



DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278-0090

Regulatory Branch

January 13, 2023

SUBJECT: Permit Application Number NAN-2022-00614-WCO by Roux Associates for ExxonMobile at the Former Pier 5 Bulkhead Installation, Town of Bayonne, Hudson County, New Jersey.

The New York District, U.S. Army Corps of Engineers, has received a request for Department of the Army authorization for the following activity:

APPLICANT: Mr. Benjamin Wood
ExxonMobil Environmental and Property Solutions Company
1900 East Linden Avenue, Building 28A
Linden, New Jersey 07036

ACTIVITY: The remedial action consists of connecting the two sides of an existing bulkhead together by installing a sealed bulkhead. The length of this proposed bulkhead is approximately 125 linear feet. A previously constructed seawall onsite has failed, resulting in the erosion of fill material into the waterway that is contaminated with petroleum. The fill that eroded (approximately 100-cubic yards) will be pulled back into its original location as backfill behind the new bulkhead. This results in net fill of 0-cubic yards. The bulkhead design will be based on surrounding bulkhead construction to ensure continuity between bulkhead sections. The bulkhead will be driven below the mudline and will be appropriately sealed. The land behind the new bulkhead will be brought to existing grade.

The purpose of this project is to stop the migration of petroleum from the rip-rap slope into the adjacent water body. The bulkhead will serve as a hydraulic control that prevents water and petroleum from exiting the confines of the Site.

WATERWAY: Upper New York Bay, Hudson River

LOCATION: Town of Bayonne, Hudson County, New Jersey
40.653404 -74.087959.

As this is minor in nature, authorization may be by Letter of Permission. This is in accordance with current Federal Regulations governing work in navigable waters of the United States. To accomplish the coordination required, prior to the issuance of a Letter of Permission, your review of the enclosed drawings is requested.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended (16 U.S.C. 1465 (c)(3)(A)), the applicant has certified that the activity complies with and will be conducted in a manner that is consistent with the approved state coastal zone management program.

In order for us to better serve you, please complete our Customer Service Survey located at <https://www.nan.usace.army.mil/Missions/Regulatory/Customer-Survey/>.

To allow for the timely processing of the subject application, your comments are requested within 20 days of the date of this letter. If you have any questions, please contact Danielle Courtois, at (347) 439-9343.

Sincerely,

COURTOIS.DANIELLE.REGINA.1367629181
29181

Digitally signed by
COURTOIS.DANIELLE.REGINA.
1367629181
Date: 2023.01.13 11:48:41 -05'00'

Danielle Courtois
Project Manager, Western Section

Enclosures:
Plans

BAYONNE, NEW JERSEY
NOVEMBER 4, 2022

T-000	TITLE SHEET
G-100	GENERAL NOTES I
G-101	GENERAL NOTES II
G-200	PFIRM PANEL
B-100	BORING PLAN
B-200	BORING LOGS
B-201	CPT LOGS
MR-100	SITE SURVEY
MR-101	EXISTING SITE PLAN
MR-102	EXISTING SECTIONS
MR-200	DEMOLITION AND REMOVAL PLAN
MR-201	DEMOLITION SECTIONS
MR-300	PROPOSED SITE PLAN
MR-301	PROPOSED TYPICAL SECTION
MR-302	PROPOSED SECTION AT USCG RANGE LIGHT
MR-303	PROPOSED DETAILS I
MR-304	PROPOSED DETAILS II
MR-305	ENVIRONMENTAL PROTECTION DETAILS



LOCATED AT
**250 EAST
22ND STREET
BAYONNE, NJ 07002**

MARINE ENGINEER

 **INDIGO RIVER ARCHITECTURE
AND ENGINEERING, D.P.C.**
ONE VAN HOUTEN STREET
NYACK, NY 10960
+1.917.246.6788

2	11.04.2022	FINAL CONSTRUCTION DRAWINGS
1	10.12.2022	BID DOCUMENTS
0	10.07.2022	30% DESIGN DOCUMENTS
REV	DATE	ISSUE

SEAL

NOT FOR
CONSTRUCTION

SHEET NAME

TITLE SHEET

DATE 04 NOV 2022		DRAWN BY JWK		CHECKED BY AA	
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THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT FOR THE COMPLETE INSTALLATION OF REPAIR AND NEW ALUM. AS CALLED FOR WITHIN THE EXISTING DOCUMENTS. THE PROJECT IS LOCATED AT 250 EAST 22ND STREET IN BROOKLYN, NEW JERSEY ON THE KILL VAPOR SKULL. THE ALUM CALLS FOR THE PERFORMANCE AND INSTALLATION OF THE FOLLOWING ITEMS:

- ### DESIGN CRITERIA

A: LIFT COEFFICIENT
UPWARD LIFTING = 200 PSF
B: WIND LOADING (ASCE 7-10)
WIND SPEED = 117 MPH
FORCE COEFFICIENT = 0.8 EXPOSURE
ADJUSTMENT FACTOR = 1.0
GUST EFFECT FACTOR = 0.85
TOPOGRAPHIC FACTOR = 1.0
C: SNOW LOADING (ASCE 7-10)
GROUND SNOW LOAD (P_g) = 44 PSF
SNOW EXPOSURE FACTOR (C_e) = 0.8
IMPORTANCE FACTOR (I_s) = 1.0

10. WORK SHALL COMPLY WITH FEDERAL, STATE, COUNTY AND LOCAL ORDINANCES AND CODES HAVING JURISDICTION OVER SUCH WORK. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK OF THE PROJECT.

[illegible]

1 THE CONTRACTOR SHALL SUBMIT A DETAILED AND SEQUENCING PLAN SHOWING WITH
2 A WORK SCHEDULE FOR APPROVAL. CONTRACTOR SHALL NOT COMMENCE WORK
3 WITHOUT APPROVAL OF THE CIVILIAN PLAN AND SCHEDULE. THE CONTRACTOR
4 SHALL COORDINATE THE LOCATION OF A LAND BASED OR MARINE BASE,
5 MOBILIZATION AND STAGING AREA(S) THROUGH THE OWNER'S REPRESENTATIVES.
6 THE CONTRACTOR SHALL NOT MOBILIZE MATERIAL OR BY AUTHORIZATION AND
7 APPROVAL THE CONTRACTOR SHALL PHASE THE WORK AS REQUIRED. IT COMPLY
8 WITH THE REQUIREMENTS SET FORTH HEREIN.

2 THE CONTRACTOR SHALL SUBMIT A BRIEF DESCRIPTION OF THE PLANNING,
1 APPROVAL OF THE PROJECT, SIZE OF AREA, EQUIPMENT, SEQUENCING,
2 PRODUCTION, RISKS, MEANS OF MATERIAL, PROPOSED SITE PROTECTION, AND
3 MAINTENANCE & PROTECTION OF HAZARDOUS.

3 WHERE EXISTING FACILITIES HAVE BARRIERS OR OTHER FEATURES ARE REMOVED,
1 IT SHALL BE THE OWNER THE CONTRACTOR SHALL DESIGN OR REPAIR. THEY
2 ITEMS OR AS OTHERWISE REQUIRED IN THE CONTRACT. DRAWINGS ALL SUCH
3 WORK SHALL BE INCLUDED IN THE CONTRACTOR'S FINAL PRICE.

4 THE CONTRACTOR SHALL TAKE PRECONSTRUCTION PHOTOGRAPHS OF ALL
5 SURROUNDING AREAS. ELEMENTS THAT MAY BE AFFECTED BY THE WORK.
6 PHOTOGRAPHS SHALL ALSO BE TAKEN OF THE LOCATION OF ALL SURROUNDING
7 STRUCTURES IMMEDIATELY BEFORE THE WORK COMMENCES.

5 THE WORK SHALL BE PHASED IN A MANNER THAT MINIMIZES AND AVOIDS
1 REMOVAL OF ANY FACILITY AS REQUIRED BY THE ACTIVITY OPERATING AND
2 AVOID AND PHASING SHALL BE COORDINATED THROUGH THE CONSTRUCTION
3 MANAGER. THE MAY INCLUDE THE TEMPORARY INSTALLATION OF HAZARDOUS
4 CONTAINMENT SYSTEMS AS FACILITIES BARRIERS, COLORED SIGNAGE OR OTHER
5 DEVICES AND SAFETY PERSONNEL, AS THE CASE MAY BE.

6 UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR OR PERSONNEL TO STORE
1 MATERIALS OR EQUIPMENT ANYWHERE ON A PLANT/WORK STRUCTURE, DECK OR
2 OTHER ANY BUILDING STRUCTURE. ALL MATERIAL SHALL BE VIEW AND ACCESS
3 ARE SHALL BE PROTECTED FROM DAMAGE OR EXPOSURE WHILE IN STORAGE.

7 THE CONTRACTOR SHALL NOT LOAN, EXCHANGE OR NEW STRUCTURES WITH
1 HEAVY EQUIPMENT INCLUDING CRANES, CRACKERS, PUMPS. CONTRACTOR SHALL
2 COORDINATE THE WORK ACCORDINGLY.

- CONTRACTOR MUST ALWAYS DESIGN THE OIL FLOW PROTECTIVE IN THE FLOW DIRECTION OF THE SUBSURFACE STRATA. THE FLOW IS APPROXIMATELY AT 8-11' OF DEPTH (SEE SITE SURVEY).
- THE CONTRACTOR SHALL PROTECT THE NATURAL RESOURCES WITHIN THE PROJECT BOUNDARIES AND OUTSIDE THE LIMITS OF INTERFERED AREAS AFTER DISCOVERY OF NATURAL CONDITIONS. OUTSIDE THE CONTRACTOR SHALL REMOVE THE DISTURBED AREA(S) TO AN EQUIVALENT OR IMPROVED CONDITION UPON COMPLETION OF WORK. CONFINE CONSTRUCTION ACTIVITIES TO WITHIN THE LIMITS OF THE AREA INDICATED OR SPECIFIED CONFORM TO THE FEDERAL AND STATE PERMIT REQUIREMENTS.
- THE CONTRACTOR SHALL PROTECT ONLY OIL OR OTHER HAZARDOUS SUBSTANCES FROM FLOWING. THE UPRIVER DRAINAGE AREAS OR OTHER FLOWS OF WATER WILL MAINTAIN AND ENFORCEMENT OF ANY FLOWWAYS SHALL BE SOI TO PREVENT THE SPECIES OF HEAVY GAUGE PLASTIC MEMBRANES TO PREVENT DAMAGE OR STAINING OF THE EXISTING SURFACES ANY OIL FUELS LIQUIDS ETC THAT ARE DROPPED SHALL BE COLLECTED AND CONTAINED BY THE MEMBRANES. SPILLS SHALL BE THOROUGHLY CLEARED USING APPROPRIATE SOLVENTS/ABSORBENTS AND SHALL BE TIGHTLY DISPOSED. MEMBRANES SHALL BE REPLACED AFTER SPILLS WHEN RAINFALL ACCUMULATION OF WATER FORMS.
- THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PREVENT CONSTRUCTION DEBRIS OR WASTE FROM FALLING INTO THE WATER AND DEBRIS FALLING INTO THE WATER SHALL BE REMOVED AND TIGHTLY DISPOSED IN THE EVENT OF A SPILL IMMEDIATELY NOTIFY THE OWNER. SPILL RESPONSE SHALL BE IN ACCORDANCE WITH THE OIL AND GAS AND APPLICABLE STATE REGULATIONS.
- PROTECT PLAINS, SPILLS AND OVERFLOW DURING FLOODING AND LUBRICATION OF THE PUMP AND MOTOR VEHICLES. DISPOSE OF LUBRICANTS TO BE DISPOSED AND PROTECT OIL.
- THE CONTRACTOR SHALL LOCATE OILY SUBSTANCES OR OTHER DEBRIS FROM EXISTING. THE WATER THROUGH EMERGENCY PROTECTIVE PLANS. OIL AND DEBRIS FROM SYSTEMS COMPLETELY ASSOCIATED WITH WORK AND PROTECTS IT FROM IT. IT OIL FROM EXISTING OUTSIDE OF THE WORK AREA. THE PUMPS SHALL COMPLETELY ENCLOSED AND PLANT AREA OF STORAGE AREA. PUMPS SHALL HAVE A MINIMUM OF 6 INCHES OF FREEBOARD AND 12 INCHES DEEP.
- WHERE CONTAMINANTS FALL INTO THE WATER THE CONTRACTOR SHALL REMOVE ALL CONTAMINANTS FROM THE CONTAINMENT AREA AND TIGHTLY DISPOSED. REMOVED SHALL BE PERFORMED IN ACCORDANCE WITH OSHA REGULATIONS AND OTHER HAZARDOUS WASTE DISPOSAL PROTOCOLS AND REQUIREMENTS. IN THE EVENT OF A SPILL THE CONTRACTOR SHALL IMMEDIATELY NOTIFY AN EMERGENCY SPILL RESPONSE TEAM IN ACCORDANCE WITH THE ENVIRONMENTAL REGULATORY AGENCY REQUIREMENTS. COVERED AREA AND AS INDICATED ABOVE SPILLS SHALL BE CONTAINED AND COVERED WITHIN A HOUR OF THE SPILL OR AS OTHERWISE INDICATED BY LAW. ALL CLEANUP WORK SHALL BE AT THE CONTRACTOR'S SOLE EXPENSE.
- IF ALL PLANTING, UPRIVER DRAINAGE IT CARRY EXCESSIVE SUSPENDED SOLIDS DURING MOBILE EXCAVATIONS, LUBRICATION, CLEANING SHALL COMPLETELY CONTAIN THE WORK AREA AND REMOVED IN PLACE. IF ALL SUSPENDED SOLIDS HAVE SETTLED, WHEN THE AREA IS COMPLETE DRAINING PUMP UPRIVER DRAINAGE SHALL WITHIN A FREEBOARD OF 6 INCHES OF 12 INCHES AND SHALL BE CAPABLE OF IT BEING THE FLOOD OF EQUIVALENT FLOOD. FLOOD PROTECTIVE SHALL BE 12 INCHES DEEP.
- COMPLETE OVERFLOWS AND SPILLS. RESIDUAL CONCENTRATION FROM PUMPING EXHAUSTED PUMPS. WOOD PILES SHALL BE CAREFULLY REMOVED AND TIGHTLY DISPOSED. OTHER THAN COVERED AND WITH ENCLOSURES, TO COVERED SHALL BE SPILLED OR DISCARDED INTO THE WATERWAY.
- NO OIL OR OTHER SUBSTANCES SHALL BE ALLOWED TO FALL INTO THE WATER OR OTHERWISE SIGNIFICANTLY DISTURB THE WATER. FLOOD PROTECTIVE IN THE PROJECT AREA SHALL BE THE FURNISHING OF OIL AND LUBRICANTS.
- THE CONTRACTOR SHALL REMOVE AND TIGHTLY DISPOSED ALL DEBRIS FROM STOPS, REMOVALS, CLEANING, OVERFLOWS, AND OTHER MATERIALS AS NECESSARY TO INSURE ALL THE REMAINS INDICATED THE WORK SHALL BE INCLUDED IN THE CONTRACTOR'S BILL PRICE.
- IF THE SPILL WASTES OR A TIGHTY SEAL AND PLACE IN COVERED CONTAINERS. WHICH ARE REGULARLY INSPECTED REMOVE RUBBER AND DEBRIS FROM OWNER/TENANT PROPERTY AND DISPOSED AT A LICENSED DISPOSAL FACILITY OFF-SITE. DO NOT PREPARE OR LOOK FOR ON THE PROJECT SITE. PREVENT CONTAMINATION OF THE SITE OR OTHER AREAS. WHEN HANDLING AND DISPOSING OF WASTES AT PROJECT COMPLETION, COVER THE AREA. CLEAN, DISPOSE OF SOLID WASTE. COVERED AT LOCATION AS DIRECTED.
- THE CONTRACTOR SHALL FURNISH DISPOSAL CERTIFICATES FOR ALL DEBRIS COVERED FROM THE CONSTRUCTION.
- CONTRACTOR MUST COMPLY WITH ALL REQUIREMENTS OF OIL IN THE OIL AND GAS ACT AND STATE PERMITS.

CONTRACTOR SHALL ENSURE THE SAFETY AND STABILITY OF ALL STRUCTURES AND ELEMENTS THROUGHOUT THE DURATION OF THE WORK. THE CONTRACTOR SHALL INSTALL COMPREHENSIVE SHIELDING BRACES, SHORING, ETC., AS NECESSARY TO COMPLETE THE WORK.

THE CONTRACTOR SHALL BEAR THE RESPONSIBILITY OF A QUALIFIED LICENSED PROFESSIONAL ENGINEER FOR THE ENGINEERING AND DESIGN OF ALL SHORING, BRACES, AND BRACKS AND SHALL GUARANTEE THE SAFE, STABLE AND STRUCTURAL INTEGRITY OF ALL STRUCTURES WHICH MAY BE AFFECTED BY THE WORK.

CONTRACTOR SHALL PROTECT THE WORK OF MAIN AND STRUCTURAL STEEL BY THROUGHOUT THE WORK AND ALL MINOR DISRUPTIONS TO FACED SURFACES WILL BEING SHORING AND BRACKS SHALL BE COORDINATED THROUGH THE OWNER'S REPRESENTATIVE.

PROTECTION OF EXISTING AND ADJACENT STRUCTURES, SHORING AND BRACKS, DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE VARIOUS ADJACENT STRUCTURES AT ALL STAGES OF CONSTRUCTION.

1. ELEVATION AND AREAS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1929 (NAVD29).
2. MHHW IS REFERENCED TO THE NORTH STATE PLANE COORDINATE SYSTEM OF CALIFORNIA STATE PLANE.
3. EXISTING TOPOGRAPHIC INFORMATION IS BASED ON FIELD SURVEY PERFORMED BY SURNAME SURVEYS, INC. MHHW AND LOW WATER MAY 19, 2022 AND REPRESENTS CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
4. EXISTING BATHYMETRIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY SURNAME SURVEYS, INC. MAY 19, 2022.
5. Tidal Data is interpolated from the project site using NOAA TIDE STATION THE FAIRWAY AND MARNY BOOD (16087300).
- MEAN HIGH WATER (MHW) = -1.534
- MEAN LOW WATER (MLW) = -1.511
- MEAN TIDE WATER (MTW) = -1.525
- MEAN LOW - LOW WATER (MLLW) = -1.565

FOR EXISTING, GEOTECHNICAL INFORMATION FOR THE SITE REFER TO SPECIFIC 2022 THROUGH 2022 WHICH INCLUDES SURFACE PLANS, SURFACE LOGS AND OTHER RESULTS.

- 1 THE CONTRACTOR SHALL DEMOLISH THE OWNER'S REPRESENTATIVE A REMOVAL SCHEDULE AND A TEMPORARY SCHEDULE. PLAN AS MAY BE REQUIRED FOR DEMOLITION AND REMOVAL THE TEMPORARY SCHEDULE. PLAN SHALL BE DESIGNED AND PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE WORK. THE CONTRACTOR SHALL NOT COMMENCE WORK WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE OF THE DEMOLITION AND REMOVAL SCHEDULE AND THE TEMPORARY SCHEDULE. PLAN
- 2 THE CONTRACTOR IS RESPONSIBLE FOR LOCATING IDENTIFYING, AND MARKING OF ALL UTILITIES PRIOR TO START OF DEMOLITION WORK.
- 3 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL STAKES, ELEVATIONS, AND WITH OTHER CONSTRUCTION ACTIVITIES AT THE SITE.
- 4 THE CONTRACTOR SHALL PROTECT ALL WORK AREAS SO THAT MATERIALS ARE NOT PLACED IN PLACE OF AREAS IT IS BEING THE PROPERTY OF THE OWNER OR EVEN WILL BE DAMAGED IF CONTRACTOR DAMAGED AND NOT RIGHT AFTER ARE IT BEING IN PLACE OF AREAS IT RELATES THE PROPERTY OF THE OWNER OR OWNER DAMAGE MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO OWNER'S REPRESENTATIVE AT THE EXPENSE OF THE CONTRACTOR.
- 5 CONTRACTOR SHALL NOT EXCEED OR STAY ANY SIDE IN THE WORK ZONE, ALL SIDE FOR DISPOSAL MUST BE STAYED IN ANCHORED ROLL-OFFS.
- 6 CONTRACTOR SHALL PROVIDE ANCHORED ROLL-OFFS FOR STORAGE OF SOIL FOR DISPOSAL.
- 7 WHENEVER WORK IN THE UTILITY TRENCH EXPOSED IT IS REMOVED AND DISPOSED AN EARLY APPROVED DISPOSAL FACILITY MUST BE IMPLEMENTED.
- 8 THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ALL CONSTRUCTION DEBRIS OR MATERIALS FROM FALLING INTO THE WATER AND DEBRIS FALLING INTO THE WATER SHALL BE RECOVERED AND LEGALLY DISPOSED OF AT AN APPROPRIATE COST TO THE OWNER.
- 9 CONTRACTOR IS TO BE LOCATED WORK POINTS SHOWN BEFORE DEMOLITION OF EXISTING STRUCTURE.
- 10 PLAN AND ALL EXISTING WATER MAINS SHOWN HEREIN ASSUMED MINOR REMOVED NECESSARY FOR THE INSTALLATION OF PROPOSED SUMP AND DUCKS.
- 11 DEBRIS WILL BE HANDLED, THE DISPOSAL OF AND ALL REMOVED MATERIALS

1. STRUCTURAL FILL SHALL CONSIST OF BLKLEY OR CRUSHE, SLORE GRAB OR CRUSHED GRAVEL OR MEDIAN CRUSHED BLKLEY OR CRUSHED SLORE GRAB CONSIST OF WELL-GRADED, DRAINING, CRUSHE STONE, LEAST OF CRUSHE GRAVEL SHALL CONSIST OF WELL-GRADED, DRAINING, CRUSHE BLKLEY OR CRUSHE OR CRUSHE OF UNCRUSHE GRAVEL FREE FROM FIN FLOWER OR FLOWER, FINE, AND CRUDE, THE FREE OF DELETERIOUS SUBSTANCES. STRUCTURAL FILL SHALL BE WELL GRADED, AND 100% PASS 1/2 IN. (12.5 MM) (3.5 INCH) SIEVE. MATERIAL SHOULD COMPLY WITH 1/2 IN. (12.5 MM) MAX. SIZE PASSING THE NO. 20 (75 MM) AS AN INDEPENDENT GRADE OF GRAVEL AND MULTIPLE PRODUCE TEST FOR EVIDENCE OF RECORD REVIEW.
2. THE CONTRACTOR SHALL EXAMINE EXISTING COMPO, AND GRAB THE SITE TO THE ELEVATION AND UNITS TO BE GRAB AND AS NEEDED TO MEET THE REQUIREMENTS OF THE WORK.
3. STRUCTURAL FILL SHALL BE PLACED IN LAYERS NOT MORE THAN 8 INCHES IN THICKNESS. EACH LAYER SHALL BE PLACED ON SUBGRADE OR A PREVIOUSLY PLACED LAYER OF CONCRETE, GRAVEL OR CRUSHE FILL MATERIAL. EXCEED ALLOWED IN STRUCTURES, TO MAINTAIN ELEVATIONS, GRAB GRAB TO PREVENT ADDITIONAL PLACEMENT OF EXISTING GRABING STRUCTURES BY GRABING, THE MATERIAL UNIFORMITY SHALL BE THE SAME OR APPROXIMATELY THE SAME PLACEMENT IN EACH OF.
4. UNIFORM STRUCTURAL FILL COMPACTION DURING CONSTRUCTION IT PROVIDE THE MINIMUM PERCENTAGE OF DENSITY REQUIRED FOR EACH AREA AS DETERMINED ACCORDING TO ASTM D1557. STRUCTURAL FILL SHALL NOT FALL BELOW 90% OF ITS DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE PRODUCTION.

LOCATED AT

**250 EAST
22ND STREET
BAYONNE, NJ 07002**

CLIENT

ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

MARINE ENGINEER

IR INDIGO RIVER ARCHITECTURE
AND ENGINEERING, D.P.C.
ONE VAN HOUTEN STREET
NYACK, NY 10960
+1.917.246.6788

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GENERAL NOTES

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- 3 ALL CONCRETE SHALL CONFORM TO REQUIREMENTS OF THE AC BUILDING CODE REQUIREMENT FOR STRUCTURAL CONCRETE (318-14).
- 4 ALL COVERED SHALL BE: AIR ENTRAINMENT $\geq 1\%$ BY VOLUME OR 3/2% CLASH AGGREGATE, NO CARBONACEOUS AGGREGATES SHALL BE USED.
- 5 ALL CONCRETE SHALL BE MIXED, TRANSPORTED AND PLACED, IN ACCORDANCE WITH AC STANDARD 318 AND 304.
- 6 FOLLOW AC STANDARD 211.1 FOR MIXING WATER REQUIREMENTS.
- 7 ALL CURATURE SHALL HAVE COMPRESSIVE STRENGTH $f_c = 2000$ PSI AT 28 DAYS WITH A MAXIMUM W/C RATIO OF 0.44 MAX. (UNLESS NOTED OTHERWISE ON SCHEDULE OF NOTES).
- 8 MAXIMUM COARSEST SLOPE SHALL BE 4" PER 10' IN THE PRESENCE OF PLASTICIZING ADMIXTURES.
- 9 ALL CURATURE SHALL BE ASYMMETRIC FROM THE MIDLINE IN ACCORDANCE WITH AS PER CITY OF LOS ANGELES SHALL COMPLY.
- 10 ONE SLOPE = 4" PER 10' FOR EACH 100' OF THE 10' OF THE OTHER SLOPE = 10' OF THE 10' OF THE OTHER SLOPE.

1. COMPLY WITH MINIMUM 11 THE A/C OF THE REINFORCING BAR (INCLUDING DEE AND STIRRUPS SHALL BE 2" UNLESS OTHERWISE INDICATED IN THE PLANS.
2. ALL REINFORCING BARS SHALL BE NEW RILEE STEEL CONFORMING TO ASTM A601 GRADE 60.
3. ALL REINFORCING BARS SHALL BE HOT DIP GALVANIZED IN CONFORMANCE WITH ASTM A654.
4. USE ENSURE SPICE FOR ALL SPICES (1.000)
5. THE CONTRACTOR MAY SUBMIT LESSER SPICE LENGTH FOR REVIEW AND APPROVAL OF THE ENGINEER OF RECORD AT THE SAME TIME PROVIDING THE FOLLOWING INFORMATION:
 - A. DETAILS PREPARED AND SUBMITTED BY THE CONTRACTOR INDICATING LOCATION AND PROVIDE A TYPE OF BARRIER AND NUMBER OF STRIPS.
 - B. WHERE THE SIZE AND NUMBER OF THE PERMIT THE REDUCTION OF BAR LENGTH MUST BARS SHALL BE INDICATE ON THE DETAILS.
 - C. WHERE COMPUTED STRESS VALUES PERMIT THE REDUCTION OF BAR LENGTH COMPUTATIONS SHALL BE SUBMITTED FOR REVIEW.
 - D. THE APPROVAL STATUS OF THE ALTERNATIVE CODE PERMITTING THE LESSER SPICE LENGTH SHALL BE INDICATED ON THE SUBMITTED MATERIAL.
6. WHERE BARS OF DIFFERENT SIZES ARE TO BE SPACED, THE SPICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGEST.

MINIMUM DEVELOPMENT LENGTH SCHEDULE						
FC=5000 PSI FY=60000 PSI		HOT-DIP GALVANIZED REINFORCING				
BAR SIZE	ℓ_d TOP	ℓ_d TOP	ℓ_d	ℓ_d TOP	ℓ_d TOP	ℓ_d TOP
#3	17	1'-5"	13	1'-1"	7	0'-7"
#4	23	1'-11"	17	1'-5"	9	0'-9"
#5	35	2'-11"	22	1'-10"	11	0'-11"
#6	42	3'-2"	26	2'-2"	13	1'-1"
#7	49	4'-1"	38	3'-2"	15	1'-3"
#8	56	4'-8"	43	3'-7"	17	1'-3"
#9	63	5'-3"	48	4'-0"	20	1'-8"
#11	71	5'-11"	54	4'-6"	22	1'-10"
#14	78	6'-6"	60	5'-0"	24	2'-0"
#17	94	7'-10"	72	6'-0"	29	2'-5"
#21	125	10'-5"	96	8'-0"	39	3'-3"

[illegible]

10. **SPACING:** WHERE SHOWN ON THE CURVED DRAWINGS OR DIRECTED BY THE ENGINEER, PROVIDE SPACING OF STEEL PILES SHALL BE AS FOLLOWS:
11. **STEEL SPEED PILE SPALL BE SPACED FASTENED WITH 2 CURVED OR FISH TAIL CLASP OR BRACK OR BRIDGE CLASP OR FISH TAIL CLASP OR STEEL SUPPORT SHALL BE FASTENED IN ACCORDANCE WITH THE SPACING NEAR WITH SLAB (CLASPING) OR IN BRIDGE AND CLASP OR SPACING IN THE FISH TAIL MINIMUM WITH FISH TAILING: FISH TAIL = 8 INCH. STEEL PILE SPALL AT CLASP, BRIDGE CLASP, EXTEND A MINIMUM OF 10 FEET BELOW MAJORURE OF PILE.**
12. **THE MINIMUM EMBEDMENT LENGTH FOR THE STEEL SPEEDING SHALL BE AS SHOWN ON PLAN.**
13. **STEEL SPEED PILE SPALL BE FASTENED FROM BRIDGING.**
14. **USE SUITABLE CUSHIONING OR DRIVING HEADS TO AVOID DAMAGE TO THE PILES IF APPLICABLE.**
15. **WHERE PILES ARE UNPUSHED VERTICALLY FROM PRESSURES OF UNKNOW, UNKNOW PILES BE DRIVEN AS REQUIRED AT AN ADDITIONAL COST TO THE OWNER.**
16. **CONTRACTOR TO PROVIDE THE OWNER WITH A COMPLETE DRIVING RECORD WITH THE DATE OF THE FINAL INSTALLATION AND ELEVATIONS. A PROGRESS RECORD, SHALL BE SUBMITTED WEEKLY AND SIGNED BY A CONTRACTOR REPRESENTATIVE. THE CONTRACTOR SHALL MINIMUM PILE RECORD COMPLETE WITH PILE NUMBER, PILE TYPE, ITS ASL LENGTH, TYPE OF HAMMER AND DATE, ENERGY, DATE OF INSTALLATION, FINAL ELEVATION AND THE NAME AND SIGNATURE OF THE CONTRACTOR REPRESENTATIVE.**

1. ALL STEEL SHEET INTERLOCKS TO ENCOMPASS MINIMUM SPACING FROM THE TOP OF THE STEEL SHEET PILING 12 TO 15 FEET BELOW THE TOP OF THE SHEET
2. INTERLOCK BEZEL SHALL BE STEEL, MANUFACTURED BY KROCK SKYLINE LLC OR APPROVED EQUAL
3. MINIMUM SPACING TO BE APPLIED AFTER STEEL SHEET PILING HAS IN THE HORIZONTAL POSITION FIRST FROM ANY LINE OF DECK
4. INTERLOCK BEZEL SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S APPLICATION INSTRUCTIONS.

STEEL JOINT CONNECTIONS SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:

C-CHANNELS	ASTM A60
H-PILE (WALD SPIGOTS)	ASTM A572 GRADE B, 50 KSI
BOLTS & LAG BOLTS	ASTM A307
NUTS	ASTM A307
WASHERS	ASTM F436
PLATE	ASTM A36
STEEL SHEAR STUDS	ASTM A1084

2. STEEL SHAPES AND PLATE SHALL BE FABRICATED IN ACCORDANCE WITH THE STEEL BUILDING BOOK #11. STEEL FABRICATOR SHALL BE RESPONSIBLE GALVANIZING.

3. GALVANIZING: ALL CONNECTING FABRICATOR SHALL BE HOT DIPPED GALVANIZED, AFTER FABRICATION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPROPRIATE SPECIFICATIONS AND THE REQUIREMENTS LISTED BELOW:

A. SPECIFICATIONS FOR ZINC (HOT-GALVANIZED) COATING ON STRUCTURAL FABRICATOR FROM ROLLED, SHEET AND FORMED STEEL SHAPES, PLATES AND TUBES - ASTM A755

1. SPECIFICATION FOR ZINC COAT. (HOT-DIPPED GALVANIZED) ON IRON AND STEEL FABRICATOR - ASTM A755

2. ZINC COATING SHALL MEET MINIMUM COATING WEIGHT PER SQUARE FOOT OF 2.0 OZ. SHALL BE APPLIED IN TWO COATINGS FOR REPAIRS. COATINGS SHOULD BE REMOVED AFTER REMOVAL OF LOST OR CRACKED ZINC COATING. USE MODIFIED REPAIR RUSH ONLY.

3. HOT-DIP GALVANIZING, ALL STEEL CONNECTIONS SHALL BE DONE AND FINISH WITH A ZINC-BOLT COATING CONNECTIONS SHALL NOT BE DONE. HOT-DIP GALVANIZING, ALL BOLT NUTS SHALL BE FABRICATED FROM HOT-DIP GALVANIZING.

4. THE RAIL ASSEMBLY CONSISTING OF THE RAIL STEEL JOINTS, BOLTS AND WASHERS SHALL BE EXPOSED THROUGHOUT THE LIFE OF THE RAIL. IF APPLICABLE, TENSIONER SHALL HAVE AN RAIL OF 100 KSI IN A CONTACT WITH RAIL ASSEMBLY TO BE FURNISH-BONDED FROM COATED, CONFORMING TO ASTM A775

5. FOR RAIL ELEVATION FOR THE RAIL PENETRATION IN THE CONCRETE GRADE, SHALL CONFORM TO ASTM A775

1. JOINTS SHALL BE MADE WITH RUBBER-GLUED, AS-BUILT MANUFACTURED BY THE COMPANY, INC OR APPROVED EQUAL.

2. ALL JOINTS SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

3. JOINTS SHALL BE BLACK IN COLOR UNLESS OTHERWISE RULED.

4. SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SSP-3510 - YEAR WITH PLANT CLAIMS.

5. JOINTS SHALL BE NO LATER IN ACCORDANCE WITH THE MANUFACTURER'S JOINT INSTRUCTIONS. JOINTS IS TO BE APPLIED IN JOINTS TO ACHIEVE A MINIMUM MINIMUM LINE FINISHES OF 15 MILE.

6. HOLES AND OTHER IMPERFECTIONS IN THE JOINTS SHALL BE REMOVED OR REPAIRED AT THE CONTRACTOR'S EXPENSE PRIOR TO FINAL ACCEPTANCE OF THE JOINTS.

2. CONTRACTOR TO FOLLOW THE INSTALLATION MANUAL AND RECOMMENDATIONS AS PROVIDED BY THE MANUFACTURER.

THE FOLLOWING ITEM: ARE SUBJ. TO SPECIAL INSPECTIONS BY AN INDEPENDENT ENGINEER, AS REQUIRED BY THE OWNER AND THE INTERNATIONAL BUILDING CODE (IBC) CHAPTER 17

- A. CONCRETE - CAST-IN-PLACE
- B. EXCAVATIONS - SHEETING, SHUTTING AND BRACING
- C. CONCRETE DESIGN MIX
- D. CONCRETE WORKING AND CASTING

1. ALL SHEET PILES USED IN THE PROJECT (INCLUDING THE SHEETS USED TO CONSTRUCT THE BULKHEAD, BULKHEAD, RECURS, AND THE ANCHOR) WILL BE PROVIDED BY THE OWNER.
2. ALL OTHER MATERIALS (INCLUDING, BUT NOT LIMITED TO, THE OIL CONTAMINANT TAYMATE, FLOW GATES, CURRENTLY, CRANE AND CLIP BACKFILL) MUST BE ACQUIRED BY THE CONTRACTOR.
3. THE PROCUREMENT OF ALL MATERIALS (INCLUDING SHEET PILES) IS TO BE INCORPORATED INTO THE CONTRACTORS BID PRICE.

[illegible]

NOMI - AREA

**BAYONNE
FORMER PIER 5
AREA
REMEDICATION**
LOCATED AT
**250 EAST
22ND STREET
BAYONNE, NJ 07002**

CLIENT

ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

MARINE ENGINEER



**INDIGO RIVER ARCHITECTURE
AND ENGINEERING, D.P.C.**
ONE VAN HOUTEN STREET
NYACK, NY 10960
+1.917.246.6788

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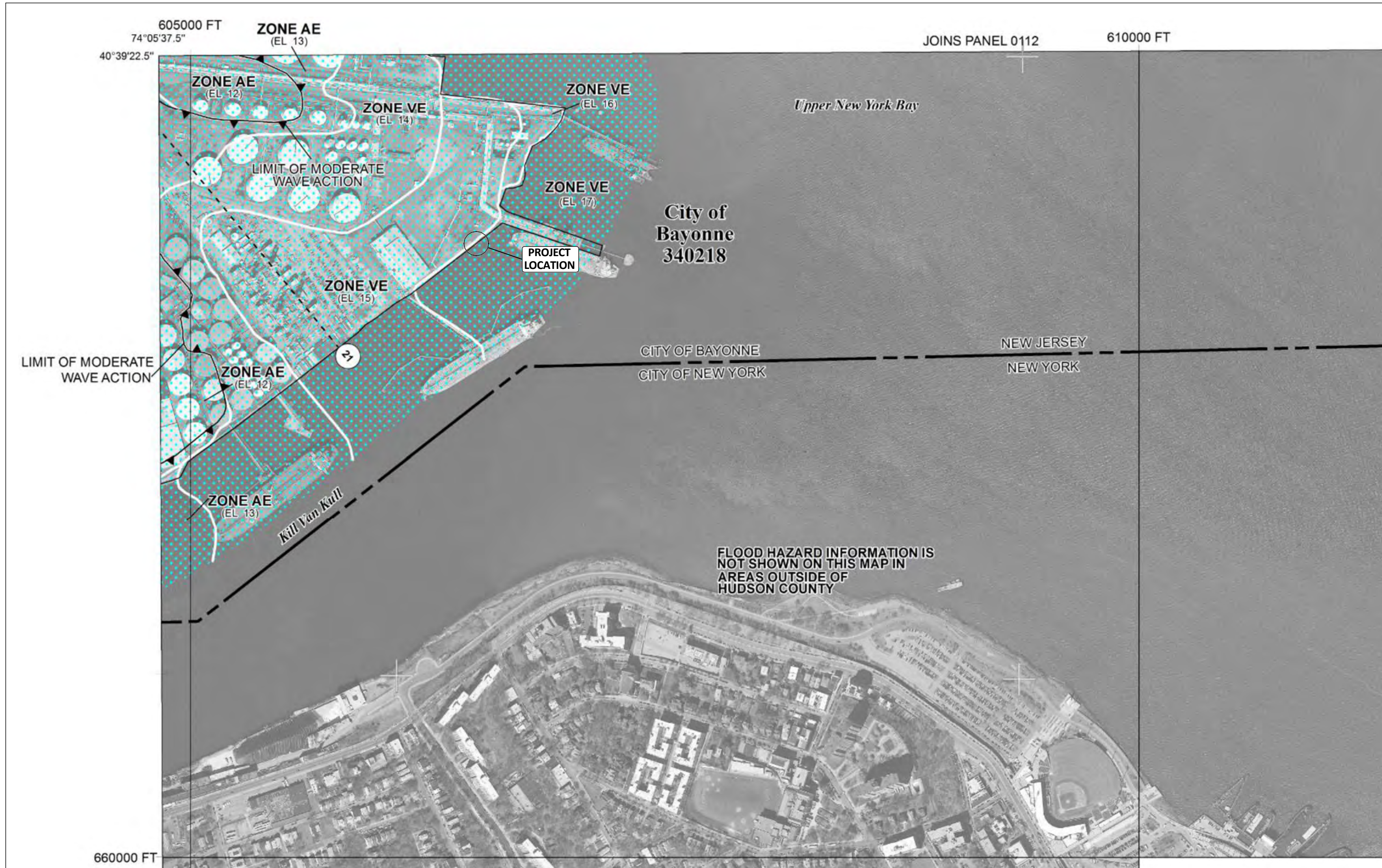
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CONSTRUCTION

SHEET NAME

GENERAL NOTES II

DATE	DRAWN BY	CHECKED BY
04 NOV 2022	JWK	AA
FORMAT	SCALE	
ANSI D	N/A	
SHEET NO.		3 OF 1
G-101		



**BAYONNE
FORMER PIER 5
AREA
REMEDIATION**

LOCATED AT
**250 EAST
22ND STREET
BAYONNE, NJ 07002**

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SHEET NAME

PFIRM PANEL

DATE	DRAWN BY	CHECKED BY
04 NOV 2022	JWK	AA
FORMAT	SCALE	
ANSI D	N/A	
SHEET NO.		G-200 4 OF 1

LOCATED AT

**250 EAST
22ND STREET
BAYONNE, NJ 07002**

CLIENT

ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

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SHEET NAME

BORING PLAN

DATE	DRAWN BY	CHECKED BY
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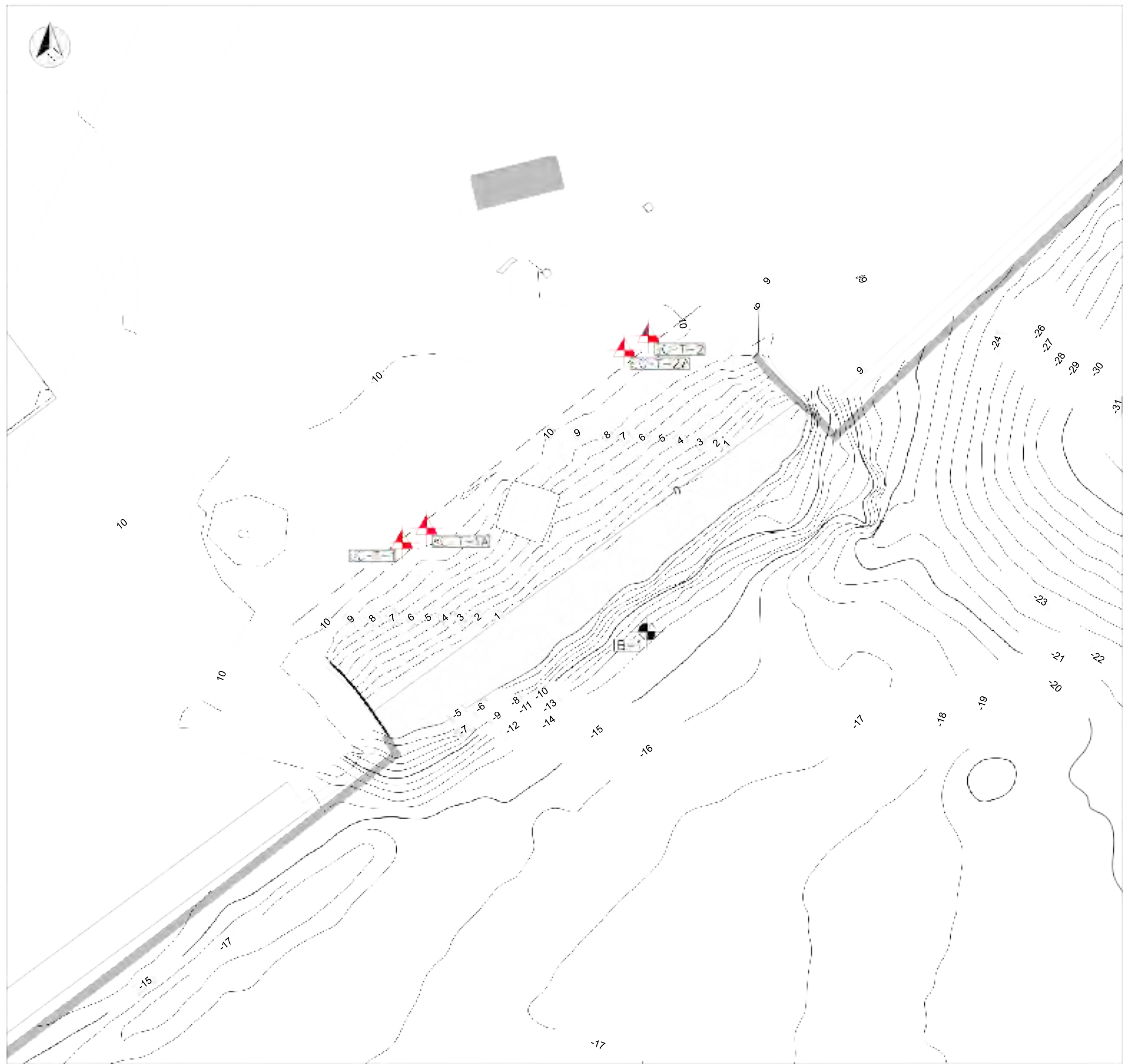
FORMAT SCALE

ANSI D 1"=15'

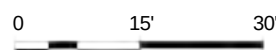
SHEET NO.

B-100

5
OF
1



BORING PLAN



SCALE: 1"=15'

SCOPE OF WORK

1. CONTRACTOR TO PROVIDE A MINIMUM OF TWO (2) FILLER BURNERS AT THE PROVIDER'S DISCRETION.
2. CORE PLANT/ENGINEERING (CPT) CAN BE COMPLETED WATERBORN OR UPLAND AT THE ENGINEER'S DISCRETION. CONTRACTOR TO PROVIDE PROPOSAL FOR BOTH OPTIONS.
3. A KNOWN PETROLEUM PLUME IS LOCATED APPROX. 8 FT. BELOW THE GROUND SURFACE. IF UPLAND CPTS ARE CHOSEN, CONTRACTOR IS TO VERIFY THIS IS OKAY AND THAT RESULTS WILL NOT BE SKEWED.

CHEM-CHNICA NOTE(S)

- 1 BORING SHALL BE MADE TO 4.0 M AND THE DEPTH INDICATED ON SITE BORING PLAN AND ON TABLE 1.
- 2 IF ROCK IS ENCOUNTERED, ONE (1) 5- FOOT ROCK CORE SHALL BE OBTAINED IN ACCORDANCE WITH ASTM D2113 AT THE DISCREION OF THE ENGINEER.
- 3 THE BORING CONTRACTOR SHALL NOTIFY THE PROPER AUTHORITIES TO MARK UNDERGROUND UTILITIES BEFORE DRILLING AND OBTAIN ANY NECESSARY PERMITS.
- 4 THE BORING CONTRACTOR SHALL NOTIFY ENGINEER AT LEAST 48 HOURS PRIOR TO MOBILIZATION AND PRIOR TO COMMENCEMENT OF DRILLING.
- 5 SAMPLES SHALL BE OBTAINED AT EACH BORING TO A MINIMUM IN ACCORDANCE WITH THE STANDARD PENETRA TEST PROCEDURE (ASTM D-1586) LAST EDITION, USING A SPLIT-BARREL SAMPLER AND A 140-LB HAMMER FALLING 30 INCHES.
- 6 SAMPLES SHALL BE OBTAINED AT 5-FOOT INTERVALS AND AT CHANGES IN MATERIALS STRATA. ROCK CORES SHALL BE TAKEN AS DIRECTED.
- 7 THE BORING CONTRACTOR SHALL PROVIDE A LITHOLOG BORING LOG REPORT FOR EACH BORING ALONG WITH THE SAMPLES. IT INCLUDES SOIL MOISTURE AND CONSISTENCY OR DENSITY CLASSIFICATIONS SHALL ALSO INCLUDE SOIL NAME, SOIL GROUP FROM THE UNIFIED SOIL CLASSIFICATION SYSTEM, E.G. CL, ML, OL, MH, OH, ETC. THE LOG FOR EACH BORING SHALL GIVE A DESCRIPTION OF EACH SOIL STRATUM ENCOUNTERED, INCLUDING THICKNESS OF SOILS, THICKNESS, RESULTS OF STANDARD PENETRA OR TEST UNDISTURBED SAMPLES, TEST RESULTS, AND ANY NOTES ON CONDITIONS ENCOUNTERED DURING DRILLING.
- 8 THE BORING CONTRACTOR SHALL COLLECT UNDISTURBED SOIL SAMPLES AS DIRECTED.
- 9 THE CONTRACTOR IS RESPONSIBLE FOR COLLECTING SOIL SAMPLES, TRANSPORTING TO THE CHosen LAB COORDINATING WITH THE LAB FOR THE REQUESTED TESTS AND PROVIDING A REPORT WITH THE LAB TEST RESULTS.
- 10 CONTRACTOR SHALL INCLUDE PRICING FOR EACH TEST ON THE PROPOSAL. THE ENGINEER WILL PROVIDE SOIL TEST QUANTITIES AND DETERMINE APPROPRIATE TESTS FOR EACH SOIL SAMPLE.
 - a. SHREVE ANALYSIS WITH HYDROMETER BASED ON ASTM STANDARD D422-63
 - b. CONSOLIDATION - UNIDIRECTIONAL COMPRESSION TEST PER ASTM D1587
 - c. UNCONSOLIDATED - UNIDIRECTIONAL COMPRESSION TEST PER ASTM D2840
 - d. WATER CONTENT BASED ON ASTM D226
 - e. ONE DIMENSIONAL CONSOLIDATION TEST BASED ON ASTM D2113
- 11 ALL BORING HOLE SHALL BE SEALED AS REQUIRED BY THE GEOLOGIC OR THE PROLOG.
- 12 ANY DAMAGE TO EXISTING CONDITIONS ON SITE SHALL BE REPAIR BY THE BORING CONTRACTOR AT THEIR OWN COST.
- 13 ALL UPWARD BORNES MUST BE PRE-CLEARED TO A TERMINAL DEPTH OF FIVE FEET BELOW GROUND SURFACE BY MEANS OF HAND TOOLS OR SOFT DIG TECHNIQUES.

SHELL CONE PENETROMETER TESTING (SCPT) NOTE(S):

1. SOUNDINGS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D678 WITH SILEX WAVE VELOCITY MEASURED AT 3-100 INCHES.
2. WATER-BASED SOUNDINGS SHALL BE CONDUCTED 60 FEET BELOW THE EXISTING MUDLINE OR UNTIL PENEIRA OR REFUSAL.
3. UPLAND SOUNDINGS SHALL BE CONDUCTED 2 FEET BELOW GROUND SURFACE OR UNTIL PENEIRA OR REFUSAL.

GENERAL NOTE(S)

1. JOINING LOCATIONS: AID APPROXIMATE COORDINATE (L, M, S) OF THE JOINING PLANT TO THE LIST OF THEIR
AIDITY. LISTING THE LATITUDE AND LONGITUDE OF THE JOINING LOCATIONS AID. HANDLE FOR LABEL
IMPLEMENTATION.

CONCLUSIONS

B-X BURNING LESION OF

R. L. T. X. CAME PENE TRUQUE ER SOUNDING OBSERVATION



Spring 2004

[UPLOAD SOME PICTURE HERE TESTING LOCAL ON](#)

TABLE 1

BORING	TYPE	DEPTH BELOW ML (FT)
B-1	SOFT	SL
C-1	JOINT	WATER SEAL UPLAND ZONE
C-2	JOINT	WATER SEAL UPLAND ZONE

N. 11-

BOOKING UL THIS IS OWN AND THE PROPOSED UL THIS
ACTUAL BOOKING UL THIS IS OWN ON B-200

B-200

6
OF
1

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LOCATED AT

**250 EAST
22ND STREET
BAYONNE, NJ 07002**

CLIENT

ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

MARINE ENGINEER



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CPT LOGS

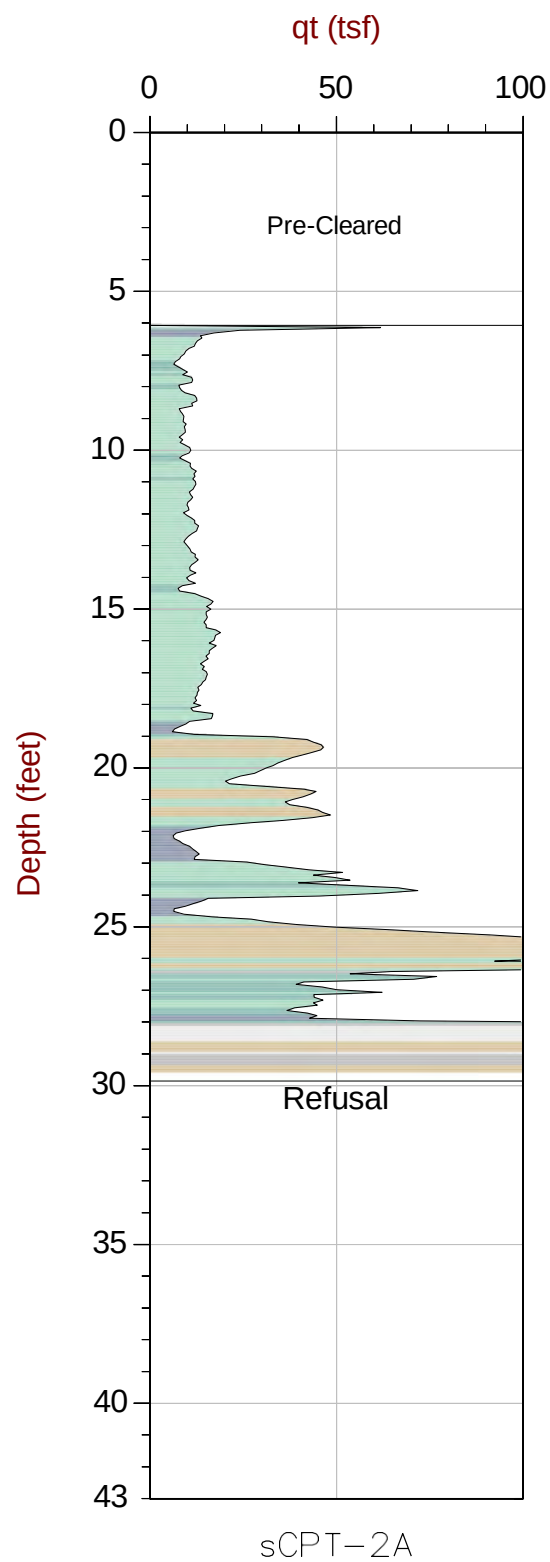
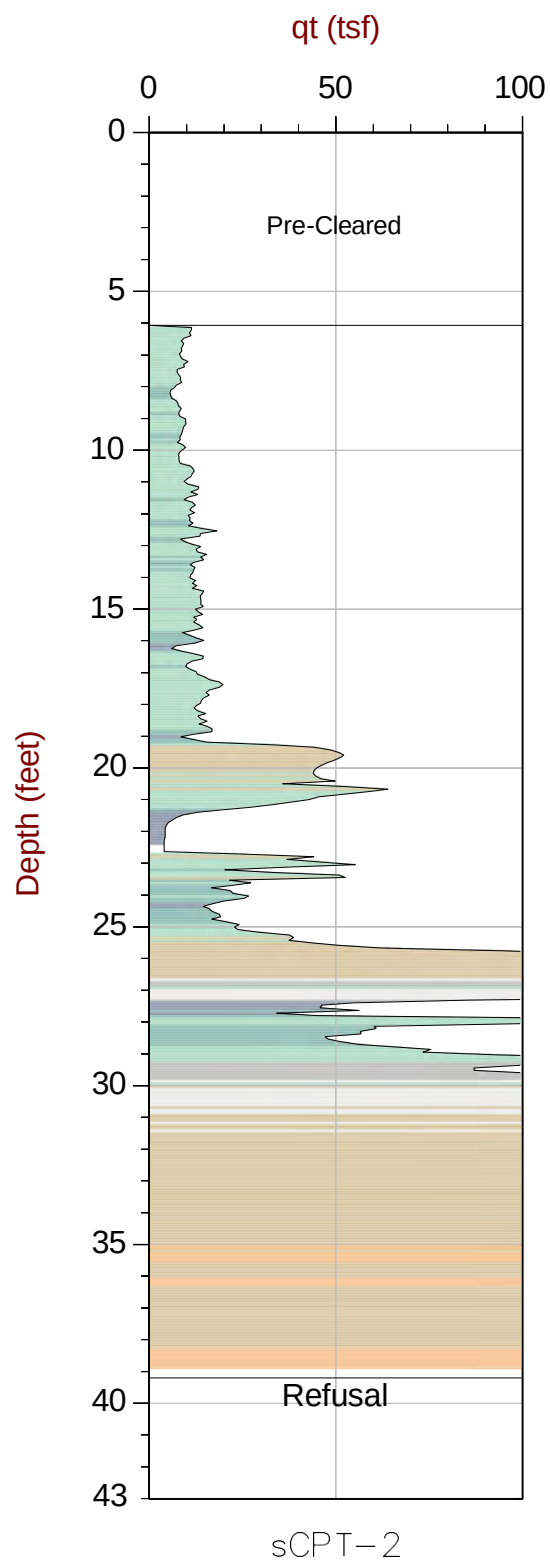
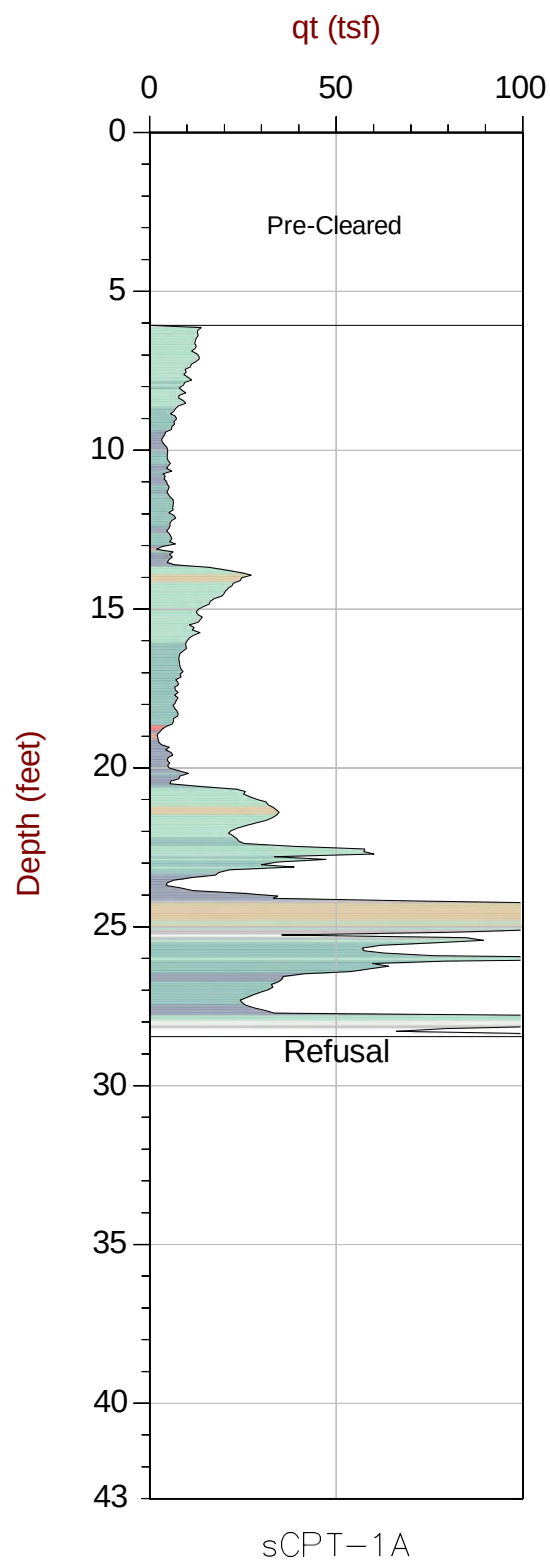
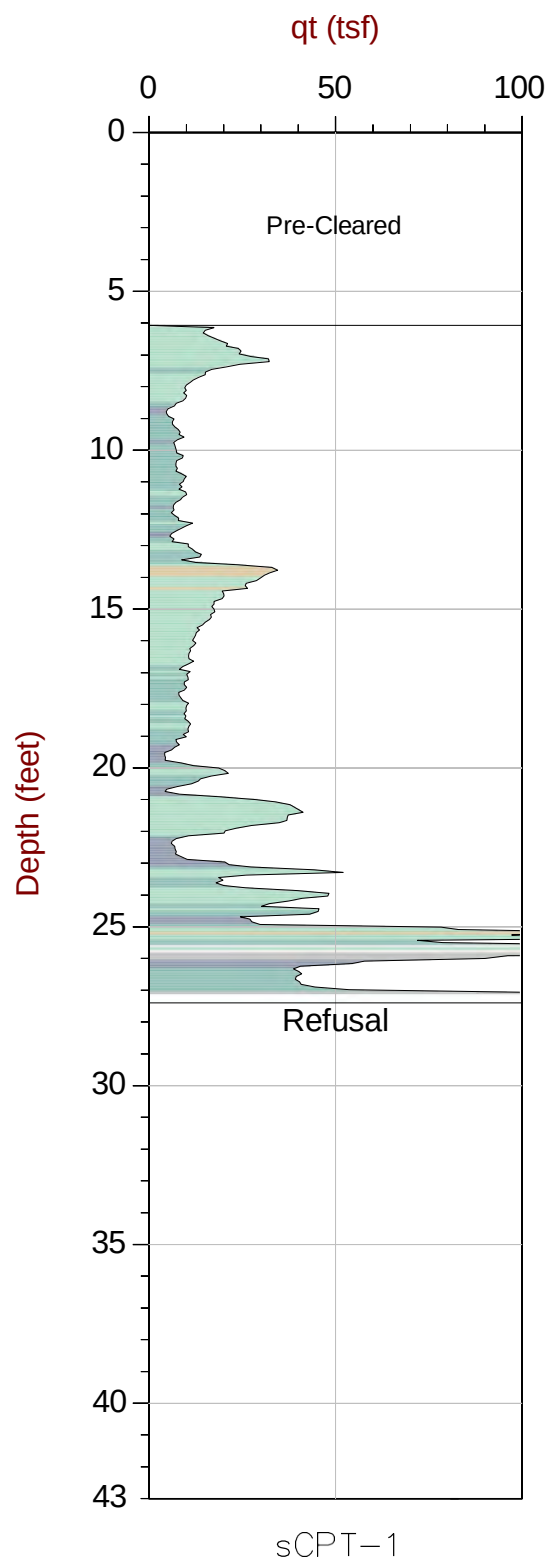
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ANSI D	N/A	

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B-201

7
OF
1



LOCATED AT

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TABLE 3C. (Cont.)		
FUNCTION	GAUSS	REMB2
24	-2.48	1.19
44-74	-2.55	-3.45
44-74	2.65	1.11
44-74-8	±0.05	-1.1
44-74-9	-1.17	±0.05
44-1	-3.22	15.69
44-1	-3.15	-3.97
44-1	-2.74	-1.47
44-1	-2.79	-1.67

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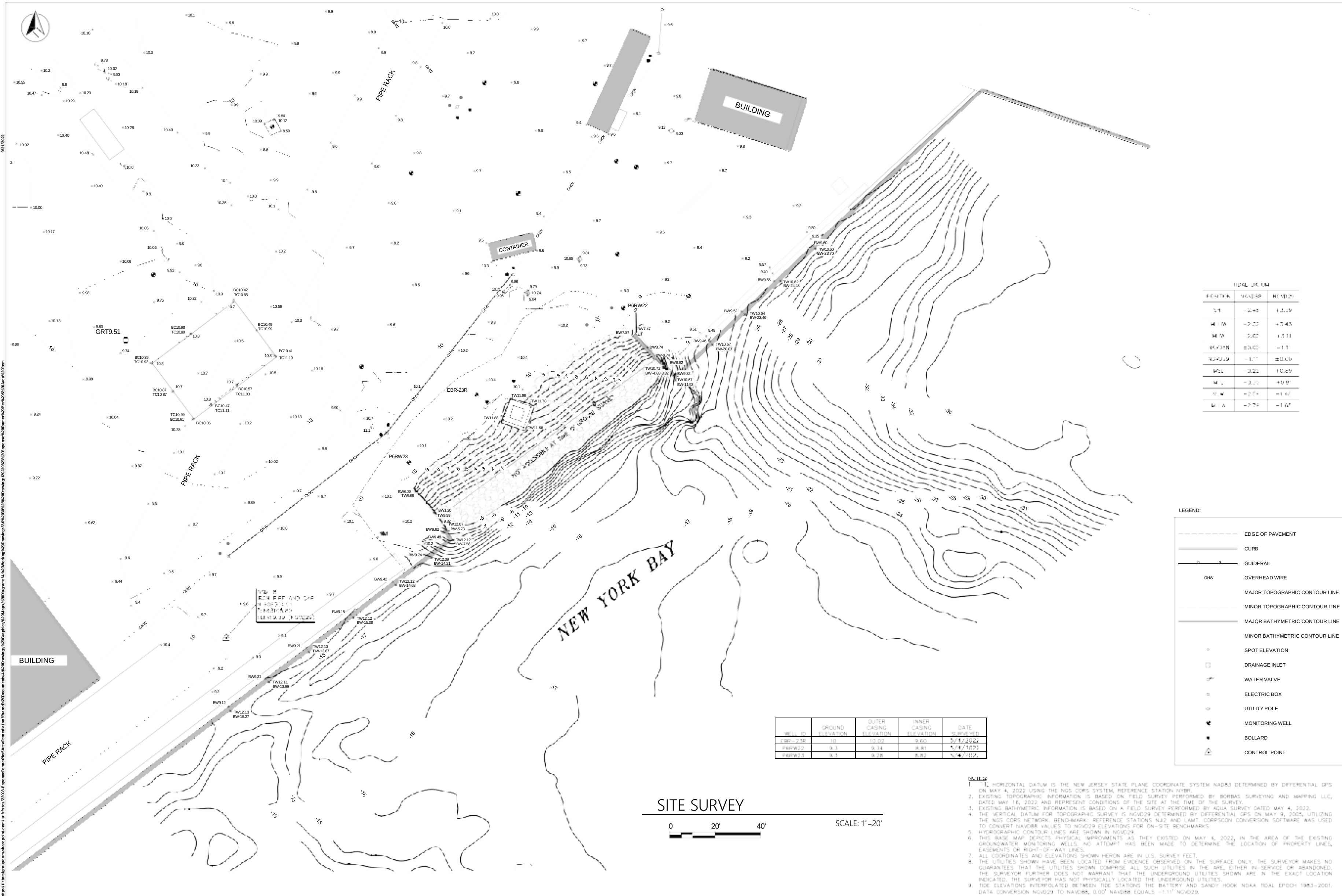
SHEET NAME

DATE	DRAWN BY	CHECKED BY
04 NOV 2022	JWK	AA

FORMAT SCALE
ANSI D 1"=20'

SHEET NO. _____

MR-100



LOCATED AT

**250 EAST
22ND STREET
BAYONNE, NJ 07002**

ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

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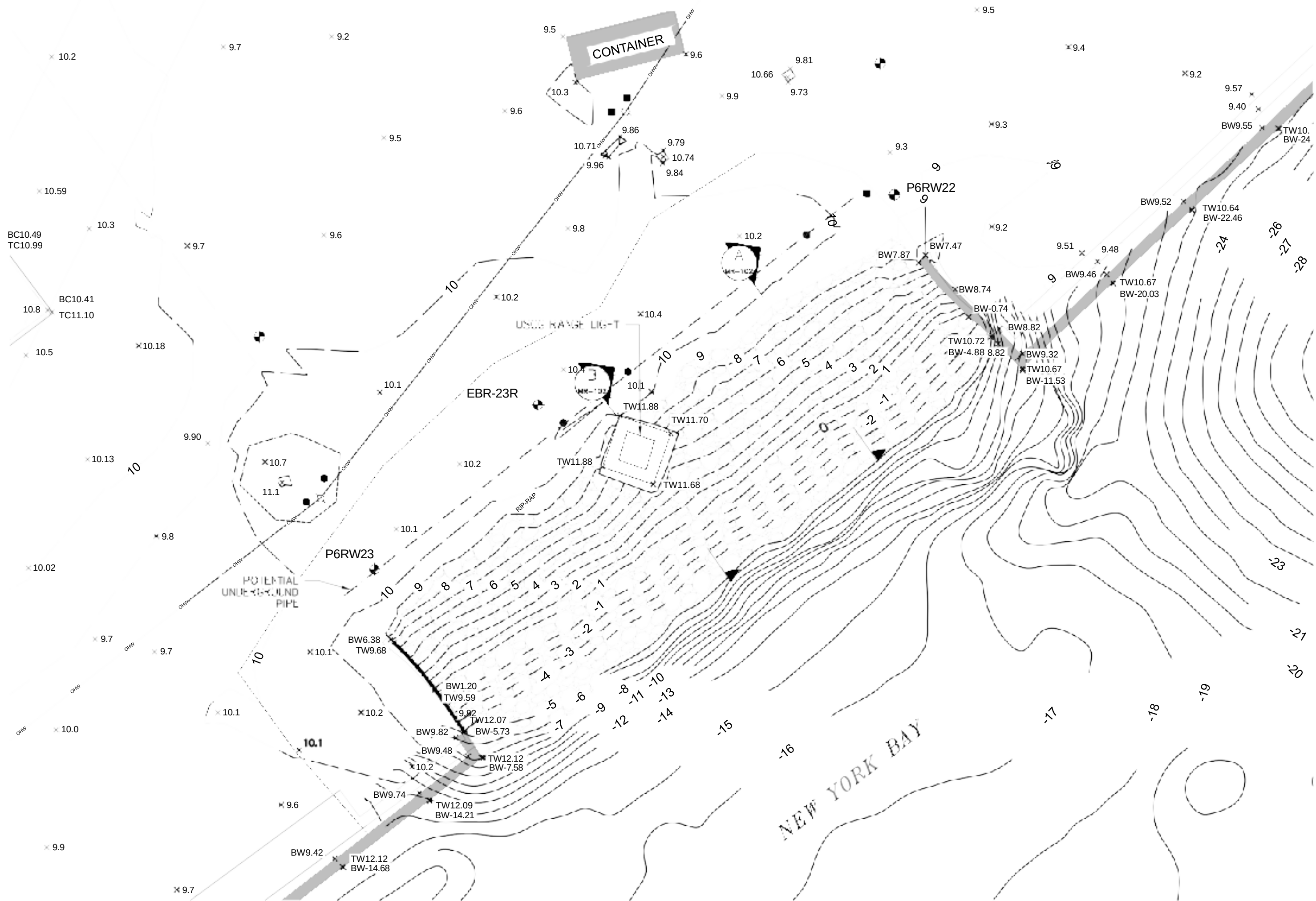
EXISTING SITE PLAN

DATE	DRAWN BY	CHECKED BY
04 NOV 2022	JWK	AA

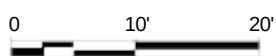
FORMAT SCALE

ANSI D **1"=10'**

SHEET NO. **MR-101** 9 OF 1

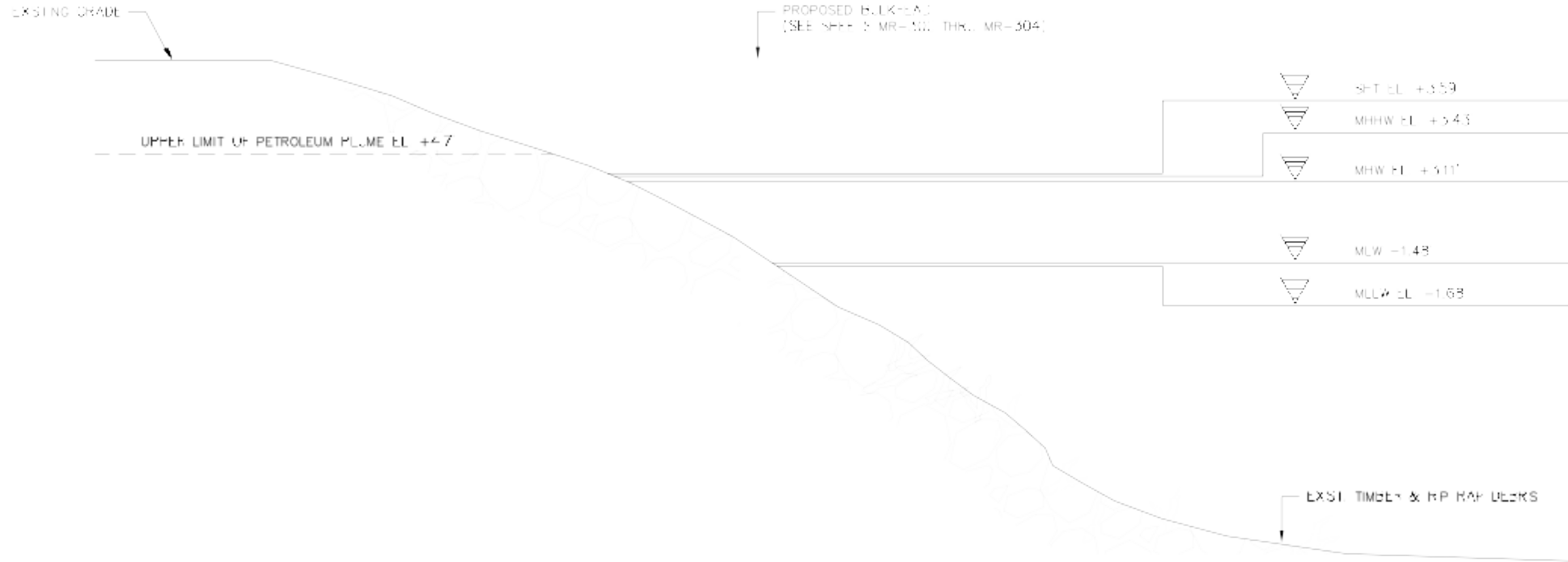


EXIST. SITE PLAN

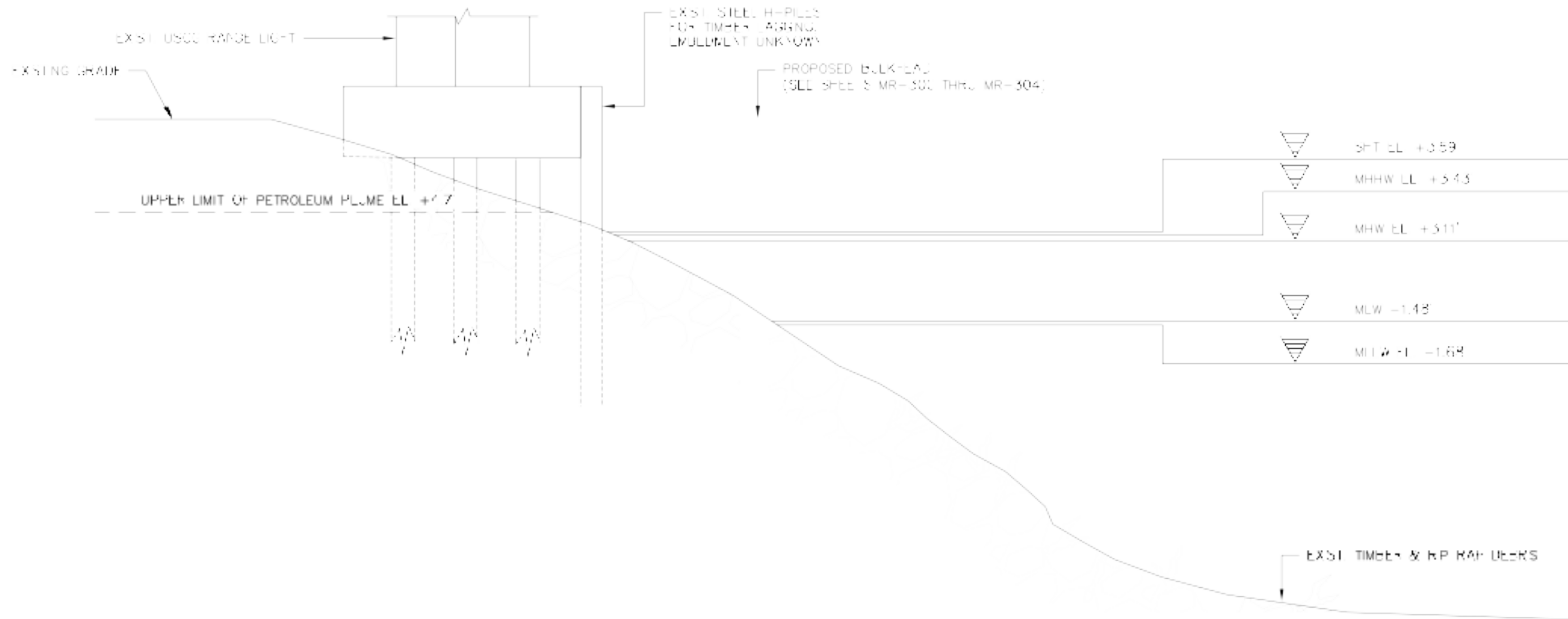


SCALE: 1"=10'

1. **DATA** FROM ELEVATION 0 TO ELEVATION -5.0 NOVODZ ARE ESTIMATED BASED ON EXISTING TOPOGRAPHIC AND BATHYMETRIC SURVEY DATA.
2. EXISTING TOPOGRAPHIC INFORMATION IS BASED ON FIELD SURVEY PERFORMED BY BORBAS SURVEYING AND MAPPING, INC. DATED MAY 16, 2022 AND REPRESENT CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
3. ELEVATION INFORMATION IS BASED ON THE FIELD SURVEY DATED MAY 16, 2022. THE SURVEY DATED MAY 4, 2022, THE HORIZONTAL DATUM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD83 DETERMINED BY DIFFERENTIAL GPS ON MAY 4, 2022 USING THE NGS CDS SYSTEM, REFERENCE STATION NY98.
4. THE VERTICAL DATUM IS NOVODZ DETERMINED BY DIFFERENTIAL GPS ON MAY 9, 2026, UTILIZING THE NGS CDS NETWORK. BENCHMARK REFERENCE STATIONS IN THE AREA WERE TRANSCONVERSION SOFTWARE WAS USED TO CONVERT NAVD83 VALUES TO NOVODZ ELEVATIONS FOR ON-SITE BENCHMARKS.
5. THIS BASE MAP DEPICTS PHYSICAL IMPROVEMENTS AS THEY EXISTED ON MAY 4, 2022, IN THE AREA OF THE EXISTING DRAINAGE/WATER MONITORING WELLS. NO ATTEMPT HAS BEEN MADE TO DETERMINE THE LOCATION OF PROPERTY LINES, EASEMENTS OR RIGHT-OF-WAY LINES.
6. ALL COORDINATES AND ELEVATIONS SHOWN HEREON ARE IN U.S. SURVEY FEET.
7. THE UTILITIES SHOWN HAVE BEEN LOCATED FROM EVIDENCE OBSERVED ON THE SURFACE ONLY. THE SURVEYOR MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED.
8. THE SURVEYOR FOR THIS PROJECT DOES NOT WARRANT THAT UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



A
MR-102
TYPICAL EXIST. SECTION
SCALE: 1/4"=1'



B
MR-102
EXIST. SECTION AT USCG RANGE LIGHT
SCALE: 1/4"=1'

**BAYONNE
FORMER PIER 5
AREA
REMEDICATION**
LOCATED AT
**250 EAST
22ND STREET
BAYONNE, NJ 07002**

CLIENT
ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

MARINE ENGINEER
IR INDIGO RIVER ARCHITECTURE
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**EXISTING
SECTIONS**

DATE
04 NOV 2022

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AA

FORMAT
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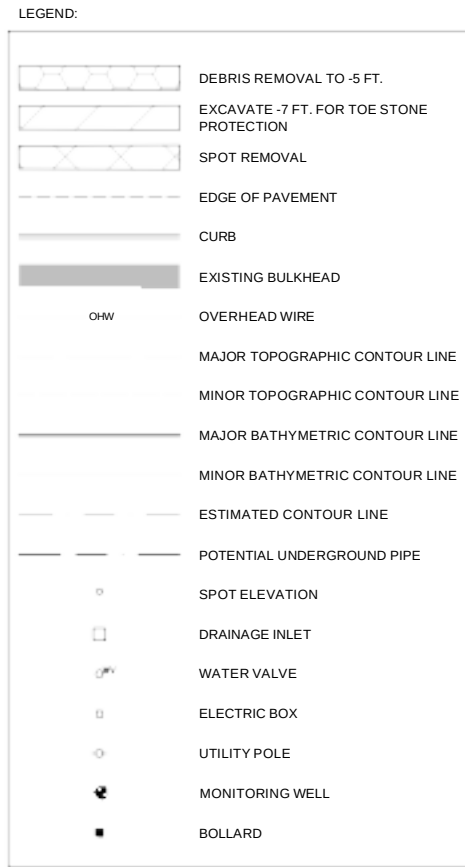
SCALE
1/4"=1'

SHEET NO.
MR-102

1
OF
1



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1. ~~EXISTING~~ FROM ELEVATION 0 TO ELEVATION -6.0 NAVD83 ARE ESTIMATED BASED ON EXISTING TOPOGRAPHIC AND BATHYMETRIC SURVEY DATA.
2. EXISTING TOPOGRAPHIC INFORMATION BASED ON FIELD SURVEY PERFORMED BY BOBBAS SURVEYING AND MAPPING LLC, DATED MAY 16, 2022 AND REPRESENTS CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
3. EXISTING BATHYMETRIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY AQUA SURVEY DATED MAY 4, 2022.
4. THE HORIZONTAL DATUM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD83 DETERMINED BY DIFFERENTIAL GPS ON MAY 4, 2022 USING THE STATE SURVEY CONTROL STATION K098.
5. THE VERTICAL DATUM IS NAVD83 DETERMINED BY DIFFERENTIAL GPS ON MAY 4, 2022, UTILIZING THE NGS CORS NETWORK. BENCHMARK REFERENCE STATIONS NJL2 AND LAMT. COMPCON CONVERSION SOFTWARE WAS USED TO CONVERT NAVD83 VALUES TO NAVD83 ELEVATIONS FOR ON-SITE BENCHMARKS.
6. THE BATHYMETRIC MAP DEPICTS PHYSICAL IMPROVEMENTS AS THEY EXISTED ON MAY 4, 2022, IN THE AREA OF THE EXISTING GROUNDWATER MONITORING WELLS. NO ATTEMPT HAS BEEN MADE TO DETERMINE THE LOCATION OF PROPERTY LINES, EASEMENTS OR RIGHT-OF-WAY LINES.
7. ALL COORDINATES AND ELEVATIONS SHOWN HEREIN ARE IN U.S. SURVEY FEET.
8. THE UTILITIES SHOWN HAVE BEEN LOCATED FROM EVIDENCE OBSERVED ON THE SURFACE ONLY. THE SURVEYOR MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPLETELY ACCURATELY LOCATE ALL UTILITIES IN THE AREA. EITHER THE SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
9. CONTAMINATED DEBRIS TO BE DISPOSED OF IN ACCORDANCE WITH NJDEP REGULATIONS. ANY MATERIAL FOR DISPOSAL MUST BE STORED IN ANCHORED BOLLARDS, STOCKPILING OR TONNAGE ON AND IS PROHIBITED EXCAVATED MATERIAL BEING REUSED AS BACKFILL. PER THE ENVIRONMENTAL ENGINEER'S DISCRETION, UNCONTAMINATED MATERIAL MAY BE REUSED. OTHER DEBRIS, SUCH AS TIMBER, MAY NOT BE REUSED.
10. ALL MONITORING WELLS IN THE WORK AREA MUST BE ABANDONED IN PLACE BY A LICENSED DRILLER IN THE STATE OF NEW JERSEY.
11. ALL MACHINERY AND EQUIPMENT USED IN THE DEMOLITION AND REMOVAL PHASE MUST BE OPERATED SO THAT A CLEARANCE OF 10 FEET FROM ANY ENERGIZED OVERHEAD LINE IS MAINTAINED.
12. EXISTING PDS FOR CONTRACTOR TO ENCOUNTER A 2" DIA. METAL PIPE 2' BELOW THE EXISTING GROUND SURFACE BASED ON HISTORICAL GPS EFFORT IN THE AREA. CONTRACTOR TO EXCAVATE WITH EXTREME CAUTION IN THIS AREA AND NOTIFY ENGINEER IN THE EVENT OF PIPE INFLUENCING ANCHOR WALL LOCATION.

LOCATED AT

**250 EAST
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CONSTRUCTION

SHEET NAME

DEMOLITION AND REMOVAL PLAN

DATE	DRAWN BY	CHECKED BY
04 NOV 2022	JWK	AA
FORMAT	SCALE	
ANSI D	1"=10'	

MR-200

**BAYONNE
FORMER PIER 5
AREA
REMEDIATION**

LOCATED AT

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22ND STREET
BAYONNE, NJ 07002**

CLIENT

ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

MARINE ENGINEER



A
MR-201

TYPICAL DEMOLITION SECTION

SCALE: 1/4"=1'

B
MR-201

DEMOLITION SECTION AT USCG RANGE LIGHT

SCALE: 1/4"=1'

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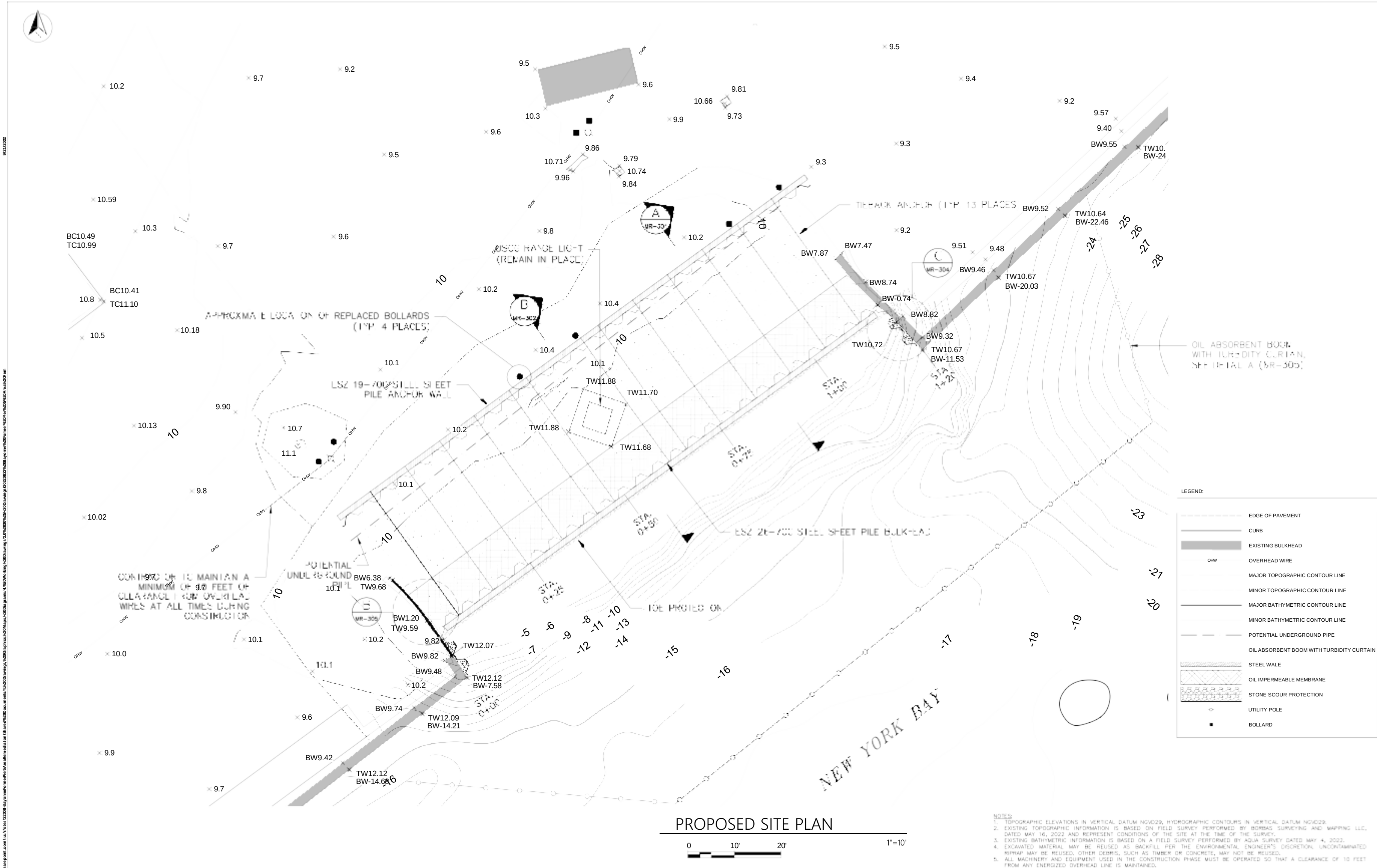
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CONSTRUCTION

SHEET NAME

DEMOLITION SECTIONS

DATE	DRAWN BY	CHECKED BY
04 NOV 2022	JWK	AA
FORMAT	SCALE	
ANSI D	1/4"=1'	
SHEET NO.		1 OF 1
MR-201		

DATE 04 NOV 2022		DRAWN BY JWK	CHECKED BY AA
FORMAT ANSI D	SCALE 1"=10'		
SHEET NO. MR-300			1 OF 1



**BAYONNE
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SEAL

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CONSTRUCTION

SHEET NAME

PROPOSED TYPICAL SECTION

DATE	DRAWN BY	CHECKED BY
04 NOV 2022	JWK	AA

FORMAT SCALE

ANSI D **3/8"=1'**

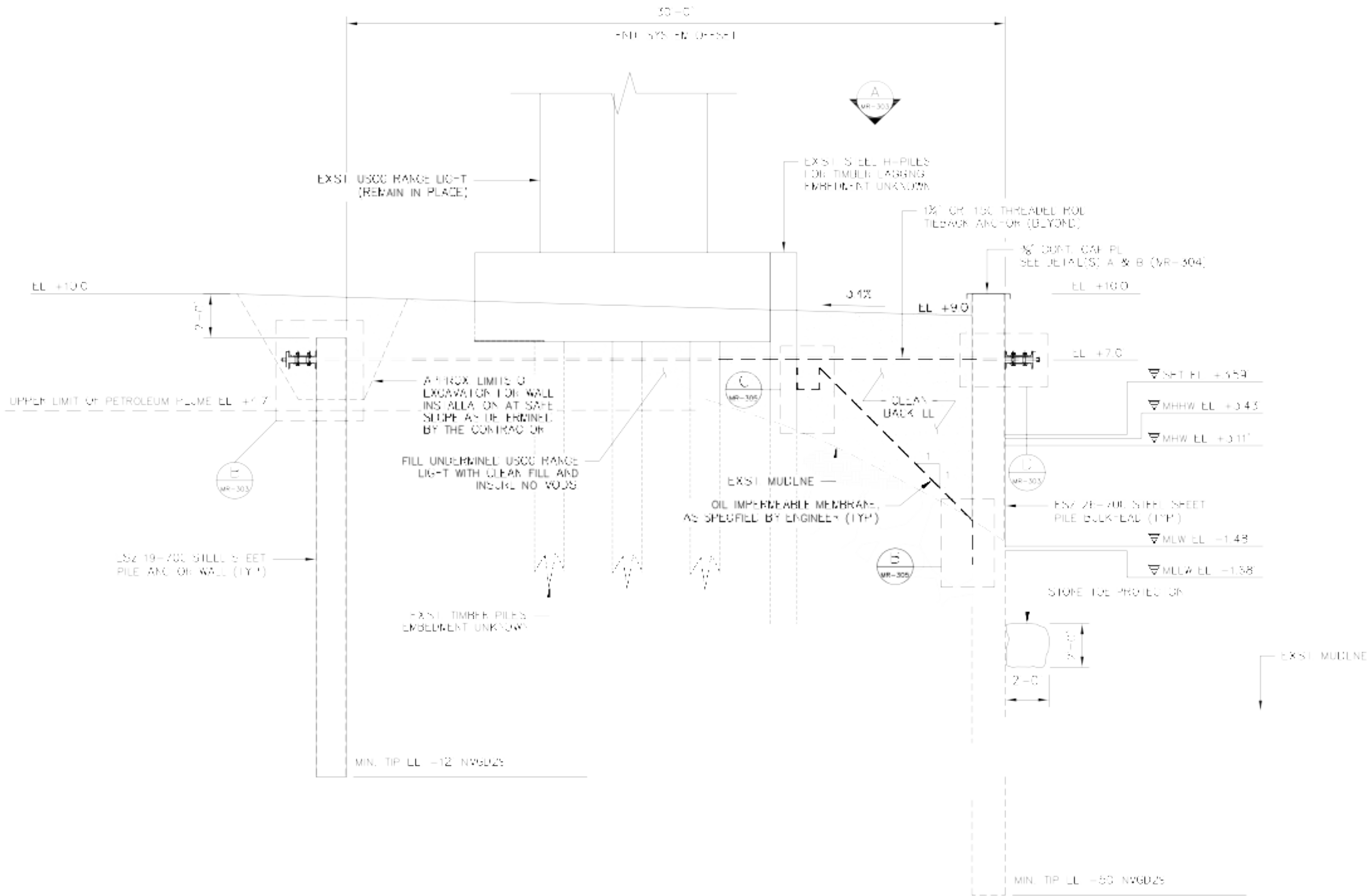


SHEET NO. **MR-301** **1**
OF
1

BAYONNE
FORMER PIER 5
AREA
REMEDIATION
LOCATED AT
250 EAST
22ND STREET
BAYONNE, NJ 07002

CLIENT
ROUX
209 SHAFTER STREET
ISLANDIA, NY 11749

MARINE ENGINEER
IR INDIGO RIVER ARCHITECTURE
AND ENGINEERING, D.P.C.
ONE VAN HOUTEN STREET
NYACK, NY 10960
+1.917.246.6788



LOCATED AT
**250 EAST
22ND STREET
RAYONNE, NJ 07002**

CLIENT

ROUX

209 SHAFTER STREET
ISLANDIA, NY 11749

MARINE ENGINEER

**INDIGO RIVER ARCHITECTURE
AND ENGINEERING, D.P.C.**

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NYACK, NY 10960
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2	11.04.2022	FINAL CONSTRUCTION DRAWINGS
1	10.12.2022	BID DOCUMENTS
0	10.07.2022	30% DESIGN DOCUMENTS
REV	DATE	ISSUE

SEAL

NOT FOR
CONSTRUCTION

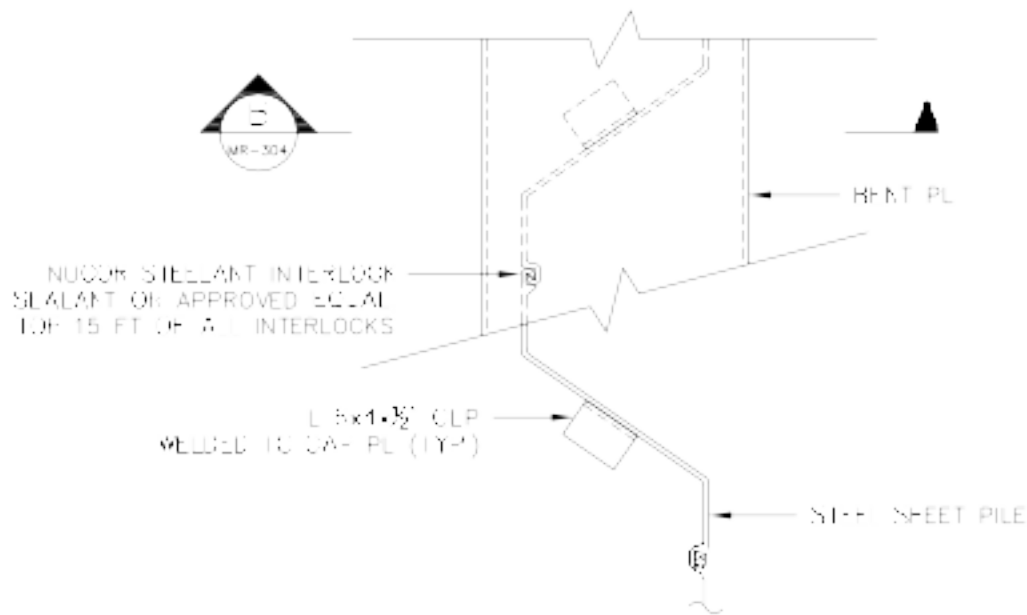
SHEET NAME

PROPOSED DETAILS I

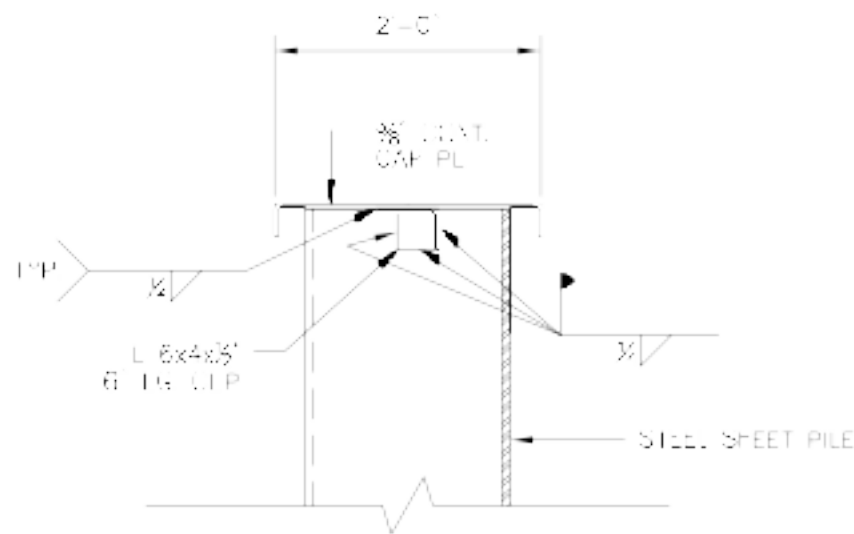
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04 NOV 2022	JWK	AA
FORMAT	SCALE	
ANSI D	NOTED	
SHEET NO.		

MR-303

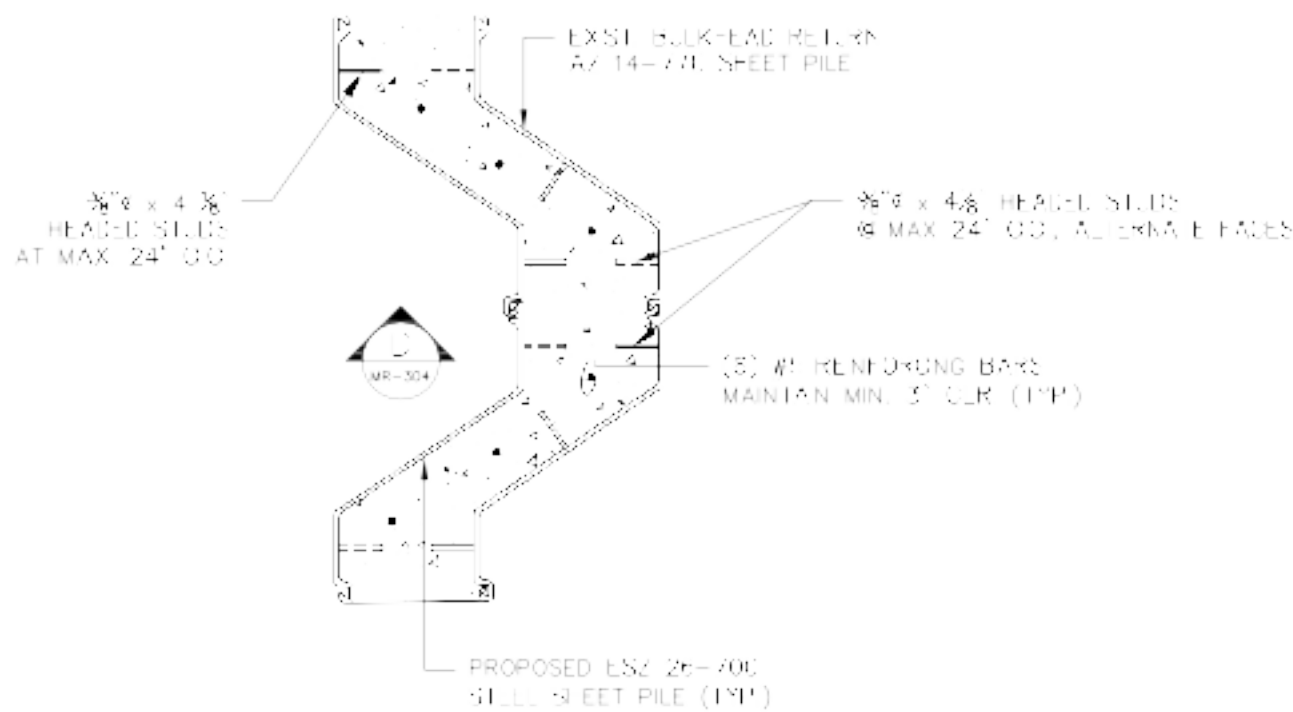
9/27/2022 7:33 PM



A BULKHEAD CAP CONNECTION PLAN
MR-304 SCALE: 1"=1'

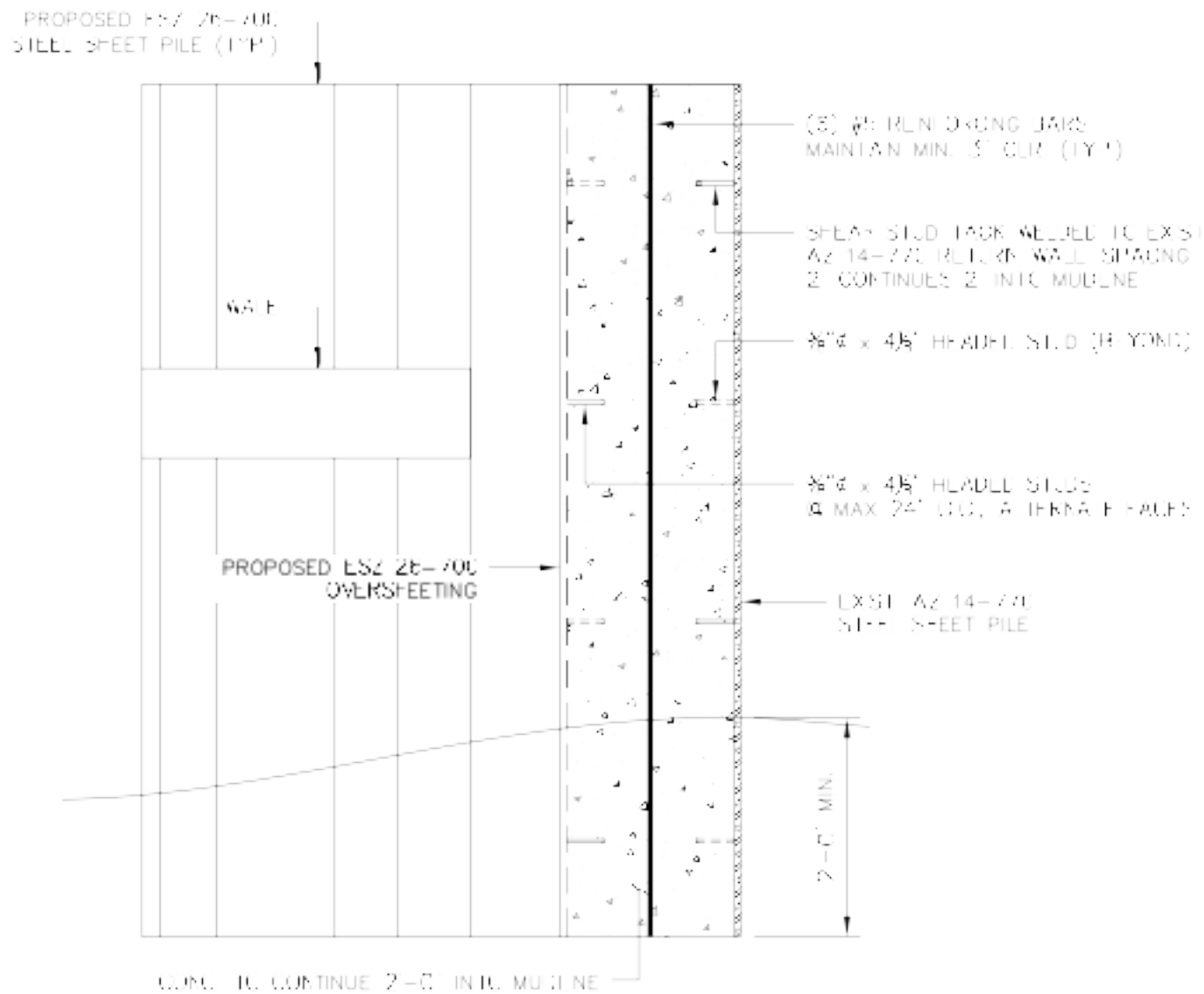


B TYP. BULKHEAD CAP DETAIL
MR-304 SCALE: 1"=1'



C CONCRETE PLUG PLAN
MR-304 SCALE: 1"=1'

- NOTES
1. COMPRESSIVE STRENGTH OF CONCRETE FC=5 KSI
 2. REINFORCING STEEL YS=60 KSI
 3. SEALANT IS=55 KSI
 4. UNLESS OTHERWISE NOTED COVER SHALL BE A MINIMUM OF 3"



D CONCRETE PLUG ELEVATION
MR-304 SCALE: 1"=1'

- NOTES
1. CONCRETE PLUG SHALL BE CASTED TO BE MINIMUM 2' MINIMUM INTO THE OFFSHORE MUD LOCATION. THIS ELEVATION SHOULD BE CARRIED UPWARD FOR THE ENTIRETY OF THE CONCRETE PLUG PLAN.

BAYONNE
FORMER PIER 5
AREA
REMEDICATION
LOCATED AT
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22ND STREET
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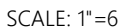
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1	10.12.2022	BID DOCUMENTS
0	10.07.2022	30% DESIGN DOCUMENTS

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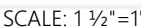
SHEET NAME

PROPOSED
DETAILS II

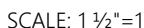
DATE
04 NOV 2022
DRAWN BY
JWK
CHECKED BY
AA
FORMAT
ANSI D
SCALE
NOTED
SHEET NO.
MR-304
1
OF
1



1. THE WORKING AREA WILL BE SURROUNDED BY SEDIMENT BARRIERS/TURBIDITY CURTAINS AND AN OIL ABSORBENT BOOM.
2. AT FREQUENT, SEDIMENT AND OIL CONTROL MEASURES WILL BE CHECKED NO LESSER THAN ONCE PER WEEK AND REPAIRS MADE.
3. ADDITIONAL STANDARDS FOR POLLUTION AND SEDIMENT CONTROL (SSC) MEASURES SHOULD BE IMPLEMENTED PER SSC PERMIT ACCORDING TO THE BID DOCUMENTS.



1. OIL IMPERMEABLE MEMBRANE WILL BE PLACED ALONG THE EXISTING BULK-HEAD BULKHEADS AS WELL AS THE UPLAND FACE OF THE PROPOSED BULK-HEAD.



1. A 'T' TRENCH IS TO BE EXCAVATED ALONG THE LANDWARD EXTENT OF THE OIL MAT (PERMANENT).
2. OIL IMPERMEABLE MEMBRANE WILL BE Laid ALONG THE TRENCH AND THEN COVERED BY CLEAN BACK FILL TO SECURE THE MEMBRANE IN PLACE.

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REV	DATE	ISSUE

NOT FOR
CONSTRUCTION

SHEET NAME

SHEET NO.

MR-305

OF
1