

DOUGLAS HARBOR RENOVATION

CBJ CONTRACT NO. DH 16 - 001

Volume 2 of 2

PLANS



JANUARY 2016

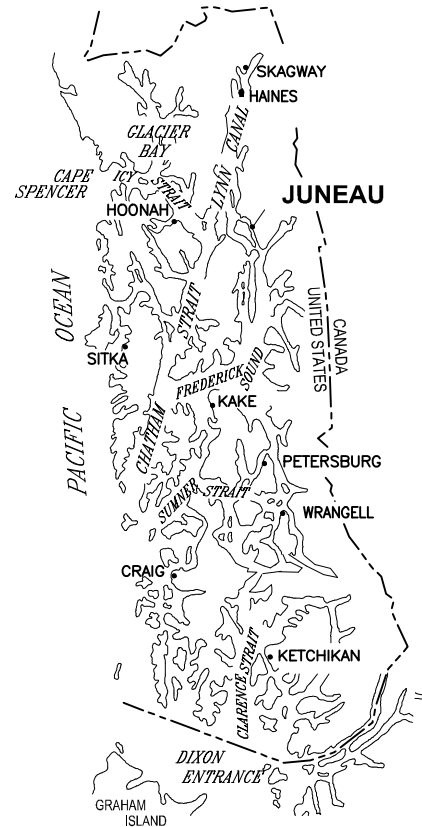
CITY & BOROUGH OF JUNEAU, ALASKA

DOUGLAS HARBOR RENOVATION

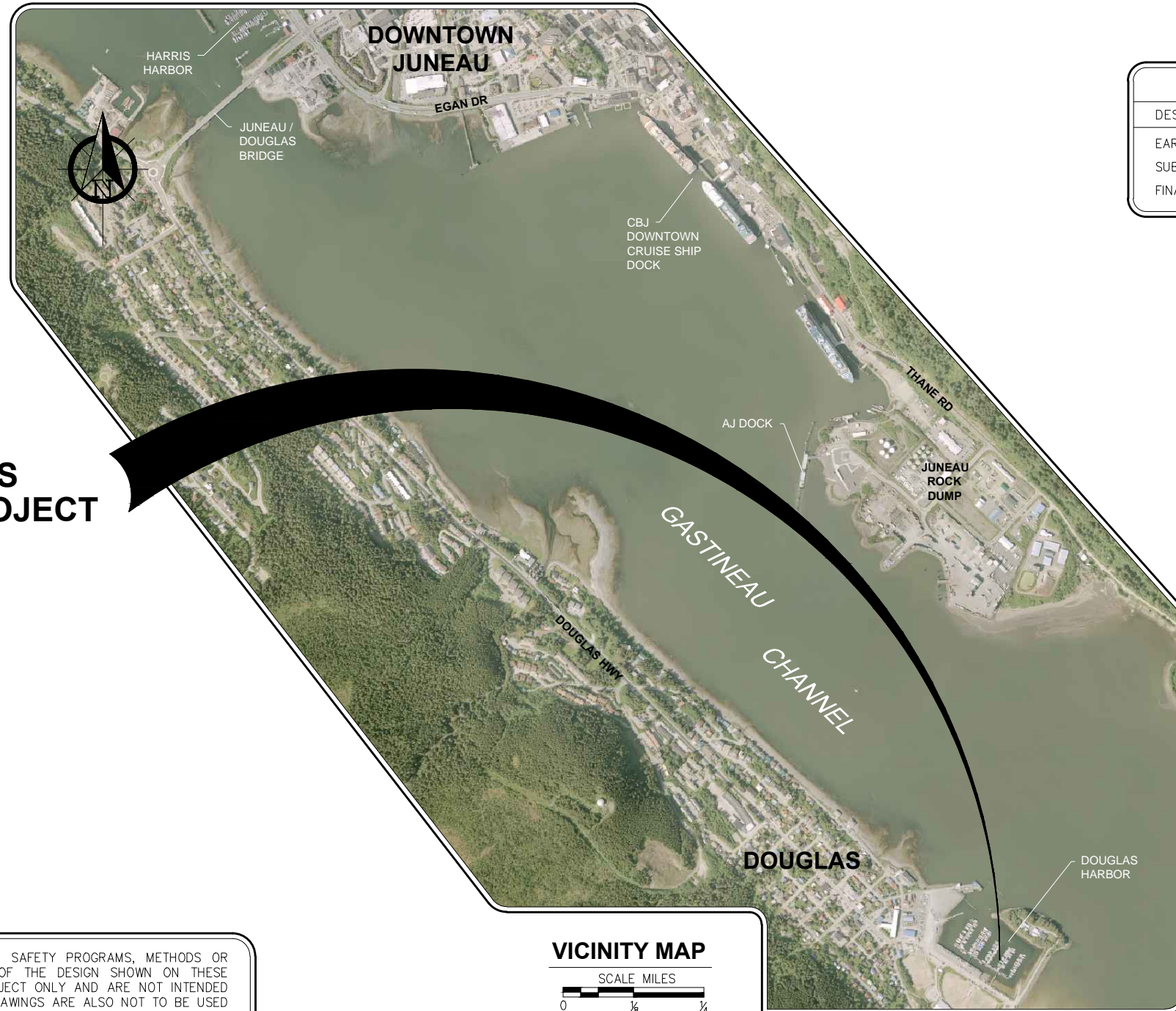
CBJ CONTRACT - DH 16-001



LOCATION MAP

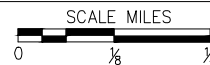


SOUTHEAST ALASKA



THIS PROJECT

VICINITY MAP



AERIAL PHOTO FROM AEROMAP

PROJECT SCHEDULE

DESCRIPTION	SCHEDULE
EARLIEST FIELD START	MAY 2, 2016
SUBSTANTIAL COMPLETION	MARCH 31, 2017
FINAL COMPLETION	APRIL 30, 2017

TIDAL DATA

TIDAL DATA	ELEV. (FT)
HIGHEST OBSERVED WATER LEVEL	+24.58
MEAN HIGHER HIGH WATER (MHHW)	+16.30
MEAN HIGH WATER (MHW)	+15.34
MEAN SEA LEVEL (MSL)	+8.56
MEAN TIDE LEVEL (MTL)	+8.47
MEAN LOWER WATER (MLW)	+1.60
MEAN LOWER LOW WATER (MLLW)	0.0
LOWEST OBSERVED WATER LEVEL	-6.12

FROM:
NOAA NOS/CO-OPS STATION ID: 9452210 JUNEAU, ALASKA

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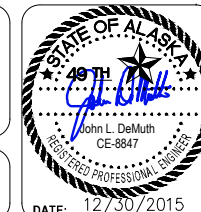
REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



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SCALE: AS SHOWN



CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001

SHEET TITLE:
**COVER SHEET, VICINITY MAP
AND TIDAL DATA**

PND PROJECT NO.: 152037

1.01

SHEET
1 OF 77

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REVISIONS

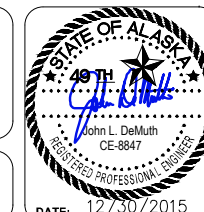
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SCALE:



DATE: 12/30/2015

CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001

SHEET TITLE:
DRAWING INDEX

PND PROJECT NO.: 152037

1.02

SHEET
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ABBREVIATIONS

A		H		R	
@	AT	H&T	HUB & TACK	RAD	RADIUS
AC	ASBESTOS CEMENT PIPE	HD	HEAVY DUTY	RE	RIM ELEVATION
ACP	ASPHALT CONCRETE PAVEMENT	HDG	HOT-DIPPED GALVANIZED	REF	REFERENCE
ADD	ADDITIVE	HDPE	HIGH DENSITY POLYETHYLENE	REINF	REINFORCEMENT
ADJ	ADJUSTABLE	HORIZ	HORIZONTAL	REQD	REQUIRED
	ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES	HSE	HOUSE	RET	RETAINING
AKDOT&PF		HT	HEIGHT	RO	ROUGH OPENING
	ALTERNATE	HWY.	HIGHWAY	ROW	RIGHT OF WAY
ALT		I		S	
APF	ASSOCIATED PILE AND FITTING CORP.	IAW	IN ACCORDANCE WITH	S	SOUTH
APPROX.	APPROXIMATE	ID	INSIDE DIAMETER	SCHED	SCHEDULE
ATS	ALASKA TIDELANDS SURVEY	IE	INVERT ELEVATION	SD	STORM DRAIN
AWS	AMERICAN WELDING SOCIETY	IN	INCH	SDI	STORM DRAIN INLET STRUCTURE
B		IP	IRON PIPE	SDO	STORM DRAIN OUTLET STRUCTURE
BFV	BUTTERFLY VALVE	INV	INVERT	SDR	STANDARD DIMENSION RATIO
BLDG	BUILDING	J		SF	SQUARE FOOT
BOP	BEGINNING OF PROJECT	JB	JUNCTION BOX	SHLDR	SHOULDER
BTM, BOT	BOTTOM	L		SI	STREET INTERSECTION
C		LBS	POUNDS	SPEC	SPECIFICATION (S)
C&G	CURB & GUTTER	LF	LINEAR FEET	SQ	SQUARE
CB	CATCH BASIN	LL	LIVE LOAD	SRB	SHOT ROCK BORROW
CBJ	CITY AND BOROUGH OF JUNEAU	LOC	LOCATION	SSC	SANITARY SEWER CONNECTION
CIP	CAST-IN-PLACE	LS	LUMP SUM	SS	STAINLESS STEEL, SANITARY SEWER
CJ	CONTROL JOINT	M		SDMH	STORM DRAIN MANHOLE
CL	CENTER LINE	MAX	MAXIMUM	SSMH	SANITARY SEWER MANHOLE
CLR	CLEAR	ME	MATCH EXISTING	STA	STATION
CMP	CORRUGATED METAL PIPE	MECH	MECHANICAL	STD	STANDARD
CO	CLEANOUT	MFR	MANUFACTURE (R)	STL	STEEL
C.O.E.	CORPS OF ENGINEERS	MH	MANHOLE	STRG	STRONG
CONC.	CONCRETE	MJ	MECHANICAL JOINT	SW	SIDEWALK
CP	COMPLETE PENETRATION	MI	MALLEABLE IRON	SWR	SEWER
CPP	CORRUGATED POLYETHYLENE PIPE	MIN	MINIMUM	SY	SQUARE YARD
COR	CORNER	MLLW	MEAN LOWER LOW WATER	SYM	SYMMETRICAL
CSC	COUNTERSINK	MSE	MECHANICALLY STABILIZED EARTH	T	
CTR	CENTER	MTL	MATERIAL (S)	t	THICK
CY	CUBIC YARD	N		T&B	TOP AND BOTTOM
D		N	NORTH	T&G	TONGUE AND GROOVE
D/DIA	DIAMETER	NFS	NON FROST SUSCEPTIBLE	TBC	TOP BACK OF CURB
DBL	DOUBLE	NIC	NOT IN CONTRACT	TBD	TO BE DETERMINED
DL	DEAD LOAD	NO	NUMBER	TBM	TEMPORARY BENCH MARK
DIP	DUCTILE IRON PIPE	NTS	NOT TO SCALE	TD	TRENCH DRAIN
DIM	DIMENSION	O		TEL	TELEPHONE
DN	DOWN	OBD	OVERBURDEN	TEMP	TEMPERATURE, TEMPORARY
DTL	DETAIL	OC	ON CENTER	TH	TEST HOLE
E		OD	OUTSIDE DIAMETER	THK	THICK
E	EAST	OG	ORIGINAL GROUND	TRANS	TRANSVERSE
EA.	EACH	OHE	OVERHEAD ELECTRICAL	TYP	TYPICAL
EJ	EXPANSION JOINT	OWS	OIL-WATER SEPARATOR	U	
EL/ELEV	ELEVATION	OPP	OPPOSITE	UBC	UNIFORM BUILDING CODE
EQ	EQUAL	P		UE	UNDERGROUND ELECTRIC
EQUIP	EQUIPMENT	P	PIPE	UMC	UNIFORM MECHANICAL CODE
EST	ESTIMATE	PC	POINT OF CURVATURE, PIECE	UON	UNLESS OTHERWISE NOTED
EXIST	EXISTING	PCC	PRECAST CONCRETE	UPC	UNIFORM PLUMBING CODE
F		PED	PEDESTAL	V	
FC	FACE OF CURB	PER	PERIMETER	VB	VALVE BOX
FD	FLOOR DRAIN	PERF	PERFORATE (D)	VERT	VERTICAL
FH	FIRE HYDRANT, FLAT HEAD	PI	POINT OF INTERSECTION	W	
FIN	FINISH (ED)	PLWD	PLYWOOD	W	WEST
FM	FORCE MAIN SEWER	PL	PROPERTY LINE, PLATE	W/	WITH
FND	FOUNDATION	PROJ	PROJECT	WD	WOOD
FT	FOOT	PRV	PRESSURE REDUCING VALVE	WELDMT	WELDMENT
FTG	FOOTING	PSI	POUND PER SQUARE INCH	WL	WATERLINE
FL	FLOWLINE	PT	POINT, PRESSURE TREATED, POINT OF TANGENCY	WV	WATER VALVE
G		PVC	POINT OF VERTICAL CURVATURE, POLY VINYL CHLORIDE	W/O	WITHOUT
GAL	GALLON	Q		X	
GALV	GALVANIZED	QTY	QUANTITY	XFMR	TRANSFORMER
GB	GRADE BREAK			<PT	ANGLE POINT
GRD	GROUND				
GV	GATE VALVE				

GENERAL NOTES

- PROPERTY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION OR BETTER AT NO ADDITIONAL COST.
- CBJ ENGINEERING STANDARD DETAILS BOOK DATED AUGUST, 2011 IS MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE. STANDARD DETAILS SHALL ONLY BE UTILIZED AS SPECIFICALLY REFERENCED IN THE DRAWINGS WITH MODIFICATIONS SPECIFIED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL APPLICABLE, LOCAL, STATE AND FEDERAL CODES, PERMITS AND SAFETY REQUIREMENTS.
- THE LOCATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADDITIONAL UTILITIES NOT SHOWN IN THESE DRAWINGS MAY BE PRESENT. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY, PRIOR TO BEGINNING WORK. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTOR'S RECORD DRAWINGS. CONTACT LOCAL UTILITY COMPANIES PRIOR TO ANY/ ALL EXCAVATIONS AT THE FOLLOWING TELEPHONE NUMBERS:

DIAL BEFORE YOU DIG!
586-1333
 UNDERGROUND POWER, TELEPHONE, T.V.,
 COMMUNICATIONS, WATER AND WASTEWATER LINES
 ARE IN THE AREA. UTILITIES SHOWN HERE DO NOT
 SUBSTITUTE FOR FIELD LOCATES.

- GRADING AND FINAL ALIGNMENT OF UTILITIES & PIPING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER TO FIT SITE CONDITIONS, AT NO ADDITIONAL COST.
- CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED BOROUGH DEPARTMENTS AND LOCAL UTILITY COMPANIES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOT DISRUPT UTILITY SERVICES AT THE NORTH END OF THE HARBOR EXCEPT AS REQUIRED TO COMPLETE THE RECONFIGURATION OF THOSE SERVICES AS SHOWN IN THE PLANS. COORDINATE ANY DISRUPTIONS WITH OWNER A MINIMUM OF 48 HOURS IN ADVANCE.

LEGEND

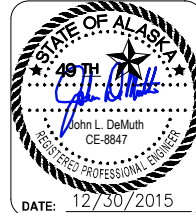
EXISTING	PROPOSED	EXISTING	PROPOSED
—FW _X —	—FW—	☉	MANHOLE/VAULT
—SS _X —		○	TIMBER PILE
—W _X —	—W—	⊕	LIGHT POLE
□		☒	STORM DRAIN OUTLET STRUCTURE
⊙		⊕	KEY BOX/WATER VALVE
⊕		☒	STORM DRAIN CATCH BASIN INLET STRUCTURE
⊕		—P-1—	UNDERGROUND STORM DRAIN PIPE/CULVERT
⊕		24.5	FINISH GRADE
⊕		1	LAYOUT LOCATION
⊕		S1	UTILITY STRUCTURE
		⊕	SECTION OR DETAIL CALLOUT
		A	LOCATION OF DETAIL OR REFERENCE DRAWING

REVISIONS

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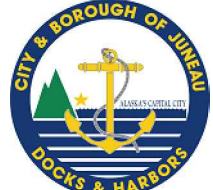


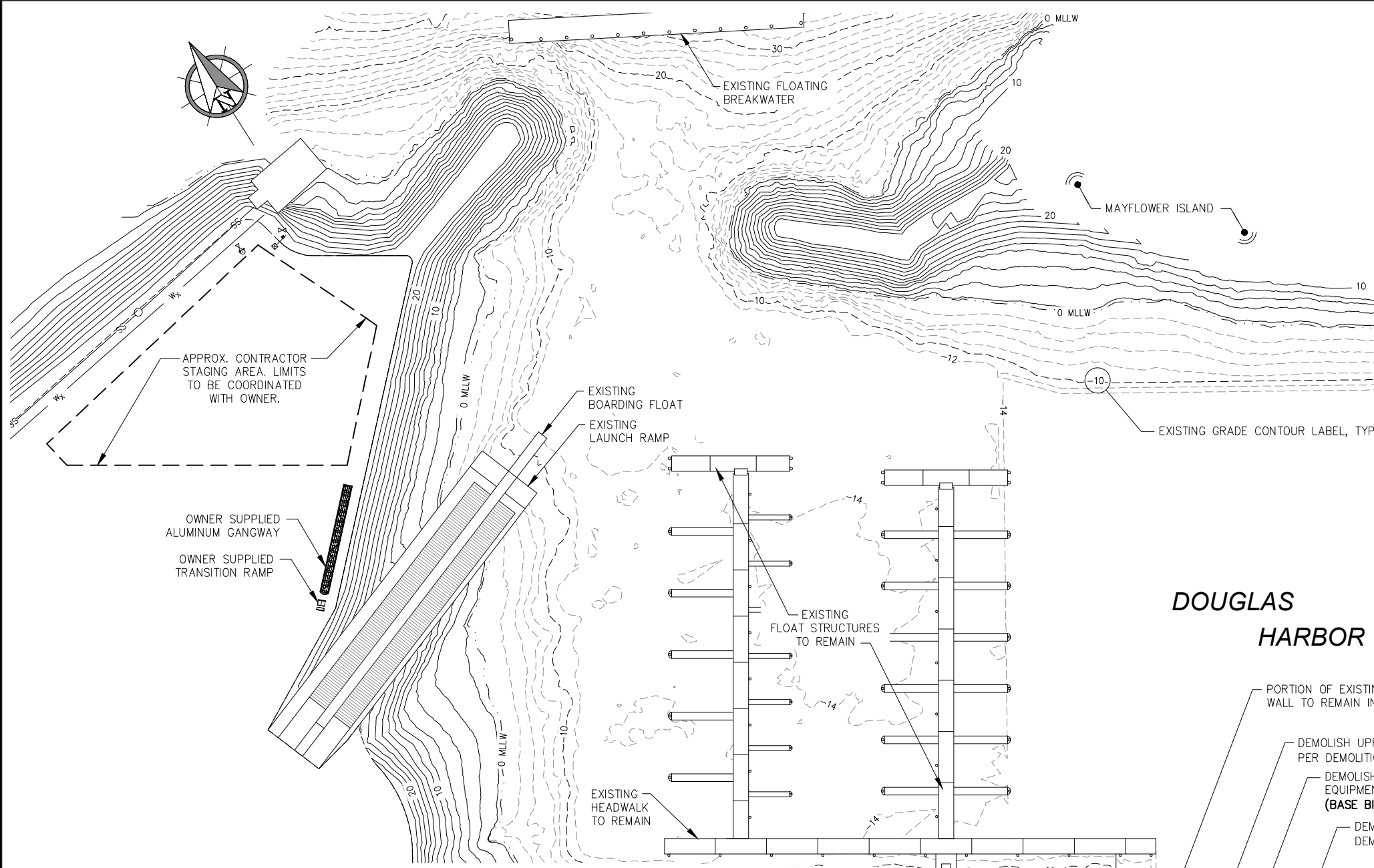
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SHEET TITLE:
LEGEND, ABBREVIATIONS AND GENERAL NOTES

PND PROJECT NO.: 152037

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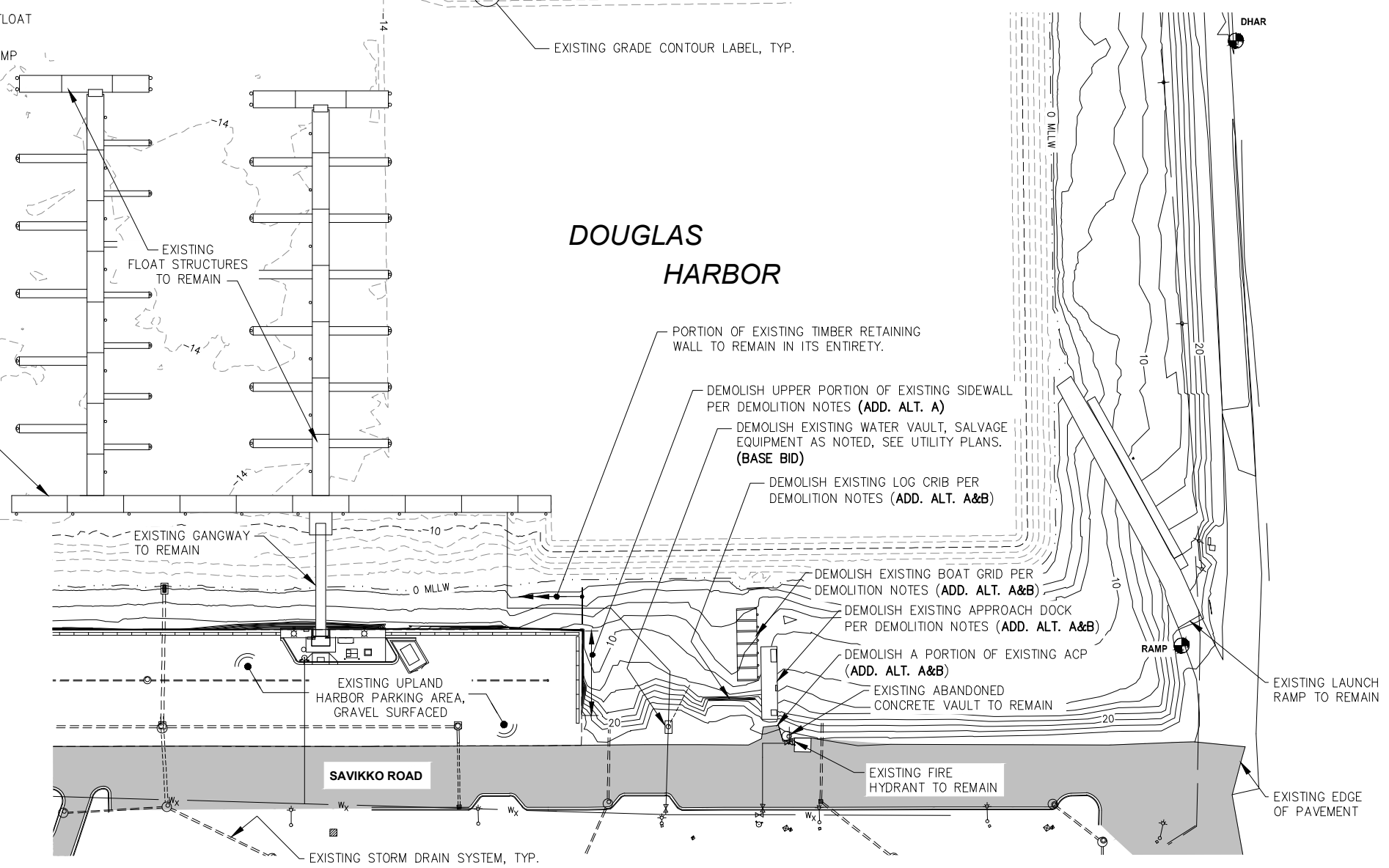




- DEMOLITION NOTES:**
(ADD. ALT. A)
- DEMOLISH TOP 3FT OF EXISTING SIDEWALL (TOP 2 GLULAMS) GRIDS 59 THRU 65, SEE WALL PLAN. EXISTING GEOTEXTILE TO REMAIN; CUT AS REQUIRED TO REMOVE EXISTING TIMBERS.
 - CUT EXISTING SIDEWALL VERTICALS AND 2x FACING AS REQUIRED.
 - REMOVE EXISTING SIDEWALL TIMBER CAP PLATE
 - CUT/NOTCH EXISTING SIDEWALL GLULAM AS REQUIRED FOR ROUTING/INSTALLATION OF NEW STORM DRAIN SYSTEM AND ELECTRICAL CONDUITS
 - TREAT ALL CUTS WITH ASPHALTIC MASTIC AND WRAP W/GRACE ICE SHIELD PRIOR TO BURIAL. SECURE ICE SHIELD WITH 1/2" SS STAPLES
 - EXISTING SIDEWALL DESIGN DRAWINGS UPON CONTRACTOR REQUEST. DETAILS SIMILAR TO PROPOSED WALL.

- (ADD. ALT. A & B)**
- DEMOLISH EXISTING LOG CRIB WALL IN ITS ENTIRETY. LOG CRIB WALL IS CONSTRUCTED OF TIMBER TIE-BACKS WHICH EXTEND AN UNKNOWN DISTANCE INTO THE SLOPE. FOR BID QUANTITY ESTIMATES THIS DISTANCE WAS ASSUMED TO BE 12'-0". SEE SHEETS 2.01 AND 3.01.
 - DEMOLISH EXISTING BOAT GRID IN ITS ENTIRETY, INCLUDING ALL TIMBER PILES, PILE STUBS, BEAMS, DRIFT PINS AND MISCELLANEOUS HARDWARE.
 - DEMOLISH EXISTING APPROACH DOCK IN ITS ENTIRETY, INCLUDING ALL TIMBER PILES, PILE CAPS, PILE STUBS, DRIFT PINS, CROSS BRACING, STRINGERS, PIPES, LADDERS, DECKING, BULLRAIL, POSTS, RAILS, SCUPPER BLOCKS, KIOSK, CABINET AND MISCELLANEOUS HARDWARE.

- DEMOLITION NOTE:**
- SEE UTILITY AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.



APPROX. CONTRACTOR STAGING AREA. LIMITS TO BE COORDINATED WITH OWNER.

OWNER SUPPLIED ALUMINUM GANGWAY

OWNER SUPPLIED TRANSITION RAMP

DOUGLAS HARBOR

PROJECT SURVEY CONTROL				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
RAMP	3,568.67	7,478.75	23.02	USACE SBC WEST SIDE OF RAMP, END PVMNT
DHAR	3,909.10	7,743.74	23.74	USACE 3 1/4" BRASS CAP IN GRANITE BOULDER

- SURVEY NOTES:**
- BATHYMETRIC SURVEY PERFORMED BY HUGHES AND ASSOCIATES 2013.
 - UPLANDS SURVEY ORIGINALLY PERFORMED BY R&M ENGINEERING 1999 WITH ADDITIONAL SURVEY BY PND ENGINEERS, INC. 2010. ORIGINAL VERTICAL CONTROL PROVIDED BY R&M ENGINEERING 1999 WAS REVISED BY USACE 2013 REFLECTING REGIONAL ISOSTATIC REBOUND OF THE GROUND SURFACE. REVISED VERTICAL CONTROL WAS USED FOR 2013 BATHYMETRIC SURVEY. SEE USACE SURVEY 3144-13, 2013 DOUGLAS HARBOR CONDITION SURVEY.
 - TOPOGRAPHY ABOVE 0 FEET MLLW WAS VERTICALLY ADJUSTED AND MERGED WITH BATHYMETRIC CONTOURS TO CORRESPOND WITH REVISED VERTICAL CONTROL.
 - THE UPLANDS HAVE NOT BEEN RE-SURVEYED FOLLOWING THE MERGING OF BATHYMETRIC AND UPLAND CONTOURS.

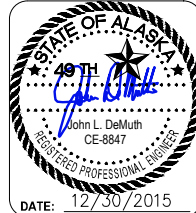
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SCALE: SCALE IN FEET
 0 50 100 FT.



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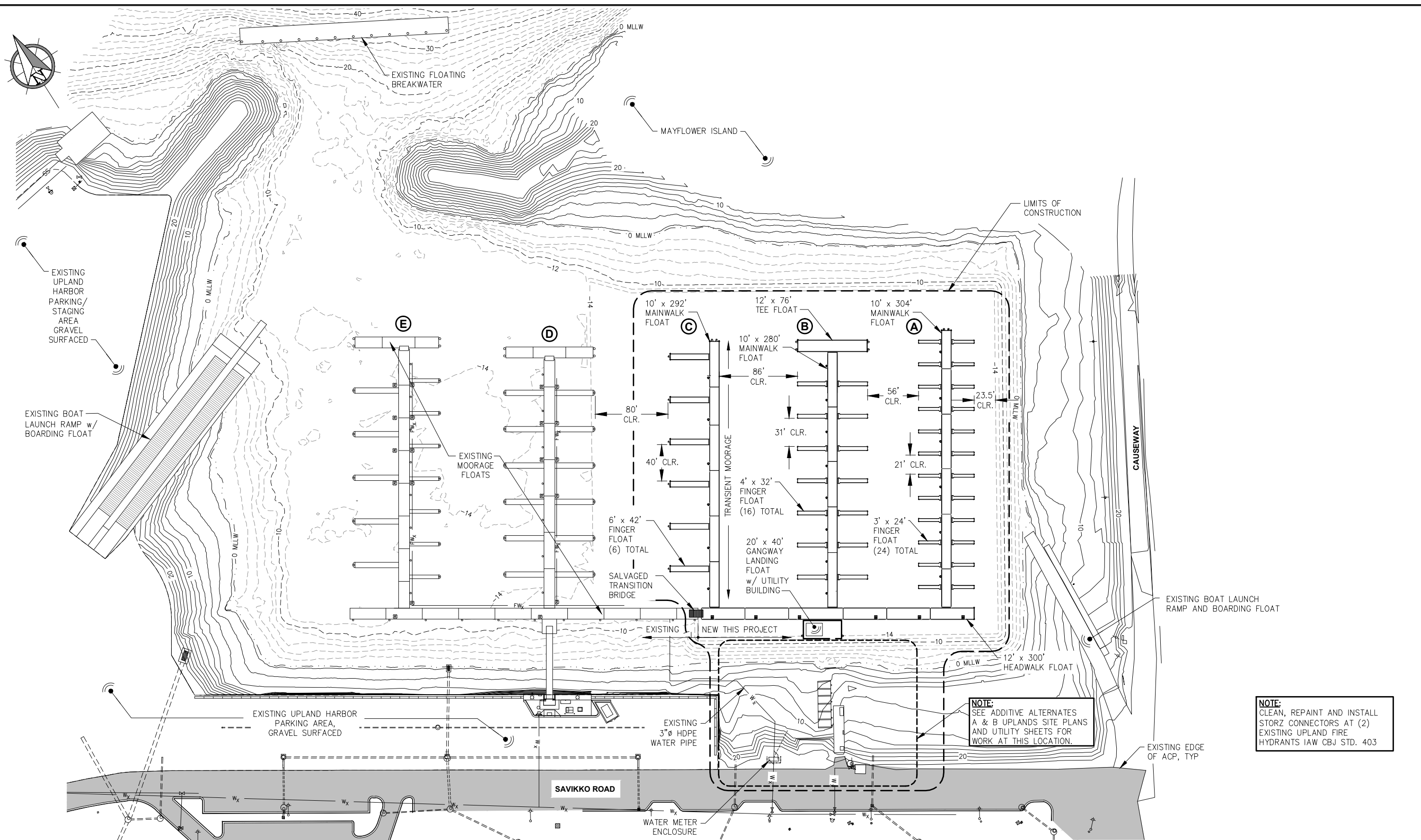
SHEET TITLE:
EXISTING CONDITIONS AND DEMOLITION SITE PLAN

PND PROJECT NO.: 152037

1.04
 SHEET 4 OF 77

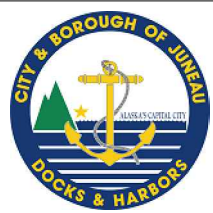


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NOTE:
SEE ADDITIVE ALTERNATES
A & B UPLANDS SITE PLANS
AND UTILITY SHEETS FOR
WORK AT THIS LOCATION.

NOTE:
CLEAN, REPAINT AND INSTALL
STORZ CONNECTORS AT (2)
EXISTING UPLAND FIRE
HYDRANTS IAW CBJ STD. 403



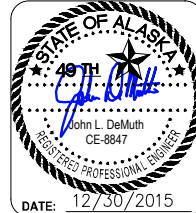
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SCALE: SCALE IN FEET
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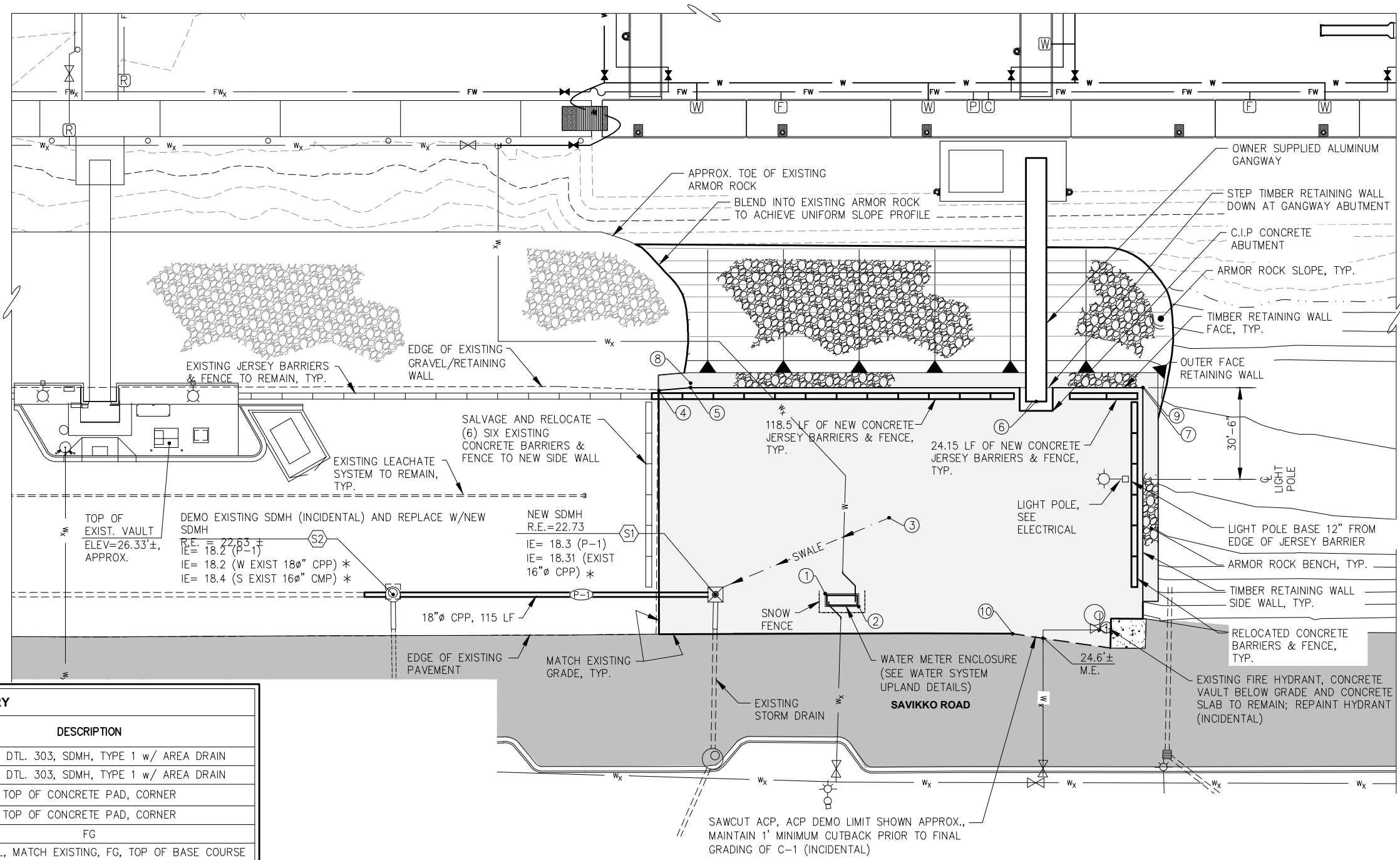
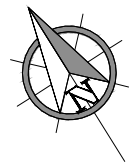
CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001

SHEET TITLE: **BASE BID**
GENERAL SITE PLAN

PND PROJECT NO.: 152037

1.05
SHEET
5 OF 77

I:\Proj\juneau\152037 Douglas Harbor Renovation\G. Drawings\Design\1.05 GENERAL SITE PLAN.dwg, 12/30/2015, 2:01:52 PM



**PARTIAL SITE PLAN
ALTERNATE A RETAINING WALL**

GENERAL NOTES:

- FACE OF EXISTING TIMBER RETAINING WALL BOWS OUTWARD FROM FACE/SIDEWALL AS SHOWN.
- NEW WALL FACE TO TIE INTO EXISTING CORNER AND THEN TRANSITION TO APPROXIMATELY ALIGN WITH FACE OF THE EXISTING WALL. LAYOUT POINT NO'S 4, 5, 7, 8 AND 9 ARE INTENDED TO ACCOMPLISH THIS.

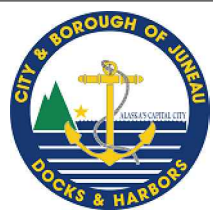
LAYOUT SUMMARY				
PT #	NORTHING	EASTING	ELEVATION (FT)	DESCRIPTION
S1	3740.2648	7105.7298	-	CBJ STD. DTL. 303, SDMH, TYPE 1 w/ AREA DRAIN
S2	-	-	-	CBJ STD. DTL. 303, SDMH, TYPE 1 w/ AREA DRAIN
1	3720.7577	7136.6190	25.75	TOP OF CONCRETE PAD, CORNER
2	3711.0699	7143.6630	25.75	TOP OF CONCRETE PAD, CORNER
3	3730.4811	7168.1425	23.30	FG
4	3807.4525	7126.6350	25.3 ±	TOP OF WALL, MATCH EXISTING, FG, TOP OF BASE COURSE
5	3802.6164	7136.0603	25.30	TOP OF WALL, FG
6	3736.5030	7230.2684	26.30	CL AT HINGE FACE
7	3721.1559	7262.6085	25.30	TOP OF WALL, FG, CORNER OF WALL
8	3803.8525	7136.8560	6.96	FACE OF VERTICAL TIMBER AT SILL
9	3721.6202	7262.9073	6.96	FACE OF VERTICAL TIMBER AT SILL
10	3675.7888	7181.8761	ME	ACP DEMOLITION LIMIT

NOTES:

1. GRADE EVENLY BETWEEN POINTS.
2. CONTRACTOR TO BRACE VERTICAL TIMBERS TO ACHIEVE WALL BATTER AND TOP OF WALL LAYOUT POINTS SPECIFIED, SEE RETAINING WALL PLAN.
3. * INSTALL 5' OF SAME DIAMETER CPP AND CONNECT w/ DISSIMILAR PIPE COUPLINGS AT EXISTING PIPES, (INCIDENTAL)

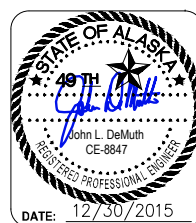
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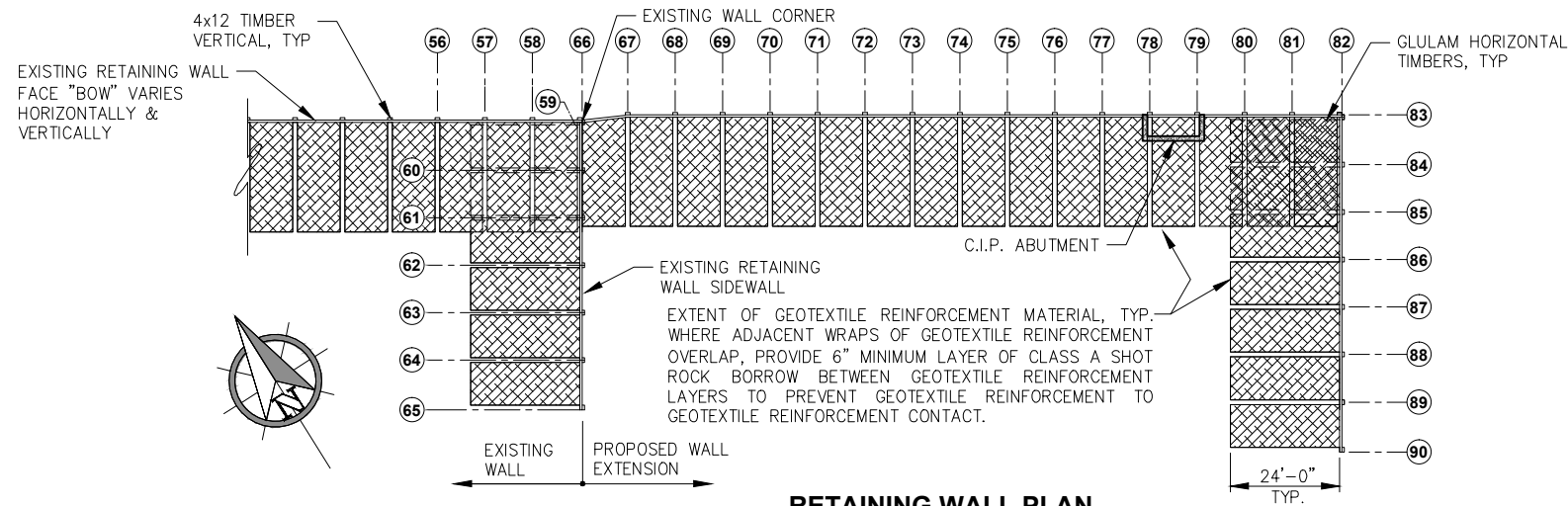
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SHEET TITLE: **ADD. ALT. A
SITE PLAN**

PND PROJECT NO.: 152037

2.01
SHEET
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RETAINING WALL PLAN

GENERAL NOTES

GEOTEXTILE REINFORCEMENT SHALL BE GEOTEX 4x4 OR APPROVED EQUAL. THE GEOTEXTILE REINFORCEMENT ROLLS SHALL BE TAGGED SHOWING THE NUMBER OF SQUARE YARDS CONTAINED IN THE ROLL. FIELD SEAMS IN GEOTEXTILE REINFORCEMENT WILL NOT BE ALLOWED. GEOTEXTILE REINFORCEMENT MUST BE PROVIDED IN MINIMUM WIDTHS AND LENGTHS SUFFICIENT TO PROVIDE WRAPS AS SHOWN ON THE PLANS. DURING SHIPMENT, STORAGE, AND PLACEMENT, THE GEOTEXTILE REINFORCEMENT SHALL BE PROTECTED FROM DIRECT SUNLIGHT, MOISTURE, ULTRAVIOLET RAYS, TEMPERATURES GREATER THAN 100°F, MUD, DIRT, DUST AND DEBRIS.

CARE SHALL BE TAKEN TO ASSURE THAT CUTS OR TEARS DO NOT OCCUR IN THE GEOTEXTILE REINFORCEMENT DURING PLACEMENT OR DURING BACKFILL. IN PARTICULAR, GEOTEXTILE REINFORCEMENT WRAPS AROUND THE HORIZONTAL GLULAM TIMBERS MUST HAVE NO TEARS OR CUTS. IF TEARS OR CUTS OCCUR AT ANY TIME DURING CONSTRUCTION OF THE WALL, THE SECTION OF DAMAGED GEOTEXTILE REINFORCEMENT SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST.

EACH LAYER OF WALL CONSTRUCTION SHALL BE COMPLETED ENTIRELY BEFORE BEGINNING THE NEXT LAYER. THE GEOTEXTILE REINFORCEMENT SHALL BE STRETCHED OUT IN THE DIRECTION PERPENDICULAR TO THE WALL FACE TO ENSURE THAT NO SLACK OCCURS IN THE GEOTEXTILE REINFORCEMENT PRIOR TO BACKFILLING. COMPACTION WITHIN FOUR FEET OF WALL FACE SHALL BE ACHIEVED USING A LIGHT MECHANICAL TAMPER APPROVED BY THE ENGINEER AND SHALL BE DONE IN A MANNER AS NOT TO CAUSE DAMAGE OR DISTORTION TO THE WALL FACING ELEMENTS OR GEOTEXTILE REINFORCING LAYERS.

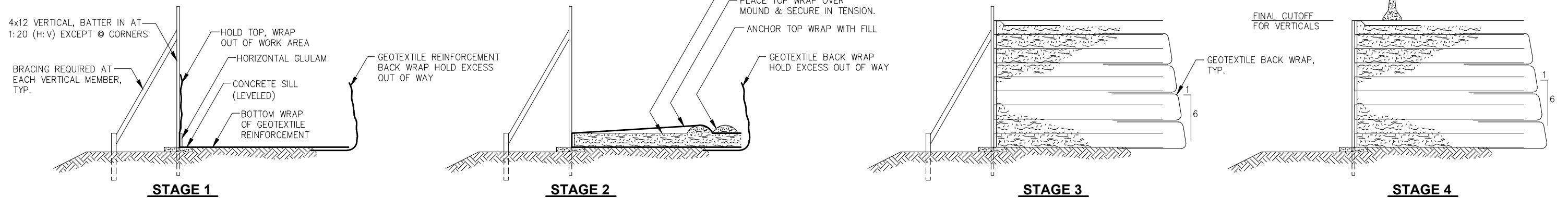
DURING CONSTRUCTION, THE WALL FACE SHALL BE BATTERED TO ACCOMMODATE STRETCH OF GEOTEXTILE REINFORCEMENT. A BRACING SYSTEM FOR VERTICAL MEMBERS WILL BE REQUIRED DURING CONSTRUCTION TO MAINTAIN THE BATTER. THE AMOUNT OF BATTER IS SHOWN ON THE PLANS.

GEOTEXTILE REINFORCEMENT SHALL BE PLACED SMOOTH WITH NO BUNCHING DUE TO MISALIGNMENT. GEOTEXTILE REINFORCEMENT SHALL BE PLACED AND HELD TAUT WHILE THE SPECIFIED COVER MATERIAL IS PLACED OVER GEOTEXTILE REINFORCEMENT.

THE CONTRACTOR SHALL SUBMIT A WALL CONSTRUCTION PLAN FOR APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL MONITOR WALL POSITION AT VARIOUS WALL HEIGHTS DURING FILL PLACEMENT. IF WALL MOVEMENT IS EXCESSIVE OR NOT CONSISTENT, THE CONTRACTOR SHALL MODIFY CONSTRUCTION METHODS TO ACHIEVE THE SPECIFIED WALL BATTER.

SAMPLE CONSTRUCTION PLAN

THE SAMPLE PLAN ILLUSTRATED BELOW IS FOR INFORMATION ONLY AND DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR SUBMITTING A CONSTRUCTION PLAN FOR ENGINEER REVIEW.



1. COMPLETE REQUIRED EXCAVATION FOR ENTIRE WALL LENGTH PRIOR TO BEGINNING WALL CONSTRUCTION.
2. INSTALL 4x12 VERTICAL TIMBERS SO THAT THEY EXTEND ABOVE THE FINAL WALL HEIGHT. VERTICALS SHALL HAVE A BATTER AS SHOWN FOR CONSTRUCTION TO COMPENSATE FOR STRETCH OF GEOTEXTILE.
3. PROVIDE BRACING AT EACH VERTICAL TO MAINTAIN BATTER.
4. INSTALL CONCRETE SILL AT BASE OF WALL TO PROVIDE LEVEL CONSTRUCTION SURFACE.
5. PLACE GEOTEXTILE REINFORCEMENT AT REQUIRED LOCATIONS FOR THE ENTIRE LEVEL.
6. INSTALL HORIZONTAL GLULAM AND BOLT TO 4x12 VERTICAL TIMBERS.
7. STAPLE GEOTEXTILE REINFORCEMENT TO HORIZONTAL GLULAM.
8. PULL BOTTOM WRAP OF GEOTEXTILE REINFORCEMENT TAUT AND SECURE ADEQUATELY TO HOLD GEOTEXTILE REINFORCEMENT IN TENSION.

9. HOLD BOTH TOP WRAP AND EXCESS BACK WRAP OF GEOTEXTILE REINFORCEMENT OUT OF WAY. PLACE FILL AND COMPACT TO TOP LEVEL OF HORIZONTAL GLULAM.
10. AT APPROPRIATE LEVELS, PULL TOP OF GEOTEXTILE REINFORCEMENT BACK WRAP TAUT AND SECURE ADEQUATELY TO HOLD GEOTEXTILE REINFORCEMENT IN TENSION.
11. PLACE PORTION OF FILL NEAR BACK OF GEOTEXTILE REINFORCEMENT, CREATING A SMALL MOUND. PULL TOP WRAP OF GEOTEXTILE REINFORCEMENT TAUT OVER MOUND, CREATING A GAP BETWEEN GEOTEXTILE REINFORCEMENT AND TOP OF FILL LAYER. SECURE GEOTEXTILE REINFORCEMENT TO HOLD FIRMLY IN TENSION.
12. PLACE PORTION OF FILL ON BACKSIDE OF MOUND TO ANCHOR GEOTEXTILE REINFORCEMENT.

13. REPEAT STEPS 5-12 UNTIL ENTIRE WALL IS CONSTRUCTED. PLACE ADJACENT FILL CONCURRENTLY IN COMPACTED LIFTS.

14. REMOVE BRACING.
15. CUTOFF VERTICAL 4x12 AT DESIGNATED FINISH LEVEL.
16. INSTALL 2x8 CAP PLATE
17. COMPLETE CONSTRUCTION OF ALL OTHER WALL ELEMENTS AS SHOWN ON THE PLANS.

REVISIONS

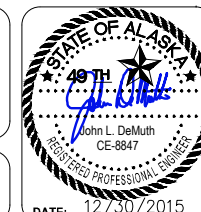
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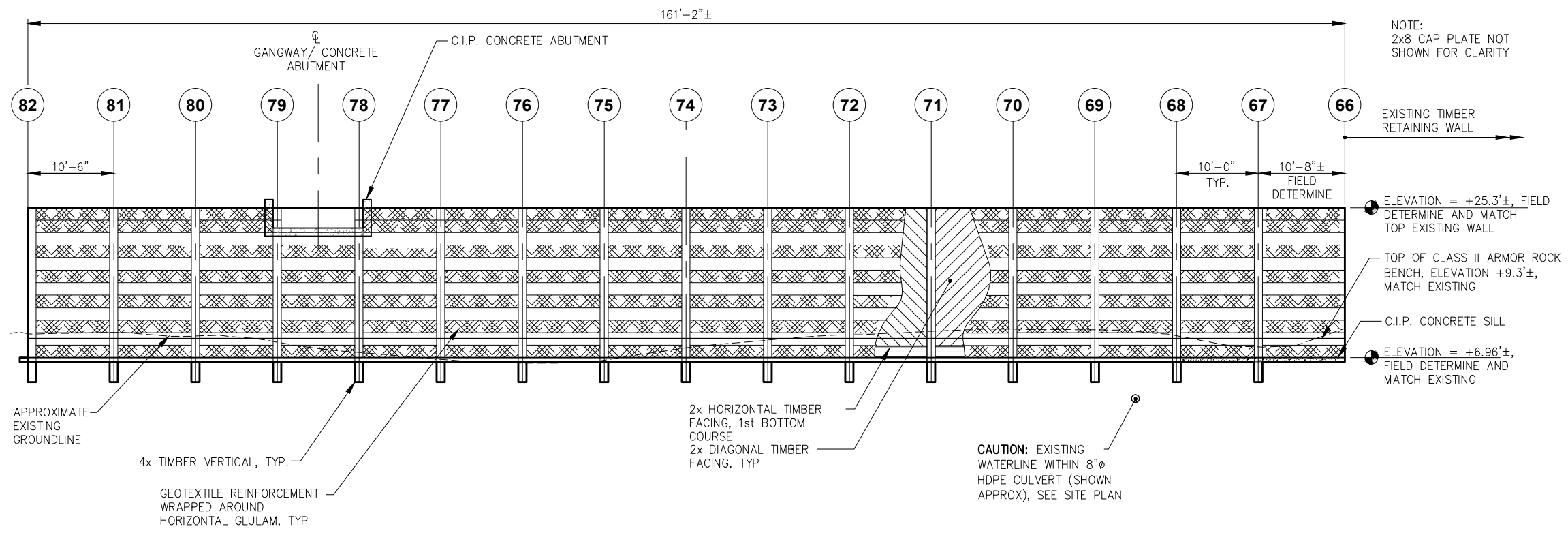
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RETAINING WALL PLAN

PND PROJECT NO.: 152037

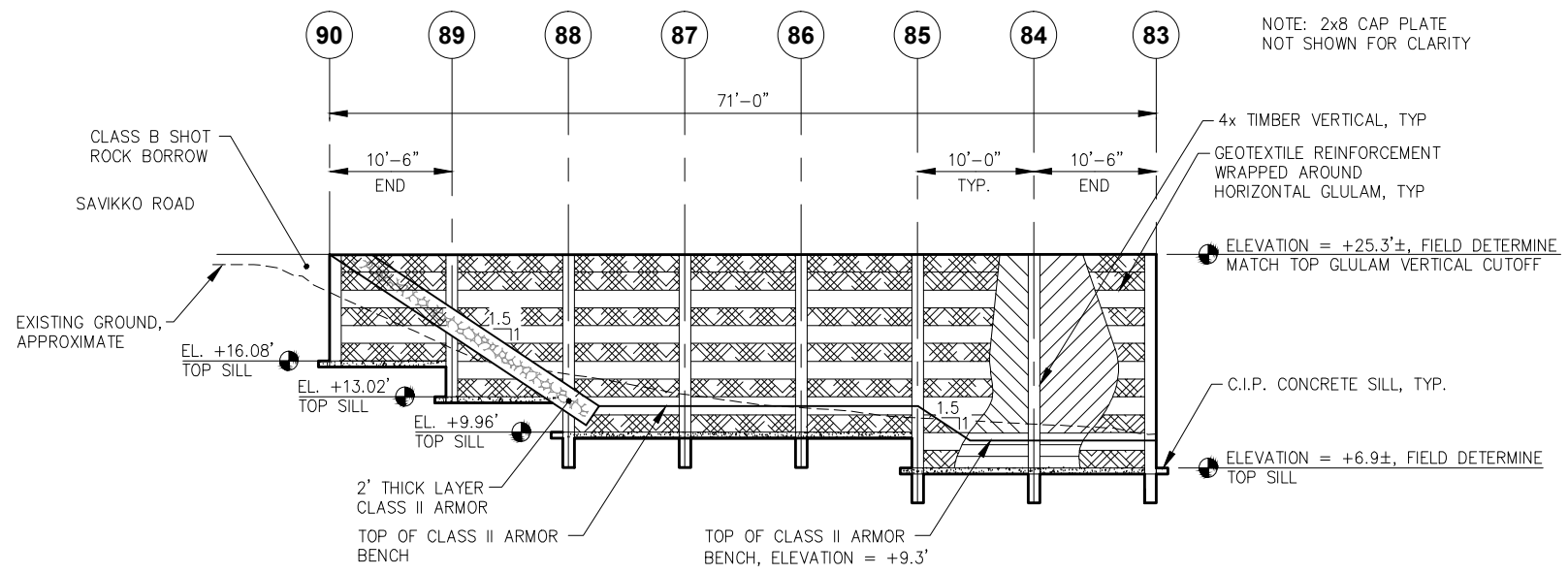
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8 OF 77





WALL ELEVATION



SIDE WALL ELEVATION

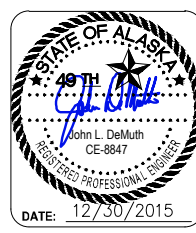
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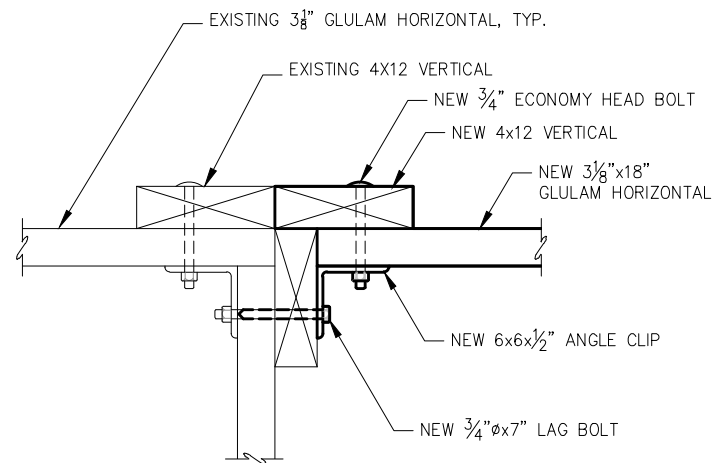
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PND PROJECT NO.: 152037 203.DWG

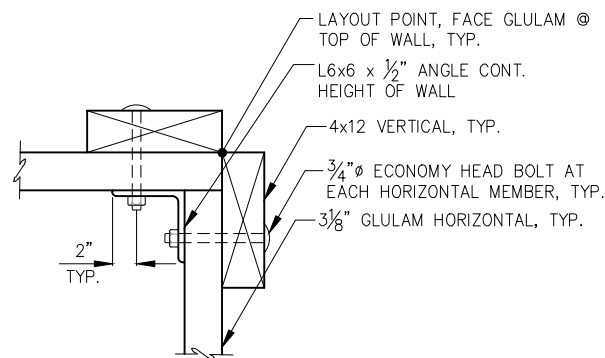
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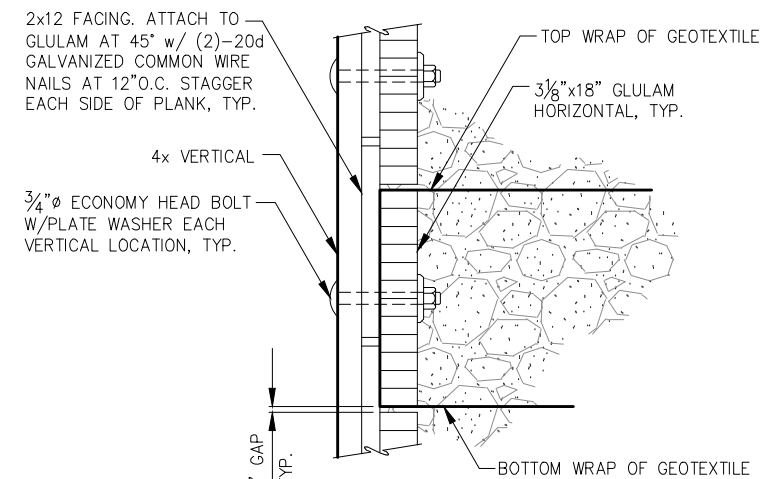




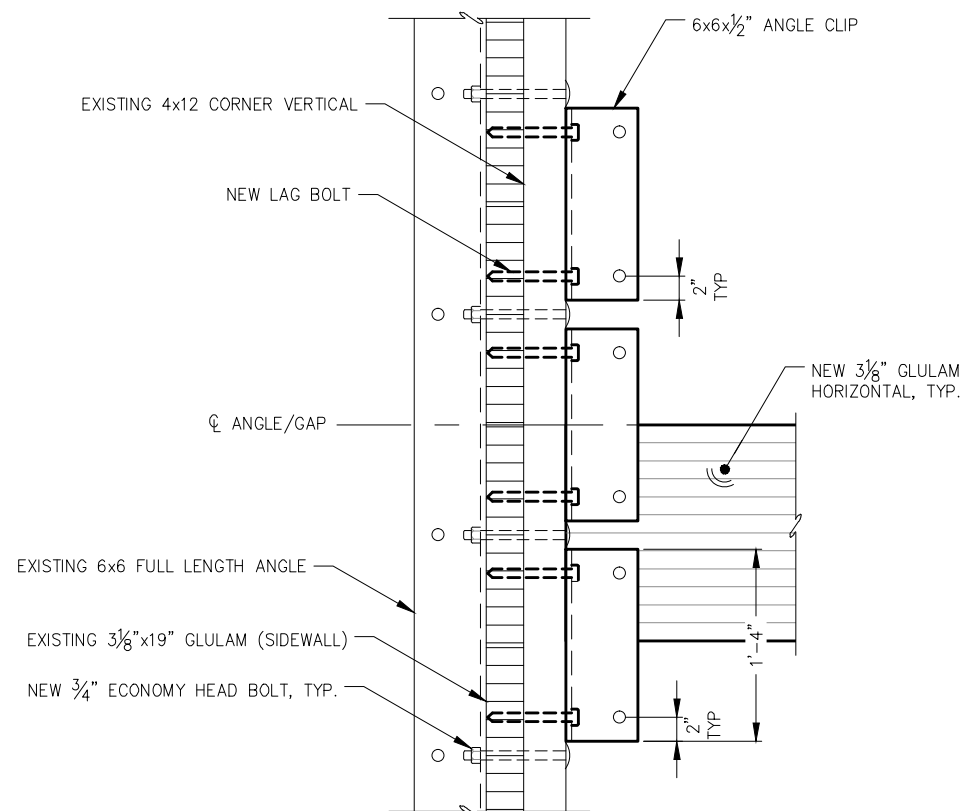
EXISTING 90 DEGREE CORNER DETAIL



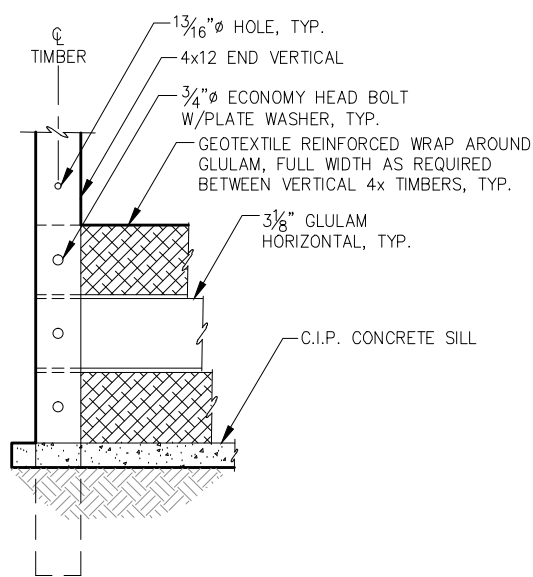
90° CORNER DETAIL



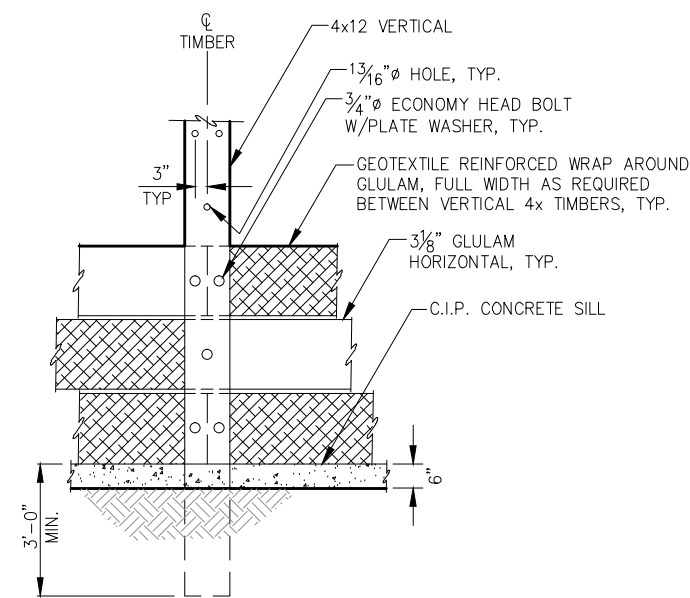
TYPICAL SECTION AT VERTICAL



TYPICAL SECTION AT EXISTING VERTICAL



END CONNECTION FOR 4x12 VERTICAL



TYPICAL CONNECTIONS AT 4x12 VERTICAL



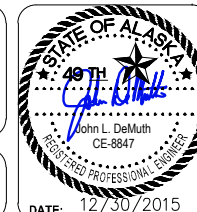
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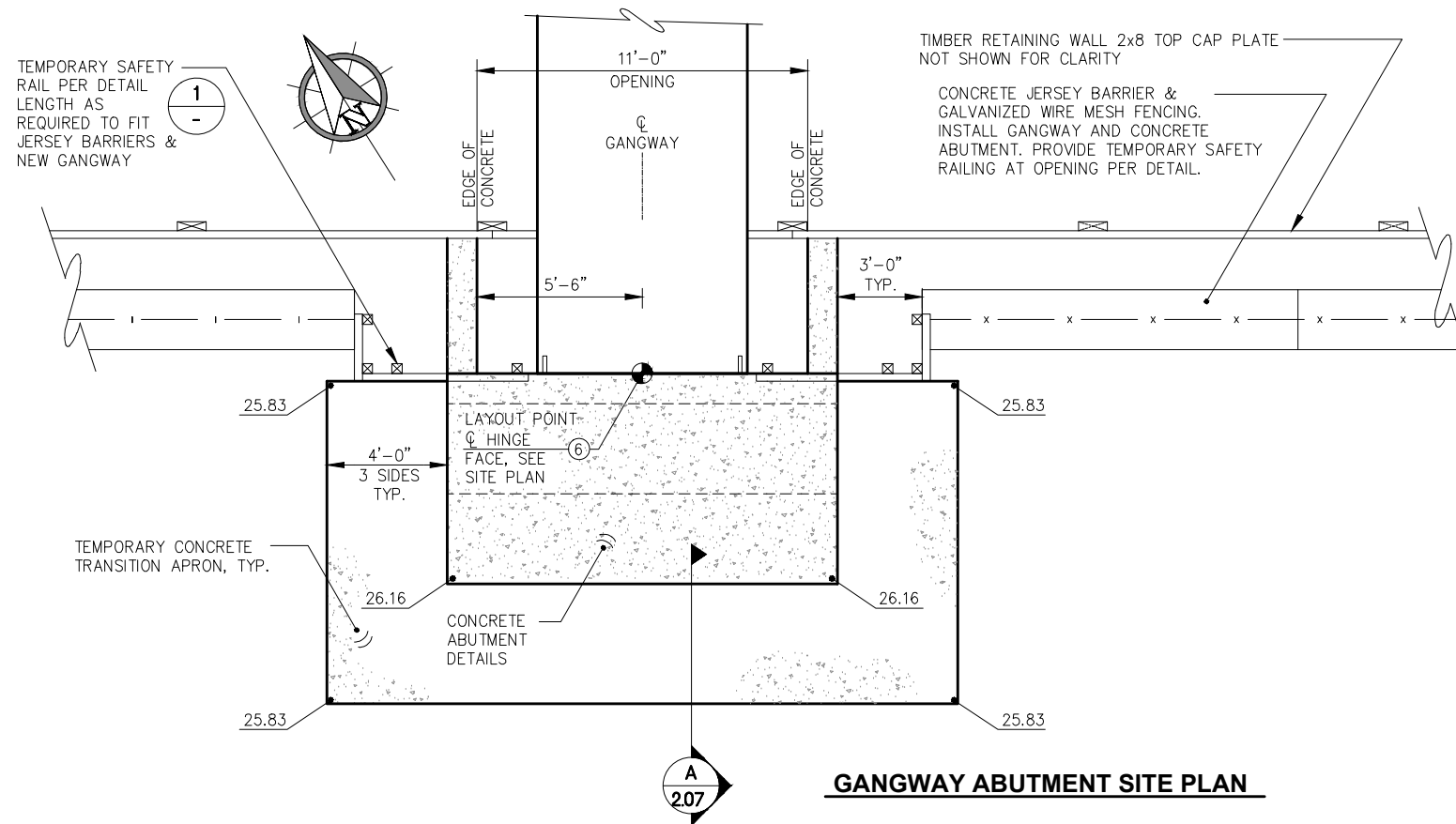
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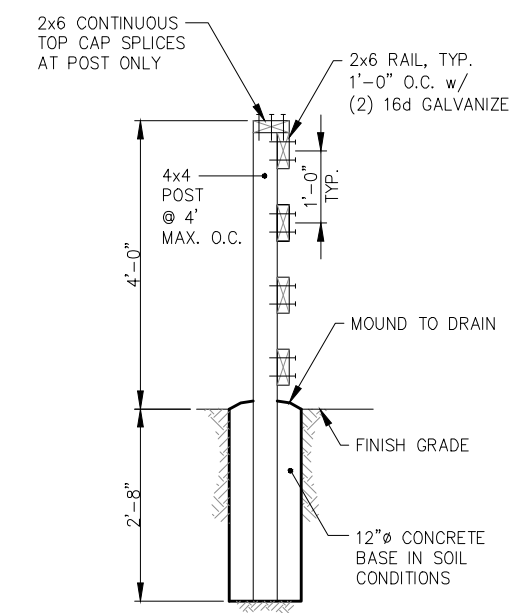
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DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001**

SHEET TITLE:
**ADD. ALT. A RETAINING
WALL ELEVATIONS AND DETAILS**
PND PROJECT NO.: 152037

2.05
SHEET
10 OF 77

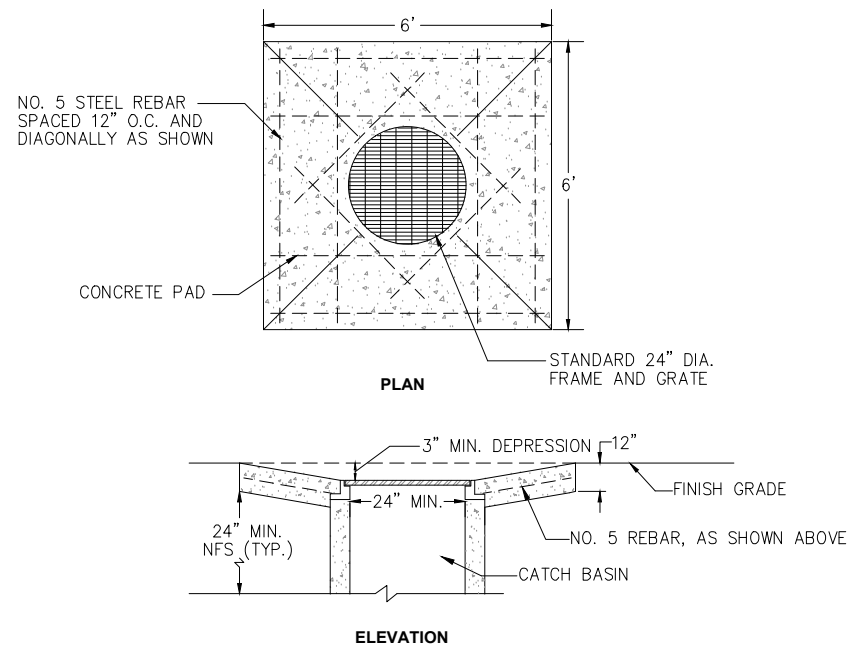


GANGWAY ABUTMENT SITE PLAN

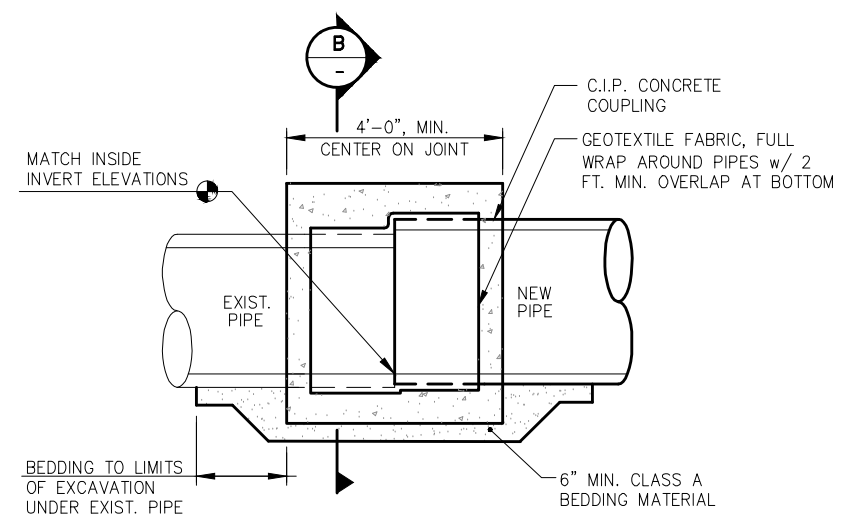


- NOTES:
1. PROVIDE (3) EA. 5/8" Ø GALVANIZE EPOXY ANCHOR BOLTS @ 1'-0" O.C. TO ATTACH POST TO CONCRETE ABUTMENT NEAR GANGWAY.
 2. ALL TIMBER PRESSURE TREATED 0.6 PCF ACZA.

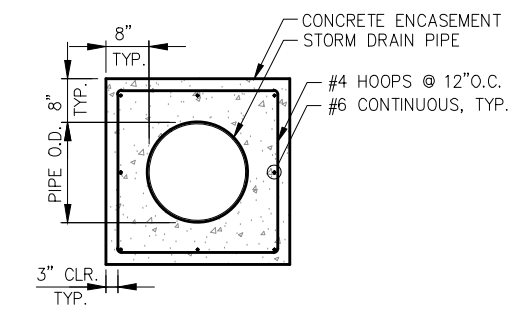
1 DETAIL TEMPORARY SAFETY RAIL
NTS



- NOTES:
1. FRAME AND GRATE MUST BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR A BICYCLE TRAFFIC.
 2. COMPACT BACKFILL TO 95% OF MAXIMUM DENSITY.



DISSIMILAR PIPE COUPLING - DETAIL



B DISSIMILAR PIPE COUPLING SECTION

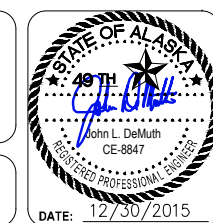


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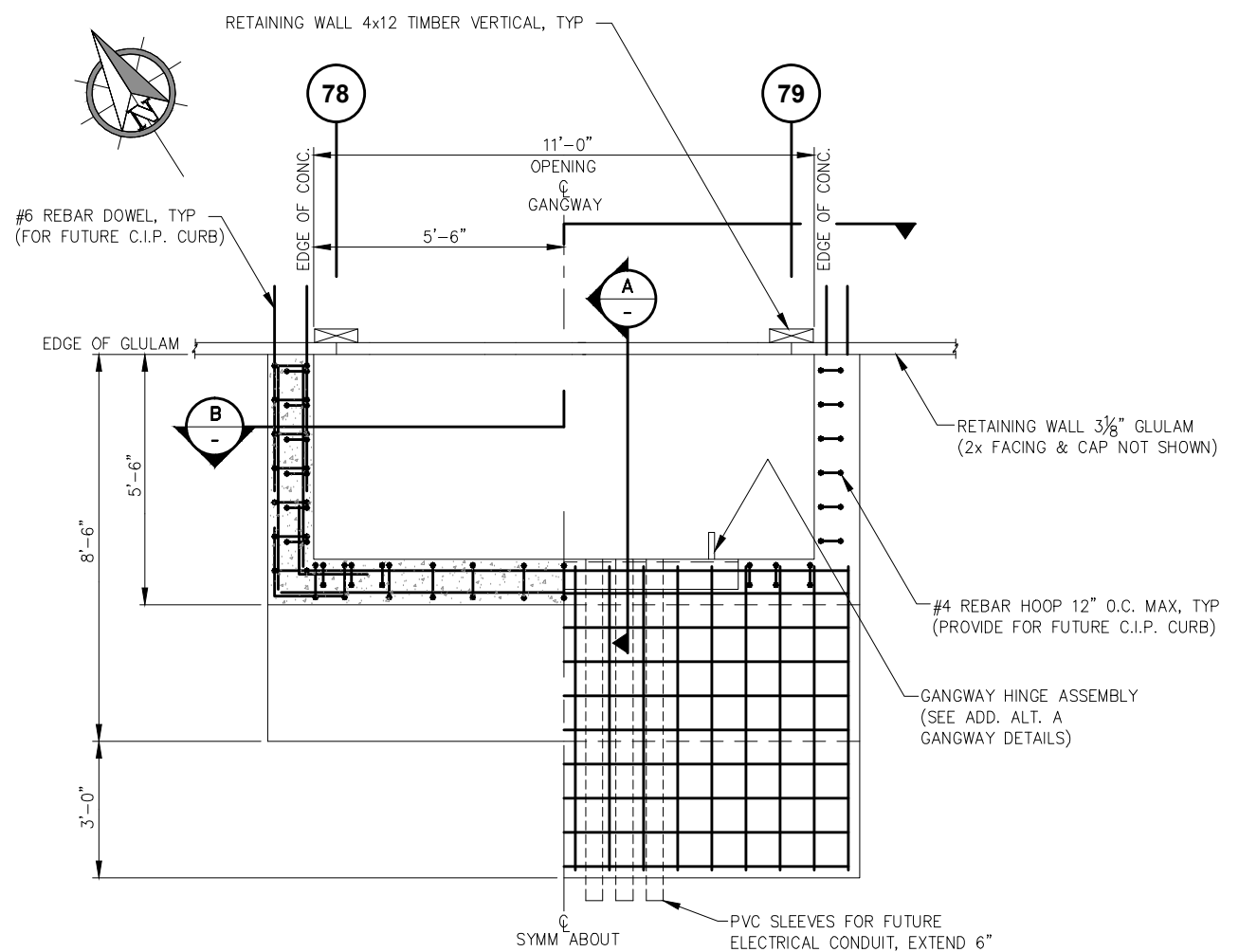
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PARTIAL PLAN TOP OF GANGWAY

DATE: 12/30/2015

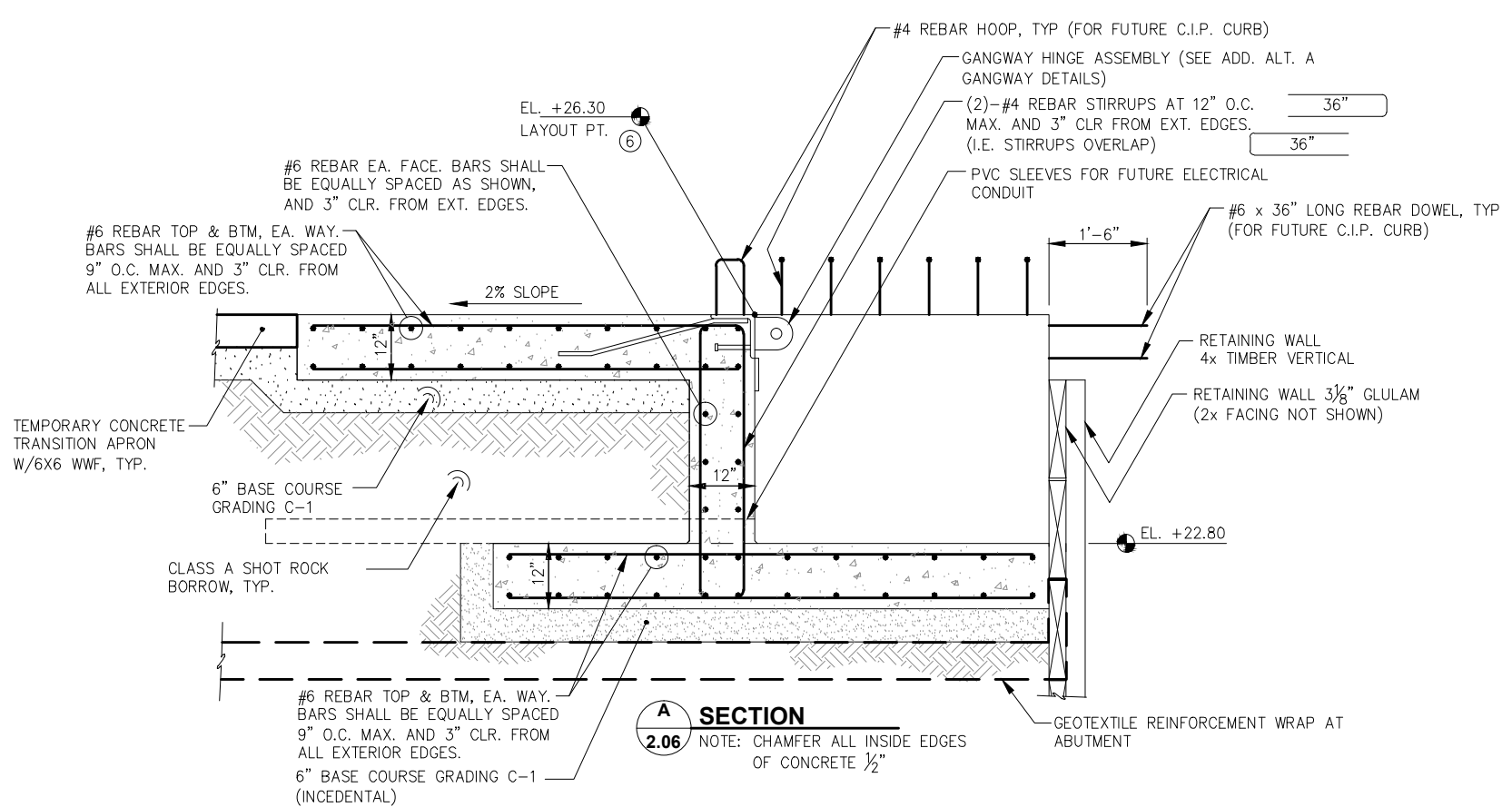
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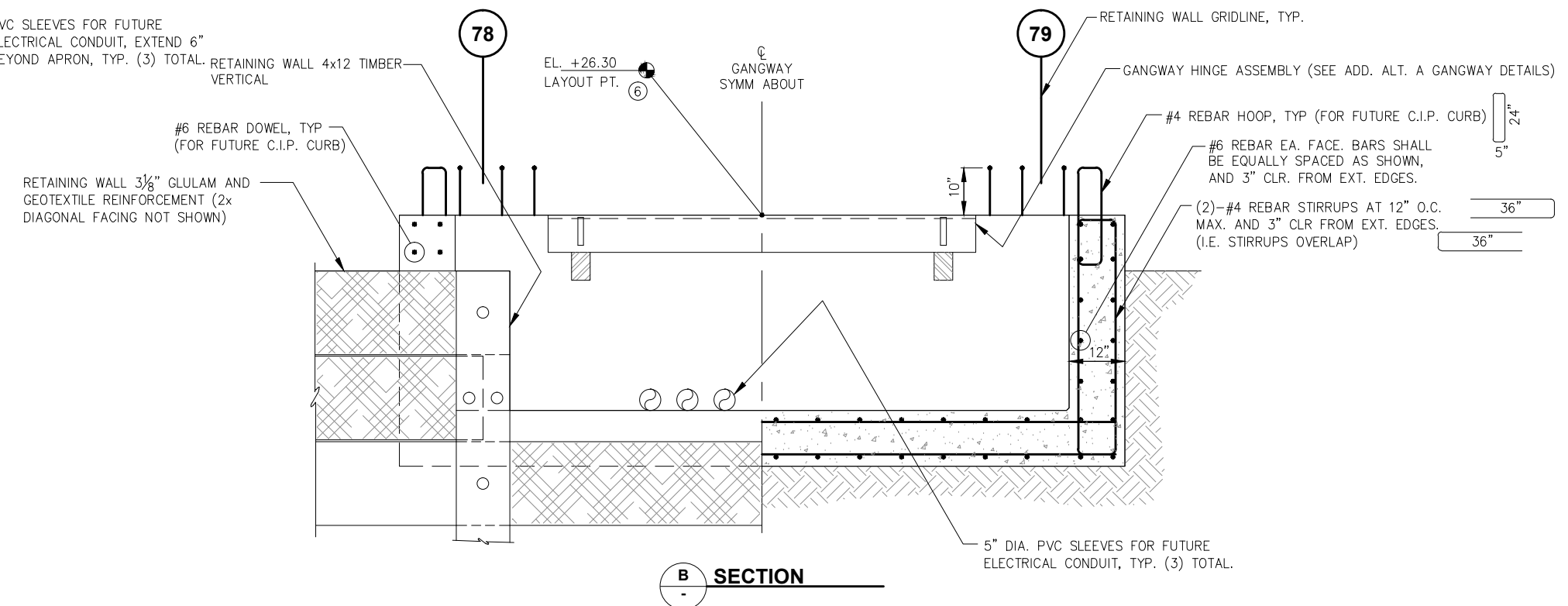
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GANGWAY ABUTMENT PLAN



SECTION 2.06
NOTE: CHAMFER ALL INSIDE EDGES OF CONCRETE 1/2"



SECTION B

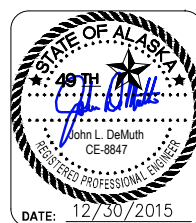
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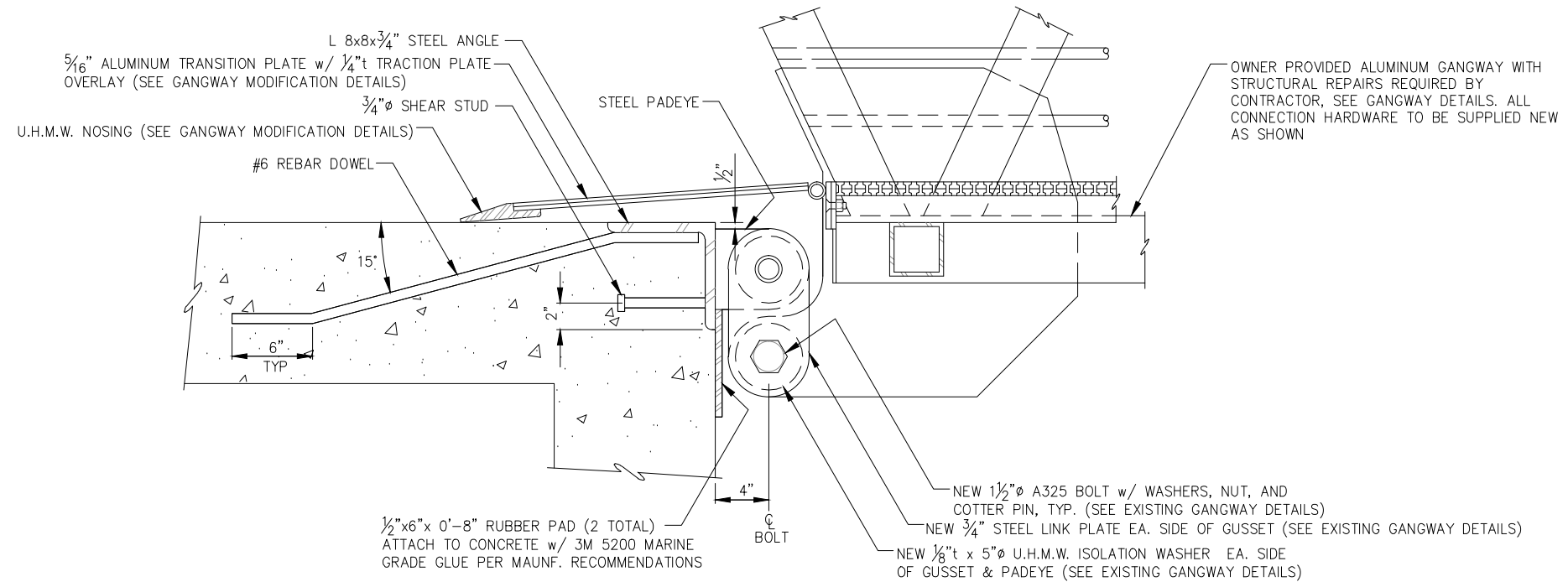
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GANGWAY ABUTMENT DETAILS
PND PROJECT NO.: 152037

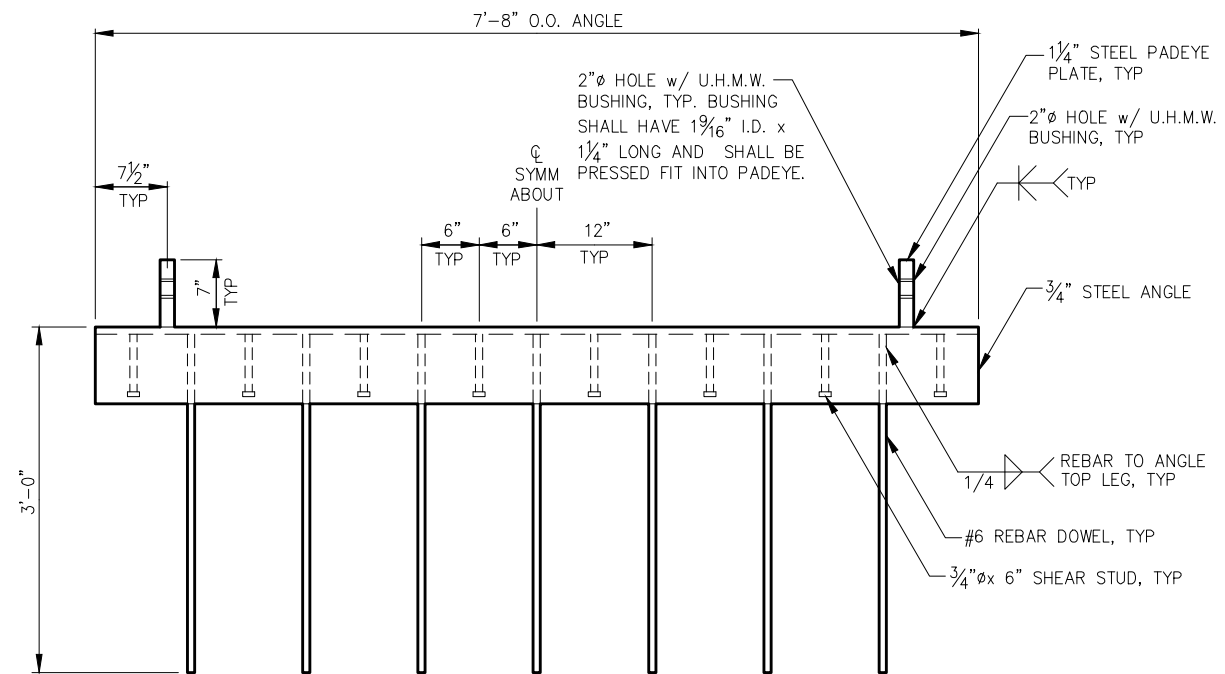
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**HINGE ASSEMBLY
PLAN**



**SHORE MOUNT
PLAN**

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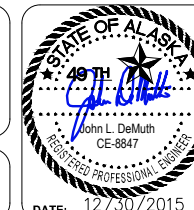
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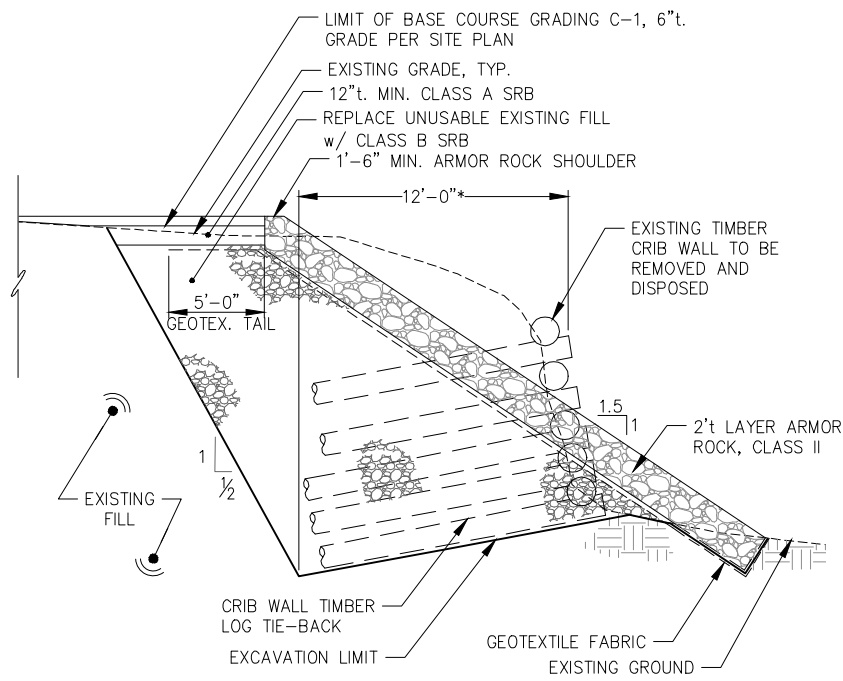
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PND PROJECT NO.: 152037

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SHEET
13 OF 77

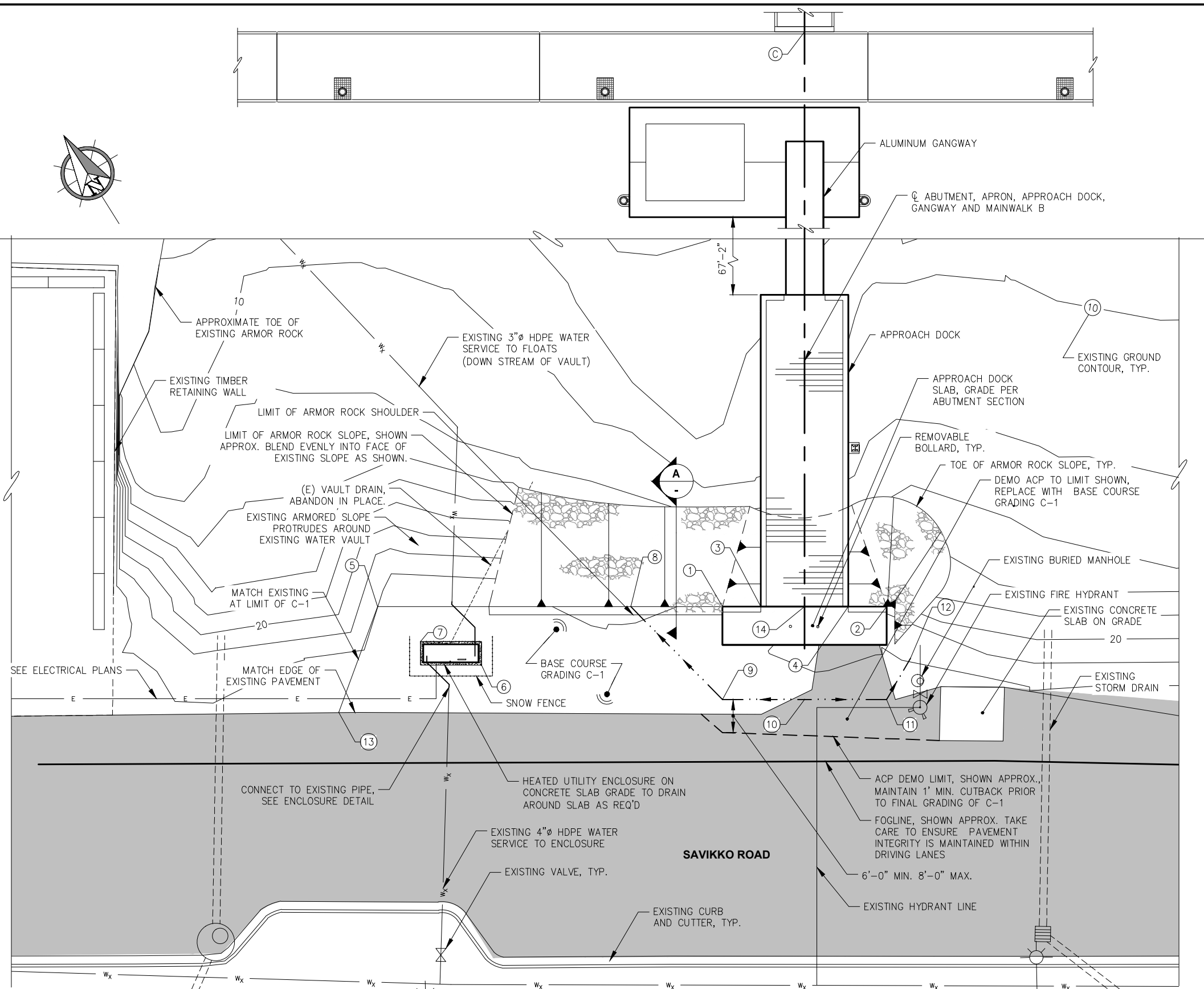




A TYPICAL SECTION

NOTE:
 *LOG CRIB WALL TO BE DEMOLISHED UNDER ADD. ALTS. A AND B IS CONSTRUCTED OF TIMBER TIE-BACKS WHICH EXTEND AN UNKNOWN DISTANCE INTO THE SLOPE. FOR BID QUANTITY ESTIMATES THIS DISTANCE WAS ASSUMED TO BE 12'-0" AND ALL MATERIAL WITHIN THE DEMOLITION PRISM WAS ASSUMED TO BE UNUSABLE EXCAVATION. QUANTITIES MAY VARY BASED ON FIELD CONDITIONS.

LAYOUT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	3696.22	7186.50	25.00	TOP OF ARMOR ROCK
2	3679.98	7211.72	25.00	TOP OF ARMOR ROCK
3	3692.43	7192.38	21.20	ARMOR ROCK AT ABUTMENT
4	3683.77	7205.84	21.20	ARMOR ROCK AT ABUTMENT
5	3730.35	7133.48	24.00	LIMIT OF C-1, ME
6	3711.07	7143.66	24.20	COR. CONC. ON C-1
7	3720.76	7136.62	24.15	COR. CONC. ON C-1
8	3705.30	7172.39	23.40	SWALE, TOP OF ARMOR SLOPE
9	3681.92	7177.30	24.30	SWALE, ON C-1
10	3673.81	7189.91	24.50	SWALE, ON C-1
11	3665.69	7202.52	24.30	SWALE, ON C-1
12	3669.65	7210.22	24.00	END OF SWALE, ME
13	3717.92	7117.06	24.60	LIMIT C-1, ME
14	3688.100	7199.111	25.00	WORK POINT, FACE OF ABUTMENT
C	3820.998	7284.622	--	EDGE OF MODULE H-3



PARTIAL SITE PLAN - APPROACH DOCK

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 DRAWN: KLL APPROVED: JLD 0 10 20 FT.

DATE: 12/30/2015

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DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001

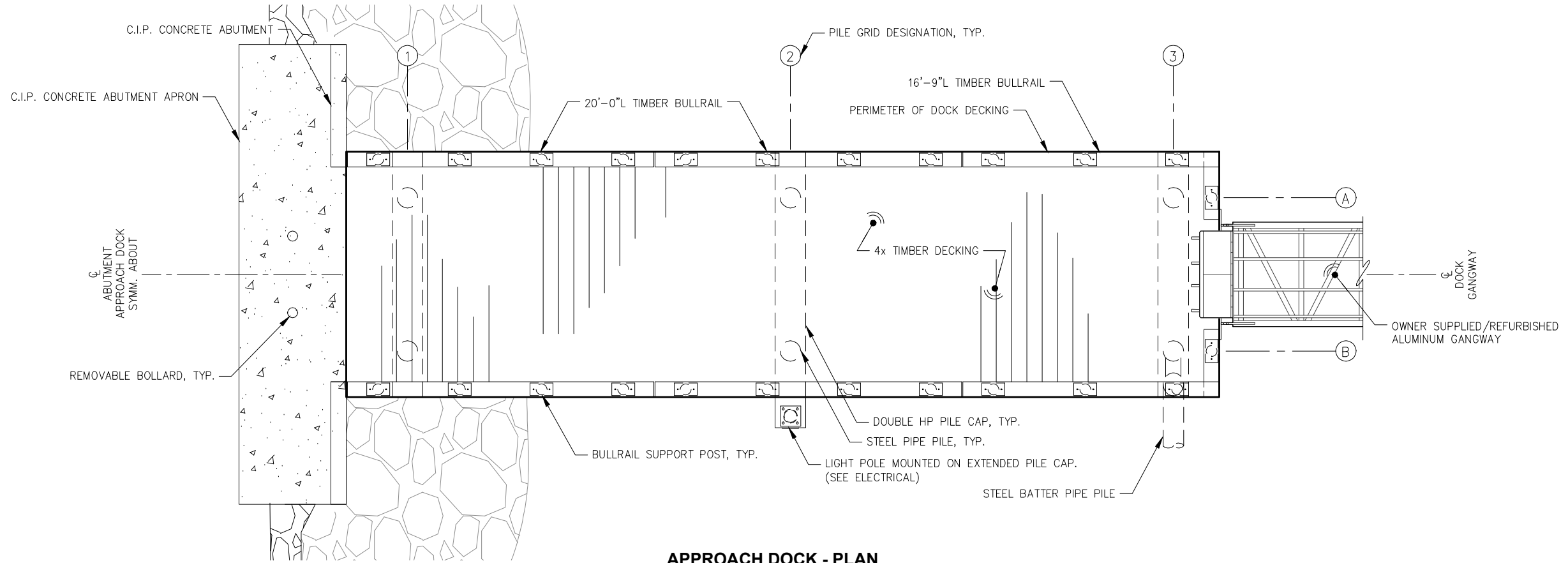
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UPLANDS SITE PLAN

PND PROJECT NO.: 152037

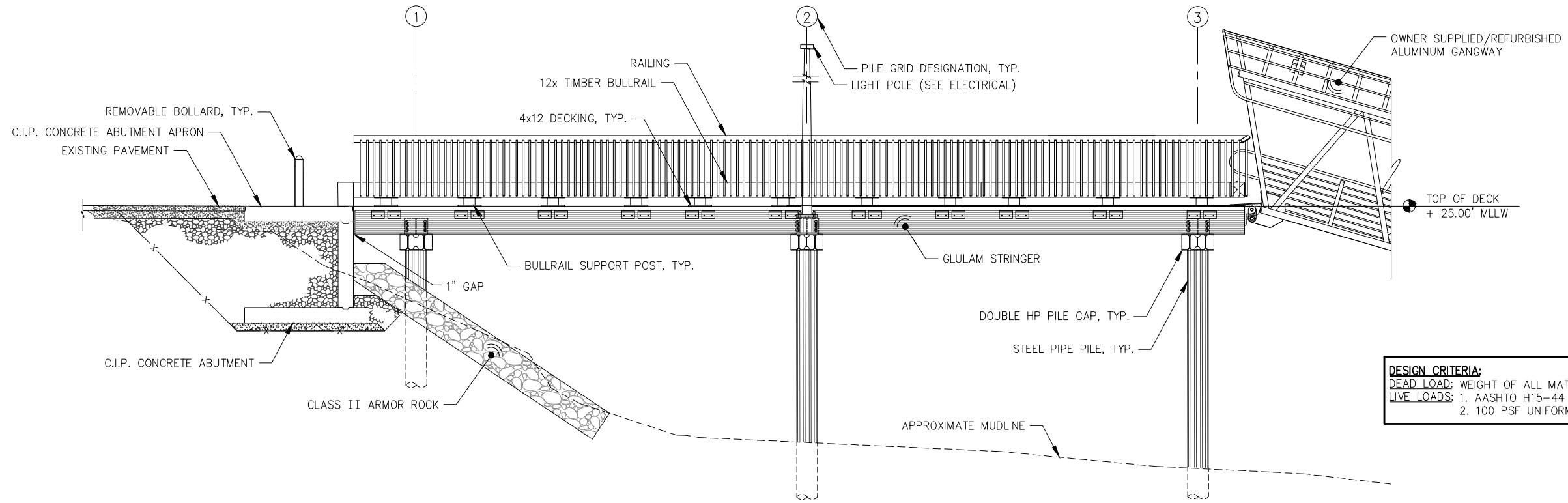
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SHEET
14 OF 77





APPROACH DOCK - PLAN



APPROACH DOCK - ELEVATION

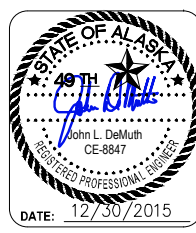
DESIGN CRITERIA:
 DEAD LOAD: WEIGHT OF ALL MATERIALS OF CONSTRUCTION.
 LIVE LOADS: 1. AASHTO H15-44 DESIGN TRUCK.
 2. 100 PSF UNIFORM LIVE LOAD.

REVISIONS

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 DRAWN: LRG APPROVED: JLD

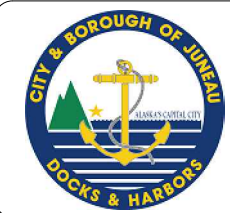


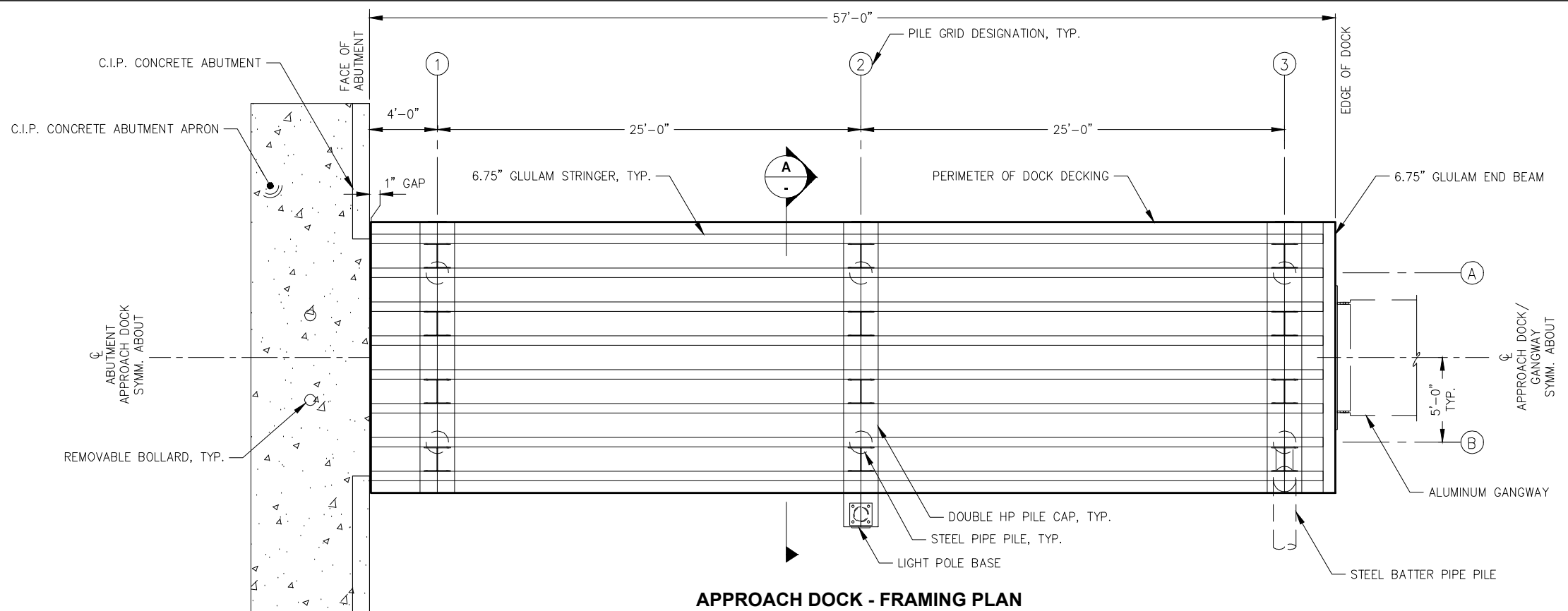
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SHEET TITLE:
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PLAN AND ELEVATION
 PND PROJECT NO.: 152037

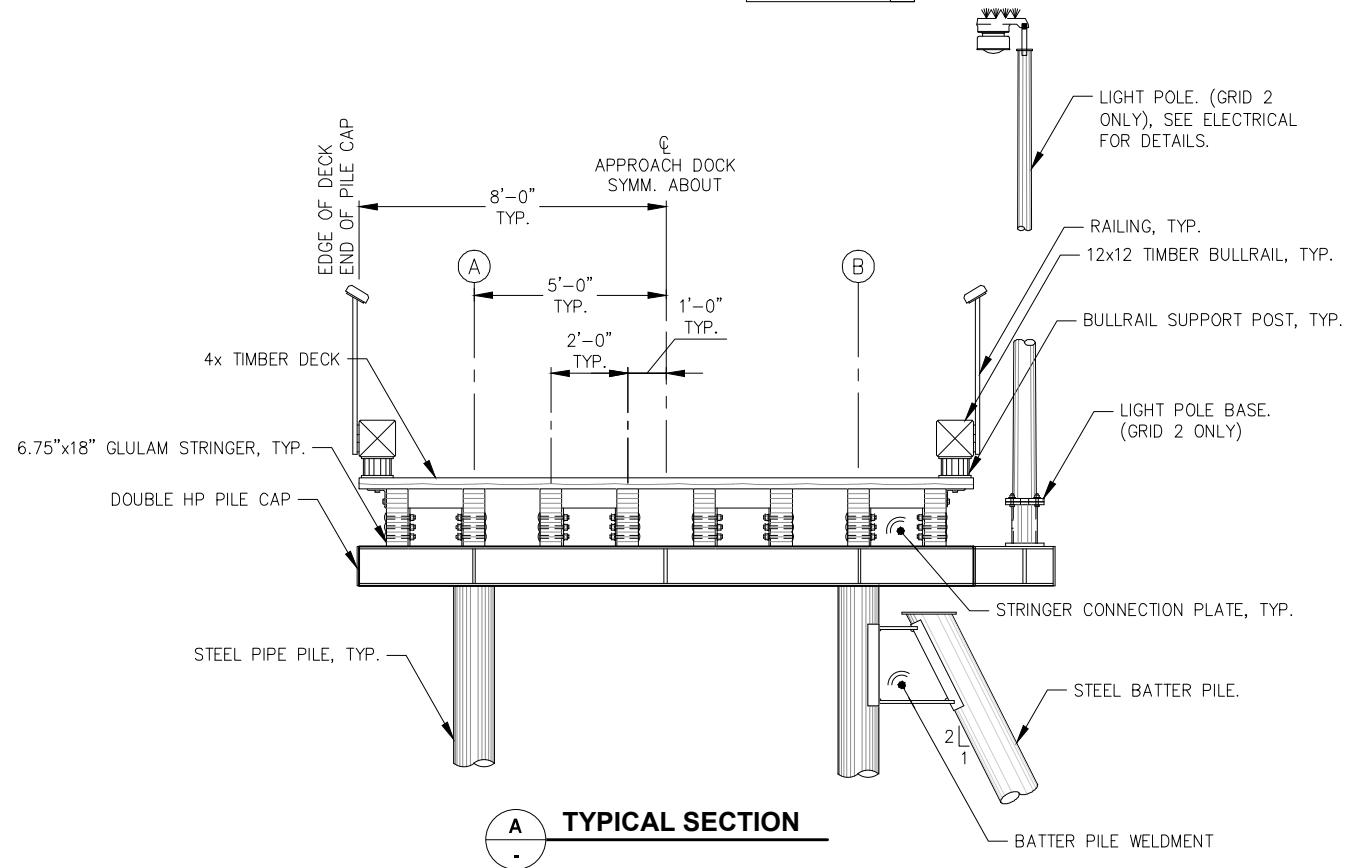
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APPROACH DOCK - FRAMING PLAN



TYPICAL SECTION A

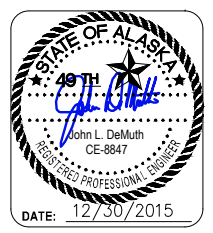
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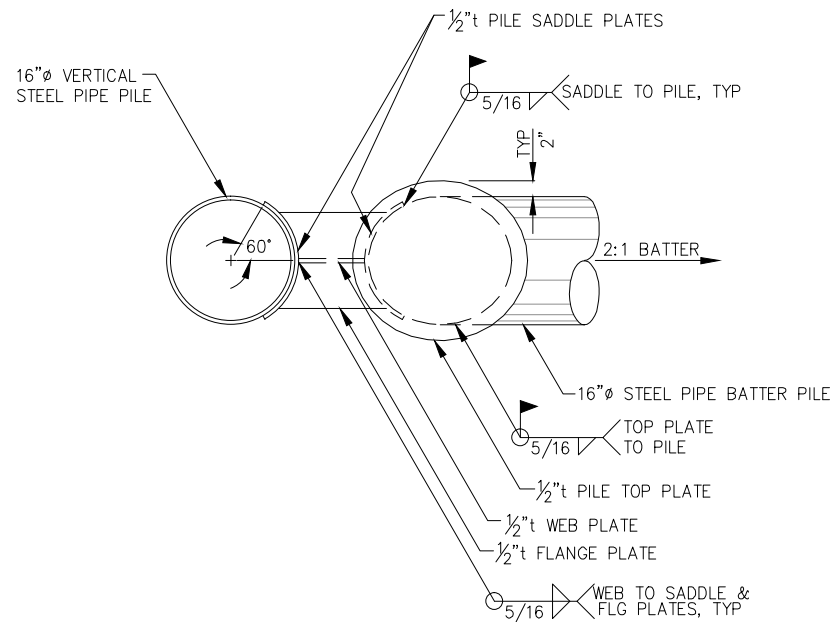
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ADD. ALT. B APPROACH DOCK
FRAMING PLAN AND SECTION

PND PROJECT NO.: 152037

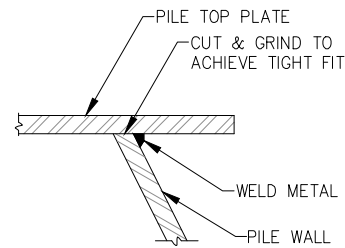
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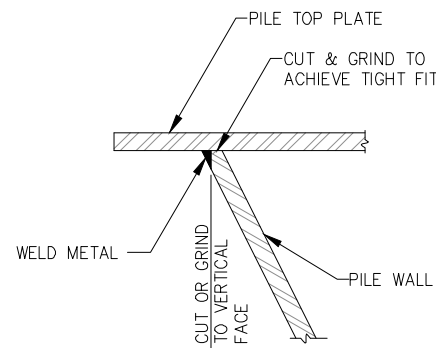




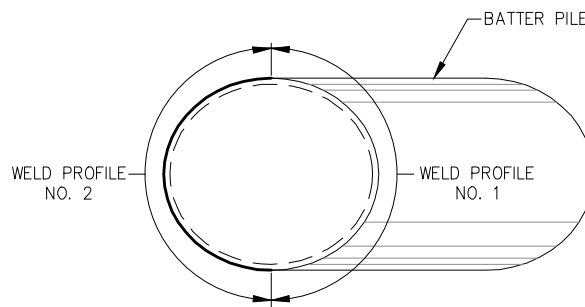
SINGLE BATTER PILE CONNECTION PLAN



WELD PROFILE NO. 1

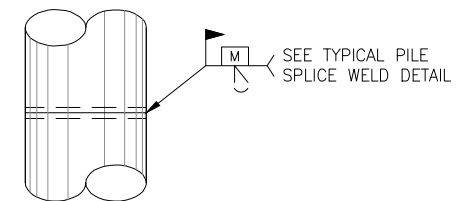


WELD PROFILE NO. 2

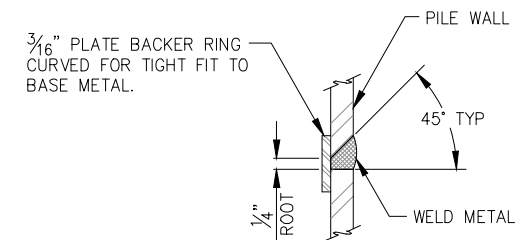


WELD PROFILES

APPROACH DOCK - PILE SCHEDULE							
GRID	DESIGNATION	ULTIMATE COMPRESSION LOAD (KIPS)	ULTIMATE TENSION LOAD (KIPS)	PILE DIAMETER (IN)	PILE WALL THICKNESS (IN)	REQUIRED FURNISHED LENGTH (FT)	PILE TIP
1-A	VERTICAL	36	-	16	0.500	40	INSIDE CUTTING SHOE
1-B	VERTICAL	36	-	16	0.500	40	INSIDE CUTTING SHOE
2-A	VERTICAL	42	-	16	0.500	60	INSIDE CUTTING SHOE
2-B	VERTICAL	42	-	16	0.500	60	INSIDE CUTTING SHOE
3-A	VERTICAL	42	-	16	0.500	60	INSIDE CUTTING SHOE
3-B(V)	VERTICAL	42	31	16	0.500	60	INSIDE CUTTING SHOE
3-B(B)	BATTER	43.2	43.2	16	0.500	70	INSIDE CUTTING SHOE



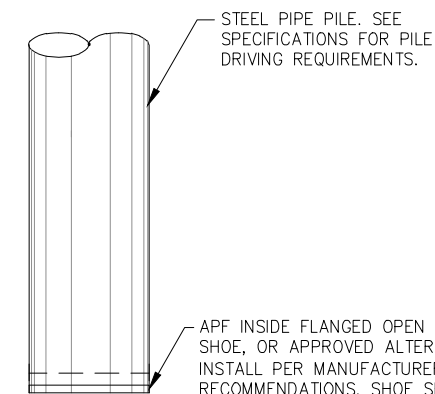
ELEVATION



TYPICAL SECTION

TYPICAL PILE SPLICE WELD

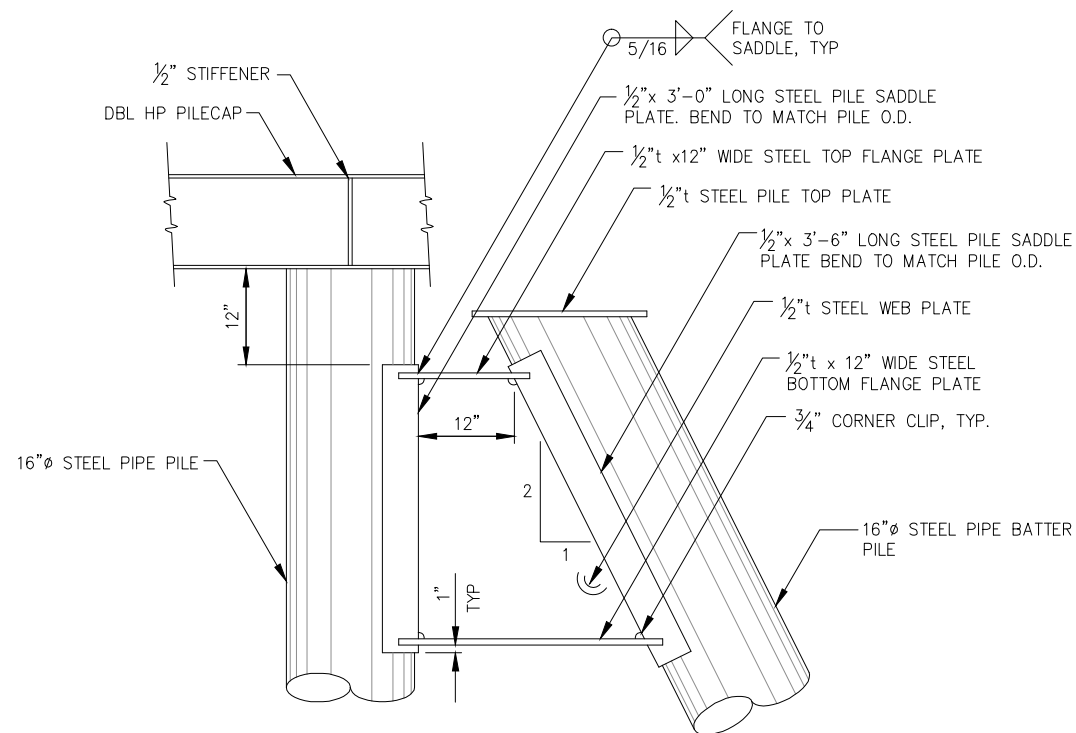
TYPICAL FOR ALL FIELD PIPE PILE SPLICES



ELEVATION

TYPICAL PILE TIP

NOTE: INSTALL AT ALL LOCATIONS SHOWN IN PILE SCHEDULE



BATTER PILE WELMENT ELEVATION

SEE DOCK PLAN FOR BATTER PILE LOCATION AND ORIENTATION.

REVISIONS

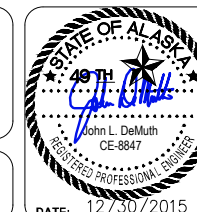
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SCALE: NTS



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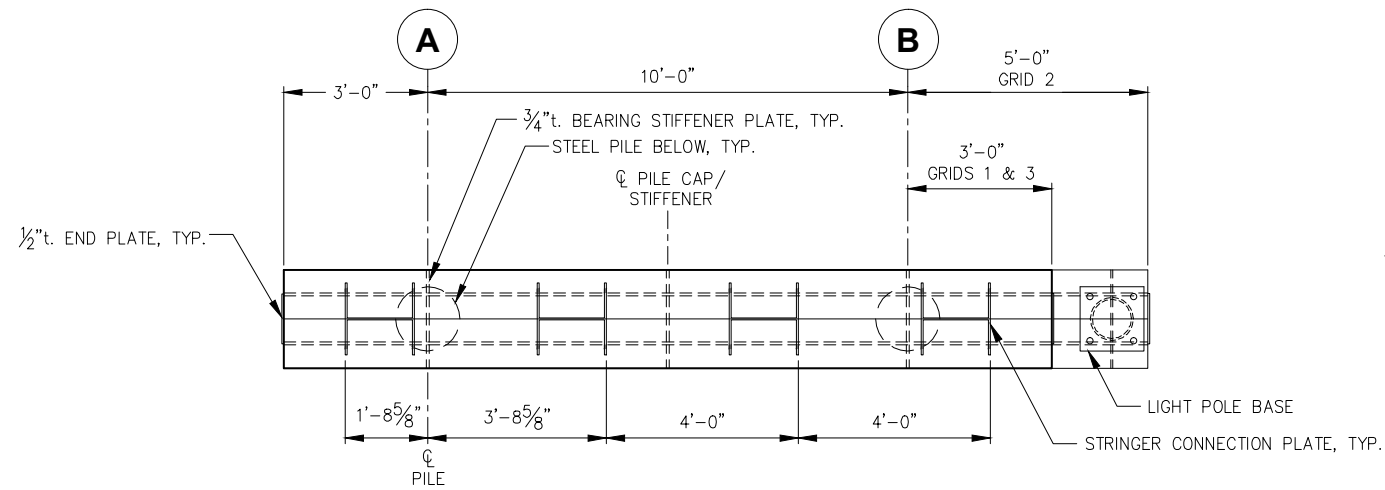
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PILE SCHEDULE AND DETAILS

PND PROJECT NO.: 152037

3.04

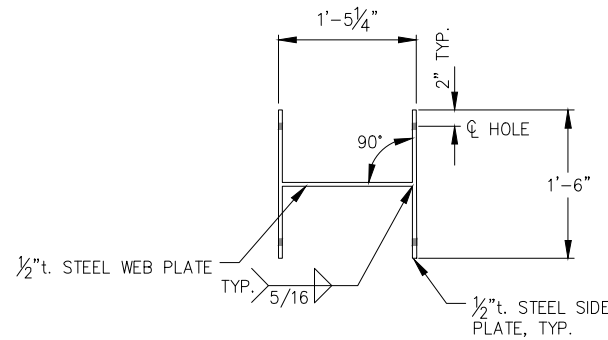
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17 OF 77



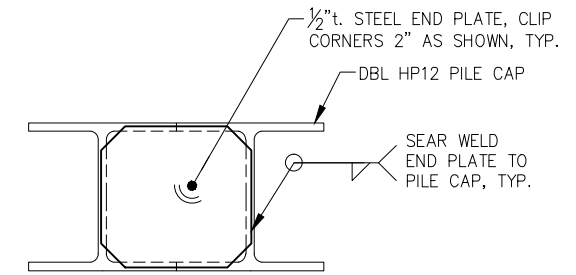


TYPICAL PILE CAP

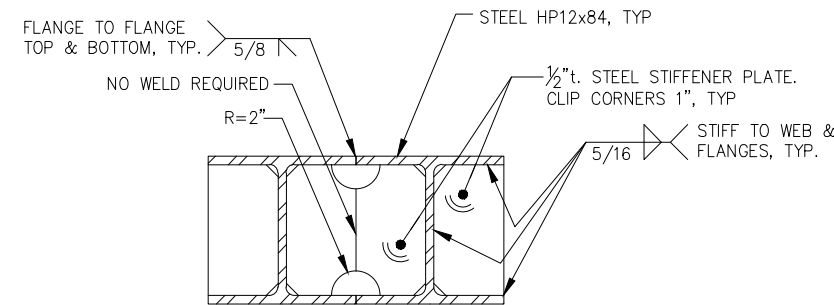
- NOTES:**
- ALL PLATE DIMENSIONS ARE TO THE OUTSIDE OF SIDE PLATES, UNLESS OTHERWISE NOTED.
 - ALL PILE CAPS STEEL DBL HP12x84, UNLESS OTHERWISE NOTED.



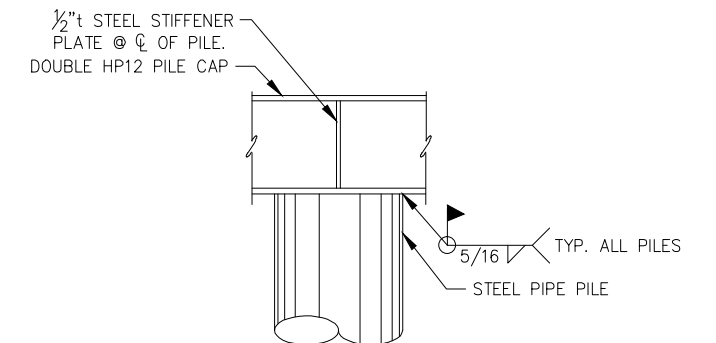
STRINGER CONNECTION PLATE



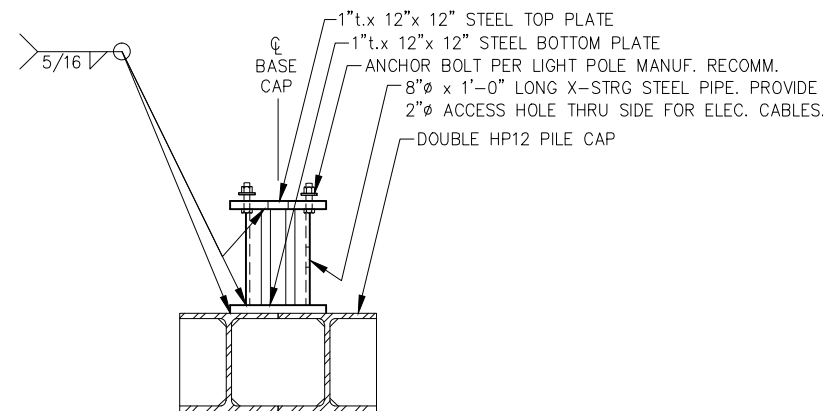
TYPICAL END PLATE DETAIL



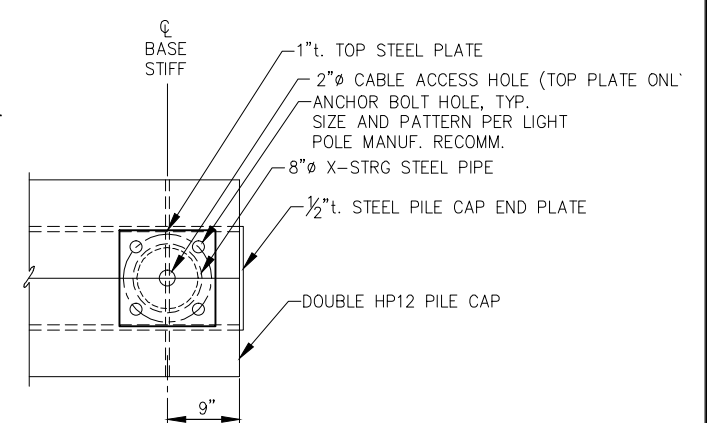
TYPICAL PILE CAP SECTION



TYPICAL PILE CONNECTION TO PILE CAP



LIGHT POLE BASE ELEVATION



LIGHT POLE BASE PLAN

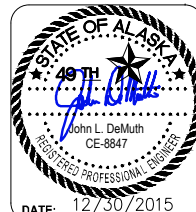


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SHEET TITLE: **ADD. ALT. B
PILE CAP DETAILS**

PND PROJECT NO.: 152037

3.05
SHEET
18 OF 77

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3x8 TIMBER TOP RAIL. END BUTT SECTIONS & MITER CORNERS. CHAMFER TOP EDGES 1/2". SAND SMOOTH PRIOR TO TREATMENT

3/8"x6" CONTINUOUS STEEL RAIL. SEE RAILING PLATE WELD DETAIL.

3/8" Ø CARRIAGE BOLT @ 25" ± w/ LOCK WASHER UNDER NUT

1" Ø STD. STEEL PIPE PICKET SPACED @ 5" O.C.

1/2"x8" LAG BOLT @ 1'-3" O.C. TOP & BOTTOM, TYP.

3/8"x3" CONTINUOUS FLAT BAR TOP & BOTTOM OF 12x12

12x12 TIMBER BULLRAIL PROVIDE 1/2" CHAMFER ALL EDGES & @ TERMINATIONS

3/4" Ø ECONOMY HEAD BOLT w/ WASHER AND 4" Ø SHEAR PLATE

4x DECKING

PIPE TO FLAT BAR, TYP. 3/16"

BULLRAIL SUPPORT POST

3/4" Ø HEX HEAD BOLT w/ WASHER AND 4" Ø SHEAR PLATE

BULLRAIL CONNECTION ANGLE

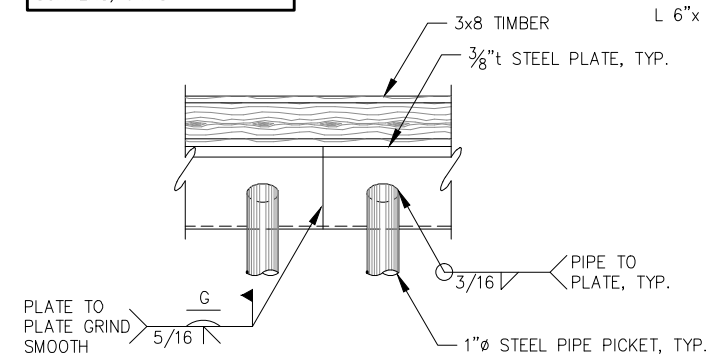
BULLRAIL/ BOLT, POST

EXTERIOR GLULAM STRINGER

B TYPICAL BULLRAIL / RAILING DETAIL

NOTE: ADJUST LOCATION OF BULLRAIL POSTS AS REQUIRED TO AVOID CONFLICT w/ HANDRAIL LAG BOLTS.

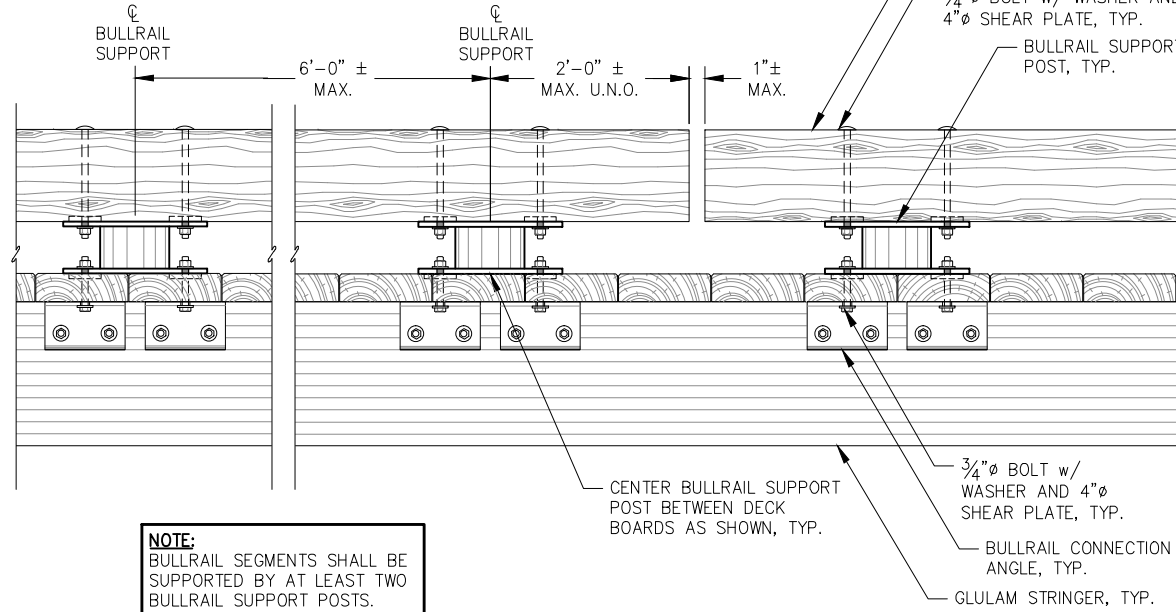
NOTE: RAILING PLATE SHALL BE WELDED TO CREATE A CONTINUOUS RAIL ALONG ALL STRAIGHT LENGTHS AND ALL CORNERS, U.N.O.



A RAILING PLATE WELD DETAIL

(CORNER WELD SIMILAR)

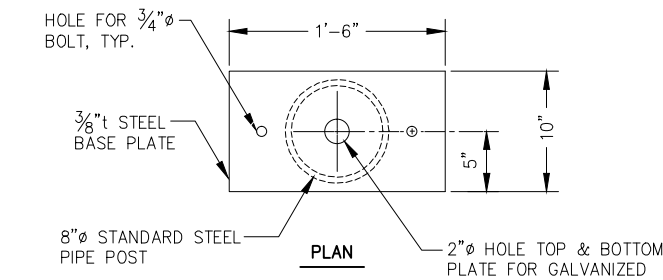
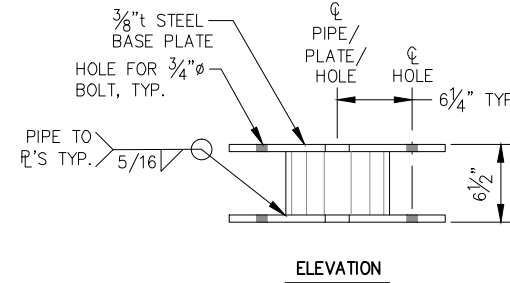
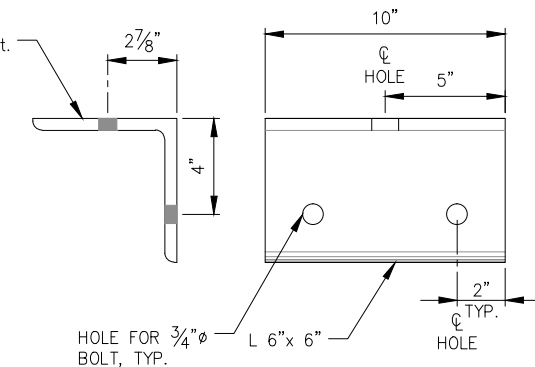
NOTE: RAILING NOT SHOWN FOR CLARITY.



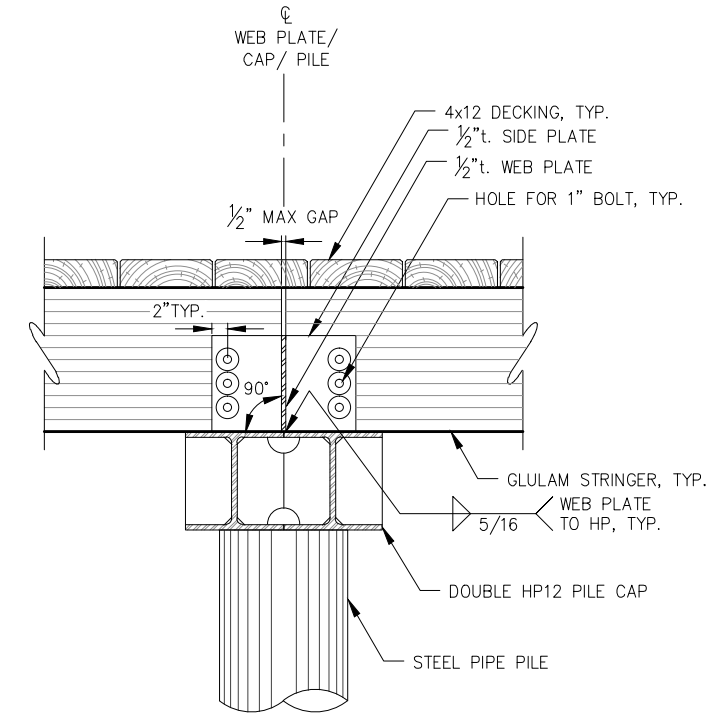
NOTE: BULLRAIL SEGMENTS SHALL BE SUPPORTED BY AT LEAST TWO BULLRAIL SUPPORT POSTS.

TYPICAL BULLRAIL SUPPORT POST DETAILS

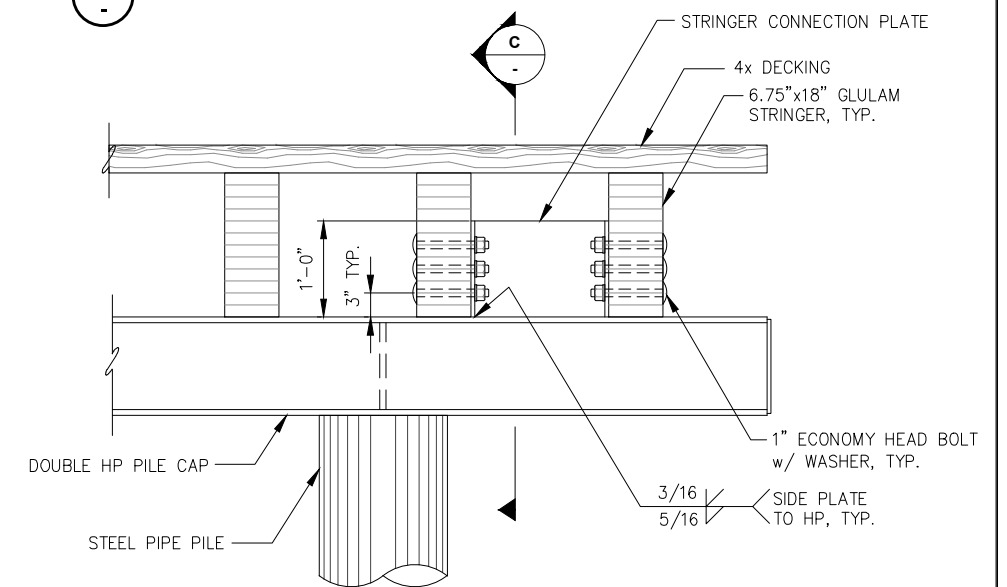
TYPICAL BULLRAIL CONNECTION ANGLE



TYPICAL BULLRAIL SUPPORT POST



C TYPICAL STRINGER CONNECTION DETAILS



TYPICAL STRINGER CONNECTION DETAILS

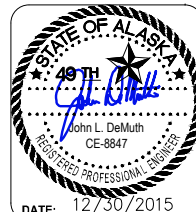
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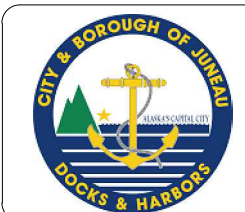


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SHEET TITLE: **ADD. ALT. B
APPROACH DOCK DETAILS**

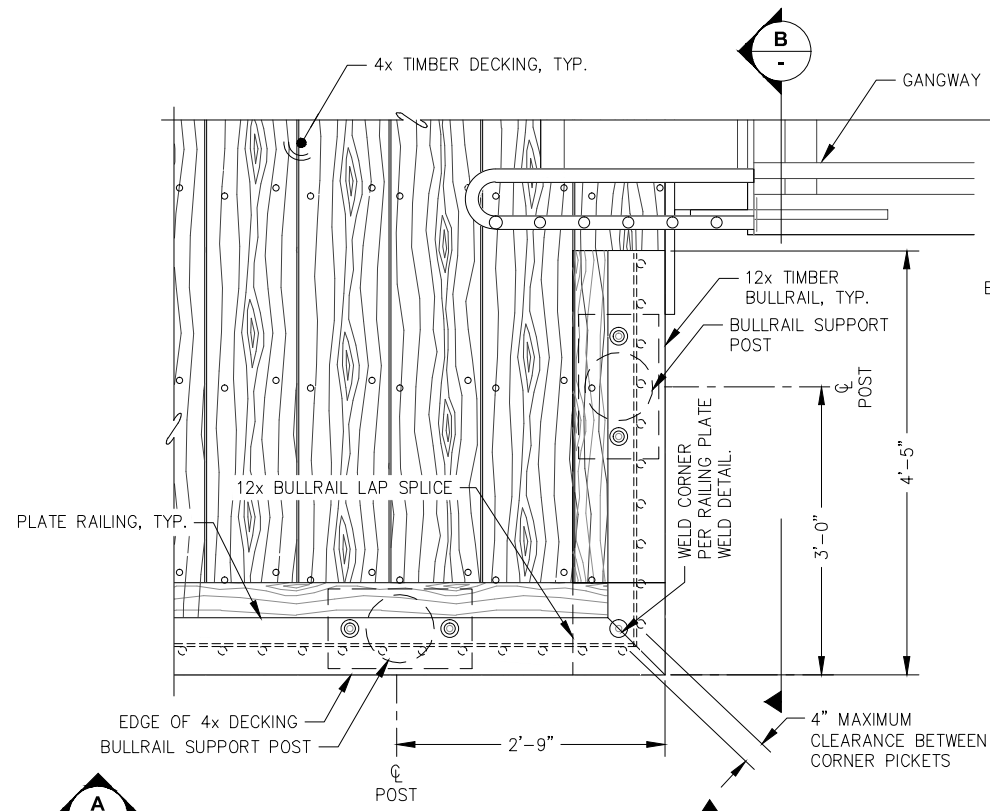
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SHEET 19 OF 77

PND PROJECT NO.: 152037



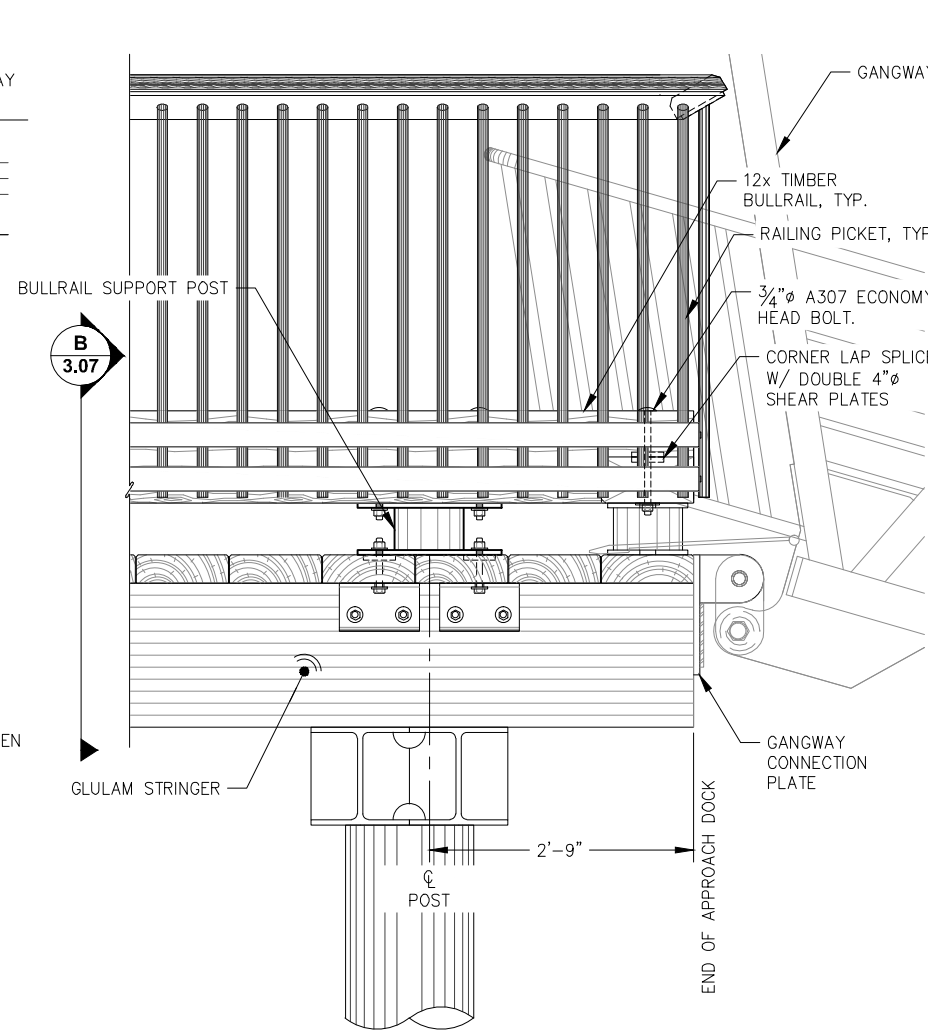
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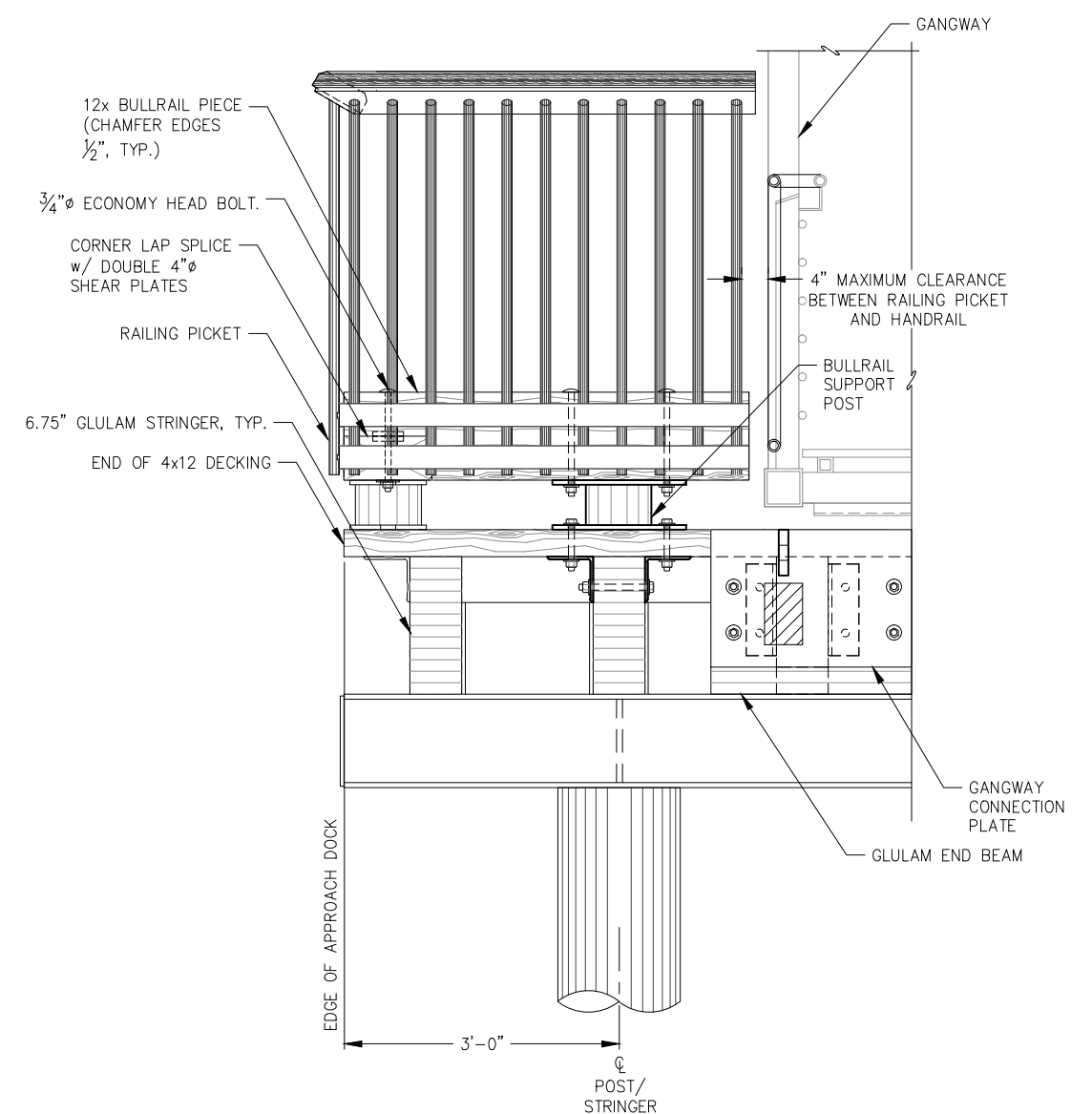


BULLRAIL CORNER PLAN

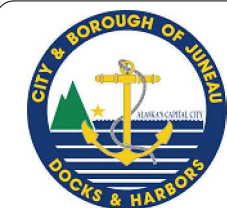
NOTE: TIMBER TOP RAILING NOT SHOWN FOR CLARITY.



BULLRAIL CORNER END ELEVATION



BULLRAIL CORNER SIDE ELEVATION

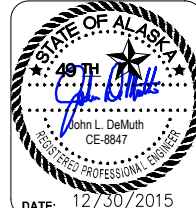


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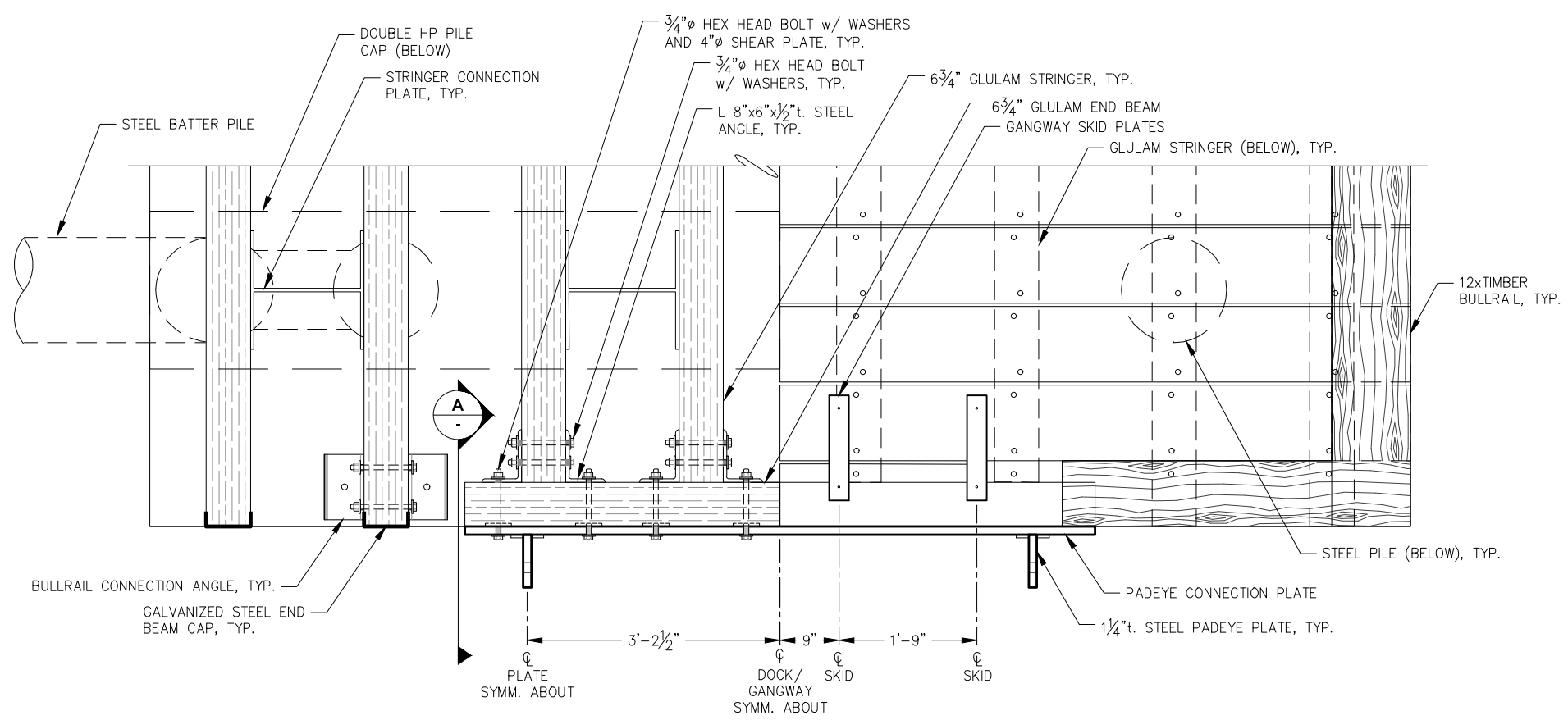


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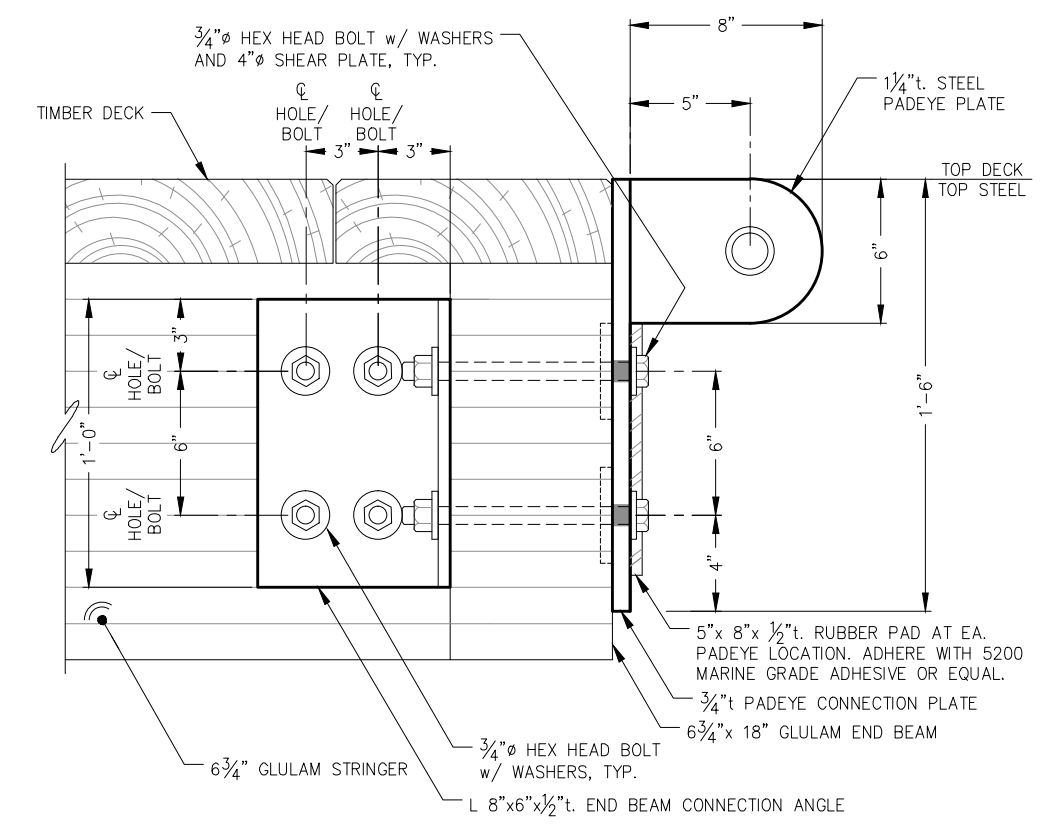
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APPROACH DOCK DETAILS**

PND PROJECT NO.: 152037

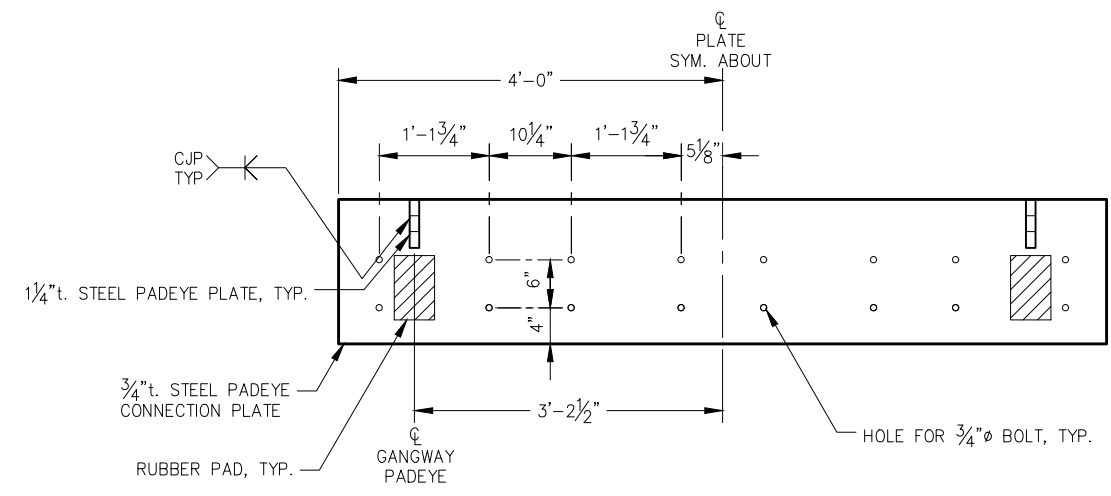
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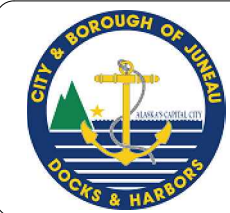
GANGWAY CONNECTION PLAN



A SECTION AT GANGWAY PAD EYE CONNECTION



GANGWAY CONNECTION PLATE ELEVATION

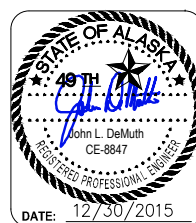


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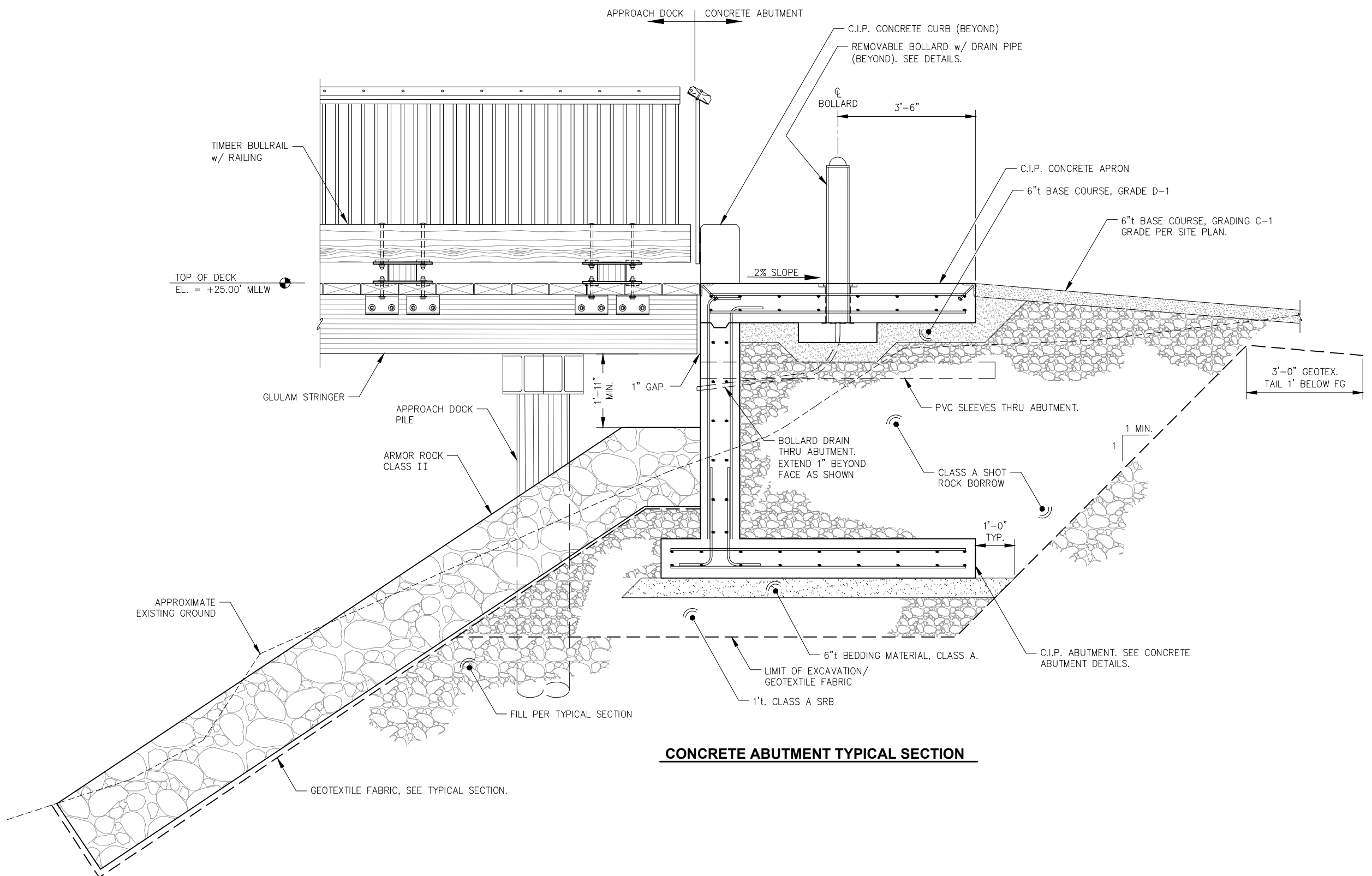
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SHEET TITLE: **ADD. ALT. B**
APPROACH DOCK DETAILS

PND PROJECT NO.: 152037

3.08
SHEET
21 OF 77

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CONCRETE ABUTMENT TYPICAL SECTION

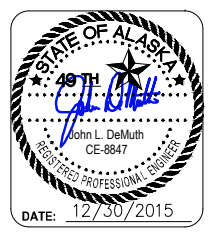
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DRAWN: LRG	APPROVED: JLD	

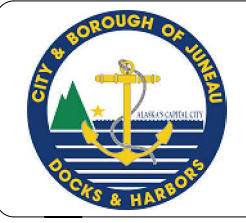


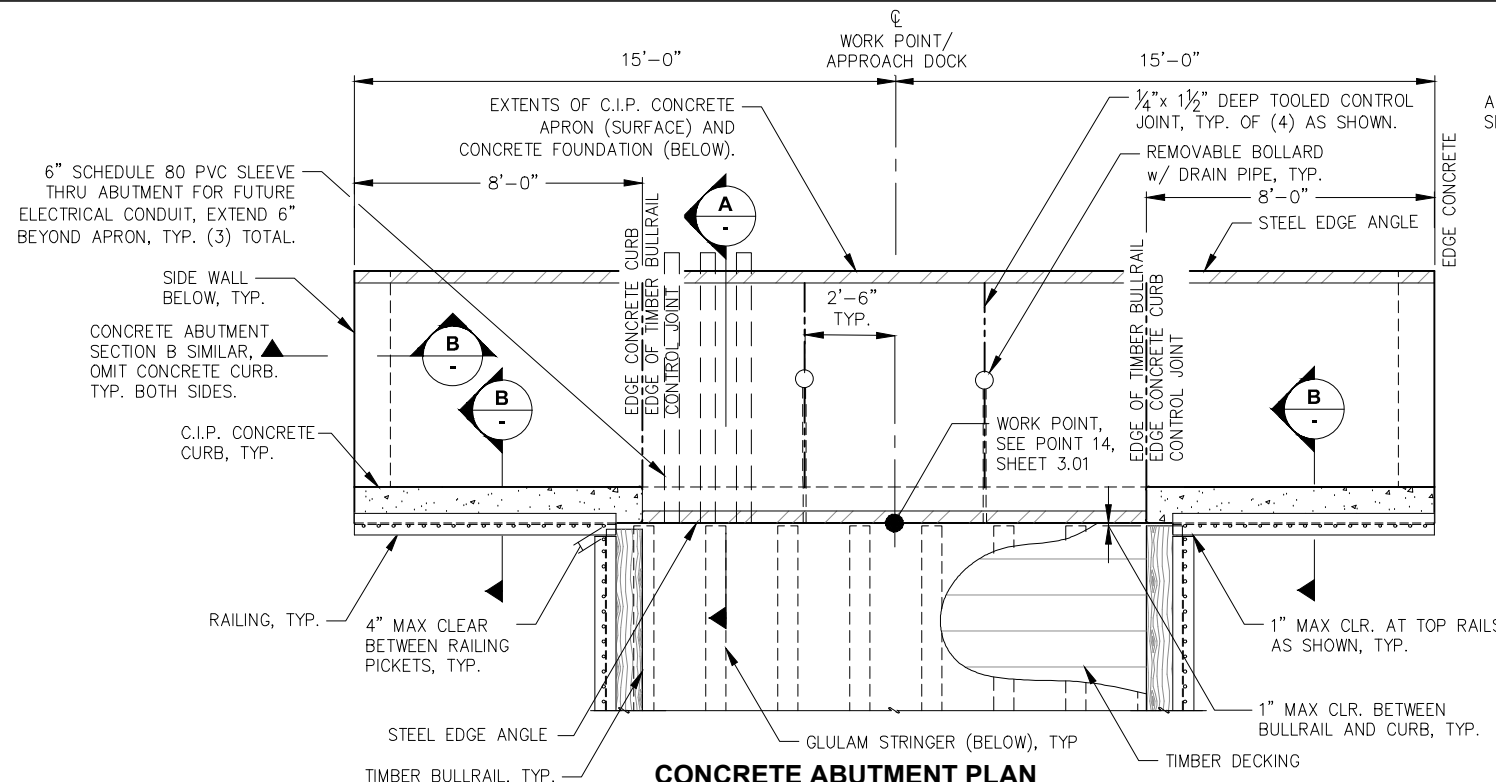
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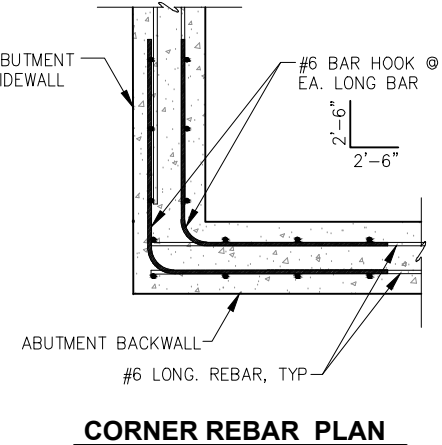
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22 OF 77

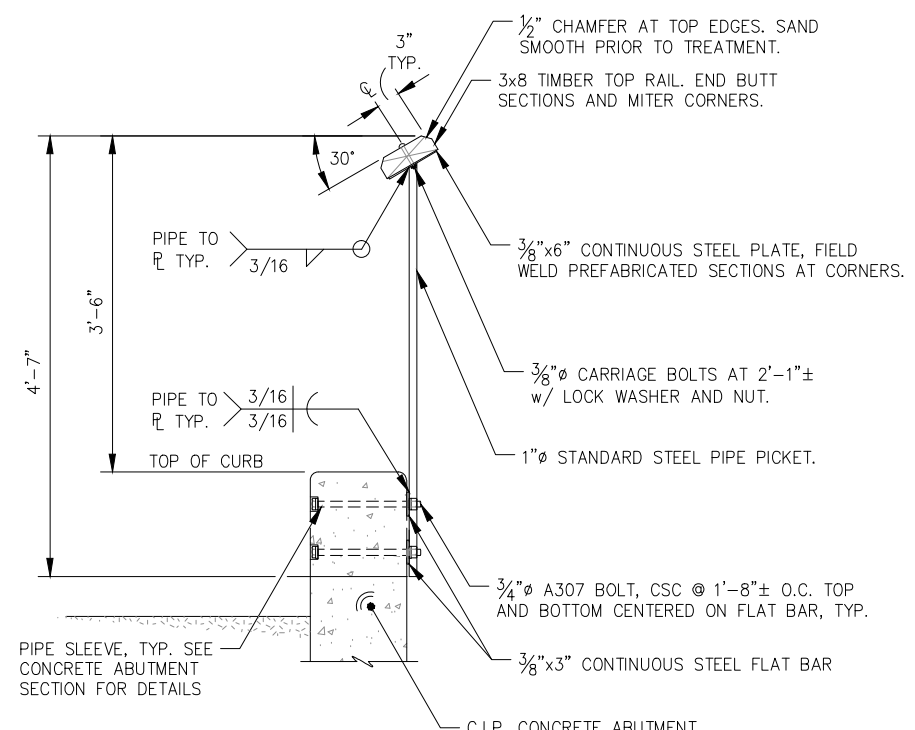




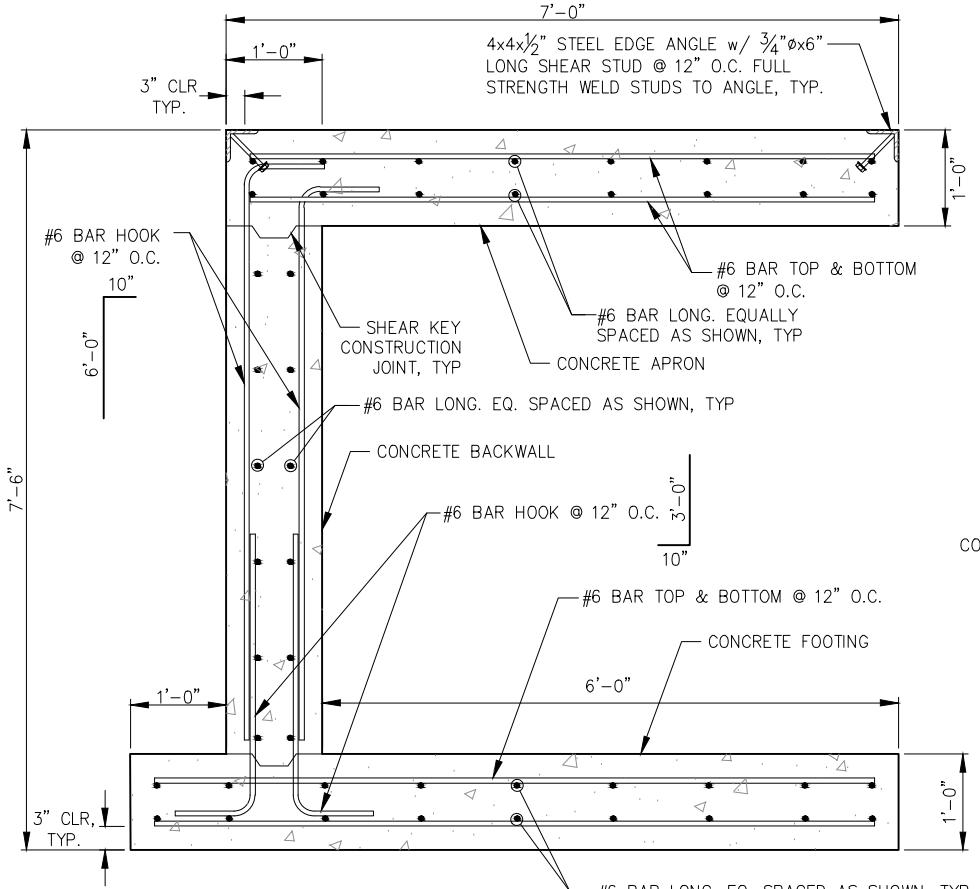
CONCRETE ABUTMENT PLAN



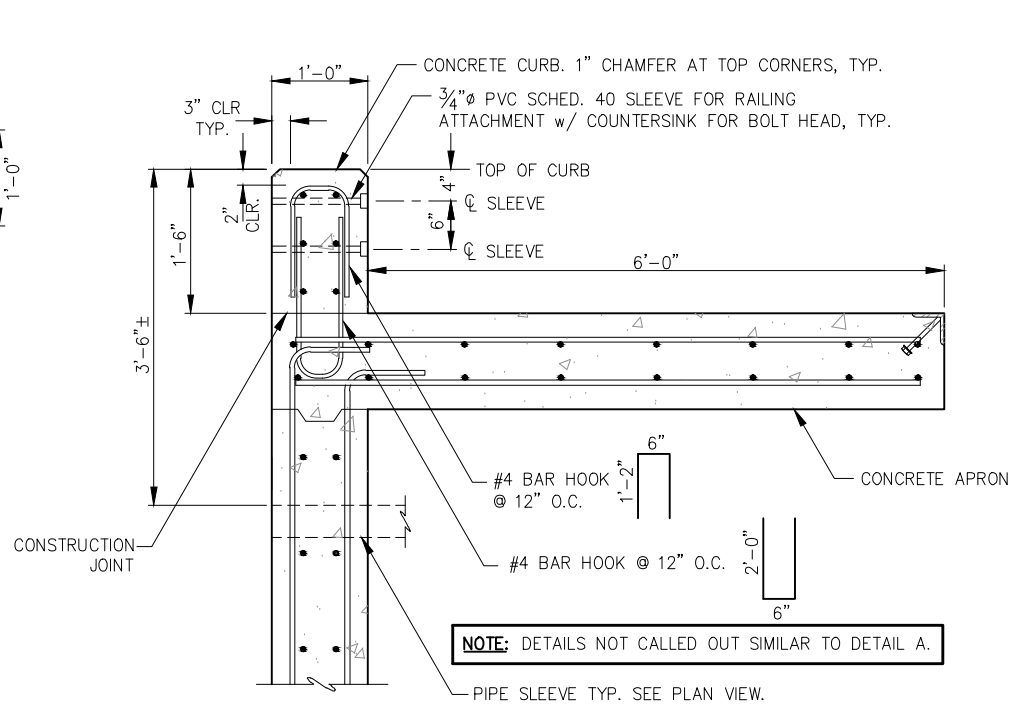
CORNER REBAR PLAN



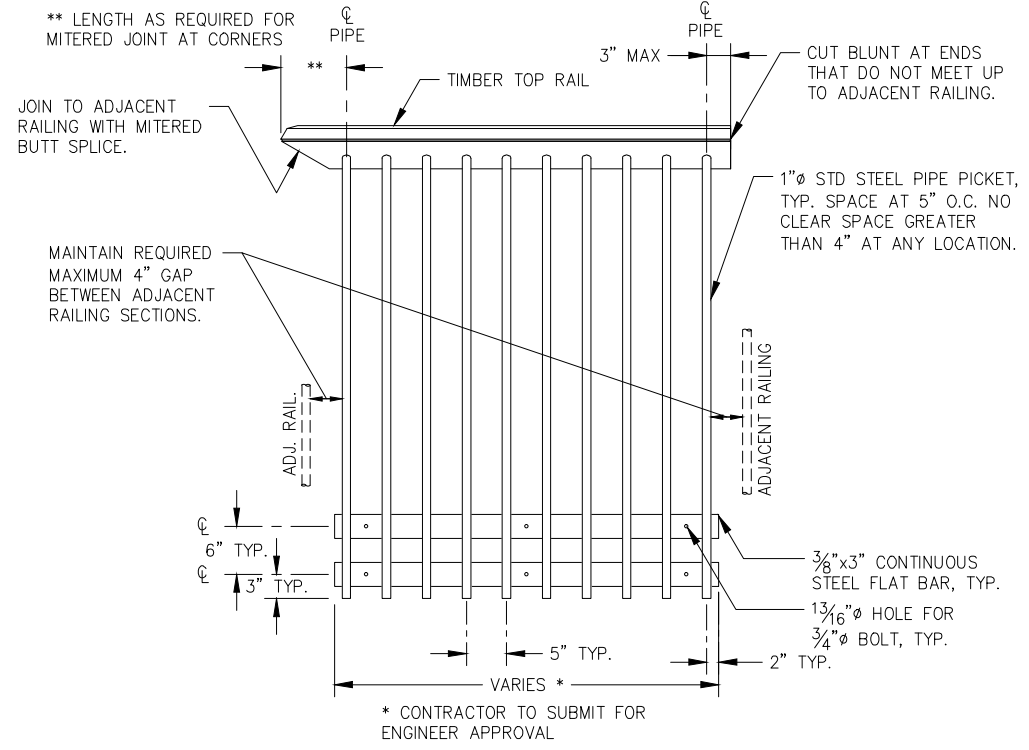
TYPICAL ABUTMENT RAILING SECTION



CONCRETE ABUTMENT SECTION A



CONCRETE ABUTMENT SECTION B



TYPICAL ABUTMENT RAILING

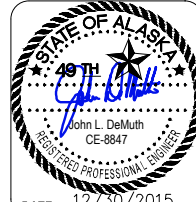


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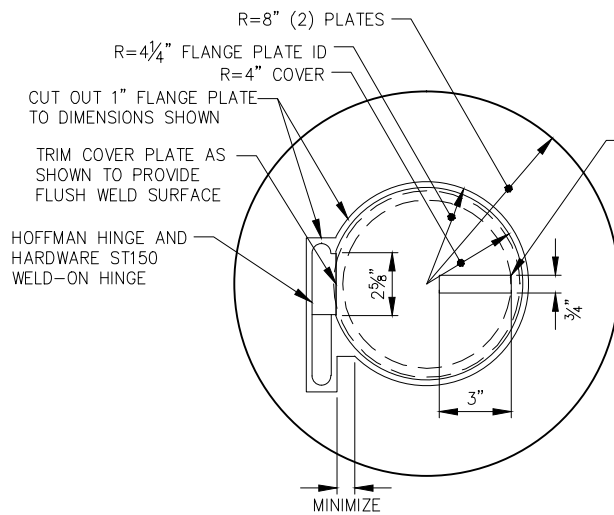
**CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001**

SHEET TITLE: **ADD. ALT. B
CONCRETE ABUTMENT DETAILS**

PND PROJECT NO.: 152037

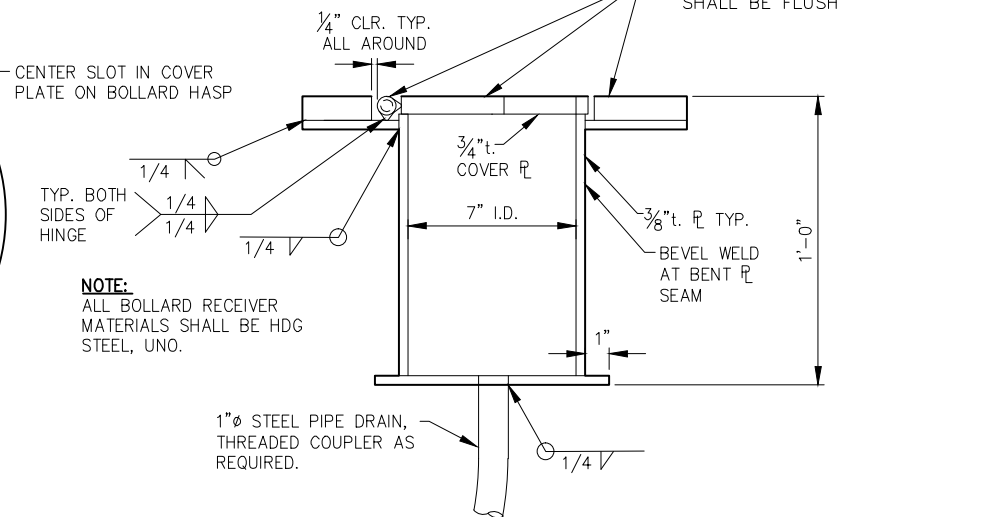
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SHEET
23 OF 77

\\Pnjd\ata\d\15XXX\152037 Douglas Harbor Renovation\G. Drawings\Design\3.10_3.11 Abutment Details.dwg, 12/30/2015 2:04:02 PM



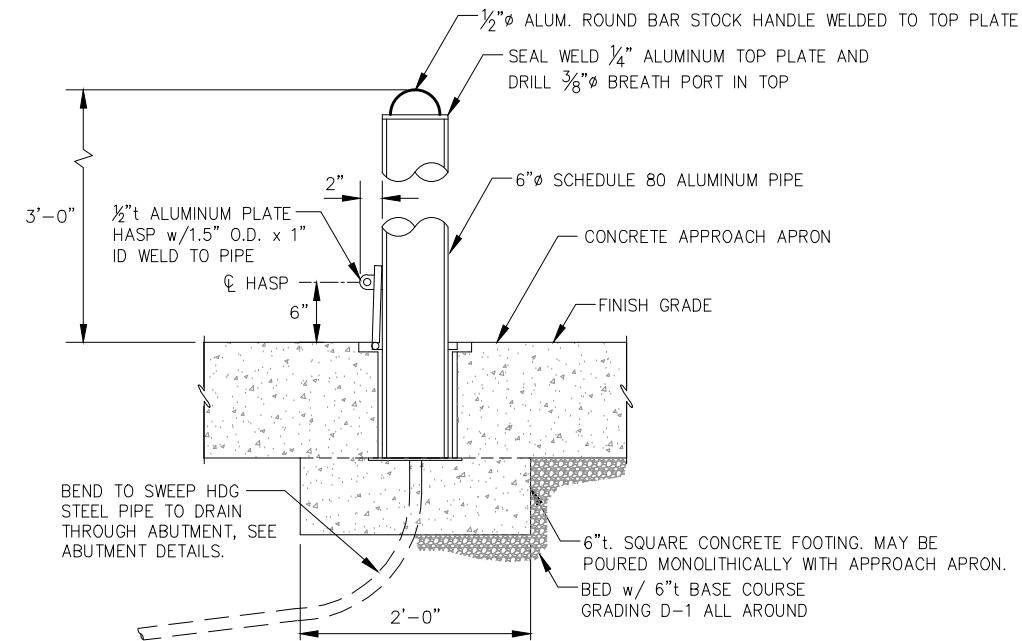
PLAN

REMOVABLE BOLLARD RECEIVER

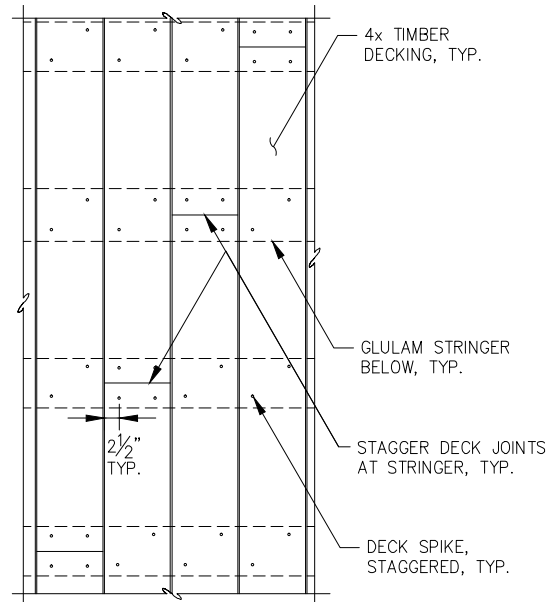


SECTION

NOTE:
ALL BOLLARD RECEIVER MATERIALS SHALL BE HDG STEEL, UNO.

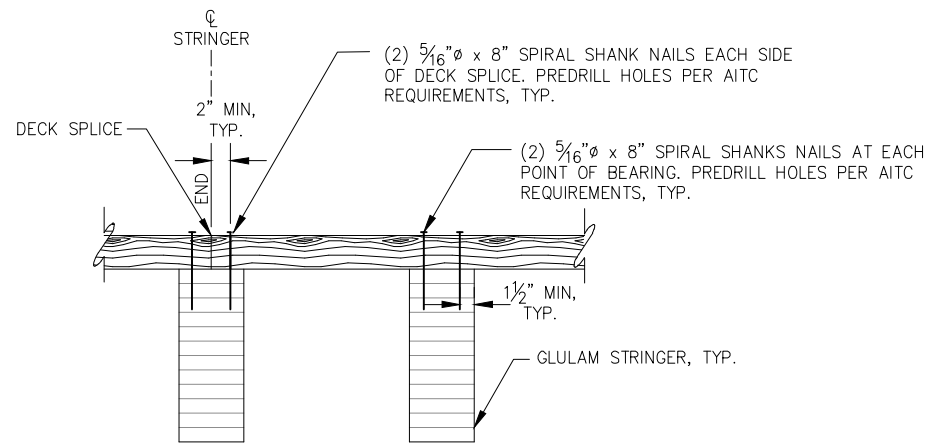


REMOVABLE BOLLARD

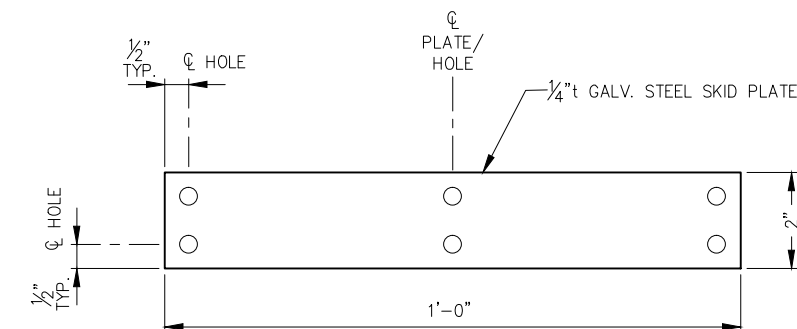


TYPICAL DECK STAGGER

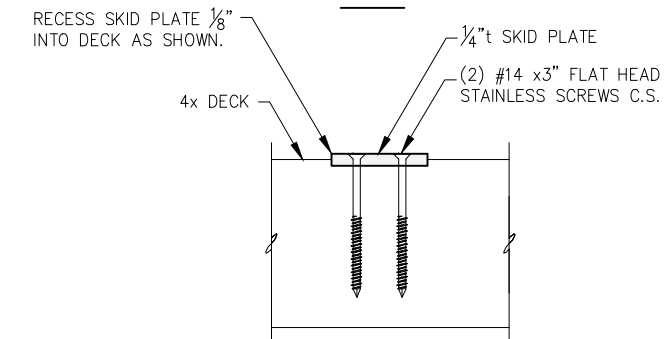
- NOTES:**
1. ALL DECK TIMBER SHALL BE SUPPORTED BY A MINIMUM OF TWO STRINGERS.
 2. DECK BOARDS SHALL BE SPLICED WITH A RANDOM LAYOUT WITH NO TWO ADJACENT BOARDS SPLICED AT SAME JOIST.
 3. DECK TIMBER BOARDS SHALL HAVE A MINIMUM LENGTH OF 12'-0", AT BULLRAIL POST LOCATIONS.



TYPICAL DECK TO STRINGER CONNECTION



PLAN



SECTION

SKID PLATE
(12 TOTAL)

REVISIONS

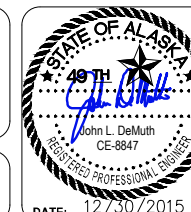
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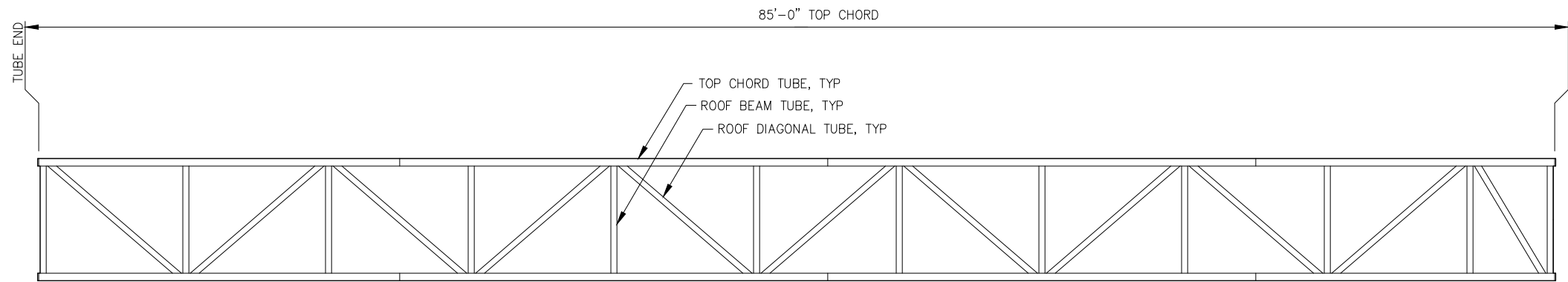
CITY & BOROUGH OF JUNEAU, ALASKA
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SHEET TITLE: **ADD. ALT. B**
MISCELLANEOUS DETAILS
PND PROJECT NO.: 152037

3.11
SHEET
24 OF 77



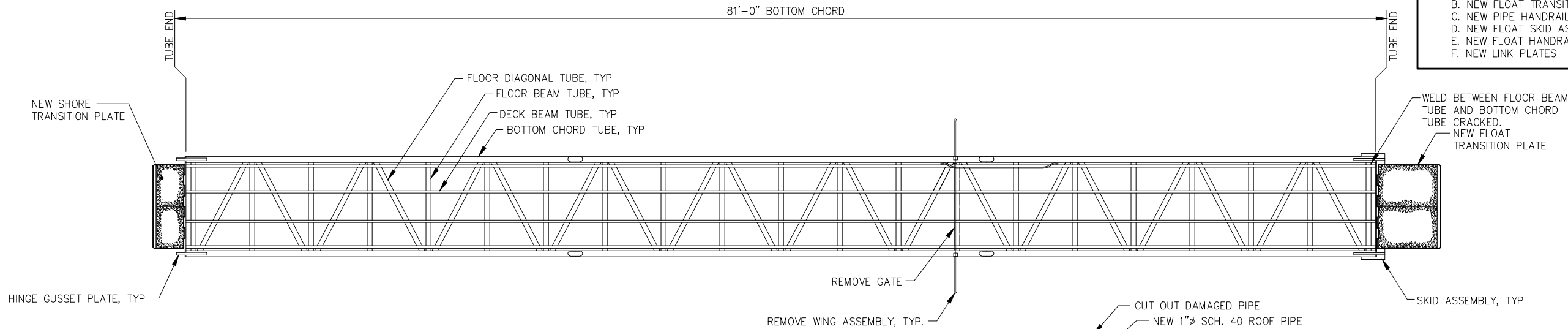
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GANGWAY ROOF PLAN

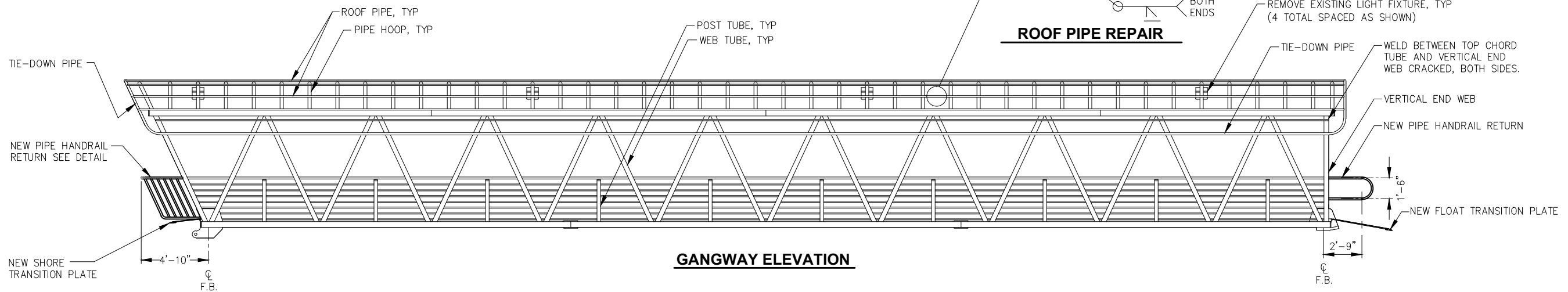
NOTE: 1"Ø ROOF PIPES AND 2½"Ø PIPE HOOPS NOT SHOWN THIS VIEW FOR CLARITY.

- REFURBISHMENT NOTES:**
THE OWNER FURNISHED GANGWAY SHALL BE REFURBISHED AS FOLLOWS:
1. WELDS IDENTIFIED AS CRACKED SHALL BE FULLY GROUND OUT TO BASE METAL AND WELDED AS INDICATED.
 2. BROKEN/BENT ROOF PIPE SECTIONS SHALL BE CUT OUT AND REPAIRED AS SHOWN IN DETAILS.
 3. EXISTING TRANSITION PLATES SHALL BE REMOVED FROM GANGWAY.
 4. EXISTING WING ASSEMBLIES AND GATE SHALL BE REMOVED AND WELD AREAS SHALL BE GROUND SMOOTH.
 5. CONTRACTOR SHALL REPLACE IN-KIND (6) EACH GRATING PANELS, INCLUDING HARDWARE, THAT HAVE BEEN DAMAGED.
 6. EXISTING LIGHT FIXTURES AND ALL ASSOCIATED CONDUIT AND FASTENERS SHALL BE REMOVED FROM GANGWAY. SEE ELECTRICAL FOR REPLACEMENT COMPONENTS.
 7. EXISTING GANGWAY SHALL BE PRESSURE WASHED TO REMOVE DIRT, ALGAE, ETC. PRIOR TO INSTALLATION.
 8. ONLY THE GANGWAY STRUCTURE IS SUPPLIED FOR THIS PROJECT. TRANSITION PLATES, SKID ASSEMBLY, KEEPER ANGLES w/ HANDRAIL, LINK PLATES AND ALL NECESSARY MISCELLANEOUS CONNECTION HARDWARE SHALL BE SUPPLIED BY CONTRACTOR.
 9. CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING ITEMS AND ALL ASSOCIATED HARDWARE
 - A. NEW SHORE TRANSITION PLATE
 - B. NEW FLOAT TRANSITION PLATE
 - C. NEW PIPE HANDRAIL RETURNS
 - D. NEW FLOAT SKID ASSEMBLIES
 - E. NEW FLOAT HANDRAILS
 - F. NEW LINK PLATES



GANGWAY FLOOR PLAN

ROOF PIPE REPAIR



GANGWAY ELEVATION

REVISIONS

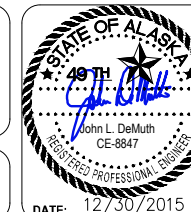
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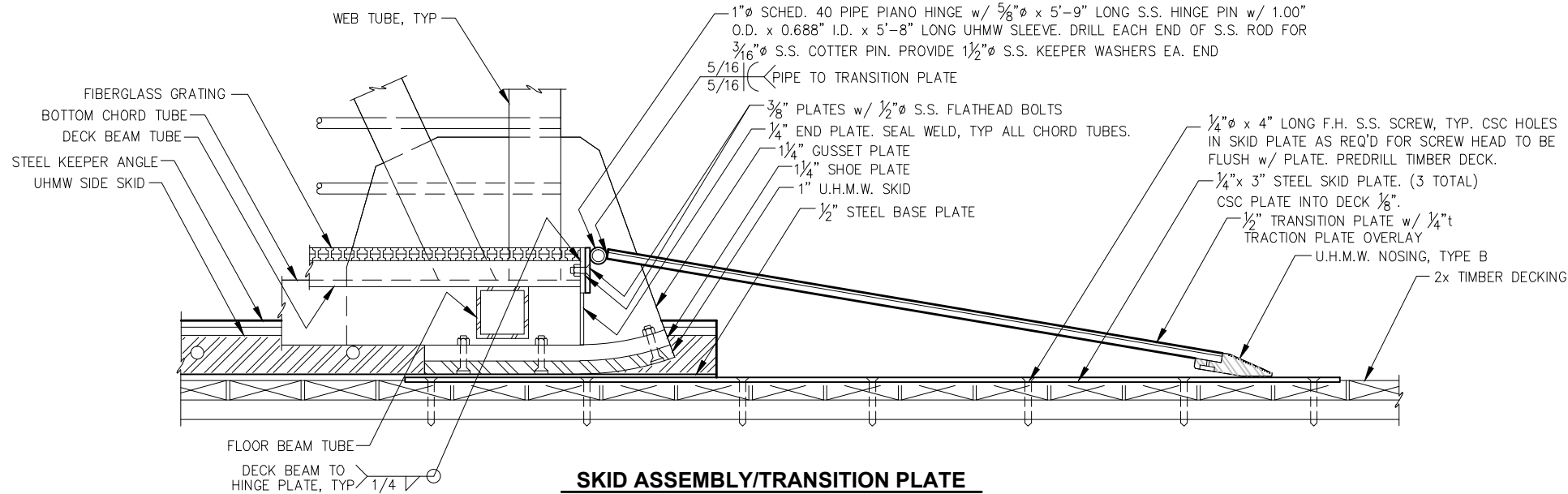
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SHEET TITLE: **ADD. ALT. A & B**
EXISTING GANGWAY MODIFICATION
PND PROJECT NO.: 152037

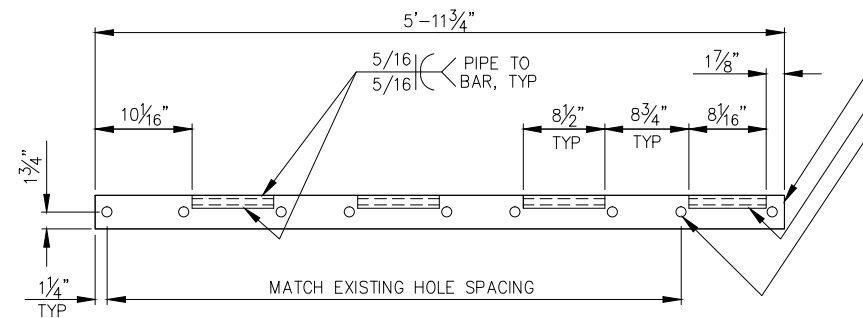
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SHEET
25 OF 77



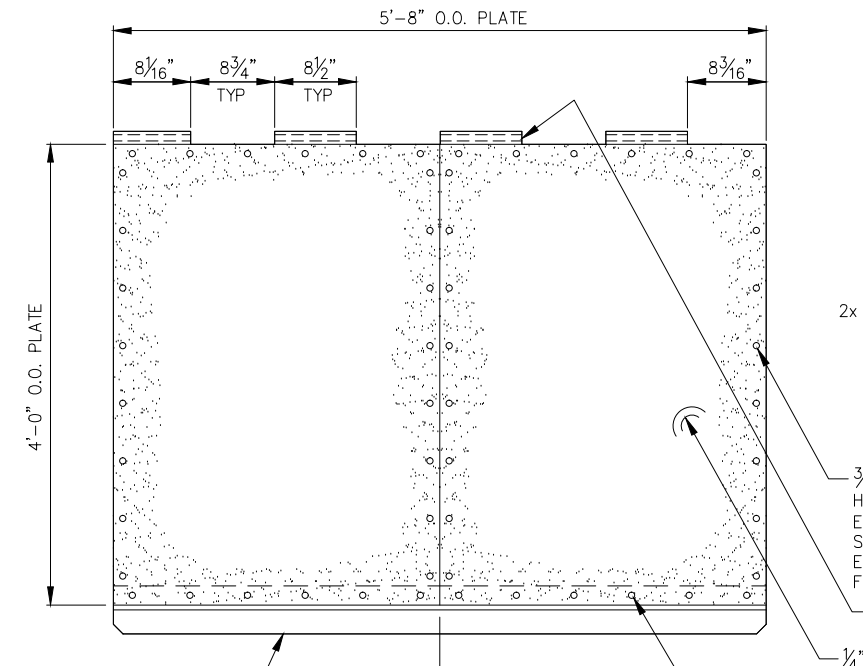
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SKID ASSEMBLY/TRANSITION PLATE



NEW FLOAT TRANSITION PLATE

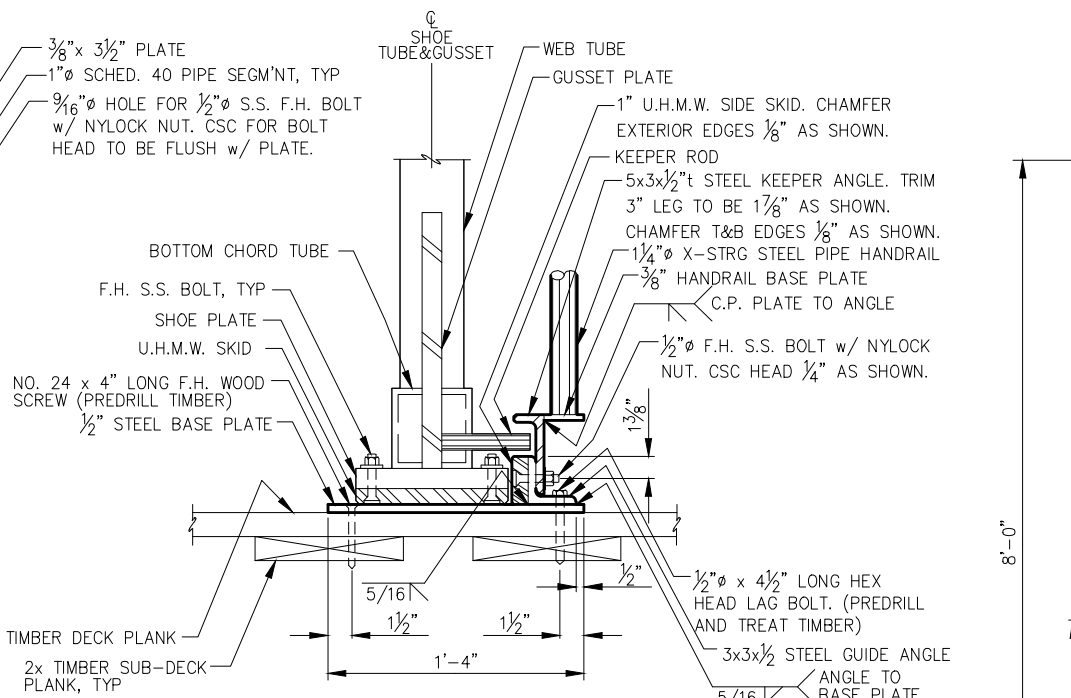


UHMW NOSING - TYPE B

U.H.M.W. NOSING (TYPE B) CHAMFER CRNRS. 1" AS SHOWN. ATTACH PER NOSING DETAIL.

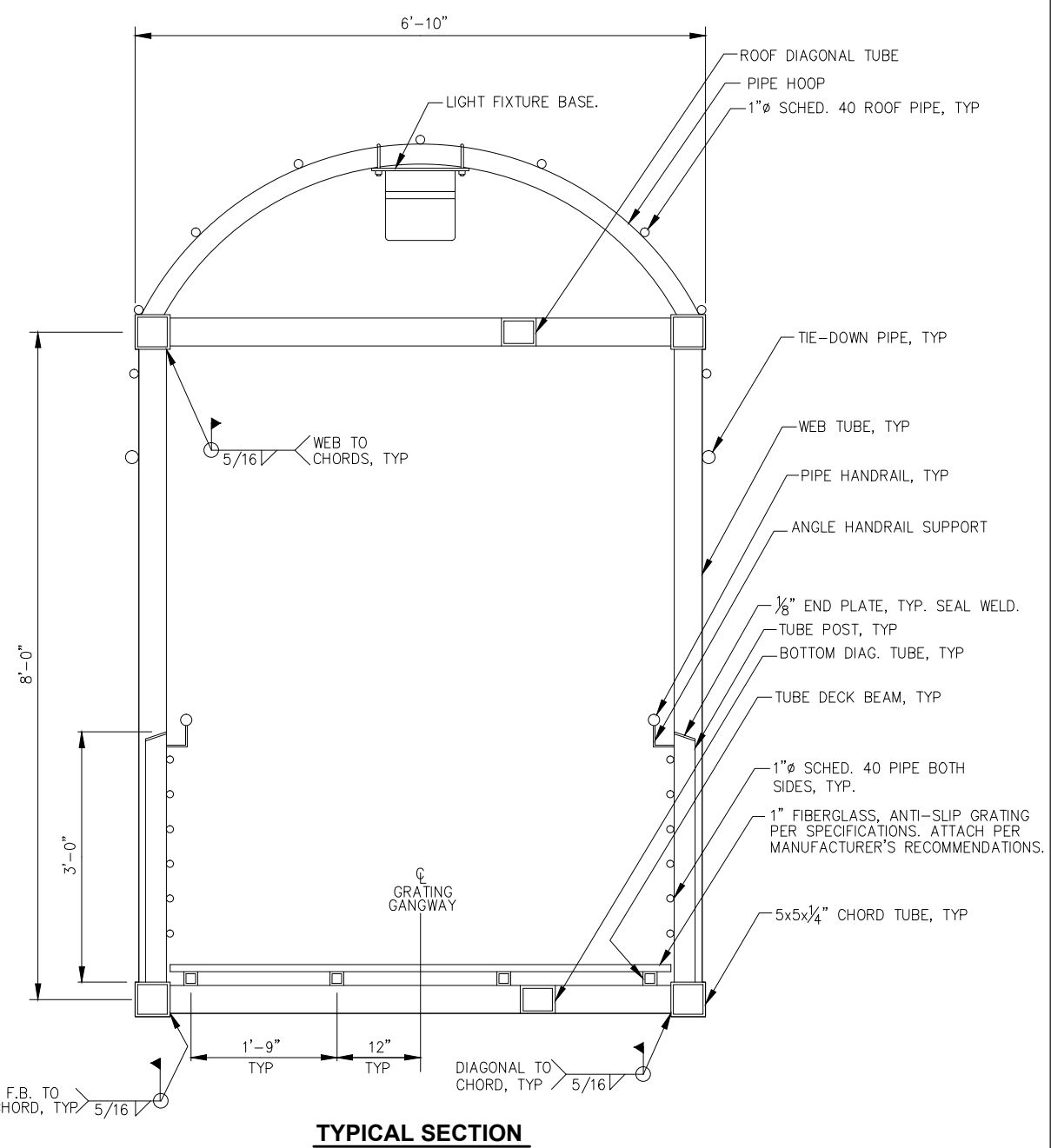
PLATE GANGWAY

NOSING ATTACHMENT BOLT EQUALLY SPACED AS SHOWN, 2" MIN. FROM EDGE, TYP. (12 TOTAL)

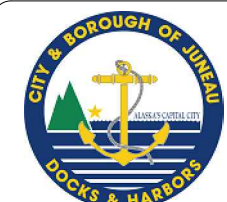


SKID ASSEMBLY SECTION

SOLID U.H.M.W. POLYETHYLENE PER SPECIFICATIONS. PROVIDE 3/16" HOLE W/ 1 1/16" x 5/16" DEEP CSC AS SHOWN. ATTACH NOSING W/ #10 S.S. FLATHEAD PHILLIPS BOLT W/ "NYLOCK" NUT AND 1" S.S. FENDER WASHER. TRIM BOLT AS REQ'D TO BE FLUSH W/ NUT. LOCATE BOLTS PER TRANSITION PLATE PLAN. CHAMFER BACK EDGE 1/8" AS SHOWN. FABRICATOR TO PROVIDE NON-SKID SURFACE ON TOP OF NOSING. SUBMIT FOR APPROVAL.



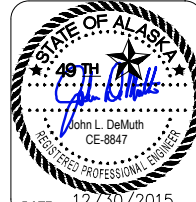
TYPICAL SECTION



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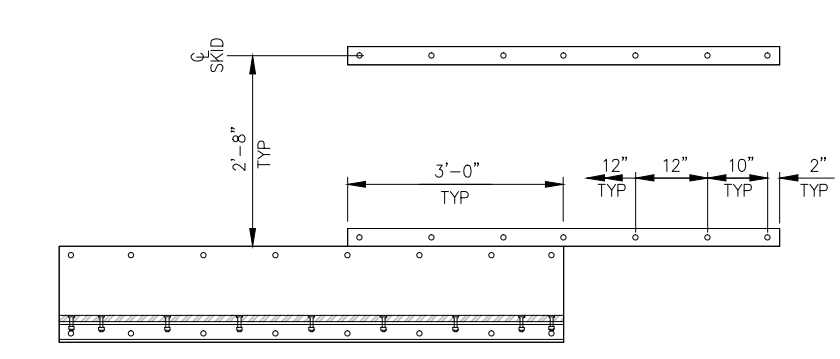
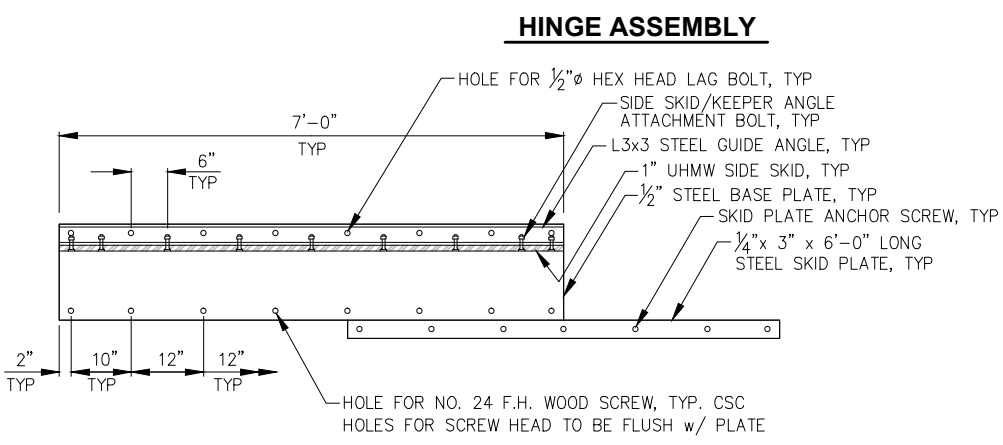
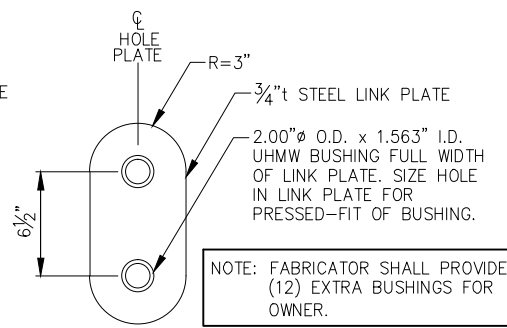
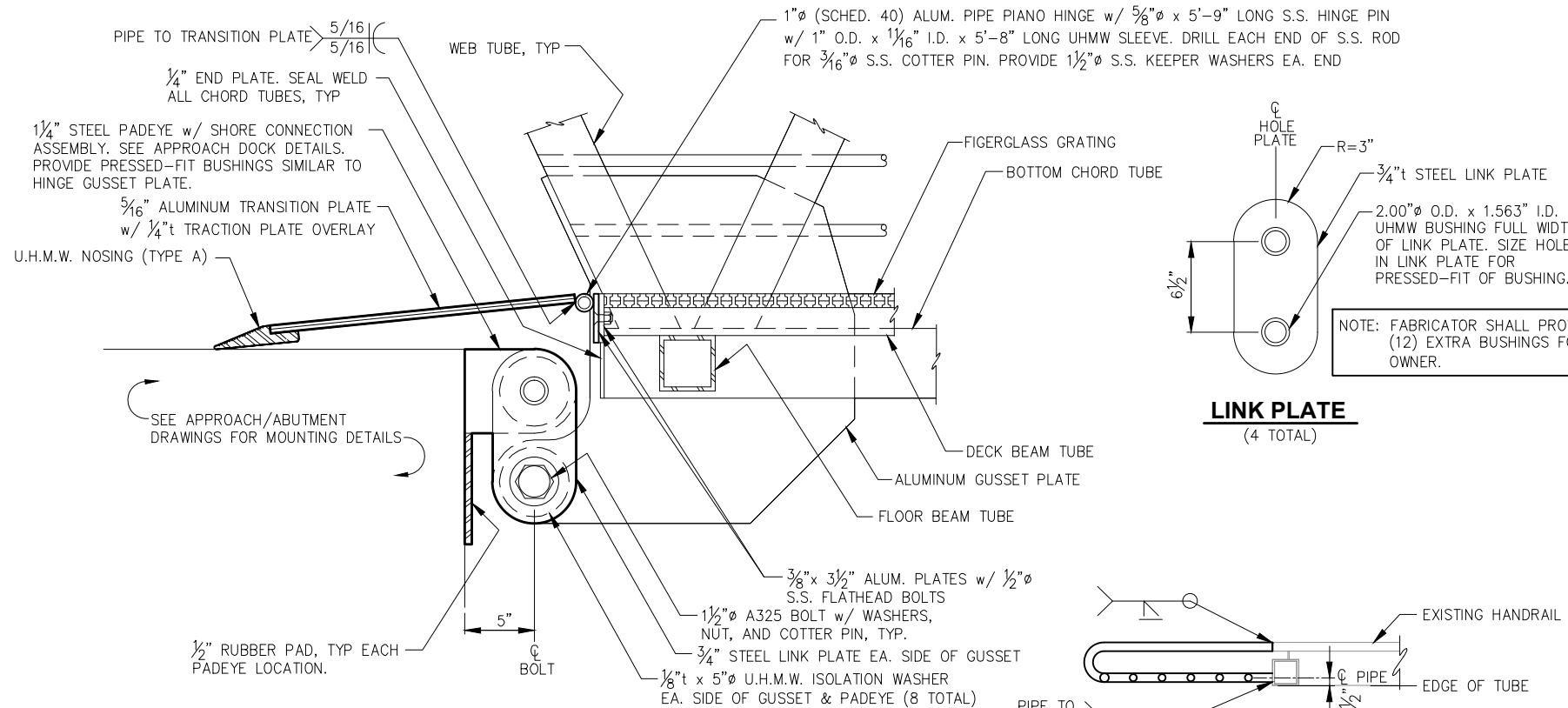
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 DOUGLAS HARBOR RENOVATION
 CBJ PROJECT - DH16-001**

SHEET TITLE: **ADD. ALT. A & B
 EXISTING GANGWAY DETAILS**

PND PROJECT NO.: 152037

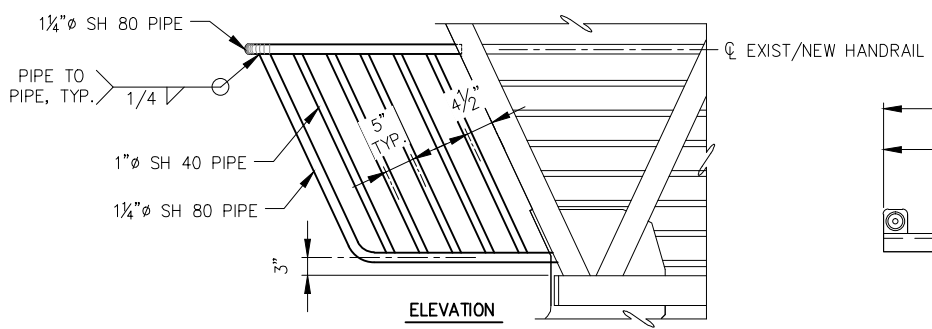
4.02
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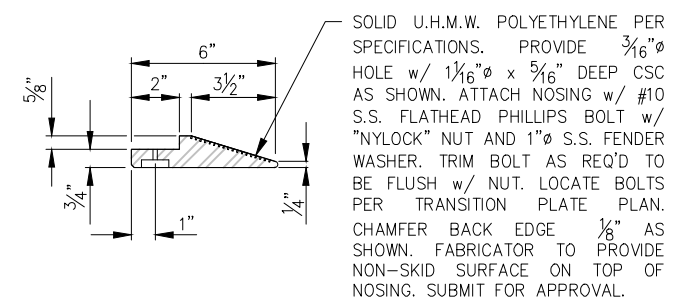


SKID BASE PLATE/GUIDE ANGLE ASSEMBLY - PLAN

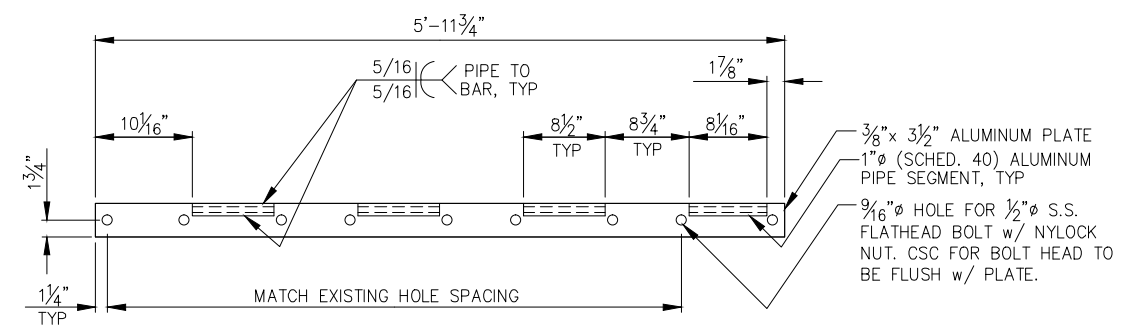
NOTE: STEEL KEEPER ANGLES NOT SHOWN FOR CLARITY. PERMANENTLY ATTACH SKID BASE PLATE TO FLOAT AT ENGINEER DIRECTED LOCATION ONLY AFTER SEVERAL TIDE CYCLES TO ASSURE PROPER POSITION.



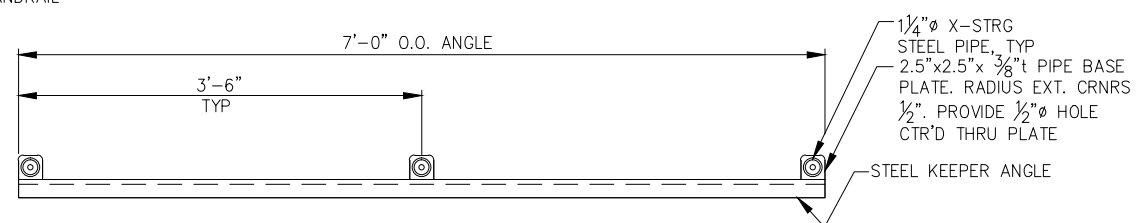
NEW SHORE END HANDRAIL



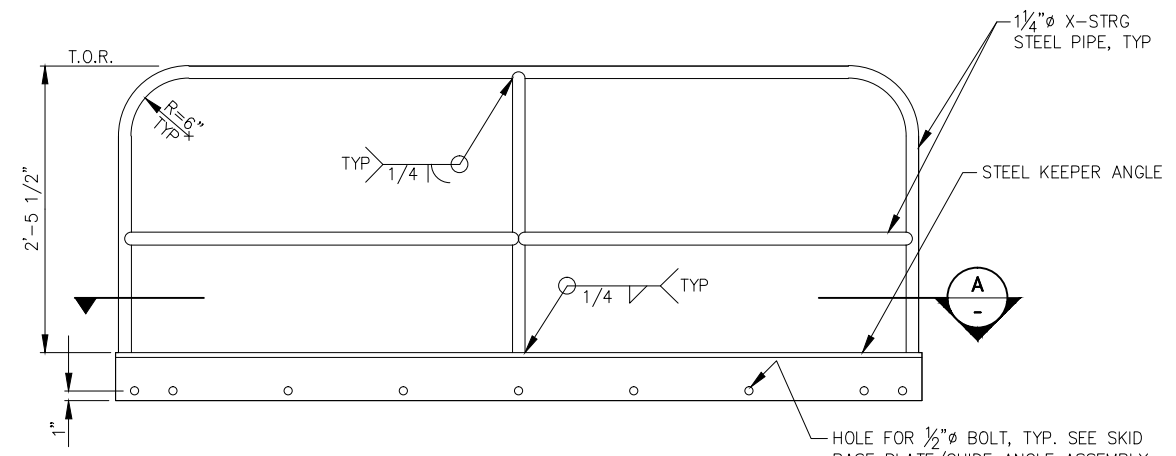
UHMW NOSING - TYPE A



SHORE TRANSITION PLATE

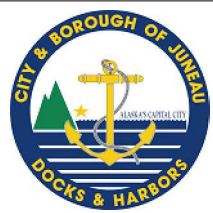


KEEPER ANGLE/HANDRAIL - PLAN



KEEPER ANGLE/HANDRAIL - ELEVATION

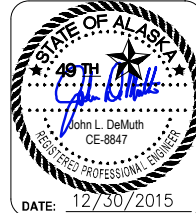
(2 TOTAL - PROVIDE EACH SIDE OF GANGWAY)



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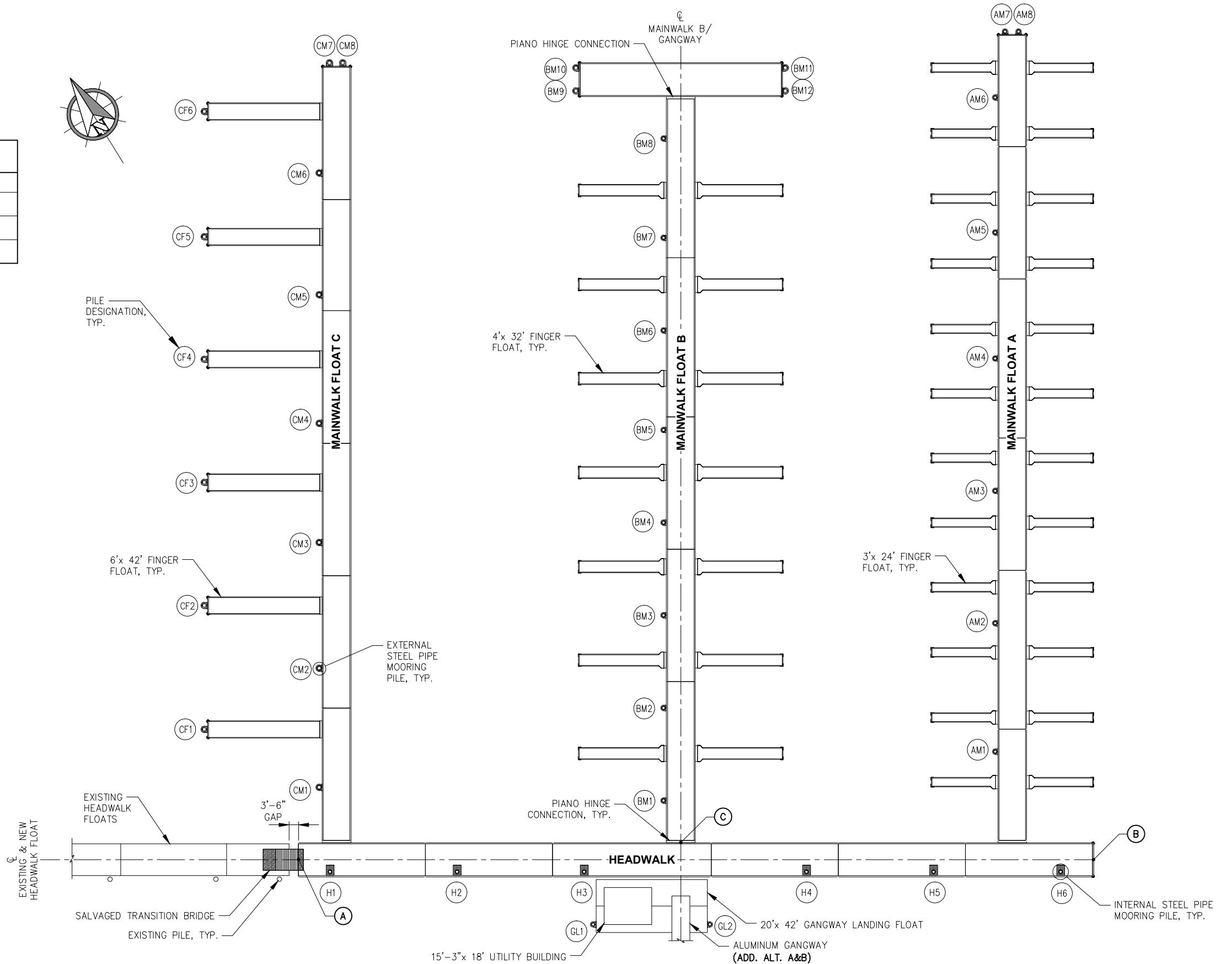
SHEET TITLE: **ADD. ALT. A & B**
EXISTING GANGWAY DETAILS

PND PROJECT NO.: 152037

4.03
 SHEET
 27 OF 77

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FLOAT LAYOUT TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
A	3893.762	7159.710	CL HEADWALK AT NW END OF MODULE H-1
B	3731.151	7412.325	CL HEADWALK AT SE END OF MODULE H-6
C	3820.998	7284.622	CL MAINWALK B AT EDGE OF MODULE H-3

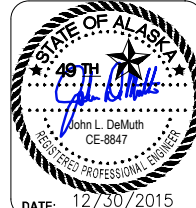


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DESIGN: MS CHECKED: JLD SCALE: SCALE IN FEET
DRAWN: WRB APPROVED: JLD 0 20 40 FT.



CITY & BOROUGH OF JUNEAU, ALASKA
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CBJ PROJECT - DH16-001

SHEET TITLE: **OVERALL FLOAT PLAN AND PILE LAYOUT**

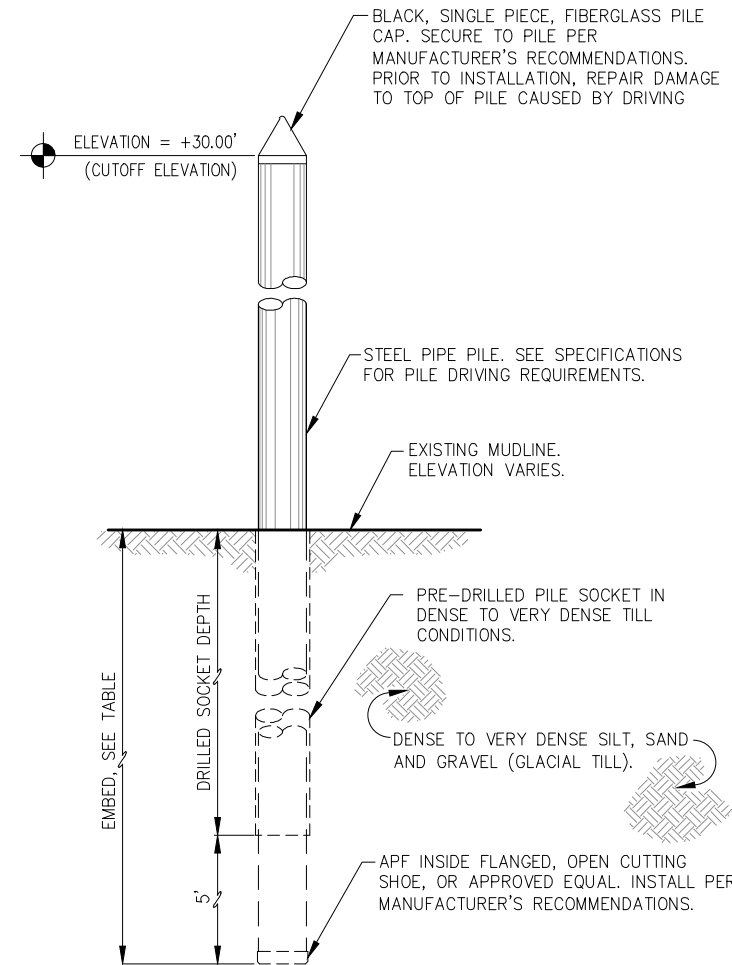
PND PROJECT NO.: 152037

5.01
SHEET 28 OF 77

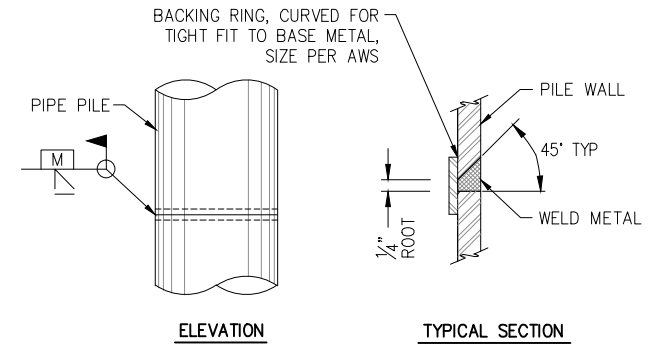
I:\Proj\jdata\15XXX\152037 Douglas Harbor Renovation\G. Drawings\Design\5.01 OVERALL FLOAT PLAN AND PILE LAYOUT.dwg, 12/30/2015 2:04:35 PM

FLOAT PILE SCHEDULE			
PILE #	LOCATION	MIN. PILE LENGTH (FT)	PILE SIZE
1	GL1	70'	12.75"Ø x 0.500"t.
2	GL2	70'	12.75"Ø x 0.500"t.
3	H1	70'	12.75"Ø x 0.500"t.
4	H2	70'	12.75"Ø x 0.500"t.
5	H3	70'	12.75"Ø x 0.500"t.
6	H4	70'	12.75"Ø x 0.500"t.
7	H5	70'	12.75"Ø x 0.500"t.
8	H6	70'	12.75"Ø x 0.500"t.
9	AM1	70'	12.75"Ø x 0.500"t.
10	AM2	70'	12.75"Ø x 0.500"t.
11	AM3	70'	12.75"Ø x 0.500"t.
12	AM4	70'	12.75"Ø x 0.500"t.
13	AM5	70'	12.75"Ø x 0.500"t.
14	AM6	70'	12.75"Ø x 0.500"t.
15	AM7	70'	12.75"Ø x 0.500"t.
16	AM8	70'	12.75"Ø x 0.500"t.
17	BM1	70'	12.75"Ø x 0.500"t.
18	BM2	70'	12.75"Ø x 0.500"t.
19	BM3	70'	12.75"Ø x 0.500"t.
20	BM4	70'	12.75"Ø x 0.500"t.
21	BM5	70'	12.75"Ø x 0.500"t.
22	BM6	70'	12.75"Ø x 0.500"t.
23	BM7	70'	12.75"Ø x 0.500"t.
24	BM8	70'	12.75"Ø x 0.500"t.
25	BM9	70'	16"Ø x 0.500"t.
26	BM10	70'	16"Ø x 0.500"t.
27	BM11	70'	16"Ø x 0.500"t.
28	BM12	70'	16"Ø x 0.500"t.
29	CM1	70'	16"Ø x 0.500"t.
30	CM2	70'	16"Ø x 0.500"t.
31	CM3	70'	16"Ø x 0.500"t.
32	CM4	70'	16"Ø x 0.500"t.
33	CM5	70'	16"Ø x 0.500"t.
34	CM6	70'	16"Ø x 0.500"t.
35	CM7	70'	16"Ø x 0.500"t.
36	CM8	70'	16"Ø x 0.500"t.
37	CF1	70'	16"Ø x 0.500"t.
38	CF2	70'	16"Ø x 0.500"t.
39	CF3	70'	16"Ø x 0.500"t.
40	CF4	70'	16"Ø x 0.500"t.
41	CF5	70'	16"Ø x 0.500"t.
42	CF6	70'	16"Ø x 0.500"t.

NOTE:
SEE "OVERALL FLOAT PLAN AND PILE LAYOUT" FOR LOCATION OF PILES WITHIN FLOAT SYSTEM.

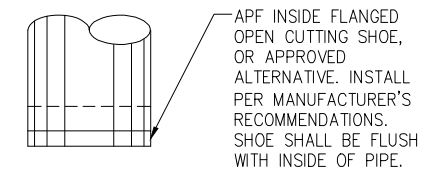


TYPICAL PILE DETAIL - STANDARD INSTALLATION



TYPICAL PILE SPLICE WELD

TYPICAL FOR ALL SHOP & FIELD PIPE PILE SPLICES. CONTRACTOR MAY SUBMIT ALTERNATIVE PILE SPLICE DETAIL FOR ENGINEER APPROVAL.



OPEN SHOE DETAIL

REQUIRED EMBEDMENT		
PILE SIZE	SOFTER SOIL	DENSE TIL
12 3/4"Ø	20'	15'
16"Ø	25'	20'

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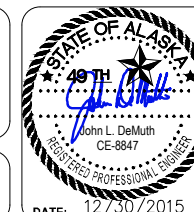
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CBJ PROJECT - DH16-001

SHEET TITLE:
FLOAT PILE SCHEDULE AND DETAILS

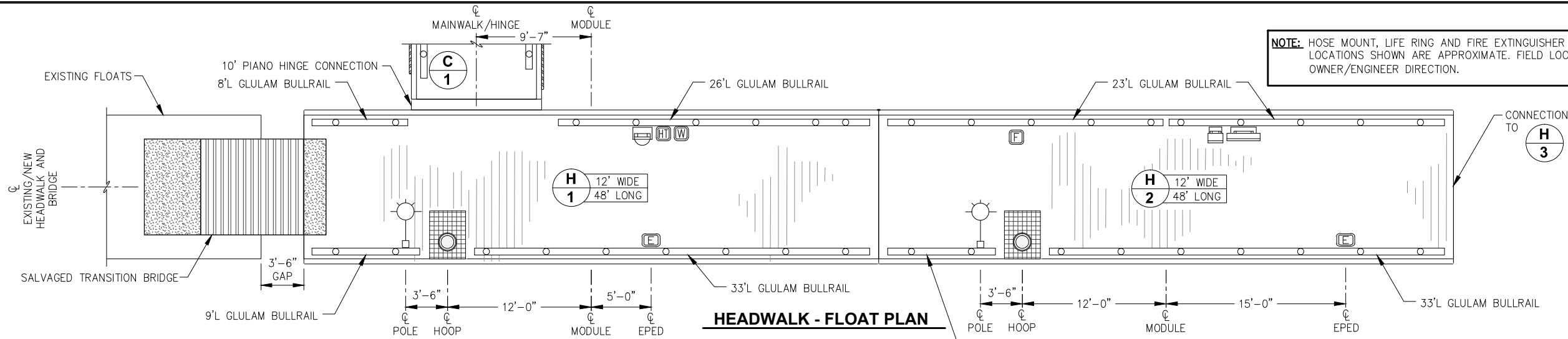
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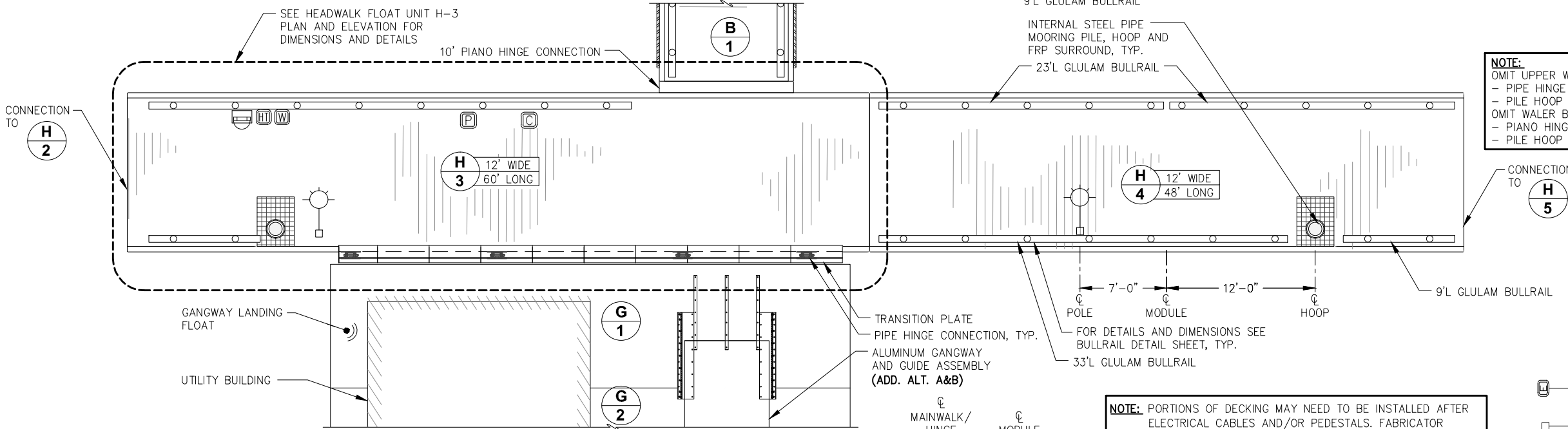
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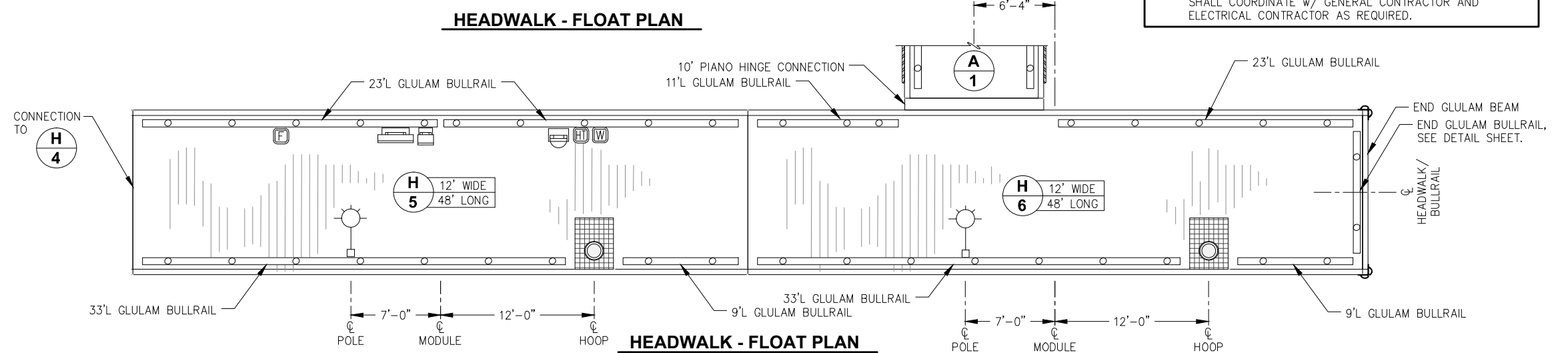
I:\Prof\juneau\152037 Douglas Harbor Renovation\G Drawings\Design\5.03_5.06 Detailed Float Plans.dwg 12/30/2015 2:04:54 PM



NOTE: HOSE MOUNT, LIFE RING AND FIRE EXTINGUISHER CABINET LOCATIONS SHOWN ARE APPROXIMATE. FIELD LOCATE PER OWNER/ENGINEER DIRECTION.



NOTE:
 OMIT UPPER WALER BOLTS WITHIN LIMITS OF:
 - PIPE HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 1, TYP.
 OMIT WALER BOLTS WITHIN LIMITS OF:
 - PIANO HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 2, TYP.



NOTE: PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE W/ GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

LEGEND:

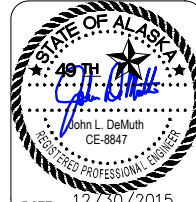
- = LIGHT POLE w/ ELECTRICAL PEDESTAL
- = LIGHT POLE ONLY
- = FIRE EXTINGUISHER AND LIFE RING
- = ELECTRICAL PEDESTAL ONLY
- = FIRE HOSE CONNECTION
- = FIRE PUMPOUT
- = FIRE DEPARTMENT CONNECTION
- = WATER PEDESTAL
- = HOSE MOUNT
- = HEAT TRACE
- = UHMW RUBSTRIP



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DESIGN: MS CHECKED: JLD SCALE:
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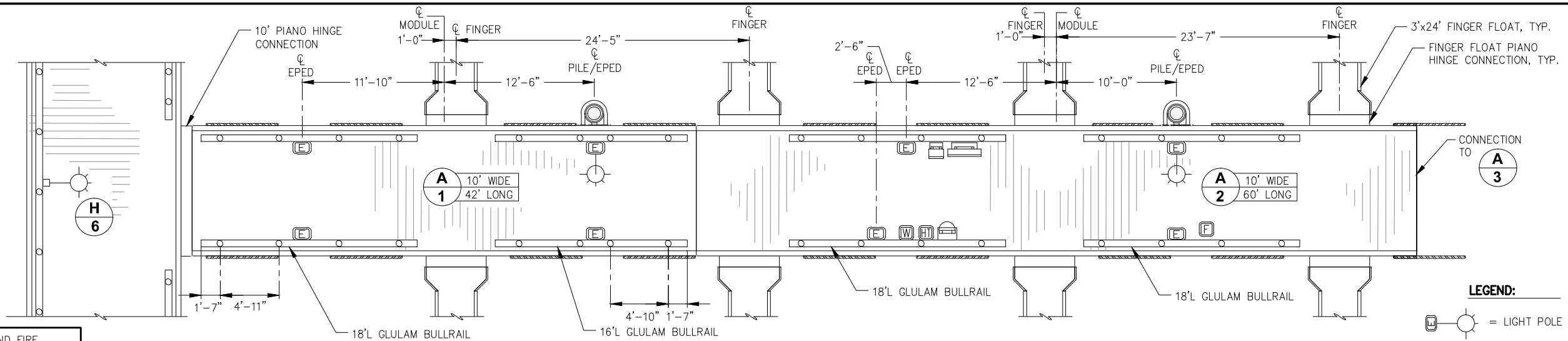


**CITY & BOROUGH OF JUNEAU, ALASKA
 DOUGLAS HARBOR RENOVATION
 CBJ PROJECT - DH16-001**

SHEET TITLE: **HEADWALK
 DETAILED FLOAT PLAN**

PND PROJECT NO.: 152037

5.03
 SHEET
 30 OF 77



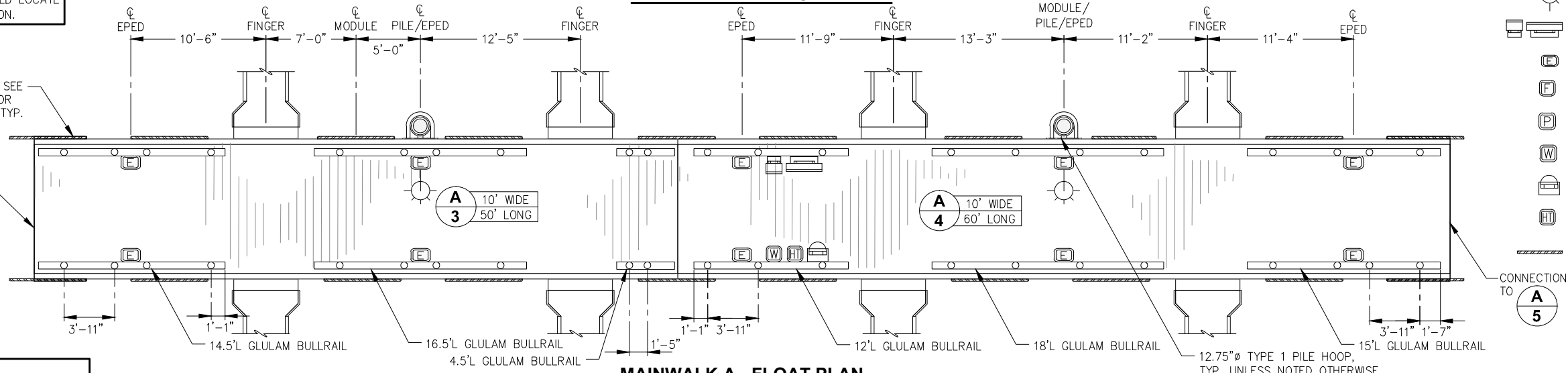
NOTE: HOSE MOUNT, LIFE RING AND FIRE EXTINGUISHER CABINET LOCATIONS SHOWN ARE APPROXIMATE. FIELD LOCATE PER OWNER/ENGINEER DIRECTION.

MAINWALK A - FLOAT PLAN

- LEGEND:**
- = LIGHT POLE w/ ELECTRICAL PEDESTAL
 - = LIGHT POLE ONLY
 - = FIRE EXTINGUISHER AND LIFE RING
 - = ELECTRICAL PEDESTAL ONLY
 - = FIRE HOSE CONNECTION
 - = FIRE PUMPOUT
 - = WATER PEDESTAL
 - = HOSE MOUNT
 - = HEAT TRACE
 - = UHMW RUBSTRIP

UHMW RUBSTRIP, TYP. SEE TABLE AND DETAILS FOR SIZE AND LOCATIONS, TYP.

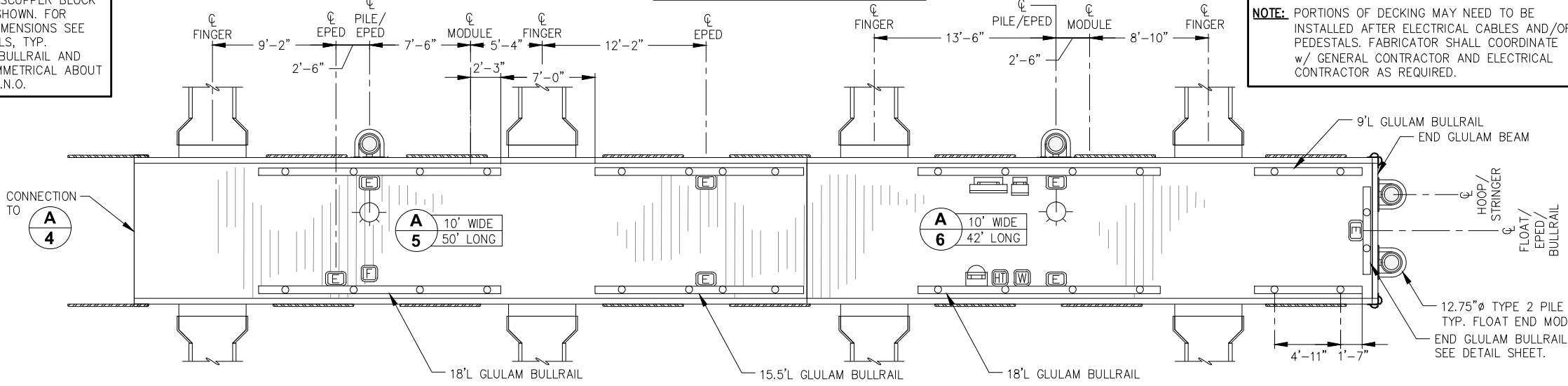
CONNECTION TO A 2



MAINWALK A - FLOAT PLAN

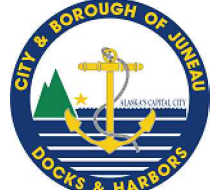
NOTE: PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE w/ GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

- BULLRAIL NOTES:**
- NON-STANDARD BULLRAIL SCUPPER BLOCK LAYOUT DIMENSIONS ARE SHOWN. FOR STANDARD DETAILS AND DIMENSIONS SEE BULLRAIL STANDARD DETAILS, TYP.
 - MAINWALK FLOAT GLULAM BULLRAIL AND SCUPPER BLOCKS ARE SYMMETRICAL ABOUT FLOAT CENTERLINE, TYP. U.N.O.



MAINWALK A - FLOAT PLAN

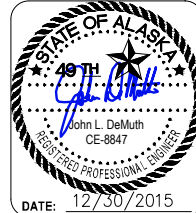
NOTE:
 OMIT UPPER WALER BOLTS WITHIN LIMITS OF:
 - PIPE HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 1, TYP.
 OMIT WALER BOLTS WITHIN LIMITS OF:
 - PIANO HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 2, TYP.



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 Juneau, Alaska 99801
 Phone: 907-586-2093
 Fax: 907-586-2099
 www.pndengineers.com

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 DRAWN: WRB APPROVED: JLD



**CITY & BOROUGH OF JUNEAU, ALASKA
 DOUGLAS HARBOR RENOVATION
 CBJ PROJECT - DH16-001**

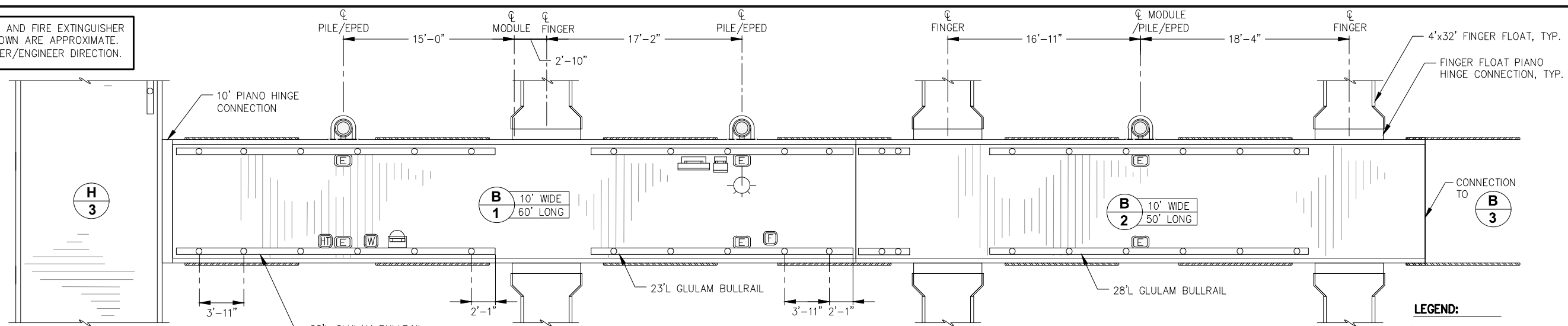
SHEET TITLE: **MAINWALK A
 DETAILED FLOAT PLAN**

PND PROJECT NO.: 152037

5.04
 SHEET
 31 OF 77

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NOTE: HOSE MOUNT, LIFE RING AND FIRE EXTINGUISHER CABINET LOCATIONS SHOWN ARE APPROXIMATE. FIELD LOCATE PER OWNER/ENGINEER DIRECTION.

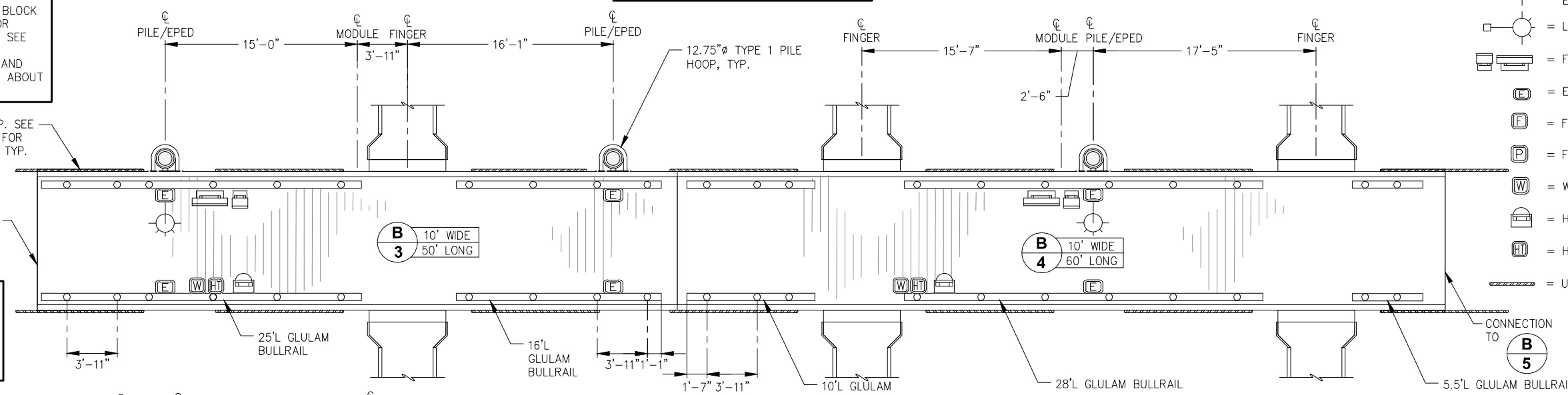


MAINWALK B - FLOAT PLAN

BULLRAIL NOTES:

- NON-STANDARD BULLRAIL SCUPPER BLOCK LAYOUT DIMENSIONS ARE SHOWN. FOR STANDARD DETAILS AND DIMENSIONS SEE BULLRAIL STANDARD DETAILS, TYP.
- MAINWALK FLOAT GLULAM BULLRAIL AND SCUPPER BLOCKS ARE SYMMETRICAL ABOUT FLOAT CENTERLINE, TYP. U.N.O.

UHMW RUBSTRIP, TYP. SEE TABLE AND DETAILS FOR SIZE AND LOCATION, TYP.

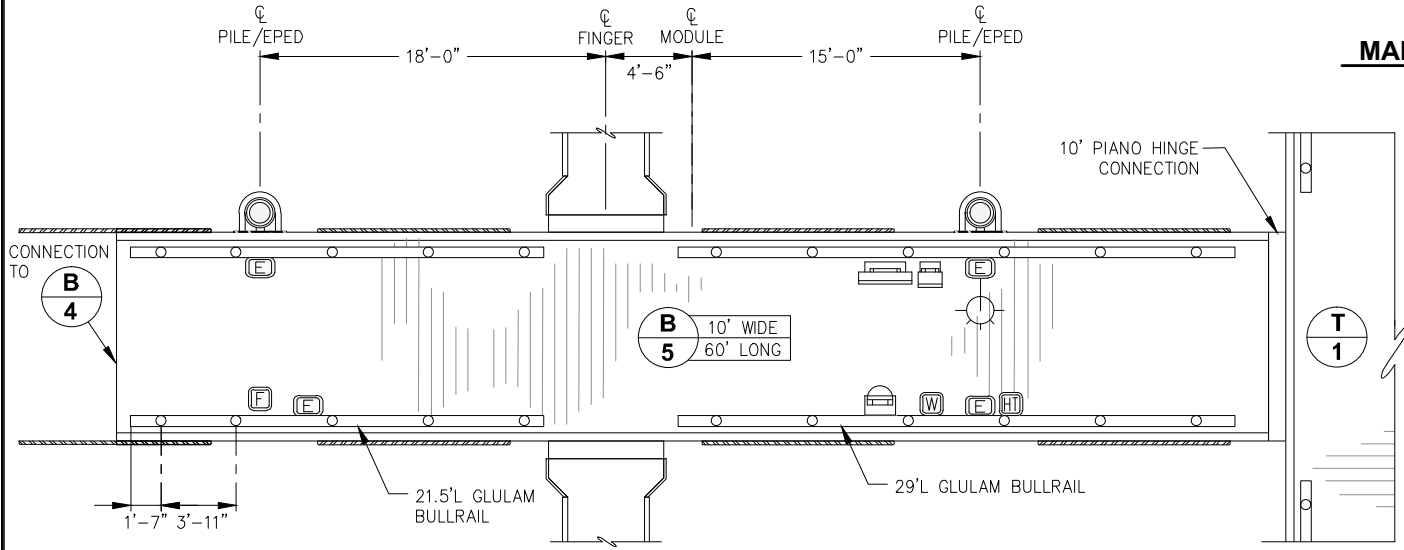


MAINWALK B - FLOAT PLAN

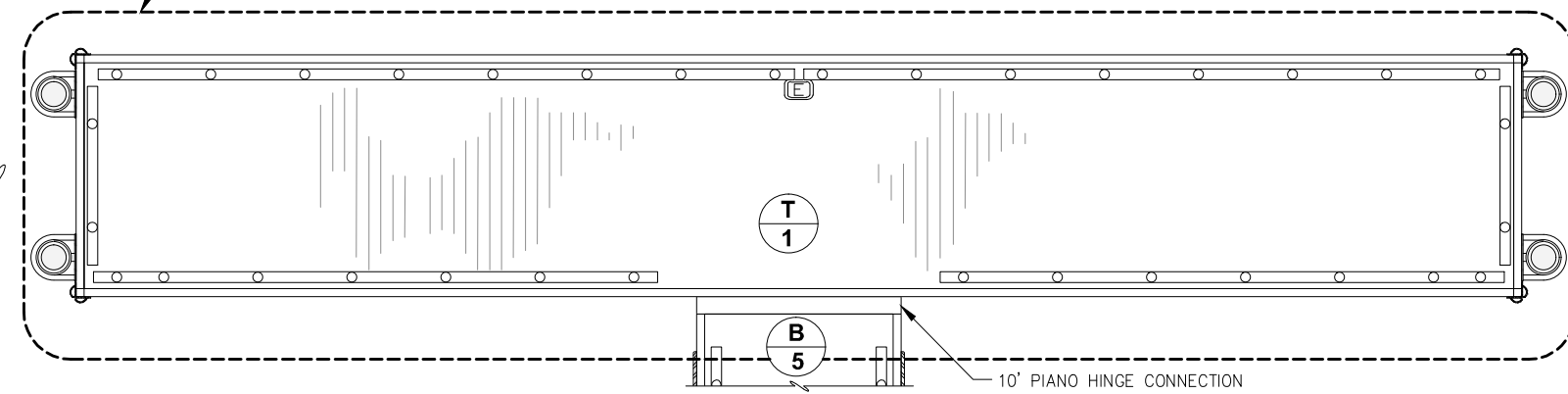
NOTE: PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE W/ GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

NOTE: OMIT UPPER WALER BOLTS WITHIN LIMITS OF:
 - PIPE HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 1, TYP.
 OMIT WALER BOLTS WITHIN LIMITS OF:
 - PIANO HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 2, TYP.

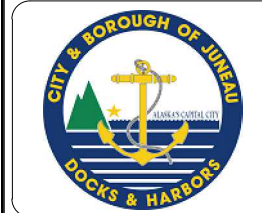
- LEGEND:**
- = LIGHT POLE w/ ELECTRICAL PEDESTAL
 - = LIGHT POLE ONLY
 - = FIRE EXTINGUISHER AND LIFE RING
 - = ELECTRICAL PEDESTAL ONLY
 - = FIRE HOSE CONNECTION
 - = FIRE PUMPOUT
 - = WATER PEDESTAL
 - = HOSE MOUNT
 - = HEAT TRACE
 - = UHMW RUBSTRIP



MAINWALK B - FLOAT PLAN



MAINWALK B - FLOAT PLAN

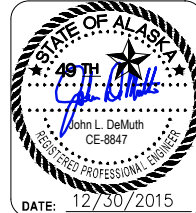


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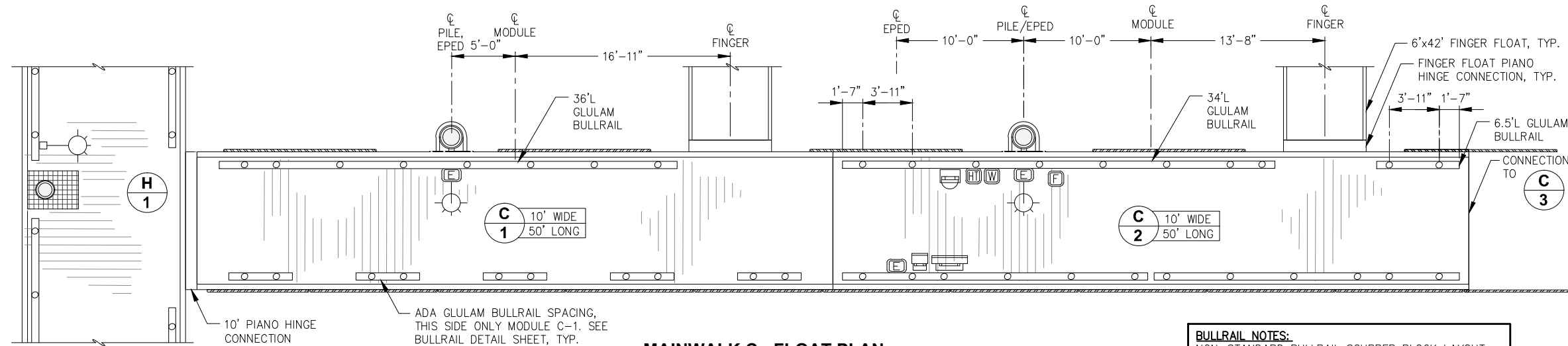
**CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001**

SHEET TITLE: **MAINWALK B
DETAILED FLOAT PLAN**

PND PROJECT NO.: 152037

5.05
SHEET
32 OF 77

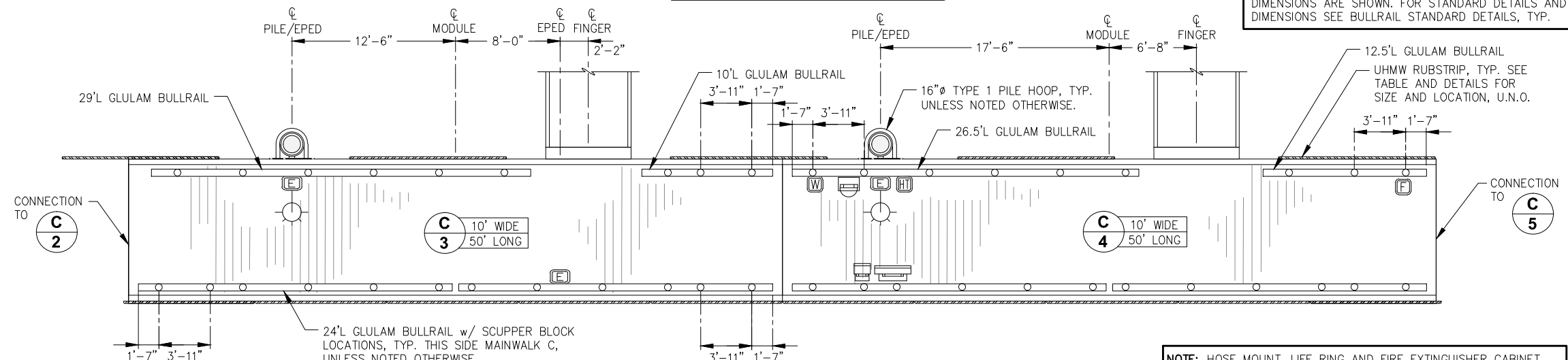
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NOTE:
 OMIT UPPER WALER BOLTS WITHIN LIMITS OF:
 - PIPE HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 1, TYP.
 OMIT WALER BOLTS WITHIN LIMITS OF:
 - PIANO HINGE CONNECTION, TYP.
 - PILE HOOP WELDMENT TYPE 2, TYP.

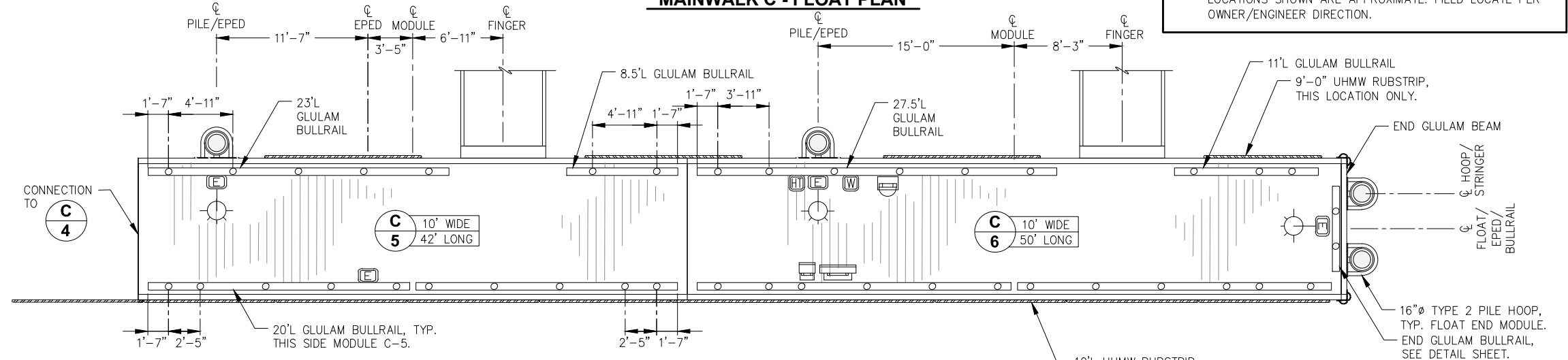
MAINWALK C - FLOAT PLAN

BULLRAIL NOTES:
 NON-STANDARD BULLRAIL SCUPPER BLOCK LAYOUT DIMENSIONS ARE SHOWN. FOR STANDARD DETAILS AND DIMENSIONS SEE BULLRAIL STANDARD DETAILS, TYP.



MAINWALK C - FLOAT PLAN

NOTE: HOSE MOUNT, LIFE RING AND FIRE EXTINGUISHER CABINET LOCATIONS SHOWN ARE APPROXIMATE. FIELD LOCATE PER OWNER/ENGINEER DIRECTION.

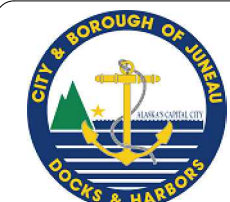


MAINWALK C - FLOAT PLAN

NOTE: PORTIONS OF DECKING MAY NEED TO BE INSTALLED AFTER ELECTRICAL CABLES AND/OR PEDESTALS. FABRICATOR SHALL COORDINATE w/ GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR AS REQUIRED.

- LEGEND:**
- = LIGHT POLE w/ ELECTRICAL PEDESTAL
 - = LIGHT POLE ONLY
 - = FIRE EXTINGUISHER AND LIFE RING
 - = ELECTRICAL PEDESTAL ONLY
 - = FIRE HOSE CONNECTION
 - = FIRE PUMPOUT
 - = WATER PEDESTAL
 - = HOSE MOUNT
 - = HEAT TRACE
 - = UHMW RUBSTRIP

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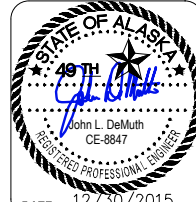


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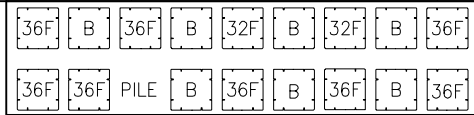
SHEET TITLE: **MAINWALK C**
DETAILED FLOAT PLAN

DATE: 12/30/2015

PND PROJECT NO.: 152037

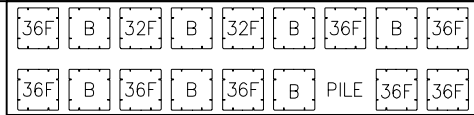
5.06
 SHEET
 33 OF 77

MODULE: H-1				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	8 EA.
BALLAST TANK	48"	48"	36"	7 EA.
POLYSTYRENE BILLET	46"	60"	11"	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



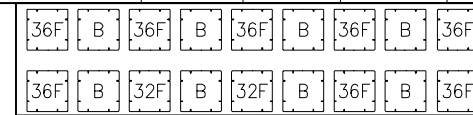
** SEE NOTE 1 THIS SHEET.

MODULE: H-5				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	8 EA.
BALLAST TANK	48"	48"	36"	7 EA.
POLYSTYRENE BILLET	46"	60"	8"	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



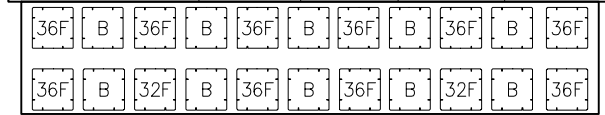
** SEE NOTE 1 THIS SHEET.

MODULE: A-3				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	9 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	10"	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



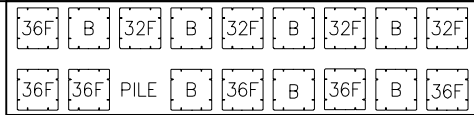
** SEE NOTE 1 THIS SHEET.

MODULE: B-1				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	10 EA.
BALLAST TANK	48"	48"	36"	10 EA.
POLYSTYRENE BILLET	22"	60"	8"	11 EA.
POLYSTYRENE BILLET	38"	30"	5"	12 EA.



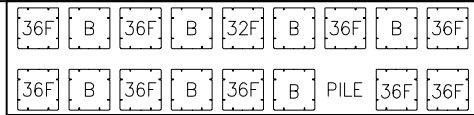
** SEE NOTE 1 THIS SHEET.

MODULE: H-2				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	4 EA.
FLOTATION TUB	48"	48"	36"	6 EA.
BALLAST TANK	48"	48"	36"	7 EA.
POLYSTYRENE BILLET	46"	60"	10"	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



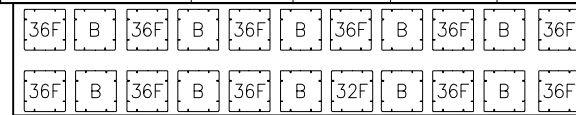
** SEE NOTE 1 THIS SHEET.

MODULE: H-6				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	9 EA.
BALLAST TANK	48"	48"	36"	7 EA.
POLYSTYRENE BILLET	46"	60"	9"	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



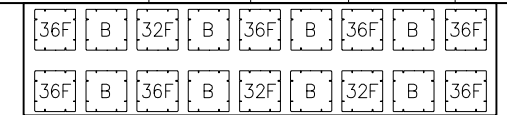
** SEE NOTE 1 THIS SHEET.

MODULE: A-4				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	11 EA.
BALLAST TANK	48"	48"	36"	10 EA.
POLYSTYRENE BILLET	22"	60"	9"	11 EA.
POLYSTYRENE BILLET	38"	30"	5"	12 EA.



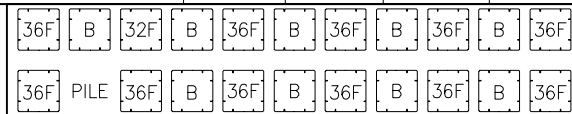
** SEE NOTE 1 THIS SHEET.

MODULE: B-2				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	3 EA.
FLOTATION TUB	48"	48"	36"	7 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	8"	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



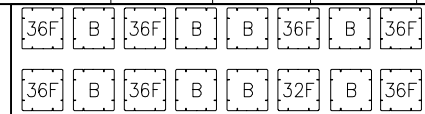
** SEE NOTE 1 THIS SHEET.

MODULE: H-3				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	11 EA.
BALLAST TANK	48"	48"	36"	9 EA.
POLYSTYRENE BILLET	46"	60"	8"	10 EA.
POLYSTYRENE BILLET	38"	30"	5"	12 EA.



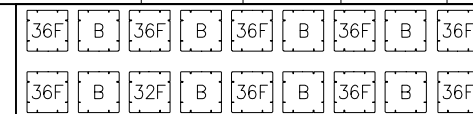
** SEE NOTE 1 THIS SHEET.

MODULE: A-1				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	7 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	12"	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	8 EA.



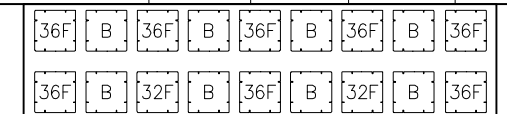
** SEE NOTE 1 THIS SHEET.

MODULE: A-5				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	9 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	9"	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



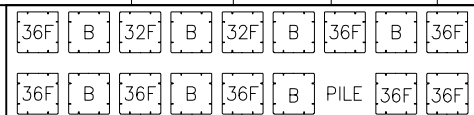
** SEE NOTE 1 THIS SHEET.

MODULE: B-3				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	8 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	10"	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



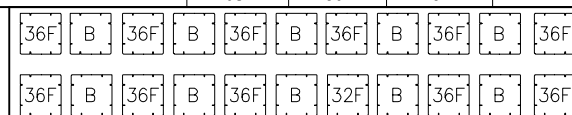
** SEE NOTE 1 THIS SHEET.

MODULE: H-4				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	8 EA.
BALLAST TANK	48"	48"	36"	7 EA.
POLYSTYRENE BILLET	46"	60"	8"	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



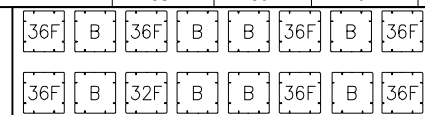
** SEE NOTE 1 THIS SHEET.

MODULE: A-2				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	11 EA.
BALLAST TANK	48"	48"	36"	10 EA.
POLYSTYRENE BILLET	22"	60"	8"	11 EA.
POLYSTYRENE BILLET	38"	30"	5"	12 EA.



** SEE NOTE 1 THIS SHEET.

MODULE: A-6				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	7 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	12"	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	8 EA.

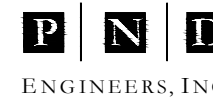


** SEE NOTE 1 THIS SHEET.

- NOTES:
- HEIGHT SHOWN IN TABLE REFERS TO DISTANCE FROM BOTTOM OF SILL TO BOTTOM OF BILLET, NOT OVERALL HEIGHT OF BILLET. SEE FLOTATION BILLET DETAILS SHEET FOR BILLET DIMENSIONS AND DETAILS.
 - BALLAST TANK WALL THICKNESS TO BE 0.375".
 - FLOTATION TUB WALL THICKNESS TO BE 0.175"
 - F = FLOTATION TUB
B = BALLAST TANK
P = POLYSTYRENE BILLET
UB = UTILITY BUILDING BILLET
GB = GANGWAY BILLET

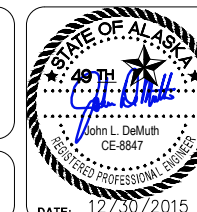
REVISIONS

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Fax: 907-586-2099
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DRAWN: WRB APPROVED: JLD



CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001

SHEET TITLE:
FLOTATION SCHEDULES

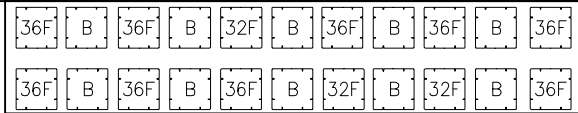
PND PROJECT NO.: 152037

5.07

SHEET
34 OF 77

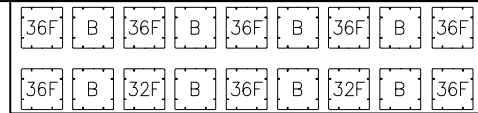


MODULE: B-4				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	3 EA.
FLOTATION TUB	48"	48"	36"	9 EA.
BALLAST TANK	48"	48"	36"	10 EA.
POLYSTYRENE BILLET	22"	60"	8"***	11 EA.
POLYSTYRENE BILLET	38"	30"	5"	12 EA.



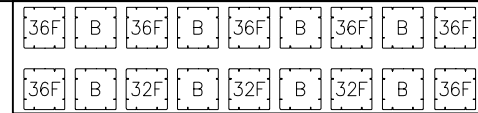
** SEE NOTE 1 THIS SHEET.

MODULE: C-2				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	8 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	8"***	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



** SEE NOTE 1 THIS SHEET.

MODULE: C-6				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	3 EA.
FLOTATION TUB	48"	48"	36"	7 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	10"***	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.

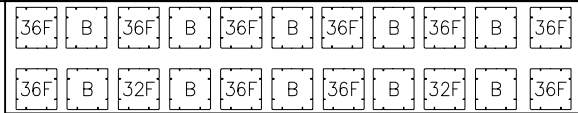


** SEE NOTE 1 THIS SHEET.

FINGER: 24'				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
HDPE FLOTATION TUB	48"	36"	32"	2 EA.
HDPE FLOTATION TUB	48"	36"	24"	1 EA.
HDPE FLOTATION TUB	48"	36"	12"	1 EA.
HDPE BALLAST TANK	48"	36"	32"	1 EA.

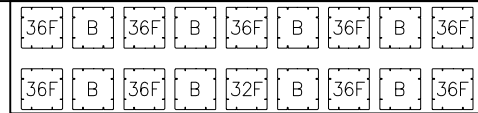


MODULE: B-5				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	10 EA.
BALLAST TANK	48"	48"	36"	10 EA.
POLYSTYRENE BILLET	22"	60"	10"***	11 EA.
POLYSTYRENE BILLET	38"	30"	5"	12 EA.



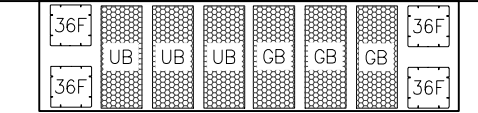
** SEE NOTE 1 THIS SHEET.

MODULE: C-3				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	1 EA.
FLOTATION TUB	48"	48"	36"	9 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	8"***	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



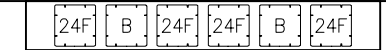
** SEE NOTE 1 THIS SHEET.

MODULE: G-1				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
HDPE FLOTATION TUB	48"	48"	36"	4 EA.
POLYSTYRENE BILLET	38"	30"	5"	4 EA.
POLYSTYRENE BILLET	22"	60"	24"***	2 EA.
POLYSTYRENE BILLET (UB)	58"	118"	18"***	3 EA.
POLYSTYRENE BILLET (GB)	58"	118"	13"***	3 EA.



** SEE NOTE 1 THIS SHEET.

FINGER: 32'				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
HDPE FLOTATION TUB	48"	48"	24"	4 EA.
HDPE BALLAST TANK	48"	48"	24"	2 EA.

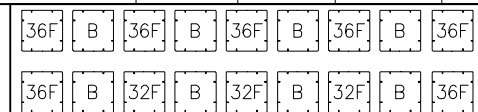


MODULE: T-1				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	8 EA.
FLOTATION TUB	48"	48"	36"	8 EA.
BALLAST TANK	48"	48"	36"	12 EA.
POLYSTYRENE BILLET	46"	60"	8"***	15 EA.
POLYSTYRENE BILLET	38"	30"	5"	16 EA.



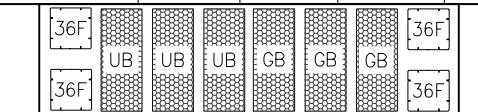
** SEE NOTE 1 THIS SHEET.

MODULE: C-4				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	3 EA.
FLOTATION TUB	48"	48"	36"	7 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	8"***	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



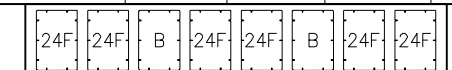
** SEE NOTE 1 THIS SHEET.

MODULE: G-2				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
HDPE FLOTATION TUB	48"	48"	36"	4 EA.
POLYSTYRENE BILLET	38"	30"	5"	4 EA.
POLYSTYRENE BILLET	22"	60"	24"***	2 EA.
POLYSTYRENE BILLET (UB)	58"	118"	18"***	3 EA.
POLYSTYRENE BILLET (GB)	58"	118"	13"***	3 EA.

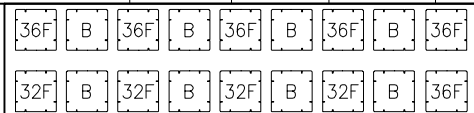


** SEE NOTE 1 THIS SHEET.

FINGER: 42'				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
HDPE FLOTATION TUB	48"	72"	24"	6 EA.
HDPE BALLAST TANK	48"	72"	24"	2 EA.

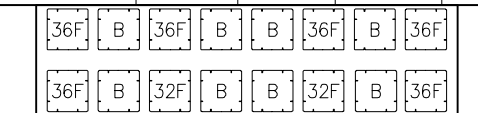


MODULE: C-1				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	4 EA.
FLOTATION TUB	48"	48"	36"	6 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	8"***	9 EA.
POLYSTYRENE BILLET	38"	30"	5"	10 EA.



** SEE NOTE 1 THIS SHEET.

MODULE: C-5				
ITEM DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY
FLOTATION TUB	48"	48"	32"	2 EA.
FLOTATION TUB	48"	48"	36"	6 EA.
BALLAST TANK	48"	48"	36"	8 EA.
POLYSTYRENE BILLET	22"	60"	10"***	8 EA.
POLYSTYRENE BILLET	38"	30"	5"	8 EA.



** SEE NOTE 1 THIS SHEET.

NOTES:
 1. HEIGHT SHOWN IN TABLE REFERS TO DISTANCE FROM BOTTOM OF SILL TO BOTTOM OF BILLET, NOT OVERALL HEIGHT OF BILLET. SEE FLOTATION BILLET DETAILS SHEET FOR BILLET DIMENSIONS AND DETAILS.
 2. BALLAST TANK WALL THICKNESS TO BE 0.375".
 3. FLOTATION TUB WALL THICKNESS TO BE 0.175".
 4. F= FLOTATION TUB
 B= BALLAST TANK
 P= POLYSTYRENE BILLET
 UB= UTILITY BUILDING BILLET
 GB= GANGWAY BILLET

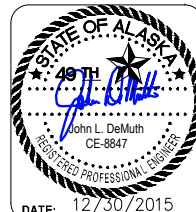
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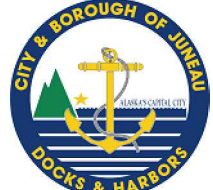


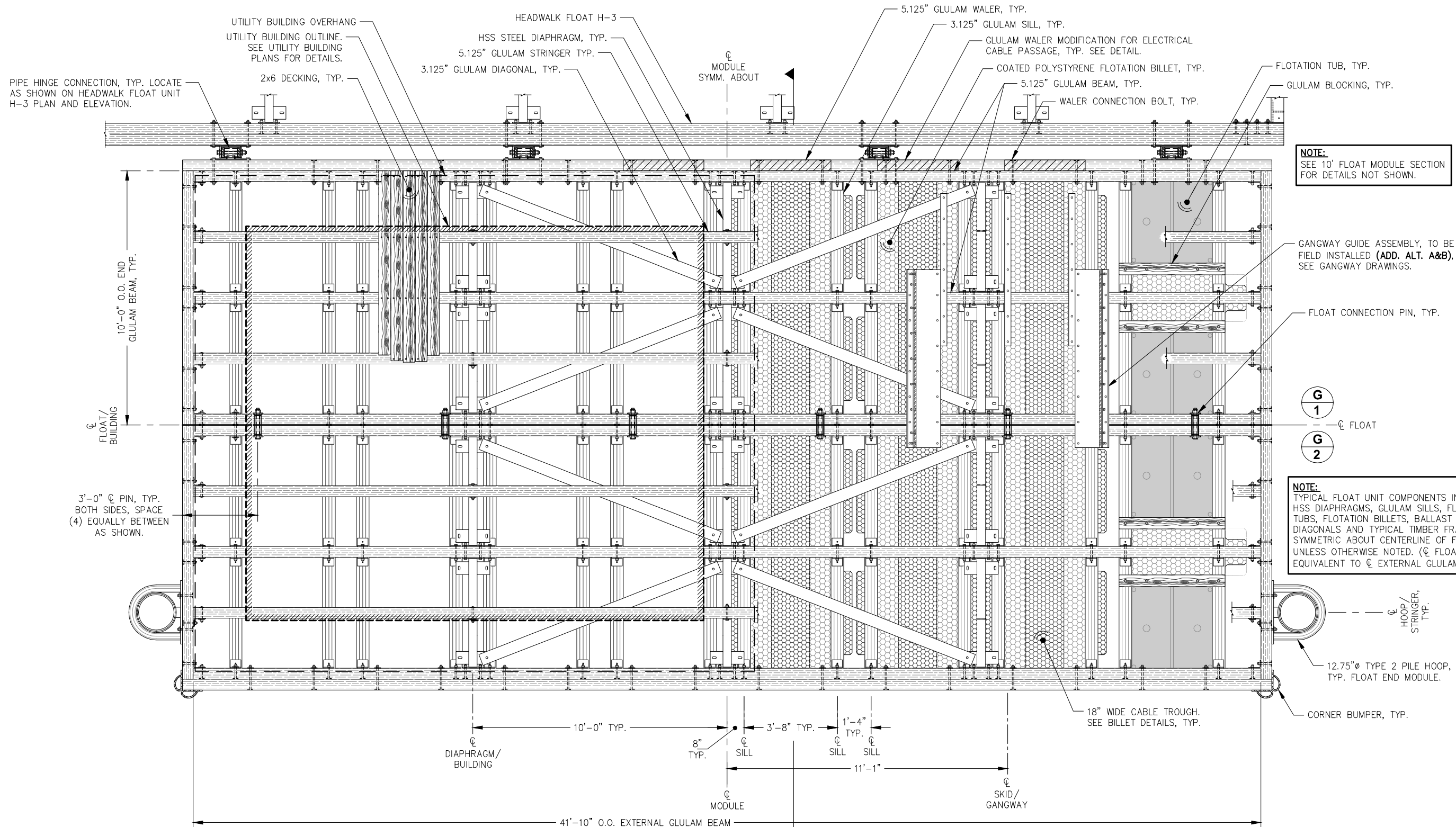
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 CBJ PROJECT - DH16-001

SHEET TITLE:
FLOTATION SCHEDULES

PND PROJECT NO.: 152037

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NOTE:
SEE 10' FLOAT MODULE SECTION FOR DETAILS NOT SHOWN.

NOTE:
TYPICAL FLOAT UNIT COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONALS AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF FLOAT UNIT, UNLESS OTHERWISE NOTED. (CL FLOAT UNIT EQUIVALENT TO CL EXTERNAL GLULAM BEAM)

GANGWAY LANDING FLOAT PLAN

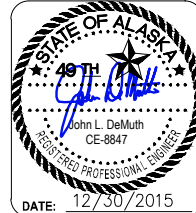


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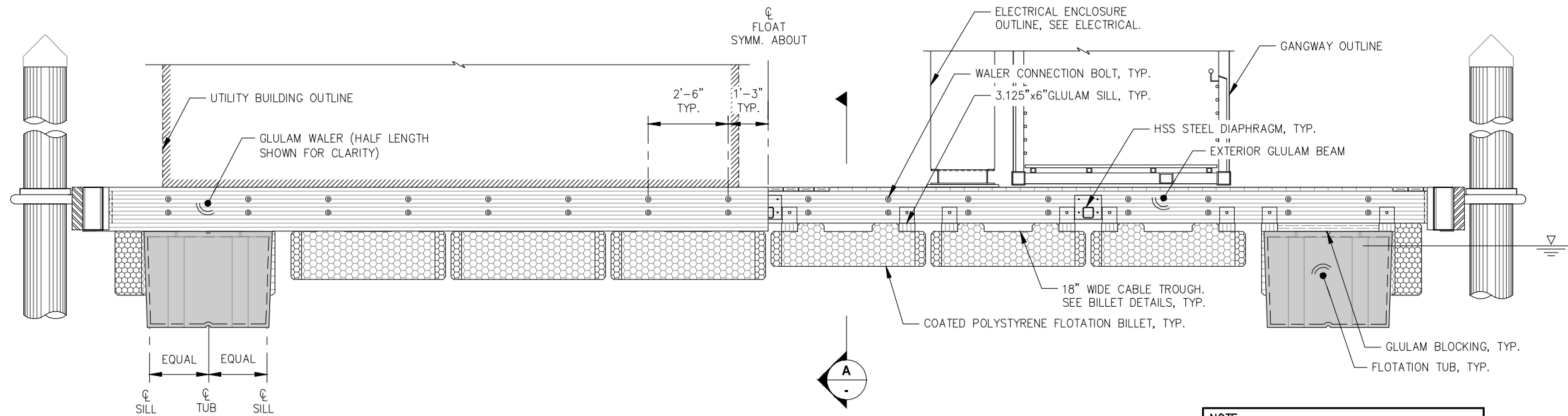
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CBJ PROJECT - DH16-001

SHEET TITLE:
GANGWAY LANDING FLOAT PLAN

PND PROJECT NO.: 152037

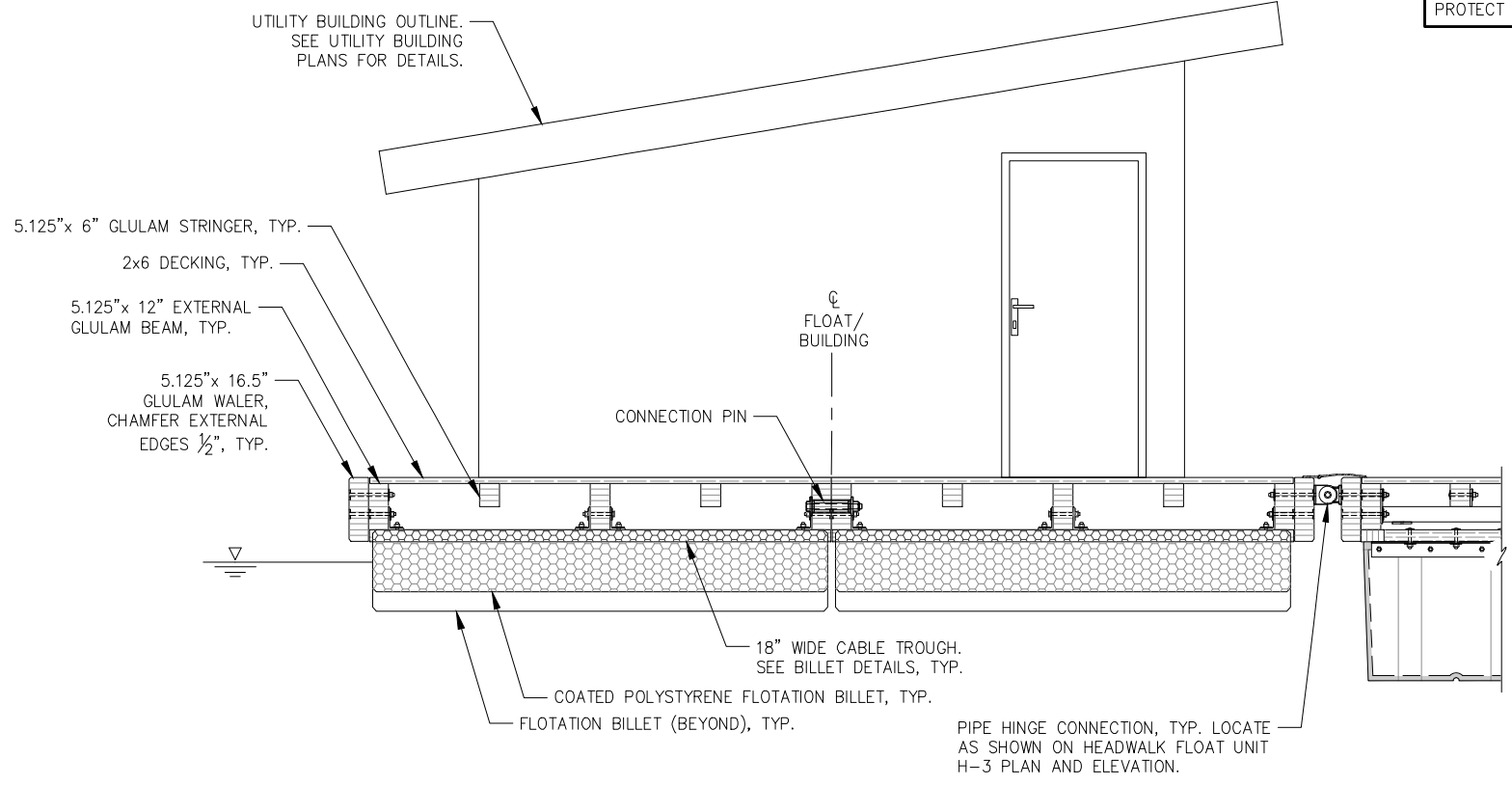
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GANGWAY LANDING FLOAT - ELEVATION

NOTE:
 CONTRACTOR SHALL SUBMIT MODULE SUPPORT BLOCKING PLAN TO ENGINEER FOR REVIEW PRIOR TO SHIPMENT. FLOAT STRUCTURE SHALL BE FULLY SUPPORTED DURING SHIPMENT TO PROTECT BILLETS AND GLULAM MEMBERS.



GANGWAY LANDING FLOAT - SECTION

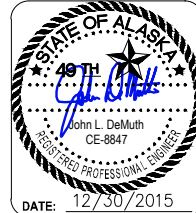


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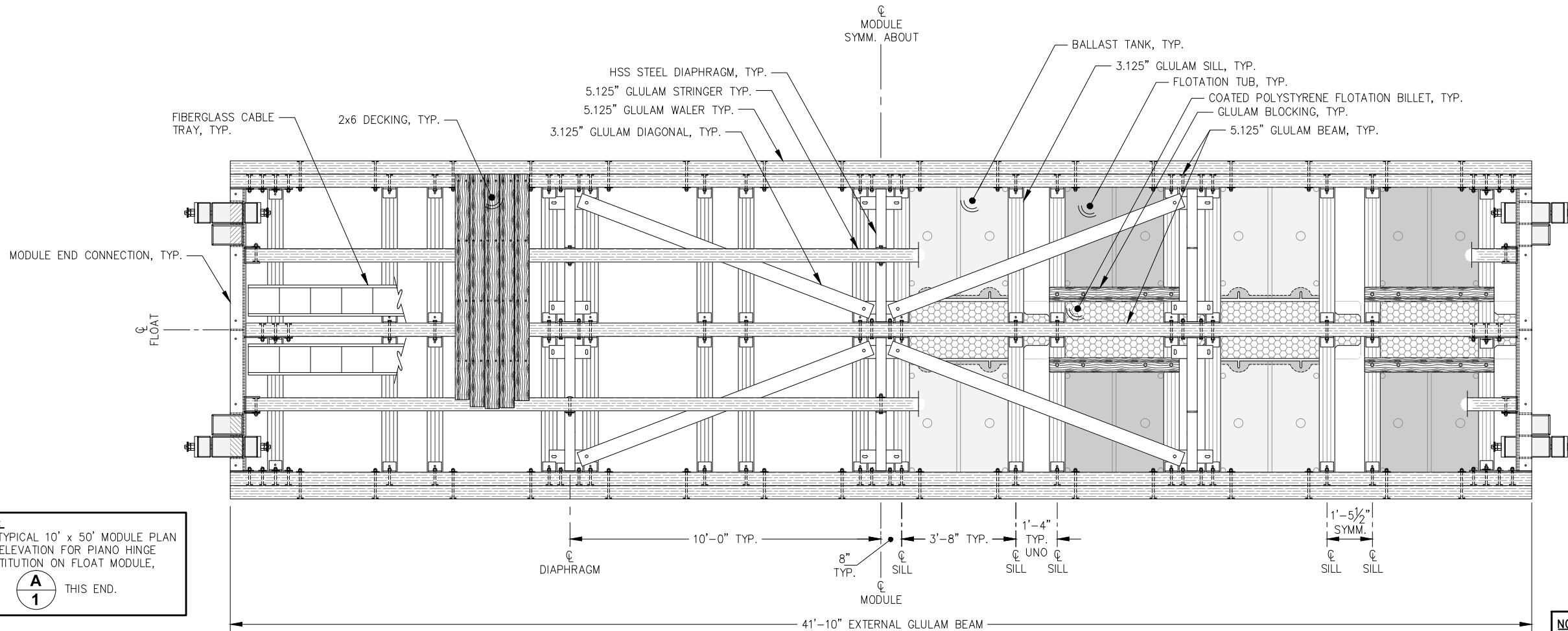


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SHEET TITLE:
GANGWAY LANDING FLOAT
ELEVATION AND SECTION

PND PROJECT NO.: 152037

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NOTE:
SEE TYPICAL 10' x 50' MODULE PLAN AND ELEVATION FOR PIANO HINGE SUBSTITUTION ON FLOAT MODULE,
A
1 THIS END.

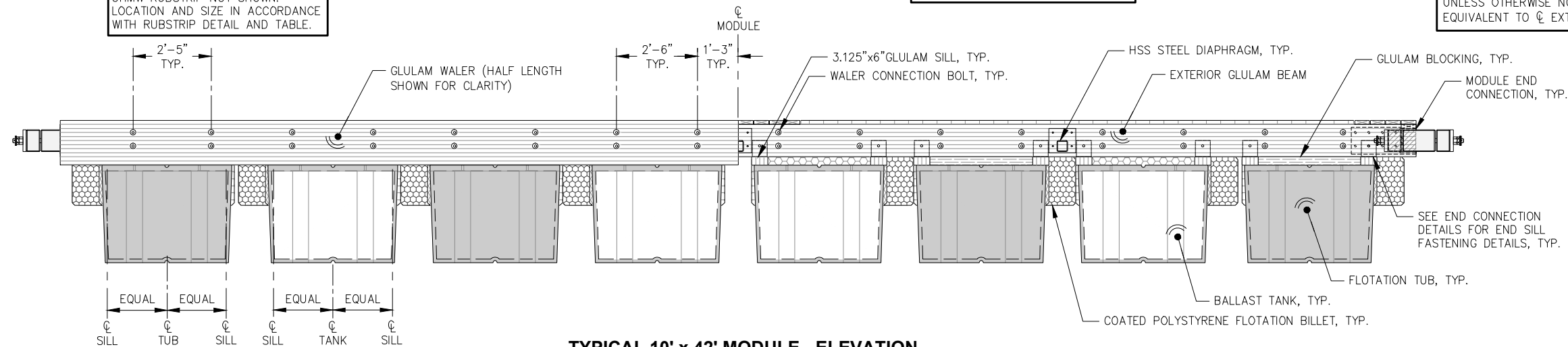
NOTE:
SEE TYPICAL 10' x 50' MODULE PLAN AND ELEVATION FOR END GLULAM w/ PILE HOOPS SUBSTITUTION ON FLOAT MODULE,
A
6 THIS END.

TYPICAL 10' x 42' MODULE - PLAN
(MODULES A-1, A-6 AND C-5)

NOTE:
SEE DETAILED FLOAT PLAN FOR FINGER FLOAT, PILE HOOP, ELECTRIC PEDESTAL AND BULLRAIL LOCATIONS.

NOTE:
TYPICAL FLOAT MODULE COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONALS AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF MODULE, UNLESS OTHERWISE NOTED. (CL MODULE EQUIVALENT TO CL EXTERNAL GLULAM BEAM)

NOTE:
UHMW RUBSTRIP NOT SHOWN. LOCATION AND SIZE IN ACCORDANCE WITH RUBSTRIP DETAIL AND TABLE.



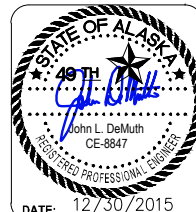
TYPICAL 10' x 42' MODULE - ELEVATION
(MODULE A-1, A-6 AND C-5)



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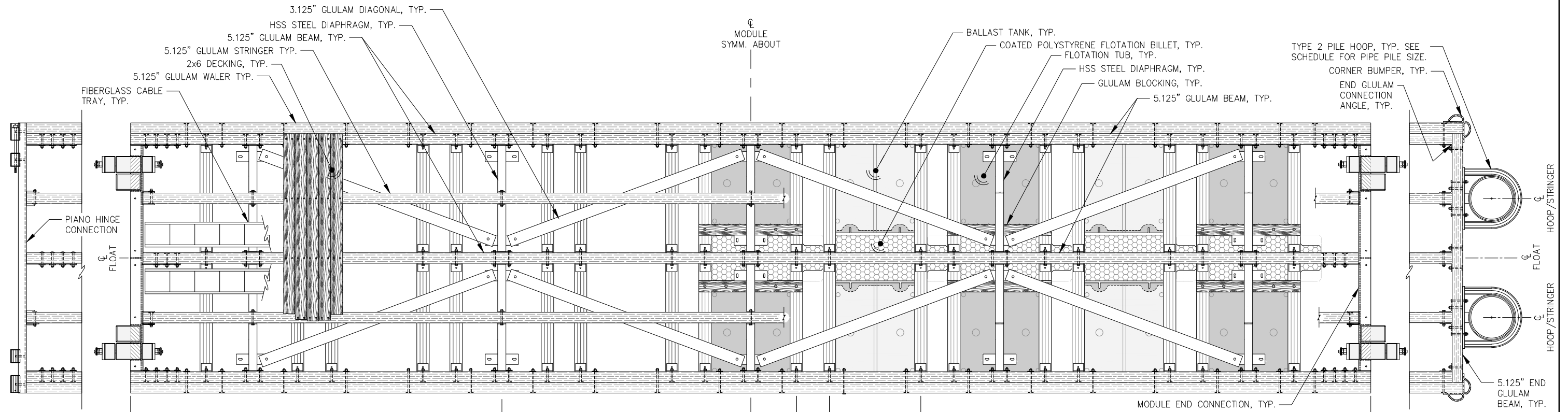
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SHEET TITLE:
TYPICAL 10' x 42' MODULE
PLAN AND ELEVATION

PND PROJECT NO.: 152037

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NOTE:
 SUBSTITUTE MODULE END CONNECTION w/ PIANO HINGE CONNECTION, AS SHOWN, FLOAT MODULES

A 1 B 1 C 1 B 5
 SYMM.

NOTE:
 TYPICAL FLOAT MODULE COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, BALLAST TANKS, DIAGONALS AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF MODULE, UNLESS OTHERWISE NOTED. (CL MODULE EQUIVALENT TO CL EXTERNAL GLULAM BEAM)

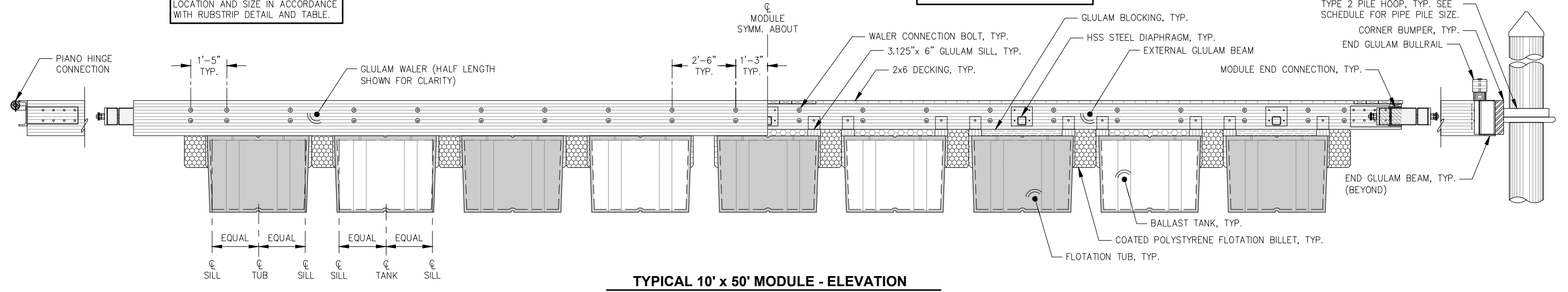
NOTE:
 SUBSTITUTE MODULE END CONNECTION w/ END GLULAM AND PILE HOOPS, AS SHOWN, FLOAT MODULES

A 6 C 6

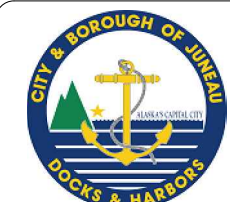
TYPICAL 10' x 50' MODULE - PLAN
 (MODULES A-3, A-5, B-2, B-3, C-1 THRU C-4 AND C-6)

NOTE:
 SEE DETAILED FLOAT PLAN FOR FINGER FLOAT, PILE HOOP, ELECTRIC PEDESTAL AND BULLRAIL LOCATIONS.

NOTE:
 UHMW RUBSTRIP NOT SHOWN. LOCATION AND SIZE IN ACCORDANCE WITH RUBSTRIP DETAIL AND TABLE.



TYPICAL 10' x 50' MODULE - ELEVATION

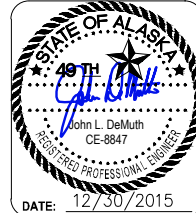


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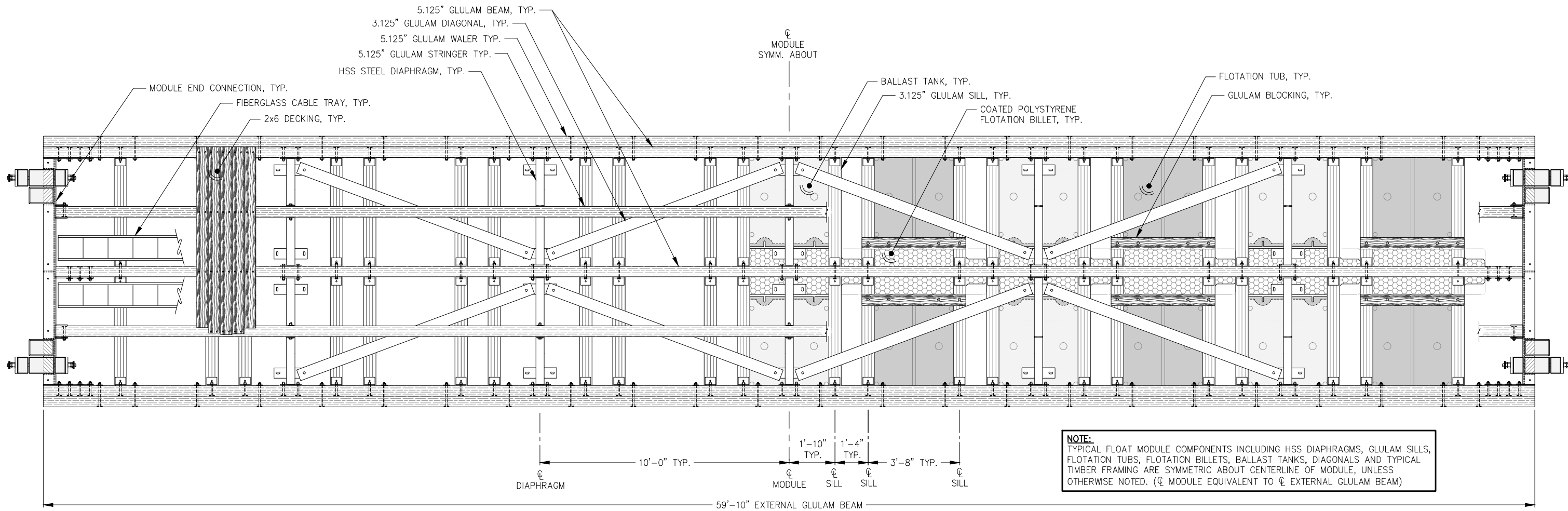
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 CBJ PROJECT - DH16-001**

SHEET TITLE:
**TYPICAL 10' x 50' MODULE
 PLAN AND ELEVATION**

PND PROJECT NO.: 152037

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 SHEET
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NOTE:
 TYPICAL FLOAT MODULE COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONALS AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF MODULE, UNLESS OTHERWISE NOTED. (CL MODULE EQUIVALENT TO CL EXTERNAL GLULAM BEAM)

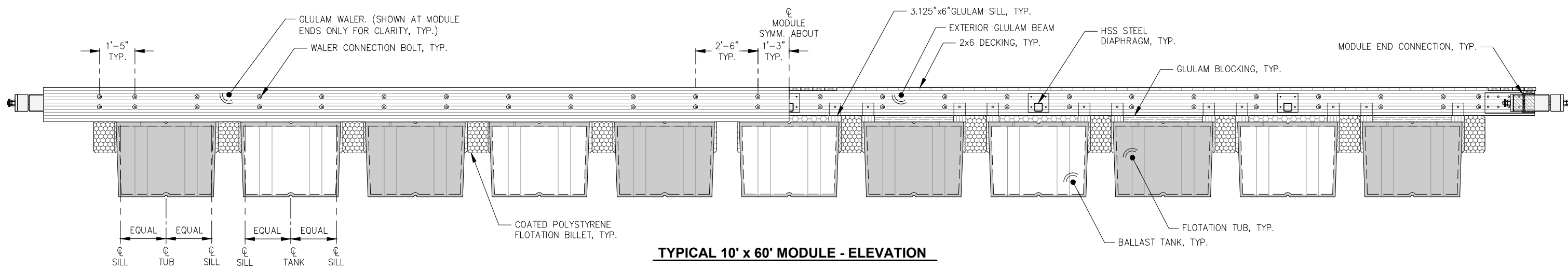
NOTE:
 SEE TYPICAL 10' x 50' MODULE PLAN AND ELEVATION FOR PIANO HINGE SUBSTITUTION ON FLOAT MODULE,
 B THIS END.

NOTE:
 UHMW RUBSTRIP NOT SHOWN. LOCATION AND SIZE IN ACCORDANCE WITH RUBSTRIP DETAIL AND TABLE.

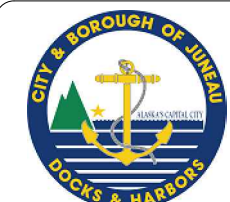
TYPICAL 10' x 60' MODULE - PLAN
 (MODULES A-2, A-4, B-1, B-4 AND B-5)

NOTE:
 SEE DETAILED FLOAT PLAN FOR FINGER FLOAT, PILE HOOP, ELECTRIC PEDESTAL AND BULLRAIL LOCATIONS.

NOTE:
 SEE TYPICAL 10' x 50' MODULE PLAN AND ELEVATION FOR PIANO HINGE SUBSTITUTION ON FLOAT MODULE,
 B THIS END.



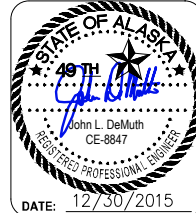
TYPICAL 10' x 60' MODULE - ELEVATION



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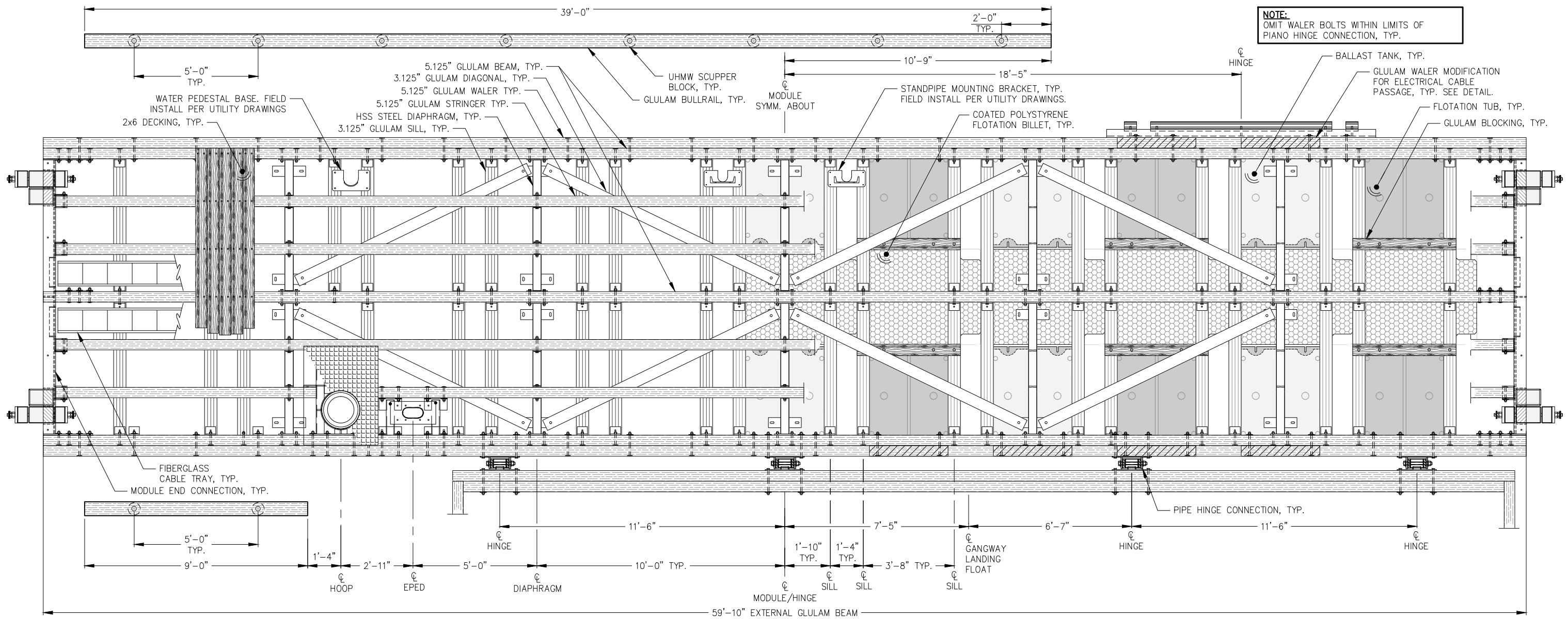


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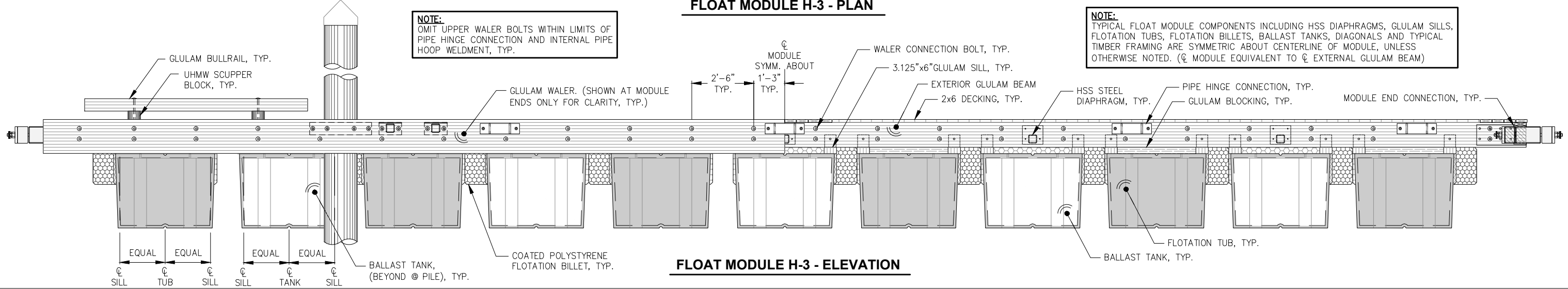
SHEET TITLE:
TYPICAL 10' x 60' MODULE
PLAN AND ELEVATION
 PND PROJECT NO.: 152037

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Float Module H-3 - PLAN



Float Module H-3 - ELEVATION

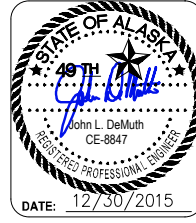
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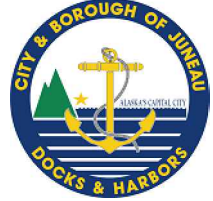


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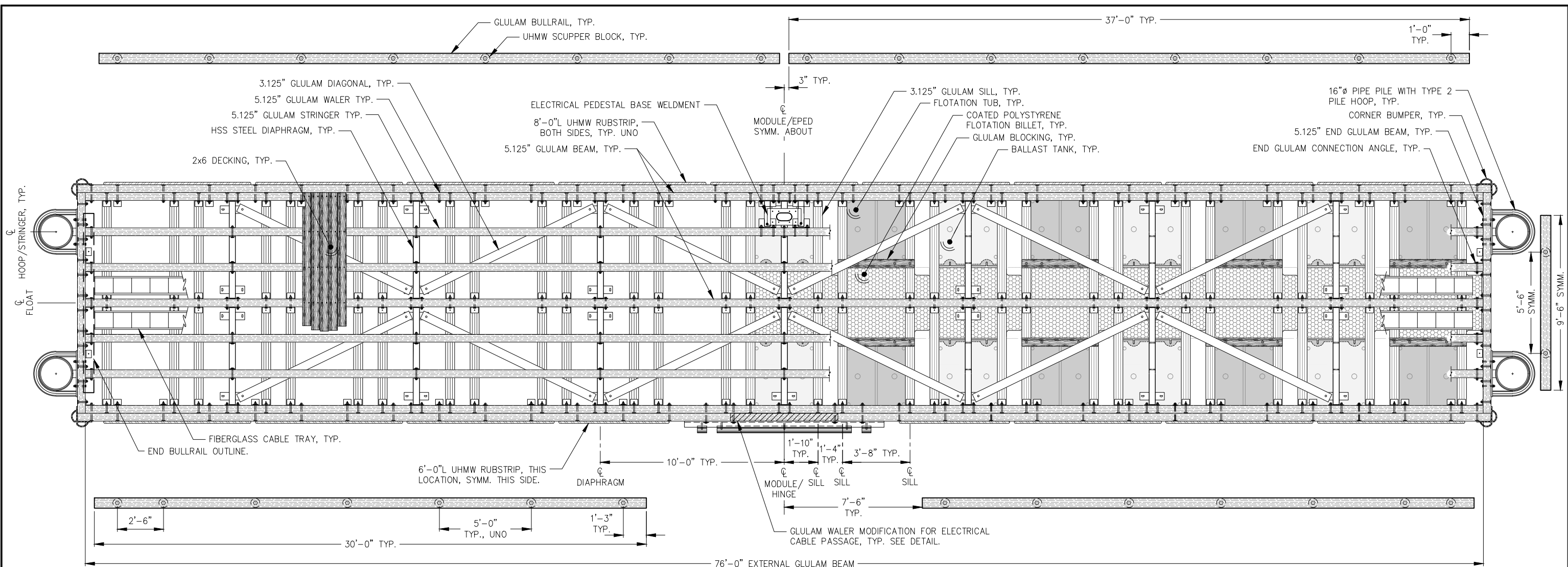
SHEET TITLE:
**HEADWALK FLOAT MODULE H-3
PLAN AND ELEVATION**

PND PROJECT NO.: 152037

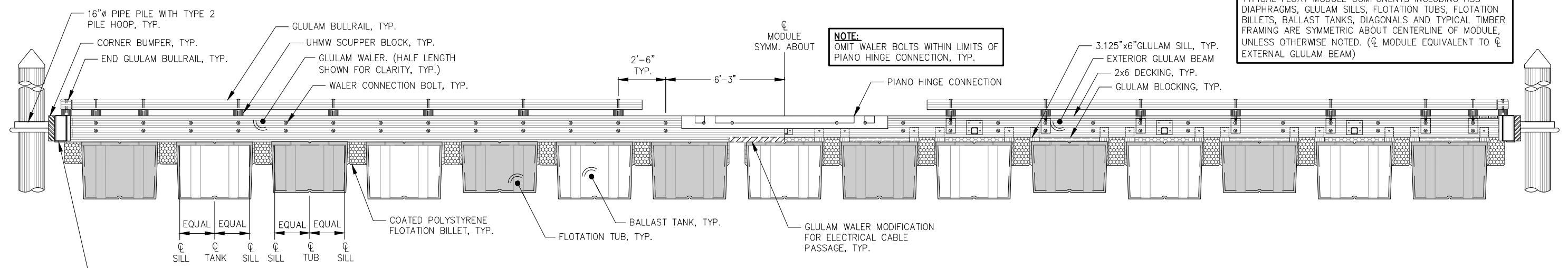
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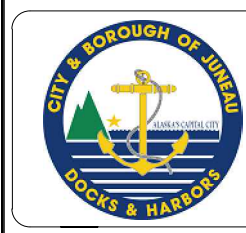
FLOAT MODULE T-1 - PLAN



FLOAT MODULE T-1 - ELEVATION

NOTE:
TYPICAL FLOAT MODULE COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONALS AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF MODULE, UNLESS OTHERWISE NOTED. (CL MODULE EQUIVALENT TO CL EXTERNAL GLULAM BEAM)

NOTE:
OMIT WALER BOLTS WITHIN LIMITS OF PIANO HINGE CONNECTION, TYP.

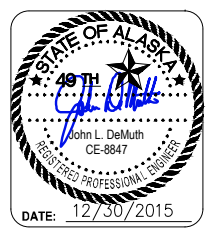


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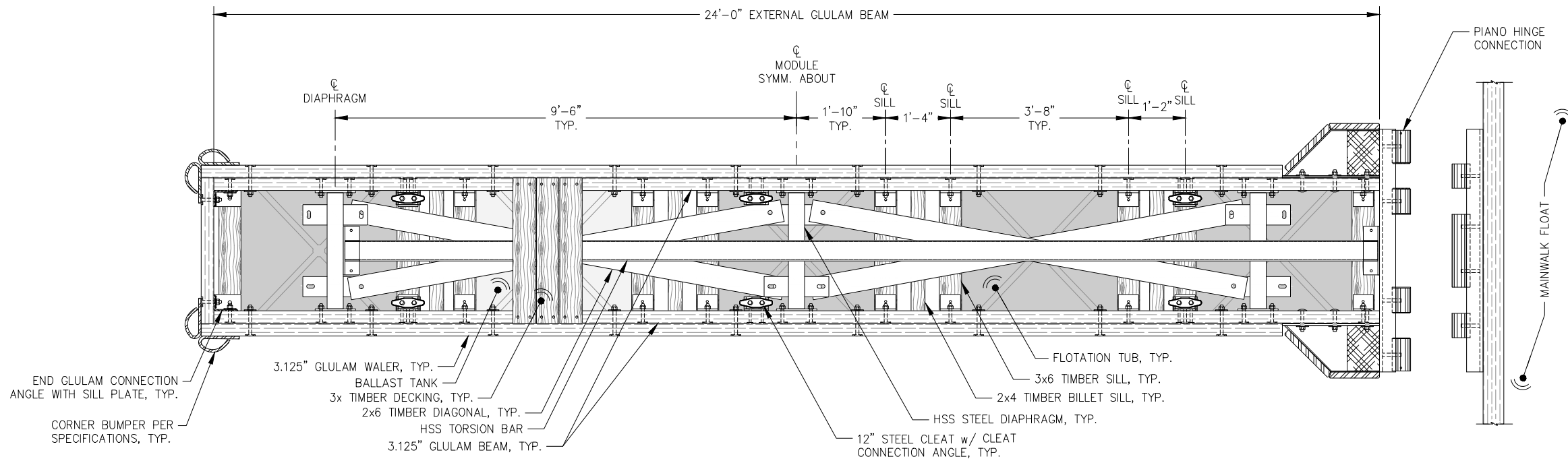
**CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001**

SHEET TITLE:
**MAINWALK B FLOAT MODULE T-1
PLAN AND ELEVATION**

PND PROJECT NO.: 152037

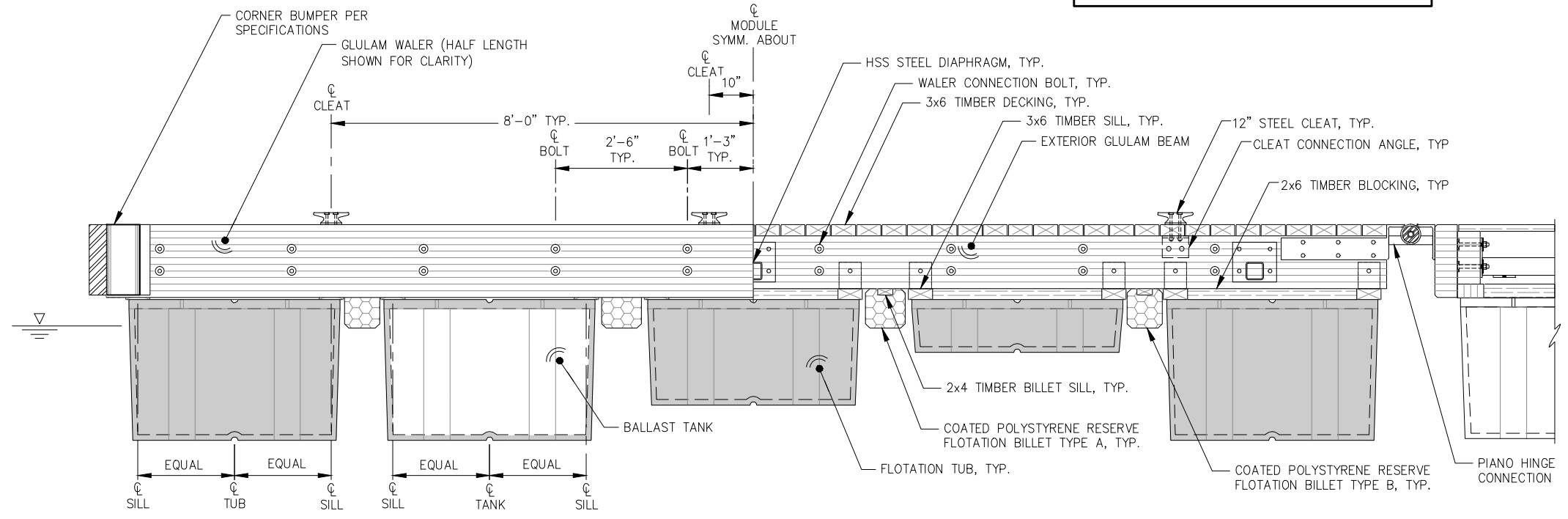
5.16
SHEET
43 OF 77

I:\Proj\juneau\152037 Douglas Harbor Renovation\G. Drawings\Design\5.16 Tee Float Module.DWG. 12/30/2015 2:06:22 PM



3' x 24' FINGER FLOAT MODULE PLAN

NOTE:
TYPICAL FINGER FLOAT MODULE COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONAL AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF MODULE, UNLESS OTHERWISE NOTED.



3' x 24' FINGER FLOAT MODULE ELEVATION

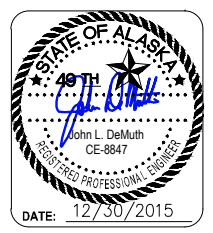
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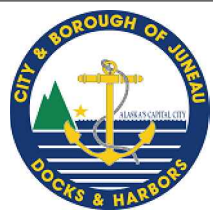


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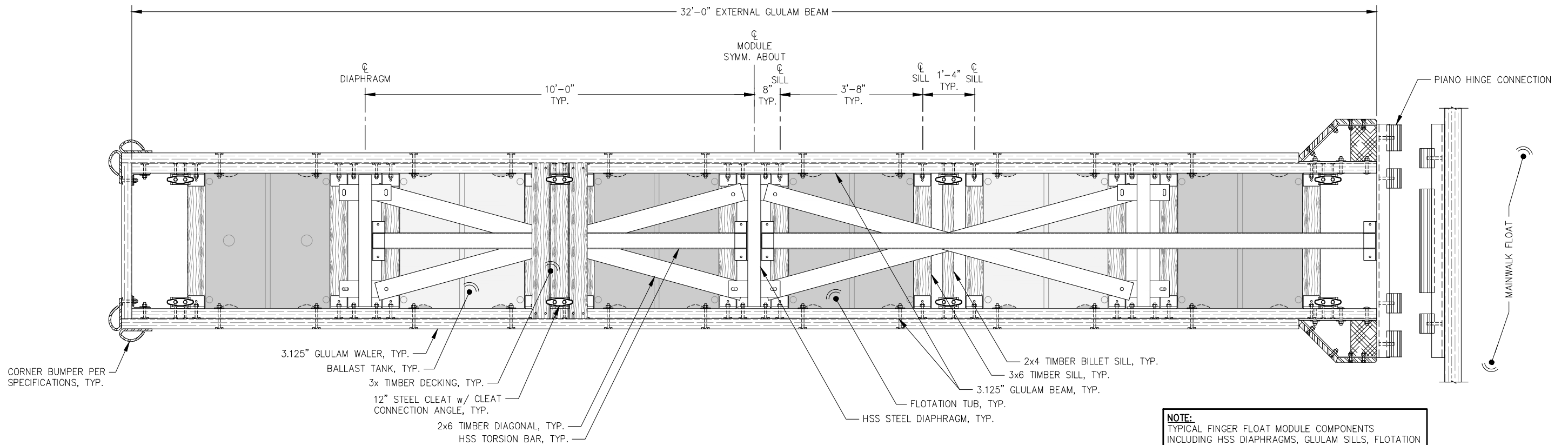
SHEET TITLE:
3' x 24' FINGER FLOAT MODULE

PND PROJECT NO.: 152037

5.17
SHEET
44 OF 77

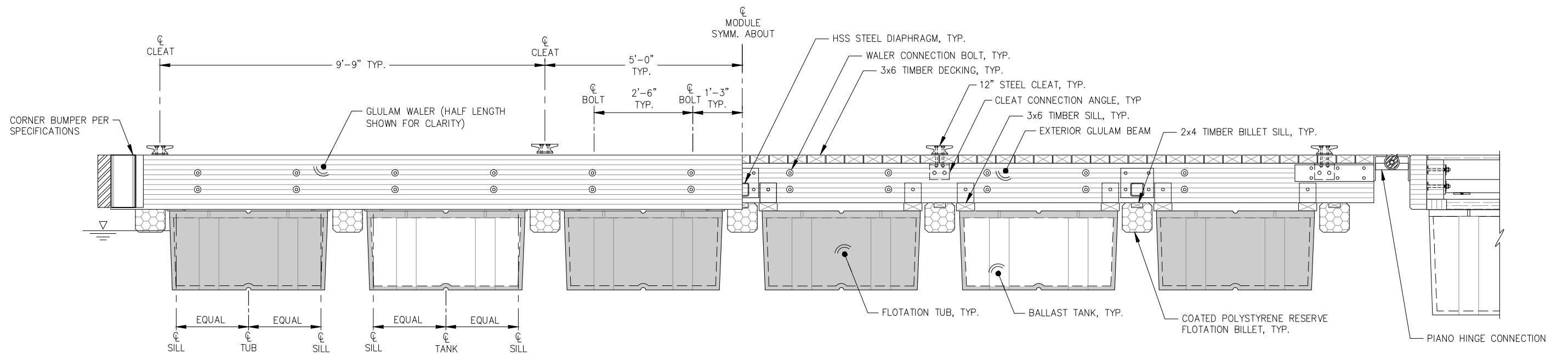


I:\Prof\juneau\152037 Douglas Harbor Renovation\G. Drawings\Design\5.17 3x24 Finger Module.dwg, 12/30/2015 2:06:31 PM



4' x 32' FINGER FLOAT MODULE PLAN

NOTE:
TYPICAL FINGER FLOAT MODULE COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONAL AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF MODULE, UNLESS OTHERWISE NOTED.



4' x 32' FINGER FLOAT MODULE ELEVATION

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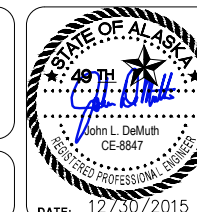
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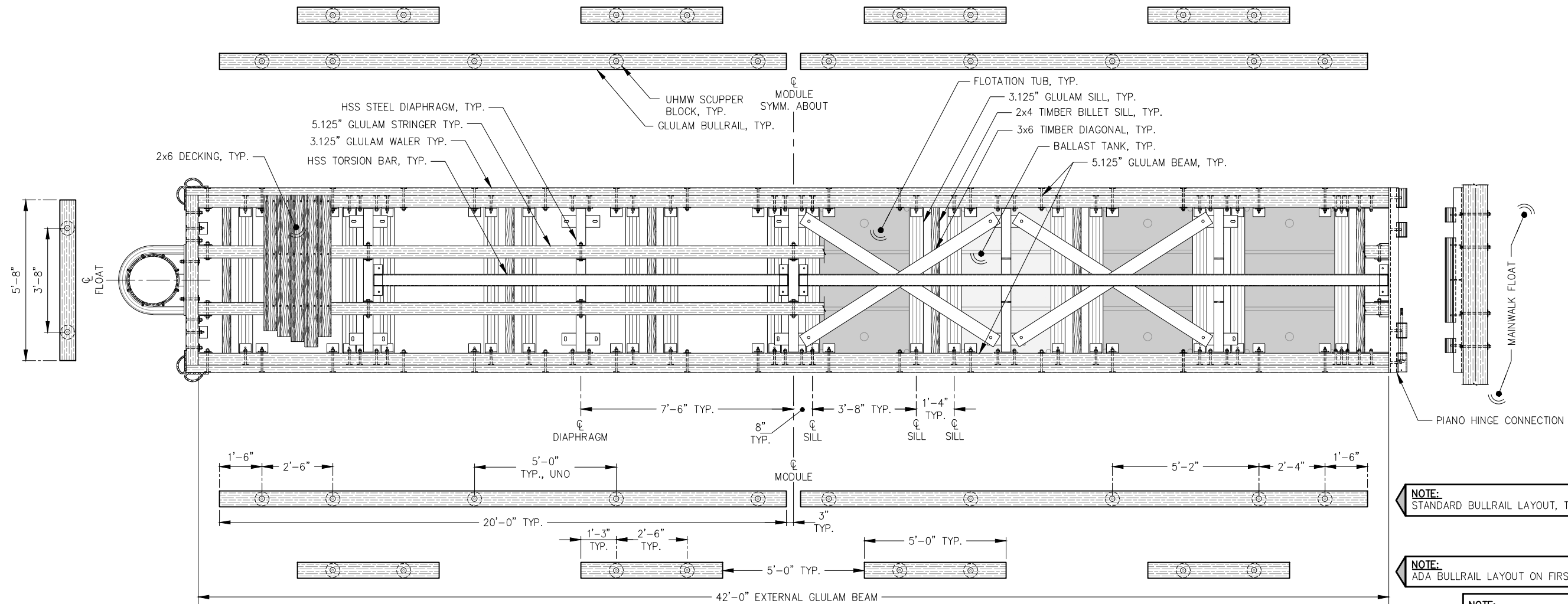
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4' x 32' FINGER FLOAT MODULE

PND PROJECT NO.: 152037

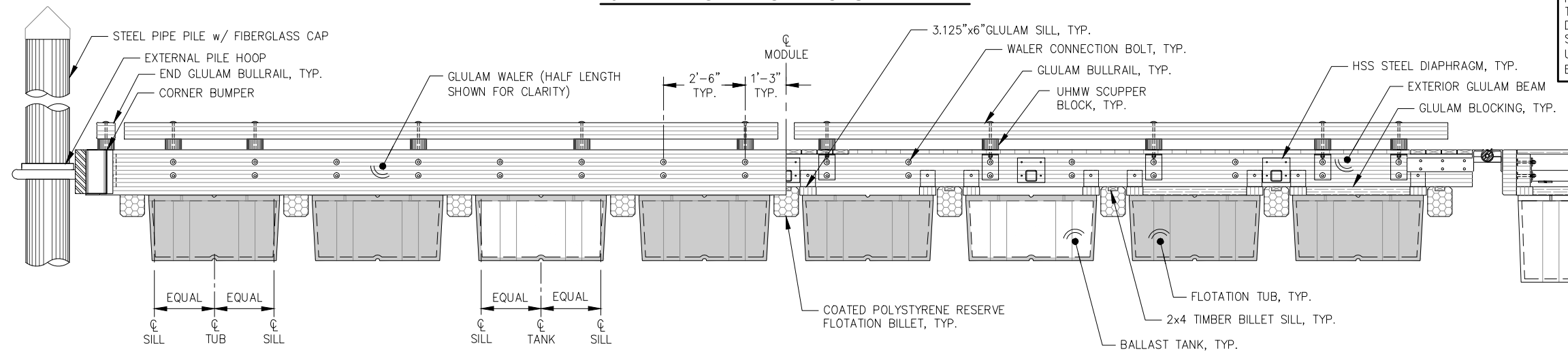
5.18

SHEET
45 OF 77





6' x 42' FINGER FLOAT MODULE - PLAN



6' x 42' FINGER FLOAT MODULE - ELEVATION

NOTE:
STANDARD BULLRAIL LAYOUT, TYP., SYMM.

NOTE:
ADA BULLRAIL LAYOUT ON FIRST FINGER, MAINWALK C, SYMM.

NOTE:
TYPICAL FLOAT MODULE COMPONENTS INCLUDING HSS DIAPHRAGMS, GLULAM SILLS, FLOTATION TUBS, FLOTATION BILLETS, BALLAST TANKS, DIAGONALS AND TYPICAL TIMBER FRAMING ARE SYMMETRIC ABOUT CENTERLINE OF MODULE, UNLESS OTHERWISE NOTED. (CL MODULE EQUIVALENT TO CL EXTERNAL GLULAM BEAM)

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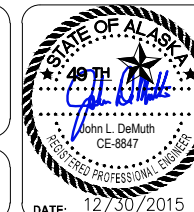
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DATE: 12/30/2015

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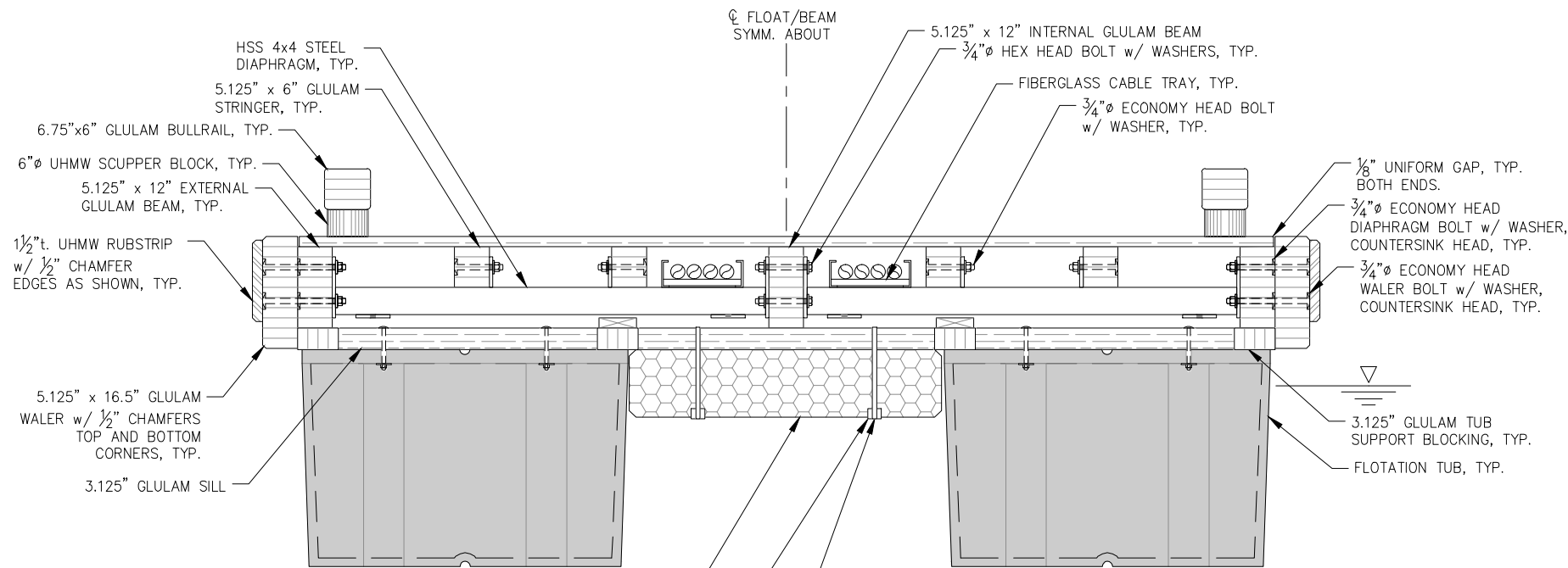
SHEET TITLE:
6' x 42' FINGER FLOAT MODULE

PND PROJECT NO.: 152037

5.19

SHEET
46 OF 77

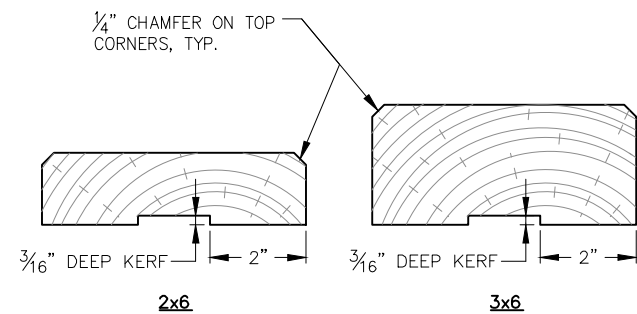




SECTION AT FLOTATION TUBS - 12' MODULE

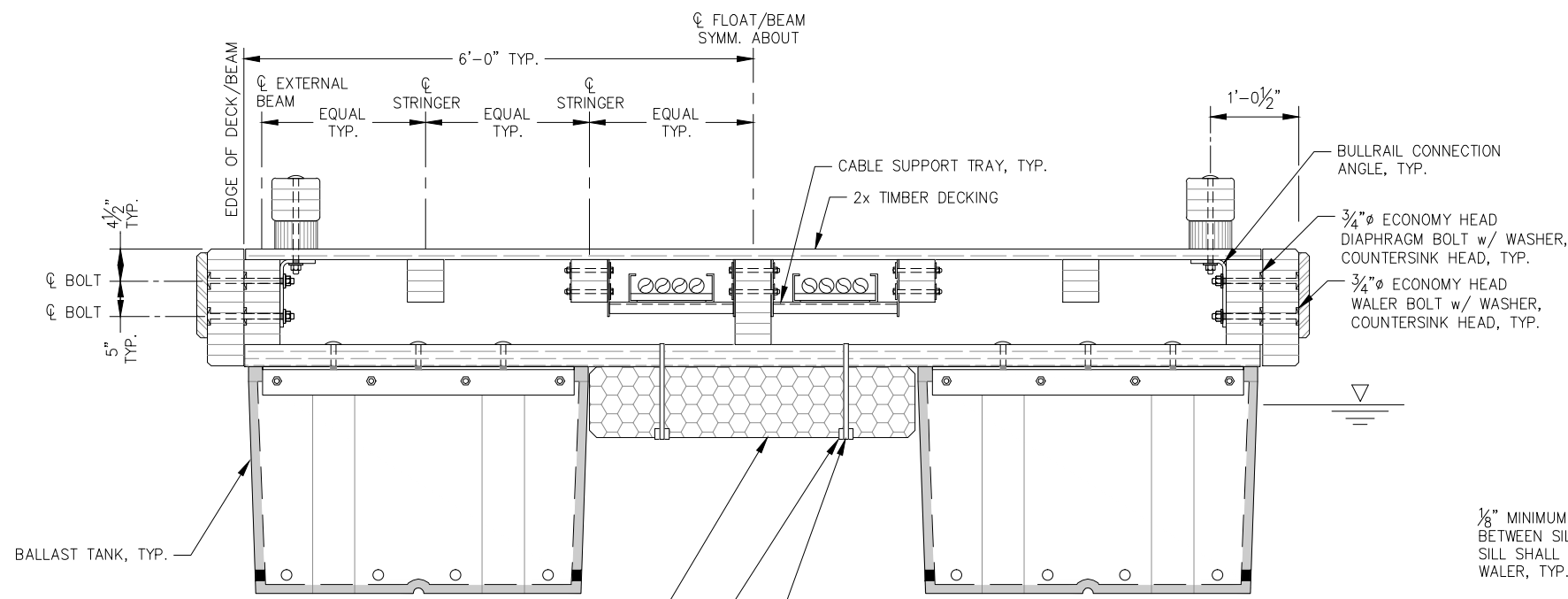
NOTE: DETAILS NOT SHOWN SIMILAR TO 12' FOAM BILLET SECTION.

- NOTES:**
- FURNISH CABLE TRAY FULL LENGTH OF FLOAT, FULL STRENGTH SPLICE CABLE TRAY PER MANUFACTURE RECOMMENDATIONS.



DECKING PROFILES

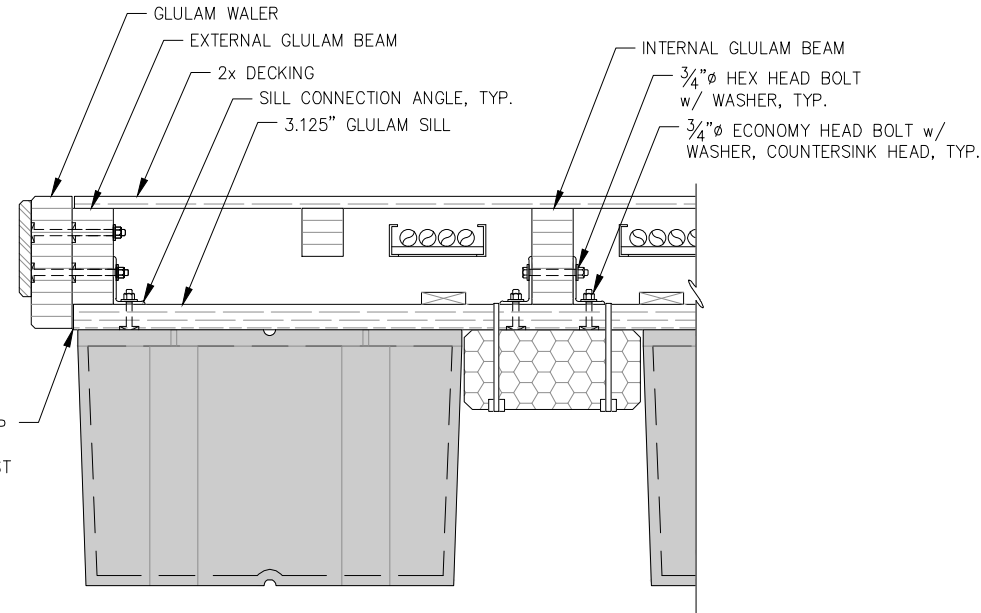
- NOTES:**
- SEE SPECIFICATIONS FOR COMPLETE DECKING REQUIREMENTS.
 - NO DECKING SHALL BE INCORPORATED INTO THE WORK THAT FALLS OUTSIDE OF THE SPECIFIED GRADING.
 - NO DECKING WITH WANE ON THE TOP OF SURFACE SHALL BE INCORPORATED IN THE WORK.
 - FASTEN 2x DECKING TO GLULAM w/ 9 GAUGE 16d HOT DIP GALVANIZED SPIRAL SHANK NAILS AS SHOWN IN PLAN.
 - FASTEN 3x DECKING TO GLULAM w/ 8 GAUGE 40d HOT DIP GALVANIZED SPIRAL SHANK NAILS AS SHOWN IN PLAN.
 - PREDRILL ALL DECKING. SIZE HOLE AS REQUIRED PER AITC TO PREVENT SPLITTING.



SECTION AT FOAM BILLET / BALLAST TANK - 12' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 12' FLOTATION TUB SECTION.

- NOTES:**
- SECURE FIBERGLASS CABLE TRAY WITH UV AND WEATHER RESISTANT ZIP TIES OR ENGINEER APPROVED ALTERNATE.
 - LOCATE CABLE TRAY SUPPORTS 2'-6" FROM THE END OF EACH MODULE UNLESS OTHERWISE NOTED.



TYPICAL SECTION AT SILL CONNECTION

NOTE: 10' SECTION SHOWN, 12' SECTION SIMILAR.

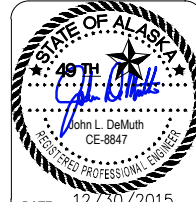


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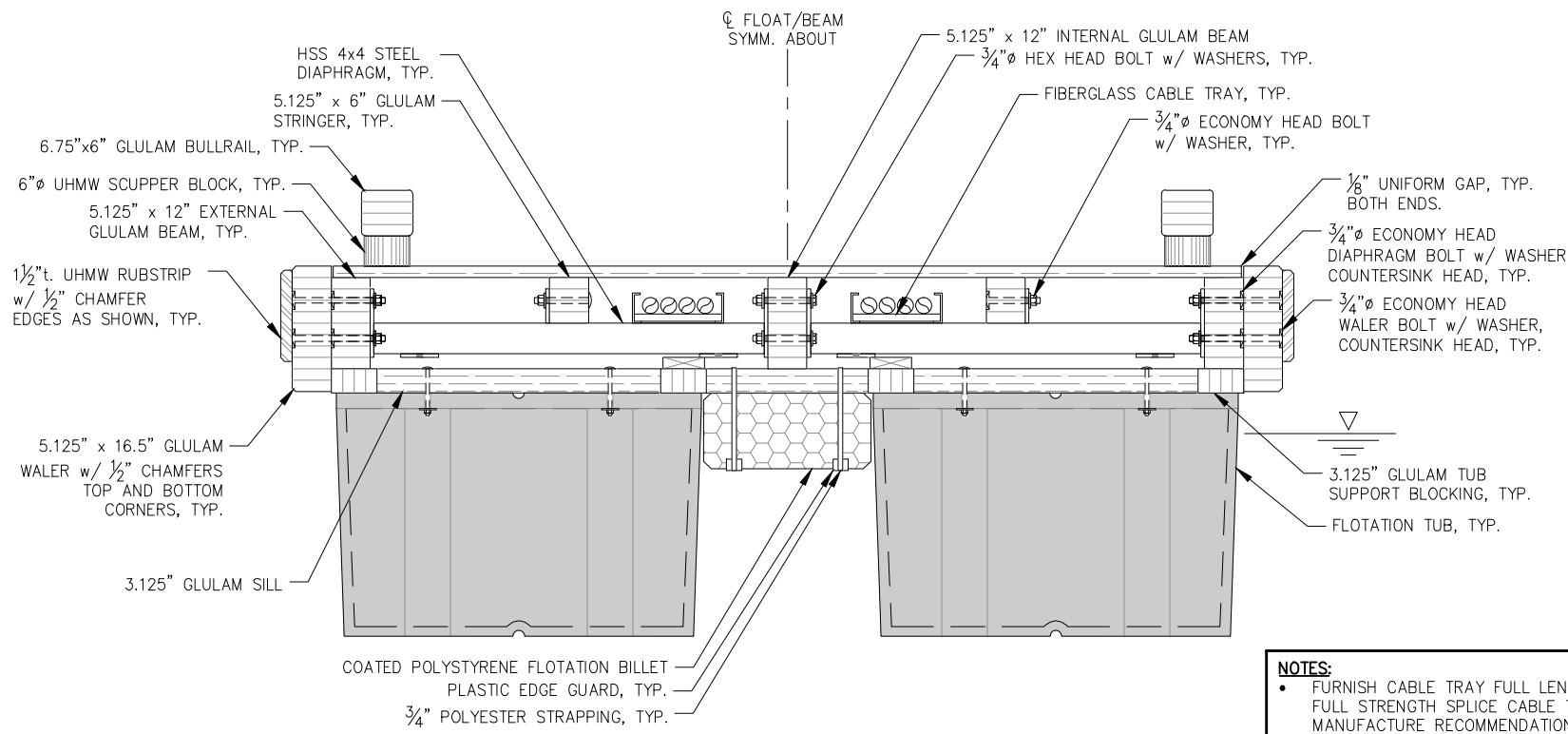
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CBJ PROJECT - DH16-001**

SHEET TITLE:
TYPICAL FLOAT SECTIONS

PND PROJECT NO.: 152037

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SHEET
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\\Proj\jdata\15XXX\152037 Douglas Harbor Renovation\G. Drawings\Design\6.01-6.03 Typical Float Sections.dwg, 12/30/2015, 2:06:46 PM

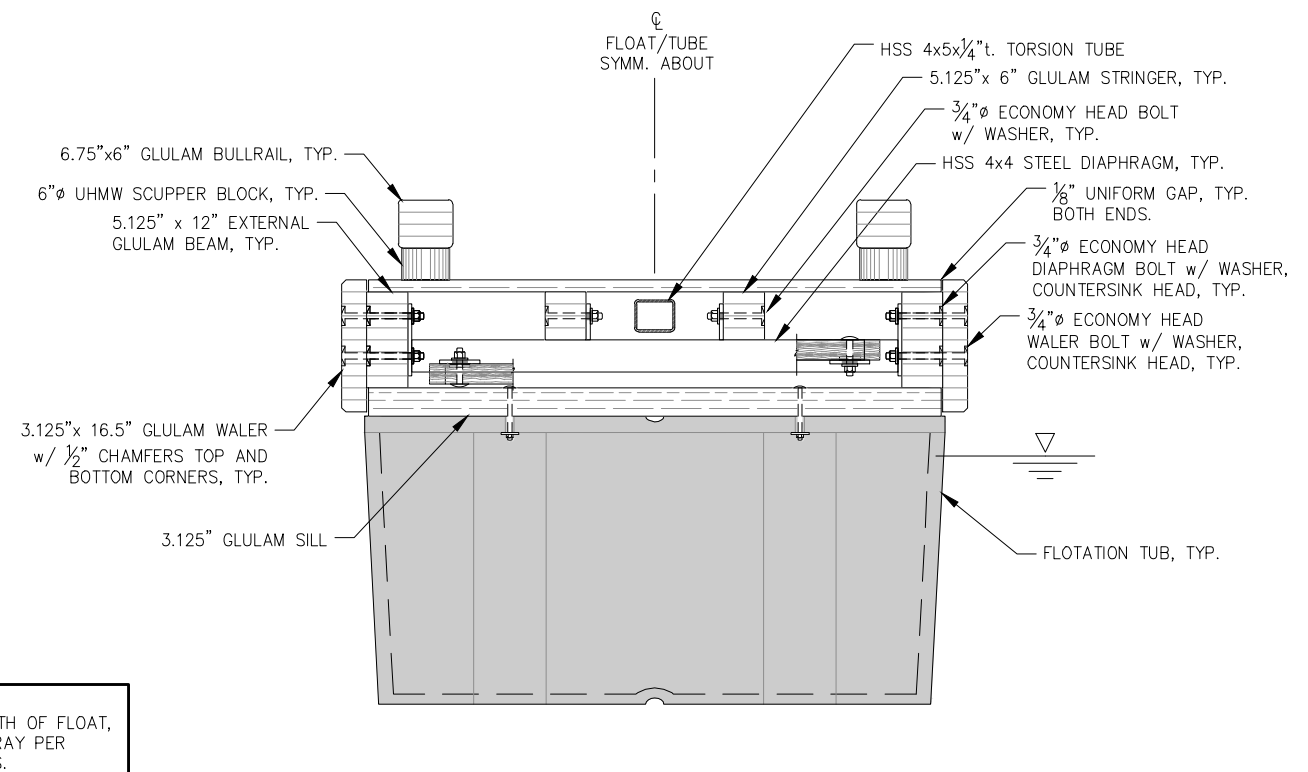


NOTES:

- FURNISH CABLE TRAY FULL LENGTH OF FLOAT, FULL STRENGTH SPLICE CABLE TRAY PER MANUFACTURE RECOMMENDATIONS.

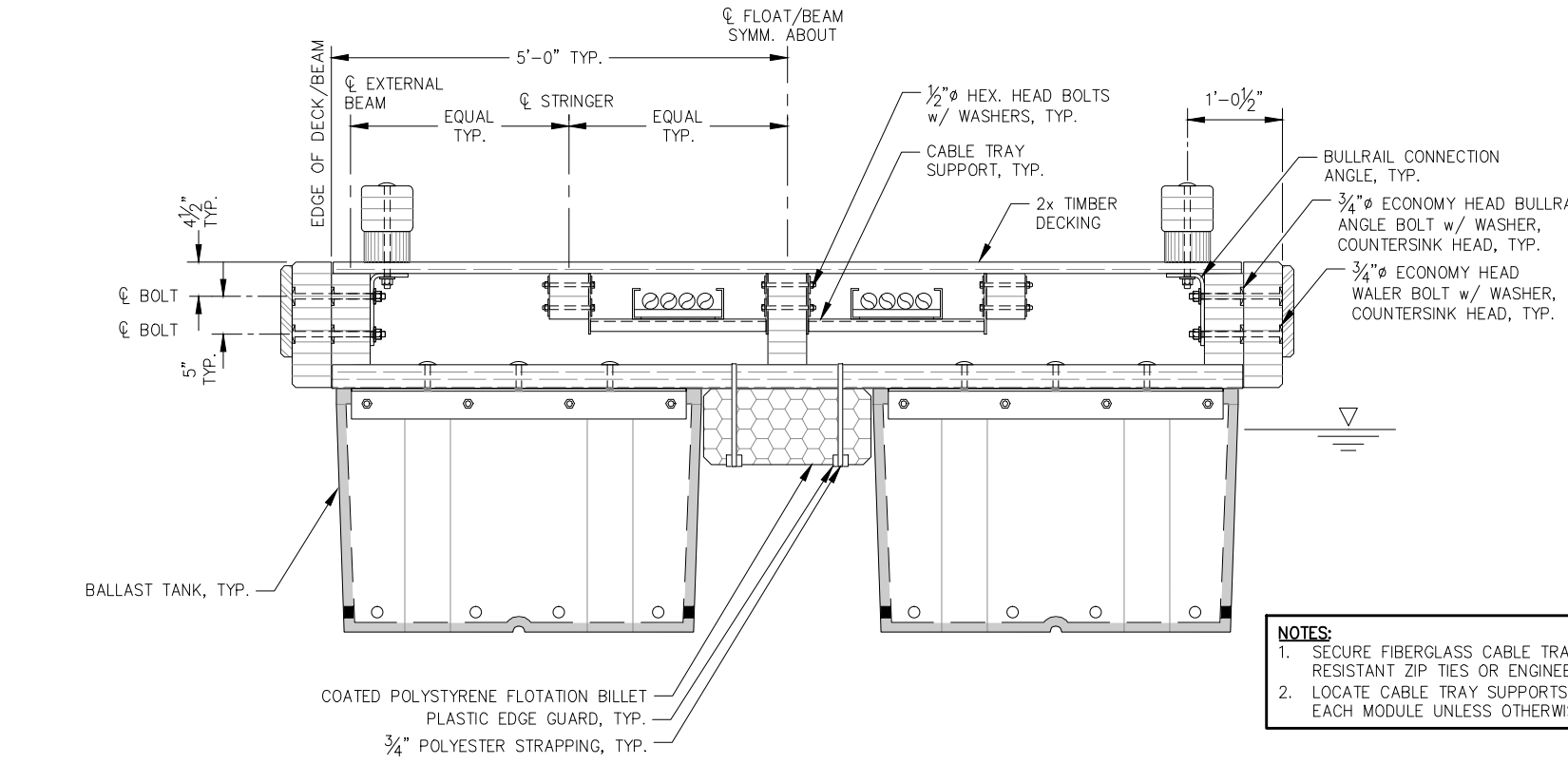
SECTION AT FLOTATION TUBS - 10' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 10' FOAM BILLET SECTION.



SECTION AT FLOTATION TUBS - 6' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 6' FOAM BILLET SECTION.

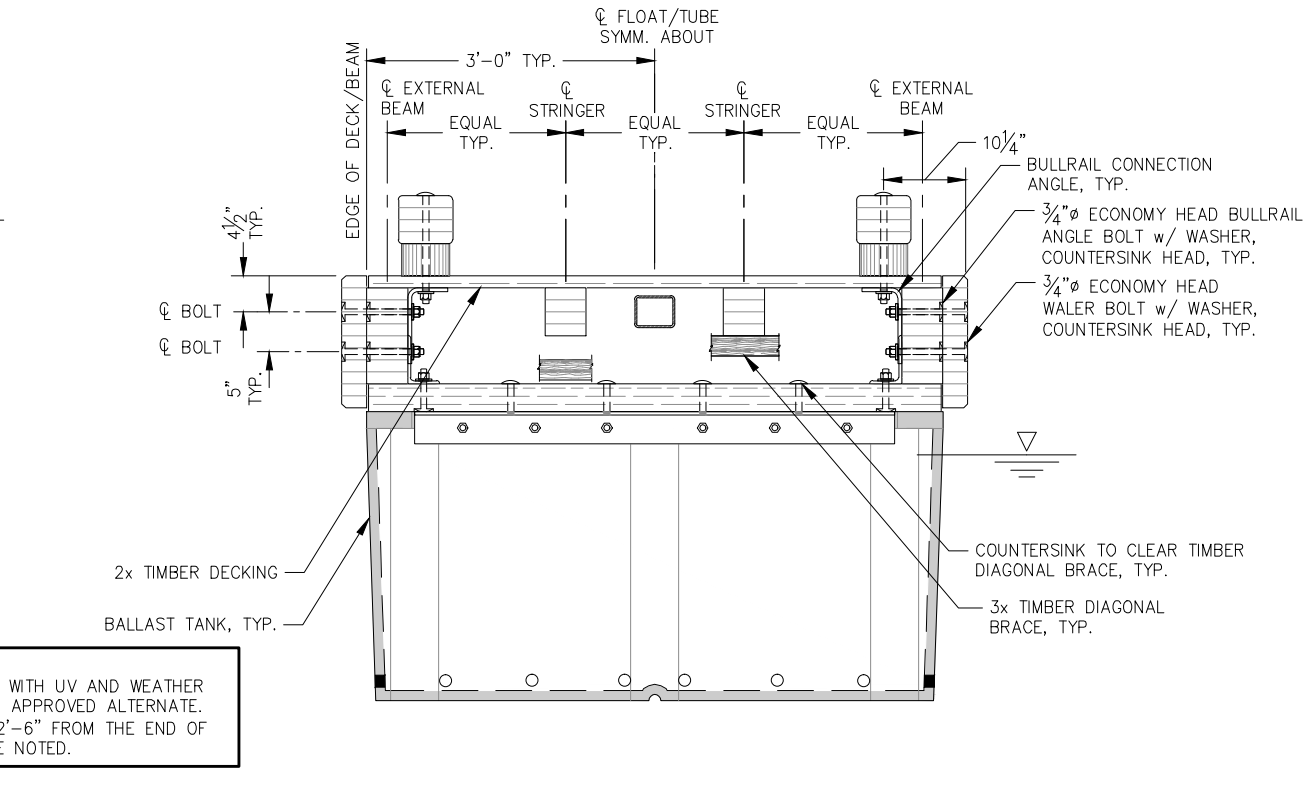


NOTES:

- SECURE FIBERGLASS CABLE TRAY WITH UV AND WEATHER RESISTANT ZIP TIES OR ENGINEER APPROVED ALTERNATE.
- LOCATE CABLE TRAY SUPPORTS 2'-6" FROM THE END OF EACH MODULE UNLESS OTHERWISE NOTED.

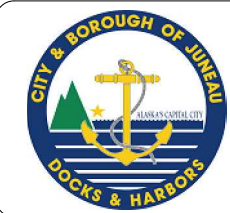
SECTION AT FOAM BILLET / BALLAST TANK - 10' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 10' FLOTATION TUB SECTION.



SECTION AT BALLAST TANK - 6' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 6' FLOTATION TUB SECTION.

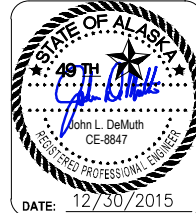


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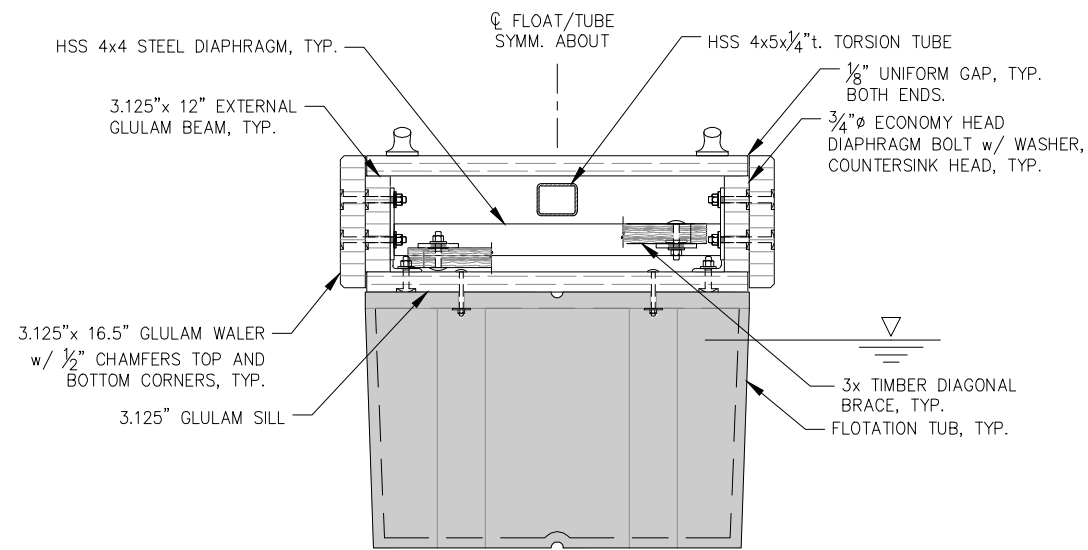
**CITY & BOROUGH OF JUNEAU, ALASKA
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CBJ PROJECT - DH16-001**

SHEET TITLE:
TYPICAL FLOAT SECTIONS

PND PROJECT NO.: 152037

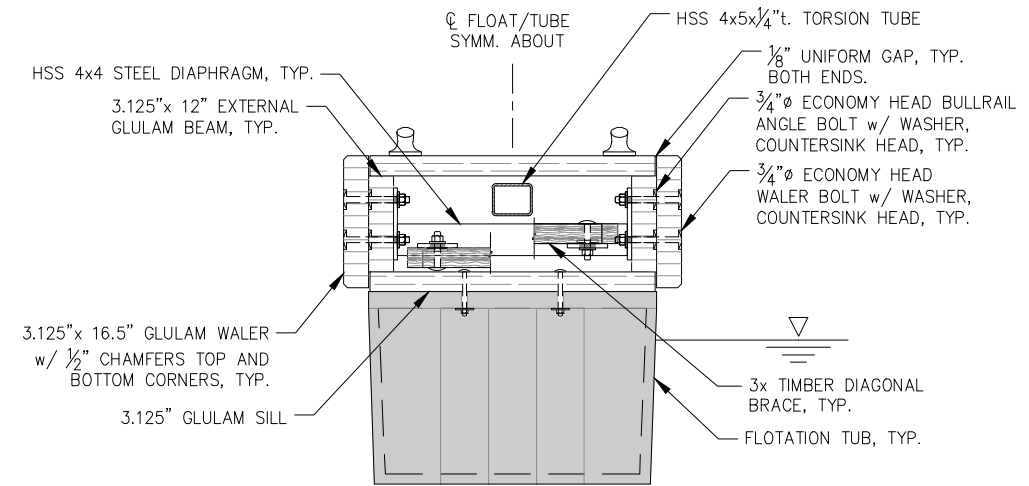
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SHEET
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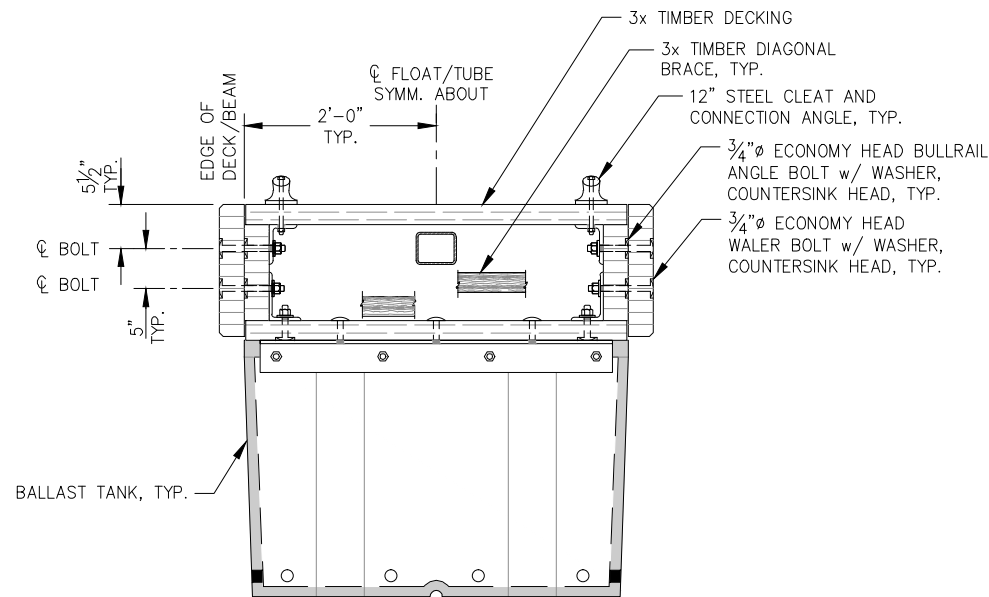
SECTION AT FLOTATION TUBS - 4' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 4' FOAM BILLET SECTION.



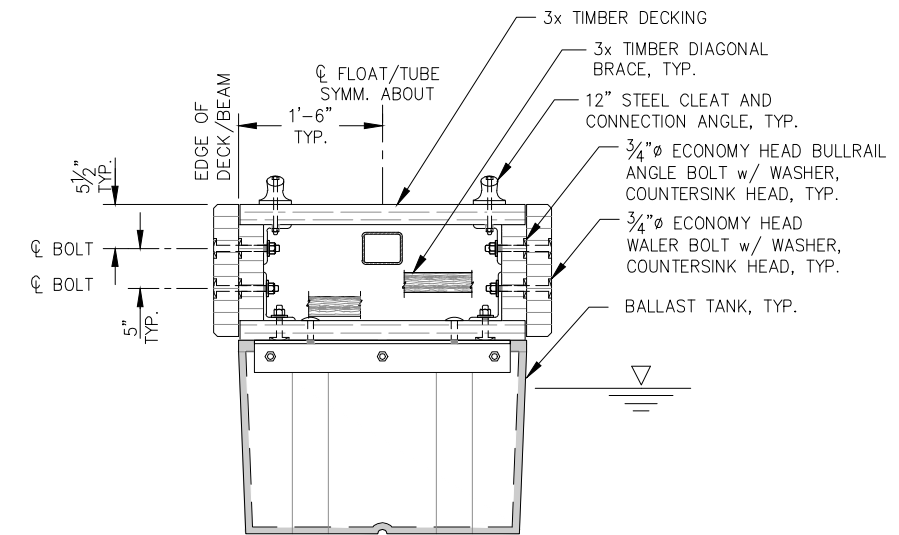
SECTION AT FLOTATION TUBS - 3' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 3' FOAM BILLET SECTION.



SECTION AT BALLAST TANK - 4' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 4' FLOTATION TUB SECTION.



SECTION AT BALLAST TANK - 3' MODULE

NOTE: DETAILS NOT SHOWN SIMILAR TO 3' FLOTATION TUB SECTION.



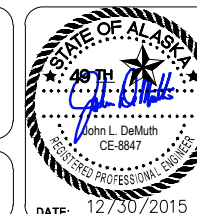
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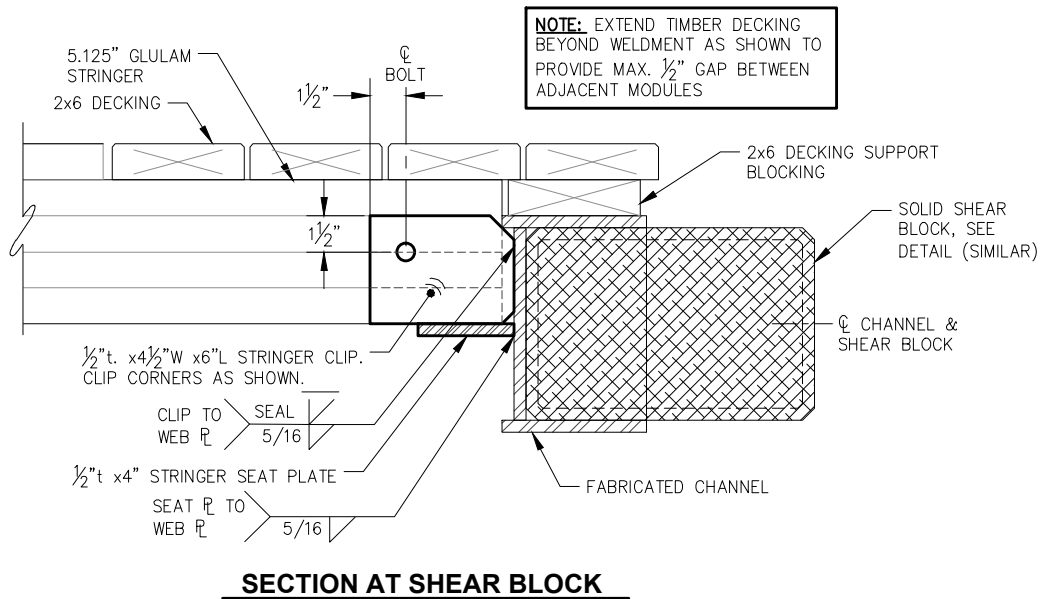
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TYPICAL FLOAT SECTIONS

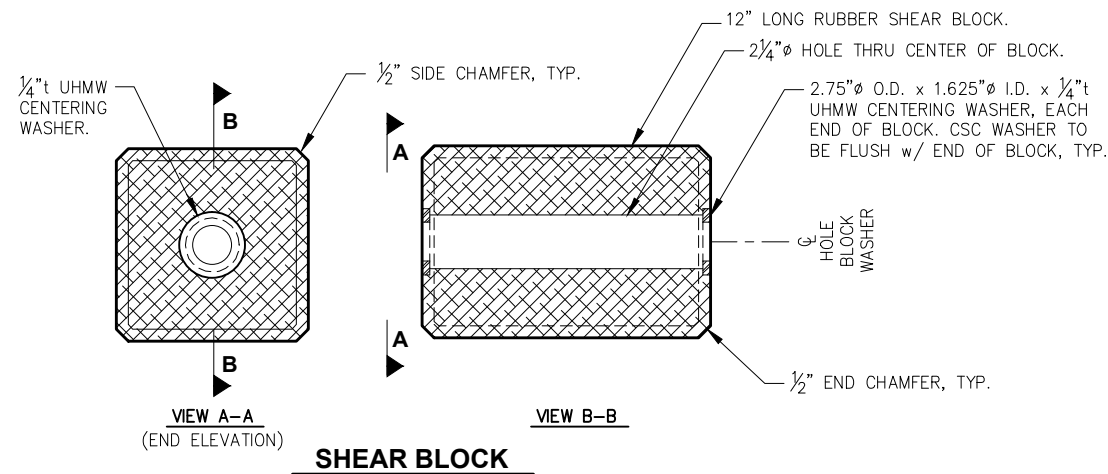
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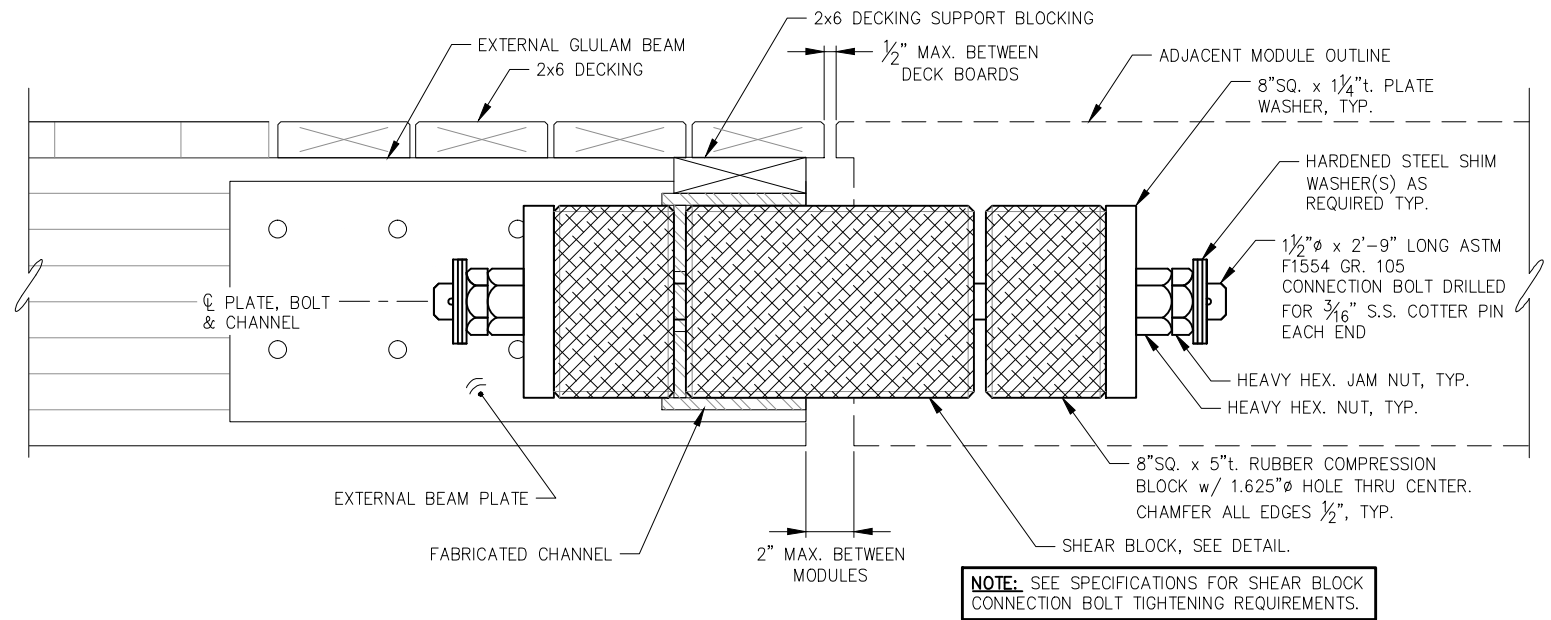
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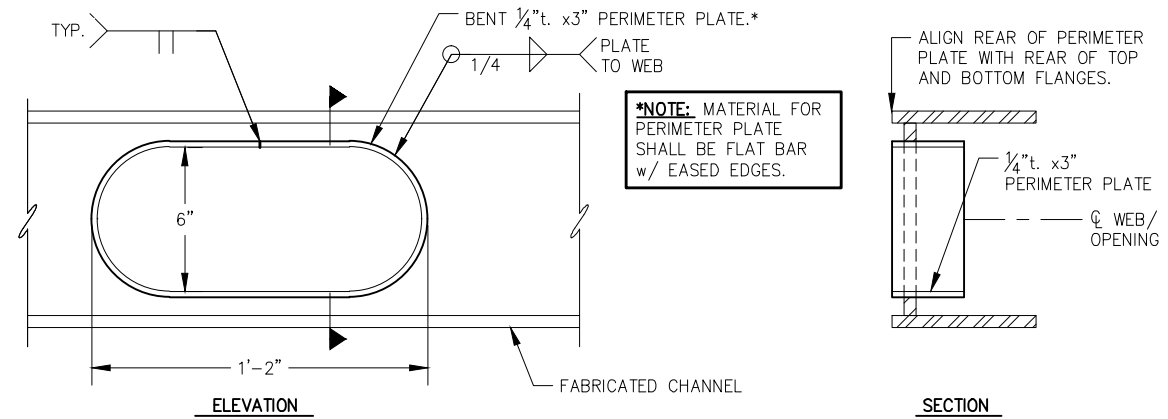
SECTION AT SHEAR BLOCK



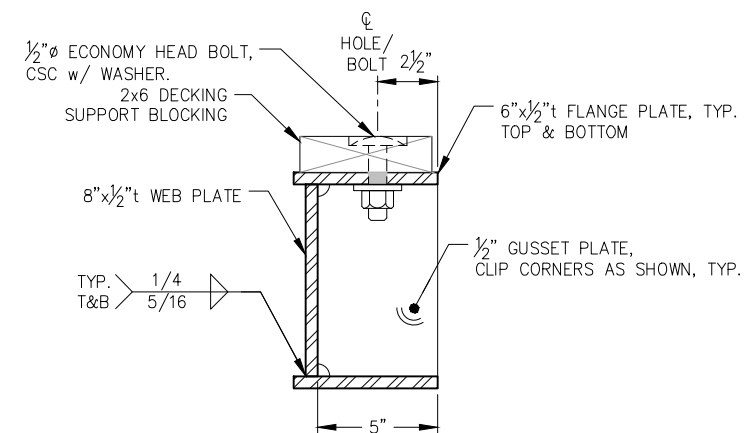
NOTE: SEE SPECIFICATIONS FOR SHEAR BLOCK FABRICATION AND FIT-UP REQUIREMENTS.



BOLTED SHEAR BLOCK ASSEMBLY



END CONNECTION OPENING w/ PERIMETER PLATE



FABRICATED CHANNEL SECTION



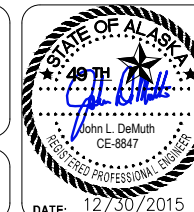
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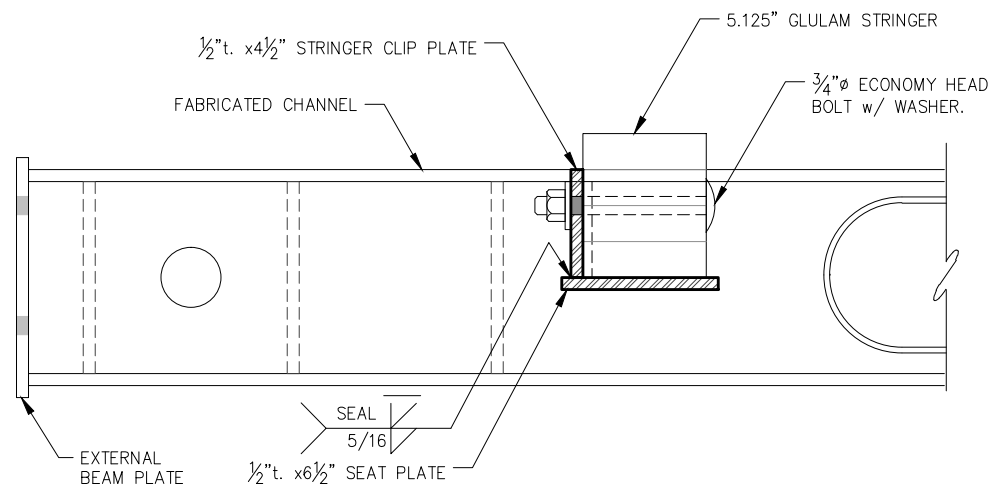
SHEET TITLE:
**MODULE END CONNECTION
DETAILS**

PND PROJECT NO.: 152037

6.05

SHEET
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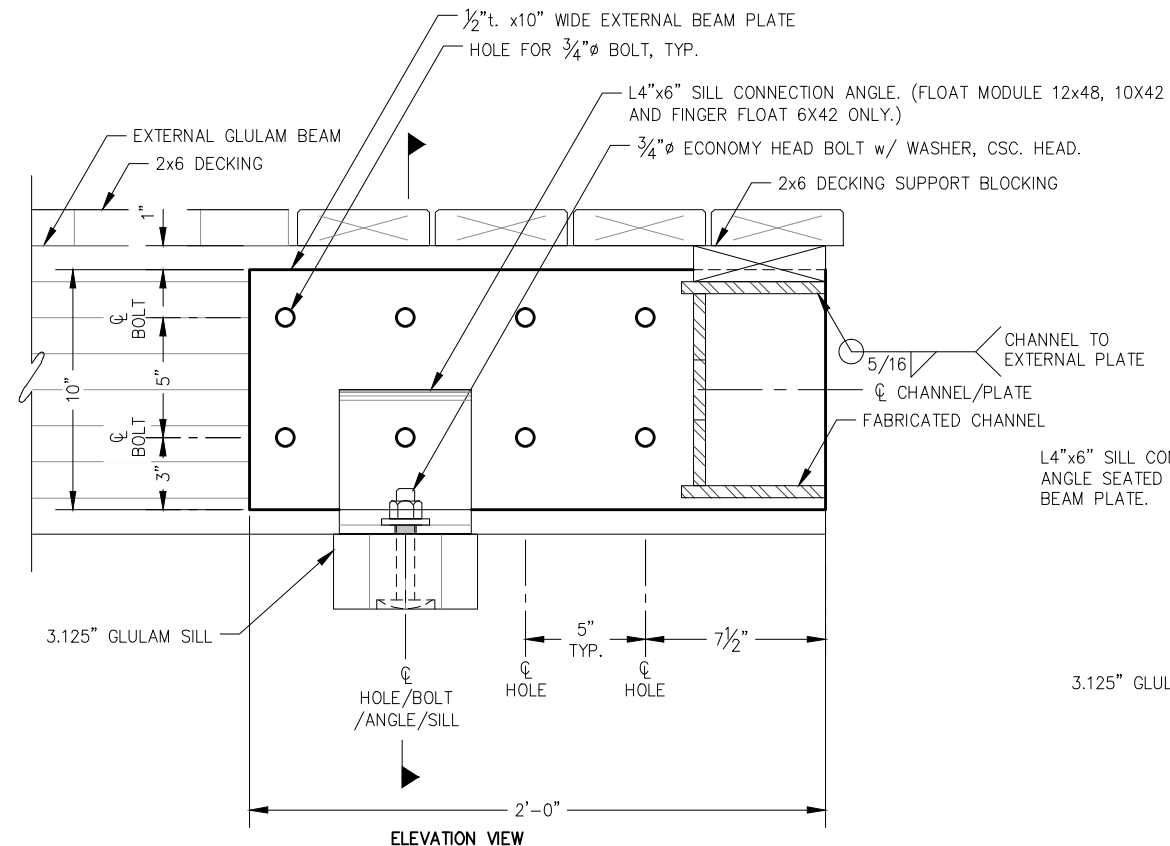
DATE: 12/30/2015



STRINGER SEAT PLATE SECTION

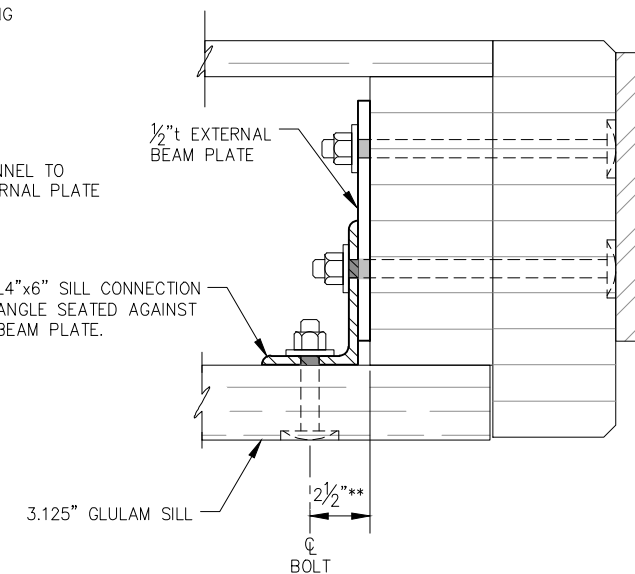
NOTE:
FABRICATOR TO CHOOSE HOW TO ACHIEVE TIGHT FIT OF STRINGER TO CLIP PLATE/SEAT PLATE AS SHOWN. ALL SIDES OF PLATE TO BE SEALED. GRIND INSIDE EDGE FLUSH OR CHAMFER STRINGERS AS REQUIRED.

NOTE:
10 FOOT END CONNECTION SHOWN. RELOCATE STRINGER CLIP PLATE AS NEEDED TO MATH STRINGER CLIP PLATE LOCATION ON HSS DIAPHRAGMS.



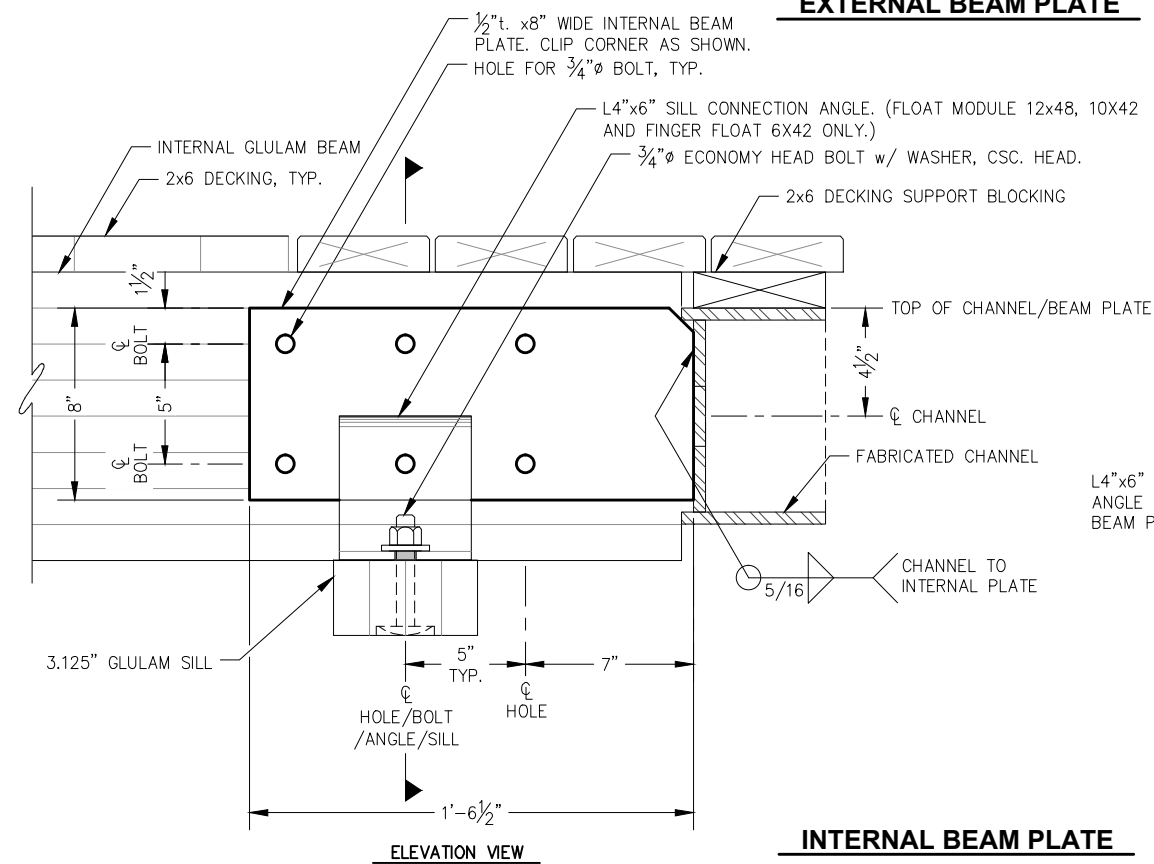
ELEVATION VIEW

EXTERNAL BEAM PLATE



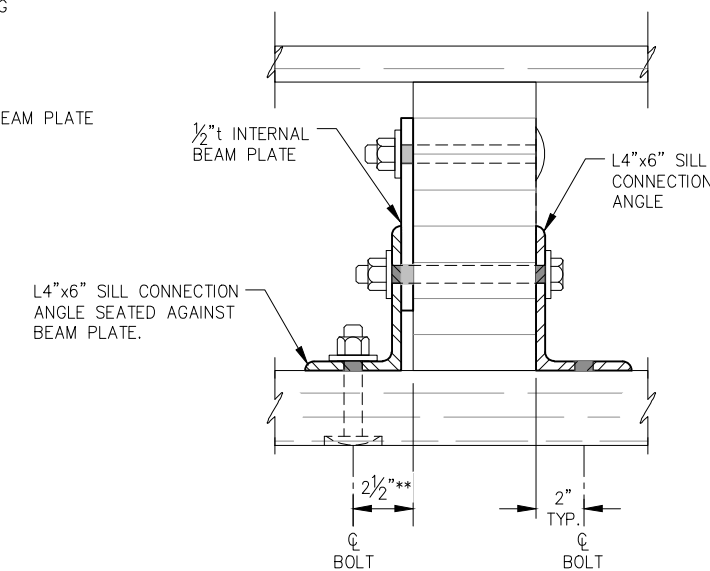
SECTION VIEW

****NOTE:**
BOLT HOLE FOR SILL AT END WELDMENT NON-STANDARD.



ELEVATION VIEW

INTERNAL BEAM PLATE



SECTION VIEW

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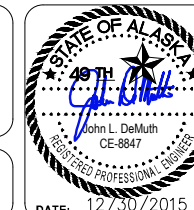
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CBJ PROJECT - DH16-001**

SHEET TITLE:
**MODULE END CONNECTION
DETAILS**

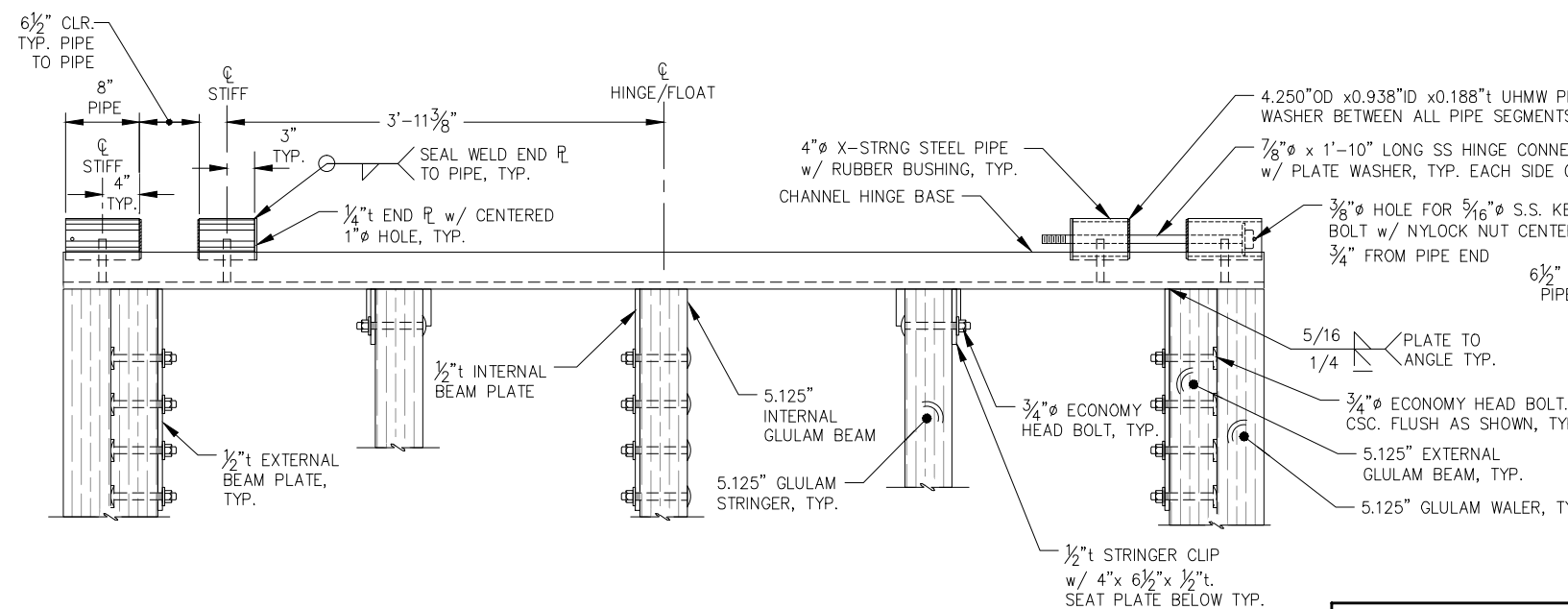
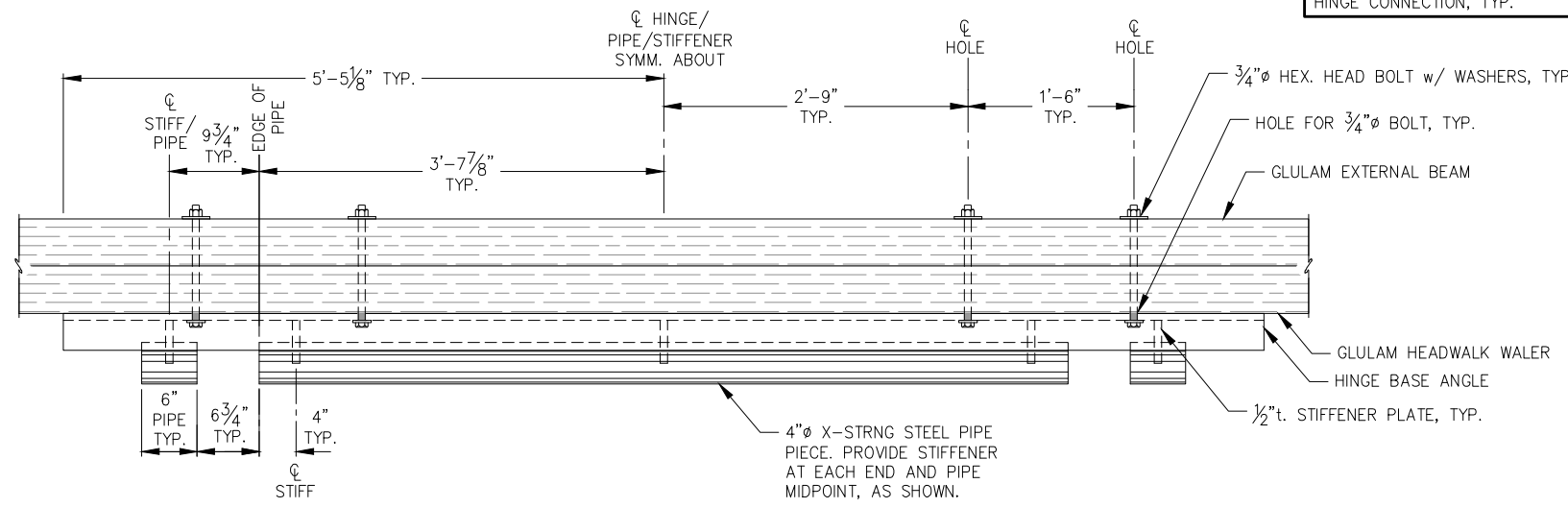
PND PROJECT NO.: 152037

6.06

SHEET
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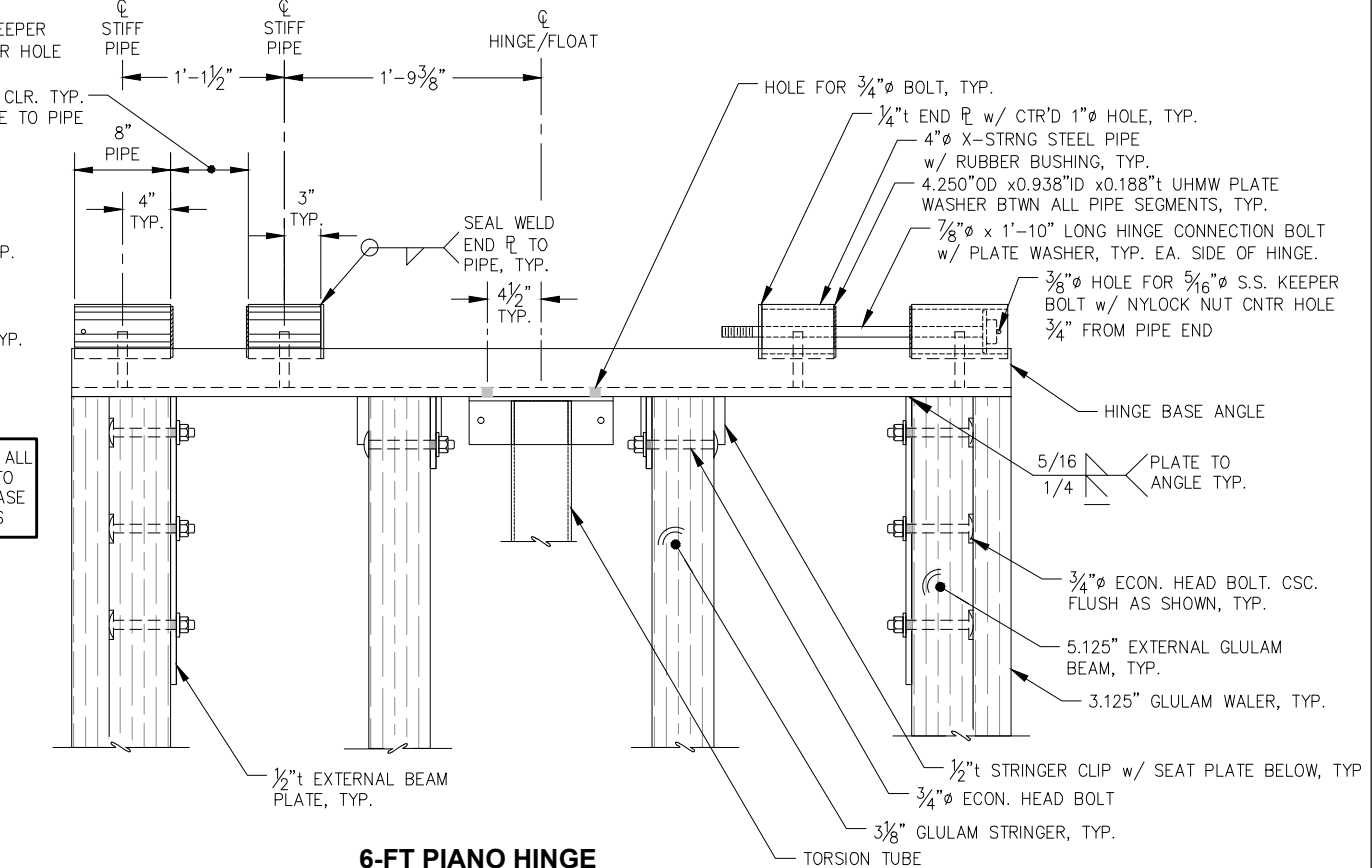
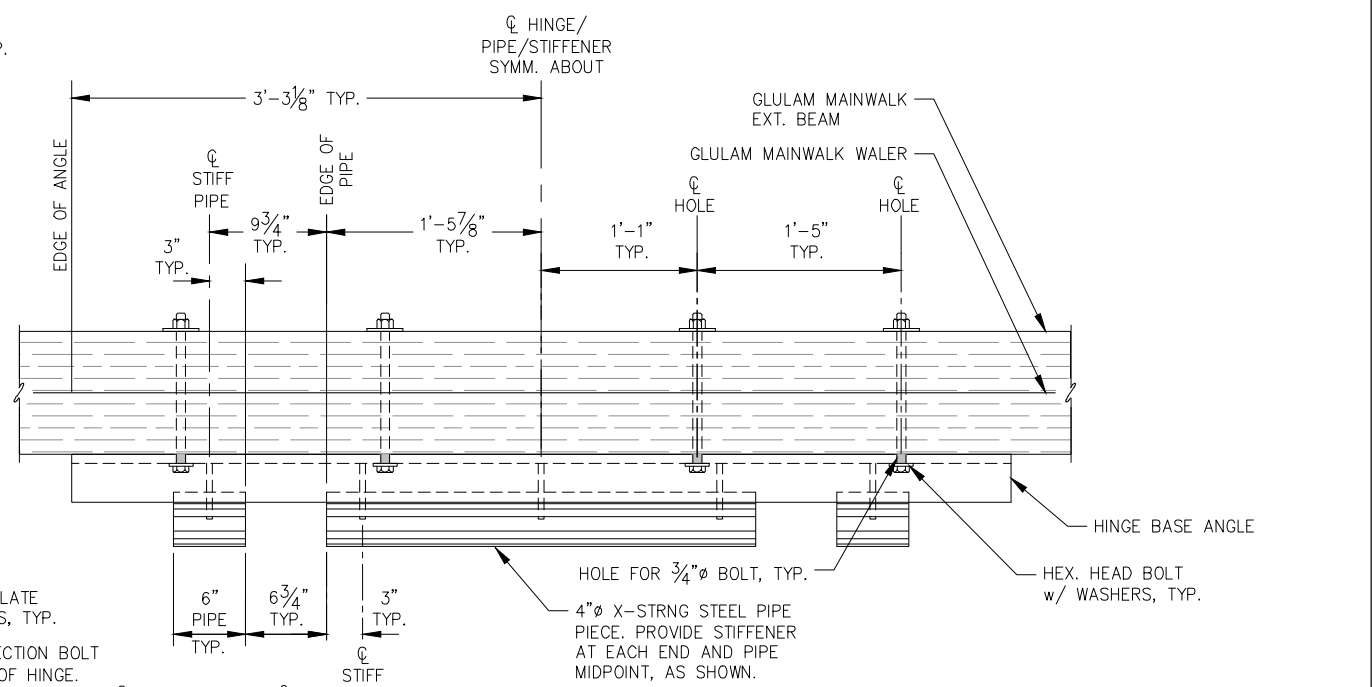


NOTE:
OMIT WALER BOLTS WITHIN LIMITS OF PIANO HINGE CONNECTION, TYP.



10-FT PIANO HINGE

NOTE: APPLY NON-SKID TO ALL HINGE SURFACES EXPOSED TO FOOT TRAFFIC, INCLUDING BASE ANGLES AND PIPE SEGMENTS



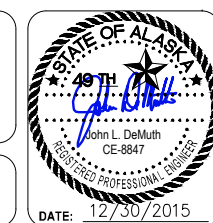
6-FT PIANO HINGE

NOTE: DETAILS NOT SHOWN SIMILAR TO 10-FT PIANO HINGE.

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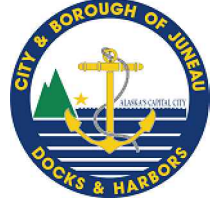


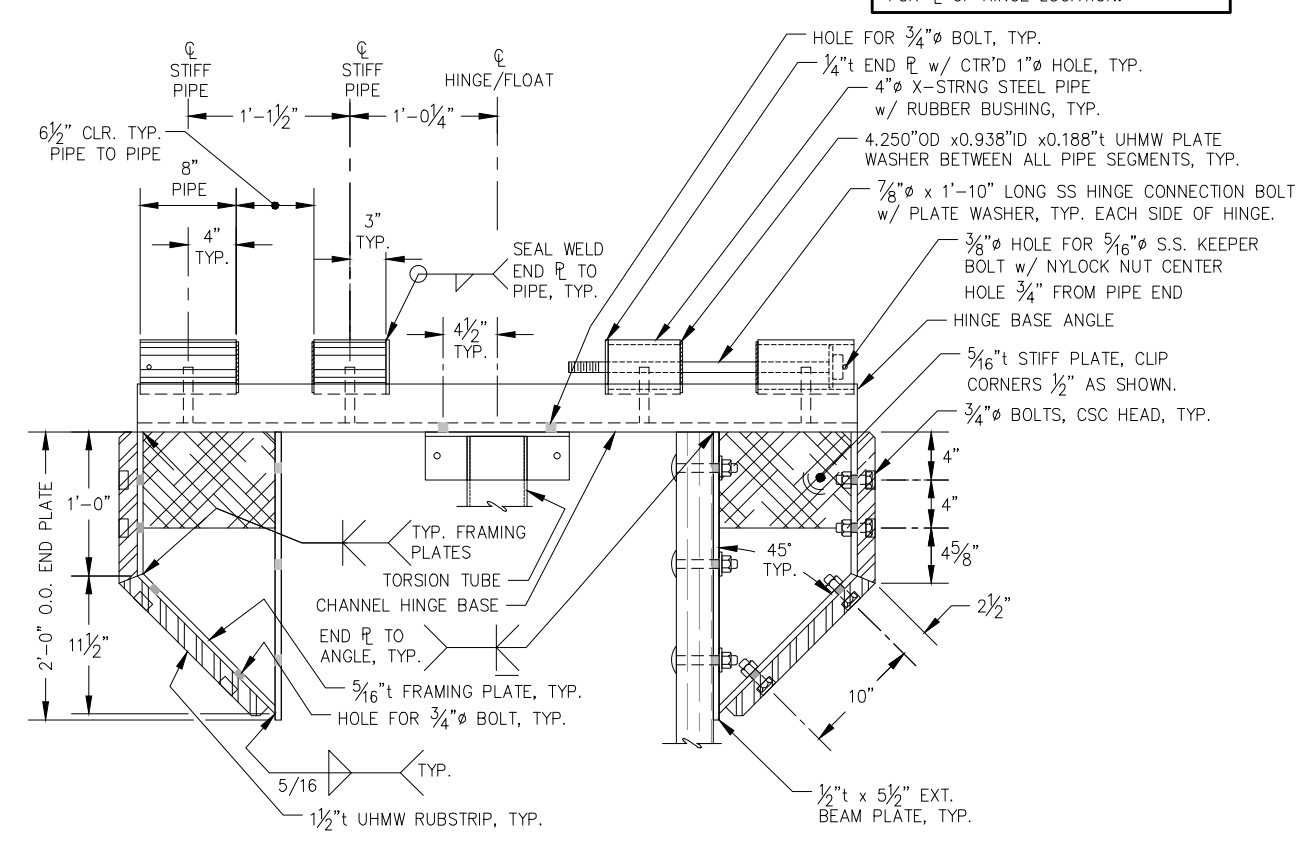
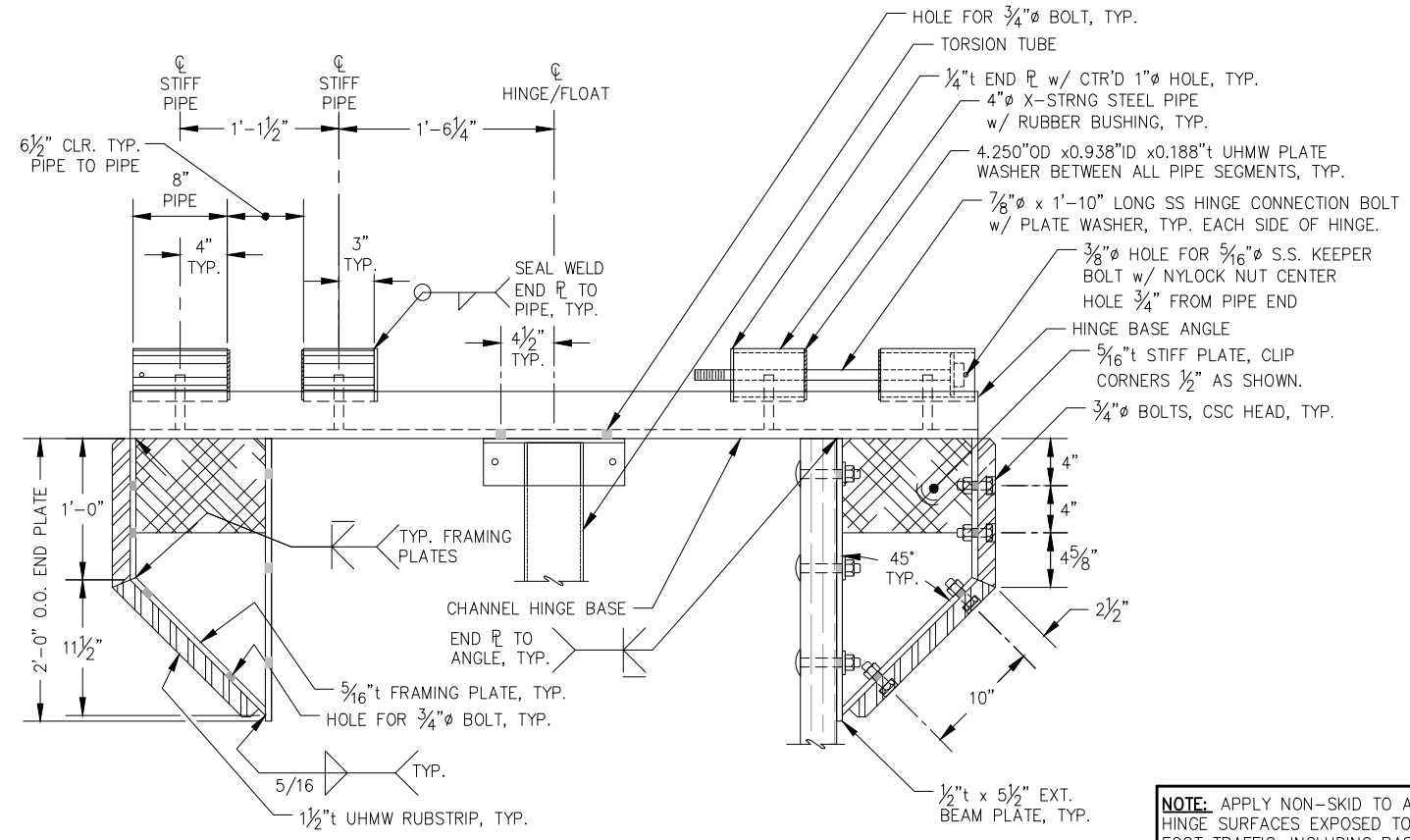
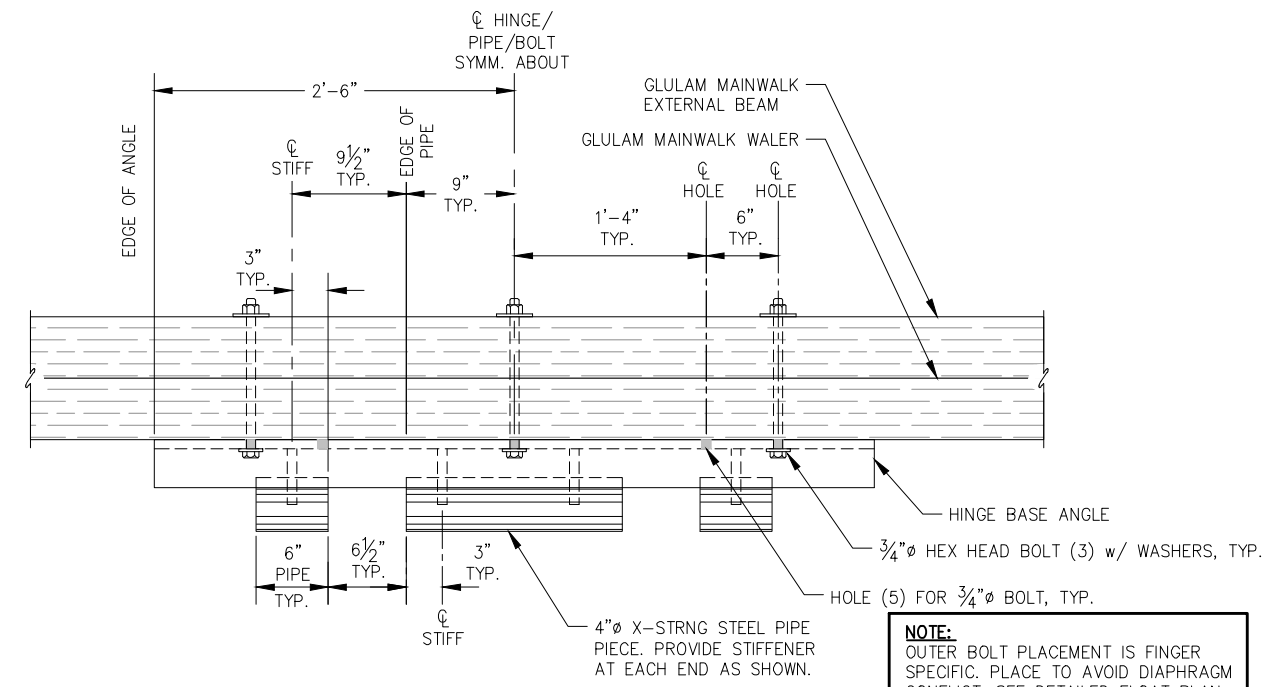
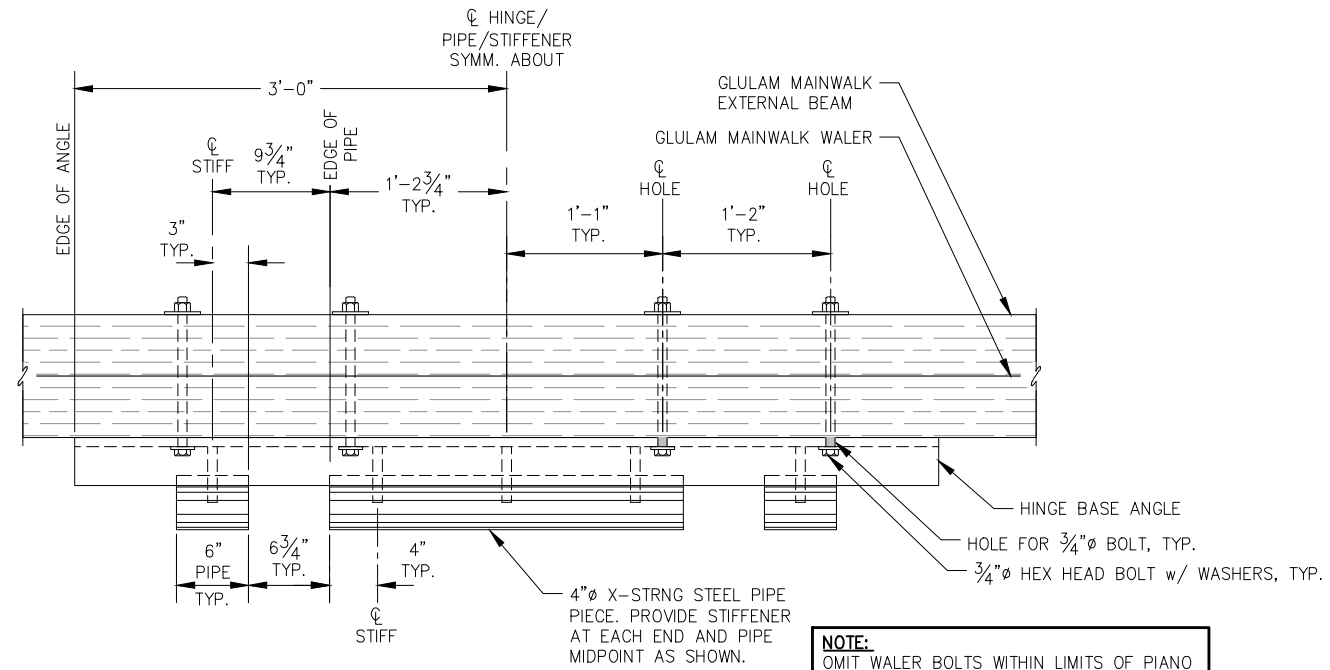
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SHEET TITLE:
PIANO HINGE DETAILS
PND PROJECT NO.: 152037

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SHEET
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4-FT HINGE WELDMENT

NOTE: DETAILS NOT SHOWN SIMILAR TO 10-FT PIANO HINGE.

3-FT HINGE WELDMENT

NOTE: DETAILS NOT SHOWN SIMILAR TO 10-FT PIANO HINGE.

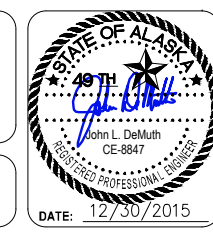
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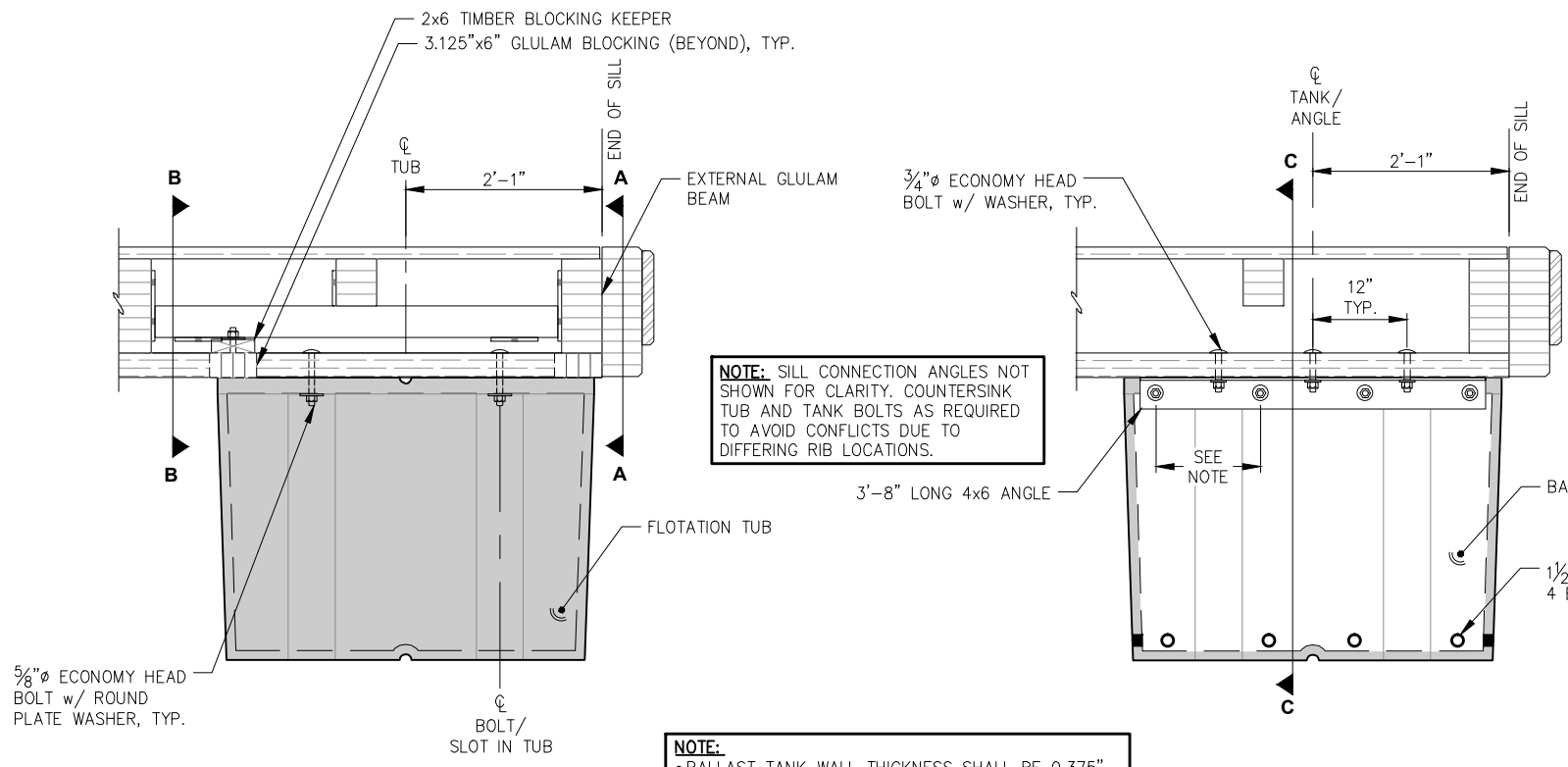


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CBJ PROJECT - DH16-001

SHEET TITLE:
PIANO HINGE DETAILS
PND PROJECT NO.: 152037

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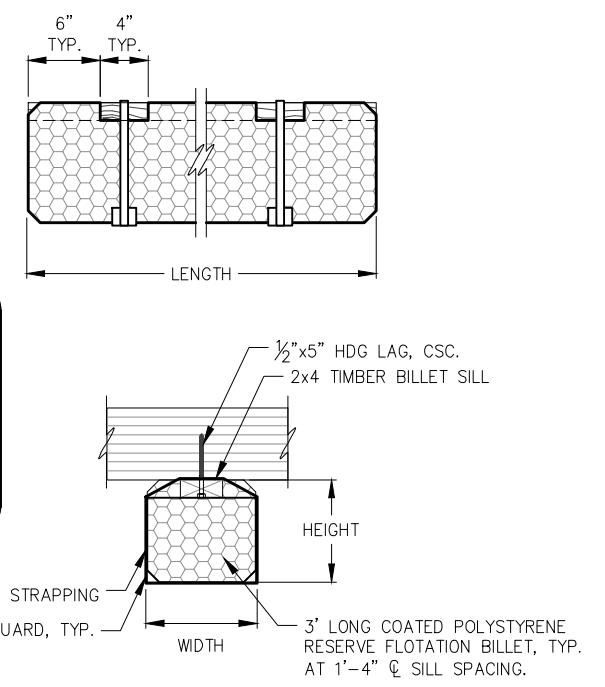


NOTE: SILL CONNECTION ANGLES NOT SHOWN FOR CLARITY. COUNTERSINK TUB AND TANK BOLTS AS REQUIRED TO AVOID CONFLICTS DUE TO DIFFERING RIB LOCATIONS.

NOTE:
 • BALLAST TANK WALL THICKNESS SHALL BE 0.375"
 • FLOTATION TANK WALL THICKNESS SHALL BE 0.175"

NOTE: BALLAST TANK CONFIGURATION ASSUMES THE USE OF EAGLE FLOATS MANUFACTURED BY HENDREN PLASTICS. IF ALTERNATE UNITS ARE PROPOSED, CONTRACTOR SHALL SUBMIT REVISED TANK AND HARDWARE CONFIGURATION FOR ENGINEER APPROVAL.

FINGER BILLET SIZE				
FINGER SIZE	QUANTITY	HEIGHT	WIDTH	LENGTH
3'x24' (A)	2	9"	9"	36"
3'x24' (B)	2	9"	8"	36"
4'x32'	7	9"	9"	48"
6'x42'	9	11"	9"	72"

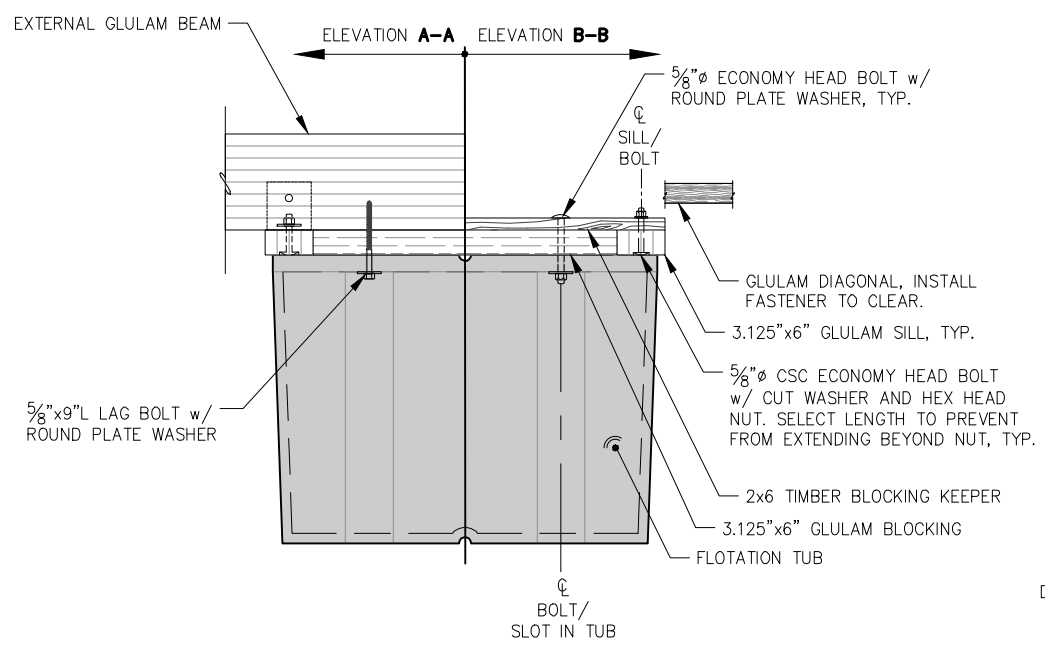


FINGER BILLET

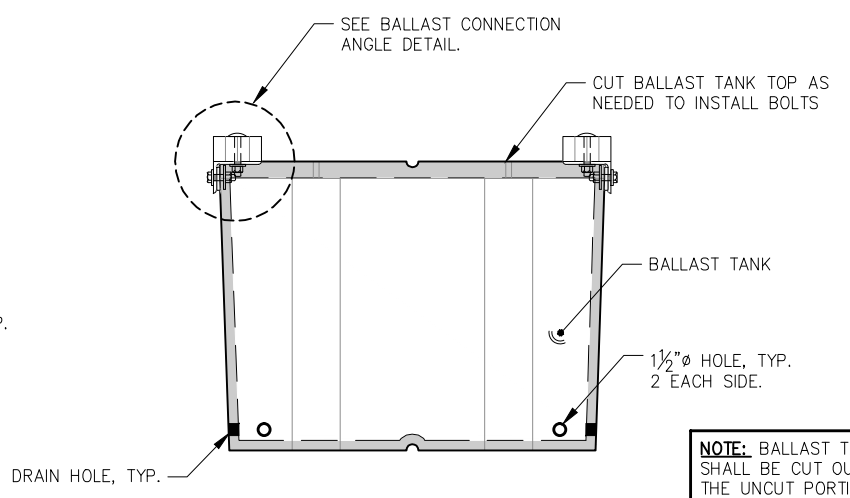
NOTE: PROVIDE BALLAST TANK BOLTS IN THE QUANTITY SHOWN, LAYOUT BOLT HOLE LOCATIONS TO AVOID REINFORCING RIBS IN THE BALLAST TANK, BOLTS SHOULD BE EQUALLY SPACED UNLESS LOCATION OF REINFORCING RIBS PREVENTS AN EQUAL LAYOUT.

4x4 FLOTATION TUB
 (MODULE SECTION VIEW, 6x4 AND 3x4 SIMILAR)

4x4 BALLAST TANK
 (MODULE SECTION VIEW, 6x4 AND 3x4 SIMILAR)

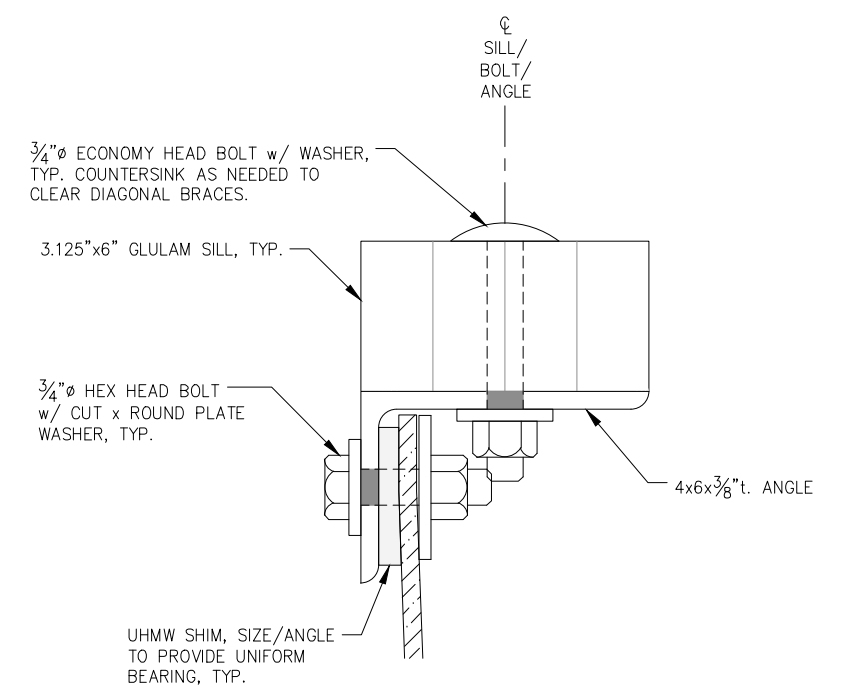


4x4 FLOTATION TUB
 (MODULE SECTION VIEW, 6x4 AND 3x4 SIMILAR)



4x4 BALLAST TANK
 (SECTION C-C VIEW, 6x4 AND 3x4 SIMILAR)

NOTE: BALLAST TANK TOPS SHALL BE CUT OUT SUCH THAT THE UNCUT PORTIONS OF THE TANK BEAR ON THE GLULAM SILL. BALLAST TANK BOLT HOLES SHALL BE DRILLED USING A TEMPLATE TO ENSURE ACCURATE FIT UP.

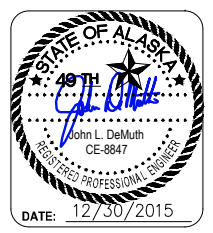


BALLAST CONNECTION ANGLE

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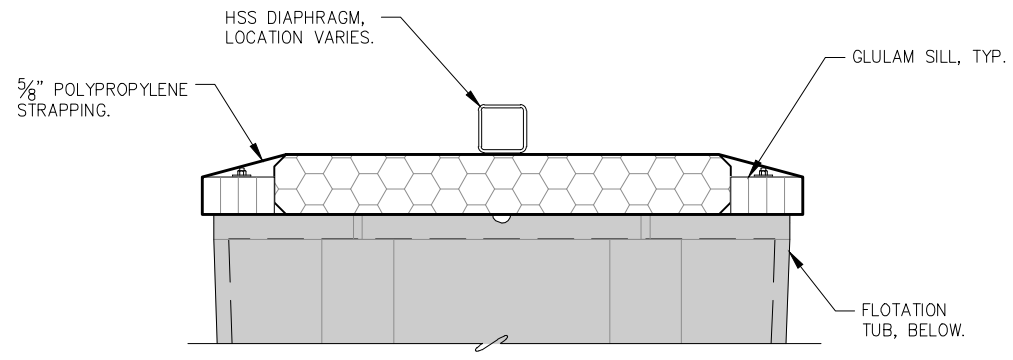
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CBJ PROJECT - DH16-001

SHEET TITLE:
BALLAST TANK AND FLOTATION TUB DETAILS
 PND PROJECT NO.: 152037

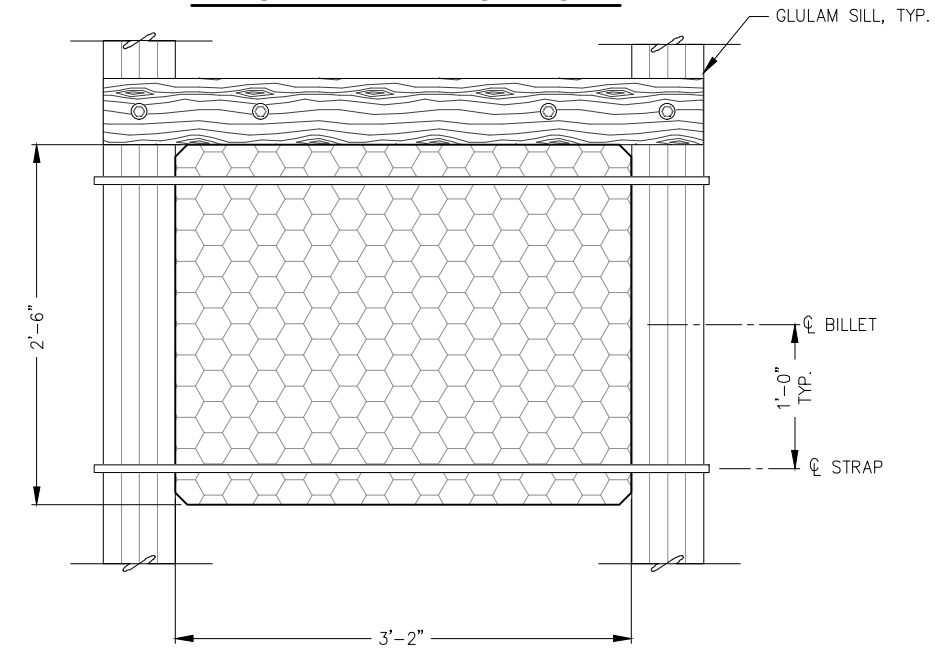
6.10
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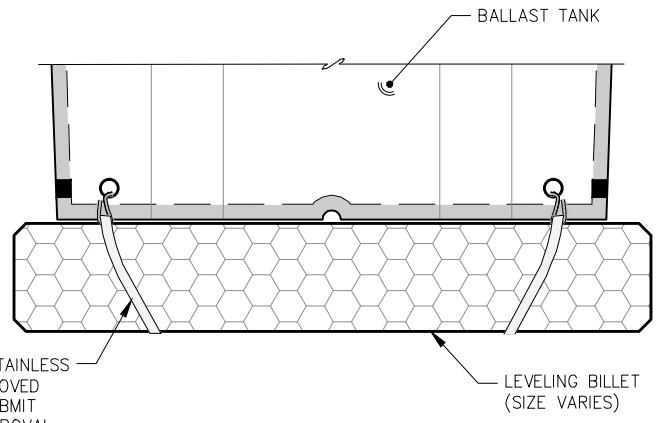
RESERVE BILLET - SECTION



RESERVE BILLET - PLAN

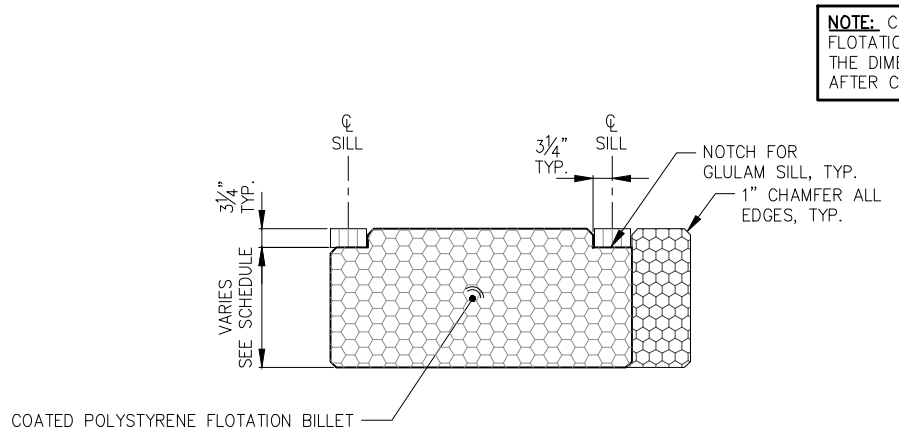
NOTE: PLACE RESERVE BILLETS ON TOP OF EVERY 4'x4' FLOTATION TUB.

NOTE: PROVIDE LEVELING BILLETS IN SIZE AND QUANTITY NOTED IN BID SCHEDULE, FIELD INSTALL PER ENGINEER DIRECTION. SEE SPECIFICATIONS FOR INSTALLATION NARRATIVE.



LEVELING BILLET

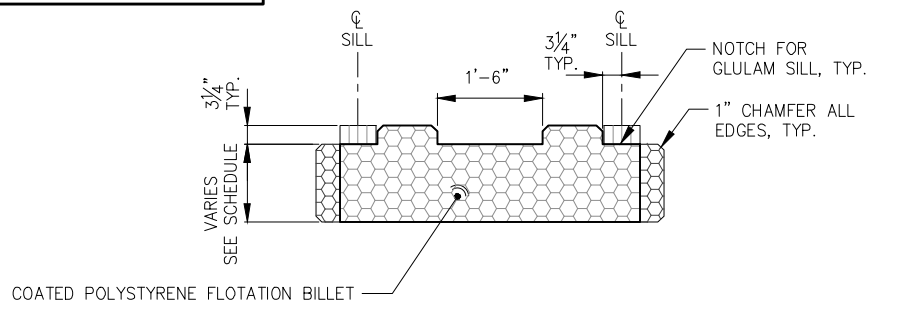
SOLID RUBBER BUNGEE w/ STAINLESS STEEL HOOKS, TYP. OR APPROVED EQUAL. CONTRACTOR MAY SUBMIT ALTERNATE METHOD FOR APPROVAL TO SECURE BILLETS.



FLOTATION BILLET - TYPICAL SIDE ELEVATION

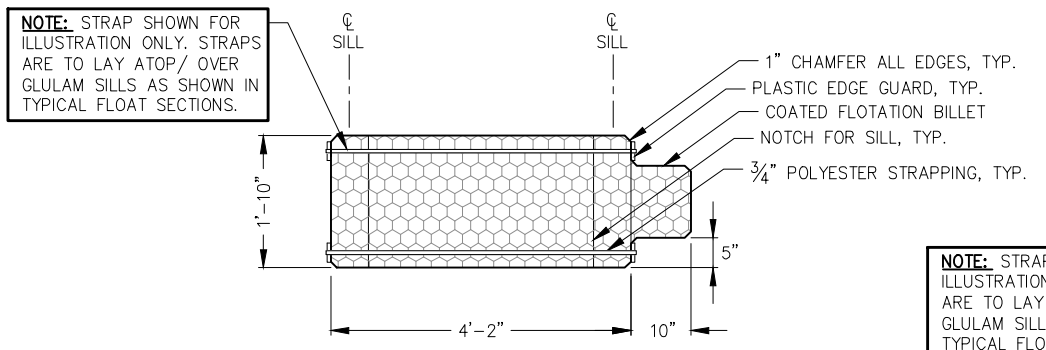
NOTE: SEE FLOTATION SCHEDULE FOR DEPTH AND WIDTH OF BILLETS.

NOTE: CUT NOTCHES IN POLYSTYRENE FLOTATION BILLET OVERSIZE SUCH THAT THE DIMENSIONS SHOWN ARE ACHIEVED AFTER COATING APPLICATION, TYP.



GANGWAY BILLET - TYPICAL SECTION

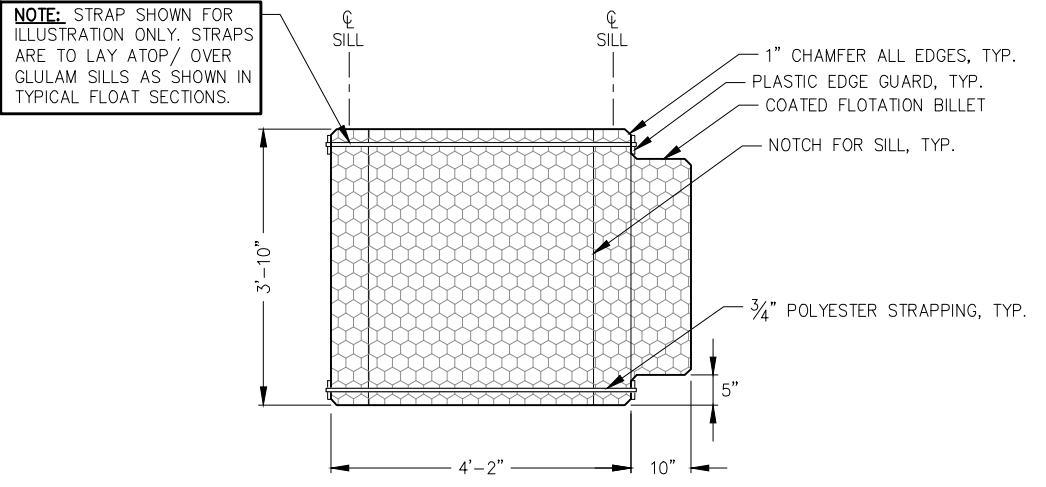
NOTE: SEE FLOTATION SCHEDULE FOR DEPTH AND WIDTH OF BILLETS.



10' MODULE FLOTATION BILLET - PLAN

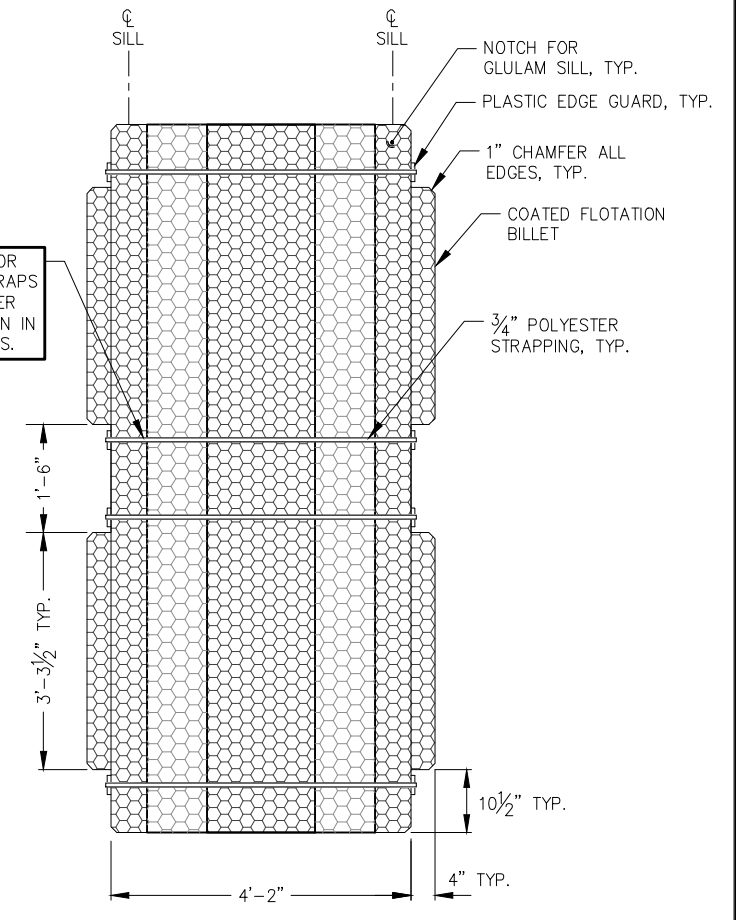
NOTE: STRAP SHOWN FOR ILLUSTRATION ONLY. STRAPS ARE TO LAY ATOP/ OVER GLULAM SILLS AS SHOWN IN TYPICAL FLOAT SECTIONS.

NOTE: STRAP SHOWN FOR ILLUSTRATION ONLY. STRAPS ARE TO LAY ATOP/ OVER GLULAM SILLS AS SHOWN IN TYPICAL FLOAT SECTIONS.

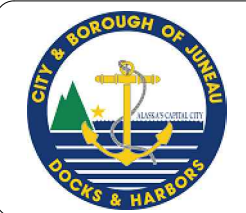


12' MODULE FLOTATION BILLET - PLAN

NOTE: STRAP SHOWN FOR ILLUSTRATION ONLY. STRAPS ARE TO LAY ATOP/ OVER GLULAM SILLS AS SHOWN IN TYPICAL FLOAT SECTIONS.



GANGWAY BILLET - PLAN



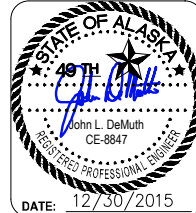
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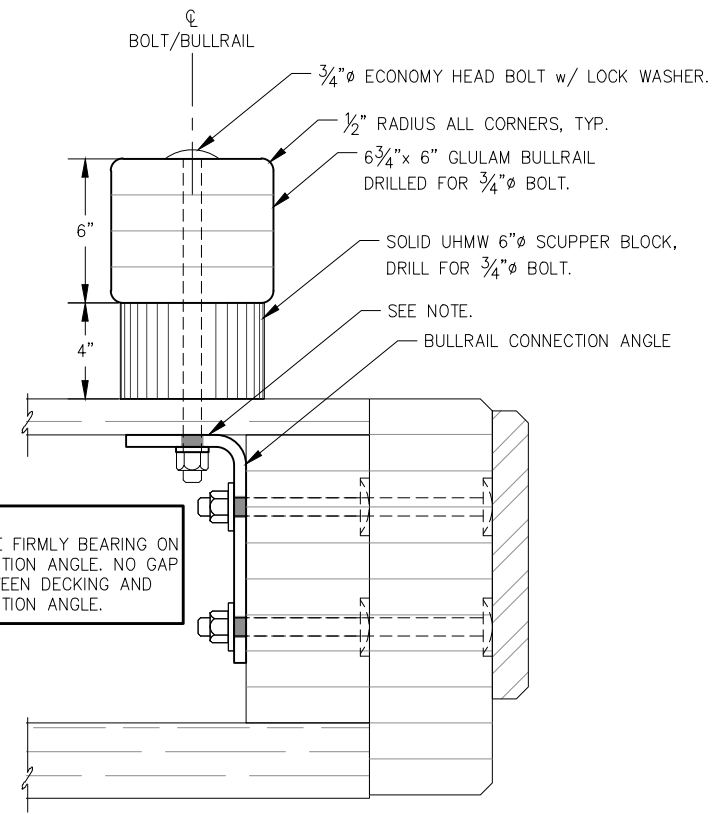
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CBJ PROJECT - DH16-001

SHEET TITLE:
FLOTATION BILLET DETAILS

PND PROJECT NO.: 152037

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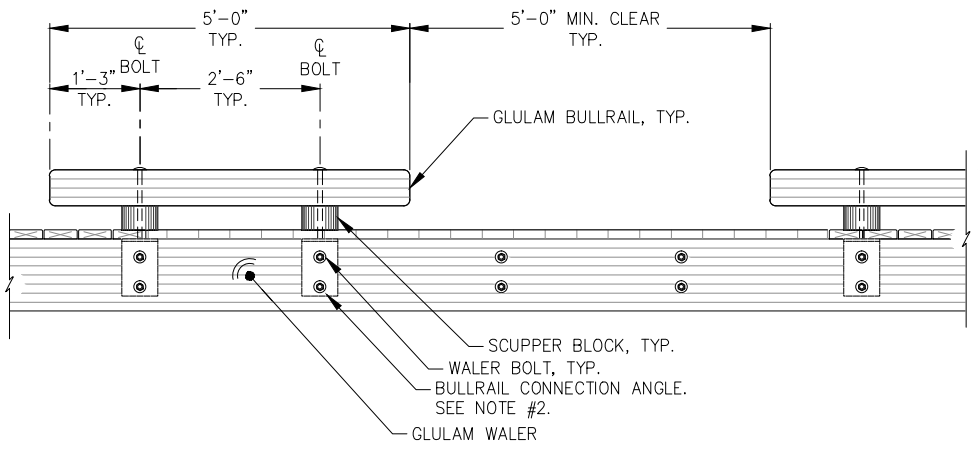
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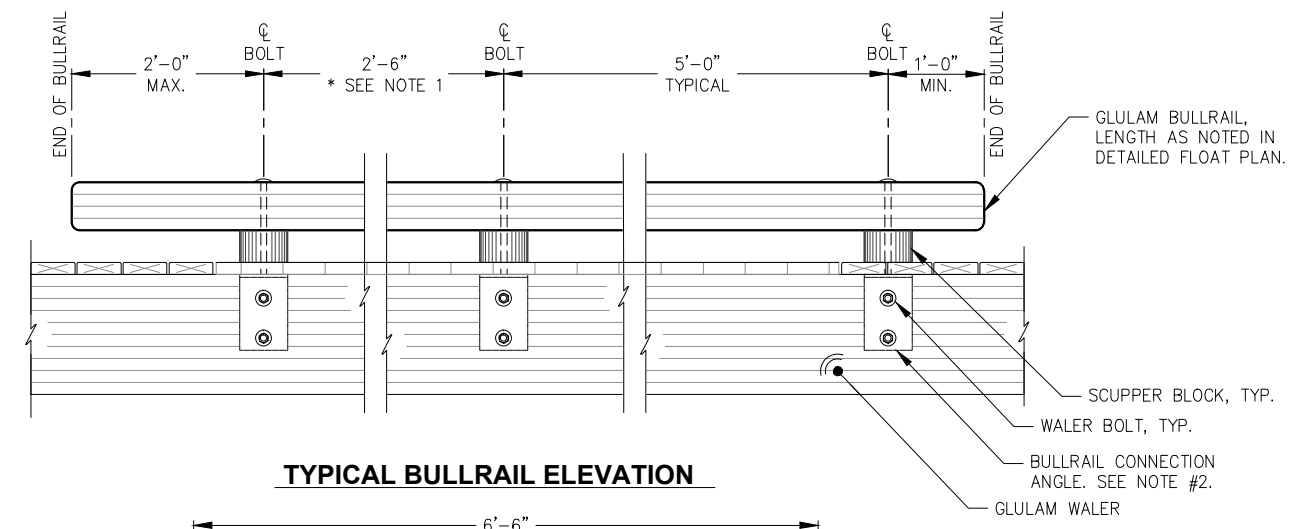
NOTE:
DECKING MUST BE FIRMLY BEARING ON BULLRAIL CONNECTION ANGLE. NO GAP IS ALLOWED BETWEEN DECKING AND BULLRAIL CONNECTION ANGLE.

NOTE:
1. UTILIZE 2'-6" SCUPPER BLOCK SPACING AS REQUIRED ON BULLRAIL LENGTHS THAT CANNOT MEET MINIMUM AND MAXIMUM OVERHANG REQUIREMENTS WITH 5'-0" SPACING.
2. ALIGN BULLRAIL CONNECTION ANGLE WITH WALER BOLT LOCATIONS, TYPICAL, UNLESS NOTED OTHERWISE.
3. NON-STANDARD SCUPPER BLOCK DIMENSIONS ARE SHOWN ON DETAILED FLOAT PLANS.

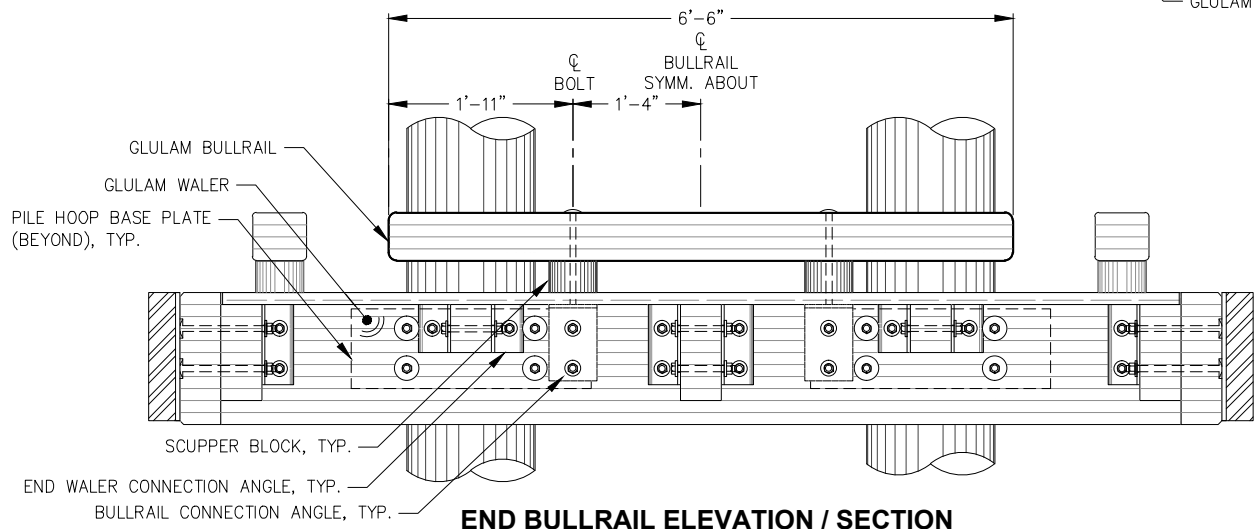
BULLRAIL AND SCUPPER BLOCK



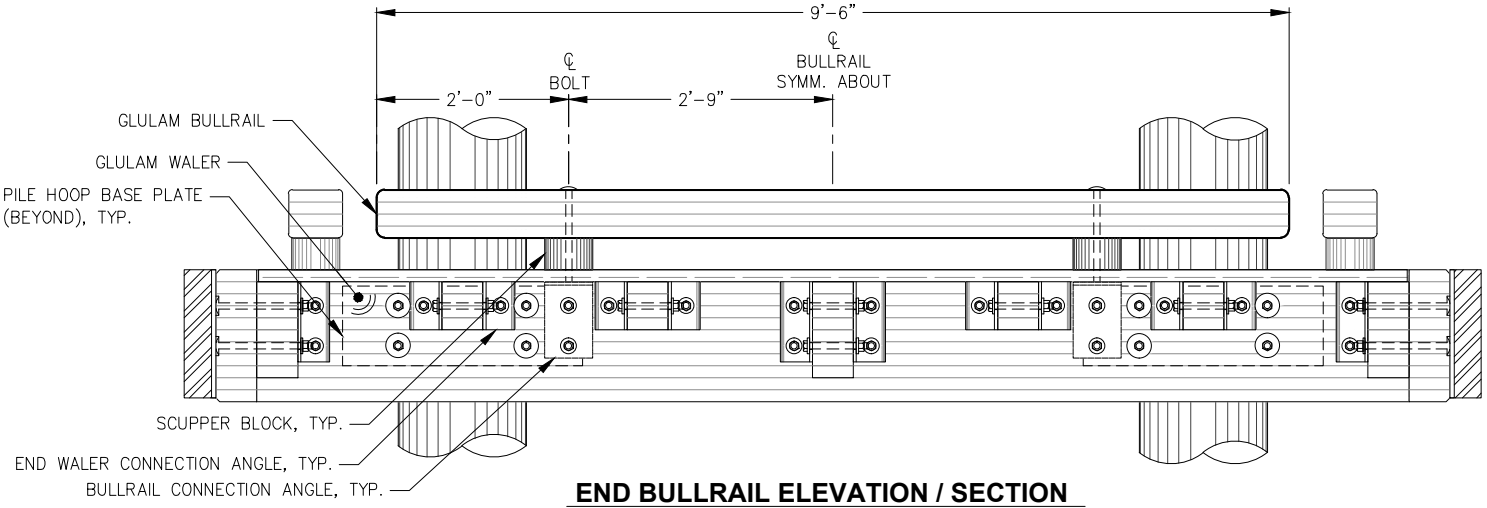
ADA BULLRAIL SEGMENTS
(FIRST 6' FINGER FLOAT AND MODULE C-1)



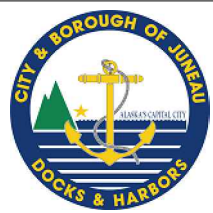
TYPICAL BULLRAIL ELEVATION



END BULLRAIL ELEVATION / SECTION
(MODULE A-6 AND C-6)



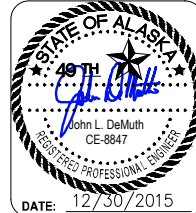
END BULLRAIL ELEVATION / SECTION
(MODULE H-6 AND T-1)



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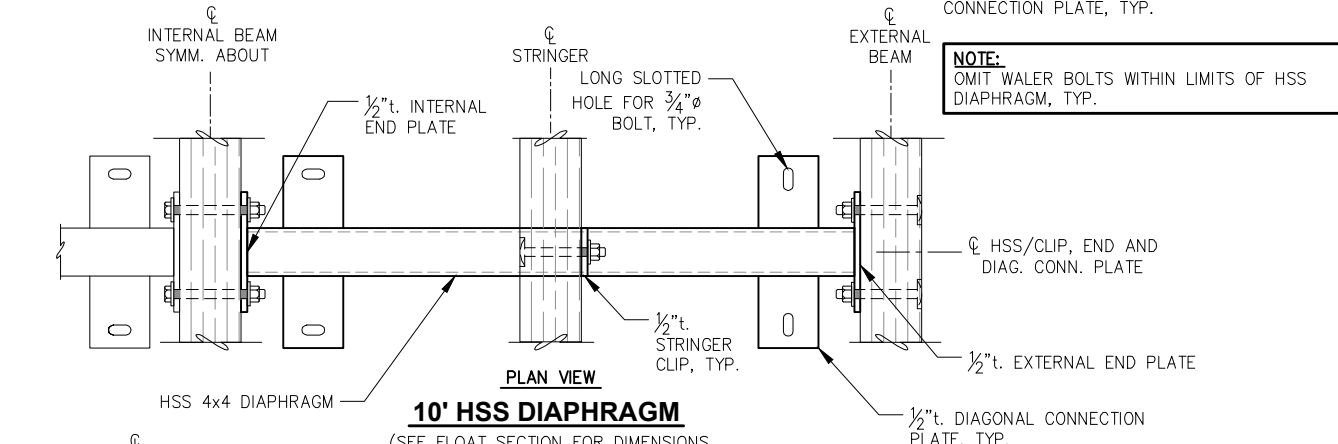
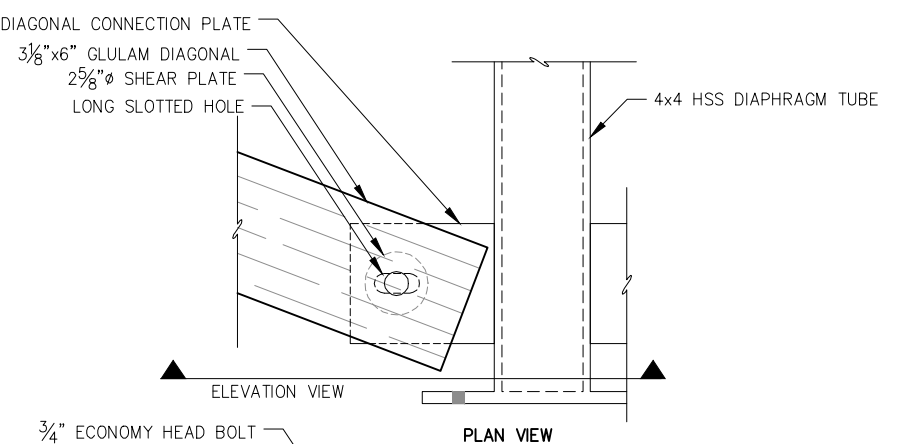
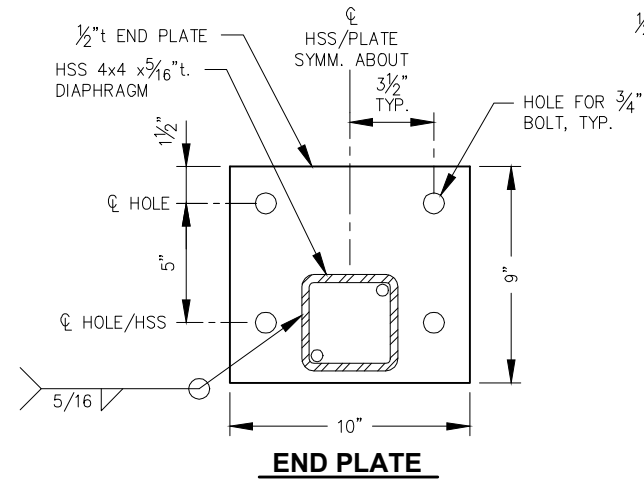
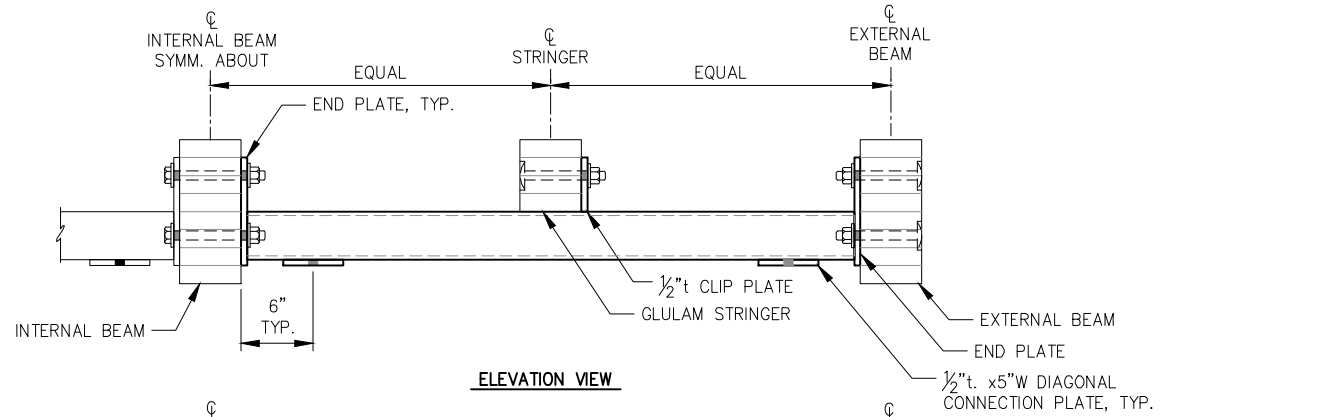
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BULLRAIL STANDARD DETAILS

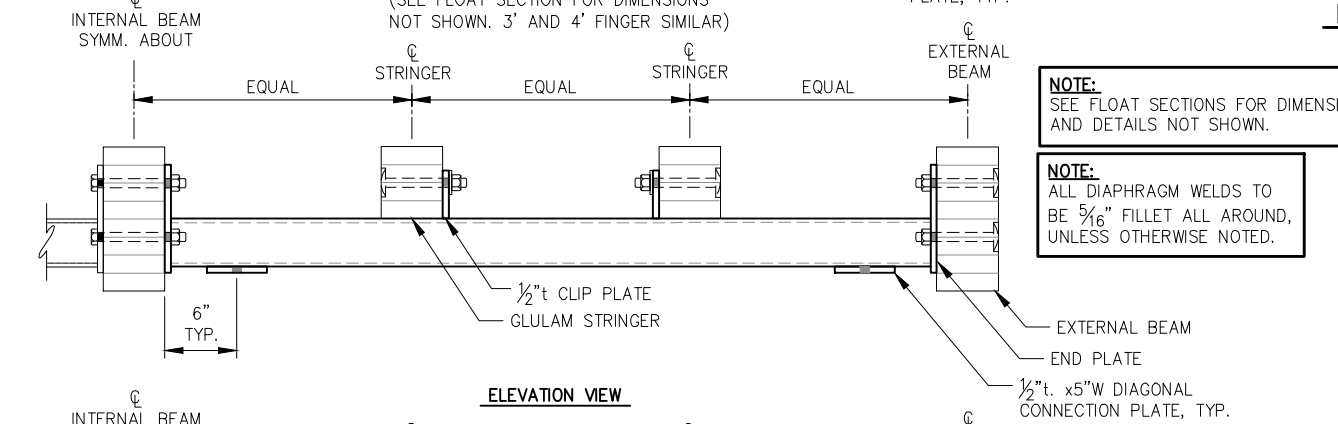
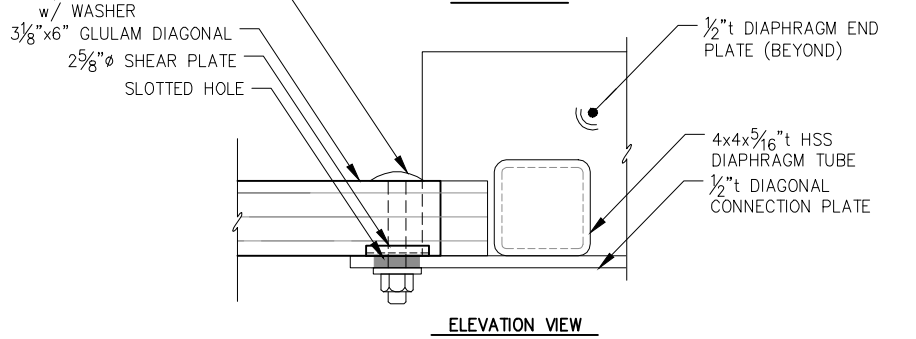
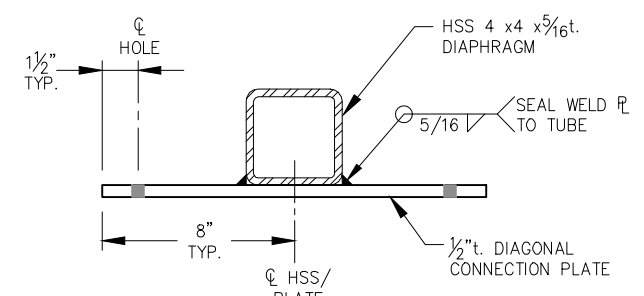
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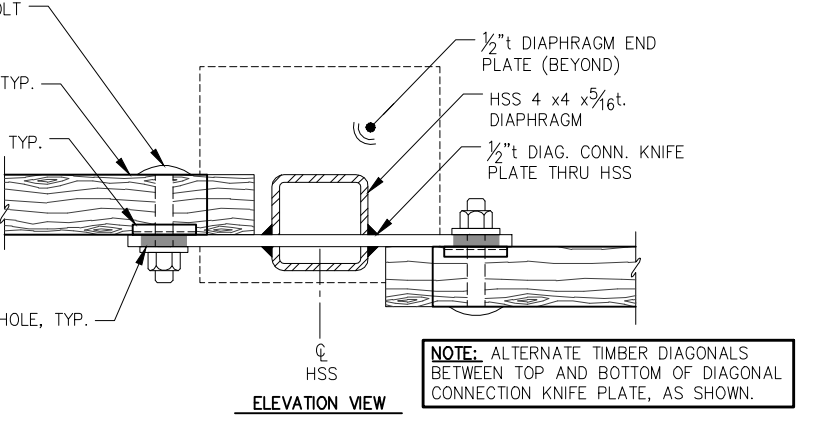
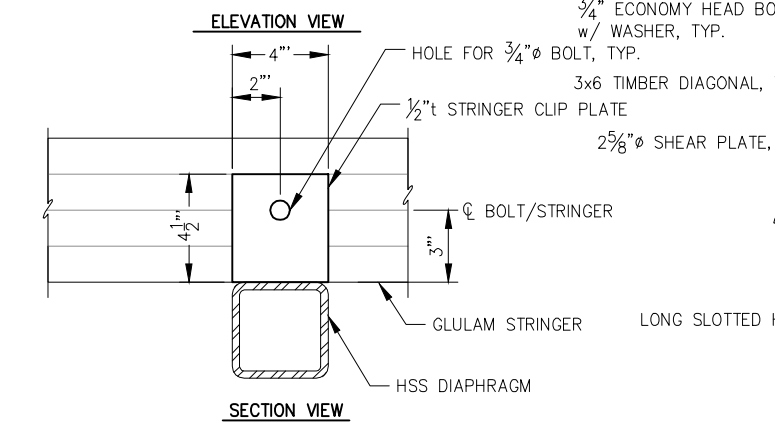
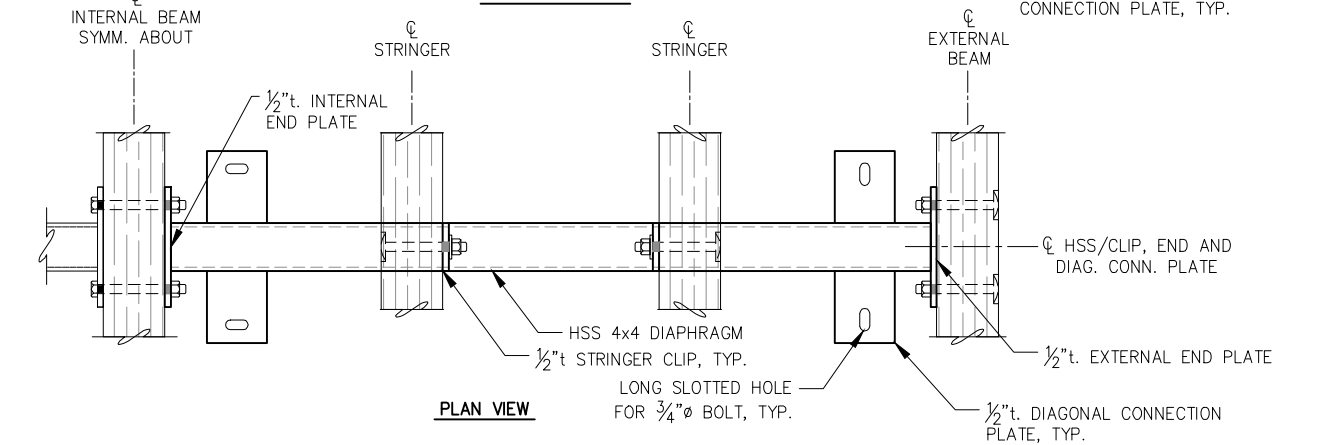
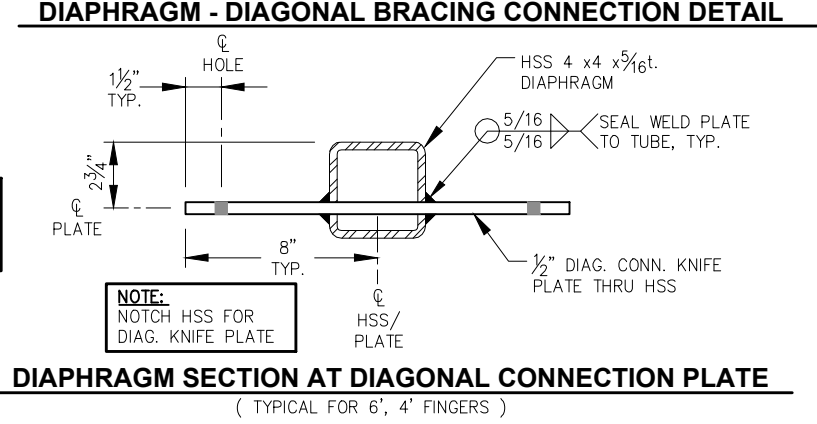
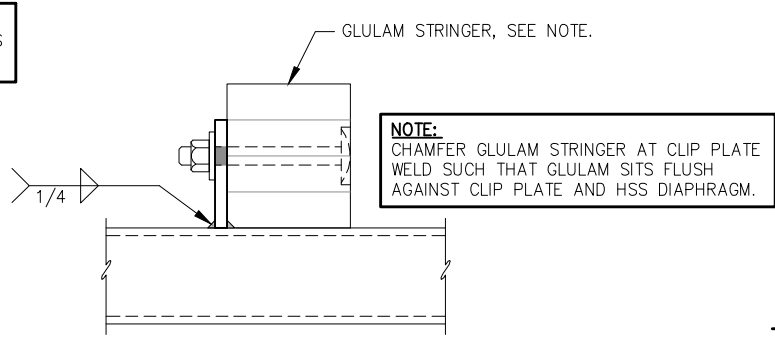


NOTE:
OMIT WALER BOLTS WITHIN LIMITS OF HSS DIAPHRAGM, TYP.



NOTE:
SEE FLOAT SECTIONS FOR DIMENSIONS AND DETAILS NOT SHOWN.

NOTE:
ALL DIAPHRAGM WELDS TO BE 5/16" FILLET ALL AROUND, UNLESS OTHERWISE NOTED.

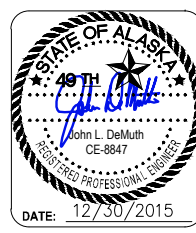


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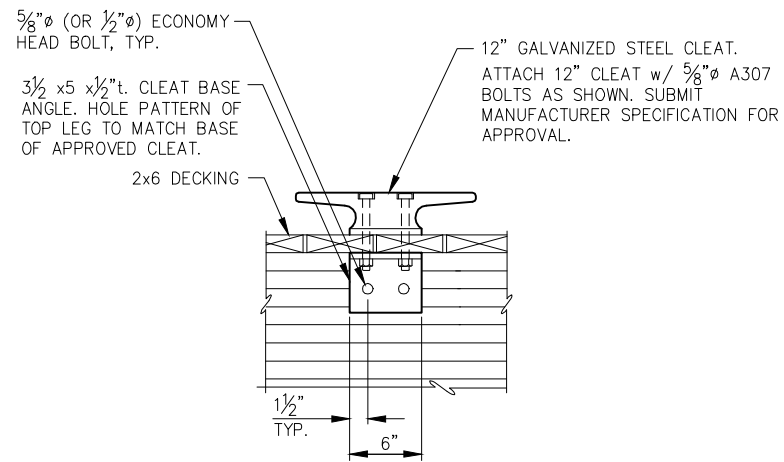
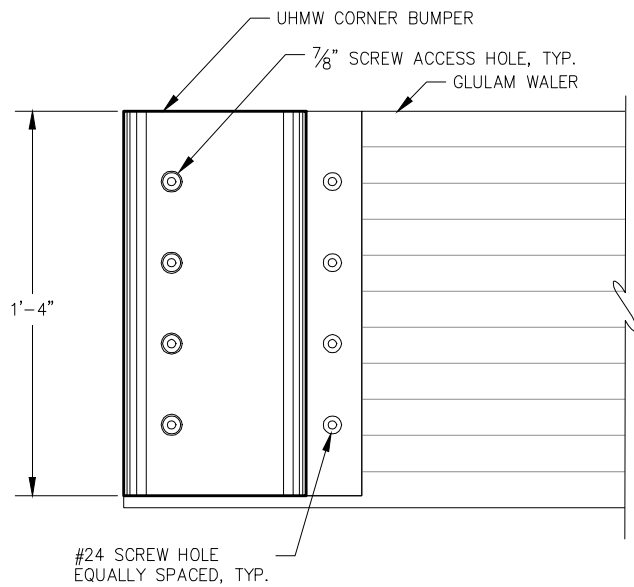
SHEET TITLE: **MISCELLANEOUS
FLOAT MODULE DETAILS**

PND PROJECT NO.: 152037

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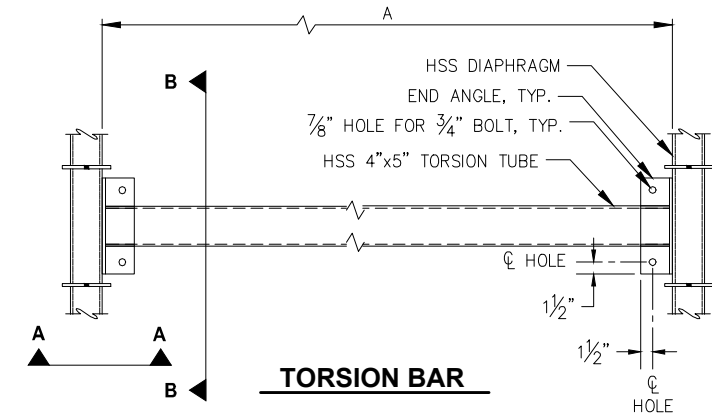


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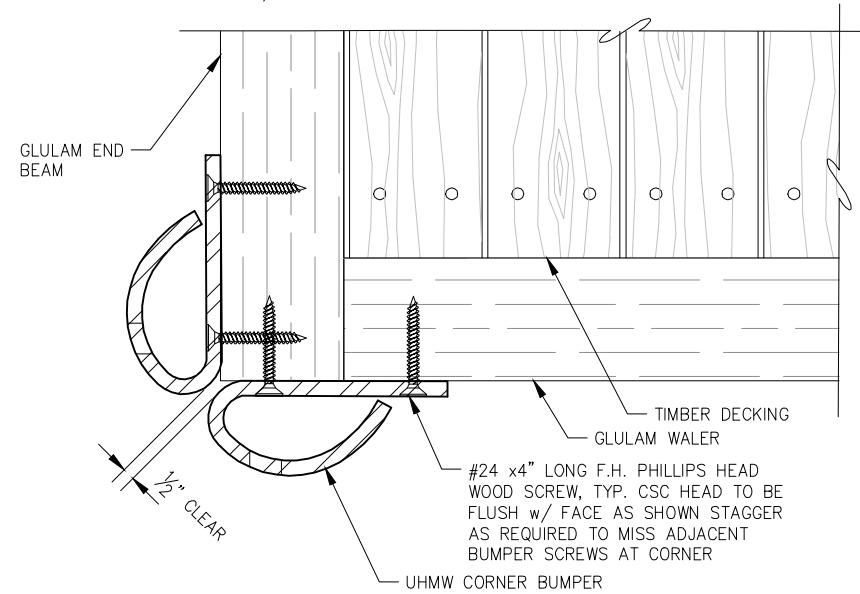


CLEAT BASE/STRINGER CONNECTION

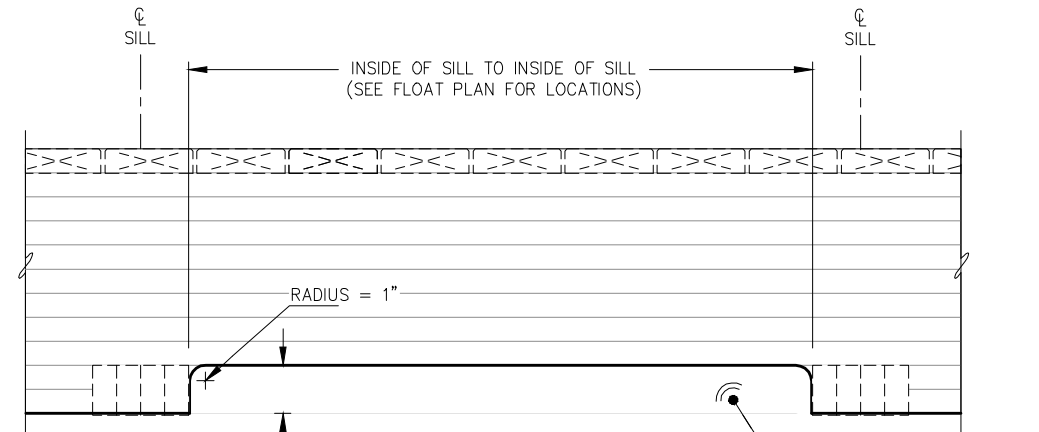
TORSION BAR SCHEDULE	
FLOAT SIZE	A
6'x42'	14'-8"
4'x32'	20'-10"
3'x24'	9'-8"
	15'-10"
	21'-4"



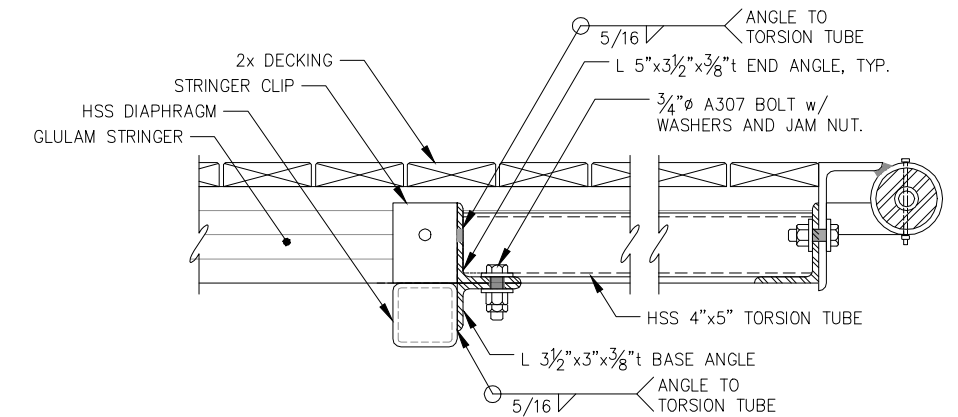
TORSION BAR



CORNER BUMPER DETAIL

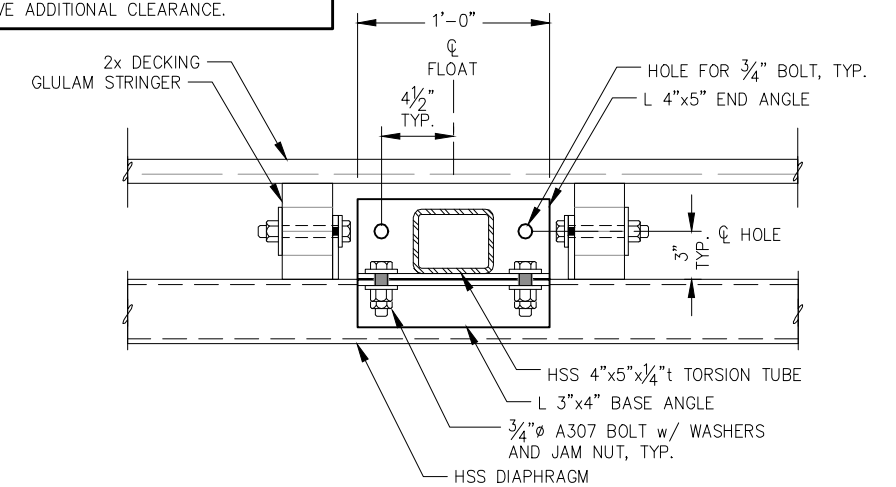


GLULAM WALER MODIFICATION FOR ELECTRICAL CABLE PASSAGE



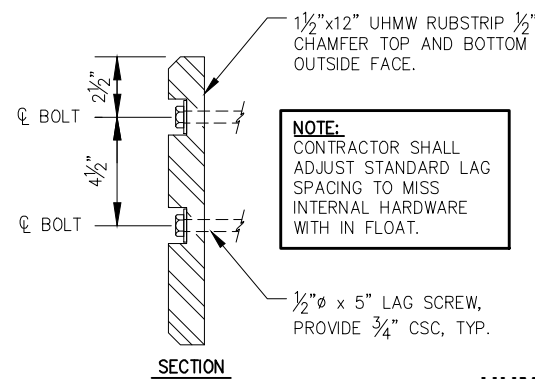
SECTION A-A

NOTE: GLULAM STRINGERS SHOWN IN 32 FOOT FINGER LOCATION. 42 FOOT AND 48 FOOT FINGER GLULAM STRINGERS HAVE ADDITIONAL CLEARANCE.

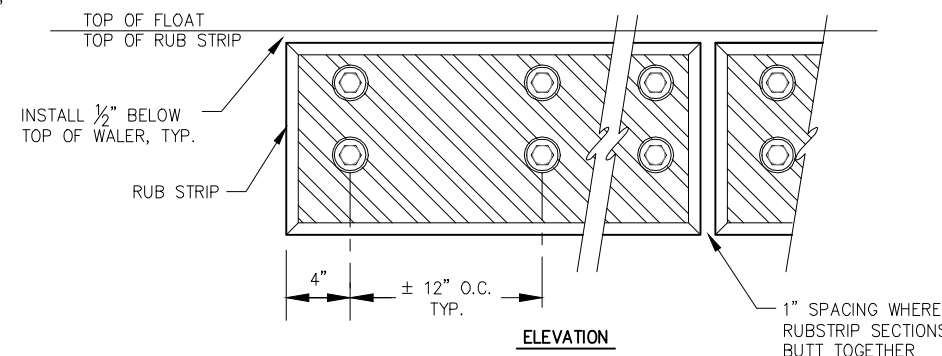


SECTION B-B

RUBSTRIP STANDARDS (UNO ON FLOAT PLAN)		
FINGER SIZE	DIST. FROM HINGE (±)	RUBSTRIP LENGTH
42'	3'-0"	12'-0"
32'	2'-0"	10'-0"
24'	2'-0"	6'-0"



UHMW RUB STRIP DETAIL



ELEVATION

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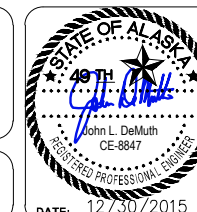
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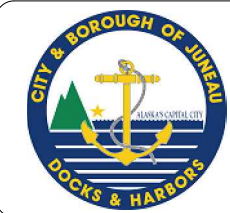
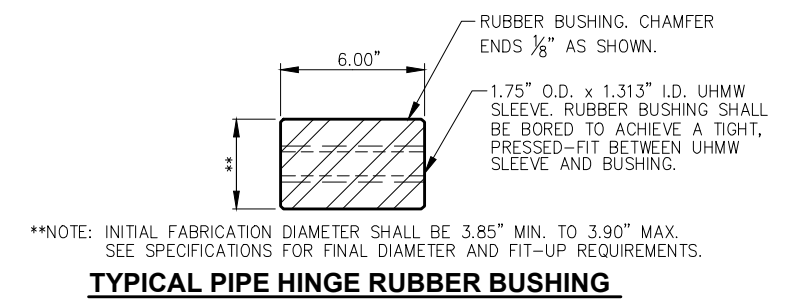
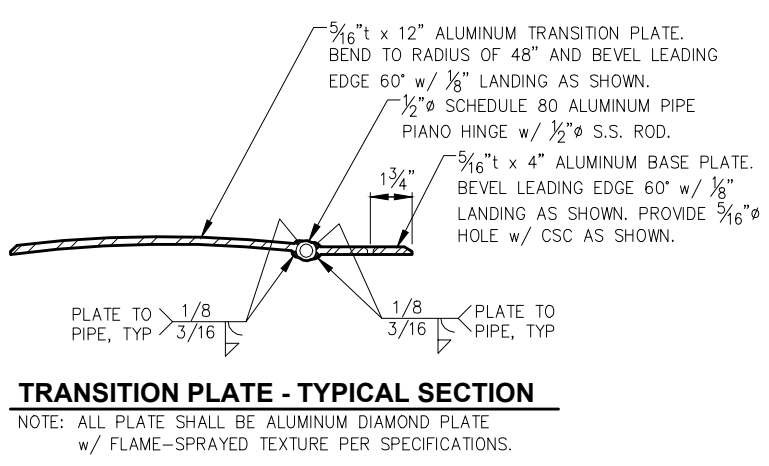
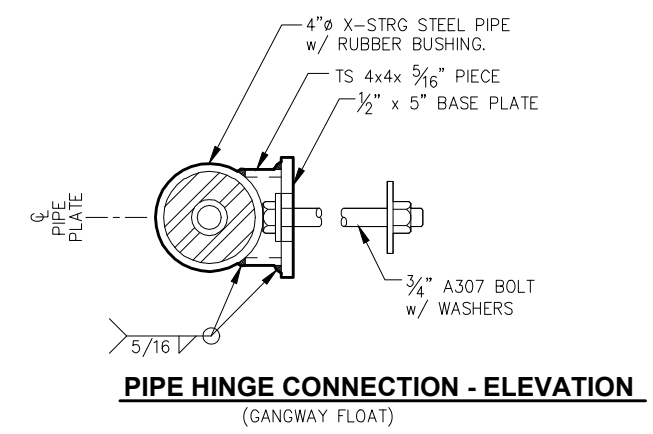
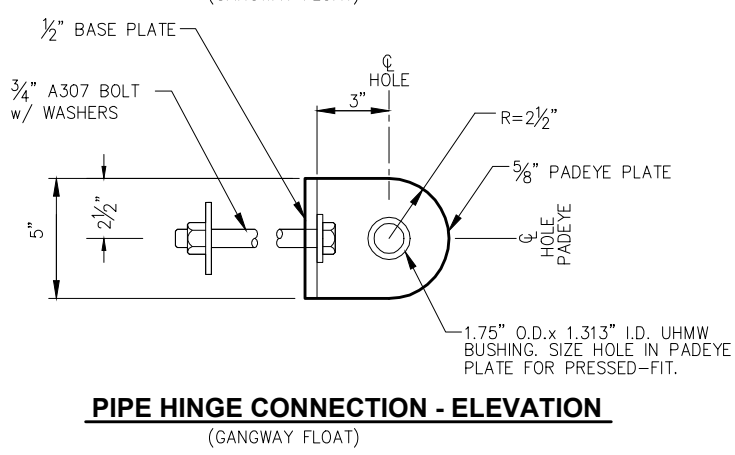
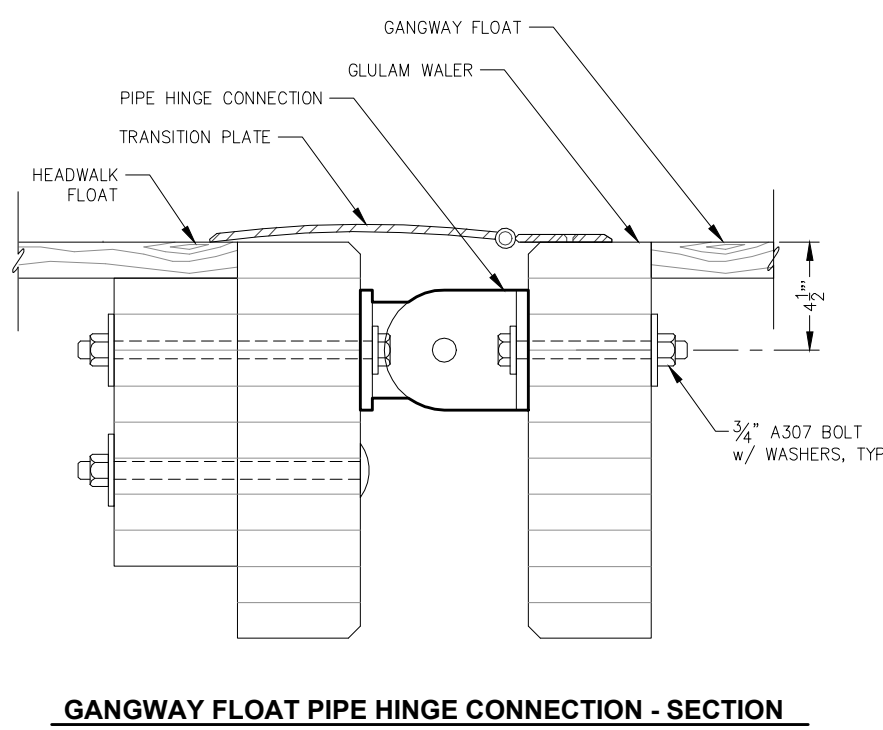
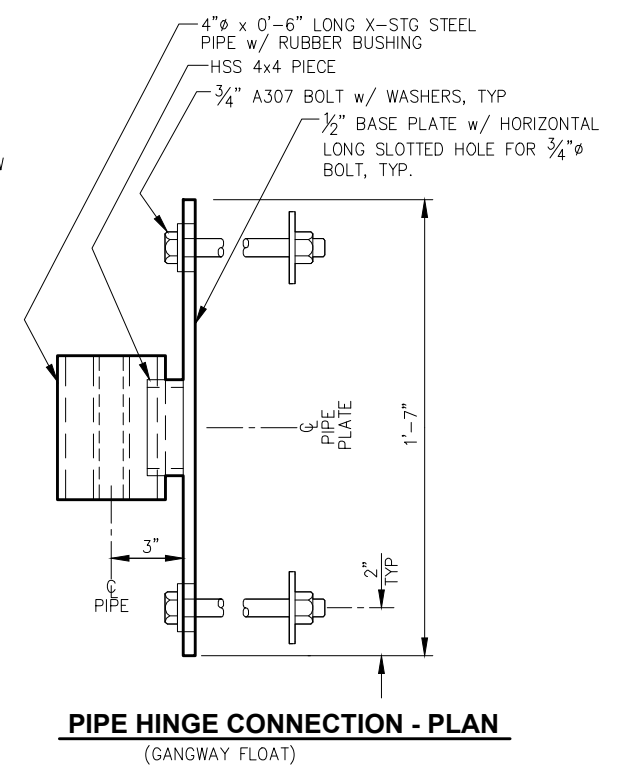
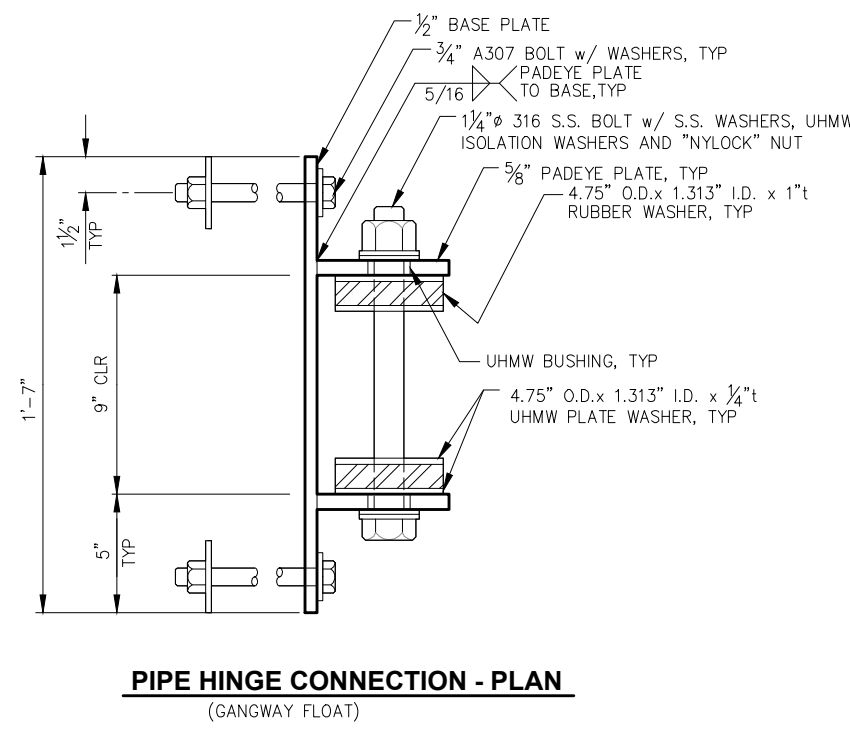
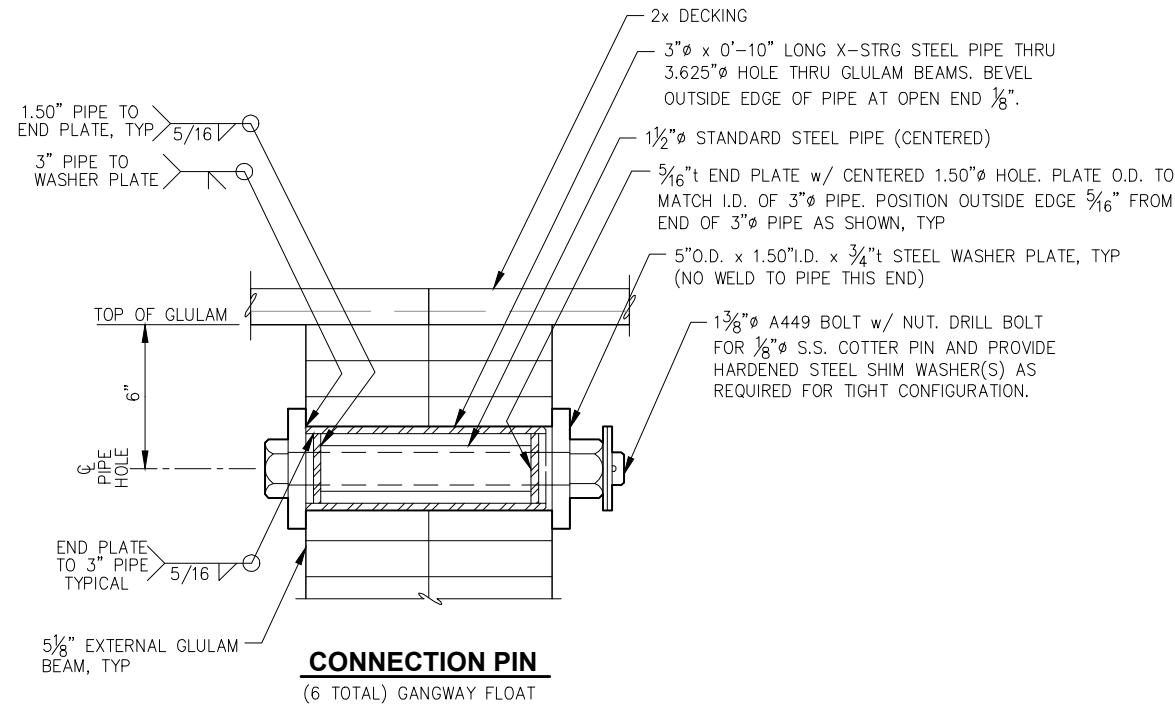
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CBJ PROJECT - DH16-001**

SHEET TITLE:
**MISCELLANEOUS
FLOAT MODULE DETAILS**

PND PROJECT NO.: 152037

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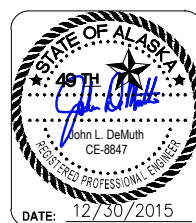


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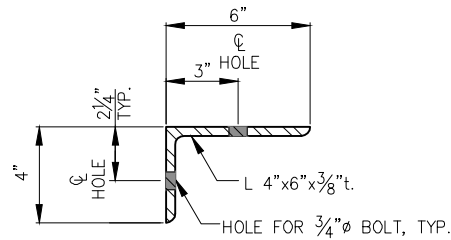
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SHEET TITLE: **MISCELLANEOUS**
FLOAT MODULE DETAILS

PND PROJECT NO.: 152037

6.15
SHEET
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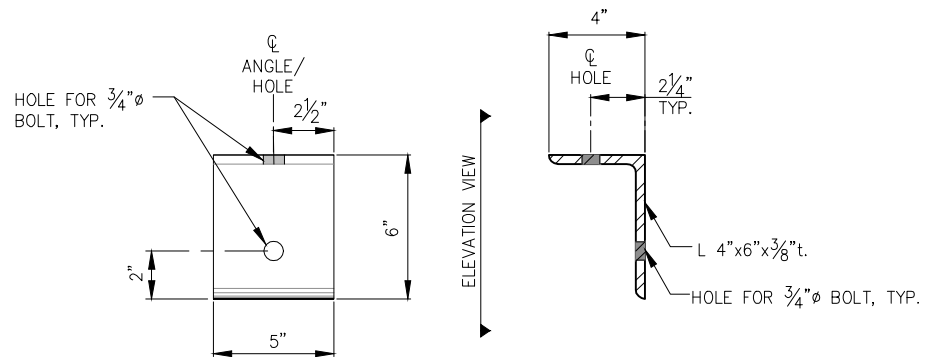
I:\Proj\juneau\152037 Douglas Harbor Renovation\G. Drawings\Design\6.13-6.16 Diaphragm and Misc. Details.dwg, 12/30/2015, 2:07:53 PM



SECTION

BALLAST TANK CONNECTION ANGLE

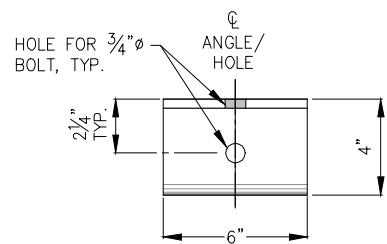
(LENGTH VARIES. SEE BALLAST TANK DETAILS)



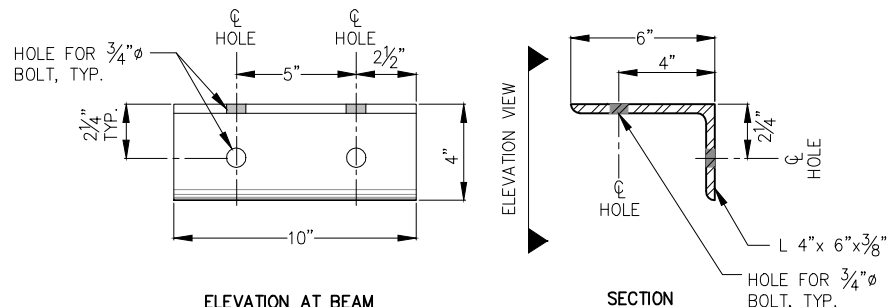
ELEVATION

SECTION

SILL CONNECTION ANGLE



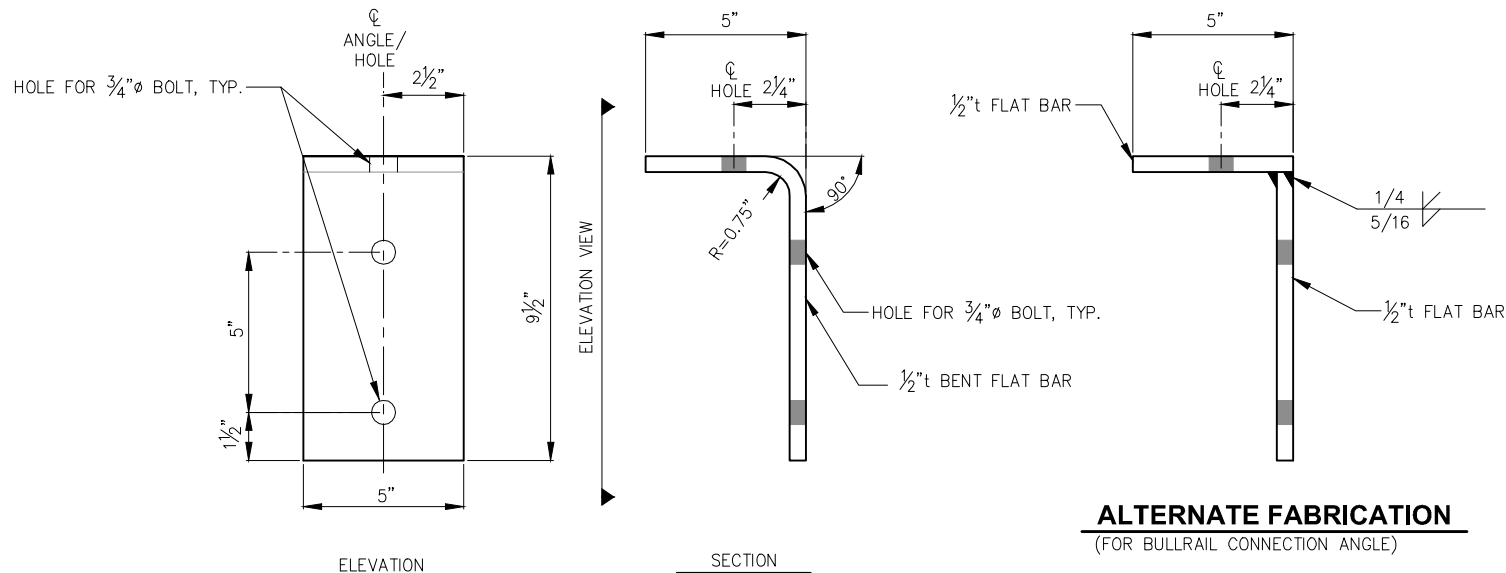
ELEVATION AT STRINGER



ELEVATION AT BEAM

SECTION

END GLULAM CONNECTION ANGLE



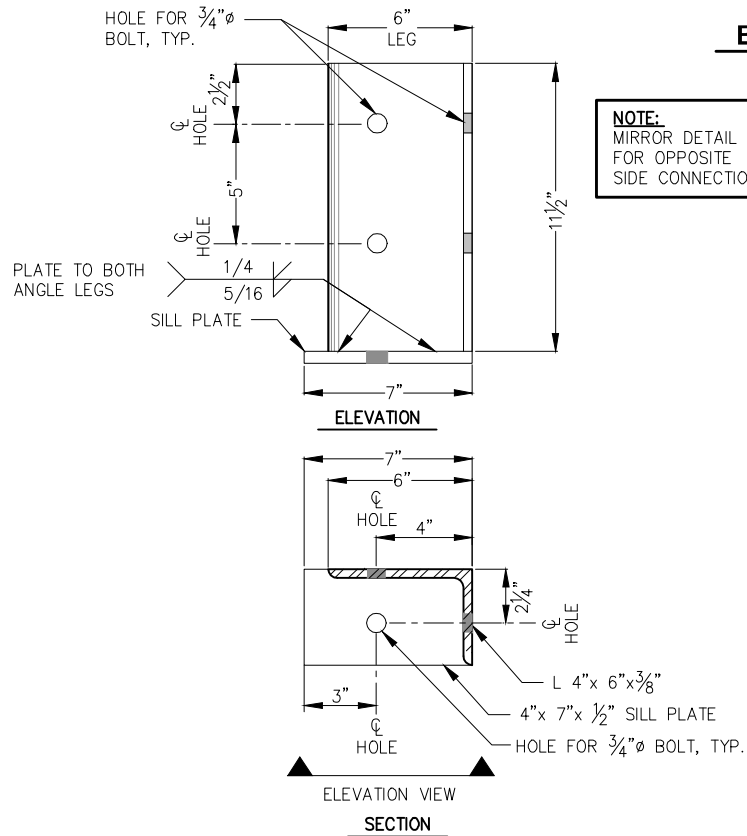
ELEVATION

SECTION

ALTERNATE FABRICATION

(FOR BULLRAIL CONNECTION ANGLE)

BULLRAIL CONNECTION ANGLE



ELEVATION

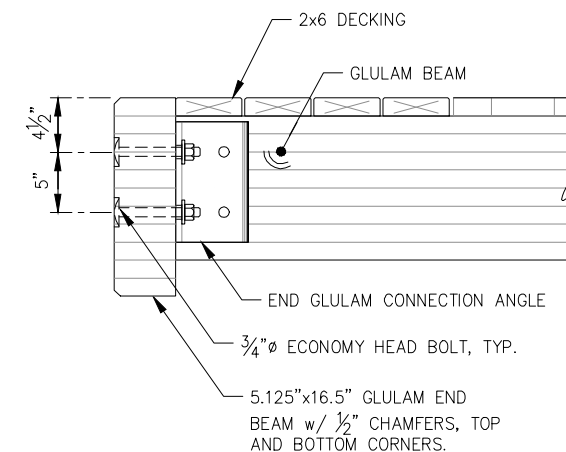
ELEVATION VIEW

SECTION

NOTE:
MIRROR DETAIL
FOR OPPOSITE
SIDE CONNECTION

END GLULAM CONNECTION ANGLE WITH PLATE

(24' FINGER ONLY)



FLOAT END GLULAM SECTION

NOTE:
BULLRAIL CONNECTION ANGLE MAY BE
OPTIONALLY FABRICATED IN TWO WELDED PIECES.



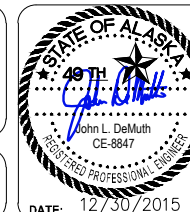
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DATE: 12/30/2015

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CBJ PROJECT - DH16-001

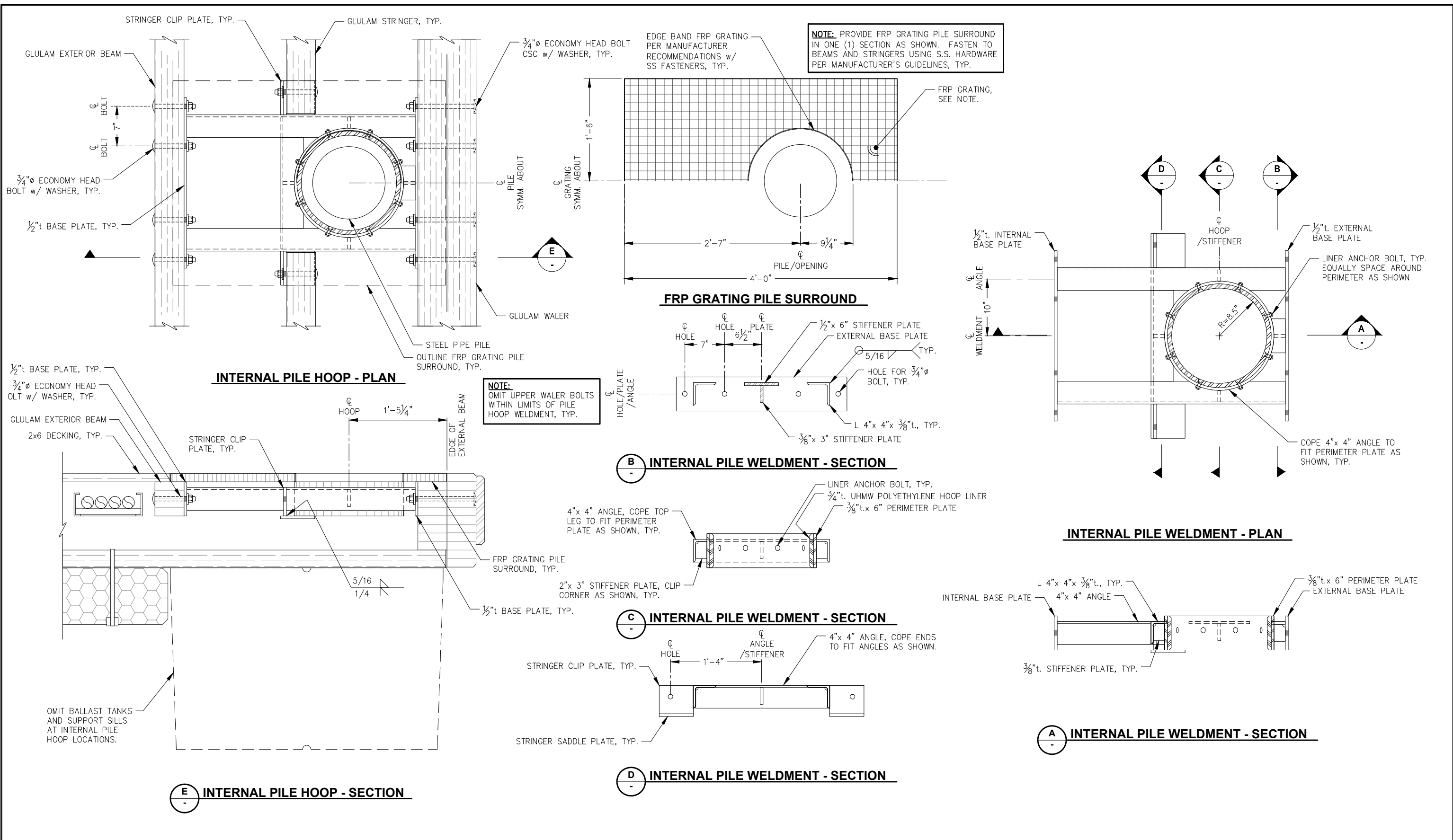
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MISCELLANEOUS
FLOAT MODULE DETAILS

PND PROJECT NO.: 152037

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SHEET
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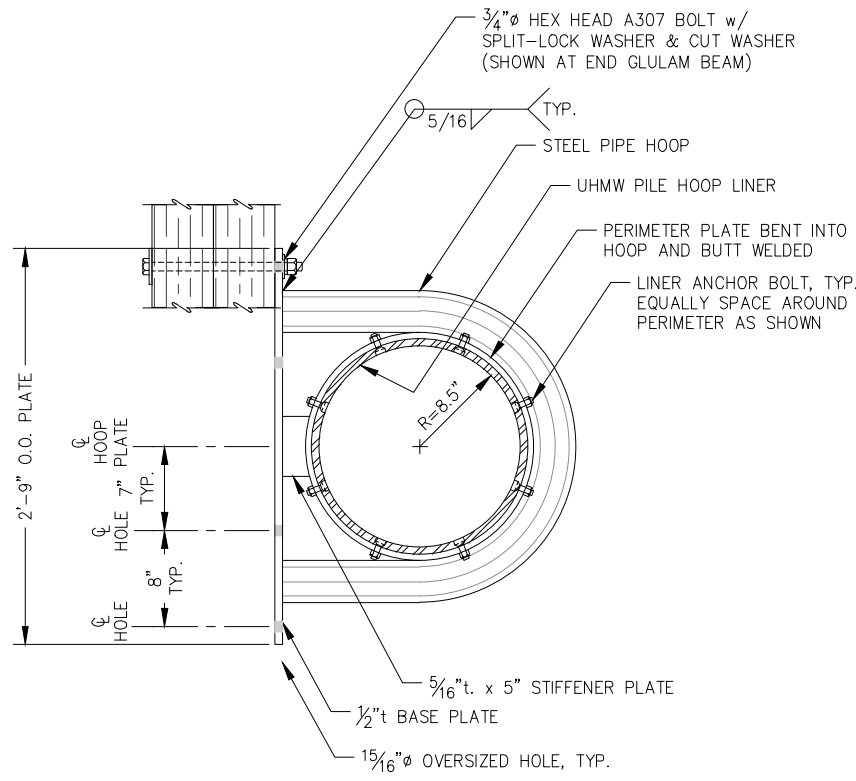
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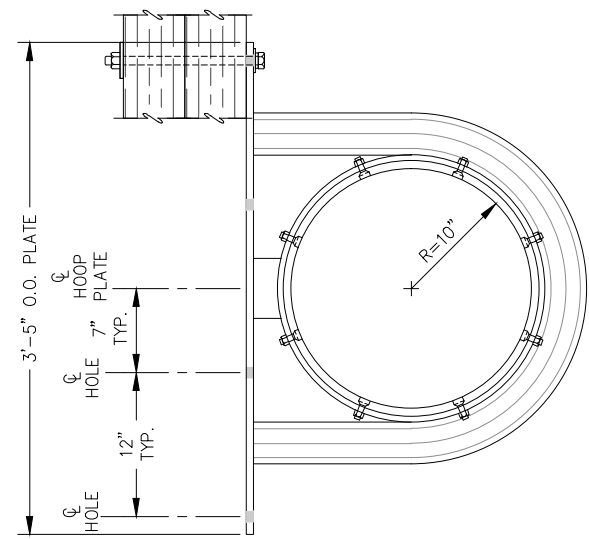
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	REV.	DATE	DESCRIPTION	DWN.	CKD.				APP.	DESIGN: MS
								DATE: 12/30/2015	INTERNAL PILE HOOP DETAILS	6.17 <small>SHEET</small> 63 OF 77
								PND PROJECT NO.: 152037		

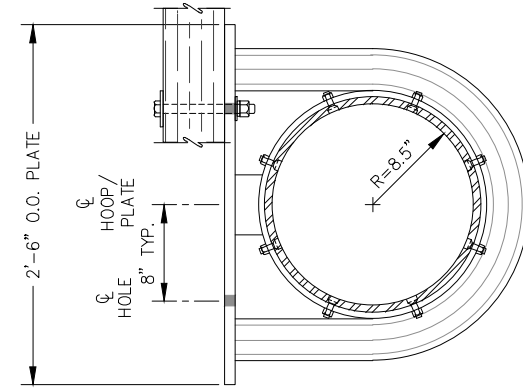
NOTE:
OMIT UPPER WALER BOLTS WITHIN LIMITS OF PILE HOOP WELDMENT, TYP.



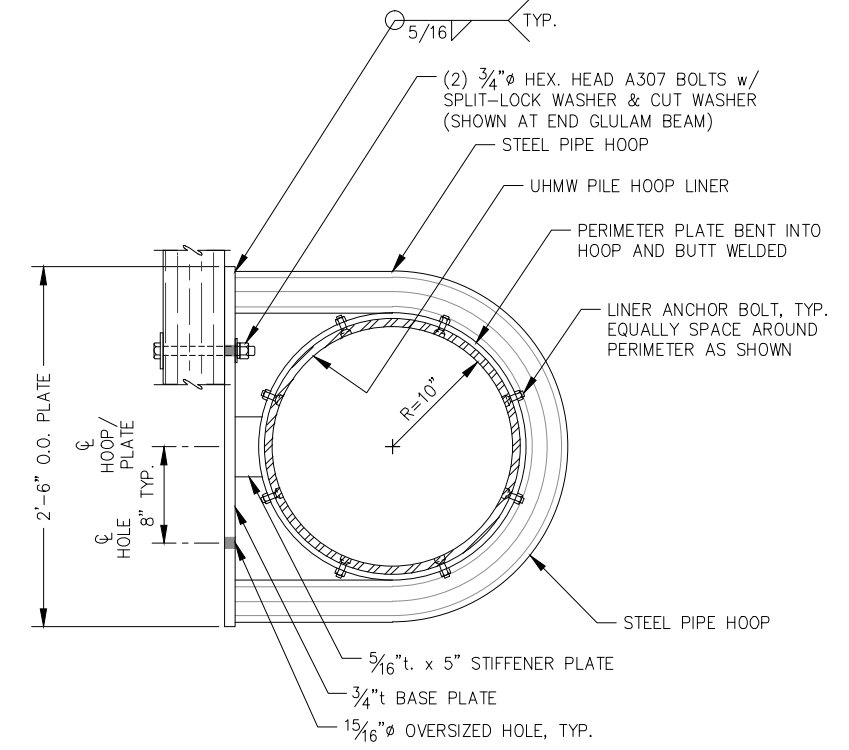
**EXTERNAL 12.75" DIA. PILE HOOP PLAN
TYPE 1**



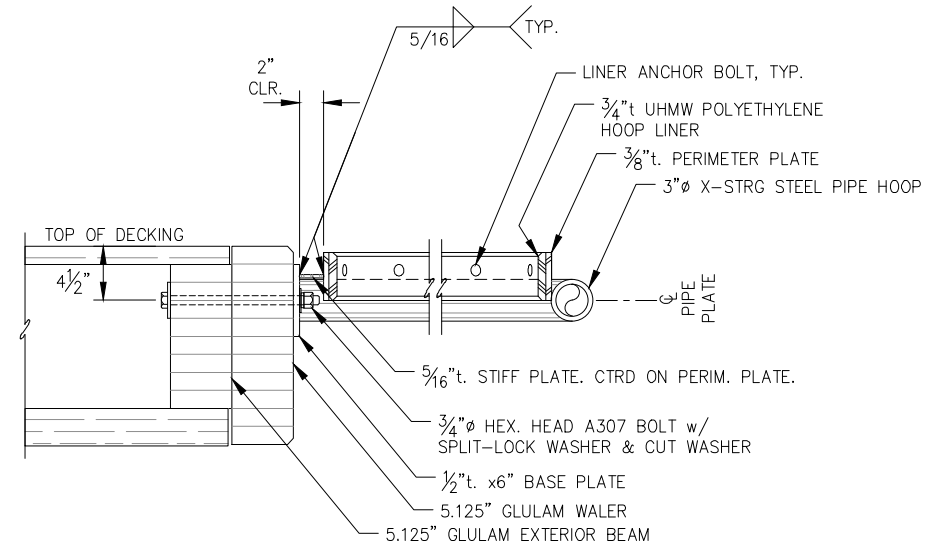
**EXTERNAL 16" DIA. PILE HOOP PLAN
TYPE 1**



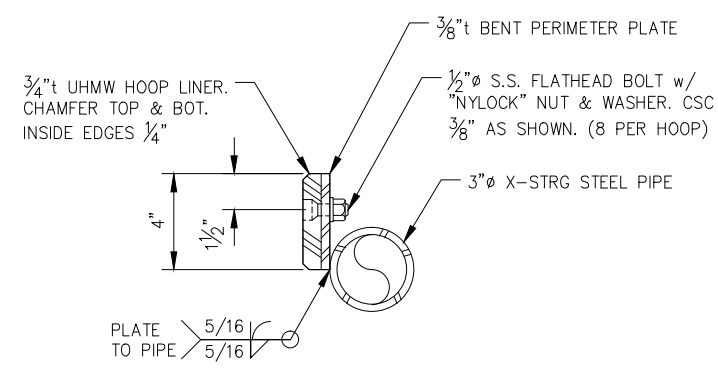
**EXTERNAL 12.75" DIA. PILE HOOP PLAN
TYPE 2**



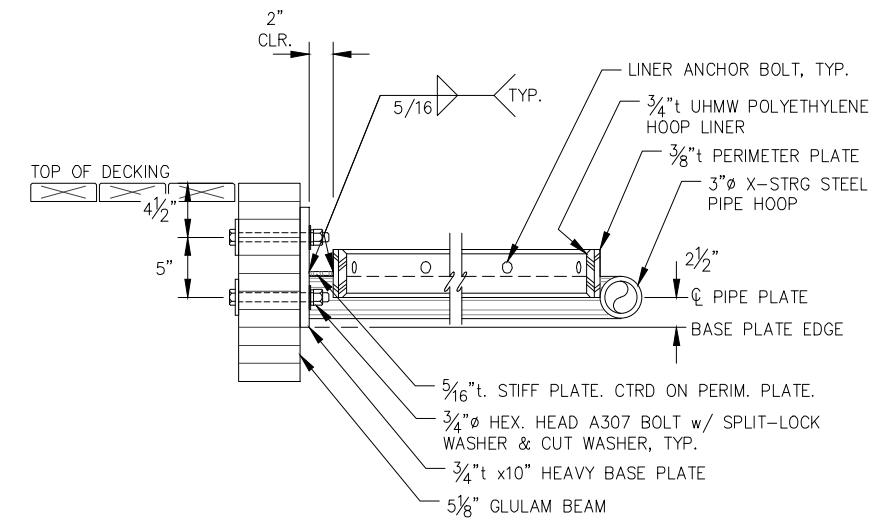
**EXTERNAL 16" DIA. PILE HOOP PLAN
TYPE 2**



**EXTERNAL PILE HOOP ELEVATION - TYPE 1
EDGE OF FLOAT**



TYPICAL HOOP SECTION



**EXTERNAL PILE HOOP ELEVATION - TYPE 2
END OF MAINWALK / FINGER**

REVISIONS

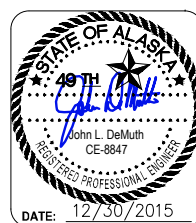
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SCALE:



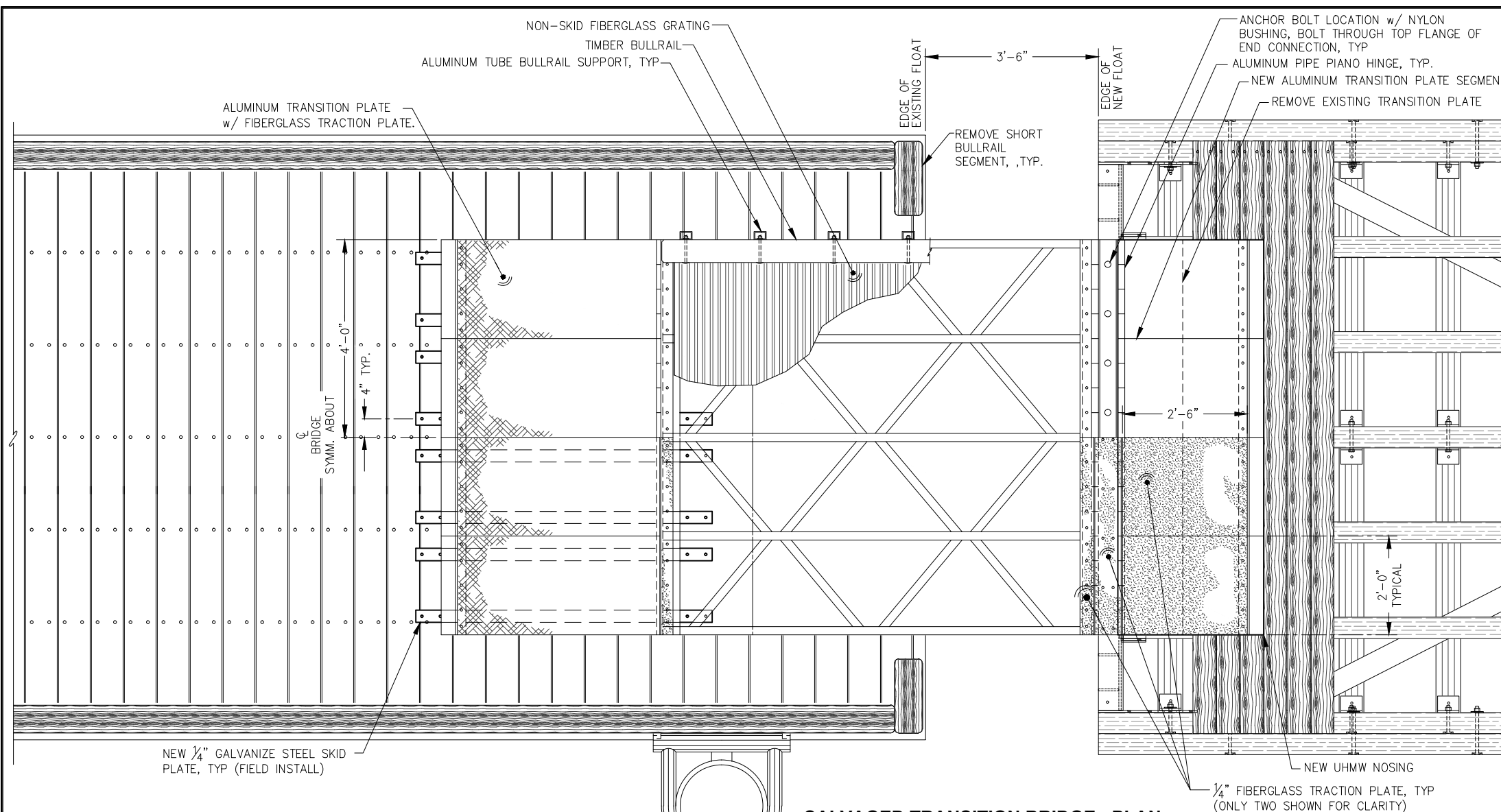
**CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001**

SHEET TITLE:
EXTERNAL PILE HOOP DETAILS

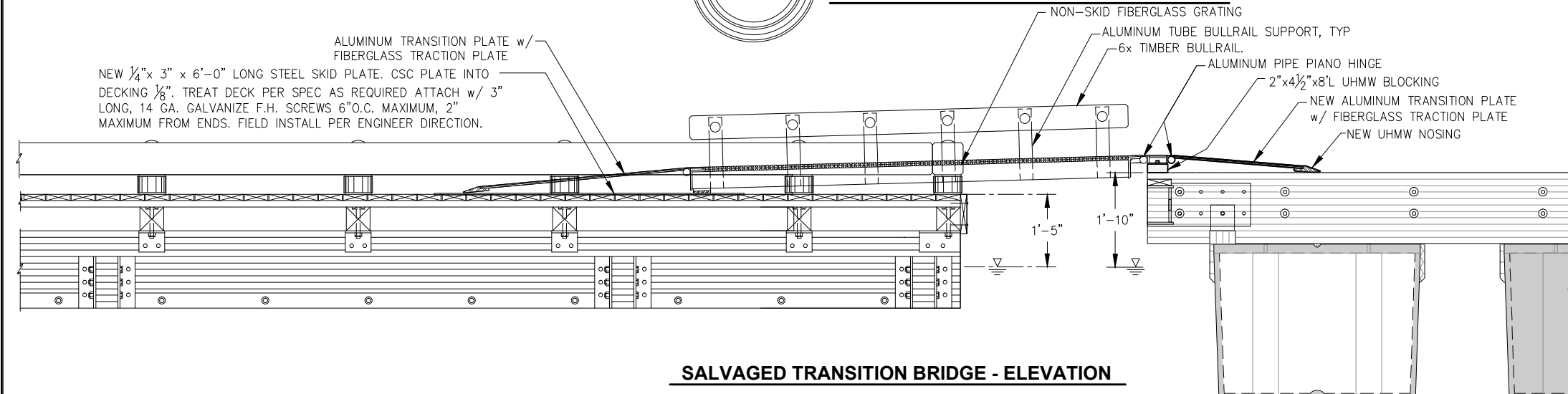
PND PROJECT NO.: 152037

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SHEET
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\\Pnd\jdata\dl15XXX\152037 Douglas Harbor Renovation\G. Drawings\Design\6.17-6.18 Pile Hoop Details.dwg, 12/30/2015 2:08:08 PM

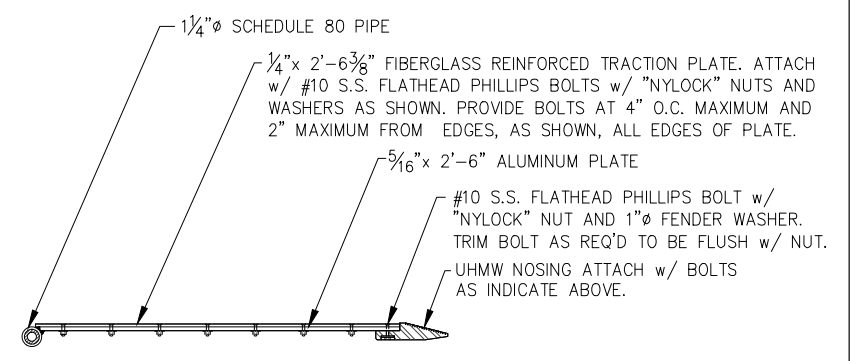


SALVAGED TRANSITION BRIDGE - PLAN

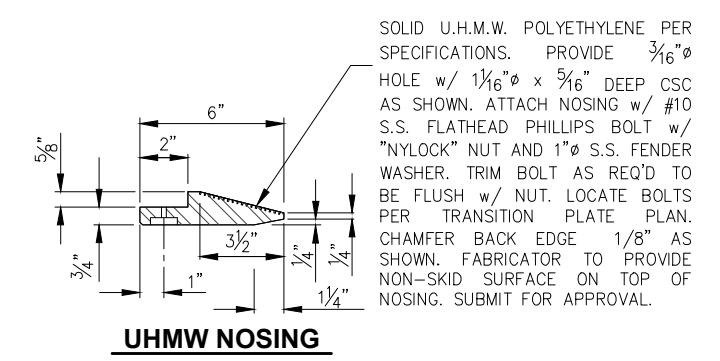


SALVAGED TRANSITION BRIDGE - ELEVATION

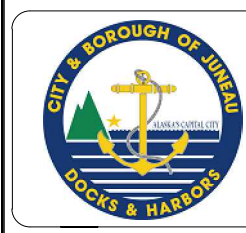
- REFURBISHMENT NOTES:**
THE OWNER FURNISHED TRANSITION BRIDGE SHALL BE REFURBISHED AS FOLLOWS:
1. REMOVE EXISTING TRANSITION PLATE AS NOTED IN PLAN, SALVAGE EXISTING STAINLESS STEEL PIN AND UHMW BUSHINGS FOR RE-USE.
 2. FURNISH AND INSTALL NEW TRANSITION PLATE USING THE PIANO HINGE AS A GUIDE.
 3. FURNISH AND INSTALL NEW UHMW BLOCKING AND GALVANIZED SKID PLATES AS SHOWN.



NEW TRANSITION PLATE - ELEVATION



UHMW NOSING

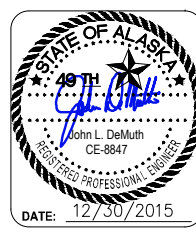


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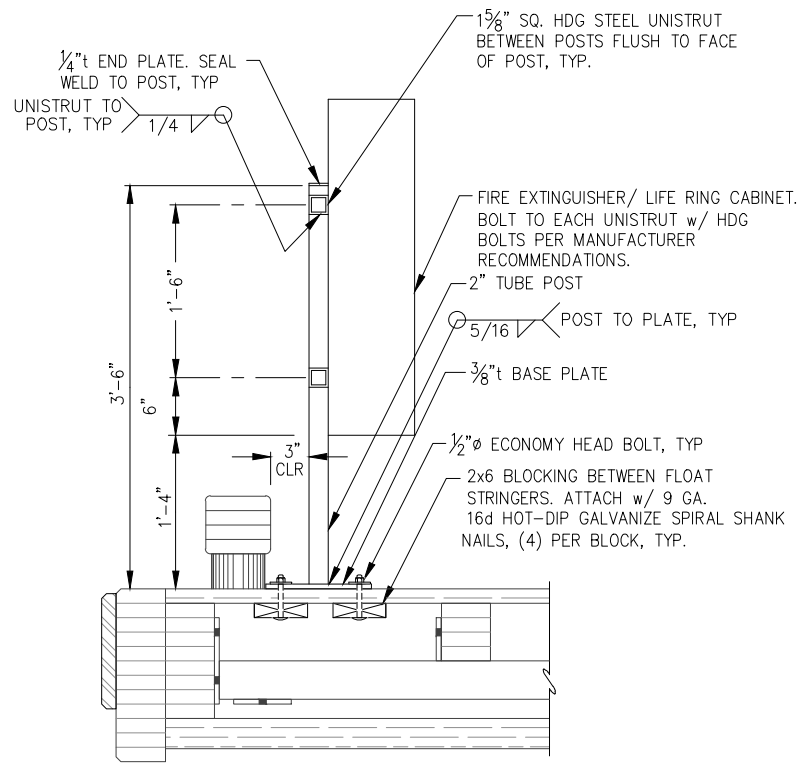
CITY & BOROUGH OF JUNEAU, ALASKA
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CBJ PROJECT - DH16-001

SHEET TITLE:
TRANSITION BRIDGE DETAILS

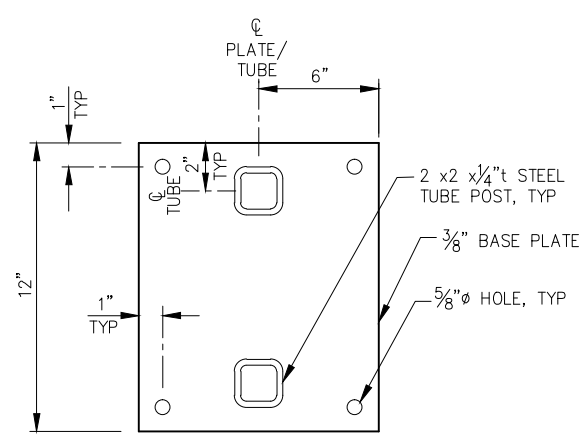
PND PROJECT NO.: 152037

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SHEET
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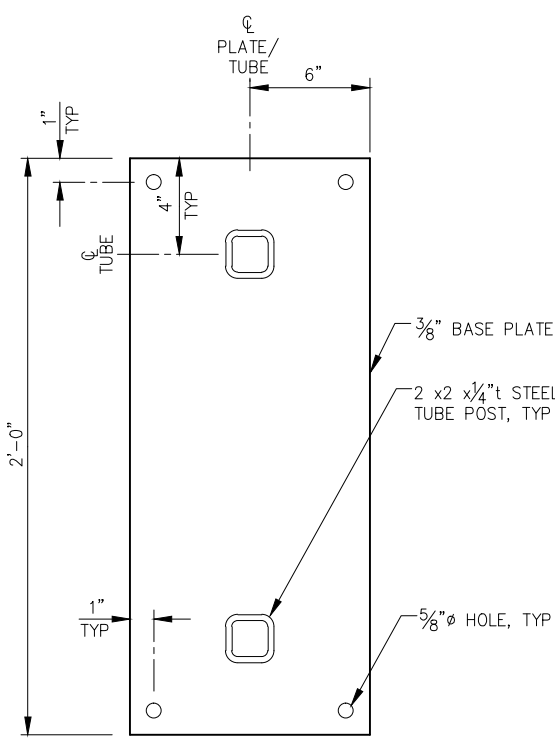
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FIRE EXTINGUISHER/ LIFE RING CABINET

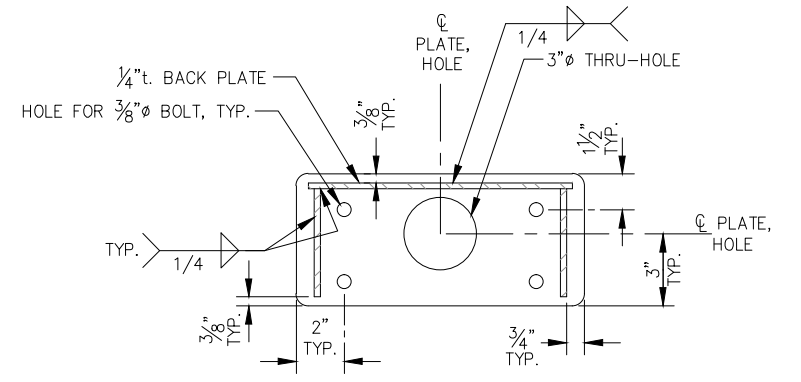


FIRE EXTINGUISHER BASE - PLAN



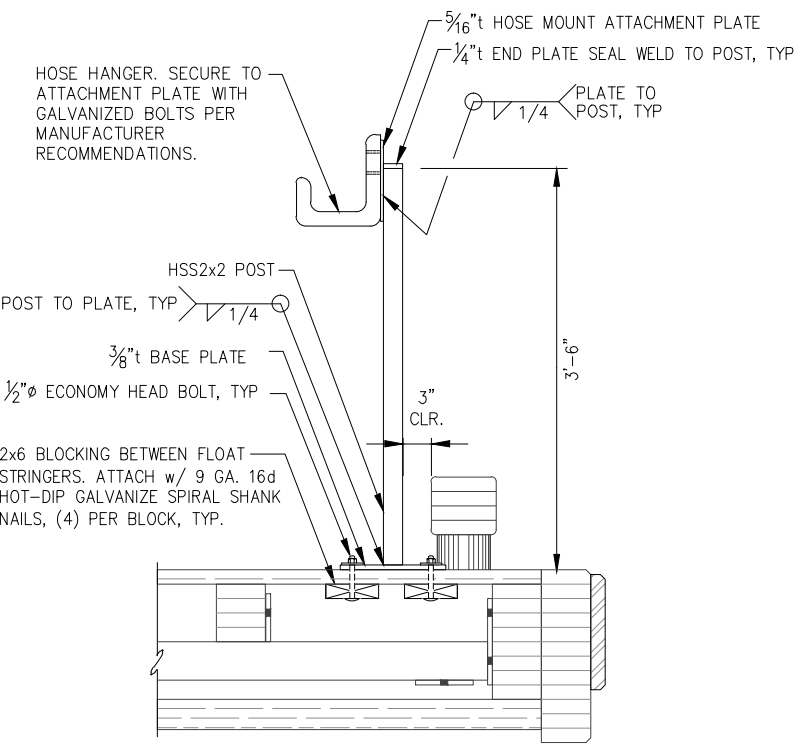
LIFE RING BASE - PLAN

GENERAL STEEL FABRICATION NOTES:
1. ALL FABRICATED STEEL AND HARDWARE SHALL BE HOT DIP GALVANIZED EXCEPT AS NOTED.
2. EASE ALL EDGES OF FABRICATED STEEL PIECES.
3. ALL HOT DIP GALVANIZED PARTS SHALL BE GALVANIZED AFTER FABRICATION.



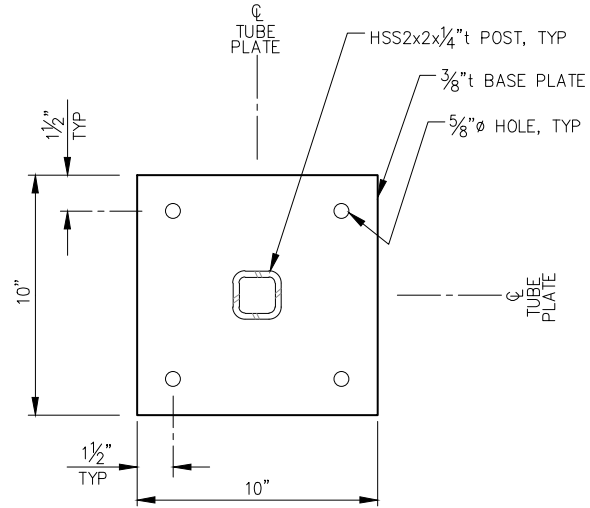
PLAN

NOTE:
1. COORDINATE w/ J-BOX MFR AS REQ'D
2. EASE ALL EDGES

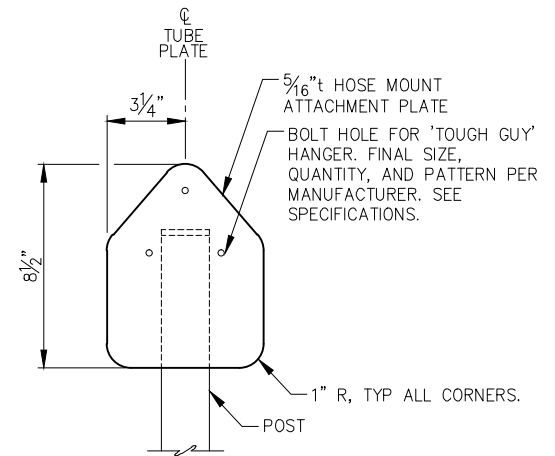


HOSE MOUNT - ELEVATION

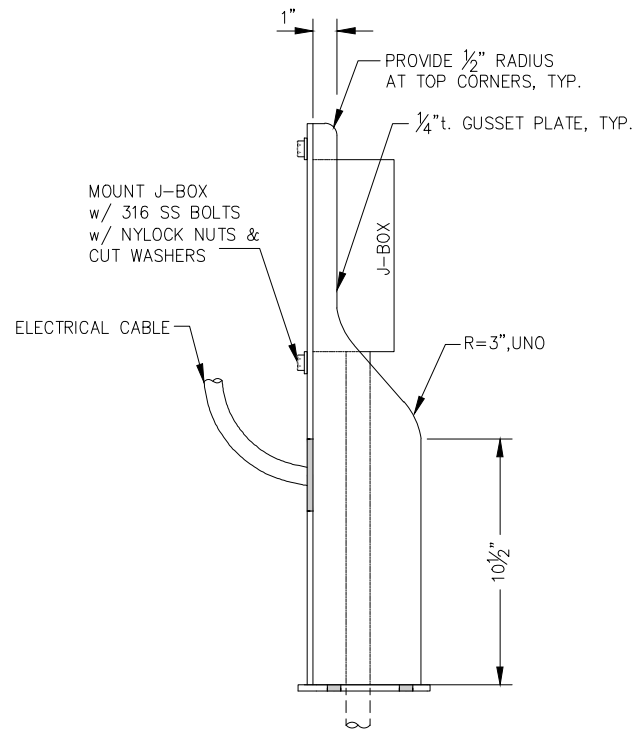
NOTE: FINAL LOCATION PER FLOAT PLANS AND ENGINEER DIRECTION.



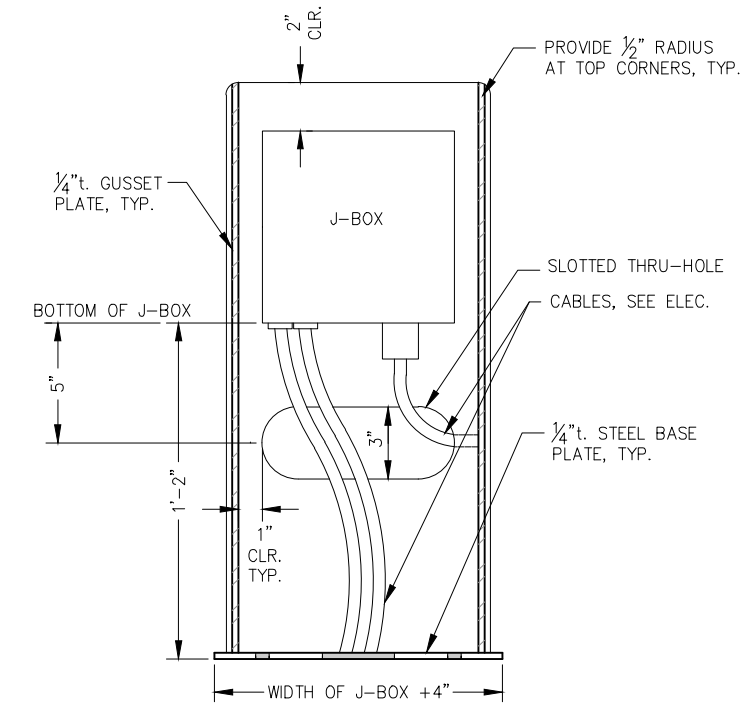
HOSE MOUNT BASE PLATE - PLAN



HOSE MOUNT ATTACHMENT PLATE - ELEVATION



SIDE ELEVATION



FRONT ELEVATION

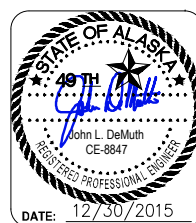
HEAT TRACE J-BOX STAND DETAIL

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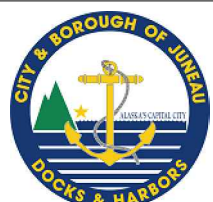


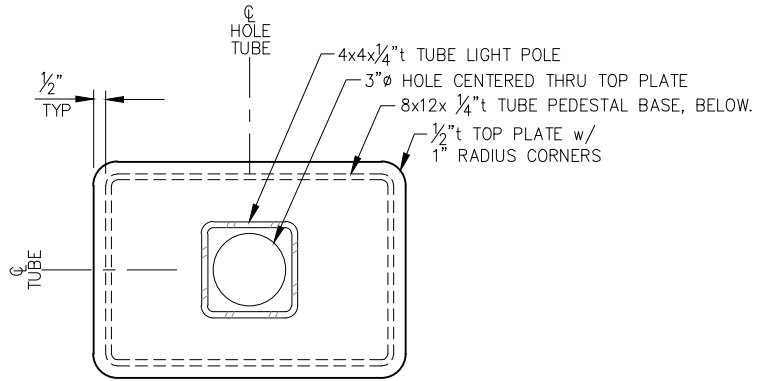
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CBJ PROJECT - DH16-001

SHEET TITLE:
FLOAT APPURTENANCE SUPPORT DETAILS
PND PROJECT NO.: 152037

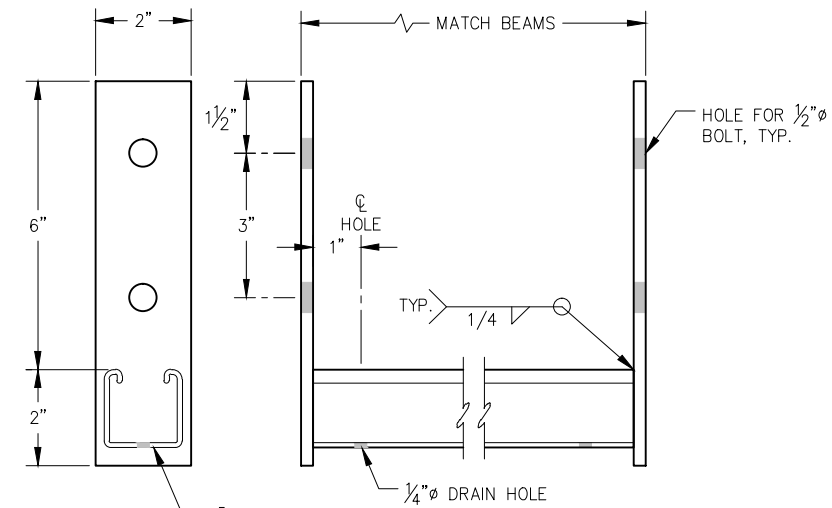
6.20
SHEET
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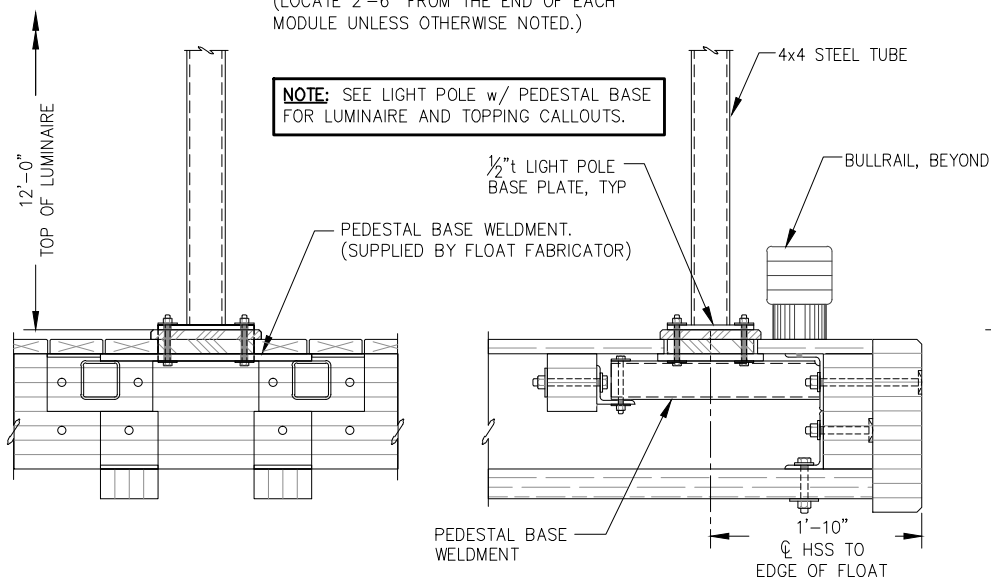




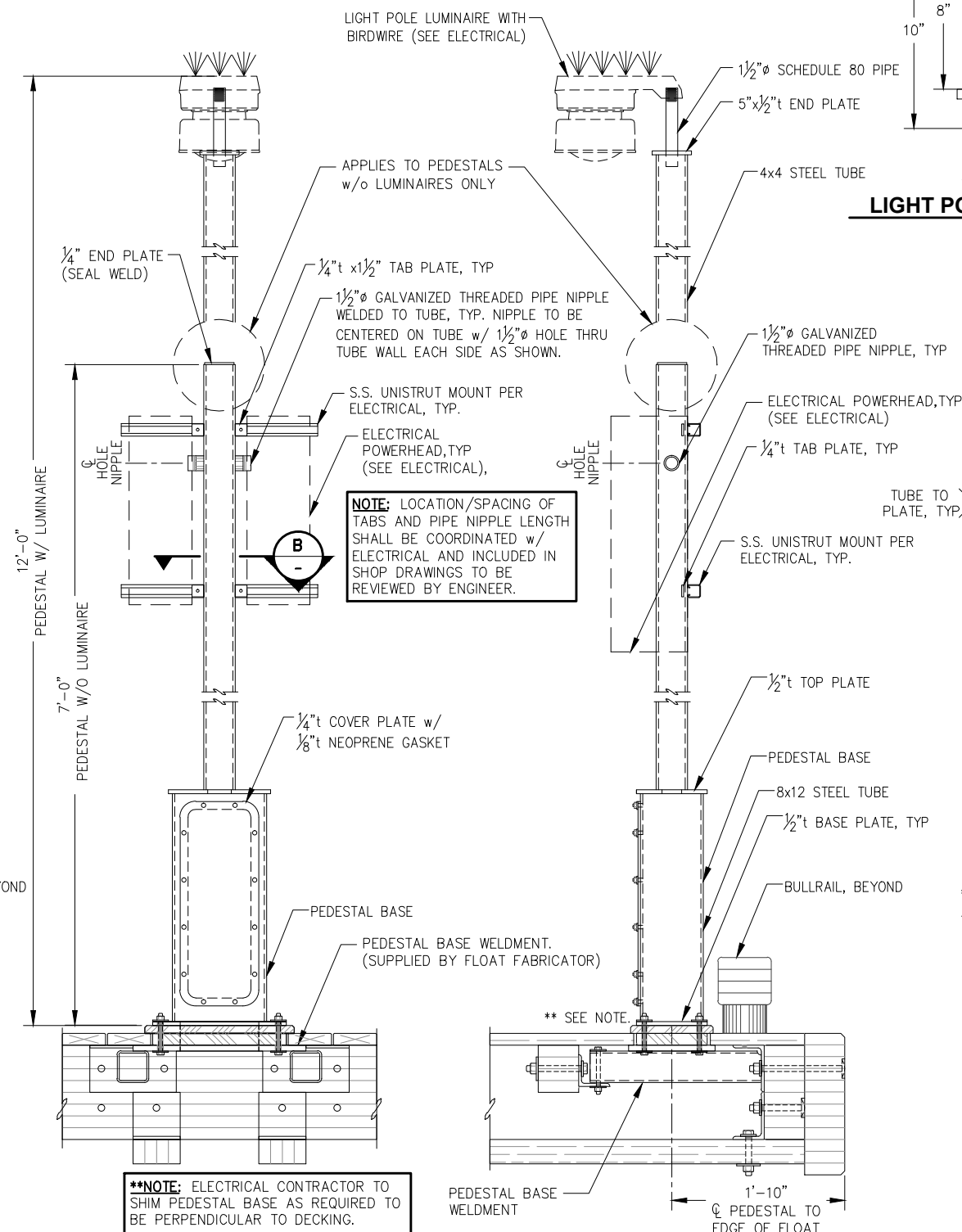
A SECTION



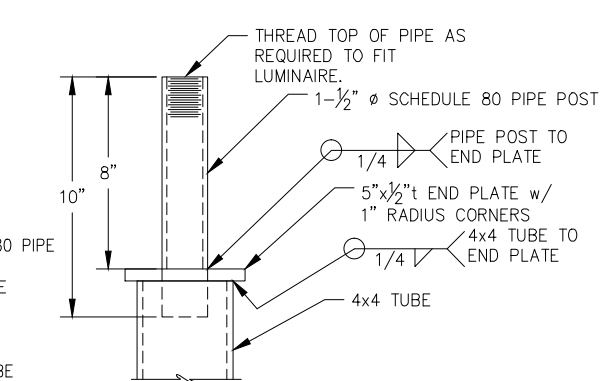
SECTION ELEVATION
CABLE TRAY SUPPORT
(LOCATE 2'-6" FROM THE END OF EACH MODULE UNLESS OTHERWISE NOTED.)



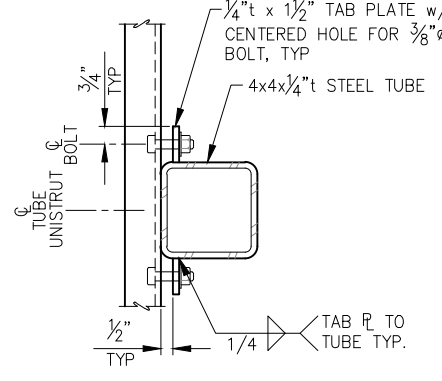
FRONT ELEVATION SIDE ELEVATION
LIGHT POLE WITHOUT PEDESTAL BASE



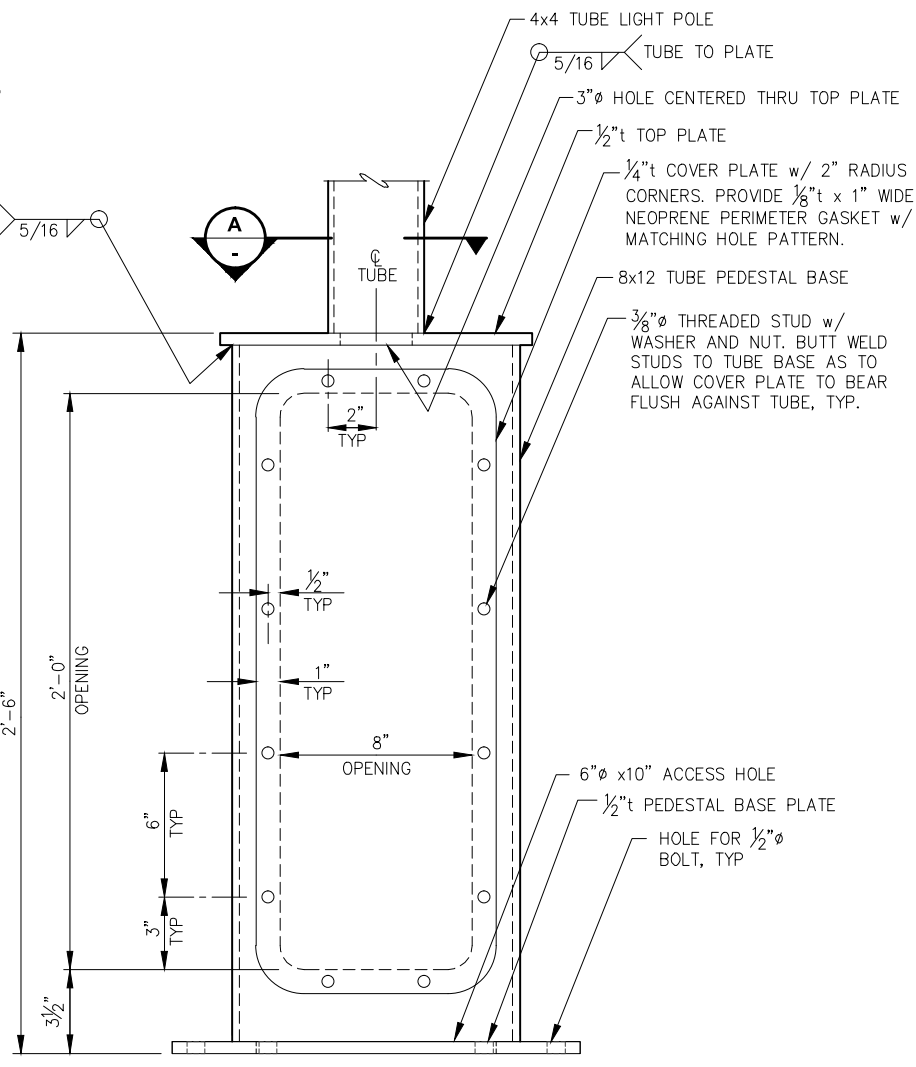
FRONT ELEVATION SIDE ELEVATION
LIGHT POLE WITH PEDESTAL BASE



LIGHT POLE TOP DETAIL



B SECTION



PEDESTAL DETAIL

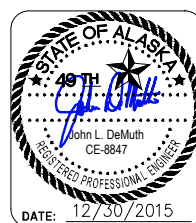
NOTE: LOCATION/SPACING OF TABS AND PIPE NIPPLE LENGTH SHALL BE COORDINATED W/ ELECTRICAL AND INCLUDED IN SHOP DRAWINGS TO BE REVIEWED BY ENGINEER.

****NOTE:** ELECTRICAL CONTRACTOR TO SHIM PEDESTAL BASE AS REQUIRED TO BE PERPENDICULAR TO DECKING.

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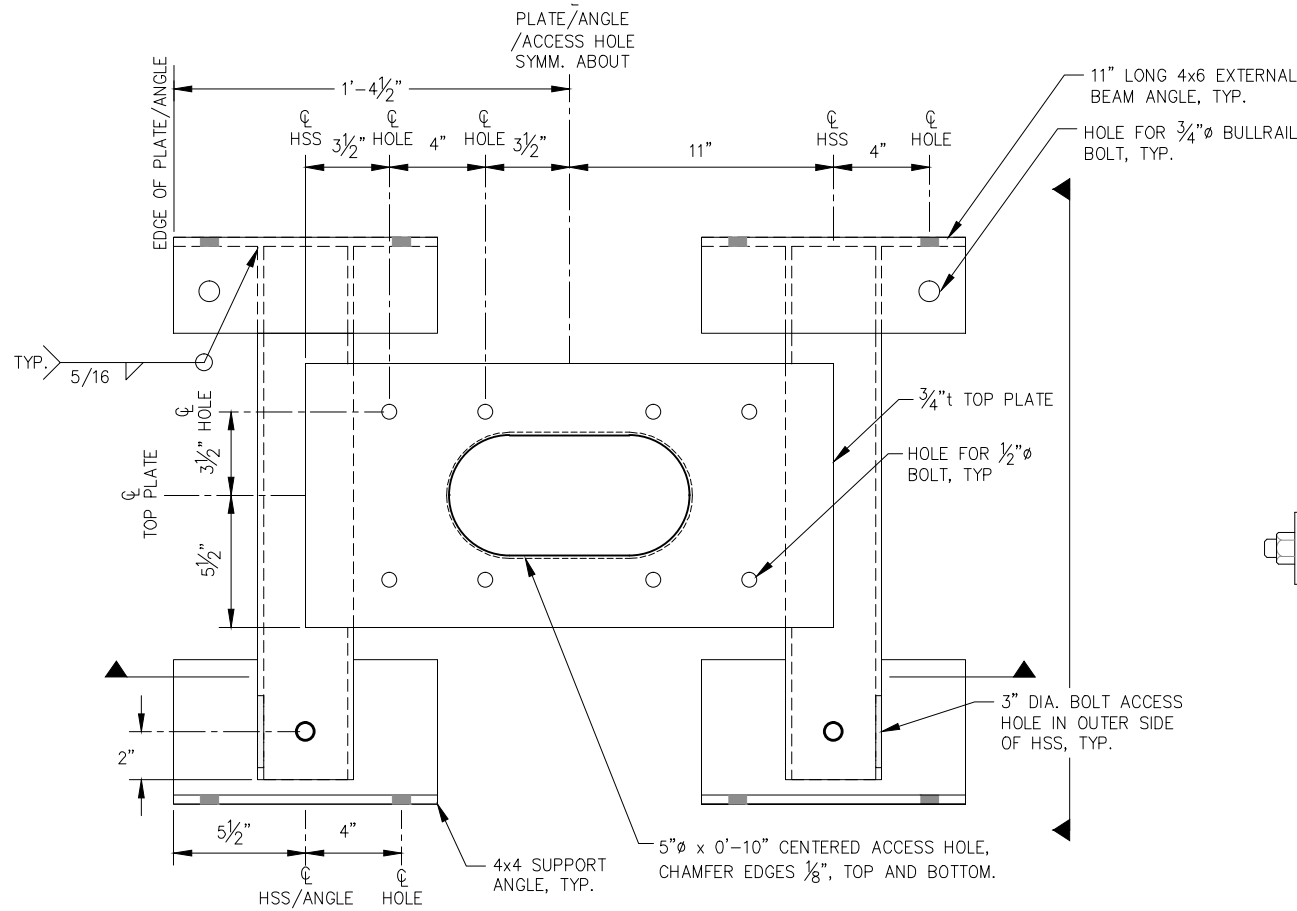
SHEET TITLE:
LIGHT POLE AND ELECTRICAL SUPPORT DETAILS

PND PROJECT NO.: 152037

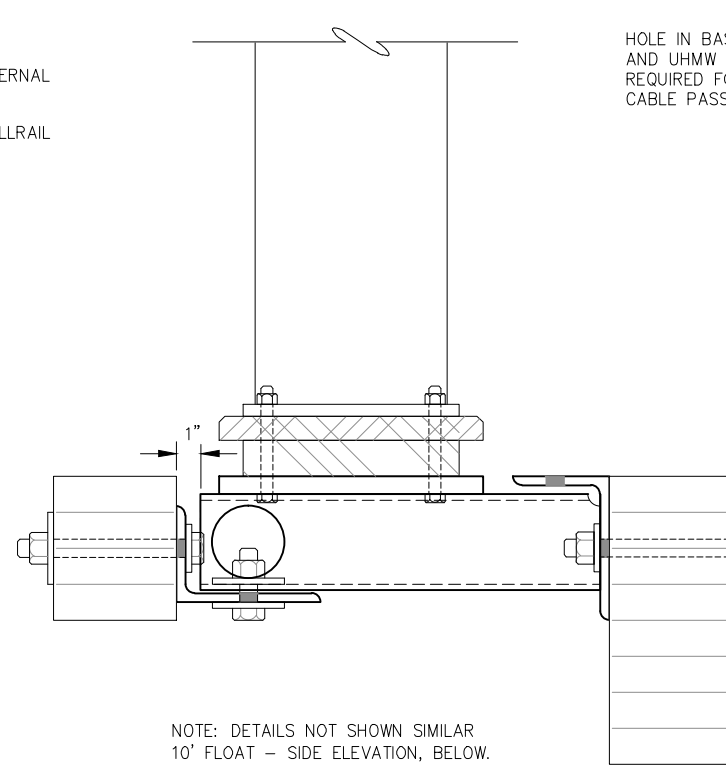
6.21
SHEET
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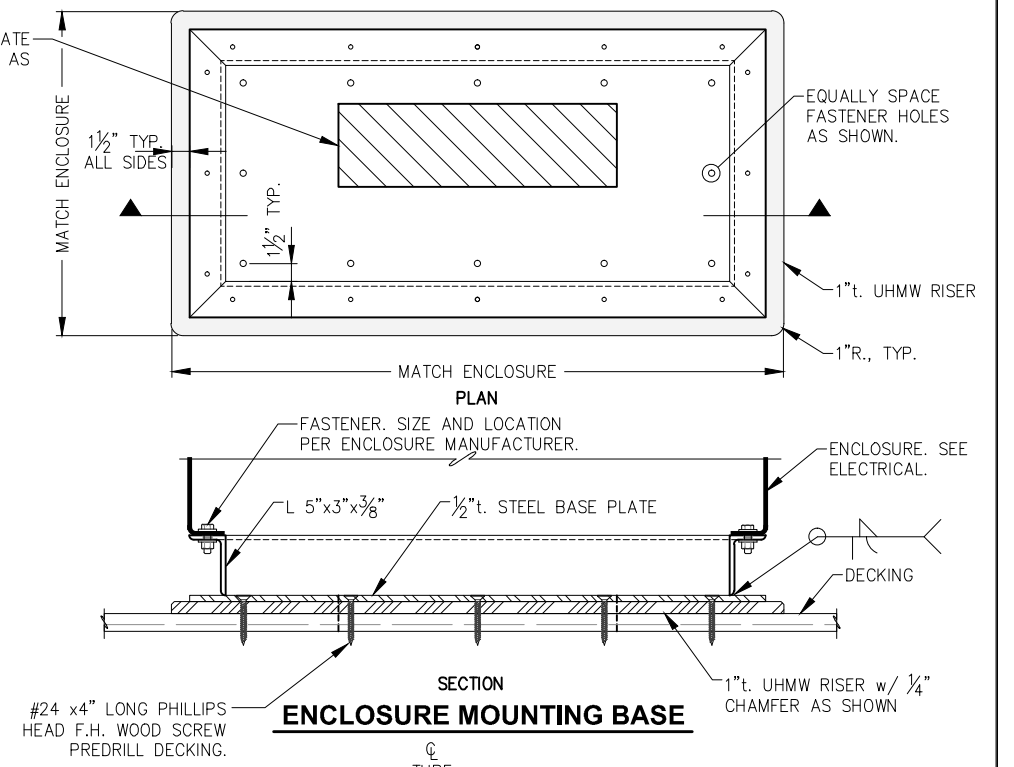




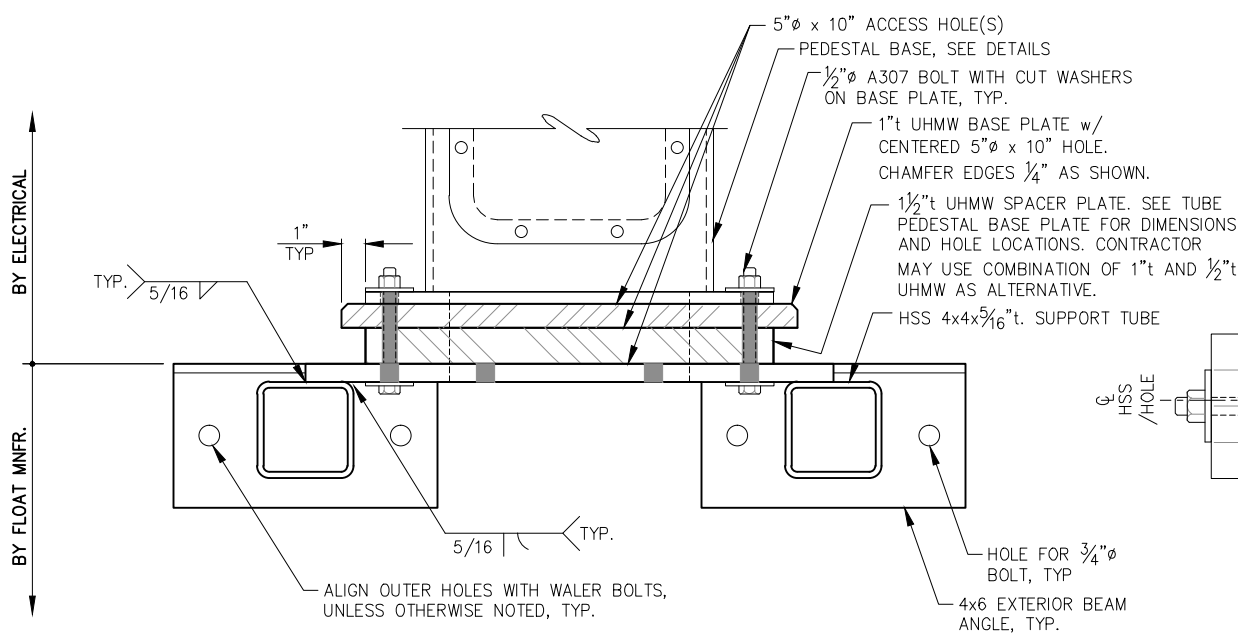
ELECTRICAL PEDESTAL BASE WELDMENT - PLAN



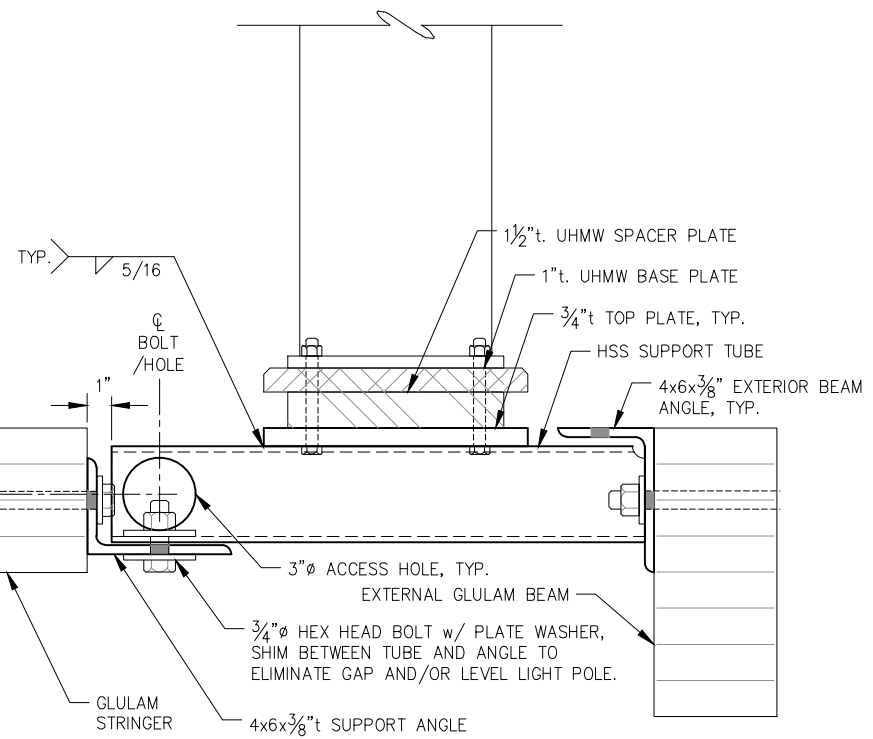
ELECTRICAL PEDESTAL BASE WELDMENT 12' FLOAT - SIDE ELEVATION



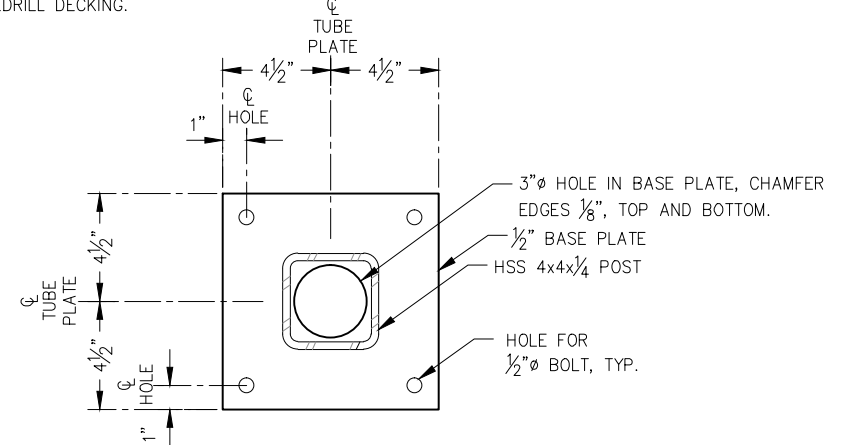
ENCLOSURE MOUNTING BASE



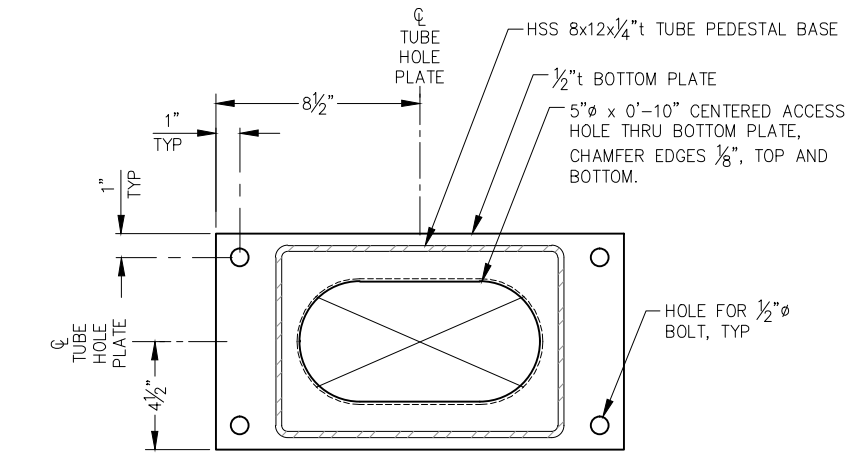
ELECTRICAL PEDESTAL BASE WELDMENT FRONT ELEVATION



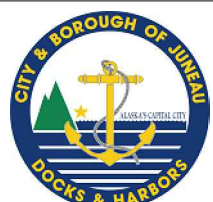
ELECTRICAL PEDESTAL BASE WELDMENT 10' FLOAT - SIDE ELEVATION



LIGHT POLE BASE PLATE



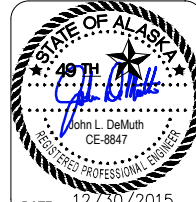
TUBE PEDESTAL BASE PLATE



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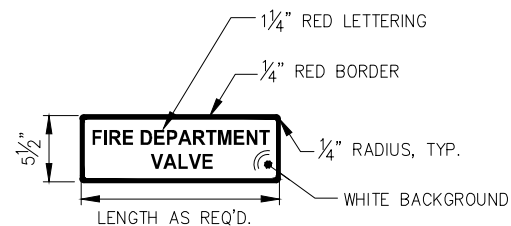
**CITY & BOROUGH OF JUNEAU, ALASKA
 DOUGLAS HARBOR RENOVATION
 CBJ PROJECT - DH16-001**

SHEET TITLE:
**ELECTRICAL PEDESTAL BASE
 WELDMENT DETAILS**

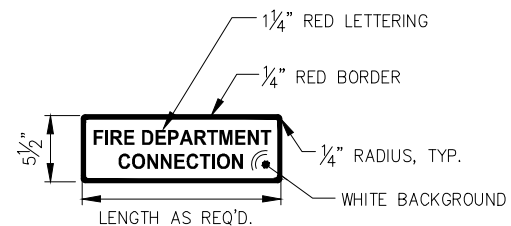
PND PROJECT NO.: 152037

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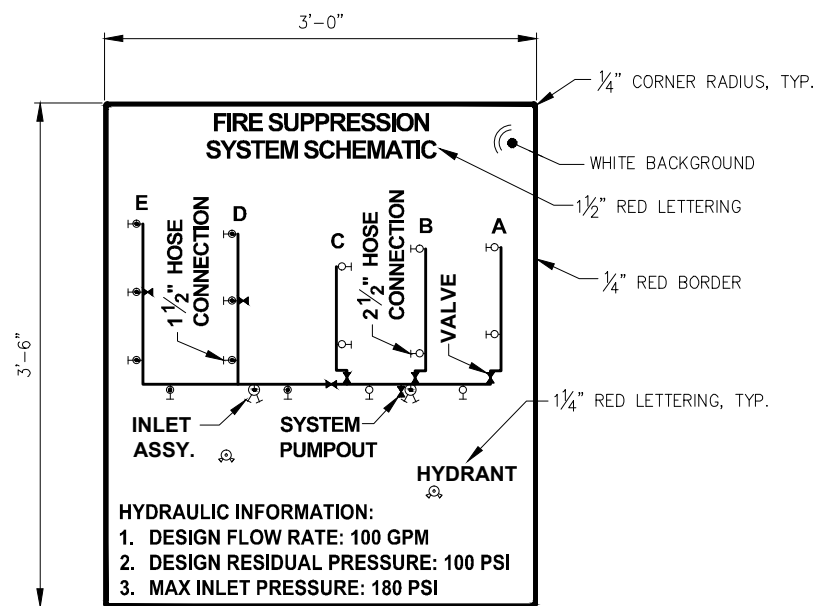
I:\Prof\juneau\152037 Douglas Harbor Renovation\G. Drawings\Design\16.20-6.22 Equipment Support Details.dwg, 12/30/2015, 2:08:33 PM



NOTE:
TYP. OF (4), MOUNT ON BULLRAIL OR WALER ADJACENT TO DRY FIRE LINE VALVES w/ 1/4" x 3" S.S. SCREWS w/WASHERS. FINAL LOCATION PER ENGINEER DIRECTION.

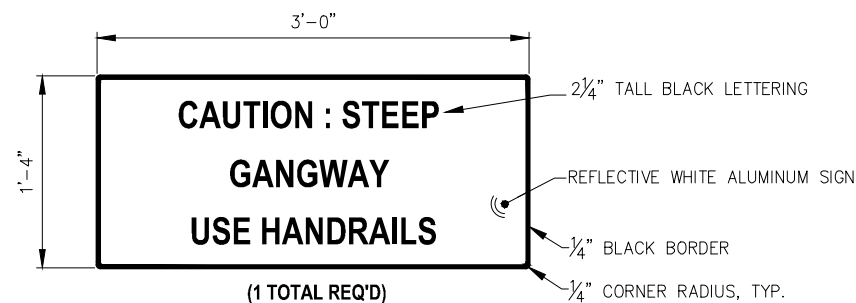
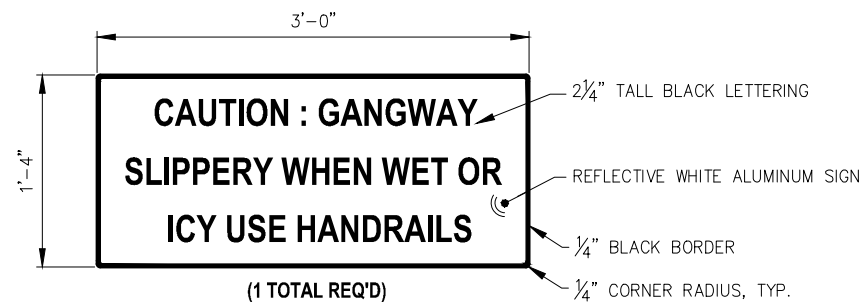


NOTE:
TYP. OF (1), MOUNT ON BULLRAIL ADJACENT TO DRY FIRE LINE INLET w/ 1/4" x 3" S.S. SCREWS w/WASHERS. FINAL LOCATION PER ENGINEER DIRECTION.



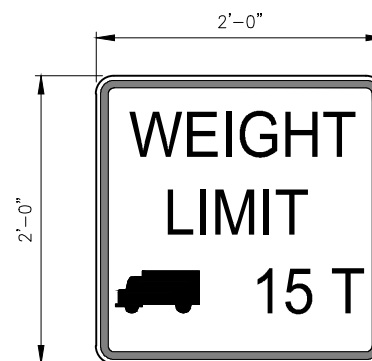
NOTE: TYP. OF (2), ONE SIGN TO BE MOUNTED NEAR EXISTING GANGWAY. SECOND SIGN TO BE INSTALLED ONLY IF ADD. ALT. A OR B IS AWARDED AND TO BE PLACED NEAR NEW GANGWAY. PROVIDE TO OWNER IF ADD. ALT.'S NOT AWARDED. FINAL LOCATIONS AND MOUNTING INSTRUCTIONS SHALL BE PER ENGINEER DIRECTION, CONTRACTOR SHALL BE PREPARED TO MOUNT SIGN TO TIMBER, STEEL OR CONCRETE.

DRY FIRE LINE SYSTEM SIGNAGE



NOTE: MOUNT GANGWAY CAUTION SIGNS TO APPROACH DOCK SAFETY RAILS w/(3) HDG U-BOLTS, OR SIMILAR. FINAL LOCATION PER OWNER/ENGINEER

GANGWAY SIGNAGE
(ADD. ALT. A AND B)



(1 TOTAL)
(MODIFIED AS SHOWN)

MUTCD R12-5 SIGN
(ADD. ALT. B)

NOTE: MOUNT SIGN TO APPROACH DOCK SAFETY RAILS w/(4) HOT DIPPED GALVANIZED U-BOLTS, OR SIMILAR. FINAL LOCATION PER OWNER/ENGINEER.

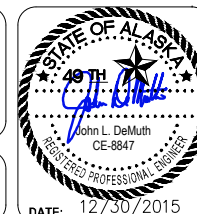


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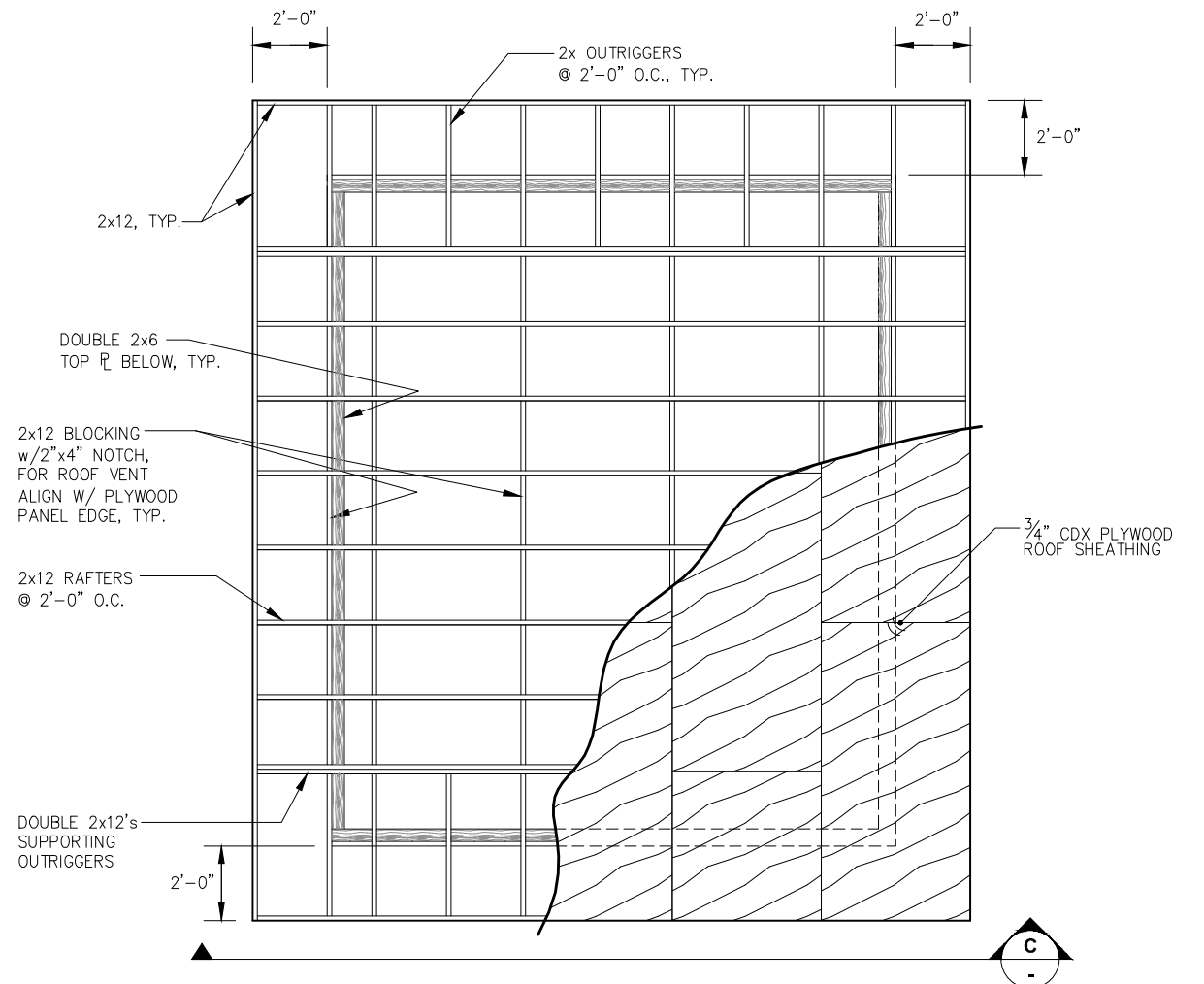
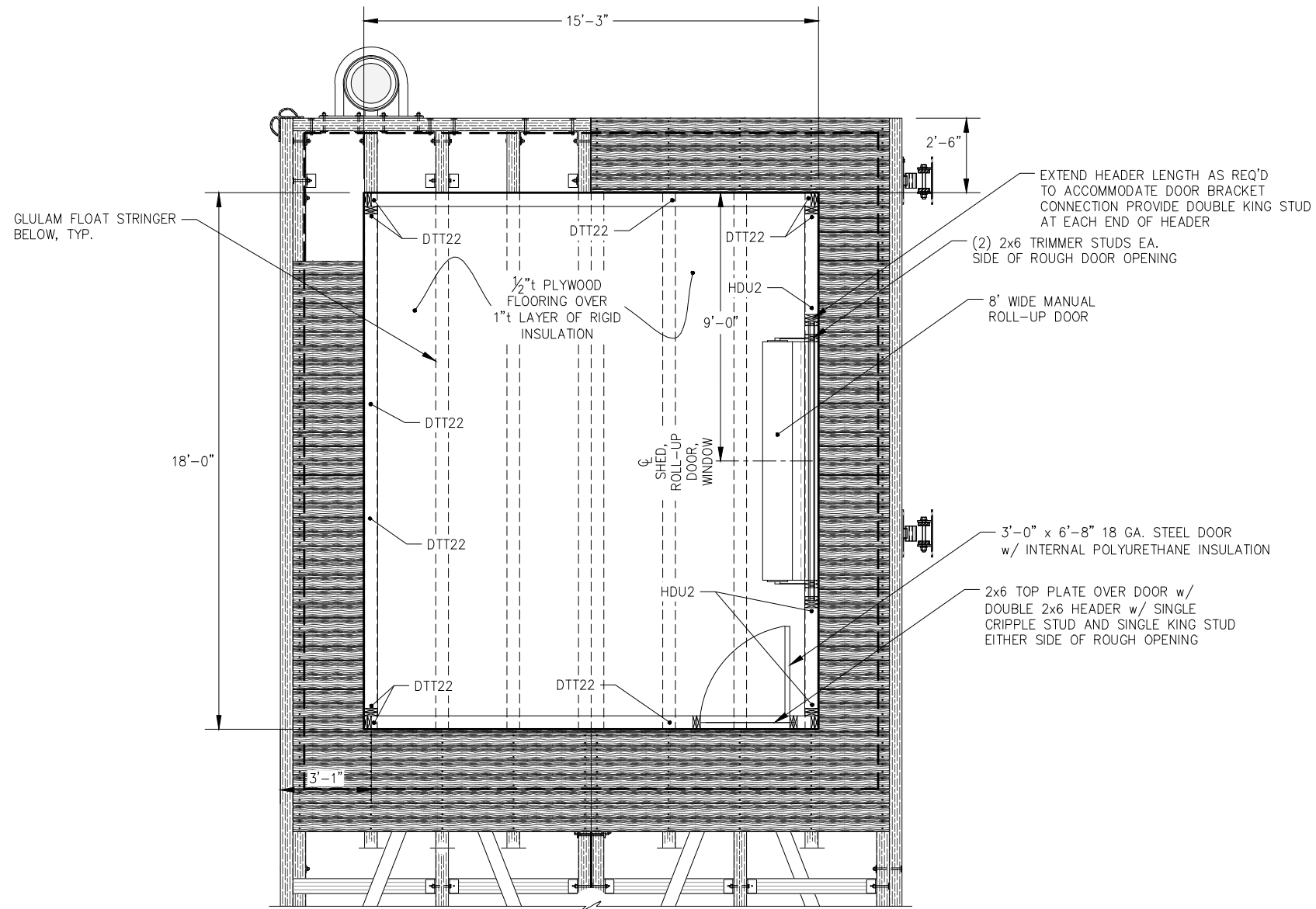
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CBJ PROJECT - DH16-001

SHEET TITLE: **SIGNAGE**

PND PROJECT NO.: 152037

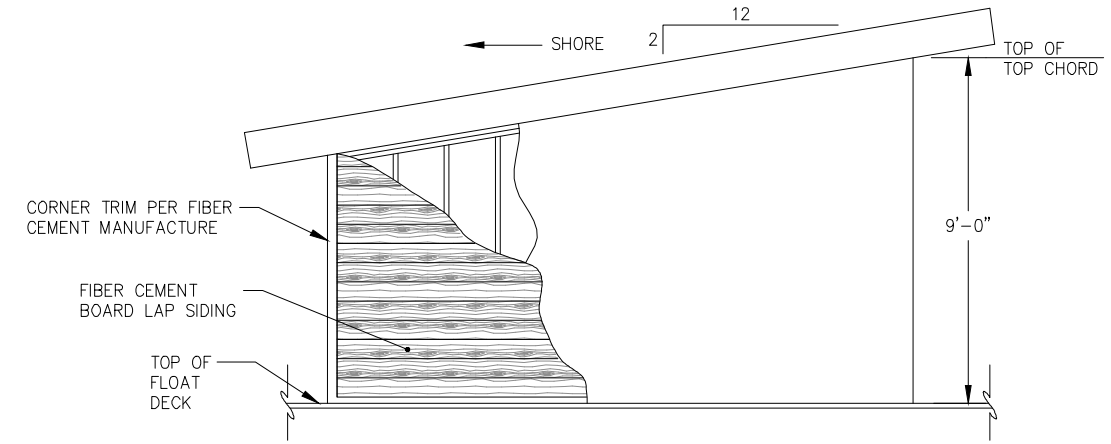
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ROOF FRAMING PLAN

- FLOOR PLAN**
- NOTES:**
- EDGE NAIL ALL ROOFING & WALL SHEATHING @ 6" O.C., IN FIELD NAIL @ 12" O.C. w/10d HOT-DIP GALVANIZED COMMON NAILS. BLOCKING REQUIRED @ ALL PANEL EDGES.
 - ALL FRAMING NAILS TO BE 16d HOT-DIP GALVANIZED COMMON NAILS.
 - INTERIOR WALLS AND CEILING SHALL BE PAINTED w/100% ACRYLIC PAINT. SEE SPECS FOR PAINT DETAILS AND COLOR.
 - ALL FLASHING SHALL BE SIMILAR MATERIAL AND GAGE AS METAL ROOFING.



C SIDE ELEVATION

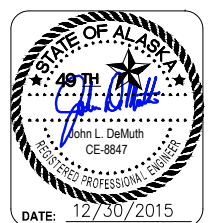
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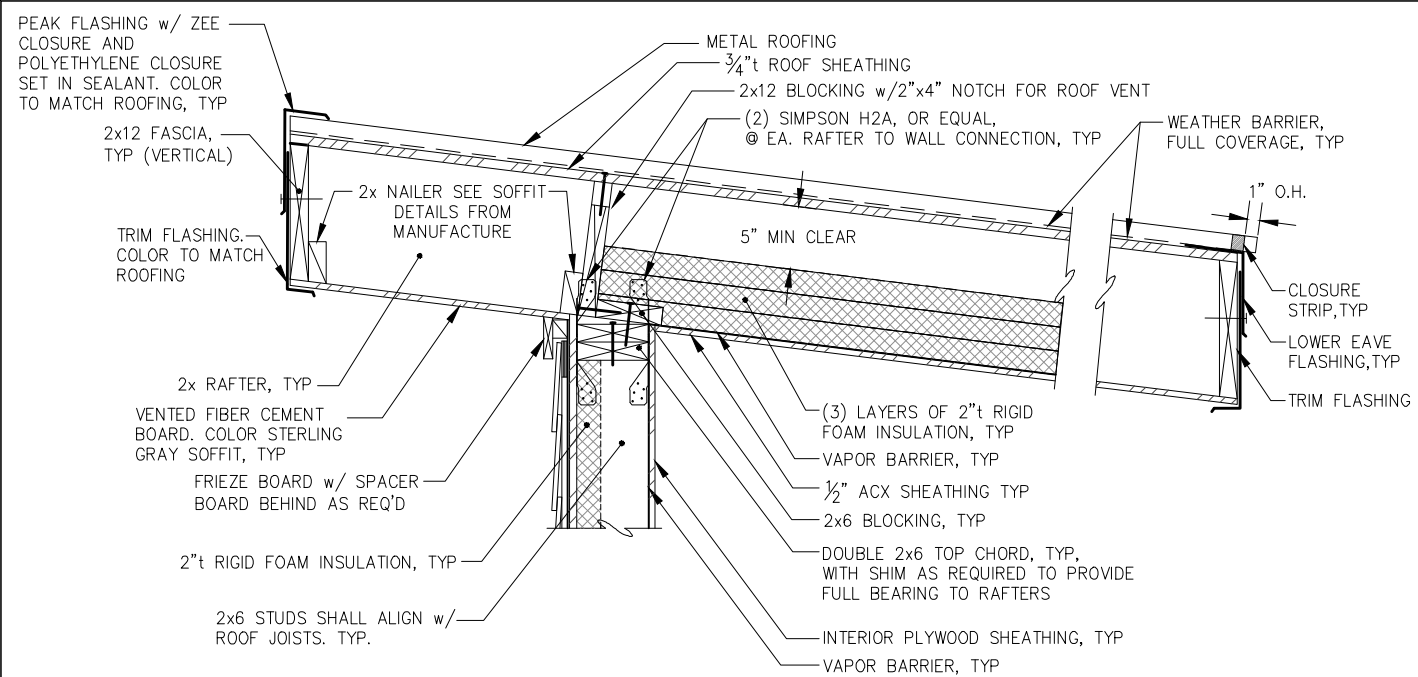
SHEET TITLE: **UTILITY BUILDING
PLANS AND ELEVATION**

PND PROJECT NO.: 152037

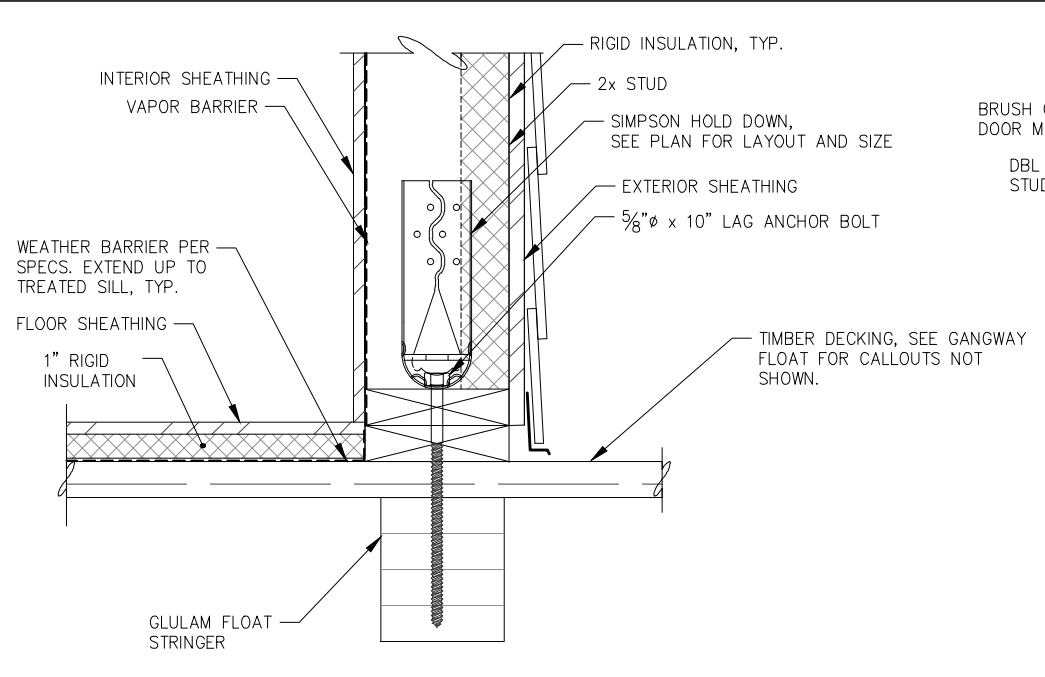
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70 OF 77



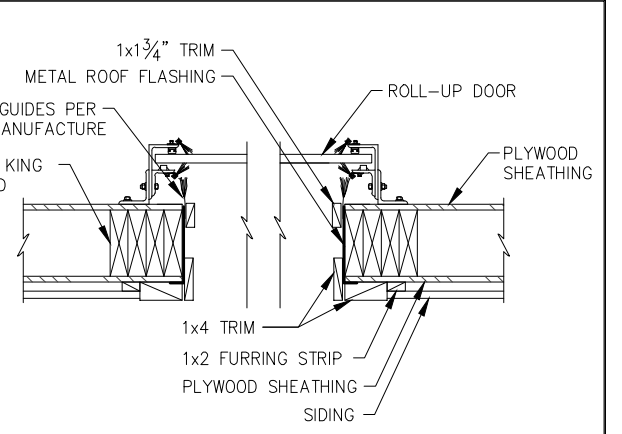
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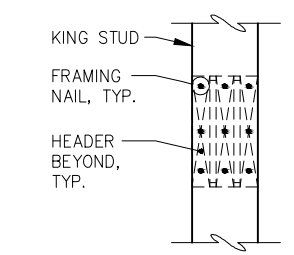
TYPICAL EAVE SECTION



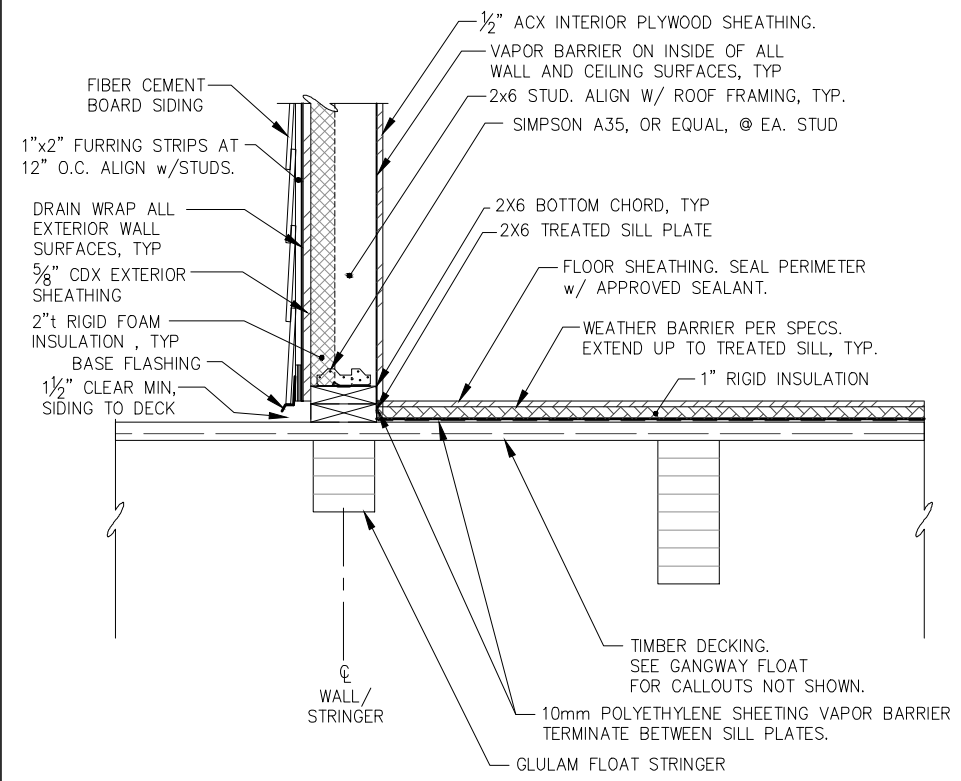
HOLD DOWN SECTION



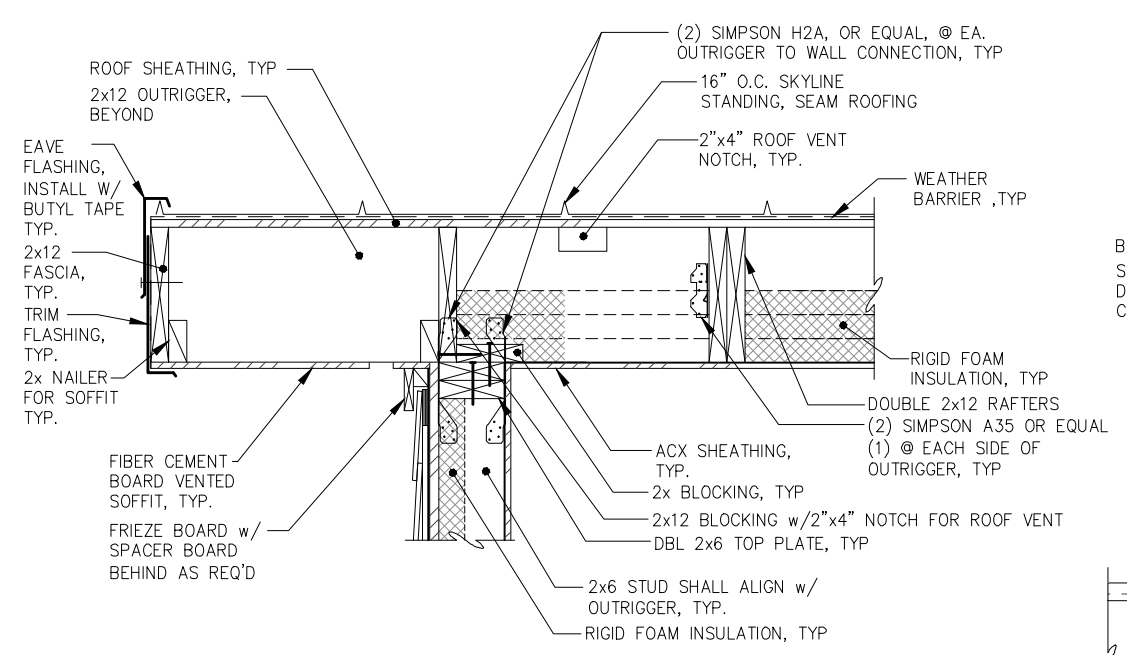
ROLL-UP DOOR JAMB DETAIL



HEADER ATTACHMENT DETAIL

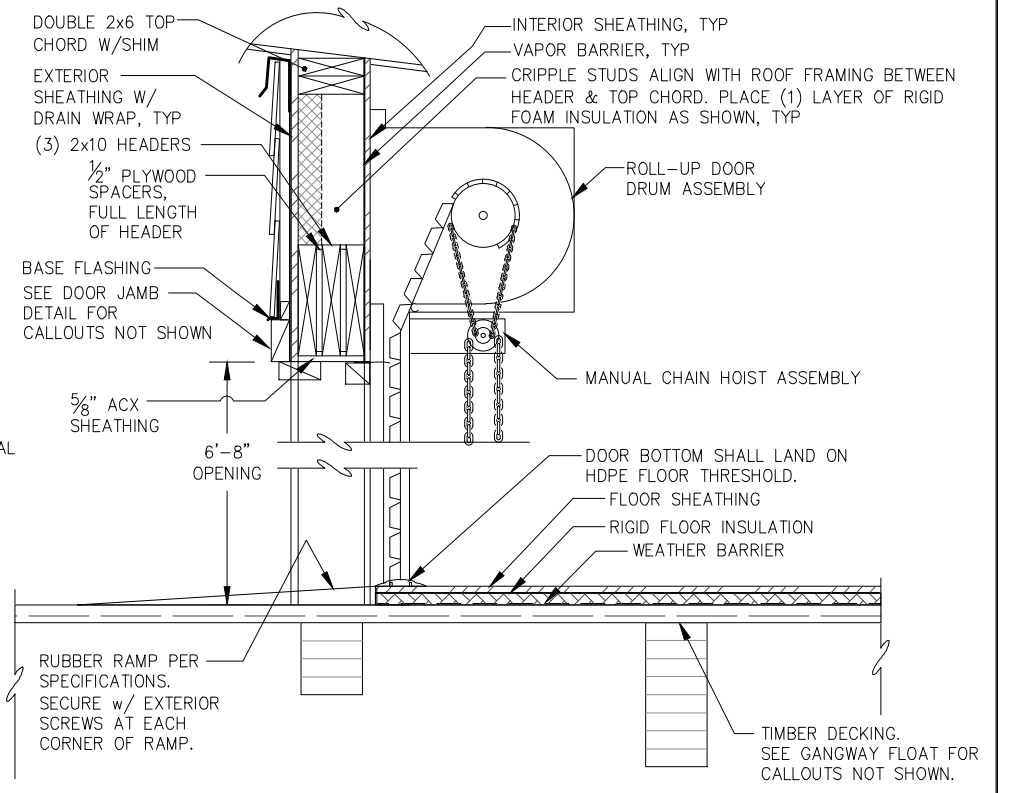


TYPICAL BASE SECTION



TYPICAL SIDEWALL SECTION

NOTE: SEE TYPICAL EAVE SECTION FOR DETAILS NOT CALLED OUT



ROLL-UP DOOR HEADER SECTION

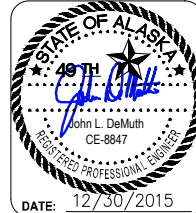


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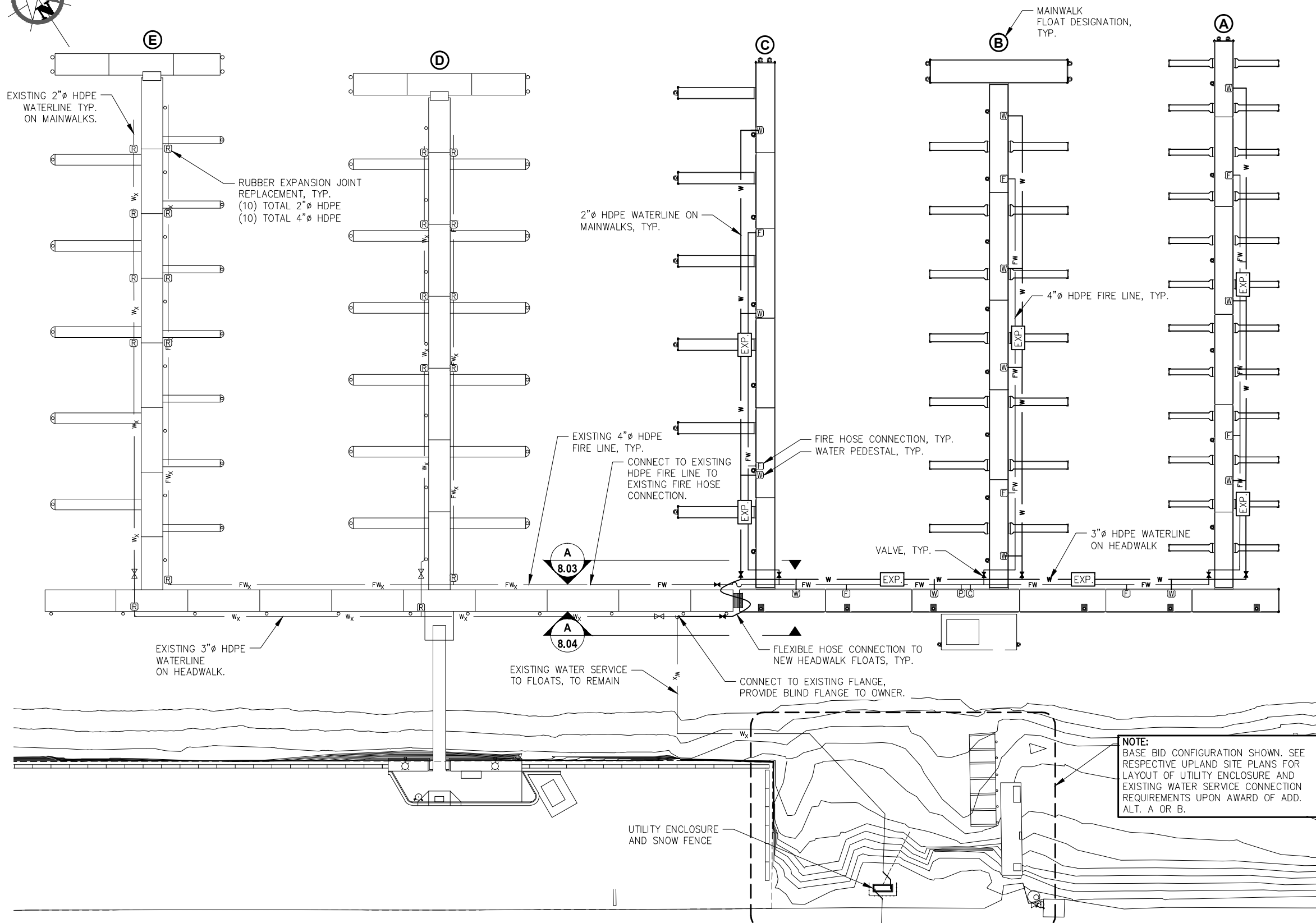
**CITY & BOROUGH OF JUNEAU, ALASKA
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CBJ PROJECT - DH16-001**

SHEET TITLE: **UTILITY BUILDING DETAILS**

PND PROJECT NO.: 152037

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SHEET 71 OF 77

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LEGEND & ESTIMATE OF MATERIAL QUANTITIES		
SYMBOL	DESCRIPTION	QUANTITY
◀▶	VALVE	SEE DETAILS
W	WATER PEDESTAL	13
F	FIRE HOSE CONNECTION	8
P	FIRE LINE PUMPOUT	1
C	FIRE DEPARTMENT CONNECTION	1
W	WATERLINE (SIZE VARIES)	1100 LF
FW	4" FIRE LINE	1050 LF
W _x	EXISTING WATERLINE/MAIN	N/A
FW _x	EXISTING FIRE LINE	N/A
EXP.	EXPANSION LOOP	6
R	EXPANSION JOINT REPLACEMENT	20

- GENERAL UTILITY NOTES:**
- QUANTITIES ESTIMATED FOR REFERENCE PURPOSES ONLY, CONTRACTOR SHALL CONFIRM ALL QUANTITIES PRIOR TO MATERIAL ORDER.
 - ADDITIONAL QUANTITIES SHALL BE PROVIDED FOR SPARE PARTS AS LISTED IN THE TECHNICAL SPECIFICATIONS.
 - UTILITY LINES AND APPURTENANCES SHOWN APPROXIMATE, LOCATE SERVICES ACCORDING TO FLOAT PLAN AND DETAILS AND PER ENGINEER DIRECTION.
 - EXISTING SERVICES ARE SHOWN APPROXIMATE, CONTRACTOR SHALL FIELD VERIFY.
 - ALL BENDS IN THE PIPE THAT EXCEED THE PIPE MANUFACTURER'S RECOMMENDED BENDING RADII SHALL BE COMPLETED WITH ELBOW FITTINGS AS REQUIRED, (INCIDENTAL).
 - PRIOR TO MAKING FINAL CONNECTIONS TO THE EXISTING WATER SYSTEM DESIGNATED TO REMAIN THE CONTRACTOR SHALL CONSTRUCT, FLUSH, DISINFECT, AND PRESSURE TEST THE NEW WATERLINE AND FLEXIBLE HOSE ASSEMBLIES. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BLIND FLANGES, TAPS, FITTINGS AND VALVES AS REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH SPECIFICATIONS. FINAL CONNECTION SHALL BE COORDINATED WITH THE ENGINEER, OWNER AND CBS WATER DEPT. SUCH THAT SYSTEM DOWN TIME IS LIMITED TO 4 HOURS MAXIMUM. FINAL CONNECTIONS SHALL BE DISINFECTED IAW AWWA C651.
 - MINOR FITTINGS AND VARIOUS SYSTEM APPURTENANCES NOT SHOWN IN UTILITY SHEETS MAY BE REQUIRED TO CONSTRUCT UTILITY SYSTEMS. CONTRACTOR SHALL USE INDUSTRY STANDARD PRACTICES TO ACHIEVE ALL CONNECTIONS NOT DETAILED IN ACCORDANCE WITH THE SPECIFICATIONS AND CONSISTENT WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS PER ENGINEER DIRECTION (INCIDENTAL).
 - HOSE SHALL BE MONITORED THROUGH MULTIPLE TIDAL CYCLES TO ENSURE NO BINDING, STRETCHING OR OTHERWISE DAMAGING CONDITIONS EXISTING UNSATISFACTORY HOSE SHALL BE RECONFIGURED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OWNER.



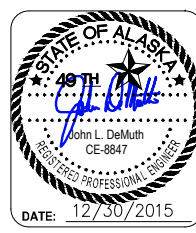
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**CITY & BOROUGH OF JUNEAU, ALASKA
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CBJ PROJECT - DH16-001**

SHEET TITLE:
**WATER AND FIRE SYSTEM
SCHEMATIC SITE PLAN**

PND PROJECT NO.: 152037

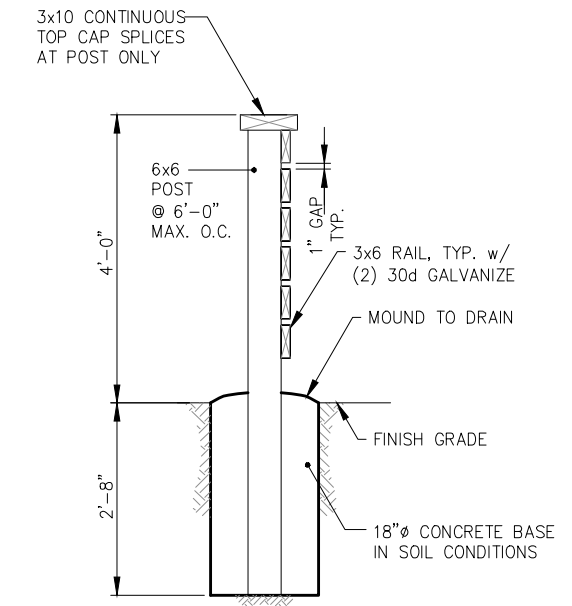
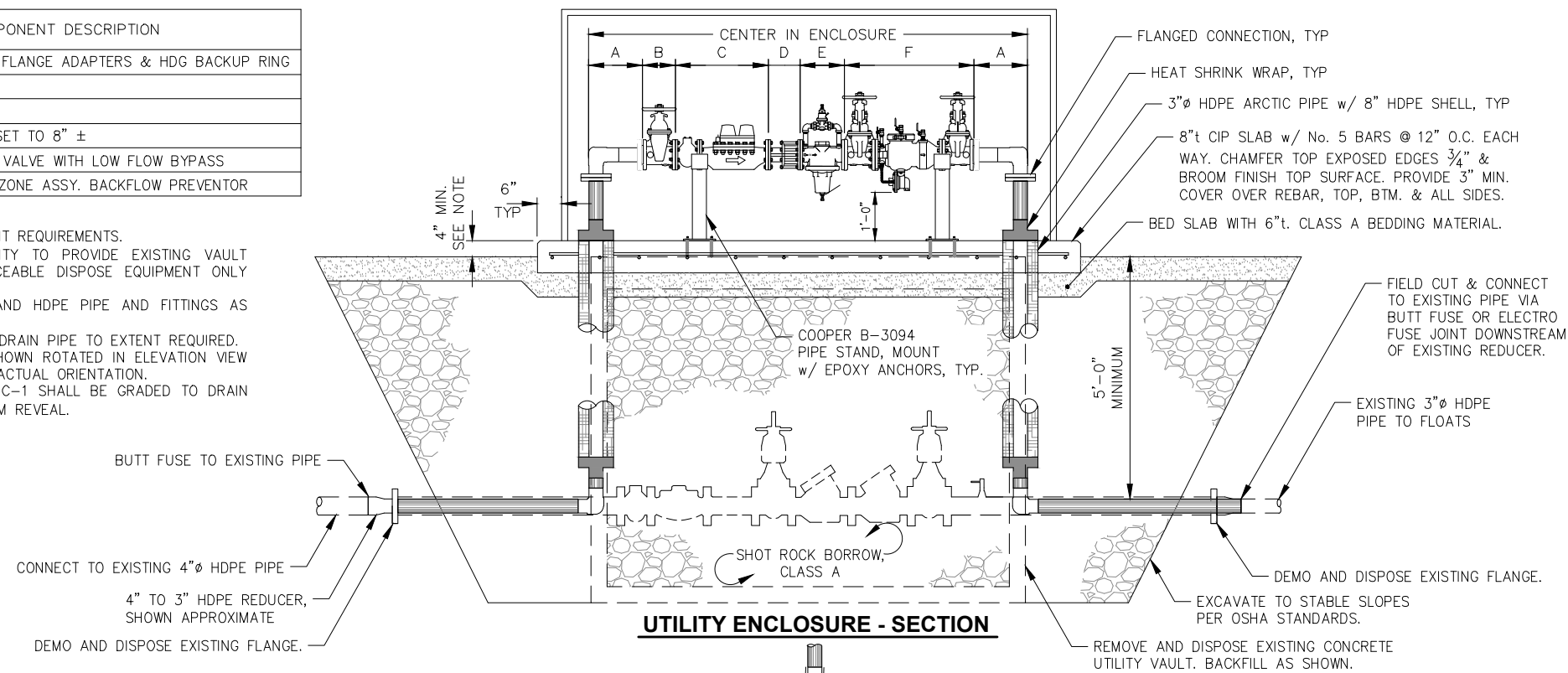
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72 OF 77

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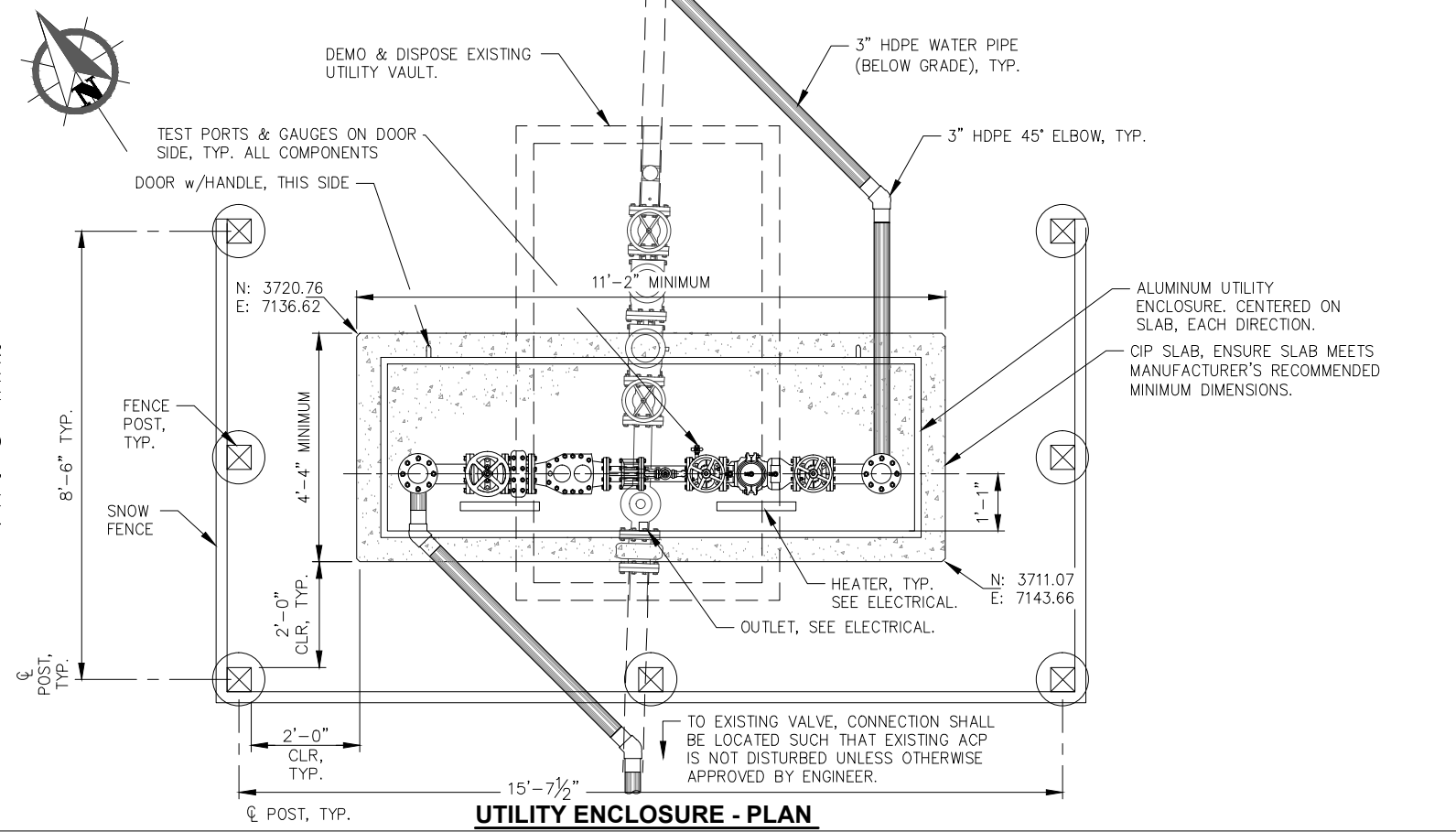
DESIGNATION	COMPONENT DESCRIPTION
A	3" HDPE 90° ELBOW w/ FLANGE ADAPTERS & HDG BACKUP RING
B	3" NRS GATE VALVE
C	3" METER w/ STRAINER
D	3" DISMANTLING JOINT, SET TO 8" ±
E	3" PRESSURE REDUCING VALVE WITH LOW FLOW BYPASS
F	3" REDUCED PRESSURE ZONE ASSY. BACKFLOW PREVENTOR

NOTES:

- SEE SPECIFICATIONS FOR COMPONENT REQUIREMENTS.
- COORDINATE w/ CBJ WATER UTILITY TO PROVIDE EXISTING VAULT EQUIPMENT AS DETERMINED SERVICEABLE DISPOSE EQUIPMENT ONLY AS DIRECTED BY WATER UTILITY.
- DEMO AND DISPOSE EXISTING DI AND HDPE PIPE AND FITTINGS AS REQUIRED.
- DEMOLISH AND DISPOSE (E) VAULT DRAIN PIPE TO EXTENT REQUIRED. EXISTING VAULT AND EQUIPMENT SHOWN ROTATED IN ELEVATION VIEW FOR CLARITY, SEE PLAN VIEW FOR ACTUAL ORIENTATION.
- CONCRETE SLAB SHALL BE LEVEL, C-1 SHALL BE GRADED TO DRAIN AROUND SLAB. MAINTAIN 4" MINIMUM REVEAL.

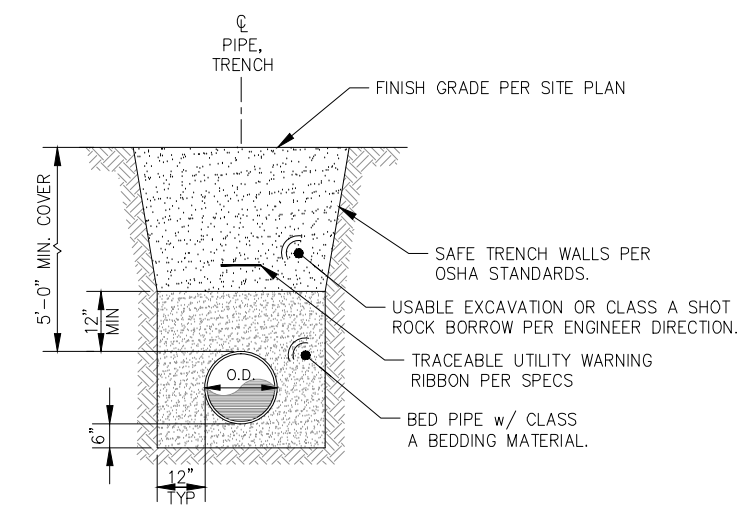


- NOTES:**
- ALL TIMBER PRESSURE TREATED 0.6 PCF ACZA.
 - USE 30d GALVANIZED NAILS AT ALL LOCATIONS.



NOTES:

- PIPING SHOWN AROUND EXISTING VAULT TO ALLOW FOR INSTALLATION PRIOR TO DEMO OF EXISTING VAULT TO MINIMIZE SYSTEM DOWN TIME. CONTRACTOR MAY ELECT TO RECONFIGURE PIPING PROVIDED SYSTEM DOWN TIME REQUIREMENTS ARE MET PER SPECIFICATIONS.
- SEE RESPECTIVE SITE PLANS FOR ENCLOSURE ELEVATION SHOULD ADD. ALT. A OR B BE AWARDED. (ADD. ALT. A&B)
- LOCATE ENCLOSURE SLAB AT APPROX. EXISTING GRADE w/ 4" MINIMUM REVEAL AS SHOWN. GRADE TO DRAIN SEAWARD. SLOPE TO BLEND EVENLY TO EXISTING GRADES PER ENGINEER DIRECTION. (BASE BID)



PIPE TRENCH - TYPICAL SECTION

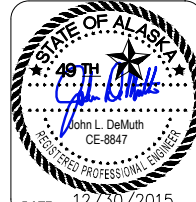


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**CITY & BOROUGH OF JUNEAU, ALASKA
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CBJ PROJECT - DH16-001**

SHEET TITLE:
**UTILITY SYSTEM UPLANDS
DETAILS**

PND PROJECT NO.: 152037

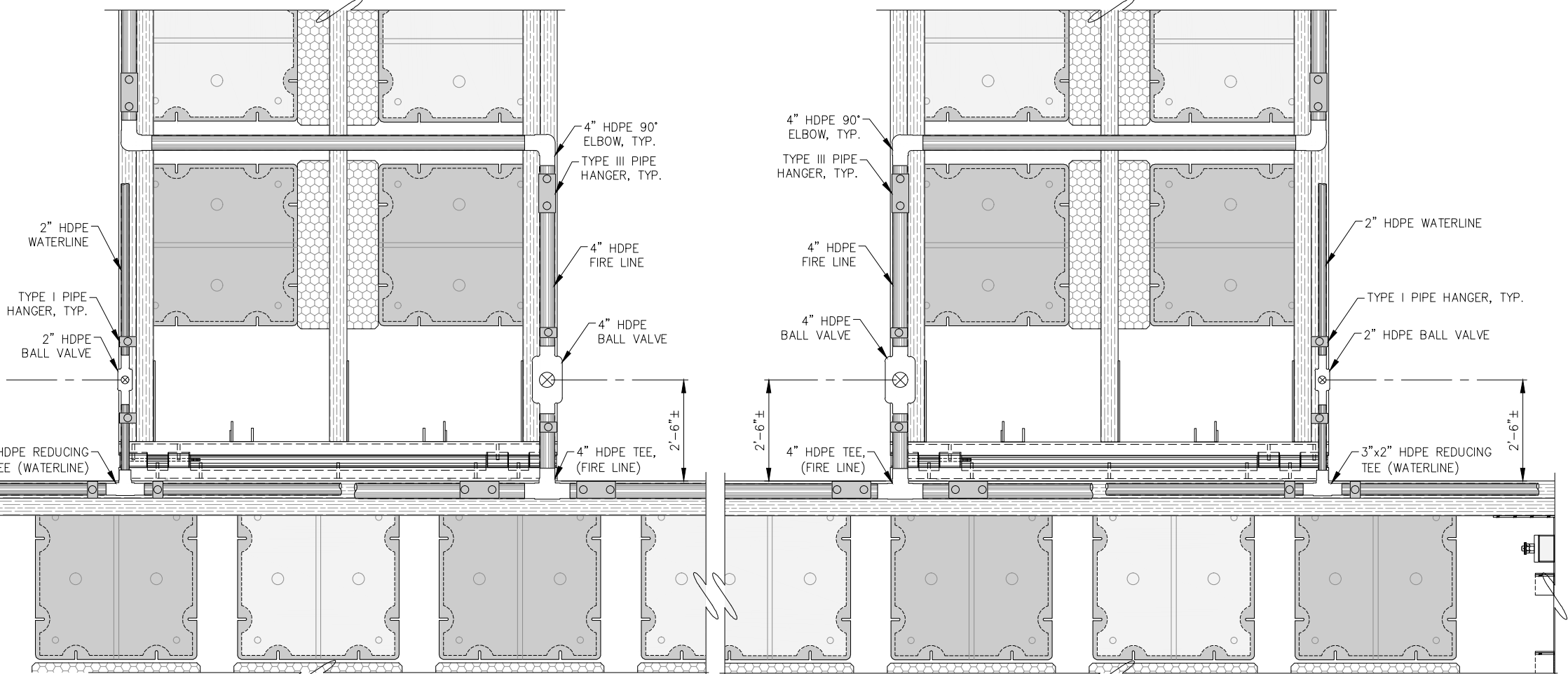
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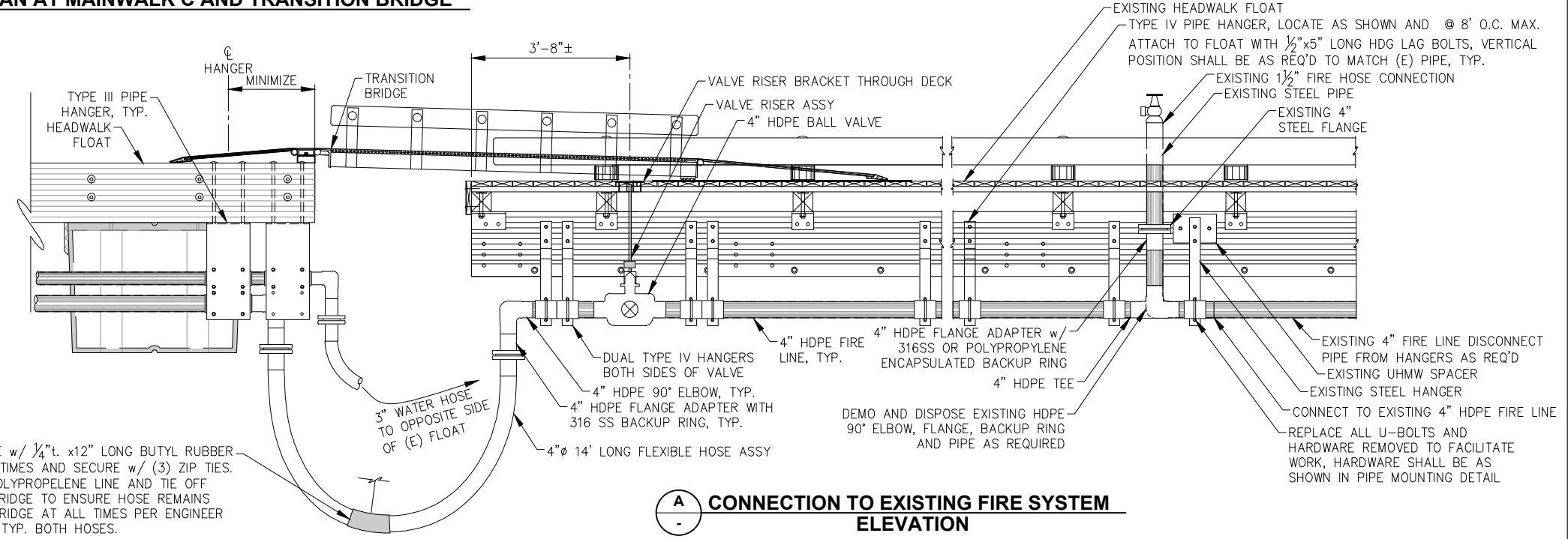
NOTE:

1. NOT ALL FLOAT COMPONENTS SHOWN FOR CLARITY.
2. UTILITIES SHOWN ON TOP OF FLOAT FOR CLARITY.
3. INTERNAL CONSTRUCTION OF FLOATS DIFFERS WITH EACH MAINWALK. NOTE LOCATION OF INTERNAL HARDWARE PRIOR TO DRILLING HOLES AS REQUIRED FOR HANGER BOLTS OR VALVE RISERS. MAINTAIN A MINIMUM OF 2 1/2" CLEAR TO ALL FLOAT HARDWARE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. NOTE THAT 4" VALVES AND FLANGES CANNOT BE INSTALLED ADJACENT TO FLOAT TUBS. ALL PROPOSED FLANGED CONNECTIONS NOT SHOWN ON PLANS SHALL BE APPROVED BY THE ENGINEER.
5. ALL FILED DRILLED HOLES IN TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWP M-4.
6. ALL LAG BOLTS SHALL BE PILOT DRILLED.
7. UTILITY PLAN AT MAINWALK A SHALL BE SIMILAR TO MAINWALK B EXCEPT 90° ELBOWS SHALL BE USED IN LIEU OF TEES.



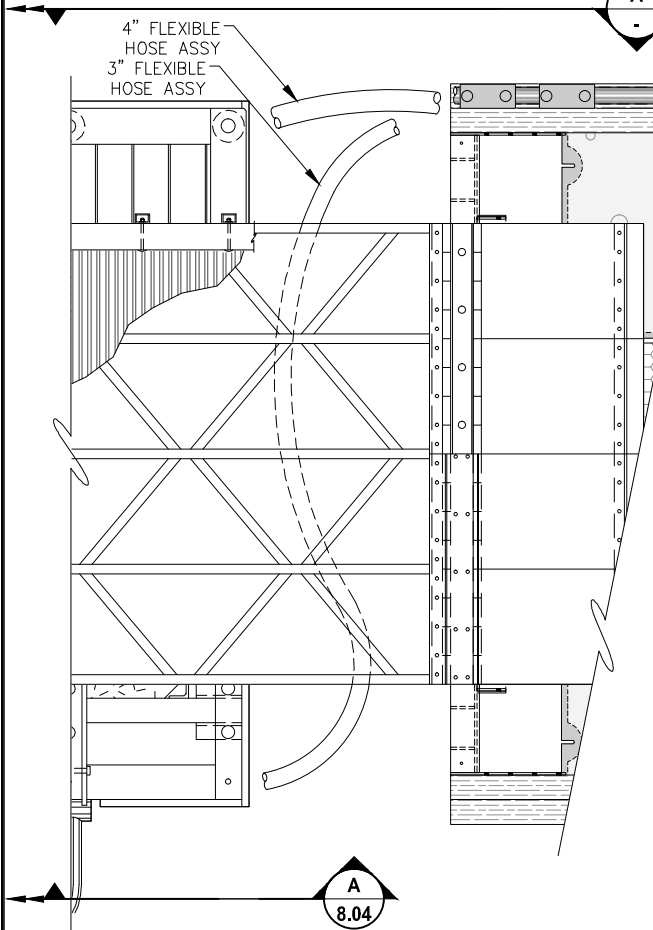
UTILITY PLAN AT MAINWALK C AND TRANSITION BRIDGE

UTILITY PLAN AT MAINWALK B



CONNECTION TO EXISTING FIRE SYSTEM ELEVATION

WRAP HOSE w/ 1/4" t. x12" LONG BUTYL RUBBER SHEET (2) TIMES AND SECURE w/ (3) ZIP TIES. PROVIDE POLYPROPYLENE LINE AND TIE OFF HOSE TO BRIDGE TO ENSURE HOSE REMAINS BENEATH BRIDGE AT ALL TIMES PER ENGINEER DIRECTION, TYP. BOTH HOSES.



8.04

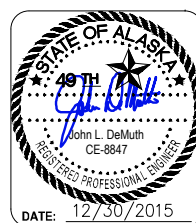
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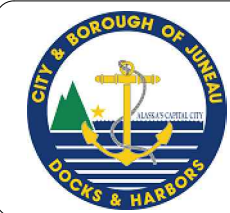
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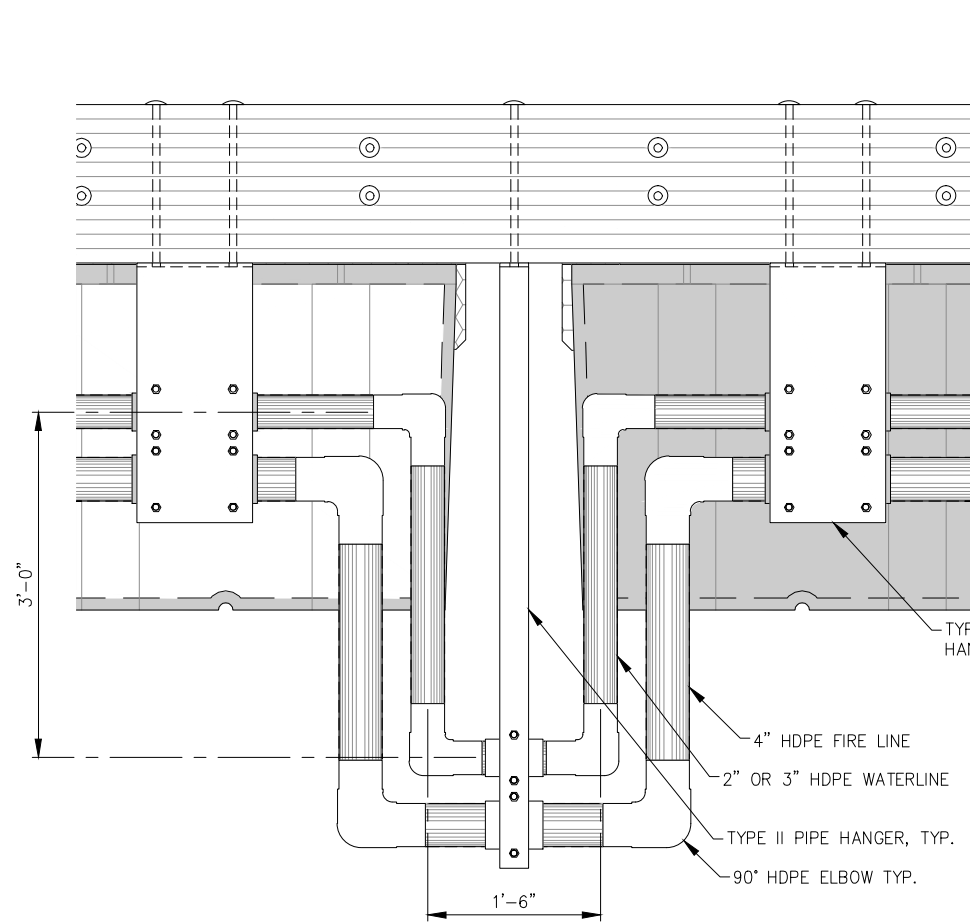
SHEET TITLE: **WATER AND FIRE SYSTEMS ROUTING**

PND PROJECT NO.: 152037

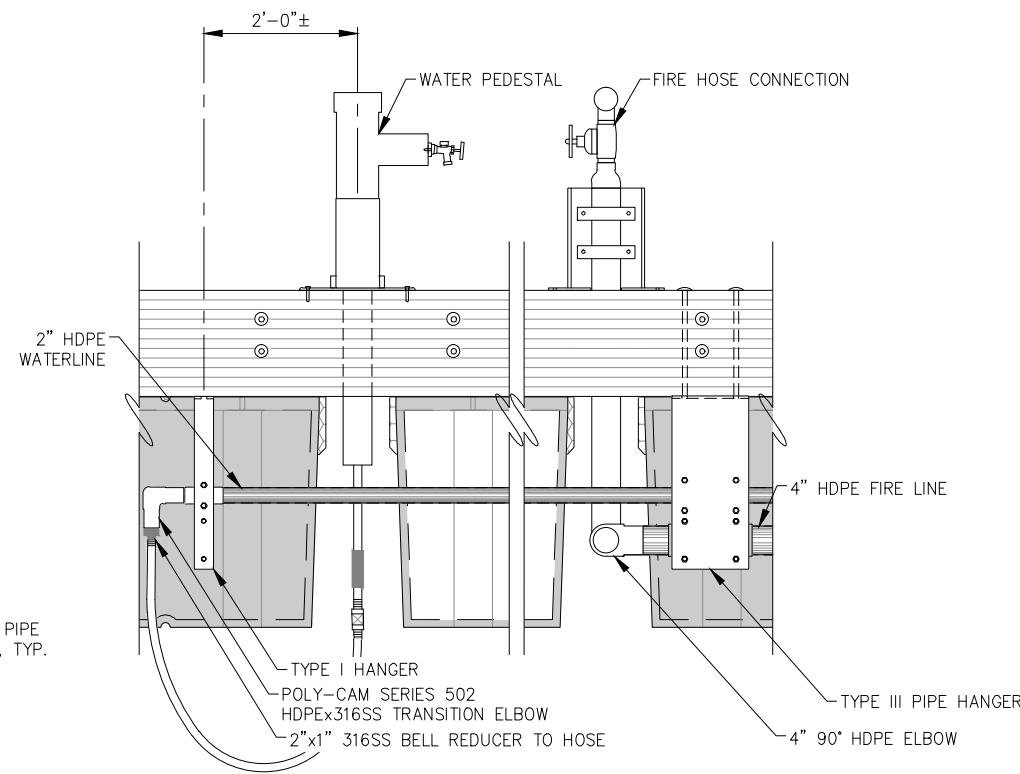
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SHEET 74 of 77

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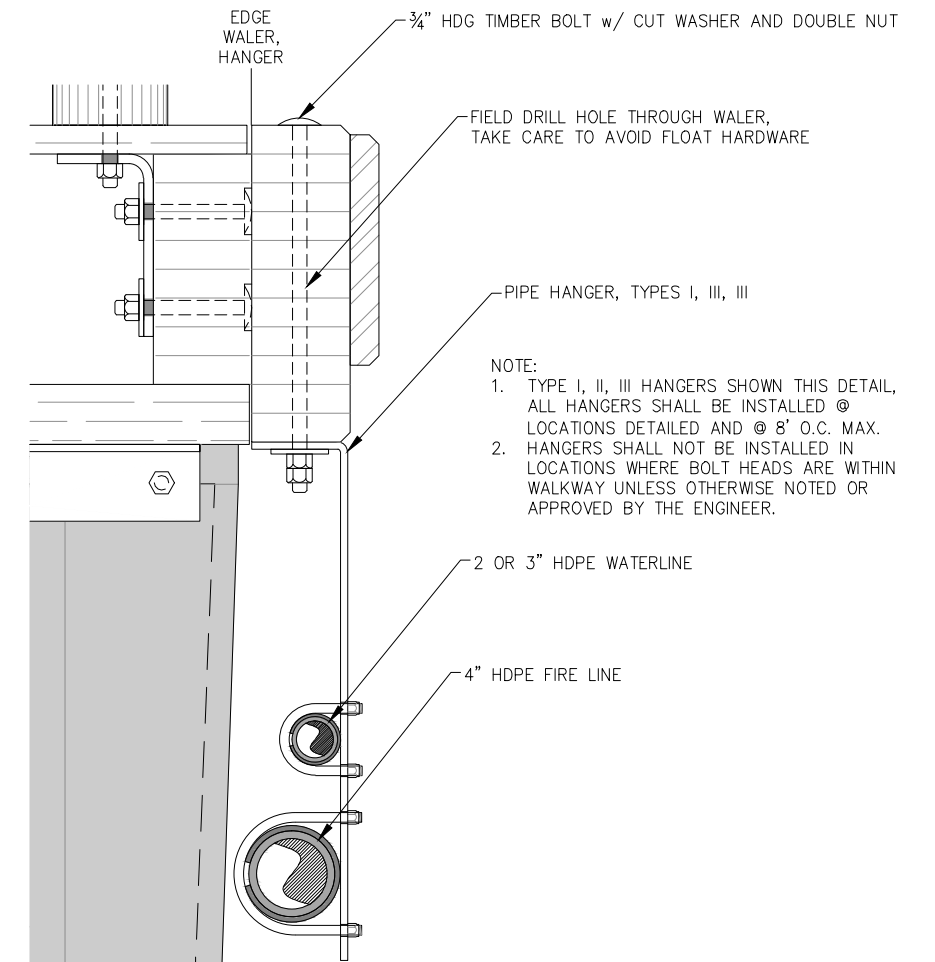




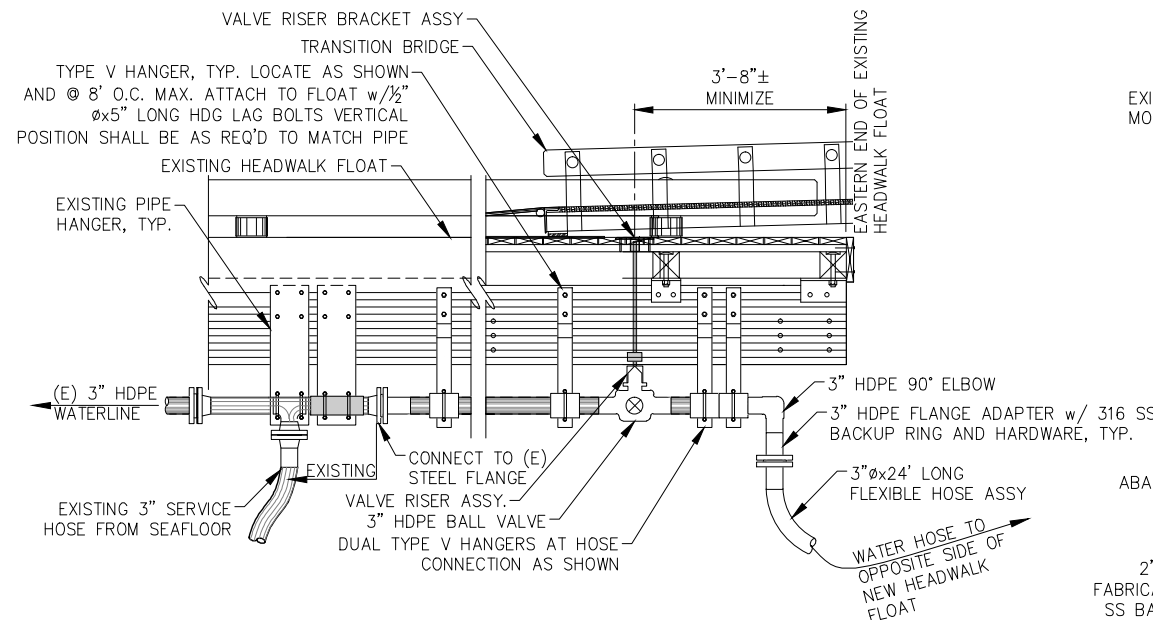
EXPANSION LOOP ELEVATION



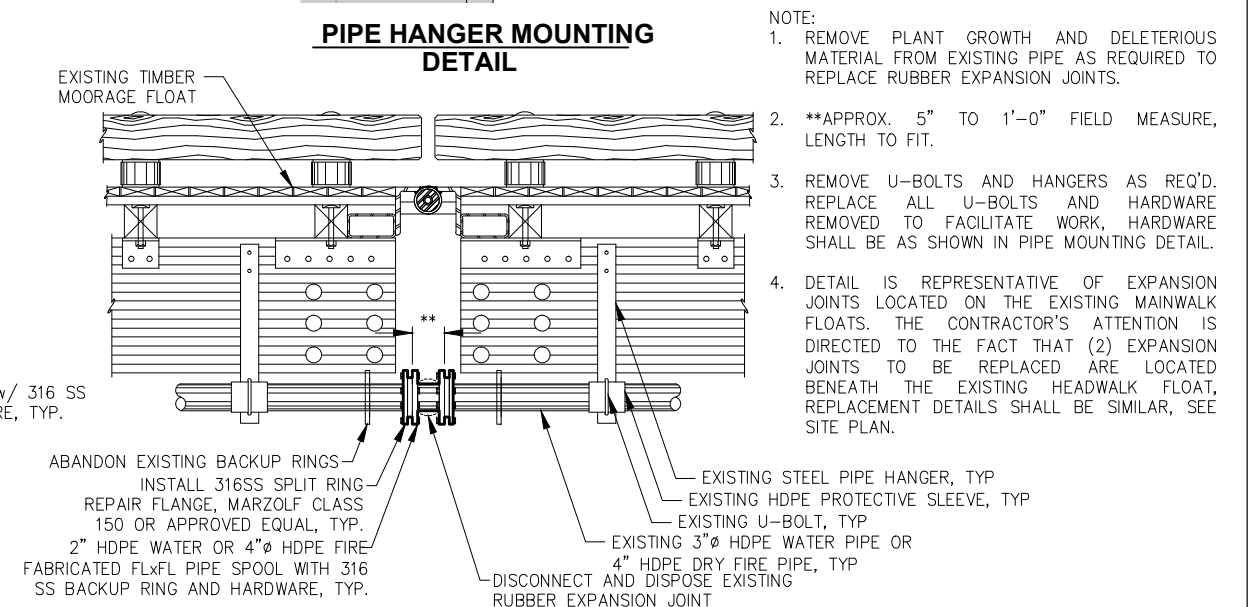
END OF MAINWALK UTILITY LINES ELEVATION



PIPE HANGER MOUNTING DETAIL



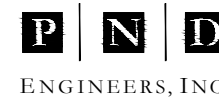
A WATERLINE CONNECTION TO EXISTING SYSTEM ELEVATION



RUBBER EXPANSION JOINT REPLACEMENT ELEVATION

REVISIONS

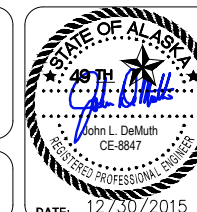
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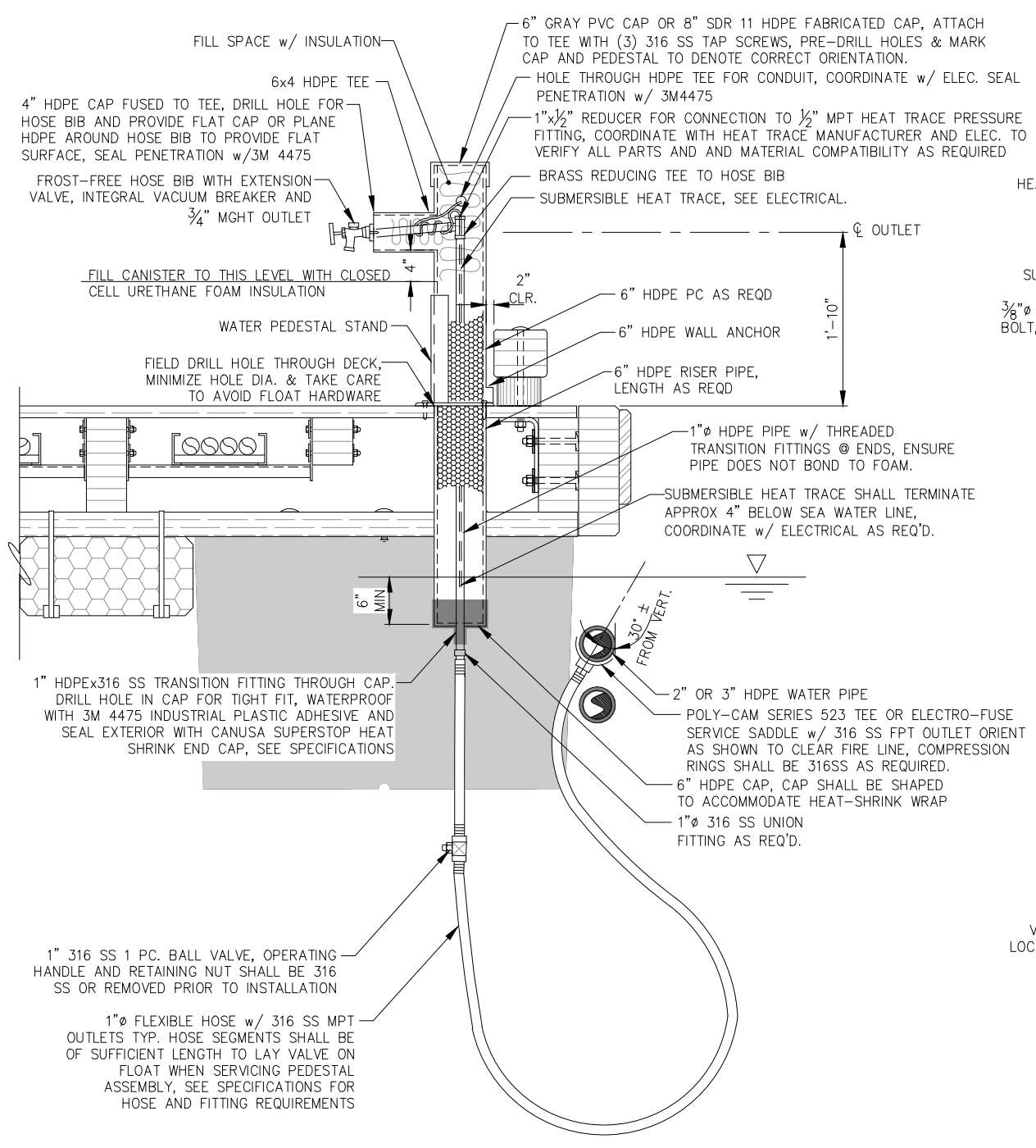
SHEET TITLE: **FLOAT MOUNTED
UTILITY DETAILS**

PND PROJECT NO.: 152037

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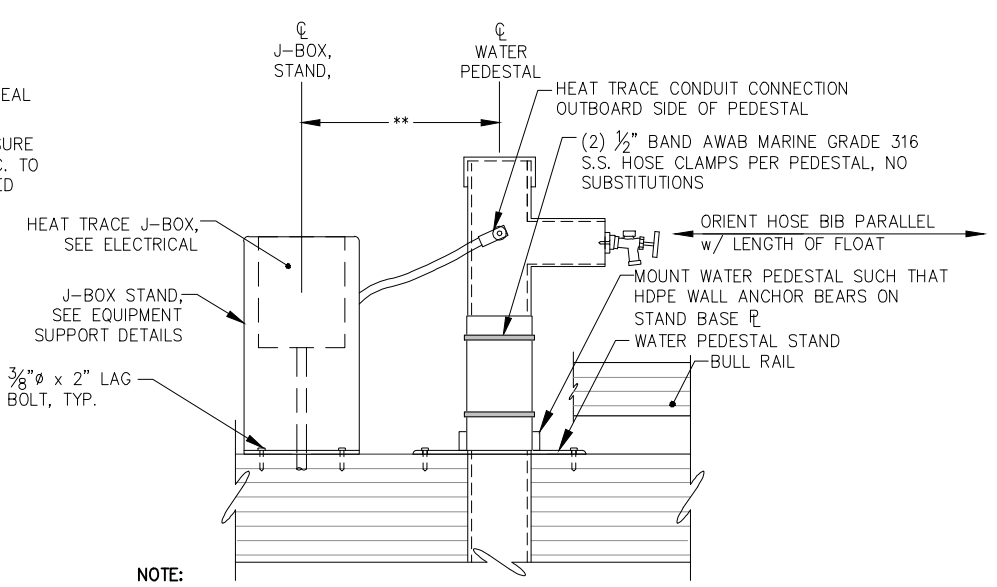
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75 OF 77





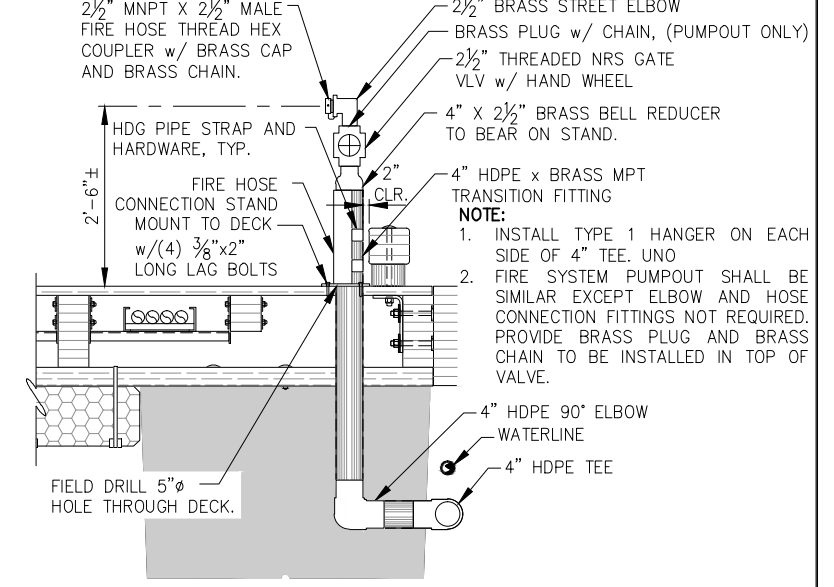
**WATER PEDESTAL
TYPICAL DETAIL**

- NOTE:**
- HOSE BIB SHOWN IN PROFILE FOR ILLUSTRATIVE PURPOSES ONLY, ORIENT HOSE BIB PARALLEL WITH BULLRAIL.
 - HANGER AND CONNECTION HARDWARE NOT SHOWN FOR CLARITY.
 - ALL SUBMERGED STEEL SHALL BE CONSTRUCTED OF 316 SS, UNO.
 - PRESSURE TESTS SHALL BE COMPLETED AFTER HEAT TRACE HAS BEEN INSTALLED, VERIFY 150 PSI MIN HEAT TRACE PRESSURE FITTING w/ ELECTRIC.
 - LOCATE PEDESTALS PER FLOAT PLAN, FINAL LAYOUT AND ORIENTATION OF PEDESTAL SHALL BE FILED DETERMINED BY ENGINEER.



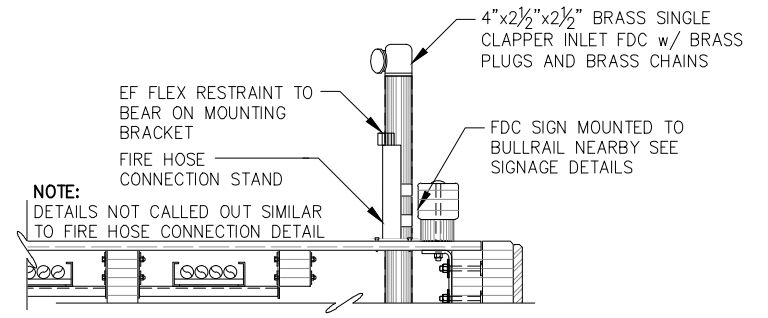
**WATER PEDESTAL MOUNTING
TYPICAL DETAIL**

- NOTE:**
- TRIM WALL ANCHOR BEARING RING TO FLUSH WITH PIPE AROUND MOUNTING BRACKET VERTICAL \bar{r} .
 - ** 1'-6" MINIMUM 5'-0" MAX, LOCATE PER ENGINEERS DIRECTION



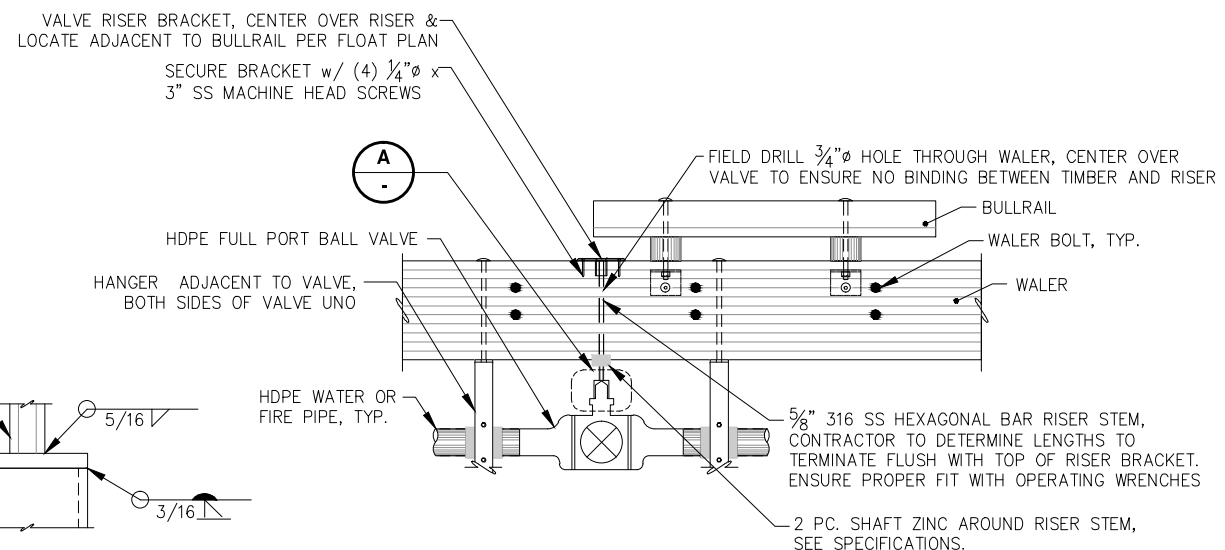
**FIRE HOSE CONNECTION & FIRE SYSTEM DUMPOUT
TYPICAL DETAIL**

- NOTE:**
- INSTALL TYPE 1 HANGER ON EACH SIDE OF 4" TEE. UNO FIRE SYSTEM PUMP-OUT SHALL BE SIMILAR EXCEPT ELBOW AND HOSE CONNECTION FITTINGS NOT REQUIRED. PROVIDE BRASS PLUG AND BRASS CHAIN TO BE INSTALLED IN TOP OF VALVE.



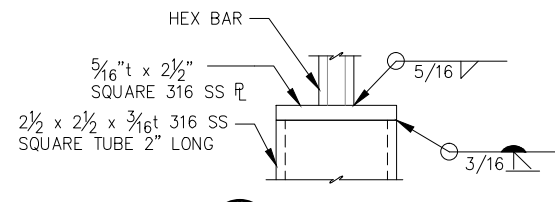
**FIRE SUPPRESSION SYSTEM INLET
DETAIL**

- NOTE:**
- DETAILS NOT CALLED OUT SIMILAR TO FIRE HOSE CONNECTION DETAIL



**VALVE AND OPERATION RISER ASSY.
DETAIL**

- NOTE:**
- VALVES SHALL BE OPERATED WITH A TEE-HANDLE SOCKET WRENCH OF ADEQUATE LENGTH TO TURN THE HANDLE ABOVE THE BULLRAIL, PROVIDE (2) SNAP-ON, OR EQUAL TEE HANDLE SOCKET WRENCHES TO OWNER AND (2) TO THE CBJ FIRE DEPARTMENT, (4) TOTAL REQ'D. VERIFY FIT UP w/ 5/8" HEXAGONAL BAR & CLEARANCE TO TRANSITION BRIDGE.
 - HANGER ASSEMBLIES SHALL BE CLAMPED TO RESTRICT PIPE MOVEMENT.
 - VALVE RISER BRACKET SHALL BE FLUSH WITH DECK AT VALVE LOCATIONS ON EXISTING HEADWALK FLOAT, ROUTE DECK AS REQUIRED.
 - HOLES THROUGH TIMBER FOR HANGER BOLTS AND RISER BRACKETS TO BE FIELD DRILLED, TAKE CARE TO AVOID FLOAT HARDWARE, TREAT ALL TIMBER CUTS & PENETRATIONS PER SPECIFICATIONS.
 - ALL SUBMERGED STEEL SHALL BE 316 S.S. UNLESS OTHERWISE NOTED.



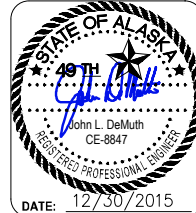
**VALVE WRENCH
DETAIL**

REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DESIGN: TCB CHECKED: JLD SCALE: NTS
DRAWN: TCB APPROVED: JLD



**CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001**

SHEET TITLE:
**FLOAT MOUNTED UTILITY
DETAILS**

PND PROJECT NO.: 152037

8.05
SHEET
76 OF 77

I:\Proj\juneau\152037 Douglas Harbor Renovation\G. Drawings\Design\18.05 Float Mounted Utility Details.dwg, 12/30/2015 2:09:44 PM

LEGEND

ABBREVIATIONS:

- GFR GROUND FAULT RELAY
- MDP MAIN DISTRIBUTION PANEL
- SWBD SWITCHBOARD

SHEET NOTE SYMBOLS:

- (E) EXISTING TO REMAIN
- (N) NEW
- (R) RELOCATE EXISTING
- (X) REMOVE EXISTING

SERVICE EQUIPMENT:

- MAIN DISTRIBUTION PANEL

POWER

- DUPLEX 30A SHORE-TIE PEDESTALS
- DUPLEX 30A SHORE-TIE PEDESTAL WITH LUMINAIRE
- DUPLEX 30A/50A SHORE-TIE PEDESTALS
- DUPLEX 30A/50A SHORE-TIE PEDESTALS WITH LUMINAIRE
- JUNCTION BOX
- EQUIPMENT CONNECTION
- TERMINAL BOX

SERVICE EQUIPMENT

- HANDHOLE

LIGHTING

- EXTERIOR POLE MOUNTED LUMINAIRE
- SURFACE OR SUSPENDED LINEAR LUMINAIRE

LIGHTING CONTROLS

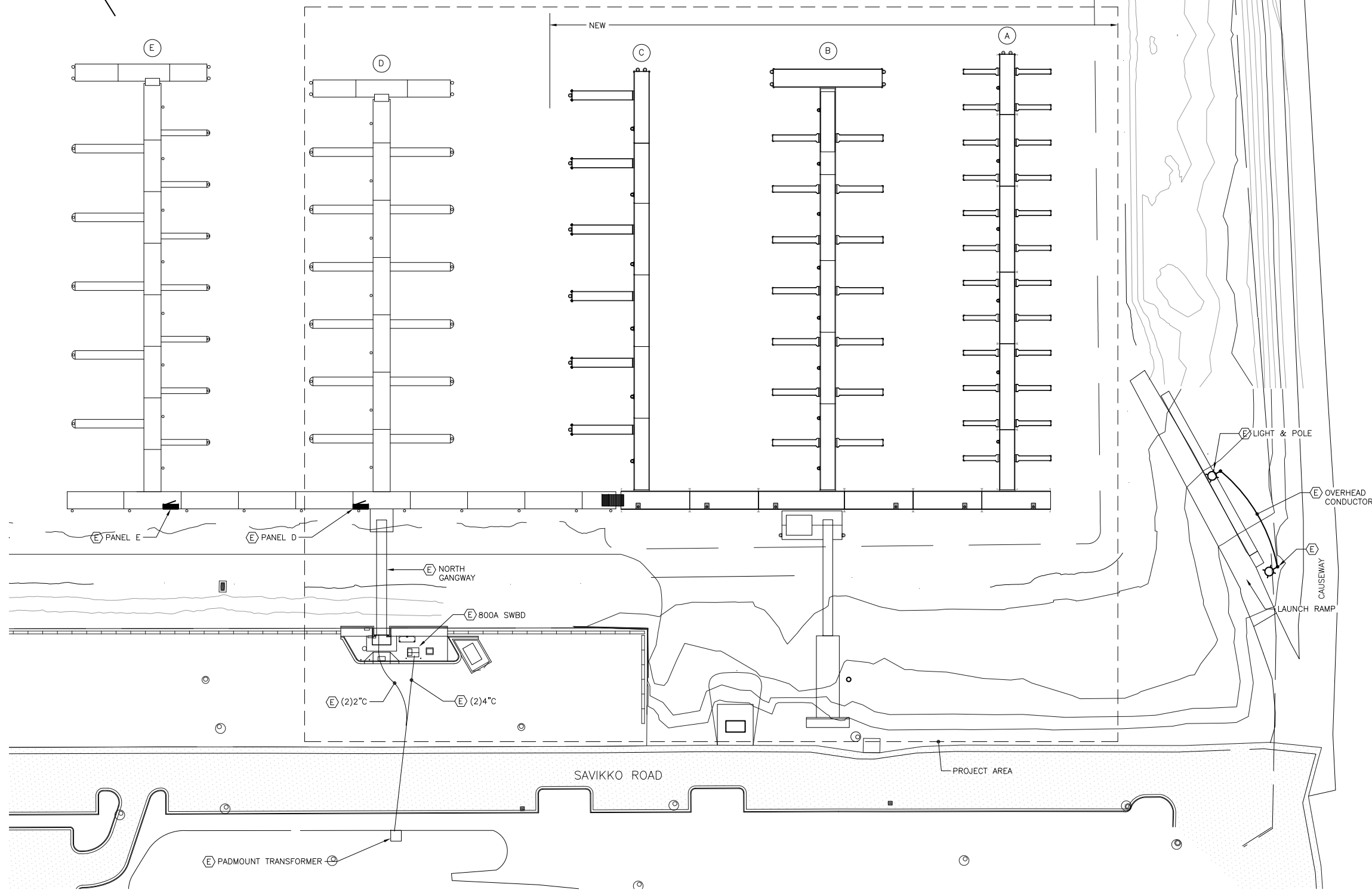
- PHOTOELECTRIC CELL

DIAGRAM SYMBOLS

- CIRCUIT BREAKER
- CONTACT
- GROUND BUS
- GROUND ROD
- METER
- RELAY
- SHUNT TRIP
- TRANSFORMER

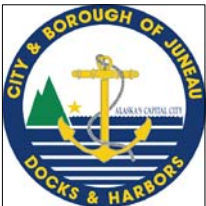
CONDUIT & CONDUCTORS:

- HOME RUN
 - CONDUIT: 1/2" UON.
 - UNGROUNDED CONDUCTORS (#12 AWG)
 - NEUTRAL: #10 WITH DOT #12 OTHERWISE
 - GROUND CONDUCTOR
- CONDUCTORS NOT SHOWN WHERE ONLY #12 NEUTRAL AND UNGROUNDED CONDUCTOR ARE REQUIRED
- CONDUIT IN FLOOR OR UNDERGROUND
 - FLEXIBLE CONDUIT



1 SITE PLAN

Dec. 23, 2015 3:35pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats\Drawings\Working\E2.01.dwg (Layout1.tab)



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DESIGN: NJP CHECKED: BCH SCALE: SCALE IN FEET
DRAWN: REJ APPROVED: BCH 0 40 80 FT.

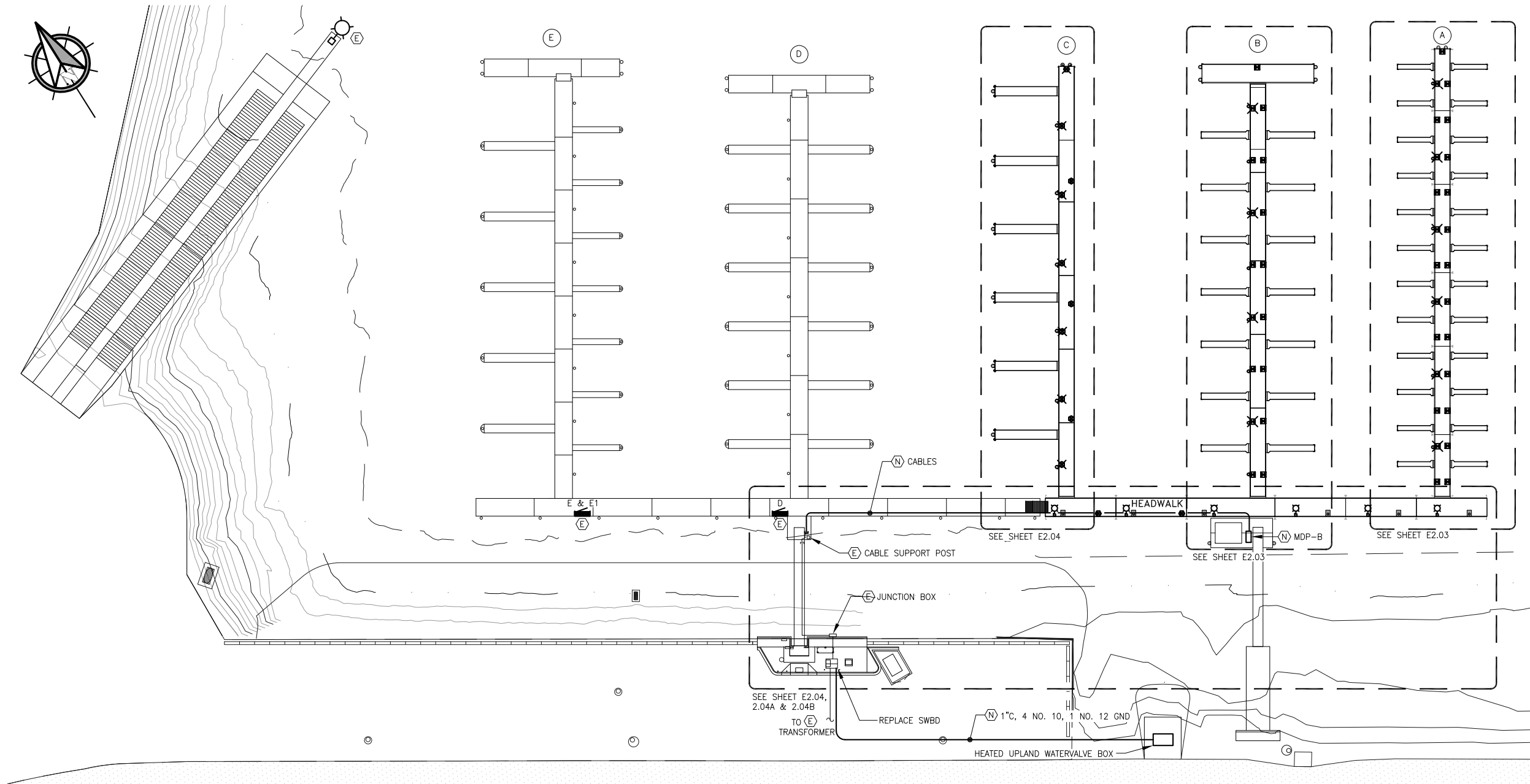
157-110
20 DEC 2015

CITY & BOROUGH OF JUNEAU, ALASKA
DOUGLAS HARBOR RENOVATION
CBJ PROJECT - DH16-001

SHEET TITLE: **SITE PLAN**

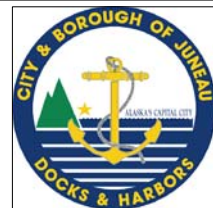
PND PROJECT NO.: 152037 61E2.01.DWG

E2.01
SHEET 1 OF 18



1 NEW PLAN - POWER

Dec. 23, 2015 - 3:37pm
F:\Projects\137_PND\110 Douglas Harbor ABC Floats Drawings\Working\E2.02.dwg (Layout1.tub)



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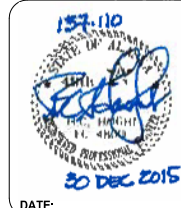
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DRAWN: REJ APPROVED: BCH

SCALE: SCALE IN FEET
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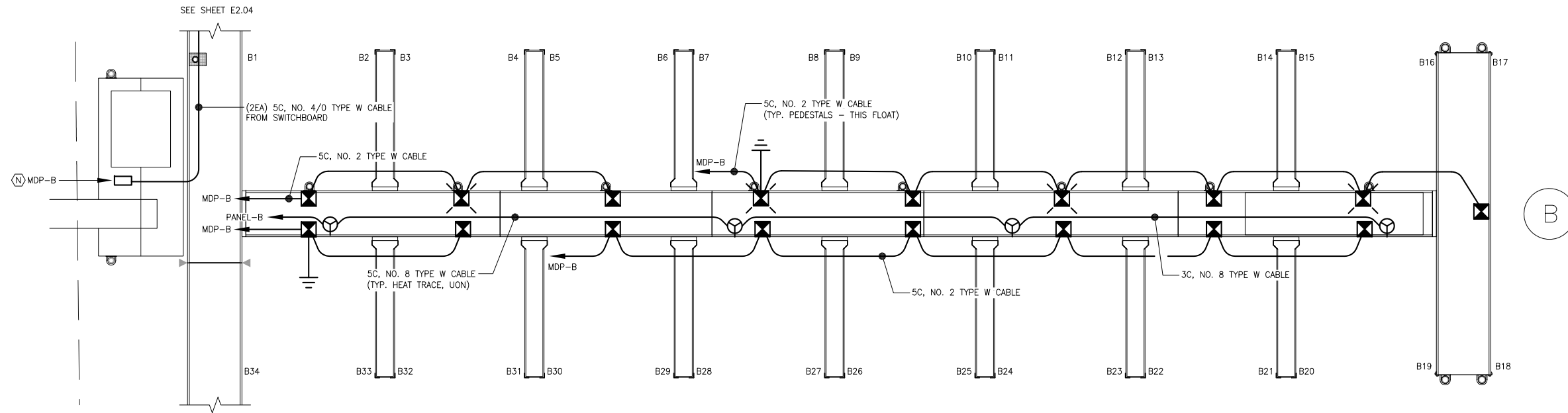


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CBJ PROJECT - DH16-001

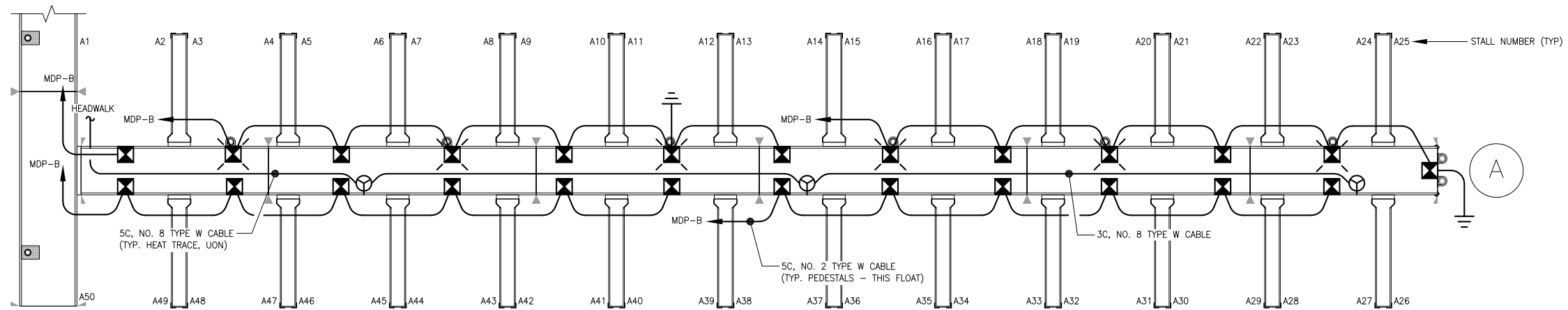
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NEW PLAN - POWER

PND PROJECT NO.: 152037 E2.02.DWG

E2.02
SHEET 2 OF 18

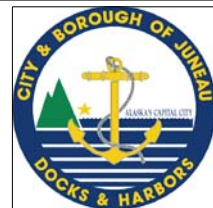


② B FLOAT ENLARGED PLAN – POWER

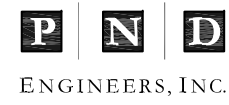


① A FLOAT ENLARGED PLAN – POWER

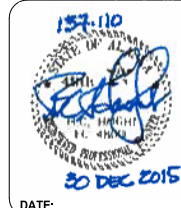
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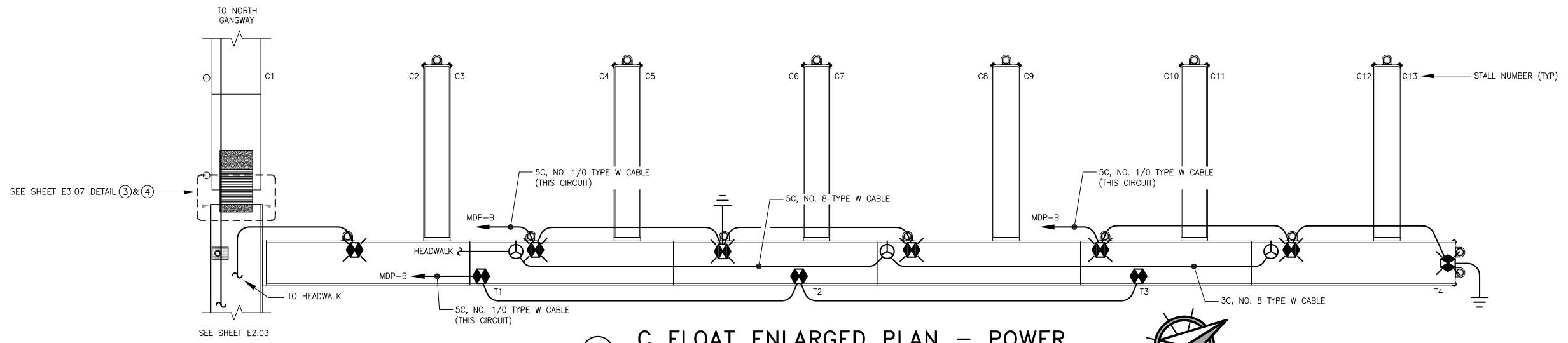
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ENLARGED A & B FLOAT PLANS
- POWER

E2.03
SHEET
3 OF **18**

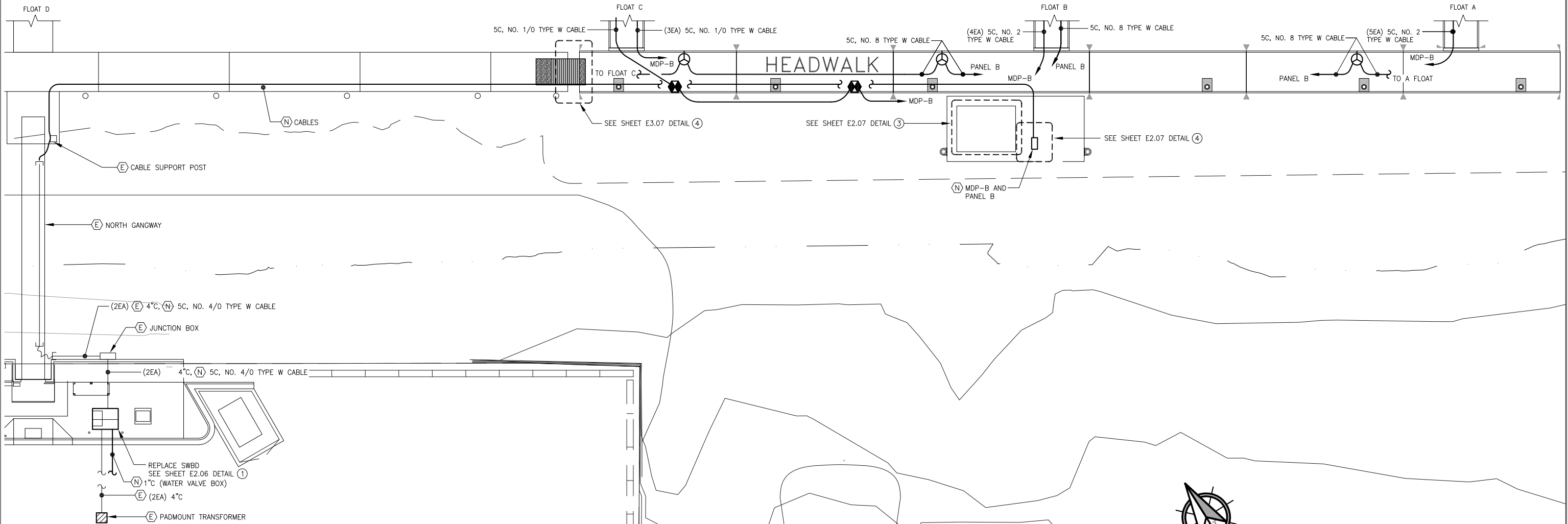
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PND PROJECT NO.: 152037 E2.03.DWG

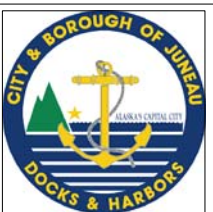


1 C FLOAT ENLARGED PLAN - POWER



2 HEADWALK FLOAT ENLARGED PLAN - POWER (BASE BID)

Dec. 23, 2015 3:40pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats Drawings\Working\E2.04.dwg (Layout1.tub)



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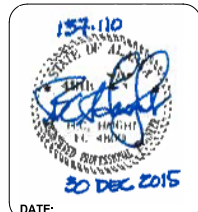
REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



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DESIGN: NJP CHECKED: BCH
DRAWN: REJ APPROVED: BCH

SCALE: SCALE IN FEET
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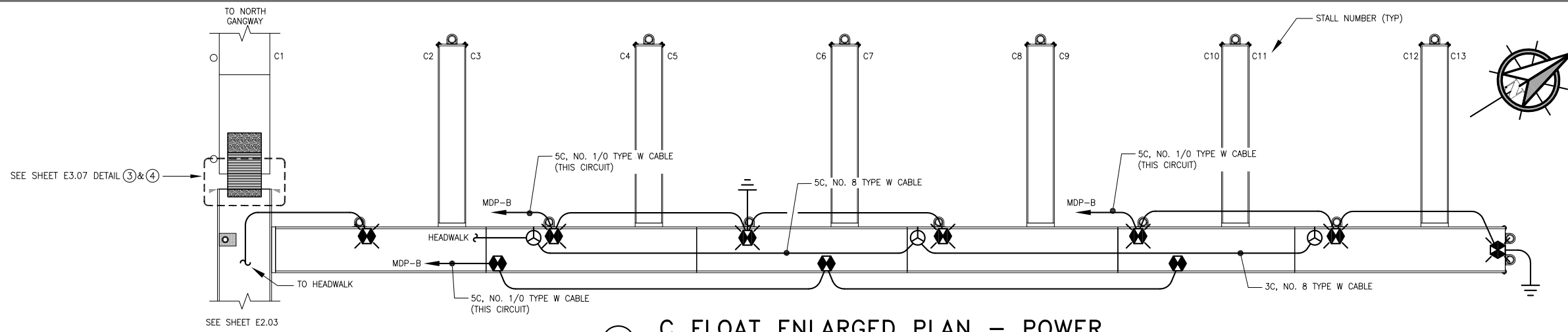


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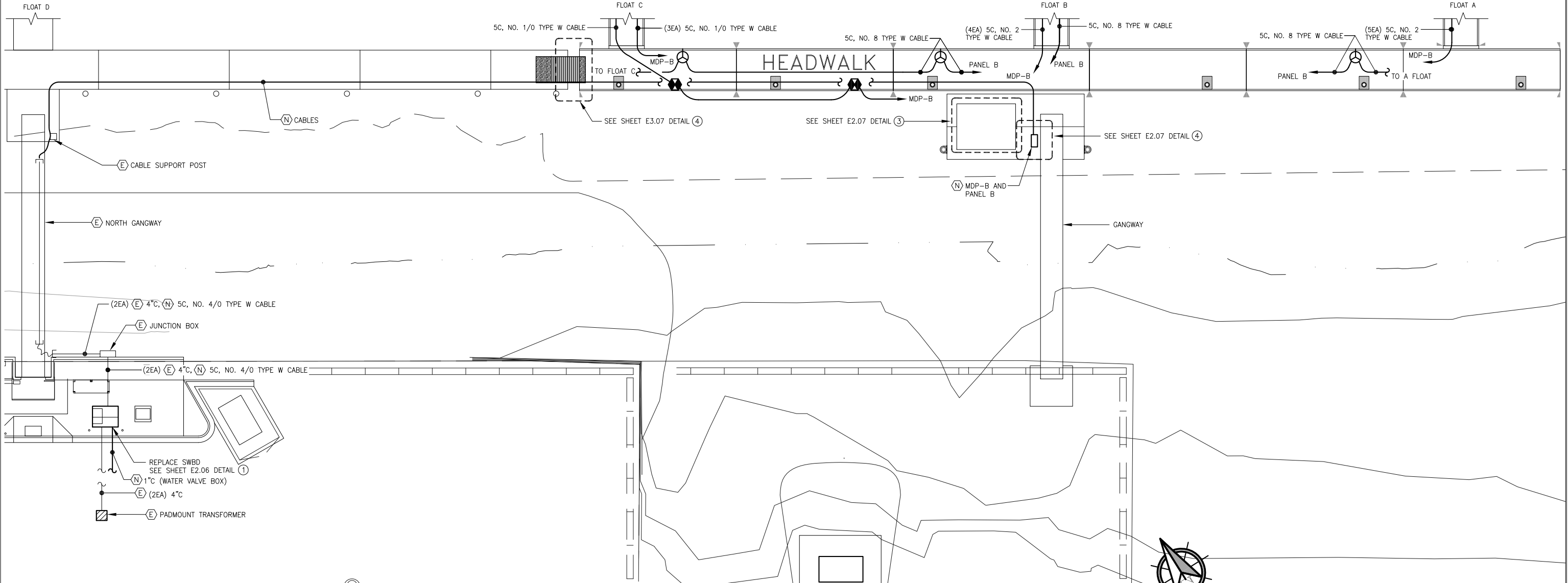
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ENLARGED HEADWALK & C FLOAT PLANS - POWER

PND PROJECT NO.: 152037 E2.04.DWG

E2.04
SHEET 4 OF 18

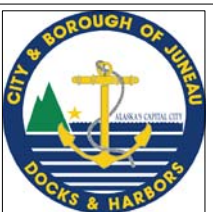


1 C FLOAT ENLARGED PLAN - POWER



2 HEADWALK FLOAT ENLARGED PLAN - POWER (ALT A)

Dec-23-2015 3:43pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats Drawings\Working\E2.04A.dwg (Layout1 tab)



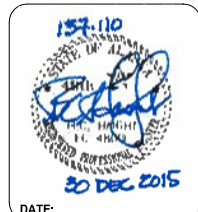
REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DESIGN: NJP CHECKED: BCH
DRAWN: REJ APPROVED: BCH

SCALE: SCALE IN FEET
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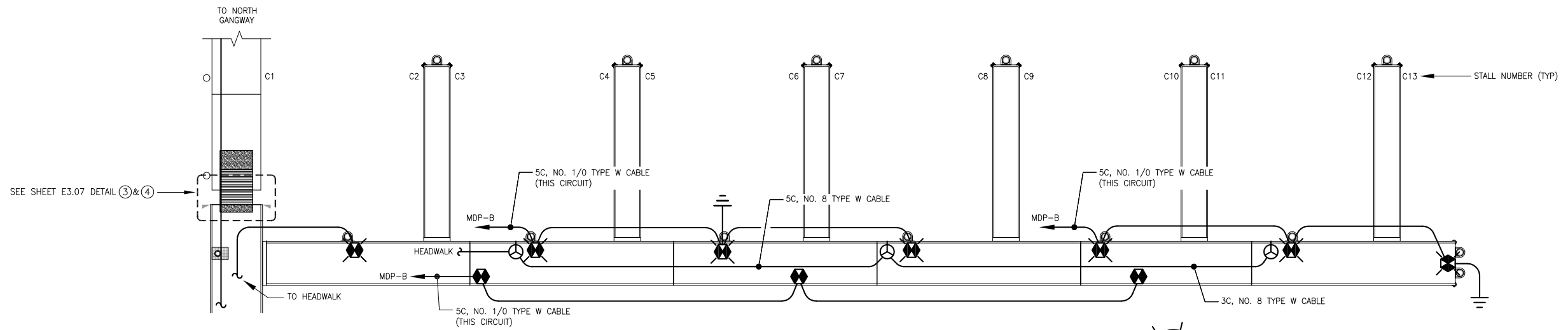


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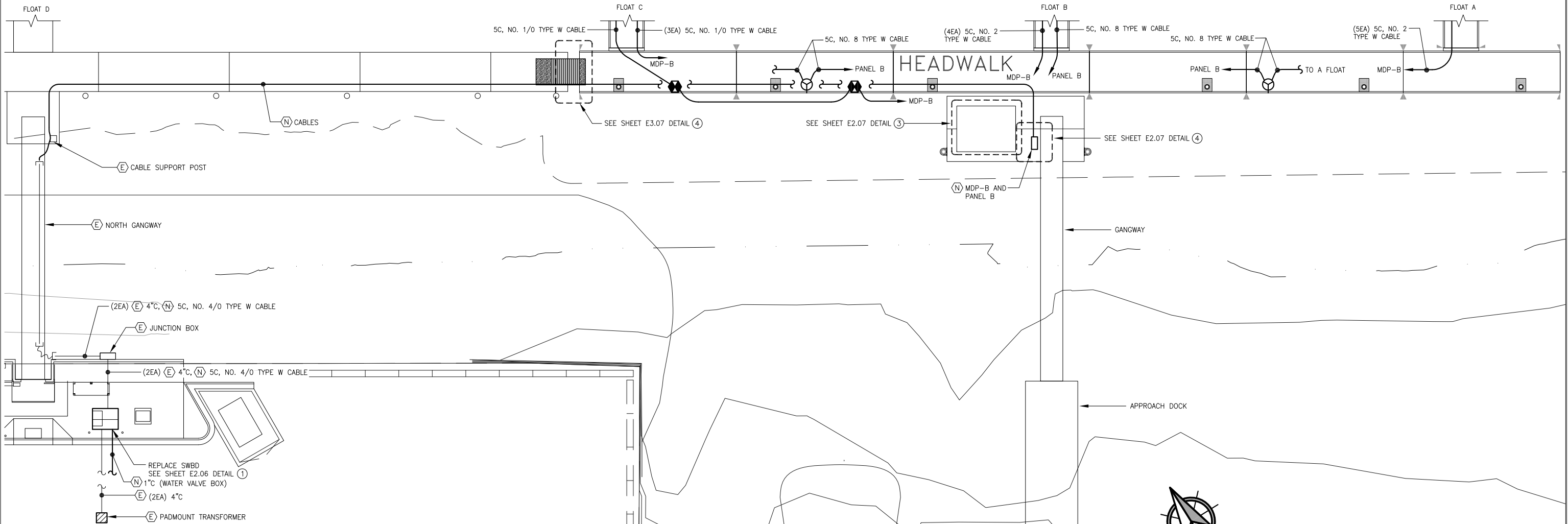
SHEET TITLE:
ENLARGED HEADWALK & C
FLOAT PLANS - POWER (ALT A)

PND PROJECT NO.: 152037 E2.04A.DWG

E2.04A
SHEET 5 OF 18

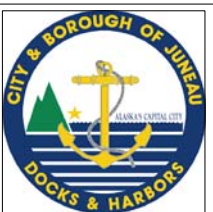


① C FLOAT ENLARGED PLAN - POWER



② HEADWALK FLOAT ENLARGED PLAN - POWER (ALT B)

Dec. 23, 2015 3:45pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats\Drawings\Working\E2.04B.dwg (Layout1 tab)



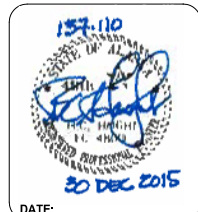
REVISIONS					
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DESIGN: NJP CHECKED: BCH
DRAWN: REJ APPROVED: BCH

SCALE: SCALE IN FEET
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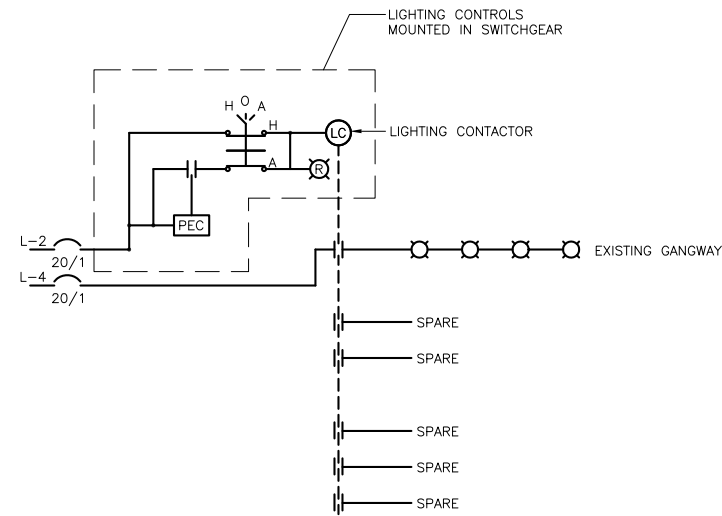


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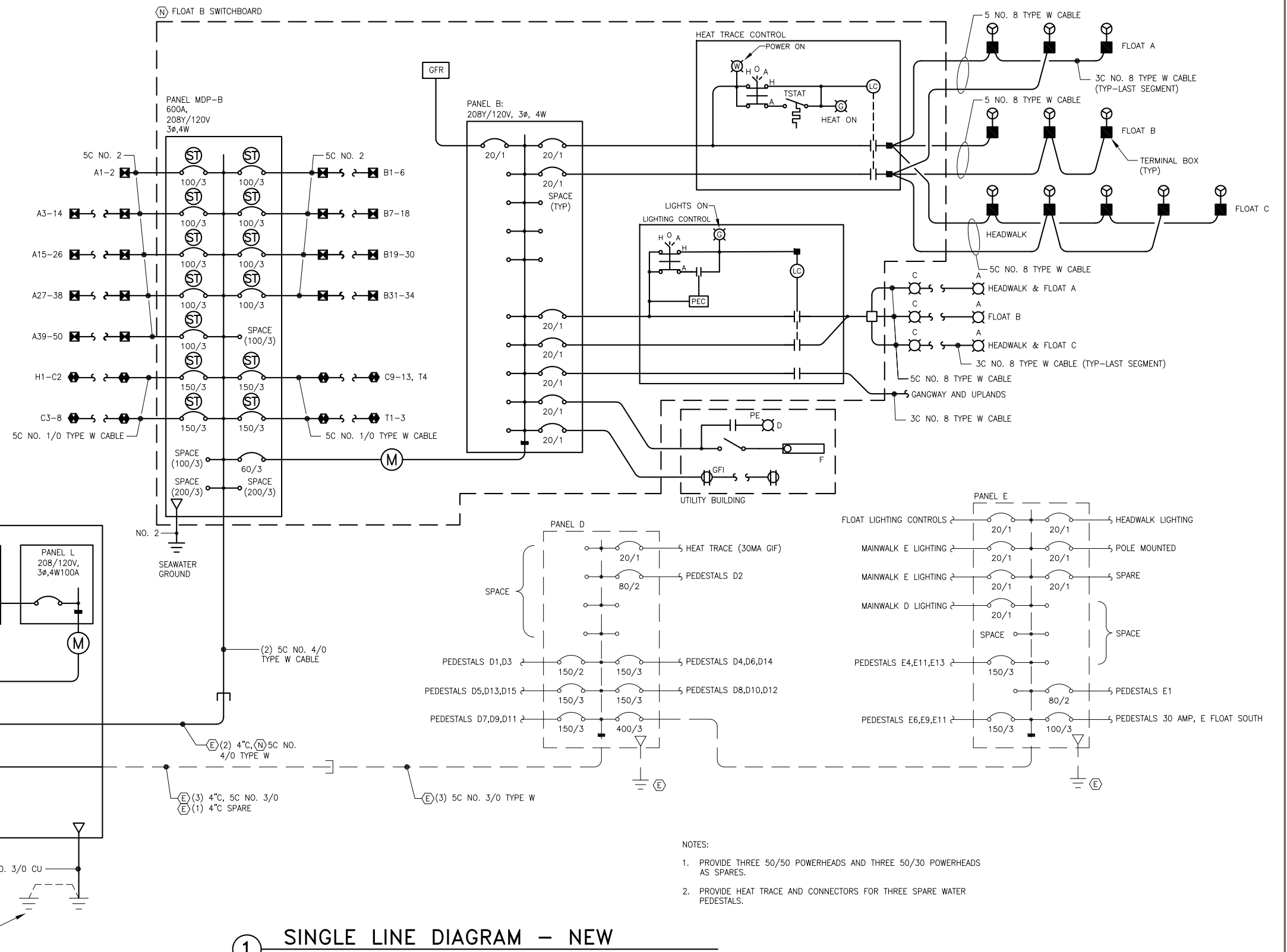
SHEET TITLE:
ENLARGED HEADWALK & C
FLOAT PLANS - POWER (ALT B)

PND PROJECT NO.: 152037 E2.04B.DWG

E2.04B
SHEET 6 OF 18



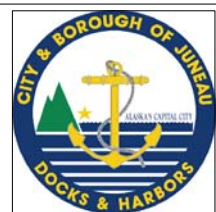
2 SCHEMATIC - UPLANDS LIGHTING



1 SINGLE LINE DIAGRAM - NEW

- NOTES:
1. PROVIDE THREE 50/50 POWERHEADS AND THREE 50/30 POWERHEADS AS SPARES.
 2. PROVIDE HEAT TRACE AND CONNECTORS FOR THREE SPARE WATER PEDESTALS.

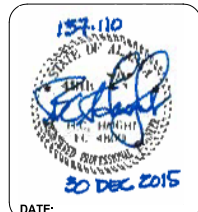
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DESIGN: NJP CHECKED: BCH SCALE:
 DRAWN: REJ APPROVED: BCH



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SHEET TITLE:
SINGLE LINE DIAGRAMS

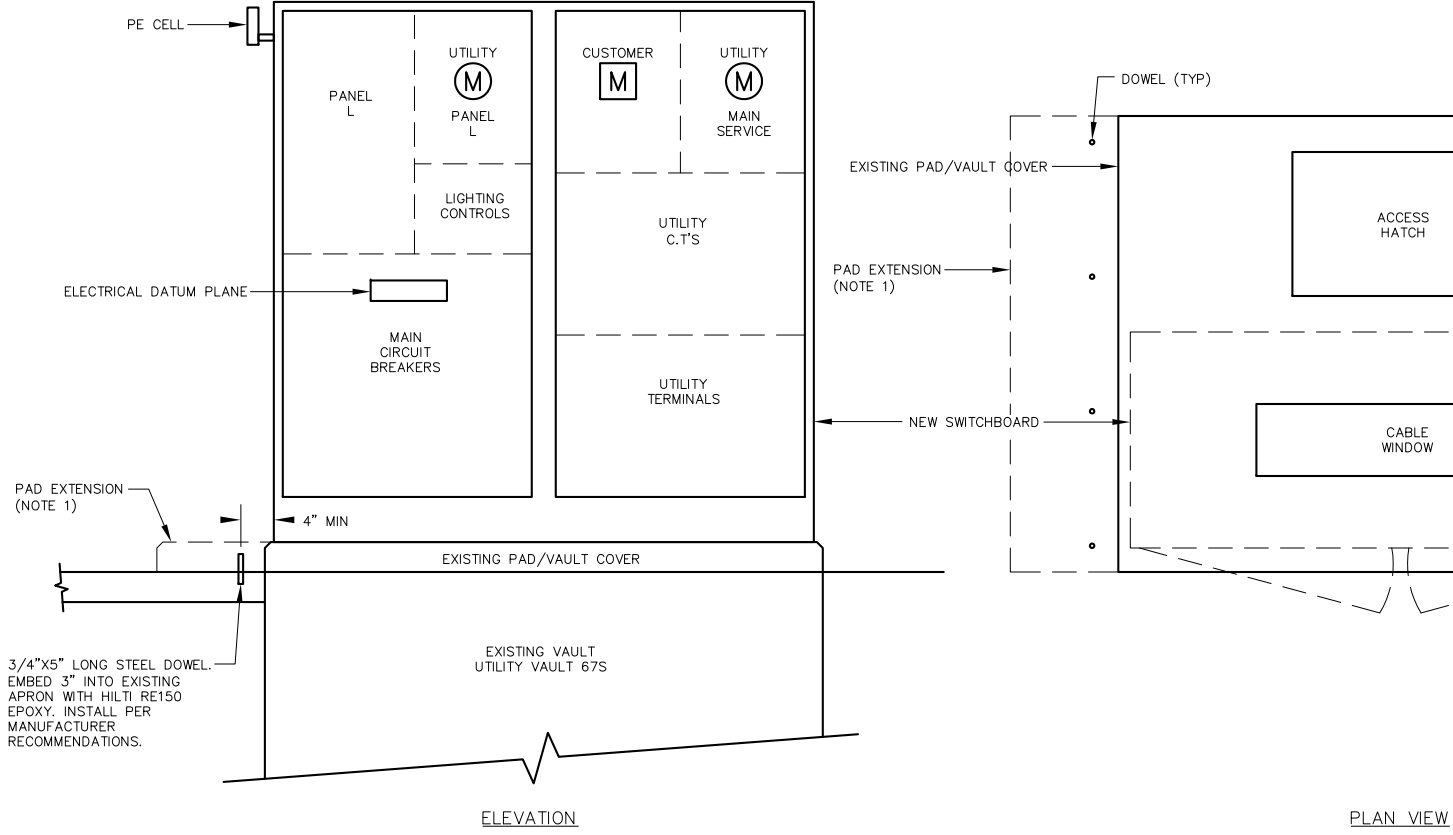
E2.05
 SHEET 7 OF 18

PND PROJECT NO.: 152037 E2.05.DWG

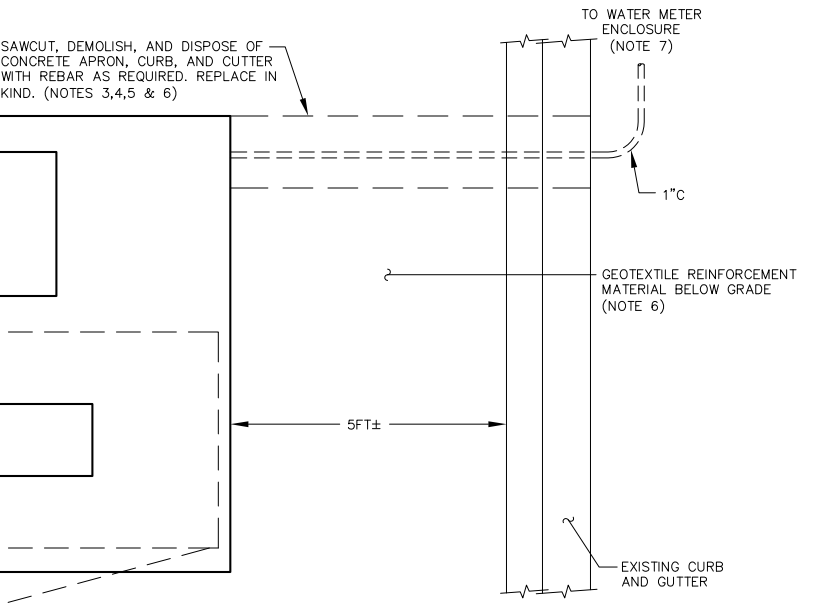
ELECTRICAL DATUM PLANE
SHORE & FIXED DOCKS: 16.3 FEET ABOVE MLLW
FLOATING DOCKS: 2.5 FEET ABOVE WATER LEVEL
 (REFERENCE: Sidewalk elevation = 26.38 Feet)
 National Electrical Code (2011): 555.2

C K T NO		SIZE		VOLTS/PHASE				MAIN		LOCATION		MOUNT	
		100 AMPS		208Y/120V, 3 PH				LUGS ONLY		SWITCHBOARD		FLUSH	
DESCRIPTION		BREAKER AMP/ POLE	KVA				BREAKER AMP/ POLE	DESCRIPTION					
		CKT	AØ	BØ	CØ	CKT						C K T NO	
1	PARKING-FUTURE	---	0.0	0.5		0.5	20/1	LIGHTING CONTROLS				2	
3	---	---	0.0		0.5		20/1	GANGWAY LIGHTING				4	
5	PARKING-FUTURE	---	0.0			1.8	20/1*	HOT BOX HEATERS				6	
7	---	---	0.0	1.8			20/1*	HOT BOX HEATERS				8	
9	PARKING-FUTURE	---	0.0		0.2		20/1	SWITCH GEAR ENCLOSURE HEATERS				10	
11	---	---	0.0			0.0		SPACE				12	
13	SPACE	---	0.0	0.0				SPACE				14	
15	SPACE		0.0		0.0			SPACE				16	
17	SPACE		0.0			0.0		SPACE				18	
19	SPACE		0.0	0.0				SPACE				20	
21	SPACE		0.0		0.0			SPACE				22	
23	SPACE		0.0			0.0		SPACE				24	
BALANCED CONNECTED LOAD = 4.8 KVA / 19.2 AMPS			2.3	0.7	1.8	BALANCED DEMAND LOAD = 0.0 KVA / 00 AMPS							
MAXIMUM CONNECTED LOAD = 2.32 KVA / 19.2 AMPS			MAXIMUM DEMAND LOAD = 0.0 KVA / 00 AMPS										

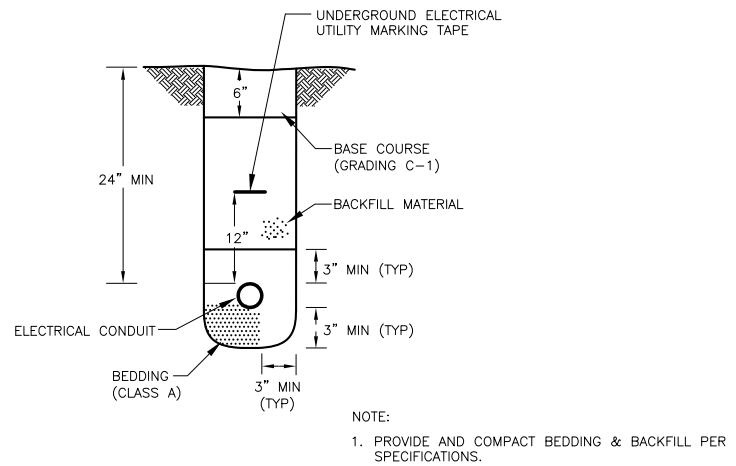
* GFI 30mA



1 DETAILS - NEW SWITCHBOARD
NO SCALE

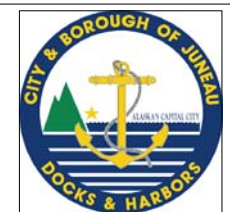


- NOTES:
- EXISTING PAD AS REQUIRED TO SUPPORT THE ENTIRE NEW SWITCHBOARD: 4000 PSI, MIN. CONCRETE WITH NO. 4 REBAR AT 12" O.C. EACH WAY.
 - ALL CONCRETE SHALL CONFORM TO SPECIFICATION SECTION 03301 "STRUCTURAL CONCRETE", EXCEPT AS NOTED.
 - EXISTING CONCRETE APRON, 6" DEEP WITH NO. 4 REBAR AT 12" O.C. EACH WAY.
 - APRON SHALL BE FINISHED WITH SPARKLE GRAIN TOPPING: 16 GRIT, BLACK SILICON CARBIDE, 0.25 LB/SF. APPLY PER MANUFACTURER RECOMMENDATIONS AND BROOM FINISH.
 - PROVIDE BEDDING FOR APRON, CURB, AND GUTTER WITH 6" MIN BASE COURSE GRADING D-1.
 - GEOTEXTILE REINFORCEMENT EXTENDS FROM THE EXISTING TIMBER RETAINING WALL APPROXIMATELY 24FT LANDWARD. IT IS BURIED APPROXIMATELY 18" DEEP. TAKE CARE TO UNCOVER REINFORCEMENT WITH HAND TOOLS AND CUT IN NEAT LINES AS REQUIRED FOR CONDUIT INSTALLATION.
 - CONDUIT SHALL EXTEND OUT BEYOND GEOTEXTILE REINFORCEMENT PER ENGINEER.



2 DETAIL - TRENCH (TYP)
NO SCALE

Dec-29-2015 3:52pm F:\Projects\137_PND\110 Douglas Harbor ABC Floats\Drawings\Working\E2.06.dwg (Layout1.tbl)



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 DRAWN: REJ APPROVED: BCH

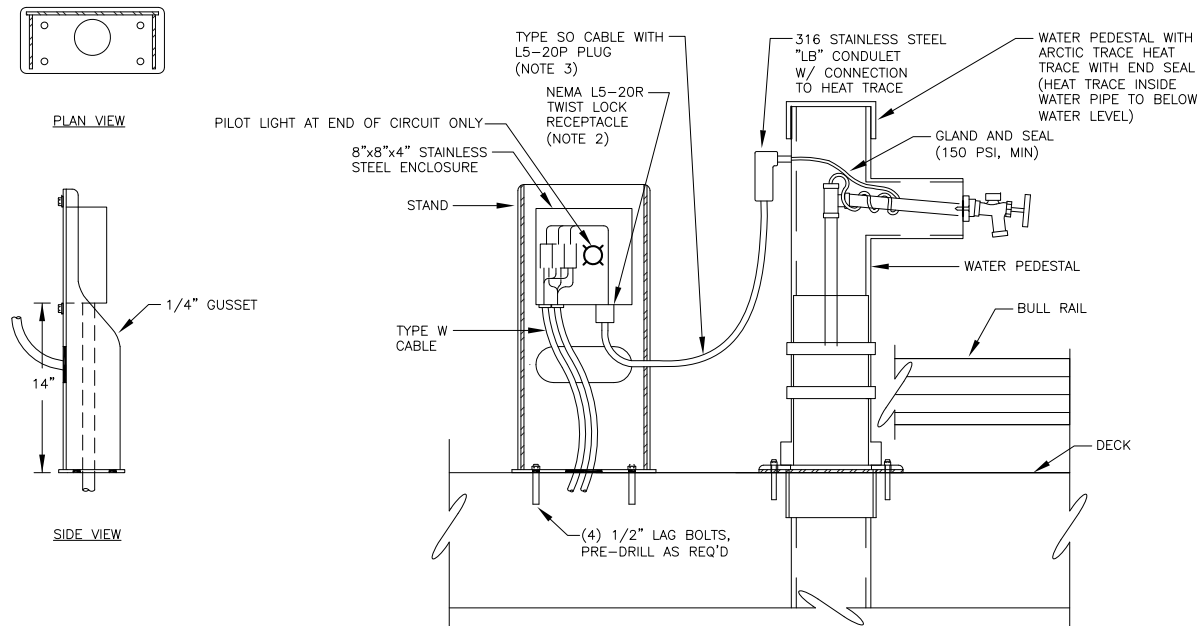


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 CBJ PROJECT - DH16-001

SHEET TITLE:
ELECTRICAL DETAILS

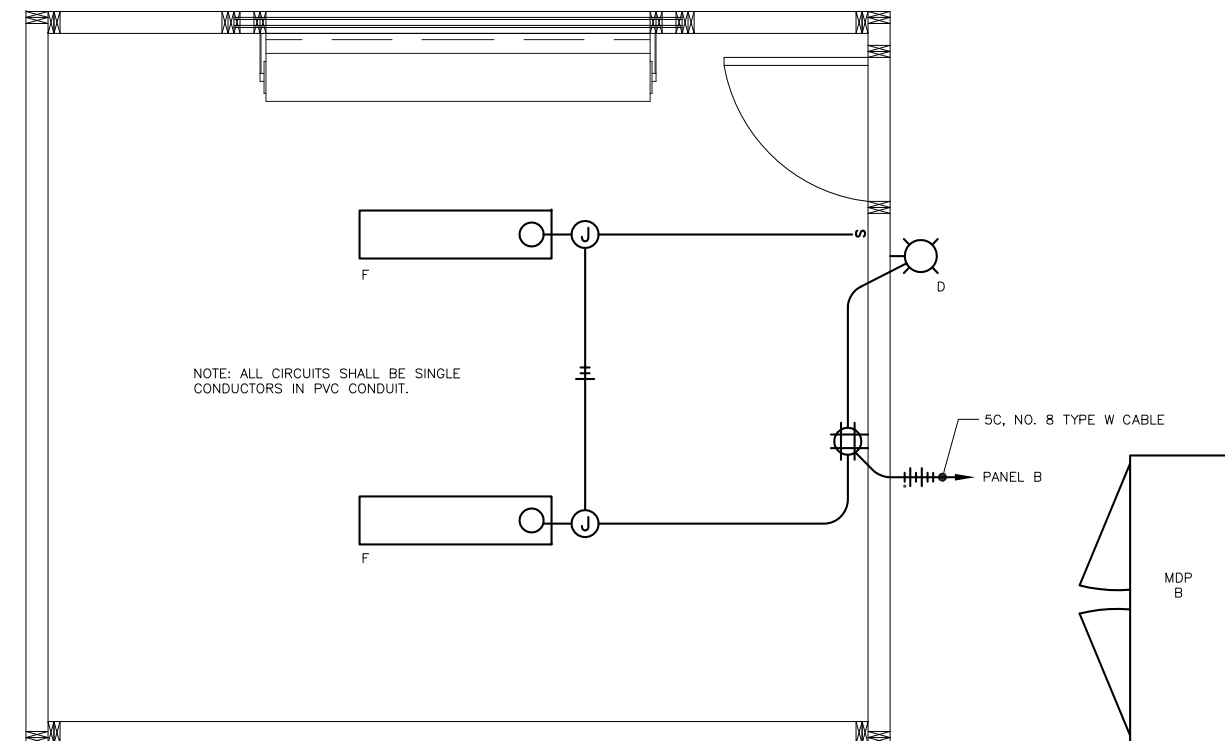
PND PROJECT NO.: 152037 E2.06.DWG

E2.06
 SHEET 8 OF 18

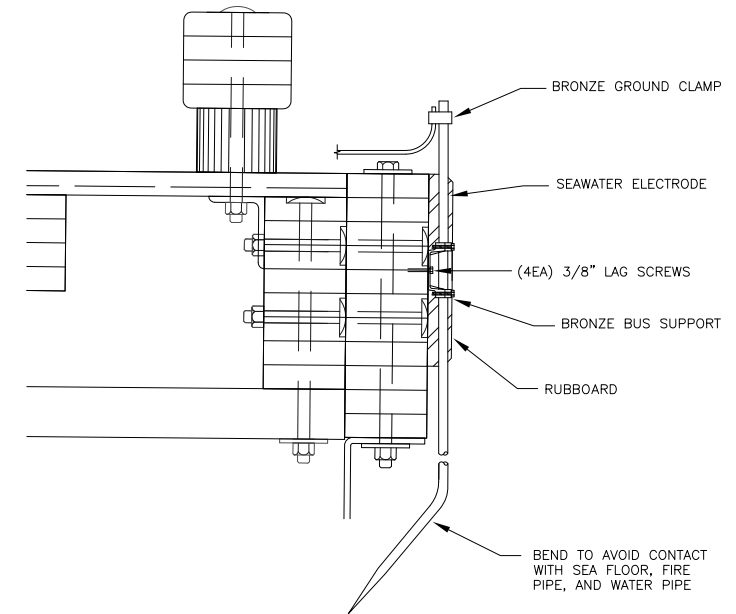


- NOTES:
1. PROVIDE STAND, ENCLOSURE WITH COMPONENTS, CABLE, HEAT TRACE, AND GLAND/SEAL AS ONE PACKAGE.
 2. PROVIDE BOLT-ON BRACKET TO HOLD PLUG IN PLACE.
 3. PROVIDE 8 FT MIN, LONG CABLE.

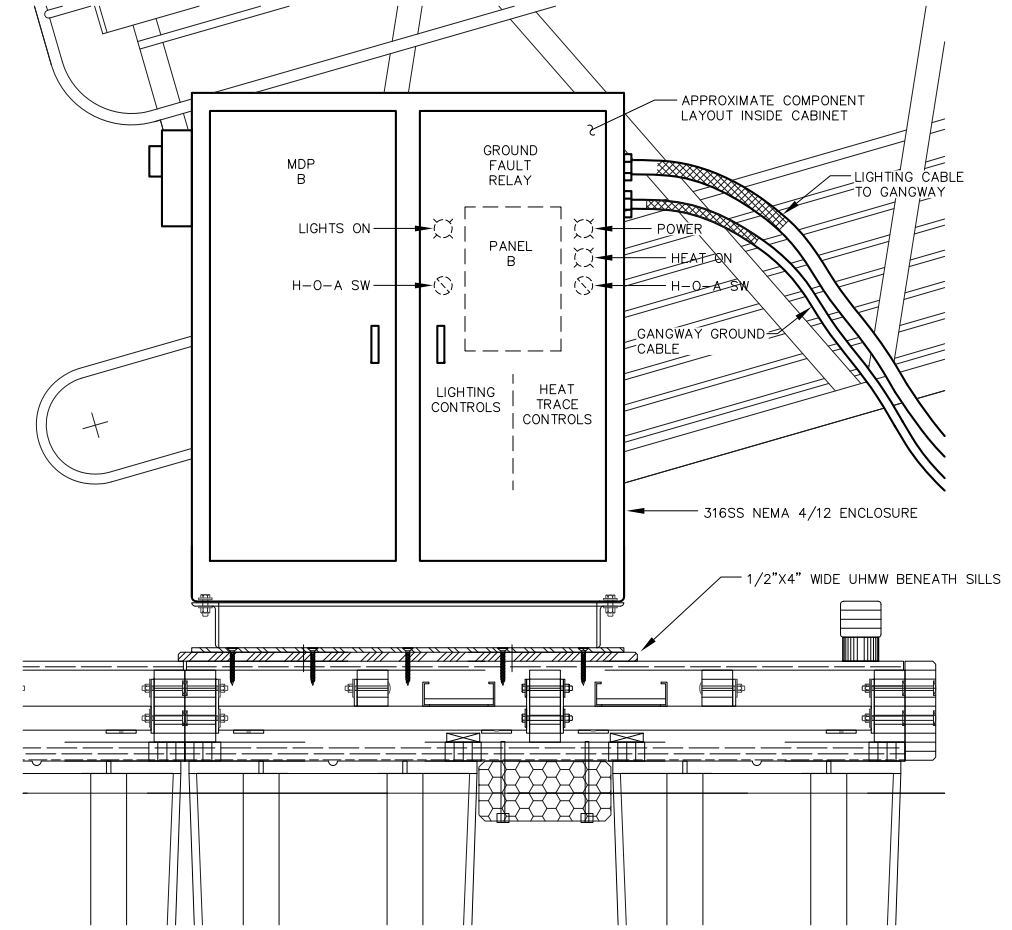
① **DETAIL – HEAT TRACE J-BOX STAND (TYP)** NO SCALE



③ **DETAIL – UTILITY BUILDING** NO SCALE

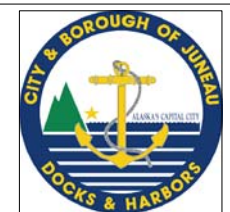


② **DETAIL – FLOAT MOUNTED SEAWATER ELECTRODE (TYP)** NO SCALE



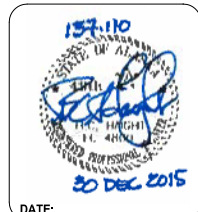
④ **DETAIL – MDP-B** NO SCALE

Dec. 30, 2015 10:19am F:\Projects\137 PND\110 Douglas Harbor ABC Floats\Drawings\Working\E2.07.dwg (E2.07 tab)



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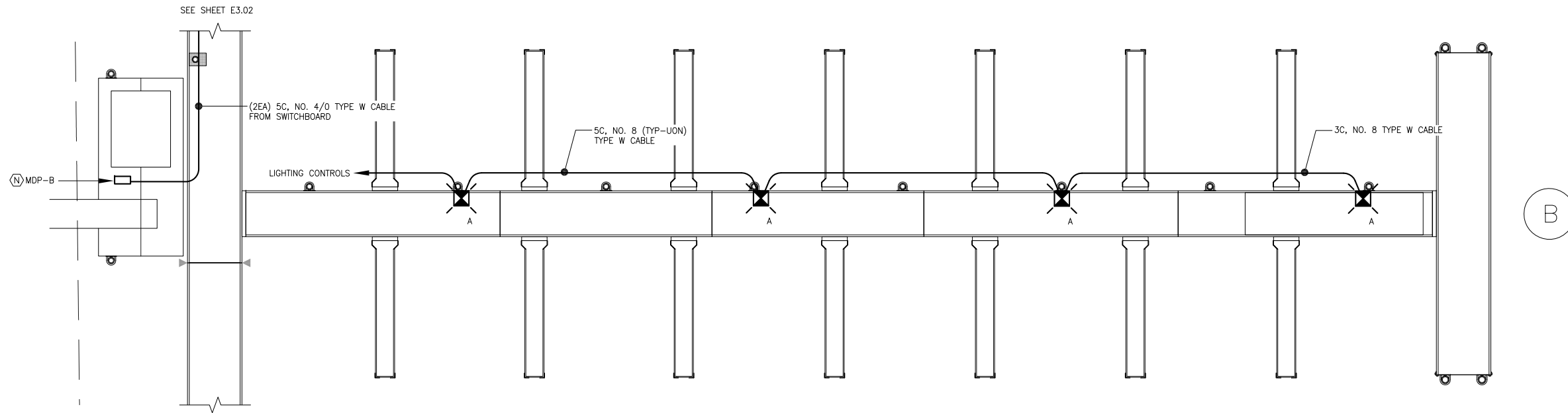


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DOUGLAS HARBOR RENOVATION
 CBJ PROJECT - DH16-001

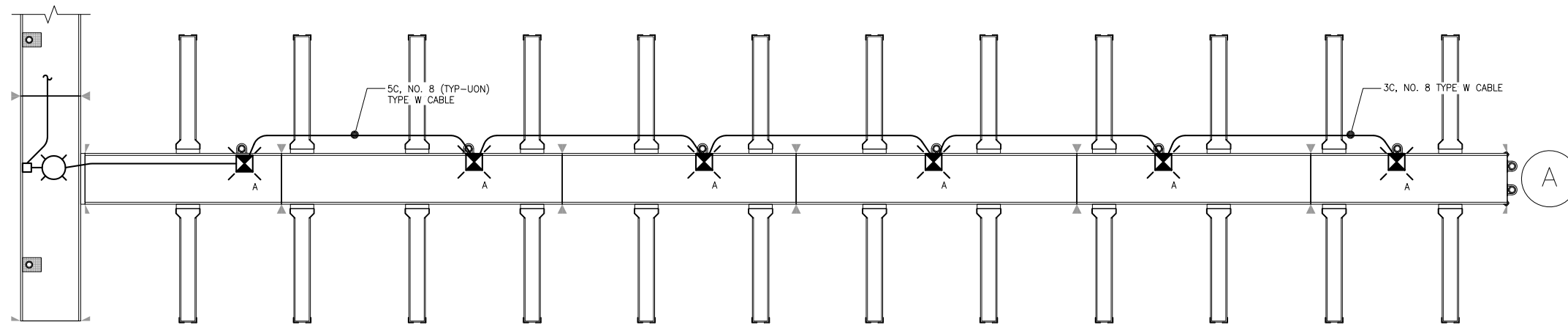
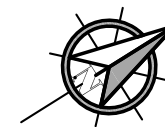
SHEET TITLE:
ELECTRICAL DETAILS

PND PROJECT NO.: 152037 E2.07.DWG

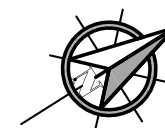
E2.07
 SHEET 9 OF 18



② B FLOAT ENLARGED PLAN - LIGHTING

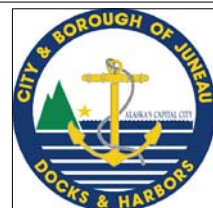


① A FLOAT ENLARGED PLAN - LIGHTING



NOTE: ALTERNATE LUMINAIRE PHASE CONNECTIONS.

Dec. 23, 2015 3:56pm F:\Projects\137_PND\110 Douglas Harbor ABC Floats Drawings\Working\E3.01.dwg (Layout1.tub)



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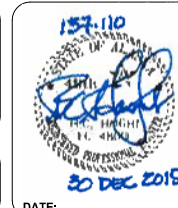
REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



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DRAWN: REJ APPROVED: BCH

SCALE: SCALE IN FEET
0 15 30FT



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CBJ PROJECT - DH16-001

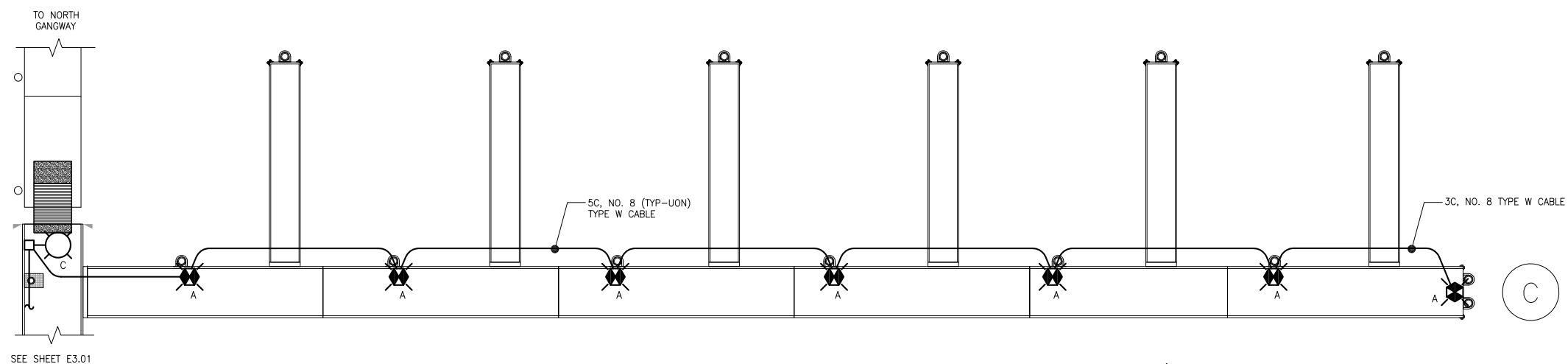
SHEET TITLE:
ENLARGED A & B FLOAT PLANS - LIGHTING

PND PROJECT NO.: 152037 E3.01.DWG

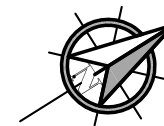
E3.01
SHEET 10 OF 18

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	LAMPS	REMARKS
A	POLE MOUNTED LED AREA LIGHT, IP66 OR BETTER, MARINE GRADE, ALUMINUM HOUSING, STANCHION STRAIGHT, TYPE I DISTRIBUTION, INTEGRAL ELECTRONIC DRIVER 120/277V, DIFFUSED LENS	CROUSE-HINDS PVM-3L-W-P-R1/UNV1/S891	41W WHITE LED 3000K, CRI 80	PROVIDE BIRD SPIKES. COORDINATE MOUNTING TO POLE.
B	18" SIDE SURFACE MOUNTED EXTERIOR RATED LINEAR LED FIXTURE WITH ALUMINUM HOUSING WITH 60 DEGREE BEAM SPREAD, REMOTE ELECTRONIC DRIVER, 100W NON-DIMMING, 11"x4"x4" NON-METALLIC ENCLOSURE	IO LIGHTING O-05-E-3K-60-101-1-18-1 100ND-2.0-11x4x4	5.1 W/FT LED 3000K, CRI 70	AIM DOWNWARD.
C1 (ALT A)	POLE MOUNTED LED AREA LIGHT, IP66 OR BETTER, MARINE GRADE, ALUMINUM HOUSING, STANCHION STRAIGHT, TYPE III DISTRIBUTION, INTEGRAL ELECTRONIC DRIVER 120/277V, DIFFUSED LENS	CROUSE-HINDS PVM-3L-W-P-R3/UNV1/S891	41W WHITE LED 3000K, CRI 80	PROVIDE BIRD SPIKES.
C2 (ALT B)	POLE MOUNTED LED AREA LIGHT, IP66 OR BETTER, MARINE GRADE, ALUMINUM HOUSING, STANCHION STRAIGHT, TYPE I DISTRIBUTION, INTEGRAL ELECTRONIC DRIVER 120/277V, DIFFUSED LENS	CROUSE-HINDS PVM-3L-W-P-R1/UNV1/S891	41W WHITE LED 3000K, CRI 80	PROVIDE BIRD SPIKES.
C POLE	20"x5"x5" SQUARE NON-TAPERED HOT DIPPED GALVANIZED POLE, WITH ACCESS OPENING	VALMONT DS330-S500W200-D1-GV		
D	LED WALL PACK, DIE CAST ALUMINUM CONSTRUCTION WITH GASKETED CLEAR GLASS LENS, INTEGRAL LED ELECTRONIC DRIVER 120/277V, INTEGRAL PE CELL, DARK BRONZE FINISH	LITHONIA LIGHTING OLWX1LED 13W 40K MVOLT PE	13W WHITE LED 4000K, CRI 70	
F	2' SURFACE LED STRIP, STEEL HOUSING, MEDIUM DIFFUSED LENS, INTEGRAL ELECTRONIC DRIVER, 2000 LUMENS, 120/277V, WHITE FINISH	LITHONIA LIGHTING ZL2N L24 2000LM MDD MVOLT 35K 80CRI WH	34W WHITE LED 3500K, CRI 80	MOUNT @ 8'-0" AFF TO BOTTOM OF LUMINAIRE, UON.

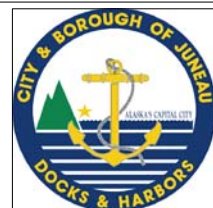


① C FLOAT ENLARGED PLAN - LIGHTING



NOTE: ALTERNATE LUMINAIRE PHASE CONNECTIONS.

Dec. 23, 2015 3:56pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats\Drawings\Working\E3.02.dwg (Layout1.tub)



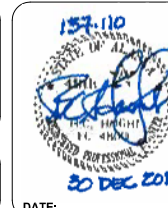
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SCALE: SCALE IN FEET
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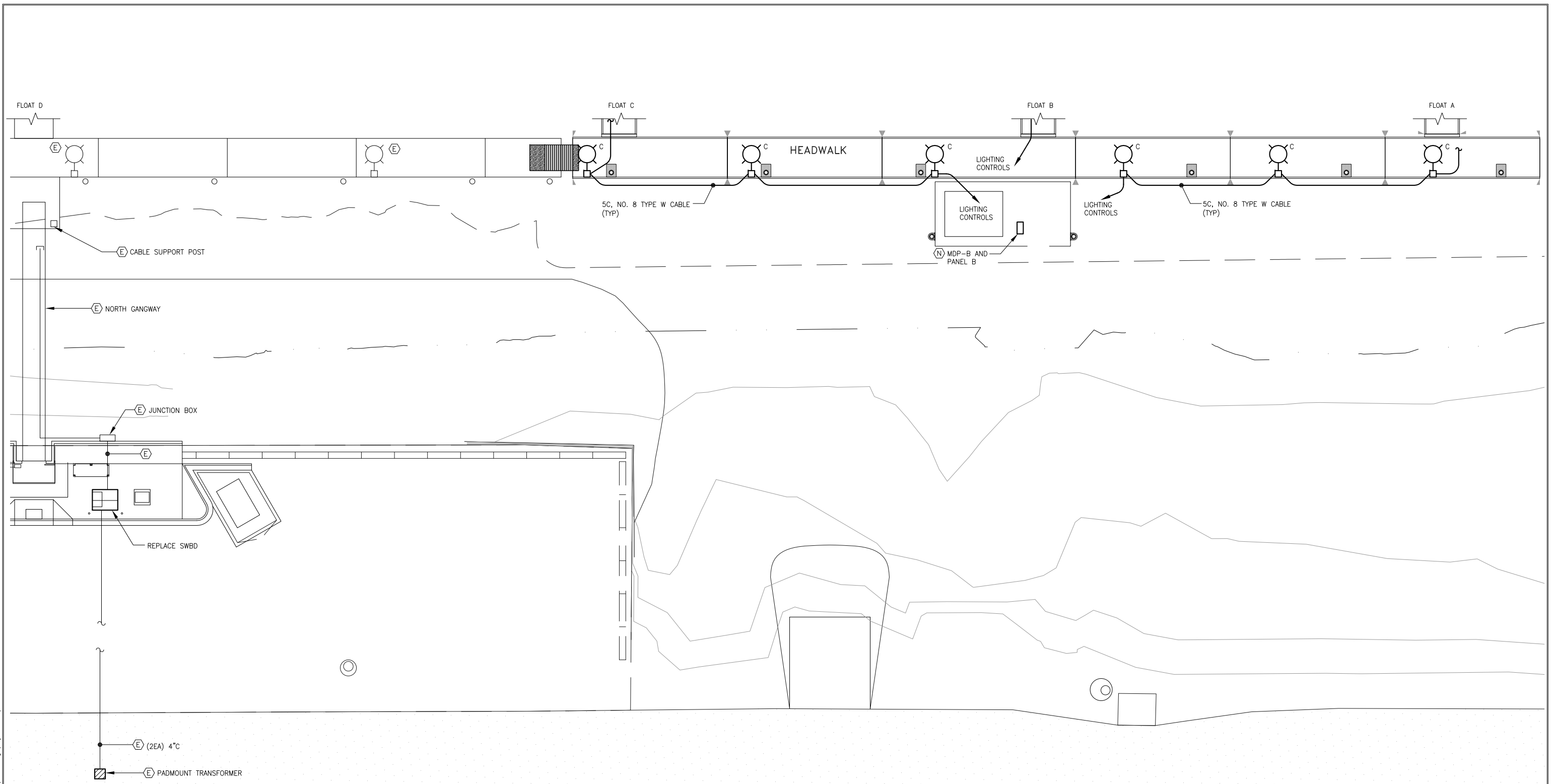


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SHEET TITLE:
ENLARGED C FLOAT PLAN
- LIGHTING

PND PROJECT NO.: 152037 E3.02.DWG

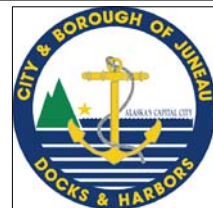
E3.02
SHEET
11 OF **18**



① HEADWALK FLOAT ENLARGED PLAN – LIGHTING (BASE BID)



Dec. 23, 2015 3:59pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats\Drawings\Working\E3.03.dwg (Layout1.tub)



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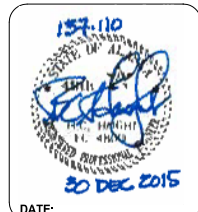
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REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



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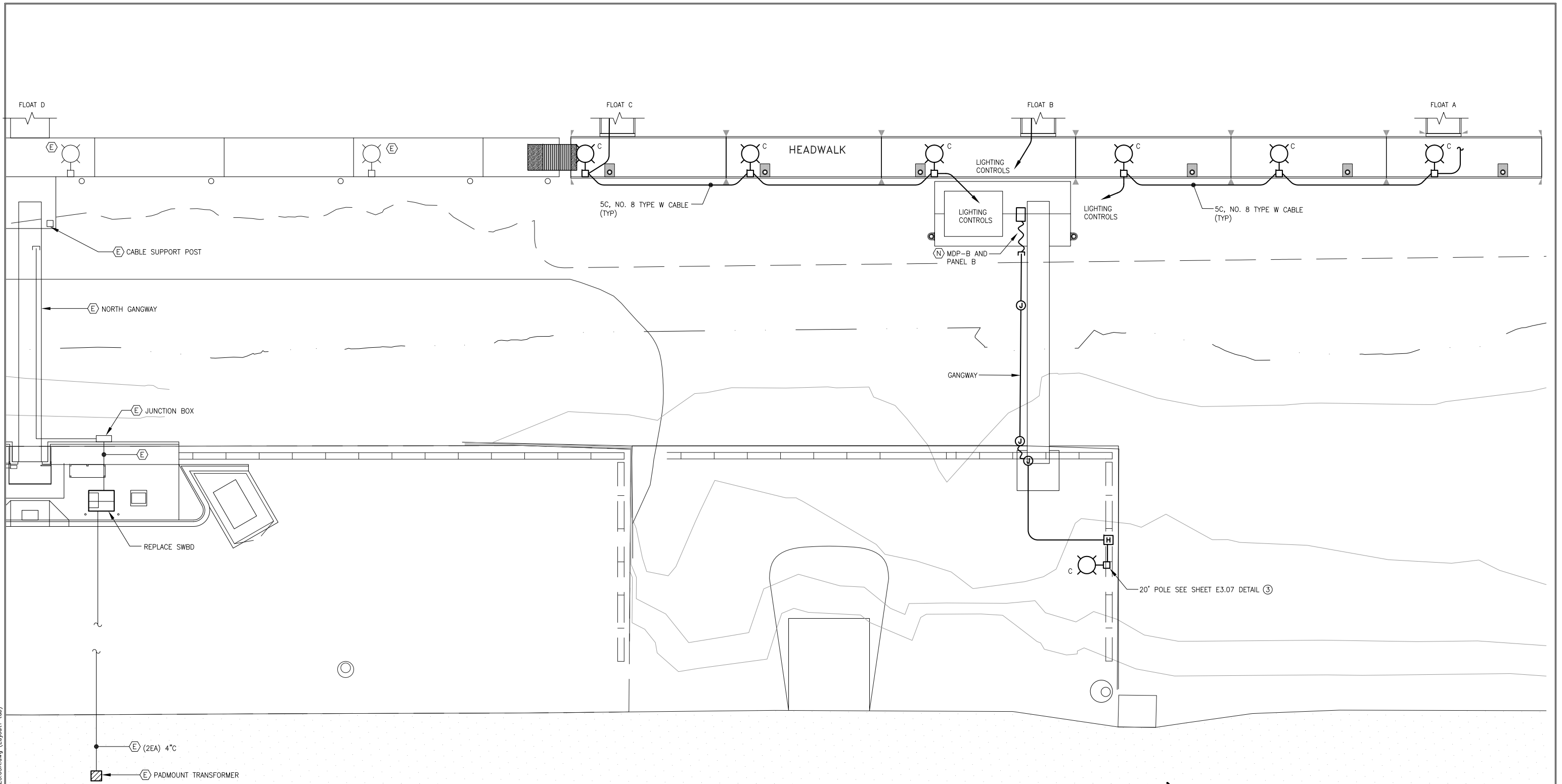
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SHEET TITLE:
ENLARGED HEADWALK FLOAT PLAN - LIGHTING (BASE BID)
PND PROJECT NO.: 152037 E3.03.DWG

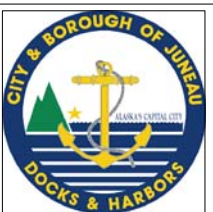
E3.03
SHEET 12 OF 18



1 HEADWALK FLOAT ENLARGED PLAN - LIGHTING (ALT A)



Dec. 23, 2015 4:21pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats Drawings\Working\E3.03A.dwg (Layout1 tab)



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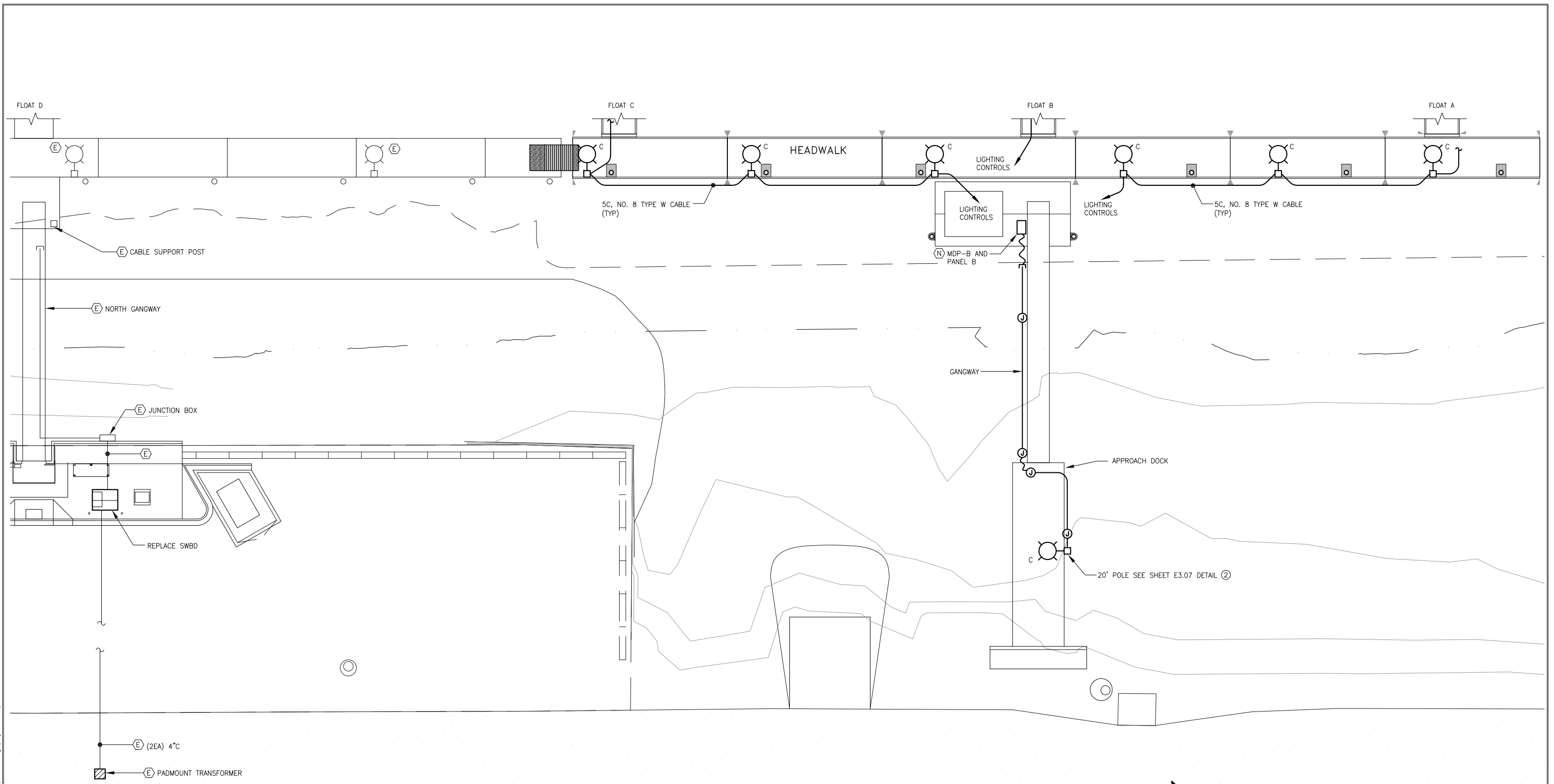
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157-110
20 DEC 2015

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SHEET TITLE:
ENLARGED HEADWALK FLOAT PLAN - LIGHTING (ALT A)
PND PROJECT NO.: 152037 E3.03A.DWG

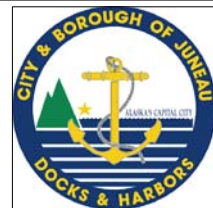
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SHEET 13 OF 18



① HEADWALK FLOAT ENLARGED PLAN – LIGHTING (ALT B)

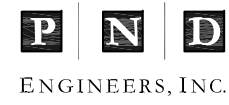


Dec. 23, 2015 4:22pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats Drawings\Working\E3.03B.dwg (Layout1 tab)



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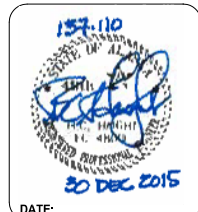
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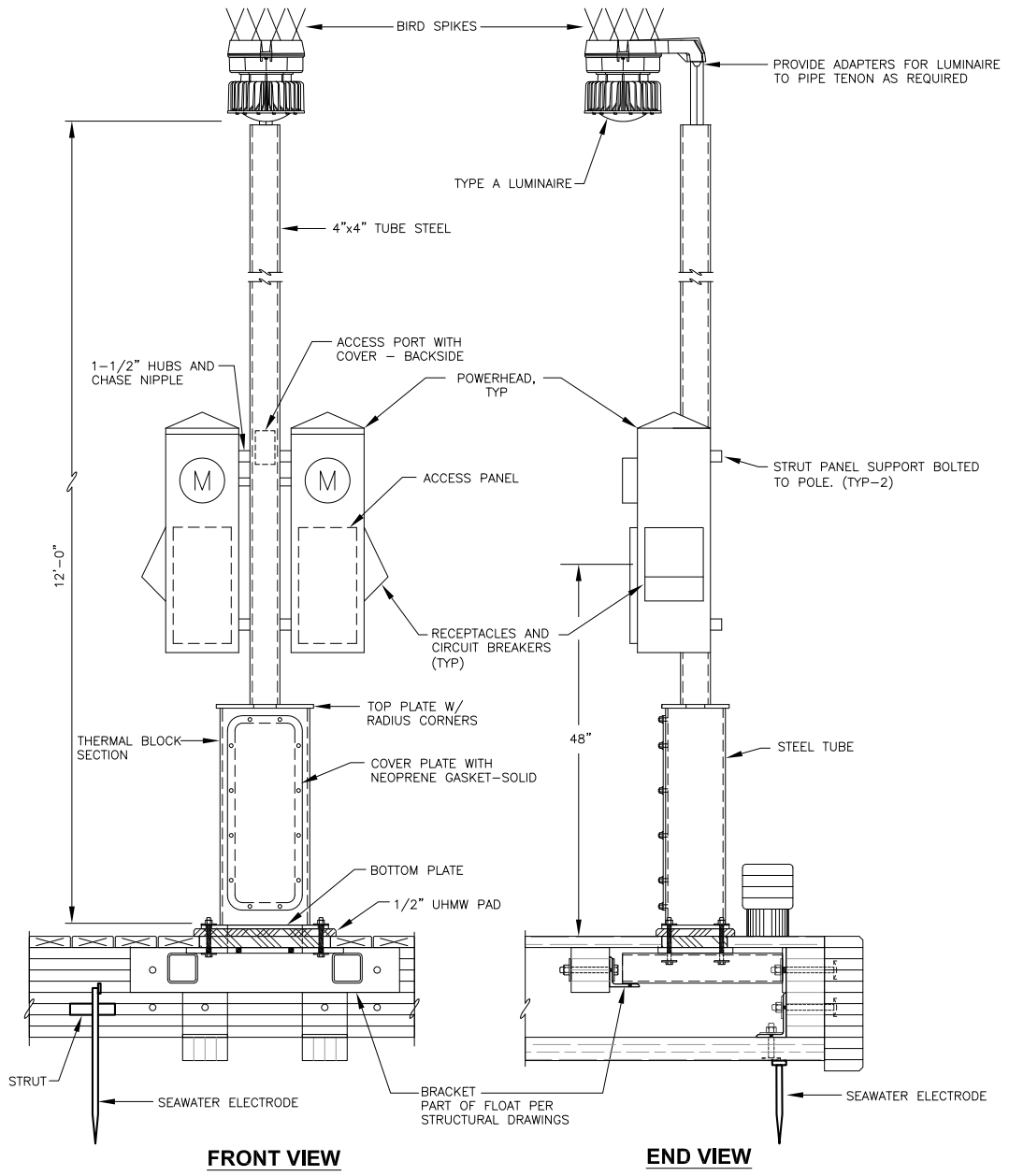


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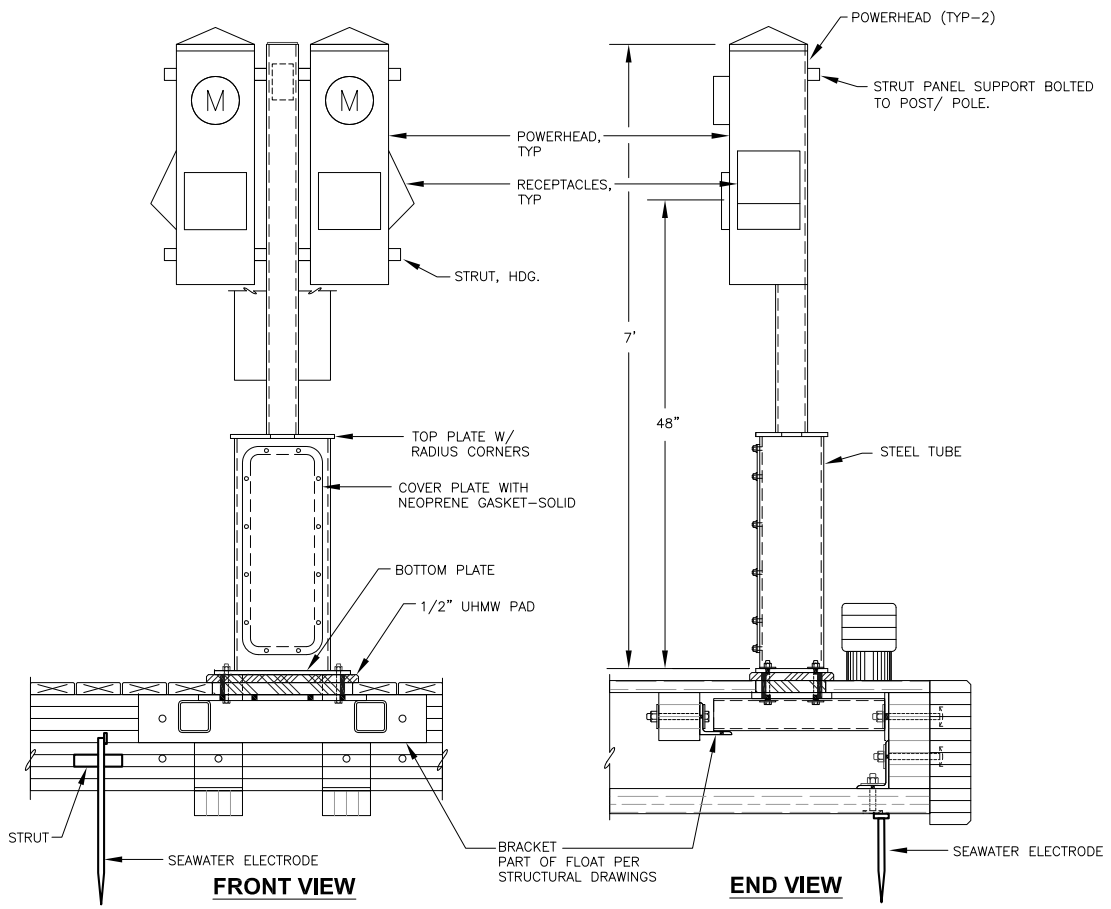
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ENLARGED HEADWALK FLOAT
PLAN - LIGHTING (ALT B)

PND PROJECT NO.: 152037 E3.03B.DWG

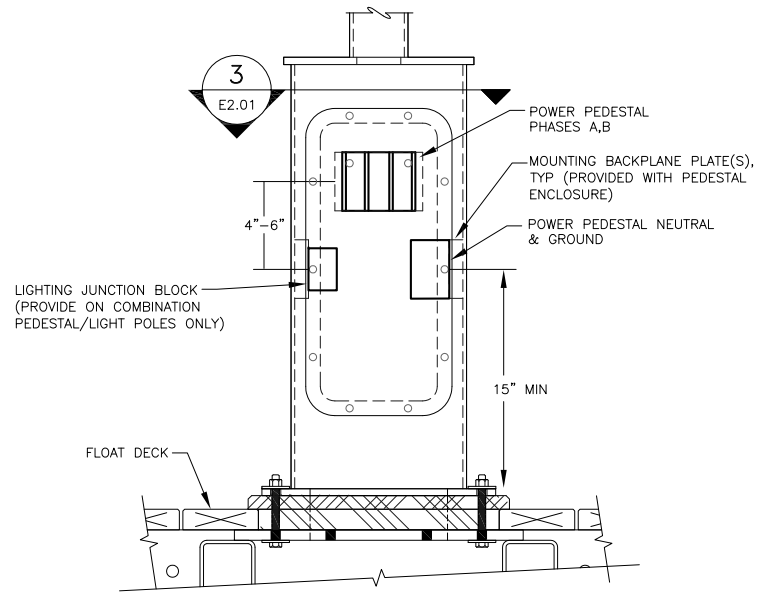
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SHEET
14 OF **18**



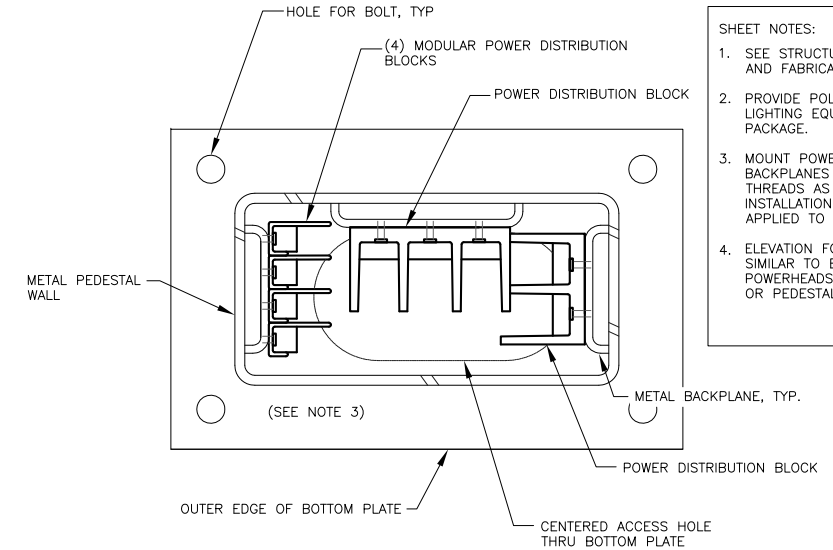
1 ELEVATION – PEDESTALS WITH LUMINAIRES
NO SCALE



4 ELEVATION – PEDESTAL BASE AND POWER HEADS
NO SCALE



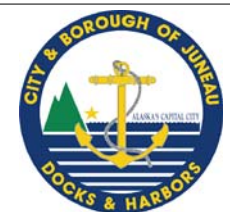
2 DETAIL – PEDESTAL BASE
NO SCALE



3 DETAIL – PEDESTAL BASE – TOP VIEW
NO SCALE

- SHEET NOTES:
1. SEE STRUCTURAL FOR PEDESTAL MOUNTING AND FABRICATION DETAILS.
 2. PROVIDE POLES WITH THE ELECTRICAL AND LIGHTING EQUIPMENT AS A COMPLETE PACKAGE.
 3. MOUNT POWER DISTRIBUTION BLOCK TO BACKPLANES PROVIDED IN PEDESTAL CHASE THREADS AS REQUIRED DURING FIELD INSTALLATION. WATERPROOF GREASE SHALL BE APPLIED TO ALL CHASED THREADS.
 4. ELEVATION FOR LIGHT ONLY POLES TO BE SIMILAR TO ELEVATION 1 EXCEPT WITH NO POWERHEADS, OR STRUT PANEL SUPPORTS, OR PEDESTAL BASE SECTION.

Dec. 30, 2015 10:22am F:\Projects\137_PND\110 Douglas Harbor ABC Floats Drawings\Working\E3.04.dwg (E3.04.tbl)



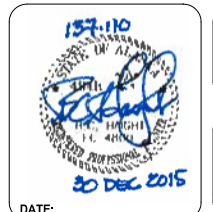
REVISIONS					
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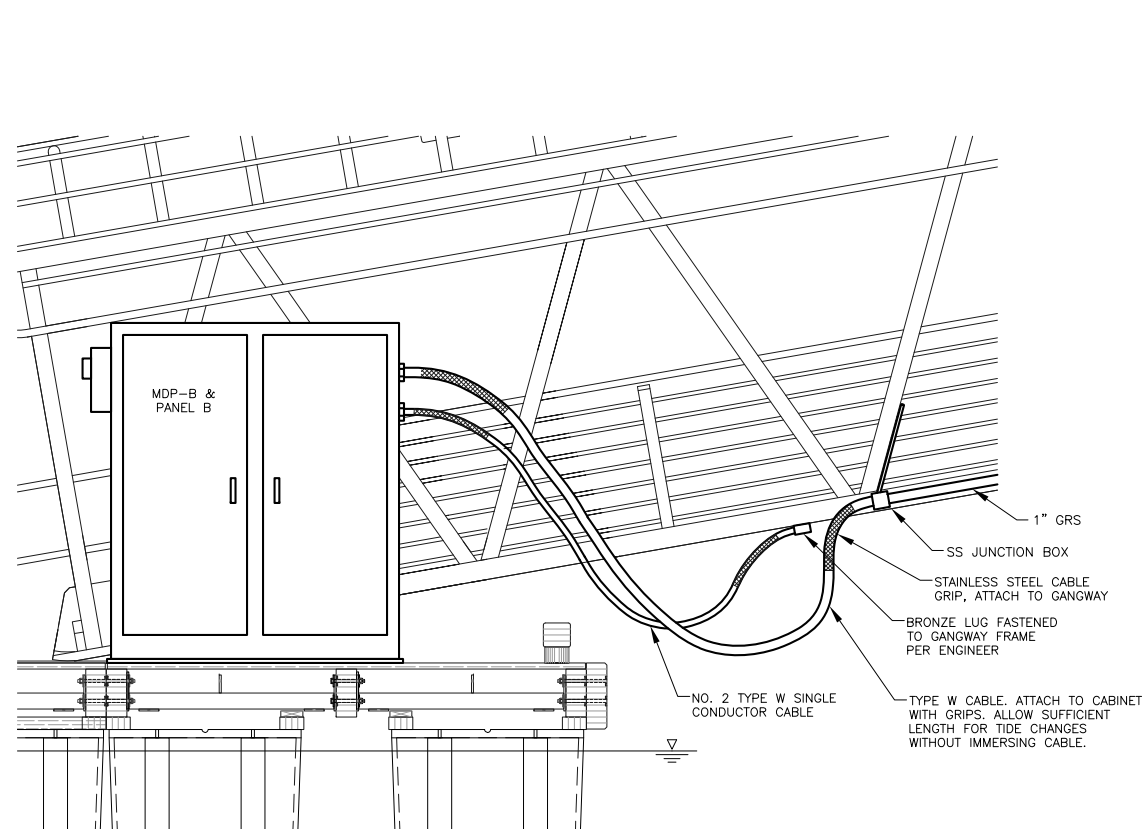


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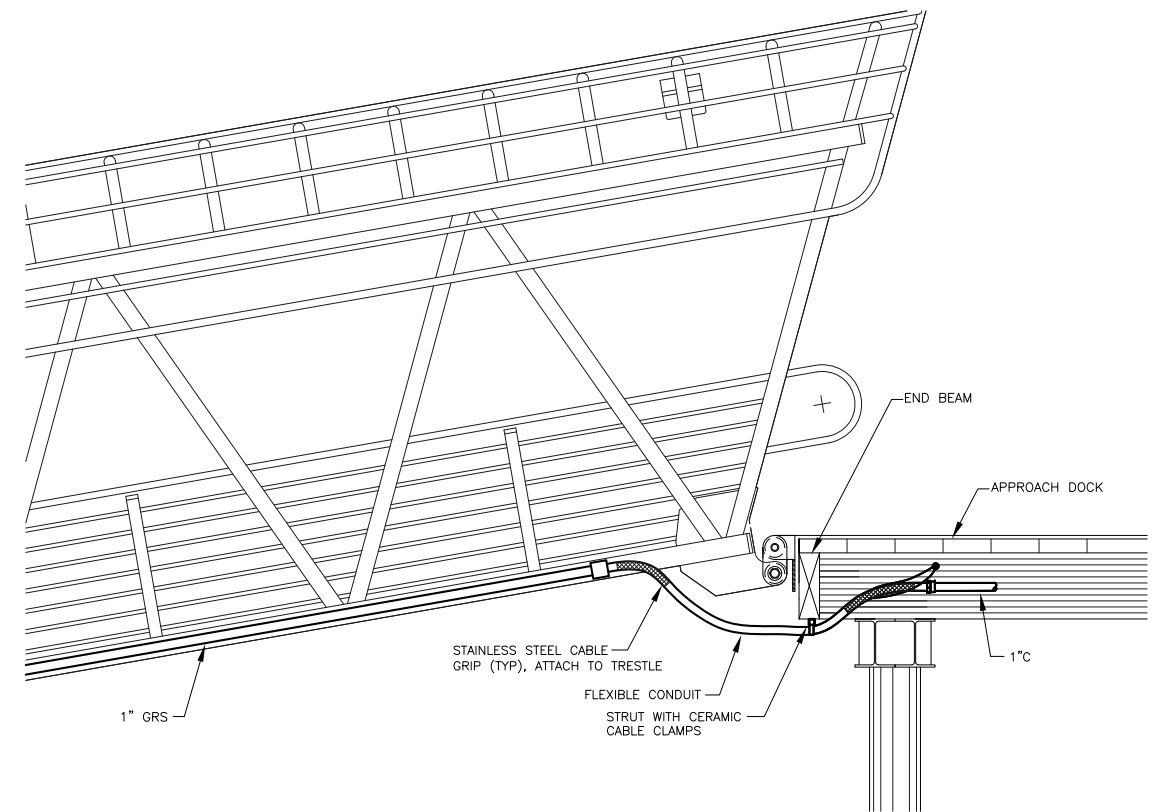
SHEET TITLE:
PEDESTAL DETAILS

PND PROJECT NO.: 152037 E3.04.DWG

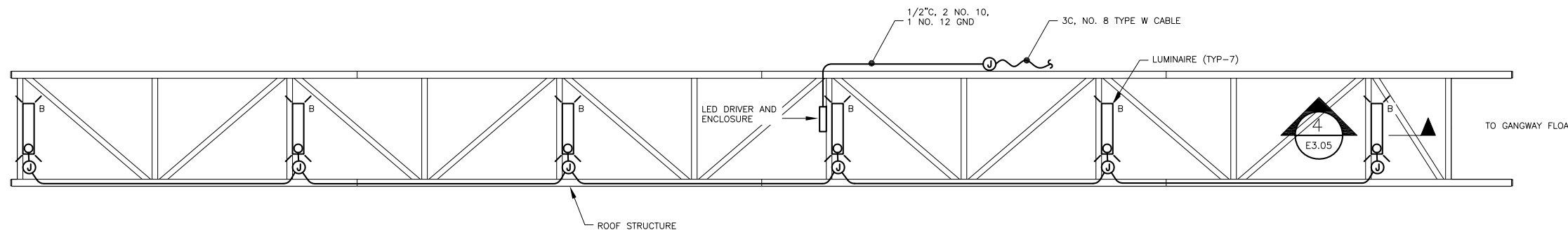
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15 OF 18



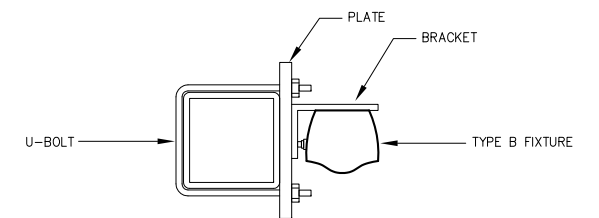
1 DETAIL - LOWER GANGWAY
NO SCALE



2 DETAIL - UPPER GANGWAY
NO SCALE



3 DETAIL - GANGWAY LIGHTING (ALT A & ALT B)
NO SCALE

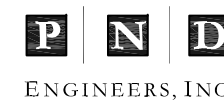


4 DETAIL - SECTION
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Dec. 23, 2015 - 4:07pm
F:\Projects\137 PND\110 Douglas Harbor ABC Floats Drawings\Working\E3.05.dwg (1.12 tab)



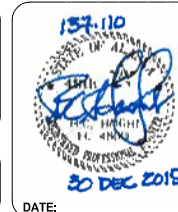
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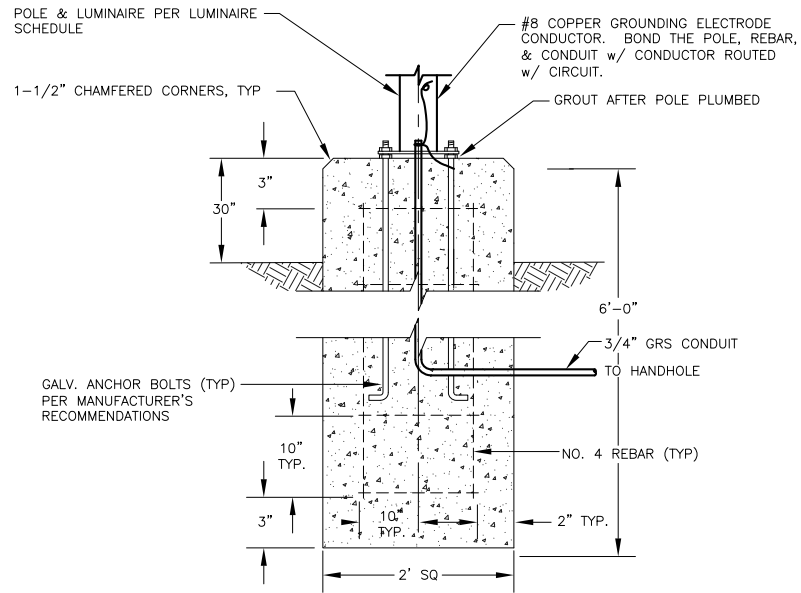


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CBJ PROJECT - DH16-001

SHEET TITLE:
GANGWAY DETAILS

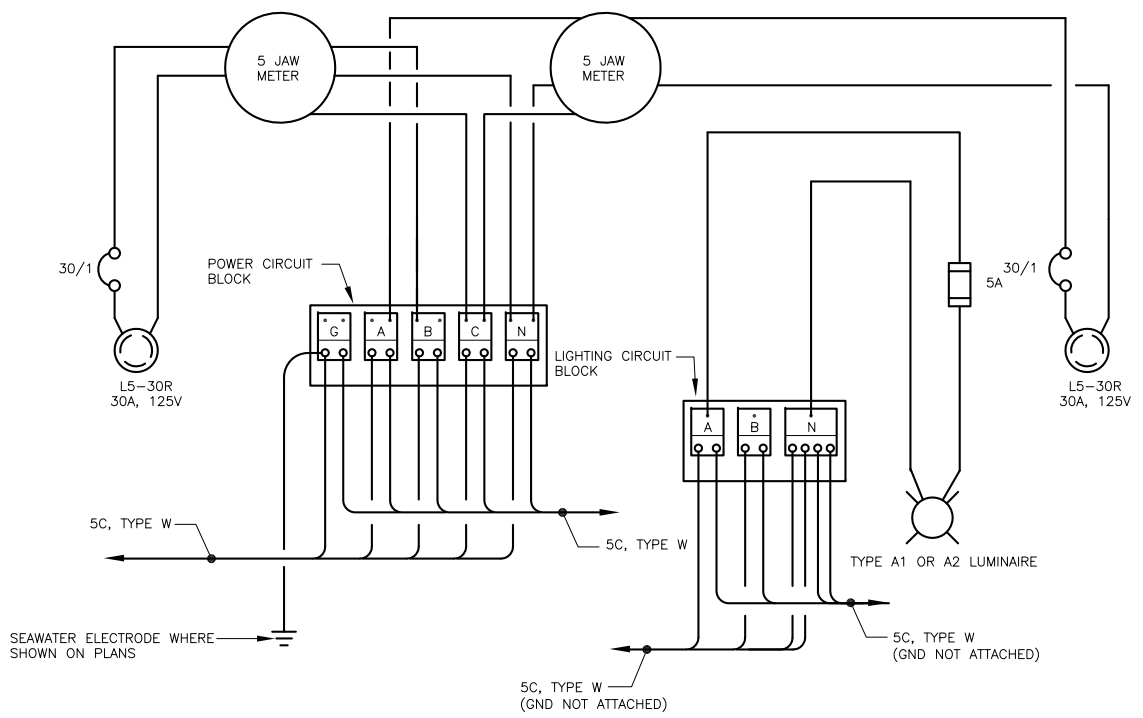
PND PROJECT NO.: 152037 E3.05.DWG

E3.05
SHEET
16 OF 18

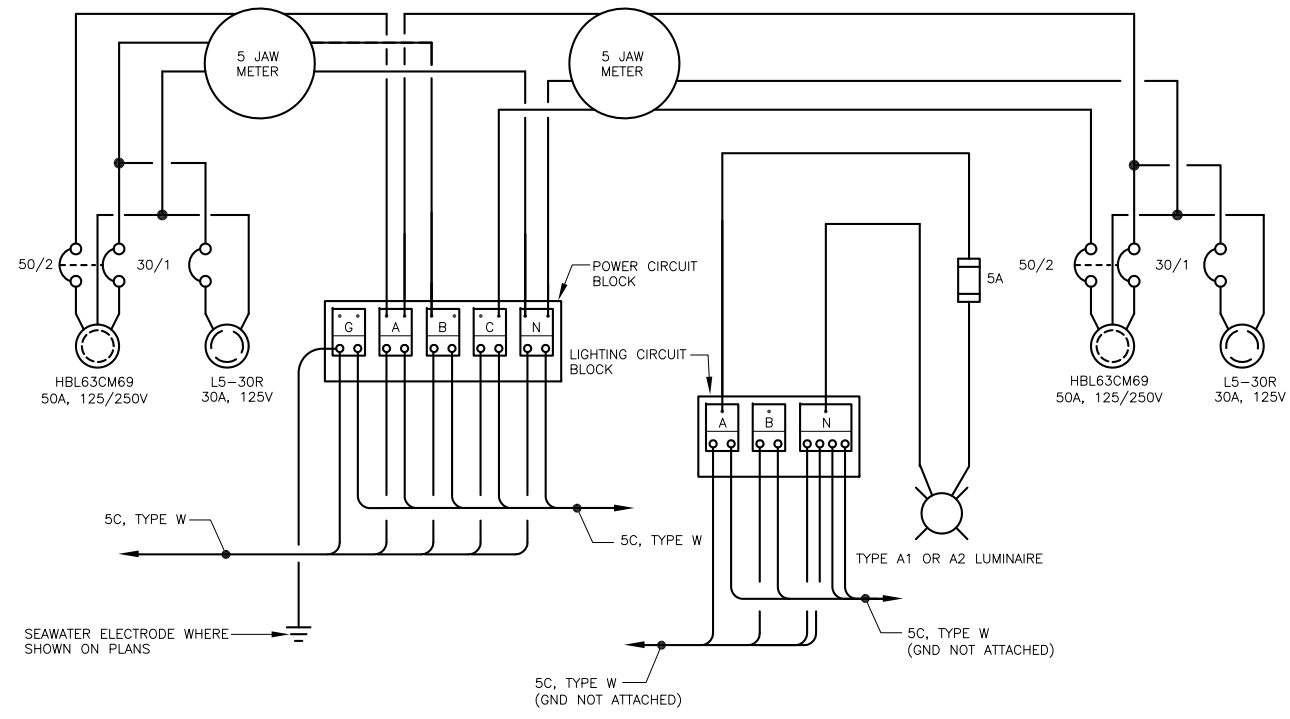


NOTES:
1. ANCHOR BOLTS TO MEET ATSM-A36 WITH MINIMUM YIELD STRESS OF 36.0 KSI.

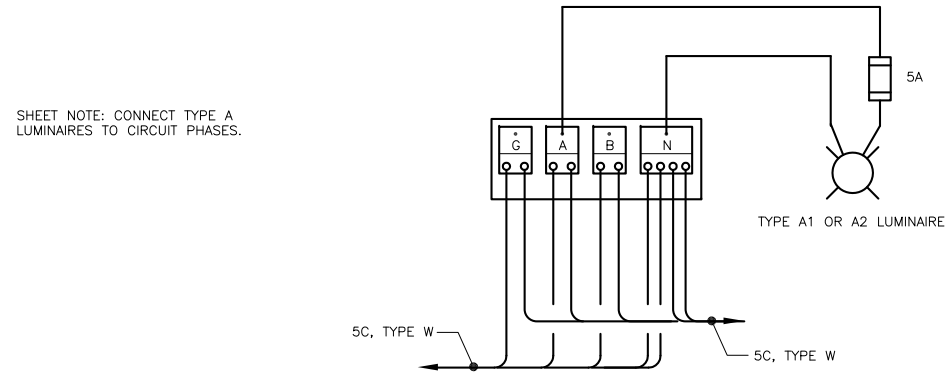
4 DETAIL - POLE BASE FOUNDATION (ALT A)



3 WIRING DIAGRAM - TYPICAL 30A/30A PEDESTAL WITH LUMINAIRE



1 WIRING DIAGRAM - TYPICAL 50A/30A PEDESTAL WITH LUMINAIRE
NO SCALE



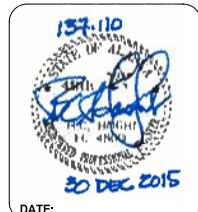
2 WIRING DIAGRAM - TYPICAL POLE MOUNTED LUMINAIRE
NO SCALE

SHEET NOTE: CONNECT TYPE A LUMINAIRES TO CIRCUIT PHASES.

Dec-23-2015 4:12pm F:\Projects\137 PND\110 Douglas Harbor ABC Floats Drawings\Working\E3.06.dwg (1:12 tab)



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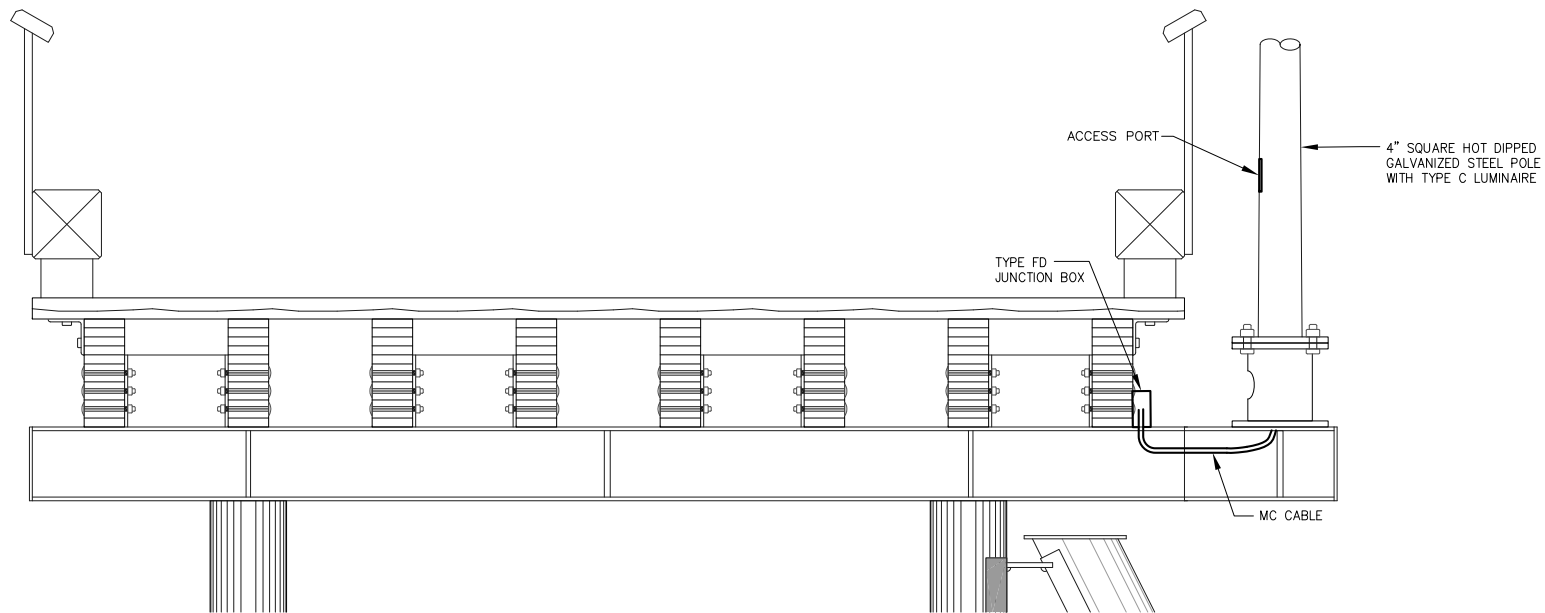
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SHEET TITLE:
WIRING DIAGRAM - PEDESTALS
PND PROJECT NO.: 152037 E3.06.DWG

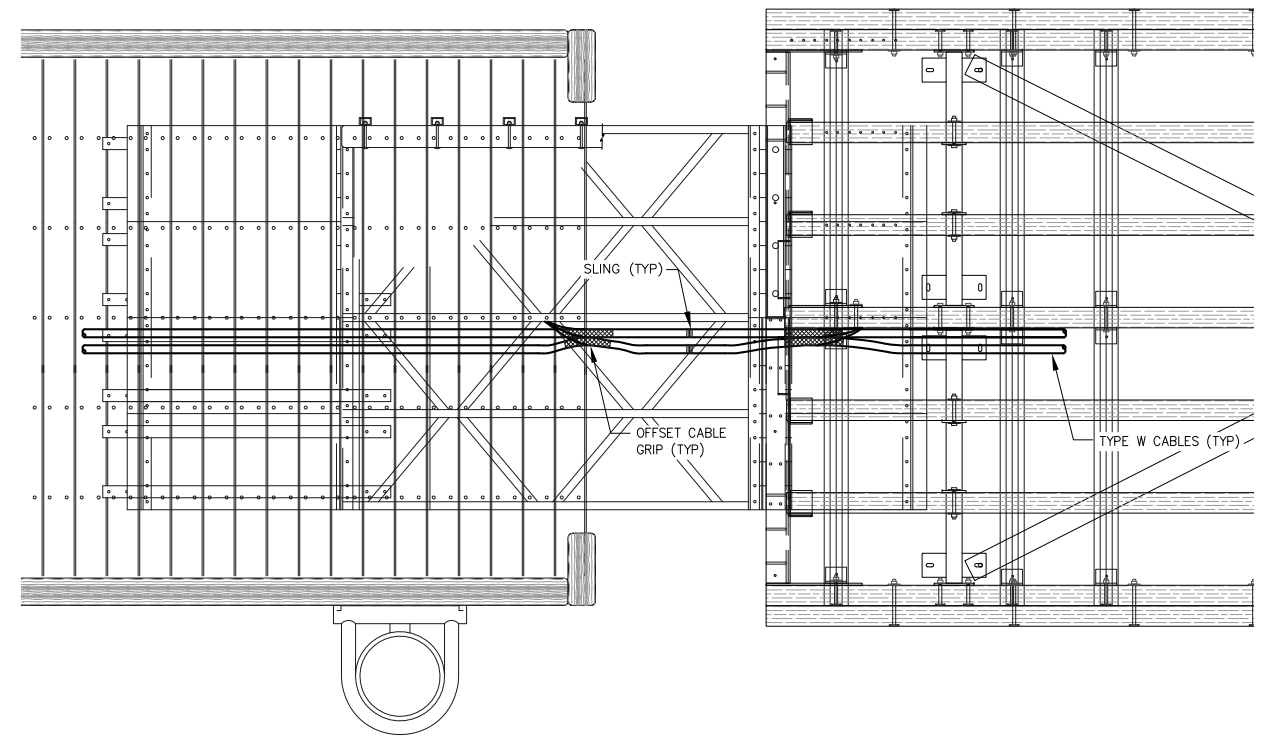
E3.06
SHEET
17 OF 18

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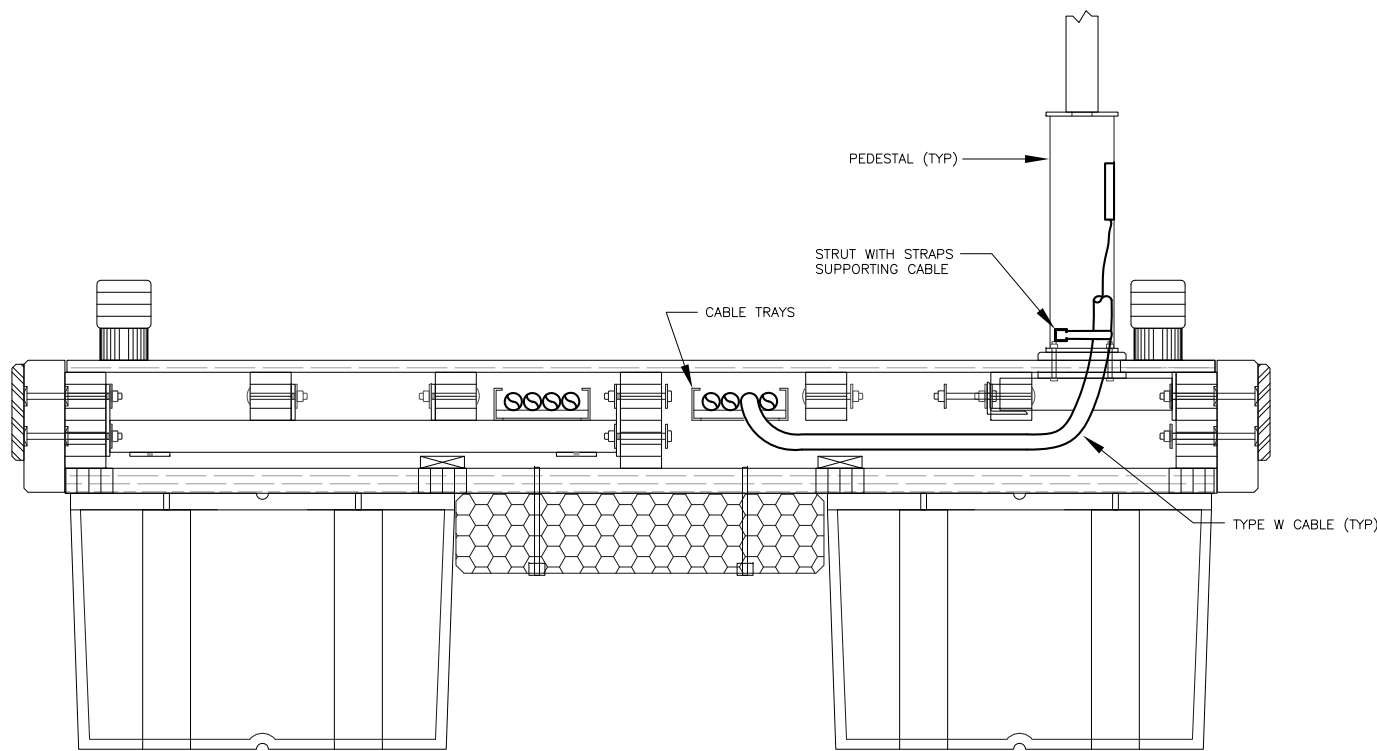
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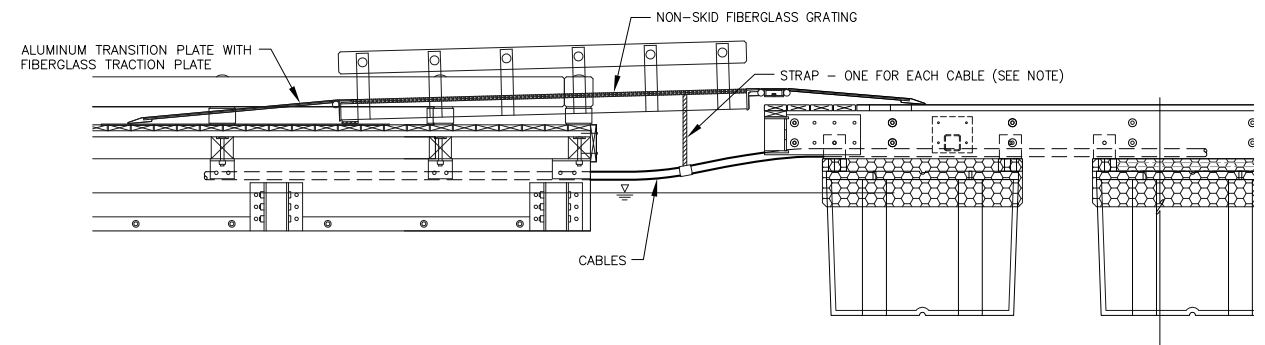
② SECTION - GANGWAY APPROACH LIGHT POLE BASE (ALT B)



③ DETAIL - HEADWALK TRANSITION (TRANSITION BRIDGE NOT SHOWN)



① FLOAT SECTION (TYPICAL)



④ ELEVATION - HEADWALK TRANSITION

NOTE: PROVIDE STRAPS D-RING UV RESISTANT TREATED POLYESTER SLING. (BASIS OF DESIGN: HOSEBUN R516D). THAT SUPPORT CABLES. PROVIDE SLACK IN CABLE TO COMPENSATE FOR FLOAT MOVEMENT. KEEP CABLES ABOVE WATER.

Dec. 23, 2015 - 4:14pm
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SHEET TITLE: **DETAILS**
PND PROJECT NO.: 152037 E3.07.DWG
E3.07
SHEET **18** OF **18**