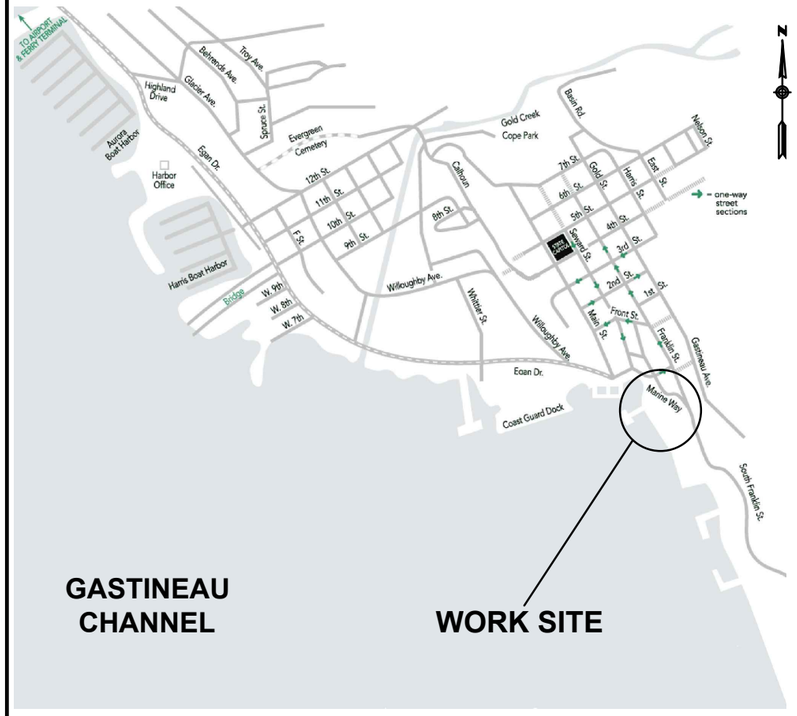
CITY & BOROUGH OF JUNEAU
DOWNTOWN WATERFRONT FACILITIES CORROSION CONTROL PROJECT
CBJ Contract No. E16-164
Juneau, Alaska

SHEET INDEX

SOUTHEAST ALASKA MAP

JUNEAU VICINITY MAP



STATE OF ALASKA
49th
KERRI M. HOWELL
CE-9833
REGISTERED PROFESSIONAL ENGINEER

DATE 01/04/16

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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

C001

ABBREVIATIONS

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

REVISIONS

No.	DATE	DESCRIPTION	BY

SYMBOLS

PROJECT NORTH

PLAN, ELEVATION, OR DETAIL REFERENCE NUMBER, SECTION REFERENCE LETTER

REFERENCE DRAWING WHERE DETAIL IS SHOWN,

ELEVATION AND SECTION REFERENCE

PLAN, ELEVATION OR DETAIL REFERENCE NUMBER, SECTION REFERENCE NUMBER

TITLE OF VIEW / DETAIL
SCALE: NTS

#-# SECTION - TITLE
SCALE: NTS

GRID LINE

NEW GACP HMWPE SLED CABLE

EXIST GACP HMWPE SLED CABLE

E–CDT — EXISTING CP SYSTEM CONDUIT

RTRC — GACP HMWPE SLED CABLE (IN RTRC CONDUIT)

HMWPE CP BOND CABLE

E-ANODE — EXISTING GACP ANODE

GACP ANODE SLED, SEE 1 / CP101

TS C — CP TEST STATION / COUPON, SEE 3 / CP103 2 / CP101 /

EXOTHERMIC WELD, SEE 3 / CP101

PJ — H–PILE JACKET, SEE 1 / C501

PPJ — PARTIAL H–PILE JACKET, SEE 2 / C501

H–PILE JACKET ELEVATION, SEE 3 / C501

PARTIAL H–PILE JACKET ELEVATION, SEE 3 / C501

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JUNEAU, ALASKA

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

SHEET TITLE:
ABBREVIATIONS AND SYMBOLS

DATE: 01/04/16

TAllc PROJ. No.: 1012401

CONTRACT No.: E16-164

SHEET 2 OF 20

C002

CORROSION CONTROL NOTES

SCOPE OF WORK

A. SURFACE PREPARATION AND INSTALLATION OF FULL AND PARTIAL PILE JACKETS ON H-PILES.
B. ALTERNATE 1: A COMPLETE AND OPERATING GALVANIC CATHODIC PROTECTION SYSTEM ON THE MARINE SIDE OF SHEET PILING.

1. INSTALLATION OF THE GALVANIC CATHODIC PROTECTION WILL INCLUDE FURNISHING AND INSTALLING SLEDS WITH ALUMINUM ALLOY GALVANIC ANODES UNDERWATER. THE ANODE SLEDS FOR THE SHEET PILES WILL BE LOCATED ON THE BOTTOM OF THE ADJACENT HARBOR.
2. THE GALVANIC SLED ANODE CATHODIC PROTECTION SYSTEM WILL REQUIRE RUNNING ELECTRICAL WIRES AND CABLE.

GENERAL

FIELD VERIFY EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS. THIS INCLUDES THE NUMBER OF H-PILES TO RECEIVE PILE JACKETS, THE NUMBER OF ANODE SLEDS, AND THE WATER DEPTHS AT ALL THE LOCATIONS WERE WORK WILL OCCUR. THESE PLANS INCLUDE TABLES THAT PROVIDE ESTIMATES OF THE NUMBER AND LENGTHS OF PILE JACKETS AND THE MINIMUM WEIGHT OF ALUMINUM THAT IS REQUIRED FOR THE SLEDS. 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 MATERIALS.

THE FACILITY IS AN OPERATING PORT. ALL ON-SITE WORKERS MUST HAVE VALID TRANSPORTATION WORKER IDENTIFICATION CREDENTIALS AND BE ABLE TO SHOW THEM TO CBJ DOCKS AND HARBORS AND/OR COAST GUARD PERSONNEL WHEN REQUESTED. THERE WILL BE NO EXCEPTIONS TO THIS REQUIREMENT.

SUBMITTALS

SUBMITTALS ARE REQUIRED FOR THE FOLLOWING:

A. A WORK PLAN AND SCHEDULE FOR INSTALLATION OF THE GALVANIC ANODES, H-PILE JACKETS, SURFACE PREPARATION, INSPECTIONS AND OTHER TASKS
B. MANUFACTURER'S CERTIFICATION OF ANODE ALLOY CONFORMING TO REQUIREMENTS. LIST ALLOY COMPOSITION, ANODE CAPACITY, CORROSION POTENTIAL, CONSUMPTION RATE, DIMENSIONS, AND WEIGHTS OF ALUMINUM AND TOTAL WEIGHT OF ALL ANODES.
C. COPIES OF TWIC CARDS FOR ALL EMPLOYEES WHO WILL BE ON SITE.
D. CONTRACTOR'S CERTIFICATION THAT ALL DIVING OPERATIONS SHALL MEET THE REQUIREMENTS OUTLINED IN THE ASSOCIATION OF DIVING CONTRACTORS INTERNATIONAL (ADCI) CONSENSUS STANDARDS AND THAT ALL PERSONNEL INVOLVED IN DIVING OPERATIONS ARE CERTIFIED BY ADCI FOR THE LEVEL OF WORK PERFORMED.
E. COMMERCIAL DIVING CERTIFICATION FOR ALL DIVERS FROM ADCI.
F. VIDEO OF EACH H-PILE JACKET INSTALLATION AND VIDEOS OF THE TWO NEW AND FOUR EXISTING UNDERWATER SLEDS AND THE FULL-LENGTHS OF THEIR RESPECTIVE CABLES. ALL VIDEOS SHALL INCLUDE AUDIO OR VIDEO SUBTITLES THAT CLEARLY AND ACCURATELY DESCRIBE THE LOCATION OF EACH INSTALLED ITEM.
G. COPIES OF INSURANCE CERTIFICATIONS INCLUDING GENERAL LIABILITY, WORKMAN'S COMPENSATION, US HARBOR AND LONGSHOREMAN'S ACT COVERAGE
H. COPY OF CONSTRUCTION PERFORMANCE SURETY BOND

PRODUCTS

ALUMINUM ANODES

A. THE ALUMINUM ANODES SHALL HAVE THE FOLLOWING PROPERTIES:

1. A CONSUMPTION RATE OF 7.6 POUNDS PER AMP-YEAR.
2. THE CAPACITY TO PROVIDE 1,100 AMP-HOURS PER POUND (MINIMUM).
3. AN OPEN CIRCUIT POTENTIAL TO A SATURATED CALOMEL ELECTRODE IN SEAWATER OF -1.080 V (OR MORE NEGATIVE).
4. THE ALUMINUM ANODES SHALL CONFORM TO NACE RP0387 AND HAVE THE COMPOSITION SPECIFIED IN THE FOLLOWING TABLE

ELEMENT	PERCENT BY WEIGHT
INDIUM	0.016 TO 0.02%
ZINC	4.75 TO 5.75%
SILICON	0.08 TO 0.12%
COPPER	0.003% MAX
IRON	0.12% MAX
CADMIUM	0.002 MAX
OTHERS, EACH	0.02% MAX
OTHERS, TOTAL	0.05% MAX
ALUMINUM	REMAINDER

B. THE ALUMINUM ANODES SHALL BE SUPPLIED IN WEIGHTS AS SHOWN IN THE PLANS. THE WEIGHT REFERS TO THE WEIGHT OF THE ALUMINUM ALLOY EXCLUSIVE OF THE STEEL CORE.

INSTALLATION

A. GENERAL:
1. INSTALLATION SHALL NOT PROCEED WITHOUT THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
2. H-PILE JACKETS SHALL BE INSTALLED AT THE LOCATIONS SHOWN
3. ANODE SLEDS SHALL BE INSTALLED AT THE LOCATIONS SHOWN
4. THE LOCATIONS AND/OR ELEVATIONS MAY BE CHANGED TO AVOID OBSTACLES OR OBSTRUCTIONS WITH THE PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.

TIDES & OTHER SPECIAL CONDITIONS

A. THIS WORK WILL BE PERFORMED AT A FACILITY THAT SEES HEAVY TOURIST ACTIVITY AND THE DOCKING OF LARGE CRUISE SHIP THROUGHOUT THE SUMMER.
B. THE CONTRACTOR WILL NEED TO MINIMIZE AND/OR AVOID INTERFERING WITH THE OPERATIONS OF THE FACILITY AT ALL TIMES.
C. 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.

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

D. WORK IS TAKING PLACE IN AN ACTIVE PORT FACILITY REQUIRING THE FOLLOWING:
1. WORK OVER WATER REQUIRES THE USE OF A PERSONAL FLOTATION DEVICE (PFD).
2. WORK ON SCAFFOLDING REQUIRES THE USE OF HARNESSES AND LIFE LINES, AND ALL SCAFFOLD WORKERS MUST BE TRAINED IN FALL PROTECTION.
3. CONSTRUCTION WORK MAY BE TEMPORARILY HALTED ON SHORT NOTICE. CLOSE COORDINATION WITH CBJ DOCKS AND HARBORS IS REQUIRED.

REVISIONS

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CORROSION CONTROL PROJECT
JUNEAU, ALASKA

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

SHEET TITLE:
CORROSION CONTROL GENERAL NOTES

DATE: 01/04/16
TAllc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 3 OF 20

C003

CORROSION CONTROL SCHEDULES

ENCAPSULATION OF BUS PARKOVER & GARAGE H-PILES*

PILE CAP LOCATION		H-PILE	NUMBER		NUMBER
				NOM LENGTH	
ROW	BENT	SIZE	TYPE	PER PILE	OF PILES
A	7	14HP73	FULL	25	6
A	6	12HP53	FULL	15	6
B	7	14HP73	FULL	20	8
C	10	14HP73	FULL	15	1
C	9.7	14HP73	PARTIAL	15	2
C	7	14HP73	FULL	20	6
C.5	1-5	14HP73	FULL	15	5
C.5	8	12HP53	FULL	28	1
C.5	9	12HP53	FULL	25	1
C.5	10	12HP53	FULL	7	1
D	1-5	14HP73	FULL	15	5
D	8	14HP73	FULL	13	1
D	9	12HP53	FULL	7	1
D	10	12HP53	FULL	5	1
D.5	9 & 8.7	14HP73	FULL	10 & 7	1 EA
D.5	9 & 8.7 X-BRACE	12HP53	FULL	10 & 9.5	1 EA
D.5	8.2	14HP73	FULL	5	1
E	9.2 & 8.7	14HP73	FULL	14 & 6	1 EA
E	9.2 & 8.7 X-BRACE	12HP53	FULL	15 & 12	1 EA
E5	9.2	14HP73	FULL	8	1
F	9.2 BATTER	14HP73	FULL	6	2
F.5	9.2	14HP73	FULL	6	1
G	9.5	14HP73	FULL	5	1
G	9.5 X-BRACE	UNK	FULL	3	1

MARINE PARK ALUMINUM ANODE SLEDS (ALT 1)*

ITEM	NUMBER PER SLED	UNITS	TOTAL
ANODES - 285 LBS ALUMINUM MIN PER ANODE	3	EA	6
ANODE CABLE - AWG #6 HMWPE (2 EA 140' CABLES)	2	LF	560
ANODE CABLE SHEATH - 115' EPDM HOSE, 1" ID	1	LF	300
ANODE SLED & FRAME	1	EA	2
FRAME CABLE EXOTHERMIC WELDS	2	EA	4
MASTIC TO COAT EXOTHERMIC WELD CONNECTIONS	1	AS REQ	2
EPOXY PAINT TO COAT STEEL FRAME	1	AS REQ	2
GACP PULL BOX - PLUS HARDWARE, PANEL, AND MOUNTINGS	1 FOR BOTH	EA	1
GACP JUNCTION BOX - PLUS HARDWARE, PANEL, AND MOUNTINGS	1 FOR BOTH	EA	1
SHEET PILE CABLES - AWG #4HMWPE	COMBINED	LF	150
1½" Ø RTRC CONDUIT - PLUS NECESSARY FITTINGS, MOUNTINGS, AND ADHESIVE	COMBINED	LF	100
1¼" Ø RTRC CONDUIT - PLUS NECESSARY FITTINGS, MOUNTINGS, AND ADHESIVE	COMBINED	LF	30
MAGNETIC MARINE COUPON, REFERENCE ELECTRODE, WITH MAGNETIC SWITCH	COMBINED	EA	1
FLUSH-MOUNTED TEST STATION	SEE MARINE PARK ICCP		
SHEET PILE BOND EXOTHERMIC WELDER	COMBINED	EA	1
SHEET PILE BOND EXOTHERMIC CHARGES	COMBINED	EA	20
EXOTHERMIC WELD CAPS	COMBINED	EA	6

*NOTES

A. THE CONTRACTOR SHALL VERIFY ALL PILE DIMENSIONS AND THE SIZE AND LOCATION OF HAUNCHES AT THE TOP OF THE H-PILES PRIOR TO ORDERING PILE JACKETS AND PILE JACKET-RELATED MATERIALS.

B. THE CONTRACTOR SHALL VERIFY ALL CABLE LENGTHS AND LENGTHS OF CONDUIT RUNS PRIOR TO ORDERING MATERIALS.

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SHEET TITLE: CORROSION CONTROL SCHEDULES

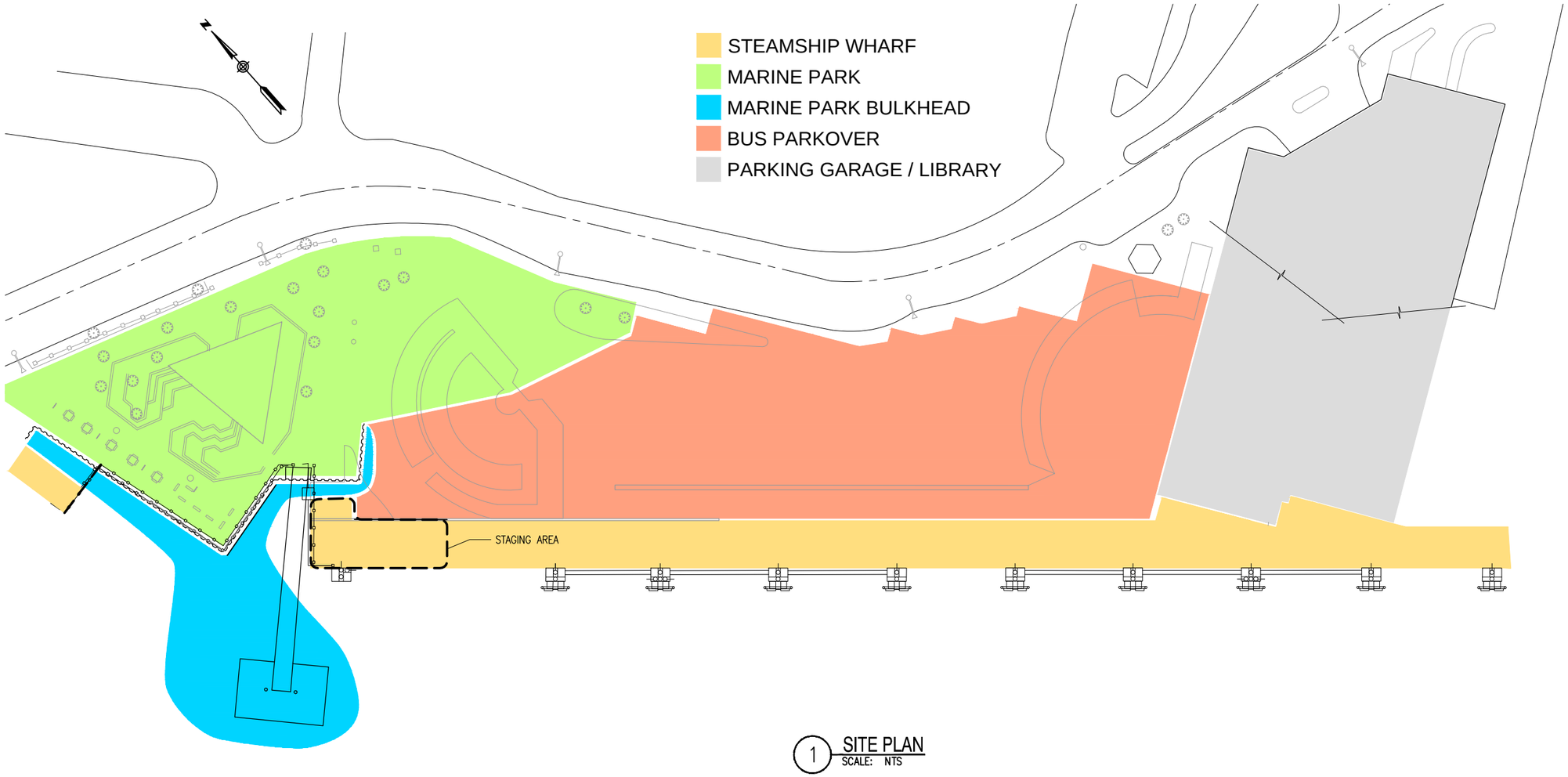
DATE: 01/04/16

TAllc PROJ. No.: 1012401

CONTRACT No.: E16-164

SHEET 4 OF 20

C004



1 SITE PLAN
SCALE: NTS

LEGEND

- TREE
- BANNER POLE
- TABLE AND BENCH
- PARK LIGHT
- STREET LIGHT
- FENCE

REVISIONS

No.	DATE	DESCRIPTION	BY

NOTES

THE WORK INCLUDES THE FOLLOWING:

A. BASE ITEM:
   1. INSTALLATION OF NEW H-PILE JACKETS & WRAPS ON BUS PARKOVER PILING.
   2. INSTALLATION OF NEW H-PILE JACKETS & WRAPS ON PARKING GARAGE/LIBRARY PILING.

B. ALTERNATE 1:
   1. INSTALLATION OF TWO NEW GALVANIC ANODE CATHODIC PROTECTION (GACP) SLEDS.
   2. REMOVAL OF SOME EXISTING CONDUIT AND HARDWARE WHILE PRESERVING THE CABLES.
   3. INSTALLATION OF NEW GACP PULL AND JUNCTION BOXES, TEST STATION, CONDUIT, AND HARDWARE.

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SHEET TITLE:
OVERALL
SITE PLAN

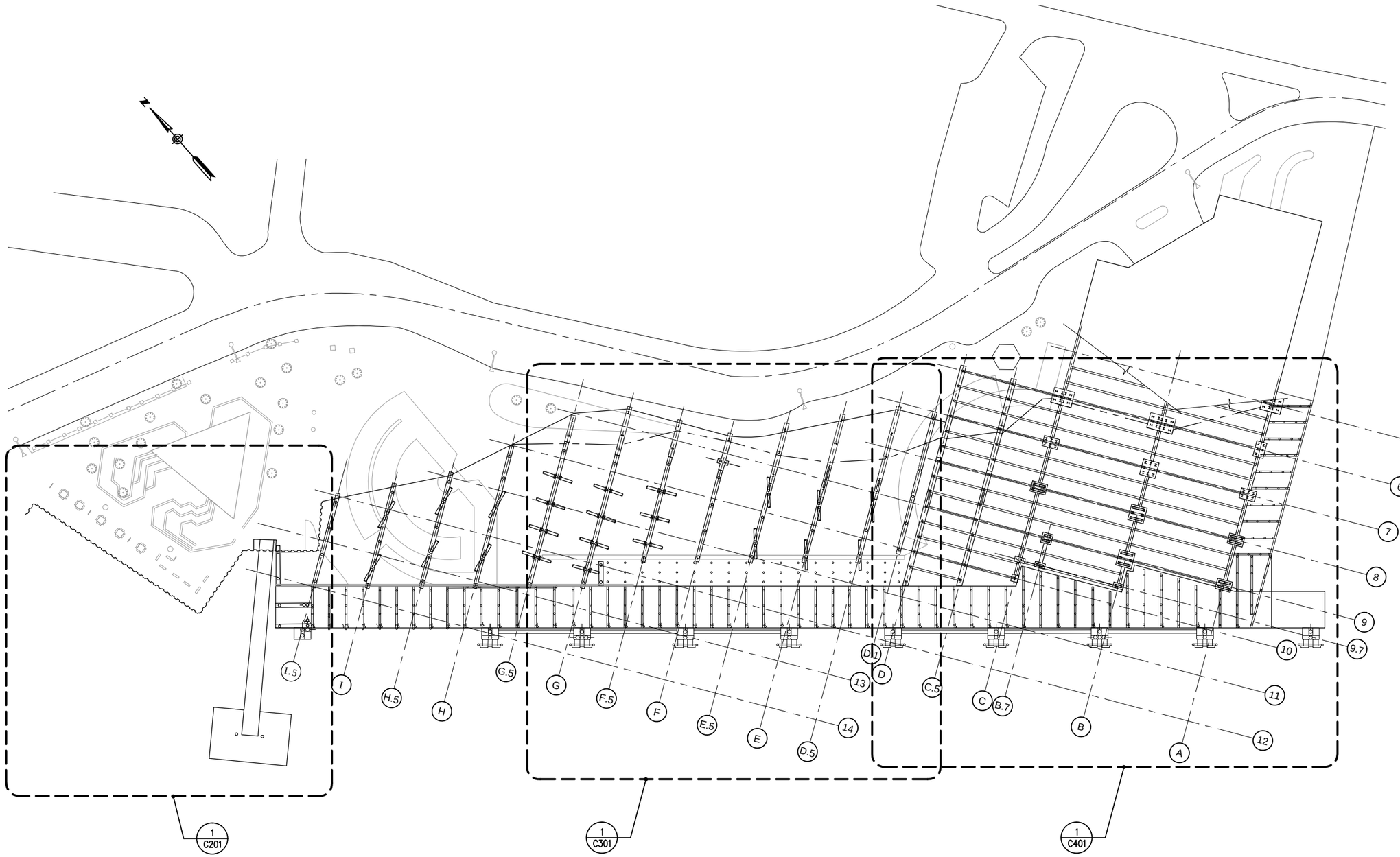
DATE: 01/04/16

TAlic PROJ. No.: 1012401

CONTRACT No.: E16-164

SHEET 5 OF 20

C101



1 PLAN VIEW - WORK LOCATIONS
SCALE: NTS

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No.	DATE	DESCRIPTION	BY

Tinnea & Associates, LLC
2018 E. Union St. Phone: 206-328-7872
Seattle, WA 98122 Fax: 206-328-7916
www.tinnea.net

STATE OF ALASKA
49th
KERRI M. HOWELL
CE-9833
REGISTERED PROFESSIONAL ENGINEER

DATE 01/04/16

DOWNTOWN PARKING GARAGE CORROSION CONTROL PROJECT

JUNEAU, ALASKA

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

SHEET TITLE:
WORK AREAS AND LOCATIONS

DATE: 01/04/16

TAllc PROJ. No.: 1012401

CONTRACT No.: E16-164

SHEET 6 OF 20

C102

1 PLAN VIEW - MARINE PARK
SCALE: NTS

ALTERNATE: BULKHEAD GACP SYSTEM

TWO NEW GALVANIC ANODE CATHODIC PROTECTION (GACP) ANODE SLEDS WILL BE ADDED TO THE EXISTING SYSTEM. THESE SLEDS WILL INCLUDE ALUMINUM ALLOY GALVANIC ANODES MOUNTED TO STEEL FRAMES EMBEDDED IN PRE-CAST CONCRETE SLABS AS DESCRIBED IN THE PLANS AND SPECIFICATIONS.

A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AND PROTECT ALL EQUIPMENT IN THE WORK AREA.
B. LOCATE THE POSITIONS OF THE EXISTING SLEDS NEAR THE LIGHTERING FLOAT AND ENSURE THAT EACH THE TWO NEW SLEDS AS PLACED WILL BE AT LEAST 10' FROM THE NEAREST NEW OR EXISTING GACP SLED.
C. SET THE NEW ANODE SLEDS ON THE SEA BOTTOM AT ELEV. -20' OR DEEPER.
D. RUN THE NEW ANODE SLED CABLES ALONG THE SEA BOTTOM TOWARDS THE NOMINAL SOUTHEAST CORNER OF THE SHEET PILES.
   1. DO NOT DRAPE CABLES OVER UNDERWATER DEBRIS WHERE IT COULD BE SNAGGED.
   2. FROM ELEV. -5' TO THE GACP PULL BOX RUN THE NEW ANODE CABLES IN RTRC.
F. IDENTIFY THE TWO EXISTING J-BOXES AND CONDUIT THAT ARE TO BE REPLACED AS PART OF THIS WORK (MOUNTED ON SHEET PILE FACE, SEE SHEET C203).
   1. AT J-BOX, DISCONNECT CABLES COMING FROM EXISTING ANODE SLEDS.
   2. TRIM ANY EXPOSED COPPER WIRE ON ANODE SLED CABLES AND SEAL ENDS WITH TWO HALF-LAPPED LAYERS OF RUBBER MASTIC TAPE.
   3. PROTECT EXISTING ANODE CABLES FROM CUTS OR ABRASION AND ENDS FROM IMMERSION AND RAIN WHILE INSTALLING NEW CONDUIT & PULLING EXISTING WIRE.
   4. HANG NEW JUNCTION AND PULL BOXES.
   5. PULL NEW ANODE CABLES AND EXISTING ANODE CABLES TO BUS BAR IN J-BOX.
   6. MAKE TWO NEW EXOTHERMIC WELD CONNECTIONS TO THE SHEET PILE WALL.
   7. COAT WELD AND SURROUNDING STEEL AS DIRECTED IN OTHER DRAWINGS AND THE SPECIFICATIONS.
H. EXTEND EXISTING CONDUIT THAT NOW TERMINATES AT THE BASE OF THE SHEET PILE WALL UP TO THE EXISTING TWO J-BOXES.

CP TEST STATION AND COUPON

A. SET TEST STATION SO THAT IT IS ACCESSIBLE FROM SIDEWALK
B. RUN TEST LEADS FROM COUPON TO TEST STATION IN RTRC.
C. RUN LEAD FROM ANODE J-BOX TO COUPON IN NEW RTRC.

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DATE 01/04/16

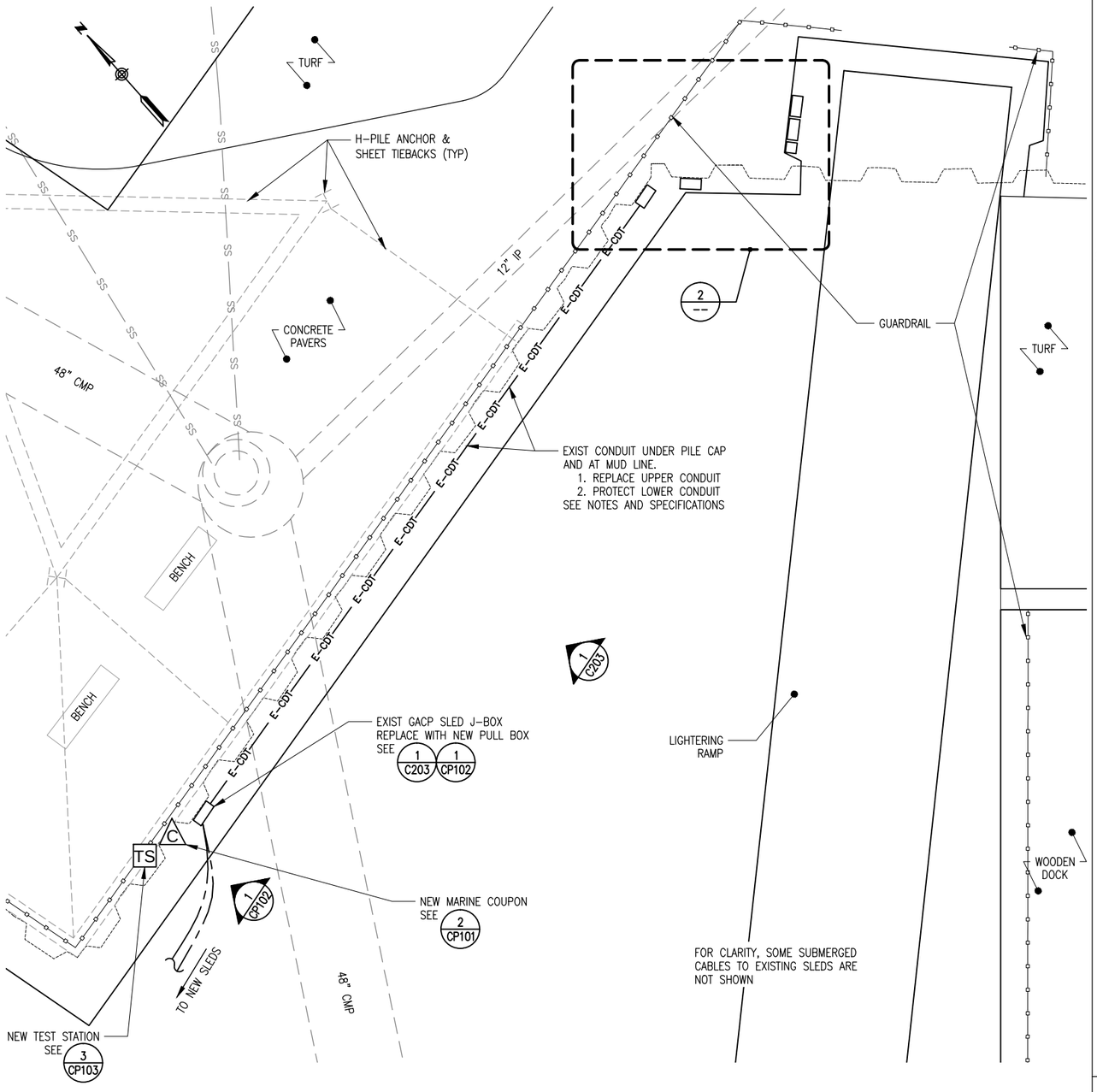
DOWNTOWN WATERFRONT FACILITIES CORROSION CONTROL PROJECT
JUNEAU, ALASKA

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

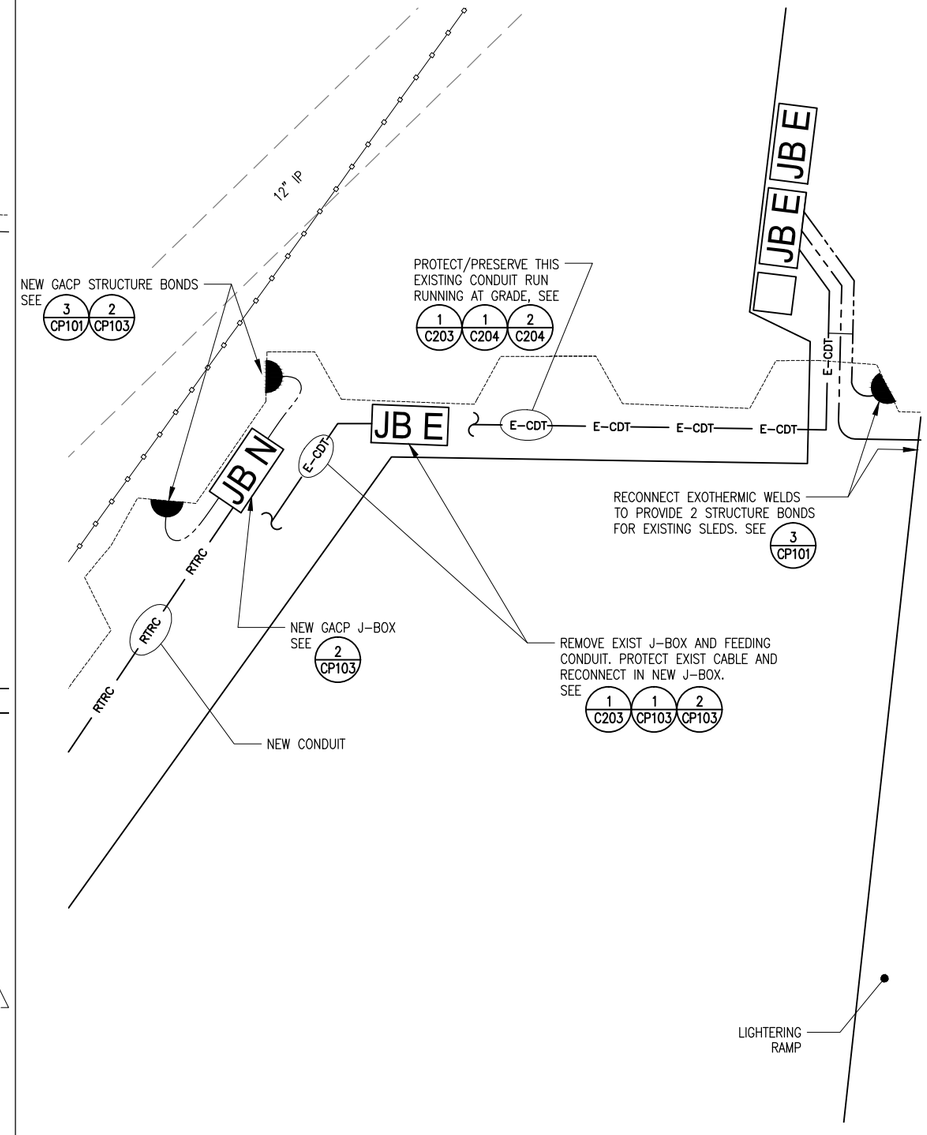
SHEET TITLE:
MARINE PARK
GACP PLAN VIEW
(ALT. 1)

DATE: 01/04/16
TAIlc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 7 OF 20

C201



1 MARINE PARK PARTIAL PLAN
SCALE: NTS



2 MARINE PARK PARTIAL PLAN
SCALE: NTS

NOTES

ALTERNATE BULKHEAD GACP SYSTEM

A. REMOVE EXISTING GACP CONDUIT THAT RUNS ALONG THE TOP OF THE SOUTHERN SHEET PILE WALL.
B. REMOVE VERTICAL CONDUIT, FITTINGS AND ENCLOSURES THAT CONNECT WITH THE CONDUIT IN A, ABOVE.
C. PROTECT THE EXISTING GACP ANODE SLED CABLES PRESENT IN THE ABOVE CONDUIT AND ENCLOSURES DURING SHEET PILE WALL RECOATING.
D. LEAVE IN PLACE THE EXISTING GACP CONDUIT THAT RUNS AT THE BASE OF THE SEAWALL AND PROTECT SAME DURING COATING WORK INCLUDING SURFACE PREPARATION.
E. AFTER PLACING NEW SLEDS AND RUNNING THEIR CABLES, INSTALL NEW CONDUIT, PULL BOX, AND GACP J-BOX.
F. RECONNECT EXISTING GACP ANODE SLED CABLES, AND CONNECT THE NEW GACP ANODE SLED CABLES.

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CORROSION CONTROL PROJECT
JUNEAU, ALASKA

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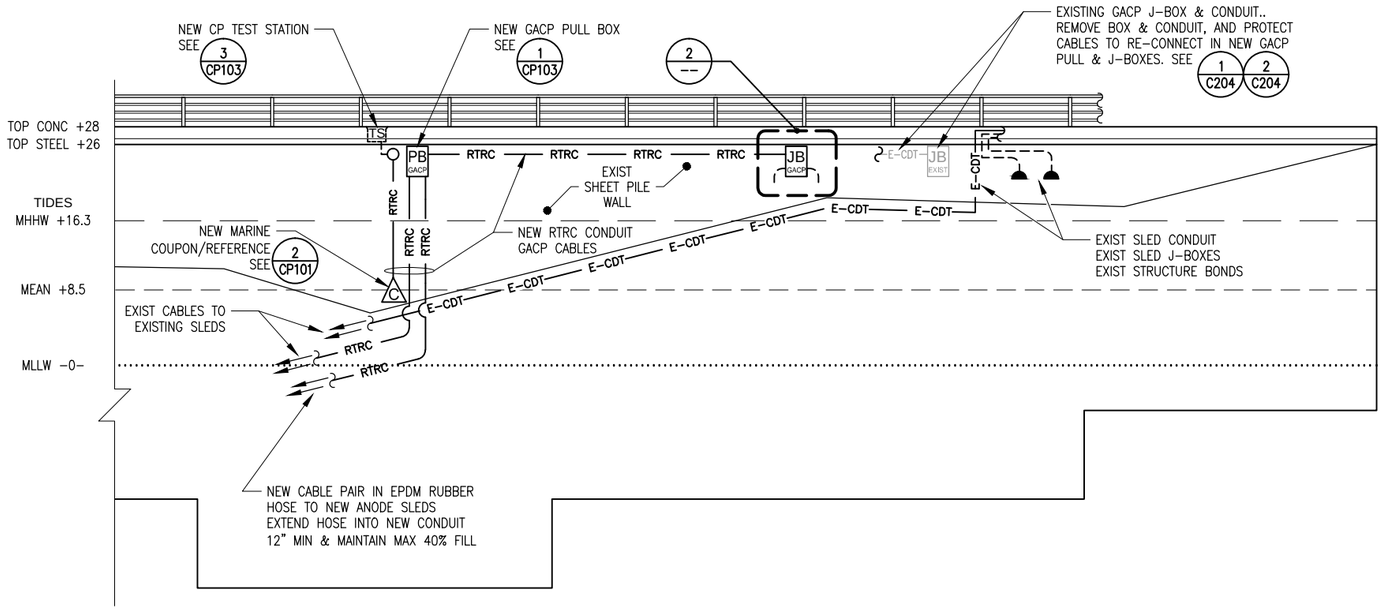
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

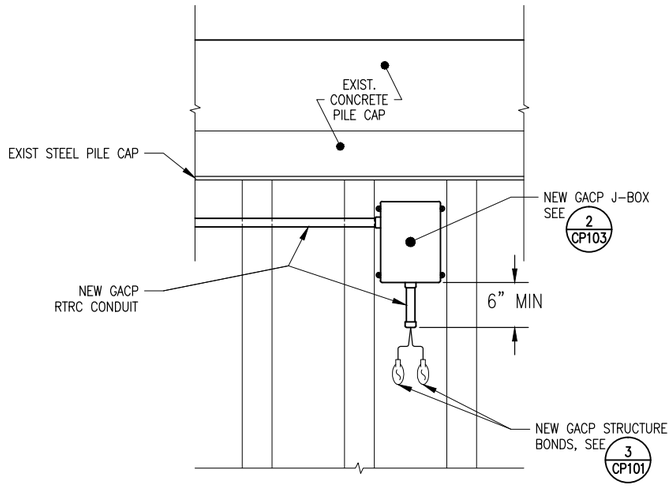
SHEET TITLE:
MARINE PARK GACP PLAN VIEW (ALT. 1)

DATE: 01/04/16
TAIlc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 8 OF 20

C202



1 ELEVATION - MARINE PARK
SCALE: NTS



2 DETAIL - J-BOX LOCATION
SCALE: NTS

NOTES

EXISTING BULKHEAD GACP SYSTEM

A. THE ELEVATION 1/C202 SHOWS THE APP ROXIMATE LOCATION OF THE UPPER EXISTING GACP CONDUIT, PULL BOXES, AND JUNCTION BOXES (ONE OF TWO CONDUIT RUNS).
B. UPPER CONDUIT RUN AND J-BOXES RUN (NEAR THE PILE CAP) PRIOR TO SHEET PILE SURFACE PREPARATION AND COATING APPLICATION:
   1. REMOVE EXISTING CONDUIT, JUNCTION BOXES, AND BOND CABLES
   2. PROTECT ANODE CABLES RUNNING FROM SEAWARD J-BOX TO EXISTING SLEDS.
   3. INSTALL NEW RTRC CONDUIT, PULL BOX, J-BOX, BOND CABLES, TEST STATION, AND COUPON.
C. LOWER CONDUIT RUN AND J-BOXES RUN (NEAR THE FILL LINE EXCEPT VERTICAL RUN NEAR LIGHTERING FLOW RAMP) PRIOR TO SHEET PILE SURFACE PREPARATION AND COATING APPLICATION:
   1. REMOVE EXISTING VERTICAL CONDUIT RUN (VIC. LIGHTERING FLOAT RAMP) AND BOND CABLES.
   2. PROTECT ANODE CABLES RUNNING IN VERTICAL CONDUIT RUN.
   3. AFTER COATING IS COMPLETED AND APPROVED, RE-INSTALL VERTICAL CONDUIT RUN, RECONNECT ANODE CABLES TO EXISTING J-BOX, INSTALL NEW BOND WIRES (2 EA).
D. THE CONTRACTOR WILL BE RESPONSIBLE TO PROTECT THE EXISTING GACP SYSTEM HARDWARE, CABLES, AND ANODE SLEDS FROM DAMAGE DURING ALL CONSTRUCTION ACTIVITIES.
E. IF THE CONTRACTOR OR THE CONTRACTOR'S SUBCONTRACTORS DAMAGE EXISTING MARINE PARK GACP EQUIPMENT OR HARDWARE, THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR SUCH DAMAGE AT NO COST TO THE OWNER.

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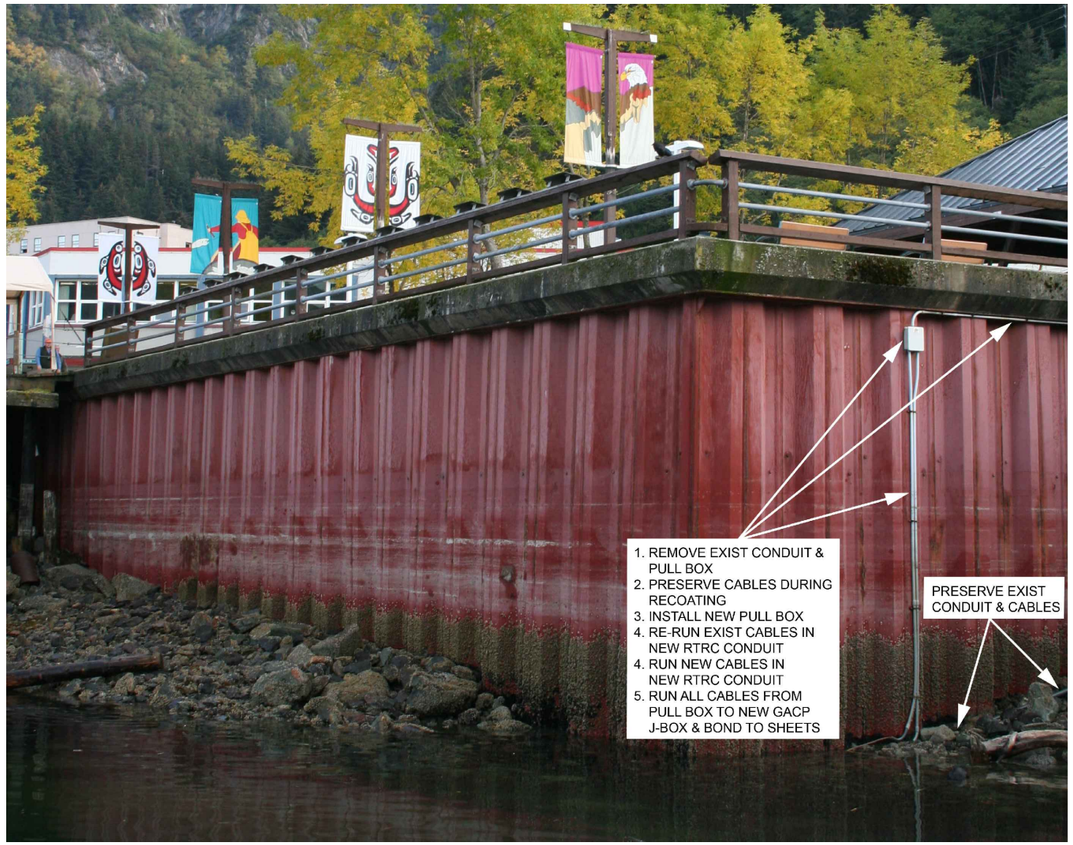
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

SHEET TITLE: MARINE PARK EXISTING GACP ELEVATION (ALT. 1)
DATE: 01/04/16
TAlc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 9 OF 20

C203



1 ELEVATION - MARINE PARK
SCALE: NTS

2 ELEVATION - MARINE PARK
SCALE: NTS

NOTES

MARINE PARK ELEVATION PHOTOS

A. THESE PHOTOGRAPHS ARE PROVIDE TO AFFORD THE CONTRACTOR A SENSE OF WHAT THE MARINE PARK SEAWALL CONFIGURATION..
B. CONDITIONS, INCLUDING THE CONDITION OF THE COATING MAY HAVE CHANGED SINCE THESE PHOTOS WERE TAKEN AND THE CONTRACTOR SHOULD CONFIRM EXISTING CONDITIONS PRIOR TO BID.
C. SKETCHES OF SOME NEW WORK LAYOUT AND NOTES ARE PROVIDED.
D. FOR CLARITY SOME OF THE REQUIRED NEW WORK ITEMS ARE NOT SHOWN (INCLUDING, BUT NOT LIMITED TO NEW MARINE COUPON AND CONDUIT).
E. THESE PHOTOS ARE PROVIDED FOR INFORMATION PURPOSES ONLY.
F. IF THERE IS ANY DISCREPANCY BETWEEN WHAT IS SHOW IN THESE PHOTOS/SKETCHS AND OTHER DRAWINGS OR SPECIFICATIONS, THE OTHER DRAWINGS AND/OR SPECIFICATIONS SHALL TAKE PRECEDENCE.

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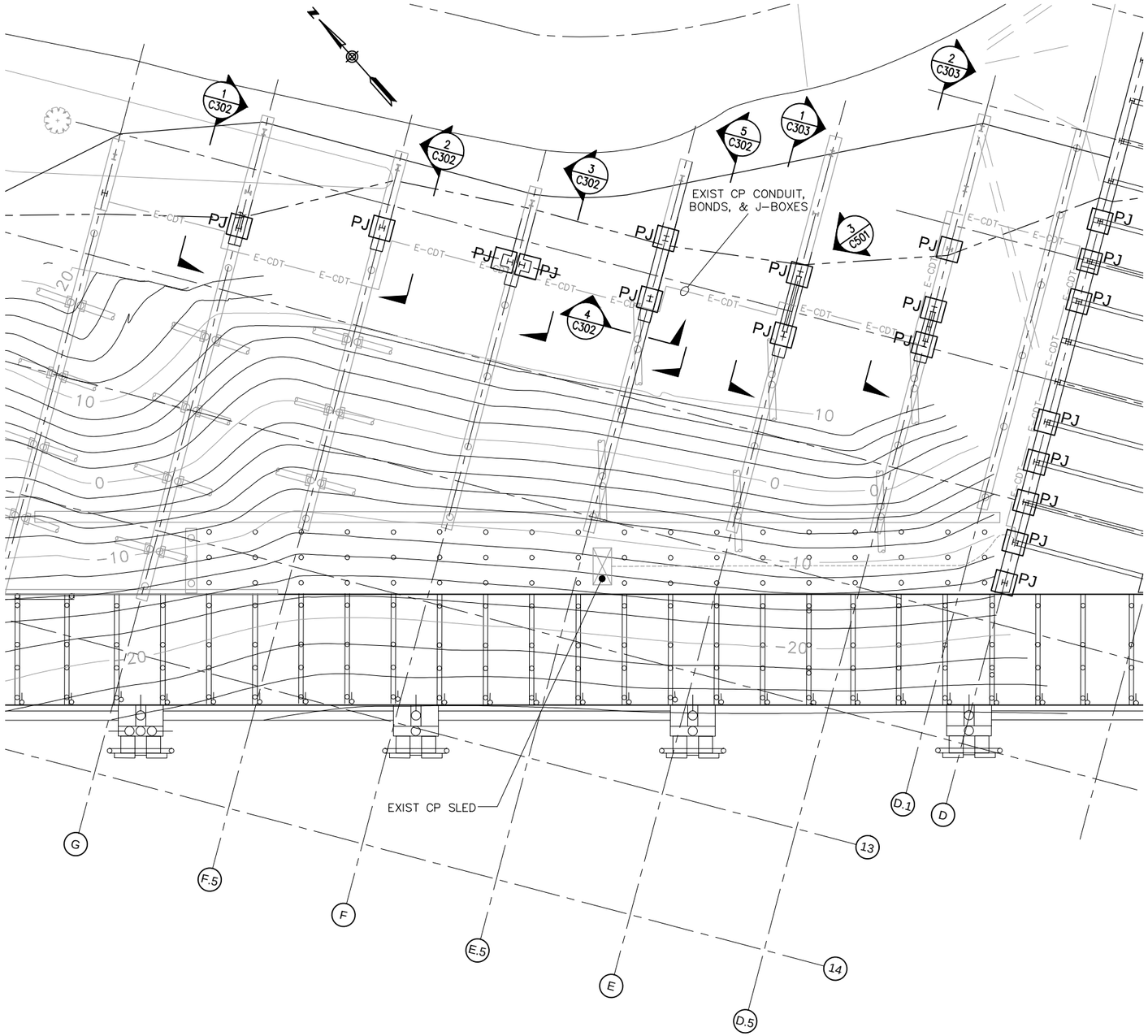
SHEET TITLE:
MARINE PARK PHOTOS - GACP (ALT. 1)

DATE: 01/04/16
TAlbc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 10 OF 20

C204



1 PLAN VIEW - BUS PARKOVER
SCALE: NTS

NOTES

H-PILE PILE JACKET & WRAP SYSTEMS

A. THE H-PILE JACKETS TO BE INSTALLED ON BENTS G THROUGH D.5 ARE IN AREAS GENERALLY ABOVE MOST TIDE LEVELS.
B. THE H-PILE JACKETS ON THESE BENTS ARE TO EXTEND DOWN FROM THE BOTTOM OF THE CONCRETE BEAM AND EXTEND A MINIMUM OF 2.5 FEET BELOW THE GRADE OF THE SURROUNDING FILL
C. THE H-PILE JACKETS SHALL BE INSTALLED IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS AND THE INSTRUCTIONS OF THE MANUFACTURER.
D. IF A VARIANCE EXISTS BETWEEN THE THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S, THE CONTRACTOR SHALL INFORM THE ENGINEER, WHO SHALL DECIDE WHICH OF THE THE DIFFERING DIRECTIONS THE CONTRACTOR SHALL FOLLOW.
E. IF SUCH DIFFERENCES OCCUR, THE ENGINEER WILL LIKELY SELECT THE MORE CONSERVATIVE ACTION.

EXISTING H-PILE GACP SYSTEM

A. THE CONTRACTOR AND CONTRACTOR'S SUBCONTRACTORS WILL BE RESPONSIBLE TO PROTECT THE EXISTING GACP SYSTEM HARDWARE, CABLES, AND ANODE SLEDS FROM DAMAGE DURING ALL CONSTRUCTION ACTIVITIES.
B. IF THE CONTRACTOR OR THE CONTRACTOR'S SUBCONTRACTORS DAMAGE EXISTING MARINE PARK GACP EQUIPMENT OR HARDWARE, THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR SUCH DAMAGE AT NO COST TO THE OWNER.

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CITY/BOROUGH OF JUNEAU
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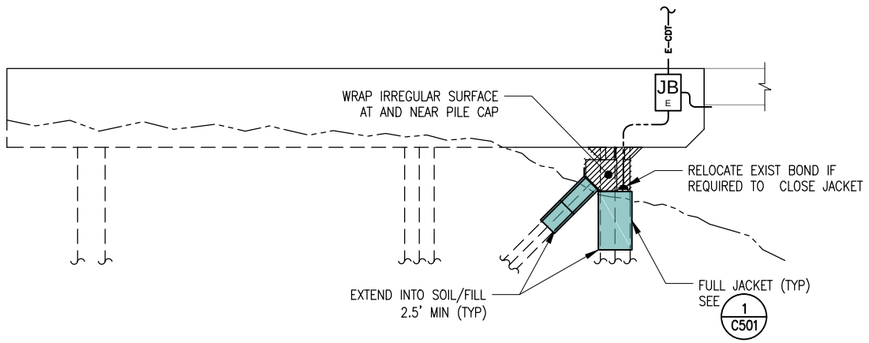
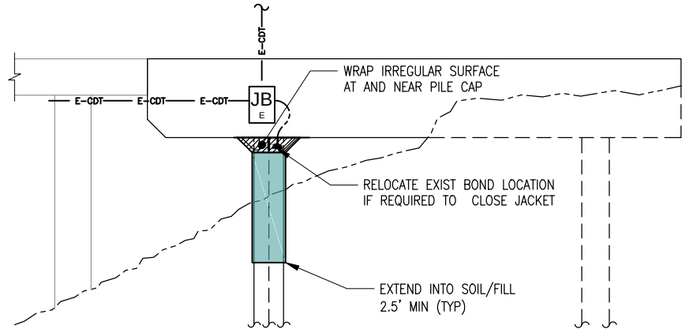
SHEET TITLE:
BUS PARKOVER
H-PILE JACKETS
PLAN VIEW

DATE: 01/04/16
TAllc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 11 OF 20

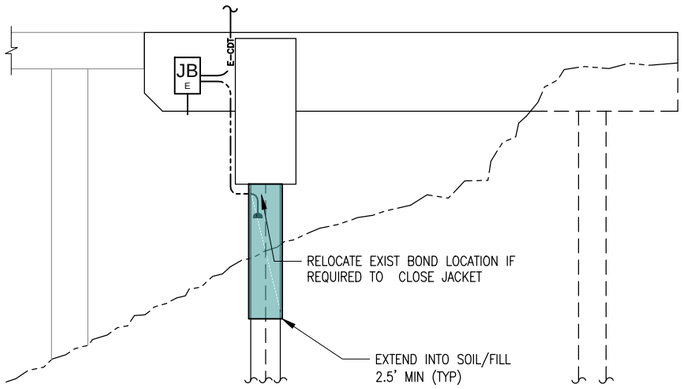
C301



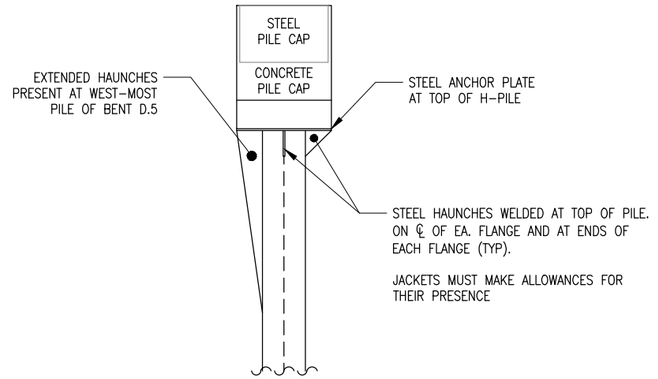
1 ELEVATION - "G" LINE PILINGS
SCALE: NTS



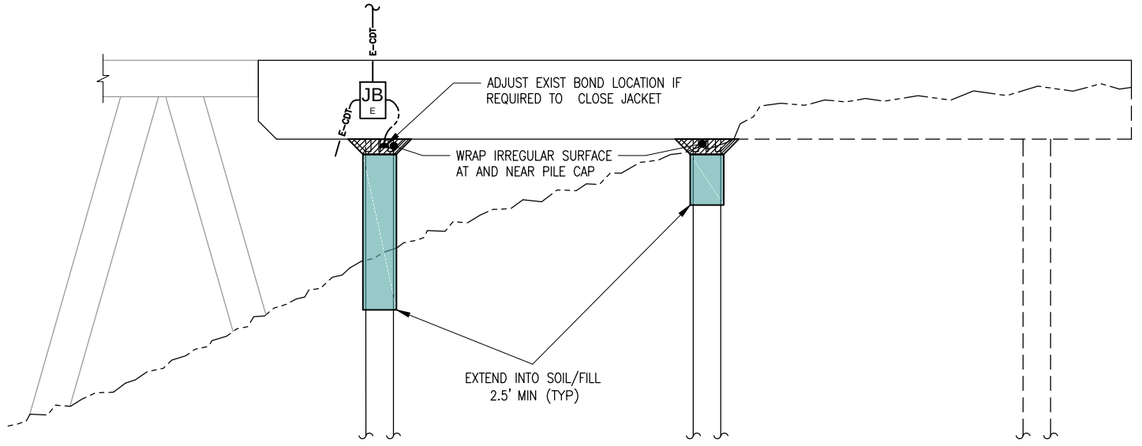
2 ELEVATION - "F.5" LINE PILINGS
SCALE: NTS



3 ELEVATION - "F" LINE PILINGS
SCALE: NTS



4 ELEVATION - TYPICAL BENT END
SCALE: NTS



5 ELEVATION - "E.5" LINE PILINGS
SCALE: NTS

REVISIONS

No.	DATE	DESCRIPTION	BY
1	11/25/14	ADD JACKET FOR CROSS-BRACE	JST
2	11/25/14	ADD WRAP FOR IRREGULAR SURFACES	JST

NOTES

H-PILE JACKET & WRAP SYSTEMS

A. THE H-PILE JACKETS SHALL BE INSTALLED AT THE LOCATIONS SHOWN IN THE DRAWINGS
B. THE CONTRACTOR SHALL VERIFY ALL PILE DIMENSIONS AND THE SIZE AND LOCATION OF HAUNCHES AT THE TOP OF THE H-PILES PRIOR TO ORDERING MATERIALS.
C. THE H-PILE JACKETS SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTRUCTIONS.
D. ON NON-CROSS BRACED PILES, THE PILE JACKETS SHALL RUN FROM THE STEEL PLATE AT THE PILE CAP TO TO 2.5 FEET MINIMUM BELOW THE LOWEST GRADE OF THE SURROUNDING GRADE.
E. ON PILES WITH CROSS BRACING, THE JACKETS SHALL RUN FROM THE STEEL PLATE AT THE PILE CAP TO 1.5 FEET BELOW THE BOTTOM OF THE LOWEST CROSS BRACE CONNECTION.
F. THE JACKETS SHALL BE FABRICATED TO ACCOMMODATE THE STEEL HAUNCHES AT THE TOP OF THE PILES, SO THAT THE PRESENCE OF THESE HAUNCHES DOES NOT INTERFERE WITH THE PROPER CLOSING OF THE JACKET.
G. COAT EXPOSED PORTIONS OF THE HAUNCHES AND ANCHOR STEEL PLATE WITH MASTIC IN ACCORDANCE WITH THE SPECIFICATIONS.
H. WHERE JACKETS EXTEND BELOW THE SURROUNDING FILL, THE CONTRACTOR SHALL BACKFILL THE EXCAVATION CREATED TO INSTALL THE JACKET TO THE LEVEL OF THE SURROUNDING FILL.

EXISTING H-PILE GACP SYSTEM

A. THE CONTRACTOR AND CONTRACTOR'S SUBCONTRACTORS WILL BE RESPONSIBLE TO PROTECT THE EXISTING GACP SYSTEM HARDWARE, CABLES, AND ANODE SLEDS FROM DAMAGE DURING ALL CONSTRUCTION ACTIVITIES.
B. IF EXISTING PILE BOND WIRES INTERFERE WITH PROPER CLOSING OF THE PILE JACKETS, THE CONTRACTOR SHALL REMOVE THE EXISTING BOND AND RELOCATE IT TO AN AREA THAT DOES NOT INTERFERE WITH THE JACKET (E.G., INSTALL A NEW BOND ON ONE OF THE STEEL HAUNCHES AT THE TOP OF THE H-PILE).
C. IF THE CONTRACTOR OR THE CONTRACTOR'S SUBCONTRACTORS DAMAGE EXISTING MARINE PARK GACP EQUIPMENT OR HARDWARE, THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR SUCH DAMAGE AT NO COST TO THE OWNER.

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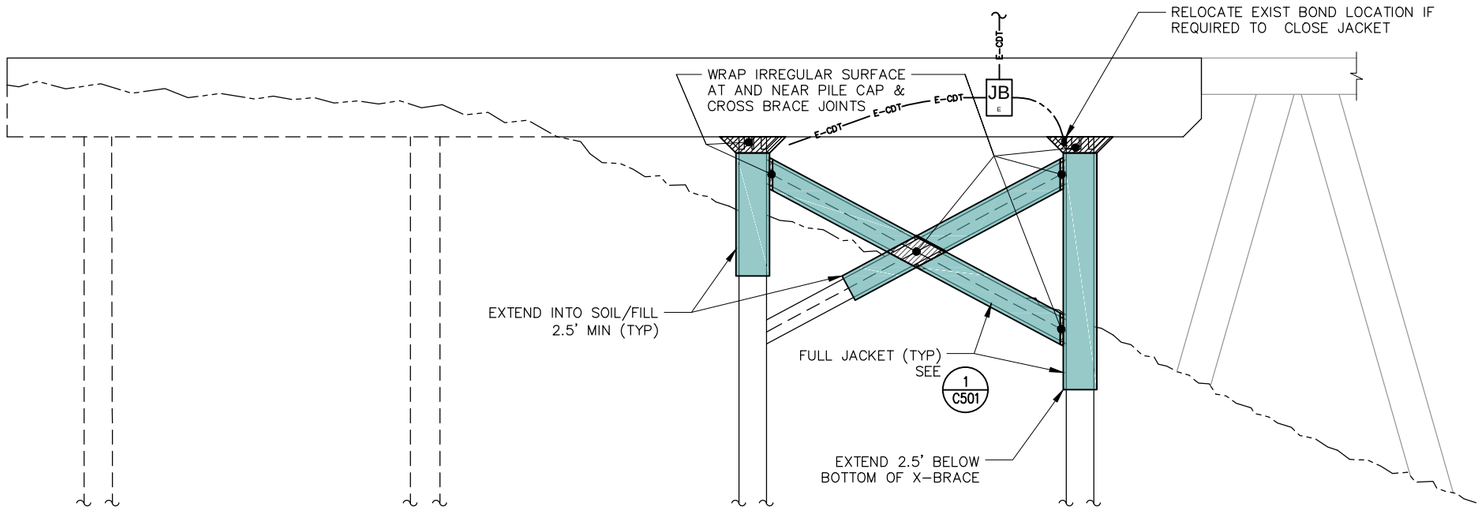
CORROSION CONTROL PROJECT
JUNEAU, ALASKA

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

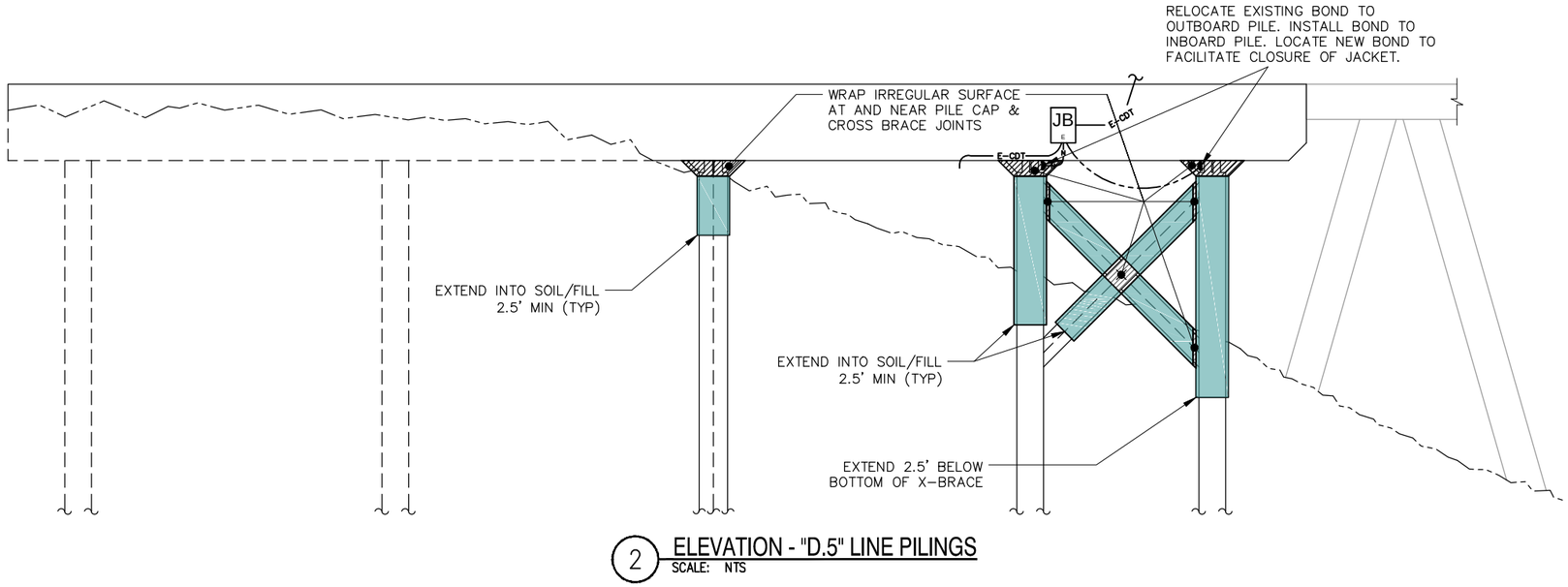
SHEET TITLE:
BUS PARKOVER
H-PILE JACKETS
ELEVATIONS

DATE: 01/04/16
TAllc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 12 OF 20

C302



1 ELEVATION - "E" LINE PILINGS
SCALE: NTS



2 ELEVATION - "D.5" LINE PILINGS
SCALE: NTS

NOTES

H-PILE JACKET & WRAP SYSTEMS

A. THE H-PILE JACKETS SHALL BE INSTALLED AT THE LOCATIONS SHOWN IN THE DRAWINGS
B. THE CONTRACTOR SHALL VERIFY ALL PILE DIMENSIONS AND THE SIZE AND LOCATION OF HAUNCHES AT THE TOP OF THE H-PILES PRIOR TO ORDERING MATERIALS.
C. THE H-PILE JACKETS SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTRUCTIONS.
D. ON NON-CROSS BRACED PILES, THE PILE JACKETS SHALL RUN FROM THE STEEL PLATE AT THE PILE CAP TO TO 2.5 FEET MINIMUM BELOW THE LOWEST GRADE OF THE SURROUNDING GRADE.
E. ON PILES WITH CROSS BRACING, THE JACKETS SHALL RUN FROM THE STEEL PLATE AT THE PILE CAP TO 1.5 FEET BELOW THE BOTTOM OF THE LOWEST CROSS BRACE CONNECTION.
F. THE JACKETS SHALL BE FABRICATED TO ACCOMMODATE FOR THE STEEL HAUNCHES AT THE TOP OF THE PILES, SO THAT THE PRESENCE OF THESE HAUNCHES DOES NOT INTERFERE WITH THE PROPER CLOSING OF THE JACKET.
G. COAT EXPOSED PORTIONS OF THE HAUNCHES AND ANCHOR STEEL PLATES MASTIC IN ACCORDANCE WITH THE SPECIFICATIONS.
H. WHERE JACKETS EXTEND BELOW THE SURROUNDING FILL, THE CONTRACTOR SHALL BACKFILL THE EXCAVATION CREATED TO INSTALL THE JACKET TO THE LEVEL OF THE SURROUNDING FILL.

EXISTING H-PILE GACP SYSTEM

A. THE CONTRACTOR AND CONTRACTOR'S SUBCONTRACTORS WILL BE RESPONSIBLE TO PROTECT THE EXISTING GACP SYSTEM HARDWARE, CABLES, AND ANODE SLEDS FROM DAMAGE DURING ALL CONSTRUCTION ACTIVITIES.
B. IF EXISTING PILE BOND WIRES INTERFERE WITH PROPER CLOSING OF THE PILE JACKETS, THE CONTRACTOR SHALL REMOVE THE EXISTING BOND AND RELOCATE IT TO AN AREA THAT DOES NOT INTERFERE WITH THE JACKET (E.G., INSTALL A NEW BOND ON ONE OF THE STEEL HAUNCHES AT THE TOP OF THE H-PILE).
C. IF THE CONTRACTOR OR THE CONTRACTOR'S SUBCONTRACTORS DAMAGE EXISTING MARINE PARK GACP EQUIPMENT OR HARDWARE, THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR SUCH DAMAGE AT NO COST TO THE OWNER.

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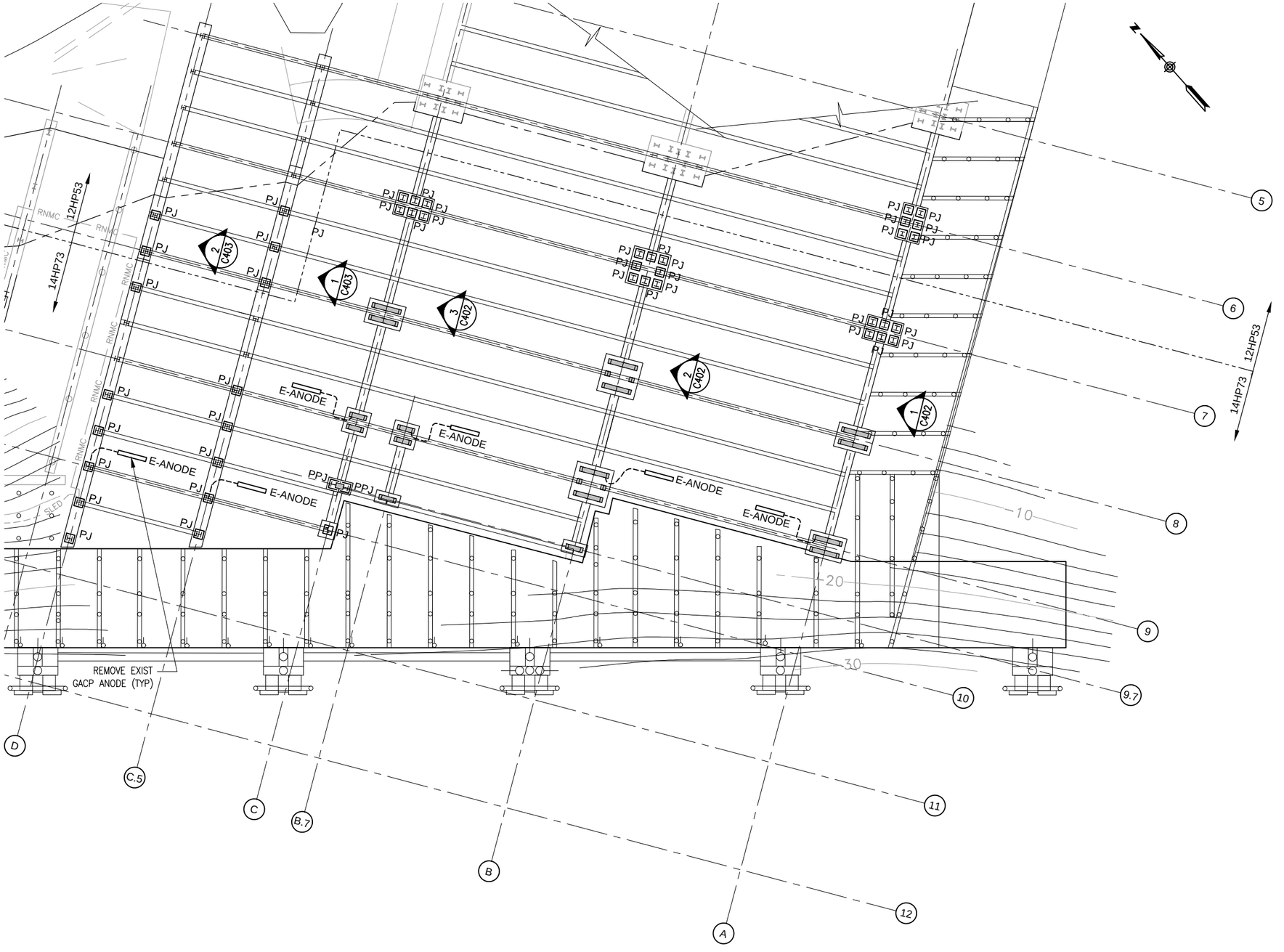
DEPARTMENT OF ENGINEERING

SHEET TITLE:
BUS PARKOVER
H-PILE JACKETS
ELEVATIONS

DATE: 01/04/16
TAllc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 13 OF 20

C303



1 PLAN VIEW - PARKING GARAGE/LIBRARY
SCALE: NTS

NOTES

H-PILE PILE JACKET SYSTEMS

A. THE H-PILE JACKETS SHALL BE INSTALLED AT THE LOCATIONS SHOWN.
B. THE H-PILE JACKETS SHALL BE INSTALLED IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTRUCTIONS.
C. THERE ARE EXISTING HMWPE CABLES AND EXOTHERMIC WELDS THAT PROVIDE ELECTRICAL CONTINUITY BETWEEN PILES AND PILE CAPS FOR EXISTING GACP SLEDS.
   1. THE CONTRACTOR SHALL PROTECT THESE CABLE CONNECTIONS THROUGHOUT THIS WORK.
   2. ANY BREAKS OR OTHER DAMAGE TO THESE CONNECTIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

EXISTING GACP SYSTEMS

A. THERE ARE EXISTING GACP ANODES PRESENT ON PILE CAPS AT A-9, B-9, B.7-9, C-9, PILE 2 OF THE C LINE AND PILE THREE OF THE D LINE.
B. PRIOR TO INSTALLING JACKETS, THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF THE SIX INDIVIDUAL ANODES, CABLES, AND CONNECTING/MOUNTING HARDWARE, AS SHOWN ON THIS DRAWING.
C. THE CONTRACTOR & CONTRACTOR'S SUBCONTRACTORS WILL BE RESPONSIBLE TO PROTECT THE EXISTING BUS PARKOVER GACP SLED SYSTEM HARDWARE, CABLES, AND ANODE SLED FROM DAMAGE DURING ALL CONSTRUCTION ACTIVITIES.
D. IF THE CONTRACTOR OR CONTRACTOR'S SUBCONTRACTORS DAMAGE EXISTING BUS PARKOVER GACP EQUIPMENT OR HARDWARE, THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR SUCH DAMAGE AT NO COST TO THE OWNER.

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KERRI M. HOWELL
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REGISTERED PROFESSIONAL ENGINEER
DATE 01/04/16

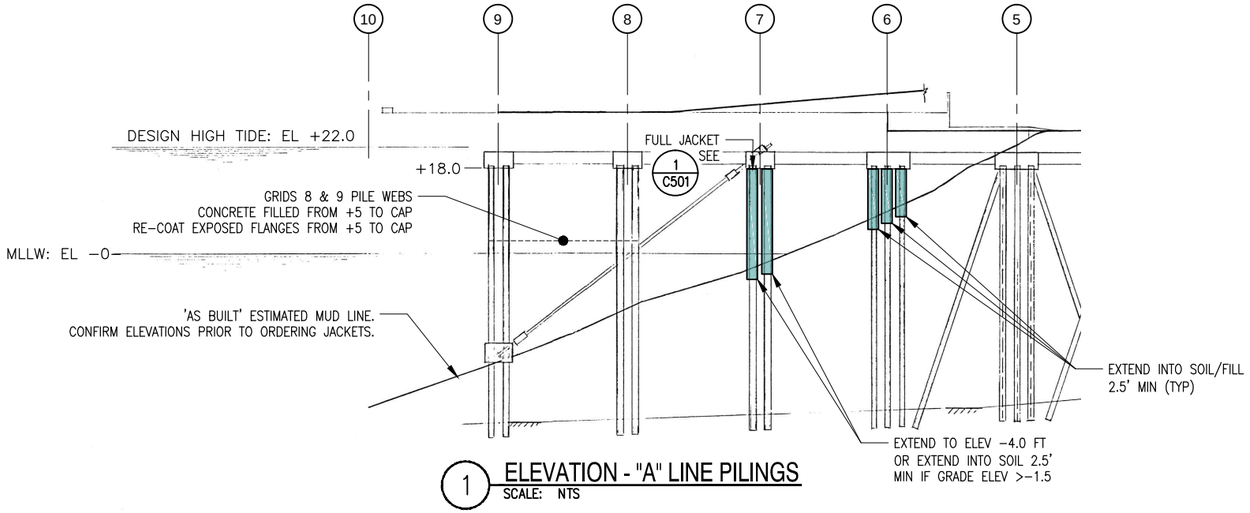
DOWNTOWN WATERFRONT FACILITIES
CORROSION CONTROL PROJECT
JUNEAU, ALASKA

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

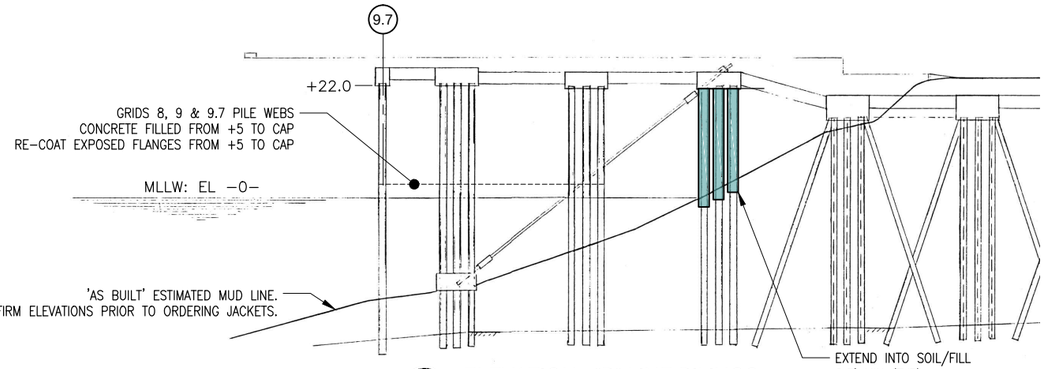
SHEET TITLE:
DOWNTOWN PARKING GARAGE H-PILE JACKETS PLAN VIEW

DATE: 01/04/16
TAllc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 14 OF 20

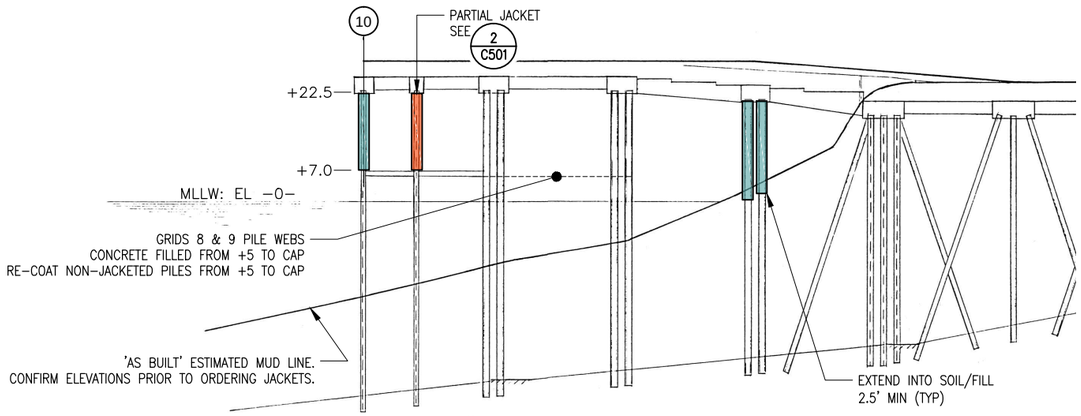
C401



1 ELEVATION - "A" LINE PILINGS
SCALE: NTS



2 ELEVATION - "B" LINE PILINGS
SCALE: NTS



3 ELEVATION - "C" LINE PILINGS
SCALE: NTS

NOTES

H-PILE JACKET SYSTEMS

A. THE H-PILE JACKETS SHALL BE INSTALLED AT THE LOCATIONS SHOWN IN THE DRAWINGS
B. THE H-PILE JACKETS SHALL BE INSTALLED IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTRUCTIONS..
C. THE PILE JACKETS SHALL RUN FROM THE PILE CAP TO EITHER:
   1. TOP OF HORIZONTAL STRUT, IF PRESENT.
   2. TO 2.5 FEET (MIN) BELOW THE LOWEST GRADE OF THE SURROUNDING MUDLINE.
D. WHERE JACKETS EXTEND BELOW THE SURROUNDING FILL, THE CONTRACTOR SHALL BACKFILL THE EXCAVATION CREATED TO INSTALL THE JACKET TO THE LEVEL OF THE SURROUNDING FILL.

EXISTING H-PILE GACP SYSTEM

A. THE CONTRACTOR WILL BE RESPONSIBLE TO PROTECT THE EXISTING GACP SYSTEM HARDWARE, CABLES, AND ANODE SLEDS FROM DAMAGE DURING ALL CONSTRUCTION ACTIVITIES.
B. IF EXISTING PILE BOND WIRES INTERFERE WITH PROPER CLOSING OF THE PILE JACKETS, THE CONTRACTOR SHALL REMOVE THE EXISTING BOND AND RELOCATE IT TO AN AREA THAT DOES NOT INTERFERE WITH THE JACKET (E.G., INSTALL A NEW BOND ON ONE OF THE STEEL HAUNCHES AT THE TOP OF THE H-PILE).
C. IF THE CONTRACTOR DAMAGES EXISTING MARINE PARK GACP EQUIPMENT OR HARDWARE, THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR SUCH DAMAGE AT NO COST TO THE OWNER.

REVISIONS

No.	DATE	DESCRIPTION	BY

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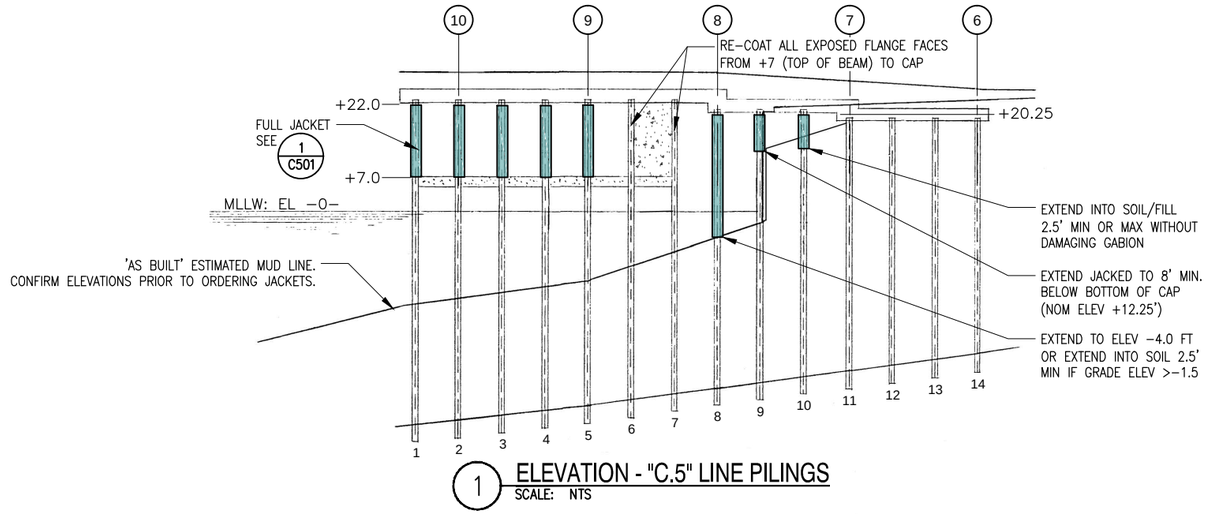
CORROSION CONTROL PROJECT
JUNEAU, ALASKA

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS AND HARBORS
DEPARTMENT OF ENGINEERING

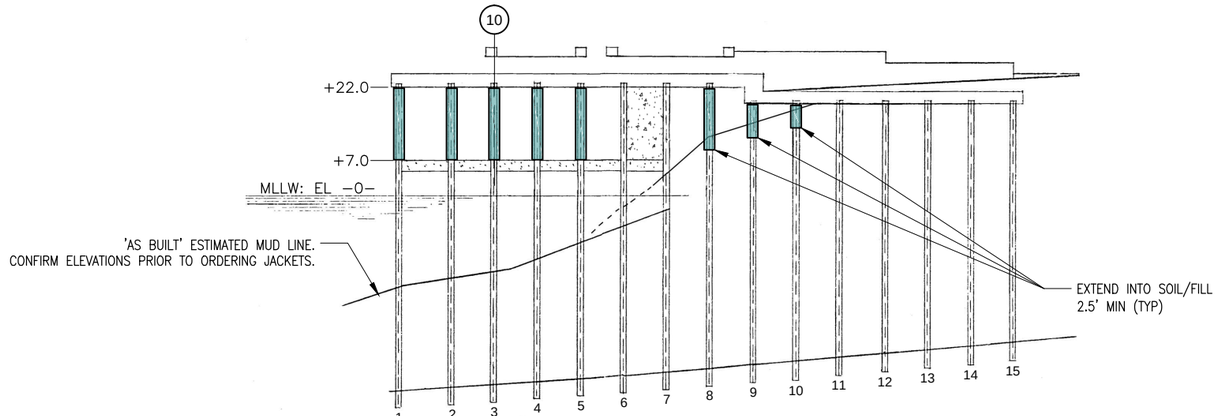
SHEET TITLE:
DOWNTOWN
PARKING GARAGE
H-PILE JACKETS
ELEVATIONS

DATE: 01/04/16
TAllc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 15 OF 20

C402



1 ELEVATION - "C.5" LINE PILINGS
SCALE: NTS



2 ELEVATION - "D" LINE PILINGS
SCALE: NTS

NOTES

H-PILE JACKET SYSTEMS

A. THE H-PILE JACKETS SHALL BE INSTALLED AT THE LOCATIONS SHOWN IN THE DRAWINGS
B. THE H-PILE JACKETS SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTRUCTIONS.
C. THE PILE JACKETS SHALL RUN FROM FROM THE PILE CAP TO EITHER:
   1. TOP OF HORIZONTAL STRUT, IF PRESENT.
   2. TO 2.5 FEET (MIN) BELOW THE LOWEST GRADE OF THE SURROUNDING MUDLINE WHERE ELEVATION IS ABOVE -1.5'.
   3. TO ELEVATION -4.0 FEET MAX AT ALL OTHER LOCATIONS.
D. WHERE JACKETS EXTEND BELOW THE SURROUNDING FILL, THE CONTRACTOR SHALL BACKFILL THE EXCAVATION CREATED TO INSTALL THE JACKET.

EXISTING H-PILE GACP SYSTEM

A. THE CONTRACTOR WILL BE RESPONSIBLE TO PROTECT THE EXISTING GACP SYSTEM HARDWARE, CABLES, AND ANODE SLEDS FROM DAMAGE DURING ALL CONSTRUCTION ACTIVITIES.
B. IF THE CONTRACTOR DAMAGES EXISTING MARINE PARK GACP EQUIPMENT OR HARDWARE, THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR SUCH DAMAGE AT NO COST TO THE OWNER.

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DEPARTMENT OF ENGINEERING

SHEET TITLE:
DOWNTOWN PARKING GARAGE H-PILE JACKETS ELEVATIONS

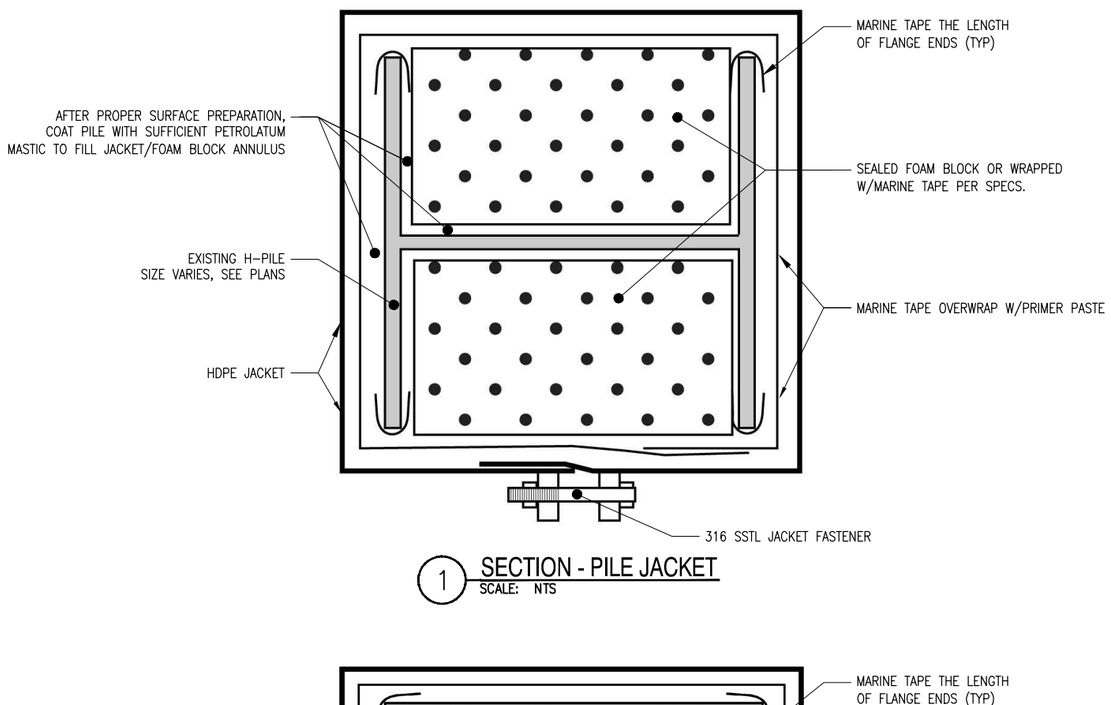
DATE: 01/04/16

TAllc PROJ. No.: 1012401

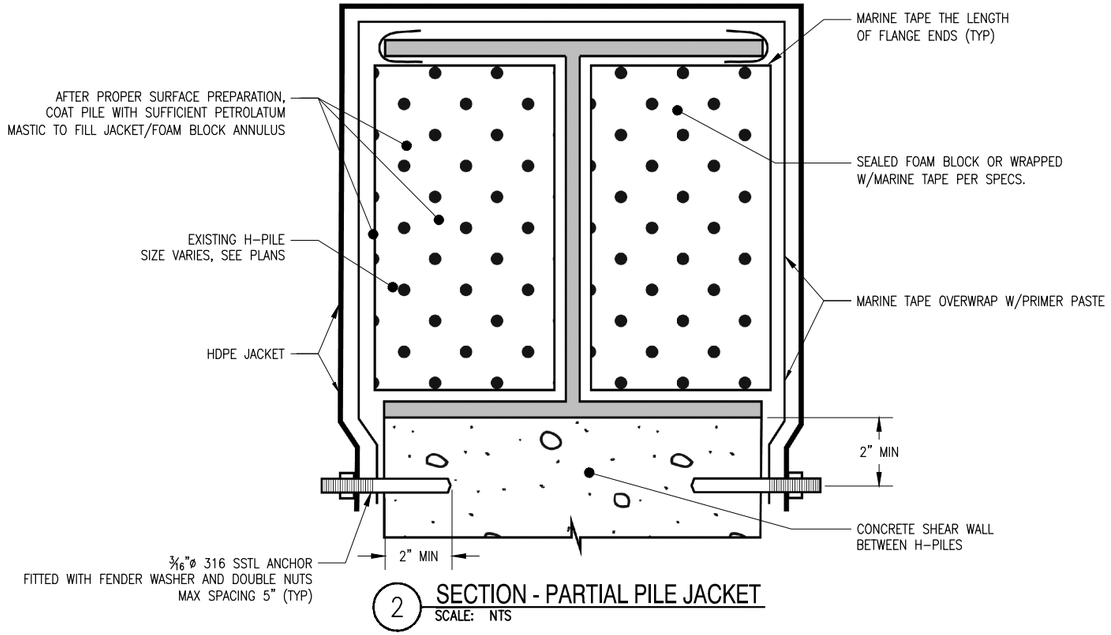
CONTRACT No.: E16-164

SHEET 16 OF 20

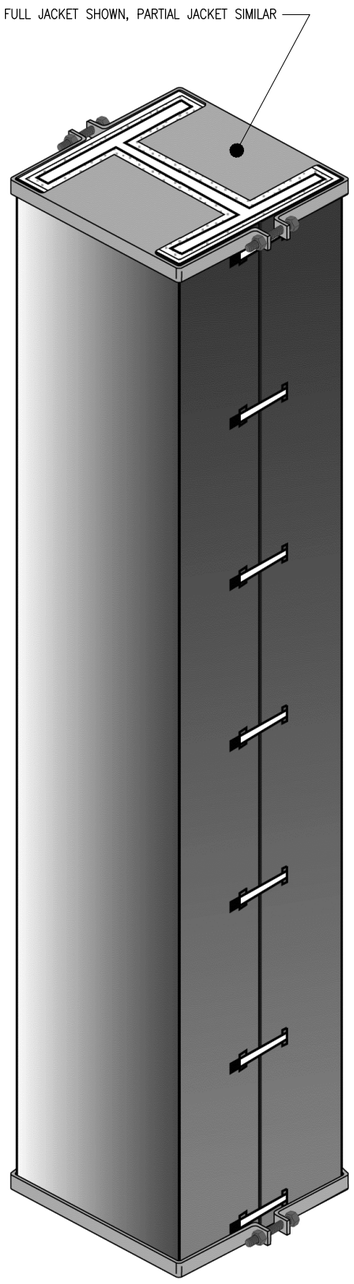
C403



1 SECTION - PILE JACKET
SCALE: NTS



2 SECTION - PARTIAL PILE JACKET
SCALE: NTS



3 ELEVATION - PILE JACKET
SCALE: NTS

NOTES

H-PILE JACKET SYSTEMS

A. SPECIFIC DETAILS MAY VARY BETWEEN MANUFACTURERS.
B. SECURE WRITTEN DIRECTION FROM THE ENGINEER WHERE DETAILS SHOWN IN THIS DRAWING VARY FROM THOSE RECOMMENDED BY THE MANUFACTURER.

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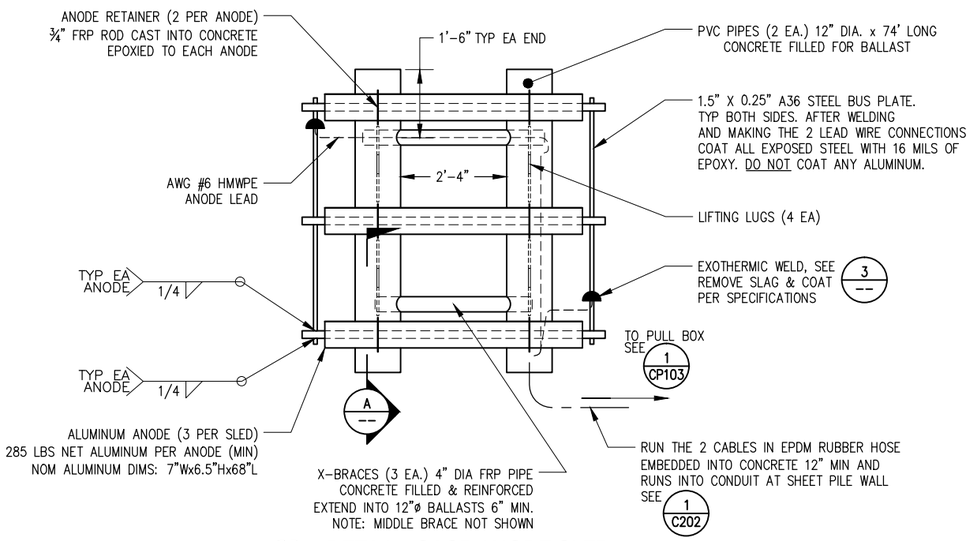
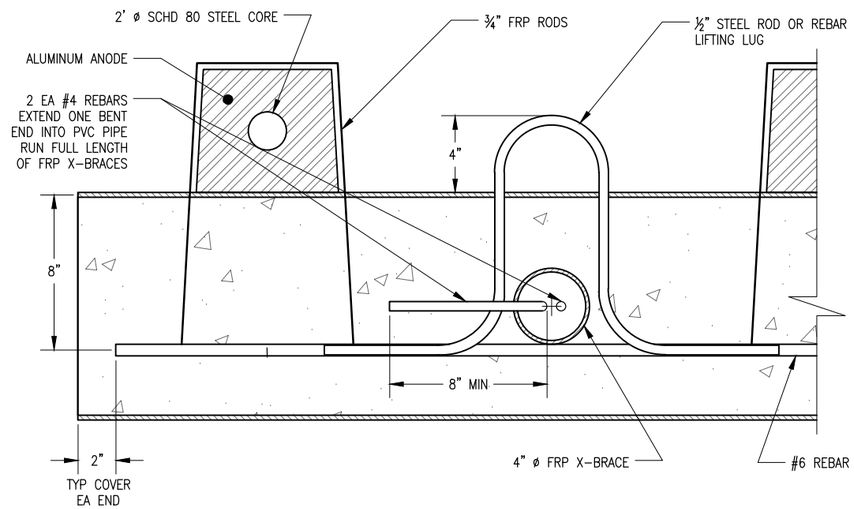
SHEET TITLE:
PILE JACKET DETAILS

DATE: 01/04/16
TAllc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 17 OF 20

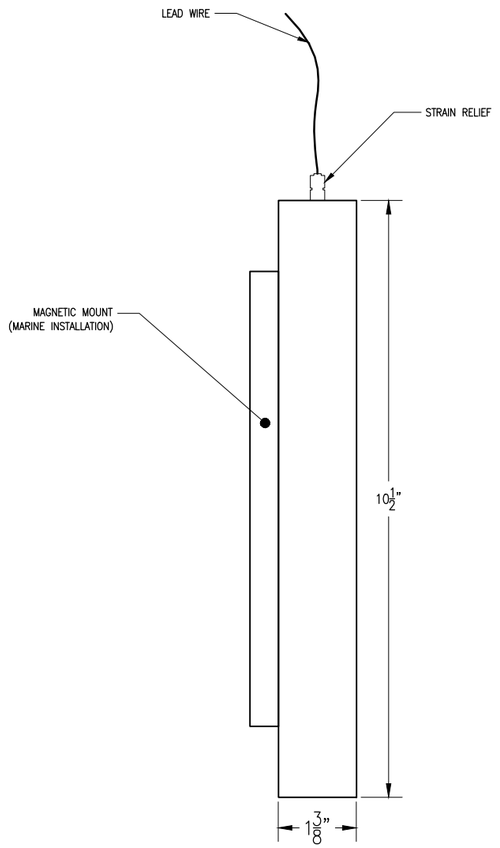
C501



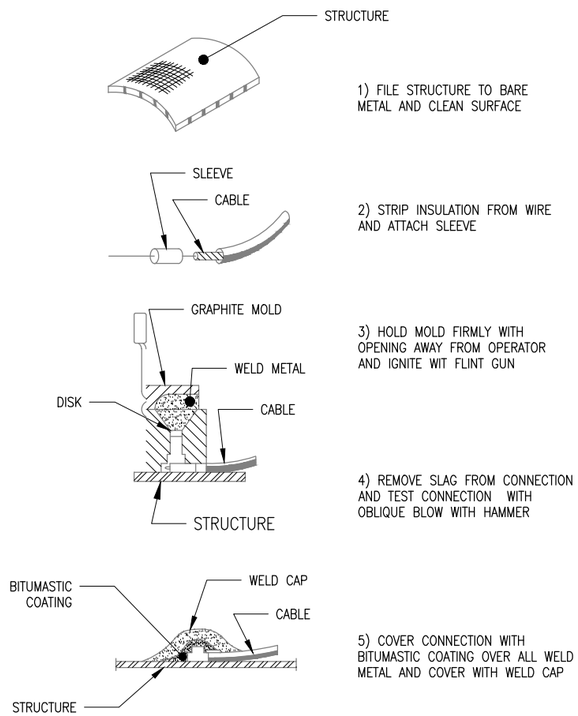
1 DETAIL - GACP ANODE SLED
SCALE: NTS



A-A SECTION - ANODE SLED
SCALE: NTS



2 DETAIL - CP REF/COUPON
SCALE: NTS



3 DETAIL - EXOTHERMIC WELD
SCALE: NTS

NOTES

CP REFERENCE - COUPON

1. CP REFERENCE/COUPON MOUNTED ON THE SEAWARD FACE OF THE SHEET PILE WALL SHALL BE MAGNET MOUNTED
2. REFERENCE ELECTRODE SHALL BE SILVER-SILVER CHLORIDE
3. THE COUPON SHALL BE CARBON STEEL

GACP ANODE SLED

1. WHEN MOVING OR PLACING THE GACP ANODE SLED
   A. SUPPORT USING THE INTEGRAL LIFTING LUGS.
   B. DO NOT HANDLE OR LIFT USING THE ANODES OR ANODE CABLES.

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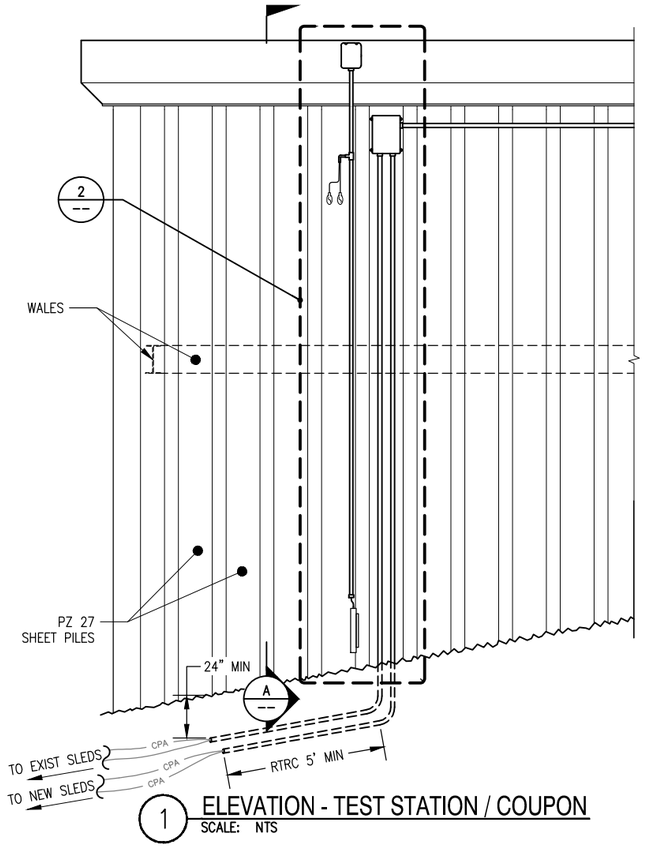
DEPARTMENT OF ENGINEERING

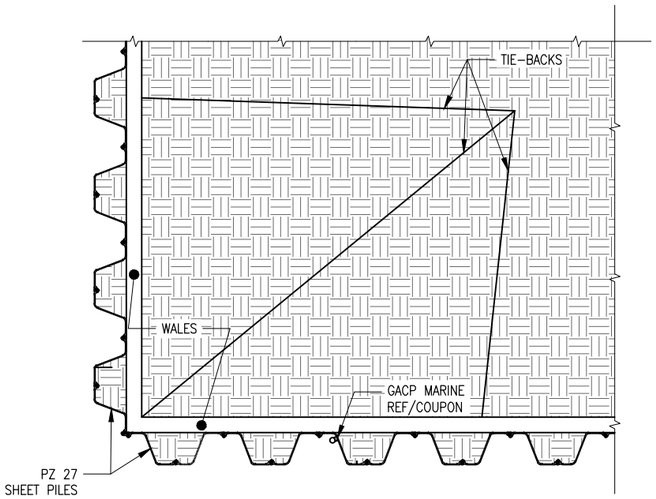
SHEET TITLE:
CATHODIC PROTECTION DETAILS (ALT. 1)

DATE: 01/04/16
TAlic PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 18 OF 20

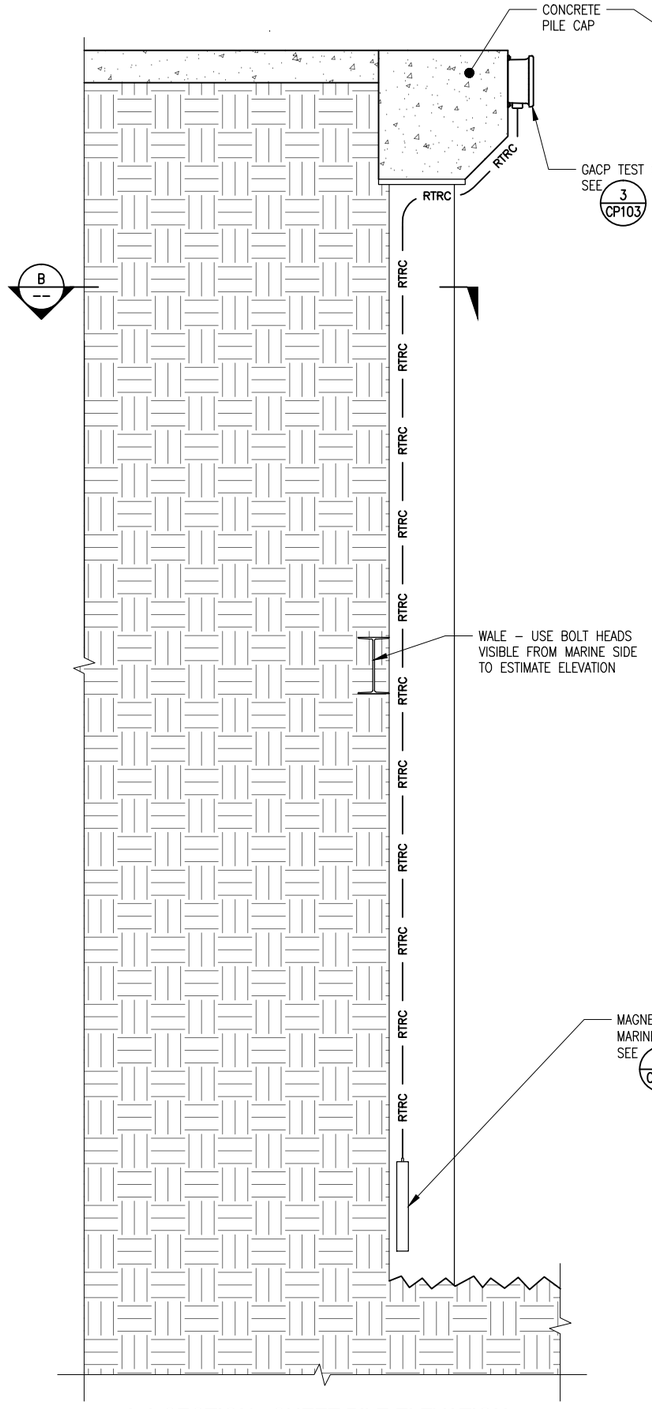
CP101



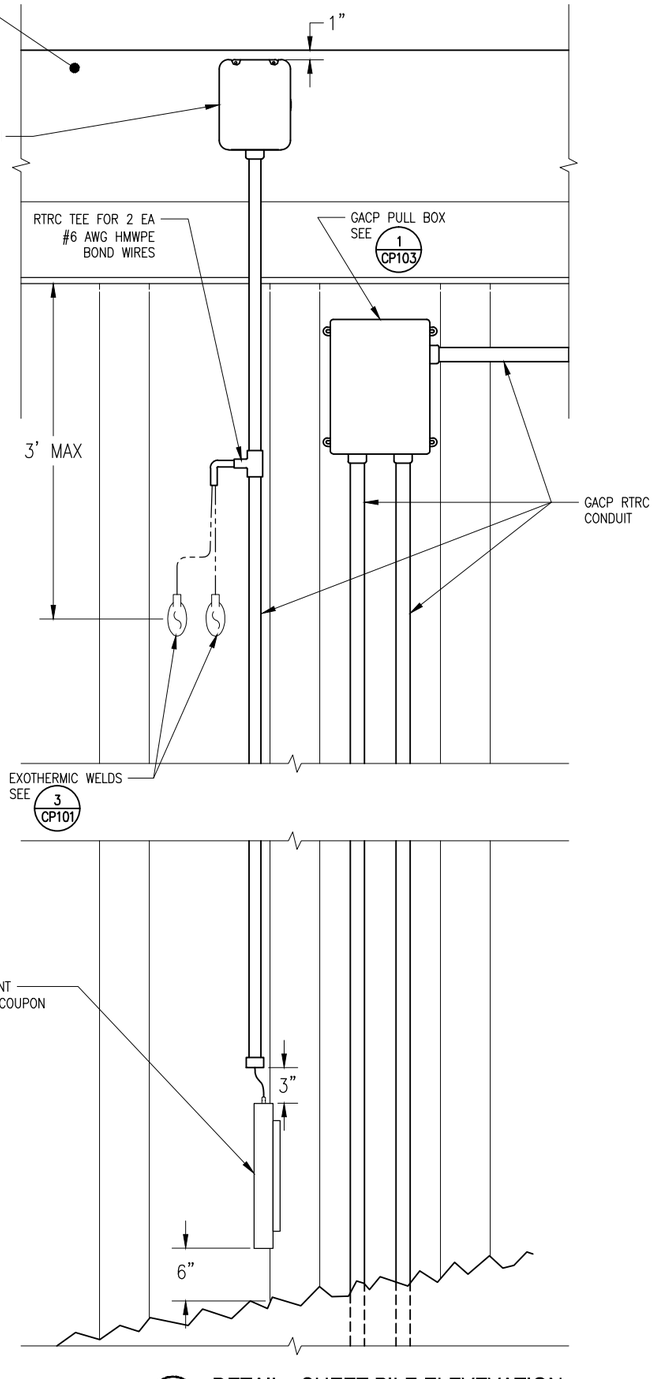
1 ELEVATION - TEST STATION / COUPON
SCALE: NTS



B-B SECTION - SHEET PILES & TIE BACKS
SCALE: NTS



A-A SECTION - SHEET PILE ELEVATION
SCALE: NTS



2 DETAIL - SHEET PILE ELEVEVATION
SCALE: NTS

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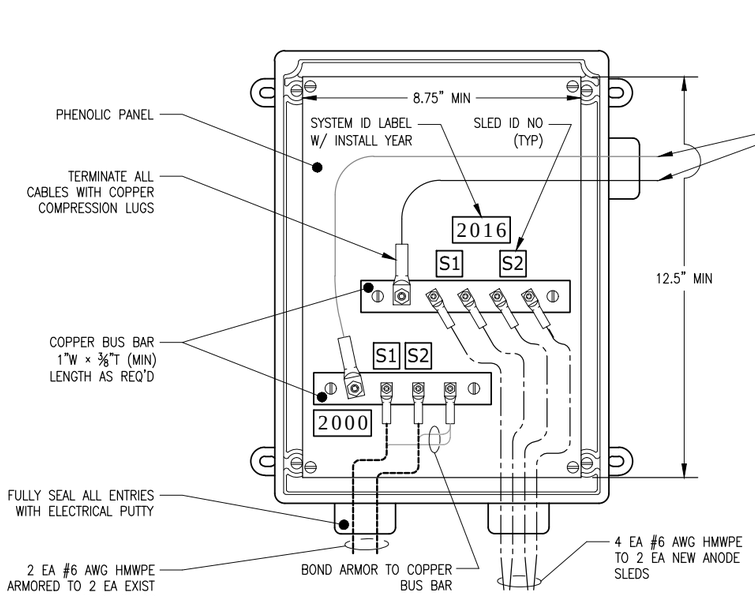
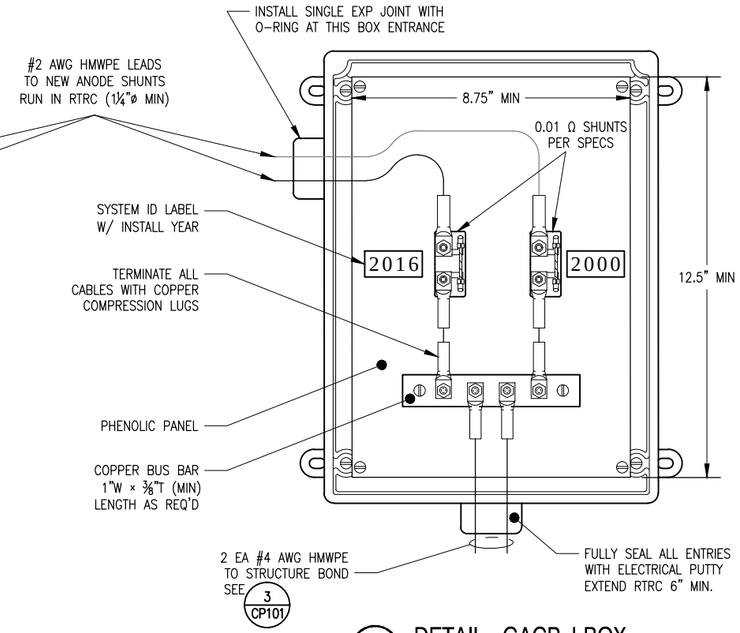
CATHODIC PROTECTION DETAILS (ALT. 1)

DATE: 01/04/16
TAIlc PROJ. No.: 1012401
CONTRACT No.: E16-164
SHEET 19 OF 20

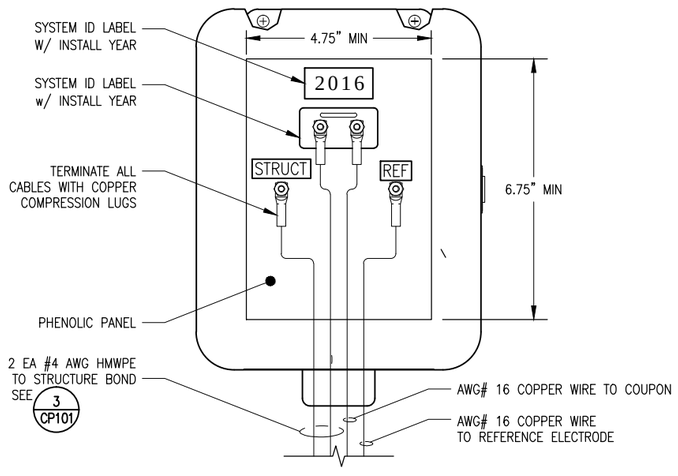
CP102



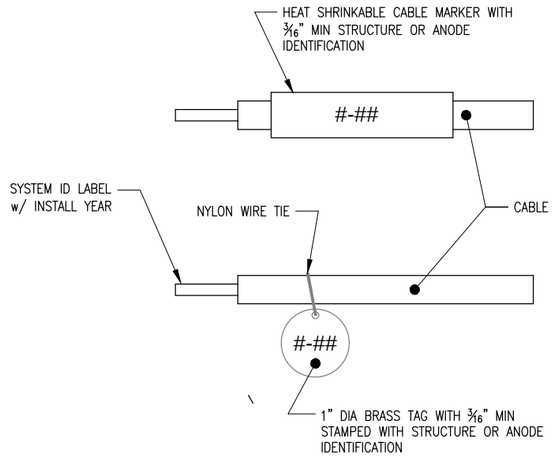
1 DETAIL - GACP PULL BOX
SCALE: NTS



2 DETAIL - GACP J-BOX
SCALE: NTS



3 DETAIL - TEST STATION
SCALE: NTS



NOTES: IDENTIFY ALL CABLES ENTERING J-BOXES WITH PERMANENT CABLE MARKERS. IDENTIFY EACH J-BOX WITH A UNIQUE IDENTIFICATION ON A ½" HIGH ENGRAVED PLASTIC ID PLAQUE

4 DETAIL - CABLE IDENTIFICATION
SCALE: NTS

NOTES:

A. IDENTIFY ALL CABLES WITHIN ALL BOXES AND STATIONS (SEE DETAIL 4, BELOW).
B. LABEL THE BOXES AND TEST STATION AS SHOWN.
C. MAKE ALL TERMINATIONS USING NICKEL-PLATED COPPER COMPRESSION-LUGS PER THE SPECIFICATIONS.

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SHEET TITLE: CATHODIC PROTECTION DETAILS (ALT. 1)
DATE: 01/04/16
TAIlc PROJ. No.: 1012401
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SHEET 20 OF 20

CP103