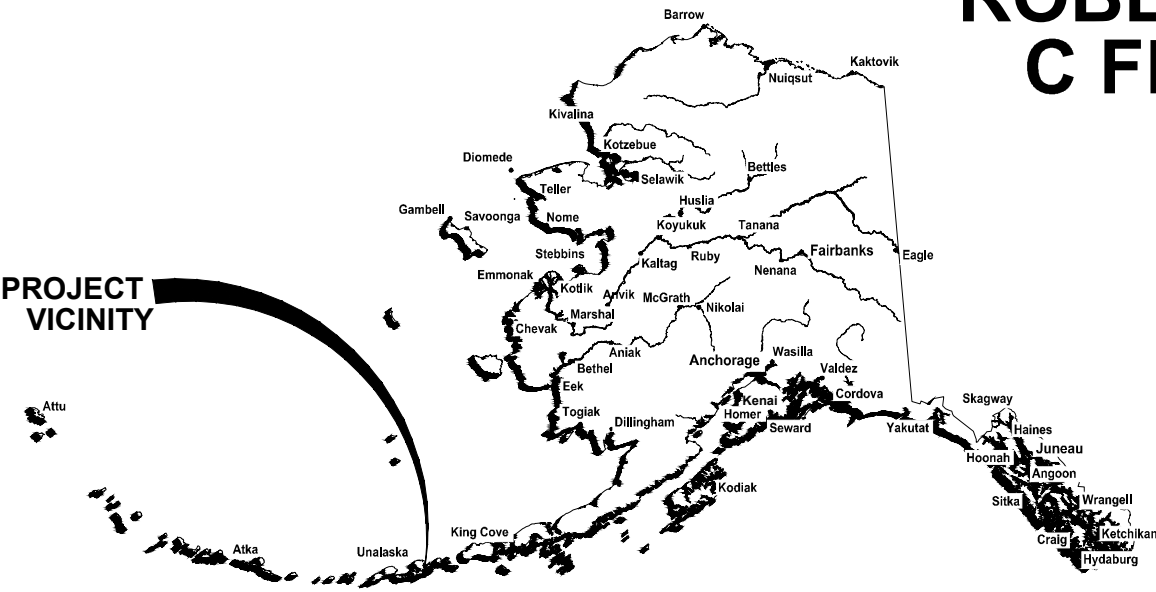


CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT
2014

PROJECT
VICINITY



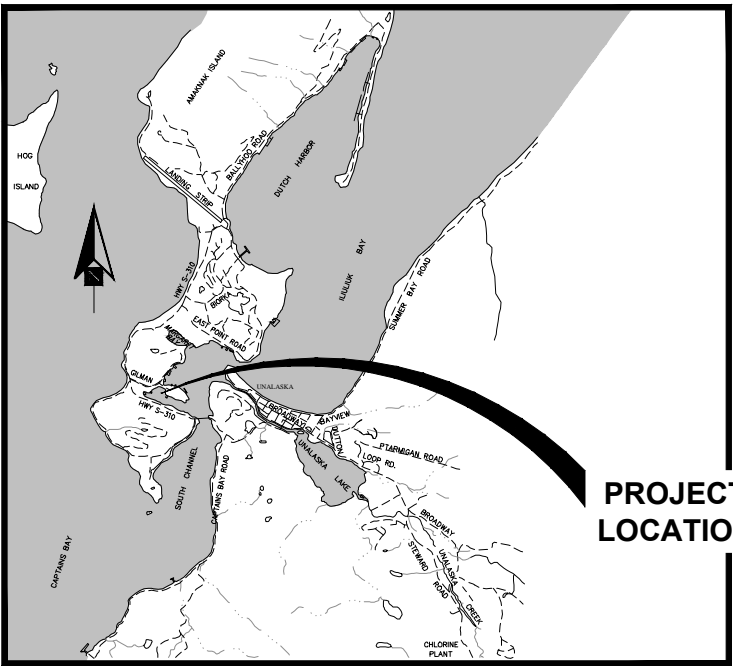
STATE OF ALASKA

PROJECT SCHEDULE

DESCRIPTION	SCHEDULE
EARLIEST FIELD START	APRIL 15, 2015
SUBSTANTIAL COMPLETION	AUGUST 17, 2015
FINAL COMPLETION	AUGUST 31, 2015

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PROJECT
LOCATION

PROJECT VICINITY

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UTILITIES	
U1	UTILITIES PLAN
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U3	UTILITIES UPLAND DETAILS
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E9	UPLANDS SITE PLAN – ELECTRICAL
E10	HANDHOLD, LIGHT POLE, AND TRENCH DETAILS
E11	LUMINAIRE AND POLE SCHEDULES
E12	WATER VAULT ELECTRICAL DETAILS
E13	GANGWAY TRANSITION AND SECTION
E14	GANGWAY LANDING FLOAT PLAN – ELECTRICAL
E15	PANELS A AND B ELEVATIONS
E16	FLOAT SECTION AND SEAWATER ELECTRODE DETAIL
E17	PEDESTAL WITH LUMINAIRE AND CAMERA ELEVATIONS
E18	PEDESTAL DETAILS
E19	PEDESTAL WIRING DIAGRAMS
E20	WATER PEDESTAL DETAILS
E21	POWER UTILITY VAULT DETAILS

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

SHEET TITLE:
TITLE SHEET, VICINITY MAP
AND DRAWING INDEX

PND PROJECT NO.: 132021

G1

GENERAL NOTES

1. PROPERTY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS PRECONSTRUCTION CONDITION OR BETTER AT NO ADDITIONAL COST.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL APPLICABLE, LOCAL, STATE AND FEDERAL CODES, PERMITS AND SAFETY REQUIREMENTS.
3. 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 CITY OF UNALASKA PUBLIC UTILITY DEPARTMENT PRIOR TO ANY/ ALL EXCAVATIONS AT THE FOLLOWING TELEPHONE NUMBER:

DIAL BEFORE YOU DIG!

907-581-1260

UNDERGROUND POWER, TELEPHONE, T.V., COMMUNICATIONS, WATER AND WASTEWATER LINES ARE IN THE AREA. UTILITIES SHOWN HERE DO NOT SUBSTITUTE FOR FIELD LOCATES.

4. GRADING AND FINAL ALIGNMENT OF UTILITIES & PIPING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER TO FIT SITE CONDITIONS, AT NO ADDITIONAL COST.
5. CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED CITY DEPARTMENTS AND LOCAL UTILITY COMPANIES DURING CONSTRUCTION.

LEGEND

EXISTING	THIS PROJECT	
---	---	GRADE BREAK
---	---	RIGHT-OF-WAY/PROPERTY LINE
---	---	CENTERLINE
--- OHE _x ---		ELECTRICAL, OVERHEAD
--- Eu _x ---		ELECTRICAL, UNDERGROUND
--- Cu _x ---		CABLE/TELEPHONE, UNDERGROUND
--- SD _x ---	== (P ₃) ==	STORM DRAIN
--- W _x ---	== W _N ==	WATER
--- SS _x ---		SANITARY SEWER
	--- F _N ---	FIRE SUPPRESSION
	--- X --- X ---	GEOTEXTILE FABRIC
		GUARDRAIL
		TREE
		UTILITY PEDESTAL
		WATER VALVE
		ELECTRIC TRANSFORMER
		SIGN
		LIGHT POLE
		BOLLARD
		SURVEY CONTROL
		LAYOUT POINT
		ELECTRICAL PEDESTAL
		FIRE HYDRANT
		ELECTRICAL OUTLET
		WATER SPIGOT
		WATER VAULT
		LUMINAIRE
		SECTION OR DETAIL CALLOUT
		LOCATION OF DETAIL OR REFERENCE DRAWING
		GUARD RAIL

ABBREVIATIONS

A	AT	G	GALLON	PVC	POINT OF VERTICAL CURVATURE, POLY-VINYL CHLORIDE
⊙	ASBESTOS CEMENT PIPE	GALV	GALVANIZED	PVI	POINT OF VERTICAL INTERSECTION
AC	ASPHALT CONCRETE PAVEMENT	GB	GRADE BREAK	Q	QUANTITY
ACP	AMERICANS WITH DISABILITIES ACT	GPM	GALLONS PER MINUTE	R	RADIUS
ADA	ADJUSTABLE	GRD	GROUND	RE	RIM ELEVATION
ADJ	ALUMINUM	GV	GATE VALVE	RECOMM	RECOMMENDATION
ALUM	ASSOCIATED PILE AND FITTING CORP.	H		REF	REFERENCE
APF	APPROXIMATE	H&T	HUB & TACK	REINF	REINFORCEMENT
APPROX. or APPX.	ALASKA TIDELANDS SURVEY	HD	HEAVY DUTY	REQD	REQUIRED
ATS	AIR RELEASE VALVE	HDG	HOT-DIPPED GALVANIZED	RET	RETAINING
AV	BEGINNING OF CURB CUT	HDPE	HIGH DENSITY POLYETHYLENE	RO	ROUGH OPENING
B	BUTTERFLY VALVE	HORIZ	HORIZONTAL	ROW	RIGHT OF WAY
BCC	BUILDING	HSE	HOUSE	S	
BFV	BEGINNING OF PROJECT	HT	HEIGHT	S	SOUTH
BLDG	BOTTOM	HWY.	HIGHWAY	SCHED/SCH	SCHEDULE
BOP	BETWEEN	HYD	HYDRANT	SD	STORM DRAIN
BTM, BOT		I		SDI	STORM DRAIN INLET STRUCTURE
BTWN		IAW	IN ACCORDANCE WITH	SDO	STORM DRAIN OUTLET STRUCTURE
C		ID	INSIDE DIAMETER	SDR	STANDARD DIMENSION RATIO
C&G	CURB & GUTTER	IE	INVERT ELEVATION	SF	SQUARE FOOT
CB	CATCH BASIN	IN	INCH	SHLDR	SHOULDER
CBJ	CITY & BOROUGH OF JUNEAU	IP	IRON PIPE	SI	STREET INTERSECTION
CI	CAST IRON	INCL	INCLUDE (D) (ING)	SIM	SIMILAR
CIP	CAST-IN-PLACE	INSUL	INSULATE (D) (ION)	SPEC	SPECIFICATION (S)
CJ	CONTROL JOINT	INV	INVERT	SQ	SQUARE
CL	CENTER LINE	J		SRB	SHOT ROCK BORROW
CLR	CLEAR	JB	JUNCTION BOX	SSC	SANITARY SEWER CONNECTION
CMP	CORRUGATED METAL PIPE	L		SS	STAINLESS STEEL, SANITARY SEWER
CO	CLEANOUT	LBS	POUNDS	SDMH	STORM DRAIN MANHOLE
C.O.E.	CORPS OF ENGINEERS	LF	LINEAR FEET	SSMH	SANITARY SEWER MANHOLE
COMM	COMMUNICATION	LL	LIVE LOAD	STA	STATION
CONC.	CONCRETE	LOC	LOCATION	STD	STANDARD
CONN	CONNECTION	LS	LUMP SUM	STL	STEEL
CONT	CONTINUES	M		STRG	STRONG
CP	COMPLETE PENETRATION	MAX	MAXIMUM	SW	SIDEWALK
CPEP/CPP	CORRUGATED POLYETHYLENE PIPE	MANUF	MANUFACTURER	SWR	SEWER
COR	CORNER	M.E.	MATCH EXISTING	SY	SQUARE YARD
CSC	COUNTERSINK	MECH	MECHANICAL	SYM	SYMMETRICAL
CTR	CENTER	MFR	MANUFACTURE (R)	T	
CY	CUBIC YARD	MH	MANHOLE	t	THICK
D		MJ	MECHANICAL JOINT	T&B	TOP AND BOTTOM
DCP	DISSIMILAR PIPE COUPLING	MI	MALLEABLE IRON	T&G	TONGUE AND GROOVE
D/DIA/ø	DIAMETER	MIN	MINIMUM	TBC	TOP BACK OF CURB
DBL	DOUBLE	MLLW	MEAN LOWER LOW WATER	TBD	TO BE DETERMINED
DEMO	DEMOLITION	MSF	1000 SQUARE FEET	TBM	TEMPORARY BENCH MARK
DEPT	DEPARTMENT	MSE	MECHANICALLY STABILIZED EARTH	TD	TRENCH DRAIN
DL	DEAD LOAD	MTL	MATERIAL (S)	TEL	TELEPHONE
DI	DUCTILE IRON	N		TEMP	TEMPERATURE, TEMPORARY
DIP	DUCTILE IRON PIPE	N	NORTH	TH	TEST HOLE
DIM	DIMENSION	NFS	NON FROST SUSCEPTIBLE	THK	THICK
DN	DOWN	NIC	NOT IN CONTRACT	TRANS	TRANSVERSE
DTL	DETAIL	NO	NUMBER	TV	TELEVISION
E		NTS	NOT TO SCALE	TYP	TYPICAL
E	EAST	O		U	
EA.	EACH	OBD	OVERBURDEN	UBC	UNIFORM BUILDING CODE
EC	EDGE OF CONCRETE	OC	ON CENTER	UE	UNDERGROUND ELECTRIC
ECC	END OF CURB CUT	OD	OUTSIDE DIAMETER	UMC	UNIFORM MECHANICAL CODE
EG	EXISTING GRADE	OG	ORIGINAL GOUND	UHMW	ULTRA HIGH MOLECULAR WEIGHT
EJ	EXPANSION JOINT	OHE	OVERHEAD ELECTRICAL	UON/UNO	UNLESS OTHERWISE NOTED
EL/ELEV	ELEVATION	OWS	OIL-WATER SEPARATOR	UPC	UNIFORM PLUMBING CODE
ELEC	ELECTRICAL	OPP	OPPSITE	V	
EOP	END OF PAVEMENT	P		VB	VALVE BOX
EQ	EQUAL	P	PIPE	VLV	VALVE
EQUIP	EQUIPMENT	PC	POINT OF CURVATURE, PIECE	VERT	VERTICAL
EST	ESTIMATE	PCC	PRECAST CONCRATE	VG	VALLEY GUTTER
EW	EACH WAY	PCPP	POINT OF COMPOUND CURVATURE	W	
EXC	EXCAVATE	PE	PERFORATED POLYETHYLENE PIPE	W	WEST
EXIST	EXISTING	PED	POLYETHYLENE	W/	WITH
F		PER	PEDESTAL	WD	WOOD
FC	FACE OF CURB	PERF	PERFORATE (D)	WELDMT	WELDMENT
FD	FLOOR DRAIN	PI	POINT OF INTERSECTION	WL	WATERLINE
FF	FINISHED FLOOR	PLWD	PLYWOOD	WQU	WATER QUALITY UNIT
FG	FINISHED GRADE	PL	PROPERTY LINE, PLATE	WV	WATER VALVE
FH	FIRE HYDRANT, FLAT HEAD	POC	POINT OF CURVE	WW	WATER WATER
FIN	FINISH (ED)	PP	POLYPROPYLENE	WWTP	WASTE WATER TREATMENT PLANT
FM	FORCE MAIN SEWER	PRC	POINT OF REVERSE CURVATURE	W/O	WITHOUT
FND	FOUNDATION	PROJ	PROJECT	X	
FOC	FACE OF CURB	PRKG	PARKING	XFMR	TRANSFORMER
FT	FOOT	PRV	PRESSURE REDUCING VALVE	<PT	ANGLE POINT
FTG	FOOTING	PSI	POUND PER SQUARE INCH		
FL	FLOWLINE OR FLANGE	PT	POINT, PRESSURE TREATED, POINT OF TANGENCY		
FRP	FIBER-REINFORCED PLASTIC				



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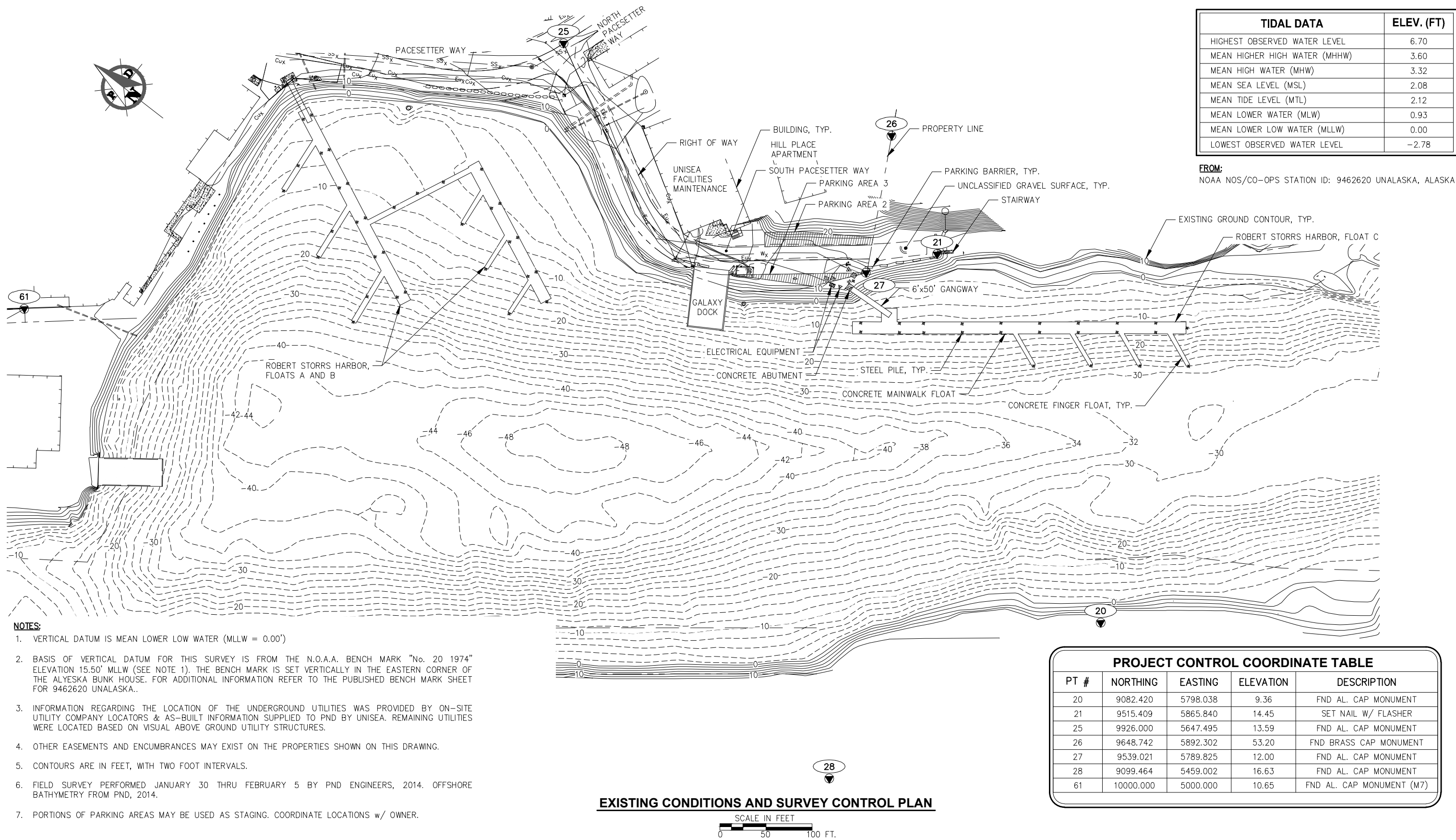


CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

SHEET TITLE:
GENERAL NOTES, LEGEND
AND ABBREVIATIONS

PND PROJECT NO.: 132021

G2



TIDAL DATA	ELEV. (FT)
HIGHEST OBSERVED WATER LEVEL	6.70
MEAN HIGHER HIGH WATER (MHHW)	3.60
MEAN HIGH WATER (MHW)	3.32
MEAN SEA LEVEL (MSL)	2.08
MEAN TIDE LEVEL (MTL)	2.12
MEAN LOWER WATER (MLW)	0.93
MEAN LOWER LOW WATER (MLLW)	0.00
LOWEST OBSERVED WATER LEVEL	-2.78


FROM:
NOAA NOS/CO-OPS STATION ID: 9462620 UNALASKA, ALASKA

- NOTES:**
- VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW = 0.00')
 - BASIS OF VERTICAL DATUM FOR THIS SURVEY IS FROM THE N.O.A.A. BENCH MARK "No. 20 1974" ELEVATION 15.50' MLLW (SEE NOTE 1). THE BENCH MARK IS SET VERTICALLY IN THE EASTERN CORNER OF THE ALYESKA BUNK HOUSE. FOR ADDITIONAL INFORMATION REFER TO THE PUBLISHED BENCH MARK SHEET FOR 9462620 UNALASKA..
 - INFORMATION REGARDING THE LOCATION OF THE UNDERGROUND UTILITIES WAS PROVIDED BY ON-SITE UTILITY COMPANY LOCATORS & AS-BUILT INFORMATION SUPPLIED TO PND BY UNISEA. REMAINING UTILITIES WERE LOCATED BASED ON VISUAL ABOVE GROUND UTILITY STRUCTURES.
 - OTHER EASEMENTS AND ENCUMBRANCES MAY EXIST ON THE PROPERTIES SHOWN ON THIS DRAWING.
 - CONTOURS ARE IN FEET, WITH TWO FOOT INTERVALS.
 - FIELD SURVEY PERFORMED JANUARY 30 THRU FEBRUARY 5 BY PND ENGINEERS, 2014. OFFSHORE BATHYMETRY FROM PND, 2014.
 - PORTIONS OF PARKING AREAS MAY BE USED AS STAGING. COORDINATE LOCATIONS w/ OWNER.


EXISTING CONDITIONS AND SURVEY CONTROL PLAN



PROJECT CONTROL COORDINATE TABLE				
PT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
20	9082.420	5798.038	9.36	FND AL. CAP MONUMENT
21	9515.409	5865.840	14.45	SET NAIL W/ FLASHER
25	9926.000	5647.495	13.59	FND AL. CAP MONUMENT
26	9648.742	5892.302	53.20	FND BRASS CAP MONUMENT
27	9539.021	5789.825	12.00	FND AL. CAP MONUMENT
28	9099.464	5459.002	16.63	FND AL. CAP MONUMENT
61	10000.000	5000.000	10.65	FND AL. CAP MONUMENT (M7)




REVISIONS				
REV.	DATE	DESCRIPTION	DWN.	CKD.



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SCALE: AS SHOWN



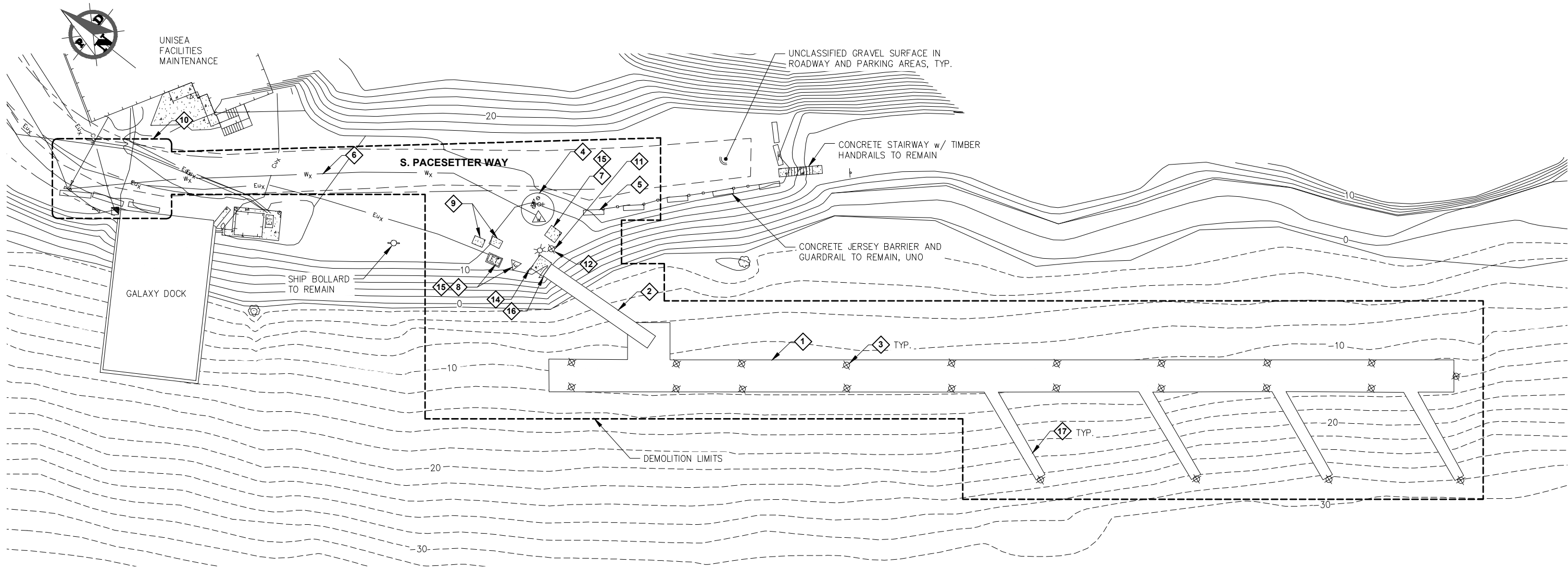
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CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

SHEET TITLE:
EXISTING CONDITIONS AND
SURVEY CONTROL PLAN

GND PROJECT NO.: 132021

G3



DEMOLITION & CLEARING SUMMARY TABLE

DEMOLITION	DESCRIPTION
1	DEMOLISH AND DISPOSE OF COMPLETE 12"x360" CONCRETE MAINWALK FLOAT AND 15"x18" CONCRETE GANGWAY LANDING FLOAT AND ALL MISC. ASSOCIATED FLOAT MOUNTED APPURTENANCES.
2	DEMOLISH AND DISPOSE OF COMPLETE 6"x50' STEEL GANGWAY AND ALL MISC. RELATED APPURTENANCES.
3	DEMOLISH AND DISPOSE OF ALL STEEL PIPE MOORING PILES AND ALL OTHER MISC. ASSOCIATED PILE MOUNTED APPURTENANCES. PILES SHALL BE REMOVED IN THEIR ENTIRETY.
4	DEMOLISH AND DISPOSE WATER VAULT, SPIGOT AND BOLLARDS. SALVAGE METER, SEE NOTE.
5	REMOVE AND SALVAGE (1) PARKING BARRIER AND ATTACHED GUARDRAIL TO ADJACENT BARRIER.
6	DEMOLISH AND DISPOSE OR ABANDON IN PLACE, 2" COPPER WATER SERVICE, SEE UTILITIES.
7	REMOVE AND SALVAGE PORTABLE RESTROOM.

8	ELECTRICAL EQUIPMENT TO BE DEMOLISHED, SEE ELECTRICAL PLANS.
9	DEMOLISH AND DISPOSE OF LARGE CONCRETE BLOCKS.
10	SEE UTILITY SHEETS FOR WATER SERVICE DEMOLITION IN THIS AREA
11	STEEL PIPE PILE w/ ATTACHED LUMINAIRE. REMOVE PILE IN ITS ENTIRETY AND DISPOSE OF PILE. SEE ELECTRICAL FOR LUMINAIRE DEMO.
12	SALVAGE "WELCOME TO BOBBY STORRS HARBOR" SIGN.
13	DEMOLISH OR SALVAGE ALL SIGNAGE, SEE NOTE 4.
14	SALVAGE MESSAGE BOARD w/ TIMBER POST.
15	DEMOLISH AND DISPOSE CONCRETE PADS UNDER PORTABLE RESTROOM AND ELECTRICAL EQUIPMENT.
16	DEMOLISH AND DISPOSE OF COMPLETE CONCRETE GANGWAY ABUTMENT AND ALL OTHER MISC. RELATED APPURTENANCES.
17	DEMOLISH AND DISPOSE OF ALL CONCRETE FINGER FLOATS AND ALL MISC. ASSOCIATED APPURTENANCES.

DEMOLITION PLAN



NOTES:

- DEMOLISH = REMOVE & DISPOSE AT CONTRACTOR PROVIDED DISPOSAL SITE.
- SALVAGE = REMOVE, SALVAGE & SUITABLY STORE AT NEARBY OWNER DESIGNATED LOCATION OR RELOCATE AS SHOWN ON PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSPORTING, LOADING, UNLOADING AND GENERAL HANDLING OF SALVAGED MATERIALS. STORAGE OF SALVAGED MATERIALS SHALL BE COORDINATED WITH THE OWNER AT ALL TIMES. SPECIFIC LOCATIONS FOR MATERIALS TO BE SALVAGED AND STORED SHALL BE DICTATED BY THE OWNER AND SHALL BE AT THE OWNER'S SOLE DISCRETION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED DUE TO HIS ACTIVITIES. DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED AT NO COST TO THE OWNER.
- SEE ELECTRICAL PLANS FOR ADDITIONAL DEMOLITION, SALVAGE AND DISPOSAL REQUIREMENTS.
- NOT ALL EXISTING SIGNS ARE SHOWN ON THIS PLAN. INVENTORY ALL EXISTING SIGNS WITHIN PROJECT LIMITS, COORDINATE WITH OWNER FOR DEMO & SALVAGE REQUIREMENTS FOR ALL SIGNS.
- WATER METER SHALL BE SALVAGE & PROVIDED TO UTILITY, CONTACT UTILITY PRIOR TO REMOVAL FOR METER READER EQUIPMENT DISCONNECT.



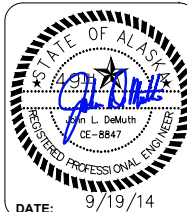
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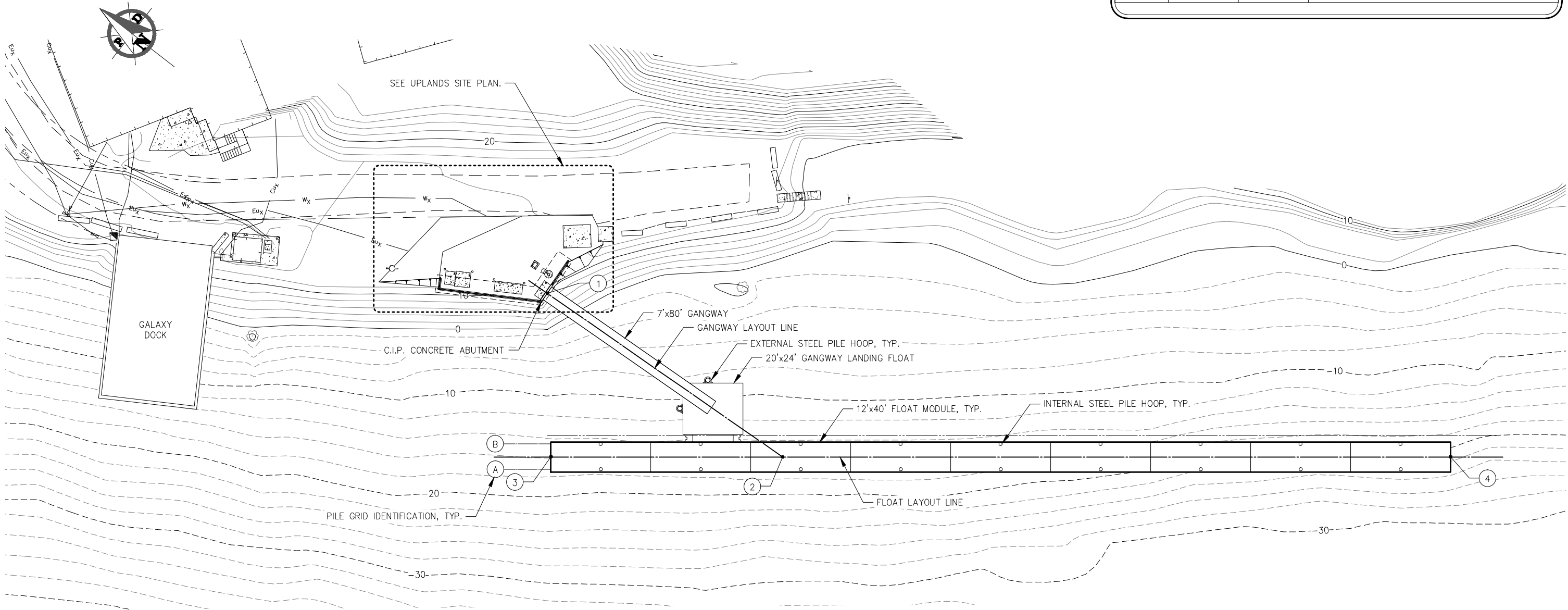
SHEET TITLE:

DEMOLITION PLAN

PND PROJECT NO.: 132021

G4

GANGWAY AND FLOAT LAYOUT TABLE			
PT #	NORTHING	EASTING	DESCRIPTION
1	9533.46	5767.61	INTERSECTION SEAWARD ABUTMENT FACE AND C GANGWAY
2	9427.54	5811.43	INTERSECTION C GANGWAY / C FLOAT
3	9477.67	5733.40	C FLOAT
4	9283.08	6036.28	C FLOAT



- NOTES:**
- 1. DATUM ELEVATION MEAN LOWER LOW WATER (MLLW = 0 FEET).
 - 2. OFFSHORE BATHYMETRY FROM PND ENGINEERS, INC. 2014.



REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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SCALE: SCALE IN FEET
0 20 40 FT.

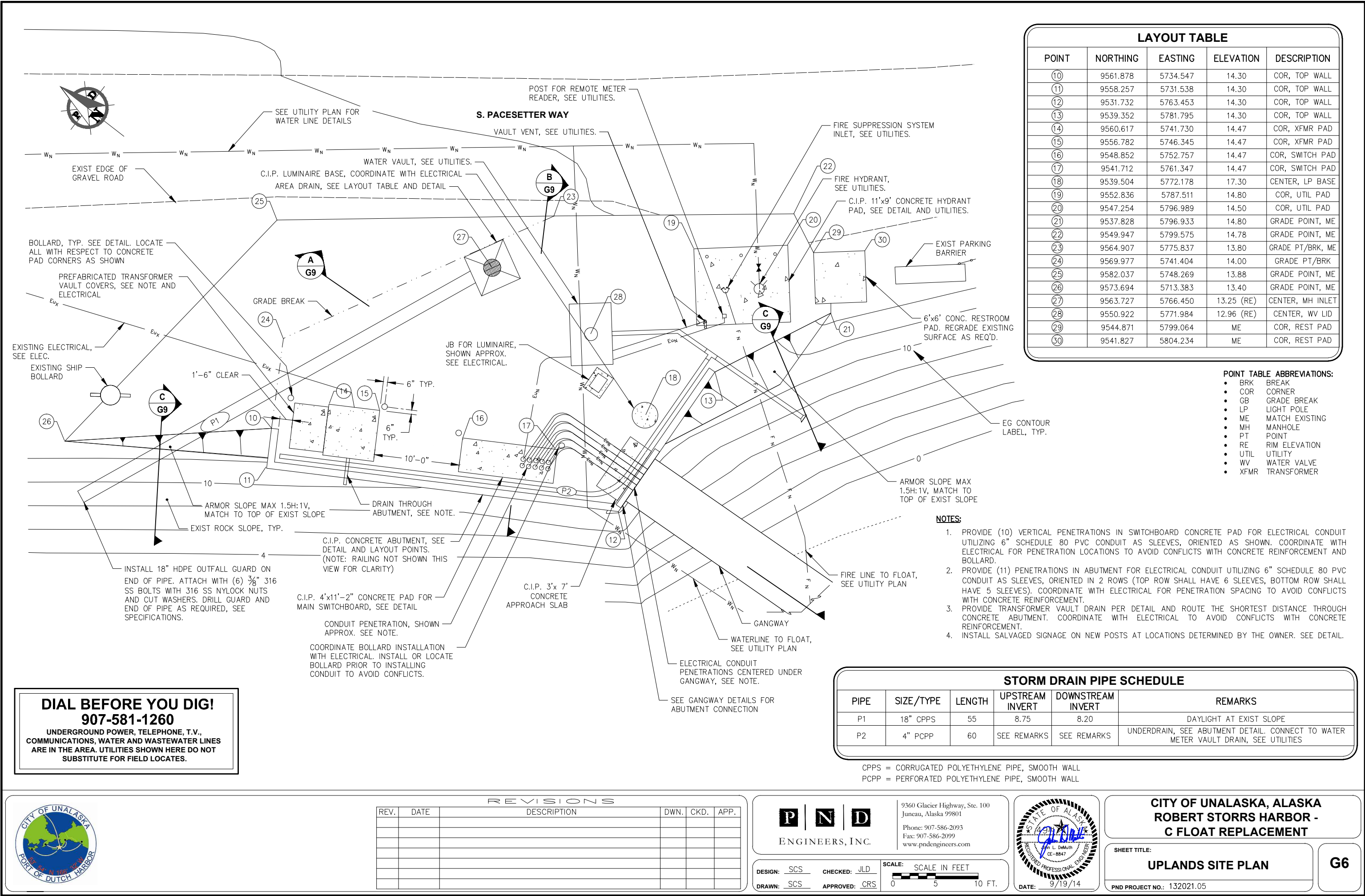


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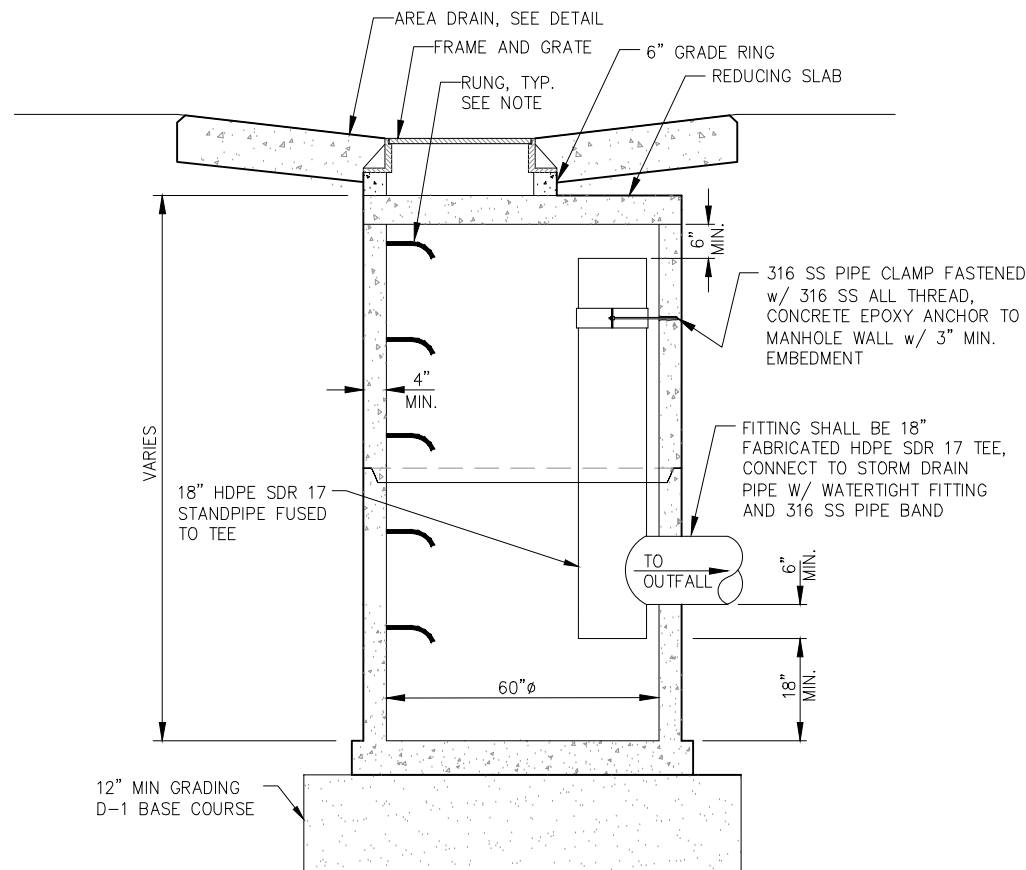
SHEET TITLE:
OVERALL SITE PLAN

G5

PND PROJECT NO.: 132021

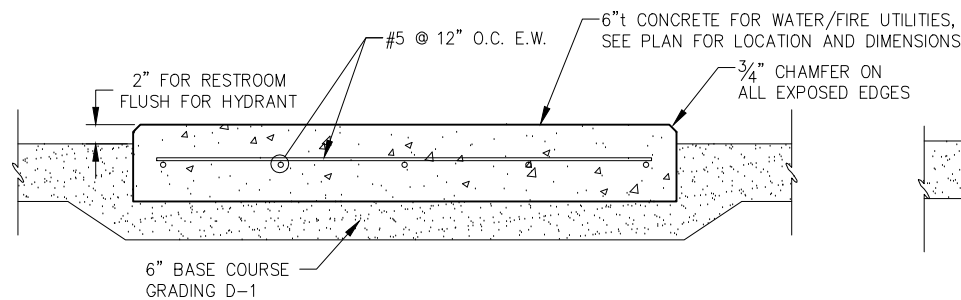




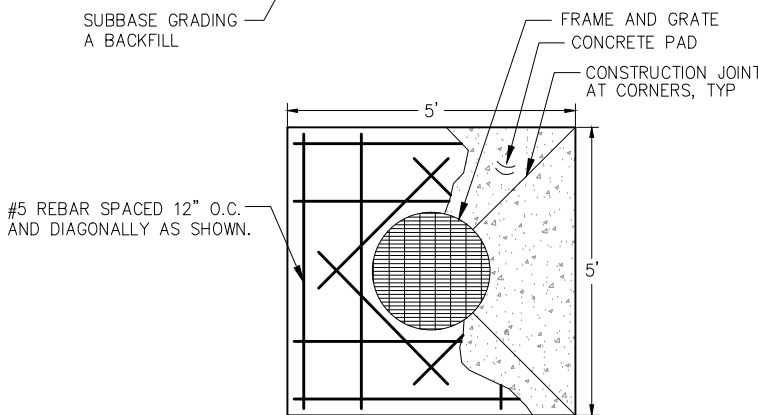
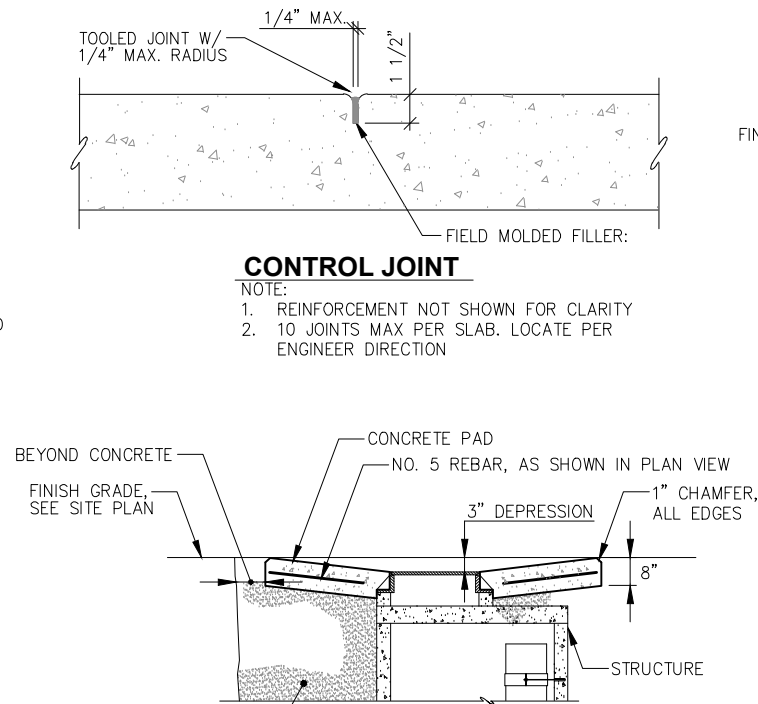


- NOTES**
1. ALL JOINTS BETWEEN SECTIONS AND BETWEEN FRAME AND CONCRETE SECTIONS SHALL BE GROUTED INSIDE AND OUTSIDE.
 2. FRAME AND GRATE SHALL BE DUCTILE IRON. FRAME MAY BE CAST INTO THE TOP UNIT OR PLACED OVER THE OPENING AS APPROVED BY THE ENGINEER. FRAME AND GRATE SHALL BE EJVW 3700 SERIES w/ APA GRATE OR APPROVED EQUAL.
 3. MANHOLE SHALL MEET HIGHWAY STANDARD-20 LOAD REQUIREMENTS.
 4. MINIMUM STEEL REQUIRED AS PER ASTM C-478-69.
 5. ADJUSTING RING SHALL BE THE SAME SIZE AS THE CATCH BASIN.
 6. NO BRICKS, WOOD, OR OTHER MATERIALS PERMITTED FOR ADJUSTING GRADE, SOLID RISER OR FORMED TYPE II ONLY.
 7. RUNGS TO BE PLACED 12" O.C. ON UNOBSTRUCTED SIDE OF MANHOLE. LAST RUNG SHALL BE 18" MAX FROM BOTTOM OF MANHOLE AND TOP RUNG SHALL BE 6" MAXIMUM FROM TOP OF CONE.

OIL / WATER SEPARATOR

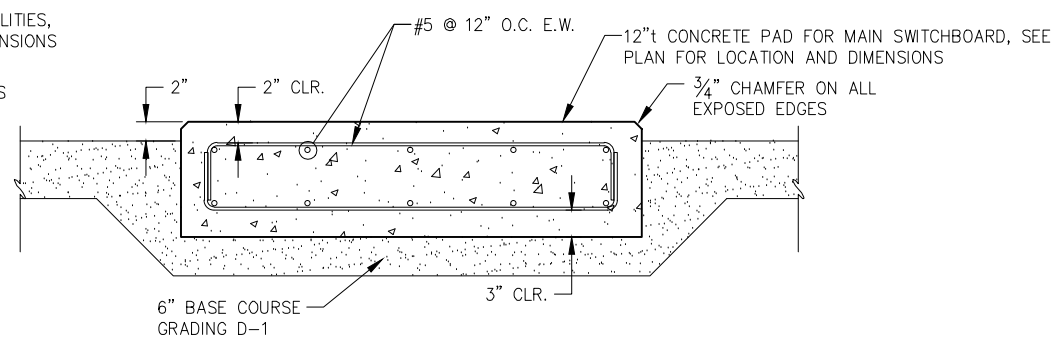


HYDRANT/RESTROOM CONCRETE PAD - SECTION

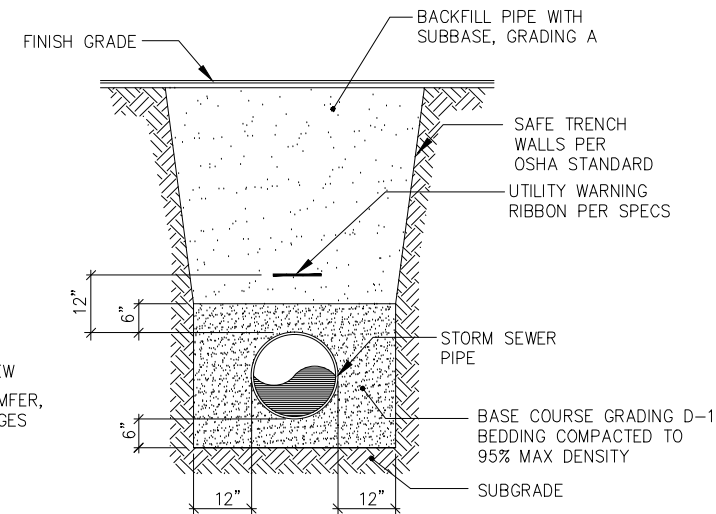


NOTE:
BED w/ 6"t MIN. BASE COURSE GRADING D-1. COMPACTED TO 95% OF MAXIMUM DENSITY.

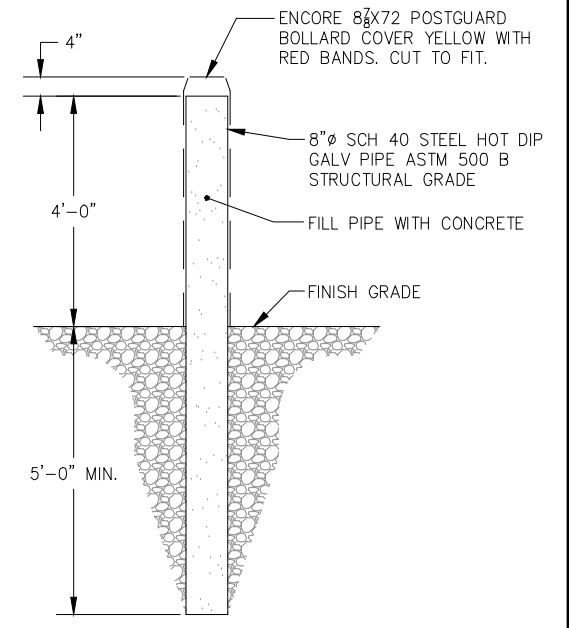
CONCRETE AREA DRAIN



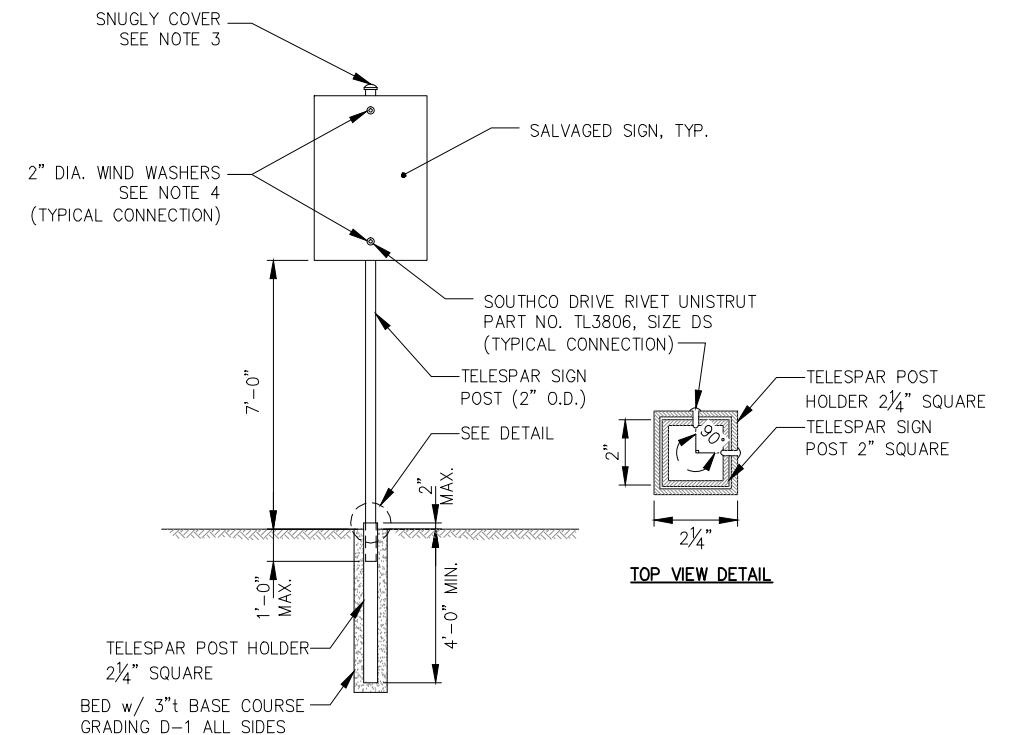
MAIN SWITCHBOARD CONCRETE PAD-SECTION



STORM SEWER TRENCH DETAIL



BOLLARD LOW TRAFFIC AREA



- NOTES:**
1. SIGN PANEL MATERIAL AND THICKNESS SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. SIGN SIZE AND PLACEMENT SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE ALASKA SUPPLEMENT (SEE LATEST EDITION.)
 2. SIGN POST SHALL BE INSERTED INTO HOLDER 1'-0".
 3. SNUGLY COVER TOP OF POST WITH EXTRUDED TELESPAR POST CAP.
 4. WIND WASHERS ARE REQUIRED ON FRONT SIDE OF SIGNS. THEY SHALL BE 2" DIA STAINLESS FENDER WASHERS OR APPROVED EQUAL AND MATCH THE COLOR OF THE SIGN.

SIGN POST DETAIL



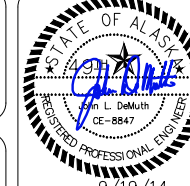
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REV.	DATE	DESCRIPTION	DWN.	CKD.

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DESIGN: SCS CHECKED: JLD
DRAWN: SCS APPROVED: CRS

SCALE:



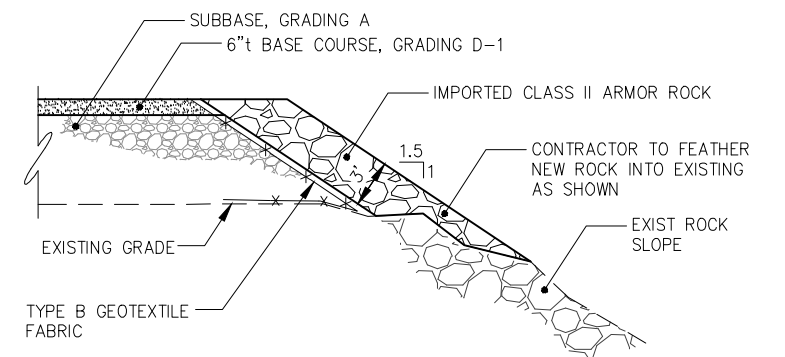
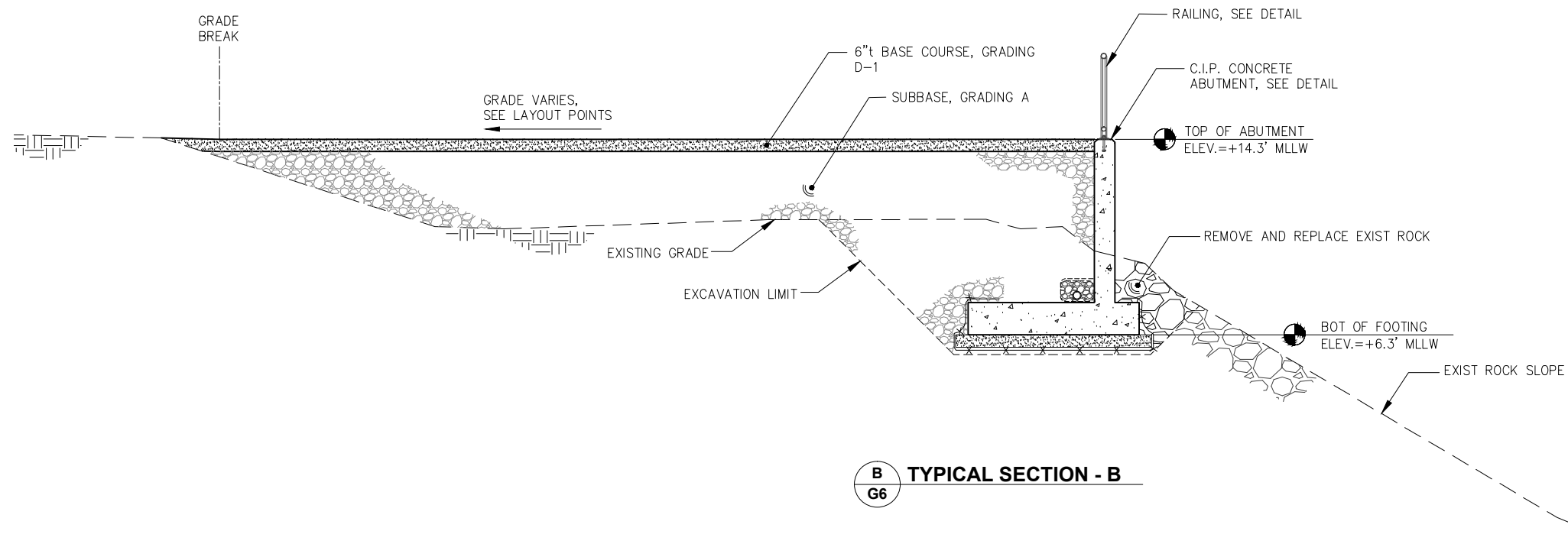
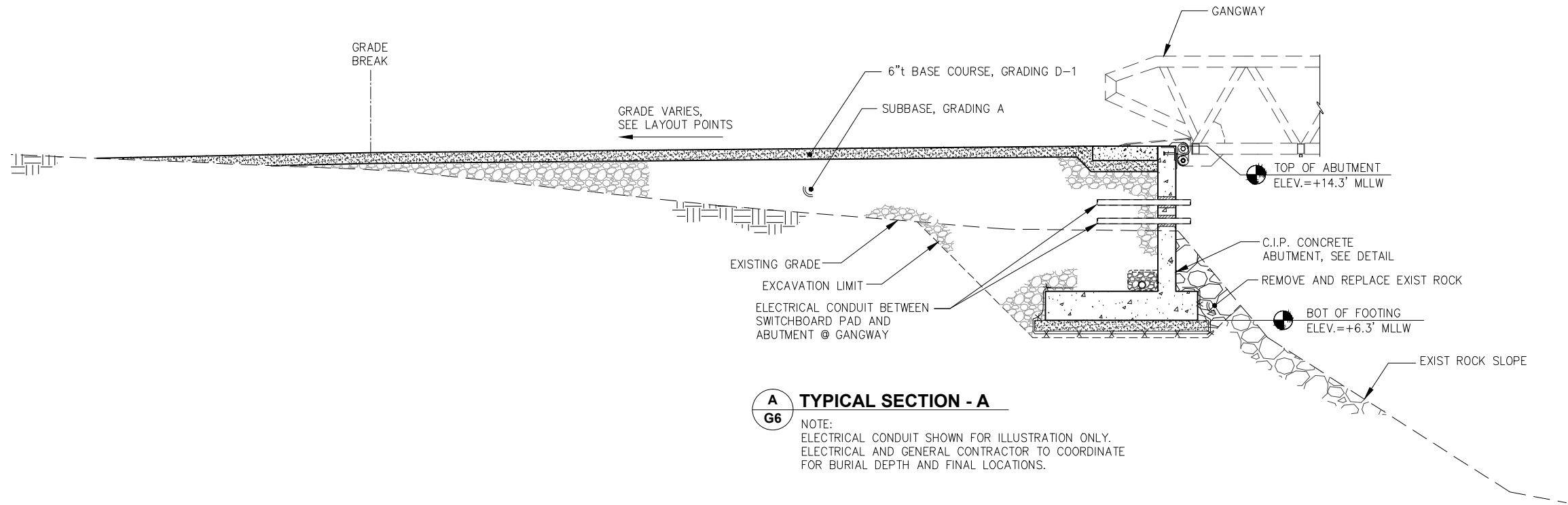
DATE: 9/19/14

**CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT**

SHEET TITLE:
UPLANDS DETAILS

PND PROJECT NO.: 132021

G8



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SCALE: SCALE IN FEET
0 5 10 FT.

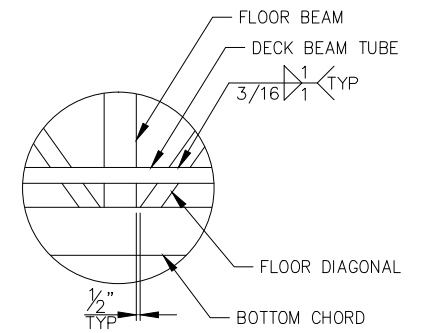
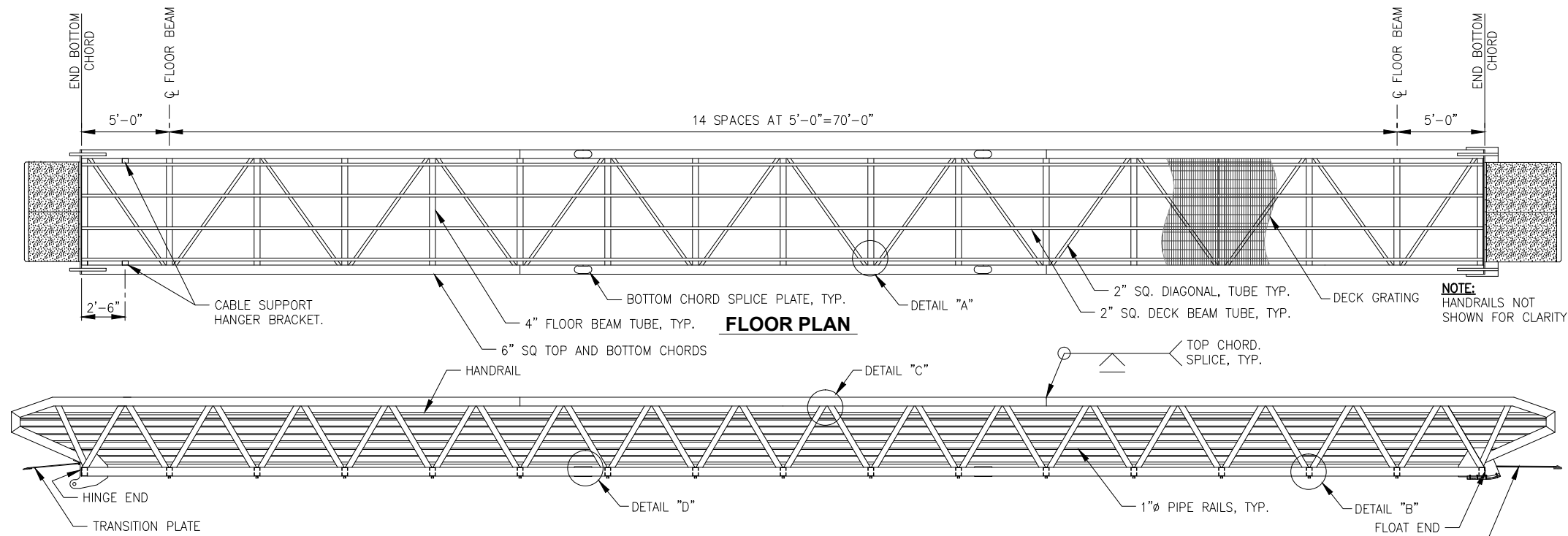


CITY OF UNALASKA, ALASKA
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C FLOAT REPLACEMENT

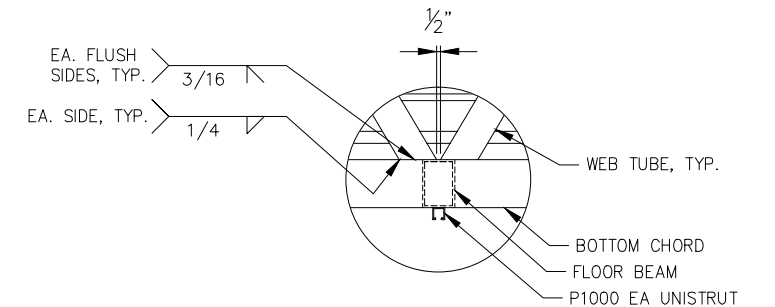
SHEET TITLE:
TYPICAL SECTIONS

PND PROJECT NO.: 132021

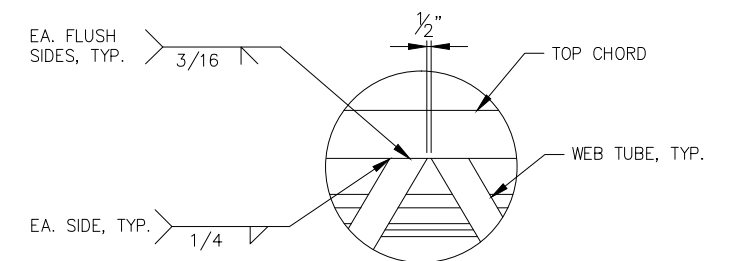
G9



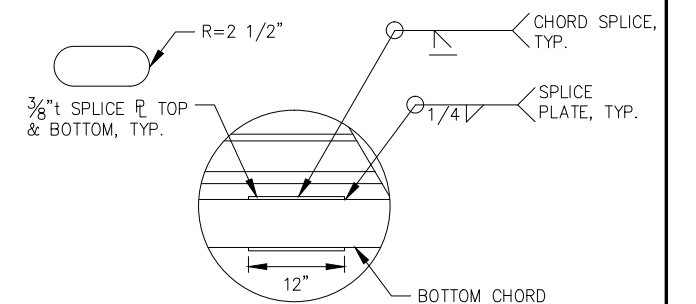
DETAIL "A"



DETAIL "B"



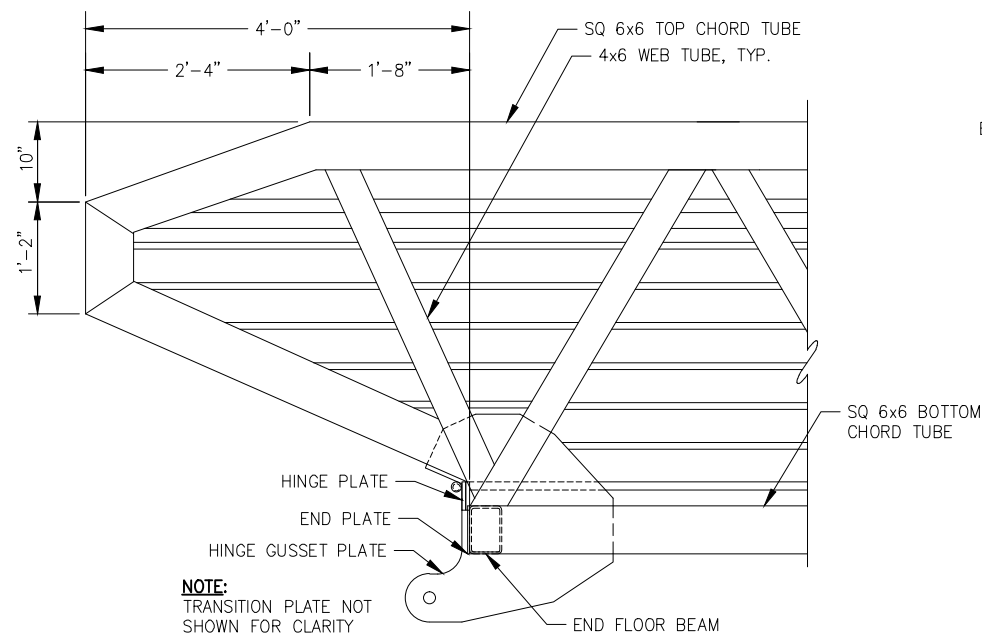
DETAIL "C"



DETAIL "D"

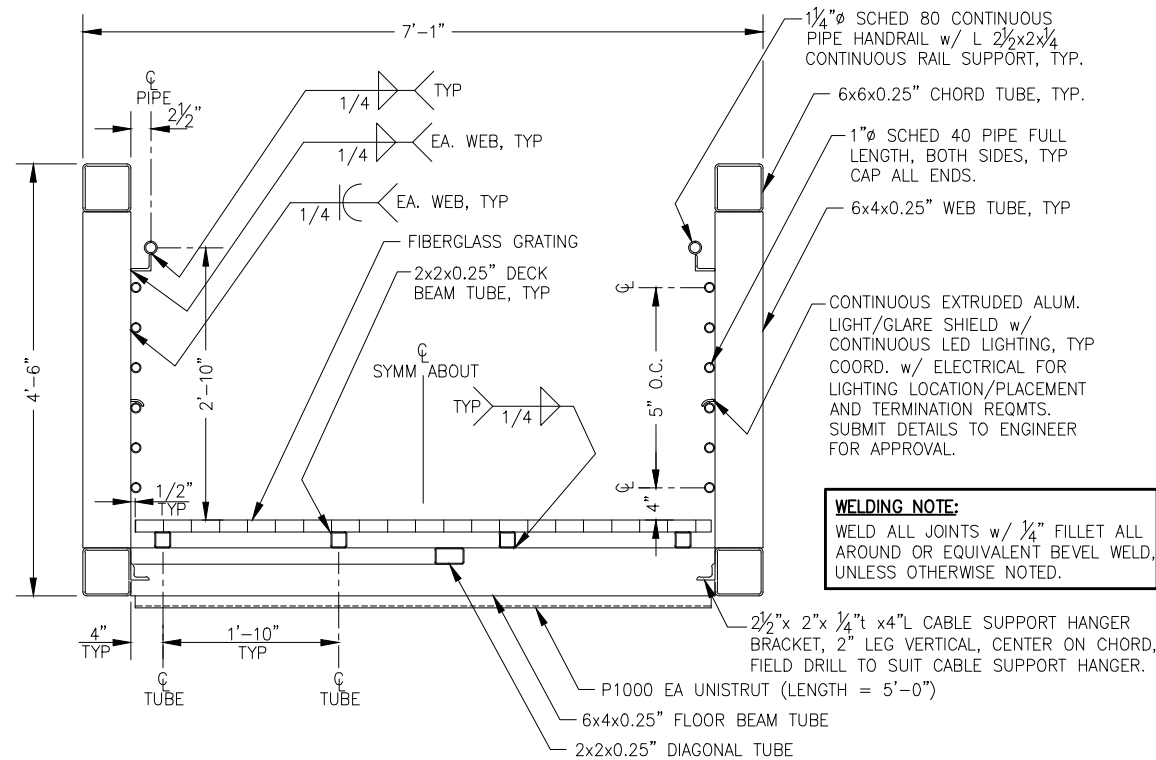
GENERAL NOTES:

1. NO TENSION SPLICES IN MIDDLE THIRD OF GANGWAY.
2. CHORD SPLICE LOCATIONS SHOWN FOR ILLUSTRATION ONLY. ACTUAL LOCATIONS SHALL BE SUBMITTED BY FABRICATOR FOR ENGINEER APPROVAL.
3. TOP AND BOTTOM CHORD SPLICES SHALL BE STAGGERED 5-FT MIN.
4. PROVIDE CAMBER OF 3" AT MID-SPAN.
5. ALL MATERIALS SHALL BE ALUMINUM UNLESS OTHERWISE NOTED.
6. PROVIDE WEEP HOLES AT DOWNHILL END OF ALL CHORD TUBES AND DECK BEAM TUBES. FABRICATOR SHALL SUBMIT HOLE LOCATIONS TO ENGINEER FOR APPROVAL.
7. CONTRACTOR MAY SUBMIT FOR ENGINEER'S APPROVAL VARIATIONS IN PRESENTED MEMBER SIZES AND CONFIGURATION. OVERALL DIMENSIONS SHALL REMAIN AS DEPICTED IN THESE DRAWINGS. CONTRACTOR SHALL SUBMIT A SIGNED AND STAMPED SET OF DRAWINGS AND CALCULATIONS BY A LICENSED P.E. IN THE STATE OF ALASKA FOR APPROVAL.
8. LIVE LOAD 80 PSF.



NOTE:
TRANSITION PLATE NOT SHOWN FOR CLARITY

END DETAIL



TYPICAL SECTION

REVISIONS

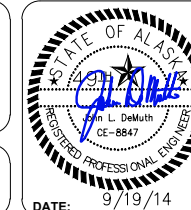
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SCALE:



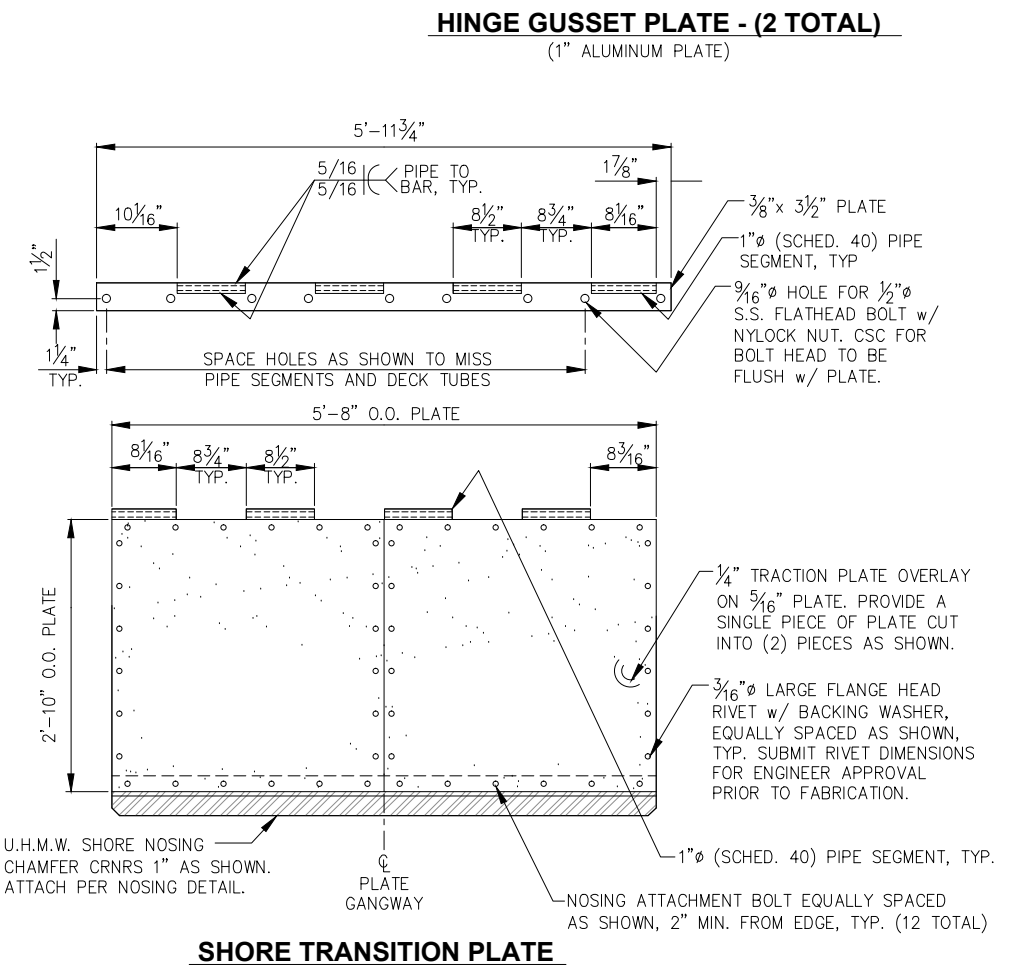
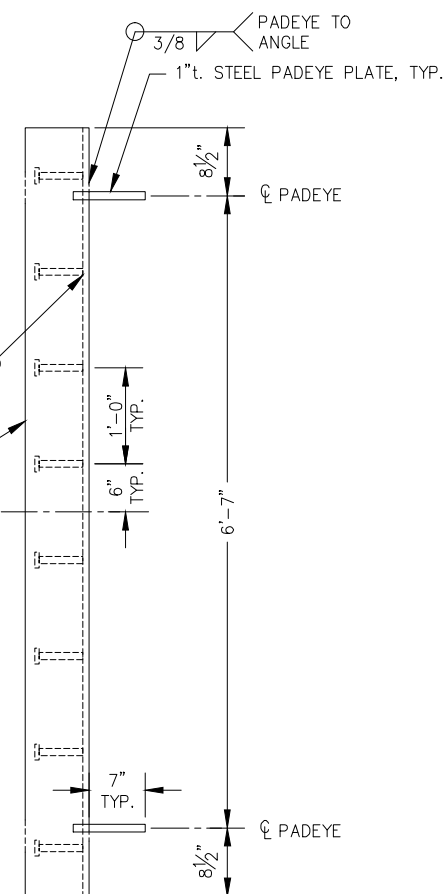
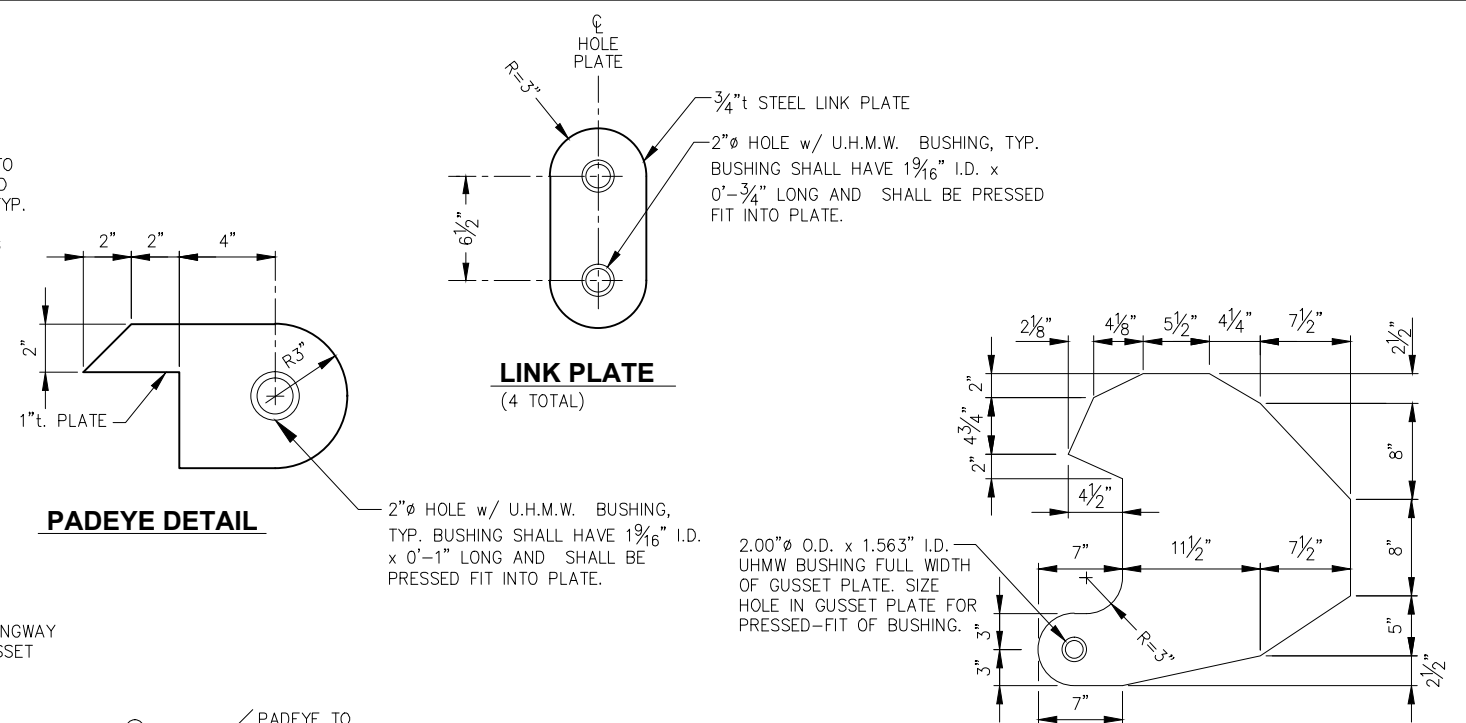
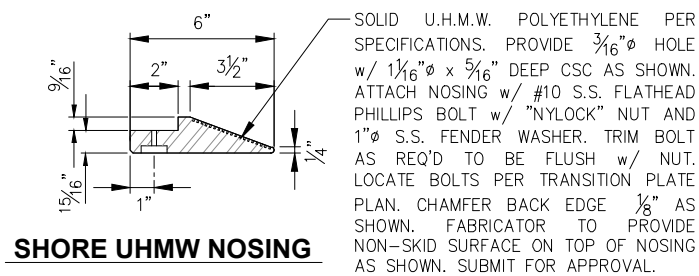
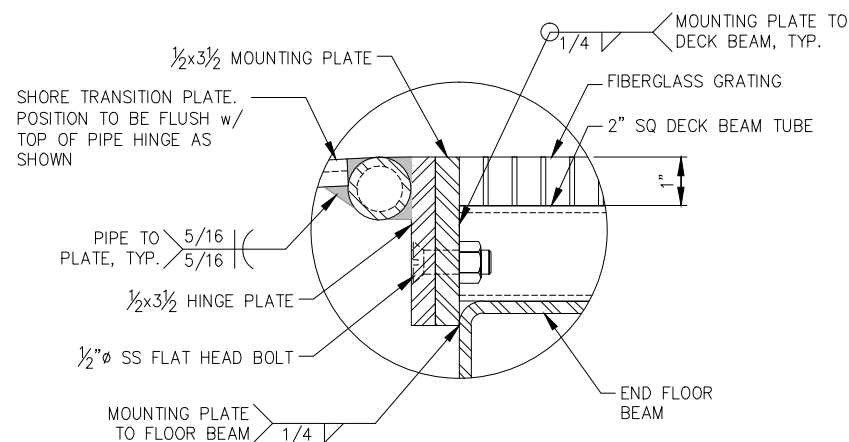
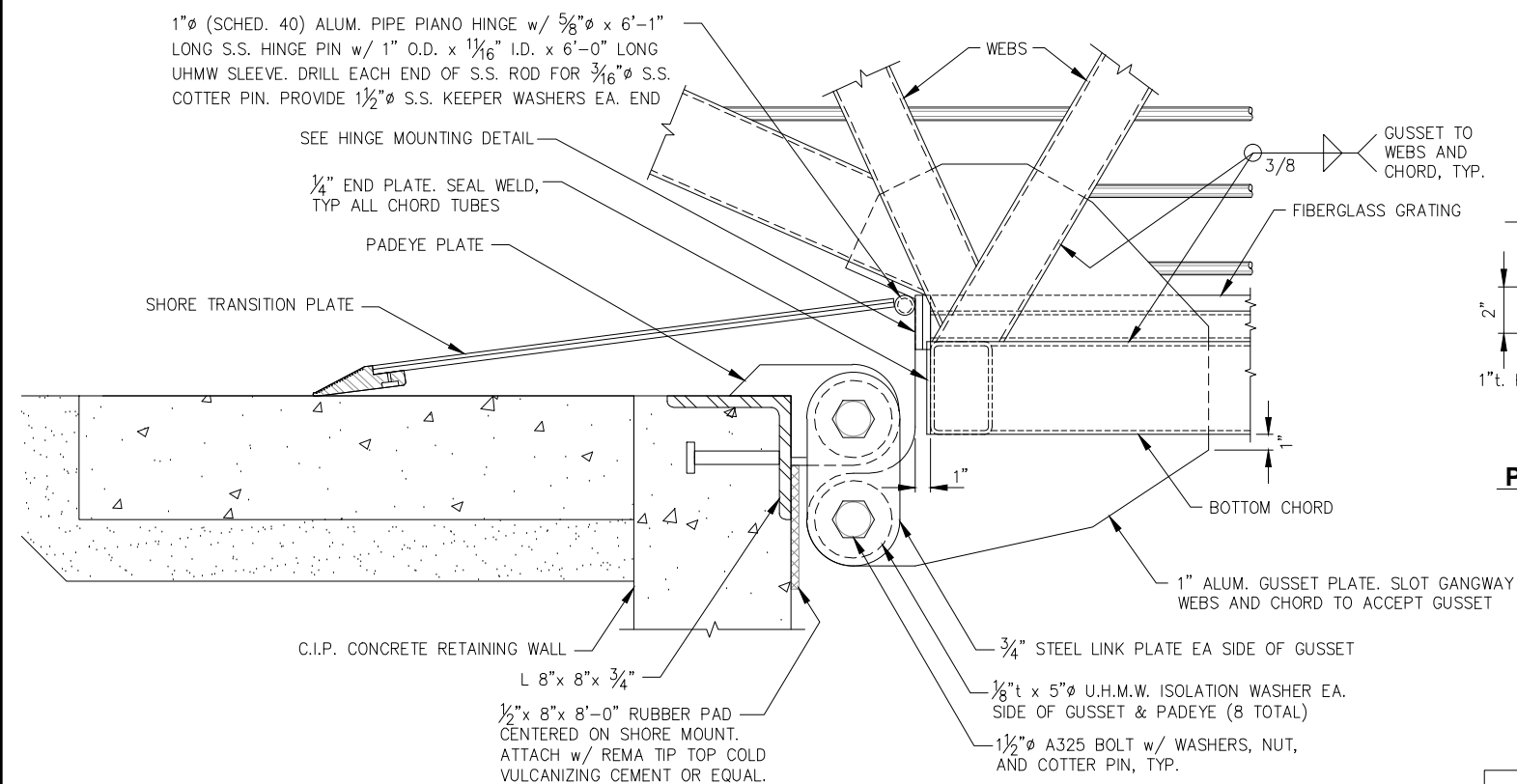
CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

SHEET TITLE:
GANGWAY PLAN, ELEVATION
AND TYPICAL SECTION

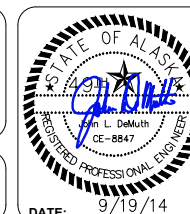
PND PROJECT NO.: 132021

GA1



[illegible]

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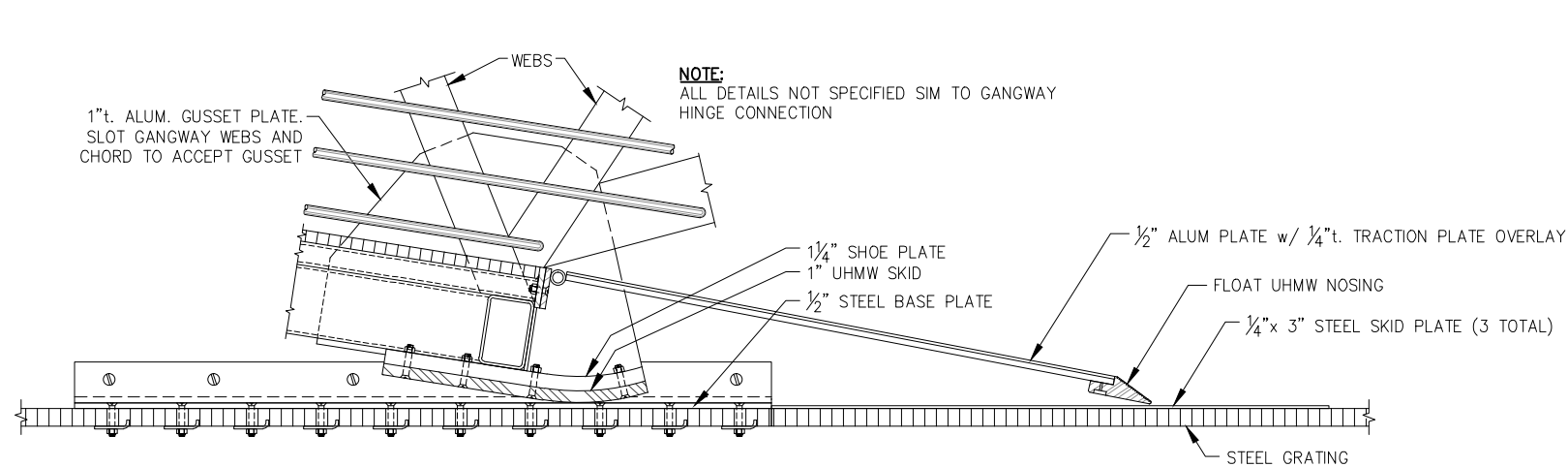
**CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT**

SHEET TITLE:

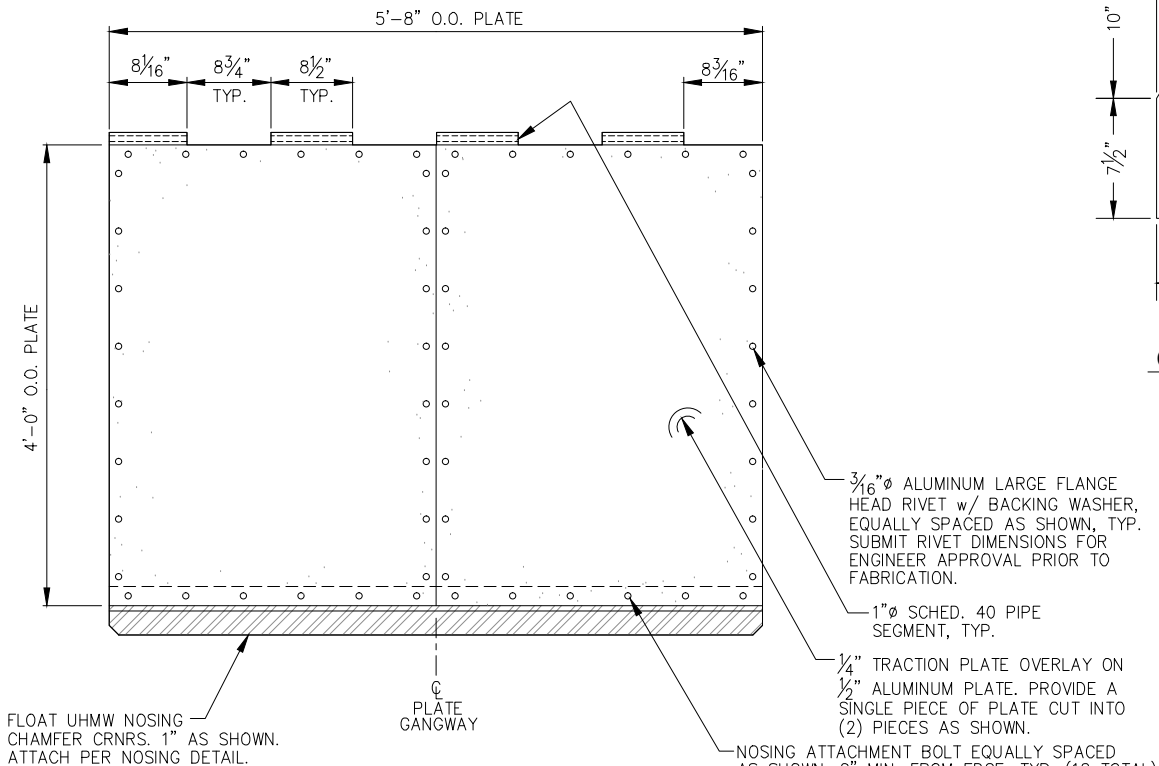
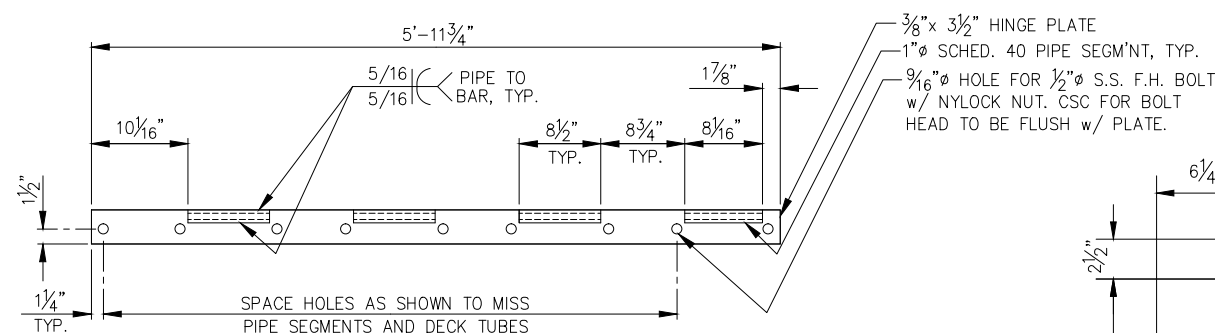
GANGWAY DETAILS

GA2

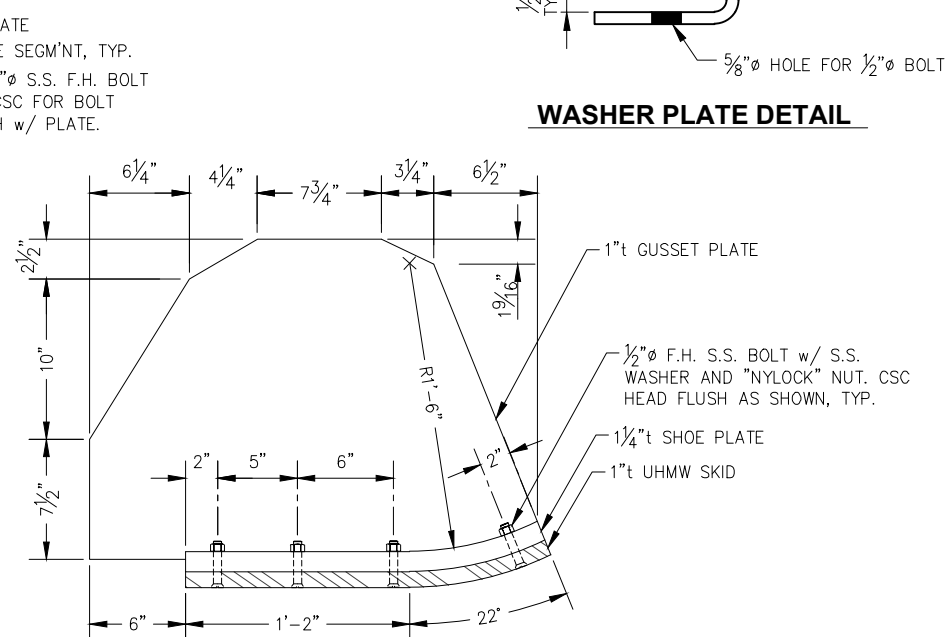
PND PROJECT NO.: 132021



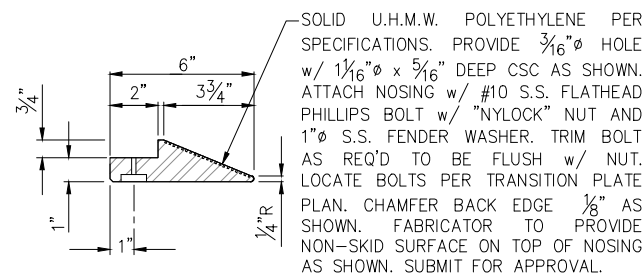
SKID ASSEMBLY/TRANSITION PLATE ELEVATION



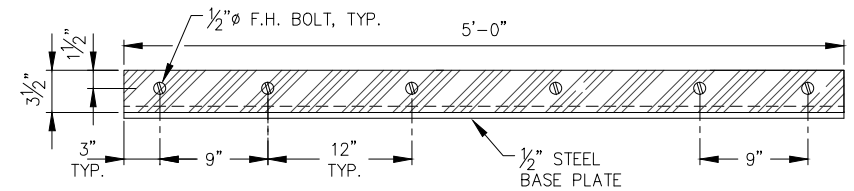
FLOAT TRANSITION PLATE



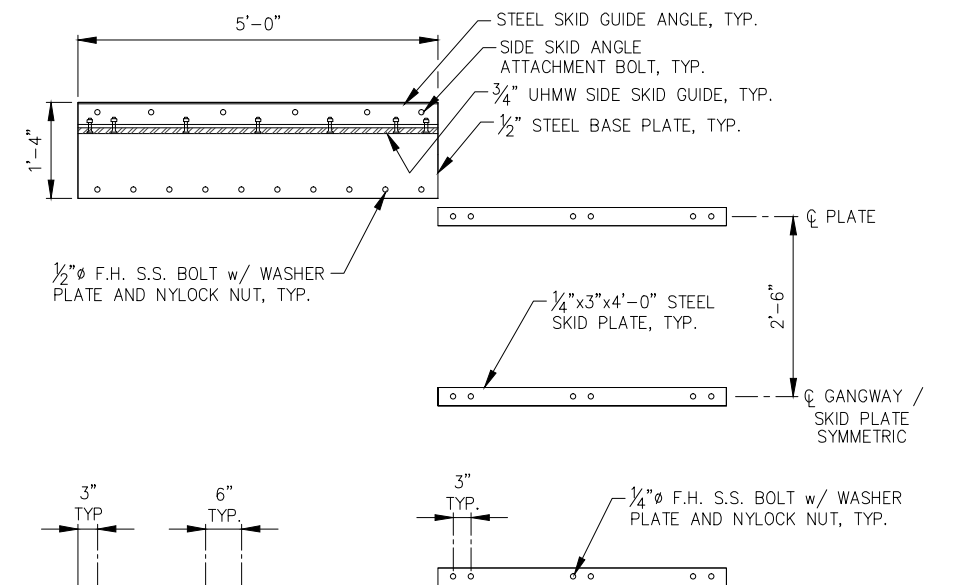
GUSSET SKID PLATE - (2 TOTAL)
(1" ALUMINUM PLATE)



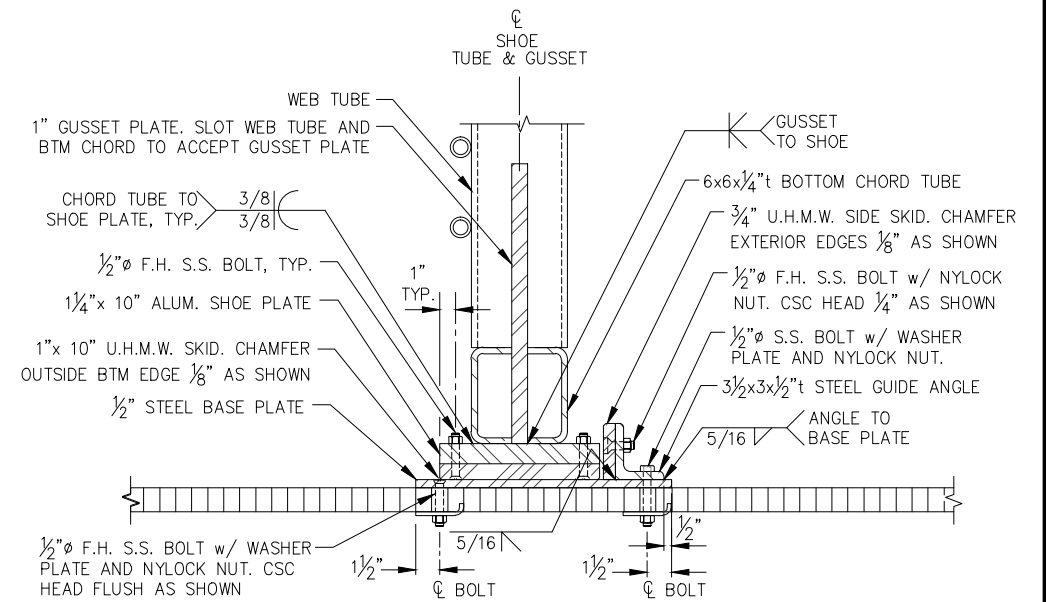
FLOAT UHMW NOSING



WASHER PLATE DETAIL



SKID BASE PLATE/GUIDE ANGLE ASSEMBLY - PLAN



SKID ASSEMBLY SECTION



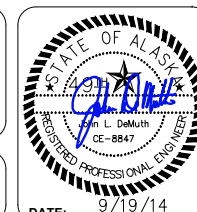
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SCALE:
AS SHOWN

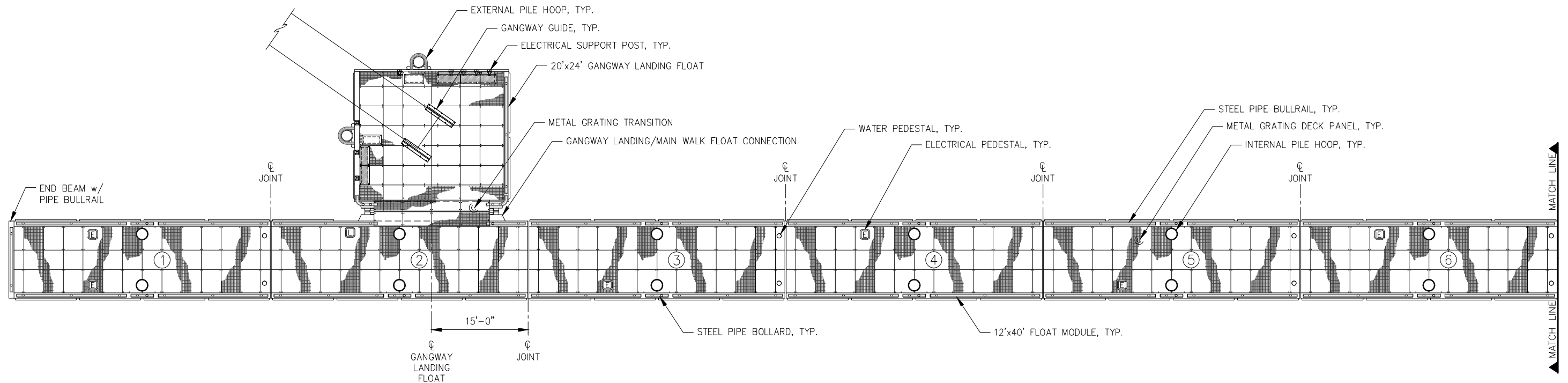


CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT






SHEET TITLE:
GANGWAY DETAILS

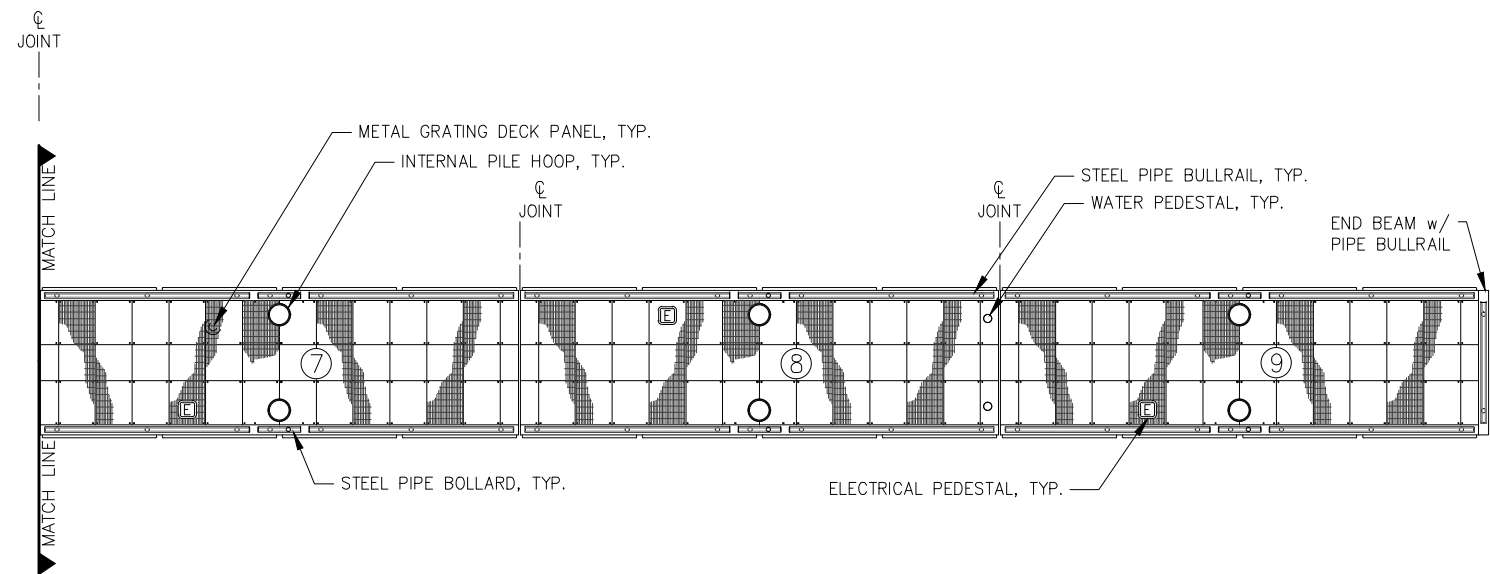
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PND PROJECT NO.: 132021



LEGEND:

-  = ELECTRICAL PEDESTAL
-  = LIGHT POLE
-  = WATER PEDESTAL
-  = ELECTRICAL SUPPORT POST
-  = FLOAT MODULE LABEL



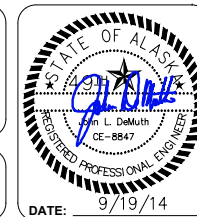
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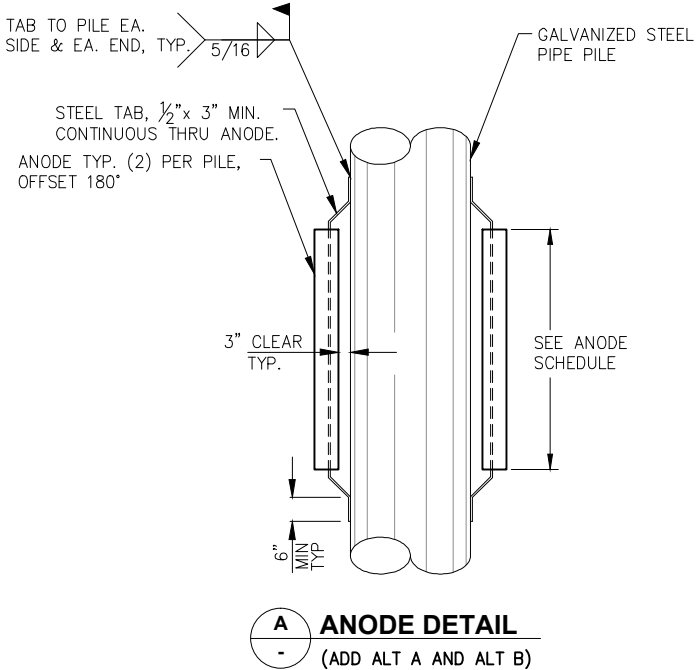
CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

SHEET TITLE:
OVERALL FLOAT PLAN

PND PROJECT NO.: 132021

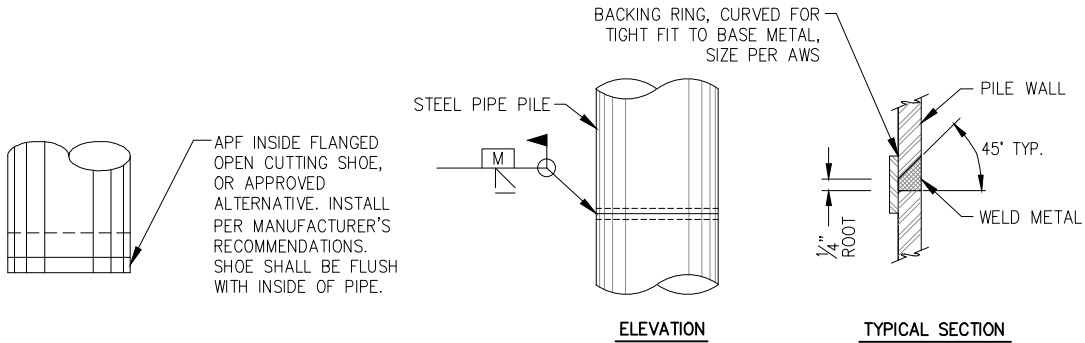
F1

FLOAT PILE SCHEDULE								
PILE #	LOCATION	M.L. EL	B.R. EL	SOCKET	TIP EL.	MIN. LENGTH	CONTIN.	SUPPLY
1	1A	-18	-32	15	-47	67	5	70
2	1B	-15	-32	15	-47	67	5	70
3	2A	-18	-32	15	-47	67	5	70
4	2B	-15	-32	15	-47	67	5	70
5	3A	-18	-32	15	-47	67	5	70
6	3B	-15	-32	15	-47	67	5	70
7	4A	-18	-34	15	-49	69	5	70
8	4B	-15	-34	15	-49	69	5	70
9	5A	-18	-38	10	-53	68	5	70
10	5B	-16	-38	10	-53	68	5	70
11	6A	-20	-44	10	-59	74	5	80
12	6B	-16	-44	10	-59	74	5	80
13	7A	-22	-48	10	-63	78	5	80
14	7B	-18	-48	10	-63	78	5	80
15	8A	-24	-52	5	-62	77	5	80
16	8B	-20	-52	5	-62	77	5	80
17	9A	-24	-52	5	-62	77	5	80
18	9B	-20	-52	5	-62	77	5	80
19	G1	-12	-25	15	-40	60	5	70
20	G2	-10	-25	15	-40	60	5	70



PILE ANODE SCHEDULE			
PILE DIAMETER	DIMENSIONS	NOMINAL WT.	QUANTITY
16"Ø	6"x6"x72"	260 LBS.	40
16"Ø	6"x8"x36"	180 LBS.	40

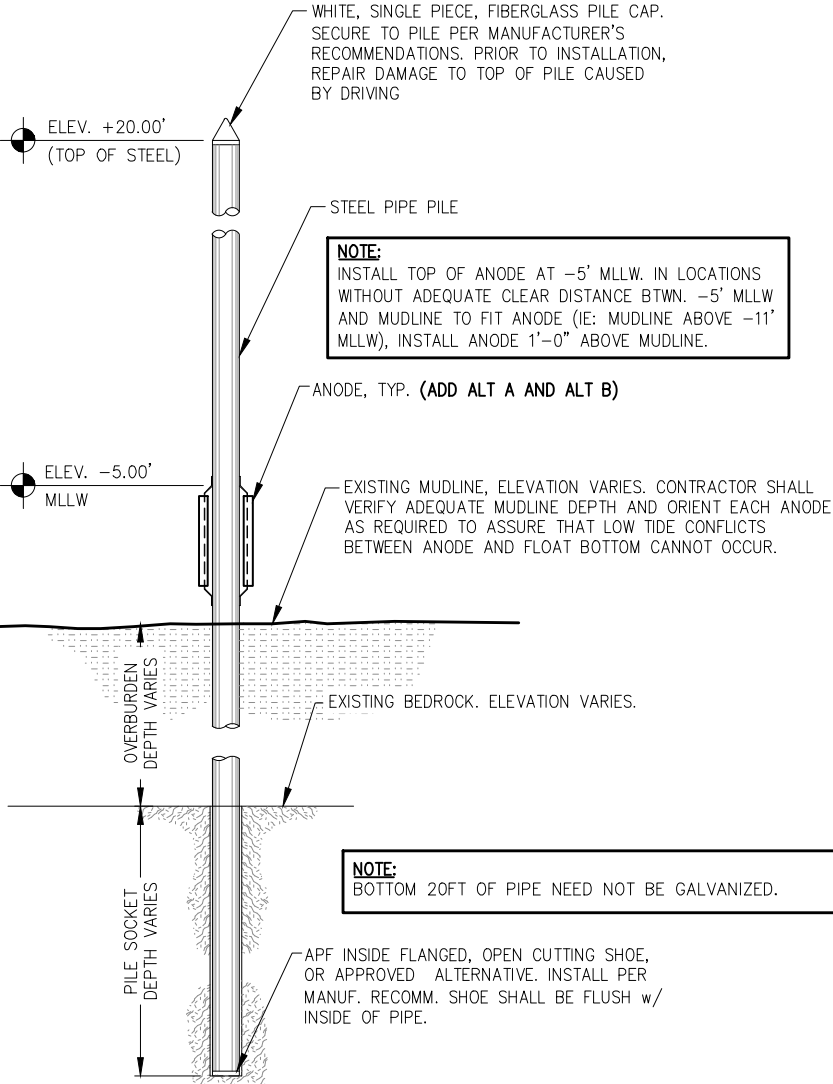
(ADD ALT B)
(ADD ALT A)
(OWNER SUPPLIED)



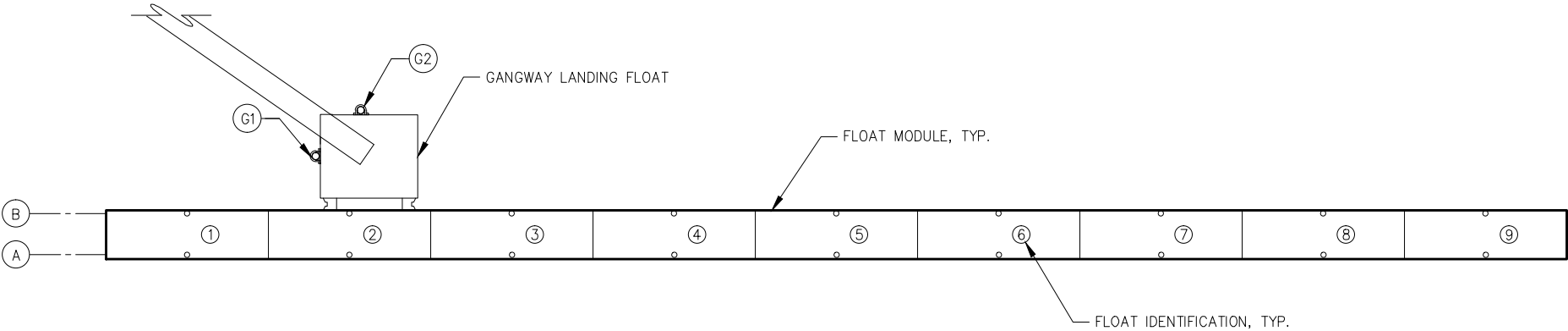
OPEN SHOE DETAIL

TYPICAL PILE SPLICE WELD

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



SOCKETED MOORING PILE



PILE PLAN

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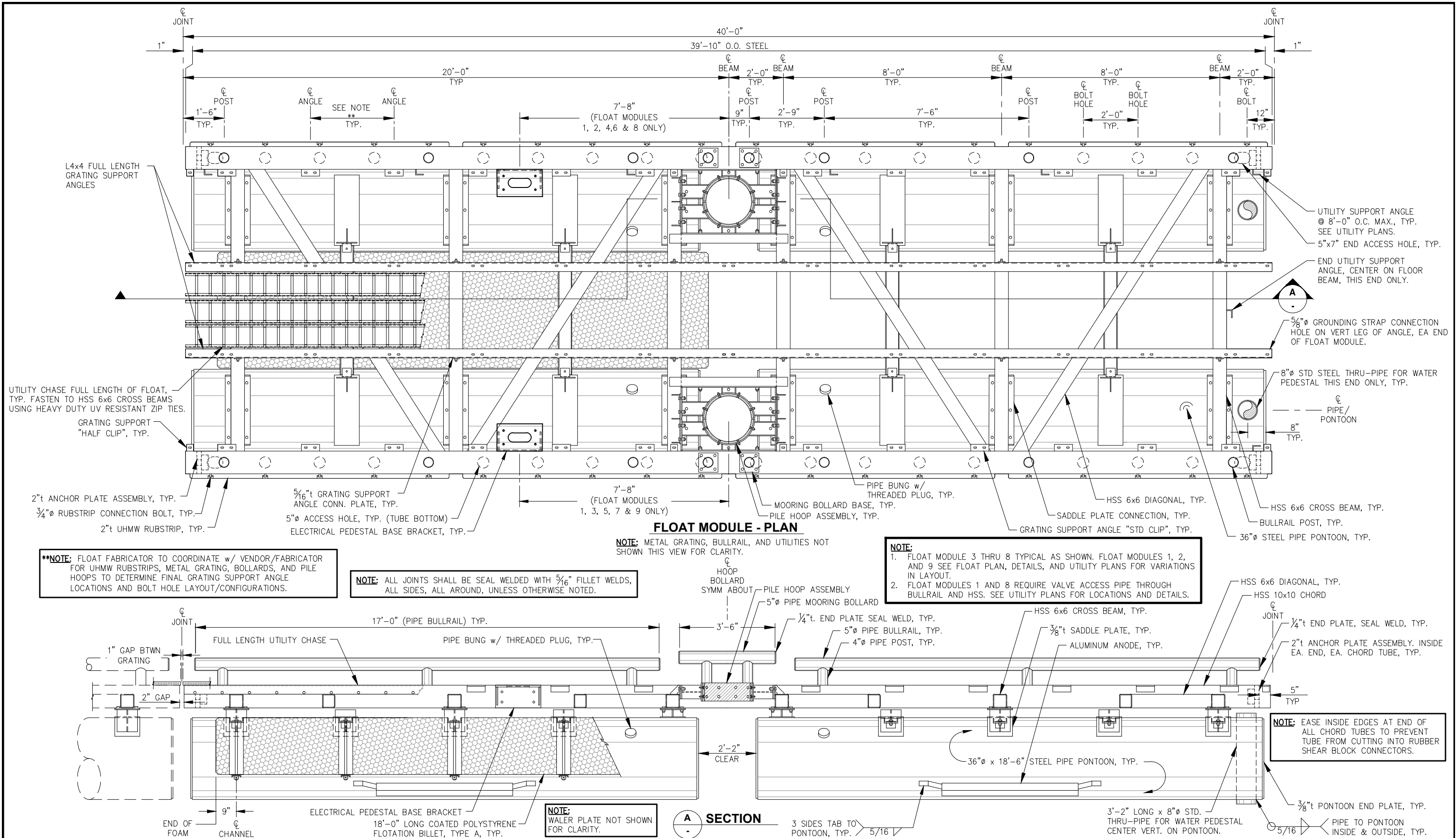
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CITY OF UNALASKA, ALASKA
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SHEET TITLE:
PILE SCHEDULE AND DETAILS

PND PROJECT NO.: 132021



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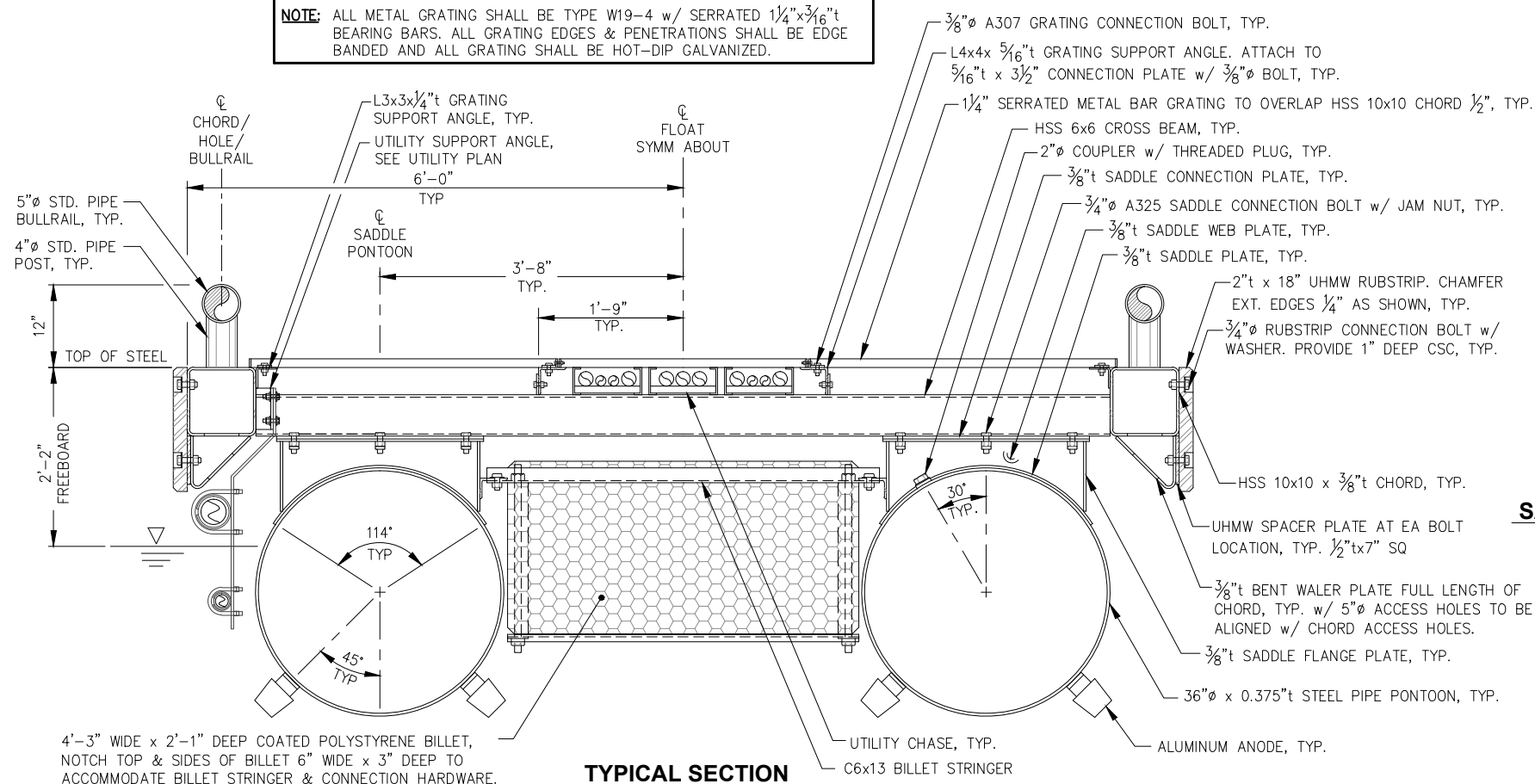
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SHEET TITLE:
FLOAT MODULE PLAN
AND SECTION

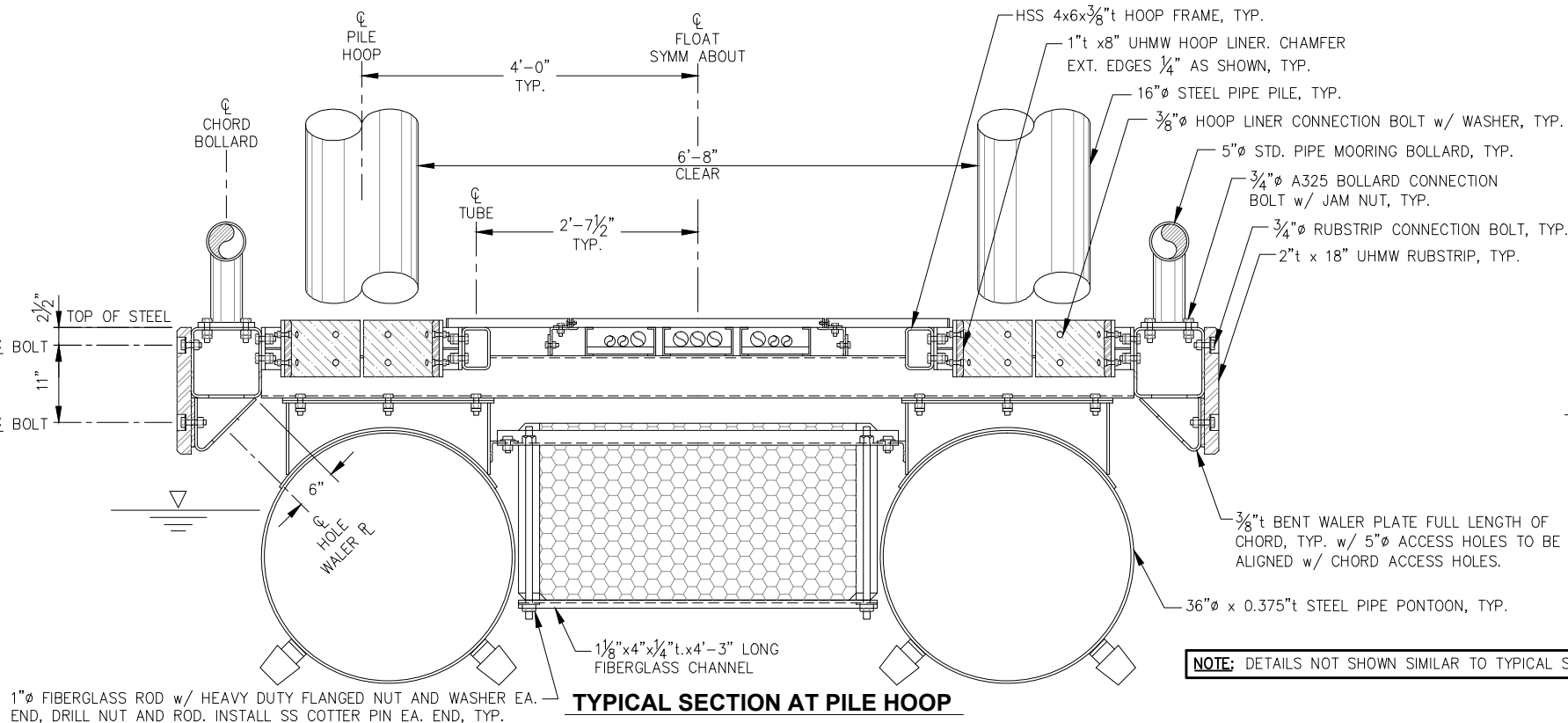
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F3

NOTE: ALL METAL GRATING SHALL BE TYPE W19-4 w/ SERRATED $1\frac{1}{4} \times \frac{3}{16}$ " t BEARING BARS. ALL GRATING EDGES & PENETRATIONS SHALL BE EDGE BANDED AND ALL GRATING SHALL BE HOT-DIP GALVANIZED.

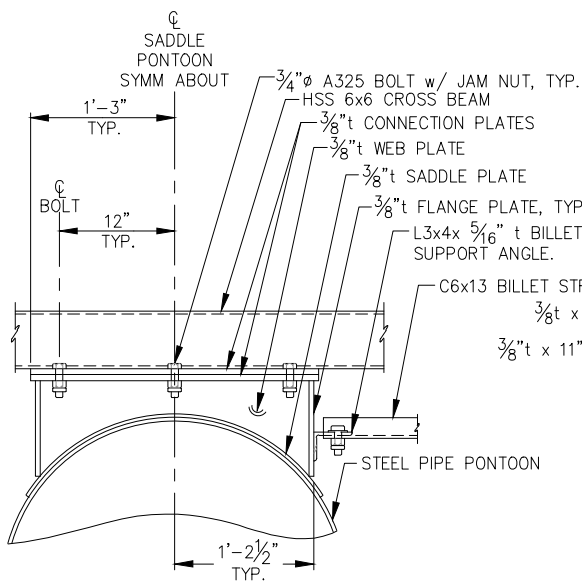


TYPICAL SECTION



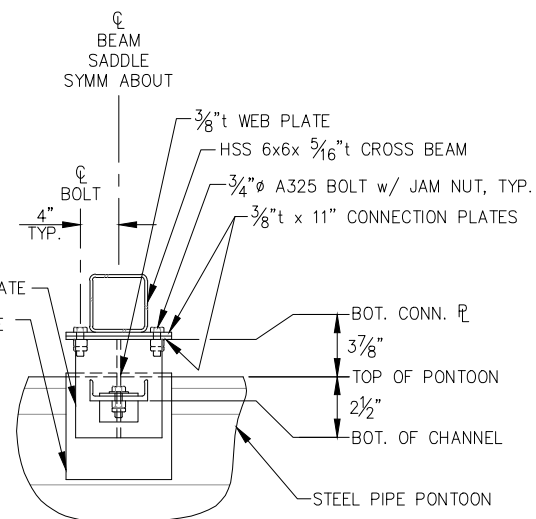
TYPICAL SECTION AT PILE HOOP

NOTE: DETAILS NOT SHOWN SIMILAR TO TYPICAL SECTION.

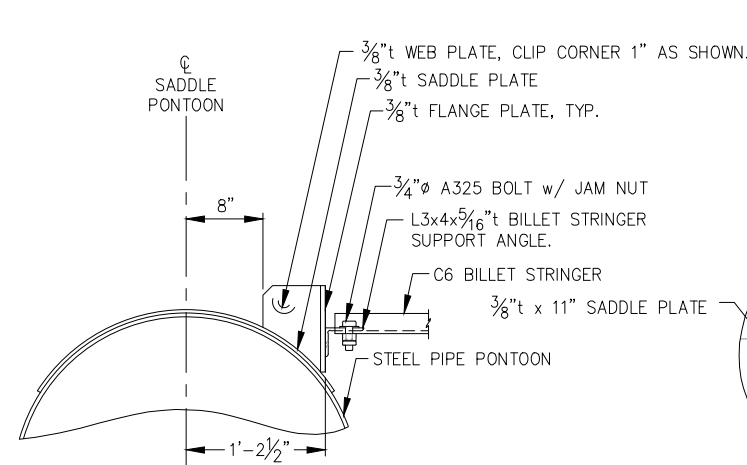


SADDLE & BILLET STR. SUPPORT (BELOW FLOOR BEAMS)

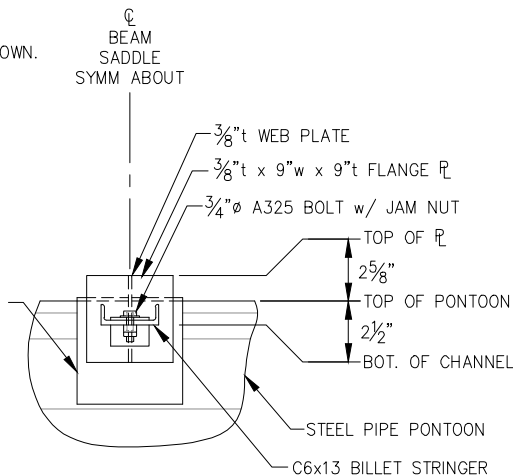
NOTE: ALL JOINTS SHALL BE SEAL WELDED WITH $\frac{5}{16}$ " FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.



SADDLE & BILLET STR. SUPPORT - ELEV. (BELOW FLOOR BEAMS)



BILLET STRINGER SUPPORT (BETWEEN FLOOR BEAMS)



BILLET STRINGER SUPPORT - ELEV. (BETWEEN FLOOR BEAMS)

FLOAT ANODE SCHEDULE

	DIMENSIONS	NOMINAL WT.	QUANTITY
HEADWALK	4x4x72	115#	72
GANGWAY LANDING FLOAT	4x4x72	115#	8



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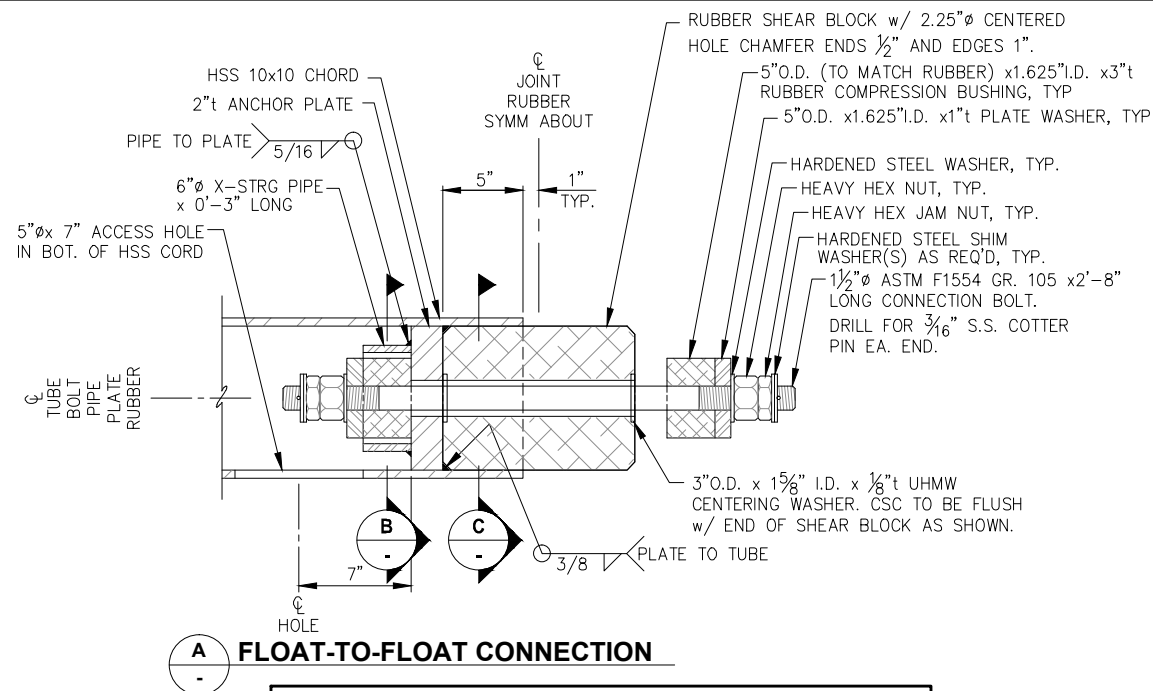


**CITY OF UNALASKA, ALASKA
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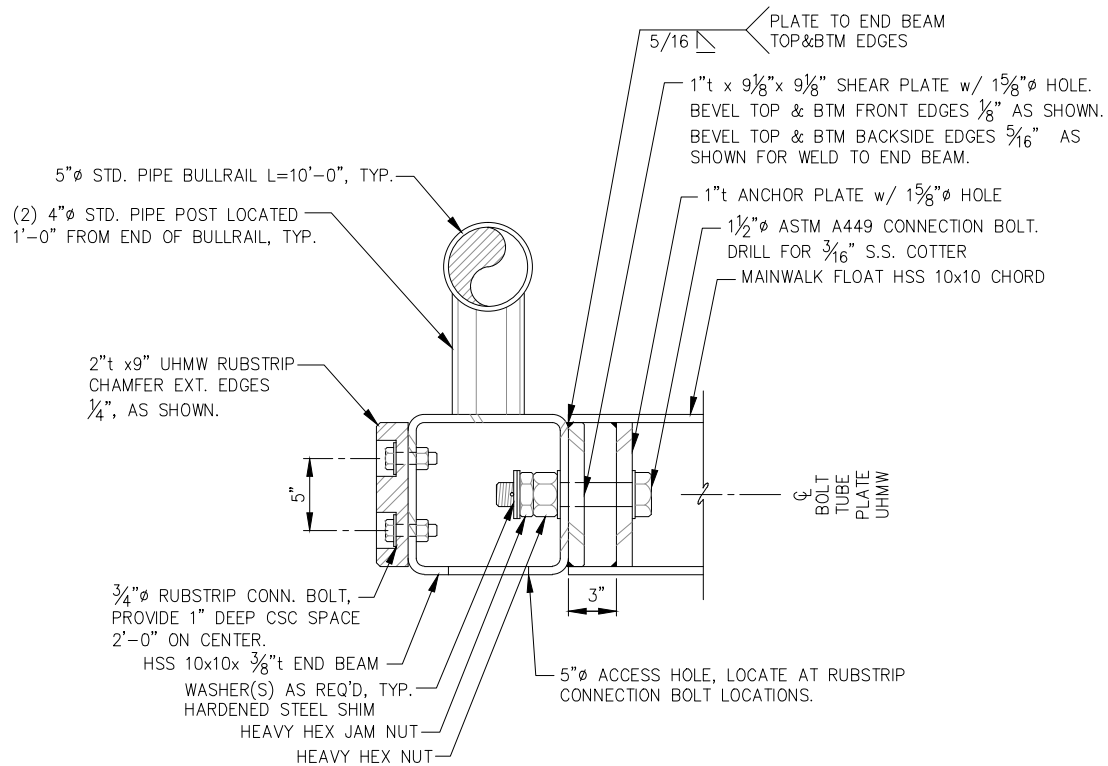
SHEET TITLE:
**FLOAT MODULE TYPICAL
SECTIONS AND DETAILS**

PND PROJECT NO.: 132021

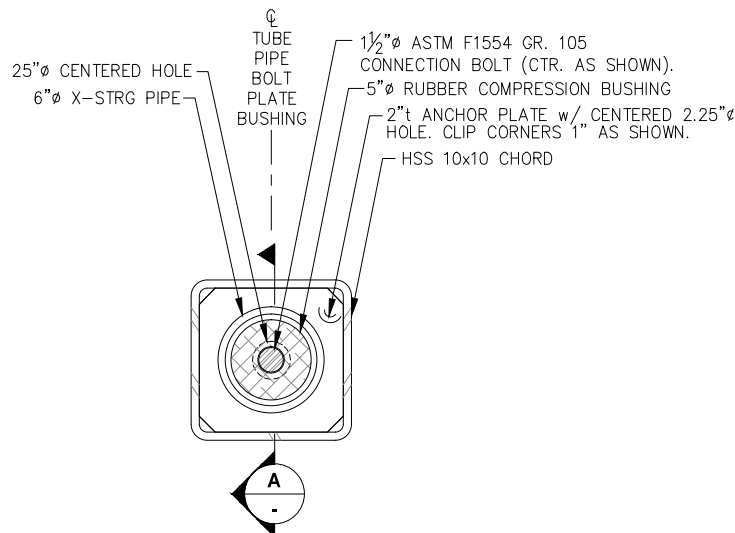
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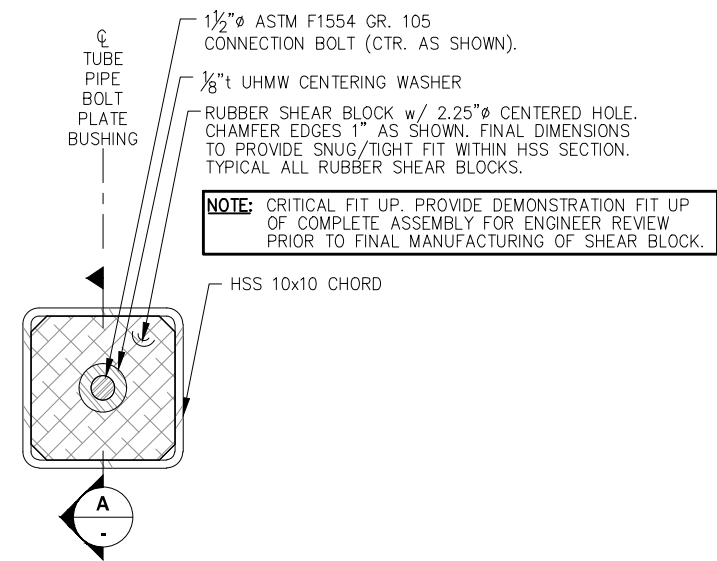
- NOTES:**
1. CONNECTION BOLTS SHALL HAVE CHAMFERED ENDS.
 2. HEAVY HEX NUTS SHALL BE TIGHTENED SUFFICIENTLY TO SLIGHTLY COMPRESS THE RUBBER COMPRESSION BUSHING.
 3. HEAVY HEX JAM NUTS SHALL BE TIGHT AGAINST THE HEAVY HEX NUTS AND SHIM WASHERS INSTALLED AS REQ'D TO ACHIEVE TIGHT FIT AGAINST COTTER PINS.
 4. CONNECTION BOLT SHALL BE CENTERED IN RUBBER SHEAR BLOCK AS SHOWN.



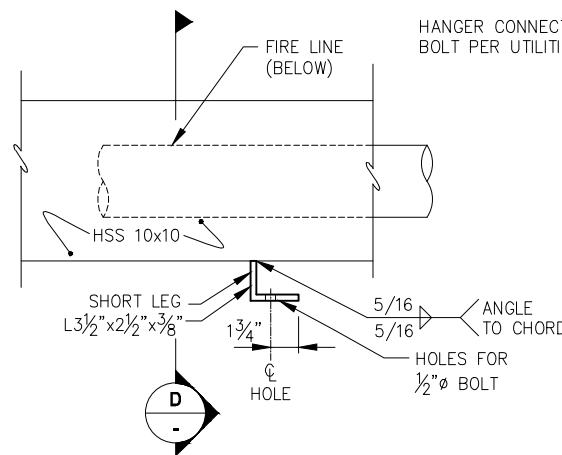
END BEAM CONNECTION
(EACH END OF HEADWALK, (2) TOTAL)



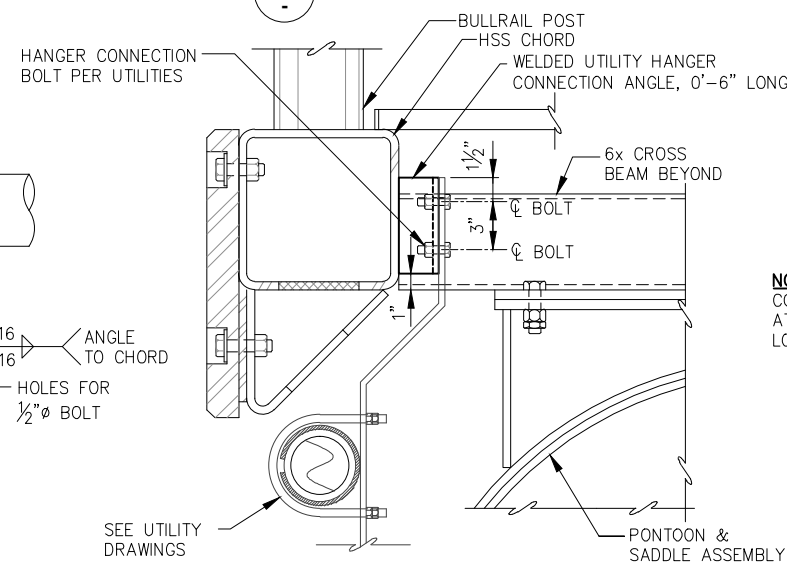
SECTION - ANCHOR PLATE



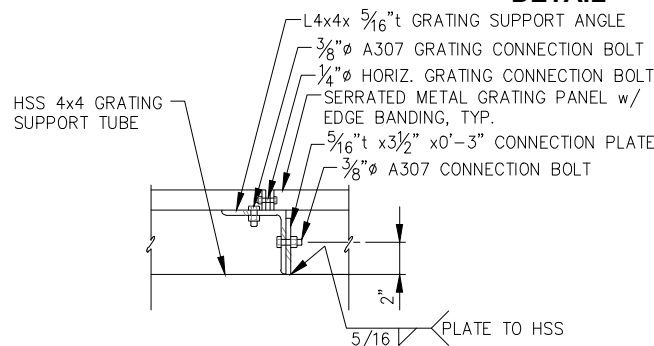
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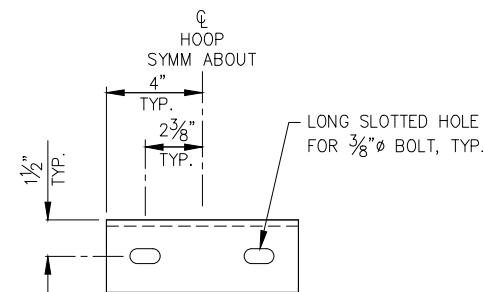
UTILITY HANGER CONNECTION ANGLE DETAIL



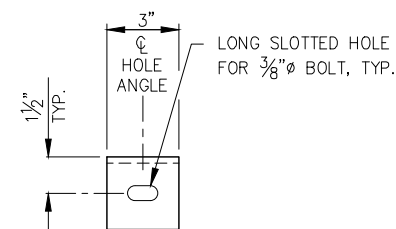
UTILITY HANGER CONNECTION ANGLE ELEVATION



GRATING SUPPORT ANGLE



GRATING SUPPORT ANGLE - PLAN
"STANDARD CLIP" (L3x3x1/4"t x 0'-8" LONG)



GRATING SUPPORT ANGLE - PLAN
"HALF CLIP" (L3x3x1/4"t x 0'-3" LONG)



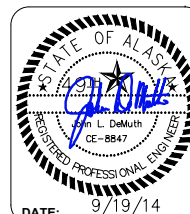
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REV.	DATE	DESCRIPTION	DWN.	CKD.

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DRAWN: WRB
CHECKED: JLD
APPROVED: CRS

SCALE:
AS SHOWN

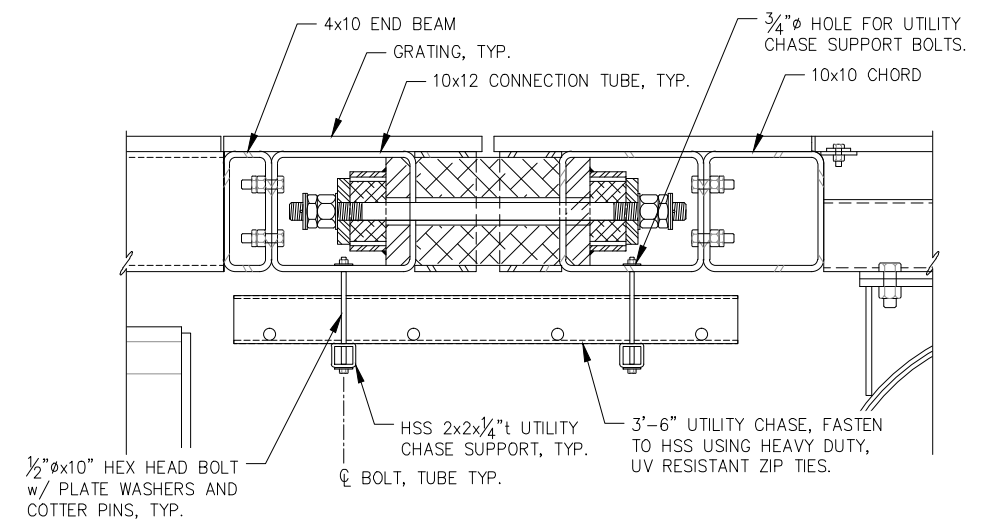
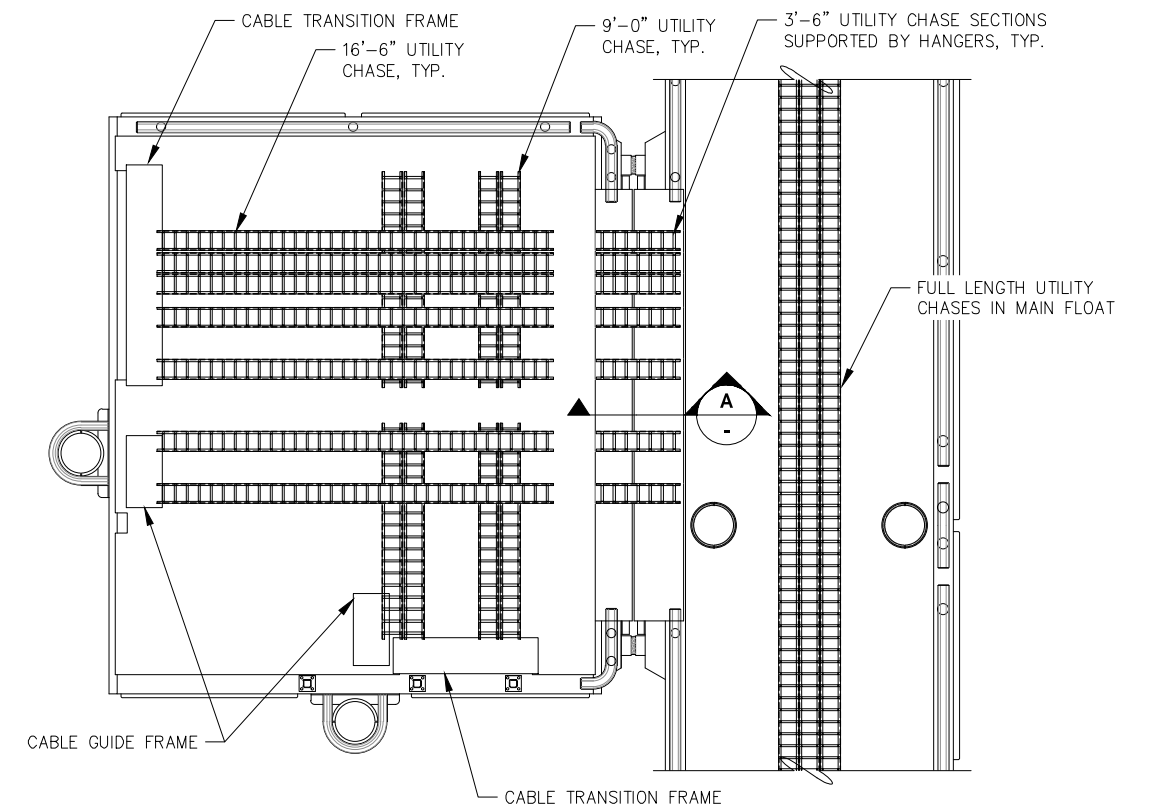
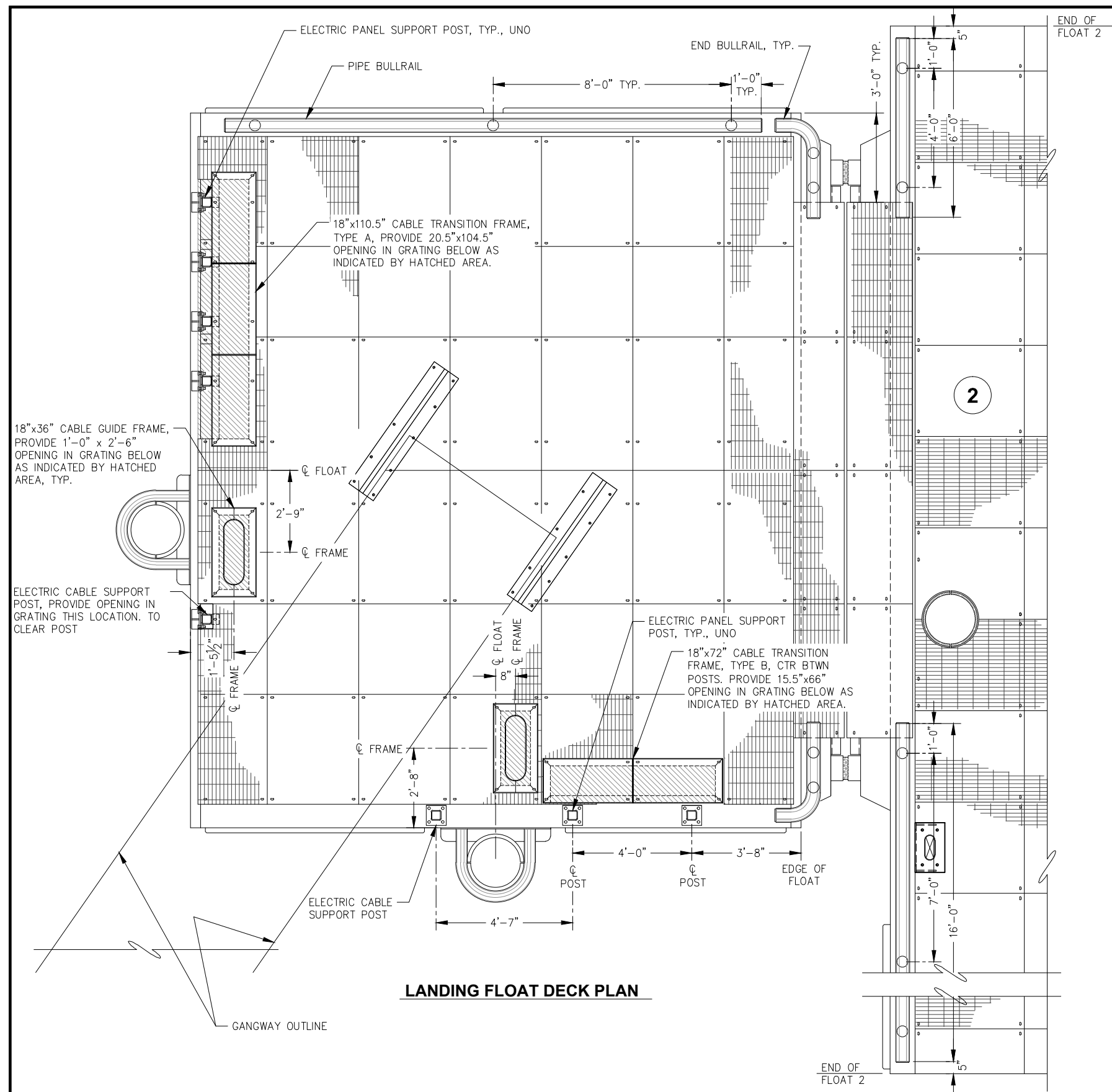


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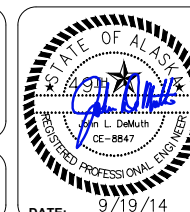
SHEET TITLE:
FLOAT MODULE DETAILS

PND PROJECT NO.: 132021

F5

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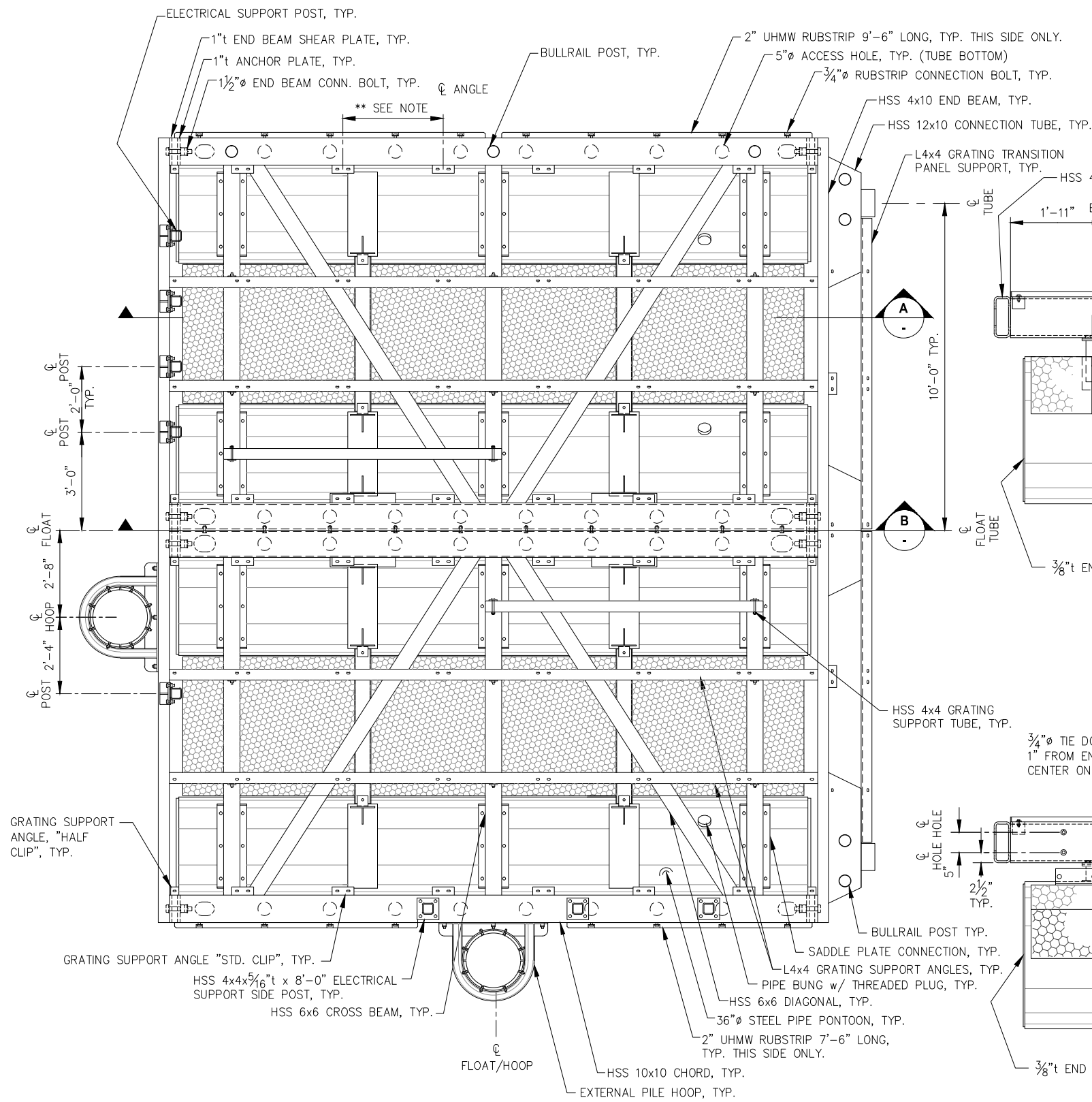
SHEET TITLE:
**GANGWAY LANDING FLOAT
DECK PLAN**

PND PROJECT NO.: 132021

=6

DESIGN: MS CHECKED: JLD
DRAWN: WRB APPROVED: CRS

SCALE:	AS SHOWN
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GANGWAY LANDING FLOAT - PLAN

NOTE: UTILITIES NOT SHOWN THIS VIEW FOR CLARITY.
LANDING FLOAT/MAINWALK FLOAT GRATING TRANSITION PANEL NOT SHOWN.
DETAILS NOT SHOWN SIMILAR TO MAINWALK FLOAT MODULES.

****NOTE:** FLOAT FABRICATOR TO COORDINATE w/ VENDOR/FABRICATOR FOR UHMW RUBSTRIPS, METAL GRATING, BOLLARDS, AND PILE HOOPS TO DETERMINE FINAL GRATING SUPPORT ANGLE LOCATIONS AND BOLT HOLE LAYOUT/CONFIGURATIONS.

A GANGWAY LANDING - SECTION

NOTE: NOT ALL ELECTRICAL UTILITY CHASES AND SUPPORT POSTS SHOWN IN THIS VIEW FOR CLARITY. BULLRAIL NOT SHOWN FOR CLARITY.

B GANGWAY LANDING - SECTION

NOTE: UTILITIES NOT SHOWN THIS VIEW FOR CLARITY.

NOTE: SECURE BILLET AND UTILITY CHASE w/ HEAVY DUTY UV RESISTANT ZIP TIES OR OTHER STRAPPING TO PREVENT MOVEMENT, TYP.



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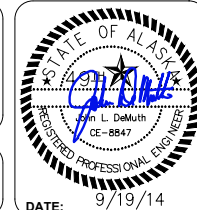
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SCALE:
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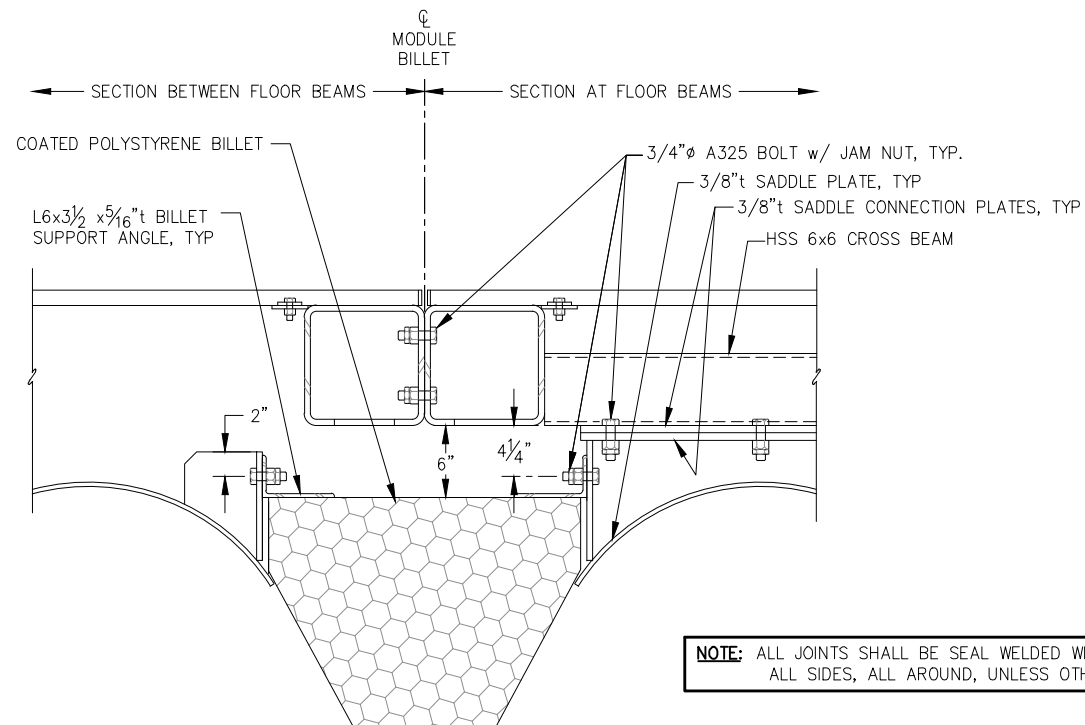
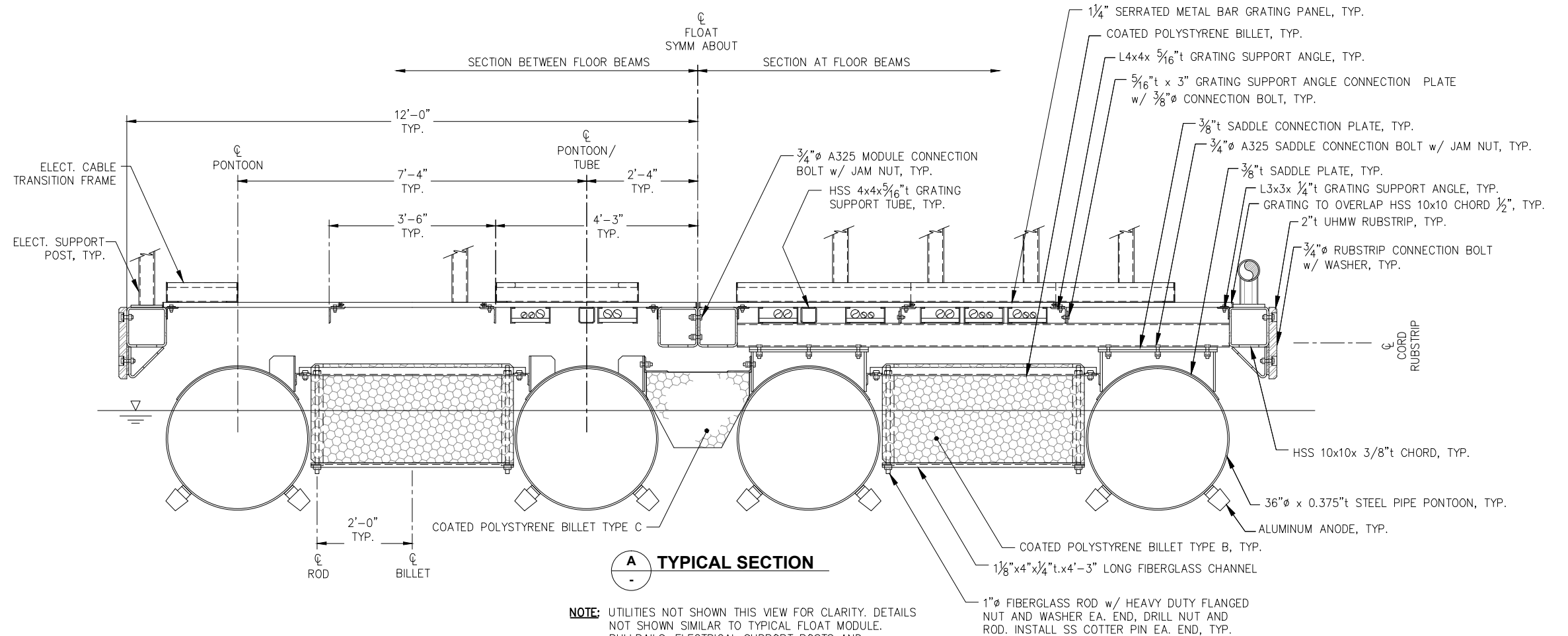
DATE: 9/19/14

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C FLOAT REPLACEMENT

SHEET TITLE:
GANGWAY LANDING FLOAT
PLAN AND SECTION

PND PROJECT NO.: 132021

F7



TYPE C BILLET SUPPORTS
(PONTONS NOT SHOWN)

NOTE: INSTALL LEVELING FLOTATION BILLETS AS REQ'D AFTER UTILITY INSTALLATION IS COMPLETE, AS DIRECTED BY ENGINEERS.

NOTE: FLOAT FABRICATOR TO COORDINATE w/ VENDOR/FABRICATOR FOR UHMW RUBSTRIPS, METAL GRATING, BOLLARDS, AND PILE HOOPS TO DETERMINE FINAL GRATING SUPPORT ANGLE LOCATIONS AND BOLT HOLE LAYOUT/CONFIGURATIONS.



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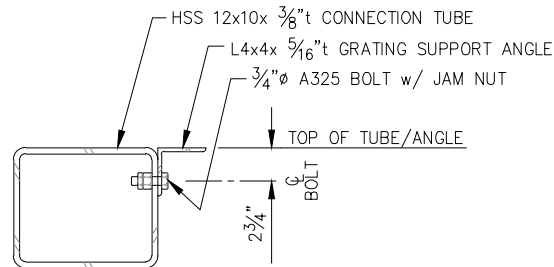
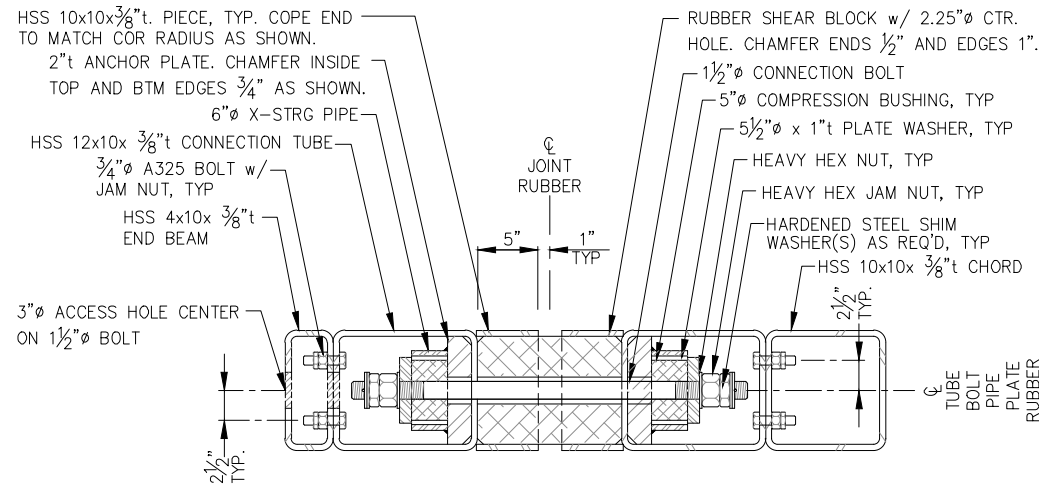
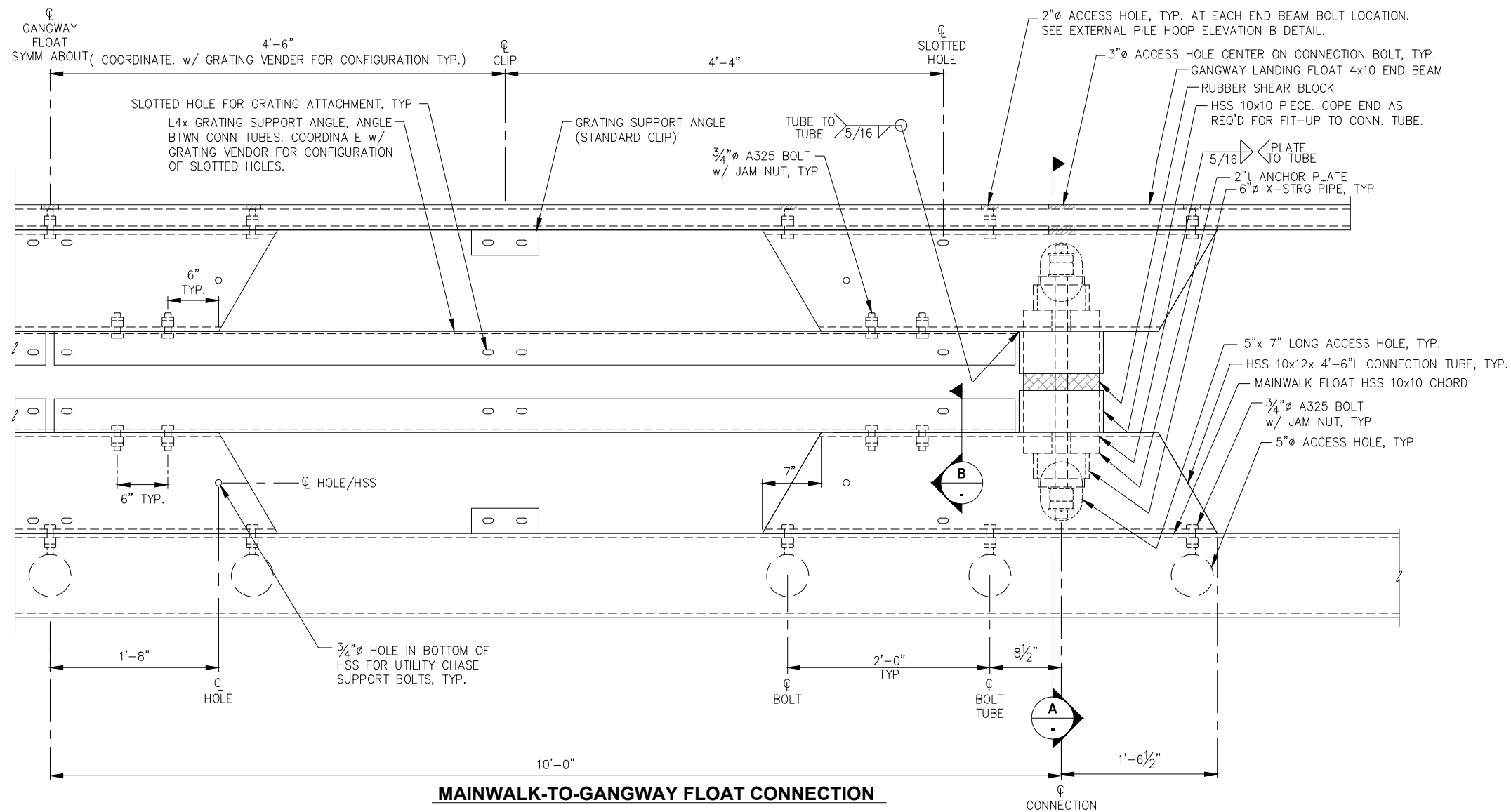
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SHEET TITLE:
GANGWAY LANDING FLOAT
TYPICAL SECTION

PND PROJECT NO.: 132021

F8

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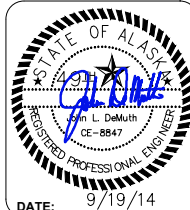
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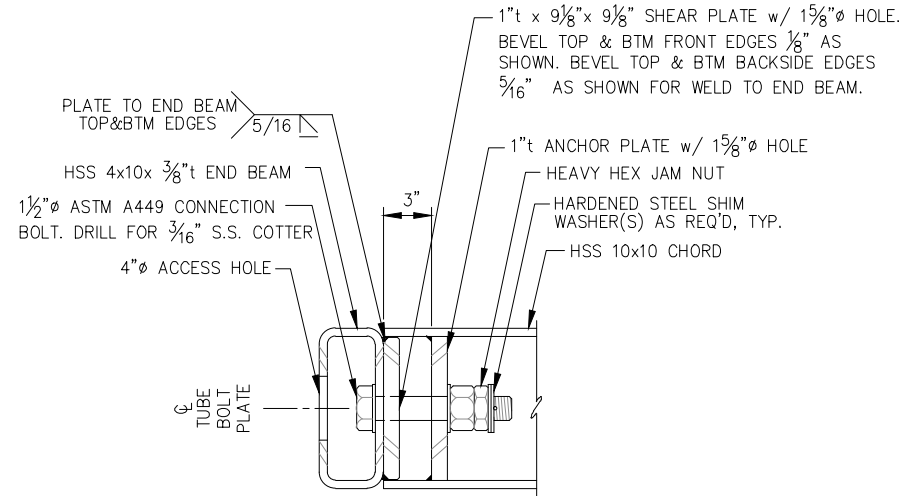


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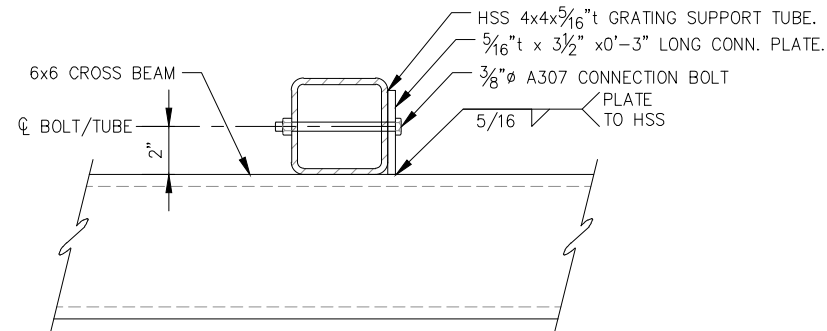
SHEET TITLE:
GANGWAY LANDING FLOAT
CONNECTION DETAILS

PND PROJECT NO.: 132021

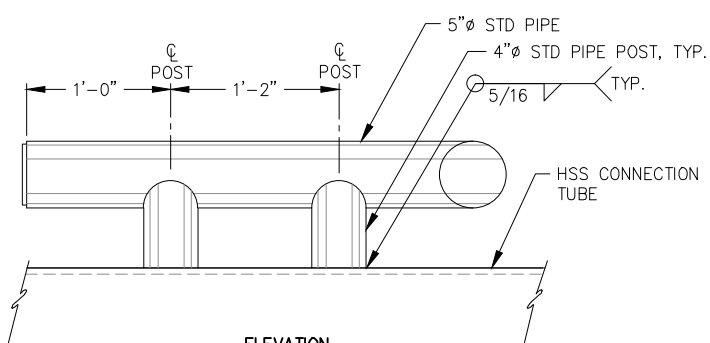
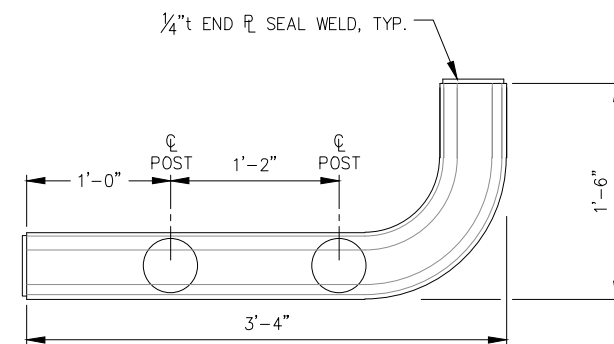
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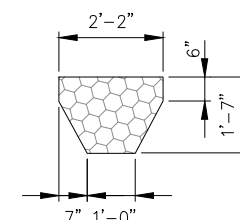
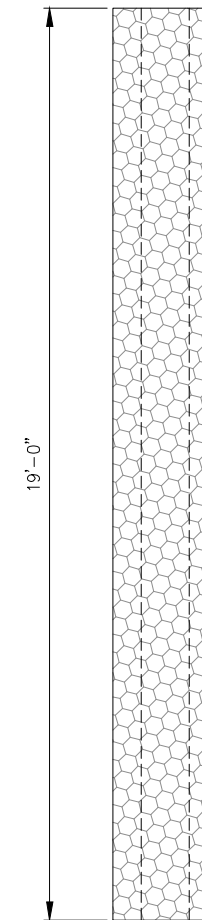
END BEAM CONNECTION



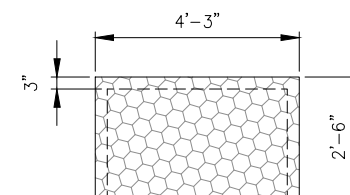
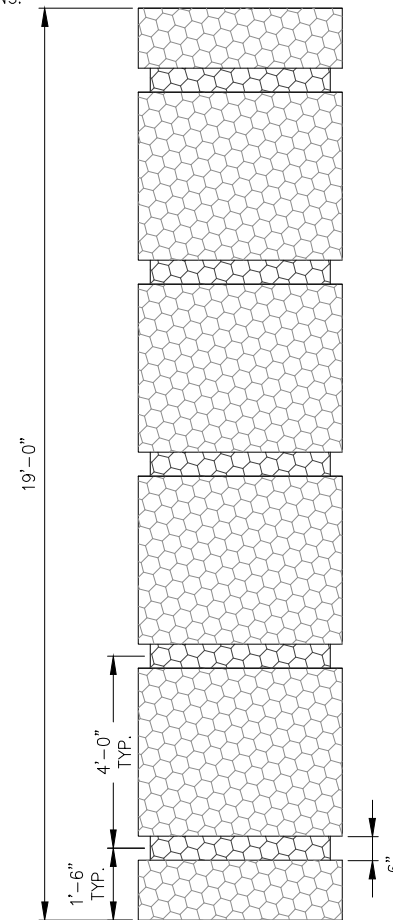
GRATING SUPPORT TUBE



END BULLRAIL



POLYSTYRENE BILLET- TYPE C



POLYSTYRENE BILLET- TYPE B

NOTE: TYPE C BILLET MAY BE PROVIDED IN TWO 9'-6" LONG SECTIONS.



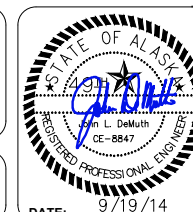
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SCALE:
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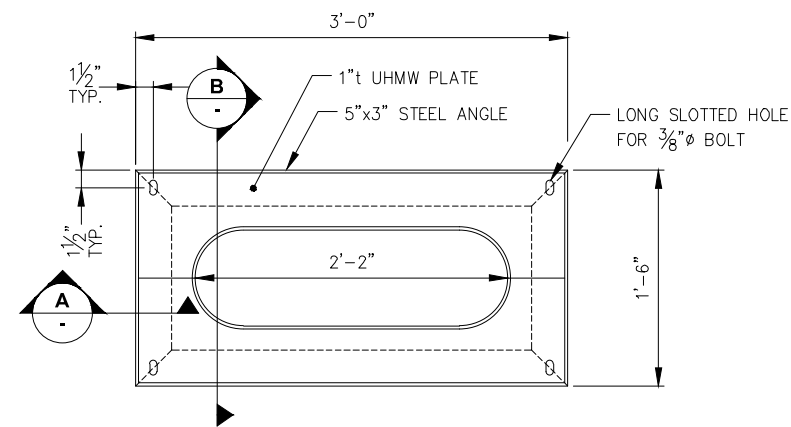


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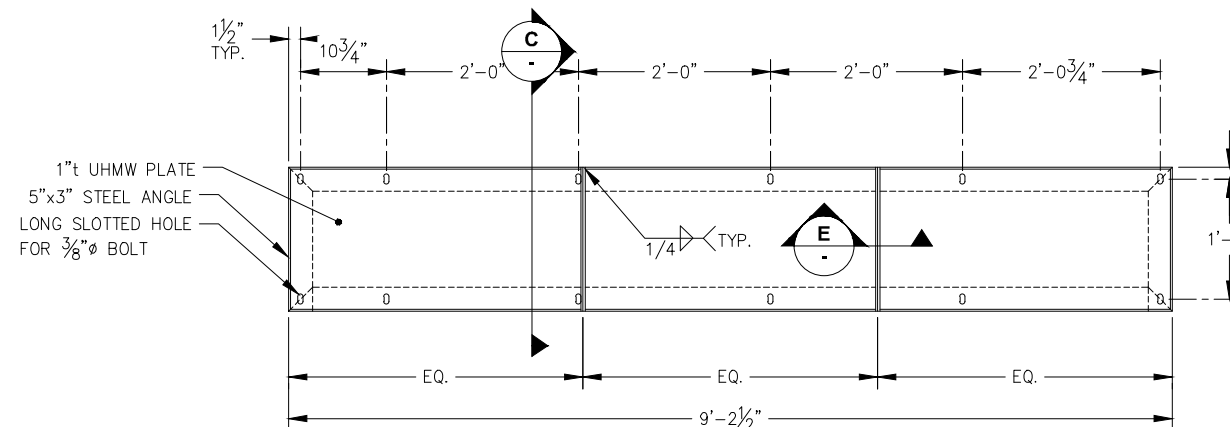
SHEET TITLE:
GANGWAY LANDING FLOAT
DETAILS

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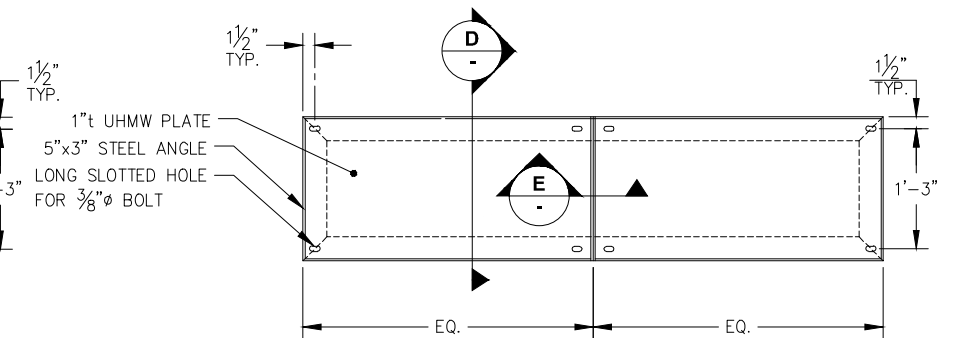
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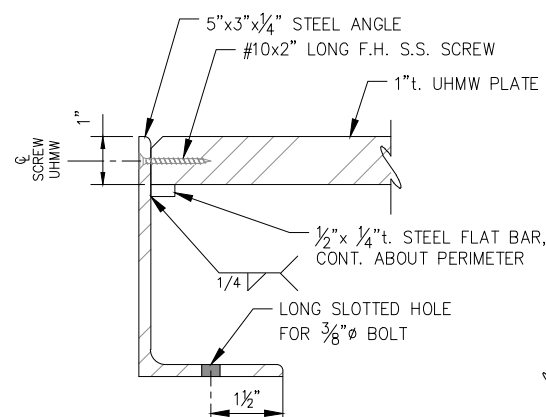
CABLE FRAME GUIDE PLAN



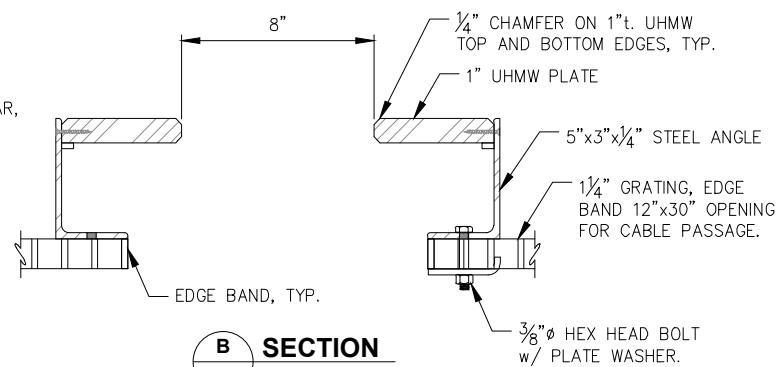
**CABLE TRANSITION FRAME
TYPE A**



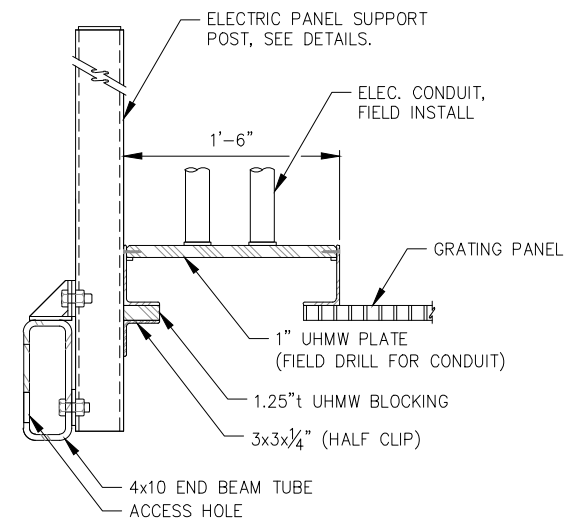
**CABLE TRANSITION FRAME
TYPE B**



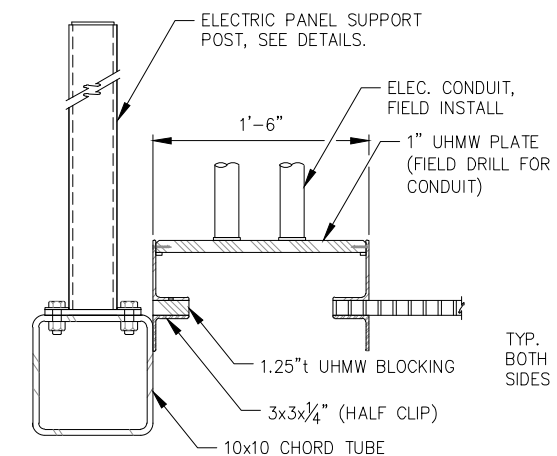
A SECTION



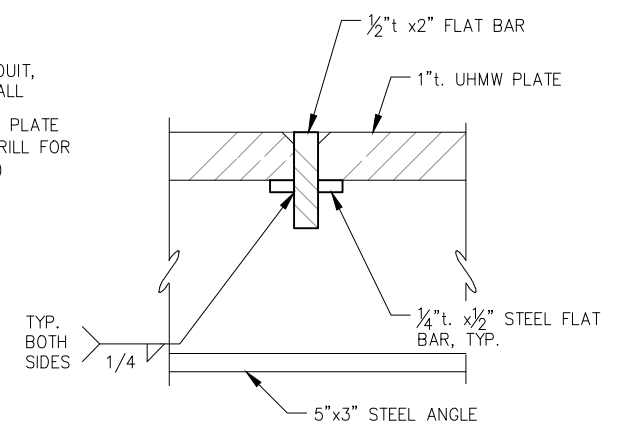
B SECTION



C CABLE TRANSITION FRAME



D CABLE TRANSITION FRAME



E FRAME CROSS BRACE



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SCALE:
AS SHOWN

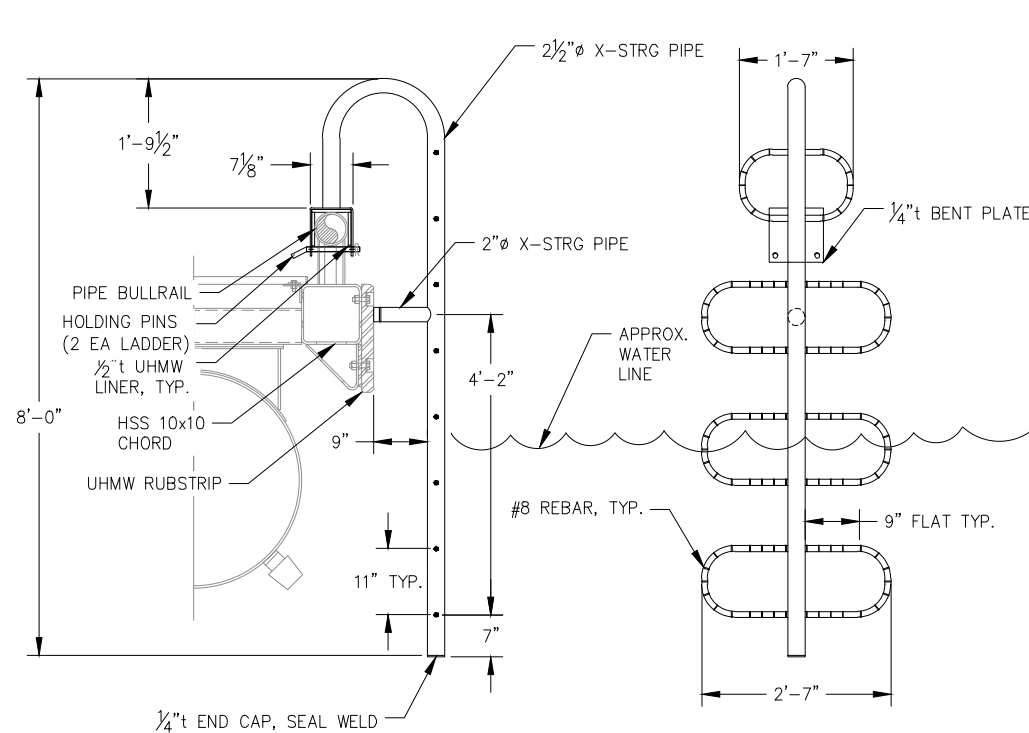


**CITY OF UNALASKA, ALASKA
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C FLOAT REPLACEMENT**

SHEET TITLE:
CABLE FRAME DETAILS

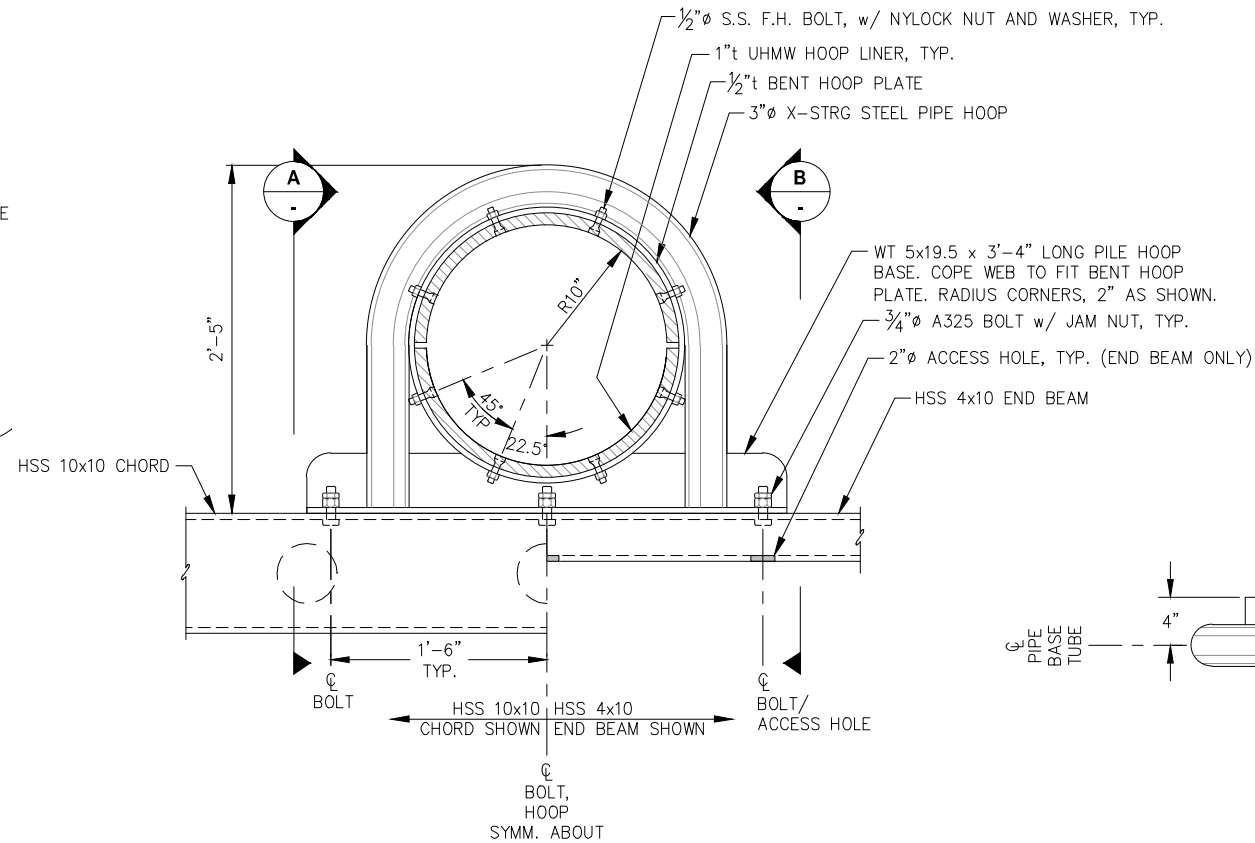
PND PROJECT NO.: 132021

F11



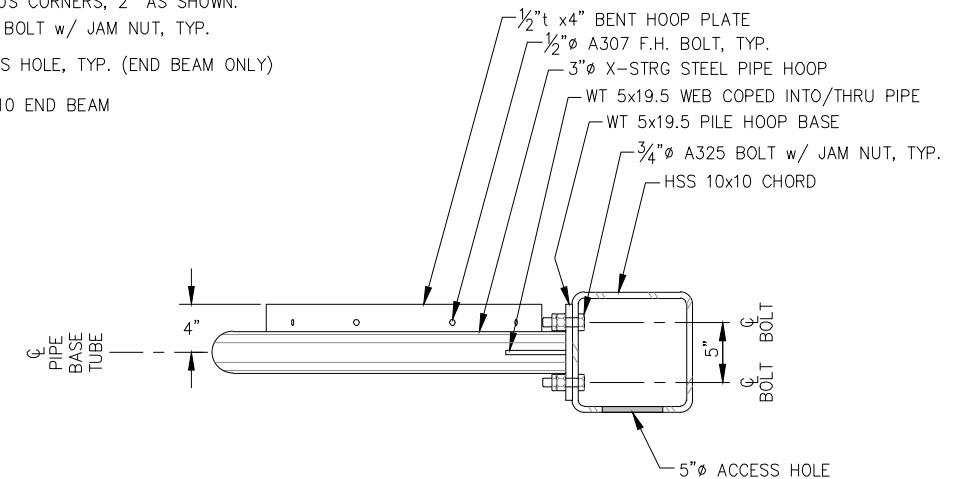
SAFETY LADDER

NOTE: PROVIDE 6 TOTAL. FIELD LOCATE PER OWNER DIRECTION.

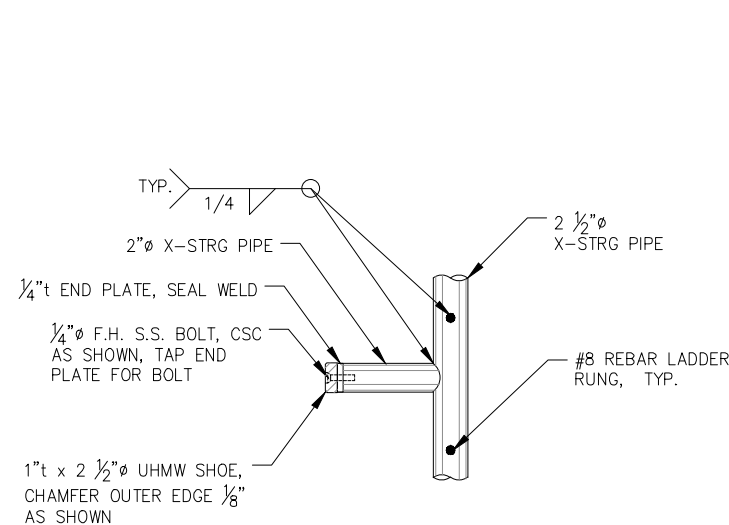


EXTERNAL PILE HOOP - PLAN

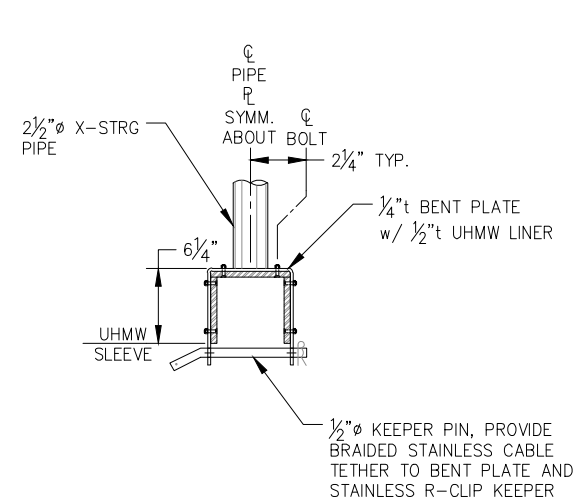
NOTE: ALL JOINTS SHALL BE SEAL WELDED WITH 5/16 inch FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.



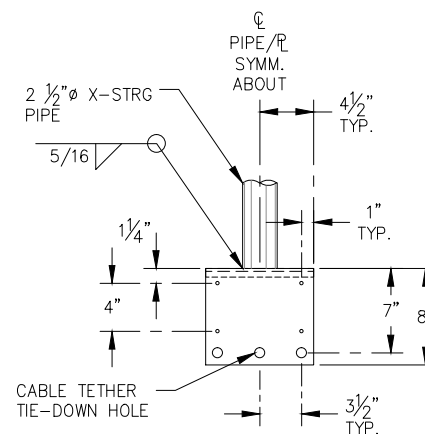
A ELEVATION



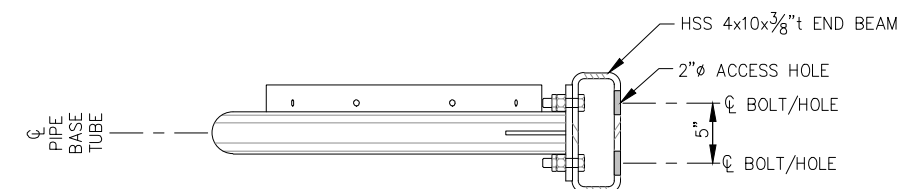
LADDER BRACE



LADDER BRACKET (END VIEW)



LADDER BRACKET (FRONT VIEW)

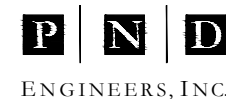


B ELEVATION

NOTE: DETAILS NOT SHOWN SIMILAR TO ELEVATION A



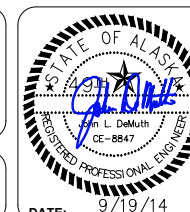
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SCALE: AS SHOWN



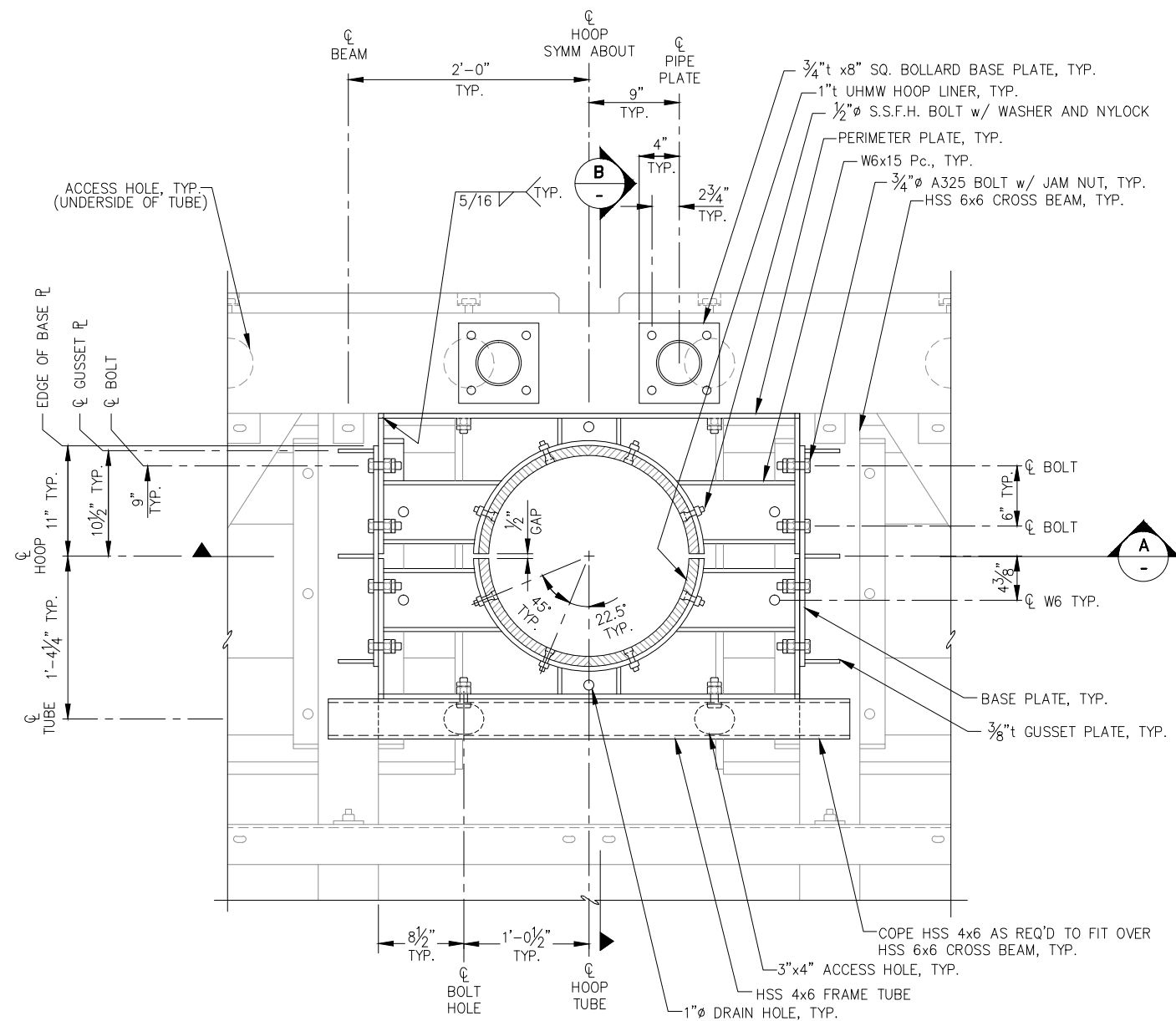
DATE: 9/19/14

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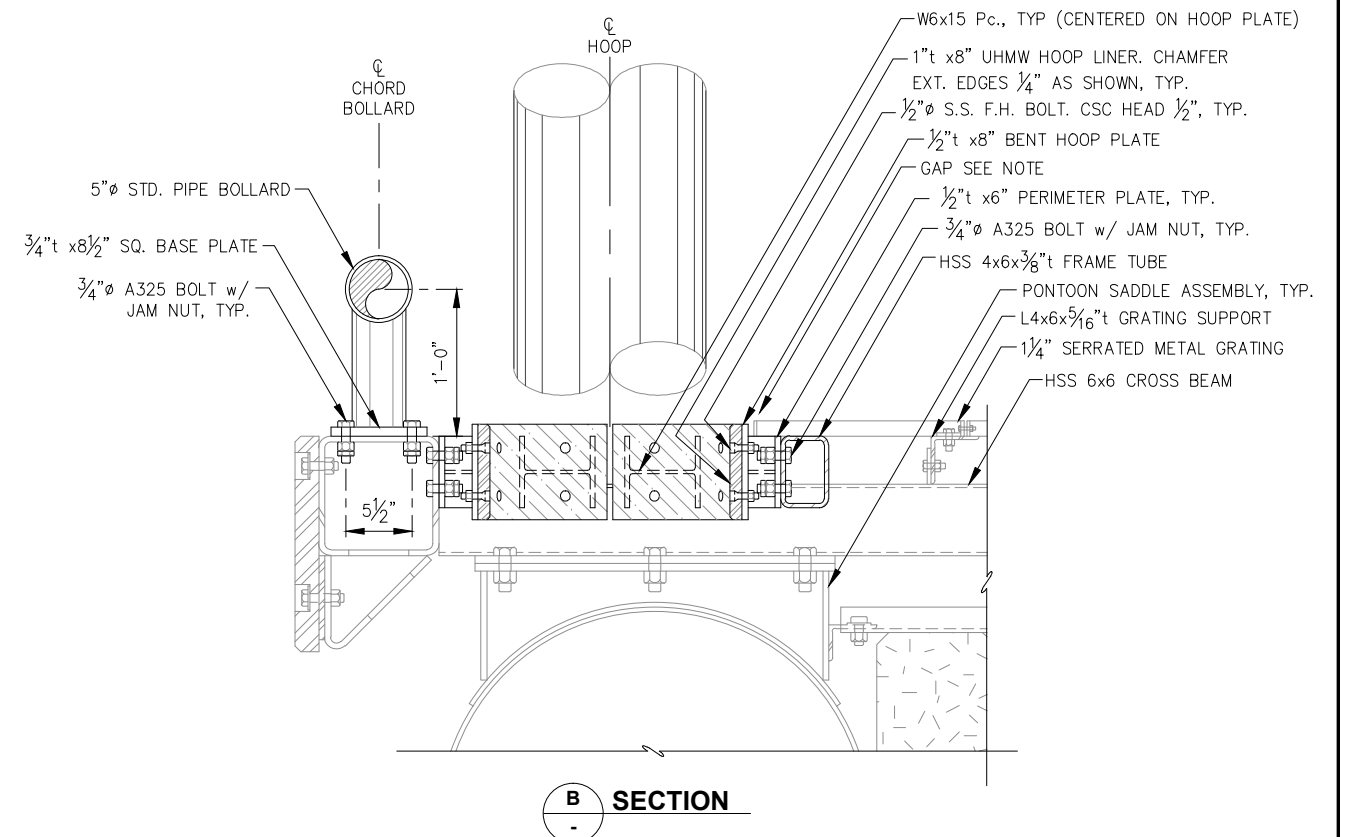
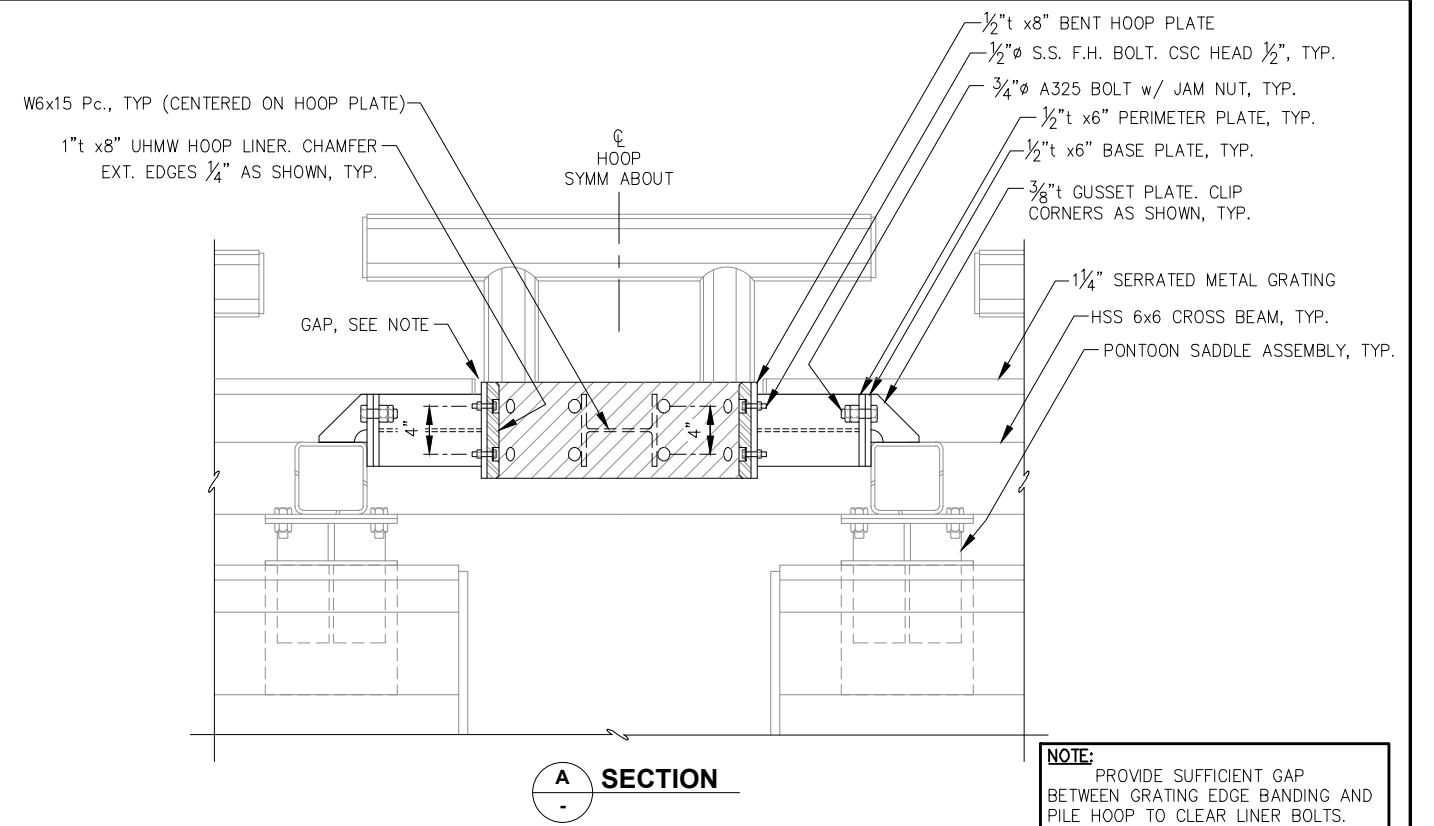
SHEET TITLE:
EXTERNAL PILE HOOP DETAILS
AND SAFETY LADDER

PND PROJECT NO.: 132021

F12



INTERNAL PILE HOOP - AND BOLLARD- PLAN



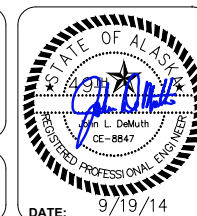
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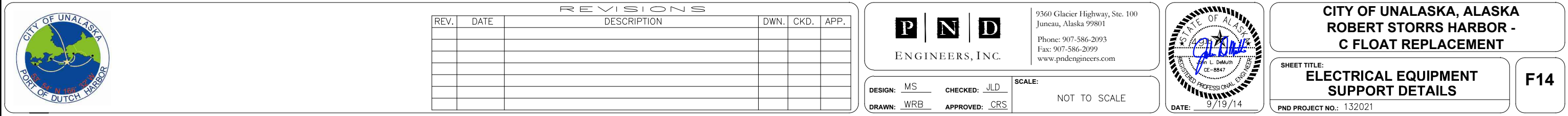


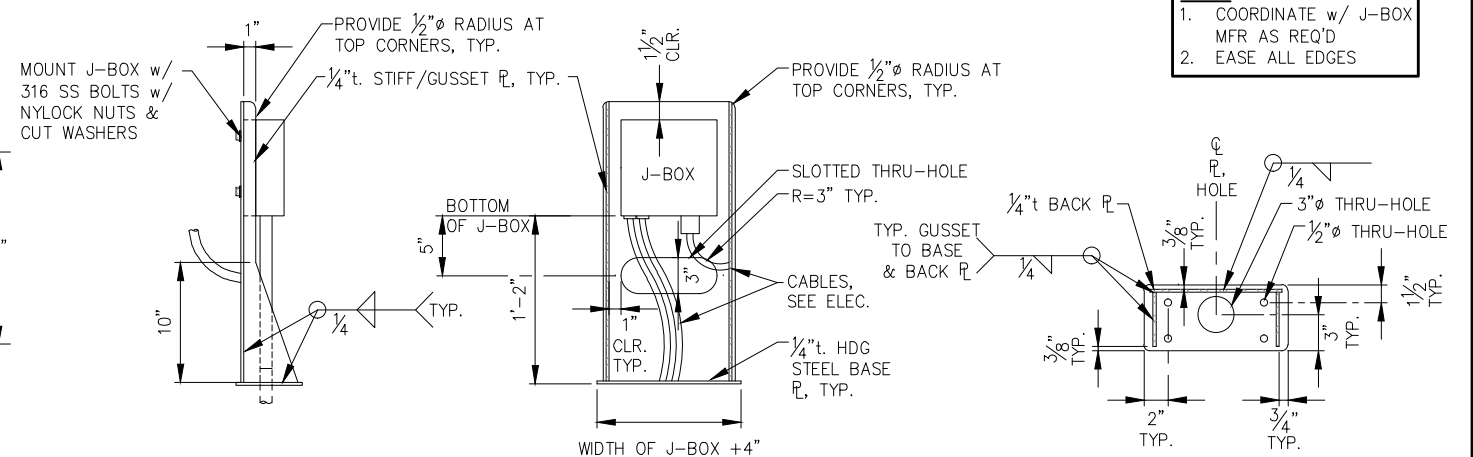
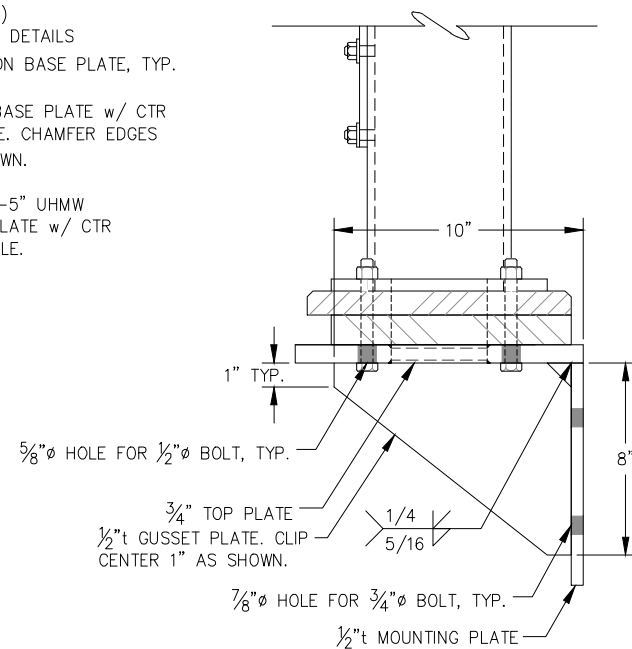
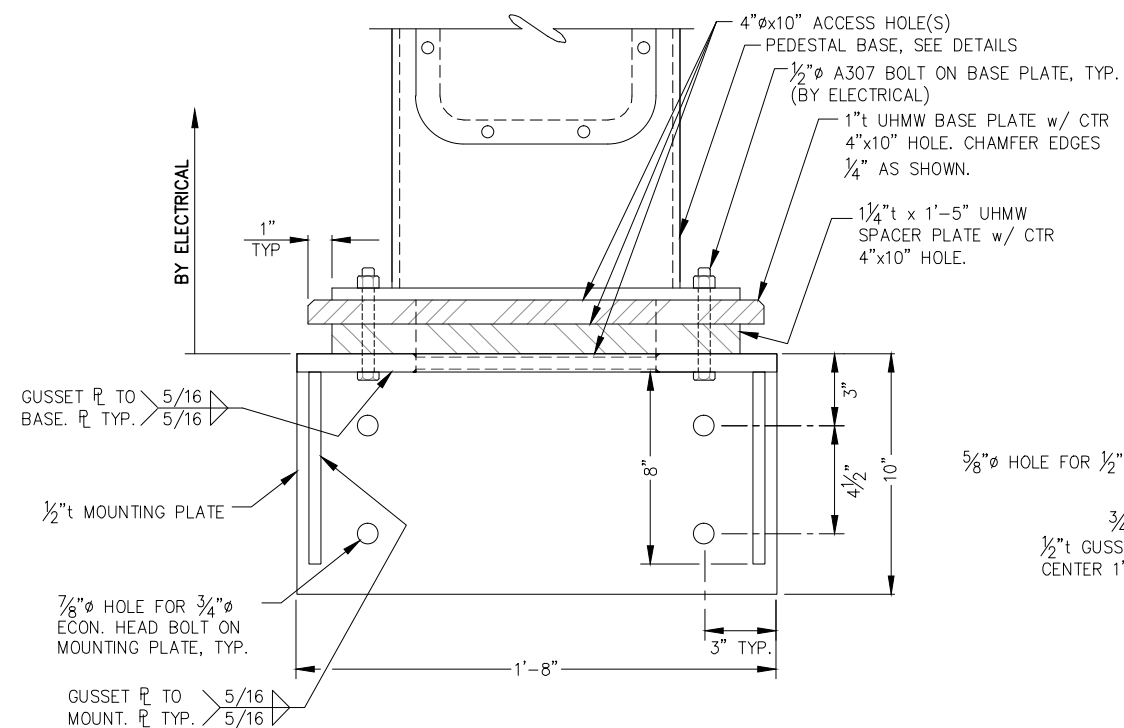
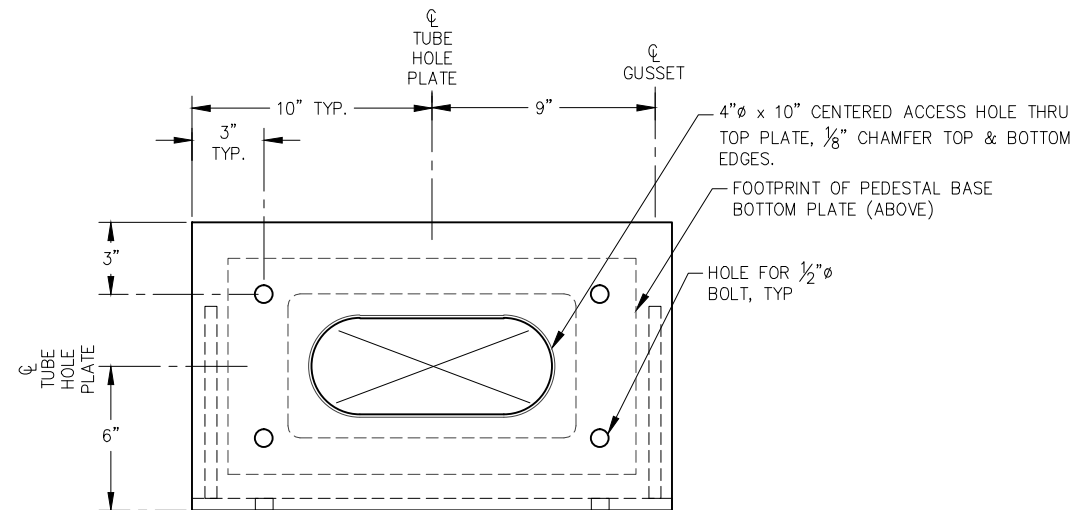
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SHEET TITLE:
INTERNAL PILE HOOP DETAILS

PND PROJECT NO.: 132021

F13



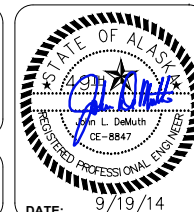


NOTE:

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

[illegible]

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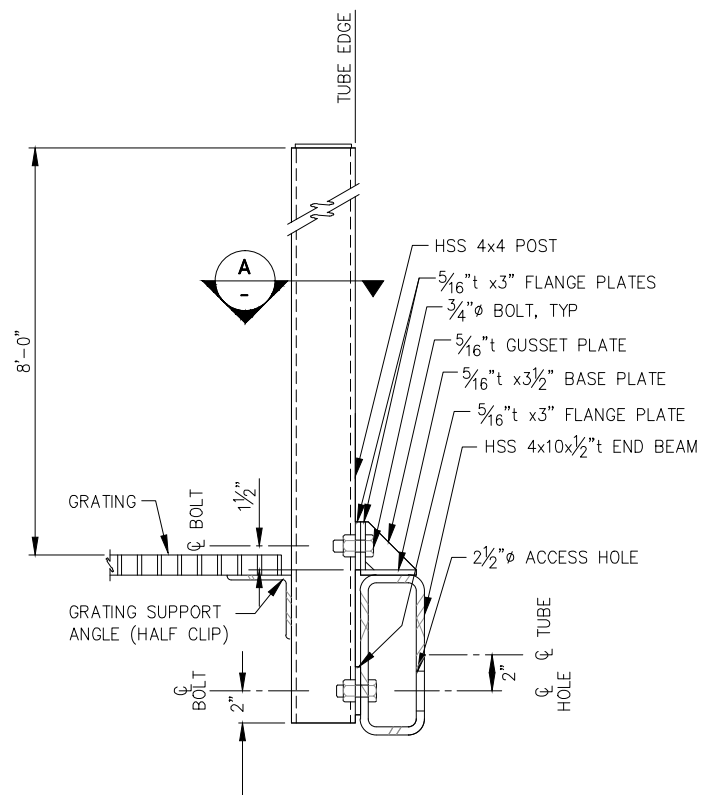


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C FLOAT REPLACEMENT**

SHEET TITLE:
**ELECTRICAL EQUIPMENT
SUPPORT DETAILS**

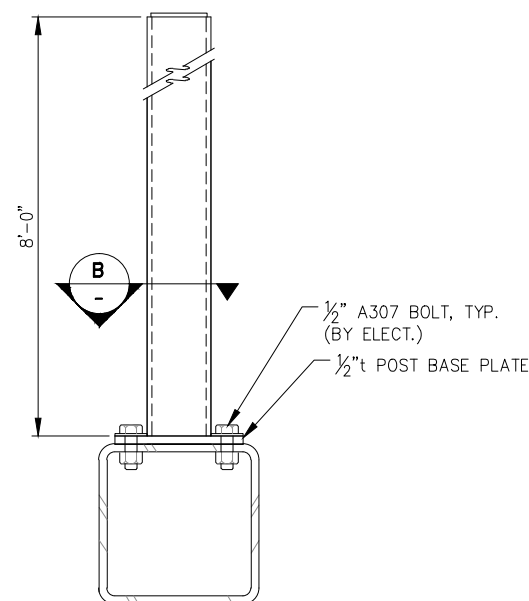
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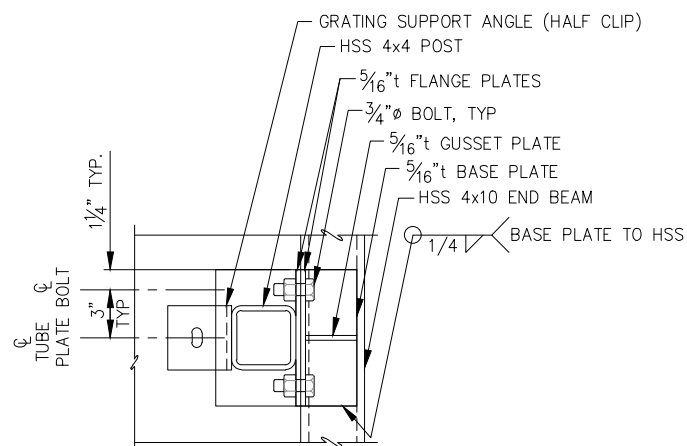


POST ELEVATION AT END BEAM

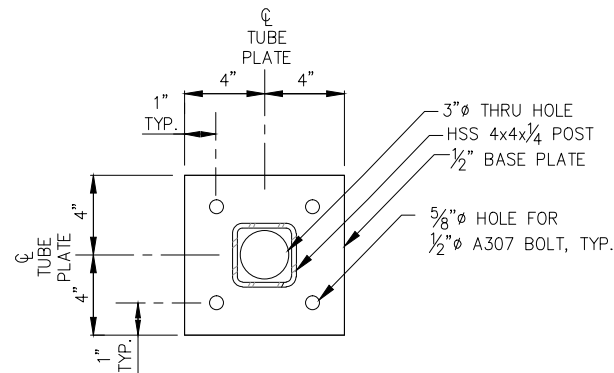
NOTE: ALL SUPPORT POST JOINTS SHALL BE SEAL WELDED WITH $\frac{1}{4}$ " FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.



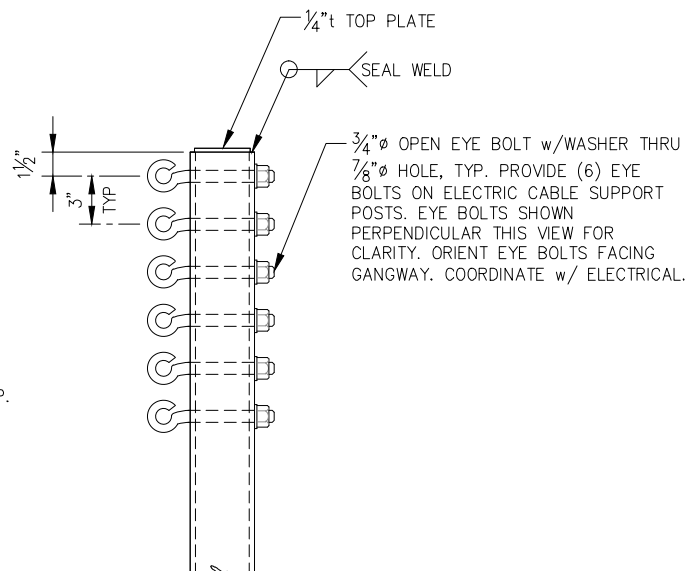
POST ELEVATION AT CHORD



A END BEAM SUPPORT POST SECTION

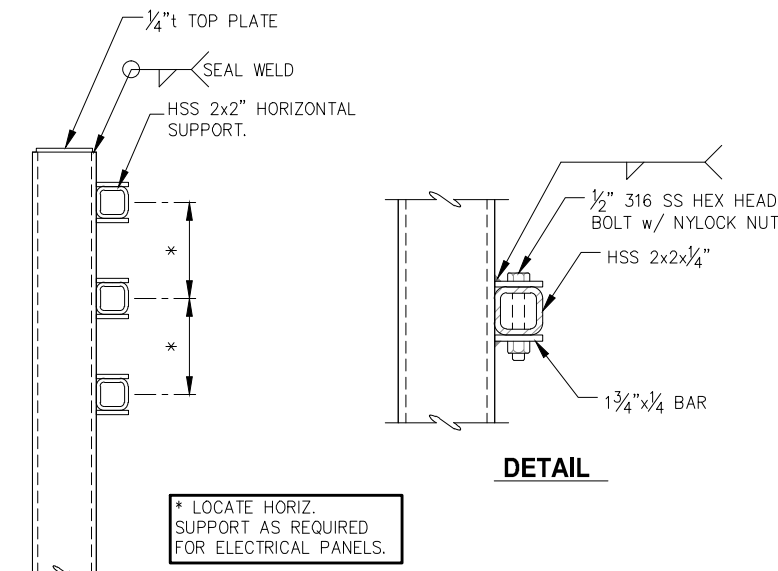


B POST SECTION & BASE PLATE



ELECT. CABLE SUPPORT POST

(DECK CONNECTION VARIES)



ELECT. PANEL SUPPORT POST

(DECK CONNECTION VARIES)

* LOCATE HORIZ. SUPPORT AS REQUIRED FOR ELECTRICAL PANELS.

DETAIL



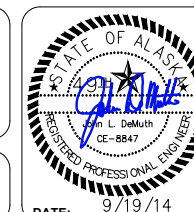
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DRAWN: WRB APPROVED: CRS

SCALE:
NTS



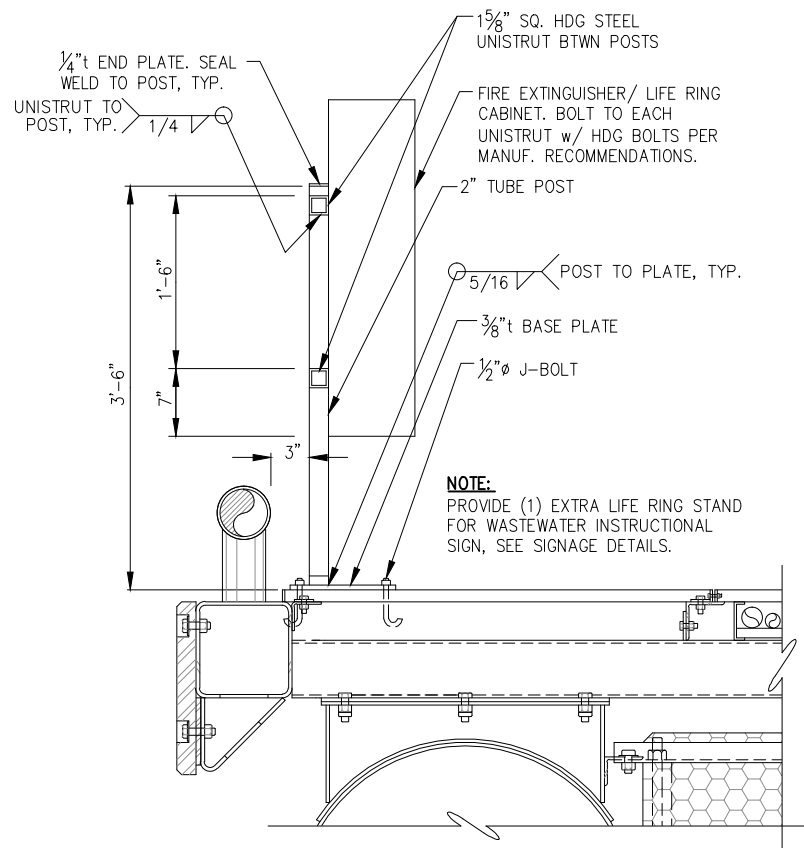
DATE: 9/19/14

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ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

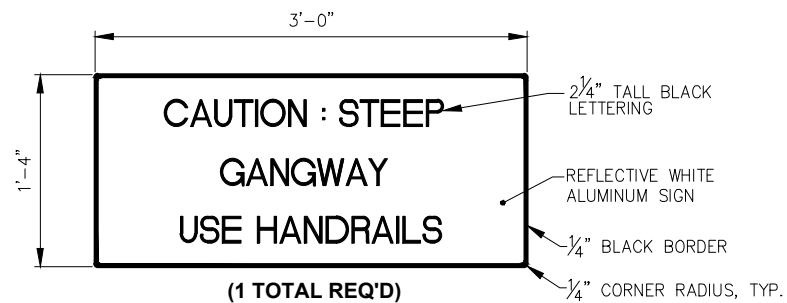
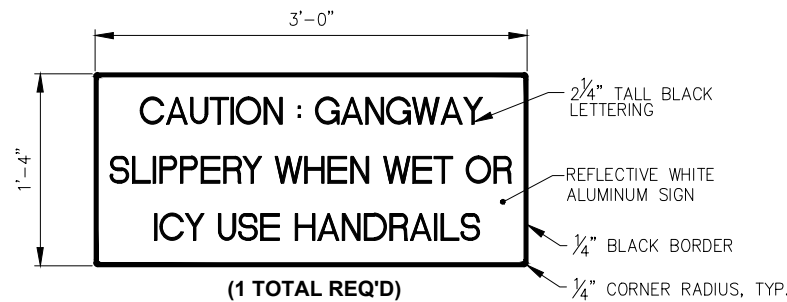
SHEET TITLE:
ELECTRICAL SUPPORT
POSTS DETAILS

PND PROJECT NO.: 132021

F16

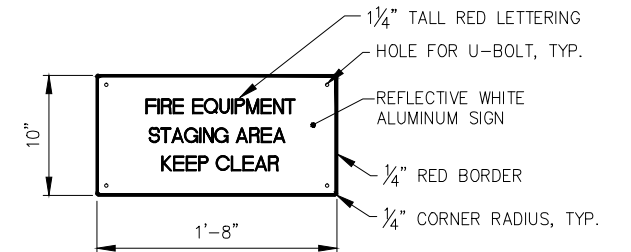


FIRE EXTINGUISHER, HOSE/ LIFE RING CABINET



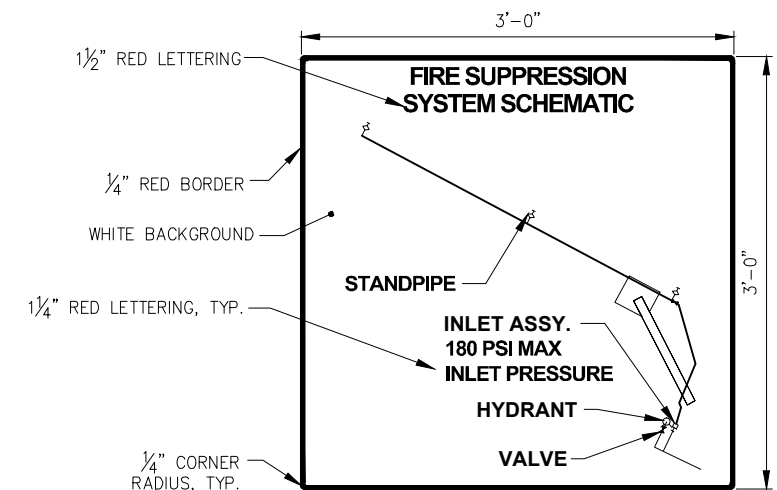
GANGWAY SIGNAGE

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

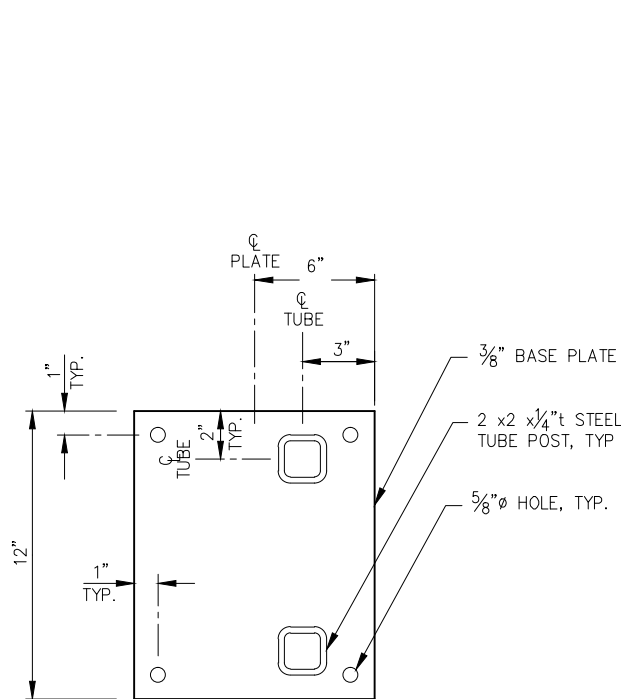


(3 TOTAL REQ'D) STAGING AREA SIGN

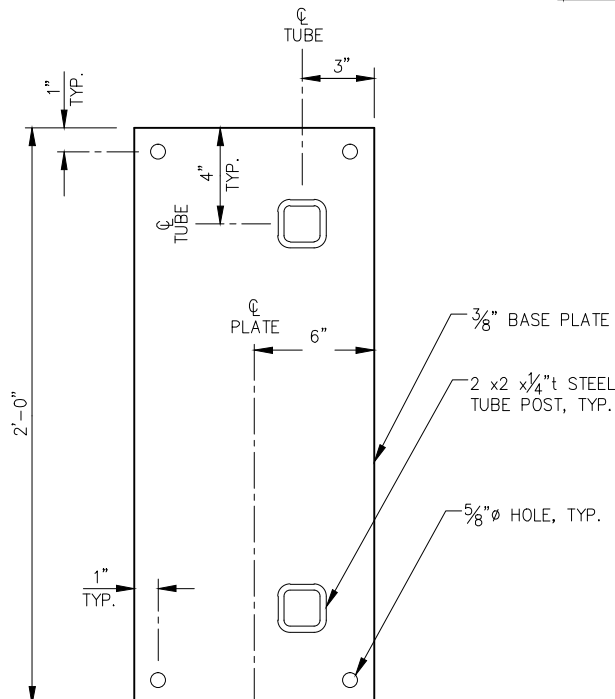
NOTE:
TYP. OF (3), MOUNT ON BULLRAIL ADJACENT TO FIRE LINE STANDPIPES w/ (2) HDG U-BOLTS. FINAL LOCATION PER ENGINEER DIRECTION.



NOTE:
MOUNT ON UNISTRUT ON FIRE HYDRANT CONCRETE SLAB, SEE UTILITIES.



FIRE EXTINGUISHER BASE - PLAN



LIFE RING CABINET BASE - PLAN



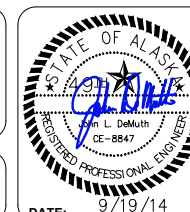
REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DRAWN: DRD APPROVED: CRS

SCALE: NTS



CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

SHEET TITLE:
SAFETY EQUIPMENT SUPPORT
DETAILS

PND PROJECT NO.: 132021

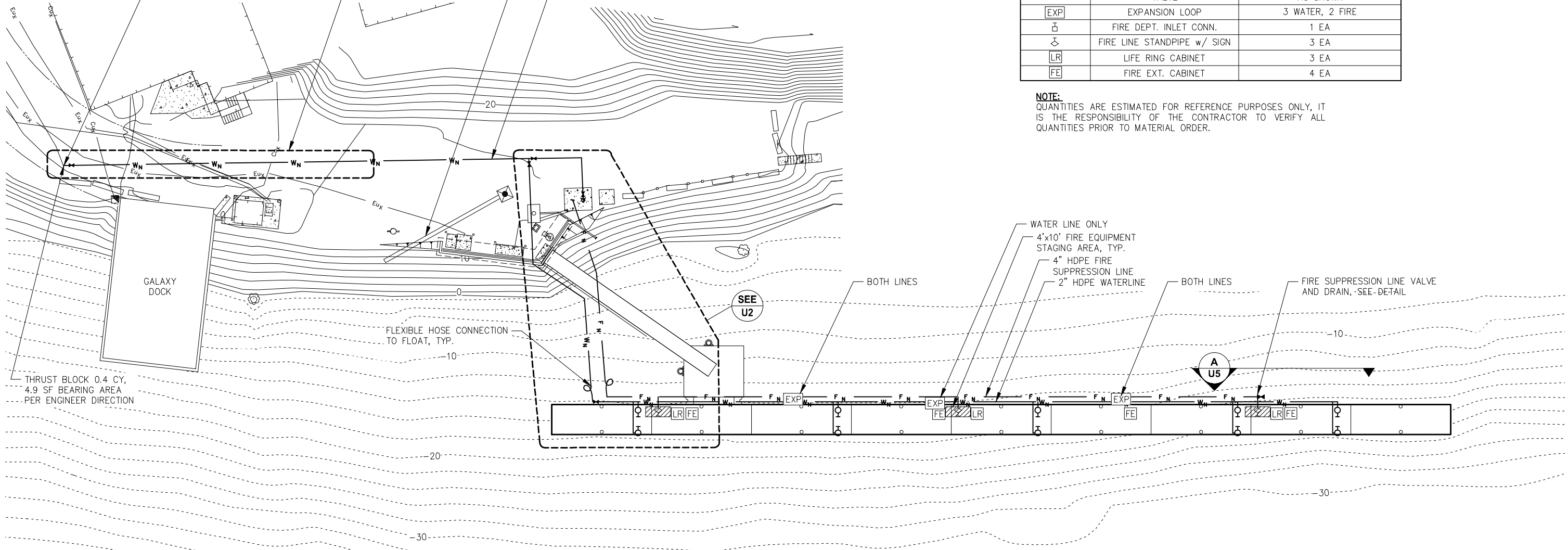
F17



CUT (E) DI PIPE UPSTREAM OF (E) GALAXY DOCK & STORAGE BLDG SERVICES & CONNECT NEW DI PIPE VIA MJ FITTING AND 90° ELBOW w/ MEGALUG JOINT RESTRAINTS. DEMO AND DISPOSE EXISTING SERVICES TO EXTENT REQUIRED TO INSTALL NEW WATER PIPE. SEE NOTE 1.

STORM DRAIN, SEE GENERAL
6" DIP w/ PE ENCASEMENT, TYP.

SEE NOTE 4.



LEGEND		
SYMBOL	DESCRIPTION	QUANTITY
W_N	WATER LINE	210 LF 6" DI, 400 LF 2" HDPE
F_N	4" FIRE LINE	340 LF HDPE
\oslash	WATER PEDESTAL	10 EA
\bowtie	VALVE	AS SHOWN
EXP	EXPANSION LOOP	3 WATER, 2 FIRE
\oslash	FIRE DEPT. INLET CONN.	1 EA
\oslash	FIRE LINE STANDPIPE w/ SIGN	3 EA
LR	LIFE RING CABINET	3 EA
FE	FIRE EXT. CABINET	4 EA

NOTE:
QUANTITIES ARE ESTIMATED FOR REFERENCE PURPOSES ONLY, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO MATERIAL ORDER.

- NOTE:
- EXACT CONFIGURATION AND CONDITION OF EXISTING SERVICES IN CONNECTION AREA UNKNOWN, CONTRACTOR SHALL FIELD VERIFY.
 - CONTRACTOR SHALL CONTACT LOCAL UTILITY AND COORDINATE A WALK-THROUGH PRIOR TO BEGINNING WORK. A SECOND WALK-THROUGH SHALL BE COORDINATED UPON COMPLETION OF WORK.
 - INSTALL WATER-LOCATE TARGETS AS MANUFACTURED BY 3M, NO SUBSTITUTIONS, AT ALL WATERLINE BENDS, TEES AND SERVICES PER ENGINEER DIRECTION. RECORD ALL LOCATIONS w/ A MINIMUM OF (3) SWING TIES.
 - 6" DI WATER PIPE POTENTIALLY TRAVERSES THROUGH SOILS CONTAMINATED WITH HYDRO-CARBONS. SHOULD CONTAMINATED SOILS BE ENCOUNTERED CONTRACTOR SHALL REMOVE AND DISPOSE SOILS AS REQ'D IAW SPECIFICATIONS AND BY LAW. IN SUCH INSTANCES TO DECREASE DISPOSED SOILS WATER PIPE BURIAL DEPTH SHALL BE REDUCED TO 2'-0" TO TOP OF PIPE w/ 4"t. BOARD INSULATION INSTALLED AROUND PIPE IAW SECTION 02601-WATER SYSTEMS PER ENGINEER DIRECTION.
 - DUCTILE IRON PIPE SHALL BE BONDED.
 - MINOR FITTINGS AND VARIOUS PLUMBING 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).
 - WATER AND FIRE SYSTEM APPURTENANCES SHOWN APPROXIMATE LOCATE UTILITIES ACCORDING TO FLOAT DRAWINGS AND PER ENGINEER DIRECTION.
 - FIRE EXTINGUISHER AND LIFE RING CABINETS SHALL BE MOUNTED TOGETHER TO THE EXTENT PRACTICABLE EXCEPT AS SHOWN AND PER ENGINEER DIRECTION.



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SCALE: SCALE IN FEET
0 20 40 FT.



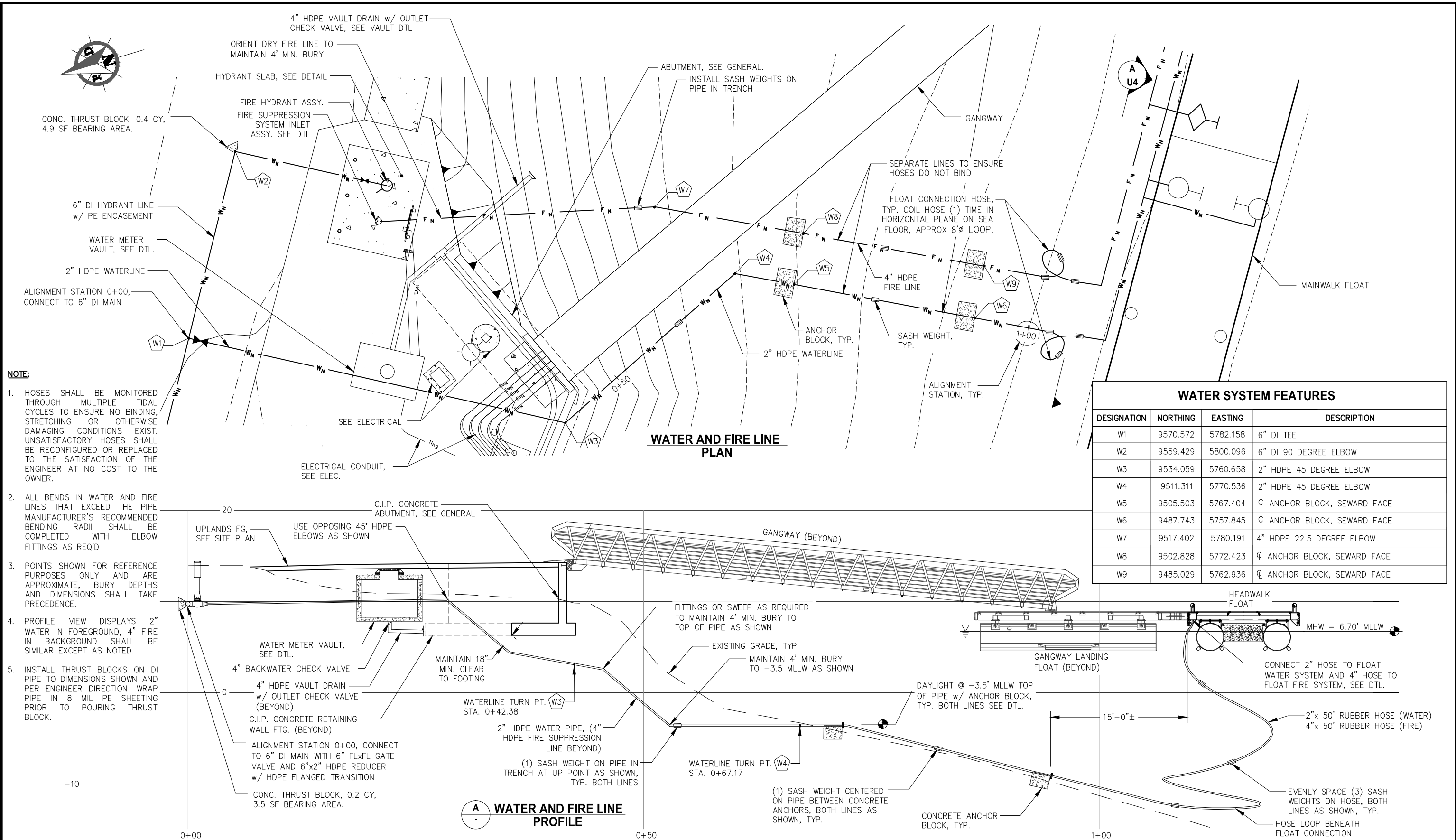
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CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

SHEET TITLE:
UTILITIES PLAN


PND PROJECT NO.: 132021.01

U1




WATER SYSTEM FEATURES			
DESIGNATION	NORTHING	EASTING	DESCRIPTION
W1	9570.572	5782.158	6" DI TEE
W2	9559.429	5800.096	6" DI 90 DEGREE ELBOW
W3	9534.059	5760.658	2" HDPE 45 DEGREE ELBOW
W4	9511.311	5770.536	2" HDPE 45 DEGREE ELBOW
W5	9505.503	5767.404	CL ANCHOR BLOCK, SEWARD FACE
W6	9487.743	5757.845	CL ANCHOR BLOCK, SEWARD FACE
W7	9517.402	5780.191	4" HDPE 22.5 DEGREE ELBOW
W8	9502.828	5772.423	CL ANCHOR BLOCK, SEWARD FACE
W9	9485.029	5762.936	CL ANCHOR BLOCK, SEWARD FACE

WATER AND FIRE LINE PROFILE




REVISIONS				
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DRAWN: WRB APPROVED: CRS 0 5 10 FT.



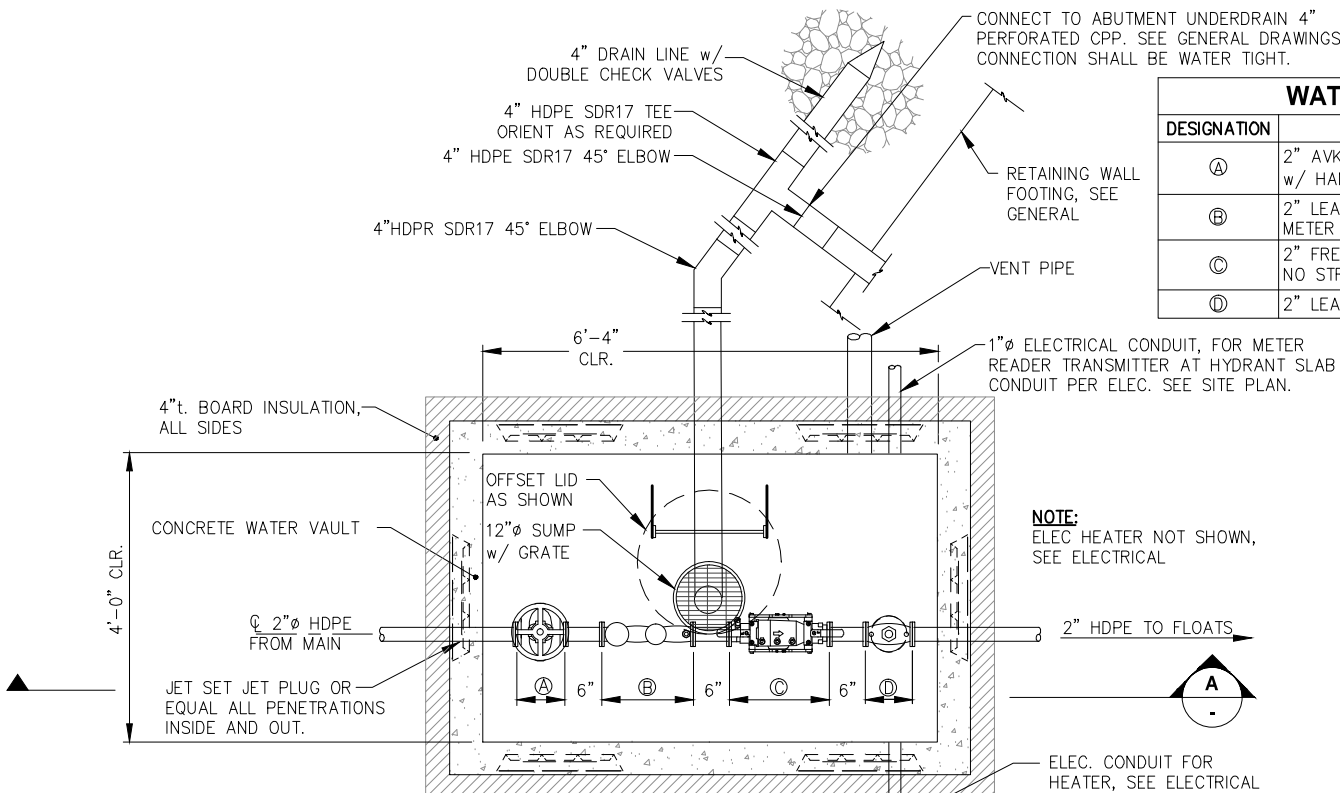
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CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT

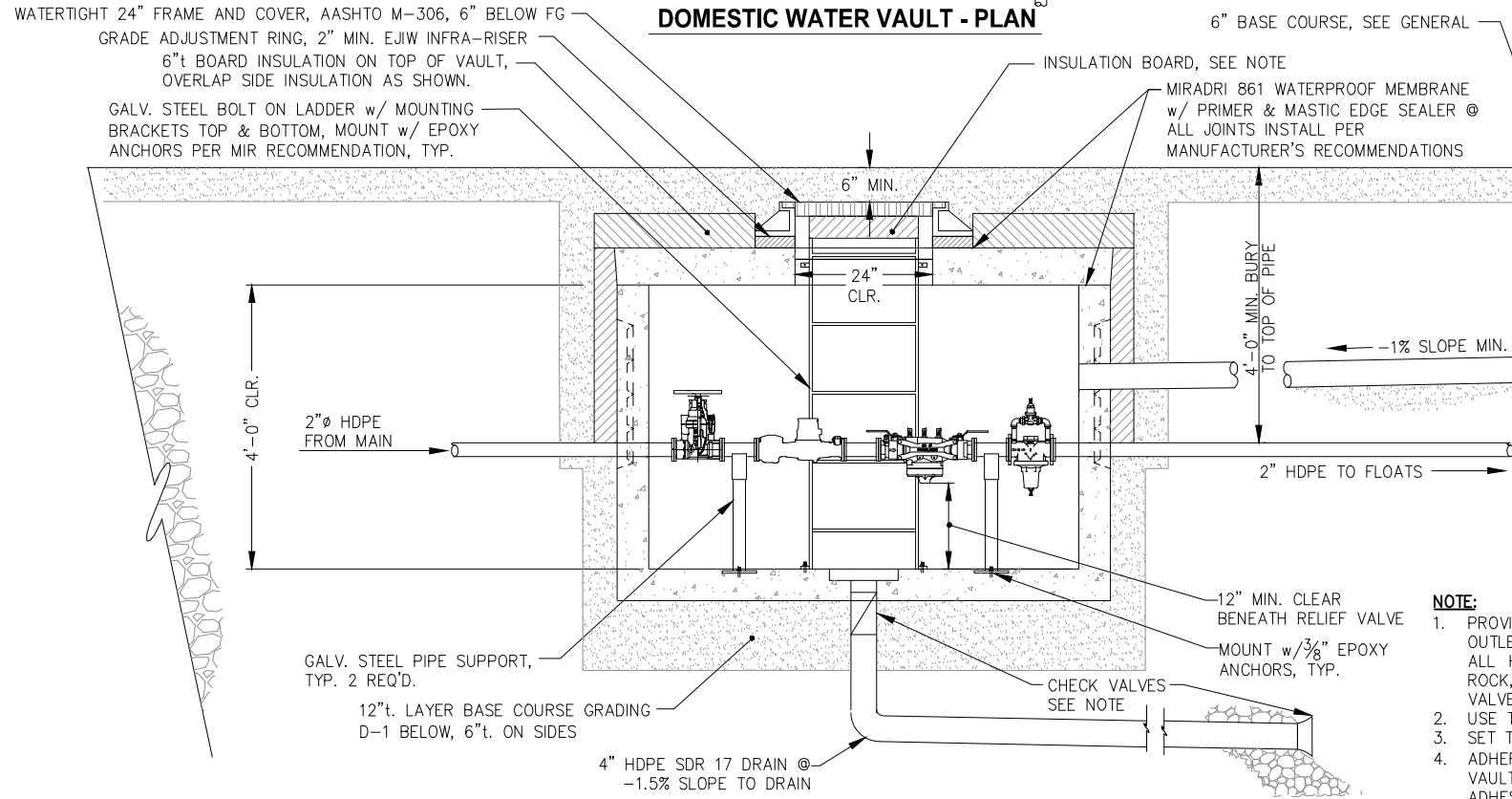
SHEET TITLE:
WATER AND FIRE SUPPRESSION
SYSTEMS PLAN AND PROFILE

PND PROJECT NO.: 132021

U2



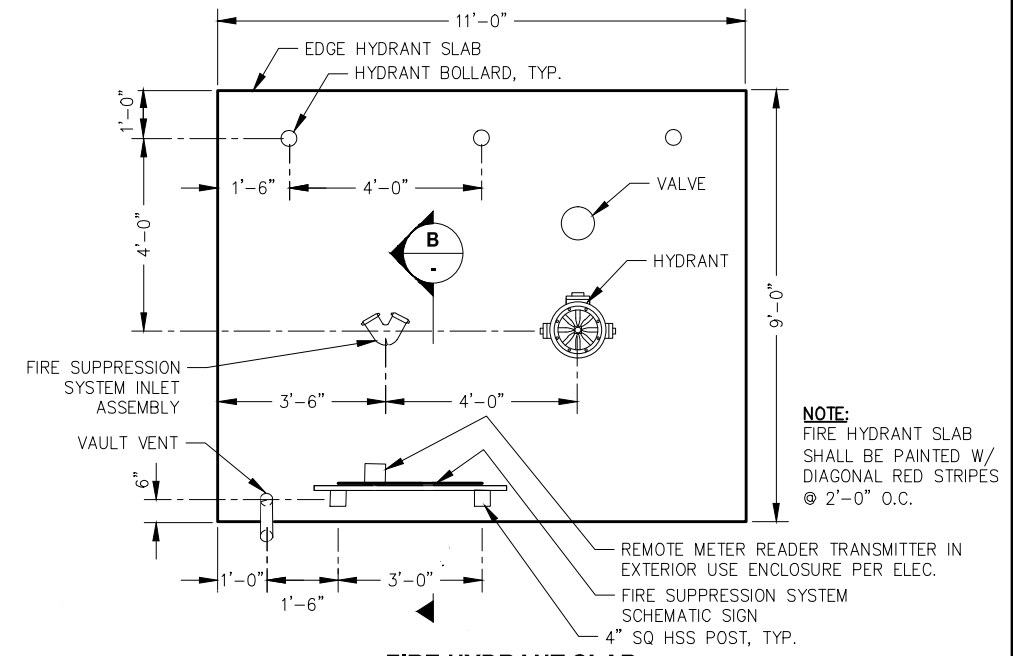
DOMESTIC WATER VAULT - PLAN



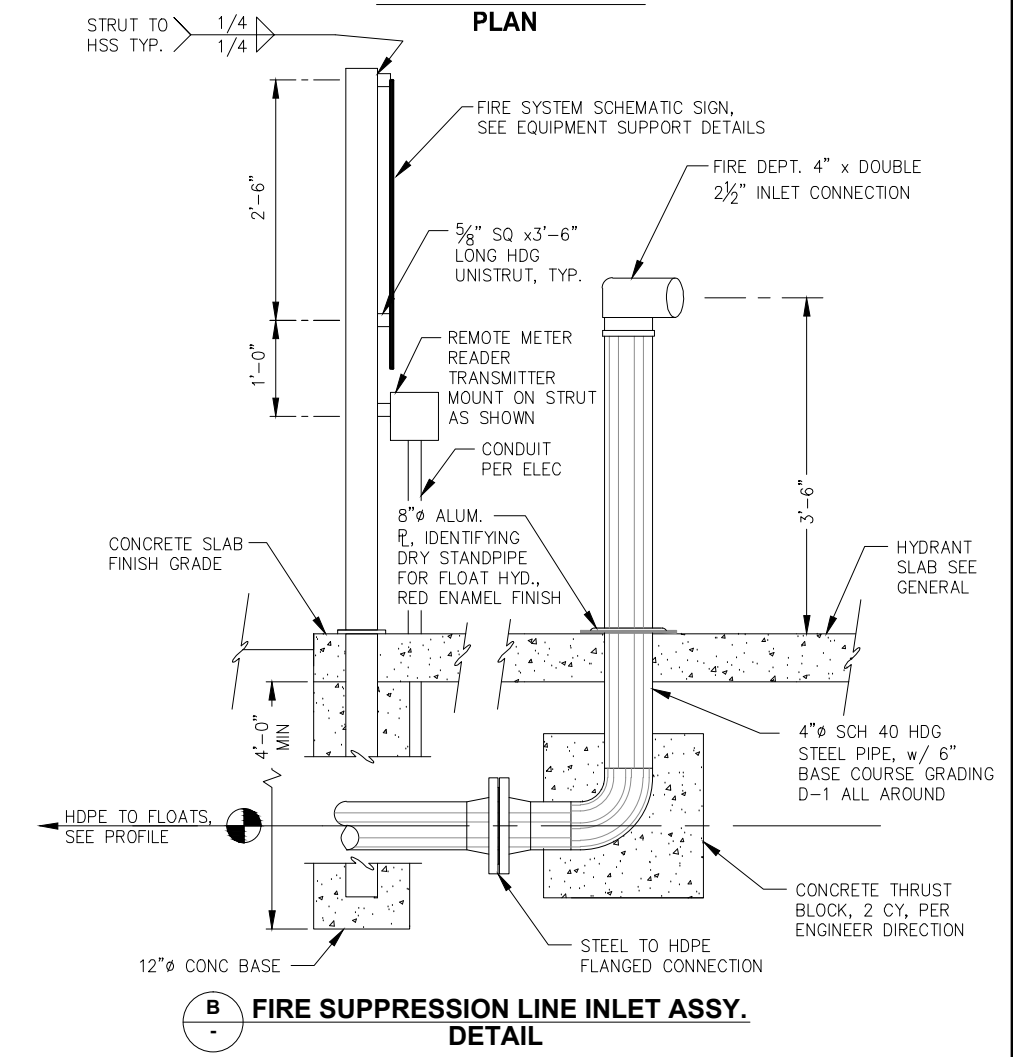
DOMESTIC WATER VAULT - SECTION

WATER VAULT EQUIPMENT TABLE	
DESIGNATION	DESCRIPTION
Ⓐ	2" AVK SERIES 03 LEAD FREE RESILIENT WEDGE GATE VALVE w/ HAND WHEEL
Ⓑ	2" LEAD FREE METER w/ BUILT IN STRAINER AND REMOTE METER READER
Ⓒ	2" FREE REDUCED PRESSURE ZONE ASSY. w/ BALL VALVES, NO STRAINER.
Ⓓ	2" LEAD FREE PRV, SEE NOTE.

- NOTE:**
1. PROVIDE 4" HDPE DRAIN LINE WITH TIDFLEX TF-2 OUTLET AND BACKWATER CHECK VALVES AS SHOWN. ALL HARDWARE SHALL BE 316 SS ASSEMBLE ARMOR ROCK, CLASS II AROUND OUTLET SUCH THAT THE VALVE IS PROTECTED AND OPERATIONAL.
 2. USE THREAD TO FLANGE CONNECTIONS AS REQUIRED.
 3. SET THE PRV DOWNSTREAM PRESSURE TO 60 PSI.
 4. ADHERE 4"t. BOARD INSULATION TO UNDERSIDE OF VAULT LID. DO NOT ENCUMBER LID REMOVAL. SUBMIT ADHESIVE FOR ENGINEER APPROVAL.
 5. SEE SPECIFICATIONS FOR COMPONENT MODELS.



FIRE HYDRANT SLAB PLAN



FIRE SUPPRESSION LINE INLET ASSY. DETAIL

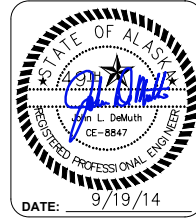


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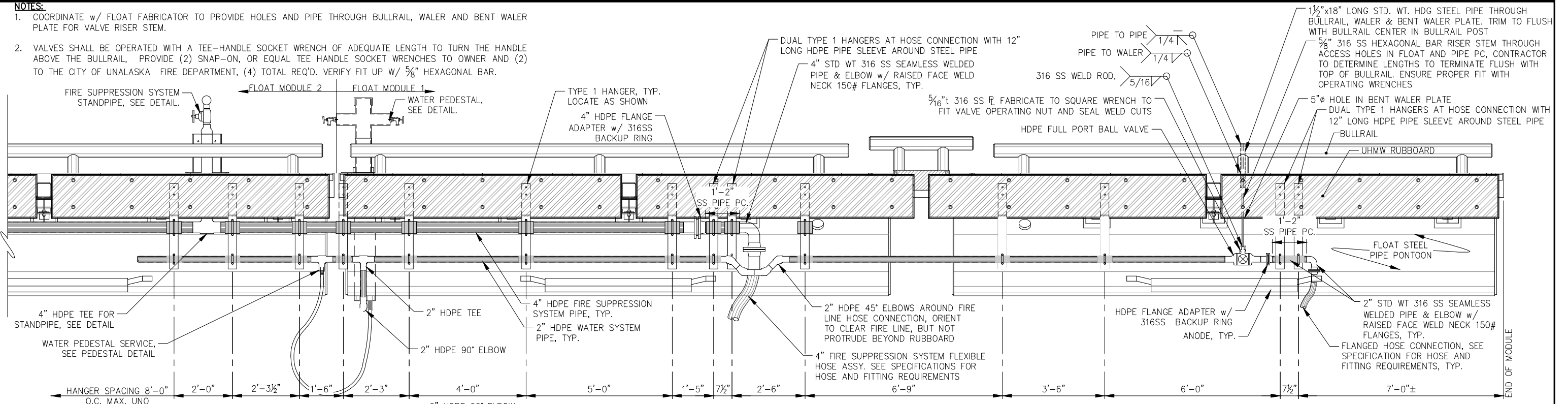
SHEET TITLE:
UTILITIES UPLAND DETAILS

PND PROJECT NO.: 132021

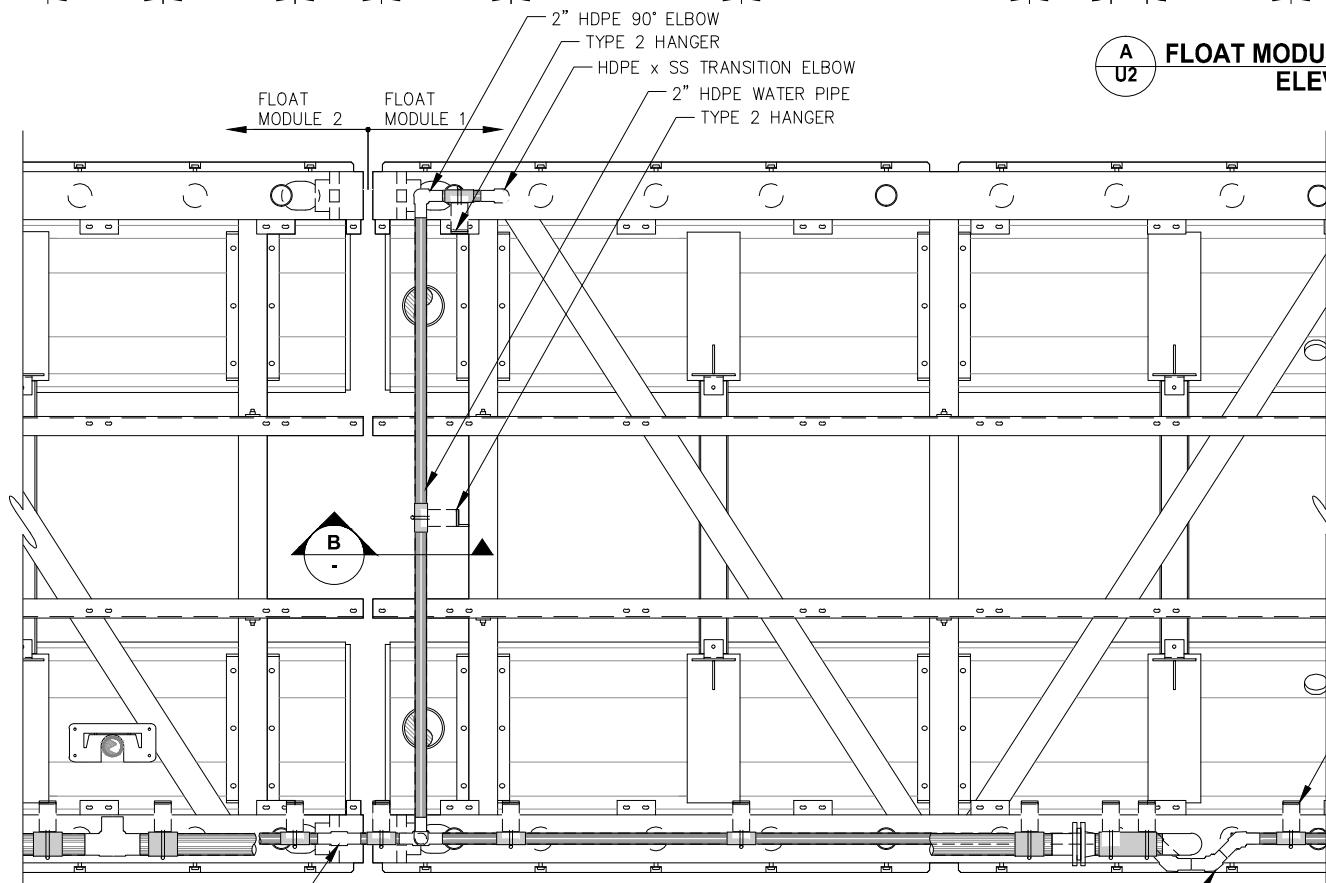
U3

NOTES:

- COORDINATE w/ FLOAT FABRICATOR TO PROVIDE HOLES AND PIPE THROUGH BULLRAIL, WALER AND BENT WALER PLATE FOR VALVE RISER STEM.
- 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 CITY OF UNALASKA FIRE DEPARTMENT, (4) TOTAL REQ'D. VERIFY FIT UP W/ 5/8" HEXAGONAL BAR.



A
U2
FLOAT MODULES 1 AND 2 UTILITIES
ELEVATION



UTILITY PIPING
PLAN

NOTE:

- MISC. FLOAT HARDWARE NOT SHOWN FOR CLARITY.
- PIPES SHOWN ON TOP OF FLOATS FOR CLARITY ONLY, SEE PIPE MOUNTING DETAIL.
- INSTALL HANGERS IN LOCATIONS SHOWN.

B
WATERLINE
TYPICAL SECTION



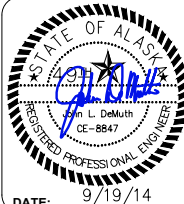
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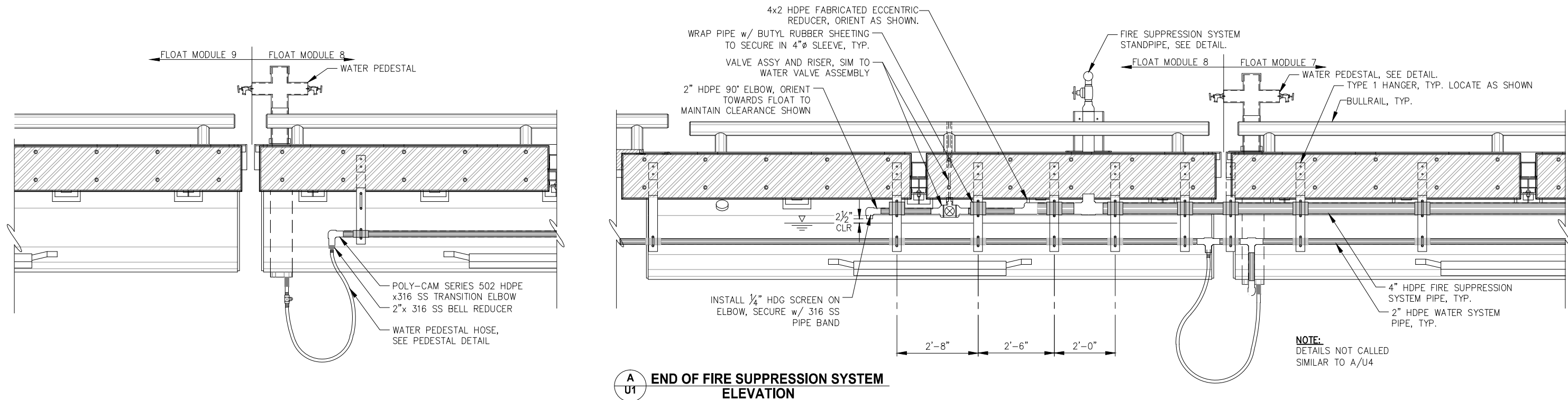


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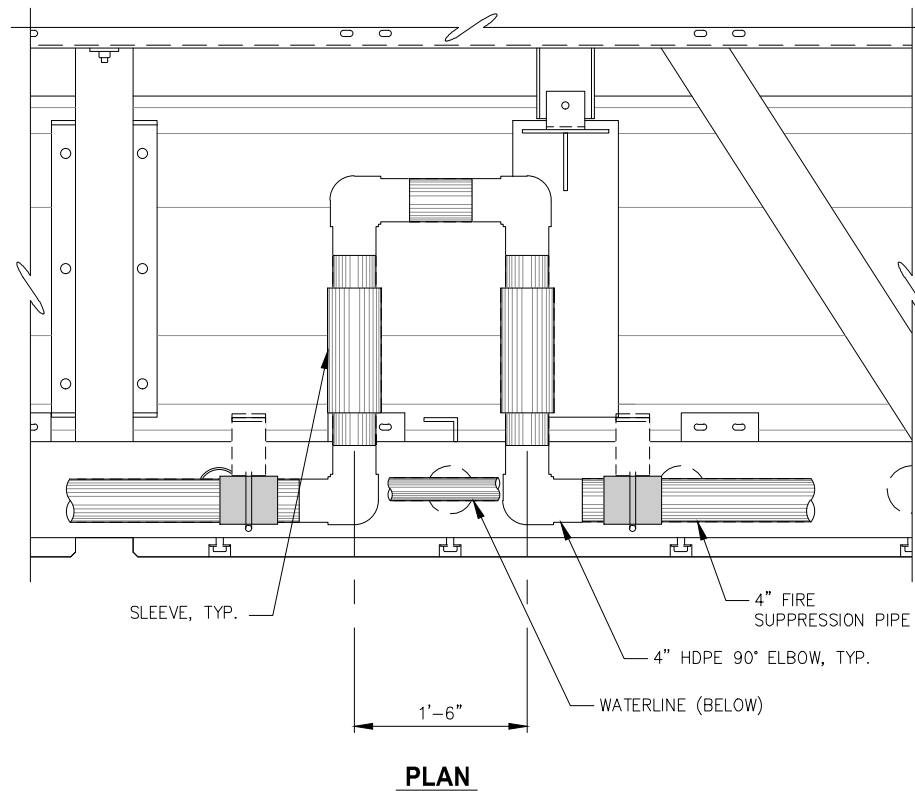
SHEET TITLE:
UTILITIES DETAILS

PND PROJECT NO.: 132021

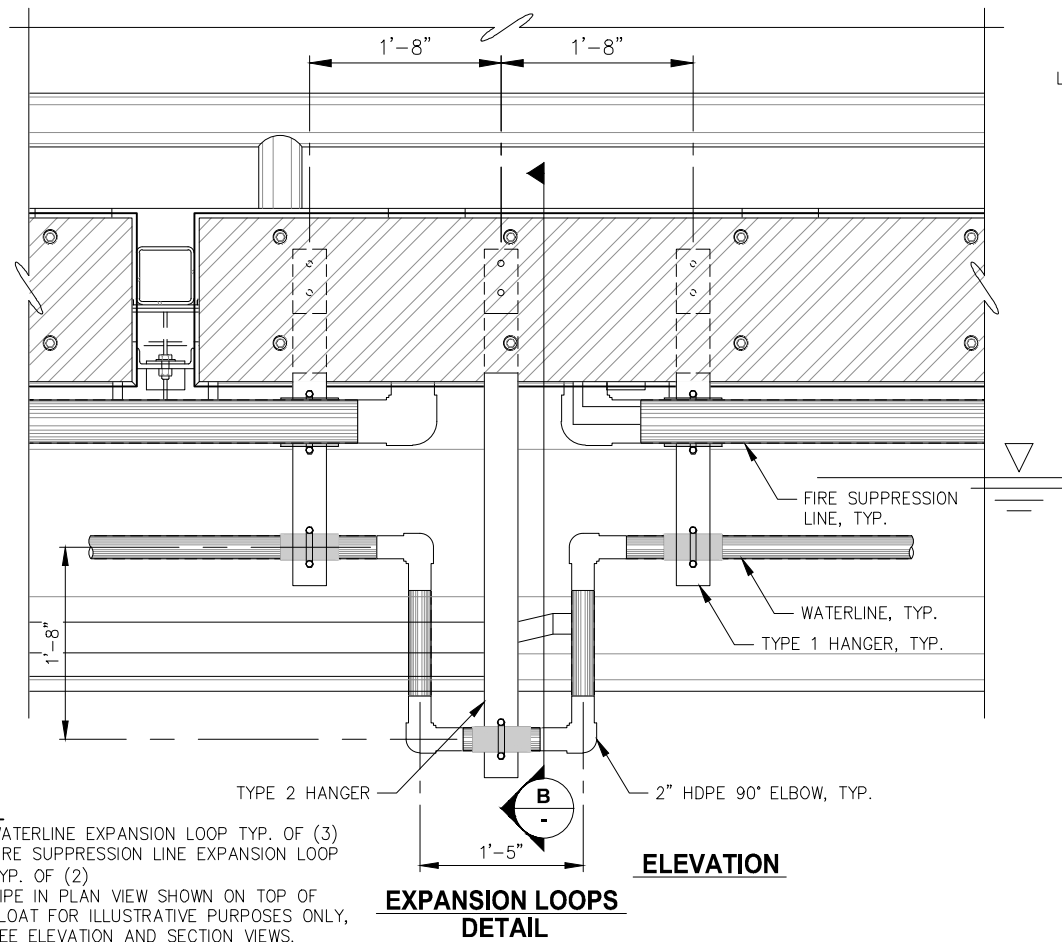
U4



A
U1
**END OF FIRE SUPPRESSION SYSTEM
 ELEVATION**



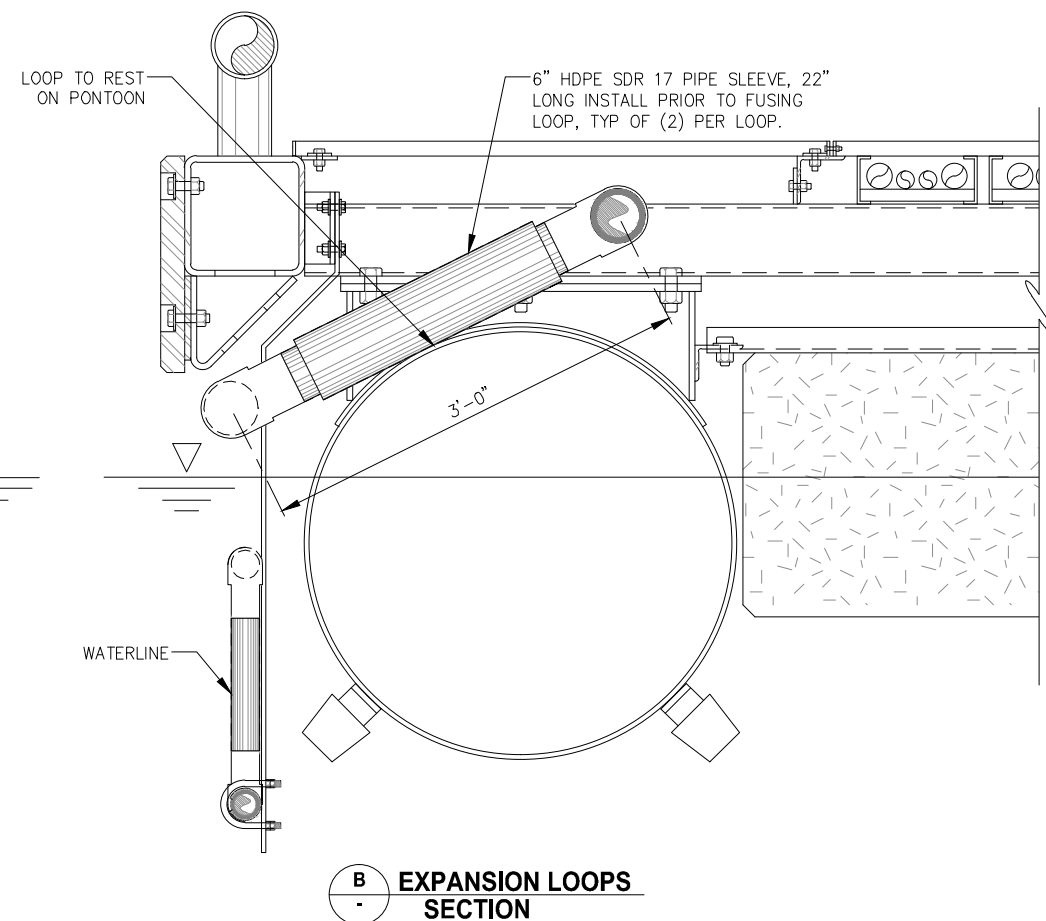
PLAN



ELEVATION

- NOTE:**
 1. WATERLINE EXPANSION LOOP TYP. OF (3)
 2. FIRE SUPPRESSION LINE EXPANSION LOOP TYP. OF (2)
 3. PIPE IN PLAN VIEW SHOWN ON TOP OF FLOAT FOR ILLUSTRATIVE PURPOSES ONLY, SEE ELEVATION AND SECTION VIEWS.

**EXPANSION LOOPS
 DETAIL**



B
**EXPANSION LOOPS
 SECTION**



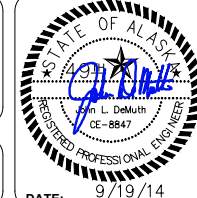
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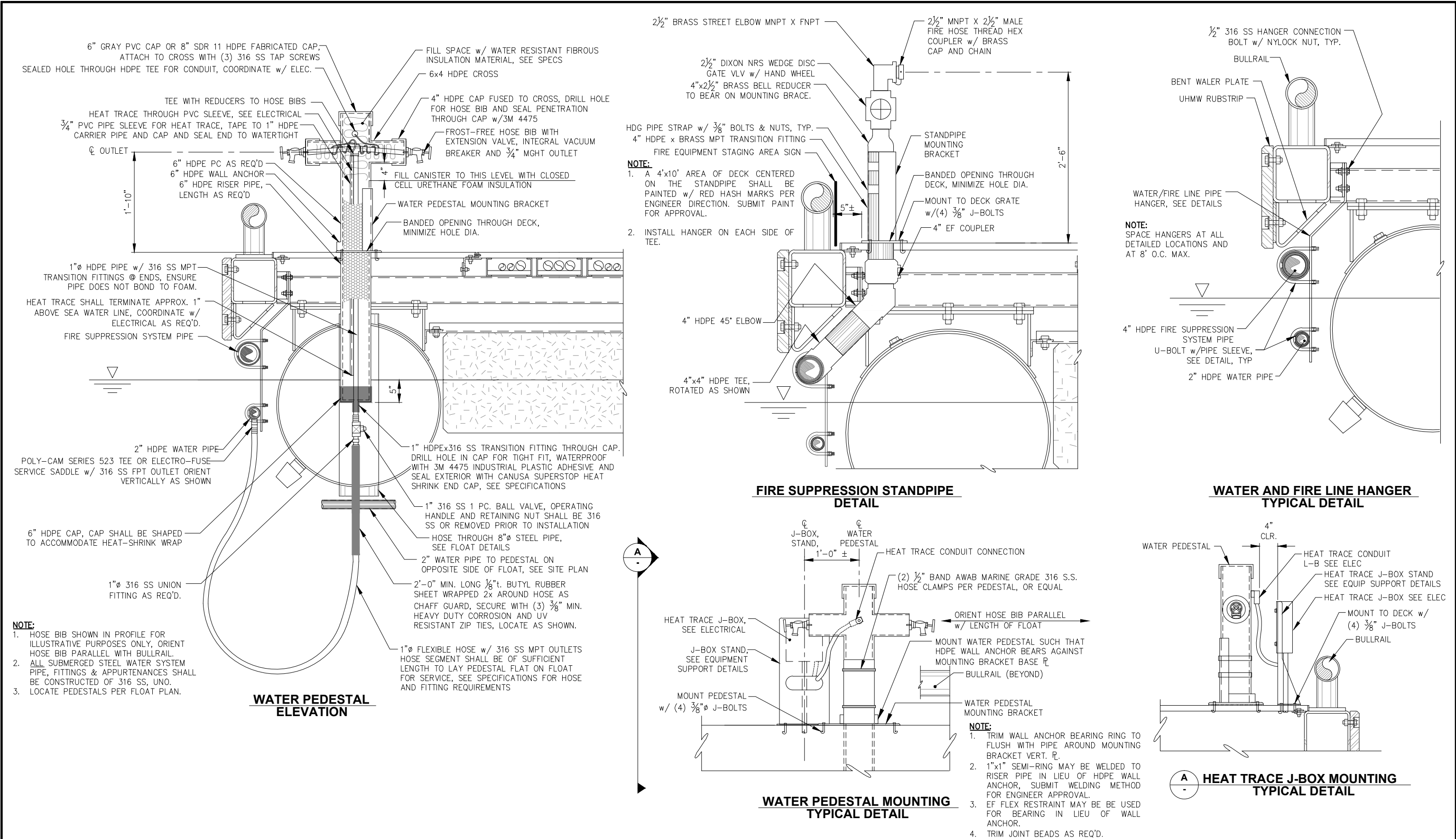
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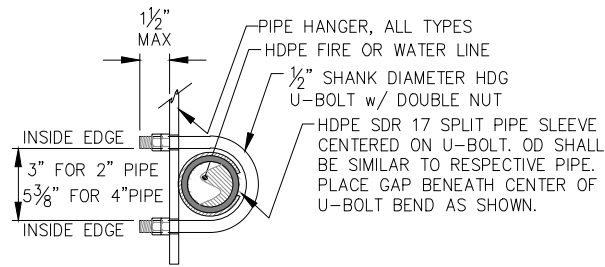


**CITY OF UNALASKA, ALASKA
 ROBERT STORRS HARBOR -
 C FLOAT REPLACEMENT**

SHEET TITLE:
UTILITIES DETAILS

PND PROJECT NO.: 132021

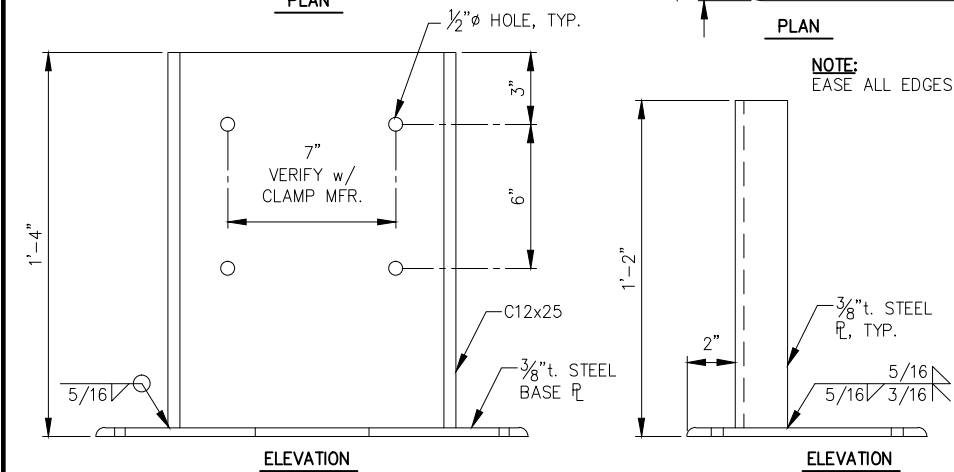
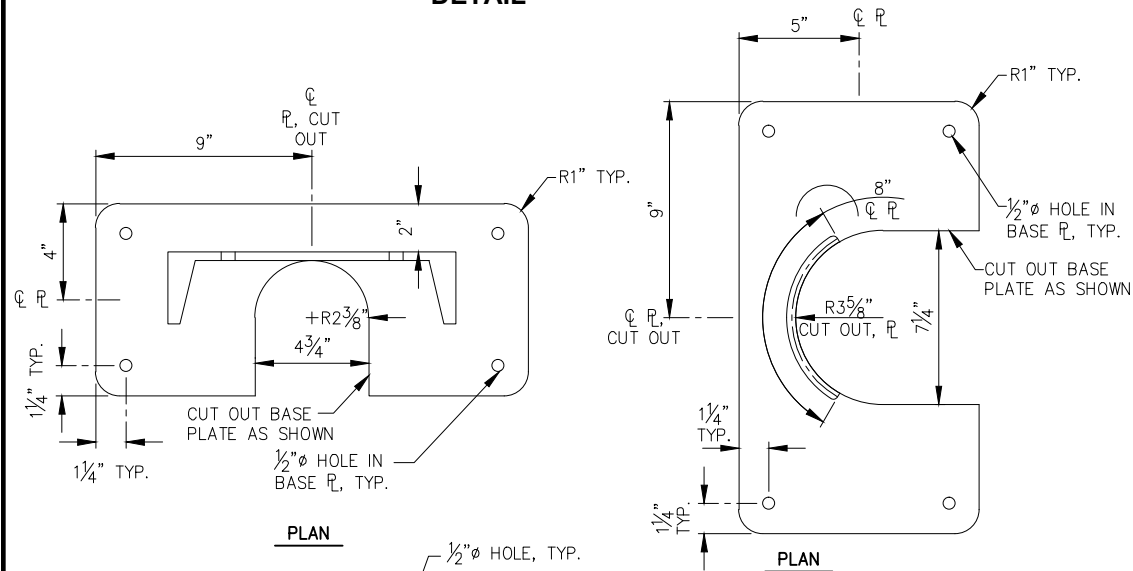




NOTE:

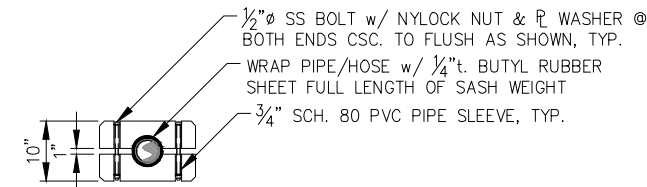
1. PIPE SHALL BE CLAMPED SUCH THAT SLEEVE IS SECURED, BUT PIPE IS ALLOWED TO SLIDE LONGITUDINALLY UNLESS OTHERWISE NOTED.
2. PIPE SLEEVE SHALL BE 6" LONG.
3. HANGER SHOWN OR CALLED OUT AS ADJACENT TO FITTINGS SHALL PROVIDE 4" CLEARANCE BETWEEN SLEEVE AND PIPE WELD.

**PIPE MOUNTING
DETAIL**

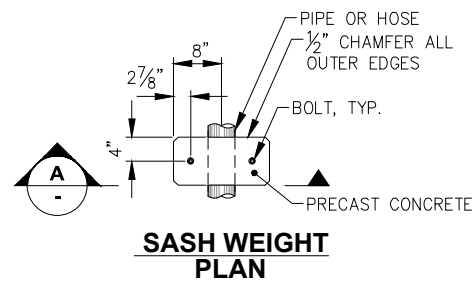


**STANDPIPE MOUNTING BRACKET
DETAIL**

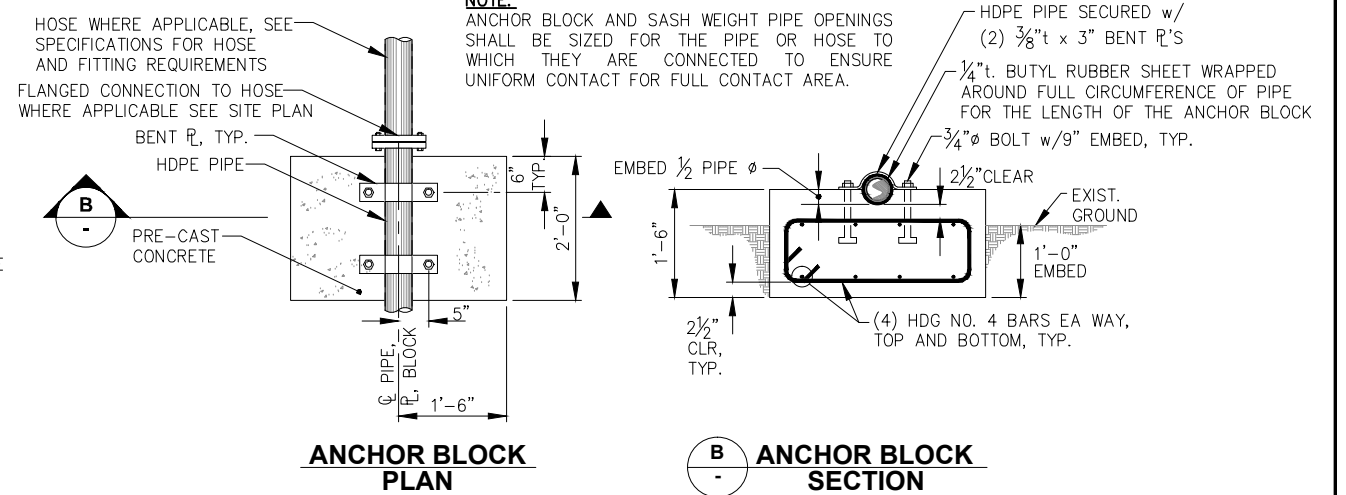
**WATER PEDESTAL MOUNTING BRACKET
DETAIL**



**SASH WEIGHT
SECTION**



**SASH WEIGHT
PLAN**



**ANCHOR BLOCK
PLAN**

**ANCHOR BLOCK
SECTION**



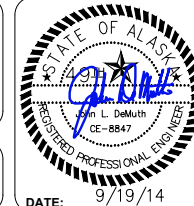
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SCALE:
NTS



DATE: 9/19/14

**CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR -
C FLOAT REPLACEMENT**

**SHEET TITLE:
WATER AND FIRE SUPPRESSION
SYSTEMS DETAILS**

PND PROJECT NO.: 132021

U7

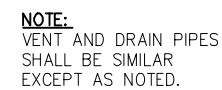
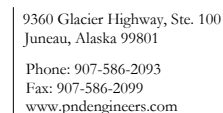


Diagram illustrating the installation of a fire hydrant assembly, showing components and dimensions:

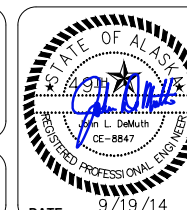
- MUELLER CENTURION A-423 OR AMERICAN B-62-B-5 FIRE HYDRANT
- 1½" PENTAGONAL OPERATING NUT OPENS COUNTER CLOCKWISE
- 4½" PUMPER CONNECTION
- (2) 2½" HOSE CONNECTIONS
- 3" MIN. TO 9" MAX. (Dimension for breakable dry hydrant barrel)
- BREAKABLE DRY HYDRANT BARREL
- 6"Ø SHOE
- 18" (Dimension for connecting pipe)
- REMOVE DRAIN PLUG
- 1 CUBIC YARD OF COMPACTED CRUSHED AGGREGATE DRAIN ROCK AROUND SHOE
- 6"Ø RESILIENT WEDGE GATE VALVE MUELLER 2360 OR AMERICAN 2500
- 6"Ø CONNECTING PIPE, TYP.
- GATE VALVE BOX ASSEMBLY
- 6"Ø DI (Dimension for gate valve box assembly)
- FINISH GRADE
- WATER (Label for the hydrant outlet)

NOTES:

1. HYDRANTS ARE UL/FM LISTED AND MEET AWWA STANDARDS.
2. HYDRANTS ARE FACTORY FINISH; MUELLER-YELLOW, AMERICAN-RED.
3. SCREW THREAD CONNECTIONS ARE NFPA #1963.
4. JOINT, FITTING, AND VALVE CONNECTIONS ARE MECHANICAL JOINTS WITH MEGALUG STYLE RETAINING GLANDS EBAA IRON 1100 SERIES.
5. BOLLARDS NOT SHOWN FOR CLARITY.

[illegible]

SCALE: NTS



SHEET TITLE:

UTILITIES

STANDARD DETAILS

PND PROJECT NO.: 132021

J8

UNALASKA, ALASKA
ROBERT STORRS HARBOR
C FLOAT REPLACEMENT - ELECTRICAL
2014

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
E1	NOTES AND LEGEND
E2	EXISTING CONDITIONS AND DEMOLITION PLAN - ELECTRICAL
E3	OVERALL FLOAT PLAN - POWER
E4	OVERALL FLOAT PLAN - LIGHTING
E5	OVERALL FLOAT PLAN - HEAT TRACE
E6	SINGLE LINE DIAGRAM OVERALL
E7	SINGLE LINE DIAGRAM PANELS A AND B
E8	SINGLE LINE DIAGRAM LIGHTING AND HEAT TRACE
E9	UPLANDS SITE PLAN - ELECTRICAL
E10	HANDHOLE, LIGHT POLE, AND TRENCH DETAILS
E11	LUMINAIRE AND POLE SCHEDULES
E12	WATER VAULT ELECTRICAL DETAILS
E13	GANGWAY TRANSITION AND SECTION
E14	GANGWAY LANDING FLOAT PLAN - ELECTRICAL
E15	PANELS A AND B ELEVATIONS
E16	FLOAT SECTION AND SEAWATER ELECTRODE DETAIL
E17	PEDESTAL WITH LUMINAIRE AND CAMERA ELEVATIONS
E18	PEDESTAL DETAILS
E19	PEDESTAL WIRING DIAGRAMS
E20	WATER PEDESTAL DETAILS
E21	POWER UTILITY VAULT DETAILS

LEGEND		
DESCRIPTION		DESCRIPTION
TYP TYPICAL		CONTACTOR
S SINGLE POLE SWITCH		CIRCUIT BREAKER (AMPS/POLES)
▽ GROUND BUS		TERMINAL BLOCK CONTACT
Ⓢ JUNCTION BOX		PUSH TO TEST INDICATING LIGHT. LETTER INDICATES COLOR.
Ⓜ UTILITY METER		INDUSTRIAL CONTROL RELAY. NUMBER INDICATES RELAY NUMBER
GFI GROUND FAULT INTERRUPTER		PUSHBUTTON
UG UNDERGROUND		NORMALLY OPEN CONTACT NUMBER INDICATES RELAY NUMBER.
WP WEATHERPROOF		NORMALLY CLOSED CONTACT NUMBER INDICATES RELAY NUMBER.
GRS GALVANIZED RIGID STEEL		LIGHTING CONTACTOR
BLDG BUILDING		PHOTOCELL
GND GROUND		LIGHT POLE W/ LUMINAIRE LETTER INDICATES TYPE
REC RECEPTACLE		CT CURRENT TRANSFORMER
W/ WITH		PT POTENTIAL TRANSFORMER
HOA HAND-OFF-AUTO		
UHMW ULTRA HIGH DENSITY MOLECULAR WEIGHT		
		NM NON METALLIC
		KAIC AMPS INTERRUPTING CAPACITY IN THOUSANDS
		N. I. C. NOT IN CONTRACT
		4P, 5W FOUR POLE, FIVE WIRE (TYPICAL)
		HOME RUN
		CONDUIT WITH CONDUCTORS SEE PLANS FOR SIZE AND QUANTITY
		MT MOUNTING HEIGHT
		UNISTRUT SUPPORT CHANNEL UNISTRUT BRAND OR EQUAL
		STRUCTURAL STRUCTURAL PROJECT DRAWING SPECIFICATIONS
		CIVIL CIVIL PROJECT DRAWINGS (G, GA, F & U SERIES)
		RELAY
		EXTG EXISTING
		S.S. 316L STAINLESS STEEL

GENERAL NOTES (APPLICABLE ALL SHEETS):

1. PERFORM ALL WORK PER THE 2014 NATIONAL ELECTRIC CODE (NEC) AND OTHER APPLICABLE NATIONAL, STATE, AND LOCAL CODES AND STANDARDS. PROVIDE EQUIPMENT AND AN INSTALLATION THAT COMPLIES WITH ARTICLE 555 OF THE NEC.

2. MOUNT ALL OF THE ELECTRICAL EQUIPMENT IN THE LOCATIONS SHOWN ON THE CIVIL DRAWINGS. LOCATIONS SHOWN ON THE ELECTRICAL DRAWINGS ARE APPROXIMATE.

3. SEE CIVIL DRAWINGS FOR MOUNTING ALL ELECTRICAL EQUIPMENT AS WELL AS ELECTRICAL DRAWINGS. MOUNTING POSTS, LIGHT POLE BASE DETAILS, CABLE TRAY, PEDESTAL FRAMES, ETC. ARE DETAILED ON THE CIVIL DRAWINGS. MOUNT ELECTRICAL EQUIPMENT AS SHOWN ON BOTH ELECTRICAL AND CIVIL DRAWINGS. SIZE MOUNTING BOLTS, BRACKETS, HARDWARE, ETC. FOR A SAFETY FACTOR OF 5 MINIMUM. ALL EQUIPMENT AND MATERIALS SHALL NOT MOVE WHEN PULLED OR PUSHED BY HAND (EXCEPT CABLES AND FLEXIBLE CONDUIT). SECURE ALL CONDUIT WITHIN 12 INCHES OF END OF CONDUIT AND AS REQUIRED PER NEC.

4. FIELD TREAT ALL HOT DIPPED GALVANIZED MATERIALS THAT ARE CUT, DRILLED, SCRATCHED OR DAMAGED. SEE CIVIL FOR FIELD TREATMENT.
5. ALL CONDUCTORS SHALL BE COPPER, ALL INSULATION SHALL BE 600V RATED. TYPE XHHW FOR CONDUCTORS NOT IN A CABLE. ALL CABLES SHALL BE THE TYPE SPECIFIED, NO SUBSTITUTIONS. USE STAINLESS STEEL STRAPS TO SECURE CONDUIT, UNLESS OTHERWISE NOTED. USE GRS ELBOWS. USE GRS CONDUIT UNDERGROUND. PROVIDE HEAT SHRINK OVER ALL CRIMP CONNECTIONS WHEN TERMINATING A CABLE. NO SPLICES IN ANY CABLES OR CONDUCTORS.

6. IF GALVANIZED THREADS ARE CHASED IN ORDER TO BE USABLE, TREAT CHASED THREADS WITH BRAKE CLEANER, THEN COAT WITH MARINE TRAILER WHEEL BEARING GREASE BEFORE APPLYING A STAINLESS STEEL WASHER AND NUT.

7. USE 316 STAINLESS STEEL BOLTS, WASHERS, ETC. TO MOUNT ELECTRICAL EQUIPMENT AND STRUT CHANNEL. ALL FASTENERS AND OTHER EXPOSED HARDWARE SHALL BE 316 STAINLESS STEEL.

8. SEAL ALL PENETRATIONS IN ELECTRICAL EQUIPMENT WITH UL LISTED HARDWARE FOR SUCH USE. USE RUBBER OR SILICONE WASHERS IN ADDITION TO STAINLESS STEEL WASHERS. DRILL 1/4" DRAIN HOLE IN BOTTOM OF ALL EQUIPMENT AND ENCLOSURES.

9. USE 316 STAINLESS STEEL STRUT CHANNEL (UNISTRUT) TO SUPPORT CABLES, CONTACTORS, POWER HEADS, AND ALL OTHER ELECTRICAL EQUIPMENT UNLESS OTHERWISE NOTED. TRIM STRUT
10. ROUTE CABLES IN CABLE TRAY IN FLOAT UNDER DECKING. SECURE CABLE TO CABLE TRAY WITH NM CABLE TIES (MIN 500 LB TENSILE STRENGTH) WHERE CABLE ENTERS AND LEAVES TRAY AS WELL AS EVERY 6'. DO NOT EXCEED 8 TIMES CABLE DIAMETER FOR BENDING RADIUS. USE STAINLESS STEEL CABLE GRIP CONNECTORS FOR ALL CABLE ENTERING AND LEAVING CONDUIT.

11. ALL CABLE TERMINATIONS AND ALL ELECTRICAL CONNECTIONS SHALL BE A MINIMUM OF 12 INCHES ABOVE THE FLOAT DECKING INCLUDING WIRING TERMINATIONS, RECEPTACLES, ETC.

12. THE PANELS, SWITCHBOARD, AND CONTACTORS SHALL BE MADE BY SQUARE D OR APPROVED EQUAL. THE POWER HEADS AND POWER CENTER SHALL BE MADE BY EATON MARINE POWER OR APPROVED EQUAL. THE DESIGN IS BASED UPON EQUIPMENT BY THESE MANUFACTURERS. ALL NECESSARY CHANGES IN MOUNTING DETAILS, CHANNEL 1/4" SHORT OF EDGE OF EQUIPMENT AND POSTS. SAND END OF STRUT CHANNEL SMOOTH. MOUNT ALL PANELS TO GALVANIZED TUBES THAT ARE PART OF ELECTRICAL EQUIPMENT SUPPORTS. SEE CIVIL. USE CABLE SUPPORTS THAT COMPLY WITH 555.13(4). USE CUSHION STRAPS WHEN SUPPORTING CABLE TO STRUT CHANNEL.
13. PROVIDE OXIDE INHIBITING COMPOUND ON ALL ELECTRICAL CONNECTIONS. BURNDY PENTROX TYPE A OR E AS REQUIRED.

14. ALL LUGS AND ELECTRICAL TERMINALS SHALL BE COPPER OR TIN PLATED HIGH CONDUCTIVE ALUMINUM.

15. SECURE CABLE TO CABLE TRAY WITH 500 LB MINIMUM TY-WRAPS WHEN TRANSITIONING BETWEEN FLOAT SECTIONS TO KEEP CABLE FROM CHAFING. ALLOW SLACK IN CABLE AT FLOAT TRANSITIONS. ALL CONDUIT SHALL BE SCHEDULE 80 PVC, HEAVY DUTY FIBERGLASS, OR GALVANIZED RIGID STEEL AS NOTED.

16. MINIMUM BENDING RADIUS FOR ALL CABLES IS 8 TIMES THE DIAMETER OF THE CABLE.

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SCALE: NONE



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ROBERT STORRS HARBOR
C FLOAT REPLACEMENT

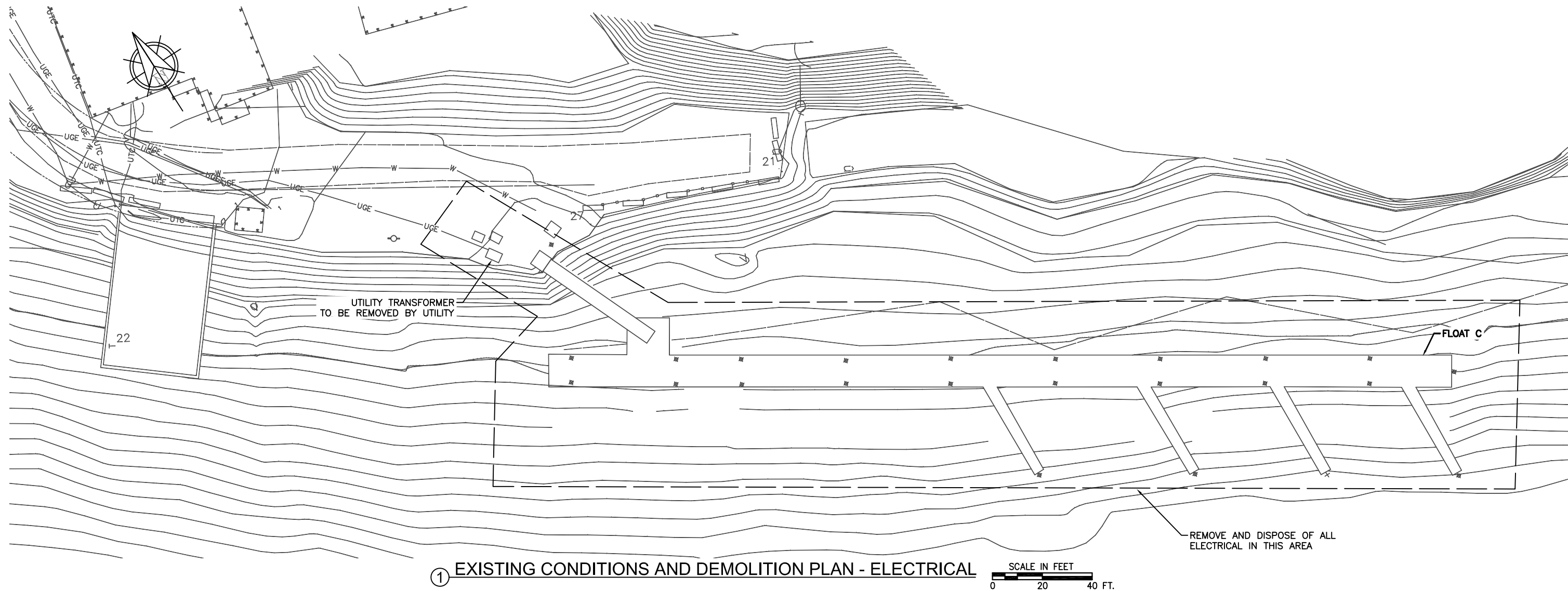
SHEET TITLE:

NOTES AND LEGEND

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E1
SHEET
1 OF 21





DEMOLITION SUMMARY:

1. REMOVE ALL PEDESTALS, LIGHTING, CABLING AND ALL OTHER PORTIONS OF ELECTRICAL SYSTEMS ON THE FLOATS, GANGWAY AND UPLANDS. DISPOSE OF ALL MATERIALS UNLESS OTHERWISE NOTED.
2. COORDINATE WITH LOCAL UTILITY TO DISCONNECT THE SERVICE TO THE GANGWAY AND FLOATS, AND TO REMOVE THE SERVICE CONDUCTORS TO THEIR TRANSFORMER. COORDINATE WITH UTILITY TO REMOVE THEIR TRANSFORMER AND UNDERGROUND WIRING BACK FAR ENOUGH TO ALLOW INSTALLATION OF UPLANDS WORK.





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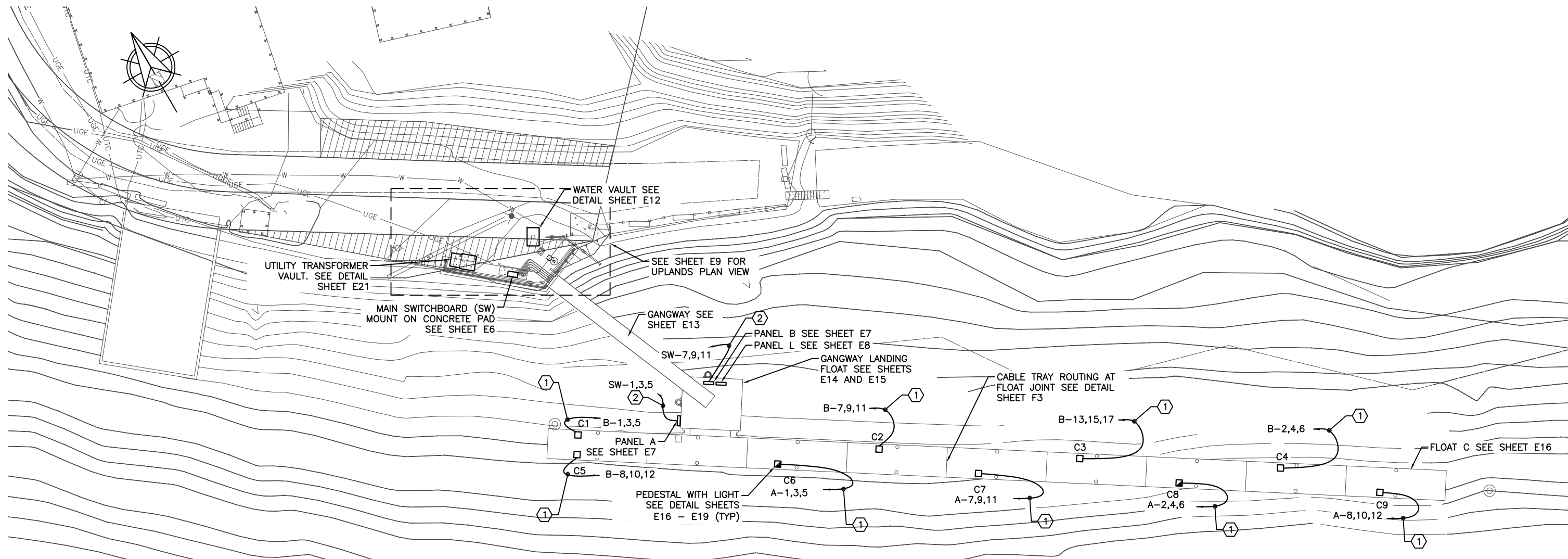
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SHEET TITLE:
**EXISTING CONDITIONS AND
DEMOLITION PLAN - ELECTRICAL**

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E2
SHEET
2 OF 21



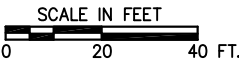
NOTES:

- ① (1) 4/C, NO. 4/0 TYPE G CABLE (TYP) ROUTE THROUGH FLOAT TO PANEL.
- ② (3) 4/C, NO. 4/0 TYPE G CABLE. ROUTE IN CONDUIT TO SWITCHBOARD SEE SHEETS E2, E6, E9, E13-E15.
3. LOCATE PEDESTALS AS SHOWN ON CIVIL FLOAT PLANS (F SERIES).
4. SEE SHEET E18 FOR PEDESTAL DETAILS. SEE ALSO CIVIL SHEETS (F SERIES).
5. ROUTE CABLE IN CABLE TRAY INSIDE FLOAT. SEE CIVIL FLOAT SECTIONS (F SERIES) AND SHEETS E14, E15 AND E16.

PEDESTAL SCHEDULE

	TYPE	QUANTITY	DESCRIPTION
■	A	2	(2) 100A, 208V, 3 PHASE (2) 50A, 208V, 1 PHASE & (2) 30A, 120V, 1 PHASE
□	B	7	(2) 60A, 208V, 3 PHASE (2) 50A, 208V, 1 PHASE & (2) 30A, 120V, 1 PHASE

① OVERALL FLOAT PLAN - POWER



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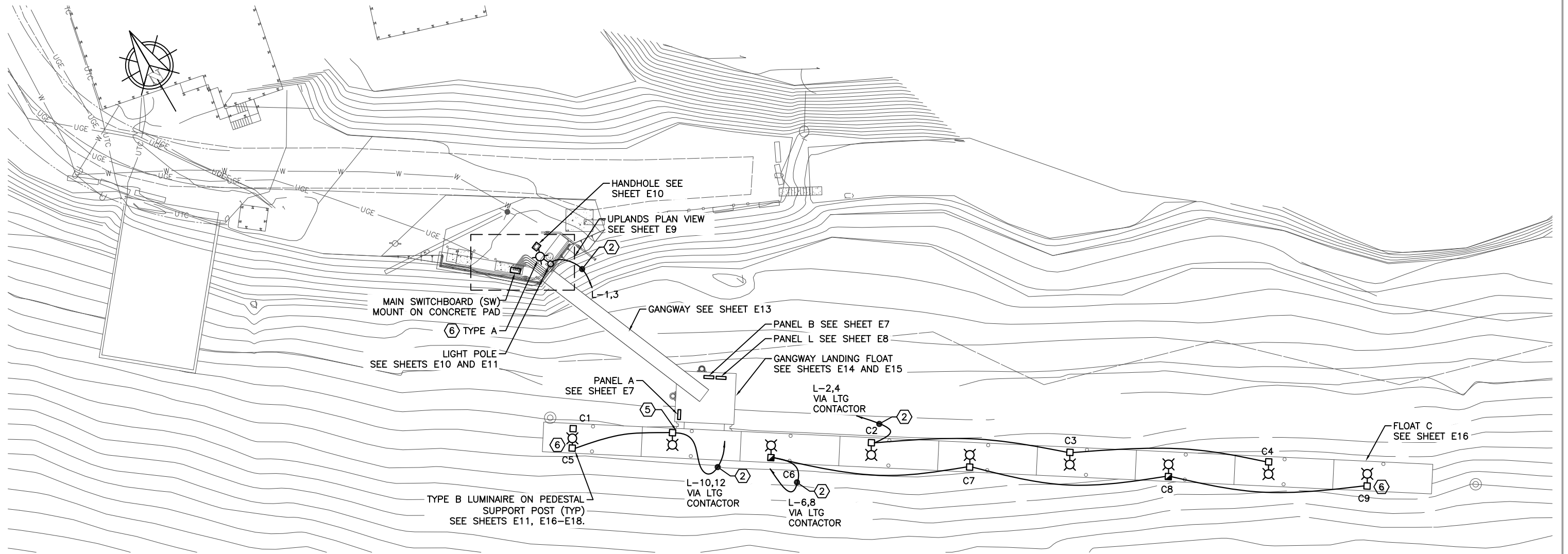
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SHEET TITLE:
OVERALL FLOAT PLAN - POWER

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E3
SHEET
3 OF 21



NOTES:

1. PROVIDE LUMINAIRES ON THE PEDESTALS SHOWN, SEE ELEVATION, SHEET E17. SEE CIVIL SHEETS FOR PEDESTAL LOCATIONS (F SERIES).
2. 4/C, NO. 8 TYPE G-GC CABLE, (TYP). ROUTE THROUGH FLOAT TO LIGHTING CONTACTOR
3. FOR LIGHTING CIRCUITING, SEE LIGHTING AND HEAT TRACE SINGLE LINE DIAGRAM, SHEET E8.
4. ROUTE CABLE IN CABLE TRAY INSIDE FLOAT. SEE CIVIL FLOAT SECTIONS (F SERIES) AND SHEETS E14, E15, AND E16.
5. PROVIDE LIGHT POLE ONLY PER PEDESTAL DESIGN, SHEETS E16-E18, BUT WITHOUT POWER HEADS.
6. INSTALL AN OWNER PROVIDED VIDEO CAMERA AND POLE MOUNT ADAPTER TO THE LIGHT POLE BELOW THE LUMINAIRE AS SHOWN ON THE LIGHT POLE DETAIL, SHEETS E10 AND E17. POWER THE CAMERA FROM THE 120V NON-SWITCHED CIRCUIT IN THE LIGHTING CABLE.

1 OVERALL FLOAT PLAN - LIGHTING

SCALE IN FEET
0 20 40 FT.



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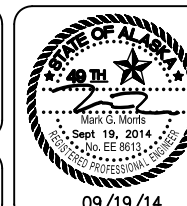
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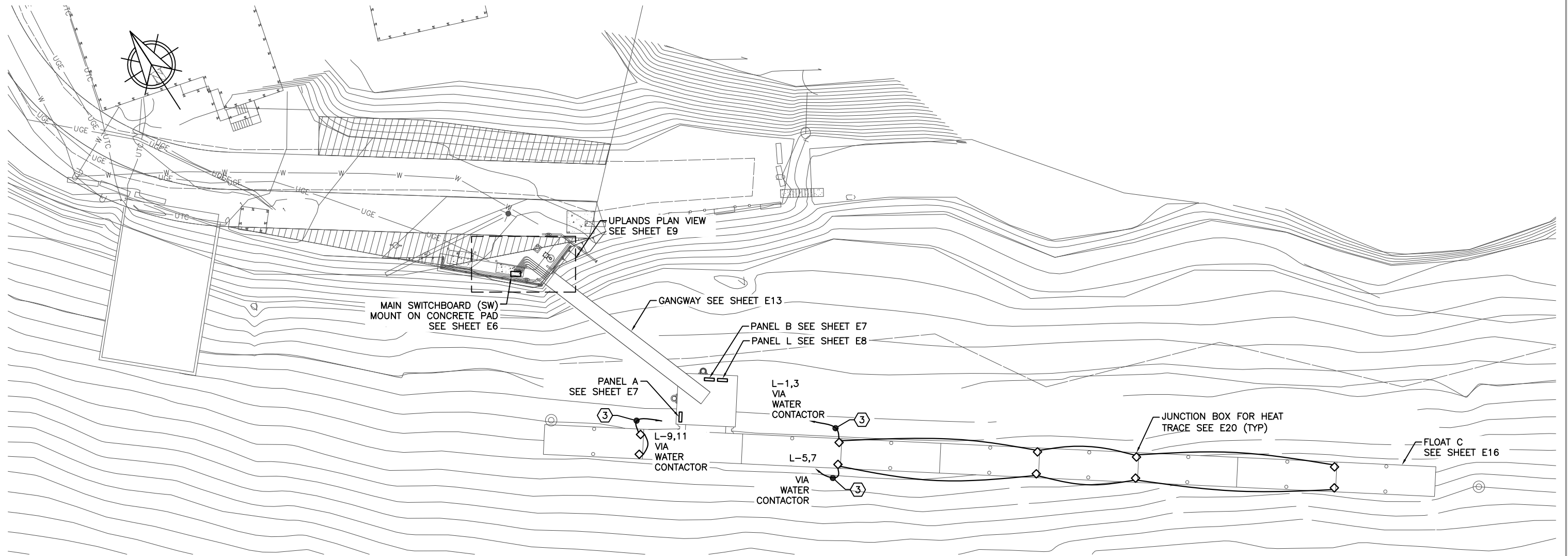
DATE: 09/19/14

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C FLOAT REPLACEMENT

SHEET TITLE:
OVERALL FLOAT PLAN - LIGHTING

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E4
SHEET
4 OF 21



NOTES:

1. PROVIDE POWER TO HEAT TRACE IN WATER PEDESTALS AS SHOWN. SEE DETAILS, SHEET E20 FOR HEAT TRACE IN PEDESTALS.
2. SEE CIVIL FOR LOCATIONS OF WATER PEDESTALS (U SERIES).
- ③ 3/C, NO. 8 TYPE G CABLE, TYP.
4. SEE SINGLE LINE DIAGRAM LIGHTING AND HEAT TRACE, SHEET E8 FOR CIRCUITING.
5. ROUTE CABLE IN CABLE TRAY INSIDE FLOAT. SEE CIVIL (F SERIES) AND SHEETS E14, E15, AND E16.

① OVERALL FLOAT PLAN - HEAT TRACE

SCALE IN FEET
0 20 40 FT.



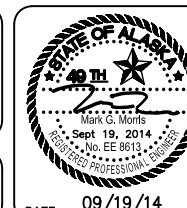
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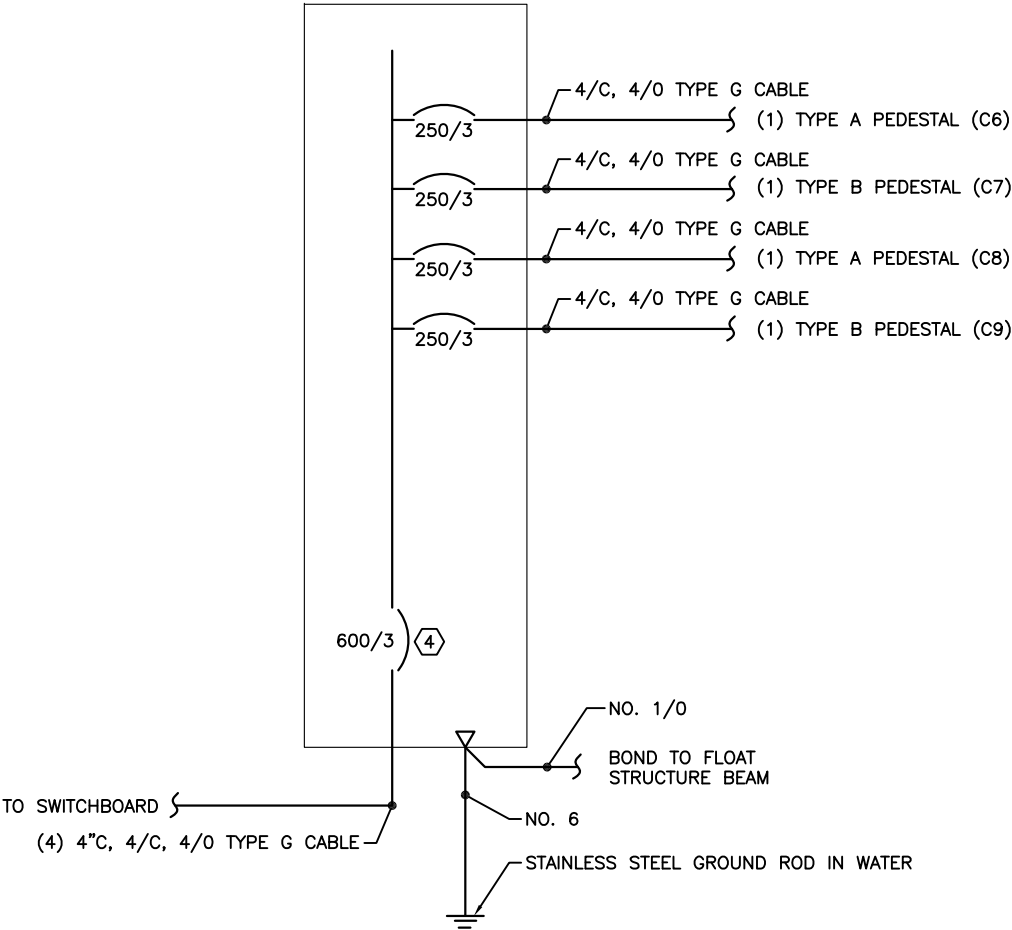
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**OVERALL FLOAT PLAN -
HEAT TRACE**

PND PROJECT NO.: 132021 DWG. FILE: 118-36

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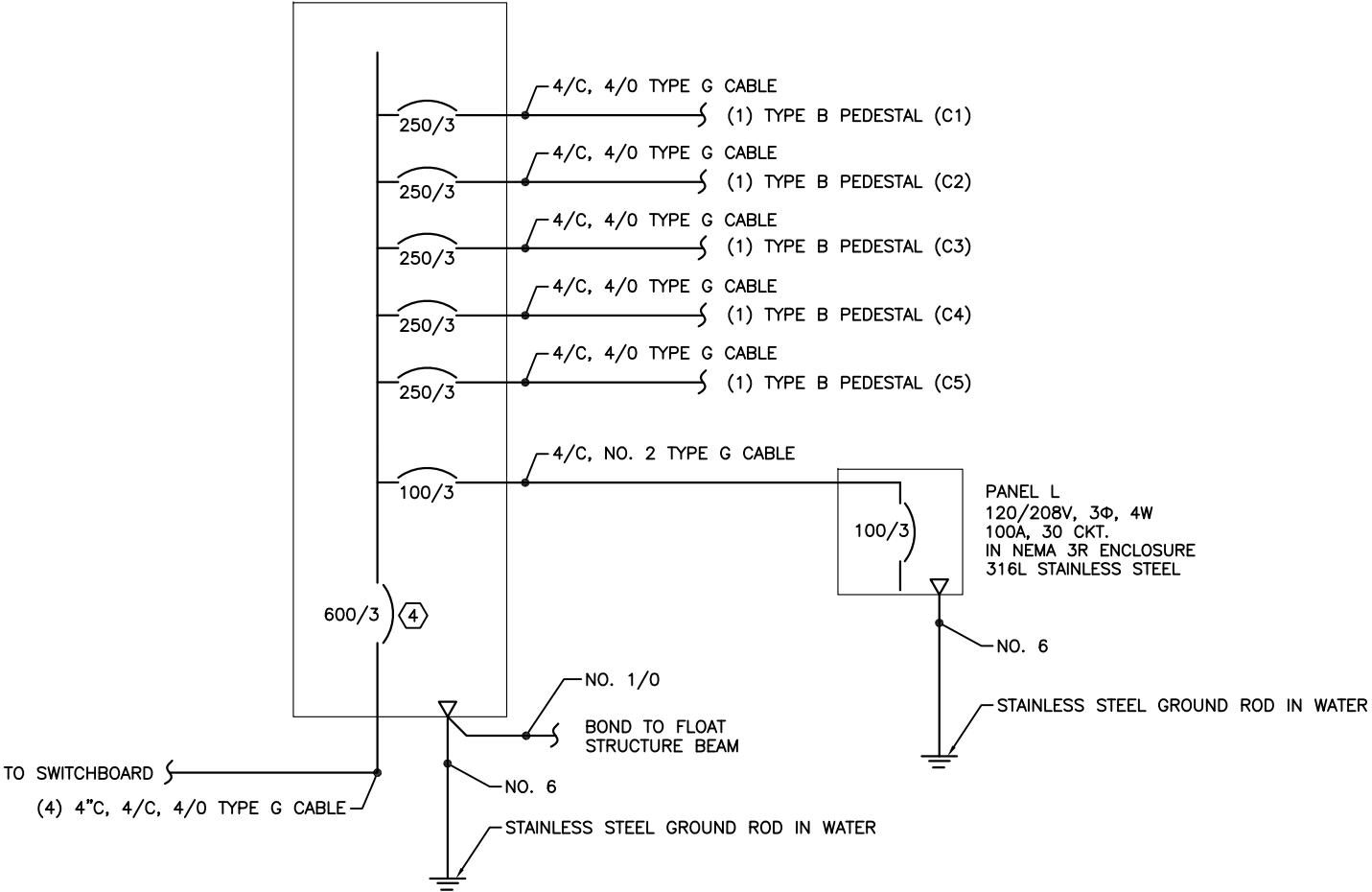
E5
SHEET
5 OF 21

PANEL A
120/208V, 3Φ,
4W 600A, 25KAIC RATING
NEMA 3R, 316L STAINLESS
STEEL ENCLOSURE
SQUARE D I LINE TYPE HCP



① SINGLE LINE DIAGRAM - PANEL A

PANEL B
120/208V, 3Φ,
4W 600A, 25KAIC RATING
NEMA 3R, 316L STAINLESS
STEEL ENCLOSURE
SQUARE D I LINE TYPE HCP



② SINGLE LINE DIAGRAM - PANEL B

NOTE:
SEE SHEET E6 FOR ALL KEYNOTE REFERENCES.



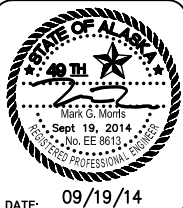
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SHEET TITLE:
SINGLE LINE DIAGRAM
PANELS A AND B

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E7
SHEET
7 OF 21

PANEL L
120/208V, 3 ϕ , 4W, 100A
WITH 100/3 MAIN CIRCUIT BREAKER 30CKT, 25 KAIC
IN NEMA 3R 316 STAINLESS STEEL ENCLOSURE
MOUNT TO EQUIPMENT RACK ON GANGWAY LANDING FLOAT

CONDUCTORS AS
REQUIRED

24"x24"x9" NEMA 4X
316L STAINLESS
STEEL ENCLOSURE
WITH DIGITAL METER
FOR PANEL L

100A
EMON
DIGITAL
METER

30A, 600V HEAVY DUTY FUSE DISCONNECT IN VAULT. USE
20A FUSES DUAL ELEMENT TIME DELAY. BUSS LOW PEAK

ROUTE IN 2" C TO BELOW FLOAT,
THROUGH FLOAT TO GANGWAY,
THEN IN 4" C UNDER GANGWAY,
THEN IN 2-1/2" C UNDERGROUND
TO HANDHOLE OR VAULT.

LIGHTING CONTACTOR

HOA

LC

8 POLE, 30 AMP ELECTRICALLY HELD
LIGHTING CONTACTOR IN NEMA 4X STAINLESS
STEEL ENCLOSURE WITH HOA SWITCH
MOUNT TO EQUIPMENT RACK ON GANGWAY
LANDING FLOAT NEXT TO PANEL L

NEMA RATED PE CELL TORK MODEL 2101 MOUNT ON TOP
OF NEW LIGHT POLE IN UPLANDS.

3/C, NO. 12 SO CORD (2)

WATER CONTACTOR

HOA

LC

6 POLE, 30 AMP ELECTRICALLY HELD LIGHTING
CONTACTOR IN NEMA 4X STAINLESS STEEL
ENCLOSURE WITH HOA SWITCH
MOUNT TO EQUIPMENT RACK ON GANGWAY
LANDING FLOAT NEXT TO PANEL L

RED 40 MM NEMA 4X CORROSION
RESISTANT/WATERTIGHT
PUSH TO TEST 120V LED LIGHT MOUNT TO
DOOR OF ENCLOSURE LABEL "HEAT TRACE ON"

THERMOSTAT WITH REMOTE BULB PROVIDE
WITH DIAL TEMPERATURE SELECTION
INDUSTRIAL GRADE SET AT 40°F CHROMOLOX
OR EQUAL

NO. 8

1/2" C, 2 NO. 12
AND 1 NO. 12 GND

GROUND ROD

1" C, 2 NO. 10 AND
1 NO. 10 GND

NO. 8

GROUND ROD

TO FLOAT C LIGHTING-INSIDE

TO FLOAT C LIGHTING-NORTH END

TO FLOAT C LIGHTING-OUTSIDE

GFI RECEPTACLES IN
ENCLOSURES ON ABUTMENT FOR
GANGWAY LIGHTING

LIGHT POLE IN UPLANDS

2" C, 2 NO. 8 AND 1 NO. 10 GND (LUMINAIRE POWER),
3 NO. 12 AND 1 NO. 12 GND (PE CELL),
AND 2 NO. 12 AND 1 NO. 12 GND (CAMERA POWER)

2" C, 18 NO. 10 AND
1 NO. 10 GND

2" C, 6 NO. 10 AND
1 NO. 10 GND

SPARE

NO. 6
BOND TO FLOAT
STRUCTURE BEAM
STAINLESS STEEL
GROUND ROD

1 SINGLE LINE DIAGRAM LIGHTING AND HEAT TRACE

NOTES:

- ALL BRANCH CIRCUIT BREAKERS FOR
PANEL L SHALL HAVE 35 MILLI-AMP
GROUND FAULT INTERRUPTING
PROTECTION.
- ROUTE IN 4" CONDUIT UP GANGWAY,
THEN IN 2-1/2" CONDUIT THROUGH
ABUTMENT TO HANDHOLE, THEN
SPlice TO 3 NO. 12 AND 1 NO. 12
GND AND ROUTE INTO POLE WITH
CONDUCTORS FOR LUMINAIRE.
- USE CIRCUIT BREAKER TYPE WHICH
ARE COMPATIBLE WITH LUMINAIRE.
- UNSWITCHED CAMERA POWER (USE 2
CONDUCTORS FOR LIGHTING AND 2
FOR CAMERA POWER).



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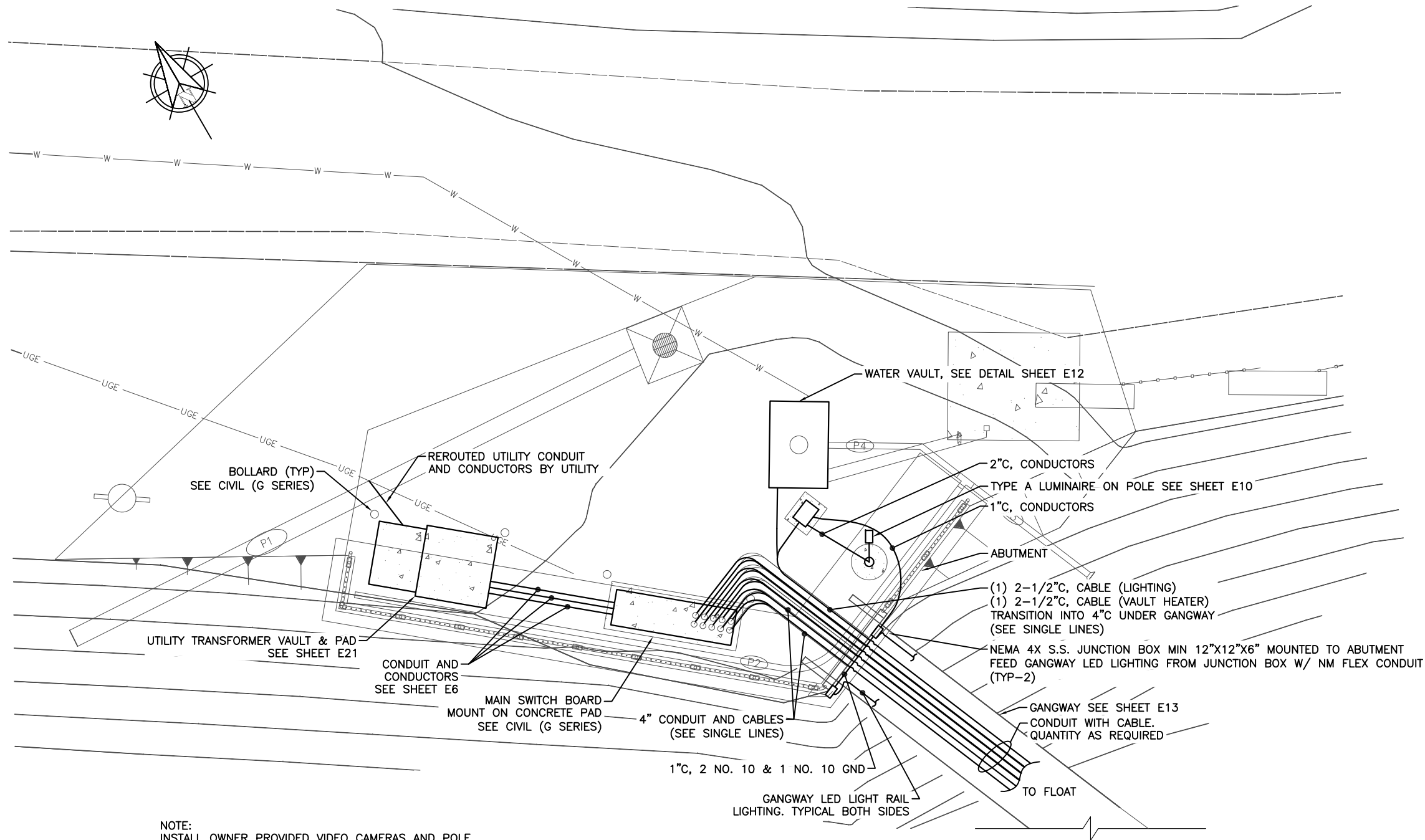


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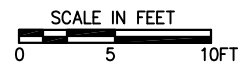
SHEET TITLE:
SINGLE LINE DIAGRAM LIGHTING
AND HEAT TRACE

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E8
SHEET
8 OF 21



① UPLANDS SITE PLAN - ELECTRICAL



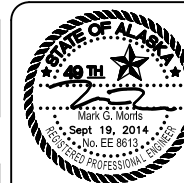
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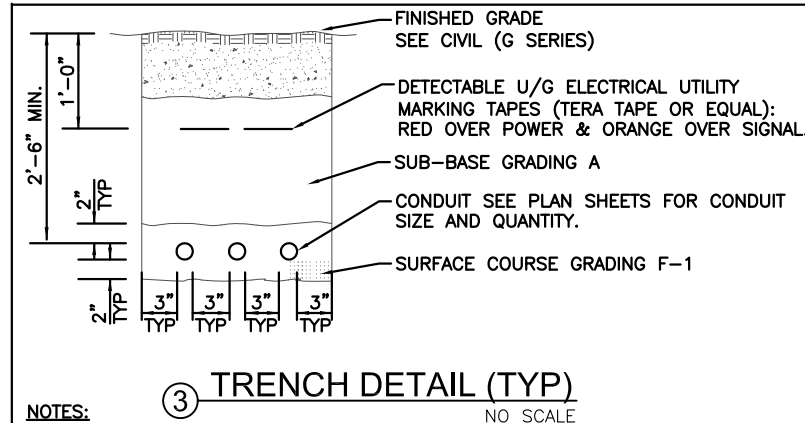
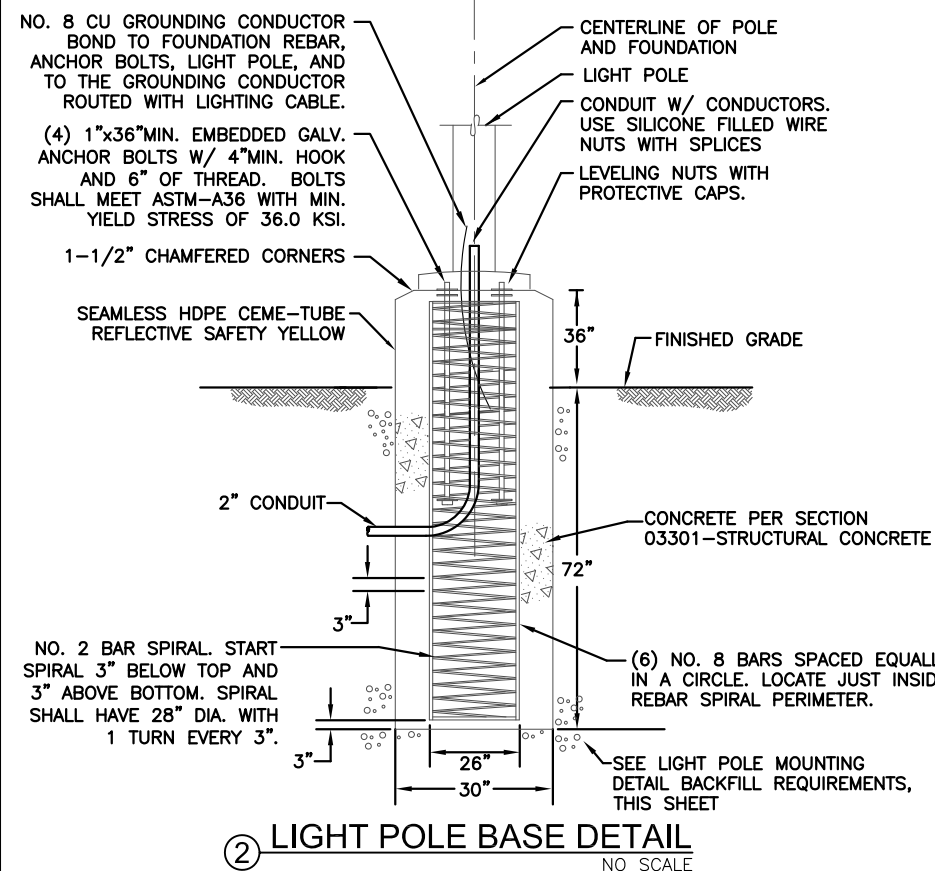
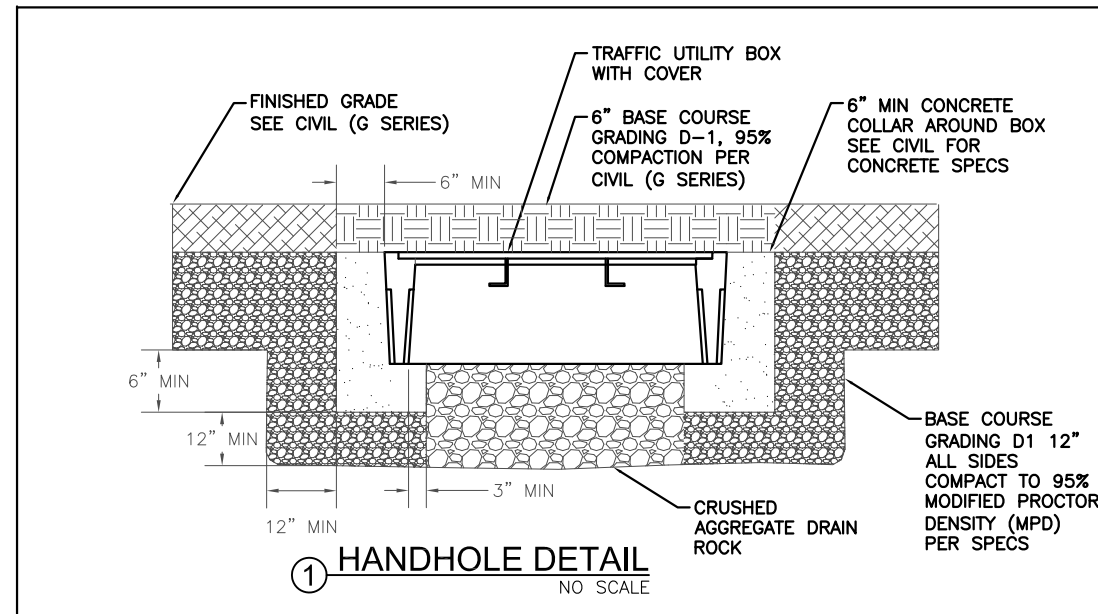
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SHEET TITLE:
UPLANDS SITE PLAN -
ELECTRICAL

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E9
SHEET
9 OF 21



- NOTES:

1. ALL DIMENSIONS ARE MINIMUM.
2. THE LOCATION OF ALL EXISTING PIPING, CONDUIT, ETC MAY NOT BE WHERE SHOWN AND MAY NOT BE SHOWN. ALL LOCATIONS THAT ARE SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. OBTAIN UTILITY LOCATES PRIOR TO DIGGING. DIG WITH CAUTION. AVOID WATER, SEWER, DRAINAGE PIPES AND OTHER CONFLICTS.
3. MAINTAIN 12 INCHES MINIMUM SEPARATION (ALL DIRECTIONS) BETWEEN POWER AND OTHER EXISTING CONDUITS, PIPES, ETC.
4. CUT & REPLACE EXISTING ASPHALT, CONCRETE, CONCRETE CURB, GUTTER, SIDEWALK, ETC. AS NECESSARY.
5. ALL TRENCHES SHALL BE 18" WIDE MIN. COMPACT BACKFILL PER CIVIL. TOP 6" OF MATERIAL PER CIVIL.
6. POWER UTILITY CONDUIT SHALL BE BURIED AT A MINIMUM OF 3'.
7. MODIFY CONDUIT BURIAL DEPTH WHERE SHOWN ON DRAWINGS.
8. MAINTAIN 36" MINIMUM LATERAL SEPARATION FROM WATER AND SEWER LINES. MAINTAIN 12" SEPARATION BETWEEN ELECTRICAL UTILITY CONDUITS.

- NOTES:

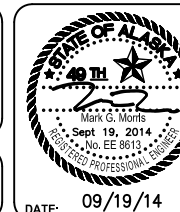
1. UNLESS NOTED ELSEWHERE, ALL SPLICES SHALL BE IN BASE OF POLE.
2. PROVIDE GROUNDING BUSHINGS ON CONDUIT.
3. PROVIDE DOUBLE FUSED CONNECTOR KITS IN BASE OF POLE. SEC NO. 1791-DF OR EQUAL.
4. LOCATE THE CENTER OF THE LIGHT POLE WHERE SHOWN ON CIVIL DRAWINGS AND PLAN SHEET E9.
5. SIZE POLE WITH MAST ARM AND LUMINAIRE FOR 130 MPH SUSTAINED WINDS WITH GUSTS TO 150 MPH.
6. PROTECT ANCHOR BOLTS FROM PHYSICAL DAMAGE DURING CONSTRUCTION.
7. PROVIDE HANDHOLE AT BASE.
8. PROVIDE 120V POWER (2 NO. 12 & 1 NO. 12 GND) TO (2) CAMERAS ON POLE. PROVIDE GROMMETED OPENINGS IN POLE AT 6' AND 7' BELOW MAST ARM (SEE DESCRIPTION THIS SHEET). PROVIDE POWER TO OWNER MOUNTED CAMERAS COORDINATE WITH OWNER TO MOUNT CAMERAS TO POLE. COORDINATE OPENING LOCATIONS WITH OWNER. PROVIDE HANDHOLE AT 6'-6" BELOW MAST ARM.

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SCALE:	NONE
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SHEET TITLE:
**HANDHOLE, LIGHT POLE, AND
TRENCH DETAILS**

PND PROJECT NO.: 132021	DWG. FILE: 118-36
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E10
SHEET
0 OF 21

LUMINAIRE SCHEDULE					
TYPE	DESCRIPTION	MANUFACTURER	LAMPS	SPARES	REMARKS
A	POLEMOUNT, CUTOFF LED LUMINAIRE UPLANDS	GENERAL ELECTRIC EASA-0-J4-F-7-57-4-C-GREY	180 LED 4000K (30,300 LUMENS) 700MA	SEE NOTE 4	POLE MOUNT TO ROUND POLE. PROVIDE WITH NIXALITE BIRD CONTROL. ATTACH WITH MANUFACTURER RECOMMENDED ADHESIVE. NO HOLES IN HOUSING. STEALTH GRAY. USE IN UPLANDS. PROVIDE WITH PE CELL WITH RECEPTACLE. 120V
B	POLEMOUNT, CUTOFF LED LUMINAIRE FLOAT	KIM LIGHTING TYPE 1 DISTRIBUTION 1SA/ALT1P35180L4K208	180 LED 4000K (20,000 LUMENS) 350MA	SEE NOTE 4	POLE MOUNT TO SQUARE POLE. PROVIDE WITH NIXALITE BIRD CONTROL. ATTACH WITH MANUFACTURER RECOMMENDED ADHESIVE. NO HOLES IN HOUSING. PROVIDE WITH PHOTOCELL. STEALTH GRAY. USE ON FLOAT. 208V
<p>NOTES:</p> <p>1. THE PART NUMBERS IN THE LUMINAIRE SCHEDULE MAY NOT BE COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTACTOR TO PROVIDE ALL PARTS AND ACCESSORIES NECESSARY TO COMPLY WITH THE FEATURES SHOWN IN THE LUMINAIRE SCHEDULE (INCLUDING THE MOUNTING) AND AS SHOWN ON THE OTHER PLAN SHEETS, AND IN THE SPECIFICATIONS.</p> <p>2. SEE LIGHT POLE DETAIL SHEET E10, LUMINAIRES SHALL BE STEALTH GRAY.</p> <p>3. CUTOFF LUMINAIRE. ONE PIECE DIE CAST LOW COPPER ALUMINUM ALLOY HOUSING. HOUSING SHALL HAVE A CURVED UPPER SURFACE TO PREVENT LIQUID FROM PUDDLING ON TOP OF FIXTURE. SOLID BARRIER WALL SEPARATING OPTICAL AND ELECTRICAL COMPONENTS. ONE PIECE SILICONE GASKETS SEAL COMPARTMENTS AT BARRIER SURFACE. OPTICAL MODULE UTILIZES IP66 RATED COMPONENTS. ALL OPTICAL MODULES ARE FASTENED TO THE BODY OF THE LUMINAIRE ACROSS THE CENTER AND AROUND THE PERIMETER. HOUSING AND SUPPORT ARM SHALL PROVIDE TOOL-LESS ENTRY. ELECTRICAL COMPARTMENT SHALL INCLUDE INTEGRAL 10KV SURGE PROTECTION. ALL ELECTRONIC COMPONENTS ARE UL AND CSA RECOGNIZED AND SHALL BE DIRECTLY MOUNTED TO A DRIVER TRAY. DRIVER SHALL BE RATED FOR -40°C STARTING AND HAVE A 0-10V DIMMING INTERFACE FOR MULTI-LEVEL ILLUMINATION OPTIONS. ALL ELECTRONIC COMPONENTS SHALL BE IP66 RATED. A TERMINAL BLOCK LOCATED IN THE ARM CAVITY SHALL ACCEPT #14 TO #8 WIRE SIZES. TERMINAL BLOCK SHALL BE FACTORY PREWIRED TO THE ELECTRICAL MODULE TO PROVIDE A QUICK-DISCONNECT PLUG INSIDE THE ELECTRICAL COMPARTMENT. MOUNTING ARM SHALL BOLT TO SQUARE POLE (OR ROUND POLE AS NEEDED). PROVIDE WITH WIRE STRAIN RELIEF. PROVIDE WITH SUPER TGIC THERMOSET POLYESTER POWDER COAT PAINT 2.5 MIL NOMINAL THICKNESS OVER TITANATED ZIRCONIUM CONVERSION COATING. 2500 HOUR SALT SPRAY TEST ENDURANCE RATING.</p> <p>4. PROVIDE TWO SPARE LUMINAIRES OF EACH TYPE AND TWO SPARE DRIVERS, ONE OF EACH TYPE. PROVIDE FOUR OPTICAL MODULES OF EACH TYPE.</p>					

POLE SCHEDULE			
LOCATION	POLE HEIGHT	LUMINAIRE MT. HEIGHT (AFG)	NOTES
UPLANDS	30'	33'	6' MAST ARM LENGTH
FLOAT	15'	15'	NO MAST ARM
FLOAT*	20'	15'	CAMERA HEIGHT BY OWNER

*THESE POLES ARE LOCATED WHERE CAMERAS ARE SHOWN TO BE PROVIDED BY OWNER. PROVIDE A 20' POLE IN THIS LOCATION.





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DESIGN: <u>MGM</u>	CHECKED: <u>LDS</u>	SCALE:
DRAWN: <u>EJV</u>	APPROVED: <u>MGM</u>	NONE

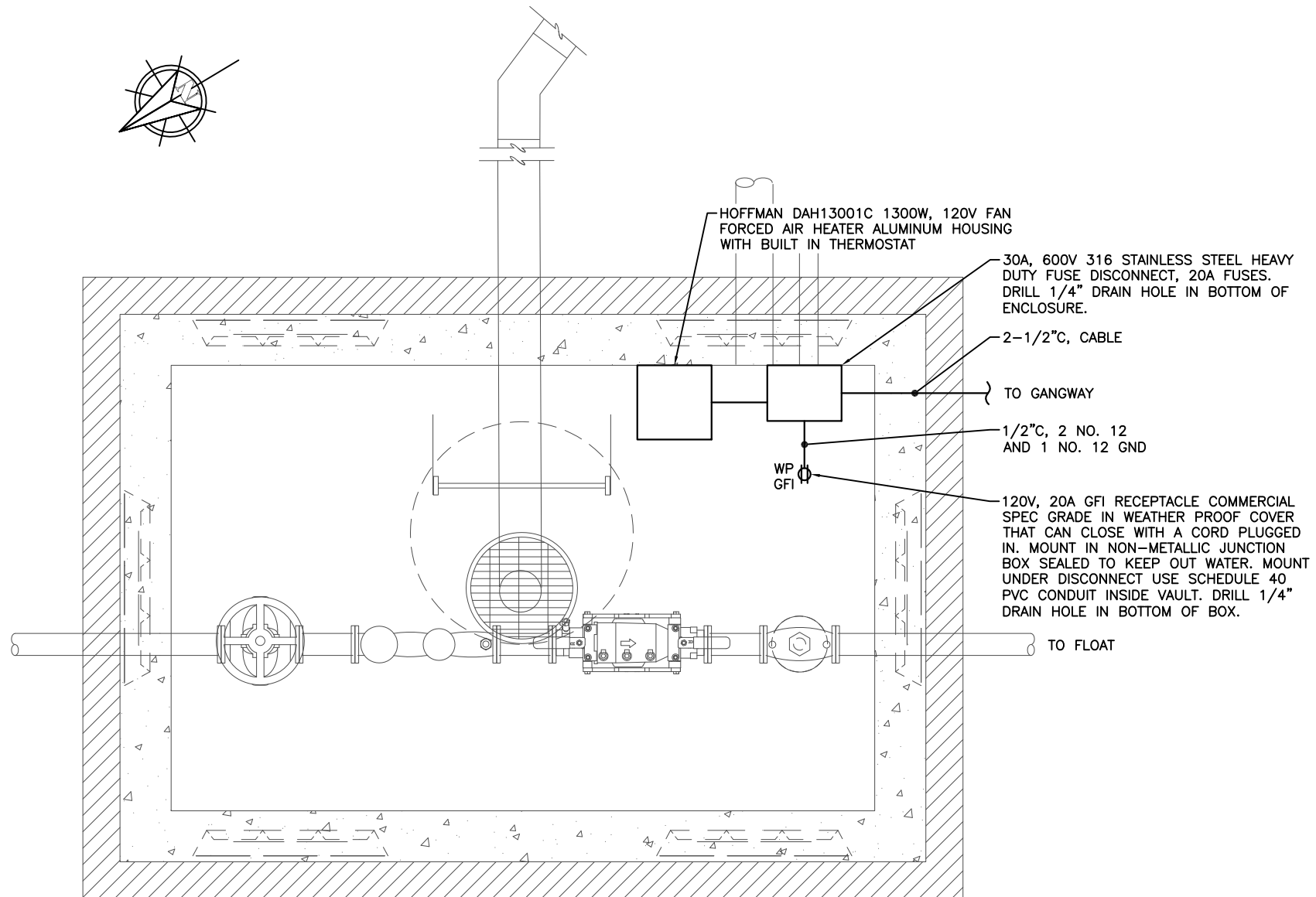


CITY OF UNALASKA , ALASKA
ROBERT STORRS HARBOR
C FLOAT REPLACEMENT

SHEET TITLE:
**LUMINAIRE AND POLE
SCHEDULES**

PND PROJECT NO.: 132021 DWG. FILE: 118-36

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SHEET
11 OF 21



① **DETAIL: WATER UTILITY VAULT PLAN - HEAT AND OUTLET**
NO SCALE



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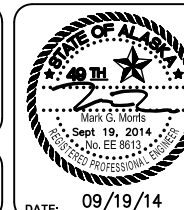
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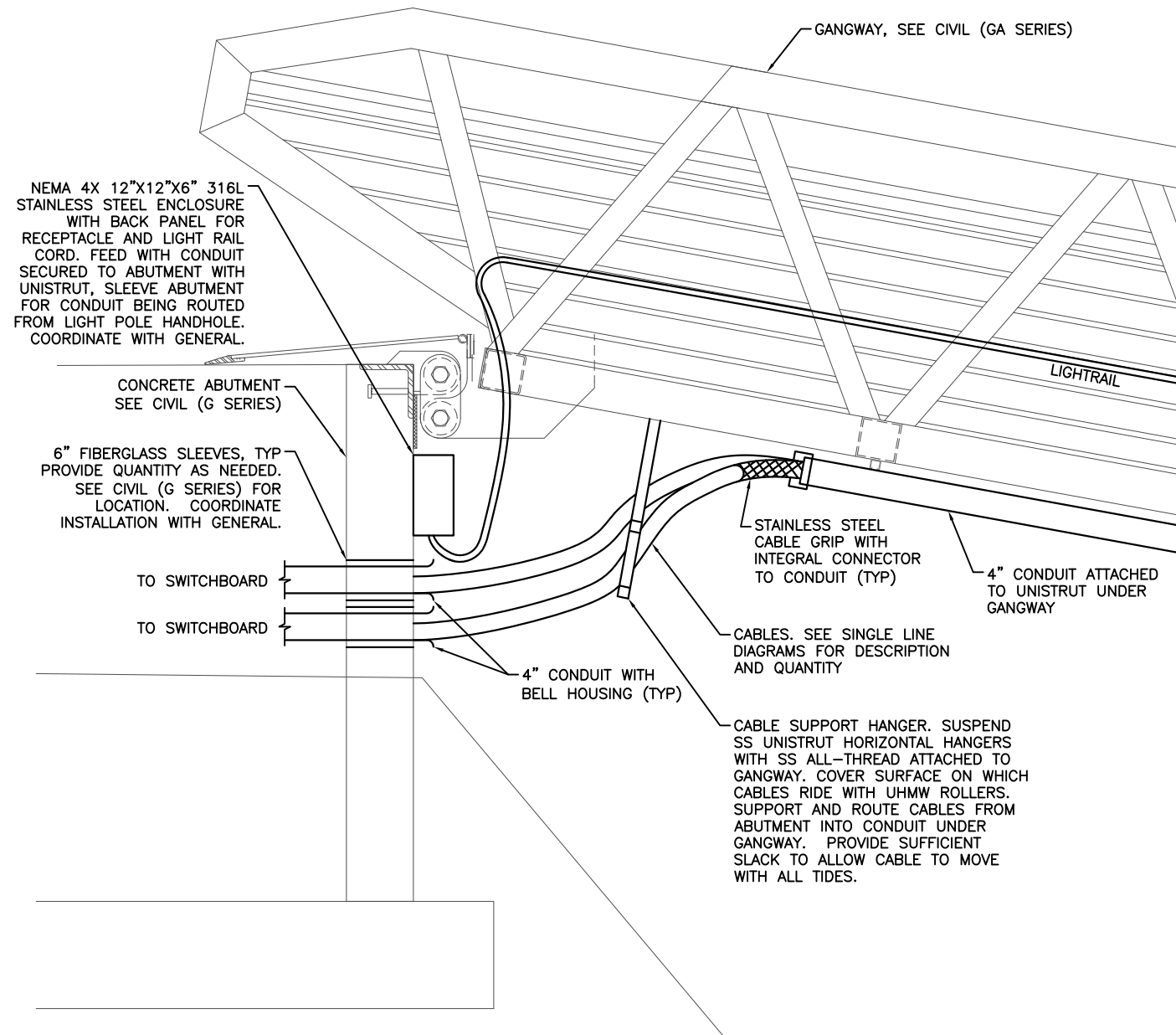


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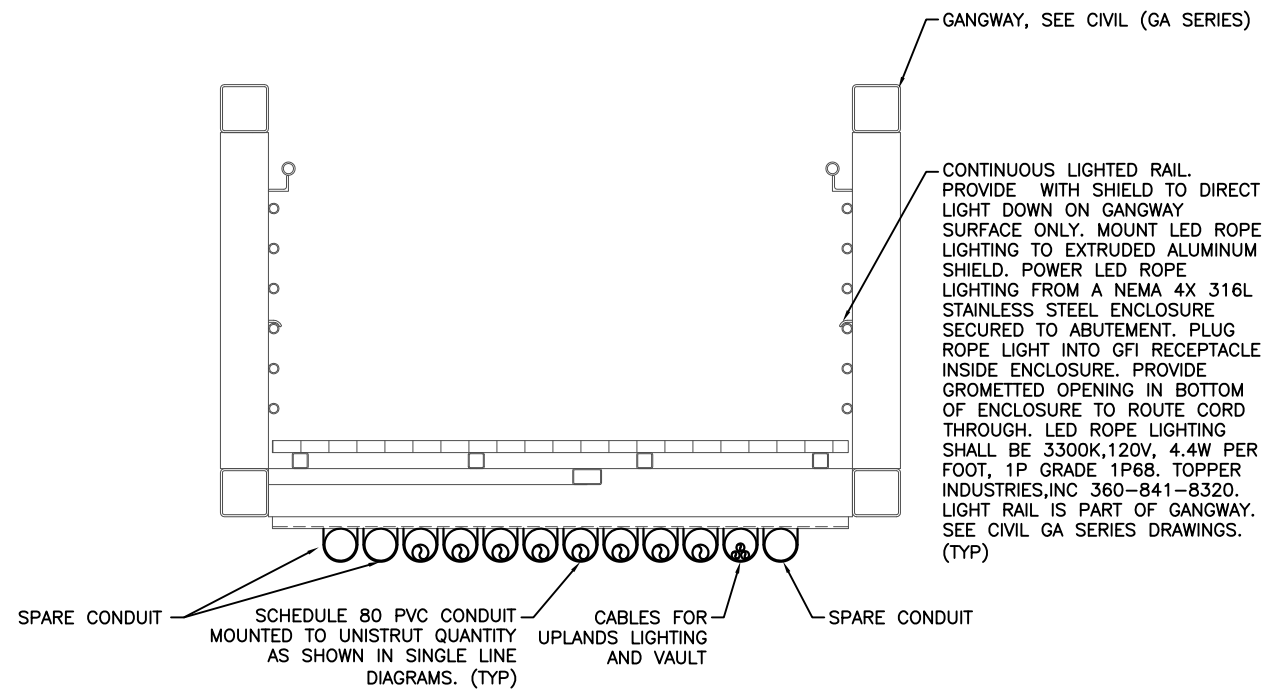
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WATER VAULT ELECTRICAL DETAILS

PND PROJECT NO.: 132021 DWG. FILE: 118-36

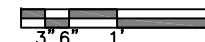
E12
SHEET
12 OF 21



① ABUTMENT TO GANGWAY TRANSITION



② GANGWAY SECTION



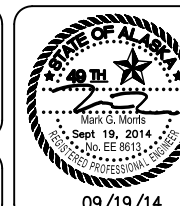
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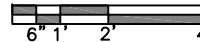
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ROBERT STORRS HARBOR
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SHEET TITLE:
GANGWAY TRANSITION
AND SECTION

PND PROJECT NO.: 132021 DWG. FILE: 118-36

DATE: 09/19/14

E13
SHEET
13 OF 21



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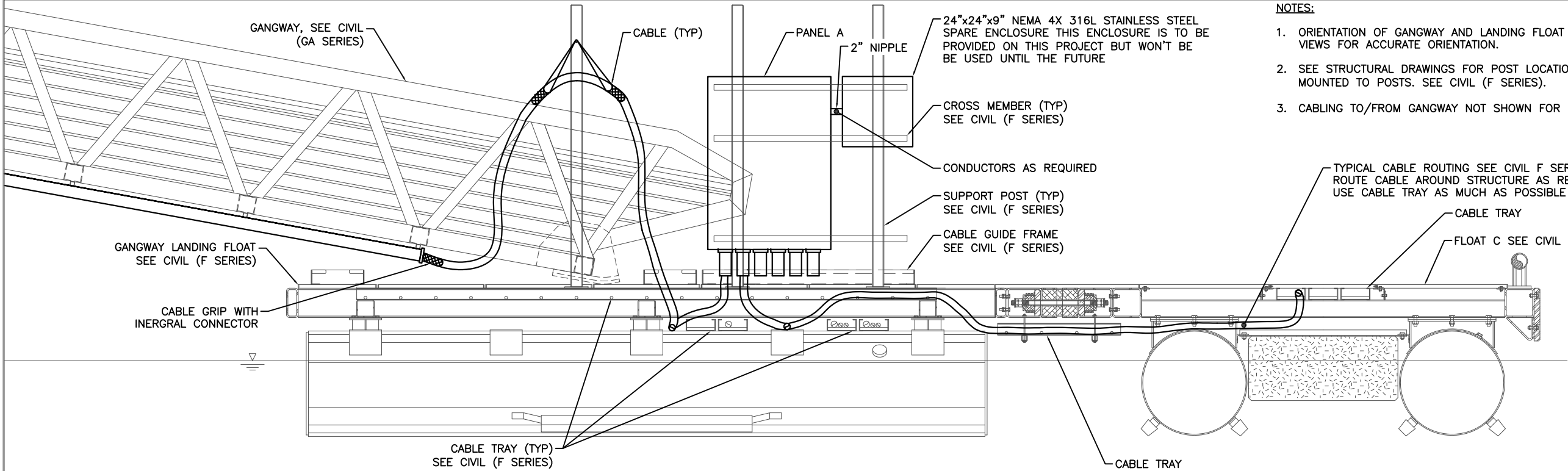


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C FLOAT REPLACEMENT**

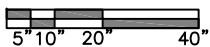
SHEET TITLE:
**GANGWAY LANDING FLOAT
PLAN - ELECTRICAL**

E14
SHEET
14 OF 21

PND PROJECT NO.: 132021	DWG. FILE: 118-36
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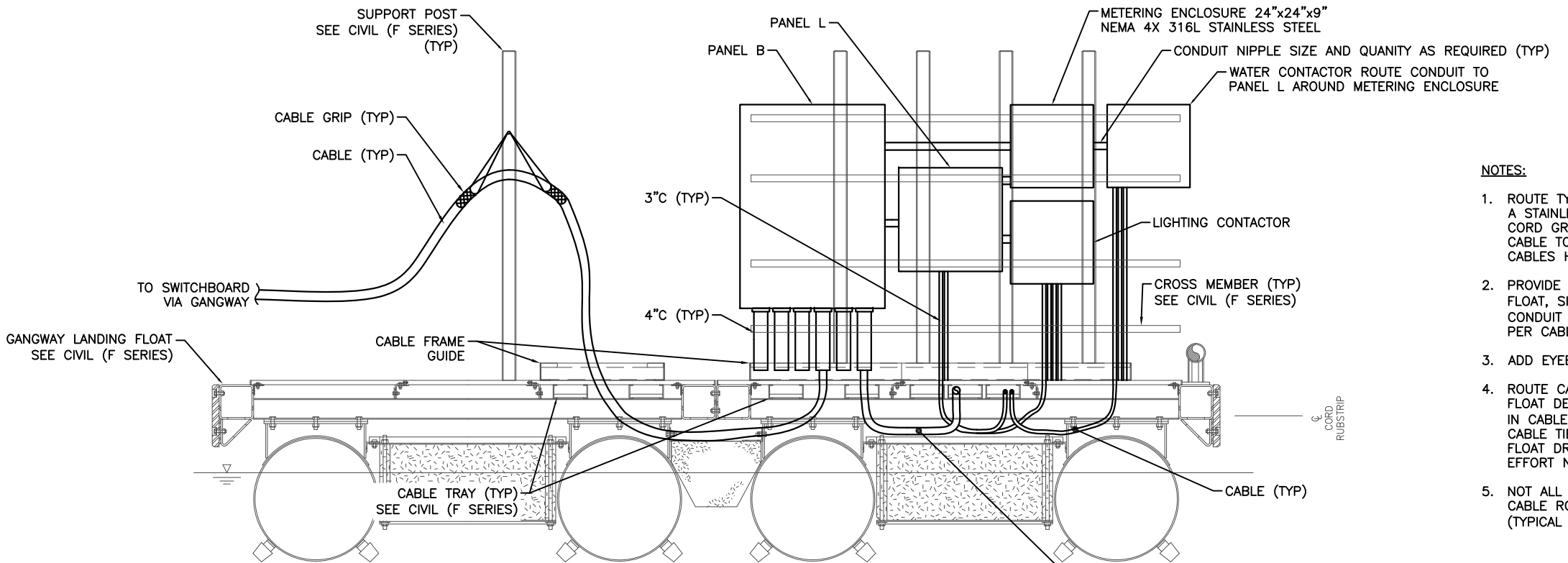


① PANEL A ELEVATION

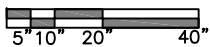


NOTES:

1. ORIENTATION OF GANGWAY AND LANDING FLOAT ARE SHOWN ROTATED FOR CLARITY. SEE PLAN VIEWS FOR ACCURATE ORIENTATION.
2. SEE STRUCTURAL DRAWINGS FOR POST LOCATIONS. MOUNT PANELS TO CROSS MEMBERS MOUNTED TO POSTS. SEE CIVIL (F SERIES).
3. CABLING TO/FROM GANGWAY NOT SHOWN FOR CLARITY.



② PANEL B ELEVATION



NOTES:

1. ROUTE TYPE G CABLES OUT OF CONDUIT ON GANGWAY TO FLOAT AS SHOWN. PROVIDE A STAINLESS STEEL CORD GRIP WHERE CABLE LEAVES CONDUIT. SUPPORT CABLE WITH CORD GRIP SECURED TO GALV. EYE BOLT IN POST. PROVIDE SUFFICIENT SLACK IN CABLE TO ACCOMMODATE FOR GANGWAY MOVEMENT DUE TO TIDES. DO NOT LET CABLES HIT MARINE STRUCTURES OR WATER AT ANY TIDE LEVEL.
2. PROVIDE SCHEDULE 80 PVC CONDUIT FROM BOTTOM OF PANELS AND CONTACTORS INTO FLOAT, SIZE AND QUANTITY AS REQUIRED. PUT BELL ENDS ON CONDUIT. PROVIDE 4\"/>
3. ADD EYEBOLTS TO POSTS ON FLOAT AS REQUIRED TO SUPPORT CABLE GRIPS.
4. ROUTE CABLES BELOW FLOAT BETWEEN EQUIPMENT. USE CONDUIT CHASES BETWEEN FLOAT DECK AND EQUIPMENT. USE CABLE TRAY AS MUCH AS POSSIBLE. SECURE CABLE IN CABLE TRAY EVERY 6' WITH 500 LBS TENSILE STRENGTH MINIMUM NON-METALIC CABLE TIES. WEAVE CABLE AROUND STRUCTURE IN FLOAT BELOW DECKING. STUDY FLOAT DRAWINGS TO UNDERSTAND OBSTACLES AND TO ADEQUATELY ACCOUNT FOR THE EFFORT NEEDED TO ROUTE CABLES THROUGH FLOATS.
5. NOT ALL CABLES ARE SHOWN. CABLE ROUTING SHOWN IS SYMBOLIC OF GENERAL CABLE ROUTING. ACTUAL ROUTING MAY NEED TO BE DIFFERENT FROM WHAT IS SHOWN (TYPICAL ALL SHEETS).



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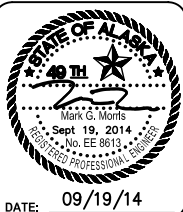
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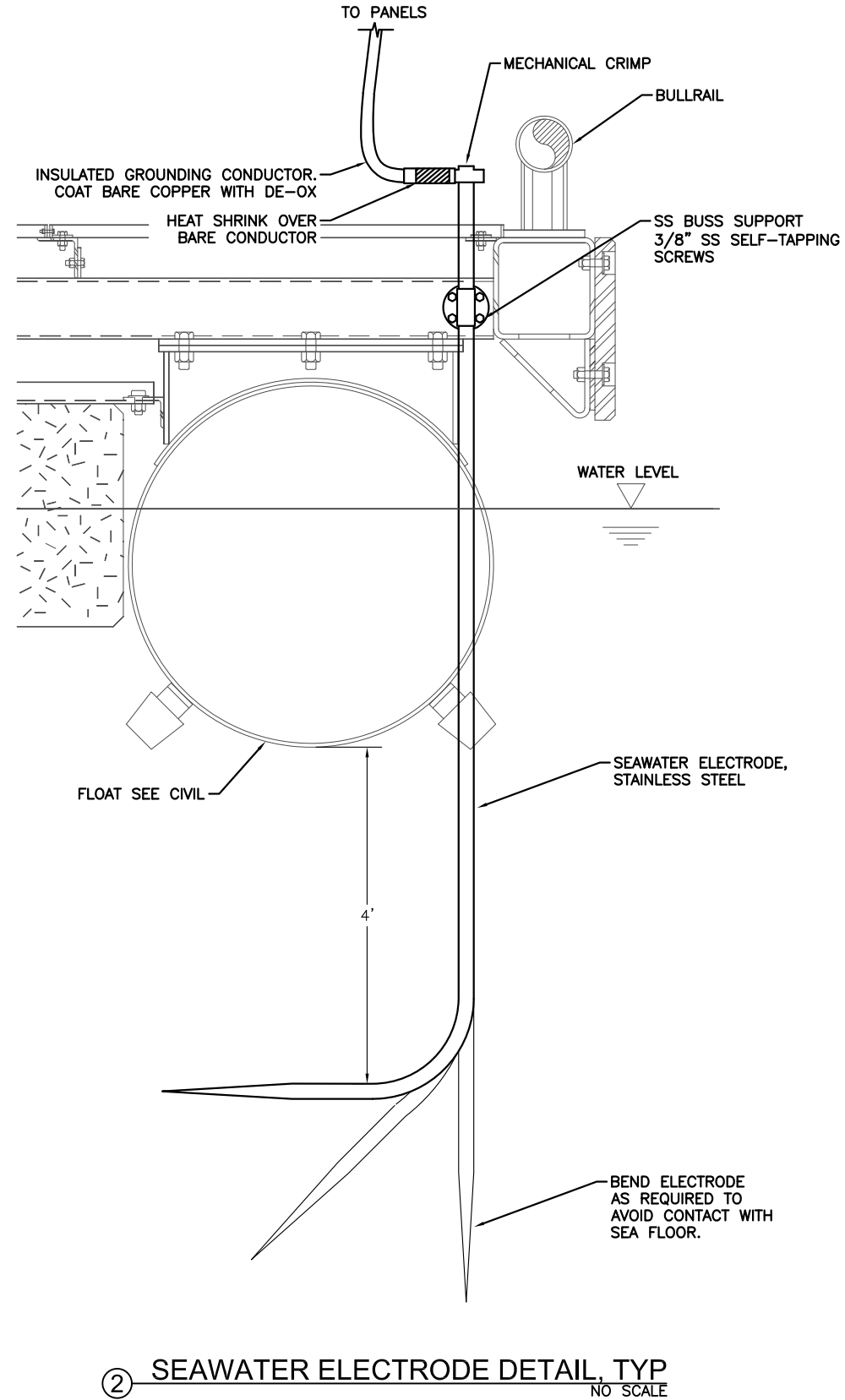
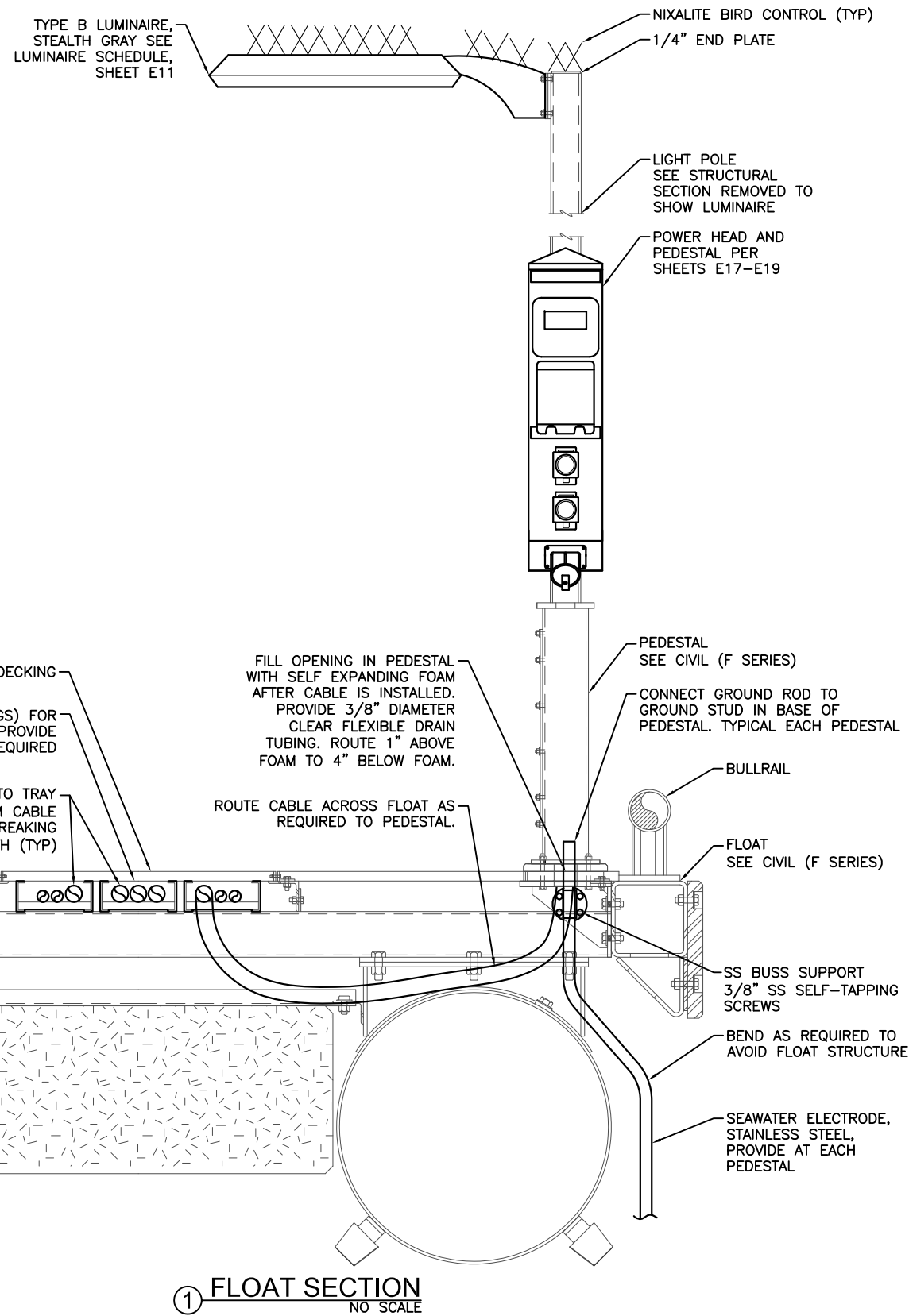


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SHEET TITLE:
PANELS A AND B ELEVATIONS

PND PROJECT NO.: 132021 DWG. FILE: 118-36

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SHEET
15 OF 21



① FLOAT SECTION
NO SCALE

② SEAWATER ELECTRODE DETAIL, TYP
NO SCALE



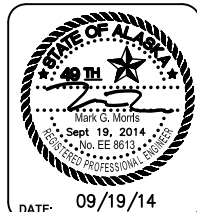
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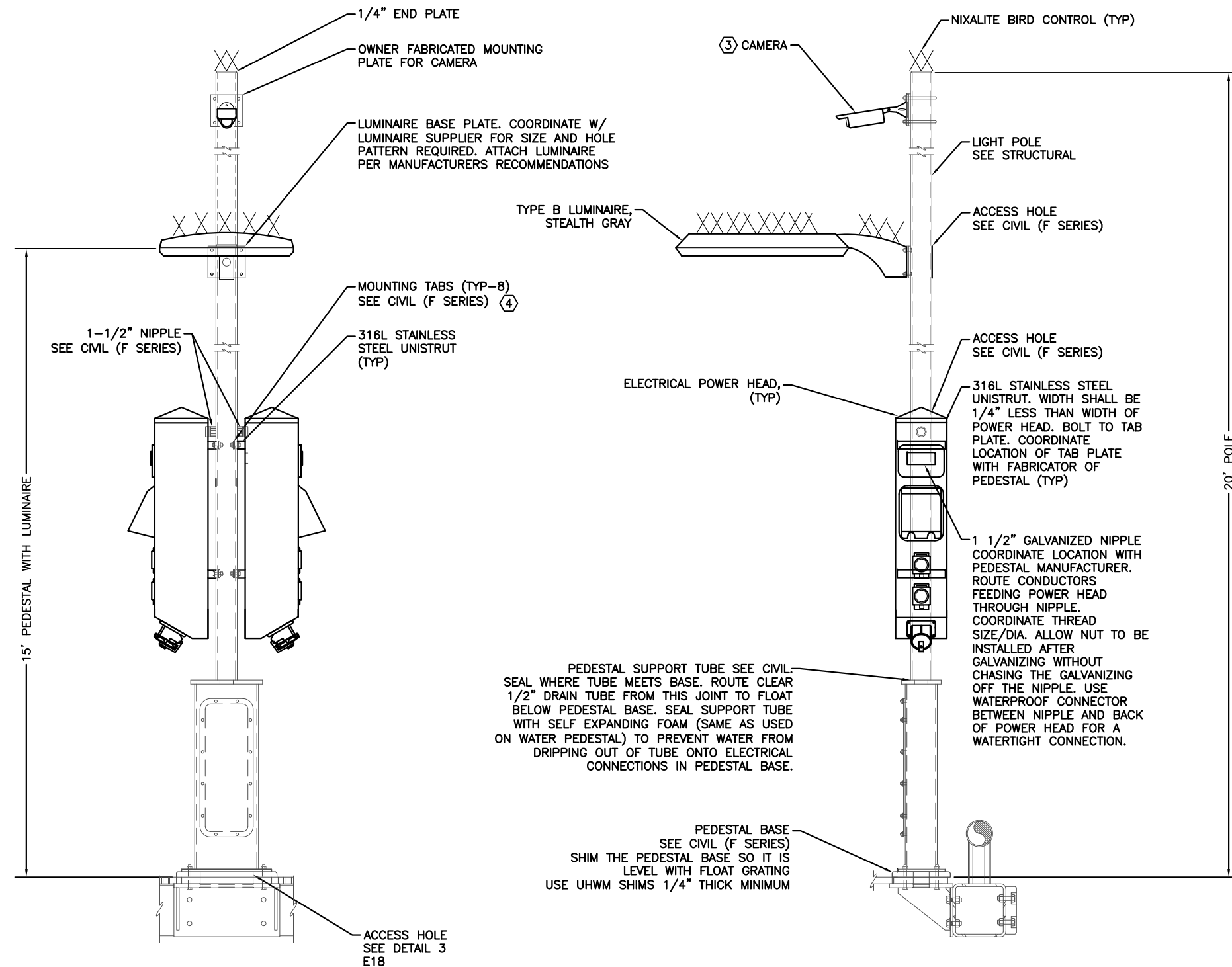


**CITY OF UNALASKA, ALASKA
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 C FLOAT REPLACEMENT**

SHEET TITLE: **FLOAT SECTION AND SEAWATER ELECTRODE DETAIL**

PND PROJECT NO.: 132021 DWG. FILE: 118-36

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 SHEET 16 OF 21



① PEDESTAL WITH LUMINAIRE AND CAMERA ELEVATIONS
NO SCALE

NOTES:

- SEE CIVIL (F SERIES) FLOAT PLANS FOR EXACT LOCATION.
- WHERE INDICATED, PROVIDE ONLY A LUMINAIRE WITH NO POWERHEADS.
- ③ WHERE SHOWN IN PLAN VIEWS PROVIDE 120V POWER (2 NO. 12 & 1 NO. 12 GND) TO CAMERA ON A 20' POLE. COORDINATE LOCATION WITH OWNER. COORDINATE WITH OWNER TO ALLOW THEM TO MOUNT THEIR CAMERA TO THE POLE. ROUTE CONDUCTORS THROUGH GROMMETED OPENING IN POLE. COORDINATE OPENING LOCATION WITH OWNER.
- ④ COORDINATE LOCATION OF MOUNTING TABS AND NIPPLE IN SUPPORT TUBE WITH GENERAL.



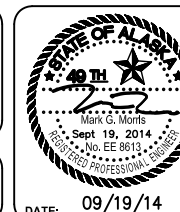
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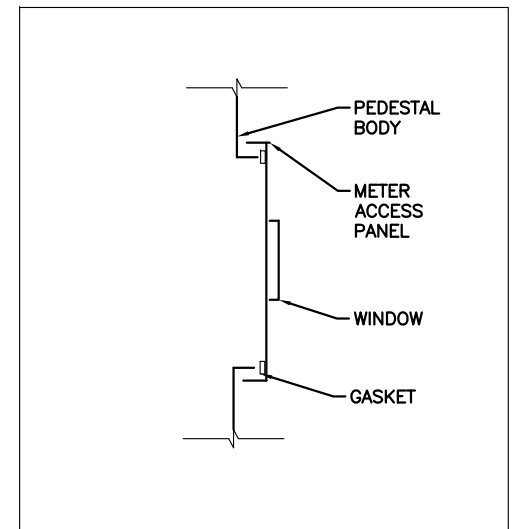
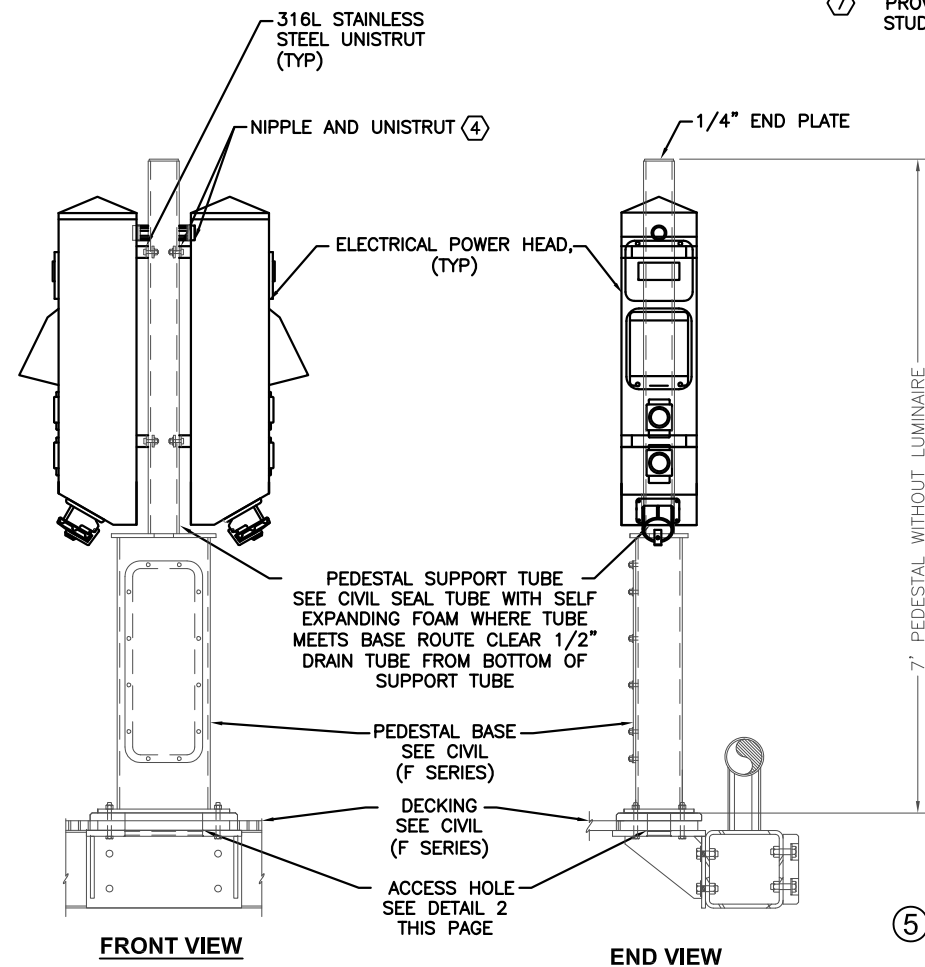
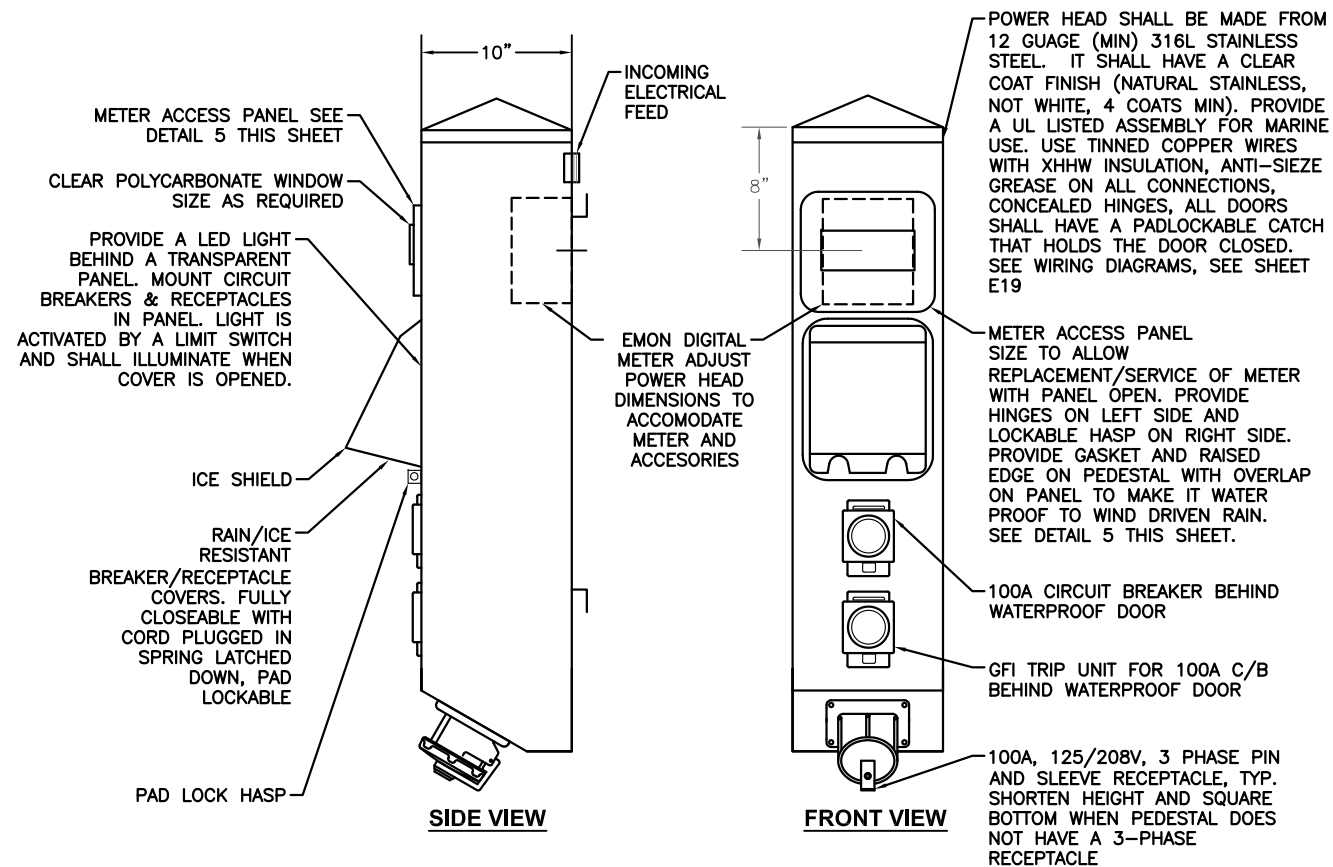
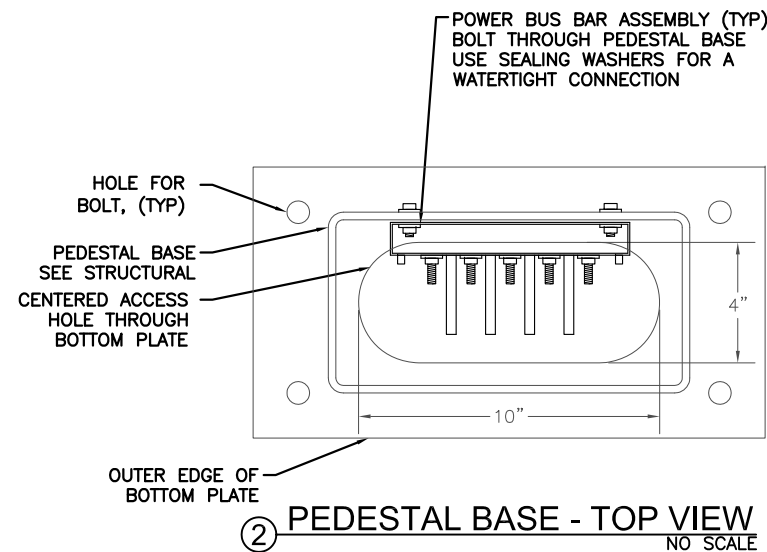
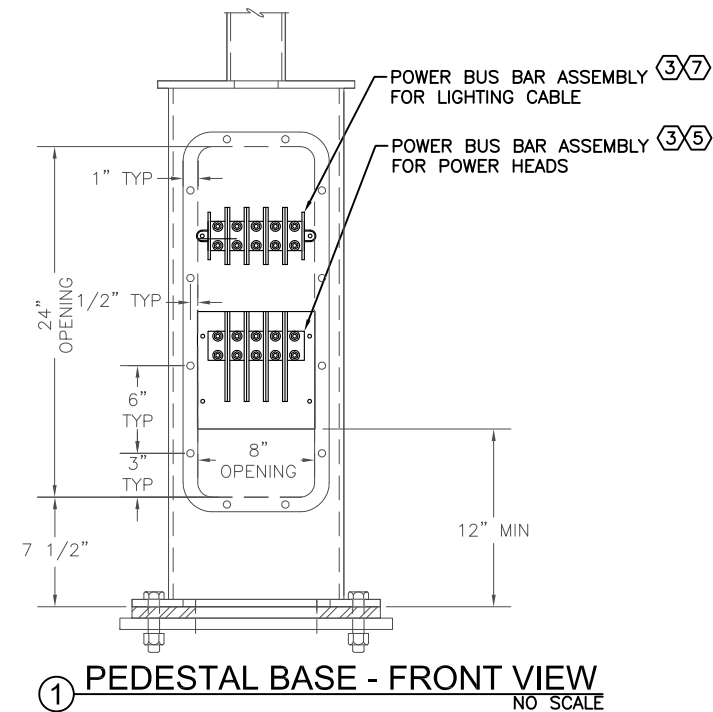


CITY OF UNALASKA, ALASKA
ROBERT STORRS HARBOR
C FLOAT REPLACEMENT

SHEET TITLE:
**PEDESTAL WITH LUMINAIRE AND
CAMERA ELEVATIONS**

PND PROJECT NO.: 132021 DWG. FILE: 118-36

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SHEET
17 OF 21



SHEET NOTES:

1. PROVIDE SIZE AND QUANTITY OF POWER DISTRIBUTION BLOCKS AS REQUIRED.
2. MOUNT POWER BUS BAR ASSEMBLY IN PEDESTAL BASE BY USING STAINLESS BOLTS, RUBBER WASHERS, STAINLESS WASHERS AND SEALANT FOR A WATERTIGHT INSTALLATION.
3. CONFIGURATION OF POWER BUS BAR ASSEMBLY (NO. OF POLES, SIZE AND LOCATION) IS CONTRACTORS OPTION. LOCATE BLOCKS MINIMUM 12" ABOVE DECK PER NEC.
4. COORDINATE LOCATION OF MOUNTING TABS AND NIPPLE IN SUPPORT TUBE.
5. PROVIDE COPPER BUS BARS FOR POWER HEADS RATED AT 250 AMPS, 600V. PROVIDE (2) STUDS PER POLE SIZED FOR NO. 4/0 LOOP FEED. USE COMPRESSION RING TERMINALS (BURNDY OR EQUAL) TO SECURE CABLE TO STUDS. USE ANTI-SIEZE COMPOUND, BRONZE WASHERS AND NUTS. APPLY COLORED HEAT SHRINK OVER COMPRESSION CONNECTION 2" LONG MINIMUM. COLOR PER VOLTAGE AND CONDUCTOR TYPE (BLACK, RED, BLUE FOR A,B,C PHASE, WHITE FOR NEUTRAL, GREEN FOR GROUND). SIZE AND CONFIGURATION AS REQUIRED. LABEL CONDUCTORS FEEDING POWER HEAD ON LEFT SIDE OF POST WITH "L", RIGHT SIDE WITH "R". CONDUCTORS SHALL BE TINNED COPPER WITH XHHW INSULATION (TYPICAL). COAT CONDUCTORS WITH ANTI-SEIZE COMPOUND. TORQUE PER MANUFACTURER'S RECOMMENDATION. USE SAME METHOD FOR CONDUCTORS FEEDING POWER HEADS.
6. ALL PEDESTALS SHALL HAVE 35 MILLI-AMP GFI PROTECTION BUILT INTO EACH CIRCUIT BREAKER IN THE PEDESTALS (POWER HEAD).
7. PROVIDE BUS BARS FOR LIGHTING IN SAME MANNER AS POWER HEADS. SIZE STUDS FOR NO. 8 LOOP FEED. ATTACH CONDUCTORS IN SAME MANNER.



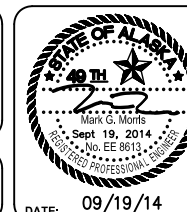
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SHEET TITLE:

PEDESTAL DETAILS

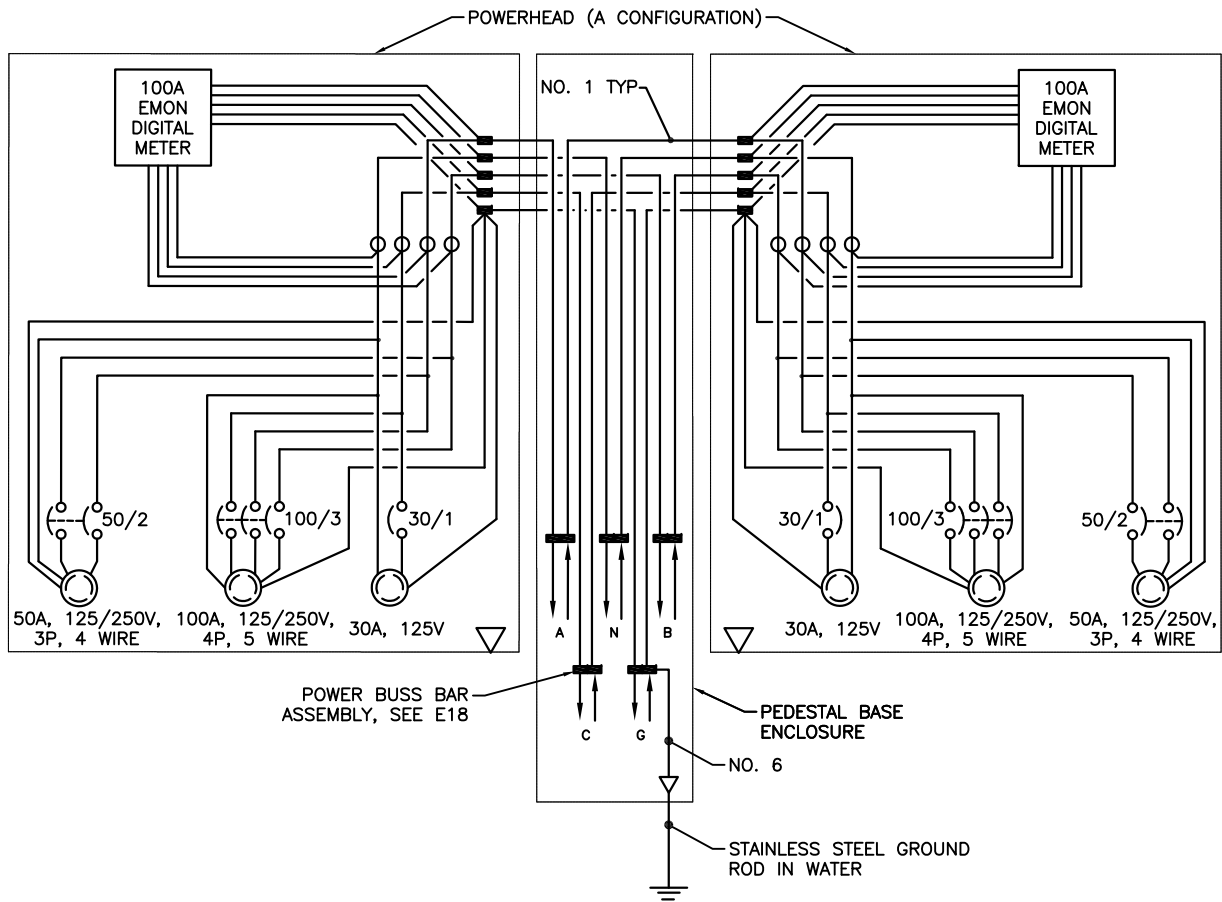
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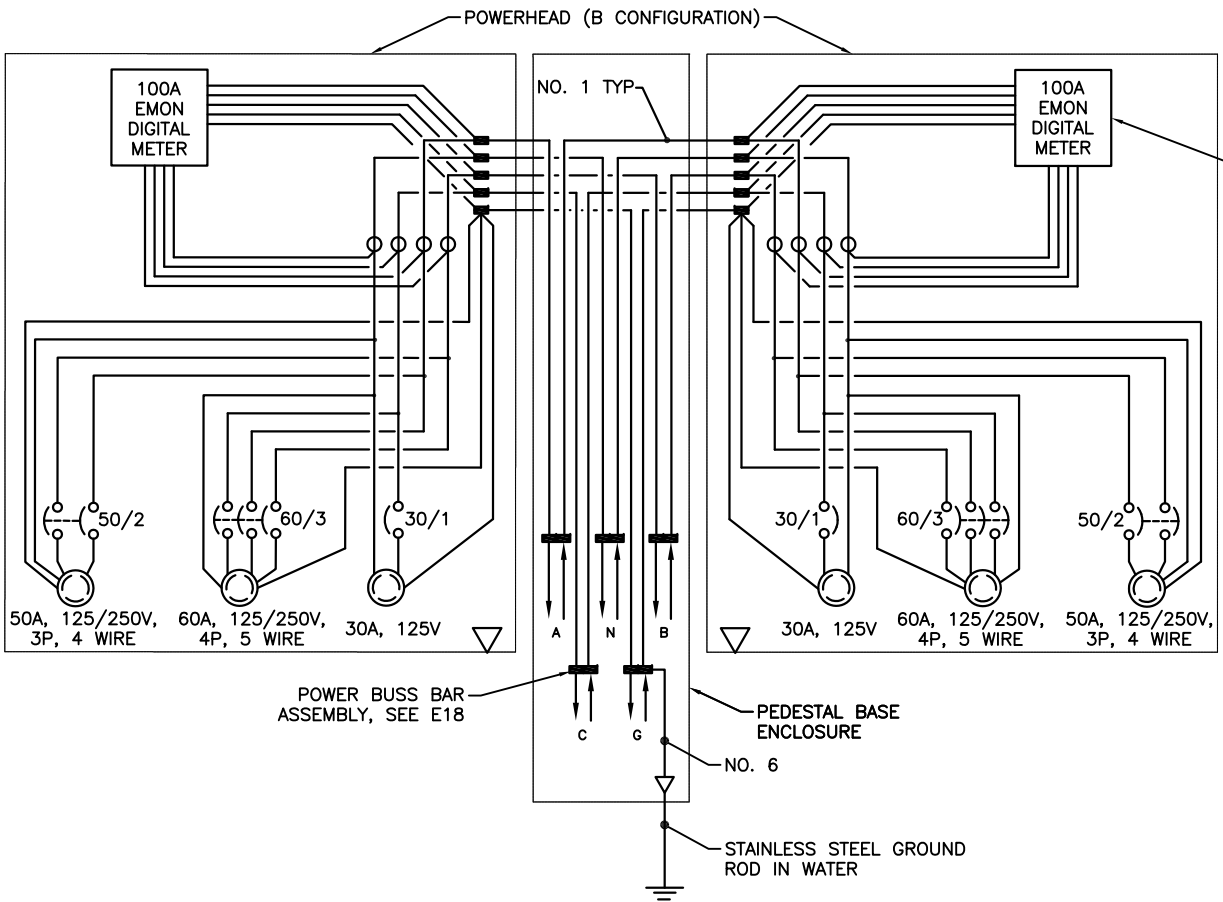
E18
SHEET
18 OF 21

NOTES:

1. PROVIDE (2) POWERHEADS PER PEDESTAL. PROVIDE POWERHEAD CONFIGURATIONS AS SHOWN.
2. PROVIDE (2) POWERHEADS OF EACH CONFIGURATION FOR A TOTAL OF 4 FOR SPARE POWERHEADS.
3. PROVIDE (10) OF EACH TYPE AND SIZE OF RECEPTACLES AND CIRCUIT BREAKERS FOR SPARE POWERHEAD COMPONENTS.
4. EACH CIRCUIT BREAKER IN EACH POWERHEAD SHALL HAVE 35 MILLI-AMP GROUND FAULT PROTECTION BUILT INTO THE CIRCUIT BREAKER.
5. PROVIDE THE QUANTITY AND CONFIGURATION OF POWERHEADS REQUIRED TO PROVIDE THE PEDESTALS SHOWN ON THE DRAWINGS.
6. PROVIDE (2) DIGITAL METERS FOR SPARES.



① WIRING DIAGRAM - DUAL 100A/50A/30A PEDESTAL (TYPE A)
NO SCALE



CLASS 2000 THREE PHASE METER. AMP RATING AS REQUIRED. PROVIDE WITH CURRENT TRANSFORMERS AND ALL NECESSARY HARDWARE. PROVIDE DISPLAY READABLE FROM FACE OF PEDESTAL (TYPICAL ALL PEDESTALS).

② WIRING DIAGRAM - DUAL 60A/50A/30A PEDESTAL (TYPE B)
NO SCALE



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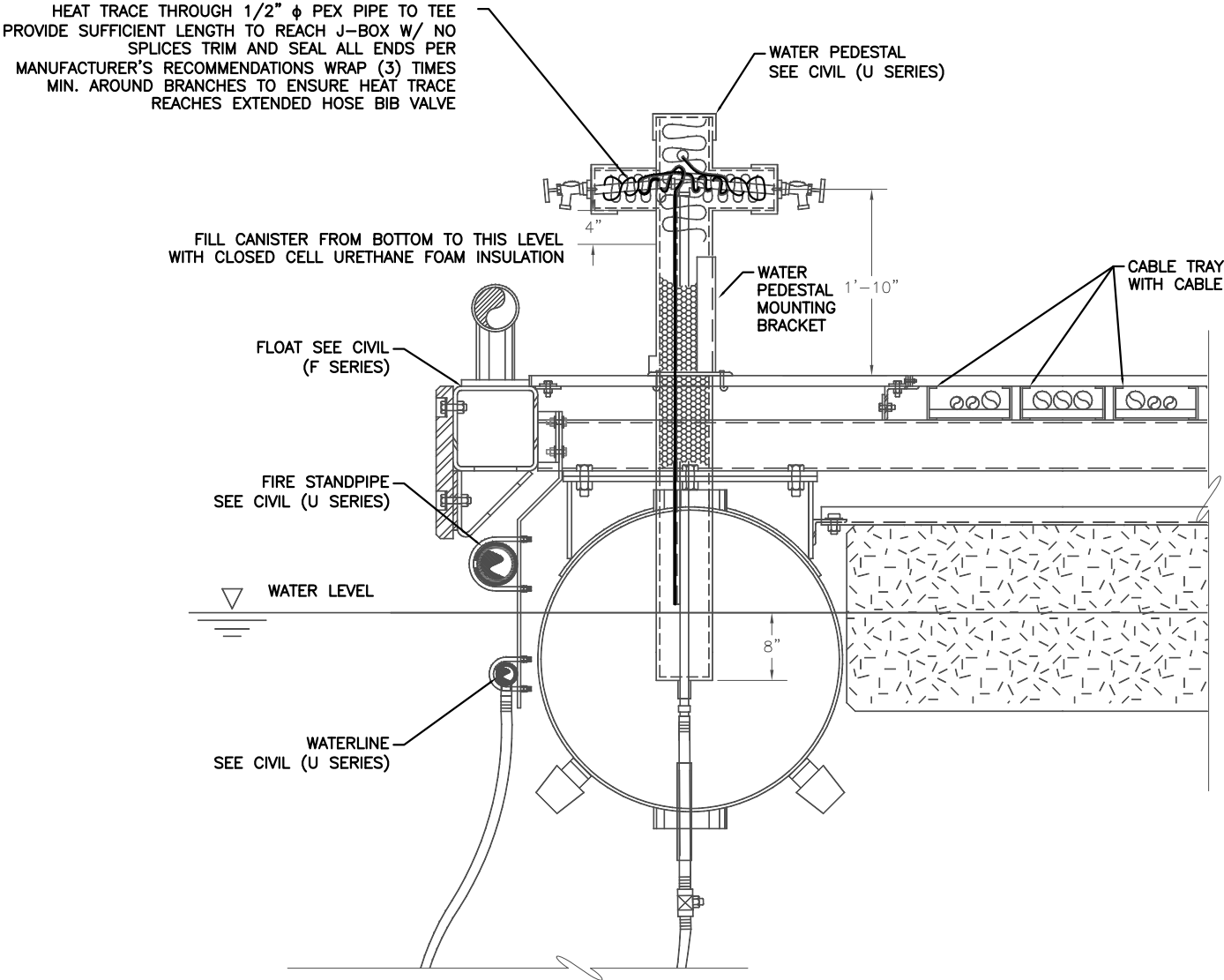
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SHEET TITLE:
PEDESTAL WIRING DIAGRAMS

PND PROJECT NO.: 132021 DWG. FILE: 118-36

E19

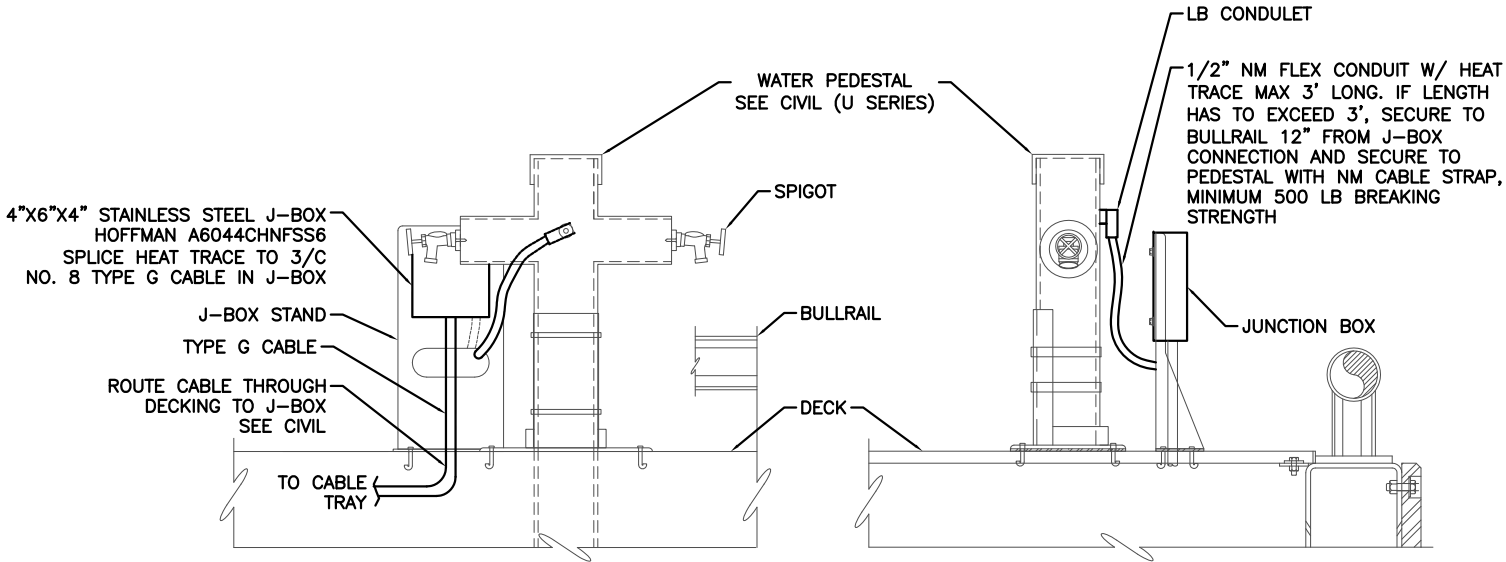
SHEET
19 OF 21



NOTES:

- HOSE BIB SHOWN IN PROFILE FOR ILLUSTRATIVE PURPOSES ONLY, ORIENT HOSE BIB PARALLEL WITH FLOAT.
- HANGER AND CONNECTION HARDWARE NOT SHOWN FOR CLARITY.
- ALL SUBMERGED STEEL HARDWARE SHALL BE CONSTRUCTED OF 316 SS.
- HEAT TRACE SHALL BE SELF REGULATING, 5 WATTS/FT. 208V THERMON 5-FLX-2-FOJ OR EQUAL. PROVIDE WITH TERMINATION KIT FOR END AND SPLICING KIT FOR BEGINNING OF HEAT TRACE. WRAP HEAT TRACE ON FULL LENGTH OF HORIZONTAL WATER PIPE & DOWN VERTICAL SECTION TO 1" ABOVE WATER LINE.
- PROVIDE 50' OF HEAT TRACE WITH (2) OF EACH KIT FOR HEAT TRACE SPARES.

① WATER PEDESTAL HEAT TRACE DETAILS - END VIEW
NO SCALE



NOTES:

- HOSE BIB SHOWN IN THIS DETAIL PARALLEL WITH FLOAT. THIS IS THE ACTUAL ORIENTATION.
- JUNCTION BOX STAND SHALL BE MOUNTED ADJACENT TO WATER PEDESTAL WITHOUT CONFLICTING WITH CLEAR SPACE IN FRONT OF POWERHEADS OR OTHER FLOAT APPURTENANCES. COORDINATE ALL LOCATIONS WITH ENGINEER. DO NOT MOUNT UNDER WATER SPIGOT.

② WATER PEDESTAL HEAT TRACE DETAILS - FRONT AND SIDE VIEW
NO SCALE



REVISIONS					
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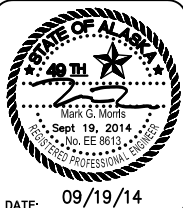
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SCALE:
NONE



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SHEET TITLE:
WATER PEDESTAL DETAILS

PND PROJECT NO.: 132021 DWG. FILE: 118-36

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20 OF 21

