

Project site directions, from Nags Head, NC:
Follow NC-12 S/Cape Hatteras National Park Hwy South.
Continue to follow NC-12 S for 47.2 miles to the Village of Buxton or to the old Cape Hatteras Lighthouse.
North project limit is on beach side of Old Lighthouse Road and extends south toward Cape Point. South project limit is in the vicinity of the old Cape Hatteras Lighthouse location.



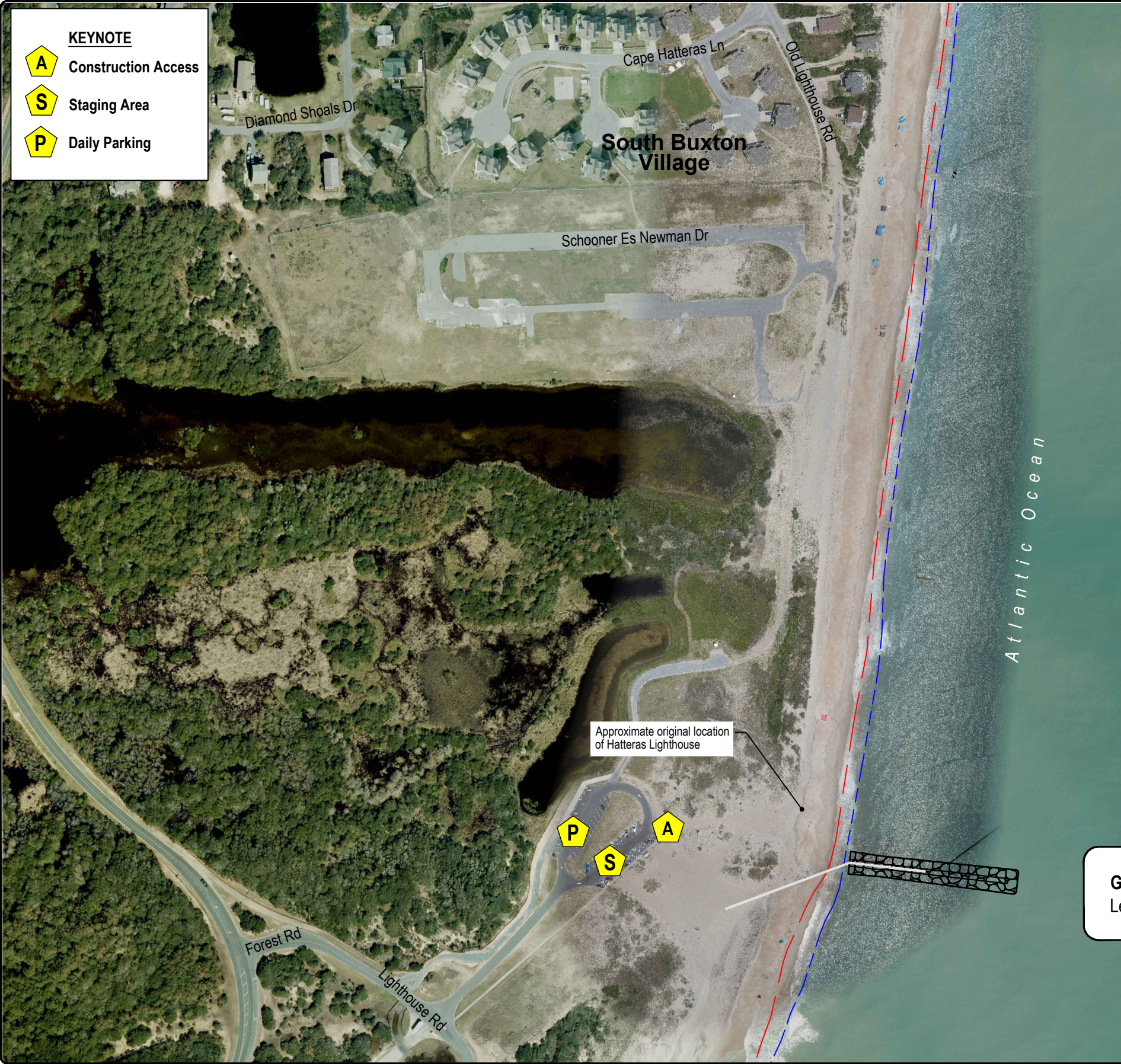
Applicant:
Dare County
954 Marshall Collins Dr.
Manteo, NC 27954

Project:
Buxton Groin Repair
Dare County, NC

Drawing Title:
Project Location
& Vicinity Map

SCALE: AS SHOWN
DATE: November 2025
DRAWN BY: SF
APPROVED BY:
PROJECT #: 2640

01



KEYNOTE

A

Construction Access

S

Staging Area

P

Daily Parking

LEGEND

MHW (+1.05 FT NAVD)

MLW (-1.94 FT NAVD)

Rock Armor Stone

PZ 40 Sheet Pile and Concrete Cap

Note:

1.

Engineer will provide survey control and verify final placement and alignment of groin sheets.

2.

Plan view of groin repair shown is based off a typical section on Sheet 05 and is subject to change before construction.

3.

Additional details and cross sections are provided in Sheets 03 to 07.

0250

Scale (Feet)

Survey Datum:

Horizontal: SPCS NAD '83 (Feet) NC Zone 3200

Vertical: NAVD '88 (Feet)

Notes: Data collected by Coastal Science & Engineering, Inc via RTK GPS

Image: CSE Orthographic Photo 6/26/25



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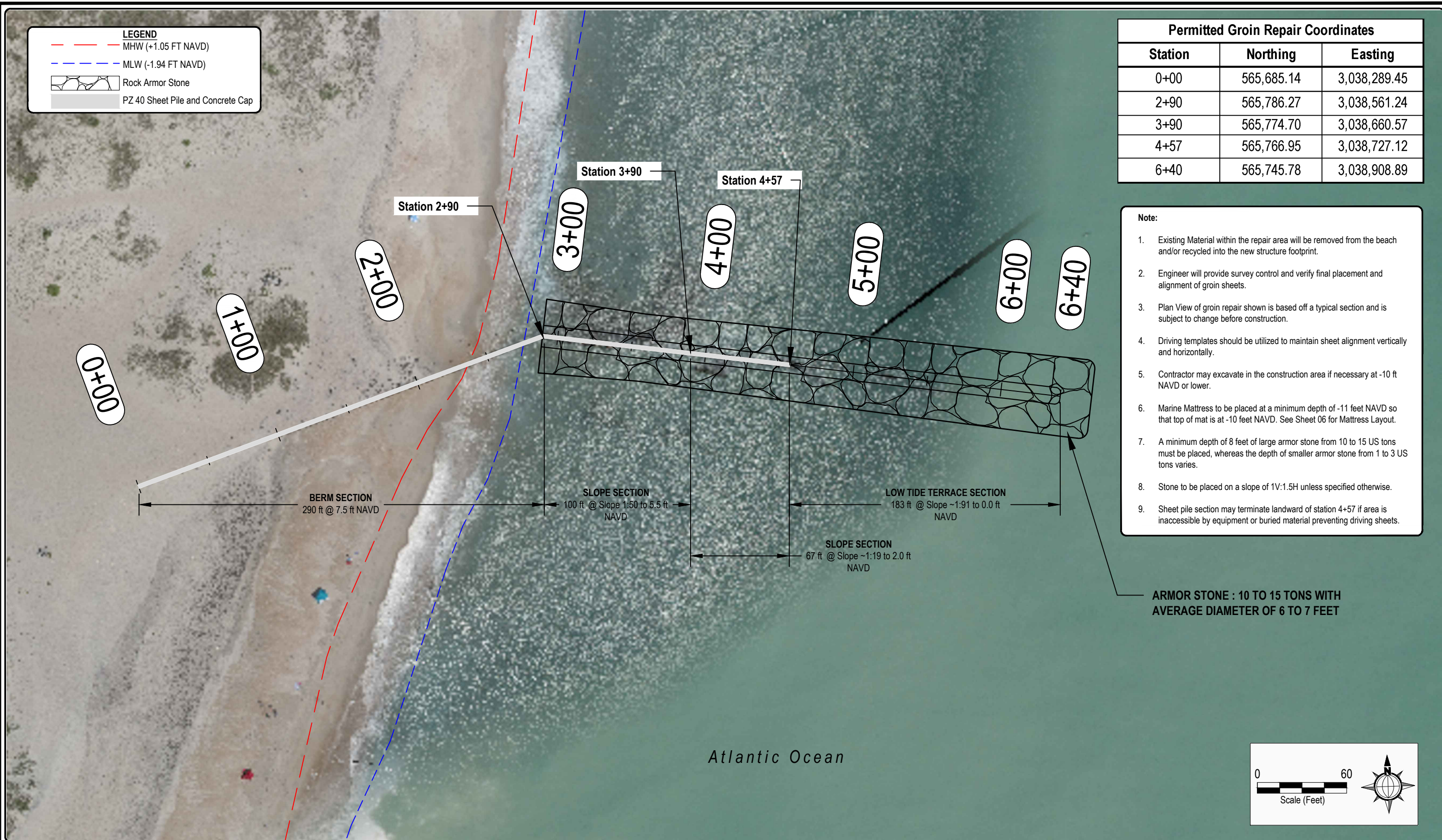
Plan View of Site

DATE: November 2025

DRAWN BY: SF

APPROVED BY:

PROJECT #: 2640



Note:

1. Existing Material within the repair area will be removed from the beach and/or recycled into the new structure footprint.
2. Engineer will provide survey control and verify final placement and alignment of groin sheets.
3. Plan View of groin repair shown is based off a typical section and is subject to change before construction.
4. Driving templates should be utilized to maintain sheet alignment vertically and horizontally.
5. Contractor may excavate in the construction area if necessary at -10 ft NAVD or lower.
6. Marine Mattress to be placed at a minimum depth of -11 feet NAVD so that top of mat is at -10 feet NAVD. See Sheet 06 for Mattress Layout.
7. A minimum depth of 8 feet of large armor stone from 10 to 15 US tons must be placed, whereas the depth of smaller armor stone from 1 to 3 US tons varies.
8. Stone to be placed on a slope of 1V:1.5H unless specified otherwise.
9. Sheet pile section may terminate landward of station 4+57 if area is inaccessible by equipment or buried material preventing driving sheets.

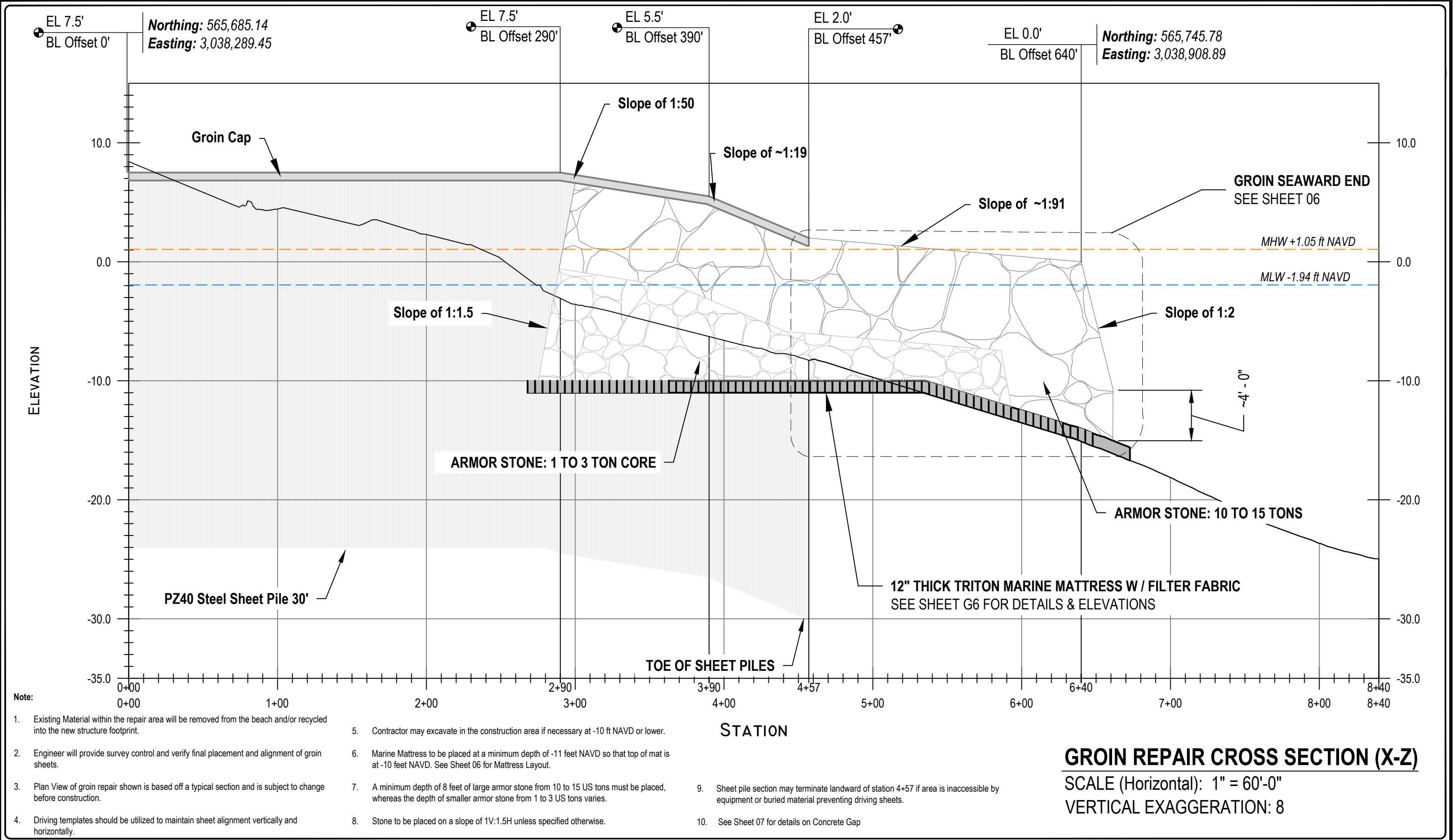
A scale bar and a compass rose. The scale bar is marked from 0 to 60 feet. The compass rose indicates North (N) is towards the top of the page.



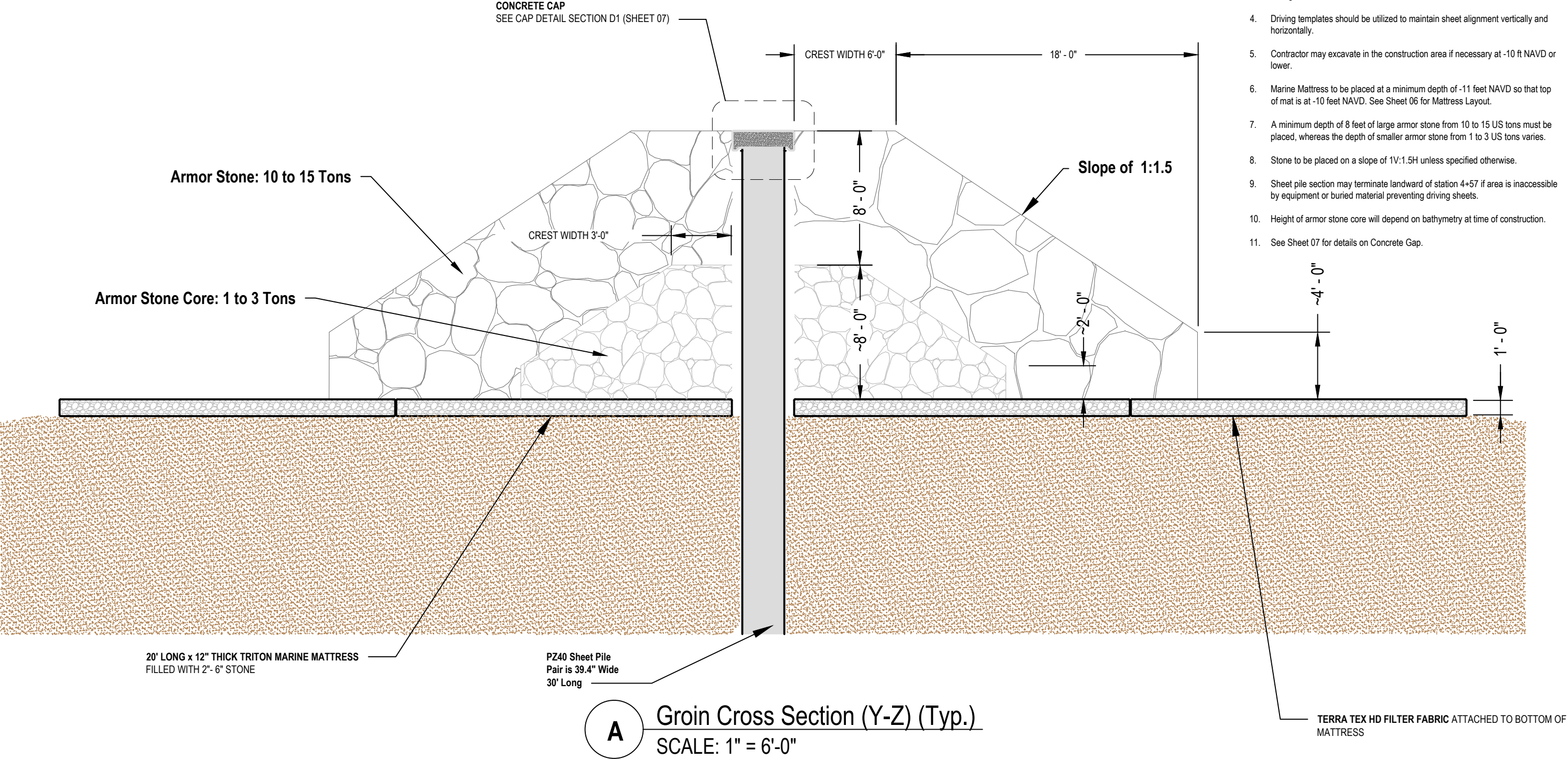
Drawing Title:

Plan View of Groin Repair

DATE:	November 2025
DRAWN BY:	SF
APPROVED BY:	
PROJECT #:	2640



FINAL STRUCTURE ELEVATIONS ARE RELATIVE TO THE TOP CORNER OF THE CONCRETE CAP NOT THE TOP OF SHEETS.



Survey Datum:
Horizontal: SPCS NAD '83 (Feet) NC Zone 3200
Vertical: NAVD '88 (Feet)
Notes: Data collected by Coastal Science & Engineering, Inc via RTK GPS



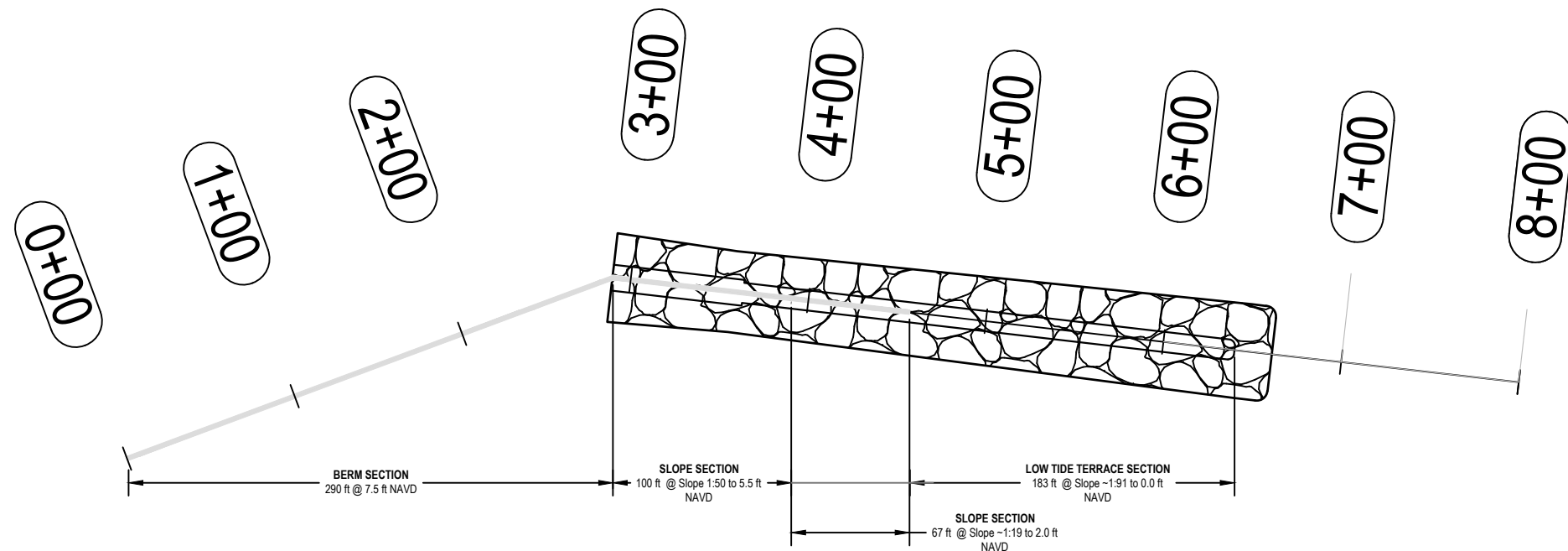
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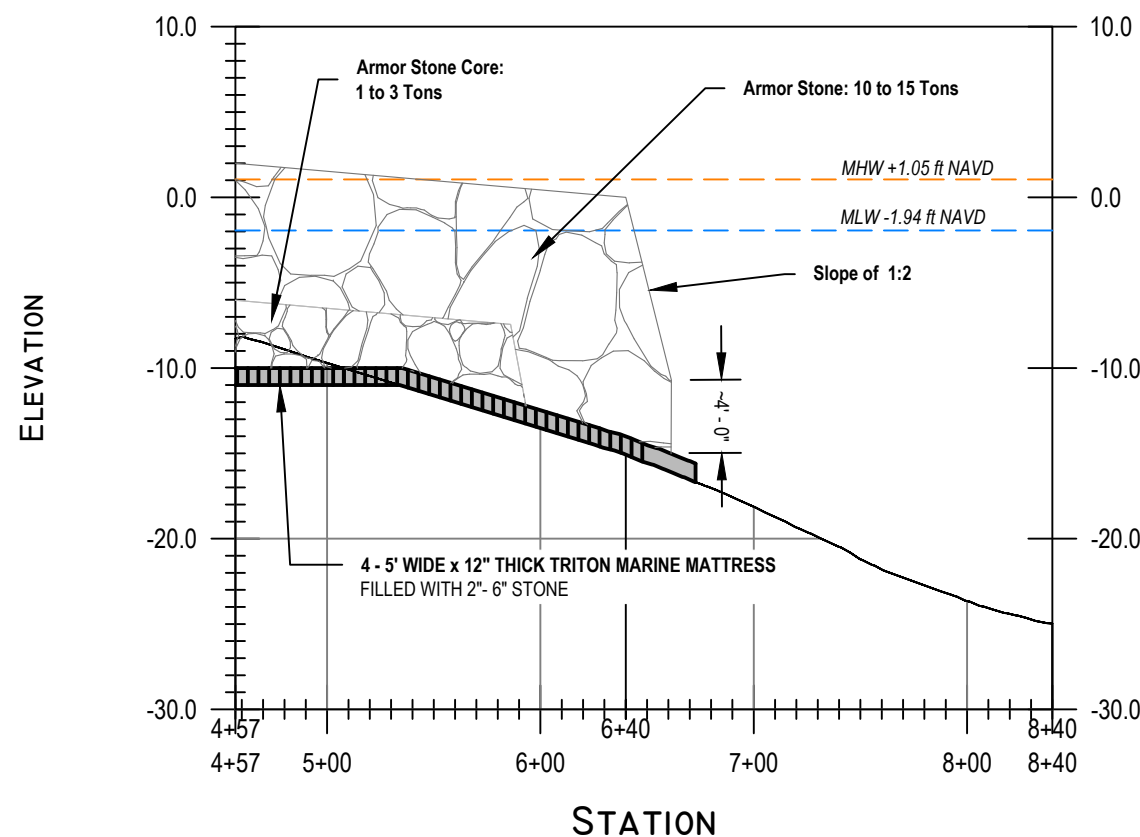
Drawing Title:
Cross Section of Groin Repair (Y-Z)

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FINAL STRUCTURE ELEVATIONS ARE RELATIVE TO THE TOP CORNER OF THE CONCRETE CAP NOT THE TOP OF SHEETS.



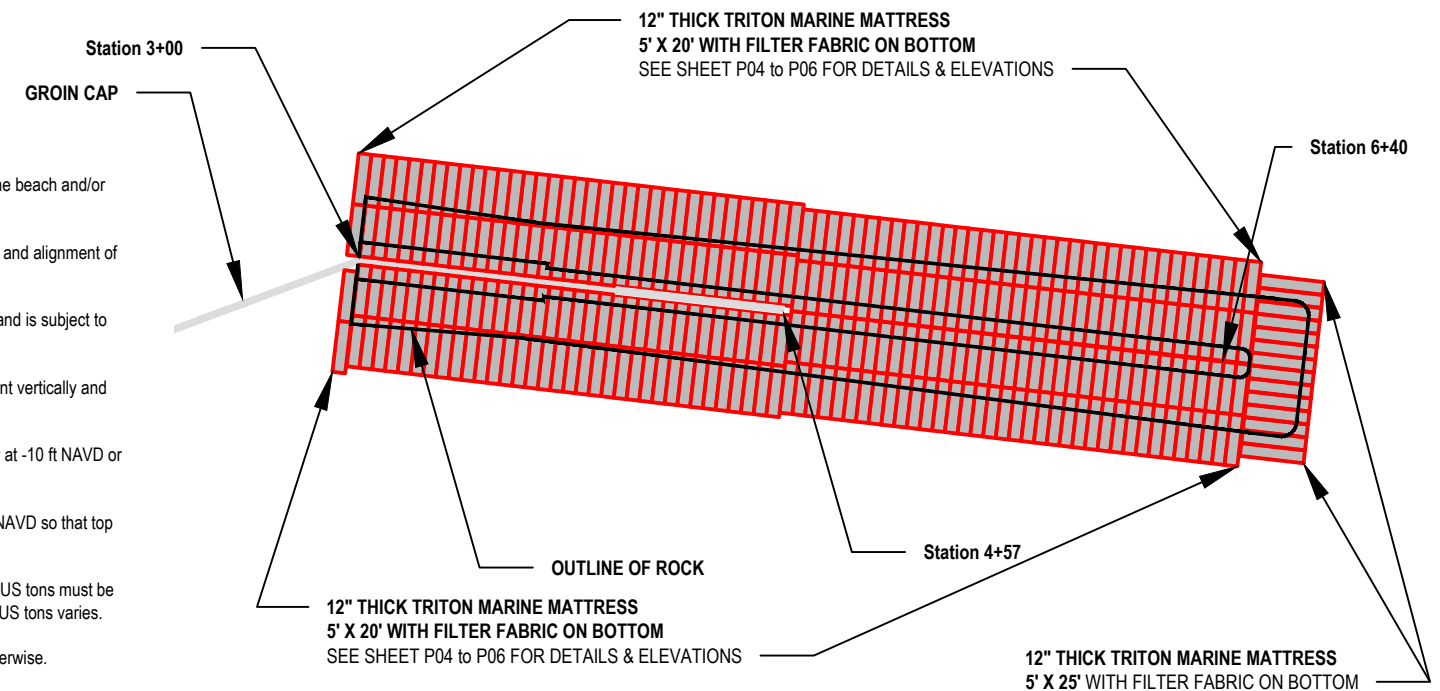
GROIN REPAIR PLAN MAP
SCALE (Horizontal): 1" = 90'-0"



GROIN REPAIR END SECTION (X-Z)
SCALE (Horizontal): 1" = 90'-0"
VERTICAL EXAGGERATION: 8

Note:

- Existing Material within the repair area will be removed from the beach and/or recycled into the new structure footprint.
- Engineer will provide survey control and verify final placement and alignment of groin sheets.
- Plan View of groin repair shown is based off a typical section and is subject to change before construction.
- Driving templates should be utilized to maintain sheet alignment vertically and horizontally.
- Contractor may excavate in the construction area if necessary at -10 ft NAVD or lower.
- Marine Mattress to be placed at a minimum depth of -11 feet NAVD so that top of mat is at -10 feet NAVD. See Sheet 06 for Mattress Layout.
- A minimum depth of 8 feet of large armor stone from 10 to 15 US tons must be placed, whereas the depth of smaller armor stone from 1 to 3 US tons varies.
- Stone to be placed on a slope of 1V:1.5H unless specified otherwise.
- Sheet pile section may terminate landward of station 4+57 if area is inaccessible by equipment or buried material preventing driving sheets.
- Height of armor stone core will depend on bathymetry at time of construction.
- See Sheet 07 for details on Concrete Gap.



GROIN 2 MATTRESS LAYOUT PLAN
SCALE: 1" = 75'-0"

Survey Datum:
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Vertical: NAVD '88 (Feet)
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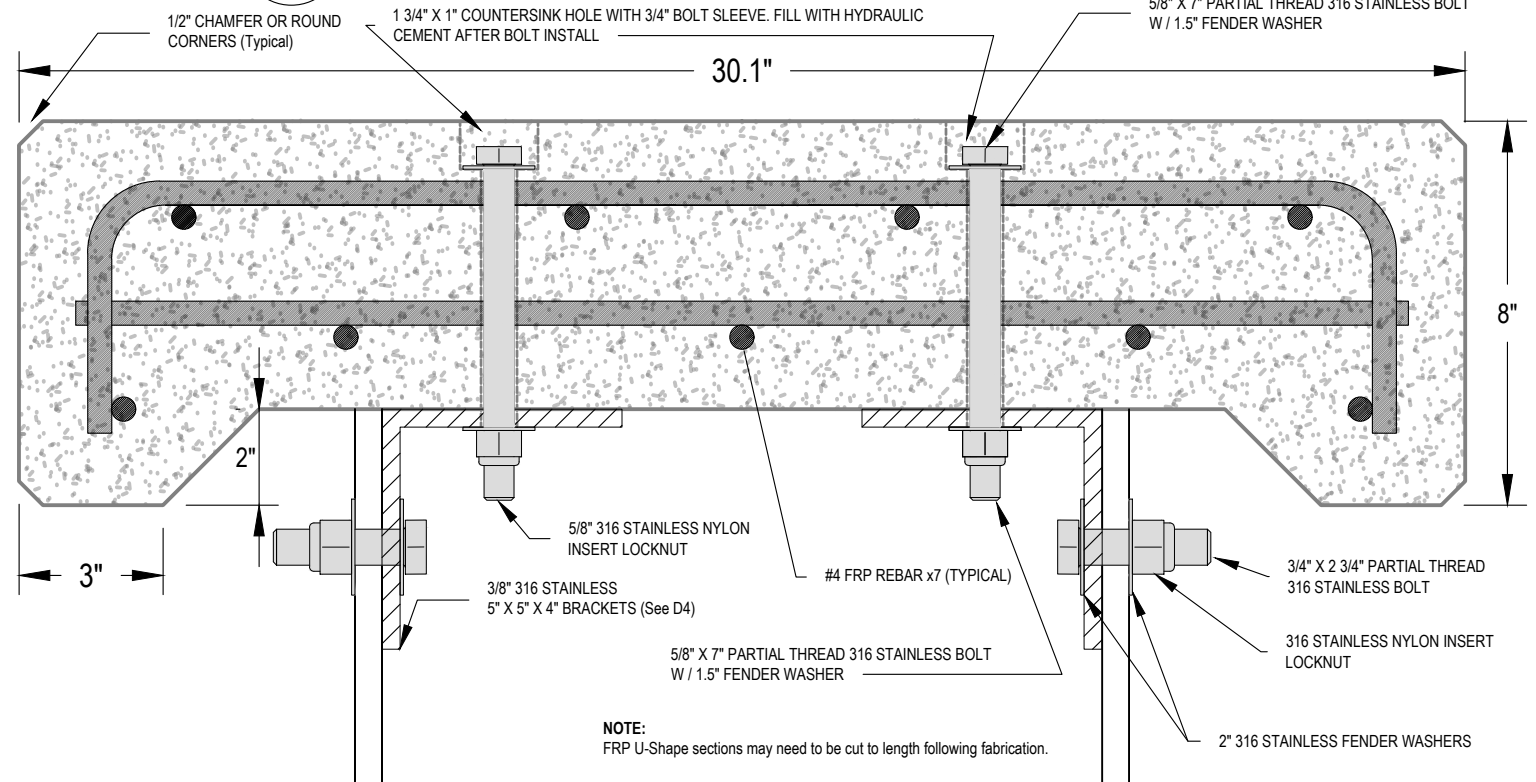
Drawing Title:
Cross Section of Groin Repair (Y-Z)

DATE: November 2025
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APPROVED BY:
PROJECT #: 2640

D1

PZ 40 - CONCRETE CAP SECTION DETAIL

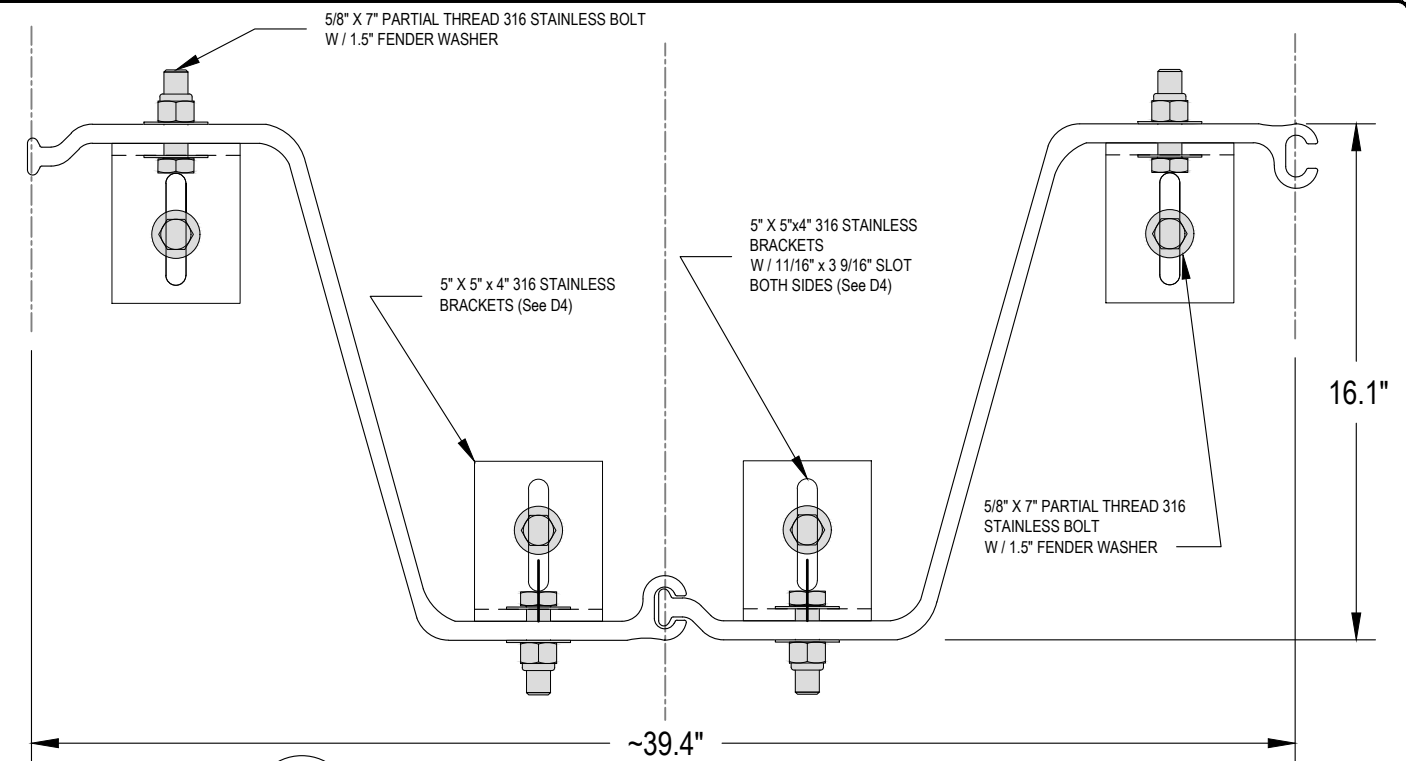
SCALE: 3" = 1'-0"



D2

PZ 40 - COMPOSITE SHEET PILE "Z" PROFILE

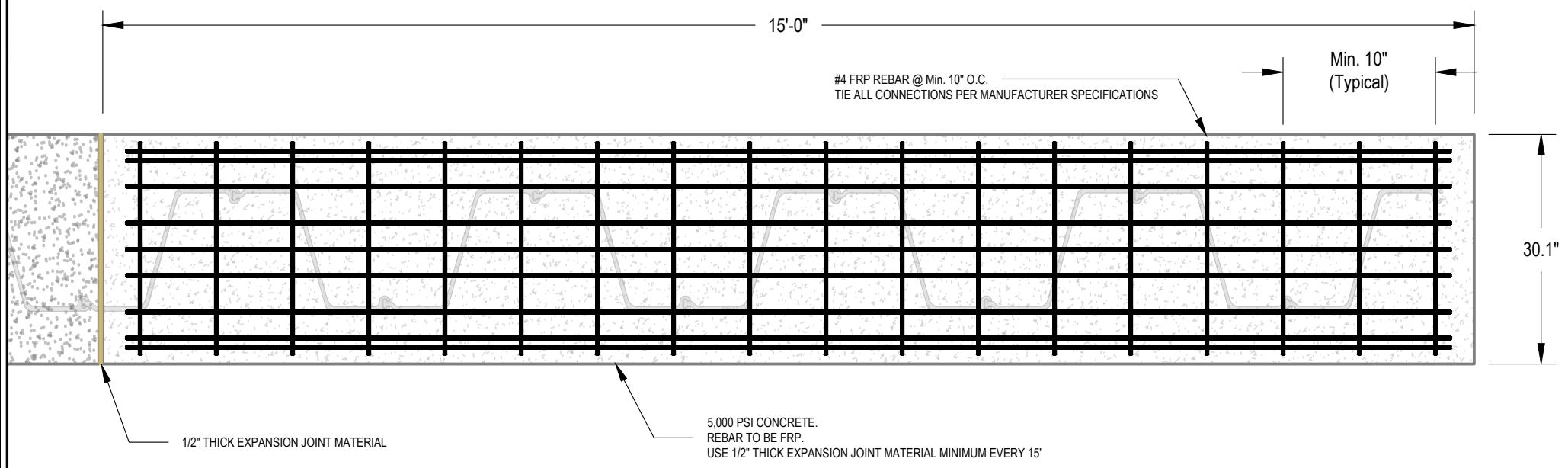
SCALE: 2" = 1'-0"



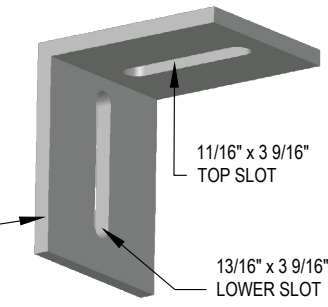
D1

CONCRETE CAP & REBAR PLAN VIEW

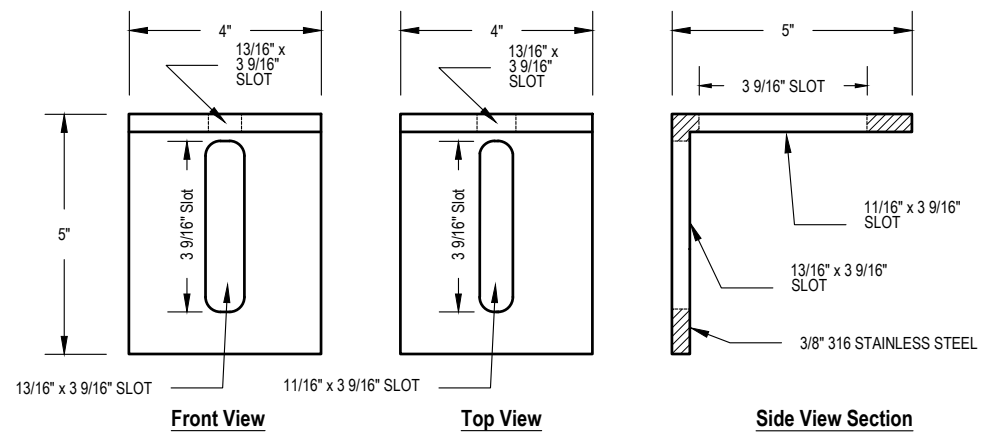
SCALE: 5/8" = 1'-0"



Bracket 3D Render View



NOTE:
ATTACH BRACKET TO CAP, THEN DRILL 13/16" HOLE IN THE SHEET AT REQUIRED LOCATION. SLOTS ALLOW FOR ADJUSTMENT.

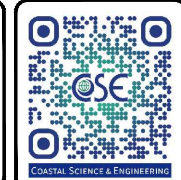


D4

316 STAINLESS BRACKET DETAIL

SCALE: 3" = 1'-0"

Notes:
Concrete Cap details subject to change prior to construction.



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Details Sheet

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07