

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2022-075

Application Received complete: February 14, 2023

Considered at Board of Managers Meeting: March 1, 2023

Applicant: City of Eden Prairie

Consultant: AE2S

Project: Round Lake Park Building– The applicant proposes construction of a new municipal drinking water well, building and associated paved access between Pheasant Woods Park and Village Woods Drive in Eden Prairie. The project includes a transmission line directionally drilled from the new Well House 17 to existing Well House 16 and an infiltration basin for stormwater management.

Location: Within Pheasant Woods Park - 8420 Mitchell Road, in Eden Prairie MN

Reviewer: Scott Sobiech, PE, Barr Engineering

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the March 1, 2023 meeting of the managers:

Resolved that the application for Permit 2022-075 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been met, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2022-075 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Applicable Rule Conformance Summary

Rule	Issue	Conforms to RPBCWD Rules?		Comments
C	Erosion Control Plan	See Comment		See rule-specific permit condition C1 related to name of individual responsible for on-site erosion control.
D	Wetland and Creek Buffers	See Comment		See rule-specific permit condition D1 related to incorporating the buffer maintenance into the existing programmatic agreement.
G	Waterbody Crossing and Structures	Yes		
J	Stormwater Management	Rate	Yes	
		Volume	Yes	
		Water Quality	Yes	
		Low Floor Elev.	Yes	
		Maintenance	See Comment	See Rule Specific Permit Condition J1 related to maintenance agreement
		Chloride Management	Yes	
		Wetland Protection	Yes	
L	Permit Fee Deposit	NA		Governmental Agency.
M	Financial Assurances	NA		Governmental Agency.

Project Description

The City of Eden Prairie proposes construction of a new municipal drinking water well, building, and associated paved access between Pheasant Woods Park and Village Woods Drive in Eden Prairie. The project includes a directionally drilled water transmission line from the new Well House 17 under an onsite high-quality wetland to existing Well House 16 and an infiltration basin to provide volume control, water quality, and rate control. There is one on-site Wetland Conservation Act (WCA) protected wetland downgradient from the land-disturbing activities. The 100-year floodplain of the wetland from the District PCSWMM model is approximately 844.23 (NGVD29), no land-disturbing activity is proposed within the floodplain of the wetland. Because a wetland is downgradient from the proposed land disturbing activities, wetland buffer requirements apply to the proposed project.

Relevant project site information is summarized in the following table.

	Total Project
Total Site Area (acres)	15.63
Existing Site Impervious (acres)	1.24
Post Construction Site Impervious (acres)	1.32
New (Increase) in Site Impervious Area (acres)	0.08 (6% increase)
Disturbed impervious surface (acres)	0

Total Disturbed Area (acres)	0.72
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The following materials were reviewed in support of the permit request:

1. Permit application dated October 25, 2022 (Notified applicant on November 15, 2022 that submittal was incomplete, materials completing the application received February 14, 2023)
2. Construction Drawings (16 sheets) dated October, 2021 (revised dated December 7, 2022, 80 sheets revised February 16, 2023))
3. Stormwater Management Plan (SWMP)dated October 25, 2022 (revised December 7, 2022)
4. Preliminary Report of Geotechnical Exploration Well House 17 and Transmission Main by America Engineering Testing Inc. (AET) (attached to SWMP) dated January 17, 2022 (finalize version dated November 17, 2022)
5. Double Ring Infiltrometer testing results by AET dated November 2, 2022
6. Wetland Delineation report and MNRAM by WSB dated May 19, 2020
7. Wetland Conservation Act Notice of Decision for type and boundary dated June 20, 2020
8. Electronic HydroCAD models for existing and proposed conditions received October 25, 2022 (revised February 14, 2023)
9. Response to Comments from AE2S received February 14, 2023

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will alter 0.72 acres of land-surface area, the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by AE2S includes installation of silt fence or sediment log perimeter control, rock construction entrance, erosion control blanket, weekly inspection, placement of a minimum of 6 inches of topsoil, decompaction of areas compacted during construction, and retention of native topsoil onsite. To conform to the RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.

Rule D: Wetland and Creek Buffers

Because the proposed work triggers a permit under RPBCWD Rule J and the onsite wetland is downgradient from the proposed construction activities, Rule D, Subsections 2.1a and 3.1 require buffer along the edge of the wetland downgradient of the activities. No land disturbing activities are proposed within the onsite wetland.

The MnRAM analysis indicates the wetland is a high value wetland. Rule D, Subsection 3.2.a.ii requires wetland buffer with an average of 60 feet from the delineated edge of the wetland, minimum 30 feet. The proposed buffer widths are summarized in the table below.

RPBCWD Wetland Value	Required Minimum Width (ft)	Required Average Width (ft)	Required Area (sq ft)	Provided Area (sq ft)	Provided Minimum Width (ft)	Provided Average Width (ft)
High	30	60	17,320	19,899	40	80

The plans require revegetating disturbed areas within the proposed buffer with native vegetation, thus conforming to Rule D, Subsection 3.3. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.6.

To conform to the RPBCWD Rule D the following revisions are needed:

- D1. Buffer areas and maintenance requirements must be documented in an agreement after review and approval by RPBCWD in accordance with Rule D, Subsection 3.5. RPBCWD and Eden Prairie have entered into a programmatic maintenance agreement covering city projects subject to RPBCWD regulatory requirements. The buffers associated with this permit (2022-075) must be incorporated into the inventory of those managed in accordance with the programmatic agreement as a condition of approval.

Rule G: Waterbody Crossings and Structures

Because the project involves the horizontal drilling (a.k.a directional drilling) under a waterbody (the onsite wetland) that is not a public water, the project must conform to all applicable criteria in RPBCWD’s Waterbody Crossings and Structures Rule (Rule G). The proposed directional drilling portion of the project is needed to convey potable water from the new well house 17 to the existing well house 16 and the existing distribution system, thus fulfilling a demonstrated specific need (Rule G, subsection 3.1b).

The construction drawing show the proposed directional drilling will be minimum of 20 feet below the high value wetland, thus achieving the minimum 3 feet of separation (Rule G, subsection 3.4).

Because the directional drilling will not involve the disturbance or placement of a structure in contact with the bed or bank of the waterbody, Subsection 3.5, 3.7a, 3.7b, and 3.7d do not impose requirements on this project. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible (Rule G, Subsection 3.7c). The proposed project meets the requirements in Rule G.

Rule J: Stormwater Management

Because the project will alter 0.72 acres of land-surface area, the project must meet the criteria of RPBCWD’s Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 only apply to the disturbed areas and additional impervious surface on the project site because the proposed activity will not disturb more than 50 percent of the existing impervious surface and increases the impervious surface on the parcel by less than 50 percent(Rule J, Subsection 2.3).

The project proposes an infiltration basin to provide volume control, water quality, and rate control.

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The Applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below.

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Flow to Wetland	1.2	1.1	2.5	2.1	5.8	5.0	0.4	0.3

The proposed stormwater management plan will provide rate control in compliance with the RPBCWD requirements for the 2-, 10-, and 100-year events. Thus, the proposed project meets the rate control requirements in Rule J, Subsection 3.1a.

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the new and disturbed impervious surface of the parcel. An abstraction volume of 319 cubic feet is required from the proposed 0.08 acres of regulated impervious area. Plans indicate pretreatment for runoff entering the infiltration basin is provided by grass overland flow, thus the proposed project conforms with RPBCWD Rule J, Subsection 3.1b.1.

Soil borings performed by AET show that soils in the project area are typically silty sand. Groundwater was not observed in the soil boring within the footprint of the proposed system (B-7). The subsurface investigation information summarized in the table below supports a determination that groundwater is at least 3 feet below the bottom of the proposed infiltration basin (Rule J, Subsection 3.1.b.2.a).

Proposed BMP	Nearest Subsurface Investigation	Boring is within footprint?	Groundwater Elevation (feet)	BMP Bottom Elevation (feet)	Separation (feet)
Infiltration Basin	B-7	Yes	839.3	852	12.7

Double ring infiltrometer testing results provided by AET on November 2, 2022 show an average infiltration rate of 1.83 inches per hour (in/hr) beneath the proposed stormwater management feature. The engineer concurs with the applicant’s design infiltration rates of 1.7 inches per hour. The proposed stormwater facility provides adequate surface area (900 SF) to drawdown the abstraction volumes within the required 48-hour period, thus conforming with Rule J, Subsection 3.1.b.3.

The table below summarizes the volume abstraction required and the volume abstraction achieved by the proposed stormwater management facilities on site.

The engineer concurs with the submitted information and finds that the proposed project will conform with Rule J, Subsection 3.1.b.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	319	8.2	2,395

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant to provide volume abstraction in accordance with 3.1b or least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions. Because the infiltration basin proposed by the applicant provides volume abstraction meeting the standard in 3.1b and the engineer concurs with the modeling, under paragraph 3.1.c.i, the engineer finds that the proposed project provides the required stormwater-quality protection.

Low floor Elevation

All new buildings must be constructed such that the lowest floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a stormwater-management facility according to Rule J, Subsection 3.6a. In addition, a stormwater-management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with this requirement according to Rule J, Subsection 3.6b.

The low floor elevation of the proposed well house building and the 100-year elevation of the infiltration basin are summarized below. Because the low floor elevations of the proposed structure are more than two

feet above the 100-year flood elevation of the stormwater facility, the proposed project is in conformance with Rule J, Subsection 3.6.

Proposed Building Low Floor Elevation (ft)	Stormwater Facility	100-Year Elevation in Stormwater Facility/Wetland (ft)	Freeboard (ft)
857.0	Infiltration Basin	853.9	3.1
857.0	Infiltration Basin	844.23	12.77

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. RPBCWD and Eden Prairie have entered into a programmatic maintenance agreement covering city projects subject to RPBCWD regulatory requirements. To conform to the RPBCWD Rule J the following revisions are needed:

- J1. The stormwater management facilities associated with this permit (2022-075) must be incorporated into the inventory of those managed in accordance with the programmatic agreement as a condition of approval.

Chloride Management

Subsection 3.8 of Rule J requires the submission of chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan. The City of Eden Prairie’s Streets Division Manager, Larry Doig, is authorized to implement the City’s chloride management plan and documentation provided confirms he is certified by the Minnesota Pollution Control Agency as a certified salt applicator (Rule J, subsection 3.8).

Wetland Protection

Because runoff from this site is directly tributary to an on-site high value wetland, the project must comply with the wetland protection criteria in Rule J, Subsection 3.10

Because the applicant’s design does not alter the runoff elevation of the wetland and the HydroCAD model results demonstrate, and the RPBCWD engineer concurs, that the proposed flow rate and volumes flowing towards the on-site wetland are less than the under existing conditions, the bounce and inundation will not increase, thus the project meets the Bounce and Inundation criteria in 3.10a.

Rule J, Subsection 3.10b requires that treatment of runoff to medium value wetlands archive 90 percent total suspended solids removal and 75 percent total phosphorus removal. P8 modeling results show the proposed stormwater management facilities provides 99% TSS and 100% TP removals, thus the engineer finds that the proposed project is in conformance with Rule J, Subsection 3.10b.

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed on the permit. The grant of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
3. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
4. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
5. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
6. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
7. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project conforms to Rule G requirements and will conform to Rules C, D, and J if the Rule Specific Permit Conditions listed above are met.

Recommendation:

Approval of the permit contingent upon:

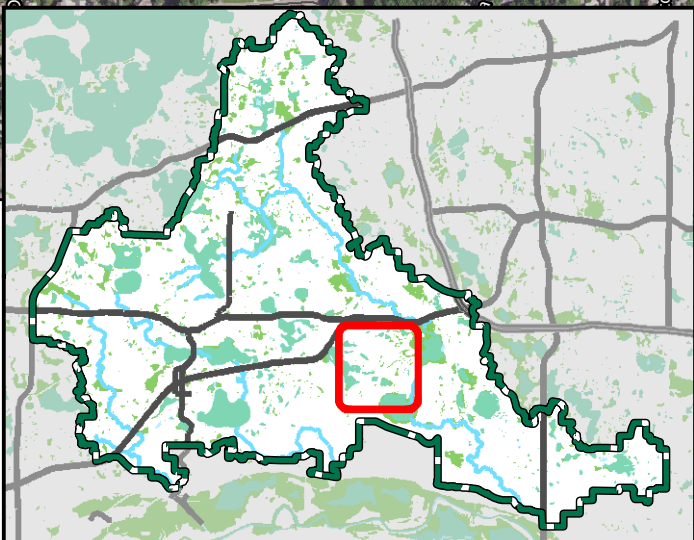
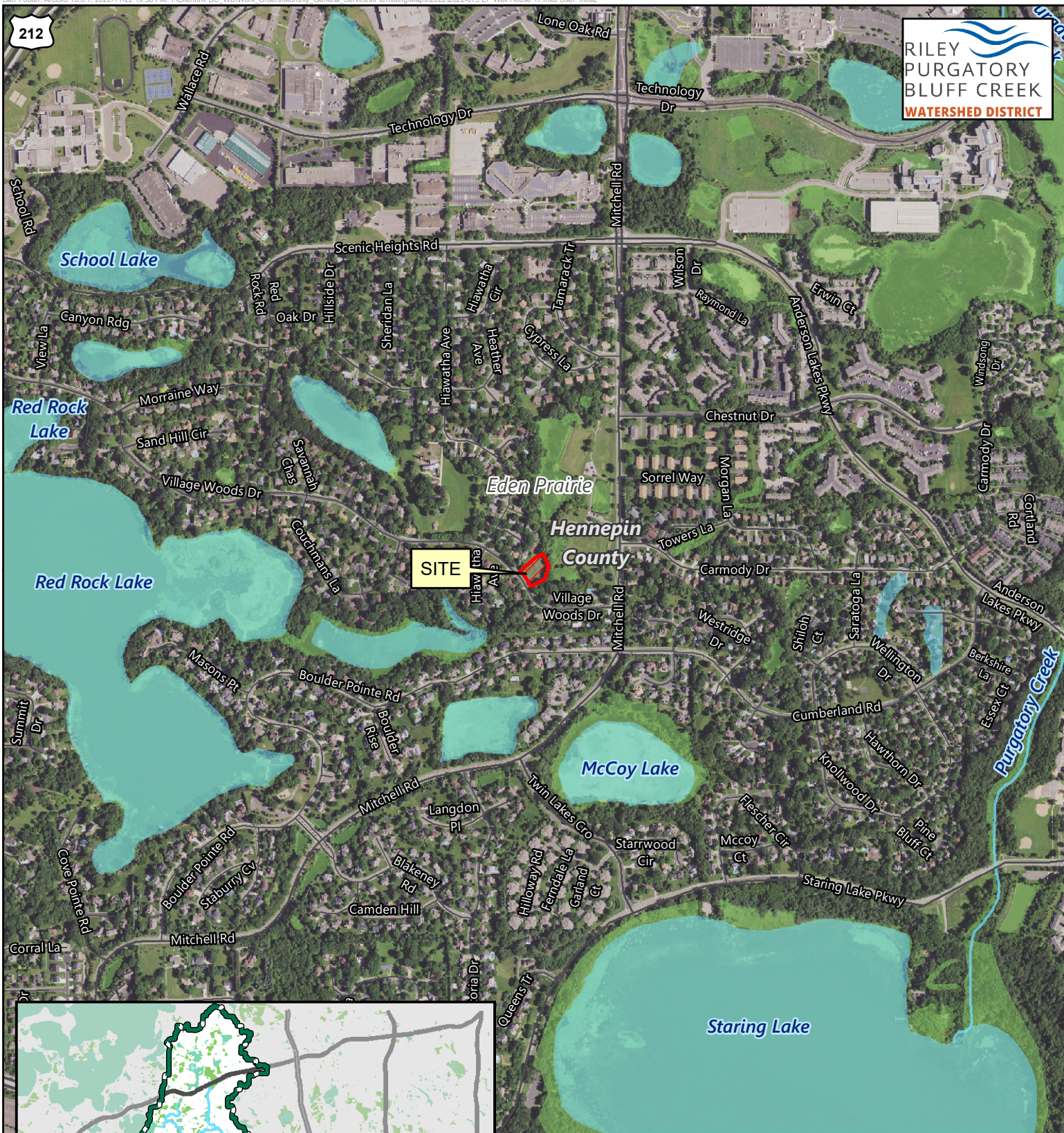
1. Permit applicant must provide the name and contact information of the general contractor responsible for the site. RPBCWD must be notified if the responsible party changes during the permit term.
2. Because RPBCWD and Eden Prairie have entered into a programmatic maintenance agreement covering typical city projects, the stormwater management facility and buffers associated with this

permit (2022-075) must be incorporated into the inventory of those managed in accordance with the programmatic agreement.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Continued compliance with General Requirements.
2. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization the stormwater management facility conforms to design specifications and functions as intended and approved by the District. As-built/record drawings must be signed by a professional engineer licensed in Minnesota and include, but not limited to:
 - a) the surveyed bottom elevations, water levels, and general topography of all facilities;
 - b) the size, type, and surveyed invert elevations of all stormwater facility inlets and outlets;
 - c) the surveyed elevations of all emergency overflows including stormwater facility, street, and other;
 - d) other important features to show that the project was constructed as approved by the Managers and protects the public health, welfare, and safety.
3. Providing the following additional close-out materials:
 - a) Documentation that constructed infiltration facility performs as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD
 - b) Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C.2c criteria

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Permit Location Map

EDEN PRAIRIE WELL HOUSE NO 17
Permit 2022-075
Riley Purgatory Bluff Creek
Watershed District

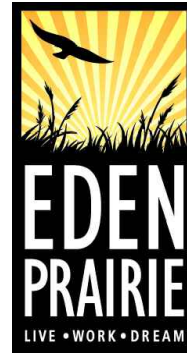
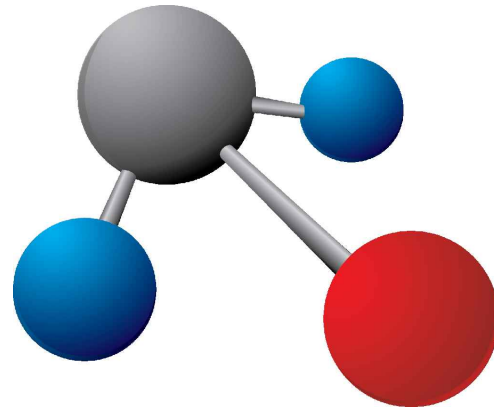


Feet



EDEN PRAIRIE WELL HOUSE NO. 17 AND TRANSMISSION MAIN

Certification of Individual Project Design Disciplines Are
Included On Their Individual Drawings, Respectively



PREPARED FOR:
CITY OF EDEN PRAIRIE

LOCATION:
EDEN PRAIRIE, MINNESOTA

DATE:
FEBRUARY 2023

AE2S PROJECT NO:
02009-2021-003

ENGINEERING TEAM:

CIVIL ENGINEER
Advanced Engineering and Environmental Services, LLC

STRUCTURAL ENGINEER
Advanced Engineering and Environmental Services, LLC

ARCHITECT
Oertel Architects, LTD

PROCESS ENGINEER
Advanced Engineering and Environmental Services, LLC

MECHANICAL ENGINEER
KFI Engineers

ELECTRICAL ENGINEER
Advanced Engineering and Environmental Services, LLC

INDEX OF DRAWINGS

GENERAL

SHEET DESIGNATOR	DWG	DESCRIPTION
GEN	G001	COVER
GEN	G002	INDEX OF DRAWINGS
GEN	G003	LOCATION MAP

CIVIL

SHEET DESIGNATOR	DWG	DESCRIPTION
GEN	C001	DRAFTING CONVENTIONS
GEN	C002	CONSTRUCTION NOTES
GEN	C003	CONSTRUCTION NOTES
GEN	C004	CONSTRUCTION NOTES
GEN	C005	CONSTRUCTION NOTES
GEN	C006	SWPPP 1 OF 3
GEN	C007	SWPPP 2 OF 3
GEN	C008	SWPPP 3 OF 3
PS	C100	EX. CONDITIONS & DEMOLITION - WELL SITE
PS	C101	EX. CONDITIONS & DEMOLITION - TRANSMISSION MAIN
PS	C102	TRAFFIC CONTROL - WELL SITE
PS	C103	TRAFFIC CONTROL PLAN
PS	C104	TRAFFIC CONTROL PLAN
PS	C105	TRAFFIC CONTROL PLAN
PS	C106	WELL SITE PLAN
PS	C107	WELL SITE GRADING
PS	C108	SITE UTILITIES
PS	C109	EROSION CONTROL PLAN - WELL SITE
PS	C110	EROSION CONTROL PLAN - TRANSMISSION MAIN 0+00 - 6+00
PS	C111	EROSION CONTROL PLAN - TRANSMISSION MAIN 6+00 - 14+00
PS	C112	RESTORATION - WELL SITE
PS	C113	RESTORATION - TRANSMISSION MAIN 0+00 - 6+00
PS	C114	RESTORATION - TRANSMISSION MAIN 6+00 - 14+00
PP	C200	UTILITY PROFILES
PP	C201	WATER TRANSMISSION MAIN PP 0+00 - 3+00
PP	C202	WATER TRANSMISSION MAIN PP 3+00 - 6+00
PP	C203	WATER TRANSMISSION MAIN PP 6+00 - 10+00
PP	C204	WATER TRANSMISSION MAIN PP 10+00 - 14+00
SD	C501	CIVIL DETAILS
SD	C502	CIVIL DETAILS
SD	C503	CIVIL DETAILS
SD	C504	CIVIL DETAILS

STRUCTURAL

SHEET DESIGNATOR	DWG	DESCRIPTION
GEN	S001	GENERAL STRUCTURAL NOTES
GEN	S002	DESIGN AND INSPECTION TABLES
WH	S101	FOUNDATION PLAN
WH	S102	CEILING FRAMING PLAN
WH	S103	ROOF FRAMING PLAN
WH	S301	BUILDING SECTIONS
WH	S302	BUILDING SECTIONS
SD	S701	STANDARD DETAILS
SD	S702	STANDARD DETAILS

ARCHITECTURAL

SHEET DESIGNATOR	DWG	DESCRIPTION
WH	A002	CODE PLAN
WH	A101	GRADE LEVEL PLAN
WH	A102	ROOF PLAN
WH	A201	REFLECTED CEILING PLAN
WH	A301	BUILDING ELEVATIONS
WH	A401	BUILDING SECTIONS
WH	A402	WALL SECTIONS
WH	A403	WALL SECTIONS
WH	A501	DETAILS
WH	A502	DETAILS
WH	A503	PLAN DETAILS
WH	A601	SCHEDULES

PROCESS

SHEET DESIGNATOR	DWG	DESCRIPTION
GEN	P001	PROCESS SYMBOLS AND ABBREVIATIONS
WH	P101	GRADE LEVEL IMPROVEMENT PLAN
WH	P301	IMPROVEMENT SECTION VIEWS
WH	P601	SCHEDULES
SD	P701	PROCESS STANDARD DETAILS

MECHANICAL

SHEET DESIGNATOR	DWG	DESCRIPTION
WH	M001	MECHANICAL COVER PAGE
WH	M002	MECHANICAL SYMBOLS AND ABBREVIATIONS
WH	M101	PLUMBING PLAN
WH	M102	HVAC PLAN
WH	M501	MECHANICAL DETAILS
WH	M601	PLUMBING RISER DIAGRAMS
WH	M602	MECHANICAL SCHEDULES

ELECTRICAL

SHEET DESIGNATOR	DWG	DESCRIPTION
GEN	E001	ELECTRICAL SYMBOLS AND ABBREVIATIONS
WH	E002	OVERALL ELECTRICAL SITE PLAN
WH	E101	PROCESS ELECTRICAL FLOOR PLAN
WH	E102	LGPM FLOOR PLAN
WH	E601	WELL HOUSE No. 17 CONTROL PANEL LAYOUT
WH	E602	WELL HOUSE No. 17 CONTROL PANEL IO SCHEDULE
WH	E603	WELL HOUSE No. 17 ONE-LINE DIAGRAM
WH	E604	VARIOUS SCHEMATICS
WH	E605	PUMP VFD SCHEMATIC
WH	E606	VARIOUS SCHEDULES
SD	E701	VARIOUS DETAILS
WH	E801	CABLE AND CONDUIT SCHEDULE



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *Nancy D. Zeigler*

TYPED NAME: NANCY D. ZEIGLER

FEBRUARY 16, 2023 REG. NO. 42823

STATUS: CONSTRUCTION

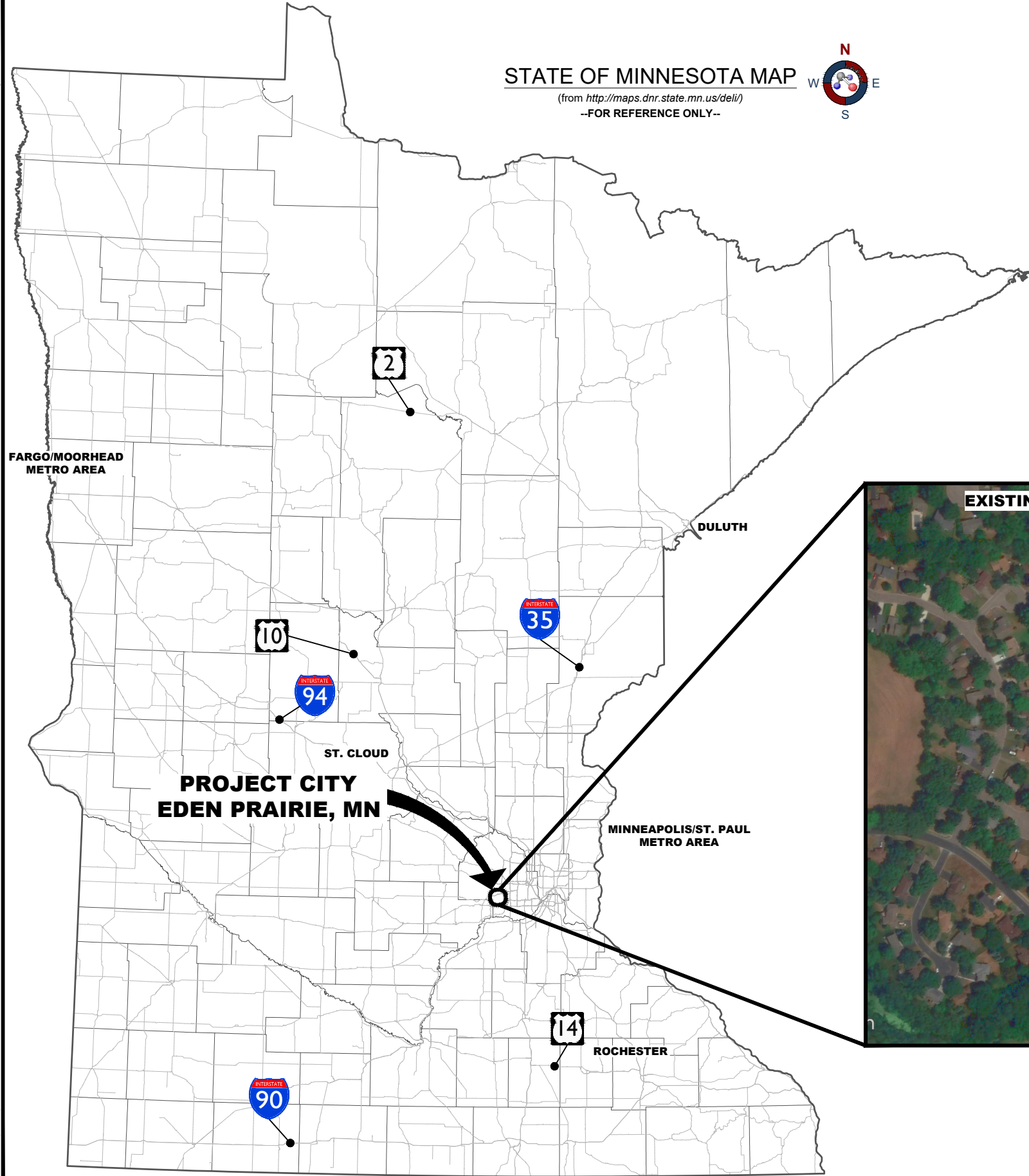
PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN
Advanced Engineering and Environmental Services, LLC www.ae2s.com

INDEX OF DRAWINGS

CLIENT:	CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: TRK
		CHECKED BY: RM
		APPROVED BY: NZ
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR:	SHEET NO:
DATE: FEBRUARY 2023	GEN	G002
ALT. PROJECT NO: ---		

File: W:\Eden Prairie\0209-2021-003\CAD\Drawings\General\Plan_Sheet\G-LOCATION.dwg

Plotted By: Tula Kemp Date: Thursday, February 16, 2023



CITY OF EDEN PRAIRIE, MN
 --FOR REFERENCE ONLY--



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *Nancy D. Zeigler*

TYPED NAME: NANCY D. ZEIGLER
 FEBRUARY 16, 2023 REG. NO. 42823



SCALE: NONE

STATUS: CONSTRUCTION

APPR	
SYM	
DATE	

WELL HOUSE NO. 17 & TRANSMISSION MAIN
 Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: LOCATION MAP		
CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT	CHECKED BY: DDL
		APPROVED BY: NZ
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR:	SHEET NO:
DATE: FEBRUARY 2023	GEN G003	
ALT. PROJECT NO: ---		

File: W:\Eden Prairie\0209-2021-003\CAD\Drawings\15-Civil\Plan\Sheet\Drafting Conventions.dwg
Plotted By: Dan Landrus Date: Wednesday, February 15, 2023

SHEET NUMBERING

Table with 2 columns: SHEET SERIES, SERIES DESCRIPTION. Rows include 000 (SYMBOLS LEGEND, DRAFTING CONVENTIONS, NOTES, ETC.), 100 (PLAN VIEWS (HORIZONTAL VIEWS)), 200 (COMBINATION PLAN & PROFILE VIEWS, ELEVATIONS AND PROFILES (VERTICAL VIEWS)), 300 (SECTIONS (SECTION VIEWS, WALL SECTIONS)), 400 (LARGE SCALE VIEWS (SCALED UP REPRODUCTIONS OF PLANS, ELEVATIONS OR SECTIONS NOT IN DETAILS)), 500 (DETAILS), 600 (SCHEDULES AND DIAGRAMS).

EXISTING LEGEND

Legend for existing conditions including symbols for PROPERTY BOUNDARY, RIGHT OF WAY, ADJACENT PROPERTY, ROAD CENTER LINE, DRIP LINE, METAL FENCE, ELECTRIC LINE, CABLE LINE, GAS MAIN, SANITARY SEWER, STORM SEWER, WATERMAIN, CONCRETE, AREA DEMOLITION, SIGN, UTILITY MANHOLE, LIGHT, POWER POLE, ELECTRIC METER, CABLE TELEVISION BOX, TELEPHONE BOX, TRANSFORMER, HYDRANT, WATER MANHOLE/WELL, WATER VALVE, CATCH BASIN, STORM MANHOLE, FLARED END SECTION, SANITARY MANHOLE, DECIDUOUS TREE, CONIFER TREE, SOIL BORING.

CIVIL LEGEND

Legend for civil engineering symbols including CONSTRUCTION LIMITS, CONSTRUCTION FENCE, BUILDING, WOOD FENCE, CURB & GUTTER, CONCRETE, STRUCTURAL CONCRETE, BITUMINOUS PAVEMENT, CONSTRUCTION EXIT, SILT FENCE, WOOD FIBER SEDIMENT CONTROL LOG, STORM DRAIN PIPE, DRAIN TILE, WATER MAIN, STORM MANHOLE, CATCH BASIN, AREA INLET, FLARED END SECTION, WATER VALVE, HYDRANT, INLET PROTECTION.

CIVIL ABBREVIATIONS

Table of abbreviations for Civil Engineering, including symbols like &, L, @, etc. and their corresponding full names such as AND, ANGLE, AT, CENTERLINE, DEGREES, DELTA, DIAMETER, SQUARE, PLUS / MINUS, ACRYLONITRILE-BUTADIENE-STYRENE, AMERICAN CONCRETE INSTITUTE, ASBESTOS CEMENT PIPE, ADDITIONAL, ADDENDUM, ADJUSTABLE, AGGREGATE, ALTERNATE, APPROACH, APPROXIMATE, APPURTENANCE, ARCHITECT or ARCHITECTURAL, AIR RELEASE MANHOLE, AIR RELEASE VALVE, ASSEMBLY, AMERICAN SOCIETY FOR TESTING MATERIALS, AVENUE, AIR / VACUUM VALVE, BUTTERFLY VALVE, BITUMINOUS, BUILDING LINE, BUILDING, BLOCK, BY OTHERS, BEGINNING OF PROJECT, BEARING, BASEMENT, BEGIN VERTICAL CURVE, CENTER TO CENTER, CURB AND GUTTER, CATCH BASIN, CONTROLLED DENSITY FILL, CUBIC FEET, CAST IRON, CAST IRON PIPE, CAST IN PLACE, CONSTRUCTION JOINT, CENTERLINE, CORRUGATED METAL PIPE, CLEANOUT, CONCRETE, CONSTRUCTION, CONTINUOUS, CONTROL, CORRUGATED STEEL PIPE, CURB STOP VALVE, CENTER, COPPER, CUBIC YARD, DEPRESSION, DETAIL, DUCTILE IRON, DIAMETER, DIMENSION, DUCTILE IRON PIPE, DISTANCE, DRIVE, DRIVEWAY, DRAWING, EAST, EAST TO WEST, EACH, EACH FACE, EXPANSION JOINT, ELECTRICAL, ELEVATION, END OF PROJECT, EQUAL, END VERTICAL CURVE, EACH WAY, EXISTING, EXPANSION, FOUNDATION, FINISH, FLOW LINE OR FLANGE, FLOOR, FORCE MAIN, FIBERGLASS REINFORCED PLASTIC, FOOT, GROOVE AND SHOULDER, GAGE, GALVANIZED, GRADE, GROUND, GATE VALVE, HATCH, HORIZONTAL DIRECTIONAL DRILLING, HIGH DENSITY POLYETHYLENE, HORIZONTAL, HANDRAIL, HEIGHT, HYDRANT, INSIDE DIAMETER, INVERT ELEVATION, INCH, INSULATION, INVERT, JOINT, RATE OF CURVATURE, LENGTH OF CURVE, POUND, LINED CONCRETE CYLINDER PIPE, LINEAR FEET, LENGTH OF VERTICAL CURVE, LEVEL, MAXIMUM, MECHANICAL, MANUFACTURER, MANHOLE, MECHANICAL JOINT, MINIMUM, MINNESOTA DEPARTMENT OF TRANSPORTATION, MONTANA DEPARTMENT OF TRANSPORTATION, METER, NORTH, NORTH TO SOUTH, NOT APPLICABLE, NORTH DAKOTA DEPARTMENT OF TRANSPORTATION, NIPPLE, NOT TO SCALE, ON CENTER, OUTSIDE DIAMETER, OVERHEAD, OPENING, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, POINT OF CURVATURE, PRECAST, PORTLAND CEMENT CONCRETE, POLYETHYLENE, PLAIN END, POLYETHYLENE PIPE, POINT OF INTERSECTION, PUSH ON, PRESSURE REDUCING VALVE, POUNDS PER SQUARE INCH, POINT OF TANGENCY, PLUG VALVE, POLYVINYL CHLORIDE, POINT OF VERTICAL INTERSECTION, RADIUS, RISER, REINFORCED CONCRETE CYLINDER PIPE, REINFORCED CONCRETE PIPE, ROOF DRAIN LINE, RESERVOIR, REQUIRED, REQUIREMENTS, RESTRAINED JOINT, SOUTH, SOUTH TO NORTH, SANITARY, SCHEDULE, STORM DRAIN, SECTION, SQUARE FEET, SIMILAR, SANITARY SEWER, SANITARY SEWER SERVICE LEAD, STREET, STATION, STANDARD, STEEL, STAINLESS STEEL, JOINT, STRUCTURAL, SUPPORT, STORM WATER POLLUTION PROTECTION, SQUARE YARD, TEMPORARY, THICK, TOP OF CASTING, TOP OF PIPE, TOP OF STEEL, TYPICAL, UNLESS OTHERWISE NOTED, U.S. ARMY CORPS OF ENGINEERS, VITRIFIED CLAY PIPE, VERTICAL, WEST, WEST TO EAST, WITH, WITHOUT, WATERMAIN, WATER RECLAMATION FACILITY, WATER SERVICE LEAD, WATER TREATMENT FACILITY, WATER TREATMENT PLANT, WELDED WIRE FABRIC, WASTE WATER TREATMENT PLANT.



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: [Signature]

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

WELL HOUSE NO. 17 & TRANSMISSION MAIN

Advanced Engineering and Environmental Services, LLC www.ae2s.com

GENERAL NOTES

- 1. THE INFORMATION DEPICTED WITHIN THESE DRAWINGS IS COMPILED FROM LEGACY DRAWINGS AND FIELD SURVEYS FROM PREVIOUS PROJECTS. SITE VISITS, CONSTRUCTION OBSERVATION TIES AND PHOTOGRAPHS, AND THE MEMORIES OF CITY STAFF AND CONSTRUCTION OBSERVERS.
- 2. THE LOCATIONS OF KNOWN UNDERGROUND UTILITIES ARE SHOWN ON THE CONSTRUCTION DRAWINGS IN AN APPROXIMATE WAY ONLY. ADDITIONAL DRAWING AND INACTIVE UTILITIES MAY BE PRESENT.
- 3. COORDINATE ALL ON-SITE STAGING WITH OWNER TO AVOID CONFLICTS WITH EXISTING UTILITIES.
- 4. MAINTAIN OWNER EGRESS TO SITE AT ALL TIMES.

CIVIL DRAWING SYMBOLS

Legend for Civil Drawing Symbols including EXISTING ELEVATION IN SECTION VIEW (CONTRACTOR TO VERIFY), EXISTING ELEVATION IN PLAN VIEW (CONTRACTOR TO VERIFY), PROPOSED ELEVATION IN SECTION VIEW, PROPOSED ELEVATION IN PLAN VIEW, BREAKLINE, DIRECTION OF FLOW, EXISTING NOTES, DEMOLITION NOTES, CONSTRUCTION NOTES, PIPING SCHEDULE ITEMS, EQUIPMENT SCHEDULE ITEMS.

MNDOT STANDARD PLATES
Table with 2 columns: PLATE NO., DESCRIPTION. Rows include 3000M (REINFORCED CONCRETE PIPE), 3006H (GASKET JOINT FOR R.C. PIPE), 3100G (CONCRETE APRON FOR REINFORCED CONCRETE PIPE), 3131C (PRECAST CONCRETE HEADWALL FOR SUBSURFACE DRAINS), 3133D (RIPRAP AT RCP OUTLETS), 4005M (MANHOLE OR CATCH BASIN), 4006L (MANHOLE OR CATCH BASIN), 8000K (TEMPORARY CHANNELIZERS).

MNDOT STANDARD PLANS
Table with 2 columns: PLATE NO., DESCRIPTION. Rows include 5-297.405 (TEMPORARY SEDIMENT CONTROL), 5-297.442 (STANDARD STORM SEWER BEDDING FOR RIGID AND FLEXIBLE PIPE).

SHEET DESIGNATORS

Table with 6 columns: SHEET DESIGNATOR, DESCRIPTION, SHEET DESIGNATOR, DESCRIPTION, SHEET DESIGNATOR, DESCRIPTION. Rows include GEN (GENERAL SHEETS), PS (PLAN SHEETS), PP (PLAN AND PROFILE SHEETS), SD (STANDARD DETAILS).

DRAWING, SECTION AND DETAIL CONVENTIONS

Diagram showing drawing, section, and detail conventions. Includes PLAN DRAWING TITLE with graphic scale (50', 0, 50', 100'), REFERENCE NORTH (ORIENTED TO SITE OR STRUCTURE), CONSTR (CONSTRUCTION) and ACTUAL (ACTUAL) north arrows, AREA OF DETAIL, DETAIL NUMBER (X/XX), SHEET WHERE DRAWN, and SECTION A-A with DRAWING SUB-TITLE and SECTION CUT WITHIN SAME DETAIL DRAWING.

DRAFTING CONVENTIONS

Table with client information: CLIENT: CITY OF EDEN PRAIRIE, EDEN PRAIRIE, MINNESOTA. PROJECT NO: 02099-2021-003. SHEET DESIGNATOR: GEN. SHEET NO: C001. DATE: FEBRUARY 2023. PREPARED BY: CGT, CHECKED BY: DDL, APPROVED BY: NZ.

1. GENERAL NOTES

- 1.1. CONTRACTOR SHALL PROVIDE A TWO (1) WEEK NOTICE TO OWNER AND ADJACENT PROPERTY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION.
1.2. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING OSHA STANDARDS FOR EXCAVATIONS, TRENCHING, AND STRUCTURAL MODIFICATIONS.

2. TIME PROVISIONS

- 2.1. SUBSTANTIAL COMPLETION SHALL BE COMPLETE BEFORE OCTOBER 1, 2023.
2.2. FINAL COMPLETION SHALL BE COMPLETE BEFORE OCTOBER 15, 2023.
2.3. CONTRACTOR FURTHER AGREES TO PAY AS LIQUIDATED DAMAGES THE AMOUNT SPECIFIED IN THE PROJECT MANUAL, FOR EACH WORKING DAY THEREAFTER THAT THE WORK REMAINS UNCOMPLETED.
2.4. CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED BY THE CONTRACT WITHIN 120 CALENDAR DAYS OF MOBILIZING ON THE SITE, AND NO LATER THAN THE DATES SHOWN BELOW.

3. WORKING HOURS

- 3.1. WORKING HOURS SHALL BE 7:00 AM TO 7:00 PM MONDAY THROUGH FRIDAY, 8:00 AM TO 5:00 PM SATURDAY AND SUNDAYS ONLY BY PRE-AUTHORIZATION FROM THE OWNER
3.2. WORK THAT WILL RESTRICT OR INTERFERE WITH TRAFFIC SHALL NOT BE PERFORMED BETWEEN 12:00 NOON ON THE DAY PRECEDING AND 9:00 A.M. ON THE DAY FOLLOWING ANY CONSECUTIVE COMBINATION OF A SATURDAY, SUNDAY AND LEGAL HOLIDAY.

4. GOVERNING SPECIFICATIONS

- 4.1. THE FOLLOWING SPECIFICATIONS SHALL GOVERN THIS PROJECT. EXCEPT AS MODIFIED BY THE PROJECT MANUAL SPECIAL PROVISIONS.
4.2. THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION"
4.3. THE 2018 EDITION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS.
4.4. ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE CURRENT ADDITION OF THE MN MUTCD; INCLUDING "2018 FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

5. PROJECT SURVEY INFORMATION

- 5.1. HORIZONTAL COORDINATE SYSTEM: Minnesota DOT: Hennepin County, US Foot
5.2. VERTICAL DATUM: NAD83
5.3. US SURVEY FEET
5.4. TOPOGRAPHIC SURVEY PERFORMED BY: HTPO. THE INFORMATION DEPICTED WITHIN THESE DRAWINGS IS COMPILED FROM LEGACY DRAWINGS AND FIELD SURVEYS FROM PREVIOUS PROJECTS, SITE VISITS, CONSTRUCTION OBSERVATION TIES AND PHOTOGRAPHS, AND THE MEMORIES OF CITY STAFF AND CONSTRUCTION OBSERVERS.
5.5. CONSTRUCTION STAKES AND BENCHMARKS
5.5.1. REFERENCE POINTS, LINES, GRADE STAKES, AND BENCHMARKS SET BY THE ENGINEER IN CONNECTION WITH THE WORK SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR AND SHALL NOT BE DISTURBED OR MOVED FROM THE EXACT POSITION AND ELEVATION AS SET BY THE ENGINEER.
5.5.2. NO EXCAVATED MATERIAL SHALL BE PLACED OVER OR AGAINST SAID STAKES AND, EXCEPT WHERE NECESSARY TO REMOVE THE STAKES AS THE WORK PROGRESSES, STAKES SHALL BE CAREFULLY PRESERVED IN THE ORIGINAL POSITION AND ELEVATION UNTIL THE WORK HAS BEEN ACCEPTED.
5.5.3. STAKES WHICH MUST BE REMOVED AS THE WORK PROGRESSES SHALL BE REMOVED ONLY UPON CONCURRENCE BY THE ENGINEER.
5.5.4. STAKING REQUIRED TO COMPLETE THE WORK WILL BE COMPLETED BY THE ENGINEER UNLESS OTHERWISE NOTED.
5.5.5. STAKING BY THE ENGINEER WILL BE COMPLETED ONE TIME FOR EACH WORK ITEM.
5.5.6. STAKES DISTURBED OR REMOVED THROUGH THE CARELESSNESS OF THE CONTRACTOR WILL BE RESTAKED BY THE ENGINEER AND MAY RESULT IN A PRICE ADJUSTMENT TO THE CONTRACT.
5.5.7. PROPERTY PIN AND SECTION CORNER MONUMENTATION
5.5.7.1. PROPERTY CORNERS OR SECTION CORNER MONUMENTS WITHIN THE WORK LIMITS SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR.
5.5.7.2. IN NO CASE SHALL EXCAVATION BE MADE WITHIN FIVE FEET (5') OF SUCH MONUMENT UNTIL IT HAS BEEN ACCURATELY LOCATED, WITNESSED, OR OTHERWISE CARED FOR BY THE ENGINEER, AND PERMISSION IS GIVEN TO PROCEED WITH THE

- 5.5.7.3. WORK. IF THE CONTRACTOR DISCOVERS MONUMENTS THAT HAVE NOT BEEN PREVIOUSLY LOCATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SO EFFORTS CAN BE MADE TO PROTECT, PRESERVE, OR RESET THEM.
5.5.7.4. PROPERTY CORNER OR SECTION CORNER MONUMENTS DISTURBED OR REMOVED THROUGH THE CARELESSNESS OF THE CONTRACTOR, OR WITHOUT PROPER PERMISSION, WILL BE RESET BY THE ENGINEER OR THE CITY AND MAY RESULT IN A PRICE ADJUSTMENT TO THE CONTRACT.

6. SUBSURFACE GEOTECHNICAL EVALUATION

- 6.1. SOIL BORING INFORMATION TAKEN FOR THE PROJECT HAS BEEN INCLUDED IN THE PROJECT BIDDING DOCUMENTS.
6.1.1. LOCATIONS, WATER, AND ROCK DEPTHS ENCOUNTERED AT THE TIME OF THE BORINGS ARE INDICATED ON THE GEOTECHNICAL EVALUATION REPORT.
6.1.2. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT DEPTHS OR CHARACTER OF MATERIALS SHOWN ARE CORRECT OR COMPLETE.
6.1.3. CONDITIONS AFFECTING WORK MAY ACTUALLY DIFFER FROM THOSE SHOWN IN THE BORING LOGS. BIDDERS ARE EXPECTED TO EXAMINE THE SITE, INTERPRET OR DISREGARD SOIL BORING LOGS AS THEY SEE FIT, AND ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE CHARACTER AND LOCATIONS OF MATERIALS TO BE ENCOUNTERED.
6.1.4. ALL CONTRACTORS DESIRING TO TAKE ADDITIONAL SOIL BORINGS ON THIS PROJECT MUST OBTAIN PERMISSION FROM THE PROPERTY OWNERS INVOLVED AND FROM THE ENGINEER.

7. ENVIRONMENTAL EVALUATION AND WETLAND DELINEATION

- 7.0.1. APPROVED WETLAND DELINEATION WAS COMPLETED BY WSB, INC. AND APPROVAL WAS RECEIVED JUNE 30, 2020. LGU PERMIT NUMBER 2020-003.

8. UTILITIES LOCATING

- 8.1. THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.
8.2. CONTRACTOR INSTALLED UTILITIES
8.2.1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING CITY UTILITIES INSTALLED WITH THE PROJECT UNTIL FINAL ACCEPTANCE IS GRANTED. ALL COSTS ASSOCIATED WITH LOCATING CITY UTILITIES INSTALLED WITH THE PROJECT UNTIL FINAL ACCEPTANCE SHALL BE INCIDENTAL TO THE PROJECT.
8.3. ALL KNOWN UTILITIES ARE SHOWN ON THE PLAN, ADDITIONAL UTILITIES MAY BE PRESENT WITHIN THE CONSTRUCTION LIMITS.
8.3.1. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT EXISTING UTILITIES.
8.4. UNKNOWN UTILITIES ARE ANTICIPATED TO EXIST WITHIN THE PROJECT AREA AND ARE NOT SHOWN ON THE PLANS.
8.4.1. CONTRACTOR SHALL LOCATE ALL UTILITIES AND COMPLETE ALL PROJECT WORK WHILE PROTECTING UTILITIES. PROTECTION OF UTILITIES SHALL BE INCIDENTAL TO THE PROJECT.
8.5. PRIVATE ELECTRICAL LINES THAT ARE NOT PART OF THE GOPHER ONE CALL SYSTEM MAY EXIST.
8.5.1. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT THE OWNERS FOR LOCATES ON THESE FACILITIES.
8.5.2. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR WORKING AROUND KNOWN AND UNKNOWN UTILITIES
8.6. ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING WORK.
8.6.1. ANY TIME EXISTING UTILITIES IMPEDE THE PROGRESS OF WORK, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
8.7. ALL UTILITIES, WHETHER PRIVATELY OR PUBLICLY OWNED, SHALL BE MOVED, RELOCATED, AND/OR REPLACED AS NECESSARY, BY THE RESPECTIVE UTILITY COMPANY OR COMPANIES EXCEPT AS NOTED IN THE PLANS.
8.7.1. THESE MODIFICATIONS SHALL TAKE PLACE IN ADVANCE OF CONSTRUCTION WHEN APPLICABLE OR WHEN ADVISED BY THE ENGINEER.
8.7.2. NO PAYMENT SHALL BE MADE TO THE CONTRACTOR UNLESS SPECIFIED IN THE CONTRACT DOCUMENTS.
8.8. THE CONTRACTOR SHALL SAFEGUARD ALL UTILITIES AND COORDINATE HIS EFFORTS TO COINCIDE WITH UTILITY WORK BY OTHERS IN ORDER TO MINIMIZE INCONVENIENCE TO THE PUBLIC AND UTILITY COMPANIES.
8.8.1. WHEN PIPE UTILITY INSTALLATION CROSSES EXISTING UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR

- 8.8.2. SUPPORTING THE UTILITIES IN A MANNER THAT IS ACCEPTABLE TO THE OWNER OF THE UTILITY. ANY DAMAGE CAUSED TO THE UTILITIES DUE TO CONTRACTOR CARELESSNESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE UTILITY OWNER.
8.9. ABANDONED UTILITIES (GAS LINES, TELEPHONE LINES, ETC.) ENCOUNTERED DURING CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
8.9.1. COSTS ASSOCIATED WITH THIS WORK SHALL BE INCIDENTAL TO THE VARIOUS BID ITEMS ASSOCIATED WITH WORK ADJACENT TO THE ABANDONED UTILITY.
8.10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL WORK ASSOCIATED WITH THE DISTURBANCE, REMOVAL, OR REPLACEMENT OF UNIDENTIFIED METALLIC NATURAL GAS MAINS OR SERVICES WHEN ENCOUNTERED.
8.11. THE CONTRACTOR SHALL COOPERATE WITH AND COORDINATE HIS EFFORTS TO WORK WITH THE UTILITY COMPANIES AND THEIR CONTRACTORS.
8.11.1. EACH BIDDER SHALL BE RESPONSIBLE PRIOR TO BID LETTING, FOR DETERMINING THE EFFECTS OF UTILITY WORK ON THE PROJECT WORK SCOPE AND SCHEDULE, AND SHALL ACCOUNT FOR ALL SUCH EFFECTS IN HIS BID.
8.11.2. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR AFTER THE BID LETTING ON ACCOUNT OF UTILITY WORK DONE BY OTHERS.

9. PERMITS

- 9.1. PERMIT COMPLIANCE BY THE CONTRACTOR IS INCIDENTAL TO CONSTRUCTION. PERMITS BELOW ARE ANTICIPATED, HOWEVER, ADDITIONAL PERMITS MAY BE NEEDED. THE FOLLOWING PERMITS ARE ANTICIPATED TO BE IN HAND PRIOR TO CONSTRUCTION:
9.1.1. MN DEPT. OF HEALTH FOR WATER MAIN INSTALLATION
9.1.2. CITY OF EDEN PRAIRIE: LAND ALTERATION/ GRADING PERMIT
9.1.3. CITY OF EDEN PRAIRIE: SEWER AND WATER PERMIT
9.1.4. CITY OF EDEN PRAIRIE: BUILDING PERMIT

10. CONSTRUCTION LIMITS

- 10.1. THE CONTRACTOR SHALL STRICTLY CONFINE ALL CONSTRUCTION ACTIVITIES TO THE CONSTRUCTION LIMITS DELINEATED ON THE PLANS.
10.2. MATERIAL STORAGE AND VEHICLE AND EQUIPMENT TRAFFIC SHALL BE LIMITED TO THE CONSTRUCTION LIMITS.
10.3. ALL PAVED STREETS ADJACENT TO THE PROJECT ARE TO BE CLEANED AT THE END OF EACH WORKING DAY.
10.4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE PROPERTY OWNERS RELATING TO ACCESS TO THEIR PROPERTY AND ANY SUBSEQUENT DAMAGES.
10.5. THE CONTRACTOR WILL NOT BE ALLOWED TO STORE MATERIALS, EQUIPMENT, ETC. ON STRUCTURES OR USE STRUCTURES AS A STAGING AREA.
10.6. ALL AREAS DISTURBED BY THE CONTRACTOR'S EQUIPMENT WHICH ARE OUTSIDE THE PLANNED CONSTRUCTION LIMITS, SHALL BE RESTORED, AS APPROVED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
10.7. MATCH ALL EXISTING CURB AND GUTTER, SIDEWALK, AND BITUMINOUS. MATCH POINT WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

11. PORTABLE TOILET FACILITIES

- 11.1. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING PORTABLE TOILET FACILITIES FOR THE PROJECT AT NO COST TO THE CITY.

12. PEDESTRIAN ACCESSIBILITY PROTECTION

- 12.1. ALL PEDESTRIAN FACILITIES ON THIS PROJECT MUST BE CONSTRUCTED ACCORDING TO PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) WHICH CAN BE FOUND AT: HTTP://WWW.DOT.STATE.MN.US/ADA/PDF/PROWAG.PDF.
12.1.3. THE ENGINEER MAY PROVIDE ADDITIONAL DETAILS TO THOSE PROVIDED IN THE PLAN THAT MEET THE PROWAG GUIDELINES AS THE NEED ARISES AND FIELD CONDITIONS DICTATE.
12.2. ACCESSIBLE CURB RAMPS AND LANDING AREAS SHALL BE CONSTRUCTED AS DETAILED ON THE PLANS AND IN THE STANDARD PLATE. THE CONTRACTOR SHALL TAKE CARE TO STRICTLY ADHERE TO THE SLOPES INDICATED. NO ALLOWANCE OR TOLERANCE WILL BE GRANTED FOR SLOPES ABOVE THE MAXIMUM ALLOWABLE.
12.3. MAINTAIN AND GUIDE PEDESTRIAN TRAFFIC THROUGH THE PROJECT AT ALL TIMES USING CONTINUOUS ALTERNATE PEDESTRIAN ROUTES



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: [Handwritten Signature]

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

DATE

SYM

WELL HOUSE NO. 17 & TRANSMISSION MAIN
Advanced Engineering and Environmental Services, LLC www.ae2s.com

PROJECT TITLE

SHEET TITLE: CONSTRUCTION NOTES

CLIENT: CITY OF EDEN PRAIRIE
EDEN PRAIRIE, MINNESOTA
PREPARED BY: CGT
CHECKED BY: DDL
APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: SHEET NO:
DATE: FEBRUARY 2023 ALT. PROJECT NO: GEN C002

(APRS) PER STANDARDS SET FORTH IN THE MN MUTCD CHAPTER 6D.

12.3.1. PROVIDE EACH APR TO THE SAME LEVEL OF ACCESSIBILITY OF EACH EXISTING ACCESS AND WALKWAY PRIOR TO CONSTRUCTION.

12.3.2. UTILIZE ACCESSIBLE DEVICE STANDARDS AS SHOWN IN THE PLAN OR IN FIGURE 6K-5 IN THE FIELD MANUAL IF A PLAN IS NOT PROVIDED.

12.3.3. UTILIZE BYPASS AND DETOUR STANDARDS AS SHOWN IN THE PLAN OR IN LAYOUTS 88 AND 89 IN THE FIELD MANUAL IF A PLAN IS NOT PROVIDED.

12.4. PROVIDE AND PLACE ACCESSIBLE PEDESTRIAN SIGNALS (APS), TEMPORARY CURB RAMPS, PEDESTRIAN BARRICADES, PEDESTRIAN CHANNELIZERS, DETECTABLE EDGES, TEMPORARY WALKWAY SURFACES AND OTHER ACCESSIBLE DESIGN FEATURES AS NECESSARY.

12.5. AS NEEDED, PROVIDE CONTINUOUS TEMPORARY WALKWAY SURFACES THAT ARE SMOOTH, STABLE AND SLIP RESISTANT IN RELEVANT WEATHER CONDITIONS.

12.5.1. TEMPORARY WALKWAY SURFACES WILL ALLOW THE NORMAL USAGE OF WHEELCHAIRS, WALKERS, STROLLERS, AND OTHER MOBILITY DEVICES.

12.5.2. CONCRETE, BITUMINOUS, STEEL, RUBBER, WOOD (3/4 INCH OR THICKER), AND PLASTIC ARE ACCEPTABLE SURFACE MATERIALS FOR THE TEMPORARY WALKWAY SURFACE. GRAVEL, MILLINGS, OR OTHER UNEVEN SURFACES ARE NOT ACCEPTABLE SURFACE MATERIALS.

12.5.3. TEMPORARY WALKWAY SURFACE DEVICES SHALL UTILIZE DIMENSIONS FROM 6F.74.1 IN THE MN MUTCD. THE TEMPORARY WALKWAY SURFACE SHALL BE SUPPORTED BY A SOLID BASE.

12.6. ANY PORTABLE SIGN OR BARRICADE PLACED IN OR ADJACENT TO A PEDESTRIAN WALKWAY SHALL HAVE A DETECTABLE EDGE TO GUIDE PEDESTRIANS WITH VISUAL DISABILITIES AROUND THE SIGN OR BARRICADE.

12.7. SCHEDULE AND COORDINATE THE REPLACEMENT OF PEDESTRIAN ACCESS TO ACCOMMODATE THE NEEDS OF BUSINESSES AND RESIDENCES 7 DAYS PRIOR TO THE REPLACEMENT.

12.7.1. LEAVE THE EXISTING SIDEWALKS IN-PLACE UNTIL SUCH TIME THAT IT IS REQUIRED TO REMOVE THEM TO ACCOMMODATE NEW CONSTRUCTION.

12.7.2. PEDESTRIAN ACCESS MAY BE PROVIDED TO BUSINESSES AND HOMES THROUGH THE USE OF ANY PUBLIC ACCESS FROM ADJACENT PARKING LOTS AND SIDE STREETS.

12.7.3. PROVIDE FRONT DOOR ACCESS TO BUILDINGS WITHOUT ALTERNATE PUBLIC ENTRANCES.

12.8. PROTECT THE PEDESTRIAN ROUTE WITH PEDESTRIAN BARRICADES OR PEDESTRIAN CHANNELIZING DEVICES IF IT IS ADJACENT TO CONSTRUCTION, EXCAVATION DROP-OFFS, TRAFFIC, OR OTHER HAZARDS. PROTECT THE PEDESTRIAN ROUTE WITH PORTABLE BARRIER IF IT IS ON THE SHOULDER, IN A PARKING LANE, OR IN A CLOSED LANE ADJACENT TO TRAFFIC ON A MULTILANE ROAD OR IF THE SPEED LIMIT IS GREATER THAN 40 MPH. WHEN BOTH SIDES OF A PEDESTRIAN ROUTE REQUIRE CHANNELIZING DEVICES, USE SIMILAR TYPES, UNLESS PORTABLE BARRIER IS USED TO PROTECT PEDESTRIANS FROM TRAFFIC.

13. TRAFFIC CONTROL

13.1. AT LEAST ONE WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. SHOULD

13.1.1. THE ROADWAY BE RESTRICTED TO ONE WAY TRAFFIC, FLAGGERS SHALL BE UTILIZED TO CONTROL TRAFFIC.

13.2. THE CONTRACTOR SHALL CONDUCT OPERATIONS TO ALLOW CONTINUAL FIRE AND POLICE ACCESS TO ALL AREAS WITHIN THE PROJECT.

13.3. THE CONTRACTOR SHALL MAKE ACCESS PROVISIONS FOR GARBAGE TRUCKS, SCHOOL BUSES, AND MAIL DELIVERY.

13.4. FURNISH, INSTALL, MAINTAIN, AND REMOVE ALL TRAFFIC CONTROL DEVICES REQUIRED TO PROVIDE SAFE MOVEMENT OF TRAFFIC AND PEDESTRIANS THROUGH THE PROJECT AT ALL TIMES FROM COMMENCEMENT OF THE WORK UNTIL PROJECT ACCEPTANCE.

13.4.1. MAINTAIN ROADS AND PEDESTRIAN FACILITIES UNDERGOING IMPROVEMENTS IN A CONDITION THAT ACCOMMODATES PUBLIC TRAFFIC.

13.4.2. DO NOT CLOSE ROADS OR PEDESTRIAN FACILITIES, EXCEPT AS AUTHORIZED.

13.4.3. THE ENGINEER MAY MODIFY THE REQUIREMENTS FOR TRAFFIC CONTROL AS DEEMED NECESSARY.

13.5. THE DEPARTMENT WILL MAINTAIN DETOUR ROADS ESTABLISHED BY THE COMMISSIONER FOR THROUGH TRAFFIC DIVERTED FROM THE PROJECT UNLESS OTHERWISE INDICATED IN THE PLAN.

13.6. THE USE OF MAINTENANCE CROSSOVERS IN OR NEAR THE

CONSTRUCTION AREA IS PERMITTED IF AUTHORIZED BY THE ENGINEER.

13.7. ALL TEMPORARY TRAFFIC MANAGEMENT MUST CONFORM TO AND BE INSTALLED IN ACCORDANCE WITH:

13.7.1. THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD);

13.7.2. THE "MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL" (FIELD MANUAL);

13.7.3. THE "SPEED LIMITS IN WORK ZONES GUIDELINES";

13.7.4. THE "MINNESOTA FLAGGING HANDBOOK";

13.7.5. THE "MNDOT STANDARD SIGNS AND MARKINGS MANUAL";

13.7.6. THE PLAN;

13.7.7. ALL APPLICABLE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

13.7.8. MANUALS LISTED ABOVE MAY BE FOUND AT: <http://www.dot.state.mn.us/trafficeng/publ/index.html>

13.8. MAINTAIN OWNER EGRESS TO SITE AT ALL TIMES.

13.9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 7 DAYS PRIOR TO THE START OF CONSTRUCTION, AND BEFORE ANY SUBSTANTIAL TRAFFIC CONTROL.

13.9.1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF ALL OTHER TRAFFIC CONTROL CHANGES.

13.9.2. INSTALLATION OF TRAFFIC CONTROL SHALL NOT BE MADE BEFORE 8:30 AM ON THE DAY OF THE CLOSURE.

13.10. REMOVING, RELOCATING, SALVAGING, AND RESETTING OF EXISTING TRAFFIC CONTROL DEVICES, INCLUDING DELINEATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

13.10.1. ANY DELINEATORS OR SIGNS DAMAGED OR LOST SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.

13.11. PAYMENT FOR REMOVING, SALVAGING, INSTALLING, AND/OR RESETTING OF SIGNS SHALL BE MADE USING THE APPLICABLE BID ITEMS.

13.12. DO NOT SUSPEND MATERIAL, EQUIPMENT, TOOLS OR PERSONNEL OVER LANES OR PEDESTRIAN FACILITIES OPEN TO TRAFFIC.

13.13. PROTECT TRAFFIC AND PEDESTRIANS FROM EXCAVATIONS, DROP-OFFS, FALLING OBJECTS, SPLATTER OR OTHER POTENTIAL CONSTRUCTION HAZARDS.

13.14. DO NOT STORE MATERIALS OR EQUIPMENT IN THE WORK ZONE CLEAR ZONE UNLESS APPROVED BY THE ENGINEER. IF MATERIALS OR EQUIPMENT MUST BE STORED WITHIN THE WORK ZONE CLEAR ZONE, PROTECT WITH TEMPORARY BARRIER. IF THE ENGINEER AGREES THAT TEMPORARY BARRIER IS NOT PRACTICAL, DELINEATE WITH TYPE B CHANNELIZERS.

13.15. DO NOT PARK VEHICLES OR CONSTRUCTION EQUIPMENT IN THE CLEAR ZONE OR ANY LOCATION THAT OBSTRUCTS TRAFFIC CONTROL DEVICES. WORKERS ARE NOT ALLOWED TO PARK THEIR PRIVATE VEHICLES WITHIN THE PROJECT LIMITS UNLESS APPROVED BY THE ENGINEER.

13.16. DO NOT LOAD OR UNLOAD MATERIAL OR EQUIPMENT ON THE SHOULDERS OF ANY ROADWAY WITHOUT A FULL SHOULDER CLOSURE USING SIGNS AND CHANNELIZING DEVICES SHOWN ON LAYOUT 8 IN THE FIELD MANUAL.

13.17. HIGH VISIBILITY APPAREL

13.17.1. DURING NIGHT WORK OR LOW LIGHT CONDITIONS, ALL WORKERS MUST WEAR HIGH VISIBILITY CLASS E LONG PANTS AND RETRO-REFLECTIVE HEADGEAR IN ADDITION TO THE ANSI CLASS 2 OR 3 VEST, SHIRT, OR JACKET.

13.17.2. ALL HIGH VISIBILITY APPAREL MUST BE WORN IN THE MANNER FOR WHICH IT WAS DESIGNED. ALL APPAREL WORN ON THE TORSO MUST BE CLOSED IN THE FRONT TO PROVIDE 360 DEGREE VISIBILITY. A WORKER'S HIGH-VISIBILITY APPAREL MUST BE REMOVED FROM SERVICE AND REPLACED IF IT BECOMES FADED, WORN, TORN, DIRTY, OR DEFACED, REDUCING THE CONSPICUITY OF THE APPAREL.

13.18. NIGHT WORK

13.18.1. NIGHT WORK IS NOT PERMITTED ON THIS PROJECT WITHOUT PRIOR APPROVAL OF THE ENGINEER.

13.19. INDISCRIMINATE DRIVING AND PARKING OF VEHICLES WILL NOT BE PERMITTED. ANY DAMAGE TO THE VEGETATION, SURFACING, EMBANKMENT, DELINEATORS AND EXISTING SIGNS RESULTING FROM SUCH INDISCRIMINATE USE SHALL BE REPAIRED AND/OR RESTORED BY THE CONTRACTOR, AT NO EXPENSE TO THE PROJECT OR OWNER, AND TO THE SATISFACTION OF THE ENGINEER.

13.20. SIGNS AND TRAFFIC CONTROL DEVICES MUST BE CRASHWORTHY AND MEET THE CRASH TESTING REQUIREMENTS OF THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE 2016 (MASH-16).

13.21. INSTALLATION, MAINTENANCE, RELOCATION AND REMOVAL OF TYPE I AND II BARRICADES, CONES, VERTICAL PANELS, DRUMS, BARRICADE WARNING LIGHTS, WATCHMEN, TUBULAR MARKERS AND

13.22. FLAGS SHALL BE INCIDENTAL TO CONSTRUCTION. THE CONTRACTOR OR DESIGNATED TRAFFIC CONTROL SUBCONTRACTOR SHALL ENSURE THE ADEQUACY, LEGIBILITY, AND REFLECTIVITY OF EACH SIGN AND DEVICE. SIGN WASHING SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL AND REQUIRED AS DIRECTED BY THE ENGINEER.

13.23. FLAGGER WARNING SIGNS SHALL BE INSTALLED WHEN USING FLAGGERS TO DIRECT TRAFFIC.

13.23.1. FLAGGERS SHALL WEAR APPROPRIATE SAFETY CLOTHING AND SHALL USE A STOP/SLOW PADDLE. PAYMENT FOR FLAGGING WILL BE INCIDENTAL TO CONSTRUCTION.

13.23.2. COORDINATE THE FLAGGING OPERATIONS IN A MANNER THAT CAUSES MINIMUM DELAY TO THE TRAVELING PUBLIC. THE MAXIMUM DELAY TIME IS 10 MINUTES. IF THE OPERATION EXCEEDS THE MAXIMUM DELAY TIME, THE OPERATION MUST BE DISCONTINUED UNTIL A NEW TRAFFIC CONTROL PLAN IS DEVELOPED WHICH MEETS THE MAXIMUM DELAY REQUIREMENT.

13.24. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES THROUGHOUT THE PROJECT AT ALL TIMES IN ACCORDANCE WITH THE PLANS AND THE LATEST EDITION OF THE MUTCD. THE CONTRACTOR SHALL IMMEDIATELY TAKE APPROPRIATE MEASURES TO REMEDY ANY TRAFFIC CONTROL DEVICES THAT NEED TO BE REMOVED, REPLACED, ETC. DUE TO CHANGES IN PHASING, SEQUENCING, WEATHER, OR ANY OTHER REASON UPON NOTIFICATION FROM THE ENGINEER. FAILURE TO CORRECT ANY TRAFFIC CONTROL DEVICES THAT ARE NOT IN COMPLIANCE WITH THE PLANS OR THE LATEST EDITION OF THE MUTCD UPON NOTIFICATION FROM THE ENGINEER WILL RESULT IN A PRICE ADJUSTMENT TO THE CONTRACT. THE MINIMUM PRICE ADJUSTMENT TO THE CONTRACT WILL BE \$100 PER DAY PER OCCURRENCE. THE ENGINEER MAY DELAY THE ISSUANCE OF THE PRICE ADJUSTMENT(S) IF THE ENGINEER HAS DETERMINED ALL THE FOLLOWING APPLY:

13.24.1. THE CONTRACTOR HAS MADE A GOOD FAITH EFFORT TO BRING THE ITEMS INTO COMPLIANCE WITH THE PLANS AND LATEST EDITION OF THE MUTCD.

13.24.2. COMPLIANCE WAS NOT ACHIEVED DUE TO WEATHER CONDITIONS OUTSIDE THE CONTRACTOR'S CONTROL AND THE CONDITIONS WERE SEVERE ENOUGH TO PREVENT THE CONTRACTOR FROM BRINGING THE ITEM INTO COMPLIANCE.

13.24.3. THE CONTRACTOR BROUGHT THE ITEM INTO COMPLIANCE AS SOON AS POSSIBLE AFTER THE WEATHER AND SITE CONDITIONS PERMIT.

13.25. IF DELIVERIES OR UNLOADING OF MATERIALS OR EQUIPMENT MUST OCCUR ON ACTIVE STREETS, THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PROTECTIONS IN ACCORDANCE WITH THE TEMPORARY TRAFFIC CONTROL MANUAL.

13.25.1. FLAGGING, LANE CLOSURES OR OTHER APPROVED TECHNIQUES SHALL BE UTILIZED, REGARDLESS OF THE DURATION OF INTERRUPTION.

13.25.2. NO STEEL TRACKS MAY BE DRIVEN ON PAVEMENTS ON SCHEDULED FOR REPLACEMENT WITHOUT PRE-AUTHORIZATION FROM THE ROAD AUTHORITY.

13.26. THE CONTRACTOR SHALL MAINTAIN IN-PLACE FACILITIES AS FOLLOWS:

13.26.1. SIGNS

13.26.1.1. DO NOT REMOVE SIGNS UNLESS AUTHORIZED BY THE ENGINEER.

13.26.1.2. CAREFULLY REMOVE AND STORE DESIGNATED SIGNS AND POSTS FOR REINSTALLATION.

13.26.1.3. REPLACE SIGNS AND POSTS DAMAGED DURING REMOVAL.

13.26.1.4. CAREFULLY REMOVE AND DELIVER SIGNS AND POSTS AS DIRECTED BY THE ENGINEER.

13.26.1.5. PROVIDE FLAGGERS AS DIRECTED WHEN "STOP" OR OTHER PROHIBITION SIGNS ARE REMOVED.

13.26.1.6. RELOCATE OR TEMPORARILY MOUNT ALL REQUIRED SIGNS ALONG STREETS WHICH REMAIN OPEN TO TRAFFIC.

13.26.1.7. REINSTALL ALL SIGNS NOT BEING REPLACED IN ACCORDANCE WITH MN MUTCD.

13.26.2. MAILBOXES

13.26.2.1. PRIOR TO PROCEEDING WITH ANY WORK, RELOCATE ANY MAIL AND OTHER DELIVERY BOXES WITHIN THE CONSTRUCTION AREA AND AS DESIGNATED BY THE ENGINEER, TO A LOCATION WHICH WILL ALLOW DELIVERY DURING CONSTRUCTION.

13.26.2.2. CONSTRUCTION.

13.26.2.3. MAILBOXES SO DESIGNATED BY ENGINEER SHALL BE REMOVED AND PLACED ON THE HOMEOWNER'S PROPERTY. (HOMEOWNER IS RESPONSIBLE FOR THE STORAGE OF THEIR OWN POSTAL BOX DURING CONSTRUCTION.)



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

SYM

DATE

SYM

WELL HOUSE NO. 17 & TRANSMISSION MAIN

PROJECT TITLE

SHEET TITLE: CONSTRUCTION NOTES

CLIENT: CITY OF EDEN PRAIRIE
EDEN PRAIRIE, MINNESOTA

PROJECT NO: 02009-2021-003
DATE: FEBRUARY 2023
ALT. PROJECT NO: ---

SHEET DESIGNATOR: GEN
SHEET NO: C003

Advanced Engineering and Environmental Services, LLC www.ae2s.com

APPR

- 13.26.2.4. TEMPORARY MAILBOX BANKS MAY BE UTILIZED IN ACCORDANCE WITH THE FOLLOWING:
- 13.26.2.5. TEMPORARY MAILBOX BANKS SHALL BE ACCESSIBLE TO POSTAL SERVICE AND POSTAL RECIPIENT AT ALL TIMES.
- 13.26.2.6. NUMEROUS MAILBOX BANKS MAY BE UTILIZED TO MINIMIZE DISTANCES FROM POSTAL RECIPIENTS.
- 13.26.2.7. MATERIALS USED TO CONSTRUCT TEMPORARY MAILBOX BANKS SHALL BE THE CONTRACTOR'S.
- 13.26.2.8. PROPERTY OWNER'S POSTS, CROSS MEMBERS AND MAILBOXES NOT USED DURING TEMPORARY RELOCATION SHALL BE PROPERLY STORED BY THE CONTRACTOR.
- 13.26.2.9. NOTIFICATION OF THE POSTAL SERVICE, DELIVERY SERVICES AND POSTAL RECIPIENT SHALL BE MADE 5 DAYS PRIOR TO RELOCATION.
- 13.26.2.10. POSTAL SERVICE AND OTHER AFFECTED DELIVERY SERVICES SHALL APPROVE ALL LOCATIONS AND INSTALLATIONS.
- 13.26.2.11. IF POSTAL DELIVERY IS NOT ACHIEVED, WORK SHALL STOP IMMEDIATELY AND REMAIN STOPPED UNTIL THE SITUATION IS CORRECTED.
- 13.26.2.12. FOLLOWING CONSTRUCTION, REINSTALL ALL MAIL AND OTHER DELIVERY BOXES IN CONVENIENT LOCATIONS AND IN COMPLIANCE WITH USPS REGULATIONS.
- 13.26.2.13. REPLACE ANY BOX OR SUPPORTING MEMBER THAT IS DAMAGED DURING CONSTRUCTION.
- 13.26.2.14. PERMANENT INSTALLATION SHALL BE ACCEPTABLE TO THE POSTAL SERVICE, THE DELIVERY SERVICE AND PROPERTY OWNER.
- 13.26.2.15. ALL WORK ASSOCIATED WITH MAILBOXES SHALL BE INCIDENTAL TO THE CONTRACT.

14. DRAINAGE

- 14.1. DRAINAGE IS THE CONTRACTOR'S RESPONSIBILITY.
- 14.2. CONTRACTOR SHALL MAINTAIN EXISTING SITE DRAINAGE AND PROVIDE EROSION CONTROL MEASURES AT ALL TIMES.
 - 14.3.1. PROVIDE POSITIVE DRAINAGE AND EROSION PROTECTION AT ALL TIMES
 - 14.3.2. STORM WATER AT THE SITE MUST BE MANAGED TO REDUCE THE POTENTIAL FOR SEDIMENT TRANSPORT OFF-SITE.
 - 14.3.2.1. CONTRACTOR SHALL REMOVE AND REINSTALL CONSTRUCTION FENCE AND SILT FENCE AS MANY TIMES AS NEEDED FOR CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE MADE FOR SUCH WORK.
 - 14.3.3. DAMAGE CAUSED BY IMPROPER TEMPORARY DRAINAGE FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.
- 14.4. CONTRACTOR WILL UPDATE AND MAINTAIN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) USING THE DRAWINGS CONTAINED IN THE PLAN ALONG WITH ADDITIONAL DRAWINGS FURNISHED BY THE CONTRACTOR AS REQUIRED BY THE PERMIT.

15. PROTECTION OF EXISTING SITE

- 15.1. FOR THE PROTECTION OF EXISTING PUBLIC UNDERGROUND UTILITIES AND THE SURROUNDING WORK AREA, CONSIDERATION SHALL BE GIVEN TO ISOLATING PORTIONS OF THE EXISTING WATER DISTRIBUTION SYSTEM WITHIN THE CONSTRUCTION LIMITS WHILE MAINTAINING FIRE PROTECTION.
- 15.2. DURING UNDERGROUND UTILITY INSTALLATION SUCH AS, BUT NOT LIMITED TO, SANITARY SEWER, WATER MAIN, STORM SEWER, SUMP PUMP DRAIN, ETC., IN THE PROXIMITY OF EXISTING WATER MAIN AND/OR WATER SERVICES, THE EXISTING WATER MAIN DISTRIBUTION SHALL BE ISOLATED WITHIN THE WORK AREA.
- 15.3. UPON RECEIVING NOTICE FROM THE CONTRACTOR 24 HOURS IN ADVANCE OF ANY WORK, CITY STAFF WILL OPERATE DESIGNATED WATER VALVES, WHERE APPROPRIATE, TO ISOLATE THE WORK AREA AS MUCH AS REASONABLY POSSIBLE.
- 15.4. CITY STAFF SHALL BE NOTIFIED IMMEDIATELY IN THE EVENT OF A WATER SERVICE EMERGENCY OR INTERRUPTION.
 - 15.4.1. IT WILL BE PERMISSIBLE FOR THE CONTRACTOR TO OPERATE THE DESIGNATED VALVE(S) IN THE EVENT OF A WATER MAIN OR WATER SERVICE FAILURE WITHIN THE CONSTRUCTION AREA.
 - 15.4.2. THE CONTRACTOR IS REQUIRED TO HAVE A VALVE OPERATING KEY ON SITE IN THE EVENT OF SUCH A FAILURE.
 - 15.4.3. THE CITY SHALL BE NOTIFIED IMMEDIATELY AFTER THE SHUTDOWN.
 - 15.4.4. CITY CREWS WILL OPERATE THE VALVES AFTER REPAIRS HAVE BEEN MADE AND INSPECTIONS HAVE BEEN COMPLETED.
- 15.5. EXISTING SANITARY SEWER LINES AND MANHOLES WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION.

- 15.5.1. THE UPSTREAM ENDS OF EXISTING SANITARY SEWER LINES DOWNSTREAM FROM NEW SANITARY SEWER CONSTRUCTION SHALL BE PLUGGED AT LOCATIONS TO BE APPROVED BY THE ENGINEER. WATER, STONE, DIRT, GRAVEL, ASPHALT, CONCRETE OR ANY OTHER DEBRIS SHALL NOT BE ALLOWED TO ENTER THE CITY'S SANITARY SEWER SYSTEM DURING FLUSHING OPERATIONS OR AT ANY OTHER TIME.
- 15.5.2. CONSTRUCTION TAKING PLACE IN THE VICINITY OF ANY EXISTING CITY SANITARY SEWER LINES OR MANHOLES SHALL NOT CAUSE ANY INFLOW OF SURFACE WATER, GROUND WATER, WATER FROM DAMAGED WATER LINES, OR DEBRIS TO ENTER THE CITY'S SANITARY SEWER SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES OR COSTS INCURRED TO THE CITY'S SANITARY SEWER SYSTEM, AND/OR PRIVATE PROPERTY, AND ANY ACTIONS DUE TO SPILLS, OVERFLOWS, INFLOWS, LIFT STATION SURCHARGES, CITY WATER DISCHARGE, SANITARY SEWER DISCHARGES TO SURFACE WATERS, SANITARY SEWER BACKUPS INTO HOMES, ETC.

- 15.6. EXISTING STORM SEWER INLETS AND PIPES WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED FROM THE ENTRANCE OF STONE, DIRT, GRAVEL, ASPHALT, CONCRETE OR ANY OTHER DEBRIS DURING CONSTRUCTION. THE SWPPP MUST BE FOLLOWED AT ALL TIMES.

- 15.7. EXISTING FRAMES AND/OR LIDS CRACKED OR BROKEN THROUGH THE CARELESSNESS OF THE CONTRACTOR'S FORCES SHALL BE REPLACED WITH NEW FRAMES AND/OR LIDS AT THE CONTRACTOR'S EXPENSE.

- 15.8. CONTRACTOR SHALL LIMIT ALL CONSTRUCTION ACTIVITIES, INCLUDING STAGING AND MATERIAL STORAGE, TO WITHIN THE CONSTRUCTION LIMITS SHOWN ON THE PROJECT DRAWINGS. ANY DAMAGE FROM CONSTRUCTION OPERATIONS OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

- 15.9. MISCELLANEOUS ITEMS SUCH AS, BUT NOT LIMITED TO, SIGNS, MAIL BOXES, STREET LIGHTS, FENCES, SIGNS AND POLES SHALL BE PROTECTED OR REMOVED AND REPLACED BY THE CONTRACTOR AS AN INCIDENTAL TO THE CONTRACT, AS APPLICABLE.

- 15.10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE, STORE, AND REPLACE ANY EXISTING TRAFFIC SIGNS AFFECTED BY CONSTRUCTION ACTIVITY. ANY SIGNS DAMAGED OR LOST AS A RESULT OF THE PROJECT SHALL BE REPLACED BY THE CONTRACTOR PRIOR TO FINAL PAYMENT.

- 15.11. CONTRACTOR SHALL CLEAN AND MAINTAIN ROADWAYS AFFECTED BY CONSTRUCTION ACTIVITIES, INCLUDING HAUL ROUTES, TO THE CONDITION THEY WERE IN PRIOR TO THE START OF CONSTRUCTION ON A DAILY BASIS.

16. DEWATERING

- 16.1. IT IS ANTICIPATED THAT GROUNDWATER MAY BE ENCOUNTERED DURING EXCAVATION. DEWATERING MAY BE NEEDED TO PERFORM THE CONTRACT WORK.

- 16.1.1. THERE IS NO SEPARATE BID ITEM FOR DEWATERING AND ALL COSTS ASSOCIATED SHALL BE INCIDENTAL TO THE VARIOUS RELATED BID ITEMS.

- 16.1.2. CONTRACTOR SHALL CONTACT ENGINEERING ENVIRONMENTAL STAFF PRIOR TO ANY DEWATERING ACTIVITY TAKING PLACE.

17. REMOVALS & DEMOLITION

- 17.1. ANY MATERIAL NOT UTILIZED ON PROJECT SHALL BE DISPOSED OF OFF-SITE AT THE CONTRACTOR'S EXPENSE.

- 17.2. ALL EXISTING DRIVEWAYS, STREET SURFACING, SIDEWALKS, AND CURB & GUTTER SHALL BE REMOVED TO THE REMOVAL LIMITS MARKED IN THE FIELD BY THE ENGINEER UNLESS OTHERWISE NOTED ON THE PLANS.
 - 17.2.1. ALL CONCRETE AND BITUMINOUS SHALL BE SAW CUT PRIOR TO REMOVING, ALL CONCRETE TO BE SAW CUT TO THE NEAREST JOINT.
 - 17.2.2. ALL SAW CUTS SHALL BE INCIDENTAL TO REMOVAL ITEMS.

- 17.3. THE CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE ANY TREES, BUSHES AND LANDSCAPING
 - 17.3.1. TREES AND BUSHES TO BE REMOVED WILL BE MARKED BY THE ENGINEER IN THE FIELD.
 - 17.3.2. TREE TRIMMING SHALL BE AT THE DIRECTION OF THE FIELD ENGINEER.
 - 17.3.3. ANY ROOTS EXPOSED OR REMOVED BY EXCAVATION SHALL BE IMMEDIATELY SAWCUT AND SEALED TO PREVENT FURTHER DAMAGE TO THE TREE.
 - 17.3.4. ROOTS SHALL NOT BE LEFT EXPOSED WITHOUT SOIL COVER FOR MORE THAN 24 HOURS.

- 17.4. THE CONTRACTOR SHALL VERIFY ALL WATERMAIN, STORM, AND

SANITARY CONNECT TO EXISTING LOCATIONS AND ELEVATIONS PRIOR TO CONNECTION.

- 17.4.1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM PLAN.

- 17.4.2. NO ADDITIONAL COMPENSATION SHALL BE GIVEN FOR ELEVATION AND/OR LOCATION CHANGES, EXCEPT THAT ADDITIONAL LENGTHS SHALL BE PAID AT UNIT BID PRICES.

- 17.5. PRIOR TO GRADING, ALL TOPSOIL, VEGETATION, BRUSH, TREES (INCLUDING ROOT BALLS), OLD CONSTRUCTION DEBRIS, AND EXISTING STRUCTURES AND PAVEMENTS SHALL BE REMOVED.

- 17.6. DURING EARTHWORK CONSTRUCTION OPERATIONS, UNFORESEEN UNDERGROUND OBSTACLES SUCH AS CONCRETE RUBBLE, OLD PIPING, AND MISCELLANEOUS TRASH MAY BE ENCOUNTERED AND REMOVAL OF SUCH BY THE CONTRACTOR IF NECESSARY TO COMPLETE THE WORK SHALL BE CONSIDERED INCIDENTAL.

- 17.6.1. REMOVED PAVEMENT, CONCRETE, PIPES, ROOTS AND ANY OTHER ITEMS THE OWNER DOES NOT WISH TO SALVAGE SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

18. SITE EARTHWORK NOTES

- 18.1. ALL GRADES SHOWN ARE TO FINISHED ELEVATIONS (I.E. TOP OF PAVEMENT OR TOPSOIL).

- 18.2. CONTRACTOR SHALL SALVAGE EXISTING TOPSOIL FROM THE ENTIRE AREA OF EXCAVATION FOR REPLACEMENT DURING RESTORATION.
 - 18.2.1. CONTRACTOR SHALL STOCKPILE MATERIAL AT A LOCATION APPROVED BY THE OWNER.
 - 18.2.2. EXCAVATED SOIL FOR BACKFILL SHALL BE PLACED IN AN AREA COORDINATED WITH THE OWNER.

- 18.3. UNSUITABLE EXCAVATED MATERIAL SHALL BE HAULED TO CONTRACTOR FURNISHED OFF-SITE DISPOSAL AREA.

19. SITE PIPE NOTES

- 19.1. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING OSHA STANDARDS FOR TRENCH EXCAVATIONS.

- 19.2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY LOCATION, ELEVATION, SIZE AND MATERIAL OF EXISTING UTILITIES SCHEDULED AS POINTS OF CONNECTION.
 - 19.2.1. PROVIDE FITTINGS, ADAPTERS, SOLID SLEEVES, HARNESSED MECHANICAL COUPLING, AND ROTATE FITTINGS AND DEFLECT JOINTS AS REQUIRED TO MAKE CONNECTION.
 - 19.2.2. PROVIDE TEMPORARY PLUG WITH FACTORY OUTLET SIZED AS REQUIRED FOR CONTRACTOR'S TESTING AND DISINFECTION WORK BEFORE MAKING CONNECTION.

- 19.3. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF THE LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITY CROSSINGS OF PROPOSED SITE PIPING PRIOR TO EXCAVATION.

- 19.4. THE CONTRACTOR SHALL INSTALL ALL SITE PIPING TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS. DEPTH OF COVER FOR WATER MAIN SHALL BE A MINIMUM OF 7.5' FROM FINAL GRADE TO THE TOP OF PIPE. PRESSURE PIPE MAY BE LOWERED, AS REQUIRED, TO AVOID CONFLICTS WITH EXISTING UTILITIES AND TO MAINTAIN A MINIMUM SEPARATION DISTANCE OF 18" BETWEEN OTHER UTILITIES.

- 19.5. ALL PRESSURE PIPE FITTINGS, VALVES AND APPURTENANCES SHALL BE RESTRAINED BY MECHANICAL MEANS. CONTRACTOR SHALL INSTALL FULL STICK OF PIPE ON EACH SIDE OF FITTINGS AND APPURTENANCES WHEN POSSIBLE. THE CONTRACTOR SHALL CONSULT THE RESTRAINT MANUFACTURER FOR INSTALLATION GUIDELINES IF MECHANICAL RESTRAINT WILL BE USED FOR THE PROJECT.

- 19.6. DEFLECTIONS OF UNDERGROUND PIPE INSTALLATION FROM A STRAIGHT LINE OR GRADE ARE TO BE MADE WITH FITTINGS, DEFLECTED JOINTS, SHORTER PIPE SECTIONS, OR A COMBINATION OF THESE METHODS TO CONFORM TO THE ALIGNMENT AND PROFILE INDICATED ON THE DRAWINGS. DEFLECTED JOINTS SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS.

- 19.7. ALL PIPE LENGTHS SHOWN ON PLANS ARE MEASURED FROM CENTER TO CENTER OF MANHOLES, PIPE FITTINGS AND APPURTENANCES.

- 19.8. THE CONTRACTOR SHALL PROVIDE ALL APPROPRIATE HOISTING EQUIPMENT TO HANDLE THE PIPE WHILE UNLOADING AND PLACING IT IN ITS FINAL POSITION WITHOUT DAMAGE TO THE PIPE.

- 19.8.1. PIPE, FITTINGS, VALVES, AND OTHER ACCESSORIES SHALL, UNLESS OTHERWISE DIRECTED, BE UNLOADED AT THE POINT OF DELIVERY, HAULED TO AND DISTRIBUTED AT THE SITE OF THE PROJECT BY THE CONTRACTOR.

- 19.8.2. MATERIALS SHALL AT ALL TIMES BE HANDLED WITH CARE TO AVOID DAMAGE. UNDER NO CIRCUMSTANCES SHALL ANY MATERIALS BE DROPPED.

- 19.8.3. PIPE HANDLED ON SKIDWAYS MUST NOT BE SKIDDED OR



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

WELL HOUSE NO. 17 & TRANSMISSION MAIN

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: CONSTRUCTION NOTES

CLIENT: CITY OF EDEN PRAIRIE
EDEN PRAIRIE, MINNESOTA

PROJECT NO: 02009-2021-003
DATE: FEBRUARY 2023
ALT. PROJECT NO: ----

GEN C004

PROJECT TITLE

APPR

DATE

SYM

PREPARED BY: CGT
CHECKED BY: DDL
APPROVED BY: NZ

- 19.8.4. ROLLED AGAINST PIPE ALREADY ON THE GROUND. IN DISTRIBUTING THE MATERIALS AT THE SITE OF WORK EACH PIECE SHALL BE UNLOADED OPPOSITE OR NEAR THE PLACE WHERE IT IS TO BE LAID IN THE TRENCH.
- 19.9. MATERIALS SHALL BE HANDLED IN SUCH A MANNER THAT NO DAMAGE TO THE PIPE WILL RESULT.
- 19.10. PVC AND POLYETHYLENE PIPE SHALL BE STORED COVERED OUT OF DIRECT SUNLIGHT.
- 19.10. CUTTING PIPE: CUTTING SHALL COMPLY WITH PIPE MANUFACTURER'S RECOMMENDATIONS. CUTS SHALL BE SMOOTH, STRAIGHT, AND AT RIGHT ANGLES TO PIPE AXIS.
- 19.10.1. SHARP CORNERS SHALL BE REMOVED AND THE PIPE BEVELED TO MANUFACTURER'S RECOMMENDATION.
- 19.11. RESTRAINING REQUIREMENTS: ALL VALVES, TEES, CROSSES, AND BENDS SHALL BE CONNECTED TO THE FORCE MAIN WITH AN APPROVED JOINT RESTRAINT. COSTS OF ALL RESTRAINTS SHALL BE INCIDENTAL TO THE FITTINGS.
- 19.12. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, ELEVATION, SIZE, AND MATERIAL OF THE EXISTING UNDERGROUND PIPING AT THE POINTS OF CONNECTION.
- 19.12.1. APPROVED TRANSITIONS SHALL BE USED TO MAKE ALL CONNECTIONS.
- 19.12.2. PRECISE LOCATION AND ARRANGEMENT OF CONNECTIONS OF NEW PIPELINES WITH EXISTING PIPELINES ARE TO BE FIELD VERIFIED.
- 19.12.3. PROVIDE FITTINGS, ADAPTERS, SOLID SLEEVE CLOSURES, HARNESSSED MECHANICAL COUPLINGS, AND ROTATE FITTINGS, AND DEFLECT JOINTS AS REQUIRED TO MAKE CONNECTIONS.
- 19.12.4. PROVIDE TEMPORARY PLUG WITH FACTORY OUTLET SIZED AS REQUIRED FOR CONTRACTOR'S TESTING AND DISINFECTION WORK BEFORE MAKING CONNECTION.
- 19.12.5. ANY DIFFERENT FITTINGS NECESSARY TO MAKE ALL CONNECTIONS SHALL BE INCIDENTAL.
- 19.13. WHERE EXISTING UTILITY WIRES (TELEPHONE, ELECTRIC, FIBER OPTIC) ARE LOCATED ADJACENT TO OR ABOVE THE PROPOSED WORK, CONTRACTOR SHALL TEMPORARILY SUPPORT EXISTING WIRES AND INSTALL PIPING UNDER EXISTING WIRES.
- 19.13.1. ANY DECISION TO HAVE THE EXISTING UTILITIES RELOCATE WIRES WILL BE AT THE CONTRACTOR'S EXPENSE.
- 19.13.2. CONTRACTOR SHALL HAVE THE UTILITY COMPANY PROVIDE AN ON-SITE REPRESENTATIVE TO INSPECT THE EXCAVATION AND TEMPORARY SUPPORT OF THE EXISTING UTILITY WIRES TO ENSURE THEY CONCUR WITH THE METHOD USED FOR TEMPORARY SUPPORT.
- 19.13.3. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF WORK AS INDICATED AND MEETING ALL UTILITY REQUIREMENTS TO ENSURE A FINAL INSTALLATION THAT BENEFITS BOTH THE CITY AND THE UTILITY COMPANY.
- 20. WATER MAIN AND APPURTENANCES**
- 20.1. ALL WATER DISTRIBUTION MATERIALS SHALL MEET NSF / ANSI STANDARD 61 - DRINKING WATER SYSTEM COMPONENTS, HEALTH EFFECTS, NSF/ANSI 61, AND NSF/ANSI 372.
- 20.2. ALL VALVE OPERATION WILL BE DONE BY THE CITY WATER DEPARTMENT.
- 20.3. THE CITY OR ITS REPRESENTATIVE SHALL NOTIFY ALL CONSUMERS AFFECTED BY ANY INTERRUPTION OF WATER SERVICE AT LEAST 24 HOURS BEFORE THE INTERRUPTION OF WATER SERVICE.
- 20.3.1. CONSUMERS SHALL BE VERBALLY NOTIFIED WHEN POSSIBLE. IN THE EVENT A CONSUMER CANNOT BE VERBALLY NOTIFIED, A DOOR HANGER SHALL BE SECURED TO THE MOST FREQUENTLY USED ENTRANCE BY THE CITY OR ITS REPRESENTATIVE.
- 20.4. ALL WATERMAIN SHALL BE DIP CLASS 52 UNLESS OTHERWISE NOTED.
- 20.5. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE TUBE MATERIAL TO PROTECT THE PIPE FROM ANY FUTURE CORROSION.
- 20.5.1. THE POLY MATERIAL SHALL BE INSTALLED AS DETAILED IN THE SUPPLEMENTAL SPECIFICATIONS AND THE DUCTILE IRON HANDBOOK FROM DIPRA AND ANSI A21.5 (AWWA C105).
- 20.6. WATER MAIN DISINFECTION
- 20.6.1. AFTER DISINFECTION AND FINAL FLUSHING AND BEFORE THE NEW WATER MAIN IS CONNECTED TO THE DISTRIBUTION SYSTEM IN ACCORDANCE WITH AWWA GUIDELINES.
- 20.6.2. WHEN MINOR WATER MAIN WORK OCCURS (I.E. TIE-IN CONNECTIONS OF NEW WATER MAIN TO EXISTING WATER MAIN, WATER MAIN ADJUSTMENTS, INSTALLATION OF NEW VALVES ON EXISTING MAIN OR ANY OTHER WORK DEEMED

- 20.6.2.1. MINOR BY THE ENGINEER) THE EXISTING MAIN, PRIOR TO THE COMPLETION OF THE BACTERIA TESTING, MAY BE RETURNED TO SERVICE ONCE THE LINE HAS BEEN FLUSHED AND A BOIL ORDER HAS BEEN ISSUED.
- 20.6.3. THE BOIL ORDER WILL BE RESCINDED WITH THE PASSING OF THE BACTERIA TEST.
- 20.6.3. WATER FROM THE CITY'S WATER DISTRIBUTION SYSTEM THAT IS DRAINED INTO WORK AREAS OR OPEN TRENCHES MUST BE DISCHARGED WITHOUT IMPACT TO THE ENVIRONMENT.
- 20.6.3.1. THE CONTRACTOR SHALL REVIEW LOCATIONS OF DISCHARGE HYDRANTS RELATIVE TO OPEN AREAS AND SHALL MEET WITH PROPERTY OWNERS TO DISCUSS DISCHARGE LOCATIONS AND OBTAIN PROPERTY OWNER APPROVAL IF WATER WILL BE DISCHARGED ACROSS THEIR PRIVATE PROPERTY.
- 20.6.3.2. IF THE DISCHARGE LOCATION IS CLOSE TO WATERS OF THE STATE, DISCUSS EXCAVATION OF DEPRESSIONS OR BERMS (BMP'S) WITH THE CITY AND PROPERTY OWNER(S) TO ACCOMMODATE DISCHARGE VOLUMES. WATER FROM THE DISTRIBUTION SYSTEM SHALL BE PUMPED OR FLUSHED TO THESE BMP'S AND SHALL BE STORED AND DISCHARGED THROUGH INFILTRATION. OVERLAND FLOW IS NOT ALLOWED.
- 20.6.3.3. WATER THAT IS DISCHARGED DURING WATER MAIN FLUSHING SHALL NOT REACH A STREAM, RIVER OR WATER WAY IF THE CHLORINE RESIDUAL EXCEEDS 0.05 MG/L.
- 20.6.3.4. WATER FROM THE DISTRIBUTION SYSTEM MAY BE PUMPED INTO VACTOR TRUCKS OR SEPTIC TANK TRUCKS AND HAULED TO AN APPROVED PERMITTED FACILITY TO ACCEPT SUCH DISCHARGE.
- 20.6.3.5. PERMISSION MUST BE OBTAINED BY THE CITY FOR THE DISCHARGE OF WATER FROM THE DISTRIBUTION SYSTEM INTO CITY'S SANITARY SEWER SYSTEM.
- 20.7. CONTRACTOR IS RESPONSIBLE FOR VERIFYING HYDRAULIC LOADING ON EXISTING SANITARY SEWER SYSTEM DURING TRENCH DEWATERING OPERATIONS TO ENSURE THAT SEWER BACKUPS DO NOT OCCUR.



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

SYM DATE

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: CONSTRUCTION NOTES			
CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT	CHECKED BY: DDL	APPROVED BY: NZ
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR: GEN	SHEET NO: C005	
DATE: FEBRUARY 2023	ALT. PROJECT NO: ----		

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

SWPPP SUMMARY/OVERVIEW:

THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF NPDES PERMIT MN R100001, PART III, SUBPART A. THIS SWPPP INCLUDES A COMBINATION OF NARRATIVE AND PLAN SHEETS THAT DESCRIBE THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT PLAN FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR AMENDING THE SWPPP WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE WHICH HAS POTENTIAL FOR DISCHARGE OF POLLUTANTS TO WATERS OF THE STATE.

PROJECT INFORMATION:

LOCATION:	EDEN PRAIRIE, MINNESOTA
LATITUDE/LONGITUDE:	44°50'53.35"N, 93°27'46.07"W
PROJECT DESCRIPTION:	EDEN PRAIRIE WELL NO. 17
SOIL DISTURBING ACTIVITIES:	Excavation, grading, well drilling, utilities installation, erosion control and vegetation establishment

CONTACTS:

OWNER:	CITY OF EDEN PRAIRIE
CONTACT:	JOE DUSEK – WATER TREATMENT PLANT SUPERVISOR
ADDRESS:	8080 MITCHELL ROAD, EDEN PRAIRIE, MN 55344
PHONE:	952-294-5902
EMAIL:	jdusek@edenprairie.org

ENGINEER:	ADVANCED ENGINEERING AND ENVIRONMENTAL SERVICES, LLC. (AE2S)
CONTACT:	DAN LANDRUS
PHONE:	320-221-7728
EMAIL:	dan.landrus@ae2s.com
PROJECT NO.:	P02009-2021-003

GENERAL SWPPP RESPONSIBILITIES:

THE CONTRACTOR SHALL KEEP THE SWPPP, INCLUDING ALL AMENDMENTS AND INSPECTION AND MAINTENANCE RECORDS ON SITE DURING CONSTRUCTION.

THE SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. AMENDMENTS WILL BE APPROVED BY BOTH THE OWNER AND CONTRACTOR AND WILL BE ATTACHED OR OTHERWISE INCLUDED WITH THE SWPPP DOCUMENTS. THE SWPPP AMENDMENTS SHALL BE INITIATED, FACILITATED, AND PROCESSED BY THE CONTRACTOR. THE SWPPP AND AMENDMENTS SHALL BE KEPT ON SITE BY THE CONTRACTOR WHENEVER CONSTRUCTION ACTIVITY IS IN PROGRESS.

THE CONTRACTOR SHALL DOCUMENT AMENDMENTS TO THE SWPPP AS A RESULT OF INSPECTION(S) WITHIN 7 DAYS.

BOTH THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER TERMINATION AND/OR TRANSFER OF THE PERMIT.

KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY

THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPs WHO WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, INCLUDING: INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs. THE GENERAL CONTRACTOR SHALL ATTACH CONTACT INFORMATION TO THE SWPPP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

CONTRACTOR: _____
 CONTACT: _____
 PHONE: _____
 EMAIL: _____

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

TRAINING DOCUMENTATION:

PREPARER/DESIGNER OF SWPPP:	Laura Wehr
EMPLOYER:	AE2S
TRAINING AND DATE OBTAINED:	DESIGN OF CONSTRUCTION SWPPP (EXPIRES MAY 31, 2023)
NAME OF INSTRUCTOR(S):	JOHN CHAPMAN

THE CONTRACTOR (OPERATOR) SHALL ADD TO THE SWPPP TRAINING RECORDS FOR THE FOLLOWING PERSONNEL:

- INDIVIDUALS OVERSEEING THE IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP
- INDIVIDUALS PERFORMING INSPECTIONS
- INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs

TRAINING MUST RELATE TO THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES AND SHALL INCLUDE:

- 1) DATES OF TRAINING
- 2) NAME OF INSTRUCTORS
- 3) CONTENT AND HOURS OF TRAINING

THE CONTRACTOR SHALL ENSURE THAT THE INDIVIDUALS ARE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERIMETER CONTROL, PERMANENT STORMWATER MANAGEMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT.

PROJECT SUMMARY:

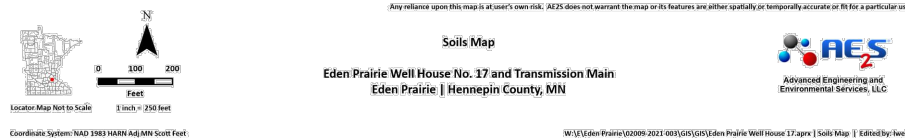
TOTAL PROJECT AREA:	1.2 AC
TOTAL DISTURBED AREA:	1.1 AC
PRE-CONSTRUCTION IMPERVIOUS AREA:	0.0 AC
POST-CONSTRUCTION IMPERVIOUS AREA:	0.08 AC
IMPERVIOUS AREA ADDED:	0.08 AC

THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE SWPPP:

- EXISTING CONDITIONS, TRAFFIC AND EROSION CONTROL PLAN SHEETS
- PLAN AND PROFILE SHEETS
- CONSTRUCTION DETAILS
- SWPPP NOTE PLAN SHEETS
- PROJECT SPECIFICATIONS
- PROJECT BID FORM

PERMANENT STORMWATER MANAGEMENT SYSTEM:

PERMANENT STORMWATER TREATMENT IS REQUIRED FOR PROJECTS DISTURBING GREATER THAN 1.0 ACRES PER CITY CODE AND RPBOWD RULES.



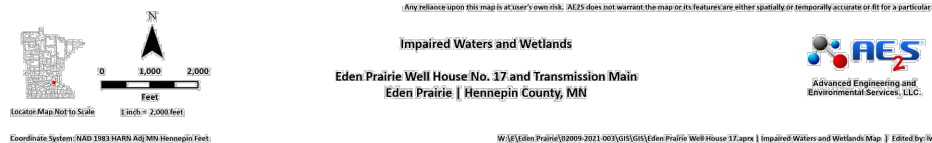
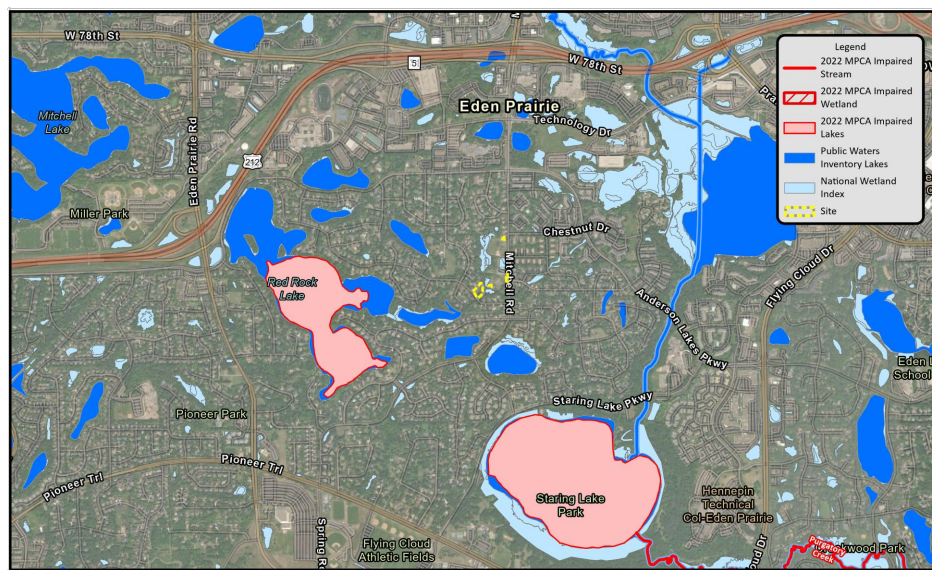
RECEIVING WATER(S) WITHIN ONE MILE FROM PROJECT BOUNDARIES:

(<http://pca-gis02.pca.state.mn.us/CSW/index.html>)

ID	NAME	TYPE	SPECIAL WATER CLASSIFICATION	TMDL
CITY ID: 16-44-A	Unnamed Wetland	Wetland	None	None
CITY ID: 21-11-C	Unnamed Wetland	Wetland	None	None
27007600	Red Rock Lake	Lake	Impaired Water (Hg-F)	Yes: Hg-F
27007700	McCoy Lake	Lake	None	None
27007800	Staring Lake	Lake	Impaired Water (Nutrients, Hg-F)	Yes: Nutrients

ADDITIONAL BMPs AND/OR ACTIONS REQUIRED: Permittees must immediately initiate stabilization of exposed soil areas and complete the stabilization within seven (7) calendar days after the construction activity in that portion of the site temporarily or permanently ceases.

DOES THE PROJECT DISCHARGE TO A CALCAREOUS FEN:	No
IS THE PROJECT LOCATED IN A KARST AREA:	No



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

APPR
DATE
SYM

WELL HOUSE NO. 17 & TRANSMISSION MAIN

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: SWPPP 1 OF 3	
CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT CHECKED BY: DDL APPROVED BY: NZ
PROJECT NO: 02009-2021-003 DATE: FEBRUARY 2023	SHEET DESIGNATOR: SHEET NO: GEN C006
ALT. PROJECT NO: ----	

TEMPORARY SEDIMENT BASINS:

THE CONTRACTOR MAY USE A TEMPORARY SEDIMENT BASIN DURING THE PROJECT.

TEMPORARY SEDIMENT BASIN OUTLETS SHALL BE CONSTRUCTED TO PREVENT SHORT-CIRCUITING AND PREVENT THE DISCHARGE OF FLOATING DEBRIS.

BASINS MUST HAVE THE ABILITY TO ALLOW COMPLETE DRAWDOWN, INCLUDE A STABILIZED EMERGENCY OVERFLOW, WITHDRAW WATER FROM THE SURFACE, AND PROVIDE ENERGY DISSIPATION AT THE OUTLET.

TEMPORARY SEDIMENT BASINS SHALL BE PROVIDED WITH ENERGY DISSIPATION AT ANY BASIN OUTLET TO PREVENT SOIL EROSION.

SEDIMENT BASINS MUST BE SITUATED OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONES, AND MUST BE DESIGNED TO AVOID THE DRAINING OF WATER FROM WETLANDS.

TEMPORARY SEDIMENT BASINS SHALL BE CONSTRUCTED AND MADE OPERATIONAL CONCURRENT OR PRIOR TO SOIL DISTURBANCE THAT IS UPGRADIENT AND CONTRIBUTES RUNOFF TO THE BASIN.

LONG TERM OPERATION AND MAINTENANCE:

THE CITY WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF ALL PERMANENT BMPS ON THE PROJECT.

EROSION PREVENTION BMP SUMMARY:

SEE EROSION AND SEDIMENT CONTROL PLAN SHEETS AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF EROSION PREVENTION BMPS.

SEDIMENT CONTROL BMP SUMMARY:

SEE EROSION CONTROL PLANS AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF SEDIMENT CONTROL BMPS.

EROSION PREVENTION MEASURES AND TIMING:

THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION MEASURES FOR THE PROJECT.

EROSION PREVENTION MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL EROSION PREVENTION MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL PLAN AND IMPLEMENT APPROPRIATE CONSTRUCTION PRACTICES AND CONSTRUCTION PHASING TO MINIMIZE EROSION AND RETAIN VEGETATION WHENEVER POSSIBLE.

THE CONTRACTOR SHALL DELINEATE AREAS NOT TO BE DISTURBED AND/OR TO BE PROTECTED WITH FLAGS, STAKES, SIGNS, SILT FENCE, OR OTHER MEANS NECESSARY TO PROTECT THESE AREAS BEFORE CONSTRUCTION BEGINS ON THE SITE.

THE CONTRACTOR SHALL STABILIZE OF ALL EXPOSED SOILS IMMEDIATELY TO LIMIT SOIL EROSION. IN NO CASE SHALL ANY EXPOSED AREAS, INCLUDING STOCK PILES, HAVE EXPOSED SOILS FOR MORE THAN 7 DAYS WITHOUT PROVIDING TEMPORARY OR PERMANENT STABILIZATION.

DRAINAGE PATHS, DITCHES, AND/OR SWALES SHALL HAVE TEMPORARY OR PERMANENT STABILIZATION WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THE DITCH/SWALE HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL IMPLEMENT STORMWATER CONVEYANCE CHANNELS WHEN APPROPRIATE TO ROUTE WATER AROUND UNSTABILIZED AREAS ON SITE TO REDUCE EROSION.

THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL BMPS AND VELOCITY DISSIPATION DEVICES ALONG CONSTRUCTED STORMWATER CONVEYANCE CHANNELS AND OUTLETS.

THE CONTRACTOR SHALL STABILIZE TEMPORARY AND/OR PERMANENT DRAINAGE DITCHES OR SWALES WITHIN 200 LINEAL FEET FROM PROPERTY EDGE, OR DISCHARGE POINT(S) WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.

TEMPORARY OR PERMANENT DITCHES OR SWALES USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

THE CONTRACTOR SHALL NOT UTILIZE HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILIAR EROSION PREVENTION PRACTICES AS A FORM OF STABILIZATION FOR TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES.

THE CONTRACTOR SHALL ENSURE PIPE OUTLETS HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

THE CONTRACTOR SHALL DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. VELOCITY DISSIPATION DEVICES MUST BE USED TO PREVENT EROSION WHEN DIRECTING STORMWATER TO VEGETATED AREAS.

SEDIMENT CONTROL MEASURES AND TIMING:

THE CONTRACTOR IS RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES FOR THE PROJECT.

SEDIMENT CONTROL MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL MEASURES ARE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

THE CONTRACTOR SHALL ENSURE THERE ARE NO UNBROKEN SLOPE LENGTH GREATER THAN 75 FEET ON SLOPES 3:1 OR STEEPER.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL PRACTICES REMOVED OR ADJUSTED FOR SHORT-TERM ACTIVITIES BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE REINSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

THE CONTRACTOR SHALL ENSURE STORM DRAIN INLETS AND CULVERT INLETS ARE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAS BEEN STABILIZED. INLET AND CULVERT PROTECTION SHALL CONFORM TO THE 2016 MNDOT SPECIFICATIONS 2573.

THE CONTRACTOR SHALL ENSURE STOCK PILES ARE PROVIDED WITH AN EFFECTIVE SEDIMENT PERIMETER CONTROL AND STOCK PILES SHALL NOT BE PLACED IN ANY TYPE OF SURFACE WATER OR NATURAL BUFFER.

THE CONTRACTOR SHALL INSTALL PERIMETER CONTROL AROUND ALL STAGING AREAS, BORROW PITS, AND AREAS CONSIDERED ENVIRONMENTALLY SENSITIVE.

THE CONTRACTOR SHALL ENSURE VEHICLE TRACKING BE MINIMIZED WITH EFFECTIVE BMPS. WHERE THE BMPS FAIL TO PREVENT SEDIMENT FROM TRACKING ONTO STREETS THE CONTRACTOR SHALL CONDUCT STREET SWEEPING TO REMOVE ALL TRACKED SEDIMENT.

THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PRACTICES TO MINIMIZE SOIL COMPACTION.

DEWATERING AND BASIN DRAINING ACTIVITIES:

THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL DEWATERING AND SURFACE DRAINAGE REGULATIONS. DISCHARGE DIRECTLY INTO A SURFACE WATER IS NOT ALLOWED WITHOUT PRETREATING PRIOR TO DISCHARGE.

WATER FROM DEWATERING ACTIVITIES SHALL DISCHARGE TO A TEMPORARY AND/OR PERMANENT SEDIMENT BASIN.

IF WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN, IT SHALL BE TREATED WITH OTHER APPROPRIATE BMPS, TO EFFECTIVELY REMOVE SEDIMENT.

DISCHARGE THAT CONTAINS OIL OR GREASE MUST BE TREATED WITH AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE PRIOR TO DISCHARGE.

DISCHARGE POINTS SHALL BE PROTECTED FROM EROSION AND SCOUR.

DISCHARGE WATER SHALL BE DISPERSED OVER AN ACCEPTED ENERGY DISSIPATION MEASURE.

WATER FROM DEWATERING SHALL BE DISCHARGED IN A MANNER THAN DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS.

INSPECTION AND MAINTENANCE:

ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL OF BMPS IS TO BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.

THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING SITE INSPECTIONS, AND BMP MAINTENANCE TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.

THE CONTRACTOR SHALL INSPECT THE CONSTRUCTION SITE ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE CONTRACTOR SHALL DOCUMENT A WRITTEN SUMMARY OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES CONDUCTED WITHIN 24 HOURS OF OCCURRENCE. RECORDS OF EACH ACTIVITY SHALL INCLUDE THE FOLLOWING:

- DATE AND TIME OF INSPECTIONS;
- NAME OF PERSON(S) CONDUCTING INSPECTION;
- FINDINGS AND RECOMMENDATIONS FOR CORRECTIVE ACTIONS IF NECESSARY;
- CORRECTIVE ACTIONS TAKEN;
- DATE AND AMOUNT OF RAINFALL EVENTS;
- POINTS OF DISCHARGE OBSERVED DURING INSPECTION AND DESCRIPTION OF THE DISCHARGE
- AMENDMENTS MADE TO THE SWPPP.

THE CONTRACTOR SHALL SUBMIT A COPY OF THE WRITTEN INSPECTIONS TO THE ENGINEER AND OWNER ON A MONTHLY BASIS. IF MONTHLY INSPECTION REPORTS ARE NOT SUBMITTED, MONTHLY PAYMENTS MAY BE HELD.

THE CONTRACTOR SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ONSITE. THE CONTRACTOR SHALL DESIGNATE A SPECIFIC ONSITE LOCATION TO KEEP THE RECORDS

THE CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY BMPS, AS WELL AS EROSION AND SEDIMENT CONTROL BMP'S.

THE CONTRACTOR SHALL INSPECT EROSION PREVENTION AND SEDIMENTATION CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPS SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS OF FINDING. THE CONTRACTOR SHALL INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:

PERIMETER CONTROL DEVICES, INCLUDING SILT FENCE SHALL BE REPAIRED, OR REPLACED, WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE DEVICE HEIGHT. THESE REPAIRS SHALL BE MADE WITHIN 24 HOURS OF DISCOVERY.

TEMPORARY AND PERMANENT SEDIMENT BASINS SHALL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.

SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE CONTRACTOR SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGEWAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. THE CONTRACTOR SHALL RE-STABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY, UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL CONSTRAINTS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND OBTAIN ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED DAILY FOR EVIDENCE OF SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:

TYPED NAME: DANIEL LANDRUS

FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

APPR
DATE
SYM

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: SWPPP 2 OF 3	
CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT CHECKED BY: DDL APPROVED BY: NZ
PROJECT NO: 02009-2021-003 DATE: FEBRUARY 2023	SHEET DESIGNATOR: GEN
SHEET NO: C007	ALT. PROJECT NO: ---

File: W:\Eden Prairie\0209-2021-003\03-DWG\DWG1-Civil\Plan Sheet\CSWPPP.dwg
 Plotted By: Dan Landrus Date: Wednesday, February 15, 2023

POLLUTION PREVENTION MANAGEMENT MEASURES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES.

ALL POLLUTION PREVENTION MEASURES ARE CONSIDERED INCIDENTAL TO THE MOBILIZATION BID ITEM, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR INFORMING ALL VISITORS AND/OR PERSONNEL ON-SITE OF THE POLLUTION PREVENTION MANAGEMENT MEASURES. POLLUTION PREVENTION MANAGEMENT MEASURES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL, IN COMPLIANCE WITH MPCA DISPOSAL REQUIREMENTS, OF ALL HAZARDOUS MATERIALS, SOLID WASTE, AND PRODUCTS ON-SITE.

THE CONTRACTOR SHALL ENSURE BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS ARE KEPT UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS ARE COVERED TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE HAZARDOUS MATERIALS AND TOXIC WASTE IS PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.

THE CONTRACTOR SHALL ENSURE ASPHALT SUBSTANCES USED ON-SITE SHALL ARE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

THE CONTRACTOR SHALL ENSURE PAINT CONTAINERS AND CURING COMPOUNDS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT AND/OR CURING COMPOUNDS SHALL NOT BE DISCHARGED INTO THE STORM SEWER SYSTEM AND SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURE'S INSTRUCTION.

THE CONTRACTOR SHALL ENSURE SOLID WASTE BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH. 7035.

THE CONTRACTOR SHALL ENSURE PORTABLE TOILETS ARE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R. CH. 7041.

THE CONTRACTOR SHALL MONITOR ALL VEHICLES ON-SITE FOR LEAKS AND RECEIVE REGULAR PREVENTION MAINTENANCE TO REDUCE THE CHANCE OF LEEKAGE.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES AND ENGINE DEGREASING ARE PROHIBITED AT THE CONSTRUCTION SITE.

THE CONTRACTOR SHALL ENSURE WASHOUT WASTE MUST CONTACT THE GROUND AND BE PROPERLY DISPOSED OF IN COMPLIANCE WITH MPCA RULES.

THE CONTRACTOR SHALL INCLUDE SPILL KITS WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES. SECONDARY CONTAINMENT MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ENSURE SPILLS ARE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM WATER CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1.800.422.0798.

FINAL STABILIZATION:

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING FINAL STABILIZATION OF THE ENTIRE SITE. FINAL STABILIZATION INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED.

ALL EXPOSED SOILS HAVE BEEN UNIFORMLY STABILIZED WITH AT LEAST 70% VEGETATION COVERAGE.

ALL DRAINAGE DITCHES, BASINS, AND ALL STORM WATER CONVEYANCE SYSTEMS HAVE BEEN CLEARED OF SEDIMENT AND STABILIZED WITH PERMANENT COVER.

ALL TEMPORARY BMPS HAVE BEEN REMOVED AND PROPERLY DISPOSED OF.

FINAL STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH MNDOT 2020 SPECIFICATION 2575



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SIGNATURE:

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

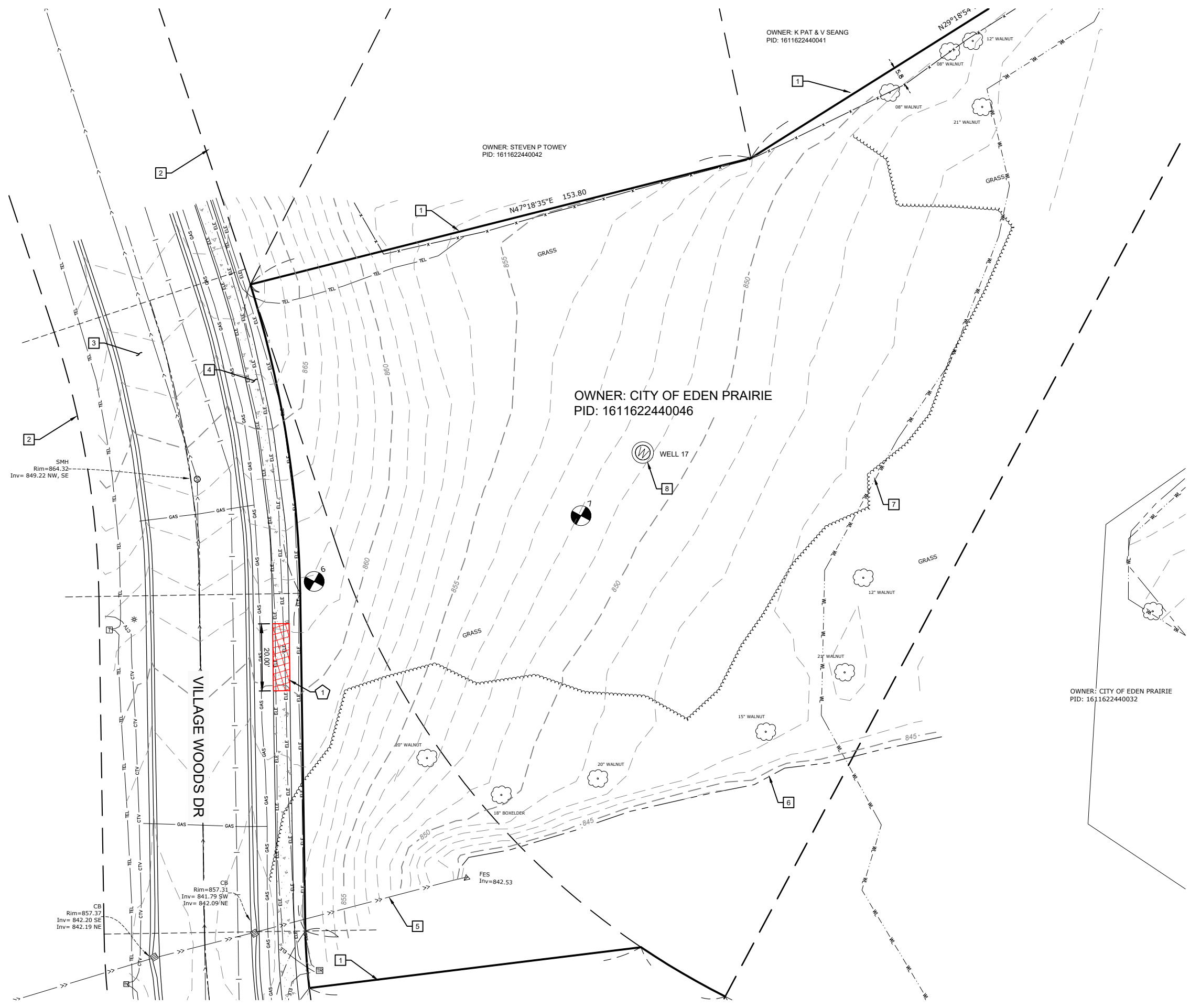
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SYM

WELL HOUSE NO. 17 & TRANSMISSION MAIN
 Advanced Engineering and Environmental Services, LLC www.ae2s.com

PROJECT TITLE:

SHEET TITLE: SWPPP 3 OF 3

CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT
	CHECKED BY: DDL
	APPROVED BY: NZ
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR: SHEET NO:
DATE: FEBRUARY 2023	GEN C008
ALT. PROJECT NO: ---	



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SIGNATURE: *[Signature]*

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263



- EXISTING NOTES**
- 1 PROPERTY BOUNDARY
 - 2 STREET RIGHT OF WAY
 - 3 BITUMINOUS STREET
 - 4 CONCRETE WALK
 - 5 STORM SEWER
 - 6 EDGE OF WATER - 100 YR HWL = 844.23
 - 7 WETLAND BOUNDARY
 - 8 EXISTING WELL 17

- DEMOLITION NOTES**
- 1 REMOVE SIDEWALK (FULL DEPTH)

STATUS: CONSTRUCTION

SYM	DATE	APPR

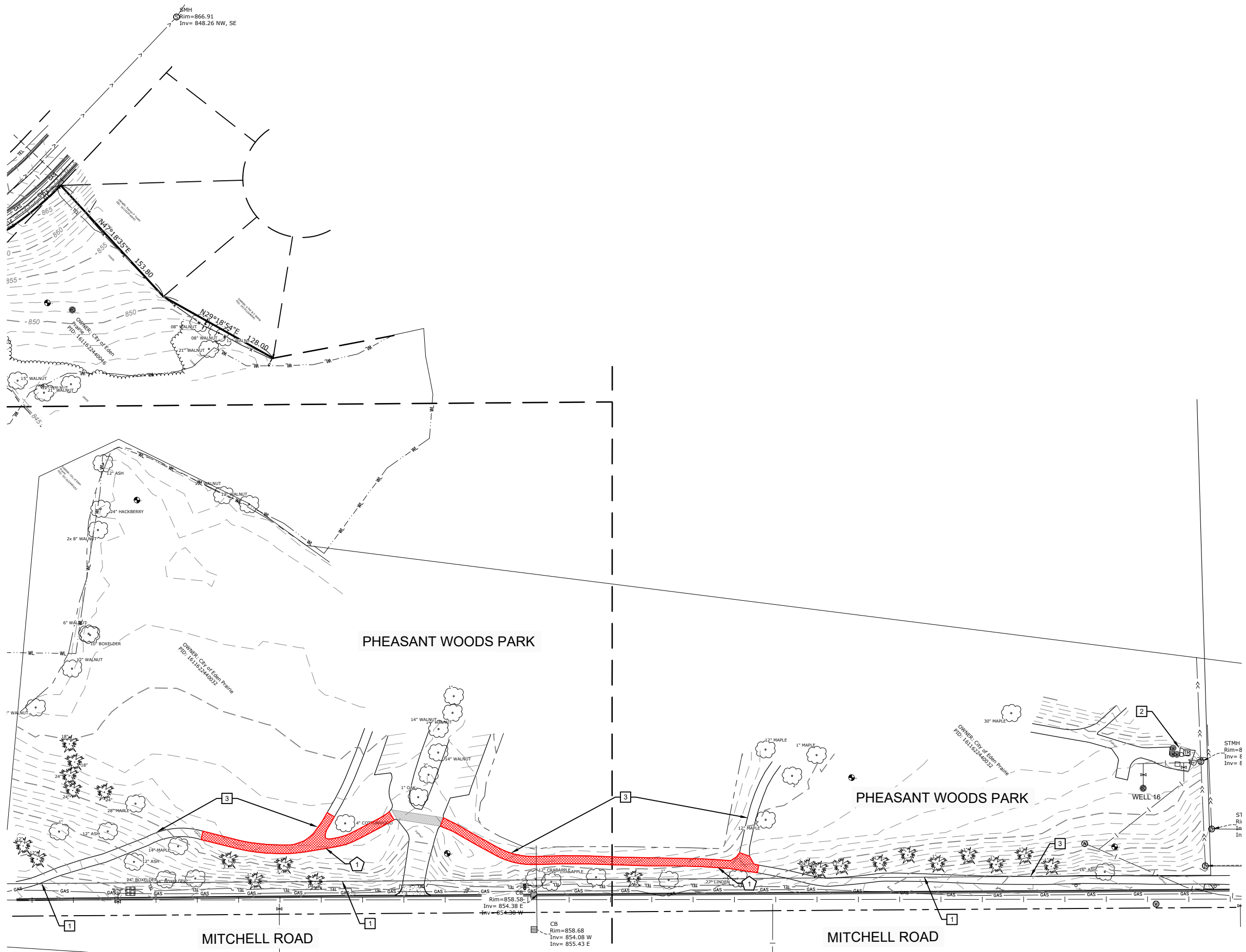
PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN

SHEET TITLE: EX. CONDITIONS & DEMOLITION - WELL SITE

CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT
PROJECT NO: 02009-2021-003	CHECKED BY: DDL
DATE: FEBRUARY 2023	APPROVED BY: NZ
ALT. PROJECT NO: ---	SHEET DESIGNATOR: PS
	SHEET NO: C100

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Plotted By: Dan Landrus Date: Wednesday, February 15, 2023

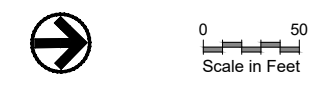


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TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263



- EXISTING NOTES**
- 1 PROPERTY BOUNDARY
 - 2 EXISTING WELL 16
 - 3 EXISTING BITUMINOUS PATH

- DEMOLITION NOTES**
- 1 REMOVE BITUMINOUS PATH (PAVEMENT ONLY) AFTER UTILITY INSTALLATION IS COMPLETE. FINAL LIMITS OF REMOVAL WILL BE DETERMINED IN THE FIELD BY ENGINEER.

STATUS: CONSTRUCTION

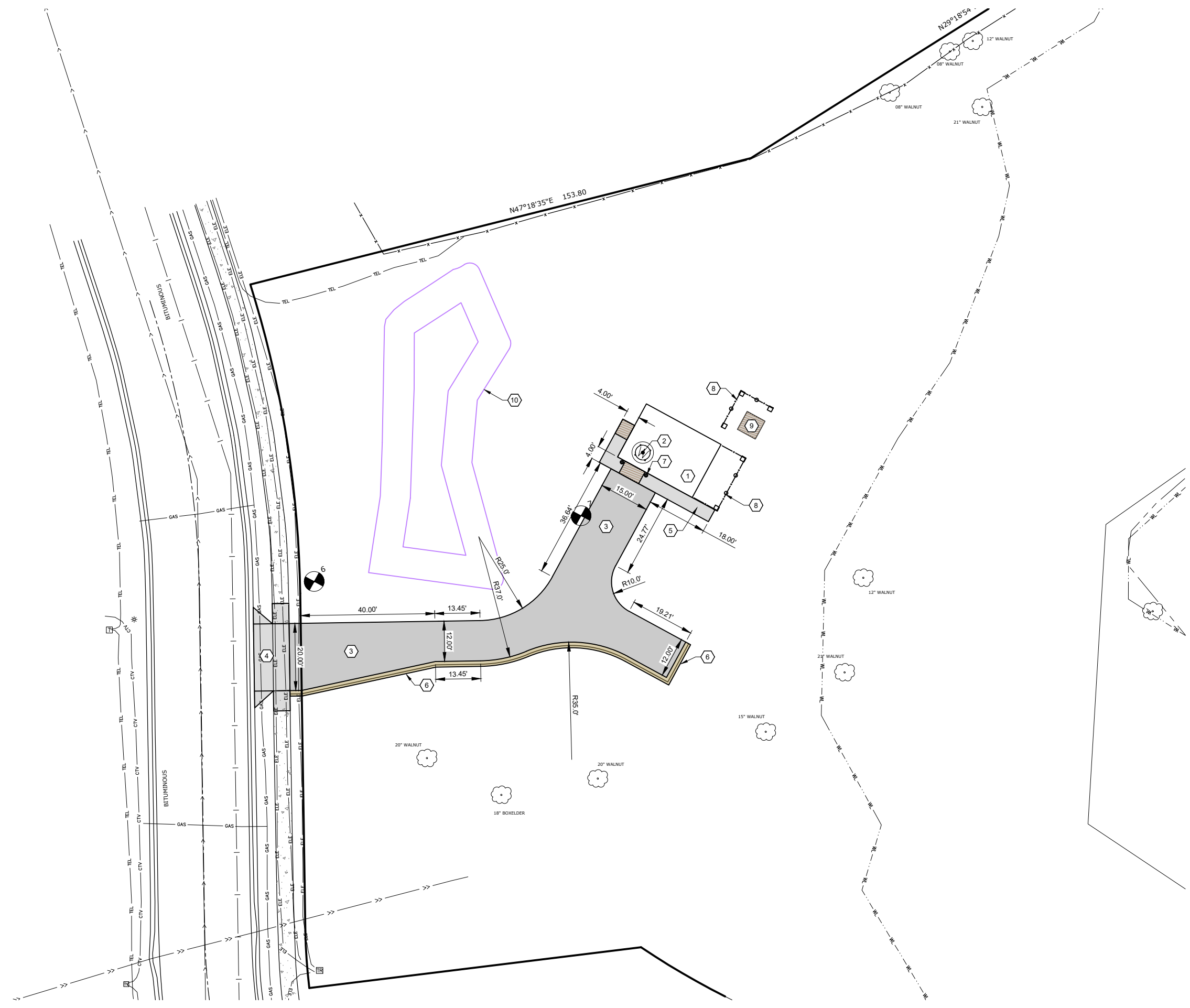
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SYM	
DATE	

SHEET TITLE: EX. CONDITIONS & DEMOLITION - TRANSMISSION MAIN

CLIENT: CITY OF EDEN PRAIRIE
 EDEN PRAIRIE, MINNESOTA

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: PS SHEET NO: C101
 DATE: FEBRUARY 2023
 ALT. PROJECT NO: ---

WELL HOUSE NO. 17 & TRANSMISSION MAIN
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 FEBRUARY 16, 2023 REG. NO. 54263



CONSTRUCTION NOTES

- 1 WELL HOUSE BUILDING (SEE ARCHITECTURAL AND STRUCTURAL PLANS)
- 2 WELL 17 PROCESS PIPING (SEE PROCESS PLAN)
- 3 BITUMINOUS DRIVEWAY. SEE DETAIL 2/C502
- 4 CONCRETE DRIVEWAY APRON. SEE DETAIL R-7
- 5 CONCRETE SIDEWALK. SEE DETAIL R-16
- 6 B612 CURB & GUTTER. SEE DETAIL R-9
- 7 BOLLARD (SEE ARCHITECTURAL PLAN)
- 8 FENCE AND SUPPORT COLUMNS (SEE ARCHITECTURAL AND STRUCTURAL PLANS)
- 9 CONCRETE PAD FOR TRANSFORMER (SEE ELECTRICAL PLAN)
- 10 STORMWATER INFILTRATION BASIN

STATUS: CONSTRUCTION

APPR	
DATE	
SYM	

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN

SHEET TITLE: WELL SITE PLAN

CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT
	CHECKED BY: DDL
	APPROVED BY: NZ
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR: PS
DATE: FEBRUARY 2023	SHEET NO: C106
ALT. PROJECT NO: ---	

EARTHWORK SUMMARY

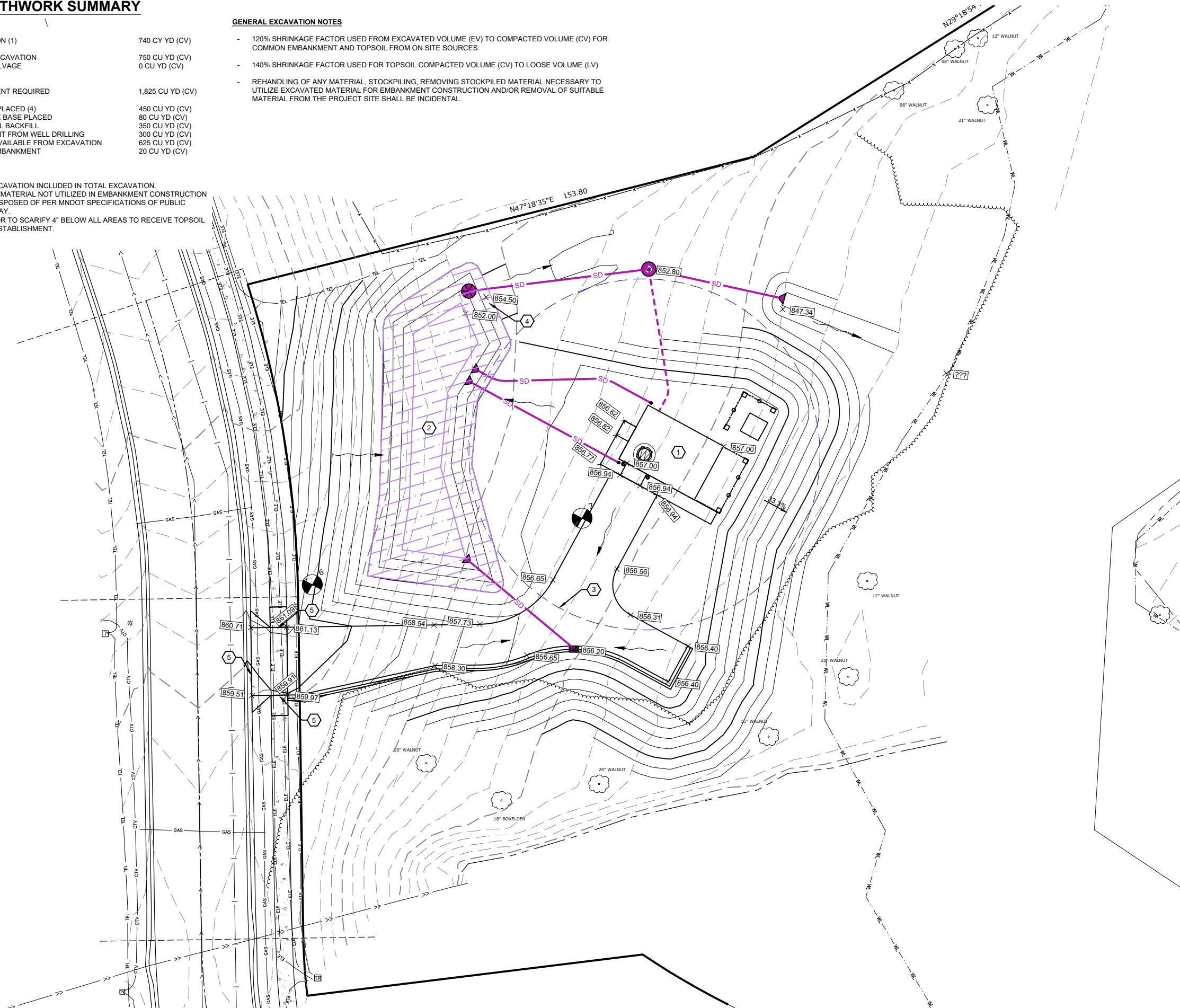
EXCAVATION	
TOTAL EXCAVATION (1)	740 CU YD (CV)
A) COMMON EXCAVATION	750 CU YD (CV)
B) TOPSOIL SALVAGE	0 CU YD (CV)
EMBANKMENT	
TOTAL EMBANKMENT REQUIRED	1,825 CU YD (CV)
A) 6" TOPSOIL PLACED (4)	450 CU YD (CV)
B) AGGREGATE BASE PLACED	80 CU YD (CV)
C) STRUCTURAL BACKFILL	350 CU YD (CV)
D) EMBANKMENT FROM WELL DRILLING	300 CU YD (CV)
E) MATERIAL AVAILABLE FROM EXCAVATION	625 CU YD (CV)
F) COMMON EMBANKMENT	20 CU YD (CV)

GENERAL EXCAVATION NOTES

- 120% SHRINKAGE FACTOR USED FROM EXCAVATED VOLUME (EV) TO COMPACTED VOLUME (CV) FOR COMMON EMBANKMENT AND TOPSOIL FROM ON SITE SOURCES.
- 140% SHRINKAGE FACTOR USED FOR TOPSOIL COMPACTED VOLUME (CV) TO LOOSE VOLUME (LV)
- REHANDLING OF ANY MATERIAL, STOCKPILING, REMOVING STOCKPILED MATERIAL NECESSARY TO UTILIZE EXCAVATED MATERIAL FOR EMBANKMENT CONSTRUCTION AND/OR REMOVAL OF SUITABLE MATERIAL FROM THE PROJECT SITE SHALL BE INCIDENTAL.

NOTES

- (1) TOPSOIL EXCAVATION INCLUDED IN TOTAL EXCAVATION.
- (2) EXCAVATED MATERIAL NOT UTILIZED IN EMBANKMENT CONSTRUCTION SHALL BE DISPOSED OF PER MNDOT SPECIFICATIONS OF PUBLIC RIGHT-OF-WAY.
- (3) CONTRACTOR TO SCARIFY 4" BELOW ALL AREAS TO RECEIVE TOPSOIL FOR TURF ESTABLISHMENT.



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GENERAL NOTES

1. INFILTRATION FACILITIES MUST NOT BE EXCAVATED TO WITHIN 3 FEET FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED. ANY ACCUMULATED SEDIMENT IN AN INFILTRATION FACILITY MUST BE REMOVED IN MANNER THAT PREVENTS COMPACTION OF THE FACILITY BOTTOM. IF INFILTRATION FACILITIES ARE IN PLACE DURING CONSTRUCTION ACTIVITIES, BEST PRACTICES MUST BE DEPLOYED TO PREVENT SEDIMENT AND OTHER MATERIAL FROM ENTERING THE PRACTICE. HEAVY EQUIPMENT, STOCKPILING OF MATERIALS, AND TRAFFIC MUST BE KEPT CLEAR OF INFILTRATION BASIN BOTTOM TO PREVENT SOIL COMPACTION WHEN POND GRADE IS EXCAVATED TO WITHIN 3 FEET OF FINAL BOTTOM GRADE.

- ### LEGEND
- [Hatched Box] AREA TO BE PROTECTED FROM COMPACTION. SEE NOTE 1 ABOVE.
 - [Arrow] FLOW ARROW

CONSTRUCTION NOTES

- 1 WELLHOUSE BUILDING: GUTTERS AND DOWNSPOUTS WILL DIRECT STORMWATER TO BASIN.
- 2 INFILTRATION BASIN: CITY ID# 16-44-B
TOP = 855.0; BOTTOM = 852.0; 100 YR HWL = 853.9
- 3 WELL ISOLATION DISTANCE: 50' RADIUS MEASURED FROM OUTSIDE OF WELL CASING.
- 4 INFILTRATION BASIN EOF = 854.5
- 5 MATCH EXISTING ELEVATIONS

STATUS: CONSTRUCTION

SYM DATE

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN

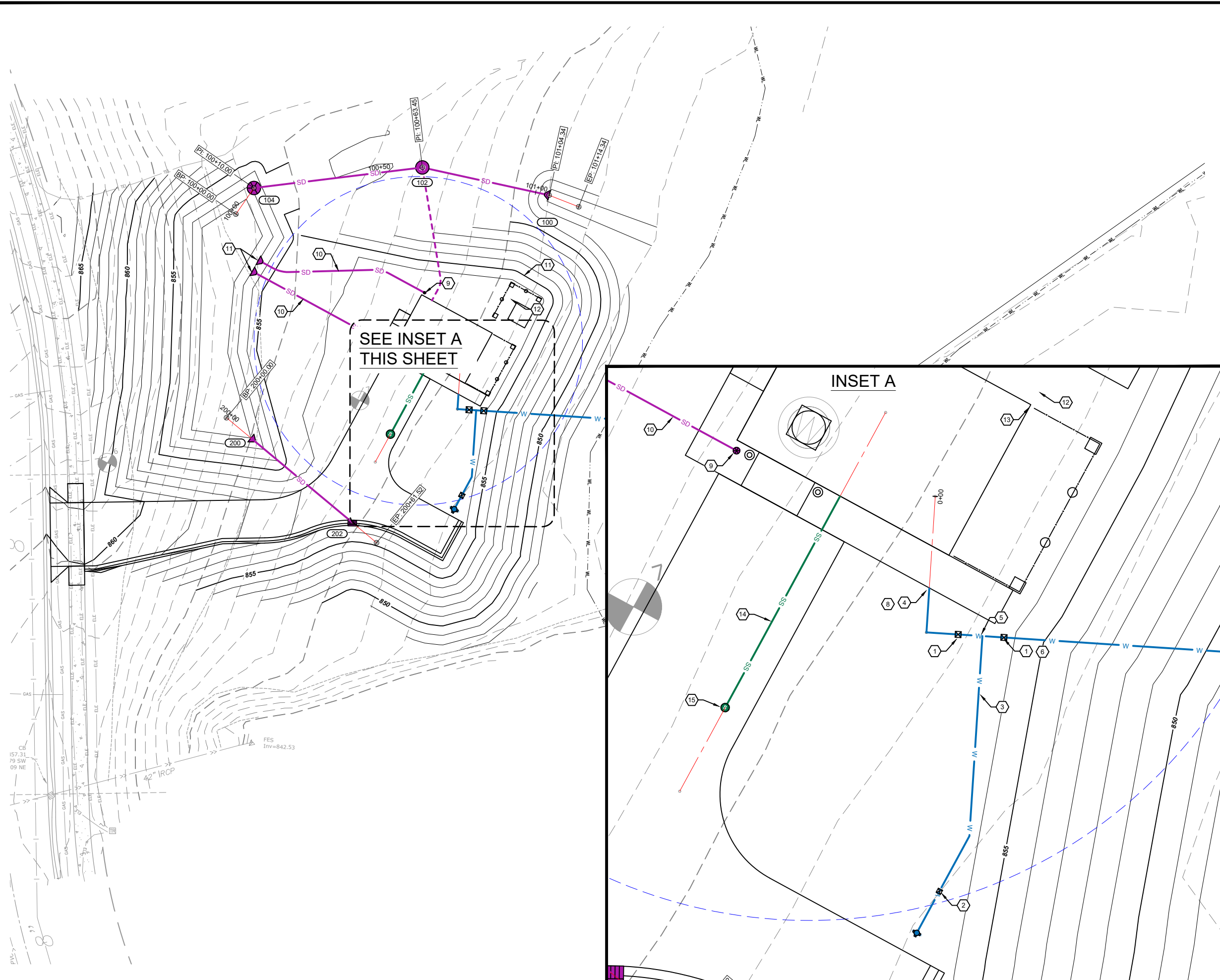
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: WELL SITE GRADING

CLIENT: CITY OF EDEN PRAIRIE
 EDEN PRAIRIE, MINNESOTA

PREPARED BY: CGT
 CHECKED BY: DDL
 APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: SHEET NO:
 DATE: FEBRUARY 2023 PS C107
 ALT. PROJECT NO: ---



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 FEBRUARY 16, 2023 REG. NO. 54263



0 15
 Scale in Feet

STATUS: CONSTRUCTION

GENERAL NOTES

- SEE STORM AND SEEPAGE PIT PIPE PROFILES ON SHEET C200
- SEE WATER MAIN PLAN AND PROFILES SHEETS ON C201 - C204

CONSTRUCTION NOTES

- 1 12" GATE VALVE (MJ)
- 2 6" GATE VALVE (MJ)
- 3 6" DUCTILE IRON PIPE
- 4 12" DUCTILE IRON PIPE
- 5 12" X 6" TEE MJ X MJ
- 6 MJ ADAPTOR TO TRANSITION TO 12" DI PIPE
- 7 12" 90° DI BEND (MJ)
- 8 CONNECT TO PROCESS PIPING
- 9 NDS 9" CATCH BASIN OR APPROVED EQUAL
- 10 6" HDPE STORM DRAIN. MIN 18" COVER OVER PIPE.
- 11 CONCRETE HEADWALL
- 12 4" DRAIN TILE
- 13 CONNECT TO FOUNDATION DRAIN TILE
- 14 4" PVC PIPE. INSULATE PIPES WITH LESS THAN 7.5" COVER.
- 15 48" DIA MANHOLE - SEEPAGE PIT

SITE UTILITIES

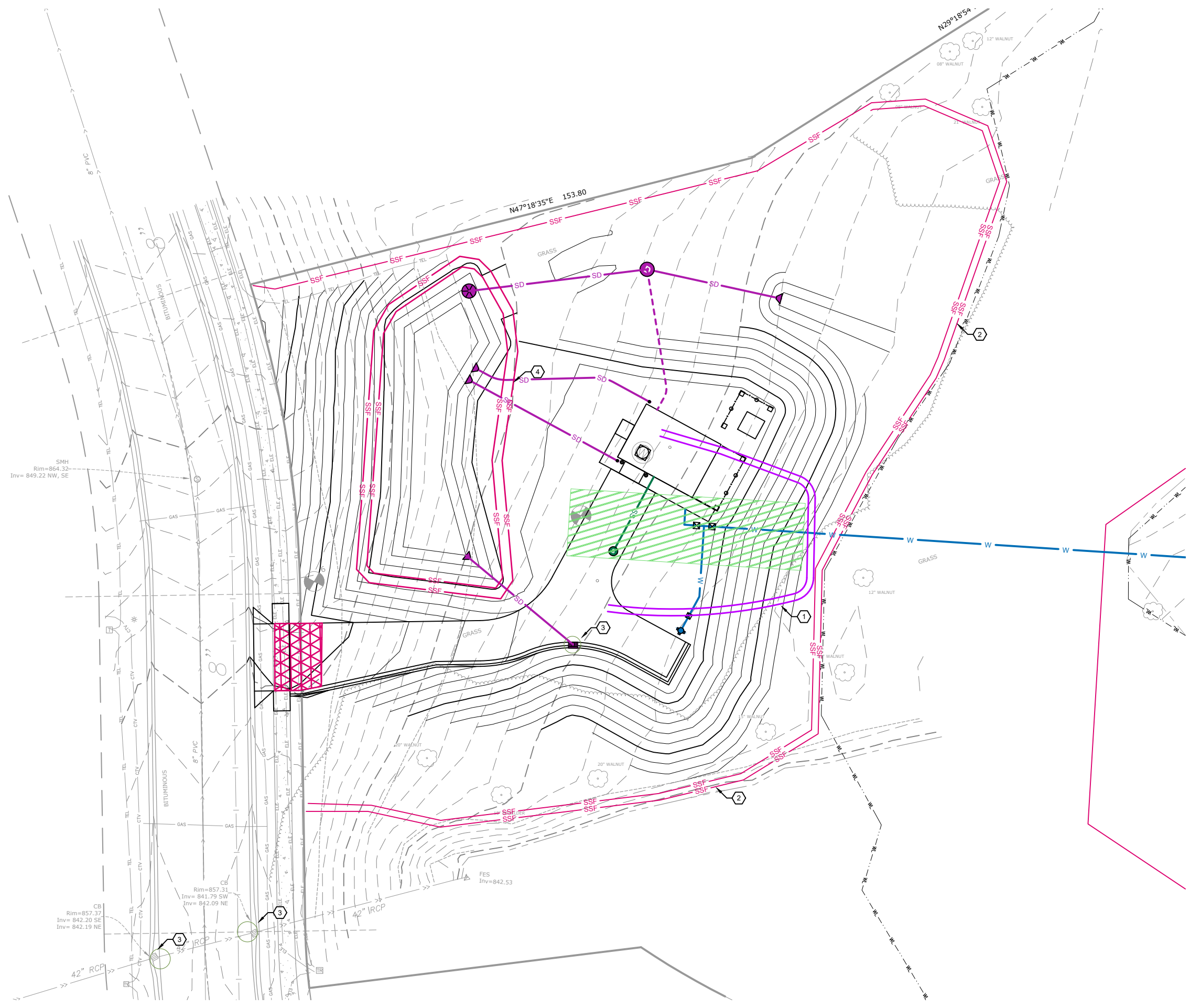
CLIENT: CITY OF EDEN PRAIRIE
 EDEN PRAIRIE, MINNESOTA

PREPARED BY: CGT
 CHECKED BY: DDL
 APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: PS SHEET NO: C108
 DATE: FEBRUARY 2023
 ALT. PROJECT NO: ---

WELL HOUSE NO. 17 & TRANSMISSION MAIN

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SIGNATURE: *[Signature]*

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263



LEGEND
 [Green Hatched Box] ASSUMED DRILL RIG FOOTPRINT

- CONSTRUCTION NOTES**
- 1 PROVIDE TWO ROWS OF SEDIMENT CONTROL LOGS DURING DIRECTIONAL DRILLING OPERATIONS TO CONTAIN DRILLING FLUID
 - 2 PROVIDE TWO ROWS OF SILT FENCING ALONG WORK AREA BOUNDARY ADJACENT TO WETLAND
 - 3 INLET PROTECTION SHALL BE IN PLACE UNTIL SITE IS STABILIZED AND TURF IS ESTABLISHED
 - 4 PROVIDE TWO ROWS OF SILT FENCING BELOW BASIN BERM UNTIL SITE IS STABILIZED AND TURF IS ESTABLISHED
 - 5 HDD PIT FOOTPRINT

- EROSION CONTROL NOTES**
1. ALL DISTURBED AREAS SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF TOPSOIL. SOIL MUST CONTAIN A MINIMUM OF 5% ORGANIC CONTENT.
 2. ALL TOPSOIL AREAS SHALL BE DECOMPACTED TO ACHIEVE A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF THE SOIL PROFILE WHILE TAKING CARE TO PROTECT UTILITIES, TREE ROOTS, AND OTHER EXISTING VEGETATION. (INCIDENTAL TO TOPSOIL PLACEMENT).
 3. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION SHALL ACHIEVE A BULK DENSITY OF LESS THAN 1.4 GRAMS PER CUBIC CENTIMETER OR 87 POUNDS PER CUBIC FOOT IN THE UPPER 12 INCHES OF SOIL
 4. CONTRACTOR SHALL INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE. THEREAFTER, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE CONTRACTOR MUST MAINTAIN A LOG OF INSPECTION ACTIVITIES IN ACCORDANCE WITH THE WATERSHED DISTRICT PERMITTING REQUIREMENTS.
 5. CONTRACTOR SHALL REMOVE ALL EROSION AND SEDIMENT CONTROL FACILITIES ONCE FINAL STABILIZATION HAS BEEN ACHIEVED.
 6. ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.

SHEET TITLE: **EROSION CONTROL PLAN - WELL SITE**

CLIENT: **CITY OF EDEN PRAIRIE**
 EDEN PRAIRIE, MINNESOTA

PREPARED BY: CGT
 CHECKED BY: DDL
 APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: SHEET NO:
 DATE: FEBRUARY 2023 **PS C109**
 ALT. PROJECT NO: ---

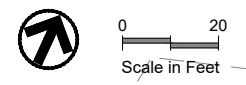
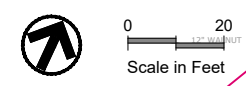
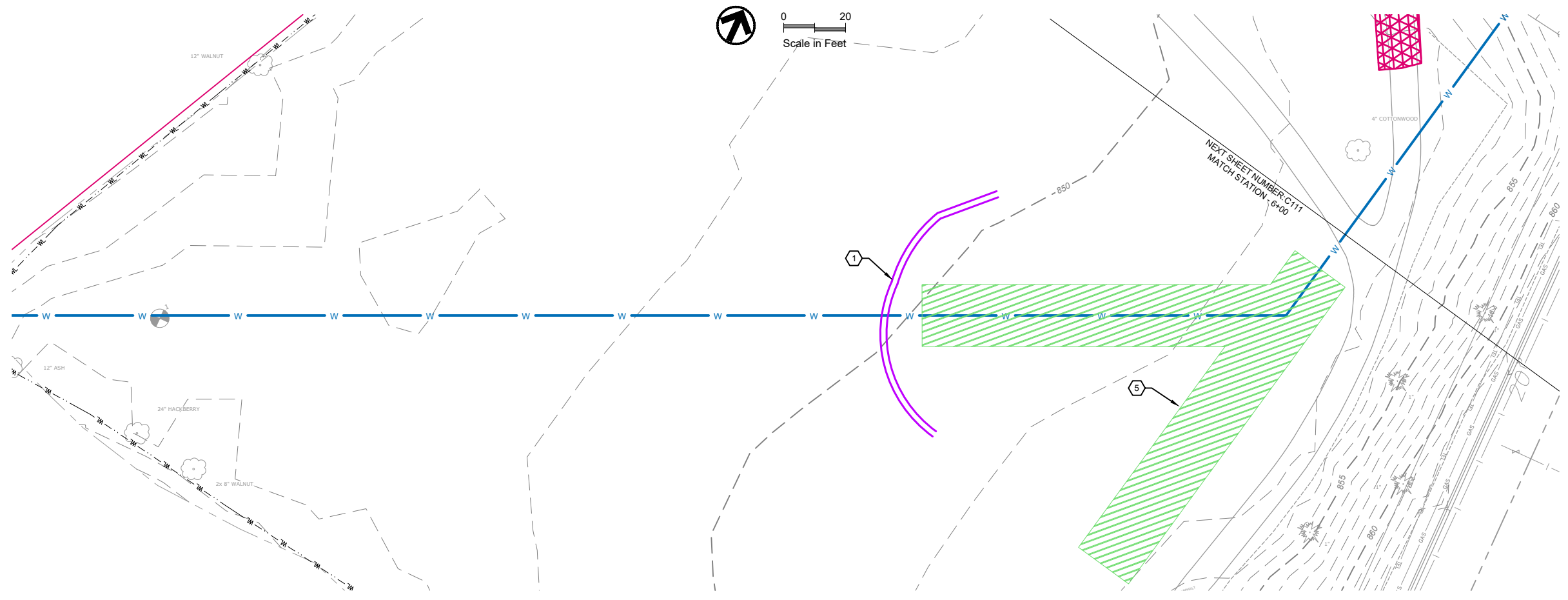
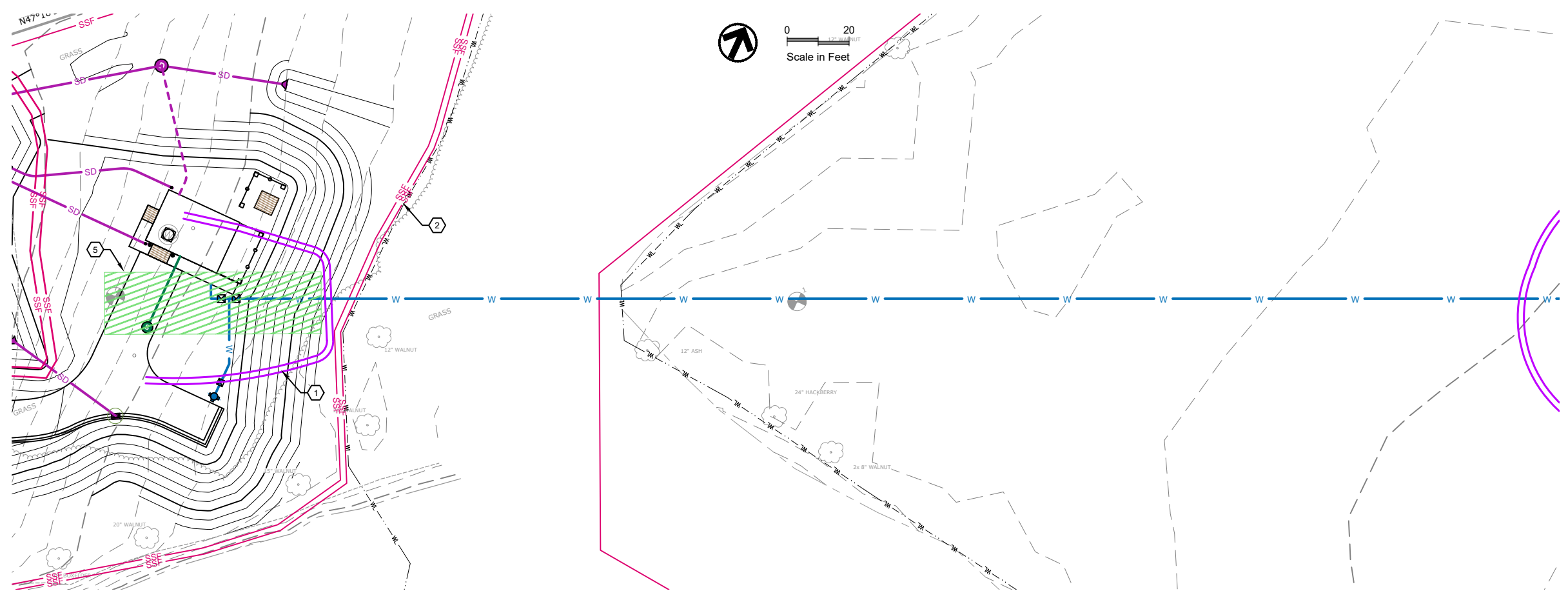
STATUS: **CONSTRUCTION**

SYM DATE

PROJECT TITLE: **WELL HOUSE NO. 17 & TRANSMISSION MAIN**

PROJECT TITLE:

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SIGNATURE: *[Signature]*

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

SYM DATE

LEGEND

ASSUMED DRILL RIG FOOTPRINT

CONSTRUCTION NOTES

- 1 PROVIDE TWO ROWS OF SEDIMENT CONTROL LOGS DURING DIRECTIONAL DRILLING OPERATIONS TO CONTAIN DRILLING FLUID
- 2 PROVIDE TWO ROWS OF SILT FENCING ALONG WORK AREA BOUNDARY ADJACENT TO WETLAND
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- 4 PROVIDE TWO ROWS OF SILT FENCING BELOW BASIN BERM UNTIL SITE IS STABILIZED AND TURF IS ESTABLISHED
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EROSION CONTROL NOTES

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- 2. ALL TOPSOIL AREAS SHALL BE DECOMPACTED TO ACHIEVE A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF THE SOIL PROFILE WHILE TAKING CARE TO PROTECT UTILITIES, TREE ROOTS, AND OTHER EXISTING VEGETATION. (INCIDENTAL TO TOPSOIL PLACEMENT).
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EROSION CONTROL PLAN - TRANSMISSION MAIN 0+00 - 6+00

CLIENT: CITY OF EDEN PRAIRIE
 EDEN PRAIRIE, MINNESOTA

PREPARED BY: CGT
 CHECKED BY: DDL
 APPROVED BY: NZ

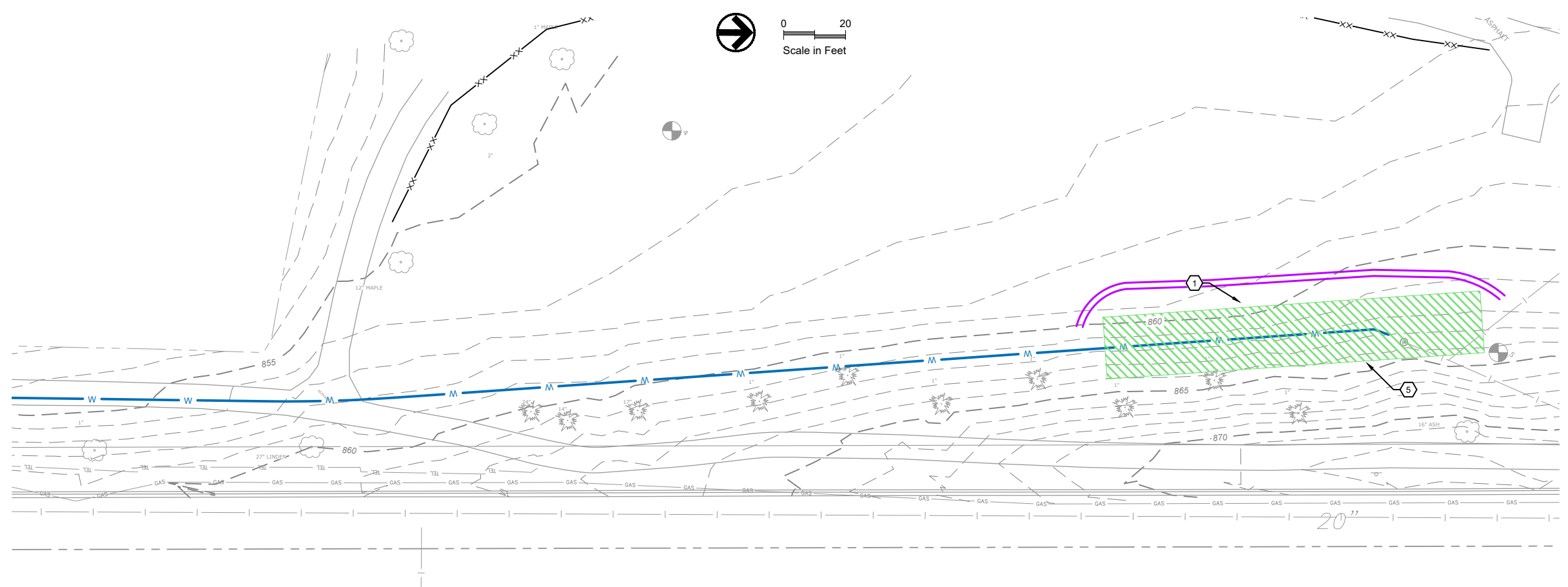
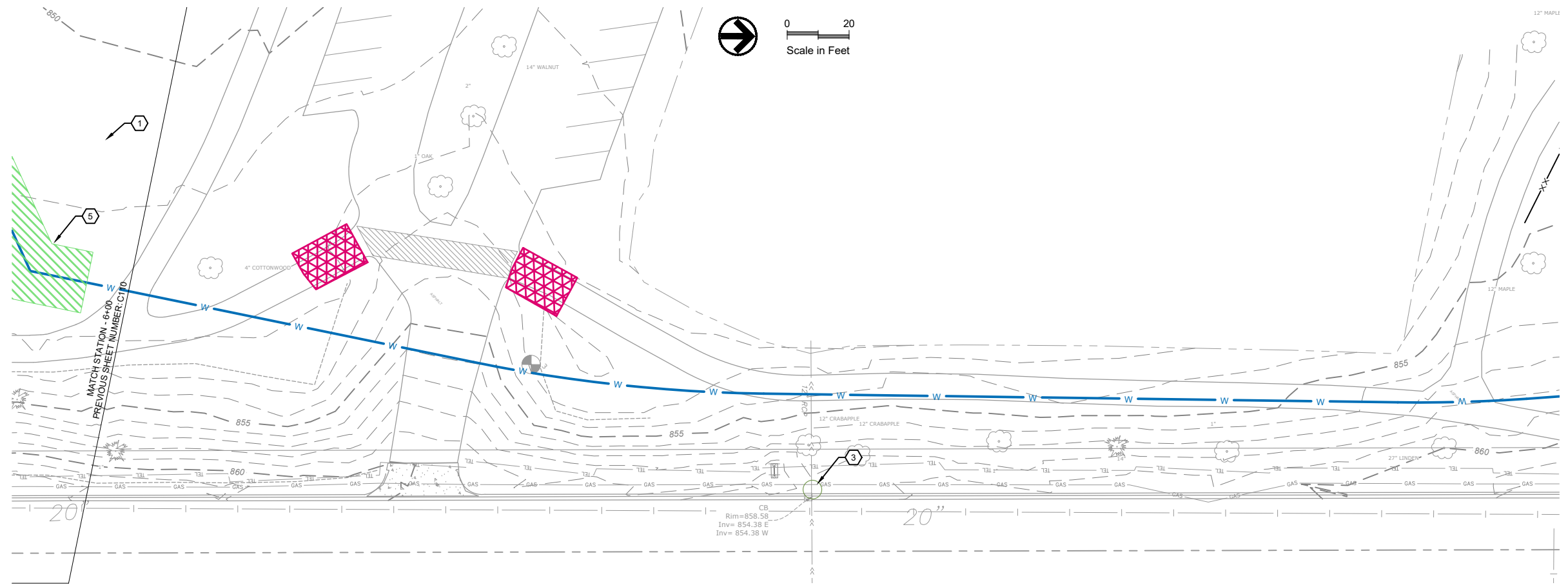
PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: SHEET NO:
 DATE: FEBRUARY 2023 **PS C110**
 ALT. PROJECT NO: ---

WELL HOUSE NO. 17 & TRANSMISSION MAIN
 Advanced Engineering and Environmental Services, LLC www.ae2s.com

PROJECT TITLE:

File: W:\Eden Prairie\0209-2021-003\CAD\Drawings\Sheet\IC-EROSION CONTROL.dwg

Plotted By: Dan Landrus Date: Wednesday, February 15, 2023



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SIGNATURE: *[Signature]*

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

SYM DATE

LEGEND

ASSUMED DRILL RIG FOOTPRINT

CONSTRUCTION NOTES

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SHEET TITLE: EROSION CONTROL PLAN - TRANSMISSION MAIN 6+00 - 14+00

CLIENT:	CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR:	CHECKED BY: DDL
DATE: FEBRUARY 2023	PS	APPROVED BY: NZ
ALT. PROJECT NO: ---	C111	

WELL HOUSE NO. 17 & TRANSMISSION MAIN
Advanced Engineering and Environmental Services, LLC www.ae2s.com



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *Daniel Landrus*

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263



Scale in Feet
0 20

LEGEND

- RIP RAP MNDOT CLASS 3
- MNDOT SEED MIX 33-261 (SEEDING RATE: 35.0 LBS PER ACRE)
- MNDOT SEED MIX 35-241 (SEEDING RATE: 36.5 LBS PER ACRE)
- MNDOT SEED MIX 25-131 (SEEDING RATE: 220 LBS PER ACRE)
- WETLAND BUFFER MARKER SIGN
- WETLAND BUFFER BOUNDARY

CONSTRUCTION NOTES

- 1 RIP RAP QUANTITY: 4.5 CY
- 2 RIP RAP QUANTITY: 8.0 CY
- 3 INSTALL PERMANENT WETLAND BUFFER MARKERS AS SHOWN FACING UPGRADE, ONCE FINAL GRADE HAS BEEN ESTABLISHED AT SIGN LOCATIONS.
- 4 EROSION CONTROL BLANKET CATEGORY 4N WITH NATURAL NETTING INSTALLED ON SLOPES 3H:1V AND STEEPER.
- 5 STABILIZED FIBER MATRIX (SFM) WITH TYPE 3 MULCH APPLIED AT 3,000 LB/AC ON ALL AREAS NOT COVERED BY EROSION CONTROL BLANKET.

RESTORATION - WELL SITE

CITY OF EDEN PRAIRIE
EDEN PRAIRIE, MINNESOTA

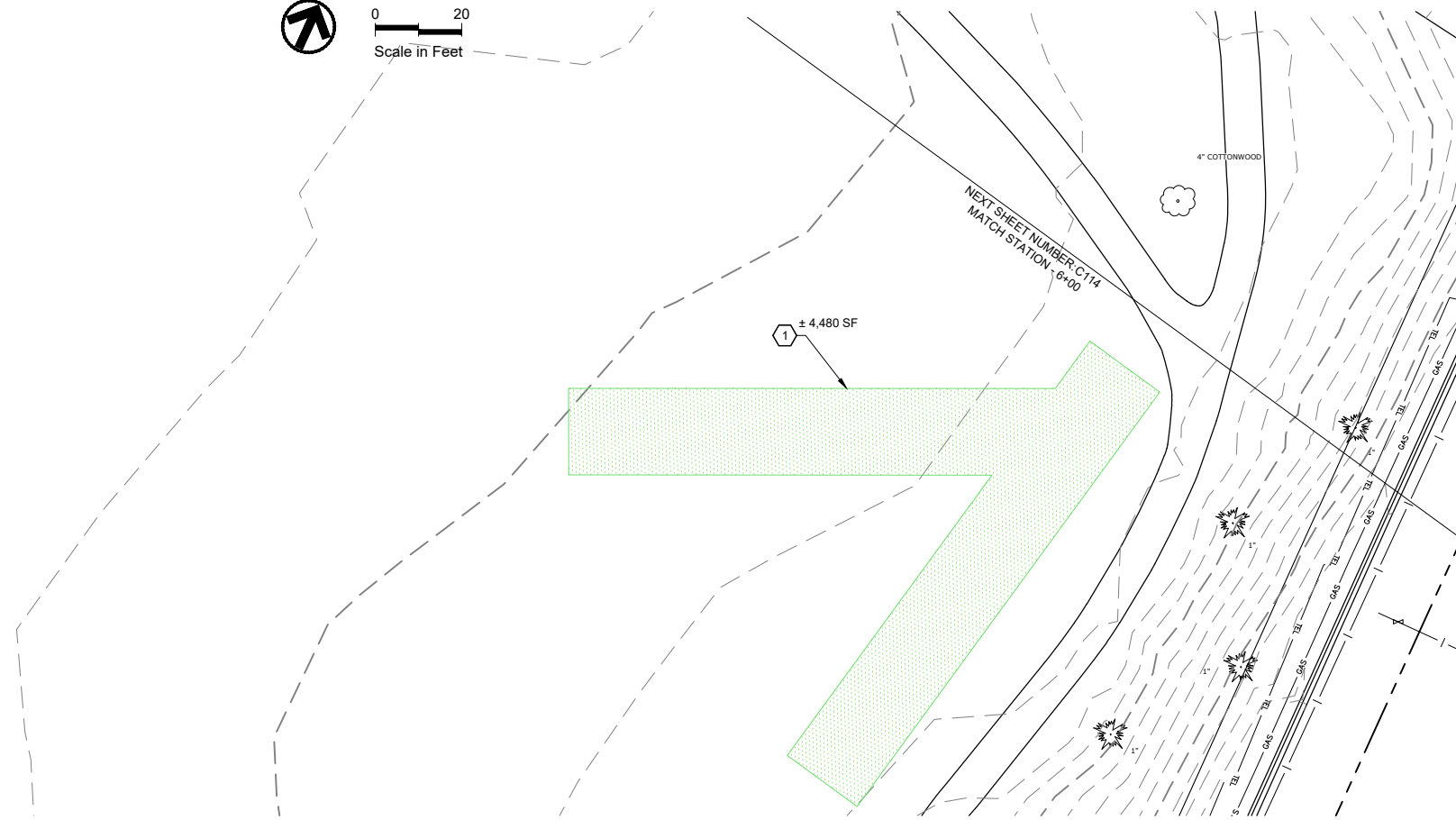
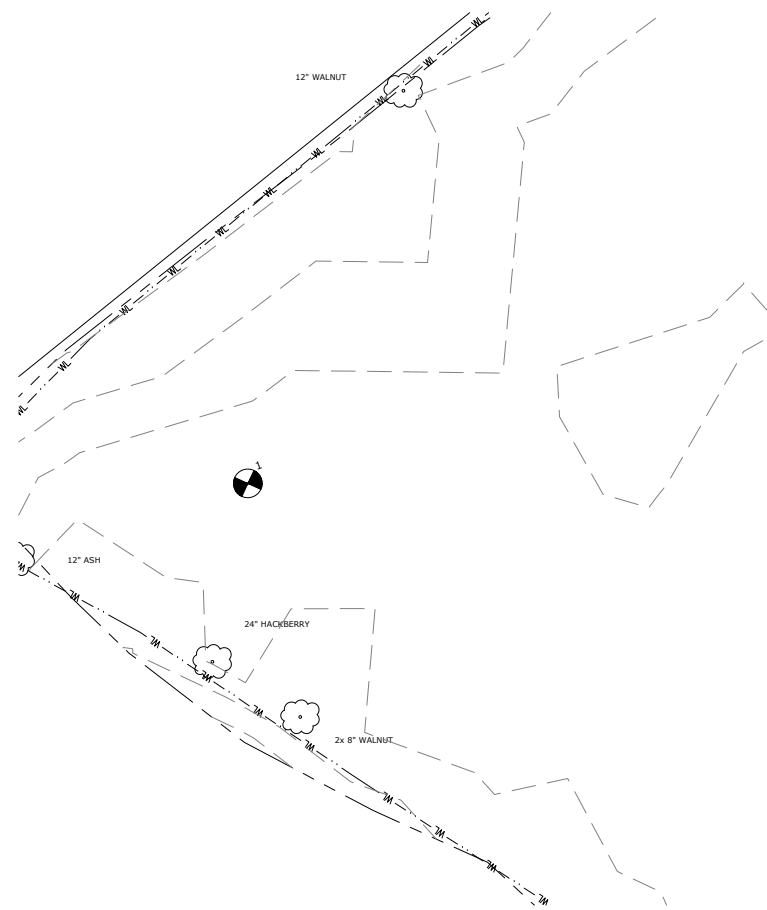
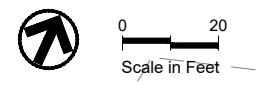
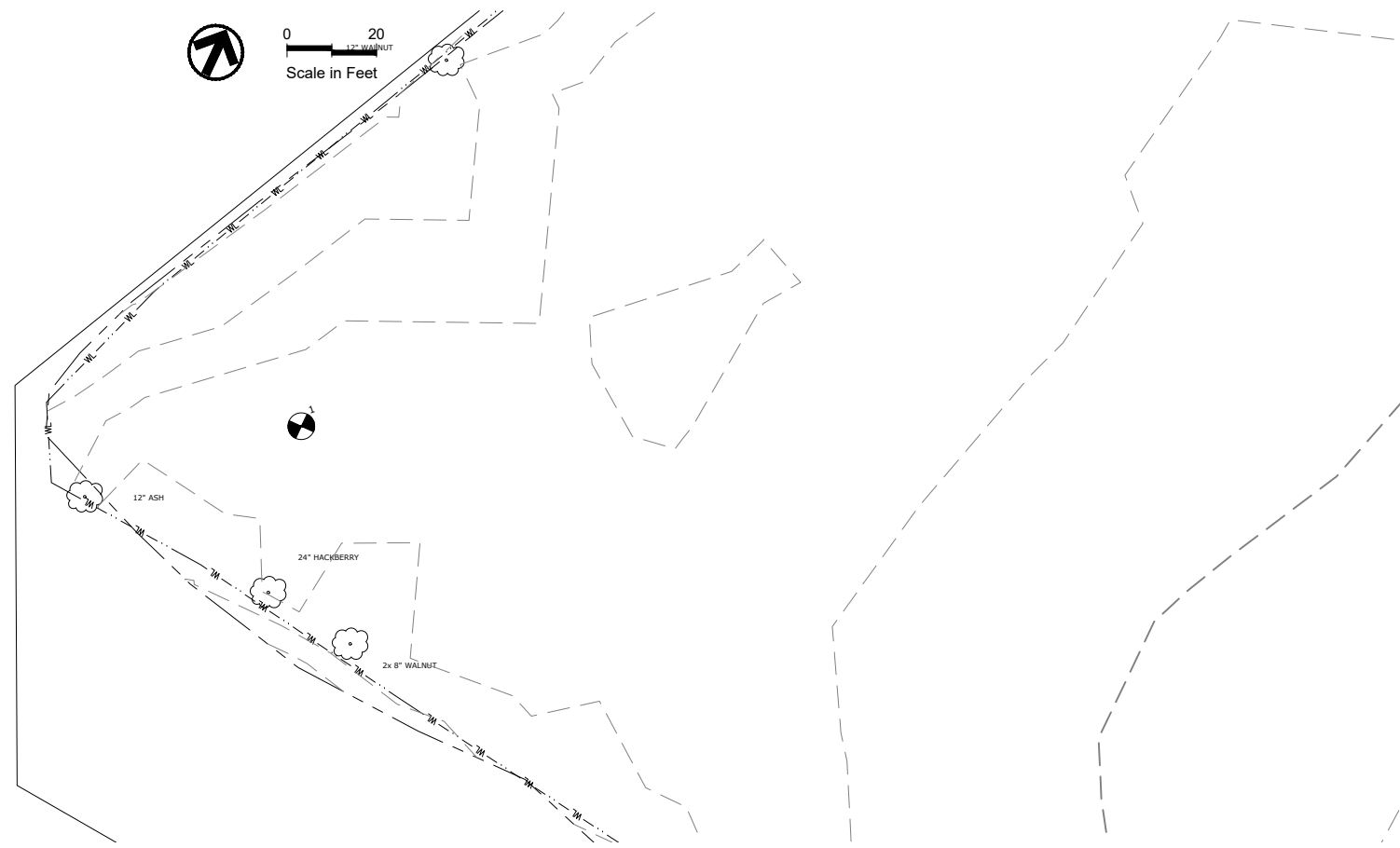
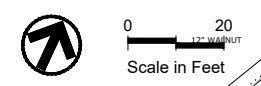
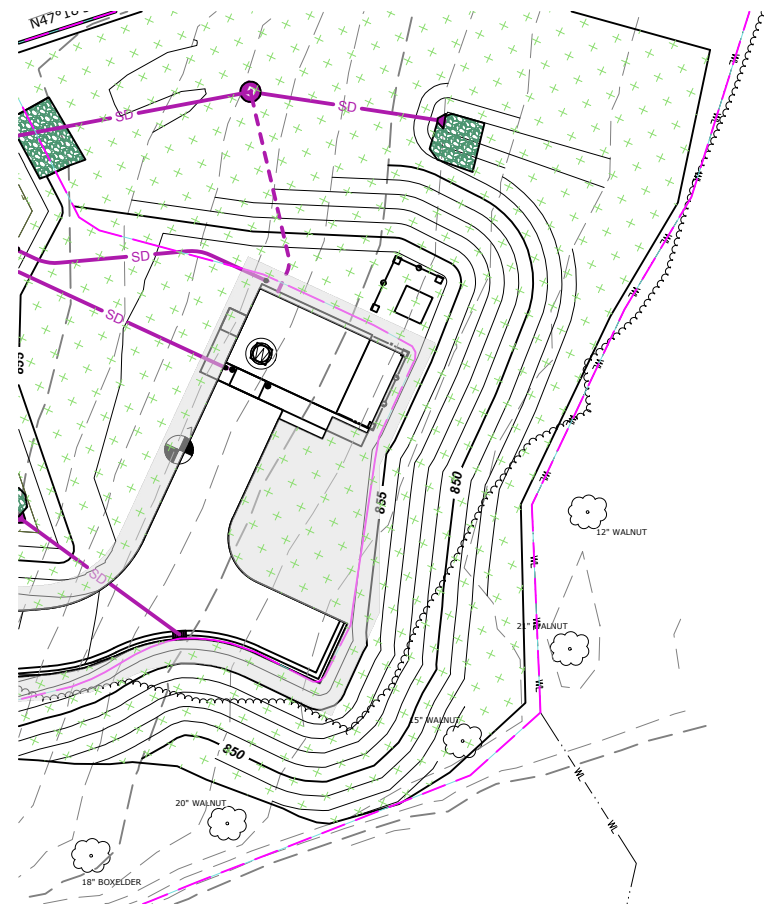
PREPARED BY: CGT
CHECKED BY: DDL
APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: PS SHEET NO: C112
DATE: FEBRUARY 2023
ALT. PROJECT NO: ---

STATUS: CONSTRUCTION

WELL HOUSE NO. 17 & TRANSMISSION MAIN
Advanced Engineering and Environmental Services, LLC www.ae2s.com

File: W:\Eden Prairie\02092021\003\CAD Drawings\Sheet\CREST\STATION.dwg



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SIGNATURE:

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

SYM DATE

LEGEND

MNDOT SEED MIX 25-151 (SEEDING RATE: 120 LBS PER ACRE)

CONSTRUCTION NOTES

1 HDD PIT EXCAVATION FOOTPRINT. RESTORE TURF TO EXISTING CONDITIONS.

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: RESTORATION - TRANSMISSION MAIN 0+00 - 6+00

CLIENT: CITY OF EDEN PRAIRIE
 EDEN PRAIRIE, MINNESOTA

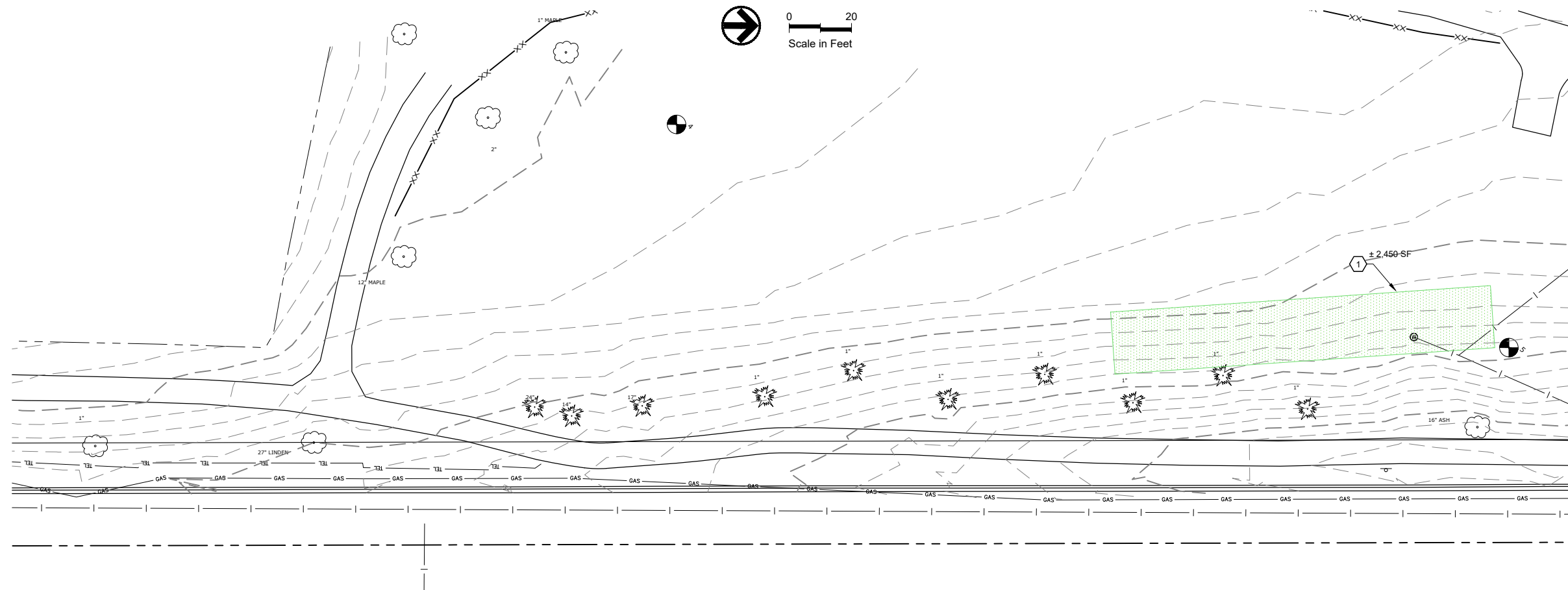
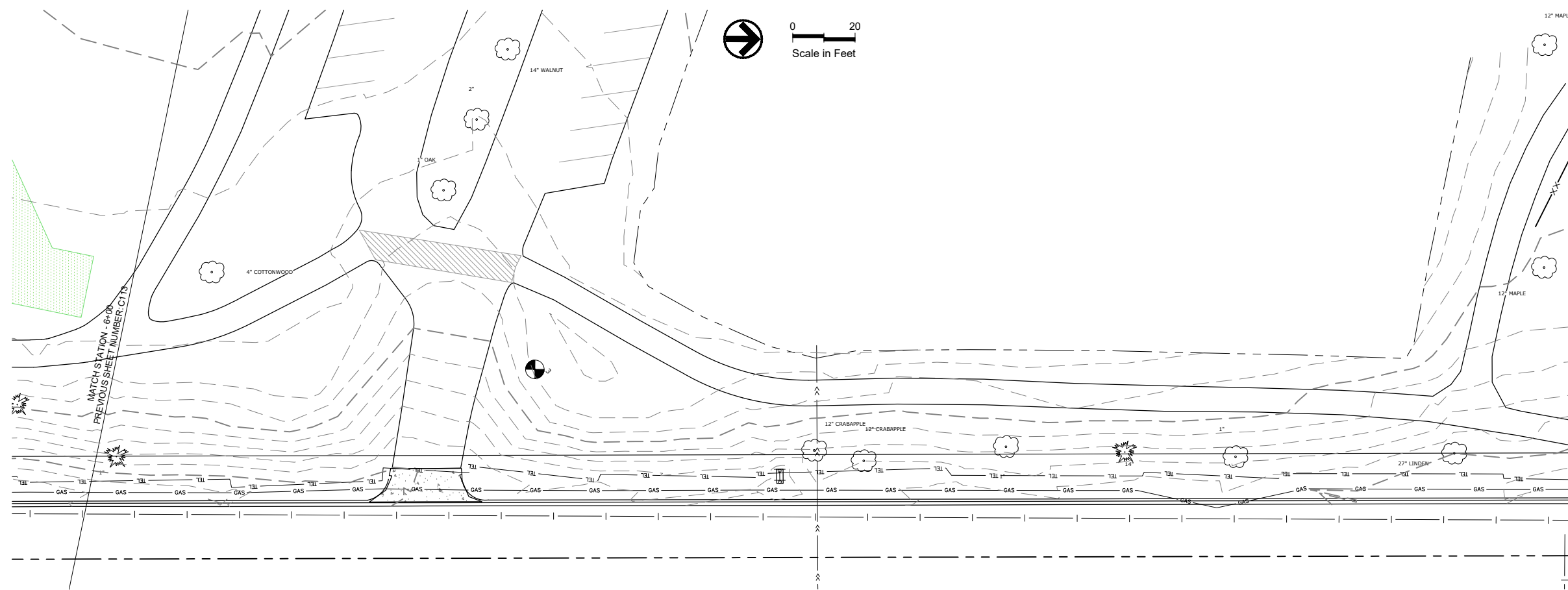
PREPARED BY: CGT
 CHECKED BY: DDL
 APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: PS SHEET NO: C113
 DATE: FEBRUARY 2023
 ALT. PROJECT NO: ---

Plotted By: Dan Landrus Date: Wednesday, February 15, 2023

File: W:\Eden Prairie\02092021\030\CAD Drawings\Civil\Plan Sheets\C114\CON1.dwg

Plotted By: Dan Landrus Date: Wednesday, February 15, 2023



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SIGNATURE: *[Signature]*
 TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION
 SYM: DATE:

LEGEND

MNDOT SEED MIX 25-151 (SEEDING RATE: 120 LBS PER ACRE)

CONSTRUCTION NOTES

1 HDD PIT EXCAVATION FOOTPRINT. RESTORE TURF TO EXISTING CONDITIONS.

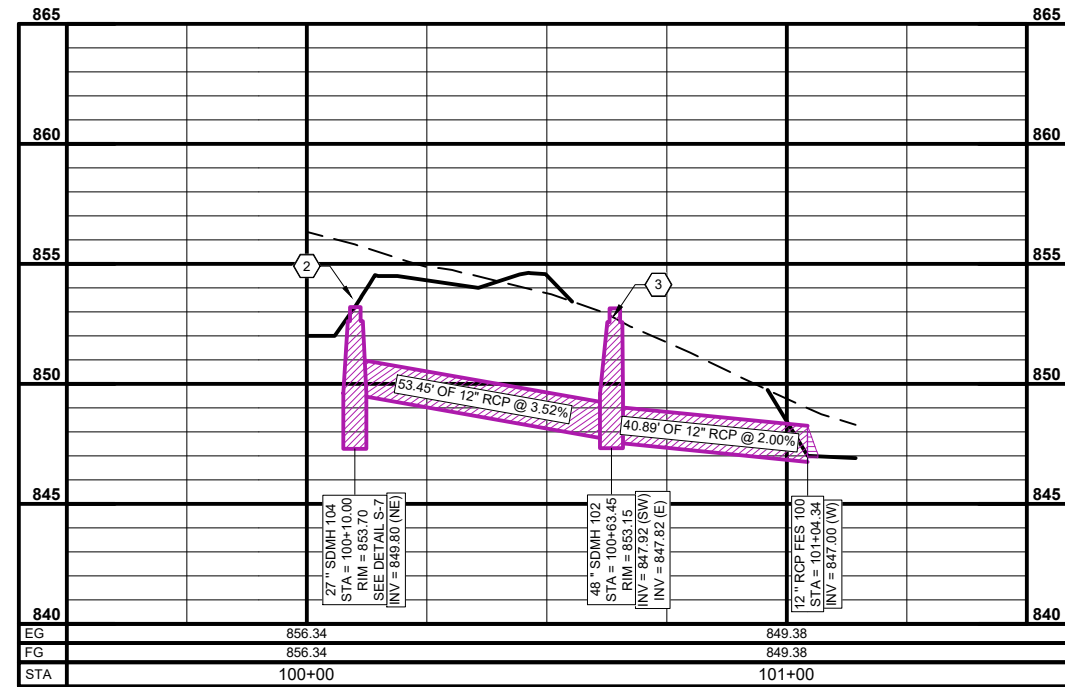
SHEET TITLE: **RESTORATION - TRANSMISSION MAIN 6+00 - 14+00**

CLIENT: **CITY OF EDEN PRAIRIE**
 EDEN PRAIRIE, MINNESOTA
 PREPARED BY: CGT
 CHECKED BY: DDL
 APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: SHEET NO:
 DATE: FEBRUARY 2023 **PS C114**
 ALT. PROJECT NO: ---

PROJECT TITLE: **WELL HOUSE NO. 17 & TRANSMISSION MAIN**
 Advanced Engineering and Environmental Services, LLC www.ae2s.com

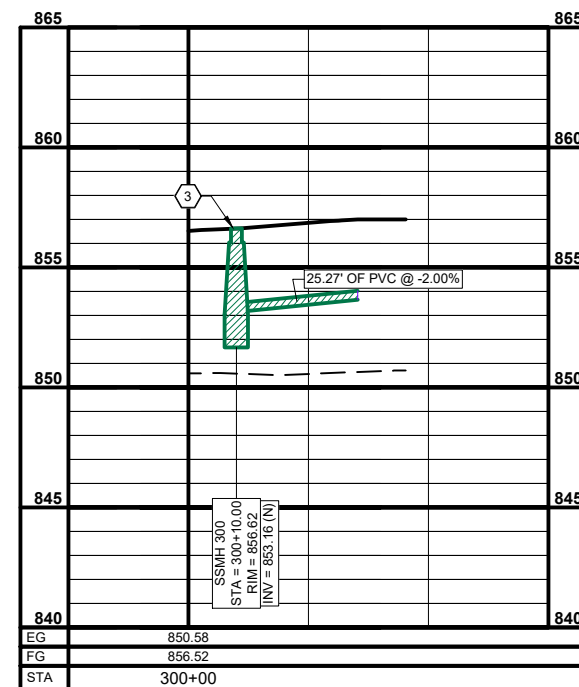
STORM SEWER 100 ~ STA 99+50 TO 101+50.00



STORM SEWER 200 ~ STA 199+50 TO 201+00.00



SEEPAGE PIT 300 ~ STA 299+75 TO 300+75.00



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SIGNATURE: *[Signature]*
 TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN
 Advanced Engineering and Environmental Services, LLC www.ae2s.com

CONSTRUCTION NOTES

- ① NEENAH R-3246 CASTING WITH TYPE C GRATE. SEE DETAIL S-7 FOR SUMP REQUIREMENTS.
- ② NEENAH R-4353 BEEHIVE FRAME AND GRATE. SEE DETAIL S-7 FOR SUMP REQUIREMENTS.
- ③ SEE STANDARD MANHOLE DETAIL FOR CASTING

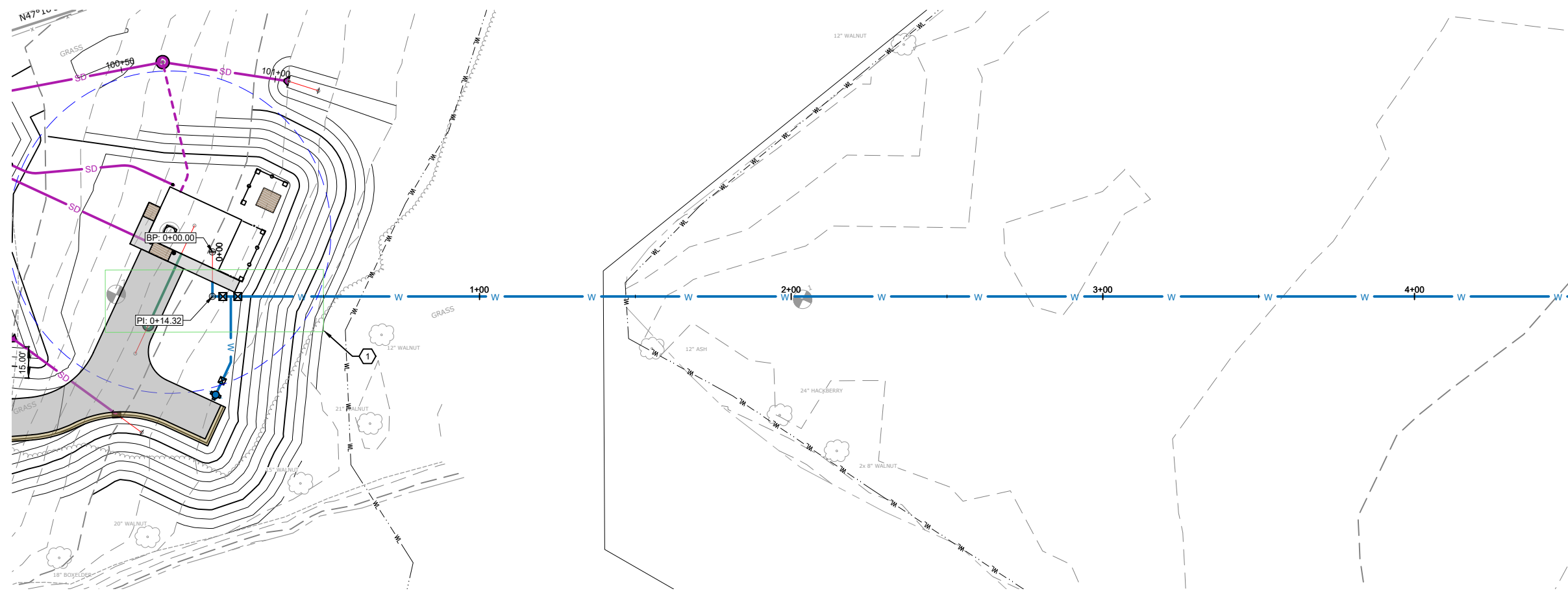
SHEET TITLE: UTILITY PROFILES

CLIENT: CITY OF EDEN PRAIRIE
 EDEN PRAIRIE, MINNESOTA

DATE: FEBRUARY 2023

PREPARED BY: DDL
 CHECKED BY: DDL
 APPROVED BY: NZ

PROJECT NO: 02009-2021-003
 SHEET DESIGNATOR: PP
 SHEET NO: C200



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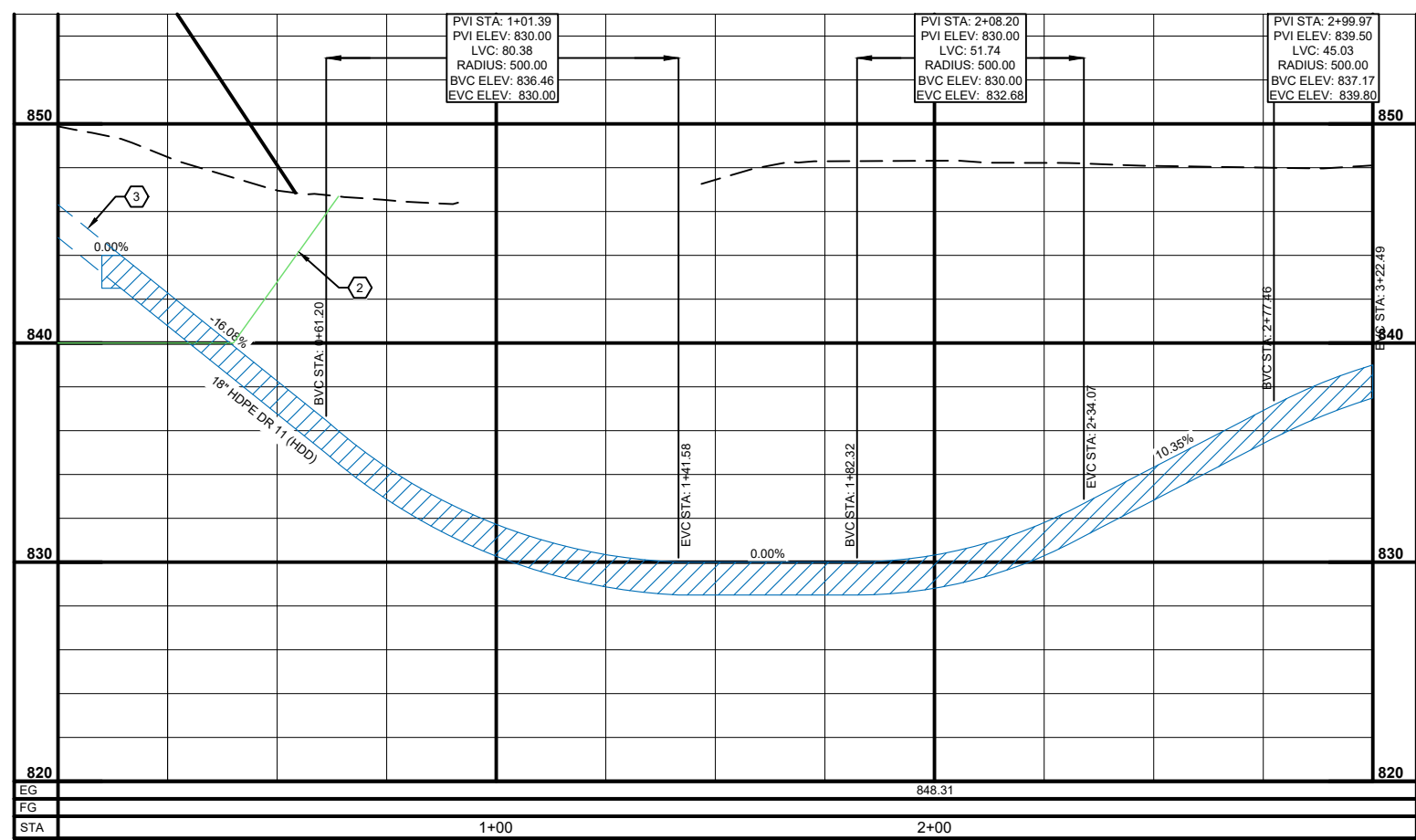
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *[Signature]*
 TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263



STATUS: CONSTRUCTION

APPR	
DATE	
SYM	



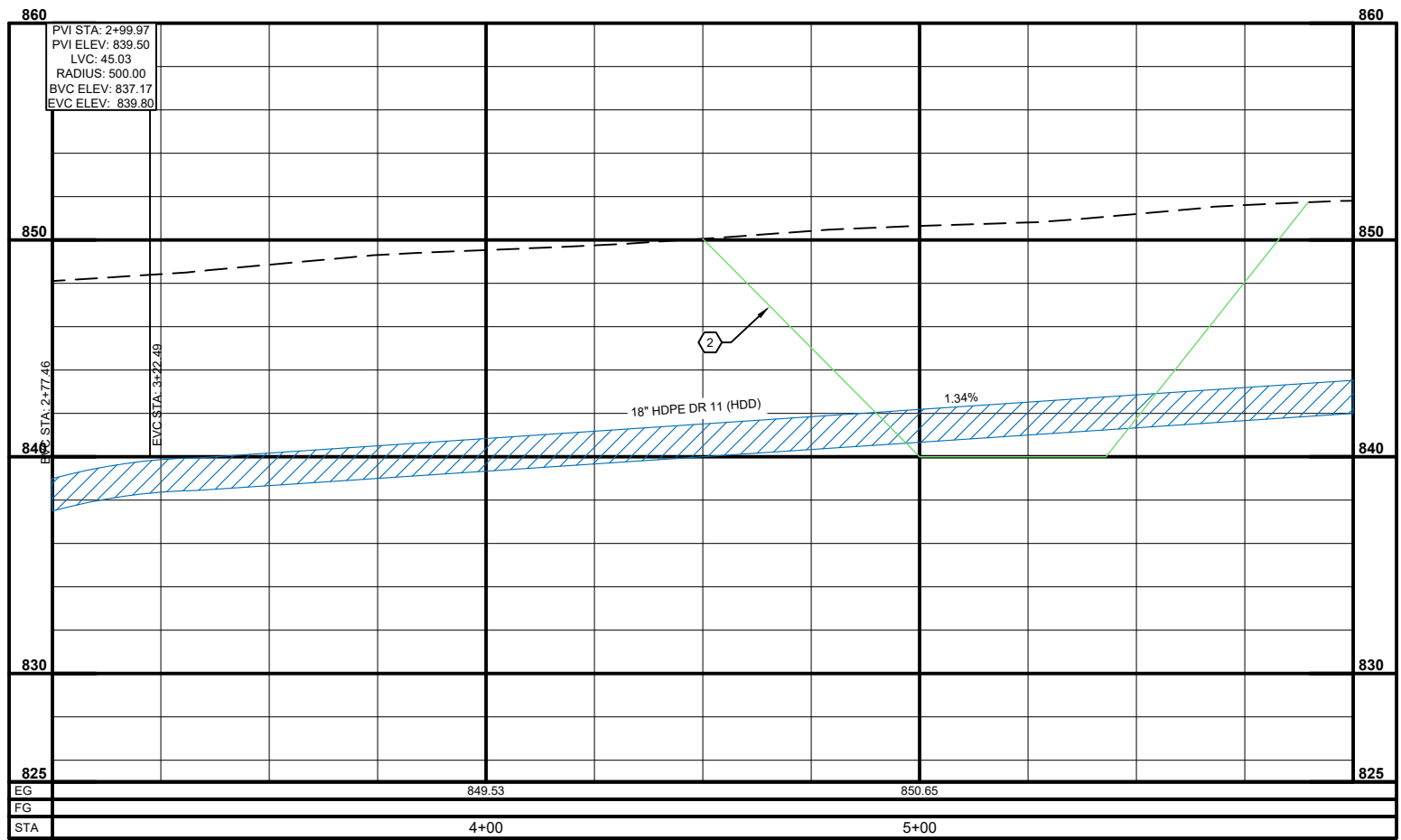
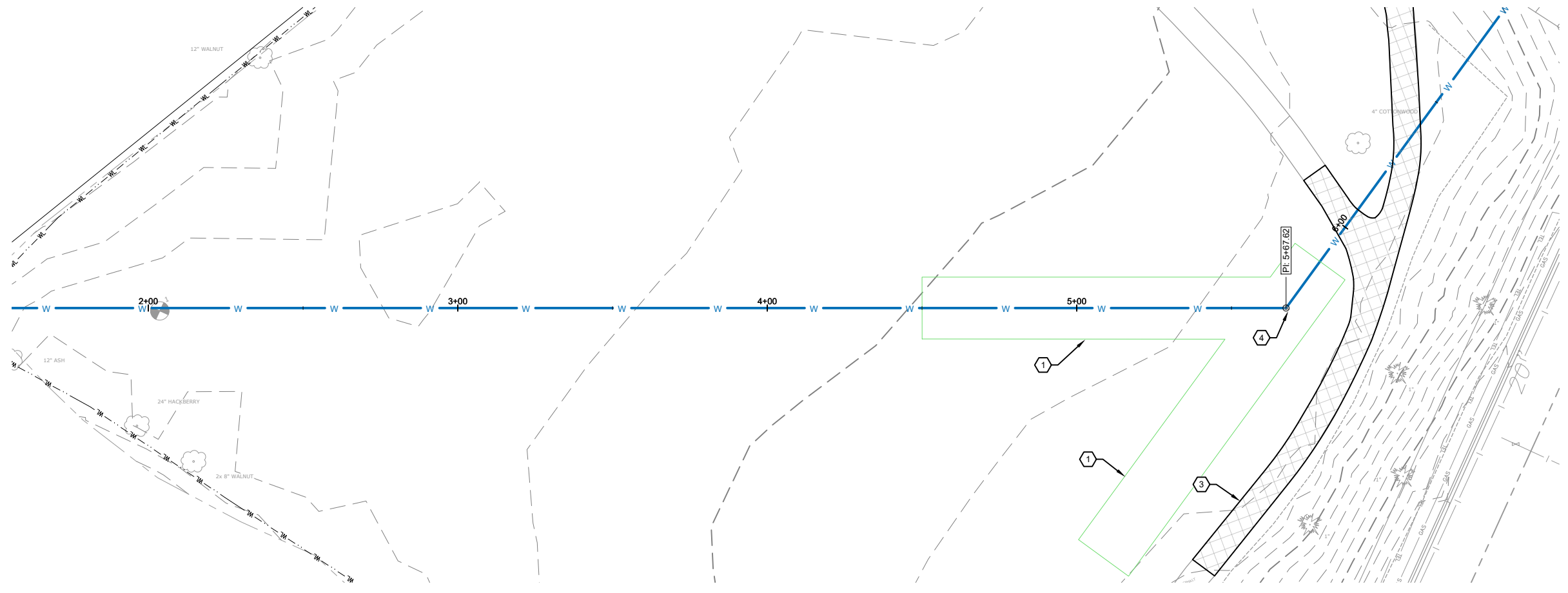
- LEGEND**
- ASSUMED DRILL RIG FOOTPRINT
 - GROUND PROTECTION SYSTEM REQUIRED TO PROTECT TRAIL.

- CONSTRUCTION NOTES**
- ① ASSUMED HDD RIG FOOTPRINT
 - ② ASSUMED HDD PIT EXCAVATION
 - ③ APPROXIMATE HDD EXTENSION OF HDPE PIPE

WELL HOUSE NO. 17 & TRANSMISSION MAIN

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: WATER TRANSMISSION MAIN PP 0+00 - 3+00		
CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT	CHECKED BY: DDL
	APPROVED BY: NZ	
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR: PP	SHEET NO: C201
DATE: FEBRUARY 2023	ALT. PROJECT NO: ---	



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SIGNATURE: *Daniel Landrus*

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263



0 20
Scale in Feet

LEGEND

- ASSUMED DRILL RIG FOOTPRINT
- GROUND PROTECTION SYSTEM REQUIRED TO PROTECT TRAIL.

CONSTRUCTION NOTES

- ① ASSUMED HDD RIG FOOTPRINT
- ② ASSUMED HDD PIT EXCAVATION
- ③ GROUND PROTECTION SYSTEM REQUIRED TO PROTECT TRAIL.
- ④ 45° HDPE BEND - BUTT FUSED

STATUS: CONSTRUCTION

SYMBOL	DATE	APPROVED

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN

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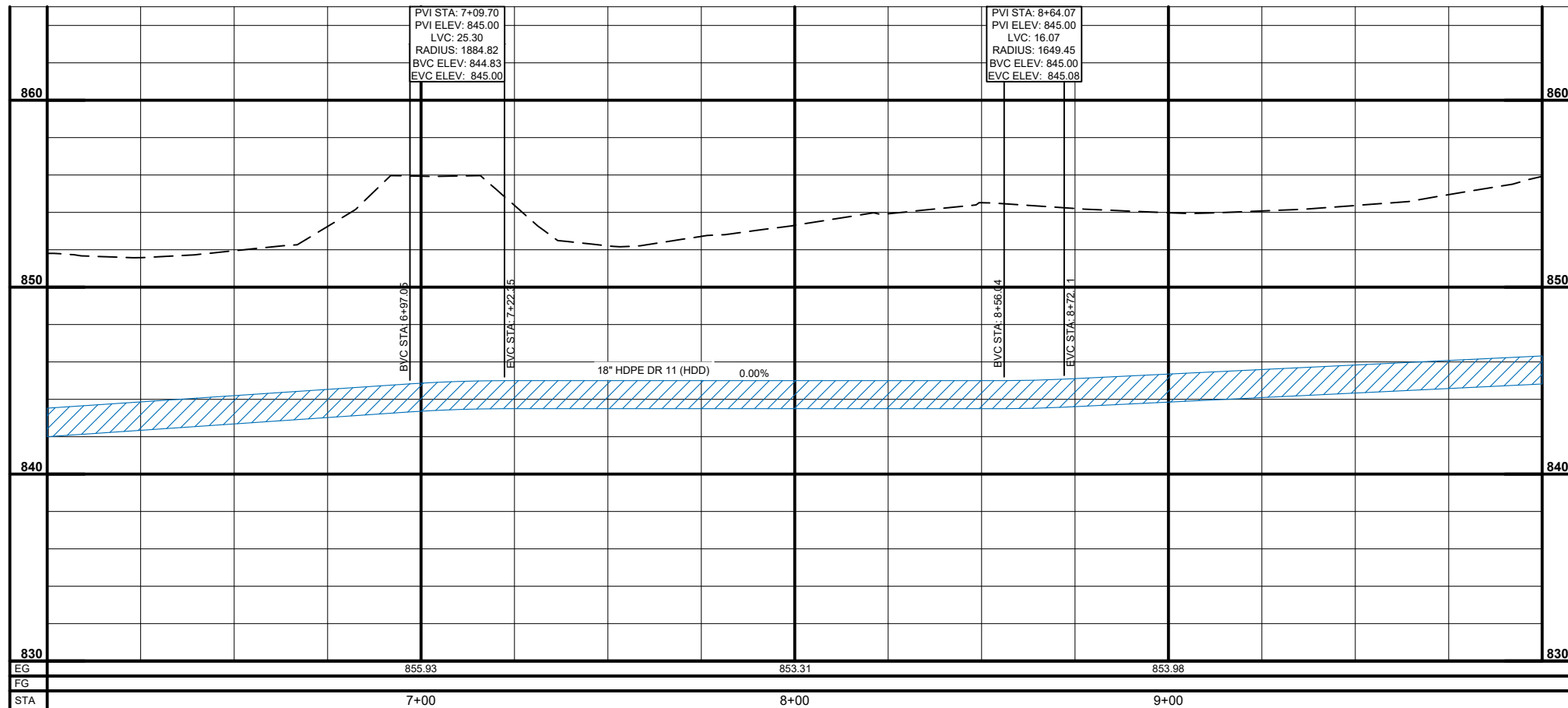
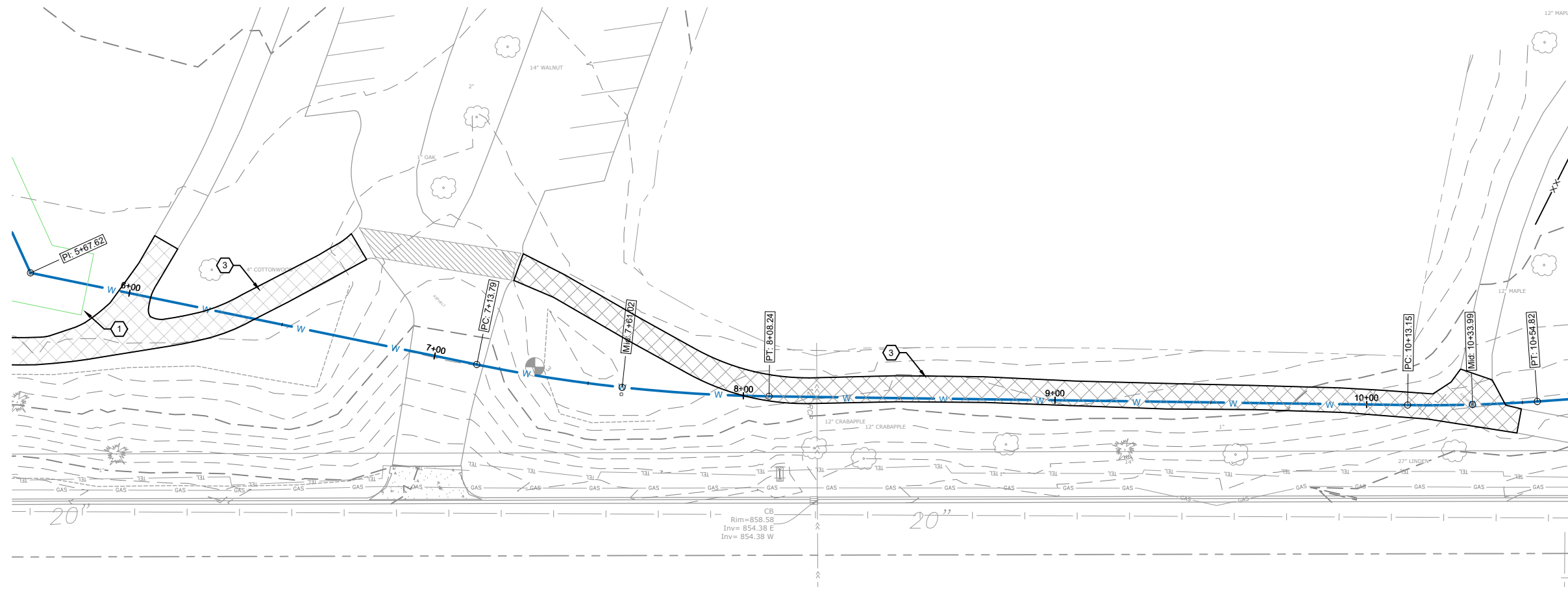
SHEET TITLE: WATER TRANSMISSION MAIN PP 3+00 - 6+00

CLIENT: CITY OF EDEN PRAIRIE
EDEN PRAIRIE, MINNESOTA

PREPARED BY: CGT
CHECKED BY: DDL
APPROVED BY: NZ

PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: PP SHEET NO: C202
DATE: FEBRUARY 2023
ALT. PROJECT NO: ---

File: W:\Eden Prairie\02009-2021-003\CAD Draw\17-WellHouse-Shared\CWATER.PP.dwg



AES²
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SIGNATURE: *[Signature]*
 TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263



- LEGEND**
- ASSUMED DRILL RIG FOOTPRINT
 - GROUND PROTECTION SYSTEM REQUIRED TO PROTECT TRAIL.
- CONSTRUCTION NOTES**
- 1 ASSUMED HDD RIG FOOTPRINT
 - 2 ASSUMED HDD PIT EXCAVATION
 - 3 GROUND PROTECTION SYSTEM REQUIRED TO PROTECT TRAIL.

SHEET TITLE:
WATER TRANSMISSION MAIN PP 6+00 - 10+00

CLIENT:
CITY OF EDEN PRAIRIE
 EDEN PRAIRIE, MINNESOTA

PREPARED BY: CGT
 CHECKED BY: DDL
 APPROVED BY: NZ

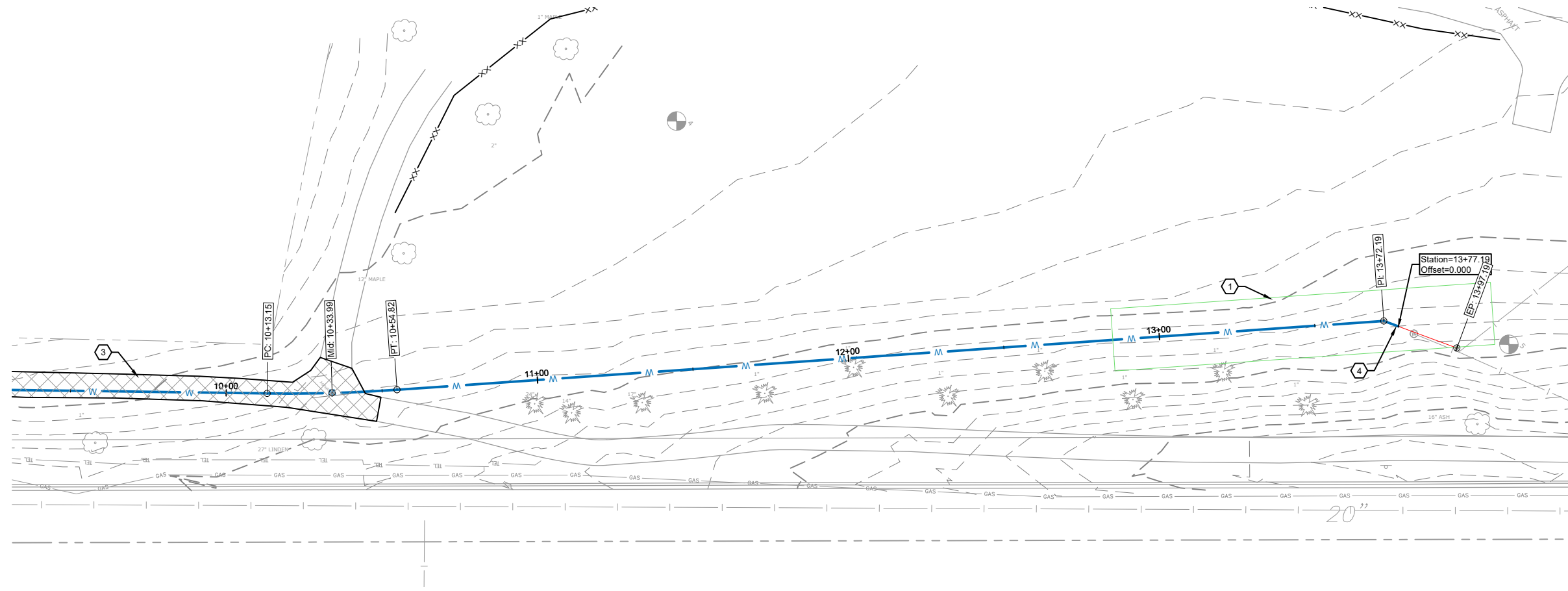
PROJECT NO: 02009-2021-003 SHEET DESIGNATOR: SHEET NO:
 DATE: FEBRUARY 2023 **PP C203**
 ALT. PROJECT NO: ---

STATUS: **CONSTRUCTION**

PROJECT TITLE:
WELL HOUSE NO. 17 & TRANSMISSION MAIN

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Plotted By: Dan Landrus Date: Wednesday, February 15, 2023



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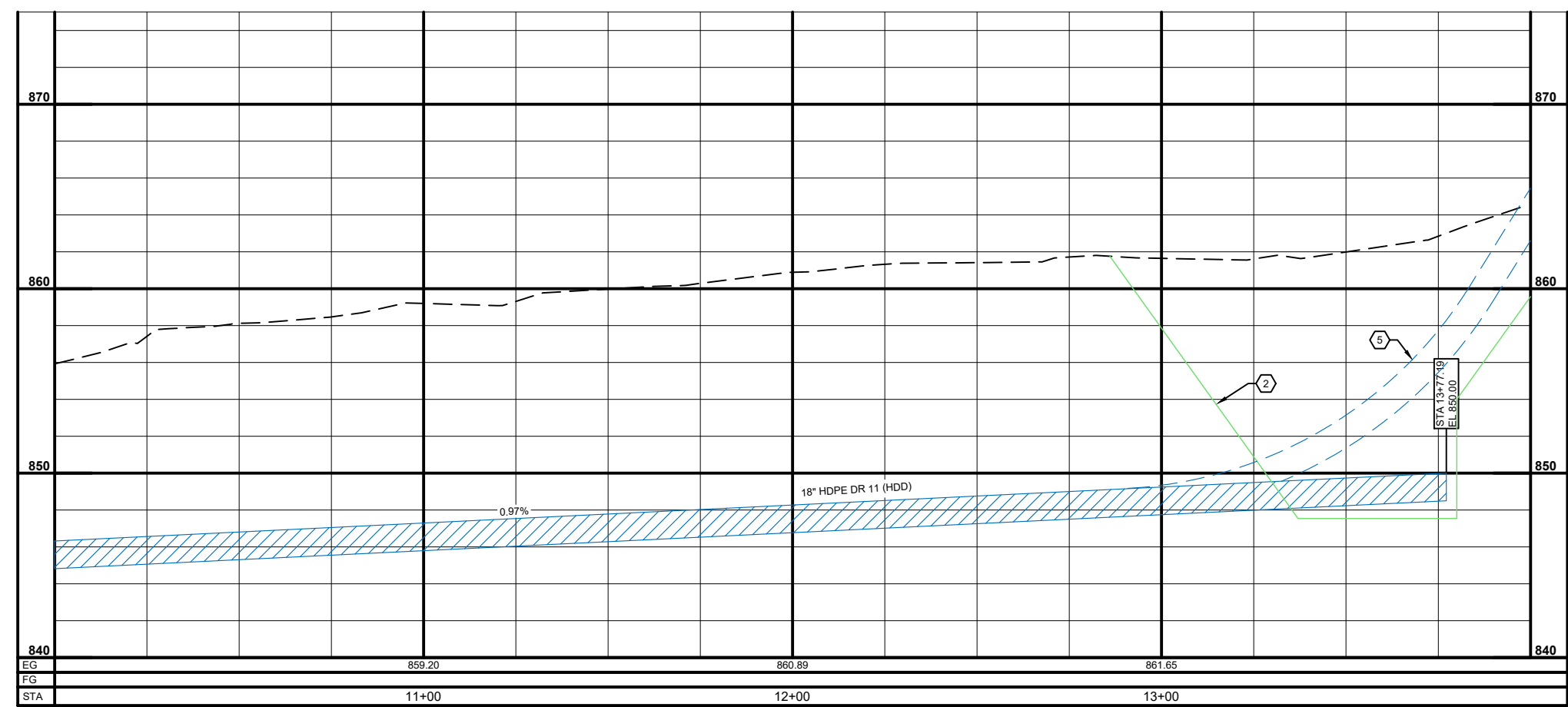
SIGNATURE: *[Signature]*

TYPED NAME: DANIEL LANDRUS
 FEBRUARY 16, 2023 REG. NO. 54263



- LEGEND**
- ASSUMED DRILL RIG FOOTPRINT
 - GROUND PROTECTION SYSTEM REQUIRED TO PROTECT TRAIL.

- CONSTRUCTION NOTES**
- 1 ASSUMED HDD RIG FOOTPRINT
 - 2 ASSUMED HDD PIT EXCAVATION
 - 3 GROUND PROTECTION SYSTEM REQUIRED TO PROTECT TRAIL.
 - 4 CONNECT TO EXISTING 18" HDPE WATER MAIN.
 - 5 APPROXIMATE HDD EXTENSION OF HDPE PIPE



SHEET TITLE: WATER TRANSMISSION MAIN PP 10+00 - 14+00

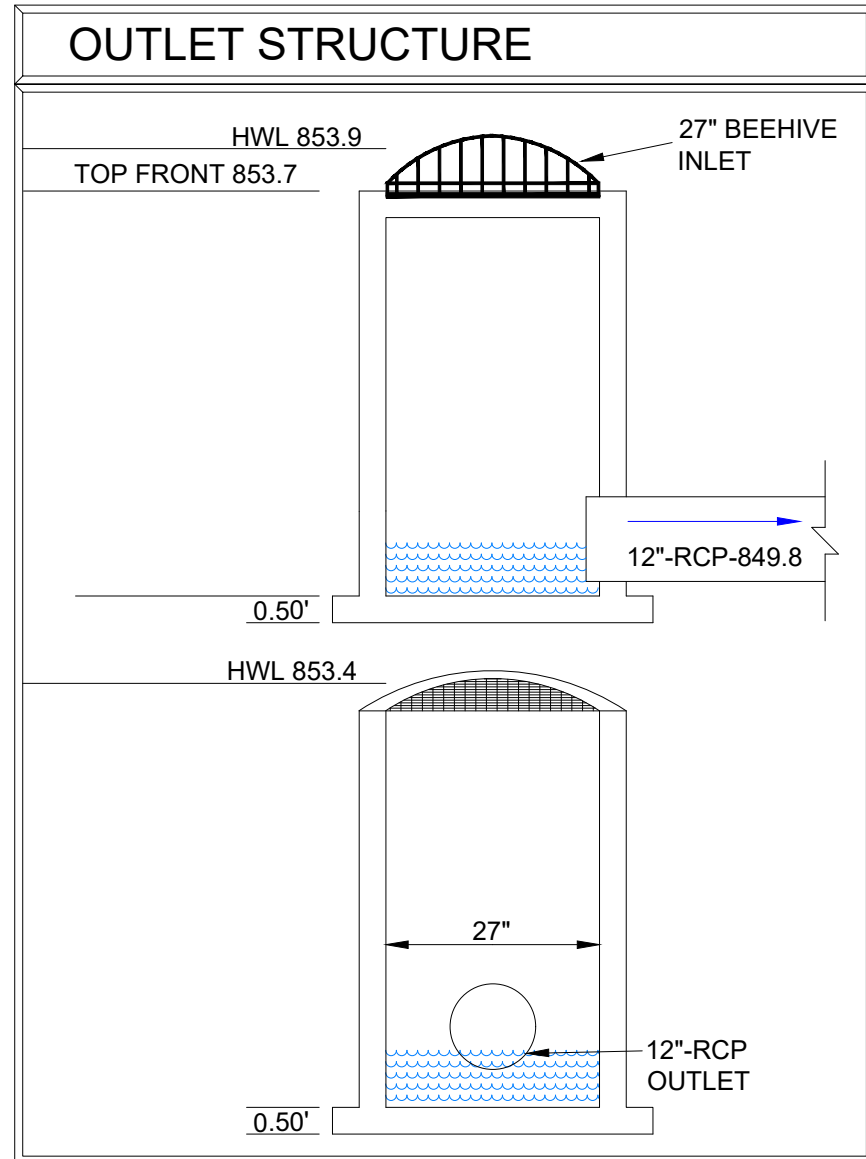
CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: CGT CHECKED BY: DDL APPROVED BY: NZ
PROJECT NO: 02009-2021-003 DATE: FEBRUARY 2023	SHEET DESIGNATOR: PP SHEET NO: C204

STATUS: CONSTRUCTION

SYM DATE

APPR

WELL HOUSE NO. 17 & TRANSMISSION MAIN
Advanced Engineering and Environmental Services, LLC www.ae2s.com



1 OUTLET CONTROL STRUCTURE
C501 NO SCALE



2 WETLAND BUFFER MARKER SIGN
C501 NO SCALE



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SIGNATURE: *[Signature]*

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

PROJECT TITLE: WELL HOUSE NO. 17 & TRANSMISSION MAIN
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CIVIL DETAILS		
CLIENT:	CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: GP CHECKED BY: DDL APPROVED BY: NZ
PROJECT NO:	02009-2021-003	SHEET DESIGNATOR: SD
DATE:	FEBRUARY 2023	SHEET NO: C501
ALT. PROJECT NO:	---	

B612
Concrete
CY/UF LF/CY
0.0474 21.1

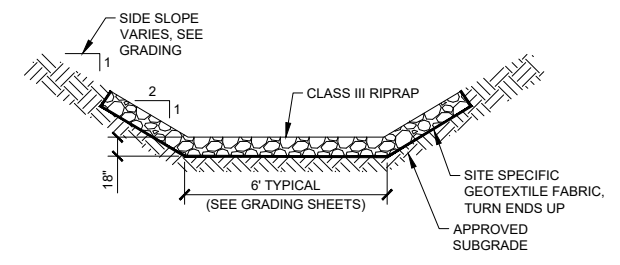
B618
Concrete
CY/UF LF/CY
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MOUNTABLE
Concrete
CY/UF LF/CY
0.0540 18.3

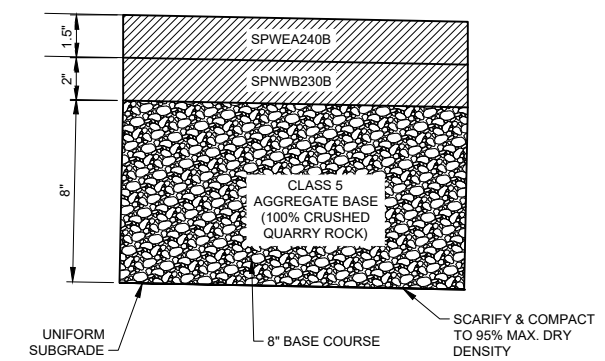
NOTE: 100' EXPANSION JOINT SPACING (TYP) Rev. 03/16/2022

	B612, B618 & MOUNTABLE CURB & GUTTER	DETAIL NO. R-9
CITY OF EDEN PRAIRIE DEPARTMENT OF ENGINEERING		

1 STORM WATER BASIN OVERFLOW - RIPRAP
C502 NO SCALE



2 BITUMINOUS PAVEMENT SECTION
C502 NO SCALE



6'-0" STEEL FENCE POST
SNOW FENCE
HAY BALES
FLOW
2 WOOD STAKES PER BAILE

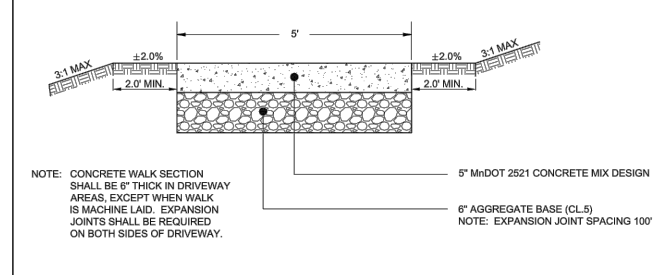
4'-0" SET POSTS FIRMLY
FASTEN WITH NAILS OR STAPLES
2"x2"x30" WOOD POST
MIRAFI 100X or APPROVED EQUAL
6" MIN DEPTH

A. DIG TRENCH B. LAY IN FABRIC AND BACKFILL

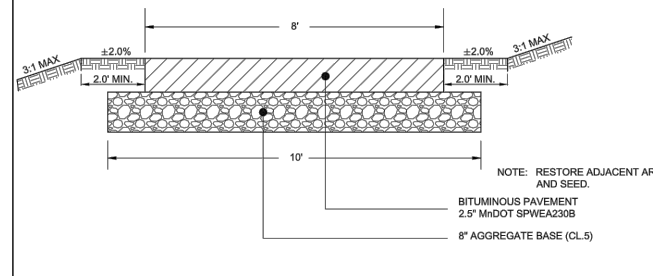
REV 01/01/1998

	EROSION CONTROL	DETAIL NO. R-17
CITY OF EDEN PRAIRIE DEPARTMENT OF ENGINEERING		

CONCRETE WALK SECTION
NOT TO SCALE

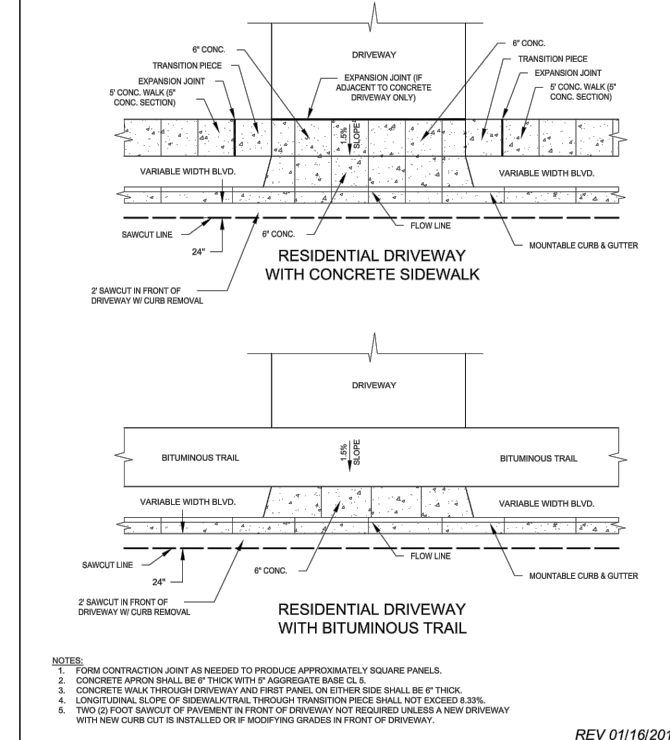


BITUMINOUS BIKE/PED SECTION
NOT TO SCALE



	TYPICAL WALKWAY SECTION	DETAIL NO. R-16
CITY OF EDEN PRAIRIE DEPARTMENT OF ENGINEERING		

RESIDENTIAL DRIVEWAY ENTRANCE
C502 NO SCALE



	RESIDENTIAL DRIVEWAY ENTRANCE	DETAIL NO. R-7
CITY OF EDEN PRAIRIE DEPARTMENT OF ENGINEERING		

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SIGNATURE:

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263

STATUS: **CONSTRUCTION**

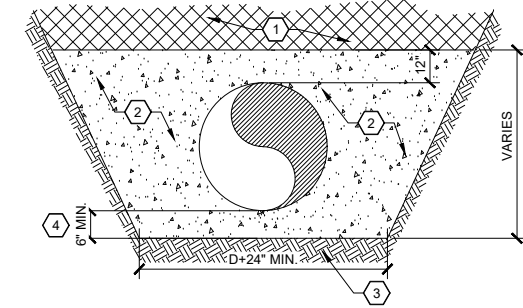
SYM DATE

PROJECT TITLE: **WELL HOUSE NO. 17 & TRANSMISSION MAIN**

PROJECT TITLE:

SHEET TITLE: CIVIL DETAILS		PREPARED BY: GP
CLIENT: CITY OF EDEN PRAIRIE	EDEN PRAIRIE, MINNESOTA	CHECKED BY: DDL
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR:	APPROVED BY: NZ
DATE: FEBRUARY 2023	SD	C502
ALT. PROJECT NO: ---		

- 1 SELECT GRADING MATERIAL PER MNDOT SPEC 216.1.A.6. COMPACT PER MNDOT SPEC 2106.
- 2 FINE AGGREGATE BEDDING PER MNDOT SPEC 3149.2.G.1. COMPACT PER MNDOT SPEC 2106.
- 3 APPROVED SUBGRADE.
- 4 DO NOT COMPACT PRIOR TO PIPE PIPE PLACEMENT.
- 5 SEE MNDOT STANDARD PLAN 5-297.442 FOR CONSTRUCTION SEQUENCING NOTES.

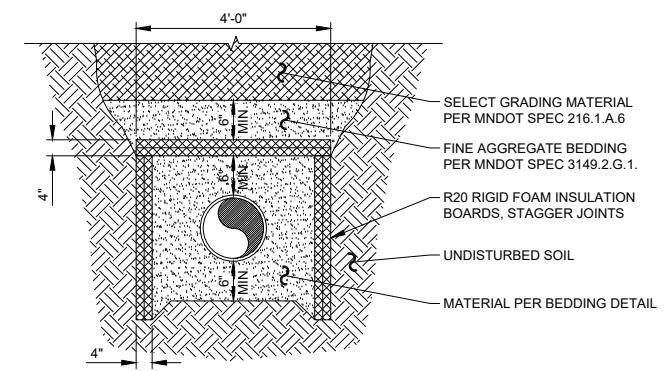


TRENCH PROFILE FOR AREAS EXCEEDING 9 FEET OF COVER

1 FLEXIBLE PIPE FOUNDATION & BEDDING
NO SCALE

NOTE

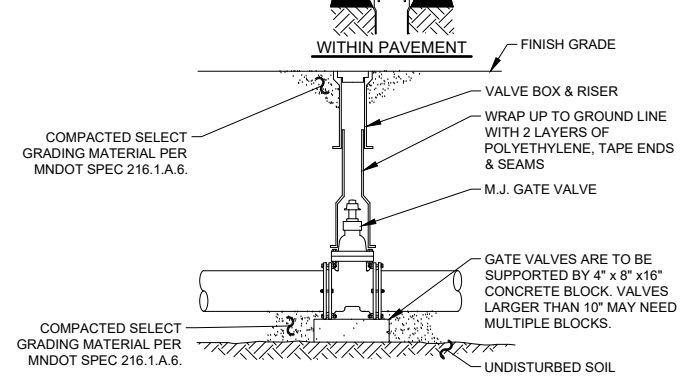
1. MATERIAL TO BE HAND TAMPED AN LEVEL TO PROVIDE UNIFORM SUPPORT OF INSULATION AND TO PREVENT INSULATION FROM BREAKING DURING BACK FILLING.



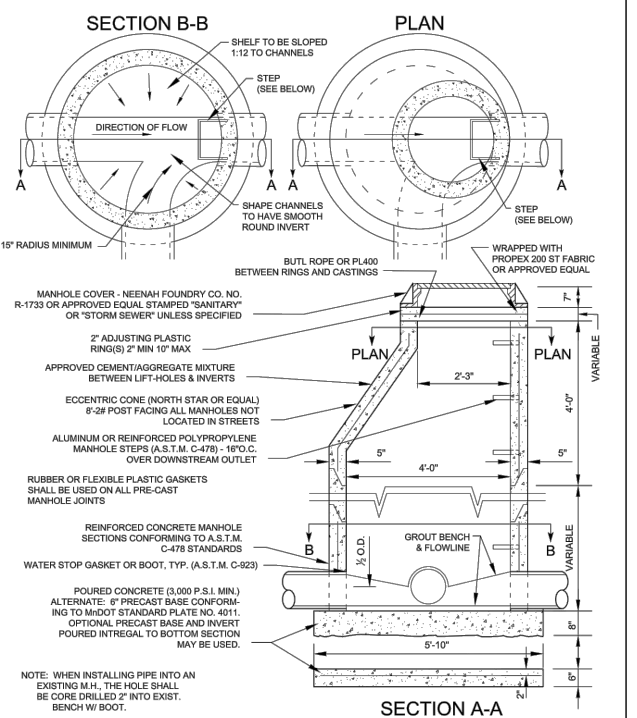
2 PIPE INSULATION
NO SCALE

NOTES

1. BACKFILL SHALL BE HAND TAMPED AROUND VALVE AND VALVE BOX.
2. VALVE BOX COVER SHALL BE MARKED "WATER".



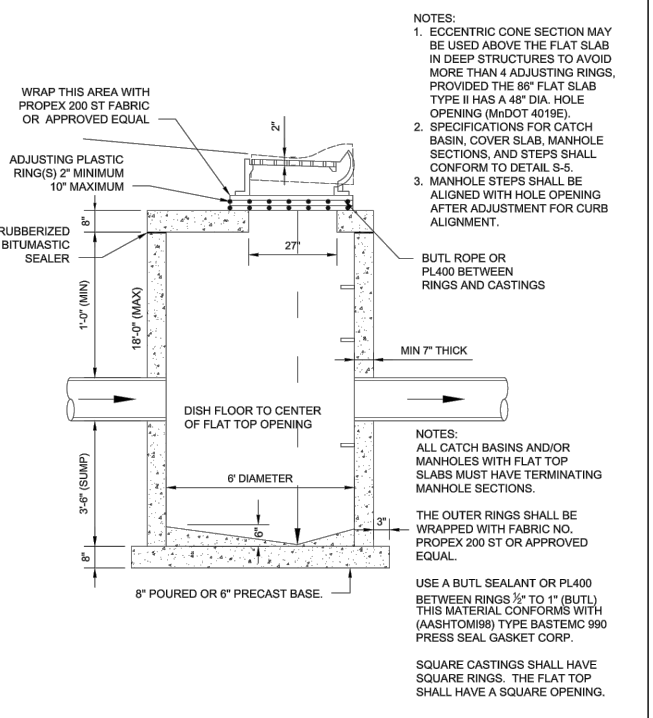
3 GATE VALVE
NO SCALE



STANDARD MANHOLE DETAIL

S-1

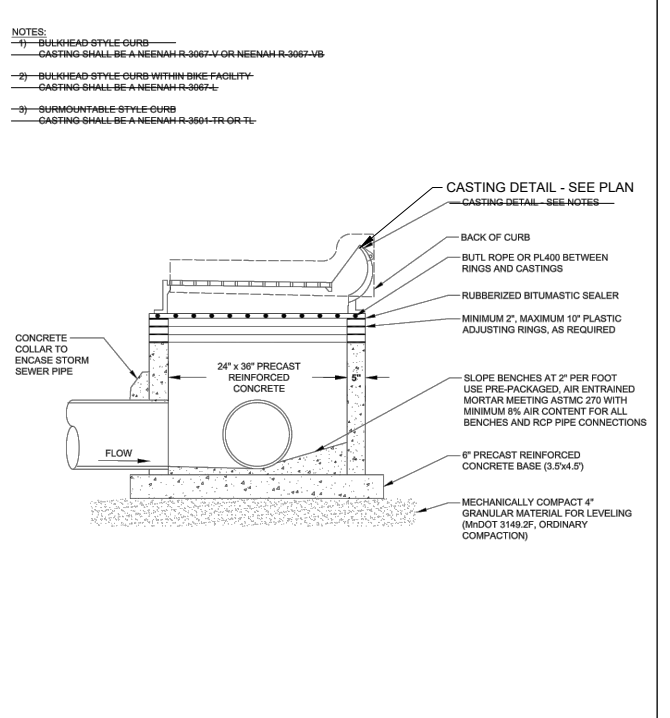
CITY OF EDEN PRAIRIE
DEPARTMENT OF ENGINEERING



SUMP MANHOLE OR CATCH BASIN

S-7

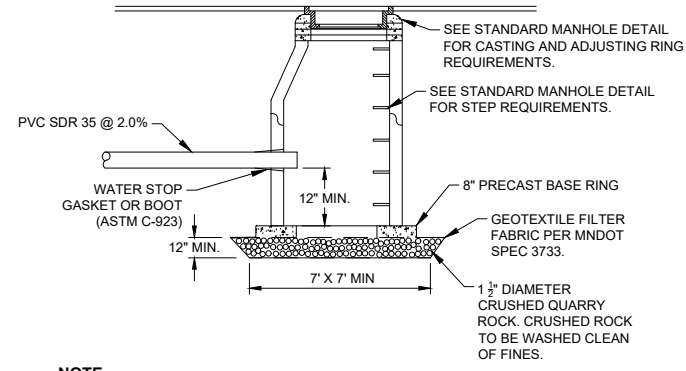
CITY OF EDEN PRAIRIE
DEPARTMENT OF ENGINEERING



2' x 3' CATCH BASIN

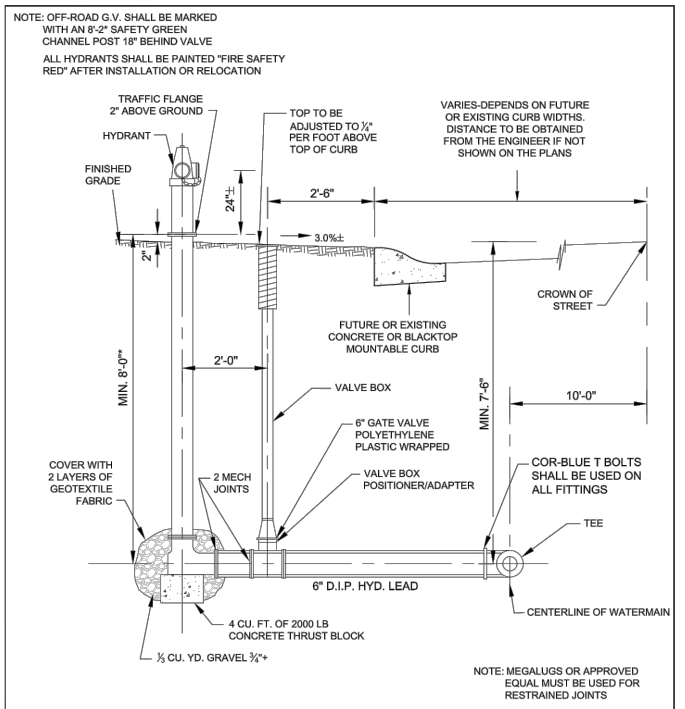
S-13

CITY OF EDEN PRAIRIE
DEPARTMENT OF ENGINEERING



- NOTE**
1. SEE SITE PLAN FOR SEEPAGE PIT LOCATION.
 2. SEE UTILITY PROFILE FOR PIPE INVERT ELEVATIONS.
 3. SEE STANDARD MANHOLE DETAIL FOR PRECAST MANHOLE INFORMATION.

1 SEEPAGE PIT DETAIL
NO SCALE



NOTE: OFF-ROAD G.V. SHALL BE MARKED WITH AN 8'-2" SAFETY GREEN CHANNEL POST 18" BEHIND VALVE. ALL HYDRANTS SHALL BE PAINTED "FIRE SAFETY RED" AFTER INSTALLATION OR RELOCATION.

* 7'-6" BARREL WITH 6" EXTENSION KIT MAY BE USED IN LIEU OF 8'-0" BARREL. ALL HYDRANTS SHALL BE MARKED WITH AN 8'-2" SAFETY GREEN CHANNEL POST 18" BEHIND HYDRANT.

REV 04/13/2022

	TYPICAL HYDRANT DETAIL	DETAIL NO. W-3
	CITY OF EDEN PRAIRIE DEPARTMENT OF ENGINEERING	



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *[Signature]*

TYPED NAME: DANIEL LANDRUS
FEBRUARY 16, 2023 REG. NO. 54263

STATUS: CONSTRUCTION

APPR
DATE
SYM

WELL HOUSE NO. 17 & TRANSMISSION MAIN

PROJECT TITLE:

SHEET TITLE: CIVIL DETAILS		
CLIENT: CITY OF EDEN PRAIRIE EDEN PRAIRIE, MINNESOTA	PREPARED BY: GP	CHECKED BY: DDL
		APPROVED BY: NZ
PROJECT NO: 02009-2021-003	SHEET DESIGNATOR: SD	SHEET NO: C504
DATE: FEBRUARY 2023		
ALT. PROJECT NO: ---		