is included in Appendix A.



SUE INVESTIGATION

Quality Level Descriptions

Quality Levels are defined by American Society of Civil Engineers (ASCE) in the ASCE 38

“Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data”. The definitions are described below:

- Quality Level A:** Quality Level A (QL-A), also known as “daylighting” or “test holes” is the highest level of subsurface utility data collection accuracy available. It provides information for the precise plan and profile mapping of underground utilities through the exposure of underground utilities (usually at specific points), and also provides the type, size, condition, and material of existing underground utilities.
- Quality Level B:** Quality Level B (QL-B) applies surface geophysical methods to determine the existence and horizontal position of all subsurface utilities within a project’s limits. Utilities are located using a combination of traditional locating techniques, ground penetrating radar (GPR), and electromagnetic surveying. QL-B processes can address problems caused by inaccurate utility records, abandoned or unrecorded facilities, and lost references.
- Quality Level C:** Quality Level C (QL-C) involves surveying visible above ground utility facilities (e.g., manholes, valve boxes, etc.) and correlating these features with information from existing utility records (QL-D information). The utility field collection process involves using above-ground utility features such as hydrant, telephone pedestals, pole drops, and valves to provide evidence of the existence of subsurface utilities and to accurately identify and designate those utilities.
- Quality Level D:** Quality Level D (QL-D) is the most basic level of information for utility locations and comes from existing utility records or verbal recollections. QL-D is useful primarily for project planning and route selection activities. Basic utility location, attribute information, and metadata of subsurface utilities at this level can be compiled from a combination of existing records, cursory site inspection, utility owner input, and anecdotal evidence.

Utility Quality Levels

Utilities are depicted on these plans in accordance with their achieved “quality levels” as defined in the ASCE document ASCE 38, “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.” Reliance upon these data for risk management purposes during bidding does not relieve the excavator or utility owner from following all applicable utility damage prevention statutes, policies, and/or procedures during excavation. It is important that the contractor investigates and understands the scope of work between the project owner and their engineer regarding the scope and limits of the utility investigations leading to these utility depictions.



APPENDIX A1

UTILITY MAPPING



ARVADA

Underground Consulting Solutions

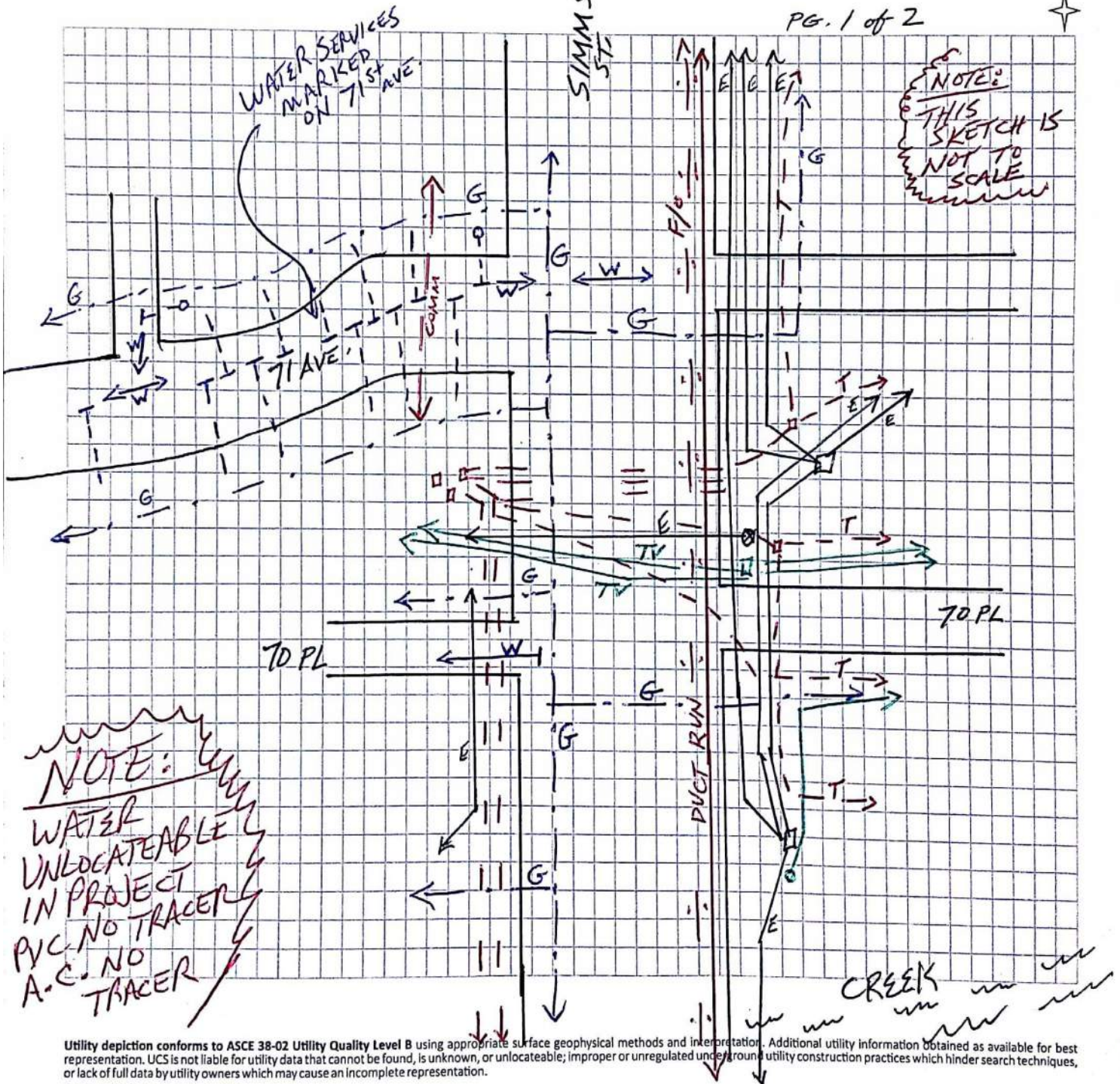
Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71ST AVE. & SIMMS ST.
 Contractor/Name MERRICK
 Billing Address ON FILE
 PO#/Billing Ref: _____

Contact Name AIDEN WOLFE
 Contact Phone # 303 800 9055
 Date 8 18 23
 Charge \$ _____ /Hrs 24

PG. 1 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

Receipt of Utility Locating Depiction

I understand that this locate is being performed by electronic devices and that there are no guarantees, written or implied. The aforementioned company and any clients or affiliates shall indemnify and hold UCS, its clients, agents, employees, all persons hereunder harmless from and against any and all claims of any nature resulting from the performance of the work or accuracy of the locate itself. Acceptance/usage of this sketch without signature will constitute agreement of such terms.

2

UCS

X

Name/Company: _____

ARYADA

Underground Consulting Solutions

Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71ST AVE. & SIMMS ST.

Contact Name ANDRE WOLF

Contractor/Name MERRICK

Contact Phone # 303 800 9055

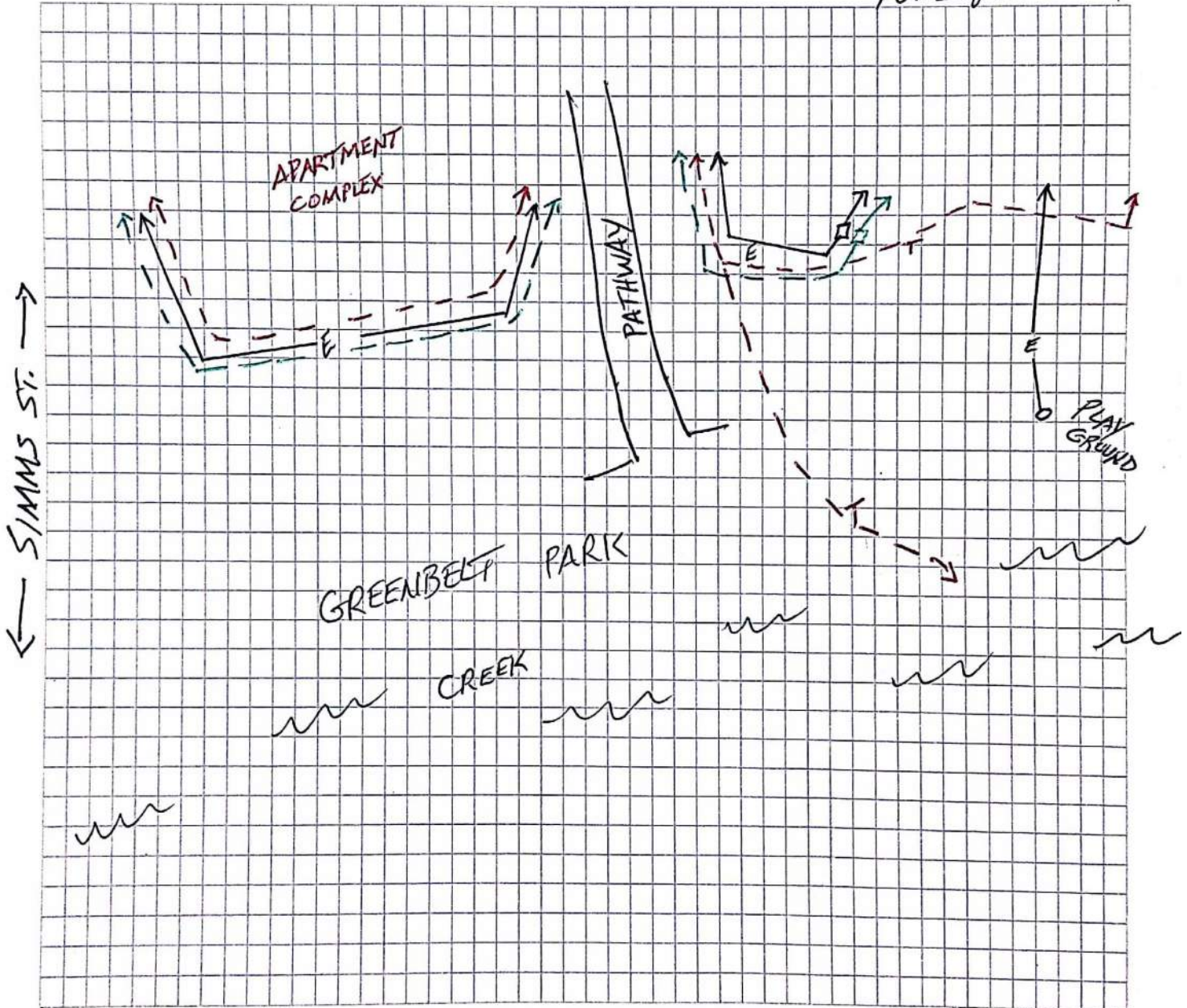
Billing Address ON FILE

Date 8 18 23

PO#/Billing Ref: _____

Charge \$ _____ /Hrs _____

PG. 2 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

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2
UCS

X _____
Name/Company: _____

ARVADA

Underground Consulting Solutions

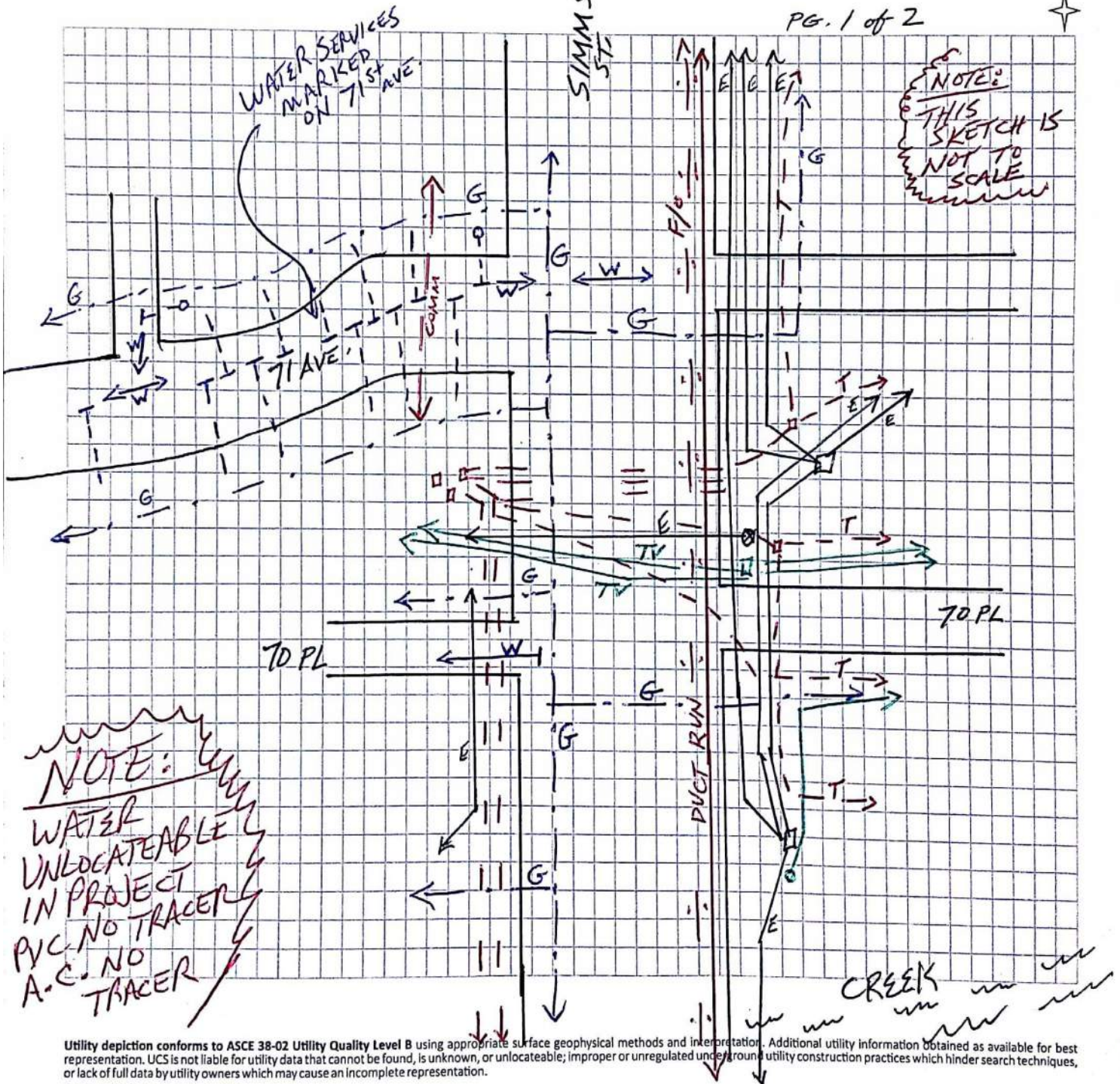
Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71ST AVE. & SIMMS ST.
 Contractor/Name MERRICK
 Billing Address ON FILE
 PO#/Billing Ref: _____

Contact Name AIDEN WOLFE
 Contact Phone # 303 800 9055
 Date 8 18 23
 Charge \$ _____ /Hrs 24

PG. 1 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

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2

UCS

X

Name/Company: _____

ARYADA

Underground Consulting Solutions

Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71ST AVE. & SIMMS ST.

Contact Name ANDRE WOLF

Contractor/Name MERRICK

Contact Phone # 303 800 9055

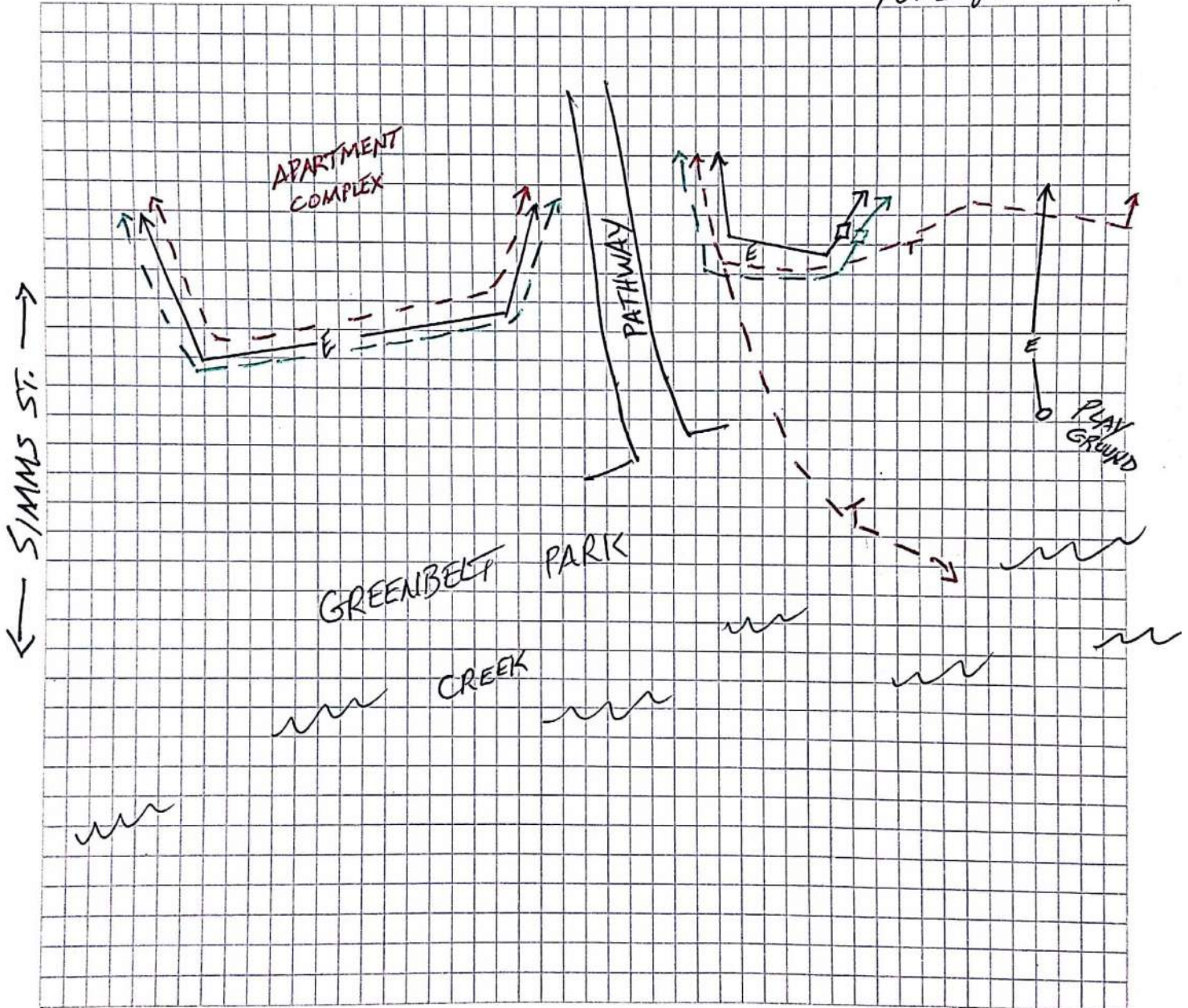
Billing Address ON FILE

Date 8 18 23

PO#/Billing Ref: _____

Charge \$ _____ /Hrs _____

PG. 2 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

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2
UCS

X _____
Name/Company: _____

Arvador

Underground Consulting Solutions

Private/Engineering Facility Location Sketch

PE
H/O

Work Address W. 66th Ave & Oak St

Contact Name Andre Wolff

Contractor/Name Merrick

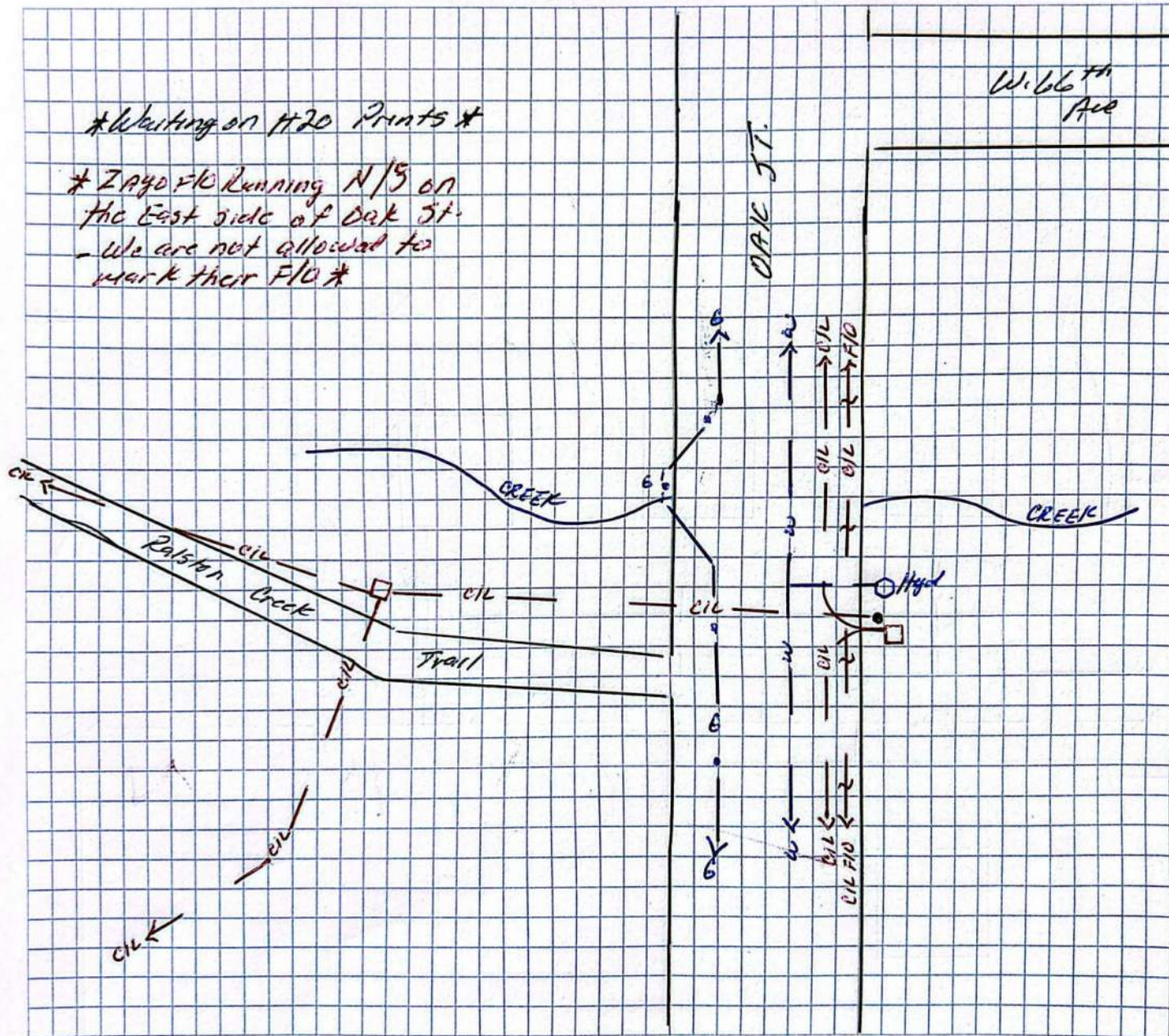
Contact Phone # 303-500-9055

Billing Address On File

Date 11/9/2023

PO#/Billing Ref: _____

Charge \$ Sketch 2 of 1 /Hrs _____



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

Receipt of Utility Locating Depiction

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Colleen M.
UCS

X _____

Name/Company: _____

Arvada

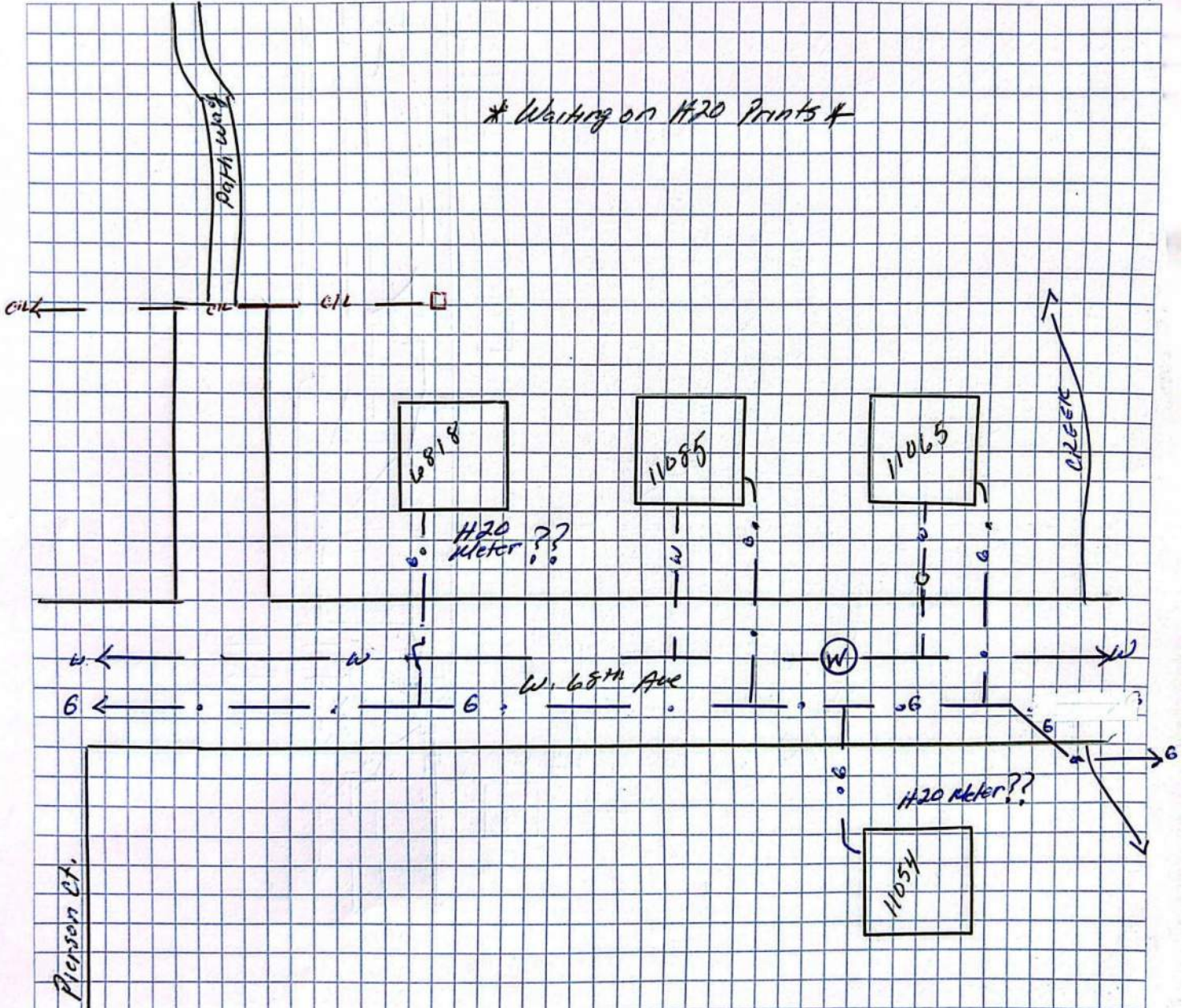
Underground Consulting Solutions

Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 68th Ave & Pierson Ct.
Contractor/Name Merrick
Billing Address On File
PO#/Billing Ref: _____

Contact Name Andre Wolff
Contact Phone # 303-800-9055
Date 11/9/2023
Charge \$ 3 hr bnd /Hrs _____
Sketch lot 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

Receipt of Utility Locating Depiction

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Wendell M.
UCS

X _____

Name/Company: _____

P/S-CADD Overlay



Google Earth

Imagery Date: 10/2/2022 39°49'08.26" N 105°07'16.26" W elev 0 ft eye alt 2008 ft

APPENDIX B1

SUBSURFACE UTILITY LOCATING SERVICE DOCUMENTATION



Date 10/13/2023

POTHOLING LOG SHEET



POTHOLE #	UTILITY TYPE	UTILITY OWNER	COMPOSITION	DIAMETER	DEPTH TO TOP OF UTILITY	SURFACE TYPE	PAVEMENT THICKNESS	NOTES
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not accessible for trucks
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not accessible for trucks
3& 4	Com/Electric	CJ/Xcel	DBx3/Dbx3	1/2"x3// 1"x3	6.62'/6.74'	Concrete	0.70'	Found in same hole
5	Com	Comcast	DB	1/2" x2	1.92'	Concrete	0.56'	
6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Concrete has something in in. Couldn't core
7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Concrete has something in in. Couldn't core
8	Com	Bell	Grey PVC	4"x3	5.22'	Asphalt	0.62'	
9	Gas	Xcel	PE	1 1/4"	3.36'	Asphalt	0.56'	
10	Electric	Xcel	Steel	2"	5.10'	Asphalt	0.62'	
11	Water	Arvada	PVC	8"	6.20'	Asphalt	0.54'	
12	Water	Arvada	PVC	10"	4.18'	Asphalt	0.56'	
13	Water/ Gas	Arvada/Xcel	PVC/Steel	16"/4"	4.44'/3.32'	Asphalt	0.72'	two lines found
14	Gas	N/A	N/A	N/A	Flowfill under core	Asphalt	0.68'	Flowfill under core
15	Com	Century link	PE	2"x2	2.48'	Asphalt	0.72'	
16	Com	Century link	PVC	2"	2.58'	Asphalt	0.86'	
17	Com	Century link	PE	4"	3.58'	Asphalt	0.86'	
18	Gas	N/A	N/A	N/A	Flowfill under core	Asphalt	0.46'	Flowfill under core
19	Gas	Xcel	Steel	4"	3.10'	Asphalt	Broken	
20-22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Taken off scope
23	Com	N/A	N/A	N/A	Cleared @ 6.10'	Asphalt	0.56'	DNF Cleared @6.10'



UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 1

Date: 10/17/2023

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	N/A
Surface Type	N/A
Pavement Thickness	N/A
Notes	Not accessible for trucks

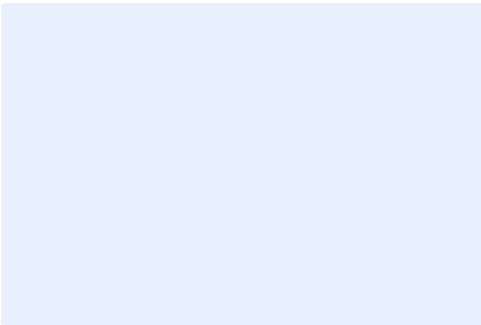
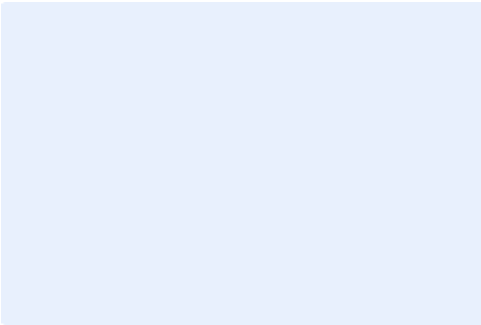


Photo:

Pothole #: 2

Date: 10/17/2023

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	N/A
Surface Type	N/A
Pavement Thickness	N/A
Notes	Not accessible for trucks

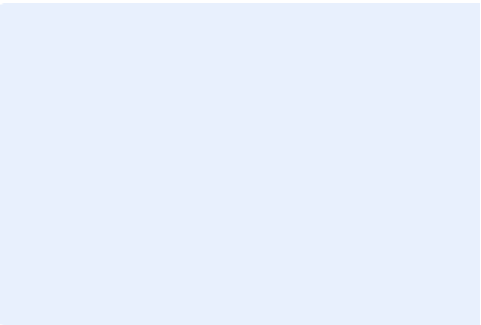
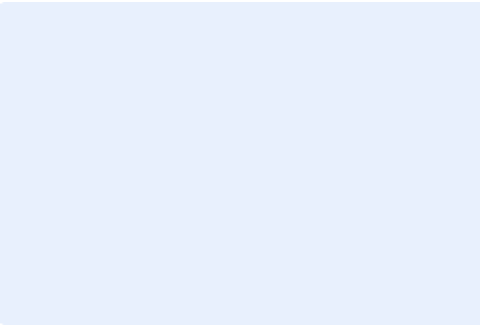


Photo:

Pothole #: 3 & 4

Date: 10/12/2023

Utility Type	Com/Electric
Utility Owner	CL/Xcel
Composition	DBx3/DBx3
Diameter	½"x3/1"x3
Depth to Top of Utility	6.62'/6.74'
Surface Type	Concrete
Pavement Thickness	0.70'
Notes	



Photo:



UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 5

Date: 10/13/2023

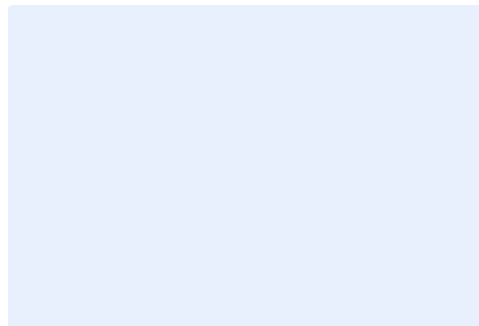
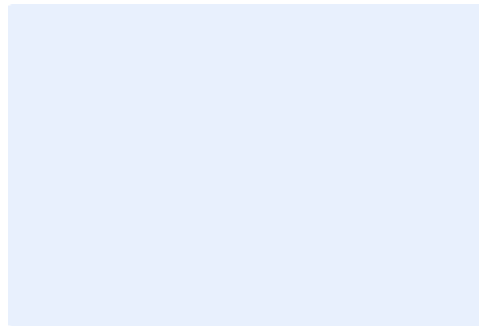
Utility Type	Com
Utility Owner	Comcast
Composition	DB
Diameter	½"x2
Depth to Top of Utility	1.92'
Surface Type	Concrete
Pavement Thickness	0.70'
Notes	



Pothole #: 6 & 7

Date: 10/13/2023

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Couldn't Core
Surface Type	Concrete
Pavement Thickness	N/A
Notes	Con. Has something in it. Couldn't core through



Pothole #: 8

Date: 10/17/2023

Utility Type	Com
Utility Owner	Bell
Composition	Grey PVC
Diameter	6"
Depth to Top of Utility	4.12'
Surface Type	Asphalt
Pavement Thickness	0.52'
Notes	





UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 9

Date: 10/12/2023

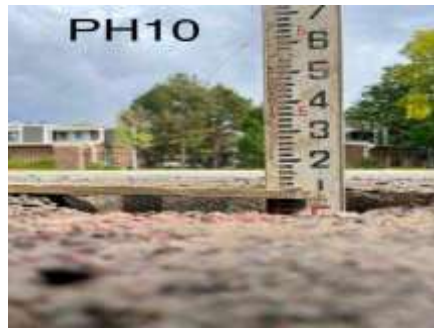
Utility Type	Gas
Utility Owner	Xcel
Composition	PE
Diameter	1 ¼"
Depth to Top of Utility	3.36'
Surface Type	Asphalt
Pavement Thickness	0.56'
Notes	



Pothole #: 10

Date: 10/11/2023

Utility Type	Electric
Utility Owner	Xcel
Composition	Steel
Diameter	2"
Depth to Top of Utility	5.10'
Surface Type	Asphalt
Pavement Thickness	0.62'
Notes	



Pothole #:11

Date: 10/11/2023

Utility Type	Water
Utility Owner	Arvada
Composition	PVC
Diameter	8"
Depth to Top of Utility	6.20'
Surface Type	Asphalt
Pavement Thickness	0.54'
Notes	





UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 12

Date: 10/12/2023

Utility Type	Water
Utility Owner	Arvada
Composition	PVC
Diameter	10"
Depth to Top of Utility	4.18'
Surface Type	Asphalt
Pavement Thickness	0.60'
Notes	



Pothole #: 13

Date: 10/11/2023

Utility Type	Water
Utility Owner	Arvada
Composition	PVC
Diameter	16"
Depth to Top of Utility	4.44'
Surface Type	Asphalt
Pavement Thickness	0.72'
Notes	



Pothole #: 14

Date: 10/10/2023

Utility Type	Gas
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Flowfill under core
Surface Type	Asphalt
Pavement Thickness	0.68'
Notes	

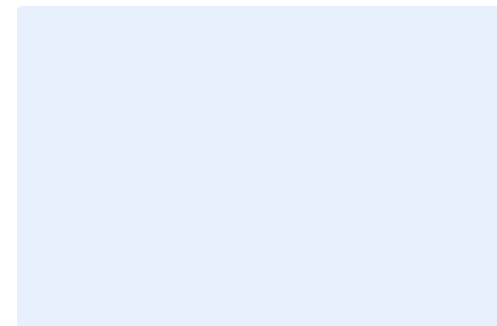


Photo:



UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 15

Date: 10/10/2023

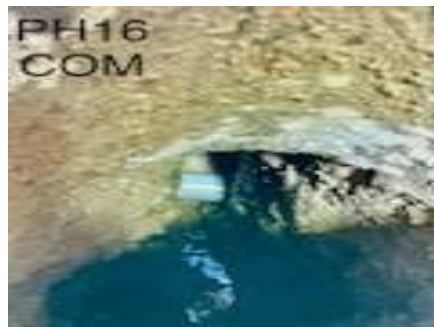
Utility Type	Com
Utility Owner	Century Link
Composition	PE
Diameter	2"x2
Depth to Top of Utility	2.48'
Surface Type	Asphalt
Pavement Thickness	0.72'
Notes	



Pothole #: 16

Date: 10/10/2023

Utility Type	Com
Utility Owner	Century Link
Composition	PVC
Diameter	2"
Depth to Top of Utility	2.58'
Surface Type	Asphalt
Pavement Thickness	0.86'
Notes	



Pothole #: 17

Date: 10/10/2023

Utility Type	Com
Utility Owner	Century Link
Composition	PVC
Diameter	4"
Depth to Top of Utility	3.58'
Surface Type	Asphalt
Pavement Thickness	0.86'
Notes	



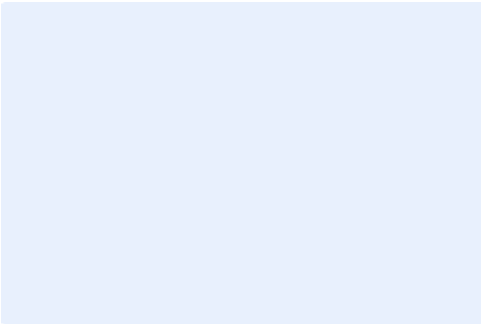


UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 18

Date: 10/9/2023

Utility Type	Gas
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Flowfill under core
Surface Type	Asphalt
Pavement Thickness	0.46'
Notes	



Pothole #: 19

Date: 10/9/2023

Utility Type	Gas
Utility Owner	Xcel
Composition	Steel
Diameter	4"
Depth to Top of Utility	3.10'
Surface Type	Asphalt
Pavement Thickness	Broken
Notes	



Pothole #:20, 21 & 22

Date: Click or tap to enter a date.

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	N/A
Surface Type	N/A
Pavement Thickness	N/A
Notes	Taken of Scope

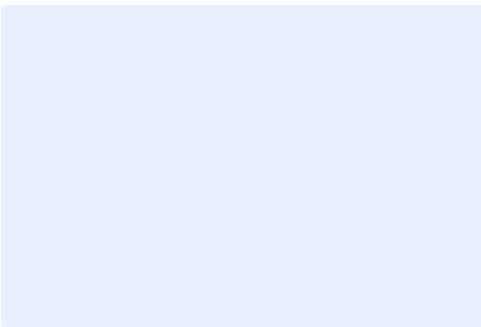
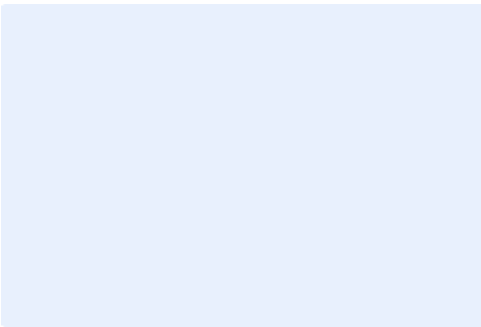


Photo:



UNDERGROUND CONSULTING SOLUTIONS

Pothole #:23

Date: 10/9/2023

Utility Type	Com
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Cleared @ 6.10'
Surface Type	Asphalt
Pavement Thickness	0.56'
Notes	DNF Cleared @6.10'



Date 1/26/2024

POTHOLING LOG SHEET



POTHOLE #	UTILITY TYPE	UTILITY OWNER	COMPOSITION	DIAMETER	DEPTH TO TOP OF UTILITY	SURFACE TYPE	PAVEMENT THICKNESS	NOTES
24	Water	N/A	N/A	N/A	N/A	Asphalt	N/A	Not dug due to Inspector wanting to talk to Water dept
25 (68th)	Water	N/A	N/A	N/A	Cleared @ 8'	Asphalt	N/A	Cleared Ground Water
26(Oak St	Storm	Arvada	Concrete	24"	3.86'	Asphalt	6"	Found in hole with Gas
	Gas	Xcel	Steel	6"	3.18'	Asphalt	6"	



UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 24
Date: Click or tap to enter a date.

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	N/A
Surface Type	N/A
Pavement Thickness	N/A
Notes	Was not dug Inspector wanted to talk to water dept.

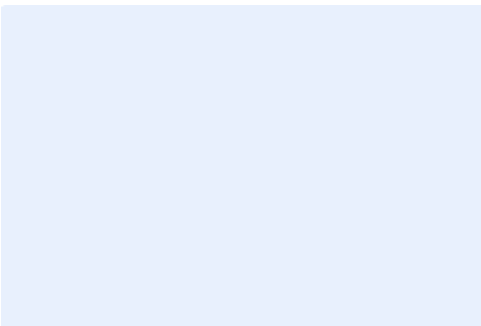
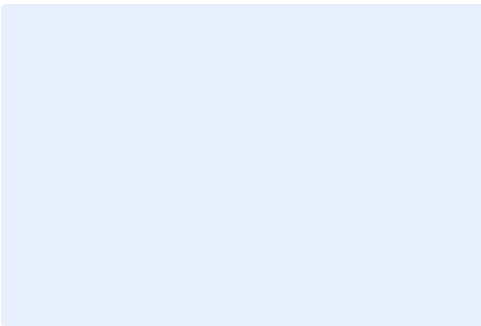


Photo:

Pothole #: 25
Date: 12/14/2023

Utility Type	Water
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Cleared @ 8'
Surface Type	Asphalt
Pavement Thickness	N/A
Notes	Cleared Hit ground water



Pothole #: 26
Date: 1/19/2024

Utility Type	Storm/Gas
Utility Owner	Arvada/Xcel
Composition	Concrete/Steel
Diameter	6"
Depth to Top of Utility	3.18'
Surface Type	Asphalt
Pavement Thickness	6"
Notes	Two Lines found





UNDERGROUND CONSULTING SOLUTIONS

APPENDIX C1

811 COLORADO CALL CONFIRMATION AND FORMAL RESPONSE



Colorado 811 Confirmation Request 2023-08-08 Ticket A322000023-00A

"Colorado 811" [OCARS_Pro@uncc.org]

Sent: 8/8/2023 9:55 AM

To: ""ucs@totalspeed.net"" <ucs@totalspeed.net>

Email Confirmation 08/08/23 09:55 AM A322000023-00A NORMAL NEW ENGINEERING/DESIGN

Please stay at least 18" outside of the exterior sides of any markings. Marks are only valid for 30 days from the date of the locate or until no longer visible, whichever comes first. There may be private facilities within your dig area. Private facilities are owned by the owner of the property and therefore will not be marked with this request. It is the responsibility of the excavator to have private facilities located. To learn more and for a list of private locate companies in your area please visit our web site at <http://www.colorado811.org>

Ticket: A322000023-00A

Original Call Date: 08/08/23 Time: 09:55 AM

Locate By Date : 08/22/23 Time: 11:59 PM Meet: No

State: CO County: JEFFERSON Place: ARVADA

Street: SIMMS ST

Cross Street: W 71ST AVE

Lat/Long: 39.824980/-105.132222 39.825048/-105.121966

: 39.821306/-105.132197 39.821374/-105.121941

Type of Work: ENGINEERING

Explosives : No Directional Boring: No

Location: STARTING AT INTERSECTION LOC W ROW TO ROW TO SWADLEY CIR. ALSO LOC SOUTH ROW TO ROW FOR 730' TO RALSTON CREEK. CONTINUE LOC EAST FOR A 200' WIDE SWATH ALONG THE SIDEWALK FOR 1500' TO THE TENNIS COURT. ACCESS IS OPEN. ENGINEERING PROJECT. PLEASE SEND ALL UTILITY MAPPING.

Company : UNDERGROUND CONSULTING SOLUTIONS

Address : 5778 KELLY AVE

City : LITTLETON St: CO Zip: 80125

Caller : KENNETH GOFF Phone: (303)904-7422

Fax: (720)554-7889 Email: ucs@totalspeed.net

Done for: CLIENT

Colorado 811 notified the following Tier 1 Member Facilities:

QLNCC00=CENTURYLINK = FIBER, TELCO

ARVD01 =CITY OF ARVADA,H20,SEWER = WATER, SEWER, STORM SEWER, IRRIGATION

CCSOC001=COMCAST = CATV & FIBER

MCI01 =MCI = FIBER

XLNW00 =XCEL ENERGY = ELECTRIC & GAS

You are responsible for contacting any other facility owners not listed above.

View map and file attachments at:

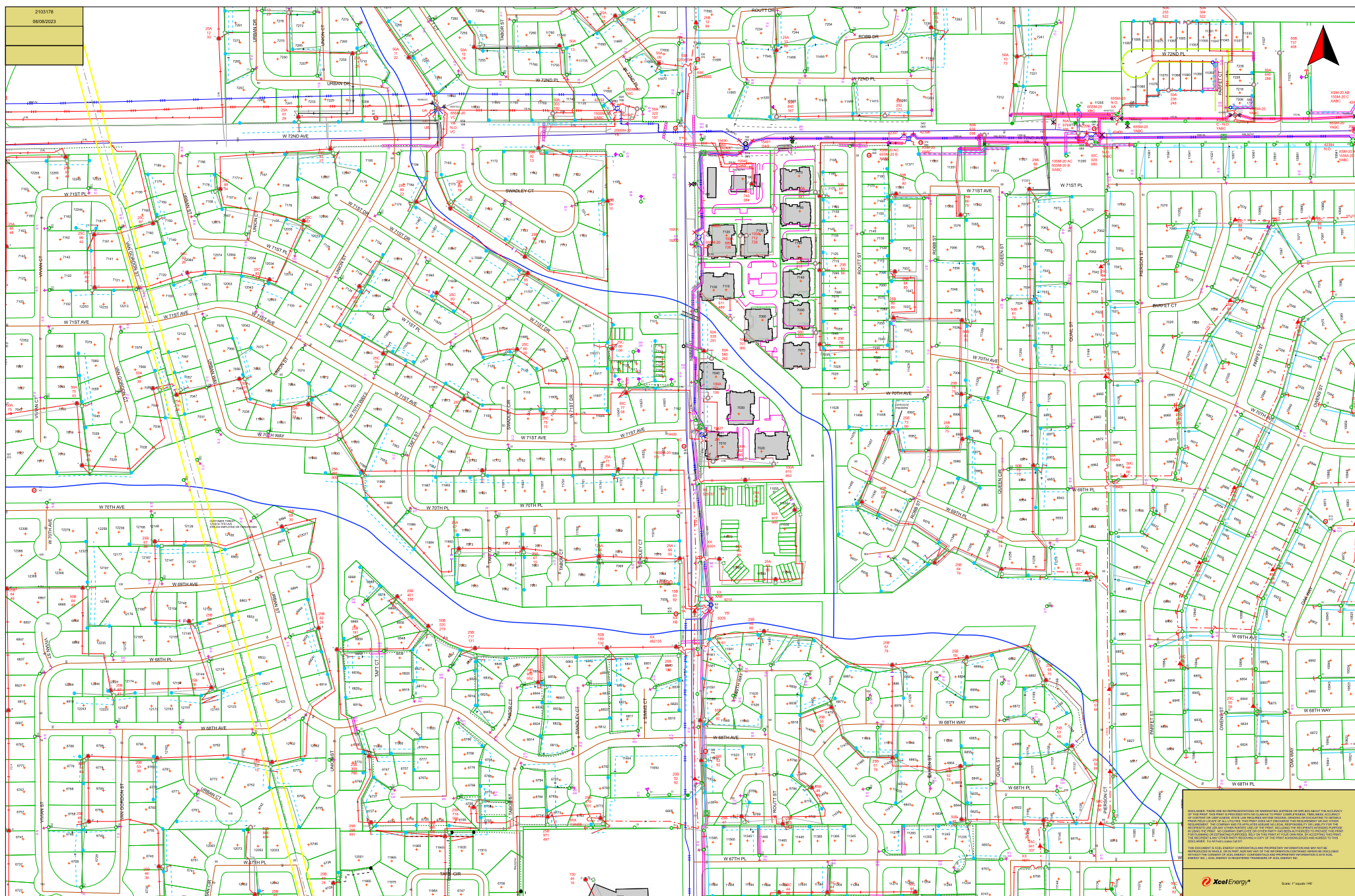
<https://newtin.co811.org/mapticket/?t=14z0z2t5s1wt1rA-Z>

Check the status of your request at

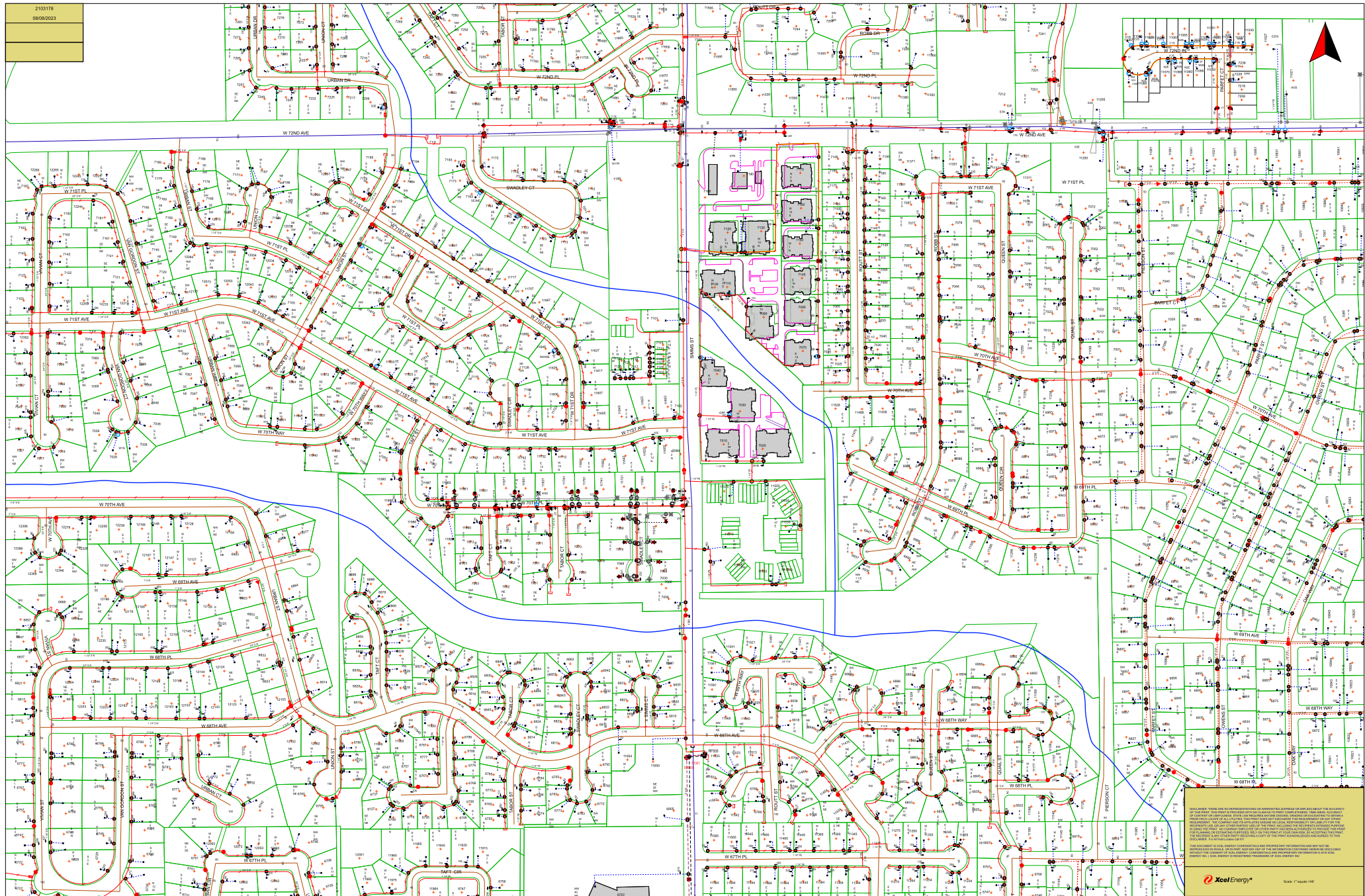
<https://newtin.co811.org/responsedisplay/>

For Colorado 811 Procedure Guide go to

<https://colorado811.org/educational-resources/>



2103178
08/06/2023



THIS MAP WAS PREPARED BY THE ENGINEER FOR THE PURPOSES OF THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE. THE ENGINEER HAS CONDUCTED A VISUAL INSPECTION OF THE MAP AND HAS FOUND IT TO BE ACCURATE. THE ENGINEER HAS NOT CONDUCTED A FIELD SURVEY OF THE MAP AND HAS NOT VERIFIED THE DATA. THE ENGINEER HAS NOT CONDUCTED A FIELD SURVEY OF THE MAP AND HAS NOT VERIFIED THE DATA. THE ENGINEER HAS NOT CONDUCTED A FIELD SURVEY OF THE MAP AND HAS NOT VERIFIED THE DATA.

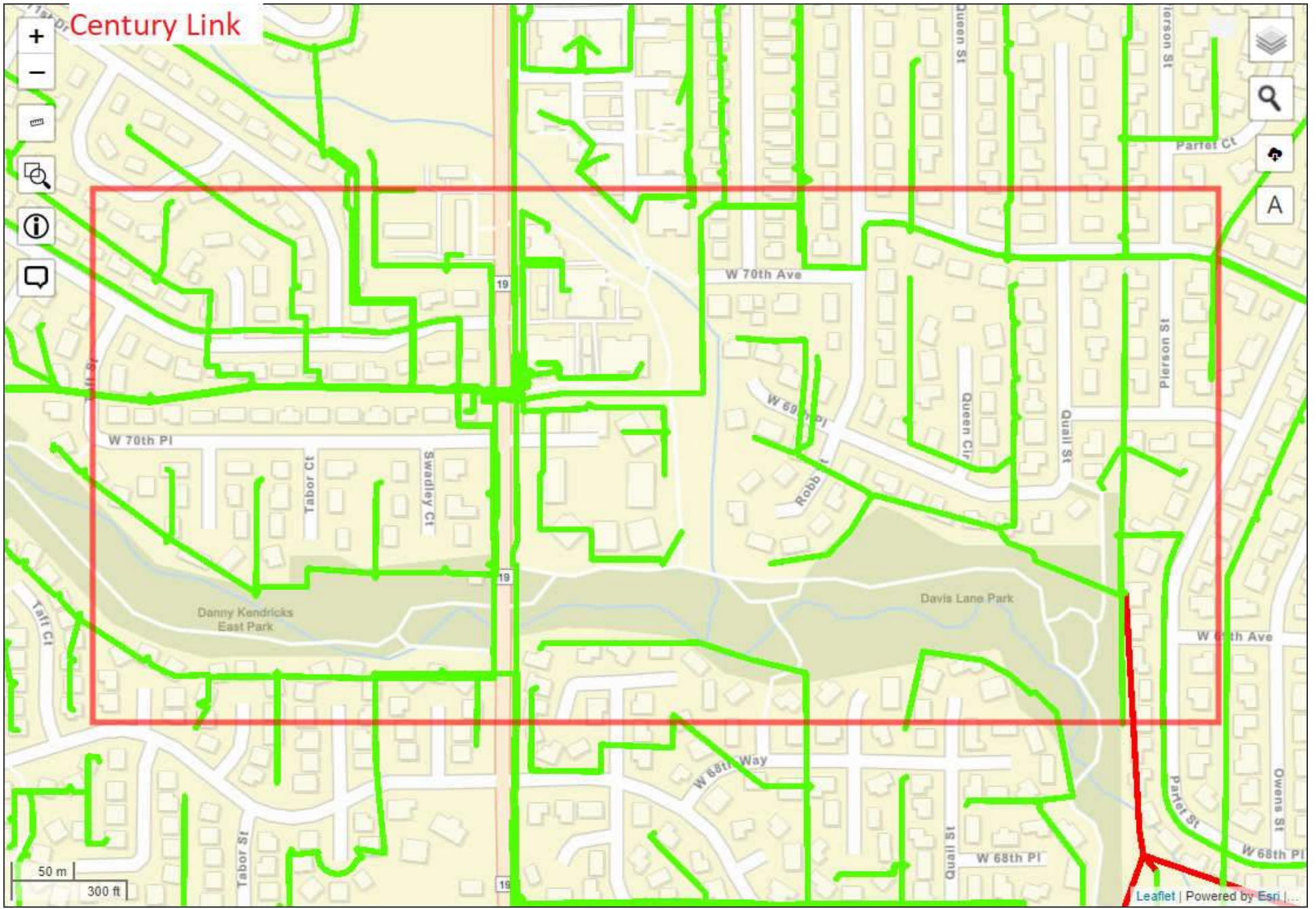
Xcel Energy®

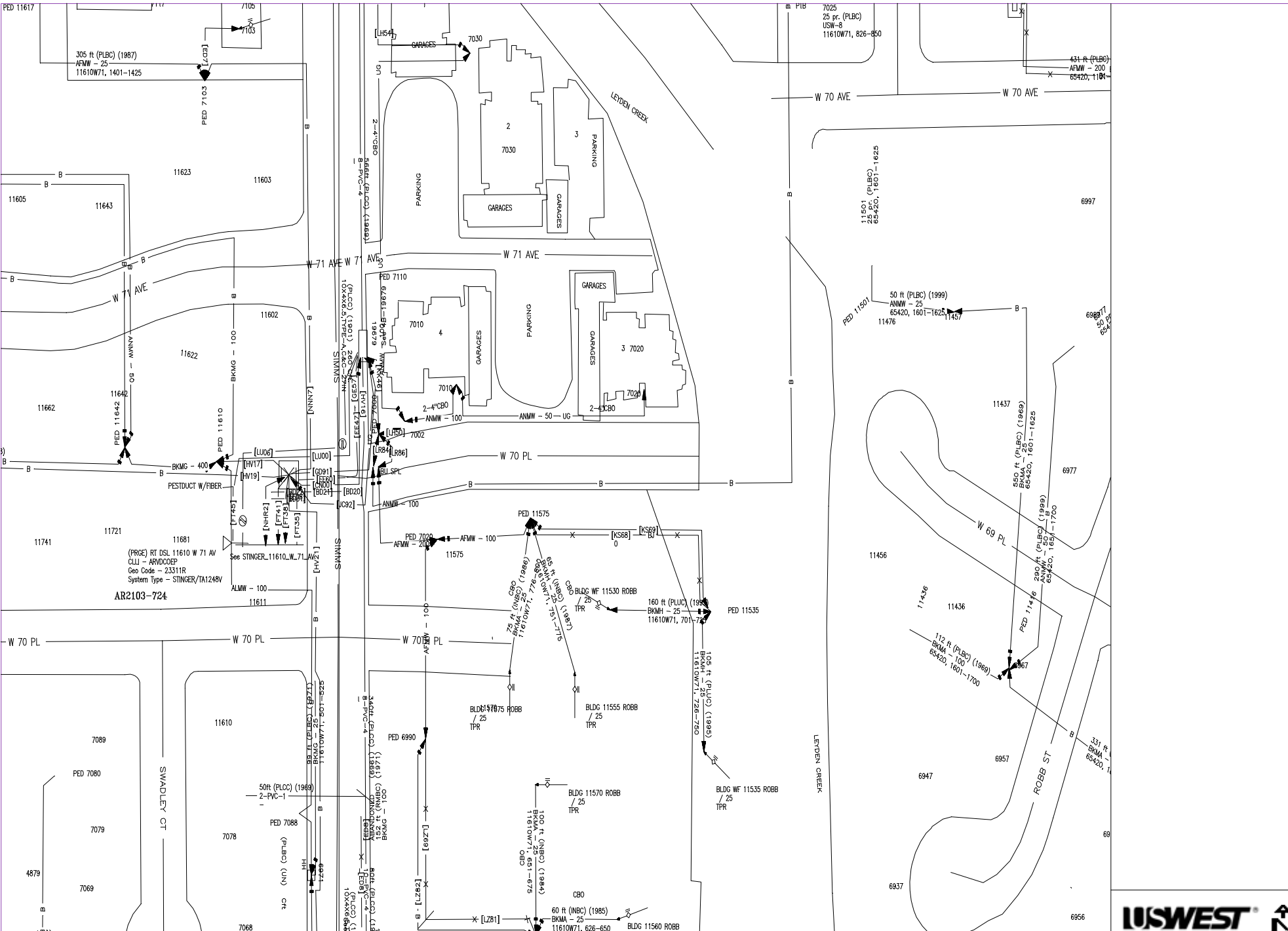
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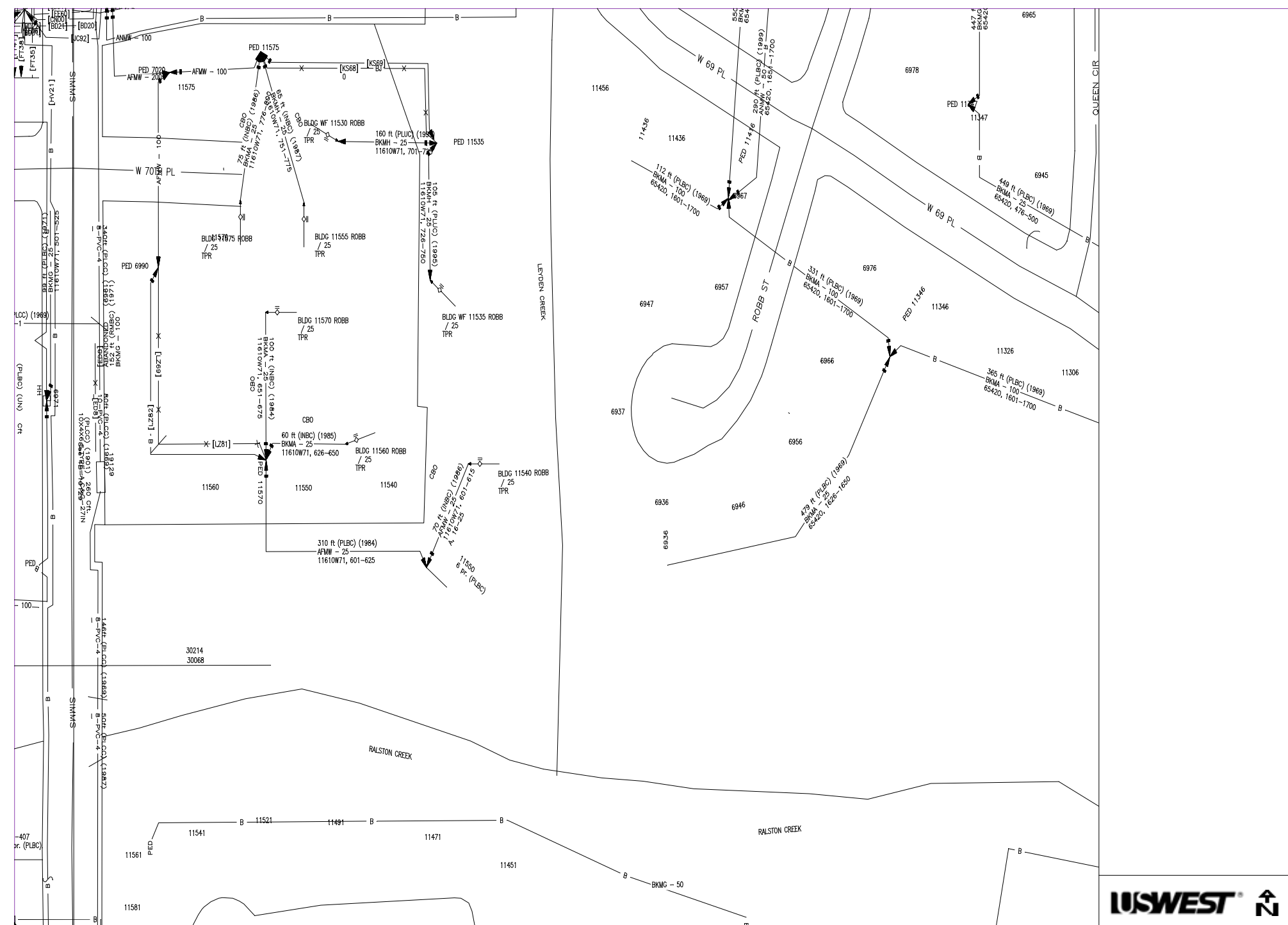
 National Buried Asset	 Local Buried Asset
 National Aerial / 3 rd Party	 Local Buried Asset
 IOF Fiber Route	 Local Buried Asset
 Local Buried Asset	 Local Aerial Asset

**CenturyLinkTM**

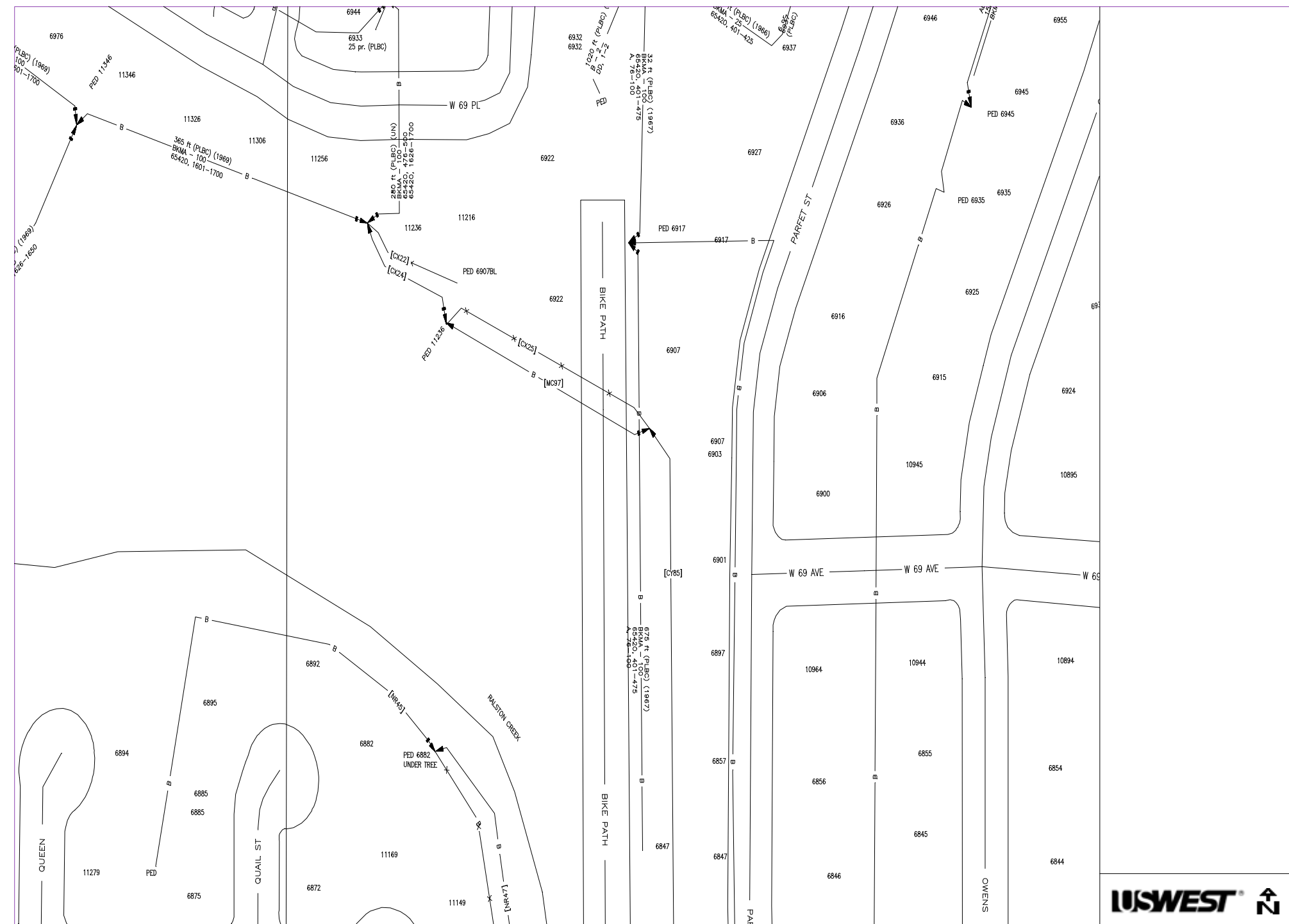
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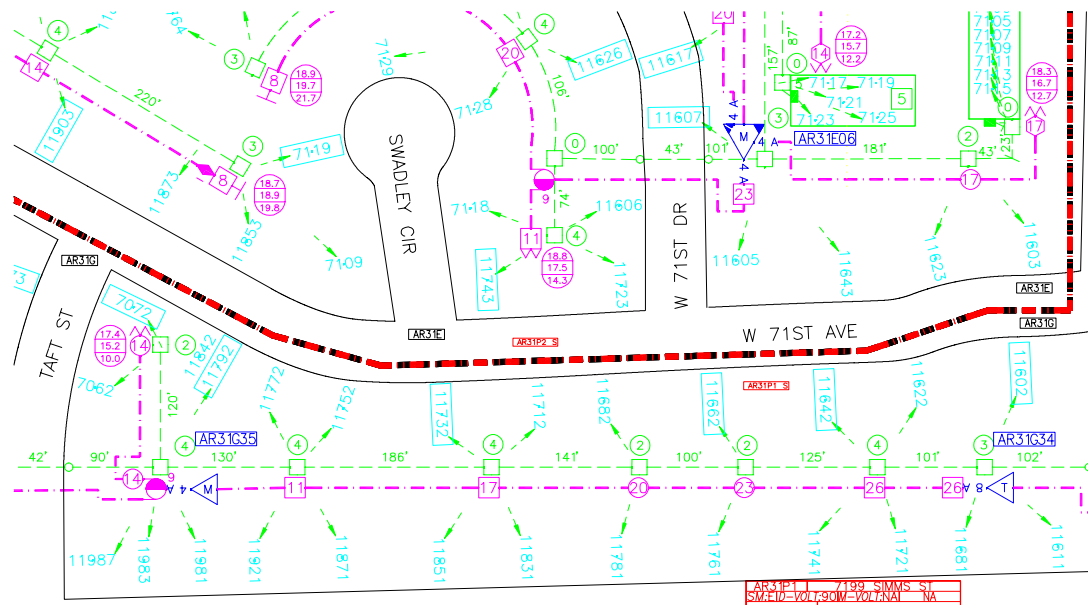




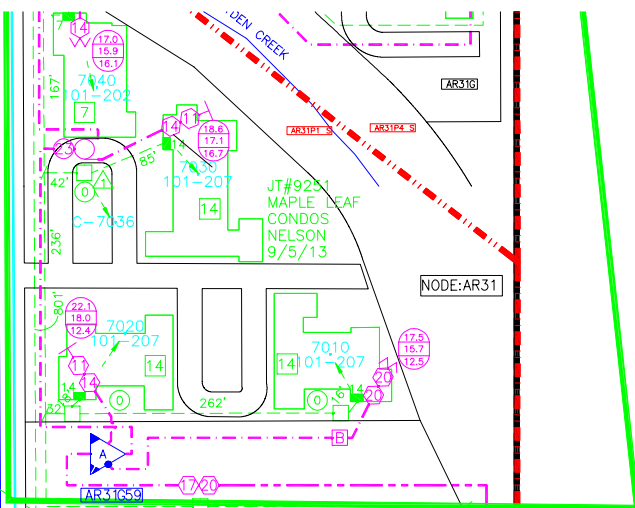




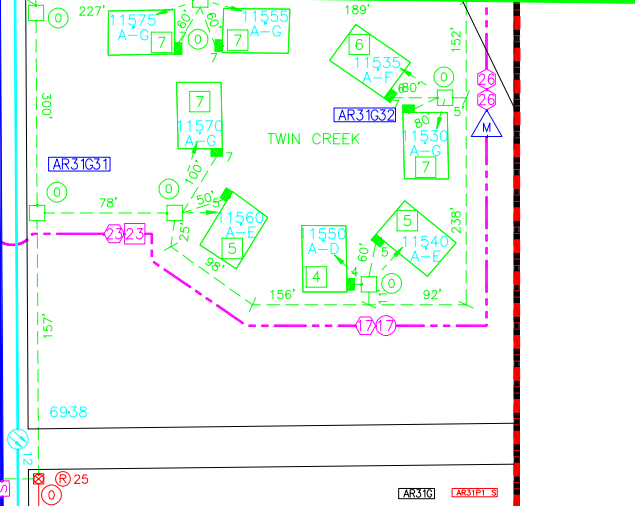
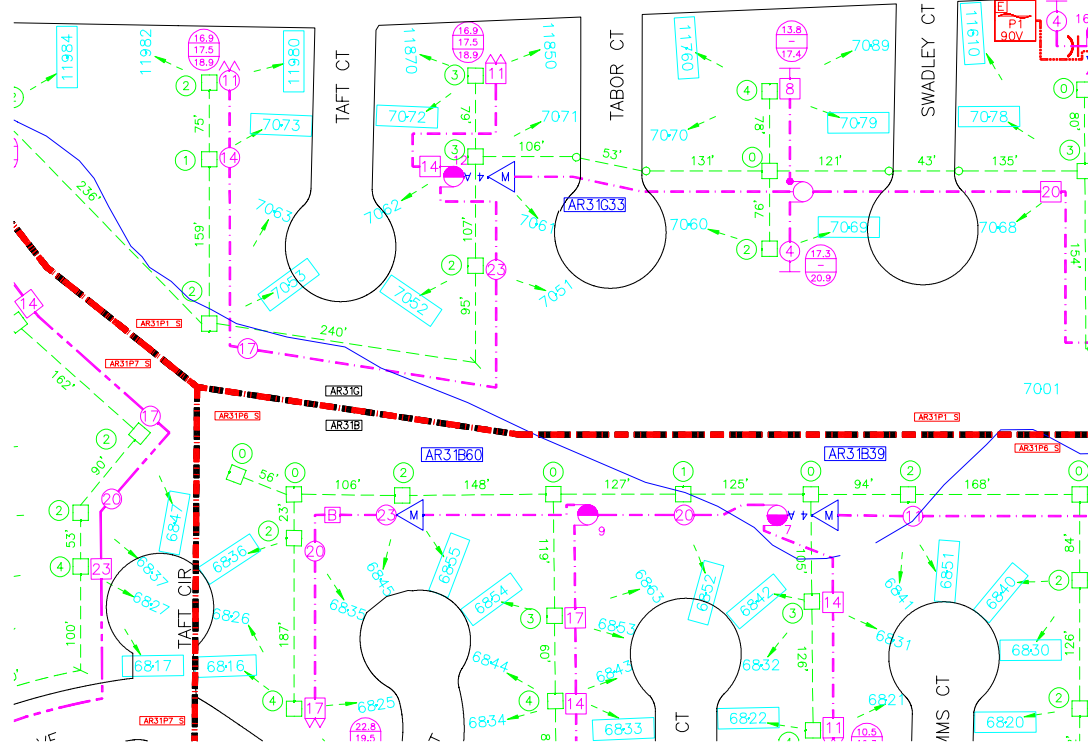


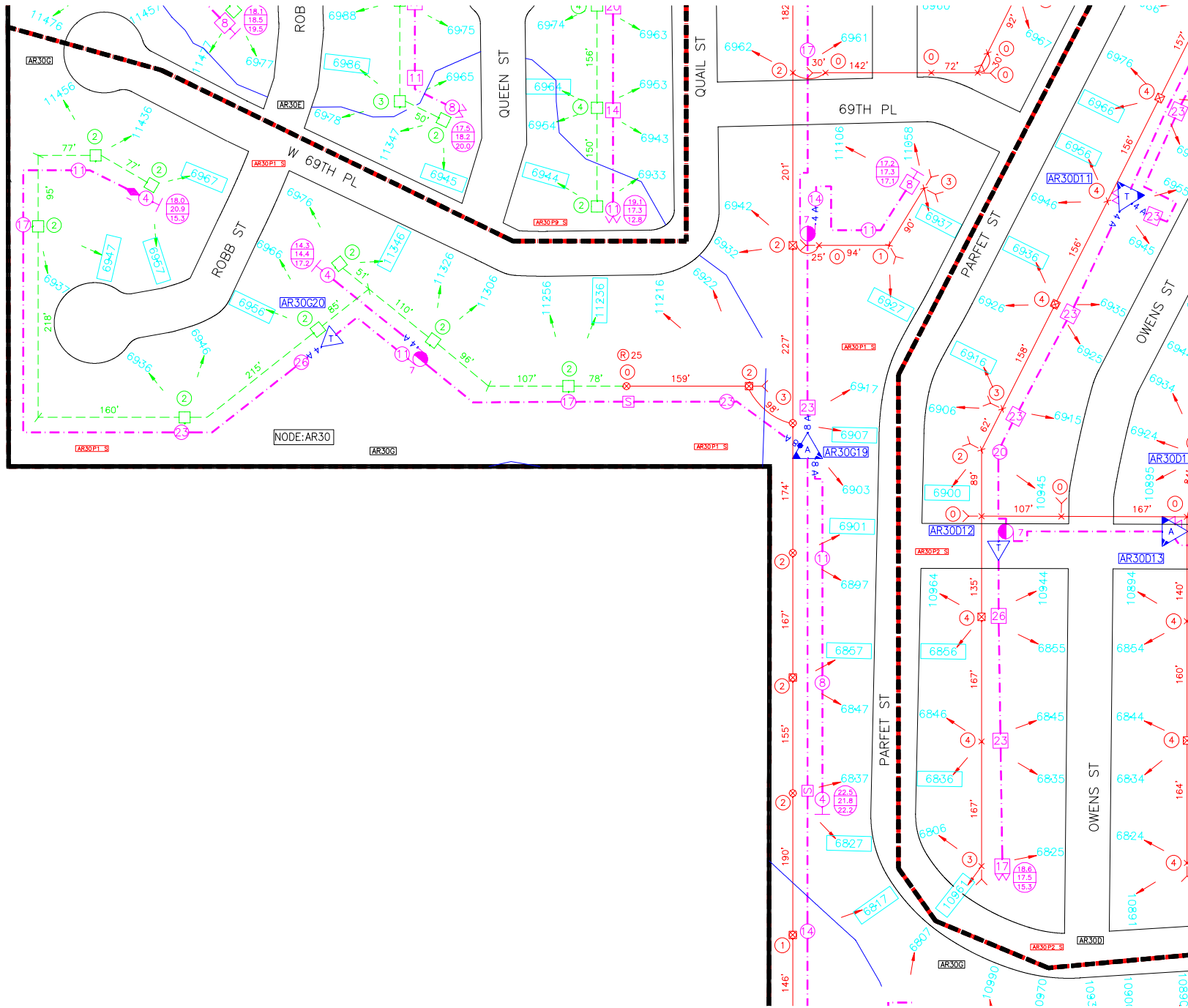


AR31P1 7199 SIMMS ST
SWADLEY-101-90W-VOLTA NA
Sign Calc Load MEA Load Date
S1 5.65 NA NA



NODE:AR31





FLPS #: 21322005957

OCC #: A322000023

ROUTINE

DigLocation Info

State

: CO

County

: JEFFERSON

City(OCC)

: ARVADA

City(FLPS)

: ARVADA

Street

: SIMMS ST

XStreet

: W 71ST AVE

XStreet2

:

Subdivision:

Dig Coordinates

Long/Lat 1

: -105.132222,39.824980

Long/Lat 2

: -105.121966,39.825048

Long/Lat 3

: -105.121941,39.821374

Long/Lat 4

: -105.132197,39.821306

Dig Details

Dig Date

: 2023-09-03

Recd Date

: 2023-08-08

Digger Information

Company

: UNDERGROUND CONSULTING Solutio

Contact

: KENNETH GOFF

Phone#

: (303)904-7422

Work For

: CLIENT

Ticket Details

Srv Cntr

: CO1

Disposition

: UP

Proc By

: PTRIPI

FS Id

:

Georesult

: Inter Mat

MP Reason

: ***

Info:

RALSTON CREEK. CONTINUE LOCATE EAST FOR A 200' WIDE SWATH ALONG THE SIDEWALK FOR 1500' TO THE TENNIS COURT. ACCESS IS OPEN. ENGINEERING PROJECT. SEND ALL UTILITY MAPPING ***Buffalo: Please follow the Design Ticket process outlined in your SOP for this ticket. Company Email: ucs@totalspeed.net

OCC Map:

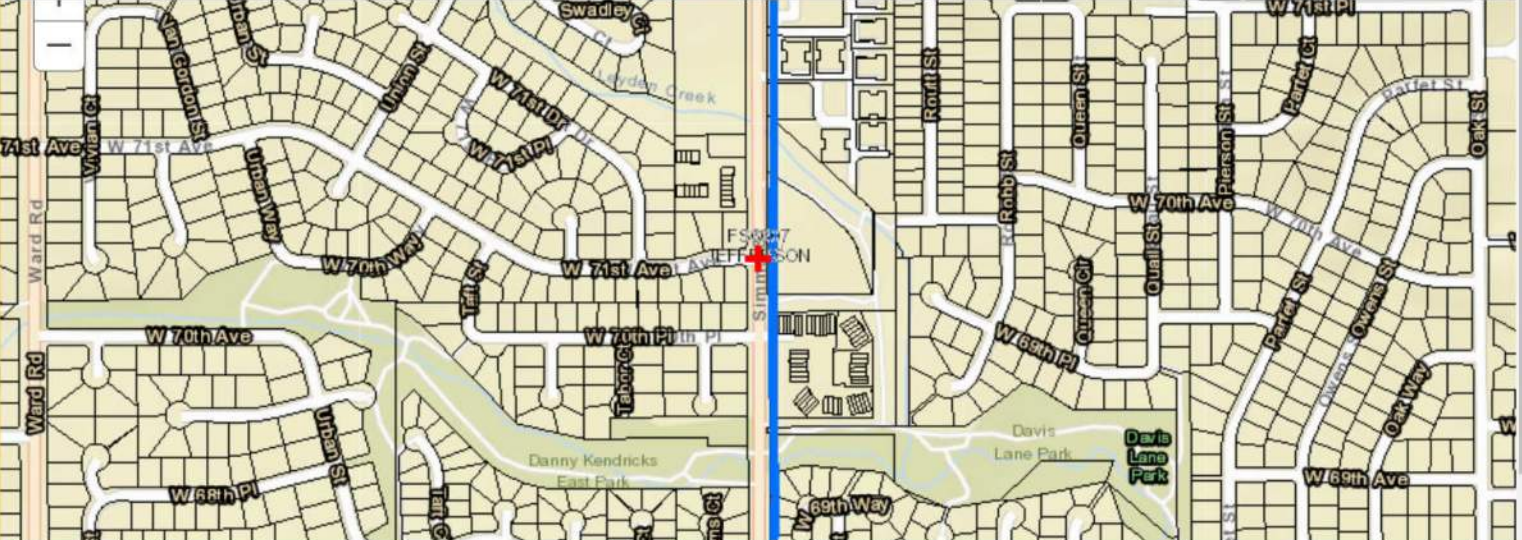
<https://newtin.co811.org/mapticket/?t=9E9s5x0uzx9k3pBhGV>

Comments:

Wire Center from FIM in PARSEr null

Measure | Banding | WB WR WP | Home (5) Prev (v) Search Clear (q) | Basemap |

Verizon Confidential MCI/Verizon



Zoom: 29619 ft

Center: (-105.13, 39.82)

Band1: 75 ft

Band2: 125 ft

Search

11:59 AM

Subject: Colorado 811 Confirmation Request 2023-11-06 Ticket A331000067-00A

From: Colorado 811 <OCARS_Pro@uncc.org>

Date: Mon, Nov 06, 2023 2:26 pm

To: <ucs@totalspeed.net>

Email Confirmation 11/06/23 02:26 PM A331000067-00A NORMAL NEW ENGINEERING/DESIGN

Please stay at least 18" outside of the exterior sides of any markings. Marks are only valid for 30 days from the date of the locate or until no longer visible, whichever comes first. There may be private facilities within your dig area. Private facilities are owned by the owner of the property and therefore will not be marked with this request. It is the responsibility of the excavator to have private facilities located. To learn more and for a list of private locate companies in your area please visit our web site at <http://www.colorado811.org>

Ticket: A331000067-00A

Original Call Date: 11/06/23 Time: 02:25 PM

Locate By Date : 11/21/23 Time: 11:59 PM Meet: No

State: CO County: JEFFERSON Place: ARVADA

Street: W 68TH AVE

Cross Street: PIERSON CT

Lat/Long: 39.820652/-105.123567 39.820574/-105.120919

: 39.819236/-105.123608 39.819159/-105.120960

Type of Work: ENGINEERING

Explosives : No Directional Boring: No

Location: FROM EASTERN MOST INTERSECTION LOC N ROW TO ROW FOR 200'. ALSO LOC EAST ROW TO ROW FOR 300'. ACCESS IS OPEN. ENGINEERING PROJECT. PLEASE SEND ALL UTILITY MAPPING.

Company : UNDERGROUND CONSULTING SOLUTIONS

Address : 5778 KELLY AVE

City : LITTLETON

St: CO Zip: 80125

Caller : KENNETH GOFF

Phone: (303)904-7422

Fax: (720)554-7889 Email: ucs@totalspeed.net

Done for: CLIENT

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QLNCC00=CENTURYLINK = FIBER, TELCO

ARVD01 =CITY OF ARVADA,H2O,SEWER = WATER, SEWER, STORM SEWER, IRRIGATION

CCSOC001=COMCAST = CATV & FIBER

XLNW00 =XCEL ENERGY = ELECTRIC & GAS

You are responsible for contacting any other facility owners not listed above.

View map and file attachments at:

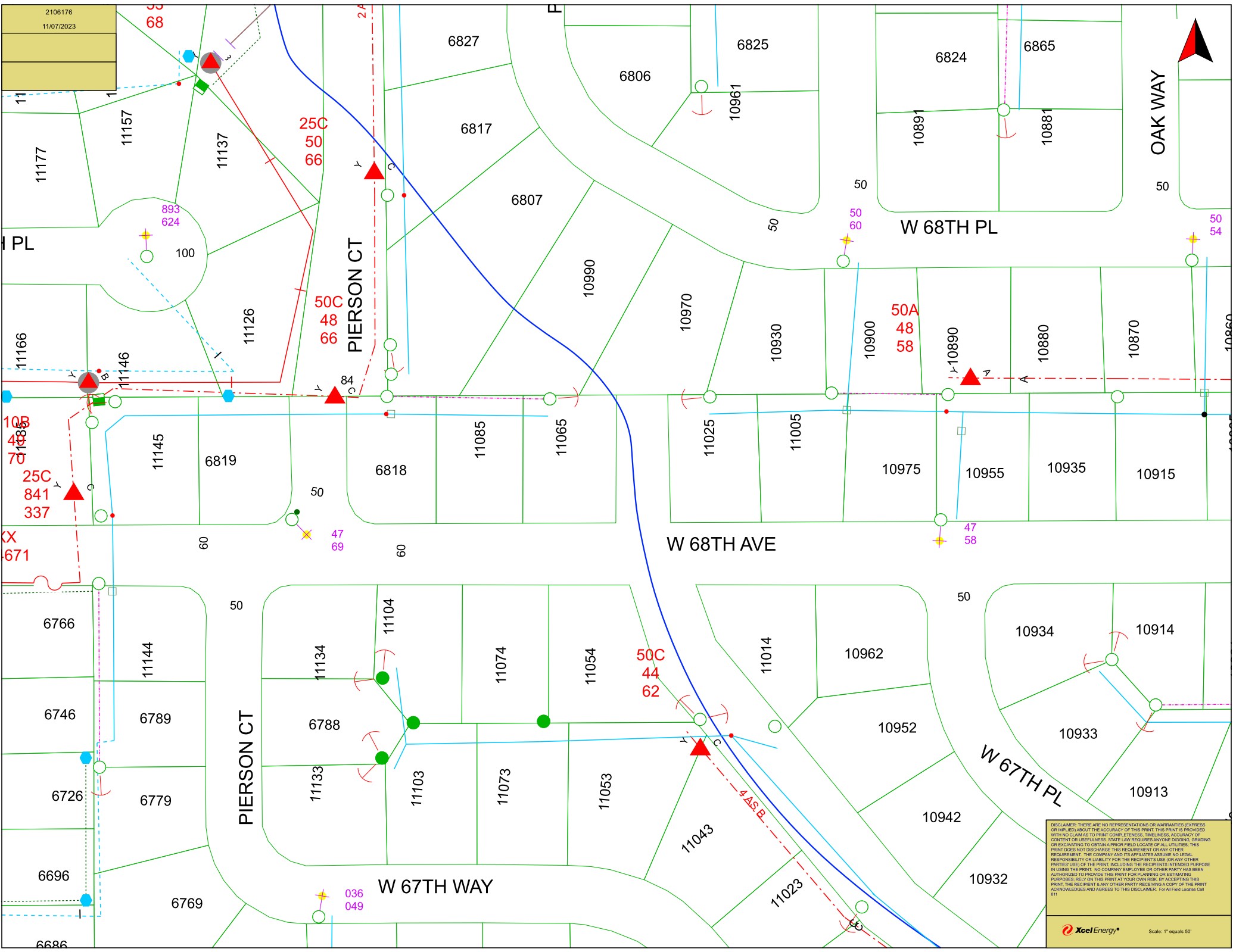
<https://newtin.co811.org/mapticket/?t=07t8s4r2r7q6j4t-u>

Check the status of your request at

<https://newtin.co811.org/responsedisplay/>

For Colorado 811 Procedure Guide go to

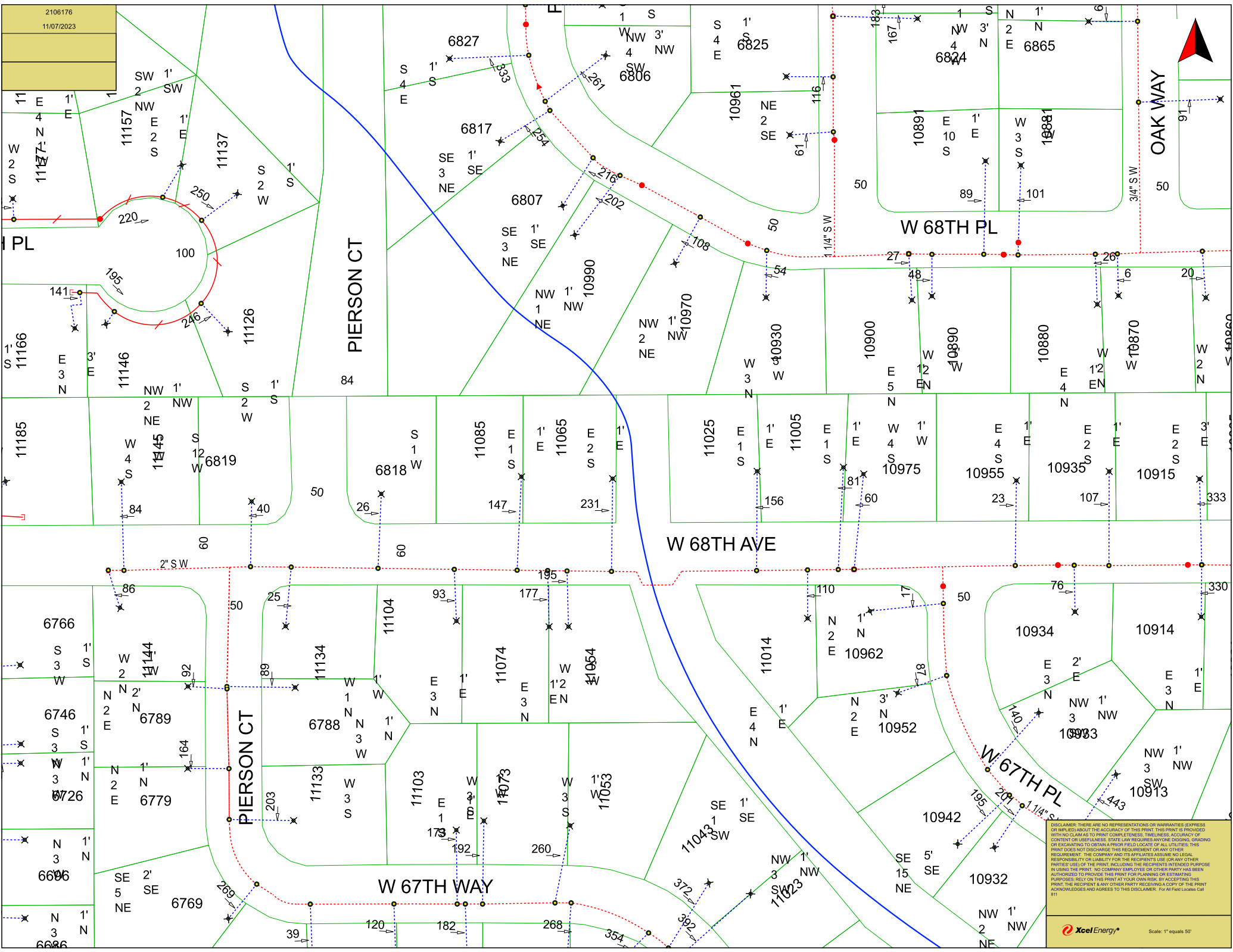
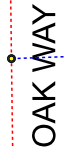
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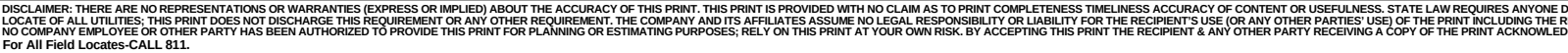
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11/07/2023

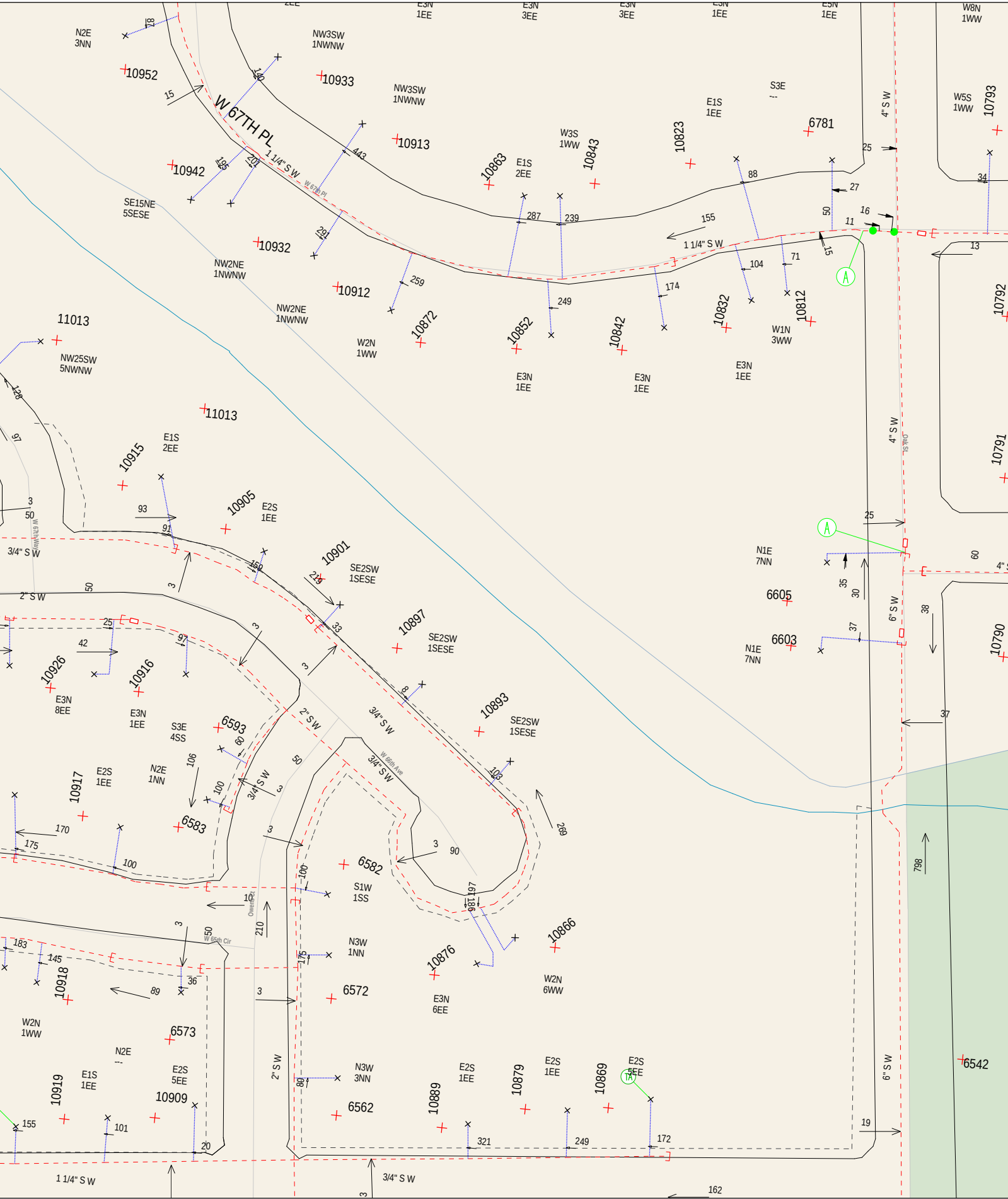
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Xcel Energy
Scale: 1" equals 50'



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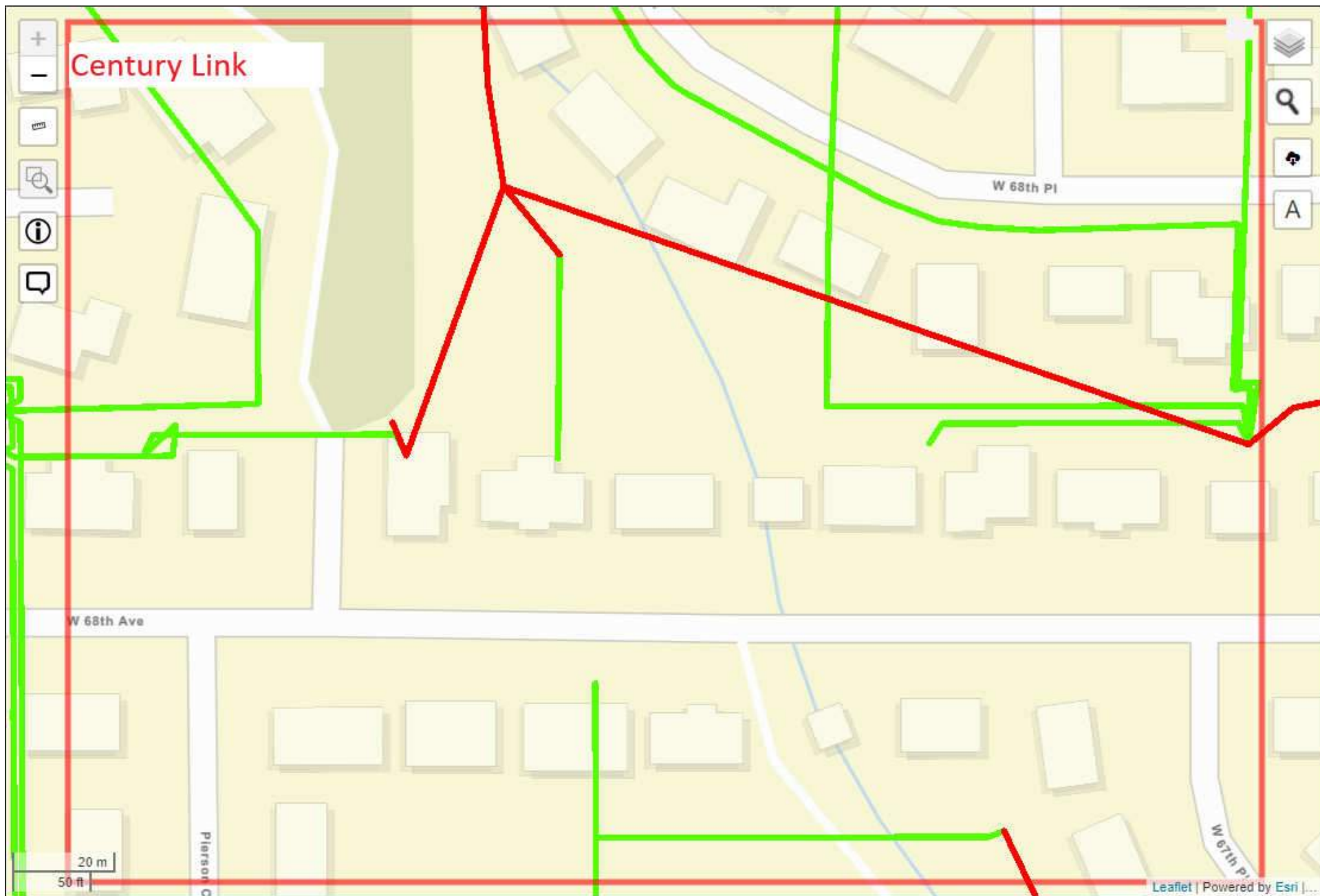
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	National Buried Asset		Local Buried Asset
	National Aerial / 3 rd Party		Local Buried Asset
	IOF Fiber Route		Local Buried Asset
	Local Buried Asset		Local Aerial Asset



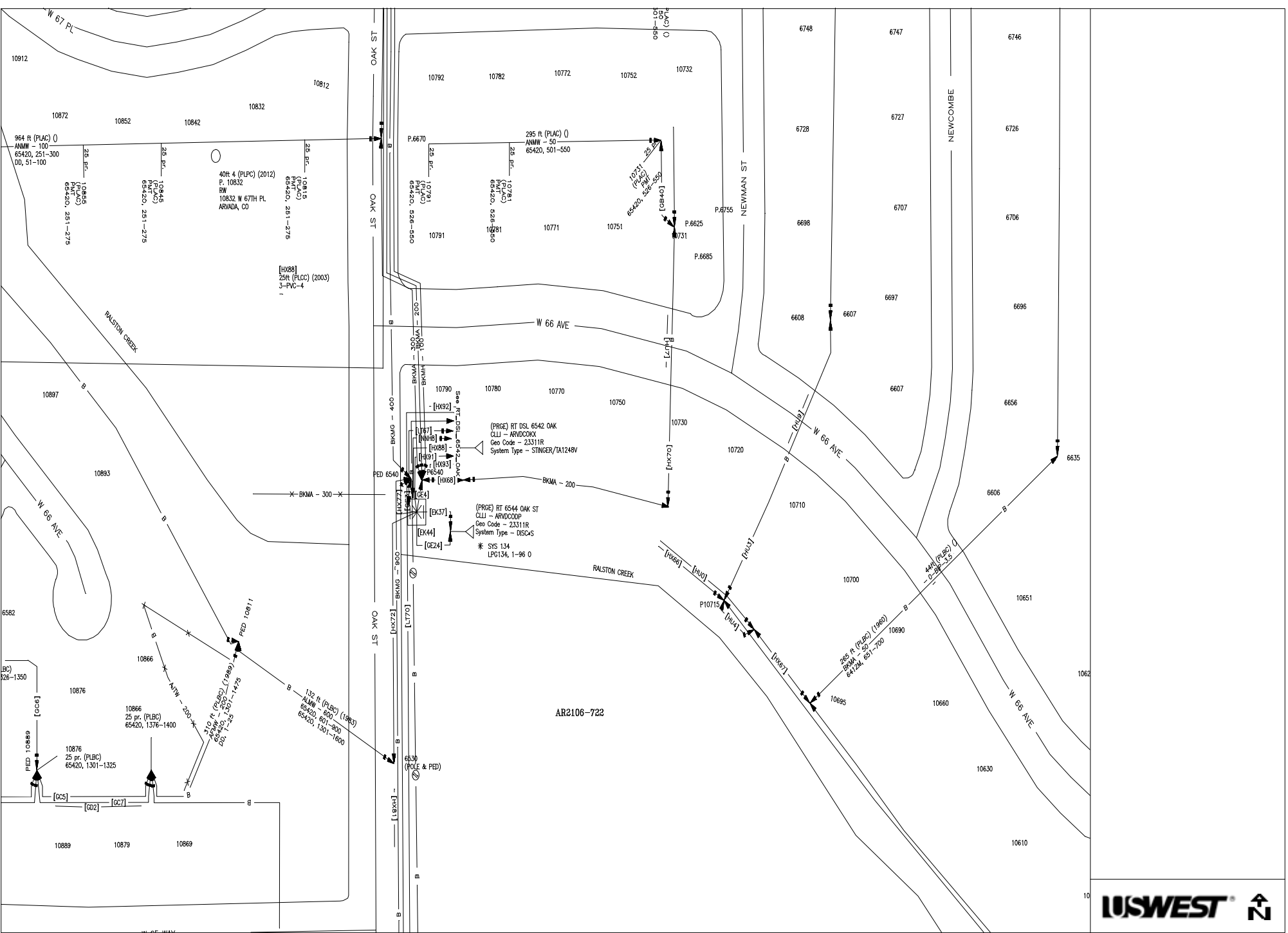
CenturyLink™

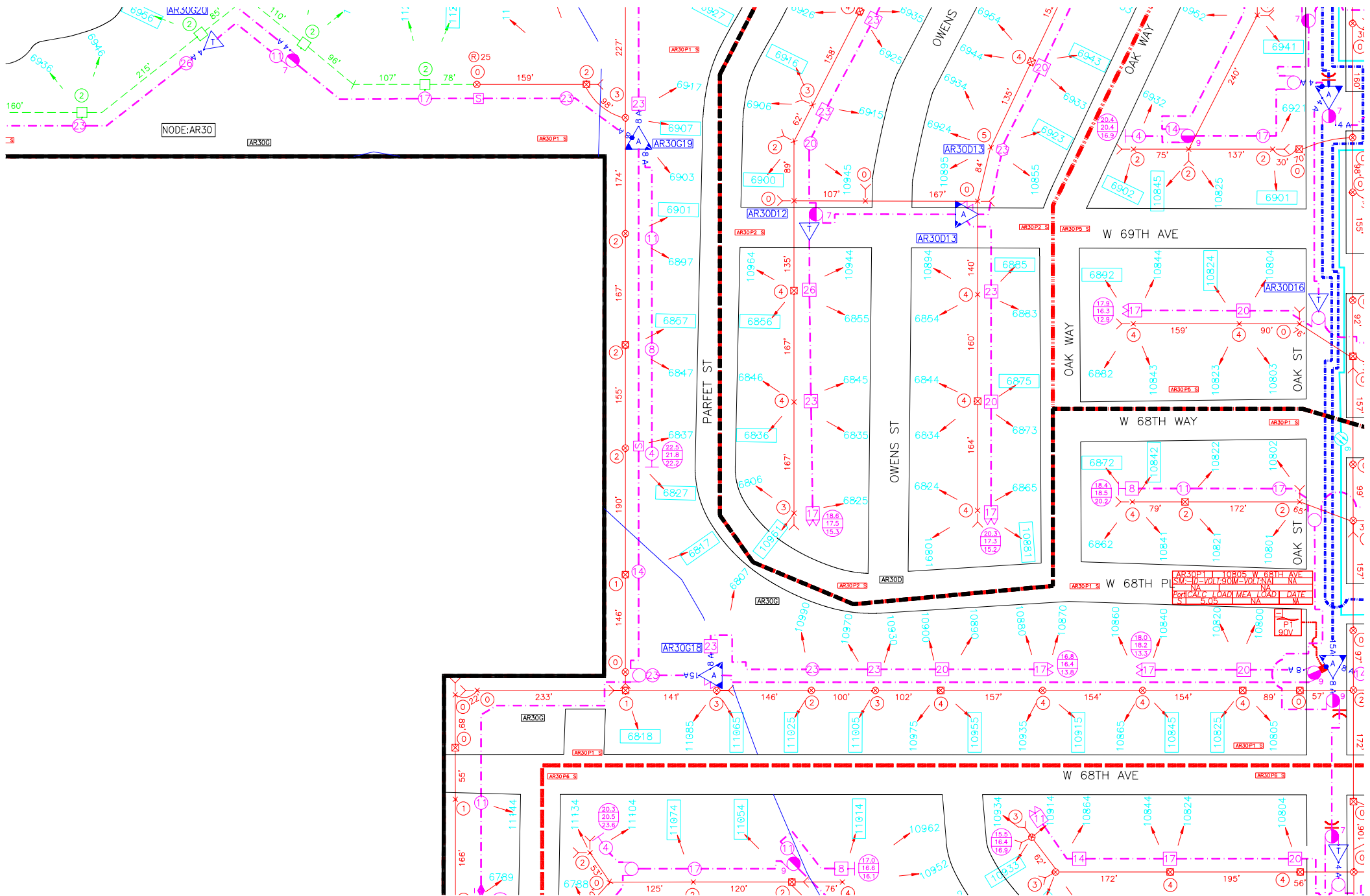
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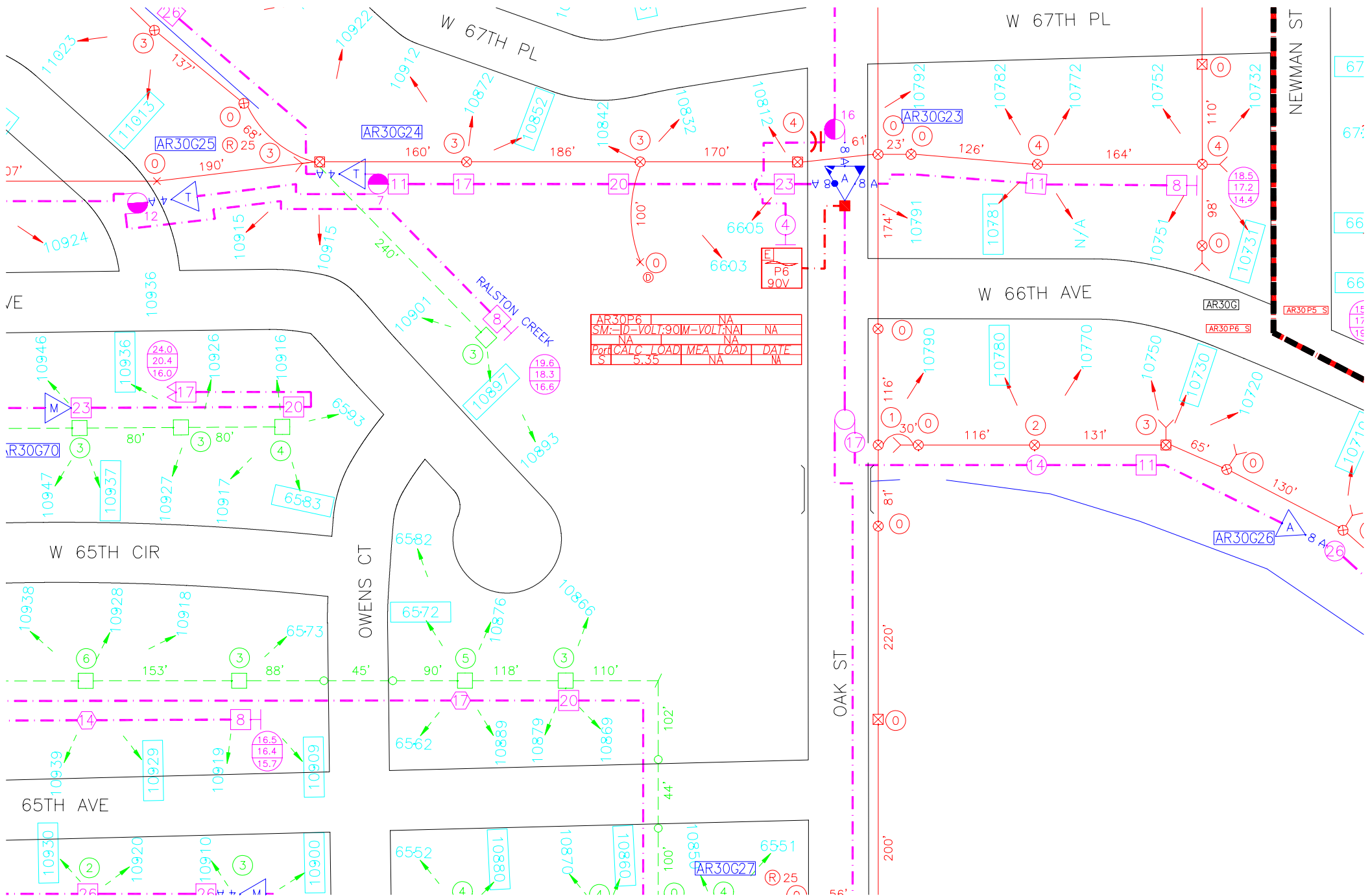












SUPPLEMENTATION TO SPECIFICATIONS

SUPPLEMENTATION TO SECTION 367 BEDDING FOR PIPELINES AND SERVICE LINES

Section 367 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the second and third paragraphs to read

Bedding material for all PVC, HDPE, CPP, PP and DIP (“flexible pipe”) **with a diameter less than 12-inches**, shall be material that complies with the gradation of “Fine Aggregate” as specified in Section 703.01 of the CDOT Standard Specifications for Road and Bridge Construction, well-graded sand or squeegee sand which complies with the following:

[TABLES REMAIN AS-IS]

Bedding material for all **PVC and RCP with a diameter greater than or equal to 12-inches**, shall consist of materials that meet the gradation of “No. 67 Coarse Aggregate” as specified in Section 703.00 of the CDOT Standard Specifications for Road and Bridge Construction unless otherwise recommended by the Geotechnical Engineer and approved by the City Engineer.

SUPPLEMENTATION TO SECTION 368 BACKFILL FOR PIPELINES AND SERVICE LINES

Section 368 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the second paragraph to read

The following special trench backfill requirements shall apply for utilities located in existing or planned road rights-of-way, **and under existing or planned concrete trails.**

1. Isolated Street Cuts – Service line cuts and other isolated utility repairs or modifications in a paved street area shall be backfilled with Controlled Low Strength Material (CLSM) “flowable fill” or “flash fill” per MGPEC Section 19.
2. Constrained Areas - Areas in which proper backfill compaction cannot be achieved such as utility crossing, under curb and gutter, or any area identified by the Certified Materials Tester or Construction Inspector, shall be backfilled with Controlled Low Strength Material (CLSM) “flowable fill.”
3. **Extensive Street Cuts – Street cuts for new utility trenches within the paved street area shall be backfilled with materials recommended as import fill or CDOT Class 1 structural fill in accordance with the Preliminary Geotechnical Investigation (CTL Thompson, Revised January 26, 2024).**
4. **Under Concrete Trail – Backfill placed under existing or planned concrete trail sections shall be backfilled with materials recommended as import fill or CDOT Class 1 structural fill in accordance with the Preliminary Geotechnical Investigation (CTL Thompson, Revised January 26, 2024).**

5. Backfill in Open Space Not Under Concrete Trail – backfill placed in open space not under concrete trail shall be backfilled with on-site soils per methods in accordance with the Preliminary Geotechnical Investigation (CTL Thompson, Revised January 26, 2024).

SUPPLEMENTATION TO SECTION 1137
MATERIALS FOR BEDDING, BACKFILL, ETC.

Section 1137.02 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the Payment section to read:

Strike “dewatering” from the paragraph.

SUPPLEMENTATION TO SECTION 1146
PIPELINES AND UTILITY TRENCHES

Section 1146.00 of the City of Arvada Engineering Code Standards and Specifications, 2023 Edition is hereby supplemented for this project as follows:

Revise the Payment section to read:

Strike “dewatering” from the paragraph.

November 30, 2023
Revised January 26, 2024

Merrick & Company
2480 West 26th Avenue, B225
Denver, Colorado 80211

Attention: Andre Wolff, PE, ENV SP

Subject: Preliminary Geotechnical Investigation
City of Arvada Sewer Line Replacement
Arvada, Colorado
Project No. DN51,960-115-L1R

CTL|Thompson, Inc. (CTL|T) completed a Preliminary Geotechnical Investigation for the proposed replacement of the City of Arvada sewer line in Arvada, Colorado. We understand approximately 2,600 lineal feet of sewer line will be replaced. The purpose of our investigation was to provide preliminary geotechnical design and construction criteria for the project including the merits of dewatering and temporary excavation support. The scope of service was described in our Proposal (DN 23-0127R) dated April 23, 2023 and revised on October 19, 2023.

INVESTIGATION

We investigated subsurface conditions on September 29, 2023 by drilling and sampling four borings and installing temporary groundwater measuring wells at the approximate locations shown on Fig. 1. We determined the approximate boring locations and elevations using a Leica GS18 GPS unit referencing the North American Datum of 1983 (NAD83). Prior to drilling, we contacted the Utility Notification Center of Colorado to mark the presence of buried utilities in the vicinity of the boring locations. We also submitted a completed copy of the State of Colorado's Notice of Intent form for temporary well construction. The state accepted the Notice of Intent.

The borings were drilled and sampled to depths of 20 to 25 feet below the existing ground surface using 3-inch or 4-inch diameter, continuous-flight solid stem auger powered by limited access or truck-mounted drill rigs. Samples were obtained at approximate 5-foot intervals using a 2.0-inch diameter (O.D.) split-spoon sampler or a 2.5-inch diameter (O.D.) modified California barrel sampler driven by blows of a 140-pound automatic hammer falling 30 inches. Bulk samples of auger cuttings were also obtained. Graphical logs of the borings, including results of field penetration resistance tests and a portion of the laboratory test data, are presented on Fig. 2.



Samples obtained during drilling were returned to our laboratory where they were examined, classified and assigned testing. Laboratory tests included moisture content, dry density, particle size analysis (gradation, hydrometer, and percent passing a No. 200 sieve), Atterberg limits, swell-consolidation, and water-soluble sulfate concentration. Swell-consolidation tests were performed by wetting the samples under approximate overburden pressure (the pressure exerted by the overlying soils). Results of laboratory tests are presented in Appendix A.

SUBSURFACE CONDITIONS

Strata encountered in the borings consisted of about 14 to 25 feet of native sandy clay and clean to clayey sand and gravel underlain by claystone bedrock to the maximum explored depth of 25 feet. Some pertinent engineering characteristics of the soil and bedrock are described in the following paragraphs.

Sandy clay and/or clean to clayey sand and gravel were encountered at the ground surface in all the borings. Interlayered sandy clay and clayey sand was encountered in two borings (TH-1 and TH-4). The clay was medium stiff to stiff and the sand/gravel was very loose to medium dense. One clay sample did not swell and one swelled 0.3 percent when wetted. Two clay samples contained 65 and 70 percent silt- and clay-sized particles and exhibited low to moderate plasticity with liquid limits of 37 and 38 and plasticity indices of 14 and 24, respectively. Two interlayered clay/sand contained 47 and 49 percent fines and exhibited moderate plasticity, with one containing 21 percent clay-sized particles (less than about 2 microns). Four sand samples contained 7 to 32 percent fines and with two samples containing nil to 31 percent gravels (retained on the No. 4 sieve).

Claystone was encountered in one boring (TH-3) at a depth of about 14 feet below existing grade. The claystone is considered medium hard to very hard.

Groundwater was encountered during drilling in all borings at depths of about 7 to 14 feet below existing grades. When checked after drilling, groundwater was measured in all borings at depths from about 4 to 12.5 feet. Groundwater is expected to be encountered in excavations during construction. Groundwater will likely fluctuate seasonally and may rise in response to development, precipitation, landscape irrigation and changes in land-use. Dewatering should be planned for excavations that will bottom about 3 feet above the measured groundwater levels.

RECOMMENDATIONS

Excavations

We believe the soils encountered in our exploratory borings can generally be excavated with conventional, heavy-duty excavation equipment. We recommend the owner and the contractor become familiar with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench



Safety Standards. Based on our investigation and OSHA standards, we anticipate the sand and gravel will likely classify as Type C soil and the clay and claystone as Type B. Based on OSHA regulations, a maximum slope inclination of 1.5:1 (horizontal to vertical) is required for Type C soils and 1:1 is required for Type B for temporary excavations in dry conditions. Flatter slopes will be necessary where water seepage is present. Excavation slopes specified by OSHA are dependent upon soil types and groundwater conditions encountered. The contractor's "competent person" is required to identify the soils encountered in the excavations and refer to OSHA standards to determine appropriate slopes. Stockpiles of soils and construction equipment should not be placed within a horizontal distance equal to one-half the excavation depth, from the edge of the excavation.

Temporary Shoring and Bracing

The proximity of property boundaries and existing structures to the proposed pipe alignment may require the use of full-depth or partial-depth temporary excavation support systems. The civil engineer should decide if temporary excavation support systems are required based evaluation of the depth and extents of the trench along with anticipated excavation slope inclinations cited previously. If the estimated crest of the excavation will be within about 8 feet of an existing structure, then temporary excavation support systems should be used.

Bracing or "trench box" construction may be necessary in order to limit the width of excavations and reduce the amount of surface disturbance. Bracing systems include driven sheet piling, soldier piles and lagging and others. Lateral loading of bracing depends on the depth of excavation, slope of excavation above the bracing, soil stockpiles and other surface loads, hydrostatic pressures, and allowable movement. Shoring or sheetpiling will be needed where trench excavations are too deep for trench boxes. The stability of the excavation will be marginal in areas with sand and gravel and groundwater; shoring and/or sheetpiling and dewatering will be needed. Sheetpiling should be used in areas where groundwater is encountered, especially where clean sand and gravel are present.

For bracing allowed to move enough to mobilize the strength of the soils with associated settlement and cracking of the ground surface, "active" earth pressure conditions are appropriate for design. If movement is not tolerable, "at rest" earth pressures are appropriate. Lateral loads can be calculated using the equivalent fluid densities in the table below. Surcharge loads have not been factored and should be accounted for, where applicable.



LATERAL EQUIVALENT FLUID DENSITIES

CONDITION	CLAY	SAND
"Active" Equivalent Fluid Density (pcf)	55 (90 including hydrostatic)	40 (85 including hydrostatic)
"At Rest" Equivalent Fluid Density (pcf)	75 (100 including hydrostatic)	60 (85 including hydrostatic)
"Passive" Equivalent Fluid Density (pcf)*	275 (200 including hydrostatic)	350 (230 including hydrostatic)

*Assumes compacted backfill will never be removed.

Dewatering

Dewatering shallow excavations in clayey soils can usually be accomplished using sump-and-pump methods and diverting water in trenches. Dewatering of sand deposits may require high-capacity pumps but can likely be accomplished via sump-and-pump methods for excavations that penetrate just a few feet into water. Sloped excavations in sand and gravel that will penetrate more than about 2 feet into groundwater should be dewatered using a well point system. If temporary shoring and bracing systems are used, then dewatering of sands and gravels via sump-and-pump methods, and no well points, can be considered in excavations that penetrate deeper than 2 feet below groundwater.

Sumps should bottom at least 3 feet below the bottom of the excavations to pump water down through the soil rather than up through the bottom of the excavation. Pumping water up through the base of the excavation will likely result in destabilization of the base of the excavation. Discharge locations and volumes will need to be considered. Additionally, dewatering efforts need to be monitored to avoid conditions where seepage exit velocities could destabilize the soil surface. Excavation slope sloughing and caving could occur in sandy soils dewatered via sump-and-pump methods. Also, adjacent areas should be sloped to avoid runoff into the excavation. The means and methods of dewatering are the responsibility of the contractor.

The Colorado Department of Health and Environment requires a dewatering permit to discharge dewatered surface water, groundwater, and/ or stormwater. The results of environmental sampling and testing of groundwater for contamination must be submitted with the permit application. If the groundwater is contaminated, then a special permit is necessary along with an on-site water treatment system. Periodic environmental testing of dewatered groundwater should be anticipated to satisfy the dewatering permit.

Pipe Bedding

Piping is normally bedded in manufactured granular material in accordance with the pipe manufacturer specifications. We believe that pipe bedding consisting



of material that conforms to local design and construction requirements will meet typical requirements. Angular crushed rock, conforming to CDOT No. 67 rock specifications, is usually acceptable bedding material. Squeegee or sand is not considered acceptable bedding material for larger diameter pipes (12 inches or greater). Maximum particle size depends on selected piping material according to ASTM and AWWA and should be verified with the pipe manufacturer. We do not recommend the natural soils be used as bedding material unless they can be processed to meet recommended standards. We recommend bedding material thickness and compaction meet current specifications and confirmed with the pipe manufacturer.

Research (primarily for rigid pipe) has shown placement of pipe bedding in a looser state (for example 85 percent of standard Proctor maximum dry density) will result in a more uniform stress distribution along the bottom of the pipe. The looser bedding appears to allow enough movement of the pipe to develop support pressure in the haunch area. Typically, this results in a reduction of stress concentrations and reduced damage to the pipe. However, not all municipal guidelines allow this method.

Fill and Backfill

Our experience indicates fill and backfill can settle, even if properly compacted to criteria provided above. Factors that influence the amount of settlement are depth of fill, material type, degree of compaction, amount of wetting and time. The degree of compression of fill under its own weight will likely range from low for granular soils ($\frac{1}{2}$ percent or less) to moderate for clay/sand mixtures (1 to 2 percent) to high (more than 2 percent) for high-plasticity clay. Utility trench backfill compaction by a sheepsfoot wheel attachment on a backhoe or trackhoe has been found to be generally less successful than using a self-propelled roller compactors. Special attention should be placed to backfill placed adjacent to manholes as we have seen instances where settlement in excess of 2 percent has occurred.

The on-site clay soils are more prone to settlement than the sand soils. The presence of groundwater also contributes to settlement potential. The most conservative approach to reduce settlement potential would be to use flowable fill. Another alternative would be to use select import fill as trench backfill material. Import fill should have a maximum particle size of 3 inches, less than 35 percent passing the No. 200 sieve, a liquid limit less than 30, and a plasticity index less than 10. CDOT Class 1 structural backfill is also acceptable. Potential import fill materials should be submitted to our office prior to importing to the site.

The on-site soils are suitable for reuse as new fill, provided they are free of debris, vegetation/organics and other deleterious materials. Soils excavated below groundwater will likely require drying to reuse as backfill. The sand should dry comparatively quickly, and the clay will unlikely dry within the duration of construction. Import soil can be used in lieu of drying. It may also be possible to blend drying



agents into wet soils so they can be reused. Soil particles and clay clods should be processed to a maximum diameter no larger than 3 inches.

Prior to fill placement, the surface should be stripped of topsoil and vegetation. The surface to be filled should be moisture-conditioned, and compacted to the criteria below. Subsequent fill should be placed in thin (6 inches or less) loose lifts, moisture-conditioned to between optimum to 3 percent above optimum for clay and compacted to at least 95 percent of standard Proctor maximum dry density (ASTM D 698). Sand backfill should be moisture conditioned to within 2 percent of optimum and compacted to 100 percent standard Proctor maximum dry density. Where trench backfill is placed within the public right-of-way, jurisdictional compaction requirements should be followed.

CONSTRUCTION OBSERVATIONS

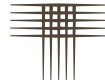
We recommend that CTL|Thompson, Inc. provide construction observation services to allow us the opportunity to verify whether soil conditions are consistent with those found during this investigation. Other observations are recommended to review general conformance with design plans. If other perform these observations, they must accept responsibility to judge whether the recommendations in this report remain appropriate.

GEOTECHNICAL RISK

The concept of risk is an important aspect with any geotechnical evaluation primarily because the methods used to develop geotechnical recommendations do not comprise an exact science. We never have complete knowledge of subsurface conditions. Our analysis must be tempered with engineering judgment and experience. Therefore, the recommendations presented in any geotechnical evaluation should not be considered risk-free. Our recommendations represent our judgment of those measures that are necessary to increase the chances that the improvements will perform satisfactorily. It is critical that all recommendations in this report are followed during construction. Owners must assume responsibility for maintaining the improvements.

LIMITATIONS

This letter has been prepared for the exclusive use of Merrick & Company and your team for the purpose of providing geotechnical design and construction criteria for the proposed project. The information, conclusions, and recommendations presented herein are based upon consideration of many factors including, but not limited to, the type of construction proposed, the geologic setting, and the subsurface conditions encountered. The conclusions and recommendations contained in the letter are not valid for use by others. Standards of practice evolve in the area of geotechnical engineering. The recommendations provided are appropriate for



about three years. If the proposed construction is not performed within about three years, we should be contacted to determine if we should update this letter.

Our borings were widely spaced to obtain a reasonably accurate picture of the subsurface conditions. Variations in the subsurface conditions not indicated by our borings are possible. We believe this investigation was conducted with that level of skill and care ordinarily used by geotechnical engineers practicing under similar conditions. No warranty, express or implied, is made.

If we can be of further service in discussing the contents of this letter or in the analysis of the influence of subsoil conditions on design of the structures, please call.

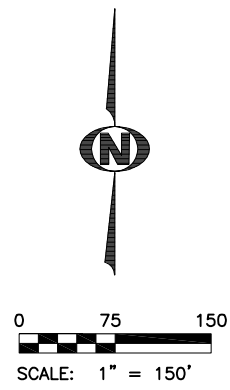
CTL|THOMPSON, INC.

Javier Avitia-Herrera, E.I.T.
Staff Engineer

Reviewed by:

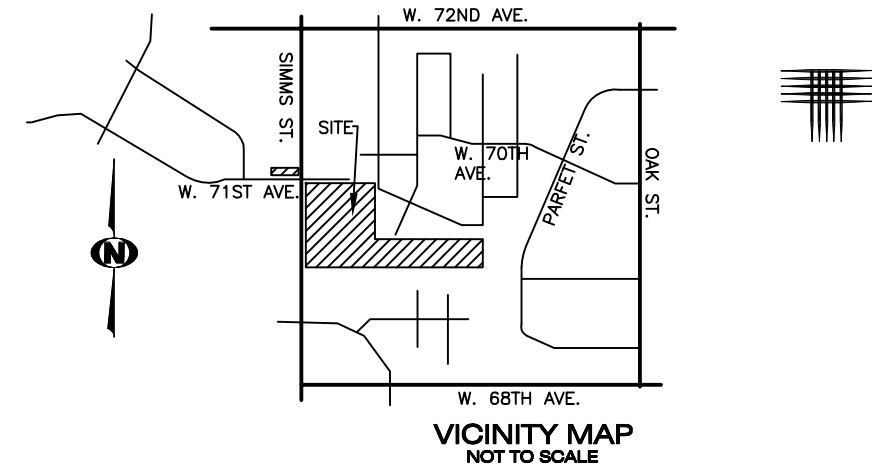
Erin C. Bouchet, P.E., P.G.
Associate, Denver Engineering Manager

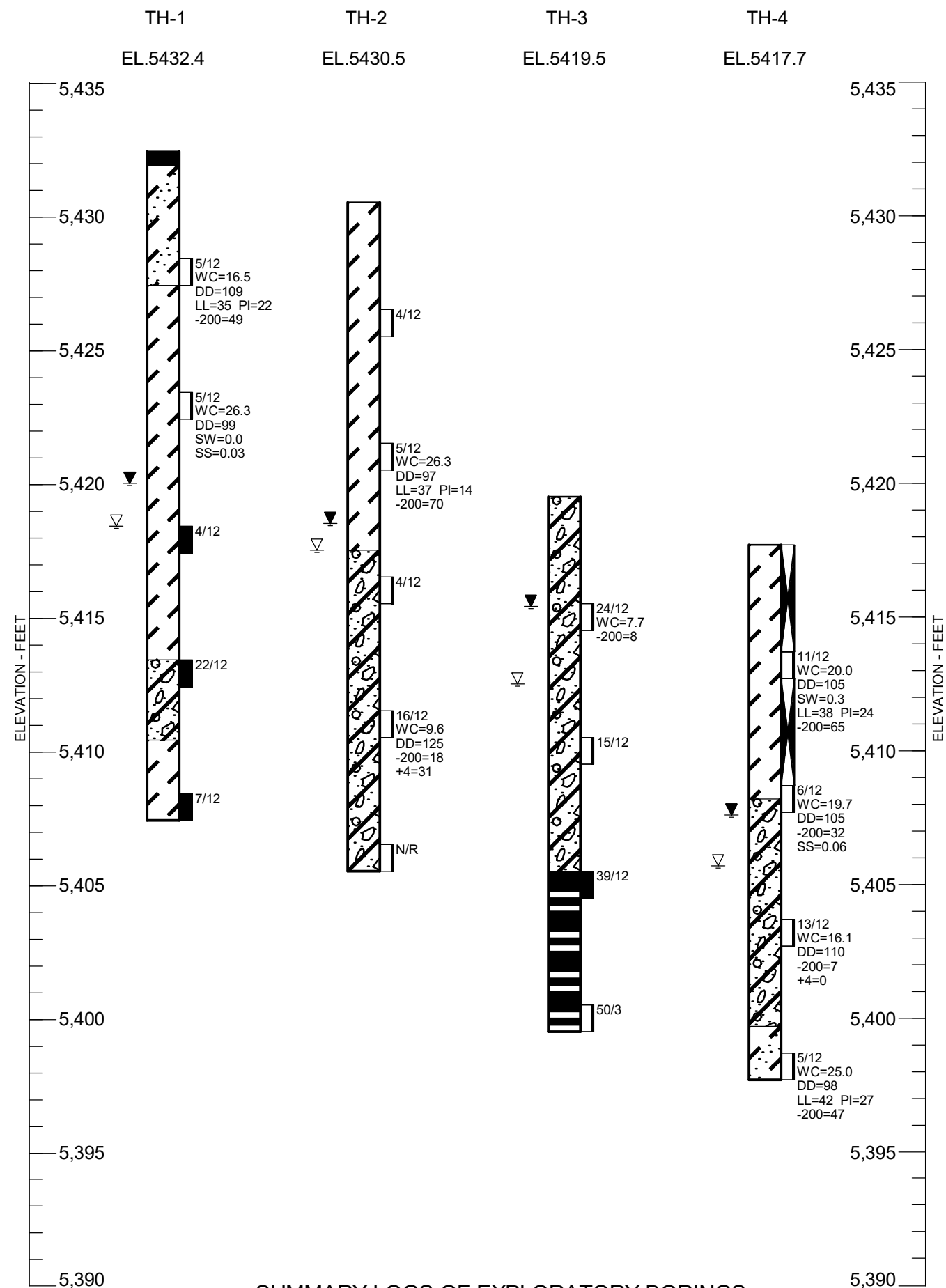
Via e-mail: andre.wolff@merrick.com
julie.koehler@merrick.com



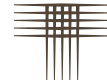
LEGEND:

- TH-1 ● APPROXIMATE LOCATION OF EXPLORATORY BORING

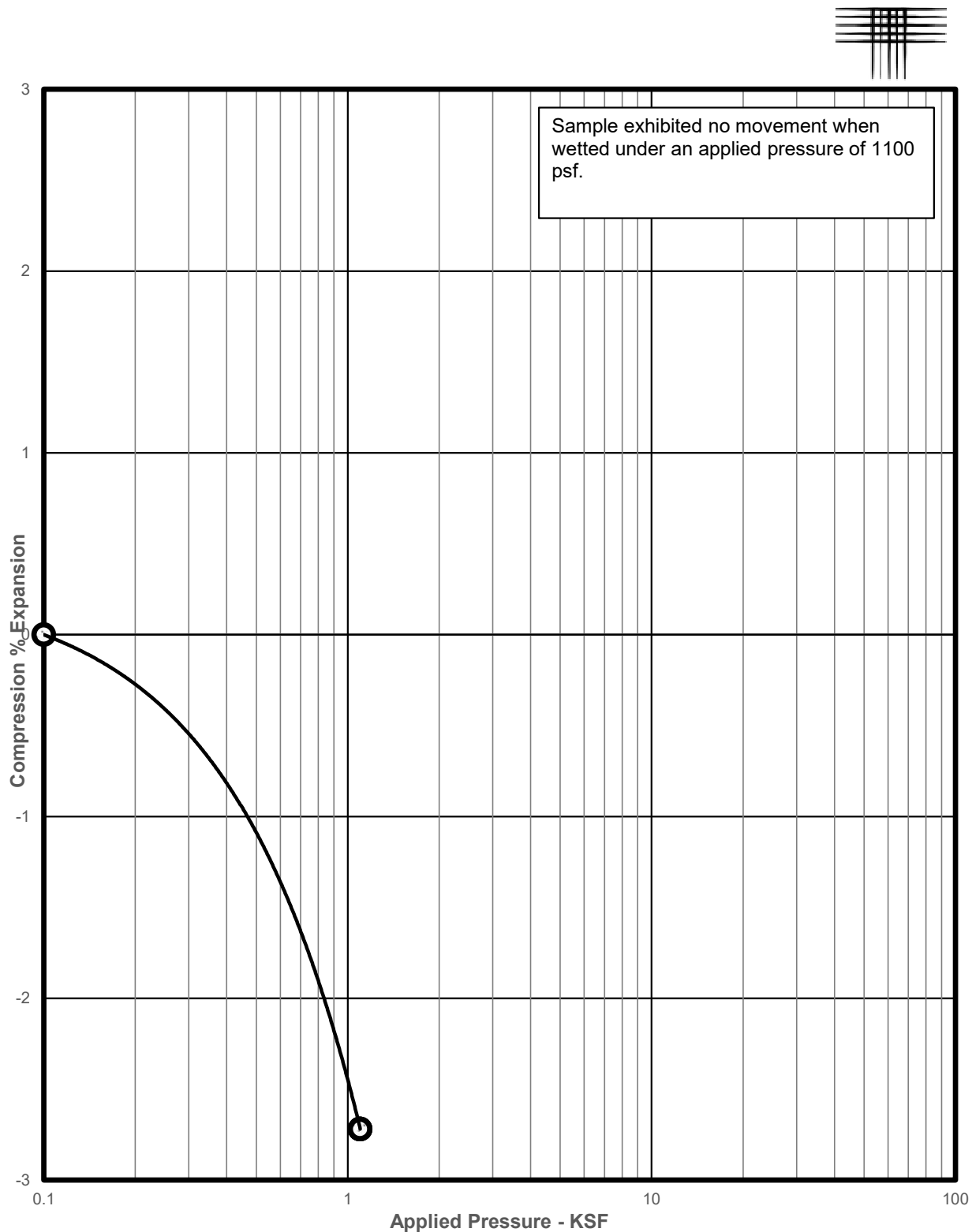




SUMMARY LOGS OF EXPLORATORY BORINGS



APPENDIX A
LABORATORY TEST RESULTS
TABLE A-I – SUMMARY OF LABORATORY TESTING

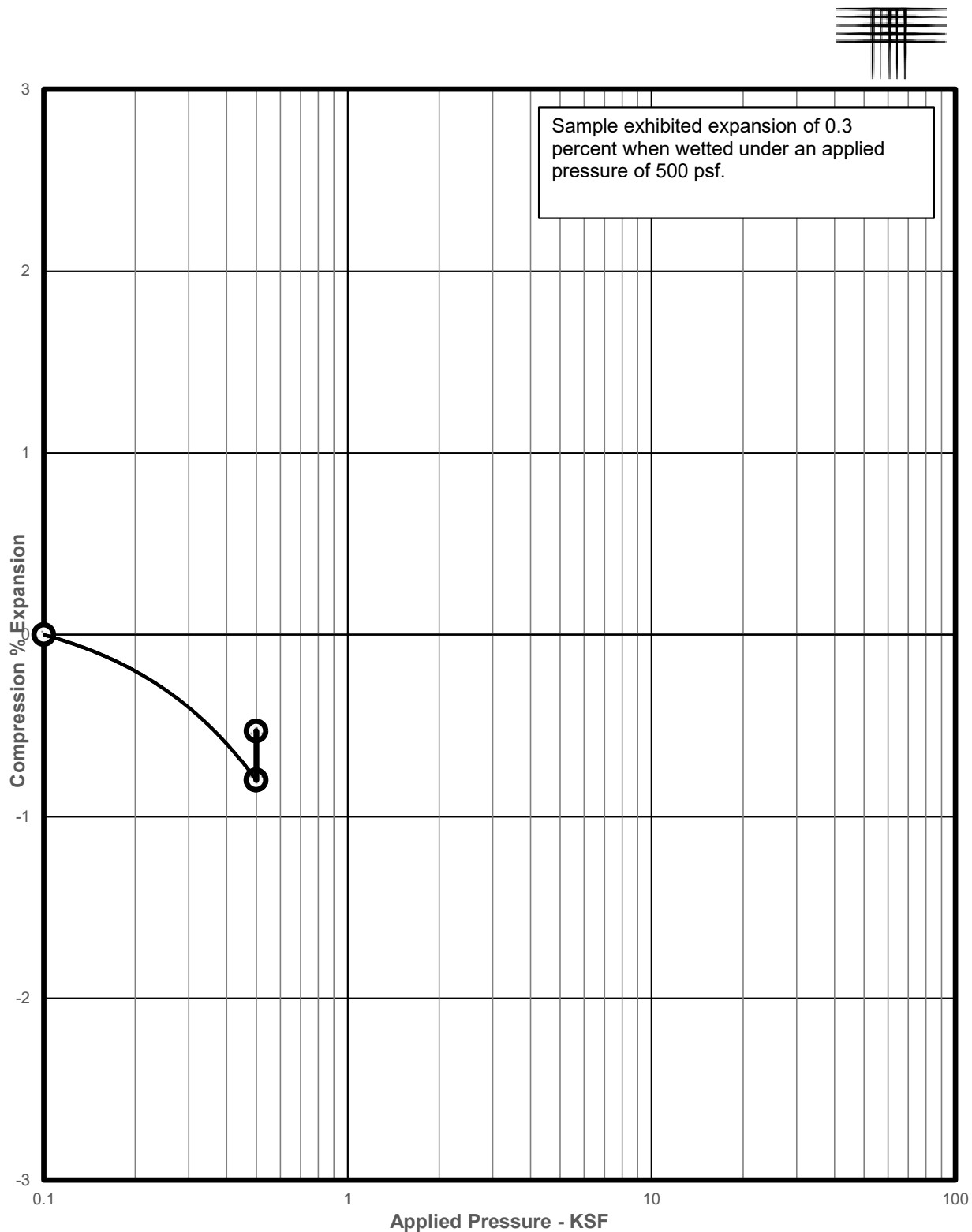


SAMPLE OF: CLAY, SANDY (CL)
FROM: TH-1 AT 9 FEET

DRY UNIT WEIGHT: 99 pcf
MOISTURE CONTENT: 26.3 %

MERRICK & COMPANY
CITY OF ARVADA SEWER LINE REPLACEMENT
CTLJT PROJECT NO. DN51,960-115-L1

**Swell Consolidation
Test Results** FIG. A- 1

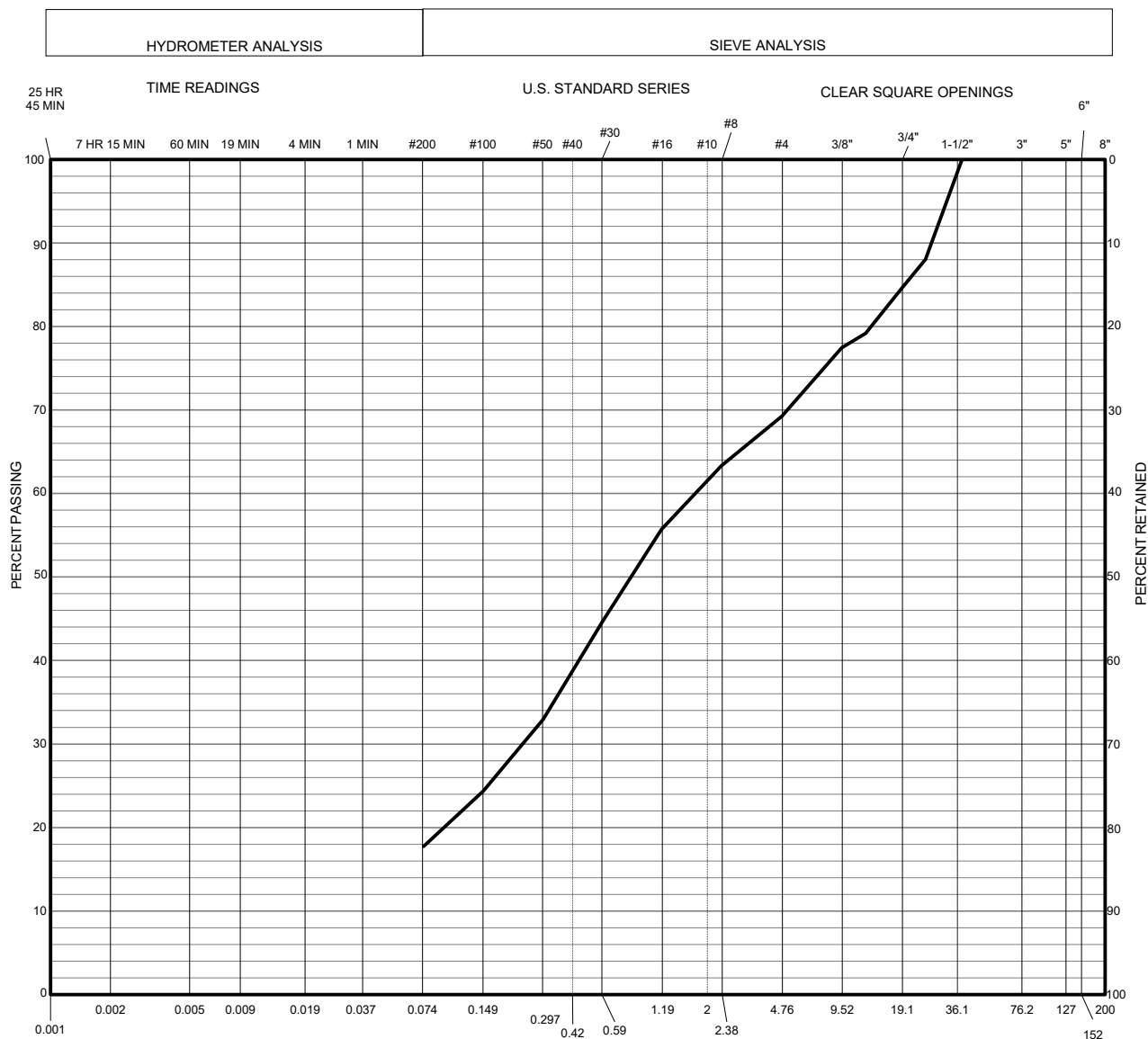
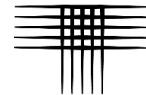


SAMPLE OF: CLAY, SANDY (CL)
 FROM: TH-4 AT 4 FEET

DRY UNIT WEIGHT: 105 pcf
 MOISTURE CONTENT: 20.0 %

MERRICK & COMPANY
 CITY OF ARVADA SEWER LINE REPLACEMENT
 CTLJT PROJECT NO. DN51,960-115-L1

**Swell Consolidation
 Test Results** FIG. A- 2



CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SANDS			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	COARSE	COBBLES

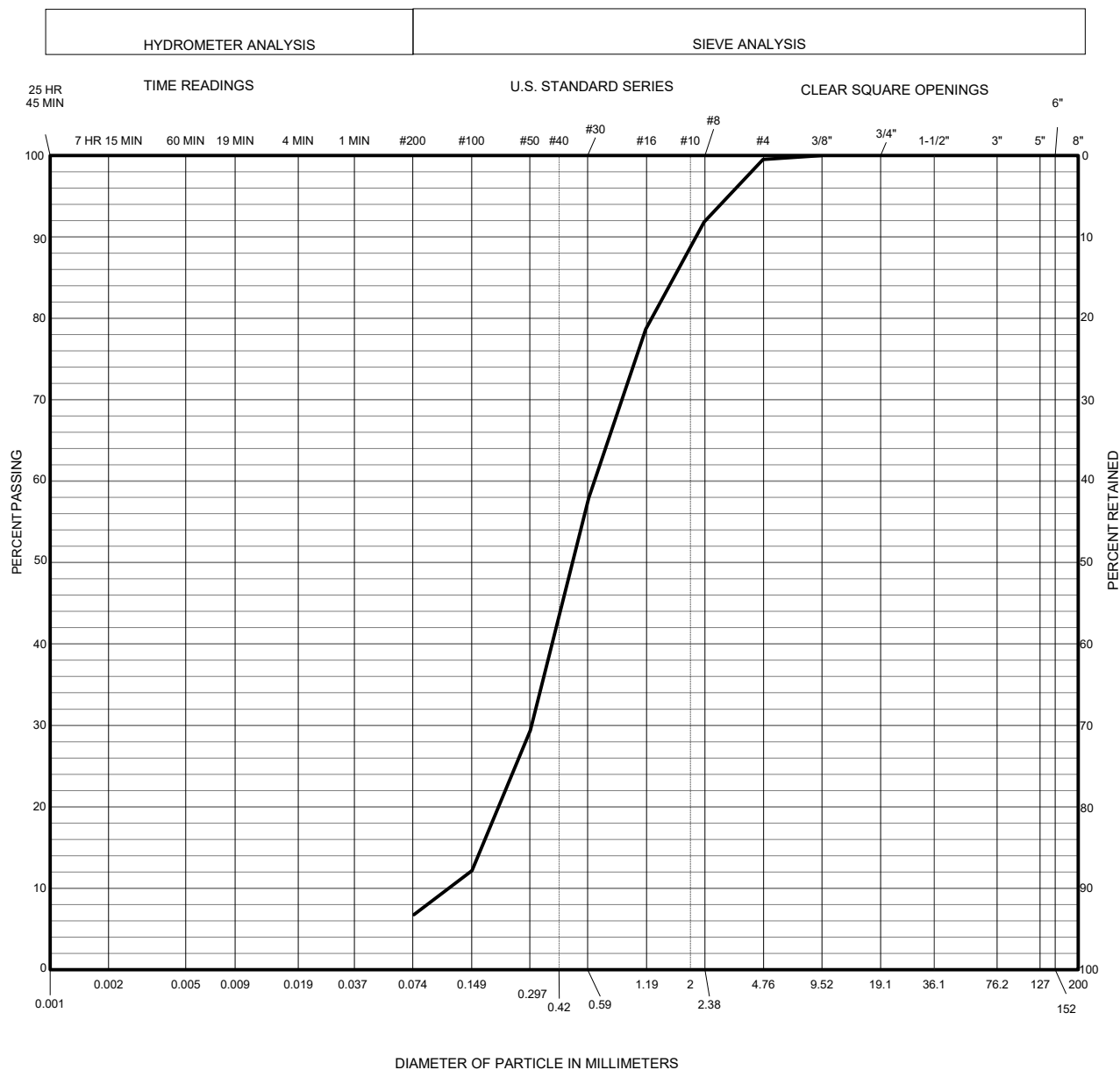
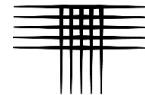
SAMPLE OF: SAND, CLAYEY, GRAVELLY (SC)
FROM: TH-2 AT 19 FEET

GRAVEL: 30.8%
SILT & CLAY: 17.7%
PLASTIC INDEX: -

SAND: 51.5%
LIQUID LIMIT: -

D10: -- D30: 0.248 D60: 1.847 CU: -- CC: --

Size (mm)	-	38.1	25.0	19.0	12.5	9.5	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-
% Passing	-	###	88.0	84.6	79.2	77.4	69.2	63.3	55.7	44.8	33.0	24.4	17.7	-	-	-	-	-



CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SANDS			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	COARSE	COBBLES

SAMPLE OF: SAND, CLEAN TO SLIGHTLY SILTY (SP-SM)
FROM: TH-4 AT 14 FEET

GRAVEL: 0.5%
SILT & CLAY: 6.8%
PLASTIC INDEX: -
SAND: 92.7%
LIQUID LIMIT: -

D10 0.120 D30 0.306 D60 0.658 CU 5.5 CC 1.2

Size (mm)	-	-	-	-	-	9.5	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-
% Passing	-	-	-	-	-	100.0	99.5	91.8	78.6	57.9	29.4	12.2	6.8	-	-	-	-	-



Questions & Answers

Buyer Organization	City of Arvada
Question Acceptance Deadline	01/29/2024 02:00 PM MST
Closing Date	02/06/2024 02:00 PM MST

No	Vendor Name	Question/Answer	Question Date Answer Date
Q1	Advanced Drainage Systems	Question: Sanitite HP Polypropylene Pipe (by <i>Jerome Magsino</i>) Will the City of Arvada allow ADS Sanitite HP per ASTM F2764 to be bid as an alternate to the PVC sanitary sewer pipe that is specified on the plans? Polypropylene pipe was previously allowed per Table 25.1 for Sanitary Sewer Pipe (Non-Pressure) of the 2016 Arvada Engineering Code of Standards and Specs. Public Answer: (by <i>Cheryl Dye</i>) At this time, the City will NOT be allowing the use of ADS Sanitite HP for this project.	01/18/2024 03:47 PM MST Ready for Publication
Q2	Colorado Civil Infrastructure, Inc	Question: Item 222 PP 10 of 40 (by <i>John Johnson</i>) Concerning item 222 page 10 of 40 what bid item for cleaning existing 21" sewer and installing new 8" Sewer to be used as a carrier pipe. Approx. length is to be used as a carrier pipe. Public Answer: (by <i>Cheryl Dye</i>) See pages 18-20 of the Construction Drawings for limits of where the 8" SS should be installed in a carrier pipe.	01/29/2024 11:28 AM MST Ready for Publication
Q3	American West Construction, LLC	Question: QC Testing (by <i>Mark Menke</i>) Who is responsible for the testing? Public Answer: (by <i>Cheryl Dye</i>) The City will be hiring a 3rd party to handle compaction and material testing for the project.	01/29/2024 12:19 PM MST Ready for Publication
Q4	American West Construction, LLC	Question: Irrigation (by <i>Mark Menke</i>) Are as-builts available of the irrigation system. So we can determine what we think the impact will be to the system. Public Answer: (by <i>Cheryl Dye</i>) See attached for the irrigation drawings in Davis Lane park (Question 4_Davis Lane Park - Irr.pdf)	01/29/2024 12:20 PM MST Ready for Publication
Q5	American West Construction, LLC	Question: Tennis Court (by <i>Mark Menke</i>) What is the expected thickness of the tennis court that is to be removed. Public Answer: (by <i>Cheryl Dye</i>) See attached drawing for the anticipated dimensions of the tennis court. Main slab thickness of 5in (Question 5_Davis Lane Tennis Court Drawings.pdf)	01/29/2024 12:22 PM MST Ready for Publication

No	Vendor Name	Question/Answer	Question Date Answer Date
Q6	American West Construction, LLC	Question: Warranty Period (by <i>Mark Menke</i>) Is there a warranty period, If so, how long? Public Answer: (by <i>Cheryl Dye</i>) See section 200 of the 2023 Arvada Engineering Code of Standards and Specs. Public improvement projects have a warranty period of 2 years.	01/29/2024 12:23 PM MST Ready for Publication
Q7	American West Construction, LLC	Question: Bypass Flows (by <i>Mark Menke</i>) What are the expected bypass flows? Public Answer: (by <i>Cheryl Dye</i>) See section 01 57 00 - 3.02 of the special provisions for expected dry weather and peak flows.	01/29/2024 12:27 PM MST Ready for Publication
Q8	American West Construction, LLC	Question: Tree Removal (by <i>Mark Menke</i>) Will and arborist be required for removing the trees? Public Answer: (by <i>Cheryl Dye</i>) Tree removal will not require an approved arborist. Any pruning of trees to remain in place will require an arborist that is approved by the City.	01/29/2024 12:30 PM MST Ready for Publication

No	Vendor Name	Question/Answer	Question Date Answer Date
Q9	Full Scope Civil Group LLC	Question: Questions for Central Ralston Trunk Line (by <i>James R Cromwell</i>) 1.)Will the City be open to consider work performed outside of the Front Range of Colorado for use within our statement of qualifications? 2.)Will the City be hiring a third party for materials and compaction testing? 3.)Can a list of contractors that attended the pre-bid be provided? 4.)What are the required parameters of the removal and replacement of asphalt within 71st Ave.? 5.)With regards to the slip line, can Certa-Flo PVC be an acceptable alternative to the restrained joint bell and spigot SDR35 for the carrier pipe. Public Answer: (by <i>Cheryl Dye</i>) 1) Minimum Qualifications will be amended to the following: "All qualification projects must have been completed with the past five years. At least two of the qualification projects submitted must be within the Front Range of Colorado, as defined as Fort Collins to Pueblo." 2) Yes 3) Yes, Included here in addendum 1 4) Yes, the attendance sheet is included in Addendum 1.. 5) Limits of paving are shown in attached exhibit (Question 9d_71st Ave. Paving Limits.pdf). Construction will need to meet the requirements of the Full Depth Asphalt in Section 930.00 of the 2023 Arvada Engineering Code of Standards and Specs. 6) "8-inch diameter Certa-Flo (or equivalent) PVC gravity sewer pipe with integral restrained joint bells is an acceptable alternative to the 8-inch diameter C900 PVC with bell restraint harnesses shown on the plans for carrier pipe installed within 21-inch and 27-inch casing pipe. The Contractor shall ensure customer service wye saddles, casing spacer skids, "M" Ring maintenance hole connector seals, and other applicable products are compatible with the provided carrier pipe OD. The pipe shall be capable of withstanding the installation pushing/pulling forces without damage to the pipe joint gasketed seals and watertightness integrity. The Certa-Flo (or equivalent) carrier pipe shall meet the following criteria: - Pipe Standard: ASTM D2241, ASTM D1784 PVC compound, Cell Class 12454 - Wall thickness: SDR 21 - Pipe Joints: ASTM D3212 - Gaskets: ASTM F477, NBR compound"	01/29/2024 01:07 PM MST Ready for Publication

No	Vendor Name	Question/Answer	Question Date
			Answer Date
Q10	Full Scope Civil Group LLC	Question: Questions for Central Ralston Trunk Line (by <i>James R Cromwell</i>) Does the City expect any need for frac tanks or treating of ground water? Was there a need for these items in the previous phase? Public Answer: (by <i>Cheryl Dye</i>) The contractor is expected to follow the requirements in the Project Special Provisions and the City Engineer Code of Standards and Specs in regards to coordination with CDPHE and the Water Quality Control Division for dewatering. Per section 31 23 19 - 3.04.D: "It is anticipated that stilling basins, geotextile dams, straw bales, silt fences, or siltation channels will be required to meet performance stipulations of the reference permits." If requirements beyond those listed are needed, then this will be negotiated with the selected contractor at that time.	01/29/2024 01:38 PM MST Ready for Publication

Twin Creek Homes Subdivision

7' strip
City of Arvada

contractor will locate and/or otherwise locate the existing drain pipe elevation and place irrigation mainline at the required depth by boring under the drain pipe. If necessary to achieve the required pipe coverage, lateral piping may be placed above the drain pipe if the lateral can be positioned a minimum of 12-inches below finished grade.

TELE
ELECT
CABLE

Tract A

94'

90'

north

1" = 40'

154

4 6L

already in

contractor is obligated to trench for pipe installations that avoid tree root zones as indicated by the legend on the irrigation plans. Where lateral lines are placed within the root zone (12" from existing tree trunks), the contractor may be allowed to hand dig around of roots. If contractor is not able to successfully avoid root damage greater than 1/2" in diameter by hand digging, the Project Manager will require the Contractor to bore under the root zone for lateral lines. However, where root zones are located within the path of irrigation main line, the contractor will not hand dig through the root zones. Instead the contractor will bore under these root zones for main line and install the installation.

contractor will directional-bore HDPE pipe into a position a minimum of 24 inches below the Layden Creek flowline where indicated on the plans

vehicular construction traffic is prohibited from using the Layden Creek low-water crossing will remain available for construction access until the construction is completed, though the contractor will remove trail connections leading to the crossing.

existing pond - contractor will not clean any tools into the pond or cross

existing pond - contractor will not clean any tools into the pond or cross

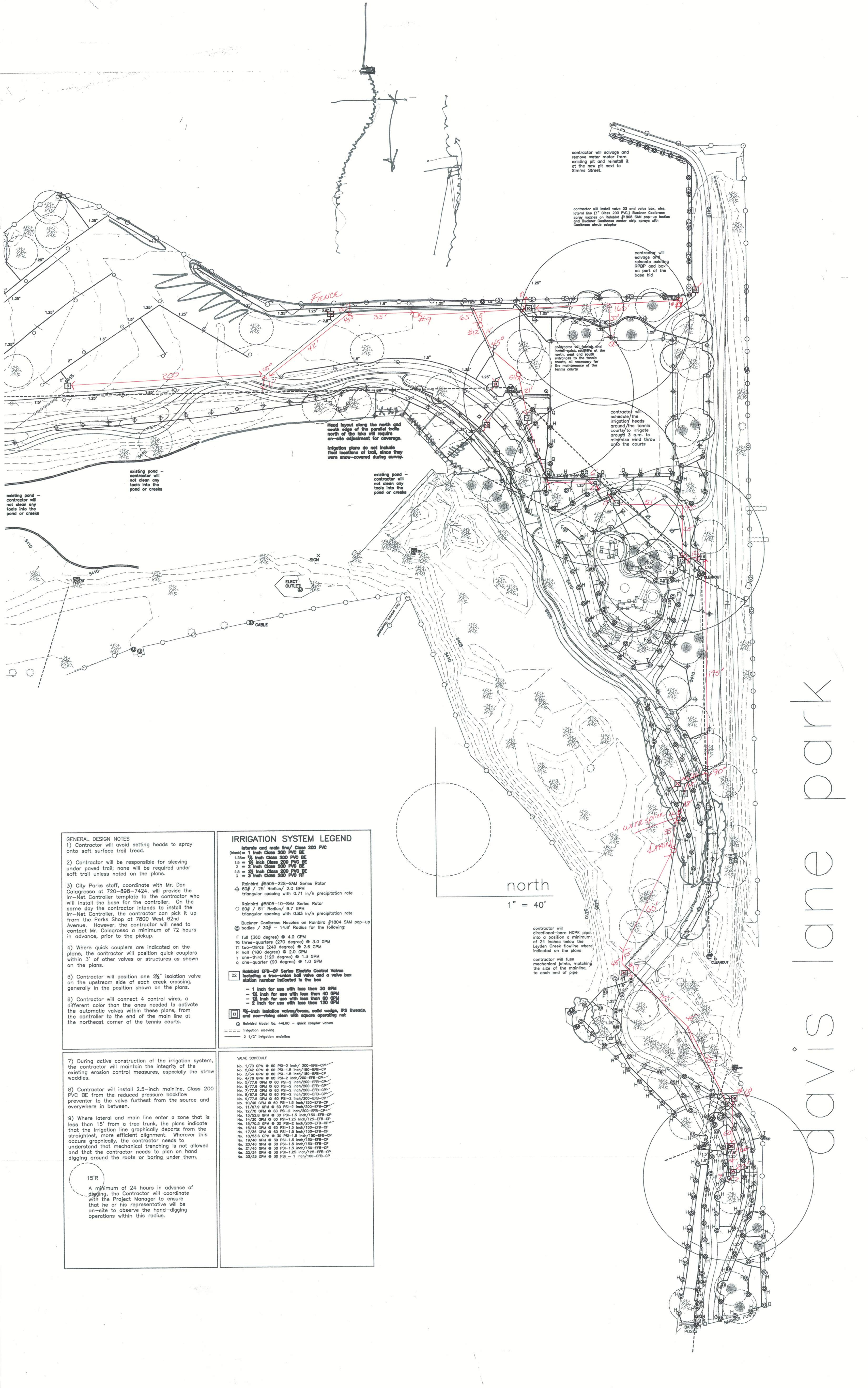
davis lane park

note: not shown 5/1/09 locates back

New Curb Stop

- tentative location of 12" AC water main
- existing 2" water meter will be salvaged and relocated within the park at the Simms Street edge of the project where indicated on the plans
- power for Motorola controller available at transformer
- providing and installing a new 4000 (master) flow unit, valve close to controller
- salvage and relocate RPB immediately downstream of the new pit and water meter location

17



GENERAL DESIGN NOTES

- 1) Contractor will avoid setting heads to spray onto soft surface trail tread.
- 2) Contractor will be responsible for sleeving under paved trail; none will be required under soft trail unless noted on the plans.
- 3) City Parks staff, coordinate with Mr. Dan Colagrosso at 720-898-7424, will provide the Irr-Net Controller template to the contractor who will install the base for the controller. On the same day the contractor intends to install the Irr-Net Controller, the contractor can pick it up from the Parks Shop at 7800 West 62nd Avenue. However, the contractor will need to contact Mr. Colagrosso a minimum of 72 hours in advance, prior to the pickup.
- 4) Where quick couplers are indicated on the plans, the contractor will position quick couplers within 3' of other valves or structures as shown on the plans.
- 5) Contractor will position one 2 1/2" isolation valve on the upstream side of each creek crossing, generally in the position shown on the plans.
- 6) Contractor will connect 4 control wires, a different color than the ones needed to activate the automatic valves within these plans, from the controller to the end of the main line at the northeast corner of the tennis courts.

- 7) During active construction of the irrigation system, the contractor will maintain the integrity of the existing erosion control measures, especially the straw wattles.
- 8) Contractor will install 2.5-inch mainline, Class 200 PVC BE from the reduced pressure backflow preventer to the valve furthest from the source and everywhere in between.
- 9) Where lateral and main line enter a zone that is less than 15' from a tree trunk, the plans indicate that the irrigation line graphically departs from the straightest, more efficient alignment. Wherever this occurs graphically, the contractor needs to understand that mechanical trenching is not allowed and that the contractor needs to plan on hand digging around the roots or boring under them.

15'R

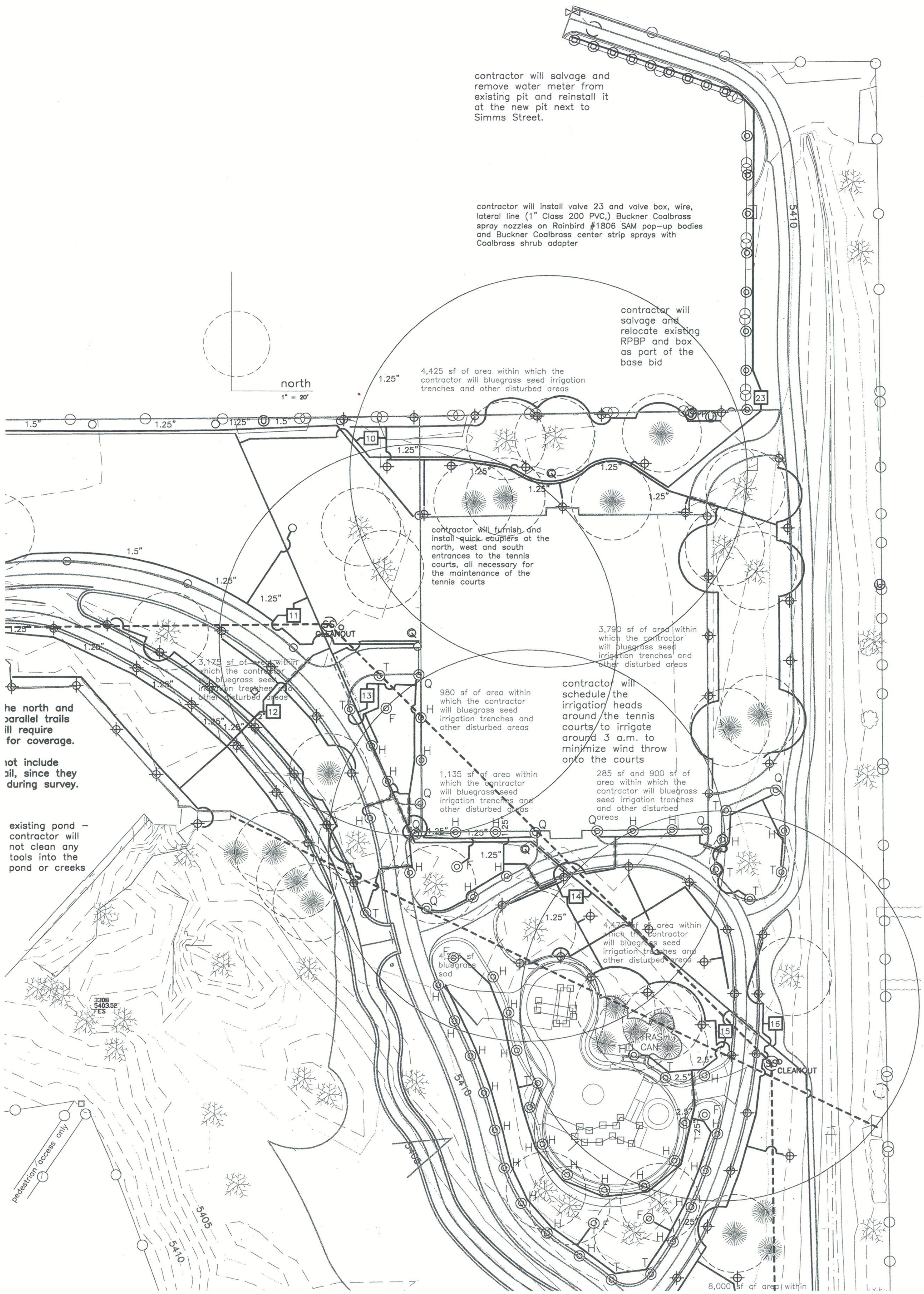
A minimum of 24 hours in advance of digging, the Contractor will coordinate with the Project Manager to ensure that he or his representative will be on-site to observe the hand-digging operations within this radius.

IRRIGATION SYSTEM LEGEND

- laterals and main line/ Class 200 PVC
- (blank) = 1 inch Class 200 PVC BE
 - 1.25" = 1 1/2 inch Class 200 PVC BE
 - 1.5" = 1 3/4 inch Class 200 PVC BE
 - 2" = 2 inch Class 200 PVC BE
 - 2.5" = 2 1/2 inch Class 200 PVC BE
 - 3" = 3 inch Class 200 PVC BE
- Rainbird #5505-225-SAM Series Rotor
- 60# / 25' Radius/ 2.0 GPM
 - triangular spacing with 0.71 in/h precipitation rate
- Rainbird #5505-10-SAM Series Rotor
- 60# / 51' Radius/ 9.7 GPM
 - triangular spacing with 0.83 in/h precipitation rate
- Buckner Coalsbress Nozzles on Rainbird #1804 SAM pop-up bodies / 30# - 14.6' Radius for the following:
- F full (360 degree) @ 4.0 GPM
 - Ta three-quarters (270 degree) @ 3.0 GPM
 - Tt two-thirds (240 degree) @ 2.6 GPM
 - H half (180 degree) @ 2.0 GPM
 - T one-third (120 degree) @ 1.3 GPM
 - Q one-quarter (90 degree) @ 1.0 GPM
- 22 Rainbird EFB-CP Series Electric Control Valves including a true-union ball valve and a valve box station number indicated in the box
- 1 inch for use with less than 30 GPM
 - 1 1/2 inch for use with less than 40 GPM
 - 2 inch for use with less than 60 GPM
 - 2 1/2 inch for use with less than 120 GPM
- 2 1/2-inch isolation valves/brass, solid wedge, IPS threads, and non-rising stem with square operating nut
- Rainbird Model No. 44LRC - quick coupler valves
- Irrigation sleeving
- 2 1/2" irrigation mainline

VALVE SCHEDULE

- No. 1/70 GPM @ 60 PSI - 2 inch/ 200-EPB-CP
- No. 2/42 GPM @ 60 PSI - 1.5 inch/150-EPB-CP
- No. 3/34 GPM @ 60 PSI - 1.5 inch/150-EPB-CP
- No. 4/78 GPM @ 60 PSI - 2 inch/200-EPB-CP
- No. 5/77.5 GPM @ 60 PSI - 2 inch/200-EPB-CP
- No. 6/77.5 GPM @ 60 PSI - 2 inch/200-EPB-CP
- No. 7/77.5 GPM @ 60 PSI - 2 inch/200-EPB-CP
- No. 8/77.5 GPM @ 60 PSI - 2 inch/200-EPB-CP
- No. 9/77.5 GPM @ 60 PSI - 2 inch/200-EPB-CP
- No. 10/48 GPM @ 60 PSI - 1.5 inch/150-EPB-CP
- No. 11/87.5 GPM @ 60 PSI - 2 inch/200-EPB-CP
- No. 12/70 GPM @ 60 PSI - 1.5 inch/150-EPB-CP
- No. 13/52.5 GPM @ 60 PSI - 1.5 inch/150-EPB-CP
- No. 14/30 GPM @ 60 PSI - 1.25 inch/125-EPB-CP
- No. 15/70.5 GPM @ 30 PSI - 2 inch/200-EPB-CP
- No. 16/44 GPM @ 60 PSI - 1.5 inch/150-EPB-CP
- No. 17/38 GPM @ 60 PSI - 1.5 inch/150-EPB-CP
- No. 18/53.6 GPM @ 30 PSI - 1.5 inch/150-EPB-CP
- No. 19/48 GPM @ 30 PSI - 1.5 inch/150-EPB-CP
- No. 20/48 GPM @ 30 PSI - 1.5 inch/150-EPB-CP
- No. 21/48 GPM @ 30 PSI - 1.5 inch/150-EPB-CP
- No. 22/34 GPM @ 30 PSI - 1.25 inch/125-EPB-CP
- No. 23/25 GPM @ 30 PSI - 1 inch/100-EPB-CP



contractor will salvage and remove water meter from existing pit and reinstall it at the new pit next to Simms Street.

contractor will install valve 23 and valve box, wire, lateral line (1" Class 200 PVC), Buckner Coalgrass spray nozzles on Rainbird #1806 SAM pop-up bodies and Buckner Coalgrass center strip sprays with Coalgrass shrub adapter

contractor will salvage and relocate existing RBPB and box as part of the base bid

4,425 sf of area within which the contractor will bluegrass seed irrigation trenches and other disturbed areas

contractor will furnish and install quick couplers at the north, west and south entrances to the tennis courts, all necessary for the maintenance of the tennis courts

3,790 sf of area within which the contractor will bluegrass seed irrigation trenches and other disturbed areas

contractor will schedule the irrigation heads around the tennis courts to irrigate around 3 a.m. to minimize wind throw onto the courts

980 sf of area within which the contractor will bluegrass seed irrigation trenches and other disturbed areas

1,135 sf of area within which the contractor will bluegrass seed irrigation trenches and other disturbed areas

285 sf and 900 sf of area within which the contractor will bluegrass seed irrigation trenches and other disturbed areas

4,425 sf of area within which the contractor will bluegrass seed irrigation trenches and other disturbed areas

4,425 sf of area within which the contractor will bluegrass seed irrigation trenches and other disturbed areas

8,000 sf of area within

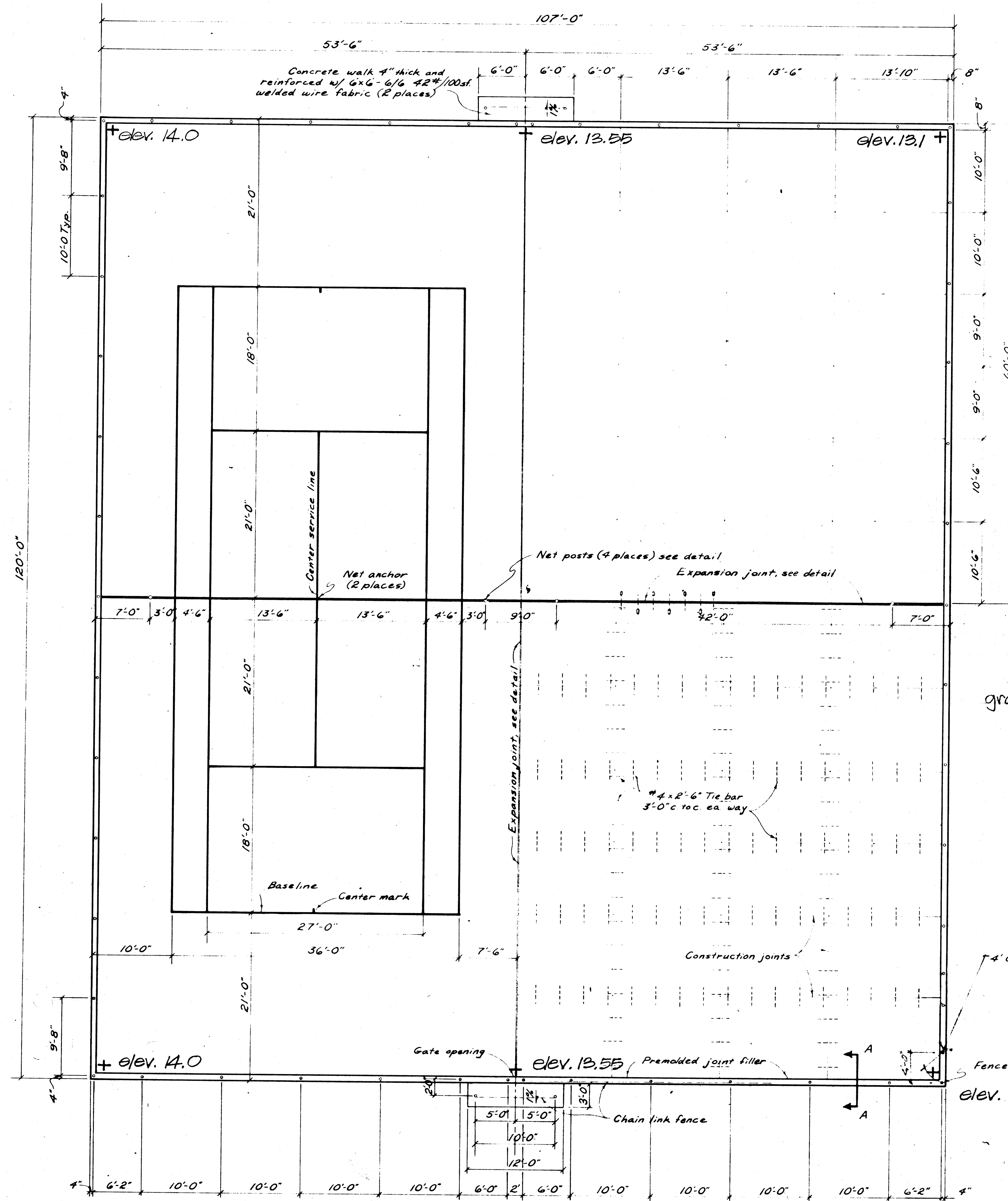
the north and parallel trails will require for coverage.

not include soil, since they during survey.

existing pond - contractor will not clean any tools into the pond or creeks

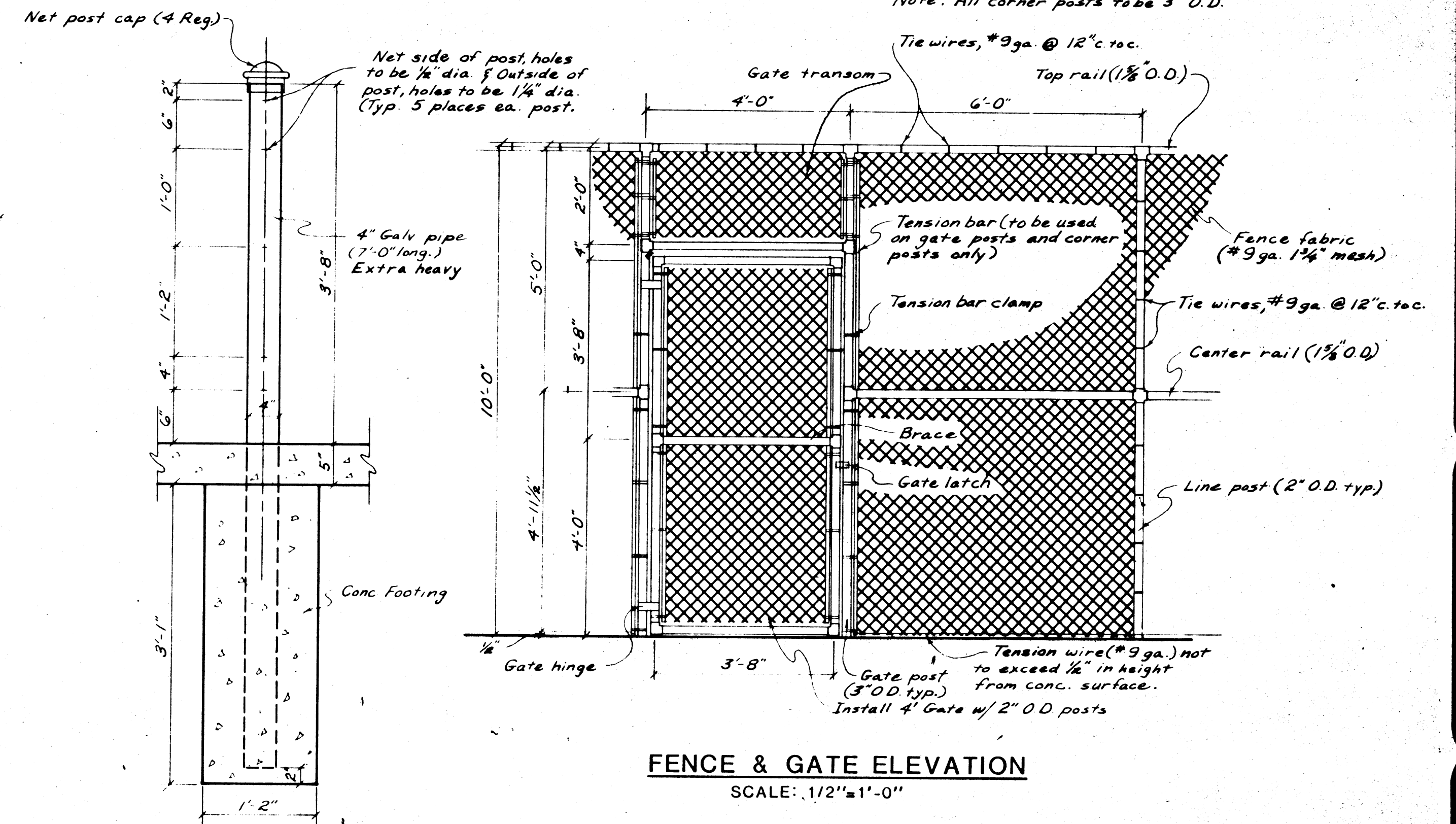
1,355.75

Note: Location of construction joints are typical in each quadrant.



PLAN VIEW TENNIS COURTS

SCALE: 1"=8'-0"

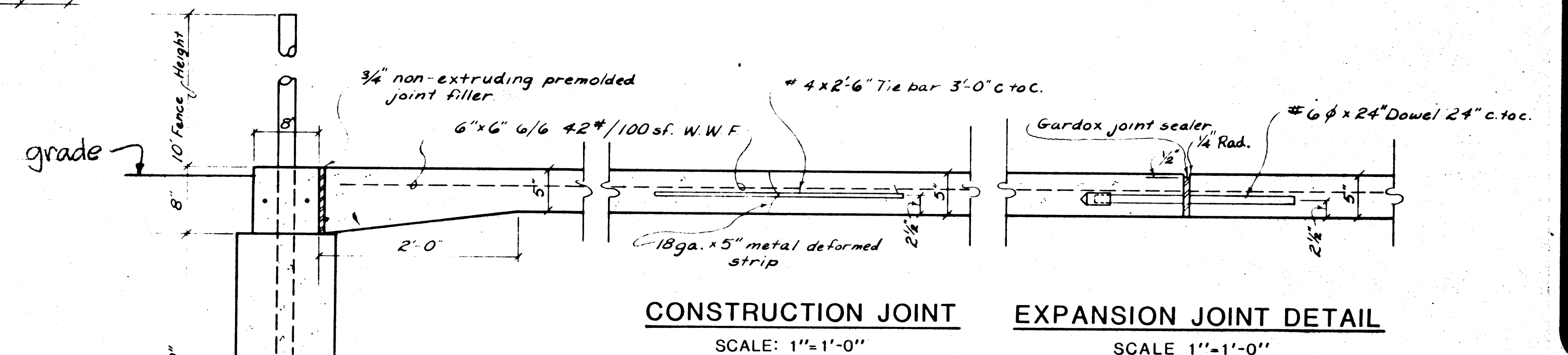


FENCE & GATE ELEVATION

SCALE: 1/2"=1'-0"

NET POST

SCALE: 1"=1'-0"



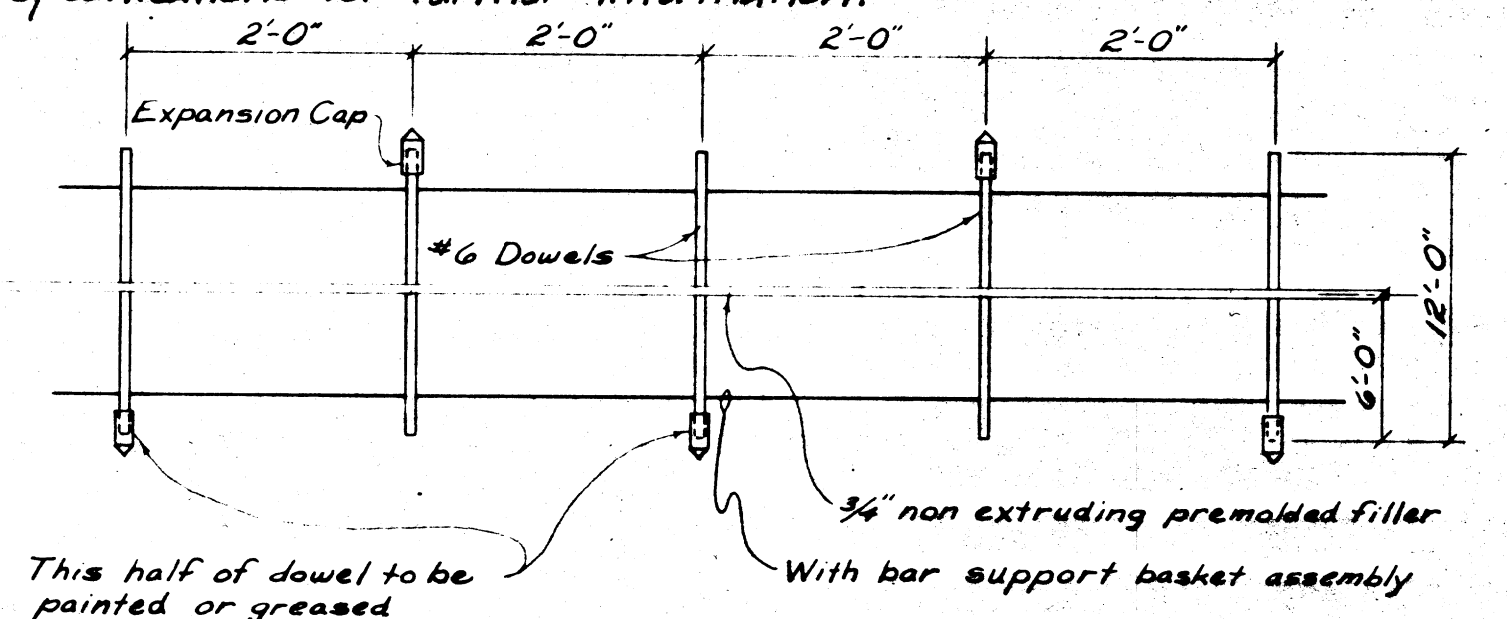
CONSTRUCTION JOINT

SCALE: 1"=1'-0"

EXPANSION JOINT DETAIL

SCALE: 1"=1'-0"

- Notes:
- See specifications for striping of paint for tennis court.
 - Markings: Center mark 4" long by 2" wide from center to each base line into court. Center service line 2" wide, all others to be 1/4" wide, except base lines which may be 2" wide.
 - See specifications for tennis net manufacturer.
 - Alternate No. 2 consists of etaping the tennis court surface with Kemiko Colp-Tone as manufactured by Kemiko, Inc. See specifications for further information.

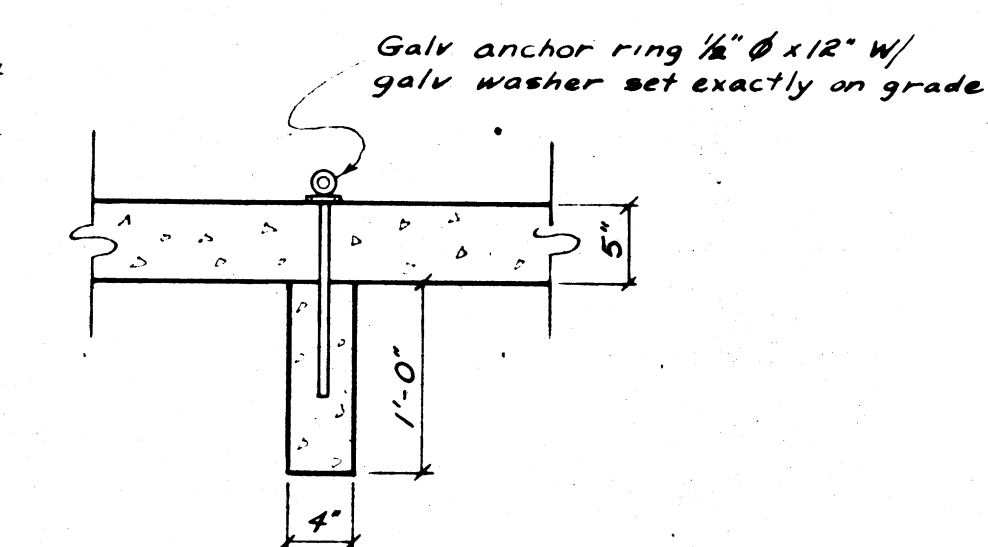


PLAN VIEW EXPANSION JOINT

SCALE: 3/4"=1'-0"

SECTION A-A

SCALE: 1"=1'-0"



CENTER NET ANCHOR

SCALE: 1"=1'-0"

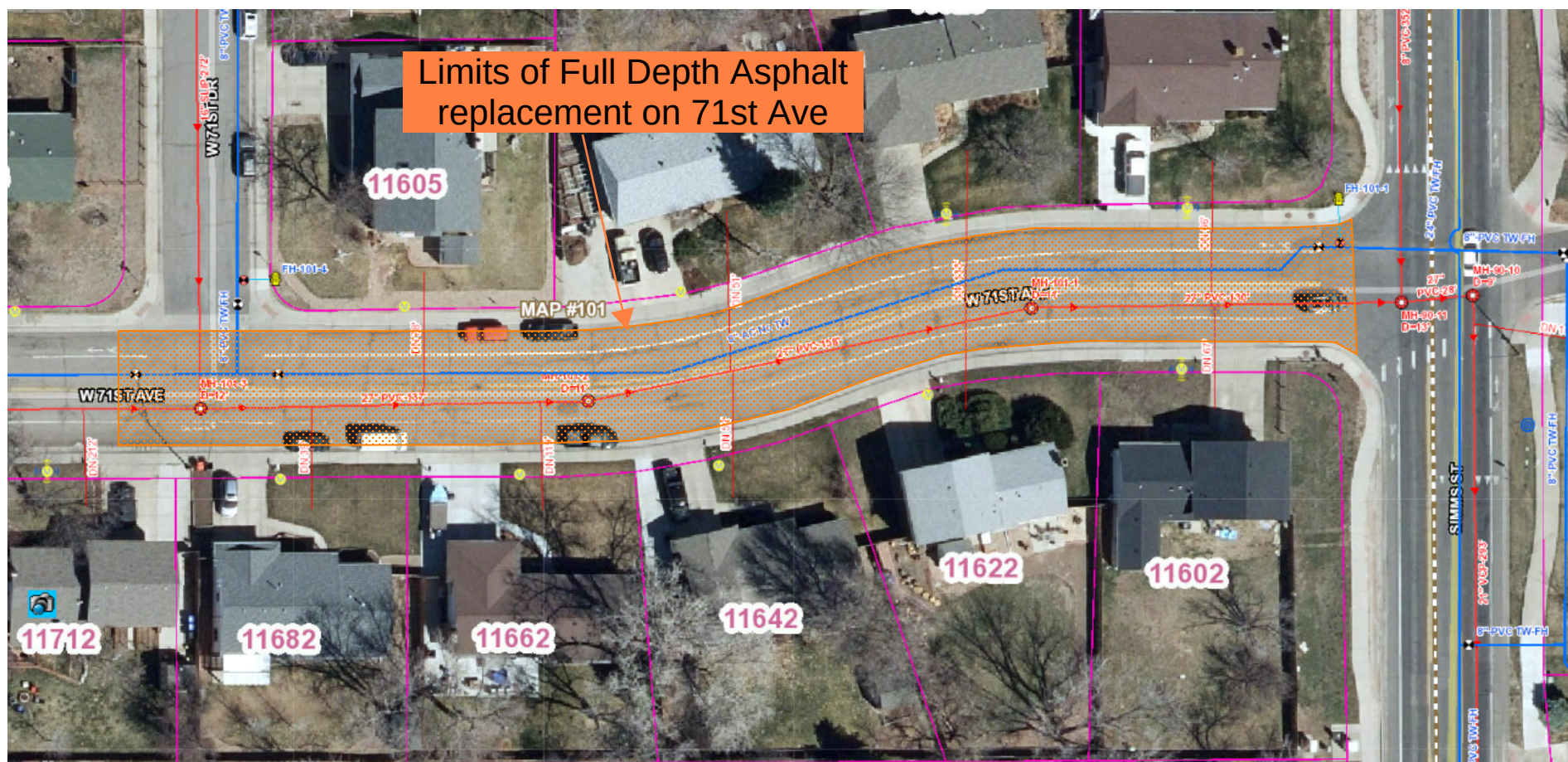
Drawn E. STANLEY
Checked
Revised

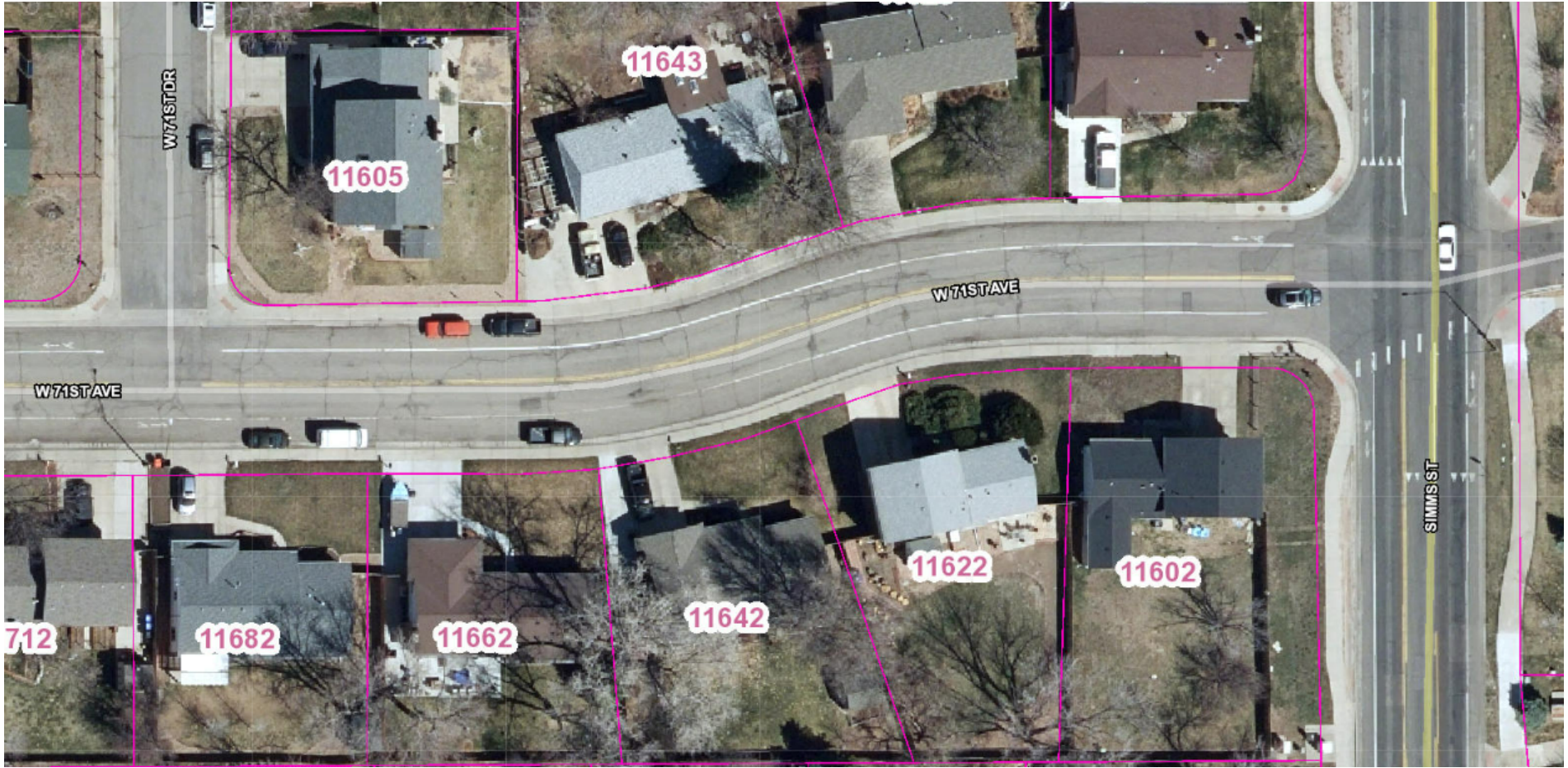
Park Project No. 29
case granada park
near 20th Avenue and Adams Street
Aurora, Colorado

Sheet Title
tennis court layout

Sheet
9
of 9

oblinger-smith
corporation
1221 University Building
910 16th Street
Denver, Colorado 80202
303-733-1880





November 30, 2023

Merrick & Company
2480 West 26th Avenue, B225
Denver, Colorado 80211

Attention: Andre Wolff, PE, ENV SP

Subject: Preliminary Geotechnical Investigation
City of Arvada Sewer Line Replacement
Arvada, Colorado
Project No. DN51,960-115-L1

CTL|Thompson, Inc. (CTL|T) completed a Preliminary Geotechnical Investigation for the proposed replacement of the City of Arvada sewer line in Arvada, Colorado. We understand approximately 2,600 lineal feet of sewer line will be replaced. The purpose of our investigation was to provide preliminary geotechnical design and construction criteria for the project including the merits of dewatering and temporary excavation support. The scope of service was described in our Proposal (DN 23-0127R) dated April 23, 2023 and revised on October 19, 2023.

INVESTIGATION

We investigated subsurface conditions on September 29, 2023 by drilling and sampling four borings and installing temporary groundwater measuring wells at the approximate locations shown on Fig. 1. We determined the approximate boring locations and elevations using a Leica GS18 GPS unit referencing the North American Datum of 1983 (NAD83). Prior to drilling, we contacted the Utility Notification Center of Colorado to mark the presence of buried utilities in the vicinity of the boring locations. We also submitted a completed copy of the State of Colorado's Notice of Intent form for temporary well construction. The state accepted the Notice of Intent.

The borings were drilled and sampled to depths of 20 to 25 feet below the existing ground surface using 3-inch or 4-inch diameter, continuous-flight solid stem auger powered by limited access or truck-mounted drill rigs. Samples were obtained at approximate 5-foot intervals using a 2.0-inch diameter (O.D.) split-spoon sampler or a 2.5-inch diameter (O.D.) modified California barrel sampler driven by blows of a 140-pound automatic hammer falling 30 inches. Bulk samples of auger cuttings were also obtained. Graphical logs of the borings, including results of field penetration resistance tests and a portion of the laboratory test data, are presented on Fig. 2.



Samples obtained during drilling were returned to our laboratory where they were examined, classified and assigned testing. Laboratory tests included moisture content, dry density, particle size analysis (gradation, hydrometer, and percent passing a No. 200 sieve), Atterberg limits, swell-consolidation, and water-soluble sulfate concentration. Swell-consolidation tests were performed by wetting the samples under approximate overburden pressure (the pressure exerted by the overlying soils). Results of laboratory tests are presented in Appendix A.

SUBSURFACE CONDITIONS

Strata encountered in the borings consisted of about 14 to 25 feet of native sandy clay and clean to clayey sand and gravel underlain by claystone bedrock to the maximum explored depth of 25 feet. Some pertinent engineering characteristics of the soil and bedrock are described in the following paragraphs.

Sandy clay and/or clean to clayey sand and gravel were encountered at the ground surface in all the borings. Interlayered sandy clay and clayey sand was encountered in two borings (TH-1 and TH-4). The clay was medium stiff to stiff and the sand/gravel was very loose to medium dense. One clay sample did not swell and one swelled 0.3 percent when wetted. Two clay samples contained 65 and 70 percent silt- and clay-sized particles and exhibited low to moderate plasticity with liquid limits of 37 and 38 and plasticity indices of 14 and 24, respectively. Two interlayered clay/sand contained 47 and 49 percent fines and exhibited moderate plasticity, with one containing 21 percent clay-sized particles (less than about 2 microns). Four sand samples contained 7 to 32 percent fines and with two samples containing nil to 31 percent gravels (retained on the No. 4 sieve).

Claystone was encountered in one boring (TH-3) at a depth of about 14 feet below existing grade. The claystone is considered medium hard to very hard.

Groundwater was encountered during drilling in all borings at depths of about 7 to 14 feet below existing grades. When checked after drilling, groundwater was measured in all borings at depths from about 4 to 12.5 feet. Groundwater is expected to be encountered in excavations during construction. Groundwater will likely fluctuate seasonally and may rise in response to development, precipitation, landscape irrigation and changes in land-use. Dewatering should be planned for excavations that will bottom about 3 feet above the measured groundwater levels.

RECOMMENDATIONS

Excavations

We believe the soils encountered in our exploratory borings can generally be excavated with conventional, heavy-duty excavation equipment. We recommend the owner and the contractor become familiar with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench



Safety Standards. Based on our investigation and OSHA standards, we anticipate the sand and gravel will likely classify as Type C soil and the clay and claystone as Type B. Based on OSHA regulations, a maximum slope inclination of 1.5:1 (horizontal to vertical) is required for Type C soils and 1:1 is required for Type B for temporary excavations in dry conditions. Flatter slopes will be necessary where water seepage is present. Excavation slopes specified by OSHA are dependent upon soil types and groundwater conditions encountered. The contractor's "competent person" is required to identify the soils encountered in the excavations and refer to OSHA standards to determine appropriate slopes. Stockpiles of soils and construction equipment should not be placed within a horizontal distance equal to one-half the excavation depth, from the edge of the excavation.

Temporary Shoring and Bracing

The proximity of property boundaries and existing structures to the proposed pipe alignment may require the use of full-depth or partial-depth temporary excavation support systems. The civil engineer should decide if temporary excavation support systems are required based evaluation of the depth and extents of the trench along with anticipated excavation slope inclinations cited previously. If the estimated crest of the excavation will be within about 8 feet of an existing structure, then temporary excavation support systems should be used.

Bracing or "trench box" construction may be necessary in order to limit the width of excavations and reduce the amount of surface disturbance. Bracing systems include driven sheet piling, soldier piles and lagging and others. Lateral loading of bracing depends on the depth of excavation, slope of excavation above the bracing, soil stockpiles and other surface loads, hydrostatic pressures, and allowable movement. Shoring or sheetpiling will be needed where trench excavations are too deep for trench boxes. The stability of the excavation will be marginal in areas with sand and gravel and groundwater; shoring and/or sheetpiling and dewatering will be needed. Sheetpiling should be used in areas where groundwater is encountered, especially where clean sand and gravel are present.

For bracing allowed to move enough to mobilize the strength of the soils with associated settlement and cracking of the ground surface, "active" earth pressure conditions are appropriate for design. If movement is not tolerable, "at rest" earth pressures are appropriate. Lateral loads can be calculated using the equivalent fluid densities in the table below. Surcharge loads have not been factored and should be accounted for, where applicable.



LATERAL EQUIVALENT FLUID DENSITIES

CONDITION	CLAY	SAND
"Active" Equivalent Fluid Density (pcf)	55 (90 including hydrostatic)	40 (85 including hydrostatic)
"At Rest" Equivalent Fluid Density (pcf)	75 (100 including hydrostatic)	60 (85 including hydrostatic)
"Passive" Equivalent Fluid Density (pcf)*	275 (200 including hydrostatic)	350 (230 including hydrostatic)

*Assumes compacted backfill will never be removed.

Dewatering

Dewatering shallow excavations in clayey soils can usually be accomplished using sump-and-pump methods and diverting water in trenches. Dewatering of sand deposits may require high-capacity pumps but can likely be accomplished via sump-and-pump methods for excavations that penetrate just a few feet into water. Sloped excavations in sand and gravel that will penetrate more than about 2 feet into groundwater should be dewatered using a well point system. If temporary shoring and bracing systems are used, then dewatering of sands and gravels via sump-and-pump methods, and no well points, can be considered in excavations that penetrate deeper than 2 feet below groundwater.

Sumps should bottom at least 3 feet below the bottom of the excavations to pump water down through the soil rather than up through the bottom of the excavation. Pumping water up through the base of the excavation will likely result in destabilization of the base of the excavation. Discharge locations and volumes will need to be considered. Additionally, dewatering efforts need to be monitored to avoid conditions where seepage exit velocities could destabilize the soil surface. Excavation slope sloughing and caving could occur in sandy soils dewatered via sump-and-pump methods. Also, adjacent areas should be sloped to avoid runoff into the excavation. The means and methods of dewatering are the responsibility of the contractor.

The Colorado Department of Health and Environment requires a dewatering permit to discharge dewatered surface water, groundwater, and/ or stormwater. The results of environmental sampling and testing of groundwater for contamination must be submitted with the permit application. If the groundwater is contaminated, then a special permit is necessary along with an on-site water treatment system. Periodic environmental testing of dewatered groundwater should be anticipated to satisfy the dewatering permit.

Pipe Bedding

Piping is normally bedded in manufactured granular material in accordance with the pipe manufacturer specifications. We believe that pipe bedding consisting



of material that conforms to local design and construction requirements will meet typical requirements. Angular crushed rock, conforming to CDOT No. 67 rock specifications, is usually acceptable bedding material. Squeegee or sand is not considered acceptable bedding material for larger diameter pipes (12 inches or greater). Maximum particle size depends on selected piping material according to ASTM and AWWA and should be verified with the pipe manufacturer. We do not recommend the natural soils be used as bedding material unless they can be processed to meet recommended standards. We recommend bedding material thickness and compaction meet current specifications and confirmed with the pipe manufacturer.

Research (primarily for rigid pipe) has shown placement of pipe bedding in a looser state (for example 85 percent of standard Proctor maximum dry density) will result in a more uniform stress distribution along the bottom of the pipe. The looser bedding appears to allow enough movement of the pipe to develop support pressure in the haunch area. Typically, this results in a reduction of stress concentrations and reduced damage to the pipe. However, not all municipal guidelines allow this method.

Fill and Backfill

The on-site soils are suitable for reuse as new fill, provided they are free of debris, vegetation/organics and other deleterious materials. Soils excavated below groundwater will likely require drying to reuse as backfill. The sand should dry comparatively quickly, and the clay will unlikely dry within the duration of construction. Import soil can be used in lieu of drying. It may also be possible to blend drying agents into wet soils so they can be reused. Soil particles and clay clods should be processed to a maximum diameter no larger than 3 inches. Import fill (if needed) should ideally consist of similar composition of the on-site soils. Potential fill materials should be submitted to our office for approval prior to importing.

Prior to fill placement, the surface should be stripped of topsoil and vegetation. The surface to be filled should be moisture-conditioned, and compacted to the criteria below. Subsequent fill should be placed in thin (6 inches or less) loose lifts, moisture-conditioned to between optimum to 3 percent above optimum for clay or within 2 percent of optimum moisture content for sand, and compacted to at least 95 percent of standard Proctor maximum dry density (ASTM D 698). Where trench backfill is placed within the public right-of-way, jurisdictional compaction requirements should be followed.

Our experience indicates fill and backfill can settle, even if properly compacted to criteria provided above. Factors that influence the amount of settlement are depth of fill, material type, degree of compaction, amount of wetting and time. The degree of compression of fill under its own weight will likely range from low for granular soils ($\frac{1}{2}$ percent or less) to moderate for clay/sand mixtures (1 to 2 percent) to high (more than 2 percent) for high-plasticity clay. If settlement is a concern, then flowable fill should be used.



CONSTRUCTION OBSERVATIONS

We recommend that CTL|Thompson, Inc. provide construction observation services to allow us the opportunity to verify whether soil conditions are consistent with those found during this investigation. Other observations are recommended to review general conformance with design plans. If other perform these observations, they must accept responsibility to judge whether the recommendations in this report remain appropriate.

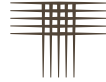
GEOTECHNICAL RISK

The concept of risk is an important aspect with any geotechnical evaluation primarily because the methods used to develop geotechnical recommendations do not comprise an exact science. We never have complete knowledge of subsurface conditions. Our analysis must be tempered with engineering judgment and experience. Therefore, the recommendations presented in any geotechnical evaluation should not be considered risk-free. Our recommendations represent our judgment of those measures that are necessary to increase the chances that the improvements will perform satisfactorily. It is critical that all recommendations in this report are followed during construction. Owners must assume responsibility for maintaining the improvements.

LIMITATIONS

This letter has been prepared for the exclusive use of Merrick & Company and your team for the purpose of providing geotechnical design and construction criteria for the proposed project. The information, conclusions, and recommendations presented herein are based upon consideration of many factors including, but not limited to, the type of construction proposed, the geologic setting, and the subsurface conditions encountered. The conclusions and recommendations contained in the letter are not valid for use by others. Standards of practice evolve in the area of geotechnical engineering. The recommendations provided are appropriate for about three years. If the proposed construction is not performed within about three years, we should be contacted to determine if we should update this letter.

Our borings were widely spaced to obtain a reasonably accurate picture of the subsurface conditions. Variations in the subsurface conditions not indicated by our borings are possible. We believe this investigation was conducted with that level of skill and care ordinarily used by geotechnical engineers practicing under similar conditions. No warranty, express or implied, is made.



If we can be of further service in discussing the contents of this letter or in the analysis of the influence of subsoil conditions on design of the structures, please call.

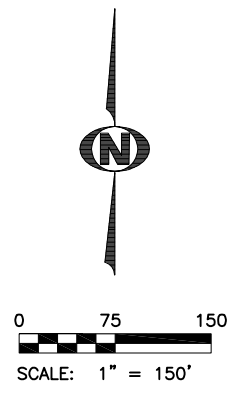
CTL|THOMPSON, INC.

Javier Avitia-Herrera, E.I.T.
Staff Engineer

Reviewed by:

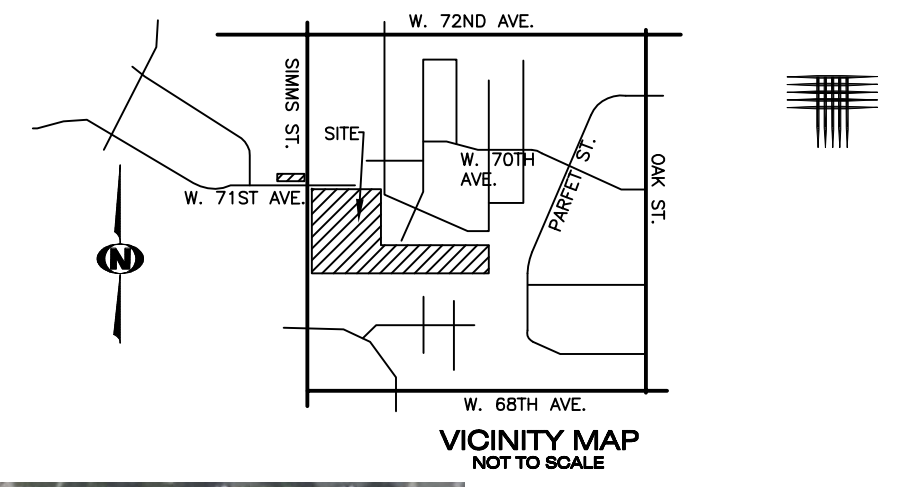
Erin C. Bouchet, P.E., P.G.
Associate, Denver Engineering Manager

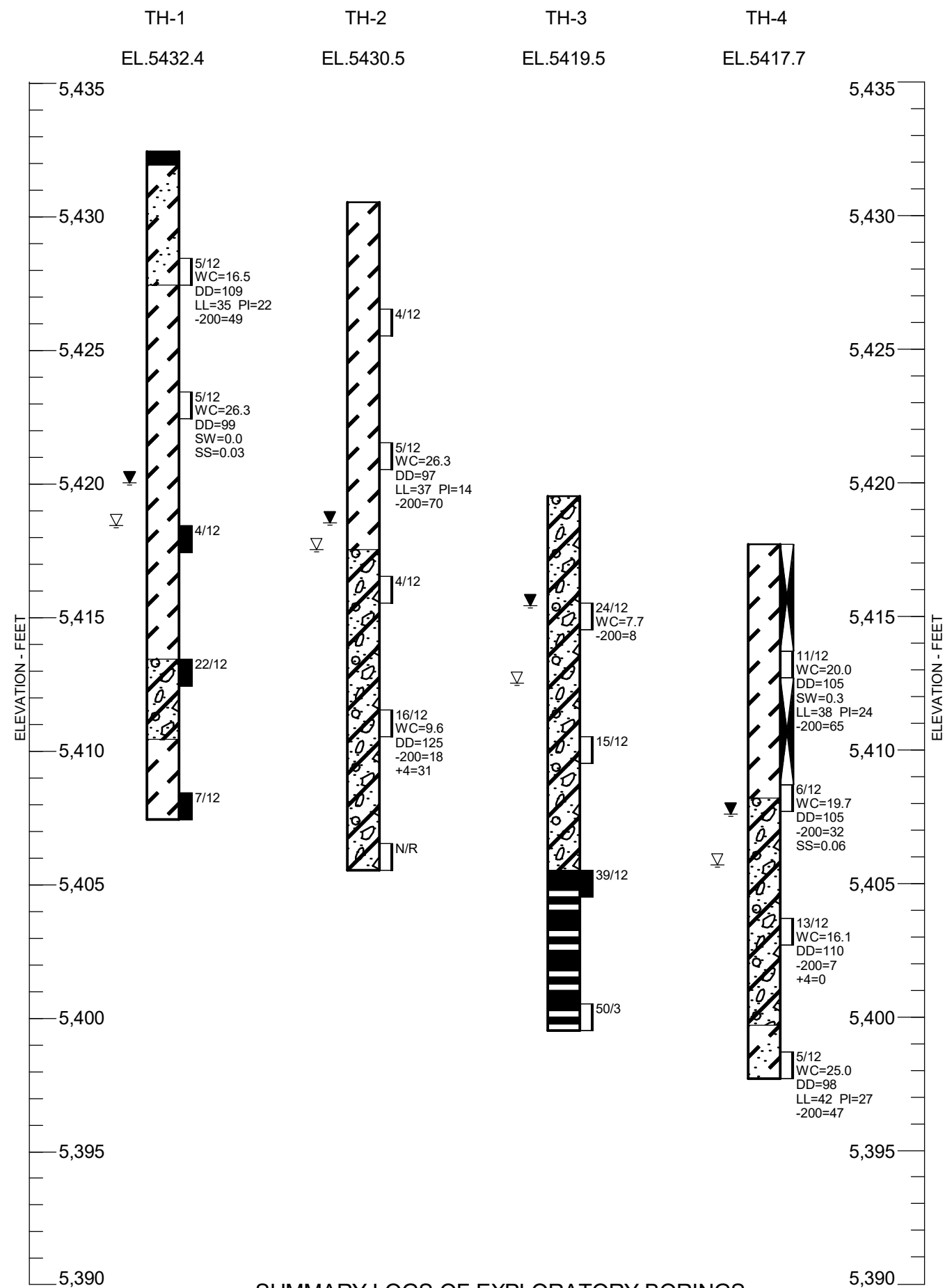
Via e-mail: andre.wolff@merrick.com
julie.koehler@merrick.com



LEGEND:

TH-1 ● APPROXIMATE LOCATION OF EXPLORATORY BORING





LEGEND:

- ASPHALT.
- CLAY, SANDY, MEDIUM STIFF TO STIFF, MOIST TO WET, BROWN, DARK BROWN, BLACK (CL).
- INTERLAYERED CLAY/SAND, MEDIUM STIFF OR LOOSE, MOIST TO WET, BROWN, DARK BROWN, BLACK (CL OR SC).
- SAND AND GRAVEL, CLEAN TO CLAYEY, LOOSE TO MEDIUM DENSE, VERY MOIST TO WET, BROWN, DARK BROWN, TAN, BLACK, PINK (SP, SP-SM, SM, GC, GP, GP-GM, GC, GM).
- BEDROCK, CLAYSTONE, MEDIUM HARD TO VERY HARD, MOIST, BROWN, TAN, DARK BROWN, RUST.
- DRIVE SAMPLE. THE SYMBOL 5/12 INDICATES 5 BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES WERE REQUIRED TO DRIVE A 2.5-INCH O.D. SAMPLER 12 INCHES.
- DRIVE SAMPLE. THE SYMBOL 4/12 INDICATES 4 BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES WERE REQUIRED TO DRIVE A 2.0-INCH O.D. SAMPLER 12 INCHES.
- INDICATES BULK SAMPLE OBTAINED FROM AUGER CUTTINGS.
- WATER LEVEL MEASURED AT TIME OF DRILLING.
- WATER LEVEL MEASURED AFTER DRILLING ON OCTOBER 8, 2023.

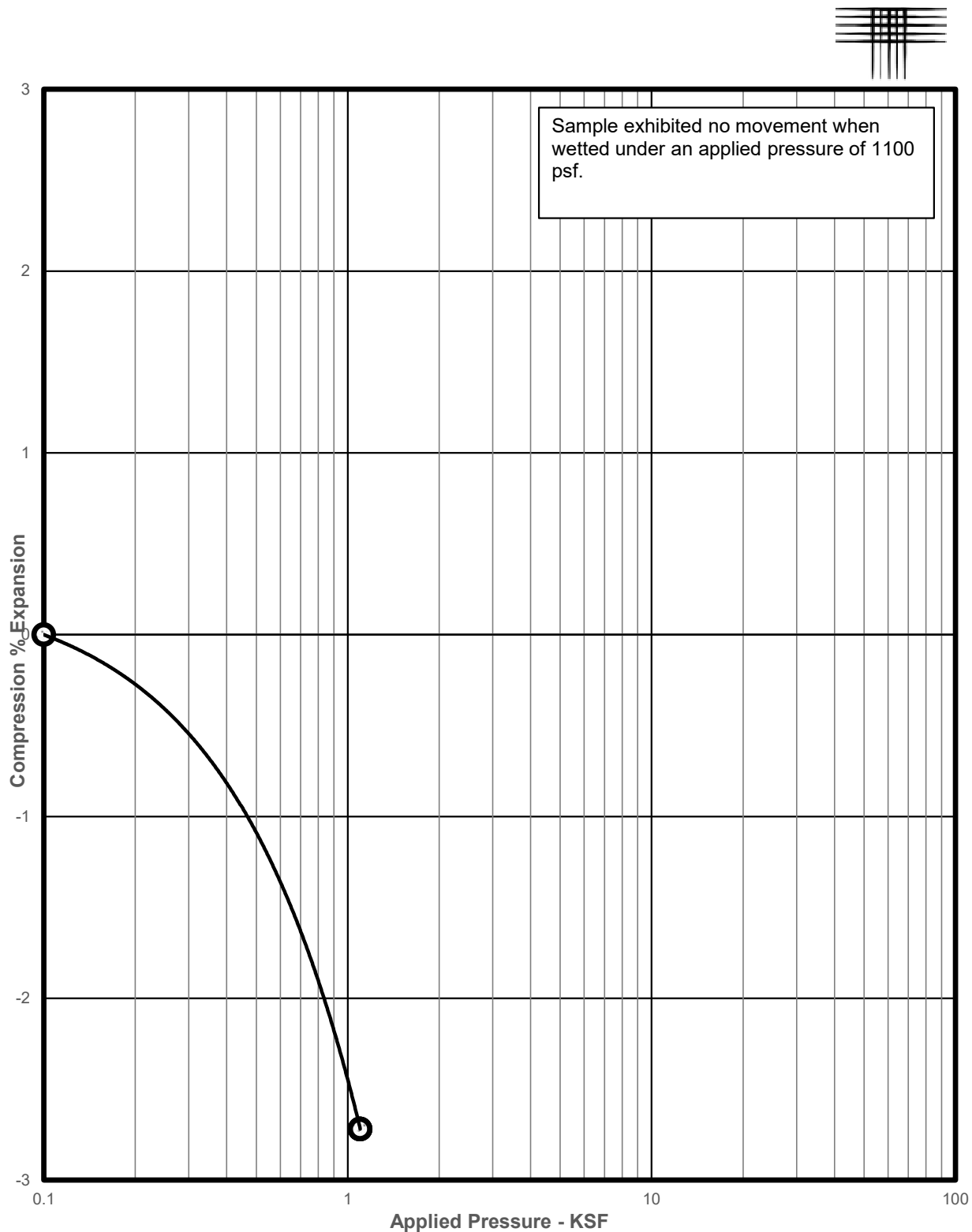
NOTES:

- THE BORINGS WERE DRILLED SEPTEMBER 29, 2023 USING A 4-INCH DIAMETER, CONTINUOUS-FLIGHT SOLID-STEM AUGER AND A TRUCK-MOUNTED CME-45 DRILL RIG OR USING A 3-INCH DIAMETER, CONTINUOUS SOLID STEM AUGER AND A LIMITED ACCESS DRILL RIG.
- BORING LOCATIONS AND ELEVATIONS ARE APPROXIMATE AND WERE DETERMINED BY A REPRESENTATIVE OF OUR FIRM USING A LEICA GS18 GPS UNIT REFERENCING THE NORTH AMERICAN DATUM OF 1983 (NAD83).
- WC - INDICATES MOISTURE CONTENT (%).
DD - INDICATES DRY DENSITY (PCF).
SW - INDICATES SWELL WHEN WETTED UNDER APPROXIMATE OVERBURDEN PRESSURE (%).
LL - INDICATES LIQUID LIMIT.
PI - INDICATES PLASTICITY INDEX.
-200 - INDICATES PASSING NO. 200 SIEVE (%).
SS - INDICATES WATER-SOLUBLE SULFATE CONTENT (%).
- THESE LOGS ARE SUBJECT TO THE EXPLANATIONS, LIMITATIONS, AND CONCLUSIONS AS CONTAINED IN THIS LETTER.

SUMMARY LOGS OF EXPLORATORY BORINGS



APPENDIX A
LABORATORY TEST RESULTS
TABLE A-I – SUMMARY OF LABORATORY TESTING

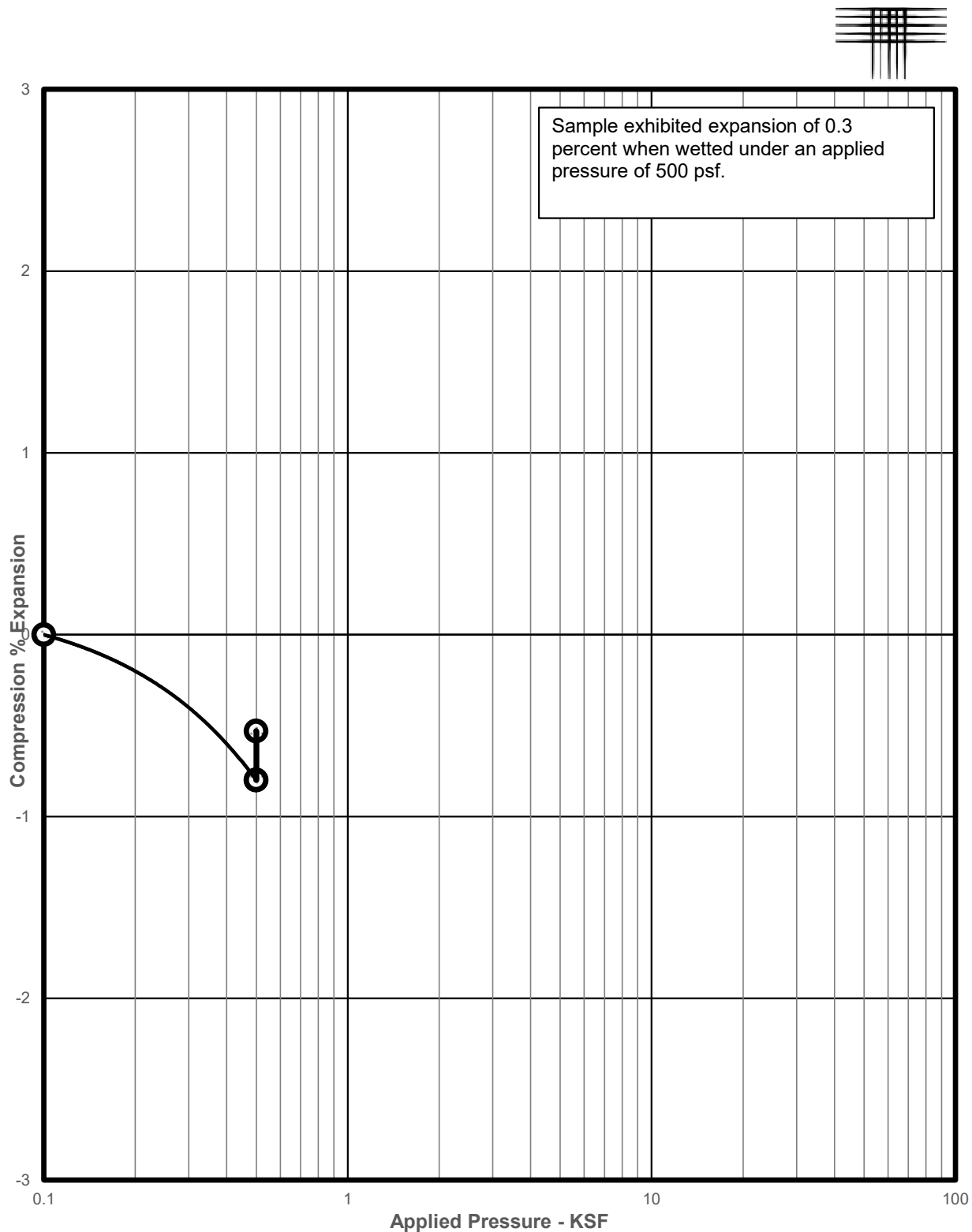


SAMPLE OF: CLAY, SANDY (CL)
FROM: TH-1 AT 9 FEET

DRY UNIT WEIGHT: 99 pcf
MOISTURE CONTENT: 26.3 %

MERRICK & COMPANY
CITY OF ARVADA SEWER LINE REPLACEMENT
CTLJT PROJECT NO. DN51,960-115-L1

**Swell Consolidation
Test Results** FIG. A- 1

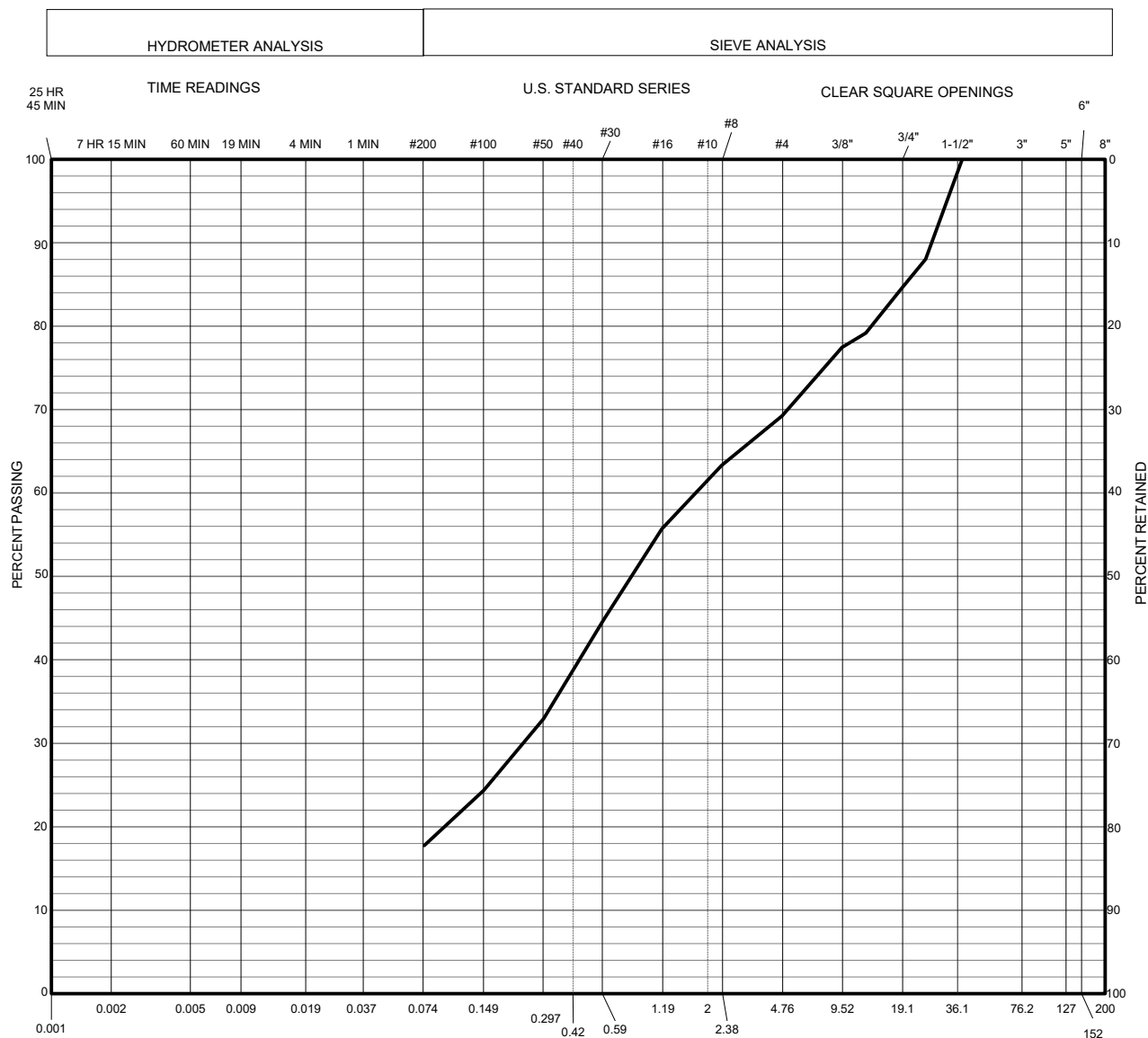
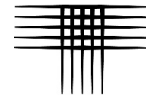


SAMPLE OF: CLAY, SANDY (CL)
 FROM: TH-4 AT 4 FEET

DRY UNIT WEIGHT: 105 pcf
 MOISTURE CONTENT: 20.0 %

MERRICK & COMPANY
 CITY OF ARVADA SEWER LINE REPLACEMENT
 CTLJT PROJECT NO. DN51,960-115-L1

**Swell Consolidation
 Test Results** FIG. A- 2



CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SANDS			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	COARSE	COBBLES

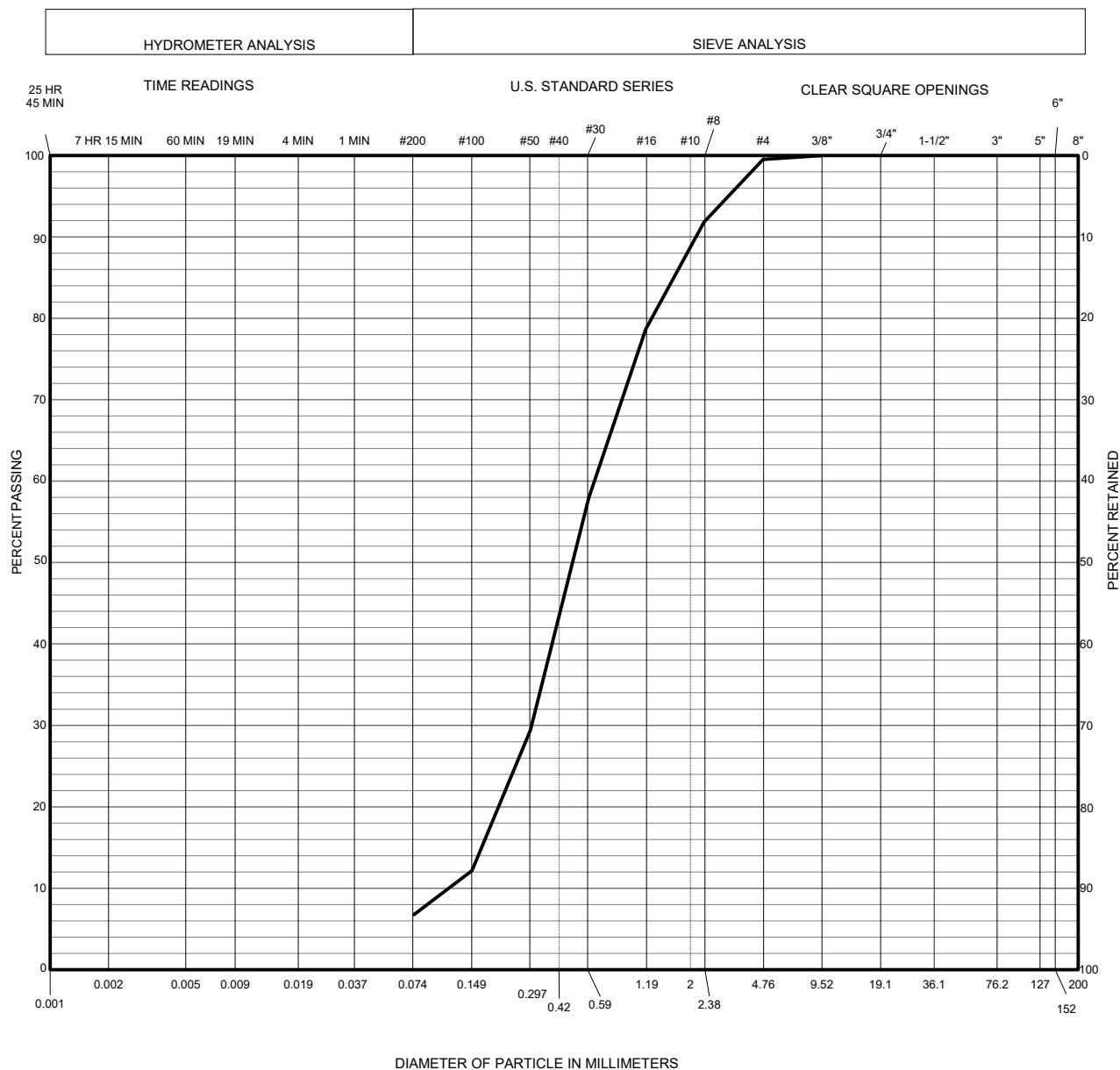
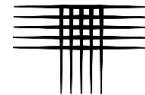
SAMPLE OF: SAND, CLAYEY, GRAVELLY (SC)
FROM: TH-2 AT 19 FEET

GRAVEL: 30.8%
SILT & CLAY: 17.7%
PLASTIC INDEX: -

SAND: 51.5%
LIQUID LIMIT: -

D10: -- D30: 0.248 D60: 1.847 CU: -- CC: --

Size (mm)	-	38.1	25.0	19.0	12.5	9.5	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-
% Passing	-	###	88.0	84.6	79.2	77.4	69.2	63.3	55.7	44.8	33.0	24.4	17.7	-	-	-	-	-



CLAY (PLASTIC) TO SILT (NON-PLASTIC)	SANDS			GRAVEL		
	FINE	MEDIUM	COARSE	FINE	COARSE	COBBLES

SAMPLE OF: SAND, CLEAN TO SLIGHTLY SILTY (SP-SM)
FROM: TH-4 AT 14 FEET

GRAVEL: 0.5%
SILT & CLAY: 6.8%
PLASTIC INDEX: -
SAND: 92.7%
LIQUID LIMIT: -

D10 0.120 D30 0.306 D60 0.658 CU 5.5 CC 1.2

Size (mm)	-	-	-	-	-	9.5	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-
% Passing	-	-	-	-	-	100.0	99.5	91.8	78.6	57.9	29.4	12.2	6.8	-	-	-	-	-



CRT7 Construction Phasing Plan Narrative:

The intent of this document is to provide a feasible construction phasing plan that satisfies the requirements of, and minimizes the need for extended bypass pumping operations. This document is informational and is not intended to dictate means and methods for the construction of the project. The contractor may deviate from the below plan at their discretion assuming all requirements and restrictions are satisfied.

Note: Water relocation and sliplining portions of the project can be phased at Contractor's discretion in coordination with the Owner and Engineer.

PHASE 1A SANITARY SEWER INSTALLATION:

1. Install new 30" sanitary sewer and associated maintenance holes MH-01 through MH-08 from station 0+00 to station 17+10. Refer to Sheet 22 in the Construction Documents for detailed phasing of MH-01, MH-07.
2. Construct maintenance holes MH-01, MH-06, and MH-07 around existing sewer pipelines that are in service. Do not cut-in existing pipelines until a later phase after maintenance holes are tested and accepted.
3. At stations 9+00 and at 11+00, the new 30" sanitary sewer crosses the existing 21" VCP sewer which is in service and at an elevation that is in conflict. Leave a short gap in the new pipeline installation at these two locations as depicted on Sheet 1 of the Phasing Plan exhibit. Ensure by accurate survey and level that the pipeline will maintain a consistent grade and alignment through the gaps when pipe connections are made in a later phase.
4. Install temporary plugs on the new 30" sanitary sewer on pipe ends on each side of the gaps. The plugs must be pressure rated and adequately braced to facilitate testing the new sewer main in accordance with the specified requirements.
5. **Perform Air Test on new 30" sanitary sewer segments between station 0+00 through 17+10 per City Specifications, Section 524.01.**
6. **Perform Vacuum Test on maintenance holes MH-01 through MH-08 (inclusive) per City Specifications, Section 524.02.**

PHASE 1B SANITARY SEWER CONNECTION:

7. Cut in existing pipe at station 0+00, new pipe discharges to existing line.
8. Re-align existing 12" underdrain pipeline at stations 9+00 and 11+00 to eliminate any conflicts with the forthcoming 30" sewer installation.
9. Remove temporary plugs at each side of the 30" sewer pipeline gaps at stations 9+00 and 11+00.
10. **Install bypass pumping sewer on existing line as depicted in Sheet 2 of Phasing Plan exhibit. Refer to Project Specifications, Section 01 57 00.**
 - **Bypass pumping limited to working hours only while bypass line crosses Leyden Creek.**
11. Cut and remove the conflicting segments of existing 21" VCP sanitary sewer and install 30" PVC at stations 9+00 and 11+00. Provide 30" shielded Fernco couplings or equivalent.
12. Cut in existing sewer at maintenance holes MH-06 and MH-07, redirect existing flow to new 30" sanitary sewer.
13. Reconnect existing 4" sewer service to the new 30" sewer main at station 17+05.
14. Abandon existing 21" VCP sanitary sewer from station 0+00 to station 17+10.

Employee Owned



2480 W. 26th Ave. Unit B225
Denver, CO 80211



Tel: +1 303-751-0741



hello@merrick.com
www.merrick.com

PHASE 2A SANITARY SEWER INSTALLATION:

1. Install new 30" sanitary sewer service from station 17+10 to station ~26+75 and associated maintenance holes MH-09 through MH-13.
2. Construct maintenance hole MH-09 around the existing sewer that is in service. Do not cut-in existing sewer until a later phase after the maintenance hole is tested and accepted.
3. Install temporary plug on 30" sanitary sewer service at station ~26+75. The plug must be pressure-rated and adequately braced to enable testing of the new sewer main.
4. **Perform air test on 30" sanitary sewer per City Specifications, Section 524.01**
5. **Perform Vacuum Test on maintenance holes MH-09 through MH-13 (inclusive) per City Specifications, Section 524.02.**

PHASE 2B SANITARY SEWER CONNECTION:

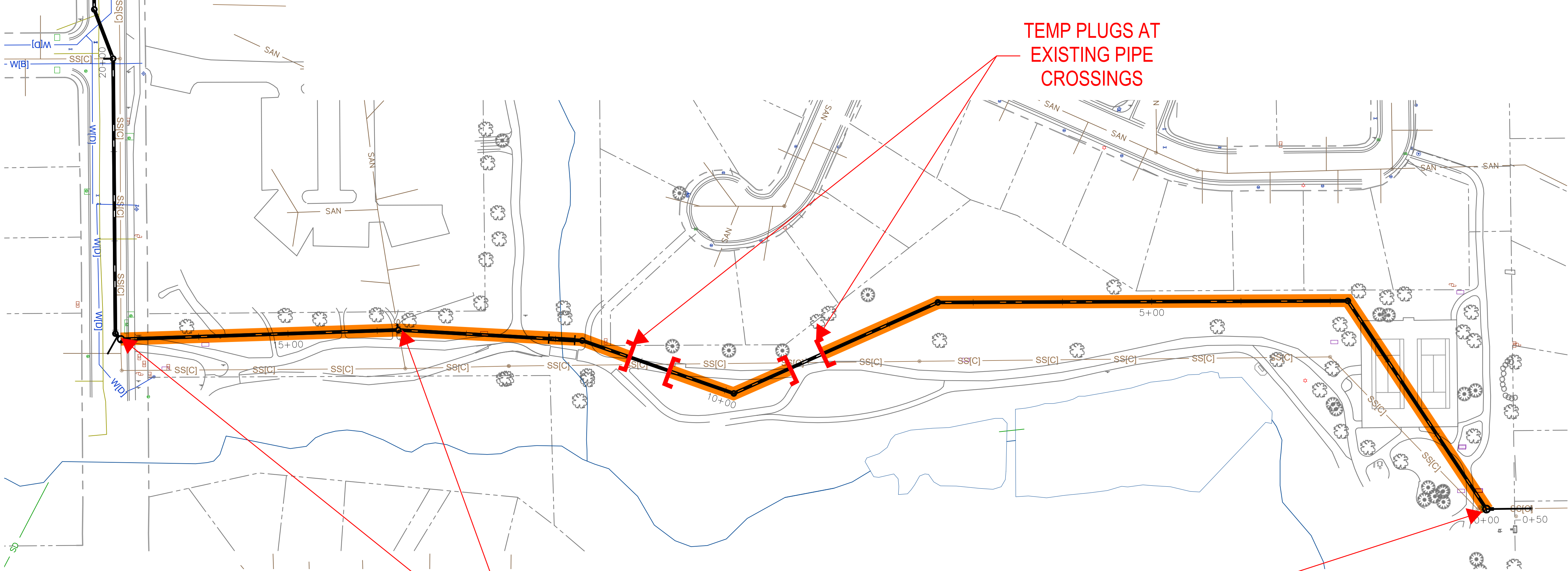
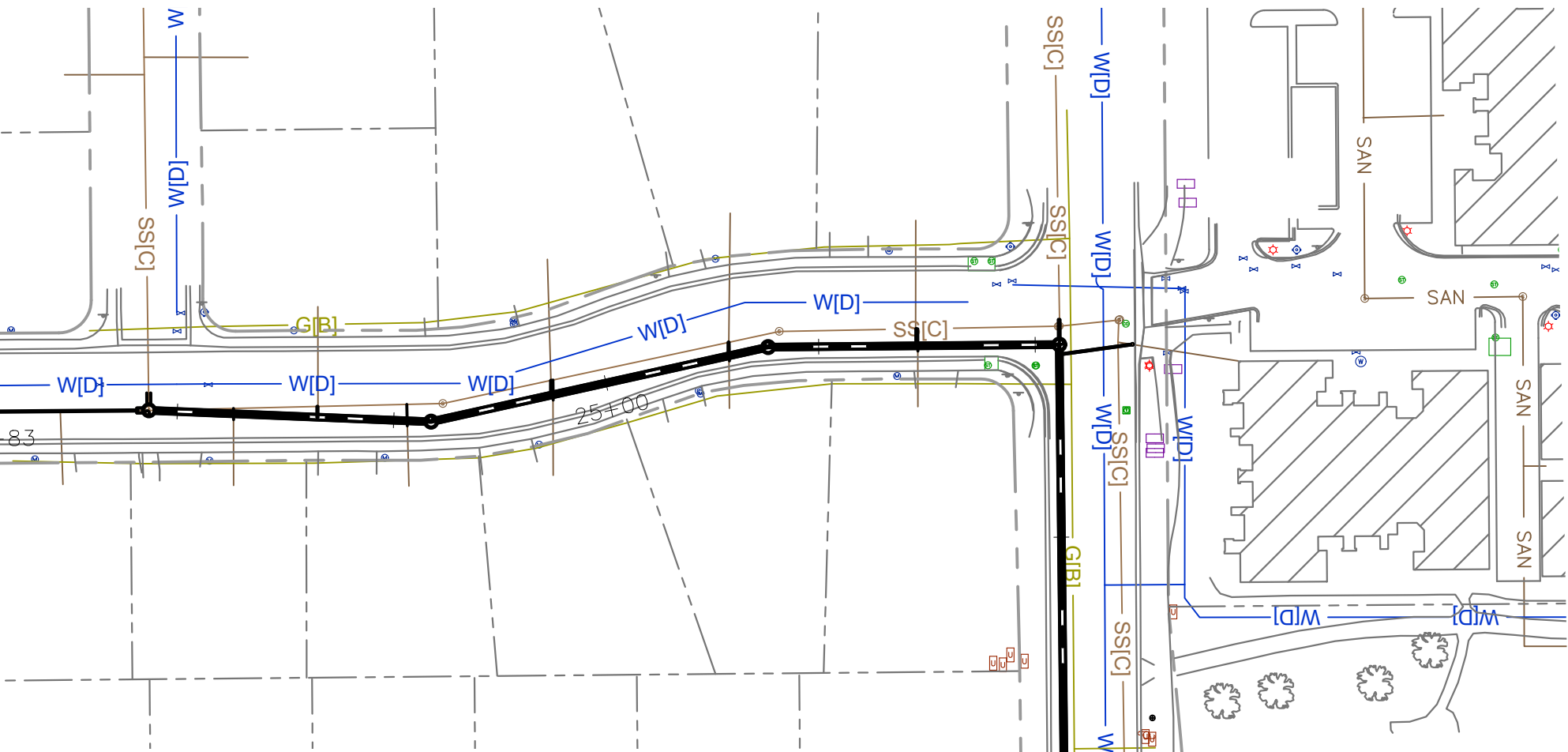
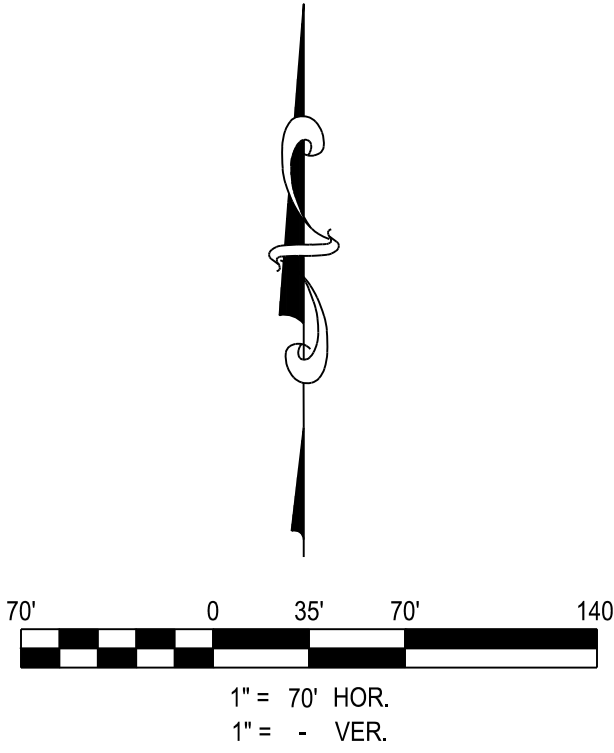
Bypass pump as needed, refer to Project Specifications, Section 01 57 00.

6. Cut in existing sewer in maintenance hole MH-09, redirect flow to new sewer.
7. Extend and connect existing 8" sewer from north to MH-11.
8. Remove existing MH-101-3, install new maintenance hole MH-14.
9. **Perform Vacuum Test on maintenance hole MH-14 per City Specifications, Section 524.02.**
10. Remove existing 30" plug at station ~26+75, extend and connect new 30" sewer to MH-14. Reconnect existing sewer pipelines from west and north to MH-14. Redirect existing flow to new 30" sewer.
11. Reconnect all existing 4" sewer services in W. 71st Avenue to new 30" sewer.
12. Abandon existing sanitary sewer from station 17+10 to station 27+27.



**PHASE 1A
INSTALL**

NOTE: WATER RELOCATION AND SLIP LINING PORTIONS OF THE PROJECT CAN BE PHASED AT CONTRACTORS DISCRETION IN COORDINATION WITH CITY AND PROJECT ENGINEER.



-  **INSTALL AND TEST**
-  **READY FOR SERVICE**
-  **IN SERVICE**
-  **ABANDONED**

NEW MANHOLES CAST
AROUND EX PIPE.
NO CONNECTION YET



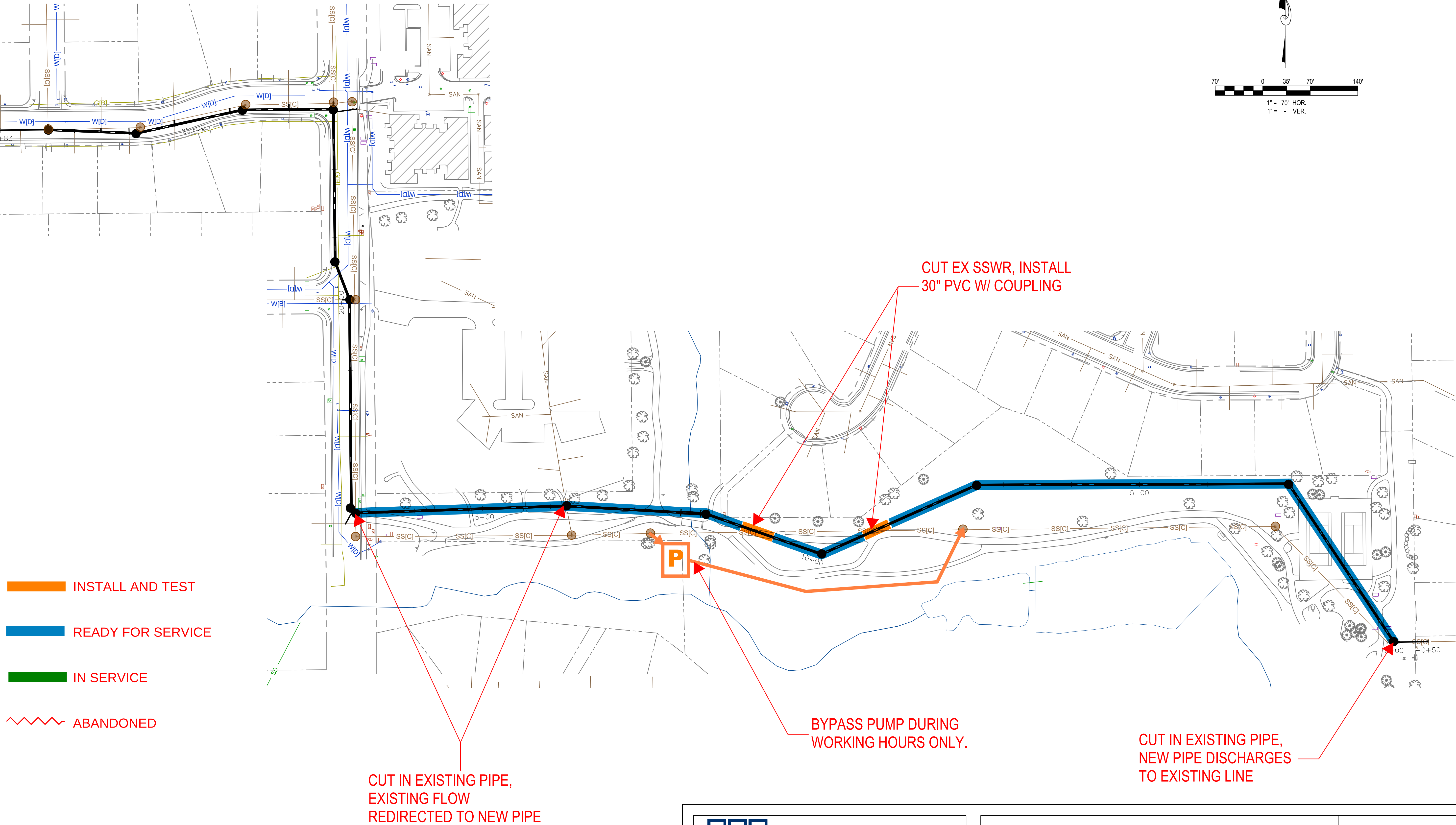
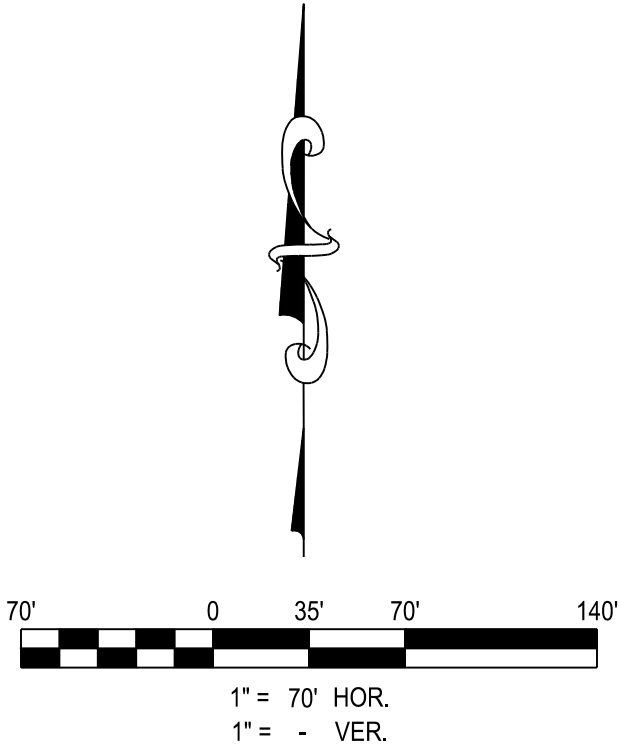
CRT7 PHASING PLAN

DATE: 9/18/2023

SHEET: 1 OF 6

File Location: D:\Denver_North\Projects\Avenida_100107-00 Avenida Ralston Trunk Line\CAD\CDS\0107-PHASING.dwg Plot Date: 9/18/2023 12:35 PM Last Saved By: AVOLF

**PHASE 1B
CONNECT**

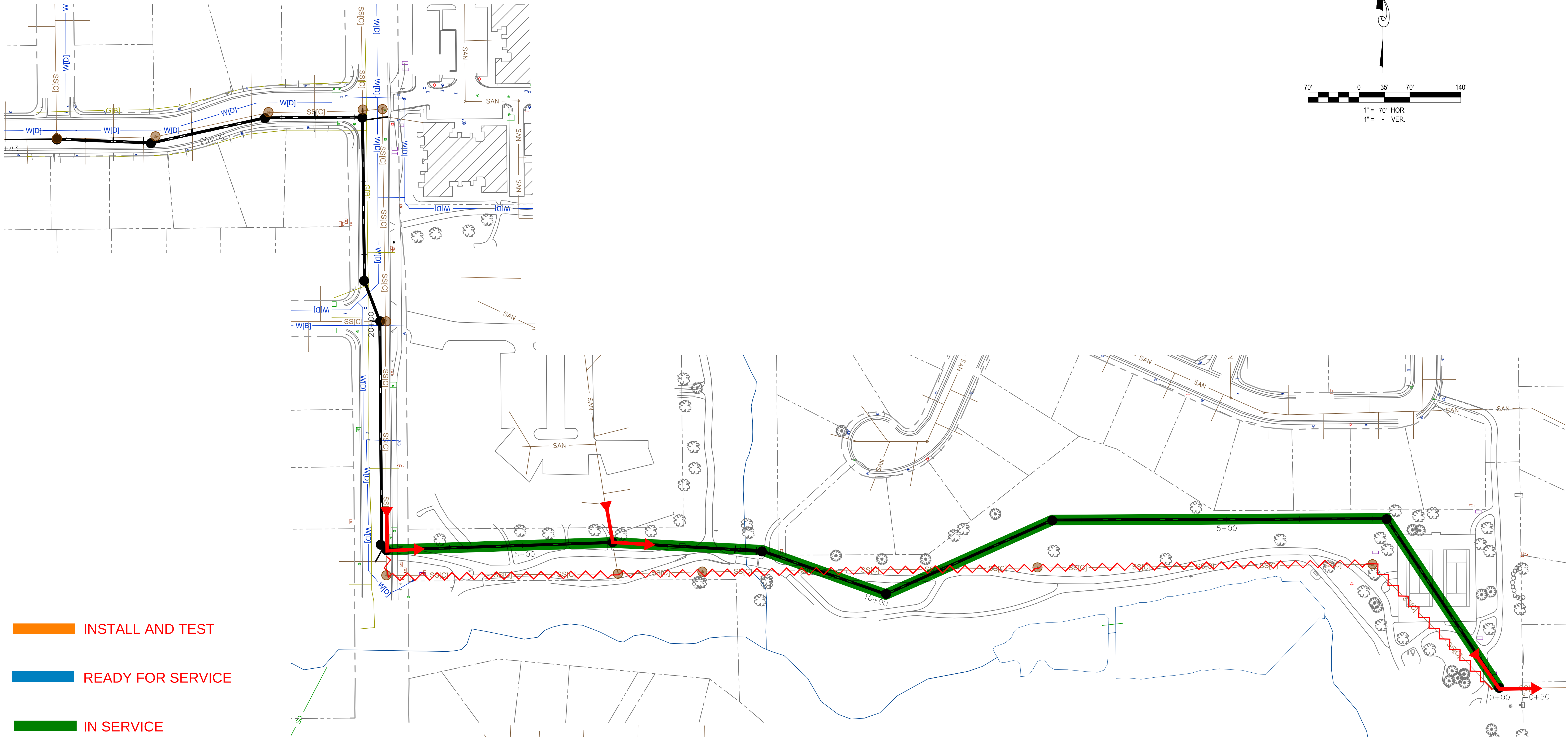
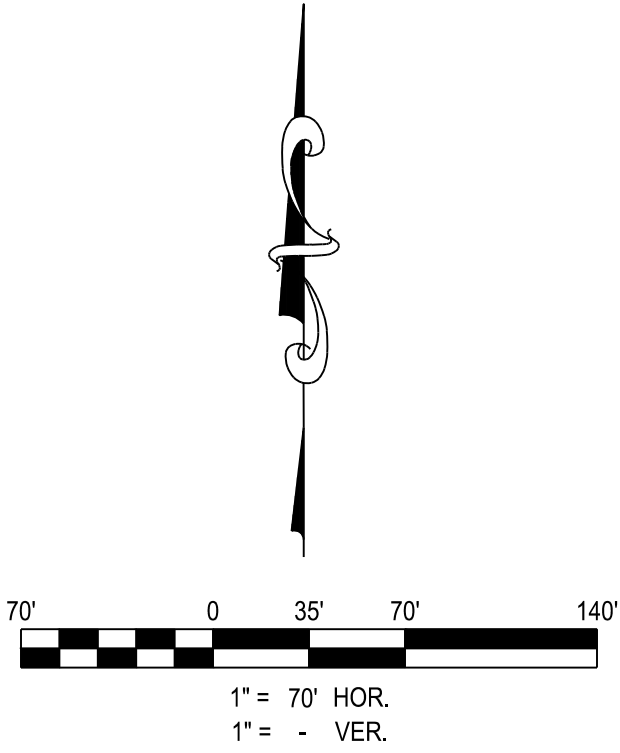


CRT7 PHASING PLAN

DATE: 9/18/2023

SHEET: 2 OF 6

PHASE 1
COMPLETED



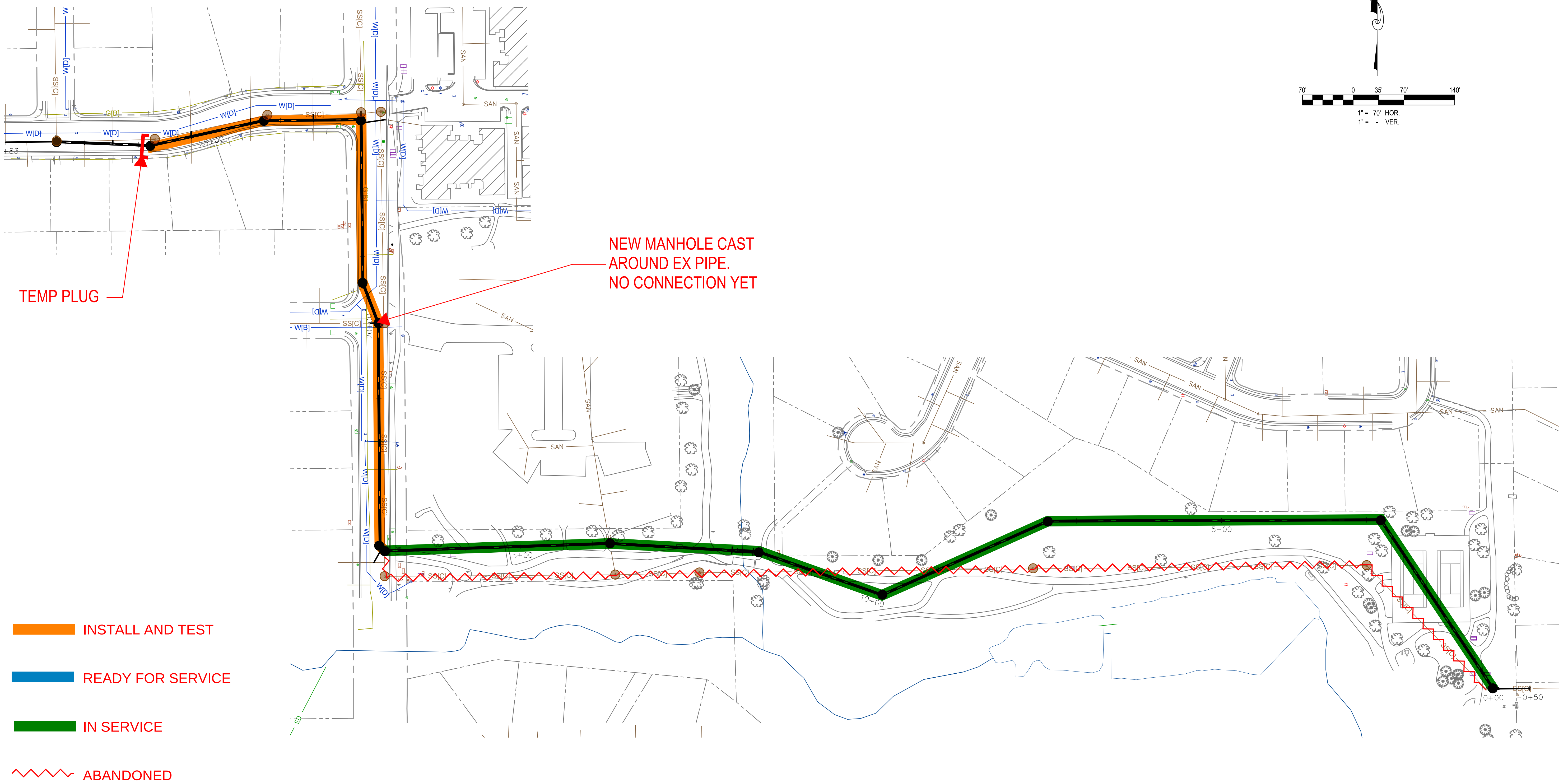
CRT7 PHASING PLAN

DATE: 9/18/2023

SHEET: 3 OF 6

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PHASE 2A INSTALL

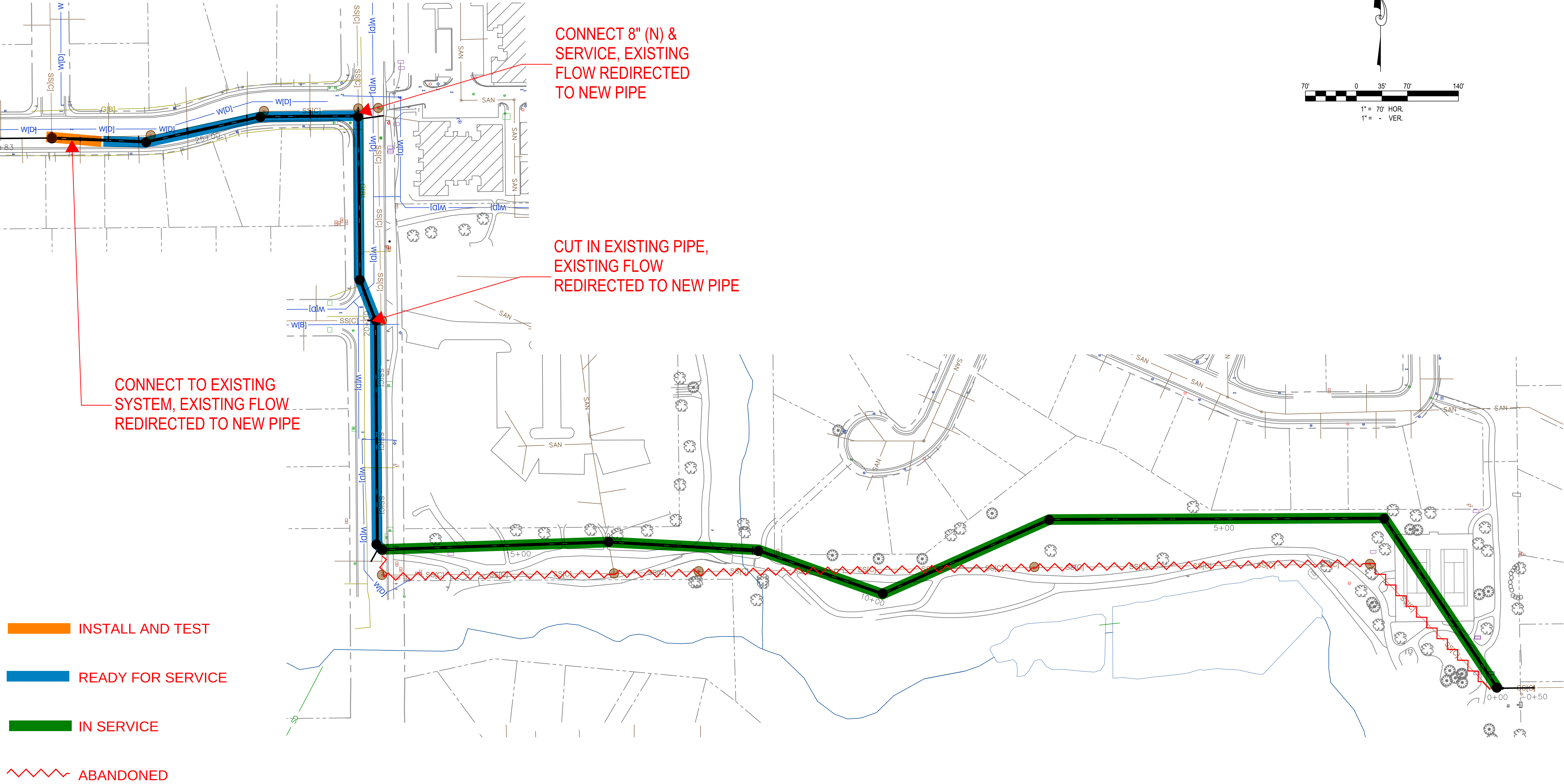
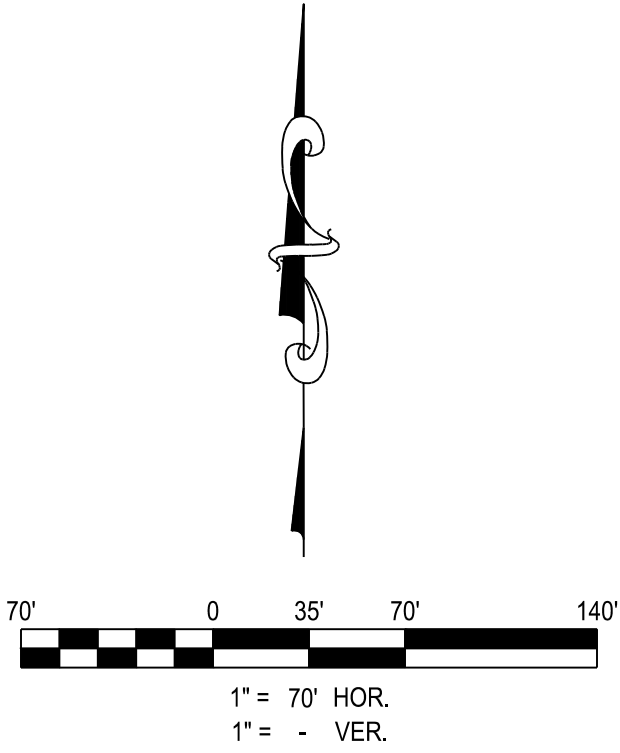


CRT7 PHASING PLAN

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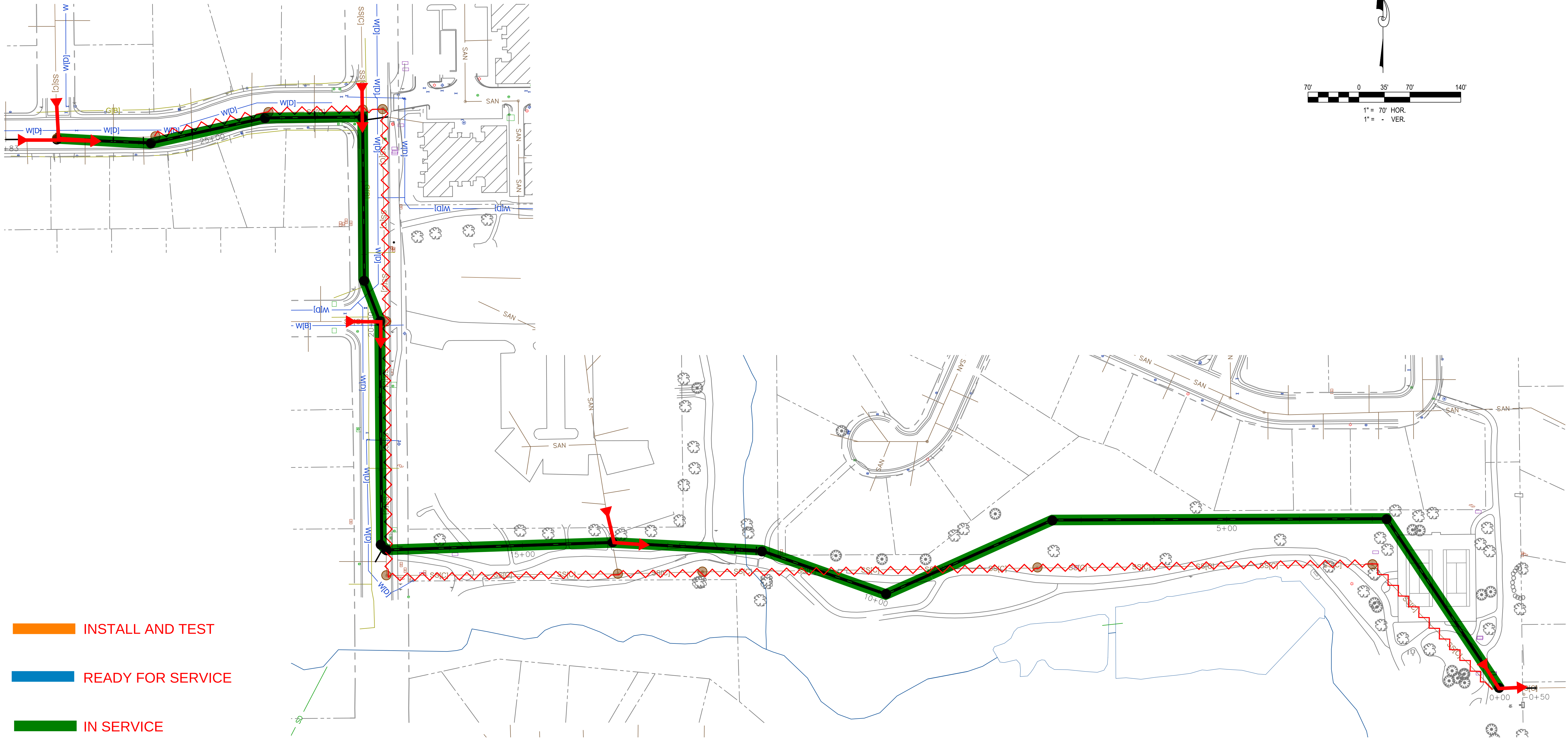
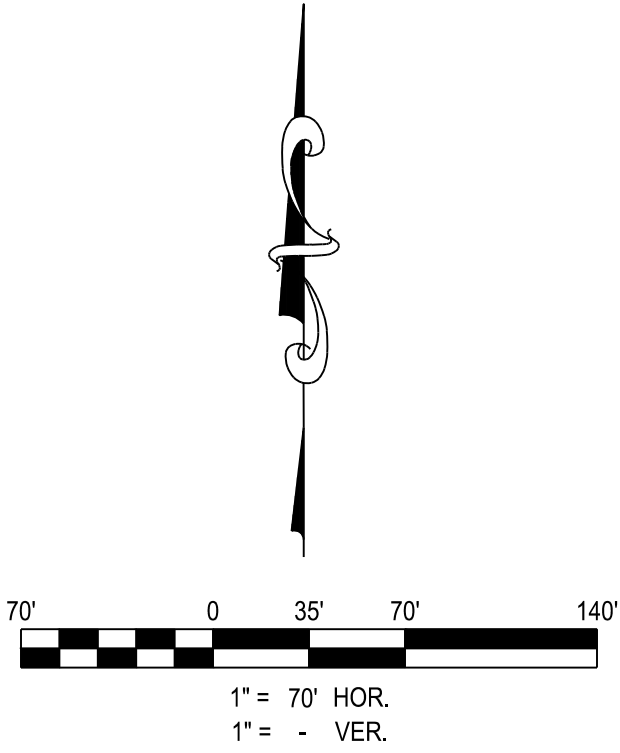
SHEET: 4 OF 6

**PHASE 2B
CONNECT**



-  INSTALL AND TEST
-  READY FOR SERVICE
-  IN SERVICE
-  ABANDONED

PHASE 2
COMPLETED



- INSTALL AND TEST
- READY FOR SERVICE
- IN SERVICE
- ABANDONED

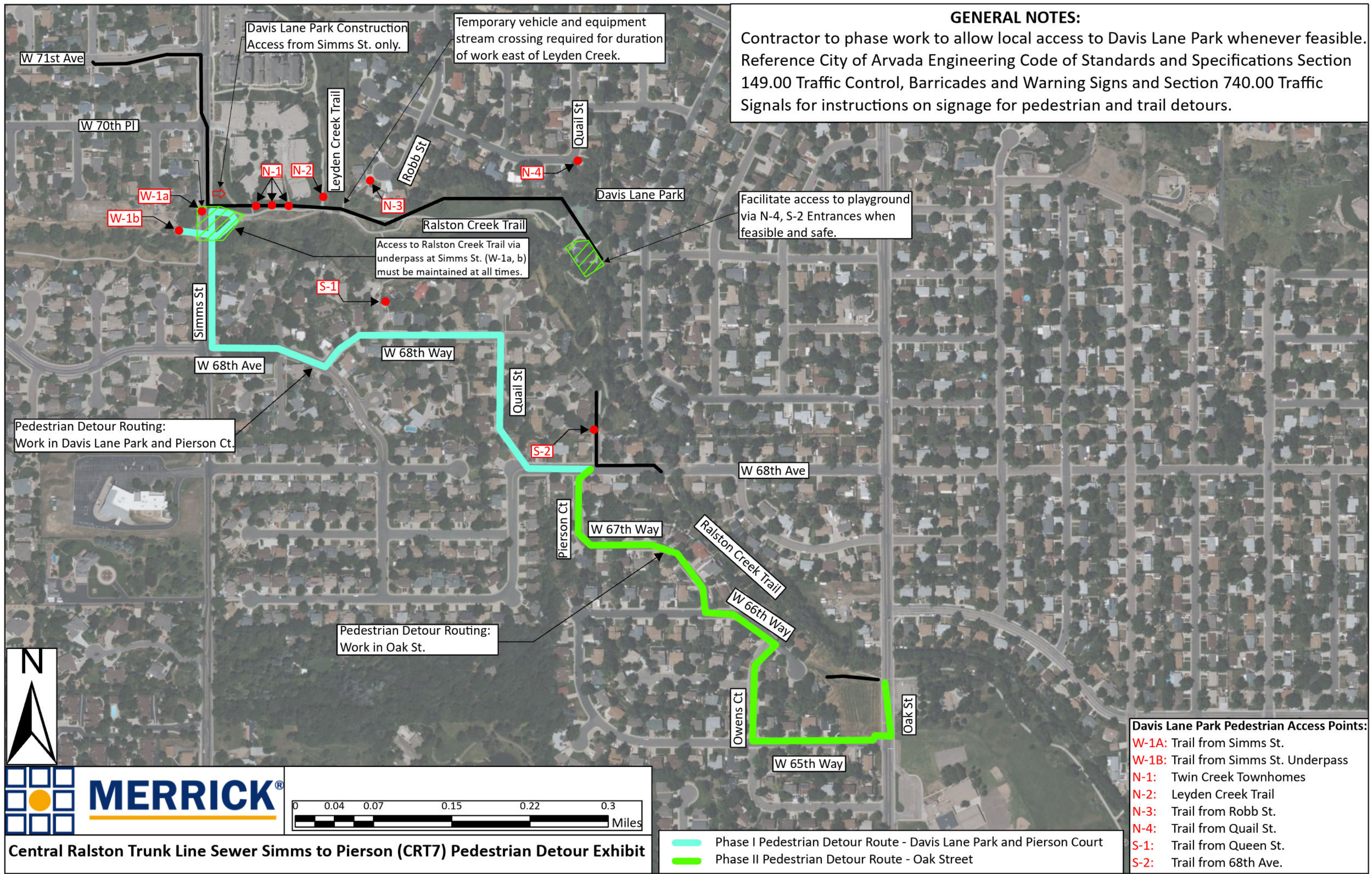
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CRT7 PHASING PLAN

DATE: 9/18/2023

SHEET: 6 OF 6



GENERAL NOTES:

Contractor to phase work to allow local access to Davis Lane Park whenever feasible. Reference City of Arvada Engineering Code of Standards and Specifications Section 149.00 Traffic Control, Barricades and Warning Signs and Section 740.00 Traffic Signals for instructions on signage for pedestrian and trail detours.

Pedestrian Detour Routing:
Work in Davis Lane Park and Pierson Ct.

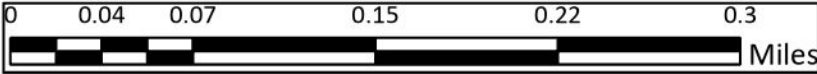
Pedestrian Detour Routing:
Work in Oak St.

Davis Lane Park Construction
Access from Simms St. only.

Temporary vehicle and equipment
stream crossing required for duration
of work east of Leyden Creek.

Facilitate access to playground
via N-4, S-2 Entrances when
feasible and safe.

Access to Ralston Creek Trail via
underpass at Simms St. (W-1a, b)
must be maintained at all times.



Central Ralston Trunk Line Sewer Simms to Pierson (CRT7) Pedestrian Detour Exhibit

- Phase I Pedestrian Detour Route - Davis Lane Park and Pierson Court
- Phase II Pedestrian Detour Route - Oak Street

Davis Lane Park Pedestrian Access Points:

- W-1A:** Trail from Simms St.
- W-1B:** Trail from Simms St. Underpass
- N-1:** Twin Creek Townhomes
- N-2:** Leyden Creek Trail
- N-3:** Trail from Robb St.
- N-4:** Trail from Quail St.
- S-1:** Trail from Queen St.
- S-2:** Trail from 68th Ave.

Old Dominion North Plains Area \$100,000.00 Awards Budget Thank You!

SHEET
1 OF 40

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GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ARVADA "2023 ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS", UNLESS OTHERWISE SPECIFIED HEREIN.
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE LICENSED WITH THE CITY OF ARVADA.
- ALL WORK WILL REQUIRE A CITY OF ARVADA CIP PERMIT. ANY CONSTRUCTION WITHIN THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) RIGHT OF WAY WILL REQUIRE A CDOT CONSTRUCTION PERMIT PRIOR TO ANY WORK IN THEIR RIGHT OF WAY.
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL HAVE A SET OF APPROVED DRAWINGS SIGNED BY THE CITY ENGINEER OR DESIGNEE AND A PRINTED COPY OF THE CURRENT CITY OF ARVADA "2023 ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS" ON SITE AT ALL TIMES.
- THE CITY OF ARVADA PROJECT ENGINEER SHALL BE NOTIFIED A MINIMUM OF ONE WEEK PRIOR TO THE CONTRACTOR MOBILIZING. AN INSPECTION WILL NEED TO BE SCHEDULED USING eTRAKIT PRIOR TO EACH DAY THAT THE CONTRACTOR WILL BE ON-SITE.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR BURIED UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND THE PROTECT THEM DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL PROJECT SAFETY INCLUDING, BUT NOT LIMITED TO, TRENCH EXCAVATION AND SHORING, TRAFFIC CONTROL AND SECURITY.
- BENCHMARK LOCATION, ELEVATION AND THE DATUM ARE NOTED.
- AS-BUILT DRAWINGS SHOWING ALL CHANGES FROM THE APPROVED CONSTRUCTION DRAWINGS SHALL BE SUBMITTED TO THE CITY ENGINEER OR DESIGNEE PRIOR TO INITIATION OF THE REQUIRED TWO YEAR WARRANTY PERIOD. UTILITY AS-BUILTS SHALL INCLUDE STATIONING OF ALL FITTINGS, SERVICES AND PERTINENT ELEVATIONS. CERTIFICATES OF OCCUPANCY FOR ANY BUILDINGS OR STRUCTURES WITHIN THE DEVELOPMENT WILL NOT BE ISSUED UNTIL THE AS-BUILTS HAVE BEEN RECEIVED, REVIEWED AND APPROVED BY THE CITY OF ARVADA ENGINEERING DIVISION.
- A CITY OF ARVADA TAX CERTIFICATION FORM MUST BE COMPLETED BY ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK ON THIS PROJECT. THIS FORM DETAILS ALL MATERIALS WHICH HAVE BEEN INCLUDED IN THE WORK ON THIS PROJECT BY CONTRACTORS AND SUBCONTRACTORS. CERTIFICATES OF OCCUPANCY FOR ANY BUILDINGS OR STRUCTURES WITHIN THE DEVELOPMENT WILL NOT BE ISSUED UNTIL THIS FORM HAS BEEN RECEIVED, REVIEWED AND APPROVED BY THE CITY OF ARVADA ENGINEERING DIVISION.
- OWNER/DEVELOPER SHALL OBTAIN STORMWATER CONSTRUCTION PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE), WATER QUALITY CONTROL DIVISION, PRIOR TO CLEARING, GRADING, OR EXCAVATING A SITE OF ONE (1) ACRE OR MORE OR LESS THAN ONE ACRE AND PART OF A LARGER DEVELOPMENT. 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.
- WORK DISTURBING OVER 10,000 SQUARE FEET OR MORE OF LAND MUST OBTAIN AN ARVADA SITE DISTURBANCE PERMIT. COMPLETE THE SITE DISTURBANCE PERMIT ONLINE APPLICATION AND PROVIDE THE REQUIRED DOCUMENTATION FOR REVIEW.
- CONTRACTOR SHALL OBTAIN A COLORADO STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT FOR ALL AREAS WHERE DEWATERING IS REQUIRED FROM AN EXCAVATION 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 CITY OF ARVADA ENGINEERING DIVISION 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.
- ALL CURB RAMPS SHALL COMPLY WITH THE LATEST CITY OF ARVADA AND ADA STANDARD. CONTRACTOR TO CHECK WITH THE CITY OF ARVADA ENGINEERING DIVISION TO VERIFY THE LATEST CURB RAMP STANDARD PRIOR TO CONSTRUCTION OF ANY RAMP.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY OF ARVADA ENGINEERING DIVISION. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS "2023 ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS".
- A PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE SUBMITTED TO THE CITY OF ARVADA ENGINEERING DIVISION FOR ACCEPTANCE WITH THE RIGHT-OF-WAY PERMIT APPLICATION. A PUBLIC IMPROVEMENTS CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT APPROVED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL ON EXISTING ROADS DURING CONSTRUCTION.
- PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL PUBLIC AND PRIVATE UTILITIES TO COORDINATE SCHEDULES.
- ALL UTILITY EASEMENTS MUST REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR MAINTENANCE EQUIPMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING STREET IMPROVEMENTS SUCH AS, BUT NOT LIMITED TO SIGNS, UTILITIES, LANDSCAPING, AND PRIVATE PROPERTY FROM BEING DISTURBED OR DESTROYED DURING CONSTRUCTION. THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR SHALL JOINTLY INSPECT ALL EXISTING IMPROVEMENTS FOR DAMAGE. ALL DAMAGE CAUSED BY THE CONTRACTOR WILL BE CORRECTED AND PAID FOR BY THE CONTRACTOR PRIOR TO ACCEPTANCE OF WORK.
- ALL EXISTING UTILITIES OR IMPROVEMENTS INCLUDING BUT NOT LIMITED TO FENCES, STREET LIGHTS, CONCRETE CURB, GUTTER, AND SIDEWALK DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO EQUAL OR BETTER CONDITION PRIOR TO ACCEPTANCE OF COMPLETED WORK.
- STATIONS, ELEVATIONS, AND DIMENSIONS CONTAINED IN THESE PLANS ARE CALCULATED FROM A RECENT SURVEY. THE CONTRACTOR SHALL VERIFY ALL CONSTRUCTION STAKING DEPENDENT DIMENSIONS IN THE FIELD BEFORE ORDERING OR FABRICATING ANY MATERIAL.
- ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF THE WORKERS PROVIDED FOR AS REQUIRED BY THE MOST RECENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION".
- IN CASE EXISTING CONDITIONS OR DIMENSIONS VARY FROM THOSE SHOWN ON DRAWINGS, CONTRACTOR SHALL NOTIFY ENGINEER SO PROPER ADJUSTMENTS CAN BE MADE.
- IF A CONFLICT EXISTS OR A DESIGN MODIFICATION IS REQUIRED THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN. DESIGN MODIFICATION(S) SHALL BE APPROVED BY THE CITY OF ARVADA PRIOR TO BEGINNING CONSTRUCTION.
- WASTE MATERIALS SHALL BE DISPOSED OF BY CONTRACTOR AT NO ADDITIONAL COST TO THE CITY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A DISPOSAL SITE FOR UNUSED MATERIAL, DEMOLITION MATERIAL, AND HAZARDOUS WASTE MATERIAL.
- THE CONTRACTOR SHALL MAINTAIN A MANIFEST OF HAZARDOUS MATERIAL AND PROVIDE THE CITY WITH A COPY OF THE MANIFEST AT THE COMPLETION OF THE PROJECT.
- EMERGENCY ACCESS MUST BE MAINTAINED AT ALL TIMES.
- PROJECT IS LOCATED IN THE RALSTON CREEK FLOODPLAIN. A CITY OF ARVADA FLOODPLAIN DEVELOPMENT PERMIT WILL BE REQUIRED FOR THIS PROJECT.

STREET NOTES

- CONTRACTOR SHALL HAVE ON SITE OF THE CITY OF ARVADA APPROVED SUBGRADE SOILS AND PAVEMENT DESIGN REPORT SHOWING MINIMUM REQUIRED SUBGRADE PREPARATION REQUIREMENTS AND MINIMUM REQUIRED PAVEMENT THICKNESS.
- ALL TRENCH BACKFILL AND SUBGRADE PREPARATION SHALL BE TESTED TO ENSURE COMPLIANCE WITH CITY OF ARVADA STANDARDS AND SHALL BE TESTED AT CITY REQUIRED FREQUENCIES BY A CITY APPROVED SOILS TESTING FIRM. TEST RESULTS SHALL BE SUBMITTED TO, REVIEWED, AND APPROVED BY THE CITY OF ARVADA ENGINEERING DIVISION PRIOR TO INSTALLING BASE COURSE, ASPHALT, OR CONCRETE ON PREPARED SUBGRADE. ALL BASE COURSE DENSITY SHALL BE TESTED BY PRIVATE SOILS FIRM AT CITY REQUIRED FREQUENCIES TO ENSURE COMPLIANCE WITH CITY OF ARVADA REQUIREMENTS. BASE COURSE TEST RESULTS SHALL BE APPROVED BY THE CITY OF ARVADA ENGINEERING DIVISION PRIOR TO INSTALLING PAVEMENT. ALL CONCRETE AND ASPHALT PLACED SHALL BE TESTED IN ACCORDANCE WITH CITY OF ARVADA MINIMUM MATERIALS TESTING STANDARDS. TEST RESULTS SHALL BE REVIEWED AND APPROVED BY THE CITY OF ARVADA ENGINEERING DIVISION PRIOR TO INITIATION OF THE REQUIRED TWO YEAR WARRANTY PERIOD.
- THE SUBGRADE MATERIAL SHALL BE REMOVED TO A DEPTH REQUIRED BY THE CITY OF ARVADA ACCORDING TO INFORMATION OBTAINED FROM LABORATORY TESTS AND/OR AS REQUIRED IN THE PAVEMENT DESIGN REPORT. ADDITIVES OR APPROVED MATERIAL MAY BE REQUIRED IF THE NATIVE MATERIAL IS UNSATISFACTORY. THE SUBGRADE SHALL BE COMPACTED TO A MINIMUM DENSITY DETERMINED IN ACCORDANCE WITH AASHTO DESIGNATION T180 OR T99 AND IN ACCORDANCE WITH CDOT STANDARD SPECIFICATIONS SECTION 203.07.
- THE CONTRACTOR SHALL PROOF ROLL ALL SUBGRADE COURSE IN A MANNER ACCEPTABLE TO THE CITY OF ARVADA IN ACCORDANCE WITH THE CITY OF ARVADA "2023 ENGINEERING CODE OF STANDARDS SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS". PROOF ROLLING SHALL BE INSPECTED AND ACCEPTED BY THE CITY PRIOR TO INSTALLATION OF PAVEMENT AND/OR CONCRETE FLATWORK.
- ALL CONCRETE CURB, GUTTER, SIDEWALK AND OTHER FLATWORK WITHIN THE CITY RIGHT OF WAY SHALL BE A MINIMUM 6" THICKNESS. CROSSPANS SHALL BE A MINIMUM 8" THICKNESS AND MINIMUM 8 FOOT WIDTH. ALL CONCRETE SHALL BE A MINIMUM 4000 PSI DESIGN STRENGTH REINFORCED WITH 1.5 LBS/CY FIBERMESH IN ACCORDANCE WITH THE CITY OF ARVADA "2022 ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS".

UTILITIES NOTES

- CONTRACTOR SHALL NOTIFY ALL AFFECTED PARTIES AND THE CITY OF ARVADA UTILITY AND ENGINEERING DIVISION, A MINIMUM OF 24 HOURS PRIOR TO ANY WATER OR SEWER SERVICE INTERRUPTION.
- CONTRACTOR IS TO COORDINATE THE OPERATION OF ALL WATER VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES WITH THE CITY'S WATER OPERATIONS DIVISION THROUGH THE CITY'S ENGINEERING INSPECTOR.
- ALL FIRE HYDRANT BRANCH PIPE SHALL BE CLASS 200 AWWA C900 PVC OR CLASS 150 AWWA C909 PVC. ALL FIRE LINES TO BUILDINGS WITH INTERIOR SPRINKLER SYSTEMS SHALL BE CLASS 150 AWWA C900 PVC PIPE OR CLASS 200 AWWA C909 PVC PIPE ONLY. ALL WATER MAIN CONSTRUCTION SHALL BE PERFORMED BY A CONTRACTOR LICENSED IN THE CITY OF ARVADA.
- ALL METALLIC FITTINGS SHALL BE WRAPPED WITH MINIMUM 8 MIL THICKNESS POLYETHYLENE ENCASEMENT.
- ALL PVC WATER MAINS SHALL BE INSTALLED WITH WHITE #12 TYPE UF OR USE CABLE SINGLE COPPER CONDUCTOR AS A TRACER WIRE SPIRALLY WRAPPED AROUND THE PIPE. TRACER WIRE TO EXTEND FROM MAIN TO A CATHODIC PROTECTION BOX LOCATED ON THE RIGHT SIDE OF ALL FIRE HYDRANTS. TRACER WIRE SHALL BE CONNECTED TO EXISTING TRACER WIRE WHERE POSSIBLE. WHERE NO TRACER WIRE EXISTS, ENDS OF TRACER WIRE SHALL BE STRIPPED AND GROUNDED INTO NATIVE SOILS A MINIMUM OF 12" DEEP.
- ALL METER PITS SHALL BE 24 INCH DIAMETER CONCRETE OR PLASTIC IN ACCORDANCE WITH SECTION 30 OF THE CITY OF ARVADA "2023 ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS".
- STORM, SANITARY, AND WATER MANHOLE COVERS SHALL SAY CITY OF ARVADA STORM, SANITARY, OR WATER WHERE APPLICABLE IN ACCORDANCE WITH THE CITY'S STANDARD LID DETAIL.
- BLOW-OFFS, BOTH PERMANENT AND TEMPORARY, SHALL BE IN ACCORDANCE WITH CITY OF ARVADA STANDARD DETAIL.
- ALL SANITARY SEWER MAINS INSTALLED SHALL BE HIGH PRESSURE JET CLEANED AFTER COMPLETION OF THE FINAL LIFT OF ASPHALT PLACEMENT AND PRIOR TO REQUIRED TELEVISION INSPECTION BY THE CITY'S WASTEWATER DIVISION.
- MINIMUM COVER OVER WATER MAINS SHALL BE A FIVE FEET ABOVE TOP OF PIPE.
- FIRE HYDRANT ASSEMBLY INCLUDES THE VALVE, TEE, THRUST BLOCKS, AND SIX INCH PIPE. INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF ARVADA STANDARD DETAILS.
- CONTRACTOR SHALL LOCATE EXISTING PLUGS AND THRUST BLOCKS PRIOR TO CONSTRUCTION.
- INSTALL MECHANICAL JOINT RESTRAINTS AT ALL BENDS, STUBS, TEES, AND OTHER APPROPRIATE APPURTENANCES IN WATER LINES. ALL BLOW-OFFS, VALVES, AND BENDS SHALL BE MECHANICALLY RESTRAINED PER CITY DETAILS.
- ALL VALVES SHALL BE OPEN LEFT VALVES. ALL GATE VALVES SHALL BE AWWA SPECIFICATION C-509 RESILIENT SEATED GATE VALVES. VALVE MANUFACTURERS SHALL BE AMERICAN AVK, MUELLER, CLOW, OR AMERICAN FLOW CONTROL.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST ALL WATER VALVE BOXES TO THE REQUIRED FINAL GRADE. IN ADDITION, VALVE EXTENSIONS SHALL BE INSTALLED SUCH THAT A SIX-FOOT VALVE KEY CAN OPERATE THE VALVE.
- WHEN IT IS NECESSARY TO LOWER WATER MAINS AT STORM SEWERS AND OTHER UTILITY CROSSINGS, A MINIMUM CLEARANCE OF 3 FEET FOR STORM SEWER AND 1.50 FEET FOR SANITARY SEWER SHALL BE MAINTAINED BETWEEN THE PIPES. A 12" THICK LAYER OF EXTRUDED POLYSTYRENE INSULATING FOAM, ALSO REFERRED TO AS "XPS" SHALL BE PROVIDED ALL AROUND THE WATER MAIN FOR A MINIMUM OF 5 FEET ON EACH SIDE OF THE STORM SEWER CROSSING.
- NO PIPE SHALL BE BACKFILLED UNTIL IT HAS BEEN INSPECTED BY THE CITY'S REPRESENTATIVE.
- STANDARD PIPE LENGTHS SHALL BE 20 FEET (20') ALL SIZES. RANDOM LENGTHS SHALL NOT BE ACCEPTED.
- EACH LENGTH OF PIPE SHALL BEAR THE DATE OF MANUFACTURE, TYPE, GRADE, LENGTH, MANUFACTURER'S NAME, AND AN NSF SEAL OF APPROVAL ALONG WITH INSTALLATION OF A TRACER WIRE ON ALL PIPE.
- THE MANUFACTURER SHALL FURNISH A CERTIFIED STATEMENT THAT ALL OF THE SPECIFIED TESTS AND INSPECTIONS HAVE BEEN MADE AND THE RESULTS THEREOF COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE STANDARDS HEREIN SPECIFIED. A COPY OF THE CERTIFICATION WILL BE SENT TO THE CITY UPON REQUEST.
- CONTRACTOR SHALL VERIFY PIPE MATERIALS AND SIZE PRIOR TO CONSTRUCTION OF THE WATERLINE WHERE TAPS OR TIE-INS ARE TO BE MADE.

EROSION CONTROL NOTES

- THE CITY OF ARVADA STORMWATER INSPECTOR MUST BE MET ON SITE AND PROVIDED WITH A STORMWATER MANAGEMENT PLAN AFTER INSTALLATION OF BEST MANAGEMENT PRACTICES (BMPs), BUT BEFORE CONSTRUCTION OR GRADING BEGINS.
- THERE SHALL BE NO EARTH-DISTURBING ACTIVITY OUTSIDE THE LIMITS DESIGNATED IN THE ACCEPTED PLANS.
- ALL REQUIRED PERIMETER SILT AND CONSTRUCTION FENCING SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITY (STOCKPILING, STRIPPING, GRADING, ETC.). ALL OTHER REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED AT THE APPROPRIATE TIME IN THE CONSTRUCTION SEQUENCE AS INDICATED IN THE APPROVED PROJECT SCHEDULE, CONSTRUCTION PLANS, AND STORMWATER MANAGEMENT PLAN.
- AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING AND CONTROLLING ON-SITE EROSION INCLUDING KEEPING THE PROPERTY SUFFICIENTLY WATERED SO AS TO MINIMIZE WINDBLOWN SEDIMENT. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL FACILITIES SHOWN HEREIN.
- PRE-DISTURBANCE VEGETATION SHALL BE PROTECTED AND RETAINED WHEREVER POSSIBLE. REMOVAL OR DISTURBANCE OF EXISTING VEGETATION SHALL BE LIMITED TO THE AREA(S) REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS, AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME.
- ALL SOILS EXPOSED DURING LAND DISTURBING ACTIVITY (STRIPPING, GRADING, UTILITY INSTALLATIONS, STOCKPILING, FILLING, ETC.) SHALL BE KEPT IN A ROUGHENED CONDITION BY RIPPING OR DISKING ALONG LAND CONTOURS UNTIL MULCH, VEGETATION, OR OTHER PERMANENT EROSION CONTROL BMPs ARE INSTALLED. NO DISTURBED AREAS, EXCEPT THOSE WITHIN THE PROJECT STREET RIGHTS-OF-WAY, SHALL REMAIN EXPOSED FOR MORE THAN THIRTY (30) DAYS BEFORE TEMPORARY OR PERMANENT EROSION CONTROL (E.G. SEED/MULCH, LANDSCAPING, ETC.) IS INSTALLED, UNLESS OTHERWISE APPROVED BY THE CITY OF ARVADA STORMWATER INSPECTOR.
- IN ORDER TO MINIMIZE EROSION POTENTIAL, ALL TEMPORARY (STRUCTURAL) EROSION CONTROL MEASURES SHALL:
 - BE INSPECTED AT A MINIMUM OF ONCE EVERY FOURTEEN (14) DAYS AND AFTER EACH SIGNIFICANT STORM EVENT AND REPAIRED OR RECONSTRUCTED AS NECESSARY IN ORDER TO ENSURE THE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
 - REMAIN IN PLACE UNTIL SUCH TIME AS ALL THE SURROUNDING DISTURBED AREAS ARE SUFFICIENTLY STABILIZED. THE CITY OF ARVADA STORMWATER INSPECTOR MUST BE NOTIFIED PRIOR TO REMOVAL.
 - BE REMOVED WHEN THEY ARE NO LONGER FUNCTIONAL OF AFTER THE SITE HAS BEEN SUFFICIENTLY STABILIZED AS DETERMINED BY THE STORMWATER INSPECTOR. THE CITY OF ARVADA STORMWATER INSPECTOR MUST BE NOTIFIED PRIOR TO REMOVAL.
- WHEN TEMPORARY EROSION CONTROL MEASURES ARE REMOVED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN UP AND REMOVAL OF ALL SEDIMENT AND DEBRIS FROM ALL DRAINAGE INFRASTRUCTURE AND OTHER PUBLIC FACILITIES.
- THE CONTRACTOR SHALL IMMEDIATELY CLEAN UP ANY CONSTRUCTION MATERIALS INADVERTENTLY DEPOSITED ON EXISTING STREETS, SIDEWALKS, OR OTHER PUBLIC RIGHTS-OF-WAY, AND MAKE SURE STREETS AND WALKWAYS ARE CLEANED AT THE END OF EACH WORKING DAY.
- ALL SOIL STOCKPILES SHALL NOT BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGEWAY, WHERE POSSIBLE, AND SHALL BE PROTECTED FROM SEDIMENT TRANSPORT BY APPROPRIATE EROSION CONTROL METHODS. ANY SOIL STOCKPILE THAT WILL BE DORMANT FOR OVER THIRTY (30) DAYS SHALL BE SEEDED.
- THE STORMWATER VOLUME CAPACITY OF DETENTION PONDS WILL BE RESTORED AND STORM SEWER LINES WILL BE CLEANED UPON COMPLETION OF THE PROJECT AND BEFORE TURNING THE MAINTENANCE OVER TO THE OWNER.
- CITY ORDINANCE REQUIREMENTS MAKE IT UNLAWFUL TO DISCHARGE OR ALLOW THE DISCHARGE OF ANY POLLUTANT OR CONTAMINATED WATER FROM CONSTRUCTION SITES. POLLUTANTS INCLUDE, BUT ARE NOT LIMITED TO, DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, OIL AND GAS PRODUCTS, LITTER, AND SANITARY WASTE. THE CONTRACTOR SHALL AT ALL TIMES TAKE WHATEVER MEASURES ARE NECESSARY TO ASSURE THE PROPER CONTAINMENT AND DISPOSAL OF POLLUTANTS ON THE SITE IN ACCORDANCE WITH ANY AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- A DESIGNATED AREA SHALL BE PROVIDED ON SITE FOR CONCRETE TRUCK CHUTE WASHOUT. THE AREA SHALL BE CONSTRUCTED SO AS TO CONTAIN WASHOUT MATERIAL AND LOCATED AT LEAST FIFTY (50) FEET AWAY FROM ANY WATERWAY DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION ACTIVITIES THE CONCRETE WASHOUT MATERIAL WILL BE REMOVED AND PROPERLY DISPOSED OF PRIOR TO THE AREA BEING RESTORED.
- MASONRY ACTIVITIES WILL BE CONTAINED WITH APPROPRIATE LOT-SPECIFIC BMPs, SUCH AS STOCKPILE PERIMETER CONTROL AND BERMED WASHOUT PITS. ALL WASTE PRODUCTS FROM MASONRY ACTIVITIES WILL BE REMOVED AND DISPOSED OF PROPERLY.
- A VEHICLE TRACKING PAD SHALL BE INSTALLED WHEREVER IT IS NECESSARY FOR CONSTRUCTION EQUIPMENT INCLUDING BUT NOT LIMITED TO PERSONAL VEHICLES EXITING EXISTING UNPAVED AREAS ONTO ROADWAYS. NO EARTHEN MATERIALS, I.E., STONE, DIRT, ETC. SHALL BE PLACED IN THE CURB AND GUTTER OR ROADWAY AS A RAMP TO ACCESS TEMPORARY STOCKPILES, CONSTRUCTION MATERIALS AND/OR BUILDING SITES.
- CONDITIONS IN THE FIELD MAY WARRANT EROSION CONTROL MEASURES IN ADDITION TO WHAT IS SHOWN ON THESE PLANS. THE DEVELOPER SHALL IMPLEMENT WHATEVER MEASURES ARE DETERMINED NECESSARY, AS DIRECTED BY THE CITY OF ARVADA.

FOR CONSTRUCTION

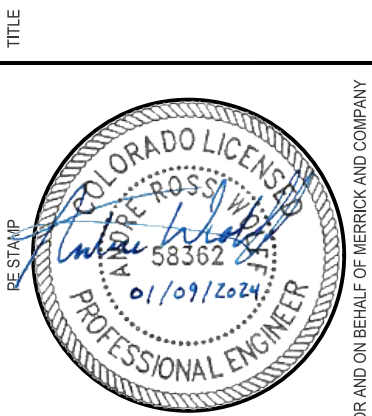
SCALE BAR
BAR IS ONE INCH
ON ORIGINAL
DRAWING 1
0

IF NOT ONE INCH ON
THIS DRAWING
ADJUST SCALES
ACCORDINGLY



DESIGNED BY:	ARW	DRAWN BY:	ARW	CHECKED BY:	SKO	APPROVED BY:	---
REVISION DESCRIPTION							
DATE							
REV							

CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
GENERAL NOTES 1



PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	2 OF 40

APPROVED:
James W. Welshing, P.E.
City Engineer
1/11/24
Date
23-SR-11
Job Number

Review is for general compliance with the City of Arvada "Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements", latest edition. Sole responsibility for completeness and/or accuracy of these Documents shall remain with the Registered Professional Engineer sealing these plans. The City does not accept liability for facilities designed by others.

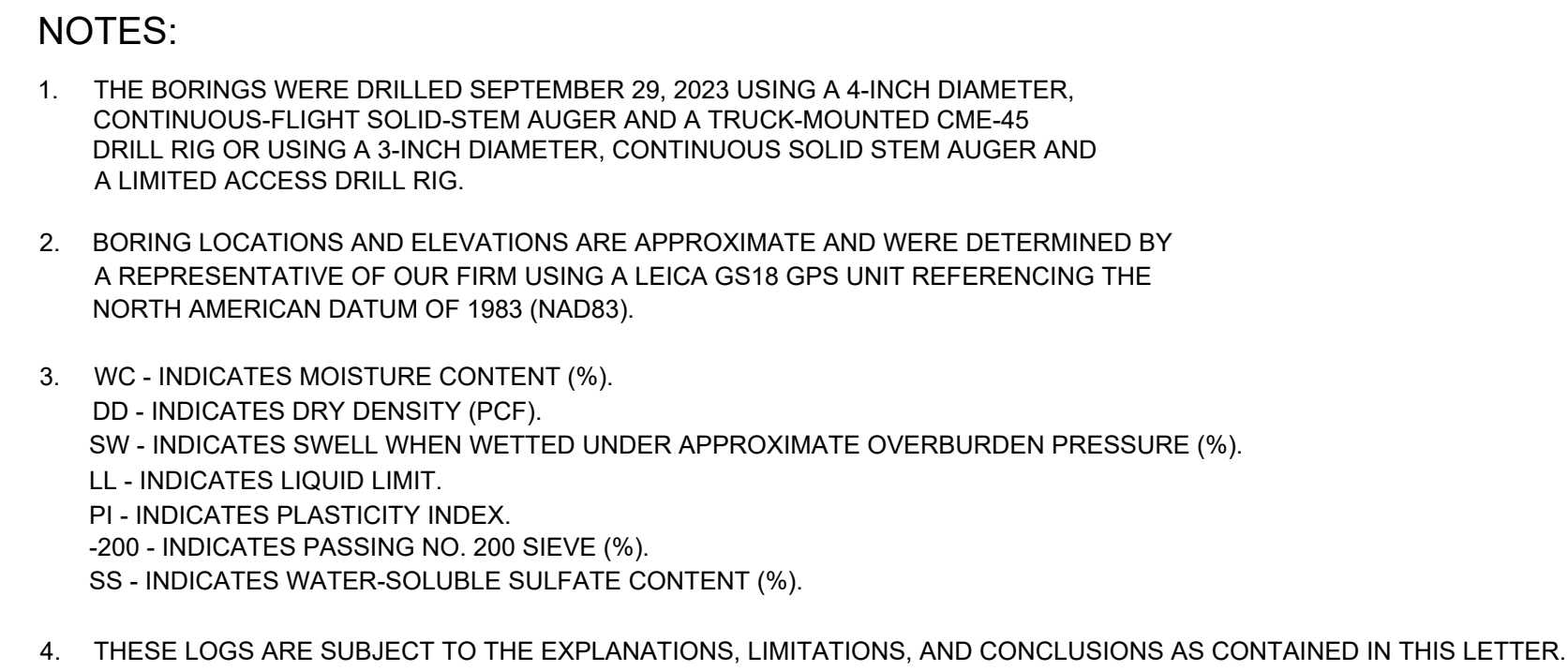
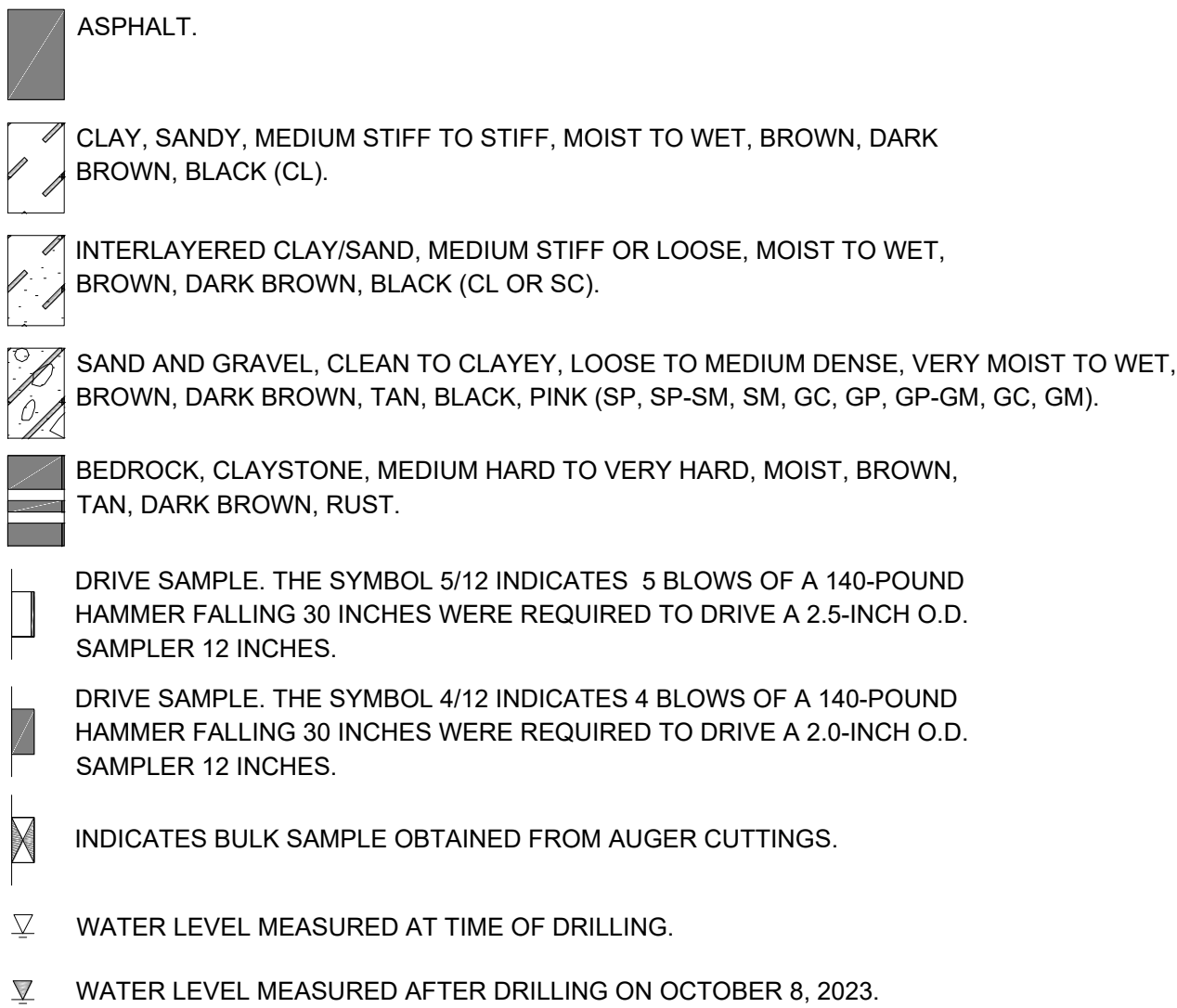
PARKS NOTES

1. RESTORE ALL LANDSCAPE AND IRRIGATION TO MATCH PRE-CONSTRUCTION CONDITION. SO TO MEET CITY OF ARVADA 2023 ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS.
2. IN DAVIS LANE PARK RESTORE GRAVEL PATH USING 6" CRUSHER FINES, 3/8" MINUS SELECT 60/40 RED/GRAY CRUSHED GRANITE, RIVER ROCK OR BASALT ROLLED & COMPACTED IN 2 LIFTS AND ENSURING TRAIL SHOULDER AND HISTORIC SHEET FLOWS ACROSS THE TRAIL SURFACE ARE MAINTAINED. COLOR & MATERIAL SHOULD BE SUBMITTED FOR APPROVAL BY OWNER.
3. TREE PROTECTION:
 - IF TREE ROOTS ARE ENCOUNTERED AND EXPOSURE AND / OR DAMAGE OCCURS TO ROOTS OF EXISTING TREES, THE ROOTS SHALL BE PRUNED AND COVERED WITH SOIL OR MOIST BURLAP WITHIN TWO HOURS.
 - THE CITY FORESTER MUST BE CONTACTED PRIOR TO ANY NECESSARY CUT AND FILL.
 - EARTHWORK WITHIN THE DRIPLINE OF AN EXISTING PRESERVED TREE ON CITY PROPERTY.
 - NO STORAGE SHALL OCCUR, AND EARTHWORK SHALL NOT BE PLACED, ADJACENT TO TREE TRUNKS.
 - ALL CONSTRUCTION ACTIVITY SHALL BE PROHIBITED WITHIN THE FENCED ROOT / DRIPLINE IN ORDER TO PREVENT SOIL COMPACTION.
 - NO CONSTRUCTION RELATED WASH-OUT SHALL OCCUR WITHIN 30 FEET OF ANY TREE TRUNK.
 - THE CITY OF ARVADA FORESTER SHALL BE CONTACTED TO PRUNE EXISTING PRESERVED TREES ON CITY PROPERTY, AS NECESSARY, PRIOR TO TREE PROTECTION INSTALLATION AND CONSTRUCTION ACTIVITY OCCURRING IN THE AREA.

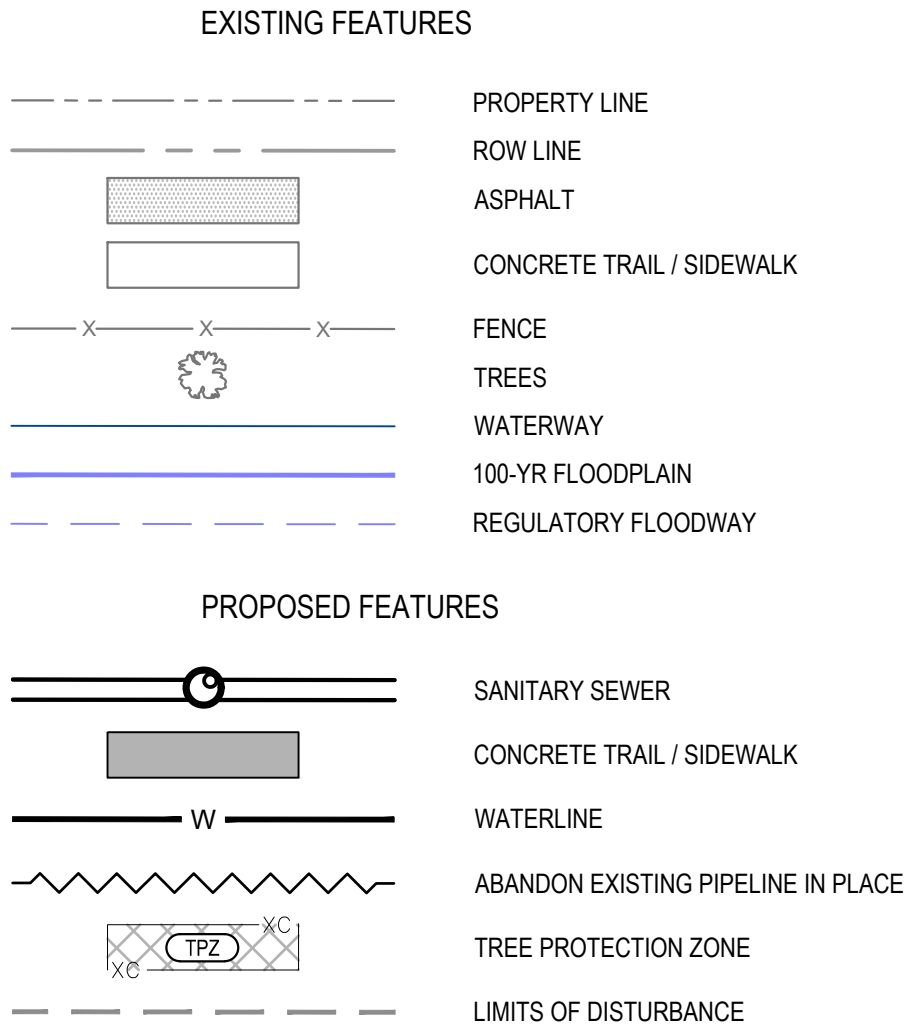
PARKS CONTACTS

PARKS SUPERVISOR	CHRIS YOUNG	303-419-9984 720-898-7416	CELL OFFICE
PARKS IRR SUPERVISOR	JARRED COOK	303-419-9986 720-898-7418	CELL OFFICE
CITY FORESTER	IAN MACDONALD	303-419-1138 720-898-7422	CELL OFFICE

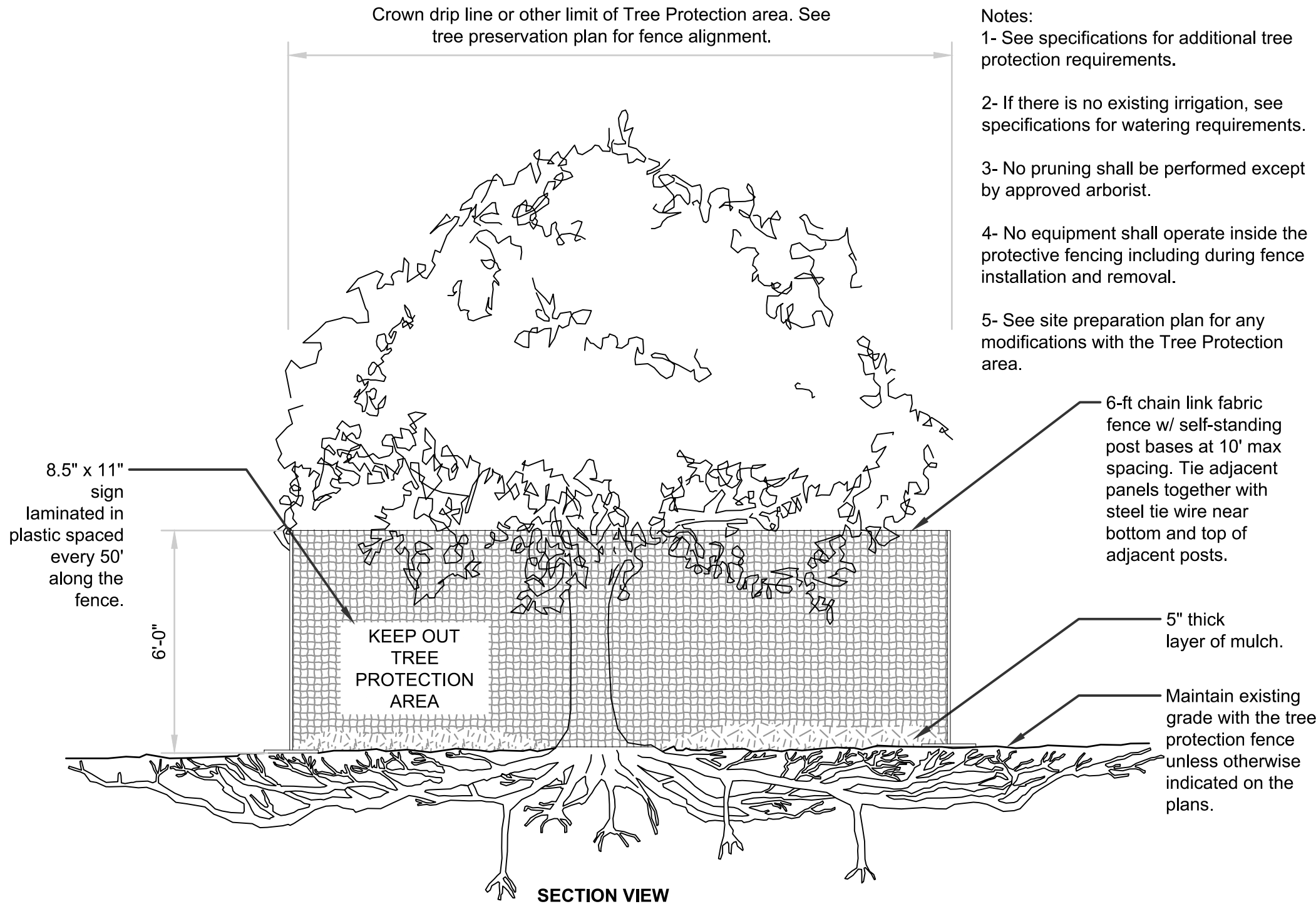
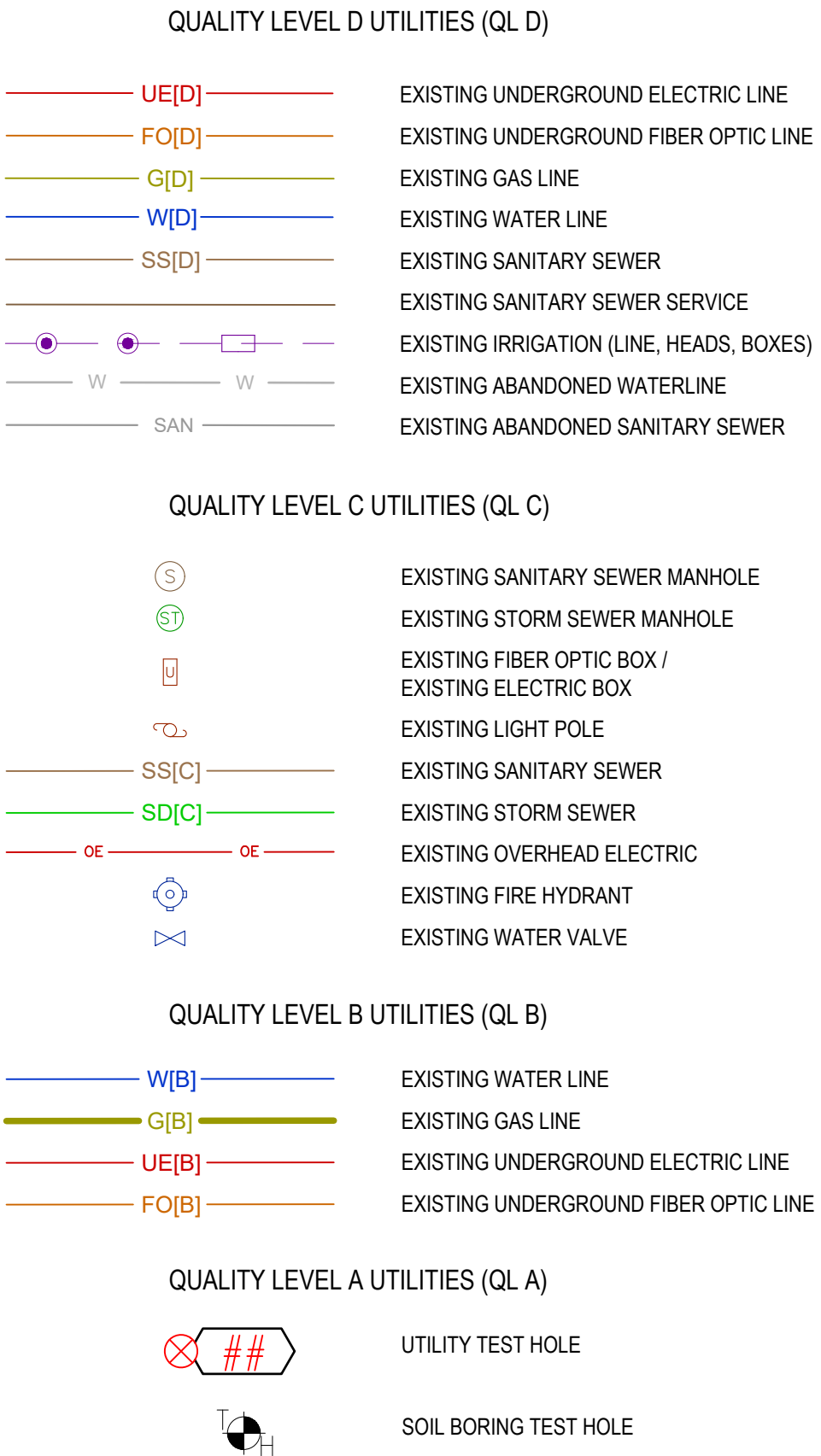
BORE LOG LEGEND



GENERAL LEGEND



UTILITY LEGEND



Notes:

- 1- See specifications for additional tree protection requirements.
- 2- If there is no existing irrigation, see specifications for watering requirements.
- 3- No pruning shall be performed except by approved arborist.
- 4- No equipment shall operate inside the protective fencing including during fence installation and removal.
- 5- See site preparation plan for any modifications with the Tree Protection area.

6-foot chain link fabric fence w/ self-standing post bases at 10' max spacing. Tie adjacent panels together with steel tie wire near bottom and top of adjacent posts.

5" thick layer of mulch.

Maintain existing grade with the tree protection fence unless otherwise indicated on the plans.

The diagram illustrates a tree protection system. A tree is shown with its crown drip line indicated by a horizontal line above the canopy. A 6-ft chain link fence with self-standing post bases at 10' max spacing is installed around the tree. The fence panels are tied together with steel tie wire near the bottom and top of adjacent posts. A sign, 8.5" x 11" laminated in plastic and spaced every 50' along the fence, reads "KEEP OUT TREE PROTECTION AREA". The fence is surrounded by a layer of mulch, 8-12" thick on the maintenance road and 5" thick inside the tree protection area. The tree protection area is defined by the crown drip line. The diagram is labeled "SECTION VIEW" at the bottom.

Crown drip line

6-ft chain link fabric fence w/ self-standing post bases at 10' max spacing. Tie adjacent panels together with steel tie wire near bottom and top of adjacent posts.

8.5" x 11" sign laminated in plastic spaced every 50' along the fence.

KEEP OUT TREE PROTECTION AREA

8 - 12" thick layer of mulch on maintenance road; 5" thick layer inside tree protection area.

Maintain existing grade with the tree protection fence unless otherwise

SECTION VIEW

S-2 **TREE PROTECTION - CONSTRUCTION ACCESS ROAD**
 1/4" = 1'-0"
 Note: This detail applies if there is no other option but to have construction traffic occur within a "protected tree" crown dripline limits.

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FOR CONSTRUCTION

[illegible]

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[illegible]

DESIGNED BY:	ARW
DRAWN BY:	ARW
CHECKED BY:	SKD
APPROVED BY:	---


 TITLE _____

PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	3 OF 40

Q:\Denver_North\Projects\Arvada\100107-00 Arvada Ralston Trunk Line\DESIGN\Survey\Control Drawing Central Trunk (COA Files 2023.06.07)\Control Drawing Central Trunk.dwg , Plot Date: 1/11/2024

CENTRAL RALSTON TRUNK LINE SIMMS ST TO PIERSON STREET

SHEET 1 OF 2

GENERAL NOTES:

THIS PROJECT CONTROL DIAGRAM IS FOR THE EXCLUSIVE USE OF THE CITY OF ARVADA AND FOR THE DESIGN AND CONSTRUCTION OF THE CENTRAL RALSTON TRUNK LINE PROJECT. IT IS NOT A MONUMENTED LAND SURVEY OR LAND SURVEY PLAT. IT IS INTENDED ONLY TO DEPICT THE CONTROL INFORMATION AND MONUMENTATION SHOWN HEREON AND IS SUBJECT TO CHANGE. CONTACT THE CITY OF ARVADA FOR THE MOST RECENT DIAGRAM.

PUBLISHED UNITS FOR CORR DinATES AND ELEVATIONS ARE IN US SURVEY FEET

BASIS OF ELEVATIONS:

PROJECT ELEVATIONS ARE GPS DERIVED, BASED ON A NAVD88 ELEVATION OF 5427.71 AT BENCHMARK 891. A CITY OF ARVADA BENCHMARK BEING A 2" BRASS CAP ON THE BACK OF THE SIDEWALK AT THE WEST RETURN POINT OF THE NORTHWEST CORNER AT THE INTERSECTION OF W. 70TH AVENUE AND ROUTT STREET. STAMPED: CITY OF ARVADA, BM-891

CONVERSION OF PROJECT COORDINATES TO COLORADO STATE PLANE CENTRAL ZONE:

STATE PLANE NORTHING = (PROJECT NORTHING + 1,000,000.00) * 0.999758843
STATE PLANE EASTING = (PROJECT EASTING + 3,000,000.00) * 0.999758843

BASIS OF BEARINGS:

THE NORTH LINE OF THE NORTHWEST QUARTER SECTION 4, TOWNSHIP 3 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, WHICH BEARS NORTH 89°32'05" EAST, MONUMENTED AS NOTED HEREON.

COORDINATE DATUM:

STATE PLANE COORDINATES ARE COLORADO CENTRAL ZONE (0502) NAD83 GEOID 18 BASED ON FAST STATIC GPS SURVEY.
PROJECT COORDINATES ARE MODIFIED COLORADO STATE PLANE CENTRAL ZONE COORDINATES.
PROJECT COORDINATES ARE DERIVED FROM STATE PLANE COORDINATES USING THE FOLLOWING FORMULAS.
PROJECT NORTHING = (STATE PLANE NORTHING * 1.000241215) - 1,000,000.00
PROJECT EASTING = (STATE PLANE EASTING * 1.000241215) - 3,000,000.00

PROJECT BENCHMARK

PT #	COLORADO CENTRAL STATE PLANE NAD 83 COORDINATES		ELEVATION NAVD 88	PROJECT COORDINATES		ELEVATION NAVD 88	DESCRIPTION
	NORTHING	EASTING		NORTHING	EASTING		
BM - 891	1725421.01	3104951.06	5427.71	725837.21	105700.02	5427.71	2" BRASS CAP, BACK OF WALK, W. RP, NW CORNER, W. 70TH AVE AND ROUTT ST.

PROJECT COORDINATE TABLE

PT #	COLO CNTRL STATE PLANE	COLO CNTRL STATE PLANE	ELEVATION NAVD 88	PROJ CONTROL NORTHING	PROJ CONTROL EASTING	ELEVATION NAVD 88	DESCRIPTION
160	1724975.830	3105252.920	5423.780	725391.920	106001.950	5423.780	MAG NAIL, W. 69TH PL & ROBB ST
170	1724845.720	3105789.710	5416.150	725261.780	106538.870	5416.150	MAG NAIL, W. 69TH PL & QUAIL ST
210	1725127.650	3104960.210	5426.070	725543.780	105709.170	5426.070	MAG NAIL, W. 69TH PL CUL-DE-SAC
220	1724766.970	3105037.410	5422.560	725183.010	105786.390	5422.560	MAG NAIL, ROBB ST CUL-DE-SAC
300	1725207.620	3103911.790	5433.490	725623.770	104660.500	5433.490	MAG NAIL, W. 71ST AVE @ W. 71ST DR
310	1725289.100	3104404.320	5432.040	725705.270	105153.150	5432.040	MAG NAIL, ENTRANCE MAPLE LEAF CONDO
320	1725260.060	3104732.560	5432.490	725676.220	105481.470	5432.490	WOOD HUB
330	1724550.450	3105906.330	5412.710	724966.440	106655.520	5412.710	WOOD HUB
340	1724832.970	3105912.790	5416.030	725249.030	106661.980	5416.030	WOOD HUB
350	1725167.590	3104793.950	5426.690	725583.730	105542.880	5426.690	WOOD HUB
360	1724833.040	3104840.440	5419.360	725249.100	105589.370	5419.360	WOOD HUB
650	1724636.250	3105714.030	5416.880	725052.260	106463.170	5416.880	WOOD HUB
660	1724624.650	3105041.280	5422.720	725040.650	105790.260	5422.720	WOOD HUB
100	1726373.620	3104344.510	N/A	726790.050	105093.320		NW COR. SEC 4, T3S, R69W, 6TH P.M.
110	1726395.010	3106978.430	N/A	726811.440	107727.880		N ¼ COR SEC 4, T3S, R69W, 6TH P.M.

LEGEND:

-  = SECTION CORNER
-  = CITY OF ARVADA CONTROL POINT
-  = CITY OF ARVADA BENCHMARK

APPROVED:  1/11/24 23-SR-11
City Engineer Date Job Number

Review is for general compliance with the City of Arvada "Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements", latest edition. Sole responsibility for completeness and/or accuracy of these Documents shall remain with the Registered Professional Engineer sealing these plans. The City does not accept liability for facilities designed by others.

NO.123456789

REVISION

DATE

BY

Public Works Department

Engineering Division

8101 Ralston Road

Arvada, Colorado 80002

Phone 720-898-7640

CITY OF

ARVADA

PROJECT NO. 23-SR-11

CENTRAL RALSTON TRUNK LINE

SIMMS TO PIERSON (CRT7)

PROJECT CONTROL 1

ENGINEER

CHECKED BY

DESIGN BY

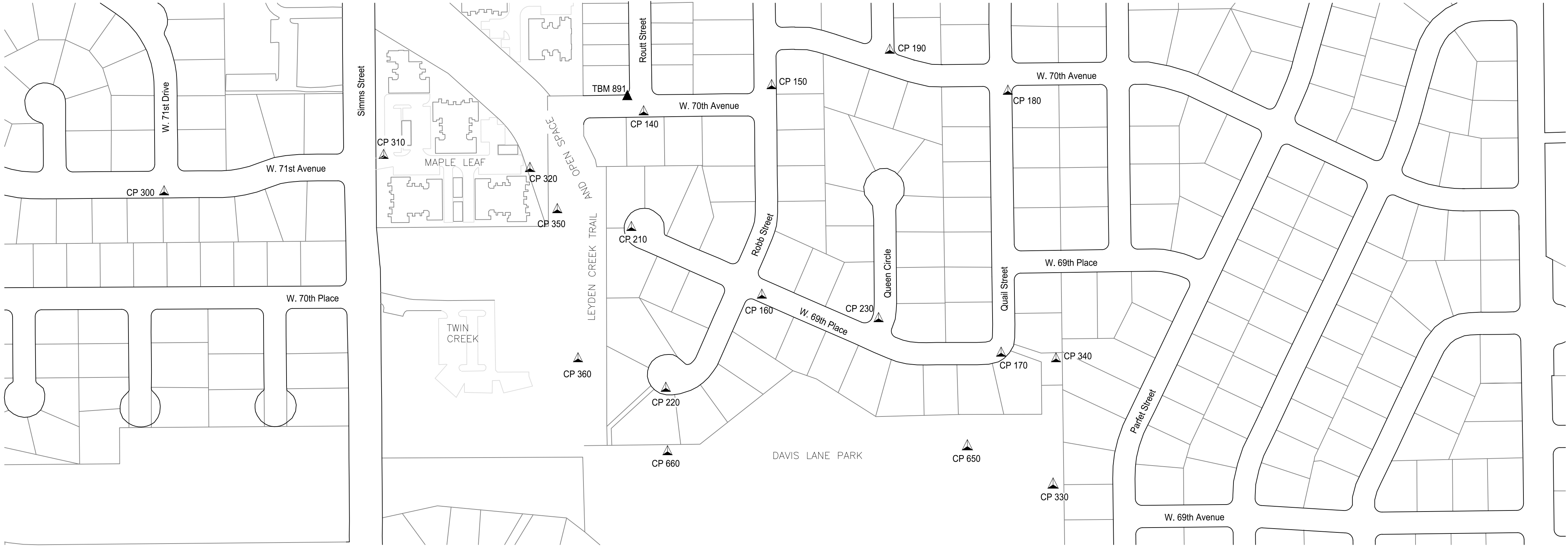
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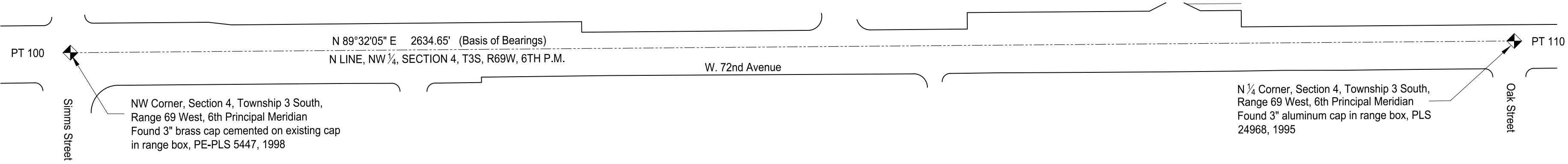
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CENTRAL RALSTON TRUNK LINE
SIMMS ST TO PIERSON STREET
SHEET 2 OF 2



APPROVED: *Amy Wolfshlag, PE* 1/11/24 23-SR-11
City Engineer Date Job Number

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Design and Construction of Public Improvements", latest edition.
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Engineer sealing these plans. The City does not accept liability
for facilities designed by others.

NO.	REVISION	DATE	BY
1			
2			
3			
4			
5			

PROJECT NO. 23-SR-11 CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7) PROJECT CONTROL 2	CITY OF ARVADA	Public Works Department Engineering Division 8101 Ralston Road Arvada, Colorado 80002 Phone 720-898-7640
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ENGINEER	CHECKED BY	DESIGN BY	SHT OF
			5 40

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SUBSURFACE UTILITY ENGINEERING NOTES:

- UTILITY LINES AS SHOWN ON THE PLANS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. SUBSECTION 105.10 OF THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2017 (AS REVISED) SHALL APPLY FOR THIS CONTRACT.
- THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPE AND LOCATION OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. SERVICES TO INDIVIDUAL RESIDENCES, PLACES OF BUSINESS, AND OTHER PRIVATELY-OWNED UTILITY LINES ARE NORMALLY NOT SHOWN ON THE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL LOCATIONS OF EXISTING STRUCTURES AND UTILITIES SHOWN ON THE DRAWINGS AND TO ASCERTAIN WHETHER ANY OTHER STRUCTURES AND UTILITIES MAY EXIST. EVERY REASONABLE MEANS SHALL BE USED, INCLUDING FIELD LOCATION OF THE UTILITY. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. REPAIR OF DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PRIOR TO ANY EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT: 1 (800) 922-1987 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
- THE CONTRACTOR SHALL VERIFY AND DOCUMENT THE CONDITION OF EXISTING UTILITIES (VISIBLE FACILITIES) WITH THE ENGINEER AND REPRESENTATIVES FROM THE UTILITY COMPANIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- IT IS SUGGESTED THAT THE CONTRACTOR INITIATE A REQUEST TO XCEL ENERGY FOR ANY CONSTRUCTION-RELATED TEMPORARY ELECTRICAL POWER SOURCES AS SOON AS POSSIBLE. IN SOME INSTANCES UP TO 30 DAYS MAY BE REQUIRED TO PROVIDE THE SOURCES.

DISCLAIMER REGARDING UNDERGROUND UTILITIES:

EXISTING UTILITIES ARE DEPICTED ON THESE DRAWINGS AND IN ACCORDANCE WITH THE ACHIEVED "QUALITY LEVELS" FOR EACH UTILITY AS DEFINED IN THE AMERICAN SOCIETY OF CIVIL ENGINEERS' DOCUMENT ASCE 38" STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" AND AS REQUIRED BY C.R.S. 9-1.5-101 ET. SEQ.

AS IT APPLIES TO THE DEPICTION OF EXISTING UNDERGROUND UTILITY INFORMATION, THE STAMP AND SEAL ON THIS UTILITY PLAN REFLECT ONLY THAT DEPICTION OF THE EXISTING UNDERGROUND UTILITY MEETS THE NOTED ASCE 38 QUALITY LEVEL, AND DOES NOT SERVE AS A GUARANTY, REPRESENTATION, OR WARRANTY THAT THE DEPICTED UTILITIES EXIST IN THE NOTED LOCATIONS.

RELIANCE UPON THIS DATA FOR RISK MANAGEMENT PURPOSES DURING BIDDING DOES NOT RELIEVE THE EXCAVATOR OR UTILITY OWNER FROM FOLLOWING ALL APPLICABLE UTILITY DAMAGE PREVENTION STATUTES, POLICIES, AND/OR PROCEDURES DURING EXCAVATION. IT IS IMPORTANT THAT THE CONTRACTOR INVESTIGATES AND UNDERSTAND THE SCOPE OF WORK AND CONSULTS WITH THAT PROJECT OWNER AND THE ENGINEER REGARDING THE SCOPE AND LIMITS OF THE INVESTIGATIONS LEADING TO THESE UTILITY DEPICTIONS.

UTILITY QUALITY LEVEL DESCRIPTIONS:

QUALITY LEVEL A: PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. MINIMALLY INTRUSIVE EXCAVATION EQUIPMENT IS TYPICALLY USED TO MINIMIZE THE POTENTIAL FOR UTILITY DAMAGE. A PRECISE HORIZONTAL AND VERTICAL LOCATION, AS WELL AS OTHER UTILITY ATTRIBUTES, IS SHOWN PLAN DOCUMENTS. ACCURACY IS USUALLY SET TO 15-MM VERTICAL AND TO APPLICABLE HORIZONTAL SURVEY AND MAPPING ACCURACY AS DEFINED OR EXPECTED BY THE PROJECT OWNER.

QUALITY LEVEL B: INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. QUALITY LEVEL B DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT AND REDUCED ONTO PLAN DOCUMENTS.

QUALITY LEVEL C: INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

QUALITY LEVEL D: INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

GENERAL NOTES:

- REFER TO SS P&P SHEETS FOR NEW SEWER CONSTRUCTION.

UTILITY NOTES

- 100 - REMOVE AND REPLACE SPRINKLER HEADS AND ASSOCIATED IRRIGATION PIPELINES IN KIND WHERE DISTURBED. NOT ALL SPRINKLER PIPING AND HEADS MAY BE SHOWN. FIELD VERIFY AND RECORD SIZES AND LOCATIONS AS THEY ARE UNCOVERED, REPLACE IN KIND UPON COMPLETION.
- 101 - PROTECT 12" UNDERDRAIN (UD) PIPELINE ADJACENT TO EX SS IN PLACE (NOT SHOWN), MAINTAIN IN SERVICE. THE EX UD IS GENERALLY LOCATED TO THE SIDE AND APPROX. ONE FOOT BELOW THE EXISTING SS PIPELINE.
- 102 - IF EX 12" UD PIPELINE IS FOUND TO BE IN CONFLICT WITH EX MANHOLE ABANDONMENT, REMOVAL, OR EX SS PIPELINE REMOVAL ACTIVITIES, REALIGN THE UD PIPELINE AWAY FROM CONFLICT. SAWCUT AND REMOVE THE CONFLICTING SEGMENT, AND PROVIDE 12" SDR 35 PVC, (4) 45° PVC BEND FITTINGS, AND FERNCO COUPLINGS TO CONNECT TO THE EX PIPELINE AT EACH END. ADJUSTMENTS SHALL BE IN THE HORIZONTAL PLANE, MAINTAIN THE EXISTING GRADE; IF NOT POSSIBLE WITHOUT VERTICAL ADJUSTMENT SEEK DIRECTION FROM CITY REPRESENTATIVE.
- 110 - PROTECT EX ELEC.

△ SANITARY SEWER ABANDONMENT NOTES

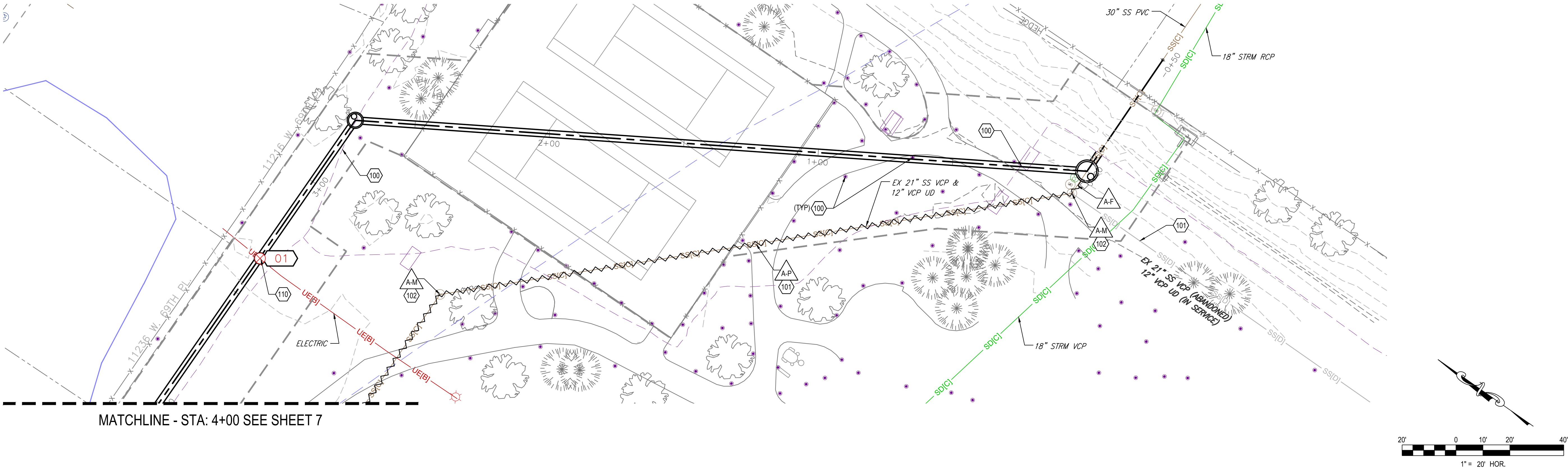
A-P (ABANDON - PLUG): INSTALL BRICK AND MORTAR OR GROUTED RUBBLE PLUG OF SUFFICIENT SIZE TO EXTEND FROM INVERT TO CROWN A MINIMUM OF 2-FT LONG INSIDE EACH OPEN END OF THE SS PIPE SEGMENT SHOWN TO BE ABANDONED IN PLACE. REMAINDER OF PIPELINE BEHIND THE PLUG DOES NOT NEED TO BE CONTINUOUSLY FILLED.

A-F (ABANDON - FILL): CONTINUOUSLY FILL FROM INVERT TO CROWN THE ENTIRE LENGTH OF SS PIPE SEGMENT SHOWN TO BE ABANDONED WITH CLSM. PIPE SEGMENT TO BE ABANDONED IN PLACE.

A-M (ABANDON - MH): PARTIALLY REMOVE AND ABANDON SS MH IN PLACE. REMOVE AND DISPOSE OF MH FRAME, COVER, AND GRADE RINGS. (**FOR MAINTENANCE HOLES IN THE ROADWAY OR WITHIN PLANNED EXCAVATION, REMOVE AND DISPOSE OF CONE AND BARREL SECTIONS DOWN TO THE BARREL JOINT JUST ABOVE THE SS PIPELINE TO BE ABANDONED**).

CAP UNDERDRAIN ACCESS CLEANOUT INSIDE MH, IF PRESENT, BUT DO NOT CUT OR FILL UNDERDRAIN PIPELINE ITSELF, PROTECT IN PLACE. FILL THE REMAINING MH BASE STRUCTURE WITH CLSM. INSTALL A PLUG "A-P" INSIDE SS PIPE ENDS WITHIN THE MH TO CONTAIN THE CLSM WITHIN THE MH STRUCTURE (UNLESS THE PIPE IS ALSO DESIGNATED TO BE FILLED "A-F"). BACKFILL THE REMAINING EXCAVATION TO GRADE IN ACCORDANCE WITH THE PROJECT REQUIREMENTS.

TEST HOLE TABLE							
PH#	NORTHING (ft)	EASTING (ft)	GROUND ELEVATION (ft)	MEASURE DOWN ELEVATION (ft)	DEPTH	DESCRIPTION	COMMENT
01	725111.81	106446.54	5416.83	-	-	ELEC	Not Accessible



Know what's below.
Call before you dig.

FOR CONSTRUCTION

APPROVED:
Jenny Wolfshagen, PE
City Engineer
1/11/24
Date
23-SR-11
Job Number

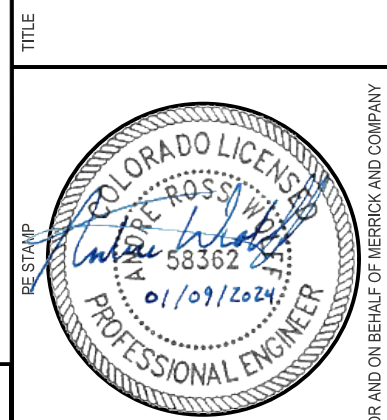
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0 DRAWING 1
IF NOT ONE INCH ON
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ADJUST SCALES
ACCORDINGLY



DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:	REV	REVISION DESCRIPTION	DATE	CHND	CHKD	APPR
ARW	ARW	SKD	---						

CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CR7)
UTILITY PLAN - STA. 0+00 - 4+00

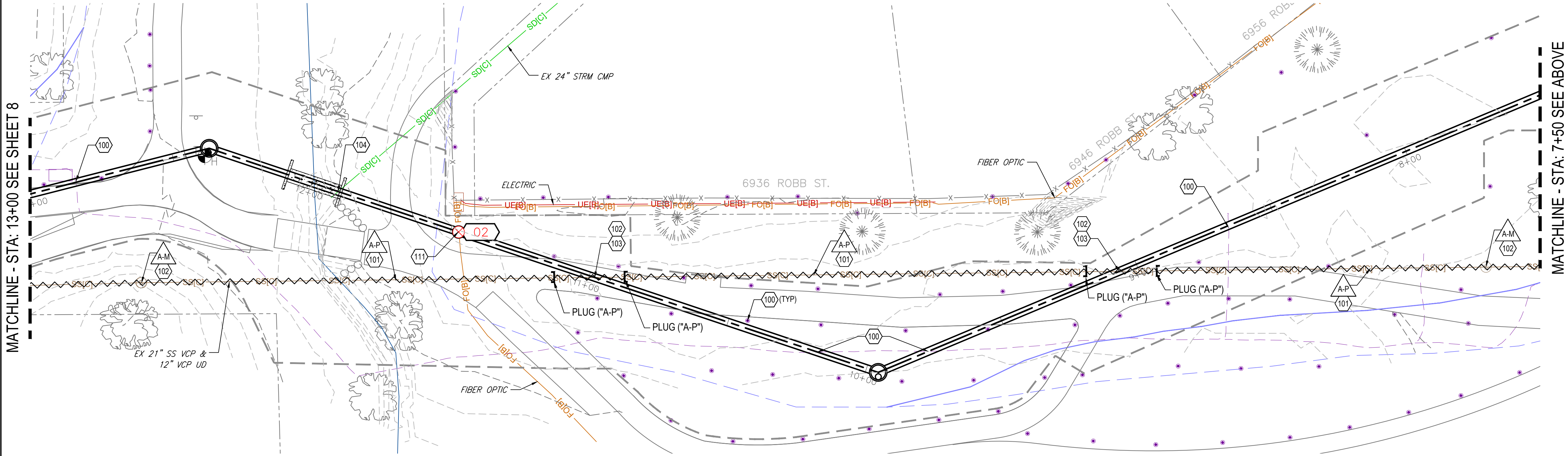
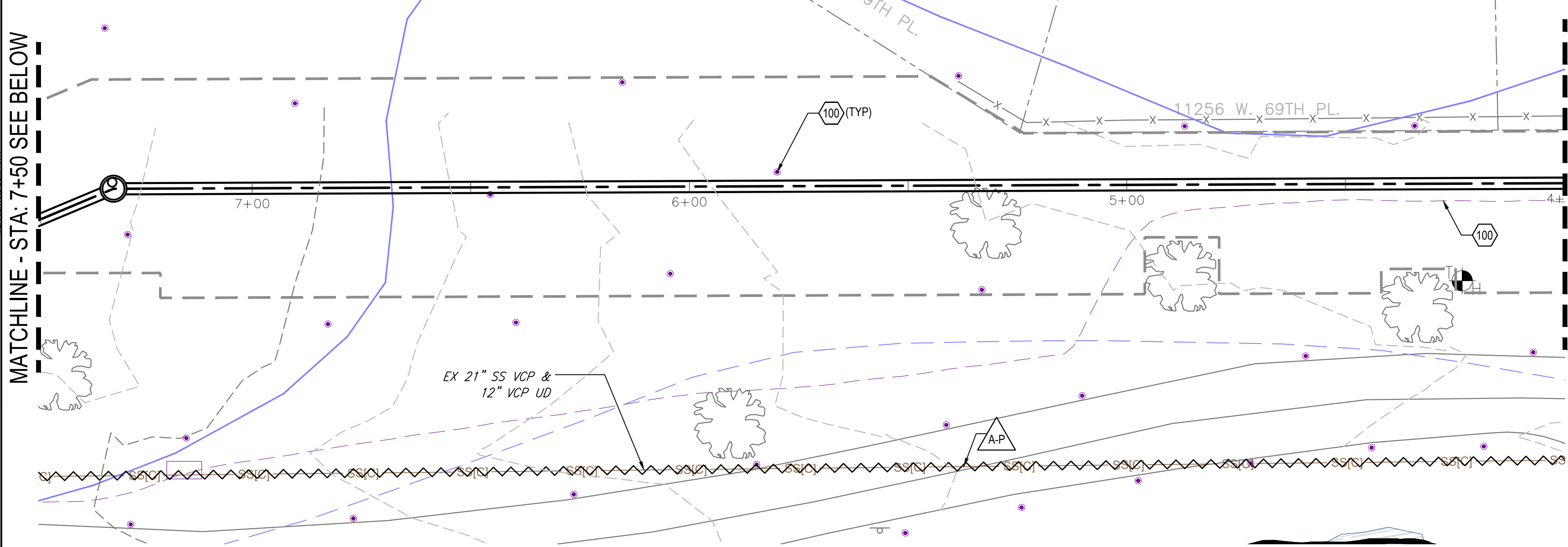


PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	6 OF 40

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TEST HOLE TABLE						
PH#	NORTHING (ft)	EASTING (ft)	GROUND ELEVATION (ft)	MEASURE DOWN ELEVATION (ft)	DEPTH	DESCRIPTION
02	725056.58	105662.45	5422.86	-	-	FO
						Not Accessible



Know what's below.
Call before you dig.

GENERAL NOTES:

- REFER TO SS P&P SHEETS FOR NEW SEWER CONSTRUCTION.

UTILITY NOTES

- REMOVE AND REPLACE SPRINKLER HEADS AND ASSOCIATED IRRIGATION PIPELINES IN KIND WHERE DISTURBED. NOT ALL SPRINKLER PIPING AND HEADS MAY BE SHOWN. FIELD VERIFY AND RECORD SIZES AND LOCATIONS AS THEY ARE UNCOVERED, REPLACE IN KIND UPON COMPLETION.
- PROTECT 12" UNDERDRAIN (UD) PIPELINE ADJACENT TO EX SS IN PLACE (NOT SHOWN), MAINTAIN IN SERVICE. THE EX UD IS GENERALLY LOCATED TO THE SIDE AND APPROX. ONE FOOT BELOW THE EXISTING SS PIPELINE.
- IF EX 12" UD PIPELINE IS FOUND TO BE IN CONFLICT WITH EX MANHOLE ABANDONMENT, REMOVAL, OR EX SS PIPELINE REMOVAL ACTIVITIES, REALIGN THE UD PIPELINE AWAY FROM CONFLICT. SAWCUT AND REMOVE THE CONFLICTING SEGMENT, AND PROVIDE 12" SDR 35 PVC, (4) 45° PVC BEND FITTINGS, AND FERNCO COUPLINGS TO CONNECT TO THE EX PIPELINE AT EACH END. ADJUSTMENTS SHALL BE IN THE HORIZONTAL PLANE, MAINTAIN THE EXISTING GRADE; IF NOT POSSIBLE WITHOUT VERTICAL ADJUSTMENT SEEK DIRECTION FROM CITY REPRESENTATIVE.
- CUT AND REMOVE SHORT SEGMENT OF EX SS PIPELINE (SEE PHASING PLAN)
- REMOVE AND REPLACE EX 24" CMP IN KIND TO FACILITATE SS INSTALLATION
- PROTECT EX FO

KEY MAP

SCALE: 1"=1000'



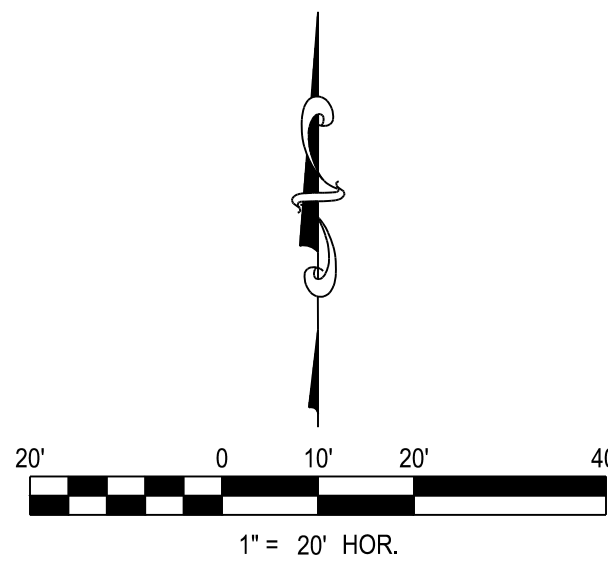
SANITARY SEWER ABANDONMENT NOTES

A-P (ABANDON - PLUG): INSTALL BRICK AND MORTAR OR GROUTED RUBBLE PLUG OF SUFFICIENT SIZE TO EXTEND FROM INVERT TO CROWN A MINIMUM OF 2-FT LONG INSIDE EACH OPEN END OF THE SS PIPE SEGMENT SHOWN TO BE ABANDONED IN PLACE. REMAINDER OF PIPELINE BEHIND THE PLUG DOES NOT NEED TO BE CONTINUOUSLY FILLED.

A-F (ABANDON - FILL): CONTINUOUSLY FILL FROM INVERT TO CROWN THE ENTIRE LENGTH OF SS PIPE SEGMENT SHOWN TO BE ABANDONED WITH CLSM. PIPE SEGMENT TO BE ABANDONED IN PLACE.

A-M (ABANDON - MH): PARTIALLY REMOVE AND ABANDON SS MH IN PLACE. REMOVE AND DISPOSE OF MH FRAME, COVER, AND GRADE RINGS. (**FOR MAINTENANCE HOLES IN THE ROADWAY OR WITHIN PLANNED EXCAVATION, REMOVE AND DISPOSE OF CONE AND BARREL SECTIONS DOWN TO THE BARREL JOINT JUST ABOVE THE SS PIPELINE TO BE ABANDONED**).

CAP UNDERDRAIN ACCESS CLEANOUT INSIDE MH, IF PRESENT, BUT DO NOT CUT OR FILL UNDERDRAIN PIPELINE ITSELF, PROTECT IN PLACE. FILL THE REMAINING MH BASE STRUCTURE WITH CLSM. INSTALL A PLUG "A-P" INSIDE SS PIPE ENDS WITHIN THE MH TO CONTAIN THE CLSM WITHIN THE MH STRUCTURE (UNLESS THE PIPE IS ALSO DESIGNATED TO BE FILLED "A-F"). BACKFILL THE REMAINING EXCAVATION TO GRADE IN ACCORDANCE WITH THE PROJECT REQUIREMENTS.



APPROVED:

Jenny Wolfshagen, PE
City Engineer

1/11/24
Date

23-SR-11
Job Number

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BAR IS ONE INCH
ON ORIGINAL
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IF NOT ONE INCH ON
THIS DRAWING
ADJUST SCALES
ACCORDINGLY



CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

UTILITY PLAN - STA. 4+00 - 13+00

TITLE



PROJECT NUMBER
100107

DATE
JANUARY 2024

SHEET
7 OF 40

City/District: Northridge (Area 2) \$50,000.00 Annual Deduction: Trade & Invest \$10,000.00



KEY MAP

SCALE: 1"=1000'

GENERAL NOTES:

1. REFER TO SS P&P SHEETS FOR NEW SEWER CONSTRUCTION.

UTILITY NOTES

- 100 - REMOVE AND REPLACE SPRINKLER HEADS AND ASSOCIATED IRRIGATION PIPELINES IN KIND WHERE DISTURBED. NOT ALL SPRINKLER PIPING AND HEADS MAY BE SHOWN. FIELD VERIFY AND RECORD SIZES AND LOCATIONS AS THEY ARE UNCOVERED, REPLACE IN KIND UPON COMPLETION.
- 101 - PROTECT 12" UNDERDRAIN (UD) PIPELINE ADJACENT TO EX SS IN PLACE (NOT SHOWN), MAINTAIN IN SERVICE. THE EX UD IS GENERALLY LOCATED TO THE SIDE AND APPROX. ONE FOOT BELOW THE EXISTING SS PIPELINE.
- 102 - IF EX 12" UD PIPELINE IS FOUND TO BE IN CONFLICT WITH EX MANHOLE ABANDONMENT, REMOVAL, OR EX SS PIPELINE REMOVAL ACTIVITIES, REALIGN THE UD PIPELINE AWAY FROM CONFLICT. SAWCUT AND REMOVE THE CONFLICTING SEGMENT, AND PROVIDE 12" SDR 35 PVC, (4) 45° PVC BEND FITTINGS, AND FERNCO COUPLINGS TO CONNECT TO THE EX PIPELINE AT EACH END. ADJUSTMENTS SHALL BE IN THE HORIZONTAL PLANE, MAINTAIN THE EXISTING GRADE; IF NOT POSSIBLE WITHOUT VERTICAL ADJUSTMENT SEEK DIRECTION FROM CITY REPRESENTATIVE.
- 103 - REMOVE EX 21" SS VCP FROM WITHIN NEW MH (SEE PHASING PLAN)
- 110 - PROTECT EX ELEC.
- 112 - REMOVE EX 8" SS PVC FROM WITHIN NEW MH
- 113 - REMOVE AND REPLACE EX 15" CMP IN KIND TO FACILITATE SS INSTALLATION
- 114 - PROTECT VARIOUS EX ELEC. & FO UTIL.
- 115 - PROTECT EX DUCT BANK
- 116 - PROTECT EX 1 1/4" GAS SVC
- 119 - PROTECT EX 6" PVC WATER

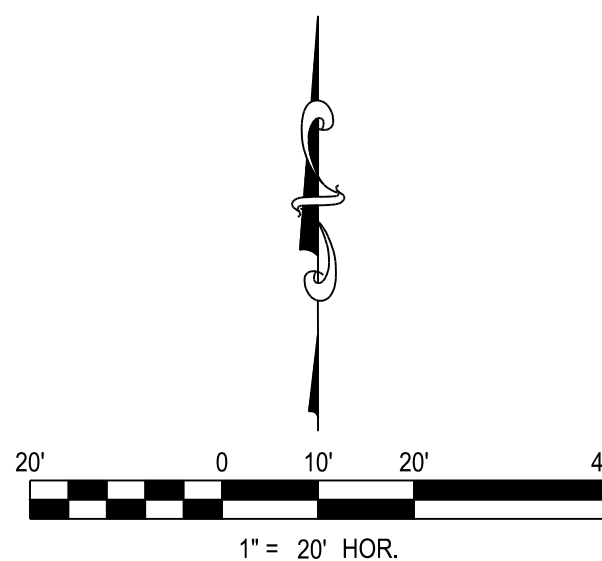
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APPROVED: Jenny Wallschlag, PE 1/11/24 23-SR-11
City Engineer Date Job Number

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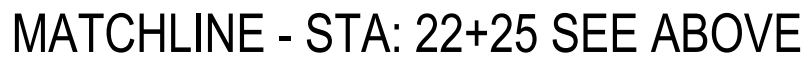
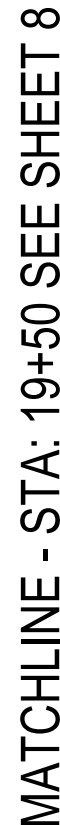
CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
UTILITY PLAN - STA: 13+00 - 19+50

PROJECT NUMBER
100107

DATE
JANUARY 2024

SHEET
8 OF 40

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3 MIN. SEE COT & , SHEET 17

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UTILITY PLAN - STA. 19+50 - 27+50

SHEET

9 OF 40



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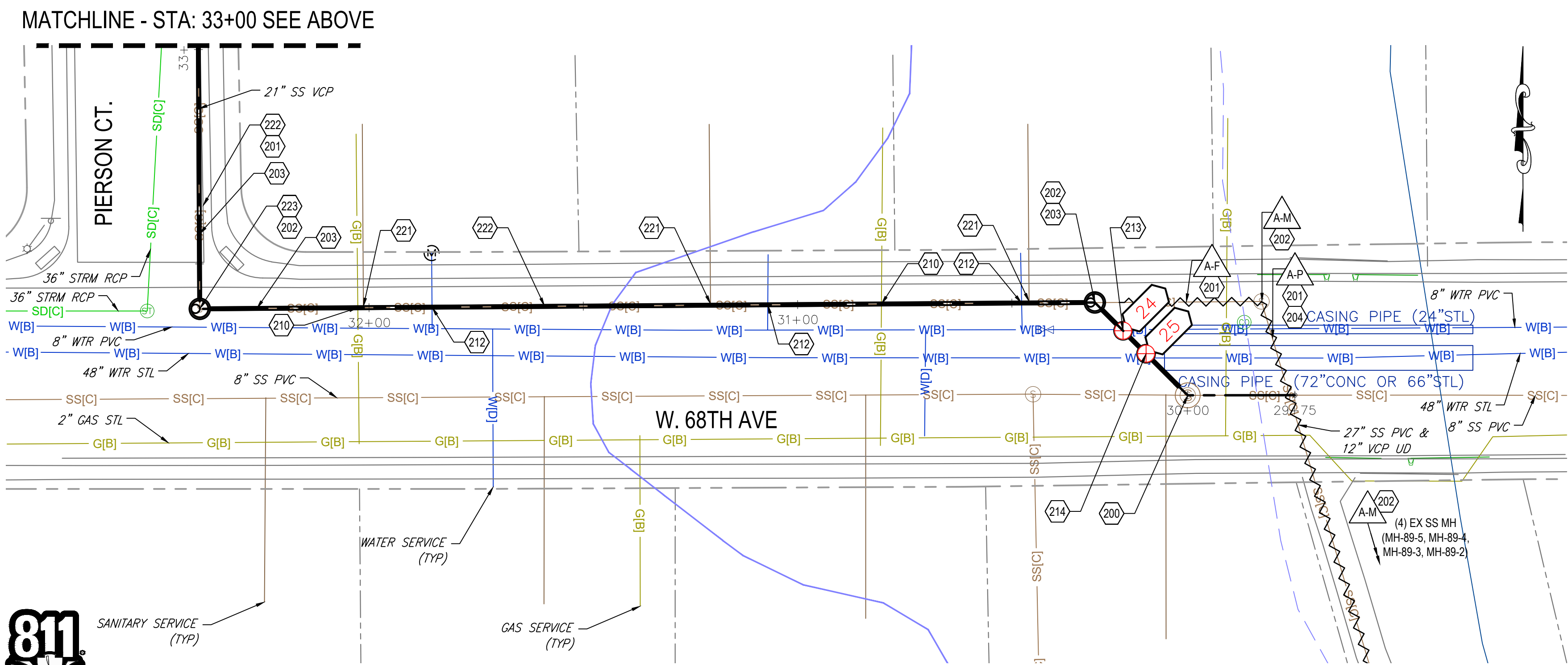
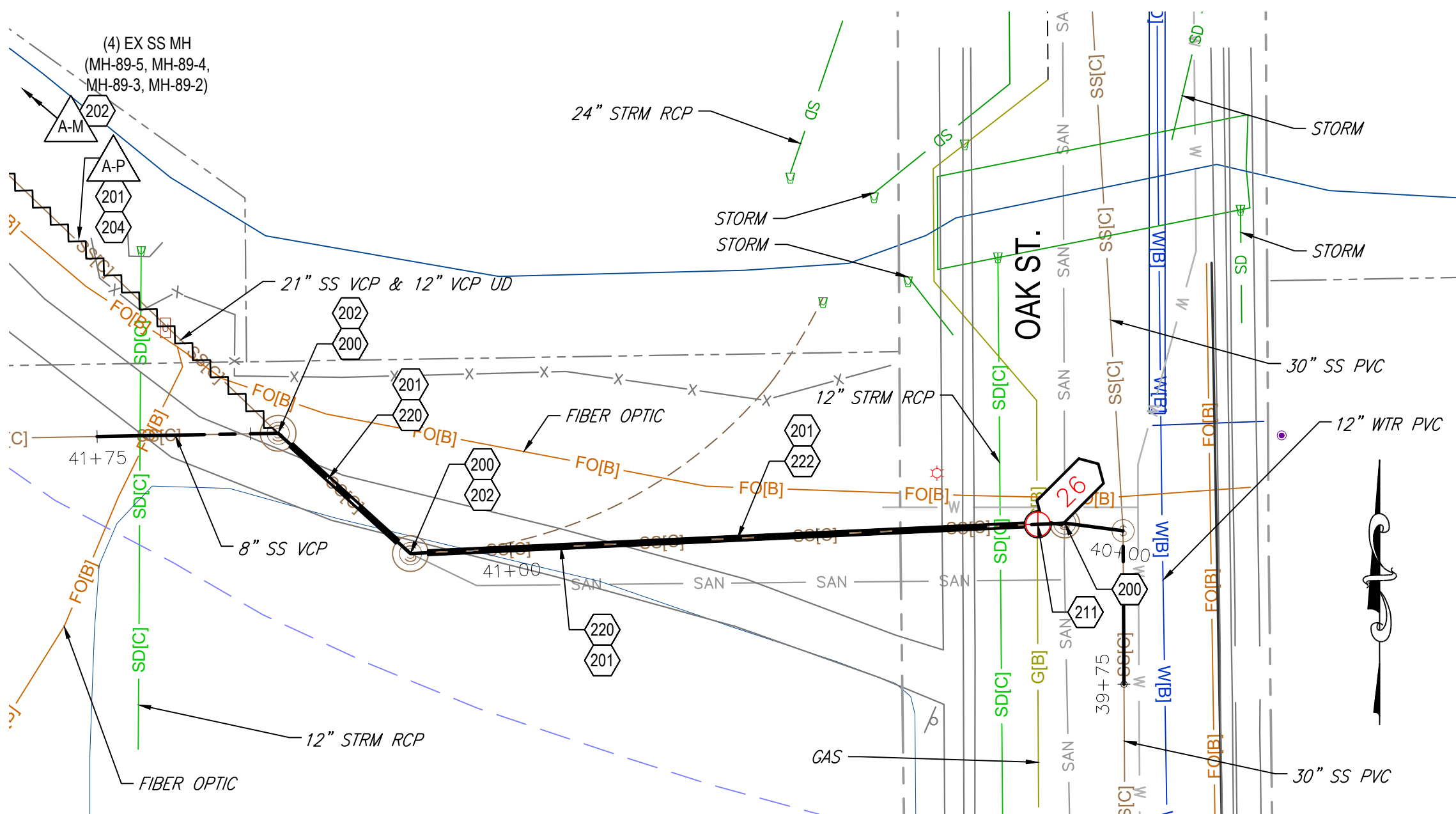
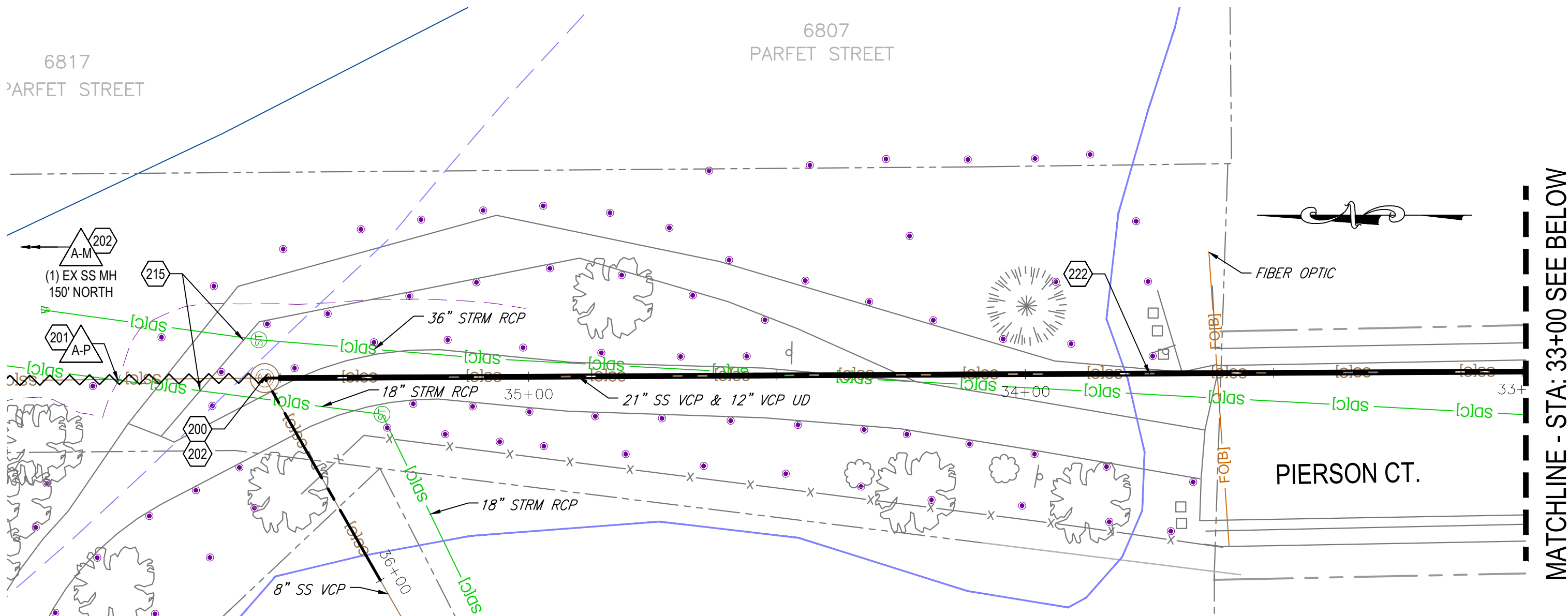
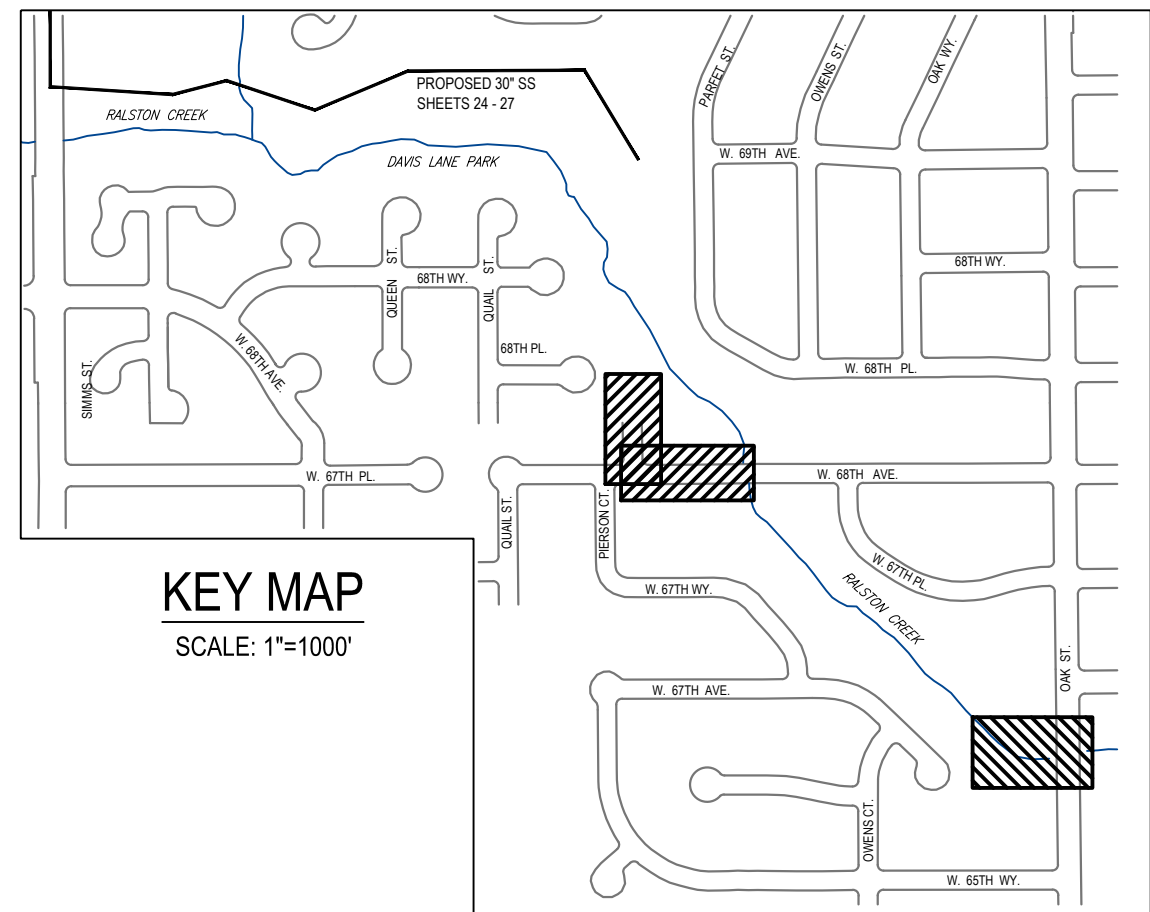
GENERAL NOTES:

1. REFER TO SS P&P SHEETS FOR NEW SEWER CONSTRUCTION.

UTILITY NOTES

- 200 - MODIFY EX MH TO ACCEPT NEW 8" PVC SS CONNECTION. SEE SS P&P SHEETS 18 - 20
- 201 - PROTECT 12" UNDERDRAIN (UD) PIPELINE ADJACENT TO EX SS IN PLACE (NOT SHOWN), MAINTAIN IN SERVICE. THE EX UD IS GENERALLY LOCATED TO THE SIDE AND APPROX ONE FOOT BELOW THE EXISTING SS PIPELINE.
- 202 - IF EX 12" UD PIPELINE IS FOUND TO BE IN CONFLICT WITH EX MANHOLE ABANDONMENT, REMOVAL, OR EX SS PIPELINE REMOVAL ACTIVITIES, REALIGN THE UD PIPELINE AWAY FROM CONFLICT. SAWCUT AND REMOVE THE CONFLICTING SEGMENT AND PROVIDE 2" SDR 35 PVC, (4) 45° PVC BEND FITTINGS, AND FERNCO COUPLINGS TO CONNECT TO THE EX PIPELINE AT EACH END. ADJUSTMENTS SHALL BE IN THE HORIZONTAL PLANE, MAINTAIN THE EXISTING GRADE; IF NOT POSSIBLE WITHOUT VERTICAL ADJUSTMENT SEEK DIRECTION FROM THE CITY REPRESENTATIVE.
- 203 - INSTALL NEW SS MH ON EX 21" SS. SAWCUT AND REMOVE PORTION OF 21" SS INSIDE MH TO REDIRECT FLOW TO NEW 8" SS PVC TO SOUTHEAST. SEE SS P&P SHEET 18
- 204 - INSTALL A PLUG "A-P" IN THE ADJACENT MANHOLE SHOWN. NO ADDITIONAL SCOPE TO REMAINING MHS AND PIPE SEGMENTS ALONG RALSTON CREEK BTWN 68TH AVE AND OAK ST.

- 210 - PROTECT EX GAS SVC
- 211 - PROTECT EX 6" GAS
- 212 - PROTECT EX WATER SVC
- 213 - PROTECT EX 8" PVC WATER
- 214 - PROTECT EX 48" STL WATER
- 215 - PROTECT EX RCP STRM
- 220 - REMOVE PORTION OF EX 21" VCP SS IN PROPOSED PUSH-PIT FOR JACKING
NEW 8" PVC ON CASING SPACERS. SEE SS P&P SHEETS 18 - 20 RECONNECT
EX SS SVC TO NEW 8" VCP SS. SEE SS P&P SHEETS
- 222 - CLEAN EX 21" VCP SS AND INSTALL NEW 8" PVC SS CARRIER PIPE ON SKIDS
- 223 - REMOVE AND REPLACE EX SS MH



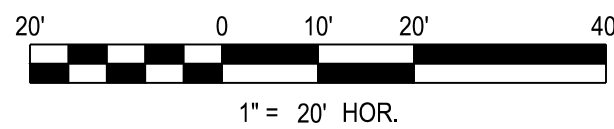
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APPROVED: Jenny Wollschlaeg, PE 1/11/24 23-SR-11
City Engineer Date Job Number

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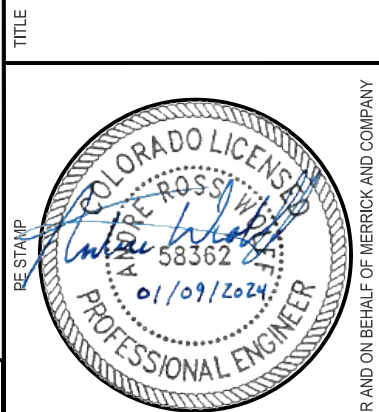
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DESIGNED BY:	ARW
DRAWN BY:	ARW
CHECKED BY:	SKD
APPROVED BY:	

CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

UTILITY PLAN - STA. 30+00 - 35+50
& 40+00 - 41+50



PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	10 OF 40



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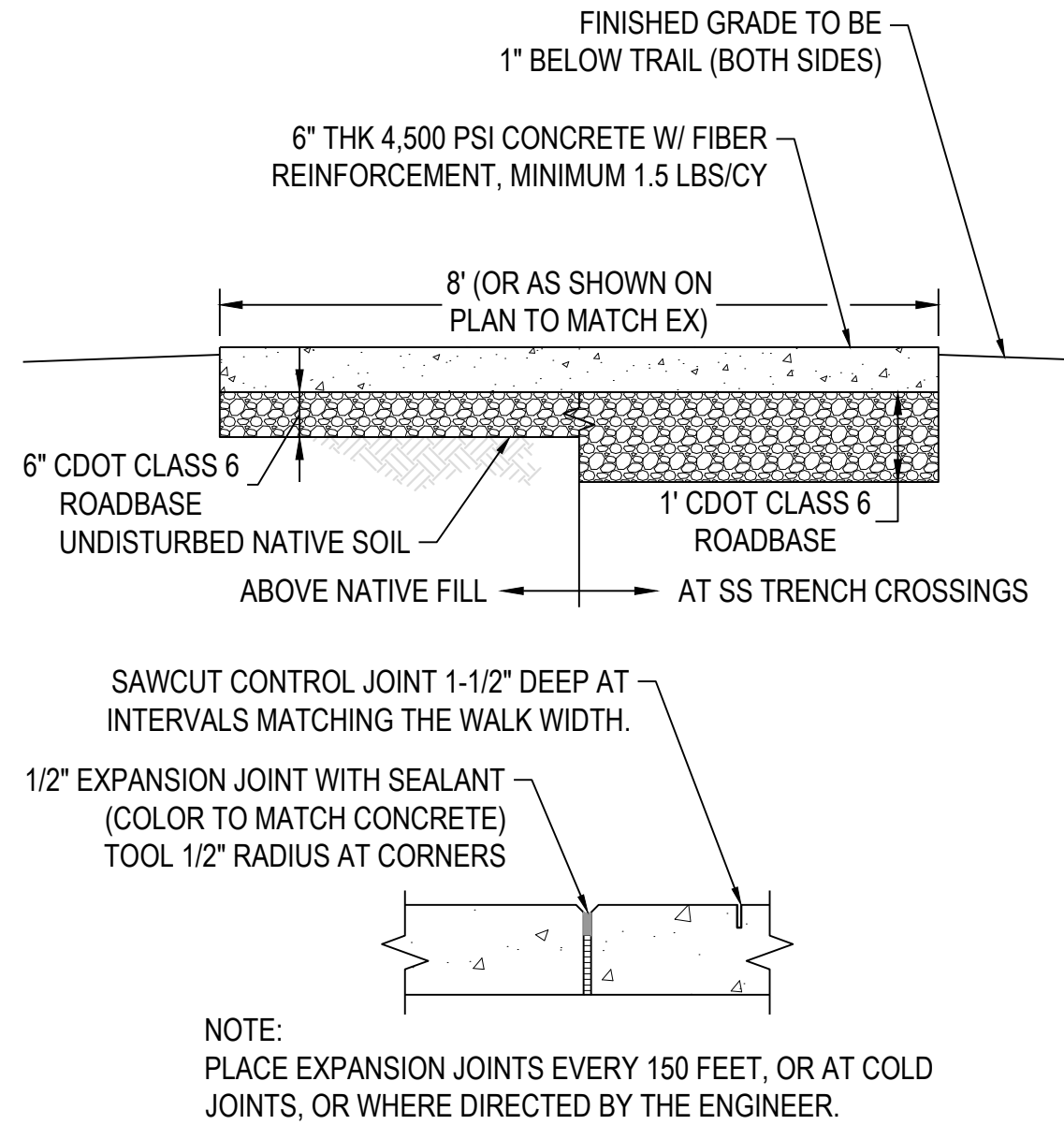
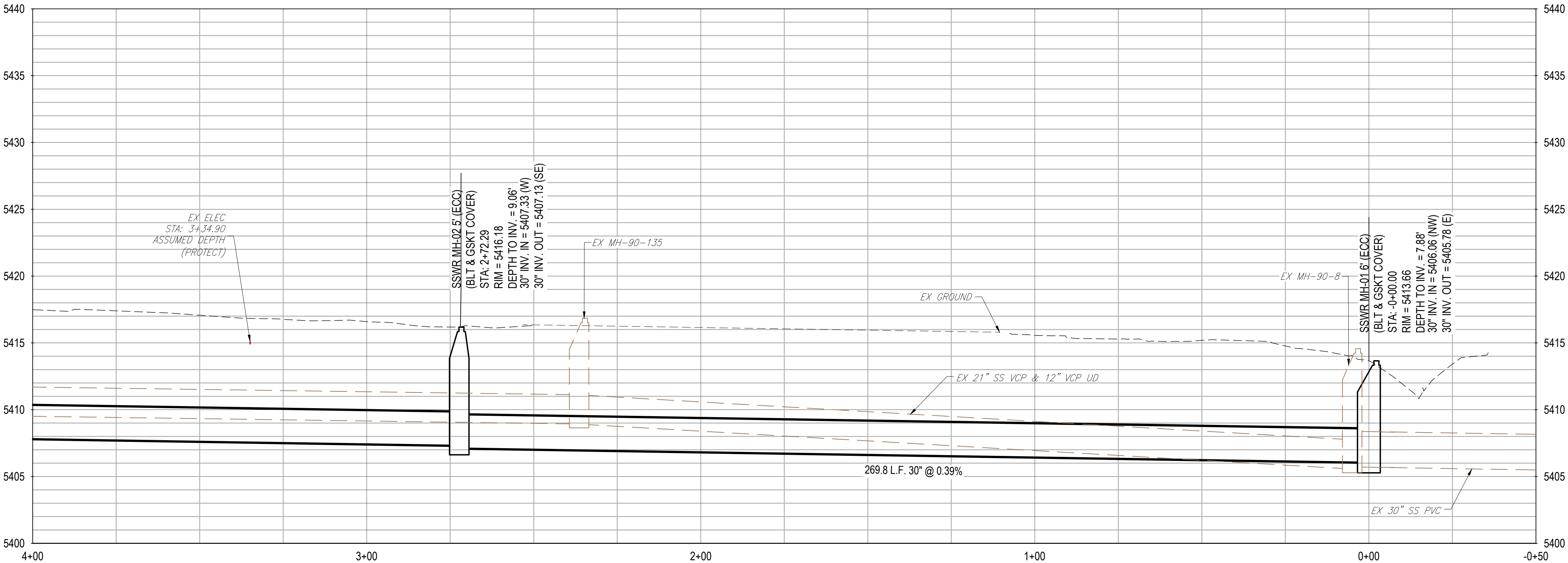
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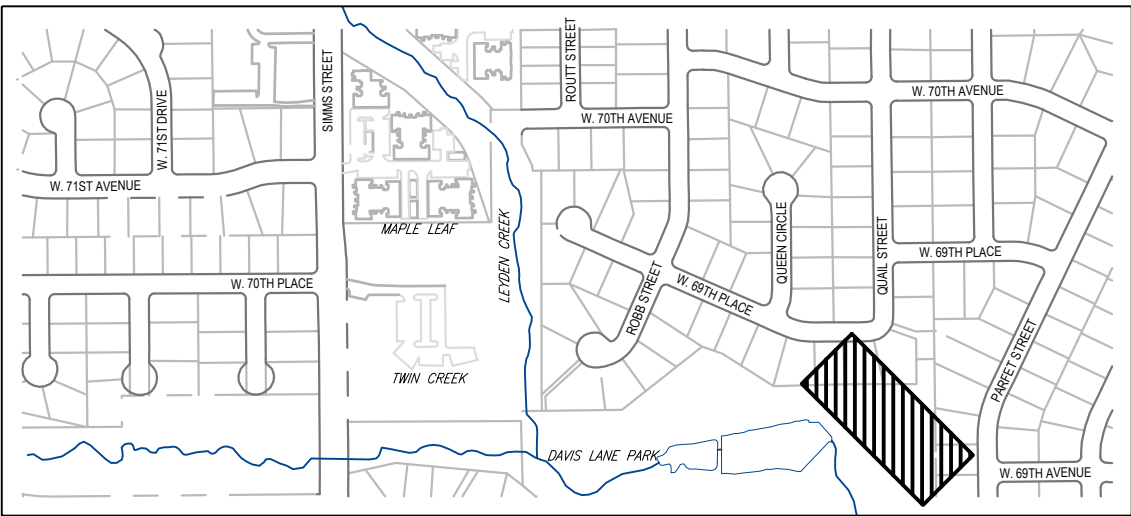
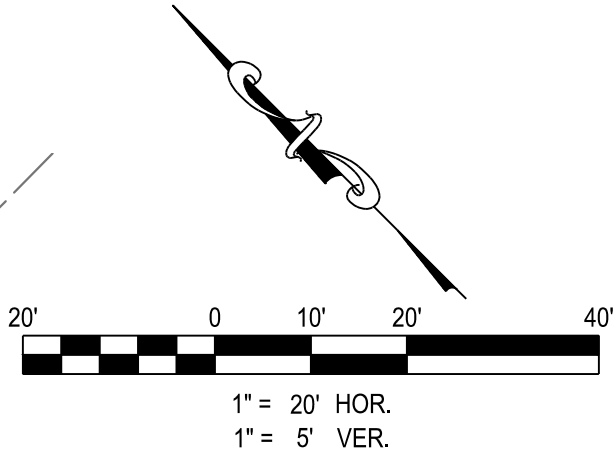
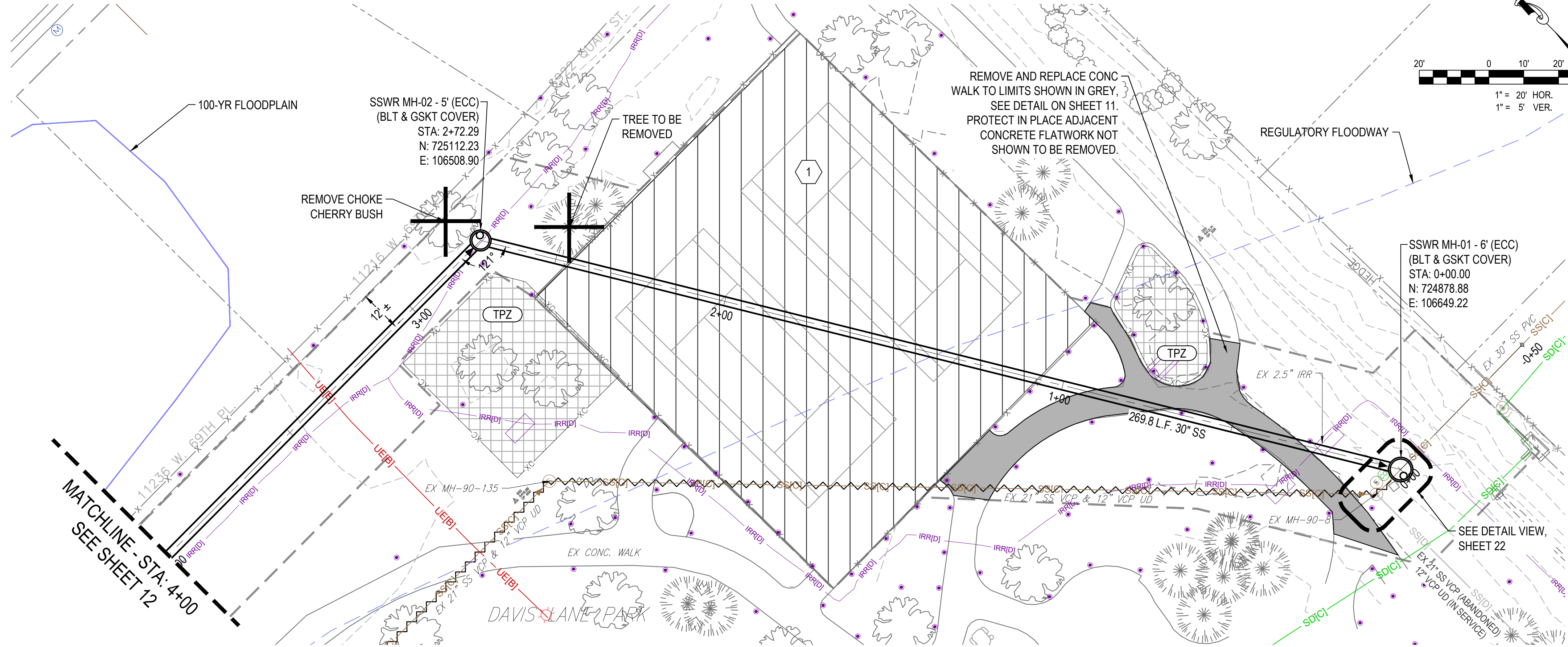
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TYPICAL CONCRETE TRAIL DETAILS
SCALE: NTS

APPROVED: *[Signature]* 1/11/24 23-SR-11
City Engineer Date Job Number

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KEY MAP
SCALE: 1"=1000'

GENERAL NOTES:

- REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EX SS PIPELINES.
- COORDINATE EXACT EXTENT OF TREE PROTECTION ZONES (TPZ) IN THE FIELD WITH THE CITY FORESTER PRIOR STARTING CONSTRUCTION.

KEYNOTES:

- REMOVE AND DISPOSE OF TENNIS COURT PAVING, CURBS, PERIMETER FENCING, AND OTHER RELATED ITEMS. COORDINATE ITEMS FOR SALVAGE WITH OWNER. PROTECT ALL TREES (INCLUDING ROOTS) AROUND THE PERIMETER OF THE COURT EXCEPT FOR THOSE SPECIFICALLY NOTED TO BE REMOVED. TENNIS COURT AREA TO BE REPLACED WITH SOD. COORDINATE WITH CITY REPRESENTATIVE FOR ADDITIONAL IMPROVEMENTS.

SCALE BAR
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ARW	ARW	SKD	---						

CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

SS P&P - STA. 00+00 - 04+00

PRO ORADO LICENSE
56362
01/09/2024
PROFESSIONAL ENGINEER

FOR AND ON BEHALF OF MERRICK AND COMPANY

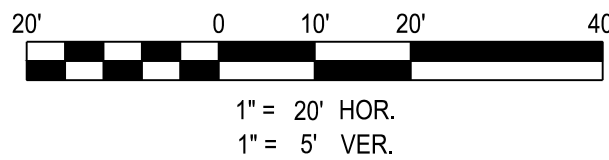
PROJECT NUMBER
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DATE
JANUARY 2024

SHEET
11 OF 40

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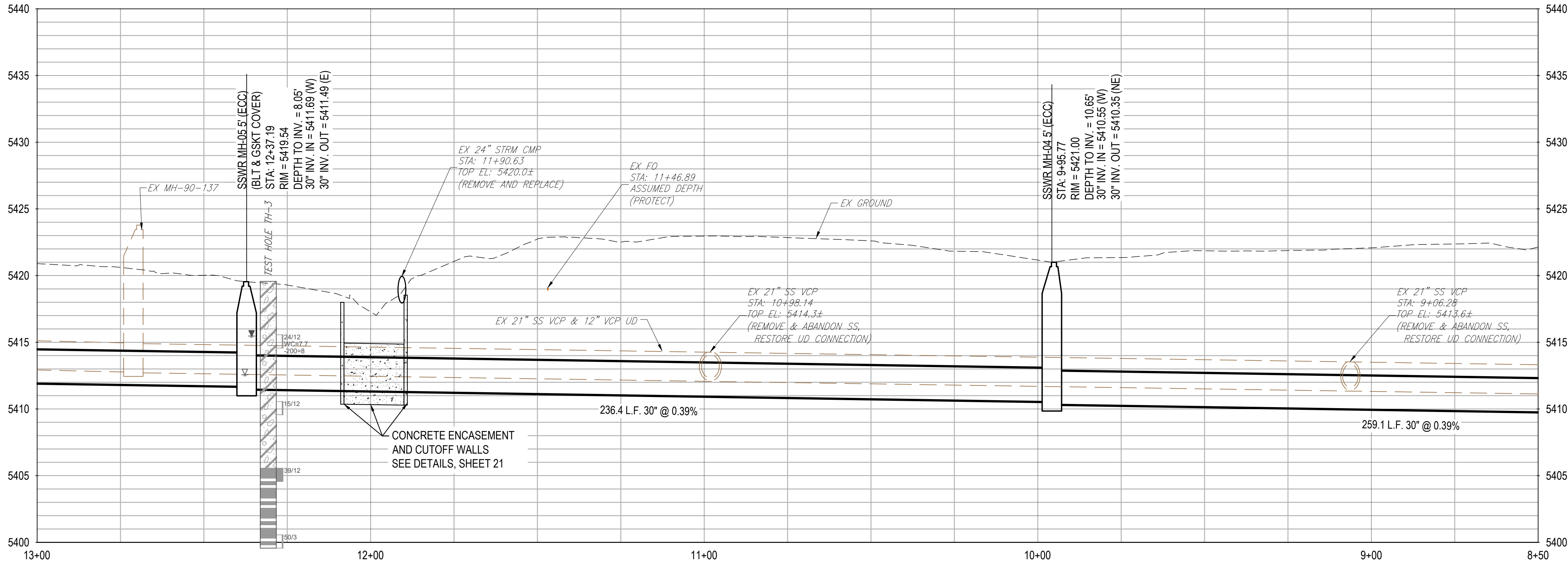
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1. REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EX SS PIPELINES.
2. COORDINATE EXACT EXTENT OF TREE PROTECTION ZONES (TPZ) IN THE FIELD WITH THE CITY FORESTER PRIOR STARTING CONSTRUCTION.

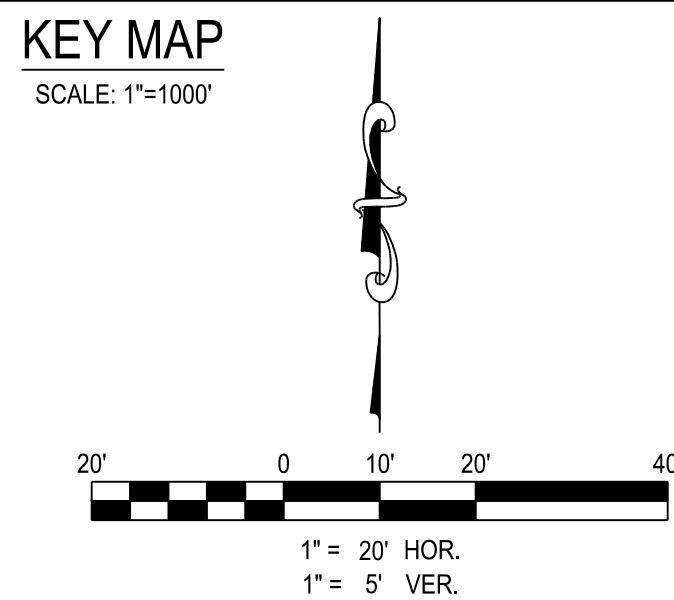
PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	12 OF 40

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APPROVED: Jenny Wolfschlag, PE 1/11/24 23-SR-11
City Engineer Date Job Number

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2. COORDINATE EXACT EXTENT OF TREE PROTECTION ZONES (TPZ) IN THE FIELD WITH THE CITY FORESTER PRIOR STARTING CONSTRUCTION.

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SS P&P - STA. 08+50 - 13+00



PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	13 OF 40

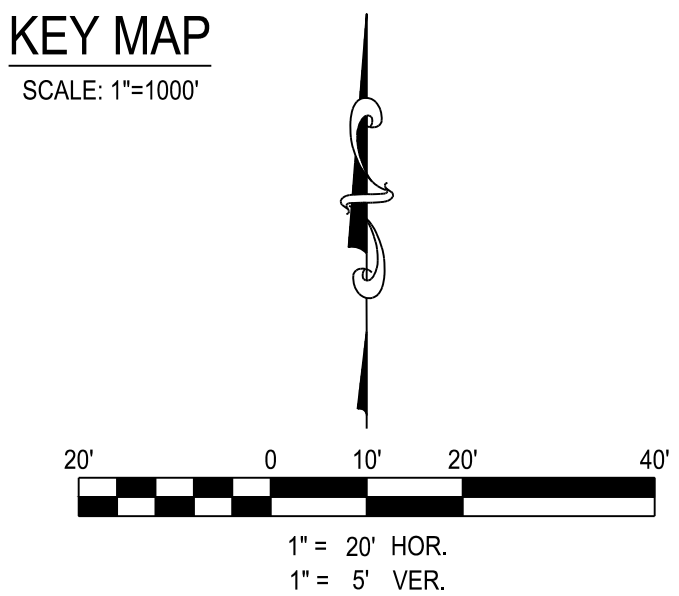
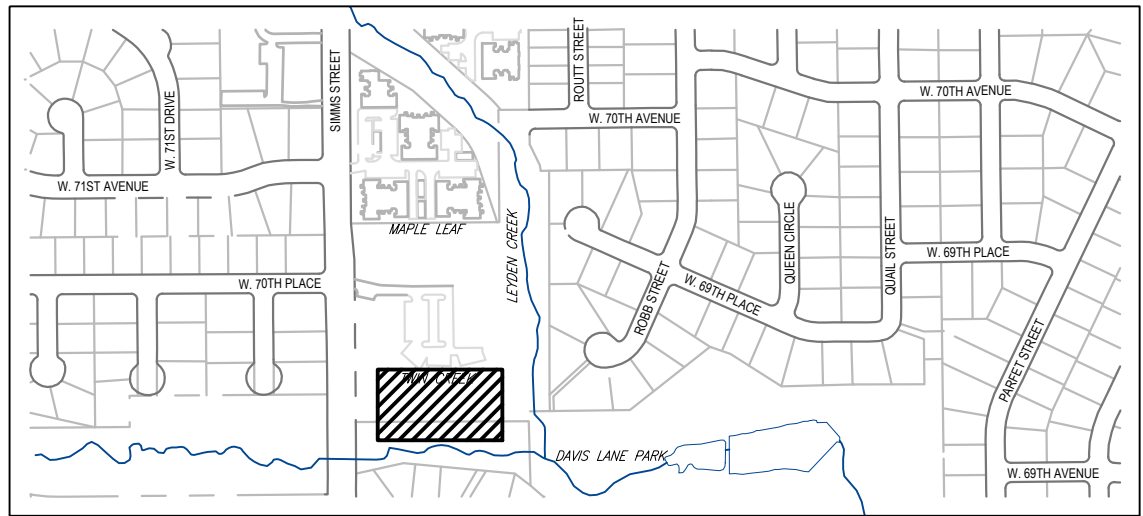
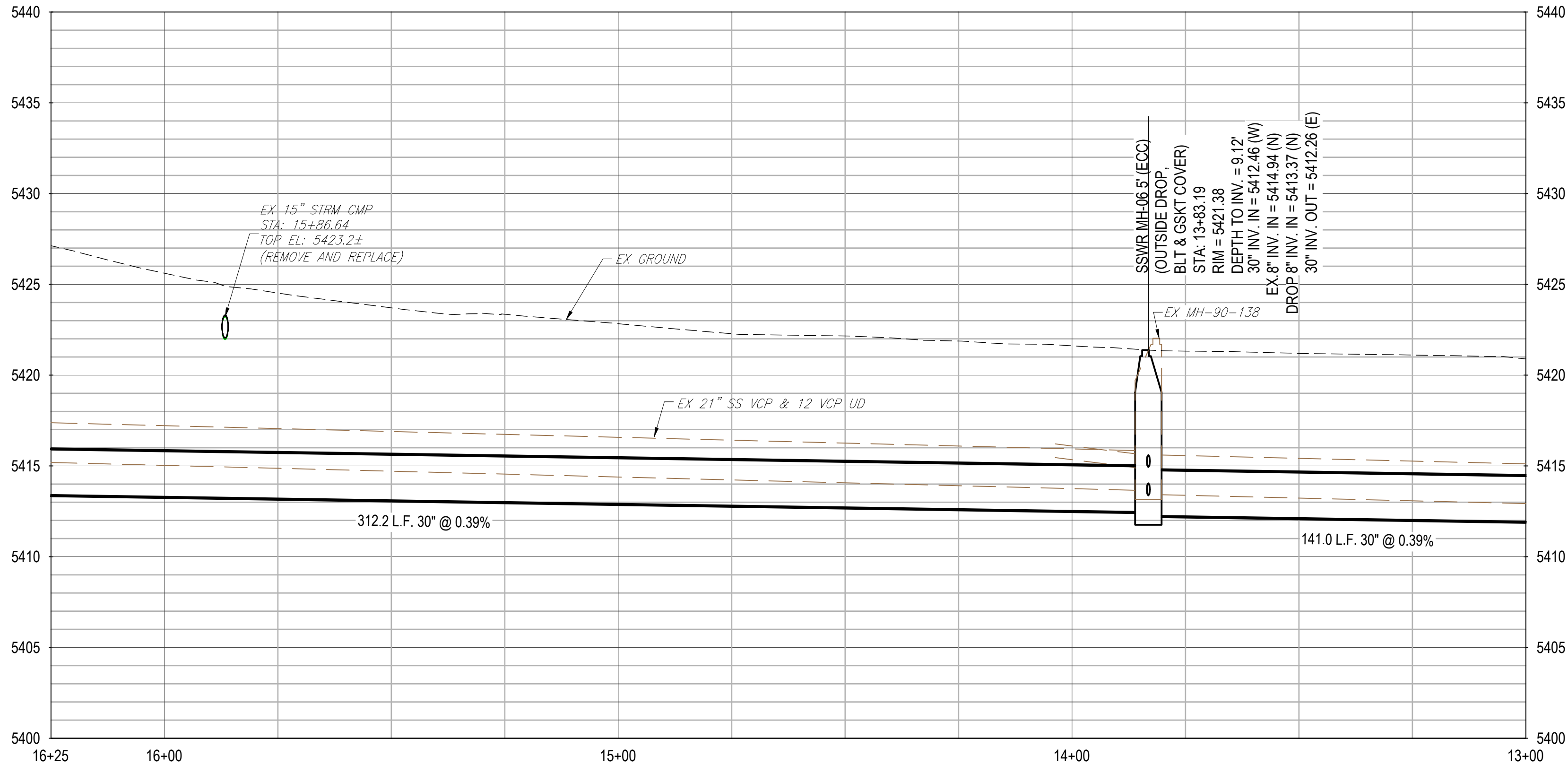
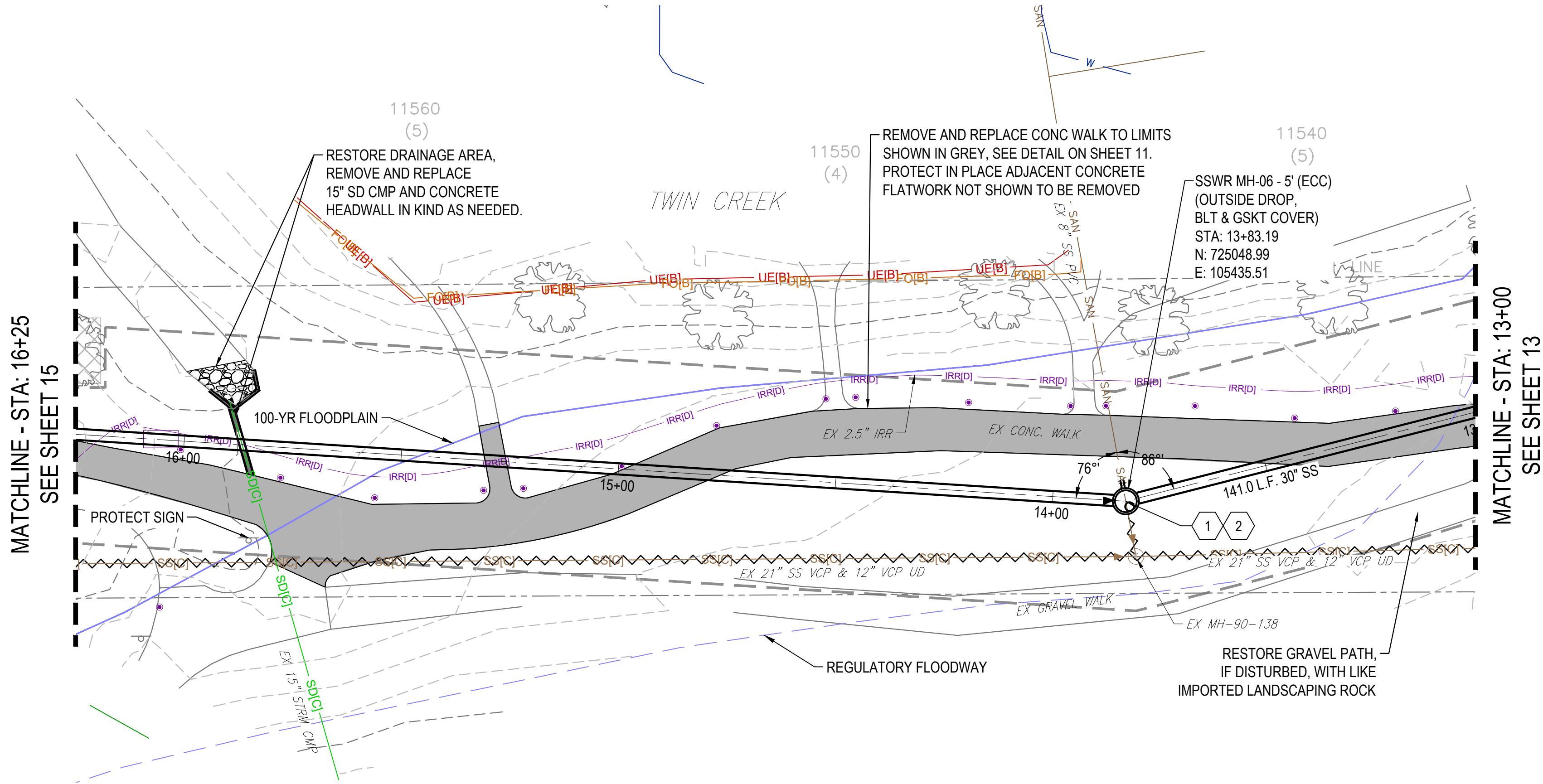
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GENERAL NOTES:

- REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EX SS PIPELINES.
- COORDINATE EXACT EXTENT OF TREE PROTECTION ZONES (TPZ) IN THE FIELD WITH THE CITY FORESTER PRIOR STARTING CONSTRUCTION.

KEYNOTES:

1

REMOVE EXISTING 8" PVC AS NEEDED TO INSTALL OUTSIDE DROP MH. AT CONTRACTORS OPTION, EXISTING 8" PVC MAY BE USED TO BYPASS FLOW THROUGH PROPOSED MH TO EX MH-90-138 (SEE PHASING PLAN) USING FLOW THROUGH PLUG. REMOVE PLUG AND GROUT/SEAL TEMPORARY OPENINGS BEFORE PLACING PROPOSED MH IN SERVICE.

2

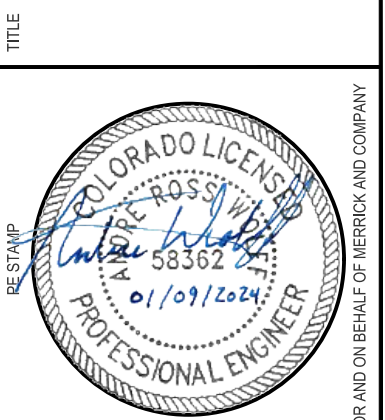
AFTER NEW INVERT CHANNEL AND BENCH INSTALLATION IS COMPLETE AND CURED, LINE ALL INTERIOR SURFACES OF MH WITH SPECTRASHIELD INSTALLED BY MFR-APPROVED INSTALLER. CLEANING, SURFACE PREPARATION, AND APPLICATION PER MFR RECOMMENDATIONS. TOTAL LINING SYSTEM THICKNESS: 500 MILS.

SCALE BAR
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ON ORIGINAL
DRAWING 1
IF NOT ONE INCH ON
THIS DRAWING
ADJUST SCALES
ACCORDINGLY



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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
SS P&P - STA. 13+00 - 16+25



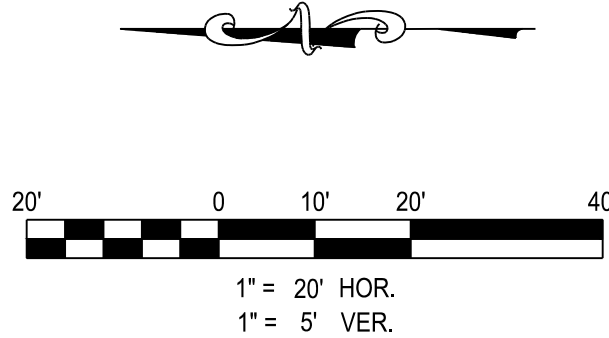
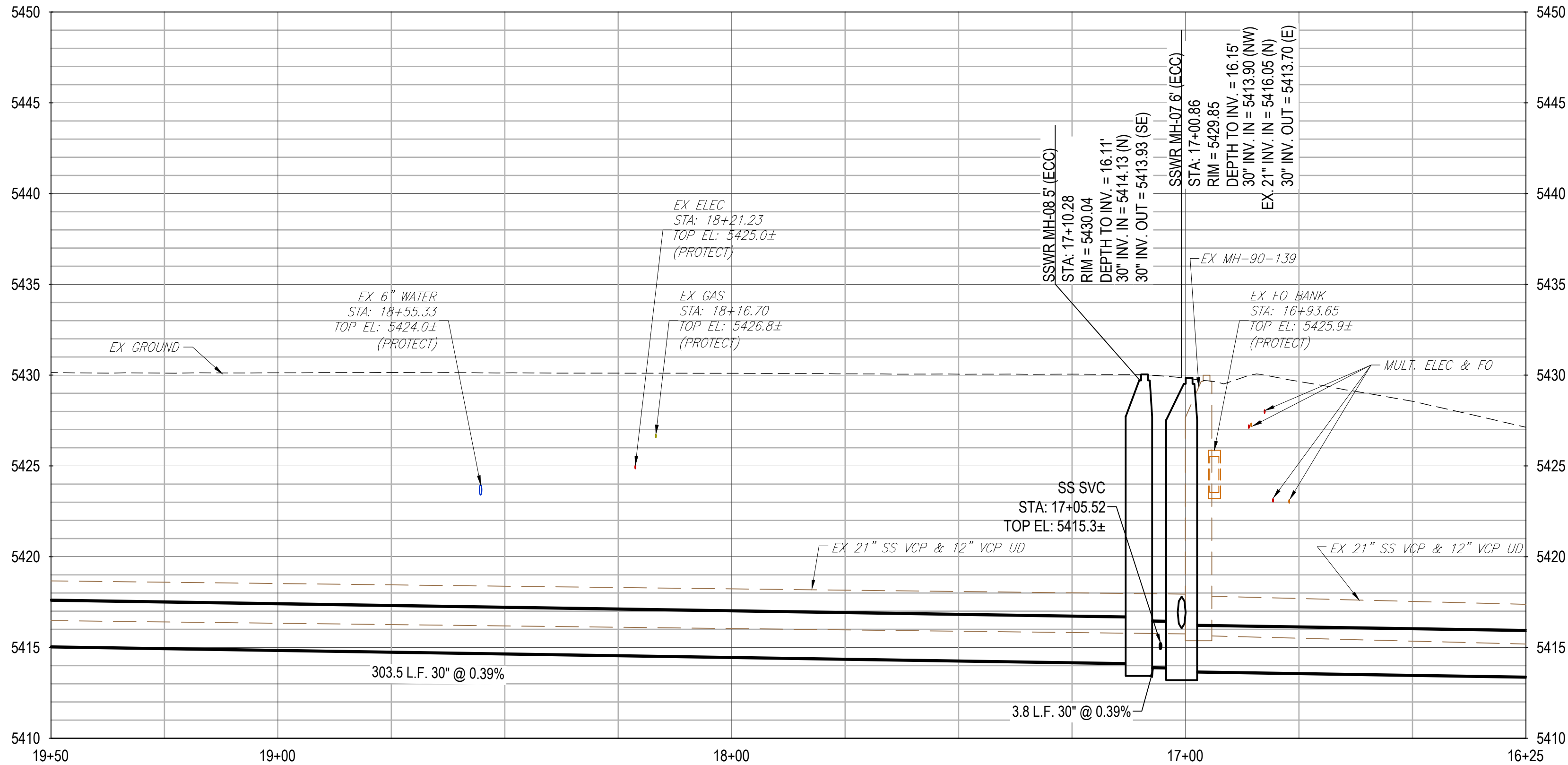
PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	14 OF 40

FOR CONSTRUCTION

APPROVED:
Jenny Wolfshagen, PE
City Engineer
1/11/24
Date
23-SR-11
Job Number

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City/District: Northridge (Area 2) \$99,072.00 Awards: Election Truck 1 and CAD/CDD



1. REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EXISTING PIPELINES.
2. ROTATE ECCENTRIC MH CONES TO PLACE THE FRAMES AND COVERS WHERE SHOWN IN PLAN, GENERALLY NOT WITHIN THE BIKE LANE, AND NOT UNDER THE WHEEL TRACK OF VEHICLE.
3. COORDINATE EXACT EXTENT OF TREE PROTECTION ZONES (TPZ) IN THE FIELD WITH THE CITY FORESTER PRIOR STARTING CONSTRUCTION.

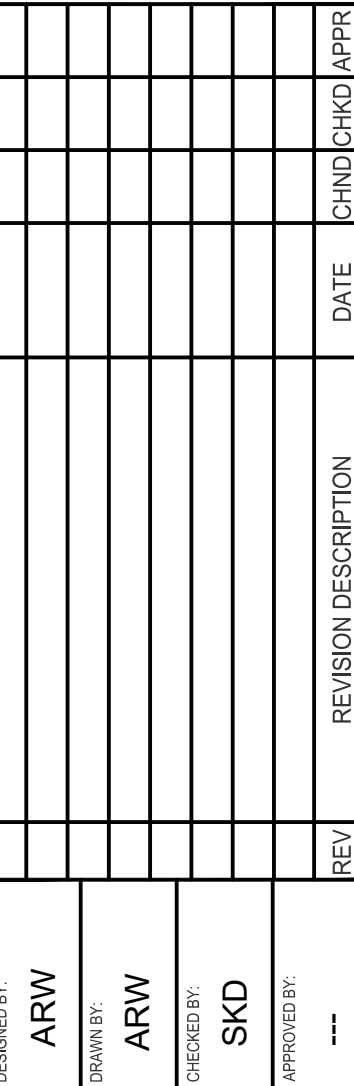
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AFTER NEW INVERT CHANNEL AND BENCH INSTALLATION IS COMPLETE AND CURED, LINE ALL INTERIOR SURFACES OF MH WITH SPECTRASHIELD[®] INSTALLED BY MFR-APPROVED INSTALLER. CLEANING, SURFACE PREPARATION, AND APPLICATION PER MFR RECOMMENDATIONS. TOTAL LINING SYSTEM THICKNESS: 500 MILS.

1. ALL TAPS ON NEW 30" PVC TRUNK SHALL BE MADE WITH WYE PATTERN TAPPING SADDLE PRODUCT APPROVED BY THE CITY OF ARVADA.
2. ADJACENT TAPS SHALL NOT BE CLOSER THAN 36" APART ON THE SAME SIDE OF PIPE, OR 24" APART ON OPPOSITE SIDES OF THE PIPE. CONTRACTOR MAY NEED TO HORIZONTALLY REALIGN EXISTING SERVICE LINES WITHIN THE LIMITS OF THE TRENCH EXCAVATION TO ACHIEVE THESE SPACING REQUIREMENTS.
3. TAPS SHALL NOT BE MADE WITHIN 24" OF A PIPE JOINT ON THE MAIN TRUNK LINE. CONTRACTOR MAY NEED TO FIELD CUT LENGTHS OF 30" PVC ACCORDINGLY DEPENDING ON THE LOCATIONS OF EXISTING SERVICES.

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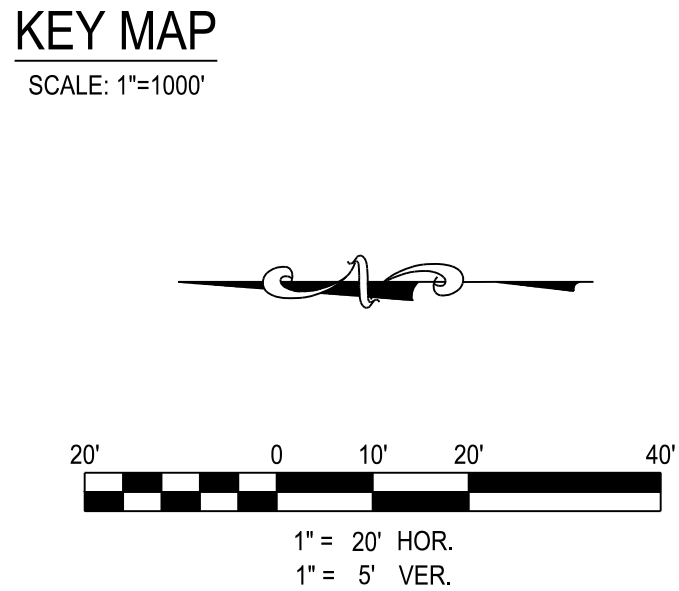
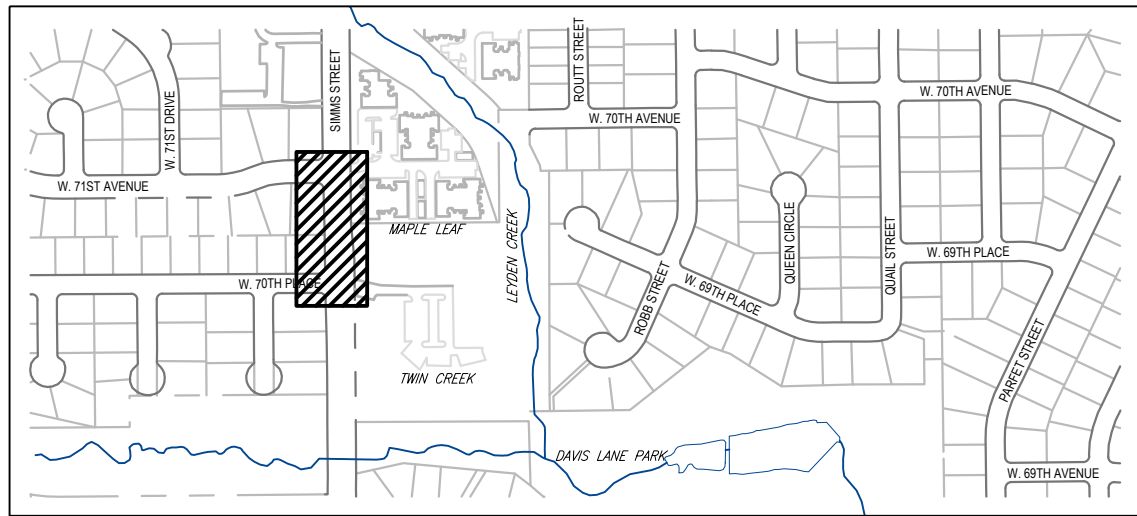
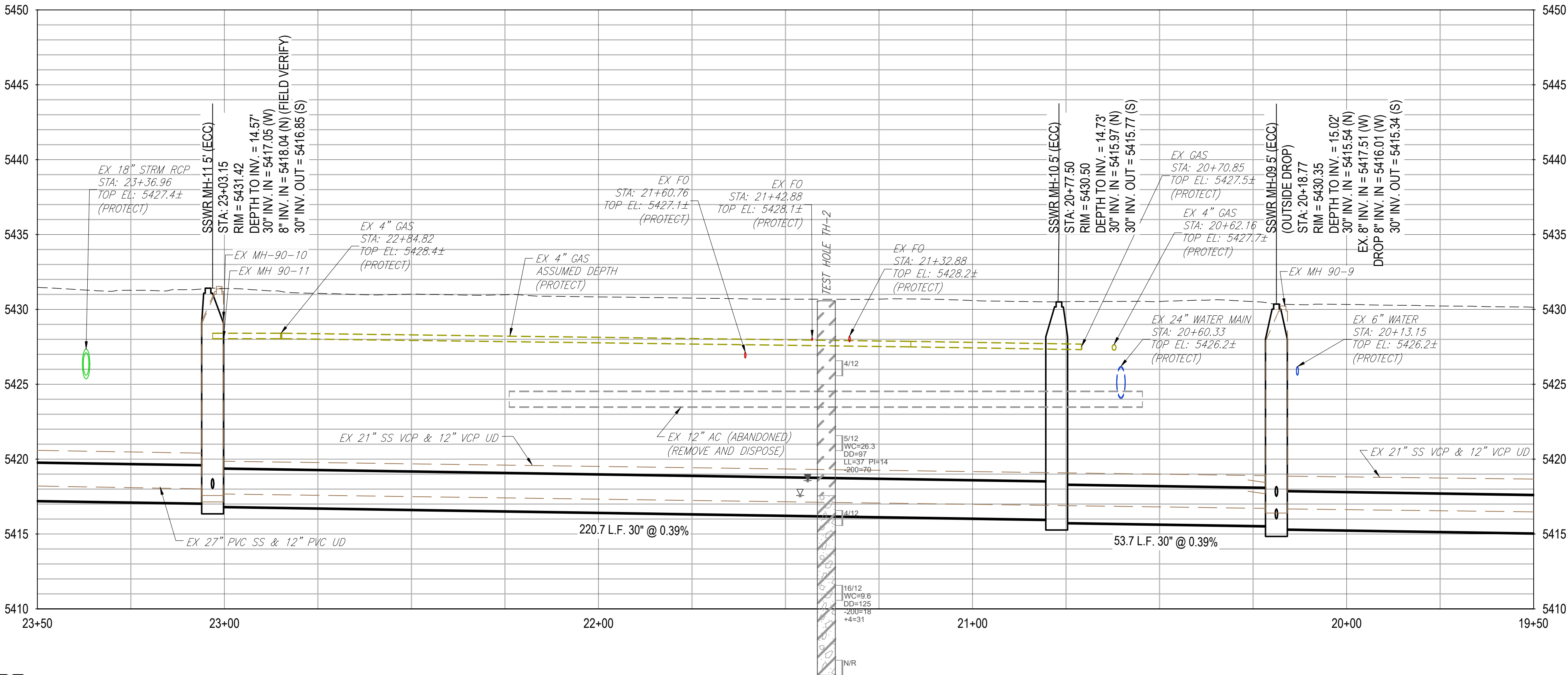
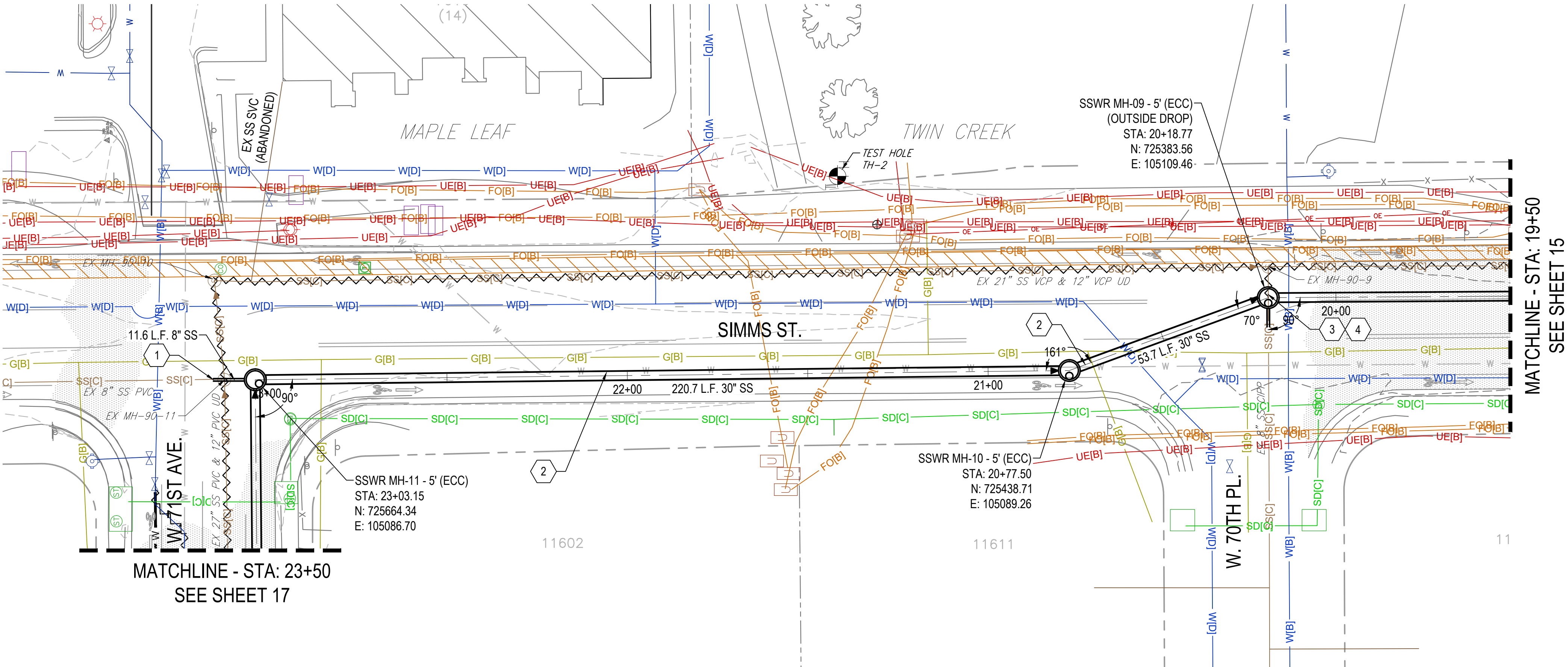
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- GENERAL NOTES:**
- REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EX SS PIPELINES.
 - ROTATE ECCENTRIC MH CONES TO PLACE THE FRAMES AND COVERS WHERE SHOWN IN PLAN, GENERALLY NOT WITHIN THE BIKE LANE, AND NOT UNDER THE WHEEL TRACK OF VEHICLE.

- KEYNOTES:**
- REMOVE EX MH-90-11. EXTEND EX 8" SS PVC WITH NEW 8" SS PVC TO MH-11. FIELD VERIFY AND MATCH SLOPE OF EXISTING 8" SS.
 - REMOVE EX ABANDONED 12" AC WATERLINE TO EXTENT REQUIRED FOR SS INSTALLATION. SEE AND COMPLY WITH THE ACM NOTES ON THE UTILITY PLANS.
 - REMOVE EXISTING 8" PVC AS NEEDED TO INSTALL OUTSIDE DROP MH. AT CONTRACTORS OPTION, EXISTING 8" PVC MAY BE USED TO BYPASS FLOW THROUGH PROPOSED MH TO EX MH-90-9 (SEE PHASING PLAN) USING FLOW THROUGH PLUG. REMOVE PLUG AND GROUT/SEAL TEMPORARY OPENINGS BEFORE PLACING PROPOSED MH IN SERVICE.
 - AFTER NEW INVERT CHANNEL AND BENCH INSTALLATION IS COMPLETE AND CURED, LINE ALL INTERIOR SURFACES OF MH WITH SPECTRASHIELD INSTALLED BY MFR-APPROVED INSTALLER. CLEANING, SURFACE PREPARATION, AND APPLICATION PER MFR RECOMMENDATIONS. TOTAL LINING SYSTEM THICKNESS: 500 MILS.



FOR CONSTRUCTION

APPROVED:
 Jenny Wolfshagen, PE
 City Engineer
 1/11/24
 Date
 23-SR-11
 Job Number
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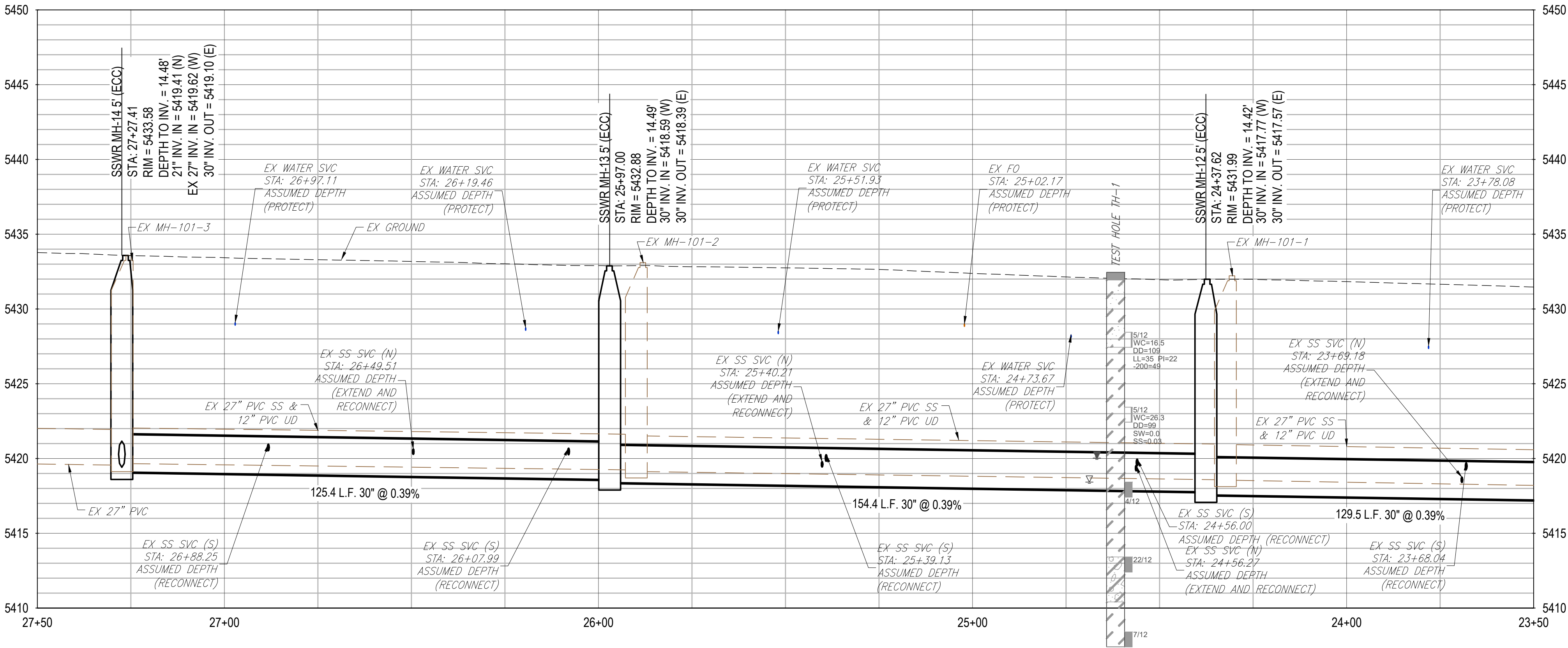
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DESIGNED BY: ARW
DRAWN BY: ARW
CHECKED BY: SKO
APPROVED BY: ---

CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
SS P&P - STA. 19+50 - 23+50

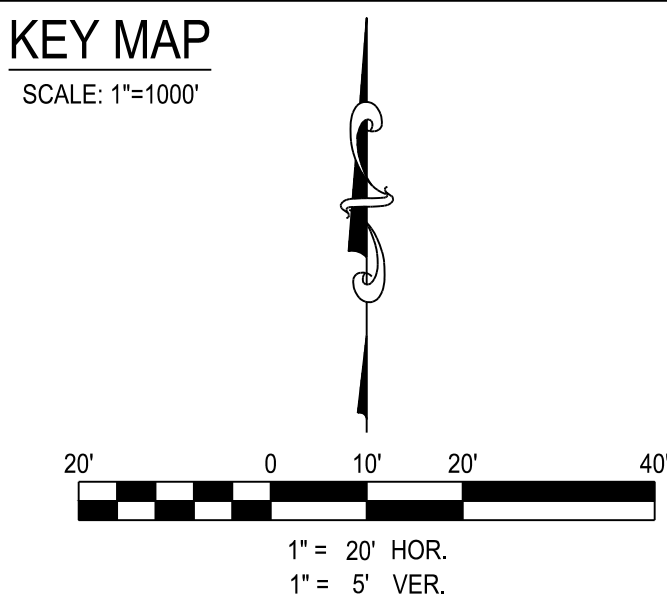
100107
JANUARY 2024
16 OF 40

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APPROVED: Jenny Wallschlag, PE 1/11/24 23-SR-11
City Engineer Date Job Number

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1. REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EX SS PIPELINES.
2. ROTATE ECCENTRIC MH CONES TO PLACE THE FRAMES AND COVERS WHERE SHOWN IN PLAN, GENERALLY NOT WITHIN THE BIKE LANE, AND NOT UNDER THE WHEEL TRACK OF VEHICLE.

1. INSTALL 8 LF OF NEW 21" SS PVC. CONNECT TO EX 16" SS W/ ECCENTRIC FERNCO REDUCING COUPLING. THE EX 16" SS IS BELIEVED TO BE AN HDPE SLOPLINE INSIDE AN EXISTING PIPELINE OF UNKNOWN DIAMETER AND MATERIAL. CONTRACTOR TO EXCAVATE AND FIELD VERIFY EXISTING PIPE SIZES AND MATERIALS AT THE POINT OF CONNECTION. IF THE SLOPLINE PIPE IS TIGHT FITTING AGAINST THE ID OF THE OUTER PIPELINE, THE FERNCO MAY BE SIZED TO MATE TO THE OUTER PIPELINE OD. IF THERE IS A NOTABLE ANNULUS, THE FERNCO SHALL BE SIZED TO CONNECT TO THE INNER 16" SLOPLINE PIPE, CAREFULLY CUT AND REMOVE THE OUTER PIPELINE TO THE EXTENT NECESSARY TO MAKE THE CONNECTION. COORDINATE WITH THE ENGINEER.
2. EXTEND EX SS SVC. INSTALL TAP ON NEW 30" SS PVC TRUNK AND RECONNECT.
3. REMOVE SS SVC WITHIN TRENCH. INSTALL TAP ON NEW 30" SS PVC TRUNK AND RECONNECT.
4. CONNECT EX 27" PVC TO NEW MANHOLE

1. ALL TAPS ON NEW 30" PVC TRUNK SHALL BE MADE WITH WYE PATTERN TAPPING SADDLE PRODUCT APPROVED BY THE CITY OF ARVADA.
2. ADJACENT TAPS SHALL NOT BE CLOSER THAN 36" APART ON THE SAME SIDE OF PIPE, OR 24" APART ON OPPOSITE SIDES OF THE PIPE. CONTRACTOR MAY NEED TO HORIZONTALLY REALIGN EXISTING SERVICE LINES WITHIN THE LIMITS OF THE TRENCH EXCAVATION TO ACHIEVE THESE SPACING REQUIREMENTS.
3. TAPS SHALL NOT BE MADE WITHIN 24" OF A PIPE JOINT ON THE MAIN TRUNK LINE. CONTRACTOR MAY NEED TO FIELD CUT LENGTHS OF 30" PVC ACCORDINGLY DEPENDING ON THE LOCATIONS OF EXISTING SERVICES.

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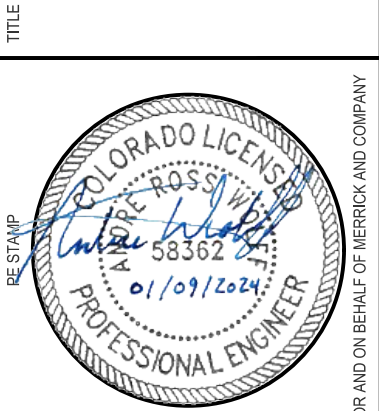
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CR17)
SS P&P - STA. 23+50 - 27+50

SS P&P - STA. 23+50 - 27+50



PROJECT NUMBER	100107
DATE	JANUARY 2024
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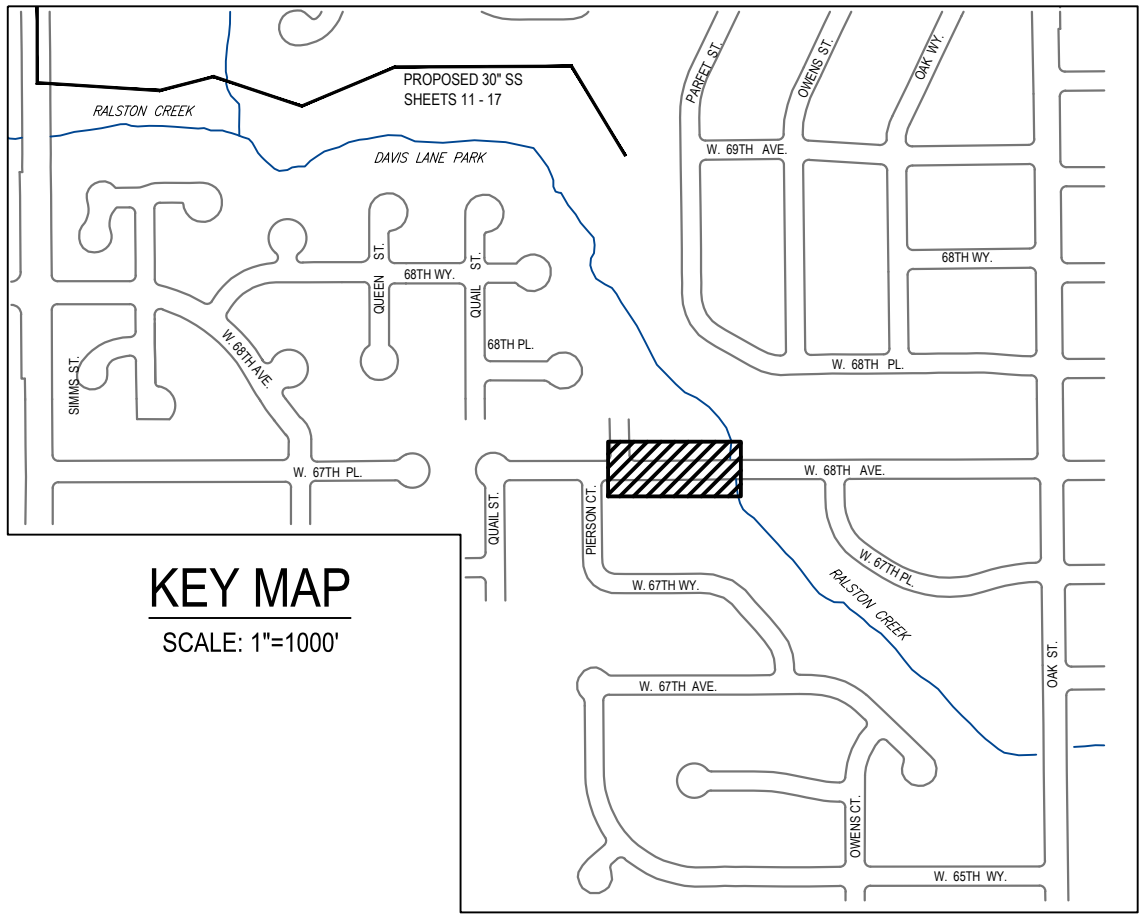
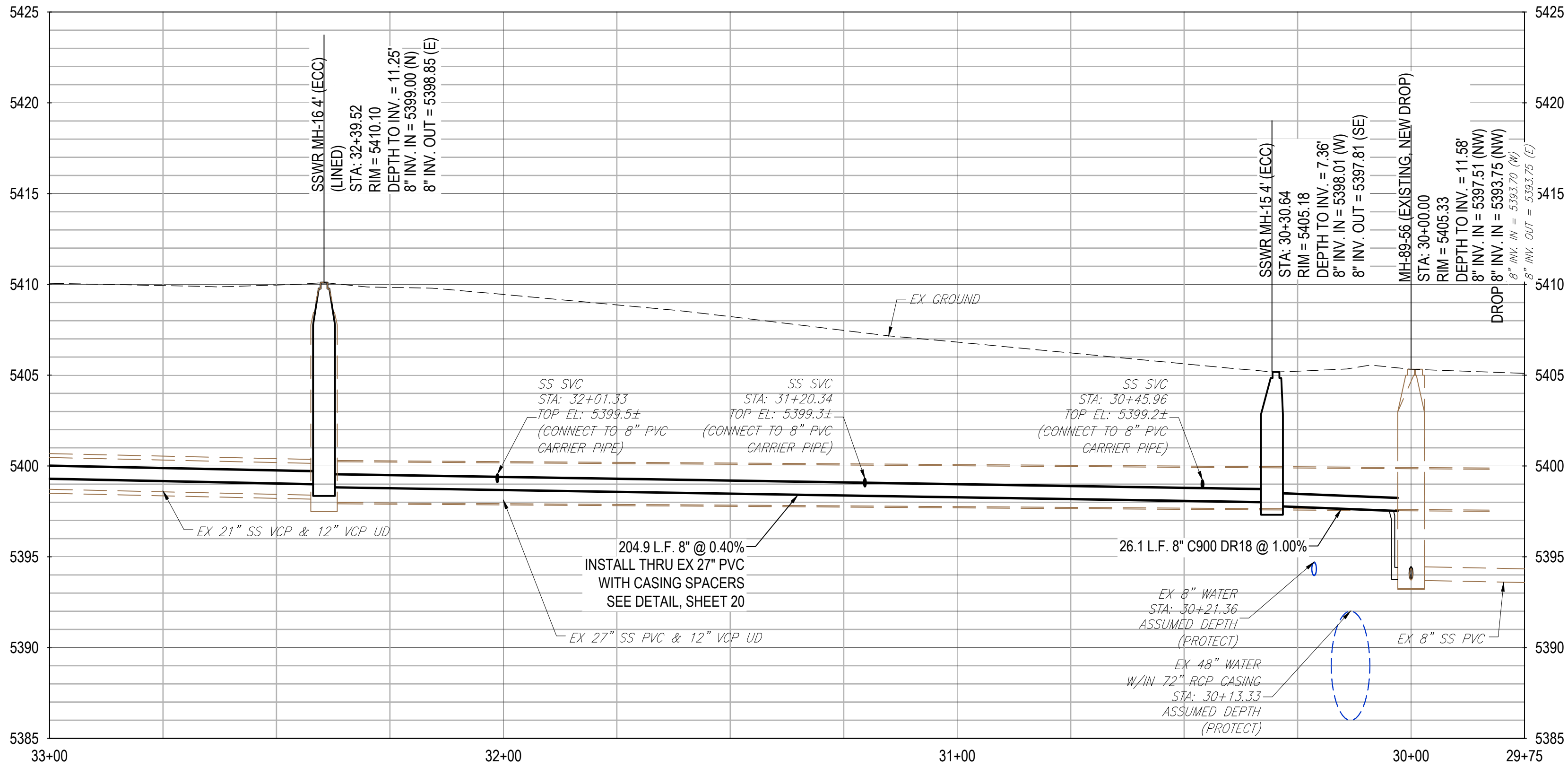
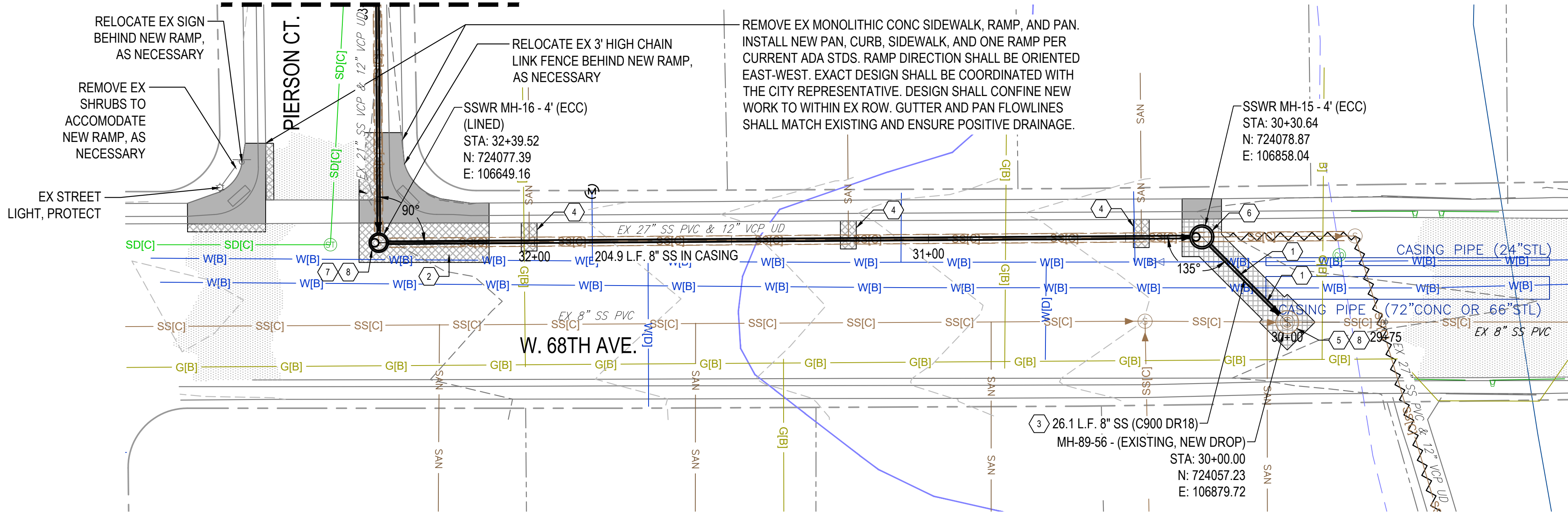
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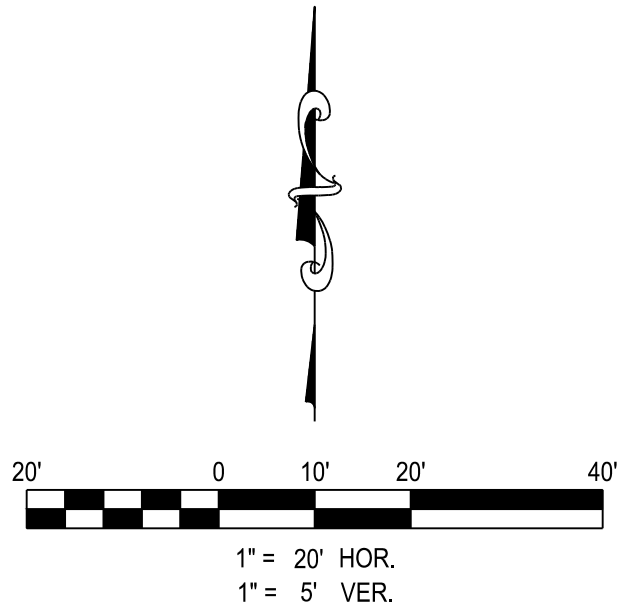


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SCALE: 1"=1000'



GENERAL NOTES:

1. REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EX SS PIPELINES.

KEYNOTES:

1. EX WATERLINE NOT FOUND DURING POT-HOLING. DEPTH IS SHOWN IN PROFILE BASED ON WATERLINE AS-BUILT DRAWINGS. A CONFLICT IS NOT ANTICIPATED. HOWEVER, CONTRACTOR TO PERFORM THEIR OWN INVESTIGATION AND NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS SO RESOLUTION CAN BE DETERMINED PRIOR TO CONSTRUCTION OF THIS SEGMENT.
2. PROPOSED PUSH-PIIT EXCAVATION. SAWCUT AND REMOVE A SUFFICIENT LENGTH OF EX 21" VCP OR 27" PVC TO ENABLE INSERTING AND JACKING NEW 8" PVC SS ON SPACERS INTO THE CASING.
3. RESTRAIN ANY BELL & SPIGOT JOINTS ON THIS SEGMENT W/ EBAA RESTRAINT HARNESSSES. IF C900 PVC COLOR IS BLUE, WRAP PIPELINE IN GREEN-COLORED POLYWRAP FOR IDENTIFICATION PURPOSES.
4. AFTER NEW 8" PVC CARRIER IS INSTALLED, CONDUCT SPOT EXCAVATION AND CAREFULLY SAWCUT A WINDOW INTO THE EX 27" PVC SS CASING TO EXPOSE THE 8" PVC. INSTALL A WYE PATTERN TAPPING SADDLE PRODUCT APPROVED BY THE CITY OF ARVADA ONTO THE 8" PVC. SADDLES SHALL NOT BE LOCATED CLOSER THAN 24" TO A JOINT ON THE 8" PVC LINE. EXTEND AND CONNECT EX SS SVC LINE TO NEW WYE SADDLE.
5. EX MH TO REMAIN IN SERVICE. IF CONSTRUCTION REQUIRES REMOVING THE CONE SECTION FOR ACCESS, PROVIDE NEW RUB'R-NEK BETWEEN ALL RE-ASSEMBLED JOINTS UPON REPLACEMENT, INCLUDING ADJUSTING RINGS. CORE (2) HOLES TO INSTALL NEW 8" PVC OUTSIDE DROP CONNECTION. DRILL AND EPOXY (3) #5 DOWELS INTO THE EX BASE BELOW THE DROP ELBOW TO SUPPORT THE NEW CONC ENCASEMENT AROUND THE EXTERNAL DROP PIPE. RECONSTRUCT THE EX CONC INVERT CHANNEL AND BENCH TO FORM A SMOOTH FLOW TRANSITION FROM THE NEW DROP PIPE TO THE EXISTING 8" SS TO THE EAST.
6. INSTALL NEW MH AROUND EX 27" SS PVC. WHEN NEW 8" PVC IS READY FOR SERVICE, PLUG EX 24" PVC TO EAST INSIDE THE MH W/ CONC. USE CONC TO PLUG 12" LONG INTO THE ANNULUS BETWEEN NEW 8" PVC AND EX 27" PVC ROM THE WEST. REMOVE OR FORM FLOWFILL ANNULUS FILL TO ALLOW ROOM FOR CONCRETE. INSTALL CONC INVERT CHANNEL AND BENCH TO FORM A SMOOTH FLOW TRANSITION FOR THE 8" SS FROM THE WEST TO THE SE.
7. REMOVE AND DISPOSE OF EX MH. INSTALL NEW 4' ECC MH IN SAME LOCATION.
8. AFTER NEW INVERT CHANNEL AND BENCH INSTALLATION IS COMPLETE AND CURED, LINE ALL INTERIOR SURFACES OF MH WITH SPECTRASHIELD INSTALLED BY MFR-APPROVED INSTALLER. CLEANING, SURFACE PREPARATION AND APPLICATION PER MFR RECOMMENDATIONS. TOTAL LINING SYSTEM THICKNESS: 500 MILS.

APPROVED:

Jenny Wolfshagen, PE
City Engineer

1/11/24
Date

23-SR-11
Job Number

FOR CONSTRUCTION

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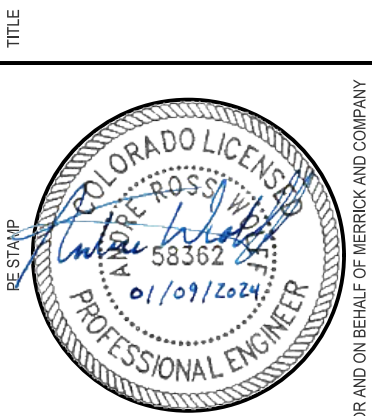
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

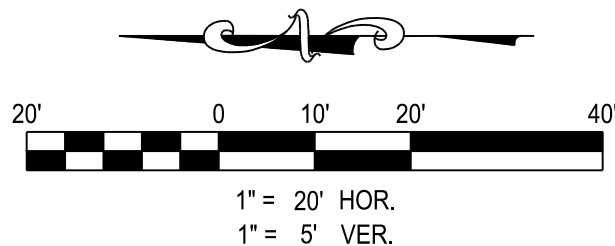
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PROJECT NUMBER	100107
DATE	JANUARY 2024
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21. *Donor: North Carolina; Recipient: \$100,000; Award: \$100,000; Title: \$100,000*

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1. REFER TO UTILITY PLAN SHEETS FOR PROTECTION, REMOVAL, OR ABANDONMENT REQUIREMENTS OF ADJACENT UTILITIES AND EX SS PIPELINES.

KEYNOTES:

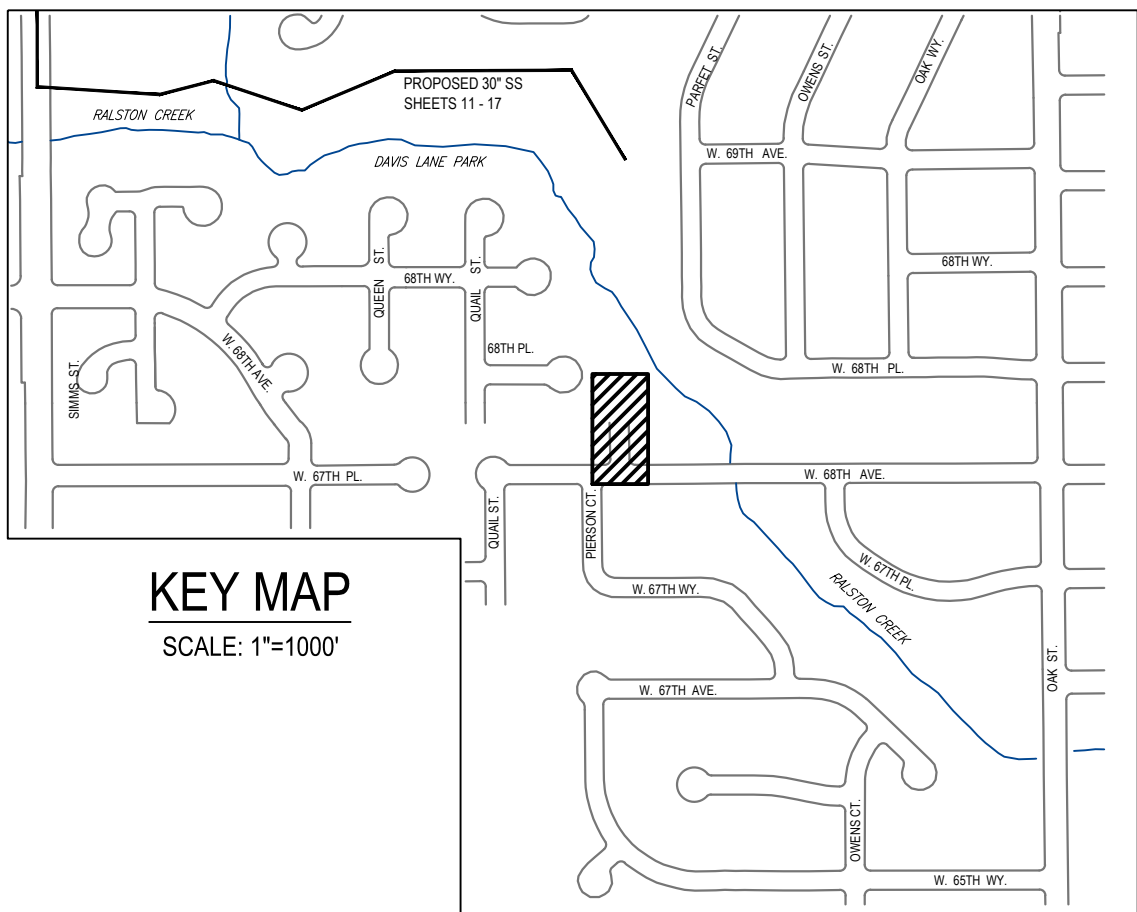
Diagram 1 shows a single hexagon.

EXISTING MH TO REMAIN IN SERVICE. IF CONSTRUCTION REQUIRES REMOVING THE CORE SECTION FOR ACCESS, PROVIDE NEW RUB'R NEK. BETWEEN ALL RE-ASSEMBLED JOINTS UPON REPLACEMENT, INCLUDING ADJUSTING RINGS AND BELOW COVER FRAME. PROVIDE BOLTED GASKETED COVER. PLUG 21" SS FROM NORTH TO BE ABANDONED INSIDE THE MH. USE CONC TO PLUG 12" LONG INTO THE ANNULUS BETWEEN THE NEW 8" PVC AND EX 21" VCP TO THE SOUTH. REMOVE OR FORM FLOWFILL ANNULUS FILL TO ALLOW ROOM TO FORM A SMOOTH FLOW TRANSITION FROM THE EX 8" SS FROM THE SW TO THE NEW 8" PVC TO THE SOUTH.

APPROVED: Jenny Wallschlag, PE 1/11/24 23-SR-11
City Engineer Date Job Number

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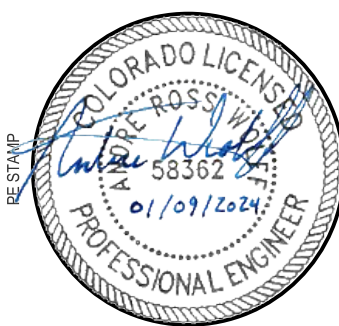


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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

SS P&P - STA. 33+00 - 35+75



PROJECT NUMBER
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JANUARY 2024

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19 OF 40

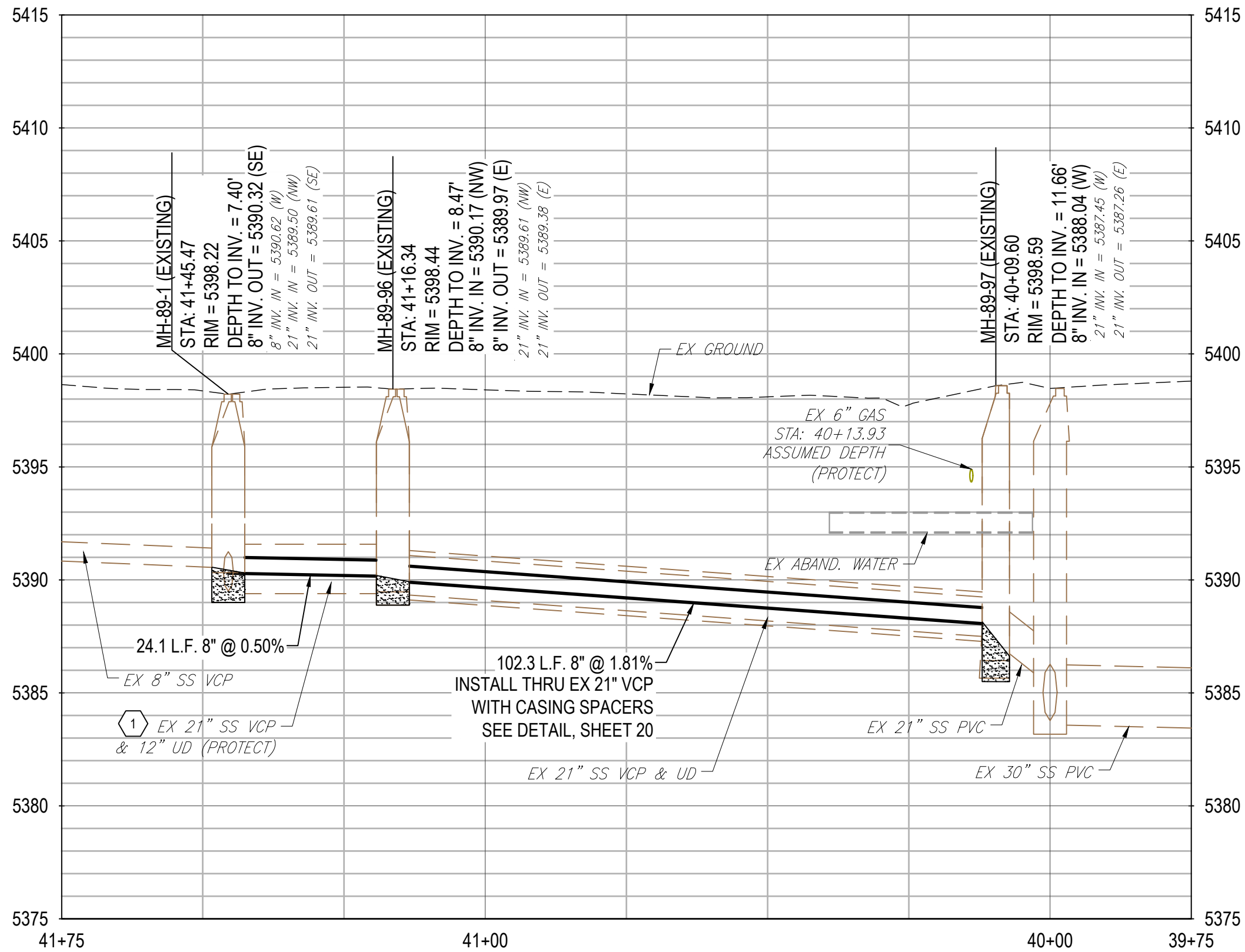
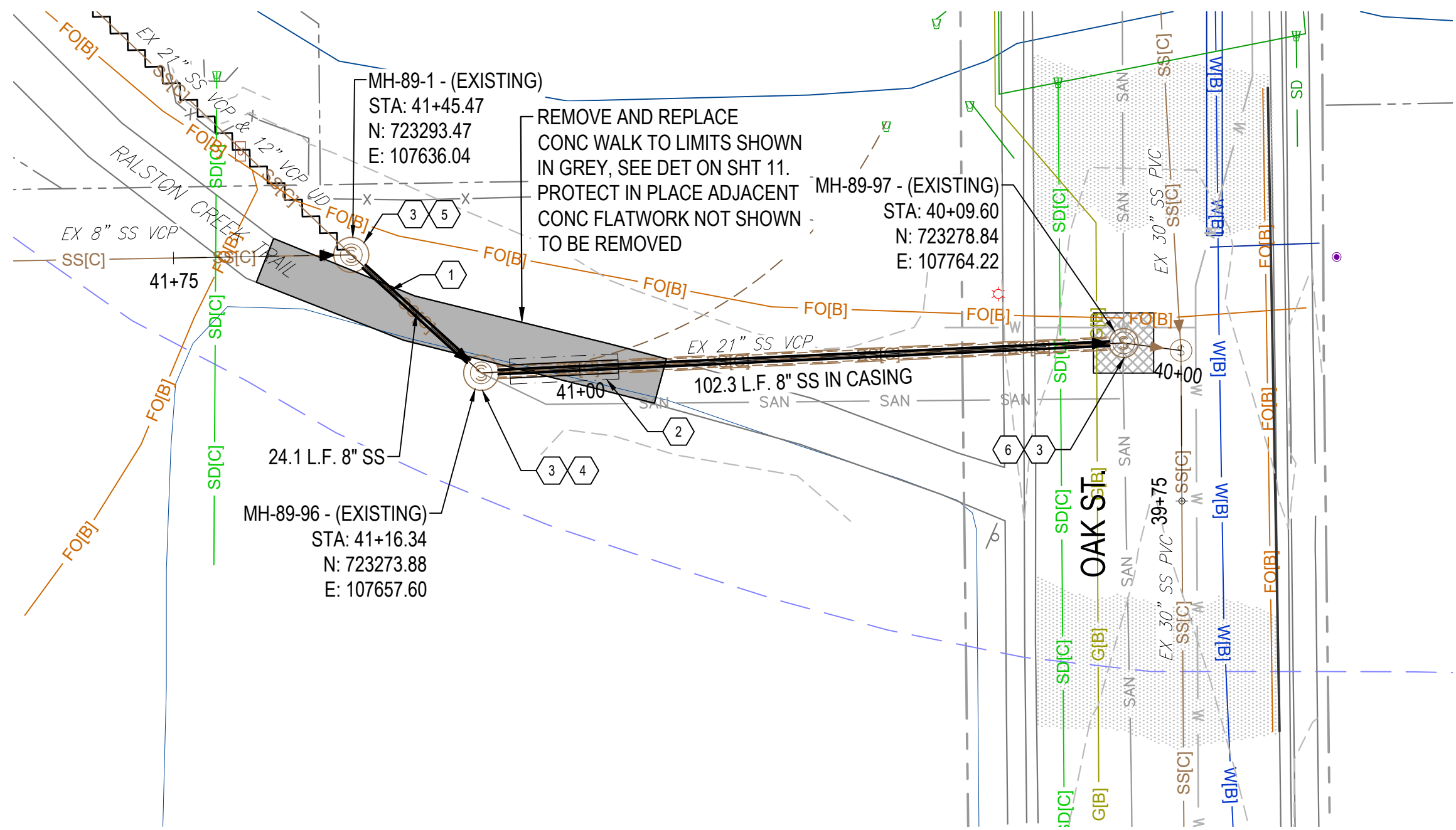
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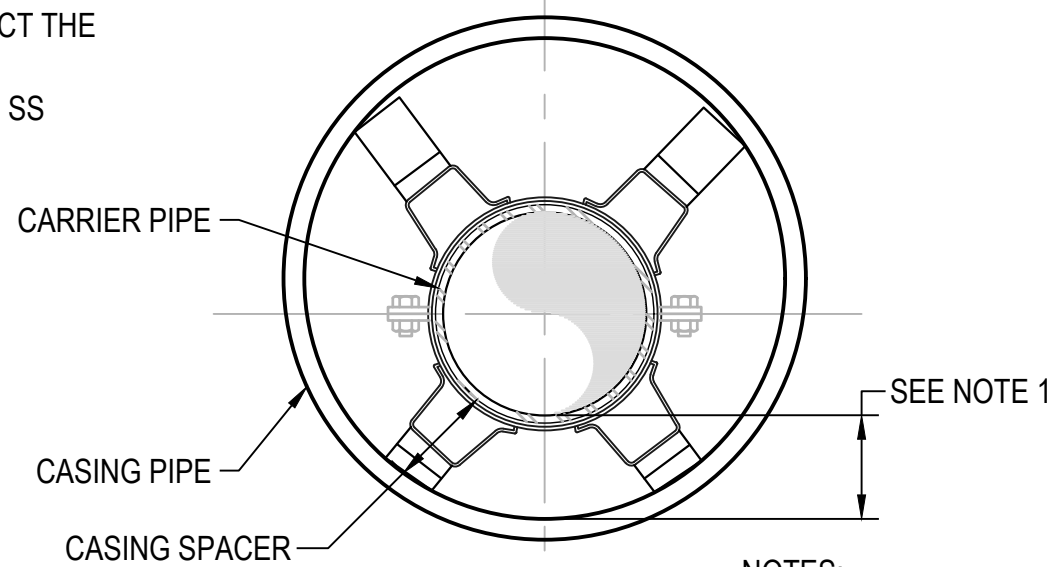


GENERAL NOTES:

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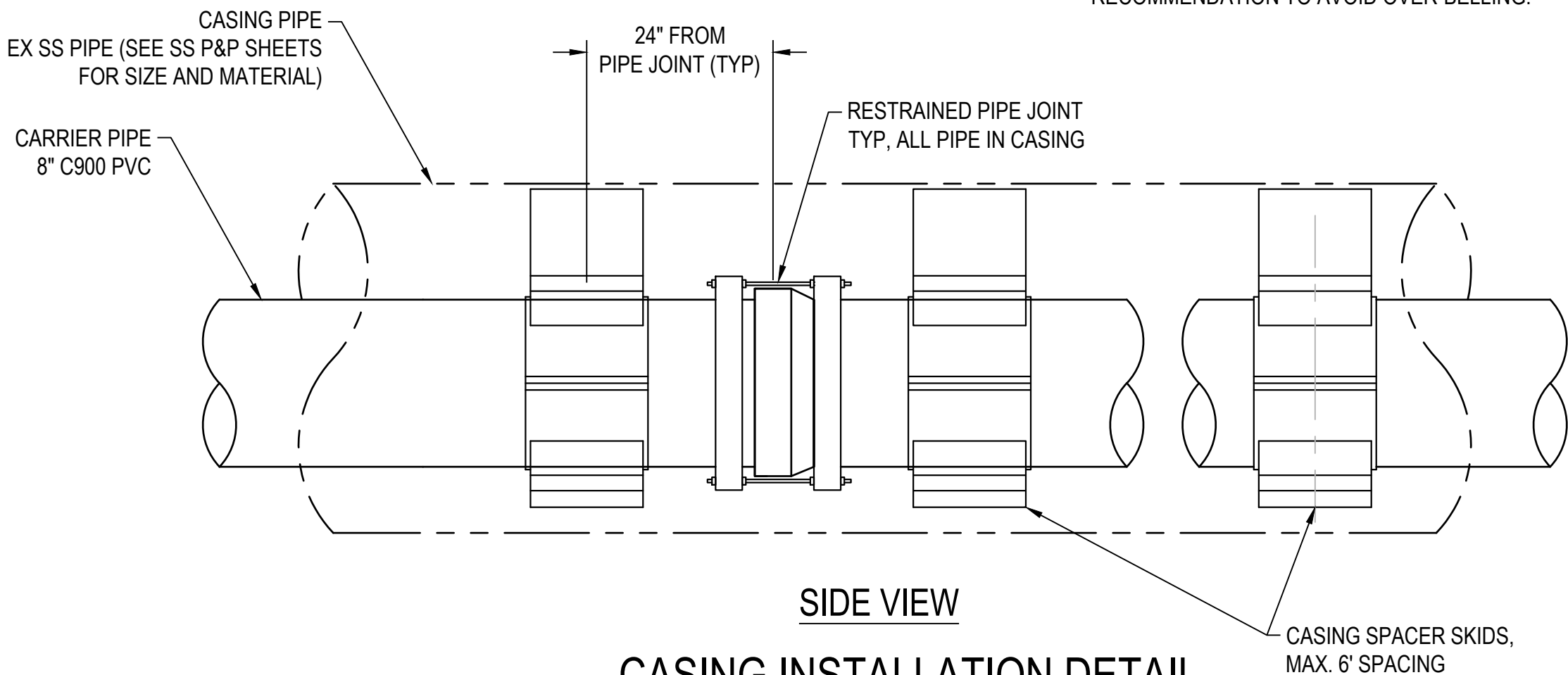
KEYNOTES:

- CONTRACTOR MAY OPT TO INSTALL THIS SEGMENT UTILIZING THE EX 21" SS AS A CASING PIPE WITH NEW 8" PVC ON CASING SPACERS. ALTERNATIVELY, THE 21" SS MAY BE REMOVED AND REPLACED WITH 8" PVC (DO NOT DISTURB THE EX 12" VCP UNDERDRAIN WHICH SHALL BE PROTECTED AND REMAIN IN SERVICE). ALTERNATIVELY, THE TOP HALF OF THE EX 21" VCP MAY BE SAWCUT AND FULLY REMOVED. PLACE GRAVEL BEDDING IN THE BOTTOM HALF AND LAY THE NEW 8" PVC PIPE IN ACCORDANCE WITH THE STANDARD TRENCH DETAIL.
- PROPOSED PUSH-PIT EXCAVATION. SAWCUT AND REMOVE A SUFFICIENT LENGTH OF EX 21" VCP TO ENABLE INSERTING AND JACKING NEW 8" PVC SS ON SPACERS INTO THE REMAINING 21" VCP USED AS THE CASING.
- EXISTING MH TO REMAIN IN SERVICE. IF CONSTRUCTION REQUIRES REMOVING THE CONE SECTION FOR ACCESS, PROVIDE NEW RUB'R-NEK BETWEEN ALL RE-ASSEMBLED JOINTS UPON REPLACEMENT, INCLUDING ADJUSTING RINGS.
- PROPOSED PUSH-PIT EXCAVATION. SAWCUT AND REMOVE A SUFFICIENT LENGTH OF EX 21" VCP TO ENABLE INSERTING AND JACKING NEW 8" PVC SS ON SPACERS INTO THE REMAINING 21" VCP USED AS THE CASING.
- PLUG 21" SS FROM NW TO BE ABANDONED INSIDE THE MH PER UTILITY PLAN SHEETS. RECONSTRUCT THE CONC INVERT CHANNEL AND BENCH TO SUIT THE 8" SS PIPELINES.
- USE CONC TO PLUG 12" LONG INTO THE ANNULUS BETWEEN THE NEW 8" PVC AND EX 21" VCP FROM THE WEST. REMOVE OR FORM FLOWFILL ANNULUS FILL TO ALLOW ROOM FOR THE CONCRETE. RECONSTRUCT THE CONC INVERT CHANNEL AND BENCH TO PROVIDE A SMOOTH FLOW TRANSITION FROM THE 8" SS PIPELINE FROM THE WEST TO THE 21" SS PIPELINE TO THE EAST.



NOTES:

- HEIGHT OF EACH CASING SPACER SHALL BE CUSTOM. CONTRACTOR SHALL FIELD VERIFY EXISTING SS (CASING) PIPE ELEVATIONS AND SLOPES. VARY THE HEIGHT OF EACH SPACER TO HOLD THE NEW 8" PVC AT THE ELEVATION NECESSARY TO ACHIEVE THE SLOPE AND INVERT ELEVATIONS PER THE DESIGN.
- ANNULAR SPACE BETWEEN CARRIER PIPE AND CASING PIPE SHALL BE FLOW FILLED FOLLOWING ACCEPTANCE OF PRESSURE TESTING AND CONFIRMATION OF FINAL GRADES.
- CARRIER PIPE TO BE PUSHED OR PULLED WITHIN CASING PIPE PER MANUFACTURER'S RECOMMENDATION TO AVOID OVER-BELLING.



CASING INSTALLATION DETAIL

NTS

FOR CONSTRUCTION

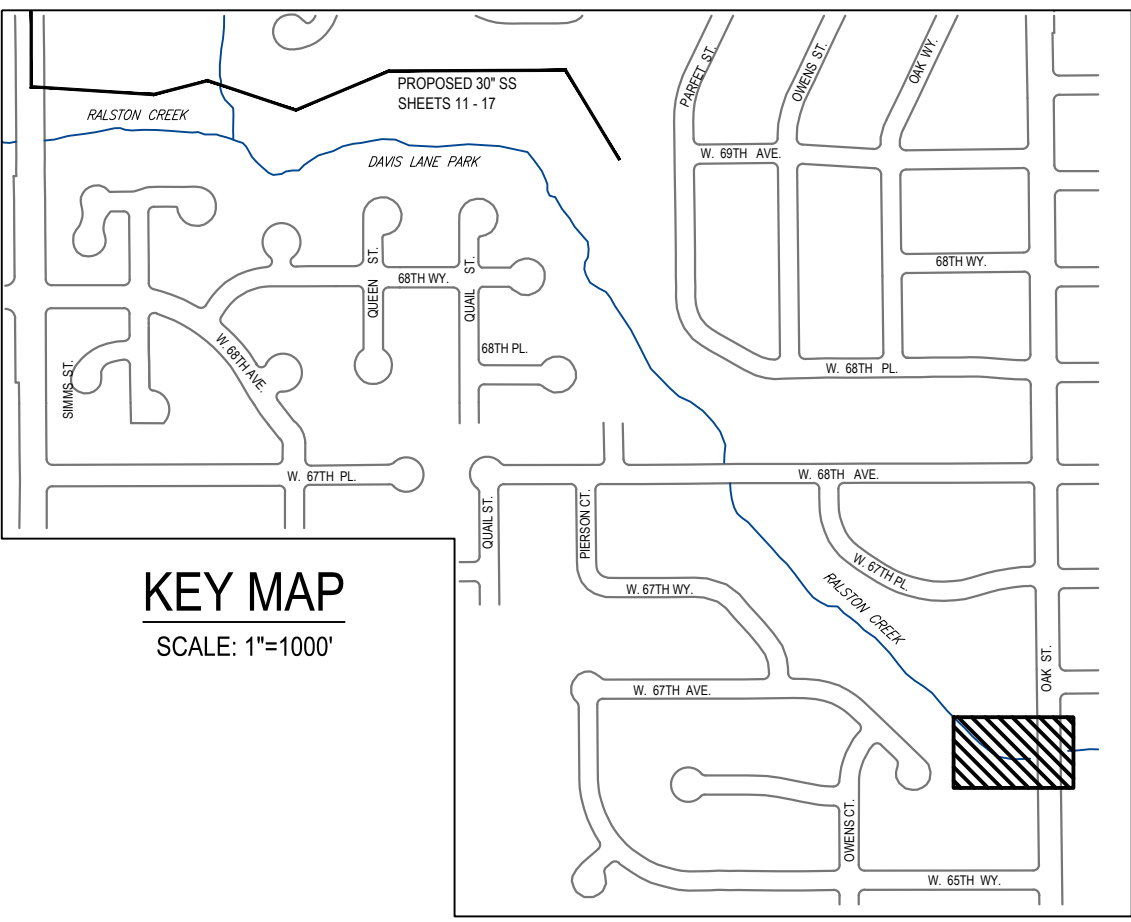
APPROVED:

Amey Wolfshagen, PE
City Engineer

1/11/24
Date

23-SR-11
Job Number

Review is for general compliance with the City of Arvada "Engineering Code of Standards and Specifications for the Design and Construction of Public Improvements", latest edition. Sole responsibility for completeness and/or accuracy of these Documents shall remain with the Registered Professional Engineer sealing these plans. The City does not accept liability for facilities designed by others.



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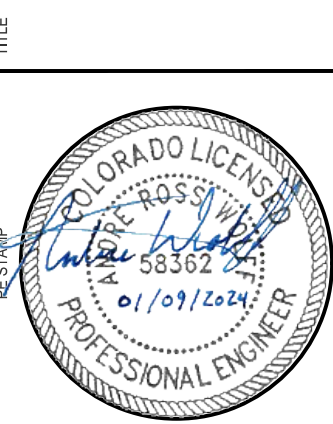
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

CREEK CROSSING DETAILS



100107

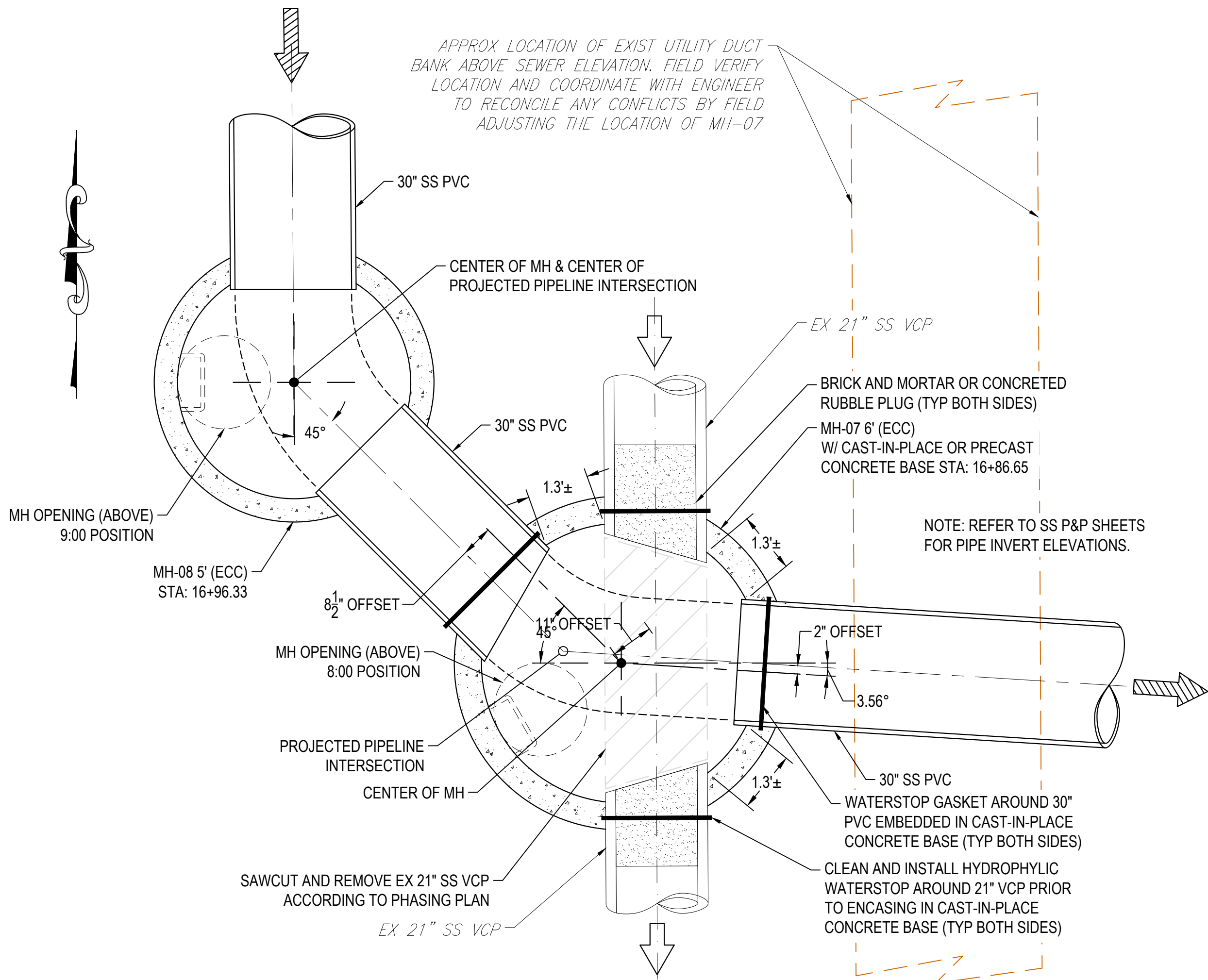
JANUARY 2024

SHEET

21 OF 40



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MH-07 & MH-08 DETAIL PLAN

SCALE: 1" = 2'

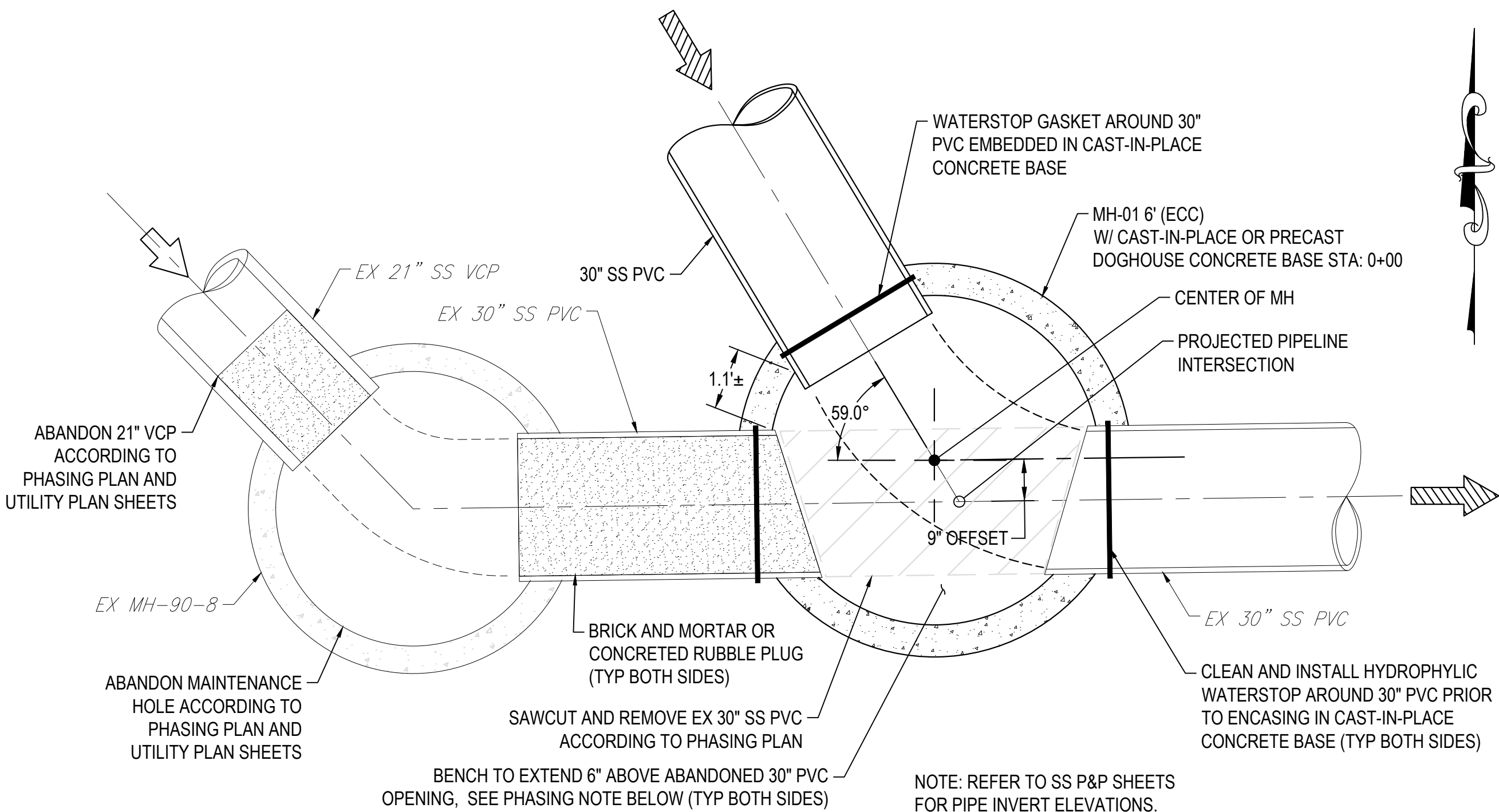
NOTES:

THE CONCRETE BASE FOR MH-07 SHALL BE INSTALLED IN PHASES, REFER TO THE PHASING PLAN:

PHASE 1: PLACE CAST-IN-PLACE REINFORCED STRUCTURAL CONCRETE UNDER, TO THE SIDES, AND ABOVE THE PIPES TO SUPPORT THE PRECAST MH BARREL SECTIONS ABOVE. ALTERNATIVELY, INSTALL PRECAST CONC BASE AND BARREL SEGMENTS TO FIT WITH TIGHT WATERTIGHT SEAL AROUND THE EX 21" VCP. DO NOT POUR THE INTERNAL BENCH AND FLOW CHANNEL IN THIS PHASE. LEAVE ADEQUATE WORKING ROOM CLEARANCE AROUND AND UNDER THE 21" VCP TO ALLOW IT TO BE SAWCUT AND REMOVED IN A LATER STAGE. THE 21" VCP SPANS AND PASSES THROUGH THE STRUCTURE INTACT AND REMAINS IN SERVICE IN THIS PHASE.

PHASE 2: AFTER THE NEW 30" PVC SEWER TO THE EAST AND MH TESTING ARE COMPLETE AND READY FOR SERVICE, SAWCUT AND REMOVE THE 21" VCP FROM WITHIN THE STRUCTURE AS SHOWN. ACTIVE FLOW WILL BE FROM THE 21" VCP FROM THE NORTH INTO THE 30" PVC TOWARDS THE EAST. PLUG AND ABANDON THE 21" VCP TO THE SOUTH. DO NOT INSTALL THE BENCH AND FLOW CHANNEL AT THIS TIME.

PHASE 3: AFTER THE NEW 30" PVC SEWER AND TESTING TO THE NORTHWEST IS COMPLETE AND PLACED INTO SERVICE, PLUG AND ABANDON THE 21" VCP FROM THE NORTH. INSTALL A FLOW-THROUGH PLUG AND HOSE BETWEEN THE 30" PVC PIPES THROUGH THE STRUCTURE WHICH NOW CONVEY THE ACTIVE FLOW. PRESSURE WASH ALL INTERIOR CONCRETE BASE SURFACES TO CLEAN AND REMOVE ALL DELETERIOUS MATERIAL. INSTALL THE FINAL BENCH AND FLOW CHANNEL AT THIS TIME. THE FLOW CHANNEL SHALL BE U-SHAPED TO MATCH THE INNER DIAMETER OF THE 30" PVC PIPE. FORM VERTICAL FACES WITH BENDER BOARD.



MH-01 DETAIL PLAN

SCALE: 1" = 2'

NOTES:

THE CONCRETE BASE FOR MH-01 SHALL BE INSTALLED IN PHASES, REFER TO THE PHASING PLAN:

PHASE 1: PLACE CAST-IN-PLACE REINFORCED STRUCTURAL CONCRETE MH BASE UNDER, TO THE SIDES, AND ABOVE THE PIPES TO SUPPORT THE PRECAST MH BARREL SECTIONS ABOVE. ALTERNATIVELY, INSTALL A PRECAST CONC DOGHOUSE BASE. DO NOT POUR THE INTERNAL BENCH AND FLOW CHANNEL IN THIS PHASE. LEAVE ADEQUATE WORKING ROOM CLEARANCE AROUND AND UNDER THE EXISTING 30" PVC TO ALLOW IT TO BE SAWCUT AND REMOVED FROM WITHIN THE MH IN A LATER STAGE. THE EXISTING 30" PVC SPANS AND PASSES THROUGH THE MANHOLE INTACT AND REMAINS IN SERVICE IN THIS PHASE.

PHASE 2: AFTER THE NEW 30" PVC SEWER TO THE NORTHWEST AND MH TESTING ARE COMPLETE AND READY FOR SERVICE, SAWCUT AND REMOVE THE EXISTING 30" PVC FROM WITHIN THE MH AS SHOWN. ACTIVE FLOW WILL BE FROM THE 30" PVC FROM THE NORTHWEST INTO THE EXISTING 30" PVC TOWARDS THE EAST. PLUG AND ABANDON EXISTING PIPES TO/FROM THE EXISTING STRUCTURE (MH-90-8). INSTALL A FLOW-THROUGH PLUG AND HOSE BETWEEN THE 30" PVC PIPES THROUGH THE MANHOLE. PRESSURE WASH ALL INTERIOR CONCRETE BASE SURFACES TO CLEAN AND REMOVE ALL DELETERIOUS MATERIAL. INSTALL THE FINAL BENCH AND FLOW CHANNEL AT THIS TIME. THE FLOW CHANNEL SHALL BE U-SHAPED TO MATCH THE INNER DIAMETER OF THE 30" PVC PIPE. FORM VERTICAL FACES WITH BENDER BOARD. THE BENCH SURFACE SHALL EXTEND 6" ABOVE THE TOP OF THE ABANDONED 30" PVC PIPE OPENINGS.

FOR CONSTRUCTION

APPROVED:

Jenny Wolfshagen, PE
City Engineer

1/11/24
Date

23-SR-11
Job Number

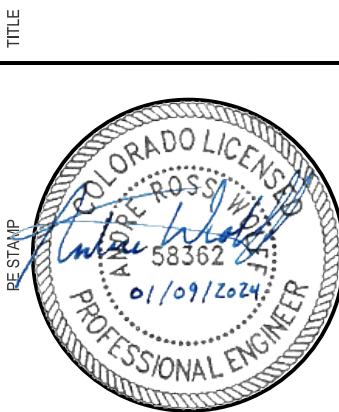
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

SPECIAL MH DETAILS



PROJECT NUMBER
100107

DATE
JANUARY 2024

SHEET
22 OF 40

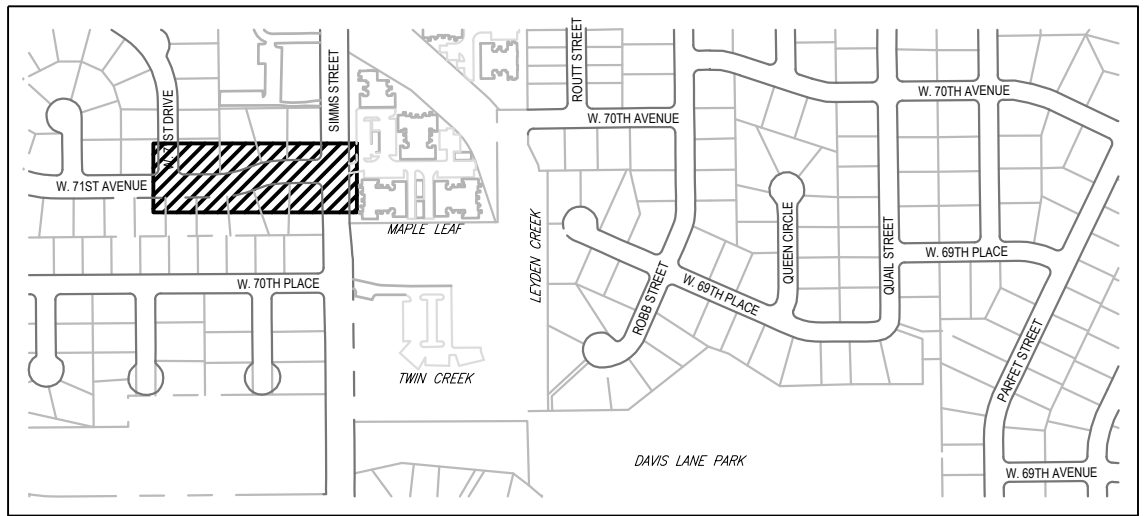
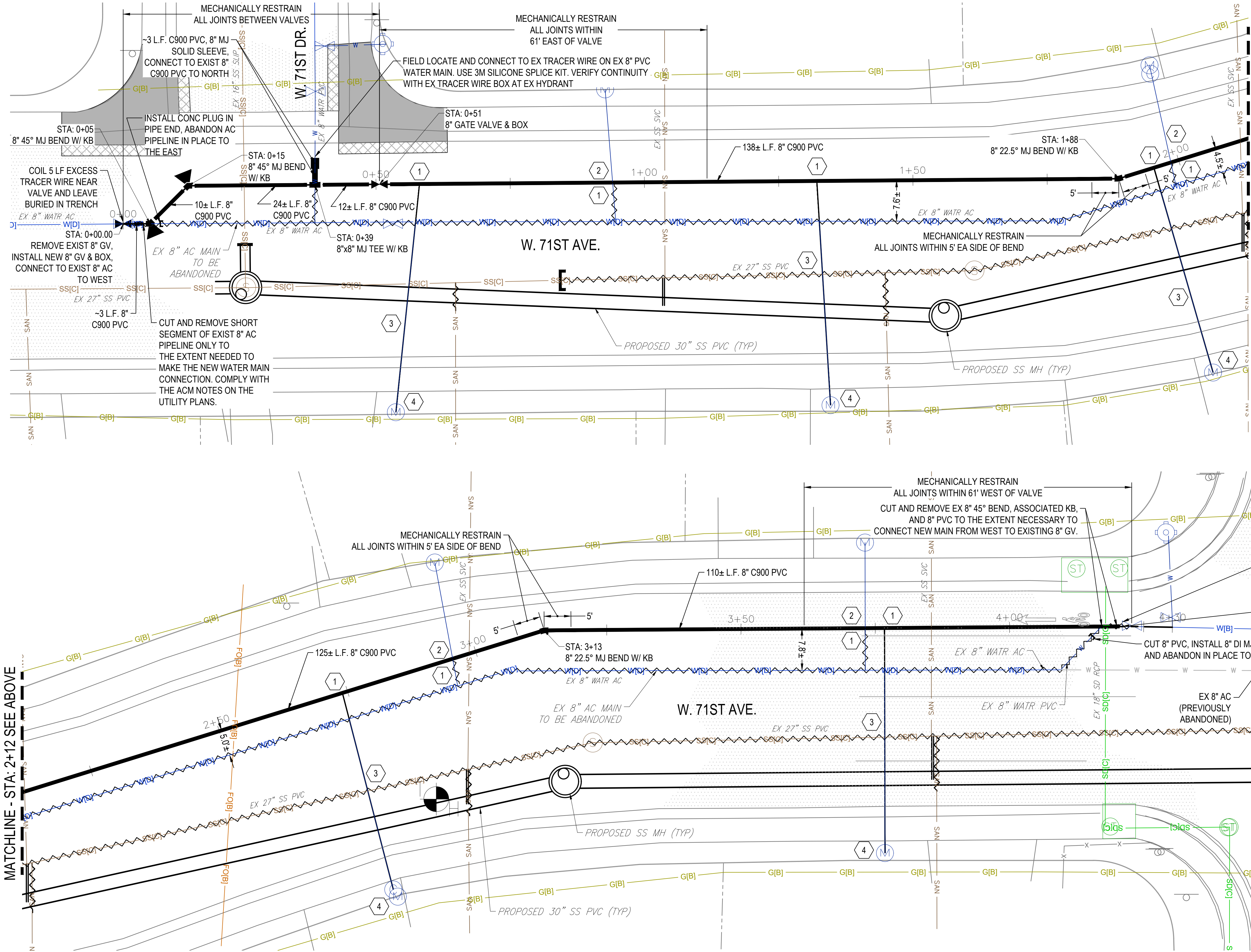
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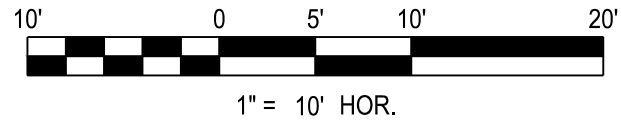


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KEY MAP

SCALE: 1"=1000'



GENERAL NOTES:

- ALL NEW SERVICE CONNECTIONS AT THE MAIN AND AT THE PIT SHALL BE TESTED FOR LEAKS VISUALLY WHILE UNDER PRESSURE.
- THE CONTRACTOR IS ENCOURAGED TO UTILIZE THE EXISTING MAIN TO KEEP CUSTOMERS IN SERVICE AS MUCH AS POSSIBLE DURING CONSTRUCTION. SHORT DURATION SHUTDOWNS (8-HR MAX) WILL BE ALLOWED WHILE CHANGING OVER CUSTOMER TAPS AND MAKING MAIN TIE-INS. SHUTDOWNS MUST BE SCHEDULED IN ADVANCE AND CUSTOMERS GIVEN ADEQUATE NOTICE. LONGER DURATION SHUTDOWNS WILL REQUIRE A TEMPORARY WATER SERVICE.
- ALL MJ SOLID SLEEVES SHALL HAVE "WEDDING BAND" GAP CLOSURES.

FIELD LOCATE AND CONNECT TO EX TRACER WIRE ON EX 8" PVC WATER MAIN. USE 3M SILICONE SPLICE KIT. VERIFY CONTINUITY WITH EX TRACER WIRE BOX AT EX HYDRANT

STA: 4+23
PROTECT EX 8" GV IN PLACE. REMOVE EX 8" PVC FROM WEST SIDE OF GV. CONNECT NEW PIPE FROM WEST DIRECTLY TO EX GV. PROVIDE NEW MEGALUG RESTRAINT AND GASKET. PROVIDE ALL REQUIRED TEMPORARY THRUST RESTRAINT TO PIPE TOWARD EAST OR ARRANGE FOR SHUTDOWN, ASSUME PIPE TO EAST IS NOT MECHANICALLY RESTRAINED.

SERVICE RECONNECTION KEYNOTES:

- CONTRACTOR SHALL FURNISH AND INSTALL NEW 3/4" TAPPING SADDLE AND CORP STOP ON NEW MAIN. COORDINATE TIMING FOR THE WORK WITH THE CITY.
- CUT EXISTING 3/4" COPPER SERVICE LINE TO THE CORRECT LENGTH FOR CONNECTING TO THE NEW MAIN, FLARE END, CONNECT TO NEW CORP STOP.
- PULL A CONTINUOUS LENGTH OF NEW 3/4" TYPE K COPPER SERVICE LINE FROM THE NEW MAIN TO THE EXISTING METER PIT, NO SPLICES OR COUPLINGS ALLOWED. CONTRACTOR MAY UTILIZE THE EXISTING SERVICE LINE AS A MEANS TO PULL THE NEW LINE WITHOUT TRENCHING TO THE EXTENT POSSIBLE. CONNECT TO THE EXISTING METER YOKE INSIDE THE PIT, CONNECT TO THE NEW CORP STOP AT THE MAIN.
- REMOVE AND REINSTALL (REUSE) EXISTING METER PIT AND DOME IN KIND TO THE EXTENT NECESSARY TO GAIN ACCESS AND PULL NEW COPPER SERVICE LINE. NOTIFY THE ENGINEER IF THE CONDITION OF AN EXISTING PIT OR DOME WILL NOT ALLOW REUSE.

APPROVED:

Amey Wolfshagen, PE
City Engineer

1/11/24
Date

23-SR-11
Job Number

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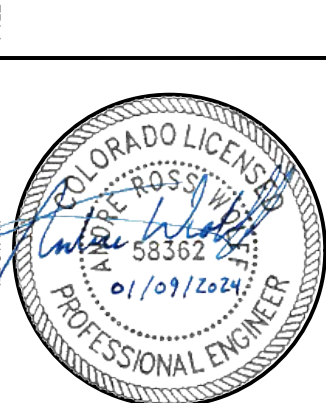
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

WATER RELOCATION PLAN

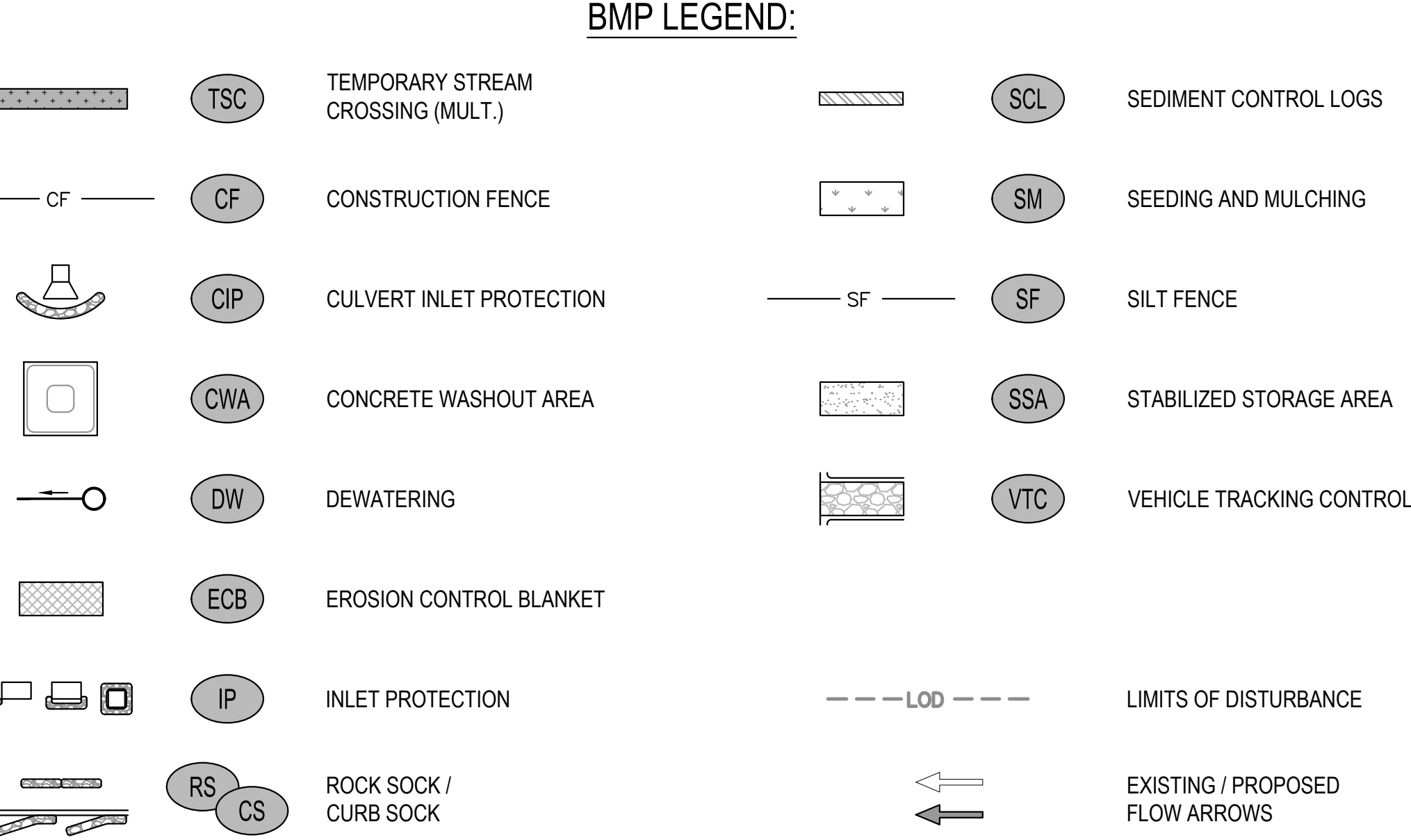


PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	23 OF 40

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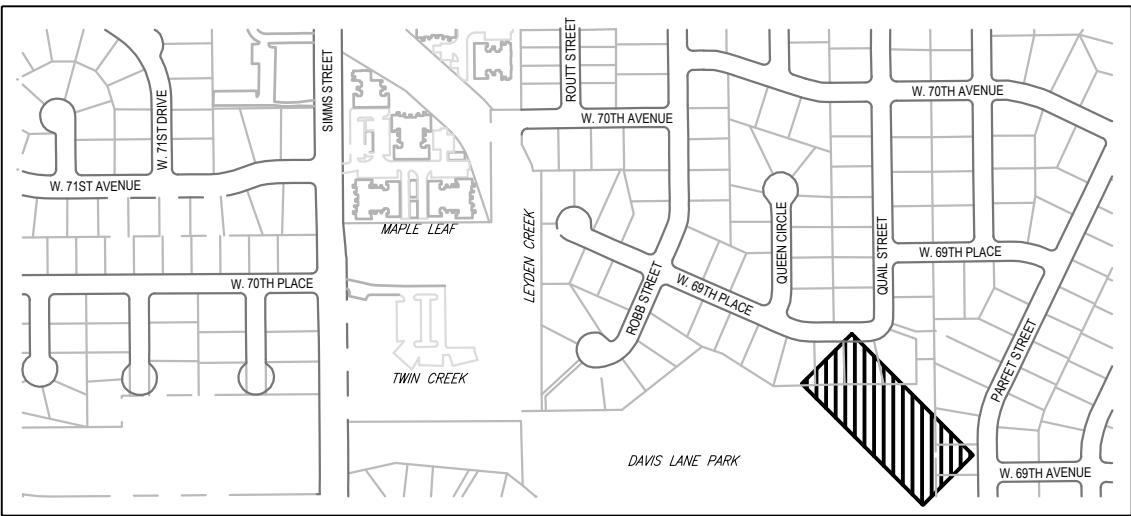
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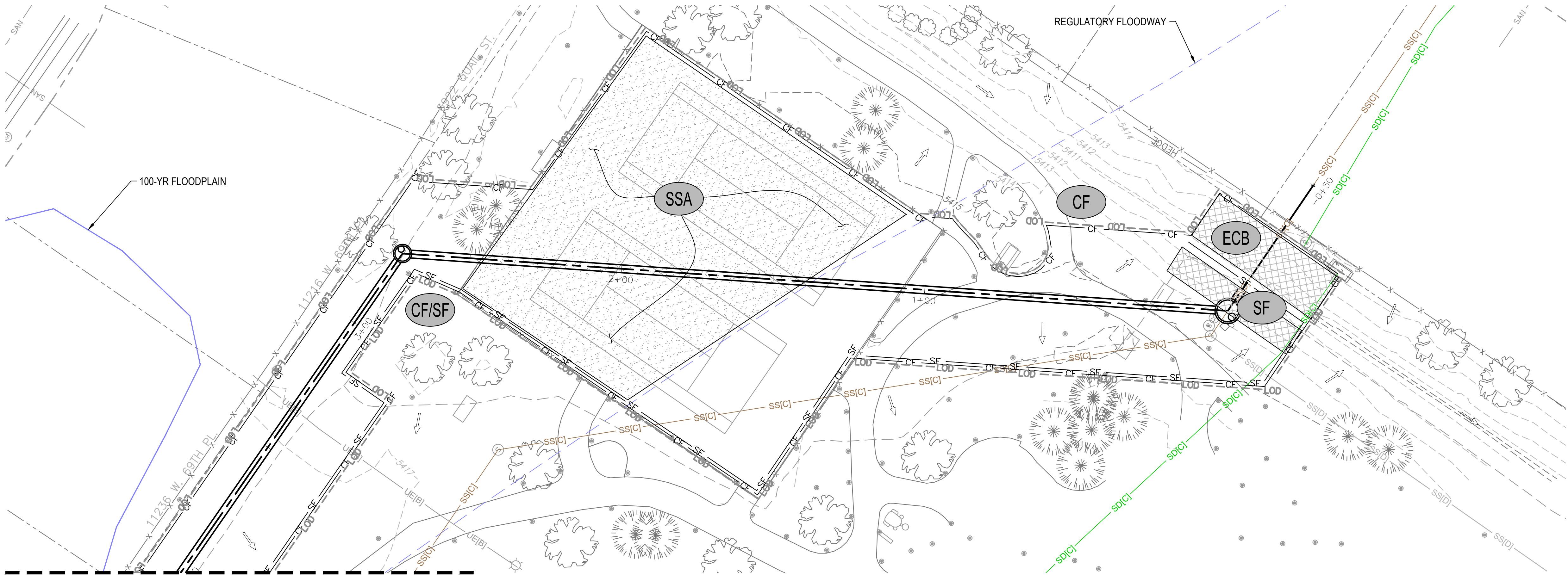
NOTES:

- COORDINATE WITH CITY ON AVAILABLE LOCATIONS FOR STABILIZED STORAGE AREAS AND STOCKPILE MANAGEMENT AREAS.
- ALL MATERIAL STORED WITHIN LIMITS OF THE 100-YR FLOODPLAIN SHALL BE PROTECTED ACCORDING TO MHFD STOCKPILE MANAGEMENT DETAILS.
- MATERIAL STORAGE WITHIN LIMITS OF THE REGULATORY FLOODWAY IS PROHIBITED.
- CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS WITH NATIVE SEED MIX OR SODDING SEED MIX TO MATCH EXISTING CONDITIONS.
- CONTRACTOR SHALL ADHERE TO MILE HIGH FLOOD DISTRICTS CRITERIA MANUAL VOLUME 3, CHAPTER 7 FOR RELEVANT CONSTRUCTION BMP DETAILS (SEE SHEETS 35 - 40)

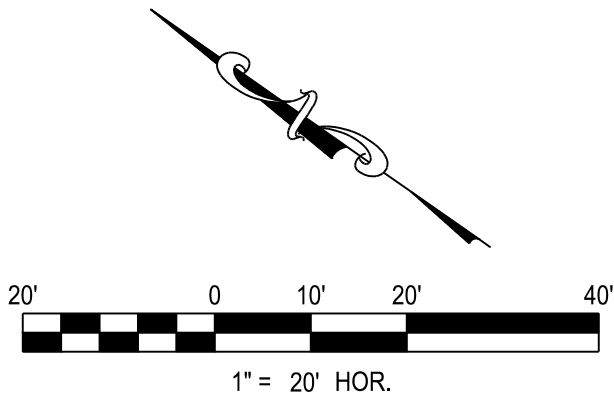


KEY MAP
SCALE: 1"=1000'

PROJECT AREA OF DISTURBANCE
PAVEMENT: 1.31 AC (57200 SQ-FT)
GREENWAY: 2.18 AC (94860 SQ-FT)
TOTAL: 3.49 AC (152060 SQ-FT)



MATCHLINE - STA: 4+00 SEE SHEET 25

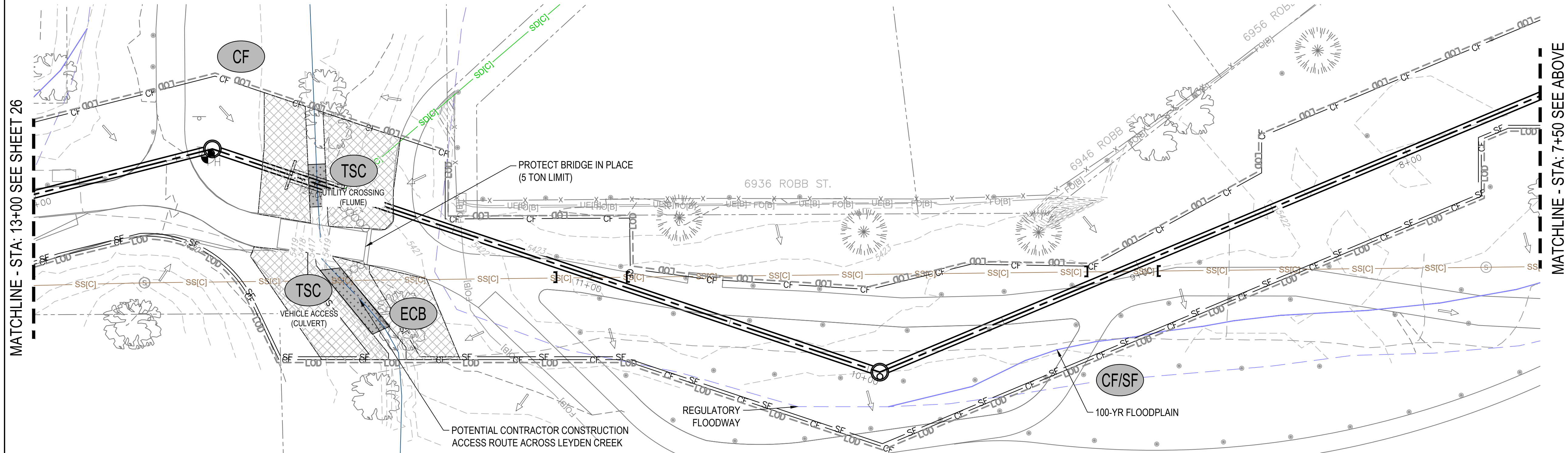


FOR CONSTRUCTION

APPROVED: *Amy Wolfshagen, PE*
City Engineer
Date: 1/11/24
Job Number: 23-SR-11

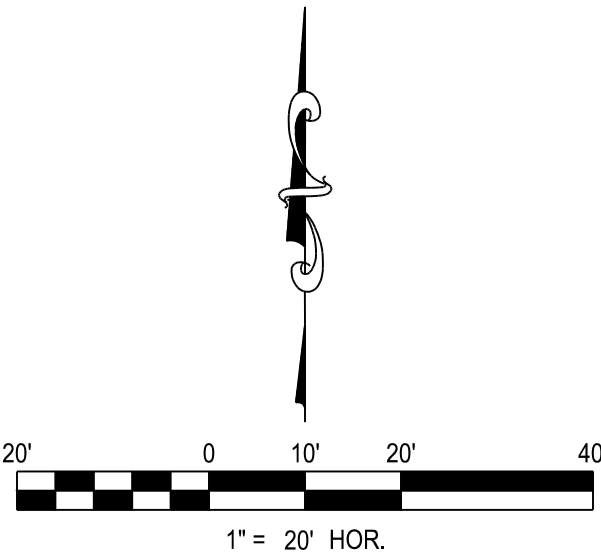
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UTILITY CROSSING
SHORT DURATION CROSSING (< 2 WEEKS) PER MHFD EQN TDM-1 Q = S K A
S = 1.0
K = 0.5
A = 7,000 AC = 11 SQ MI
Q = 1.0 * 0.5 * 11 = 5.5 CFS
USE MIN 1 X 24" Ø CULVERT

VEHICLE CROSSING
LONG DURATION CROSSING (> 3 MONTHS)
USE MIN 2 X 24" Ø CULVERT (UP TO 40 CFS W/O OVERTOPPING)



APPROVED: Jenny Wolschlag, PE 1/11/24 23-SR-11
City Engineer Date Job Number

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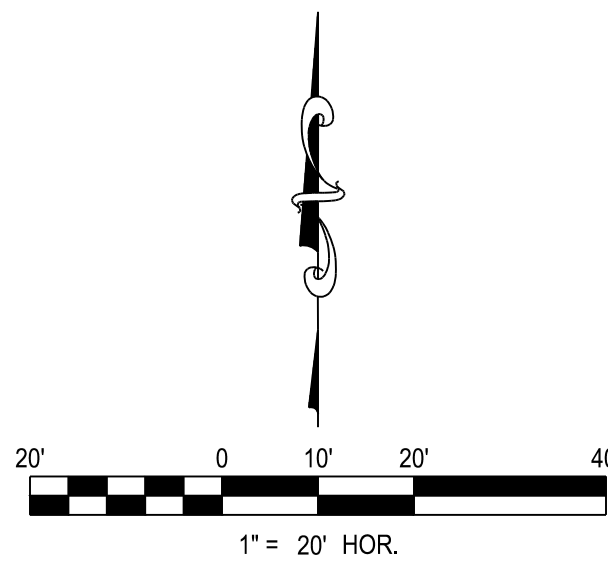


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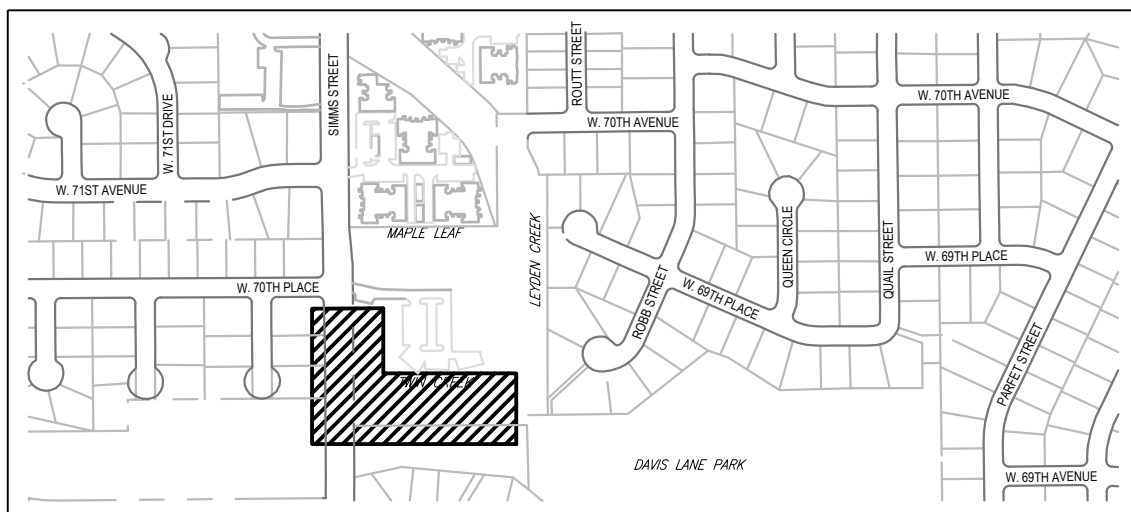
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KEY MAP

SCALE: 1"=1000'



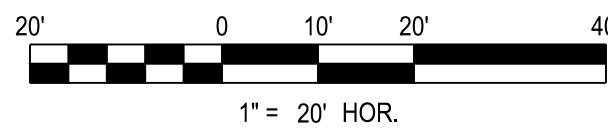
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CITY OF ARVADA PROJECT NO. 23-SR-11 CENTRAL RALSTON TRUNK LINE SIMMS TO PERSON (CRT7) SEDIMENT AND EROSION CONTROL PLAN 3					
TITLE					
 FOR AND ON BEHALF OF: MERRICK AND COMPANY					
PROJECT NUMBER 100107					
DATE JANUARY 2024					
SHEET 26 OF 40					

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City Engineer Date Job Number

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PROJECT NUMBER	100107
DATE	JANUARY 2024
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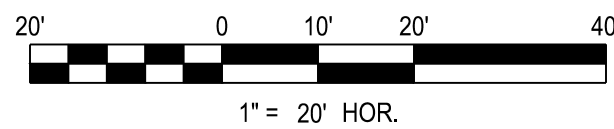
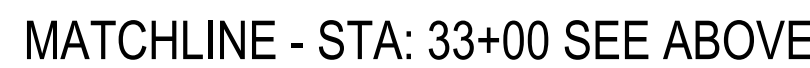


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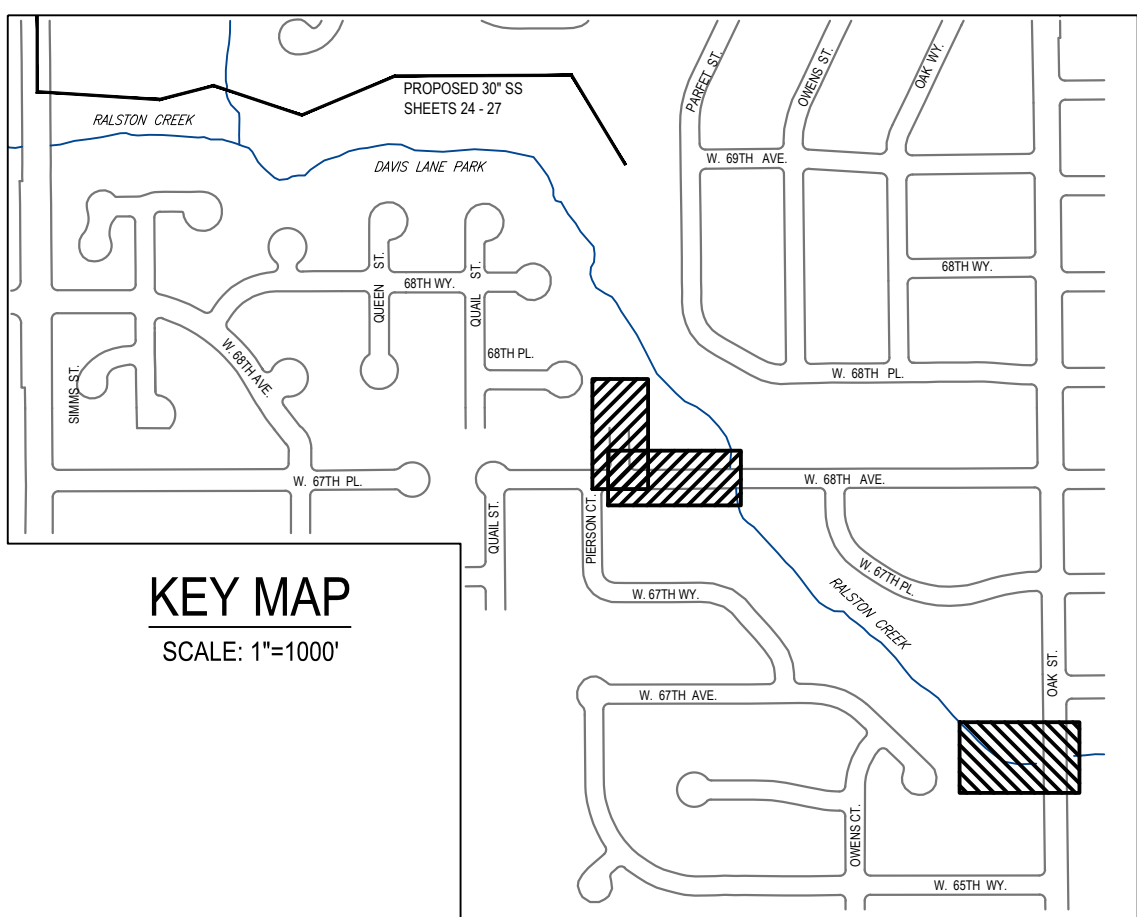
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City Engineer Date Job Number

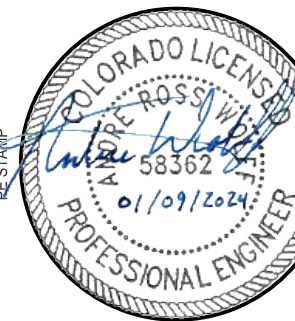
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT77)
SEDIMENT AND EROSION CONTROL PLAN 5



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100107

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JANUARY 2024

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28 OF 40

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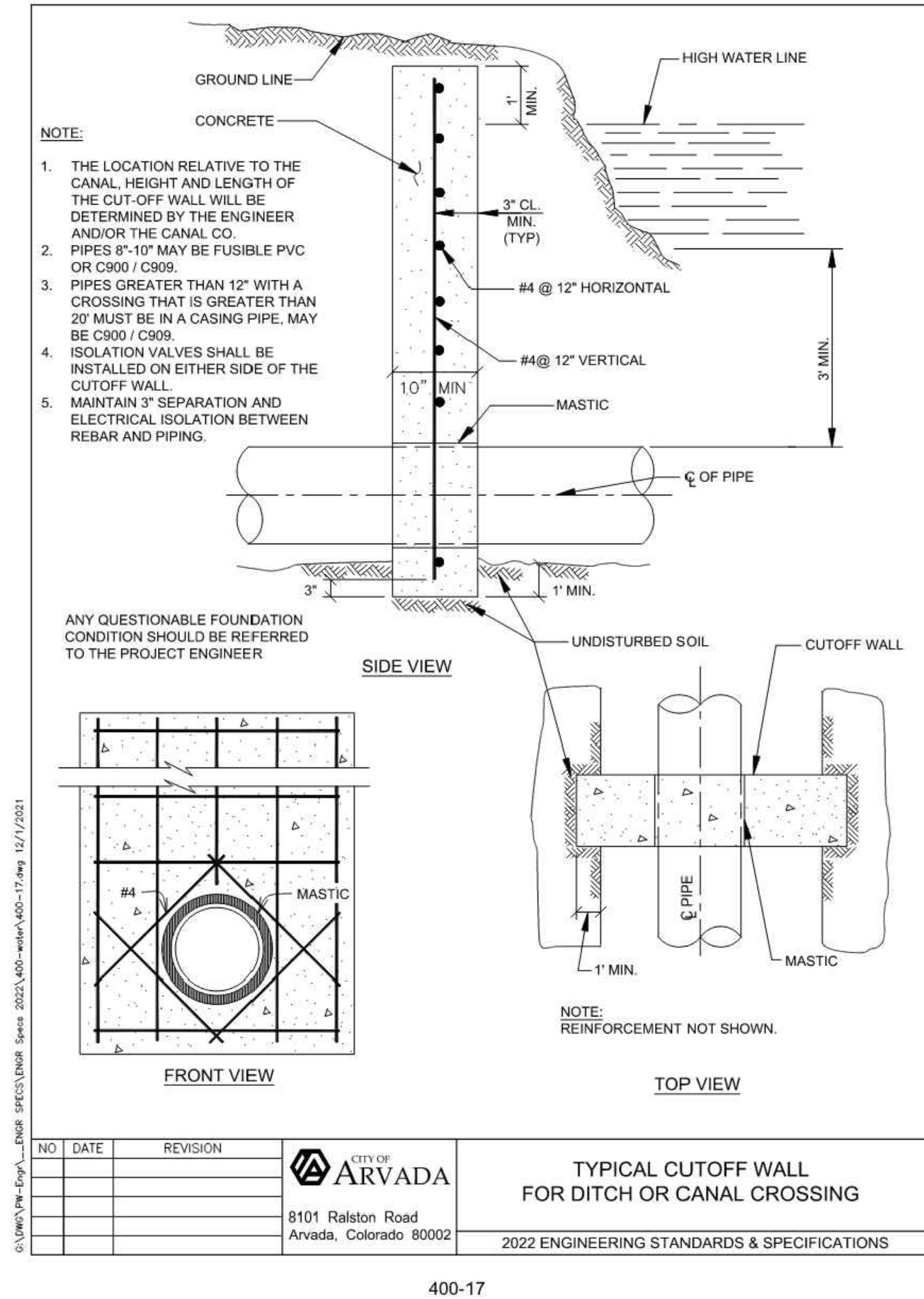
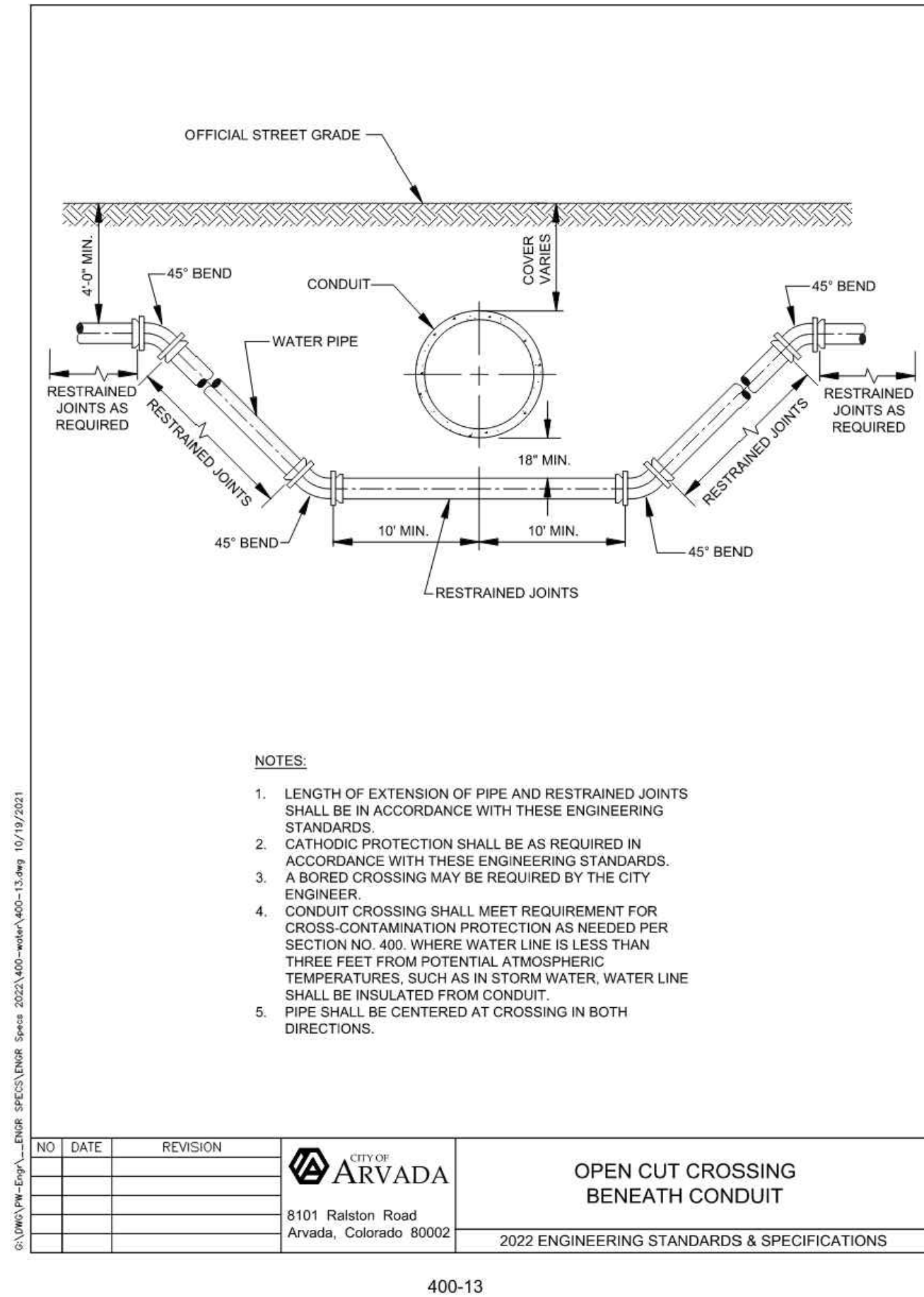
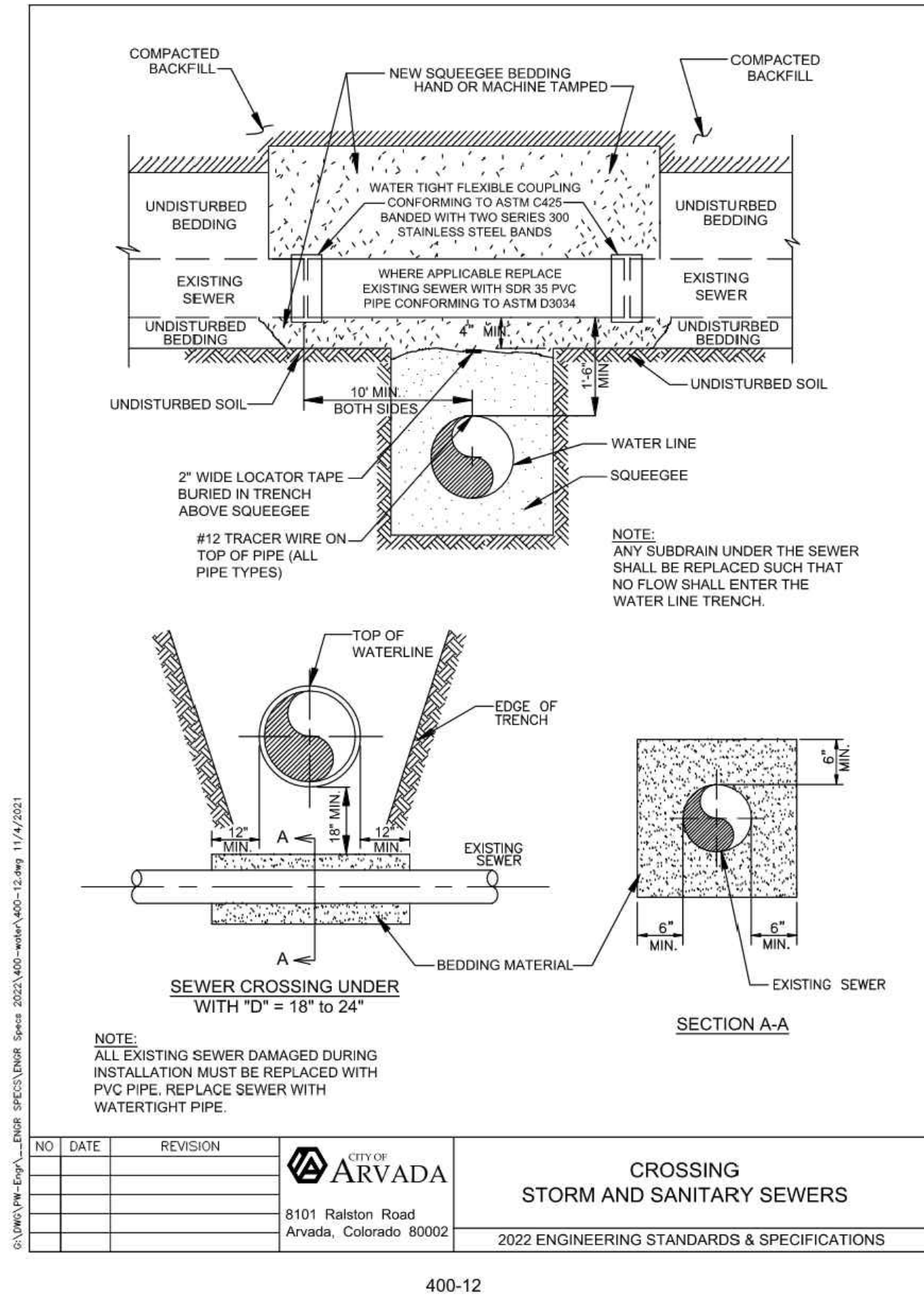


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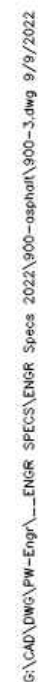
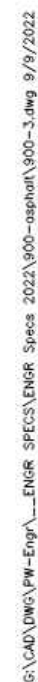
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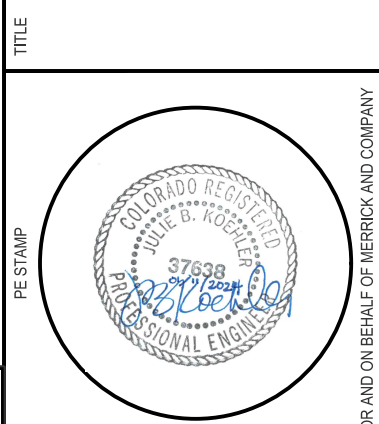


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APPROVED: Jenny Wollschlag, PE 1/11/24 23-SR-11
City Engineer Date Job Number

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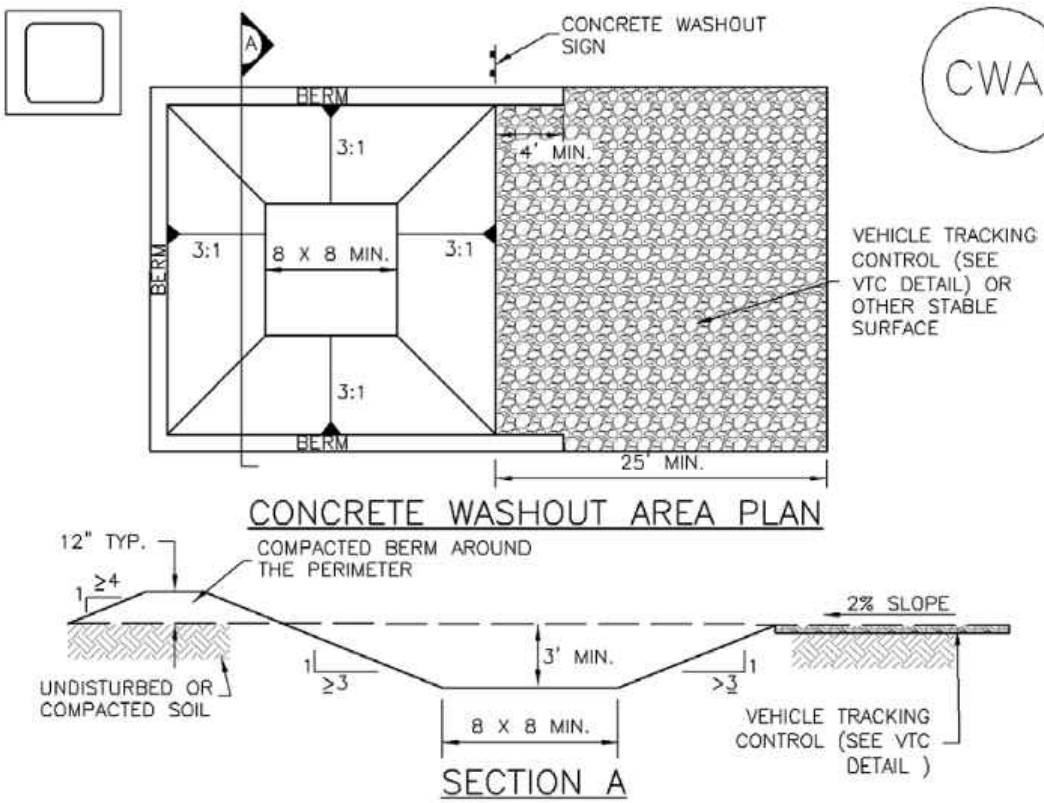


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Concrete Washout Area (CWA)MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
-CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District CWA-3
Urban Storm Drainage Criteria Manual Volume 3

MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SP-4 Urban Drainage and Flood Control District November 2010
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MM-1 Concrete Washout Area (CWA)

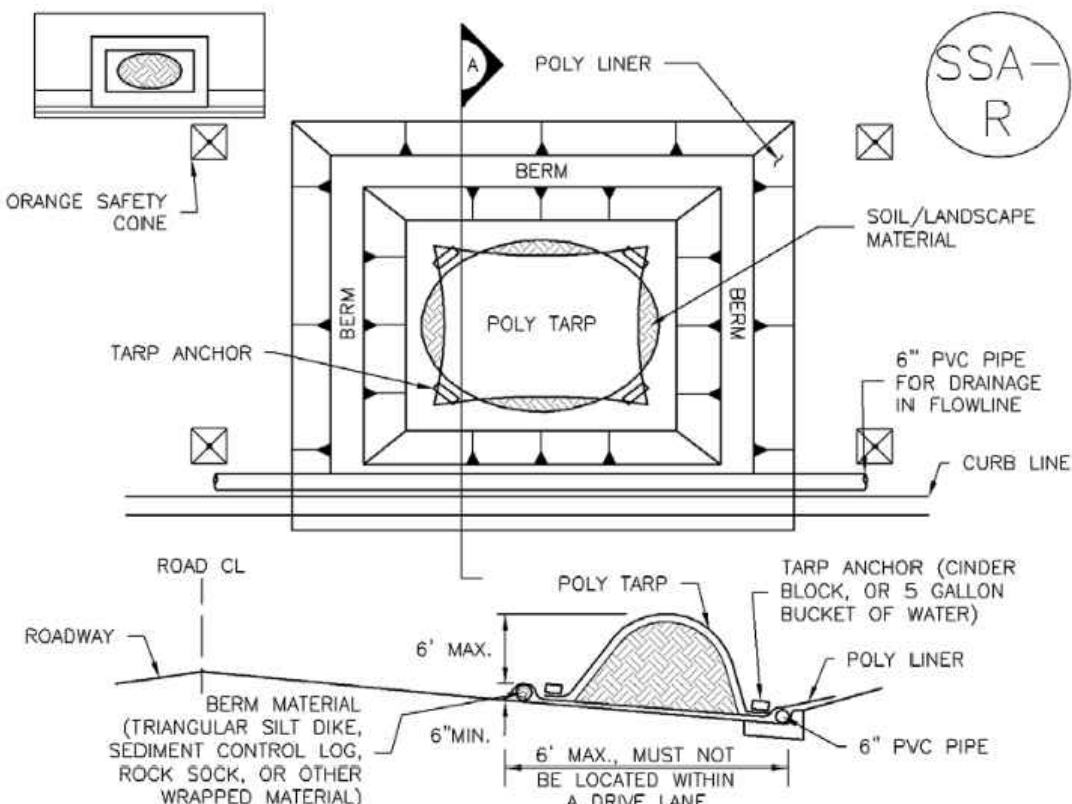
CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE, CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4 Urban Drainage and Flood Control District November 2010
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MM-2 Stockpile Management (SP)



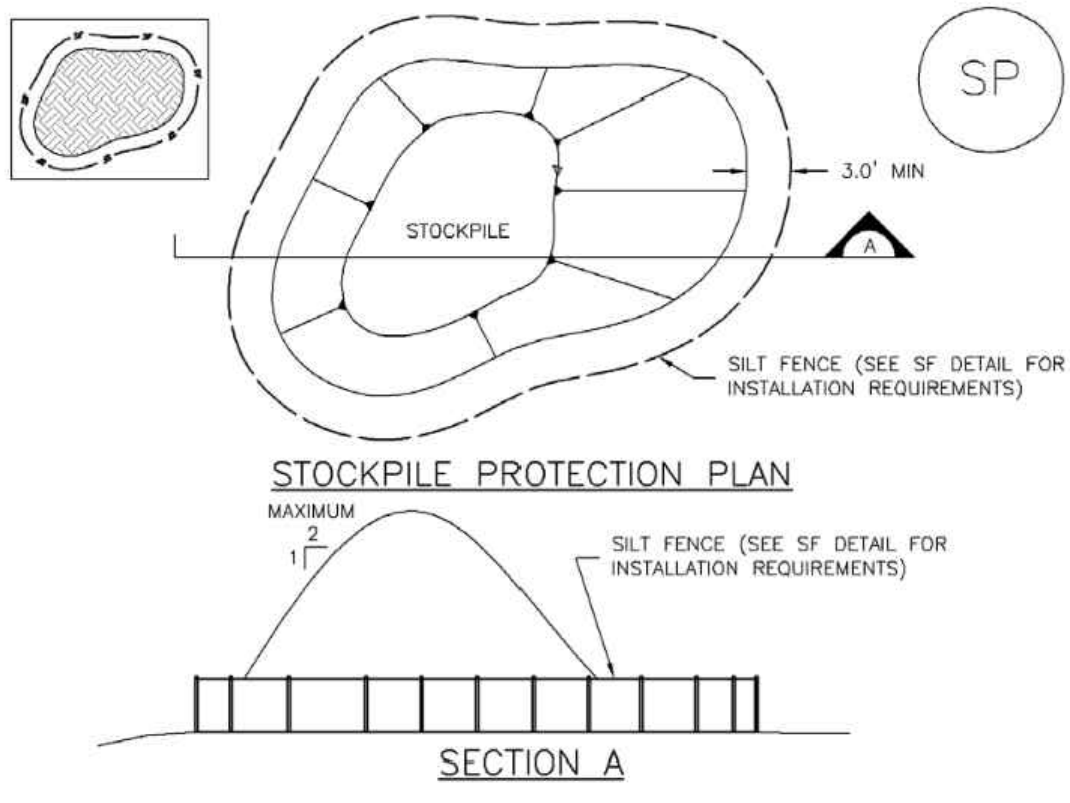
SP-2. MATERIALS STAGING IN ROADWAY

MATERIALS STAGING IN ROADWAYS INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
-LOCATION OF MATERIAL STAGING AREA(S).
-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. FEATURE MUST BE INSTALLED PRIOR TO EXCAVATION, EARTHWORK OR DELIVERY OF MATERIALS.
3. MATERIALS MUST BE STATIONED ON THE POLY LINER. ANY INCIDENTAL MATERIALS DEPOSITED ON PAVED SECTION OR ALONG CURB LINE MUST BE CLEANED UP PROMPTLY.
4. POLY LINER AND TARP COVER SHOULD BE OF SIGNIFICANT THICKNESS TO PREVENT DAMAGE OR LOSS OF INTEGRITY.
5. SAND BAGS MAY BE SUBSTITUTED TO ANCHOR THE COVER TARP OR PROVIDE BERMING UNDER THE BASE LINER.
6. FEATURE IS NOT INTENDED FOR USE WITH WET MATERIAL THAT WILL BE DRAINING AND/OR SPREADING OUT ON THE POLY LINER OR FOR DEMOLITION MATERIALS.
7. THIS FEATURE CAN BE USED FOR:
-UTILITY REPAIRS.
-WHEN OTHER STAGING LOCATIONS AND OPTIONS ARE LIMITED.
-OTHER LIMITED APPLICATION AND SHORT DURATION STAGING.

November 2010 Urban Drainage and Flood Control District SP-5
Urban Storm Drainage Criteria Manual Volume 3

Stockpile Management (SP)MM-2



STOCKPILE PROTECTION PLAN

MAXIMUM
2
1
SILT FENCE (SEE SF DETAIL FOR INSTALLATION REQUIREMENTS)

SECTION A

SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
-LOCATION OF STOCKPILES.
-TYPE OF STOCKPILE PROTECTION.
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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MM-2 Stockpile Management (SM)

MATERIALS STAGING IN ROADWAY MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. INSPECT PVC PIPE ALONG CURB LINE FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS PROMPTLY.
5. CLEAN MATERIAL FROM PAVED SURFACES BY SWEEPING OR VACUUMING.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO)

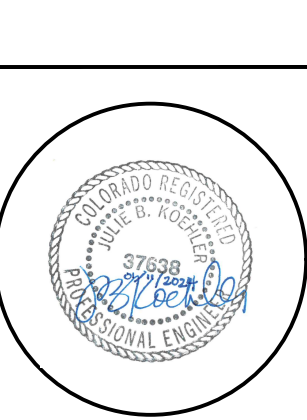
SP-6 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

SCALE BAR
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DSG	DRW	CHK	APR						

CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
MHFD CONSTRUCTION BMP DETAILS 2



PROJECT NUMBER	100107
DATE	JANUARY 2024
SHEET	36 OF 40

APPROVED:
Jerry Wolfschlag, P.E.
City Engineer
11/11/24
Date
23-SR-11
Job Number

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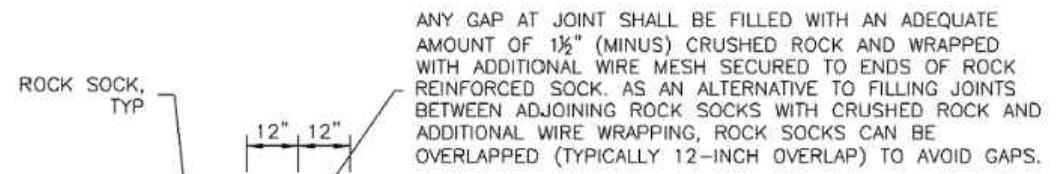
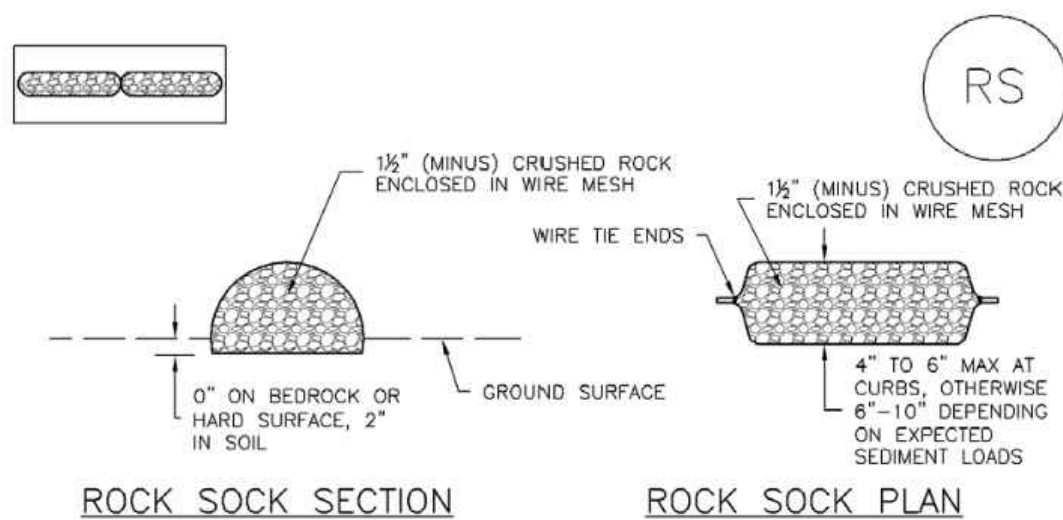
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SC-5 Rock Sock (RS)



GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
NO. 4	
2"	100
1 1/2"	90 - 100
1"	20 - 55
3/4"	0 - 15
3/8"	0 - 5

ROCK SOCK JOINTING

- ROCK SOCK INSTALLATION NOTES
- SEE PLAN VIEW FOR:
-LOCATION(S) OF ROCK SOCKS.
 - CRUSHED ROCK SHALL BE 1/4" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1/4" MINUS).
 - WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENINGS OF 1/2". RECOMMENDED MINIMUM ROLL WIDTH OF 48"
 - WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.
 - SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS-1. ROCK SOCK PERIMETER CONTROL

RS-2 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 November 2010

SC-6 Inlet Protection (IP)

GENERAL INLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-LOCATION OF INLET PROTECTION.
-TYPE OF INLET PROTECTION (IP-1, IP-2, IP-3, IP-4, IP-5, IP-6)
- INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.
- MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR 1/4 OF THE HEIGHT FOR STRAW BALES.
- INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
- WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

IP-8 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 August 2013

Rock Sock (RS) SC-5

ROCK SOCK MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
- SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK.
- ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
- WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

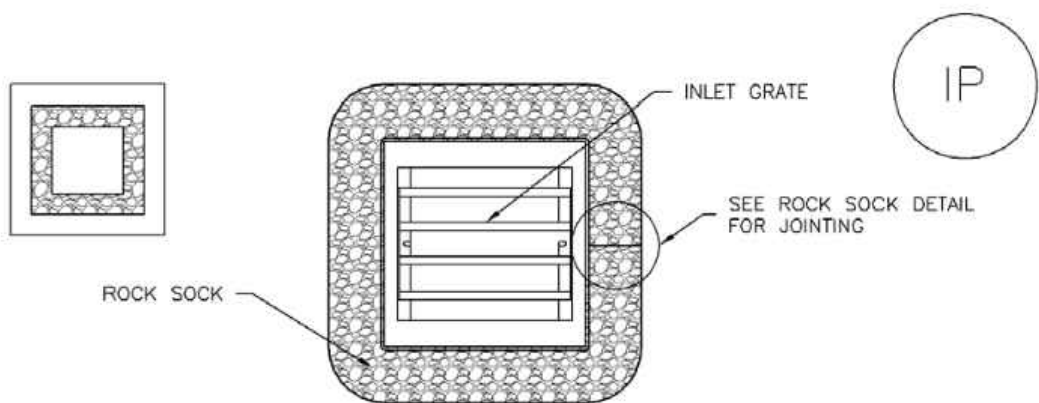
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NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

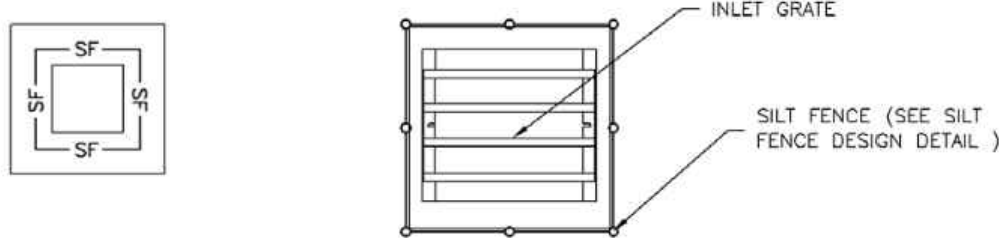
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Urban Storm Drainage Criteria Manual Volume 3 RS-3

Inlet Protection (IP) SC-6



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

- ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES
- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
 - STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



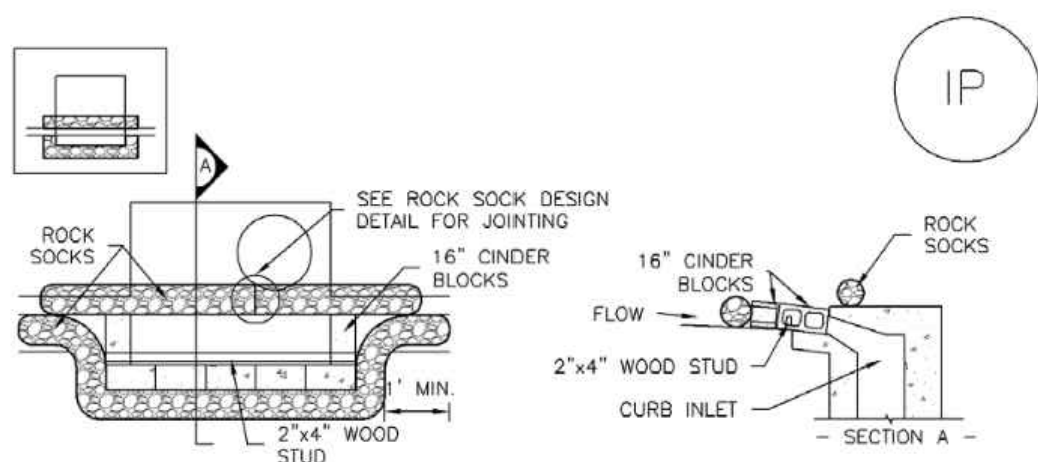
IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

- SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.
- STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

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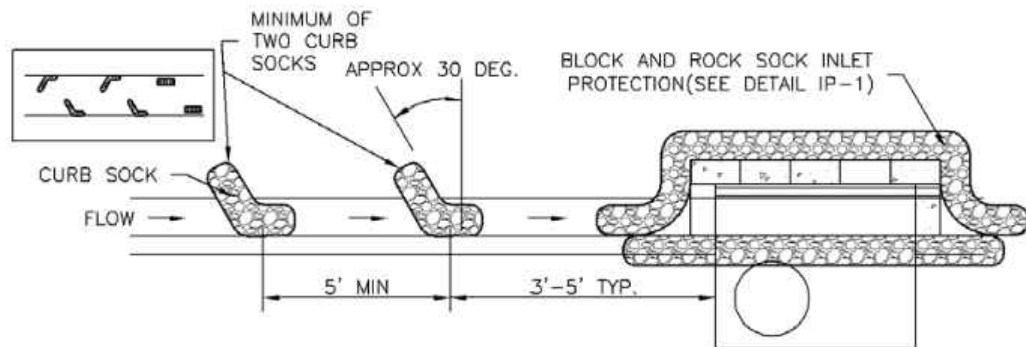
SC-6 Inlet Protection (IP)



IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
- GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



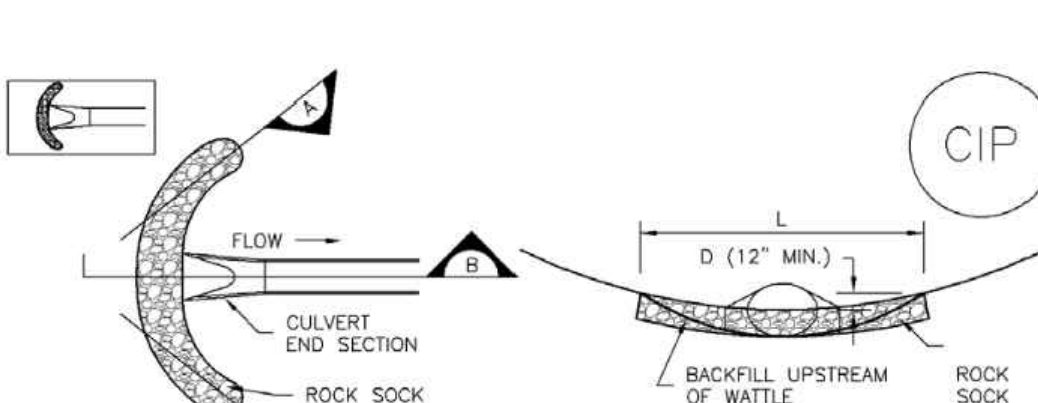
IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

- SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
- PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
- SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.
- AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

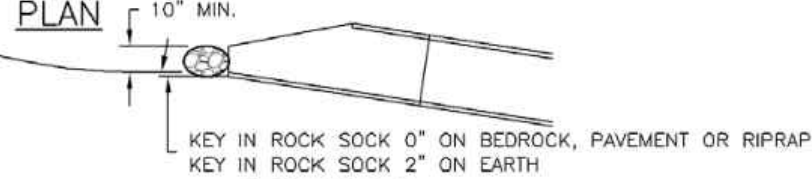
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Inlet Protection (IP) SC-6



CULVERT INLET PROTECTION

SECTION A



CIP-1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-LOCATION OF CULVERT INLET PROTECTION.
- SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1/2 THE HEIGHT OF THE ROCK SOCK.
- CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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FOR CONSTRUCTION

APPROVED: *Amey Wolfshagen, PE* 1/11/24 23-SR-11
City Engineer Date Job Number

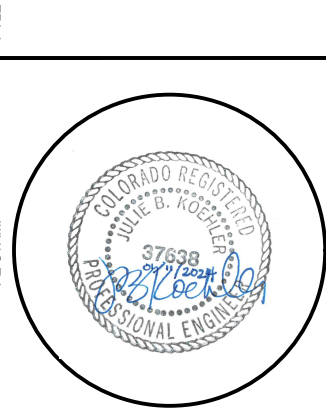
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
MHFD CONSTRUCTION BMP DETAILS 4



PROJECT NUMBER: 100107
DATE: JANUARY 2024
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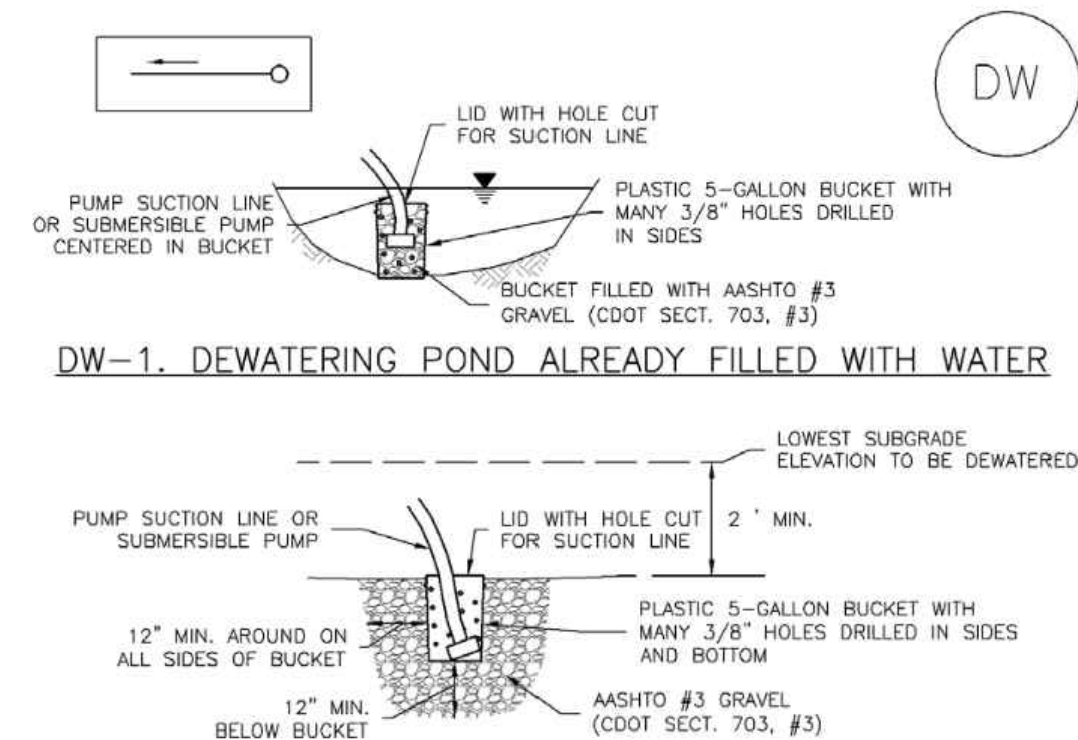
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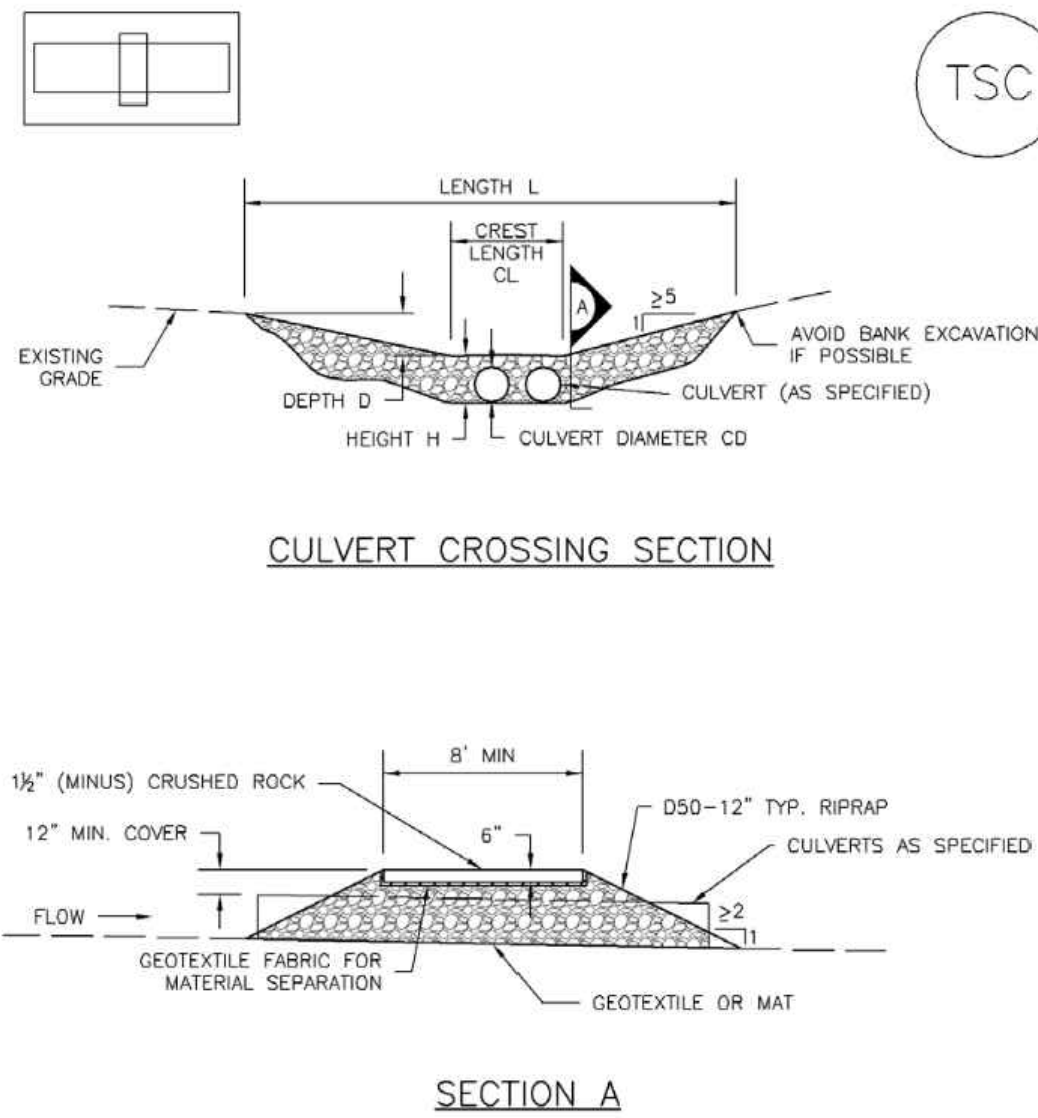
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Temporary Stream Crossing (TSC)

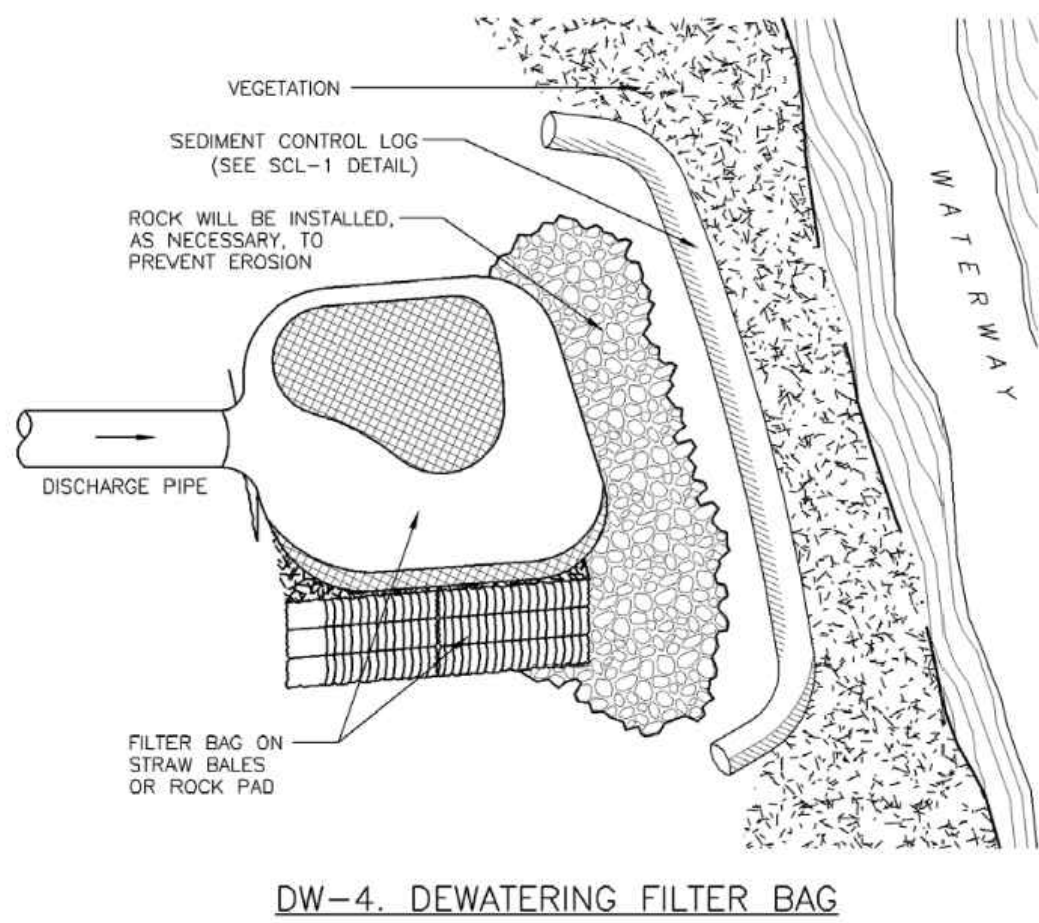
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SM-9

Dewatering Operations (DW)



DW-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

SM-10

Temporary Stream Crossing (TSC)

TEMPORARY STREAM CROSSING INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATIONS OF TEMPORARY STREAM CROSSINGS.
 - STREAM CROSSING TYPE (FORD, CULVERT, OR FLUME).
 - FOR FORD CROSSING: LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).
 - FOR CULVERT CROSSING: LENGTH (L), CREST LENGTH (CL), CROSSING HEIGHT (H), DEPTH (D), CULVERT DIAMETER (CD), AND NUMBER, TYPE AND CLASS OR GAUGE OF CULVERTS.
- TEMPORARY STREAM CROSSING DIMENSIONS, D50, AND NUMBER OF CULVERTS INDICATED (FOR CULVERT CROSSING) SHALL BE CONSIDERED MINIMUM DIMENSIONS; ENGINEER MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO STREAM CROSSING OR EXISTING STREAM CHANNEL DURING BASEFLOW OR FLOOD EVENTS SHALL BE PROMPTLY REPAIRED.
- SEE MAJOR DRAINAGE CHAPTER FOR RIPRAP GRADATIONS.
- WHERE FAILURE OF A STREAM CROSSING CAN RESULT IN SIGNIFICANT DAMAGE OR HARM IT MUST BE DESIGNED BY A STRUCTURAL ENGINEER.

TEMPORARY STREAM CROSSING MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- REMOVE SEDIMENT ACCUMULATED UPSTREAM OF CROSSING AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE CROSSING.
- STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED AND SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION.
- WHEN STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND CITY OF AURORA, COLORADO (V6, DSWC), NOT AVAILABLE IN AUTOCAD)

TSC-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012

Dewatering Operations (DW)

SM-9

DEWATERING INSTALLATION NOTES

4. DEWATERING OPERATIONS SHALL USE ONE OR MORE OF THE DEWATERING SUMPS SHOWN ABOVE, WELL POINTS, OR OTHER MEANS APPROVED BY THE LOCAL JURISDICTION TO REDUCE THE PUMPING OF SEDIMENT, AND SHALL PROVIDE A TEMPORARY SEDIMENT BASIN OR FILTRATION BMP TO REDUCE SEDIMENT TO ALLOWABLE LEVELS PRIOR TO RELEASE OFF SITE OR TO A RECEIVING WATER. A SEDIMENT BASIN MAY BE USED IN LIEU OF SUMP DISCHARGE SETTLING BASIN SHOWN ABOVE IF A 4-FOOT-SQUARE RIPRAP PAD IS PLACED AT THE DISCHARGE POINT AND THE DISCHARGE END OF THE LINE IS STAKED IN PLACE TO PREVENT MOVEMENT OF THE LINE.

DEWATERING MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- DEWATERING BMPs ARE REQUIRED IN ADDITION TO ALL OTHER PERMIT REQUIREMENTS.
- TEMPORARY SETTLING BASINS SHALL BE REMOVED WHEN NO LONGER NEEDED FOR DEWATERING OPERATIONS. ANY DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

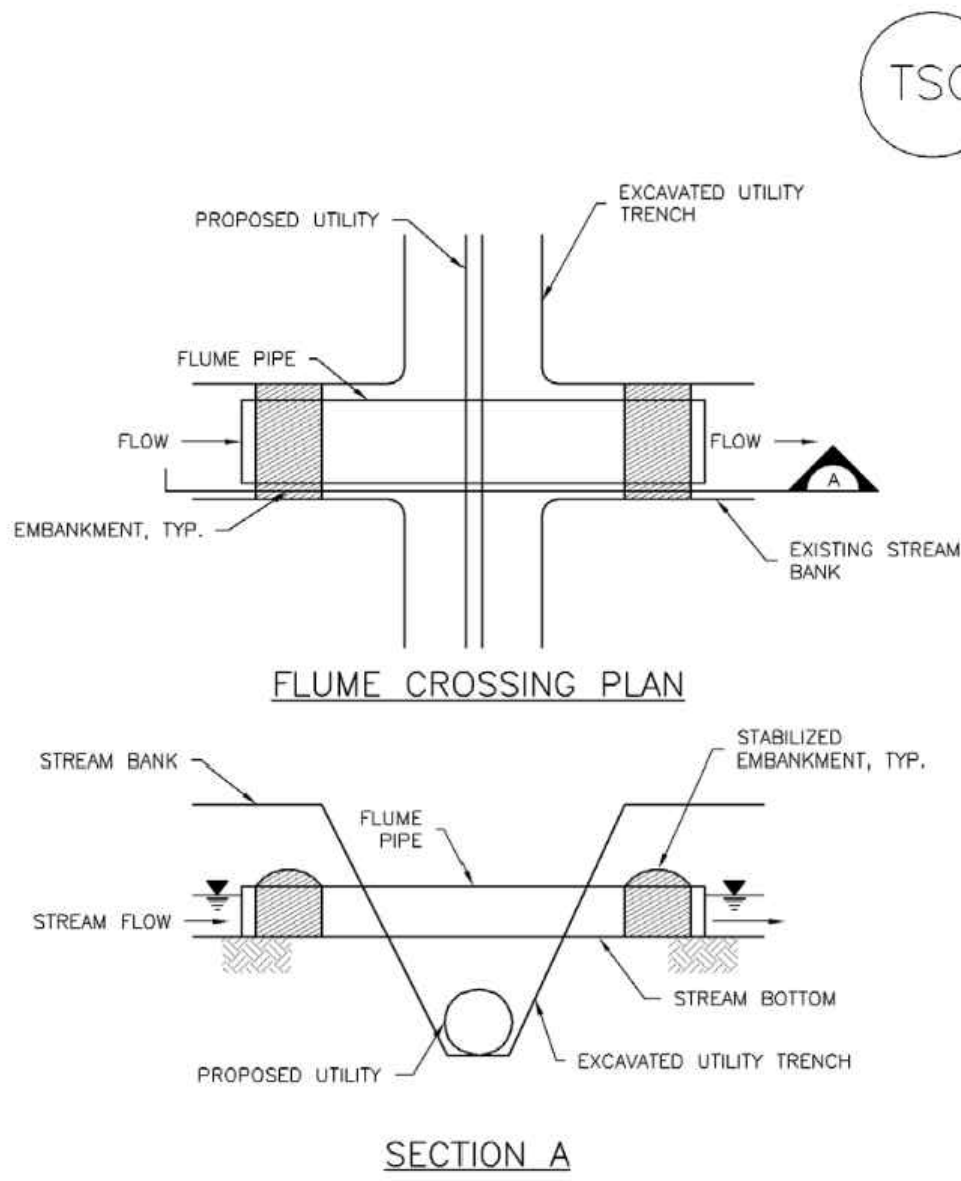
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(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 DW-5

Temporary Stream Crossing (TSC)

SM-10



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FOR CONSTRUCTION

APPROVED: *Arny Wolfshagen, PE* 1/11/24 23-SR-11
City Engineer Date Job Number

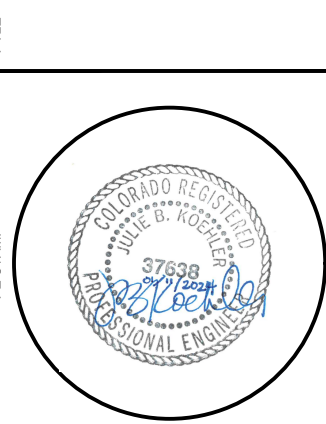
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CITY OF ARVADA
PROJECT NO. 23-SR-11
CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)
MHFD CONSTRUCTION BMP DETAILS 6



PROJECT NUMBER
100107
DATE
JANUARY 2024
SHEET
40 OF 40

CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)

CITY OF ARVADA PROJECT NUMBER: 23-SR-11

SUBSURFACE UTILITY ENGINEERING REPORT

Prepared For:

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Prepared By:

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Submitted: 01/09/2024

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TABLE OF CONTENTS

DISCLAIMER REGARDING UNDERGROUND UTILITIES.....3

CERTIFICATION STATEMENT3

PROJECT INTRODUCTION.....4

PROJECT LOCATION.....4

SUE SERVICES PERFORMED.....5

 Utility Designating.....5

 Results and Engineering Discussions6

 Utility Ownership and Mapping8

SUE INVESTIGATION.....9

 Quality Level Descriptions.....9

 Utility Quality Levels9

APPENDICESA1

 Utility MappingA1

 Subsurface Utility Locating Service Documentation.....B1

 811 Colorado Call Confirmation And Formal Response.....C1

DISCLAIMER REGARDING UNDERGROUND UTILITIES

Existing utilities are depicted in this report and in accordance with the achieved "Quality Levels" for each utility as defined in the American Society of Civil Engineers' document ASCE 38-22 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" and as Required by C.R.S. 9-1.5-101 et. seq.

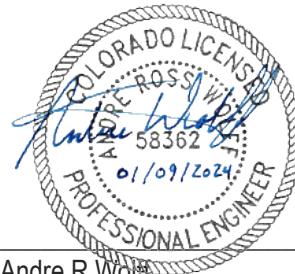
As it applies to the depiction of existing underground utility information, the stamp and seal on this report reflect only that depiction of the existing underground utility meets the noted ASCE 38 quality level, and does not serve as a guaranty, representation, or warranty that the depicted utilities exist in the noted locations. Information presented herein represents data provided to Merrick and does not include all landscape irrigation systems, utility services to residences or businesses, underground storage tanks, wells, traffic detection devices, or any utility not reported to Merrick.

Reliance upon this data for risk management purposes during bidding does not relieve the excavator or utility owner from following all applicable utility damage prevention statutes, policies, and/or procedures during excavation. It is important that the contractor investigates and understand the scope of work and consults with that project owner and the engineer regarding the scope and limits of the investigations leading to these utility depictions.

CERTIFICATION STATEMENT

This subsurface utility engineering report for the Skeel Reservoir Renovation project was prepared by me or under the direct supervision in accordance with the achieved "Quality Levels" for each utility as defined in the American Society of Civil Engineers' document ASCE 38 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" and as required by C.R.S. 9-1.5-101 et. seq.

By:



Andre R Wolff
Licensed Professional Engineer
State of Colorado No. 58362



PROJECT INTRODUCTION

The following summarizes the results of subsurface utility engineering (SUE) utility designating and investigation for the Central Ralston Trunk Line Simms to Pierson (CRT7) construction project for the City of Arvada. The CRT7 project will relocate and upsized a section of the Central Ralston Trunk Line sanitary sewer main.

PROJECT LOCATION

The project is located within the City of Arvada and begins in the northeast corner of the Davis Lane Park and runs west through the park to Simms St., paralleling the existing sewer. The alignment then continues north along the center of the eastern northbound lane of Simms St., deflecting to the center of the western southbound lane at the intersection of W 70th Pl. The alignment then turns west down W. 71st avenue to the intersection with W. 71st Dr. Two additional separate locations are included in this work and are located near the intersection of Pierson Ct & 68th Ave, and Oak St & W. 66th Ave respectively. The nearest major intersection to the CRT7 project is Simms Street and W 72nd Ave on the northernmost part of the sewer section, and Simms Street and 64th Ave on the southernmost part of the sewer section. The surrounding neighborhoods in closest proximity are Northwest Arvada, Orchard Square, and Allendale.

Figure 1 depicts the full limits of utility investigation.

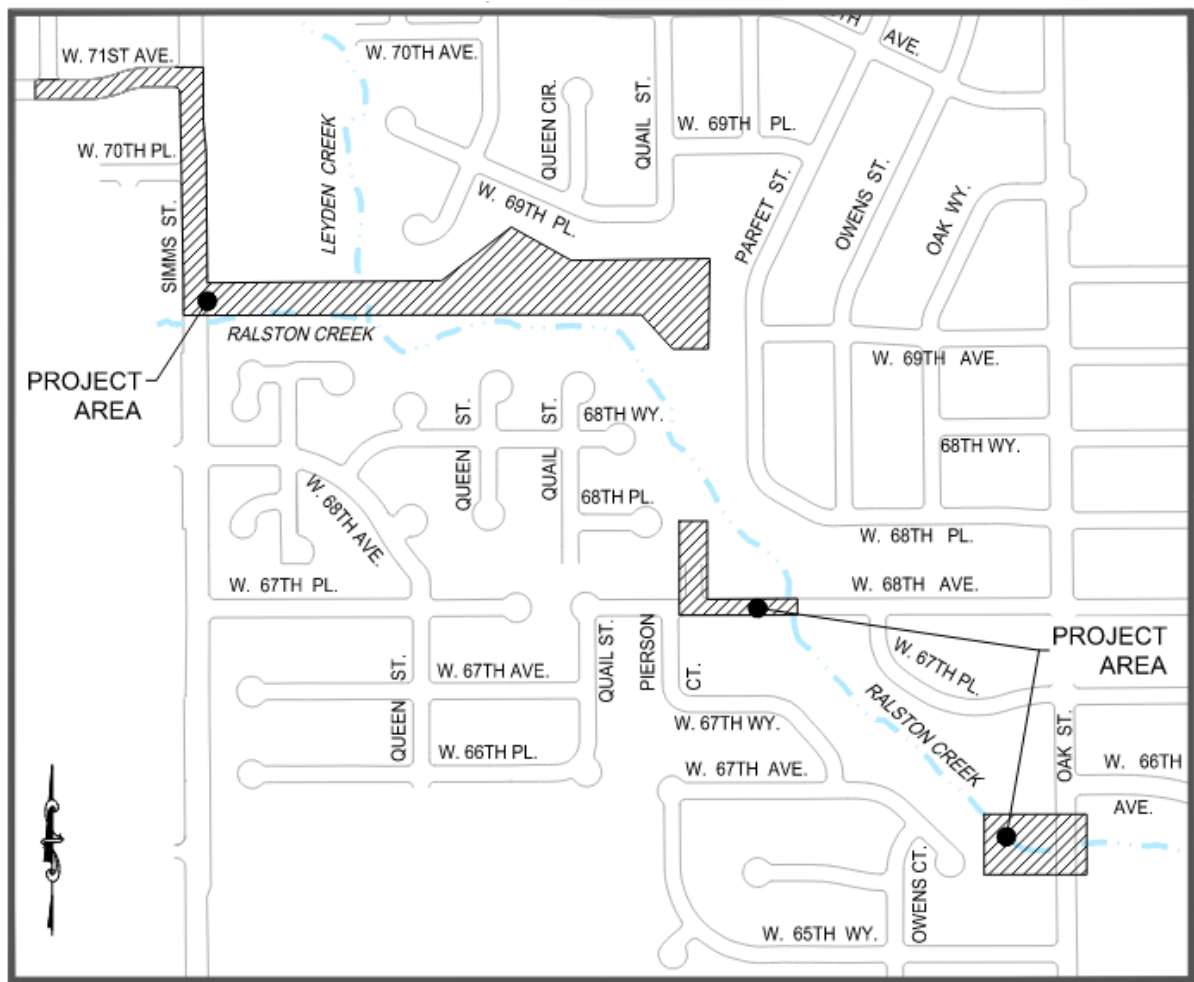


Figure 1 – Vicinity Map



SUE SERVICES PERFORMED

Utility Designating

For the purposes of this work, “designate” means to establish by engineering and drafting practices the presence and horizontal location of subsurface utilities using to the fullest extent practical, available records and geophysical detection methods, including, magnetic, electromagnetic, and if authorized, ground penetrating radar techniques. Utilities detected and mapped using geophysical methods are designated as quality level B utilities. Subsurface utility locating service obtained mapping of utilities in the project limits and referenced the mapping to designate underground utilities. Underground Consulting Solutions provided the subsurface utilities locating for this project beginning on October 13, 2023. An 811 Colorado Subsurface Utility Engineering call was placed on October 13, 2023, to determine all underground utility owners in the general proximity of the project site. Results of the call are shown in Table 1.

Table 1-811 Colorado Call Results

Company	Utility Facilities	Notes
CenturyLink	Fiber Optic and Telecommunication	Underground utilities within study area, and within project area.
City of Arvada	Water, Sewer, Storm Sewer, Irrigation	Underground utilities within study area, and within project area.
Comcast	Cable TV & Fiber Optic	Clear; No Conflict.
MCI	Telecommunications	Clear; No Conflict.
Lumen	Underground Fiber & Copper Facilities	Clear; No Conflict.
Xcel Energy Electric & Gas	Electric & Gas	Underground utilities within study area, and within project area.
Xcel Energy HP/IP Dist. Gas	Gas Pipeline	Underground utilities within study area, and within project area.

Tier 1 facilities are required to respond to the 811-investigation call with mapping of requested area. Tier 1 facilities that did not respond to the 811-investigation call were contacted to obtain mapping. Tier 2 facility owners within the project area were contacted to obtain mapping.

Merrick and Company in coordination with Underground Consulting Solutions conducting utility potholing operations which resulted in several iterations, one of which the results were received on October 17, 2023, the second on December 21, 2023. The results have been cross checked against utility mapping provided by the utility companies containing facilities in the project vicinity. These results provide a more accurate depiction of all surface and sub-surface utilities and are documented in this report in the table below.



Table 2: UCS Potholing Data

PH#	Utility	Description	Station	Surface Elevation (ft)	Depth to TOP (ft)	TOP Elev (ft)	Easting (ft)	Northing (ft)	Comments
1	Xcel Energy	Electric	3+28	5416.83	-	-	106446.54	725111.81	Inaccessible
2	Unknown	Fiber Optic	11+42	5422.86	-	-	105662.45	725056.58	Inaccessible
3	Century Link	Fiber Optic	16+64	5429.75	6.62	5423.13	105142.08	725067.72	
4	Xcel Energy	Electric	16+68	5429.93	6.74	5423.19	105138.22	725067.84	
5	Comcast	Fiber Optic	16+70	5430.00	1.92	5428.08	105136.39	725067.84	
6	Century Link	Fiber Optic	16+72	5430.04	-	-	105133.77	725068.25	Inaccessible
7	Xcel Energy	Electric	16+73	5429.99	-	-	105133.23	725068.16	Inaccessible
8	Multiple	Duct	16+80	5429.65	4.12	5425.53	105125.54	725069.07	
9	Xcel Energy	Gas	18+02	5430.10	3.36	5426.74	105111.17	725181.50	
10	Xcel Energy	Electric	18+07	5430.12	5.10	5425.02	105110.79	725186.59	
11	City of Arvada	Water	18+41	5430.13	6.20	5423.93	105110.50	725220.13	
12	City of Arvada	Water	19+99	5430.32	4.18	5426.14	105109.43	725377.95	
13	City of Arvada	Water	20+46	5430.54	4.44	5426.10	105095.21	725423.12	
14	Xcel Energy	Gas	20+57	5430.62	-	-	105094.57	725433.45	Inaccessible; Flow Fill
15	Century Link	Fiber Optic	21+19	5430.67	2.48	5428.19	105088.47	725493.43	
16	Century Link	Fiber Optic	21+29	5430.68	2.58	5428.10	105088.47	725504.57	
17	Century Link	PVC	21+42	5430.69	3.58	5427.11	105088.29	725517.34	
18	Xcel Energy	Gas	22+71	5431.20	-	-	105086.83	725645.93	Inaccessible; Flow Fill
19	Xcel Energy	Gas	23+02	5431.49	3.10	5428.39	105091.90	725668.78	
20	Century Link	Fiber Optic	24+89	5432.40	-	-	104889.07	725649.17	Clear to 6.2'
24	City of Arvada	Water	30+21	5405.26	-	5405.26	106864.64	724072.28	Clear to 8.0'
25	City of Arvada	Water	30+13	5405.36	-	5405.36	106870.00	724066.93	Clear to 8.0'
26	Xcel Energy	Gas	40+14	5398.36	-	5398.36	107759.85	723278.64	

Results and Engineering Discussions

A majority of utility crossings were able to be positively located to Quality Level A, and all located crossings were not in conflict with the proposed work. The below list details each of the utility crossings identified in Table 2 that were not able to be identified to Quality Level A, and a discussion on the relative risks and context that were considered in deciding to not pursue further investigation:

- **PH 1: Xcel Energy (Electric)**
 - Access to the park is limited by 5-ton pedestrian bridges that prohibited UCS equipment from reaching the utility crossing.
 - This line is a small feeder line to a single light pole within the park. The line is assumed to be shallow and will be able to be protected in place during construction.
 - If the line is found to be in conflict during construction, the cost and effort to resolve the conflict is expected to be minimal.
- **PH 2: CenturyLink (Fiber Optic)**
 - Access to the park is limited by 5-ton pedestrian bridges that prohibited UCS equipment from reaching the utility crossing.



- This line terminates at a pedestal adjacent to the proposed crossing. The line is assumed to be shallow and will be able to be protected in place during construction.
- The proposed pipe is parallel to and approximately similar in elevation to the existing trunk sewer, therefore it is assumed that there will be no conflict with the proposed sewer.
- If the line is found to be in conflict during construction, the cost and effort to resolve the conflict is expected to be minimal.
- **PH 6: CenturyLink (Fiber Optic)**
 - UCS was unable to penetrate the concrete encasement of the utility which was encountered directly below the initial concrete sidewalk coring.
 - The proposed pipe is approximately 15-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 7: Xcel Energy (Electric)**
 - UCS was unable to penetrate the concrete encasement of the utility which was encountered directly below the initial concrete sidewalk coring.
 - The proposed pipe is approximately 14-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 14: Xcel Energy (Gas)**
 - UCS encountered flowable fill in the test hole location and was unable to positively identify the utility.
 - Utility owner indicated that the line in this area was installed between 3 and 5-foot depths. The same line and connected service line were located at PH 19 & 9 respectively, which corresponds with the owner's provided information.
 - The proposed pipe is approximately 11-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 18: Xcel Energy (Gas)**
 - UCS encountered flowable fill in the test hole location and was unable to positively identify the utility.
 - Utility owner indicated that the line in this area was installed between 3 and 5-foot depths. The same line and connected service line were located at PH 19 & 9 respectively, which corresponds with the owner's provided information.
 - The proposed pipe is approximately 11-feet deep at the location of the crossing, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
- **PH 20: CenturyLink (Fiber Optic)**
 - UCS was unable to vertically locate the utility.
 - The proposed pipe is parallel to and approximately similar in elevation to the existing trunk sewer, therefore it is assumed that there will be no conflict with the proposed sewer.
 - If the line is found to be in conflict during construction, the cost and effort to resolve the conflict is expected to be minimal.
- **PH 24: City of Arvada (Water) 8"**
 - Groundwater encountered, clear to 8'.
 - The proposed pipe is approximately 11-feet deep at the location of the pothole, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
 - Protect existing 8" PVC water pipe.
- **PH 25: City of Arvada (Water) 48"**
 - Groundwater encountered, clear to 8'.
 - The proposed pipe is approximately 11-feet deep at the location of the pothole, which is far below the typical install depth of this type of utility, therefore it is assumed that there will be no conflict with the proposed sewer.
 - Protect existing 48" STL water pipe.
- **PH 26: Xcel Energy (Gas)**
 - UCS was not able to locate this line prior to submission of this report.



SUBSURFACE UTILITY ENGINEERING REPORT

Based on the above discussions, all utility crossings that were unable to be positively located to Quality Level A, are reasonably assumed to not conflict with the proposed work. It is assumed that all crossings can be protected in place and will not result in any significant project costs or delays.

Utility Ownership and Mapping

Utility companies listed in the 811 call were contacted and requested to provide maps of all underground facilities or confirm there are no known utilities within the project limits. Table 3 specifies utility ownership and representative contact information for utilities identified within the SUE investigation project limits.

Information is current as of the date of submittal and is subject to change.

Table 3: Utility Contact Information

Utility Company	Contact Name	Phone / Email
CenturyLink	Izzy Miller Capacity Provisioning Specialist	izzy.miller@centurylink.com
CenturyLink	Robert Davis Construction Supervisor	720-854-4341 robert.davis@centurylink.com
CenturyLink	Renee Hester Network Implementation Engineer	720-738-2778 renee.hester@lumen.com
CenturyLink	Kenneth Miller Senior Fiber Optic Engineer	kenneth.r.miller@centurylink.com
CenturyLink	Relocations	relocations@centurylink.com
CenturyLink	Kari Roza Relocations Engineer	kari.roza1@lumen.com
Comcast Construction Supervisors	Scott Moore Construction Manager	720-531-2585 scott_moore@cable.comcast.com
Comcast Construction Supervisors	Miguel Flores Construction Manager	miguel_flores@comcast.com
Comcast	Andy Davis Director of Regulatory & Government Affairs	andy_davis@comcast.com
CORE Electric Cooperative	Brooks Kaufman Lands and Rights of Way Manager	720-733-5493 bkaufman@core.coop
United Power	Steve Barwick ROW Specialist	303-637-1234 sbarwick@unitedpower.com
TDS Telecommunications	Randal Lopez Network Specialist	453-319-4596 row@tdstelecom.com
Colorado 811	Neeley Duran Denver Metro Damage Prevention Liaison	303-513-7616 nduran@co811.com
City of Arvada	Sharon Israel Director of Utilities	720-898-7761 sisrael@arvada.org
City of Arvada Dry Utilities	Engineering Services Division	720-898-7640 engineeringpermits@arvada.org
Xcel Energy	Brett McGrath Senior Siting & Land Rights Agent	303-425-3874 brett.p.mcgrath@xcelenergy.com
Xcel Energy	Jeremy Hutaff Manager, New Business Design	303-425-3823 jeremy.d.hutaff@xcelenergy.com

Utility owner mapping was cross-referenced with the utility locating completed by Underground Consulting Solutions to designate underground utilities and is included in Appendix A.



SUE INVESTIGATION

Quality Level Descriptions

Quality Levels are defined by American Society of Civil Engineers (ASCE) in the ASCE 38

“Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data”. The definitions are described below:

- Quality Level A:** Quality Level A (QL-A), also known as “daylighting” or “test holes” is the highest level of subsurface utility data collection accuracy available. It provides information for the precise plan and profile mapping of underground utilities through the exposure of underground utilities (usually at specific points), and also provides the type, size, condition, and material of existing underground utilities.
- Quality Level B:** Quality Level B (QL-B) applies surface geophysical methods to determine the existence and horizontal position of all subsurface utilities within a project’s limits. Utilities are located using a combination of traditional locating techniques, ground penetrating radar (GPR), and electromagnetic surveying. QL-B processes can address problems caused by inaccurate utility records, abandoned or unrecorded facilities, and lost references.
- Quality Level C:** Quality Level C (QL-C) involves surveying visible above ground utility facilities (e.g., manholes, valve boxes, etc.) and correlating these features with information from existing utility records (QL-D information). The utility field collection process involves using above-ground utility features such as hydrant, telephone pedestals, pole drops, and valves to provide evidence of the existence of subsurface utilities and to accurately identify and designate those utilities.
- Quality Level D:** Quality Level D (QL-D) is the most basic level of information for utility locations and comes from existing utility records or verbal recollections. QL-D is useful primarily for project planning and route selection activities. Basic utility location, attribute information, and metadata of subsurface utilities at this level can be compiled from a combination of existing records, cursory site inspection, utility owner input, and anecdotal evidence.

Utility Quality Levels

Utilities are depicted on these plans in accordance with their achieved “quality levels” as defined in the ASCE document ASCE 38, “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.” Reliance upon these data for risk management purposes during bidding does not relieve the excavator or utility owner from following all applicable utility damage prevention statutes, policies, and/or procedures during excavation. It is important that the contractor investigates and understands the scope of work between the project owner and their engineer regarding the scope and limits of the utility investigations leading to these utility depictions.



APPENDIX A1

UTILITY MAPPING



ARVADA

Underground Consulting Solutions

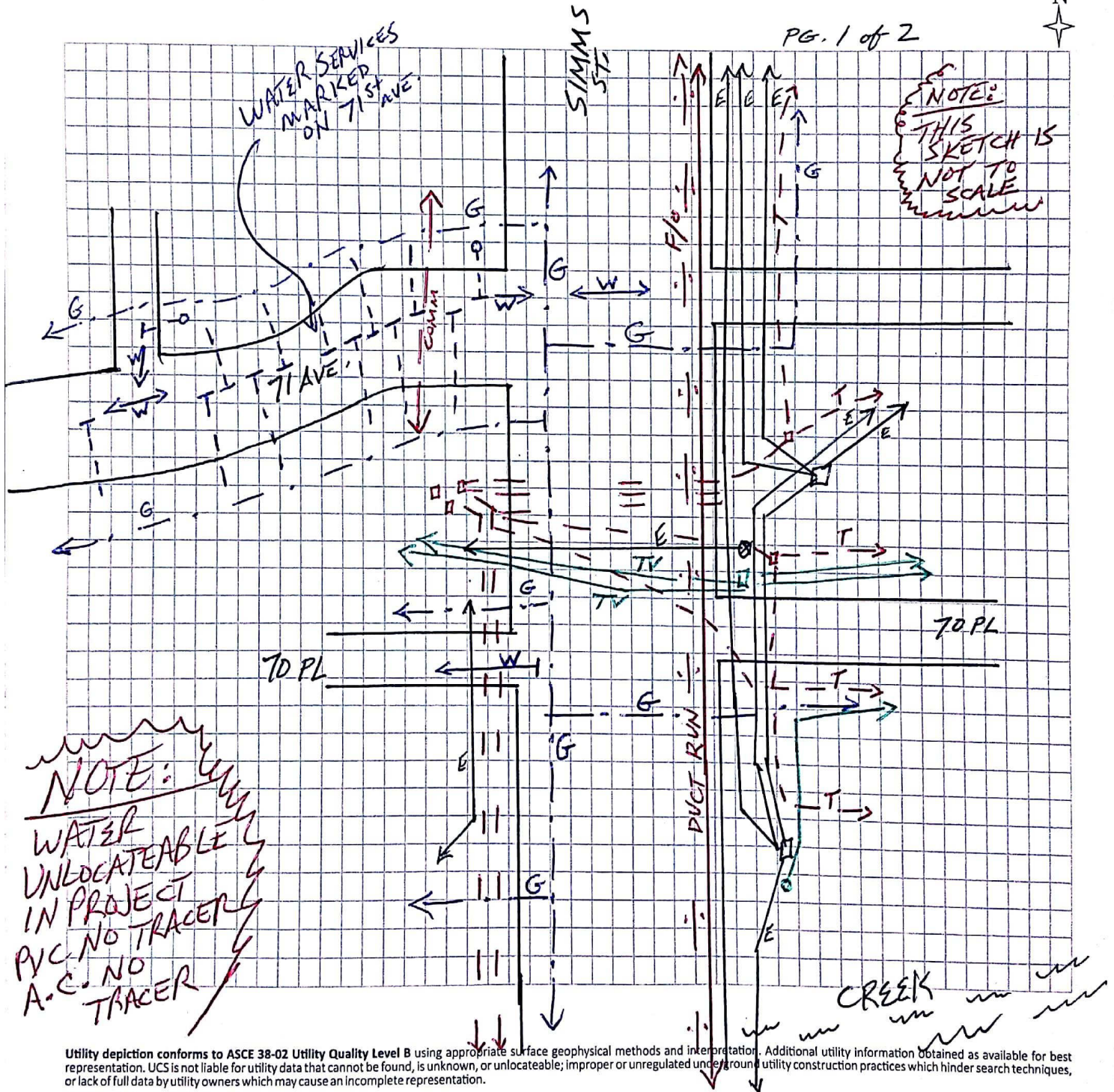
Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71ST AVE. & SIMMS ST.
 Contractor/Name MERRICK
 Billing Address ON FILE
 PO#/Billing Ref: _____

Contact Name AIDEN WOLFE
 Contact Phone # 303 800 9055
 Date 8 18 23
 Charge \$ _____ /Hrs 24

PG. 1 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

Receipt of Utility Locating Depiction

I understand that this locate is being performed by electronic devices and that there are no guarantees, written or implied. The aforementioned company and any clients or affiliates shall indemnify and hold UCS, its clients, agents, employees, all persons hereunder harmless from and against any and all claims of any nature resulting from the performance of the work or accuracy of the locate itself. Acceptance/usage of this sketch without signature will constitute agreement of such terms.

2

UCS

X

Name/Company: _____

ARYADA

Underground Consulting Solutions

Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71st AVE. & SIMMS ST.

Contact Name ANDRE WOLF

Contractor/Name MERRICK

Contact Phone # 303 800 9055

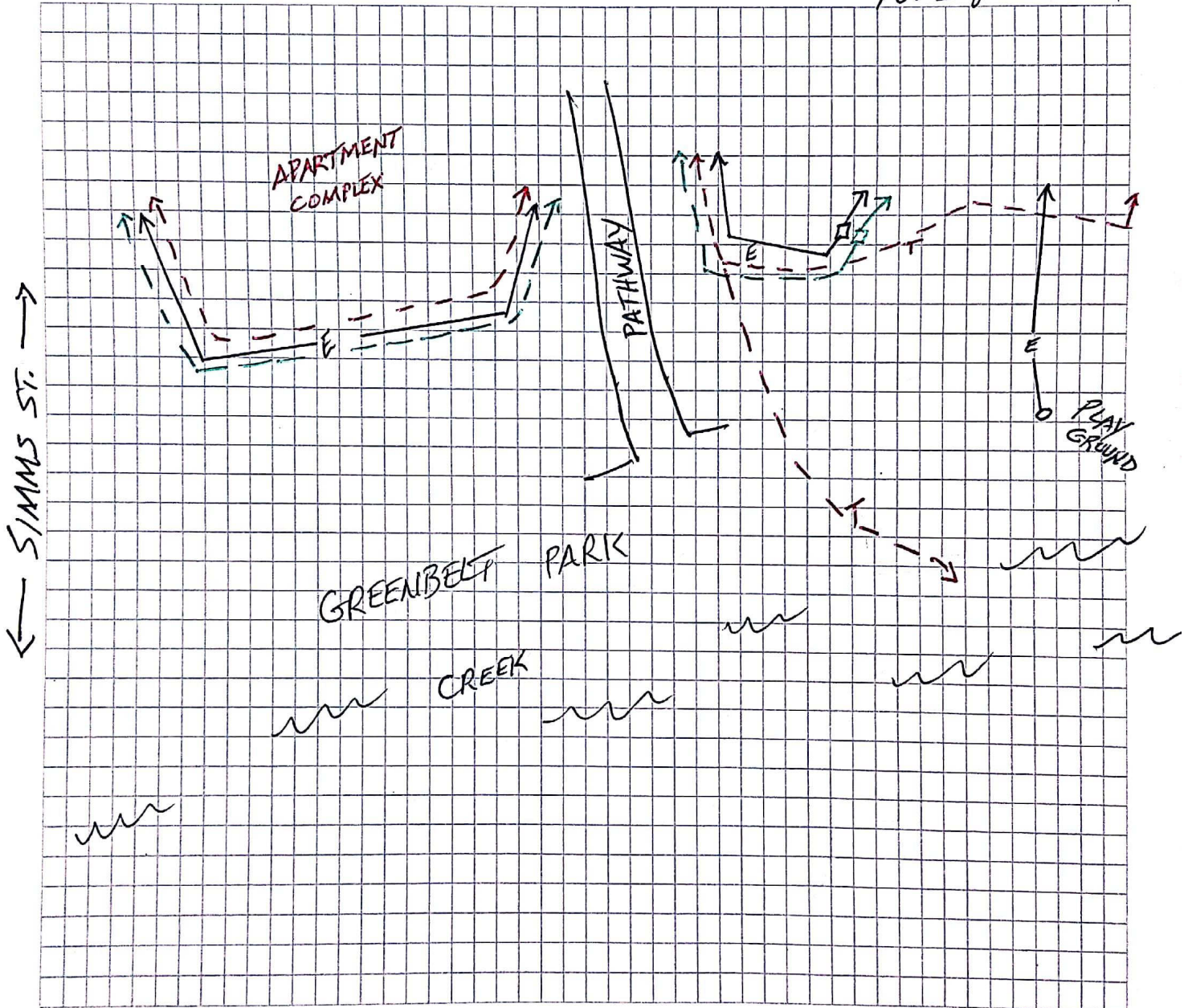
Billing Address ON FILE

Date 8 18 23

PO#/Billing Ref: _____

Charge \$ _____ /Hrs _____

PG. 2 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

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2
UCS

X _____
Name/Company: _____

ARVADA

Underground Consulting Solutions

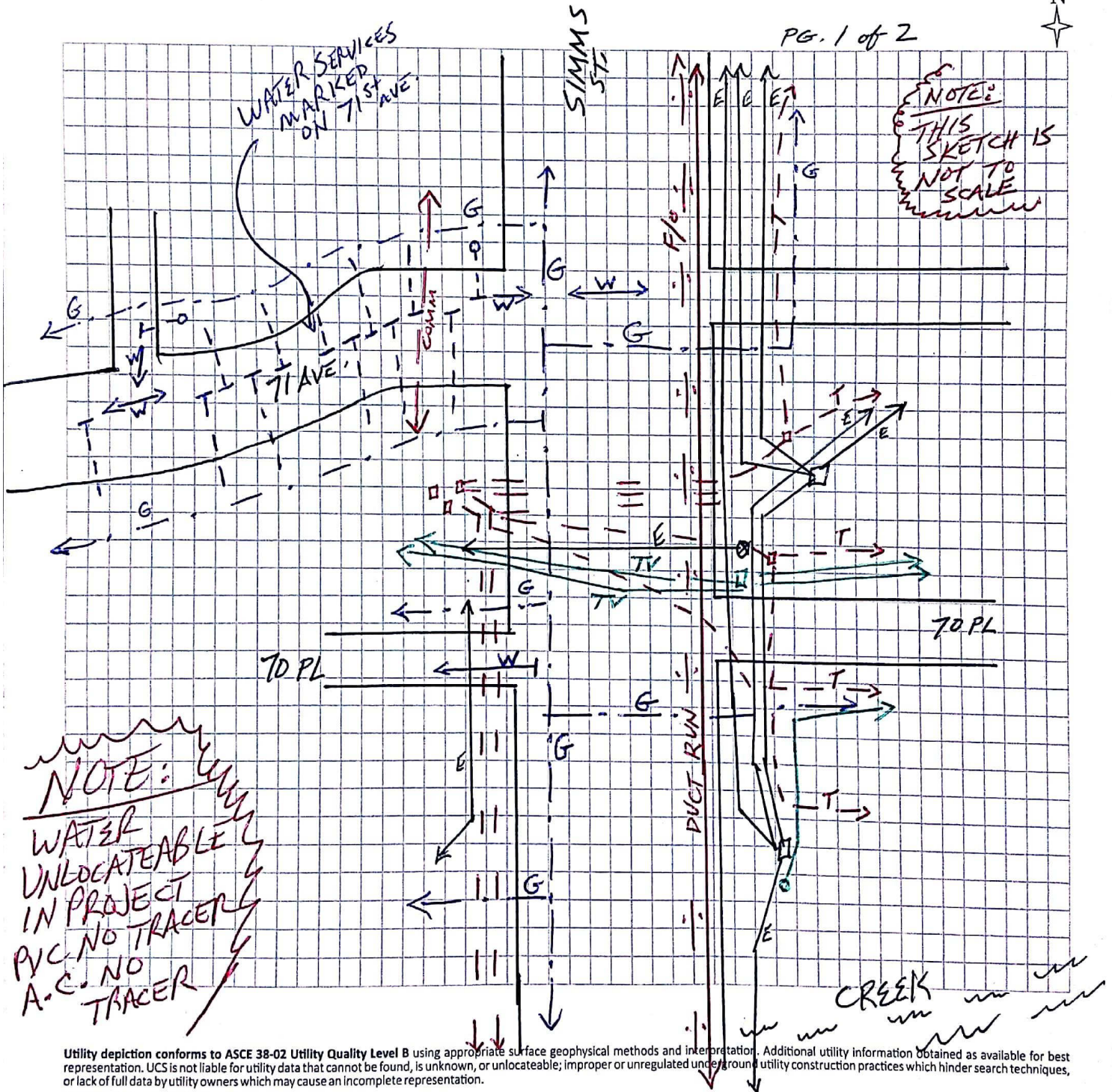
Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71ST AVE. & SIMMS ST.
 Contractor/Name MERRICK
 Billing Address ON FILE
 PO#/Billing Ref: _____

Contact Name AIDEN WOLFE
 Contact Phone # 303 800 9055
 Date 8 18 23
 Charge \$ _____ /Hrs 24

PG. 1 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

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2

UCS

X

Name/Company: _____

ARYADA

Underground Consulting Solutions

Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 71st AVE. & SIMMS ST.

Contact Name ANDRE WOLF

Contractor/Name MERRICK

Contact Phone # 303 800 9055

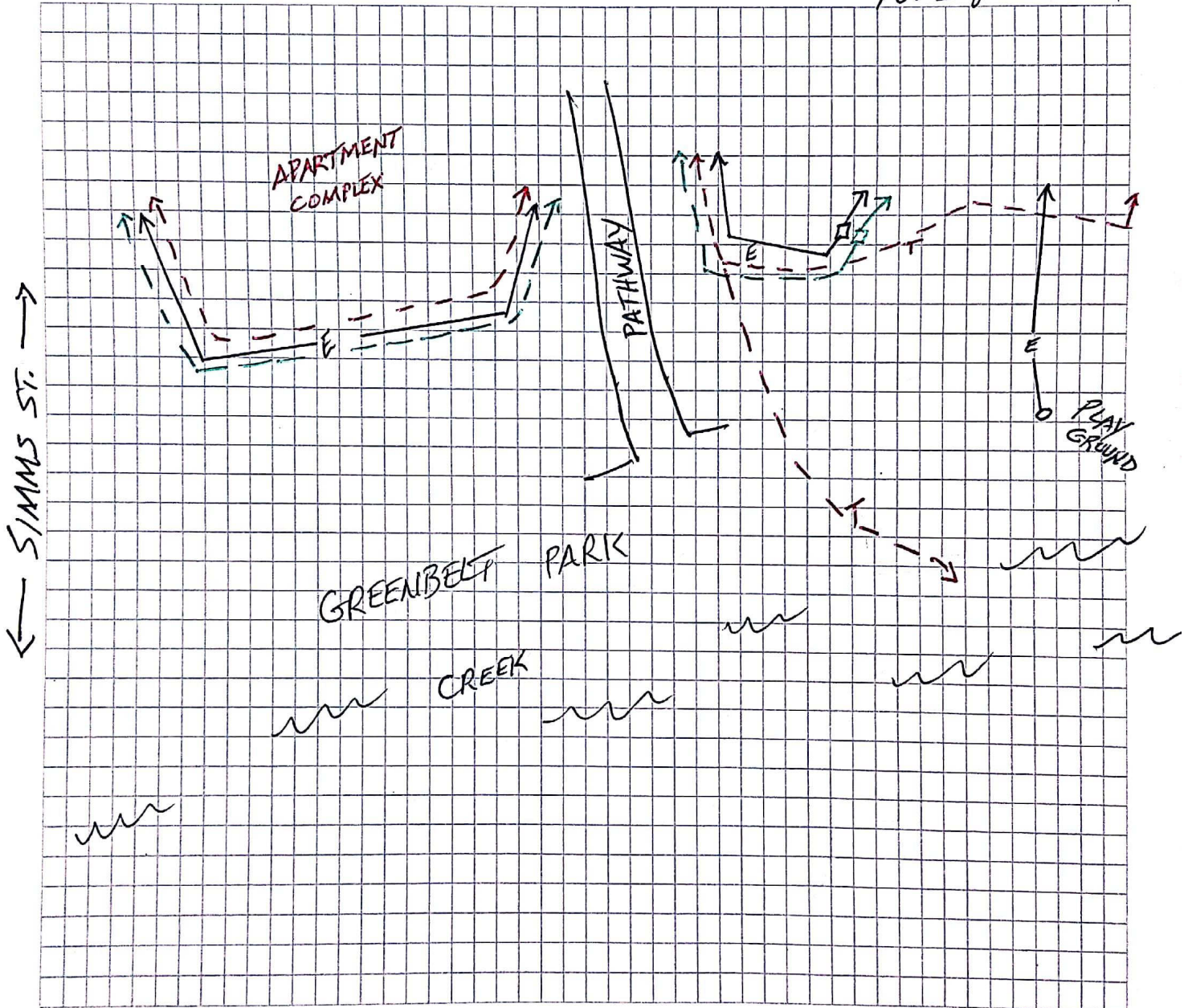
Billing Address ON FILE

Date 8 18 23

PO#/Billing Ref: _____

Charge \$ _____ /Hrs _____

PG. 2 of 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

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2
UCS

X _____
Name/Company: _____

RE: [External] RE: [External] RE: Request for Proposal - Arvada, CO

"Andre Wolff" [andre.wolff@merrick.com]

Sent: 8/7/2023 11:57 AM

To: ""UCS"" <ucs@dontdigwithoutucs.com>

Cc: ""Daniel Wolff"" <dwolff@arvada.org>

20 hour bid price

Ken,

I received an update from the City's PM that you will need to apply for a no-cost Dry Utility ROW permit if you intend to have traffic control for your utility investigation in the roadways. You will need TC plans and will need to be a licensed contractor in the City of Arvada

This permit will be able to be updated for when we initiate the potholing once we have locations for those, so let's go ahead and take care of that application now. The review time should be pretty quick since it is a CIP project.

Please copy the City's PM, Danny Wolff (copied here) on any permit correspondence and let him know the permit number so he can help the process along.

Let us know if you have any questions or concerns.

Thanks,

Andre Wolff, PE, ENV SP | Civil Water Engineer III | Merrick & Company

D: +1 303-800-9055 | www.merrick.com



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From: Andre Wolff

Sent: Friday, August 4, 2023 1:09 PM

To: UCS <ucs@dontdigwithoutucs.com>

Subject: RE: [External] RE: [External] RE: Request for Proposal - Arvada, CO

Ken,

The City has selected the preferred alternative and we would like to schedule horizontal locates for the project area (attached .kmz and image below). For the roadway sections we will need all utilities within the ROW, the park area generally is between the Creek and the homes/fencing to the north.

Since we are self-performing the SUE Report, we will need to have an Engineer on-site with the locator as they are locating.

Please have the scheduler/field technician contact me when they plan to be in the field so I can make sure to have someone out there. We will also be scheduling survey to follow behind your team to pick up the locates so schedule coordination is critical.

I am confirming with the City that you should not need a ROW permit or anything for the work. I will let you know if that changes.

Let me know if you need any other information to begin the work or have any questions or concerns.

Thank you,

From: Andre Wolff <andre.wolff@merrick.com>
Date: Mon, July 24, 2023 1:11 pm
To: UCS <ucs@dontdigwithoutucs.com>

Ken,

Wanted to give you an update on this project. We have submitted our alternatives analysis memo to the client and they are reviewing our recommendations and will be selecting the alignment to bring forward into design. We should know which alignment will need locates and the full extent of your scope by early next week.

Can we get on your schedule to perform the engineering utility locates? I will pass along an exhibit once we know the exact extents.

Let me know what your timeframe looks like so I can make sure to have someone ready to do some observations while your crew is out there.

Thanks,

Andre Wolff, PE, ENV SP | Civil Water Engineer III | Merrick & Company
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From: UCS <ucs@dontdigwithoutucs.com>
Sent: Tuesday, May 9, 2023 12:00 PM
To: Andre Wolff <andre.wolff@merrick.com>
Subject: [External] RE: [External] RE: Request for Proposal - Arvada, CO

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Andre,

That sounds great. Thank you for the heads up and we look forward to working with you on this too!

Kenneth Goff
Director of Operations



Underground Consulting Solutions

5778 Kelly Avenue
Littleton, Colorado 80125
O 303.904.7422
C 303.523.8478
F 720.554.7889

DBE/WBE/EBE/SBE/Level 1 ESB Certification

Utility Locators - Private - Engineering | Potholing / Hydro-Excavation | High Accuracy Utility Mapping

----- Original Message -----

Subject: RE: [External] RE: Request for Proposal - Arvada, CO
From: Andre Wolff <andre.wolff@merrick.com>
Date: Tue, May 09, 2023 10:22 am
To: UCS <ucs@dontdigwithoutucs.com>

Ken,

FYI, we ended up winning this project and will be kicking off here in the next couple of weeks. We will be doing a preliminary alternatives analysis then roll into design, at which point we will need locates followed by potholing. I figured that I would hold off on putting together a task order for the work, until we get closer to needing the actual work (likely mid July).

I just wanted to let you know for your own planning purposes. I will be in touch as we get closer to understanding our preferred alignment and knowing what your actual scope would be. Let me know if that works for you.

Thanks again for providing the cost for our proposal, I look forward to working on this with you/your team.

Andre Wolff, PE, ENV SP | Civil Water Engineer III | Merrick & Company
D: +1 303-800-9055 | www.merrick.com



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From: UCS <ucs@dontdigwithoutucs.com>
Sent: Tuesday, April 4, 2023 3:34 PM
To: Andre Wolff <andre.wolff@merrick.com>
Cc: Julie Koehler <julie.koehler@merrick.com>
Subject: RE: [External] RE: Request for Proposal - Arvada, CO

Andre,

Please see attached. Feel free to call me with any questions. Thank you.

Kenneth Goff
Director of Operations



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Littleton, Colorado 80125
O 303.904.7422
C 303.523.8473
F 720.554.7889

DBE/WBE/EBE/SBE/Level 1 ESB Certification

Utility Locators - Private - Engineering | Pot-holing / Hydro-Excavation | High Accuracy Utility Mapping

----- Original Message -----

Subject: RE: [External] RE: Request for Proposal - Arvada, CO
From: Andre Wolff <andre.wolff@merrick.com>
Date: Tue, April 04, 2023 3:20 pm
To: UCS <ucs@dontdigwithoutucs.com>
Cc: Julie Koehler <julie.koehler@merrick.com>

For this proposal, they say assume option B for costing (alignment that goes through the neighborhood to the north). They say to assume 20 PHs. Phase 1 is the design phase and phase 2 is construction phase services.

Hope that helps, feel free to give me a call to discuss if you need more clarification.

Andre Wolff, PE, ENV SP | Civil Water Engineer III | Merrick & Company
D: +1 303-800-9055 | www.merrick.com



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From: UCS <ucs@dontdigwithoutucs.com>
Sent: Tuesday, April 4, 2023 3:17 PM
To: Andre Wolff <andre.wolff@merrick.com>
Cc: Julie Koehler <julie.koehler@merrick.com>
Subject: [External] RE: Request for Proposal - Arvada, CO

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Andre,

I apologize....I am slightly confused. Are we giving them a cost for all of the options or just for the sewer line replacement? I am having a hard time figuring that out from the RFP. It isn't too clear. They talk about phases, but I don't really understand it.

Kenneth Goff
Director of Operations



Underground Consulting Solutions

5778 Kelly Avenue
Littleton, Colorado 80125
O 303.904.7422
C 303.523.8473
F 720.554.7889

DBE/WBE/EBE/SBE/Level 1 ESB Certification

Utility Locators - Private - Engineering | Potholing / Hydro-Excavation | High Accuracy Utility Mapping

----- Original Message -----

Subject: Request for Proposal - Arvada, CO

From: Andre Wolff <andre.wolff@merrick.com>

Date: Fri, March 24, 2023 11:10 am

To: "ucs@dontdigwithoutucs.com" <ucs@dontdigwithoutucs.com>

Cc: Julie Koehler <julie.koehler@merrick.com>

Hello,

Merrick would like to request a proposal from UCS for SUE investigation work. I have attached the RFP for your reference. The RFP is for the design of a sewerline for the City of Arvada. The RFP lists an assumption of 20 testholes.

For UCS's scope we would like to see initial investigation, utility markings and test hole work (assume 20). Merrick can provide oversight and will prepare and stamp the SUE report and plans, the city will provide survey.

If you would also like to submit a separate proposal for full SUE services we may consider it based on how our staffing coverage is looking.

I've copied Julie Koehler on the email - she will be the project manager for the project. She and I can try to respond to questions you may have.

If you are able to reply to let us know if UCS would be interested in being on the Merrick team that would be most appreciated. Ideally we receive UCS's proposal no later than Monday April 3, 2023.

Thank you,

Andre Wolff, PE, ENV SP | Civil Water Engineer III | Merrick & Company
2480 W. 26th Street, Unit B225 | Denver, CO 80211
D: +1 303-800-9055 | www.merrick.com



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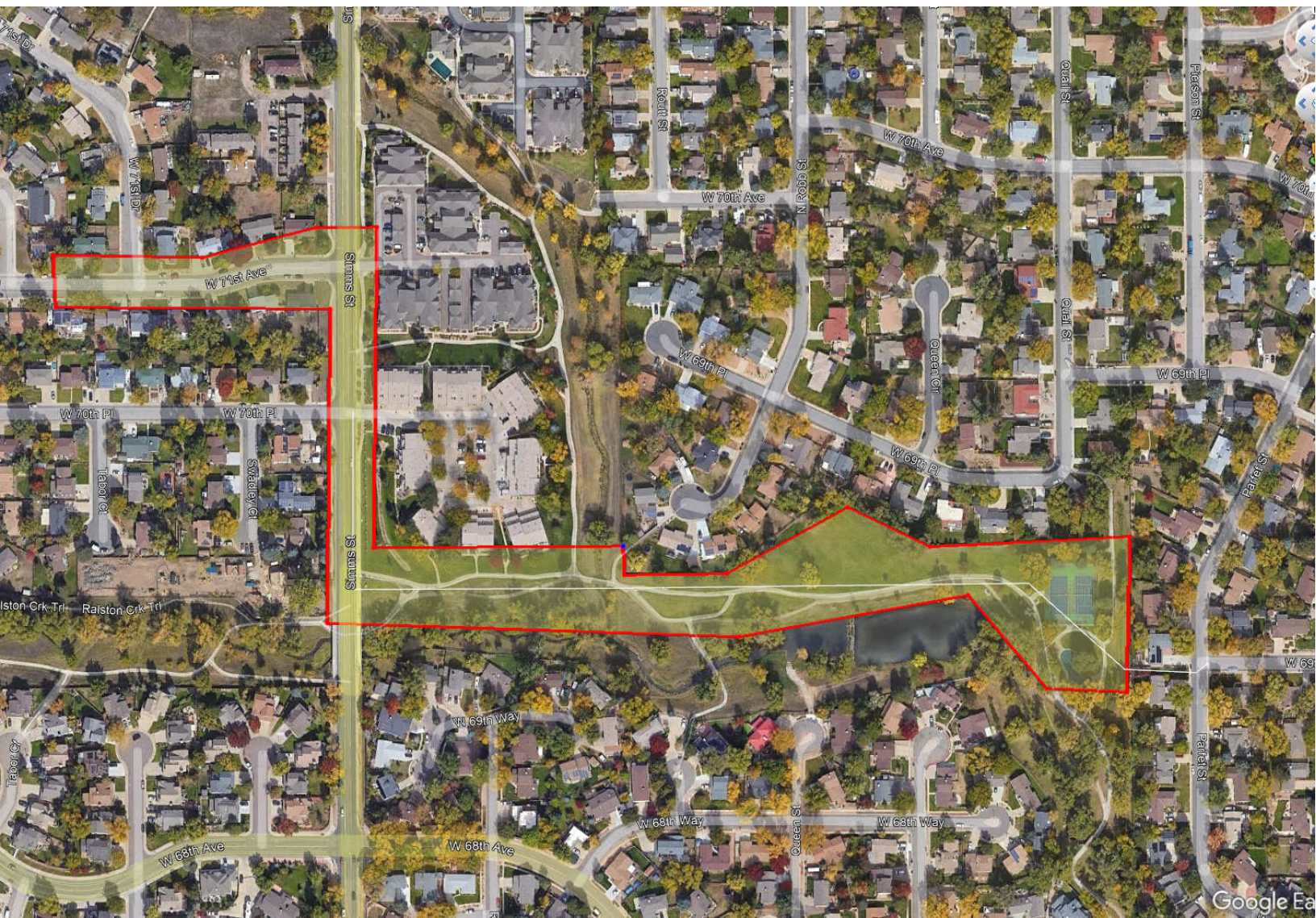
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Arvador

Underground Consulting Solutions

Private/Engineering Facility Location Sketch

PE
H/O

Work Address W. 66th Ave & Oak St

Contact Name Andre Wolff

Contractor/Name Merrick

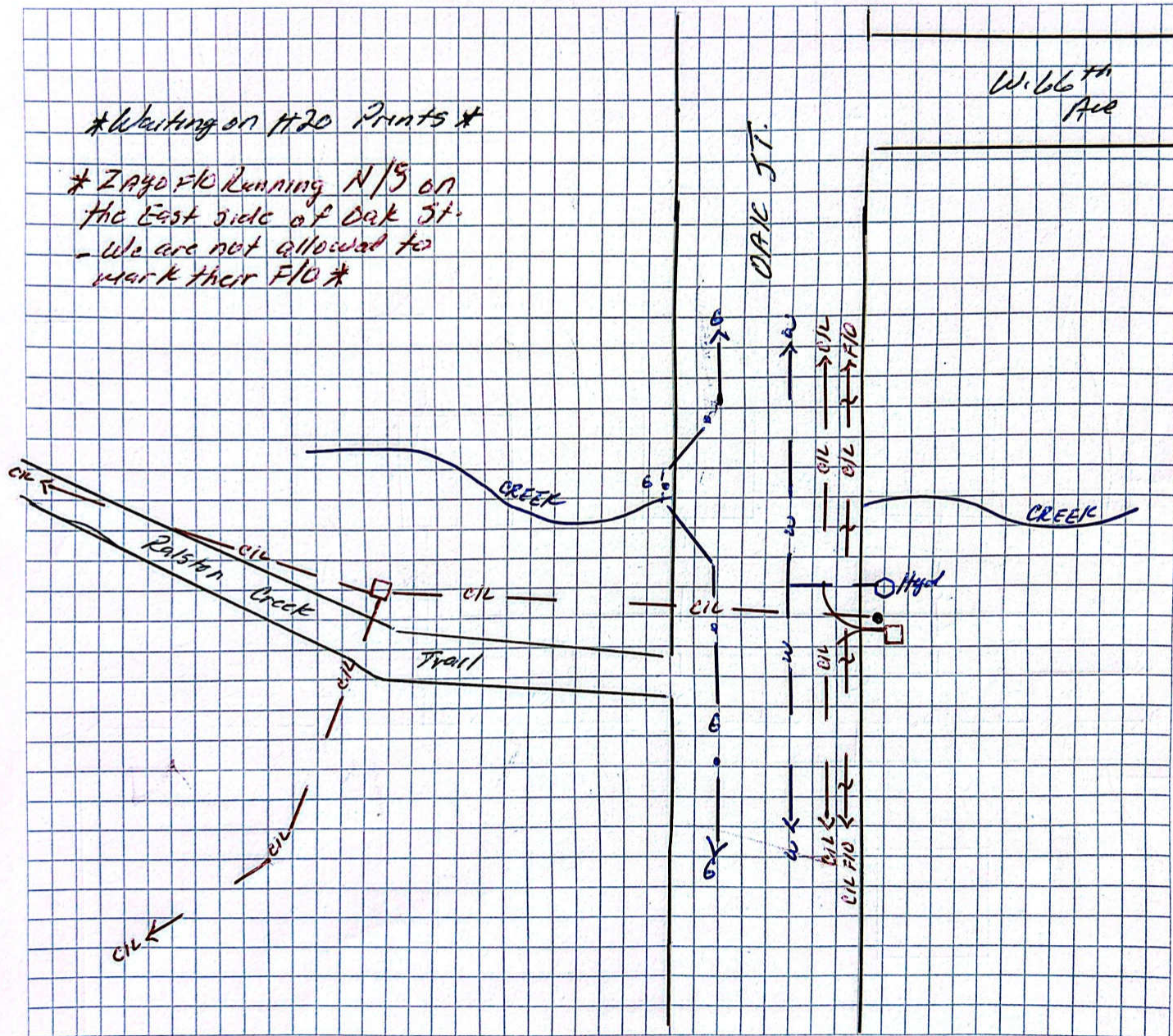
Contact Phone # 303-500-9055

Billing Address On File

Date 11/9/2023

PO#/Billing Ref: _____

Charge \$ Sketch 2 of 1 /Hrs _____



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

Receipt of Utility Locating Depiction

I understand that this locate is being performed by electronic devices and that there are no guarantees, written or implied. The aforementioned company and any clients or affiliates shall indemnify and hold UCS, its clients, agents, employees, all persons hereunder harmless from and against any and all claims of any nature resulting from the performance of the work or accuracy of the locate itself. Acceptance/usage of this sketch without signature will constitute agreement of such terms.

Colandrea M.
UCS

X _____

Name/Company: _____

Arvada

Underground Consulting Solutions

Private/Engineering Facility Location Sketch

P
E
H/O

Work Address 68th Ave & Pierson Ct.

Contact Name Andre Wolff

Contractor/Name Merrick

Contact Phone # 303-800-9055

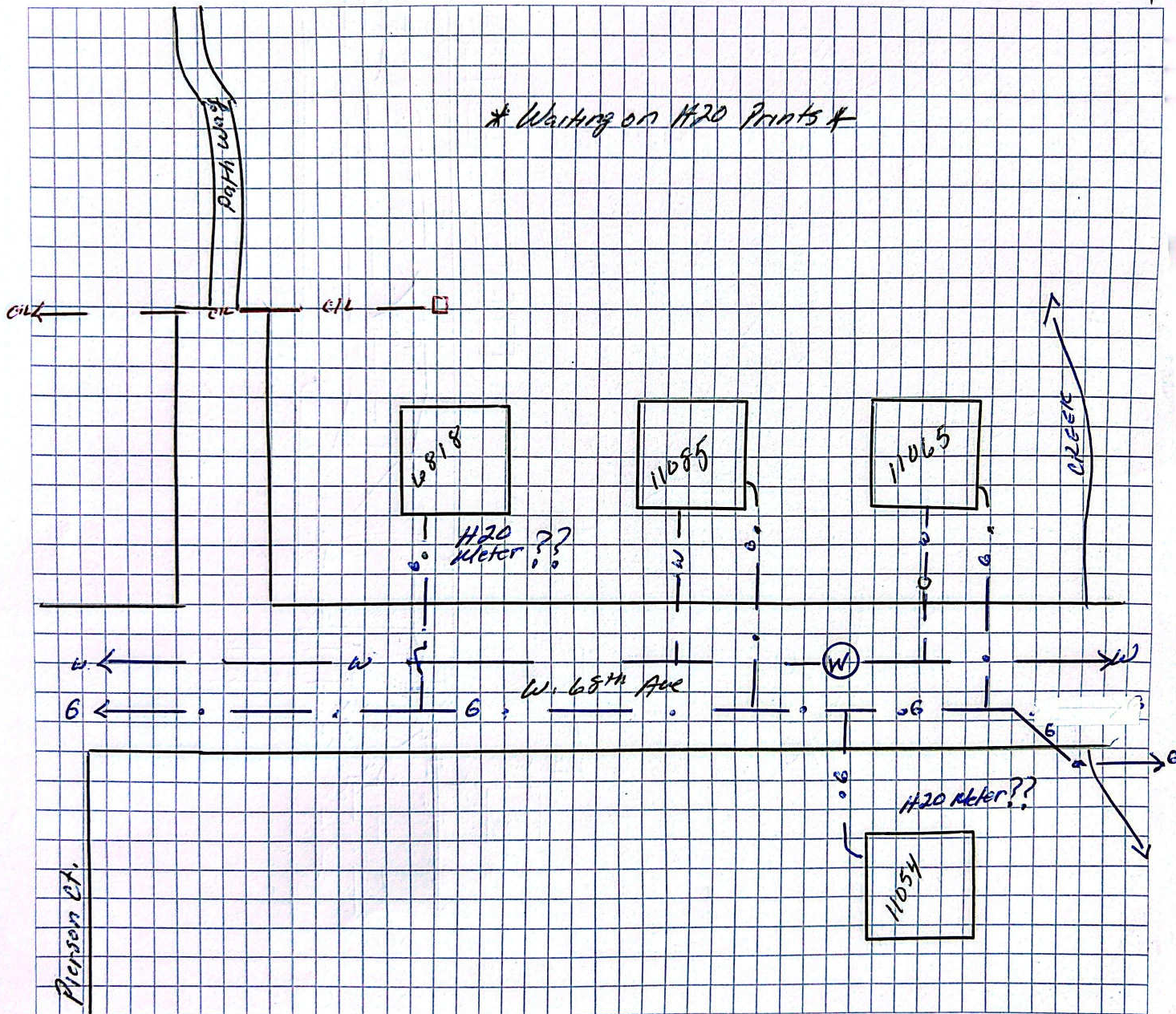
Billing Address On File

Date 11/9/2023

PO#/Billing Ref: _____

Charge \$ 3 hr bid /Hrs _____

Sketch lot 2



Utility depiction conforms to ASCE 38-02 Utility Quality Level B using appropriate surface geophysical methods and interpretation. Additional utility information obtained as available for best representation. UCS is not liable for utility data that cannot be found, is unknown, or unlocateable; improper or unregulated underground utility construction practices which hinder search techniques, or lack of full data by utility owners which may cause an incomplete representation.

Receipt of Utility Locating Depiction

I understand that this locate is being performed by electronic devices and that there are no guarantees, written or implied. The aforementioned company and any clients or affiliates shall indemnify and hold UCS, its clients, agents, employees, all persons hereunder harmless from and against any and all claims of any nature resulting from the performance of the work or accuracy of the locate itself. Acceptance/usage of this sketch without signature will constitute agreement of such terms.

Wendell M.
UCS

X _____
Name/Company: _____

Subject: RE: [External] RE: [External] RE: Request for Proposal - Arvada, CO
From: "UCS" <ucs@dontdigwithoutucs.com>
Date: Tue, Sep 12, 2023 11:43 am
To: "Andre Wolff" <andre.wolff@merrick.com>
Cc: "potholes@ucslocates.com" <potholes@ucslocates.com>
Attach: image001.jpg
image002.jpg
image003.jpg
image004.jpg
image005.jpg
image006.jpg
image007.jpg
image008.png
sigimg0

Andre,

We will need to let the water district attempt to locate that line first, and then we can decide if we need to do something different on the horizontal locate for that AC water line.

The extended areas will be 3 hours, \$450.00. If you want to just amend the current task order that is fine with me.

I can most certainly get these areas marked in the next week or so. Once you approve it I will start the process of collecting the mapping for it.

Thanks and please feel free to call me with any questions.

Kenneth Goff
Director of Operations



Underground Consulting Solutions

5778 Kelly Avenue
Littleton, Colorado 80125
O 303.904.7422
C 303.523.8473
F 720.554.7889

DBE/WBE/EBE/SBE/Level 1 ESB Certification

Utility Locators - Private - Engineering | Potholing / Hydro-Excavation | High Accuracy Utility Mapping

----- Original Message -----

Subject: RE: [External] RE: [External] RE: Request for Proposal - Arvada, CO
From: Andre Wolff <andre.wolff@merrick.com>
Date: Tue, September 12, 2023 11:10 am
To: UCS <ucs@dontdigwithoutucs.com>
Cc: "potholes@ucslocates.com" <potholes@ucslocates.com>

Ken,

A couple items regarding this Arvada project.

1. During horizontal investigation for this project, the locator noted that the water line was not traceable. We will be needing to pothole that waterline, so I assume that you will need to get an accurate horizontal locate of that asset at the location of the pothole. The locator mentioned you have tools that can accomplish that. I recommended we don't need that for the entire line, but likely will need to do further investigation to get an accurate pothole. I just wanted to bring that up again as we prepare for potholing.
2. There is additional scope that has arisen for this project and we have a couple smaller areas in the neighborhood that need to be investigated, located and added to the potholing list. Do you want me to send over a new task order or an addendum to our current task order for this project?
 - a. Can I get a price quote for the additional scope?
 - b. Do you have capacity to get these locates completed in the next couple weeks?
 - c. I have attached a KMZ file with the extents we need investigated. Snip Below:



d.

Let me know if you have any questions or concerns. Happy to call to discuss.

Thanks,

Andre Wolff, PE, ENV SP | Civil Water Engineer III | Merrick & Company
D: [+1 303-800-9055](tel:+13038009055) | www.merrick.com



Engineering | Architecture | Design-Build | Surveying | Planning | Geospatial Solutions

From: UCS <ucs@dontdigwithoutucs.com>
Sent: Tuesday, September 5, 2023 11:11 AM
To: Andre Wolff <andre.wolff@merrick.com>

P/S-CADD Overlay



Google Earth

Imagery Date: 10/2/2022 39°49'08.26" N 105°07'16.26" W elev 0 ft eye alt 2008 ft

APPENDIX B1

SUBSURFACE UTILITY LOCATING SERVICE DOCUMENTATION



Date 10/13/2023

POTHOLING LOG SHEET



POTHOLE #	UTILITY TYPE	UTILITY OWNER	COMPOSITION	DIAMETER	DEPTH TO TOP OF UTILITY	SURFACE TYPE	PAVEMENT THICKNESS	NOTES
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not accessible for trucks
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not accessible for trucks
3& 4	Com/Electric	CJ/Xcel	DBx3/Dbx3	1/2"x3// 1"x3	6.62'/6.74'	Concrete	0.70'	Found in same hole
5	Com	Comcast	DB	1/2" x2	1.92'	Concrete	0.56'	
6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Concrete has something in in. Couldn't core
7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Concrete has something in in. Couldn't core
8	Com	Bell	Grey PVC	4"x3	5.22'	Asphalt	0.62'	
9	Gas	Xcel	PE	1 1/4"	3.36'	Asphalt	0.56'	
10	Electric	Xcel	Steel	2"	5.10'	Asphalt	0.62'	
11	Water	Arvada	PVC	8"	6.20'	Asphalt	0.54'	
12	Water	Arvada	PVC	10"	4.18'	Asphalt	0.56'	
13	Water/ Gas	Arvada/Xcel	PVC/Steel	16"/4"	4.44'/3.32'	Asphalt	0.72'	two lines found
14	Gas	N/A	N/A	N/A	Flowfill under core	Asphalt	0.68'	Flowfill under core
15	Com	Century link	PE	2"x2	2.48'	Asphalt	0.72'	
16	Com	Century link	PVC	2"	2.58'	Asphalt	0.86'	
17	Com	Century link	PE	4"	3.58'	Asphalt	0.86'	
18	Gas	N/A	N/A	N/A	Flowfill under core	Asphalt	0.46'	Flowfill under core
19	Gas	Xcel	Steel	4"	3.10'	Asphalt	Broken	
20-22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Taken off scope
23	Com	N/A	N/A	N/A	Cleared @ 6.10'	Asphalt	0.56'	DNF Cleared @6.10'



UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 1

Date: 10/17/2023

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	N/A
Surface Type	N/A
Pavement Thickness	N/A
Notes	Not accessible for trucks

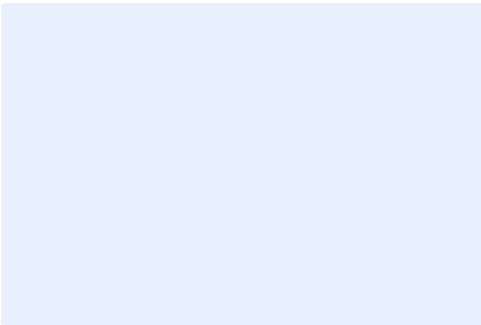
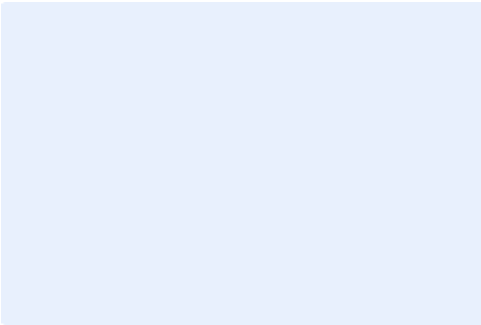


Photo:

Pothole #: 2

Date: 10/17/2023

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	N/A
Surface Type	N/A
Pavement Thickness	N/A
Notes	Not accessible for trucks

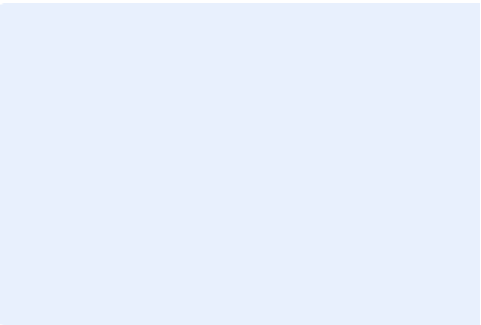
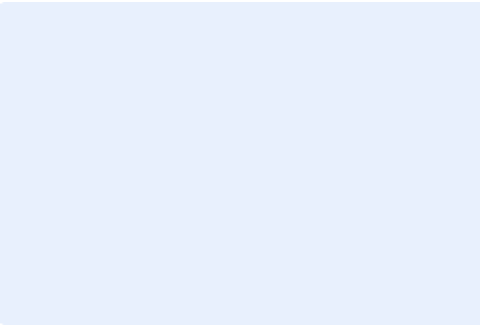


Photo:

Pothole #: 3 & 4

Date: 10/12/2023

Utility Type	Com/Electric
Utility Owner	CL/Xcel
Composition	DBx3/DBx3
Diameter	½"x3/1"x3
Depth to Top of Utility	6.62'/6.74'
Surface Type	Concrete
Pavement Thickness	0.70'
Notes	



Photo:



UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 5

Date: 10/13/2023

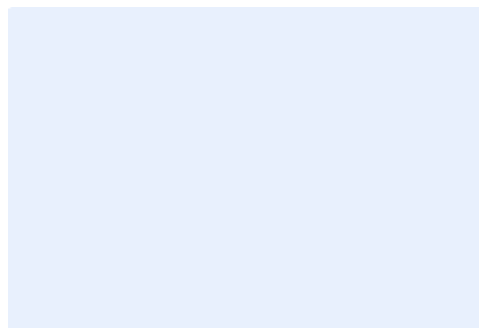
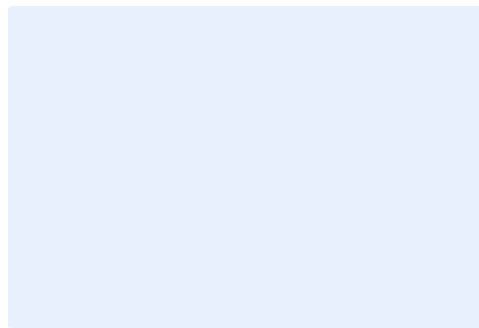
Utility Type	Com
Utility Owner	Comcast
Composition	DB
Diameter	½"x2
Depth to Top of Utility	1.92'
Surface Type	Concrete
Pavement Thickness	0.70'
Notes	



Pothole #: 6 & 7

Date: 10/13/2023

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Couldn't Core
Surface Type	Concrete
Pavement Thickness	N/A
Notes	Con. Has something in it. Couldn't core through



Pothole #: 8

Date: 10/17/2023

Utility Type	Com
Utility Owner	Bell
Composition	Grey PVC
Diameter	6"
Depth to Top of Utility	4.12'
Surface Type	Asphalt
Pavement Thickness	0.52'
Notes	





UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 9

Date: 10/12/2023

Utility Type	Gas
Utility Owner	Xcel
Composition	PE
Diameter	1 1/4"
Depth to Top of Utility	3.36'
Surface Type	Asphalt
Pavement Thickness	0.56'
Notes	



Pothole #: 10

Date: 10/11/2023

Utility Type	Electric
Utility Owner	Xcel
Composition	Steel
Diameter	2"
Depth to Top of Utility	5.10'
Surface Type	Asphalt
Pavement Thickness	0.62'
Notes	



Pothole #:11

Date: 10/11/2023

Utility Type	Water
Utility Owner	Arvada
Composition	PVC
Diameter	8"
Depth to Top of Utility	6.20'
Surface Type	Asphalt
Pavement Thickness	0.54'
Notes	





UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 12
Date: 10/12/2023

Utility Type	Water
Utility Owner	Arvada
Composition	PVC
Diameter	10"
Depth to Top of Utility	4.18'
Surface Type	Asphalt
Pavement Thickness	0.60'
Notes	



Pothole #: 13
Date: 10/11/2023

Utility Type	Water
Utility Owner	Arvada
Composition	PVC
Diameter	16"
Depth to Top of Utility	4.44'
Surface Type	Asphalt
Pavement Thickness	0.72'
Notes	



Pothole #: 14
Date: 10/10/2023

Utility Type	Gas
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Flowfill under core
Surface Type	Asphalt
Pavement Thickness	0.68'
Notes	

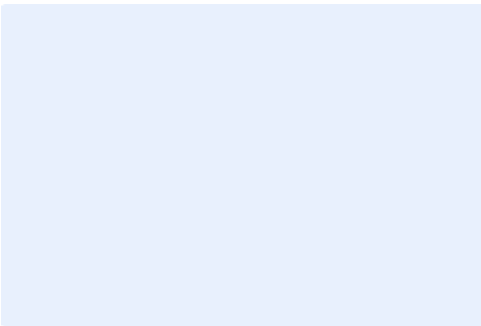


Photo:



UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 15

Date: 10/10/2023

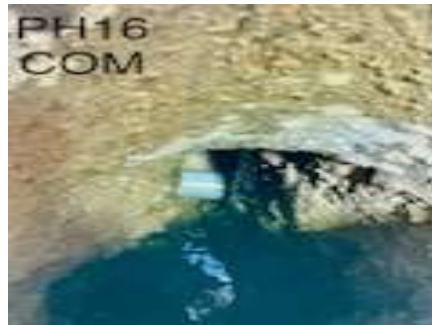
Utility Type	Com
Utility Owner	Century Link
Composition	PE
Diameter	2"x2
Depth to Top of Utility	2.48'
Surface Type	Asphalt
Pavement Thickness	0.72'
Notes	



Pothole #: 16

Date: 10/10/2023

Utility Type	Com
Utility Owner	Century Link
Composition	PVC
Diameter	2"
Depth to Top of Utility	2.58'
Surface Type	Asphalt
Pavement Thickness	0.86'
Notes	



Pothole #: 17

Date: 10/10/2023

Utility Type	Com
Utility Owner	Century Link
Composition	PVC
Diameter	4"
Depth to Top of Utility	3.58'
Surface Type	Asphalt
Pavement Thickness	0.86'
Notes	



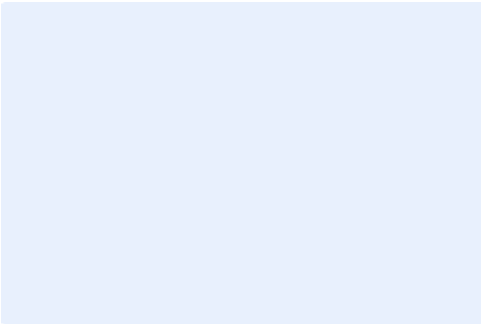


UNDERGROUND CONSULTING SOLUTIONS

Pothole #: 18

Date: 10/9/2023

Utility Type	Gas
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Flowfill under core
Surface Type	Asphalt
Pavement Thickness	0.46'
Notes	



Pothole #: 19

Date: 10/9/2023

Utility Type	Gas
Utility Owner	Xcel
Composition	Steel
Diameter	4"
Depth to Top of Utility	3.10'
Surface Type	Asphalt
Pavement Thickness	Broken
Notes	



Pothole #:20, 21 & 22

Date: Click or tap to enter a date.

Utility Type	N/A
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	N/A
Surface Type	N/A
Pavement Thickness	N/A
Notes	Taken of Scope

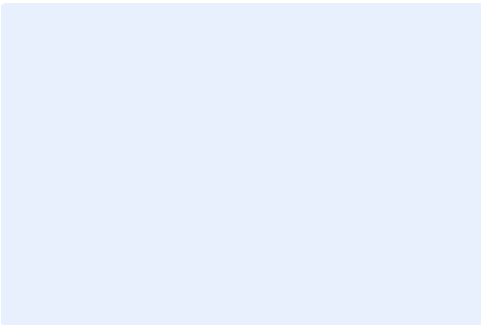
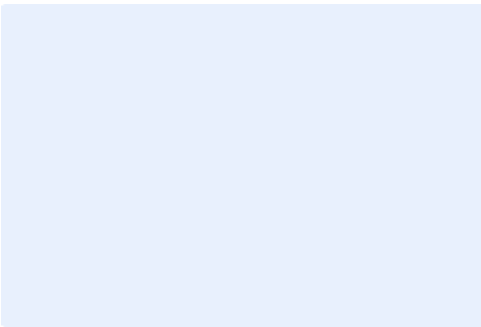


Photo:



UNDERGROUND CONSULTING SOLUTIONS

Pothole #:23

Date: 10/9/2023

Utility Type	Com
Utility Owner	N/A
Composition	N/A
Diameter	N/A
Depth to Top of Utility	Cleared @ 6.10'
Surface Type	Asphalt
Pavement Thickness	0.56'
Notes	DNF Cleared @6.10'



APPENDIX C1

811 COLORADO CALL CONFIRMATION AND FORMAL RESPONSE



Colorado 811 Confirmation Request 2023-08-08 Ticket A322000023-00A

"Colorado 811" [OCARS_Pro@uncc.org]

Sent: 8/8/2023 9:55 AM

To: ""ucs@totalspeed.net"" <ucs@totalspeed.net>

Email Confirmation 08/08/23 09:55 AM A322000023-00A NORMAL NEW ENGINEERING/DESIGN

Please stay at least 18" outside of the exterior sides of any markings. Marks are only valid for 30 days from the date of the locate or until no longer visible, whichever comes first. There may be private facilities within your dig area. Private facilities are owned by the owner of the property and therefore will not be marked with this request. It is the responsibility of the excavator to have private facilities located. To learn more and for a list of private locate companies in your area please visit our web site at <http://www.colorado811.org>

Ticket: A322000023-00A

Original Call Date: 08/08/23 Time: 09:55 AM

Locate By Date : 08/22/23 Time: 11:59 PM Meet: No

State: CO County: JEFFERSON Place: ARVADA

Street: SIMMS ST

Cross Street: W 71ST AVE

Lat/Long: 39.824980/-105.132222 39.825048/-105.121966

: 39.821306/-105.132197 39.821374/-105.121941

Type of Work: ENGINEERING

Explosives : No Directional Boring: No

Location: STARTING AT INTERSECTION LOC W ROW TO ROW TO SWADLEY CIR. ALSO LOC SOUTH ROW TO ROW FOR 730' TO RALSTON CREEK. CONTINUE LOC EAST FOR A 200' WIDE SWATH ALONG THE SIDEWALK FOR 1500' TO THE TENNIS COURT. ACCESS IS OPEN. ENGINEERING PROJECT. PLEASE SEND ALL UTILITY MAPPING.

Company : UNDERGROUND CONSULTING SOLUTIONS

Address : 5778 KELLY AVE

City : LITTLETON St: CO Zip: 80125

Caller : KENNETH GOFF Phone: (303)904-7422

Fax: (720)554-7889 Email: ucs@totalspeed.net

Done for: CLIENT

Colorado 811 notified the following Tier 1 Member Facilities:

QLNCC00=CENTURYLINK = FIBER, TELCO

ARVD01 =CITY OF ARVADA,H20,SEWER = WATER, SEWER, STORM SEWER, IRRIGATION

CCSOC001=COMCAST = CATV & FIBER

MCI01 =MCI = FIBER

XLNW00 =XCEL ENERGY = ELECTRIC & GAS

You are responsible for contacting any other facility owners not listed above.

View map and file attachments at:

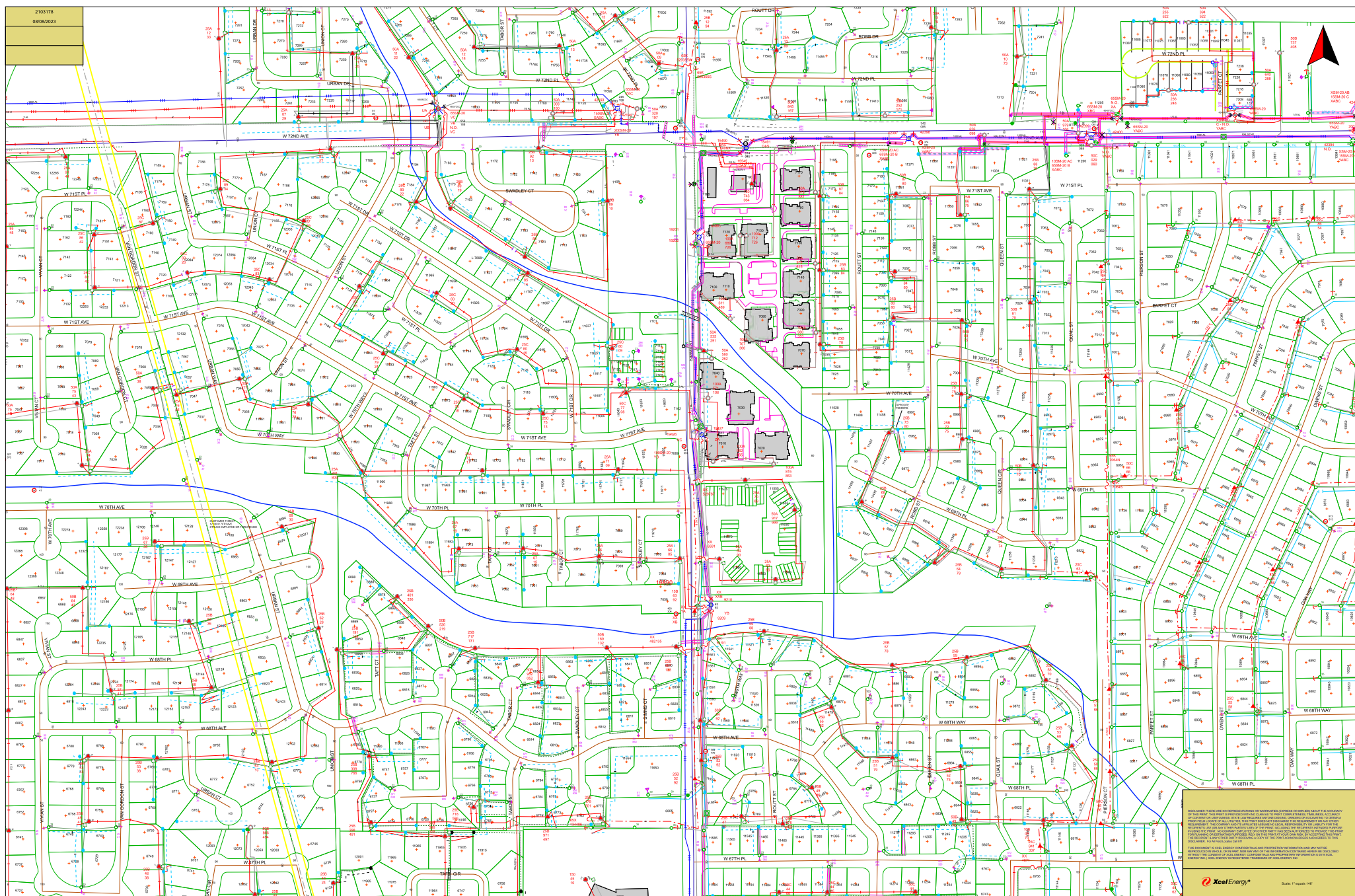
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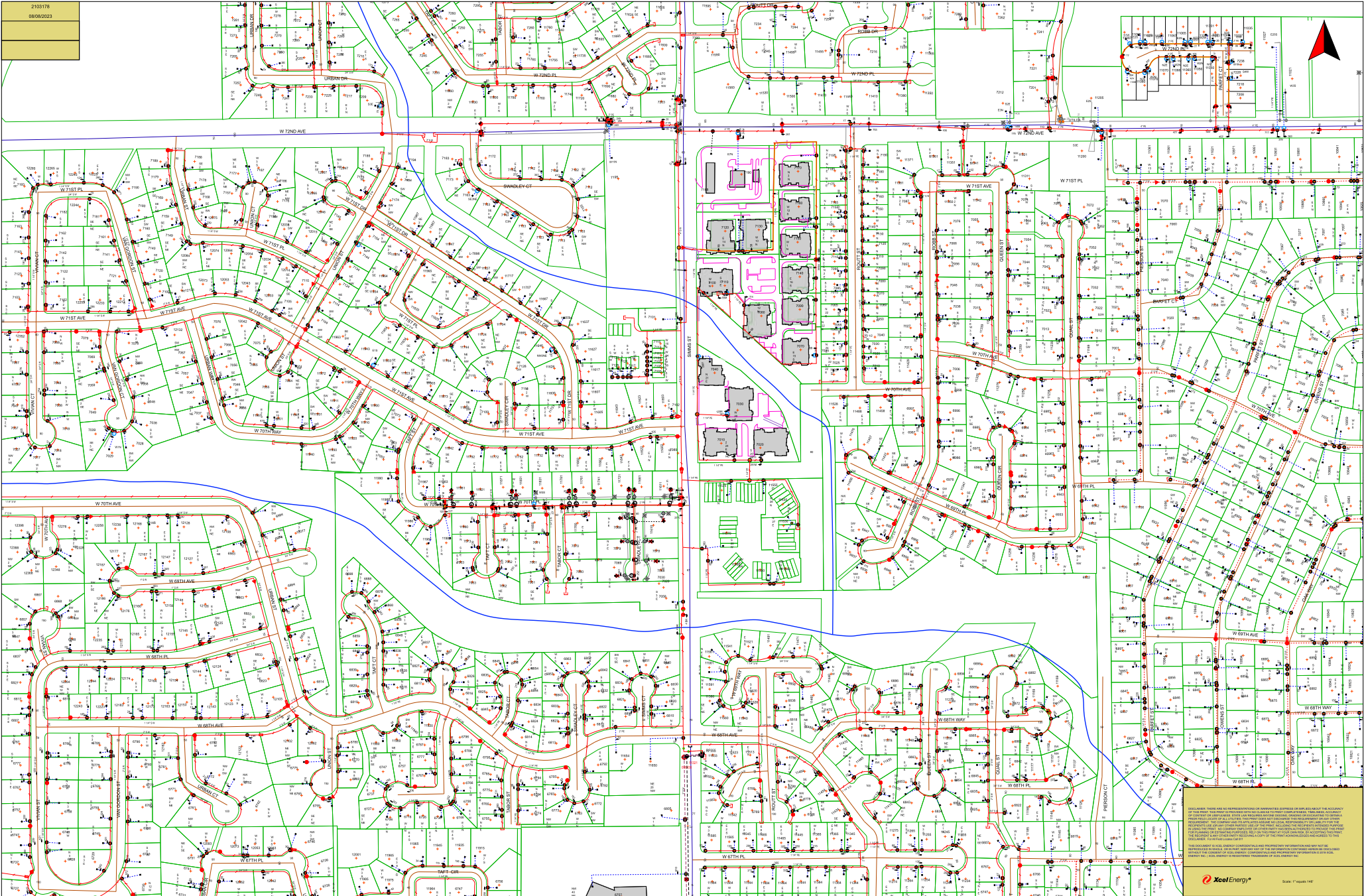
Check the status of your request at

<https://newtin.co811.org/responsedisplay/>

For Colorado 811 Procedure Guide go to

<https://colorado811.org/educational-resources/>



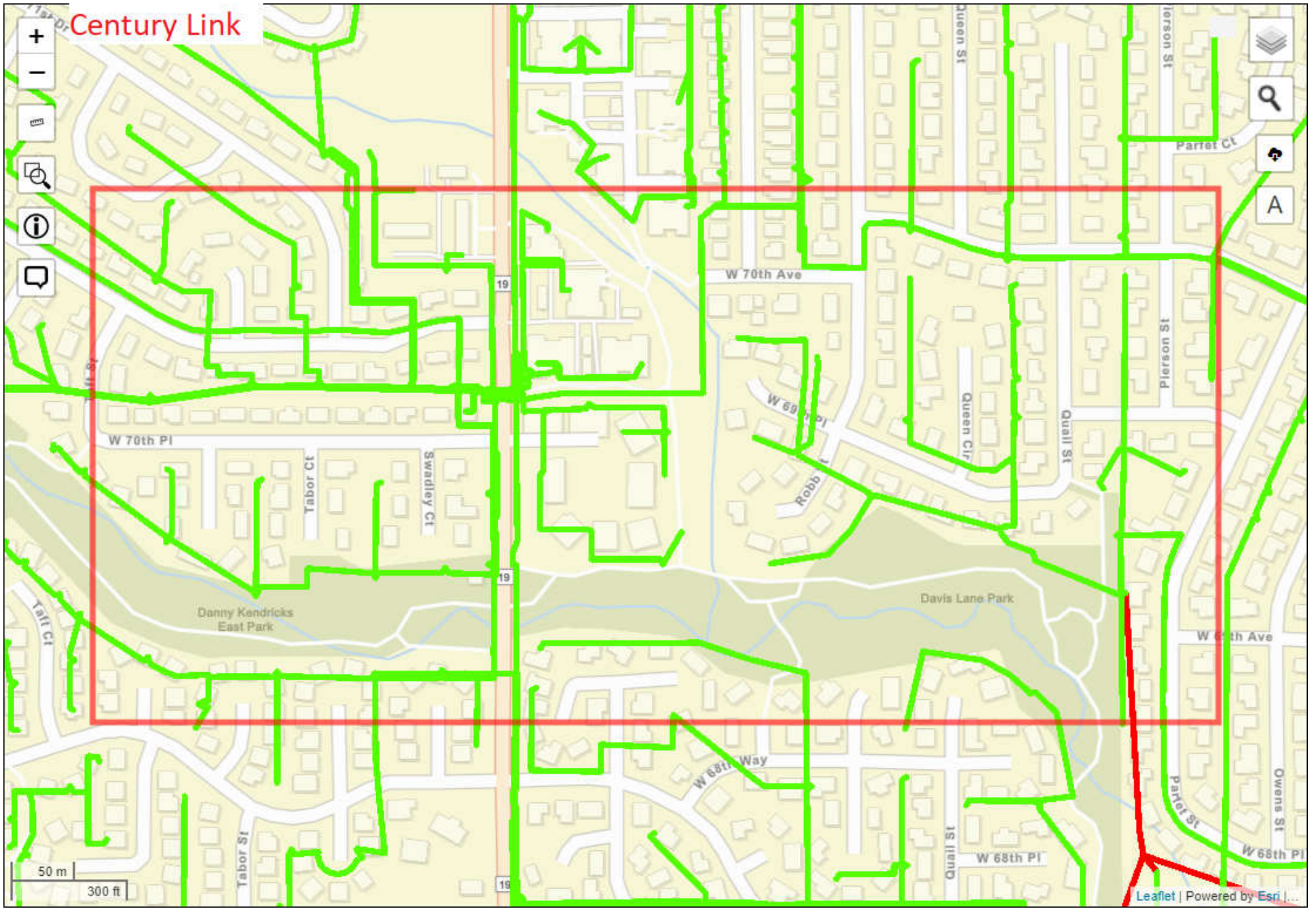


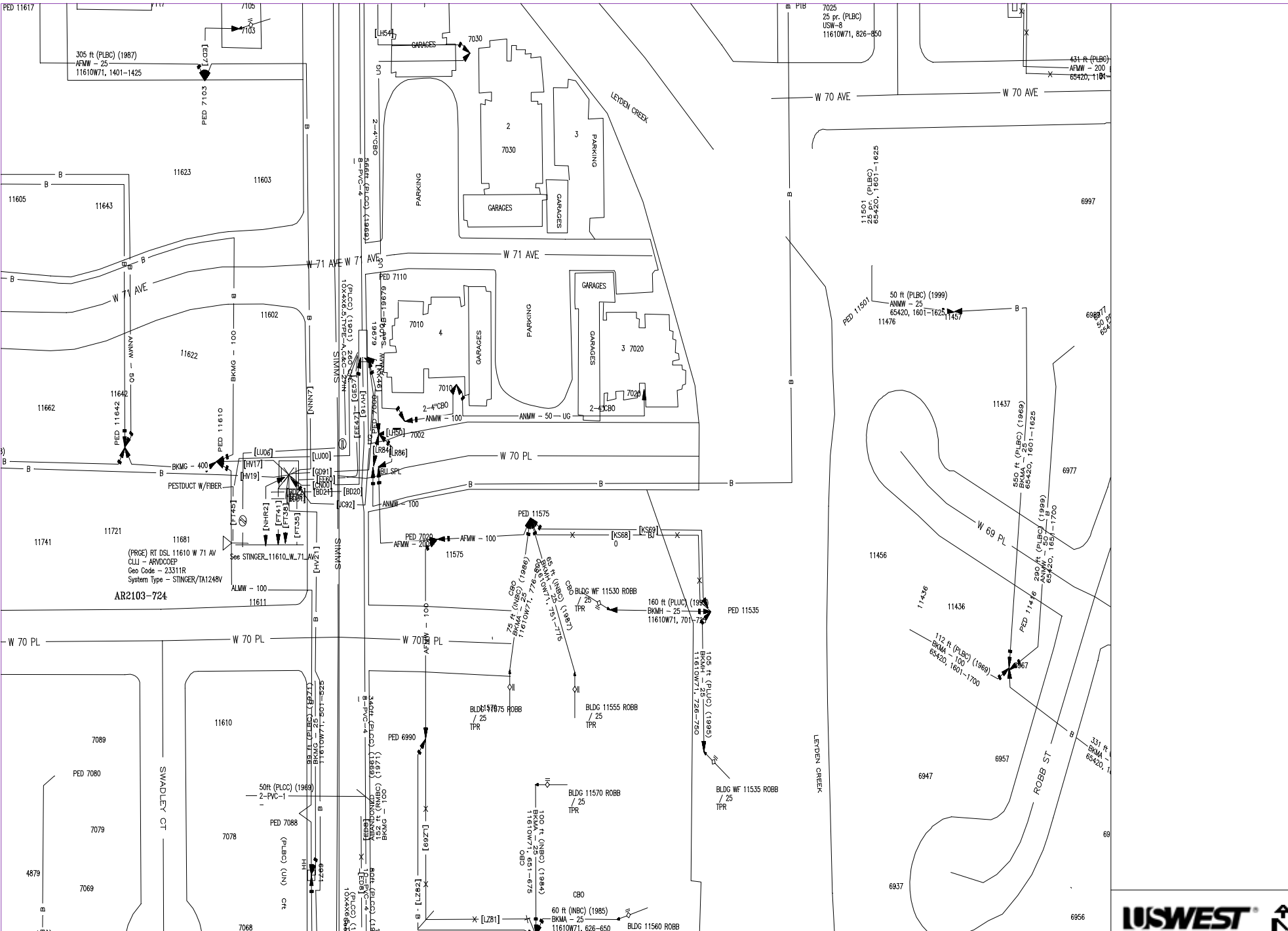
 National Buried Asset	 Local Buried Asset
 National Aerial / 3 rd Party	 Local Buried Asset
 IOF Fiber Route	 Local Buried Asset
 Local Buried Asset	 Local Aerial Asset

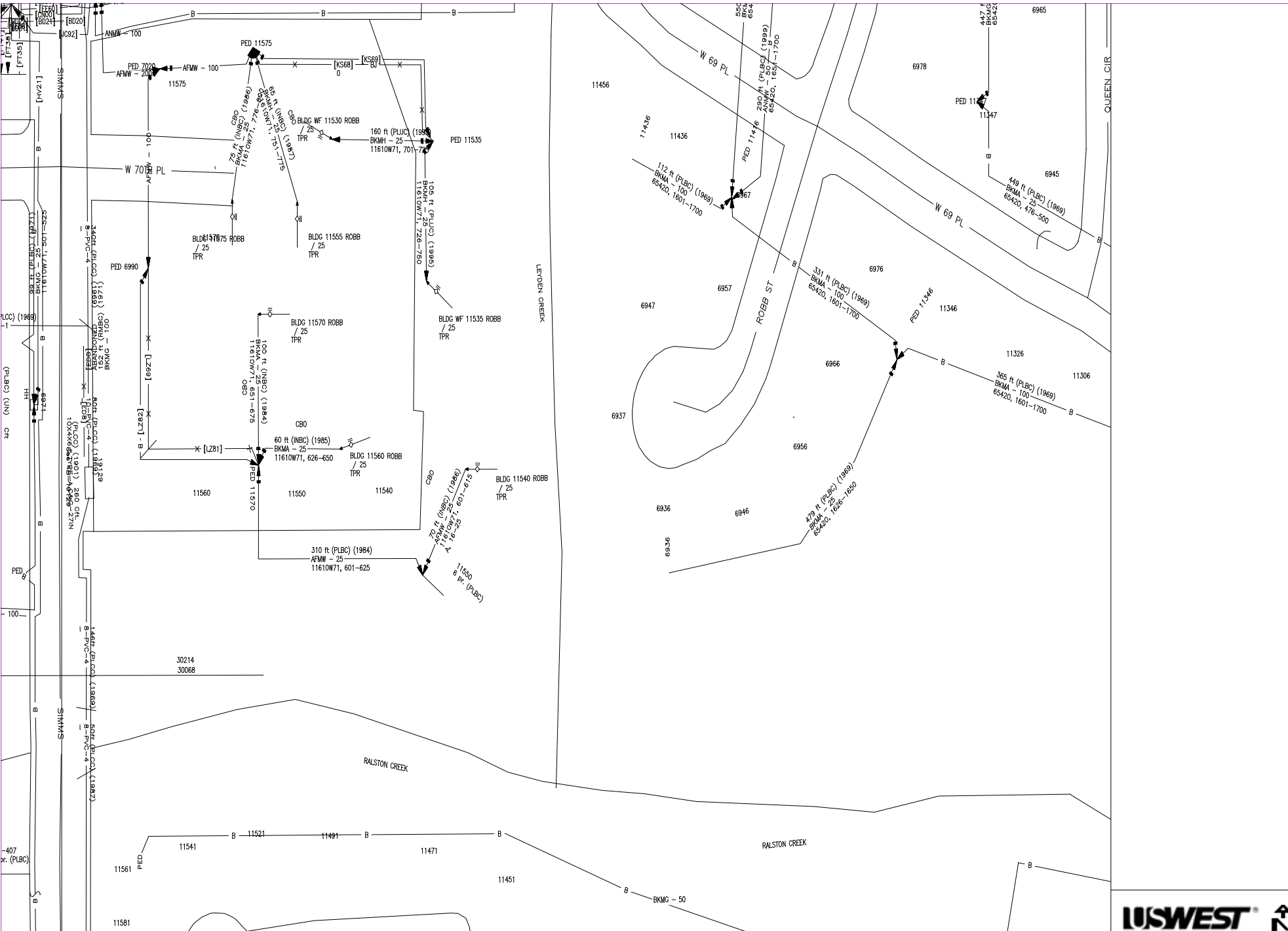


CenturyLink™

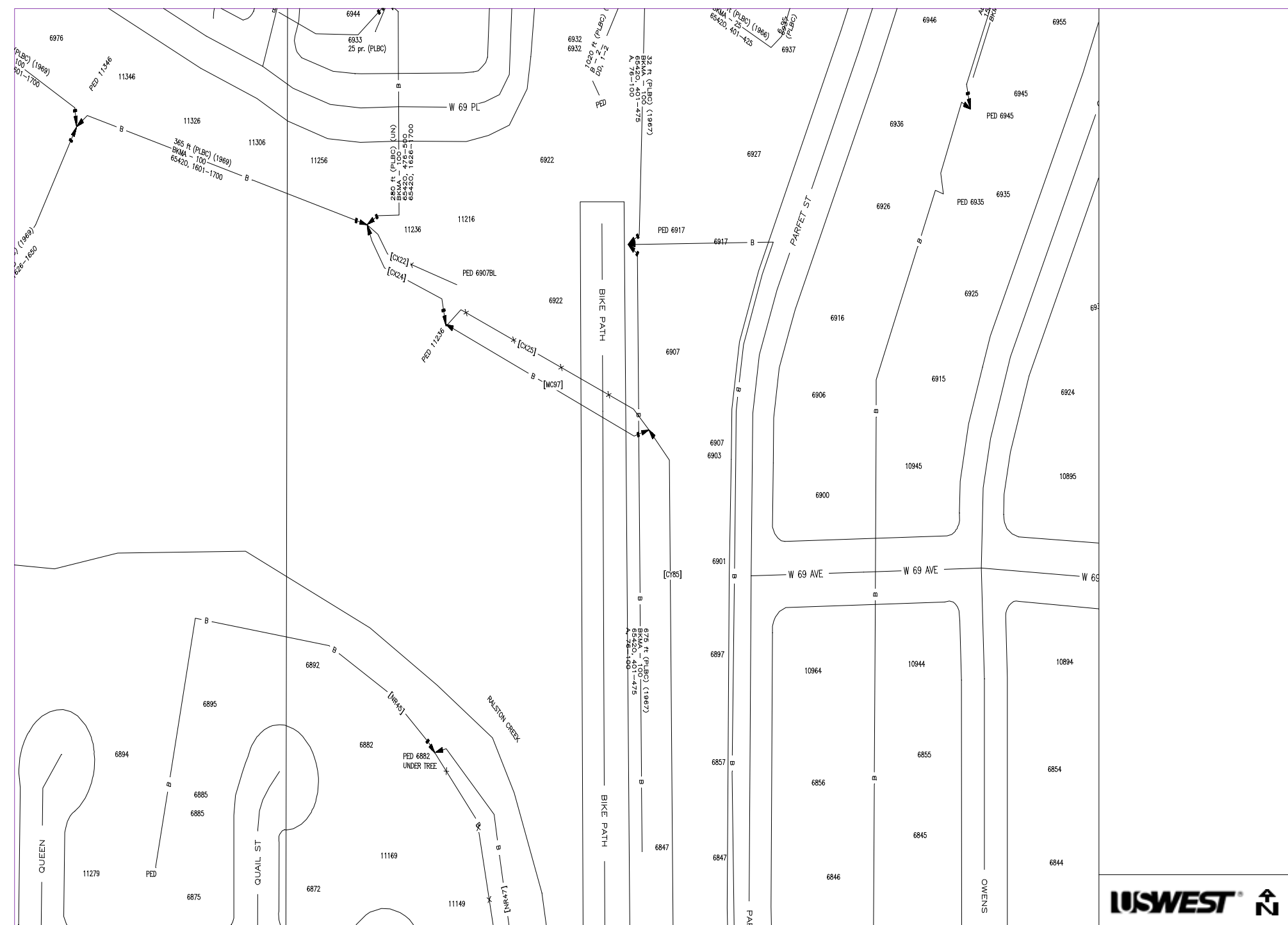
This email is for informational purposes only. Please do not reply as this is an unmanned inbox.

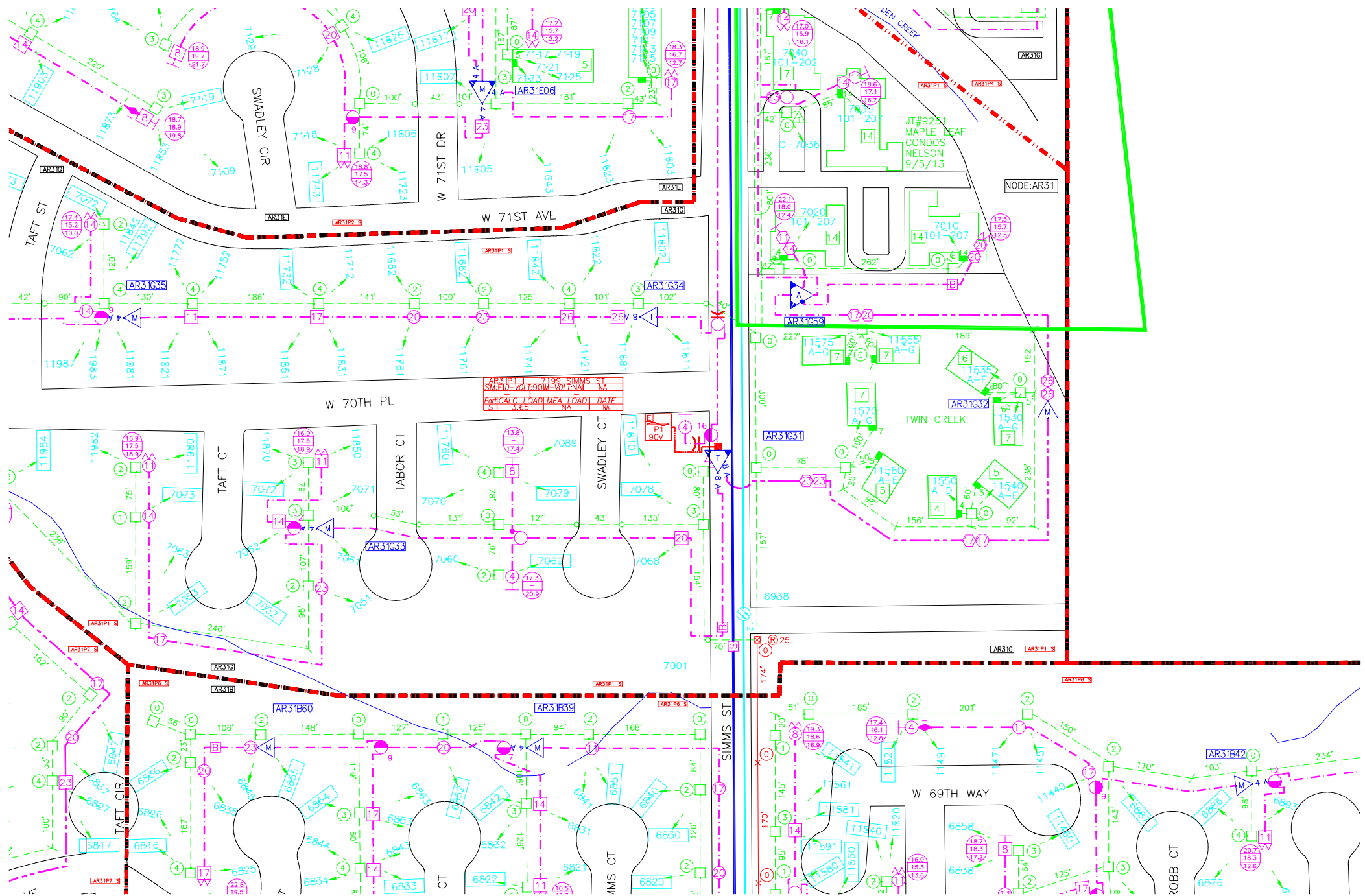


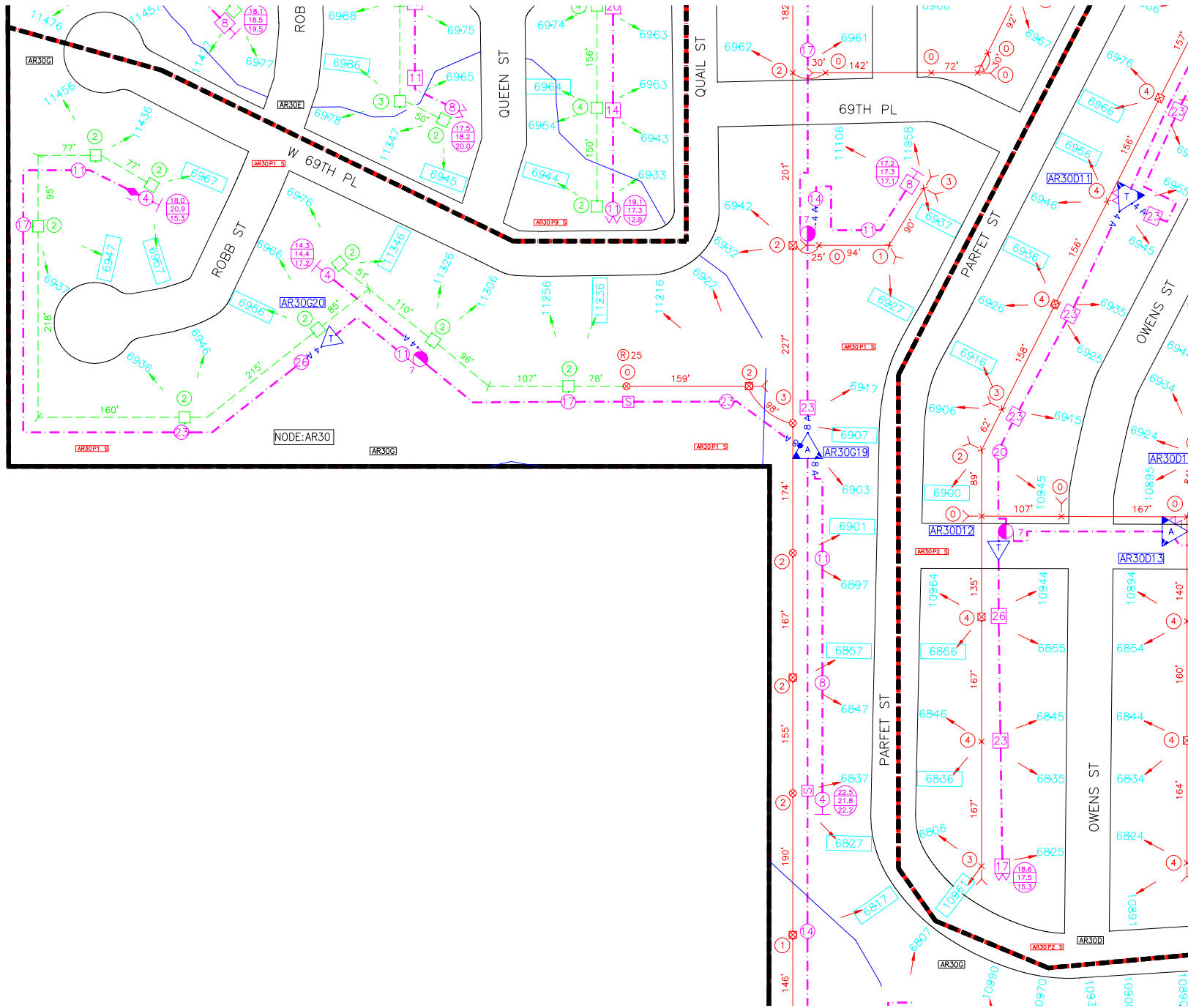








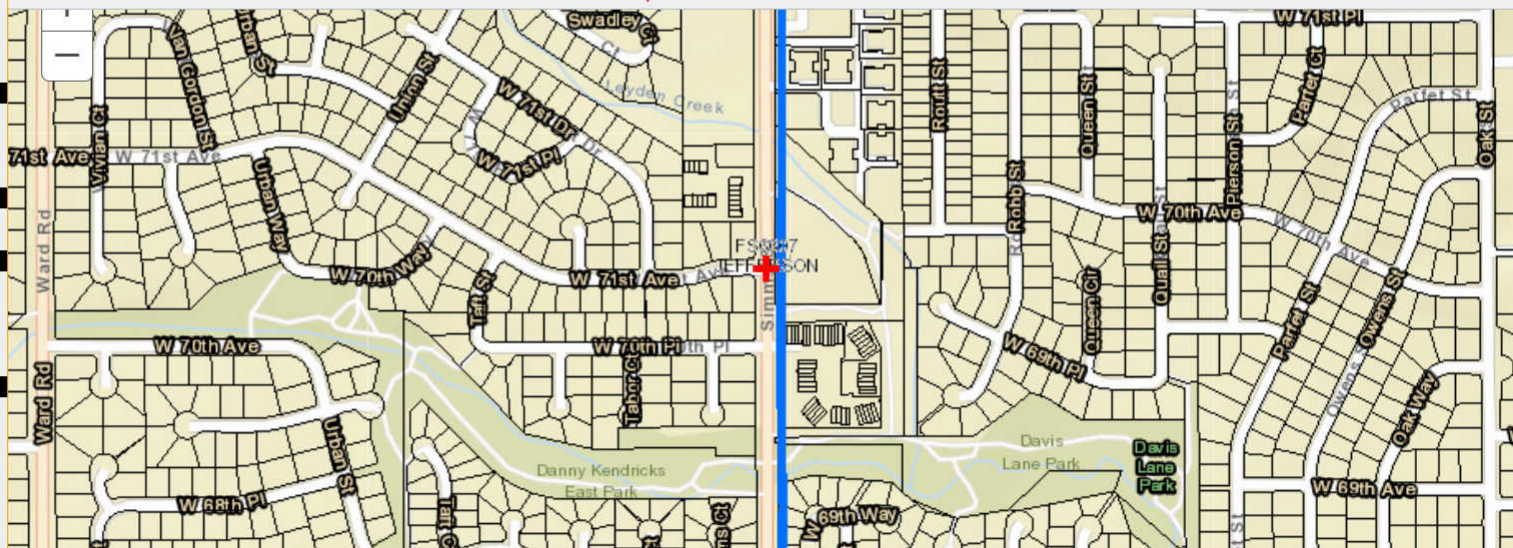




MP Reason :

Comments: Wire Center from FIM in PARSER null

Verizon Confidential MCI/Verizon



Zoom: 29619 ft

Center: $(-105.13, 39.82)$

Band1: 75 ft

Band2: 125 ft

Subject: Colorado 811 Confirmation Request 2023-11-06 Ticket A331000067-00A

From: Colorado 811 <OCARS_Pro@uncc.org>

Date: Mon, Nov 06, 2023 2:26 pm

To: <ucs@totalspeed.net>

Email Confirmation 11/06/23 02:26 PM A331000067-00A NORMAL NEW ENGINEERING/DESIGN

Please stay at least 18" outside of the exterior sides of any markings. Marks are only valid for 30 days from the date of the locate or until no longer visible, whichever comes first. There may be private facilities within your dig area. Private facilities are owned by the owner of the property and therefore will not be marked with this request. It is the responsibility of the excavator to have private facilities located. To learn more and for a list of private locate companies in your area please visit our web site at <http://www.colorado811.org>

Ticket: A331000067-00A

Original Call Date: 11/06/23 Time: 02:25 PM

Locate By Date : 11/21/23 Time: 11:59 PM Meet: No

State: CO County: JEFFERSON Place: ARVADA

Street: W 68TH AVE

Cross Street: PIERSON CT

Lat/Long: 39.820652/-105.123567 39.820574/-105.120919

: 39.819236/-105.123608 39.819159/-105.120960

Type of Work: ENGINEERING

Explosives : No Directional Boring: No

Location: FROM EASTERN MOST INTERSECTION LOC N ROW TO ROW FOR 200'. ALSO LOC EAST ROW TO ROW FOR 300'. ACCESS IS OPEN. ENGINEERING PROJECT. PLEASE SEND ALL UTILITY MAPPING.

Company : UNDERGROUND CONSULTING SOLUTIONS

Address : 5778 KELLY AVE

City : LITTLETON

St: CO Zip: 80125

Caller : KENNETH GOFF

Phone: (303)904-7422

Fax: (720)554-7889 Email: ucs@totalspeed.net

Done for: CLIENT

Colorado 811 notified the following Tier 1 Member Facilities:

QLNCC00=CENTURYLINK = FIBER, TELCO

ARVD01 =CITY OF ARVADA,H2O,SEWER = WATER, SEWER, STORM SEWER, IRRIGATION

CCSOC001=COMCAST = CATV & FIBER

XLNW00 =XCEL ENERGY = ELECTRIC & GAS

You are responsible for contacting any other facility owners not listed above.

View map and file attachments at:

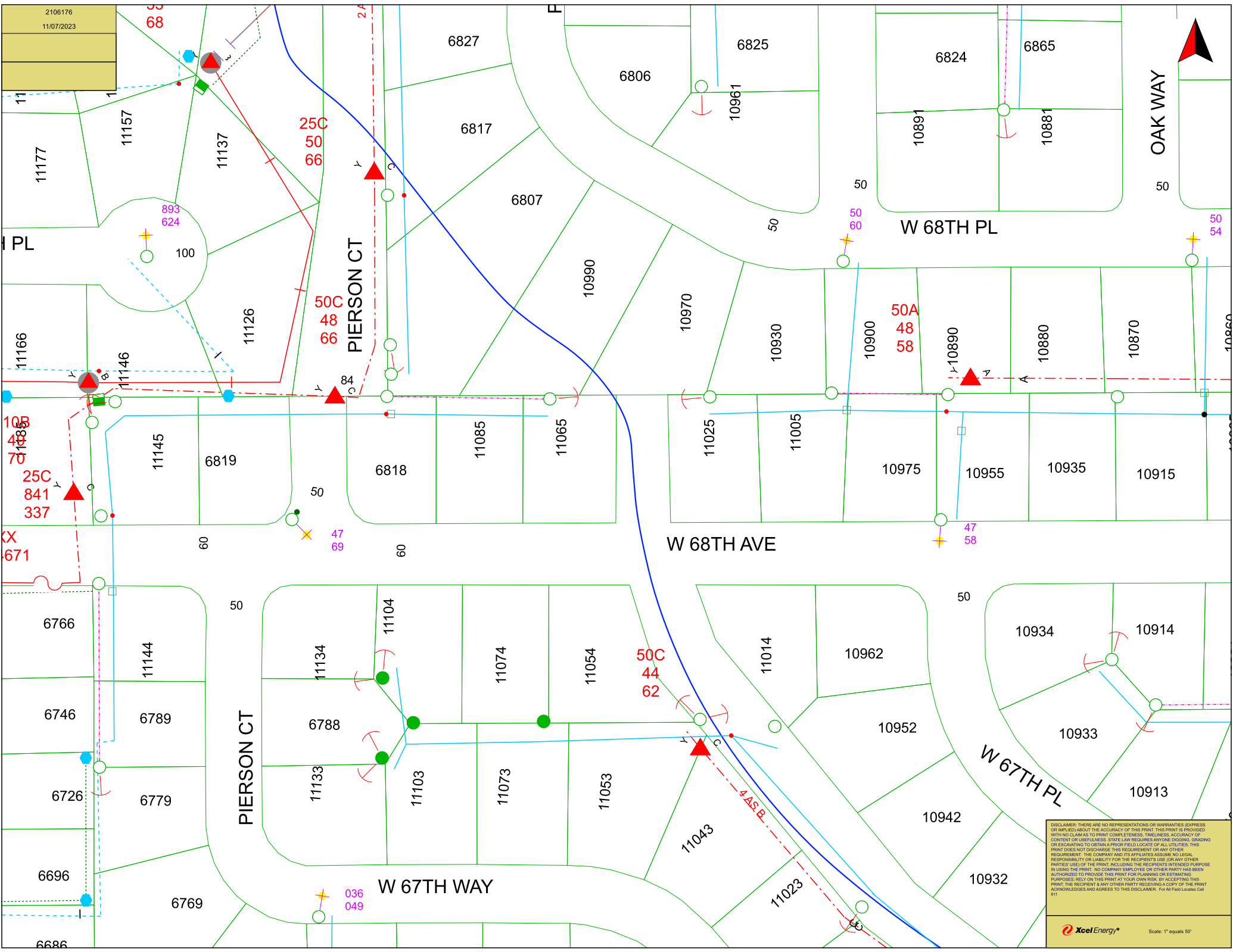
<https://newtin.co811.org/mapticket/?t=07t8s4r2r7q6j4t-u>

Check the status of your request at

<https://newtin.co811.org/responsedisplay/>

For Colorado 811 Procedure Guide go to

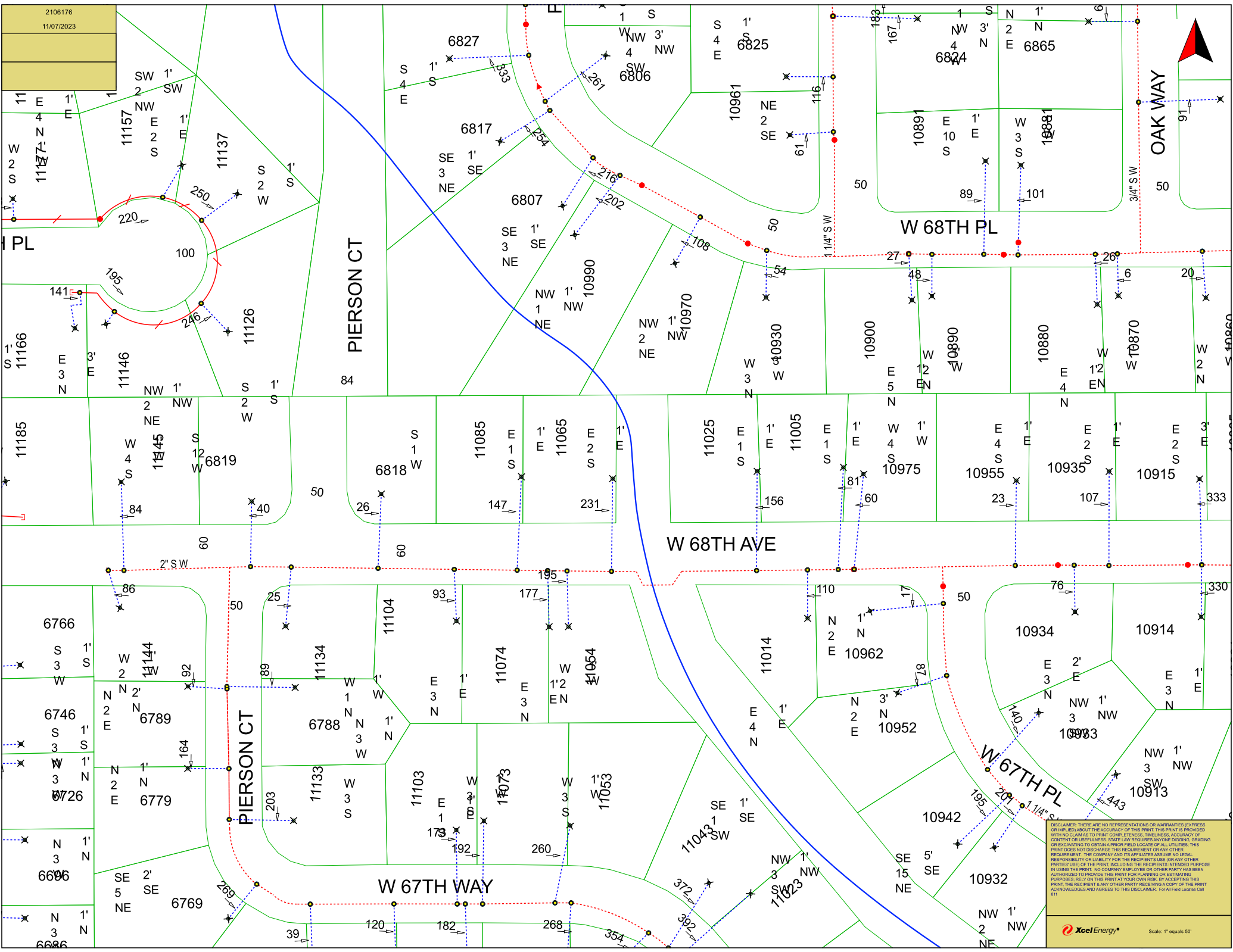
<https://colorado811.org/educational-resources/>



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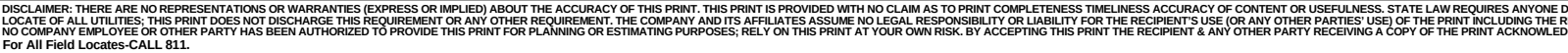
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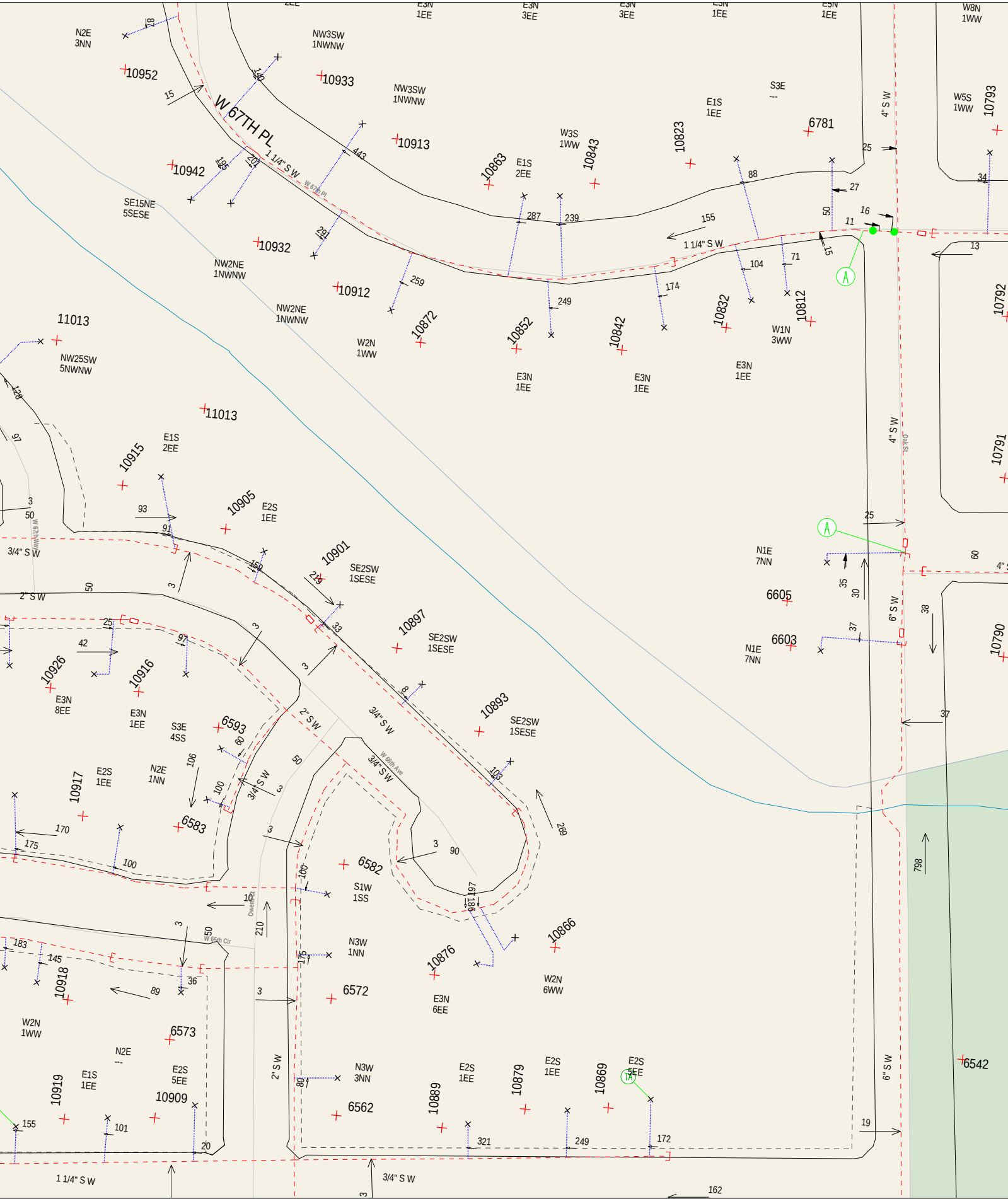


2106176
11/07/2023



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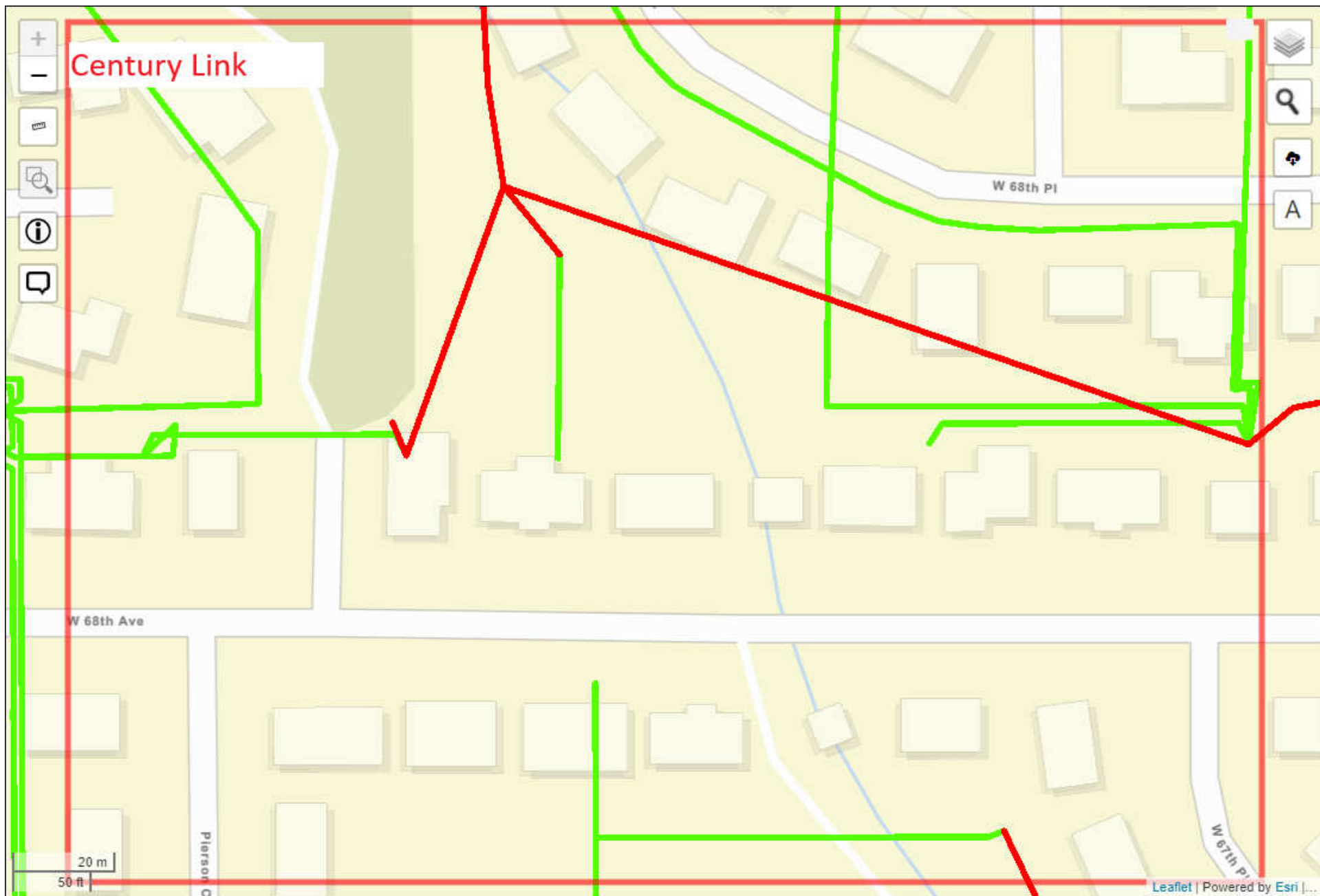
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 National Buried Asset	 Local Buried Asset
 National Aerial / 3 rd Party	 Local Buried Asset
 IOF Fiber Route	 Local Buried Asset
 Local Buried Asset	 Local Aerial Asset



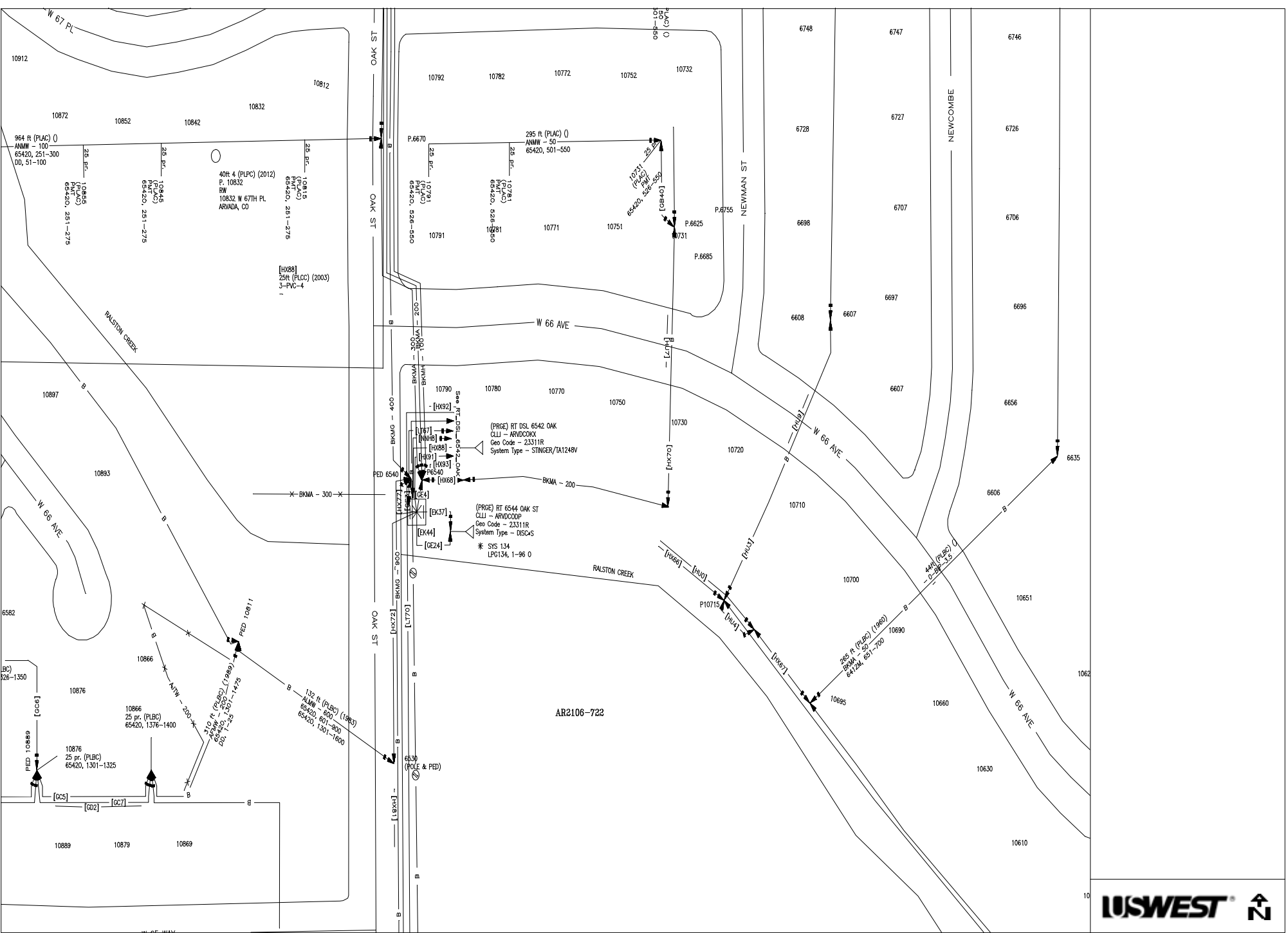
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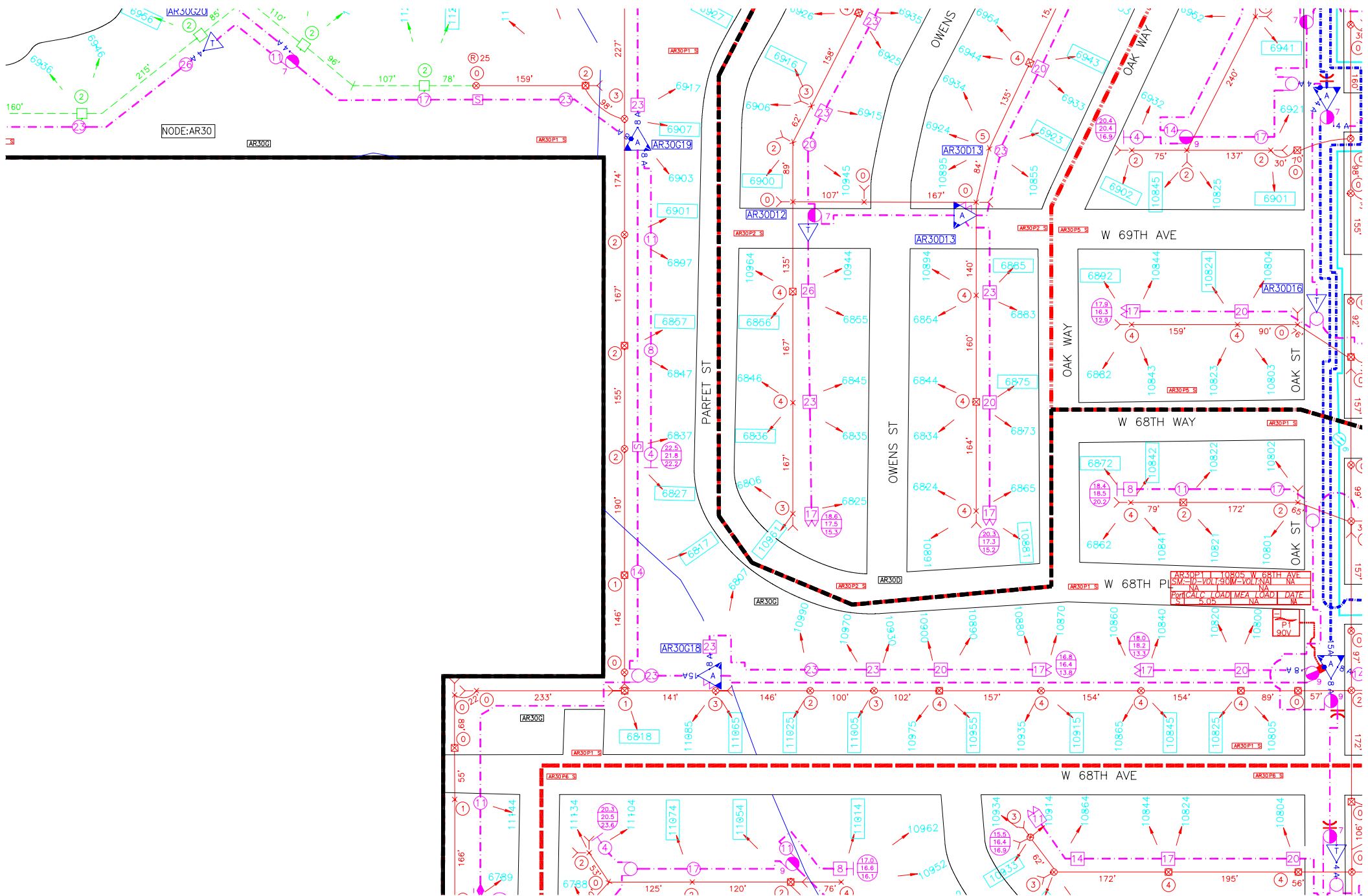
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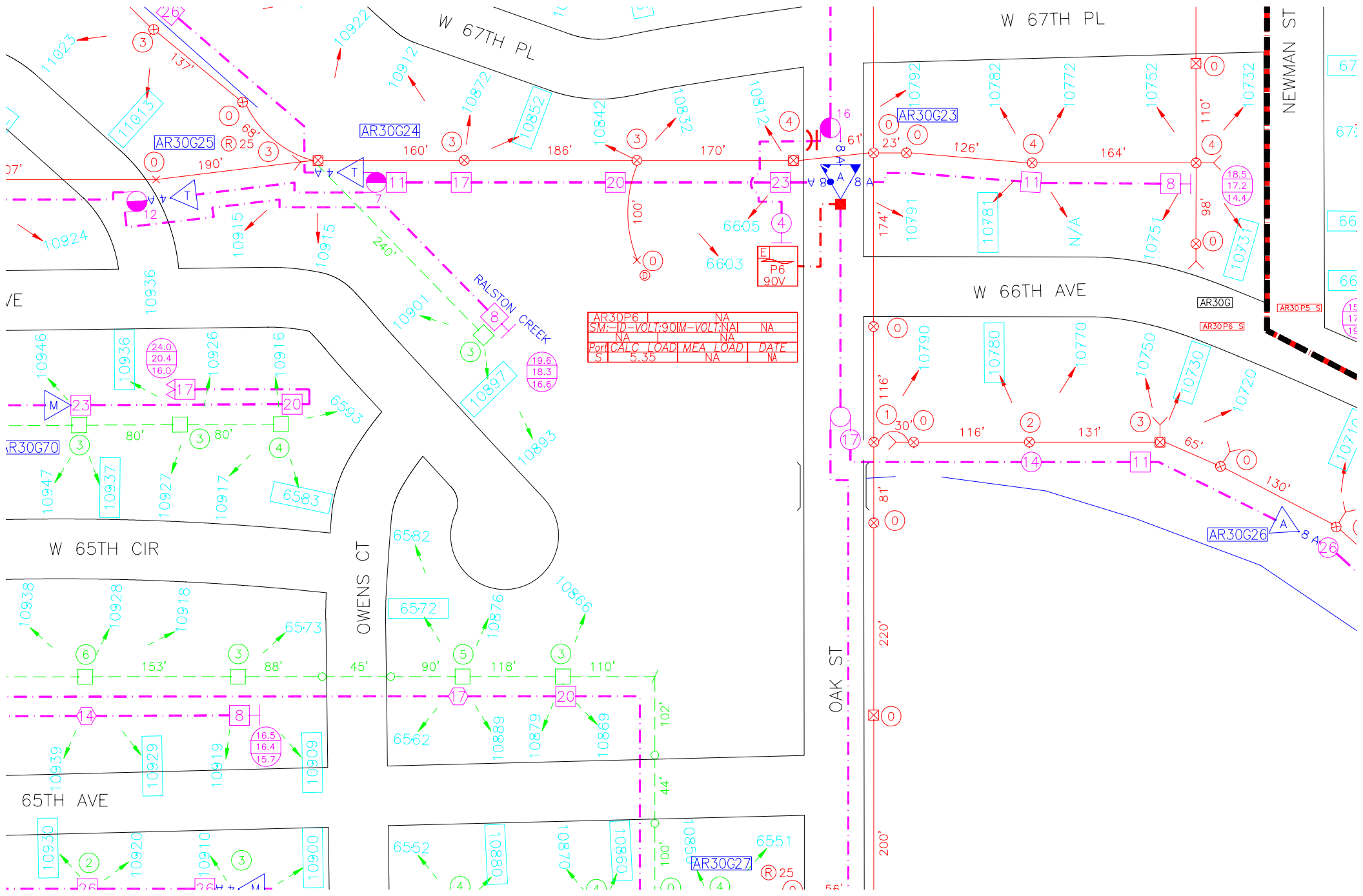












BID SCHEDULE

24-ENG-012

CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)



CONTRACTOR _____

BID PREPARED BY _____ DATE _____

ITEM NO.	ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	COST
Davis Lane Park Sewer					
1	Mobilization, Demobilization, Permits, Fees, Licenses, Administration	LS	1		\$0.00
2	Traffic and Pedestrian Control	LS	1		\$0.00
3	Sediment and Erosion Control	LS	1		\$0.00
4	Utility Locate Potholing	LS	1		\$0.00
5	Construction Survey	LS	1		\$0.00
6	Owner Controlled Minor Contract Revisions	ALLOW	1	\$180,000.00	\$180,000.00
7	Native Landscaping & Restoration (Includes Seeding, Topsoil & Mulch)	SY	1,208		\$0.00
8	Sod Landscaping & Restoration (Includes Sod and Topsoil)	SY	5,187		\$0.00
9	Irrigation System Restoration	LS	1		\$0.00
10	Reset Private Fence	LF	45		\$0.00
11	Reset Sign	EACH	2		\$0.00
12	Reset Utility Pedestal	EACH	1		\$0.00
13	Temporary Bypass Pumping Sewer	LS	1		\$0.00
14	Temporary Irrigation	LS	1		\$0.00
15	Tree Protection Perimeter Fencing	LF	1,172		\$0.00
16	Excavation Dewatering	LS	1		\$0.00
17	Sanitary Sewer Maintenance Hole - 5' Diameter (Depth < 10'), Complete In Place	EACH	2		\$0.00
18	Sanitary Sewer Maintenance Hole - 5' Diameter (Depth > 10'), Complete In Place	EACH	8		\$0.00
19	Sanitary Sewer Outside Drop Maintenance Hole,- 5' Diameter (Depth < 10'), Complete In Place	EACH	1		\$0.00
20	Sanitary Sewer Outside Drop Maintenance Hole,- 5' Diameter (Depth > 10'), Complete In Place	EACH	1		\$0.00
21	Sanitary Sewer Maintenance Hole - 6' Diameter, Complete In Place	EACH	2		\$0.00
22	Protective Lining of 5' Maintenance Hole	VFT	26		\$0.00
23	8-inch SDR35 PVC, Complete in Place	LF	12		\$0.00
24	21-inch SDR35 PVC, Complete in Place	LF	8		\$0.00
25	30-inch SDR35 PVC, Complete in Place	LF	2,728		\$0.00
26	Leyden Creek Sewer Crossing	EACH	1		\$0.00
27	Connect to Existing Sanitary Sewer System Main	EACH	6		\$0.00
28	Connect Sanitary Sewer Service	EACH	9		\$0.00
29	6" Asphalt Removal and Full Width Paving - 71st Ave, Complete in Place	SY	1,967		\$0.00
30	10.5" Asphalt Removal and Patching - Simms Street, Complete in Place	SY	749		\$0.00
31	Curb and Gutter Remove and Replace, Complete in Place	LF	12		\$0.00
32	6" Thick Concrete Sidewalk Removal and Replacement	SY	1,945		\$0.00
33	Concrete Pan, Sidewalk, & Curb Ramp Remove and Replace, Complete in Place	SY	71		\$0.00
34	12" Thick, Type VL Riprap	CY	7		\$0.00
35	Remove Existing Trees (Indicated on Drawings)	LS	1		\$0.00
36	Remove and Dispose 12" AC Pipe	LF	170		\$0.00
37	Remove and Replace 15-Inch CMP Drainage Pipe	LF	20		\$0.00
38	Remove and Replace 24-Inch CMP Drainage Pipe	LF	20		\$0.00
39	Remove 27" PVC Sanitary Sewer Pipe	LF	45		\$0.00
40	Remove Maintenance Hole	EACH	2		\$0.00
41	Remove and Dispose Tennis Court	LS	1		\$0.00
42	Abandon Waterline	LS	1		\$0.00
43	Abandon Sanitary Sewer (Plug)	EACH	30		\$0.00
44	Abandon Sanitary Sewer (CLSM Fill)	CY	565		\$0.00
45	Abandon Sanitary Sewer Maintenance Hole	EACH	10		\$0.00
DAVIS LANE PARK SEWER COST SUB-TOTAL					\$180,000.00
68th & Pierson / Oak St. Sewer					
46	Native Landscaping & Restoration (Includes Seeding, Topsoil & Mulch)	SY	86		\$0.00
47	Sod Landscaping & Restoration (Includes Sod and Topsoil)	SY	34		\$0.00
48	Irrigation System Restoration	LS	1		\$0.00
49	Sanitary Sewer Maintenance Hole - 4' Diameter (Depth < 10'), Complete In Place	EA	2		\$0.00
50	Protective Lining of 4' Maintenance Hole	VFT	11		\$0.00
51	Protective Lining of Existing 5' Maintenance Hole	VFT	12		\$0.00
52	8-Inch SDR35 PVC, Sliplined, Complete in Place	LF	650		\$0.00
53	8-inch SDR35 PVC, Complete in Place	LF	25		\$0.00
54	8-inch C900 PVC, Complete in Place	LF	24		\$0.00
55	Connect to Existing Sanitary Sewer Maintenance Hole	EA	5		\$0.00
56	Connect Sanitary Sewer Service	EA	3		\$0.00
57	6" Asphalt Removal and Patching - 68th Ave, Complete in Place	SY	93		\$0.00
58	10.5" Asphalt Removal and Patching - Oak Street, Complete in Place	SY	11		\$0.00
59	6" Thick Concrete Sidewalk Removal and Replacement	SY	80		\$0.00
60	Concrete Pan, Sidewalk, & Curb Ramp Remove and Replace, Complete in Place	SY	73		\$0.00
68TH & PIERSON / OAK ST SEWER COST SUB-TOTAL					\$0.00
8" AC Waterline Replacement					
61	Remove and Dispose 8" AC Pipe	LF	10		\$0.00
62	8-Inch C900 PVC, Complete in Place	LF	422		\$0.00
63	8-Inch 22.5° Bend	EA	2		\$0.00
64	8-Inch 45° Bend	EA	2		\$0.00
65	8-Inch Tee	EA	1		\$0.00
66	8-Inch GV	EA	2		\$0.00
67	Water Service Tap Reconnection	EA	9		\$0.00
WATERLINE COST SUB-TOTAL					\$0.00
TOTAL BASE BID					\$180,000.00

TOTAL BASE BID WRITTEN _____

BID BOND

We, the undersigned T. Lowell Construction, Inc. as Principal,
and Hartford Fire Insurance Company as Surety, are hereby held and firmly bound unto the City of
Arvada, Colorado, in the penal sum of Five Percent of Total Amount Bid (5%) 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. 24-ENG-012 - Central Ralston Trunk Line Simms to Pierson (CRT7)

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 5th day of February
2024 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

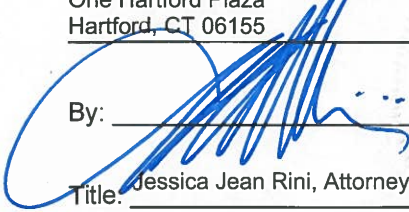
Name: T. Lowell Construction, Inc.
3211 South I-25
Address: Castle Rock, CO 80109

By: 

Title: V.P.

SURETY

Hartford Fire Insurance Company
One Hartford Plaza
Hartford, CT 06155

By: 

Title: Jessica Jean Rini, Attorney-in-Fact

Attorney-in-Fact:

Not Applicable

(SEAL)



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

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-11

One Hartford Plaza

Hartford, Connecticut 06155

Bond.Claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: HOLMES MURPHY AND ASSOC LLC

Agency Code: 34-346205

- | | |
|-------------------------------------|--|
| ☒ | Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut |
| ☒ | Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana |
| ☒ | Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut |
| ☐ | Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut |
| ☐ | Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana |
| ☐ | Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois |
| ☐ | Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana |
| ☐ | Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida |

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, **up to the amount of Unlimited :**

Mary Ashley Allen, Donald E. Appleby, Todd Bengford, Sarah C. Brown, Megan A. Brown, Jessica Jean Rini, Mark Sweigart of GREENWOOD VILLAGE, Colorado

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments 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, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Shelby Wiggins

Shelby Wiggins, Assistant Secretary

Joelle L. LaPierre

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA

COUNTY OF SEMINOLE

ss. Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.



Jessica Ciccone

Jessica Ciccone
My Commission HH 122280
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of February 5, 2024.

Signed and sealed in Lake Mary, Florida.



Keith D. Dozois

Keith D. Dozois, Assistant Vice President

BID PROPOSAL

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

FROM: T. LOWELL CONSTRUCTION, INC. (hereinafter called "BIDDER"), organized and existing under the laws of the State of COLORADO 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. 24-ENG-012 entitled CENTRAL WALTON TRUNK LINE SWMS TO PIETSON 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 Initials: AL

Bidder states that their:

Major Material Suppliers are:

FERGUSON
COPELAND

Material They Will Supply

PIPE, VALVES, FITTINGS
PRECAST CONCRETE

Major Subcontractors are:

COLORADO CONCRETE SOLUTIONS
CHACON PAVING

Work They Will Perform

CONCRETE FLATWORK
ASPHALT PAVING

CONTRACT TIME AND LIQUIDATED DAMAGES: All work shall be completed, including clean-up, within **250** calendar days after the date to be specified in the Notice to Proceed. A Notice to Proceed is anticipated to be issued on or about 4/8/2024. 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 \$ 4,522,000.00

SUBMITTED BY:

Company Name: T. LOWELL CONSTRUCTION, INC.

Contact Names: TIM LOWELL JR

Address: 3211 SOUTH I-25, CASTLE ROCK, CO 80109

Phone: (303) 688-2330 Email(s): TIMZ@TLOWELLCONSTRUCTION.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: [Signature] 2.6.2024 84-1158165
Signature of Authorized Agent Date FEIN

Levi A Lowell
Typed/Printed Name of Agent

SECRETARY/TREASURER
Title of Agent

LEVI@TLOWELLCONSTRUCTION.COM
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.

BID SCHEDULE

24-ENG-012

CENTRAL RALSTON TRUNK LINE SIMMS TO PIERSON (CRT7)



CONTRACTOR T. LOWELL CONSTRUCTION, INC.

BID PREPARED BY TIM LOWELL II, V.P.

DATE 2.6.24

ITEM NO.	ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	COST
Davis Lane Park Sewer					
1	Mobilization, Demobilization, Permits, Fees, Licenses, Administration	LS	1	\$192,000.00	\$192,000.00
2	Traffic and Pedestrian Control	LS	1	\$100,000.00	\$100,000.00
3	Sediment and Erosion Control	LS	1	\$65,000.00	\$65,000.00
4	Utility Locate Potholing	LS	1	\$26,000.00	\$26,000.00
5	Construction Survey	LS	1	\$33,000.00	\$33,000.00
6	Owner Controlled Minor Contract Revisions	ALLOW	1	\$180,000.00	\$180,000.00
7	Native Landscaping & Restoration (Includes Seeding, Topsoil & Mulch)	SY	1,208	\$28.00	\$33,824.00
8	Sod Landscaping & Restoration (Includes Sod and Topsoil)	SY	5,187	\$36.00	\$186,732.00
9	Irrigation System Restoration	LS	1	\$70,000.00	\$70,000.00
10	Reset Private Fence	LF	45	\$34.00	\$1,530.00
11	Reset Sign	EACH	2	\$420.00	\$840.00
12	Reset Utility Pedestal	EACH	1	\$650.00	\$650.00
13	Temporary Bypass Pumping Sewer	LS	1	\$390,000.00	\$390,000.00
14	Temporary Irrigation	LS	1	\$70,000.00	\$70,000.00
15	Tree Protection Perimeter Fencing	LF	1,172	\$6.50	\$7,618.00
16	Excavation Dewatering	LS	1	\$204,551.00	\$204,551.00
17	Sanitary Sewer Maintenance Hole - 5' Diameter (Depth < 10'), Complete In Place	EACH	2	\$17,000.00	\$34,000.00
18	Sanitary Sewer Maintenance Hole - 5' Diameter (Depth > 10'), Complete In Place	EACH	8	\$19,500.00	\$156,000.00
19	Sanitary Sewer Outside Drop Maintenance Hole, - 5' Diameter (Depth < 10'), Complete In Place	EACH	1	\$22,000.00	\$22,000.00
20	Sanitary Sewer Outside Drop Maintenance Hole, - 5' Diameter (Depth > 10'), Complete In Place	EACH	1	\$26,000.00	\$26,000.00
21	Sanitary Sewer Maintenance Hole - 6' Diameter, Complete In Place	EACH	2	\$27,000.00	\$54,000.00
22	Protective Lining of 5' Maintenance Hole	VFT	26	\$800.00	\$20,800.00
23	8-inch SDR35 PVC, Complete in Place	LF	12	\$650.00	\$7,800.00
24	21-inch SDR35 PVC, Complete in Place	LF	8	\$780.00	\$6,240.00
25	30-inch SDR35 PVC, Complete in Place	LF	2,728	\$325.00	\$886,600.00
26	Leyden Creek Sewer Crossing	EACH	1	\$91,000.00	\$91,000.00
27	Connect to Existing Sanitary Sewer System Main	EACH	6	\$6,000.00	\$36,000.00
28	Connect Sanitary Sewer Service	EACH	9	\$3,600.00	\$32,400.00
29	6" Asphalt Removal and Full Width Paving - 71st Ave, Complete in Place	SY	1,967	\$155.00	\$304,885.00
30	10.5" Asphalt Removal and Patching - Simms Street, Complete in Place	SY	749	\$210.00	\$157,290.00
31	Curb and Gutter Remove and Replace, Complete in Place	LF	12	\$110.00	\$1,320.00
32	6" Thick Concrete Sidewalk Removal and Replacement	SY	1,945	\$190.00	\$369,550.00
33	Concrete Pan, Sidewalk, & Curb Ramp Remove and Replace, Complete in Place	SY	71	\$280.00	\$19,880.00
34	12" Thick, Type VL Riprap	CY	7	\$175.00	\$1,225.00
35	Remove Existing Trees (Indicated on Drawings)	LS	1	\$5,900.00	\$5,900.00
36	Remove and Dispose 12" AC Pipe	LF	170	\$60.00	\$10,200.00
37	Remove and Replace 15-Inch CMP Drainage Pipe	LF	20	\$380.00	\$7,600.00
38	Remove and Replace 24-Inch CMP Drainage Pipe	LF	20	\$410.00	\$8,200.00
39	Remove 27" PVC Sanitary Sewer Pipe	LF	45	\$52.00	\$2,340.00
40	Remove Maintenance Hole	EACH	2	\$2,000.00	\$4,000.00
41	Remove and Dispose Tennis Court	LS	1	\$34,000.00	\$34,000.00
42	Abandon Waterline	LS	1	\$4,600.00	\$4,600.00
43	Abandon Sanitary Sewer (Plug)	EACH	30	\$325.00	\$9,750.00
44	Abandon Sanitary Sewer (CLSM Fill)	CY	565	\$195.00	\$110,175.00
45	Abandon Sanitary Sewer Maintenance Hole	EACH	10	\$1,950.00	\$19,500.00
DAVIS LANE PARK SEWER COST SUB-TOTAL					\$4,005,000.00
68th & Pierson / Oak St. Sewer					
46	Native Landscaping & Restoration (Includes Seeding, Topsoil & Mulch)	SY	86	\$55.00	\$4,730.00
47	Sod Landscaping & Restoration (Includes Sod and Topsoil)	SY	34	\$65.00	\$2,210.00
48	Irrigation System Restoration	LS	1	\$7,765.00	\$7,765.00
49	Sanitary Sewer Maintenance Hole - 4' Diameter (Depth < 10'), Complete In Place	EA	2	\$12,000.00	\$24,000.00
50	Protective Lining of 4' Maintenance Hole	VFT	11	\$675.00	\$7,425.00
51	Protective Lining of Existing 5' Maintenance Hole	VFT	12	\$800.00	\$9,600.00
52	8-Inch SDR35 PVC, Sliplined, Complete in Place	LF	650	\$290.00	\$188,500.00
53	8-inch SDR35 PVC, Complete in Place	LF	25	\$650.00	\$16,250.00
54	8-inch C900 PVC, Complete in Place	LF	24	\$700.00	\$16,800.00
55	Connect to Existing Sanitary Sewer Maintenance Hole	EA	5	\$6,400.00	\$32,000.00
56	Connect Sanitary Sewer Service	EA	3	\$3,000.00	\$9,000.00
57	6" Asphalt Removal and Patching - 68th Ave, Complete in Place	SY	93	\$160.00	\$14,880.00
58	10.5" Asphalt Removal and Patching - Oak Street, Complete in Place	SY	11	\$200.00	\$2,200.00
59	6" Thick Concrete Sidewalk Removal and Replacement	SY	80	\$190.00	\$15,200.00
60	Concrete Pan, Sidewalk, & Curb Ramp Remove and Replace, Complete in Place	SY	73	\$280.00	\$20,440.00
68TH & PIERSON / OAK ST SEWER COST SUB-TOTAL					\$371,000.00
8" AC Waterline Replacement					
61	Remove and Dispose 8" AC Pipe	LF	10	\$585.00	\$5,850.00
62	8-Inch C900 PVC, Complete in Place	LF	422	\$163.00	\$68,786.00
63	8-Inch 22.5" Bend	EA	2	\$1,700.00	\$3,400.00
64	8-Inch 45" Bend	EA	2	\$1,700.00	\$3,400.00
65	8-Inch Tee	EA	1	\$2,764.00	\$2,764.00
66	8-Inch GV	EA	2	\$3,900.00	\$7,800.00
67	Water Service Tap Reconnection	EA	9	\$6,000.00	\$54,000.00
WATERLINE COST SUB-TOTAL					\$146,000.00
TOTAL BASE BID					\$4,522,000.00

TOTAL BASE BID WRITTEN FOUR MILLION, FIVE HUNDRED TWENTY-TWO THOUSAND AND 00/100 DOLLARS

REQUIRED CONTRACTOR SUBMITTAL FORM

SUBMITTAL CHECKLIST:

Bid Proposals shall be submitted in the order listed below with each section clearly identified. **Missing information or required documents may result in submission being deemed non-responsive.**

- ☐ Submit completed Bid Bond, Bid Proposal, Bid Schedule, Required Contractor Submittal, 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.
- ☐ Variations: Checking this box indicates that the contractor has variations to this solicitation. Identify all variations and exceptions to this CSB on a separate sheet/s of paper. If variations are not stated in the contractor's Offer, it shall be agreed that the contractor's Offer fully complies with all conditions identified in this Solicitation. For each variation listed, reference the applicable section of the solicitation document, the page number, and the variance. Submittal of a vendor contract is considered excessive in variations and may be cause for determining that the Bid is non-responsive and ineligible for award.

MINIMUM REQUIRED QUALIFICATIONS:

Evidence of these qualifications must be submitted. All qualification projects must have been completed with the past five years and be within the Front Range of Colorado, as defined as Fort Collins to Pueblo.

- ☐ Provide two example projects with demonstrated experience installing pipeline with a creek crossing.
- ☐ Provide two example projects with demonstrated experience installing large diameter gravity sewer pipeline (>18-inch diameter and greater).
- ☐ Provide one example project with demonstrated experience in slip-lining a smaller diameter pipe within a larger diameter pipe.
- ☐ Provide two example projects with demonstrated experience installing an 8-inch to 12-inch waterline.
- ☐ Provide three general references two for the proposed project manager and one for the proposed site superintendent and provide resumes for these two team members.

REFERENCES:

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

Name: CITY OF WESTMINSTER Contact Person: STEPHANIE BLEIKER

Address: 4800 W. 92ND AVENUE, WESTMINSTER, CO 80031

Telephone No: 303-658-2174 Email: SBLEIKER@WESTMINSTER.CO.GOV

Describe type of work/service performed or items supplied: LARGE DIAMETER SANITARY INTERCEPTOR,
WATERLINE RELOCATIONS, CREEK CROSSINGS, BYPASS PUMPING, BORE, CITY

Name: HDR ENGINEERING Contact Person: BRANDON LUSTER
Address: 419 CANYON AVENUE, SUITE 316, FORT COLLINS, CO 80521
Telephone No: 970.416.4403 Email: BRANDON.LUSTER@HDRINC.COM
Describe type of work/service performed or items supplied: MULTIPLE LARGE DIAMETER SANITARY
INTERCEPTOR PROJECTS W/ WATERLINE RELOCATIONS, BYPASS PUMPING, CREEK CROSSINGS

Name: BURNS & McDONNELL Contact Person: DAVE THOMPSON
Address: 9785 MADON CIRCLE, SUITE 400, CENTENNIAL, CO 80112
Telephone No: 208.640.9389 Email: DET@THOMPSONCBURNSMCD.COM
Describe type of work/service performed or items supplied: WATERLINE REPLACEMENT, PIPE BUSTING,
BOXES, PRE VULV, ASPHALT PAVING, CONCRETE FLOTWORK, TRAFFIC CONTROL

QUALIFICATION PROJECTS:

☒ Check here if qualifications are attached separately, otherwise, use the spaces below.

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____

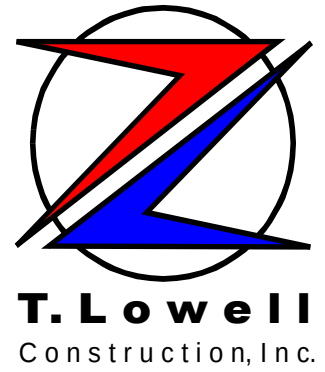
Project Name: _____ Owner: _____

Project Location: _____ Date Completed: _____

Project Description: _____

Sizes of Pipe Installed: _____ Length Installed: _____

Project Manager: _____ Superintendent: _____



Qualification Attachments

Creek Crossing Large Diameter Sewer Projects

T. Lowell Construction, Inc.

page: 1 of 1

Project #: **2303**
Project: **Senac Creek Interceptor Phase 2**
Client / Owner: City of Aurora, 15151 E. Alameda Pkwy, Aurora, CO 80012
Engineer: HDR, 419 Canyon Avenue, Suite 316, Fort Collins, CO 80521
Client Contact: Andrea Long, Aurora PM, 720-859-4346 or Steven Pool, Proj Eng, 303-250-7938
Contract: \$41,000,000
Description: 25,000 lf 30" interceptor sewer, depths to 35', significant dewatering, groundwater treatment, 987 lf tunnels/bores, bypass pumping, open cut creek crossing, erosion control/revegetation accelerated schedule - complete the first 84% (\$34.4 million) of the project in nine (9) months
Site: Aurora, near 26791 East Quincy Avenue
Completion: 35%
T. Lowell Supt: Arturo Carrillo, Antonio Ramirez, Andrew Burton
T. Lowell PM: Tim Lowell II

Project #: **2106**
Project: **Big Dry Creek Interceptor System Improvements - Project Areas 1 and 9 Interceptor**
Client / Owner: City of Westminster, 4800 West 92nd Avenue, Westminster, CO 80031
Engineer: HDR, 419 Canyon Avenue, Suite 316, Fort Collins, CO 80521
Client Contact: Rudy Archuleta, Westminster PM, 303-658-2179 or Brandon Luster, Proj Eng, 970-416-4403
Contract: \$15,380,555
Description: 7490 lf 30" PVC, 700 lf 21" PVC, two splitter structures, 444 lf 51" MTBM, bypass pumping, 458 lf 48" steel waterline relocation, four (4) open cut creek crossings, dewatering
CCA Infrastructure Construction Excellence Award Winner
Site: Westminster, near 104th Ave & Westminster Blvd
Completion: Nov-23
T. Lowell Supt: Antonio Ramirez
T. Lowell PM: Will Englehart

Project #: **1711**
Project: **Little Dry Creek Interceptor System Improvements, Bid Package 3**
Client / Owner: City of Westminster, 4800 W. 92nd Avenue, Westminster, CO
Engineer: HDR Engineering, 419 Canyon Avenue, Suite 316, Fort Collins, CO
Client Contact: Stephanie Bleiker, Westminster PM, 303-658-2174 or Brandon Luster, Proj Eng, 970-416-4402
Contract: \$6,255,095
Description: 6300 lf 21"/24" sanitary interceptor, 327 lf 18" & 12" CIPP, bypass pumping, creek crossings, 2600 lf 6" - 16" waterline relocations, railroad bore, asphalt paving, flatwork, traffic control
CCA H2O Wastewater Project of the Year Award
Site: Westminster, near 80th Ave & Sheridan Blvd
Completion: Jan-19
T. Lowell Supt: Brett Morganflash & Cesar Medina
T. Lowell PM: Tim Lowell II

Slipline Projects

T. Lowell Construction, Inc.

page: 1 of 1

Project #: **2202**
Project: **I-25 & Prospect Offsite Water Lines**
Client / Owner: East Larimer County Water District, 232 South Link Lane, Fort Collins, CO 80524
Engineer: Merrick & Company, 2725 Rocky Mountain Avenue, #410, Loveland, CO 80538
Client Contact: Randy Siddens, District Engineer, 970-493-2044 or Andrew Stewart, Proj Eng, 970-744-4633
Contract: \$4,498,068
Description: 5800 lf 16" PVC, 1600 lf 12" PVC, 407 lf 24" fusible PVC directional drill, remove/replace 205 lf 16" thru existing casing, 86 lf 30" steel casing bore, asphalt paving, erosion control, traffic control
Site: Fort Collins, multiple locations
Completion: May-23
T. Lowell Supt: Andrew Burton
T. Lowell PM: Tim Lowell II

Project #: **1904**
Project: **24-Inch Water Transmission Pipeline Replacement (Phase II)**
Client / Owner: City of Thornton, 9500 Civic Center Drive, Thornton, CO 80229
Engineer: same
Client Contact: Cesar Vasquez, Thornton Project Coordinator, 720-977-6259
Contract: \$1,100,180
Description: 2241 lf 20" fusible PVC slipline thru existing 24" pipe, 880 lf 20" PVC open cut, traffic control, steel pipe and ductile pipe connections, asphalt paving, concrete flatwork, erosion control
Site: Thornton, 128th Avenue and York Street
Completion: May-19
T. Lowell Supt: Loren Fouts
T. Lowell PM: Tim Lowell II

Project #: **1802**
Project: **Ashland Bid Package 13 - Conduit 1 Rehabilitation**
Client / GC: Western Summit, 9780 Mt Pyramid Court, Suite 100, Englewood, CO 80112
Owner: Denver Water, 1600 W. 12th Avenue, Denver, CO 80204 - Martin Garcia, Project Engineer
Client Contact: Steve Bosshart, Western Summit CM, 303-298-9500 or Martin Garcia, DW PE, 303-628-6631
Contract: \$1,343,434
Description: 552 lf 36" DIP, 1198 lf 30" fusible PVC sliplining, traffic control, asphalt paving, concrete flatwork contaminated soils/groundwater treatment/removal, value engineering redesign
CCA H2O Trenchless Project of the Year
Site: Wheat Ridge, 29th Avenue and Fenton Street
Completion: May-18
T. Lowell Supt: Aaron Olson
T. Lowell PM: Tim Lowell II

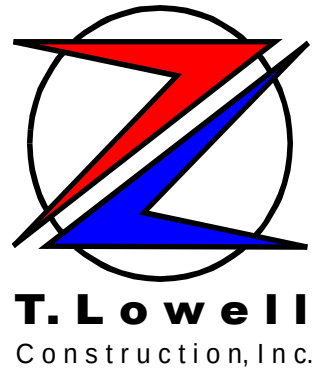
Small Diameter Waterline Projects

T. Lowell Construction, Inc.

page: 1 of 1

Project #: **2108**
Project: **Conduit No. 39 Tap Removals**
Client / Owner: Denver Water, 1600 W. 12th Avenue, Denver, CO 80204
Engineer: same
Client Contact: Jim Light, Proj Eng, 303-628-6614 or Andy George, Inspector, 303-628-6626
Contract: \$1,481,780
Description: 3533 lf 8" PVC, water service replacements to the house, asphalt paving, concrete flatwork, traffic control, coordination with sensitive high use area near Cherry Creek Mall
Site: Denver, 1st Avenue and University Blvd
Completion: Feb-22
T. Lowell Supt: Dustin Clark
T. Lowell PM: Will Englehart

Project #: **2107**
Project: **Glovers Water Rehabilitation**
Client / Owner: Town of Castle Rock, 175 Kellogg Court, Castle Rock, CO 80109
Engineer: same
Client Contact: Matt Hayes, Project Engineer, 303-210-1678
Contract: \$2,960,406
Description: 5514 lf 8" PVC, water service replacements to meter pit, sanitary service replacements from main to property, full street asphalt reconstruction, concrete flatwork, traffic control
Site: Castle Rock, Elm Avenue and Gilbert Street
Completion: Nov-21
T. Lowell Supt: Joe Mendoza
T. Lowell PM: Levi Lowell



PROJECT EXPERIENCE

T. Lowell Construction is one of the most experienced and successful contractors in the region when it comes to large diameter sanitary sewer projects. T. Lowell has been recognized with project of the year awards for several sanitary sewer projects which includes the following:

2023 CCA ICE Award – Utility Projects Over \$10 million in value
City of Westminster – Big Dry Creek Interceptor System Improvements
2021 CCA H2O Award – Wastewater Project of the Year
City and County of Broomfield – North Area Force Mains
2020 CCA H2O Award – Wastewater Project of the Year
City of Westminster – Little Dry Creek Interceptor System Improvements BP3
2018 CCA H2O Award – Wastewater Project of the Year
Boxelder Sanitation District – Combined Interceptor Sewer
2009 APWA Wastewater Treatment / Collection System Project of the Year
City of Littleton – Little Dry Creek Siphon Structures Rehabilitation
2008 APWA Wastewater Treatment / Collection System Project of the Year
Southgate Sanitation District – 2006 Sanitary Sewer Program

The **Big Dry Creek Interceptor System Improvements** project for City of Westminster included 7490 feet of 30” PVC and 700 feet of 21” PVC sanitary sewer through a sensitive high use open space area with installation depths exceeding 20 feet, two large cast-in-place concrete splitter structures, a 444 foot 51” MTBM tunnel under 104th Avenue, relocation of a 458 foot section of 48” welded steel waterline (jointly owned and operated by the City of Thornton and City of Northglenn), bypass pumping, deep well dewatering, cofferdam installation for four creek crossings, concrete encasements at the creek crossings, and SpectraShield lining of all concrete structures.

There were a number of scheduling challenges to the project that required the pipeline to be installed in an unusual phasing pattern. Typically, gravity sewer applications begin at the low end of the project and progress in a linear fashion to the high end. Because of the timing of different City activities and environmental requirements, the pipeline was installed in pieces with the crew moving up and down the alignment as needed to keep the project moving forward. The project took place through an open space area with heavy pedestrian activity. Temporary trails and fencing were installed throughout the site to maintain pedestrian access/use while protecting pedestrians from construction activities.

Despite the non-linear sewer installation pattern, there were no grade or installation issues on the project. A variety of tests were conducted to ensure project quality. Leak testing was

performed on all manholes and concrete structures, air and deflection testing was performed on the sewer pipelines, along with backfill compaction testing. Testing was performed with the progress of the work to ensure that issues could be addressed rapidly and keep the project moving forward.

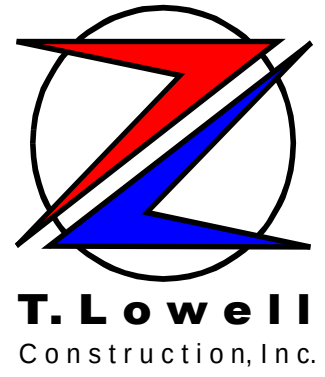
This was a master class in the project partners putting the needs of the project first in order to address challenges and changes to deliver the project quickly and at the highest level of quality. Communication was maintained with group texts and daily phone calls. Coordination was fostered at weekly project meetings. Team members were nimble to schedule and phasing changes to keep the project moving forward. The City was so pleased with the relationship and the efforts of the T. Lowell team that they initiated a \$2.6 million CMGC restoration contract that was added to the project. The City wanted a partner that they were confident in that would represent their interests and deliver a quality final product that they could be proud of.

The relationship between T. Lowell Construction and the City of Westminster extends even further back to another award winning project, the **Little Dry Creek Interceptor System Improvements BP3**. The project was a multi-stage and multi-area approach to replace and upsize the interceptor sewer that was failing and reaching its end life. The project crossed a highly sensitive baseball field/park, residential streets, main artery streets, open space area, and creek crossings where cofferdams were used. Work scope included 6300 feet of 21" and 24" PVC sanitary sewer, bypass pumping, a bore under a railroad, 327 feet of 18" and 12" CIPP, 1194 feet of waterline relocations, traffic and pedestrian controls, as well as surface restoration. Again, the City was so pleased with the working relationship and partnership with T. Lowell that they initiated a \$600k change order to relocate an additional 1400 feet of waterline in 80th Avenue. The work had to be completed at night and T. Lowell had to maintain a 24-hour operation to maintain the site and prepare for the overnight installations.

T. Lowell was able to effectively communicate and assist the HDR engineering team in coming up with design alternatives to unforeseen conditions while adhering to City standards. T. Lowell Construction reached substantial completion four months ahead of schedule and well under budget. Again, T. Lowell worked exceptionally well with HDR to identify opportunities to accelerate work and realize efficiencies throughout the duration of construction. These efficiencies accumulated over the course of construction amounting to a substantial time savings. When delays were anticipated because of utility conflicts or other complications, adjustments were made to accelerate work in other project areas. Making those adjustments to the schedule required considerable initiative dedication from T. Lowell, HDR and the City staff, putting logistics in place so construction crews remained actively working on the project.

The **Ralston Trunk Regrade** for City of Arvada was another large diameter sewer system replacement project constructed in a confined sensitive environment. To correct compromised hydraulic performance of the original system installation, this project included the replacement of 350 feet of 36" sanitary trunk sewer and 920 feet of 36" storm sewer. These two facilities crossed one another adjacent to a CDOT maintenance facility building at approx. 18' depth, requiring extensive shoring, dewatering, and close coordination with CDOT. Additionally, it was necessary to implement a substantial bypass pumping operation to convey the 36" trunk sewer

flows across Wadsworth Blvd during sewer replacement. The balance of the 36" RCP storm sewer replacement work occurred through an existing apartment complex before daylighting into Ralston Creek. T. Lowell effectively worked with the community to minimize access and construction nuisance impacts. T. Lowell has a long and repeated history of completing large diameter sewer installations in constrained locations while working effectively with the impacted community to minimize disturbances.



Resumes

Tim Lowell II

Professional experience

2000-Current T. Lowell Construction, Inc. Castle Rock, CO

Vice President / Senior Estimator and Project Manager

- Direct and/or oversight responsibilities for all project phases, from bidding through final completion
- Corporate management responsibilities include business development, strategic/long range business and financial planning, corporate identity, infrastructure/fleet evaluation & procurement

1995-2000 T. Lowell Construction, Inc. Castle Rock, CO

Estimator/Project Manager

- Direct responsibilities for all project phases, from bidding through final completion

1990-1995 (part-time) T. Lowell Construction, Inc. Castle Rock, CO

Asst. Estimator/Project Manager

- Assist with all project phases, from bidding through final completion

1982-1992 (part-time) T. Lowell Construction, Inc. Castle Rock, CO

Field Employee

- Heavy equipment operator incl: wheel loader, backhoe, track excavator, skid-steer loader, compaction equipment
- Concrete formsetter and finisher

Education

1989-1995 University of Colorado at Boulder
> Area of Emphasis in Environmental Design / Arch.

1986-1989 Douglas County High School Castle Rock, CO
> National Honor Society
> National Merit Scholar
> C.H.S.A.A. Scholar Athlete Award 1988-1989

Related skills and experience

Confined Space Training, CPR / First Aid Training, Competent Person Certification, Fall Protection and Rescue Training, Erosion Control Supervisor, Traffic Control Supervisor, Computer skills including Word, WordPerfect, Excel, AutoCad, SureTrak, Acrobat

Other skills and experience

Architecture, Interior Design, Furniture & Lighting Design & Fabrication, Sculpture, Photography, Painting, Writing, Graphic Design

Dustin Clark

Professional experience

2021 - Current T. Lowell Construction, Inc. Castle Rock, CO

General Superintendent

- Oversees company field operations
- Direct oversight and interaction with field superintendents
- Work together with clients, engineers, and inspectors to deliver a quality project.
- Coordinate with affected community members to reduce disturbances.

2006 - 2021 Concrete Works of Colorado Lafayette, CO

Pipeline Superintendent

- Oversees companies pipeline operations.
- Direct oversight and interaction with project foremen.
- Work together with clients, engineers, and inspectors to deliver a quality project.
- Coordinate with affected community members to reduce disturbances.
- Install storm sewer, sanitary sewer, water mains, sanitary and water services, vault construction and modifications

2003 – 2006 Hamon Infrastructure Denver, CO

Pipeline Foreman / Equipment Operator / Laborer

- Advanced from laborer to pipeline foreman position.
- Installed water, sanitary and storm pipes.
- Operated various pieces of equipment including excavators and loaders.

Education

1998 – 2001 Horizon High School Thornton, CO

Diploma

Related skills and experience

Well rounded construction industry and management experience. Consistent history of achievement. CPR / First Aid Certification, Competent Person Certification, , OSHA 10 Hour Certification, Confined Space Training, Fall Protection and Rescue Training



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.3.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: R24-036, 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 for Marshall Pointe Apartments

Report in Brief

Presenter: Carrie Espinosa

The City of Arvada received a direct allocation of the State of Colorado's Private Activity Bond Ceiling for the year 2024 of \$7,753,280. The Arvada team is recommending the assignment of \$6,253,280 of the bonds to the Colorado Housing and Finance Authority with the recommendation that the bonds be used to construct Marshall Pointe Apartment located at 5190 Marshall Street.

The Arvada team recommends that the City Council approve R24-036, 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 for Marshall Pointe Apartments.

Financial Impact

There is no financial impact associated with the proposed action. This action will assign the City's 2024 annual allocation of Private Activity Bond (PAB) authority of \$6,253,280.00 to the Colorado Housing and Finance Authority.

Background

Lincoln Avenue Capital is proposing the development of Marshall Pointe Apartments, a 260-unit affordable housing project located at 5190 Marshall Street. Marshall Pointe Apartments will be a 100% affordable housing development offering units to households earning an average of 60% Area Median Income or less. Family Tree will offer on-site permanent supportive services to residents.

Lincoln Avenue Capital needs approximately \$60 million in PAB to secure the low income housing tax credits (LIHTC) needed to finance construction costs. On July 10, 2023, the Arvada City Council approved R23-059, a resolution declaring the City's intent to issue the City's 2023 PAB of \$7,422,253 to the Marshall Pointe Apartment project. Lincoln Avenue Capital was successful in securing PAB from the following sources:

CHFA:	\$35,000,000
City of Arvada 2023 PAB:	\$7,422,253
Jefferson County:	\$5,000,000
City of Arvada 2024 PAB:	\$6,253,280
Arvada Housing Authority	\$5,000,000
	\$58,675,533 Total

In April 2024, Lincoln Avenue Capital will submit an application to the Colorado Housing and Finance Authority (CHFA) for federal tax credits. Lincoln Avenue Capital must have the \$60 million of PAB assigned to CHFA as part of the application.

The Housing team is recommending that the City of Arvada assign its 2024 annual PAB allocation of \$6,253,280 pursuant to

Section 24-32-1706 of the Allocation Act to CHFA with the recommendation that the bond cap be used for Marshall Pointe Apartments.

Discussion

Marshall Pointe Apartments will offer multiple benefits to the community including a housing option that reduces financial strain for residents, the attraction of a diverse labor force and skills that is important to local economy and stable housing that will lead to better health outcomes for residents. The City team and the Arvada Housing Authority find value in this project and have demonstrated support by offering an \$840,000 loan, an opportunity for a Special Limited Partnership to exempt property and state and local taxes, 8 Housing Choice Vouchers and Private Activity Bonds.

Marshall Pointe Apartments consists of 2 parcels (~4.36 acres) located on the southeast corner of 52nd and Marshall in Arvada, CO. The project will provide 260 affordable units restricted to an average of 60% AMI, with 13 units at 30% of AMI. Family Tree will be providing permanent supportive housing (PSH) services to the property. The project will be a 4-story, wrap-style building with ample amenities, including onsite parking, courtyards, playgrounds, a fitness center, lounges, mail and package rooms, and access controls. In-unit amenities will include washer and dryer hookups, dishwashers, ranges, fully vented rangehoods, fridges and freezers, central AC, garbage disposals, microwaves, walk-in closets, and coat and linen closets.

Public Contact

Posting of the City Council agenda

Commission Recommendation

N/A

Strategic Alignment

The recommended action aligns with the following Principle within the Community and Economic Development Priority Area of the City Council Strategic Plan: Improves access to quality housing that is affordable for a broad range of income levels and provides resources 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 R24-036, 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 for Marshall Pointe Apartments.

Suggested Motion:

I move that R24-036, 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 for Marshall Pointe Apartments, be (approved) (rejected).

Prepared by:

Carrie Espinosa, Manager of Housing Preservation and Resources

Reviewed by:

SUBJECT: R24-036, 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 for Marshall Pointe Apartments

PAGE: 3
ITEM: 8.A.3.

Approved by:

Carrie Espinosa, Manager of Housing Preservation and Resources	3/12/2024
Jessica Garner, Director of Community and Economic Development	3/12/2024
Gail Walker, Legal Specialist-Contracts	3/15/2024
Emily Grogg, Senior Assistant City Attorney	3/15/2024
Linda Haley, Deputy City Manager	3/15/2024
Rachel Morris, City Attorney	3/18/2024
Lorie Gillis, City Manager	3/20/2024

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R24-036

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 FOR MARSHALL POINTE APARTMENTS

WHEREAS, the City of Arvada is authorized and empowered under the laws of the State of Colorado (the "State") to issue revenue bonds for the purpose of financing qualified residential rental projects for low- and moderate-income persons and families; and

WHEREAS, the City of Arvada is authorized and empowered under the laws of the State of Colorado (the "State") to issue revenue bonds for the purpose of financing multi-family housing developments for low- and moderate-income persons and families; and

WHEREAS, the Internal Revenue Code of 1986, as amended (the "Code"), restricts the amount of tax-exempt bonds ("Private Activity Bonds") which may be issued in the State to financing for affordable housing and for certain other purposes; and

WHEREAS, pursuant to the Code, the Colorado legislature adopted the Colorado Private Activity Bond Ceiling Allocation Act, Part 17 of Article 32 of Title 24, Colorado Revised Statutes (the "Allocation Act"), providing for the allocation of the State Ceiling among the Colorado Housing and Finance Authority (the "Authority") and other governmental units in the State, and further providing for the assignment of such allocations from such other governmental units to the Authority; and

WHEREAS, pursuant to an allocation under Section 24-32-1706 of the Allocation Act, the City of Arvada has an allocation of the 2024 State Ceiling for the issuance of a specified principal amount of Private Activity Bonds prior to September 15, 2024 (the "2024 Allocation"); and

WHEREAS, the City of Arvada has determined that, in order to increase the availability of adequate affordable housing for low- and moderate-income persons and families within Arvada and elsewhere in the State, it is necessary or desirable to provide for the utilization of all or a portion of the 2024 Allocation; and

WHEREAS, the City of Arvada has determined that the 2024 Allocation, or a portion thereof, can be utilized most efficiently by assigning it to the Authority to issue Private Activity Bonds for the purpose of financing one or more multi-family rental housing projects in the City of Arvada for low- and moderate-income persons and families, including but not limited to the Arvada House; and

WHEREAS, the City Council of the City of Arvada has determined to assign \$6,253,280.00 of its 2024 Allocation to the Authority, which assignment is to be evidenced by an Assignment of Allocation between the City of Arvada and the Authority (the "Assignment of Allocation") with the recommendation that the bonds be used to construct Marshall Pointe Apartment located at 5190 Marshall Street.

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

Section 1. The assignment to the Authority of \$6,253,280.00 of the City of Arvada's 2024 Allocation be and hereby is approved.

Section 2. The form and substance of the Assignment of Allocation be and hereby are approved; provided, however, that the Mayor or Mayor Pro Tem be and hereby are authorized to make such technical variations, additions, or deletions in or to such Assignment of Allocation as they shall deem necessary or appropriate and not inconsistent with the approval thereof by this resolution.

Section 3. The Mayor or Mayor Pro Tem of the City of Arvada be and hereby are authorized to execute (by manual or electronic signature) and deliver the Assignment of Allocation on behalf of the City of Arvada and to take such other steps or actions as may be necessary, useful or convenient to effect the aforesaid assignment in accordance with the intent of this resolution. including any amendments to the Assignment of Allocation not inconsistent with this resolution. The execution of the Assignment of Allocation shall be conclusive evidence of the approval by the City of such document in accordance with the terms hereof.

Section 4. If any section, paragraph, clause, or provision of this resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section, paragraph, clause, or provision shall not affect any of the remaining provisions of this resolution.

Section 5. This resolution shall be effective upon its approval by City

Council. APPROVED AND ADOPTED this 1st day of April, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A Morris, City Attorney

By: _____



assignment of allocation - city

Multifamily Housing Facility Bonds/Single Family Mortgage Revenue Bonds

This Assignment of Allocation (the "Assignment"), dated this 1st day of April, 2024, is between the City of Arvada, Colorado (the "Assignor" or the "Jurisdiction") and Colorado Housing and Finance Authority (the "Assignee").

WITNESSETH:

WHEREAS, the Assignor and the Assignee are authorized and empowered under the laws of the State of Colorado (the "State") to issue revenue bonds for the purpose of providing single-family mortgage loans to low- and moderate-income persons and families; and

WHEREAS, the Internal Revenue Code of 1986, as amended (the "Code"), restricts the amount of tax-exempt bonds ("Private Activity Bonds") which may be issued in the State to finance such projects and for certain other purposes (the "State Ceiling"); and

WHEREAS, pursuant to the Code, the Colorado legislature adopted the Colorado Private Activity Bond Ceiling Allocation Act, Part 17 of Article 32 of Title 24, Colorado Revised Statutes (the "Allocation Act"), providing for the allocation of the State Ceiling among the Assignee and other governmental units in the State, and further providing for the assignment of allocations from such other governmental units to the Assignee; and

WHEREAS, pursuant to an allocation under Section 24-32-1706 of the Allocation Act, the Assignor has an allocation of the 2024 State Ceiling for the issuance of a specified principal amount of Private Activity Bonds prior to September 15, 2024, (the "2024 Allocation"); and

WHEREAS, the Assignor has determined that, in order to increase the availability of adequate affordable rental housing for low- and moderate-income persons and families within the Jurisdiction, Colorado and elsewhere in the State, it is necessary or desirable to provide for the utilization of all or a portion of the 2024 Allocation; and

WHEREAS, the Assignor has determined that the 2024 Allocation, or a portion thereof, can be utilized most efficiently by assigning it to the Assignee to issue Private Activity Bonds for the purpose of financing one or more multifamily rental housing projects for low- and moderate-income persons and families or to issue Private Activity Bonds for the purpose of providing single-family mortgage loans to low- and moderate-income persons and families ("Revenue Bonds"), and the Assignee has expressed its willingness to attempt to issue Revenue Bonds with respect to the 2024 Allocation assigned herein; and

WHEREAS, the City Council of the Assignor has determined to assign to the Assignee all or a portion of its 2024 Allocation, and the Assignee has agreed to accept such assignment, which is to be evidenced by this Assignment.

NOW, THEREFORE, in consideration of the premises and the mutual promises hereinafter set forth, the parties hereto agree as follows:

1. The Assignor hereby assigns to the Assignee \$ 6,253,280.00 of its 2024 Allocation (the "Assigned Allocation"), subject to the terms and conditions contained herein. The Assignor represents that it has received no monetary consideration for said assignment.

2. The Assignee hereby accepts the assignment to it by the Assignor of the Assigned Allocation, subject to the terms and conditions contained herein. The Assignee agrees to use its best efforts to issue and sell Revenue Bonds in an aggregate principal amount equal to or greater than the Assigned Allocation, in one or more series, and to make proceeds of such Revenue Bonds available from time to time for a period of one (1) year from the date of this Assignment to finance multi-family rental housing projects located in the Jurisdiction, or to issue Revenue Bonds for the purpose of providing single-family mortgage loans to low- and moderate income persons and families in the Jurisdiction.

3. The Assignor hereby consents to the election by the Assignee, if the Assignee in its discretion so decides, to treat all or any portion of the Assigned Allocation as an allocation for a project with a carryforward purpose or to make a mortgage credit certificate election, in lieu of issuing Revenue Bonds.

4. The Assignor and Assignee each agree that it will take such further action and adopt such further proceedings as may be required to implement the terms of this Assignment.

5. Nothing contained in this Assignment shall obligate the Assignee to finance any particular multi-family rental housing project located in the Jurisdiction or elsewhere or to finance single-family mortgage loans in any particular amount or at any particular interest rate or to use any particular percentage of the proceeds of its Revenue Bonds to provide mortgage loans or mortgage credit certificates to finance single-family housing facilities in the Jurisdiction, provided that any Revenue Bond proceeds attributable to the Assigned Allocation shall be subject to paragraph 2 above.

6. This Assignment is effective upon execution and is irrevocable.

7. Counterparts. This Assignment may be executed in one or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Assignment by electronic image scan transmission will be effective as delivery of a manually executed counterpart of the Assignment.

IN WITNESS WHEREOF, the parties hereto have duly executed this Assignment on the date first written above.

City of Arvada, Colorado

By: _____

Name: Lauren Simpson

Title: Mayor

COLORADO HOUSING AND FINANCE
AUTHORITY

By: _____

Name: _____

Title: _____

CERTIFICATE OF THE CITY OF ARVADA, COLORADO
CONCERNING ASSIGNMENT OF
PRIVATE ACTIVITY BOND VOLUME CAP ALLOCATION

I, the undersigned, hereby certify that I am a duly chosen, qualified and City Attorney of the City of Arvada, Colorado (the “City”), and that:

1. The City is a public body politic and corporate, duly organized and existing under the constitution and laws of the State of Colorado.

2. The City has been previously notified that, pursuant to Section 24-32-1706 of the Colorado Private Activity Bond Ceiling Allocation Act, Part 17 of Article 32 of Title 24, Colorado Revised Statutes (the “Allocation Act”), it has an allocation of the State ceiling (as defined in the Allocation Act) for 2024 in the amount of \$7,753,280 (the “2024 Allocation”).

3. Attached hereto as Exhibit A is a true and correct copy of a resolution and the related minutes thereto (the “Resolution”) authorizing the assignment to the Colorado Housing and Finance Authority (the “Authority”) of all or a portion of the 2024 Allocation in an amount equal to \$6,253,280 (the “Assigned Allocation”), and authorizing the execution and delivery of an Assignment of Allocation dated as of April 1, 2024 (the “Assignment of Allocation”) between the City and the Authority in connection therewith, which Resolution was duly adopted by the City Council of the City (the “City Council”) at a meeting thereof held on April 1, 2024, at which meeting a quorum was present and acting throughout and which Resolution has not been revoked, rescinded, repealed, amended or modified and is in full force and effect on the date hereof.

4. The meeting of the City Council at which action has been taken with respect to the Assignment of Allocation was a regular meeting properly called and open to the public at all times.

5. With respect to the Assigned Allocation, the City has not heretofore: (a) issued private activity bonds; (b) assigned the Assigned Allocation to another “issuing authority,” as defined in the Allocation Act; (c) made a mortgage credit certificate election; or (d) treated the Assigned Allocation as an allocation for a project with a carryforward purpose, as defined in the Allocation Act.

6. The Assignment of Allocation, attached hereto as Exhibit B, is in the form presented to and approved by the City Council at the meeting thereof held on April 1, 2024.

7. On or before the date hereof, counterparts of the Assignment of Allocation were officially executed by the Mayor and the City Clerk of the City. On the date of such signing, such persons were the duly sworn, qualified and acting officers of the City authorized to execute the Assignment of Allocation and holding the offices of the Mayor and City Clerk, respectively.

8. The City has authorized the execution, delivery and due performance of the Assignment of Allocation, and the execution and delivery of the Assignment of Allocation and the compliance by the City with the provisions thereof, will not, to the best of my knowledge, conflict with or constitute on the part of the City a breach of or a default under any existing Colorado law, City resolution, court or administrative regulation, decree or order or any agreement or other instrument to which the City is subject or by which it is bound.

9. To the best of my knowledge, there does not exist any action, suit, proceeding or investigation pending, or threatened against the City, contesting (a) the corporate existence of the City, (b) the title of its present officers or any of them to their respective offices, including, without limitation, the members of the City Council, (c) the validity of the Assignment of Allocation or (d) the power of the City to execute, deliver or perform the Assignment of Allocation.

10. No referendum petition has been filed concerning the Resolution; and to the best of my knowledge none is being circulated or planned for circulation.

WITNESS my hand and the seal of the City this April 1, 2024.

Rachel A. Morris, City Attorney

(SEAL)

EXHIBIT A
RESOLUTION

EXHIBIT B

ASSIGNMENT OF ALLOCATION



Private Activity Bond Application

Applicant Information		
Name of Applicant: Marshall Pointe Apartments, LP		
Contact Person: Ben Taylor		
Title: Vice President and Project Partner	Phone: 608-347-6604	Email: btaylor@lincolnavenue.com
Applicant Address: 401 Wilshire Blvd Suite 11th Floor, Santa Monica, CA 90401		

Project Description
Project Name: Marshall Pointe Apartments
Project Address: 5190 Marshall Street, Arvada, CO 80002
PAB Amount Requested: \$7,753,280

Financial Summary	
Total Estimated Project Cost: \$120,200,000	
Amount to be Financed by PAB: \$60,000,000	
\$7,140,000	Land Acquisition
\$20,603,840	Site Development including Infrastructure
\$65,055,640	Facility Construction
\$0	Facility Remodel or Reconstruction
\$27,400,520	Other (Financing Fees and Developer Fee)
\$120,200,000	Total
Percent of aggregate basis covered by PAB: 52.5%	

Description of how the project will be financed. In addition to PAB, include amounts that may be requested of the City or the Arvada Housing Authority. Explain why such additional financial support is necessary.

The estimated total development costs of the project will be approximately \$120,200,000. The project requires approximately \$60,000,000 in PAB in order to meet a 50% test with approximately a 2.5% coverage (approximately 52.5% PBA coverage). The project is requesting \$7,753,280 in PAB from the Arvada Housing Authority's 2024 PAB Direct Allocation. An additional \$35,000,000 in PAB will be coming from CHFA. The remaining PAB GAP will be filled by Marshall Pointe's 2023 allocation from the Arvada Housing Authority of \$7,422,253. In addition, Marshall Pointe was awarded \$5,000,000 from DOLA's Statewide Balance. Finally, the project is requesting \$5,000,000 in PAB from Jefferson County. The remaining costs will be financed with a construction loan, permanent loan, equity installment at closing, and deferred developer fee to finance remaining costs.

Residential Project Information									
For Sale Project? ☐ Condos ☐ Townhomes ☐ Single Family					For Rent Project? ☐ Yes ☐ No				
Unit Size	Total Number of Units	Affordable Housing Units							
		# of Units	% of AMI For Sale		% of AMI For Rent		# Accessible		
1 Bedroom	149	149		80%			80%		
				70%		16	70%		
				60%		124	60%		
				50%			50%		
				40%			40%		
				30%		9	30%		
2 Bedroom	84	84		80%			80%		
				70%		11	70%		
				60%		70	60%		
				50%			50%		
				40%			40%		
				30%		3	30%		
3 Bedroom	27	27		80%			80%		
				70%		12	70%		
				60%		14	60%		
				50%			50%		
				40%			40%		
				30%		1	30%		
4+ Bedrooms				80%			60%		
				70%			50%		
				60%			40%		
				50%			30%		
Restricted to Elderly? ☐ Yes ☒ No If yes, what is the minimum age restriction? _____									

Estimated Rent Levels or Sales Price by Type of Unit		
	Market Units	Affordable Units*
1 bedroom, 1 bath @ 30% AMI		\$698
1 bedroom, 1 bath @ 30% PBV		\$1,538
1 bedroom, 1 bath @ 60% AMI		\$1,396
1 bedroom, 1 bath @ 70% AMI		\$1,629
2 bedroom, 2 bath @ 30% PBV		\$1,856
2 bedroom, 2 bath @ 60% AMI		\$1,675
2 bedroom, 2 bath @ 70% AMI		\$1,954
3 bedroom, 2 bath @ 30% PBV		\$2,449
3 bedroom, 2 bath @ 60% AMI		\$1,936
3 bedroom, 2 bath @ 70% AMI		\$2,259
Number of Years Affordable Units will remain affordable:		30 Years

*Rents shown are 2023 Gross Max LIHTC Rents for the non PBV units and Arvada's 2023 Payment Standards for the PBV units.

Describe the project: Location, general description, elements to be included, unique aspects to the project, including any amenities or services for residents, present use of Site and/or Existing Structures (if applicable), etc.

Marshall Pointe Apartments is comprised of 2 parcels (~4.36 acres) located on the southeast corner of 52nd and Marshall in Arvada, CO. The project will provide 260 affordable units restricted to an average of 60% AMI, with 13 units at 30% of AMI. Family Tree will be providing permanent supportive housing (PSH) services to the property. The project will be a 4-story, wrap-style building with ample amenities, including onsite parking, courtyards, playgrounds, a fitness center, lounges, mail and package rooms, and access controls. In-units amenities will include washer and dryer hookups, dishwashers, ranges, fully vented range hoods, fridges and freezers, central AC, garbage disposals, microwaves, walk-in closets, and coat and linen closets.

Describe the developer's capacity to complete the proposed project within the given timetable and budget. Include previous experience with similar projects.

Lincoln Avenue Communities (LAC) owns, operates, and manages approximately 24,000 affordable multifamily units, expanding across more than 100 properties in 20+ states. In addition, LAC has approximately 3,200 additional affordable units under construction. Of the LAC's 3,200 affordable units in the pipeline, 240 of those are located at InterQuest Ridge Apartments in Colorado Springs, which closed in June of 2022. Ben Taylor, who is the lead developer on the proposed Marshall Pointe project, has notable experience developing and preserving affordable housing throughout Colorado.

Mr. Taylor has over ten years of development experience within the affordable housing industry. Mr. Taylor leads a team of development professionals focused on the development of affordable housing units across the U.S; however, as a resident of Denver, CO, Mr. Taylor has ample experience preserving and developing affordable housing units in Colorado. To date, Ben has developed over 1,500 units of affordable housing.

In addition, as noted previously, Ben recently closed an additional 240-unit project located in Colorado Springs.

Energy Conservation Features (if any):

Marshall Pointe will offer a fully electrified building and will be National Green Building Standard (NGBS) Bronze certified. In addition, solar will be installed at Marshall Pointe in order to offset common area consumption.

Describe how the developer fee will be utilized in the project:

Deferred developer fee will be a permanent source that will be paid down through cash flow.

Describe the project's timeline, including target dates for:

- a. Site control
 - **July 2023**
- b. Zoning, Site Plan and/or Subdivision Approval
 - **Full approvals obtained March 2023 along with full entitlement.**
 - **Building permits expected March/April 2024**
- c. Primary Lender Approval
 - **May 2024**
- d. LIHTC Allocation
 - **May 2024**
- e. Close of financing
 - **September 2024**
- f. Commence Construction/Acquisition/Rehab
 - **September 2024**
- g. Project completion
 - **September 2026**

The City of Arvada strongly suggests that any project developer considering using PABs seek advice of bond counsel prior to submitting an application to determine project eligibility under federal definitions of PABs.

The applicant agrees that this development or project will conform with all applicable development, zoning, building, fire, and life safety codes, regulations and procedures of the City of Arvada.



Signature of Applicant

Date

The City of Arvada reserves the right to request additional information as may be necessary to further the selection process.

Include as Attachments:

- 10-year project operating proforma
- General location map and Site Plan
- Summary for Project Development Budget
- Sources and Uses of Funds

15 Year Proforma

Year	Lease-Up / Construction			1	2	3	4	5
Year	2024	2025	2026	2027	2028	2029	2030	2031
Revenue			2.0%	2.0%				
Gross Potential Rent	\$ 1,675,561	\$ 5,086,472	\$ 5,189,019	\$ 5,292,799	\$ 5,398,655	\$ 5,506,628	\$ 5,616,761	\$ 5,729,096
Loss to Lease	-	-	-	-	-	-	-	-
Total Gross Income	\$ 1,675,561	\$ 5,086,472	\$ 5,189,019	\$ 5,292,799	\$ 5,398,655	\$ 5,506,628	\$ 5,616,761	\$ 5,729,096
Vacancy	\$(1,675,561)	\$(5,086,472)	\$(4,971,364)	\$(1,112,306)	\$(377,906)	\$(385,464)	\$(393,173)	\$(401,037)
Vacancy %	100.0%	100.0%	95.8%	21.0%	7.0%	7.0%	7.0%	7.0%
Bad Debt	-	-	-	-	-	-	-	-
Concessions	-	-	-	-	-	-	-	-
Vacancy %	-	-	-	-	-	-	-	-
Total Vacancy %	100.0 %	100.0 %	95.8 %	21.0 %	7.0 %	7.0 %	7.0 %	7.0 %
Total Rental Income	-	-	\$ 217,655	\$ 4,180,493	\$ 5,020,749	\$ 5,121,164	\$ 5,223,587	\$ 5,328,059
W/D Rental								
Gross W/D Rental	\$ 62,400	\$ 190,944	\$ 194,763	\$ 198,658	\$ 202,631	\$ 206,684	\$ 210,818	\$ 215,034
Vacancy	(62,400)	(190,944)	(186,660)	(42,062)	(14,184)	(14,468)	(14,757)	(15,052)
Total W/D Rental	-	-	\$ 8,103	\$ 156,596	\$ 188,447	\$ 192,216	\$ 196,060	\$ 199,982
Vacancy %	100 %	100 %	96 %	21 %	7 %	7 %	7 %	7 %
Internet								
Gross Internet	\$ 52,000	\$ 159,120	\$ 162,302	\$ 165,548	\$ 168,859	\$ 172,237	\$ 175,681	\$ 179,195
Vacancy	(52,000)	(159,120)	(155,550)	(35,052)	(11,820)	(12,057)	(12,298)	(12,544)
Total Internet	-	-	\$ 6,752	\$ 130,497	\$ 157,039	\$ 160,180	\$ 163,384	\$ 166,651
Vacancy %	100 %	100 %	96 %	21 %	7 %	7 %	7 %	7 %
Storage Lockers								
Gross Storage Lockers	\$ 17,760	\$ 54,346	\$ 55,433	\$ 56,541	\$ 57,672	\$ 58,825	\$ 60,002	\$ 61,202
Vacancy	(17,760)	(54,346)	(53,126)	(11,972)	(4,037)	(4,118)	(4,200)	(4,284)
Total Storage Lockers	-	-	\$ 2,306	\$ 44,570	\$ 53,635	\$ 54,708	\$ 55,802	\$ 56,918
Vacancy %	100 %	100 %	96 %	21 %	7 %	7 %	7 %	7 %
Tenant Charges								
Gross Tenant Charges	\$ 8,840	\$ 27,050	\$ 27,591	\$ 28,143	\$ 28,706	\$ 29,280	\$ 29,866	\$ 30,463
Vacancy	(8,840)	(27,050)	(26,444)	(4,988)	-	-	-	-
Total Tenant Charges	-	-	\$ 1,148	\$ 23,155	\$ 28,706	\$ 29,280	\$ 29,866	\$ 30,463
Vacancy %	100 %	100 %	96 %	18 %	-	-	-	-
Total Revenue	-	-	\$ 235,964	\$ 4,535,310	\$ 5,448,577	\$ 5,557,548	\$ 5,668,699	\$ 5,782,073
Expenses								
G&A	-	-	\$ 11,493	\$ 71,027	\$ 73,158	\$ 75,353	\$ 77,613	\$ 79,942
Payroll	-	-	59,764	369,342	380,422	391,835	403,590	415,697
PSH Services	-	-	14,145	87,418	90,041	92,742	95,524	98,390
Electricity	-	-	1,379	8,523	8,779	9,042	9,314	9,593
Water & Sewer	-	-	17,704	109,408	112,690	116,071	119,553	123,140
Trash	-	-	6,896	42,616	43,895	45,212	46,568	47,965
Contract Services	-	-	11,493	71,027	73,158	75,353	77,613	79,942
Repairs & Maintenance	-	-	11,493	71,027	73,158	75,353	77,613	79,942
Turnover	-	-	6,896	42,616	43,895	45,212	46,568	47,965
Marketing	-	-	2,299	14,205	14,632	15,071	15,523	15,988
Total Controllable Expenses	-	-	\$ 143,562	\$ 887,211	\$ 913,827	\$ 941,242	\$ 969,479	\$ 998,564
Management Fee	-	-	6,489	124,721	149,836	152,833	155,889	159,007
Insurance	-	-	29,882	184,671	190,211	195,917	201,795	207,849
Real Estate Tax	-	-	-	-	-	-	-	-
Land Lease	-	-	-	-	-	-	-	-
Total Expenses (Pre-RR)	-	-	\$ 179,933	\$ 1,196,603	\$ 1,253,874	\$ 1,289,992	\$ 1,327,163	\$ 1,365,419
Replacement Reserves	-	-	-	78,000	80,340	82,750	85,233	87,790
Total Expenses (Including RR)	-	-	\$ 179,933	\$ 1,274,603	\$ 1,334,214	\$ 1,372,742	\$ 1,412,396	\$ 1,453,209
Net Operating Income	-	-	\$ 56,031	\$ 3,260,708	\$ 4,114,363	\$ 4,184,806	\$ 4,256,303	\$ 4,328,864
Debt Service								
Construction Mortgage	-	-	-	\$ 18,331	-	-	-	-
First Mortgage	-	-	-	1,034,441	3,103,324	3,103,324	3,103,324	3,103,324
CHFA Loan (Interest Payment)	-	-	-	-	-	-	-	-
AAA Loan (Interest Payment)	-	-	-	9,237	27,710	27,710	27,710	27,710
Total Debt Service Payments	-	-	-	\$ 1,062,009	\$ 3,131,034	\$ 3,131,034	\$ 3,131,034	\$ 3,131,034
Cash Flow After Debt Service	-	-	\$ 56,031	\$ 2,198,699	\$ 983,328	\$ 1,053,772	\$ 1,125,269	\$ 1,197,830

15 Year Proforma - Continued

Year		7	8	9	10	11	12	13	14	15
Year		2033	2034	2035	2036	2037	2038	2039	2040	2041
Revenue										
Gross Potential Rent	2.0%	\$ 5,960,551	\$ 6,079,762	\$ 6,201,358	\$ 6,325,385	\$ 6,451,893	\$ 6,580,930	\$ 6,712,549	\$ 6,846,800	\$ 6,983,736
Loss to Lease	0.0%	-	-	-	-	-	-	-	-	-
Total Gross Income		\$ 5,960,551	\$ 6,079,762	\$ 6,201,358	\$ 6,325,385	\$ 6,451,893	\$ 6,580,930	\$ 6,712,549	\$ 6,846,800	\$ 6,983,736
Vacancy	Long Term %	\$(417,239)	\$(425,583)	\$(434,095)	\$(442,777)	\$(451,632)	\$(460,665)	\$(469,878)	\$(479,276)	\$(488,862)
Vacancy %	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Bad Debt		-	-	-	-	-	-	-	-	-
Concessions		-	-	-	-	-	-	-	-	-
Vacancy %	-	-	-	-	-	-	-	-	-	-
Total Vacancy %	7.0 %	7.0 %	7.0 %	7.0 %	7.0 %	7.0 %	7.0 %	7.0 %	7.0 %	7.0 %
Total Rental Income		\$ 5,543,313	\$ 5,654,179	\$ 5,767,263	\$ 5,882,608	\$ 6,000,260	\$ 6,120,265	\$ 6,242,671	\$ 6,367,524	\$ 6,494,874
W/D Rental										
Gross W/D Rental		\$ 223,721	\$ 228,196	\$ 232,760	\$ 237,415	\$ 242,163	\$ 247,006	\$ 251,947	\$ 256,985	\$ 262,125
Vacancy		(15,660)	(15,974)	(16,293)	(16,619)	(16,951)	(17,290)	(17,636)	(17,989)	(18,349)
Total W/D Rental		\$ 208,061	\$ 212,222	\$ 216,466	\$ 220,796	\$ 225,212	\$ 229,716	\$ 234,310	\$ 238,997	\$ 243,776
Vacancy %	7.0%	7 %	7 %	7 %	7 %	7 %	7 %	7 %	7 %	7 %
Internet										
Gross Internet		\$ 186,434	\$ 190,163	\$ 193,966	\$ 197,846	\$ 201,803	\$ 205,839	\$ 209,955	\$ 214,155	\$ 218,438
Vacancy		(13,050)	(13,311)	(13,578)	(13,849)	(14,126)	(14,409)	(14,697)	(14,991)	(15,291)
Total Internet		\$ 173,384	\$ 176,852	\$ 180,389	\$ 183,997	\$ 187,676	\$ 191,430	\$ 195,259	\$ 199,164	\$ 203,147
Vacancy %	7.0%	7 %	7 %	7 %	7 %	7 %	7 %	7 %	7 %	7 %
Storage Lockers										
Gross Storage Lockers		\$ 63,675	\$ 64,948	\$ 66,247	\$ 67,572	\$ 68,923	\$ 70,302	\$ 71,708	\$ 73,142	\$ 74,605
Vacancy		(4,457)	(4,546)	(4,637)	(4,730)	(4,825)	(4,921)	(5,020)	(5,120)	(5,222)
Total Storage Lockers		\$ 59,217	\$ 60,402	\$ 61,610	\$ 62,842	\$ 64,099	\$ 65,381	\$ 66,688	\$ 68,022	\$ 69,383
Vacancy %	7.0%	7 %	7 %	7 %	7 %	7 %	7 %	7 %	7 %	7 %
Tenant Charges										
Gross Tenant Charges		\$ 31,694	\$ 32,328	\$ 32,974	\$ 33,634	\$ 34,306	\$ 34,993	\$ 35,692	\$ 36,406	\$ 37,134
Vacancy		-	-	-	-	-	-	-	-	-
Total Tenant Charges		\$ 31,694	\$ 32,328	\$ 32,974	\$ 33,634	\$ 34,306	\$ 34,993	\$ 35,692	\$ 36,406	\$ 37,134
Vacancy %	0.0%	-	-	-	-	-	-	-	-	-
Total Revenue		\$ 6,015,669	\$ 6,135,982	\$ 6,258,702	\$ 6,383,876	\$ 6,511,553	\$ 6,641,784	\$ 6,774,620	\$ 6,910,113	\$ 7,048,315
Expenses										
G&A		\$ 84,810	\$ 87,355	\$ 89,975	\$ 92,674	\$ 95,455	\$ 98,318	\$ 101,268	\$ 104,306	\$ 107,435
Payroll		441,013	454,244	467,871	481,907	496,364	511,255	526,593	542,391	558,662
PSH Services		104,382	107,513	110,739	114,061	117,483	121,007	124,637	128,377	132,228
Electricity		10,177	10,483	10,797	11,121	11,455	11,798	12,152	12,517	12,892
Water & Sewer		130,639	134,558	138,595	142,752	147,035	151,446	155,989	160,669	165,489
Trash		50,886	52,413	53,985	55,605	57,273	58,991	60,761	62,584	64,461
Contract Services		84,810	87,355	89,975	92,674	95,455	98,318	101,268	104,306	107,435
Repairs & Maintenance		84,810	87,355	89,975	92,674	95,455	98,318	101,268	104,306	107,435
Turnover		50,886	52,413	53,985	55,605	57,273	58,991	60,761	62,584	64,461
Marketing		16,962	17,471	17,995	18,535	19,091	19,664	20,254	20,861	21,487
Total Controllable Expenses		\$ 1,059,376	\$ 1,091,158	\$ 1,123,892	\$ 1,157,609	\$ 1,192,337	\$ 1,228,107	\$ 1,264,951	\$ 1,302,899	\$ 1,341,986
Management Fee	2.8%	165,431	168,740	172,114	175,557	179,068	182,649	186,302	190,028	193,829
Insurance		220,507	227,122	233,936	240,954	248,182	255,628	263,296	271,195	279,331
Real Estate Tax		-	-	-	-	-	-	-	-	-
Land Lease	2.0%	-	-	-	-	-	-	-	-	-
Total Expenses (Pre-RR)		\$ 1,445,314	\$ 1,487,019	\$ 1,529,942	\$ 1,574,119	\$ 1,619,587	\$ 1,666,384	\$ 1,714,549	\$ 1,764,123	\$ 1,815,146
Replacement Reserves		93,136	95,930	98,808	101,772	104,825	107,970	111,209	114,546	117,982
Total Expenses (Including RR)		\$ 1,538,450	\$ 1,582,949	\$ 1,628,750	\$ 1,675,892	\$ 1,724,413	\$ 1,774,354	\$ 1,825,759	\$ 1,878,668	\$ 1,933,128
Net Operating Income		\$ 4,477,219	\$ 4,553,033	\$ 4,629,952	\$ 4,707,984	\$ 4,787,141	\$ 4,867,430	\$ 4,948,862	\$ 5,031,444	\$ 5,115,187
Debt Service										
Construction Mortgage		-	-	-	-	-	-	-	-	-
First Mortgage		3,103,324	3,103,324	3,103,324	3,103,324	3,103,324	3,103,324	3,103,324	3,103,324	3,103,324
CMAA Loan (Interest Payment)		-	-	-	-	-	-	-	-	-
AAA Loan (Interest Payment)		27,710	27,710	27,710	27,710	-	-	-	-	-
Total Debt Service Payments		\$ 3,131,034	\$ 3,131,034	\$ 3,131,034	\$ 3,131,034	\$ 3,103,324	\$ 3,103,324	\$ 3,103,324	\$ 3,103,324	\$ 3,103,324
Cash Flow After Debt Service		\$ 1,346,184	\$ 1,421,999	\$ 1,498,917	\$ 1,576,950	\$ 1,683,816	\$ 1,764,106	\$ 1,845,537	\$ 1,928,120	\$ 2,011,862
Net Cash Flow		\$ 1,346,184	\$ 1,421,999	\$ 1,498,917	\$ 1,576,950	\$ 1,683,816	\$ 1,764,106	\$ 1,845,537	\$ 1,928,120	\$ 2,011,862

15 Year Waterfall

Year	Lease-Up / Construction			1	2	3	4	5	6
Year	2024	2025	2026	2027	2028	2029	2030	2031	2032
Distribution Waterfall									
Reserve Accounts									
Minimum Operating Reserve Balance	—								
Operating Reserve Outstanding	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304
Payment	—	—	—	—	—	—	—	—	—
Ending Balance	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304
Remaining Cash Flow	—	—	\$ 56,031	\$ 2,198,699	\$ 983,328	\$ 1,053,772	\$ 1,125,269	\$ 1,197,830	\$ 1,271,465
LP Asset Management Fee									
Accrued LP AM Fee	First PMT Year	3.0 %	—	—	—	—	—	—	—
Current LP AM Fee	3	\$ 10,000	—	—	10,000	10,300	10,300	10,300	10,300
Payment	—	—	—	10,000	10,300	10,300	10,300	10,300	10,300
Ending Balance	—	—	—	—	—	—	—	—	—
Remaining Cash Flow	—	—	\$ 56,031	\$ 2,188,699	\$ 973,028	\$ 1,043,472	\$ 1,114,969	\$ 1,187,530	\$ 1,261,165
Housing Authority Annual Fee									
Accrued LP AM Fee	Per Unit	3.0 %	—	\$ 13,000	\$ 26,390	—	—	—	—
Current LP AM Fee	\$ 50	\$ 13,000	13,000	13,390	13,792	14,205	14,632	15,071	15,523
Payment	—	—	—	40,182	14,205	14,632	15,071	15,523	15,988
Ending Balance	\$ 13,000	\$ 26,390	—	—	—	—	—	—	—
Remaining Cash Flow	—	—	\$ 15,849	\$ 2,174,493	\$ 958,396	\$ 1,028,401	\$ 1,099,446	\$ 1,171,541	\$ 1,244,697
Deferred Developer Fee									
Accrued DDF Interest	—	—	\$ 301,527	\$ 603,055	\$ 888,733	—	—	—	—
Current Interest	3.00%	301,527	301,527	301,527	301,527	272,000	251,409	228,099	201,958
Payment	—	—	—	15,849	1,190,261	272,000	251,409	228,099	201,958
Ending Balance	\$ 301,527	\$ 603,055	\$ 888,733	—	—	—	—	—	—
Remaining Cash Flow	—	—	—	\$ 984,232	\$ 686,396	\$ 776,992	\$ 871,347	\$ 969,583	\$ 1,071,826
Deferred Developer Fee Outstanding	\$ 10,050,915	\$ 10,050,915	\$ 10,050,915	\$ 10,050,915	\$ 9,066,683	\$ 8,380,287	\$ 7,603,294	\$ 6,731,947	\$ 5,762,364
DDF Payment	—	—	—	984,232	686,396	776,992	871,347	969,583	1,071,826
Ending DDF Balance	\$ 10,050,915	\$ 10,050,915	\$ 10,050,915	\$ 9,066,683	\$ 8,380,287	\$ 7,603,294	\$ 6,731,947	\$ 5,762,364	\$ 4,690,539
Year Paid	2036	—	—	—	—	—	—	—	—
AHA Gap Loan									
AHA Gap Loan Principal Outstanding	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000
Payment	—	—	—	—	—	—	—	—	—
Ending Balance	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000
Remaining Cash Flow	—	—	—	—	—	—	—	—	—
Available for DOH Loan Repayment	50.00%	—	—	—	—	—	—	—	—
DOH Gap Loan									
Accrued BOP Interest	—	\$ 135,000	\$ 270,000	\$ 405,000	\$ 540,000	\$ 675,000	\$ 810,000	\$ 945,000	\$ 1,080,000
Current Interest	1.50%	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000
Payment	—	—	—	—	—	—	—	—	—
EOP Interest Balance	\$ 135,000	\$ 270,000	\$ 405,000	\$ 540,000	\$ 675,000	\$ 810,000	\$ 945,000	\$ 1,080,000	\$ 1,215,000
Remaining Cash Flow (DOH)	—	—	—	—	—	—	—	—	—
DOH Gap Loan Principal Outstanding	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000
Payment	—	—	—	—	—	—	—	—	—
Ending Balance	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000
Distributions									
General Partner	90.0 %	—	—	—	—	—	—	—	—
Special Limited Partner	0.01 %	—	—	—	—	—	—	—	—
Investor Limited Partner	10.0 %	—	—	—	—	—	—	—	—
Additional Limited Partner	—	—	—	—	—	—	—	—	—

15 Year Waterfall- Continued

Year	7	8	9	10	11	12	13	14	15
Year	2033	2034	2035	2036	2037	2038	2039	2040	2041
Distribution Waterfall									
Reserve Accounts									
Minimum Operating Reserve Balance									
Operating Reserve Outstanding	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304
Payment	—	—	—	—	—	—	—	—	—
Ending Balance	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304	\$ 1,431,304
Remaining Cash Flow									
	\$ 1,346,184	\$ 1,421,999	\$ 1,498,917	\$ 1,576,950	\$ 1,683,816	\$ 1,764,106	\$ 1,845,537	\$ 1,928,120	\$ 2,011,862
LP Asset Management Fee									
Accrued LP AM Fee	First PMT Year	3.0 %	—	—	—	—	—	—	—
Current LP AM Fee	3	\$ 10,000	10,300	10,300	10,300	10,300	10,300	10,300	10,300
Payment			10,300	10,300	10,300	10,300	10,300	10,300	10,300
Ending Balance			—	—	—	—	—	—	—
Remaining Cash Flow									
	\$ 1,335,884	\$ 1,411,699	\$ 1,488,617	\$ 1,566,650	\$ 1,673,516	\$ 1,753,806	\$ 1,835,237	\$ 1,917,820	\$ 2,001,562
Housing Authority Annual Fee									
Accrued LP AM Fee	Per Unit	3.0 %	—	—	—	—	—	—	—
Current LP AM Fee	\$ 50	\$ 13,000	16,962	17,471	17,995	18,535	19,091	19,664	20,254
Payment			16,962	17,471	17,995	18,535	19,091	19,664	20,254
Ending Balance			—	—	—	—	—	—	—
Remaining Cash Flow									
	\$ 1,318,922	\$ 1,394,228	\$ 1,470,622	\$ 1,548,115	\$ 1,654,425	\$ 1,734,142	\$ 1,814,984	\$ 1,896,959	\$ 1,980,075
Deferred Developer Fee									
Accrued DDF Interest			—	—	—	—	—	—	—
Current Interest	3.00%		140,716	105,370	66,704	24,587	—	—	—
Payment			140,716	105,370	66,704	24,587	—	—	—
Ending Balance			—	—	—	—	—	—	—
Remaining Cash Flow									
	\$ 1,178,206	\$ 1,288,858	\$ 1,403,918	\$ 1,523,528	\$ 1,654,425	\$ 1,734,142	\$ 1,814,984	\$ 1,896,959	\$ 1,980,075
Deferred Developer Fee Outstanding			\$ 4,690,539	\$ 3,512,332	\$ 2,223,475	\$ 819,557	—	—	—
DDF Payment			1,178,206	1,288,858	1,403,918	819,557	—	—	—
Ending DDF Balance			\$ 3,512,332	\$ 2,223,475	\$ 819,557	—	—	—	—
Year Paid	2036		—	—	2,036	—	—	—	—
AHA Gap Loan									
AHA Gap Loan Principal Outstanding			\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 498,014	—	—
Payment			—	—	—	351,986	498,014	—	—
Ending Balance			\$ 850,000	\$ 850,000	\$ 850,000	\$ 498,014	—	—	—
Remaining Cash Flow									
	—	—	—	\$ 351,986	\$ 1,156,411	\$ 1,734,142	\$ 1,814,984	\$ 1,896,959	\$ 1,980,075
Available for DOH Loan Repayment	50.00%		—	\$ 175,993	\$ 578,206	\$ 867,071	\$ 907,492	\$ 948,479	\$ 990,038
DOH Gap Loan									
Accrued EOP Interest			\$ 1,215,000	\$ 1,350,000	\$ 1,485,000	\$ 1,620,000	\$ 1,579,007	\$ 1,135,801	\$ 403,730
Current Interest	1.50%		135,000	135,000	135,000	135,000	135,000	135,000	129,469
Payment			—	—	—	175,993	578,206	867,071	538,730
EOP Interest Balance			\$ 1,350,000	\$ 1,485,000	\$ 1,620,000	\$ 1,579,007	\$ 1,135,801	\$ 403,730	—
Remaining Cash Flow (DOH)									
	—	—	—	—	—	—	\$ 368,761	\$ 819,011	\$ 872,854
DOH Gap Loan Principal Outstanding			\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 8,631,239	\$ 7,812,228
Payment			—	—	—	—	368,761	819,011	872,854
Ending Balance			\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 8,631,239	\$ 7,812,228
Distributions									
General Partner	90.0 %		—	—	\$ 158,376	\$ 520,327	\$ 780,277	\$ 816,652	\$ 853,637

Sources and Uses

Summary Sources		
	Construction	Permanent
First Mortgage	–	\$ 48,530,000
GP Capital Contribution	100	100
LIHTC Equity - 1st Installment	8,505,898	8,505,898
Construction Mortgage	60,200,000	–
Taxable Construction Mortgage	29,210,274	–
DOH GAP Loan	9,000,000	9,000,000
Arvada Gap Loan	–	850,000
Cash Flow From Operations	–	1,494,367
Solar Credit Equity	41,697	245,274
LIHTC Equity - 2nd Installment	–	28,519,777
LIHTC Equity - 3rd Installment	–	12,508,674
LIHTC Equity - 4th Installment	–	500,347
Deferred Developer Fee	–	10,050,915
Total Sources	\$ 106,957,969	\$ 120,205,353

Summary Uses		
	Construction	Permanent
Acquisition	\$ 7,140,000	\$ 7,140,000
Construction Hard Costs	83,210,909	83,210,909
Project Soft Costs	2,932,670	2,932,670
Tax Credit Fees	503,417	503,417
Bond Costs	652,505	652,505
Taxable Construction Loan Costs & Reserve	876,775	876,775
Construction Loan Costs & Reserve	9,927,126	9,927,126
Soft Debt Debt Costs	23,092	23,092
Permenant Loan Costs	624,300	624,300
Land Holding Costs	505,500	505,500
Closing Costs	150,000	150,000
Escrows and Reserves	130,000	1,730,304
Developer Fee	281,676	11,928,755
Total Uses	\$ 106,957,969	\$ 120,205,353

Development Budget

Development Budget		
Acquisition		
	Land Allocation	7,140,000
	Total Purchase Price	\$ 7,140,000
Hard Costs		
	Construction Hard Costs	\$ 58,697,930
	General Requirement	2,347,917
	Overhead	1,173,959
	Builders Profit	2,347,917
	Hard Cost Contingency	3,252,782
	Green Systems (Solar, Geothermal, Other, etc.)	918,630
	Construction GL Insurance (PSL/OCIP)	813,196
	School Fee	719,950
	Park Dedication Fee	1,774,630
	Park Development Fee	401,071
	Traffic Impact Fee	30,000
	Platting Fee	10,000
	Misc. Plan Review and Other Fees	178,394
	Residential Water Fees	4,485,280
	Tree Mitigation	44,000
	Precast Garage Consultant	113,000
	Residential Sewer Tap Fee	517,600
	Building/Construction Permits	262,344
	Xcel Undergrounding	1,900,000
	<<Not Used>>	-
	Builders Risk Insurance	903,948
	GC P&P Bond	487,917
	FF&E	1,830,444

Development Budget - Continued

Soft Costs		
	Architect Design - Kephart Architects	\$ 1,592,500
	Architect Reimbursable	25,000
	Additional Architect Costs	50,000
	Pre-Con Consultant - BCI	24,500
	Civil Engineering - HKS	242,945
	Accounting (Cost Certification/Audit)	15,000
	<<Not Used>>	-
	Survey	19,025
	Appraisal	10,000
	Noise Study	4,000
	Market Study	15,000
	Group 14 - Energy Efficient Consultant	70,000
	Materials Testing	100,000
	Solar Design Fee - ICAST	-
	Norris - Entitlement Consultant	61,000
	Norris - Landscaping	83,400
	Studio Lighting - Photometrics	-
	Geotech/Soils	34,300
	Environmental	30,000
	Interior Design	30,000
	Local Counsel	25,000
	Inspecting Architect	26,000
	Housing Authority Start-Up Fee	350,000
	Capitalized Bond Interest	-
		-
	Soft Cost Contingency	125,000
CHFA Tax Credit Agency Issuance Costs		
	CHFA TC Application Fee	\$ 10,000
	Initial Determination Fee	195,686
	Final Allocation Fee	167,731
	Compliance Monitoring Fee	130,000

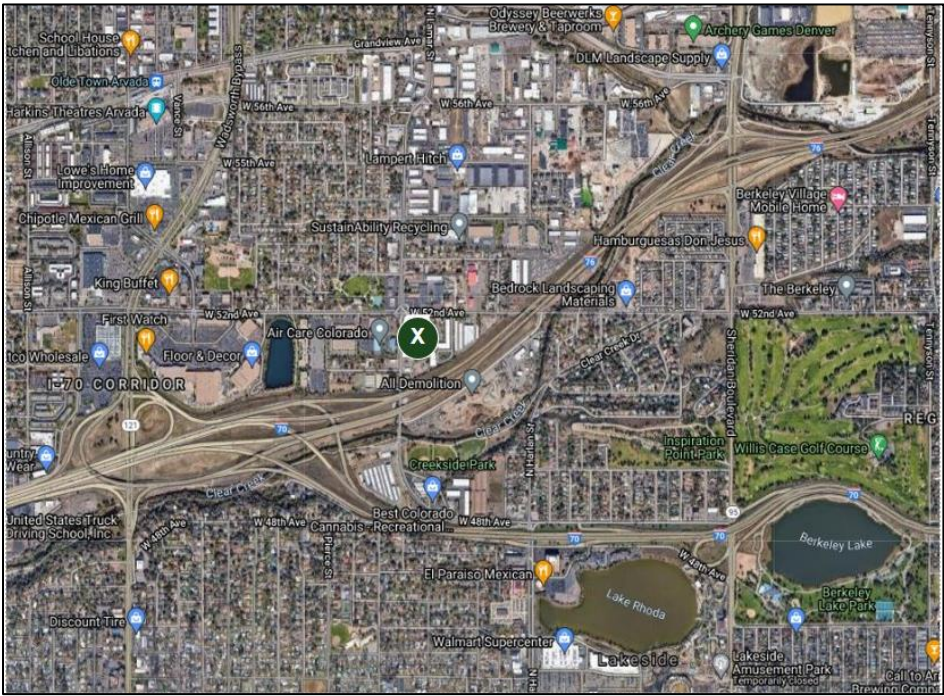
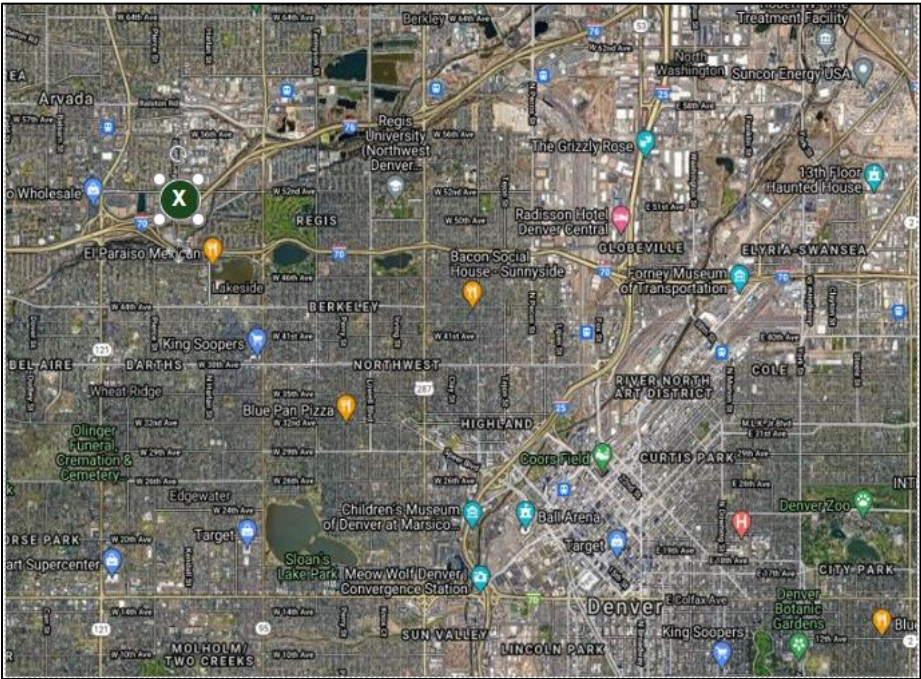
Development Budget - Continued

CHFA Financing Issuance Costs		
Bond Counsel	\$	60,000
Disclosure Counsel	\$	35,000
On-Going Issuer Fee		-
CHFA Outside Counsel		25,000
CHFA Financial Advisor		50,000
Special Counsel		-
Rating Agency		60,000
TEFRA FEE*		-
Up-Front Issuer Fee		-
UW Counsel		-
UW Fee		412,505
CHFA Bond Reservation Fee		10,000
Trustee		-
Taxable Construction Loan Costs and Reserve		
EBL Interest Reserve	\$	665,724
Lender Counsel		65,000
Appraisal & Other 3rd Party Reports		-
EBL Origination Fee		146,051
TE Construction Loan Costs & Reserve		
Construction Loan Interest Reserve	\$	8,216,126
Lender Counsel		40,000
Appraisal & Other 3rd Party Reports		20,000
Construction Loan Origination Fee		301,000
Rate Cap Premium - 1st		1,250,000
Rate Cap Premium - 2nd		100,000
Soft Debt Debt Costs		
Origination Fee		-
Other Closing Costs		-
DOLA Debt IR		-
AHA Debt IR		23,092
Permanent Financing Costs		
Lender Counsel	\$	-
Lender Counsel - Conversion		-
Borrower Counsel		275,000
Fiscal Agent		-
Forward Conversion Rate Lock Fee - TBD		-
Cash Backed Capitalized Bond Interest		-
Stifel - Bond Underwriter Fee		240,800
Stifel Closing Admin Fee		60,000
Tiber Hudson UWC Fee		5,500
Ratings Agency Fee		-
Dissemination Agent Fee + Verification/Bidding Agent		3,000
Origination Fee		-
Application Fee		25,000
Conversion Fee		15,000

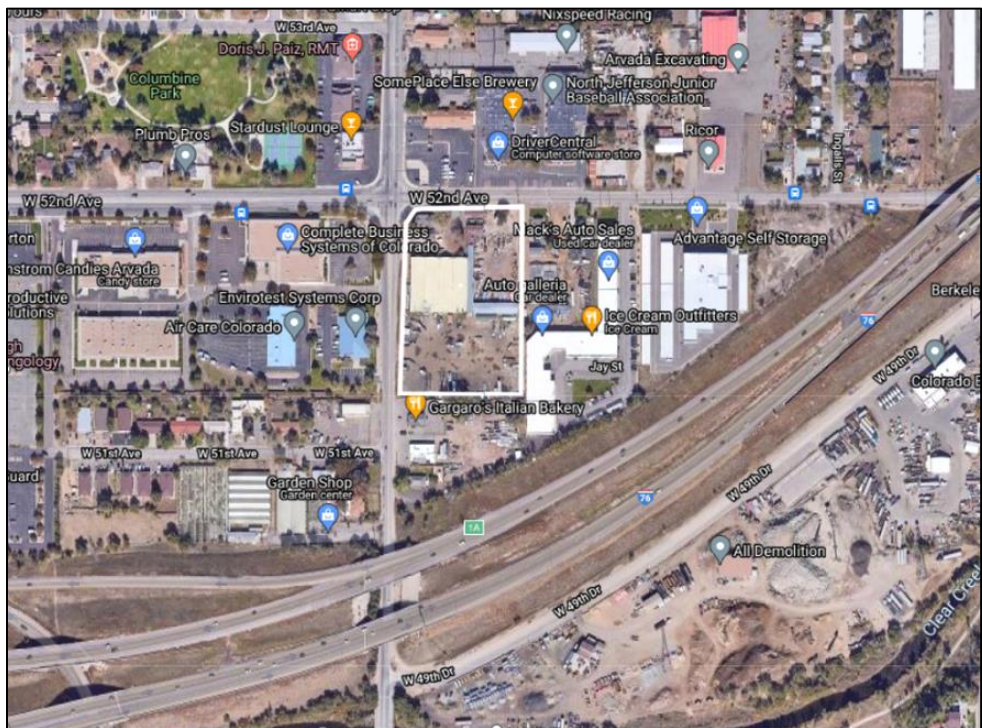
Development Budget - Continued

Land Holding Costs		
	Demolition	\$ 250,000
	BWB Origination Fee	15,000
	3rd Party Reports and DD	15,500
	BWB Interest	160,000
	DOLA Interest	25,000
	Taxes and Insurance	40,000
Closing Costs		
	Filing fees	\$ -
	Recording Fees	-
	Mortgage Registration	-
	Title Insurance	150,000
Escrow & Reserves		
	RE Tax/Insurance Escrow (Months)	\$ 169,000
	Operating Reserve (Months)	1,431,304
	HUD 223(f) Capital Reserves	-
	Lease-up Reserve	-
	Up-Front Marketing Budget	130,000
Developer Fee		
	Developer Fee	\$ 11,928,755
Total Development Costs		\$ 120,205,353

Geographic Overview



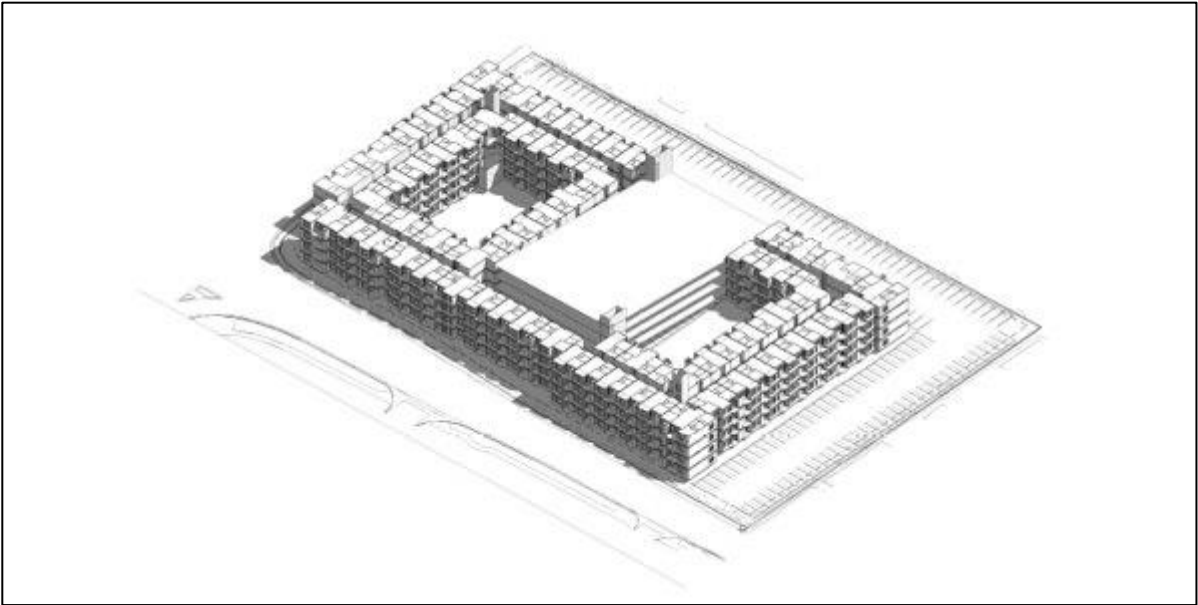
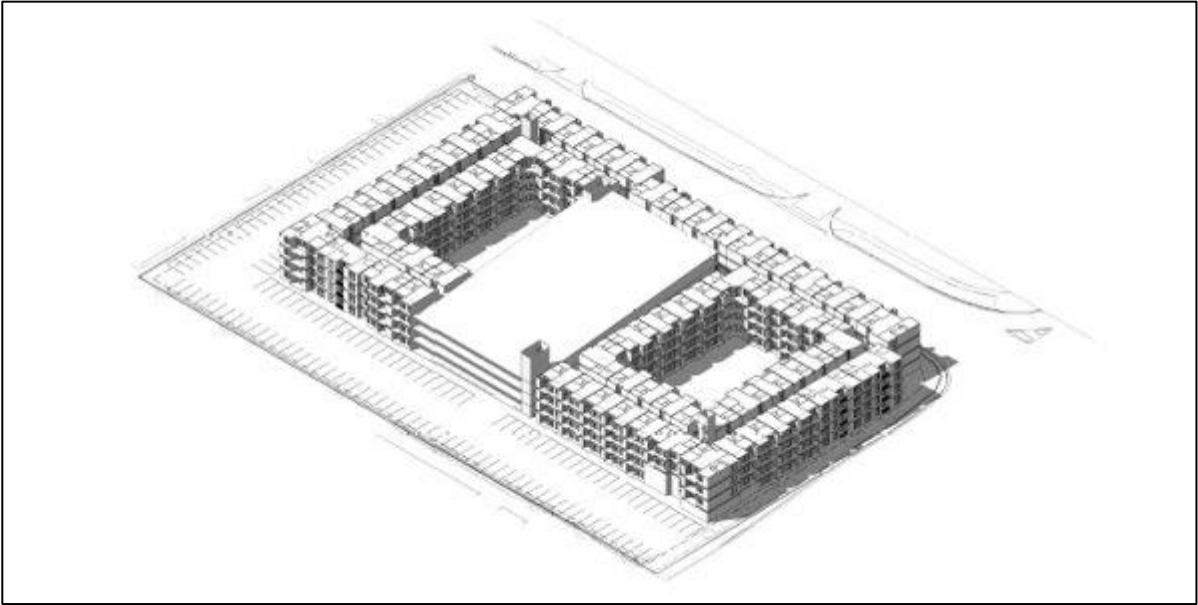
Site Overview



Site Plan



Site Plan



Renderings











REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.A.4.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: R24-037, 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 for Ralston Gardens Apartments

Report in Brief

Presenter: Carrie Espinosa

The City of Arvada received a direct allocation of the State of Colorado's Private Activity Bond Ceiling for the year 2024 of \$7,753,280. The Arvada team is recommending the assignment of \$1,500,000 of Private Activity Bonds to the Colorado Housing and Finance Authority with the recommendation that the bonds be used to finance Ralston Gardens Apartments located at 5772 Garrison Street.

The Arvada team recommends that the City Council approve R24-037, 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 for Ralston Gardens Apartments.

Financial Impact

There is no financial impact associated with the proposed action. This action will assign the City's 2023 annual allocation of Private Activity Bond (PAB) authority of \$1,500,000 to the Colorado Housing and Finance Authority.

Background

Ralston Gardens Apartments is a tax credit-approved affordable housing development that will provide 102 units of affordable housing located at 5772 Garrison Street, Arvada, Colorado. This project received low income housing tax credits in November 2022 and is currently under construction. As part of their low income tax credit commitment, 50% of the construction costs for Ralston Gardens must be covered using Private Activity Bonds. The developer, Mile High Development, has experienced an increase in construction costs due to flooding issues and needs additional Private Activity Bonds in order to meet its 50% test requirement. The Arvada team has been supportive of this project in the past by becoming a Special Limited Partner and committing housing vouchers and is interested in supporting this project further by allocating \$1,500,000 of its 2024 Private Activity Bonds to the Ralston Gardens project.

Discussion

Ralston Gardens Apartments will offer multiple benefits to the community including a housing option that reduces financial strain for residents, the attraction of a diverse labor force and skills that is important to local economy and stable housing that will lead to better health outcomes for residents. The City team and the Arvada Housing Authority find value in this project and have demonstrated support by becoming a Special Limited Partner and dedicating 8 Housing Choice Vouchers. The allocation of \$1.5 million of Private Activity Bonds will further demonstrate the City's commitment to increasing the affordable housing stock in the community.

Public Contact

Posting of the City Council Agenda

Commission Recommendation

N/A

Strategic Alignment

The recommended action aligns with the following Principle within the Community and Economic Development Priority Area of the City Council Strategic Plan: Improves access to quality housing that is affordable for a broad range of income levels and provides resources 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 R24-037, 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 for Ralston Gardens Apartments.

Suggested Motion:

I move that R24-037, 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 for Ralston Gardens Apartments, be (approved) (rejected).

Prepared by:

Carrie Espinosa, Manager of Housing Preservation and Resources

Reviewed by:

Approved by:

Carrie Espinosa, Manager of Housing Preservation and Resources	3/12/2024
Jessica Garner, Director of Community and Economic Development	3/12/2024
Gail Walker, Legal Specialist-Contracts	3/15/2024
Emily Grogg, Senior Assistant City Attorney	3/15/2024
Linda Haley, Deputy City Manager	3/15/2024
Rachel Morris, City Attorney	3/18/2024
Lorie Gillis, City Manager	3/20/2024

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R24-037

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 FOR RALSTON GARDENS APARTMENTS

WHEREAS, the City of Arvada is authorized and empowered under the laws of the State of Colorado (the "State") to issue revenue bonds for the purpose of financing qualified residential rental projects for low- and moderate-income persons and families; and

WHEREAS, the City of Arvada is authorized and empowered under the laws of the State of Colorado (the "State") to issue revenue bonds for the purpose of financing multi-family housing developments for low- and moderate-income persons and families; and

WHEREAS, the Internal Revenue Code of 1986, as amended (the "Code"), restricts the amount of tax-exempt bonds ("Private Activity Bonds") which may be issued in the State to financing for affordable housing and for certain other purposes; and

WHEREAS, pursuant to the Code, the Colorado legislature adopted the Colorado Private Activity Bond Ceiling Allocation Act, Part 17 of Article 32 of Title 24, Colorado Revised Statutes (the "Allocation Act"), providing for the allocation of the State Ceiling among the Colorado Housing and Finance Authority (the "Authority") and other governmental units in the State, and further providing for the assignment of such allocations from such other governmental units to the Authority; and

WHEREAS, pursuant to an allocation under Section 24-32-1706 of the Allocation Act, the City of Arvada has an allocation of the 2024 State Ceiling for the issuance of a specified principal amount of Private Activity Bonds prior to September 15, 2024 (the "2024 Allocation"); and

WHEREAS, the City of Arvada has determined that, in order to increase the availability of adequate affordable housing for low- and moderate-income persons and families within Arvada and elsewhere in the State, it is necessary or desirable to provide for the utilization of all or a portion of the 2024 Allocation; and

WHEREAS, the City of Arvada has determined that the 2024 Allocation, or a portion thereof, can be utilized most efficiently by assigning it to the Authority to issue Private Activity Bonds for the purpose of financing one or more multi-family rental housing projects in the City of Arvada for low- and moderate-income persons and families, including but not limited to the Arvada House; and

WHEREAS, the City Council of the City of Arvada has determined to assign \$1,500,000.00 of its 2024 Allocation to the Authority, which assignment is to be evidenced by an Assignment of Allocation between the City of Arvada and the Authority (the "Assignment of Allocation") with the recommendation that the bonds be used to finance Ralston Gardens Apartments located at 5772 Garrison Street.

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

Section 1. The assignment to the Authority of \$1,500,000.00 of the City of Arvada's 2024 Allocation be and hereby is approved.

Section 2. The form and substance of the Assignment of Allocation be and hereby are approved; provided, however, that the Mayor or Mayor Pro Tem be and hereby are authorized to make such technical variations, additions, or deletions in or to such Assignment of Allocation as they shall deem necessary or appropriate and not inconsistent with the approval thereof by this resolution.

Section 3. The Mayor or Mayor Pro Tem of the City of Arvada be and hereby are authorized to execute (by manual or electronic signature) and deliver the Assignment of Allocation on behalf of the City of Arvada and to take such other steps or actions as may be necessary, useful or convenient to effect the aforesaid assignment in accordance with the intent of this resolution. including any amendments to the Assignment of Allocation not inconsistent with this resolution. The execution of the Assignment of Allocation shall be conclusive evidence of the approval by the City of such document in accordance with the terms hereof.

Section 4. If any section, paragraph, clause, or provision of this resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section, paragraph, clause, or provision shall not affect any of the remaining provisions of this resolution.

Section 5. This resolution shall be effective upon its approval by City

Council. APPROVED AND ADOPTED this 1st day of April, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:
Rachel A Morris, City Attorney

By: _____



assignment of allocation - city

Multifamily Housing Facility Bonds/Single Family Mortgage Revenue Bonds

This Assignment of Allocation (the "Assignment"), dated this 1st day of April, 2024, is between the City of Arvada, Colorado (the "Assignor" or the "Jurisdiction") and Colorado Housing and Finance Authority (the "Assignee").

WITNESSETH:

WHEREAS, the Assignor and the Assignee are authorized and empowered under the laws of the State of Colorado (the "State") to issue revenue bonds for the purpose of providing single-family mortgage loans to low- and moderate-income persons and families; and

WHEREAS, the Internal Revenue Code of 1986, as amended (the "Code"), restricts the amount of tax-exempt bonds ("Private Activity Bonds") which may be issued in the State to finance such projects and for certain other purposes (the "State Ceiling"); and

WHEREAS, pursuant to the Code, the Colorado legislature adopted the Colorado Private Activity Bond Ceiling Allocation Act, Part 17 of Article 32 of Title 24, Colorado Revised Statutes (the "Allocation Act"), providing for the allocation of the State Ceiling among the Assignee and other governmental units in the State, and further providing for the assignment of allocations from such other governmental units to the Assignee; and

WHEREAS, pursuant to an allocation under Section 24-32-1706 of the Allocation Act, the Assignor has an allocation of the 2024 State Ceiling for the issuance of a specified principal amount of Private Activity Bonds prior to September 15, 2024, (the "2024 Allocation"); and

WHEREAS, the Assignor has determined that, in order to increase the availability of adequate affordable rental housing for low- and moderate-income persons and families within the Jurisdiction, Colorado and elsewhere in the State, it is necessary or desirable to provide for the utilization of all or a portion of the 2024 Allocation; and

WHEREAS, the Assignor has determined that the 2024 Allocation, or a portion thereof, can be utilized most efficiently by assigning it to the Assignee to issue Private Activity Bonds for the purpose of financing one or more multifamily rental housing projects for low- and moderate-income persons and families or to issue Private Activity Bonds for the purpose of providing single-family mortgage loans to low- and moderate-income persons and families ("Revenue Bonds"), and the Assignee has expressed its willingness to attempt to issue Revenue Bonds with respect to the 2024 Allocation assigned herein; and

WHEREAS, the City Council of the Assignor has determined to assign to the Assignee all or a portion of its 2024 Allocation, and the Assignee has agreed to accept such assignment, which is to be evidenced by this Assignment.

NOW, THEREFORE, in consideration of the premises and the mutual promises hereinafter set forth, the parties hereto agree as follows:

1. The Assignor hereby assigns to the Assignee \$ 1,500,000.00 of its 2024 Allocation (the "Assigned Allocation"), subject to the terms and conditions contained herein. The Assignor represents that it has received no monetary consideration for said assignment.

2. The Assignee hereby accepts the assignment to it by the Assignor of the Assigned Allocation, subject to the terms and conditions contained herein. The Assignee agrees to use its best efforts to issue and sell Revenue Bonds in an aggregate principal amount equal to or greater than the Assigned Allocation, in one or more series, and to make proceeds of such Revenue Bonds available from time to time for a period of one (1) year from the date of this Assignment to finance multi-family rental housing projects located in the Jurisdiction, or to issue Revenue Bonds for the purpose of providing single-family mortgage loans to low- and moderate income persons and families in the Jurisdiction.

3. The Assignor hereby consents to the election by the Assignee, if the Assignee in its discretion so decides, to treat all or any portion of the Assigned Allocation as an allocation for a project with a carryforward purpose or to make a mortgage credit certificate election, in lieu of issuing Revenue Bonds.

4. The Assignor and Assignee each agree that it will take such further action and adopt such further proceedings as may be required to implement the terms of this Assignment.

5. Nothing contained in this Assignment shall obligate the Assignee to finance any particular multi-family rental housing project located in the Jurisdiction or elsewhere or to finance single-family mortgage loans in any particular amount or at any particular interest rate or to use any particular percentage of the proceeds of its Revenue Bonds to provide mortgage loans or mortgage credit certificates to finance single-family housing facilities in the Jurisdiction, provided that any Revenue Bond proceeds attributable to the Assigned Allocation shall be subject to paragraph 2 above.

6. This Assignment is effective upon execution and is irrevocable.

7. Counterparts. This Assignment may be executed in one or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Assignment by electronic image scan transmission will be effective as delivery of a manually executed counterpart of the Assignment.

IN WITNESS WHEREOF, the parties hereto have duly executed this Assignment on the date first written above.

City of Arvada, Colorado

By: _____

Name: Lauren Simpson

Title: Mayor

COLORADO HOUSING AND FINANCE
AUTHORITY

By: _____

Name: _____

Title: _____

CERTIFICATE OF THE CITY OF ARVADA, COLORADO
CONCERNING ASSIGNMENT OF
PRIVATE ACTIVITY BOND VOLUME CAP ALLOCATION

I, the undersigned, hereby certify that I am a duly chosen, qualified and City Attorney of the City of Arvada, Colorado (the “City”), and that:

1. The City is a public body politic and corporate, duly organized and existing under the constitution and laws of the State of Colorado.

2. The City has been previously notified that, pursuant to Section 24-32-1706 of the Colorado Private Activity Bond Ceiling Allocation Act, Part 17 of Article 32 of Title 24, Colorado Revised Statutes (the “Allocation Act”), it has an allocation of the State ceiling (as defined in the Allocation Act) for 2024 in the amount of \$7,753,280 (the “2024 Allocation”).

3. Attached hereto as Exhibit A is a true and correct copy of a resolution and the related minutes thereto (the “Resolution”) authorizing the assignment to the Colorado Housing and Finance Authority (the “Authority”) of all or a portion of the 2024 Allocation in an amount equal to \$1,500,000 (the “Assigned Allocation”), and authorizing the execution and delivery of an Assignment of Allocation dated as of April 1, 2024 (the “Assignment of Allocation”) between the City and the Authority in connection therewith, which Resolution was duly adopted by the City Council of the City (the “City Council”) at a meeting thereof held on April 1, 2024, at which meeting a quorum was present and acting throughout and which Resolution has not been revoked, rescinded, repealed, amended or modified and is in full force and effect on the date hereof.

4. The meeting of the City Council at which action has been taken with respect to the Assignment of Allocation was a regular meeting properly called and open to the public at all times.

5. With respect to the Assigned Allocation, the City has not heretofore: (a) issued private activity bonds; (b) assigned the Assigned Allocation to another “issuing authority,” as defined in the Allocation Act; (c) made a mortgage credit certificate election; or (d) treated the Assigned Allocation as an allocation for a project with a carryforward purpose, as defined in the Allocation Act.

6. The Assignment of Allocation, attached hereto as Exhibit B, is in the form presented to and approved by the City Council at the meeting thereof held on April 1, 2024.

7. On or before the date hereof, counterparts of the Assignment of Allocation were officially executed by the Mayor and the City Clerk of the City. On the date of such signing, such persons were the duly sworn, qualified and acting officers of the City authorized to execute the Assignment of Allocation and holding the offices of the Mayor and City Clerk, respectively.

8. The City has authorized the execution, delivery and due performance of the Assignment of Allocation, and the execution and delivery of the Assignment of Allocation and the compliance by the City with the provisions thereof, will not, to the best of my knowledge, conflict with or constitute on the part of the City a breach of or a default under any existing Colorado law, City resolution, court or administrative regulation, decree or order or any agreement or other instrument to which the City is subject or by which it is bound.

9. To the best of my knowledge, there does not exist any action, suit, proceeding or investigation pending, or threatened against the City, contesting (a) the corporate existence of the City, (b) the title of its present officers or any of them to their respective offices, including, without limitation, the members of the City Council, (c) the validity of the Assignment of Allocation or (d) the power of the City to execute, deliver or perform the Assignment of Allocation.

10. No referendum petition has been filed concerning the Resolution; and to the best of my knowledge none is being circulated or planned for circulation.

WITNESS my hand and the seal of the City this April 1, 2024.

Rachel A. Morris, City Attorney

(SEAL)

EXHIBIT A
RESOLUTION

EXHIBIT B

ASSIGNMENT OF ALLOCATION

Ralston Gardens
Summary of Financial Estimates

2/18/2024

Unit Mix and Rents								
Type	AMI	Size	#	Max Rent	UA	Max Rent Adjusted	Actual Rent	Annual Revenue
1 Bed 1 Bath Subsidized	30%	650	8	659	-	659	1,400	134,400
1 Bed 1 Bath	40%	650	9	879	-	879	879	94,932
1 Bed 1 Bath	50%	650	9	1,099	-	1,099	1,099	118,692
1 Bed 1 Bath	60%	650	20	1,319	-	1,319	1,319	316,560
1 Bed 1 Bath	70%	650	20	1,539	-	1,539	1,539	369,360
2 Bed 1 Bath	40%	875	5	1,055	-	1,055	1,055	63,300
2 Bed 1 Bath	50%	875	6	1,318	-	1,318	1,318	94,896
2 Bed 1 Bath	60%	875	11	1,582	-	1,582	1,582	208,824
2 Bed 1 Bath	70%	875	10	1,846	-	1,846	1,846	221,520
3 Bed 2 Bath	40%	1,100	1	1,219	-	1,219	1,219	14,628
3 Bed 2 Bath	50%	1,100	1	1,523	-	1,523	1,523	18,276
3 Bed 2 Bath	60%	1,100	1	1,828	-	1,828	1,828	21,936
3 Bed 2 Bath	70%	1,100	1	2,133	-	2,133	2,133	25,596
Total	56.2%		102			Total Revenue		1,702,920

Revenue and Expenses	
Annual Rent	1,702,920
Other Revenue	24,480
Vacancy	(120,918)
Annual Expenses + Rep Reserve	(614,182)
NOI	992,300
Debt Service	(864,442)
PUPA + reserves	6,021
DSCR Year 1	1.148
DSCR Year 15	1.377

Federal Tax Credit Equity	
Annual Credit (10 yrs)	1,339,212
Credit Pricing	0.935
Federal Tax Credit Equity	12,515,004

State Tax Credit Equity	
Annual Credit (6 yrs)	999,999
Credit Pricing	0.7199
State Tax Credit Equity	4,319,133

1st Mortgage Terms	
KeyBank Fannie MTEB	13,857,000
Rate	5.560%
Term	15
Amortization	40
Annual Payment	864,442

Construction Loan Terms	
Amount	26,772,358
Maximum Const Period Need	26,284,800
Rate	7.050%
Origination Fee - 0.75%	200,793
Construction Interest Budgeted	2,210,000
Construction Interest Calculated	2,203,124

Developer Fee	
Developer Fee	2,853,103
Deferred Developer Fee	(2,806,845)
Paid Developer Fee	46,258
pct paid	2%

Square Footage	
Residential	75,300
Common Area	25,800
Commercial	-
Total	101,100

Bedroom Mix	
Studio	-
1BR	66
2BR	32
3BR	4
4BR	-
Total	102

Sources of Financing	
KeyBank Fannie MTEB	13,857,000
	-
	-
CDOH	4,300,000
AURA Loan	200,000
	-
	-
	-
Fannie Commitment Deposit Refun	138,570
Bond Underwriter Rebate	125,000
	-
	-
	-
Deferred Developer Fee	2,806,845
Other Owner Equity	200
Additional Amount to cover GAP	-
Federal Tax Credit Equity	12,515,004
State Tax Credit Equity	4,319,133
Total Sources	38,261,752

Uses of Financing	
Land and Buildings	1,000,030
Site Work	2,179,354
Construction (permits, contingency)	22,904,384
Professional Fees	1,565,371
Construction Interim Costs	4,996,278
Permanent Financing	909,431
Soft Costs	497,611
Syndication Costs	136,080
Developer and Consultant Fees	3,160,103
Project Reserves	913,110
Total Uses	38,261,752

Gap	-
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Metrics	
Total Dev Cost per Unit	375,115
Total GC Construction Contract	24,133,334
Construction per Unit	236,601
Construction per SF	239
Federal Credit per Unit	13,130
Federal Credit per BR	9,431
CHFA Min Scoring Required	80
CHFA Calculated Scoring	125
Operating Reserves	743,000
CHFA Min Operating Reserve	482,626
OR Months (DS+OPEX)	6.2
PAB Issued	18,999,219
Aggregate Basis	34,748,502
50% Test	54.7%
PAB per Unit	186,267
50% Test Cushion	3,249,936

**Ralston Gardens
Sources and Uses**

2/18/2024

Sources						Notes	
	Current	Previous	Difference				
KeyBank Fannie MTEB	13,857,000	13,857,000	-				
CDOH	4,300,000	4,300,000	-				
AURA Loan	200,000	-	200,000				
Fannie Commitment Deposit Refund	138,570	138,570	-				
Bond Underwriter Rebate	125,000	125,000	-				
Deferred Developer Fee	2,806,845	1,850,973	955,872				
Other Owner Equity	200	-	200				
Federal Tax Credit Equity	12,515,004	11,993,538	521,466				
State Tax Credit Equity	4,319,133	4,319,136	(3)				
Total	38,261,752	36,584,217	1,677,535				

Uses							
	Current	Previous	Difference	Const Contract	City Fees		Notes
Land & Buildings							
Land	1,000,030	1,000,030	-				
Existing Structures	-	-	-				
Demolition	-	-	-	-			
Site Work							
On Site Work	2,179,354	2,179,354	-	2,179,354			
Off Site Work	-	-	-	-			
Rehab. & New Construction							
New Structures	16,987,973	16,987,973	-	16,987,973			
General Requirements	1,203,002	1,203,002	-	1,203,002			
Contractor Profit	1,070,007	1,070,007	-	1,070,007			
Contractor Construction Contingency	650,000	650,000	-	650,000			
Owner Hard Cost Contingency	1,125,000	1,125,000	-				
Furniture, Fixtures, & Equipment	125,000	125,000	-				
Building Permits	80,210	80,210	-		80,210		
Change Orders	1,663,192	-	1,663,192	1,663,192			
Professional Fees							
Architect, Design	647,195	647,195	-				
Architect Construction Management/Admin	173,201	173,201	-				
Landscape Design	50,600	50,600	-				
Structural Engineering	106,000	106,000	-				
Civil Engineering	93,000	93,000	-				
Other Engineering	135,000	135,000	-				
Surveyor	19,370	19,370	-				
Attorney, Real Estate	165,070	164,970	100				
Green Consultant	27,460	27,460	-				
Construction Accounting	45,000	45,000	-				
Interior Design	87,500	87,500	-				
Other (Zoning/Permit Consulting)	4,975	4,975	-				
Building Commissioning	11,000	11,000	-				
Construction Interim Costs							
Hazard & Liability Insurance	197,737	197,737	-	197,737			
Builder's Risk Insurance	175,000	175,000	-				
Perform. & Pymt Bonds	182,069	182,069	-	182,069			
Construction Interest	2,210,000	2,210,000	-				
Constr. Origination Fees	200,793	200,793	-				
Tap Fees (Water/Sewer)	1,319,234	1,319,234	-		1,319,234		
Materials Testing	105,000	105,000	-				
Power and Telecom Provider fees	50,000	50,000	-				
3rd Party/Bank Inspections/Admin	35,000	35,000	-				
Title & Recording	57,982	57,982	-				
Construction Lender Legal Fees	58,351	58,351	-				
Owners Liability Insurance	161,612	161,612	-				
Bond Trustee and Rating	36,500	36,500	-				
Negative Arbitrage	207,000	207,000	-				
Permanent Financing							
Bond Cost of Issuance	180,493	166,250	14,243				
Perm Loan Origination	138,570	138,570	-				
Title & Recording	15,000	15,000	-				
Legal Fees	220,000	220,000	-				
Conversion Fee	18,000	18,000	-				
Fannie Application and Standby Fee	68,103	68,103	-				
Bond Underwriter Fee	130,695	130,695	-				
Fannie Commitment Deposit	138,570	138,570	-				
Soft Costs							
Marketing/Leasing Costs	45,000	45,000	-				
Geotechnical/Soils Study	9,660	9,660	-				
Appraisal	12,631	12,631	-				
Market Study	4,097	4,097	-				
Environmental Study (Phase 1, Phase 2, Lead, Asbestos, etc.)	13,450	13,450	-				
Tax Credit Fees	110,000	110,000	-				
Compliance Fees	54,500	54,500	-				
Cost Certification	20,000	20,000	-				
Soft Cost Contingency	75,000	75,000	-				
Predevelopment Loan Interest	73,617	73,617	-				
Bond Financial Advisory-Caine Mitter	14,656	14,656	-				
Bond Counsel-CHFA	65,000	65,000	-		65,000		65,000
Syndication Costs							
Organization Costs	2,000	2,000	-				
Syndication Legal Fees	110,000	110,000	-				
SLP Fee	20,000	20,000	-				
Tenant File Review	4,080	4,080	-				
Developer Fees							
Developer Fee	2,853,103	2,853,103	-				
Third Party Development Management/Owner's Rep	232,000	232,000	-				
Financial/Tax Credit Consultant, Application Preparation, etc.	75,000	75,000	-				
Project Reserves							
Rent-up Reserves	25,000	25,000	-				
Operating Reserves	743,000	743,000	-				
Insurance Escrow	55,860	55,860	-				
NECO Passes for 5 Years	89,250	89,250	-				
Total	38,261,752	36,584,217	1,677,535	24,133,334	1,464,444		

Contractor Contingency

2.69%

1,464,444

Owner Contingency

4.66%

Ralston Gardens
15 Year Cash Flow

2/18/2024

		Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Income																	
Residential Rents	2%	1,702,920	1,736,978	1,771,718	1,807,152	1,843,295	1,880,161	1,917,765	1,956,120	1,995,242	2,035,147	2,075,850	2,117,367	2,159,714	2,202,909	2,246,967	29,449,306
less Residential Vacancy	-7%	(119,204)	(121,588)	(124,020)	(126,501)	(129,031)	(131,611)	(134,244)	(136,928)	(139,667)	(142,460)	(145,309)	(148,216)	(151,180)	(154,204)	(157,288)	(2,061,451)
Other Income	2%	24,480	24,970	25,469	25,978	26,498	27,028	27,568	28,120	28,682	29,256	29,841	30,438	31,047	31,667	32,301	423,343
less Vacancy	-7%	(1,714)	(1,748)	(1,783)	(1,818)	(1,855)	(1,892)	(1,930)	(1,968)	(2,008)	(2,048)	(2,089)	(2,131)	(2,173)	(2,217)	(2,261)	(29,634)
Effective Gross Income		1,606,482	1,638,612	1,671,384	1,704,812	1,738,908	1,773,686	1,809,160	1,845,343	1,882,250	1,919,895	1,958,293	1,997,458	2,037,408	2,078,156	2,119,719	27,781,563
Expenses																	
Operating Expenses	3%	(583,582)	(601,089)	(619,122)	(637,696)	(656,827)	(676,531)	(696,827)	(717,732)	(739,264)	(761,442)	(784,285)	(807,814)	(832,048)	(857,010)	(882,720)	(10,853,991)
Replacement Reserve	3%	(30,600)	(31,518)	(32,464)	(33,437)	(34,441)	(35,474)	(36,538)	(37,634)	(38,763)	(39,926)	(41,124)	(42,358)	(43,628)	(44,937)	(46,285)	(569,127)
Total Expenses		(614,182)	(632,607)	(651,586)	(671,133)	(691,267)	(712,005)	(733,365)	(755,366)	(778,027)	(801,368)	(825,409)	(850,172)	(875,677)	(901,947)	(929,005)	(11,423,118)
Net Operating Income		992,300	1,006,004	1,019,798	1,033,678	1,047,641	1,061,681	1,075,794	1,089,976	1,104,222	1,118,526	1,132,883	1,147,287	1,161,731	1,176,209	1,190,713	16,358,445
Debt Service																	
KeyBank Fannie MTEB		864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	12,966,634
-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service		864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	864,442	12,966,634
Debt Service Coverage Ratio		1.15	1.16	1.18	1.20	1.21	1.23	1.24	1.26	1.28	1.29	1.31	1.33	1.34	1.36	1.38	
Net Cash Flow		127,858	141,562	155,356	169,236	183,198	197,238	211,352	225,534	239,780	254,084	268,441	282,845	297,289	311,767	326,271	3,391,811
Cash Flow Distributions																	
1 LP Asset Mgmt Fee	3%	7,500	7,725	7,957	8,195	8,441	8,695	8,955	9,224	9,501	9,786	10,079	10,382	10,693	11,014	11,344	139,492
2 Arvada HA Asset Mgmt Fee	2%	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095	6,217	6,341	6,468	6,597	86,467
3 Deferred Developer Fee		115,358	128,737	142,197	155,735	169,345	183,023	196,766	210,567	224,421	238,323	252,267	266,246	280,254	243,607	-	2,806,845
4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 CDOH		-	-	-	-	-	-	-	-	-	-	-	-	-	24,213	147,313	171,526
8 AURA Loan		-	-	-	-	-	-	-	-	-	-	-	-	-	1,126	6,852	7,978
9		-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,578	3,578
10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,426	3,426
11 AHA Project Monitoring Fee (15% of CF)		-	-	-	-	-	-	-	-	-	-	-	-	-	3,801	22,074	25,875
12 GP Mgmt Fee	3%	-	-	-	-	-	-	-	-	-	-	-	-	-	21,538	125,087	146,625
13 To Limited Partner		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14 To General Partner		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Distributions		127,858	141,562	155,356	169,236	183,198	197,238	211,352	225,534	239,780	254,084	268,441	282,845	297,289	311,767	326,271	3,391,811
Outstanding Balances																	
KeyBank Fannie MTEB	13,857,000	13,760,574	13,658,649	13,550,909	13,437,024	13,316,644	13,189,397	13,054,891	12,912,714	12,762,427	12,603,568	12,435,648	12,258,150	12,070,528	11,872,203	11,662,567	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deferred Developer Fee	2,806,845	2,691,487	2,562,750	2,420,553	2,264,819	2,095,474	1,912,450	1,715,685	1,505,118	1,280,697	1,042,374	790,107	523,861	243,607	-	-	
CDOH	4,300,000	4,343,000	4,386,430	4,430,294	4,474,597	4,519,343	4,564,537	4,610,182	4,656,284	4,702,847	4,749,875	4,797,374	4,845,348	4,893,801	4,918,526	4,820,399	
AURA Loan	200,000	202,000	204,020	206,060	208,121	210,202	212,304	214,427	216,571	218,737	220,924	223,134	225,365	227,619	228,769	224,205	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(3,578)	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(3,426)	
Accrued GP Mgmt Fee	-	10,000	20,300	30,909	41,836	53,091	64,684	76,625	88,923	101,591	114,639	128,078	141,920	156,178	149,325	39,365	



Private Activity Bond Application

Applicant Information		
Name of Applicant: Ralston Gardens LLC		
Contact Person: George Thorn		
Title: President	Phone: 303-808-4500	Email: gthorn@milehighdevelopment.com
Applicant Address: 90 Madison Street Suite 101		

Project Description
Project Name: Ralston Gardens
Project Address: 5772 Garrison Street, Arvada, CO 80011
PAB Amount Requested: \$1,500,000

Financial Summary		
Total Estimated Project Cost: \$38,261,752		
Amount to be Financed by PAB: \$18,999,219		
\$1,000,030		Land Acquisition
\$2,179,354		Site Development including Infrastructure
\$22,904,384		Facility Construction
\$		Facility Remodel or Reconstruction
\$12,177,984		Other: Design/Engineering, Financing Costs, Developer Fees, Interest, Reserves
\$38,261,752		Total
Percent of aggregate basis covered by PAB: 54.7%		
Description of how the project will be financed. In addition to PAB, include amounts that may be requested of the City or the Arvada Housing Authority. Explain why such additional financial support is necessary. The project will be financed primarily by Low Income Housing Tax Credits (LIHTC), State Affordable Housing Tax Credits (SAHTC) and a subordinate loan from the Colorado Division of Housing (CDOH). The \$1,500,000 in bonds are needed to allow the project meet the required 50% Test. The project has \$17,499,219 in tax-exempt bonds from CHFA. However, due to some flooding issues the project has been required to expend significant additional costs.		

Residential Project Information									
For Sale Project?					For Rent Project?				
☐ Condos ☐ Townhomes ☐ Single Family					☒ Yes ☐ No				
Unit Size	Total Number of Units	Affordable Housing Units							
		# of Units	% of AMI For Sale			% of AMI For Rent		# Accessible	
							70%	20	
1 Bedroom	66	66		80%			60%	20	
				70%			50%	9	
				60%			40%	9	
				50%			30%	8	
2 Bedroom	32	32		80%			70%	10	
				70%			60%	11	
				60%			50%	6	
				50%			40%	5	
3 Bedroom	4	4		80%			70%	1	
				70%			60%	1	
				60%			50%	1	
				50%			40%	1	
4+ Bedrooms				80%			60%		
				70%			50%		
				60%			40%		
				50%			30%		
Restricted to Elderly? ☐ Yes ☒ No If yes, what is the minimum age restriction? _____									

Estimated Rent Levels or Sales Price by Type of Unit		
	Market Units	Affordable Units
1 bedroom, 1 bath		Please see the provided proforma that includes the full unit mix with AMI levels and rents.
1 bedroom, 1.5 baths		
Other 1 bedroom configuration		
2 bedroom, 1 bath		
2 bedroom, 2 bath		
Other 2 bedroom configuration		
3 bedroom, 1.5 baths		
3 bedroom, 2 baths		
Other 3 bedroom configuration		
4+ bedroom		
Number of Years Affordable Units will remain affordable: 40		

Describe the project: Location, general description, elements to be included, unique aspects to the project, including any amenities or services for residents, present use of Site and/or Existing Structures (if applicable), etc.

This 4-story building will be located at the intersection of Ralston Road and Garrison Street (Southeast Corner) in the center of a strong single family housing area as well as an established retail area. This location provides walkable shopping and job opportunities to potential residents. In addition, there is an RTD Bus stop located next to the project on Ralston Road offering a transportation option to our residents to nearby Olde Town Station and the commuter rail (Gold Line) with transit service to downtown Denver and the rest of the RTD rail network. Immediate access to transportation provides residents vast employment opportunities within the community and Denver.

Describe the developer's capacity to complete the proposed project within the given timetable and budget. Include previous experience with similar projects.

The development team of Mile High Development and Brinshore Development are highly experienced in this product type utilizing the 4% LIHTC program and working with CHFA, CDOH and Freddie Mac on two other recent projects, Sheridan Station Apartments and Capitol Square Apartments in Denver. This will be the 4th collaboration between Mile High and Brinshore (Sheridan Station, Capitol Square Apartments, Northfield Flats) over the past 4 years. Both firms have a history of delivering projects on time and on budget and being able to close the financial transaction in a timely manner, even in the difficult COVID environment of the past 15 months. Brinshore and Mile High's track record, individually and as joint venture partners, is one of delivering on our commitments and never failing to complete a project successfully.

Energy Conservation Features (if any):

Project will utilize low flow systems and high efficiency HVAC systems. The project will certify through the Nation Green Building Standard (NGBS)

Describe how the developer fee will be utilized in the project:

Developer fee will be utilized to support developer operations and cover staffing costs and invest in future projects.

Describe the project's timeline, including target dates for:

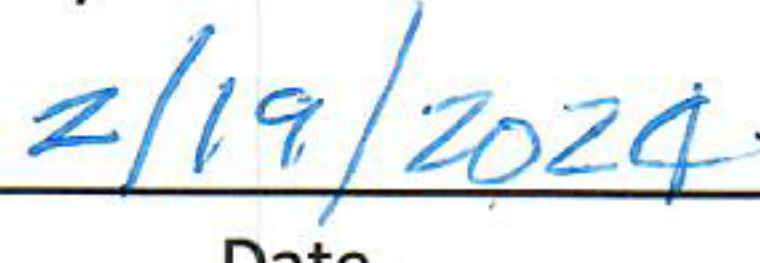
- a. Site control 8/1/2022
- b. Zoning, Site Plan and/or Subdivision Approval 3/1/2023
- c. Primary Lender Approval 3/1/2023
- d. LIHTC Allocation 12/1/2022
- e. Close of financing 6/1/2023
- f. Commence Construction/Acquisition/Rehab 6/1/2023
- g. Project completion 12/1/2024

The City of Arvada strongly suggests that any project developer considering using PABs seek advice of bond counsel prior to submitting an application to determine project eligibility under federal definitions of PABs.

The applicant agrees that this development or project will conform with all applicable development, zoning, building, fire, and life safety codes, regulations and procedures of the City of Arvada.



Signature of Applicant



Date

The City of Arvada reserves the right to request additional information as may be necessary to further the selection process.

Include as Attachments: [PLEASE SEE PROVIDED PROFROMA](#)

- 10-year project operating proforma
- General location map and Site Plan
- Summary for Project Development Budget
- Sources and Uses of Funds



REPORT TO CITY COUNCIL RESOLUTION

AGENDA ITEM
8.B.1.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: R24-038, A Resolution Authorizing Acceptance of an Intergovernmental Agreement between the Jefferson Parkway Public Highway Authority (JPPHA) and the City of Arvada for the Secondment of an Arvada Employee to JPPHA

Report in Brief

PRESENTER: Bryan Archer

JPPHA is a public highway authority created by the Establishing Contract for the Jefferson Parkway Public Highway Authority dated May 15, 2008. JPPHA exists to finance, construct, operate, and maintain the Jefferson Parkway.

Arvada and JPPHA deem it necessary and beneficial that certain personnel currently employed by Arvada are seconded to JPPHA in order for JPPHA to benefit from the experience and expertise provided by those personnel. Bryan Archer, Director of Finance, will continue to be employed by Arvada in the future and during the term of this Secondment Agreement. Arvada is willing and able to assign and to second Bryan Archer to JPPHA to serve JPPHA as Interim Executive Director. This Secondment Agreement outlines the terms and conditions for Director Archer's secondment to JPPHA.

The Arvada team recommends that the City Council approve R 24-038, A Resolution Authorizing Acceptance of an Intergovernmental Agreement between the Jefferson Parkway Public Highway Authority (JPPHA) and the City of Arvada for the Secondment of an Arvada Employee to JPPHA .

Financial Impact

Director Archer will provide the additional work to JPPHA without additional compensation. This is in addition to his current duties.

Background

Bill Ray previously served as JPPHA's Executive Director. Upon Director Ray's retirement, the JPPHA board voted and approved Bryan Archer, Arvada's current Director of Finance, to serve as its interim Executive Director. The attached agreement was approved by the JPPHA board on February 20, 2024.

Discussion

With Director Ray retiring, JPPHA needs another Executive Director. The JPPHA board has approved Director Archer and approved the attached Secondment Agreement. If Arvada does not second one of its employees, JPPHA would need additional funds to hire an Executive Director.

Public Contact

Posting of the City Council and JPPHA agendas.

Commission Recommendation

JPPHA Board approved the agreement on February 20, 2024.

Strategic Alignment

This Secondment Agreement aligns with the City's duties and obligations as a member of the JPPHA.

Alternative Courses of Action

Approve

Approve with Amendments

Deny - JPPHA would need to find, approve, and possibly pay for another Executive Director

Recommendation for Action

The Arvada team recommends that the City Council approve the Secondment Agreement

Suggested Motion:

I move that R24-038, A Resolution Authorizing Acceptance of an Intergovernmental Agreement between the Jefferson Parkway Public Highway Authority (JPPHA) and the City of Arvada for the Secondment of an Arvada Employee to JPPHA, be, (approved) (rejected).

Prepared by:

Kylie Justus, Assistant City Attorney

Reviewed by:

Approved by:

Chris Koch, CCO Admin 3/7/2024

Bryan Archer, Director of Finance 3/7/2024

Rachel Morris, City Attorney 3/19/2024

Lorie Gillis, City Manager 3/19/2024

Enclosure, exhibits & attachments required to support the report

RESOLUTION NO. R24-038

**A RESOLUTION AUTHORIZING AN INTERGOVERNMENTAL AGREEMENT
BETWEEN THE JEFFERSON PARKWAY PUBLIC HIGHWAY AUTHORITY
(JPPHA) AND THE CITY OF ARVADA FOR THE SECONDMENT OF AN
ARVADA EMPLOYEE TO JPPHA**

WHEREAS, JPPHA is a public highway authority and political subdivision of the state created pursuant to C.R.S. §§ 43-4-501, *et seq.*, by the Establishing Contract for the Jefferson Parkway Public Highway Authority dated May 15, 2008; and

WHEREAS, JPPHA exists to finance, construct, operate and maintain the Jefferson Parkway; and

WHEREAS, Article XIV, Section 18(2)(a) of the Colorado Constitution and Part 2, Article 1, Title 29, C.R.S., encourage and authorize governments to cooperate and contract with one another to provide any function, service, or facility lawfully authorized to each; and

WHEREAS, Arvada and JPPHA deem it necessary and beneficial that certain personnel currently employed by Arvada be seconded to JPPHA in order for JPPHA to benefit from the experience and expertise provided by those personnel; and

WHEREAS, Bryan Archer is currently employed by Arvada as the Director of Finance, and will continue to be employed by Arvada in the future and during the term of this Agreement; and

WHEREAS, pursuant to the terms and conditions hereinafter set forth, Arvada is ready, willing, and able to assign and to second to JPPHA Bryan Archer to serve JPPHA as Interim Executive Director.

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 1st day of April, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

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

By: _____

**AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE JEFFERSON PARKWAY
PUBLIC HIGHWAY AUTHORITY (JPPHA) AND THE CITY OF ARVADA FOR THE
SECONDMENT OF AN ARVADA EMPLOYEE TO JPPHA**

This Secondment Agreement (this "Agreement") is made and entered effective as of the ____ day of _____, 2024, (the "Effective Date") by and between Jefferson Parkway Public Highway Authority ("JPPHA"), and the City of Arvada (the "Employer"), and Bryan Archer ("Employee"). JPPHA, Employee, and Employer are hereinafter referred to individually as a "Party" and collectively as the "Parties."

WHEREAS, JPPHA is a public highway authority and political subdivision of the state created pursuant to C.R.S. §§ 43-4-501, *et seq.*, by the Establishing Contract for the Jefferson Parkway Public Highway Authority dated May 15, 2008; and

WHEREAS, JPPHA exists to finance, construct, operate and maintain the Jefferson Parkway; and

WHEREAS, Employer is a home rule municipal corporation of the State of Colorado; and

WHEREAS, Article XIV, Section 18(2)(a) of the Colorado Constitution and Part 2, Article 1, Title 29, C.R.S., encourage and authorize governments to cooperate and contract with one another to provide any function, service, or facility lawfully authorized to each; and

WHEREAS, the Employer and JPPHA deem it necessary and beneficial that certain personnel currently employed by the Employer be seconded to JPPHA in order for JPPHA to benefit from the experience and expertise provided by those personnel; and

WHEREAS, Employee is currently employed by Employer as the Director of Finance, and will continue to be employed by Employer in the future and during the term of this Agreement; and

WHEREAS, pursuant to the terms and conditions hereinafter set forth, Employer is ready, willing, and able to assign and to second to JPPHA the Employee to serve JPPHA as Interim Executive Director.

NOW, THEREFORE, in consideration of the foregoing, and in consideration of the premises and promises, terms and conditions set forth below, it is hereby agreed as follows:

1. **Secondment Period.** The Employer hereby assigns and seconds the Employee to JPPHA on the terms and conditions described herein to serve as the Interim Executive Director of JPPHA. The period of secondment with respect to the Employee shall commence on the Effective Date and shall terminate on December 31, 2024, subject to the earlier termination of this Agreement based on the conditions set out herein (the "Secondment Period"). In the event the Parties determine that they wish to renew the Secondment Period on or before the termination date set forth above, the Secondment Period may be automatically renewed for successive twelve-month periods (each a "Renewal Period") until this Agreement is terminated by written agreement of the Parties or pursuant to the termination provisions set forth in Section 8.

2. **Terms of Secondment.**

- (a) The Employer agrees to provide the Employee's services to JPPHA on a secondment basis, for the duration of the Secondment Period and any Renewal Period, to act in the capacity of Interim Executive Director for JPPHA. As the Interim Executive Director, the Employee shall provide to JPPHA the services described in Exhibit A, attached hereto and incorporated herein by reference (the "Services").
- (b) The Employee will provide the Services for during normal business hours (Mon. – Fri. 8:00 a.m. – 5:00 p.m.). In addition to such hours, the Employee may be required to work at other times as may be necessary for the proper performance of the Services. The Employee will be expected to work at City of Arvada, 8101 Ralston Road, Arvada, CO 80002 and such other locations as may be reasonably required by JPPHA.
- (c) The Employee will report to JPPHA's Board of Directors. The day-to-day direction and supervision of the Employee shall be the exclusive responsibility of JPPHA and its Board of Directors.
- (d) The Employee shall not be deemed to be an employee of JPPHA by virtue of this Agreement. The Employee shall not be entitled to any salary, benefits, or worker's compensation insurance from JPPHA.

3. **Employee's Status.**

- (a) The Employee shall remain an employee of the Employer throughout the Secondment Period and any Renewal Period.
- (b) Unless otherwise agreed to in advance by the Parties, all the terms and conditions that are applicable to Employer's employees generally, and as may, from time to time, be amended or modified, shall apply to Employee. Any variation to the Employee's terms of employment that may affect JPPHA's obligations hereunder, will be negotiated between the Employer and JPPHA, and shall require approval by the Employee, Employer, and JPPHA. Approval may not be unreasonably withheld, delayed, or conditioned the Parties.

4. **Discipline.** All disciplinary matters shall be dealt with by the Employer in accordance with the Employer's normal disciplinary procedures. JPPHA agrees to report to the Employer, at the earliest possible opportunity, any disciplinary issues or grievances raised by or on behalf of the Employee, and all matters which JPPHA believes may require disciplinary action. At all times during the Secondment Period and any Renewal Period, JPPHA will cooperate with Employer as may reasonably be required in the administration of Employer's policies, procedures, and personnel rules with respect to the Employee, in the investigation of any alleged violation by the Employee of Employer's policies, procedures, or personnel rules, and in the administration of discipline. Notwithstanding any provision in this Agreement to the contrary, the Employee is, at all times while on the premises of the Employer subject to Employer's policies, procedures, and personnel

rules, and JPPHA will assist the Employer in facilitating Employee's compliance therewith.

5. **Salary and Benefits.**

- (a) Employer and JPPHA agree that the Employee shall be paid Employee's annual salary as the Director of Finance. There is no additional compensation for performing the additional Services for JPPHA.
- (b) During the Secondment Period and any Renewal Period, the Employer shall be responsible for the payment of the Employee's wages, benefits, workers' compensation insurance, and any allowances, subject to required deductions in accordance with the Employer's policies and all laws applicable to Employer for the performance of the Services.

6. **Leave, Sick or Other Absence.** The Employee will continue to be eligible for leave, holidays and paid time off pursuant to the terms and conditions established by the Employer's policies. Employee will give reasonable advance notice to the Chair of the Board of Directors prior to any extended leave or other time off.

7. **Health and Safety.** During the Secondment Period and any Renewal Period, the Employee shall comply with JPPHA's instructions regarding security, safety, health, and welfare at work.

8. **Termination.**

- (a) Except as otherwise specifically provided herein, either Party may terminate this Agreement upon at least 60 days' notice to the other Party. The Parties may also terminate this Agreement at any time by mutual, written agreement.
- (b) If JPPHA alleges that the Employee has failed to perform the Services or has contravened JPPHA's policies, JPPHA may suspend or terminate this Agreement upon 7 days' notice to Employer. This notice must be in writing and must contain specific information about the circumstances of the allegations. Employer shall be entitled to rely upon JPPHA's statements in such circumstance and shall have no obligation to investigate or otherwise ascertain the factual basis of any allegation. Any allegation made in such circumstance shall be deemed solely that of JPPHA and shall not dictate how Employer may choose to discipline Employee in his capacity as a City of Arvada employee.
- (c) Either Party may terminate this Agreement due to a default or breach by the other Party. Every term and condition hereof shall be deemed to be a material element of this Agreement. In the event either Party should fail or refuse to perform according to the terms of this Agreement, such Party may be declared in default. In the event a Party declares a default by the other Party, such defaulting Party shall be allowed a period of 10 days within which to cure said default. In the event the default remains uncorrected thereafter, the Party declaring default may elect to (a) terminate the Agreement and seek damages; (b) treat the Agreement as continuing and require specific performance; or (c) avail itself of any other remedy at law or equity.

9. **Subject to Annual Appropriations.** The Parties do not intend hereby to create a multiple-fiscal year direct or indirect debt or other financial obligation whatsoever. The obligations of the Parties contained herein are subject to annual appropriation by their governing bodies of sufficient funds to carry out their respective obligations hereunder.
10. **General Provisions.**
- (a) **Special Damages.** Under no circumstances shall either Party be liable to the other Party for special, punitive, indirect, or consequential damages arising out of or in connection with this Agreement, including without limitation lost profits, loss of use, or loss of opportunity.
 - (b) **Waiver.** The waiver by either Party of any breach by the other of any term, covenant or condition contained in this Agreement shall not be deemed to be a waiver of any subsequent breach of the same or other term, covenant, or condition.
 - (c) **Governing Law.** This Agreement shall be governed exclusively by the laws of the State of Colorado.
 - (d) **Venue.** Venue for any dispute between the Parties arising out of or relating to this Agreement shall be in the State of Colorado District Court for Jefferson County, Colorado.
 - (e) **Amendments.** This Agreement may be amended at any time by written agreement of the Parties.
 - (f) **Compliance with All Laws.** The Parties shall comply with all federal, state and local laws, rules, regulations and ordinances applicable to the performance of this Agreement.
 - (g) **Notices.** All notices which are required, or which may be given under this Agreement shall be effective when delivered in person or mailed via registered or certified mail, postage prepaid and sent to the address set forth on each signature page attached hereto, unless another address is certified to the other Party.
 - (h) **Assignment.** The Parties may not assign any rights or delegate any duties under this Agreement, whether by assignment, subcontract, or other means. Any such attempted assignment or delegation shall be void and shall constitute a breach of this Agreement.
 - (i) **Entire Agreement.** This Agreement constitutes the entire agreement between the Parties. There are no understandings or agreements between the Parties other than those set forth in this Agreement. No other statement, representation or promise has been made to induce the Parties to enter into this Agreement.
 - (j) **Severability.** The invalidity or unenforceability of any term or provision of this Agreement shall not affect the validity or enforceability of any other term or provision and this Agreement shall be construed in all respects as if such invalid or unenforceable term or

provision was omitted.

- (k) Counterparts; Electronic Signatures. This Agreement may be executed in two counterparts, each of which shall be an original, but all of which, together, shall constitute one and the same instrument. The Parties consent to the use of electronic signatures and agree that the transaction may be conducted electronically pursuant to the Uniform Electronic Transactions Act, § 24-71.3-101, *et seq.*, C.R.S. The Agreement and any other documents requiring a signature may be signed electronically by either Party. The Parties agree not to deny the legal effect or enforceability of the Agreement, solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature on the grounds that it is an electronic record or an electronic signature or that it is not in its original form or is not an original.
- (l) No Joint Venture or Partnership. It is understood and agreed that this Agreement is solely for the benefit of the Parties hereto and gives no right to any other party. No joint venture or partnership is formed because of this Agreement.
- (m) No Third-Party Beneficiaries. The Parties to this Agreement do not intend to benefit any person not a party to this Agreement. No person or entity, other than the Parties to this Agreement, shall have any right, legal or equitable, to enforce any provision of this Agreement.
- (n) Section Headings. The section headings in this Agreement are inserted for convenience and are not intended to indicate completely or accurately the contents of the sections they introduce and shall have no bearing on the construction of the sections they introduce.
- (o) Governmental Immunity. Notwithstanding any other provision of this Agreement, nothing in this Agreement shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions of the Colorado Governmental Immunity Act, §24-10-101, *et seq.*, C.R.S. Each Party hereto shall be responsible for its own negligence and that of its agents and employees in the performance of this Agreement. If either Party is given notice of claim or suit against or involving the other arising from the actions to be performed hereunder, it agrees to give the other Party prompt written notice of such claim or suit.

IN WITNESS WHEREOF, the Parties have caused this Intergovernmental Agreement between the Jefferson Parkway Public Highway Authority (JPPHA) and the City of Arvada for the Secondment of an Arvada Employee to JPPHA to be executed on the Effective Date.

JEFFERSON PARKWAY PUBLIC HIGHWAY
AUTHORITY

Lesley Dahlkemper
Chair

BRYAN ARCHER

Bryan Archer
Director of Finance

CITY OF ARVADA, a Colorado municipal
corporation

Lauren Simpson, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM BY:

Kylie Justus
Rachel A. Morris, City Attorney

Exhibit A
Description of the Services

The proposed scope of duties for the Executive Director are to provide general management and supervision of the Jefferson Parkway and for all contracted individuals and firms currently engaged in the various aspects of the project. Typical tasks and duties include:

- Providing direction and feedback to Procurement pursuit team.
- Representing the Authority in various outreach efforts to the private sector leading to a concession agreement.
- Directing strategy to legal team engaged with the FAA.
- Working with engineering consultants to complete permitting necessary from CDOT for access permits.
- Preparation of agendas, monitoring expenditures, budget preparation, and other routine aspects of local government.
- Managing citizen engagement process.
- Responding to media inquiries and questions from citizens and various stakeholders.
- Representing the Authority in various local, regional, and national forums.
- Completing the metes and bounds of the parkway ROW through various publicly owned parcels.
- Working and corresponding with outside legal counsel and consultants as may be necessary from time to time.



REPORT TO CITY COUNCIL ORDINANCE FIRST READING

**AGENDA ITEM
8.C.1.**

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: CB24-005, An Ordinance Authorizing an Additional Appropriation for Fiscal Year 2024 (Public Hearing to be set for April 15, 2024 at 6:15 P.M.)

Report in Brief

The appropriation for the expenditure of funds from the 2023 budget lapsed on December 31, 2023. At the end of 2023, there were several projects/programs that had been approved, although not yet completed. In order to complete these projects, funds that were designated for these projects will now need to be carried over from the 2023 budget to the 2024 budget. These items total \$73,142,238. The majority of these carryovers are from the Enterprise Funds for ongoing capital improvement projects.

Additionally, there are several items that need to be added to the 2024 budget. The majority of these items are also capital in nature. These items total \$20,076,526.

Finally, during the 2024 budget process, City team members identified a group of one-time items, that if there were additional funds available at the end of 2023, would be presented for approval. These items total \$3,851,280.

The Arvada team recommends that the City Council approve CB24-005, An Ordinance Authorizing an Additional Appropriation for Fiscal Year 2024.

Financial Impact

The overall increase in the 2024 appropriation is \$97,070,044, consisting of \$73,142,238 of carryover items, \$20,076,526 in new items and \$3,851,280 in one-time items. Sufficient revenues exist to cover each of the new proposed budget items. These budget items, if approved, will be incorporated into the 2024-2034 ten-year financial plan.

Background

See attachment for a summary of items by fund.

CARRYOVERS

GENERAL FUND

Organizational Service and Effectiveness

City Attorney's Office

Several trainings for City Attorney team members were not completed in 2023 and will be completed in 2024. The request is to carry over \$41,000 for training.

The City Attorney's Office had estimated that certain litigation matters would occur in 2023. Some of this litigation will not happen until 2024, so the City Attorney's Office is requesting to carry over the remaining professional service funds of \$76,450.

City Manager's Office

Funds were set aside in 2023 for the DEI program and were not used. The City Manager's Office is requesting to carry over \$33,949 into 2024.

Hosting of the City's website was budgeted for 2024 and 2025 in the 2023 budget but not paid until 2024. The City Manager's office is requesting \$90,766 to be carried over into 2024 for this project.

Funds were budgeted in 2023 for a Legislative consultant. The consultant is now on board and the City Manager's office is requesting to carry over \$125,000 into 2024.

Funds were budgeted in 2023 for the Community Survey and not completed. The City Manager's office is requesting \$80,000 be carried over into 2024 for this program.

An Xcel Energy light pole assessment was started but not completed in 2023. The city Manager's office is requesting \$120,640 be carried over into 2024 to complete this project.

Funds were budgeted in 2023 for the homelessness program but not spent. The City Manager's office is requesting to carry \$27,042 over into 2024 for this program.

Finance

\$8,000,000 was budgeted in 2023 for a loan to AURA for a developer project at Ralston Creek. This loan was not executed in 2023, and a request is being made to carry this loan amount into 2024.

\$3,100,000 was budgeted in 2023 to purchase the property on West 60th Ave. The property was purchased in 2024. A request is being made to carry this amount to 2024 for the purchase of the property on West 60th Ave.

Human Resources

Human Resources was working on an office remodel and move in 2023. This project was not completed in 2023 and Human Resources is requesting to carry over \$50,000 to complete the remodel.

Funds were budgeted in 2023 for executive cohort training and not completed. Human Resources is requesting \$41,250 be carried over into 2024 to complete this program.

Funds were budgeted in 2023 for a Job Architecture project and not completed. Human Resources is requesting \$50,000 be carried over into 2024 to complete this project.

Information Technology

Funds were budgeted in 2023 for security training, which was not completed. Information Technology is requesting \$21,262 be carried over into 2024 for this training.

Safe Community

Judicial

A Full Court software upgrade was started in 2023 and was not completed. Courts is requesting \$6,000 be carried over into 2024 for this upgrade.

Funds were budgeted in 2022 for court appointed attorneys but not used. Courts is requesting to carry over \$20,000 into 2024.

Public Safety

Funds were budgeted for a Delta station concrete study which was not completed. Public Safety is requesting to carry \$15,200 into 2024 for this project.

Funds were budgeted in 2023 for a recruiting contract which was not completed. Public Safety is requesting to carry \$23,000 into 2024 for this contract.

Pepperballs were budgeted and ordered in 2023 but not received. Public Safety is requesting to carry \$8,940 into 2024 for these items.

Funds were budgeted in 2023 for load bearing vests but not received. Public Safety is requesting to carry \$8,108 into 2024 for

these items.

Community and Economic Development

Funds were budgeted for computer monitors and furniture in 2023 but not received. Community and Economic Development is requesting \$17,169 be carried over into 2024 for these items.

Infrastructure

Funds were budgeted for computer monitors and furniture in 2023 but not received. Public Works is requesting \$2,600 be carried over into 2024 for these items.

Funds were budgeted in 2023 for a signal master maintenance plan and not completed. Public Works is requesting \$135,000 be carried over to 2024 for this project.

Funds were budgeted in 2023 for a site scan single operator but not received. Public Works is requesting \$14,995 be carried over to 2024 for this item.

Virbrant Communities and Neighborhoods

The Energy Audit Program with Xcel Energy authorized an additional 80 homes in the program. Vibrant Communities and Neighborhoods is requesting \$8,000 be carried over into 2024 for this program.

Street Maintenance Fund

Delineator and rumble strips were budgeted and ordered in 2023 but not received. A request is being made to carryover \$120,000 for this purchase in 2024.

\$297,169 was contracted and budgeted for contract concrete work in 2023 and not completed. A request is being made to carryover \$297,169 to complete this work in 2024.

Emergency Fund

The City received \$10,383,800 in ARPA funds. \$142,020 of the funds have not been spent. The team is requesting to carry over these funds into 2024 to complete the ARPA funded projects.

Parks Fund

A donation was received in 2023 for the Arvada Reservoir in the amount of \$6,002. The improvements will not be completed until 2024. A request is being made to carryover \$6,002 to complete the work related to this donation.

Temporary wages were budgeted in 2023 for \$20,000 but not used, a request is being made to carryover \$20,000 to 2024 to utilize the \$20,000.

\$140,000 was budgeted in 2023 for LED security lighting and electric gate at Long Lake but not completed. A request is being made to carryover \$10,000 to 2024 for this project.

\$96,000 was budgeted in 2023 for tennis court overlay but not completed. A request is being made to carryover \$96,000 to 2024 for this project.

\$35,200 was budgeted in 2023 for lazer grading at Lutz but not completed. A request is being made to carryover \$35,200 to 2024 for this project.

\$128,000 for soccer goals at Lutz was budgeted and ordered in 2023 but not received. A request is being made to carryover \$128,000 to 2024 for these items.

\$25,000 was budgeted in 2023 for grass seed but not received. A request is being made to carry \$25,000 over into 2024 for this purchase.

\$17,559 was budgeted for repairs in 2023 and not completed. A request is being made to carry \$17,559 over into 2024 for

these repairs. The total cost of the repairs are \$35,117 with the Insurance fund is paying for one-half of these repairs.

Police Tax Increment .21 Fund

\$64,026 in grants were received to purchase geofencing and equipment in 2023, but the items will not be received until 2024. A request to carryover \$64,026 into 2023 for these items.

\$50,000 was budgeted in 2023 for a flock contract and Jefferson County Mental Health MOU which were not executed in 2023. A request to carryover \$50,000 into 2024 is being made for these agreements.

Pepperballs were budgeted and ordered in 2023 but not received. Public Safety is requesting to carry \$4,096 into 2024 for these items.

Police Tax Increment .25 Fund

\$9,995 was budgeted and ordered in 2023 for sim rounds and uniforms but not received. A request to carryover \$9,995 into 2024 is being made for these items.

\$8,930 was budgeted and ordered in 2023 for flashlights and sim gear but not received. A request to carryover \$8,830 into 2024 is being made for these items.

\$2,869 was budgeted in 2023 for SWAT helmets and e-ticketer paper but not received. A request to carryover \$2,896 into 2024 is being made for these items.

\$62,800 was budgeted in 2020 for the Jefferson County Mental Health MOU and not executed. A request to carryover \$62,800 is being made for this agreement.

Water Fund

\$32,862,561 was budgeted in 2023 for various capital improvement projects but not completed. A request to carryover \$32,862,561 is being made to complete these projects. Examples of the Capital Improvement projects include raw water treatment plant handling, pumped zones storage tank and pump station, smart meter upgrades Denver Moffat project and chemical system replacement.

\$32,463 was budgeted in 2023 for a financial planning model project but not completed. A request to carryover \$32,463 is being made to complete this project.

\$48,060 was budgeted for meter materials in 2023 but not received. A request to carryover \$48,060 is being made for these items.

\$160,000 was budgeted in 2023 for an integration between Cityworks and CIS Utility Billing and not completed. A request to carryover \$160,000 is being made to complete this integration in 2024.

\$133,461 was budgeted in 2023 for a jet vac truck but not received. A request to carryover \$133,461 is being made for this item.

\$75,120 was budgeted in 2023 for a tank cleaning but not completed. A request to carryover \$75,120 is being made to complete this work.

\$4,748,992 was budgeted in 2023 for watermain replacement but not completed. A request to carryover \$4,748,992 into 2024 is being made to complete this work.

\$18,658 was budgeted in 2023 for an AQ Property Contract and not completed. A request to carryover \$18,658 into 2024 is being made to complete this work.

\$65,772 was budgeted in 2023 for the Badger Meter Contract and was not completed. A request to carryover \$65,772 into 2024 is being made to complete this work.

\$75,000 was budgeted in 2023 for an Inland Potable Services contract and not completed. A request to carryover \$75,000 into 2024 is being made to complete this work.

Wastewater Fund

\$17,053,487 was budgeted in 2023 for various capital improvement projects but not completed. A request to carryover \$17,053,487 is being made to complete these projects. Examples of the Capital Improvement projects include the North Trunk Line Sewer Replacement, the Central Trunk Line Sewer Replacement and the Alkire Lift Station.

\$150,000 was budgeted in 2023 for CCTV services and not completed. A request is being made to carryover \$150,000 to 2024 to complete this work.

Golf Fund

\$18,050 was budgeted in 2023 for the Lake Arbor feasibility study and not completed. A request to carryover \$18,050 to 2024 is being made to complete this study.

\$405.00 was budgeted for remote software for the QSR system and not completed. A request is being made to carryover \$405.00 to 2024 for this software.

Stormwater Fund

\$1,535,944 was budgeted in 2023 for various capital improvement projects but not completed. A request to carryover \$1,535,944 is being made to complete these projects. Examples of the Capital Improvement projects include Lake Arbor Dredging and miscellaneous drainage projects.

\$24,560 was budgeted in 2023 for a MS4 contract and not completed. A request to carryover \$24,560 to 2024 is being made to complete this contract.

Vehicles Fund

The Vehicle fund ordered several vehicles and equipment in 2023 that will not be received until 2024. The Vehicle fund is requesting to carry over \$615,630 into 2023 for these purchases.

Computer Fund

The Computer fund is requesting to carry over \$1,791,000 for various technology projects in process. These projects relate to work that is being done for scanning equipment, radio system, plotter, phone system replacement, TVs in conference rooms and computer monitor replacement. A request is being made to carry \$1,791,000 into 2024 for these projects.

Insurance Fund

\$17,558 was budgeted for repairs in 2023 and not completed. A request is being made to carry \$17,558 over into 2024 for these repairs. The total cost of the repairs \$35,117 with the Parks fund paying for one-half of these repairs.

New Requests

General Fund

Several personnel positions were corrected and moved to the General Fund from the utility funds and the computer fund. These positions were not budgeted in the General Fund in 2024. This request is to budget these positions in the amount of \$2,067,621 which is being supported by transfers from the utilities and computer funds.

An increase of \$30,000 is being requested for the annual rent for AEDA's new office space.

An increase of \$30,000 is being requested for an emergency IVR purchase for the Trackit permitting system.

An increase of \$13,000 is being requested for ongoing utilities at 4600 West 60th Ave.

Streets Maintenance Fund

A personnel position was corrected and moved to the Streets Maintenance Fund from the utility fund. These positions were not budgeted in the Streets Maintenance fund in 2024. This request is to budget these positions in the amount of \$169,487, which is being supported by transfers from the utility fund.

An increase of \$1,900,000 is being requested due to additional one-time funding for the Streets Maintenance Fund. This supports the budget and fiscal policy budget director of "...50% of all excess revenues (year-end actual General Fund revenues over budgeted revenues) be appropriated to the street infrastructure as a supplemental budget appropriation in the first quarter of the subsequent year."

Parks Fund

An increase of \$41,027 is being requested for Majestic View Nature Center programs. This increase will be funded by additional SCFD grant funds.

An increase of \$6,050 is being requested for employee bonuses for employees at Majestic View Nature Center and Arvada Festivals.

An increase of \$2,383,797 is being requested for a grant received from Jeffco Open Space for trails. This request will allow the funds from this grant to be spent.

Police Tax Increment .21 Fund

An increase of \$500,000 is being made for funding for an evidence storage building.

Police Tax Increment .25 Fund

An increase of \$3,000,000 is being requested for funding for an evidence storage building.

Water Fund

An increase of \$1,921,308 is being requested for additional watermain replacement.

Wastewater Fund

An increase of \$820,000 is being requested for the the North Sewer Trunk Line replacement. This will be funded by bond proceeds from the 2022 bond issue.

Capital Improvement Projects Fund

Each year as part of new construction, Park tap fees are collected along with water taps. These fees are accumulated throughout the year and then transferred to the CIP to fund new park construction. The amount collected in 2023 was \$282,145. The team requests to appropriate these funds in 2024 for future park taps.

The Water fund provides revenue to CIP fund for irrigation improvements. In the early 1990's, a "3 cents per thousand gallons" calculation was created and collected by the Water fund. The amount collected in 2023 was \$193,740. The team requests to appropriate these funds in 2024 for future park irrigation projects.

Each year as part of new construction, Park development fees are collected. These fees are accumulated throughout the year in the CIP fund to fund new park construction. The amount collected in 2023 was \$305,195. The team requests to appropriate these funds in 2024 for future park projects along with tree replacements.

Each year as part of new construction, Lands Dedicated fees are collected. These fees are accumulated throughout the year in the CIP fund to fund new park construction. The amount collected in 2023 was \$1,193,648. The team requests to appropriate these funds in 2024 for future parks projects.

Each year, the City collects Adams County Transportation Tax revenue. This revenue is accumulated in the CIP to fund new traffic projects in Adams County. The amount collected in 2023 was \$266,104. The team requests to appropriate these funds in 2024 for future traffic projects.

Each year, the City collects Adams County Open Space Tax revenue. This revenue is accumulated in the CIP to fund new parks

projects in Adams County. The amount collected in 2023 was \$108,654. The team requests to appropriate these funds in 2024 for future park projects.

Each year, the City receives a Public Education and Government (PEG) fee from cable franchising companies. The amount collected in 2023 was \$80,009. The team requests to appropriate these funds in 2024 for eligible PEG purchases.

Each year interest is received in the Capital Improvement Projects Fund. The amount collected in 2023 was \$1,674,447. The team requests to appropriate these funds in 2024.

An increase of \$50,000 is being requested for the HR remodel and move. This funding is coming from the HR budget.

An increase of \$254,288 is being requested due to additional sales tax collected in 2023. This funding is referred to as 98-101 funds. The team requests to appropriate these funds in 2024 for use towards current CIP projects.

An increase of \$15,600 is being requested for the Raslaton Triangle Project. The funding for this project is from AURA.

An increase of \$12,599 is being requested for tree replacements. This is being funded by the Insurance Fund.

An increase of \$3,247 is being requested. These are funds remaining from the Lake Arbor Golf Improvement project and the request is to transfer these funds back to the CIP fund.

COP Fund

Each year interest is received in the COP fund. The amount collected in 2023 was \$939,218. The team requests to appropriate these funds in 2024.

An increase of \$443,541 is being requested for a grant received for the Meyer's Pool diving board. The team requests to appropriate these funds in 2024.

Construction Fund

Each year interest is received in the construction fund. The amount collected in 2023 was \$1,512,212. The team requests to appropriate these funds in 2024.

Insurance Fund

An increase of \$53,329 is being requested to fund a Health and Safety module for the Risk Management Origami software. There is sufficient fund balance for this purchase.

ONE TIME REQUESTS

A number of one-time requests were presented during the 2023 budget process as items that the Arvada team would like to fund if there were savings in the General Fund budget at the end of 2023. The table below shows these items. Our team proposes to fund all of these items in 2023 as part of this budget ordinance.

Item	
Batteries at the radio tower	\$ 40,000
IT workforce plan	55,000
Additional contribution to Streets Maintenance Fund	1,900,000
PD low staff retention bonus	850,000
Olde Town outreach	400,000
CRM replacement	175,000
ADA digital compliance	95,000
Arvada Center bathrooms	45,000
Turf removal	25,000
Homelessness strategic plan	145,000
Grazing	31 280
Accessibility documents	30 000

City Hall hot water boilers	60,000
Total	\$3,851,280

Discussion

The recommended action will authorize the expenditure of resources that aligns to the City Council's direction. A total of \$73,142,238 of the requests as described are funded as carryover of unspent resources approved as part of the 2023 operating and capital budget. A total of \$20,076,526 is funded by additional revenues, transfers from other funds, or reserves within the various funds within our fully balanced ten-year financial models. Finally, there are one-time requests totaling \$3,851,280 that are funded by a combination of unspent 2023 appropriations and additional 2023 revenue over budgeted estimates.

If approved by the City Council, total appropriations for 2024 will be \$484,536,141 as presented in the Carryover Summary attachment included with this agenda item.

Public Contact

Posting of the City Council Agenda

Commission Recommendation

N/A

Strategic Alignment

The proposed action aligns with the Organizational and Service Effectiveness worksystem within the City Council Strategic Plan by authorizing resources that will be administered by the Finance Department in accordance with applicable City Code and financial policies. Other worksystems that will be served through the recommended action include Safe Community, Infrastructure, Community and Economic Development and Vibrant Community and Neighborhoods.

Alternative Courses of Action

N/A

Recommendation for Action

The Arvada team recommends that the City Council approve CB24-005, An Ordinance Authorizing an Additional Appropriation for Fiscal Year 2024 and set the public hearing for April 15, 2024, at 6:15 pm.

Suggested Motion:

I move that CB24-005, An Ordinance Authorizing an Additional Appropriation for Fiscal Year 2024, be (approved on first reading, ordered published in full, and a public hearing set for April 15, 2024, at 6:15 p.m.) (rejected).

Prepared by:
Debra Nielson, Deputy Director of Finance

Reviewed by:

Approved by:

Jenna Belec, Executive Assistant	3/15/2024
Bryan Archer, Director of Finance	3/18/2024
Gail Walker, Legal Specialist-Contracts	3/18/2024
Laura Hemler, Assistant City Attorney	3/18/2024
Rachel Morris, City Attorney	3/19/2024
Linda Haley, Deputy City Manager	3/19/2024
Lorie Gillis, City Manager	3/19/2024

Enclosure, exhibits & attachments required to support the report

COUNCIL BILL NO. CB24-005
ORDINANCE NO. _____

AN ORDINANCE AUTHORIZING AN ADDITIONAL APPROPRIATION FOR
FISCAL YEAR 2024

WHEREAS, the City Council of the City of Arvada adopted Ordinance No. 4860 (Council Bill No. 23-027), which authorized the annual appropriation for Fiscal Year 2024; and

WHEREAS, Section 10.8(a) of the Arvada Home Rule Charter provides that City Council may make additional appropriations by Ordinance during the fiscal year for unanticipated expenditures required of the City; and

WHEREAS, the City Council of the City of Arvada finds that an additional appropriation is necessary in order for the City to meet unanticipated expenditures; and

WHEREAS, the City Council of the City of Arvada further finds that such additional expenditures and budgeted expenses do not exceed budgeted revenues and reserves for Fiscal Year 2024.

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

Section 1. The following sums of money as may be needed or deemed necessary to defray the expenses and liabilities of the City of Arvada are hereby appropriated for Fiscal Year 2024.

City of Arvada Final Appropriation

Fund	Final Budget
General Fund	\$142,685,036
Conservation Trust Fund	190,016
Street Maintenance Fund	15,311,629
Community Development Fund	1,226,248
Housing Authority Fund	6,021,464
Emergency Fund	142,020
Parks Fund	17,236,113
Police Seizure	31,222
Police Tax Increment Fund .21	8,209,541
Police Tax Increment Fund .25	11,353,974
Debt Service	5,804,282
COP Debt Service Fund	3,277,484
Capital Improvement Projects Fund	12,495,448

Construction Fund	2,894,971
Water Fund	141,548,193
Wastewater Fund	73,995,416
Golf Course Fund	8,028,653
Stormwater Fund	8,321,794
Solid Waste Fund	4,737,907
Insurance Fund	3,619,203
Computer Replacement Fund	8,819,141
Print Shop	365,994
Vehicle Fund	7,744,330
Building Fund	476,062
Total Appropriation	\$484,536,141

Section 2. This Ordinance shall take effect five days after publication following final passage.

INTRODUCED, READ, AND ORDERED PUBLISHED this 1st day of April, 2024.

PASSED, ADOPTED, AND APPROVED this _____ day of _____, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

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

By: _____

Publication Dates: April 4, 2024

Fund	Original Budget	Carry over	One-time	New Requests
General Fund	\$ 124,576,764	\$ 12,116,371	\$ 3,851,280	\$ 2,140,621
Grants Fund	190,016	\$ -	-	\$ -
Street Maintenance Fund	12,824,973	\$ 417,169	-	\$ 2,069,487
Community Development	1,226,248	\$ -	-	\$ -
Arvada Housing	6,021,464	\$ -	-	\$ -
ARPA	-	\$ 142,020	-	\$ -
Parks Fund	14,337,478	\$ 467,761	-	\$ 2,430,874
Police Seizure Fund	31,222	\$ -	-	\$ -
Police Tax Increment .21	7,591,419	\$ 118,122	-	\$ 500,000
Police Tax Increment .25	8,269,420	\$ 84,554	-	\$ 3,000,000
COP Debt Service	3,277,484	\$ -	-	\$ -
Debt Service	5,804,282	\$ -	-	\$ -
Capital Projects Fund	8,249,512	\$ -	-	\$ 4,245,936
Construction Fund	-	\$ -	-	\$ 2,894,971
Water Fund	101,037,278	\$ 38,589,607	-	\$ 1,921,308
Wastewater Fund	55,971,929	\$ 17,203,487	-	\$ 820,000
Golf Course Fund	8,010,198	\$ 18,455	-	\$ -
Stormwater Fund	6,761,290	\$ 1,560,504	-	\$ -
Solid Waste Fund	4,737,907	\$ -	-	\$ -
Insurance Fund	3,548,316	\$ 17,558	-	\$ 53,329
Computers	7,028,141	\$ 1,791,000	-	\$ -
Print Shop	365,994	\$ -	-	\$ -
Vehicles	7,128,700	\$ 615,630	-	\$ -
Buildings	476,062	\$ -	-	\$ -
Total	\$ 387,466,097	\$ 73,142,238	\$ 3,851,280	\$ 20,076,526

Revised Budget	
\$	142,685,036
\$	190,016
\$	15,311,629
\$	1,226,248
\$	6,021,464
\$	142,020
\$	17,236,113
\$	31,222
\$	8,209,541
\$	11,353,974
\$	3,277,484
\$	5,804,282
\$	12,495,448
\$	2,894,971
\$	141,548,193
\$	73,995,416
\$	8,028,653
\$	8,321,794
\$	4,737,907
\$	3,619,203
\$	8,819,141
\$	365,994
\$	7,744,330
\$	476,062
\$	484,536,141



REPORT TO CITY COUNCIL ORDINANCE FIRST READING

AGENDA ITEM
8.C.2.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: CB24-006, An Ordinance Repealing and Reenacting Certain Sections of Chapter 6 Alcoholic Beverages, of the Arvada City Code (Public Hearing to be set for April 15, 2024 at 6:15 p.m.)

Report in Brief

The City team has been looking at a possible change in Arvada's local liquor licensing authority ("LLA") structure. By transitioning the LLA to a hearing officer, the City would provide a more expeditious, efficient, fair, consistent, and business-friendly process for businesses wishing to obtain an Arvada liquor license and for addressing violations of the liquor code. While the City would lose the citizen participation aspect of the current LLA, it would minimize the risk associated with the lack of specialization of such boards and the risk of improper agendas or biases. Additionally, because the LLA is a quasi-judicial authority with narrow discretion, having a hearing officer would minimize the City's risk of appeal to the district court due to an insufficient record or improper legal analysis. Therefore, staff recommends City Council support an amendment to the Arvada City Code to designate a hearing officer to serve as the LLA.

The Arvada team recommends that the City Council approve CB24-006, An Ordinance Repealing and Reenacting Certain Sections of Chapter 6 Alcoholic Beverages, of the Arvada City Code be approved.

Financial Impact

There will be cost savings by designating a hearing officer to serve as the Liquor Licensing Authority.

Currently, the LLA meetings cost the City significant resources. An assistant city attorney, deputy city clerk, liquor licensing investigator, and facilities staff are all compensated to stay past working hours for the meetings which take place twice a month at City Hall at 5:30 p.m. Each of the five members of the Liquor Licensing Authority are also compensated at a rate of \$75 per meeting. There are also time obligations for the City Clerk and City Council in interviewing and selecting new board members each year, as well as for the City Attorney to train the new members. Selecting a single hearing officer would save the City all these resources by reducing the need for training, appointments, compensatory time/overtime, and meeting time.

Background

In 1935, Colorado passed its first licensing code for alcohol to protect the "social and economic welfare and the health, peace, and morals of this state." This licensing code has persisted as the law in Colorado since then, although it has been amended many times. Under the current Code, local jurisdictions have the right to regulate retail (not manufacturer or wholesaler) licenses within their jurisdiction by establishing a Liquor Licensing Authority which is "the governing body of a municipality or city and county, the board of county commissioners of a county, or any authority designated by municipal or county charter, municipal ordinance, or county resolution." The Code does not mandate any particular composition of the Liquor Licensing Authority. Since 1960, Arvada has had a Liquor Licensing Authority. Over the years, the type of entity designated by Arvada as the LLA has changed from the City Manager to the current five-member citizen board.

Many nearby jurisdictions have switched to the hearing officer approach for their LLAs. This includes Denver, Centennial, Golden, Castle Rock, Commerce City, Loveland, Lakewood, Superior (for violations only), and Fort Collins. The change would allow the City to have virtual hearings, making it easier for business owners to attend. Additionally, having a hearing officer who is a legally trained judge would help streamline hearings by ensuring focus on proper legal considerations.

Discussion

The Liquor Licensing Authority is not a policy-making body but acts in a quasi-judicial manner, primarily to: (a) consider whether to grant new liquor licenses; and (b) determine if a violation of the Code has occurred and if so, to impose administrative sanctions within the Liquor Licensing Authority and State-adopted guidelines. With a conversion to a hearing officer acting as the Liquor Licensing Authority, the same legal standards for approval of a new license shall remain. The legal standards are limited to consideration of the following: (1) whether the needs and desires of the neighborhood are being met; (2) the moral character of the applicant. Notifications to the public of all hearings will be provided in the same manner and any member of the public may attend. Additionally, the sanctions imposed for violations of the Code are based on a set of written guidelines that are consistent with previous cases and the State's guidelines. Because the Liquor Licensing Authority acts as a quasi-judicial body, a hearing officer is uniquely qualified to analyze evidence, apply it to the required criteria, and reach a well-reasoned, supported, and defensible decision for the City. The appeal process for aggrieved applicants, licensees, or opponents to a new license will be unchanged (an appeal to the district court in Jefferson County). Having a hearing officer with legal and professional experience having a good record that supports the decision will ensure that the City is in a good position to withstand an appeal. A hearing officer would ensure that decisions are fair and consistent with the law and that all applicants are treated with respect.

Public Contact

Posting of the City Council agenda.

Commission Recommendation

N/A

Strategic Alignment

This item is aligned with the Organizational and Service Effectiveness principle to provide leadership, policy and guidance, communication, and engagement services to the City Council, the community, and the organization, utilizing a values-driven organizational culture, ethical behavior, and transparency to the community to maintain public trust.

Alternative Courses of Action

None

Recommendation for Action

The Arvada team recommends that the City Council approve CB24-006, An Ordinance Repealing and Reenacting Certain Sections of Chapter 6 Alcoholic Beverages, of the Arvada City Code and a Public Hearing to be set for April 15, 2024, at 6:15 p.m.

Suggested Motion:

I move that CB24-006, An Ordinance Repealing and Reenacting Certain Sections of Chapter 6 Alcoholic Beverages, of the Arvada City Code, be (approved on first reading, ordered published in full, and a public hearing set for April 15, at 6:15 p.m. (rejected)).

Prepared by:
Kristen Rush, City Clerk

Reviewed by:

SUBJECT: CB24-006, An Ordinance Repealing and Reenacting Certain Sections of Chapter 6 Alcoholic Beverages, of the Arvada City Code (Public Hearing to be set for April 15, 2024 at 6:15 p.m.)

PAGE: 3
ITEM: 8.C.2.

Approved by:

Gail Walker, Legal Specialist-Contracts	3/12/2024
Kylie Justus, Assistant City Attorney	3/12/2024
Rachel Morris, City Attorney	3/19/2024
Linda Haley, Deputy City Manager	3/19/2024
Lorie Gillis, City Manager	3/19/2024

Enclosure, exhibits & attachments required to support the report

COUNCIL BILL NO. CB24-006
ORDINANCE NO.

AN ORDINANCE REPEALING AND REENACTING CERTAIN SECTIONS OF CHAPTER 6,
ALCOHOLIC BEVERAGES, OF THE ARVADA CITY CODE

WHEREAS, since 1960, Arvada has had a liquor licensing authority charged with regulating and disciplining retail liquor licenses within the City; and

WHEREAS, Arvada's current liquor licensing authority is composed of five citizens appointed by City Council; and

WHEREAS, in order to increase efficiency, reduce legal risk, save costs, and facilitate hearings for licensees, City Council finds that it is in Arvada's best interest to transition from a citizen board to a hearing officer.

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

Section 1. Section 6-5, Penalties, of Article I, In General, of Chapter 6 – Alcoholic Beverages, of the Arvada City Code is hereby repealed and reenacted to read as follows:

“Sec. 6-5. Penalties.

- (a) Except as otherwise provided in this section 6-5, any violation of this chapter shall be punishable by a fine not to exceed the limits established in section 1-5.
- (b) Any licensee or permit holder who violates, or any licensee or permit holder whose employees violate, any of the terms of this chapter or of Title 44, Articles 3, 4 and 5, C.R.S., or the rules and regulations related thereto, shall be subject to suspension or revocation of his or her license pursuant to the laws of the State, the imposition of a fine in lieu of suspension under the provisions of Section 44-3-601(3), C.R.S., written reprimand, or such other penalty as the licensing authority deems appropriate.
 - (1) Revocation or suspension of license. The licensing authority may, on its own motion or on complaint, after investigation and public hearing at which the licensee shall be afforded an opportunity to be heard, suspend or revoke any license or permit issued by the authority for any violation by the licensee or by any of the agents, servants, or employees of such licensee of the provisions of this chapter, or any of the rules or regulations authorized pursuant to this chapter or of any of the terms, conditions, or provisions of the license or permit issued by the authority.
 - (2) Fine in lieu of suspension. Whenever a decision of the licensing authority suspending a license for 14 days or less becomes final, whether by failure of the licensee to appeal the decision or by exhaustion of all appeals and judicial review, the licensee may, before the operative date of the suspension or such earlier date as the licensing authority may designate in its decision, petition the authority for

permission to pay a fine in lieu of having the license suspended for all or part of the suspension period. The authority may, in its sole discretion and otherwise in accordance with the State's sentencing guidelines, stay the proposed suspension in part or in whole and grant the petition if it finds, after any investigation that it deems desirable, that:

- (i) The public welfare and morals would not be impaired by permitting the licensee to operate during the period set for suspension and that the payment of the fine in lieu of suspension will achieve the desired disciplinary purpose; and
 - (ii) The books and records of the licensee are kept in such a manner that the loss of sales during the proposed suspension can be determined with reasonable accuracy therefrom; and
 - (iii) The licensee has not had its license suspended or revoked nor had any suspension stayed by payment of a fine in lieu of suspension during the two years immediately preceding the date of the motion or complaint which has resulted in a final decision to suspend the license.
- (c) Payment of any fine in lieu of suspension shall be in the form of cash, a certified check or a cashier's check payable to the city. Such fine in lieu of suspension shall be paid into the general fund of the city.
- (d) The licensing authority may grant such conditional or temporary stays as are necessary for it to complete its investigations, to make its findings as specified in subsection (a) above, and to grant a permanent stay of the entire or part of the suspension. If no permanent stay is granted, the suspension shall go into effect on the operative date finally set by the licensing authority.
- (e) In this section 6-5(b) "fine in lieu of suspension" means a form of discipline imposed pursuant to this article in lieu of a suspension. Any fine in lieu of suspension shall be within the limits imposed by Title 44, Article 3 of the Colorado Revised Statutes, and the corresponding Code of Colorado Regulations.

Section 2. Division 2, Licensing Authority, of Article II, Licenses, of Chapter 6, Alcoholic Beverages, of the Arvada City Code is hereby repealed and reenacted to read as follows:

“ARTICLE II. LICENSES

DIVISION 2. LICENSING AUTHORITY

Sec. 6-61. Established.

There is hereby established a local licensing authority, which shall have and is vested with the authority to grant or refuse licenses for the sale at retail of malt, vinous or spirituous liquors and fermented malt beverages, as provided by law; to conduct investigations as are required by law; and to suspend or revoke such licenses for cause in the manner provided by law. Such authority shall have all the powers of the local licensing authority as set forth in C.R.S. title 44, art. 3, 4, or 5.

Sec. 6-62. Composition.

- (a) *Hearing Officer.* The authority shall consist of a sole hearing officer. The hearing officer may be chosen by the city clerk from any of the city's appointed judges as described in article III of chapter 58 of this Code. While only one hearing officer shall preside over any meeting of the authority, the city clerk may select the hearing officer for any meeting from the pool of appointed judges.
- (b) *Qualifications.* In addition to being a judge appointed pursuant to article III of chapter 58 of this Code, a hearing officer must be an attorney currently licensed to practice in the State and be in good standing with the Supreme Court of the State. The hearing officer or any person in the hearing officer's immediate family must not have any financial interest in a liquor licensed establishment within the city. Ownership of stock solely for investment purposes in a corporation whose stock is publicly traded shall not be deemed to be a disqualifying financial interest.
 - (1) For purposes of this section, "immediate family" means the hearing officer's spouse or person who identifies as their significant other or domestic partner and whose primary residence or place of primary abode is the same as that of the hearing officer. It also means the hearing officer's child, parent, sibling, aunt, uncle, or cousin, including biological, step, adopted foster, or in-law relationships.

Sec. 6-63. Compensation.

The hearing officer shall receive the hourly compensation described in the hearing officer's employment contract with the city. If the hearing officer is a salaried employee of the city, the hearing officer shall not be paid any additional compensation.

Sec. 6-64. Removal of a hearing officer.

All hearing officers shall serve at the pleasure of city council and may be prohibited from serving as a hearing officer of the authority, with or without cause, by majority vote of city council.

Sec. 6-65. City clerk as secretary; duties; powers.

- (a) The city clerk shall receive all applications for licenses and permits under this chapter, and shall issue all licenses and permits granted by the licensing authority, upon receipt of such license and permit fees and taxes as are required by law and this chapter. The city clerk shall serve as the official secretary of the authority and shall designate a person to provide the necessary secretarial and reporting services for the authority. The city clerk or designee shall attend the meetings of the authority. All public notice by publication in a newspaper and by the posting of signs, as required by the C.R.S. title 44, art. 3, 4, or 5, as amended, shall be accomplished by the city clerk.
- (b) The city clerk may administratively review and issue, without consideration of the licensing authority, all types of liquor license and permit applications, except that the following shall be approved or heard by the licensing authority:

- (1) New liquor license applications; provided that the city clerk will accept the file for processing, set the applicable neighborhood boundaries, and set the date of the public hearing;
 - (2) Transfer applications;
 - (3) Applications for Modification of Licensed Premises, excluding applications for temporary modifications;
 - (4) Violations or actions related to violations and show cause hearings; and
 - (5) Applications for change of location.
- (c) Notwithstanding the foregoing, the city clerk may refer any licensing determination authorized under this section to the local licensing authority for its consideration at his or her sole discretion.
 - (d) The authority may authorize the city clerk to administratively approve liquor license applications not otherwise required by applicable law to be considered by the authority.

Sec. 6-66. Administrative procedures; legal counsel.

- (a) *Administrative procedures.* The authority may adopt administrative procedures, rules, and policies as necessary or convenient to implement the provisions of this chapter 6 of the Code and Colorado Liquor Code in accordance with chapter 2 of this Code.
- (b) *Legal counsel.* The city attorney or designee thereof shall be the legal advisor to the authority and shall serve as prosecutor for violations of this Code or Colorado Liquor Code. In the event of a conflict, the city attorney may appoint outside legal counsel.

Secs. 6-67—6-90. Reserved.”

Section 3. Section 6-164, Notice and public hearing, of Article V, Entertainment Districts and Common Consumption Areas, of Chapter 6, Alcoholic Beverages, of the Arvada City Code is hereby repealed and reenacted to read as follows:

“Sec. 6-164. Notice and public hearing.

- (a) *Public notice, posting, and publication.*
 - (1) Upon receipt of a complete application for certification of a promotional association and issuance of a common consumption area license, the city clerk shall schedule one public hearing on both applications before the authority at least 30 days after the acceptance date, but not more than 91 days after the acceptance date. The city clerk shall post and publish the public notice thereof at least ten days prior to the public hearing. Public notice shall be given by the conspicuous posting of a sign at each participating business within and attached to the common consumption area and by publication in a newspaper of general circulation.
 - (2) Notice shall otherwise conform to the requirements of C.R.S. § 44-3-311, as amended, and any other requirements set forth by the city clerk.

(b) *Conduct of public hearings.*

- (1) The city clerk shall designate the neighborhood being affected by such application. The designation of the geographical extent and boundaries of such neighborhood shall be within the sole discretion of the city clerk.
- (2) All exhibits presented at a public hearing must be filed with the clerk's office at least 72 hours prior to the public hearing.
- (3) At the public hearing held pursuant to this section, any party in interest shall be allowed to present relevant evidence and to cross-examine witnesses. Other than the applicant, any party in interest who wishes to present evidence or cross-examine witnesses at the public hearing must notify the city clerk at least 24 hours prior to the hearing of their intent to do so. As used in this section, "party in interest" means any of the following:
 - (i) The applicant;
 - (ii) An adult resident of the neighborhood under consideration;
 - (iii) The owner or manager of a business located in the neighborhood under consideration;
 - (iv) The principal or representative of any school located within five hundred feet of the boundaries of the common consumption area; or
 - (v) An authorized representative of a registered neighborhood organization that encompasses all or part of the neighborhood under consideration.
- (4) At the public hearing held pursuant to this section, the authority may:
 - (i) Set time limits on evidence and testimony;
 - (ii) Limit evidence and testimony if such evidence is irrelevant or cumulative; and
 - (iii) Cease the examination of a witness if the witness is being harassed, badgered, or disrespected by the examiner.
- (5) Other than the provisions specified in this section, public hearings shall be held in accordance with chapter 2 of the Arvada City Code and the Colorado Liquor Code.

(c) *Results of investigation; decision of the authority.*

- (1) At least seven days prior to the date of hearing, the city clerk shall make known the findings based on the liquor licensing control investigator's initial investigation of the application documents in writing to the applicant and the authority.
- (2) Before certifying a promotional association and issuing a common consumption area license, the authority shall consider the reasonable requirements of the neighborhood, the desires of the adult inhabitants as evidenced by petitions, remonstrances, or otherwise, and all other reasonable restrictions that are or may be placed upon the licensee.
- (3) Before entering any decision approving or denying the application, the authority shall consider, except where this article specifically provides otherwise, the facts

and evidence adduced as a result of its investigation and the public hearing required by this section, and any other pertinent matters affecting the qualifications of the applicant for issuance of a common consumption area license and certification of a promotional association including this article, the Colorado Liquor Code, chapter 6 of the Arvada City Code, or any rules and regulations adopted pursuant thereto.

- (4) Unless additional time is necessary to fully investigate an application, any decision of the authority approving or denying an application shall be stated on the record after the evidence is presented at the public hearing. A copy of the decision shall be sent by certified mail to the applicant at the address shown in the application and to the state licensing authority.”

Section 4. Severability. If any section, paragraph, sentence, clause, or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The city council declares that it would have adopted this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 5. This ordinance shall be effective five days after publication following final passage.

INTRODUCED, READ, AND ORDERED PUBLISHED this 1st day of April, 2024.

PASSED, ADOPTED, AND APPROVED this _____ day of _____, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

Rachel A. Morris, City Attorney

By: _____

Publication Dates: April 4, 2024

REDLINE/STRIKEOVER VERSION

FOR INFORMATION ONLY – NOT PART OF THE ORDINANCE

Underlined indicates new material
~~Strikethrough~~ indicates deleted material

Section 1. Section 6-5, Penalties, of Article I, In General, of Chapter 6 – Alcoholic Beverages, of the Arvada City Code is hereby repealed and reenacted to read as follows:

“Sec. 6-5. Penalties.

- (a) Except as otherwise provided in this section 6-5, any violation of this chapter shall be punishable by a fine not to exceed the limits established in section 1-5.
- (b) Any licensee or permit holder who violates, or any licensee or permit holder whose employees violate, any of the terms of this chapter or of Title 44, Articles 3, 4 and 5, C.R.S, or the rules and regulations related thereto, shall be subject to suspension or revocation of his or her license pursuant to the laws of the State, the imposition of a fine in lieu of suspension under the provisions of Section 44-3-601(3), C.R.S., written reprimand, or such other penalty as the licensing authority deems appropriate.
 - (1) Revocation or suspension of license. The licensing authority may, on its own motion or on complaint, after investigation and public hearing at which the licensee shall be afforded an opportunity to be heard, suspend or revoke any license or permit issued by the authority for any violation by the licensee or by any of the agents, servants, or employees of such licensee of the provisions of this chapter, or any of the rules or regulations authorized pursuant to this chapter or of any of the terms, conditions, or provisions of the license or permit issued by the authority.
 - (2) Fine in lieu of suspension. Whenever a decision of the licensing authority suspending a license for 14 days or less becomes final, whether by failure of the licensee to appeal the decision or by exhaustion of all appeals and judicial review, the licensee may, before the operative date of the suspension or such earlier date as the licensing authority may designate in its decision, petition the authority for permission to pay a fine in lieu of having the license suspended for all or part of the suspension period. The authority may, in its sole discretion and otherwise in accordance with the State's authority's sentencing guidelines, stay the proposed suspension in part or in whole and grant the petition if it finds, after any investigation that it deems desirable, that:
 - (i) The public welfare and morals would not be impaired by permitting the licensee to operate during the period set for suspension and that the payment of the fine in lieu of suspension will achieve the desired disciplinary purpose; and
 - (ii) The books and records of the licensee are kept in such a manner that the loss of sales during the proposed suspension can be determined with reasonable accuracy therefrom; and

- (iii) The licensee has not had its license suspended or revoked nor had any suspension stayed by payment of a fine in lieu of suspension during the two years immediately preceding the date of the motion or complaint which has resulted in a final decision to suspend the license.
- (c) Payment of any fine in lieu of suspension shall be in the form of cash, a certified check or a cashier's check payable to the city. Such fine in lieu of suspension shall be paid into the general fund of the city.
- (d) The licensing authority may grant such conditional or temporary stays as are necessary for it to complete its investigations, to make its findings as specified in subsection (a) above, and to grant a permanent stay of the entire or part of the suspension. If no permanent stay is granted, the suspension shall go into effect on the operative date finally set by the licensing authority.
- (e) In this section 6-5(b) "fine in lieu of suspension" means a form of discipline imposed pursuant to this article in lieu of a suspension. Any fine in lieu of suspension shall be within the limits imposed by Title 44, Article 3 of the Colorado Revised Statutes, and the corresponding Code of Colorado Regulations. ~~the equivalent of 20 percent of the retail licensee's estimated gross revenues from sales of alcoholic beverages during the period of the proposed suspension, except that the fine shall be not less than \$200.00 nor more than \$5,000.00.~~

Section 2. Division 2, Licensing Authority, of Article II, Licenses, of Chapter 6, Alcoholic Beverages, of the Arvada City Code is hereby repealed and reenacted to read as follows:

“ARTICLE II. LICENSES

DIVISION 2. LICENSING AUTHORITY

Sec. 6-61. Established.

There is hereby established a local licensing authority, which shall have and is vested with the authority to grant or refuse licenses for the sale at retail of malt, vinous or spirituous liquors and fermented malt beverages, as provided by law; to conduct investigations as are required by law; and to suspend or revoke such licenses for cause in the manner provided by law. Such authority shall have all the powers of the local licensing authority as set forth in C.R.S. title 44, art. 3, 4, or 5.

Sec. 6-62. Composition ~~Composition.~~

- (a) Hearing Officer. The authority shall consist of a sole hearing officer. The hearing officer may be chosen by the city clerk from any of the city's appointed judges as described in article III of chapter 58 of this Code. While only one hearing officer shall preside over any meeting of the authority, the city clerk may select the hearing officer for any meeting from the pool of appointed judges. ~~five qualified electors of the city, who shall be appointed by the city council. Of those initially appointed two shall be for a term of three years, two for a term of two years and one for a one-year term. Thereafter, appointments shall be for a three-year term. No person shall serve as a member of the local licensing authority who shall have any interest in the operation of an Arvada liquor establishment or in one serving~~

~~fermented malt beverages or who has a member of his immediate family who has such an interest.~~

(b) Qualifications. In addition to being a judge appointed pursuant to article III of chapter 58 of this Code, a hearing officer must be an attorney currently licensed to practice in the State and be in good standing with the Supreme Court of the State. The hearing officer or any person in the hearing officer's immediate family must not have any financial interest in a liquor licensed establishment within the city. Ownership of stock solely for investment purposes in a corporation whose stock is publicly traded shall not be deemed to be a disqualifying financial interest.

(1) For purposes of this section, "immediate family" means the hearing officer's spouse or person who identifies as their significant other or domestic partner and whose primary residence or place of primary abode is the same as that of the hearing officer. It also means the hearing officer's child, parent, sibling, aunt, uncle, or cousin, including biological, step, adopted foster, or in-law relationships.

Sec. 6-63. Compensation; ~~expenses.~~

The hearing officer shall receive the hourly compensation described in the hearing officer's employment contract with the city. If the hearing officer is a salaried employee of the city, the hearing officer shall not be paid any additional compensation. Members of the licensing authority shall receive compensation in the amount provided in section 2-77 and shall be reimbursed for any necessary expenditures incurred in the performance of their duties.

Sec. 6-64. Removal of a hearing officer ~~Chair; quorum; voting; appeals.~~

All hearing officers shall serve at the pleasure of city council and may be prohibited from serving as a hearing officer of the authority, with or without cause, by majority vote of city council. The licensing authority shall annually elect a chair and a chair pro tem who shall preside over all hearings and proceedings of the authority. The chair may designate a member of the authority to assume his duties in his absence, generally the chair pro tem. A quorum shall consist of three members, and a decision of a majority of the members of the authority shall control. Any absent member may join in a decision of the authority after he has considered the evidence adduced in any hearings conducted during his absence. All decisions are final, subject only to appeal to a court of competent jurisdiction.

Sec. 6-65. City clerk as secretary; duties; powers.

(a) The city clerk shall receive all applications for licenses and permits under this chapter, and shall issue all licenses and permits granted by the licensing authority, upon receipt of such license and permit fees and taxes as are required by law and this chapter. The city clerk shall serve as the official secretary of the authority and shall designate a person to provide the necessary secretarial and reporting services for the authority. The city clerk or designee shall attend the meetings of the authority. All public notice by publication in a newspaper and by the posting of signs, as required by the C.R.S. title 44, art. 3, 4, or 5, as amended, shall be accomplished by the city clerk.

- (b) The city clerk may administratively review and issue complete, without consideration of the licensing authority, all types of liquor license and permit applications, except that the following shall be approved or heard by the licensing authority:
- (1) New liquor license applications; provided that the city clerk will accept the file for processing, set the applicable neighborhood boundaries, and set the date of the public hearing;
 - (2) Transfer applications;
 - (3) Applications for Modification of Licensed Premises, excluding applications for temporary modifications;
 - (4) Violations or actions related to violations and show cause hearings; and
 - (5) Applications for change of location.
- (c) Notwithstanding the foregoing, the city clerk may refer any licensing determination authorized under this section to the local licensing authority for its consideration at his or her sole discretion.
- (d) The authority may authorize the city clerk to administratively approve liquor license applications not otherwise required by applicable law to be considered by the authority.

Sec. 6-66. ~~Removal of members; vacancies.~~ Administrative procedures; legal counsel.

- (a) Administrative procedures. The authority may adopt administrative procedures, rules, and policies as necessary or convenient to implement the provisions of this chapter 6 of the Code and Colorado Liquor Code in accordance with chapter 2 of this Code. ~~y member of the licensing authority may be removed with or without cause by a majority vote of the city council. Any vacancy occurring on the licensing authority as a result of such removal shall be filled for the unexpired term by a qualified elector appointed by the city council.~~
- (b) Legal counsel. The city attorney or designee thereof shall be the legal advisor to the authority and shall serve as prosecutor for violations of this Code or Colorado Liquor Code. In the event of a conflict, the city attorney may appoint outside legal counsel.

Secs. 6-67—6-90. Reserved.”

Section 3. Section 6-164, Notice and public hearing, of Article V, Entertainment Districts and Common Consumption Areas, of Chapter 6, Alcoholic Beverages, of the Arvada City Code is hereby amended to read as follows:

“Sec. 6-164. Notice and public hearing.

(a) *Public notice, posting, and publication.*

- (1) Upon receipt of a complete application for certification of a promotional association and issuance of a common consumption area license, the city clerk shall schedule one public hearing on both applications before the authority at least 30 days after the acceptance date, but not more than 91 days after the acceptance date. The city clerk shall post and publish the public notice thereof at least ten days prior to the public hearing. Public notice shall be given by the conspicuous posting of a sign at each participating business within and attached to the common consumption area and by publication in a newspaper of general circulation.
- (2) Notice shall otherwise conform to the requirements of C.R.S. § 44-3-311, as amended, and any other requirements set forth by the city clerk.

(b) *Conduct of public hearings.*

- (1) The city clerk shall designate the neighborhood being affected by such application. The designation of the geographical extent and boundaries of such neighborhood shall be within the sole discretion of the city clerk.
- (2) All exhibits presented at a public hearing must be filed with the clerk's office at least 72 hours prior to the public hearing.
- (3) At the public hearing held pursuant to this section, any party in interest shall be allowed to present relevant evidence and to cross-examine witnesses. Other than the applicant, any party in interest who wishes to present evidence or cross-examine witnesses at the public hearing must notify the city clerk at least 24 hours prior to the hearing of their intent to do so. As used in this section, "party in interest" means any of the following:
 - (i) The applicant;
 - (ii) An adult resident of the neighborhood under consideration;
 - (iii) The owner or manager of a business located in the neighborhood under consideration;
 - (iv) The principal or representative of any school located within five hundred feet of the boundaries of the common consumption area; or
 - (v) An authorized representative of a registered neighborhood organization that encompasses all or part of the neighborhood under consideration.
- (4) At the public hearing held pursuant to this section, the ~~chair or chair pro tem of the~~ authority may:
 - (i) Set time limits on evidence and testimony;

- (ii) Limit evidence and testimony if such evidence is irrelevant or cumulative; and
 - (iii) Cease the examination of a witness if the witness is being harassed, badgered, or disrespected by the examiner.
 - (5) Other than the provisions specified in this section, public hearings shall be held in accordance with chapter 2 of the Arvada City Code and the Colorado Liquor Code.
- (c) *Results of investigation; decision of the authority.*
- (1) At least seven days prior to the date of hearing, the city clerk shall make known the findings based on the liquor licensing control investigator's initial investigation of the application documents in writing to the applicant and the authority.
 - (2) Before certifying a promotional association and issuing a common consumption area license, the authority shall consider the reasonable requirements of the neighborhood, the desires of the adult inhabitants as evidenced by petitions, remonstrances, or otherwise, and all other reasonable restrictions that are or may be placed upon the licensee.
 - (3) Before entering any decision approving or denying the application, the authority shall consider, except where this article specifically provides otherwise, the facts and evidence adduced as a result of its investigation and the public hearing required by this section, and any other pertinent matters affecting the qualifications of the applicant for issuance of a common consumption area license and certification of a promotional association including this article, the Colorado Liquor Code, chapter 6 of the Arvada City Code, or any rules and regulations adopted pursuant thereto.
 - (4) Unless additional time is necessary to fully investigate an application, any decision of the authority approving or denying an application shall be stated on the record after the evidence is presented at the public hearing. ~~Any authority member present may make a motion to approve or deny the license and to certify or deny certification of the promotional association. Such motions shall be decided by a vote of the majority of the authority members present.~~ A copy of the decision shall be sent by certified mail to the applicant at the address shown in the application and to the state licensing authority.”

Section 4. Severability. If any section, paragraph, sentence, clause, or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The city council declares that it would have adopted this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 5. This ordinance shall be effective five days after publication following final passage.



REPORT TO CITY COUNCIL

AGENDA ITEM
9.A.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: Appointment to Metro Water Recovery Board

Report in Brief

The Mayor will make a reappointment to the Metro Water Recovery Board of Directors, followed by a Motion and Second to ratify the Mayor's appointment.

Motion by Mayor Simpson: I move to **Reappoint** Craig G. Kocian as the City of Arvada's representative on the Board of Directors of Metro Water Recovery, to serve a term of two years, beginning July 1, 2024 and ending June 30, 2026.

Motion by _____: I move to **ratify** Mayor Simpson's appointment of Craig G. Kocian to the Metro Water Recovery Board of Directors for a term of two years, beginning July 1, 2024 and ending June 30, 2026.

Motion by _____: I move to **Second** the motion for ratification.

Prepared by:
Chris Koch, CCO Admin

Reviewed by:
Toni Riebschlager, Law Office Administrator 3/8/2024
Laura Hemler, Assistant City Attorney 3/8/2024

Approved by:

Linda Haley, Deputy City Manager 3/8/2024
Rachel Morris, City Attorney 3/11/2024
Lorie Gillis, City Manager 3/11/2024

Enclosure, exhibits & attachments required to support the report



REPORT TO CITY COUNCIL PUBLIC HEARING

AGENDA ITEM
10.A.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

SUBJECT: CB24-004, An Ordinance Amending the Cable Television Franchise Agreement between the City of Arvada and TDS BAJA Broadband Service LLC to Extend the Term of the Franchise Until July 31, 2025 (Ordinance No. 4870)

Report in Brief

PRESENTER: Jacqueline Rhoades, Public Works Director

The Franchise Agreement with TDS BAJA Broadband Service LLC is set to expire on March 31, 2024. When the non-exclusive Franchise Agreement was entered into in 2014, it was for a term of 10 years. TDS BAJA Broadband Service LLC serves Arvada residents who live west of Indiana Street. The proposed ordinance extends the existing Franchise Agreement until July 31, 2025. Other than extending the existing expiration date of the Franchise Agreement, no other changes are being made to the Agreement. The purpose for the extension is to allow staff to complete its negotiations with both TDS BAJA and Comcast on a new Franchise Agreement at the same time. Comcast Franchise expires on July 31, 2025. This gives the City time to negotiate with both Cable Franchisees at the same time using the same templates for negotiations.

Although there are some differences in Franchise Agreements from jurisdiction to jurisdiction, for the most part all metro suburban cities look at the City of Denver Franchise Agreement with Comcast as the model agreement. City and County of Denver is finalizing their renewal in 2024. Staff recommends adoption of this Franchise Extension Agreement.

The Arvada team recommends that the City Council approve CB24-004, An Ordinance Amending the Cable Television Franchise Agreement between the City of Arvada and TDS BAJA Broadband Service LLC to Extend the Term of the Franchise Until July 31, 2025.

Financial Impact

None

Background

TDS BAJA Broadband, LLC has held a Franchise agreement with the City of Arvada since the mid 1990s when the City of Arvada started annexing land west of Indiana Street. At that time, Fanch Cable Company was the franchisee, which was sold to US Cable, then BAJA Cable and now TDS BAJA Broadband Service LLC. This is roughly a 16 month extension to their franchise to allow City staff time to negotiate with both TDS and Comcast on their franchises.

Discussion

N/A

Public Contact

N/A

Commission Recommendation

N/A

Strategic Alignment

N/A

Alternative Courses of Action

None

Recommendation for Action

The City team recommends that City Council adopt CB24-004, An Ordinance Amending the Cable Television Franchise Agreement between the City of Arvada and TDS BAJA Broadband Service LLC to Extend the Term of the Franchise Until July 31, 2025.

Suggested Motion:

I move that CB24-004, An Ordinance Amending the Cable Television Franchise Agreement between the City of Arvada and TDS BAJA Broadband Service LLC to Extend the Term of the Franchise Until July 31, 2025 be (approved on final reading, numbered 4870 and ordered published by title only) (rejected).

Prepared by:
Chris Koch, CCO Admin

Reviewed by:

Approved by:

Jacqueline Rhoades, Public Works Director	3/11/2024
Bryan Archer, Director of Finance	3/13/2024
Tammy Hedlund, Legal Specialist	3/15/2024
Kelsy Sargent, Assistant City Attorney	3/15/2024
Don Wick, Deputy City Manager	3/15/2024
Rachel Morris, City Attorney	3/19/2024
Lorie Gillis, City Manager	3/20/2024

Enclosure, exhibits & attachments required to support the report

COUNCIL BILL NO. CB24-004

ORDINANCE NO. 4870

AN ORDINANCE AMENDING THE CABLE FRANCHISE AGREEMENT BETWEEN THE CITY OF ARVADA AND TDS BAJA BROADBAND SERVICE LLC TO EXTEND THE TERM OF THE FRANCHISE UNTIL JULY 31, 2025

WHEREAS, the City of Arvada, State of Colorado, duly and lawfully enacted a Cable Franchise Agreement dated March 17, 2014 (the “Franchise”), granting a non-exclusive franchise to operate and maintain a cable communications system (“cable system”) within its boundaries; and

WHEREAS, TDS Baja Broadband Service LLC is the current franchisee ("Franchisee"); and

WHEREAS, the Franchise is validly existing, legally enforceable and in full force and effect and without default thereunder; and

WHEREAS, the Franchise will expire on March 31, 2024; and

WHEREAS, the City of Arvada and TDS Baja Broadband Service LLC is requesting an extension of the Franchise term until July 31, 2025.

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

Section 1. The Mayor or Mayor Pro Tem is hereby authorized to sign and the City Clerk attest, in form approved by the City Attorney, an amendment to the Franchise Agreement, which is attached hereto, by and between the City of Arvada and TDS Baja Broadband Service LLC to extend the term of the Franchise Agreement from March 31, 2024 until July 31, 2025.

Section 2. Except as modified herein, all other terms, conditions, provisions and requirements of the Franchise shall remain in full force and effect.

Section 3. Neither party waives any right which it enjoys under law as a result of agreeing to this Franchise extension, and TDS Baja Broadband Service LLC shall not be required to file any additional request or document in order to preserve its right of renewal under Section 626 of the Cable Act.

Section 4. Copies of the proposed amendment to the Franchise Agreement are on file in the Office of the City Clerk and are available for inspection by the public.

Section 5. This ordinance shall take effect five days after publication following final passage.

INTRODUCED, READ, AND ORDERED PUBLISHED this 18th day of March, 2024.

PASSED, ADOPTED, AND APPROVED this 1st day of April, 2024.

Lauren Simpson, Mayor

ATTEST:

City Clerk

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

By: _____

Publication Dates: March 21, 2024
 April 4, 2024

**FIRST AMENDMENT
TO THE CABLE FRANCHISE AGREEMENT BETWEEN THE CITY OF ARVADA
AND TDS BROADBAND SERVICE LLC TO EXTEND THE TERM OF THE
FRANCHISE UNTIL JULY 31, 2025**

1.0 PARTIES. The parties to this First Amendment are the City of Arvada, a home rule municipal corporation (“City” or “Arvada”) and TDS Broadband Service LLC formerly known as TDS Baja Broadband, LLC (“Franchisee”).

2.0 RECITALS AND PURPOSE.

2.1 On or about April 1, 2014, Arvada duly and lawfully enacted a Cable Franchise Agreement (the “Franchise”), granting a non-exclusive franchise to Franchisee to operate and maintain a cable communications system within City boundaries; and

2.2 The Franchise is validly existing, legally enforceable and in full force and effect and without default thereunder; and

2.3 The Franchise will expire on March 31, 2024; and

2.4 The City staff and TDS Baja Broadband LLC representatives have discussed the renewal of the franchise, and both parties have agreed that their respective interests will be served by an extension of the existing Franchise Agreement to July 31, 2025; and

2.5 The purpose of this First Amendment is to so extend the terms of the Franchise Agreement.

3.0 EXTENSION OF TERM.

3.1 The parties agree that Section 2.3 of the Franchise Agreement is hereby amended to read as follows:

“Sec. 2.3 Effective Date and Term of Franchise. This Franchise and the rights, privileges and authority granted hereunder shall take effect on April 1, 2014 (the “Effective Date”), and shall terminate on July 31, 2025 unless terminated sooner as hereinafter provided.”

4.0 FULL FORCE AND EFFECT. That except as amended by this First Amendment, all other terms and conditions of the Franchise shall remain unchanged and in full force and effect.

5.0 RESERVED RIGHTS. By agreeing to this First Amendment, it is understood that both the City and Franchisee are reserving all other rights that each may have according to law, including but not limited to franchise renewal rights set forth in Section 626 of the Cable Act, 47 U.S.C. § 546.

6.0 SEVERABILITY. If any other provision of this First Amendment is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this First Amendment shall continue in full force and effect.

7.0 BINDING AUTHORITY. Franchisee represents and affirms that the signature page hereof accurately states the full legal name of TDS Broadband Service LLC (whether as a corporation, partnership, limited liability company, sole proprietorship, or other), contains all requisite signature(s) on behalf of TDS Broadband Service LLC, in accordance with all applicable statutes, regulations, resolutions, rules, bylaws, agreements, or similar sources of authority or limitation. This First Amendment 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 _____, 202__.

CITY OF ARVADA, a Colorado home rule
municipal corporation

Lauren Simpson, Mayor of Arvada
8101 Ralston Road
Arvada, CO 80002

ATTEST:

City Clerk

APPROVED AS TO FORM:

Rachel A. Morris, City Attorney

By: _____

TDS BROADBAND SERVICE LLC

Andrew Petersen
Senior VP of Corporate Affairs
Email: andrew.petersen@tdstelecom.com



REPORT FROM CITY COUNCIL

AGENDA ITEM
12.A.

DATE: April 1, 2024

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

Lauren Simpson	Arvada City Attorney Committee Arvada Municipal Court/Judicial Committee Arvada Urban Renewal Authority Arvada Visitors Center Committee *Metro Mayors' Caucus Urban Drainage and Flood Control District West Connect Coalition E-470 Authority (Alternate) Olde Town Business Improvement (BID) (Alternate)
Shawna Ambrose	Adams County Regional Economic Partnership (ACREP) Arvada Audit Committee Bond Oversight Committee Jefferson County R-1 Schools Coordinating Committee Arvada Visitors Center Committee (Alternate)
Sharon Davis	Apex Coordinating Committee Arvada Municipal Court/Judicial Committee Arvada Parks Advisory Committee CML Policy Committee Jefferson Economic Development Council (JDEC) Denver Regional Council of Governments (DRCOG) (Alternate) E-470 Authority (Alternate) Jeffco Transportation Action & Advisory Group (JEFFTAAG) (Alternate) Jefferson County Community Corrections Board and West Connect Coalition (Alternate)

Lisa Feret	Arvada Chamber of Commerce Government Affairs Committee Arvada Fire Protection District Coordinating Committee Denver Regional Council of Governments (DRCOG) Housing Advisory Committee Jeffco Transportation Action & Advisory Group (JEFFTAAG) Jefferson County Community Corrections Board Smart City Advisory Committee Adams County Regional Economic Partnership (ACREP) (Alternate)
Bob Fifer	Apex Coordinating Committee Arvada City Attorney Committee Arvada Fire Protection District Coordinating Committee Arvada Transportation Committee Jefferson County R-1 Schools Coordinating Committee Jefferson Parkway Public Highway Authority Smart City Advisory Committee Northwest Parkway Authority (Alternate)
John Marriott	Arvada Economic Development Association Board Bond Oversight Committee Olde Town Business Improvement (BID) Rocky Mountain Metropolitan Airport Community Noise Roundtable
Randy Moorman	Arvada Audit Committee Arvada Center for the Arts and Humanities Arvada Sustainability Committee CML Policy Committee Jefferson Parkway Public Highway Authority The Rocky Flats Stewardship Council Northwest Parkway Authority (Alternate)

*asterisked committees are not appointed by Council



REPORT TO CITY COUNCIL

AGENDA ITEM
13.A.

TO: THE HONORABLE CITY COUNCIL

DATE: April 1, 2024

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, Lorie Gillis, 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 3/11/2024

Lorie Gillis, City Manager 3/20/2024

Enclosure, exhibits & attachments required to support the report

2024 CITY COUNCIL WORKSHOPS, STUDY SESSIONS, PRESENTATIONS AND RETREATS (TENTATIVE)

WORKSHOPS	Date	Lead
Utilities Project Planning and Financial Strategies	Apr 8	Utilities
Waste Hauling Program Overview	Apr 8	Utilities
Public Safety/Police Department Update @Business Meeting	April 15	PD
2024-2030 City Council Strategic Plan Provide City Council with an overview of the new 2024-2030 City Council Strategic Plan. The City Team will highlight the new structure and elements and review the new results and goals.	Apr 22	CMO
Sustainability @Business meeting The Arvada Sustainability Division will provide the City Council with an overview of division projects since the inception of the program in January 2023. The workshop will highlight achievements from 2023 and provide a vision for the future of Arvada Sustainability, with a focus on upcoming city-wide sustainability and climate action planning efforts.	Apr 22	VCN
Park Maintenance Standards Arvada Parks will provide the City Council with an overview of the City's Park Maintenance Standards. The workshop will highlight community survey data, key methodologies and emerging best practices/innovations.	May 6	VCN
CDOT 101 CDOT will present "CDOT 101" to the Council. CDOT 101 is designed to provide a basic overview of CDOT, its responsibilities, and how CDOT works with local agencies.	May 13	
Waste Hauling Fees	May 13	Utilities
Quarterly Bond Projects Update The Public Works engineering team will provide the City Council with an update on the bond projects for streets and utilities.	Jun 10	PW
10-Year Model Update	June 10	Finance
CIP Update	June 10	Finance
	July 8	
Water, Wastewater & Stormwater 2025 Rates/Fees	July 22	Utilities
	Aug 12	
Water, Wastewater & Stormwater 2025 Rates/Fees	Aug 26	Utilities
Quarterly Bond Projects Updates The Public Works engineering team will provide the City Council with an update on the bond projects for streets and utilities.	Sept 23	PW
Work System Update	Sept 23	Finance
Final Water, Wastewater & Stormwater 2025 Rates/Fees	Sept 23	Utilities
Pay Plan/Additional Work System (if needed)	Oct 14	
Transportation System Plan The traffic team will present the outcomes of the Transportation System plan, including future development opportunities, transportation funding and financial strategies, and a capital improvement plan.	Oct 14	PW
Updated ADA Transition Plan The draft plan will be updated in a comprehensive document that outlines strategies and actions to ensure accessibility for individuals with disabilities, addressing areas of improvement and accommodating their needs.	Oct 28	PW
	Nov 11	
	Dec 9	
PRESENTATIONS		
STUDY SESSIONS		

Transportation Systems Existing Conditions @4 The traffic team will present a summary of the existing conditions for Arvada's transportation systems. The workshop will cover a review of travel trends, evaluation of safety conditions, an assessment findings of the existing roadway, transit, and freight rail networks. The team will discuss Intelligent Transportation Systems and highlight ongoing and upcoming projects and system maintenance plans.	Feb 12	PW
BID and Chamber funding	TBD	
WORKSHOP TBD's		
Pavement Management The Pavement Management Team will provide an update on 2023 and looking ahead to 2024 pavement projects.	TBD	PW
Right of Way Acquisition	TBD	CED
Water Infrastructure for Fire Protection	TBD	Utilities
Smart Meters Update	TBD	Utilities
Capital Campaign Update and Strategy Discussion	TBD	CMO/Fin
Community Engagement	TBD	CMO
Fleet Electrification	TBD	Utilities
Pre-Sentencing/One Small Step	TBD	Courts
Meyers Pool Provide City Council an update on the VCN's SR3: By 12/2025 develop a maintenance and reinvestment plan to ensure a sustainable, resilient and beautiful community of parks, trails, open space and medians in alignment with our diverse, changing and growing community and VCN's SR3 Milestone [M3H] By 7/2024 replace Meyer's Pool with a new 50 meter natatorium.	TBD	CMO
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 co-locate opportunities, IGA member updates, and connections to current assets (city buildings, traffic, signals, utilities, radio, etc.).	TBD	PW
Problem Properties	TBD	P.D.
Activation of Historical Assets	TBD	VCN
Customer Service Philosophy	TBD	CMO
Ask Arvada Update	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		

