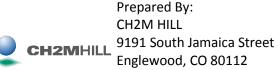
Thornton Water Project Larimer County 1041 Permit Application Supplement Addendum



Submitted to: Larimer County Planning Department 200 West Oak Street, Suite 3100 Fort Collins, CO 80521

Date: April 10, 2018





Prepared For: City of Thornton 9500 Civic Center Drive Thornton, CO 80229

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Thornton Water Project Acronyms and Abbreviations

Supplement Addendum

CAD Computer-aided Design

LUC Larimer County Land Use Code
Submittal TWP 1041 Permit Application

Supplemental Additional Information

Thornton City of Thornton

TWP Thornton Water Project

Drawings

BUR Buried
CIR Circle
CL Centerline

CMP Corrugated Metal Pipe
CPP Crumpler Plastic Pipe

CT Court
CV Cove
DR Drive
FO Fiber Optic
INV Invert
DR Drive

EL Easement Line
ELCO East Larimer County
EOP Edge of Pavement
E-OVH Electric Overhead

EXST Existing

GMA Growth Management Area

GS Gas
HWY Highway
LN Lane
MKR Marker
N North
NO. Number

PN Parcel Number

PKW Parkway

PUD Planned Unit Development RCP Reinforced Concrete Pipe

REC Recorded ROW or R/W Right-of-Way

S South
T Telephone
TYP Typical

VFD Variable Frequency Drive

W Water

Supplement Addendum Introduction

The city of Thornton (Thornton), Colorado is requesting a 1041 permit for the Thornton Water Project (TWP), the siting and development of which has been designated as an area and activity of state interest as authorized by Title 24, Section 65.1-501 of the Colorado Revised Statutes, and Sections 12 and 14 of Part II of the Larimer County Land Use Code (LUC), Version September 13, 2017. The matter of state interest, as defined by the LUC, involves the siting and development of a new domestic water transmission line that is contained within new permanent easements greater than 30 feet.

Thornton submitted the TWP 1041 permit application (Submittal) on January 5, 2018. After that submission, the Larimer County Community Development Division Director, by letter dated January 26, 2018, requested that Thornton provide additional information/materials to evaluate the Submittal. In response to that letter, Thornton submitted Supplemental Additional Information (Supplement) on April 2, 2018. Thereafter, Larimer County, by memorandum dated March 14, 2018 and provided to Thornton on April 5, 2018, a copy of which follows this introduction, requested additional information/clarification to materials submitted in the Supplement. Information included in this submission (Supplement Addendum) pertains to the portion of the TWP corridor that was presented in the Supplement along Douglas Road from approximately Bayshore Road to Turnberry Road (approximately 2.6 miles), in accordance with Larimer County's request. Information provided in this Supplement Addendum is in addition to information that was previously provided. It is not intended to replace previously submitted Submittal or Supplement material unless otherwise noted.

LARIMER COUNTY | ENGINEERING DEPARTMENT

P.O. Box 1190, Fort Collins, Colorado 80522-1190, 970.498.5700, Larimer.org

MEMORANDUM

TO: Rob Helmick, Senior Planner

FROM: Mark Peterson, County Engineer Bule R

DATE: March 14, 2018

RE: Proposed Thornton Water Project 1041 Draft Supplemental Information Completeness

Review

Thornton submitted two copies of draft information for completeness review on Friday March 9th. We have had a chance to look the documents over for basic content/completeness and have the following comments.

The CAD files provided on flash drive were not complete and only provided utility information covering the reach west of SH 1. No annotations/labeling was provided on the line types and it doesn't appear to be a complete set of the data when compared to the hardcopy plots. There were also no data or layers describing the proposed pipeline alignment. Please submit all relevant layer data.

Please provide a legend for the line types that do not have labels on the S1 drawing sheets. This may include features such as fencing.

There should be the ability to examine the proposed water line alignment in relation to the existing utilities – none of the provided drawings show both the field data and the proposed pipeline alignment. Identified utility conflicts may warrant further discussion.

The drawings showing "Work Limits and Revised TWP Corridor" have been identified to extend to the limits of the existing right-of-way along the entire length of the corridor. These limits are being shown irrespective of whether there are any potential conflicts with fences, trees,



<Date>
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landscaping and the like. Work limits and the TWP Corridor for permitting purposes are potentially two different aspects of the project. Lacking any differentiation, I believe that most people reviewing this information will assume that the planned work limits will come to the edge of the existing right-of-way (shaded area) along the entire corridor. This seems like it will lead to potentially needless concern for adjacent property owners if there is no true need to use these areas based on where the pipeline is being located. Ideally, the (estimated) work limits should be identified on a more linear basis (not jumping out wherever minor additional segments of right-of-way have been dedicated) and be shown a few feet inside the right-of-way line. The triangular area near CR 13 on the north side is another example of where the work limits and TWP corridor are needlessly following the right-of-way line into a very irregular area. Showing this area also contradicts the statement that all work is confined within a corridor that never exceeds 100 ft centered about the existing roadway and therefore no mitigation is required.

There should be some statement to the effect that any features (fences, landscaping, etc.) located within the existing right-of-way that might be impacted will be identified prior to disturbance and a plan to mitigate these impacts (replace fence, avoid or replace landscaping, trees, etc.) will be developed.

The pavement restoration plan needs to identify that Thornton will overlay the entire roadway from existing edge of asphalt to edge of asphalt along the entire length of the project. As noted in the letter from Terry Gilbert dated January 26, 2018, "a final pavement surface with extensive patching will not be considered equivalent to pre-project conditions."

Supplement Addendum Item 1 Computer-Aided Design Files

This section addresses Larimer County's request for complete computer-aided design (CAD) files.

Comment: The CAD files provided on flash drive were not complete and only provided utility information covering the reach west of SH 1. No annotations/labeling was provided on the line types and it doesn't appear to be a complete set of the data when compared to the hardcopy plots. There were also no data or layers describing the proposed pipeline alignment. Please submit all relevant layer data.

Response: Transmitted herewith is a USB flash drive containing all CAD files used in the production of Drawings provided in the Supplement and this Supplement Addendum

Supplement Addendum Item 2 Drawing Legend

This section addresses Larimer County's request for a legend to accompany the Drawings provided in the Supplement.

Comment: Please provide a legend for the line types that do not have labels on the S1 drawing sheets. This may include features such as fencing.

Response: A legend for the Drawings provided in the Supplement and this Supplement Addendum is shown in **Drawing SA-1**.

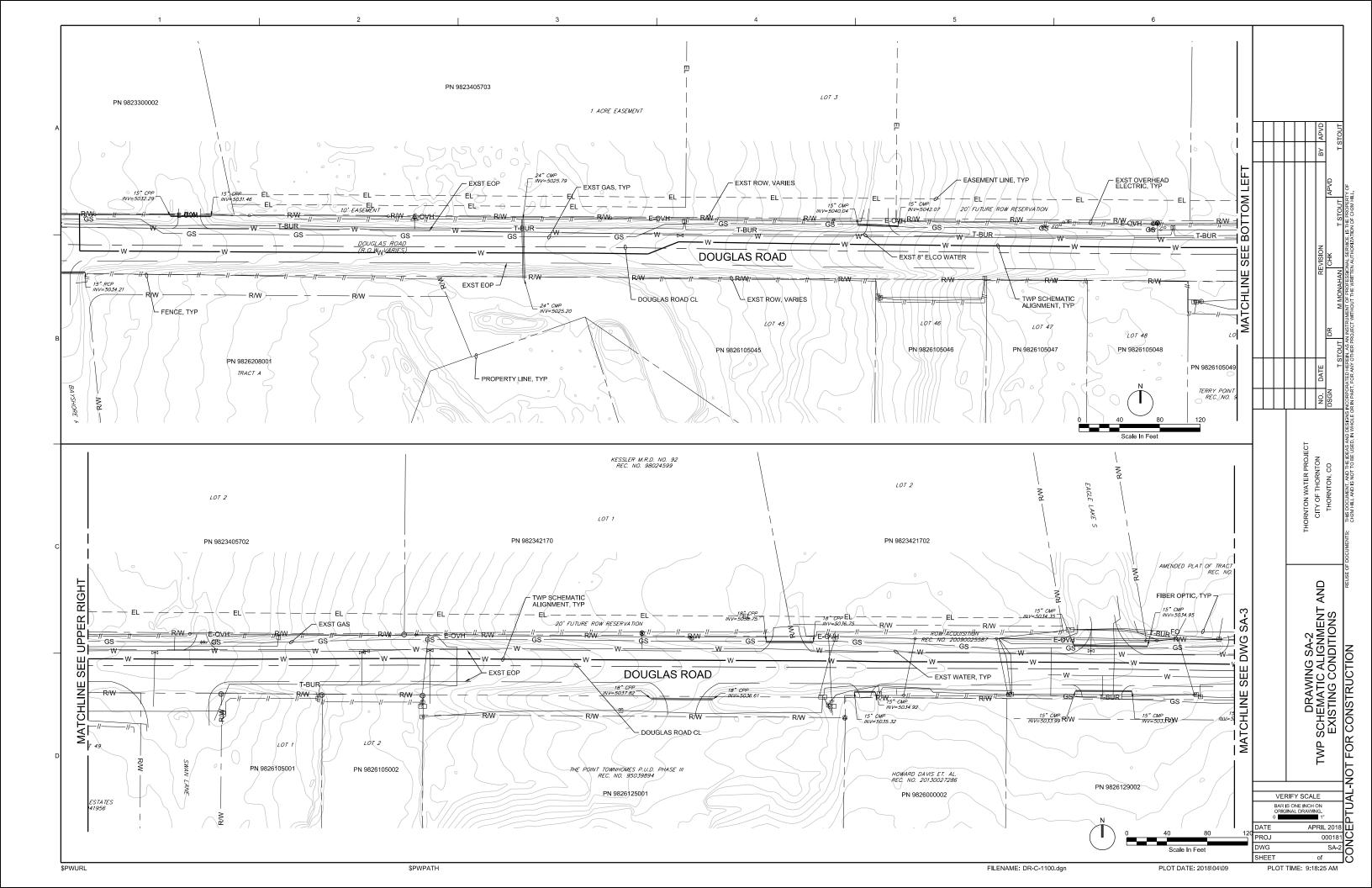
LEGEND _____ E-BUR _____ BURIED ELECTRIC _____ FO _____ FIBER OPTIC ----- GS -----GAS T-BUR BURIED TELEPHONE ----- W ----WATERLINE OVERHEAD ELECTRIC ----- E-OVH--CULVERT ABANDON PIPE WATERLINE MARKER VALVE \bowtie FIRE HYDRANT α WATER MANHOLE (W) WATER METER (W) **ELECTRICAL METER** Ê TELEPHONE PED Τ POWER POLE **GUY WIRE** FLARED END SECTION AREA INLET П **GUARD RAIL** ____ EDGE OF PAVEMENT ROAD CENTERLINE PROPERTY LINE RIGHT OF WAY — R/W — — — R/W — FENCE *—*//*—*//*—*//*—*// EASEMENT LINE - --- EL --- --SURVEY MONUMENT LEGEND — W — TWP WATERLINE DWG SA-1

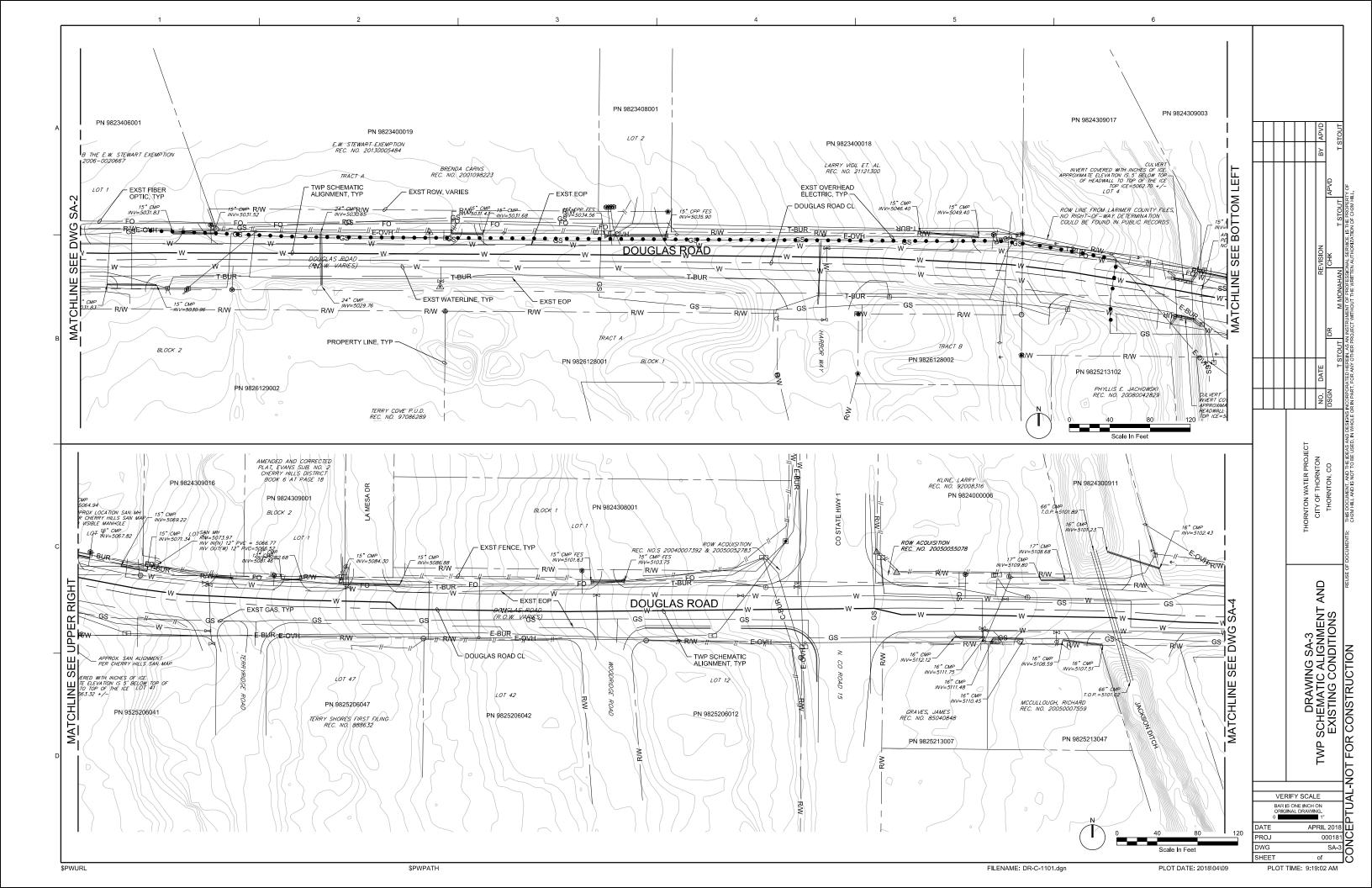
Supplement Addendum Item 3 TWP Schematic Alignment with Existing Conditions

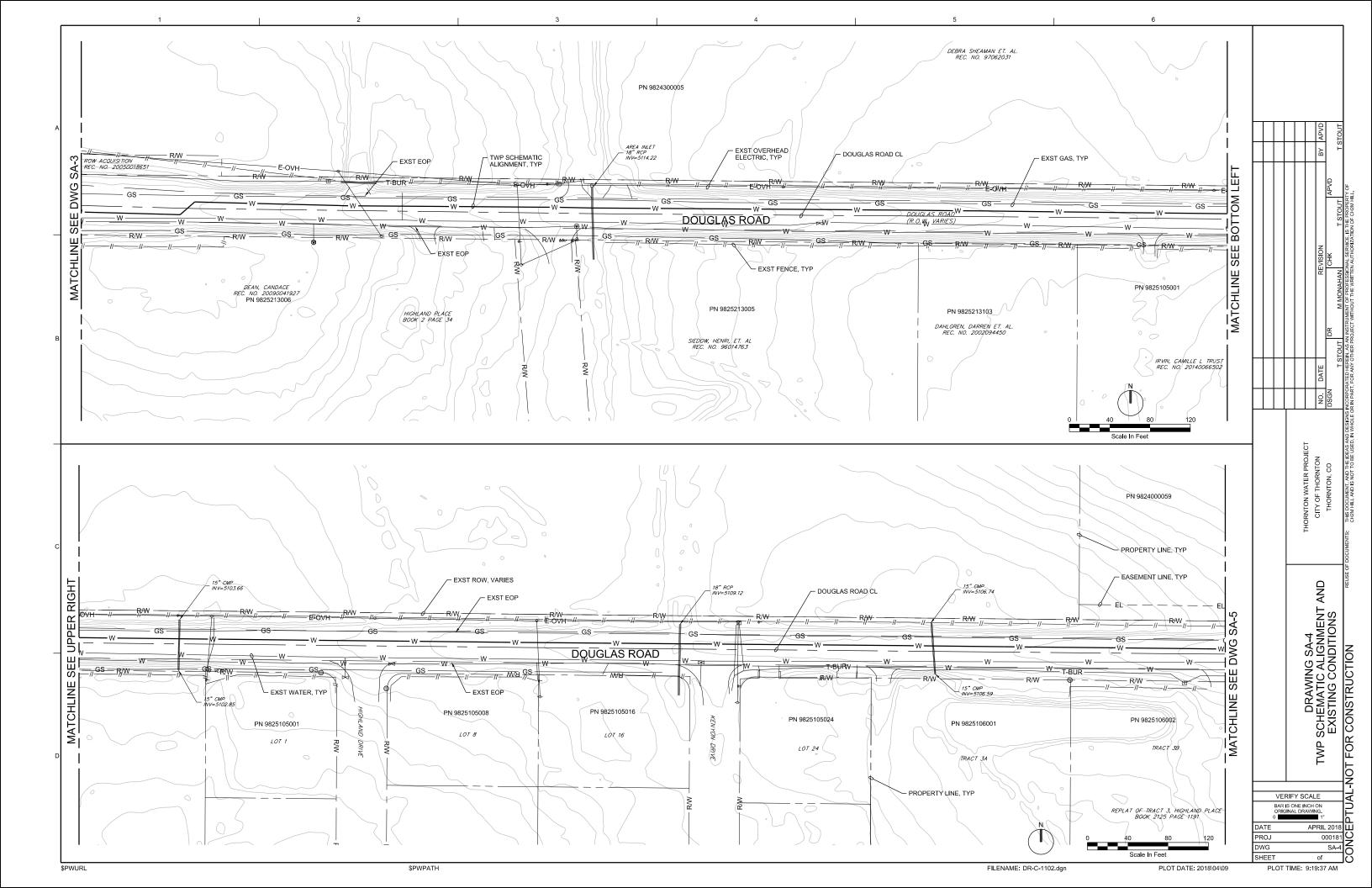
This section addresses Larimer County's request for Drawings showing how the TWP Schematic Alignment relates to existing conditions.

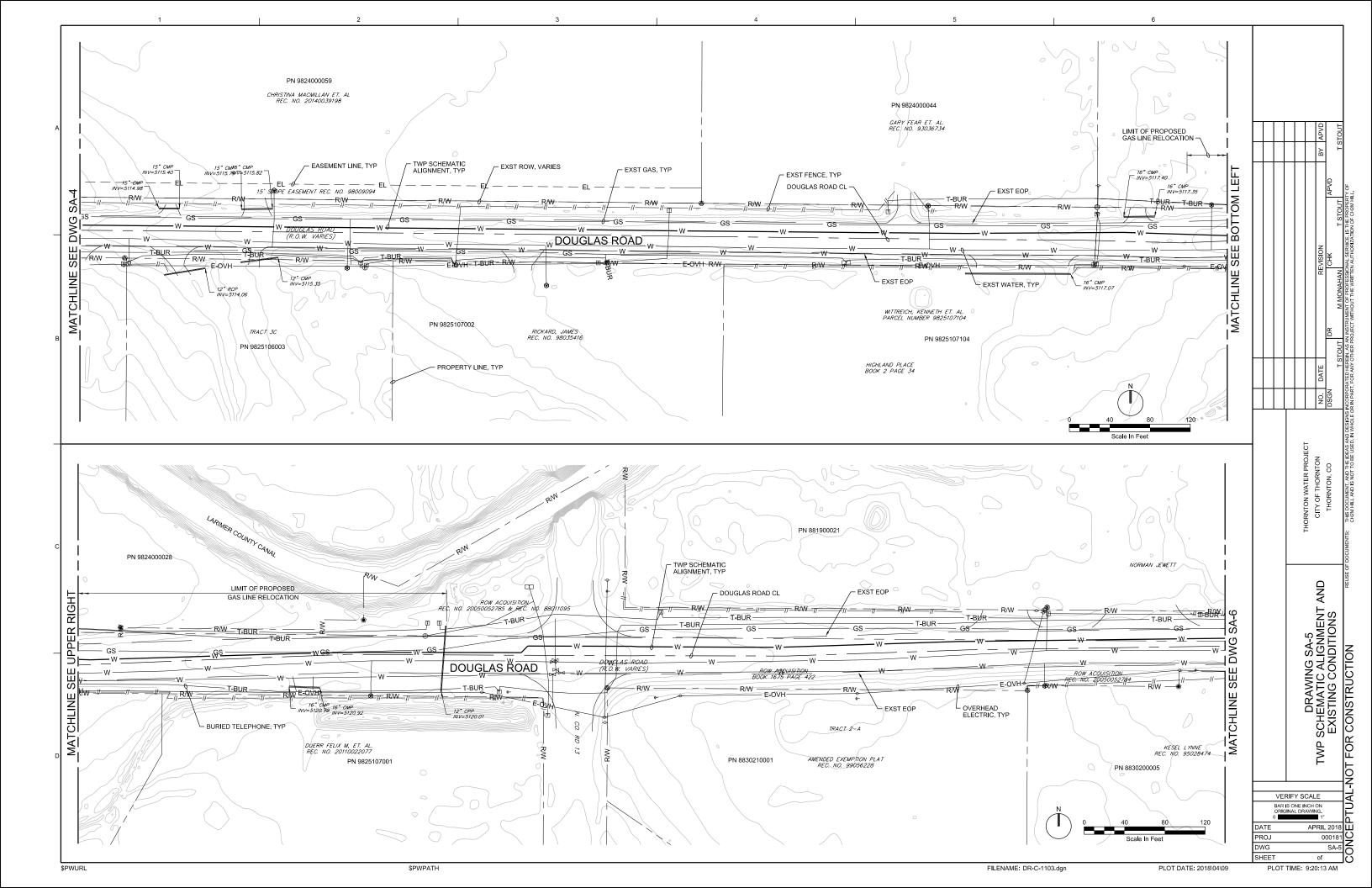
Comment: There should be the ability to examine the proposed water line alignment in relation to the existing utilities - none of the provided drawings show both the field data and the proposed pipeline alignment. Identified utility conflicts may warrant further discussion.

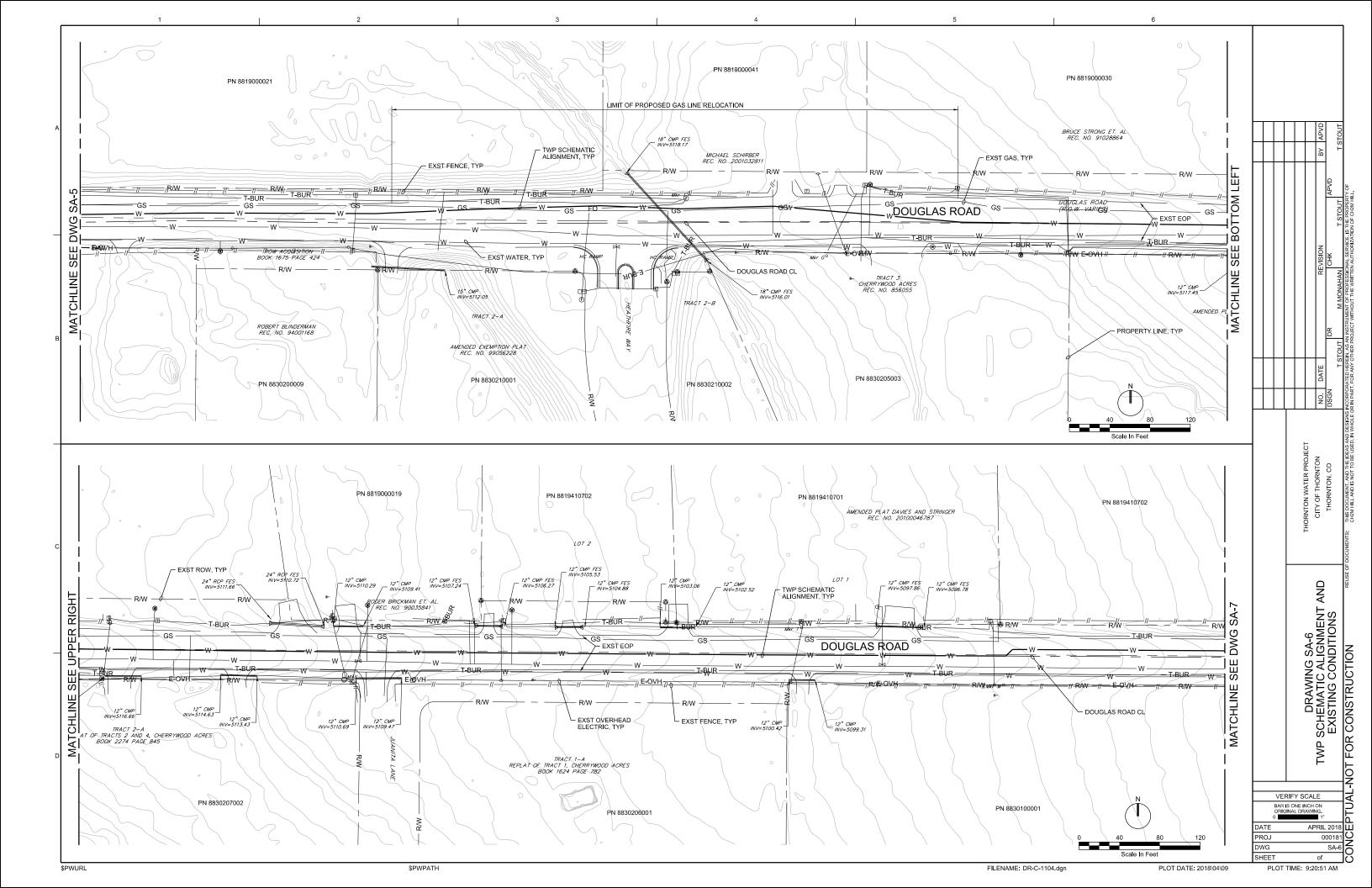
Response: The TWP Schematic Alignment for the water pipeline in relation to existing utilities is shown on **Drawings SA-2** through **SA-7**. Minor gas line relocation, as shown in the Supplement and **Drawings SA-2** through **SA-7** is required. No other utility conflicts have been identified.

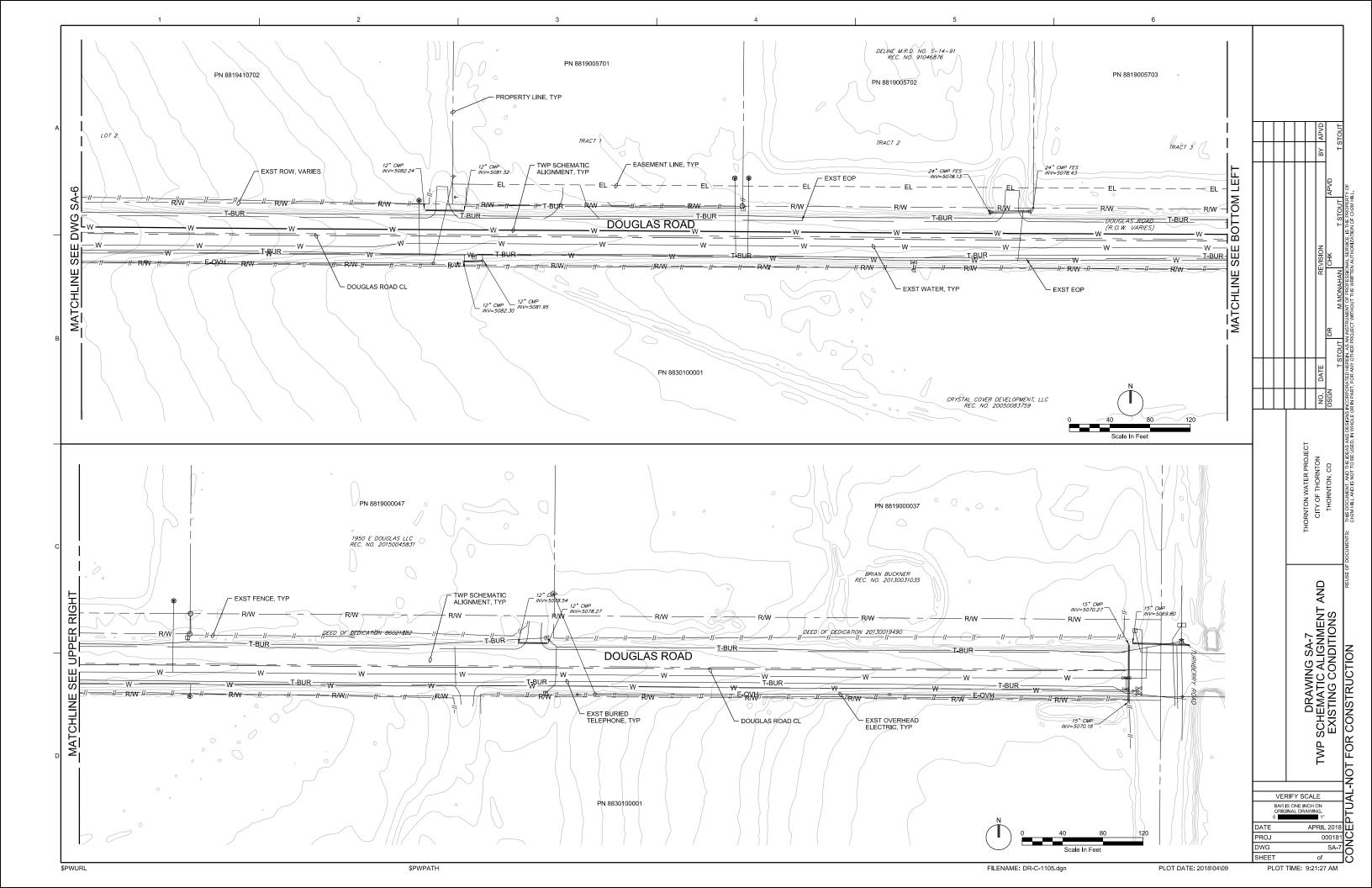












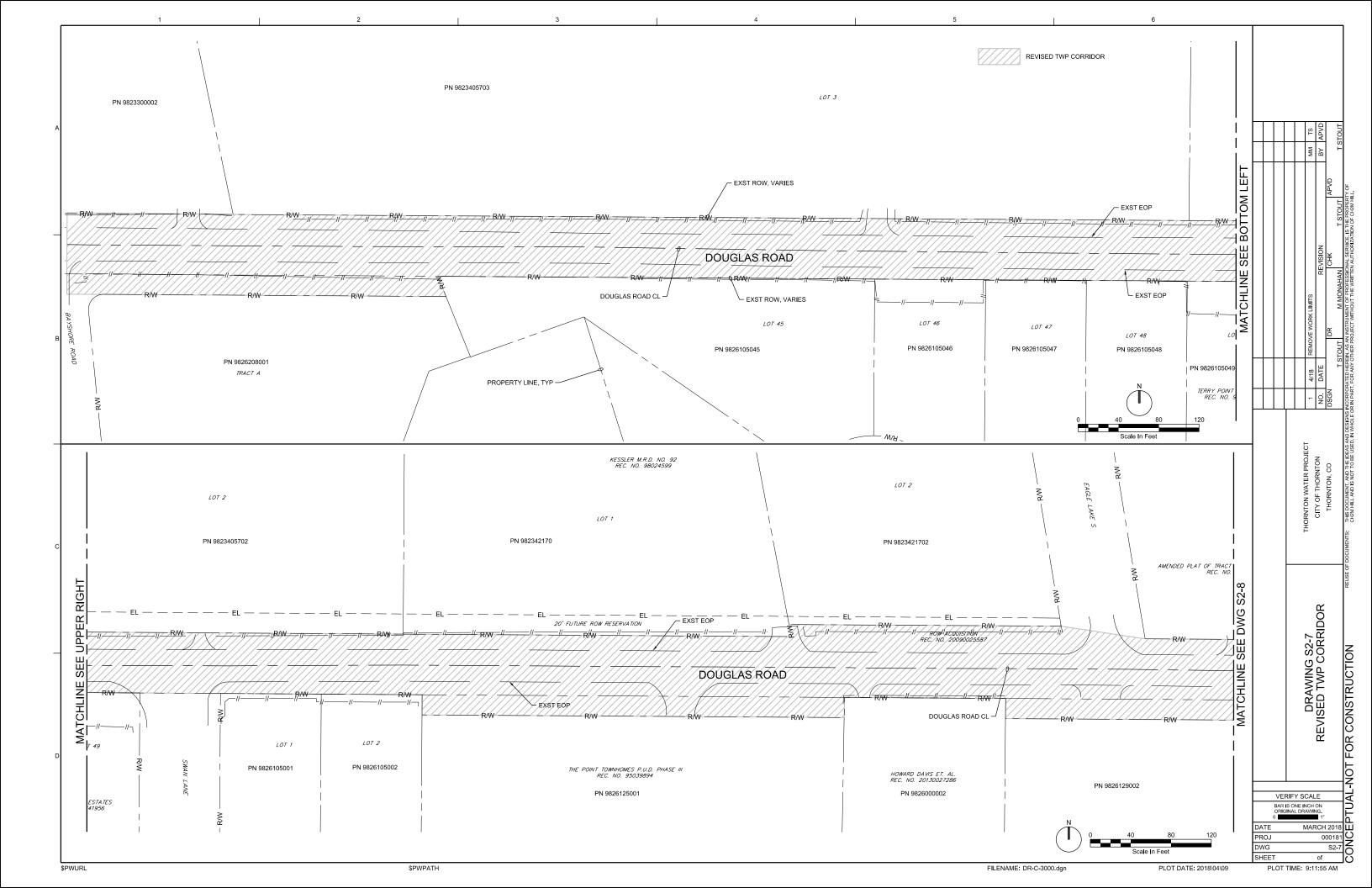
Supplement Addendum Item 4 Work Area

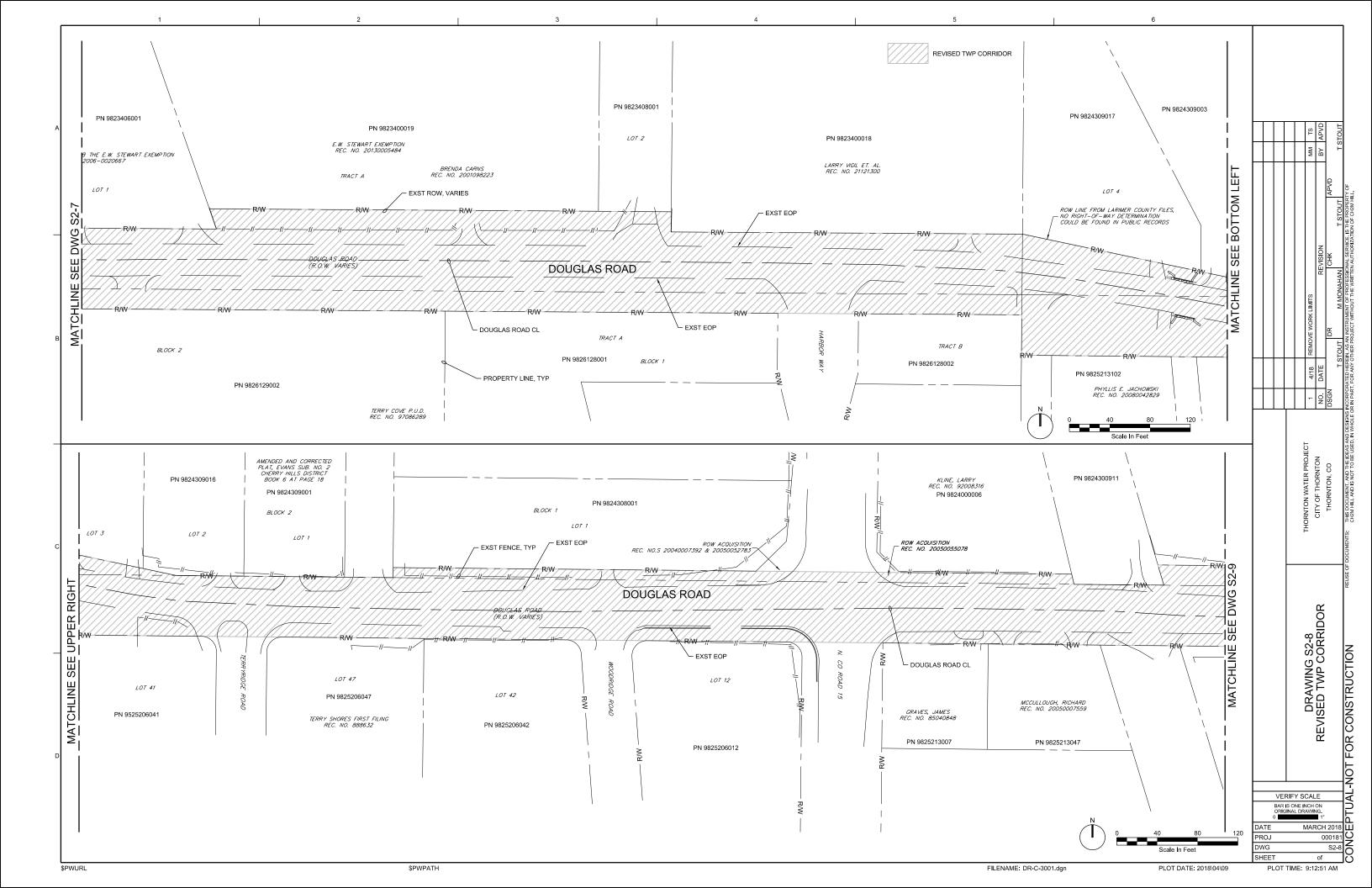
This section addresses Larimer County's request for clarification of proposed work area.

Comment: The drawings showing "Work Limits and Revised TWP Corridor" have been identified to extend to the limits of the existing right-of-way along the entire length of the corridor. These limits are being shown irrespective of whether there are any potential conflicts with fences, trees, landscaping and the like. Work limits and the TWP Corridor for permitting purposes are potentially two different aspects of the project. Lacking any differentiation, I believe that most people reviewing this information will assume that the planned work limits will come to the edge of the existing right-of-way (shaded area) along the entire corridor. This seems like it will lead to potentially needless concern for adjacent property owners if there is no true need to use these areas based on where the pipeline is being located. Ideally, the (estimated) work limits should be identified on a more linear basis (not jumping out wherever minor additional segments of right-of-way have been dedicated) and be shown a few feet inside the right-of-way line. The triangular area near CR 13 on the north side is another example of where the work limits and TWP corridor are needlessly following the right-of-way line into a very irregular area. Showing this area also contradicts the statement that all work is confined within a corridor that never exceeds 100 ft centered about the existing roadway and therefore no mitigation is required.

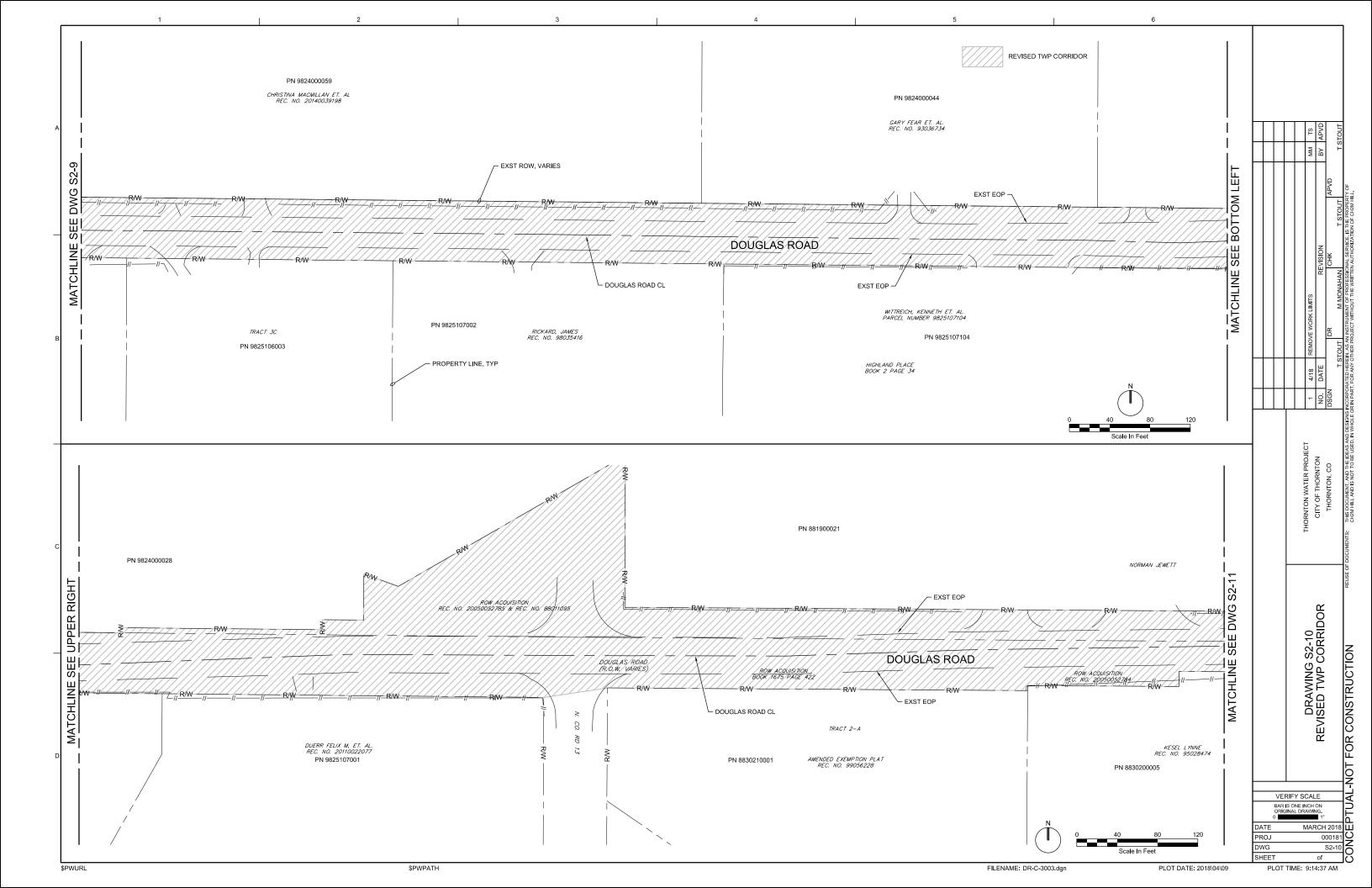
Response: Without detailed design and Larimer County direction on requirements for traffic flow maintenance, the exact work area cannot be provided. The intent of the Drawings provided in the Supplement is to show that there is room in Larimer County's right-of-way to construct the water pipeline. The following **Drawings S2-7** through **S2-12** have been revised to remove reference to work limits. A revision note has been added to the title block to indicate the change. **These Drawings are intended to replace Drawings S2-7 through S2-12 submitted with the Supplement.**

Construction of the water pipeline can be accommodated within Larimer County's Douglas Road right-of-way. Depending on requirements, other construction activities such as traffic control, installation of temporary access for local area residents and emergency responders, and stormwater best management practices will extend outside paved areas. Thornton will coordinate with Larimer County to determine requirements during the detailed design phase of the TWP. As indicated in the Submittal, Thornton and/or the TWP contractors will develop detailed traffic control plans that include adequate levels of service and safety measures for construction. Traffic control plans will be implemented before construction, subject to approval and acquisition of permits from Larimer County Engineering. Thornton and/or the TWP contractors will obtain a Stormwater Discharge Associated with Construction Activity - General Permits from the Colorado Department of Public Health and Environment and stormwater best management practices will be implemented.

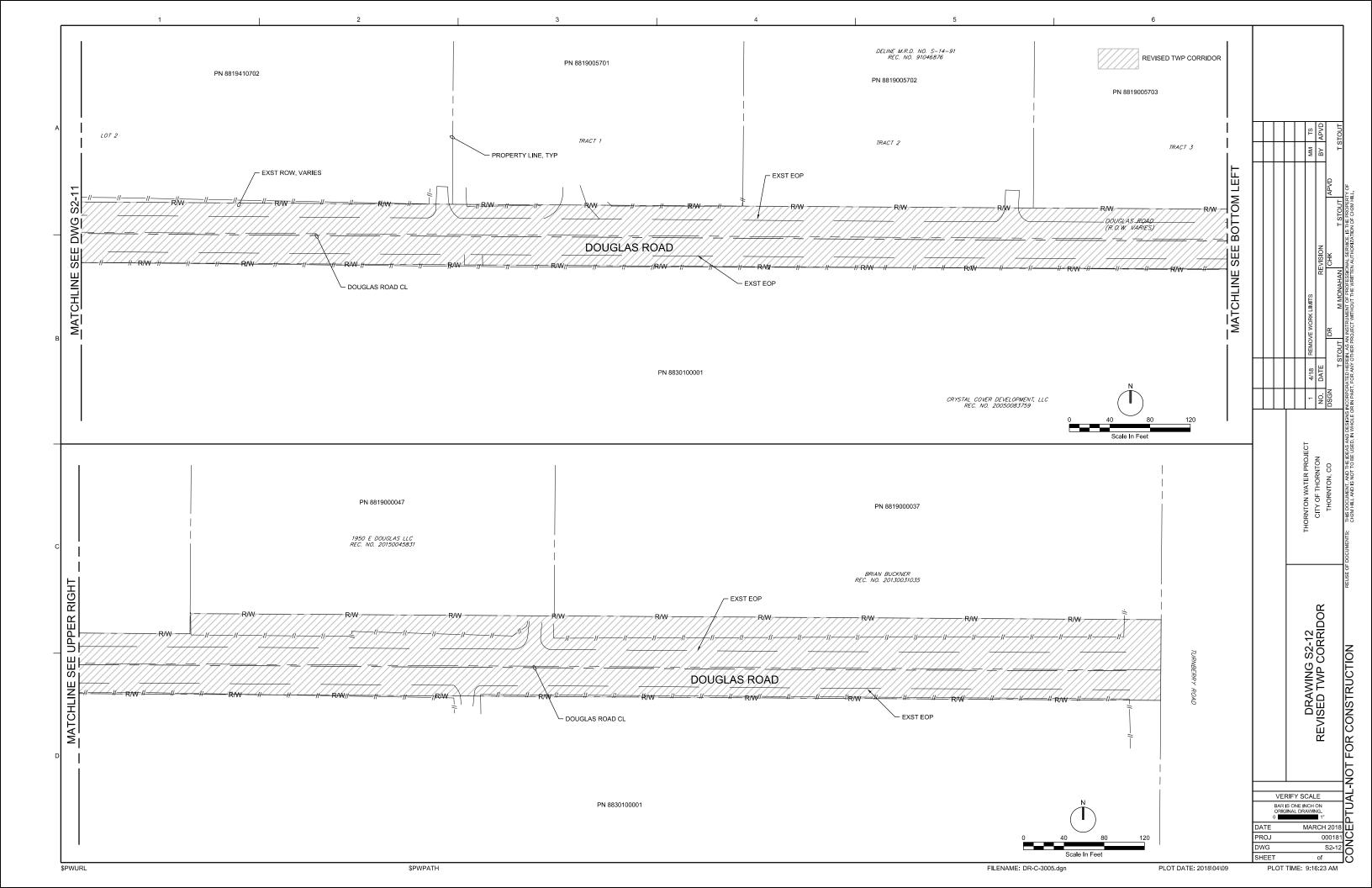












Supplement Addendum Item 5 Existing Features in Right-of-Way

This section addresses Larimer County's request for a statement regarding mitigation of existing surface features in the right-of-way.

Comment: There should be some statement to the effect that any features (fences, landscaping, etc.) located within the existing right-of-way that might be impacted will be identified prior to disturbance and a plan to mitigate these impacts (replace fence, avoid or replace landscaping, trees, etc.) will be developed.

Response: Existing surface features that may be impacted during construction will be identified as part of detailed design, before disturbance, and a plan to mitigate these impacts will be developed and included in the construction documents. Mitigation measures will include minimizing impacts to landscaping, trees, and fences to the extent practicable, replacement of fences in kind, and landscaping improvements. Mitigation measures within Larimer County right-of-way will be subject to Larimer County review and approval.

Supplement Addendum Item 6 Pavement Restoration Plan

This section addresses Larimer County's request for clarification on the pavement restoration plan.

Comment: The pavement restoration plan needs to identify that Thornton will overlay the entire roadway from existing edge of asphalt to edge of asphalt along the entire length of the project. As noted in the letter from Terry Gilbert dated January 26, 2018, "a final pavement surface with extensive patching will not be considered equivalent to pre-project conditions."

Response: The pavement restoration plan submitted in the Supplement on **Drawings S4-1** through **S4-6** shows full removal and replacement of full lanes or center lane to center lane in accordance with the applicable Larimer County standards, with isolated sections of full replacement of the entire road width. Remaining pavement will be milled and overlaid per the comment above.