BATTERY PARK CITY AUTHORITY
NORTH COVE CELLULAR
SHEET PILE ENCASEMENT

BATTERY PARK CITY ESPLANADE
NEW YORK, NEW YORK
OCTOBER, 2015

PREPARED BY:

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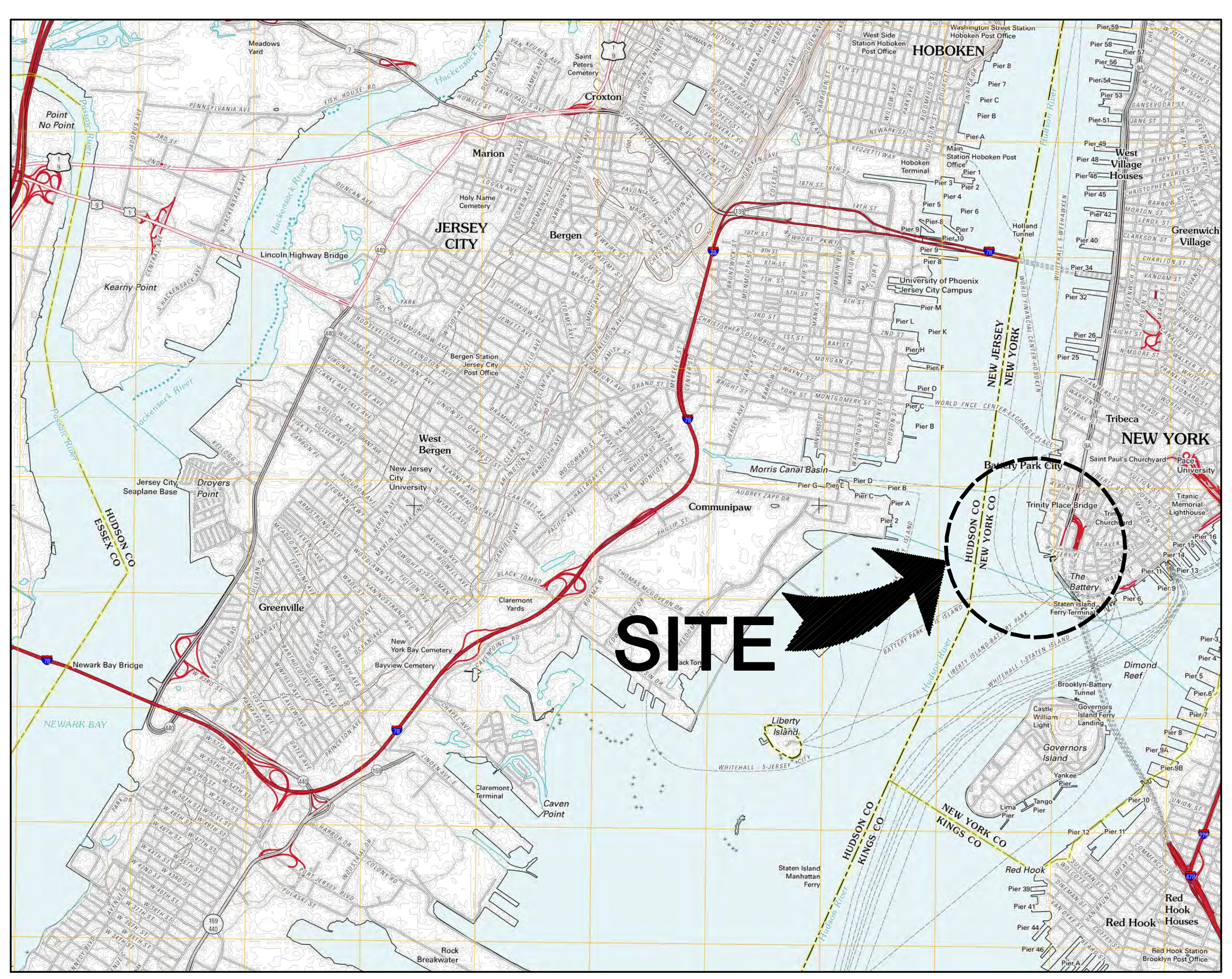
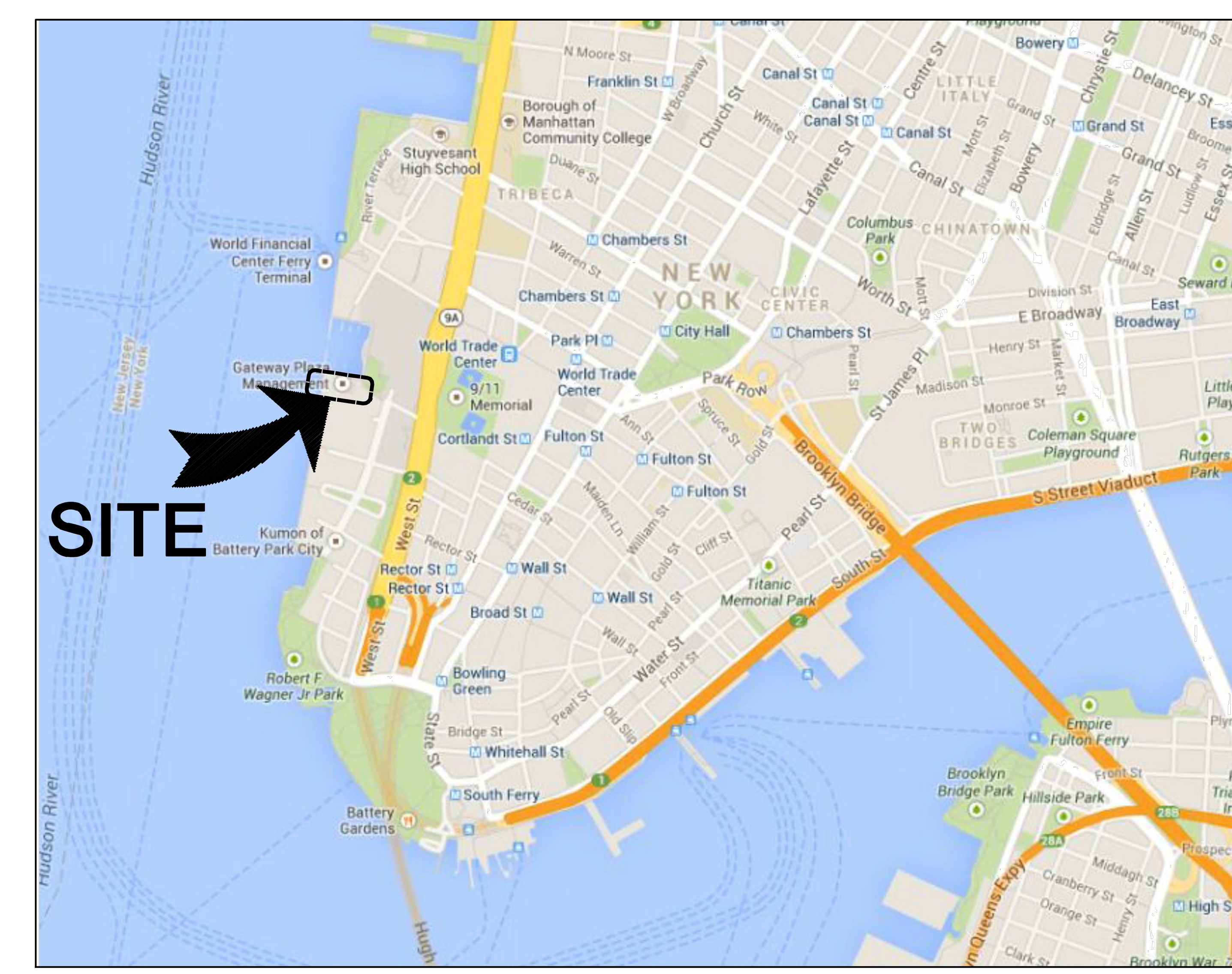


LOCATION PLAN

DRAWING LIST:

DRAWING NO.	SHEET TITLE
S–110	COVER SHEET
S–120	GENERAL NOTES
S–131	FACILITY PLAN
S–131A	SHEET PILE REMEDIATION PLAN
S–132	REPAIR PLANS & DETAILS
S–140	ESPLANADE TYPICAL SECTIONS & REPAIR SECTIONS



VICINITY MAP

FILE NAME: \\nydata01\Projects\Proj140\140950.09\10_Dwgs\AIA Drawings\100% Drawings\CAD\S-110 Cover Sheet.dwg PLOT TIME: Tue, 13 Oct 2015 – 8:29pm LAST SAVE: Tue, 13 Oct 2015 – 8:25pm BY: ADragos

GENERAL NOTES:

1. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE, COUNTY OR LOCAL CODES HAVING JURISDICTION OVER SUCH WORK. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
2. CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, AND SAFETY OF WORK.
3. DIMENSIONS SHOWN ON THESE CONTRACT PLANS HAVE BEEN OBTAINED FROM LIMITED FIELD SURVEY AND MAY NOT ACCURATELY REFLECT ACTUAL FIELD CONDITIONS. ACCORDINGLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS OF ALL EXISTING STRUCTURES IMPACTED BY THE NEW WORK TO ASSURE CONSISTENCY WITH THE PROPOSED CONSTRUCTION PLANS; THAT IS THE CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS, DIMENSIONS, CLEARANCES, ELEVATIONS, AND OTHER INFORMATION INDICATED IN THE DOCUMENTS PRIOR TO ORDERING ANY MATERIALS, COMMENCING ANY FABRICATIONS, OR PERFORMING ANY WORK. THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY FIELD CONDITIONS WHICH MAY DIFFER FROM THAT REPRESENTED PRIOR TO COMMENCING WORK.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL VISIT THE SITE AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY UTILITIES, STRUCTURES, OR ANY OTHER ELEMENTS WHICH MAY IMPEDE WORK. UTILITY AND/OR STRUCTURE RELOCATIONS, IF NECESSARY, SHALL BE COORDINATED THROUGH THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
5. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WORK THROUGH THE OWNER'S REPRESENTATIVE AND ANY OTHER OCCUPYING TENANT WHO WILL BE AFFECTED BY REPAIR OPERATIONS. THE CONTRACTOR SHALL COORDINATE THE WORK SO AS TO MINIMIZE INTERRUPTIONS IN FACILITY OPERATIONS. (ACCESS AND EGRESS).
6. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OSHA REGULATIONS AND SAFETY PROCEDURES TO ENSURE PERSONNEL HEALTH AND SAFETY. THE CONTRACTOR MUST MAINTAIN A SAFE AND CLEAN WORKING ENVIRONMENT AND SHALL ASSURE PROPER PERSONAL EQUIPMENT AT ALL TIMES. IN AREAS WHERE PEDESTRIAN AND/OR VEHICULAR TRAFFIC MAY BE AFFECTED BY THE WORK, THE CONTRACTOR SHALL CORDON OFF THE WORK AREA.
7. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PREVENT DAMAGE TO EXISTING STRUCTURES BY OR AS A RESULT OF HIS OPERATIONS. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
8. ALL DEBRIS AS A RESULT OF, OR IN THE IMMEDIATE VICINITY OF THE WORK SHALL BE RECOVERED AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY CONSTRUCTION DEBRIS OR WASTE FROM FALLING INTO THE WATER. ANY DEBRIS FALLING INTO THE WATER SHALL BE RECOVERED AND PROPERLY DISPOSED OF.
10. CONTRACTOR'S STORAGE AREA: DUE TO THE SITE'S WATERFRONT LOCATION, ALL NECESSARY MEASURES SHALL BE TAKEN TO PREVENT BY ANY METHOD, OIL, CONSTRUCTION DEBRIS, STOCKPILED MATERIALS, AND OTHER MATERIALS ON THE SITE, FROM ENTERING THE WATERWAY. STAGING/LAYDOWN AREAS, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE RESTORED BY THE CONTRACTOR TO THE EXISTING CONDITION. IN ADDITION, THE CONTRACTOR SHALL REPLACE ALL DAMAGED MATERIALS AS A RESULT OF HIS OPERATIONS, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE PROPER SHOP DRAWINGS SIGNED AND SEALED FOR FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING, SHORING, ETC. BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK.
12. CONTRACTOR SHALL IMPLEMENT THOSE DIMENSIONS IDENTIFIED AS "MINIMUM" OR "MAXIMUM" AS INDICATED.
13. CONTRACTOR SHALL INSTALL FLOATING BOOM AND TURBIDITY CURTAINS DURING MARINE CONSTRUCTION TO CONTAIN OIL, DEBRIS AND OTHER RUNOFF.
14. ALL REFERENCES IN THESE NOTES TO "ENGINEER" INDICATE THE ENGINEER OF RECORD, McLAREN ENGINEERING. ALL REFERENCES TO "OWNER" INDICATES THE HUGH L. CAREY BATTERY PARK CITY AUTHORITY.
15. IN CASE OF CONTRADICTION BETWEEN THE DRAWINGS, THE SPECIFICATIONS, AND THE CODES, OR IF ANY CHANGE IS REQUIRED, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY. NO CHANGE SHALL BE MADE BY CONTRACTOR WITHOUT WRITTEN APPROVAL OF THE ENGINEER. THE HIERARCHY OF GOVERNANCE IS AS FOLLOWS: BPCA CONTRACT, DRAWINGS & THEN SPECIFICATIONS. IN ALL CASES THE MORE STRINGENT REQUIREMENTS MUST BE APPLIED FOR BIDDING & CONSTRUCTION PURPOSES.

BID SET
(NOT FOR CONSTRUCTION)
OCTOBER 13, 2015

PERMITTING:

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY ANY REGULATING AGENCY HAVING JURISDICTION OVER THE WORK OF THIS PROJECT INCLUDING BUT NOT LIMITED TO THE DEC, USACE, AND DSBS. THE CONTRACTOR MUST NOTIFY ALL REGULATING AGENCIES TWO WEEKS PRIOR TO COMMENCING WORK.
2. NO WORK SHALL COMMENCE WITHOUT APPROVALS REQUIRED BY THE CITY OF NEW YORK, STATE OF NEW YORK, DEC, USACE, DSBS AND ALL OTHER APPLICABLE AGENCIES HAVING JURISDICTION WITHIN THE PROJECT SITE.
3. CONTRACTOR TO OBTAIN WORK PERMITS THROUGH NEW YORK CITY DEPARTMENT OF SMALL BUSINESS SERVICES (SBS). FEES ASSOCIATED WITH THE WORK PERMIT OR WORK PERMIT RENEWAL TO BE PAID BY CONTRACTOR.

NEW YORK CITY FLOOD RESISTANT CONSTRUCTION:

1. THE PROPOSED WORK DOES NOT ENCROACH ON THE FLOODWAY, ALTER THE WATERCOURSE OR MODIFY A SAND DUNE IN A V-ZONE AND THEREFORE DOES NOT REQUIRE TECHNICAL CERTIFICATION ACCORDING TO SECTION G103 OF THE CODE.
2. THE PROPOSED WORK IS NOT LOCATED IN A REGULATORY FLOODWAY.
3. THE PROPOSED WORK DOES NOT INCLUDE ANY ENCLOSED STRUCTURES AND IS NOT SUBJECT TO THE CERTIFICATION REQUIREMENTS OF CODE SECTION G104.5.
4. FLOOD ZONE COMPLIANCE INSPECTION REQUIREMENT IS INDICATED UNDER THE INSPECTIONS SECTION OF THESE NOTES. ELEVATION AND FLOOD SHIELD INSPECTIONS ARE NOT APPLICABLE.
5. RETAINING WALLS AND FILL HAS BEEN DESIGNED AND SPECIFIED IN ACCORDANCE WITH SECTION G303.7 AND DOES NOT DIRECT WATER OR WAVES TOWARD ANY BUILDING.
6. THE PROPOSED WORK IS AN UNOCCUPIED ACCESSORY STRUCTURE, IS NOT REQUIRED FOR ANY BUILDING EGRESS AND IS NOT REQUIRED FOR SUPPORT OR FLOOD PROTECTION OF ANY BUILDING. THE REQUIREMENTS OF CODE SECTION G304 ARE NOT APPLICABLE. THE STRUCTURE HAS BEEN DESIGNED TO PREVENT FLOTATION, COLLAPSE AND LATERAL MOVEMENT RESULTING FROM HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF FLOODING TO THE DESIGN FLOOD ELEVATION.
7. THE PROPOSED WORK HAS BEEN DESIGNED IN ACCORDANCE WITH ASCE 24-05 REQUIREMENTS FOR EROSION CONTROL STRUCTURES AND IS NOT ATTACHED TO THE FOUNDATION OR SUPERSTRUCTURE OF ANY STRUCTURE, WILL NOT FOCUS OR INCREASE THE FLOOD FORCES OR EROSION IMPACTS ON ANY ADJACENT STRUCTURE.

SUBMITTALS:

THE CONTRACTOR SHALL SUPPLY ALL SUBMITTALS AS STATED IN THE PROJECT SPECIFICATIONS INCLUDING BUT NOT LIMITED TO:

1. SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK FOR THE METHOD OF SUPPORT, SPACING AND STABILIZATION OF FORMWORK FOR PILE ENCASEMENTS.
2. SUPPLIER'S TECHNICAL PRODUCT DATA, INCLUDING SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR THE EPOXY GROUT TO BE PLACED, FRP FORMWORK, POINTS, STANDOFFS SEALS, JOINT EPOXY SCREWS & ALL TEMPORARY ITEMS FROM #1 ABOVE WHEN STRUCTURAL IN NATURE.
3. REFER TO THE SPECIFICATIONS FOR ADDITIONAL SUBMITTALS REQUIREMENTS AND PROCEDURES.

SHEET PILE ENCASEMENT

1. CLEAN STEEL SURFACE FREE OF ALL LOOSE DEBRIS, FOREIGN MATTER AND BUILD UP OF RUST BY PRESSURE WASHING AT 3000 PSI.
2. SET REINFORCEMENT CAGE. INSTALL J-BOLTS THROUGH SHEET PILES AT INTERLOCKS TO TIE REINFORCEMENT CAGE IN PLACE.
3. SECURE FORM WORK IN PLACE WITH BOTTOM SEAL. USE J-BOLTS TO SECURE FORMS. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE FORM WORK DURING THE CONCRETE PLACEMENT.
4. FORMS SHALL BE RIGID, AND SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT THE FLUID PRESSURE OF THE CONCRETE MIX AND OF SUFFICIENT IMPERMEABILITY TO PREVENT SEAWATER FROM CONTAMINATING THE CONCRETE MIX DURING INSTALLATION.
5. ALL FORMS SHALL REMAIN IN PLACE, BRACING AND SHORING & ARE TO BE REMOVED.
6. CONTRACTOR SHALL SUBMIT CALCULATIONS TO JUSTIFY AND CONFIRM METHOD OF CONCRETE MIX PLACEMENT. CALCULATIONS SHALL CONSIDER BENDING OF FORMS, HEIGHT OF LIFT TO BE PLACED, PUMP PRESSURES AND STRONGBACKS.
7. PROCEDURE:
   - A. THE CONCRETE MIX SHALL BE INJECTED, AT EQUAL PRESSURES, INTO ONE OR MORE INJECTION PORTS INSTALLED AT THE BOTTOM OF THE FORMWORK. THE PORT(S) SHALL BE PLACED A MINIMUM OF 12" ABOVE THE BOTTOM.
   - B. THE CONTRACTOR, AT HIS OPTION, MAY INSTALL MULTIPLE LEVELS OF CONCRETE MIX PORTS TO MINIMIZE THE PUMPING PRESSURES. IF THIS OPTION IS SELECTED, INJECT CONCRETE MIX FIRST AT THE LOWEST CONCRETE MIX PORT. AS THE CONCRETE MIX APPEARS AT THE NEXT HIGHER PORT LEVEL, AND IT HAS BEEN DETERMINED THAT THE SPACE BETWEEN THE CAISSON AND FORM WORK IS FILLED TO THAT LEVEL, CAP THE LOWER PORT AND CONTINUE INJECTING CONCRETE MIX THROUGH THE NEXT HIGHER OPEN PORT. REPEAT THIS PROCESS FROM PORT LEVEL TO PORT LEVEL UNTIL THE CONCRETE MIX REACHES THE TOP OF THE CAISSON.
   - C. THE INJECTION PROCESS SHALL BE CONTINUOUS, EXCEPT WHEN BRIEFLY INTERRUPTED TO RELOCATE THE INJECTOR TO THE NEXT HIGHER PORT EXCEPT AS NOTED IN (D) BELOW. DURING CONCRETE MIX PLACEMENT, THE INJECTION FLOW RATE SHALL BE CONTROLLED TO PREVENT AIR AND/OR WATER ENTRAPMENT WITHIN THE FORM WORK CAVITY. THE NOZZLE MUST BE CONTINUOUSLY SUBMERGED IN THE CONCRETE MIX AS IT IS PUMPED, AND A TREMIE MUST BE MAINTAINED, I.E. CONCRETE MIX SHALL NOT BE ALLOWED TO DROP THROUGH THE WATER COLUMN AT ANY TIME.
   - D. REMOVE ANY BRACING MATERIALS AFTER COMPLETION OF CONCRETE MIX INJECTION AND CLEAN FORM WORK EXTERIOR OF ANY EXCESS CONCRETE MIX OR OTHER EXTRANEOUS MATERIAL.
   - E. MIXING AND PUMPING EQUIPMENT APPROVED BY THE ENGINEER SHALL BE USED IN PREPARATION AND HANDLING OF THE CONCRETE MIX. ALL OIL AND OTHER RUST INHIBITORS SHALL BE REMOVED FROM THE MIXING DRUMS, STIRRING MECHANISMS AND OTHER PORTIONS OF THE EQUIPMENT IN CONTACT WITH THE CONCRETE MIX BEFORE THE MIXERS ARE USED.
   - F. ALL MATERIALS SHALL BE ACCURATELY BATCHED PER THE MANUFACTURERS INSTRUCTIONS. FOR CHANGES TO THE PROCEDURE FOR PUMPABILITY, THE MANUFACTURER MUST PROVIDE WRITTEN CONFIRMATION THAT THE PROCEDURES ARE ACCEPTABLE AND THAT THE QUALITY OF THE CONCRETE IS NOT DIMINISHED.
   - G. ALTERNATE PUMPING METHODS SHALL BE SUBMITTED TO THE ENGINEER AND SHOULD HAVE THE MANUFACTURERS CONCURRENCE IN WRITING.
8. COMPLETION WINDOWS. ALL STEEL SHEETING SHOULD BE FORMED W/IN 24 HRS OF CLEANING. FINAL CONCRETE MIX PUMPING AND HAND PACK SHALL NOT EXCEED 72 HOURS AFTER THE CLEANING.

MBD (FT)	TIDAL DATA FOR THE BATTERY	NAVD 88 (FT)
+9.62	HIGHEST OBSERVED WATER LEVEL (10/30/2012)	+11.27
+0.49	MEAN HIGHER HIGH WATER (MHHW)	+2.14
+0.15	MEAN HIGH WATER (MHW)	+1.8
0.00	BOROUGH PRESIDENT OF MANHATTAN (MBD)	+1.65
−2.13	MEAN TIDE LEVEL (MTL)	−0.48
−2.75	NATIONAL GEODETIC VERTICAL DATUM – 1929 (NGVD 29)	−1.1
−4.41	MEAN LOW WATER (MLW)	−2.76
−4.63	MEAN LOWER LOW WATER (MLLW)	−2.98
−8.70	LOWEST OBSERVED WATER LEVEL (02/02/1976)	−7.05

NOTE: ALL ELEVATIONS IN FEET.

ELEVATIONS SHOWN HEREON REFER TO THE NAVD 88 VERTICAL DATUM WHICH IS 1.1 FT ABOVE NGVD 1929 (UNITED STATES COASTAL AND GEODETIC SURVEY, MEAN SEA LEVEL, SANDY HOOK NEW JERSEY).

PILE BENT	MUDLINE DESCRIPTION	MUDLINE PROBE DEPTH (in.)	PILECAP TO MUDLINE DISTANCE (in.)	CLEAR SPACE BETWEEN NEAREST PILE AND CELL WALL (in.)	AVERAGE STEEL THICKNESS IN SHEET PILES (in.)	NO. OF SHEETS BETWEEN	HOLES IN SHEET PILES
81	RIP RAP	0"	40"	36"	0.255	N/A	
81 to 82	VARIES	UP TO 48"	N/A	N/A	0.209	18	12"H x 7" W 14"H x 8"W
82	RIP RAP	0"	97"	12"	0.298	N/A	
82 to 83	VARIES	UP TO 48"	N/A	N/A		20	
83	VARIES	UP TO 48"	138"	10"	0.360	N/A	INTAKE STRUCTURE
83 to 84	SILT	>48"	N/A	N/A		17	INTAKE STRUCTURE
84	SILT	12"	156"	31"	0.345	N/A	INTAKE STRUCTURE
84 TO 85	VARIES	UP TO 36"	N/A	N/A		18	
85	SILT	>48"	126"	8"	0.356	N/A	
85 TO 86	VARIES	UP TO 48"	N/A	N/A		18	
86	RIP RAP	0"	48"	6"	0.372	N/A	
86 TO 87	RIP RAP	0"	N/A	N/A		20	1"H x 1" W 4"H x 1"W
87	RIP RAP	0"	36"	24"	0.221	N/A	24"H x 8"W
87 TO 96	RIP RAP	0"	N/A	N/A		25	
96	RIP RAP	0"	80"	46"	0.350	N/A	
96 TO 97	RIP RAP	0"	N/A	N/A		17	

PILE BENT	MUDLINE DESCRIPTION	MUDLINE PROBE DEPTH (in.)	PILECAP TO MUDLINE DISTANCE (in.)	CLEAR SPACE BETWEEN NEAREST PILE AND CELL WALL (in.)	AVERAGE STEEL THICKNESS IN SHEET PILES (in.)	NO. OF SHEETS BETWEEN	HOLES IN SHEET PILES
97	RIP RAP	0"	68"	66"	0.345	N/A	
97 TO 98	RIP RAP	0"	N/A	N/A		17	
98	RIP RAP	0"	70"	72"	0.354	N/A	
98 TO 99	RIP RAP	0"	N/A	N/A		20	
99	RIP RAP	0"	80"	60"	0.343	N/A	
99 TO 100/101	VARIES	UP TO 48"	N/A	N/A		28	
100/101	RIP RAP	0"	92"	60"	0.373	N/A	
101 TO 102	RIP RAP	0"	N/A	N/A		18	
102	RIP RAP	0"	60"	54"	0.393	N/A	
102 TO 103	RIP RAP	0"	N/A	N/A		20	
103	RIP RAP	0"	80"	48"	0.252	N/A	
103 TO 104	RIP RAP	0"	N/A	N/A		18	
104	RIP RAP	0"	68"	60"	0.360	N/A	
104 TO 105	RIP RAP	0"	N/A	N/A		18	
105	RIP RAP	0"	78"	60"	0.343	N/A	
105 TO 106	RIP RAP	0"	N/A	N/A		16	

PILE BENT	MUDLINE DESCRIPTION	MUDLINE PROBE DEPTH (in.)	PILECAP TO MUDLINE DISTANCE (in.)	CLEAR SPACE BETWEEN NEAREST PILE AND CELL WALL (in.)	AVERAGE STEEL THICKNESS IN SHEET PILES (in.)	NO. OF SHEETS BETWEEN	HOLES IN SHEET PILES
106	RIP RAP	0"	73"	28"	0.350	N/A	
106 TO 107/27	RIP RAP	0"	N/A	N/A		15	
27	RIP RAP	0"	48"	48"	0.392	N/A	
27 TO 26	RIP RAP	0"	N/A	N/A		12	
26	RIP RAP	0"	32"	57"	0.367	N/A	
26 TO 25	RIP RAP	0"	N/A	N/A		16	
25	RIP RAP	0"	36"	36"	0.376	N/A	
25 TO 24	RIP RAP	0"	N/A	N/A		16	
24	RIP RAP	0"	43"	8"	0.357	N/A	

NO.	DATE	REVISION	BY

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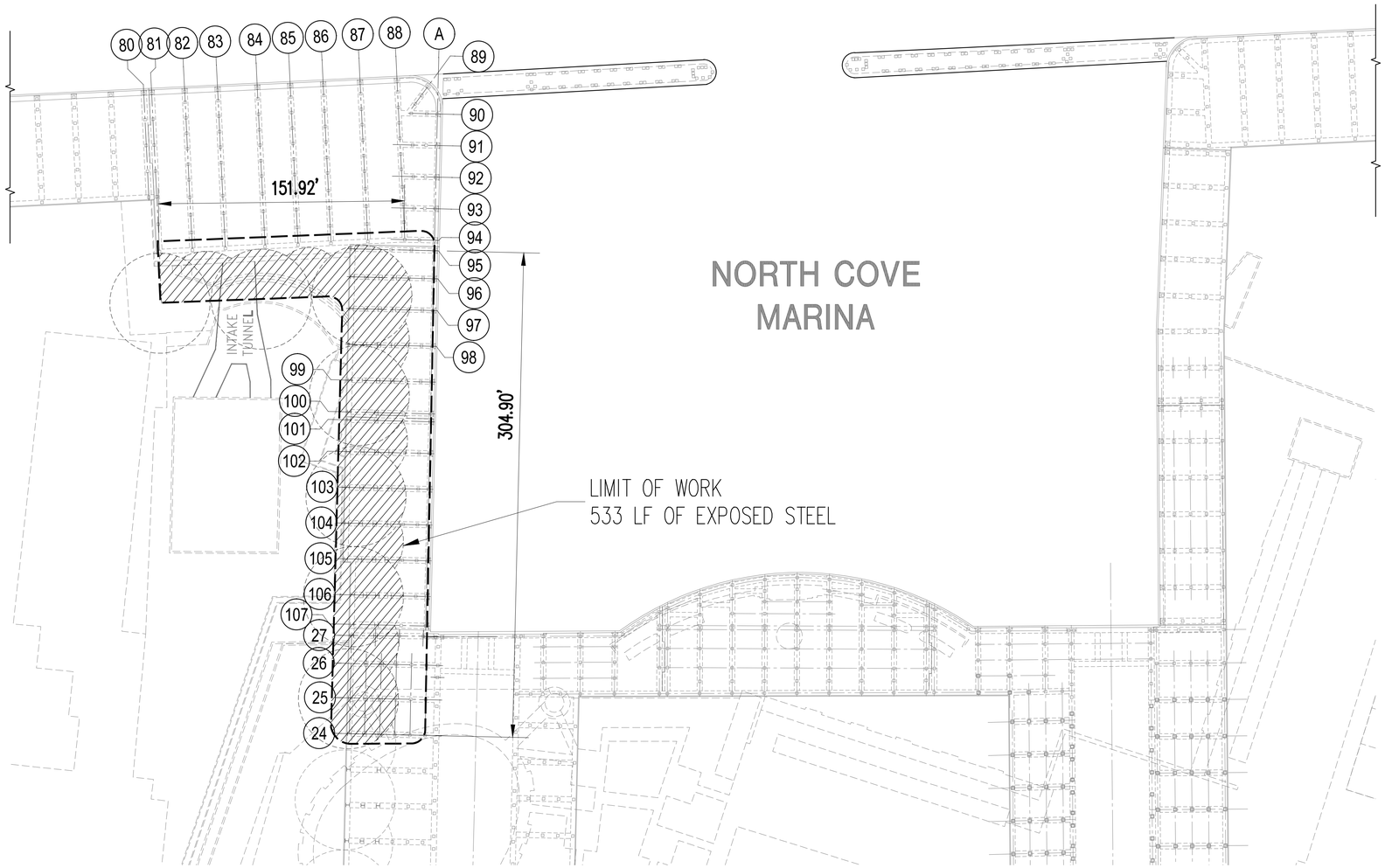
PROJECT
BATTERY PARK CITY AUTHORITY
NORTH COVE CELLULAR SHEET PILE ENCASEMENT
NEW YORK, NEW YORK

SHEET TITLE
GENERAL NOTES

PROJECT NO. 140950.09
SCALE AS NOTED
DATE 10/15/15
DRAWN BY CFA
CHECKED BY SLS
DRAWING NO. S-120
2 OF 7 SHTS



FACILITY PLAN

500' 0 500' 1000' FEET

SCALE: 1" = 500'

NOTE: EXISTING STRUCTURAL INFORMATION TAKEN FROM AS-BUILT "BATTERY PARK CITY" DRAWINGS DEVELOPED BY MUESER, RUTLEDGE, WENTWORTH, AND JOHNSTON CONSULTING ENGINEERS, DATED JUNE 17, 1974.

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PROJECT

BATTERY PARK CITY AUTHORITY
NORTH COVE CELLULAR SHEET PILE ENCASEMENT
NEW YORK, NEW YORK

SHEET TITLE

FACILITY PLAN

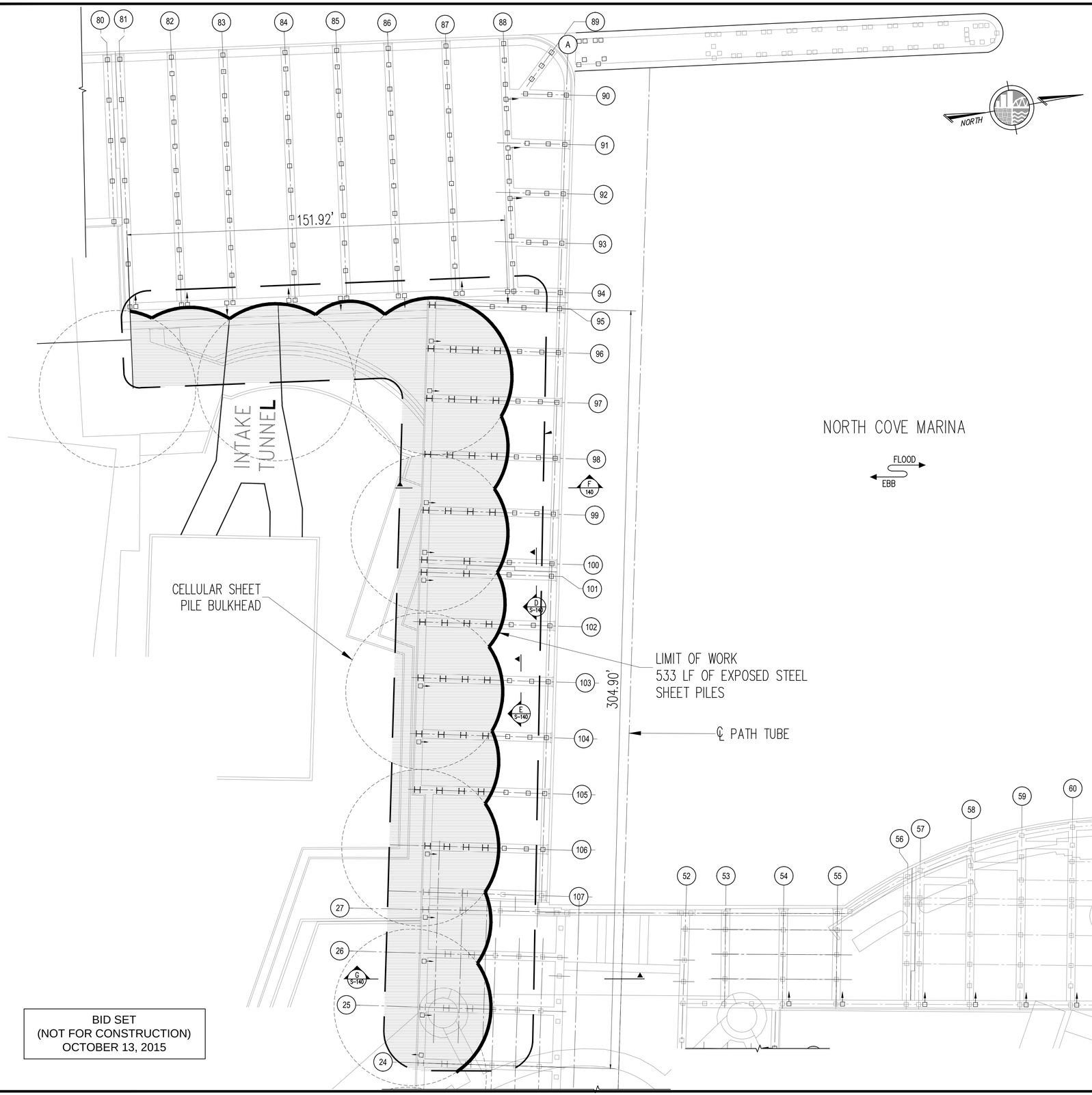
PROJECT NO.	140950.09
SCALE	AS NOTED
DATE	10/15/15
DRAWN BY	CFA
CHECKED BY	SLS

DRAWING NO.

S-131

3 OF 7 SHTS

FILE NAME: \\vydstd01\Projects\Proj\401\140950.09\10_Dwgs\AIA Drawings\100% Drawings\CAD\S-131 Facility Plan.dwg PLOT TIME: Tue, 13 Oct 2015 - 8:30pm LAST SAVE: Tue, 13 Oct 2015 - 8:26pm BY: ADrogos



LEGEND:

- 22" x 22" SQUARE EPOXY ENCASED CONCRETE PILE
- 22" x 22" SQUARE EPOXY ENCASED CONCRETE BATTER PILE
- STEEL H-PILE

SHEET PILE REMEDIATION PLAN

250 125 0 250 FEET
SCALE: 1" = 250'

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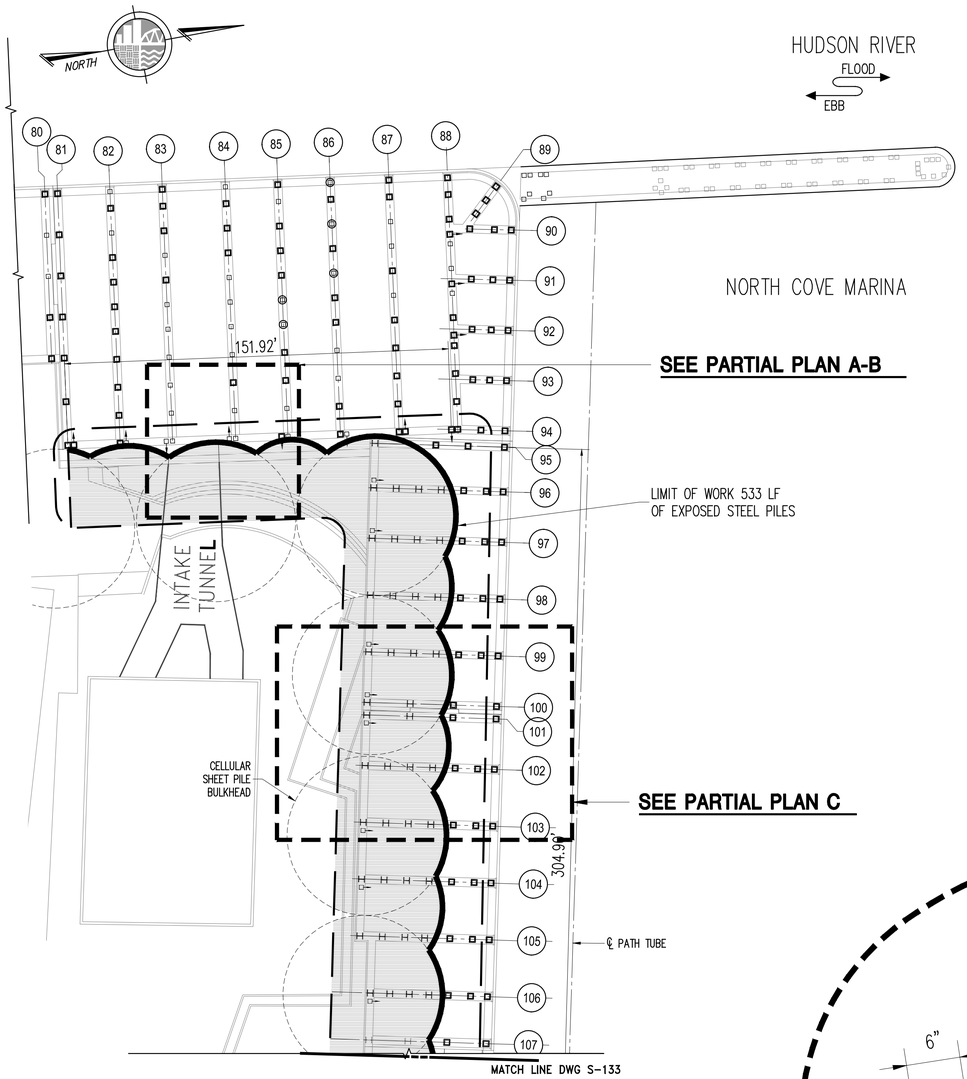
NEW YORK, NEW YORK

SHEET TITLE
SHEET PILE REMEDIATION PLAN

PROJECT NO.	140950.09
SCALE	AS NOTED
DATE	10/15/15
DRAWN BY	CFA
CHECKED BY	SLS

DRAWING NO.
S-131A
4 OF 7 SHTS

FILE NAME: \\nydata01\Projects\Proj\40\140950.09\10_Dwgs\AIA Drawings\100ft Drawings\CAD\S-131A Remediation Plan.dwg PLOT TIME: Tue, 13 Oct 2015 – 8:30pm LAST SAVE: Tue, 13 Oct 2015 – 8:26pm BY: ADrogos



REPAIR PLAN

30' 15' 0 30' FEET
SCALE: 1" = 30'

LEGEND:

- □ 22" x 22" SQUARE EPOXY ENCASED CONCRETE PILE
- →□ 22" x 22" SQUARE EPOXY ENCASED CONCRETE BATTER PILE
- H STEEL H-PILE

NOTES:

1. MEASUREMENTS BASED ON LIMITED FIELD SURVEY. CONTRACTOR TO VERIFY ACTUAL FIELD CONDITIONS..
2. SPLICE ANGLES FOUND AT FOUR LOCATIONS ON BULKHEAD.
3. SPLICE ANGLE STEEL SURFACES WHERE SPLASH ZONE EPOXY WILL BE APPLIED MUST BE CLEANED PRIOR TO APPLICATION.
4. HAND PACK ALL EXPOSED PORTIONS OF SPLICE WITH SPLASH ZONE FOLLOWING RECOMMENDED CURE TIME.

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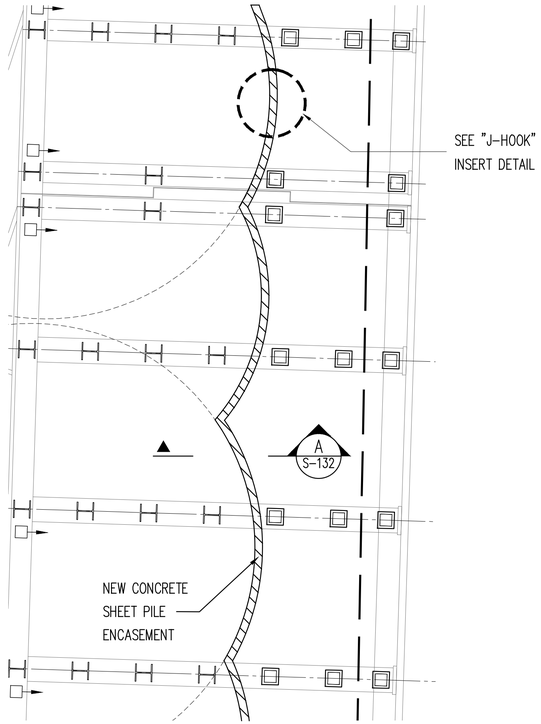
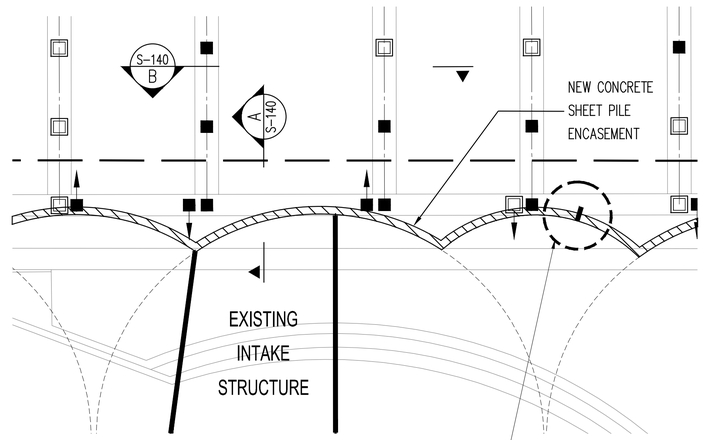


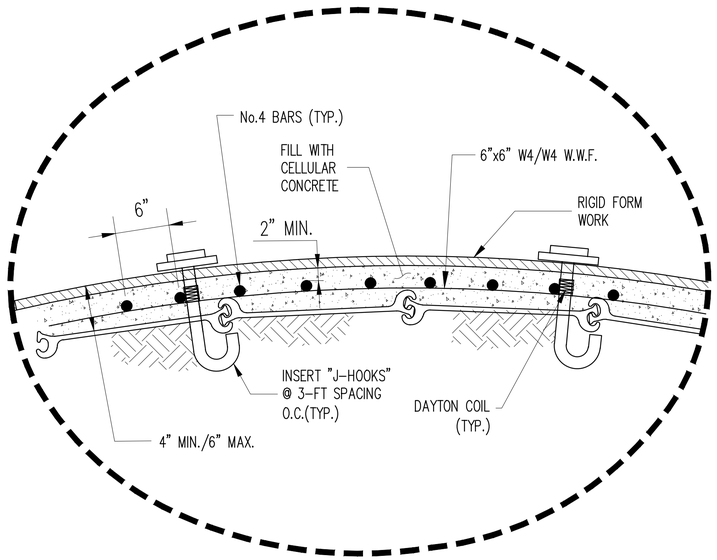
PARTIAL PLAN C

30' 15' 0 30' FEET
SCALE: 1" = 30'



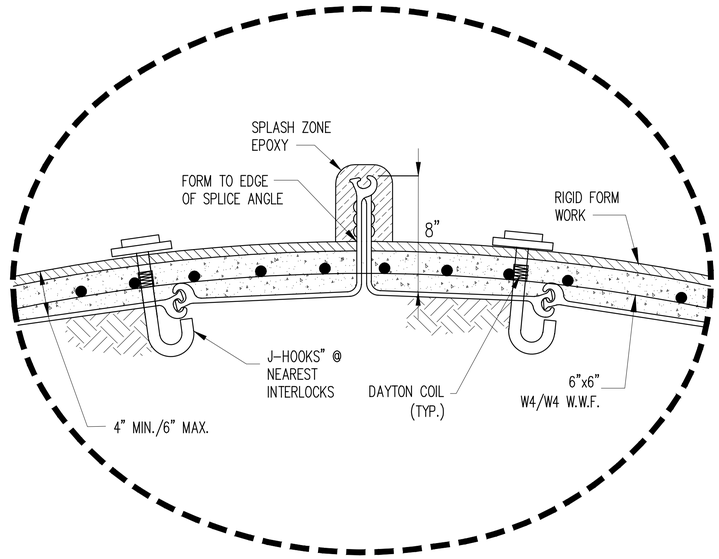
PARTIAL PLAN A-B

30' 15' 0 30' FEET
SCALE: 1" = 30'



DETAIL "J-HOOK" AT INTERLOCKS

2' 1' 0 2' 4' FEET
SCALE: 1 1/2" = 1'-0"



DETAIL AT SPLICE ANGLE

2' 1' 0 2' 4' FEET
SCALE: 1 1/2" = 1'-0"

NO.	DATE	REVISION	BY

McLaren ENGINEERING GROUP
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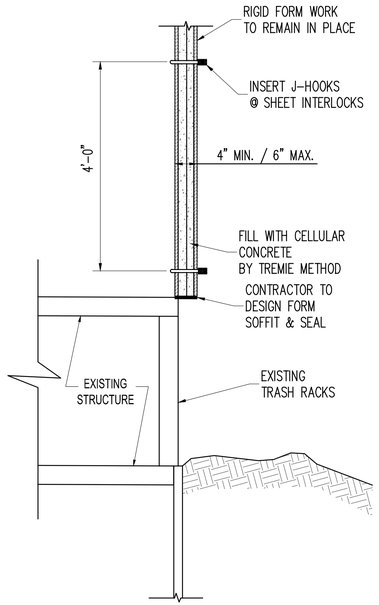
PROJECT
BATTERY PARK CITY AUTHORITY
NORTH COVE CELLULAR SHEET PILE ENCASEMENT
NEW YORK, NEW YORK

SHEET TITLE
REPAIR PLANS & DETAILS

PROJECT NO.	140950.09
SCALE	AS NOTED
DATE	10/15/15
DRAWN BY	CFA
CHECKED BY	SLS

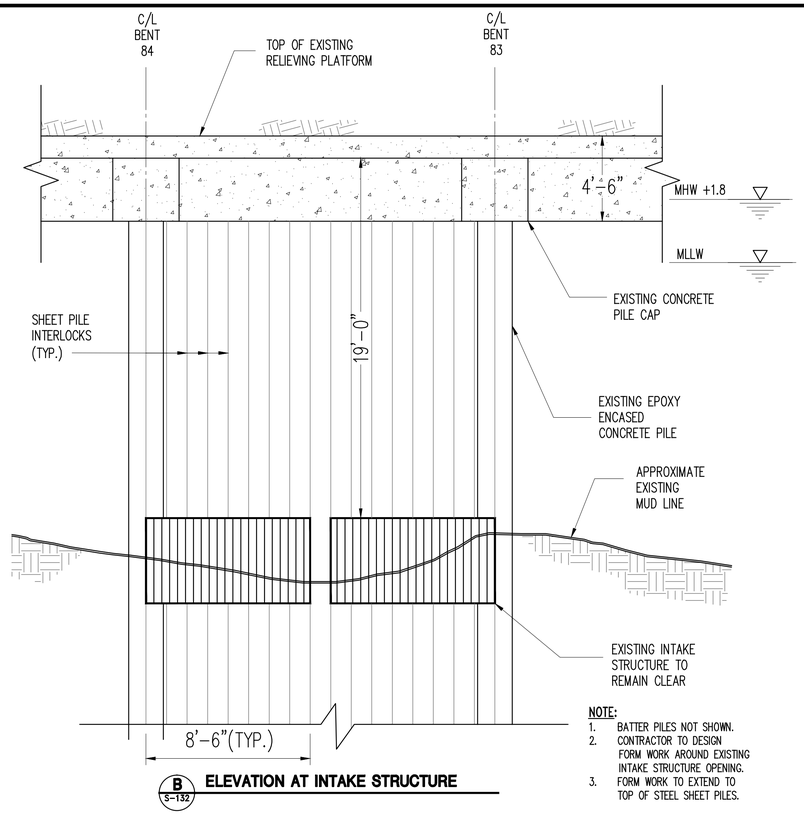
DRAWING NO.
S-132
5 OF 7 SHTS

FILE NAME: \\vydata01\Projects\Proj140\140950.09\10_Dwgs\AIA Drawings\100% Drawings\CAD\S-132 Repair Plan.dwg PLOT TIME: Tue, 13 Oct 2015 - 8:30pm LAST SAVE: Tue, 13 Oct 2015 - 8:25pm BY: ADroppo



A S-132 SECTION AT INTAKE STRUCTURE

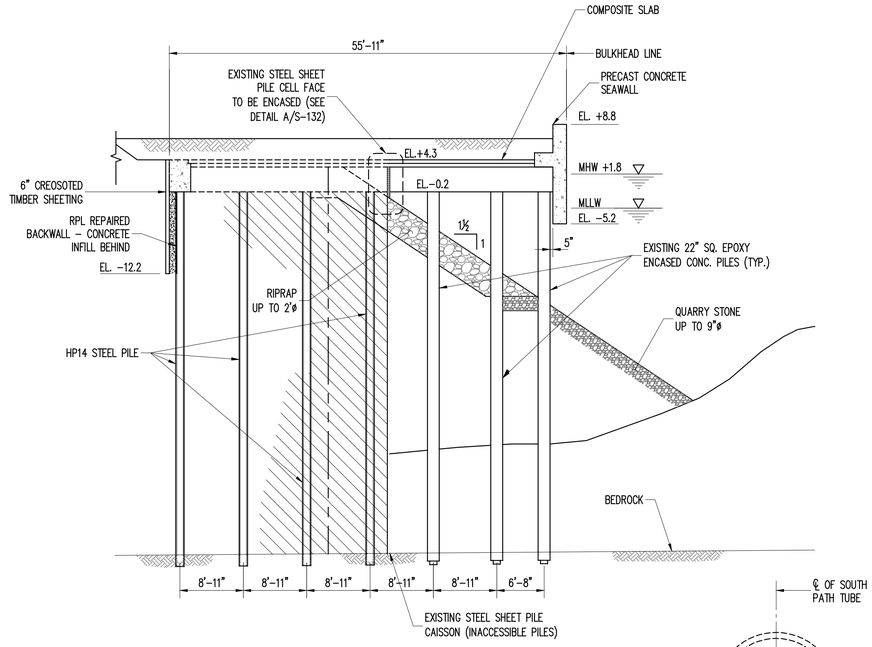
2' 1' 0 2' FEET
SCALE: 1/2" = 1'-0"



B S-132 ELEVATION AT INTAKE STRUCTURE

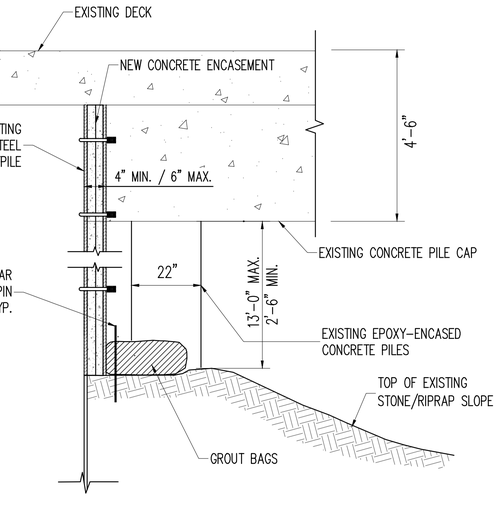
4' 2' 0 4' 8' FEET
SCALE: 1/4" = 1'-0"

NOTE:
1. BATTER PILES NOT SHOWN.
2. CONTRACTOR TO DESIGN FORM WORK AROUND EXISTING INTAKE STRUCTURE OPENING.
3. FORM WORK TO EXTEND TO TOP OF STEEL SHEET PILES.



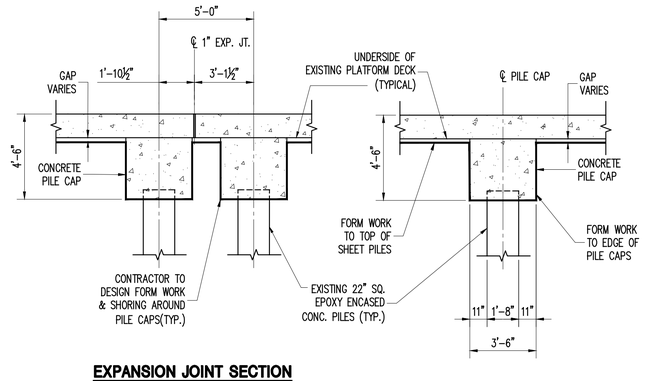
F S-131A SECTION

16' 8' 0 16' FEET
SCALE: 3/32" = 1'-0"



C S-132 TYPICAL SECTION THROUGH ENCASEMENT

2' 1' 0 2' FEET
SCALE: 1/2" = 1'-0"

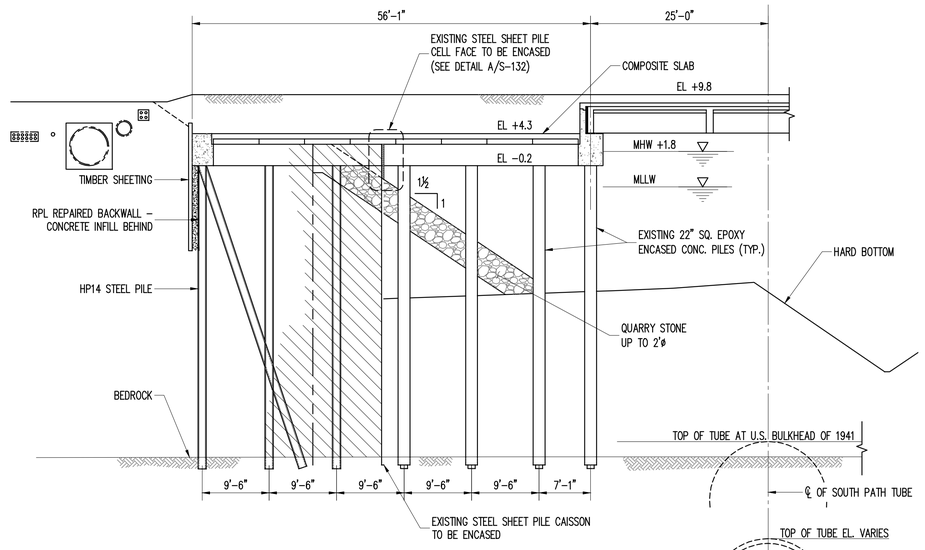


EXPANSION JOINT SECTION

D S-131A PILE CAP SECTION

E S-131A TYPICAL SECTION

4' 2' 0 4' 8' FEET
SCALE: 1/4" = 1'-0"



G S-131A SECTION

16' 8' 0 16' FEET
SCALE: 3/32" = 1'-0"

NOTE:
SUBSURFACE PROFILE TAKEN FROM AS-BUILT "BATTERY PARK CITY" DRAWINGS DEVELOPED BY MUESER, RUTLEDGE, WENTWORTH, AND JOHNSTON CONSULTING ENGINEERS, DATED JUNE 17, 1974.

BID SET
(NOT FOR CONSTRUCTION)
OCTOBER 13, 2015

NO.	DATE	REVISION	BY

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BATTERY PARK CITY AUTHORITY
NORTH COVE CELLULAR SHEET PILE ENCASEMENT
NEW YORK.

SHEET TITLE
ESPLANADE TYPICAL SECTION & REPAIR SECTIONS

PROJECT NO.	140950.09
SCALE	AS NOTED
DATE	10/15/15
DRAWN BY	CFA
CHECKED BY	SLS
DRAWING NO.	S-140
	6 OF 7 SHTS

FILE NAME: \\nydata01\Projects\Proj\401\140950.09\10_Dwgs\AIA Drawings\100% Drawings\CAD\S-140 Esplanade Typical Sections & Repair Sections.dwg PLOT TIME: Tue, 13 Oct 2015 - 8:30pm LAST SAVE: Tue, 13 Oct 2015 - 8:26pm BY: ADrogos