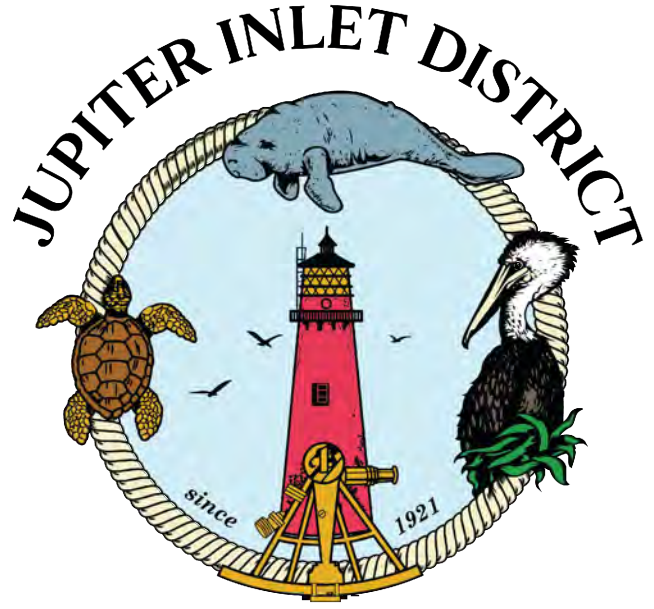


# LOXAHATCHEE RIVER MILE 6 GAP CLOSURE AND OXBOW RESTORATION MAINTENANCE

## MARTIN COUNTY, FLORIDA

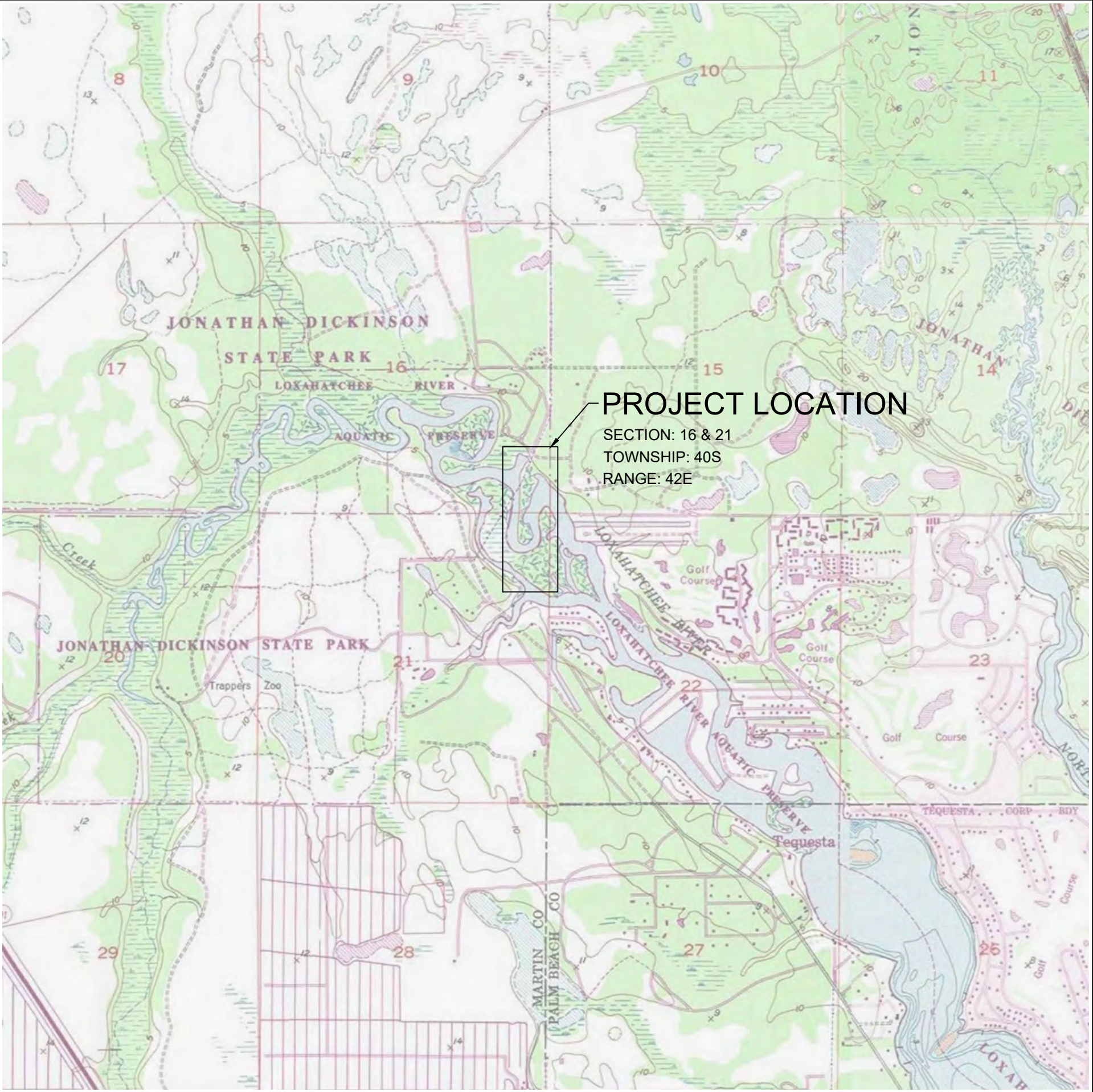


**LOCATION MAP**  
N.T.S.



### DRAWING INDEX

- C-1 TITLE SHEET
- C-2 PROJECT OVERVIEW
- C-3 EXISTING CONDITIONS
- C-4 GAP CLOSURE PLAN
- C-5 OXBOW RESTORATION MAINTENANCE PLAN - NORTH
- C-6 OXBOW RESTORATION MAINTENANCE PLAN - SOUTH
- C-7 MINOR REPAIR 1 RESTORATION PLAN
- C-8 MINOR REPAIR 2 RESTORATION PLAN
- C-9 SHOAL DREDGING PLAN
- C-10 EROSION CONTROL DETAILS



**VICINITY MAP**  
1" = 2000' (22x34)  
1" = 4000' (11x17)

REFERENCE:  
USA TOPO MAPS, ESRI

**Call 811 before you dig.**

**TAYLOR ENGINEERING, INC.**  
10199 SOUTHSIDE BLVD  
SUITE 310  
JACKSONVILLE, FLORIDA 32256  
(904)-731-7040  
REGISTRY # 4815

PROJECT TITLE  
**LOXAHATCHEE RIVER MILE 6  
GAP CLOSURE AND OXBOW  
RESTORATION  
MAINTENANCE**  
MARTIN COUNTY, FLORIDA

PROJECT NO: C2023-075  
DATE: OCT 2023

SEAL  
KENNETH R. CRAIG II P.E.# 52605

**C-1**  
SHEET 1 OF 10

ANTON FLEWELLING, 10/26/2023 6:01:03 PM, X:\ypr\Projects\2019-024\_JID\_Oxbow\Construction\2019-024-C-Title.dwg

ANTON FLEVELLING, 10/26/2023, 3:19:23 PM, X:\ypr\Projects\2019-024\_C-Project Overview.dwg



**PROJECT OVERVIEW**  
SCALE: 1" = 200'



**CONTRACTOR STAGING AREA**  
SCALE: 1" = 60'

GENERAL NOTES:

1. ALL ELEVATIONS SHOWN REFERENCE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) UNLESS OTHERWISE NOTED.
2. MINOR REPAIR AREAS #1 AND #2 CONSIST OF HAND PLACED STONE TO RESTOR EXISTING STRUCTURE'S CREST ELEVATION TO +1 FT-NAVD88 (PREVIOUSLY-AUTHORIZED ELEVATION).
3. FINAL LOCATIONS OF ALL PROJECT FEATURES TO BE DETERMINED BASED ON CONTRACTOR'S PRE-CONSTRUCTION SURVEY.
4. CONTRACTOR SHALL COMPLETE ALL STONE PLACEMENT BEFORE STARTING DREDGING.

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SEAL

KENNETH R. CRAIG II P.E. # 52605

PROJECT TITLE

**LOXAHATCHEE RIVER MILE 6 GAP CLOSURE  
AND OXBOW RESTORATION MAINTENANCE**  
MARTIN COUNTY, FLORIDA

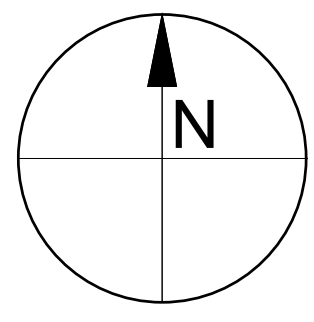
NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

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DRAWN	AF
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SHEET TITLE

**PROJECT OVERVIEW**



**LIDBERG LAND SURVEYING, INC. SURVEY REPORT**

SURVEY JOB NO: 14-087A-121

1. THIS IS A HYDROGRAPHIC SURVEY.
2. THERE MAY BE ADDITIONAL EASEMENTS AND/OR RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF PALM BEACH COUNTY. NO SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED BY LIDBERG LAND SURVEYING, INC.
3. ALL FIELD-MEASURED CONTROL MEASUREMENTS EXCEEDED AN ACCURACY OF 1' IN 7,500'.
4. ELEVATIONS SHOWN ARE BASED ON MEAN LOW WATER (M.L.W.) AND ARE REFERENCED TO TIDAL STATION "872-2472", BENCHMARK "NO 4 1972", ELEVATION = 7.75 (M.L.W.). BENCHMARKS SET OR FOUND FOR THIS SURVEY ARE NOTED ON THE SKETCH. NOTE, TO CONVERT FROM MEAN LOW WATER (M.L.W.) TO NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 88) SUBTRACT 2.04 FEET.
5. THIS SURVEY IS PREPARED ONLY FOR THE PARTIES LISTED BELOW AND IS NOT ASSIGNABLE. PREPARED FOR: JUPITER INLET DISTRICT
6. © COPYRIGHT 2019 BY LIDBERG LAND SURVEYING, INC. THE SKETCH OF SURVEY AND SURVEY REPORT COMPRISE THE COMPLETE SURVEY. THIS SURVEY IS NOT VALID UNLESS THE SKETCH AND REPORT ACCOMPANY EACH OTHER. REPRODUCTIONS OF THIS SURVEY ARE NOT VALID WITHOUT THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER EMPLOYED BY LIDBERG LAND SURVEYING, INC.

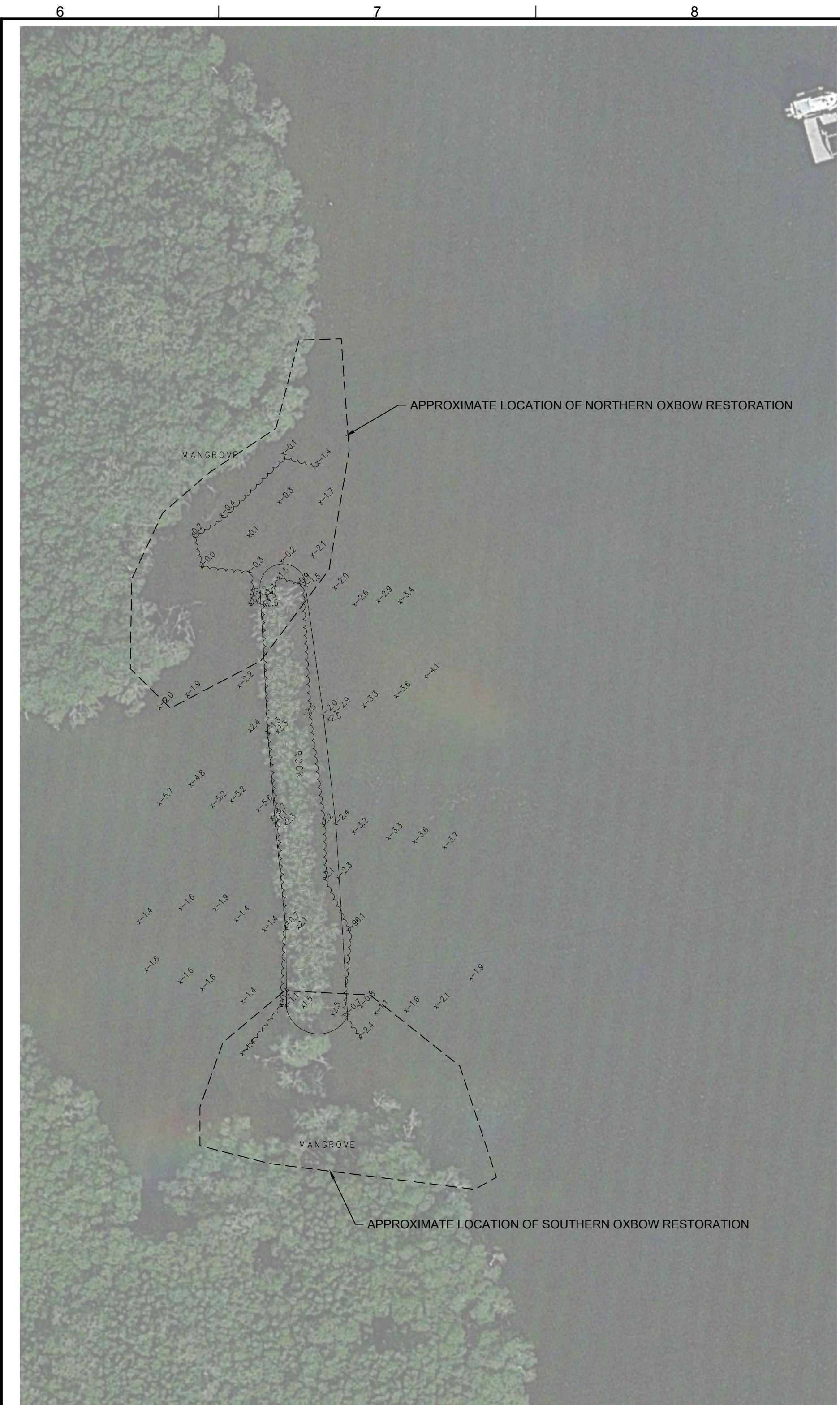
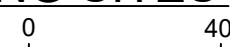
BENCHMARK  
TIDAL STATION "872-2472",  
BENCHMARK "NO 4 1972"  
ELEVATION=7.75 M.L.W.  
ELEVATION=5.71 NAVD(88)

BENCHMARK  
SET MAG & DISK  
"TRAVERSE LB 4431"  
IN SOUTH FACE OF  
WOOD PILE  
ELEVATION=4.77 MLW  
ELEVATION=2.73 NAVD(88)

LIDBERG LAND SURVEYING, INC.

**EXISTING CONDITIONS AT GAP CLOSURE AND DREDGING SITES**

SCALE: 1" = 40'



**LIDBERG LAND SURVEYING, INC. SURVEY REPORT**

SURVEY JOB NO: 14-087-105

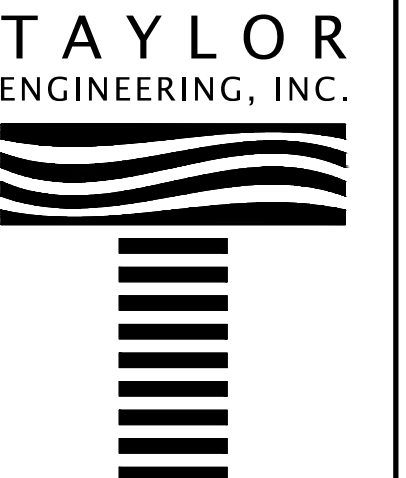
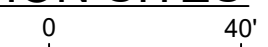
1. THIS IS A TOPOGRAPHIC SURVEY AS DEFINED IN CHAPTER 5J-17.050, FLORIDA ADMINISTRATIVE CODE.
2. THERE MAY BE ADDITIONAL EASEMENTS AND/OR RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF PALM BEACH COUNTY. NO SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED BY LIDBERG LAND SURVEYING, INC.
3. THE EXPECTED USE OF THE SUBJECT PROPERTY FALLS WITHIN THE SUBURBAN CATEGORY AS CLASSIFIED IN CHAPTER 5J-17.051, FLORIDA ADMINISTRATIVE CODE. ALL FIELD-MEASURED CONTROL MEASUREMENTS EXCEEDED THE ACCURACY REQUIREMENTS FOR THIS CLASSIFICATION.
4. ELEVATIONS SHOWN ARE BASED ON N.G.V.D. OF 1929 AND ARE REFERENCED TO TIDAL BENCHMARK "872 2472 4", ELEVATION = 5.71 NAVD88 OR 7.21 NGVD29. DATA COLLECTED USING TOPCON HIPER V, GPS RECEIVERS BETWEEN 08/20/2014 THROUGH 11/11/2014.
5. THIS SURVEY IS PREPARED ONLY FOR THE PARTIES LISTED BELOW AND IS NOT ASSIGNABLE. PREPARED FOR: JUPITER INLET DISTRICT
6. © COPYRIGHT 2014 BY LIDBERG LAND SURVEYING, INC. THE SKETCH OF SURVEY AND SURVEY REPORT COMPRISE THE COMPLETE SURVEY. THIS SURVEY IS NOT VALID UNLESS THE SKETCH AND REPORT ACCOMPANY EACH OTHER. REPRODUCTIONS OF THIS SURVEY ARE NOT VALID WITHOUT THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER EMPLOYED BY LIDBERG LAND SURVEYING, INC.

TIDAL BENCHMARK  
"872 2472 4"  
ELEVATION=5.71 NAVD 1988  
ELEVATION=7.21 NGVD 1929

LIDBERG LAND SURVEYING, INC.

**EXISTING CONDITIONS AT OXBOW RESTORATION SITES**

SCALE: 1" = 40'



10199 SOUTHSIDE BLVD  
SUITE 310  
JACKSONVILLE, FLORIDA 32256  
(904)-731-7040  
REGISTRY # 4815

SEAL

KENNETH R. CRAIG II P.E.# 52605

PROJECT TITLE  
**LOXAHATCHEE RIVER MILE 6 GAP CLOSURE  
AND OXBOW RESTORATION MAINTENANCE**  
MARTIN COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

**Call 811 before you dig.**

PROJECT NO	C2023-075
DATE	OCT 2023
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DRAWN	AF
CHECKED	CHECKBY
REVIEWED	REVBV

SHEET TITLE

**EXISTING  
CONDITIONS**

**C-3**

SHEET 3 OF 10

ANTON FLEWELLING, 10/26/2023, 3:18:30 PM, X:\my\Projects\2019-2024\024-C-Existing Conditions.dwg

NO.	ZONE	DATE

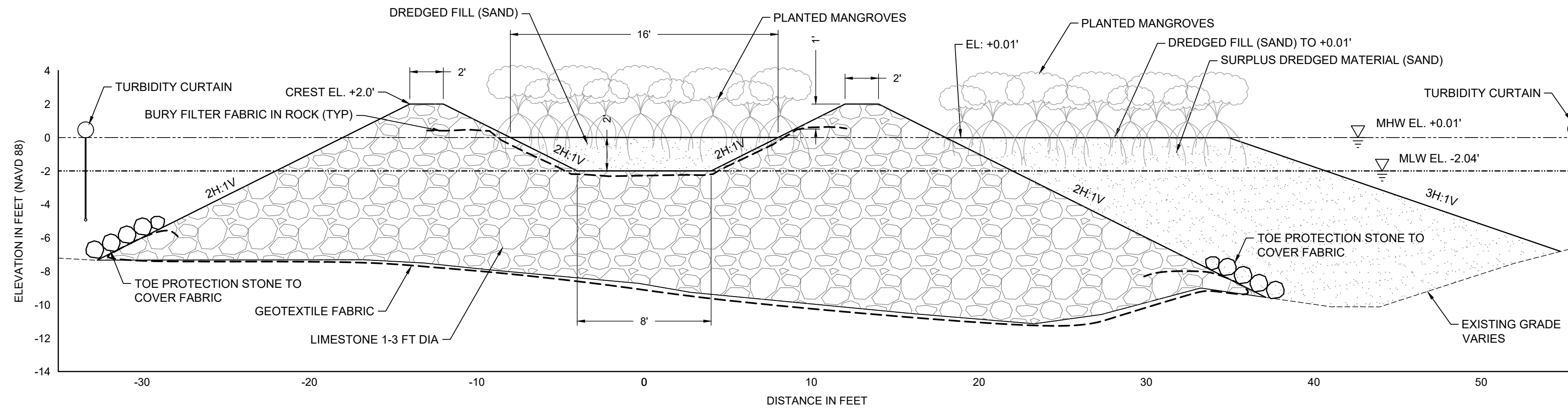
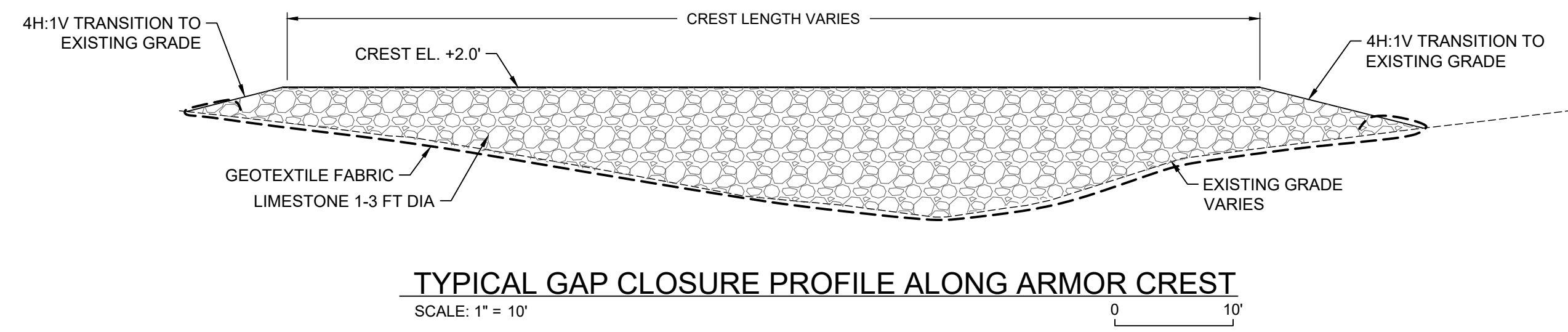
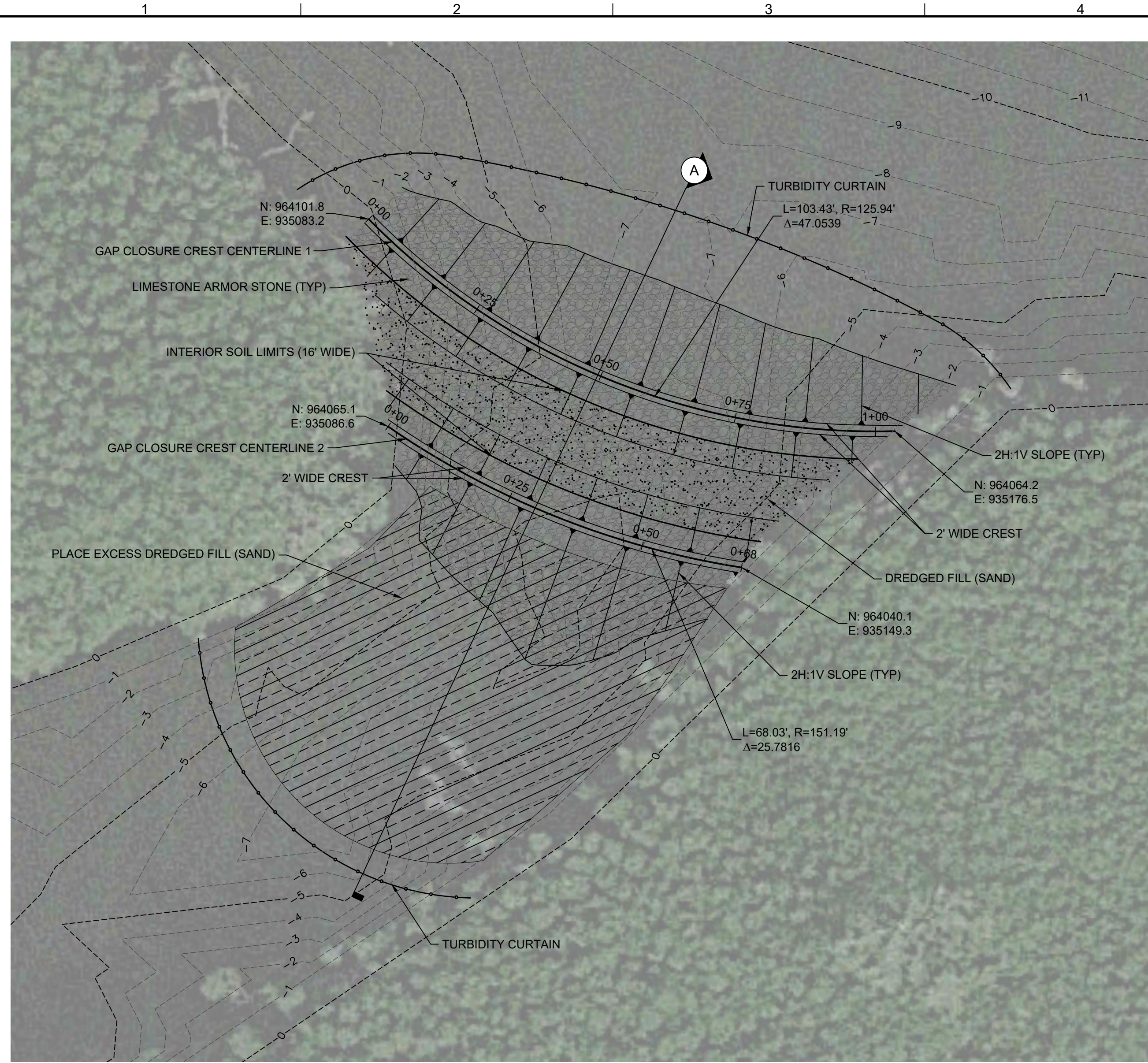
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DATE	OCT 2023
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DRAWN	AF
CHECKED	CHECKBY
REVIEWED	REVB

SHEET TITLE

**GAP CLOSURE PLAN**

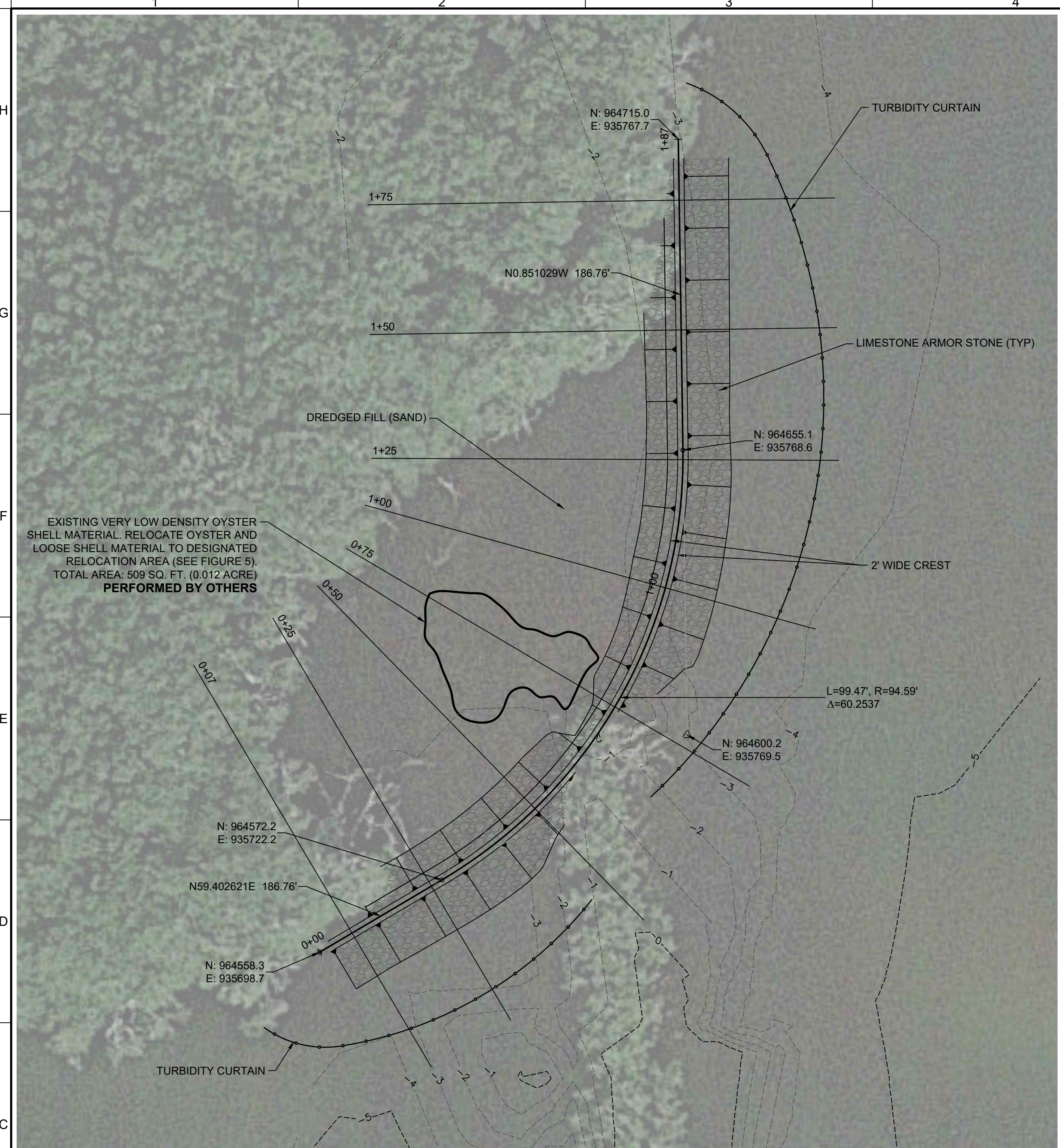
**C-4**



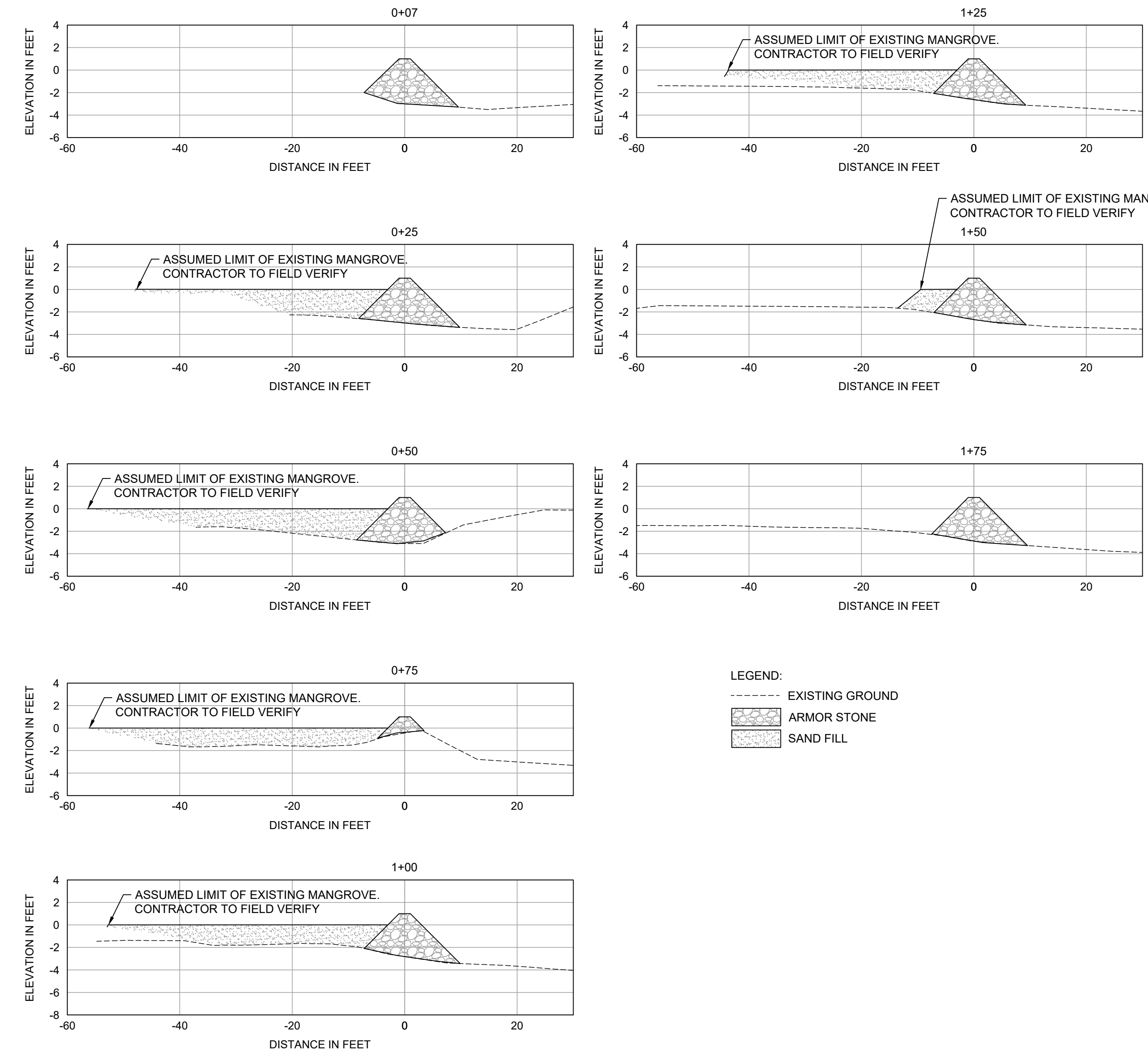
PLANTING SCHEDULE				
COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING	EST. QUANTITY*
RED MANGROVE	<i>Rhizophora mangle</i>	3 GAL (MIN)	4 FT O.C.	170

\*ESTIMATED QUANTITY. FINAL QUANTITY MAY VARY BASED ON ACTUAL SITE CONDITIONS.

ANTON FLEWELLING, 10/26/2023 3:19:47 PM, X:\proj\Projects\2019-024\_C-Oxbow Restoration Plan.dwg

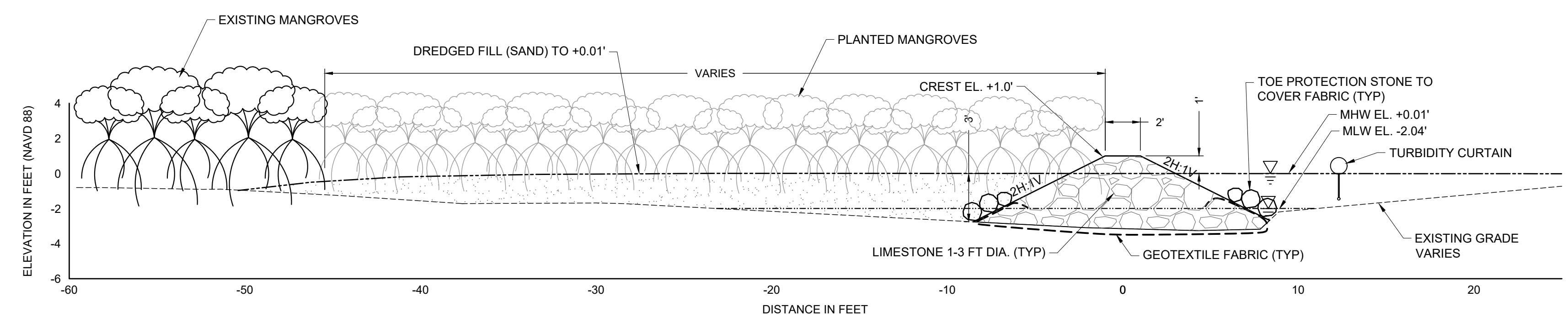


**NORTH OXBOW RESTORATION PLAN**  
SCALE: 1" = 15'



**LEGEND:**  
 --- EXISTING GROUND  
 [Hatched] ARMOR STONE  
 [Stippled] SAND FILL

**NORTH OXBOW RESTORATION CROSS-SECTIONS**  
SCALE: 1" = 15'



**TYPICAL OXBOW RESTORATION CROSS-SECTION**  
SCALE: 1" = 5'

PLANTING SCHEDULE				
COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING	EST. QUANTITY*
RED MANGROVE	<i>Rhizophora mangle</i>	3 GAL (MIN)	4 FT O.C.	370

\*ESTIMATED QUANTITY. FINAL QUANTITY MAY VARY BASED ON ACTUAL SITE CONDITIONS.

**TAYLOR ENGINEERING, INC.**  
  
 10199 SOUTHSIDE BLVD SUITE 310  
 JACKSONVILLE, FLORIDA 32256  
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 REGISTRY # 4815

SEAL  
 KENNETH R. CRAIG II P.E. # 52605

PROJECT TITLE  
**LOXAHATCHEE RIVER MILE 6 GAP CLOSURE AND OXBOW RESTORATION MAINTENANCE**  
 MARTIN COUNTY, FLORIDA

NO.	REVISIONS / SUBMISSIONS	DATE

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SHEET TITLE  
**OXBOW RESTORATION MAINTENANCE PLAN - NORTH**

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

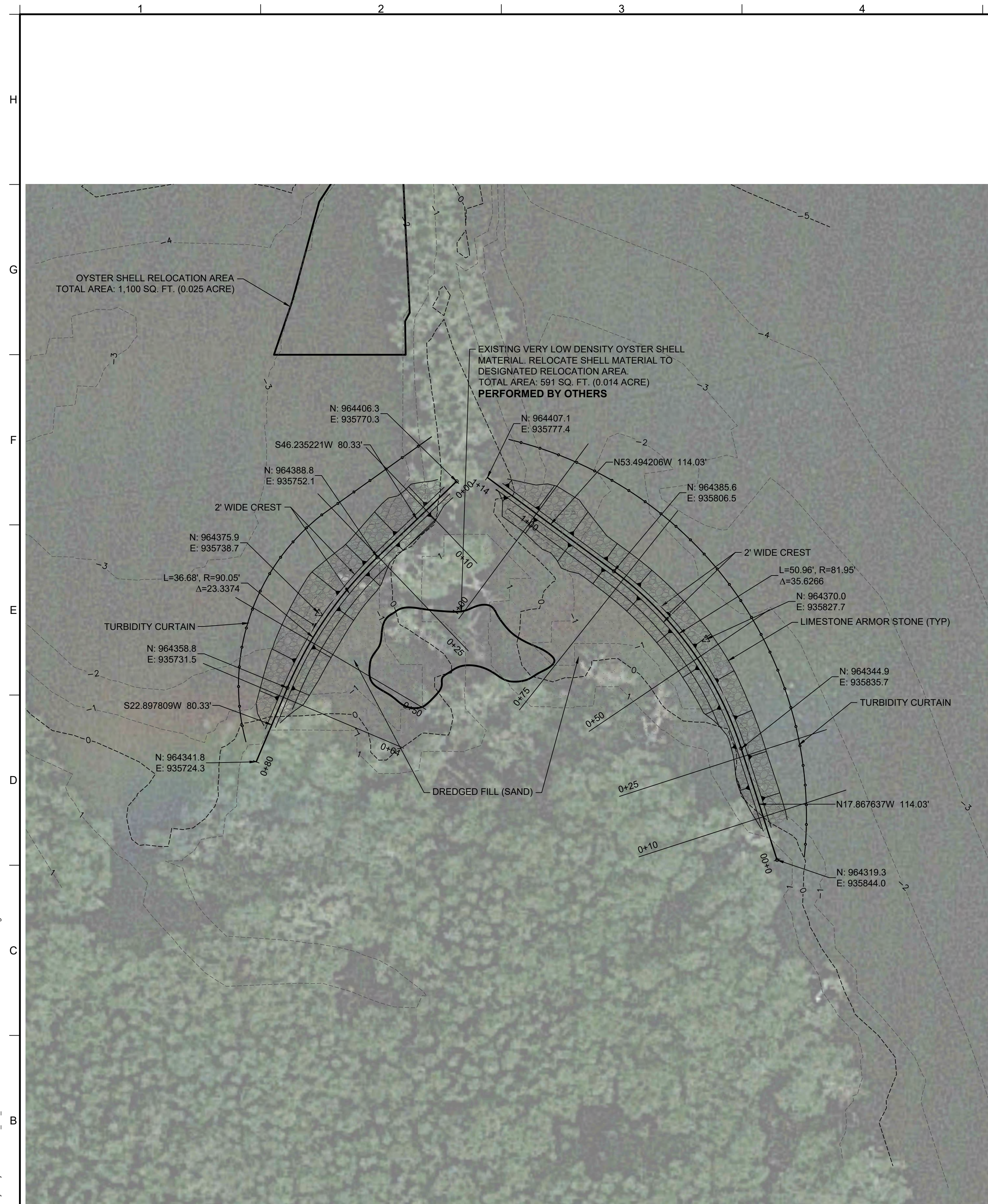
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SHEET TITLE

**OXBOW  
RESTORATION  
MAINTENANCE  
PLAN - SOUTH**

**C-6**

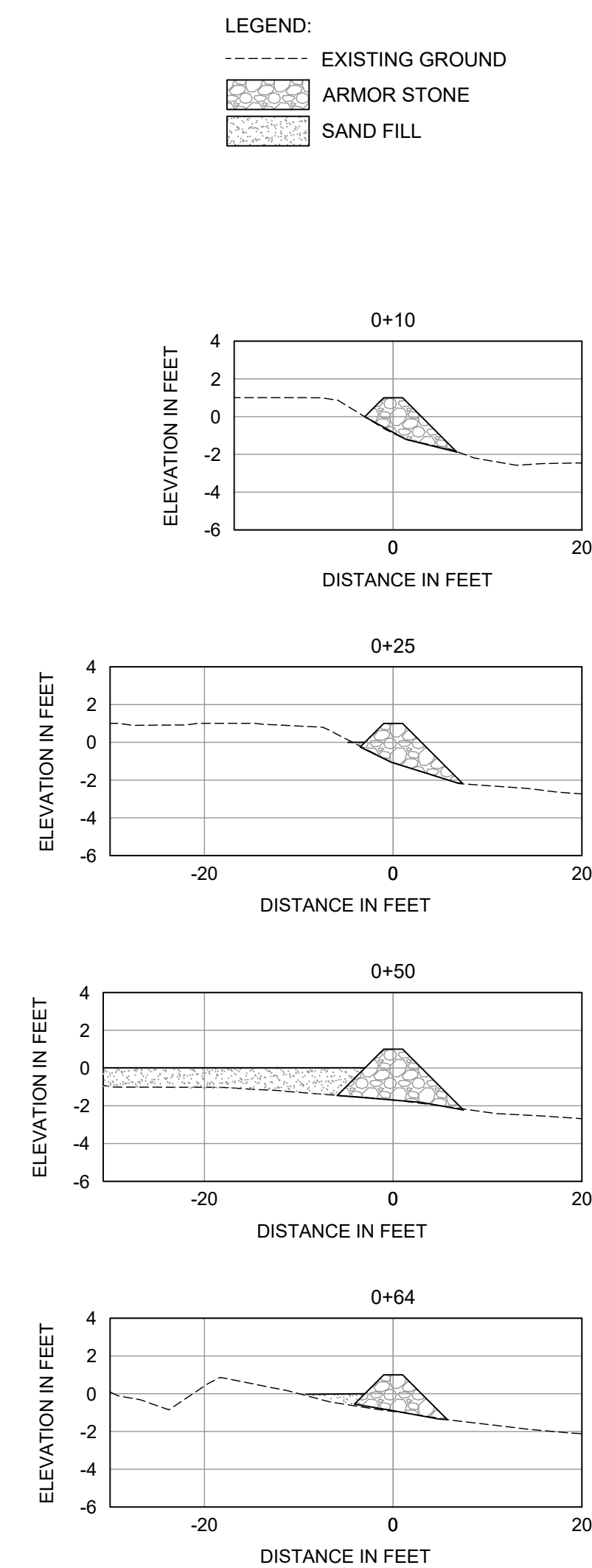


**SOUTH OXBOW RESTORATION PLAN**

SCALE: 1" = 15'

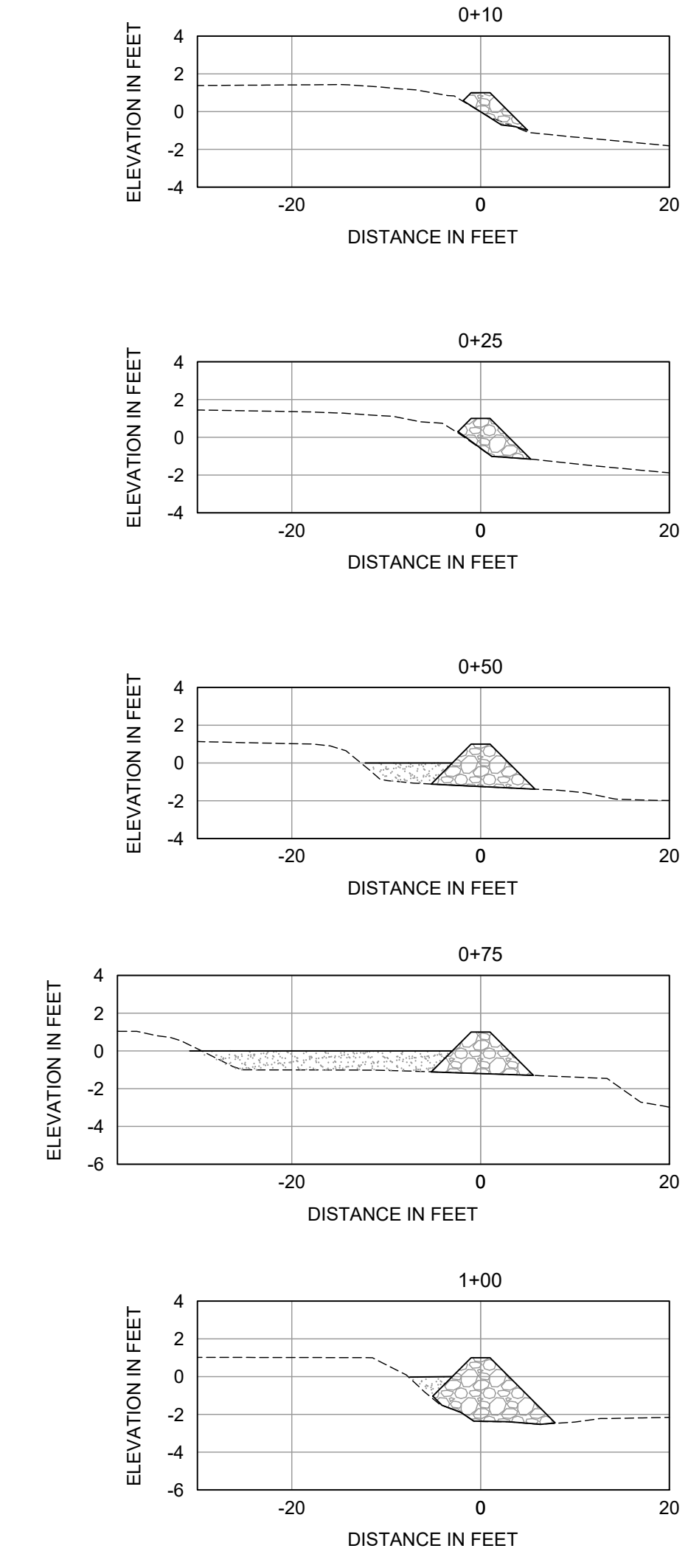
PLANTING SCHEDULE				
COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING	EST. QUANTITY*
RED MANGROVE	<i>Rhizophora mangle</i>	3 GAL (MIN)	4 FT O.C.	195

\*ESTIMATED QUANTITY. FINAL QUANTITY MAY VARY BASED ON ACTUAL SITE CONDITIONS.



**SOUTH OXBOW RESTORATION  
CROSS-SECTIONS WEST**

SCALE: 1" = 15'



**SOUTH OXBOW RESTORATION  
CROSS-SECTIONS EAST**

SCALE: 1" = 15'

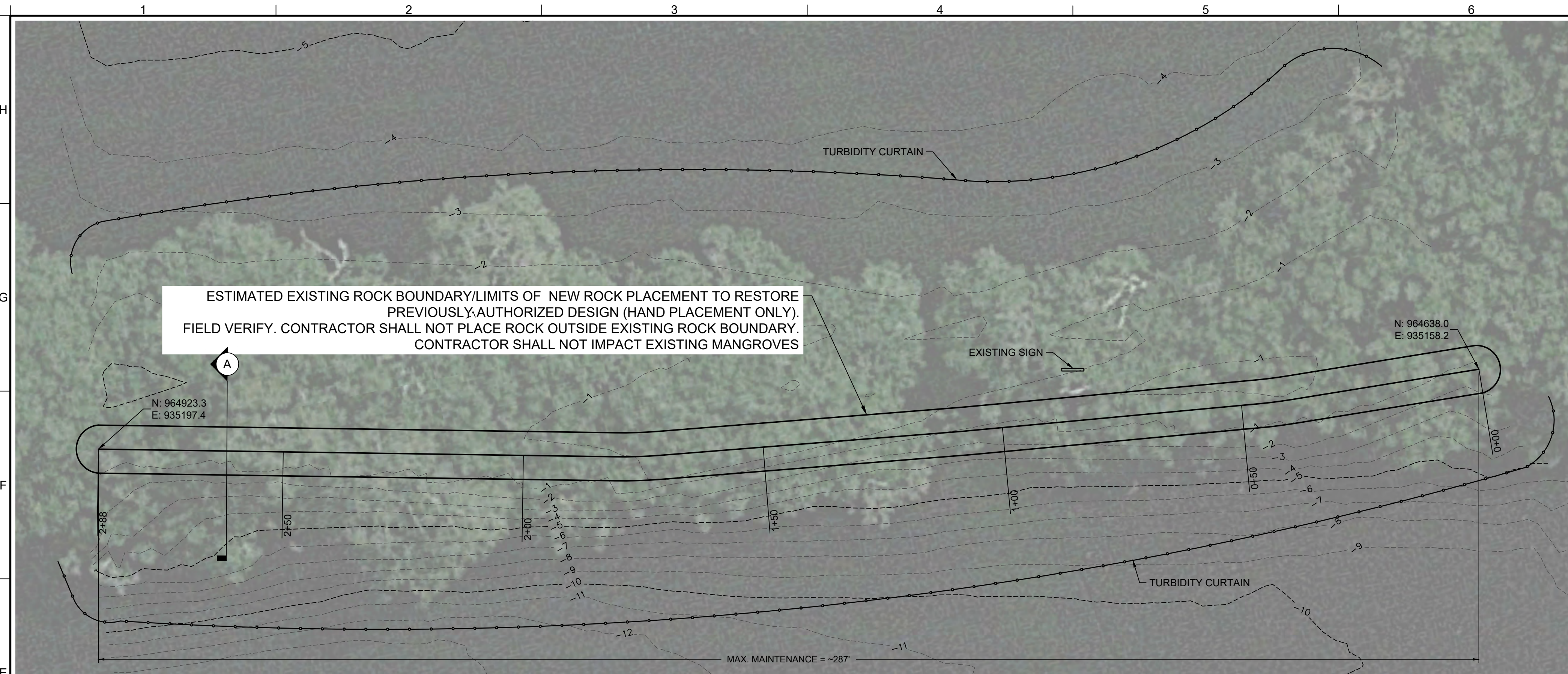
NO.	REVISIONS / SUBMISSIONS	DATE

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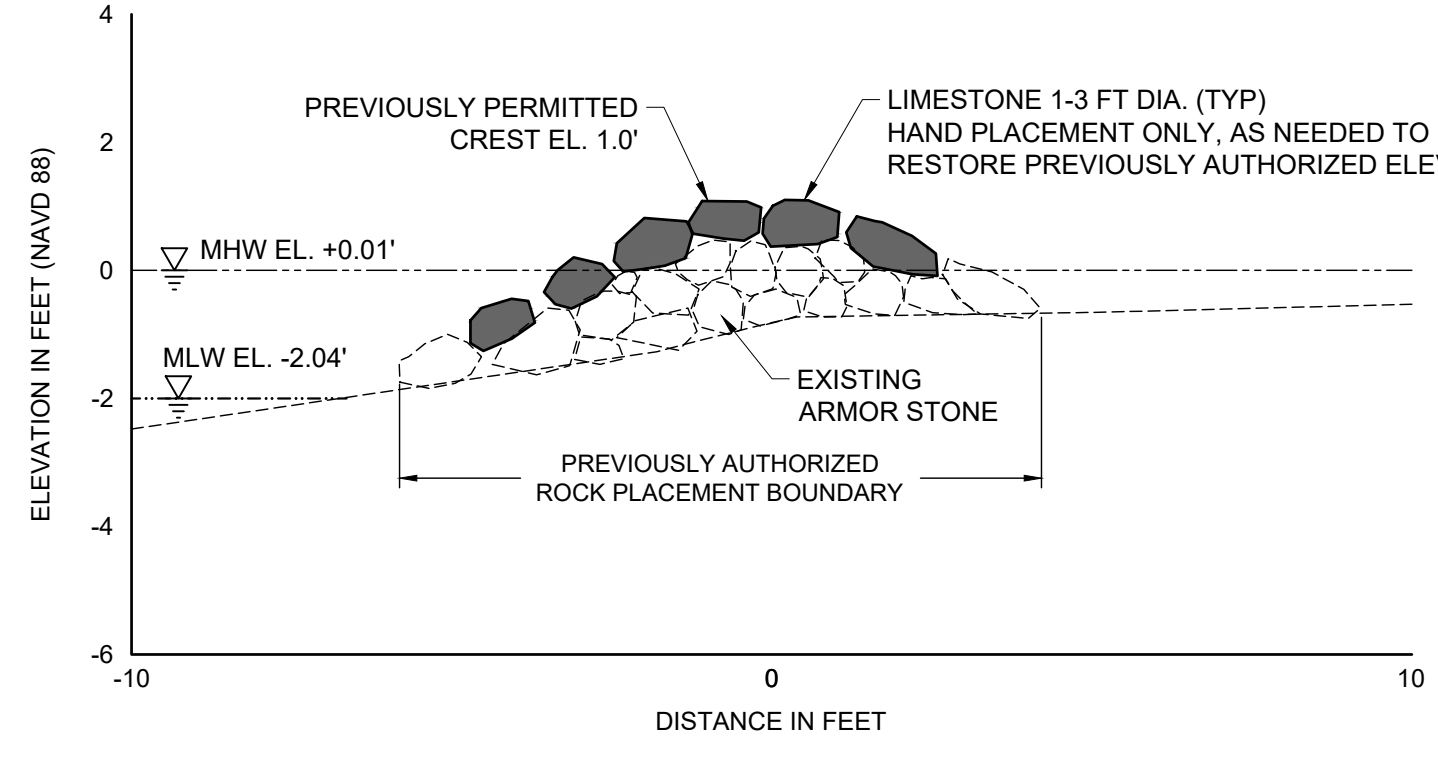
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DESIGNED	DSGNBY
DRAWN	AF
CHECKED	CHECKBY
REVIEWED	REVBY

SHEET TITLE

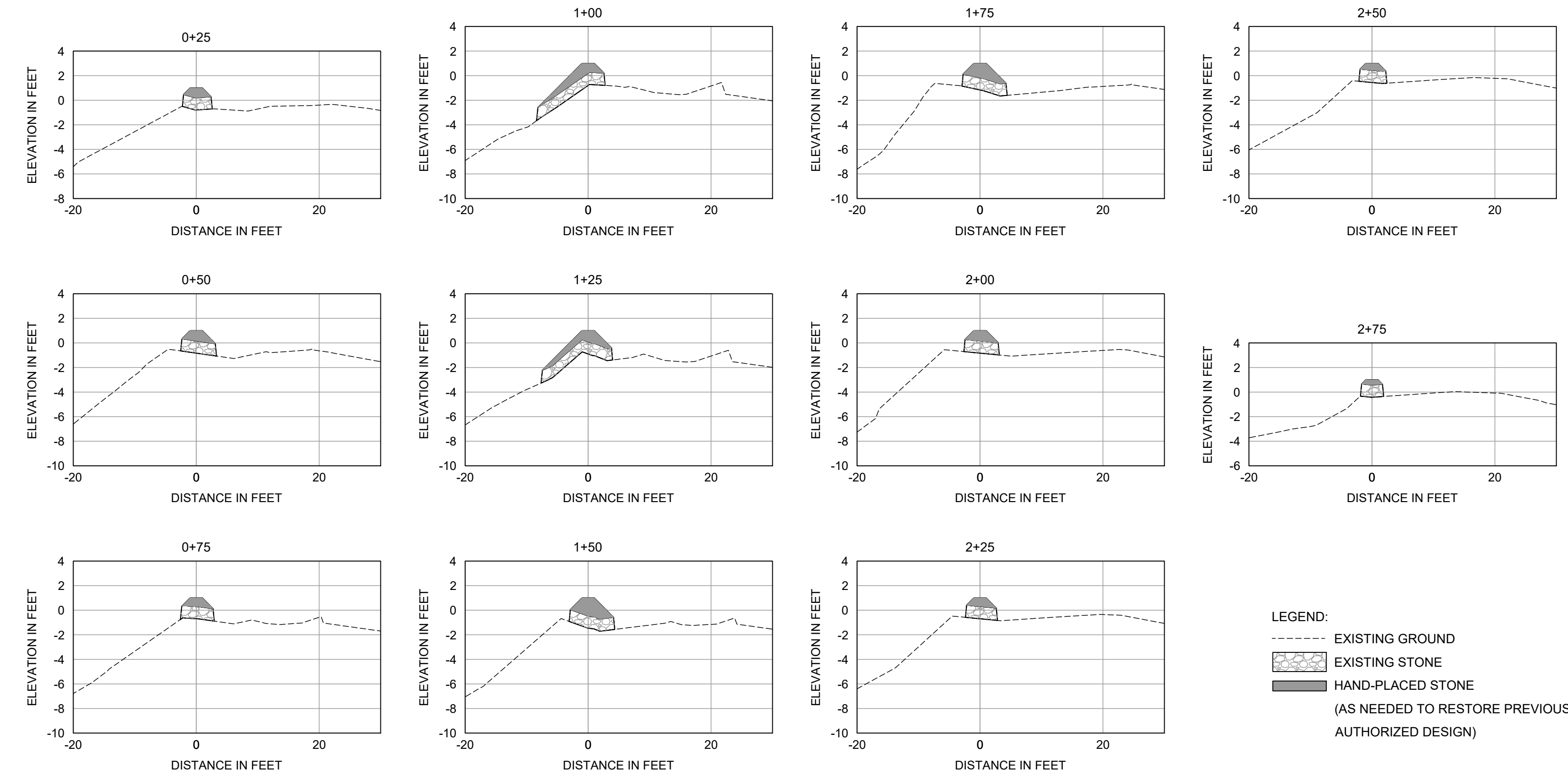
**MINOR REPAIR 1  
RESTORATION  
PLAN**





**MINOR REPAIR 1 RESTORATION PLAN**  
SCALE: 1" = 15'



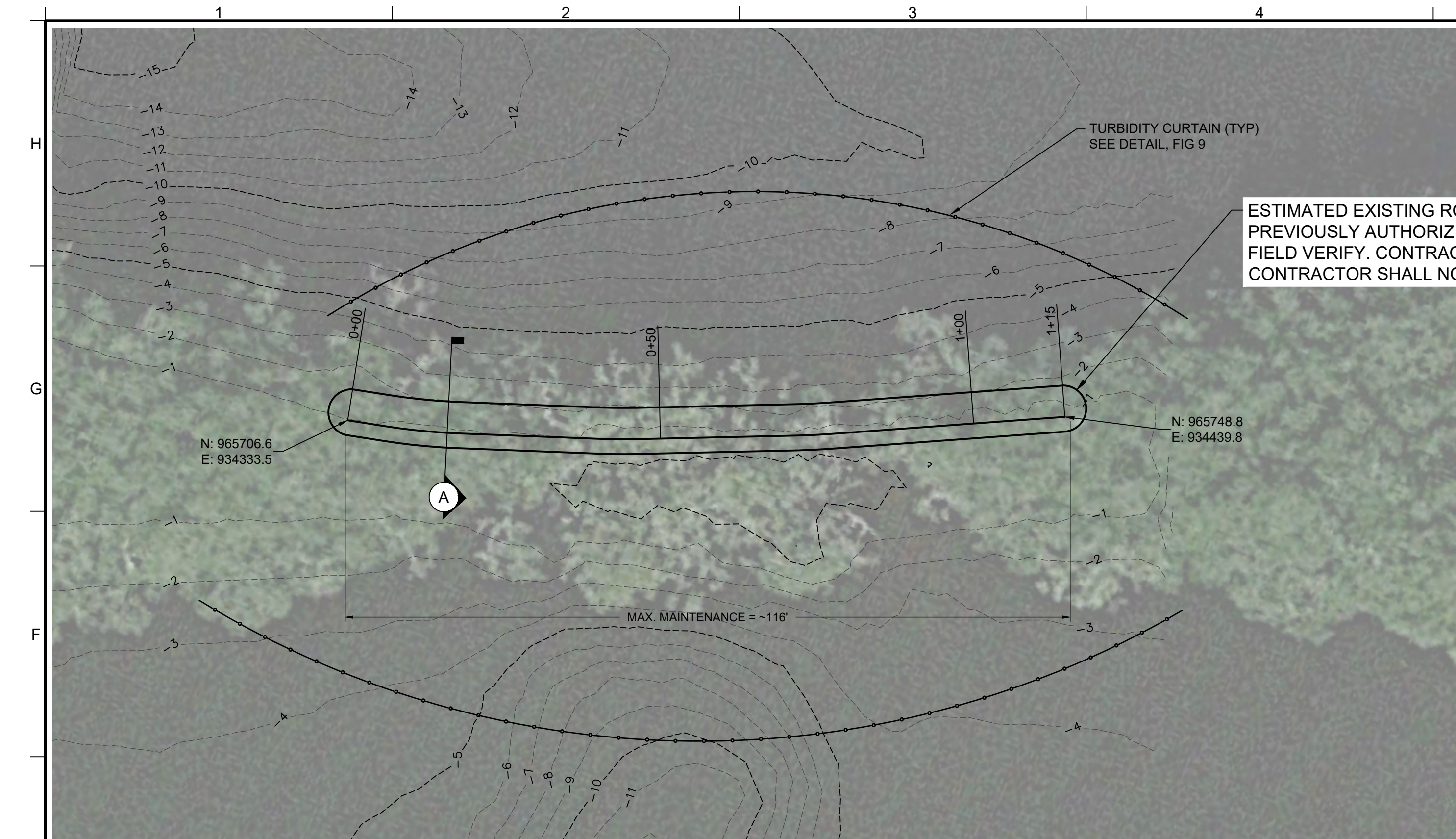
**MINOR REPAIR 1 TYPICAL CROSS-SECTION**  
SCALE: 1" = 5'



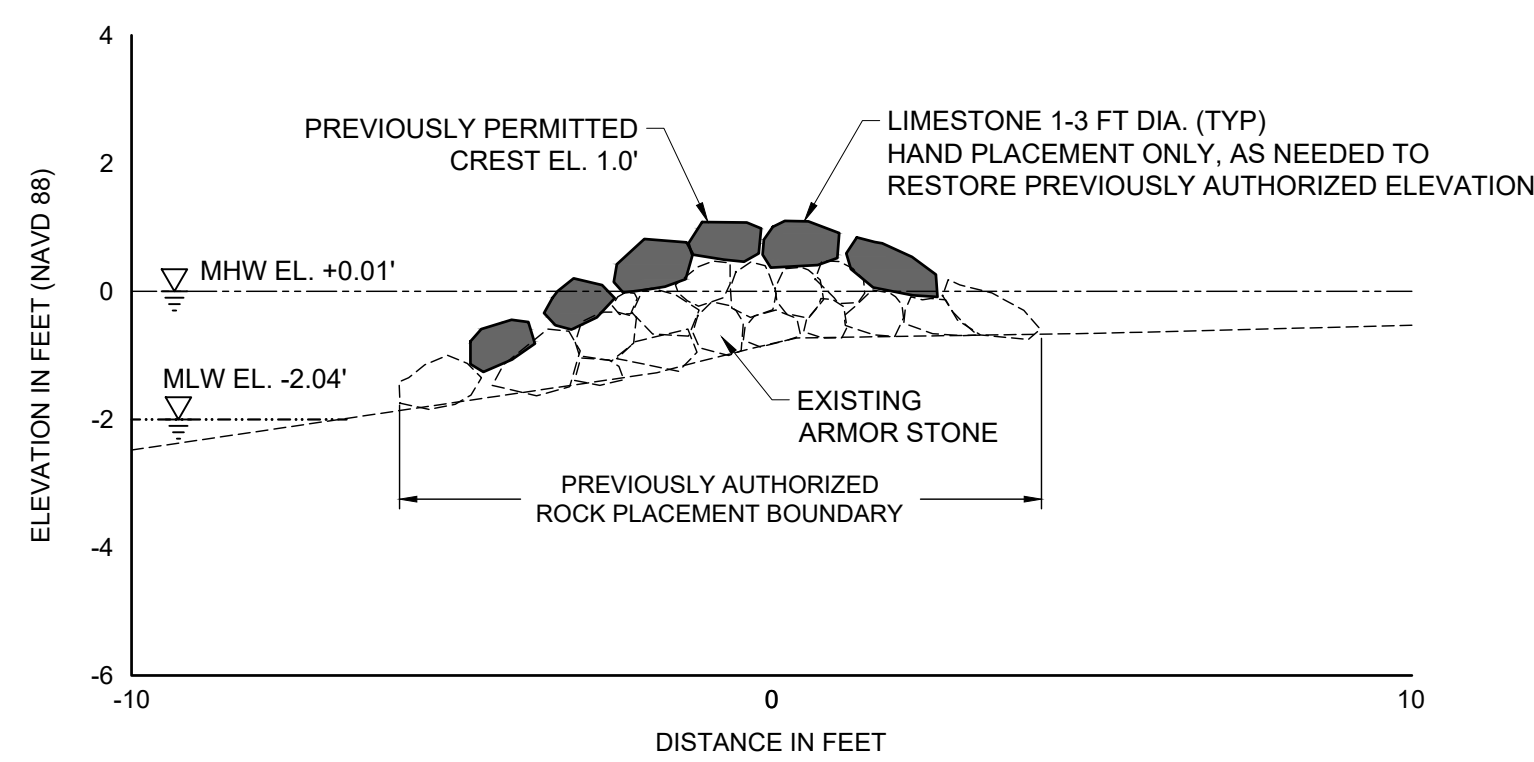
**LEGEND:**  
 - - - EXISTING GROUND  
 EXISTING STONE  
 HAND-PLACED STONE  
 (AS NEEDED TO RESTORE PREVIOUSLY AUTHORIZED DESIGN)

**MINOR REPAIR 1 CROSS-SECTIONS**  
SCALE: 1" = 15'

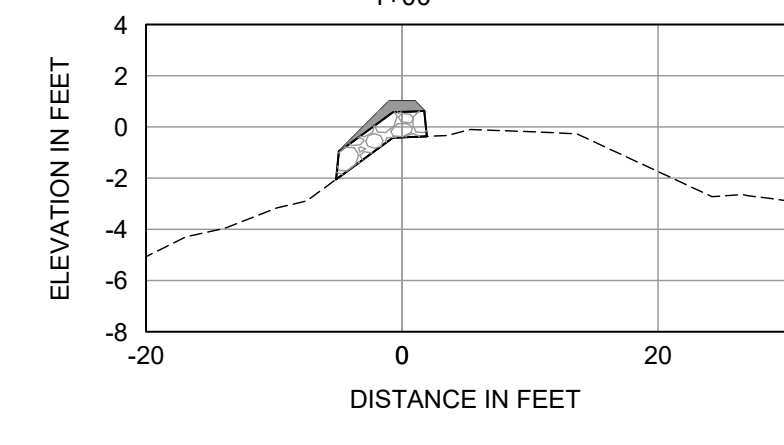
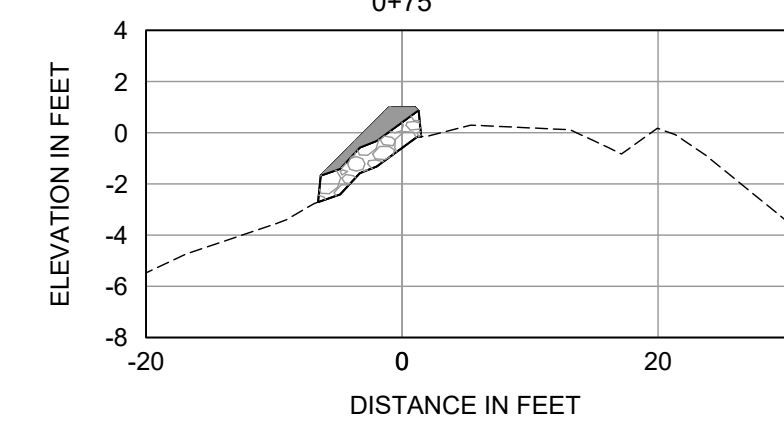
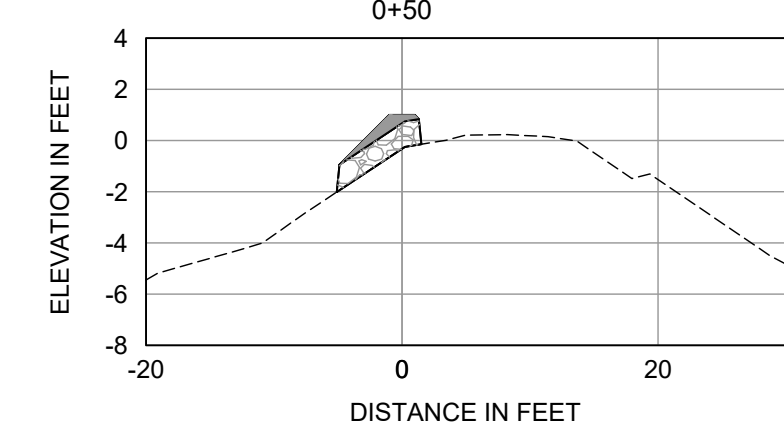
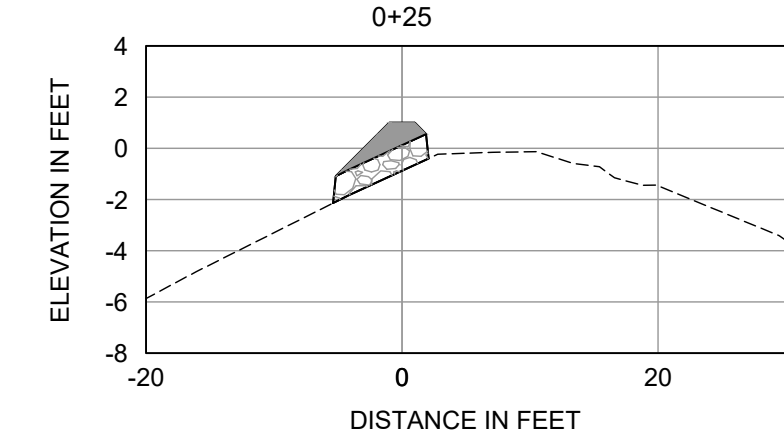
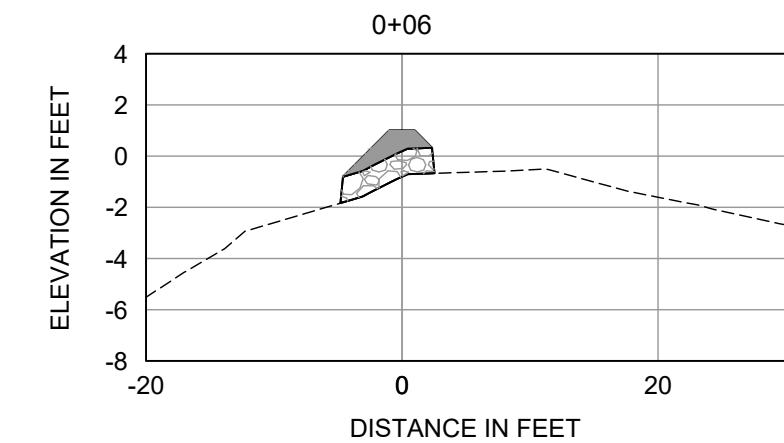
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**MINOR REPAIR 2 RESTORATION PLAN**  
SCALE: 1" = 15'



**MINOR REPAIR 2 TYPICAL CROSS-SECTION**  
SCALE: 1" = 3'



**LEGEND:**  
 - - - EXISTING GROUND  
 [Pattern] EXISTING STONE  
 [Solid] HAND-PLACED STONE  
 (AS NEEDED TO RESTORE PREVIOUSLY AUTHORIZED DESIGN)

**MINOR REPAIR 2 CROSS-SECTIONS**  
SCALE: 1" = 15'

SEAL  
 KENNETH R. CRAIG II P.E. # 52605

**LOXAHATCHEE RIVER MILE 6 GAP CLOSURE AND OXBOW RESTORATION MAINTENANCE**  
 MARTIN COUNTY, FLORIDA

NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

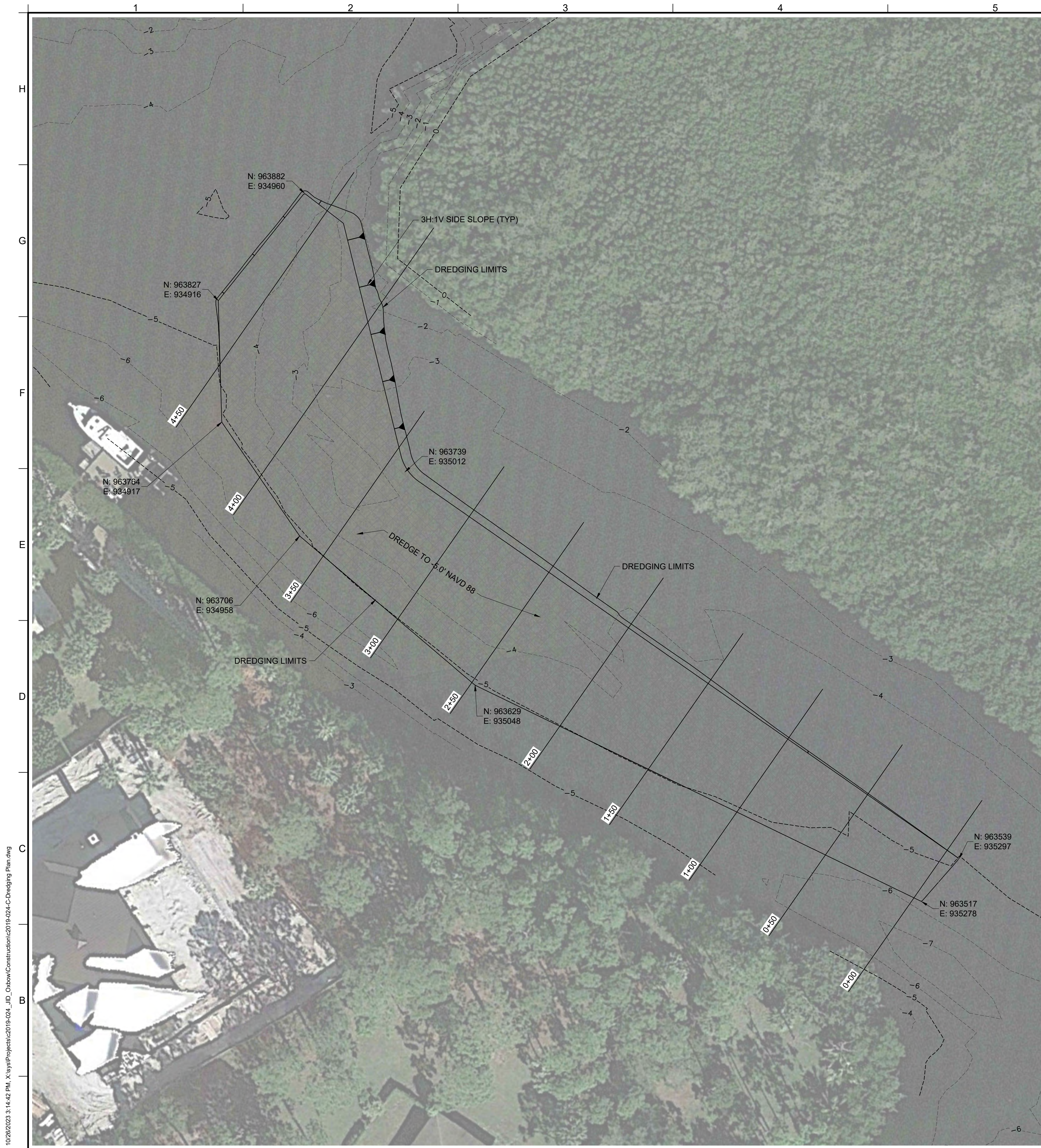
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REVIEWED	REVBY

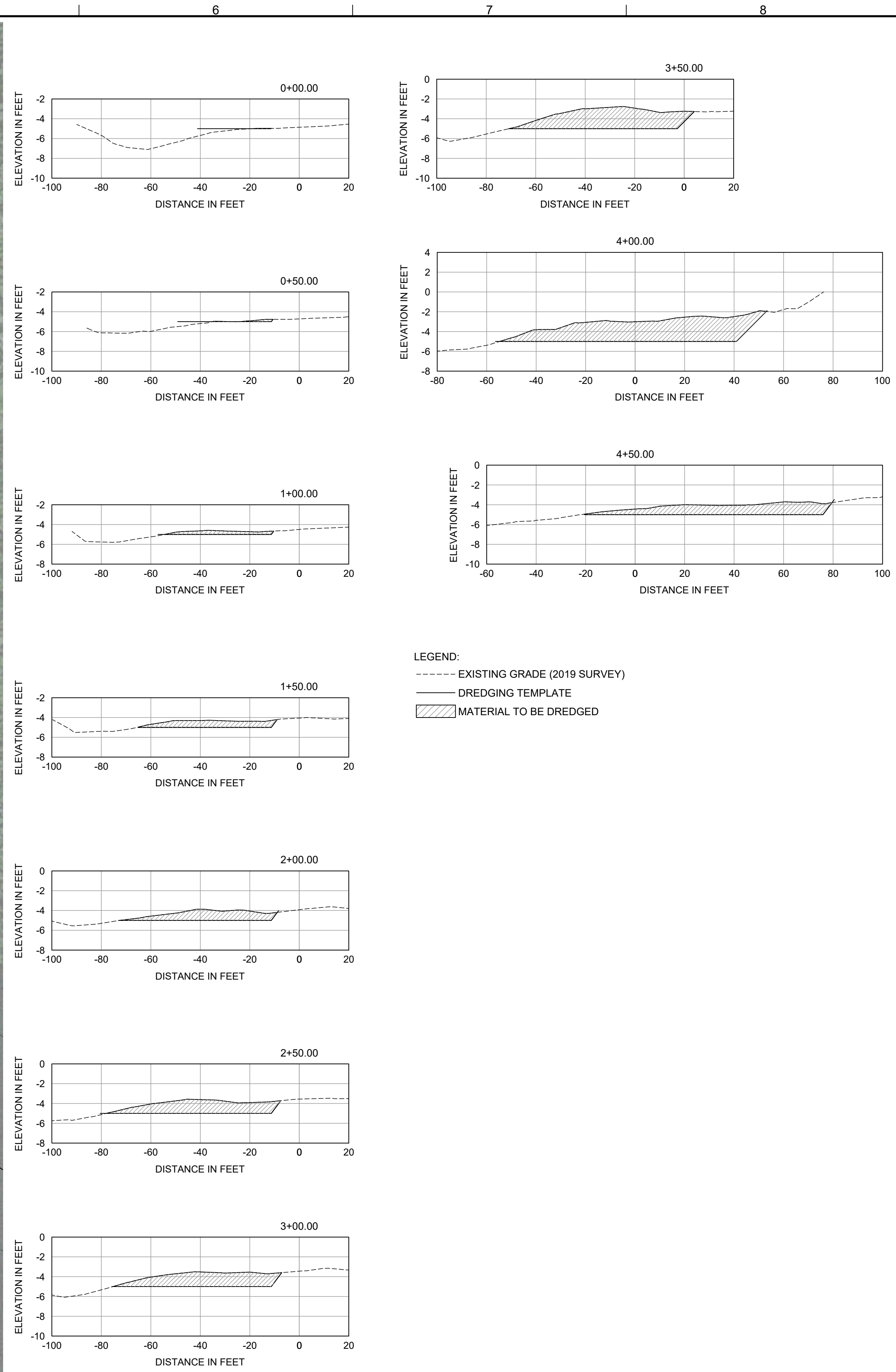
**MINOR REPAIR 2 RESTORATION PLAN**

ANTON FLEVELLING, 10/26/2023, 3:14:23 PM, X:\yyl\Projects\2019-074\_ID\_OxbowConstruction\2019-074\_C-Oxbow Restoration Plan.dwg





**DREDGING PLAN**  
 SCALE: 1" = 30'  
 ESTIMATED DREDGING VOLUME: 1,156 CY



**DREDGING CROSS-SECTIONS**  
 SCALE: 1" = 30'  
 4X VERTICAL EXAGGERATION

**TAYLOR ENGINEERING, INC.**

10199 SOUTHSIDE BLVD  
 SUITE 310  
 JACKSONVILLE, FLORIDA 32256  
 (904)-731-7040  
 REGISTRY # 4815

SEAL

KENNETH R. CRAIG II P.E.# 52605

PROJECT TITLE

**LOXAHATCHEE RIVER MILE 6 GAP CLOSURE  
 AND OXBOW RESTORATION MAINTENANCE**  
 MARTIN COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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PROJECT NO	C2023-075
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**SHOAL DREDGING PLAN**

ANTON FLEVELLING, 10/26/2023, 3:14:42 PM, X:\yep\Projects\2019-024\_OxbowConstruction\2019-024-C-Dredging Plan.dwg

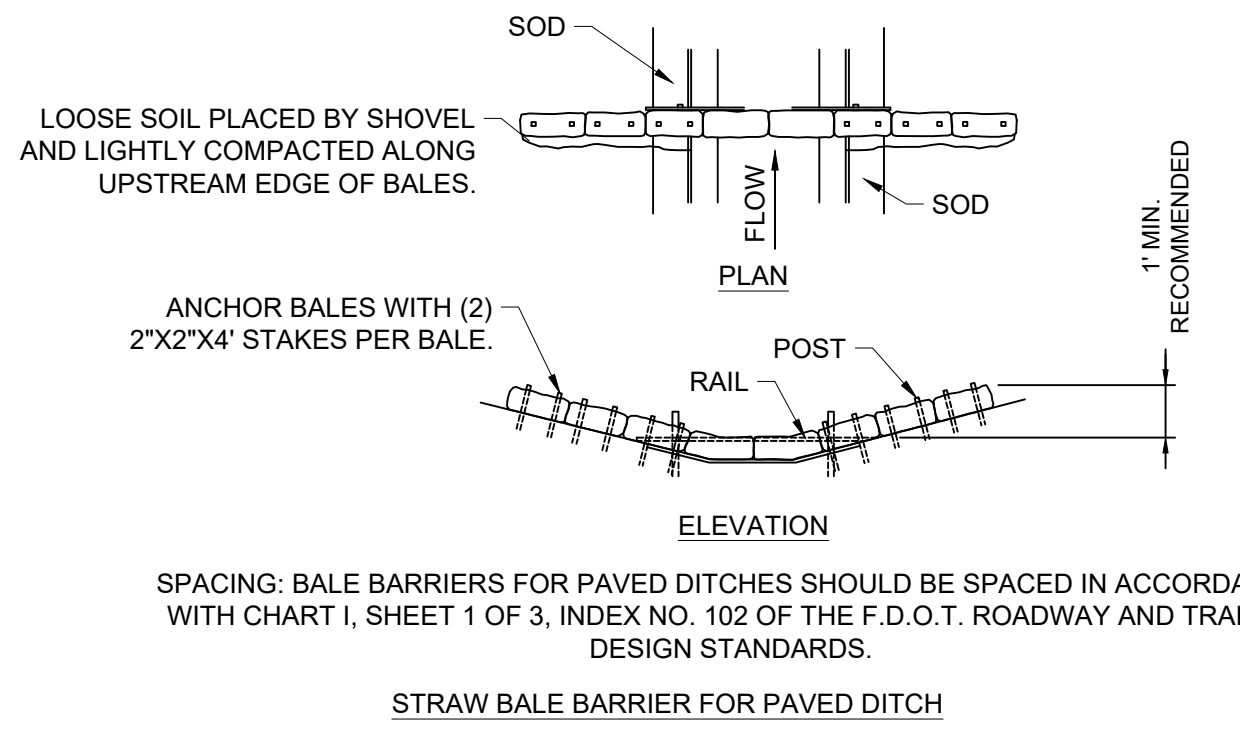
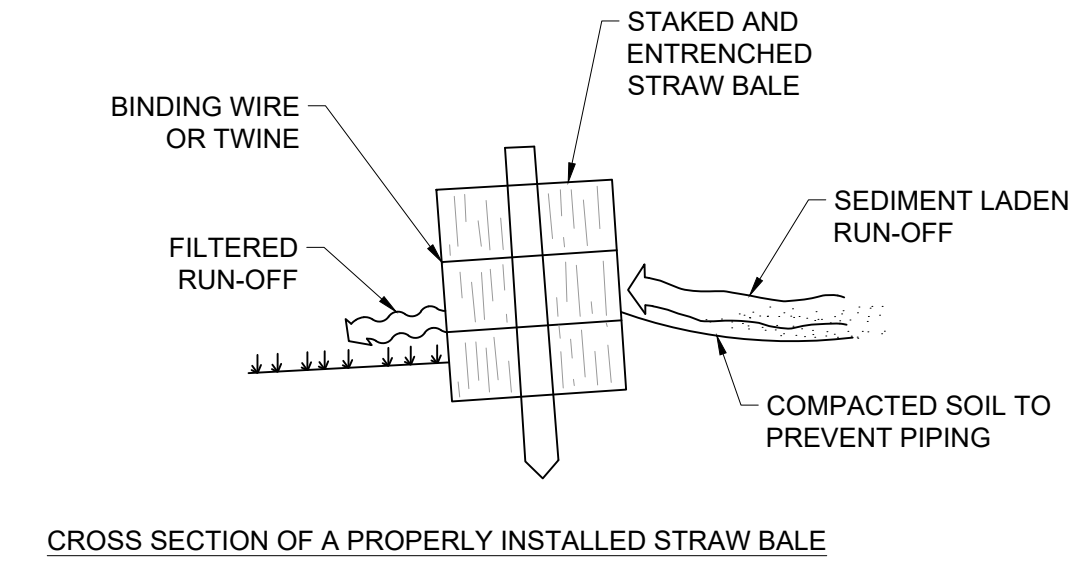
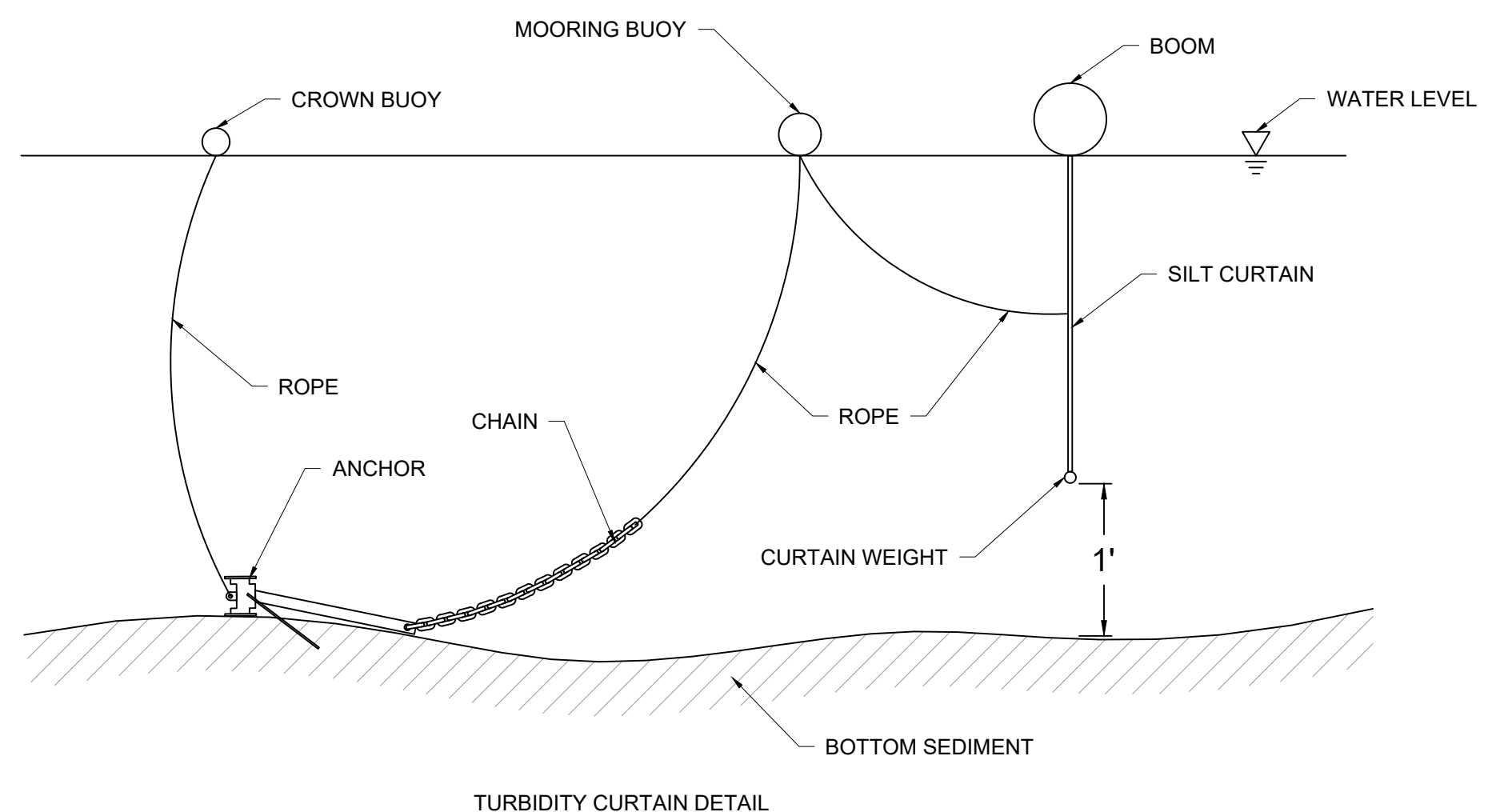
NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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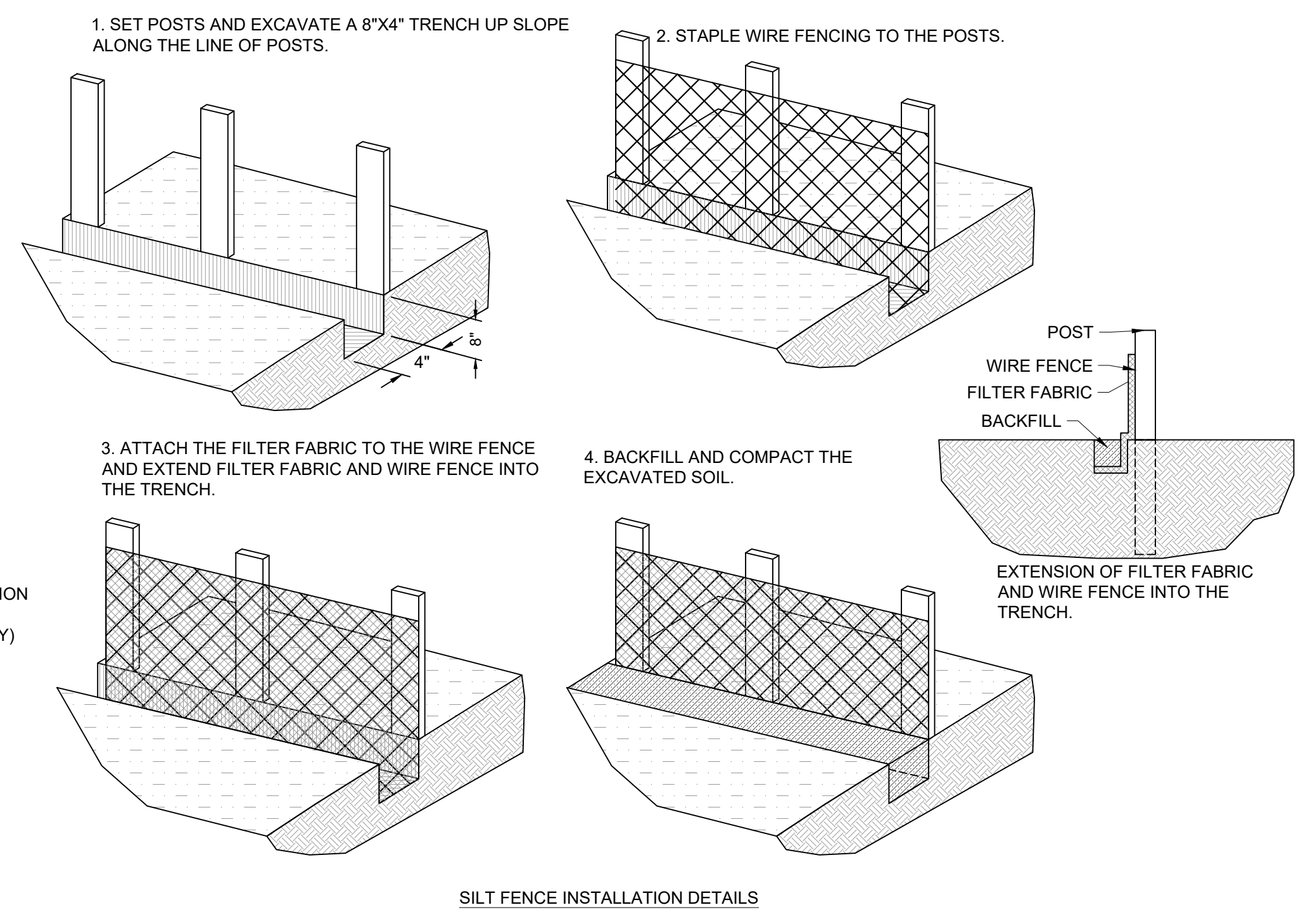
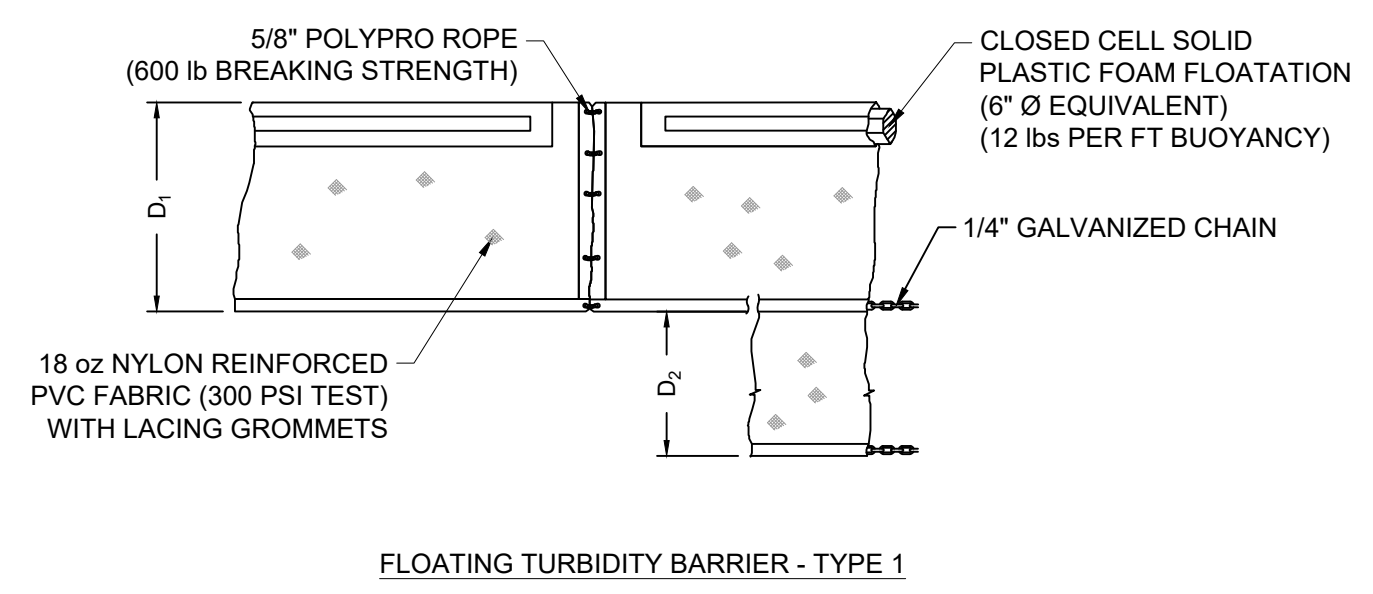
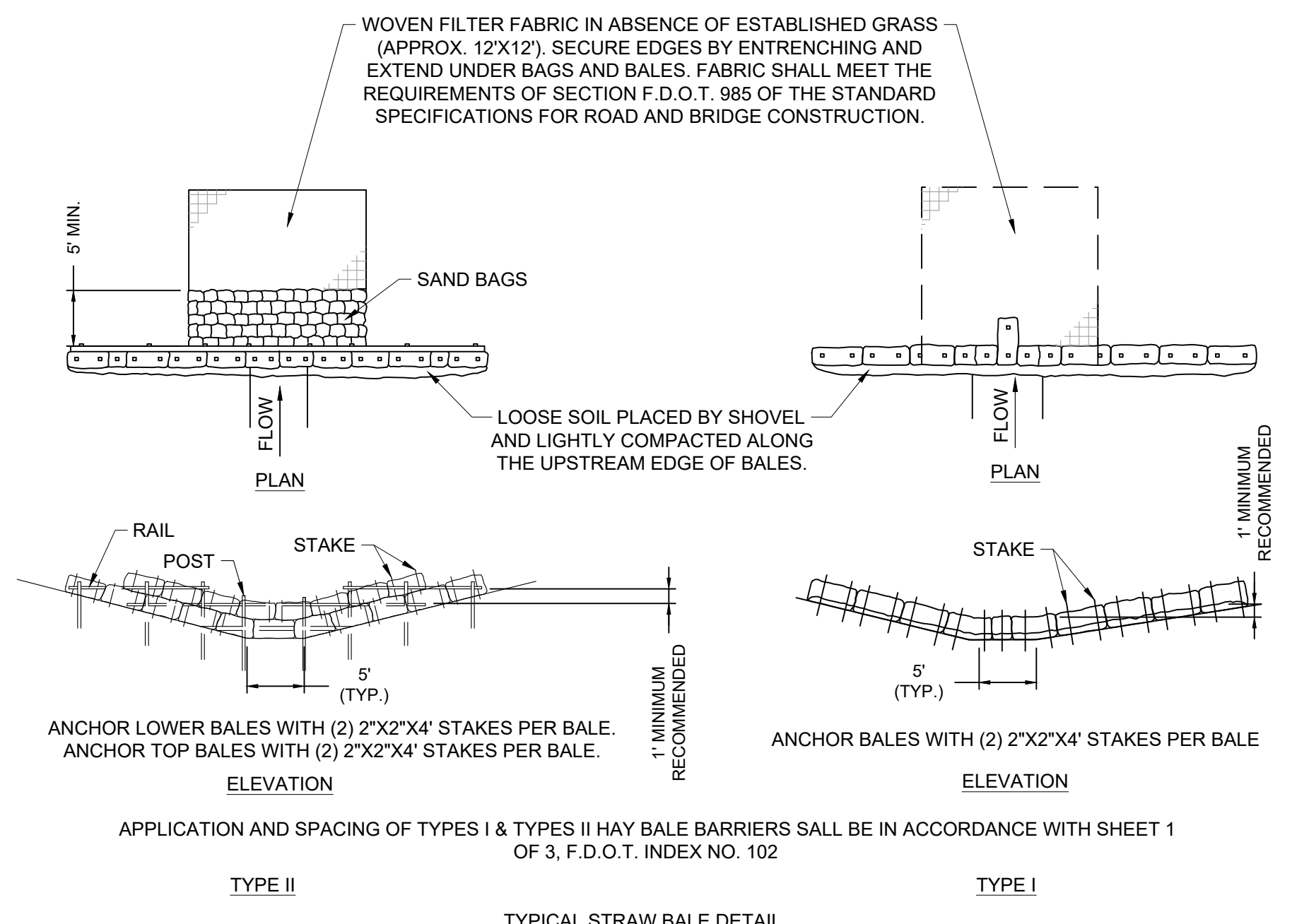
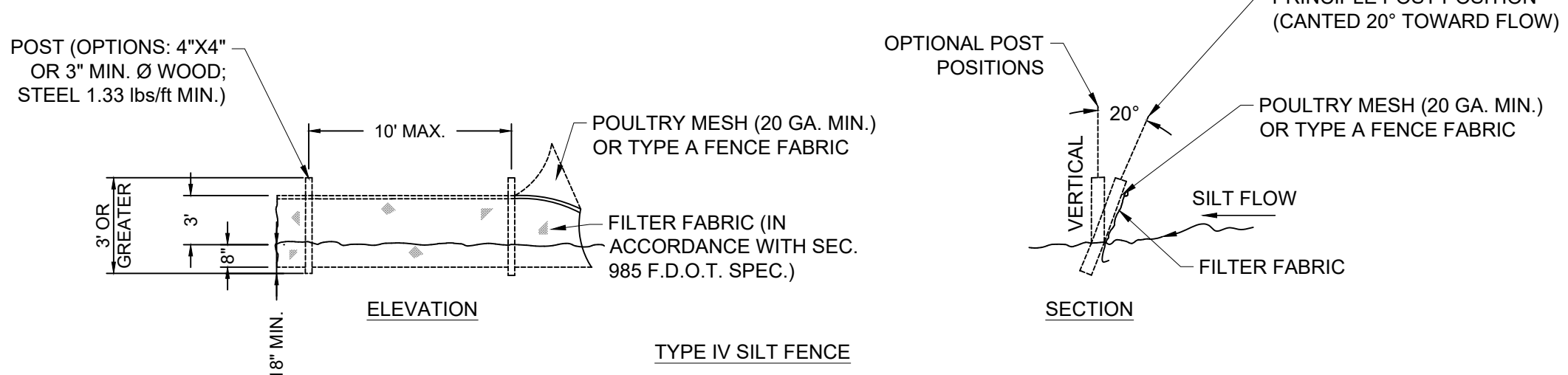
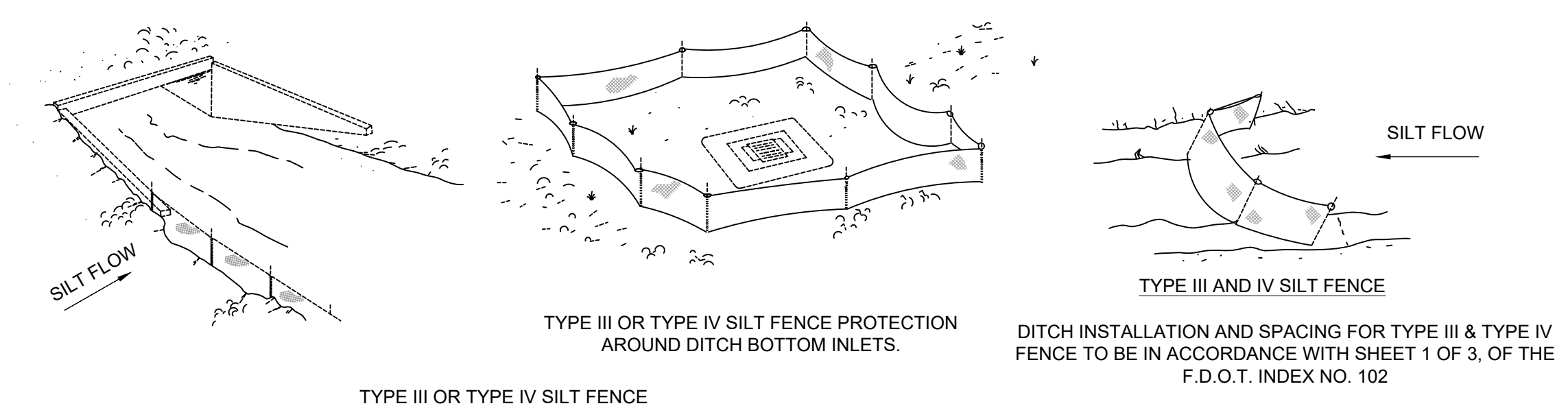
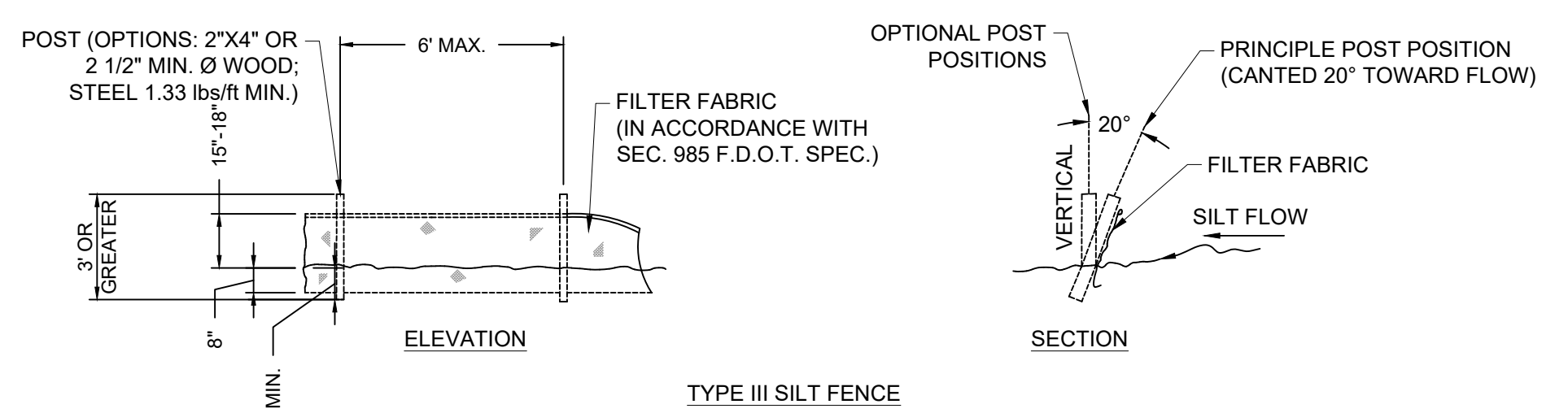
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CHECKED	CHECKBY
REVIEWED	REVBV

SHEET TITLE

**EROSION CONTROL  
DETAILS**



SPACING: BALE BARRIERS FOR PAVED DITCHES SHOULD BE SPACED IN ACCORDANCE WITH CHART I, SHEET 1 OF 3, INDEX NO. 102 OF THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS.



ANTON FLEWELLING, 10/26/2023, 3:14:45 PM, X:\proj\Projects\2019-024\_C-Erosion.dwg