BATTERY PARK CITY PILE REMEDIATION

LOCATION 1

BATTERY PARK CITY ESPLANADE

MANHATTAN, NEW YORK

MARCH, 2014

PREPARED BY:

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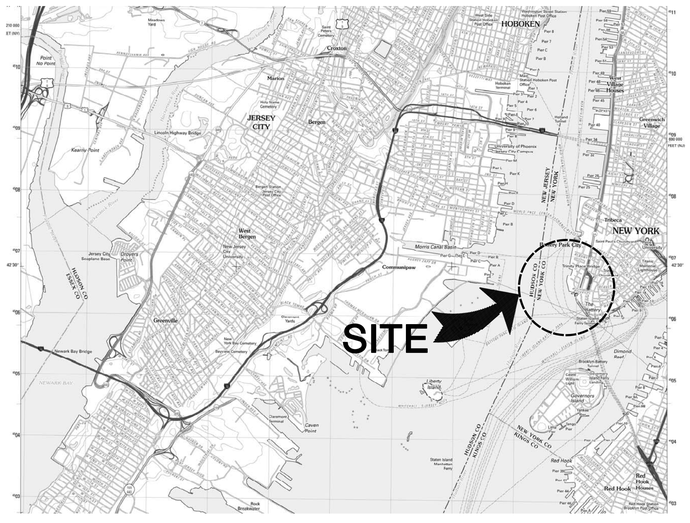
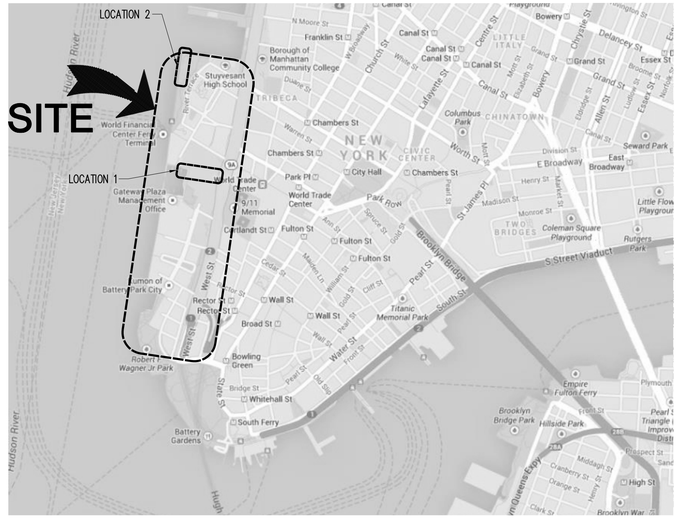


LOCATION PLAN
NO SCALE

DRAWING LIST:

DRAWING NO.	SHEET TITLE
S-1.0	COVER SHEET
S-2.0	GENERAL NOTES
S-3.0	OVERALL SITE PLAN
S-3.1	FACILITY PLAN
S-3.2	REPAIR PLAN LOCATION 1 (1 OF 2)
S-3.3	REPAIR PLAN LOCATION 1 (2 OF 2)
S-4.0	ESPLANADE TYPICAL SECTIONS
S-5.0	PIER TYPICAL DETAILS



VICINITY MAP

BID SET
NOT FOR CONSTRUCTION

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 DESIGN 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 WITH McLAREN ENGINEERING. ALL REFERENCES TO "OWNER" INDICATES THE HUGH L. CAREY BATTERY PARK CITY AUTHORITY.
15. ALL CONCRETE DESIGN MIXES SHALL BE SUBMITTED BY CONTRACTOR TO THE ENGINEER FOR REVIEW AND APPROVAL.
16. ALL WORK SHALL BE COORDINATED WITH ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS. CONFLICTS IN DIMENSION AND INTERFERENCE SHALL BE DIRECTED TO THE ENGINEER PRIOR TO CONSTRUCTION OF WORK.
17. THE CONTRACTOR SHALL CHECK THE BUILDING LOCATION WITH REGARD TO PROPERTY LINE, AND VERIFY EXISTING CONDITIONS BEFORE EXCAVATION AND SHOP DRAWING PREPARATION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
18. 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.

PILE IDENTIFICATION/NOMENCLATURE

INDIVIDUAL PILES SHALL BE REFERENCED AS FOLLOWS:

2 – 31 – C – BAT

- BAT — INDICATES BATTER PILE (IF REQUIRED)
- C — INDICATES PILE POSITION IN PILE BENT, "A" IS ALWAYS THE FIRST OFFSHORE PILE IN THE PILE BENT. WHEN 2 PILES OCCUPY THE SAME POSITION IN A PILE BENT THEY SHALL BE REFERENCED BY THEIR POSITION RELATIVE TO THE PILE BENT ROW I.E. "C–EAST", OR "C–WEST".
- 31 — INDICATES PILE BENT NUMBER, PILE BENT NUMBERING STARTS AT "1" FOR EACH RESPECTIVE PLAN AREA. PILE BENTS ARE TYPICALLY NUMBERED IN ASCENDING ORDER FROM SOUTH TO NORTH.
- 2 — INDICATES THE RESPECTIVE WORK ZONE LOCATION. THERE ARE 2 PLAN LOCATIONS LABELED SOUTH TO NORTH AS INDICATED IN THE "KEY PLAN" AND AS FOLLOWS:

  PLAN LOCATION 1 – NORTH COVE REGION. ABOVE NORTH PATH TUBES & BENEATH THE WINTER GARDEN.
  PLAN LOCATION 2 – THE NORTHERN 720'± OF THE NORTH ESPLANADE.

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).

SUBMITTALS:

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

1. SHOP DRAWINGS FOR THE FABRICATION, BENDING AND PLACEMENT OF ALL CONCRETE REINFORCEMENT STEEL.
2. 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.
3. SUPPLIER'S TECHNICAL PRODUCT DATA, INCLUDING SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR THE EPOXY GROUT TO BE PLACED.
4. LABORATORY TEST REPORTS FOR CONCRETE MATERIALS AND MIX DESIGN INCLUDING:
   A. PRELIMINARY DESIGN MIX TEST REPORTS (ACI–301) OR VERIFICATION OF MIX DESIGNS BASED ON STANDARD DEVIATION ANALYSIS. THE MIX DESIGN SUBMITTAL MUST BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF NEW YORK.
   B. AIR ENTRANIMENT TESTING (ASTM C173) FOR NORMAL AND LIGHTWEIGHT CONCRETE AND ASTM C231 FOR NORMAL WEIGHT CONCRETE.

REINFORCING:

1. CONCRETE COVER MEASURED TO THE FACE OF THE REINFORCING BAR (INCLUDING TIES AND STIRRUPS) SHALL BE 3" UNLESS OTHERWISE INDICATED IN THE PLANS.
2. ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
3. ALL WELDED WIRE MESH SHALL CONFORM TO ASTM 185.
4. ALL REINFORCING BARS AND WELDED WIRE MESH SHALL BE EXPOXY COATED IN CONFORMANCE WITH ASTM A775.
5. ALL SPLICE LENGTHS SHALL BE GREATER THAN OR EQUAL TO 36 x REINFORCING BAR DIAMETER FOR #6 BARS AND SMALLER. ALL SPLICE LENGTHS SHALL BE GREATER THAN OR EQUAL TO 45 x REINFORCING BAR DIAMETER FOR #7 BARS AND LARGER.
6. THE CONTRACTOR MAY SUBMIT LESSER SPLICE LENGTHS TO ENGINEER FOR REVIEW AND APPROVAL AT THE SAME TIME PROVIDING THE FOLLOWING INFORMATION:
   A. DETAILS PREPARED AND SUBMITTED BY THE CONTRACTOR INDICATING LOCATION AND PROPOSED LAYOUT OF REBARS AND LENGTHS OF SPLICES.
   B. WHERE THE SIZE AND NUMBER OF TIES PERMIT THE REDUCTION OF LAP LENGTH, THOSE BARS SHALL BE INDICATED ON THE DETAILS.
   C. WHERE COMPUTED STRESS VALUES PERMIT THE REDUCTION OF LAP LENGTH, COMPUTATIONS SHALL BE SUBMITTED FOR REVIEW.
   D. THE APPLICABLE SECTION OF THE ACI 318–02 CODE PERMITTING THE LESSER SPLICE LENGTH SHALL BE INDICATED ON THE SUBMITTED MATERIAL.
7. WHERE BARS OF DIFFERENT SIZES ARE TO BE SPLICED, THE SPLICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGEST.

CONCRETE:

1. ALL CONCRETE WORK SHALL CONFORM TO REQUIREMENTS OF THE ACI BUILDING CODE REQUIREMENT FOR STRUCTURAL CONCRETE (318–05).
2. ALL CONCRETE SHALL BE AIR ENTRAINED, 6% ± 1.5% BY VOLUME, FOR 3/4" PEA GRAVEL AGGREGATE. NO CARBONACEOUS AGGREGATES SHALL BE USED.
3. ALL CONCRETE SHALL BE MIXED, TRANSPORTED AND PLACED IN ACCORDANCE WITH ACI STANDARDS 318 AND 304.
4. FOLLOW ACI STANDARD 211.1 FOR MIXING WATER REQUIREMENTS.
5. ALL CONCRETE SHALL HAVE COMPRESSIVE STRENGTH Fc' = 5,000 PSI AT 28 DAYS WITH A MAXIMUM W/C RATIO OF 0.4 UNLESS NOTED OTHERWISE ON SCHEDULES OR NOTES.
6. MAXIMUM CONCRETE SLUMP SHALL BE 4", PRIOR TO THE ADDITION OF PLASTICIZING ADMIXTURES.
7. TEST CYLINDERS SHALL BE TAKEN FROM THE MIXER IN ACCORDANCE WITH ASTM C172 AND THE PROJECT SPECIFICATIONS.
8. CONSTRUCTION JOINTS SHALL BE NO MORE THAN 40 FT. ON CENTER, UNLESS OTHERWISE NOTED.
9. CONCRETE SHALL HAVE 5.4 GAL/CY OF CORROSION INHIBITOR.

PILE ENCASEMENT

1. EXCAVATE THE MUDLINE AROUND THE BASE OF THE PILES TO BE ENCASED TO THE DEPTH SPECIFIED ON THE CONTRACT DRAWINGS.
2. CLEAN CONCRETE SURFACE FREE OF ALL LOOSE DEBRIS AND FOREIGN MATTER.
3. FOR STRUCTURAL REPAIRS, INSTALL REINFORCEMENT CAGES AS SPECIFIED ON CONTRACT DRAWINGS. PROVIDE A MINIMUM OF 3" CLEAR COVER ON ALL SIDES OF CAGE.
4. SECURE FIBERGLASS PILE JACKET IN PLACE. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE JACKET DURING THE EPOXY/ CONCRETE PLACEMENT.
5. FORMS FOR JACKETS SHALL BE RIGID, TRANSLUCENT AND MADE OF FIBERGLASS REINFORCED POLYMER (FRP) OR OTHER SUITABLE MATERIAL AND SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT THE FLUID PRESSURE OF THE WET CONCRETE AND OF SUFFICIENT IMPERMEABILITY TO PREVENT SEAWATER FROM CONTAMINATING THE WET CONCRETE AND EPOXY GROUT. FLEXIBLE FORMS SHALL NOT BE PERMITTED.
6. ALL FRP FORMS SHALL REMAIN IN PLACE.
7. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED CONCRETE AND EPOXY GROUT PLACEMENT METHODS TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING SUCH WORK. CONCRETE EXTENSION AND JACKETS SHALL BE FILLED BY USE OF TREMIE OR PLUMBING HOSES, ONE EACH SIDE OF THE JACKET AND LOWERED TO THE BOTTOM OF THE FORM. THE HOSES SHALL BE GRADUALLY LIFTED AS THE LEVEL OF THE CONCRETE RISES IN THE FORM, CARE BEING TAKEN SO THAT THE HOSE IS CONTINUALLY IMMERSED IN FRESH CONCRETE. ALTERNATELY, INJECTION NIPPLES, (ONE EACH SIDE OF FORM) AT THE BOTTOM MAY BE USED TO FILL THE FORM, DISPLACING ANY WATER IN THE FORM.

MBD (FT)	TIDAL DATA FOR THE BATTERY	NAVD 88 (FT)
+5.60	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

BID SET
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NO.	DATE	REVISION	BY

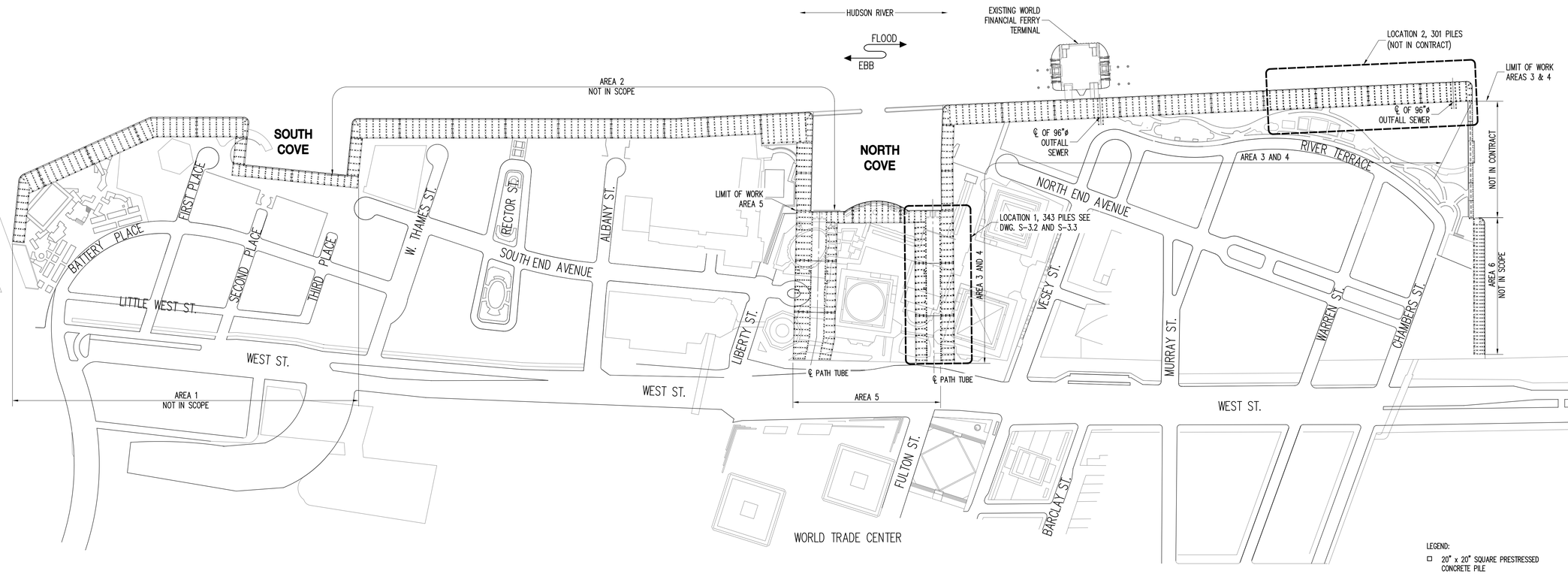
PROJECT
BATTERY PARK CITY
ESPLANADE REPAIRS
MANHATTAN NEW YORK

SHEET TITLE
GENERAL NOTES

PROJECT NO.	130870
SCALE	AS NOTED
DATE	03/07/2014
DRAWN BY	EHC
CHECKED BY	RJM
DRAWING NO.	S-2.0

2 OF 8 SHTS

FILE NAME: P:\Proj\130\130870\10_Dwgs\CAD\S–2 General Notes.dwg PLOT TIME: Fri, 07 Mar 2014 – 6:30pm LAST SAVE: Fri, 07 Mar 2014 – 6:25pm BY: echiu



LEGEND:

- □ 20" x 20" SQUARE PRESTRESSED CONCRETE PILE
- →□ 20" x 20" SQUARE PRESTRESSED CONCRETE BATTER PILE

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

OVERALL SITE PLAN

200' 100' 0 200' FEET

SCALE: 1" = 200'

BID SET
NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY

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PROJECT

BATTERY PARK CITY ESPLANADE REPAIRS

MANHATTAN

NEW YORK

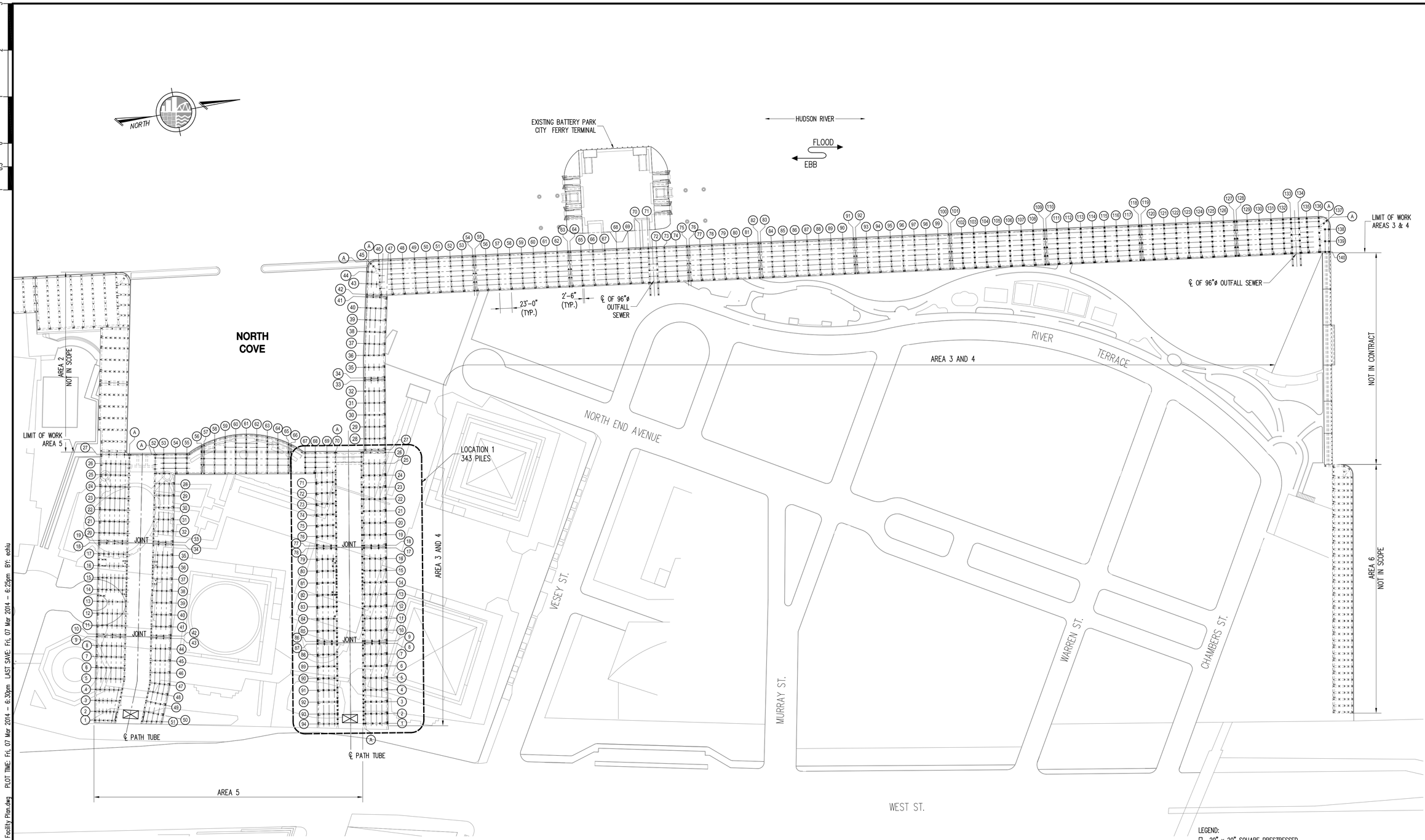
SHEET TITLE

OVERALL SITE PLAN

PROJECT NO.	130870
SCALE	AS NOTED
DATE	03/07/2014
DRAWN BY	EHC
CHECKED BY	RJM
DRAWING NO.	S-3.0

3 OF 8 SHTS

FILE NAME: P:\Proj\130\130870\10_Dwgs\CADD\S-3 Overall Site Plan.dwg PLOT TIME: Fri, 07 Mar 2014 - 6:30pm LAST SAVE: Fri, 07 Mar 2014 - 6:25pm BY: ehiu



FACILITY PLAN

90' 45' 0 90' FEET

SCALE: 1" = 90'

LEGEND:

- □ 20" x 20" SQUARE PRESTRESSED CONCRETE PILE
- ⊸□ 20" x 20" SQUARE PRESTRESSED CONCRETE BATTER PILE

NOTE: AREA DESIGNATIONS 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 ESPLANADE REPAIRS

MANHATTAN

NEW YORK

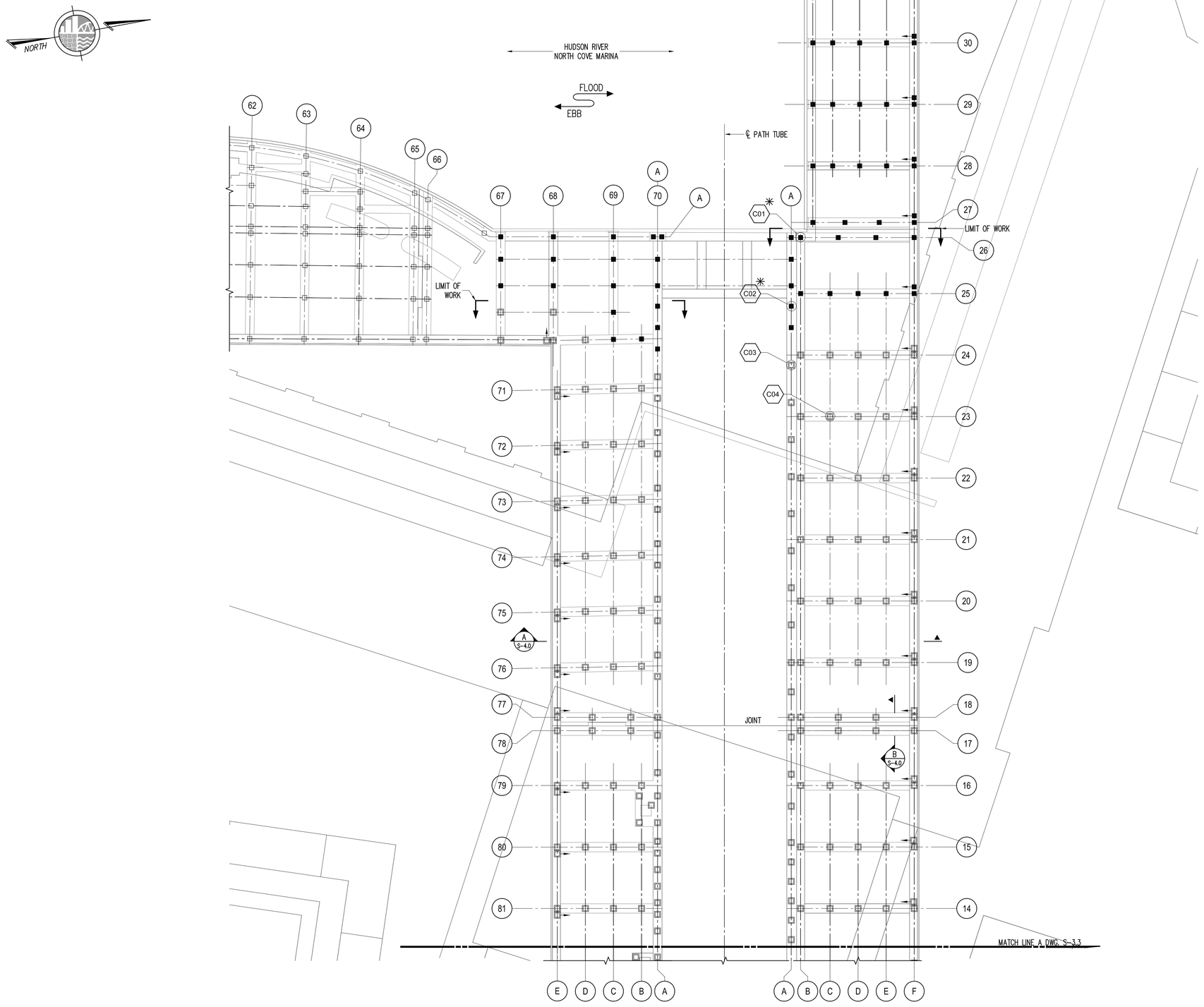
SHEET TITLE

FACILITY PLAN

PROJECT NO.	130870
SCALE	AS NOTED
DATE	03/07/2014
DRAWN BY	EHC
CHECKED BY	RJM
DRAWING NO.	S-3.1

4 OF 8 SHTS

FILE NAME: P:\Proj\130\130870\10_Dwgs\CADD\S-3_1 Facility Plan.dwg PLOT TIME: Fri, 07 Mar 2014 - 6:30pm LAST SAVE: Fri, 07 Mar 2014 - 6:25pm BY: echiu



SCALE: 1" = 20'

REPAIR PLAN - LOCATION 1 (1 OF 2)

BOTTOM PROFILE DATA				
BENT	PILE	EXPOSED LENGTH (FT)	MUDLINE PENETRATION (FT)	BOTTOM COMPOSITION
75.2	A	10.8	2	SILT
74.8	A	10.8	2	SILT
75	B	9.8	1.5	SILT
	C	8.8	1	SILT
	D	5.9	0	12"ø± RIPRAP
	E	5.3	0	12"–18"ø RIPRAP
	E–BAT	5.3	0	12"–18"ø RIPRAP
79.9	A	8.7	1.5	SILT & SAND
81.3	A	8.7	1.5	SILT & SAND
80	B	7.9	1.5	SILT & SAND
	C	5.7	0.8	SILT & SAND
	D	3.5	0	RIPRAP
	E	3.6	0	RIPRAP
	E–BAT	3.6	0	RIPRAP

NOTES:

1. MEASUREMENTS BASED ON LIMITED FIELD SURVEY. CONTRACTOR TO VERIFY ACTUAL FIELD CONDITIONS.
2. MINIMUM JACKET SHALL CONSIST OF EXPOSED PILE LENGTH + 2 FT MINIMUM EMBEDMENT INTO MUDLINE.

LEGEND:

- □ 20" x 20" SQUARE PRESTRESSED CONCRETE PILE
- —□ 20" x 20" SQUARE PRESTRESSED CONCRETE BATTER PILE
- ■ EXISTING JACKET REPAIR
- ▣ PROPOSED PROTECTIVE REPAIR (SEE DETAIL A ON DWG. S–5.0)
- ◎ PROPOSED STRUCTURAL REPAIR (SEE DETAIL B ON DWG. S–5.0)
- ⬡ CORE LOCATION
- ⬡* CORE LOCATION TO BE PLUGGED (SEE DETAIL E ON DWG. S–5.0)

BID SET
NOT FOR CONSTRUCTION

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PROJECT

BATTERY PARK CITY
ESPLANADE REPAIRS

MANHATTAN NEW YORK

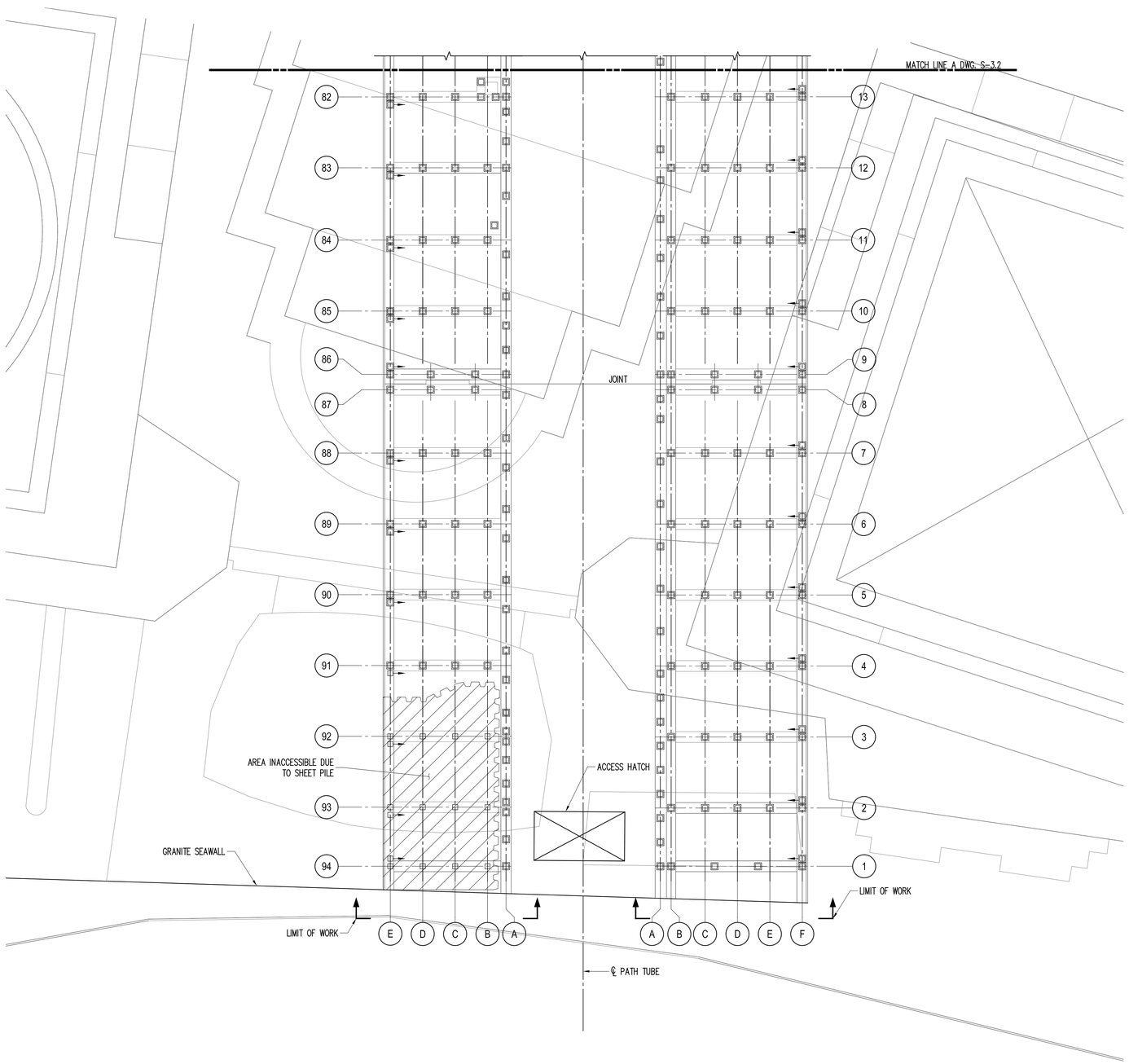
SHEET TITLE

REPAIR PLAN
LOCATION 1 (1 OF 2)

PROJECT NO.	130870
SCALE	AS NOTED
DATE	03/07/2014
DRAWN BY	EHC
CHECKED BY	RJM
DRAWING NO.	S-3.2

5 OF 8 SHTS

FILE NAME: P:\Proj\130\130870\10_Dwgs\CADD\S-3_3 Location Pile Plan 1.dwg PLOT TIME: Fri, 07 Mar 2014 – 6:30pm LAST SAVE: Fri, 07 Mar 2014 – 6:25pm BY: echiu



BOTTOM PROFILE DATA				
BENT	PILE	EXPOSED LENGTH (FT)	MUDLINE PENETRATION (FT)	BOTTOM COMPOSITION
84.8	A	8.3	1.5	SILT & SAND
85.2	A	8.3	1.5	SILT & SAND
85	B	7.4	1	SILT & SAND
	C	4.7	0.8	SILT & SAND
	D	2	0	RIPRAP
	E	4	0	RIPRAP 1.5'–2.0'ø
	E–BAT	4	0	RIPRAP
89.9	A	6.3	1.1	SILT & SAND
90.2	A	6.3	0.9	SILT & SAND
90	B	5.5	0.9	SILT & SAND
	C	4.2	1.1	SILT & SAND
	D	3.5	1.5	SILT & SAND
	E	0.9	0	SAND
	E–BAT	0.7	0	SAND

NOTES:

1. MEASUREMENTS BASED ON LIMITED FIELD SURVEY. CONTRACTOR TO VERIFY ACTUAL FIELD CONDITIONS.
2. MINIMUM JACKET SHALL CONSIST OF EXPOSED PILE LENGTH + 2 FT MINIMUM EMBEDMENT INTO MUDLINE.

LEGEND:

- □ 20" x 20" SQUARE PRESTRESSED CONCRETE PILE
- →□ 20" x 20" SQUARE PRESTRESSED CONCRETE BATTER PILE
- ■ EXISTING JACKET REPAIR
- ▣ PROPOSED PROTECTIVE REPAIR (SEE DETAIL A ON DWG. S–5.0)
- ⊚ PROPOSED STRUCTURAL REPAIR (SEE DETAIL B ON DWG. S–5.0)
- ⬡ CORE LOCATION
- ⬡* CORE LOCATION TO BE PLUGGED (SEE DETAIL E ON DWG. S–5.0)

REPAIR PLAN - LOCATION 1 (2 OF 2)

20' 10' 0 20' FEET
SCALE: 1" = 20'

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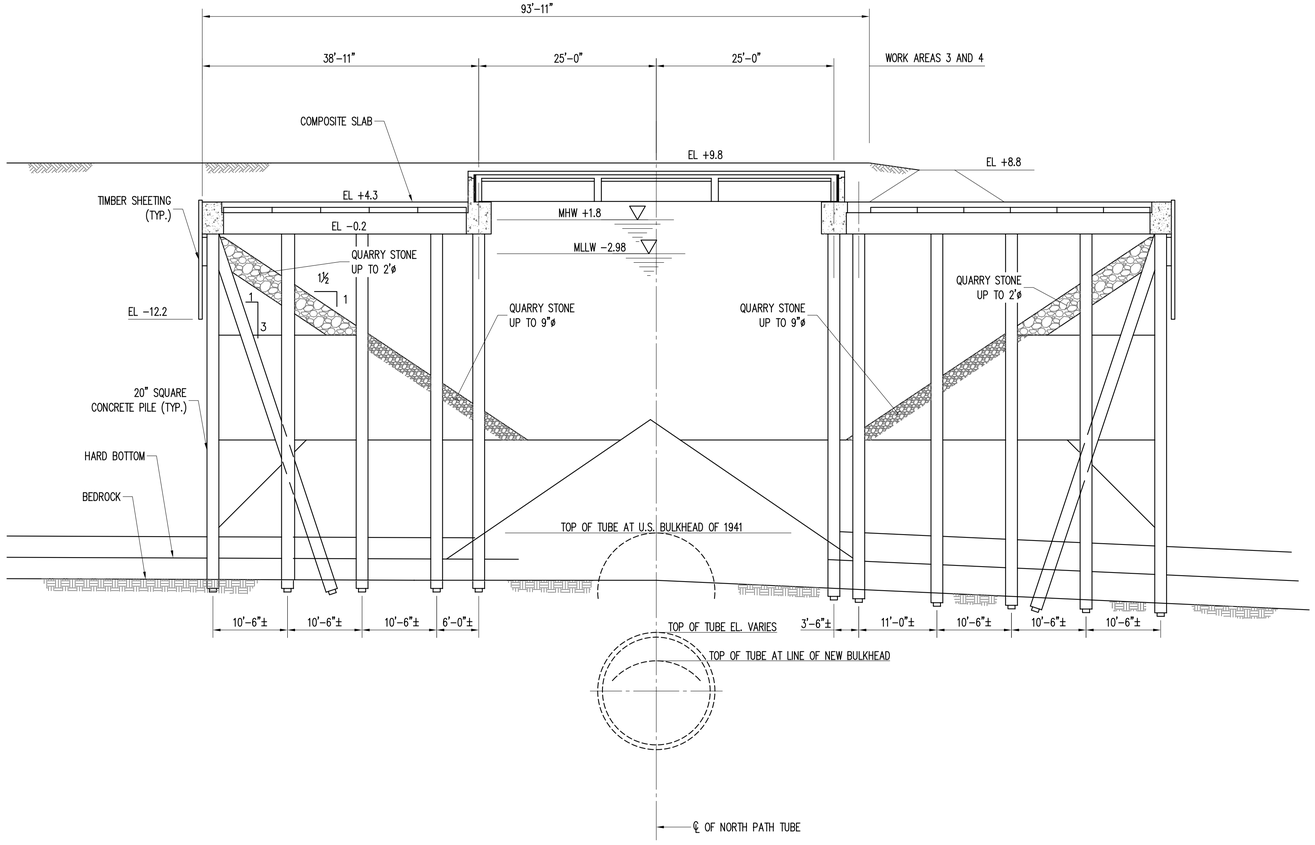
MANHATTAN NEW YORK

SHEET TITLE

REPAIR PLAN
LOCATION 1 (2 OF 2)

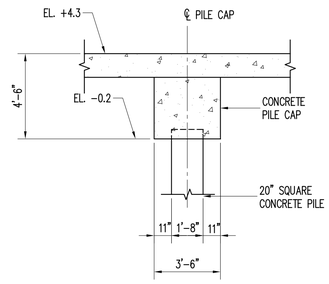
PROJECT NO.	130870
SCALE	AS NOTED
DATE	03/07/2014
DRAWN BY	EHC
CHECKED BY	RJM
DRAWING NO.	S-3.3
	6 OF 8 SHTS

FILE NAME: P:\Proj\130\130870\10_Dwgs\CADD\S-3_3 Location Plte Plan 1.dwg PLOT TIME: Fri, 07 Mar 2014 - 6:30pm LAST SAVE: Fri, 07 Mar 2014 - 6:25pm BY: ehhu

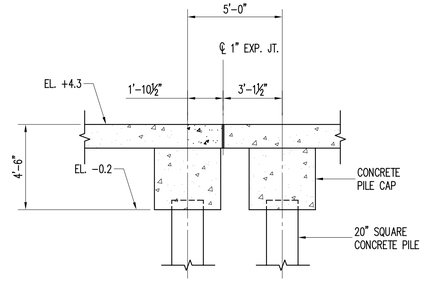


A S-4.0 **SECTION**
3/32"=1'-0"

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



TYPICAL SECTION



EXPANSION JOINT SECTION

B S-4.0 **PILE CAP SECTION**
1/4"=1'-0"

BID SET
NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY

McLaren ENGINEERING GROUP applied ingenuity
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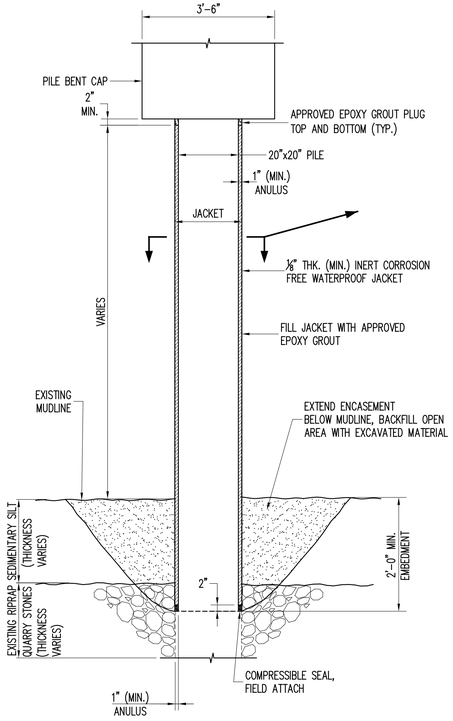
PROJECT
BATTERY PARK CITY ESPLANADE REPAIRS
MANHATTAN NEW YORK

SHEET TITLE
ESPLANADE TYPICAL SECTIONS

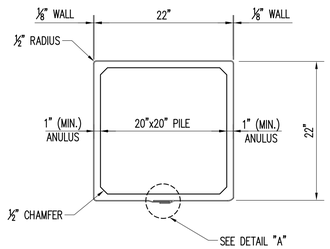
PROJECT NO.	130870
SCALE	AS NOTED
DATE	03/07/2014
DRAWN BY	EHC
CHECKED BY	RJM
DRAWING NO.	S-4.0

7 OF 8 SHTS

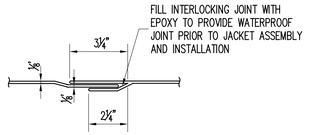
FILE NAME: P:\Proj\130\130870\10_Dwgs\CADD\S-4 Pier Typical Sections.dwg PLOT TIME: Fri, 07 Mar 2014 - 6:31pm LAST SAVE: Fri, 07 Mar 2014 - 6:25pm BY: echiu



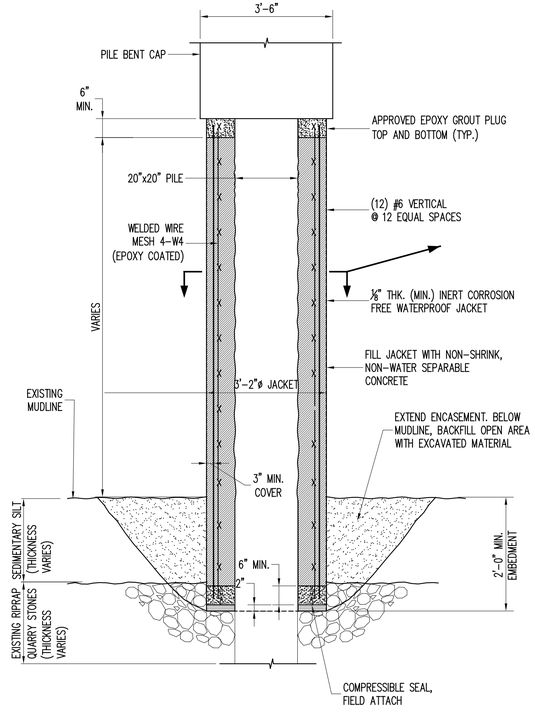
ELEVATION
1/2"=1'-0"



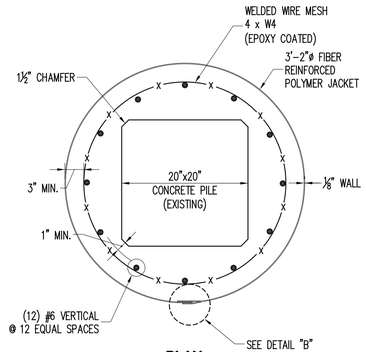
PLAN
1"=1'-0"



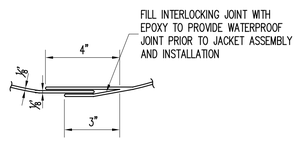
DETAIL "A"
N.T.S.



ELEVATION
1/2"=1'-0"

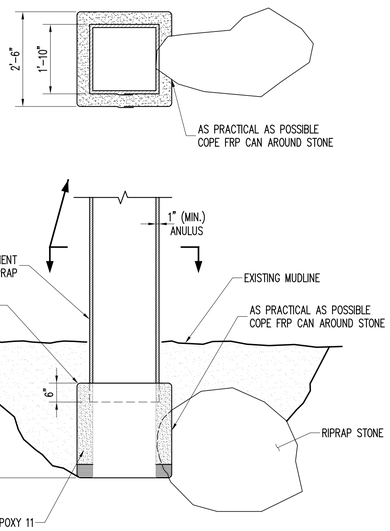


PLAN
1"=1'-0"

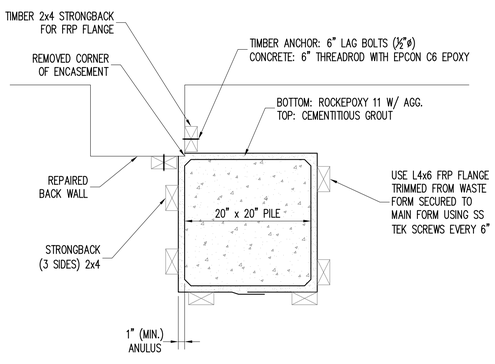


DETAIL "B"
N.T.S.

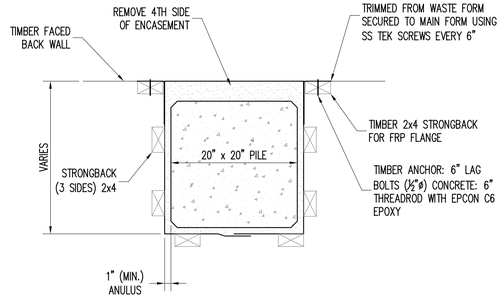
A S-5.0 EXPOXY GROUT PILE PROTECTION DETAILS
(SQUARE JACKET)



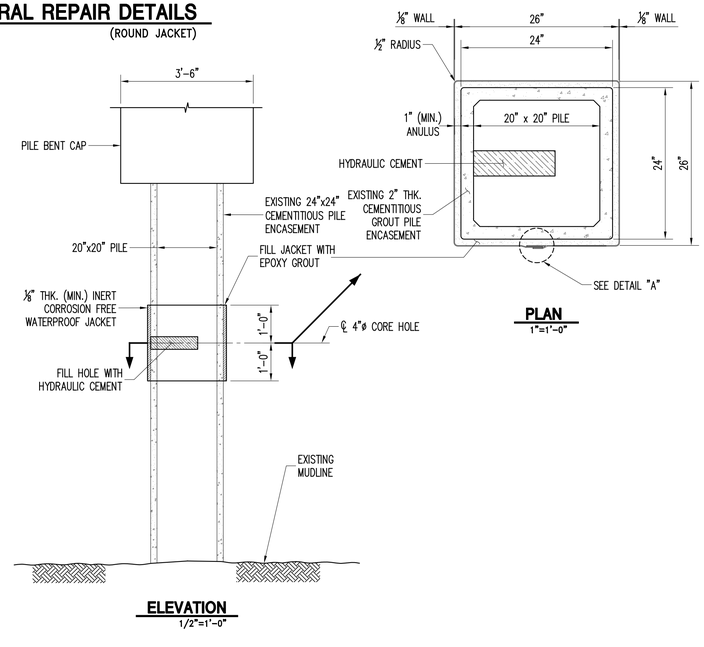
B S-5.0 CONCRETE PILE STRUCTURAL REPAIR DETAILS
(ROUND JACKET)



BACK WALL CORNER ENCASEMENT



BACK WALL ENCASEMENT



PLAN
1"=1'-0"

ELEVATION
1/2"=1'-0"

C S-5.0 RIPRAP OBSTRUCTION DETAIL

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

D S-5.0 BACK WALL ENCASEMENT DETAIL

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

NOTE: FOR PILES IN CLOSE PROXIMITY TO BULKHEAD WALL.

E S-5.0 CONCRETE CORE PLUG DETAIL

BID SET
NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY

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PROJECT
BATTERY PARK CITY ESPLANADE REPAIRS
MANHATTAN NEW YORK

SHEET TITLE
PIER TYPICAL DETAILS

PROJECT NO.	130870
SCALE	AS NOTED
DATE	03/07/2014
DRAWN BY	EHC
CHECKED BY	RJM
DRAWING NO.	S-5.0

8 OF 8 SHTS

FILE NAME: P:\Proj\130\130870\10_Dwgs\CADD\S-5 Pier Typical Details1.dwg PLOT TIME: Fri, 07 Mar 2014 - 6:31pm LAST SAVE: Fri, 07 Mar 2014 - 6:29pm BY: echiu