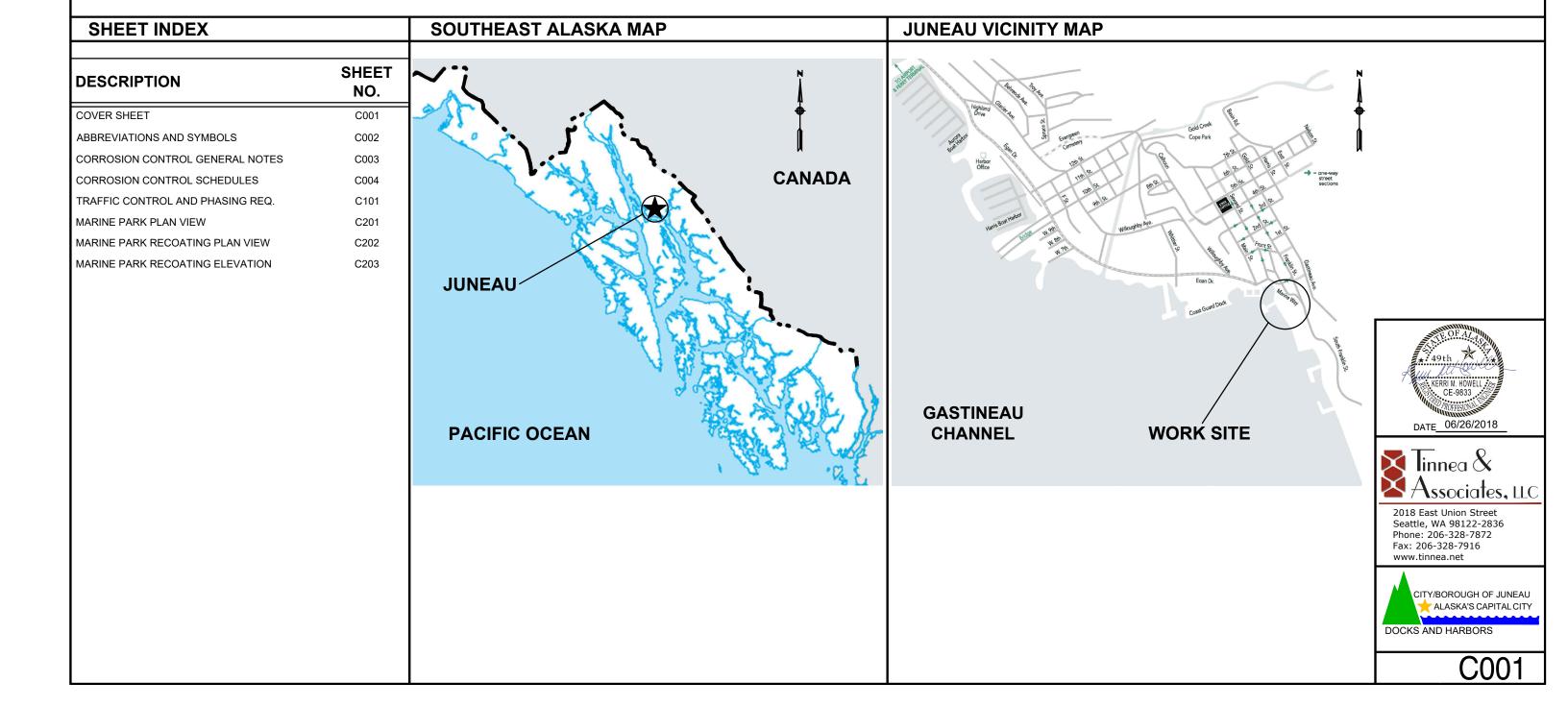
CITY & BOROUGH OF JUNEAU DOWNTOWN WATERFRONT FACILITIES SHEET PILE WALL RECOATING PROJECT

CBJ Contract No. DH19-001 Juneau, Alaska

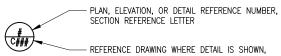


ABBREVIA	TIONS	DOC DTR	DOCUMENT DETOUR	MED MFD	MEDIUM MANUFACTURED	REF REG	REFERENCE REGULATION	3
_		DWG	DRAWING	MFR	MANUFACTURER	REINF	REINFORCED	-
&	AND	E	EAST	MFR REC	MANUFACTURER'S	REM	REMOVABLE	
	ANGLE	EA EE	EACH EACH END	MGT MH	MANAGEMENT MANHOLE	REPL REPL	REPAIR REPLACE	
@ G	AT	EF	EACH FACE	MHHW	MEAN HIGH HIGH WATER	REQ	REQUIRE	
Ø.	CENTERLINE	EL, ELEV	ELEVATION	MHW	MEAN HIGH WATER	REQD	REQUIRED	
<i>⊌</i> #	DIAMETER NUMBER	ELAST	ELASTIC / ELASTOMERIC	MID	MIDDLE	REV	REVISION	
# PL	PLATE	ELEC	ELECTRICAL	MIL MIN	0.001 INCH MINIMUM	RFI RFP	REQUEST FOR INFORMATION REQUEST FOR PROPOSAL	
±	PLUS OR MINUS	EMBD ENCL	EMBEDDED ENCLOSURE	MKR	MARKER	RHW	RUBBER HEAT RESISTANT WET	
AMP	AMPERE	ENGR	ENGINEER	MLLW	MEAN LOW LOW WATER	RND	ROUND	
ABV	ABOVE	EP	ELECTRICAL PANEL	MLW	MEAN LOW WATER	ROW	RIGHT-OF-WAY	
AC AC	ALTERNATING CURRENT ARMORED CABLE	EPA	ENVIRONMENTAL PROTECTION AGENCY	MOD	MODEL	RT	RIGHT	
ADDL	ADDITIONAL	EPDM	ETHYLENE PROPYLENE DIENE	ms MSDS	MILLISECOND MFR SAFETY DATA SHEET	RTRC	REINF THERMOSET RESIN CONDUIT SOUTH	
ADJ	ADJACENT	F0	MONOMER	MSL	MEAN SEA LEVEL	SAMP	SAMPLE	
ALT	ALTERNATE	EQ EQL SP	EQUAL EQUALLY SPACED	MTG	MEETING	SBSTR	SUBSTRATE	
ANSI	AMERICAN NATIONAL STANDARDS	ES	EACH SIDE	MTL	MATERIAL	SCHED	SCHEDULE	
APPD	INSTITUTE APPROVED	EST	ESTIMATE(D)	MULT	MULTIPLE	SCHEM	SCHEMATIC	
APPROX	APPROXIMATE	ETC	AND SO FORTH, ET CETERA	mV N	MILLIVOLT NORTH	SD SDBL	SHOP DRAWINGS SANDBLAST (ABRASIVE BLAST)	
APPX	APPENDIX	EW	EACH WAY	NA	NOT APPLICABLE	SECT	SECTION	
ASM	ASM INTERNATIONAL	EXH EXIST	EXHIBIT EXISTING	NACE	NACE INTERNATIONAL	SEG	SEGMENT	
ASTM	ASTM INTERNATIONAL	EXT	EXTERIOR	NEC	NATIONAL ELECTRIC CODE	SEP	SEPARATE	
AUX AVG	AUXILLARY AVERAGE	FAB	FABRICATION	NEG	NEGATIVE	SF	SQUARE FOOT	
AWS	AMERICAN WELDING SOCIETY	FHWA	FEDERAL HIGHWAY ADMINISTRATION	NEMA	NATIONAL ELECTRICAL	SHT	SHEET SIMILAR	
BAT	BATTERY	FIL	FILLET	NIC	MANUFACTURERS ASSOCIATION NOT IN CONTRACT	SL	SEA LEVEL	
BDRY	BOUNDARY	FLEX	FLEXIBLE FLANGE	NFPA	NATIONAL FIRE PROTECTION	SLNT	SEALANT	
BF BITUM	BOTH FACES	FLG FRG	FLANGE FIBERGLASS	INIT A	ASSOCIATION	SM	SMALL	
BITUM BKG	BITUMINOUS BACKING	FRP	FIBERGLASS REINFORCED PLASTIC	NM	NON-METALLIC	SNSR	SENSOR	
BLT	BUILT	FS	FULL SCALE	NO	NUMBER	SPCL	SPACE(ING) SPECIAL	
BM	BEAM	FSTNR	FASTENER	NOM	NOMINAL	SPEC	SPECIAL SPECIFICATION	
BOT	BOTTOM	FT	FOOT	NORM	NORMAL	SQ	SQUARE	
BRCG	BRACING	FT-LB	FOOT-POUND	NP NPT	NO PAINT NATIONAL PIPE THREAD	SQ-IN	SQUAREINCH	
CBJ CD	CITY AND BOROUGH OF JUNEAU CONSTRUCTION DOCUMENTS	FWRK GA	FORMWORK GAGE	NTP	NOTICE TO PROCEED	SQ-YD	SQUARE YARD	
CERT	CERTIFY	GACP	GALVANIC ANODE CP	NTS	NOT TO SCALE	SS	SANITARY SEWER	
CHK	CHECK	GAL	GALLON	NUM	NUMERAL	SSPC	SOCIETY FOR PROTECTIVE COATINGS STANDARD	
CIRC	CIRCULAR	GALV	GALVANIZED	oc	ON CENTER	STA	STATION	
¢	CENTERLINE	GEN COND	GENERAL CONDITIONS	OPNG	OPENING	STAG	STAGGERED	
CLL	CONTRACT LIMIT LINE	GFCI	GROUND FAULT CURRENT INTERRUPTER	OPP	OPPOSITE OPPNANCE	SSTL	STAINLESS STEEL	
CLR CMP	COLOR CORRUGATED METAL PIPE	GOVT GRTG	GOVERNMENT GRATING	ORD ORIG	ORDNANCE ORIGINAL	STL	STEEL	
CNCL	CONCEALED	HAZ	HAZARD	ORNT	ORIENTATE(ION)	SUB	SUBSTITUTE SURFACE	
CND	CONDUIT	HAZ MAT	HAZARDOUS MATERIALS	OSHA	OCCUPATIONAL SAFETY AND HEALTH	SUP	SUPPLEMENTARY	
CNR	CORNER	HEPA	HIGH EFFICIENCY PARTICULATE AIR		ADMINISTRATION	SUPVR	SUPERVISOR	
COL	COLUMN		(FILTER)	OZ	OUNCE	SUSP	SUSPEND	
COM COMPL	COMMON COMPLETE	HEX HD	HEXAGON / HEXAGONAL HEAVY DUTY	PART	PARTIAL	SWR	SEWER	
CONC	CONCRETE	HDPE	HIGH DENSITY POLYETHYLENE	PB PB	PANELBOARD	SYM	SYMETRICAL SYSTEM	
COND	CONDITION	HMWPE	HIGH MOLECULAR WEIGHT	PCT	PULL BOX PERCENT	T/R	TRANSFORMER/RECTIFIER	
CONN	CONNECTION		POLYETHYLENE	PED	PEDISTAL	TAB	TABULATE	
CONSTR	CONSTRUCTION	HORIZ	HORIZONTAL	PERM	PERMINATE	TCP	TRAFFIC CONTROL PLAN	
CONSULT CONT	CONSULTANT CONTINUE / CONTINUOUS	HP	H-PILE	PERP	PERPENDICULAR	TEMP	TEMPERATURE	
CONTR	CONTRACTOR	HVY HZ	HEAVY HERTZ	PL	PROPERTY LINE	TEMP	TEMPORARY THROUGH	
CP	CATHODIC PROTECTION	ICCP	IMPRESSED CURRENT CP	PN PNL	PART NUMBER PANEL	TOC	TABLE OF CONTENTS	
CPLG	COUPLING	ID	INSIDE DIAMETER	PO	PURCHASE ORDER	TEL	TELEPHONE	
CSP	CONCRETE SEWER PIPE	ID NO	IDENTIFICATION NUMBER	POS	POSITIVE	TYP	TYPICAL	
CTD	COATING	IN	INCH	POW LN	POWER LINE	UL	UNDERWRITERS LABORATORIES	
CTG CTR	COATING CENTER	IN CU IN-LB	CUBIC INCH INCH-POUND	PPM	PARTS PER MILLION	USE	UNDERGROUND SERVICE ENTRANCE ULTRAVIOLET	
CU	COPPER	IN-LB INCL	INCH-POUND INCLUDED(ING)	PPT	PARTS PER THOUSAND	VERT	VERTICAL	
D&H	DOCKS AND HARBORS	INSTL	INSTALL	PREFAB	PREFABRICATE PRELIMINARY	V	VOLT	
DBL	DOUBLE	INT	INTERIOR	PRELIM PREP	PRELIMINARY PREPARE / PREPARTION	VAR	VARIES	
DC	DIRECT CURRENT	INV	INVERT	PREV	PREVIOUS	VIC	VICINITY	
DEF	DEFINION	IRREG	IRREGULAR	PRI	PRIMARY	VID VIF	VIDEO VERIFY IN FIELD	
DEG DEG F	DEGREE DEGREE FAHRENHEIT	IT J-BOX	ISOLATION TRANSFORMER JUNCTION BOX	PRIN	PRINCIPAL	VOC	VOLITAL ORGANIC COMPOUND	
DEG F	DELETE	J-BOX JNT	JOINT BOX	PRKG	PARKING	VOL	VOLUME	
DEMO	DEMOLITION(S)	K	KILO (THOUSAND)	PROJ	PROJECT	VRFY	VERIFY	
DEPT	DEPARTMENT	LAB	LABORATORY	PROP PROV	PROPERTY PROVISIONAL	W	WEST	
DET	DETAIL	LB	POUND (WEIGHT)	PSI	POUNDS PER SQUARE INCH	W/O	WITH WITHOUT	
DIA	DIAMETER	LF	LINEAR FEET (FOOT)	PU	POLYURETHANE	WARR	WARRANTY	
DIAG	DIAGONAL	LIN LOC	LINEAR LOCATION	PVC	POLYVINYL CHLORIDE	WF	WIDE FLANGE	
DIFF DIM	DIFFERENCE DIMENSION	LONG	LONGITUNDIAL	PVMT	PAVEMENT	WL	WATER LINE	
DIST	DISTANCE	LP	LIGHT POLE	QA	QUALITY ASSURANCE	WLD	WELDED	
DIV	DIVISION	LRG	LARGE	QC OCB	QUALITY CONTROL BEVIEW	WO	WORK ORDER	
		LS	LUMP SUM	QCR QM	QUALITY CONTROL REVIEW QUALITY MANAGEMENT	WP WT	WORK POINT WEIGHT	
	/ISIONS	mA	MILLIAMPERE	QTR	QUARTER	WWF	WELDED WIRE FABRIC	
	V 1010113	MAINT MATL	MAINTENANCE MATERIAL	QTY	QUANTITY	YD	YARD	
		MAX	MAXIMUM	QUAL	QUALITY			
		MEAS	MEASURE(MENT)	R/C	REINFORCED CONCRETE			
		MECH	MECHANICAL	RBR REBAR	RUBBER REINFORCING STEEL BARS			
lo. DATE	DESCRIPTION BY			INFOMI	NEINI ONOING STEEL BARG			<u></u>

SYMBOLS

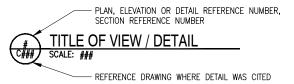


PROJECT NORTH





ELEVATION AND SECTION REFERENCE



GRID LINE

 \bowtie

EXISTING GACP HMWPE SLED CABLE

EXISTING CP SYSTEM CONDUIT ---- E-CDT-----

TS 🛦

EXISTING EXOTHERMIC WELD

EXISTING GACP ANODE SLED

EXISTINGCP TEST STATION / COUPON





DATE 06/26/18

DOWNTOWN WATERFRONT FACILITIES SHEET PILE WALL RECOATING PROJECT JUNEAU, ALASKA

TY/BOROUGH OF JUNEAU

SHEET TITLE:
ABBREVIATIONS AND SYMBOLS

DOCKS AND HARBORS

06/26/18

1712401 DH19-001

SHEET 2 OF 8

SCOPE OF WORK

THIS PROJECT INCLUDES ALL WORK NECESSARY TO INSTALL:

A. SURFACE PREPARATION AND COATING OF SHEET PILES FROM THE MUDLINE TO THE TOP

SURFACE PREPARATION FOR THE RECOATING SYSTEM AND ITS INSTALLATION WILL REQUIRE CONTAINMENT AS THAT WORK WILL ALL BE OVER WATER OR OVER AREAS THAT BECOME FLOODED AT HIGHER TIDES.

GENERAL

FIELD VERIFY EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS. THIS INCLUDES THE NUMBER OF PILES, THE AREAS TO BE COATED, AND THE WATER DEPTHS AT ALL THE LOCATIONS WERE WORK WILL OCCUR. THESE PLANS INCLUDE TABLES THAT PROVIDE ESTIMATES OF THE NUMBER OF PILING AND SURFACE AREAS. THESE TABLES ARE BASED IN PART ON 'AS BUILT' DRAWINGS AND RECORD INFORMATION AND ACTUAL CONDITIONS MAY VARY. NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIANCES PRIOR TO ORDERING

THE FACILITY IS AN OPERATING PORT AND IS IMMEDIATELY ADJACENT TO A PRIVATE FLOAT PLANE FACILITY.

SUBMITTALS

SUBMITTALS ARE REQUIRED FOR THE FOLLOWING:

- A. A WORK PLAN AND SCHEDULE FOR REMOVAL OF DAMAGED COATING, SURFACE PREPARATION, COATING, INSPECTIONS AND OTHER TASKS
- COPIES OF INSURANCE CERTIFICATIONS INCLUDING GENERAL LIABILITY, WORKMAN'S COMPENSATION, US HARBOR AND LONGSHOREMAN'S ACT COVERAGE, AND MARINE PROTECTION & INDEMNITY LIABILITY
- COPY OF CONSTRUCTION PERFORMANCE SURETY BOND

RECOATING SYSTEM

THE COATING SYSTEM EMPLOYED SHALL BE AS FOLLOWS:

COATING SYSTEMS				
	COATING THICKNESS (DFT)			
LOCATION	SSPC PAINT SYSTEM	MINIMUM	MAXIMUM	
SHEET PILES	SSPC 28.02			
PRIMER	" "	3 MILS	4 MILS	
INTERMEDIATE COAT	" "	3 MILS	4 MILS	
TOP COAT	" "	3 MILS	4 MILS	

A. SURFACE PREPARATION:

- SHEET PILES ABOVE ELEVATION +12:
- REMOVE ALL DIRT, OIL, GREASE AND OTHER FOREIGN MATERIALS PER SSPC SP1.
- IN AREAS WITH LOOSE AND DAMAGED COATING, PREPARE SURFACE TO A MINIMUM SSPC SP6 THAT IMPARTS A 2-3 MIL SHARP ANGULAR PROFILE.
- IN AREAS WITH SOUND COATING, PREPARE SURFACE PER SSPC SP7
- IMMEDIATELY PRIOR TO APPLYING PRIMER. TEST ALL SURFACES TO BE COATED FOR SOLUBLE SALTS USING SSPC METHOD TU-4 (BRESEL CELL METHOD). BEFORE APPLYING INTERMEDIATE AND APPLYING THE TOP COAT RETEST FOR SOLUBLE SALTS. THE MAXIMUM ACCEPTABLE CHLORIDE LEVEL IS 5µG/SQ. CM.
- 2. SHEET PILES BELOW ELEVATION +12:
- PREPARE ALL SURFACES TO A MINIMUM SSPC SP6 THAT IMPARTS A 2-3 MIL SHARP
- IMMEDIATELY PRIOR TO APPLYING PRIMER, TEST ALL SURFACES TO BE COATED FOR SOLUBLE SALTS USING SSPC METHOD TU-4 (BRESEL CELL METHOD). BEFORE APPLYING INTERMEDIATE AND APPLYING THE TOP COAT RETEST FOR SOLUBLE SALTS. THE MAXIMUM ACCEPTABLE CHLORIDE LEVEL IS 5µG/SQ. CM.

B. CONTAINMENT:

- WORK SITES SHALL BE CONTAINED TO SSPC GUIDE 6, CLASS 2A FOR DRY BLAST SURFACE PREPARATION AND COATING, AND CLASS 2W FOR WET BLAST WORK.
- C. TIDE AND OTHER SPECIAL CONDITIONS:
- THIS WORK WILL BE PERFORMED AT A FACILITY THAT SEES HEAVY TOURIST ACTIVITY THE DOCKING OF LARGE CRUISE SHIP, AND FLOAT AIRPLANE TRAFFIC THROUGHOUT
- THE CONTRACTOR WILL NEED TO MINIMIZE AND/OR AVOID INTERFERING WITH THE OPERATIONS OF THE FACILITY AT ALL TIMES.

NOAA TIDE DATA (FEET)				
HIGHEST OBSERVED TIDE	24.58			
MWWH	16.30			
MHW	15.34			
MLS	8.56			
MLW	1.60			
MLLW	0.00			

- THE WORK WILL BE PERFORMED ON STRUCTURAL ELEMENTS THAT ARE SUBMERGED. OR ARE IN THE TIDAL AND SPLASH ZONES THAT WILL BE SUBMERGED IN SEAWATER SEVERAL TIMES A DAY. PORTIONS OF THE WORK WILL BE SUBMERGED SOON AFTER SURFACE PREPARATION AND/OR COATING APPLICATION. THE SURFACE PREPARATION AND COATING APPLICATION PLANNING MUST ALLOW FOR RE-BLASTING, RE-WASHING, OR OTHER MEANS TO REMOVE CHLORIDE IONS THAT HAVE CONTAMINATED PREVIOUSLY CLEANED AREAS AND WERE SUBSEQUENTLY SUBMERGED.
- THE WORK WILL INVOLVE WORKING OVER WATER IN AN AREA WITH LARGE TIDE LEVEL CHANGES. FLOATING PLATFORMS OR SCAFFOLDING WILL BE REQUIRED. ACCESS RIGGING DESIGN MUST TAKE INTO ACCOUNT THESE LARGE TIDE CHANGES AND AVOID SUBJECTING THE FACILITY TO UPLIFT FORCES, ACCESS TO MANY AREAS IS RESTRICTED BY LIMITED ROOM BETWEEN PILING, FENDERS, AND WALLS.
- WORK IS TAKING PLACE IN AN ACTIVE PORT FACILITY REQUIRING THE FOLLOWING:
- WORK OVER WATER REQUIRES THE USE OF A PERSONAL FLOTATION DEVICE (PFD) WORK ON SCAFFOLDING REQUIRES THE USE OF HARNESSES AND LIFE LINES, AND ALL SCAFFOLD WORKERS MUST BE TRAINED IN FALL PROTECTION.
- CONSTRUCTION WORK MAY BE TEMPORARILY HALTED ON SHORT NOTICE. CLOSE COORDINATION WITH CBJ DOCKS AND HARBORS IS REQUIRED

RE	VISIONS	•

DOCKS AND HARBORS CORROSION

ssociates, LLC innea



WALL RECOATING PROJECT FACILITIE ALASKA

DOWNTOWN WATERFRONT JUNEAU, ш 님 SKELT

CONTROL **GENERAL NOTES**

06/26/18

1712401 DH19-001

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CORROSION CONTROL SCHEDULES

COATINGS

PILE CAP LOCATION		FLANGES		NOM LENGTH	NOM AREA	
ROW	BENT	NUMBER	WIDTH	PER PILE	TO COAT (SQ FT)	
MARINE PARK SHEETS CELLS						
N/A	N/A	N/A	N/A	N/A	2,500	

NOTES:

A. THE CONTRACTOR SHALL VERIFY SURFACE AREAS CONTAINMENT IMPEDIMENTS PRIOR TO ORDERING MATERIALS AND MAKING CONTAINMENT SUBMITTALS.



No.	DATE	DESCRIPTION	BY

DOWNTOWN WATERFRONT FACILITIES SHEET PILE WALL RECOATING PROJECT JUNEAU, ALASKA

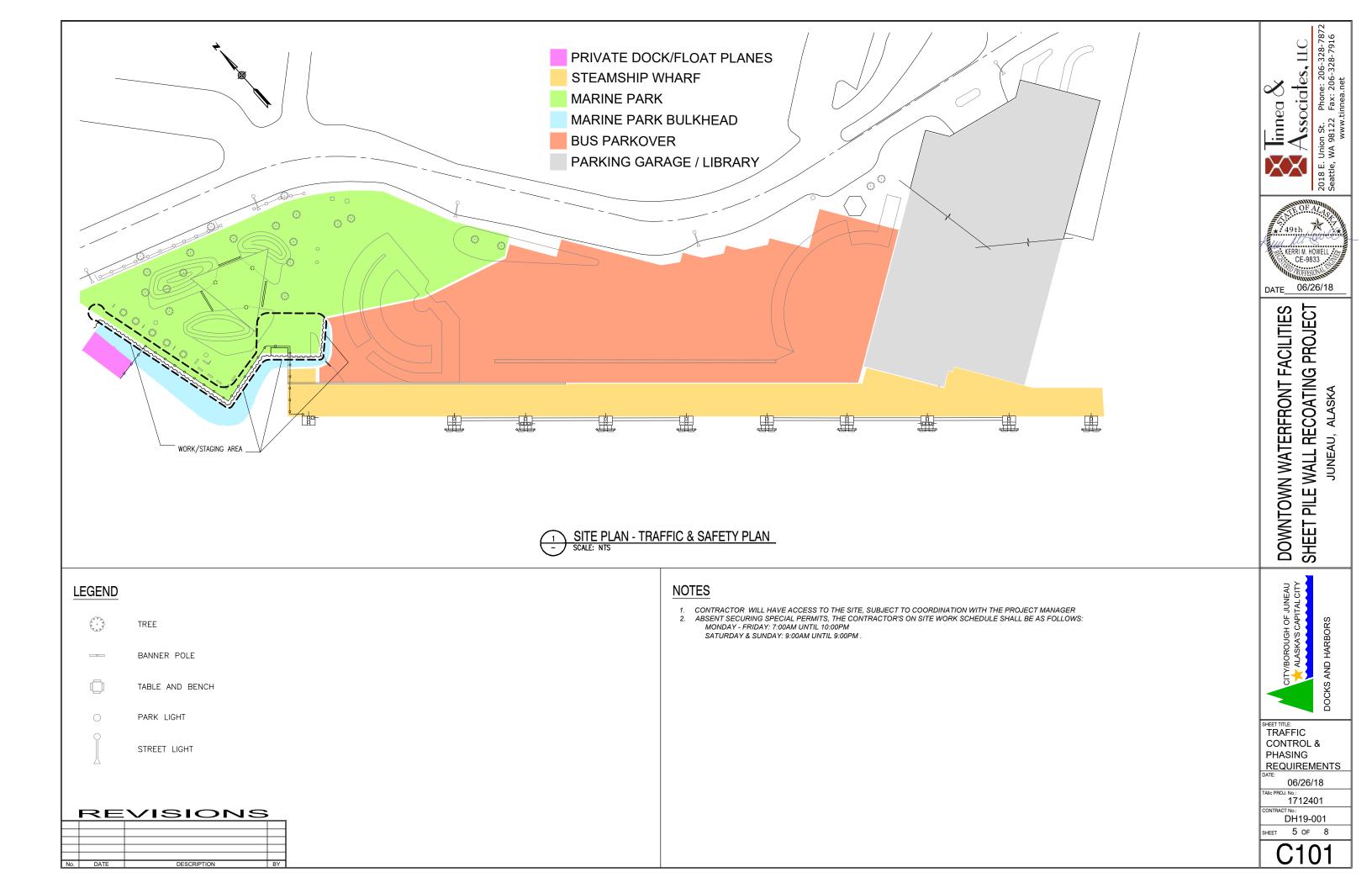
CONTROL SCHEDULES

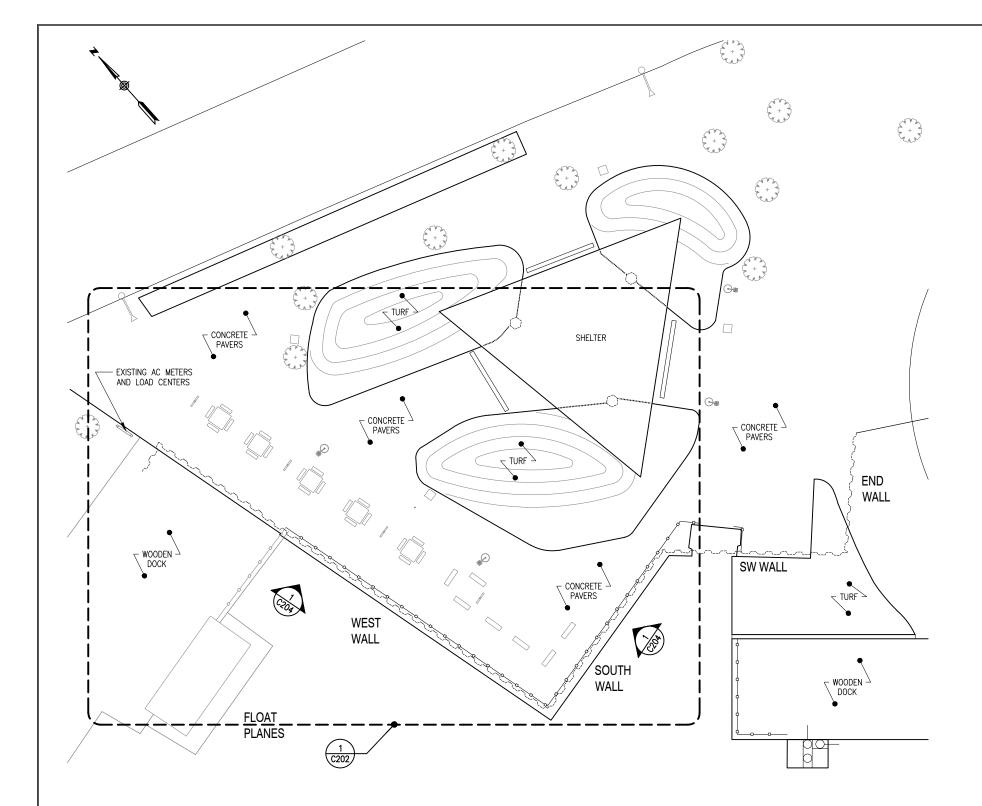
SHEET TITLE: CORROSION

06/26/2018

1712401 ACT No.: DH19-001

SHEET 4 OF 8





GASTINEAU CHANNEL



REVISIONS

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No.	DATE	DESCRIPTION	BY

NOTES

BULKHEAD RECOATING SYSTEM

- PREPARE SHEET PILE SURFACES IN ACCORDANCE WITH THE SPECIFICATIONS.
 COAT SHEET PILES IN ACCORDANCE WITH THE SPECIFICATIONS
 PROTECT EXISTING ANODE SLED CABLES THAT WERE REMOVED FROM EXISTING CONDUIT AND J-BOXES.
- PROTECT EXISTING CONDUIT LOCATED AT THE BASE OF THE SHEET PILING DURING SURFACE PREPARATION AND COATING WORK
 - TEMPORARILY REMOVE EXISTING CONDUIT AND JUNCTION BOXES MOUNTED ON SHEET PILE FACES DURING SURFACE PREPARATION AND COATING WORK.
 - PROTECT JUNCTION BOXES FROM ANY DIRECT SEAWATER EXPOSURE.
 - REMOVE THE THREE EXISTING STRUCTURE BONDS (ONE IS BROKEN).
- AFTER SHEET PILE COATING IS APPROVED, RE-INSTALL THE EXISTING CONDUIT, JUNCTION BOXES, AND THREE STRUCTURE BONDS.

 AFTER SHEET PILE COATING IS APPROVED, INSTALL RTRC CONDUIT, JUNCTION BOX, AND STRUCTURE BONDS FOR NEW ANODE SLEDS
- D. REPAIR ANY COATING DAMAGE RESULTING FROM CP SYSTEM WORK





DOWNTOWN WATERFRONT FACILITIES SHEET PILE WALL RECOATING PROJECT JUNEAU, ALASKA

ITY/BOROUGH OF JUNEAU

SHEET TITLE:
MARINE PARK PLAN VIEW

06/26/18

1712401

DH19-001

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