

Boulder County Planning – Variance Request (VAR-24-0005)

Date: Monday, November 25, 2024

Project: Xcel Energy – EL-66 Longmont-Nelson Road Rebuild

To: Boulder County – Planning Department and Board of Adjustment

From: Kaitlin Rainsberger – HDR Engineering, Inc. on behalf of Public Service Company of Colorado (d.b.a. Xcel Energy)

Subject: EL-66 Longmont-Nelson Road Natural Gas Regulator Station Rebuild
550 South Hover (VAR-24-0005)

Project Overview

Public Service Company of Colorado, doing business as Xcel Energy, is planning to rebuild existing natural gas infrastructure located within Xcel Energy fee-owned property near the northeast intersection of Nelson Road and Hover Street in unincorporated Boulder County.

Parcel Number: 131509000009

Property Address: 550 Hover Street

Zoned: A – Agricultural

Property Size: 0.10 acres

The rebuild will consolidate the Lyons Regulator Station (EL-66) and Nelson Road Regulator Station #2 (EL-81) into a single regulator station at the same location (Project).

Project includes removal and demolition of the existing EL-66 and EL-81 regulator stations, removing four natural gas regulators and two utility enclosures (125 square feet and 110 square feet in size). The rebuild will consolidate on-site infrastructure into a single regulator station, with two natural gas regulators protected by a single utility enclosure. Additional work includes installing a new outlet fire valve, and inlet and outlet piping.

The Project is being undertaken to comply with US Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) “Mega Rule” regulations, which requires natural gas operators to ensure pipelines in their system meet certain requirements to improve record keeping activity and safety (49 CFR Part 192).

The proposed Project would allow for continued supply of safe and reliable energy to existing customers and would not increase capacity or supply of the current natural gas distribution system.

Request for Variance

Xcel Energy is seeking relief from required setbacks as defined by Article 4 of the Boulder County Land Use Code for Agricultural districts as they apply to the proposed utility enclosure.

The utility enclosure proposed (approximately 400 square feet in size) would be placed in the same general location as the existing utility enclosures which would be removed (125 square feet and 110’ square feet in size).

The below table displays Boulder County Land Use Code required setbacks, existing setbacks, and proposed setbacks for the utility enclosures.

	Required	Existing	Proposed
<i>Front setback (west)</i>	35'	Met	Met
<i>Side setback (north)</i>	7'	4'	1' 10"
<i>Side setback (south)</i>	7'	Met	Met
<i>Rear setback (east)</i>	15'	2'	2' 6"

Hardship Statement

The Board of Adjustment (BOA) may approve a variance from Article 4-1200 of the Boulder County Land Use Code if all criteria from Article 4-1202.B.2 are met. Applicant's assessment for each criterion being met are as follows.

(A) THERE EXIST EXCEPTIONAL OR EXTRAORDINARY PHYSICAL CIRCUMSTANCES OF THE SUBJECT PROPERTY SUCH AS IRREGULARITY, NARROWNESS, SHALLOWNESS, OR SLOPE

The parcel in which the regulator station is located is exceptionally small (approximately 1/10th of an acre) when compared to the minimum lot size for the zone district (35 acres).

When the existing infrastructure was originally installed in the mid 1970's and land rights were secured by Xcel Energy, the lot size was determined based on the needs for the system and land use regulations at the time. Regulatory changes are driving a required update to the site for the existing natural gas system to continue operating as it currently does.

(B) BECAUSE OF THESE PHYSICAL CIRCUMSTANCES, THE STRICT APPLICATION OF THE CODE CREATES AN EXCEPTIONAL OR UNDUE HARDSHIP UPON THE PROPERTY OWNER

Due to the small size of the lot, the buildable space is greatly reduced. Strict application of the code would not allow for Xcel Energy to protect the planned natural gas regulator station within an enclosure.

Natural gas utility line design requirements have undergone changes since the initial development of the site, making the buildable envelope of the property too small to accommodate the planned utility infrastructure and the proposed utility enclosure for the planned regulator station. Additional discussion on regulations driving the design of the system, which prevent the utility enclosure from being located within the buildable envelope of the parcel, are in the following sections.

(C) THE HARDSHIP IS NOT SELF IMPOSED

The need to rebuild the existing regulators and design constraints associated with such are regulatorily driven. The hardship is not self-imposed.

Project Need

In 2019, the United States Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) implemented requirements for natural gas utility operators to ensure traceable, verifiable, and complete (TVC) records to validate the safety of their utility infrastructure. The site does not meet current record-keeping standards and Xcel Energy must complete the Project in to produce TVC records for the regulator station.

The existing regulator stations are within a Class III, High Consequence Area, (per DOT definition) which requires additional focus and efforts be taken by utility operators to ensure the integrity of their infrastructure.

Design Constraints

Xcel Energy contracted a professional engineer, licensed in the State of Colorado, to execute the Project design in adherence with Xcel Energy's Pipeline Compliance and Standards (PC&S) Manual – which was developed to meet the standards within Title 49 of the Code of Federal Regulations (CFR) Part 192. The PC&S Manual has been approved by the Public Utilities Commission (PUC). The PUC holds Xcel Energy to the standards of meeting the design criteria within the PC&S.

Design constraints determining the location of the regulators and enclosure are depicted on the attached Site Plan figure:

- Spacing of the utility enclosure from fire valves must be a minimum of 25 feet
- Spacing of the fire valves (one existing and one planned) from the existing remote terminal unit at the site must be a minimum of 15 feet

The dimensions of the proposed utility enclosure are required to fully surround the regulator station, which was designed in accordance with requirements in the PC&S Manual.

(D) THE VARIANCE, IF GRANTED, WILL NOT ADVERSELY AFFECT THE USES OF ADJACENT PROEPRTY AS PERMITTED UNDER THIS CODE

If granted, the variance would allow for Xcel Energy to enclose the proposed regulator station equipment within a metal structure. Existing natural gas infrastructure at the site is currently housed in two structures which encroach upon the required setbacks to the north and the south. The proposed location of the gas regulator station utility enclosure is within the same general location of the existing gas regulator station utility enclosures.

Proposed setback encroachments will increase by approximately 2 feet compared to the existing encroachment to the north (side) and will decrease by approximately 0.5 feet compared to the existing encroachment to the east (rear).

Temporary impacts that could adversely affect uses of the adjacent property are related to construction activities only. A temporary construction easement is being negotiated with the adjacent property owner, and the footprint of such an area will be reclaimed to match existing conditions unless otherwise requested by the landowner.

The approval of this variance would not adversely affect the uses of adjacent property.

(E) THE VARIANCE, IF GRANTED, WILL NOT CHANGE THE CHARACTER OF THE ZONING DISTRICT WHICH THE PROPERTY IS LOCATED, AND IS IN KEEPING WITH THE INTENT OF THE CODE AND THE BOULDER COUNTY COMPREHENSIVE PLAN

Enclosing the planned regulator station equipment within a metal, prefabricated structure would not change the character of the zoning district.

The Project, as proposed, would not result in a change of use at the site nor would it have an increase in capacity or supply of the current natural gas distribution system.

The site would operate as it currently does, with modernized infrastructure, and therefore would be in keeping with the intent of the Code and the Boulder County Comprehensive Plan.

(F) THAT THE VARIANCE, IF GRANTED, DOES NOT ADVERSLY AFFECT THE HEALTH, SAFETY, AND WELFARE OF THE CITIZENS OF BOULDER COUNTY

Protection of the proposed regulator station equipment within a metal, prefabricated enclosure would not adversely affect the health, safety, and welfare of the citizens of Boulder County.

The Project, as proposed, would allow for continued supply of safe and reliable energy to existing customers and would not increase capacity or supply of the current natural gas distribution system.

Additional Project Information

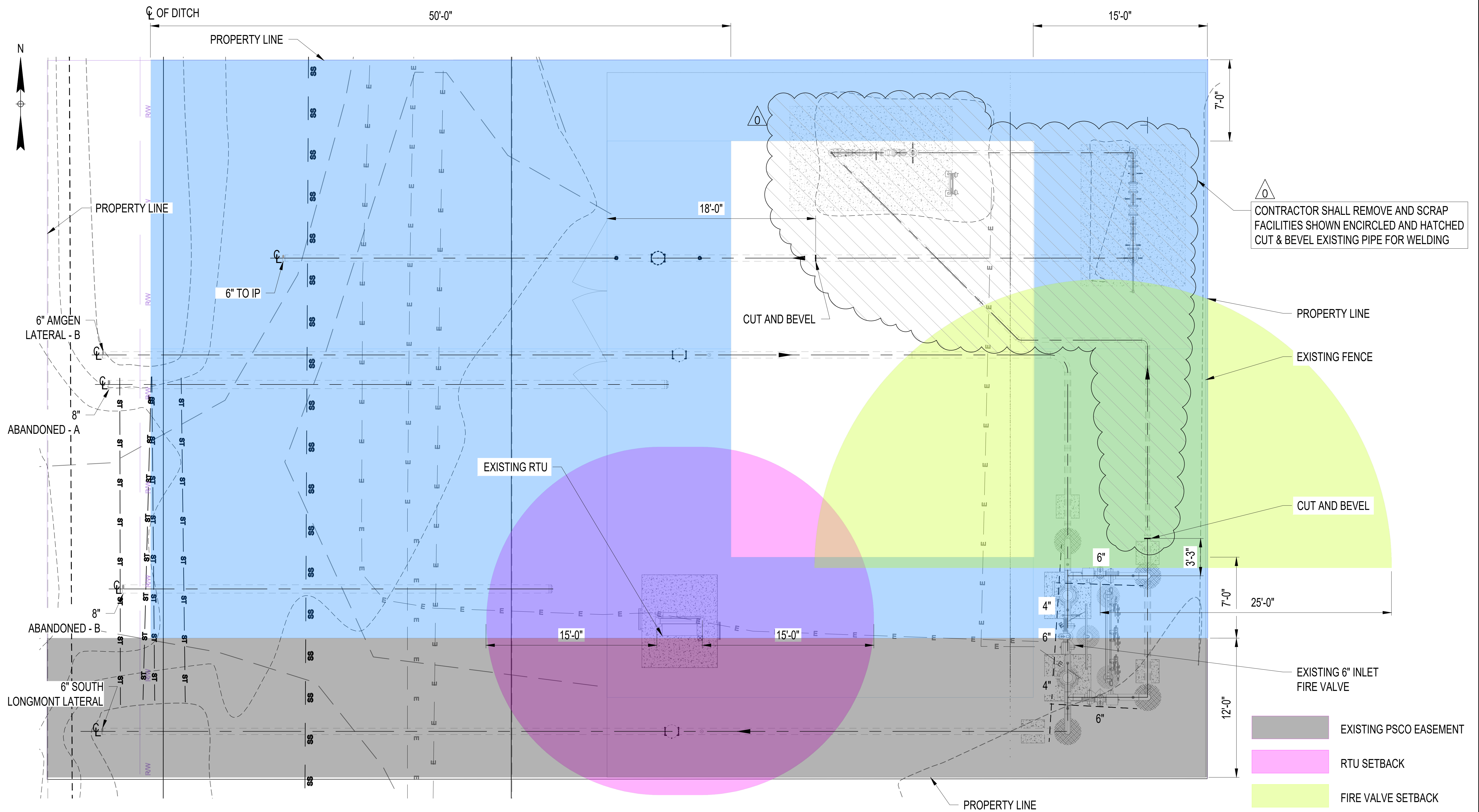
To facilitate an efficient discussion of the Project, Xcel Energy has included the following clarifications to BOA comments or concerns made during the November 6, 2024 hearing. The below list includes some items that are not relevant to BOA purview regarding consideration of the variance request contained herein, but are being offered as a courtesy.

- Natural gas regulators are designed to mechanically reduce the pressure of a high-pressure natural gas line to lower pressure as it enters a distribution system.
- Existing natural gas regulators at the site (four in total) and planned regulators (two in total) are self-contained Mooney regulators which vent back into the utility line, preventing leaking of natural gas. Release of natural gas is not a part of the typical operation of the utility line, which includes start-up and shut-down.
- Adjacent landowner is the Boulder County Fairgrounds. Xcel Energy land agents have discussed the Project and proposed utility enclosure with representatives from the Fairgrounds. The Fairgrounds representatives did not feel that surrendering land rights to Xcel Energy would be approved if the only reason for doing so was to allow for the utility enclosure to fall within required setbacks.
- The PUC did not respond to the referral request made by Boulder County for the Project. However, the planned design was developed by a Professional Engineer registered in the State of Colorado and adheres to Xcel Energy's PC&S Manual, which is governed by Title 49 CFR Part 192. The PUC has reviewed and approved Xcel Energy's PC&S Manual and Xcel Energy is beholden by the PUC to design and operate their utility infrastructure to meet the standards therein. While the PUC may not have reviewed this Project specifically, they have approved of the criterion which it has been designed to meet.
- Natural gas regulators are considered in-line components of a utility line and cannot be installed on top of underground piping. Installing a building or foundation in proximity or on top of underground piping can compromise the building foundation if maintenance work needs to be performed.
- It is possible that a reduction in the building footprint or relocation of the regulators could be made to limit the encroachment upon setbacks – however, any reduction of the encroachment would be a matter of inches or feet and would not allow for the utility enclosure to be fully within the buildable envelope of the parcel or even substantially more so in the buildable envelope of the parcel.

Attachments

To aid in Planning Department and Board of Adjustment review, an updated Site Plan has been attached, which depicts the existing and proposed natural gas utility infrastructure and utility enclosures and visual representations of:

- Boulder County property line setbacks
- Natural gas utility line minimum spacing requirements



CONTRACTOR SHALL REMOVE AND SCRAP FACILITIES SHOWN ENCIRCLED AND HATCHED CUT & BEVEL EXISTING PIPE FOR WELDING

- EXISTING PSCO EASEMENT
- RTU SETBACK
- FIRE VALVE SETBACK
- BOULDER COUNTY SETBACK

NOTES:
 1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
 CAD FILE NAME: D1_9000_Lyons RS EL-66_EL-81_MAOP_Rebuild.dwg

SITE PLAN
 SCALE 1/4" = 1'-0"

FLOC: GT-00000823081-STA-RS00000EL66

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HISTORY	DATE
DRAWN BY: SF	11/07/24
DESIGNED BY: TCJ	11/07/24
CHECKED BY: JP	XXXXXX
APPROVED BY:	
IN SERVICE DATE:	

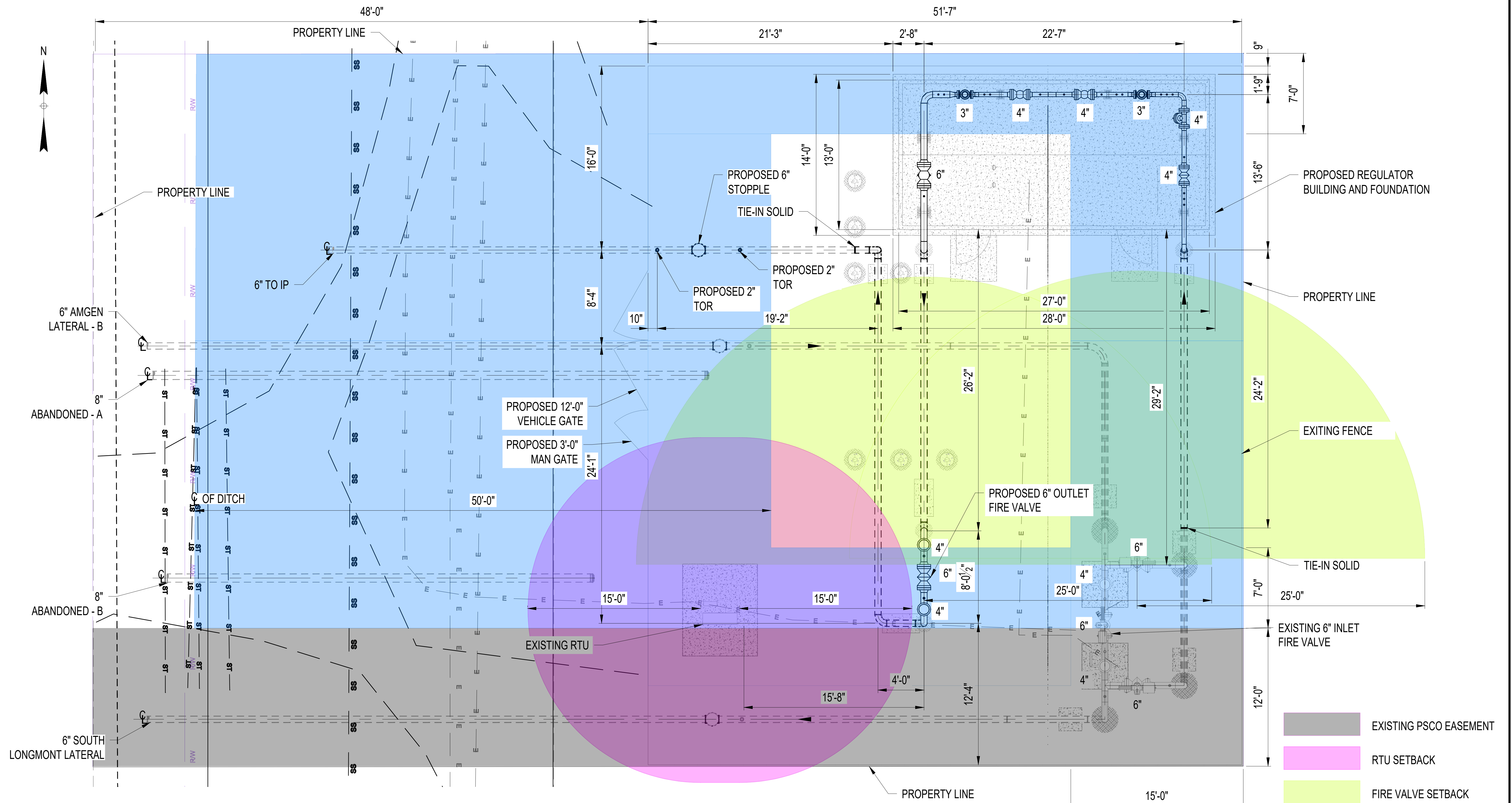
REVISIONS		
NO.	DESCRIPTION	BY DATE
0	ISSUED FOR PERMIT	SF 11/25/24

**NELSON RD RS EL-66 REBUILD
 RETIREMENT SITE PLAN - EXHIBIT
 EXHIBITS**

SERVICE CENTER: CAMPION LOCATION: S9 T2N R69W

DIVISION: EASTERN CITY/COUNTY: LONGMONT/BOULDER TYPE: TRANSMISSION

DRAWING
9102



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SITE PLAN
 SCALE 1/4" = 1'-0"

	 9777 PYRAMID COURT, STE 300 ENGLEWOOD, CO. 80112 TEL. 303-405-2799 WWW.ENENGINEERING.COM	HISTORY DRAWN BY: SF 11/07/24 DESIGNED BY: TCJ 11/07/24 CHECKED BY: JP XXX/XX/XX APPROVED BY: IN SERVICE DATE:		DATE 11/07/24 11/07/24 XXX/XX/XX		REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ISSUED FOR PERMIT</td> <td>SF</td> <td>11/25/24</td> </tr> </tbody> </table>		NO.	DESCRIPTION	BY	DATE	0	ISSUED FOR PERMIT	SF	11/25/24	NELSON RD RS EL-66 REBUILD SITE PLAN - EXHIBIT EXHIBITS		DRAWING 9101
		NO.	DESCRIPTION	BY	DATE													
0	ISSUED FOR PERMIT	SF	11/25/24															
SERVICE CENTER: CAMPION		LOCATION: S9 T2N R69W		DIVISION: EASTERN		CITY/COUNTY: LONGMONT/BOULDER		TYPE: TRANSMISSION										

FLOC: GT-00000823081-STA-RS00000EL66

