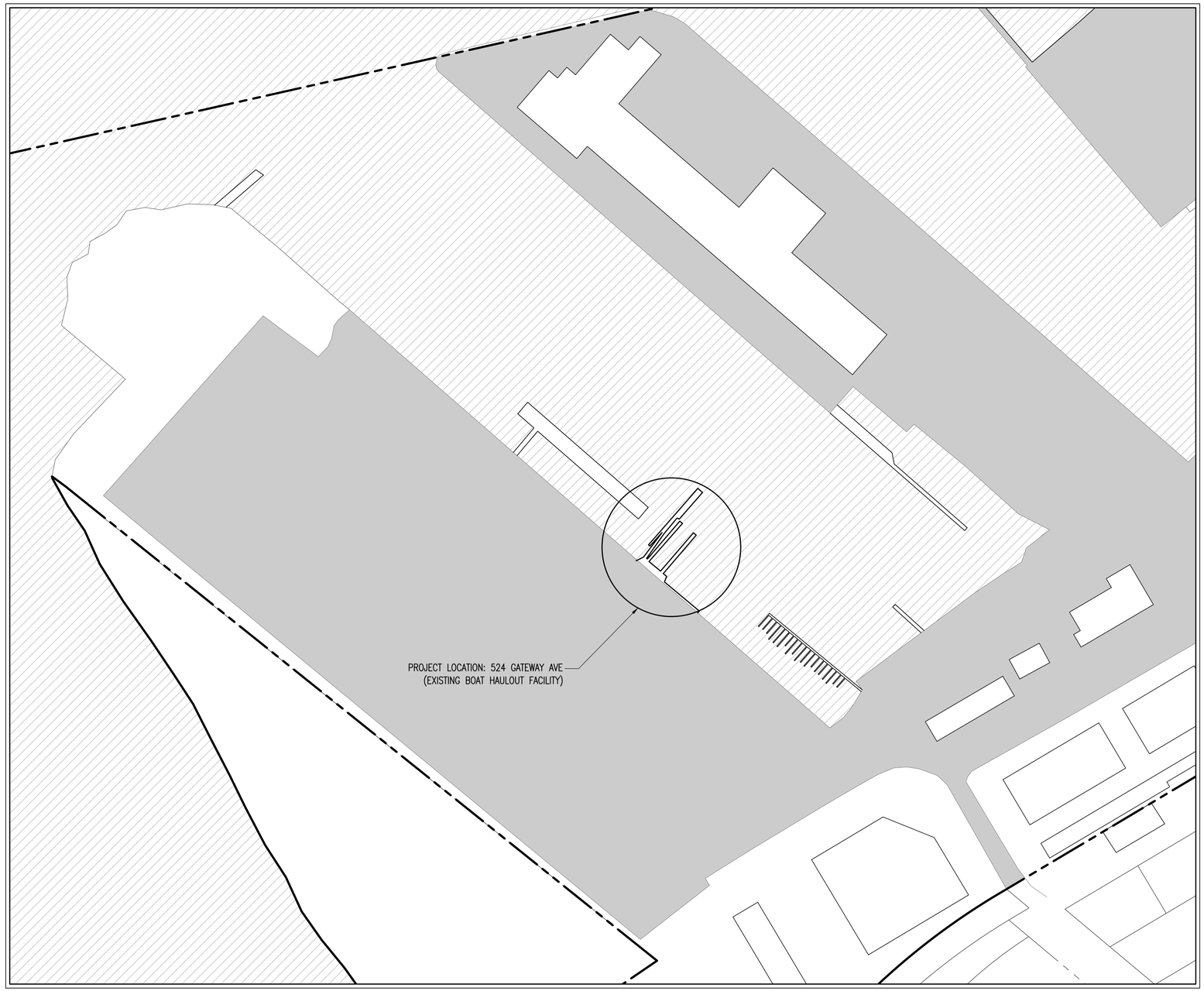
Exhibit 1_Plans & Drawings_Engineering Services for Pier 3 Boatyard Haul Out Piers Rehabilitation

BOAT HAULOUT EVALUATION

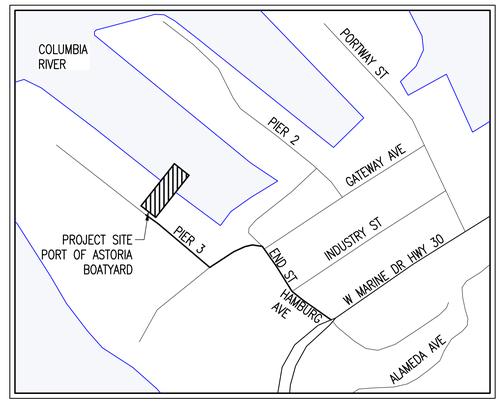
524 GATEWAY AVE
ASTORIA, OR 97103
PORT OF ASTORIA



EXISTING SITE PLAN
SCALE: 1" = 100'

NORTH

100' 50' 0' 100' 200' 300' 400' 500'



NORTH

VICINITY MAP
SCALE: NTS

DRAWING INDEX	
SHEET NUMBER	SHEET NAME
G-1	COVER SHEET
G-2	GENERAL NOTES
S-1	EXISTING CONDITIONS PLAN
S-2	EXISTING SECTION VIEWS
S-3	SECTIONS AND DETAIL VIEWS
S-4	PROPOSED CONDITIONS
S-5	PROPOSED SECTION VIEWS
S-6	PROPOSED SECTIONS & DETAILS

NOTE:
THE PURPOSE OF THESE PLANS IS TO SHOW THE EXISTING PIER SYSTEM DESIGNED FOR AN 80-METRIC TON LIFT, AND THE REQUIRED STRUCTURAL MODIFICATIONS NEEDED TO SUPPORT AN 150-TON LIFT.

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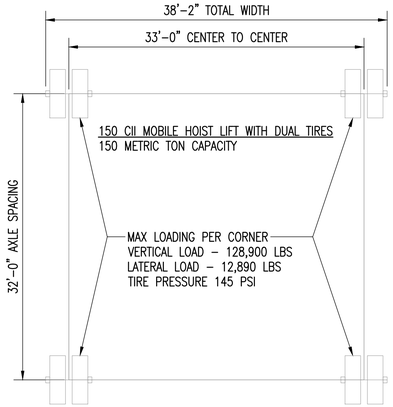
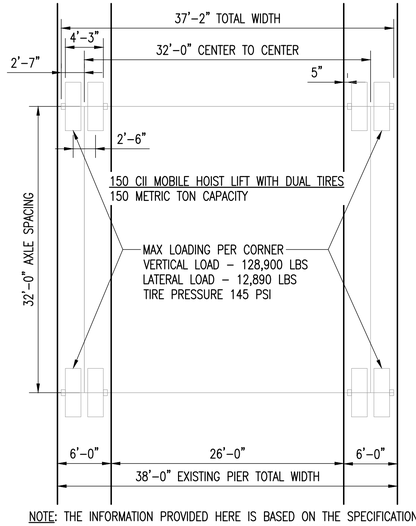
PROJ. NO. 3553	COVER SHEET		
DWG. BY RM2	BOAT HAULOUT EVALUATION		
APPR. BY	PORT OF ASTORIA	SHEET	G-1
FILE D-3553-G-1-A	DATE 02/12/2024		



NOTE: THE INFORMATION PROVIDED HERE IS BASED ON THE SPECIFICATIONS FROM MARINE TRAVELIFT, INC. MANUFACTURE STATES WIDTH CAN BE MODIFIED TO CUSTOMER SPECIFICATIONS. LCE RECOMMENDS ORDERING A LIFT DESIGNED WITH A WHEEL CENTER TO CENTER OF 32', TO FIT THE EXISTING 38' WIDE LIFT SUPPORT PIERS. SEE MODIFIED DIAGRAM ON DETAIL 2/G-2.

1/G-2 **NEW LIFT LOADING DIAGRAM**
SCALE: 1/8" = 1'-0"



NOTE: THE INFORMATION PROVIDED HERE IS BASED ON THE SPECIFICATIONS FROM MARINE TRAVELIFT, INC. MANUFACTURE STATES WIDTH CAN BE MODIFIED TO CUSTOMER SPECIFICATIONS. LCE RECOMMENDS ORDERING A LIFT DESIGNED WITH A WHEEL CENTER TO CENTER OF 32', TO FIT THE EXISTING 38' WIDE LIFT SUPPORT PIERS.

2/G-2 **NEW LIFT LOADING DIAGRAM WITH MODIFIED WIDTH**
SCALE: 1/8" = 1'-0"

STEEL NOTES

1. ALL STEEL SHALL BE NEW DOMESTIC STOCK. HOT ROLLED SHAPES AND PLATES SHALL CONFORM TO ASTM A36 WITH A MINIMUM YIELD STRENGTH OF 36,000 PSI. SQUARE AND RECTANGULAR TUBING SHALL BE COLD FORMED, ELECTRIC RESISTANCE WELDED AND CONFORM TO ASTM A500-GRADE B, WITH A MINIMUM YIELD STRENGTH OF 46,000 PSI. ROUND PIPE SHALL CONFORM TO ASTM A53-GRADE B, WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI.

2. ALL WELDING SHALL BE OF SIZE AND TYPE APPROPRIATE FOR THE MEMBERS BEING WELDED PER APPROPRIATE AWS SPECIFICATIONS USING E70XX ELECTRODES. IN GENERAL ALL JOINTS SHALL BE FULLY WELDED WITH A FILLET WELD THAT IS 1/16" LESS THAN THE THINNEST MEMBER BEING JOINED, UNLESS NOTED OTHERWISE. CONTACT ENGINEER WITH ANY UNCERTAINTIES PRIOR TO PROCEEDING. TAKE EXTREME CARE TO NOT OVERHEAT EMBEDS IN CONCRETE.

3. ALL TEMPORARY SHORING FOR CONSTRUCTION PURPOSES AND SAFETY PROCEDURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

4. ALL STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED OR PRIMED WITH 3.5 MILS OF RUST INHIBITIVE PRIMER AFTER CLEANING OF OIL, DIRT, LOOSE SCALE AND FOREIGN MATTER AND RECEIVE A FINISH COAT PER OWNER. EXPOSED STEEL SHALL BE TOUCHED UP TO PREVENT CORROSION.

5. ALL BOLT ASSEMBLIES SHALL INCLUDE BOLT, NUT AND LARGE HARDENED FLAT WASHER. BOLTS SHALL CONFORM TO ASTM A325, UNLESS NOTED OTHERWISE. TIGHTEN ALL BOLTS UTILIZING THE "TURN-OF-NUT" METHOD.

6. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR PRIOR TO PROCEEDING. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING FABRICATION SHOP DRAWINGS. SUCH DRAWINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PROCEEDING.

PILING NOTES

TOTAL PILING COUNT = 16

ALL PILING ARE 16" x 0.5" STANDARD PIPE (ASTM A252 GR. 3) FILLED WITH 4,000 PSI CONCRETE, CAPPED WITH A 16" DIA. X 1" THICK CAP PLATE WELDED TO BOTTOM.

DRIVE ALL PILING TO 200 KIPS.

PILING WILL BE INSTALLED BY _____. PER SUBMITTAL #____. THIS PLAN SHALL BE MADE AVAILABLE FOR ANY COUNTY/CITY QA/QC PERSONNEL UPON REQUEST. PILING INSTALLATION TO BE OBSERVED AND DOCUMENTED BY CONTRACTED GEOTECHNICAL CONSULTANT.

PILING SHALL BE SPECIALLY INSPECTED PER OSSC 1705.7 AND TABLE 1705.7

PRESTRESSED SLAB NOTES

PRESTRESSED SLABS TO BE A DEFERRED SUBMITTAL, DESIGNED BY MANUFACTURE TO WITHSTAND AN UNFACTORED WHEEL LOAD OF 128,900 LBS. DETAILS INCLUDED HERE PROVIDED FOR REFERENCE. ACTUAL DESIGN MAY DIFFER DEPENDING ON MANUFACTURES DESIGN. NEW PANELS WILL NEED TO FIT BETWEEN EXISTING STRUCTURAL ELEMENTS. DIMENSIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO FABRICATION.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE OSSC, OFC, OMSC, OPSC, AISC, AND ACI.
2. ALL DRAWINGS MUST BE APPROVED FOR CONSTRUCTION PRIOR TO ANY WORK BEGINNING. DO NOT SCALE DRAWINGS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
4. ALL CONCRETE USED IN THE CONSTRUCTION OF THE STRUCURE FOUNDATIONS SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AFTER 28 DAYS. ALL EPOXY ANCHORS OR REBAR SHALL BE SPECIAL INSPECTED.
5. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60, BILLET STEEL DEFORMED BARS.
6. ALL REINFORCING SHALL BE SPLICED AND/OR BENT TO FULLY DEVELOP THE CAPACITY OF THE BAR (38 x BAR DIAMETER FOR 4,000 PSI CONCRETE).
7. ALL CONCRETE MIX POURED IN A NON-CONTROLLED ENVIRONMENT SHALL CONTAIN 5% AIR ENTRAINMENT PER ASTM C260. ALL WALKING SURFACES SHALL RECEIVE A SLIP RESISTANT SURFACE.
8. ALL FOUNDATIONS SHALL BE SUPPORTED PER GEOTECHNICAL ENGINEERING REPORT BY _____ DATED _____.
9. ALL BACKFILL SHALL BE EVENLY PLACED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. REMOVE ANY STANDING WATER PRIOR TO BACKFILLING.
10. CONTRACTOR IS RESPONSIBLE FOR PROPERLY LOCATING ALL SPECIFIED ANCHOR BOLTS.
11. VERIFY WITH ALL PARTIES THAT ALL APPROPRIATE UTILITIES HAVE BEEN INSTALLED PRIOR TO EACH PHASE OF WORK.
12. ALL SITE DESIGN ISSUES, INCLUDING PROPER DRAINAGE AND VERIFICATION OF ALLOWABLE GEOTECHNICAL DESIGN VALUES AND ANY NECESSARY SLOPE STABILITY ANALYSIS ARE THE RESPONSIBILITY OF OTHERS. CONTACT ENGINEER WITH ANY UNCERTAINTIES PRIOR TO PROCEEDING.
13. ANY UNCERTAINTIES SHALL BE ADDRESSED PRIOR TO PROCEEDING. LOWER COLUMBIA ENGINEERING IS NOT RESPONSIBLE FOR THE PROPER IMPLEMENTATION OF THE SPECIFICATIONS CONTAINED ON THESE DRAWINGS.
14. ALL WEATHER PROOFING, CODE COMPLIANCE, AND SAFETY PROGRAMS ARE THE RESPONSIBILITY OF THE CONTRACTOR/OWNER.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SUPPORT OF STRUCTURES AND EMBANKMENTS.

STATEMENT OF SPECIAL INSPECTION

- PRESTRESSED CONCRETE PER OSSC TABLE 1705.3.
- REINFORCED CONCRETE SHALL BE PERIODICALLY TESTED IN ACCORDANCE WITH THE STANDARDS OF ASTM C192 AND ACI 318.
- PERFORM CONTINUOUS SPECIAL INSPECTION OF ALL FIELD WELDING AND EPOXY ANCHORS.
- PILING SHALL BE INSPECTED PER OSSC 1705.7 AND TABLE 1705.7
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS/OBSERVATIONS.

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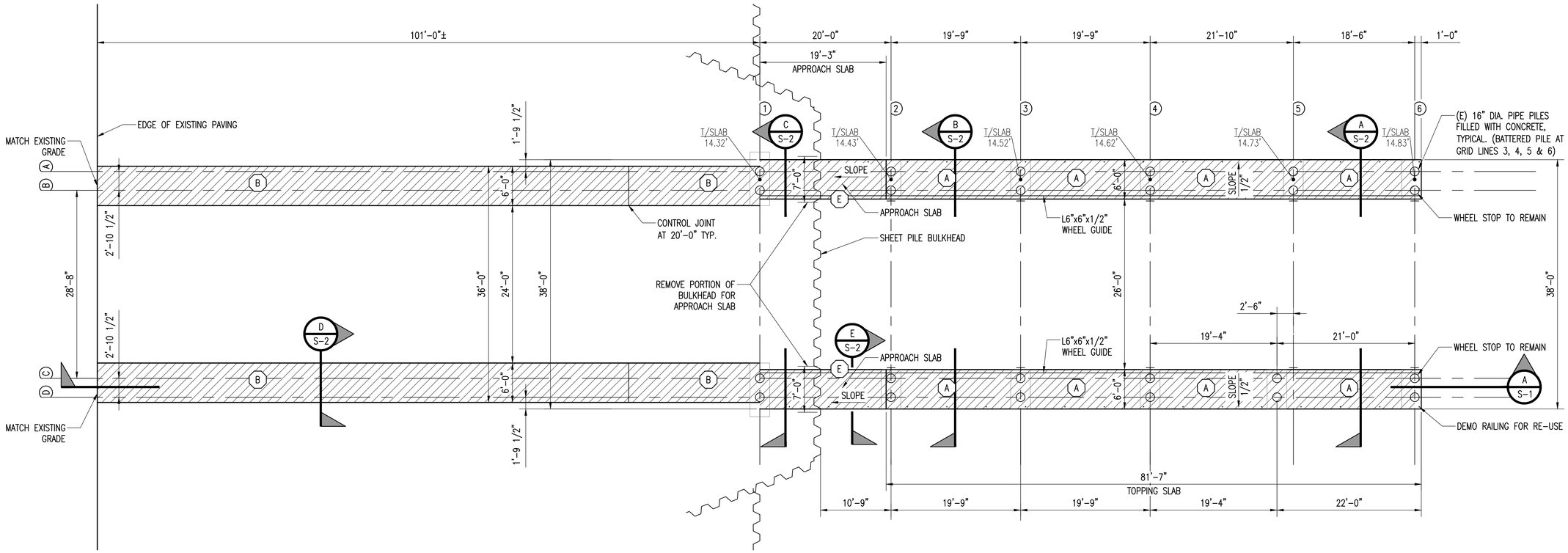
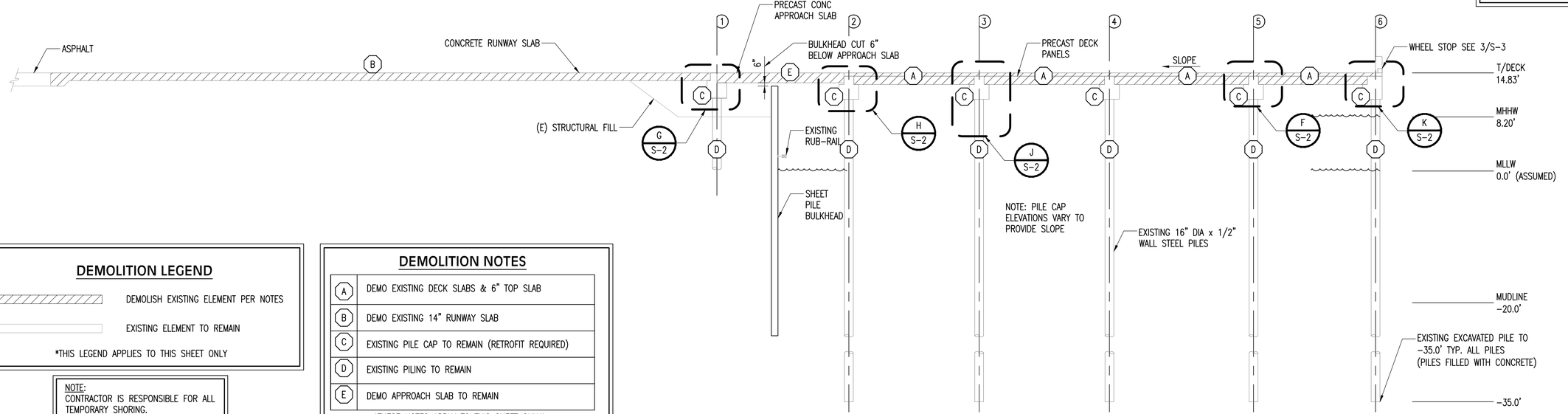
PROJ. NO. 3553	GENERAL NOTES		
DWG. BY RM2	BOAT HAULOUT EVALUATION		
APPR. BY	PORT OF ASTORIA	SHEET	G-2
FILE D-3553-G-2-A	DATE 02/12/2024		



NOTE:
EXISTING PIER SYSTEM WAS DESIGNED TO SUPPORT AN 80-METRIC TON LIFT.

EXISTING HAUL-OUT PIER PLAN
SCALE: 1/8" = 1'-0"

NOTE:
INFORMATION PROVIDED HERE IS BASED ON THE ORIGINAL DESIGN PLANS BY EISI CONSULTING ENGINEERS, LAST REVISED 6/2/04. NOT ALL AS-BUILT DIMENSIONS AND ELEVATIONS HAVE BEEN VERIFIED. CONTRACTOR TO VERIFY ITEMS PRIOR TO CONSTRUCTION.



DEMOLITION LEGEND

DEMOLISH EXISTING ELEMENT PER NOTES

EXISTING ELEMENT TO REMAIN

*THIS LEGEND APPLIES TO THIS SHEET ONLY

NOTE:
CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING.

DEMOLITION NOTES

A	DEMO EXISTING DECK SLABS & 6" TOP SLAB
B	DEMO EXISTING 14" RUNWAY SLAB
C	EXISTING PILE CAP TO REMAIN (RETROFIT REQUIRED)
D	EXISTING PILING TO REMAIN
E	DEMO APPROACH SLAB TO REMAIN

THESE NOTES APPLY TO THIS SHEET ONLY

A / S-1 **EXISTING HAUL-OUT PIER SECTION**
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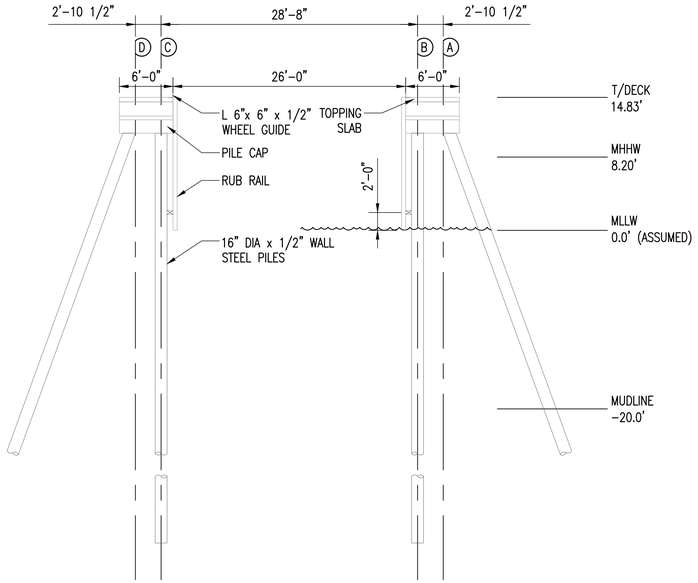
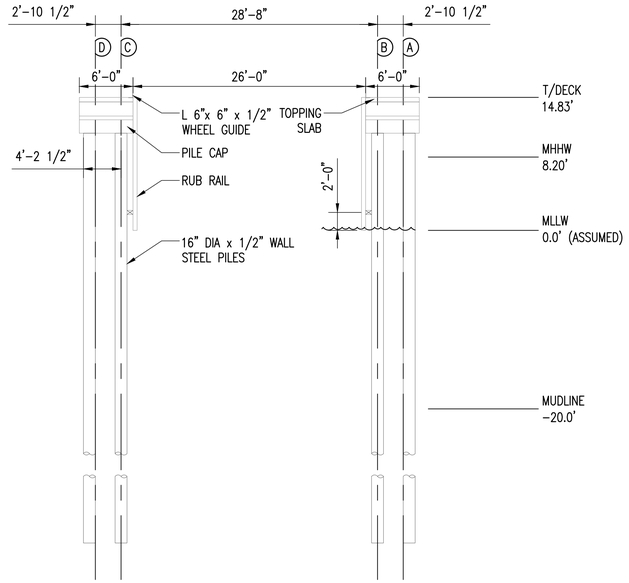
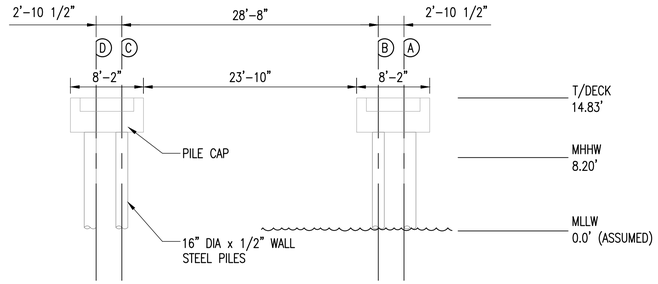
PROJ. NO.	3553	EXISTING CONDITIONS PLAN	
DWG. BY	RM2	BOAT HAULOUT EVALUATION	
APPR. BY		PORT OF ASTORIA	SHEET S-1
FILE	D-3553-S-1-A	DATE 02/12/2024	



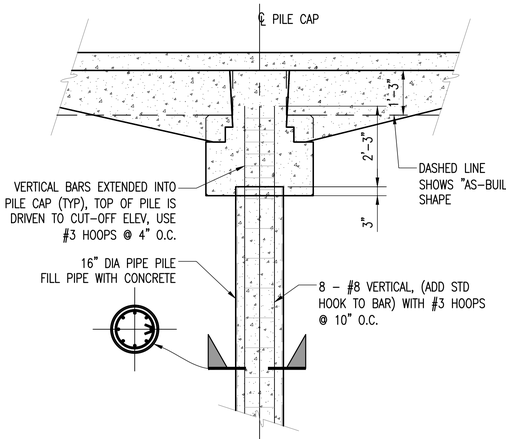
A S-2 **SECTION**
SCALE: 1/8" = 1'-0"



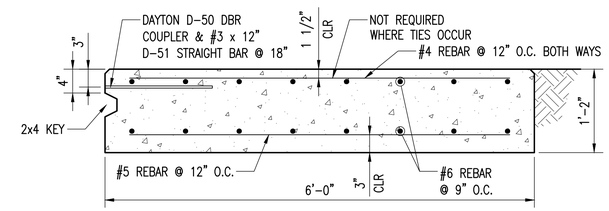
B S-2 **SECTION**
SCALE: 1/8" = 1'-0"



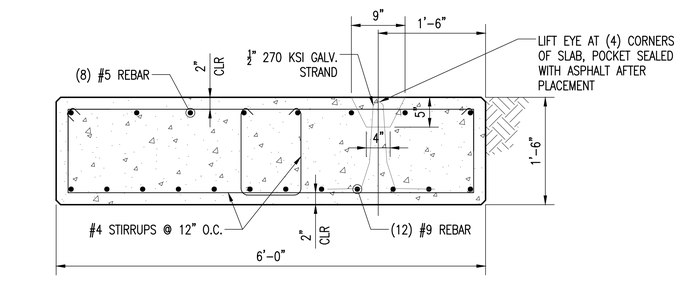
C S-2 **SECTION**
SCALE: 1/8" = 1'-0"



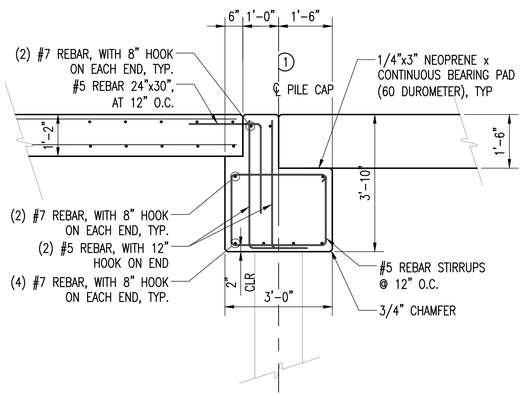
F S-2 **16" PILE / PILE CAP EXISTING CONNECTION DETAIL**
SCALE: 1/2" = 1'-0"



D S-2 **EXISTING RUNWAY SECTION**
SCALE: 1" = 1'-0"



E S-2 **EXISTING APPROACH SLAB SECTION**
SCALE: 1" = 1'-0"



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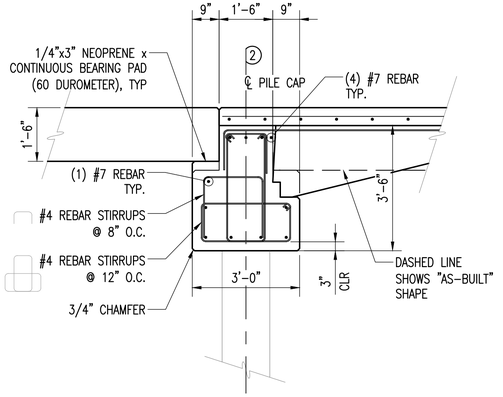
SCALE: 1/2" = 1'-0"



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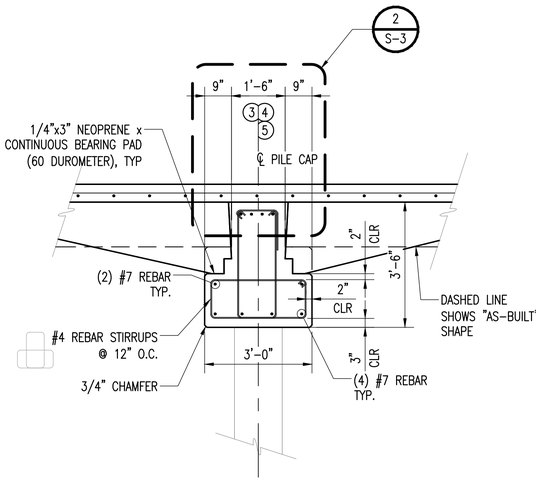

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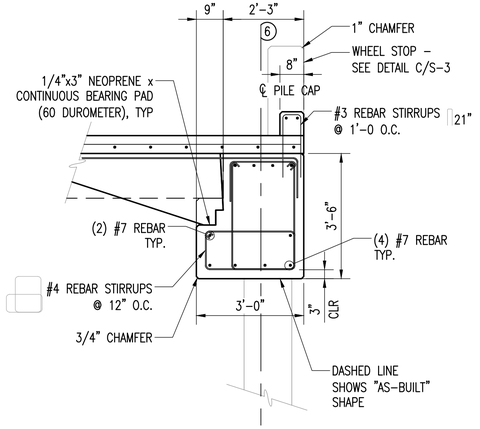

K S-2 **SECTION**
SCALE: 1/2" = 1'-0"

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NON-PRESTRESSED CONCRETE SPEC'S.
EXISTING REBAR TIES #4 OR SMALLER ARE GRADE 40.
ALL OTHER NON-PRESTRESSED REBAR ARE GRADE 60.
MIN. DESIGN CONCRETE STRENGTH = 4,000 PSI.

NOTE:
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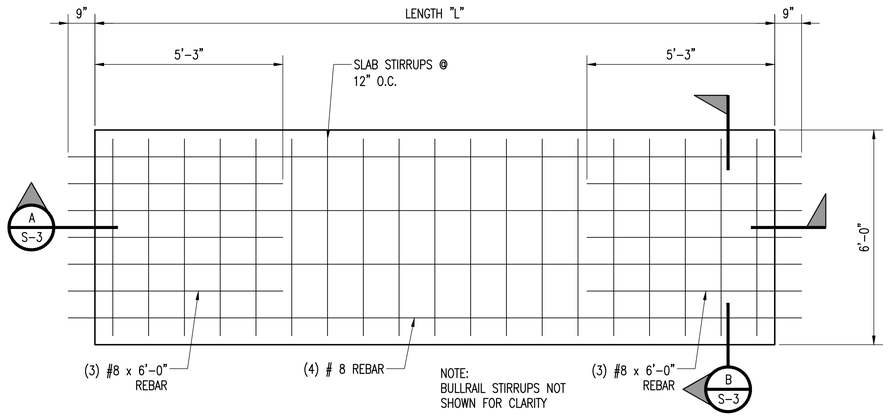
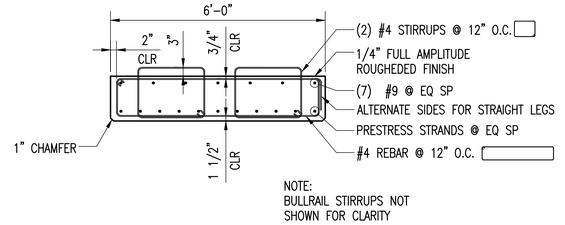
PROJ. NO. 3553	EXISTING SECTION VIEWS		
DWG. BY RM2	BOAT HAULOUT EVALUATION		
APPR. BY	PORT OF ASTORIA	SHEET	S-2
FILE D-3553-S-2-A	DATE 02/12/2024		



EXISTING PRESTRESSED PRECAST DECK PANEL - PLAN

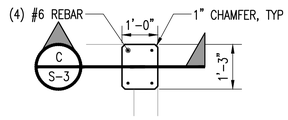
SCALE: 1/2" = 1'-0"

EXISTING PRECAST DECK PANELS	
PANEL	LENGTH "L"
P1	18'-3"
P2	18'-3"
P3	16'-6"
P4	19'-0"
P5	20'-4"
P6	17'-9"



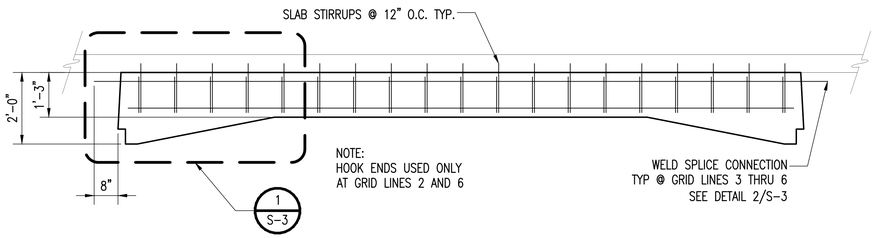
B S-3 **EXISTING PRESTRESSED PRECAST DECK PANEL - SECTION**

SCALE: 1/2" = 1'-0"



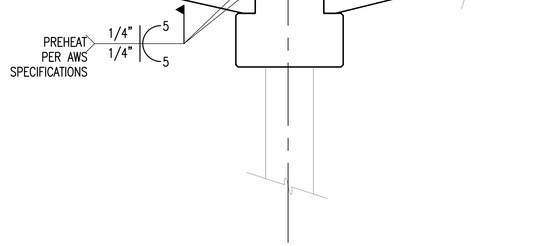
3 S-3 **WHEEL STOP DETAIL**

SCALE: 1/2" = 1'-0"



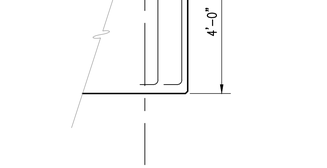
A S-3 **EXISTING PRESTRESSED PRECAST DECK PANEL - SECTION**

SCALE: 1/2" = 1'-0"



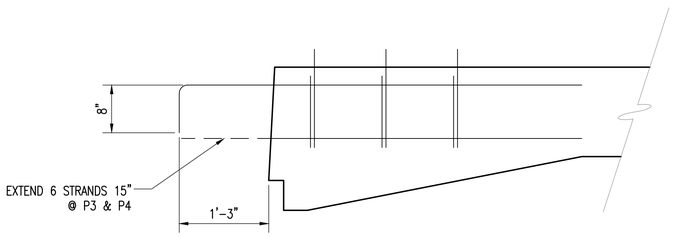
2 S-3 **EXISTING PRESTRESSED PRECAST DECK PANEL CONNECTION DETAIL**

SCALE: 1/2" = 1'-0"



C S-3 **WHEEL STOP SECTION**

SCALE: 1/2" = 1'-0"



1 S-3 **EXISTING PRESTRESSED PRECAST DECK PANEL - DETAIL**

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EXISTING PLANS - FOR REFERENCE ONLY

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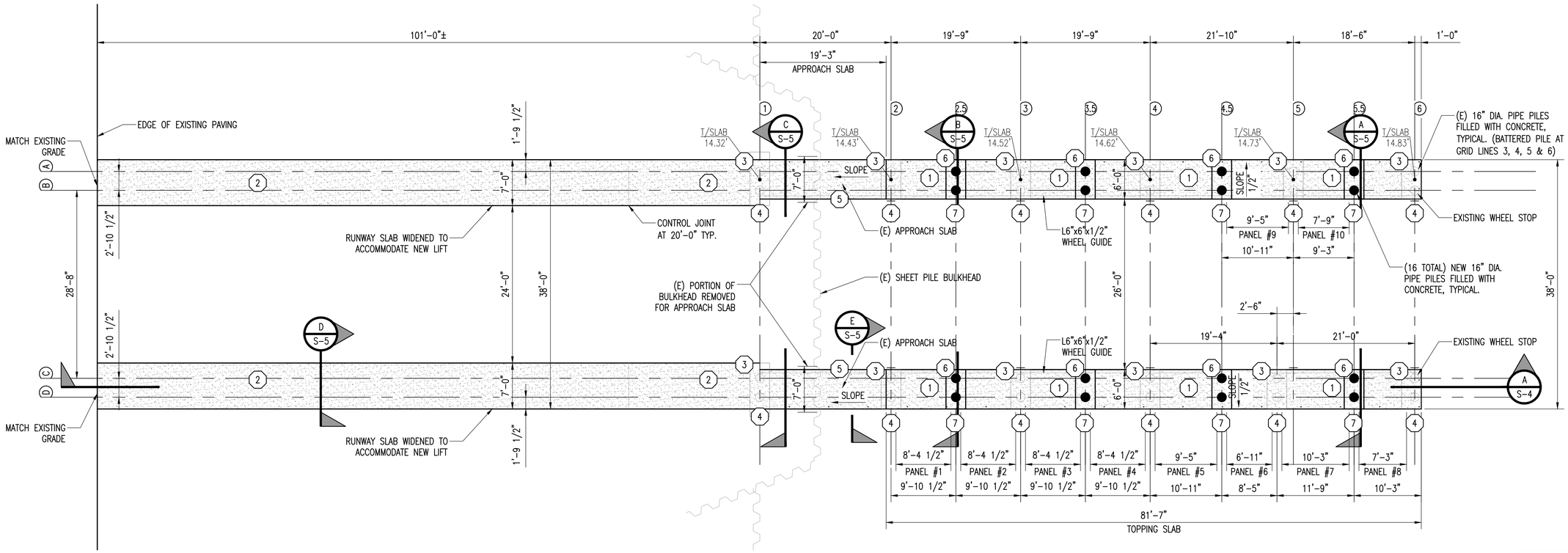
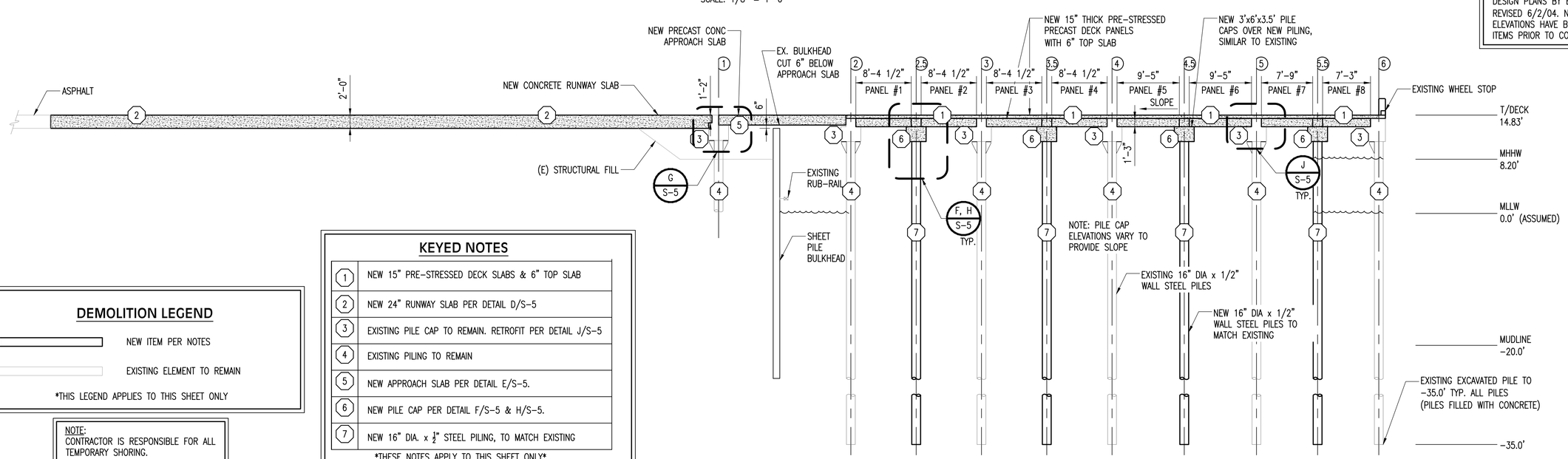
PROJ. NO.	3553	EXISTING SECTIONS AND DETAIL VIEWS	
DWG. BY	RM2	BOAT HAULOUT EVALUATION	
APPR. BY		PORT OF ASTORIA	SHEET S-3
FILE	D-3553-S-3-A	DATE 02/12/2024	



NOTE:
NEW PIER SYSTEM IS DESIGNED TO SUPPORT AN 150-METRIC TON LIFT.

PROPOSED HAUL-OUT PIER PLAN

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



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DEMOLITION LEGEND

NEW ITEM PER NOTES

EXISTING ELEMENT TO REMAIN

*THIS LEGEND APPLIES TO THIS SHEET ONLY

NOTE:
CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING.

KEYED NOTES

1	NEW 15" PRE-STRESSED DECK SLABS & 6" TOP SLAB
2	NEW 24" RUNWAY SLAB PER DETAIL D/S-5
3	EXISTING PILE CAP TO REMAIN. RETROFIT PER DETAIL J/S-5
4	EXISTING PILING TO REMAIN
5	NEW APPROACH SLAB PER DETAIL E/S-5.
6	NEW PILE CAP PER DETAIL F/S-5 & H/S-5.
7	NEW 16" DIA. x 1/2" STEEL PILING, TO MATCH EXISTING

THESE NOTES APPLY TO THIS SHEET ONLY

A S-4 **PROPOSED HAUL-OUT PIER SECTION**

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

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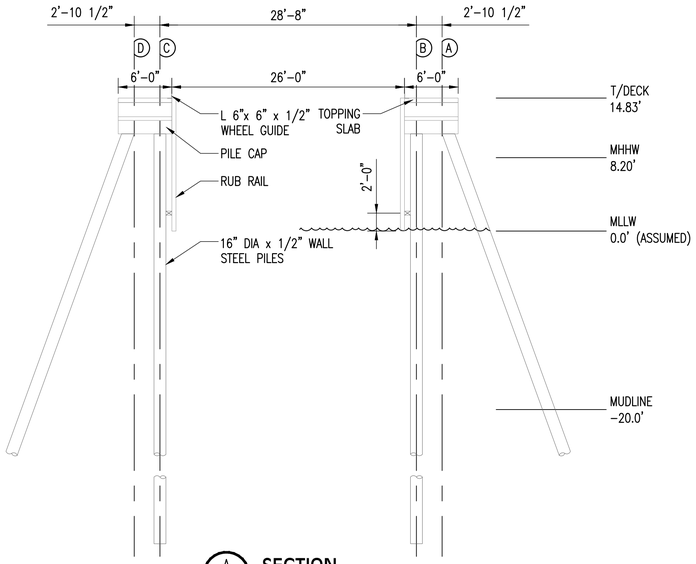
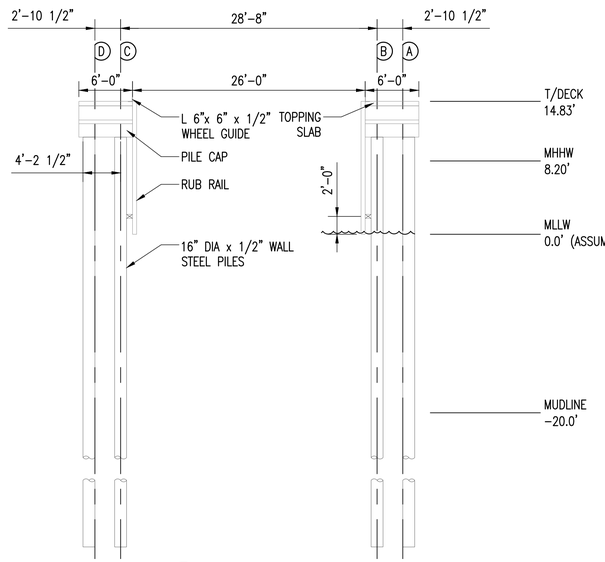
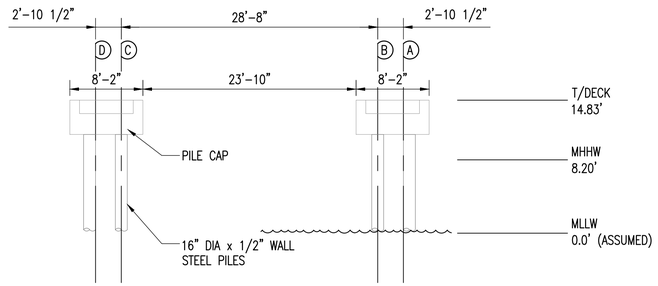
APPR. BY		PORT OF ASTORIA	SHEET S-4
FILE	D-3553-S-4-A	DATE 02/12/2024	



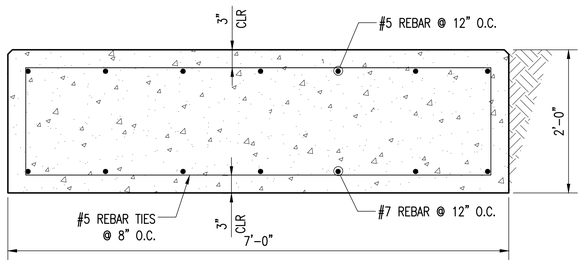
A S-5 **SECTION**
SCALE: 1/8" = 1'-0"



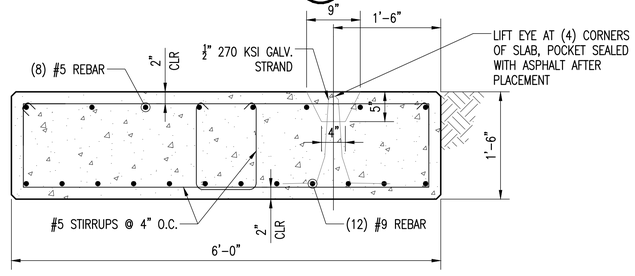
B S-5 **SECTION**
SCALE: 1/8" = 1'-0"



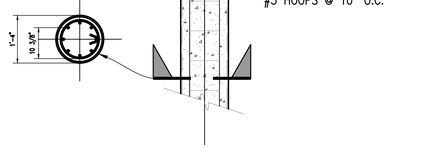
C S-5 **SECTION**
SCALE: 1/8" = 1'-0"



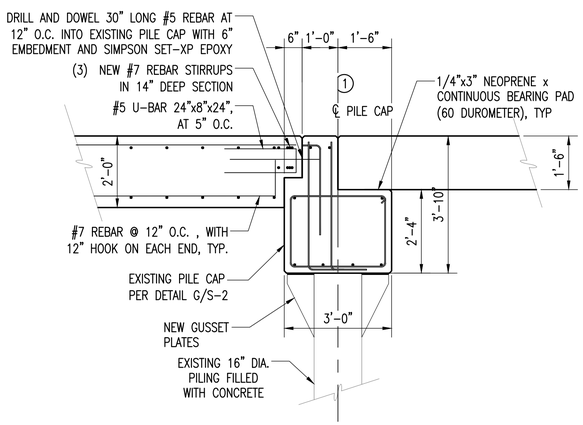
D S-5 **PROPOSED 24" RUNWAY SECTION**
SCALE: 1" = 1'-0"



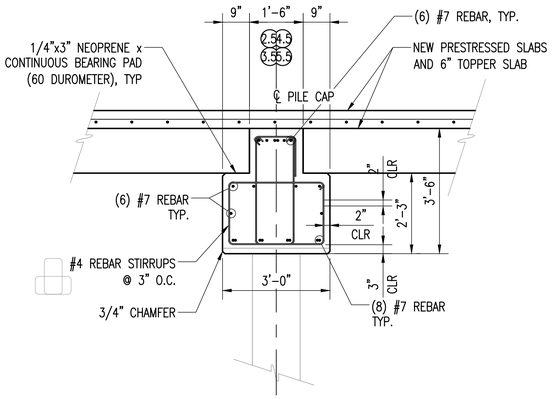
E S-5 **PROPOSED APPROACH SLAB SECTION**
SCALE: 1" = 1'-0"



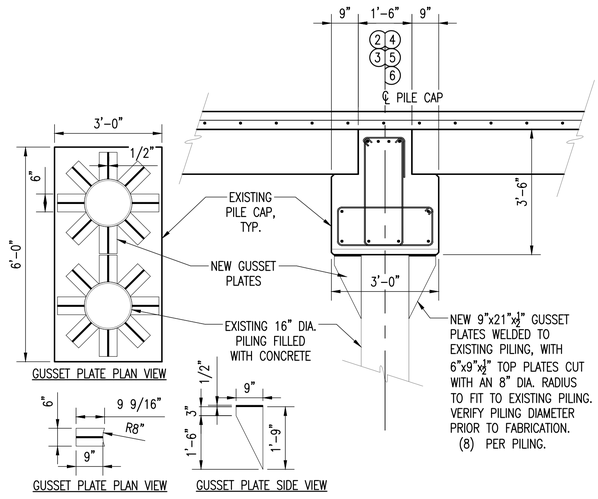
F S-5 **16" PILE / PILE CAP PROPOSED CONNECTION DETAIL**
SCALE: 1/2" = 1'-0"



G S-5 **SECTION**
SCALE: 1/2" = 1'-0"



H S-5 **SECTION**
SCALE: 1/2" = 1'-0"



J S-5 **EXISTING PILECAP - RETROFIT SECTION**
SCALE: 1/2" = 1'-0"

DATE: 01/22/2025
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DATE: 01/22/2025
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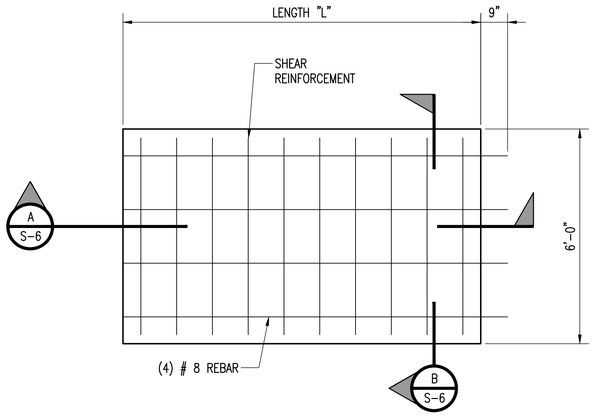
NOTE:
INFORMATION PROVIDED HERE IS BASED ON THE ORIGINAL DESIGN PLANS BY EISI CONSULTING ENGINEERS, LAST REVISED 6/2/04. NOT ALL AS-BUILT DIMENSIONS AND ELEVATIONS HAVE BEEN VERIFIED. CONTRACTOR TO VERIFY ITEMS PRIOR TO CONSTRUCTION.

REV.	REVISION RECORD	DATE

Lower Columbia Engineering
St. Helens, Oregon
(503) 366-0399

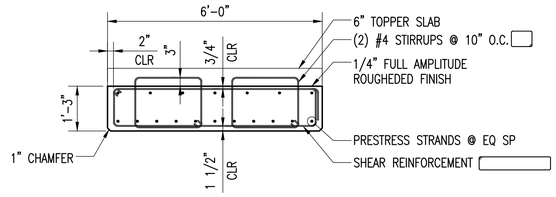
PROJ. NO.	3553	PROPOSED SECTION VIEWS	
DWG. BY	RM2	BOAT HAULOUT EVALUATION	
APPR. BY		PORT OF ASTORIA	SHEET S-5
FILE	D-3553-S-5-A	DATE 02/12/2024	



PRECAST DECK PANEL - PLAN

SCALE: 1/2" = 1'-0"

EXISTING PRECAST DECK PANELS	
PANEL #	LENGTH "L"
1	8'-4 1/2"
2	8'-4 1/2"
3	8'-4 1/2"
4	8'-4 1/2"
5	9'-5"
6	6'-11"
7	10'-3"
8	7'-3"
9	9'-5"
10	7'-9"

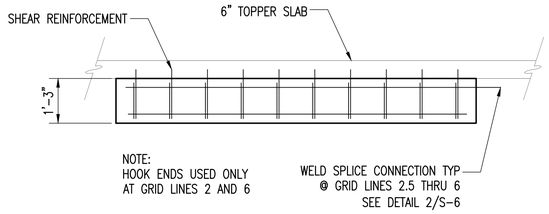


B S-6 **PRECAST DECK PANEL - SECTION**

SCALE: 1/2" = 1'-0"

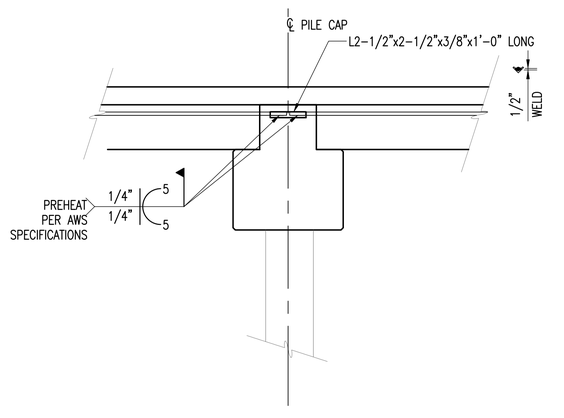
PRESTRESSED SLAB NOTES

PRESTRESSED SLABS TO BE A DEFERRED SUBMITTAL, DESIGNED BY MANUFACTURE TO WITHSTAND AN UNFACTORED WHEEL LOAD OF 128,900 LBS. DETAILS INCLUDED HERE PROVIDED FOR REFERENCE. ACTUAL DESIGN MAY DIFFER DEPENDING ON MANUFACTURES DESIGN. NEW PANELS WILL NEED TO FIT BETWEEN EXISTING STRUCTURAL ELEMENTS. DIMENSIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO FABRICATION.



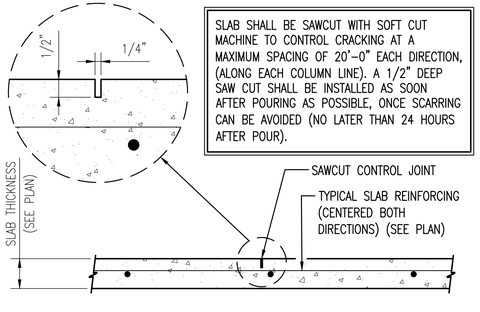
A S-6 **PRECAST DECK PANEL - SECTION**

SCALE: 1/2" = 1'-0"



2 S-6 **PRECAST DECK PANEL CONNECTION DETAIL**

SCALE: 1/2" = 1'-0"



SLAB SHALL BE SAWCUT WITH SOFT CUT MACHINE TO CONTROL CRACKING AT A MAXIMUM SPACING OF 20'-0" EACH DIRECTION, (ALONG EACH COLUMN LINE). A 1/2" DEEP SAW CUT SHALL BE INSTALLED AS SOON AFTER POURING AS POSSIBLE, ONCE SCARRING CAN BE AVOIDED (NO LATER THAN 24 HOURS AFTER POUR).

SAW CUT CRACK CONTROL JOINT DETAIL

SCALE: NTS

DATE: 01/22/2025
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DATE: 01/22/2025
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NOTE - FOR REFERENCE ONLY - PRESTRESSED DESIGN BY OTHERS

REV.	REVISION RECORD	DATE

Lower Columbia Engineering
St. Helens, Oregon
(503) 366-0399

PROJ. NO. 3553	PROPOSED SECTIONS & DETAILS		
DWG. BY RM2	BOAT HAULOUT EVALUATION		
APPR. BY	PORT OF ASTORIA	SHEET	S-6
FILE D-3553-S-6-A	DATE 02/12/2024		