

Attachment JHZ-4
Reliability – Capacity Project Descriptions
(Projects over \$2 million)

1. Tungsten to Blackhawk Pipeline Reinforcement
2. Granby T-O to YMCA VS 6"
3. CO/GJ/ River Road, W-55-A Reif TME
4. CO/Ft Lupton/lone NF-18 Reinforcement
5. F-400 Install New IP Main
6. CO/Lyons/EL-24 Reinforcement
7. CO/Reinforce Rifle with 4" PE and 2
8. CO/East/F-997 Reg Station
9. CO/Tri-Town Interconnect VS Repair
10. SWMR/MCC/LAK/6300 W 13TH AVE/GD
11. CO/SEMR/F481 & F872/ IP Reinforce
12. Upsize pipe for Boulder 285#
13. CO/Del Norte Compressor Station – A
14. CO/Rifle/Questar Supply
15. CO/Winter Park/Winter Park Tie
16. CO/DMO/Rebuild F-392 - CHER & CITY
17. CO/SEMR/Rebuild 125-E, 125-P, 125-Q
18. CO/NMR/Rebuild F-340-A and F-340-T
19. CO/DMR/Rebuild F-524
20. CO/AKA/Rebuild Interconnect Install
21. CO/MNTN/BRECK/Breckenridge Reinforcement
22. CO/SWMO/RS F-971
23. CO/EAST/Replace Switchgear/VFD Yosemite
24. 96th & Highway 2 Reg Station

Front Range Capacity – Tungsten to Blackhawk Blackhawk, Colorado

Project Overview

Scope: The project includes 13 miles of 8" HPG main with 1000 psig MAOP extending from the new take-off from the Louisville to Rollins 10" main south to the existing Dory Hill Regulator Station (RS) which is being completely rebuilt and 2 miles of 6" HPG main with 1000 psig MAOP, but will operate at 500 psig, extending south from the Dory Hill RS to a point of intersection with the 6" Central City to Dory Hill Pipeline at the Bobtail Regulator Station. Project mitigates outages to 1,050 customers. The takeoff valve set from the 10" Louisville to Rollins Pass Line will include flow control, metering, RTU, and an 8" launcher. The Dory Hill RS will include over pressure protection for the 6" HP pipeline extending south as well as regulation and metering for 60 psig delivery of gas to Colorado Natural Gas.

Pressure System: High pressure (1,000 psig)

Project Status

Estimate: Complete
Design: Complete
Construction: Complete
In Service Date: September 21, 2020

Project Details

Project Needs: The 8" (6") Tungsten to Bobtail Mainline Project provides a new source of gas to the Front Range HP System to be fed from the existing 10" Louisville to Rollins Pass high pressure pipeline. Project will release capacity on the 24" Littleton Lateral for use to meet growth in the south Denver area.

Total Customers: The potential outages prior to reinforcement were 1,050 customers and this project also allows for additional growth in the south Denver area..

Cost

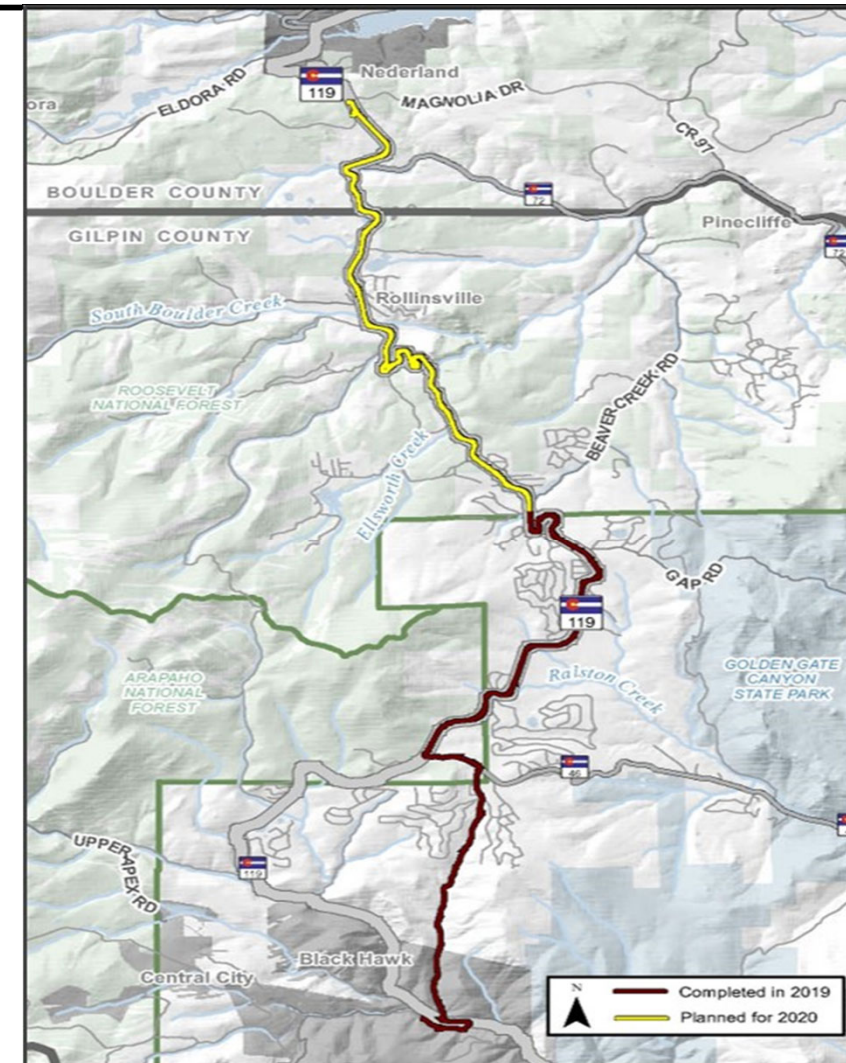
Project Capital Expenditure Budget: \$55.3 million

Project Capital Expenditure Estimate:
Prior Capital Additions (2019): \$8.2 million
Current Capital Additions: \$47.1 million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project was either bid outright for a lump sum contract or utilized unit pricing that was bid under a master service level agreement.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Location



Granby T-O to YMCA VS Project Granby, Colorado

Project Overview

Scope: Install ~4.8 miles of 6 inch high pressure pipeline (1,000 pounds per square inch (“psig”)) between Frasier and Tabernash, CO. Relocate ~1,250' existing 3" high pressure pipeline. Removal of existing, new fabrication and install of the Granby Take-Off RCV VS. Modifications to the existing RT-11 crossover valve design. Removal of existing, new fabrication, and install RT-1 Tabernash Reg. Station. Removal of existing, new fabrication, and install RT-3 YMCA Reg. Station. Removal of existing, new fabrication, and install of the YMCA Valve Set. YMCA civil work to accommodate new VS, Reg. Station, Snow Removal and Parking. Set Launcher at Granby TO and Receiver at YMCA.

Pressure System: High pressure (1,000 psig)

Project Status

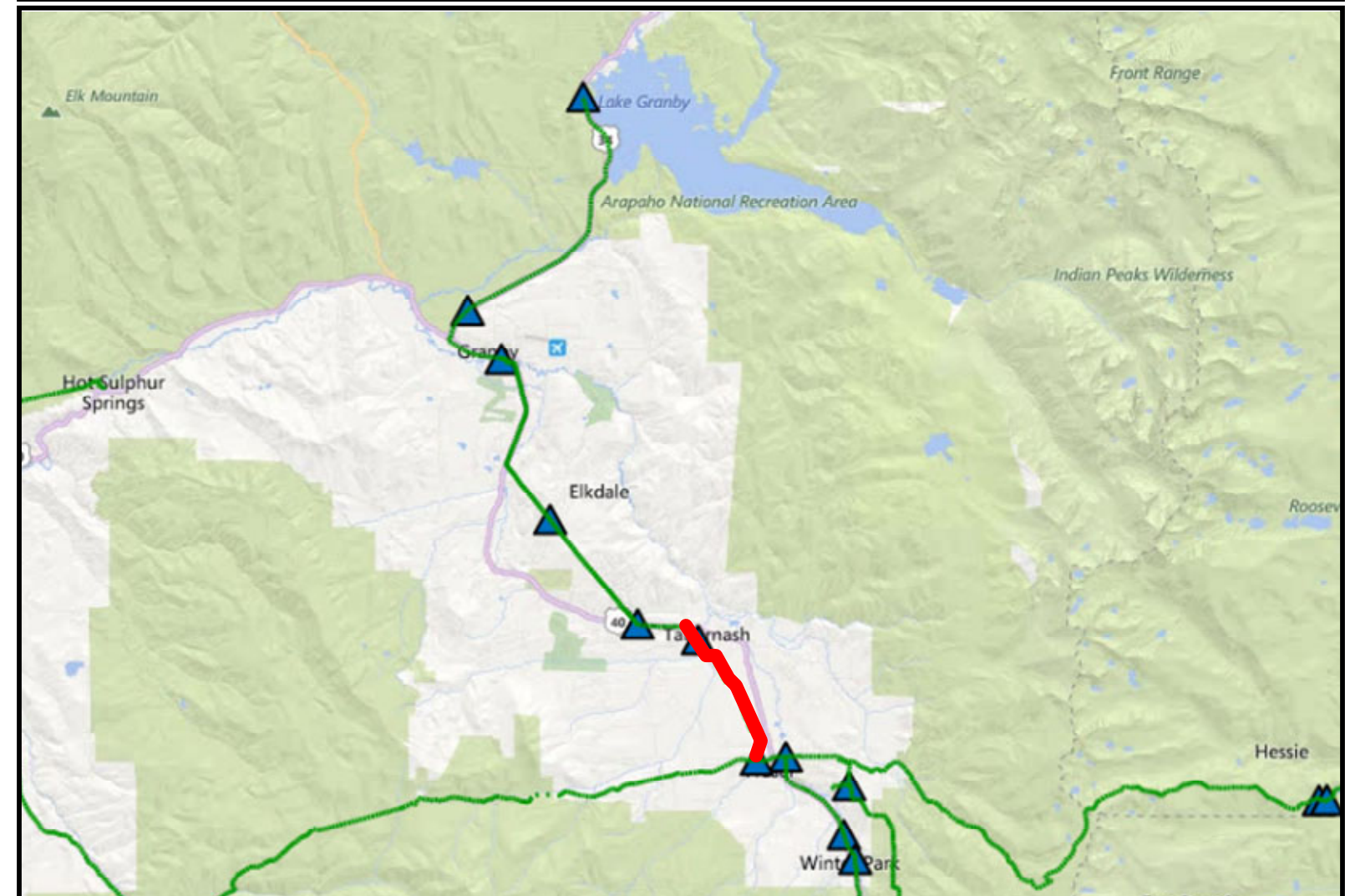
Estimate: Complete
Design: Complete
Construction: Complete
In Service Date: October 29, 2020

Project Details

Project Needs: The high pressure (1,000 psig) pipeline that feeds Granby and Grand lake are at capacity due to natural growth of the area. Natural growth is considered to be load increase from new homes and small developments. The system prior to reinforcement was unable to serve firm customer during design day of -39°F (1 in 30 year occurrence). The new line mitigated potential outages of approximately 2,000 customers in Grand Lake due to constraints.

Total Customers: The potential outages prior to reinforcement were 2,000 customers in the Grand Lake area.

Project Location



Cost

Project Capital Expenditure Budget: \$14.0 Million

Project Capital Expenditure Estimate:

- Internal Labor: \$16 thousand
- Materials: \$1 million
- Consultants: \$2.6 million
- Contractors: \$11.6 million
- Removal: \$15 thousand
- Overheads: \$2 million

*Any variances between the budget and the current project estimate are due to budgeting cycle.

Review Process: This project was reviewed by the designer’s local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope: Install approximately 2.15 miles of 8" steel main along River Rd between 23 ¼ Rd and 24½ Rd in Grand Junction, CO (from the River Road T-O VS to regulator station W-55-A). Also includes Reg Station Rebuild.

Pressure System: High Pressure (HP): 360 psig.

Project Status

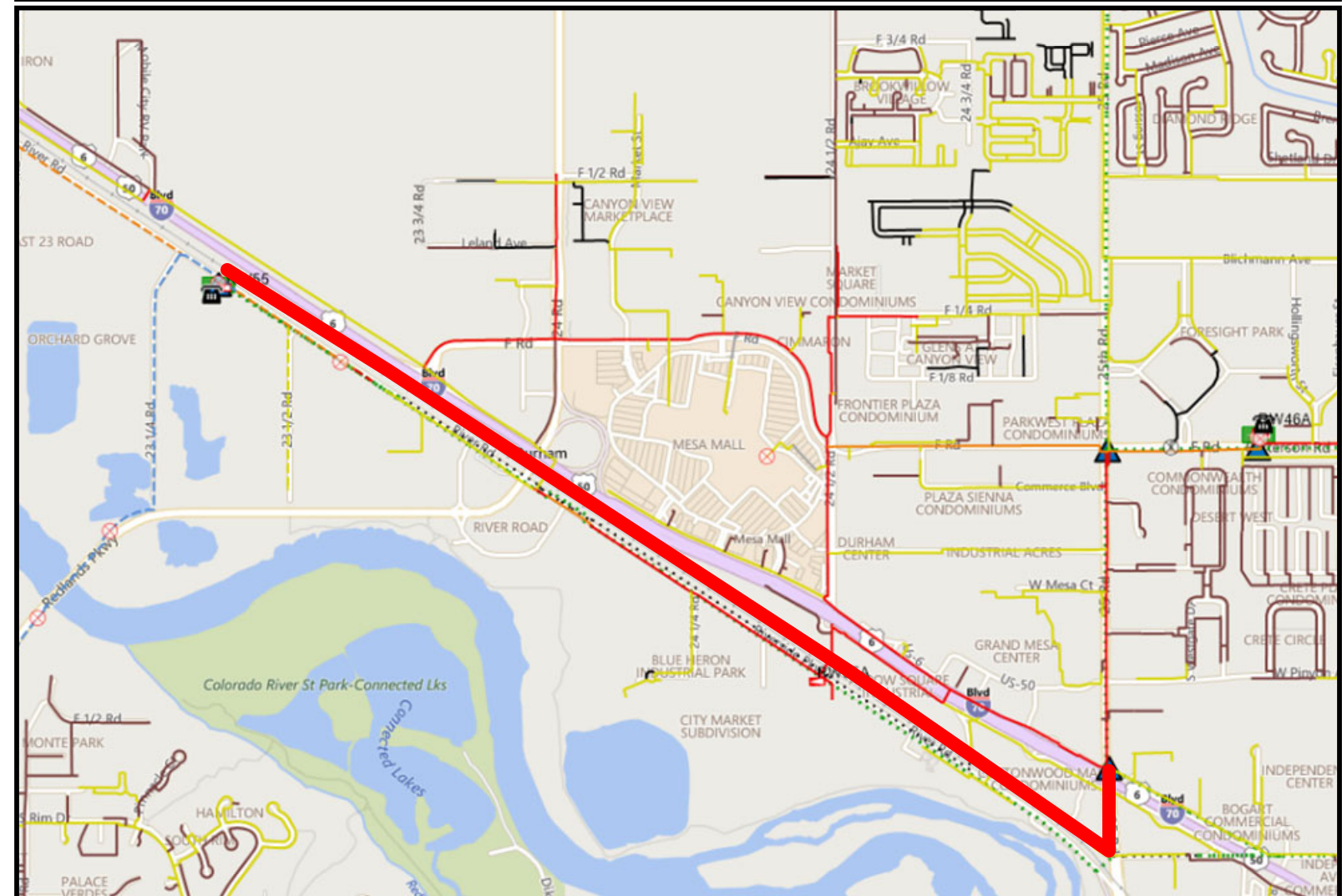
Estimate: Complete
Design: Complete
Construction: Complete
In Service Date: October 2019
Project Close Out: December 2020

Project Details

Project Needs: The inlet pipeline into W-55 is at capacity due to natural growth of the area. Natural growth is considered to be load increase from new homes and small developments. Without the additional capacity customer outages are expected (The current system is only capable of serving a morning low of -16 of, a 1 in 17 year event).

Total Customers: There are approximately 5,100 customers attached to this distribution system

Project Location



Cost

Project Capital Expenditure Cost: \$9.6 Million

Project Capital Expenditure Estimate: Capacity Projects are estimated by either a project manager or a project engineer. The estimate takes into account route, materials, and known utilities. Capacity projects are either bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

CO/Ft Lupton/Ione NF-18 Reinforcement Fort Lupton / Ione, Colorado

Project Overview

Scope: The Fort Lupton Ione Reinforcement project consists of replacing approximately 10,600 feet of 1 ¼" steel IP line with new 4" steel IP pipeline to be installed from NF-18 south to County Road 20. The anticipated method of construction is a combination of HDD and open trench, all within road ROW. The existing 1 ¼" IP along the proposed running line will be abandoned.

Pressure System: Intermediate pressure (150 psig)

Project Status

Design: Complete.

Construction: Complete.

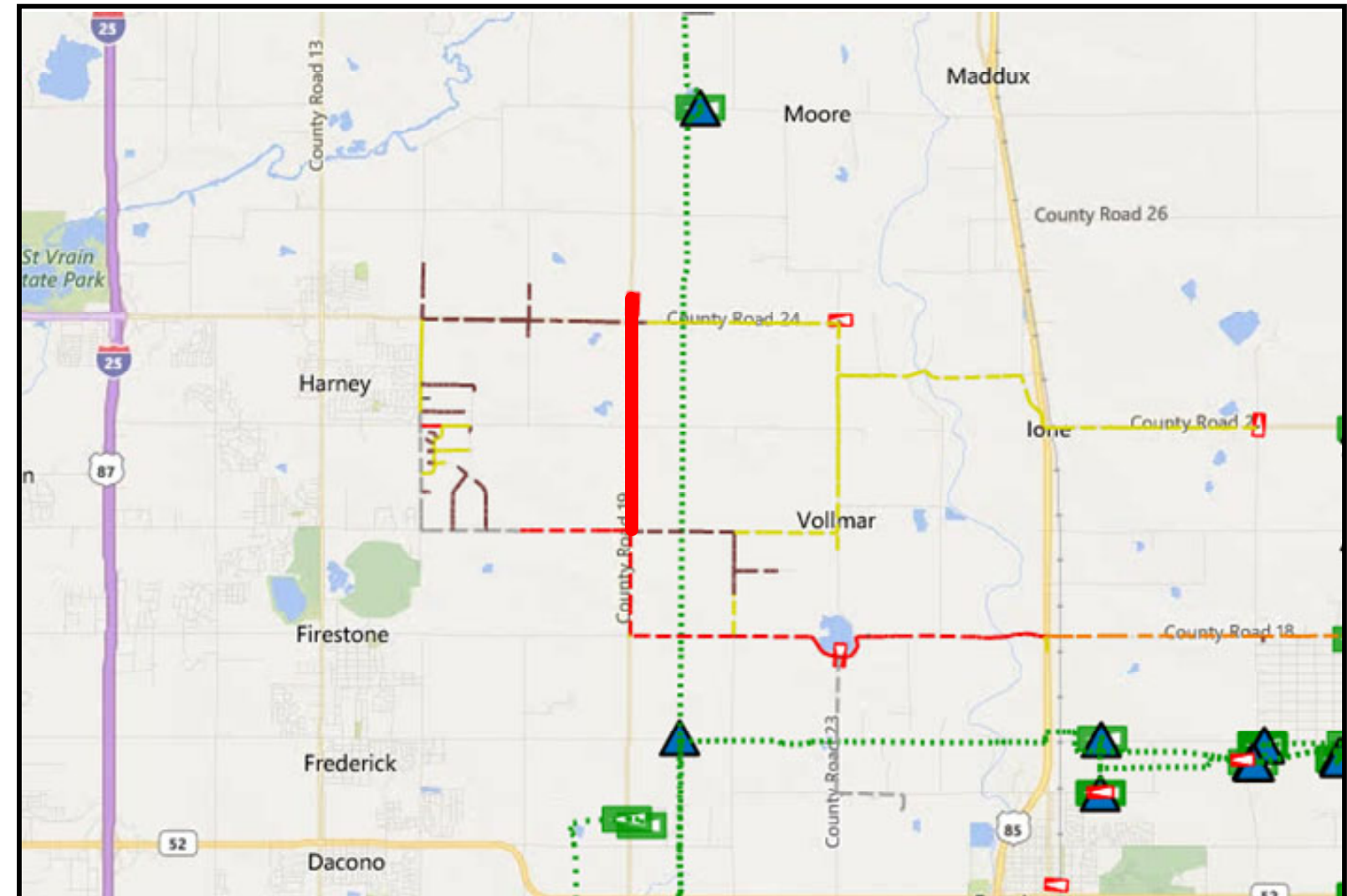
In Service Date: September 2020

Project Details

Project Needs: The intermediate pressure (150 psig) pipeline that feeds stations NF-16, NF-18 and NF-24 are at capacity due to natural growth of the area. Natural growth is considered to be load increase from new homes and small developments. Without the additional capacity customer outages are expected.

Total Customers: Approximately 860 customers.

Project Location



Cost

Project Capital Expenditure Budget: \$7.9 Million

Project Capital Expenditure Estimate:

- Internal Labor: \$20 thousand
- Materials: \$320 thousand
- Consultants: \$740 thousand
- Contractors: \$5.8 million
- Overheads: \$1.0 million

* Variance between the project budget and the project estimate is due to rounding.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

F-400 Install new IP Main Morrison, Colorado

Project Overview

Scope: Install 5500' of 6" IP main from S Simms St and W Belleview Ave to approximately C-470 and W Belleview Ave. Also includes an IP to PM regulator station.

Pressure System: Pipeline Intermediate Pressure (150 psig), Station (150 psig cut to 60 psig)

Project Status

Estimate: Complete
Design: Complete
Construction: Complete
In Service Date: November 2019
Close Out Date: December 2019

Project Details

Project Needs: The pounds medium distribution system is at capacity due to natural growth of the area. 4" IP main going to an intermediate pressure to pounds medium regulator station was required to be able to serve a coin day on this system. A development with 108 customers and 50 MCFH total load paid the difference between 4" and 6" main to provide capacity to their development.

Total Customers: There are approximately 1,000 customers in the local distribution area.

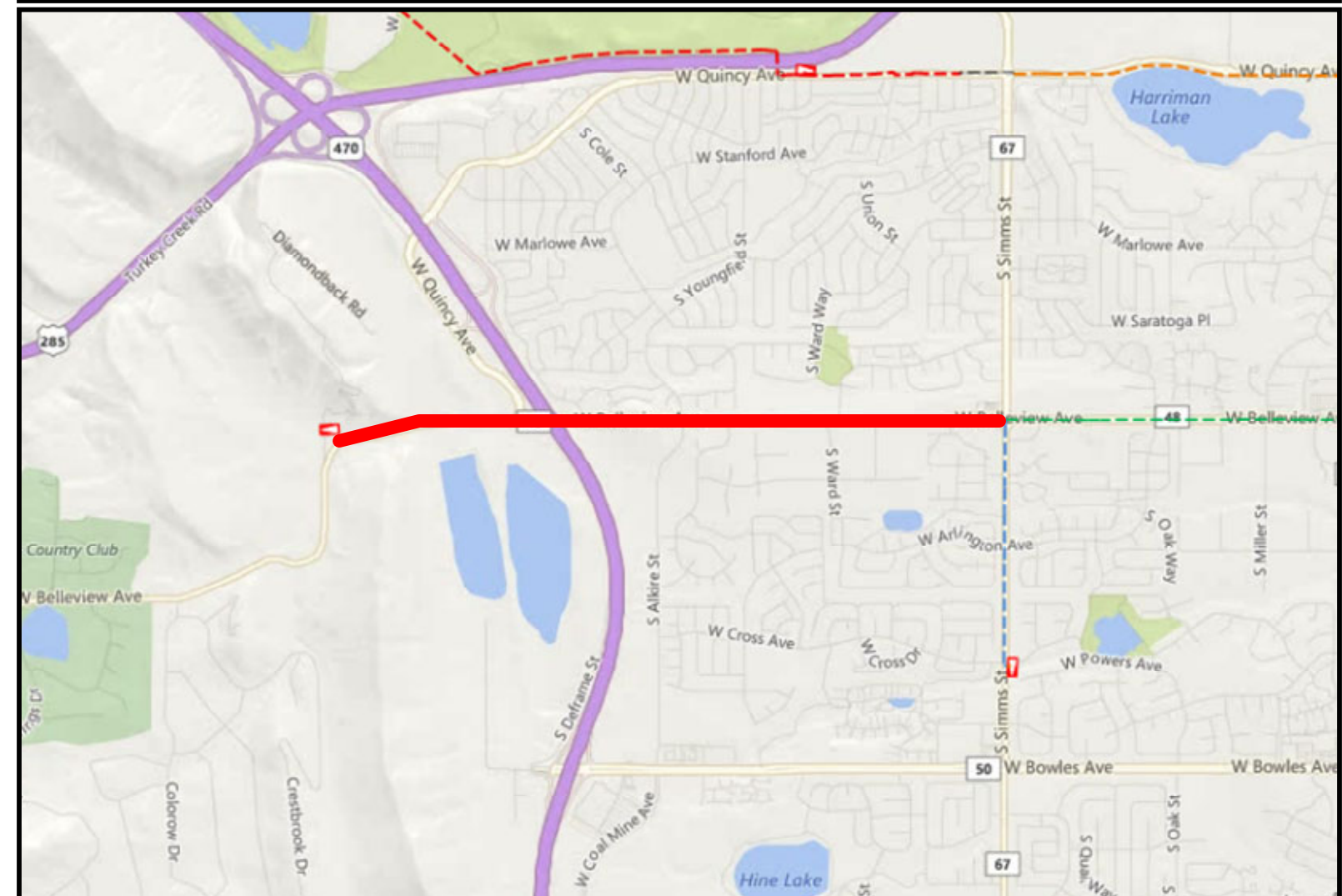
Cost

Project Capital Expenditure Cost: \$6.6 Million

Project Capital Expenditure Estimate: Capacity Projects are estimated by either a project manager or a project engineer. The estimate takes into account route, materials, and known utilities. Capacity projects are either bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Location



EL-24 Reinforcement Lyons, Colorado

Project Overview

- Scope:** This project is to install approximately 6,400 Feet of 6" to the IP system along Hwy 66/Ute
- The West tie-in will be south of Hwy 66 and N Foothills Hwy
 - The East west tie-in will be north of Hwy 66 and N 51 Street
 - The majority of the project is anticipated to be open trenched due to the many services coming off of the IP line, along with a couple of existing Reg Stations
 - There is one additional HDD on the north side of Hwy 66, in the road ROW
 - The existing 3" IP line will be abandoned once the tie-ins are complete

System Pressure: 150 psig.

Project Status

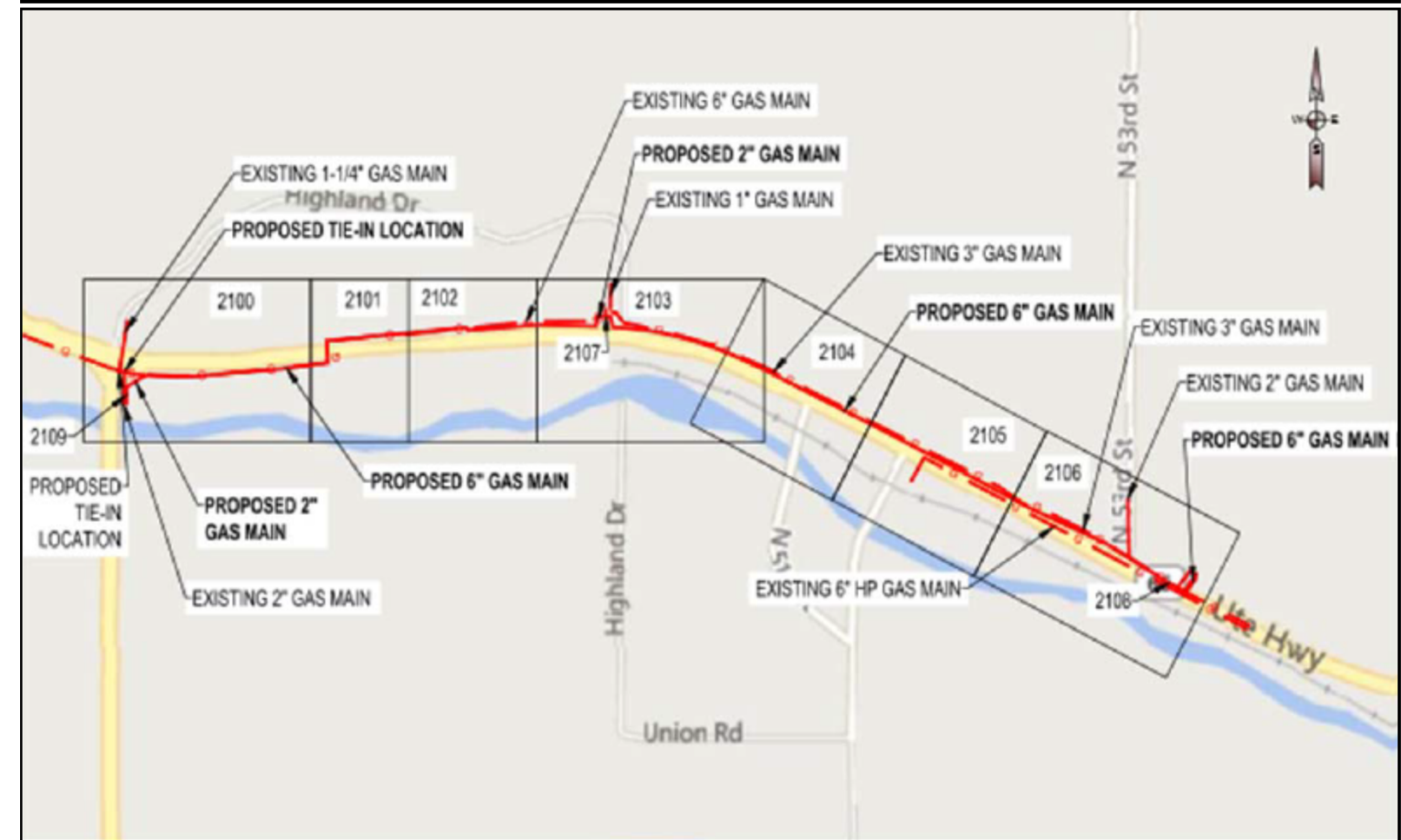
Design: Complete.
Construction: Complete.
In Service Date: 09/2020

Project Details

Project Need: The existing 3" IP line currently serving the Lyons system is at capacity due to growth in the area. The current system (stations EL-24 and EL-46) can serve a morning low of -14F without reinforcement or -17F on bypass.

Customer Impact: This new line will mitigate potential outages of approximately 1,000 distribution customers.

Project Location



Cost

Project Cost: \$5.8 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Reinforce Rifle 4" PE and 2" Rifle, Colorado

Project Overview

Scope: The project consists of reinforcing approximately 9,300 feet of PE pipe in the Rifle area in the following segments:

- 2,051 feet of 2 inch PE with 4 inch PE along Railroad Ave.
- 5,700 feet of 2 inch PE with 4 inch PE along 16th St.
- 415 feet of 2 inch PE with 4 inch PE east of Mile Pond Rd,
- 410 feet of 1-1/4 inch PE with 2 inch along Highway 24, and
- 756 feet of 2 inch PE with f inch PE in County Road 319.

Pressure System: Pounds medium pipeline (60 psig)

Project Status

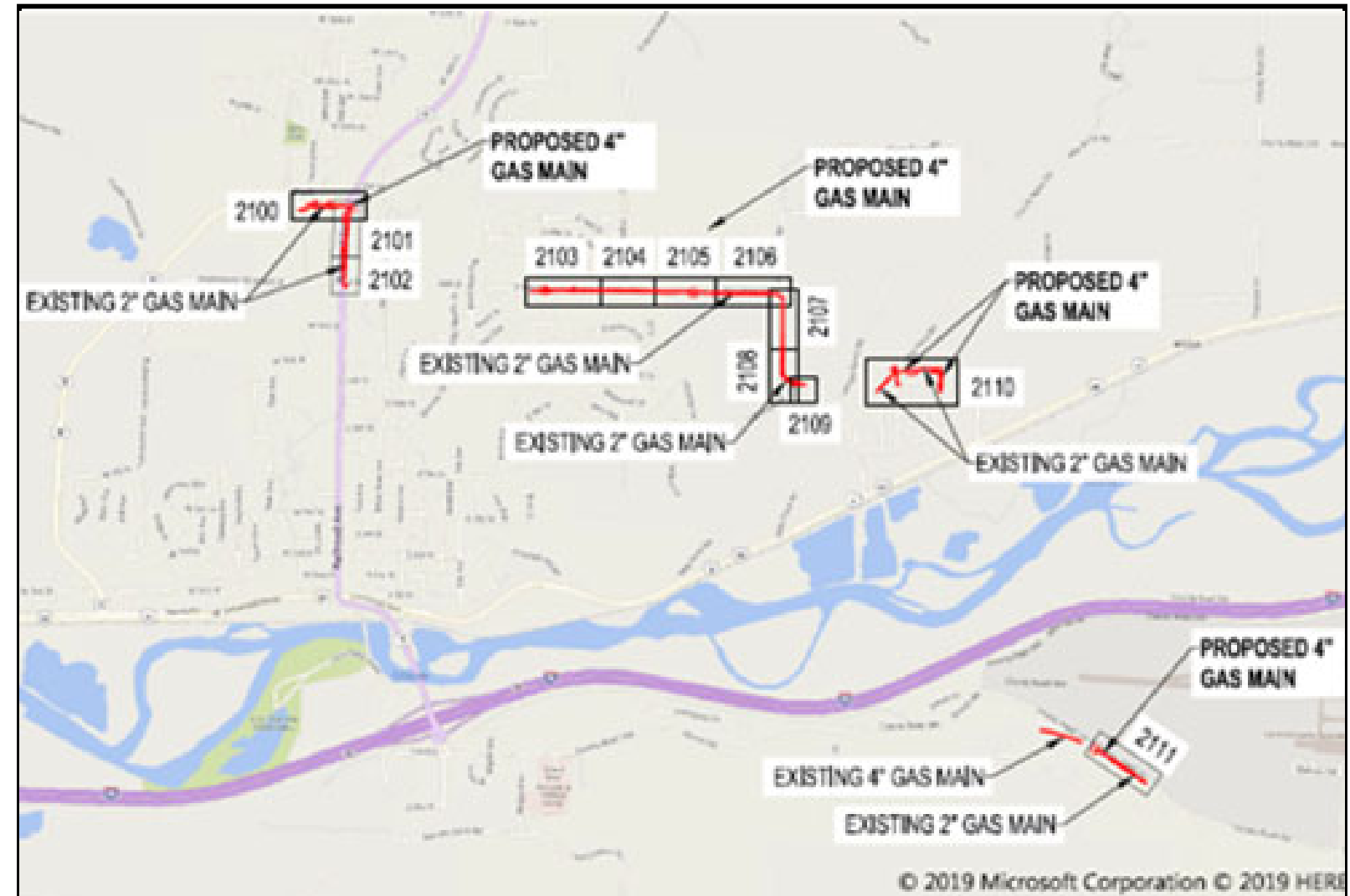
Estimate: Complete
Design: Complete
Construction: Complete
In Service Date: May 2020

Project Details

Project Needs: The area along Graham Avenue and further east along County Road 210 is at capacity due to natural growth of the area. Additionally, the area along County Road 319 near the airport is also at capacity due to natural growth. Without the additional capacity customer outages are expected.

Total Customers: There are approximately 4,160 customers attached to this distribution system

Project Location



Cost

Project Capital Expenditure Budget: \$3.5 Million

Project Capital Expenditure Estimate: Distribution projects are estimated on a cost per foot basis, which is based on historic installation costs for that diameter of pipe.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope:

F-997 is the reg station that replaced F-523 (shown in location). This project covers the complete rebuild of station F-523 and includes:

- Bring piping and control valves above grade
- Two Regulator Runs
- Replace actuators

System Pressure: 650 psig

Project Status

Design: Complete.

Construction: Complete.

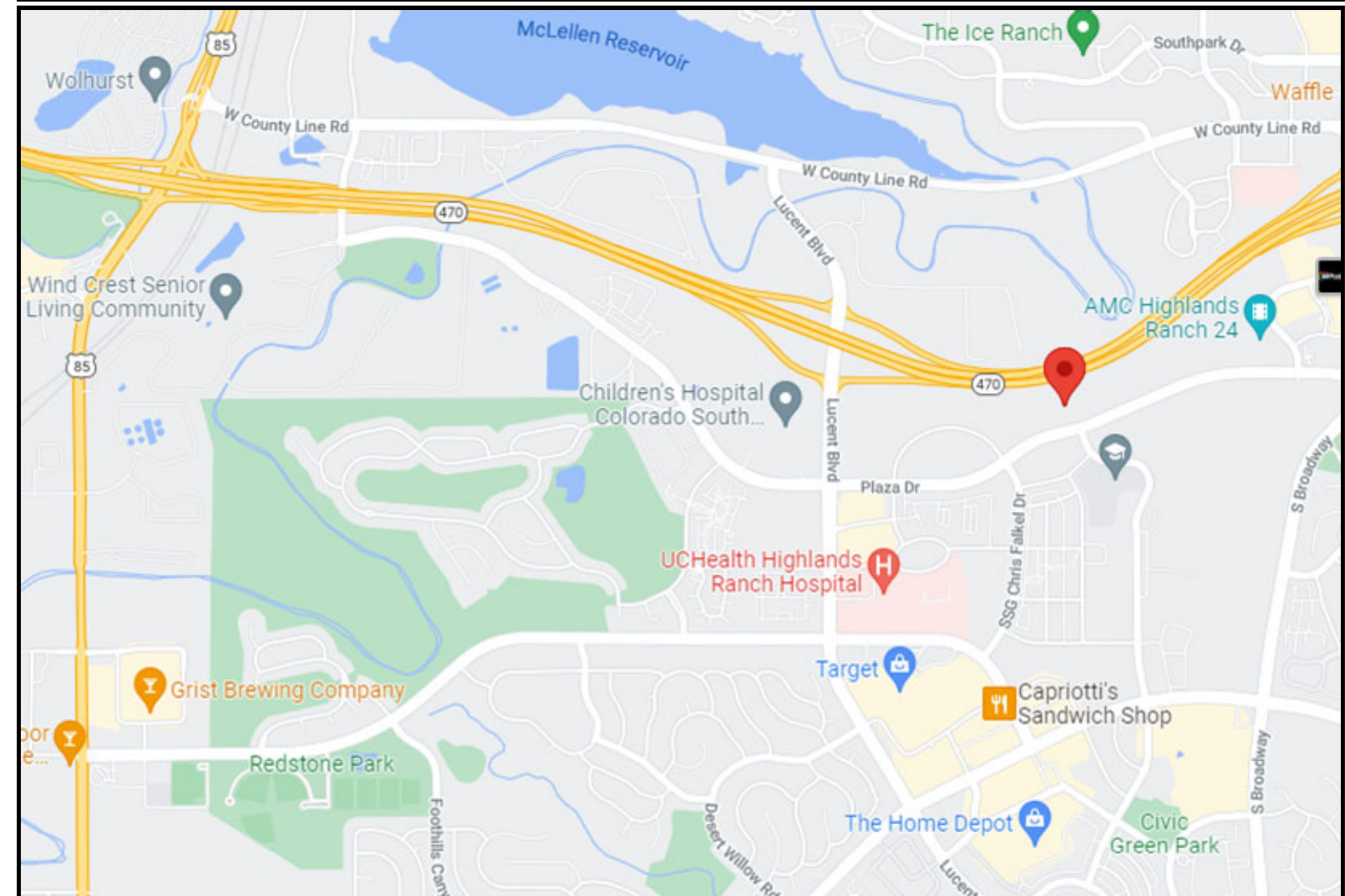
In Service Date: 11/2020

Project Details

Project Need: This will improve system reliability, replace inoperable valves that do not allow for full gas shut-off, and improve overpressure risk on a main feeder of the Mountain System.

Customer Impact: Approximately 108,000 customers.

Project Location



Cost

Project Cost: \$3.0 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Tri-Town Interconnect VS Repair Fort Lupton, Colorado

Project Overview

Scope:
The Tri-town Interconnect VS contains 21 buried, flanged, connections. Leak testing was performed in December 2019 and it was determined that there is leaking around valves HMV-30555 (12"), HMV-30511 (20") and PCV-1300 (12"). To address this issue and facilitate future maintenance, the valves will be relocated to above grade gaskets/valves replaced as needed.

Project Status

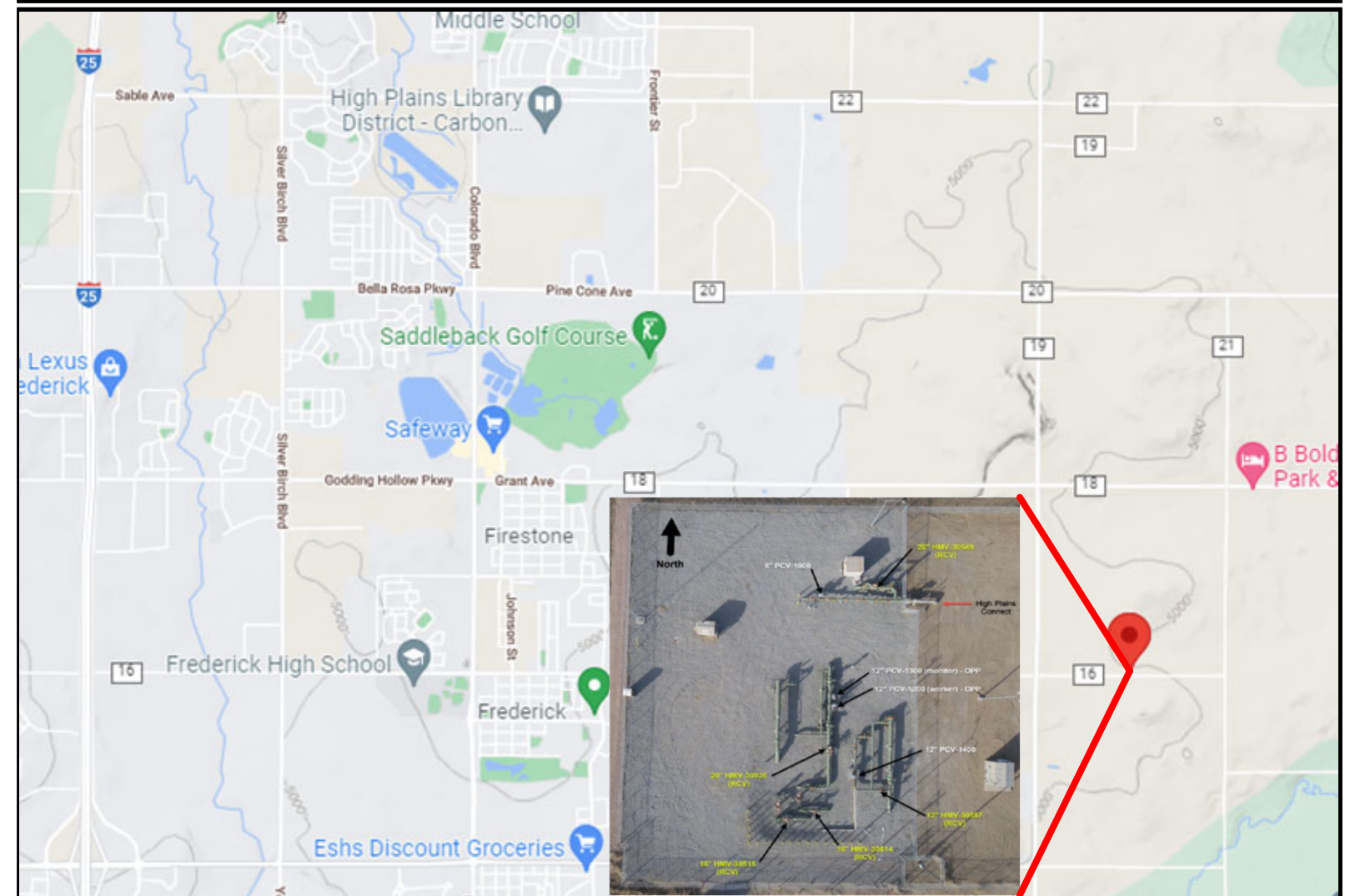
Design: Complete.
Construction: Complete.
In Service Date: 01/2021
Close Out: 02/2021

Project Details

Project Need:
This is a mandated Grade 2 Gas Leak Repair. The project will also eliminate future U/G flange leak risk, reduce incorrect operations risk, reduce overpressure risk, and simplify emergency response.

Customer Impact: This facility has the potential to impact 2,083,300 customers.

Project Location



Cost

Project Cost: \$2.9 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope: Lamar south of 13th to 14th and Pierce main reinforcement on pounds low system due to new apartment building being constructed at 6300 W 13th Ave that will be served off the PL system. The reinforcement consists of installing 2500' of 8" HDPE main to move enough gas to the area to serve the customers new load.

System Pressure: 60 psi

Project Status

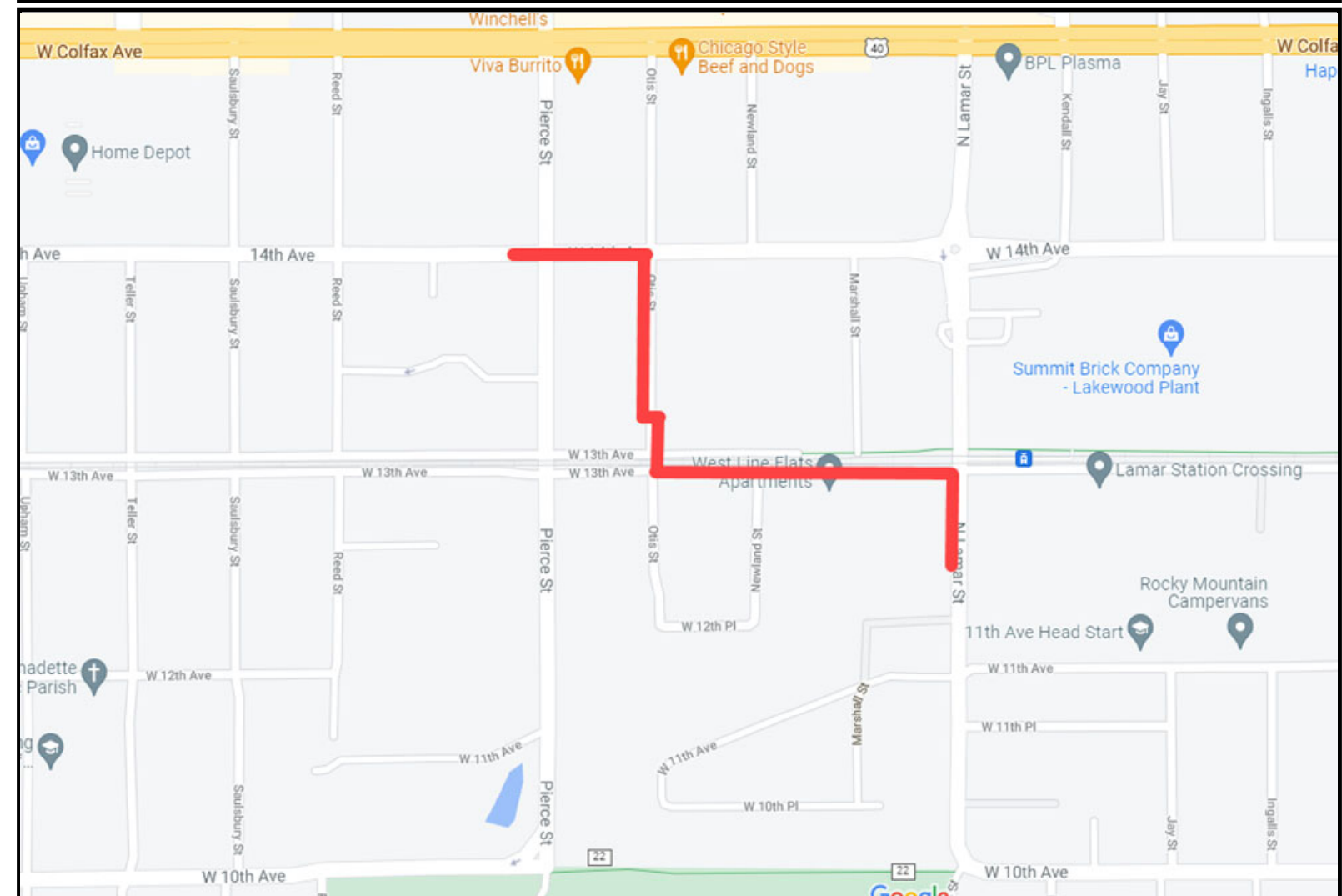
Design: Complete.
Construction: Complete.
In Service Date: 12/2020

Project Details

Project Need:
Reinforcement needed to offset the load of a new apartment building with a 18.8 MCFH load.

Customer Impact: Approximately 300 customers

Project Location



Cost

Project Cost: \$2.1 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope: Install a new 285 psig to 150 psig regulator station at approximately E Arapahoe Rd and S Buckley Rd. Reinforce 150' of 4" (IP) with 8" (IP) on the outlet of Reg. Station F-463. A new 8" Gate valve will also be installed to serve as the new outlet fire valve for reg. station F-463. Reinforce the inlet piping to F-872 by renewing 170ft of 3" Intermediate Pressure (IP) pipe with 4" IP under S Parker Rd.

Pressure System: High pressure (285 psig) to intermediate pressure station (150 psig)

Project Status

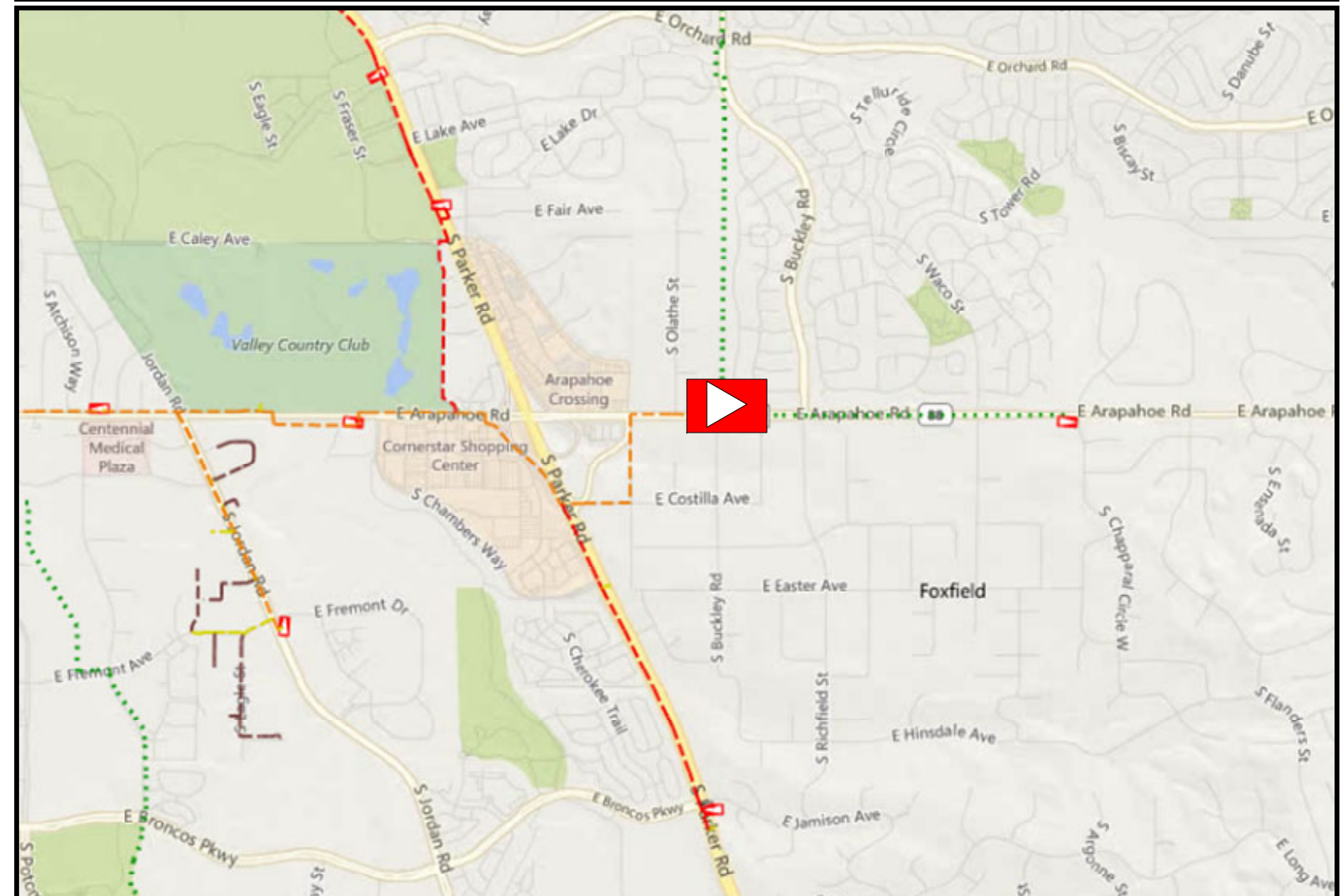
Estimate: Complete
Design: Complete
Construction: Complete
In Service Date: December 2019

Project Details

Project Needs: The intermediate pressure system that feeds F-481 & F-872 is at capacity due to natural growth of the area. This project is expected to improve the service temperature from -8F to -25F (design day).

Total Customers: There are approximately 1,000 customers attached to these two stations.

Project Location



Cost

Project Capital Expenditure Cost: \$2.0 Million

Project Capital Expenditure Estimate: Capacity Projects are estimated by either a project manager or a project engineer. The estimate takes into account route, materials, and known utilities. Capacity projects are either bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Upsize pipe for Boulder 285# (EB-20) Broomfield, Colorado

Project Overview

Scope: Reinforce 10,200 feet of 12 in high pressure steel main to connect two isolated systems. The project increases pressure and capacity into the EB-20 in Broomfield. The construction is a mix of open trench (~4,900 feet) and horizontal directional drill (“HDD”) (~5,300 feet).

Pressure System: High Pressure (285 psig)

Project Status

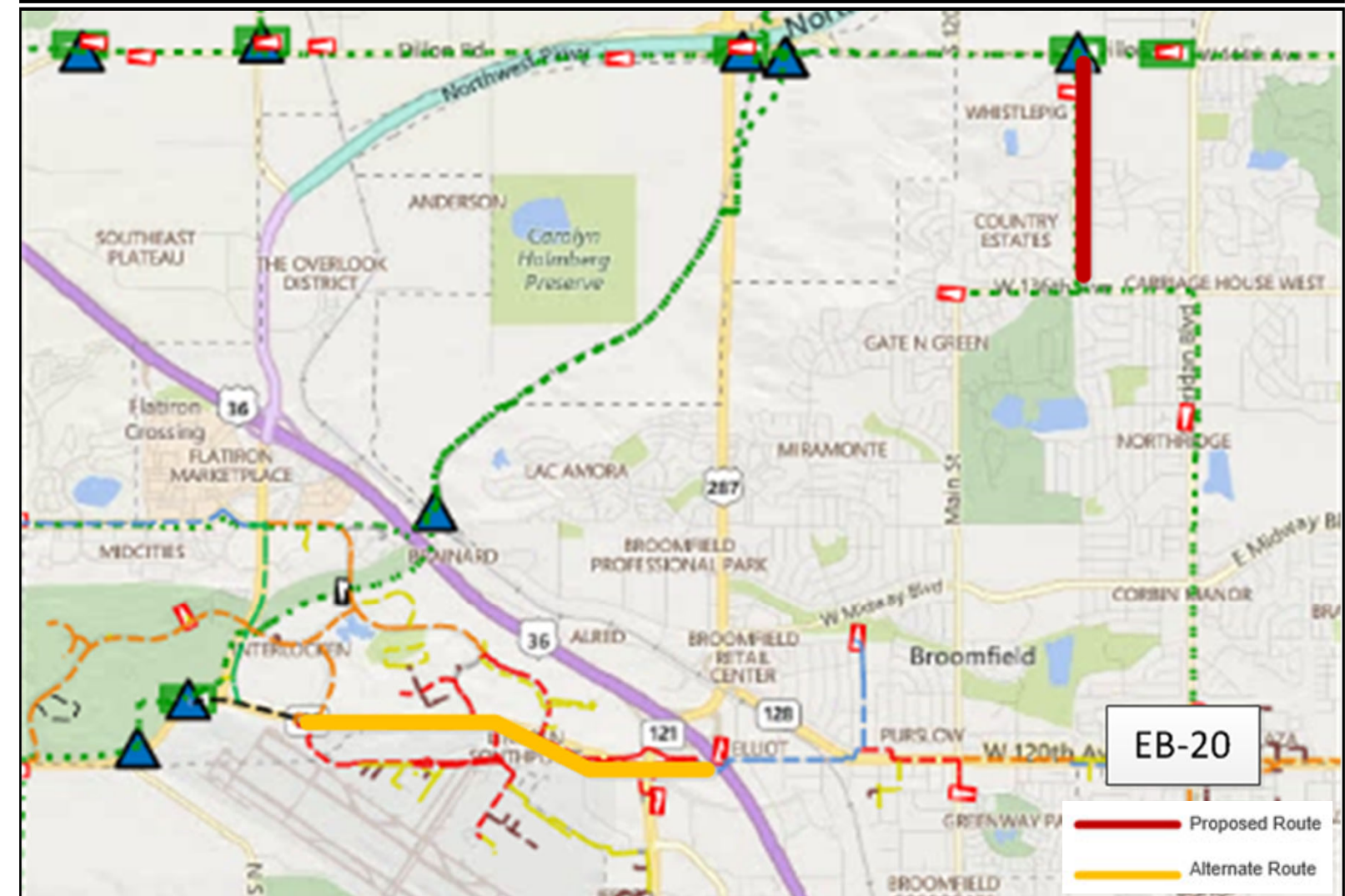
Estimate: Complete
Design: Complete
Construction: In construction
In Service Date: 9/29/2021

Project Details

Project Needs: The existing 6 inch high pressure pipeline currently serving the EB-20 system is at capacity due to natural growth of the area. Natural growth is considered to be load increase from new homes and small developments. Without the additional capacity customer outages are expected.

Total Customers: Station EB-20 is integrated with two other intermediate pressure stations and serves approximately 7,500 customers.

Project Location



Cost

Project Capital Expenditure Budget: \$11.7 million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project was bid utilized unit pricing that was bid under a master service level agreement.

Review Process: This project was reviewed by the designer’s local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Del Norte Compressor Station – A

Del Norte, Colorado

Project Overview

Scope: Install a second, redundant compressor with driver, cooler and controls at the Del Norte Station. Extend existing compressor building and modify auxiliaries as required to reduce system risk of single compressor failure.

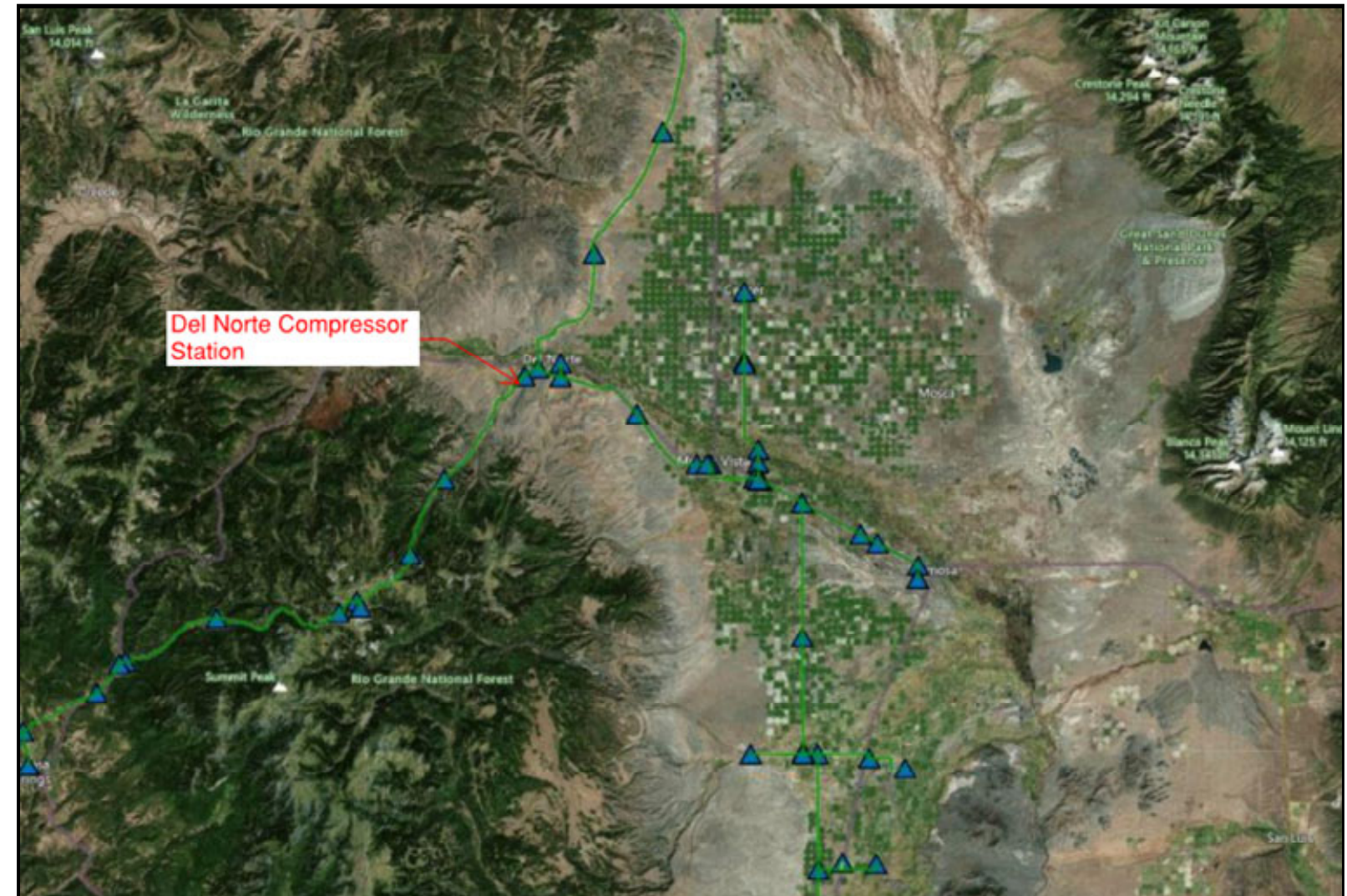
Project Status

Design: In progress
Construction: Q2/Q3 2022
In Service Date: September 2022

Project Details

Project Need: Currently there is a single compressor unit at Del Norte that is required to operate if the Ambient temperature reaches 19 F above zero. A redundant unit is being added to increase system reliability and reduce system risk.

Project Location



Cost

Project Cost: \$7.2 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope: Interconnect with Questar, custody transfer, Xcel-side metering (Xcel pays Questar to build 1000' of new pipeline to our existing compressor facility).
Re-commission Rifle Compressor Station (servicing compressor, electrical service upgrades, potential addition of bypass, or higher pressure delivery). Modify inlet of Rifle Gas Plant (gas chromatograph, bypass to lean gas header, controls) to handle gas supply of varying content & quality (lean/rich).

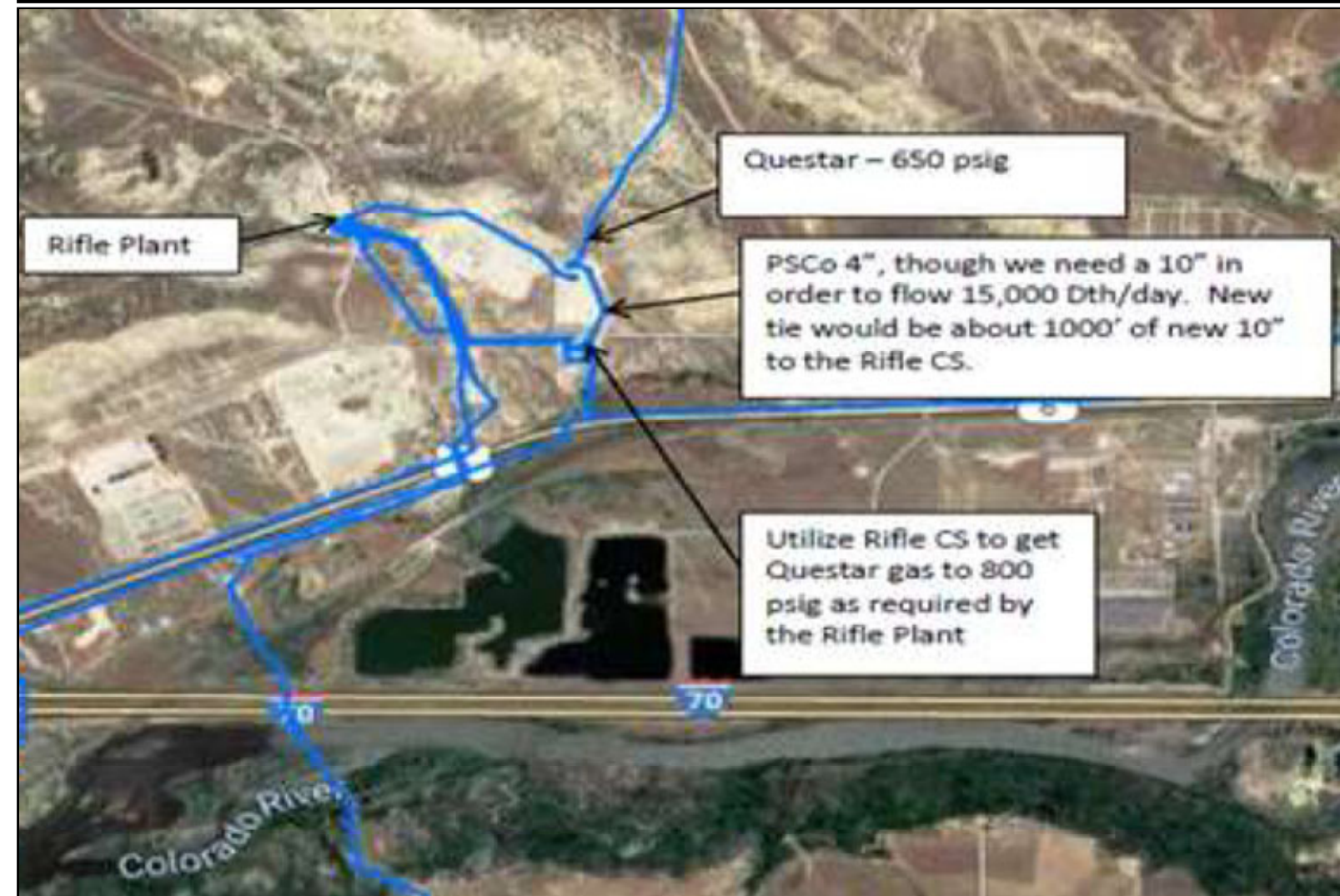
Project Status

Design: In progress
Construction: Q2/Q3 2022
In Service Date: October 2022

Project Details

Project Need: Needed to meet 1-in-30 design day (-33F) which is projected to exceed current supply 2021 / 22 --> (52,100 / 50,000 Dth/Day). Provide an additional 15,000 Dth/Day supply to Rifle Gas Plant from Questar tie-in. Creates redundant supply option alongside Terra (Williams) and allows for supply and pricing optionality during non-peak demand

Project Location



Cost

Project Cost: \$5.6 million
*Includes \$1.7 million that will be paid to Questar for completion of the pipeline.

Project Capital Expenditure Estimate: Capacity Projects are estimated by either a project manager or a project engineer. The estimate takes into account route, materials, and known utilities. Capacity projects are either bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Winter Park Tie

Winter Park, Colorado

Project Overview

Scope:

2021 - Install 1.3 miles of 6" HP 1000 psig MAOP pipeline via open trench and HDD to tie existing parallel 6" and 2" HP lines together for increased system capacity. Relocation of a total of 1,550 feet of existing 2" HP pipeline (2021: North Segment; 2022: South Segment), using new 4" high pressure main as replacement.

2022 – Completion of 6" HP Reinforcement and south 2" relocation. Removal of existing regulator station RH-1 Hideaway Park, fabrication, and installation of new regulator station RH-1 Hideaway Park. Fabrication and installation of new remote controlled valve sets at both ends of new 6" reinforcement line. Fabrication and installation of new receiver at RH-1 location.

Pressure System: 1,000 psig MAOP

Project Status

Design: Complete.

Construction: Partially complete.

In Service Date: Fall 2021 portion in-serviced 10/29/21. Forecasted remaining completion 9/30/22

Project Details

Project Need: The current system is unable to serve firm customers during design day of -39°F (1 in 30 year occurrence). The new line will mitigate potential outages in Winter Park and Fraser, Colorado. The area had been placed under a new gas connection moratorium until it became apparent that we could install the reinforcement line in time for severe winter loads during the 2021/22 heating season. Current system can serve only -13F temperatures (occurs 10 times per year).

Total Customers: Currently supports 900 customers and allows for future growth.

Cost

Project Cost: \$15.0 Million

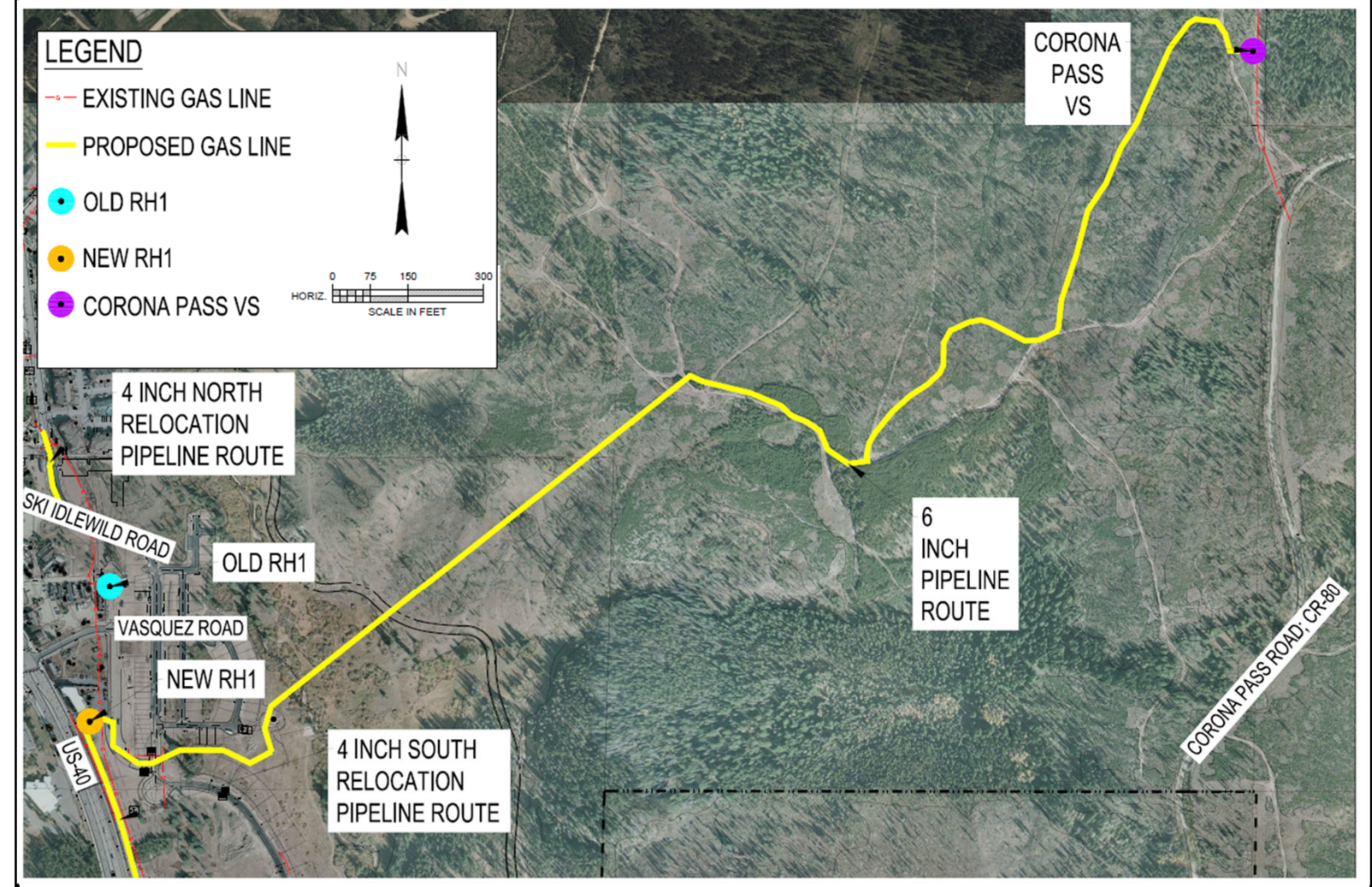
Project Capital Expenditure Estimate:

2021: North 2" Relocation	\$1.1M
2021: 6" HP Reinforcement	\$10.0M
2022: Completion of 6" HP Rein:	\$1.6M
2022: Reg Station RH-1 Rebuild:	\$1.2M
2022: South 2" Relocation:	\$0.9M
2022: Distribution ties/cutoff:	\$0.2M
Total	\$15.0 Million

*Any variances between the budget and the current project estimate are due to budgeting cycle and rounding.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Location



Rebuild F-392

Commerce City, Colorado

Project Overview

Scope: Complete demo & rebuild of F-392 (not including existing launcher/receiver).
 Install two 10" control valve runs and bypass header (City & Cherokee systems)
 Install new RTU – to be placed in a skid-mounted shed.
 Install new station piping (20") and valves (20" & 12"); new RCV and actuated valves.
 Remove valve 5822 in street and replace with 20" pipe.
 Replace backup generator and upgrade AC power.
 Replace fencing and gate around front of site.

Project Status

Design: 09/2020
Construction: 05/2021
In Service Date: 09/2021

Project Details

Project Need: This project is designed to improve system reliability, improve integrity and reduce corrosion risk. Current control valve and other valves are inoperable and are thus unable to fully shut off gas flow. This also prevents the system from being easily isolated in the event of an overpressure.

Customer Impact: This project improves reliability for approximately 51,200 customers.

Project Location



Cost

Project Cost: \$4.4 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope:

Completely Rebuild Reg Station 125. Work to include:

- Three control valve runs will be installed to build redundancy into design
- A common bypass
- New RTU
- Bring existing building up to code
- Replace valve actuators

Project Status

Design: Complete.

Construction: 02/2021

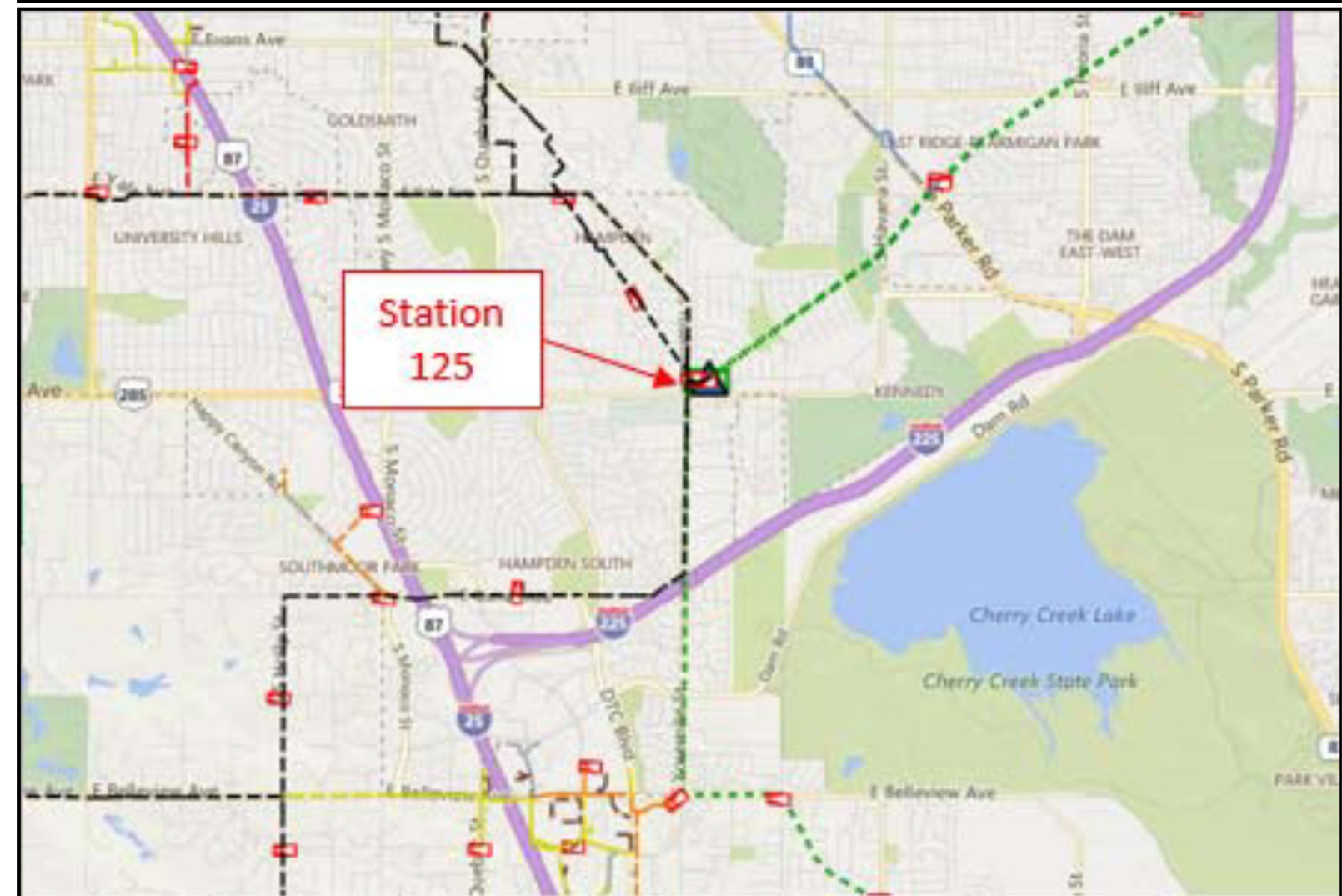
In Service Date: 07/2021

Project Details

Project Need: This project stemmed from leaking valves in the 20" and 26" pipelines, and is designed to improve system reliability, improve integrity and reduce corrosion risk. Current control valve and other valves are inoperable and are thus unable to fully shut off gas flow. The current RTU is obsolete. This also prevents the system from being easily isolated in the event of an overpressure.

Customer Impact: This project improves reliability for three stations, potentially impacting over 126,000 customers.

Project Location



Cost

Project Cost: \$6.4 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Rebuild F-340-A and F-340-T Arvada, Colorado

Project Overview

Scope: This project will rebuild the entire F-340 station (F-340A and F-340T) including RCVs, the station RTU, fire valves, isolation valves, station bypass, and both regulator runs. This station currently (and will continue to) pulls off of the 18" Leyden PM system, and feeds the Thornton (F-340T) and Arvada/West Fringe (F-340A) IP systems. All control valves on site will be remotely controlled, obsolete equipment will be replaced, and 3-phase power will be brought onto site to support the new control valve actuators.

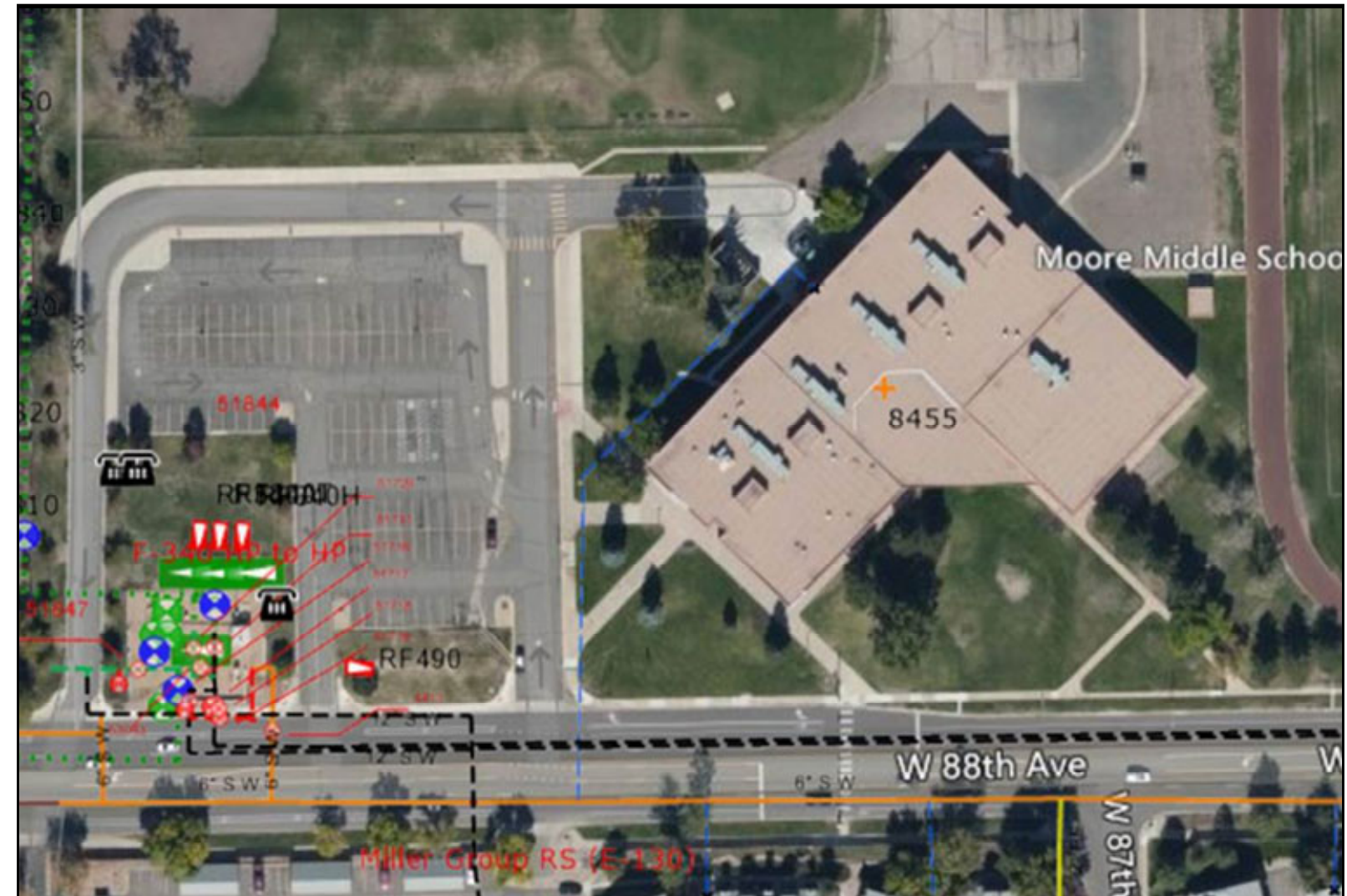
Project Status

Design: In progress
Construction: June/July 2022
In Service Date: August 2022

Project Details

Project Need: The main driver behind this project is that the equipment on site is not functional (i.e. valves don't seal), regulators are obsolete, and most recently, the RTU on site failed, and a new RTU cannot be implemented without updated equipment due to compatibility issues. This is a main control point for this system, and must be in good working order to maintain high system reliability.

Project Location



Cost

Project Cost: \$4.0 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Rebuild F-524 Littleton, Colorado

Project Overview

Scope: Rebuild reg station in current location. Rebuild HP-IP obsolete control valves with 10" redundant runs below grade. Install 20" valves and 20" station piping, new back-up generator, and 12" temporary bypass.

Project Status

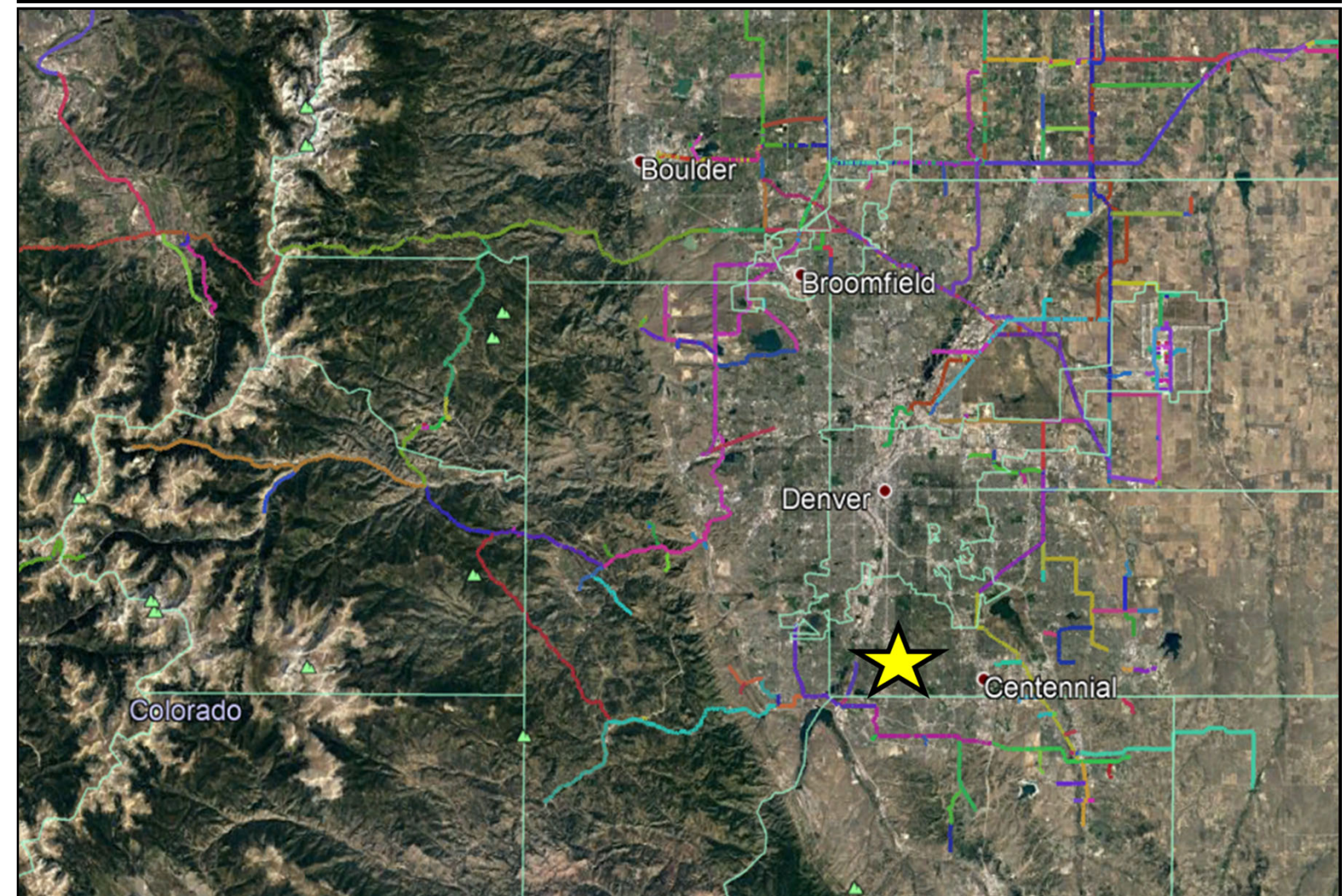
Design: In progress
Construction: March-May 2022
In Service Date: May 2022

Project Details

Project Need: Control valves on the HP-IP run are obsolete, outlet valve for station and other valves within station do not function, and existing back-up generator has failed to operate in past.

Total Customers: 65,000

Project Location



Cost

Project Cost: \$4.0 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

AKA - Rebuild Interconnect Fort Lupton, Colorado

Project Overview

Scope:

- Acquire easement to expand the AKA site at WCR 33 and WCR 40 in Ft. Lupton CO.
- Install a new interconnect with the following equipment: RTU, GC, H2O/H2S Analyzer, Odorizer, 2000 gallon Odorant Tank, Ultrasonic Meter, OPP with strainer and full-size bypass, automated emergency shut-in valve that will also serve as the inlet FV, GC/RTU building, H2O/H2S Probe, platforms, transmitters, chain link fence, bollards, equipment foundation and gravel.
- Decommission and remove existing equipment at AKA Gas Plant and Xcel AKA site.

Project Status

Design: Complete.
Construction: Complete.
In Service Date: 09/2021

Project Details

Project Need: Obsolete equipment that is non-compliant. Prior reportable events have led to failure investigations. AKA Energy has procured and installed (2) Filter-Separators to help Xcel with project costs.

Customer Impact: Approximately 16,000 customers.

Project Location



Cost

Project Cost: \$3.2 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope: Install several sections of new polyethylene main in Breckenridge

- 270 feet of 4 inch at Tiger Road & Revette Drive
- 2,300 feet of 6 inch at American Way and Thunderhead
- 960 feet of 4 inch at Wellington Road and Corckscrew Drive
- 1120 feet of 2 inch at 198 Timber Trail Drive
- 380 feet of 4 inch at Ski Hill Rd and Main St
- 900 feet of 6 inch on the outlet of RB-6
- 560 feet of 4 inch at Baldy Road and Fuller Placer Road

Pressure System: Pounds Medium (60 psig)

Project Status

Estimate: Complete.

Design: In Complete.

Construction: Complete other than American Way Reinforcement, expected to complete 12/2021.

In Service Date: Various: 09/2021 – 10/2021.

American Way expected ISD: 12/2021.

Project Details

Project Needs: The distribution pipe on the RB-12 is at capacity due to natural growth of the area. Natural growth is considered to be load increase from new homes and small developments. Without the additional capacity customer outages are expected.

Total Customers: There are approximately 1,800 customers attached to this distribution system

Cost

Project Capital Expenditures Budget: \$3.2 Million

2019: \$0.3

2020: \$2.7

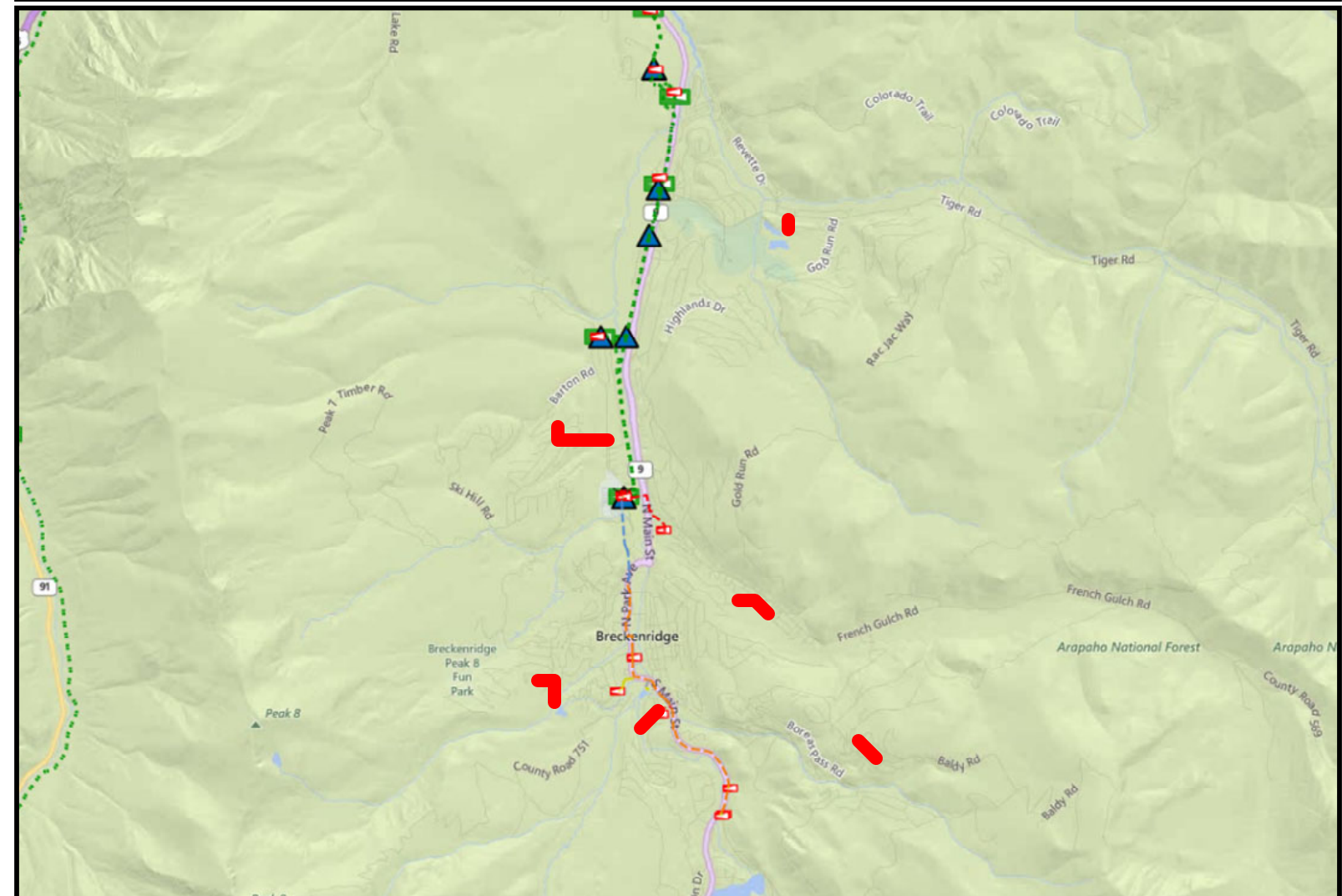
2021: \$0.3

*Difference in total is due to rounding.

Project Capital Expenditures Estimate: Distribution projects are estimated on a cost per foot basis, which is based on historic installation costs for that diameter of pipe.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Location



Project Overview

Scope:

Install 12,000' of 8" steel IP main and new IP to PM station for new Shea Homes development, consisting of:

8" IP Lateral to feed F-971

- 8 x 8 close coupled Gas Distribution Regulator Station (F-971)
- Below grade inlet and outlet FV designed to isolate the F-971 Regulator Station
- Station site and access road development
- Sound attenuation
- ERX to monitor the pressures remotely

System Pressure: 285 psi

Project Status

Design: Complete.

Construction: Complete.

In Service Date: 02/2021

Close Out: 02/2021

Project Details

Project Need:

A new developer was set to come online and required service for a load of 500 MCFH.

Customer Impact: 5000 customers

Project Location



Cost

Project Cost: \$2.8 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

Project Overview

Scope: Replace medium voltage switchgear and two compressor electric motor drive controls at Yosemite compressor station. Yosemite CS is an air-blending facility delivering blended high pressure gas to the Denver Metro and Mountain systems.

- Switchgears (8 total) will be replaced in North and South Yosemite.
- VFDs (2 total) will be replaced in North and South Yosemite.
- Replace building which houses a subset of the switchgears at South Station with pre-fab structure.
- Removal of 2 transformers & one new transformer install with United Power

Project Status

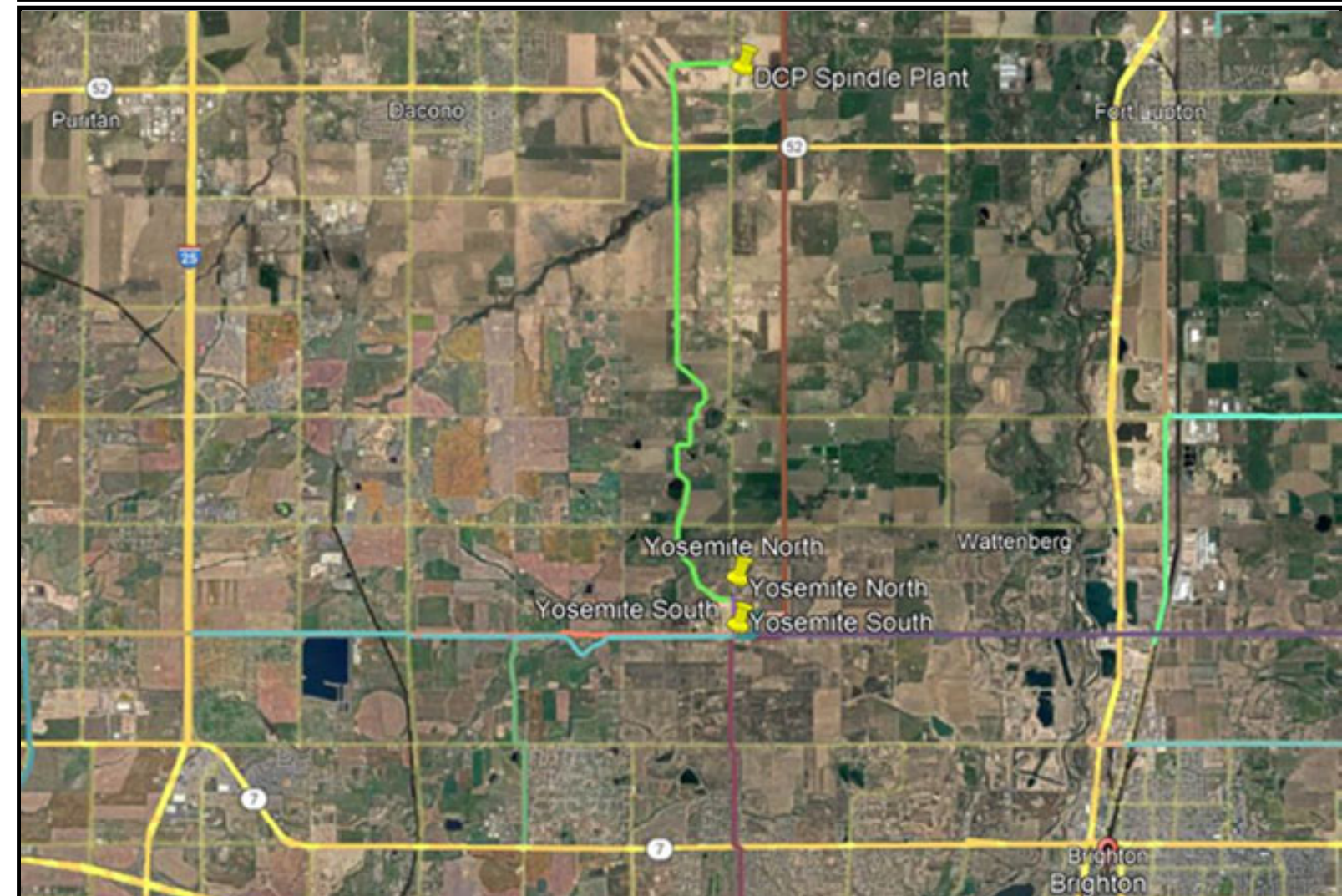
Design: Complete.
Construction: Complete.
In Service Date: 06/2021
Close Out: 07/2021

Project Details

Project Need:
Original switchgear and motor drives had reached the end of their useful life and presented an elevated operational risk to the Yosemite facility. Most of the blended gas needed for Denver Metro is provided by Yosemite, with the rest coming from CIG Watkins.

Customer Impact: In excess of 2 million, including 3rd party Local Distribution Companies.

Project Location



Cost

Project Cost: \$2.4 Million

Project Capital Expenditure Estimate: This project was estimated by either a project manager or project engineer, taking into account location, materials and known risks. The project will either be bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.

96th & Highway 2 Reg Station Commerce City, Colorado

Project Overview

Scope: Install a new dual run regulator station in the yard at the 96th & Highway 2 VS. Both runs will utilize the 24" Cherokee Pipeline as a supply. The first run will function as a back up for Suncor in case of supply issues. The second run will tie into the 16" Mesa - Boulder pipeline and support the Mesa HP system.

Pressure System: High Pressure (HP)

Project Status

Design: Q1/Q2 2022

Construction: Q3/Q4 2022

In Service Date: 11/1/2022

Project Details

Project Need: Due to increased forecasted loads for Long Term Planning (Scenario 1 - High Growth), an additional project was identified to meet design day.

Project Location



Cost

Project Cost: \$2.0 Million

Project Capital Expenditure Estimate: Capacity Projects are estimated by either a project manager or a project engineer. The estimate takes into account route, materials, and known utilities. Capacity projects are either bid outright for a lump sum contract or utilize unit pricing that was bid under a master service level agreement. The method used depends on the scale of the project.

Review Process: This project was reviewed by the designer's local management to verify that the route, materials, and scope match with the needs of the system and that best engineering practices were followed.