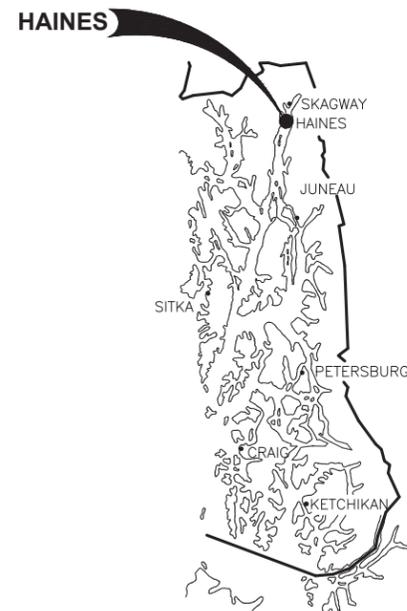


HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS 65% DESIGN REVIEW SUBMITTAL

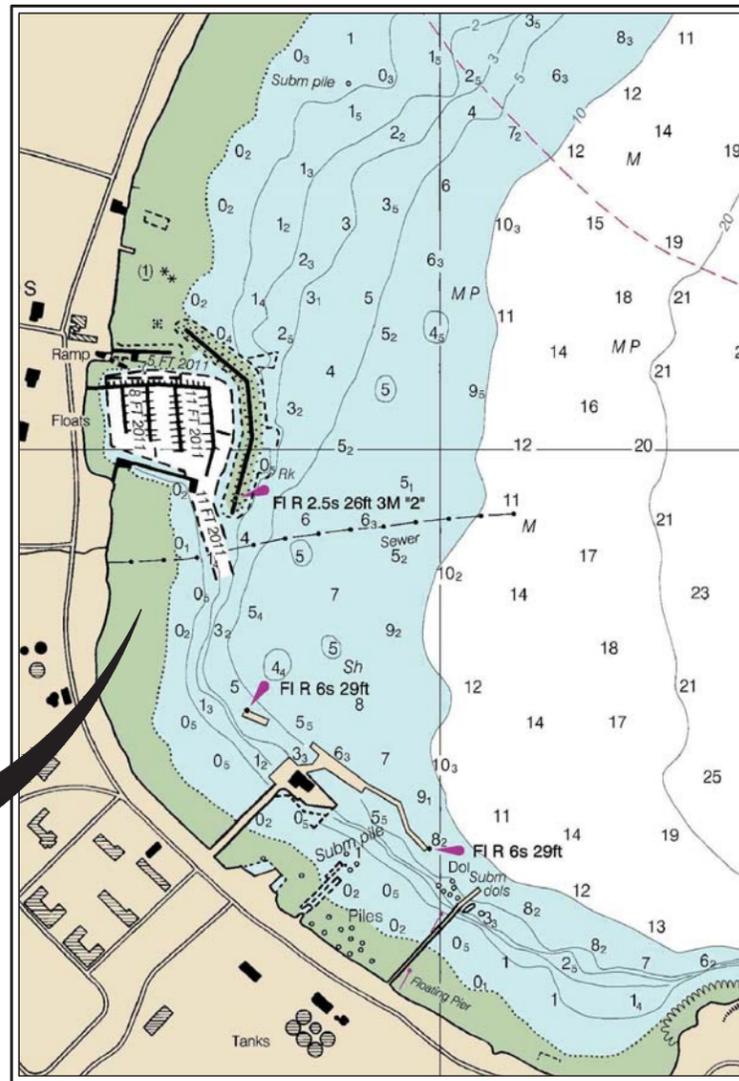


ALASKA
SOUTHEAST ALASKA
LOCATION MAP



HAINES
SKAGWAY
HAINES
JUNEAU
SITKA
PETERSBURG
CRAIG
KETCHIKAN
SOUTHEAST ALASKA

PROJECT LOCATION



VICINITY MAP

NOTE: RECENT WAVE BARRIER, DREDGING AND UPLAND IMPROVEMENTS NOT SHOWN.

PROJECT SCHEDULE

DESCRIPTION	SCHEDULE
SUBSTANTIAL COMPLETION	OCTOBER 31, 2019
FINAL COMPLETION OF ALL WORK UNDER THIS CONTRACT	NOVEMBER 30, 2019

DRAWING INDEX

SHEET NO.	DWG. NO.	TITLE
GENERAL		
1	OF 28	1.01 COVER SHEET, VICINITY MAP AND DRAWING INDEX
2	OF 28	1.02 GENERAL NOTES, LEGEND AND ABBREVIATIONS
3	OF 28	1.03 EXISTING CONDITIONS
4	OF 28	1.04 EXISTING TYPICAL SECTIONS
5	OF 28	1.05 OVERALL SITE PLAN
CIVIL		
6	OF 28	2.01 UPLANDS SITE PLAN AND GRADING PLAN
7	OF 28	2.02 UTILITIES PLAN
8	OF 28	2.03 SIGNAGE AND STRIPING PLAN
9	OF 28	2.04 DRIVEWAY CROSSINGS
10	OF 28	2.05 TYPICAL SECTIONS
11	OF 28	2.06 CURB AND SIDEWALK DETAILS
11	OF 28	2.07 CONCRETE AND STORM DRAIN DETAILS
12	OF 28	2.08 SIGNAGE AND BOLLARD DETAILS
13	OF 28	2.09 WATER SERVICE DETAILS
BOAT LAUNCH RAMP		
14	OF 28	3.01 PLAN AND PROFILE
15	OF 28	3.02 TYPICAL SECTIONS
16	OF 28	3.03 PLANK AND SLEEPER DETAILS
17	OF 28	3.04 APRON, ABUTMENT AND PILE DETAILS
18	OF 28	3.05 APRON AND ABUTMENT DETAILS
19	OF 28	3.06 BOARDING FLOAT DETAILS
20	OF 28	3.07 BOARDING FLOAT DETAILS
21	OF 28	3.08 BOARDING FLOAT DETAILS
22	OF 28	3.09 BOARDING FLOAT DETAILS
RETAINING WALL		
23	OF 28	4.01 MSE WALL PLAN AND PROFILE
24	OF 28	4.02 MSE WALL TYPICAL SECTION
HARBOR PARK		
25	OF 28	5.01 HARBOR PARK PLAN AND SECTIONS
COVERED SHELTER AND KIOSK		
26	OF 28	6.01 COVERED SHELTER PLAN AND ELEVATION
27	OF 28	6.02 COVERED SHELTER DETAILS
28	OF 28	6.03 KIOSK PLAN AND DETAILS
LANDSCAPING		
1	OF 6	L100 KEY PLAN
2	OF 6	L101 SOILS PLAN
3	OF 6	L102 PLANTING PLAN
4	OF 6	L103 PLANTING PLAN
5	OF 6	L104 PLANTING PLAN
6	OF 6	L501 LANDSCAPE DETAILS
ELECTRICAL		
1	OF 11	E1 TITLE, LEGEND, INDEX & GENERAL NOTES
2	OF 11	E2 UPLANDS SITE PLAN – ELECTRICAL
3	OF 11	E3 RAMP PLAN AND PROFILE – ELECTRICAL
4	OF 11	E4 LIGHTING SCHEMATICS
5	OF 11	E5 LUMINAIRE SCHEDULE
6	OF 11	E6 UPLANDS LIGHT POLE DETAILS
7	OF 11	E7 UPLANDS LIGHT POLE DETAILS, HANDHOLE & TRENCH DETAIL
8	OF 11	E8 UPLANDS ELECTRICAL RACK ELEVATION
9	OF 11	E9 COVERED SHELTER PLANS AND ELEVATION – ELECTRICAL
10	OF 11	E10 CABLE ROUTING DETAILS
11	OF 11	E11 FLOAT LIGHT POLE DETAIL

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DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
**COVER SHEET, VICINITY MAP
AND DRAWING INDEX**

PND PROJECT NO.: 172032

1.01
SHEET
1 OF 28

GENERAL NOTES

- THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION GENERAL PERMIT (CGP) IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND STATE LAW. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE CGP AT ALL TIMES INCLUDING THE DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE OF A STORM WATER POLLUTION PREVENTION PLAN WITH APPROPRIATE SPILL PREVENTION AND RESPONSE MEASURES.
- MATCH EXISTING GRADES AT PROJECT LIMITS AND WHERE REQUIRED TO MATCH ELEVATIONS AT EXISTING SURFACES.
- THE LOCATIONS AND ELEVATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. UTILITIES SHOWN ARE TAKEN FROM EXISTING AS-BUILT RECORDS AND OTHER SOURCES. ADDITIONAL UTILITIES MAY BE PRESENT HOWEVER ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY PRIOR TO BEGINNING WORK. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTOR'S RECORD DRAWINGS. CONTACT LOCAL UTILITIES AT THE FOLLOWING NUMBERS FOR LOCATE SERVICE A MINIMUM OF TWO BUSINESS DAYS PRIOR TO ANY EXCAVATION:
WATER AND WASTE MATERIAL (907) 766-2237 OR 766-2200
POWER AND LIGHT (AP&T) (907) 766-2331
CATV (907) 766-2137
TELEPHONE (GTE) (907) 766-2311
- PROPERTY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION OR BETTER AT NO ADDITIONAL COST.
- PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY.
- PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. NO ASSURANCE IS GIVEN THAT THE INDICATED POSITION OF ANY EXISTING UTILITY IS CORRECT OR THAT THE INFORMATION IS COMPLETE. ALL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE CORRECT AND TRUE LOCATION AS TO AVOID DAMAGE OR DISTURBANCE. DAMAGE TO EXISTING SITE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- OVERHEAD UTILITIES INCLUDING ELECTRICAL POWER, TELEPHONE, CABLE TV, AND OTHER OVERHEAD LINES ARE GENERALLY NOT SHOWN, THE LINES THAT ARE SHOWN ARE LOCATED BY POINT-TO-POINT, POLE-TO-POLE. DETERMINE THE EXTENT OF HAZARDS OR IMPACTS ON CONSTRUCTION ACTIVITIES CREATED BY OVERHEAD OR UNDERGROUND LINES IN ALL AREAS AND FOLLOW PROCEDURES DURING CONSTRUCTION AS REQUIRED BY LAW. PRIOR TO CONSTRUCTION, MEET WITH UTILITY OWNERS TO DETERMINE THE EXTENT OF HAZARDS AND TAKE PRECAUTIONS AS REQUIRED TO PROTECT PERSONS AND PROPERTY AND TO AVOID DISRUPTION OF SERVICE.
- GRADING AND ALIGNMENT OF PIPE, STRUCTURES & FINAL SURFACING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER TO FIT SITE CONDITIONS. GRADE ALL IMPROVEMENTS WITH POSITIVE DRAINAGE AWAY FROM BUILDINGS TO DITCHES, SWALES OR STORM DRAIN INLETS.
- THE DRAWINGS DO NOT NECESSARILY SHOW ALL TREES, BUSHES OR OTHER PLANTINGS THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES.
- ALL ITEMS DESIGNATED TO BE REMOVED, INCLUDING PAVEMENT, SHALL BE DISPOSED OF AT CONTRACTOR-PROVIDED DISPOSAL SITE, APPROVED BY THE ENGINEER, EXCEPT AS NOTED.
- CONTRACTOR SHALL REFERENCE ALL EXISTING SURVEY MONUMENTS PRIOR TO CONSTRUCTION. DISTURBED MONUMENTS SHALL BE RESET OR REPLACED EXCEPT WHERE MONUMENT WOULD BE A HAZARD AS DETERMINED BY THE ENGINEER. EXISTING SURVEY MONUMENTS MAY NOT BE SHOWN ON THE DRAWINGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO PRIVATE AND PUBLIC PROPERTY ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO DAMAGES CAUSED BY COMPACTION EFFORTS.
- HORIZONTAL DIMENSIONS ON PLAN AND PROFILE SHEETS TO PIPELINES, MANHOLES, AND OTHER FACILITIES, ARE TO THE CENTERLINES OF THOSE FACILITIES UNLESS SPECIFICALLY NOTED OTHERWISE. PIPELINE LENGTHS ARE MEASURED HORIZONTALLY. (I.E. PLANAR - NOT CORRECTED FOR SLOPE)

LEGEND

EXISTING	THIS PROJECT	
		OVERHEAD ELECTRICAL
		BURIED FUEL LINE
		ELECTRICAL (UNDERGROUND)
		WATER
		SANITARY SEWER
		SANITARY SEWER (ABANDONED)
		COMMUNICATION (CABLE/TEL)
		STORM DRAIN
		FORCE MAIN
		PROPERTY LINE
		GRADE BREAK
		GEOTEXTILE FABRIC
		GUY WIRE ANCHOR
		SURVEY CONTROL
		NAVIGATION AID
		UTILITY POLE
		BOLLARD
		CURB & GUTTER
		ELECTRICAL TRANSFORMER
		ELECTRICAL HANDHOLE
		FIRE HYDRANT
		LIGHT POLE
		SANITARY SEWER MANHOLE
		STORM DRAIN STRUCTURE
		STORM DRAIN CURB INLET
		SIGN
		JERSEY BARRIER
		TREE/VEGETATION
		SIDEWALK RAMP DIRECTION
		GUARDRAIL
		WATER VALVE
		LAYOUT POINT
		LAYOUT RADIUS
		ARTWORK/ DISPLAYS
		ARMOR ROCK, UNO
		ACP
		BASE COURSE, GRADING C-1

ABBREVIATIONS

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

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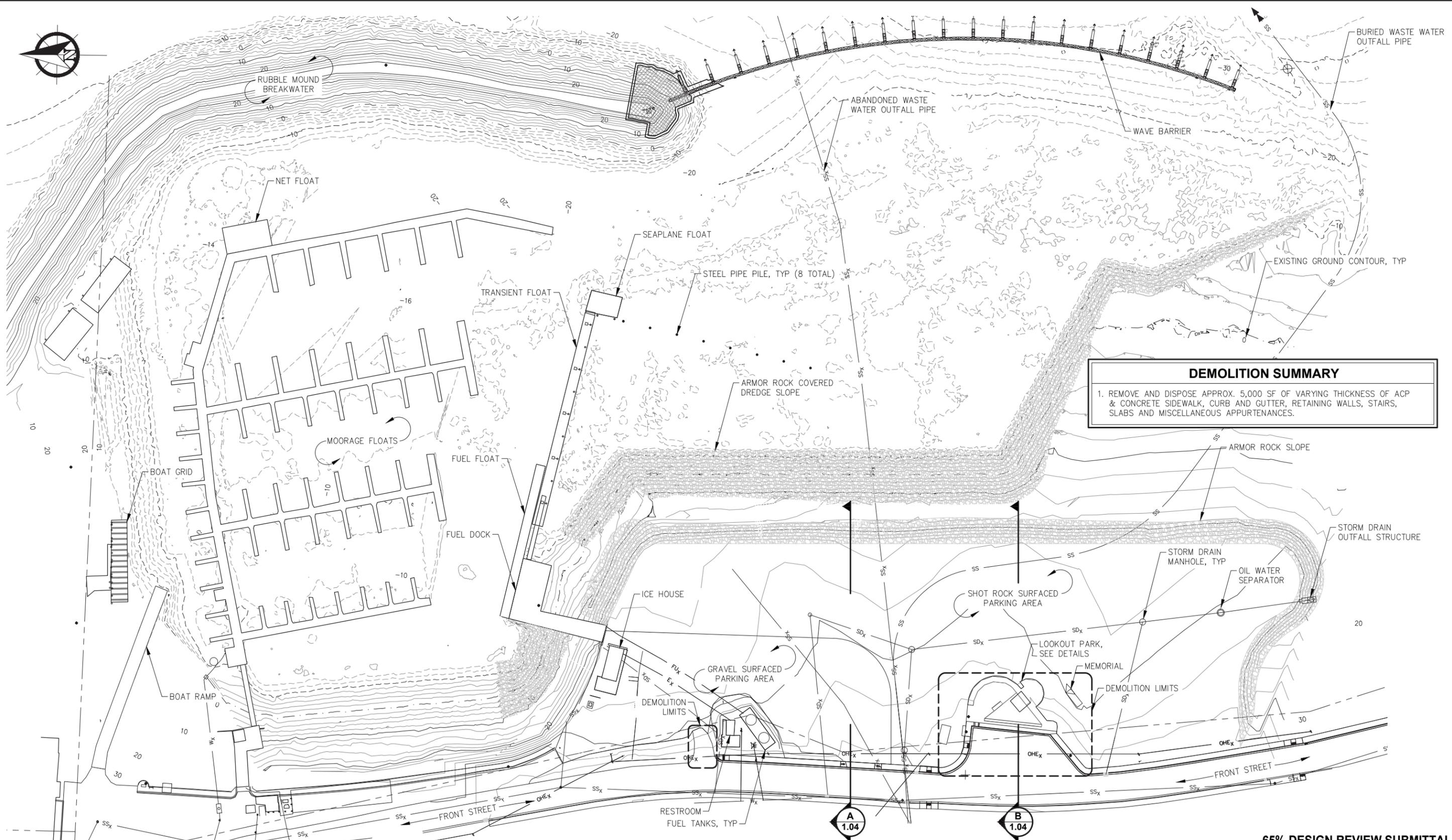
HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS

SHEET TITLE:
**GENERAL NOTES, LEGEND AND
ABBREVIATIONS**

PND PROJECT NO.: 172032

1.02

SHEET
2 OF 24



DEMOLITION SUMMARY

1. REMOVE AND DISPOSE APPROX. 5,000 SF OF VARYING THICKNESS OF ACP & CONCRETE SIDEWALK, CURB AND GUTTER, RETAINING WALLS, STAIRS, SLABS AND MISCELLANEOUS APPURTENANCES.

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DATE: JULY 20, 2018

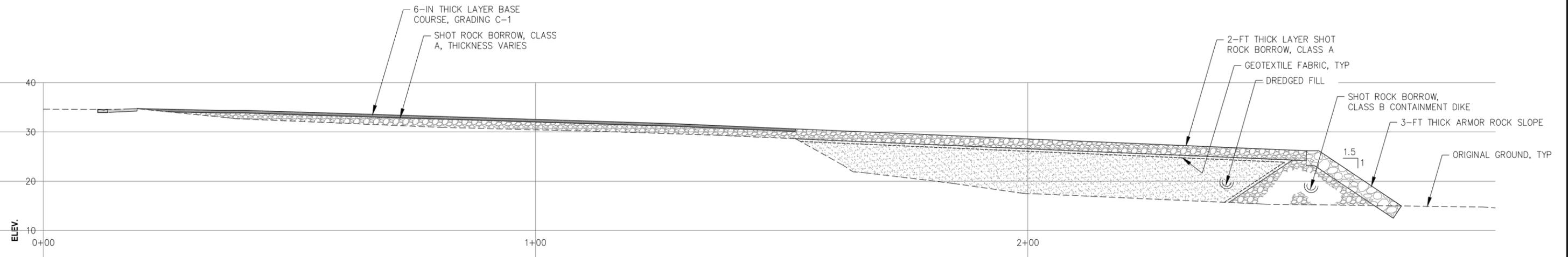
HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: **EXISTING CONDITIONS, DEMOLITION PLAN AND SURVEY CONTROL**

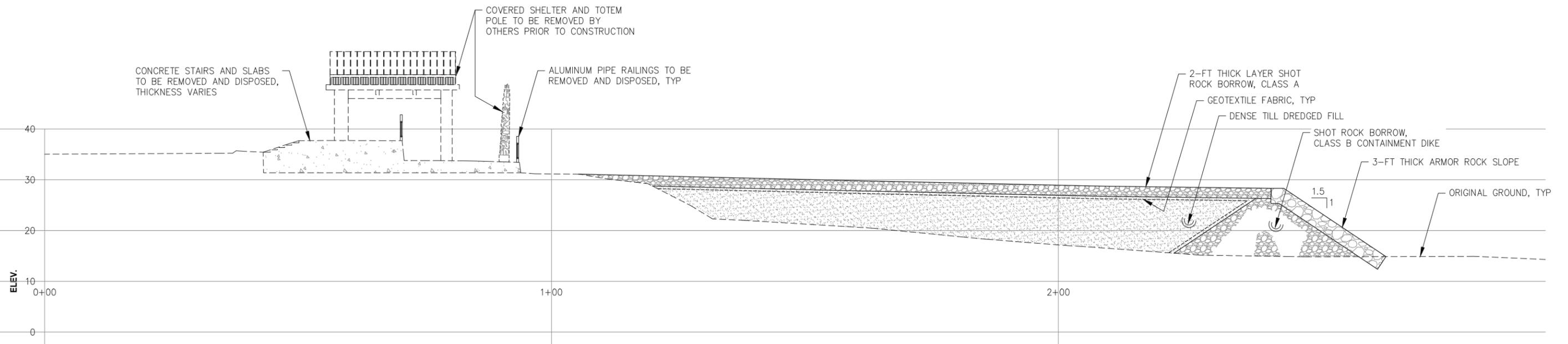
PND PROJECT NO.: 172032

1.03

SHEET 3 OF 28



A
1.03
TYPICAL SECTION - EXISTING



B
1.03
TYPICAL SECTION - EXISTING

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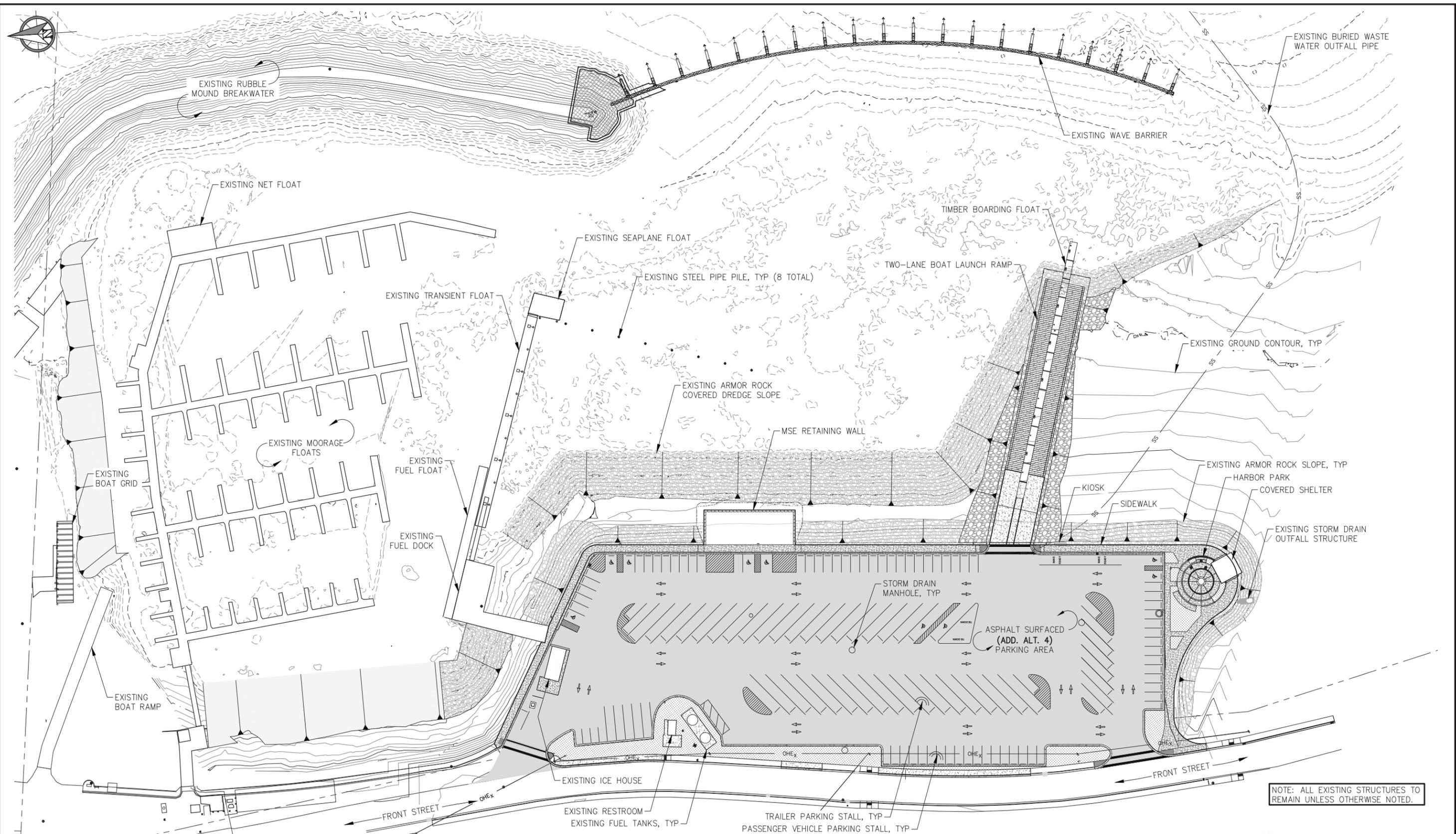
DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
EXISTING TYPICAL SECTIONS

PND PROJECT NO.: 172032

1.04
SHEET
4 OF 28



NOTE: ALL EXISTING STRUCTURES TO REMAIN UNLESS OTHERWISE NOTED.

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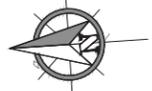
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**HAINES BOROUGH
 PORTAGE COVE HARBOR
 BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
OVERALL SITE PLAN

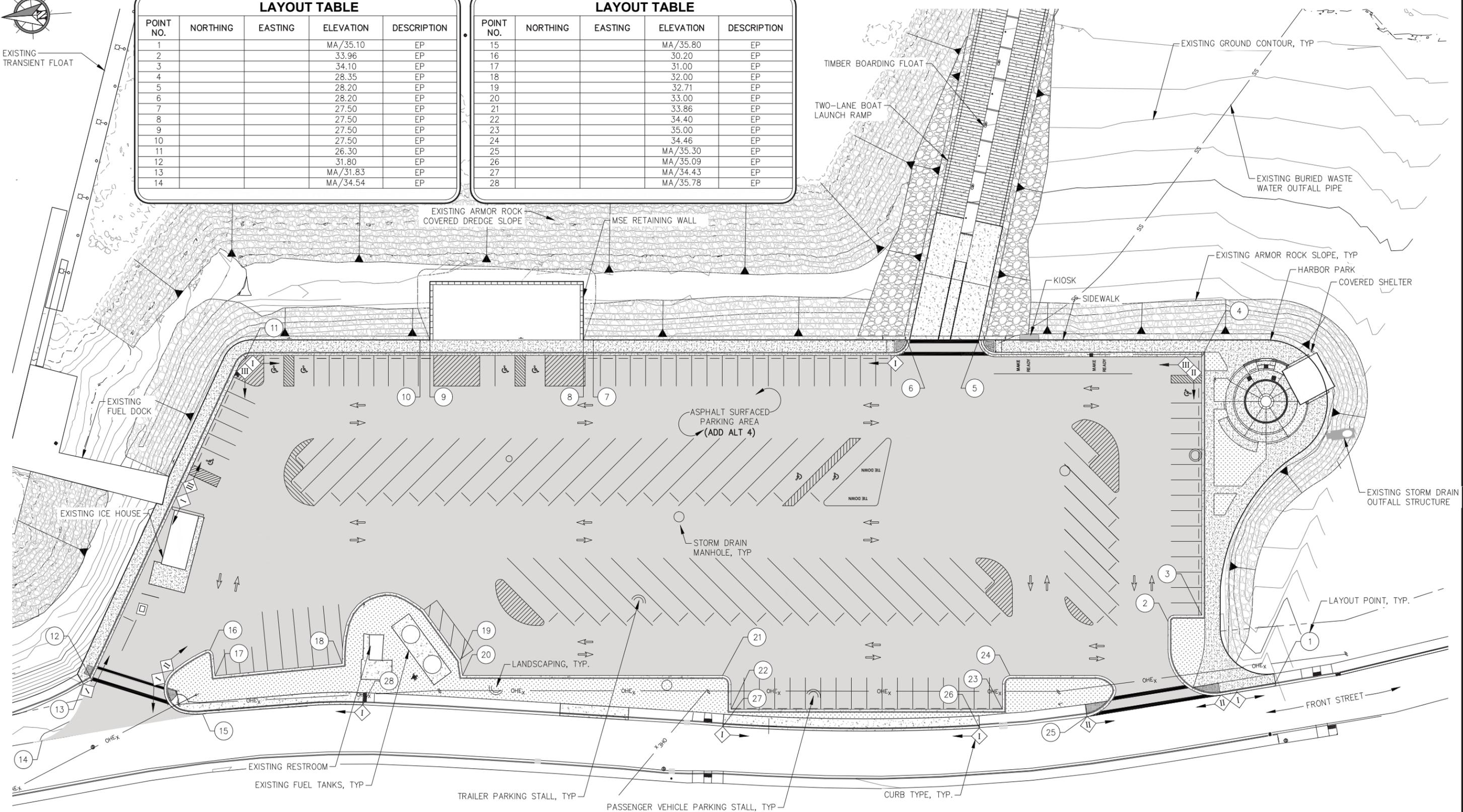
PND PROJECT NO.: 172032

1.05
 SHEET
 5 OF 28



LAYOUT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1			MA/35.10	EP
2			33.96	EP
3			34.10	EP
4			28.35	EP
5			28.20	EP
6			28.20	EP
7			27.50	EP
8			27.50	EP
9			27.50	EP
10			27.50	EP
11			26.30	EP
12			31.80	EP
13			MA/31.83	EP
14			MA/34.54	EP

LAYOUT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
15			MA/35.80	EP
16			30.20	EP
17			31.00	EP
18			32.00	EP
19			32.71	EP
20			33.00	EP
21			33.86	EP
22			34.40	EP
23			35.00	EP
24			34.46	EP
25			MA/35.30	EP
26			MA/35.09	EP
27			MA/34.43	EP
28			MA/35.78	EP



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SCALE: SCALE IN FEET
0 30 60 FT.

DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
**UPLANDS SITE PLAN AND
GRADING PLAN**

PND PROJECT NO.: 172032

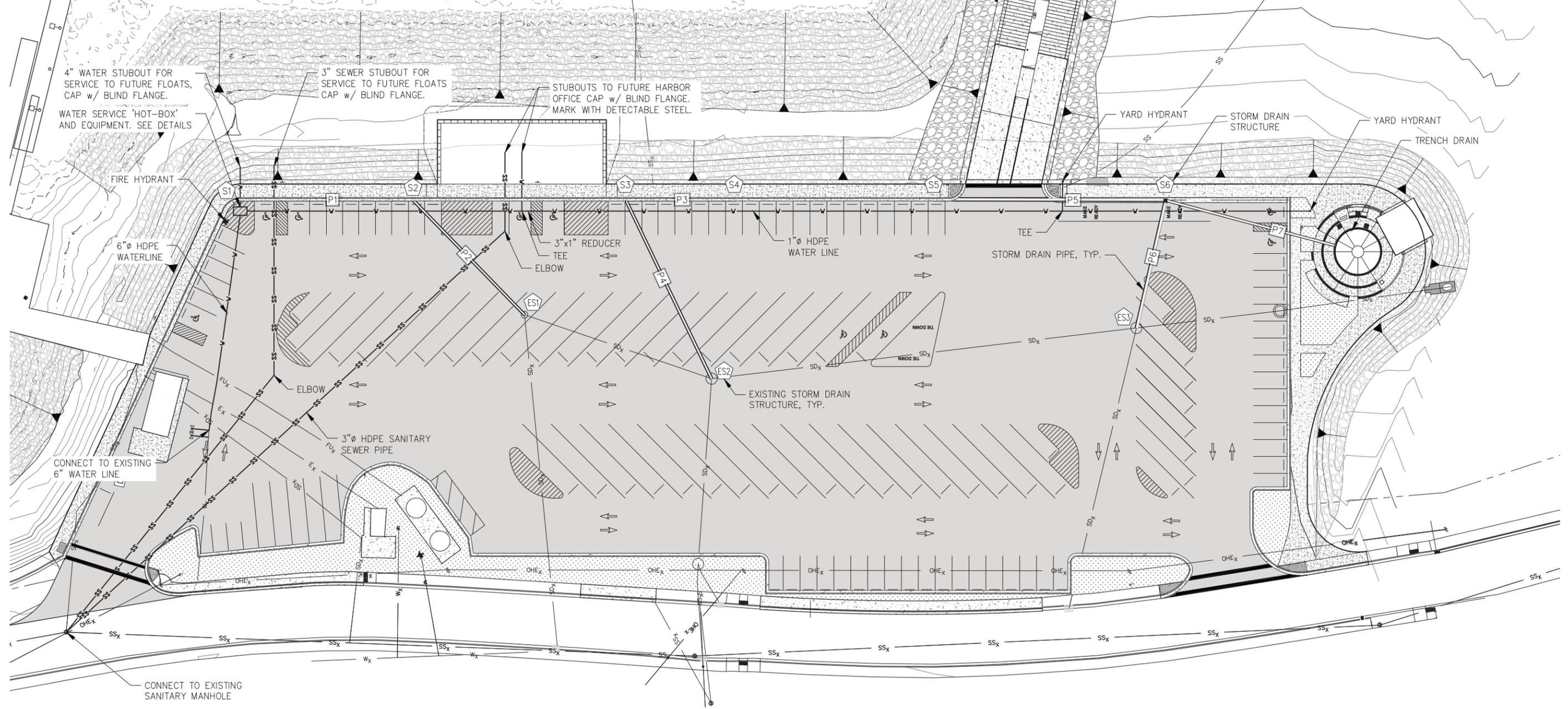
2.01
SHEET
6 OF 28



STORM DRAIN STRUCTURES				
STRUCTURE DESIGNATION	NORTHING	EASTING	RIM ELEVATION	TYPE
S1	-	-	26.30	TYPE IV CB, SCI
S2	-	-	27.50	TYPE IV CB, SCI
S3	-	-	27.50	TYPE IV CB, SCI
S4	-	-	28.40	TYPE IV CB, SCI
S5	-	-	28.20	TYPE IV CB, SCI
S6	-	-	27.65	TYPE IV CB, RCI
S7	-	-	-	TRENCH DRAIN, SEE DTL

STORM DRAIN PIPING						
PIPE DESIGNATION	NOMINAL Ø	LENGTH	FROM	IE	TO	IE
P1	18" CPEP	90	S1	-	S2	-
P2	18" CPEP	105	S2	-	ES1	-
P3	18" CPEP	90	S3	-	S3	-
P4	18" CPEP	115	S4	-	ES2	-
P5	18" CPEP	120	S7	-	S6	-
P6	18" CPEP	70	S8	-	ES3	-
P7	6" CPEP	110	S9	-	S6	-

CB = CATCH BASIN
 MH = MANHOLE
 SCI = STANDARD CURB INLET IAW CBJ STD 308
 RCI = ROLL CURB INLET, EAST JORDAN IRON WORKS 7711 OR APPROVED EQUAL
 * = INVERT ELEVATION



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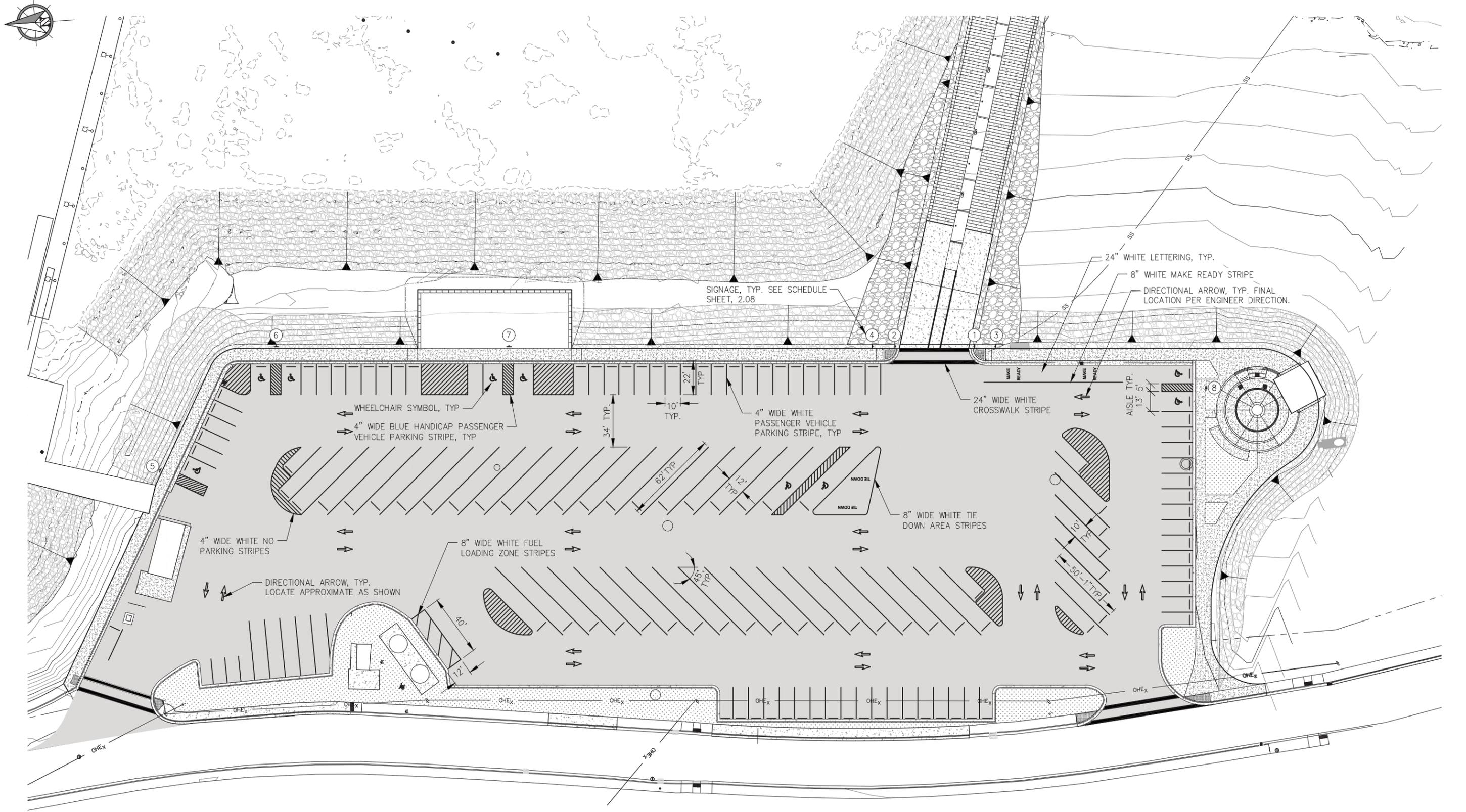
DATE: JULY 20, 2018

**HAINES BOROUGH
 PORTAGE COVE HARBOR
 BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
UTILITIES PLAN

PND PROJECT NO.: 172032

2.02
 SHEET
 7 OF 28



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DRAWN: BMI APPROVED: _____

SCALE: SCALE IN FEET
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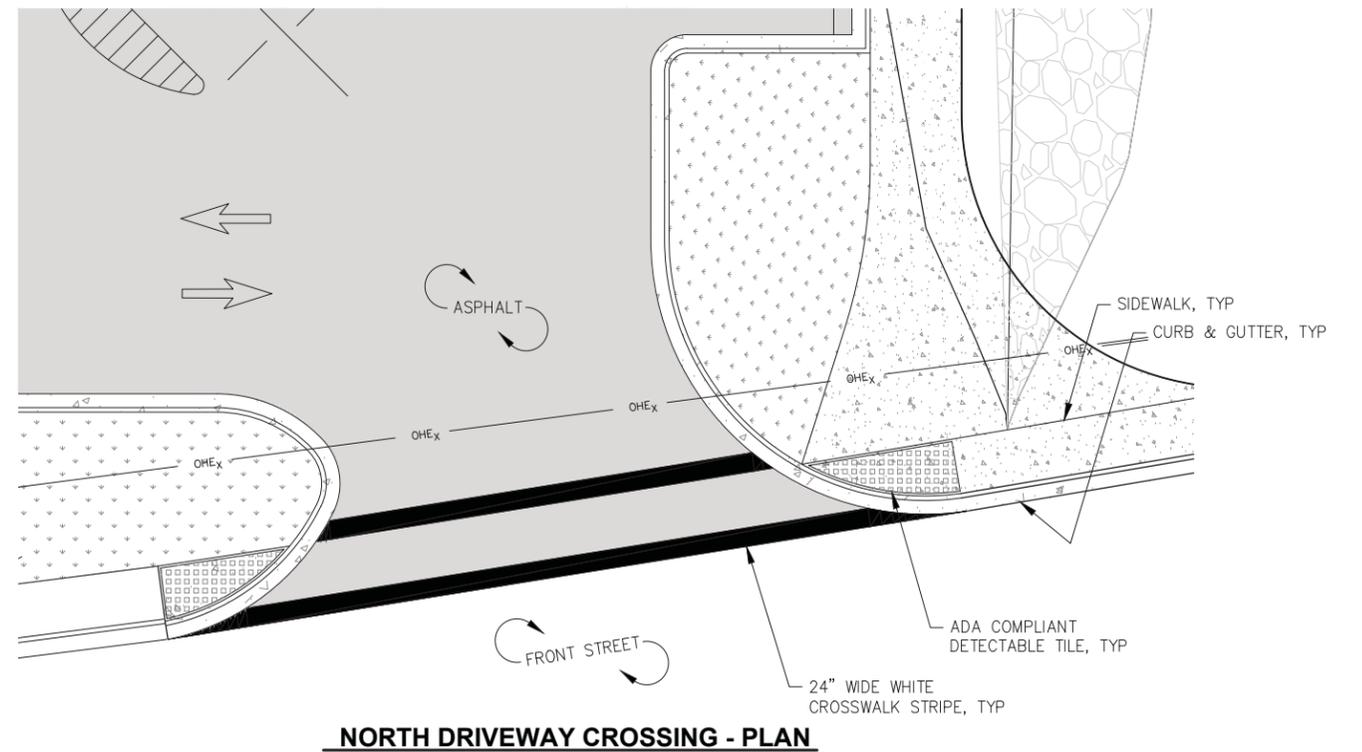
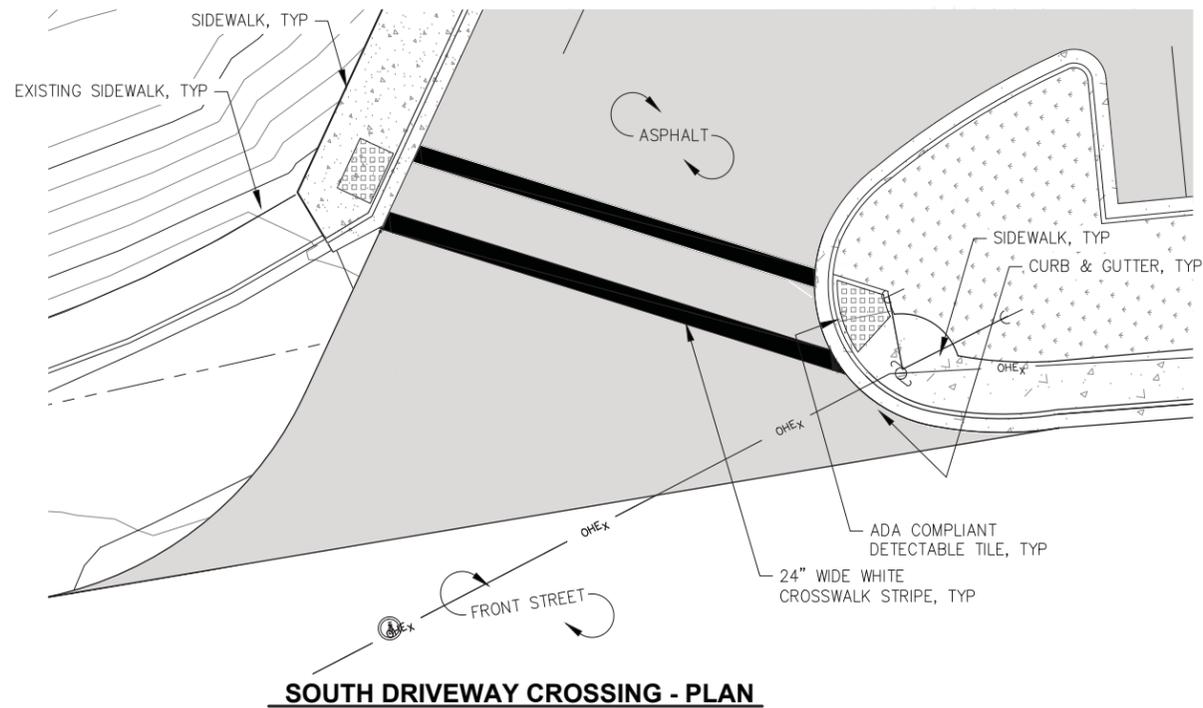
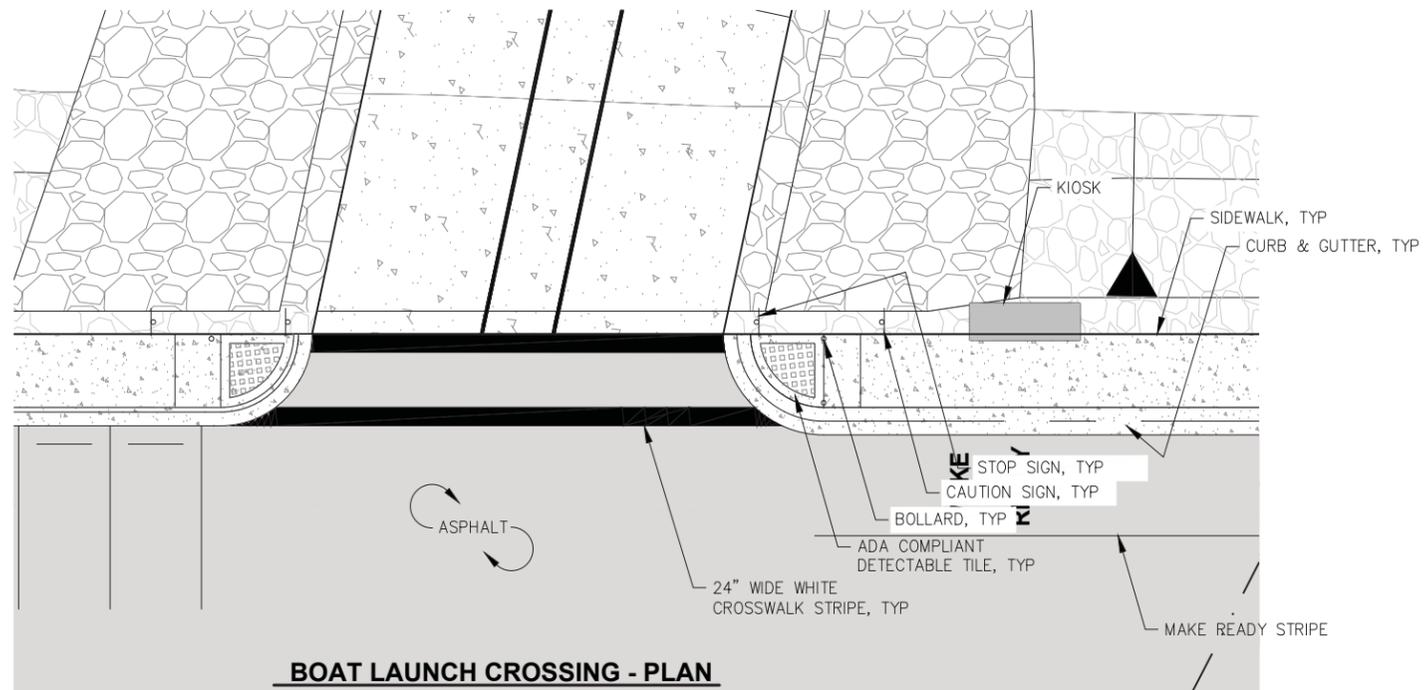
DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
SIGNAGE AND STRIPING PLAN

PND PROJECT NO.: 172032

2.03
SHEET
8 OF 28



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SCALE: SCALE IN FEET
0 10 20 FT.

DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
DRIVEWAY CROSSINGS

PND PROJECT NO.: 172032

2.04
SHEET
9 OF 28



A
2.01
TYPICAL SECTION



B
2.01
TYPICAL SECTION

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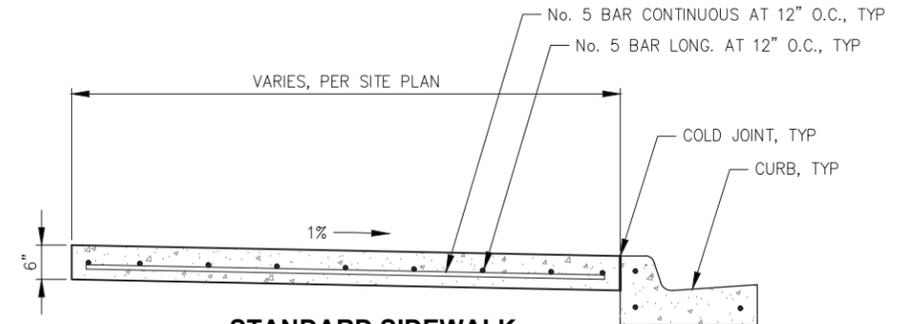
DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
TYPICAL SECTIONS

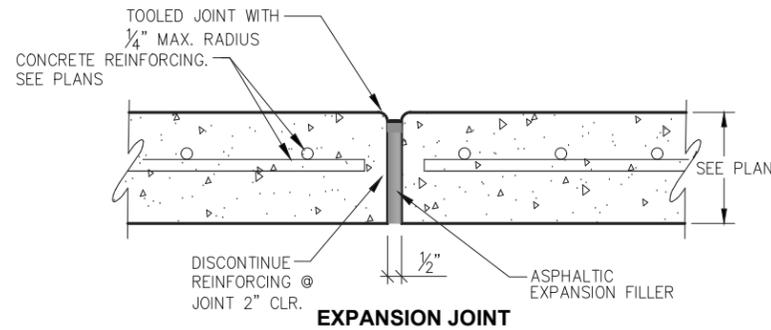
PND PROJECT NO.: 172032

2.05
SHEET
10 OF 28



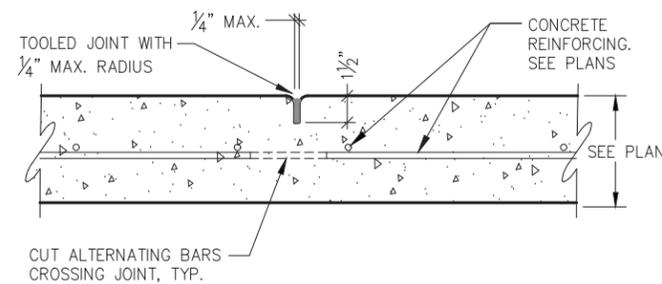
STANDARD SIDEWALK

- NOTES:**
1. ALL STEEL MUST HAVE A MINIMUM OF 2" OF CONCRETE COVER. FIBER REINFORCING SHALL BE ALLOWED PER ENGINEER OF PLANS.
 2. ALL JOINTS AND SEAMS SHALL BE EDGED.
 3. EXPANSION JOINTS SHALL BE MAX 1/2", MIN 1/4", WITH NO GAPS FOR WATER INTRUSION.
 4. STEEL TROWELING FINISH REQUIRED PRIOR TO BROOM FINISHING ON ALL SURFACES.
 5. CONCRETE INTERNATIONAL CORPORATION ASHFORD FORMULA OR APPROVED EQUAL SHALL BE APPLIED AS A CURING COMPOUND. APPLICATION SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATIONS.



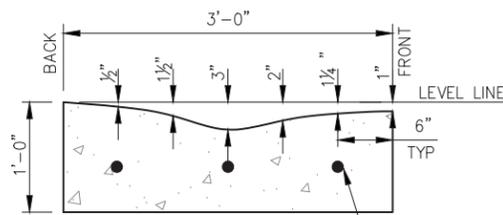
EXPANSION JOINT

NOTE: EXPANSION JOINTS IN CURB & GUTTER PLACED MAX. EVERY 30'-0" O.C.



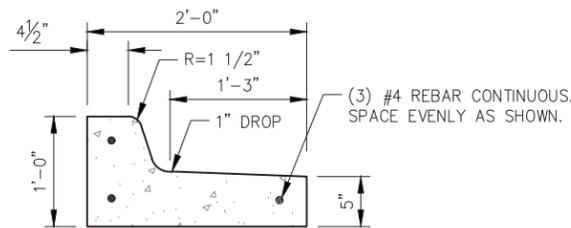
CONTROL JOINT

NOTE: CONTROL JOINTS IN CURB & GUTTER PLACED MAX. EVERY 10'-0" O.C. CONTROL JOINTS IN SIDEWALK EQUAL TO WIDTH.



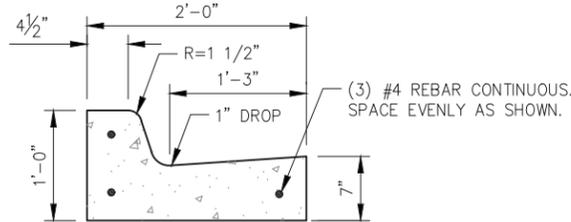
ROLLED CURB

NOTE: BED w/ MIN 6" BASE COURSE, D-1 GRADING. (3) #4 REBAR CONTINUOUS, SPACE EVENLY AS SHOWN



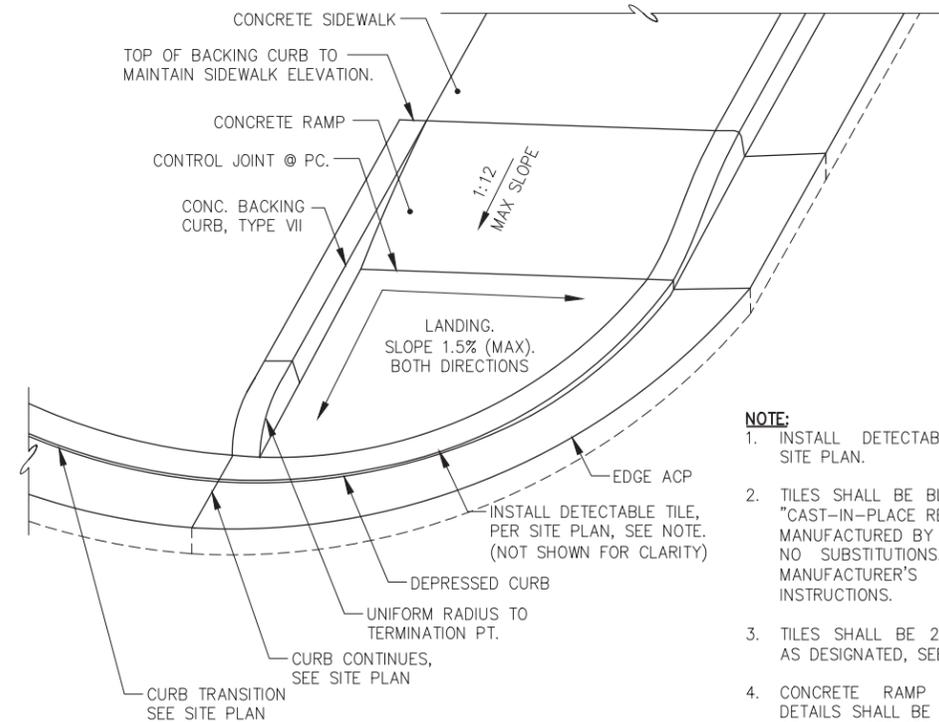
SPILL CURB

NOTE: BED w/ MIN 6" BASE COURSE, D-1 GRADING. (3) #4 REBAR CONTINUOUS, SPACE EVENLY AS SHOWN.



STANDARD CURB

NOTE: BED w/ MIN 6" BASE COURSE, D-1 GRADING. (3) #4 REBAR CONTINUOUS, SPACE EVENLY AS SHOWN.



DRIVEWAY CURB CUT

- NOTE:**
1. INSTALL DETECTABLE TILES PER SITE PLAN.
 2. TILES SHALL BE BLACK IN COLOR, "CAST-IN-PLACE REPLACEABLE" AS MANUFACTURED BY ADA SOLUTIONS, NO SUBSTITUTIONS. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 3. TILES SHALL BE 2'x4' OR RADIUS AS DESIGNATED, SEE SITE PLAN.
 4. CONCRETE RAMP AND LANDING DETAILS SHALL BE SIMILAR TO THE SEAWALK, SEE SERIES 6.

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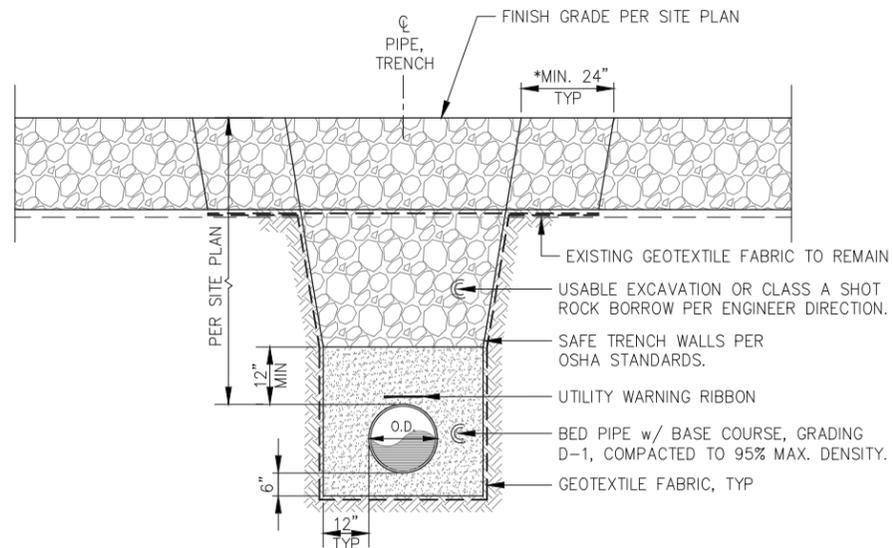
DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

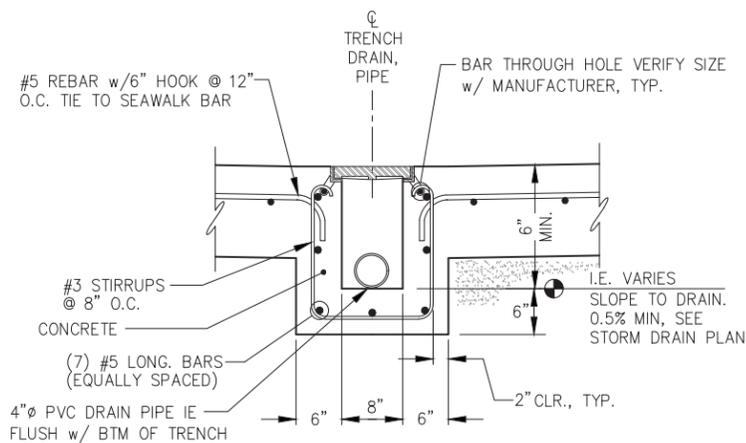
SHEET TITLE:
CURB AND SIDEWALK DETAILS

PND PROJECT NO.: 172032

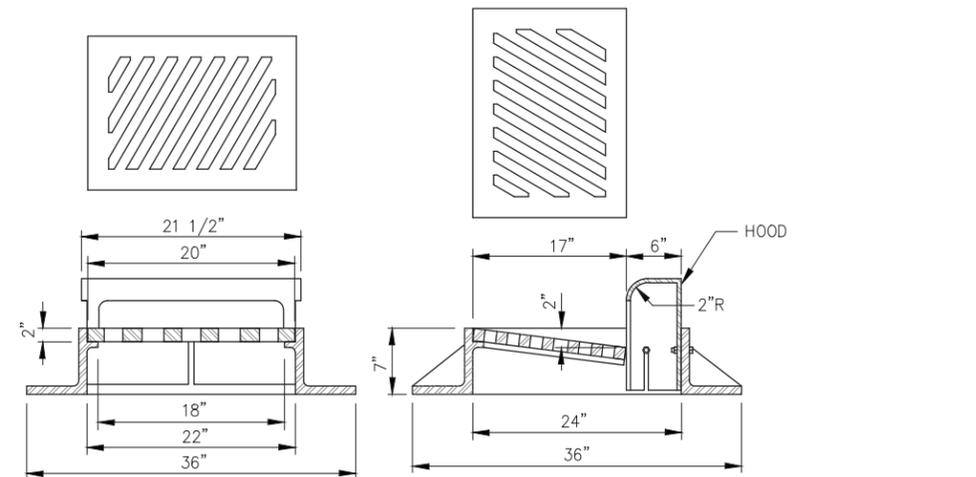
2.06
SHEET
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PIPE TRENCH - TYPICAL SECTION

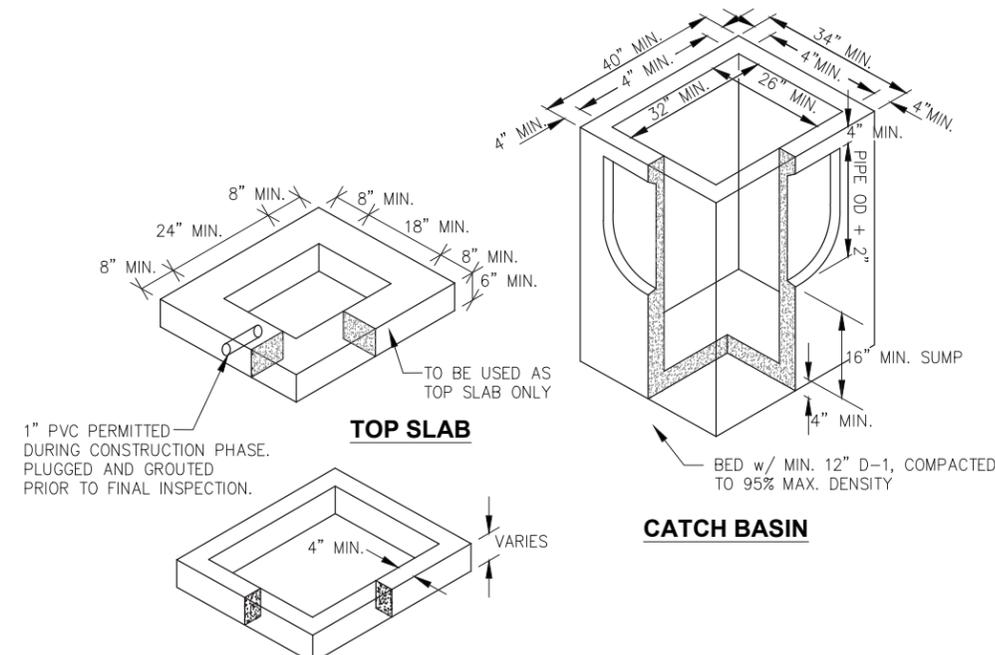


TRENCH DRAIN DETAIL



FRAME AND GRATE

NOTE:



TOP SLAB

CATCH BASIN

ADJUSTING RING

NOTES

1. ALL JOINTS BETWEEN SECTIONS AND BETWEEN FRAME AND CONCRETE SECTIONS SHALL BE GROUTED INSIDE AND OUTSIDE.
2. ENTIRE KNOCKOUT IS TO BE REMOVED AND SEALED SHUT AROUND PIPE. ALL PIPES ARE TO EXTEND MIN. 1" AND MAX. 2" INTO CATCH BASIN.
3. FRAME AND GRATE SHALL BE DUCTILE IRON. FRAME MAY BE CAST INTO THE TOP UNIT OF PLACED OVER THE OPENING AS APPROVED BY THE ENGINEER. FRAME AND GRATE MUST BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.
4. CATCH BASIN SHALL MEET HIGHWAY STANDARD-20 LOAD REQUIREMENTS.
5. MINIMUM STEEL REQUIRED AS PER ASTM C-478-69.
6. MINIMUM SUMP DEPTH SHALL BE 16".
7. ADJUSTING RING SHALL BE THE SAME SIZE AS THE CATCH BASIN.
8. NO BRICKS, WOOD, OR OTHER MATERIALS PERMITTED FOR ADJUSTING GRADE, SOLID RISER OR FORMED TYPE II ONLY.
9. FRAME AND GRATE SHALL MATCH CURB TYPE. SEE PLAN FOR CURB TYPES AND STRUCTURE LOCATIONS.

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**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE: **CONCRETE AND
STORM DRAIN DETAILS**

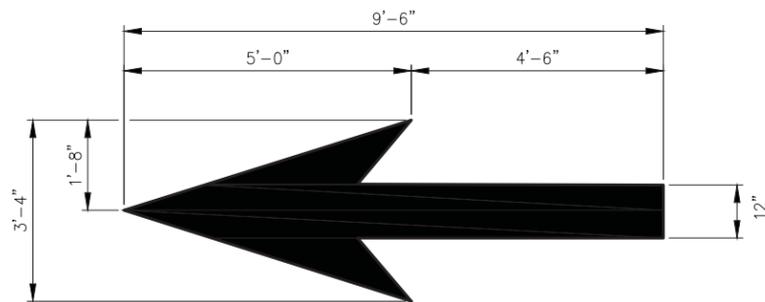
PND PROJECT NO.: 172032

2.07
SHEET
11 OF 28

SIGNAGE SCHEDULE						
SIGN NO.	MUTCD CODE NO.	DESCRIPTION	SIGN SIZE (INCH)	POST SIZE (INCH)	NORTHING	EASTING
1	-	STOP SIGN	18 x 18	2 1/4" SQUARE PERFORATED TUBE		
2	-	STOP SIGN	18 x 18	2 1/4" SQUARE PERFORATED TUBE		
3	-	CAUTION	18 x 24	2 1/4" SQUARE PERFORATED TUBE		
4	-	CAUTION	18 x 24	2 1/4" SQUARE PERFORATED TUBE		
5	R7-8	RESERVED PARKING	12 x 18	2 1/4" SQUARE PERFORATED TUBE		
	R7-8p	VAN ACCESSIBLE	18 x 9	2 1/4" SQUARE PERFORATED TUBE		
6	R7-8	RESERVED PARKING	12 x 18	2 1/4" SQUARE PERFORATED TUBE		
	R7-8p	VAN ACCESSIBLE	18 x 9	2 1/4" SQUARE PERFORATED TUBE		
7	R7-8	RESERVED PARKING	12 x 18	2 1/4" SQUARE PERFORATED TUBE		
	R7-8p	VAN ACCESSIBLE	18 x 9	2 1/4" SQUARE PERFORATED TUBE		
8	R7-8	RESERVED PARKING	12 x 18	2 1/4" SQUARE PERFORATED TUBE		
	R7-8p	VAN ACCESSIBLE	18 x 9	2 1/4" SQUARE PERFORATED TUBE		

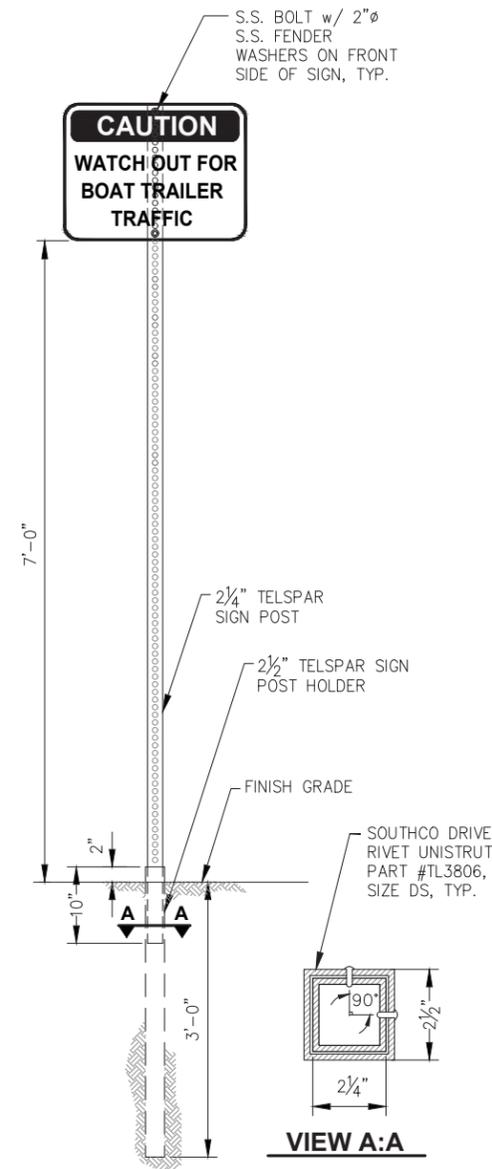
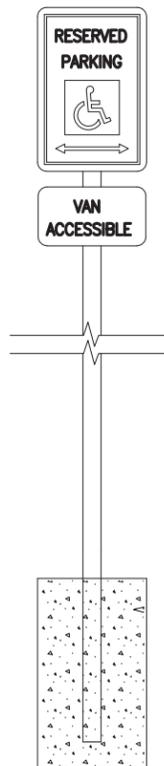
NOTES:

- MUTCD CODE NO. FROM U.S. DOT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2009
- SIGNS AND SIGN POSTS SHALL BE PROVIDED & INSTALLED AS SHOWN ON THE PLANS.
- SEE ACCESSIBLE PARKING DTL. SHT. 5.19
- CHANNELIZING TUBULAR MARKERS SHALL BE PROVIDED IN ACCORDANCE w/ MUTCD 3h.01 AND 6f.65



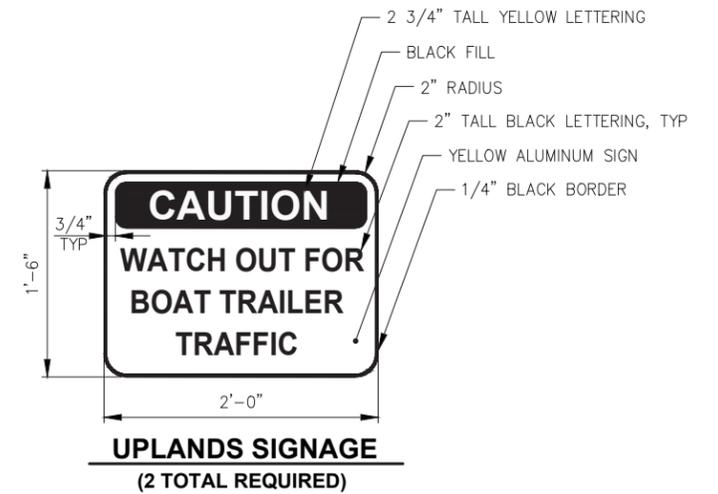
THROUGH LANE-USE ARROW

NOTE:
ARROWS TO BE LOCATED AT APPROXIMATE LOCATION SHOWN ON SIGNING AND STRIPING PLAN. EXACT LOCATION TO BE DETERMINED IN FIELD AS INSTRUCTED BY ENGINEER.

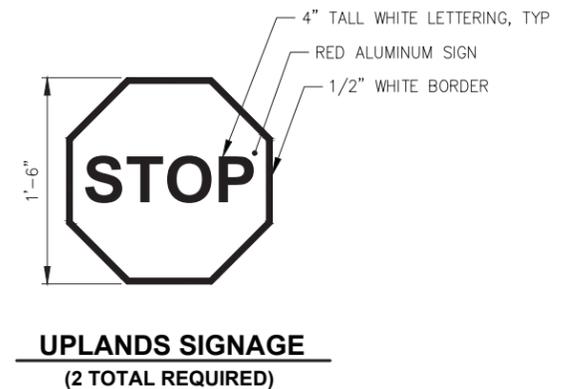


SIGNAGE MOUNT - ELEVATION

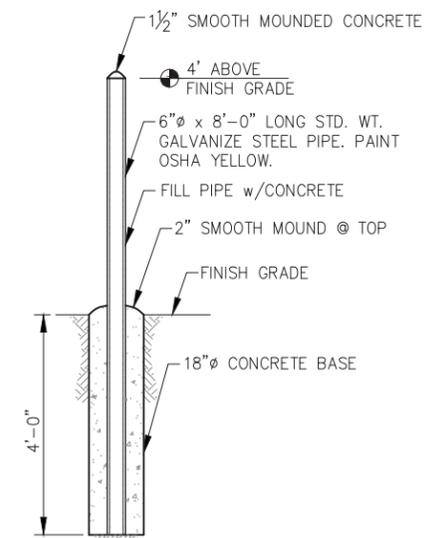
NOTE: FINAL LOCATION PER ENGINEER DIRECTION.



UPLANDS SIGNAGE (2 TOTAL REQUIRED)



UPLANDS SIGNAGE (2 TOTAL REQUIRED)



BOLLARD - ELEVATION

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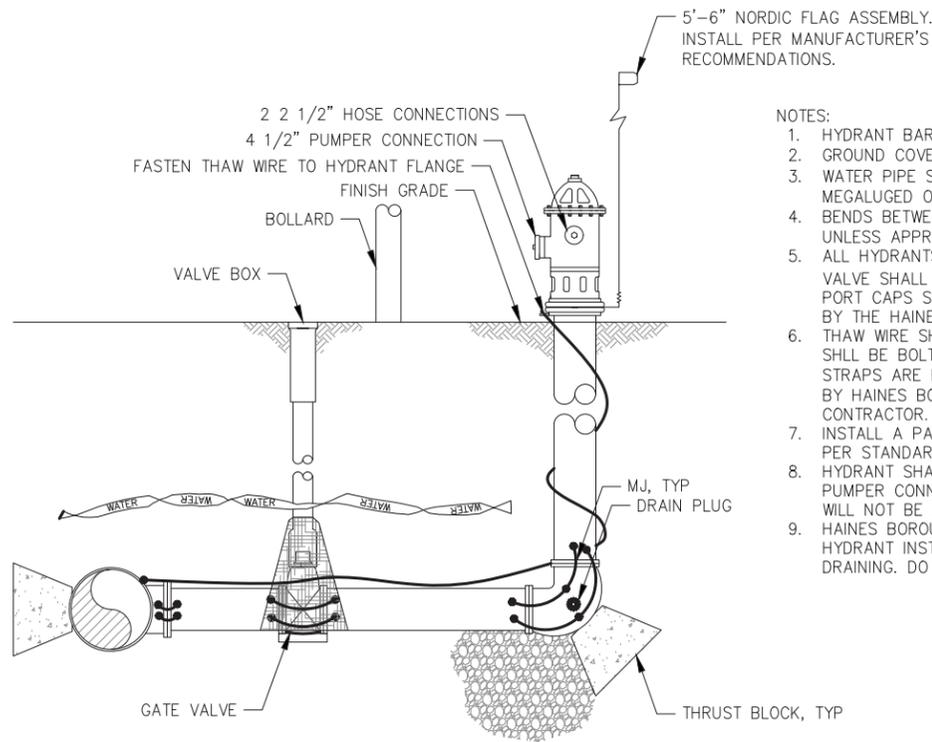
HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS

SHEET TITLE:
SIGNAGE AND BOLLARD DETAILS

PND PROJECT NO.: 172032

2.08

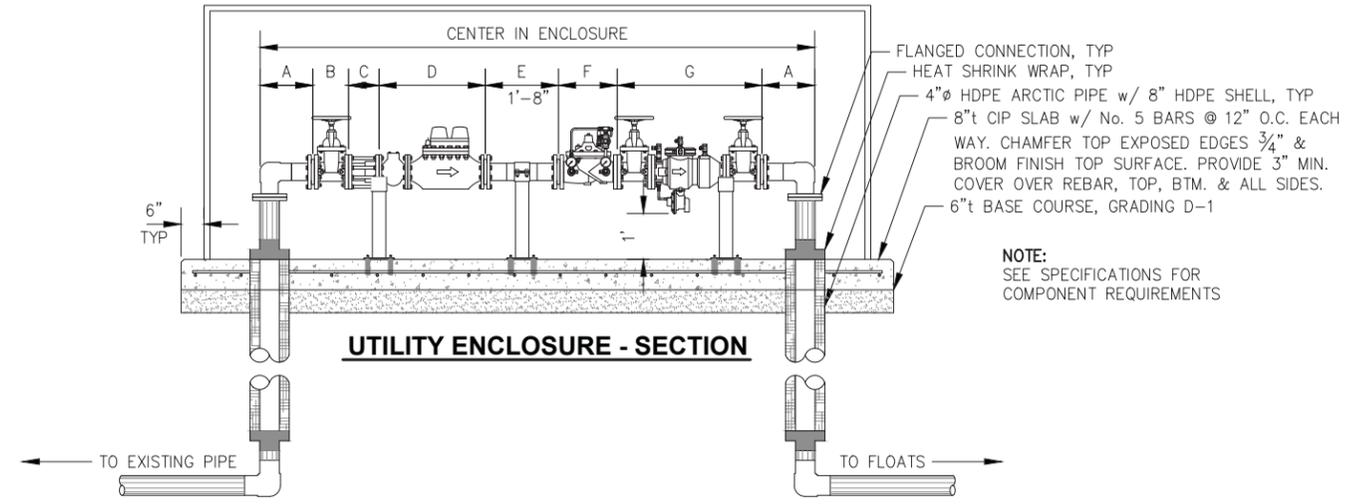
SHEET
12 OF 28



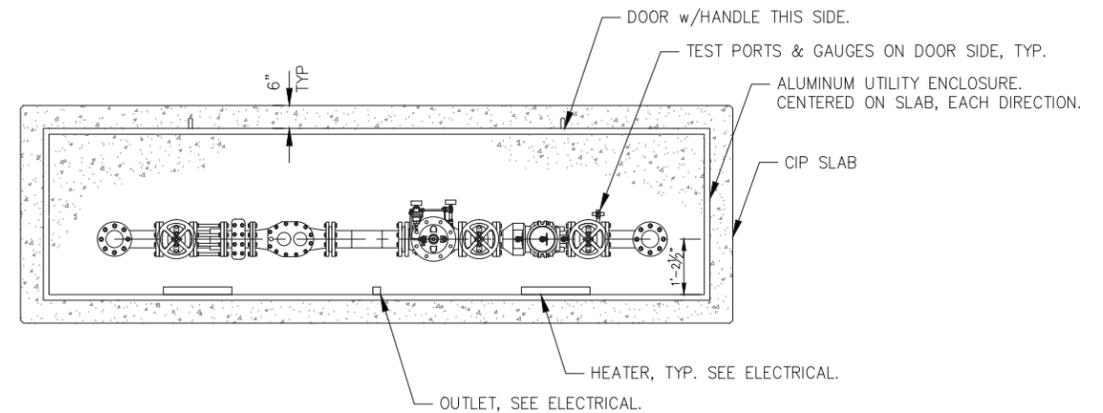
- NOTES:
1. HYDRANT BARREL AND VALVE BOX SHALL BE PLUMB.
 2. GROUND COVER SHALL BE 6' MINIMUM.
 3. WATER PIPE SHALL BE 6" MIN. D.I.P. AND ALL CONNECTIONS SHALL BE MEGALUGED OR CONNECTED WITH LOCKING FIELD GASKETS.
 4. BENDS BETWEEN THE HYDRANT AND THE MAIN SHALL NOT EXCEED 11 1/4' UNLESS APPROVED BY THE ENGINEER.
 5. ALL HYDRANTS SHALL BE PAINTED RED, AND THE NUMBER OF FEET TO VALVE SHALL BE PRINTED IN BLACK 1/2" LETTERS JUST BELOW TOP BONNET. PORT CAPS SHALL BE COLOR CODED PER NFPA STANDARD 291 AS DIRECTED BY THE HAINES BOROUGH WATER UTILITIES DEPARTMENT.
 6. THAW WIRE SHALL BE #2 COPPER WITH TYPE THHW INSULATION. THAW WIRE SHALL BE BOLTED OR CAD WELDED TO THE TEE AT THE MAIN. CONTINUITY STRAPS ARE REQ'D ON 6" DIP. CONTINUITY AND ARRANGEMENT FOR TESTING BY HAINES BOROUGH WATER UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
 7. INSTALL A PAVED HYDRANT PAD PER STANDARD 405 AND GUARD POSTS PER STANDARD 404.
 8. HYDRANT SHALL BE MUELLER CENTURION 200 OR 250 WITH INTEGRAL STORZ PUMPER CONNECTION OR APPROVED EQUAL. CLOW F2500 SERIES HYDRANTS WILL NOT BE ACCEPTED.
 9. HAINES BOROUGH WATER UTILITIES DEPARTMENT SHALL DETERMINE FOR EACH HYDRANT INSTALLATION IF HYDRANT PLUGS SHALL BE REMOVED FOR SELF DRAINING. DO NOT BLOCK PLUG WITH THE THRUST BLOCK.

FIRE HYDRANT

(1) TOTAL

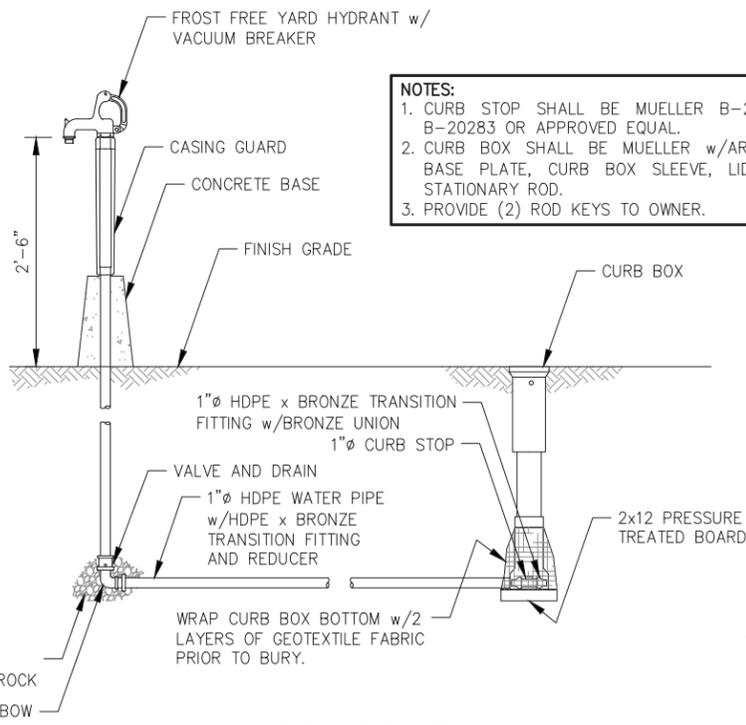


UTILITY ENCLOSURE - SECTION

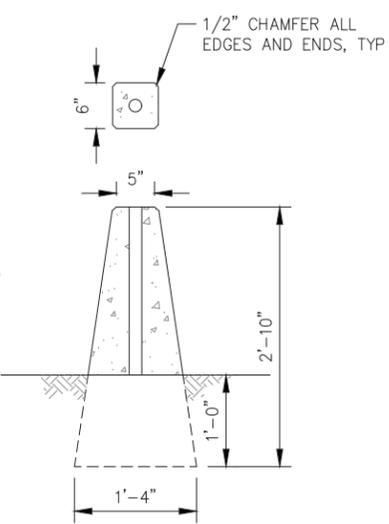


UTILITY ENCLOSURE - PLAN

DESIGNATION	COMPONENT DESCRIPTION
A	4" HDPE 90° ELBOW w/ FLANGE ADAPTERS & HDG BACKUP RING
B	4" NRS GATE VALVE
C	4" DISMANTLING JOINT, SET TO 8" ±
D	4" METER w/ STRAINER
E	4" HDPE PIPE SPOOL
F	4" AUTOMATIC CONTROL VALVE
G	4" REDUCED PRESSURE ZONE ASSEMBLY BACKFLOW PREVENTOR



- NOTES:
1. CURB STOP SHALL BE MUELLER B-20276 OR B-20283 OR APPROVED EQUAL.
 2. CURB BOX SHALL BE MUELLER w/ARCH BASE, BASE PLATE, CURB BOX SLEEVE, LID w/PLUG STATIONARY ROD.
 3. PROVIDE (2) ROD KEYS TO OWNER.



CONCRETE BASE

YARD HYDRANT

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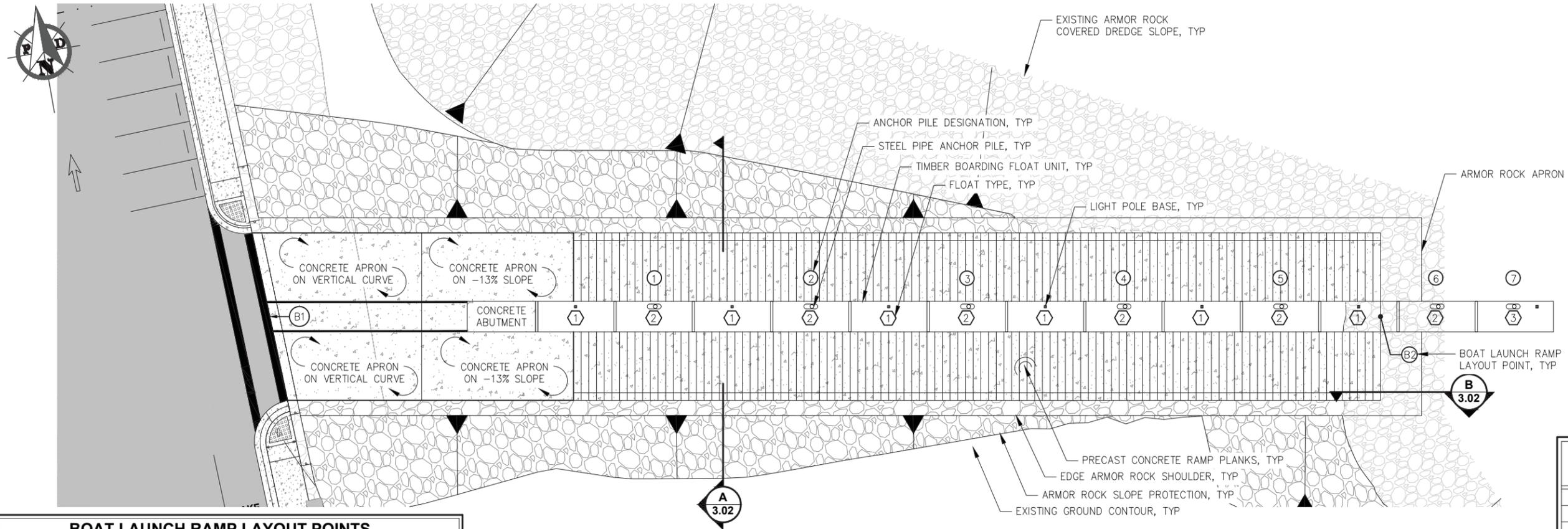
DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
WATER SERVICE DETAILS

2.09
SHEET 13 OF 28

PND PROJECT NO.: 172032



BOAT LAUNCH RAMP LAYOUT POINTS

WORK PT.	NORTHING	EASTING	ELEV.	DESCRIPTION
B1	XX	XX	29.20'	STA 0+00 C. BEGIN C.I.P. ABUTMENT
B2	XX	XX	-6.70'	STA 2+93.08 C. END RAMP PLANK

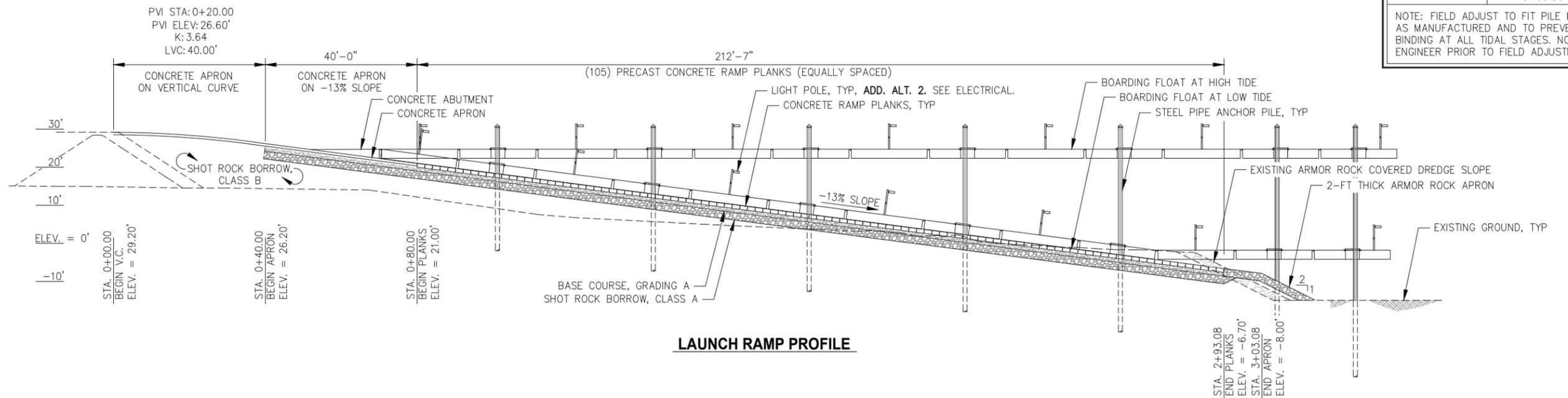
LAUNCH RAMP PLAN

NOTE: SEE ELECTRICAL FOR DETAILS NOT SHOWN THIS SHEET.

PRELIMINARY ANCHOR PILE SCHEDULE

PILE NO.	STATION
1	0+58.6
2	0+99.68
3	1+40.76
4	1+81.84
5	2+22.77
6	2+64.06
7	3+05.30

NOTE: FIELD ADJUST TO FIT PILE HOOPS AS MANUFACTURED AND TO PREVENT BINDING AT ALL TIDAL STAGES. NOTIFY ENGINEER PRIOR TO FIELD ADJUSTMENT.



LAUNCH RAMP PROFILE

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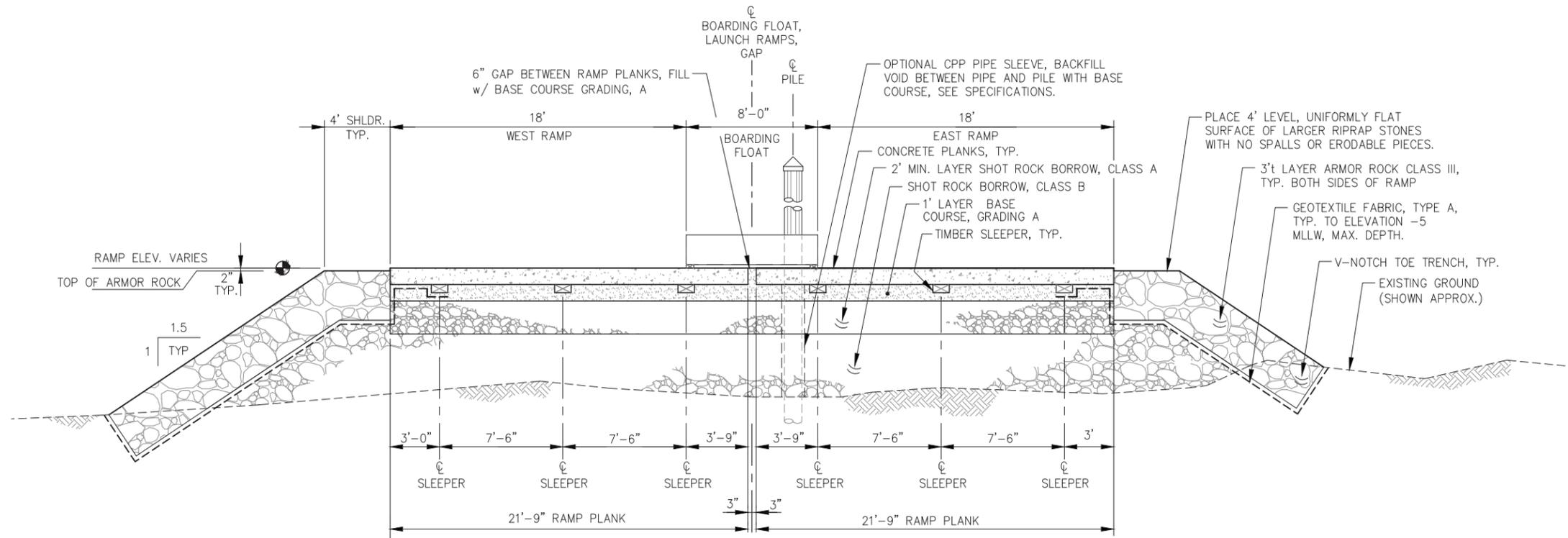
HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: **PLAN AND PROFILE**

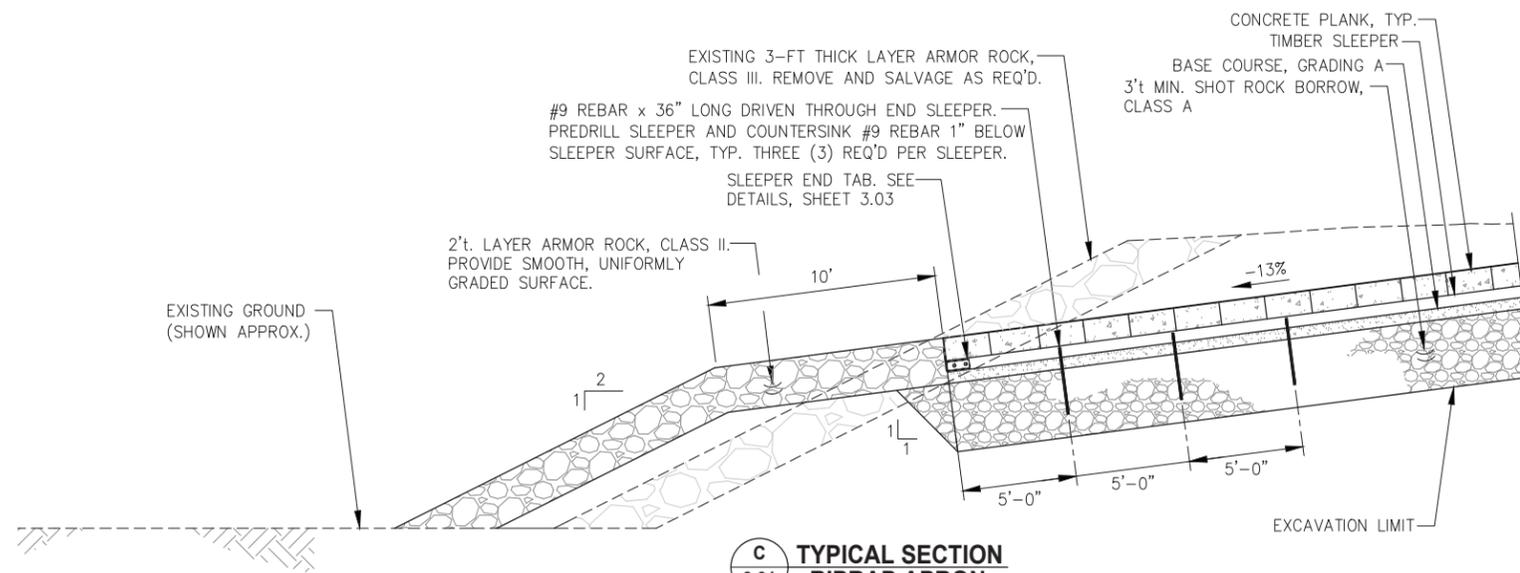
PND PROJECT NO.: 172032

3.01

SHEET 14 OF 28



A
3.01 **TYPICAL SECTION
BOAT LAUNCH RAMP**



C
3.01 **TYPICAL SECTION
RIPRAP APRON**

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REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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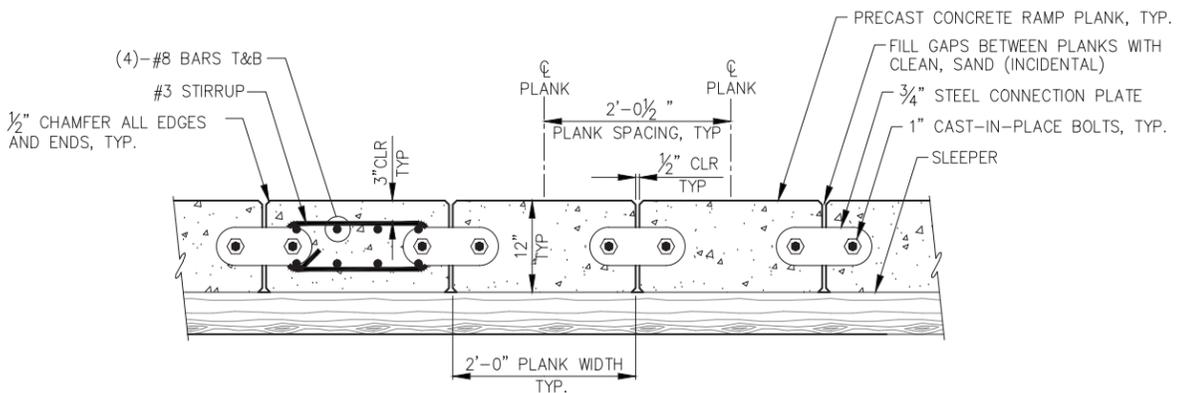
DATE: JULY 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
TYPICAL SECTIONS

PND PROJECT NO.: 172032

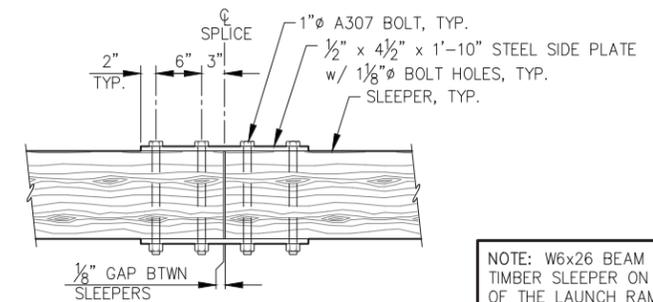
3.02
SHEET
15 OF 28



TYPICAL RAMP PLANK SECTION

NOTE: V-GROOVE SURFACE NOT SHOWN THIS SECTION FOR CLARITY

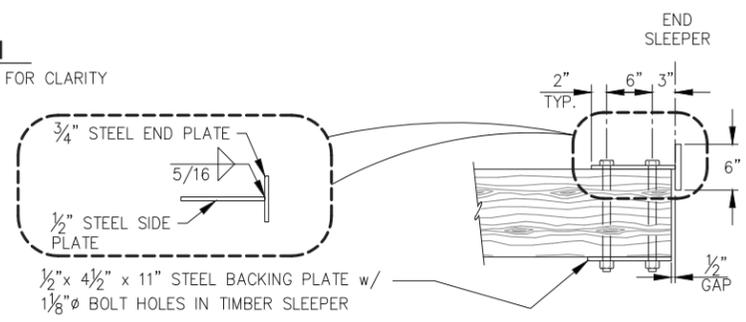
RAMP PLANK SCHEDULE	
TYPE	QUANTITY
TYPE 1	214 TOTAL
TYPE 2	36 TOTAL



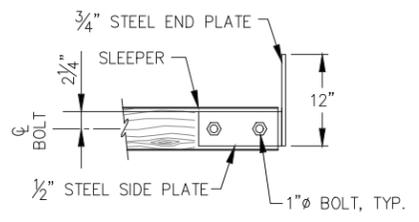
SLEEPER SPLICE DETAIL - PLAN

NOTE: SLEEPER SPLICES SHALL BE STAGGERED.

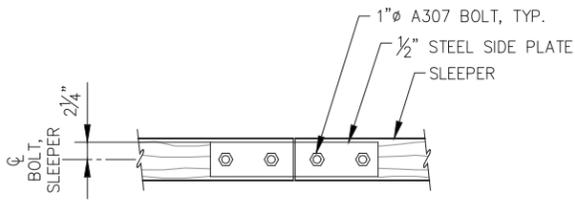
NOTE: W6x26 BEAM MAY BE USED IN LIEU OF TIMBER SLEEPER ON THE SUBMERGED PORTION OF THE LAUNCH RAMP. ATTACH END TAB AND SPLICE PLATES TO BEAM WEB SIMILAR AS SHOWN.



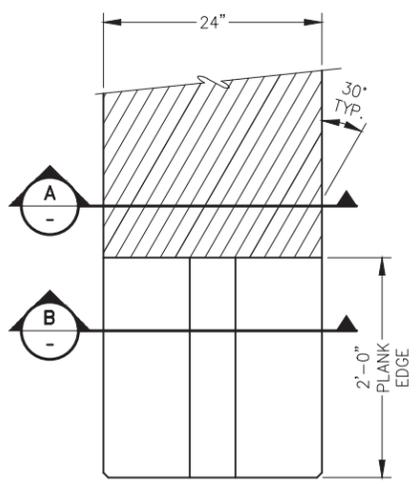
SLEEPER END TAB DETAIL - PLAN



SLEEPER END TAB DETAIL - PROFILE

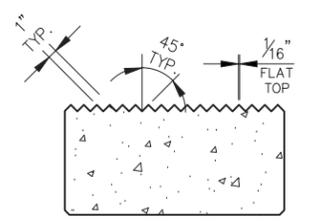


SLEEPER SPLICE DETAIL - PROFILE

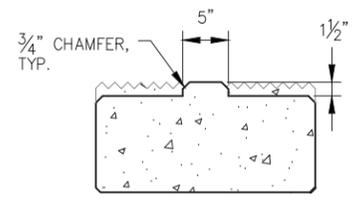


PLAN

NOTE: CONSTRUCT PLANKS AS REQ'D TO ACHIEVE RAMP LANES WITH OPPOSING V-GROOVES AS SHOWN IN PLAN VIEW.

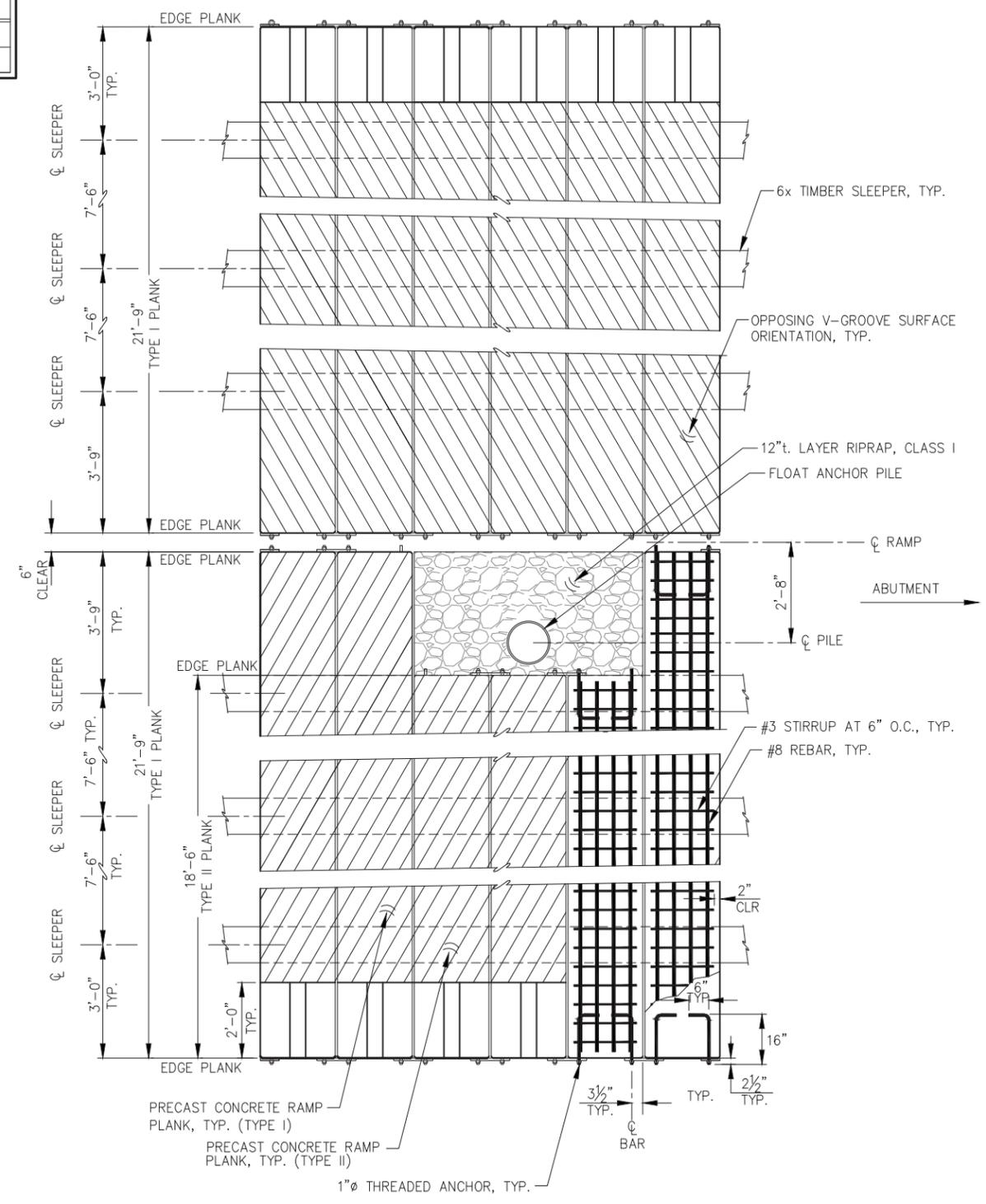


TYPICAL SECTION A



TYPICAL SECTION B

PLANK SURFACE FINISH DETAILS



CONCRETE RAMP PLANKS - PLAN



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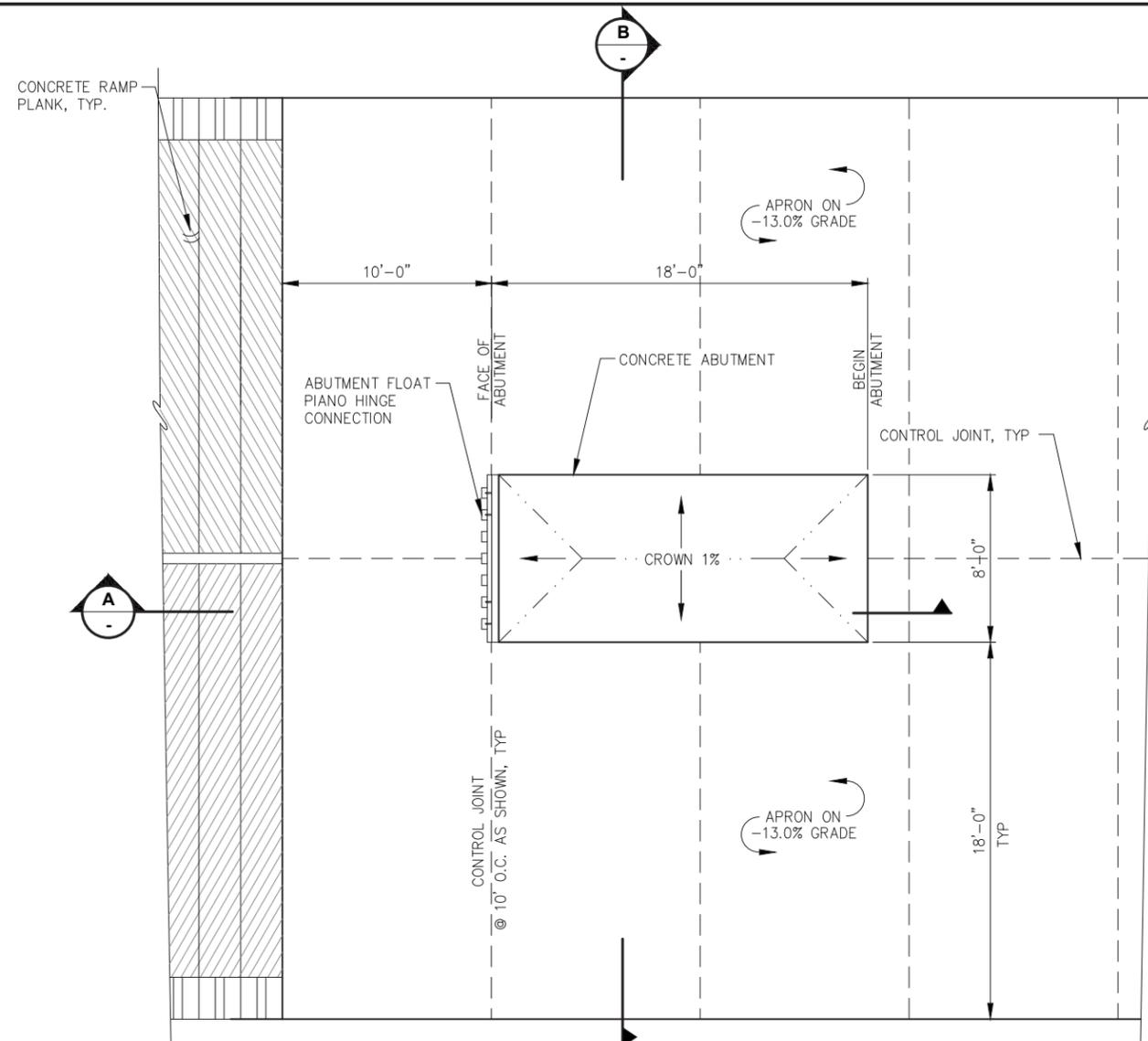
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HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: **PLANK AND SLEEPER DETAILS**

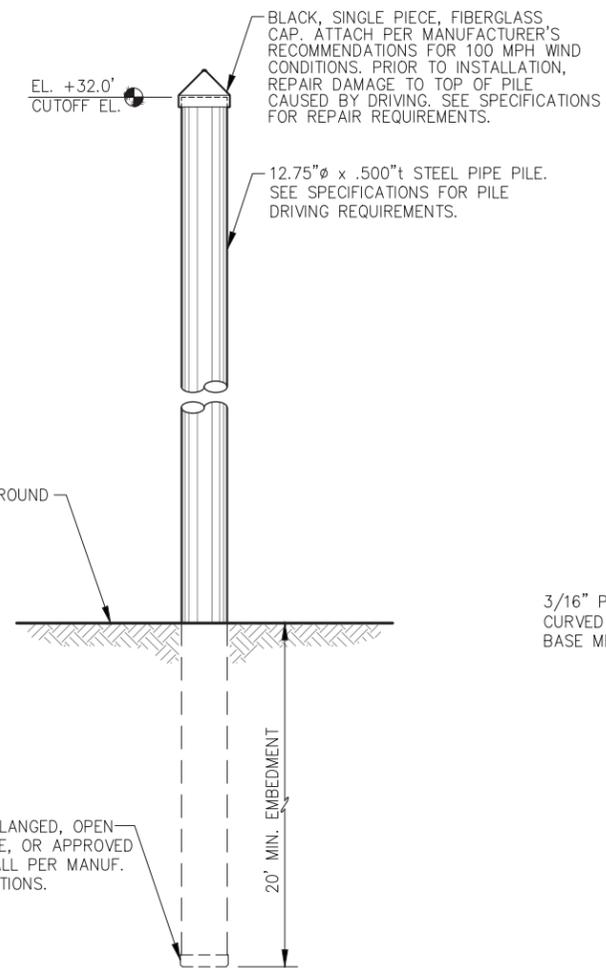
PND PROJECT NO.: 172032

3.03
 SHEET 16 OF 28



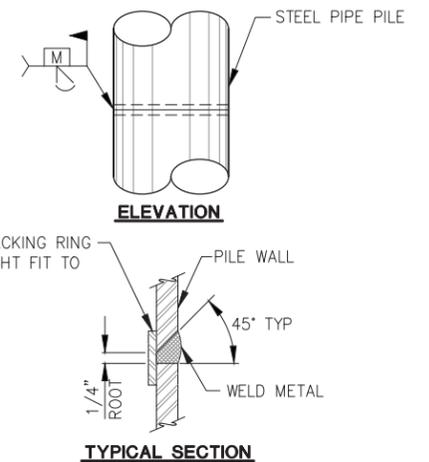
APRON AND ABUTMENT PLAN

- NOTES: 1. RIPRAP AND FLOAT NOT SHOWN FOR CLARITY
 2. CONTROL JOINTS 1/4" x 1 1/2" TOOLED JOINT w/1/4" RADIUS. FILL SLOT w/FIELD-MOLDED FILLER ASPHALT SEALANT.

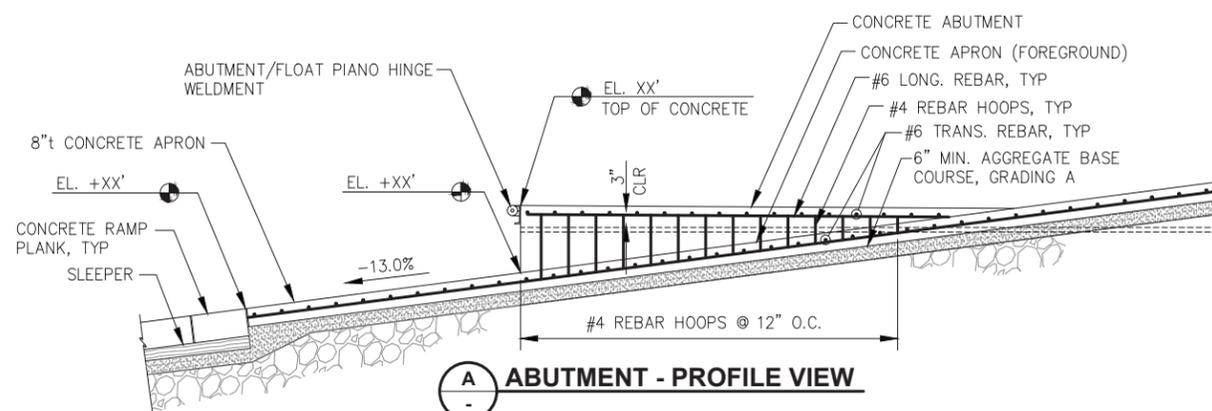


PILE INSTALLATION DETAIL

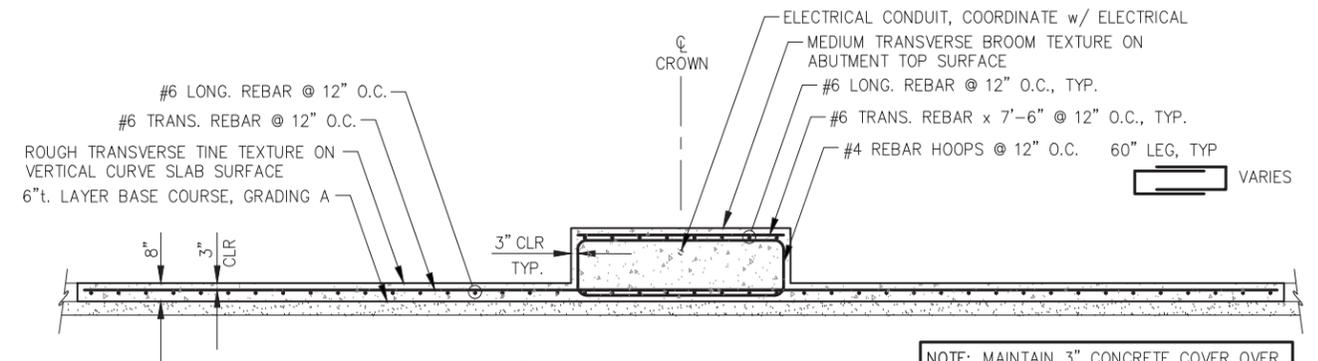
BOAT LAUNCH FLOAT ANCHOR PILE SCHEDULE		
PILE NO.	CUT-OFF ELEV.	PILE LENGTH TO BE SUPPLIED (FEET)
1	32.0'	35 FT
2	32.0'	40 FT
3	32.0'	45 FT
4	32.0'	50 FT
5	32.0'	55 FT
6	32.0'	60 FT
7	32.0'	70 FT



TYPICAL PILE SPLICE WELD
 (TYPICAL FOR ALL PIPE PILE SPLICES)



ABUTMENT - PROFILE VIEW



APRON AND ABUTMENT TYPICAL SECTION

NOTE: MAINTAIN 3" CONCRETE COVER OVER REINFORCEMENT, TOP, BTM, AND ALL SIDES.

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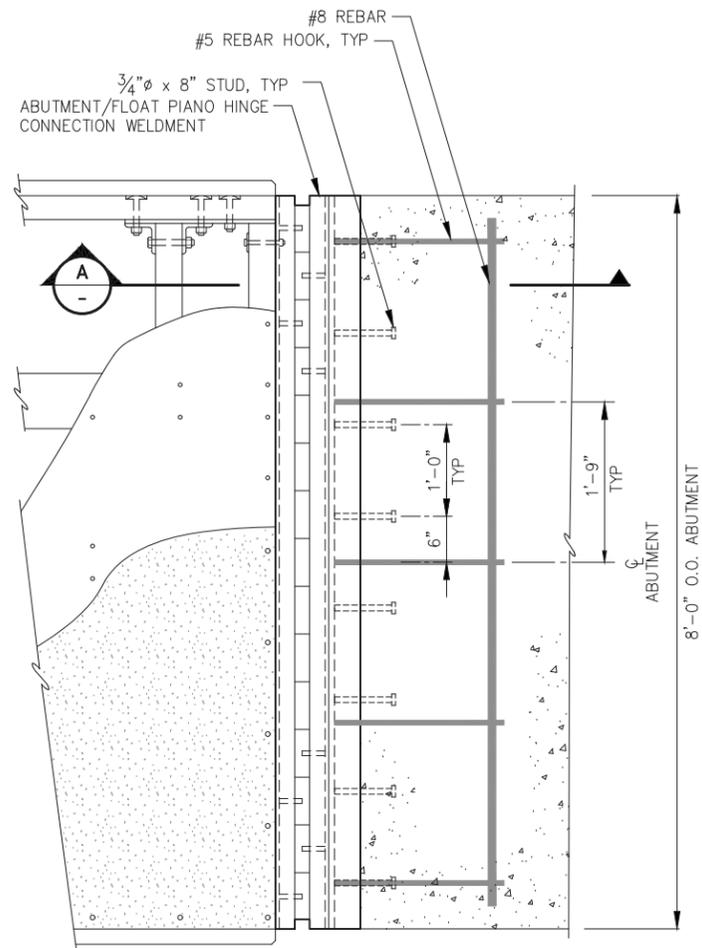
HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: **APRON, ABUTMENT AND PILE DETAILS**

3.04

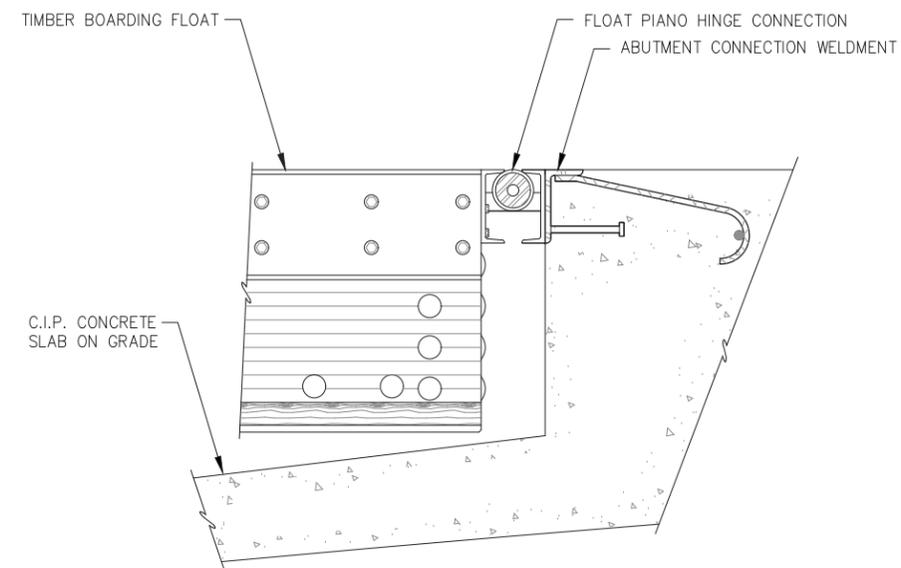
SHEET 17 OF 28

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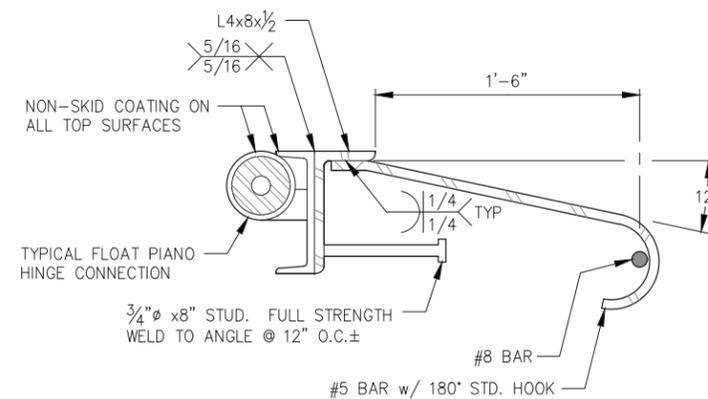
ABUTMENT/FLOAT CONNECTION - PLAN

NOTE: 1. ALL STEEL WALKING SURFACES TO BE COATED WITH NON-SKID SURFACE (I.E. ALL TOP SURFACES OF ABUTMENT HINGE CONNECTION WELDMENTS).



**A PROFILE VIEW
ABUTMENT/FLOAT CONNECTION**

NOTE: NOT ALL ELECTRICAL DETAILS SHOWN THIS SHEET. SEE ELECTRICAL.



**ABUTMENT CONNECTION
WELDMENT DETAIL**

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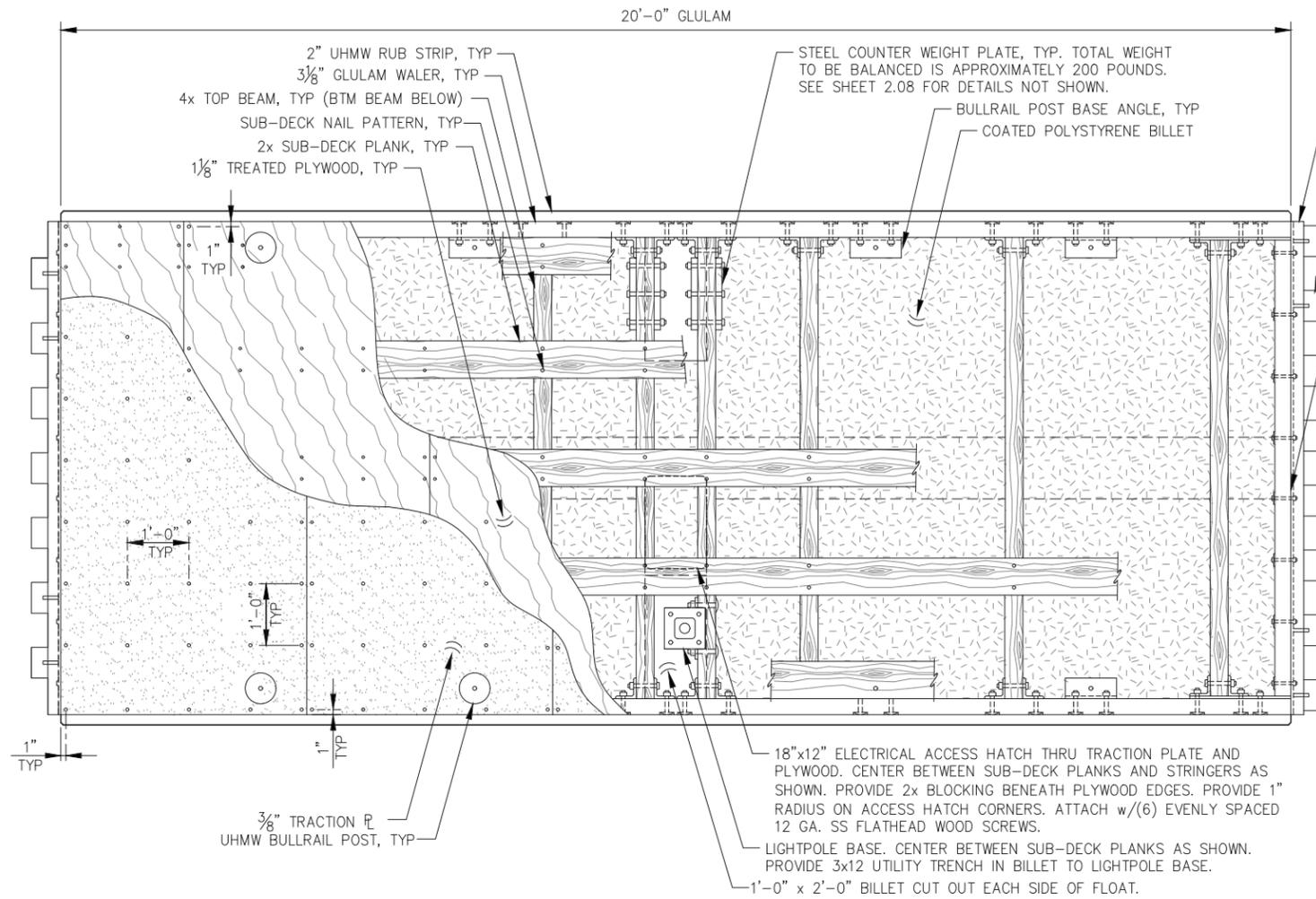
**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE: **APRON AND
ABUTMENT DETAILS**

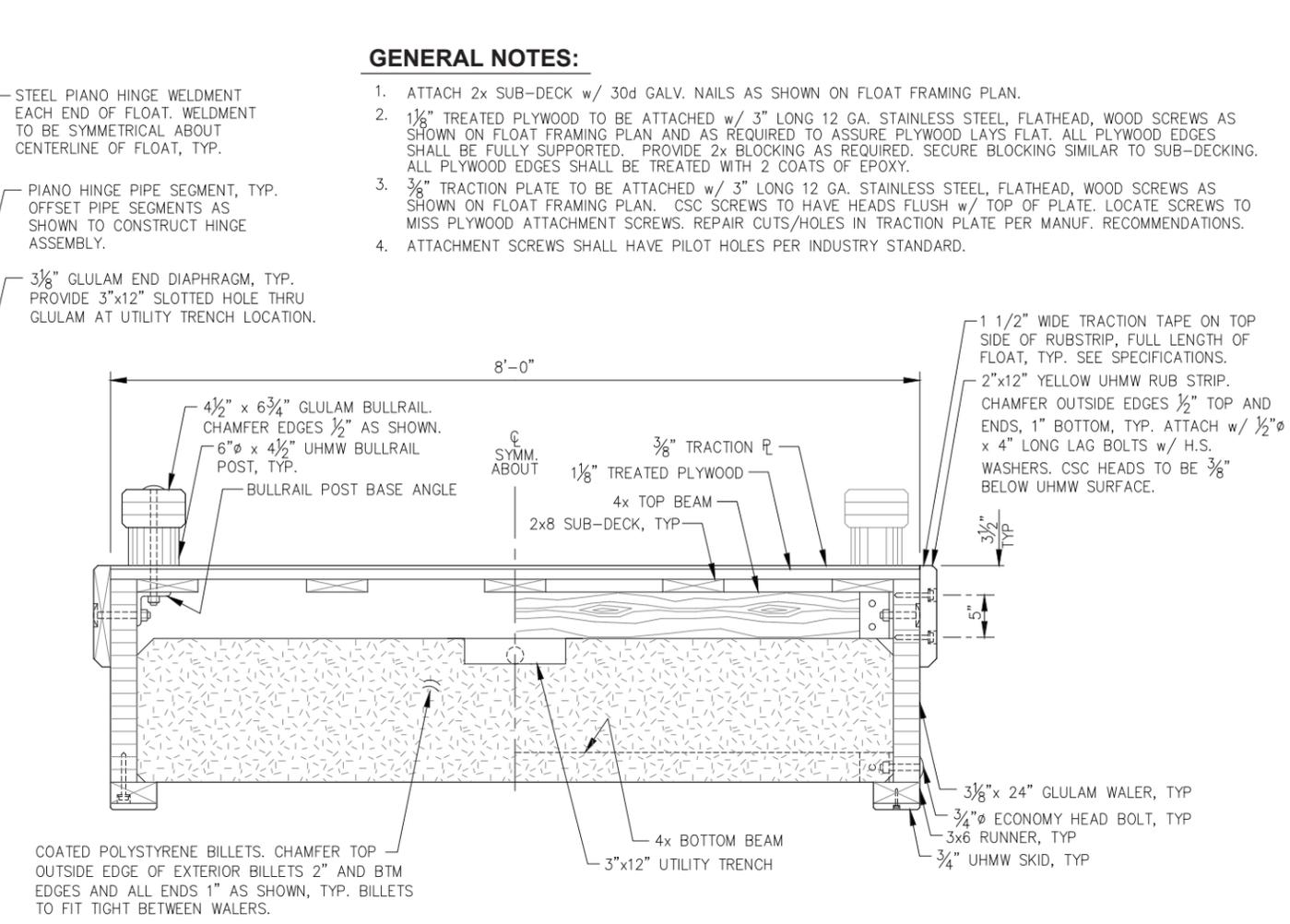
PND PROJECT NO.: 172032

3.05

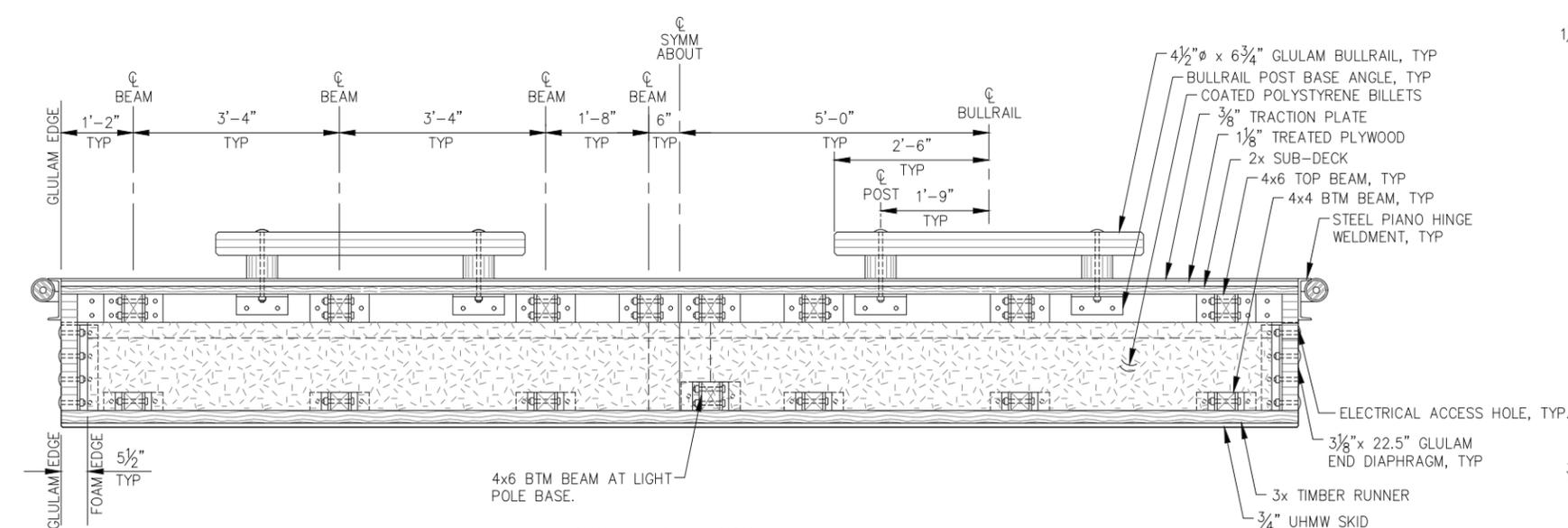
SHEET
18 OF 28



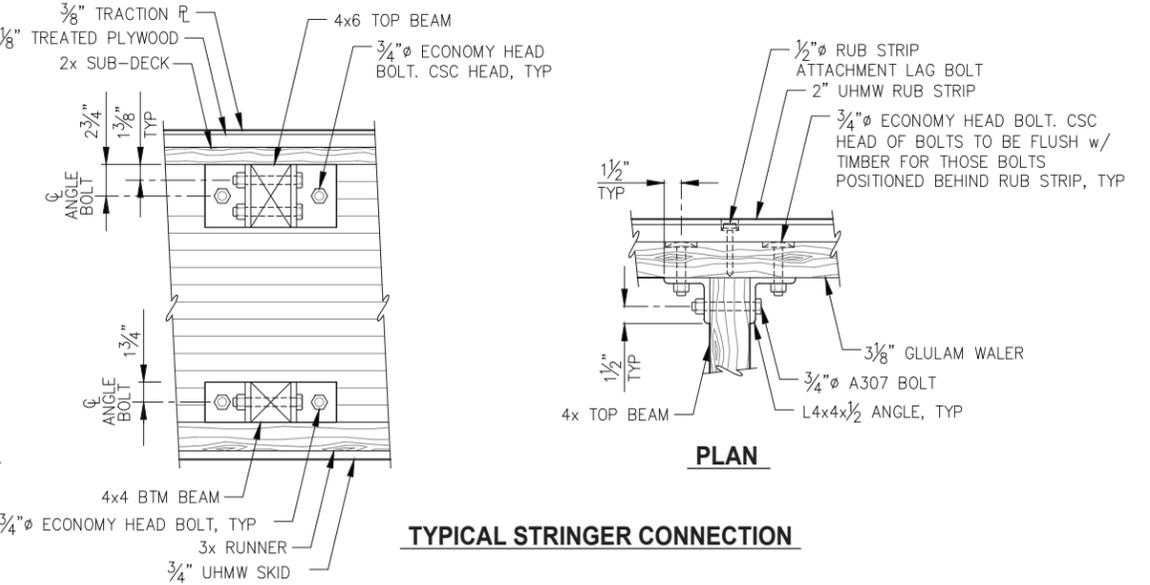
FLOAT FRAMING PLAN (TYPE 1)



BOARDING FLOAT TYPICAL SECTION



TYPICAL FLOAT PROFILE



TYPICAL STRINGER CONNECTION

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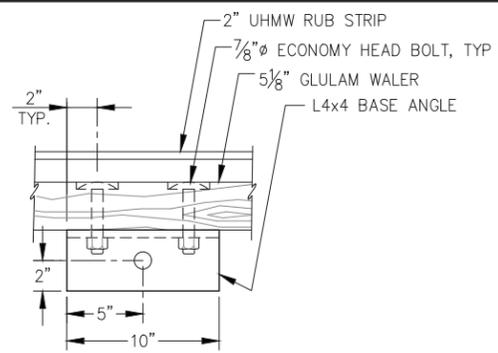
DATE: JULY 20, 2018

HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

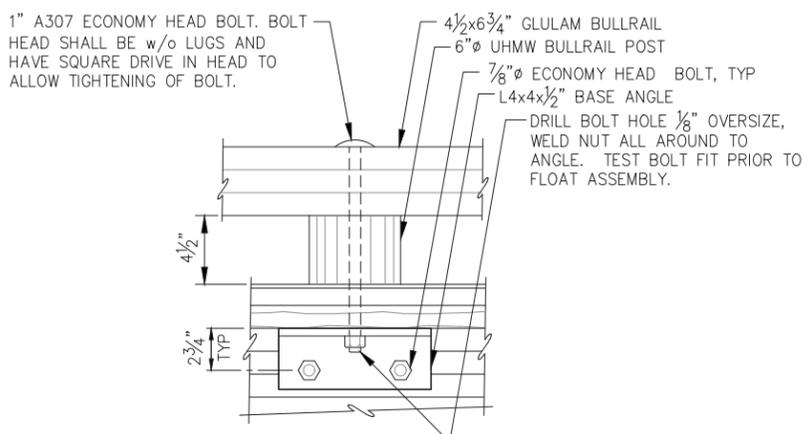
SHEET TITLE: **BOARDING FLOAT DETAILS**

PND PROJECT NO.: 172032

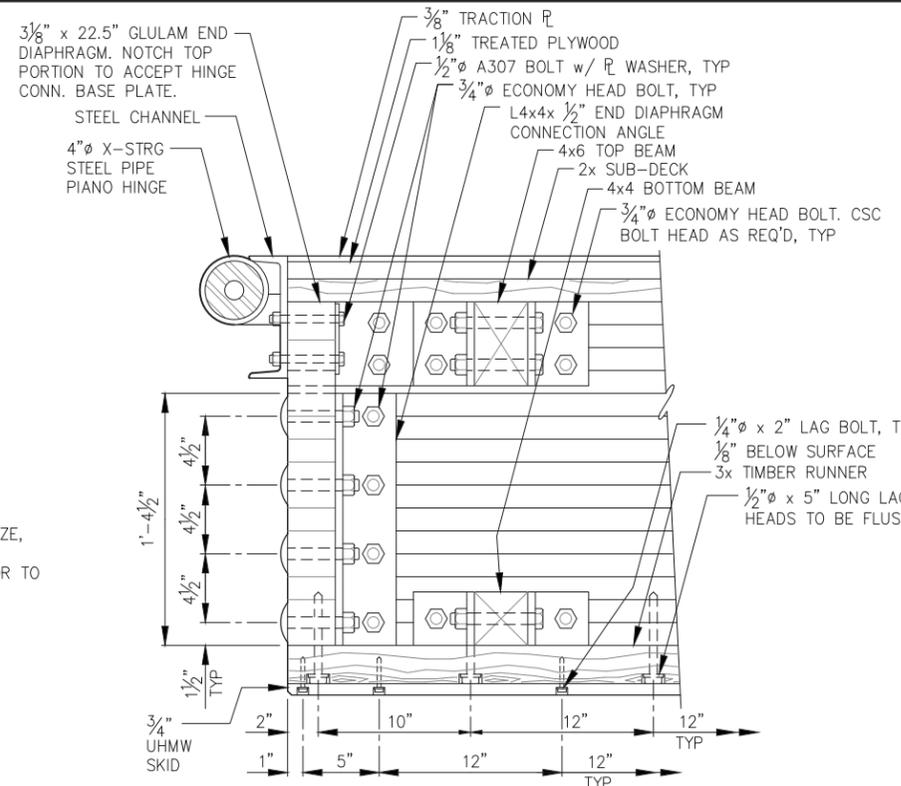
3.06
 SHEET 19 OF 28



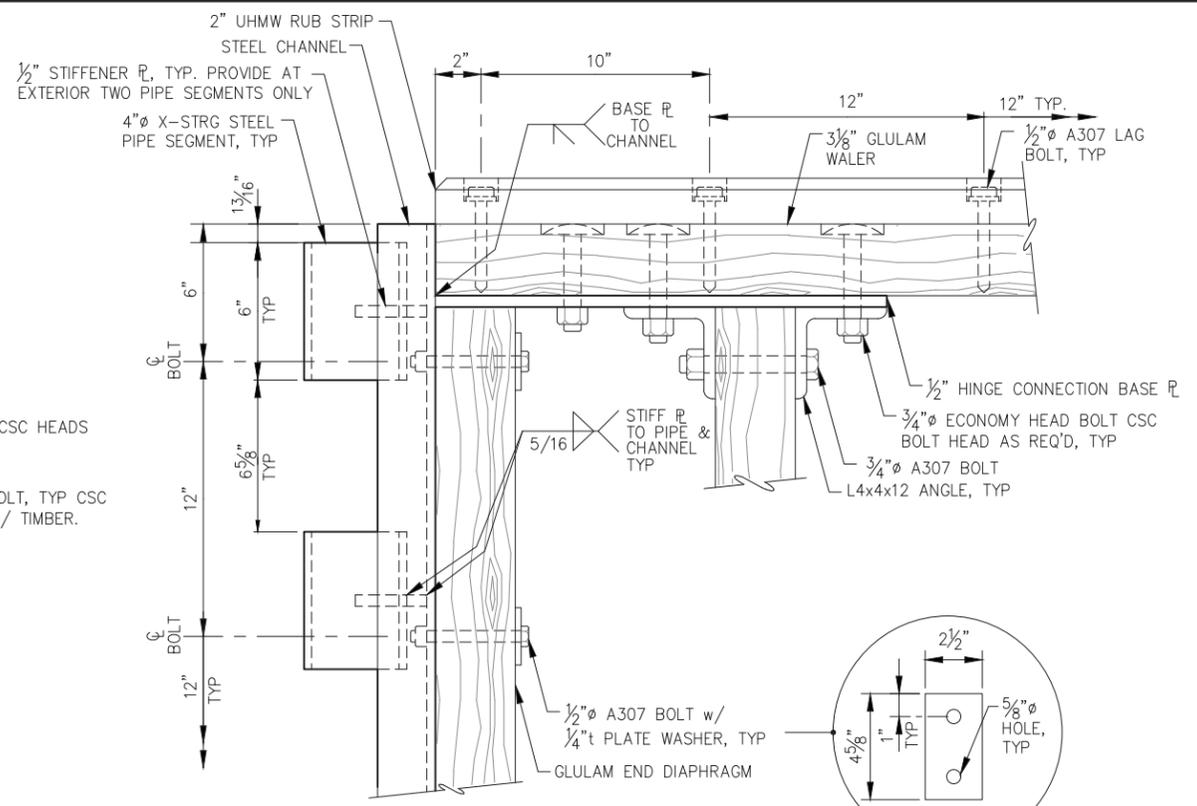
BULLRAIL BASE ANGLE - PLAN



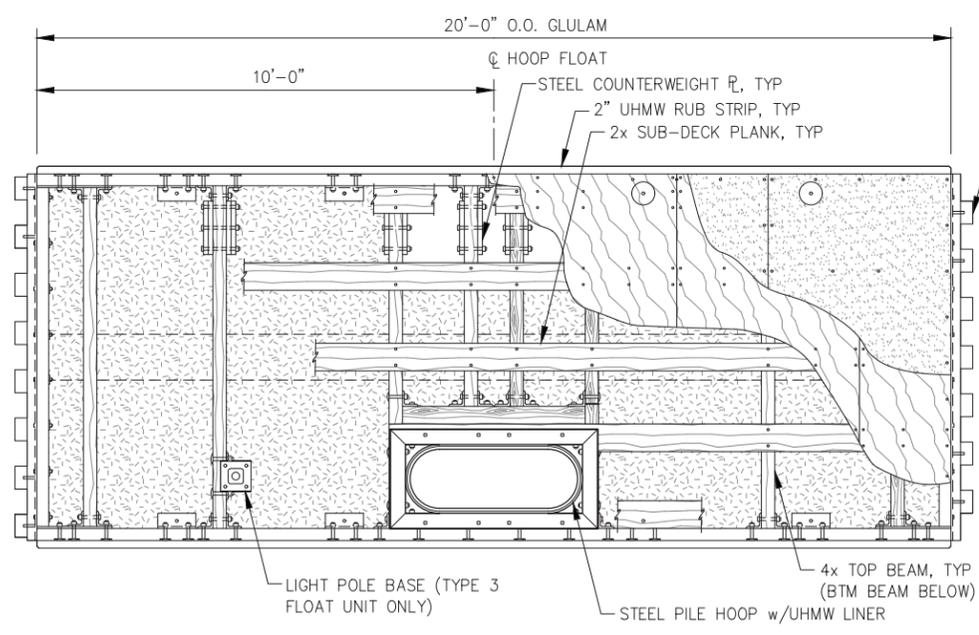
BULLRAIL BASE ANGLE - PROFILE



END DIAPHRAGM/FLOAT CONNECTION PROFILE



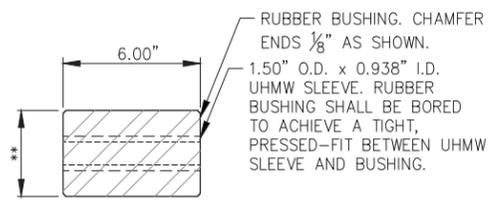
HINGE CONNECTION PLAN



FLOAT FRAMING PLAN (TYPE 2)

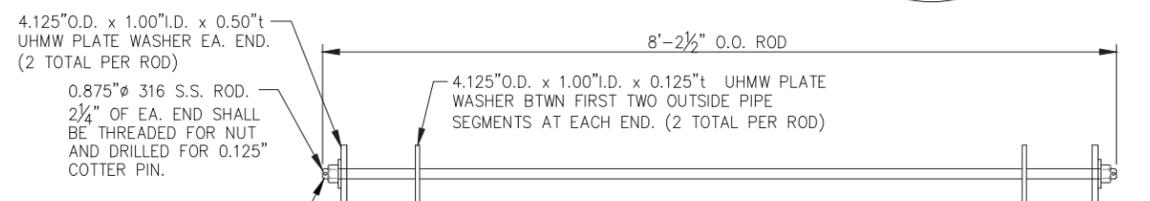
NOTES:
 1. DETAILS NOT SHOWN SIMILAR TO TYPE 1 FLOAT.
 2. TYPE 3 FLOAT SIMILAR TO TYPE 2 FLOAT. IN LIEU OF HINGE ON OUTBOARD END INSTALL YELLOW UHMW RUB STRIP AND TIMBER BULLRAIL FULL WIDTH ACROSS END OF FLOAT, AND LIGHT POLE BASE w/BTM 4x6 BEAM AND STEEL COUNTERWEIGHTS.

NOTES:
 FABRICATOR TO DRY-FIT HINGE ASSEMBLIES PRIOR TO APPLICATION OF COATINGS TO ENSURE HINGE MOVES FREELY AND DOES NOT BIND.
 ** DIMENSION ASSUMED TO BE MINIMUM OF 3 5/8". FABRICATOR SHALL VERIFY DIMENSION REQ'D FOR TOP OF PIPE SEGMENT TO BE FLUSH WITH TOP OF ANGLE, AND WELDED AS SHOWN. ALSO, PIPE SEGMENT SHALL HAVE MINIMUM CLEARANCE BETWEEN IT AND THE ANGLE OF 3/8" SUCH THAT WHEN ASSEMBLED, HINGE PIPE SEGMENTS DO NOT RUB AGAINST EDGE OF ANGLE TOP LEG. (I.E. AVOID NON-SKID COATING BEING WORE OFF AFTER INSTALLATION.)



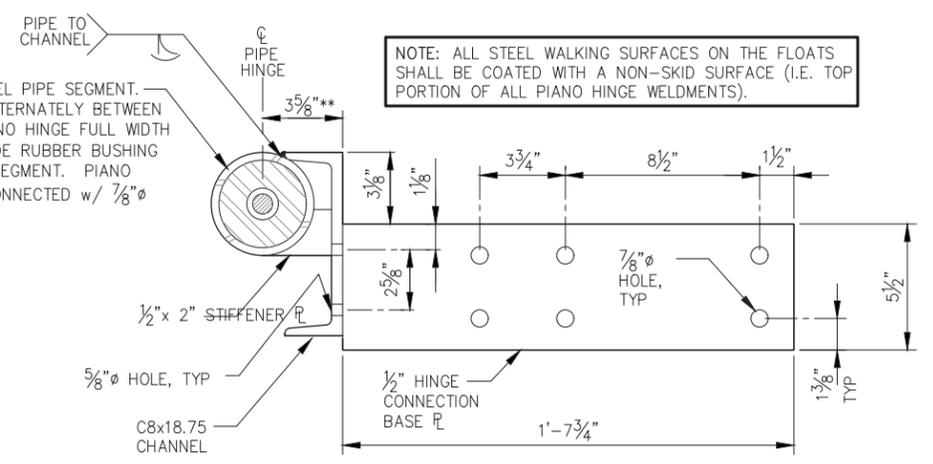
TYPICAL PIANO HINGE RUBBER BUSHING

**SEE SPECIFICATIONS FOR DIAMETER REQUIREMENTS



HINGE CONNECTION ROD

316 S.S. "NYLOCK" NUT w/ 316 S.S. WASHER EACH END (2 TOTAL PER ROD)



HINGE CONNECTION SECTION

NOTE: ALL STEEL WALKING SURFACES ON THE FLOATS SHALL BE COATED WITH A NON-SKID SURFACE (I.E. TOP PORTION OF ALL PIANO HINGE WELDMENTS).

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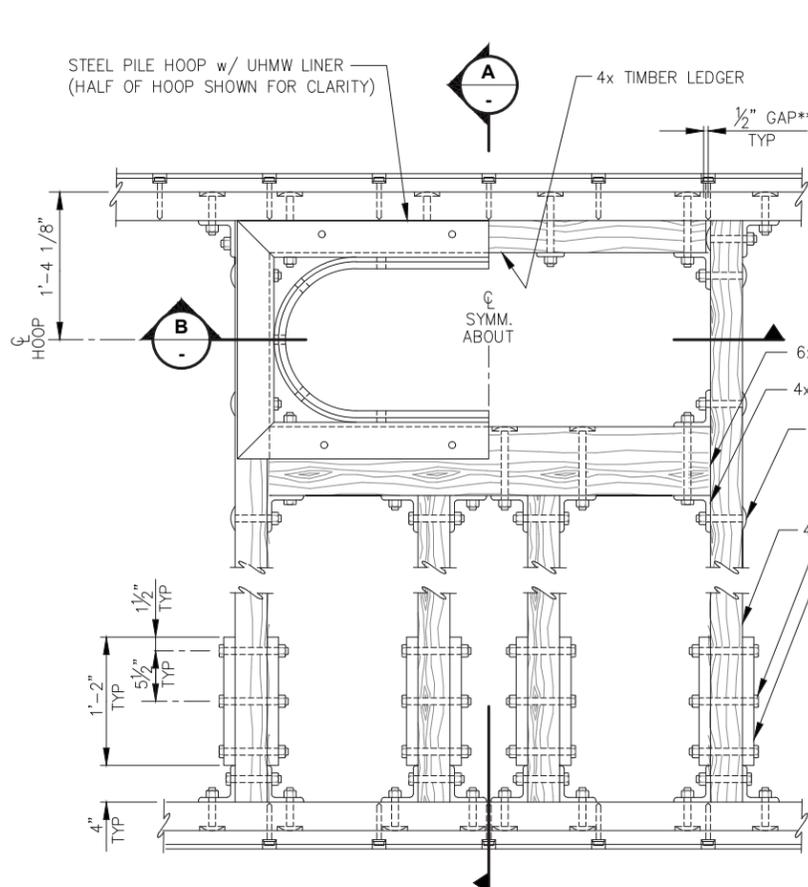
HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: **BOARDING FLOAT DETAILS**

DATE: JULY 20, 2018

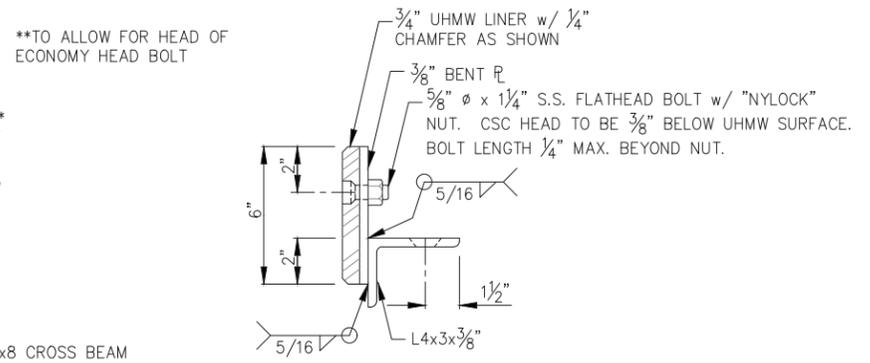
PND PROJECT NO.: 172032

3.07
 SHEET 20 OF 28

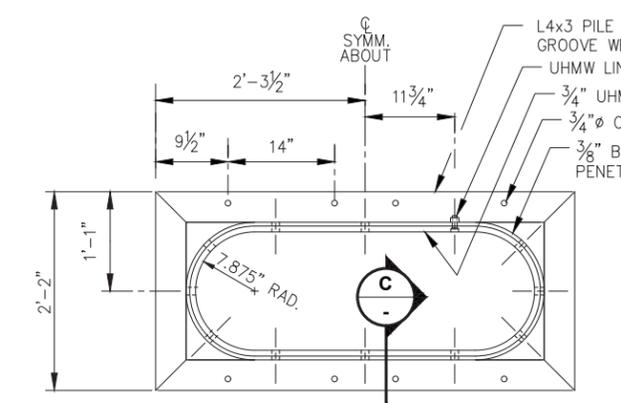


PILE HOOP FRAMING PLAN

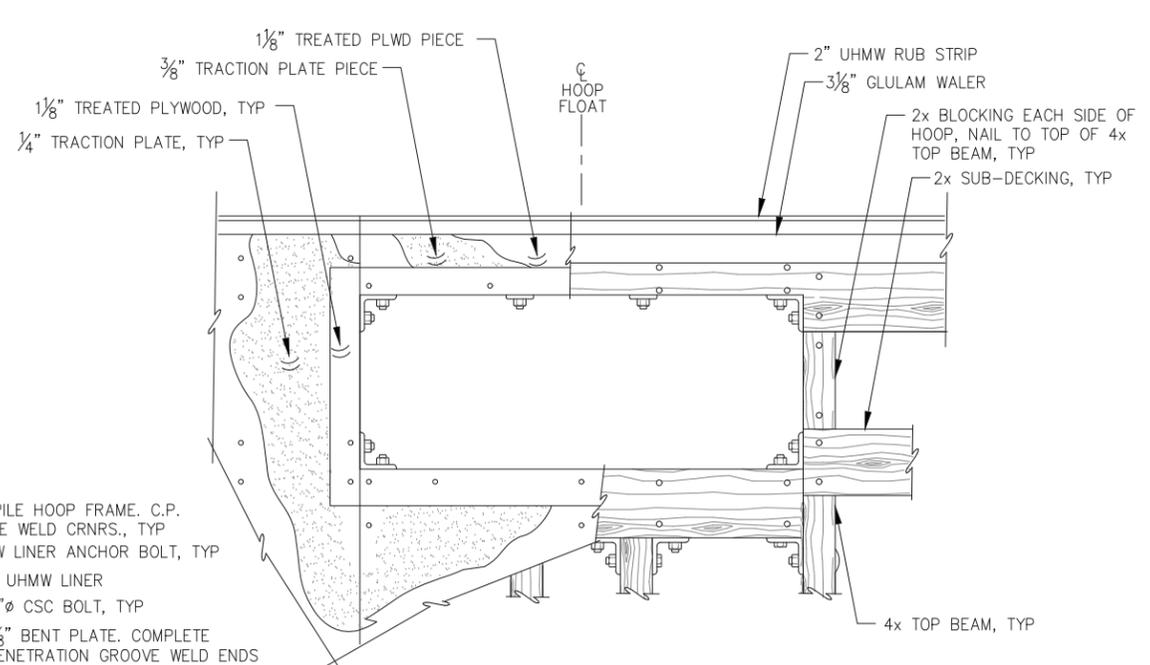
NOTE: FOAM BILLETS NOT SHOWN THIS VIEW FOR CLARITY.



PILE HOOP TYPICAL SECTION

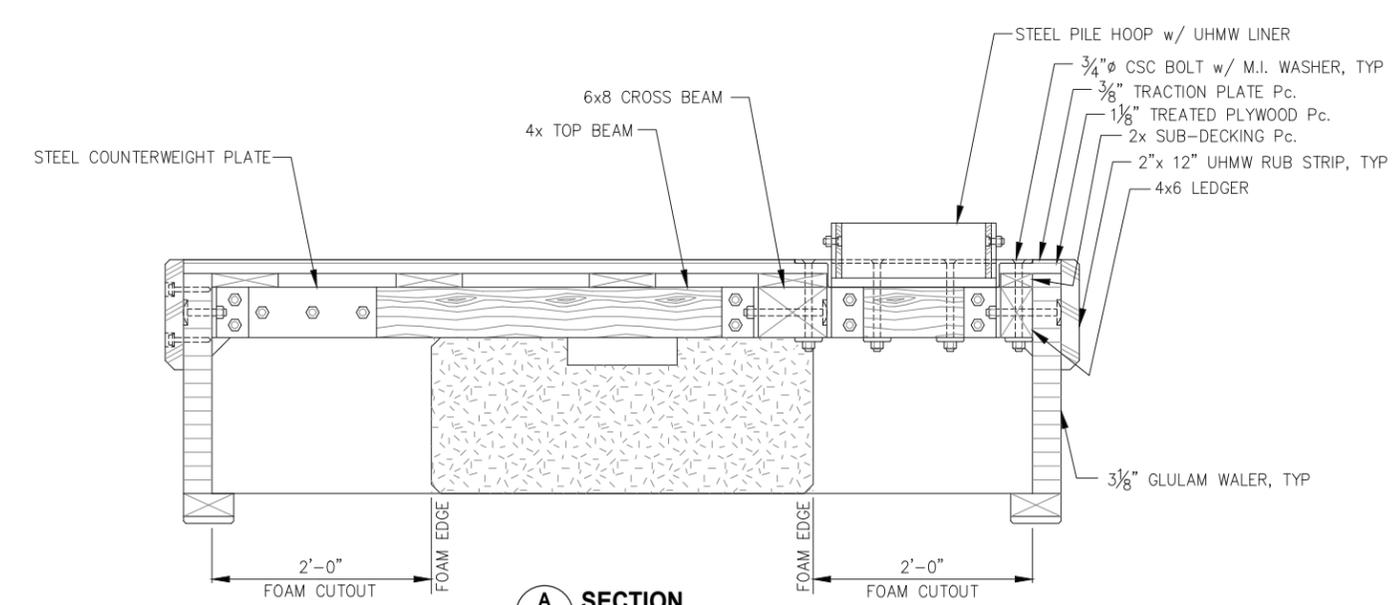


PILE HOOP PLAN

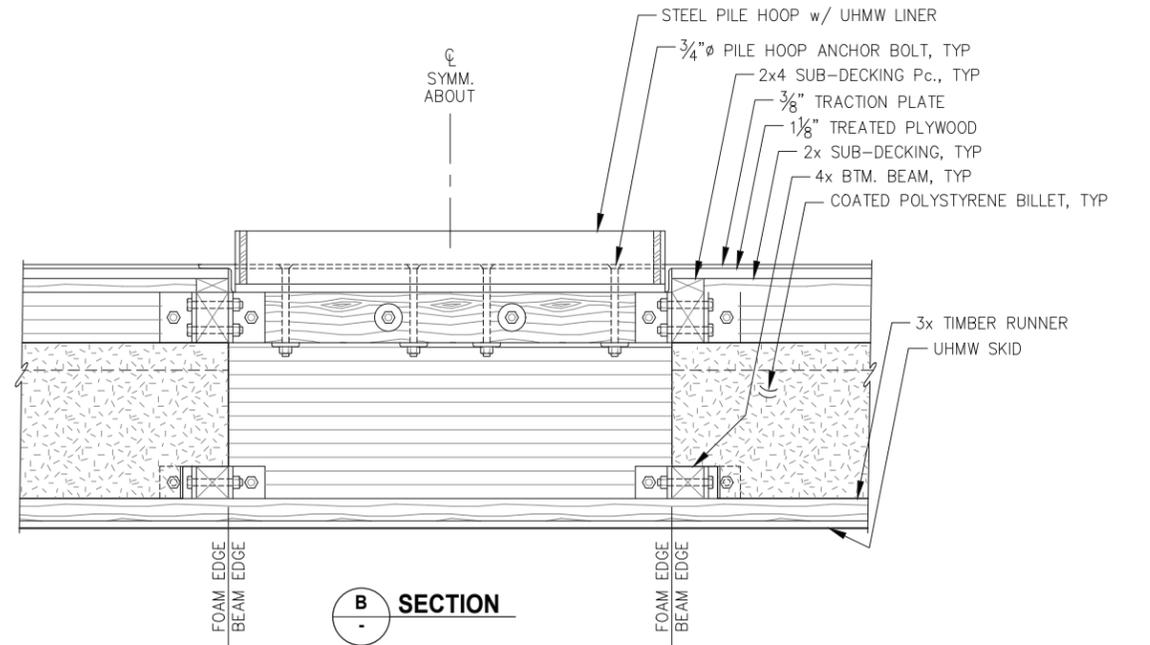


PILE HOOP DECKING PLAN

NOTES: PILE HOOP NOT SHOWN FOR CLARITY. CHAMFER TOP INSIDE EDGE OF TRACTION PLATE/DECK AS REQ'D FOR PILE HOOP FRAME FIT-UP.



SECTION A



SECTION B

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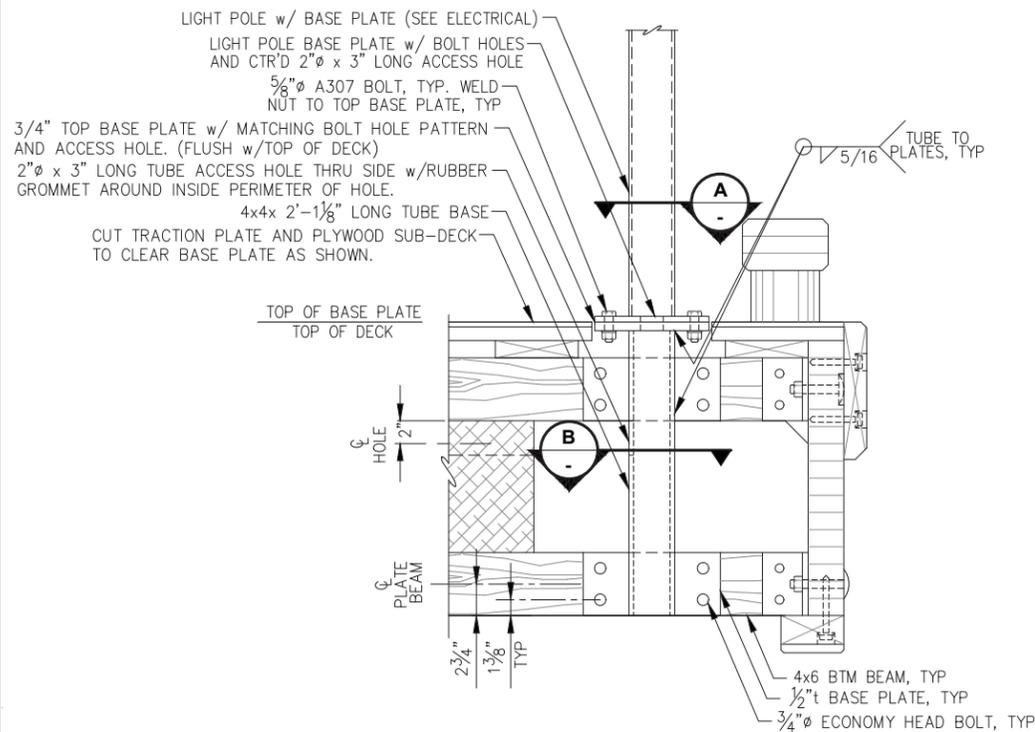
DATE: JULY 20, 2018

HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: **BOARDING FLOAT DETAILS**

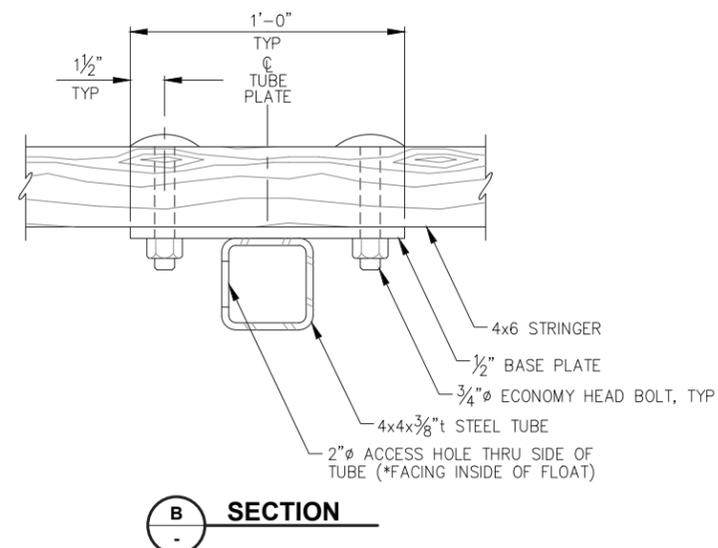
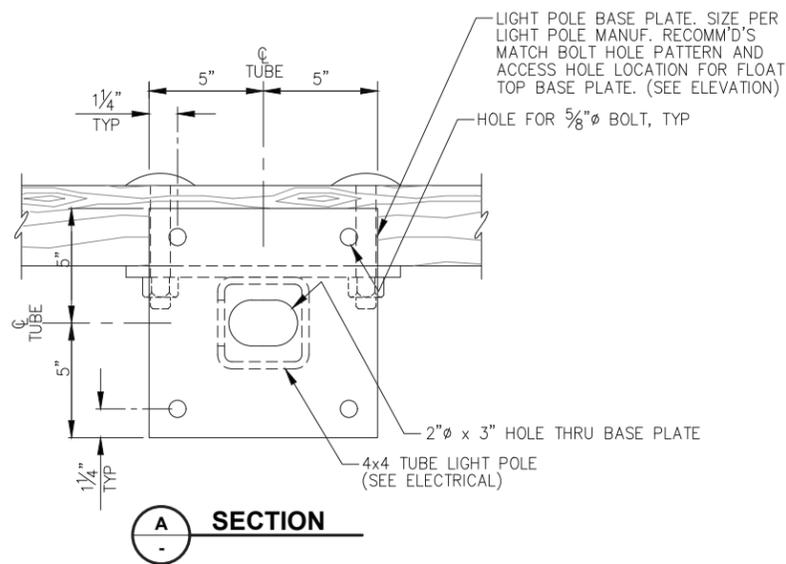
PND PROJECT NO.: 172032

3.08
SHEET 21 OF 28

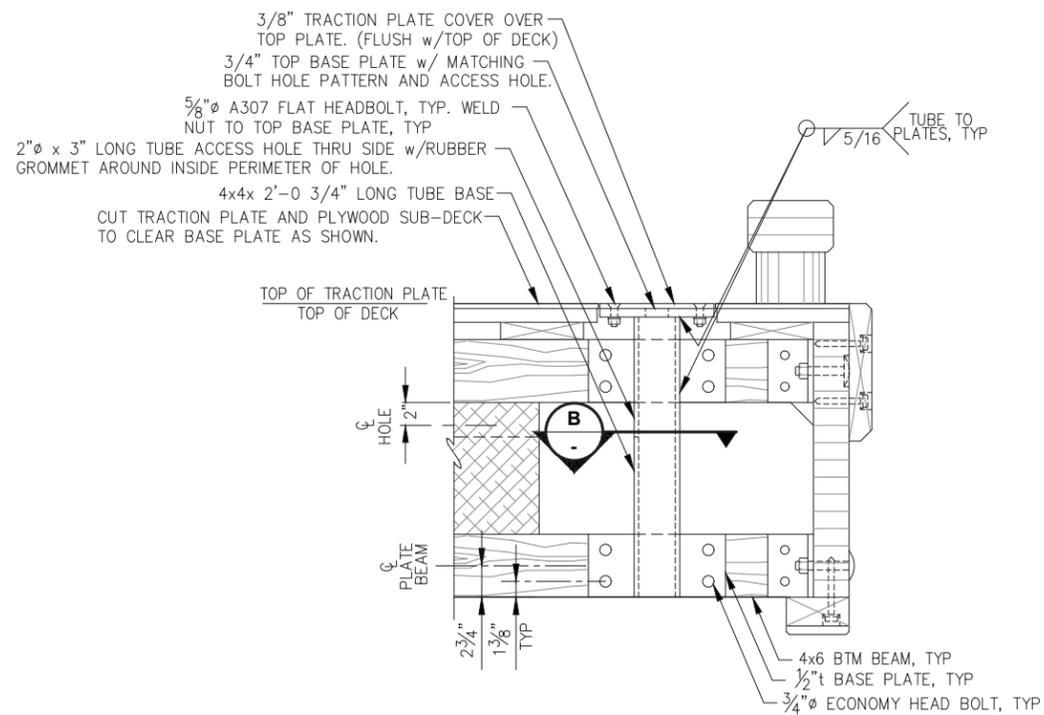


LIGHT POLE BASE - ELEVATION - ADD ALT 2

NOTE: SEE FLOAT PLANS FOR LOCATION (7 TOTAL).



*NOTE: FLOAT TYPE 3 LIGHT POLE BASE ON OPPOSITE SIDE OF 4x TUBE FOR TYPE 3 FLOAT UNIT.



LIGHT POLE BASE - ELEVATION - BASE BID

NOTE: SEE FLOAT PLANS FOR LOCATION (7 TOTAL).

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SHEET TITLE:
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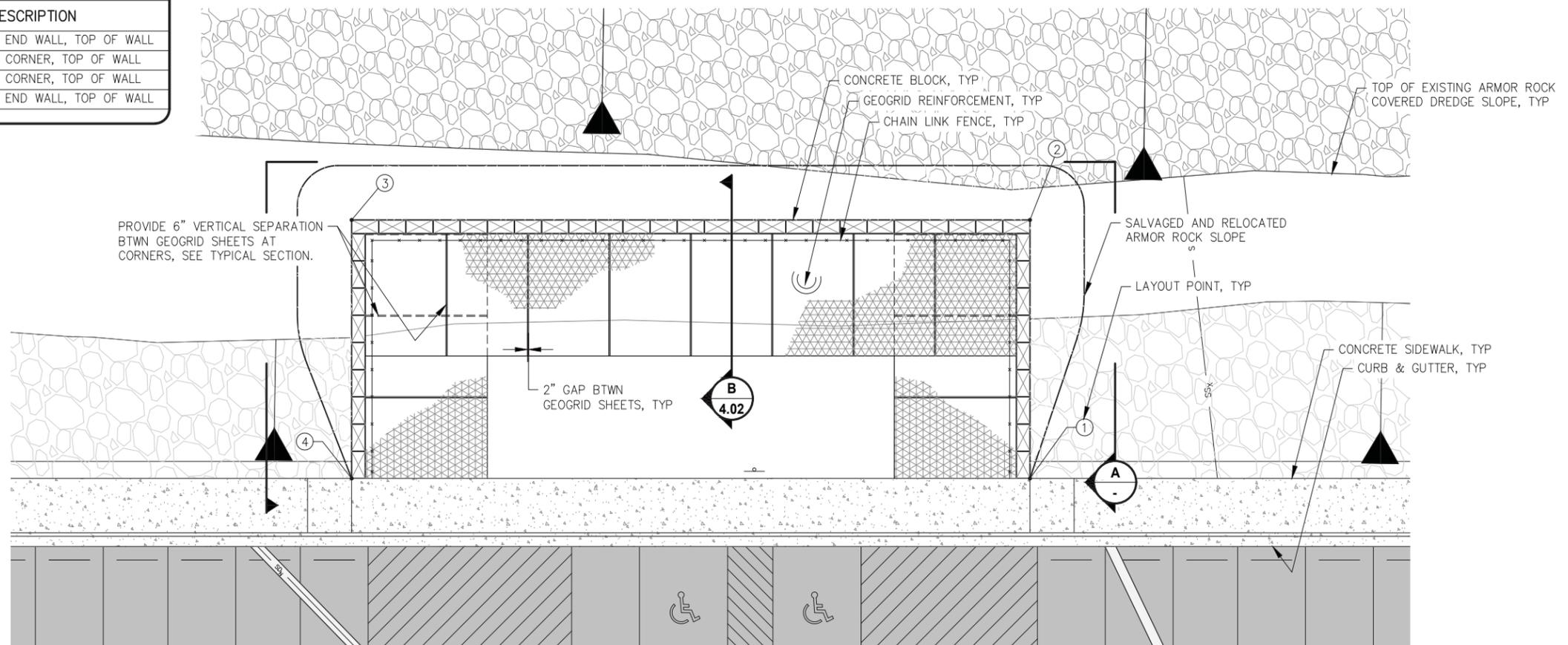
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SHEET 22 OF 28

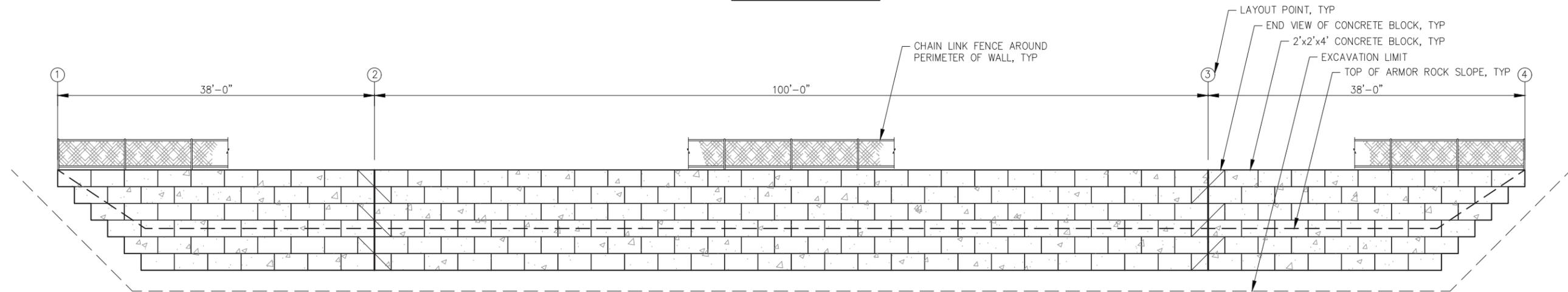
PND PROJECT NO.: 172032

MSE WALL LAYOUT POINTS

POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
1	2706758.42	2353576.71	X	FACE OF BLOCK, END WALL, TOP OF WALL
2	2706754.10	2353614.46	X	FACE OF BLOCK, CORNER, TOP OF WALL
3	2706853.45	2353625.82	X	FACE OF BLOCK, CORNER, TOP OF WALL
4	2706857.77	2353588.07	X	FACE OF BLOCK, END WALL, TOP OF WALL



MSE WALL - PLAN



MSE WALL - PROFILE

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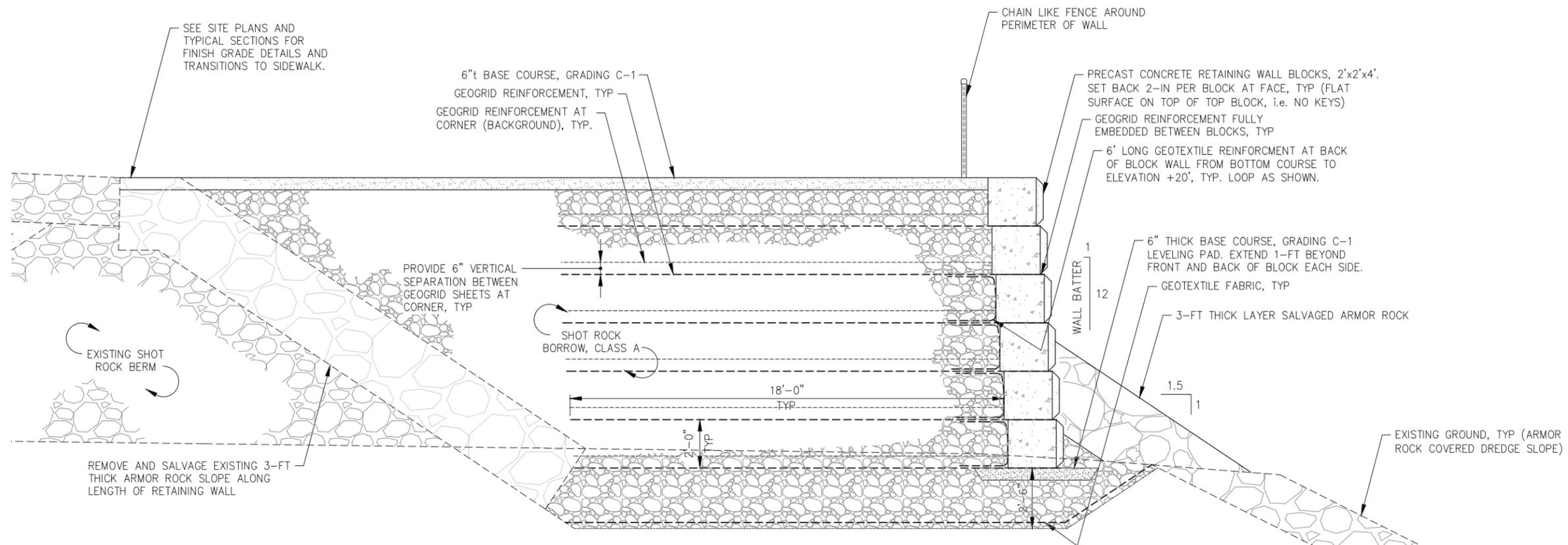
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**HAINES BOROUGH
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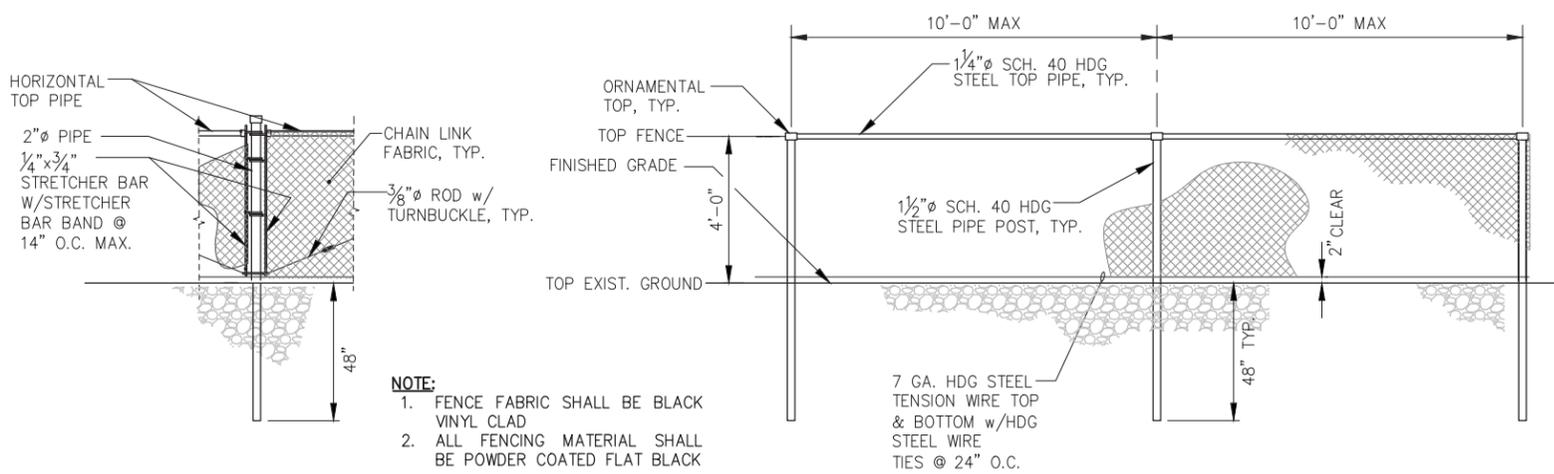
SHEET TITLE:
MSE WALL PLAN AND PROFILE

PND PROJECT NO.: 172032

4.01
 SHEET
 23 OF 28



B MSE WALL TYPICAL SECTION
4.01



CORNER & END FENCE POST

FENCE ELEVATION

NOTE:
1. FENCE FABRIC SHALL BE BLACK VINYL CLAD
2. ALL FENCING MATERIAL SHALL BE POWDER COATED FLAT BLACK

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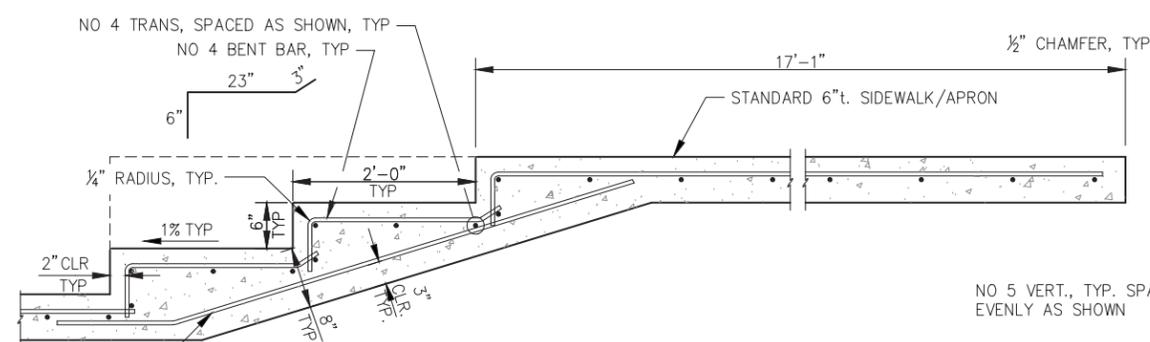
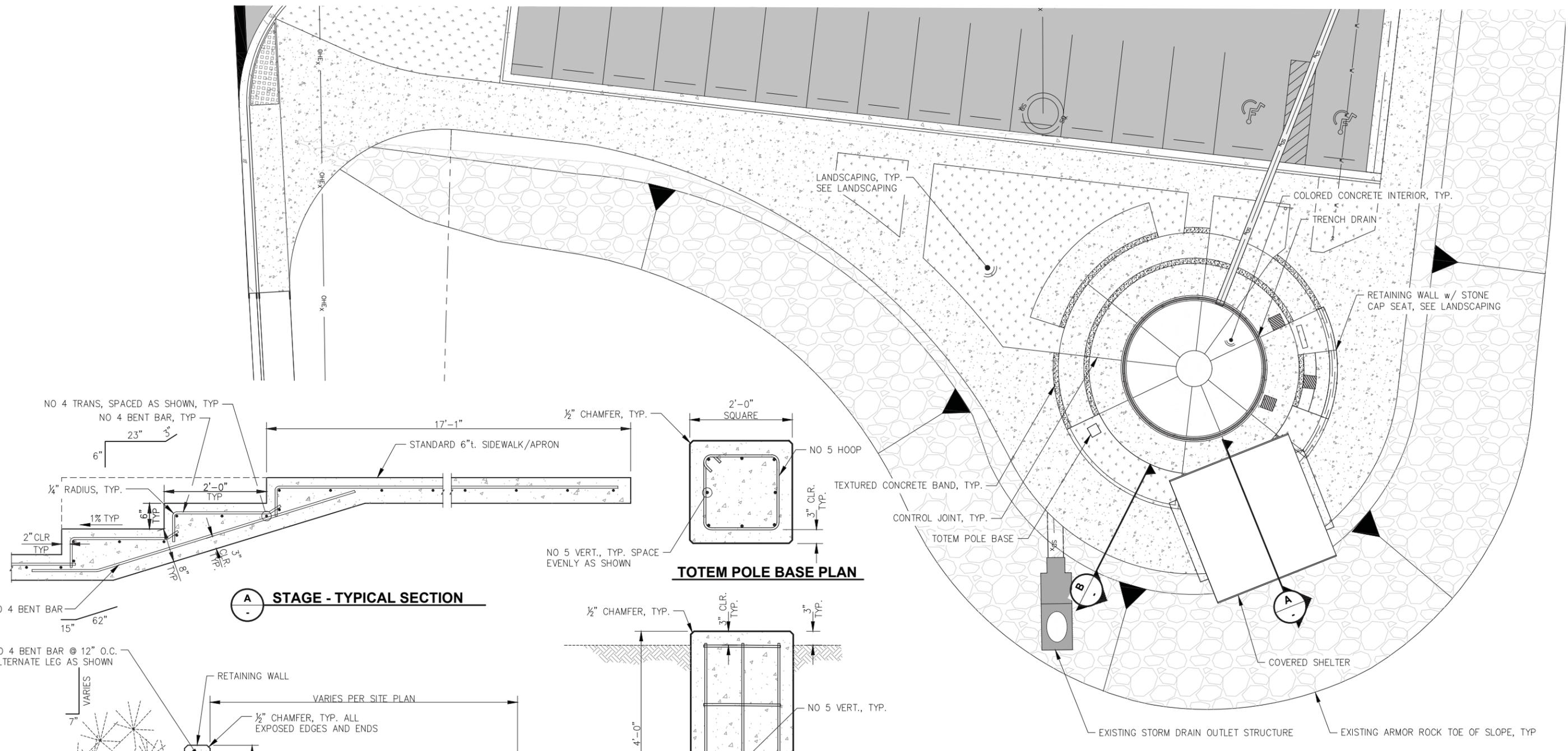
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**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

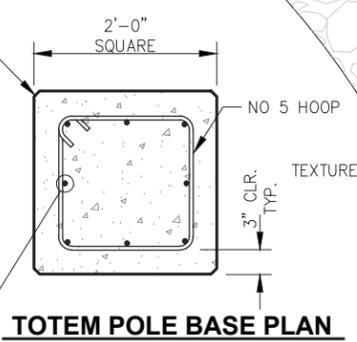
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MSE WALL TYPICAL SECTION

4.02
SHEET
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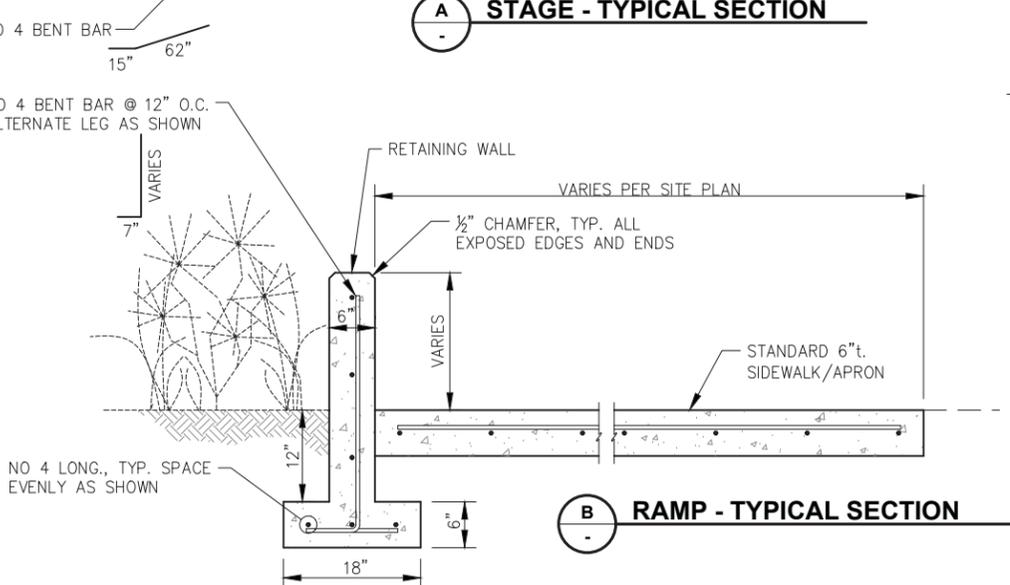
PND PROJECT NO.: 172032



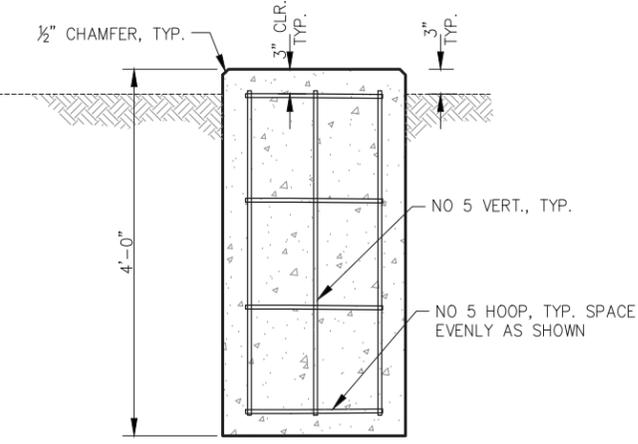
A STAGE - TYPICAL SECTION



TOTEM POLE BASE PLAN



B RAMP - TYPICAL SECTION



TOTEM POLE BASE SECTION

HARBOR PARK - PLAN
NOTE: NOT ALL AMENITIES OR SITE FURNISHINGS SHOWN THIS SHEET. SEE LANDSCAPING.

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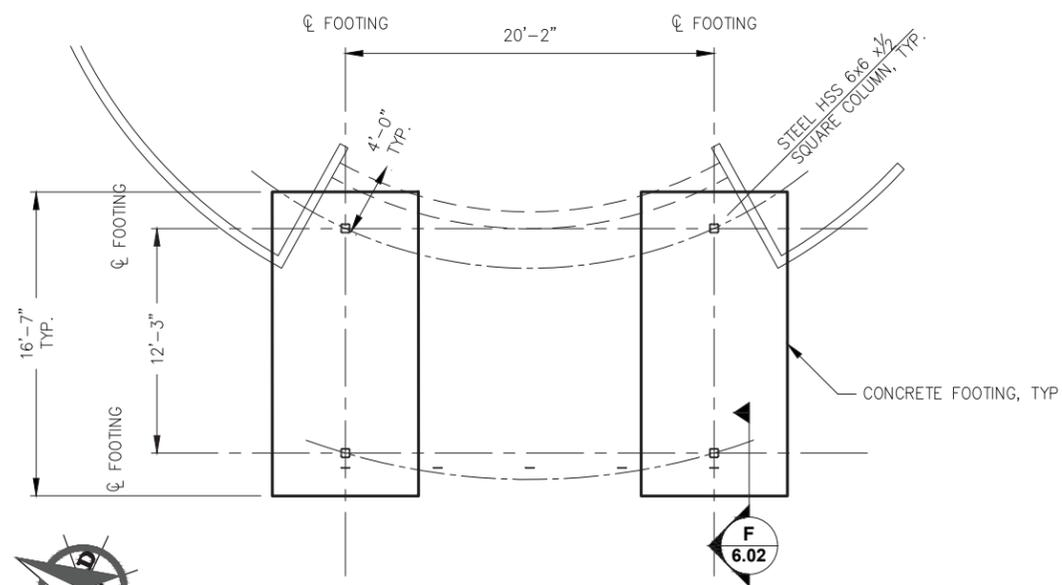
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**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

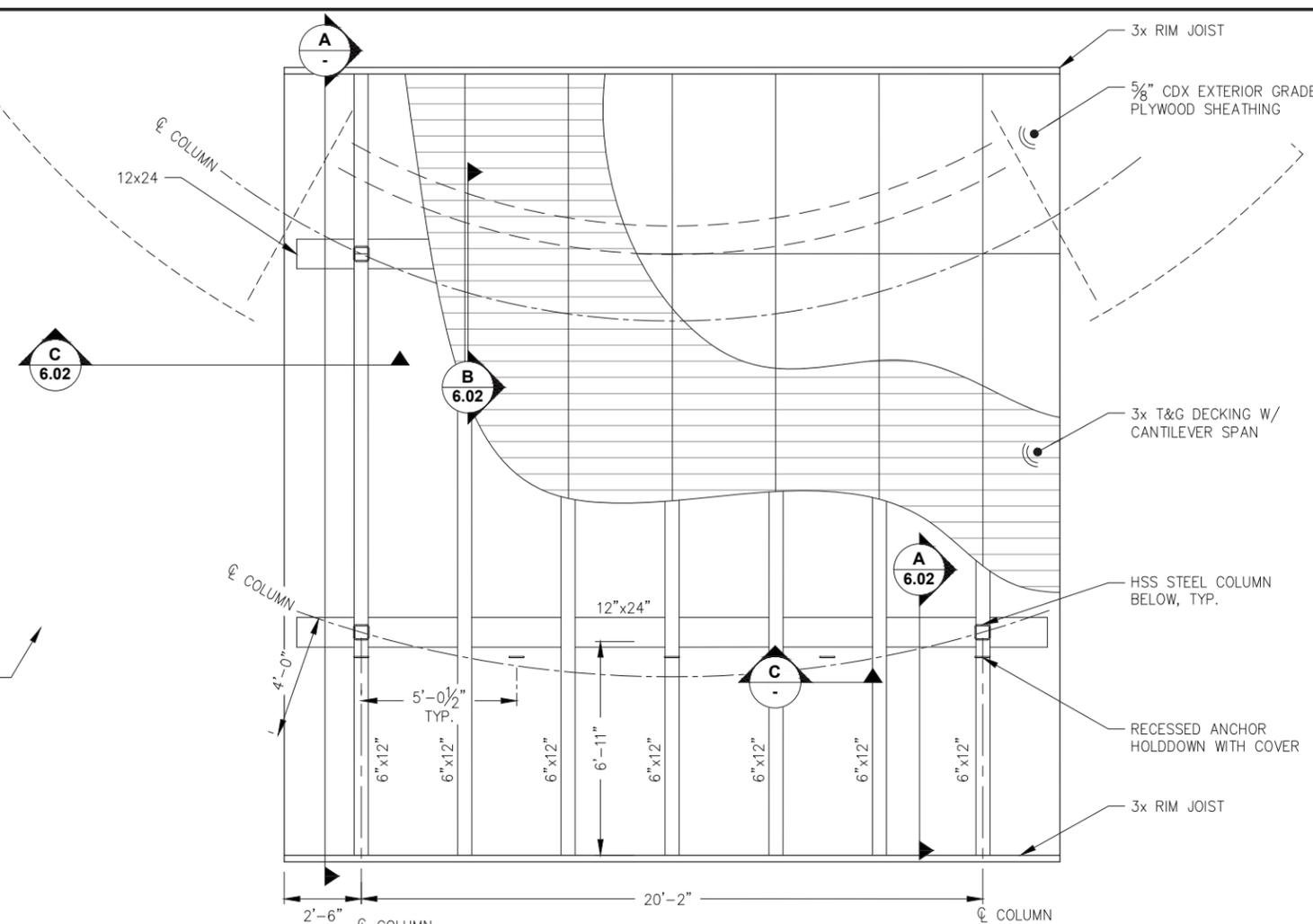
SHEET TITLE: **HARBOR PARK PLAN
AND SECTIONS**

PND PROJECT NO.: 172032

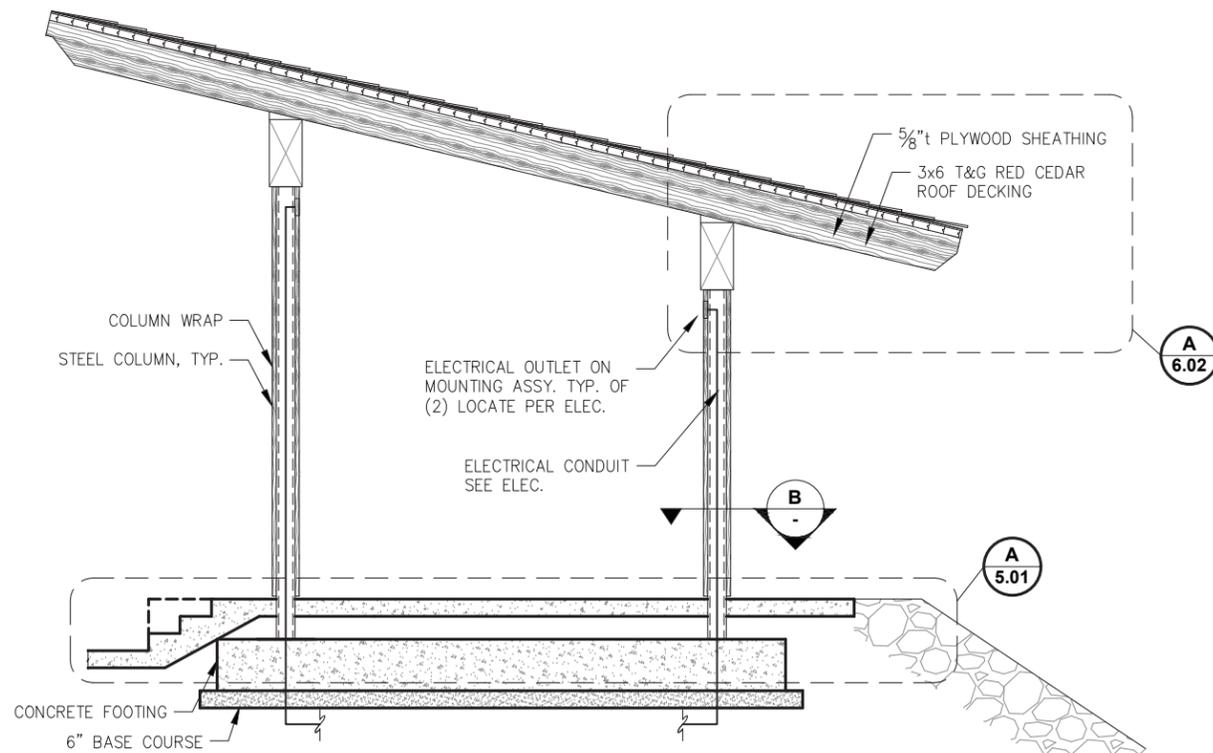
5.01
SHEET
25 OF 28



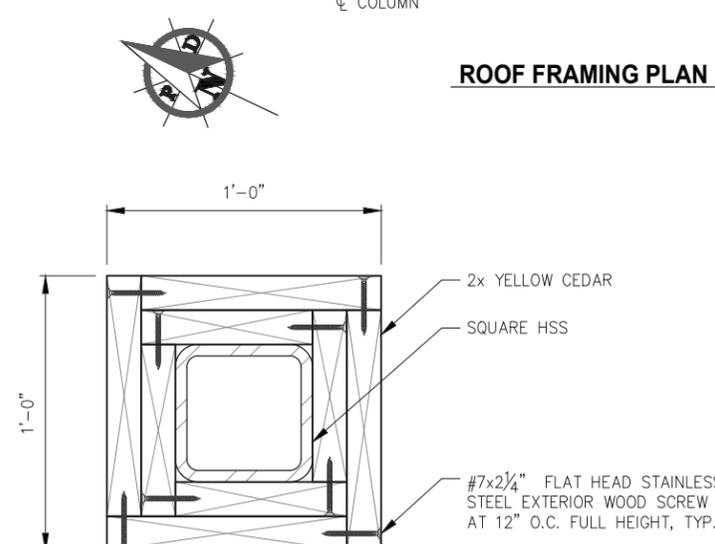
FOUNDATION PLAN - COVERED SHELTER



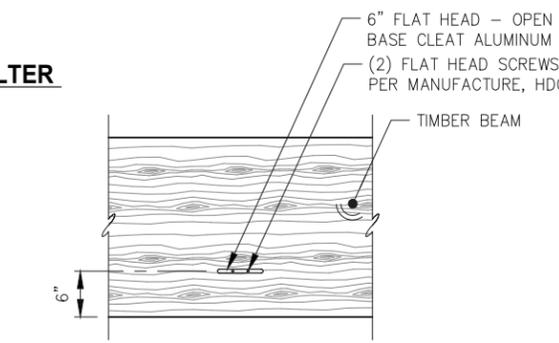
ROOF FRAMING PLAN - COVERED SHELTER



SHELTER ELEVATION - COVERED SHELTER



DECORATIVE COLUMN WRAP SECTION



CANVAS CLEAT CONNECTION
*CENTER CLEATS ABOVE CONCRETE EMBEDS SPACING FOR EMBEDS SHOWN ON SHEET 6.01

- NOTES:**
- EDGE NAIL ALL ROOF SHEATHING @ 6" O.C., FIELD NAIL @ 12" O.C. w/ 10d HOT-DIP GALVANIZED COMMON NAILS.
 - NAIL ALL TONGUE AND GROOVE ROOF DECKING PER THE MANUFACTURERS RECOMMENDATIONS.
 - ALL FRAMING NAILS TO BE 16d HOT-DIP GALVANIZED COMMON NAILS.

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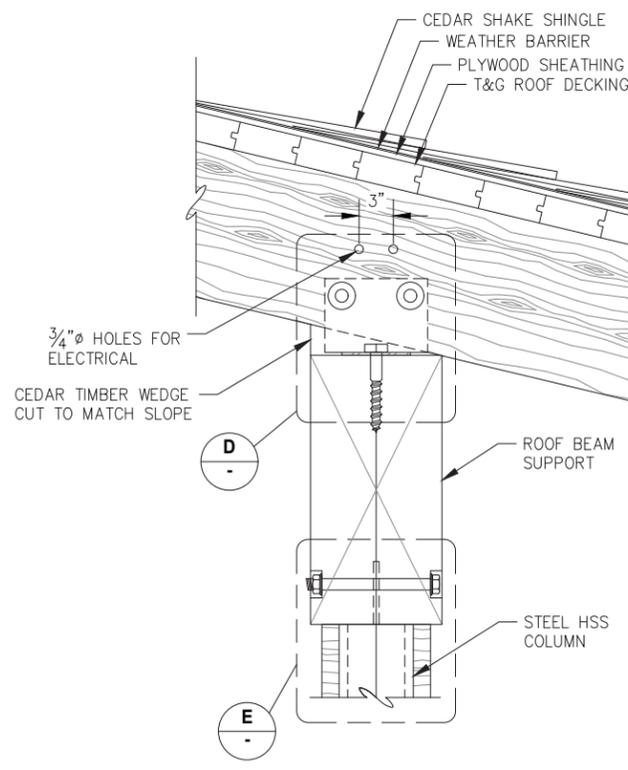
HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: **COVERED SHELTER PLANS AND ELEVATION**

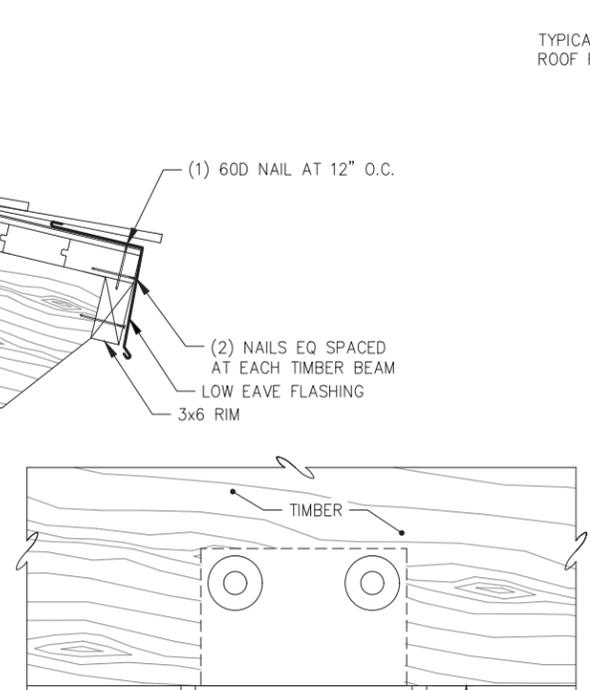
PND PROJECT NO.: 172032

DATE: JULY 20, 2018

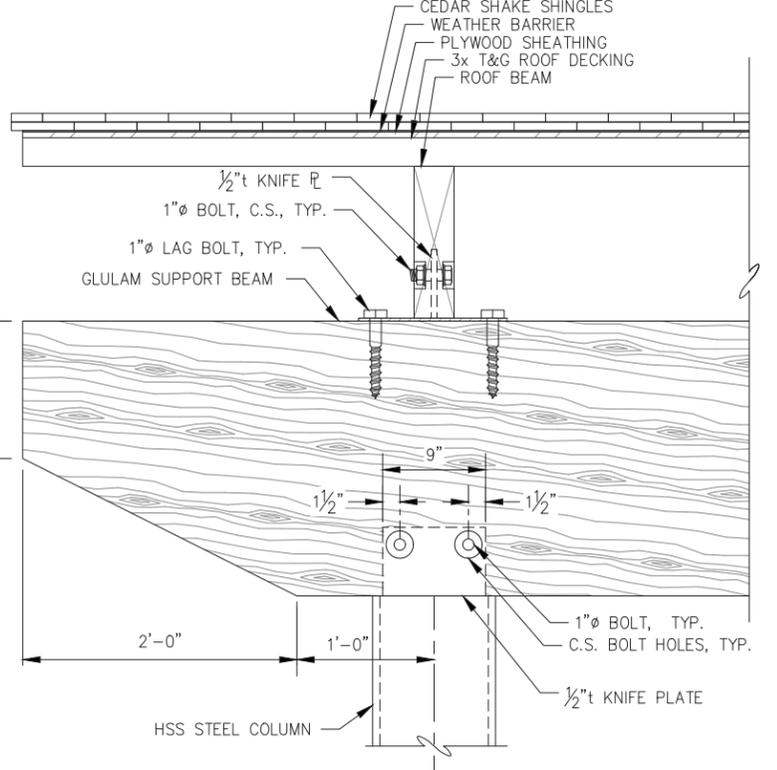
6.01
SHEET 26 OF 28



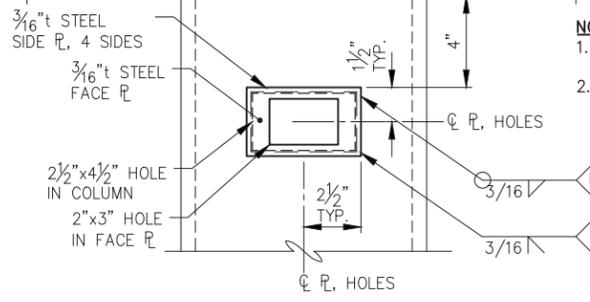
A TYPICAL LOW EAVE SECTION COVERED SHELTER



B TYPICAL HIGH EAVE SECTION COVERED SHELTER



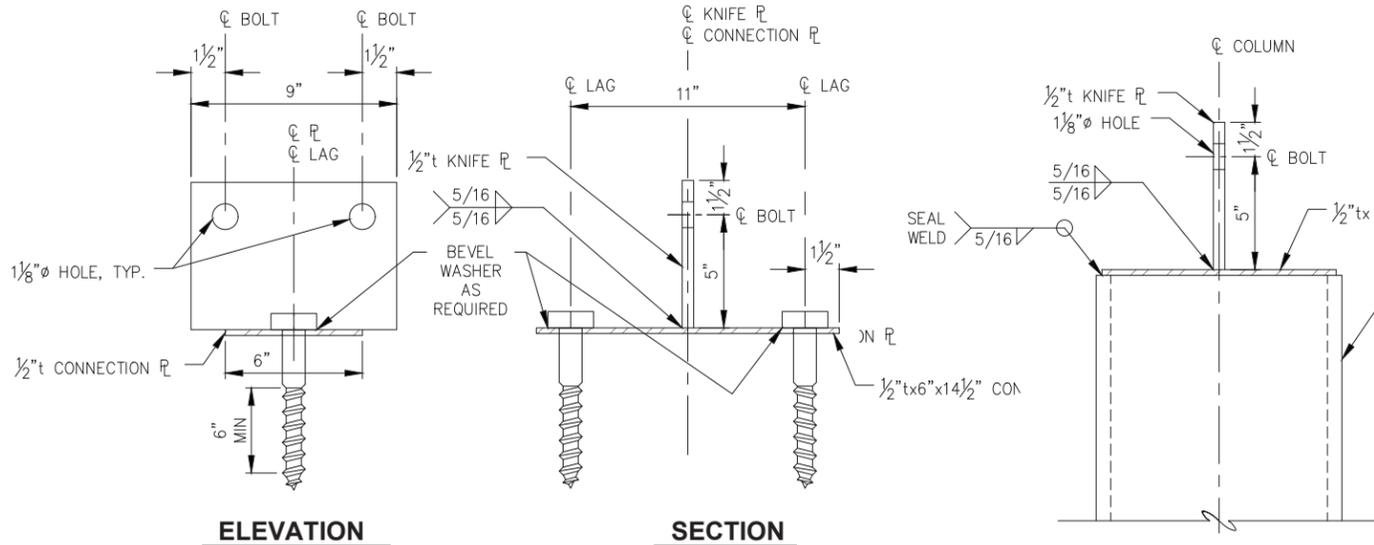
C TYPICAL RAKE EAVE SECTION COVERED SHELTER



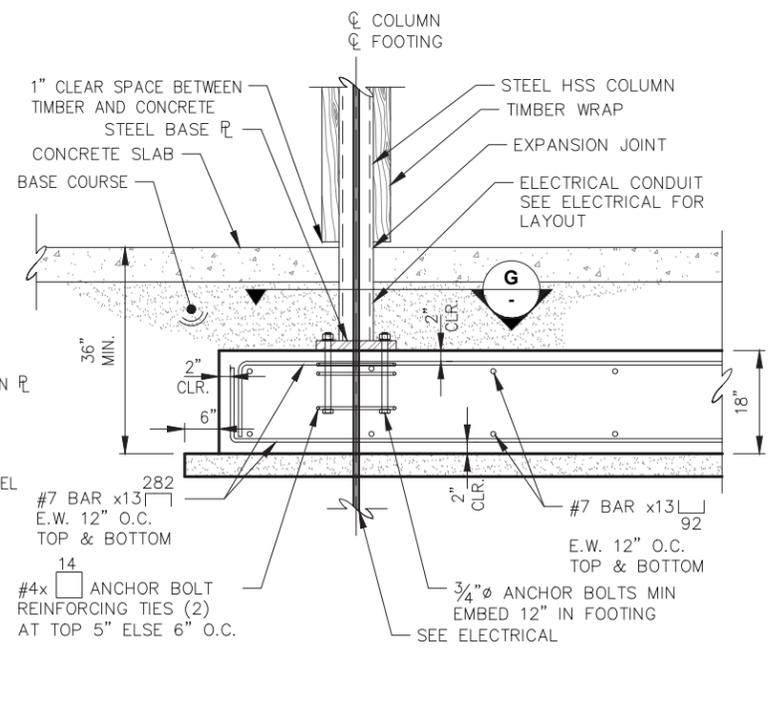
D CURVED GLULAM CONNECTION PLATE DETAIL

NOTES:
 1. TYP. OF (2) LOCATIONS, LOCATE PER ELEC.
 2. ASSY. SHALL PROTRUDE 1/2\"/>

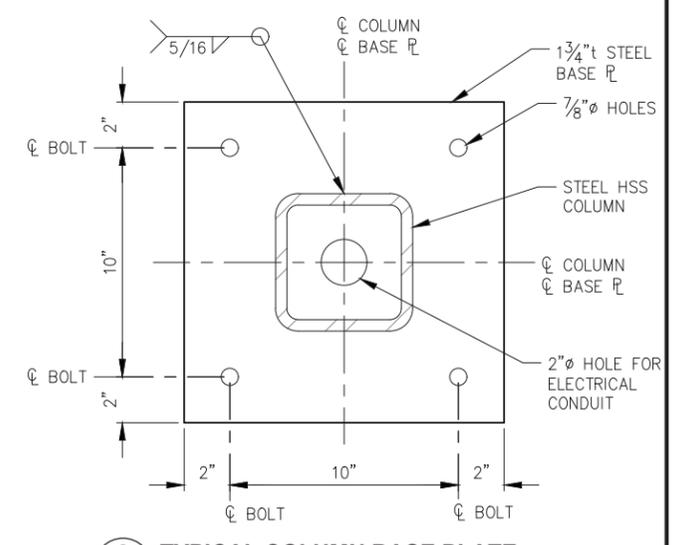
ELECTRIC OUTLET MOUNTING ASSY.



E GLULAM SUPPORT BEAM CONNECTION DETAIL



F TYPICAL FOOTING DETAIL COVERED SHELTER



G TYPICAL COLUMN BASE PLATE COVERED SHELTER

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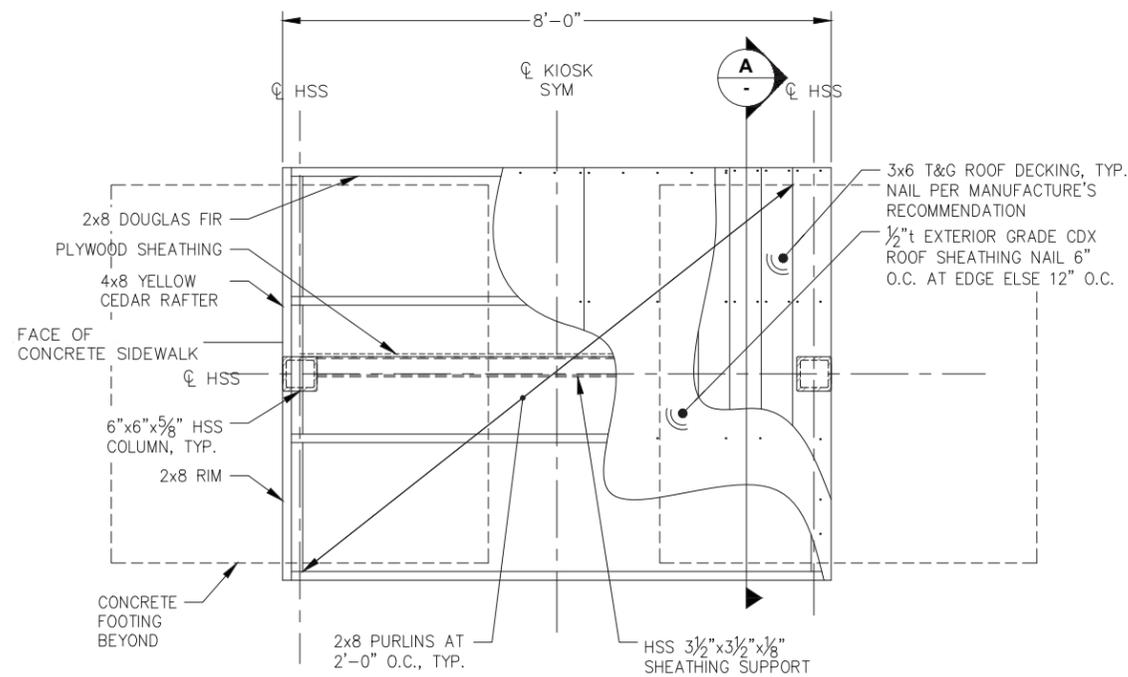
DATE: JULY 20, 2018

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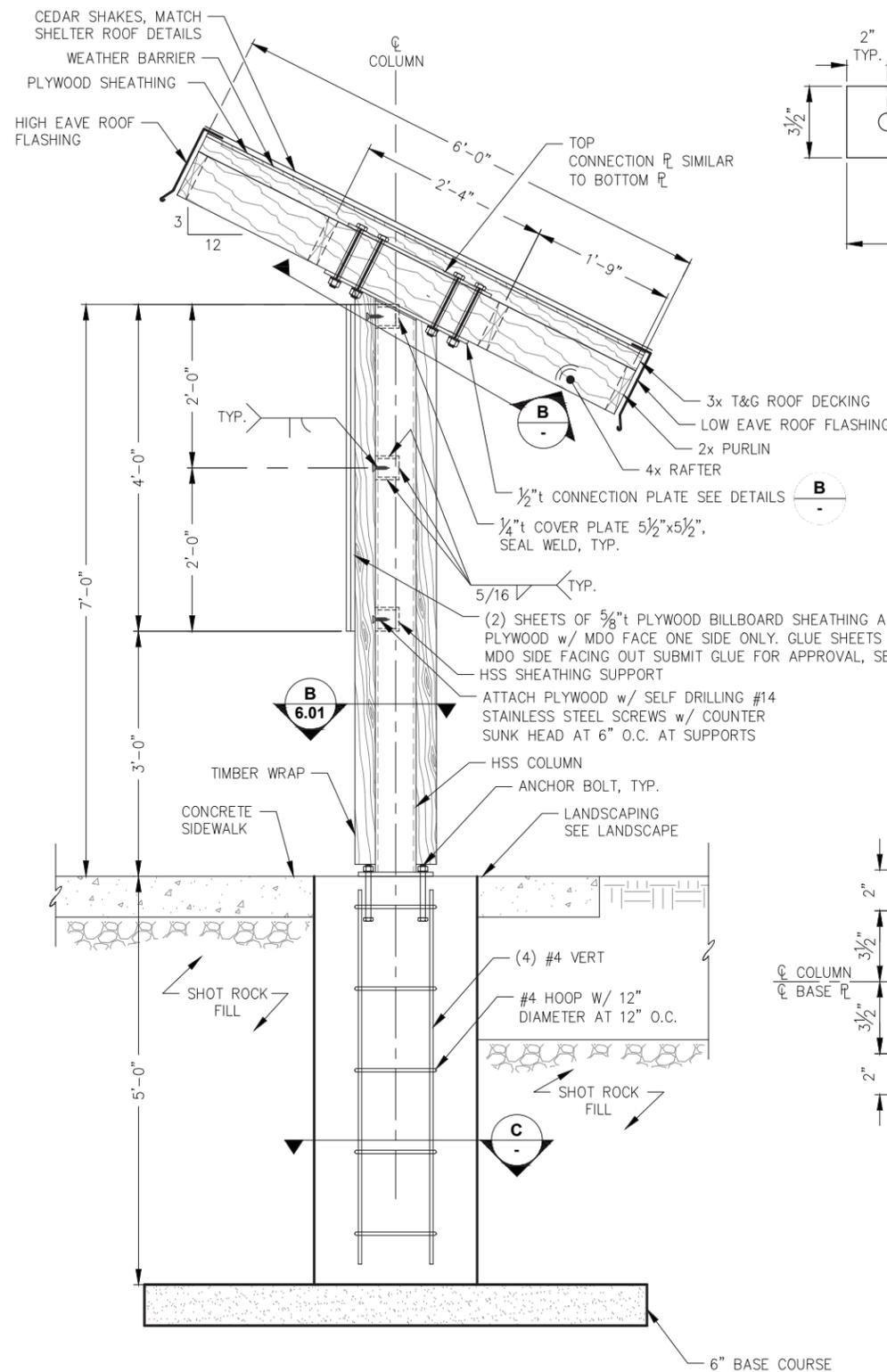
SHEET TITLE: **COVERED SHELTER DETAILS**

PND PROJECT NO.: 172032

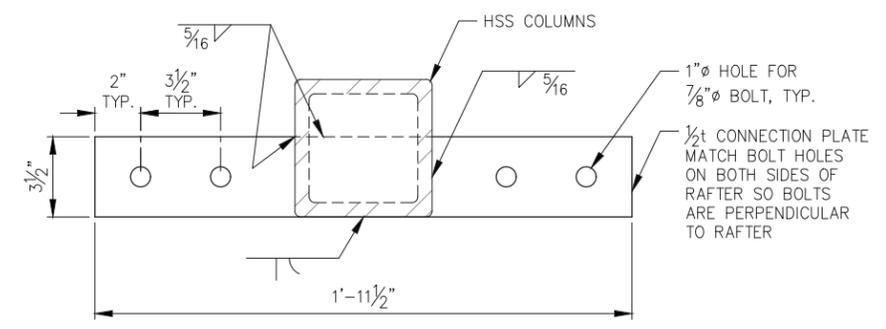
6.02
 SHEET 27 OF 28



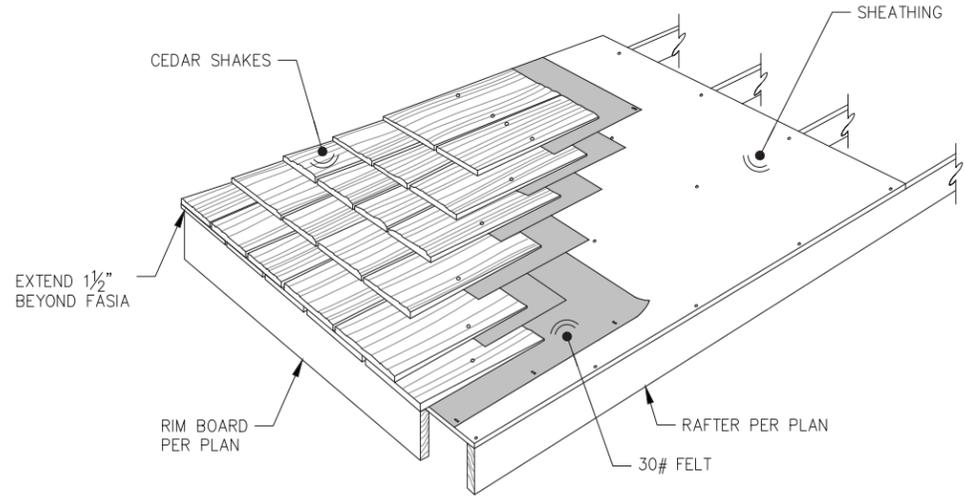
COVERED KIOSK SECTION FRAMING PLAN



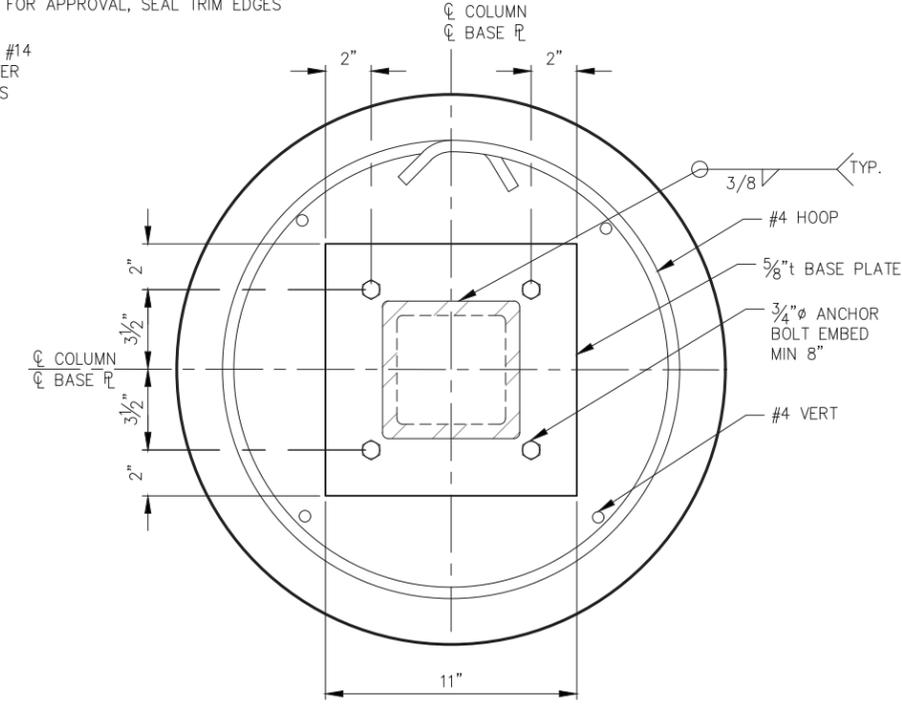
A TYPICAL HIGH EAVE SECTION COVERED KIOSK



B TYPICAL TIMBER FRAME CONNECTION PLATE



TYPICAL CEDAR SHAKE SHINGLE
 *RAFTERS, RIM BOARD AND SHEATHING SHOWN FOR REFERENCE ONLY. SEE FRAMING FOR SIZE AND SPACING



C POLE FOUNDATION DETAIL

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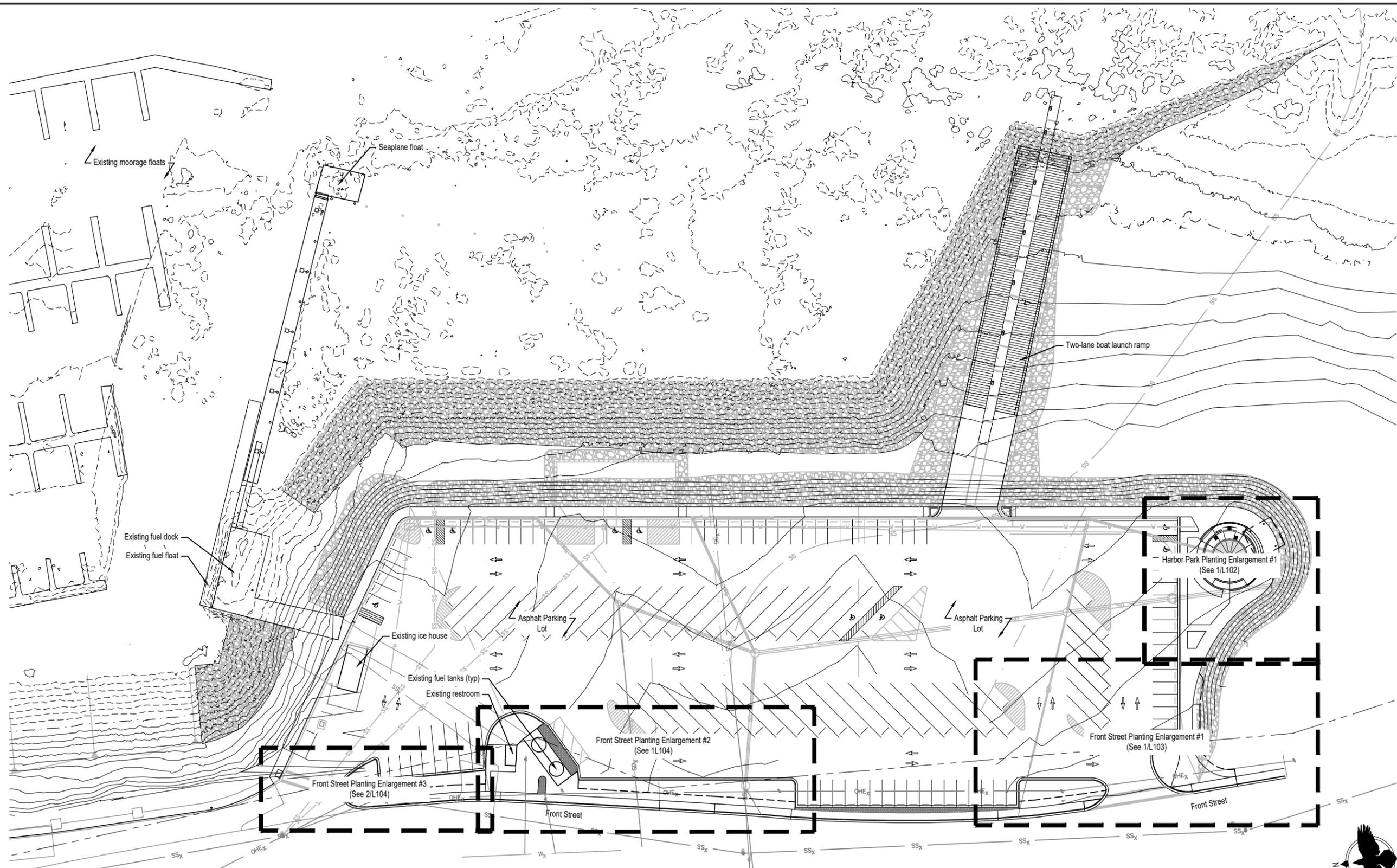
DATE: JULY 20, 2018

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SHEET TITLE: **COVERED KIOSK PLANS AND DETAILS**

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6.03
 SHEET 28 OF 28



1 Key Plan
L100 SCALE: 1" = 40'-0" @22x34



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**HAINES BOROUGH
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BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:

Key Plan

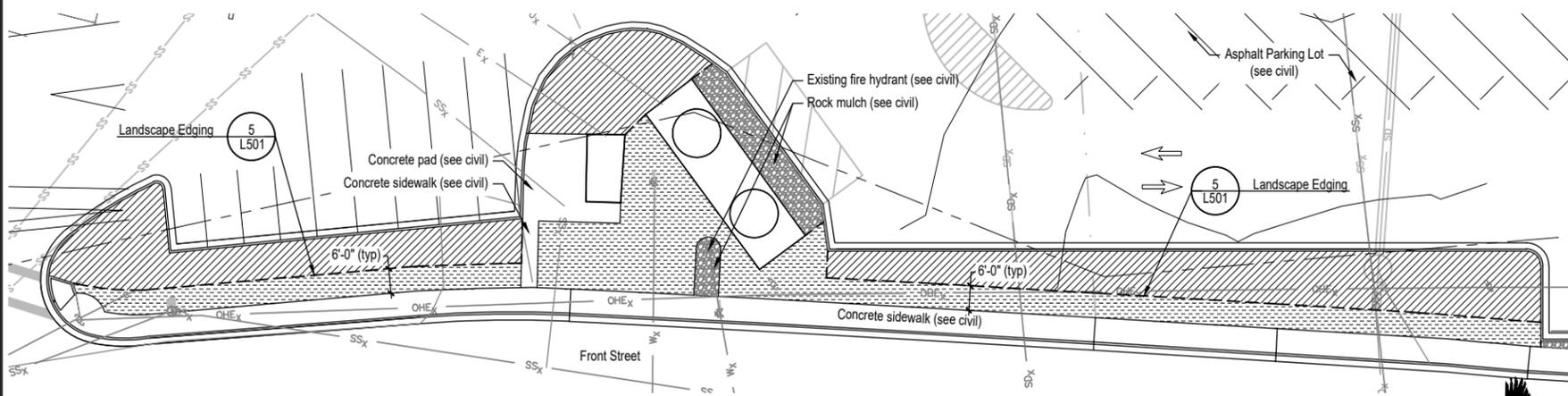
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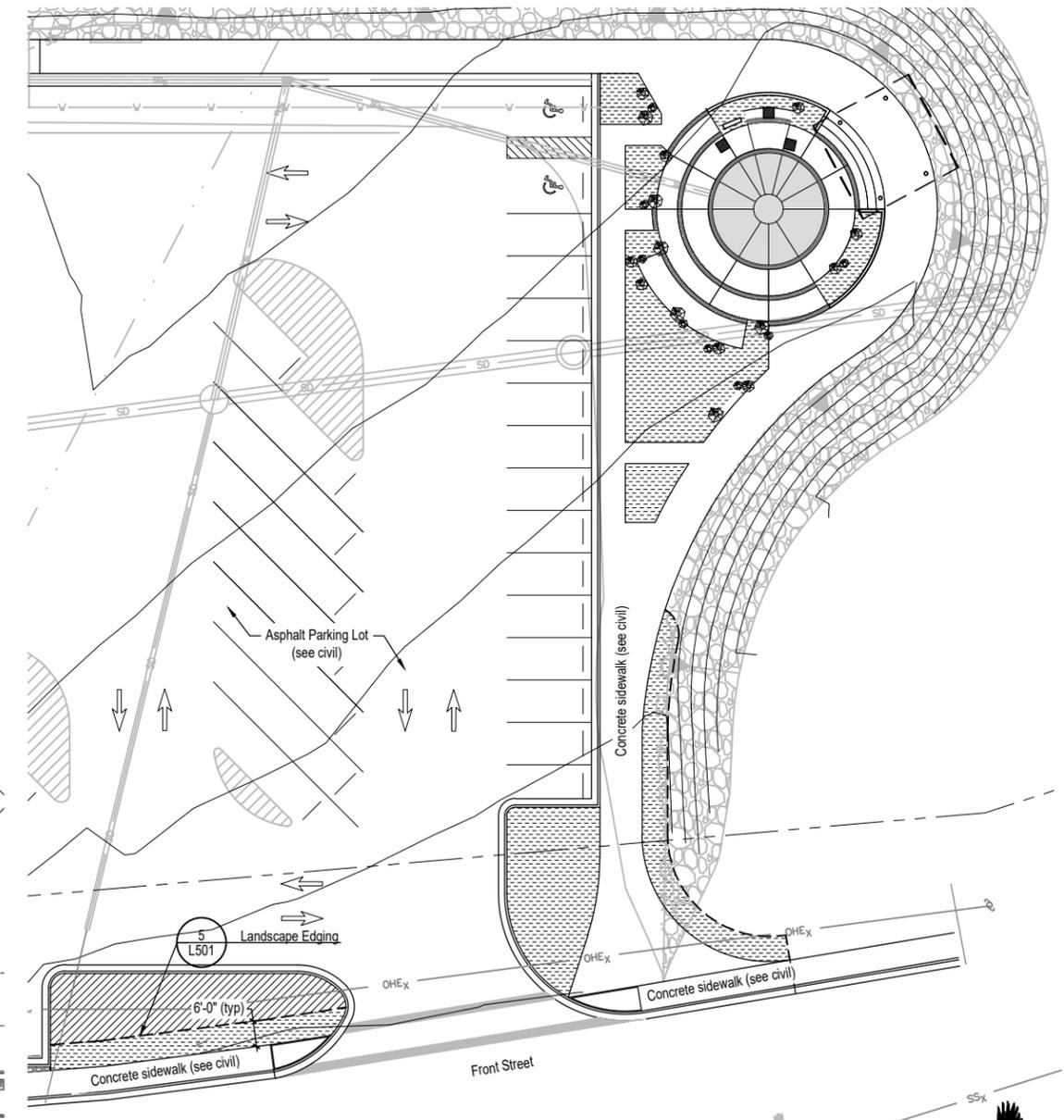
SHEET
OF 28

Soils Legend

-  18" depth Planting Soil- Excavate as necessary to allow placement of 18" depth of planting soil (as measured after compaction) and installation of 2" depth mulch to meet finished grades.
-  4" depth Planting Soil- Excavate as necessary to allow placement of 4" depth of planting soil (as measured after compaction).



2 Front Street Soils Plan Enlargement
 L101 SCALE: 1" = 20'-0" @22x34



1 Harbor Plaza & Front Street Soils Plan Enlargement
 L101 SCALE: 1" = 20'-0" @22x34



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 PORTAGE COVE HARBOR
 BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:

Soils Plan

PND PROJECT NO.: 172032

L101
 SHEET OF 28

Planting Schedule

Deciduous Trees- See Detail: 1 L501 Deciduous Tree Planting - Staked

Qty.	Symbol	Label	Latin Name	Common Name	Size	Furnished	Notes
02		AP	Acer platanoides 'Schwedleri'	Schwedleri Norway maple	2" CAL	B&B	Single stem
04		AC	Amelanchier canadensis	Shadblow serviceberry	2" CAL	B&B	Multi-stemmed
12		MA	Malus 'Prairiefire'	Prairie Fire flowering crabapple	2" CAL	B&B	Single stem - low branches min. 6' ht.
03		PC	Populus tremuloides	Quaking aspen	2" CAL	B&B	Multi-stemmed
03		PS	Prunus cerasus	Haines cherry	2" CAL	B&B	Single stem

Evergreen Trees- See Detail: 2 L501 Evergreen Tree Planting - Staked

Qty.	Symbol	Label	Latin Name	Common Name	Size	Furnished	Notes
05		PS	Picea sitchensis	Sitka spruce	6' HT	B&B	
02		TH	Tsuga heterophylla	Western hemlock	6' HT	B&B	

Shrubs - See Detail: 3 L501 Shrub Planting

Qty.	Symbol	Label	Latin Name	Common Name	Size	Furnished	Notes
09		AM	Aronia melanocarpa var. elata	Black chokeberry	#5 24" MIN	CG	
48		CS	Cornus sericea 'Farrow'	Arctic Fire dogwood	#5 24" MIN	CG	
112		RSA	Rosa rugosa	Rugosa rose	#2 18" MIN	CG	
95		SJM	Spiraea japonica 'Magic Carpet'	Magic Carpet spirea	#2 18" MIN	CG	
04		SJ	Spiraea japonica 'Shirobana'	Shirobana spirea	#5 24" MIN	CG	
74		VT	Viburnum trilobum 'Compactum'	Compact highbush cranberry	#5 24" MIN	CG	

Perennials- See Detail: 4 L501 Perennial Planting

Qty.	Symbol	Label	Latin Name	Common Name	Size	Furnished	Notes
63		AMO	Alchemilla mollis	Lady's mantle	#1	CG	18" OC Triangular spacing
163		AD	Astilbe 'Deutschland'	False spirea astilbe	#1	CG	18" OC Triangular spacing
708		AF	Astilbe 'Fanal'	Fanal astilbe	#1	CG	18" OC Triangular spacing
46		IS	Iris setosa	Wild Iris	#1	CG	18" OC Triangular spacing
		AD	Astilbe 'Deutschland'	False spirea astilbe	#1	CG	18" OC Triangular spacing
		AF	Astilbe 'Fanal'	Fanal astilbe	#1	CG	18" OC Triangular spacing

Grasses- See Detail: 4 L501 Perennial Planting

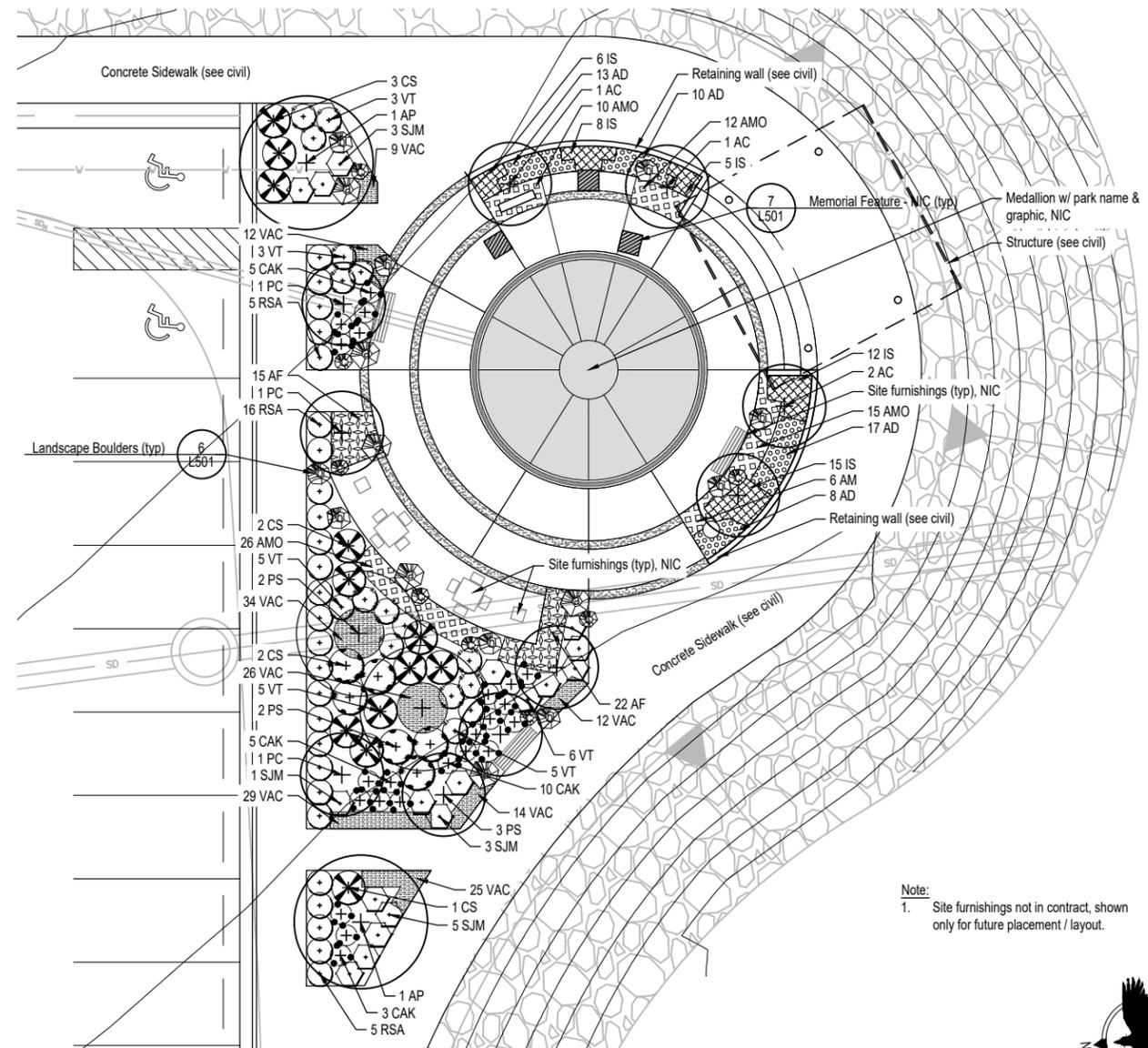
Qty.	Symbol	Label	Latin Name	Common Name	Size	Furnished	Notes
51		CAK	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	#1	CG	18" OC Triangular spacing

Groundcovers- See Detail: 4 L501 Perennial Planting

Qty.	Symbol	Label	Latin Name	Common Name	Size	Furnished	Notes
161		VAC	Vaccinium vitis-idaea	Lingonberry	#1	CG	12" OC Triangular spacing

Miscellaneous

- Type A Seed Mix
- Rock Mulch (see civil)



Note:
1. Site furnishings not in contract, shown only for future placement / layout.

1 Harbor Plaza Planting Enlargement

SCALE: 1" = 10'-0" @22x34

0' 10' 20' 30'



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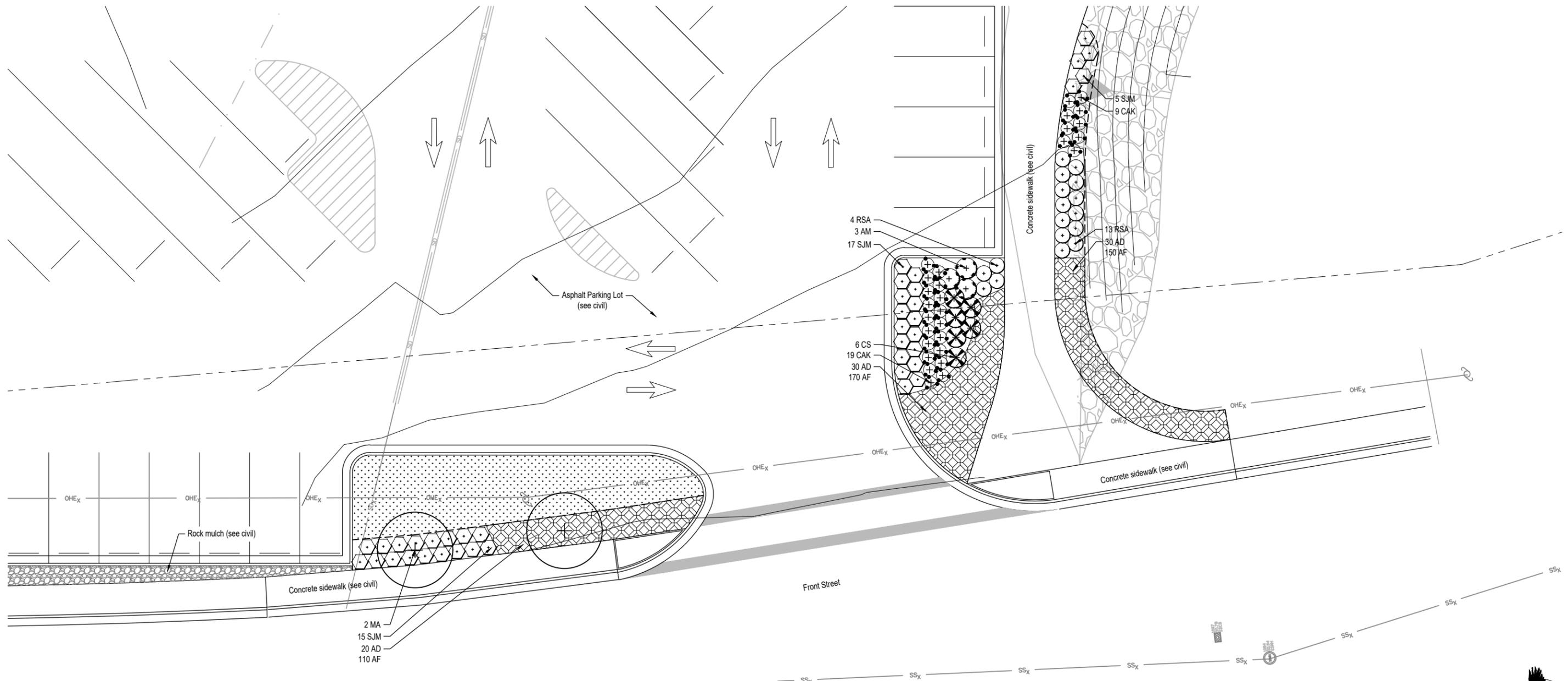
SHEET TITLE:

Planting Plan

L102

SHEET OF 28

PND PROJECT NO.: 172032



1 Front Street Planting Enlargement #1
 L103 SCALE: 1" = 10'-0" @ 22x34



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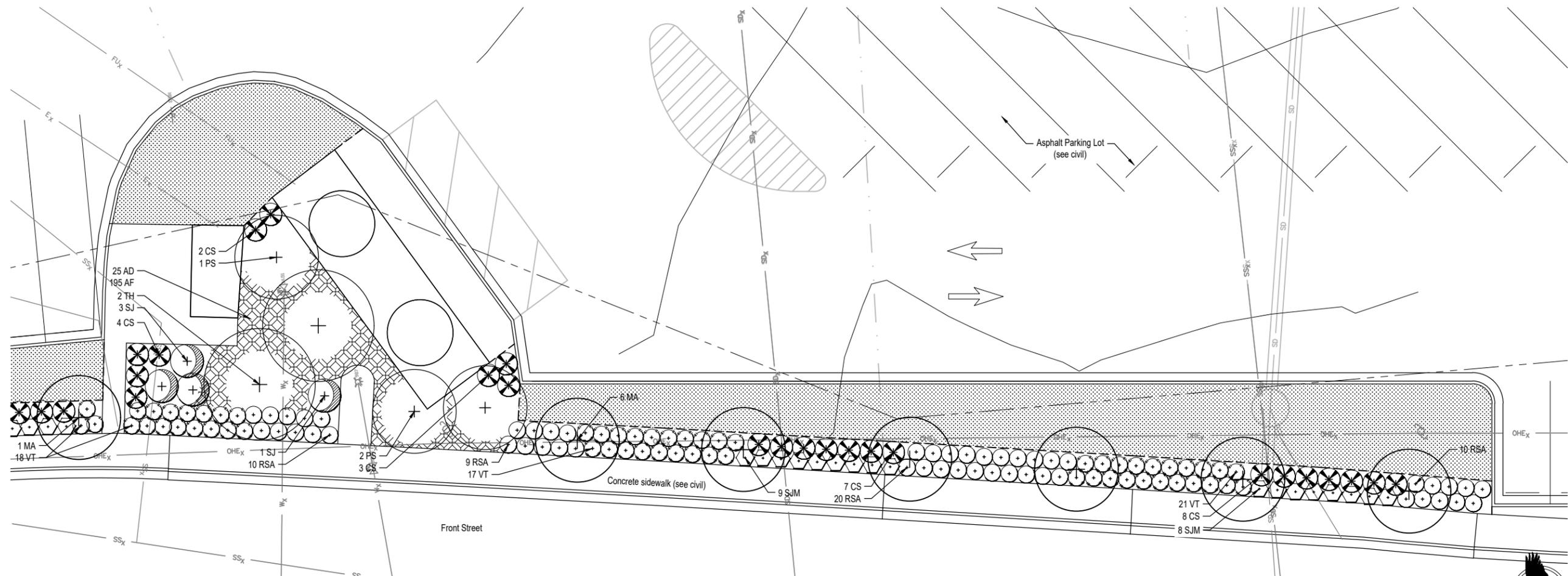
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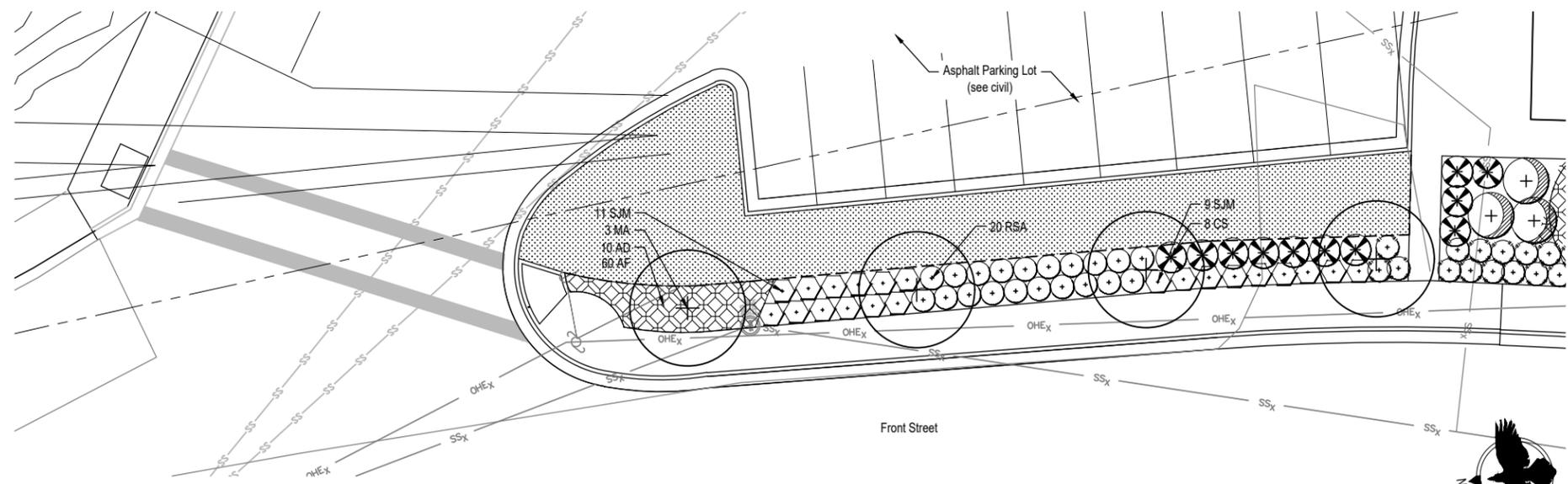
SHEET TITLE:
Planting Plan

PND PROJECT NO.: 172032

L103
 SHEET OF 28



1 Front Street Planting Enlargement #2
L104 SCALE: 1" = 10'-0" @22x34



2 Front Street Planting Enlargement #3
L104 SCALE: 1" = 10'-0" @22x34

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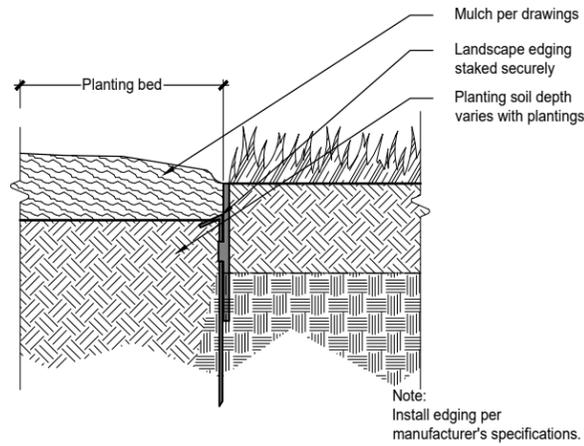
DATE: JULY 20, 2018

**HAINES BOROUGH
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BOAT LAUNCH IMPROVEMENTS**

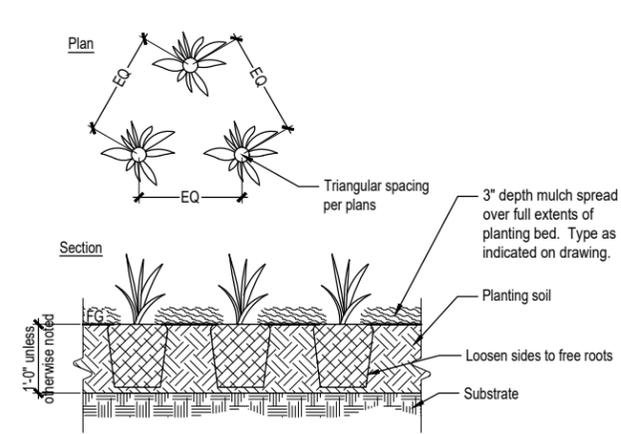
SHEET TITLE:
Planting Plan

PND PROJECT NO.: 172032

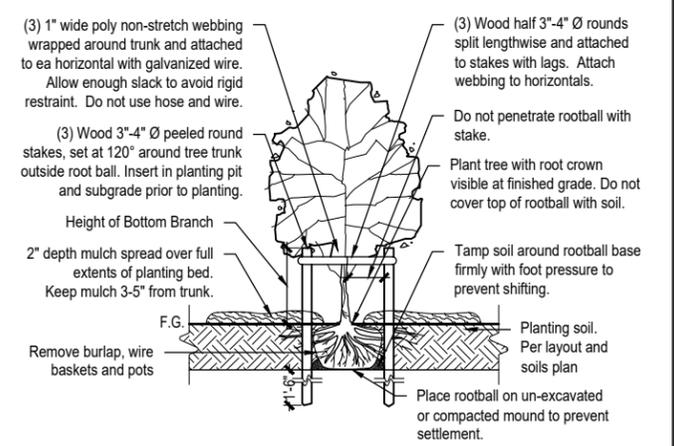
L104
SHEET OF 28



5 Landscape Edging
SCALE: NTS @22x34



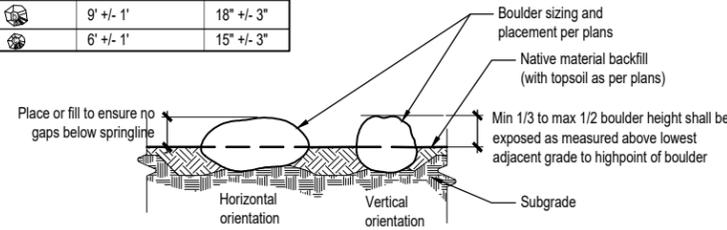
4 Perennial Planting
SCALE: NTS @22x34



1 Deciduous Tree Planting - Staked
SCALE: NTS @22x34

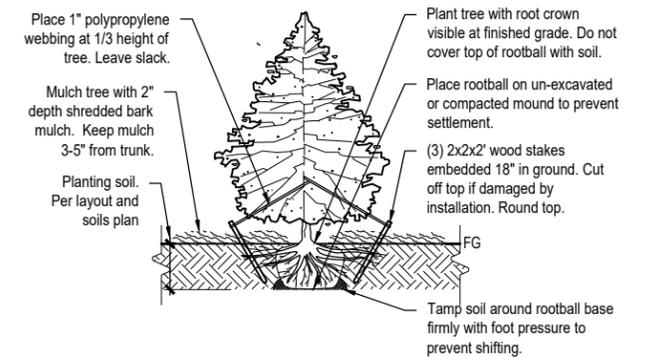
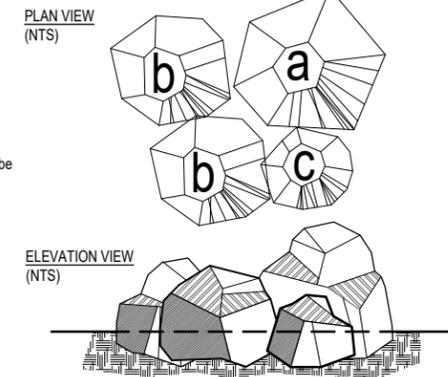
Landscape Boulder Sizing Schedule

Boulder Symbol	Circumference	Height
	12' +/- 1'	21" +/- 3"
	9' +/- 1'	18" +/- 3"
	6' +/- 1'	15" +/- 3"



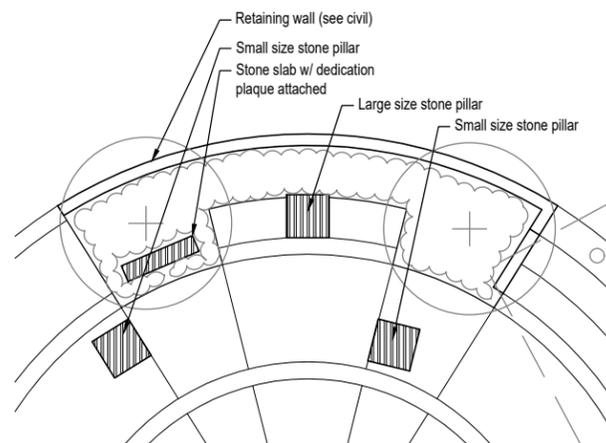
- Notes:
1. Location and orientation of placed rocks shall be field approved by owner's representative.
 2. Boulders should be no higher than 30" above any adjacent grade.
 3. Circumference refers to the largest circumference of the boulder.
 4. Height is measured perpendicular to axis used for determining circumference.

Boulder Layout Example

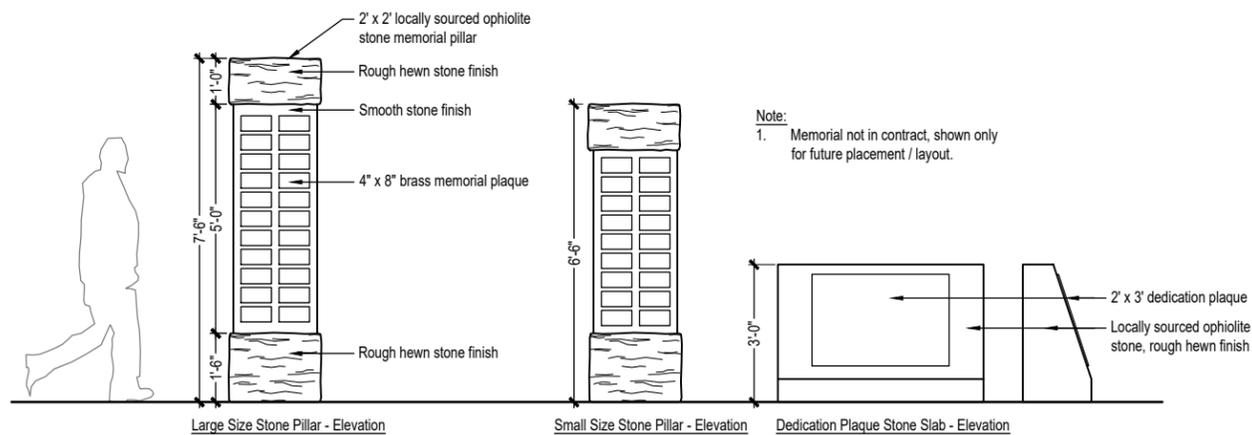


2 Evergreen Tree Planting - Staked
SCALE: NTS @22x34

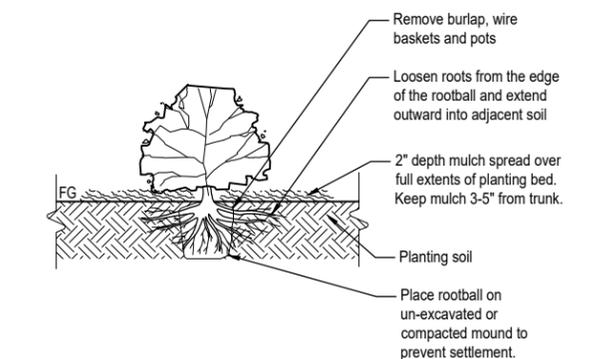
6 Landscape Boulders
SCALE: NTS @22x34



8 Memorial Feature Enlargement
SCALE: 3/16" = 1'-0" @22x34



7 Memorial Feature - NIC
SCALE: 1/2" = 1'-0" @22x34



3 Shrub Planting
SCALE: NTS @22x34

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**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
Landscape Details

PND PROJECT NO.: 172032

L501
SHEET OF 28

HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

JULY 2018

Sheet List Table	
Sheet Number	Sheet Title
E1	TITLE, LEGEND, INDEX & GENERAL NOTES
E2	UPLANDS SITE PLAN - ELECTRICAL
E3	RAMP PLAN AND PROFILE - ELECTRICAL
E4	LIGHTING SCHEMATICS
E5	LUMINAIRE SCHEDULE
E6	UPLANDS LIGHT POLE DETAILS
E7	UPLANDS LIGHT POLE DETAILS, HANDHOLE & TRENCH DETAIL
E8	UPLANDS ELECTRICAL RACK ELEVATION
E9	COVERED SHELTER PLANS AND ELEVATION - ELECTRICAL
E10	CABLE ROUTING DETAILS
E11	FLOAT LIGHT POLE DETAIL

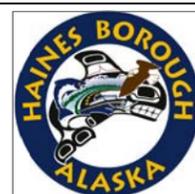
LEGEND

 CIRCUIT BREAKER (AMPS/POLES)	 LIGHT POLE
C/B CIRCUIT BREAKER	NEC NATIONAL ELECTRICAL CODE
CIVIL CIVIL PROJECT DRAWINGS	N.I.C. NOT IN CONTRACT
 CONTACTOR	NM NON METALLIC
 DISCONNECT	 PHOTO ELECTRIC CELL
GRS GALVANIZED RIGID STEEL	REC RECEPTACLE
GND GROUND	 RECEPTACLE, 120V, 20A INDUSTRIAL SPEC GRADE, WHITE WITH STAINLESS COVER PLATE
 GROUND BUSS	STRUCTURAL STRUCTURAL PROJECT DRAWING SPECIFICATIONS
GFI GROUND FAULT INTERRUPTER	UNISTRUT SUPPORT CHANNEL UNISTRUT BRAND OR EQUAL
HT HEAT TRACE	S SWITCH, 120V, 20A INDUSTRIAL SPEC GRADE, WHITE WITH STAINLESS COVER PLATE
 HEAVY DUTY DISCONNECT (AMPS/POLES AS SHOWN)	(TYP) TYPICAL
 HOME RUN	UHMW ULTRA HIGH DENSITY MOLECULAR WEIGHT
LTG LIGHTING	 UTILITY METER
 LIGHTING CONTACTOR	

NOTES:

1. PERFORM ALL WORK PER THE 2017 NATIONAL ELECTRICAL 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. ALL CONDUIT SHALL BE SCHEDULE 80 PVC, WITH GRS ELBOWS.
3. PROVIDE MOUNTING EQUIPMENT AND HARDWARE AS REQUIRED TO MOUNT ELECTRICAL EQUIPMENT. 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 TYPE G-GC. G-GC CABLE DESCRIPTION DOES NOT INCLUDE GROUND CONDUCTOR. PROVIDE CODE COMPLIANT GROUND CONDUCTORS WITH G-GC CABLE. USE STAINLESS STEEL STRAPS TO SECURE CONDUIT. PROVIDE HEAT SHRINK OVER ALL CRIMP CONNECTIONS WHEN TERMINATING A CABLE. NO SPLICES IN ANY CABLES OR CONDUCTORS. PROTECT ALL CABLES FROM CHAFING AND "WALKING THROUGH THE FLOAT SYSTEM". PROVIDE CHAFE PROTECTION AROUND CABLES WHERE THEY ARE LIKELY TO RUB OR CHAFE AGAINST OTHER SURFACES.
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, AND ALL OTHER ELECTRICAL EQUIPMENT. TRIM STRUT 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. USE CABLE SUPPORTS THAT COMPLY WITH 555.13(4). USE CUSHION STRAPS WHEN SUPPORTING CABLE TO STRUT CHANNEL.
10. ROUTE CABLES IN UTILIDOR TRENCH IN FLOAT. DO NOT EXCEED 8 TIMES CABLE DIAMETER FOR BENDING RADIUS. USE STAINLESS STEEL CABLE GRIP CONNECTORS FOR ALL CABLE WHERE IT TURNS TO FEED POLE IN SHORT TRENCH SECTION. ALSO PROVIDE CABLE GRIP WHERE IT LEAVES UTILIDOR AND AGAIN INSIDE POLE AS SHOWN.
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. PROVIDE OXIDE INHIBITING COMPOUND ON ALL ELECTRICAL CONNECTIONS. BURNDY PENTROX TYPE A OR E AS REQUIRED.
13. MINIMUM BENDING RADIUS FOR ALL CABLES IS 8 TIMES THE DIAMETER OF THE CABLE. PUT CHAFE PROTECTION AROUND CABLE WHERE IT IS LIKELY TO CHAFE.
14. CABLE ROUTING AT ALL TRANSITIONS BETWEEN UPLANDS, CONCRETE TRANSITION, AND FLOAT SHALL BE INSTALLED SO THAT IT WILL NOT BE DAMAGED IN ALL LOCATIONS INCLUDING HINGED FLOAT CONNECTIONS.
15. CABLE GRIPS ARE USED TO KEEP CABLES FROM BECOMING TIGHT DUE TO A CABLE "WALKING" THROUGH FLOAT WITH WAVE ACTION. THIS IS WHY SO MANY ARE SHOWN AND SO MUCH SLACK IS REQUIRED IN THE CABLE AS SHOWN.

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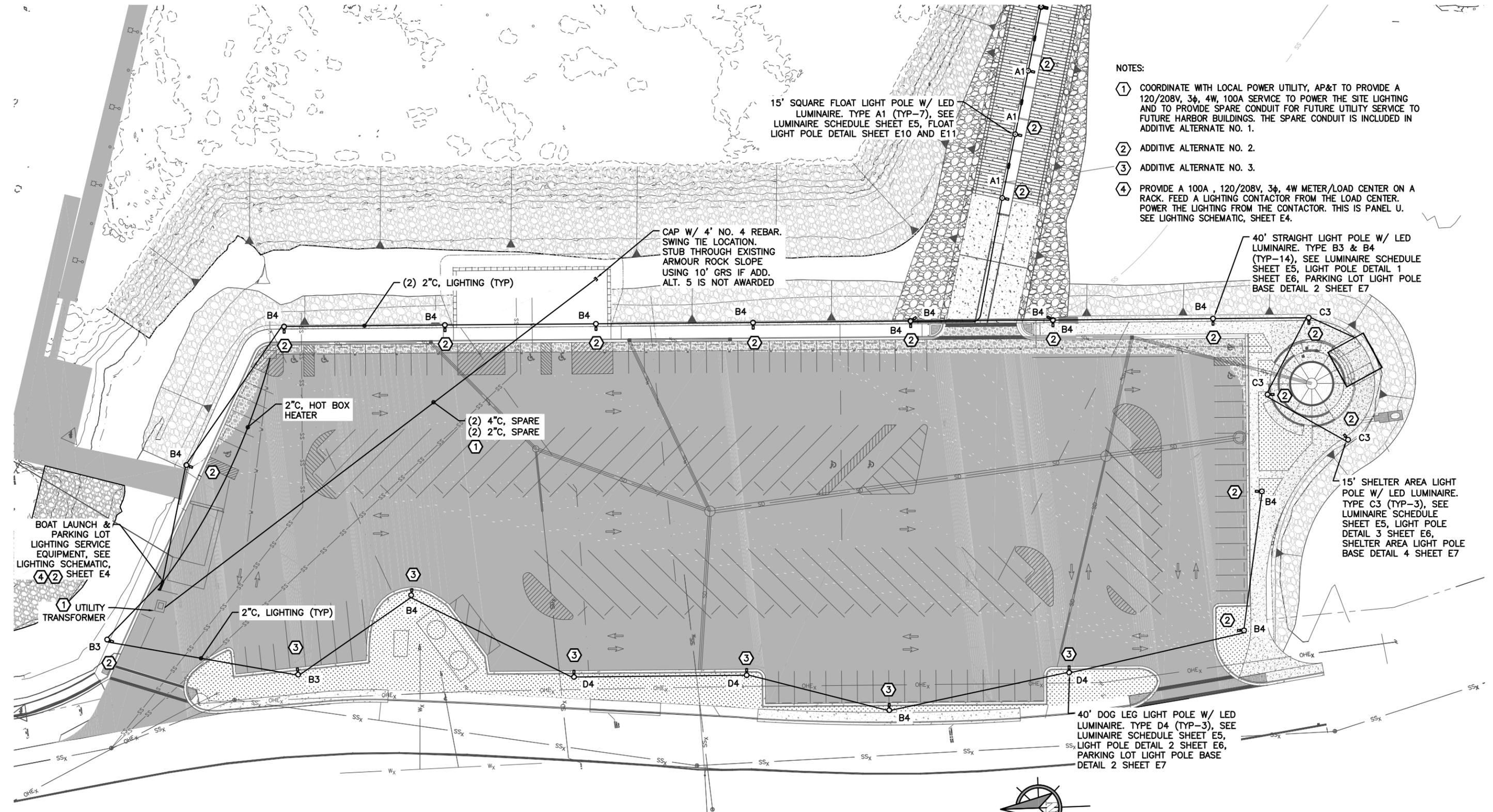
DATE: July 20, 2018

**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

SHEET TITLE:
**TITLE, LEGEND, INDEX
& GENERAL NOTES**

PND PROJECT NO.: 172032

E1
SHEET
OF 11



- NOTES:
- ① COORDINATE WITH LOCAL POWER UTILITY, AP&T TO PROVIDE A 120/208V, 3 ϕ , 4W, 100A SERVICE TO POWER THE SITE LIGHTING AND TO PROVIDE SPARE CONDUIT FOR FUTURE UTILITY SERVICE TO FUTURE HARBOR BUILDINGS. THE SPARE CONDUIT IS INCLUDED IN ADDITIVE ALTERNATE NO. 1.
 - ② ADDITIVE ALTERNATE NO. 2.
 - ③ ADDITIVE ALTERNATE NO. 3.
 - ④ PROVIDE A 100A, 120/208V, 3 ϕ , 4W METER/LOAD CENTER ON A RACK. FEED A LIGHTING CONTACTOR FROM THE LOAD CENTER. POWER THE LIGHTING FROM THE CONTACTOR. THIS IS PANEL U. SEE LIGHTING SCHEMATIC, SHEET E4.

① UPLAND SITE PLAN - ELECTRICAL

15' 30' 60'

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DESIGN: MGM CHECKED: MGM SCALE:

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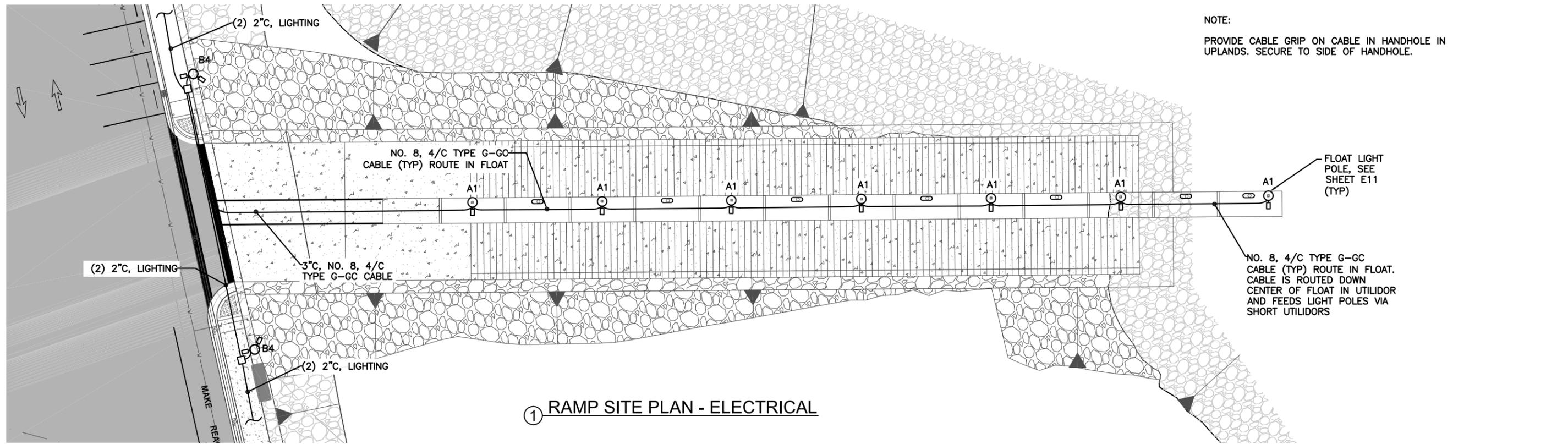
DATE: July 20, 2018

HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS

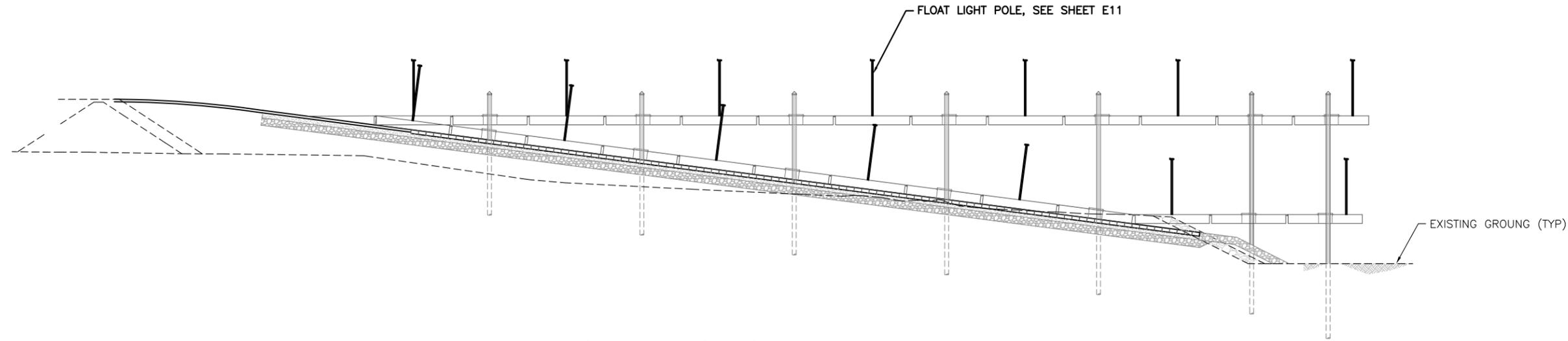
SHEET TITLE:
UPLANDS SITE PLAN - ELECTRICAL

PND PROJECT NO.: 172032

E2
SHEET
OF 11



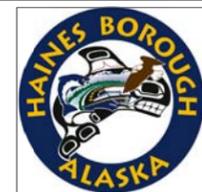
① RAMP SITE PLAN - ELECTRICAL



② RAMP PROFILE - ELECTRICAL

NOTE:
 PROVIDE CABLE GRIP ON CABLE IN HANDHOLE IN UPLANDS. SECURE TO SIDE OF HANDHOLE.

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MORRIS ENGINEERING GROUP LLC
 2375 Jordan Avenue #7, Juneau, AK 99801
 Phone: 907-789-3350, License: AECL1010

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DATE: July 20, 2018

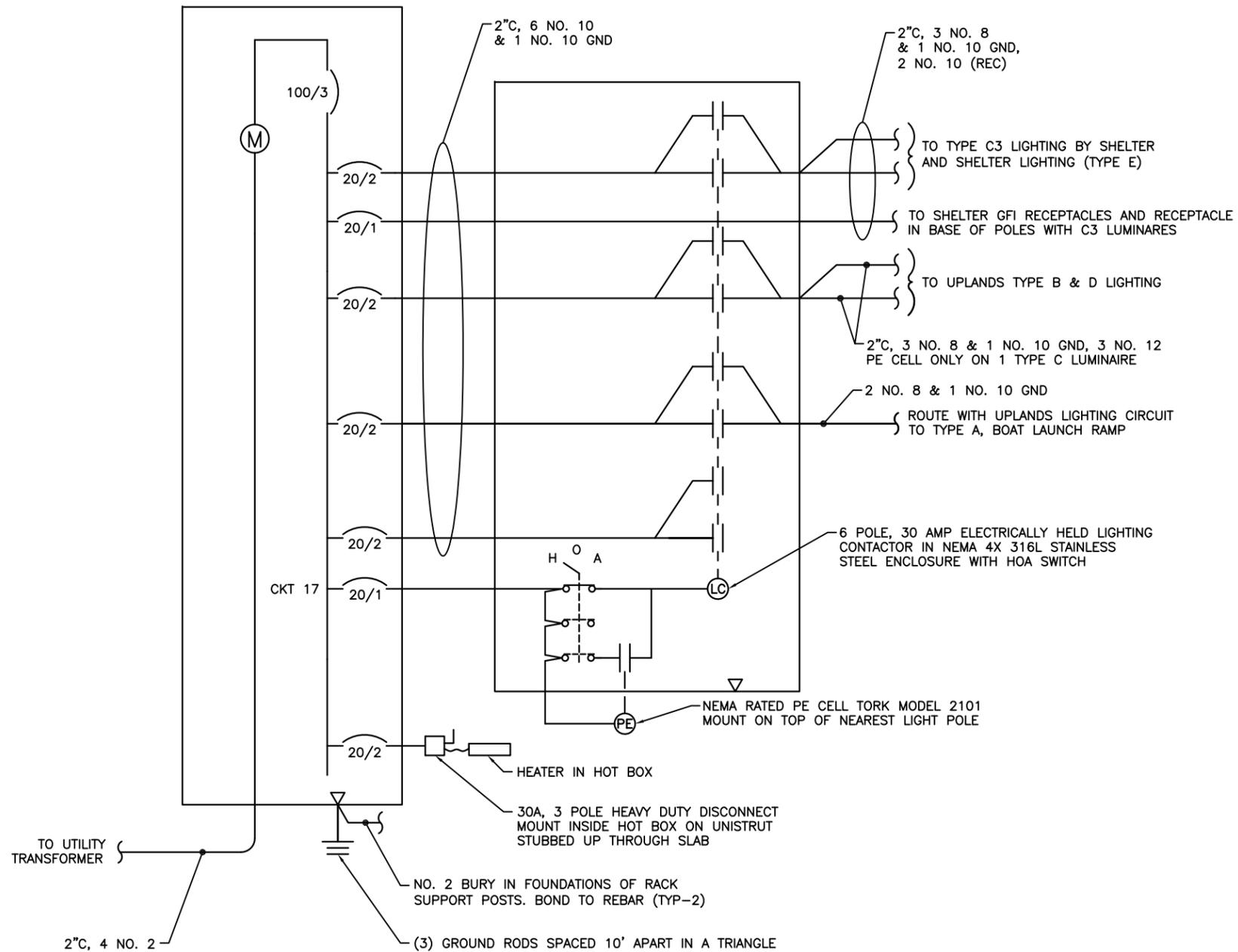
HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE: RAMP PLAN AND PROFILE - ELECTRICAL

PND PROJECT NO.: 172032

E3
SHEET OF 11

PANEL U – UPLANDS
 120/208V, 3 ϕ , 4W, 100A, METER/LOAD CENTER
 WITH 100/3 MAIN CIRCUIT BREAKER 18 CKT, 22 KAIC,
 7 JAW RING STYLE METER WITH SAFETY SOCKET AND
 TEST/BYPASS FACILITIES FACTORY INSTALLED
 IN NEMA 3R 316 STAINLESS STEEL ENCLOSURE
 COOPER B-LINE U217MTBL-316SS 22 KAIC
 MODIFY FOR SPECIAL ORDER



① UPLANDS PARKING, BOAT LAUNCH, AND TRANSFER BRIDGE LIGHTING SCHEMATIC NO SCALE

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HAINES BOROUGH
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 BOAT LAUNCH IMPROVEMENTS

SHEET TITLE:
 LIGHTING SCHEMATICS

E4
 SHEET OF 11

PND PROJECT NO.: 172032

LUMINAIRE SCHEDULE					
TYPE	DESCRIPTION	MANUFACTURER	LAMPS	SPARES	REMARKS
A1	POLE MOUNT, CUTOFF LED LUMINAIRE, FLOAT	KIM LIGHTING TYPE 1 DISTRIBUTION 1SA/ARX16X4K35UVBLSTSFSQ	LED 4000K (11,000 LUMENS) 350MA SEE NOTE 5	SEE NOTE 4	POLE MOUNT TO SQUARE POLE. PROVIDE WITH NIXALITE BIRD CONTROL. ATTACH WITH MANUFACTURER RECOMMENDED ADHESIVE. NO HOLES IN HOUSING. FLAT BLACK. USE ON FLOAT. 120-277V. PROVIDE WITH FUSING.
B3	POLE MOUNT, STRAIGHT POLE, UPLANDS	BEACON VIPER L TYPE 3 DISTRIBUTION VPL-96L-395-3K7-3	LED 3000K 70 CRI	1	POLE MOUNT TO ROUND TAPERED POLE. PROVIDE WITH NIXALITE BIRD CONTROL. ATTACH WITH MANUFACTURER RECOMMENDED ADHESIVE. NO HOLES IN HOUSING. FLAT BLACK. 120-277V. ADJUST PART NO. FOR POLE MOUNTING.
B4	POLE MOUNT, STRAIGHT POLE, UPLANDS	BEACON VIPER L TYPE 4 DISTRIBUTION VPL-96L-395-3K7-4	LED 3000K 70 CRI	1	POLE MOUNT TO ROUND TAPERED POLE. PROVIDE WITH NIXALITE BIRD CONTROL. ATTACH WITH MANUFACTURER RECOMMENDED ADHESIVE. NO HOLES IN HOUSING. FLAT BLACK. 120-277V. ADJUST PART NO. FOR POLE MOUNTING.
C3	POLE MOUNT, CUTOFF LED LUMINAIRE, UPLANDS BY SHELTER	BEACON VIPER L TYPE 3 DISTRIBUTION VPL-64L-135-3K7-3	LED 3000K (15,000 LUMENS) 70 CRI	SEE NOTE 4	POLE MOUNT TO SQUARE POLE. PROVIDE WITH NIXALITE BIRD CONTROL. ATTACH WITH MANUFACTURER RECOMMENDED ADHESIVE. NO HOLES IN HOUSING. FLAT BLACK. USE ON FLOAT. 120-277V. PROVIDE WITH FUSING.
D4	POLE MOUNT, DOG LEG POLE, UPLANDS	BEACON VIPER L TYPE 4 DISTRIBUTION VPL-96L-395-3K7-4	LED 3000K 70 CRI	1	POLE MOUNT TO ROUND TAPERED POLE. PROVIDE WITH NIXALITE BIRD CONTROL. ATTACH WITH MANUFACTURER RECOMMENDED ADHESIVE. NO HOLES IN HOUSING. FLAT BLACK. 120-277V. ADJUST PART NO. FOR POLE MOUNTING.
E	LINEAR SURFACE MOUNT CANOPY LED, 2' WEATHERPROOF LUMINAIRE, REFRACTOR LENS, DUAL WET HUB, KNOCKOUTS FOR SURFACE FEED IN AND OUT ON SIDES, SEALED	COLUMBIA LXEM2-35LW-RFA-EU-DWH	LED 3500K (3,300 LUMENS)	1	SURFACE MOUNT ABOVE BEAM WITH STRUCTURE MOUNTING PLATE. FEED IN AND OUT WITH NM FLEX CONDUIT WITH WEATHERPROOF CONNECTORS. FIBERGLASS HOUSING, NONPOROUS GASKET, WET LABEL. USE NM FLEX CONDUIT TO ENTER FIXTURES AND AS REQUIRED TO ROUTE AROUND STRUCTURE WHERE SCHEDULE 80 PVC IS IMPRACTICAL. USE SCHEDULE 80 PVC CONDUIT AS MUCH AS POSSIBLE.

NOTES APPLICABLE TO TYPE A AND B LUMINAIRES:

1. THE PART NUMBERS IN THE LUMINAIRE SCHEDULE MAY NOT BE COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL PARTS AND ACCESSORIES NECESSARY TO COMPLY WITH THE FEATURES SHOWN IN THE LUMINAIRE SCHEDULE (INCLUDING THE MOUNTING) AS SHOWN ON THE OTHER PLAN SHEETS AND SPECIFICATIONS.
2. SEE LIGHT POLE DETAILS ON SHEETS E6-E7, LUMINAIRES SHALL BE FLAT BLACK.
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-LEVER 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.
4. PROVIDE (2) SPARE LUMINAIRES AND (2) SPARE DRIVERS. PROVIDE (4) OPTICAL MODULES FOR TYPE A1. PROVIDE (1) SPARE LUMINAIRE FOR TYPE B3 AND B4.
5. PROVIDE LUMINAIRE WITH ADJUSTABLE LED MODULES AND TYPE 1 DISTRIBUTION AS MODIFIED HEREIN. FACTORY AIM MODULES SO NO LIGHT IS PRESENT ABOVE 60° WHERE 0° (NADIR) POINTS STRAIGHT DOWN VERTICALLY. THIS WILL MODIFY THE SIDE TO SIDE PERFORMANCE OF THE TYPE 1 DISTRIBUTION, HOWEVER, RETAIN AS MUCH OF THE TYPE 1 DISTRIBUTION AS POSSIBLE (CUTOFF FRONT AND BACK). THE PART NUMBERS SHOWN NEEDS TO BE MODIFIED FOR THIS CUSTOM LIGHT DISTRIBUTION. CONTACT KIM LIGHTING.

① LUMINAIRE SCHEDULE

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LLC

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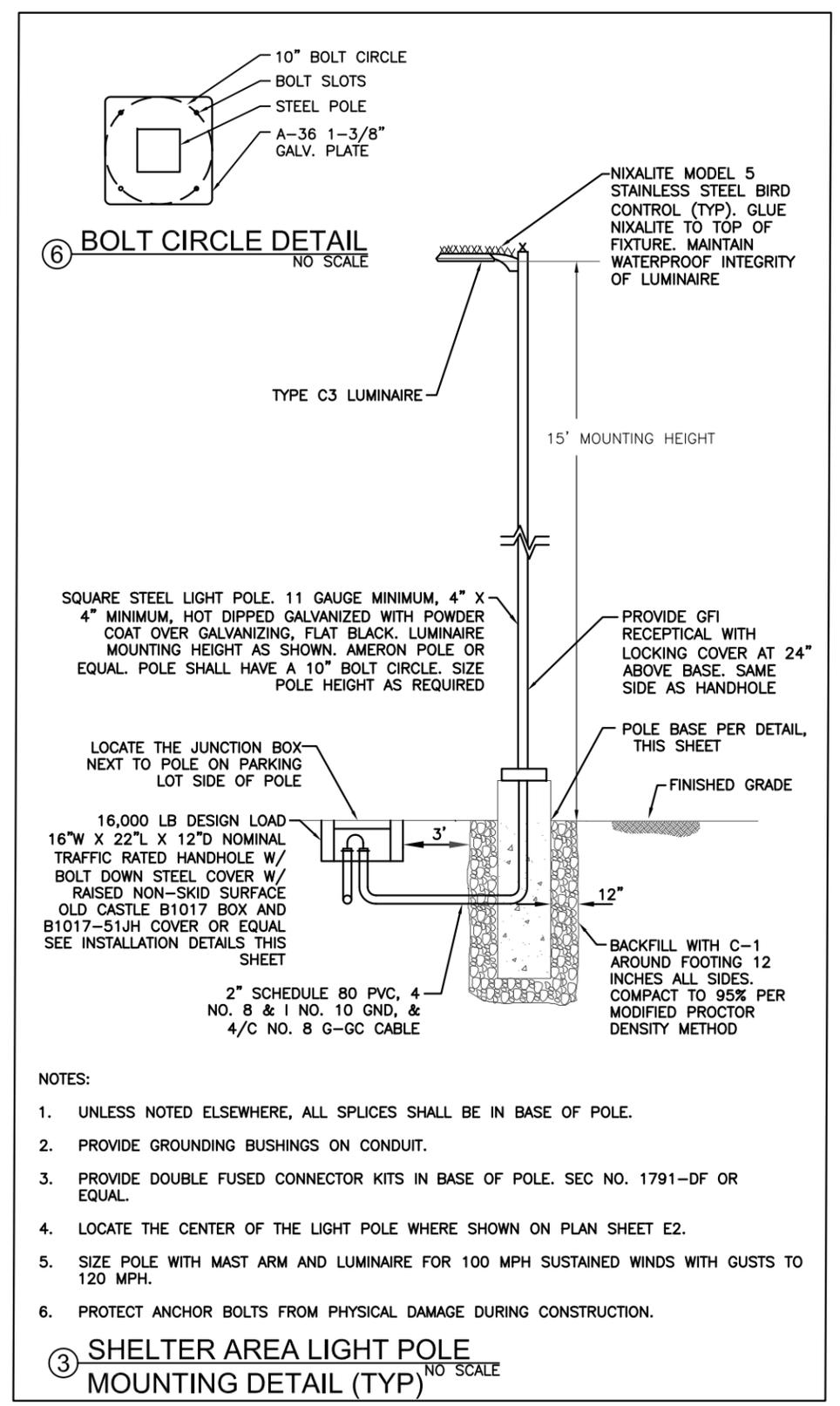
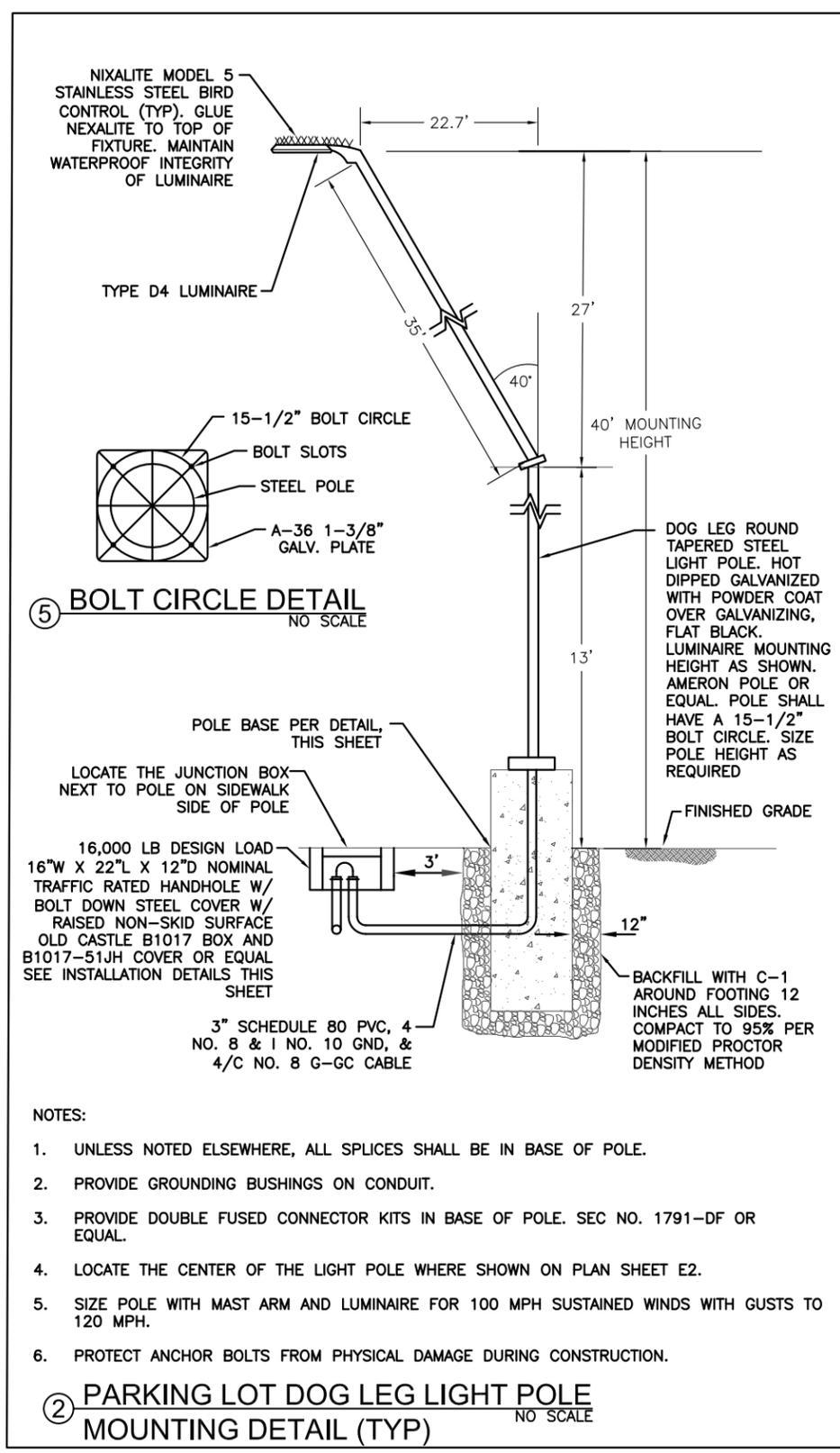
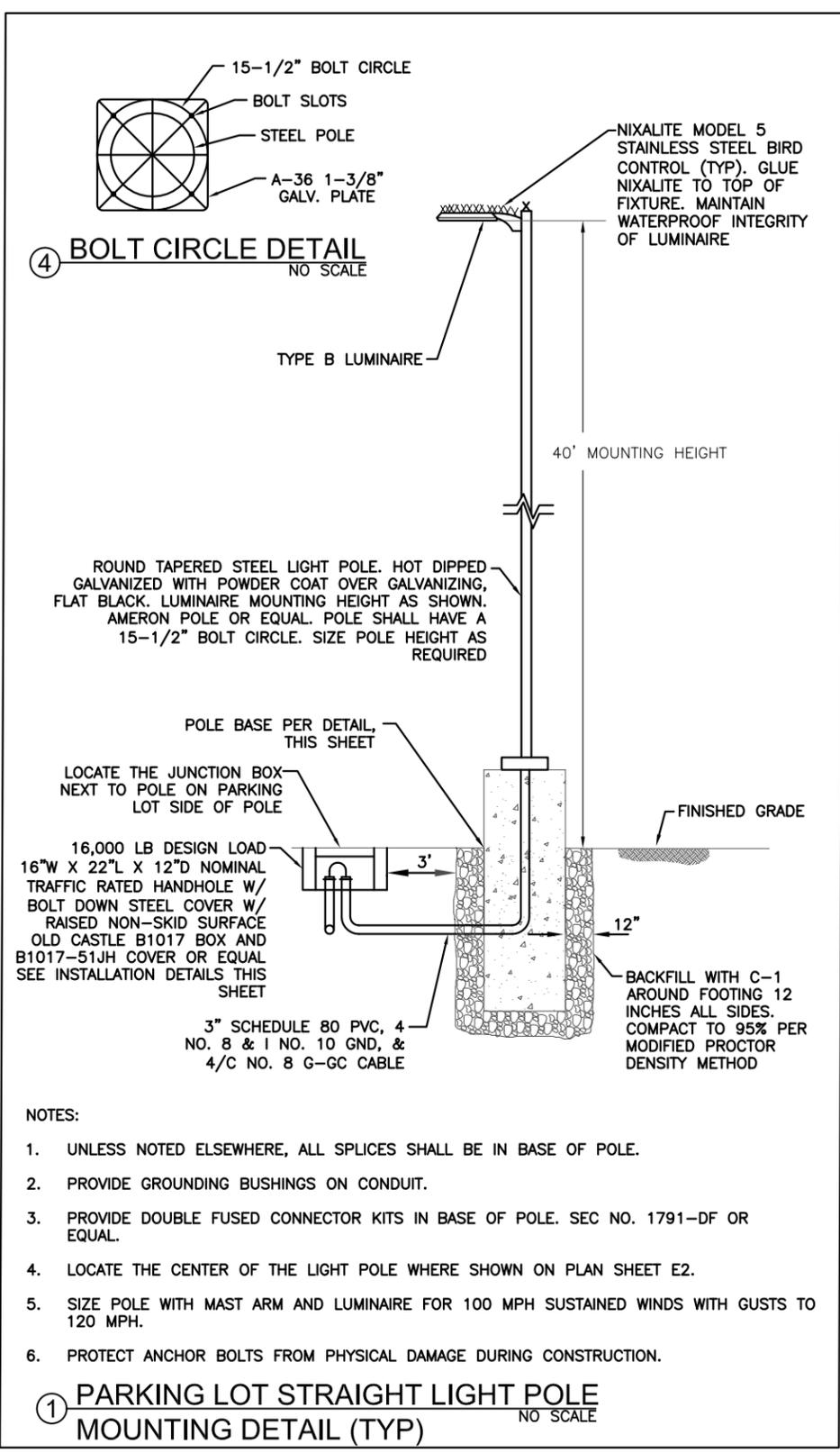
DATE: July 20, 2018

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PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

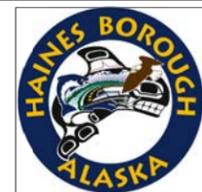
SHEET TITLE:
LUMINAIRE SCHEDULE

PND PROJECT NO.: 172032

E5
SHEET
OF 11



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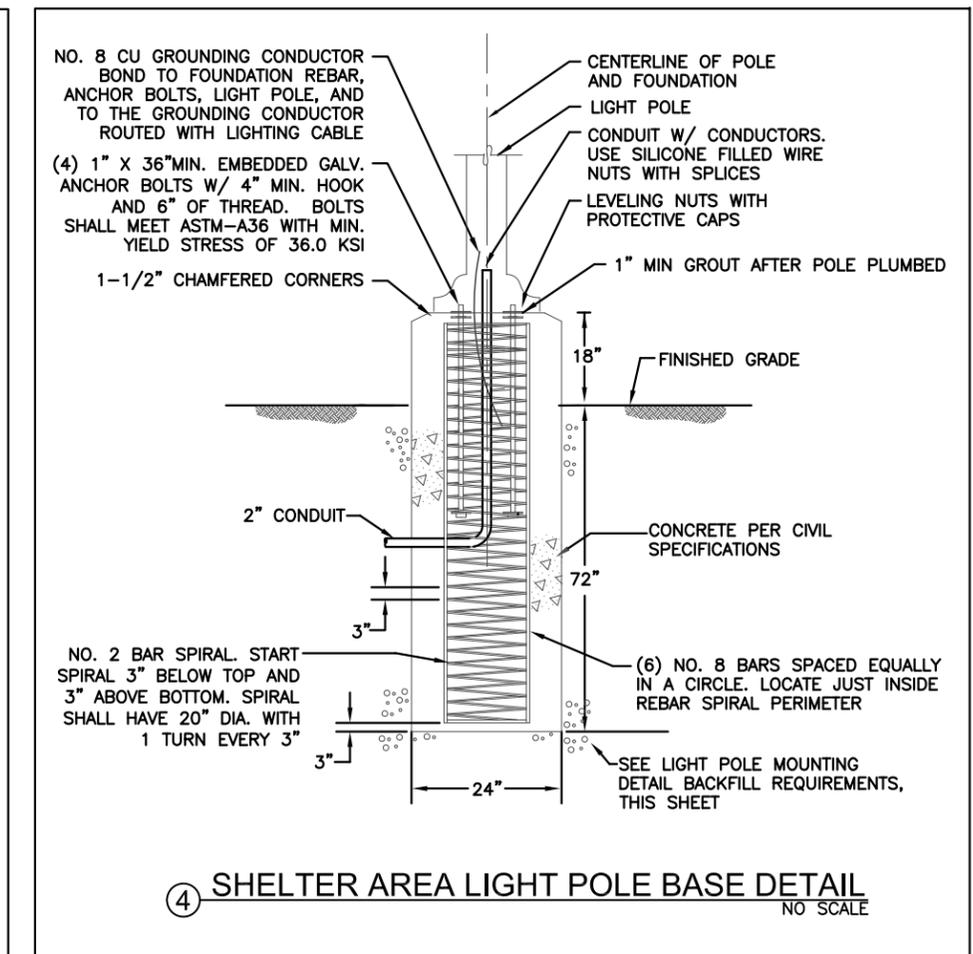
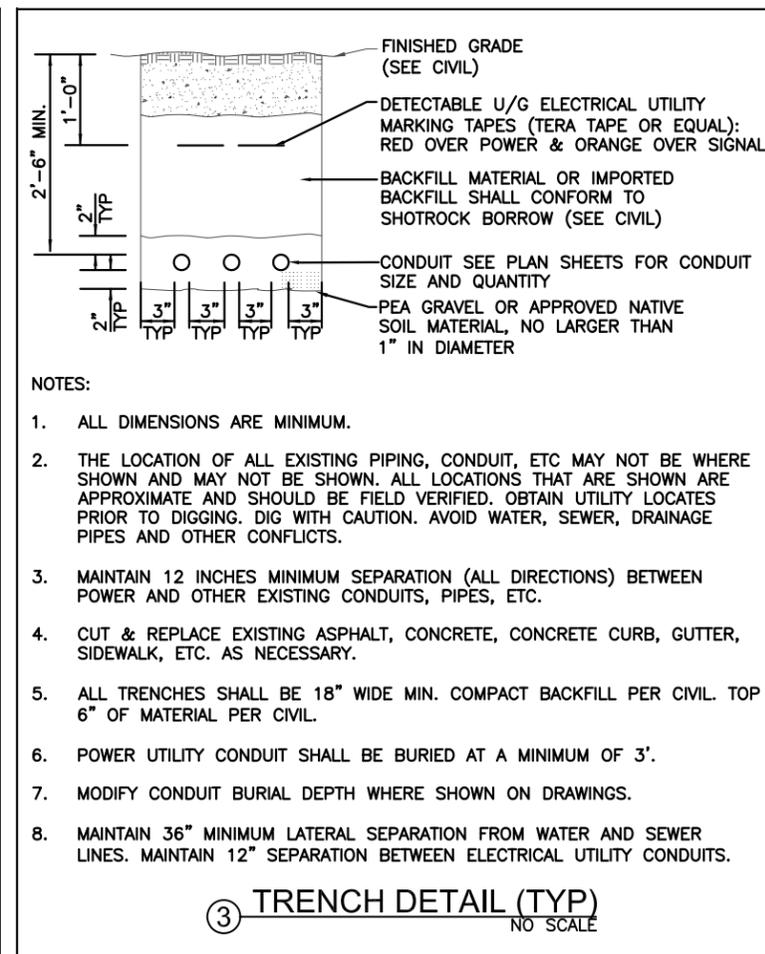
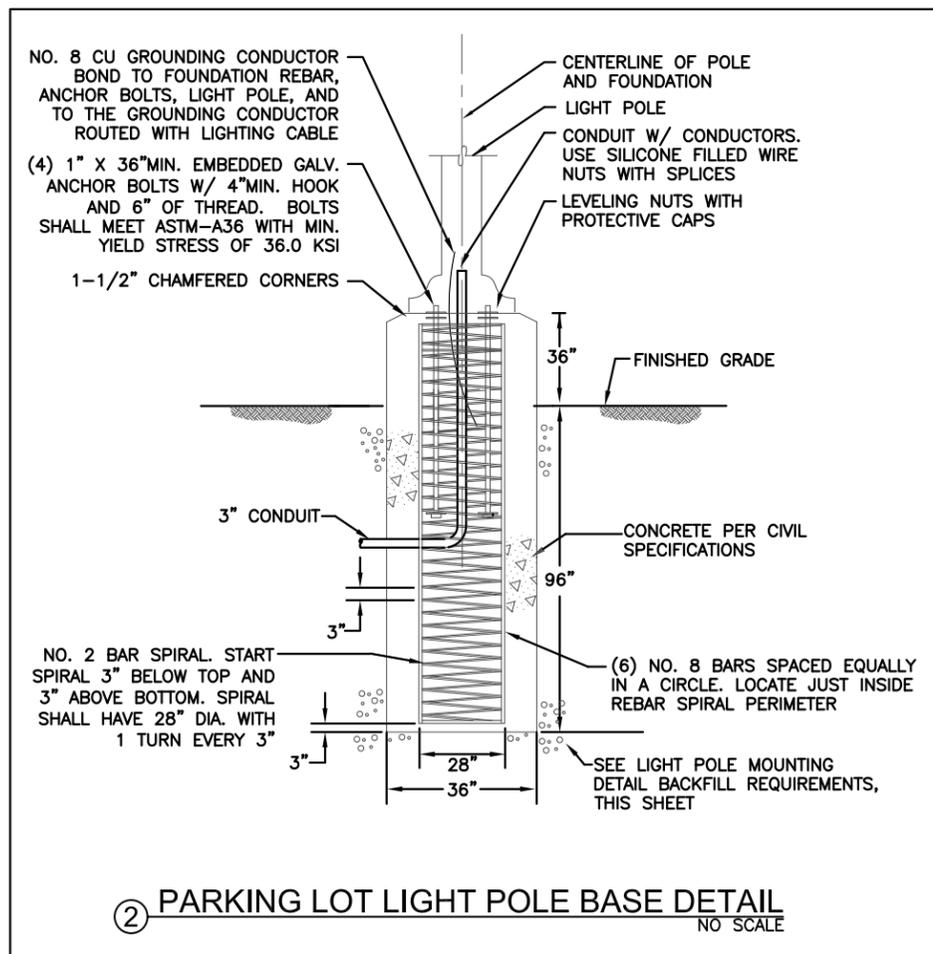
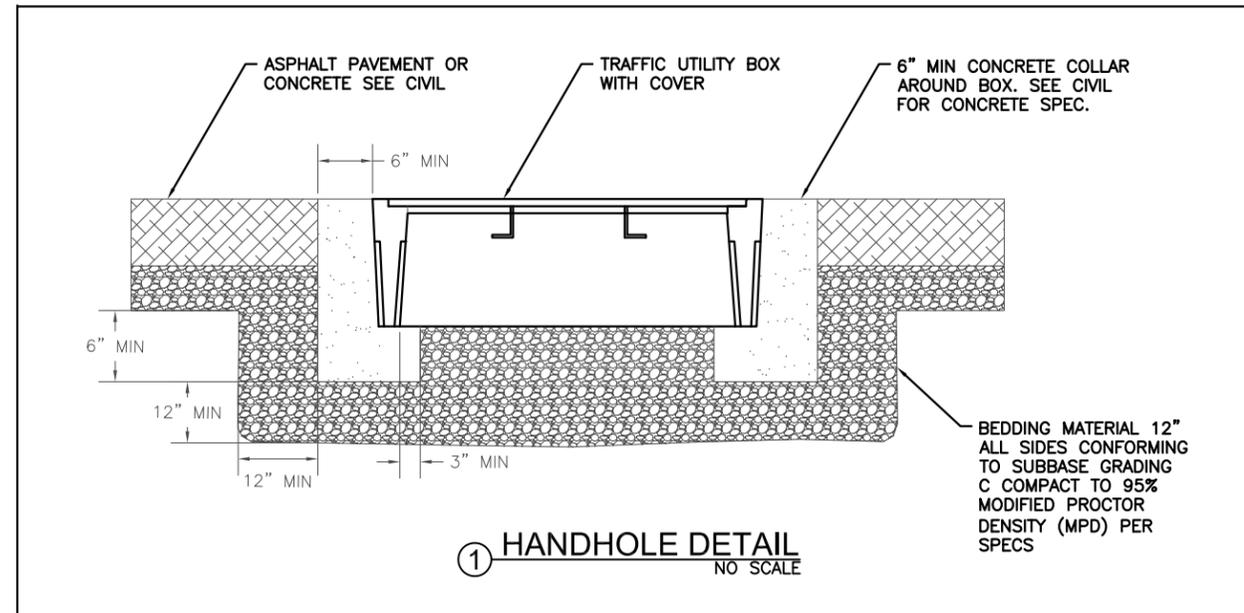
DATE: July 20, 2018

HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

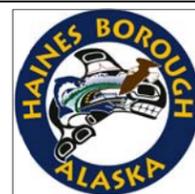
SHEET TITLE: **UPLANDS LIGHT POLE DETAILS**

PND PROJECT NO.: 172032

E6
SHEET OF 11



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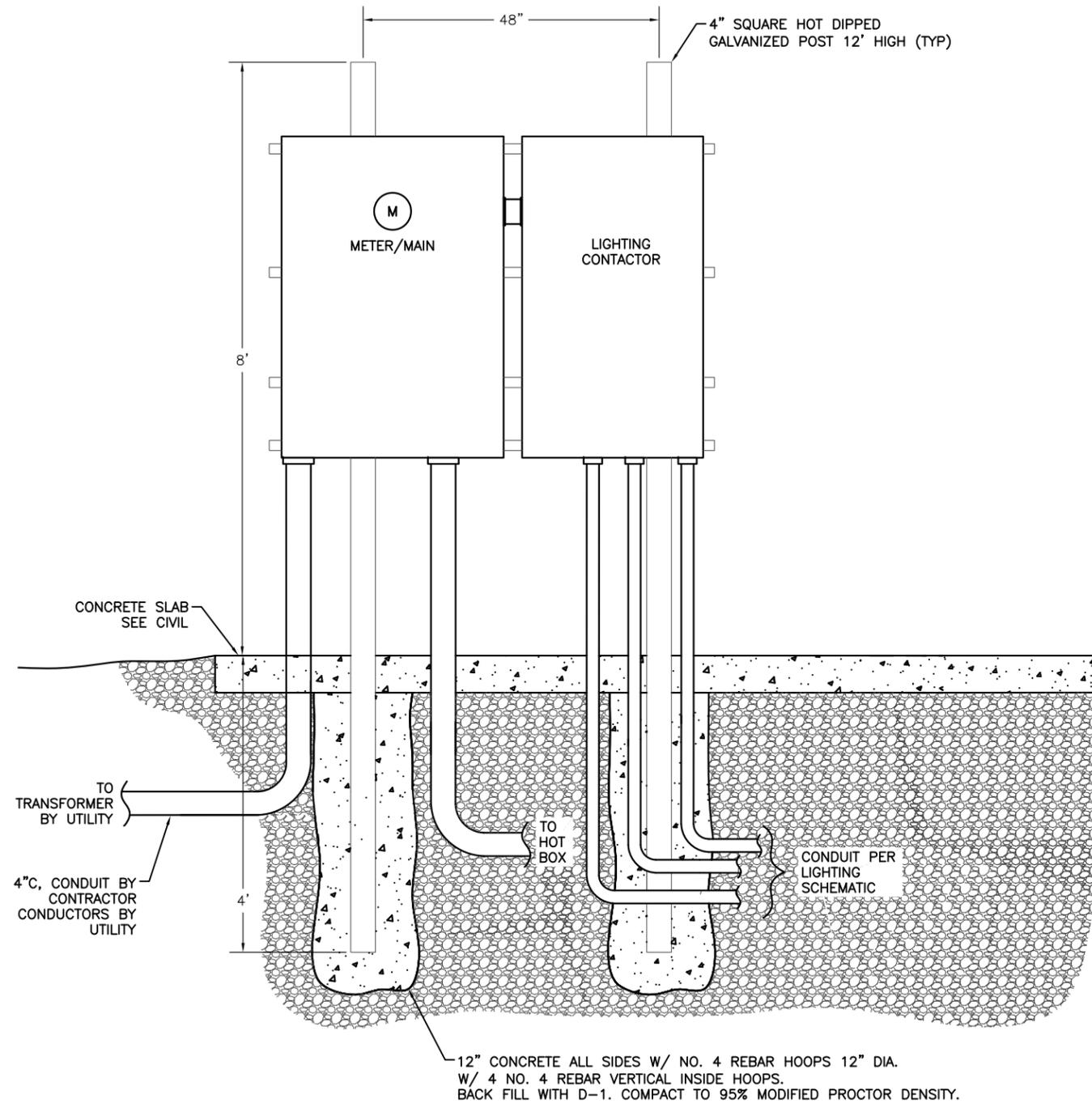
DATE: July 20, 2018

HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

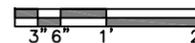
SHEET TITLE: UPLANDS LIGHT POLE DETAILS, HANDHOLE & TRENCH DETAIL

PND PROJECT NO.: 172032

E7
SHEET OF 11



① UPLANDS ELECTRICAL RACK ELEVATION



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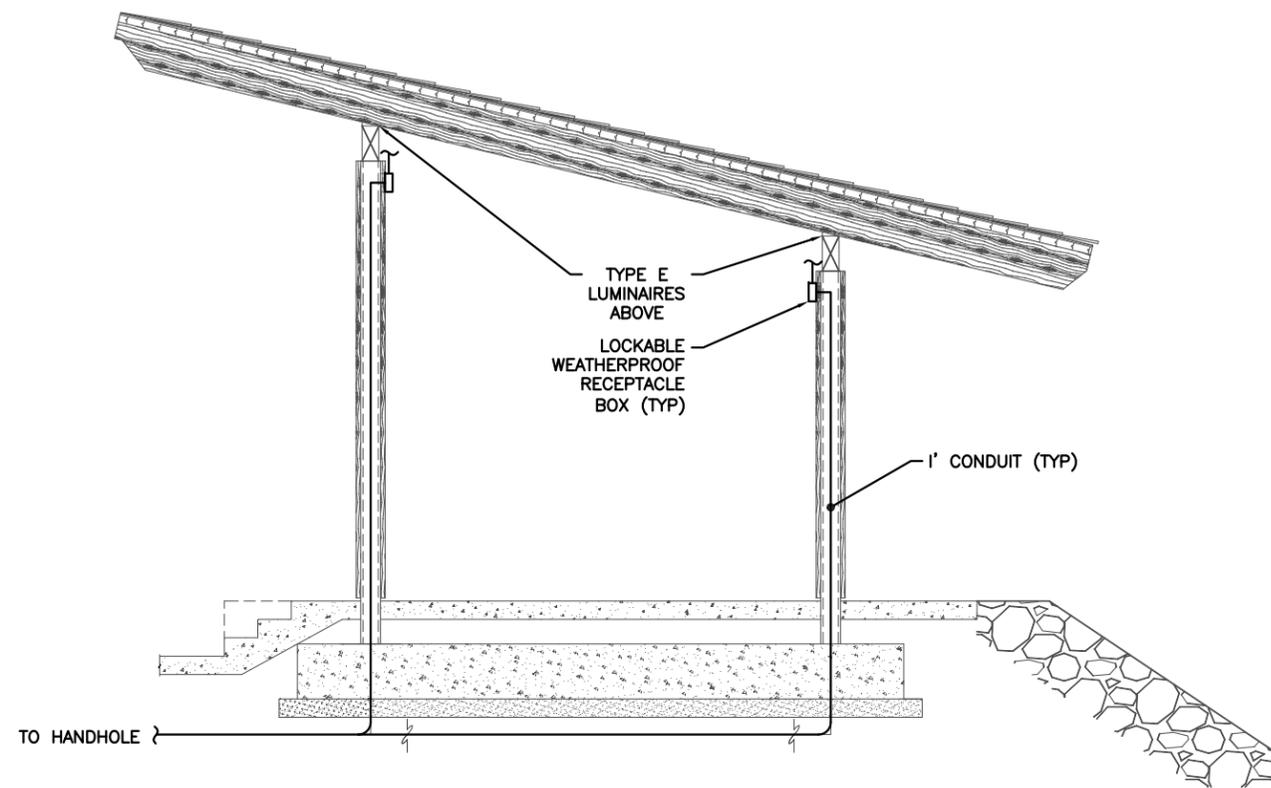
DATE: July 20, 2018

**HAINES BOROUGH
 PORTAGE COVE HARBOR
 BOAT LAUNCH IMPROVEMENTS**

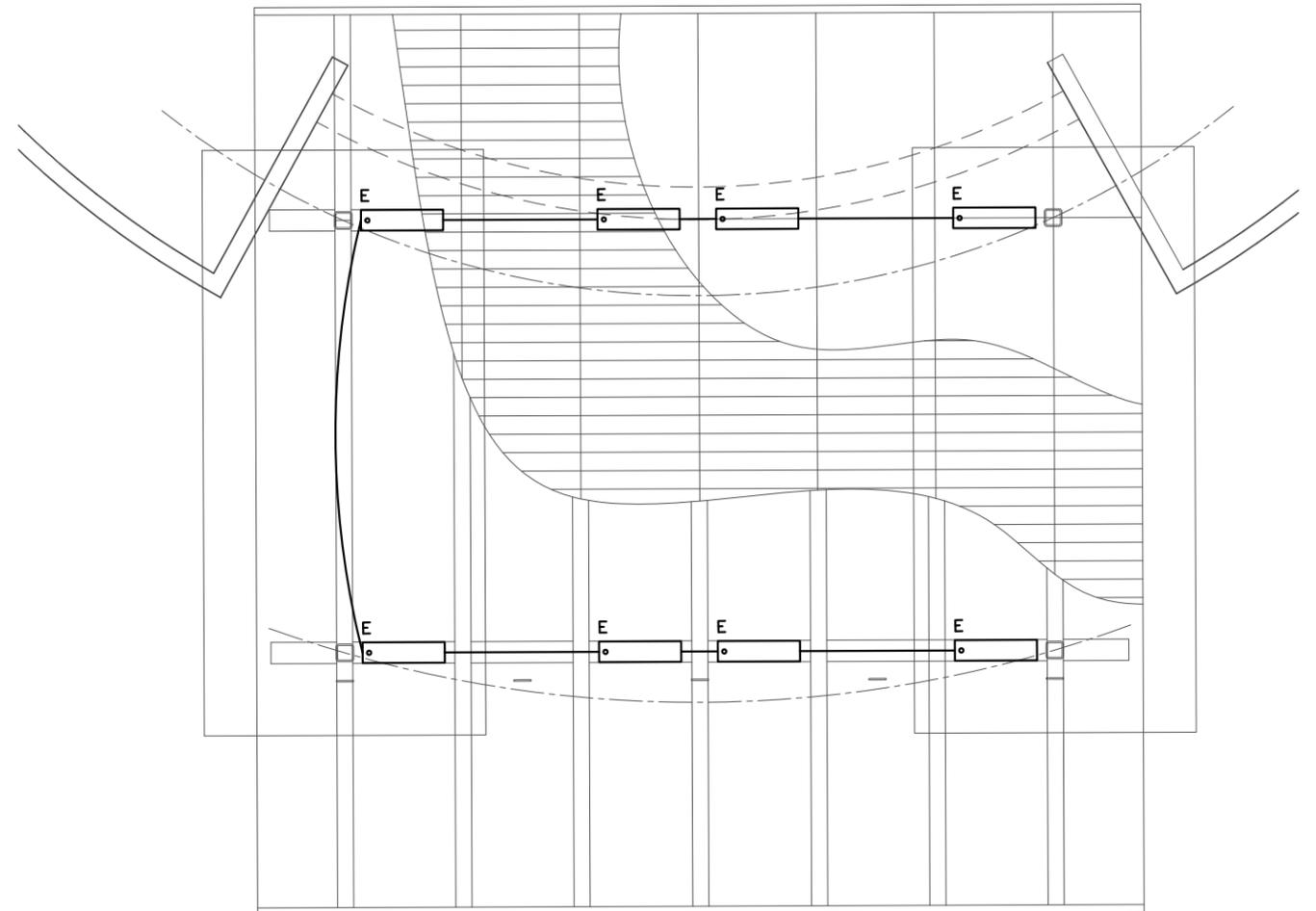
SHEET TITLE:
**UPLANDS ELECTRICAL RACK
 ELEVATION**

PND PROJECT NO.: 172032

E8
 SHEET
 OF 11



① SHELTER ELEVATION - COVERED SHELTER
NO SCALE



② ROOF FRAMING PLAN - COVERED SHELTER
NO SCALE

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**HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS**

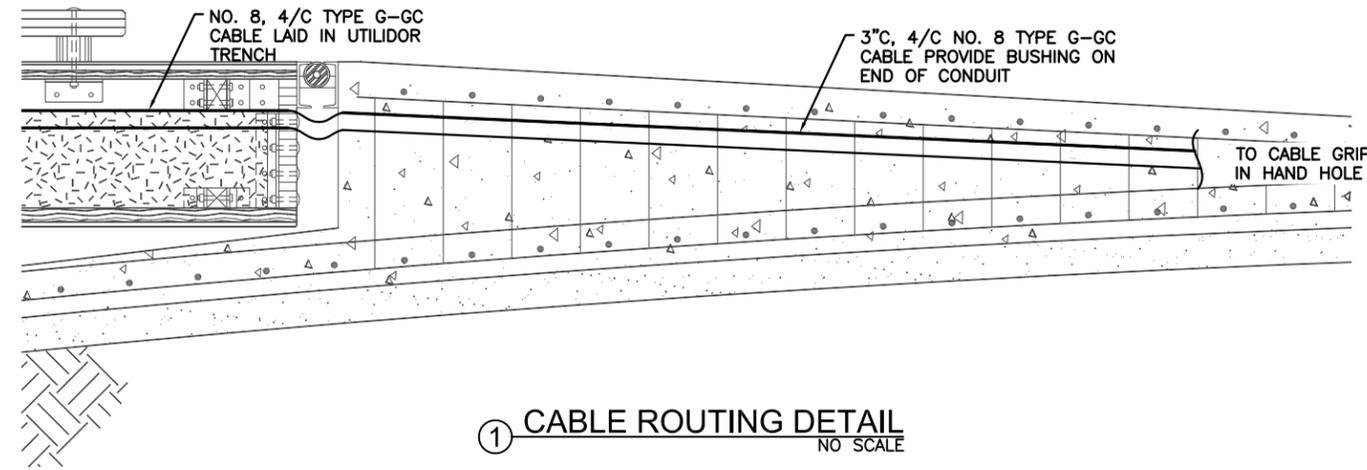
SHEET TITLE:
**COVERED SHELTER PLANS
AND ELEVATION - ELECTRICAL**

PND PROJECT NO.: 172032

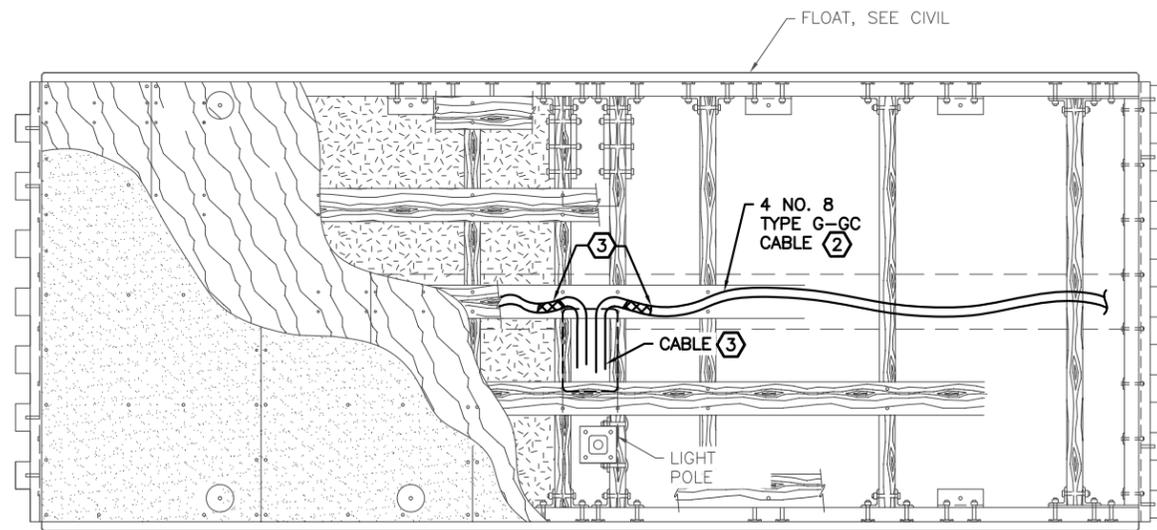
E9
SHEET
OF 11

NOTES:

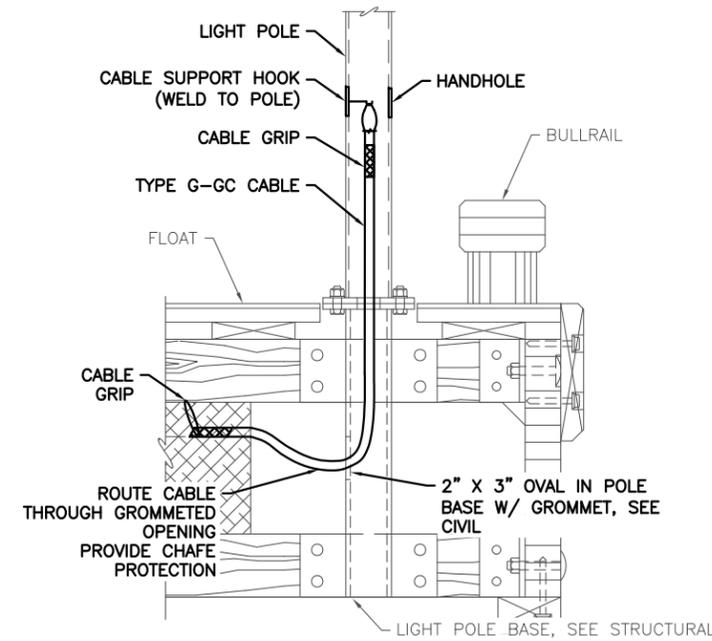
- ① CABLE IN UTILIDOR TRENCH. WAVE CABLE SIDE TO SIDE TO ADD MINIMUM OF 3' OF SLACK ON EACH SIDE OF POLE IN EACH FLOAT SECTION.
- ② WEAVE CABLE SIDE TO SIDE TO ADD SLACK IN THE CABLE.
- ③ PROVIDE CABLE GRIP ON CABLE IN MAIN UTILIDOR ON EACH SIDE OF SHORT UTILIDOR TO LIGHT POLE. SECURE GRIP TO SIDE OF UTILIDOR. ROUTE CABLE IN SHORT SECTION OF UTILIDOR BETWEEN MAIN UTILIDOR AND LIGHT POLE. ROUTE UP INTO POLE PER DETAIL THIS SHEET. PROVIDE CHAFE PROTECTION WHERE GOING AROUND CORNERS IN UTILIDOR.



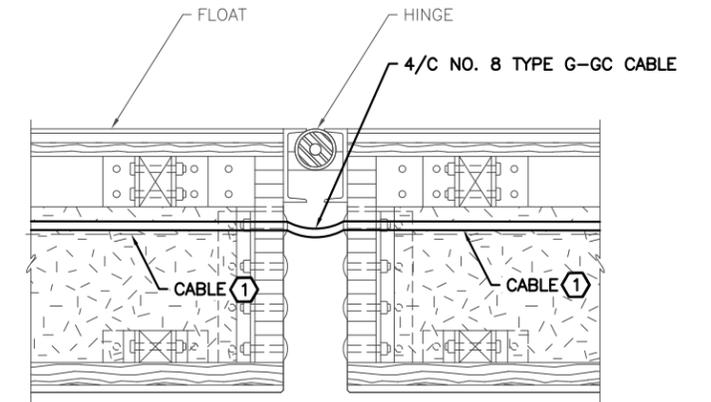
① CABLE ROUTING DETAIL
NO SCALE



② FLOAT LIGHTING DETAIL
NO SCALE

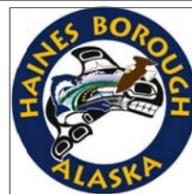


③ FLOAT LIGHT POLE DETAIL
NO SCALE



④ FLOAT POWER TRANSITION DETAIL
NO SCALE

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HAINES BOROUGH
PORTAGE COVE HARBOR
BOAT LAUNCH IMPROVEMENTS

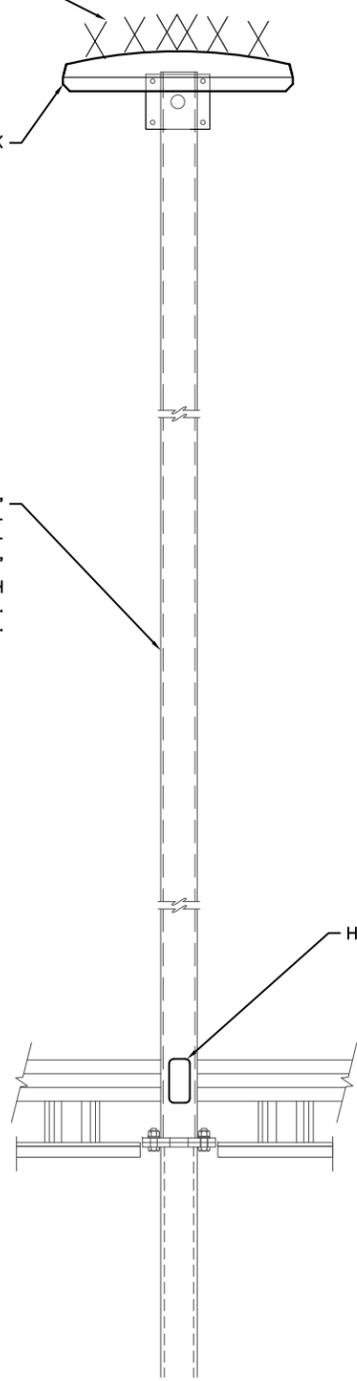
SHEET TITLE:
CABLE ROUTING DETAILS

PND PROJECT NO.: 172032

E10
SHEET
OF 11

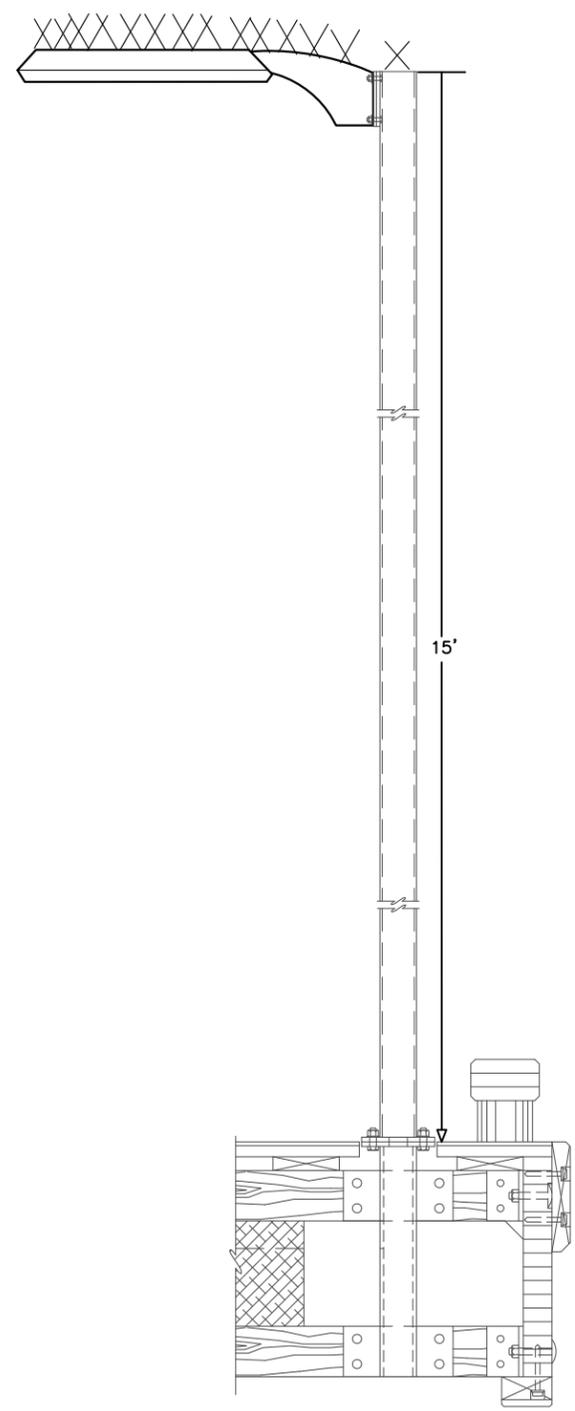
NIXALITE BIRD CONTROL (TYP)
 TYPE A1 LUMINAIRE, FLAT BLACK

15' SQUARE POLE, 11 GAUGE MINIMUM, 4" X 4" MINIMUM, HOT DIPPED GALVANIZED STEEL LIGHT POLE. POWDER COAT FLAT BLACK OVER HOT DIPPED GALVANIZED. POLE SHALL HAVE A 10" BOLT CIRCLE. PROVIDE HANDHOLE AT 18" WITH INTERNAL HOOK FOR CABLE GRIP. SEE SHEET E6. HANDHOLE AND LUMINAIRE AT 0 DEGREES.



HANDHOLE

① FLOAT LIGHT POLE FRONT ELEVATION
 NO SCALE

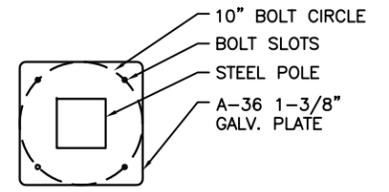


15'

② FLOAT LIGHT POLE SIDE ELEVATION
 NO SCALE

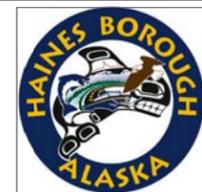
NOTES:

1. DETAILS ON THIS SHEET APPLY TO ALL FLOAT LIGHT POLES.
2. ALL SPLICES SHALL BE IN BASE OF POLE AT HANDHOLE.
3. LOCATE LIGHT POLES WHERE SHOWN ON SITE PLAN SHEET E3.
4. SIZE POLE WITH MAST ARM AND LUMINAIRE FOR 100 MPH SUSTAINED WINDS WITH GUSTS TO 120 MPH.
5. PROTECT ANCHOR BOLTS FROM PHYSICAL DAMAGE DURING CONSTRUCTION.
6. COORDINATE LIGHT BASE DIMENSIONS WITH CIVIL.



③ BOLT CIRCLE DETAIL
 NO SCALE

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HAINES BOROUGH PORTAGE COVE HARBOR BOAT LAUNCH IMPROVEMENTS

SHEET TITLE:
FLOAT LIGHT POLE DETAIL

PND PROJECT NO.: 172032

E11
 SHEET OF 11