



Luminant

HISTORY OF CONSTRUCTION
ADDENDUM NO. 2

Martin Lake Steam Electric Station – Ash Ponds

Rusk County, Texas

February 16, 2024

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DOCUMENT REVISION RECORD

Issue No.	Date	Details of Revisions
Revision 0	October 2016	Original Document
Addendum 1	December 2022	Added retrofitted EAP, WAP and NSP liner system information
Addendum 2	February 2024	Added As-Constructed NSP liner system information

1.0 INTRODUCTION

On behalf of Luminant Generation Company LLC (Luminant), HDR has prepared this Addendum No. 2 to the History of Construction Report (HCR) for East Ash Pond (EAP), West Ash Pond (WAP), and New Scrubber Pond (NSP) (collectively referred to as the “Ash Ponds”) located at the Martin Lake Steam Electric Station (MLSES) in Rusk County, Texas (hereafter, the “Site”). Coal Combustion Residuals (CCR) including flue gas desulfurization (FGD) wastewater and bottom ash generated as part of MLSES operation are managed in the Ash Ponds. The Ash Ponds are regulated as Existing CCR Impoundments under 40 C.F.R. §257, Subpart D (the “CCR Rule”).

The original HCR for the Site was prepared in October 2016 in accordance with 40 C.F.R. §257.73(c) and placed in the MLSES operating record in accordance with 40 C.F.R. §257.105(h)(10) (B&M, 2016a).

Addendum No. 1 updated the HCR to reflect the retrofit of the EAP, WAP, and NSP liner systems to comply with the requirements of 40 C.F.R. §257.71(a)(1)(ii) completed in accordance 40 C.F.R. §257.102(k). It was prepared in December 2022 in accordance with 40 C.F.R. §257.73(c)(2) and placed in the MLSES operating record in accordance with 40 C.F.R. §257.105(h)(10).

This Addendum No. 2 updates the HCR to reflect the as-constructed liner system retrofit of the NSP to comply with the requirements of 40 C.F.R. §257.71(a)(1)(ii) completed in accordance 40 C.F.R. §257.102(k).

2.0 RETROFIT OF NEW SCRUBBER POND

The NSP is a surface impoundment approximately 13-acres in area. It was constructed partially above and partially below grade and is surrounded by engineered earthen dikes that extend above surrounding ground level.

At the time the CCR Rule was promulgated, the liner system in the NSP consisted of the following (from bottom to top):

- 18-inch thick compacted clay layer with a hydraulic conductivity of 1×10^{-7} cm/sec;
- a 60-mil HDPE geomembrane;
- a geosynthetic drainage layer;
- a second 60-mil HDPE geomembrane; and
- a 4-inch thick concrete revetment mat.

The NSP was considered an unlined CCR surface impoundments in accordance with 40 C.F.R. §257.71(a)(1) of the CCR Rule (B&M, 2016b). Luminant decided to retrofit the NSP liner system to satisfy the requirements of 40 C.F.R. §257.71(a)(1)(ii) and maintain compliance with the CCR Rule. A Liner Retrofit Plan for the NSP was prepared in February 2020 in accordance with 40 C.F.R. §257.102(k)(2) and placed in the MLSES operating record in accordance with 40 C.F.R. §257.105(h)(10) (HDR, 2020).

The liner system of the NSP was retrofitted in October 2023 and consisted of the following:

- Pumping of free water from the pond and transfer to one of the other Ash Ponds;
- Excavation of all CCR from the pond and placement in MLSES A1 Landfill; and
- Construction of an alternative composite liner system meeting the requirements of 40 C.F.R. §257.71(a)(1)(ii) was installed on top of the existing liner system and consisted of the following (from bottom to top):
 - a 6-inch thick layer of general soil fill material placed over the existing liner system;
 - a polymer-enhanced geosynthetic clay liner (GCL); and
 - a 60-mil HDPE geomembrane.

Engineering drawings for the NSP Liner Retrofit were reproduced in Appendix A of the HCR Amendment No. 1. As-constructed drawings for the NSP Liner Retrofit are reproduced in Appendix B of this Addendum.

The retrofitted liner system in the NSP is an alternative composite liner meeting the requirements of 40 C.F.R. §257.71(a)(1)(ii).

3.0 REFERENCES

Burns and McDonnell (B&M), 2016a. History of Construction – CCR Surface Impoundments, Martin Lake Steam Electric Station. October 5.

B&M, 2016b. Summary of Liner Construction – Martin Lake Impoundments, Martin Lake Steam Electric Station. September 16.

HDR, 2020. Retrofit Plan for Ash Pond Area – East Ash Pond, West Ash Pond and New Scrubber Pond, Martin Lake Steam Electric Station. February 28.

4.0 PROFESSIONAL CERTIFICATION

This document and all attachments were prepared by HDR under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I hereby certify that this Addendum No. 2 to the History of Construction Report for the Ash Ponds at the Martin Lake Steam Electric Station has been prepared in accordance with the requirements of 40 C.F.R. §257.73(c).



David C. Vogt, PE

P.E. License #93905

Project Manager

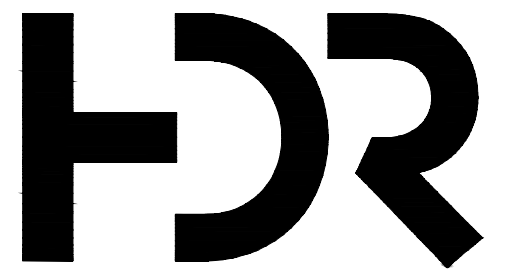
HDR Engineering, Inc.

17111 Preston Road, Suite 300

Dallas, TX 75248

Texas Engineering Firm No. 754

ATTACHMENT 1 - NEW SCRUBBER POND AS-CONSTRUCTED DRAWINGS



HDR ENGINEERING, INC.
76 SOUTH LAURA STREET, SUITE 1600
JACKSONVILLE, FL 32202
COA# 4213

As-Built Drawings For

Martin Lake Steam Electric Station

CCR Impoundment Reline New Scrubber Pond

Project No.
10172630

Rusk County, Texas
December 2023

THIS RECORD DRAWING IS A COMPILATION OF THE SEALED ENGINEERING DRAWINGS FOR THIS PROJECT, MODIFIED BY ADDENDA AND CHANGE ORDERS, INFORMATION BY THE CONTRACTOR OR OTHER, NOT ASSOCIATED WITH THE DESIGN ENGINEER, CANNOT BE VERIFIED FOR ACCURACY OR COMPLETENESS. THE ORIGINAL SEALED DRAWINGS ARE ON FILE AT THE OFFICES OF LUMINANT.

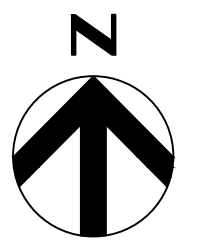
INDEX OF DRAWINGS

GENERAL	
00G-01	COVER SHEET
CIVIL	
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00C-03	ROSS SECTIONS
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00C-05	DETAILS (2 OF 2)
00C-06	GCL PANEL LAYOUT
00C-07	HDPE PANEL LAYOUT

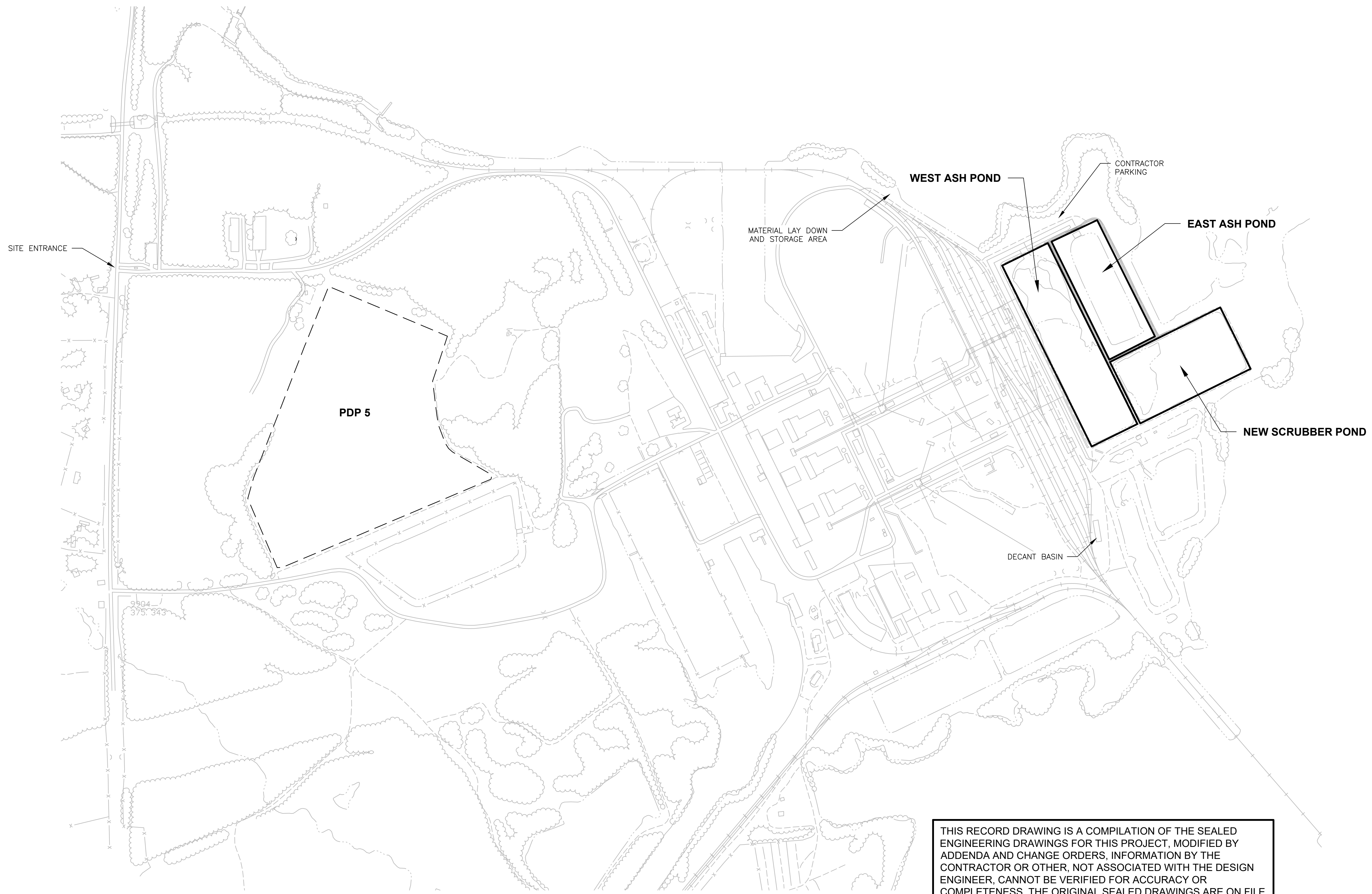


VICINITY MAP
NOT TO SCALE





400 0 400 800
SCALE IN FEET



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ISSUE	DATE	DESCRIPTION
D	12/05/2023	AS-CONSTRUCTED LINER DRAWINGS
C	05/30/2023	ISSUED FOR CONSTRUCTION
B	03/21/2023	REVISED TEXT CALLOUTS
A	01/31/2020	ISSUED FOR BID

PROJECT MANAGER	D. VOGT, P.E.
DESIGNED BY	K. PERERA
DRAWN BY	J. RAYMOND
CHECKED BY	M. ROBERTS
PROJECT NUMBER	10172630

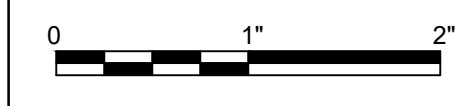


[Signature]
12/5/2023

**MARTIN LAKE STEAM ELECTRICAL STATION
NEW SCRUBBER POND RELINE
RUSK COUNTY, TEXAS**

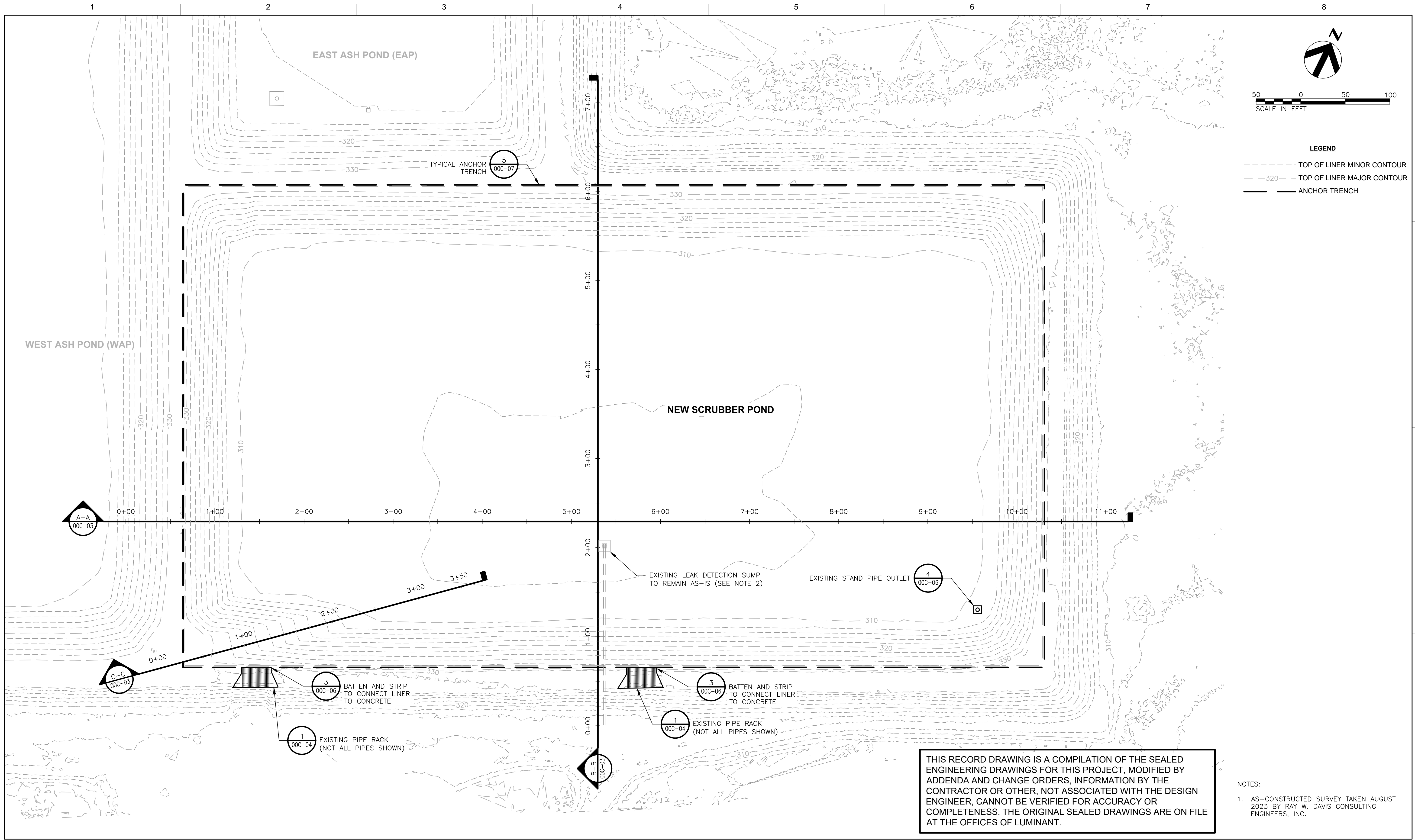


SITE LAYOUT



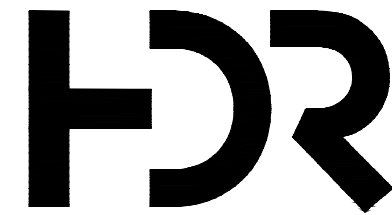
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SHEET
00C-01



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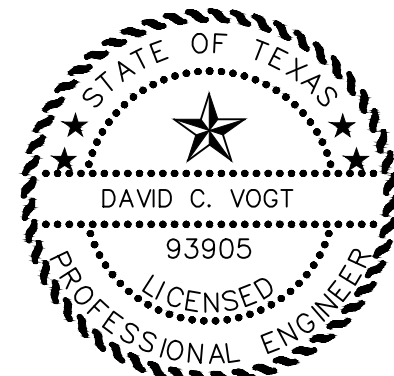
- NOTES:
- AS-CONSTRUCTED SURVEY TAKEN AUGUST 2023 BY RAY W. DAVIS CONSULTING ENGINEERS, INC.



HDR
FIRM REGISTRATION NO. F-754
1711 PRESTON ROAD, SUITE 300
DALLAS, TEXAS 75248-1229
972.960.4400

ISSUE	DATE	DESCRIPTION
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C	05/30/2023	ISSUED FOR CONSTRUCTION
B	03/21/2023	ADDED ACCESS RAMP
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DESIGNED BY	K. PERERA
DRAWN BY	J. RAYMOND
CHECKED BY	M. ROBERTS
PROJECT NUMBER	10172630

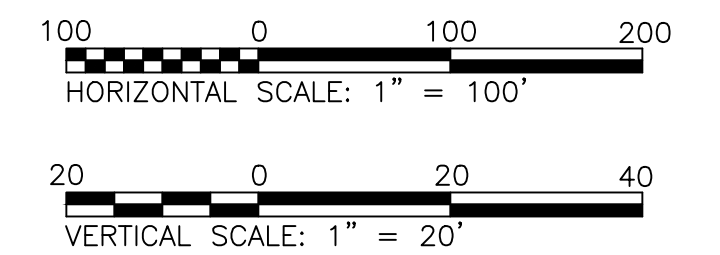


**MARTIN LAKE STEAM ELECTRICAL STATION
NEW SCRUBBER POND RELINE
RUSK COUNTY, TEXAS**



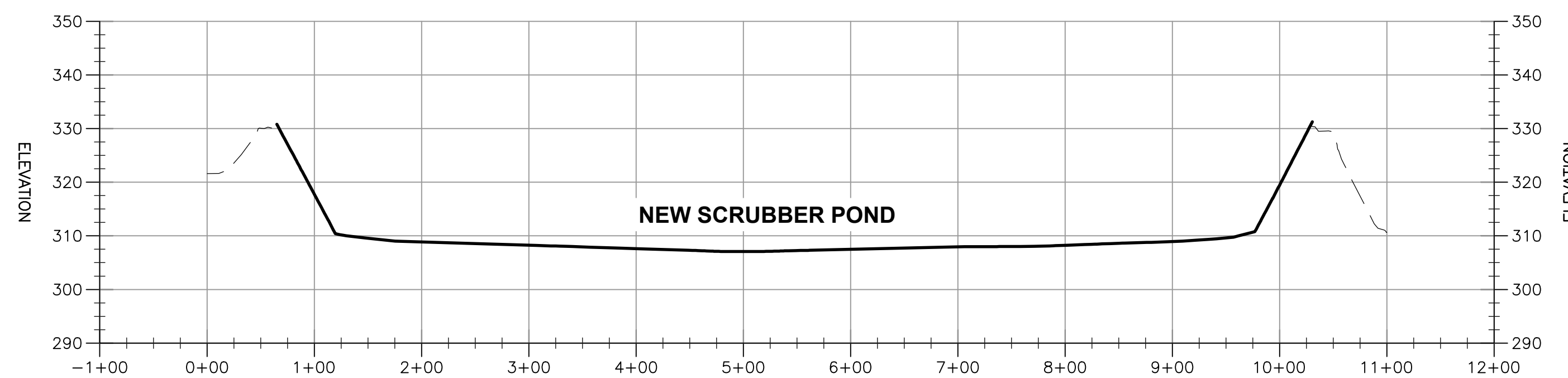
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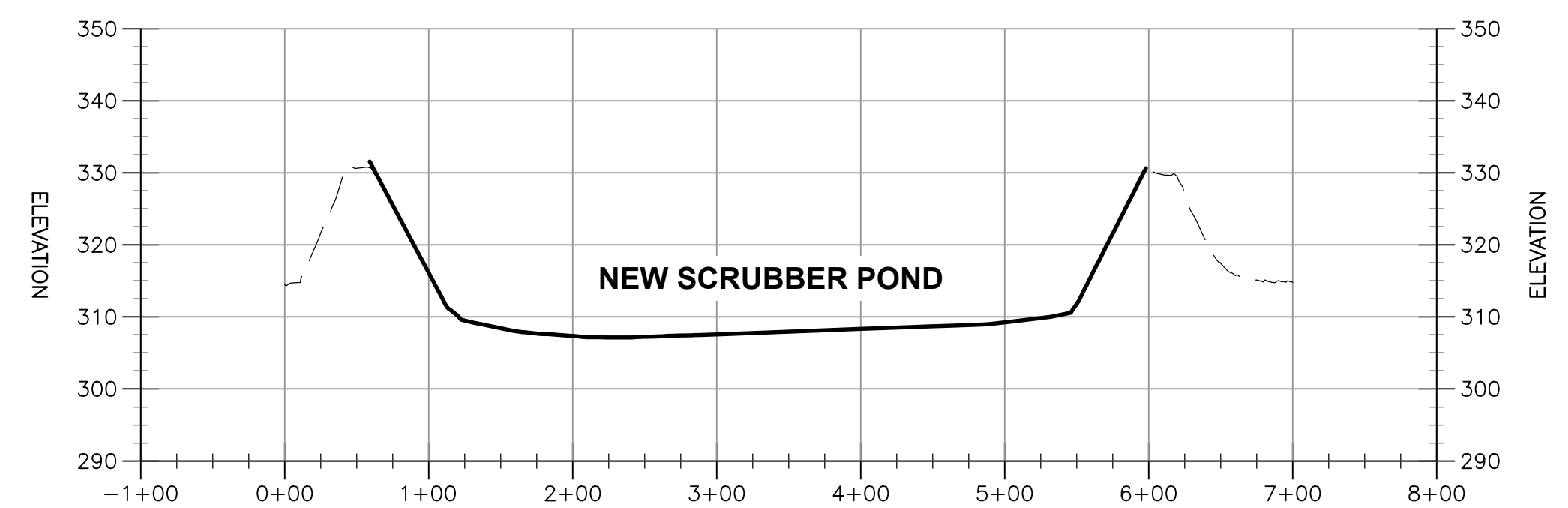


LEGEND
 - - - - - EXISTING GROUND SURFACE
 _____ FINISHED LINER GRADE

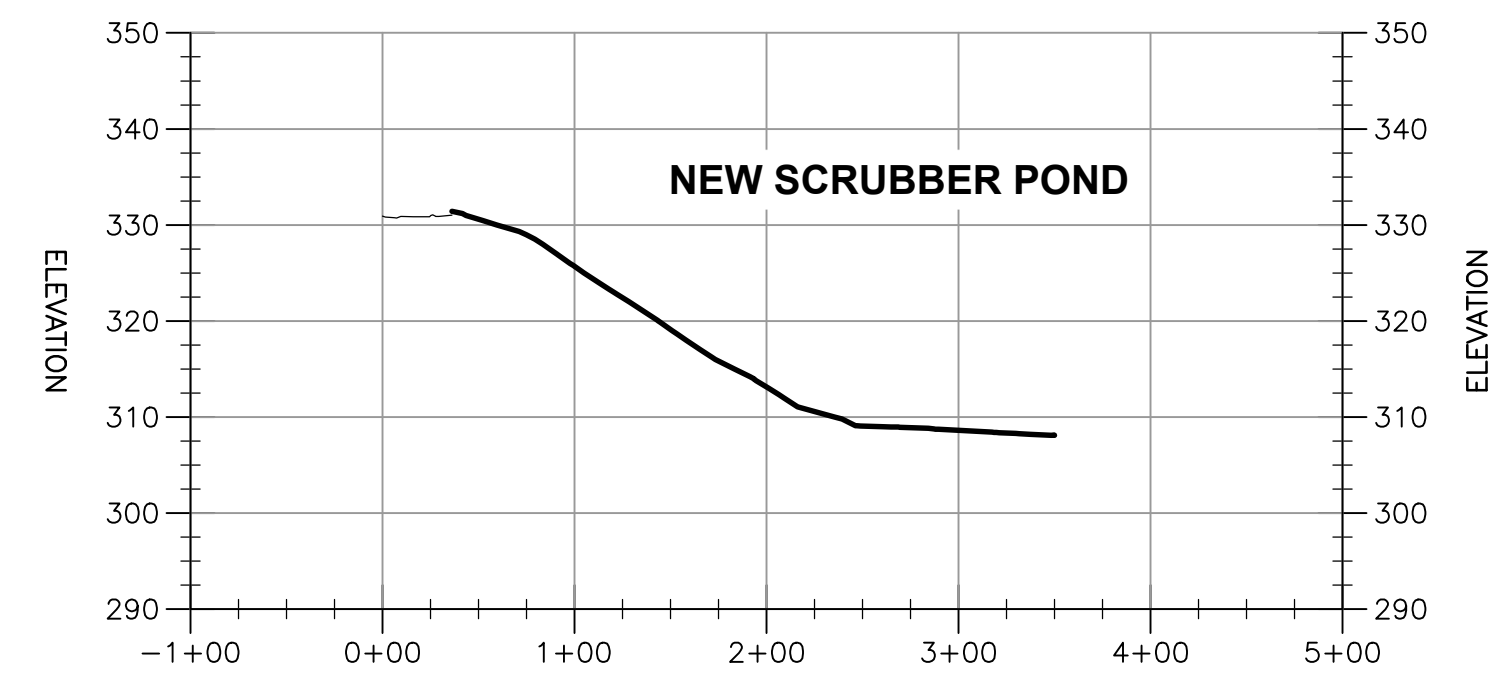
NOTES:
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SECTION A-A
 HORIZONTAL SCALE: 1" = 100' ; VERTICAL SCALE: 1" = 20'



SECTION B-B
 HORIZONTAL SCALE: 1" = 100' ; VERTICAL SCALE: 1" = 20'



SECTION C-C
 HORIZONTAL SCALE: 1" = 100' ; VERTICAL SCALE: 1" = 20'

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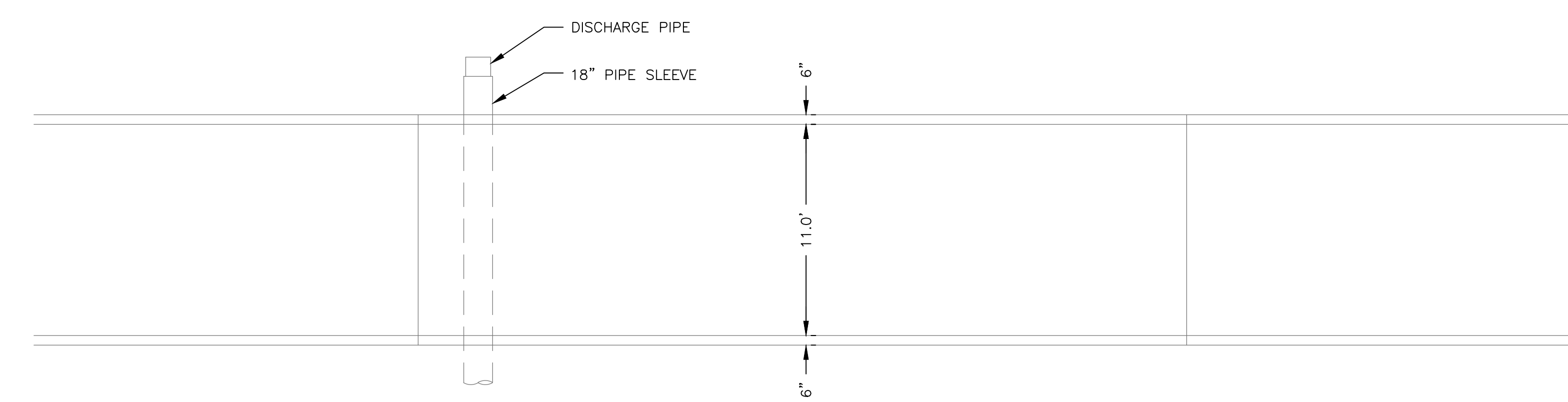


**MARTIN LAKE STEAM ELECTRICAL STATION
 NEW SCRUBBER POND RELINE
 RUSK COUNTY, TEXAS**

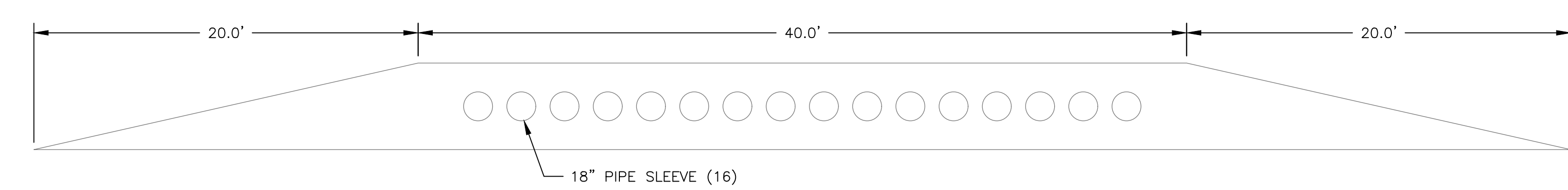
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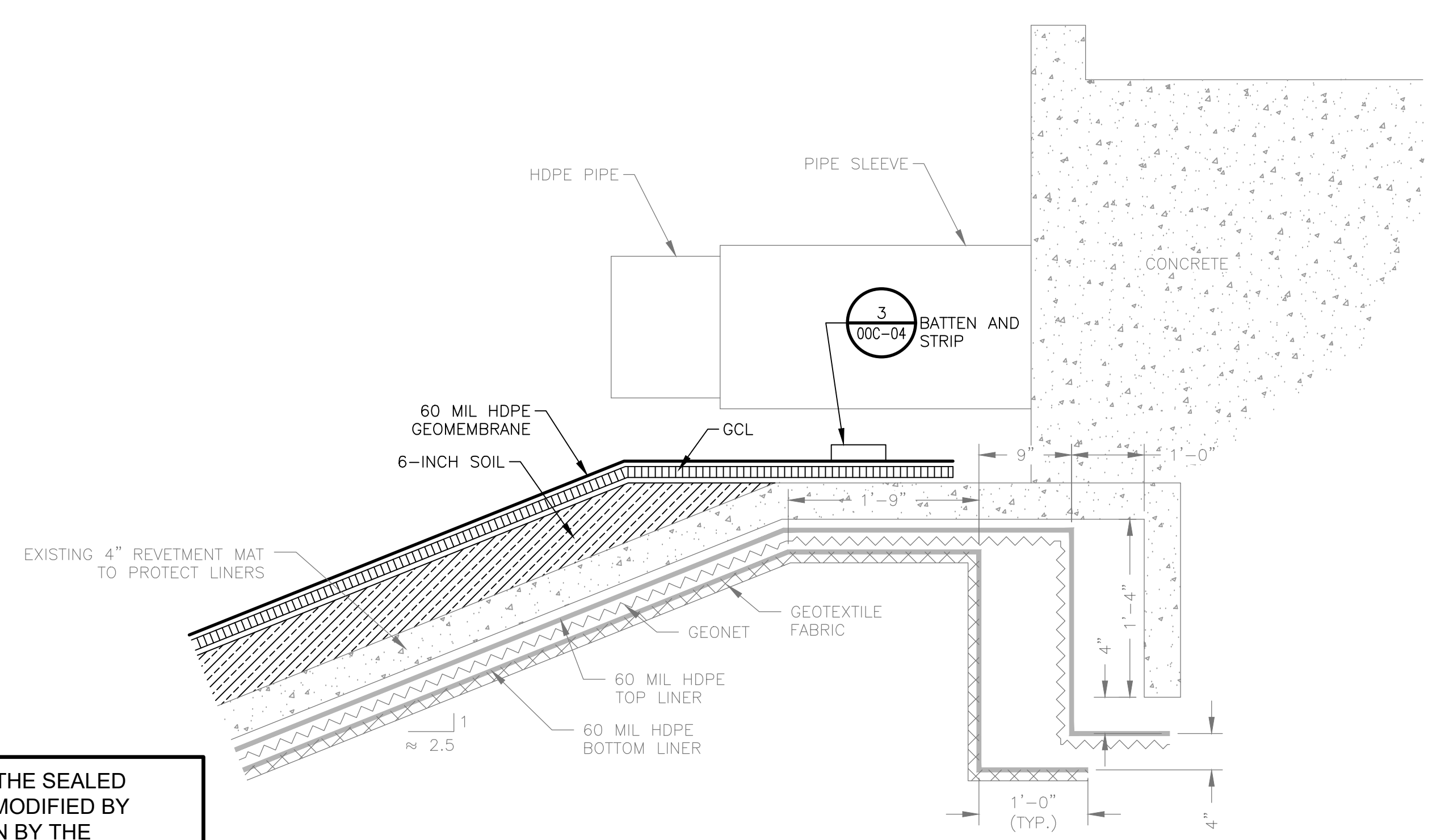
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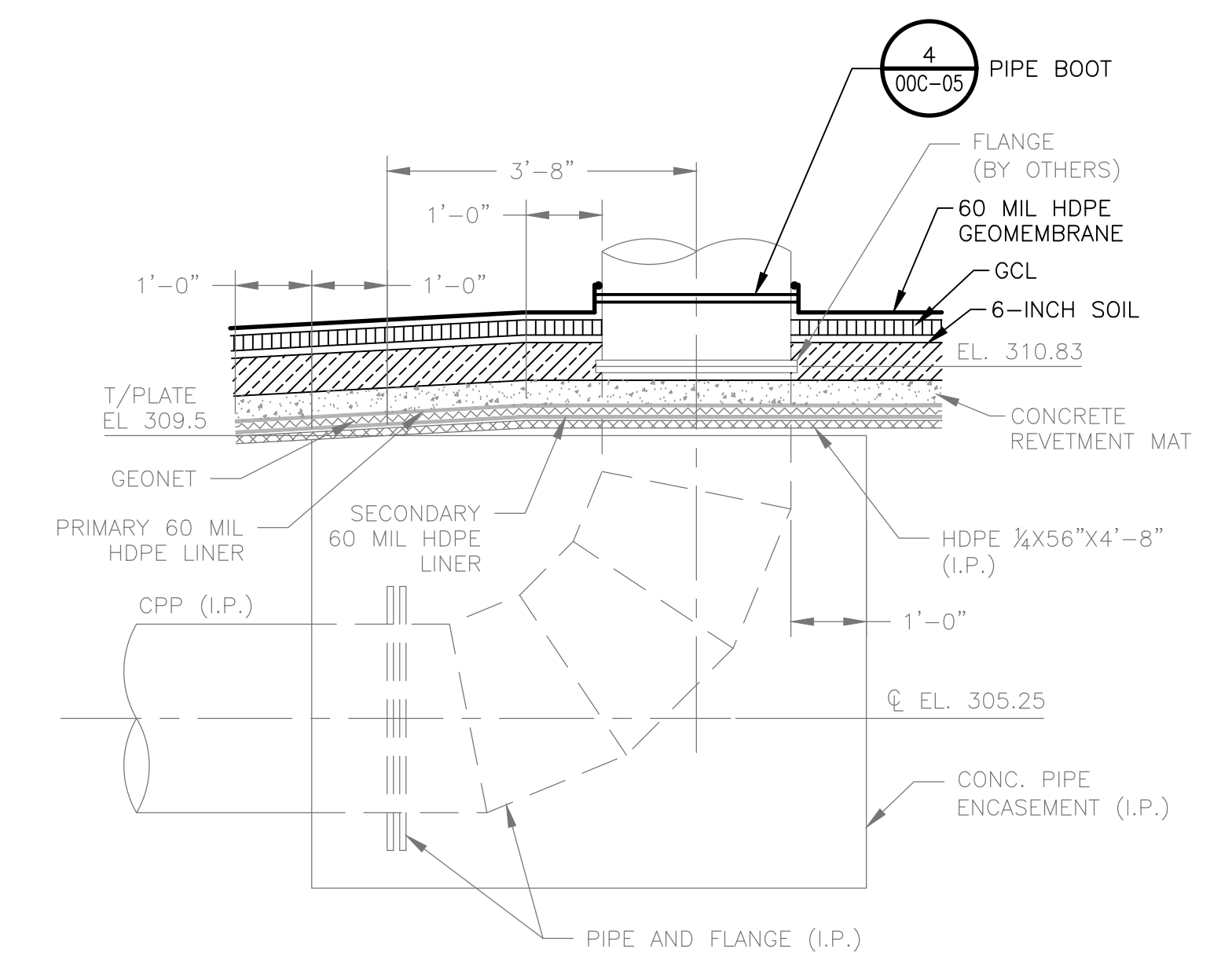


PIPE RACK PROFILE
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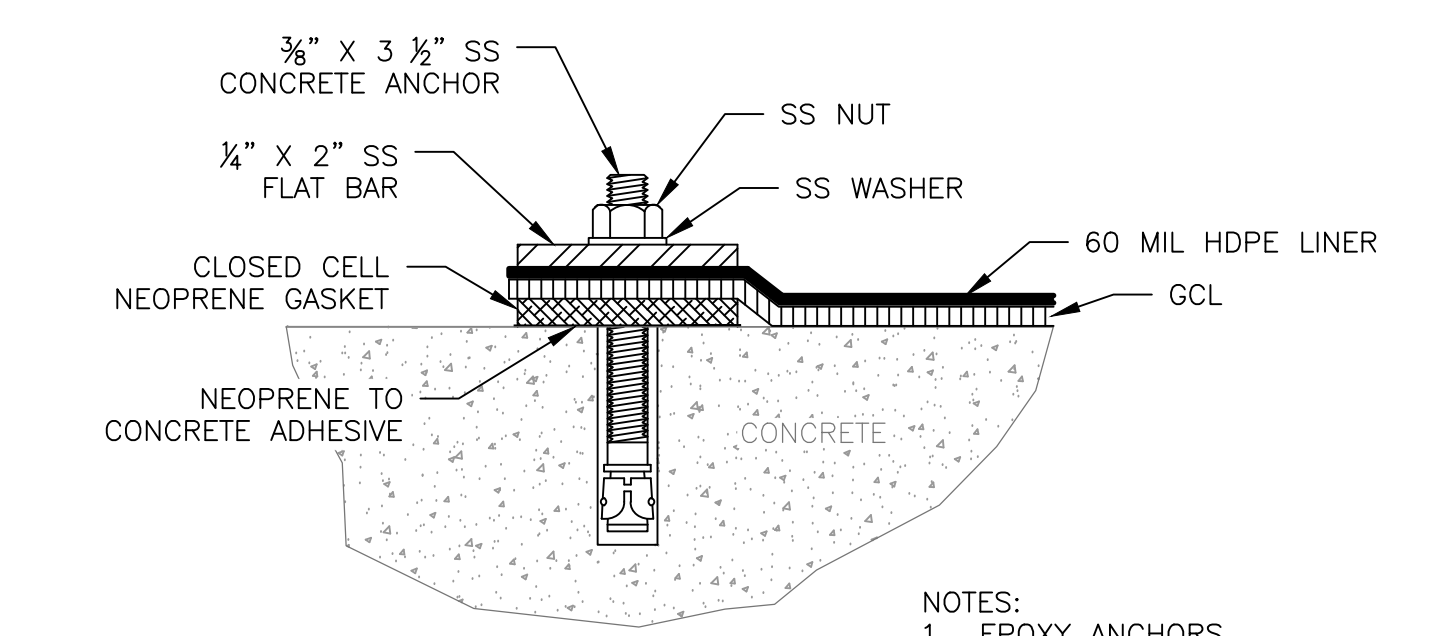


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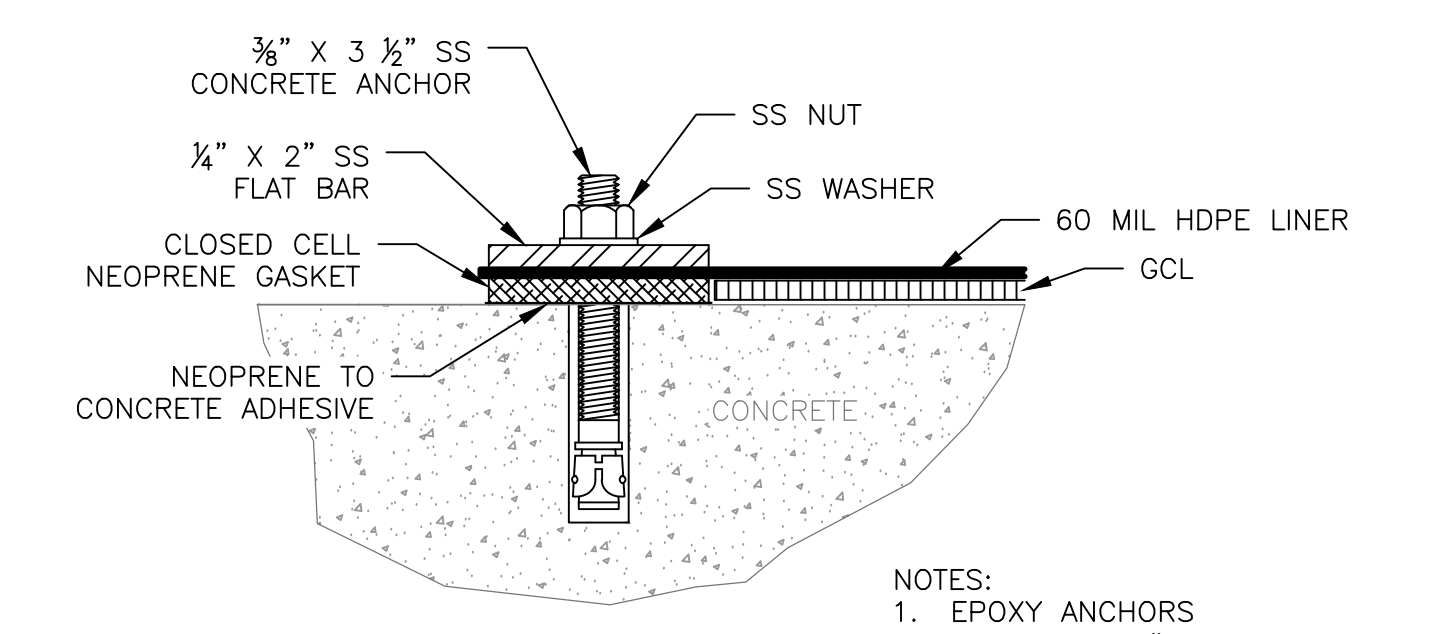


PIPE ENCASEMENT
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BATTEN AND STRIP CONNECTION AT ANCHOR TRENCH
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NOTES:
1. EPOXY ANCHORS SPACED AT 6" O.C.



BATTEN AND STRIP CONNECTION BELOW WATER SURFACE
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NOTES:
1. EPOXY ANCHORS SPACED AT 6" O.C.

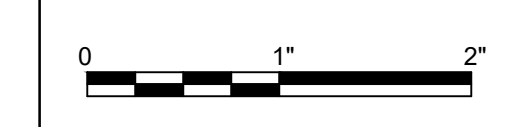


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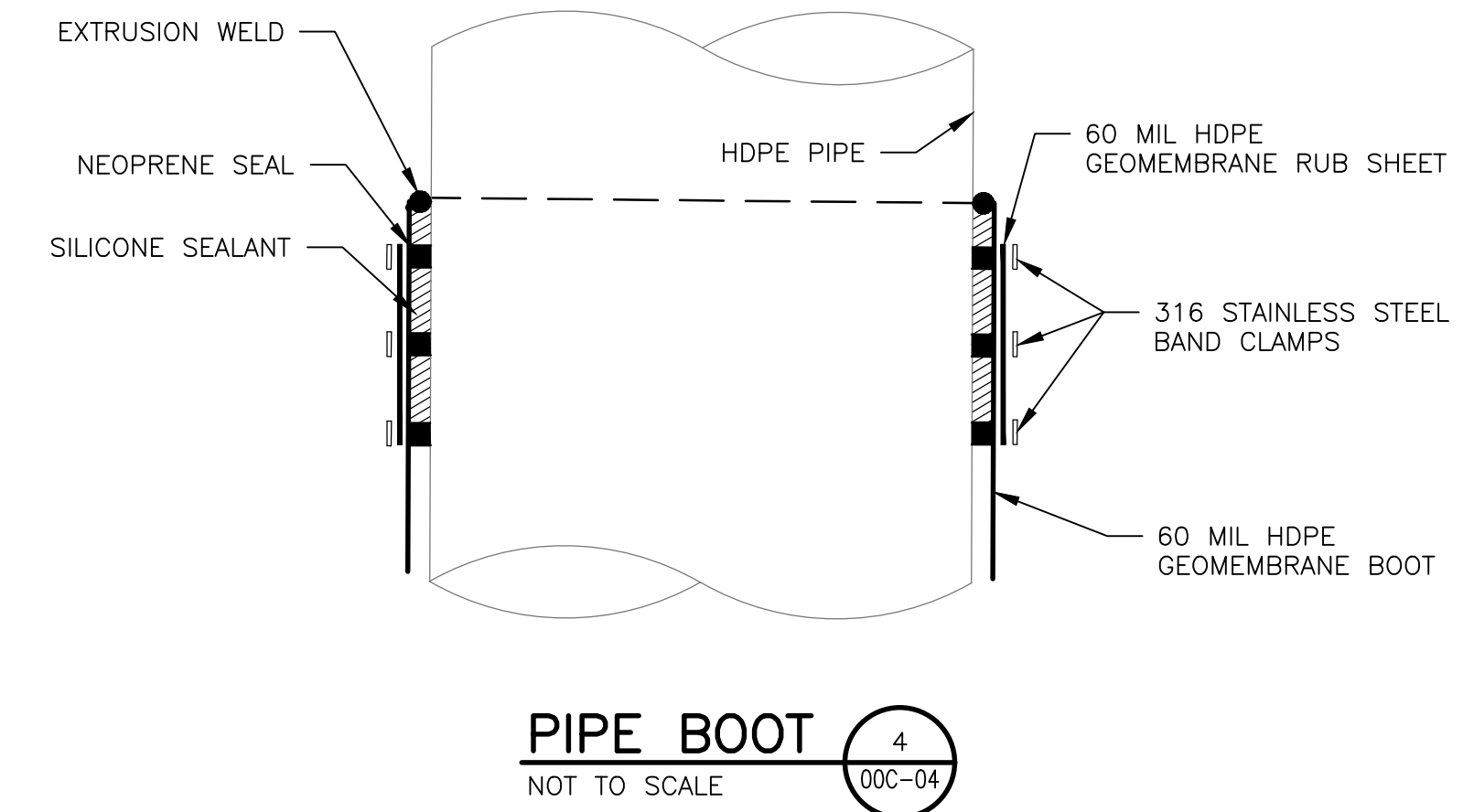
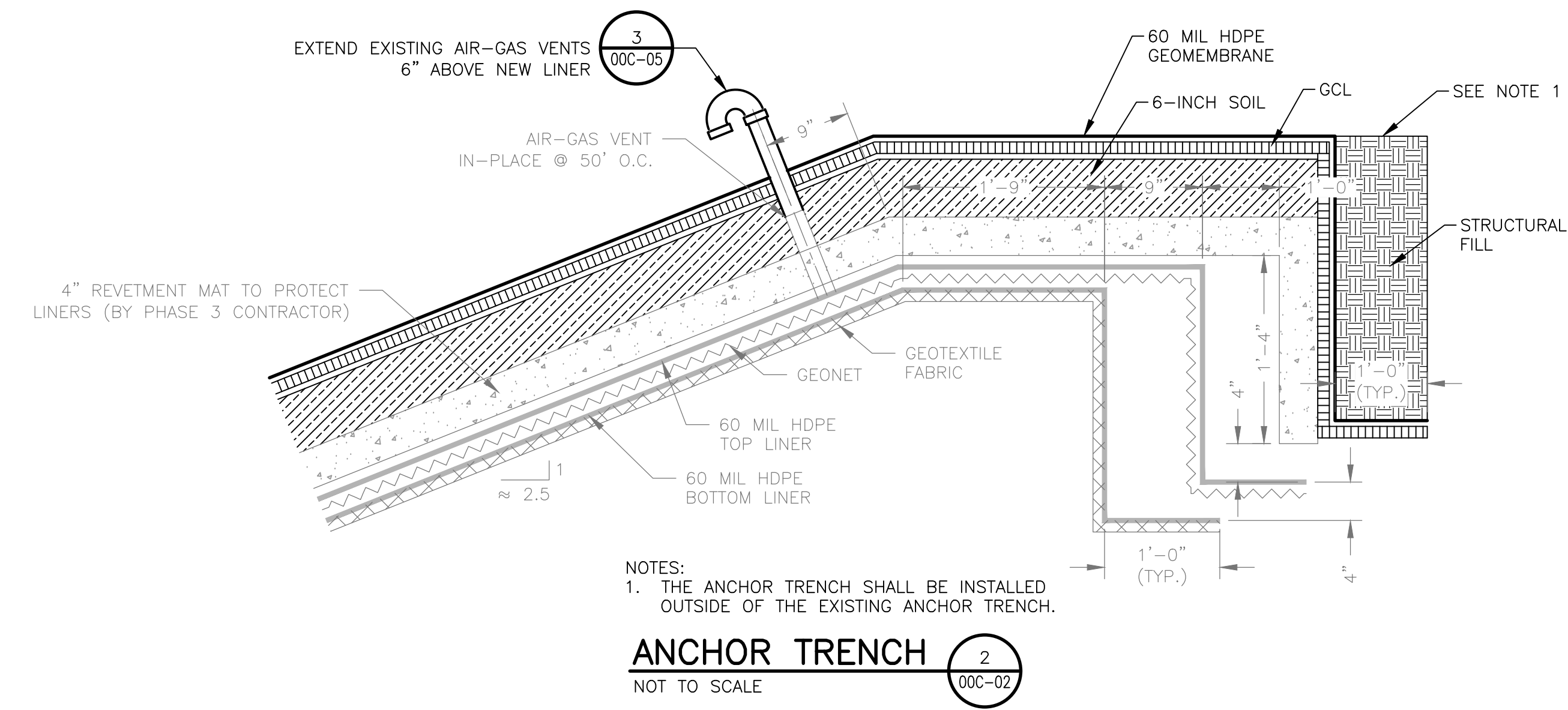
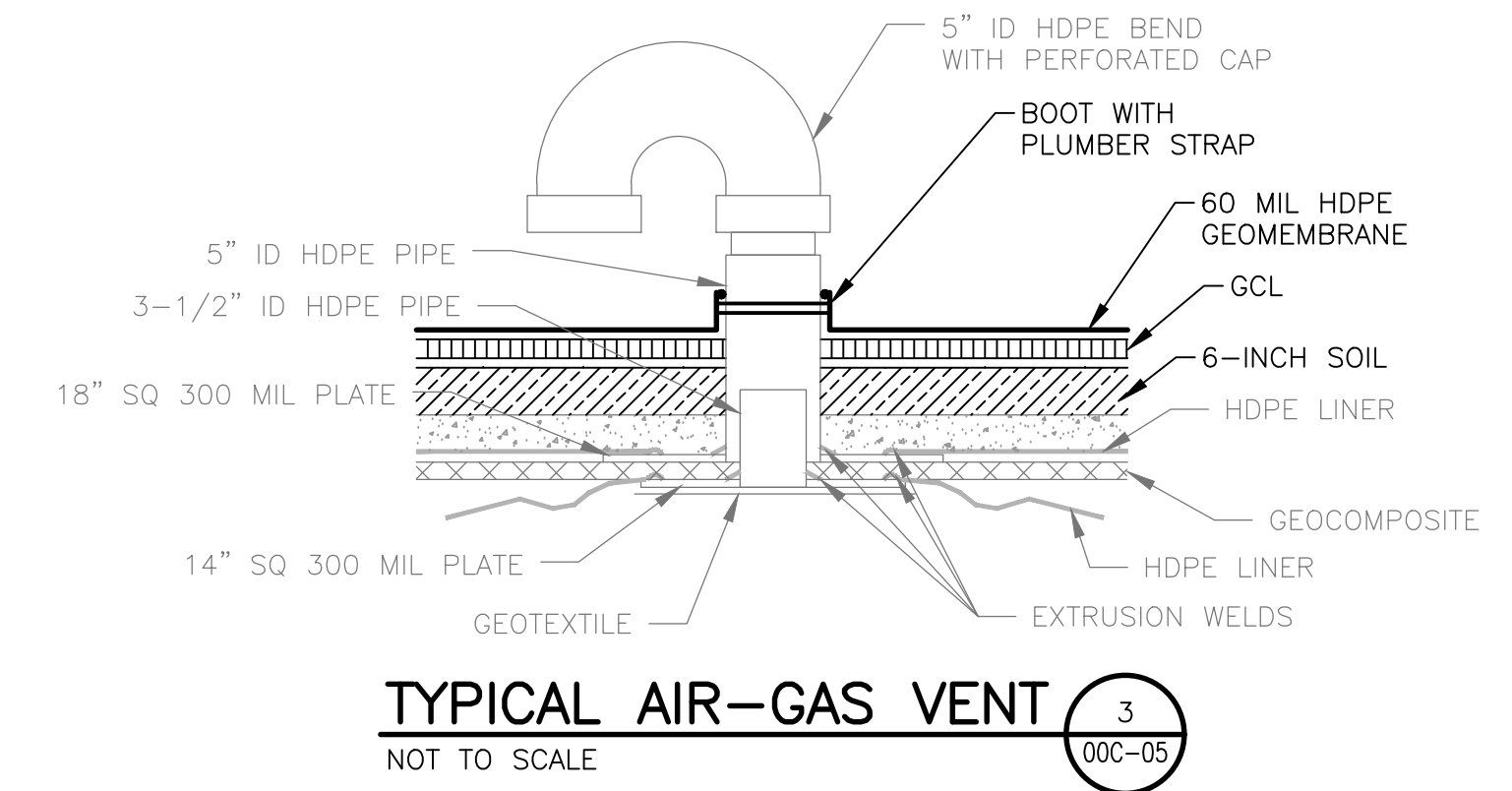
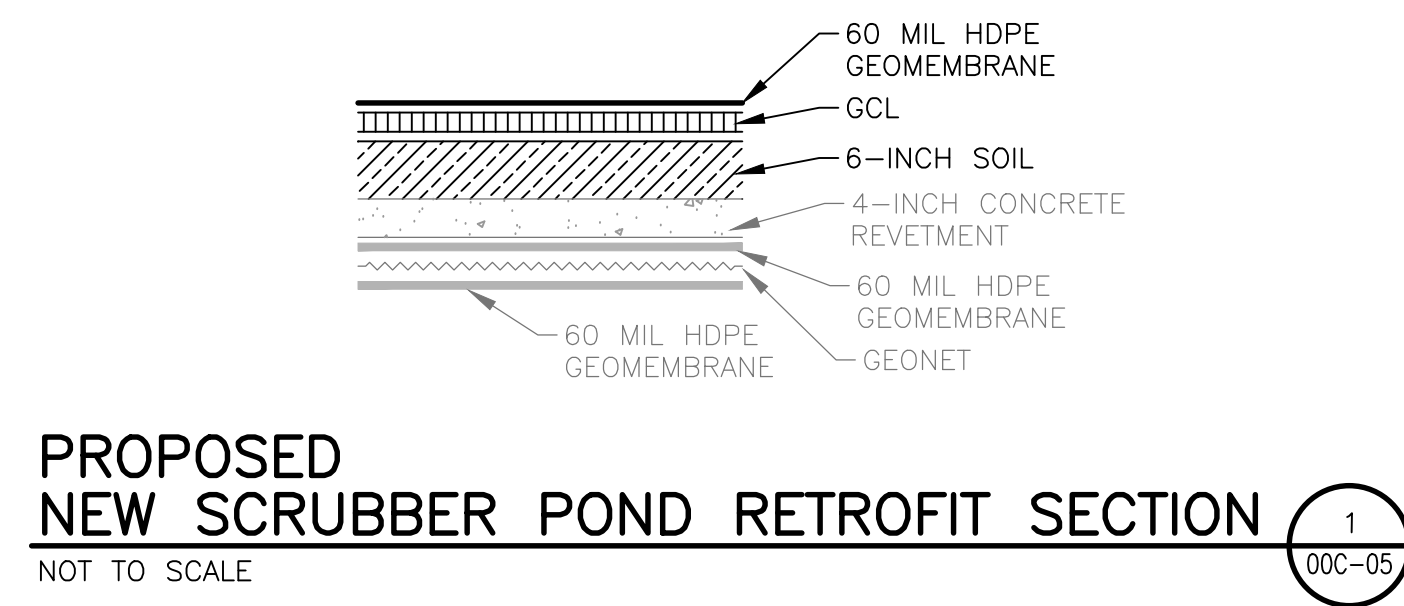
MARTIN LAKE STEAM ELECTRICAL STATION
NEW SCRUBBER POND RELINE
RUSK COUNTY, TEXAS



DETAILS
(1 OF 2)

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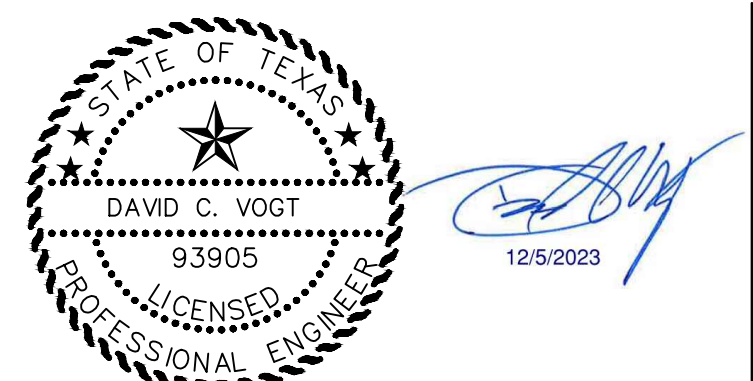


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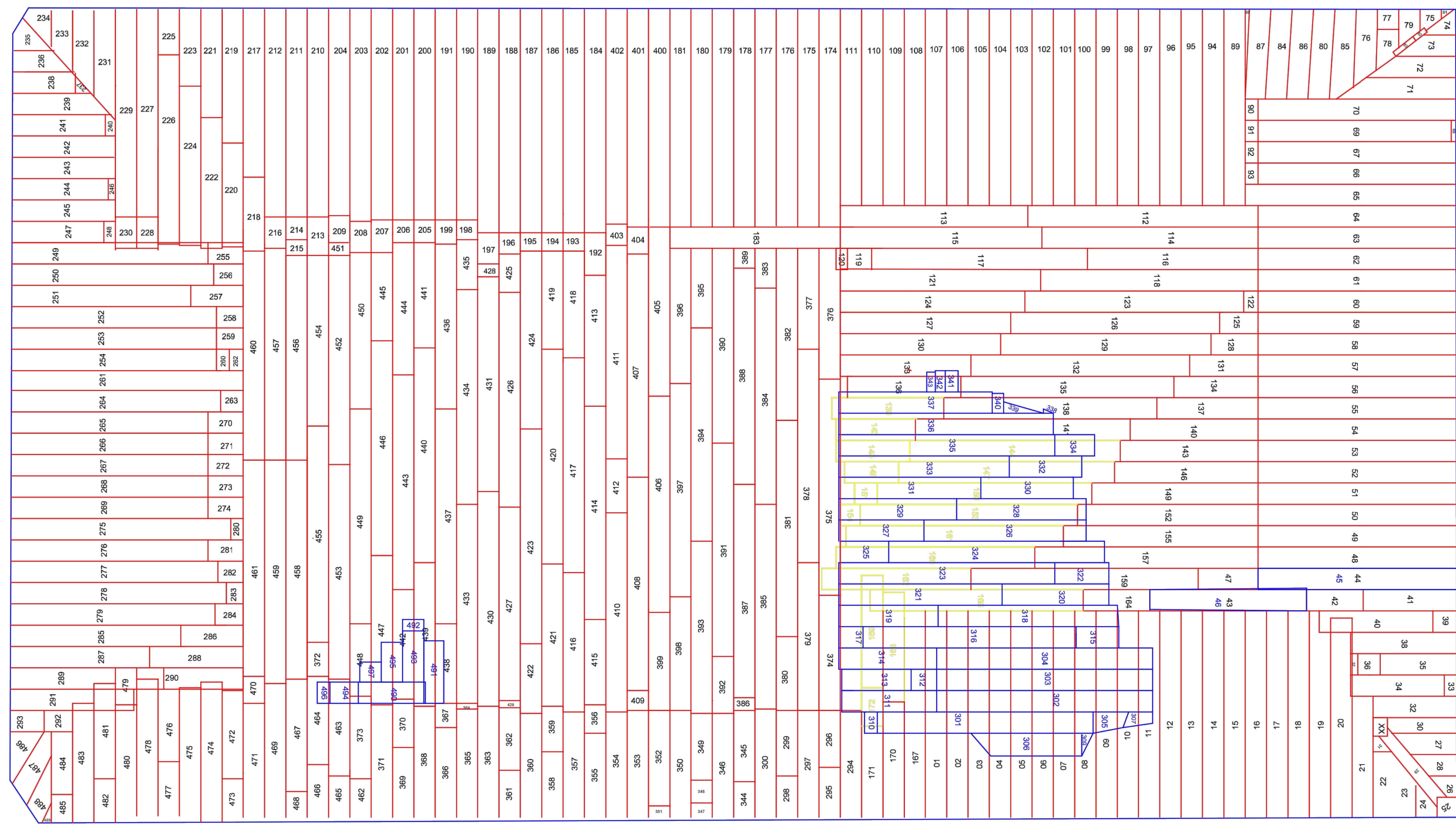
**MARTIN LAKE STEAM ELECTRICAL STATION
NEW SCRUBBER POND RELINE
RUSK COUNTY, TEXAS**



**DETAILS
(2 OF 2)**

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**MARTIN LAKE - NSP
TATUM, TEXAS**

GCL AS BUILT
JOB NO.: L238-23
DATE: NOV. 2023 | SCALE: AS SHOWN

APPROVED BY:

DRAWN BY:
NAH



ISSUE	DATE	DESCRIPTION
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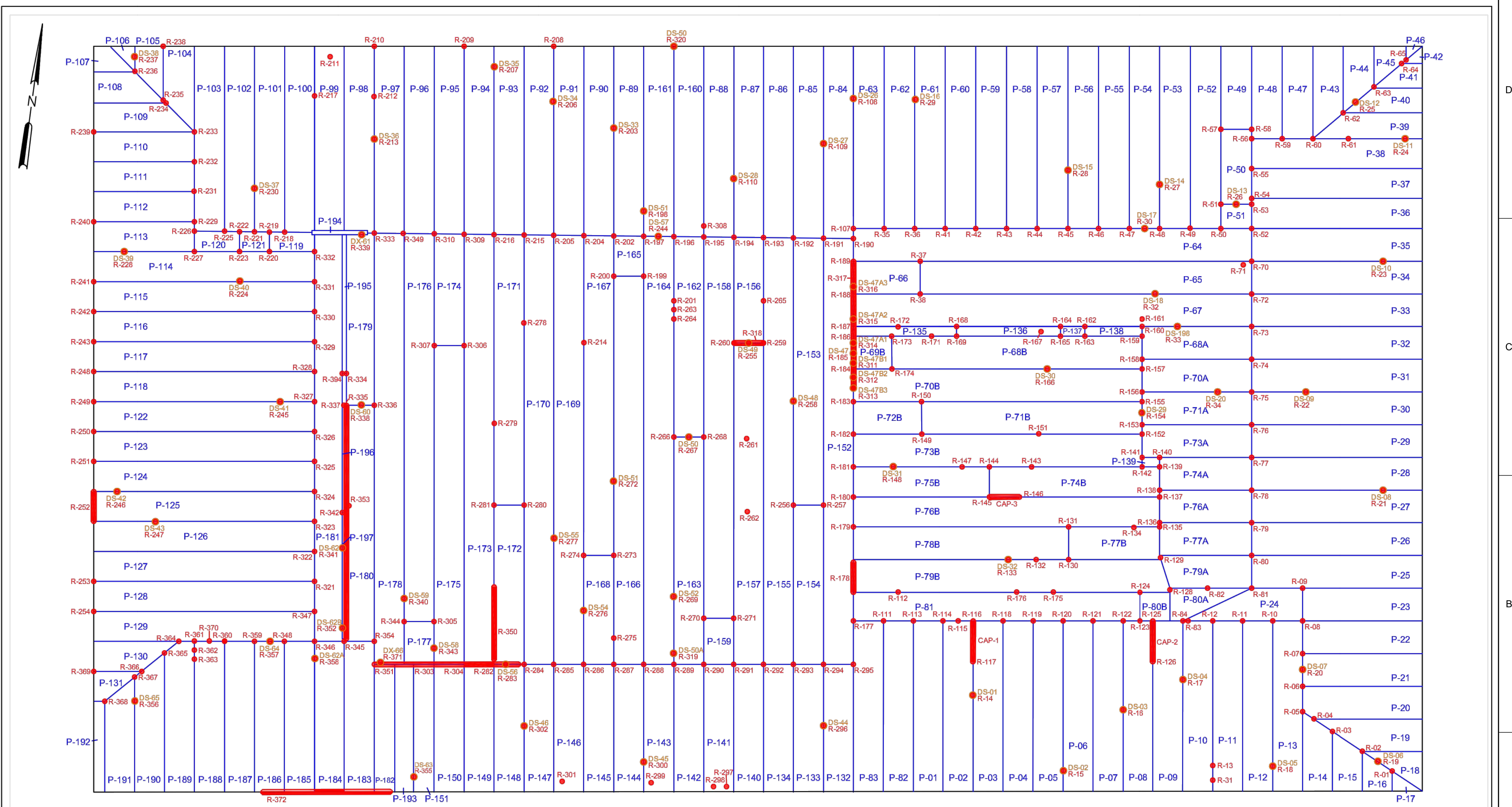
12/5/2023

**MARTIN LAKE STEAM ELECTRICAL STATION
NEW SCRUBBER POND RELINE
RUSK COUNTY, TEXAS**



GCL PANEL LAYOUT
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SCALE | NOT TO SCALE

SHEET
00C-06



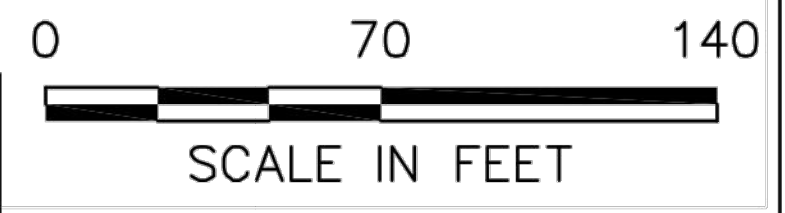
— GEOMEMBRANE SEAM
 ● REPAIR
 ● DESTROY

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Lone Star Lining Company
 1675 American Way
 Cedar Hill, Texas 75104
 Phone: (972) 291-5494
 Fax: (972) 291-5515

MARTIN LAKE SES TATUM, TEXAS		SCRUBBER POND RECORD DRAWING	
11" x 17"	SIZE	DWG NO. 22327-rd	REV
AS SHOWN	SCALE	11/3/2023 DATE	SHEET



ISSUE	DATE	DESCRIPTION
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PROJECT NUMBER	10172630



MARTIN LAKE STEAM ELECTRICAL STATION
 NEW SCRUBBER POND RELINE
 RUSK COUNTY, TEXAS



HDPE PANEL LAYOUT

FILENAME	00C-07.dwg
SCALE	NOT TO SCALE

SHEET
00C-07