**Project:** Phase 7 Pile Remediation

Assessment, Design & Engineering Services

**Date:** November 22, 2019

**RE:** Addendum #1

# of Pages: 26

The following responses (the "Responses") are provided to questions received by Battery Park City Authority ("BPCA") by the close of business on November 18, 2019, in connection with its Request for Proposals (the "RFP") for the Phase 7 Pile Remediation Assessment, Design, and Engineering Services project (the "Project"). The Responses are provided in bold, italicized print immediately following the questions.

1. Given the Thanksgiving holiday during next week, would you consider extending the proposal due date?

The due date for Proposals is hereby extended from December 3, 2019 at 5:00 p.m. to December 4, 2019 at 5:00 pm, and pre-award interviews, if any, will be scheduled for December 10, 2019. All Proposers invited for an interview must be available and prepared to attend on that date. BPCA will provide advance notice of at least twenty-four (24) hours to invited Proposers.

2. Please provide Sheets 1-8 prepared by McLaren Engineering Group dated March 30, 2018 as referenced in the DEC permit item 2 "Conformance with Plans."

Attached hereto as <u>Addendum 1, Exhibit A</u> are Sheets 1-8 prepared by McLaren Engineering Group dated March 30, 2018.

3. Is it acceptable for a firm to submit as both a prime and sub?

Yes, a Proposer may submit a Proposal as a prime consultant while also participating in one or more separately submitted Proposals as a sub-consultant.

- 4. With regard to Exhibit A Section II.2, please confirm the following:
  - a. A minimum of four (4) cores per area or 12 cores total are requested for petrographic analysis.

Exhibit A, Section 2 requires that the selected Proposer select at least four (4) locations within each of the three (3) Project Areas, for a total of at least twelve (12) locations that will be subject to direct investigation and testing. Proposers should specify their recommended means of investigation and testing to accomplish the required results and conclusions and may recommend the investigation and testing of additional locations, over and above the required minimum of four (4) per Project Area, if deemed necessary or prudent by the Proposer.

b. Condition Assessments and Load Bearing Analyses are requested at all three (3) project areas, not just Wagner Park.

That is correct.

5. Please provide full size plans from Appendix G – Phase 6 Drawings. The sheets were cropped within the RFP.

Attached hereto as <u>Exhibit G</u> is an uncropped version of the Phase 6 Drawings (sheets 1-14 prepared by M&N Engineering, P.C. and dated September 2018), which will replace and supersede the existing <u>Exhibit G</u> to the RFP.

6. Please confirm that it is acceptable for Proposers to submit utilization plan(s) for M/WBE and SDVOB participation in any combination of roles including prime, subcontractor and/or suppliers.

Yes, it is acceptable for Proposers to submit Utilization Plans for M/WBE and SDVOB participation in any combination of roles – including as prime consultant, sub-consultant and/or suppliers for this Project. Proposers' Utilization Plans should include all M/WBE and SDVOB firms that the Proposer intends to use on the Contract. Proposers that are certified may include themselves on the Utilization Plan along with other firms needed to reach the goals for the Project. Please note that a certified M/WBE firm will be given credit as EITHER an 'M' OR a 'W' for a particular percentage of the Project, but not both. SDVOB firms that are also a certified MBE and/or WBE may count the same task or percentage for both programs. Any additional questions regarding M/WBE or SDVOB participation should be directed to Justin-McLaughlin-Williams, reachable at Justin.mclaughlin-williams@bpca.ny.gov.

7. Exhibit C (BPCA's Standard Form of Contract) details insurance requirements in Section 10, but the required coverage limits for Valuable Papers Insurance and Excess Liability Insurance are not defined. Please verify the required coverage limits for these policies.

Exhibit C reflects BPCA's Standard Form of Contract, through which the insurance coverage requirements set forth in Section VII of the RFP are to be memorialized. Any types of insurance coverages not included in Section VII of the RFP are not applicable to or required for the Project.

By signing the line below, I am acknowledge and understood, and the inf Cost Proposal submitted. This document	formation contained herein will be in-	corporated into the Proposal and
Print Name	Signature	 Date
Number of pages received:	<fill in=""></fill>	
Distributed to: All present and all pr	rospective Proposers	

#### Addendum 1 Exhibit A

Sheets 1-8 prepared by McLaren Engineering Group dated March 30, 2018

[NO FURTHER TEXT ON THIS PAGE]

# BATTERY PARK CITY ESPLANADE REPAIRS

NEW YORK, NEW YORK MARCH 30, 2018

#### PREPARED BY:







#### **DRAWING LIST:**

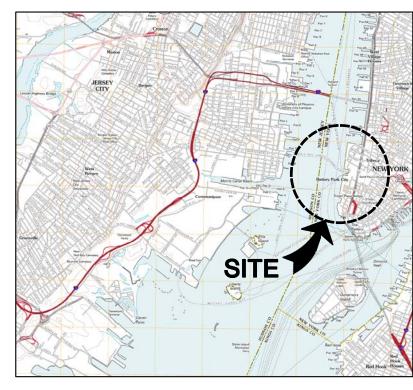
DRAWING NO.	DRAWING TITLE
S-1.0 S-2.0 S-3.0 S-4.0 S-5.0 S-6.0 S-7.0	COVER SHEET OVERALL SITE PLAN PILES PLAN OF 2018 PHASE 6 PILES PLAN OF 2019 PHASE 7 PILES PLAN OF 2020 PHASE 8 PILES PLAN OF 2021 PHASE 9 EXISTING SECTIONS PILE REPAIR DETAILS
3-7.0	FILL INLEAIN DETAILS

DEC PERMIT SUBMISSION

#### PREPARED FOR:

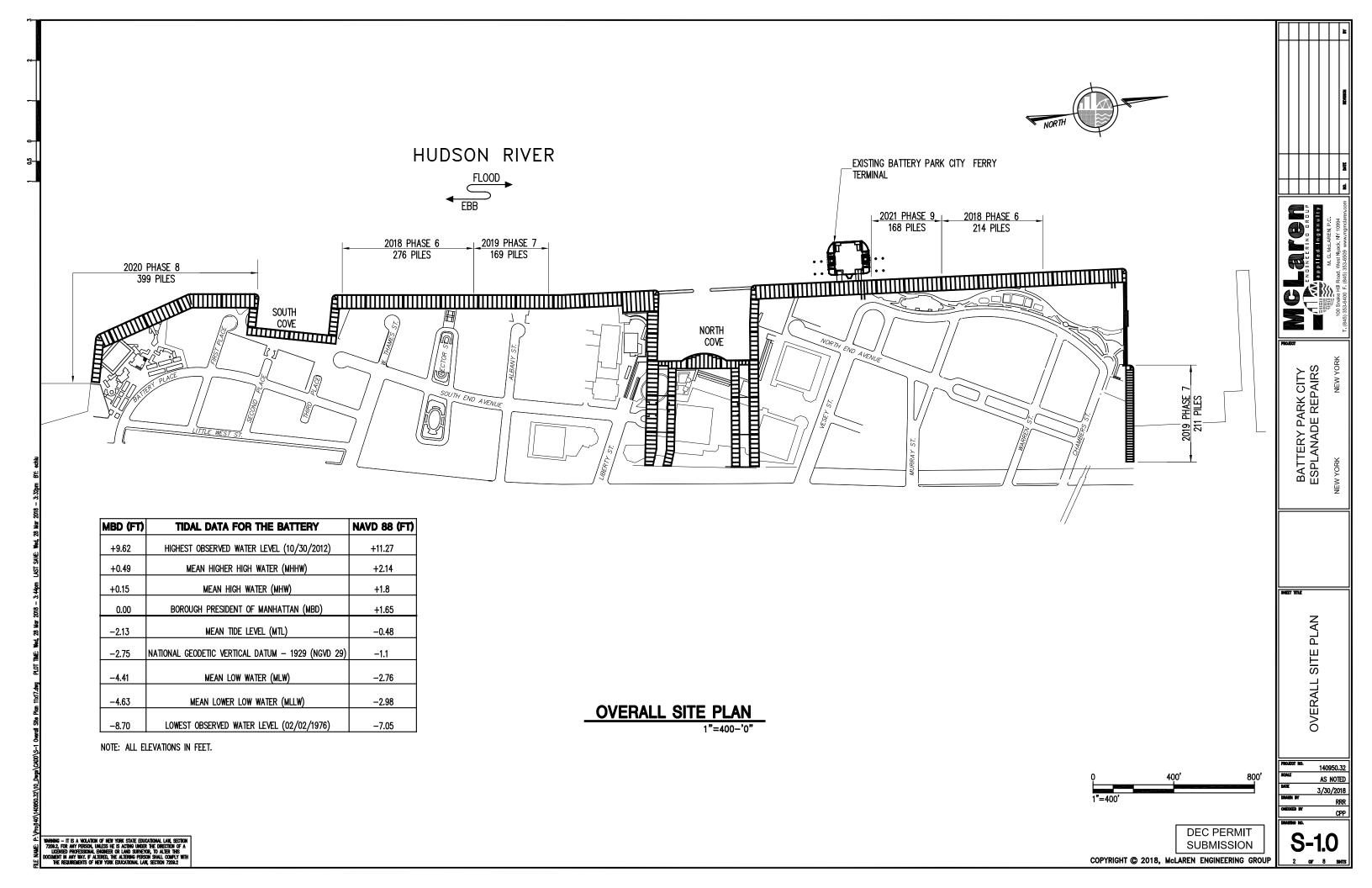
HUGH L. CAREY BATTERY PARK CITY AUTHORITY WORLD FINANCIAL CENTER 24TH FLOOR NEW YORK, N.Y. 10281

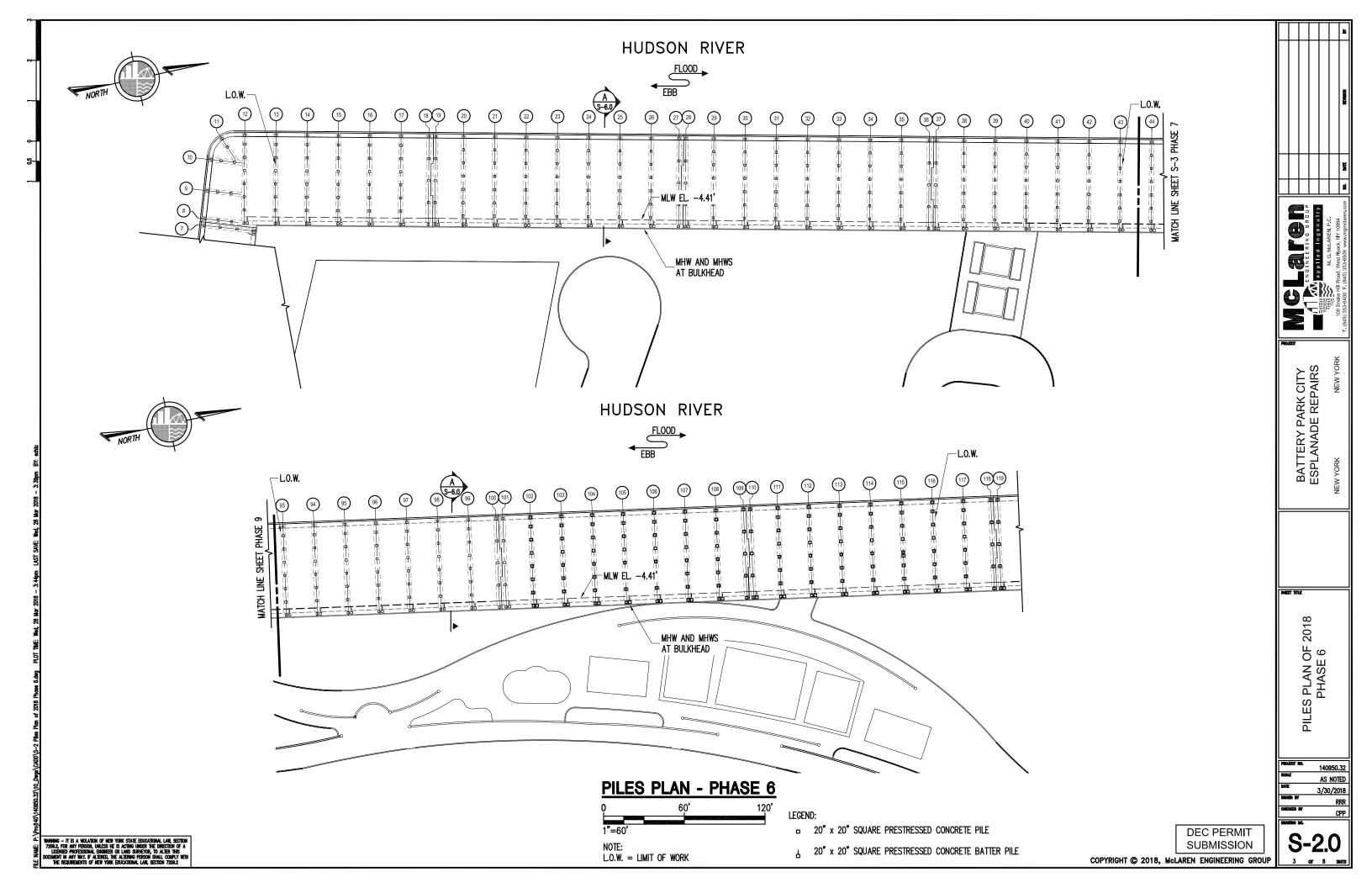


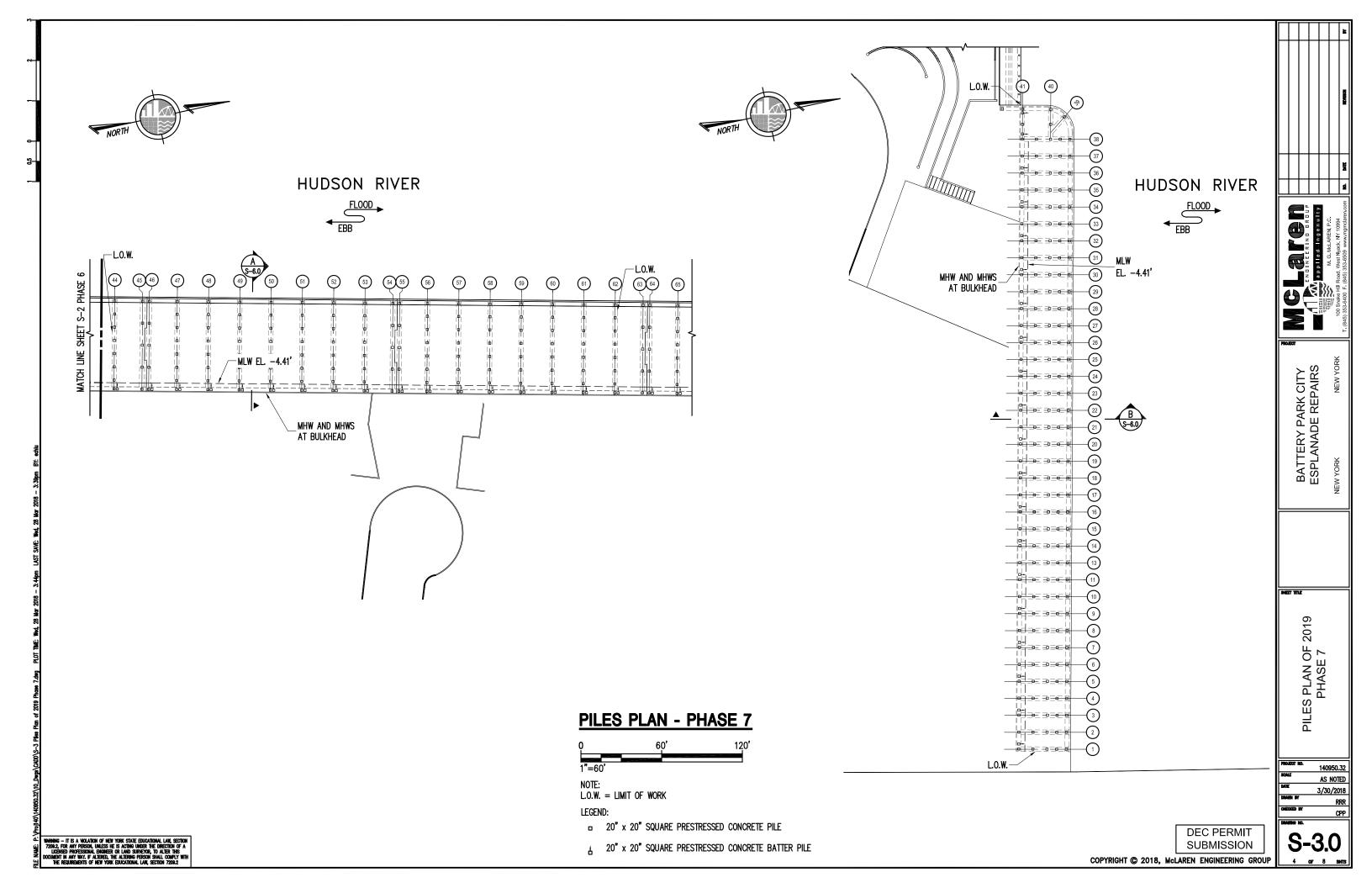


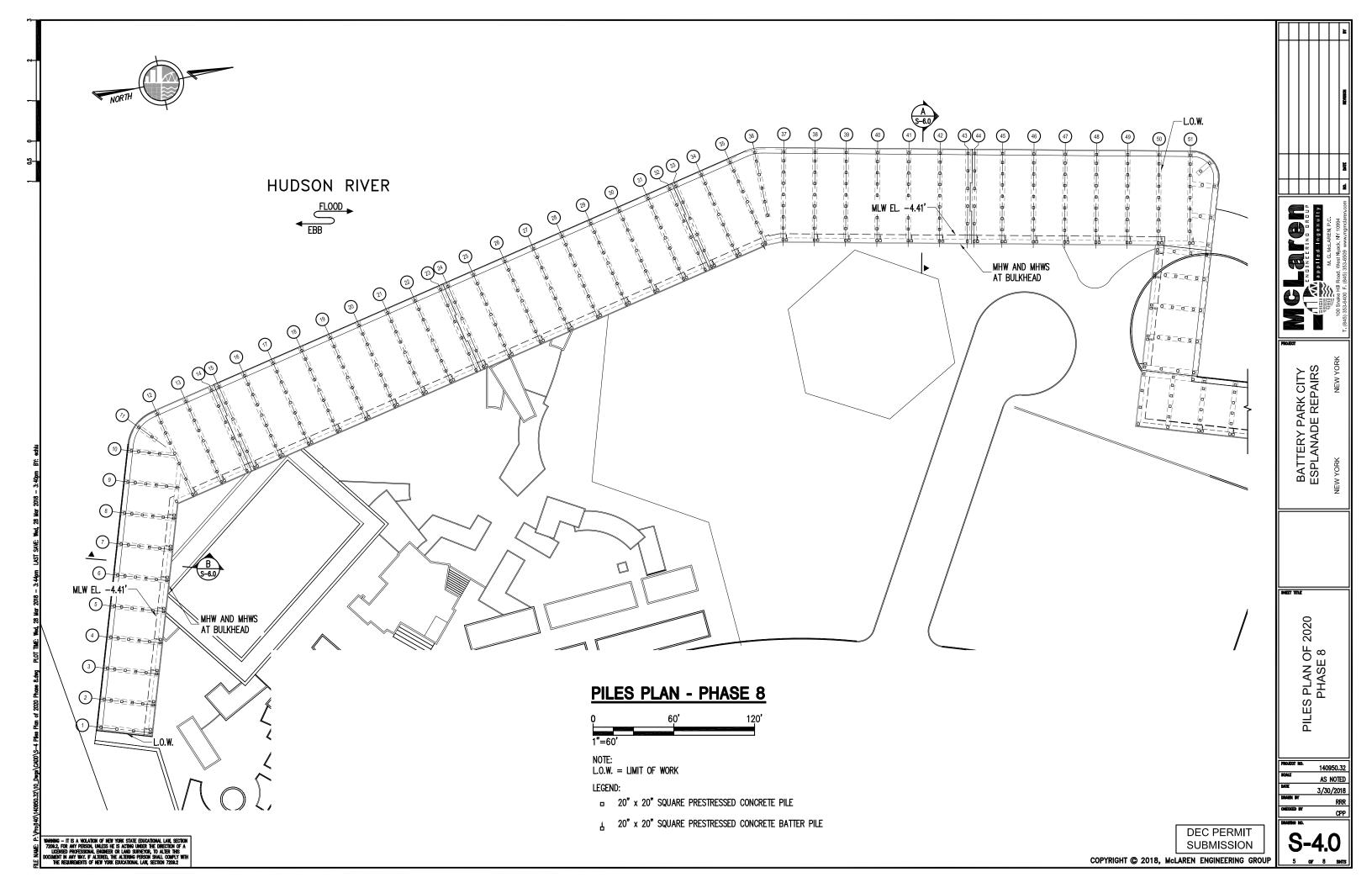
LOCATION MAP

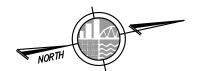
VICINITY MAP

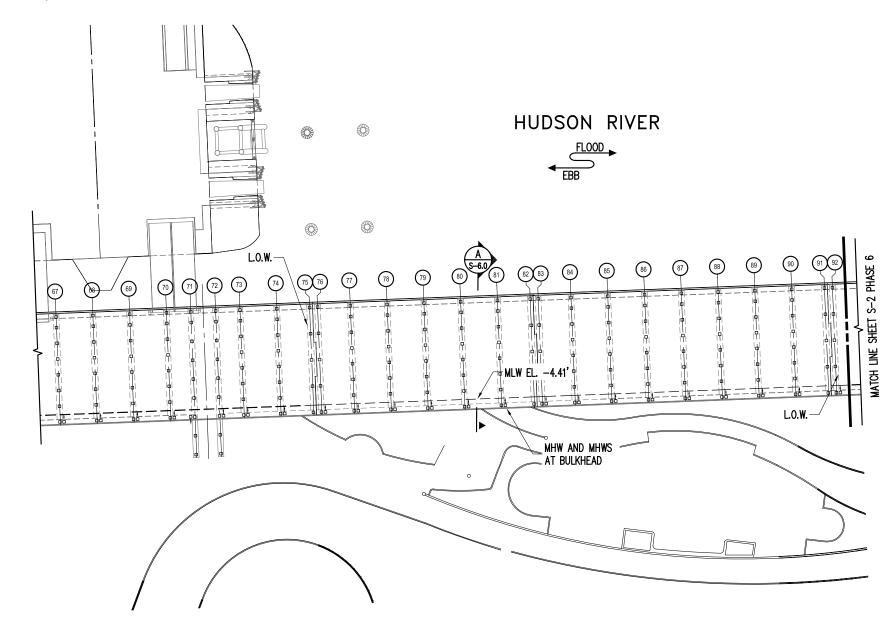




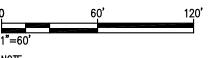








# PILES PLAN - PHASE 9



NOTE: L.O.W. = LIMIT OF WORK

LEGEND:

- □ 20" x 20" SQUARE PRESTRESSED CONCRETE PILE
- $_{\mbox{\scriptsize L}}$  20" x 20" square prestressed concrete batter pile

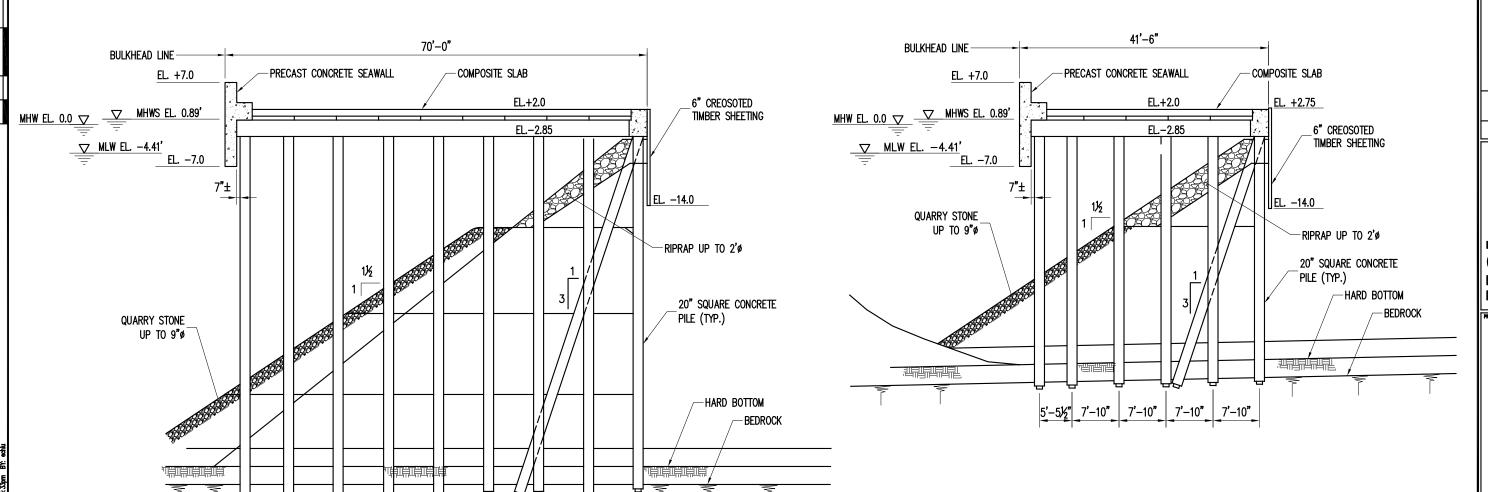
DEC PERMIT SUBMISSION

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BATTERY PARK CITY ESPLANADE REPAIRS

PILES PLAN OF 2021 PHASE 9

140950.32





# TYPICAL EXISTING ESPLANADE SECTION

8'-4"

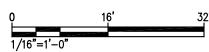


NOTE:

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

# **B**

# TYPICAL EXISTING ESPLANADE SECTION



NOT

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

DEC PERMIT SUBMISSION

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u —

EXISTING SECTION

NAME AS NOTED

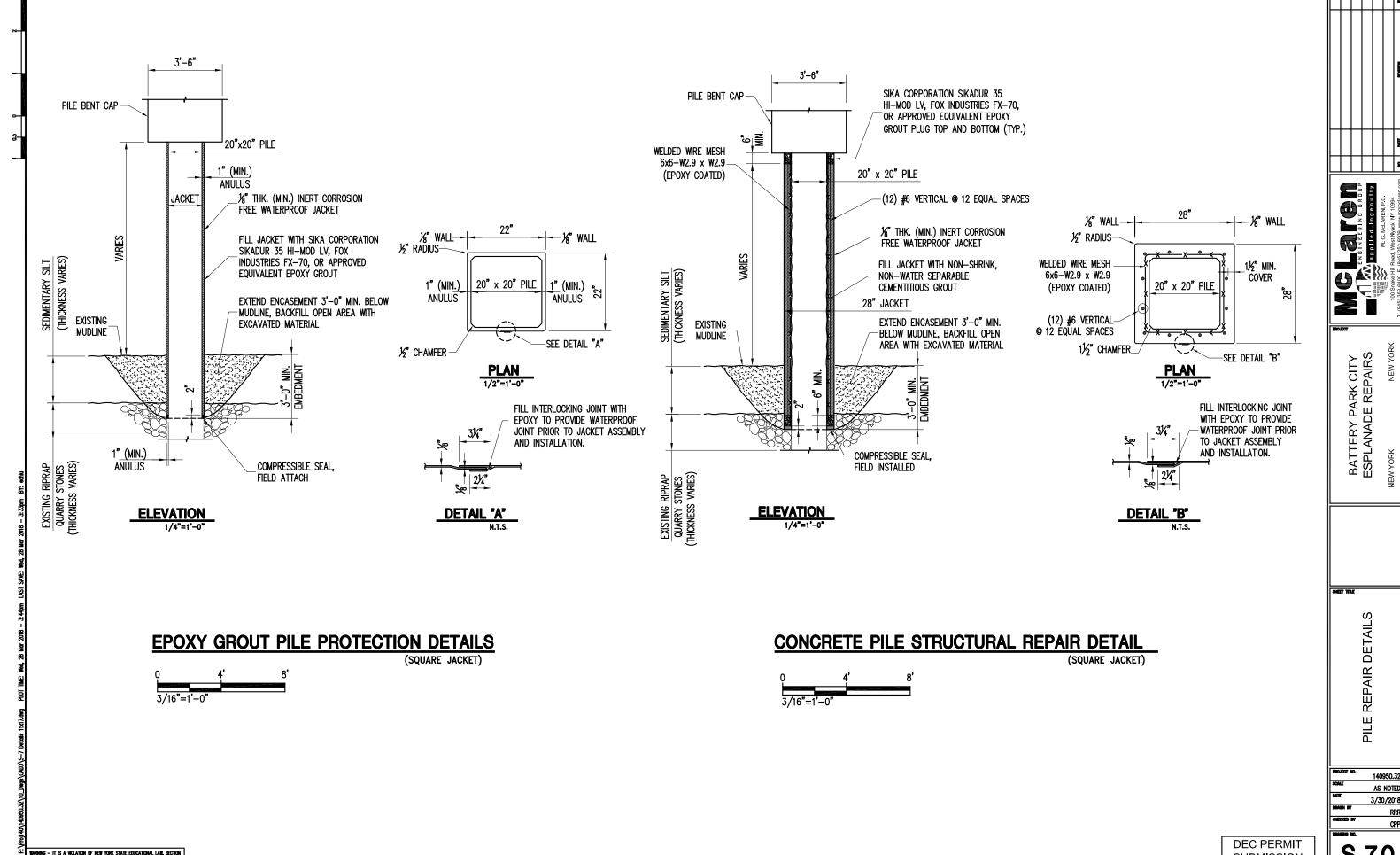
NAME AS NOTED

NAME 3/30/2018

RRR

S-6.0

IMPRIMO - IT IS A MOLATION OF NEW YORK STATE EDUCATIONAL LAW, SECTION 7200.2, FOR ANY PERSON, UNLESS HE SACINING UNDER THE DIRECTION OF A LICENSE PROFESSIONAL BIOMETER OF LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY MAY, IF ALTERED, THE ALTERNIC PERSON SHALL COMPLY WITH THE DEPOLISHENCE OF LICENSE WERE SECTIONAL LAW SECTION 7800.9



SUBMISSION

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#### **EXHIBIT G**

Uncropped version of the Phase 6 Drawings (sheets 1-14 prepared by M&N Engineering, P.C. and dated September 2018)

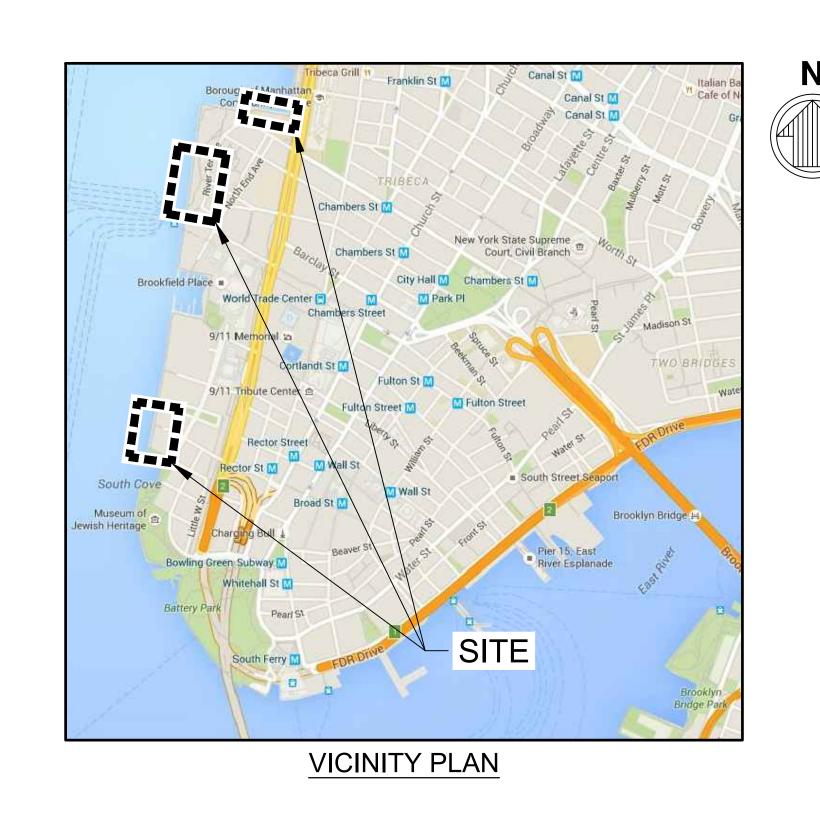
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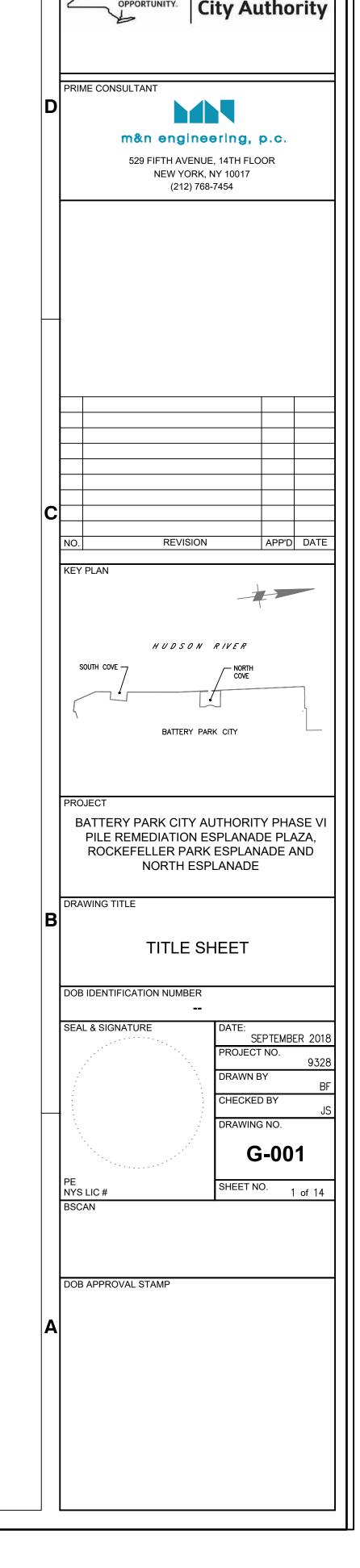
# BATTERY PARK CITY AUTHORITY PHASE VI PILE REMEDIATION ESPLANADE PLAZA, ROCKEFELLER PARK ESPLANADE AND NORTH ESPLANADE

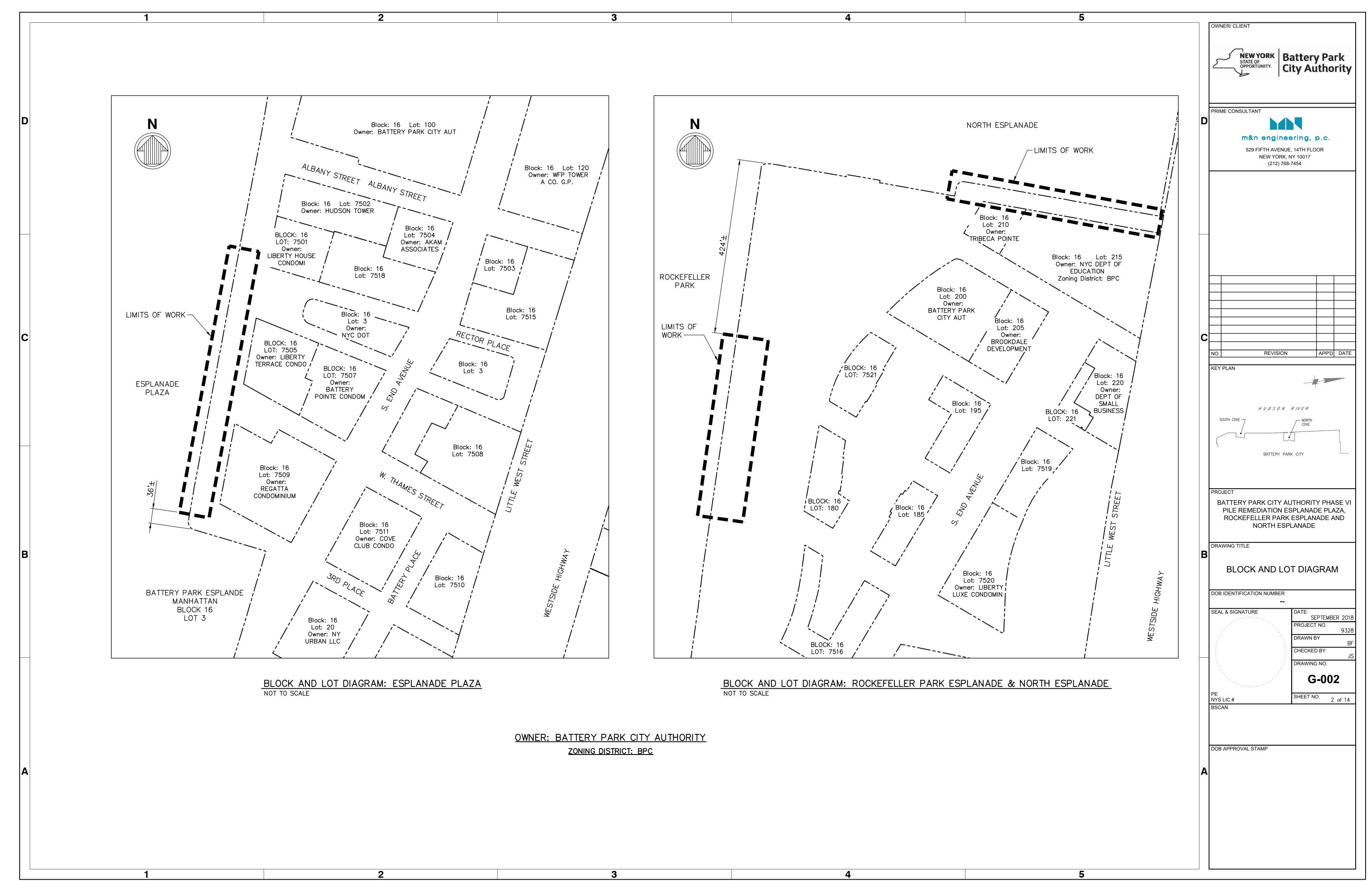
BATTERY PARK CITY ESPLANADE NEW YORK, NEW YORK SEPTEMBER 2018

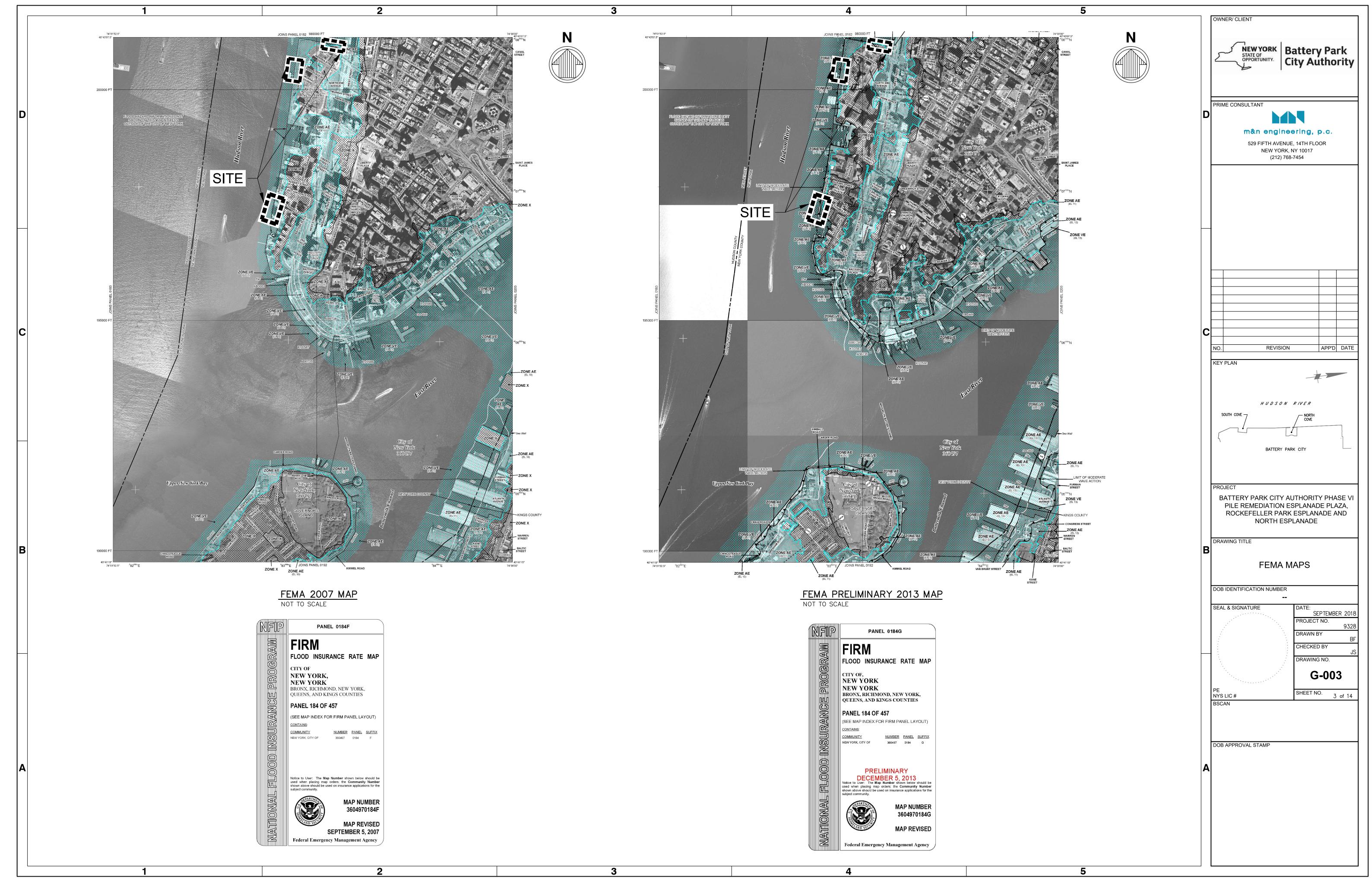


	INI	DEX TO DRAWINGS
INDEX NO.	SHEET NO.	SHEET TITLE
1	G-001	TITLE SHEET
2	G-002	BLOCK AND LOT DIAGRAM
3	G-003	FEMA MAPS
4	G-004	GENERAL NOTES
		STRUCTURAL
5	S-101	FACILITY PLAN - ELEVATIONS AND LOCATION KEY
6	S-102	FACILITY PLAN - ELEVATIONS AND LOCATION KEY
7	S-103	FACILITY PLAN - ELEVATIONS AND LOCATION KEY
8	S-501	REPAIR DETAILS
9	S-502	REPAIR DETAILS
10	S-601	PILE REPAIR SCHEDULE - SHEET 1 OF 5
10	S-602	PILE REPAIR SCHEDULE - SHEET 2 OF 5
12	S-603	PILE REPAIR SCHEDULE - SHEET 3 OF 5
13	S-604	PILE REPAIR SCHEDULE - SHEET 4 OF 5
14	S-605	PILE REPAIR SCHEDULE - SHEET 5 OF 5









# GENERAL NOTES

- 1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CONTRACT DRAWINGS AND SPECIFICATIONS. IN CASE OF DISCREPANCIES, THE CONTRACT DRAWINGS SHALL GOVERN.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF ALL WORK ON THE CONTRACT DOCUMENTS, INCLUDING DEMOLITION AND REMOVAL AND INSTALLATION OF ALL WORK MATERIALS IN FULL COMPLIANCE WITH CODES, RULES AND REGULATIONS GOVERNING SAID WORK.
- 3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MEANS AND METHODS OF THE WORK AND FOR THE SAFETY OF THE SITE.
- 4. CONTRACTOR SHALL VERIFY ALL INDICATED CONDITIONS AND DIMENSIONS IN THE FIELD BEFORE COMMENCING ANY FABRICATION, ORDERING OF MATERIAL, OR PERFORMING ANY WORK. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE, IN WRITING, OF ANY DISCREPANCIES IN CONDITIONS AND/OR DIMENSIONS FOUND IN THE FIELD AND IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL ALSO NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONDITIONS THAT MAY HAMPER THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 5. THROUGHOUT THE CONTRACT DRAWINGS, SPECIFICATIONS AND THESE GENERAL NOTES THE TERM "OWNER" IS USED. THIS TERM REFERENCES THE BATTERY PARK CITY AUTHORITY (BPCA).
- 6. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REMOVE ALL DEBRIS, EQUIPMENT AND UNUSED MATERIAL FROM THE SITE.
- 7. ALL DEMOLISHED MATERIAL, EXCEPT ITEMS DIRECTED BY THE OWNER TO BE SALVAGED, SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE CONSTRUCTION SITE AND THE AREAS OF WORK WHILE PERFORMING THE WORK UNDER THIS CONTRACT. CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION SITE ON A DAILY BASIS. NO BURNING OF DEBRIS SHALL BE PERMITTED.
- 9. DURING ALL PHASES OF THE WORK, ALL PRECAUTIONS SHALL BE TAKEN AS NECESSARY OR MAY BE REQUIRED TO PERMANENTLY PREVENT CONTAMINATED WATER, GASOLINE, CONSTRUCTION DEBRIS AND ANY OTHER CONTAMINANT FROM ENTERING THE WATERWAY. THIS INCLUDES MATERIAL BEING PUMPED INTO PILE FORMS.
- 10. CONTRACTOR SHALL INSTALL A FLOATING BOOM AND TURBIDITY CURTAIN DURING ALL PHASES OF MARINE CONSTRUCTION.
- 11. DISPOSAL OF HAZARDOUS OR CONTAMINATED MATERIALS, GROUNDWATER OR SOIL ENCOUNTERED SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.
- 12. CONTRACTOR SHALL EXERCISE CARE TO PREVENT DAMAGE TO ANY MATERIALS OR STRUCTURES THAT ARE TO REMAIN IN PLACE. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THESE MATERIALS AT NO ADDITIONAL COST TO THE OWNER. THE RESTORATION WORK SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- 13. ALL AREAS OUTSIDE OF THE "LIMITS OF WORK" SHOWN ON THE CONTRACT DRAWINGS, WHICH ARE DAMAGED BY THE WORK, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER. THE RESTORATION WORK SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- 14. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS.
- 15. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WORK AND DELIVERIES OF CONSTRUCTION MATERIALS ON SITE WITH THE CONSTRUCTION MANAGER. THERE IS LIMITED ACCESS TO THE SITE DUE TO TRAFFIC BARRIERS, TREES, PLANTS, SHRUBS, BENCHES, TRASH CANS, ETC. ALL EGRESS AND EXITS TO AND FROM THE PIER AND CONSTRUCTION SITE SHALL BE KEPT READILY ACCESSIBLE AND CLEAR AT ALL TIMES. CONSTRUCTION EQUIPMENT WILL NOT BE PERMITTED TO OBSTRUCT ROADWAYS AND OR PASSAGEWAYS.
- 16. THE CONTRACTOR SHALL PREPARE, LAYOUT AND INSTALL WORK IN SUCH A MANNER AS NOT TO DELAY OR INTERFERE WITH THE CARRYING FORWARD OF THE WORK UNDER THIS CONTRACT AND/OR ANY OTHER WORK BEING PERFORMED ON THE SITE. CONTRACTOR SHALL SUBMIT A LOGISTICS PLAN THAT DEMONSTRATES HOW THE PROJECT WILL BE STAGED AND WORK PERFORMED. THIS PLAN SHALL INCLUDE POSITIONING OF EQUIPMENT DURING ALL PHASES OF WORK. THIS PLAN SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW BY THE OWNER'S REPRESENTATIVE. NO WORK ON THIS SITE SHALL BE PERMITTING TO COMMENCE PRIOR TO THE REVIEW OF THIS DOCUMENT.
- 17. CONTRACTOR SHALL SEEK APPROVAL OF OWNER'S REPRESENTATIVE PRIOR TO MOVING AND/OR STORING ANY CONSTRUCTION MATERIALS ON THE SITE. IN ADDITION, THE CONTRACTOR SHALL SUBMIT TO THE OWNER'S REPRESENTATIVE FOR REVIEW THE GROSS VEHICLE WEIGHT AND AXLE ALIGNMENT OF ANY HEAVY MACHINERY THAT WILL BE DRIVEN ON THE SITE. NO HEAVY CONSTRUCTION MACHINERY WILL BE PERMITTED ON PIER UNTIL THIS REVIEW HAS BEEN COMPLETED.
- 18. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR HIS USE OF THE PHASE 6 SITE.
- 19. CONTRACTOR SHALL ALLOW AND MAKE ANY NECESSARY ACCOMMODATIONS FOR THE INSPECTION OF WORK BY OWNER'S REPRESENTATIVE AT ANY TIME DURING THE INSTALLATION OF WORK GOVERNED BY THE CONTRACT DOCUMENTS.

# GENERAL NOTES CONT'D

- 20. UNLESS NOTED OTHERWISE ON THE CONTRACT DRAWINGS OR IN THE CONTRACT OR SPECIFICATIONS, ALL LABOR, EQUIPMENT, MATERIALS, ETC. SHALL BE INCLUDED IN THE CONTRACTOR'S LUMP SUM PRICE TO COMPLETE THE WORK. ADDITIONAL UNIT PRICES MAY ALSO BE REQUESTED IN THE BID DOCUMENTS.
- 21. THE LOCATIONS OF EXISTING CONCRETE PILES AND OTHER STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DRAWINGS ARE BASED ON AVAILABLE INFORMATION AND ARE SCHEMATIC. CONTRACTOR'S BID SHOULD TAKE THIS INTO CONSIDERATION AND SHOULD BE BASED ON FIELD VERIFICATION OF EXISTING CONDITIONS.
- 22. CONCRETE PILES MAY NOT BE PERFECTLY PLUMB IN THEIR EXISTING CONDITION. CONTRACTOR SHALL TAKE THIS CONDITION INTO ACCOUNT IN THE BASE BID FOR THIS WORK.
- 23. THE CONTRACTOR SHALL PROVIDE AN OFFICE TRAILER FOR THE CONSTRUCTION MANAGEMENT AND/OR INSPECTION TEAM ON THE BARGES, ONE IN THE NORTH AND ONE IN THE SOUTH

# PERMITTING

- 1. ALL WORK PERFORMED BY THE CONTRACTOR SHALL BE IN COMPLIANCE WITH PERMITS AND PERMIT MODIFICATIONS ISSUED BY ANY REGULATING AGENCY HAVING JURISDICTION OVER THE WORK INCLUDING BUT NOT LIMITED TO UNITED STATES ARMY CORPS OF ENGINEERS (USACOE), NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC), AND THE NEW YORK CITY DEPARTMENT OF SMALL BUSINESS SERVICES (SBS).
- 2. THE CONTRACTOR SHALL PERFORM NO WORK ON THE SITE WITHOUT WRITTEN APPROVALS FORM THE USACOE, NYDEC AND THE NY SBS AND ALL OTHER APPLICABLE AGENCIES HAVING JURISDICTION OVER THE SITE.
- 3. CONTRACTOR IS REQUIRED TO OBTAIN THE REQUIRED WORK PERMITS VIA THE SBS. THE CONTRACTOR'S SUBMISSION SHALL INCLUDE THE SEQUENCE OF OPERATIONS AND THE MEANS AND METHODS TO BE USED FOR THE PROPOSED WORK. FEES ASSOCIATED WITH THESE PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 4. THE PROPOSED REPAIR IS NOT OF A SUBSTANTIALLY DAMAGED EXISTING STRUCTURE NOR IS THE WORK A SUBSTANTIAL IMPROVEMENT OF AN EXISTING STRUCTURE AND IS THEREFORE NOT SUBJECT TO THE REQUIREMENTS OF TITLE 28 APPENDIX G OR ASCE 24-05.
- 5. THE PROPOSED WORK DOES NOT AFFECT THE STRUCTURAL STABILITY OF THE ESPLANADE.
- 6. SUBSURFACE INVESTIGATION IS NOT REQUIRED FOR PROPOSED REPAIR.

## EPOXY MORTAR AND CEMENTITIOUS GROUT ENCASEMENTS

- 1. CONTRACTOR SHALL SUBMIT ALL PROPOSED MATERIALS FOR THE ENCASEMENTS FOR APPROVAL PRIOR TO STARTING THE WORK.
- 2. CONTRACTOR SHALL CLEAN AND PREPARE ALL SURFACES TO BE ENCASED IN CONCRETE IN ACCORDANCE WITH THE SPECIFICATIONS AND AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- 3. THE EPOXY MORTAR FOR THE ENCASEMENTS SHALL BE PLACED INSIDE THE FORMWORK WITHIN 72 HOURS OF THE CLEANING OF THE PILE, UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE. JUST PRIOR TO PLACEMENT OF THE CONCRETE, THE EXISTING PILE AND ENCASEMENT SHALL UNDERGO A FINAL CLEANING TO REMOVE ANY MARINE GROWTH OR DEBRIS THAT MAY HAVE ENTERED THE FORMWORK AFTER THE INITIAL CLEANING AND SHALL BE THOROUGHLY RINSED WITH FRESH WATER.
- 4. NO CONSTRUCTION OR EXPANSION JOINTS SHALL BE PERMITTED OTHER THAN BOTTOM PLUGS DESCRIBED IN THE PROJECT SCHEDULE SECTION OF THIS SHEET. EACH ENCASEMENT SHALL BE PLACED IN A CONTINUOUS MANNER FROM START TO FINISH. HORIZONTAL CONSTRUCTION JOINTS ARE PROHIBITED.
- 5. INSTALLED WORK FOUND TO HAVE VOIDS, NON-EVENLY DISTRIBUTED MATERIAL WILL BE REJECTED. REJECTED WORK SHALL BE REMOVED BY THE CONTRACTOR AND REPLACED WITH THE REPAIR SHOWN ON THE REPAIR SCHEDULE AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.

# MATERIALS

- 1. EPOXY MORTAR/CEMENTITIOUS GROUT
  - A. EPOXY MORTAR GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'C) OF 6000 PSI.
    B. EPOXY MORTAR AND FORMWORK SHALL BE SUITABLE FOR PLACEMENT IN THE MARINE
    ENVIRONMENT (FULL IMMERSION IN SALT WATER) VIA PUMPING, AND SHALL BE MANUFACTURED

BY ONE OF THE FOLLOWING COMPANIES OR AN APPROVED SUBSTITUTION:

- a. BASF BUILDING SYSTEMS OF SHAKOPEE, MN b. FIVE STAR PRODUCTS OF SHELTON, CT
- c. SIKA CORPORATION OF LYNDHURST, NJ
   d. SIMPSON STRONG TIE OF PLEASANTON, CA
   e. DENSO NORTH AMERICA OF HOUSTON, TX

CLEVELAND, OH OR APPROVED EQUAL

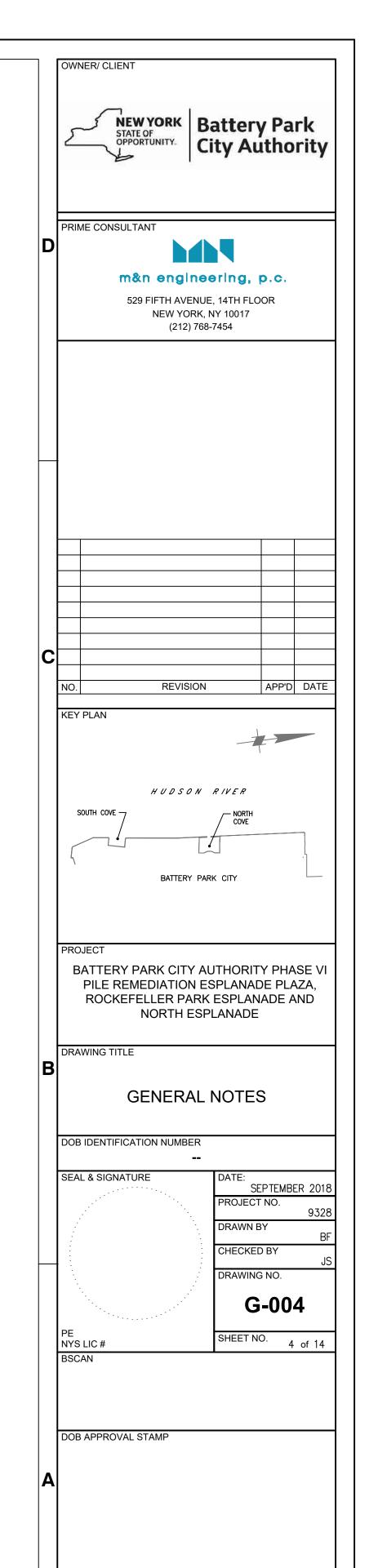
- 2. CEMENTITIOUS HAND PACK SHALL BE SPEEDCRETE BLUE LINE MANUFACTURED BY EUCLID CHEMICAL OF
- 3. FORMWORK SHALL BE A MINIMUM OF 1/8TH INCH THICK TRANSLUCENT RIGID FIBERGLASS REINFORCED PLASTIC (FRP). FORMS SHALL HAVE SUFFICIENT STRENGTH TO WITHSTAND THE PRESSURE RESULTING FROM ALL ENVIRONMENTAL FORCES PRIOR TO THE PLACEMENT OF CONCRETE AS WELL AS FORCES EXERTED DURING THE PLACEMENT OF CONCRETE AND SHALL HAVE SUFFICIENT RIGIDITY TO MAINTAIN SPECIFIED TOLERANCES.

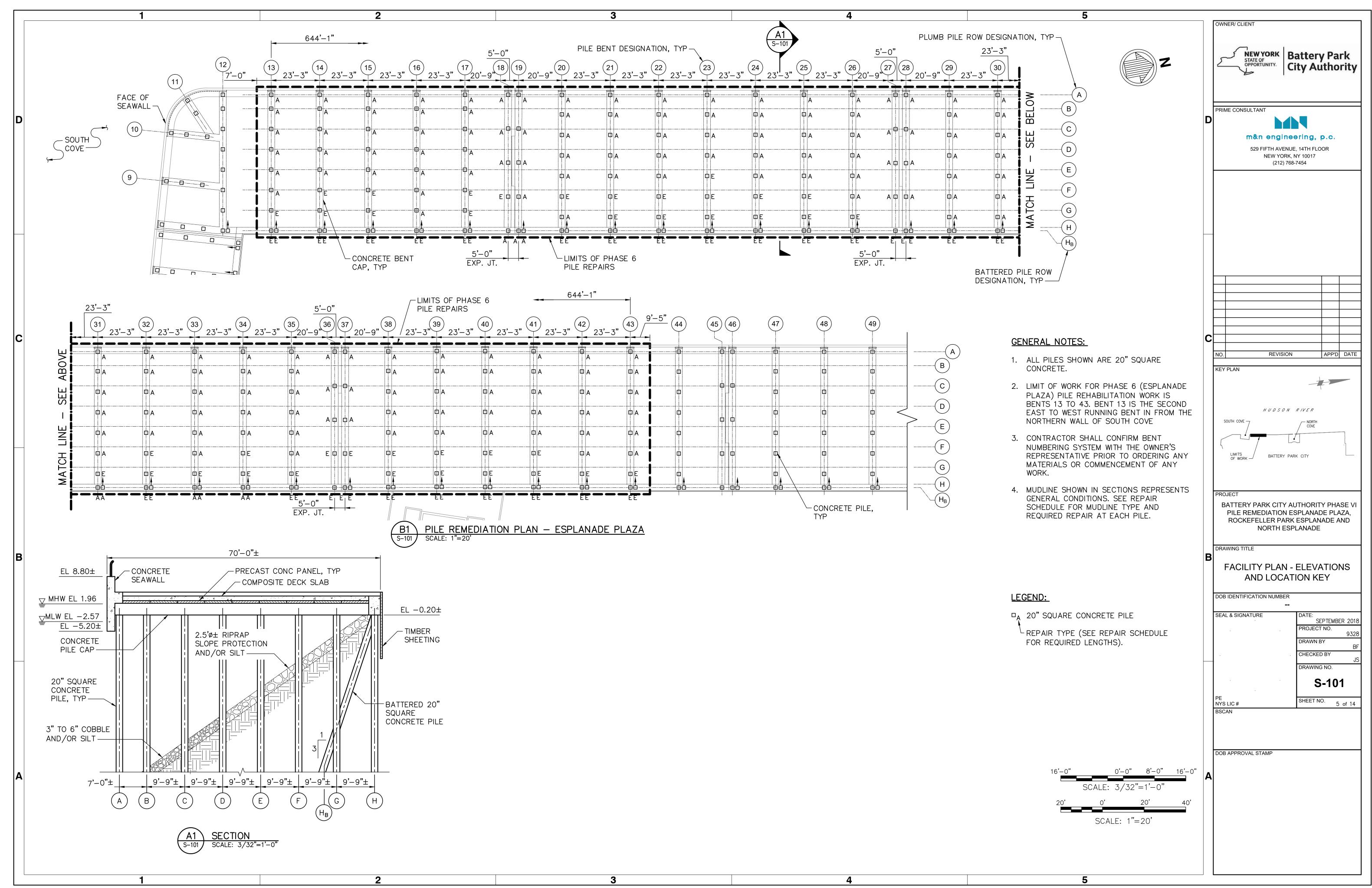
## PROJECT DATUM

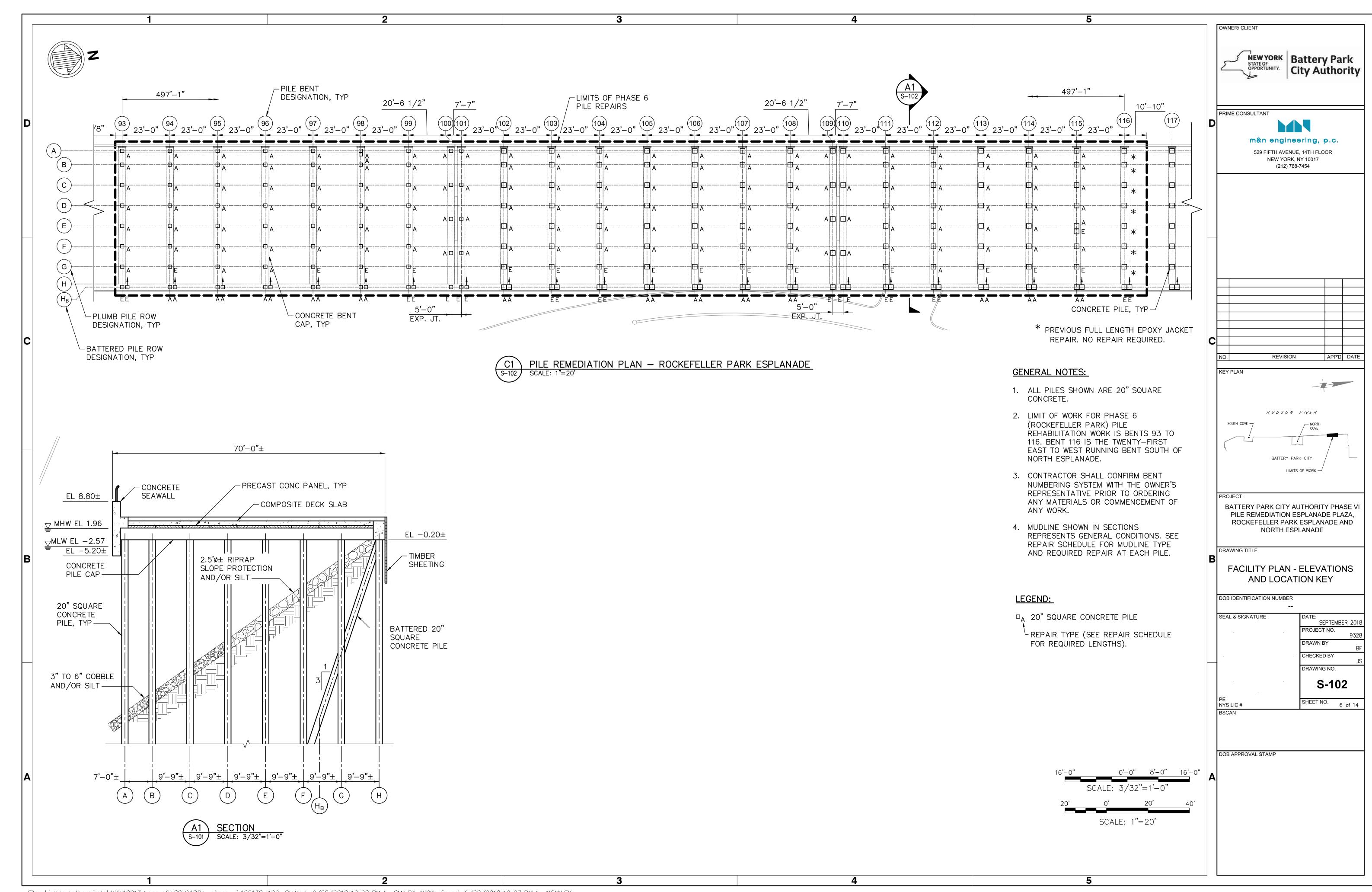
- 1. VERTICAL DATUM FOR THIS PROJECT IS NAVD88. ALL ELEVATIONS SHOWN ON DRAWINGS ARE IN THIS DATUM SYSTEM.
- 2. MBD REFERENCES THE MANHATTAN BOROUGH DATUM.

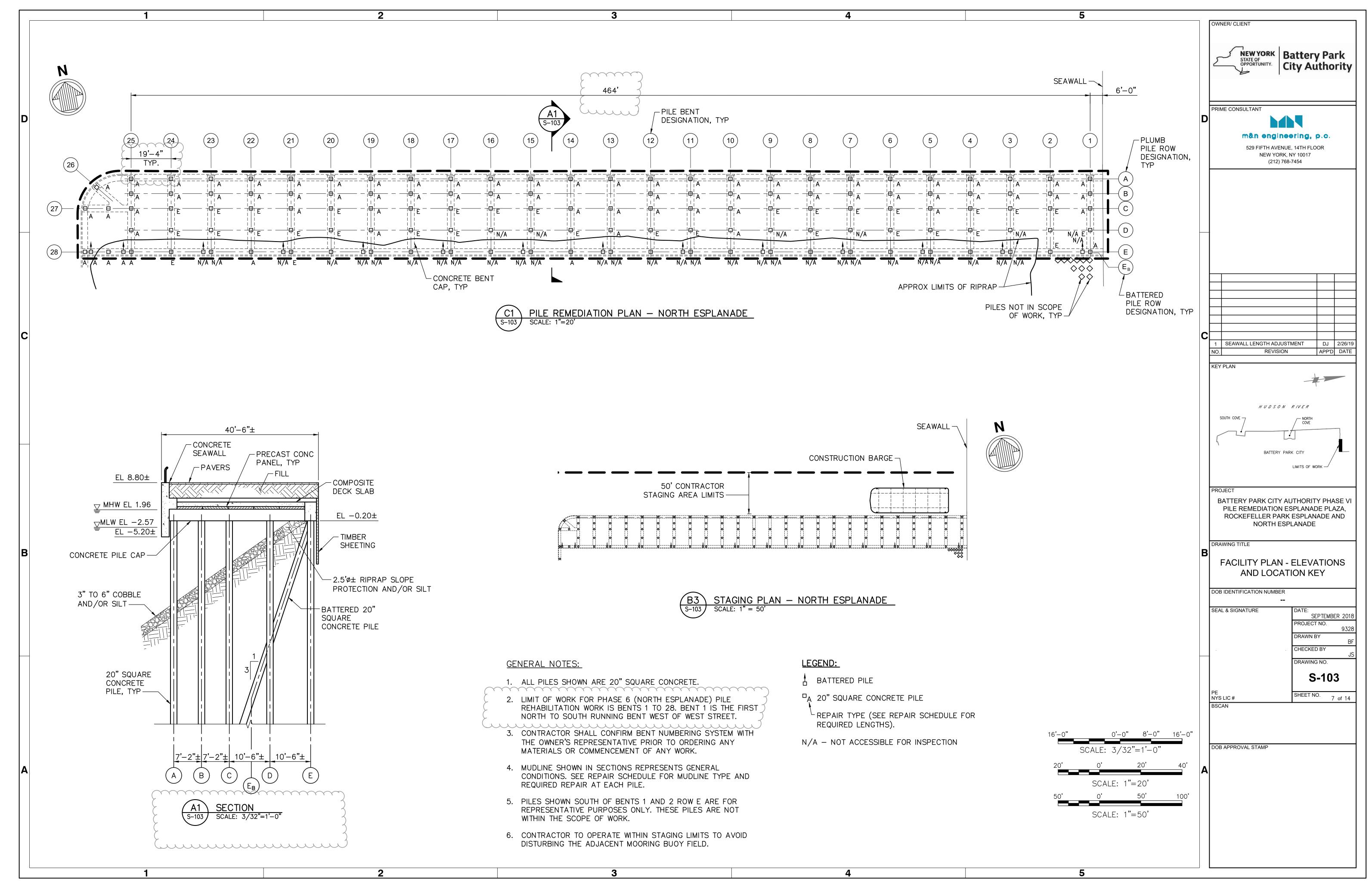
DATUMS (FT)	MLLW	NAVD88	MBD
HIGHEST OBSERVED WATER LEVEL (10/30/2012)	14.04	11.26	9.61
MEAN HIGHER HIGH WATER (MHHW)	5.05	2.28	0.63
MEAN HIGH WATER (MHW)	4.73	1.96	0.31
BOROUGH PRESIDENT OF MANHATTAN (MBD)	4.43	1.65	0.00
NAVD88	2.77	0.00	-1.65
MEAN SEA LEVEL (MSL)	2.57	-0.21	-1.86
MEAN TIDE LEVEL (MTL)	2.47	-0.31	-1.96
MEAN LOW WATER (MLW)	0.21	-2.57	-4.22
MEAN LOWER LOW WATER (MLLW)	0.00	-2.77	-4.43
LOWEST OBSERVED WATER LEVEL (2/2/1976)	-4.29	-7.06	-8.71

3. NOAA STATION ID 8518750 (THE BATTERY) WAS UTILIZED IN DATUM CONVERSION CALCULATIONS.

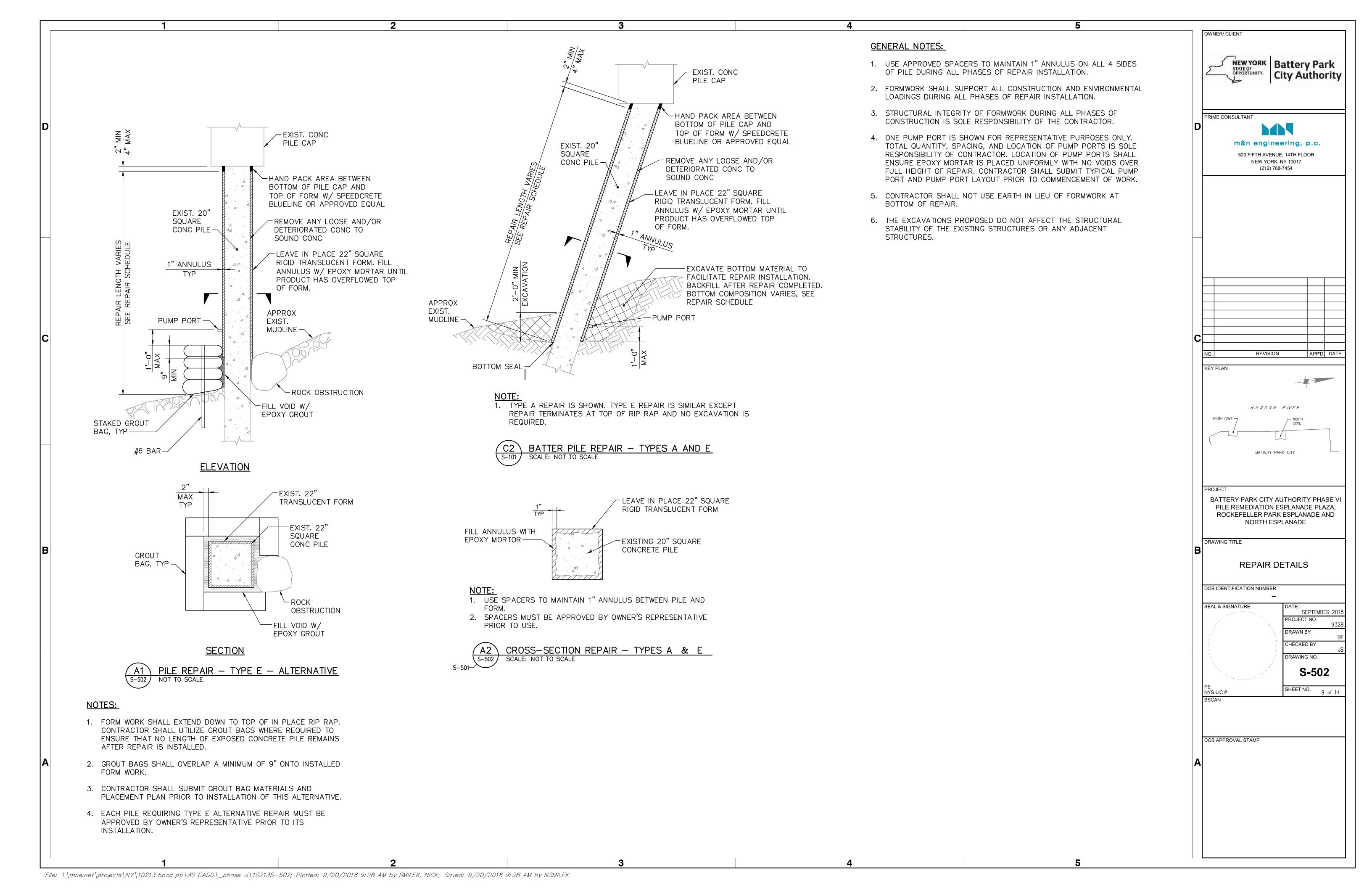












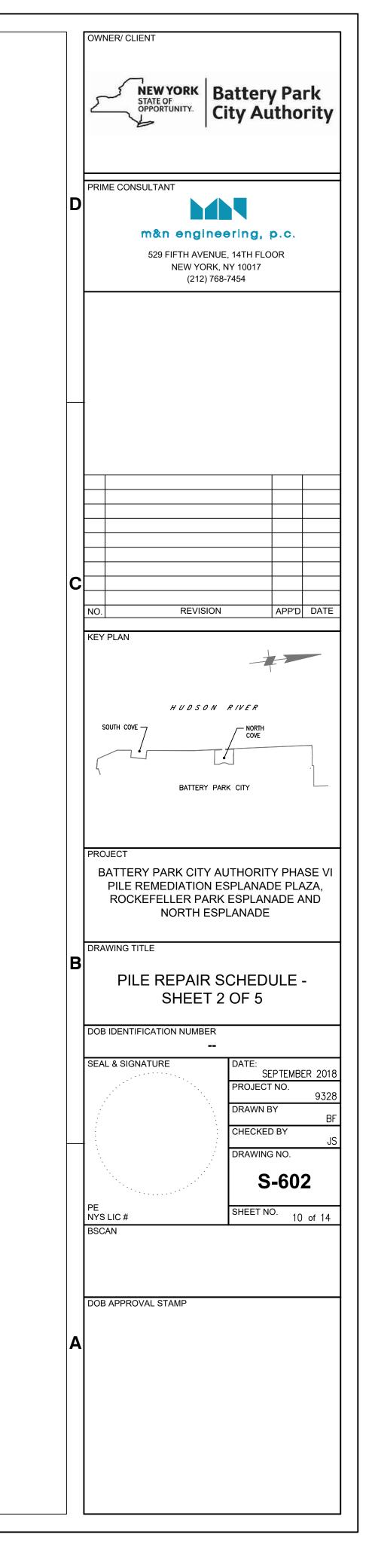
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								1												NEW YORK STATE OF OPPORTUNITY. City Authority
				Ε	SPLAN	ADE PLAZA					SPLANA	ADE PLAZA				SPLANAD	E PLAZA			
D		BENT NO.	PILE NO.	REPAIR LENGTH (FT)	REPAIR TYPE	MUDLINE CONDITION (ROCK, COBBLE, SILT)	TYPICAL ROCK SIZE (IN. DIAM.)	BENT NO.	PILE NO.	REPAIR LENGTH (FT)	REPAIR TYPE	MUDLINE CONDITION ROCK (ROCK, COBBLE, SILT)	PICAL < SIZE DIAM.)	BENT PILE NO. NO.	REPAIR LENGTH (FT)	REPAIR TYPE (I	MUDLINE CONDITION ROCK, COBBLE, SILT)	TYPICAL ROCK SIZE (IN. DIAM.)		PRIME CONSULTANT
		13	A	37	A	SILT AND GRAVEL SILT, GRAVEL, AND		17	С	30	А	SILT AND COBBLES WITH ROCK BELOW.	3	22 HB	4	E	RIPRAP	18 W/ 30		m&n engineering, p.c.
		13	В	32 27	A	COBBLES SILT, GRAVEL, AND	3-6	17	D	24 17	A	SILT AND COBBLES	<del>−</del> 6	23 A 23 B	38.5 37	А	COBBLES AND SILT	6-18 3-6		529 FIFTH AVENUE, 14TH FLOOR NEW YORK, NY 10017 (212) 768-7454
		13	D	23	A	COBBLES SILT, COBBLE, AND	3–10	17	F	12	E	WITH ROCK BELOW	O ROCK	23 C 23 D	32 27	А	COBBLES AND SILT SAND AND GRAVEL	3-6		
		13	E	19	A	ROCK BELOW  SILT, AND COBBLES  WITH ROCK BELOW	8-12	17	G	6	E	ROCK AND COBBLES 10-	-30	23 E 23 F	16		SILT AND COBBLES & ROCK	18		
		13	F	17	А	SILT, SAND, GRAVEL, COBBLE	6-8	17	H HB	4	E E	RIPRAP 10-	-30 -30	23 G	10	E	RIPRAP	48		
		13	G	7	E	GRAVEL AND COBBLES WITH ROCK UNDERNEATH	12-30	18 18	A C	38.5 28.5	A	SILT AND GRAVEL SILT		23 HB		E	RIPRAP	18		
		13	Н	4	E	RIPRAP	12-36	18	D.7	18.5	A	SILT AND COBBLES W/ ROCK BELOW		24 A 24 B	36	А	COBBLES AND ROCK COBBLES AND SILT	3-12		
		14	HB A	39	A	RIPRAP SILT, SAND, GRAVEL AND COBBLES	10-36 3-6	18	F.3	10.5	E		W/ 24 12 &	24 C 24 D	32	A	COBBLES AND SILT, ROCK BELOW SILT, ROCK BELOW	3-6		
		14	В	37	А	SILT, SAND AND COBBLES	3-6	18	Н	6	А		SIONAL 30	24 E	27 21	А	SAND AND GRAVEL	3-6		
С		14	С	31	А	SILT, GRAVEL, AND COBBLES	3-6	19 19	A C	38.5 28.5	A	SILT AND GRAVEL SILT		24 F 24 G	16		SILT AND COBBLES ROCK/COBBLES AND	30-40		С
		14	D E	27.5	A	SILT AND ROCK BELOW  SILT, AND COBBLES	3-20 3-10	19	D.7	18.5	А	SILT AND COBBLES W/ ROCK BELOW		24 H	4	E	ROCK	10-24		NO. REVISION APP'D DATE  KEY PLAN
		14	F	13	E	WITH ROCK BELOW  ROCK AND COBBLES  WITH RIPRAP	10-28	19	F.3	12.5	А		W/ 24	24 HB 25 A	39		RIPRAP COBBLES AND ROCK	10-24 3-12		RET PLAN
		14	G	6	E	ROCK AND COBBLES  RIPRAP	10-30 10-30	19	Н	6	A		12 & SIONAL 30	25 B 25 C	39 33		COBBLES AND SILT,	6-8 3-6		HUDSON RIVER
		14	HB	4	E	RIPRAP	10-30	19	НВ	6	А	COBBLES & RIPRAP OCCAS	12 & SIONAL	25 D	27		SILT, ROCK BELOW	12		SOUTH COVE NORTH COVE
		15	A	39	A	SILT, SAND, GRAVEL AND COBBLES SILT, SAND AND	3-6	20	A	37	A	SILT AND COBBLES 3-	30 -6	25 E 25 F	14		SAND AND GRAVEL SILT AND COBBLES	10-20		BATTERY PARK CITY
		15	СВ	37 27	A	COBBLES SILT AND COBBLES	3-6 3-6	20	С	36 30	A	SILT AND COBBLES  SILT AND COBBLES  WITH ROCK BELOW.	<u>-6</u> 3	25 G	10	E	RIPRAP	30-40		
		15	D	26	А	SILT, GRAVEL, AND COBBLE	3-6	20	D	23	А	SILT WITH ROCK BELOW.  SILT AND COBBLES		25 H 25 HB	4	E E	RIPRAP RIPRAP	12-36 12-36		PROJECT
		15	E	18	А	SILT, GRAVEL AND COBBLES WITH ROCK BELOW	8–10	20	E F	18.5  12	A E	WITH ROCK BELOW.	-6 -30	26 A	36		LT, GRAVEL W/ ROCK BELOW			BATTERY PARK CITY AUTHORITY PHASE VI PILE REMEDIATION ESPLANADE PLAZA, ROCKEFELLER PARK ESPLANADE AND
		15	F	13	E	ROCK AND COBBLES WITH RIPRAP	32-48	20	G	8	A	ROCK AND COBBLES 6-	-10 30	26 B	35		SAND, SILT W/ ROCK BELOW  LT, GRAVEL W/ ROCK			NORTH ESPLANADE
В		15 15	G H	7 4	E E	ROCK AND COBBLES RIPRAP	6-30 16-18	20	HB	4 38	E		30	26 C 26 D	28		BELOW  SILT W/ ROCK BELOW			B PILE REPAIR SCHEDULE -
		15	HB	4	E	RIPRAP SILT, SAND, GRAVEL	16-18 3-6	21	В	36	A	SILT AND COBBLES 8	8	26 E	16	A	SILT & COBBLES W/ ROCK BELOW	6-10		SHEET 1 OF 5
		16	В	38	A	AND COBBLES SILT, SAND AND	3-6	21	D	28.5	A	SILT W/ GRAVEL  SILT WITH ROCK BELOW.		26 F	13	A SI	LT GRAVEL W/ ROCK BELOW	15		DOB IDENTIFICATION NUMBER
		16	C	31	A	COBBLES SILT AND COBBLES WITH ROCK BELOW.	3-6	21	E	19	A	SAND W/ GRAVEL, ROCK BELOW.	6	26 G	7		SILT, GRAVEL AND	18-42		SEAL & SIGNATURE  DATE: SEPTEMBER 2018  PROJECT NO. 9328
		16	D	24	А	SILT, GRAVEL, AND COBBLE	3-6	21	F	12	E		-40 -40	26 H	4		SILT, GRAVEL AND RIPRAP SILT, GRAVEL AND	10-30		DRAWN BY  BF  CHECKED BY
		16	E	17.5	Α	SILT, GRAVEL AND COBBLES WITH ROCK BELOW	3-10	21	Н	4	E		-40 V/ 30	26 HB	39		RIPRAP AND AND GRAVEL W/	10-30		DRAWING NO.
		16	F	14	A	ROCK AND COBBLES WITH RIPRAP	3-10	21 22	HB A	4 37	E A	RIPRAP 18 W SAND & GRAVEL	v/ 30 3	27 B.7	28	A	ROCK BELOW SILT			PE NYS LIC # SHEET NO. 10 of 14
		16 16	G H	9	A	ROCK AND COBBLES  RIPRAP	3-10 10-30	22	ВС	35 30	A	SAND & GRAVEL SAND WITH ROCK	3	27 D.3 27 F	19	А	SILT AND COBBLES SILT AND COBBLES	3-6		BSCAN 10 of 14
		16	HB	4	E .	RIPRAP SILT, SAND AND	10-30	22	D E	24	+	SILT WITH ROCK BELOW.	6	27 H	5		SILT, GRAVEL AND RIPRAP	8-24		
		17	A	38	A	COBBLES SILT, SAND AND	3-6 3-6	22	F	12.5	E	SILT WITH ROCK 1	18	28 A 28 B.7	38.5 28.5	A	AND AND GRAVEL W/ ROCK BELOW SILT W/ ROCK BELOW	3-6		DOB APPROVAL STAMP
A		1/	D			COBBLES	J-0	22	Н	4	E	RIPRAP 18 W	V/ 30					1		
	1					2						3			4				5	
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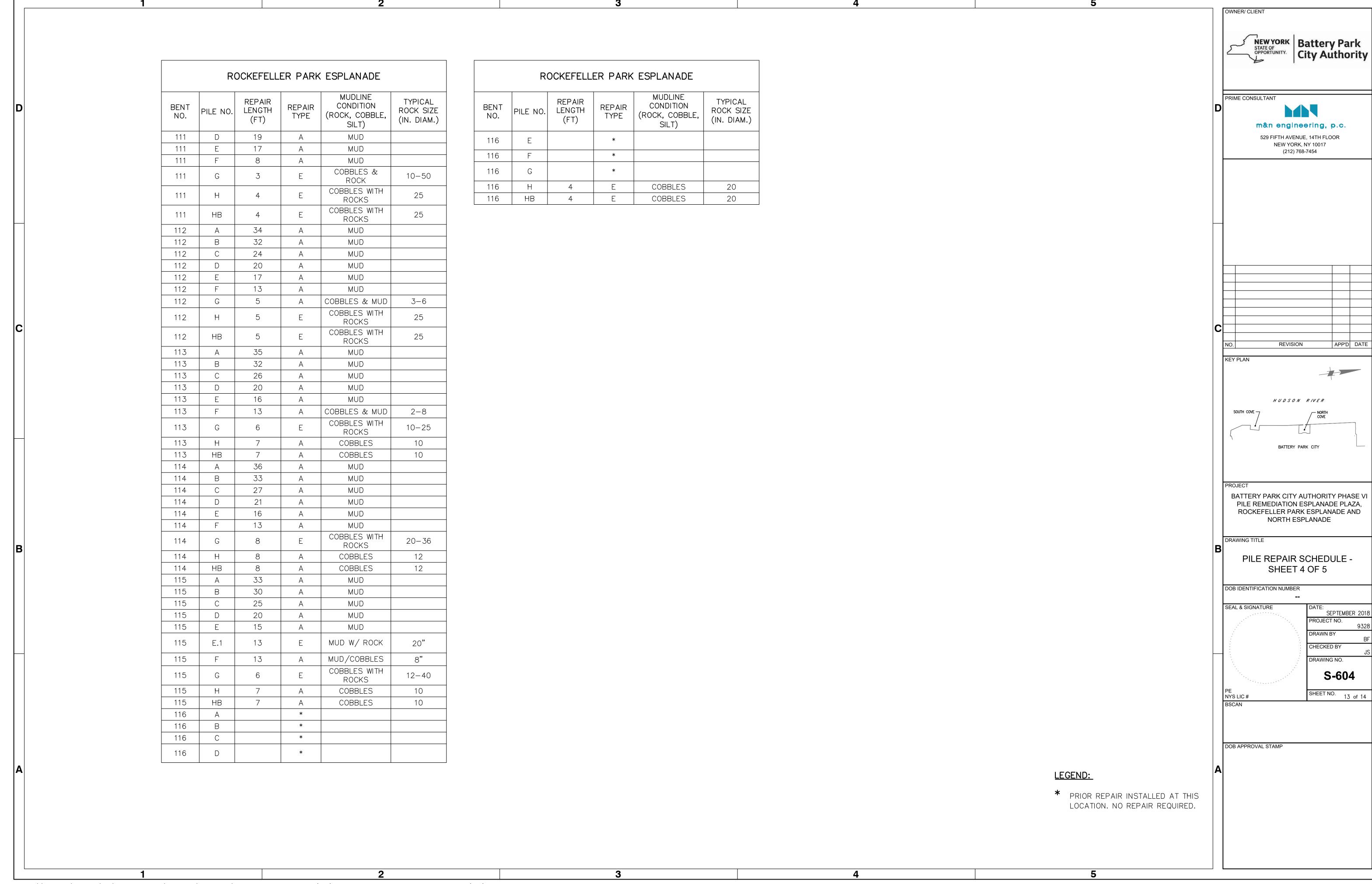
		E	SPLANA	ADE PLAZA	
BENT NO.	PILE NO.	REPAIR LENGTH (FT)	REPAIR TYPE	MUDLINE CONDITION (ROCK, COBBLE, SILT)	TYPICAL ROCK SIZE (IN. DIAM.)
28	D.3	20.5	А	SILT AND COBBLES & ROCK	
28	F	10.5	А	SILT AND COBBLES	3-6
28	Н	5.5	Е	SILT, GRAVEL AND RIPRAP	12-28
28	НВ	5.5	E	SILT, GRAVEL AND RIPRAP	12-28
29	А	37	А	SAND AND GRAVEL W/ ROCK BELOW	0-3
29	В	34	А	SILT AND GRAVEL W/ ROCK BELOW	0-3
29	С	26	Α	SILT W/ROCK BELOW	
29	D	22	A	SILT W/ROCK BELOW	
29	E	16	A	SILT OVER COBBLES	0-3
29	F	12	A	SILT OVER ROCK	
29	G	7	A	COBBLES & RIPRAP	6-10
29	Н	4	E	RIPRAP	20-24
29	HB	4	E	RIPRAP	20-24
30	A	37	A	SILT W/ ROCK BELOW	
30	В	34	A	SILT W/ ROCK BELOW	
30	С	28	A	SILT WY ROCK BELOW	+
30	D	22	A	SILT W/ROCK BELOW	
30	E	16	A	SILT OVER ROCK	0-3
30	F	13	A	SILT & GRAVEL OVER ROCK	0 0
30	G	7	А	SILT & COBBLES & RIPRAP	6-10
30	Н	4	E	RIPRAP	20-24
30	HB	4	E	RIPRAP	20-24
31	A	39	A	SILT W/ ROCK BELOW	0-1
31	В	37	A	SILT W/ ROCK BELOW	0 1
31	С	29	A	SILT W/ ROCK BELOW	
31	D			SILT W/ ROCK BELOW	
		24	A	,	
31 31	E F	19 14	A	SILT W/ ROCK BELOW SILT & COBBLES W/	6-12
				RIPRAP	
31	G	7	E	COBBLES W/ RIPRAP	6-10/50
31	Н	6	Α	COBBLES W/ RIPRAP	6-10/20
31	HB	6	А	COBBLES W/ RIPRAP	6-10/20
32	A	39	A	SILT & COBBLES	0-6
32 32	В С	37 30	A	SILT & COBBLES SILT & GRAVEL W/	0-6
32	D	25	A	ROCK BELOW  SILT W/ ROCK BELOW	
32	E	19	A	SILT W/ ROCK BELOW	
32	F	13	E	SILT & COBBLES	2-36
32	G	8	E	COBBLE W/ RIPRAP	6-10/36
32	Н	4	E	COBBLES W/ RIPRAP	6-10/24
32	HB	4	E	COBBLES W/ RIPRAP	6-10/24
					3-6
33 33	A B	38 35	A	SILT & COBBLES SILT & COBBLES	0-3
			A		0-3
33	С	30	A	SILT W/ ROCK BELOW	
33	D	24	A	SILT W/ ROCK BELOW	
33	E _	19	Α .	SILT W/ ROCK BELOW	
33	F	14	A	SILT W/ RIPRAP	0/12-20
33	G	8	Е	COBBLE W/ RIPRAP	6-10/20-24
33	Н	6	А	COBBLES W/ RIPRAP	6-10/20

		Ε	SPLANA	ADE PLAZA	
BENT NO.	PILE NO.	REPAIR LENGTH (FT)	REPAIR TYPE	MUDLINE CONDITION (ROCK, COBBLE, SILT)	TYPICAL ROCK SIZE (IN. DIAM.)
33	НВ	6	А	COBBLES W/ RIPRAP	6-10/20
34	А	37	А	SILT & COBBLES	0-3
34	В	34	Α	SILT & COBBLES	0-3
34	С	30	Α	SILT W/ ROCK BELOW	
34	D	23	Α	SILT W/ ROCK BELOW	
34	E	18	А	SILT W/ ROCK BELOW	
34	F	12	Е	SILT W/ RIPRAP	2-36
34	G	8	Е	COBBLE W/ RIPRAP	6-10/24-30
34	Н	6	А	COBBLES W/ RIPRAP	6-10/18
34	НВ	6	Α	COBBLES W/ RIPRAP	6-10/18
35	А	39	А	SILT & COBBLES	0-3
35	В	35	Α	SILT & COBBLES	0-3
35	С	30	Α	SILT W/ ROCK BELOW	
35	D	23	Α	SILT W/ ROCK BELOW	
35	E	18	А	SILT W/ ROCK BELOW	
35	F	14	А	SILT & COBBLES W/ RIPRAP	3-6/20
35	G	7	Е	COBBLE W/ RIPRAP	6-10/24
35	Н	4	E	COBBLES W/ RIPRAP	6-10/20-30
35	HB	4	E	COBBLES W/ RIPRAP	6-10/20-30
36	А	38	A	SAND, SILT W/ ROCK BELOW	,
36	B.7	29	A	SILT	
36	D.3	20	A	SILT W/ ROCK BELOW	
36	F	11	E	SILT W/ RIPRAP	20-30
36	H	4	E	RIPRAP	20-30
37	A	39	A	SAND, SILT W/ ROCK BELOW	20 00
37	B.7	30	Α	SILT	
37	D.3	21	A	SILT W/ ROCK BELOW	
37	F	12	E	SILT W/ RIPRAP	20-40
37	Н	4	E	RIPRAP	20-30
37	НВ	4	E	RIPRAP	20-30
38	А	41	А	SILT & COBBLES W/ CONC CHUNKS W/	0-2
7.0		77		ROCK BELOW	
38	В	37	A	SILT W/ ROCK BELOW	
38	С	30	A	SILT W/ ROCK BELOW	
38	D	23	A	SILT W/ ROCK BELOW	
38	E	19	Α	SILT W/ ROCK BELOW	
38	F	12	E	SILT & COBBLES W/ RIPRAP	3-6/36
38	G	7	E	COBBLE W/ RIPRAP	3-6/24-30
38	Н	5	E	RIPRAP	20-30
38	HB	5	E	RIPRAP	20-30
39	A	38	A	SILT W/ ROCK BELOW	
39	В	36	A .	SILT W/ ROCK BELOW	
39	С	29	A .	SILT W/ ROCK BELOW	
39	D	22	Α	SILT W/ ROCK BELOW	
39	E	16	Α	SILT W/ ROCK BELOW	
39	F	10	E	SILT W/ ROCK BELOW	20
39	G	6	E	COBBLE W/ ROCK	36
39	Н	5	E	ROCK	40
39	HB	5	Е	ROCK	40
40	А	37	А	SILT & COBBLES W/ ROCK BELOW	1-3

BENT NO.	PILE NO.	REPAIR LENGTH (FT)	REPAIR TYPE	MUDLINE CONDITION (ROCK, COBBLE, SILT)	TYPICA ROCK SI (IN. DIAN
40	В	33	А	SILT W/ ROCK BELOW	
40	С	29	А	SILT W/ ROCK BELOW	
40	D	22	А	SILT W/ ROCK BELOW	
40	Е	15	А	SILT W/ ROCK BELOW	
40	F	11	E	SILT/SAND (FACE 1)—RIP RAP (FACE 4)	20
40	G	8	E	ROCK	40
40	Н	5	Е	ROCK	20-30
40	НВ	5	Е	ROCK	20-30
41	А	37.5	А	SILT & COBBLES W/ ROCK BELOW	0-3/12-
41	В	34.5	А	SILT & COBBLES	3
41	С	28.5	А	SILT & COBBLES W/ ROCK BELOW	3
41	D	23.5	А	SILT & COBBLES W/ ROCK BELOW	3
41	Е	18.5	А	SILT & COBBLES W/ ROCK BELOW	3
41	F	11.5	E	SAND, SILT & COBBLES W/RIPRAP	3-12/3
41	G	6.5	E	COBBLES AND RIPRAP	6-10/20 24
41	Н	4.5	E	COBBLES AND RIPRAP	6-10/20 24
41	НВ	4.5	E	COBBLES AND RIPRAP	6-10/20 24
42	А	39	А	SILT & GRAVEL W/ ROCK BELOW	
42	В	37	А	SILT W/ ROCK BELOW	
42	С	30	А	SILT W/ ROCK BELOW	
42	D	25	Α	SILT W/ ROCK BELOW	
42	E	19	Α	SILT W/ ROCK BELOW	
42	F	15	А	SILT & GRAVEL W/ ROCK BELOW	10-12
42	G	8	E	COBBLES AND RIPRAP	3-6/3
42	Н	4	Е	COBBLES AND RIPRAP	6-10/20
42	НВ	4	E	COBBLES AND RIPRAP	6-10/20 24
43	Α	39	А	SILT W/ ROCK BELOW	
43	В	38	А	SILT W/ ROCK BELOW	
43	С	31	Α	SILT W/ ROCK BELOW	
43	D	25	Α	SILT W/ ROCK BELOW	
43	E	19	Α	SILT W/ ROCK BELOW	3
43	F	15	Α	SILT W/ ROCK BELOW	3
43	G	7	E	RIPRAP	12-24/
43	Н	4	E	COBBLES AND RIPRAP	6-10/2
43	НВ	4	Е	COBBLES AND RIPRAP	6-10/2



				NEW YORK STATE OF OPPORTUNITY. City Autho
ROCKEFELLER PAI	RK ESPLANADE	ROCKEFELLER PARK ESPLANADE	ROCKEFELLER PARK ESPLANADE	
BENT PILE NO. REPAIR LENGTH TYPE	IR CONDITION CONDITION ROCK SIZE (IN. DIAM.)	BENT NO. REPAIR REPAIR CONDITION ROCK SIZE (IN. DIAM.)	BENT NO. REPAIR LENGTH (FT)  REPAIR TYPE  MUDLINE CONDITION CONDITION ROCK SIZE (IN. DIAM.)	PRIME CONSULTANT
93 A 32 A	SILT) (IN. DIAM.) GRAVEL	98 G 5 E ROCK 12-30	105 D 20 A MUD	m&n engineering, p.c.  529 FIFTH AVENUE, 14TH FLOOR
93 B 31 A	MUD	98 H 5 A ROCK 6-18	105 E 16 A MUD	NEW YORK, NY 10017 (212) 768-7454
93 C 25 A 93 D 20 A	MUD	98 HB 5 A ROCK 6-18 99 A 34 A GRAVEL/MUD 1-3	105 F 12 A COBBLE 6-8	
93 E 16 A	COBBLE 3-6	99 B 32 A MUD	105 G 7 E ROCK 40-60	
93 F 12 A 93 G 5 E	ROCK 12-18  ROCK 12-20	99 C 25 A MUD 99 D 20 A MUD	105 H 7 A COBBLE 3-6	
93 H 3 E	ROCK 12-24	99 E 16 A MUD/COBBLE 1-3	105         HB         7         A         COBBLE         3-6           106         A         32         A         MUD	
93 HB 3 E 94 A 33 A	ROCK 12-24 MUD	99 F 12 A COBBLE 1-6	106 B 28 A MUD	
94 A 33 A 94 B 32 A	MUD	99 G 4 E ROCK 12-30 99 H 3 E ROCK 24-30	106         C         24         A         MUD           106         D         18         A         MUD	
94 C 25 A	MUD CRAVEL/MUD	99 HB 3 E ROCK 24-30	106 D 18 A MOD  106 E 15 A MUD	
94 D 20 A 94 E 15 A	GRAVEL/MUD  COBBLE/MUD  3-6	100 A 34 A MUD 100 C 24 A MUD	106 F 9 A MUD/GRAVEL	
94 F 11 A	ROCK 12-18	100 D.7 16 A MUD	106 G 4 E RIPRAP 42	
94 G 5 E 94 H 5 A	ROCK 24  ROCK 6-12	100 F.3 9 A ROCK 6-18 100 H 3 E ROCK 24-30	106         H         6         A         COBBLES         6           106         HB         6         A         COBBLES         6	
94 HB 5 A	ROCK 6-12	101 A 34 A MUD	100 HB 0 A COBBLES 0  107 A 34 A MUD	NO. REVISION APP'I
95         A         32         A           95         B         31         A	SILTY GRAVEL MUD	101 C 24 A MUD 101 D.7 16 A MUD	107 B 32 A MUD	KEY PLAN
95 C 24 A	MUD	101 F.3 9 A ROCK 6-18	107         C         25         A         MUD           107         D         19         A         MUD	
95 D 19 A	GRAVEL/MUD  COBBLE 3-6	101 H 3 E ROCK 24-30 101 HB 3 E ROCK 24-30	107 E 15 A MUD & GRAVEL/MUD	
95         E         15         A           95         F         11         A	COBBLE 3-6 COBBLE 3-6	101 HB 3 E ROCK 24-30 102 A 34 A SAND/GRAVEL	107 F 11 A COBBLES 6	SOUTH COVE TO NORTH COVE
95 G 7 A	ROCK 18	102 B 22 A MUD	107 G 4 E RIPRAP 40	COVE
95 H 5 A 95 HB 5 A	ROCK 6-18  ROCK 6-18	102 C 25 A MUD 102 D 20 A MUD	107         H         7         A         COBBLES         6           107         HB         7         A         COBBLES         6	BATTERY PARK CITY
96 A 32 A	MUD	102 E 16 A MUD	108 A 34 A MUD	
96 B 31 A 96 C 25 A	MUD	102         F         13         A         MUD/SHELL           102         G         6         E         COBBLE/ROCK         12-48	108         B         30         A         MUD           108         C         25         A         MUD	
96 D 19 A	MUD	102 G 6 E COBBLE/ROCK 12-48 102 H 6 A ROCK 12-18	108 D 19 A MUD	PROJECT  BATTERY PARK CITY AUTHORITY PHA
96 E 15 A	COBBLE/GRAVEL 6	102 HB 7 A ROCK 12-18	108         E         15         A         MUD           108         F         11         A         MUD/COBBLES         2-7	PILE REMEDIATION ESPLANADE PLANADE PLA
96 F 11 A 96 G 7 A	COBBLE/ROCK 6-8  ROCK/COBBLE 6-18	103 A 34 A MUD 103 B 32 A MUD	108 C 5 E COBBLES & 32	NORTH ESPLANADE
96 H 5 A	ROCK 6-18	103 C 26 A MUD	108 L 7 A COBBLES WITH 20	DRAWING TITLE
96 HB 5 A 97 A 32 A	ROCK 6-18 SILTY MUD	103 D 20 A MUD 103 E 16 A MUD	ROCKS 20	PILE REPAIR SCHEDULE
97 A 32 A 97 B 31 A	SILTY MUD	103 F 12 A COBBLE 6-8	108 HB / A ROCKS	SHEET 3 OF 5
97 C 25 A 97 D 20 A	SILTY MUD	103 G 6 E ROCK 24 103 H 5 E ROCK 12-24	109         A         33         A         MUD           109         C         22         A         MUD	DOB IDENTIFICATION NUMBER
07 F 15 A	SILTY MUD  F1/ SILTY MUD  57/000015  3-6	103 HB 5 E ROCK 12-24	109 D.7 15 A MUD	SEAL & SIGNATURE DATE: SEPTEMB
	F3/COBBLE	104 A 34 A MUD 104 B 33 A MUD	109 F.3 11 A COBBLES/MUD 4-6  100 B COBBLES WITH 40	PROJECT NO.  DRAWN BY
97 F 11 A 97 G 5 E	COBBLE/ROCK         6-8           ROCK         12-30	104 B 33 A MUD  104 C 26 A MUD	109 ROCKS 40	CHECKED BY
97 H 5 A	ROCK 6-18	104 D 20 A MUD	110 A 33 A MUD 110 C 23 A MUD	DRAWING NO.
97 HB 5 A 98 A 34 A	ROCK 6-18	104         E         16         A         MUD/COBBLE           104         F         11         A         COBBLE/RCCK         3-12	110 D.7 15 A MUD	S-60
98 A.9 32 A	MUD	104 G 6 F RIP RAP 3-6, UP TO	TIU F.S II A COBBLES/MOD 4-10	PE NYS LIC# SHEET NO. 12
98 B 32 A 98 C 15 A	MUD	104 H 5 E ROCK 24-36	ROCKS 20	BSCAN
98 D 25 A	MUD/SILT	104 HB 5 E ROCK 24-36	ROCKS 30	
98 E 16 A	MUD/COBBLE 6-8	105 A 34 A MUD 105 B 32 A MUD	111 A 32 A MUD	DOB APPROVAL STAMP
98 F 12 A	COBBLE/ROCK 6-8		111   B   30   A   MUD	l l



	NO	RTH ESF	PLANADE				NOR	TH ESF	PLANADE				NOR	RTH ESF	PLANADE			NEW YORK STATE OF OPPORTUNITY. City Au
BENT PILE NO. NO.	REPAIR LENGTH (FT)	REPAI R TYPE	MUDLINE CONDITION (ROCK, COBBLE,	TYPICAL ROCK SIZE (IN. DIAM.)	BENT NO.	PILE NO.	REPAIR LENGTH (FT)	REPAI R TYPE	MUDLINE CONDITION (ROCK, COBBLE,	TYPICAL ROCK SIZE (IN. DIAM.)	BENT NO.	PILE NO.	REPAIR LENGTH (FT)	REPAI R TYPE	(ROCK, COBBLE,	TYPICAL ROCK SIZE (IN. DIAM.)		PRIME CONSULTANT
1 A	12	A	SILT) SAND/GRAVEL		9	D		N/A	SILT)		19	E		N/A	SILT)			m&n engineering, p
1 B	10	А	SAND/GRAVEL		9	E		N/A			19	EB		N/A	MIID AND			529 FIFTH AVENUE, 14TH FLOO NEW YORK, NY 10017
1 C	8	A	SAND/GRAVEL/C OBBLE	10	10	EB A	15	N/A A	MUD		20	A	11	A	MUD AND GRAVEL			(212) 768-7454
1 D E	6	A	ROCK ROCK	36 12	10	В	13	A	COBBLE	6	20	B	11	A	GRAVEL ROCK	36		
1 EB		N/A	,		10	D	5	A	ROCK ROCK	18 24, MOVEABLE	20	D	3	E	ROCK	36		
2 A B	13 12	A	SAND/GRAVEL SAND/GRAVEL		10	E	4.5	N/A	CU T		20	E		N/A		-		
2 C	7	F	SAND/GRAVEL	18-30	11	<u>А</u> В	15 13	A	SILT SILT		21	A	12	A	MUD GRAVEL	3		
2 D		N/A	W/ROCK		11	С	11	A	COBBLE	12	21	C	6	A	GRAVEL	12 AVG, UP TO		
2 E	2	E	ROCK	18	11	D E	3	N/A	ROCK	36	21	D	4	E	ROCK	34 36		
3 A B	13 10	A	SAND/GRAVEL SAND/ GRAVEL		11	EB		N/A	SILT		21	E	3	E	ROCK	36		
3 C	7	F T	SAND/GRAVEL	30	12	<u>А</u> В	14	A	SAND SAND		21	EB		N/A				
3 D		N/A	W/ROCK		12	C	9	A	SAND		22	А	12	A				
3 E		N/A			12	D E	4	E N/A	ROCK	36	22	В	11	A	MUD ROCK	48		NO. REVISION
3 EB	17	N/A	SAND /ODAVE		13	А	15	A	MUD		22	D	3	E	ROCK	36		KEY PLAN
4 A B	13 10	A	SAND/GRAVEL SAND		13	C D	10	A	COBBLE COBBLE	6 12	22	E	3 14	A	GRAVEL	3		
4 C	6	E	ROCK	30	13	E	,	N/A	0000		23	В	11	A	GRAVEL GRAVEL	3		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
4 D 4 E	4	N/A	ROCK	30	13	EB	1.5	N/A	MUD	10	23	С	5	E	RIP RAP	36		SOUTH COVE 7 / NORTH
5 A	14	A	SAND/GRAVEL		14	C	15 11	A	MUD ROCK/COBBLE	12	23	F D	2	N/A	ROCK	24		, cove
5 B	12	A	SAND/GRAVEL SAND/GRAVEL		14	D	3	E	ROCK	36	23	EB		N/A				BATTERY PARK CITY
5 C	9	A	W/ROCK	30	14	E A	14	A	ROCK MUD	12	24	Α	13	A	SAND AND COBBLES	6		
5 D 5 F	2	E N/A	ROCK	18	15	В	13	А	MUD/COBBLE	6	24	В	11	A	SAND AND	8		PROJECT
5 EB		N/A			15 15	C D	7	E N/A	ROCK	48	24	C	5	F	COBBLES ROCK	36		BATTERY PARK CITY AUTHORIT
6 A B	14 13	A	SAND/GRAVEL SAND/GRAVEL		15	E		N/A			24	n	3		ROCK	36		ROCKEFELLER PARK ESPLAN NORTH ESPLANADE
6 6	7	A	SAND/GRAVEL	30	15	EB	1.4	N/A	MUD				0					DRAWING TITLE
6 D			W/ROCK ROCK	30	16 16	В	14	A	MUD/ COBBLE	6	24 25	L A	14	E A	ROCK MUD	36		PILE REPAIR SCHED
6 E		N/A	NOCK	30	16	С	7	E	ROCK	36	25	В	13	A	MUD			SHEET 5 OF 5
7 A	14	А	SAND AND GRAVEL		16	D E		N/A N/A			25	С	7	A	SAND AND COBBLES	14		DOB IDENTIFICATION NUMBER
7 B	13	А	SAND AND GRAVEL		17	Α	15	A	MUD		25	D	4	A	SAND AND COBBLES	10		SEAL & SIGNATURE DATE:
7 C	7	E	SAND/GRAVEL W/ROCK	24	17 17	В	14	A	MUD ROCK	36	25	Е	3	А	ROCK	5		PROJEC
7 D		N/A	WYNOCK		17	D	1	E	ROCK	36	25	EB	3	А	LARGE ROCK	5		DRAWN
7 E		N/A			17 17	E EB		N/A N/A			26	A	12	A	SAND AND COBBLES	3		DRAWING
7 EB A	15	N/A A	SAND/GRAVEL		18	A	15	A	MUD		27	A	6	A	SAND AND	4		S
8 B	14	A	SAND/GRAVEL		18	В	14	A	COBBLE	10	27	R	6	Λ	COBBLES SAND AND	4		PE NYS LIC# SHEET N
8 C	7	E	ROCK AND COBBLES	18	18	C D	8	E E	ROCK ROCK	36 24		^	O		COBBLES	<u> </u>		BSCAN
8 D	3	E	ROCK	12-24	18	E		N/A			28	A	5		ROCK AND SAND	б		
9 A	15	N/A A	SILT		19	<u>А</u> В	15 14	Α	GRAVEL GRAVEL	6-8	28	AB	5		ROCK AND SAND	4		DOB APPROVAL STAMP
9 B	13	А	SAND/GRAVEL		19	С	9	A	ROCK	12		<u> </u>	4	A	ROCK AND SAND			
9 C	7	<u> </u>	ROCK	18	19	D	3	A	ROCK	12						NOTE:		
																N/A -	DENOTES NOT ACCESSIBLE FOR INSPECTION.	