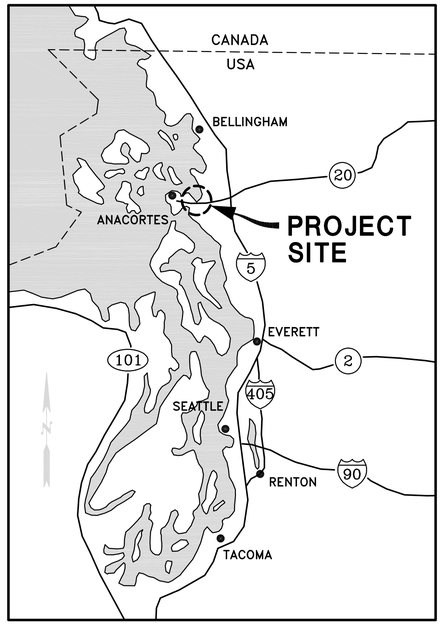
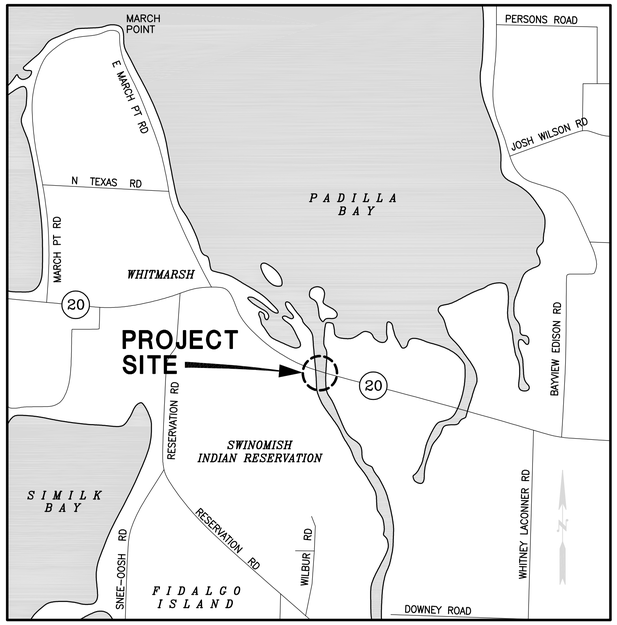
SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

DWG NO.	SHT. NO.	SHEET TITLE
		GENERAL
G1.0	1	LOCATION MAP, VICINITY MAP, AND SHEET INDEX
G1.1	2	ABBREVIATIONS AND SYMBOLS
G1.2	3	GENERAL NOTES
G1.3	4	SPECIAL INSPECTION SCHEDULE
		CIVIL
C1.0	5	EXISTING CONDITIONS PLAN
C1.1	6	TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN AND NOTES
C1.2	7	DEMOLITION PLAN, SECTION AND NOTES
C2.0	8	PROPOSED CONDITIONS PLAN AND PROFILE
		STRUCTURAL
S1.0	9	STEEL FRAME FLOAT
S1.1	10	STEEL FRAME FLOAT WITH INTERNAL PILE
S1.2	11	BULLRAIL AND HINGE DETAILS

CIVIL/STRUCTURAL ENGINEER

REID MIDDLETON, INC
728 134TH ST SW, SUITE 200
EVERETT WA 98204
CONTACT: WILLY AHN
PHONE: 425-741-3800

OWNER

SKAGIT COUNTY PARKS & RECREATION
ADDRESS: 1730 CONTINENTAL PLACE,
MOUNT VERNON, WA 98273
CONTACT: BRIAN ADAMS
PHONE: 360-416-1356

PROJECT SITE ADDRESS

BOAT LAUNCH ROAD, LA CONNER, WA 98257
SECTION 11, TOWNSHIP 34 NORTH, RANGE 2 EAST
LATITUDE: 48° 27' 16.60" N
LONGITUDE: 122° 30' 47.35" W

100% SUBMITTAL

REVISIONS				
NO.	DATE	BY	DESCRIPTION	APP'D

DESIGNED BY: J. STRUB
DRAWN BY: D. OLSEN
CHECKED BY: W. AHN
DATE: 05/23/25
PROJECT NO: 24-22-006

WOOSUK AHN — STATE OF WASHINGTON — 42028 — REGISTERED PROFESSIONAL ENGINEER — 5/23/25

SCALE:
HORIZ NO SCALE
VERT
NOTE: "L"
IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY

ReidMiddleton
728 134th Street SW · Suite 200
Everett, Washington 98204
Ph: 425 741-3800

SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION
SHEET TITLE: LOCATION MAP, VICINITY MAP, AND SHEET INDEX

SHEET NO. G1.0

ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS
AB	ANCHOR BOLT
ABAND	ABANDONED
ABUT	ABUTMENT
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
ADJ	ADJUST, ADJACENT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALIGN	ALIGNMENT
ALT	ALTERNATE
ANCH	ANCHOR
AP	ANGLE POINT
APPROX	APPROXIMATELY
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ARCH	ARCHITECT, ARCHITECTURAL
ARV	AIR RELIEF VALVE
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVE	AVENUE
AVG	AVERAGE
BLDG	BUILDING
BLK	BLOCK, BLOCKING
BLVD	BOULEVARD
BOC	BACK OF CURB
BOW	BACK OF WALK
BOL	BOLLARD
BM	BEAM, BENCH MARK
BNSF	BURLINGTON NORTHERN SANTA FE
BOT	BOTTOM
BRDG	BRIDGE
BRG	BEARING
BRK	BREAK
BTWN	BETWEEN
C	CAMBER, CHANNEL
CAL	CALIPER
CANT	CANTILEVER
CB	CATCH BASIN
CB1	CATCH BASIN TYPE 1
CB2	CATCH BASIN TYPE 2
CF	CUBIC FEET
CG	CURB & GUTTER
COG	CENTER OF GRAVITY
CI	CAST IRON
CICL	CAST IRON CONCRETE LINED
CIP	CAST IN PLACE
CJ	CONSTRUCTION JOINT
CLF	CHAIN LINK FENCE
C/L, C_L	CENTERLINE
CLR	CLEAR(ANCE)
CMP	CORRUGATED METAL PIPE
CMU	CONC MASONRY UNIT
CNTY	COUNTY
CO	CLEAN OUT
COL	COLUMN
COM	COMMON
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CONST	CONSTRUCT, CONSTRUCTION
CONT	CONTINUED/CONTINOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CTR	CENTER, CENTERED
CU	CUBIC
CULV	CULVERT
CY	CUBIC YARD
CYL	CYLINDER
DBL	DOUBLE
DDCV	DOUBLE DETECTOR CHECK VAVLE
DEMO	DEMOLISH, DEMOLITION
DEG	DEGREE
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DICA	DRILLED-IN CONCRETE ANCHOR
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DS	DOWN SPOUT
D/W	DRIVEWAY
DWG(S)	DRAWING(S)
DWL	DOWEL
E	EAST
EA	EACH
EF	EACH FACE
EHW	EXTREME HIGH WATER
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
ELB	ELBOW
EMB	EMBANKMENT
EMBED	EMBEDMENT
ENGR	ENGINEER
EOA	EDGE OF ASPHALT
EOC	EDGE OF CONCRETE
EOD	EDGE OF DIRT
EOG	EDGE OF GRAVEL
EP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ETCETERA
EW	EACH WAY
EXC	EXCAVATION
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR, EXTENSION
	EXTRUDED
EVT	EVERETT
FDN	FOUNDATION
FLG	FLANGE
FF	FAR FACE, FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH, FINISHED
FLR	FLOOR
FM	FORCE MAIN
FNC	FENCE
FOC	FACE OF CURB
FOW	FACE OF WALL
FT	FEET/FOOT
FTG	FOOTING
G	GAS LINE
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BREAK
GE	GRATE ELEVATION
GEN	GENERAL
GM	GAS METER
GR	GUARD RAIL
GRD	GRADE
GRND	GROUND
GV	GAS VALVE
H	HEIGHT
HDCP	HANDICAP
HDG	HOT DIPPED GALV
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HSE	HOUSE
HT	HEIGHT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IJ	ISOLATION JOINT
IN	INCH/INCHES
INCL	INCLUDE
INFO	INFORMATION
INST	INSTALL
INSUL	INSULATION
INT	INTERIOR, INTERMEDIATE
INV	INVERT
IP	IRON PIPE
JB	JUNCTION BOX
JT(S)	JOINT(S)
K	KIP (1,000 LB)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	LENGTH, ANGLE
LB	FOOT POUNDS
LBS	POUNDS
LF	LINEAL FOOT/FEET
LL	LIVE LOAD
LONGIT	LONGITUDINAL
LP	LOW POINT
LSH	LONG SLOTTED HOLE
LT	LEFT
LUMIN	LUMINAIRE
M	METER
MATL	MATERIAL
MAX	MAXIMUM
MB	MAILBOX
MECH	MECHANICAL
MFR(S)	MANUFACTURER(S)
MH	MANHOLE
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MIC	MONUMENT IN CASE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
M/L	MONUMENT LINE
MON	MONUMENT
MUTCD	MANUAL ON UNIFORM TR CONTROL DEVICES
N	NORTH
NE	NORTHEAST
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
No.	NUMBER
NW	NORTHWEST
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHW	ORDINARY HIGH WATER
OPNG	OPENING
OPP	OPPOSITE
OT	OVERHEAD TELEPHONE
P	POLE, POWER
PAR	PARALLEL
PC	PRECAST
PCF	POUNDS PER CUBIC FOOT
PEN	PENETRATION
PED	PEDESTRIAN
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
PL, PL	PLATE
PNL	PANEL
POC	POINT OF CONNECTION
PROP	PROPERTY
PRV	PRESSURE REDUCING VALVE
PS	PRESTRESS
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENT
PUD	PUBLIC UTILITY DISTRICT #1 OF SNOHOMISH CNTY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
P/L	PROPERTY LINE
QTY	QUANTITY
R	RADIUS
RC	REINF CONC
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCE(D)(MENT)(ING)
REQD	REQUIRED
RET	RETAINING
RETW	RETAINING WALL
RMC	RIGID METAL CD
RR	RAILROAD
RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH, SLOPE
SB	SOIL BORING
SCHED	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SE	SPOT EL/ SOUTHEAST
SECT	SECTION
SERV	SERVICE
SHLDR	SHOULDER
SHT	SHEET
SIM	SIMILAR
S/L	SURVEY LINE
SST	STAINLESS STEEL
SOG	SLAB ON GRADE
SPC	SPACE(ED)(ING)
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STA	STATION
STD	STANDARD
STIFF	STIFFENER
STIR	STIRRUP
STPS	STEPS
STL	STEEL
STRUC	STRUCTURAL
SUPP	SUPPORT
SW	SOUTHWEST
S/W	SIDEWALK
SYM	SYMMETRICAL, SYMBOL
TB	THRUST BLOCK
TAN	TANGENT
T&B	TOP & BOTTOM
TBM	TEMPORARY BENCH MARK
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICK(NESS)
THRU	THROUGH
TMH	TELEPHONE MANHOLE
TOC	TOP OF CURB
TOE	CONCAVE SLOPE BREAK
TOP	CONVEX SLOPE BREAK
TOPO	TOPOGRAPHY
TOT	TOTAL
TOW	TOP OF WALL
TP	TEST PIT
TRAN	TRANSITION
TRANSV	TRANSVERSE
TR	TELEPHONE RISER
TUN	TUNNEL
TV	TELEVISION
TWST	TWISTED
TYP	TYPICAL
UHMW	ULTRA HIGH MOLECULAR WEIGHT
UG	UNDERGROUND
UP	UTILITY POLE
UPA	UTILITY POLE ANCHOR
UTIL	UTILITY
V	VALVE
VAR	VARIES
VERT	VERTICAL
VLT	VAULT
W	WIDTH, WATER LINE, WEST
W/	WITH
WD	WOOD
WHSE	WAREHOUSE
WM	WATER METER, WATERMAIN
WP	WORK POINT
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
Y	
YD	YARD DRAIN

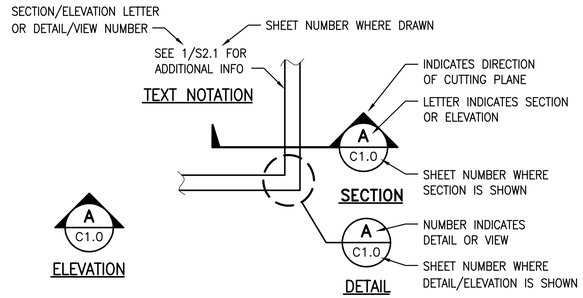
TITLES

PLAN–BOAT RAMP
SCALE: 1"=10'

A / S1.1 SECTION/ELEVATION TITLE
SCALE: 3/4" = 1'–0"

1 / S2.1 DETAIL/VIEW TITLE
SCALE: 3/4" = 1'–0"

SECTION/ELEVATION/DETAIL/VIEW LABELS



SECTION/ELEVATION/DETAIL/VIEW IDENTIFIERS

100% SUBMITTAL

REVISIONS				
NO.	DATE	BY	DESCRIPTION	APP'D

DESIGNED BY: J. STRUB
DRAWN BY: D. OLSEN
CHECKED BY: W. AHN
DATE: 05/23/25
PROJECT NO: 24-22-006

WOOSUK AHN · STATE OF WASHINGTON · 42028 · REGISTERED PROFESSIONAL ENGINEER
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SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION
SHEET TITLE: ABBREVIATIONS AND SYMBOLS

SHEET NO. G1.1

GENERAL NOTES C & S SERIES SHEETS

GENERAL

BOARDING FLOATS IS A PERFORMANCE SPECIFCIATION, CONTRACTOR IS RESPOSIBLE FOR DESIGN OF ALL COMPONENTS OF THE FLOAT SYSTEM.

ALL TYPICAL DETAILS AND NOTES SHOWN ON THESE DRAWINGS ARE PART OF CONSTRUCTION CONTRACT AND SHALL BE PROVIDED BY THE CONTRACTOR. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS, BUT SHALL APPLY AS SHOWN OR DESCRIBED IN DETAILS.

THE NOTES SHALL BE USED ALONG WITH PROJECT SPECIFICATIONS AND DRAWINGS. REQUEST CLARIFICATION IMMEDIATELY UPON DISCOVER AND BEFORE PROCEEDING, WHERE A DIFFERENCE BETWEEN DRAWINGS, NOTES, OR SPECIFICATIONS OCCUR.

EXISTING CONDITIONS: CONTRACTOR SHALL VERIFY ALL ELEVATIONS, EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. EXISTING CONDITIONS SHOWN ON DRAWINGS ARE BASED EITHER ON SITE OBSERVATIONS, ORIGINAL DRAWINGS, OR WERE ASSUMED BASED ON EXPECTED CONDITIONS. IF EXISTING CONDITIONS DO NOT CLOSELY MATCH CONDITIONS SHOWN ON DRAWINGS, OR IF EXISTING MATERIALS ARE OF QUESTIONABLE OR SUBSTANDARD QUALITY, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO COMMENCING ANY WORK.

CONTRACTOR RESPONSIBILITIES: DRAWINGS REPRESENT DESIGN IN COMPLETED FORM. CONTRACTOR SHALL BE RESPONSIBLE FOR METHODS, SEQUENCES, AND SAFETY PRECAUTIONS REQUIRED TO PERFORM WORK. CONTRACTOR SHALL PROTECT ALL EXISTING FEATURES NOT MARKED FOR DEMOLITION. CONTRACTOR SHALL CLEAN UP ALL AREAS AFFECTED BY CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING OF ALL STRUCTURAL MEMBERS, EXISTING CONSTRUCTION AND SOIL EXCAVATION AS REQUIRED. SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH DRAWINGS AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH.

CONTRACTOR SHALL REVIEW AND STAMP SUBMITTALS PRIOR TO SUBMISSION. IF SHOP DRAWINGS DIFFER FROM DESIGN SHOWN ON STRUCTURAL DRAWINGS THEY SHALL BE SEALED BY WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN. DIMENSIONS AND QUANTITIES ARE CONTRACTOR'S RESPONSIBILITY AND WILL NOT BE REVIEWED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS PLACED PRIOR TO RECEIPT OF SUBMITTAL. CONTRACTOR SHALL ALLOW MINIMUM OF 10 WORKING DAYS FOR REVIEW.

DISCREPANCIES: IN CASE OF DISCREPANCIES, CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES AND OBTAIN DIRECTION PRIOR TO PROCEEDING. NOTES ON INDIVIDUAL STRUCTURAL DRAWINGS SHALL TAKE PRIORITY OVER GENERAL NOTES. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.

SPECIFICATIONS: REFER TO SPECIFICATIONS FOR INFORMATION IN ADDITION TO THESE NOTES AND DRAWINGS.

SPECIAL INSPECTION: PER IBC SECTIONS 1704 AND 1707, SHALL BE PERFORMED BY TESTING AGENCY ACCEPTABLE TO BUILDING OFFICIAL, AND AS OUTLINED IN SPECIAL INSPECTION SCHEDULE.

STRUCTURAL OBSERVATION: SHALL BE PERFORMED PER IBC 1709

SUBMITTALS: SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION OR CONSTRUCTION IN ACCORDANCE WITH SPECIFICATIONS.

CODES

ADA 2010	AMERICAN DISABILITIES ACT: ADA STANDARDS FOR ACCESSIBILITY DESIGN
ASCE/SEI 7-22	ASCE/ SEI: MINIMUM DESIGN LOADS & ASSOCIATED CRITERIA FOR BUILDINGS & OTHER STRUCTURES
ACI 318-19	AMERICAN CONCRETE INSTITUTE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
IBC 2018	INTERNATIONAL BUILDING CODE: 2018 IBC CODE AND COMMENTARY

REFERENCES

AISC 15	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, STEEL CONSTRUCTION MANUAL 15TH EDITION
ASCE MOP 50	ASCE MANUAL AND REPORTS ON ENGINEERING PRACTICE NO. 50, 3RD EDITION: PLANNING AND DESIGN GUIDELINES FOR SMALL CRAFT HARBORS
AWS D1.1	AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE - STEEL (2020)
UFC 4-152-01	UNIFIED FACILITIES CRITERIA: PIERS AND WHARVES
UFC 4-152-07	UNIFIED FACILITIES CRITERIA: DESIGN OF SMALL CRAFT BERTHING FACILITIES
UFC 4-159-03	UNIFIED FACILITIES CRITERIA: MOORINGS

MARINAS AND SMALL CRAFT HARBORS, 2ND EDITION, B.O. TOBIASSON & R.C. KOLLMEYER (2000)

DESIGN CRITERIA – BOARDING FLOAT

BASIC:

A. FREEBOARD: MINIMUM 18 INCH AND MAXIMUM 30 INCH (UNDER DEAD LOAD ONLY) AND MINIMUM 12 INCH (UNDER FULL UNFACTORED LIVE LOAD PLUS DEAD LOAD)

STABILITY: BOARDING FLOATS SHALL BE STABLE UNDER ALL LOADING CONDITIONS. METACENTER SHALL BE LOCATED A SAFE DISTANCE ABOVE CENTER OF GRAVITY OF FLOATS. MAXIMUM TILTING OF DECK SHALL NOT EXCEED 0.10 INCHES PER FOOT OVER THE LONGITUDINAL LENGTH AND TRANSVERSE LENGTH OF EACH FLOAT MODULE.

B. DESIGN VESSEL

NAME	LENGTH (FT)	BEAM (FT)	DRAFT (FT)
DESIGN VESSEL	26	8.5	3

DESIGN LOADS:

BOARDING FLOATS MUST WITHSTAND THE LOAD CRITERIA AND COMBINATIONS LISTED BELOW.

LIVE LOADS
- VERTICAL: 30 PSF (UNIFORMLY DISTRIBUTED) OR
- 300 LBS (CONCENTRATED POINT)
- SNOW LOAD: 25 PSF

ENVIRONMENTAL LOADS:
- CURRENT SPEED: 4 KNOTS
- WIND SPEED: 60 MPH

WIND-DRIVEN WAVE:
- Hs: 2.0 FT SIGNIFICANT WAVE HEIGHT WITH 2.7 SEC WAVE PERIOD

BERTHING LOAD:
- VESSEL APPROACH SPEED: 3.0 FT/SEC
- VESSEL APPROACH ANGLE: 10 DEGREES

LOAD COMBINATIONS – LRFD (LOAD RESISTANCE FACTOR DESIGN):

1.4D (DEAD)
1.2D (DEAD) + 1.6L (LIVE) + 0.5S (SNOW)
1.2D (DEAD) + 1.6S (SNOW) + L (LIVE)
1.2WV (WAVE) + C (CURRENT)
1.5BE (BERTHING)

LOAD COMBINATIONS – ASD (ALLOWABLE STRESS DESIGN):

D (DEAD)
D (DEAD) + L (LIVE)
D (DEAD) + S (SNOW)
D (DEAD) + 0.75L (LIVE) + 0.75S (SNOW)
WV (WAVE) + C (CURRENT)
BE (BERTHING)

CONSTRUCTION NOTES

1. SUBMIT BALLAST AND INSTALLATION PLAN TO ENGINEER FOR APPROVAL PRIOR TO FLOAT FABRICATION.
2. DO NOT USE ANY LIQUID AS BALLAST.

STRUCTURAL STEEL

UNLESS NOTED OTHERWISE, ALL STRUCTURAL STEEL ELEMENTS MUST BE HOT DIP GALVANIZED.

1. STEEL MATERIALS

SQUARE HOLLOW STRUCTURAL SECTION	ASTM A500, GRADE B
STEEL ANGLE	ASTM A36
PLATES	ASTM A36
PIPE	ASTM A52, GRADE B
MISCELLANEOUS STEEL	ASTM A36
STRUCTURAL BOLTS	ASTM F3125, GRADE A325
NUTS	ASTM A563
WASHERS	ASTM F436
STAINLESS STEEL BOLTS	ASTM F593, 316SS
STAINLESS STEEL NUTS & WASHERS	ASTM F594, 316SS
THRU-RODS	A193 GRADE B8M CLASS 2 WITH A194 GRADE 8M NUTS & SS316 WASHERS

METAL FABRICATION

1. SUBMIT ANY SHOP DRAWINGS IN ACCORDANCE WITH SPECIFICATION.
2. ALL WELDERS SHALL BE QUALIFIED IN ACCORDANCE WITH "STRUCTURAL WELDING CODE-STEEL (AWS D1.1). USE PROCEDURES, MATERIALS AND EQUIPMENT OF TYPE REQUIRED FOR THIS WORK.
3. PERFORM WELDING, WELDING INSPECTION, AND CORRECTIVE WELDING IN ACCORDANCE WITH "STRUCTURAL WELDING CODE-STEEL (AWS D1.1). USE CONTINUOUS WELDS ON ALL EXPOSED CONNECTIONS. GRIND VISIBLE WELDS AND CUT SURFACES SMOOTH IN FINISHED INSTALLATION. PROVIDE IN ACCORDANCE WITH SAFETY REQUIREMENTS OF "SAFETY AND HEALTH REQUIREMENTS MANUAL" (EM385-1-1).
4. WELDERS AND FABRICATION FACILITIES MUST BE WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO) CERTIFIED.
5. BOLTS, GRATING FASTENERS, WASHERS, HARDWARE, AND PARTS OR DEVICES NECESSARY FOR PROPER INSTALLATION MUST BE HOT DIP GALVANIZED, UNLESS INDICATED OTHERWISE. PROVIDE ISOLATION BETWEEN DISSIMILAR MATERIALS.

OTHER MATERIALS

PLASTIC LUMBER INTENDED FOR USE IN EXTERIOR APPLICATIONS MUST HAVE NO FADING OR DISCOLORATION AND NO CHANGE IN DIMENSIONAL STABILITY AS TESTED IN ACCORDANCE WITH ASTM D1435 FOR A PERIOD OF 5 YEARS.

COMPRESSIVE STRENGTH:
- COMPRESSION PARALLEL TO GRAIN: 2,800 PSI MIN
- COMPRESSION PERPENDICULAR TO GRAIN: 1,400 PSI MIN

FLEXURAL STRENGTH: 2,100 PSI

IMPACT RESISTANCE: 4.5 FT-LB/IN MIN

WATER ABSORPTION: < 0.1% IN 24 HOURS

PLASTIC TIMBER SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

1. MANUFACTURED WITH RECYCLED HDPE AND FIBERGLASS ELEMENTS
2. RESITANT TO UV AND SALT WATER
3. RESISTANT TO IMPACT AND ABRASION
4. RESISTANT TO MARINE BORDERS

ALL HARDWARE SHALL BE RECESSED FROM EXPOSED SURFACE OF PLASTIC LUMBER BY MINIMUM OF 1/2 INCH.

100% SUBMITTAL

REVISIONS				
NO.	DATE	BY	DESCRIPTION	APP'D

DESIGNED BY: J. STRUB
DRAWN BY: D. OLSEN
CHECKED BY: W. AHN
DATE: 05/23/25
PROJECT NO: 24-22-006

WOOSUK AHN — STATE OF WASHINGTON — 42028 — REGISTERED PROFESSIONAL ENGINEER
5/23/25

SCALE:
HORIZ NO SCALE
VERT
NOTE: "L"
IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY

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SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION
SHEET TITLE: GENERAL NOTES

SHEET NO. G1.2

SPECIAL INSPECTION SCHEDULE

STRUCTURAL STEEL SPECIAL INSPECTION

SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AISC 341, AISC 360, AND FOLLOWING INFORMATION.

TASK – INDICATES WHETHER TO OBSERVE OR PERFORM (OR BOTH) INSPECTION TASK.
DOC – INSPECTOR SHALL PREPARE REPORTS INDICATING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH CONTRACT DOCUMENTS.
O – OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS, OPERATIONS NEED NOT BE DELAYED PENDING INSPECTIONS. FREQUENCY OF OBSERVATIONS SHALL BE ADEQUATE TO CONFIRM THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH APPLICABLE DOCUMENTS.
P – PERFORM, FOR EACH JOINT OR MEMBER PRIOR TO FINAL ACCEPTANCE OF ITEM.
QC – TASKS INDICATED AS "QC" SHALL BE EXECUTED BY FABRICATOR AND ERECTOR IN ACCORDANCE WITH AISC 360 CHAPTER N
QA – TASKS INDICATED AS "QA" SHALL BE EXECUTED BY SPECIAL INSPECTOR IN ACCORDANCE WITH AISC 360 CHAPTER N.

STEEL DETAILS

INSPECTION TASKS	QC	QA	REFERENCED STANDARD
INSPECT THE FABRICATED STEEL AND ERECTED STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION	O	O	AISC 360 CH. N

WELDING

INSPECTION TASKS PRIOR TO WELDING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS PRIOR TO WELDING	QC	QA	AISC 360 CH. N & AWS D1.1	1705.2.1
WELDING PROCEDURE SPECIFICATIONS (WPSS) AVAILABLE	P	P		
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P		
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O		
WELDER IDENTIFICATION SYSTEM [1]	O	O		
FIT–UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY), JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)	O	O		
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O		
FIT–UP OF FILLET WELDS, DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION)	O	O		
CHECK WELDING EQUIPMENT	O	–		
INSPECTION TASKS DURING WELDING			**REFERENCED STANDARD**	**IBC REFERENCE**
INSPECTION TASKS DURING WELDING	QC	QA	AISC 360 CH. N & AWS D1.1	1705.2.1
USE OF QUALIFIED WELDERS	O	O		
CONTROL AND HANDLING OF WELDING CONSUMABLES, PACKAGING, EXPOSURE CONTROL	O	O		
NO WELDING OVER CRACKED TACK WELDS	O	O		
ENVIRONMENTAL CONDITIONS, WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE	O	O		
WPS FOLLOWED, SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN / MAX), PROPER POSITION (F, V, H, OH)	O	O		
WELDING TECHNIQUES, INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, EACH PASS MEETS QUALITY REQUIREMENTS	O	O		
INSPECTION TASKS AFTER WELDING			**REFERENCED STANDARD**	**IBC REFERENCE**
INSPECTION TASKS AFTER WELDING	QC	QA	AISC 360 CH. N & AWS D1.1	1705.2.1
WELDS CLEANED	O	O		
SIZE, LENGTH AND LOCATION OF WELDS	P	P		
WELDS MEET VISUAL ACCEPTANCE CRITERIA, CRACK PROHIBITION, WELD / BASE–METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY	P	P		
ARC STRIKES	P	P		
K–AREA [2]	P	P		
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P		
REPAIR ACTIVITIES	P	P		
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P		

1. FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN SYSTEM BY WHICH WELDER WHO HAS WELDED JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE LOW–STRESS TYPE.

2. WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN k–AREA, VISUALLY INSPECT WEB k–AREA FOR CRACKS WITHIN 3 INCHES OF WELD.

BOLTING

INSPECTION TASKS PRIOR TO BOLTING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS PRIOR TO BOLTING	QC	QA	AISC 360 CH. N	1705.2.1
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P		
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O		
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O		
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O		
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O		
PRE–INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O		
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O		
INSPECTION TASKS DURING BOLTING			**REFERENCED STANDARD**	**IBC REFERENCE**
INSPECTION TASKS DURING BOLTING	QC	QA	AISC 360 CH. N	1705.2.1
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O		
JOINT BROUGHT TO THE SNUG–TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O		
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O		
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O		
INSPECTION TASKS AFTER BOLTING			**REFERENCED STANDARD**	**IBC REFERENCE**
INSPECTION TASKS AFTER BOLTING	QC	QA	AISC 360 CH. N	1705.2.1
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P		

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REVISIONS				
NO.	DATE	BY	DESCRIPTION	APP'D

DESIGNED BY: J. STRUB
DRAWN BY: D. OLSEN
CHECKED BY: W. AHN
DATE: 05/23/25
PROJECT NO: 24–22–006

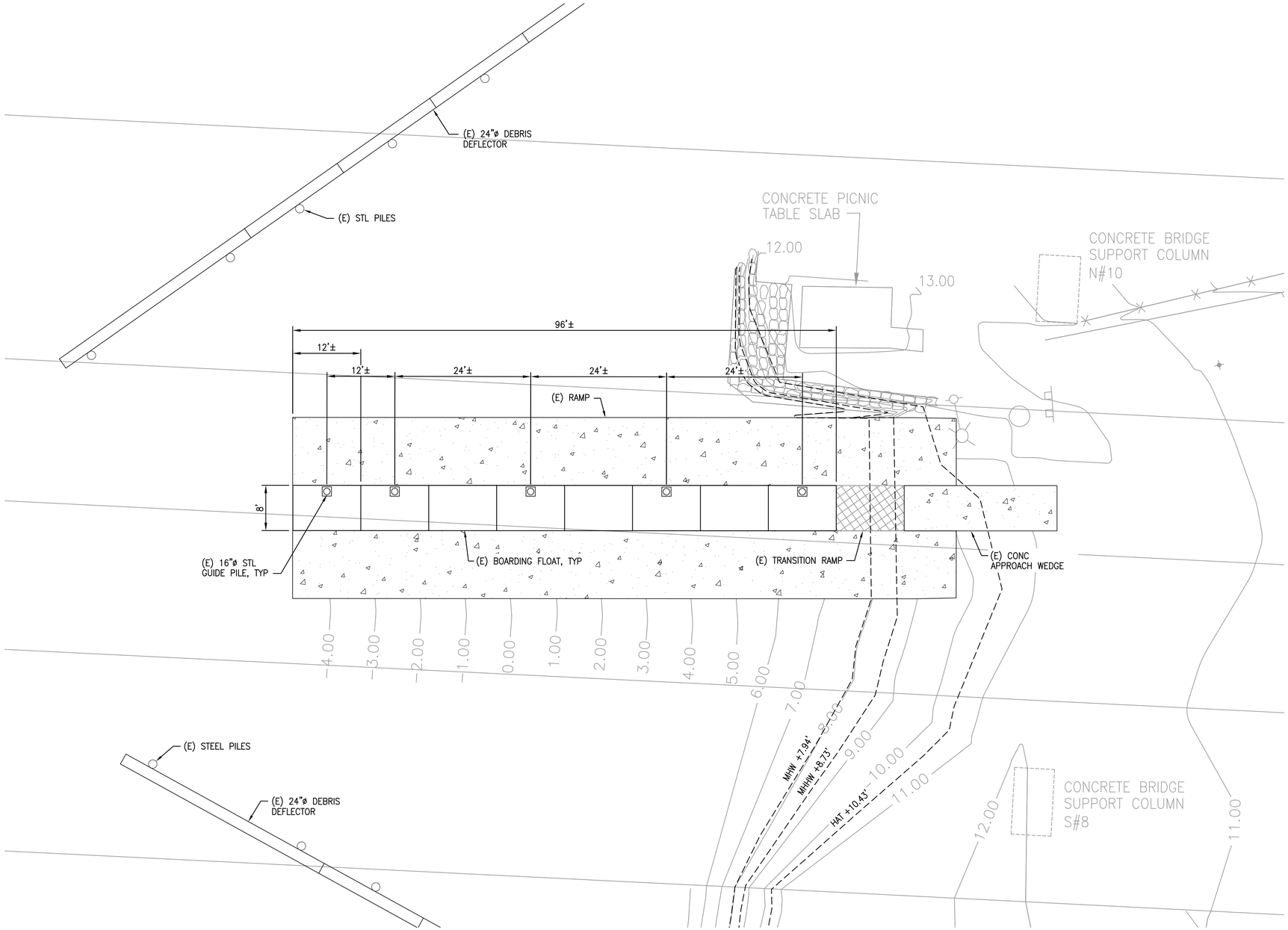
MOOSUK AHN — STATE OF WASHINGTON — 42028 — REGISTERED PROFESSIONAL ENGINEER — 5/23/25

SCALE:
HORIZ NO SCALE
VERT
NOTE: "L"
IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY

ReidMiddleton
728 134th Street SW · Suite 200
Everett, Washington 98204
Ph: 425 741–3800

SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION
SHEET TITLE: SPECIAL INSPECTION SCHEDULE

SHEET NO. G1.3



EXISTING CONDITIONS PLAN

SCALE: 1"=10'

100% SUBMITTAL

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NO.	DATE	BY	DESCRIPTION	APP'D

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Everett, Washington 98204
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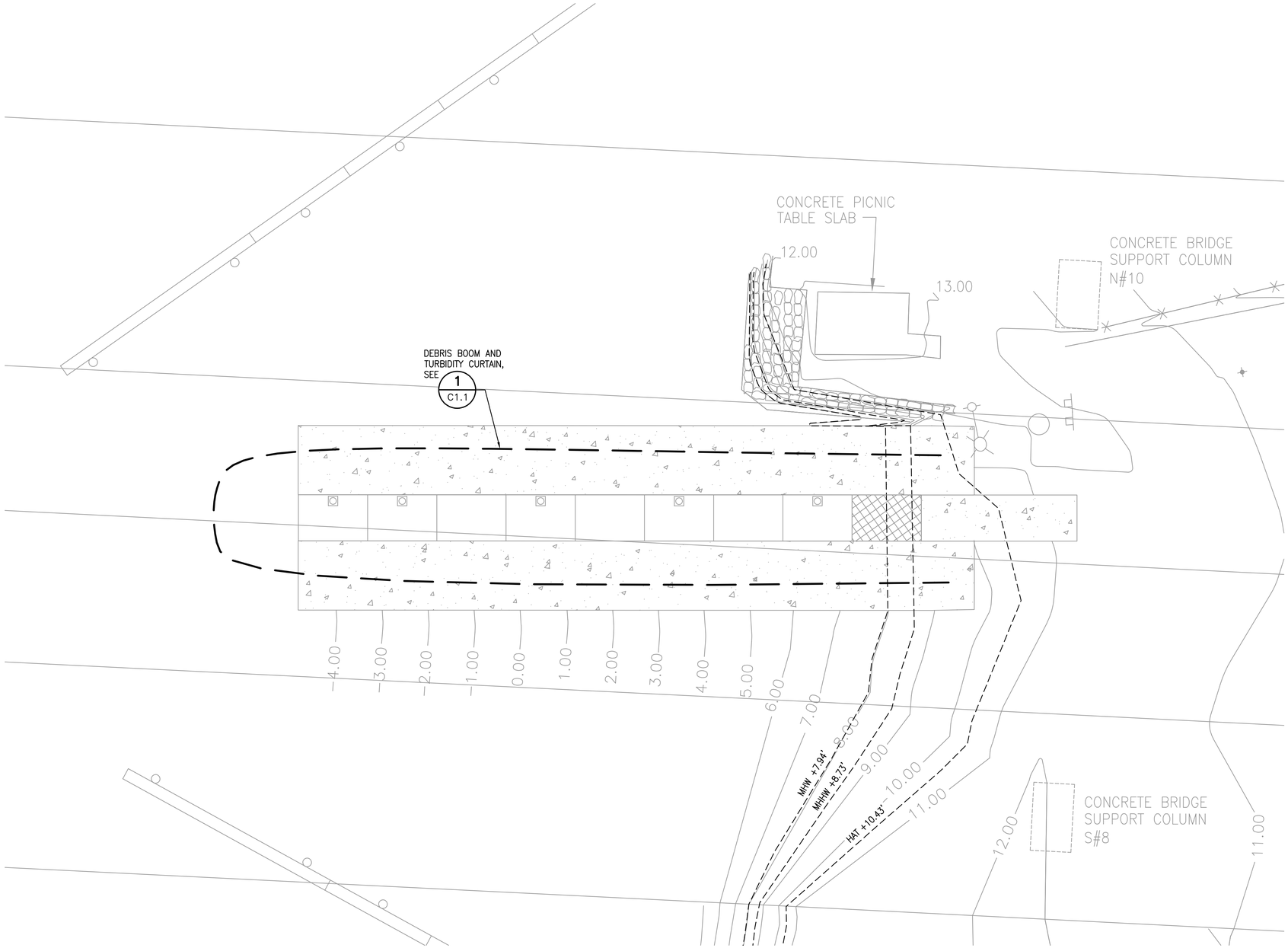
SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION

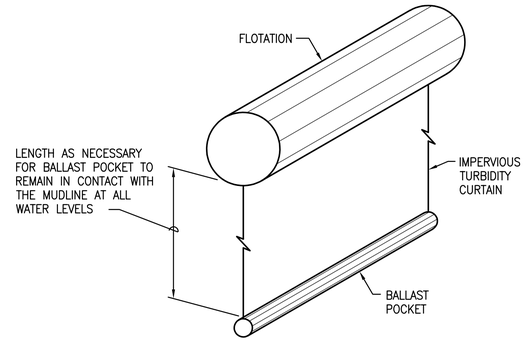
SHEET TITLE: EXISTING CONDITIONS PLAN

SHEET NO. C1.0



TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN

SCALE: 1"=10'



1 C1.1 **TURBIDITY CURTAIN AND DEBRIS BOOM**

NOT TO SCALE

TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) NOTES

IN-WATER WORK

1. TAKE CARE TO PREVENT DEBRIS FROM ENTERING THE WATER DURING DEMOLITION AND CONSTRUCTION AND REMOVE DEBRIS PROMPTLY IF IT DOES ENTER THE WATER. MATERIALS AND CONSTRUCTION METHODS SHALL BE USED WHICH PREVENT TOXIC MATERIALS, PETROCHEMICALS AND OTHER POLLUTANTS FROM ENTERING SURFACE WATER DURING AND AFTER CONSTRUCTION. APPROPRIATE EQUIPMENT AND MATERIAL FOR HAZARDOUS MATERIAL CLEANUP MUST BE KEPT AT THE SITE.

   A. ABSORBENT MATERIALS MUST BE EMPLOYED IF A PETROCHEMICAL SHEEN IS OBSERVED. MATERIALS SHALL REMAIN IN PLACE UNTIL ALL POLLUTANTS HAVE BEEN COLLECTED AND SHEENS DISSIPATE. USED ABSORBENT MATERIALS SHALL BE DISPOSED OF IN AN APPROPRIATE UPLAND FACILITY. CONTRACTOR TO NOTIFY ALL REQUIRED REGULATORY AGENCIES AND COMPLY WITH REPORTING REQUIREMENTS.

   B. NATIONAL RESPONSE CENTER: 1-800-424-8802
   DEPARTMENT OF ECOLOGY (WASHINGTON EMERGENCY MANAGEMENT DIVISION): 1-800-258-5990

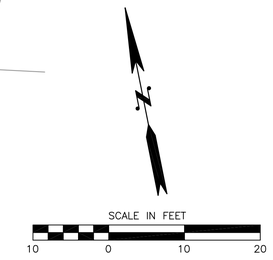
   C. ALL DISPOSED MATERIALS SHALL BE DEPOSITED IN A LANDFILL, WHICH MEETS THE LINER AND LEACHATE STANDARDS OF THE MINIMUM FUNCTIONAL STANDARDS, CHAPTER 173-304 WAC.

   D. COMPLY WITH ALL PERMIT REQUIREMENTS.

   E. IN-WATER DEBRIS BOOM AND TURBIDITY CURTAIN SHALL BE DEPLOYED AROUND ALL ACTIVE WORK AREAS DURING DEMOLITION AND CONSTRUCTION AS NECESSARY TO CONTROL DEBRIS AND MEET WATER QUALITY REQUIREMENTS.

   F. CONSTRUCTION EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY DISTURBANCE.

   G. COMPLY WITH ALL PERMIT REQUIREMENTS.



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SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION

SHEET TITLE: TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN AND NOTES

SHEET NO. C1.1

May 22, 2025 - 4:54pm bigoric924 H:\24WR\2022\006 Swinomish Channel Boat Launch Renovations\Drafting\Design - CAD 2022\4206-C11.dwg Layout Name: C10

LEGEND

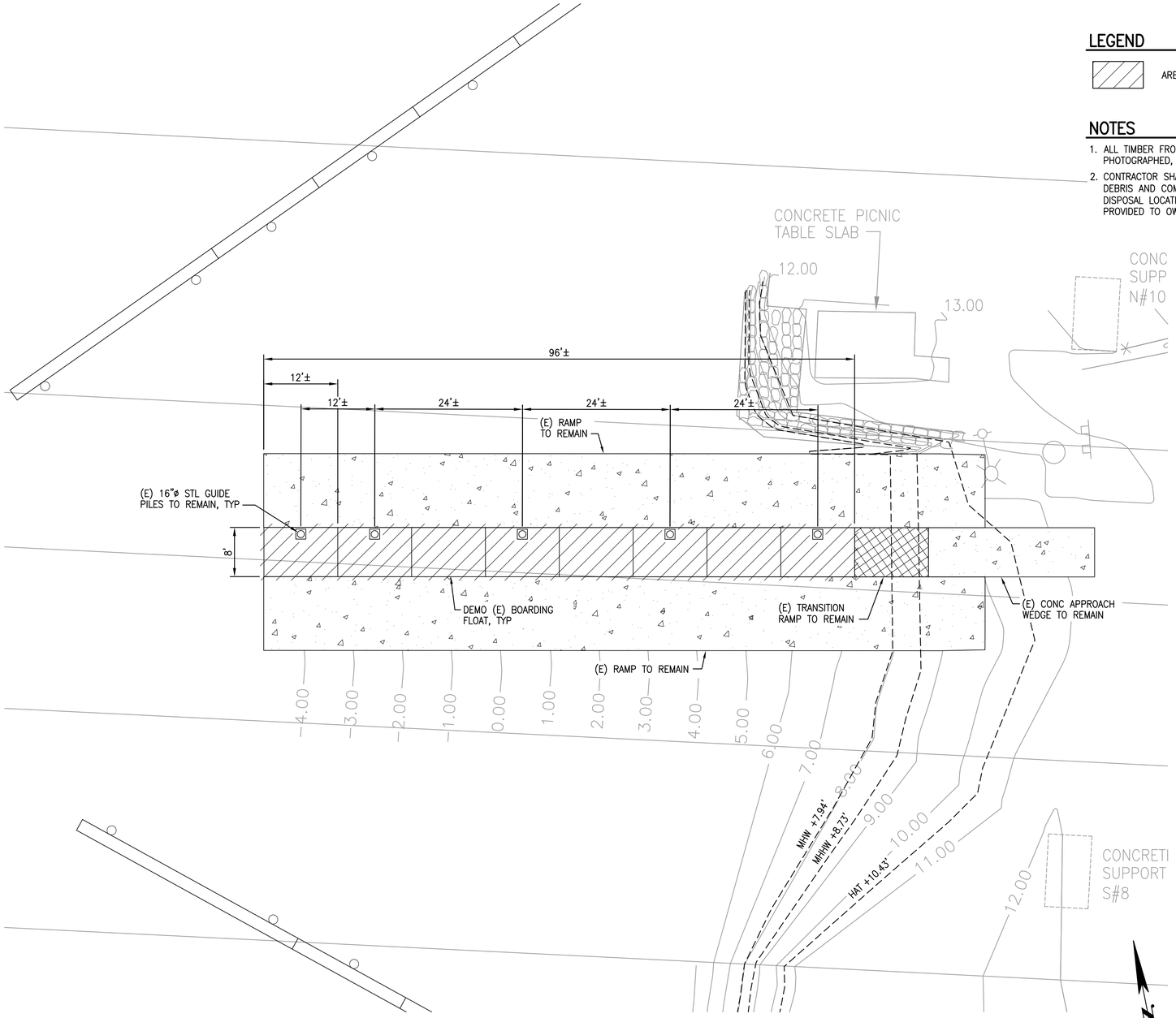
AREA TO BE DEMOLISHED AND DISPOSED

NOTES

1. ALL TIMBER FROM EXISTING FLOATS TO BE SEPARATED FROM OTHER DEBRIS, PHOTOGRAPHED, AND WEIGHED PER PERMIT REQUIREMENTS.
2. CONTRACTOR SHALL PHOTOGRAPH TIMBER DEBRIS ONCE SEPARATED FROM OTHER DEBRIS AND COMPILED AND DOCUMENT/PHOTOGRAPH TIMBER DEBRIS WEIGHT AT DISPOSAL LOCATION. TIMBER DEBRIS PHOTOGRAPHS AND DOCUMENTATION TO BE PROVIDED TO OWNER.

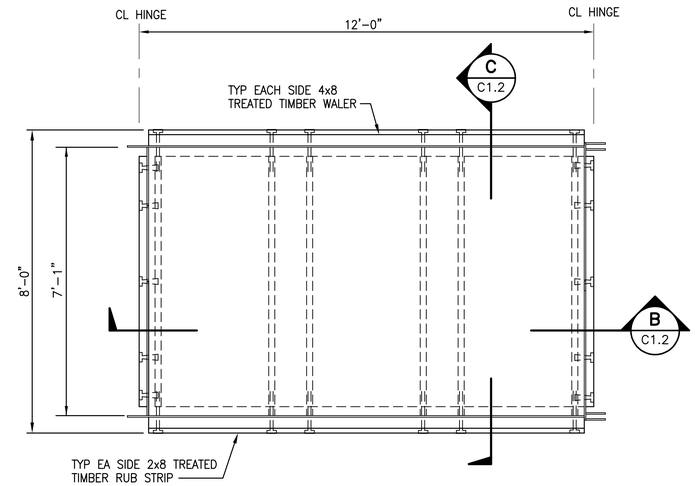
EXISTING FLOATS TO BE REMOVED

NO SCALE



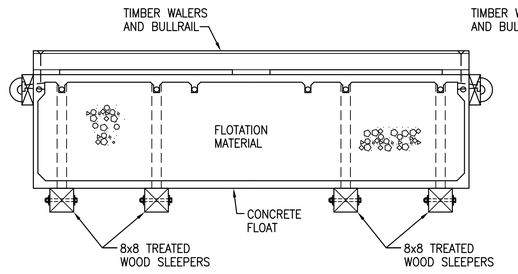
DEMOLITION PLAN

SCALE: 1"=10'



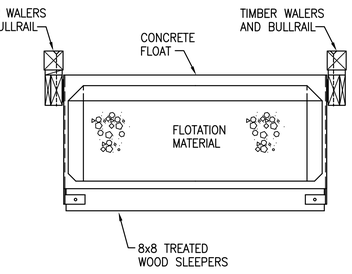
1 / C1.2 PLAN–EXISTING BOARDING FLOAT TO BE REPLACED

SCALE: 1/2"=1'–0"



B / C1.2 SECTION

SCALE: 1/2"=1'–0"



C / C1.2 SECTION

SCALE: 1/2"=1'–0"

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REVISIONS				
NO.	DATE	BY	DESCRIPTION	APP'D

DESIGNED BY: J. STRUB
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DATE: 05/23/25
PROJECT NO: 24-22-006

WOOSUK AHN — STATE OF WASHINGTON — 42028 — REGISTERED PROFESSIONAL ENGINEER — 5/23/25

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Everett, Washington 98204
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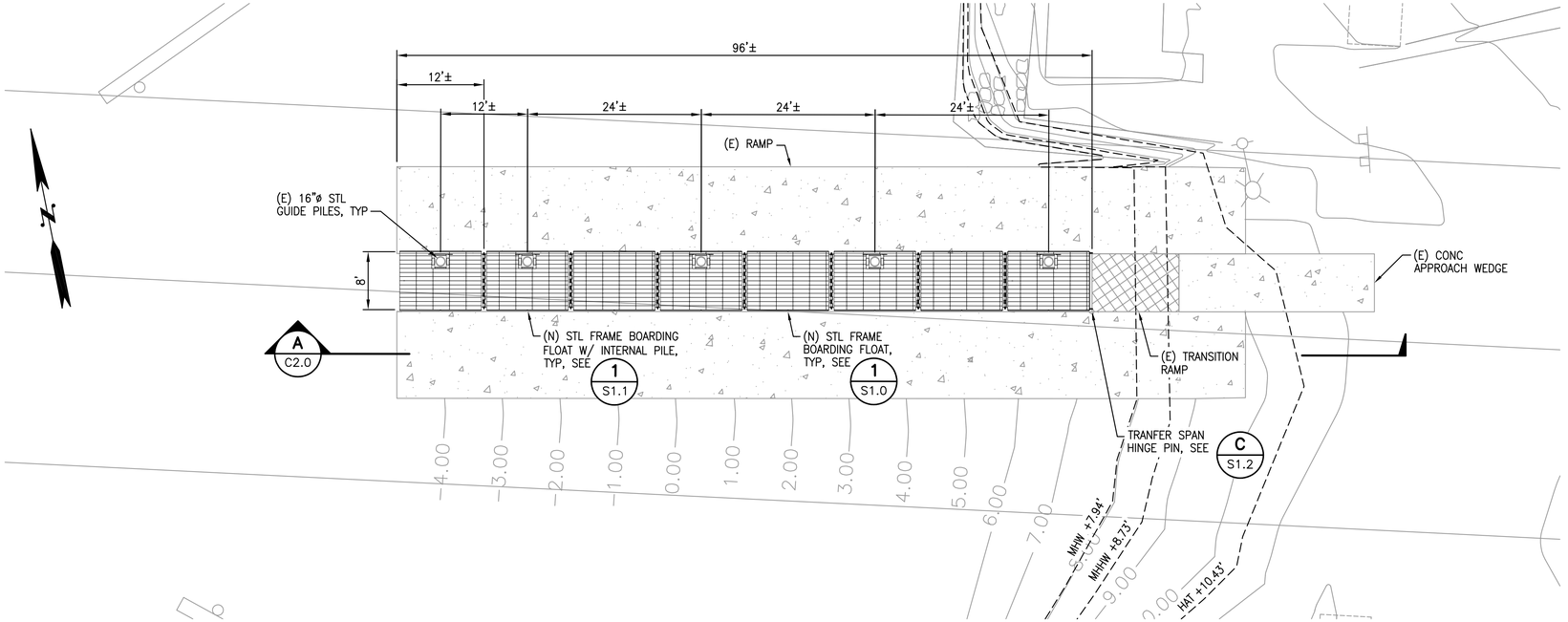
SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION

SHEET TITLE: DEMOLITION PLAN, SECTION AND NOTES

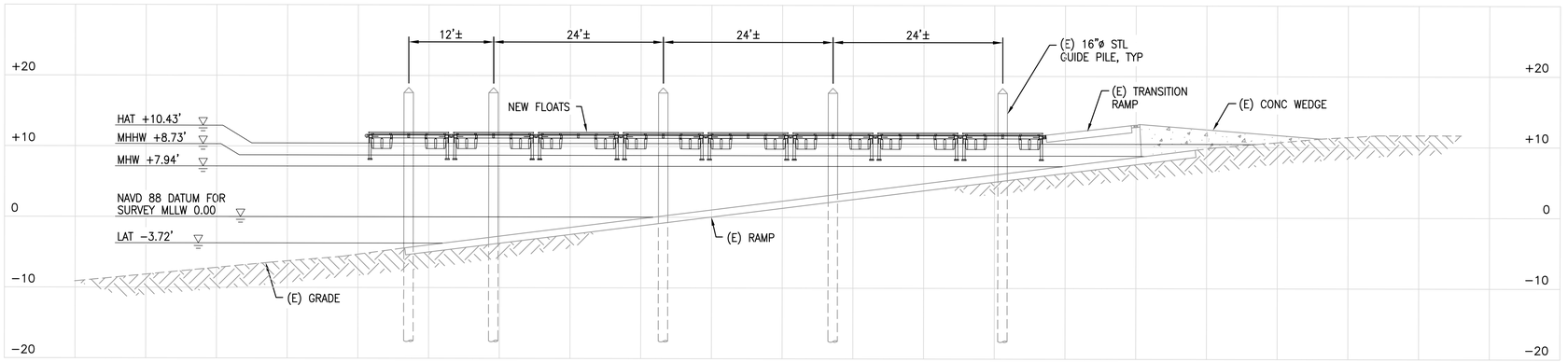
SHEET NO. C1.2

May 22, 2025 - 4:54pm bigomc924 H:\24MR\2022\006 Swinomish Channel Boat Launch Renovations\Drafting\Design - CAD 2022\4206-C12.dwg Layout Name: C12



SITE PLAN

SCALE: 1"=10'



A FLOAT PROFILE

C2.0 SCALE: 1"=10'

SCALE IN FEET

10 0 10 20

100% SUBMITTAL

NOTES:

1. CONTRACTOR SHALL CONFIRM EXISTING BOARDING FLOAT PILE LOCATIONS AND SPACING PRIOR TO FABRICATION OF NEW BOARDING FLOATS.

REVISIONS				
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WOOSUK AHN — STATE OF WASHINGTON — 42028 — REGISTERED PROFESSIONAL ENGINEER

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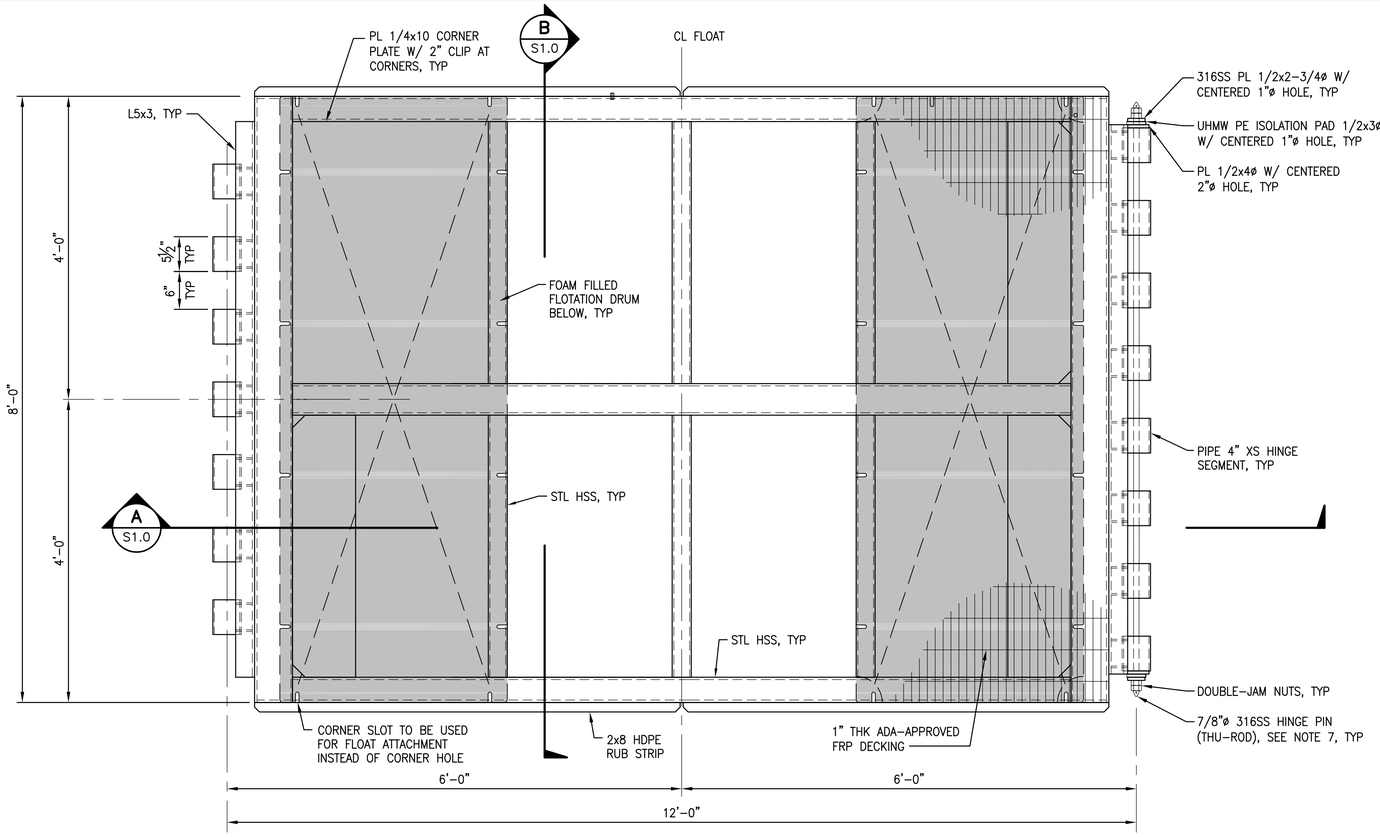
SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION

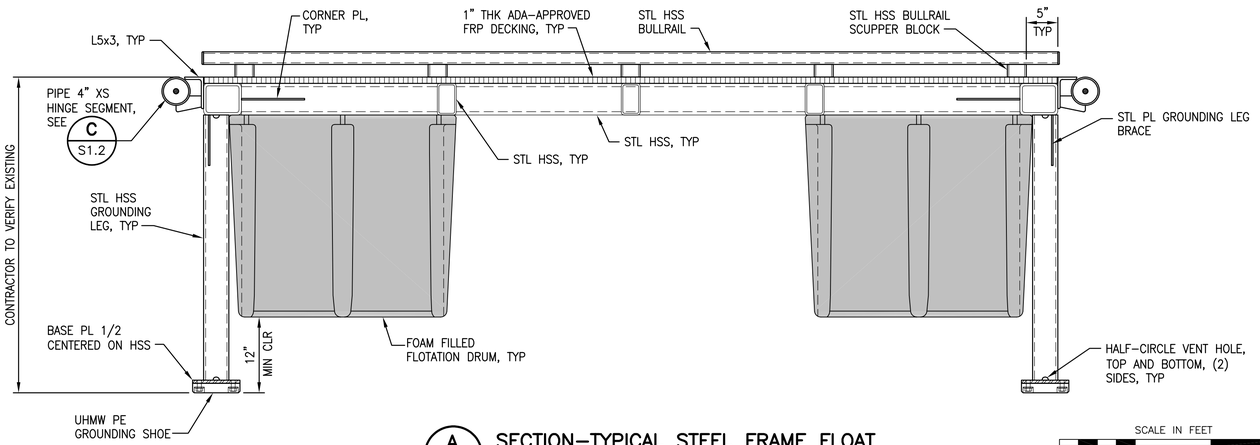
SHEET TITLE: PROPOSED CONDITIONS PLAN AND PROFILE

SHEET NO. C2.0



1 C2.0 **DETAIL-TYPICAL STEEL FRAME FLOAT**

SCALE: 1"=1'-0"



A S1.0 **SECTION-TYPICAL STEEL FRAME FLOAT**

SCALE: 1"=1'-0"

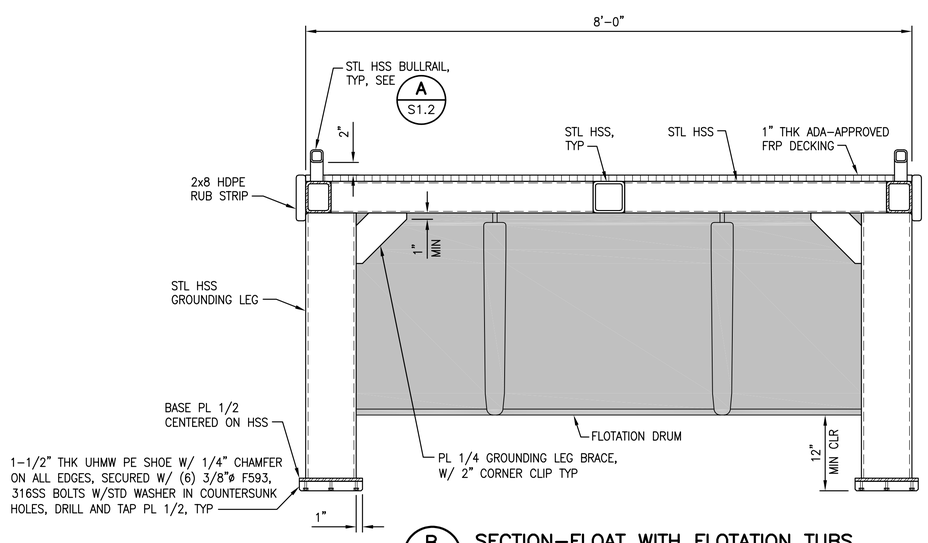
SCALE IN FEET

1 0 1 2

SCALE: 1" = 1'-0"

NOTES

1. FLOAT MANUFACTURER SHALL PROVIDE DESIGN OF FLOAT AND PILE HOOPS.
2. SECURE GRATING IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS. EACH GRATING PANEL IS TO BE FULLY SUPPORTED ON ALL FOUR EDGES.
3. FLOAT FRAME TO BE HOT DIP GALVANIZED AFTER FABRICATION. CONTRACTOR TO PROVIDE REQUIRED DRAIN HOLES.
4. FIELD-LEVEL FLOAT WITH COUNTERWEIGHTS. PROVIDE RECESS IN RUB STRIP TO ACCOMMODATE THRU BOLT HEAD.
5. PROVIDE 3/8"ø WEEP HOLES AT UNDERSIDE OF EACH END OF EACH HORIZONTAL CROSS-BEAM TO PREVENT MEMBERS FROM HOLDING WATER.
6. PROVIDE SMALL VENT HOLES IN SIDES OF HSS MEMBERS INSIDE OF CONNECTING TUBE TO FACILITATE COMPLETE DRAINING DURING HOT DIP GALVANIZING, CENTERED IN HSS.
7. HINGE PIN (THRU-ROD, ASTM A193 B8M, CLASS 2, 316SS) TO BE SECURED WITH A DOUBLE-JAM NUT (DO NOT OVER-TIGHTEN, PREVENT GALLING), AND SHALL BE FREE TO ROTATE AFTER INSTALLATION. THE END OF THE HINGE PIN IS TO HAVE A 30 DEGREE BEVEL, WITH A 1/4" DIAMETER ROUNDED END TO FACILITATE INSERTION INTO THE HINGE BUSHINGS. HINGE PIN IS TO HAVE A HOLE AND 1/4"ø 316SS COTTER PIN EACH END.



B S1.0 **SECTION-FLOAT WITH FLOTATION TUBS**

SCALE: 1"=1'-0"

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BOOSUK AHN STATE OF WASHINGTON 42028 REGISTERED PROFESSIONAL ENGINEER 5/23/25

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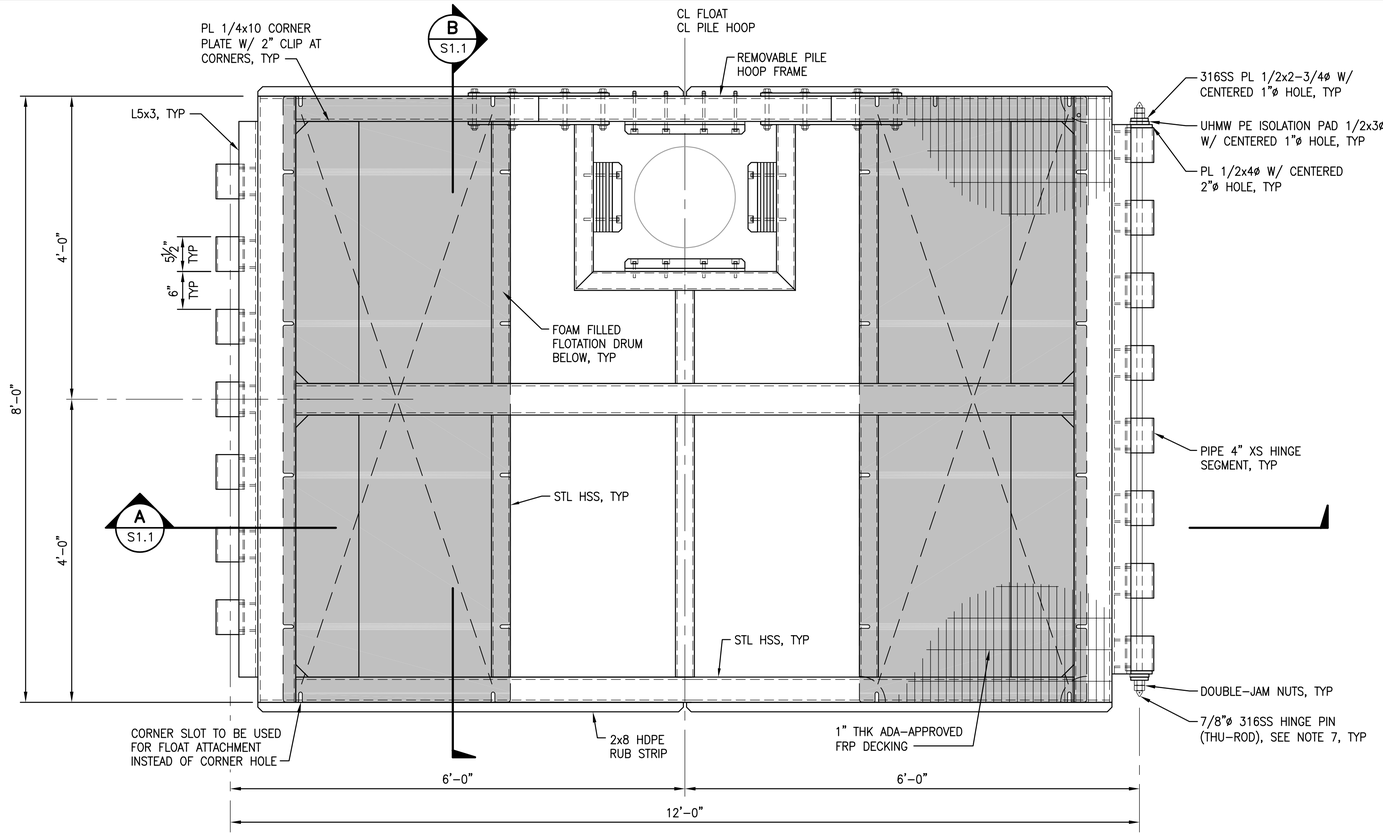
SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION

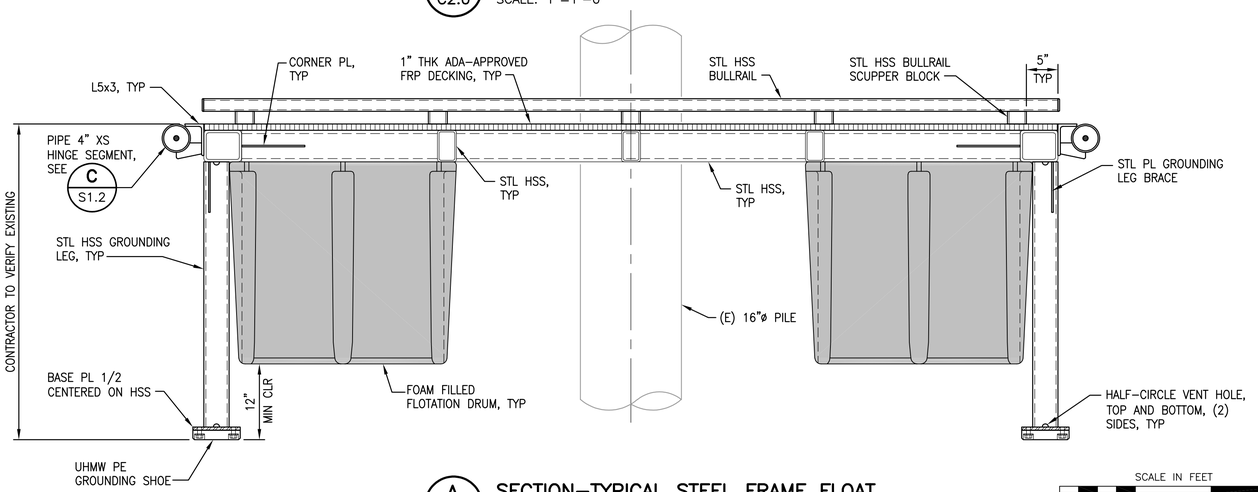
SHEET TITLE: STEEL FRAME FLOAT

SHEET NO. S1.0



1 / C2.0 DETAIL—TYPICAL STEEL FRAME FLOAT

SCALE: 1"=1'-0"



A / S1.1 SECTION—TYPICAL STEEL FRAME FLOAT

SCALE: 1"=1'-0"

SCALE IN FEET

1 0 1 2

SCALE: 1" = 1'-0"

NOTES

1. FLOAT MANUFACTURER SHALL PROVIDE DESIGN OF FLOAT AND PILE HOOPS.
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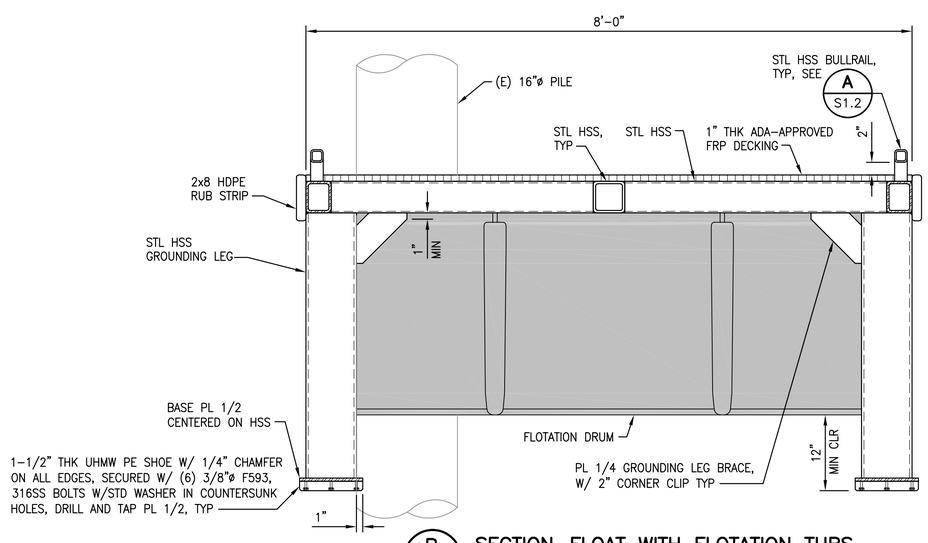
7. HINGE PIN (THRU-ROD, ASTM A193 B8M, CLASS 2, 316SS) TO BE SECURED WITH A DOUBLE-JAM NUT (DO NOT OVER-TIGHTEN, PREVENT GALLING), AND SHALL BE FREE TO ROTATE AFTER INSTALLATION. THE END OF THE HINGE PIN IS TO HAVE A 30 DEGREE BEVEL, WITH A 1/4" DIAMETER ROUNDED END TO FACILITATE INSERTION INTO THE HINGE BUSHINGS. HINGE PIN IS TO HAVE A HOLE AND 1/4"ø 316SS COTTER PIN EACH END.



B / S1.1 SECTION—FLOAT WITH FLOTATION TUBS

SCALE: 1"=1'-0"

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REVISIONS				
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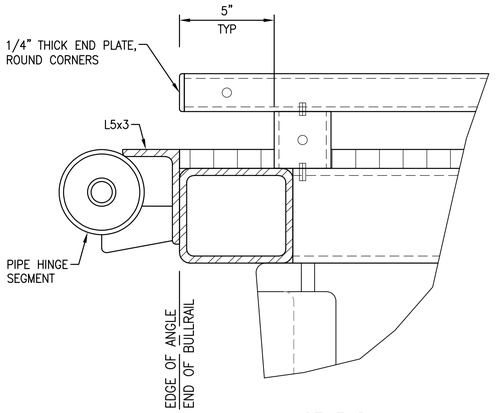
SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION

SHEET TITLE:
STEEL FRAME FLOAT WITH INTERNAL PILE

SHEET NO.
S1.1



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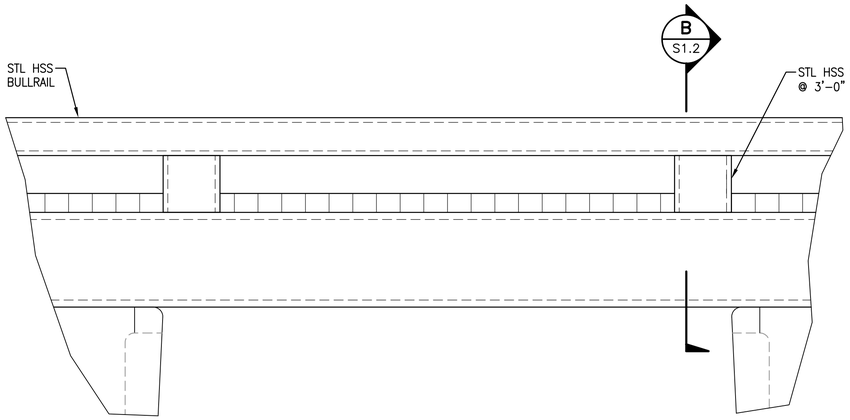
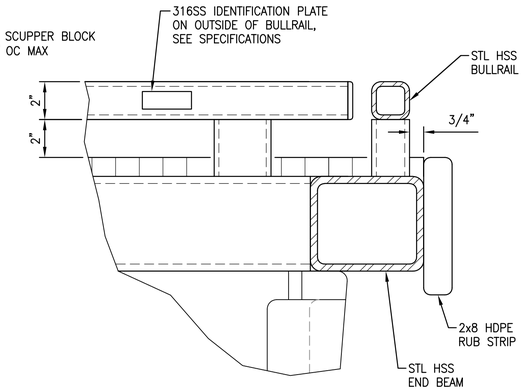
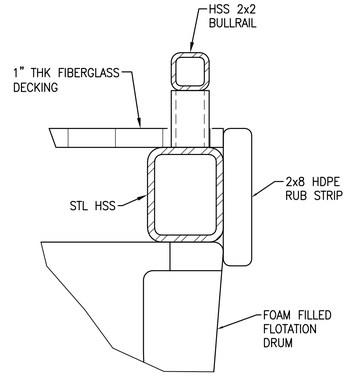


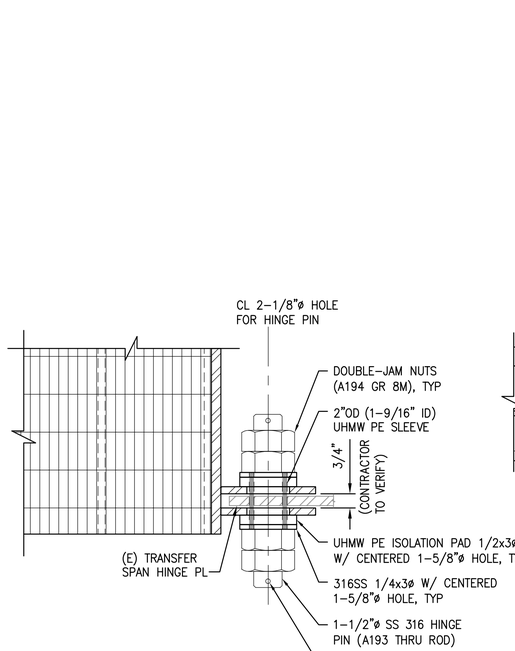


FLOAT END

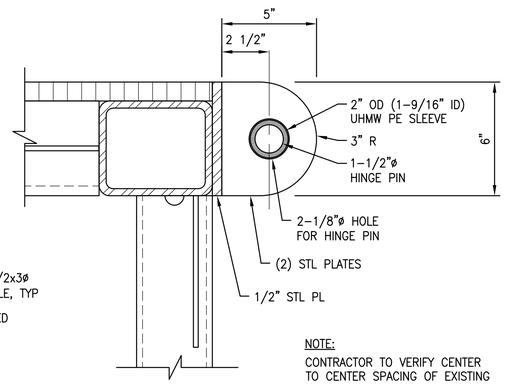
A S1.0 **ELEVATION–BULLRAIL**
SCALE: 3"=1'–0"



B S1.2 **SECTION–BULLRAIL**
SCALE: 3"=1'–0"



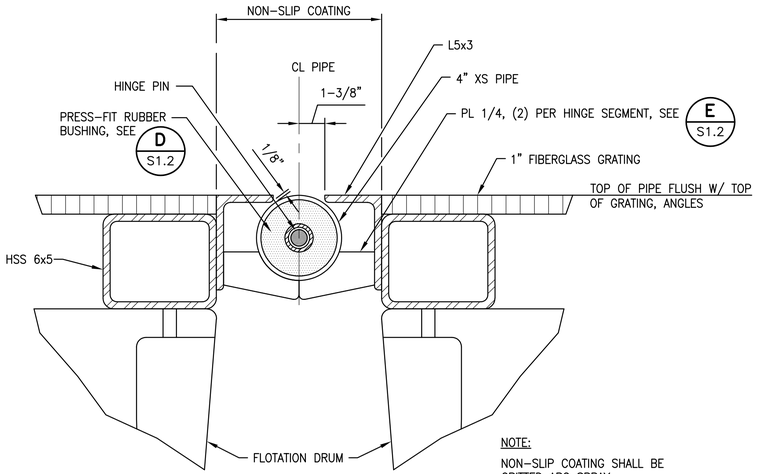
PLAN



ELEVATION

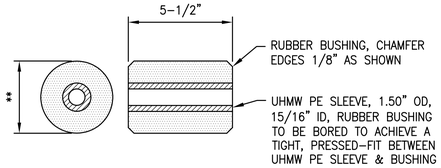
NOTE:
CONTRACTOR TO VERIFY CENTER TO CENTER SPACING OF EXISTING TRANSFER SPAN HINGE PLATES

1 C2.0 **DETAIL–TRANSFER SPAN HINGE PIN**
SCALE: 3"=1'–0"



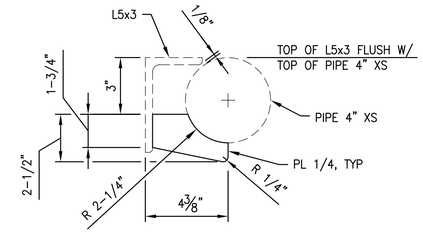
NOTE:
NON–SLIP COATING SHALL BE GRITTED ARC SPRAY

C S1.2 **SECTION–FLOAT HINGE**
SCALE: 3"=1'–0"



** SIZE FOR SNUG FIT

D S1.2 **SECTION–HINGE BUSHING**
SCALE: 3"=1'–0"



E S1.2 **SECTION–HINGE GUSSET PLATE**
SCALE: 3"=1'–0"

SCALE IN FEET
0 3" 6" 9" 1'–0"
SCALE: 3" = 1'–0"

100% SUBMITTAL

REVISIONS				
NO.	DATE	BY	DESCRIPTION	APP'D

DESIGNED BY: J. STRUB
DRAWN BY: D. OLSEN
CHECKED BY: W. AHN
DATE: 05/23/25
PROJECT NO: 24–22–006

BOOSUK AHN · STATE OF WASHINGTON · 42028 · REGISTERED PROFESSIONAL ENGINEER · 5/23/25

SCALE:
HORIZ AS NOTED
VERT
NOTE: "L"
IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY

ReidMiddleton
728 134th Street SW · Suite 200
Everett, Washington 98204
Ph: 425 741–3800

SKAGIT COUNTY PARKS & RECREATION
SWINOMISH CHANNEL BOAT LAUNCH RENOVATION

SHEET TITLE:
BULLRAIL AND HINGE DETAILS

SHEET NO.
S1.2