The New York State Department of Environmental Conservation
in partnership with Nassau County Department of Public Works

WESTERN BAYS RESILIENCY INITIATIVE

THE BAY PARK CONVEYANCE PROJECT

A DESIGN-BUILD PROJECT

DEC Contract No. D011883

REQUEST FOR PROPOSALS

VOLUME 2

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VOLUME 2 – SECTION 3

PRELIMINARY DRAWINGS

Prepared for

NASSAU COUNTY - STATE OF NEW YORK

THE BAY PARK CONVEYANCE PROJECT

PRELIMINARY DRAWINGS

APRIL 2020

wsp

GENERAL

SHEET NO.	DWG NO.	TITLE
1		COVER SHEET
2		DRAWING LIST
3	G-001	OVERALL PROJECT LOCATION PLAN
4	G-002	GENERAL NOTES AND ABBREVIATIONS
5	G-003	CONTRACT DRAWINGS USER GUIDE AND LEGEND

BAY PARK EFFLUENT DIVERSION PUMP STATION

SHEET NO.	DWG NO.	TITLE
6	BP-C100	BAY PARK FACILITY LOCATION PLAN
7	BP-C101	BPEDPS CIVIL WORK
8	BP-S050	BPEDPS SYMBOLS, ABBREVIATIONS, DESIGN CRITERIA
9	BP-S101	BPEDPS SUPPORT OF EXCAVATION
10	BP-S110	BPEDPS STRUCTURAL FLOOR PLAN - EFFLUENT DIVERSION CHAMBER LEVEL
11	BP-S111	BPEDPS STRUCTURAL PLAN AT EXISTING EFFLUENT CONDUIT LEVEL
12	BP-S112	BPEDPS STRUCTURAL PLAN - AT GRADE
13	BP-S113	BPEDPS STRUCTURAL FLOOR PLAN - LEVEL 1
14	BP-S114	BPEDPS STRUCTURAL FLOOR PLAN - LEVEL 2
15	BP-S115	BPEDPS STRUCTURAL ROOF FRAMING PLAN
16	BP-S310	BPEDPS STRUCTURAL BUILDING SECTION
17	BP-S601	BPEDPS SCHEDULES & DIAGRAMS
18	BP-A001	BPEDPS ARCHITECTURE SYMBOLS,ABBREVIATIONS AND NOTES
19	BP-A050	BPEDPS CODE COMPLIANCE - SUMMARY
20	BP-A101	BPEDPS ARCHITECTURE FLOOR PLAN AT GRADE
21	BP-A102	BPEDPS ARCHITECTURE FLOOR PLAN - LEVEL 1
22	BP-A103	BPEDPS ARCHITECTURE FLOOR PLAN - LEVEL 2
23	BP-A104	BPEDPS ARCHITECTURE ROOF PLAN
24	BP-A210	BPEDPS EXTERIOR FINISH ELEVATIONS- COLOR
25	BP-A301	BPEDPS ARCHITECTURE BUILDING SECTIONS
26	BP-A310	BPEDPS ARCHITECTURE WALL SECTION
27	BP-A311	BPEDPS ARCHITECTURE WALL SECTION
28	BP-A401	BPEDPS ENLARGED PLANS
29	BP-A501	BPEDPS DETAILS
30	BP-A502	BPEDPS DETAILS
31	BP-A601	BPEDPS DOOR FRAME SCHEDULE, TYPES AND DETAILS
32	BP-M001	BPEDPS GENERAL NOTES,SYMBOLS & ABBREVIATIONS
33	BP-M101	BPEDPS EFFLUENT DIVERSION PUMPING STATION ELEVATION -5'-0" PLAN
34	BP-M102	BPEDPS EFFLUENT DIVERSION PUMPING STATION ELEVATION 23'-0" PLAN
35	BP-M103	BPEDPS EFFLUENT DIVERSION PUMPING STATION ELEVATION 41'-0" PLAN
36	BP-M301	BPEDPS EFFLUENT DIVERSION PUMPING STATION ELEVATION SECTION 1
37	BP-M302	BPEDPS EFFLUENT DIVERSION PUMPING STATION ELEVATION SECTIONS 2 AND 3
38	BP-MH001	BPEDPS HVAC DRAWING LIST, LEGEND AND ABBREVIATIONS
39	BP-MH201	BPEDPS HVAC PUMP ROOM NEW WORK PLAN
40	BP-MH202	BPEDPS HVAC ELECTRICAL ROOM NEW WORK PLAN
41	BP-MH203	BPEDPS HVAC ROOM NEW WORK PLAN
42	BP-MH500	BPEDPS HVAC AIR RISER
43	BP-MH600	BPEDPS HVAC SCHEDULES
44	BP-MH700	BPEDPS HVAC DETAILS
45	BP-MP001	BPEDPS DRAWING LIST, LEGEND, ABBREVIATIONS, NOTES & RISER DIAGRAMS
46	BP-E001	BPEDPS GENERAL NOTES,SYMBOLS & ABBREVIATIONS
47	BP-E101	BPEDPS SITE PLAN
48	BP-E102	BPEDPS LOWER LEVEL POWER PLAN
49	BP-E103	BPEDPS UPPER LEVEL POWER PLAN
50	BP-E104	BPEDPS ELECTRICAL ROOM POWER PLAN
51	BP-E105	BPEDPS ROOF POWER PLAN
52	BP-E201	BPEDPS 4.16 Kv SWITCHGEAR ELEVATION
53	BP-E601	BPEDPS 4.16 Kv POWER DISTRIBUTION ONE-LINE DIAGRAM
54	BP-E602	BPEDPS 4.16 Kv SWITCHBOARD ONE-LINE DIAGRAM
55	BP-E603	BPEDPS MOTOR CONTROL WIRING DIAGRAM
56	BP-E604	BPEDPS MOTOR CONTROL WIRING DIAGRAM
57	BP-E605	BPEDPS MOTOR CONTROL WIRING DIAGRAMS
58	BP-ES-001	BPEDPS ELECTRICAL BLOCK DIAGRAM
59	BP-EG-001	BPEDPS ROOF LEVEL LIGHTNING AND GROUNDING PLAN
60	BPCC-M001	BPEDPS & CCEPS PROCESS FLOW DIAGRAM
61	BP-I601	BPEDPS EFFLUENT DIVERSION PUMPING STATION P&ID

CEDAR CREEK STANDPIPE & EFFLUENT PUMP STATION

SHEET NO.	DWG NO.	TITLE
62	CC-C100	CEDAR CREEK FACILITY LOCATION PLAN
63	CC-C101	CCWPCP WORK PLAN
64	CC-S101	CCWPCP STRUCTURAL STANDPIPE AND RECEIVING TANK FOUNDATION PLAN AND SECTION
65	CC-M001	CCWPCP GENERAL NOTES,SYMBOLS & ABBREVIATIONS
66	CC-M101	CCWPCP STAND PIPE AND RECEIVING TANK PLAN AND SECTIONS
67	CC-M102	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY DEMOLITION PLAN AT EL -5.00
68	CC-M103	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY DEMOLITION PLAN AT EL 13.50
69	CC-M104	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY PLAN AT EL -5.00
70	CC-M105	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY PLAN AT EL 13.50
71	CC-M301	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY DEMOLITION SECTION 1
72	CC-M302	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY DEMOLITION SECTION 2
73	CC-M303	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY SECTION 3
74	CC-M304	CCEPS EFFLUENT SCREENING & DISINFECTION FACILITY SECTION 4
75	CC-E001	CCEPS GENERAL NOTES,SYMBOLS & ABBREVIATIONS
76	CC-E101	CCEPS FIRST FLOOR DEMOLITION PLAN
77	CC-E102	CCEPS FIRST FLOOR DEMOLITION PLAN
78	CC-E103	CCEPS FIRST FLOOR POWER & CONTROL PLAN
79	CC-E104	CCEPS FIRST FLOOR POWER & CONTROL PLAN
80	CC-E601	CCEPS 4.16 Kv DEMOLITION ONE-LINE DIAGRAM
81	CC-E602	CCEPS ONE-LINE DIAGRAMS
82	CC-E603	CCEPS MOTOR CONTROL WIRING DIAGRAMS
83	CC-E604	CCEPS MOTOR CONTROL WIRING DIAGRAM
84	CC-E605	CCEPS MOTOR CONTROL WIRING DIAGRAMS
85	CC-I601	CCEPS EXISTING EFFLUENT PUMPING STATION UPGRADE P&ID

FORCE MAIN - MICROTUNNELS

SHEET NO.	DWG NO.	TITLE
86	BP-C110	WORK ZONE SHAFT 1 & 2 TRAFFIC CONTROL AND EXISTING UTILITIES
87	BP-C111	WORK ZONE SHAFT 3 & 4 TRAFFIC CONTROL AND EXISTING UTILITIES
88	BP-C112	WORK ZONE SHAFT 5 & 6 TRAFFIC CONTROL AND EXISTING UTILITIES
89	BP-C113	WORK ZONE SHAFT 7 & 8 TRAFFIC CONTROL AND EXISTING UTILITIES
90	BP-C114	WORK ZONE SHAFT 9 TRAFFIC CONTROL AND EXISTING UTILITIES
91	CC-C107	WORK ZONE SHAFT 1 & 2 TRAFFIC CONTROL AND EXISTING UTILITIES
92	CC-C108	WORK ZONE SHAFT 3 & 4 TRAFFIC CONTROL AND EXISTING UTILITIES
93	CC-C109	WORK ZONE SHAFT 5 TRAFFIC CONTROL AND EXISTING UTILITIES
94	CC-C110	WORK ZONE SHAFT 6 TRAFFIC CONTROL AND EXISTING UTILITIES
95	CC-C111	WORK ZONE TRAFFIC CONTROL NOFTHBOUND LAKEVIEW ROAD
96	CC-C112	WORK ZONE TRAFFIC CONTROL SOUTHBOUND LAKEVIEW ROAD
97	BP-C201	ALIGNMENT PLAN AND PROFILE
98	BP-C202	ALIGNMENT PLAN AND PROFILE 1
99	BP-C203	ALIGNMENT PLAN AND PROFILE 2
100	BP-C204	ALIGNMENT PLAN AND PROFILE 3
101	BP-C205	ALIGNMENT PLAN AND PROFILE 4
102	BP-C206	BAY PARK ALIGNMENT GEOMETRY TABLE
103	CC-C201	ALIGNMENT PLAN AND PROFILE
104	CC-C202	ALIGNMENT PLAN AND PROFILE 1
105	CC-C203	ALIGNMENT PLAN AND PROFILE 2
106	CC-C204	ALIGNMENT PLAN AND PROFILE 3
107	CC-C205	ALIGNMENT PLAN AND PROFILE 4
108	CC-C206	CEDAR CREEK ALIGNMENT GEOMETRY TABLE
109	BP-B101	BAY PARK FORCE MAIN BORING LOCATION PLAN SHEET 1 OF 5
110	BP-B102	BAY PARK FORCE MAIN BORING LOCATION PLAN SHEET 2 OF 5
111	BP-B103	BAY PARK FORCE MAIN BORING LOCATION PLAN SHEET 3 OF 5
112	BP-B104	BAY PARK FORCE MAIN BORING LOCATION PLAN SHEET 4 OF 5
113	BP-B105	BAY PARK FORCE MAIN BORING LOCATION PLAN SHEET 5 OF 5
114	CC-B101	CEDAR CREEK FORCE MAIN BORING LOCATION PLAN SHEET 1 OF 4
115	CC-B102	CEDAR CREEK FORCE MAIN BORING LOCATION PLAN SHEET 2 OF 4
116	CC-B103	CEDAR CREEK FORCE MAIN BORING LOCATION PLAN SHEET 3 OF 4
117	CC-B104	CEDAR CREEK FORCE MAIN BORING LOCATION PLAN SHEET 4 OF 4

FORCE MAIN - MICROTUNNELS (CONT'D)

SHEET NO.	DWG NO.	TITLE
118	GT-I001	GEOTECHNICAL INSTRUMENTATION GENERAL NOTES AND LEGEND
119	GT-I501	GEOTECHNICAL INSTRUMENTATION TYPICAL INSTRUMENTATION DETAILS
120	GT-I502	GEOTECHNICAL INSTRUMENTATION TYPICAL INSTRUMENTATION DETAILS
121	GT-I503	GEOTECHNICAL INSTRUMENTATION TYPICAL INSTRUMENTATION DETAILS
122	BP-I101	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 1 OF 8
123	BP-I102	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 2 OF 8
124	BP-I103	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 3 OF 8
125	BP-I104	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 4 OF 8
126	BP-I105	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 5 OF 8
127	BP-I106	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 6 OF 8
128	BP-I107	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 7 OF 8
129	BP-I108	BAY PARK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 8 OF 8
130	CC-I101	CEDAR CREEK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 1 OF 7
131	CC-I102	CEDAR CREEK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 2 OF 7
132	CC-I103	CEDAR CREEK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 3 OF 7
133	CC-I104	CEDAR CREEK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 4 OF 7
134	CC-I105	CEDAR CREEK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 5 OF 7
135	CC-I106	CEDAR CREEK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 6 OF 7
136	CC-I107	CEDAR CREEK FORCE MAIN GEOTECHNICAL INSTRUMENTATION PLAN SHEET 7 OF 7
137	BP-S503	BP&CC GENERAL SHAFT SUPPORT OF EXCAVATION
138	BP-S505	BP&CC ACCESS MANHOLE PLAN AND SECTION
139	BP-S506	BP&CC SHAFT ACCESS MANHOLE REMOVABLE PRECAST CONCRETE COVER
140	BP-S507	MICROTUNNEL LINING AND SHAFT / TUNNELING INTERFACE
141	BP-S301	BAY PARK FORCE MAIN BAY PARK SHAFT 1 SECTIONS
142	BP-S102	BAY PARK FORCEMAIN BAY PARK SHAFT 9 CONNECTION TO SUNRISE 72" MAIN-PLAN
143	BP-S302	BAY PARK FORCEMAIN BAY PARK SHAFT 9 CONNECTION TO SUNRISE 72" MAIN-SECTIONS
144	CC-S102	CEDAR CREEK SHAFT 6 CONNECTION TO SUNRISE 72" MAIN PLAN
145	CC-S301	CEDAR CREEK SHAFT 6 CONNECTION TO SUNRISE 72" MAIN SECTION
146	CC-S501	CEDAR CREEK FORCE MAIN CEDAR CREEK SHAFT 1
147	CC-S502	CEDAR CREEK FORCE MAIN CEDAR CREEK SHAFT 2

SUNRISE HIGHWAY

SHEET NO.	DWG NO.	TITLE
148	SH-C101	SUNRISE HIGHWAY WORK ZONE STA 661+61 TRAFFIC CONTROL
149	SH-C102	SUNRISE HIGHWAY WORK ZONE STA 675+93 TRAFFIC CONTROL
150	SH-C103	SUNRISE HIGHWAY WORK ZONE STA 687+81 TRAFFIC CONTROL
151	SH-C104	SUNRISE HIGHWAY WORK ZONE STA 700+00 TRAFFIC CONTROL
152	SH-C105	SUNRISE HIGHWAY WORK ZONE STA 722+75 TRAFFIC CONTROL
153	SH-C106A	SUNRISE HIGHWAY WORK ZONE STA 751+02 TRAFFC CONTROL NIGHTTIME WORKING
154	SH-C106B	SUNRISE HIGHWAY WORK ZONE STA 751+02 TRAFFC CONTROL DAYTIME WORKING
155	SH-C107	SUNRISE HIGHWAY WORK ZONE STA 779+94.9 TRAFFIC CONTROL
156	SH-C108	SUNRISE HIGHWAY WORK ZONE STA 802+05 TRAFFIC CONTROL
157	SH-C109	SUNRISE HIGHWAY WORK ZONE STA 815+18 TRAFFIC CONTROL
158	SH-C110	SUNRISE HIGHWAY WORK ZONE STA 827+00 TRAFFIC CONTROL
159	SH-C111	SUNRISE HIGHWAY WORK ZONE STA 838+05 TRAFFIC CONTROL
160	SH-C112	SUNRISE HIGHWAY WORK ZONE STA 848+82 TRAFFIC CONTROL
161	SH-C113	SUNRISE HIGHWAY WORK ZONE STA 858+71 TRAFFIC CONTROL
162	SH-C114	SUNRISE HIGHWAY WORK ZONE STA 885+80 TRAFFIC CONTROL
163	SH-C115	SUNRISE HIGHWAY WORK ZONE STA 838+05 TRAFFIC CONTROL
164	SH-C116	SUNRISE HIGHWAY WORK ZONE STA 892+50 TRAFFIC CONTROL
165	SH-C117	SUNRISE HIGHWAY WORK ZONE STA 918+82 TRAFFIC CONTROL
166	SH-C118	SUNRISE HIGHWAY WORK ZONE STA 938+00 TRAFFIC CONTROL
167	SH-C119	SUNRISE HIGHWAY WORK ZONE STA 954+96 TRAFFIC CONTROL
	SH-C120	(NOT USED)
168	SH-C121	SUNRISE HIGHWAY WORK ZONE STA 984+91 TRAFFIC CONTROL
169	SH-C122	SUNRISE HIGHWAY WORK ZONE STA 1019+86 TRAFFIC CONTROL
170	SH-C123	SUNRISE HIGHWAY WORK ZONE STA 1039+25 TRAFFIC CONTROL
171	SH-C124	SUNRISE HIGHWAY WORK ZONE STA 1040+37 TRAFFIC CONTROL
172	SH-C201	SUNRISE HIGHWAY PLAN AND PROFILE 1
173	SH-C202	SUNRISE HIGHWAY PLAN AND PROFILE 2
174	SH-C203	SUNRISE HIGHWAY PLAN AND PROFILE 3
175	SH-C204	SUNRISE HIGHWAY PLAN AND PROFILE 4
176	SH-C205	SUNRISE HIGHWAY PLAN AND PROFILE 5
177	SH-C206	SUNRISE HIGHWAY PLAN AND PROFILE 6
178	SH-C207	SUNRISE HIGHWAY PLAN AND PROFILE 7
179	SH-C208	SUNRISE HIGHWAY PLAN AND PROFILE 8
180	SH-C209	SUNRISE HIGHWAY PLAN AND PROFILE 9
181	SH-C210	SUNRISE HIGHWAY PLAN AND PROFILE 10
182	SH-C211	SUNRISE HIGHWAY PLAN AND PROFILE 11
183	SH-C212	SUNRISE HIGHWAY PLAN AND PROFILE 12
184	SH-C213	SUNRISE HIGHWAY PLAN AND PROFILE 13
185	SH-C214	SUNRISE HIGHWAY PLAN AND PROFILE 14
186	SH-C215	SUNRISE HIGHWAY PLAN AND PROFILE 15
187	SH-C401	SLIPLINE WORKPIT PRELIMINARY LOCATION PLAN 1
188	SH-C402	SLIPLINE WORKPIT PRELIMINARY LOCATION PLAN 2
189	SH-C403	SLIPLINE WORKPIT PRELIMINARY LOCATION PLAN 3
190	SH-C404	SLIPLINE WORKPIT PRELIMINARY LOCATION PLAN 4
191	SH-C501	EXISTING 48" GATE VALVE CHAMBER
192	SH-C502	SLIPLINE WORKPIT PRELIMINARY DESIGN
193	SH-C503	COMBINATION AIR RELIEF/VACUUM CHAMBER
194	SH-C504	ANCILLARY STRUCTURES

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PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BAYPARK_DRAWING LIST
DESIGNED BY: J. MORALES
DRAWN BY: J. MORALES
CHECKED BY: D. SMITH

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

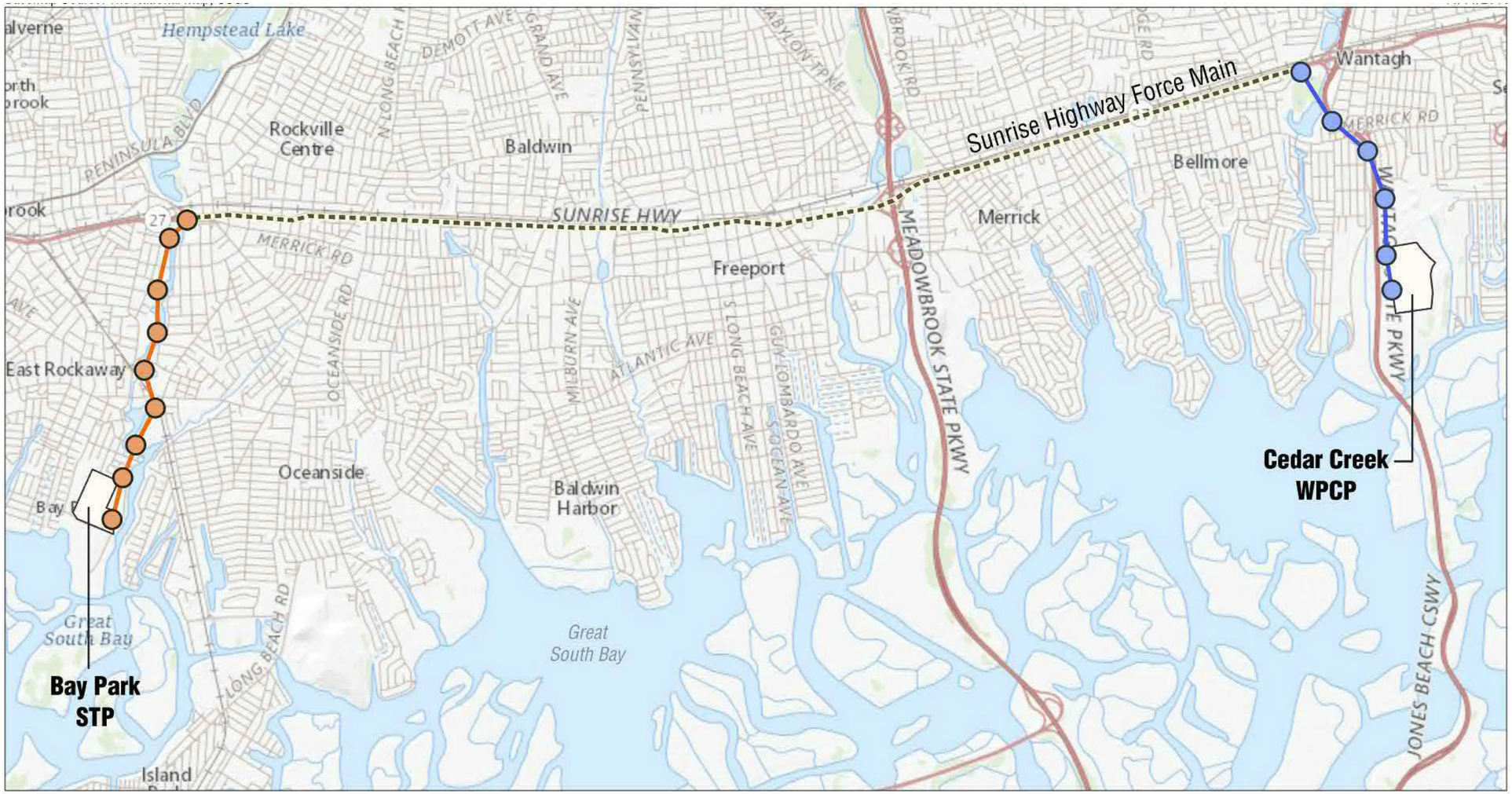
OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

DRAWING LIST

SCALE:

PAGE 2



- Bay Park Microtunnel
- Bay Park Shafts
- Cedar Creek Microtunnel
- Cedar Creek Shafts
- Sunrise Highway Force Main

PLAN NORTH

wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	G-GEN-001
DESIGNED BY:	J. ALTNIYUREK
DRAWN BY:	J. MORALES
CHECKED BY:	D. SMITH

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

OVERALL PROJECT
LOCATION PLAN

SCALE: N.T.S.

G-001

PAGE 3

GENERAL NOTES /MANDATORY REQUIREMENTS

1. ALL ELEVATIONS ARE IN FEET AND IN VERTICAL DATUM NAVD 88.
2. HORIZONTAL DATUM: NEW YORK LONG ISLAND STATE PLANE NAD 83/91.
3. NO GUARANTEE IS MADE THAT THE INFORMATION CONTAINED HEREIN IS AN ACCURATE REPRESENTATION OF THE FIELD CONDITIONS TO BE ENCOUNTERED BY THE DESIGN-BUILDER. ALL INFORMATION SHALL BE FIELD VERIFIED BY THE DESIGN-BUILDER.
4. THE DISTINCTION BETWEEN PROPOSED AND EXISTING MATERIALS, EQUIPMENT AND STRUCTURES HAS BEEN MADE ON THE DRAWINGS BY LINE WEIGHT AND STYLE. HEAVY AND/OR SOLID LINE WORK REPRESENTS NEW WORK TO BE PROVIDED UNDER THIS CONTRACT. LIGHT LINE WORK REPRESENTS EXISTING OBJECTS. NOTATIONS ARE PROVIDED IN SOME AREAS FOR CLARITY.
5. SHEETS ARE BASED ON THE TOPOGRAPHIC AND BOUNDARY SURVEYS CONDUCTED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C. AND AVAILABLE RECORDS OBTAINED FROM NASSAU COUNTY.
6. ALL UNDERGROUND UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE AND SHOWN FOR DESIGN PURPOSES ONLY. FIELD VERIFICATION OF ALL UTILITIES MUST BE CONDUCTED BY THE DESIGN-BUILDER PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
7. THE SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT REFLECT EASEMENTS, PROPERTY LINES AND OTHER RESTRICTIONS OF RECORD.
8. THE DESIGN-BUILDER IS REQUIRED TO MAKE AN ON SITE INSPECTION OF EACH OF THE VARIOUS STRUCTURES AND RELATED CONDITIONS PRIOR TO PRICING THIS CONTRACT.
9. SEE GBR/GDR PROVIDING BORING LOGS, GEOLOGIC PLANS AND PROFILES.
10. THE SUPPORT OF EXCAVATION FOR NEAR SURFACE STRUCTURES MAY NOT BE SHOWN ON THE DRAWINGS. THE DESIGN-BUILDER IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE SUPPORT OF EXCAVATION ASSOCIATED WITH THE NEAR SURFACE STRUCTURES.
11. ALL BOLTED FLANGE JOINTS SHALL REMAIN ACCESSIBLE.
12. THIS SET OF DESIGN CRITERIA DRAWINGS PRESENTS PRELIMINARY DESIGNS. DESIGNS ARE INDICATIVE EXCEPT WHERE THEY ARE STATED TO BE MANDATORY. REFER TO SPECIFICATIONS FOR ADDITIONAL DEFINITIONS AND REQUIREMENTS.

ABBREVIATIONS

@	AT
&	AND
ABAND	ABANDONED
APPROX	APPROXIMATE OR APPROXIMATELY
BC	BOTTOM OF CURB
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BOT	BOTTOM
BSMT	BASEMENT
CB	CATCH BASIN
℄	CENTERLINE
CIP	CAST-IN-PLACE
CLF	CHAIN LINK FENCE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
COORD	COORDINATE
CSA	CONSTRUCTION STAGING AREA
D	DEPTH
DATR	DATA ACCORDING TO RECORDS
DEMO	DEMOLISH/ DEMOLITION
DB	DUCT BANK
DIA	DIAMETER
DWG	DRAWING(S)
E	EAST
EA	EACH
EHH	ELECTRIC HAND HOLE
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EMH	ELECTRIC MANHOLE
EQUIP	EQUIPMENT
ESC	EROSION AND SEDIMENT CONTROL
EW	EACH WAY
EX	EXISTING
EXP	EXPANSION
EXP JT	EXPANSION JOINT
FH	FIRE HYDRANT
FM	FORCE MAIN
FPS	FEET PER SECOND
FT	FEET
GAL	GALLON
GBR	GEOTECHNICAL BASELINE REPORT
GDR	GEOTECHNICAL DATA REPORT
GPM	GALLONS PER MINUTE
H	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
HORZ	HORIZONTAL
HP	HIGH POINT
HWL	HIGH WATER LEVEL
ID	INSIDE DIAMETER
IN	INCHES
INV	INVERT
JB	JUNCTION BOX
JT	JOINT
L	LENGTH
LB	POUND
LBS	POUNDS
LF	LINEAR FOOT/FEET
LOD	LIMIT OF DISTURBANCE
LP	LOW PRESSURE
LTCP	LONG TERM CONTROL PLAN
MAX	MAXIMUM
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
N/A	NOT APPLICABLE
NE	NORTHEAST
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
NTP	NOTICE TO PROCEED
NTS	NOT TO SCALE
NW	NORTHWEST
O.C.	ON CENTER
OE	OVERHEAD ELECTRIC
OH	OVERHEAD
OPNG	OPENING
PE	PROFESSIONAL ENGINEER
PL	PLACE
PROP	PROPOSED
PS	PUMPING STATION
PT	POINT
R	RADIUS
RCP	REINFOCED CONCRETE PIPE
REQD	REQUIRED
ROW	RIGHT OF WAY
S	SLOPE
SAN	SANITARY SEWER
SE	SOUTHEAST
SD	STORM DRAIN
SF	SQUARE FOOT/FEET
SL	STREET LIGHT
SLMH	STREET LIGHT MANHOLE
SMH	SANITARY SEWER MANHOLE
SOE	SUPPORT OF EXCAVATION
SS	STAINLESS STEEL
ST	STREET
STM	STORM SEWER
STMH	STORM SEWER MANHOLE
STA	STATION
STR	STRUCTURE
SW	SOUTHWEST
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPORARY
TMH	TELEPHONE MANHOLE
T.O.	TOP OF
TOC	TOP OF CONCRETE
TYP	TYPICAL
UE	UNDERGROUND ELECTRIC
VERT	VERTICAL
W/	WITH
W/O	WITHOUT
W	WATER
WMH	WATER MANHOLE

wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	G-GEN-002
DESIGNED BY:	J. MORALES
DRAWN BY:	J. MORALES
CHECKED BY:	D. SMITH

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

GENERAL NOTES AND ABBREVIATIONS

SCALE:
NOT TO SCALE

G-002

PAGE 4

MATCH LINE LETTER.

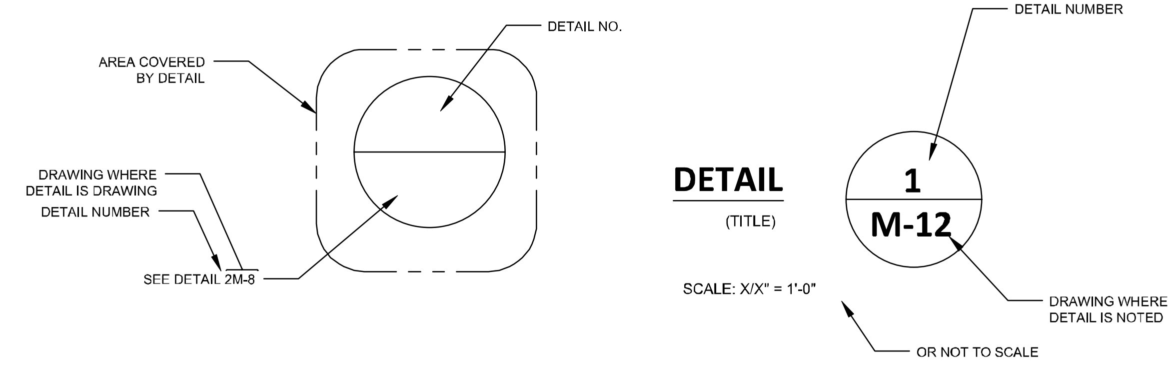
MATCHLINE A

MATCHLINE SYSTEM

IDENTIFYING LETTERS FOR DISCIPLINE

- A ARCHITECTURAL
- B GEOTECHNICAL
- C CIVIL
- D DEMOLITION
- E ELECTRICAL
- G GENERAL
- I INSTRUMENTATION
- L LANDSCAPING
- M MECHANICAL
- S STRUCTURAL
- U UTILITY RELOCATION

DRAWING NUMBER SYSTEM



ON PLANS AND SECTIONS

DETAIL TITLE

DETAIL IDENTIFICATION SYSTEM

ON PLANS

SECTION / ELEVATION TITLE

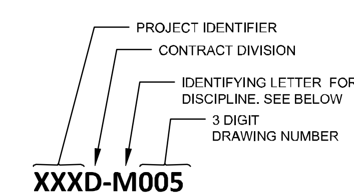
SECTION / ELEVATION IDENTIFICATION SYSTEM

LEGEND

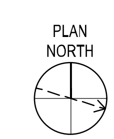
DESCRIPTION	SYMBOL
EXISTING	
PROPOSED	
CONSTRUCTION STAGING AREA	
SOIL BORING	
DEMOLISH/REMOVE	
ASPHALTIC CONCRETE PAVEMENT SECTION	
CONCRETE PAVEMENT SECTION	
SOIL SECTION	
TRAFFIC FLOW	
HORIZONTAL TO VERTICAL	2:1

DESCRIPTION	SYMBOL
LIGHT POLE	
CONTOURS	16
SIGN	
SPOT ELEVATION	X 15.3
BENCHMARK	
TRAVERSE POINT	TRV
MONUMENTS	
MANHOLE	
ELECTRICAL MANHOLE	Ⓔ OR E
COMMUNICATIONS MANHOLE	Ⓒ OR C
WATER MANHOLE	Ⓦ
STORM SEWER MANHOLE	Ⓓ
SANITARY SEWER MANHOLE	Ⓢ
CATCH BASIN	CB
UTILITY POLE	
CURB & GUTTER	
FIRE DEPT. CONNECTION	
FIRE HYDRANT	FH
YARD HYDRANT	YH
PARKING METER	M

DESCRIPTION	SYMBOL
CAST IRON FENCE	
CHAIN LINK FENCE	X
DECORATIVE LANDSCAPE FENCE	
SECURITY FENCE	XX
GUARDRAIL	
RAILROAD TRACKS	
FUEL LINE	FUEL
COMMUNICATIONS LINE	COMM
LIMITS OF DISTURBANCE	LOD
RIGHT OF WAY	ROW
OVERHEAD ELECTRIC	OE
OVERHEAD FIBER OPTIC	OF
OVERHEAD TELEPHONE	OT
OVERHEAD TV (CABLE)	OTV
UNDERGROUND ELECTRIC	UE
UNDERGROUND FIBER OPTIC	UF
UNDERGROUND TELEPHONE	UT
UNDERGROUND TV (CABLE)	UTV
SANITARY SEWER	SAN
STORM SEWER	STM
WATER LINE	W
UNKNOWN UTILITY	UNK
PROPERTY LINE	
LOT LINE (CONDEMNED)	
EASEMENT LINE	



CADD FILE NAME



NORTH ARROW

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

- DATE: APRIL 2020
- PROJECT NO.: PW-S3B116-03CR
- FILE NAME: G-GEN-003
- DESIGNED BY: J. MORALES
- DRAWN BY: J. MORALES
- CHECKED BY: D. SMITH

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

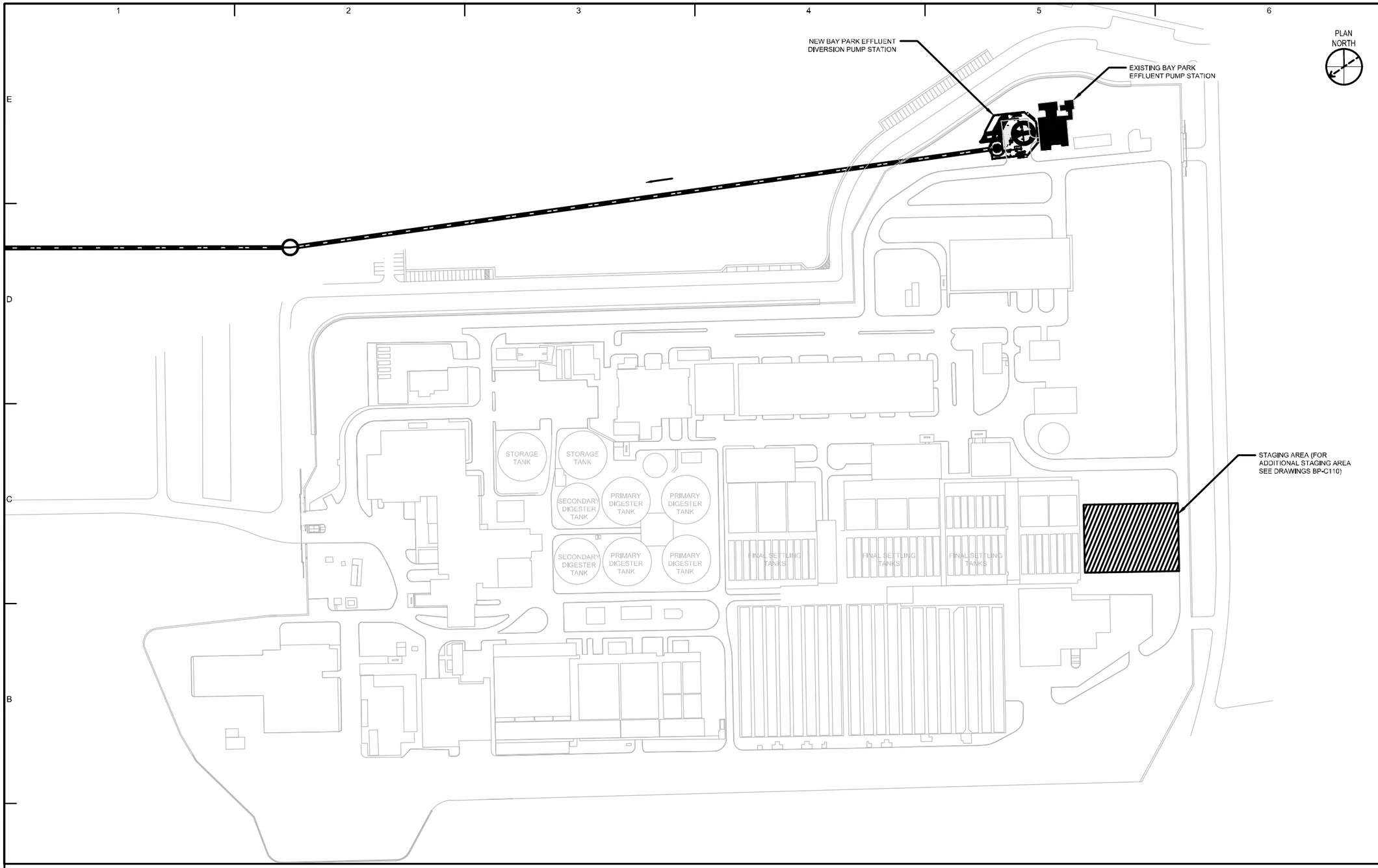
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CONTRACT DRAWING USER GUIDE AND LEGEND

SCALE: N.T.S.

G-003



PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-BPTP-100
DESIGNED BY:	J. ALTINYUREK
DRAWN BY:	J. ALTINYUREK
CHECKED BY:	D. SMITH

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

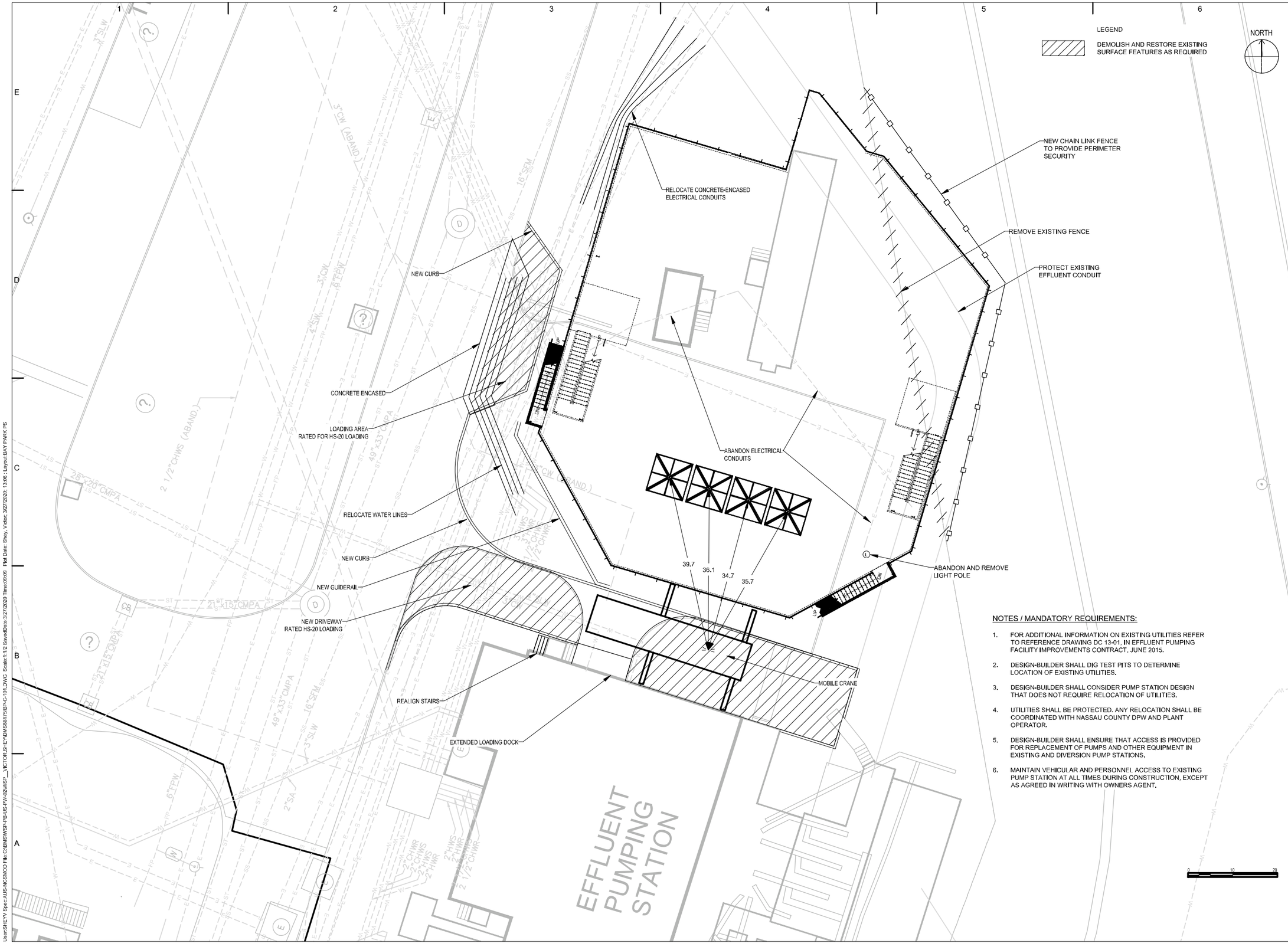
OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK
FACILITY LOCATION PLAN

SCALE: NTS

BP-C100



NOTES / MANDATORY REQUIREMENTS:

1. FOR ADDITIONAL INFORMATION ON EXISTING UTILITIES REFER TO REFERENCE DRAWING DC 13-01, IN EFFLUENT PUMPING FACILITY IMPROVEMENTS CONTRACT, JUNE 2015.
2. DESIGN-BUILDER SHALL DIG TEST PITS TO DETERMINE LOCATION OF EXISTING UTILITIES.
3. DESIGN-BUILDER SHALL CONSIDER PUMP STATION DESIGN THAT DOES NOT REQUIRE RELOCATION OF UTILITIES.
4. UTILITIES SHALL BE PROTECTED. ANY RELOCATION SHALL BE COORDINATED WITH NASSAU COUNTY DPW AND PLANT OPERATOR.
5. DESIGN-BUILDER SHALL ENSURE THAT ACCESS IS PROVIDED FOR REPLACEMENT OF PUMPS AND OTHER EQUIPMENT IN EXISTING AND DIVERSION PUMP STATIONS.
6. MAINTAIN VEHICULAR AND PERSONNEL ACCESS TO EXISTING PUMP STATION AT ALL TIMES DURING CONSTRUCTION, EXCEPT AS AGREED IN WRITING WITH OWNERS AGENT.

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-C-101
DESIGNED BY:	M. BROWN
DRAWN BY:	B. VAN BEEK
CHECKED BY:	M. BROWN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

EFFLUENT DIVERSION
PUMP STATION

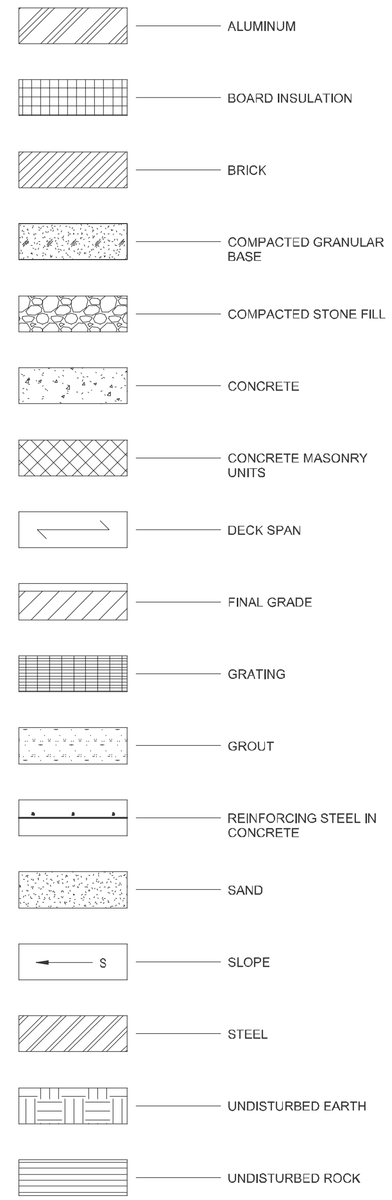
CIVIL WORK

SCALE:
1"=10'

BP-C101

@	AT
AA	THE ALUMINUM ASSOCIATION
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
ALUM	ALUMINUM
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
APPD	APPROVED
APPROX	APPROXIMATE
AR	AS REQUIRED
ARCH	ARCHITECT, ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASD	ALLOWABLE STRESS DESIGN
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWC	AMERICAN WOOD COUNCIL
AWS	AMERICAN WELDING SOCIETY
B PL	BASE PLATE
BE	BOTTOM ELEVATION
BF	BOTH FACES
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BM	BEAM
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRCG	BRACING
BRG	BEARING
BSMT	BASEMENT
BW	BOTH WAYS
(C)	COMPRESSION
C	CHANNEL
CFMF	COLD FORMED METAL FRAMING
CHEM	CHEMICAL
CHFR	CHAMFER
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT, CONSTRUCTION JOINT
CL	CENTER LINE
CLL	COLUMN LINE
CLG	CEILING
CLR	CLEAR
CLSM	CONTROLLED LOW-STRENGTH MATERIAL
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CY	CUBIC YARDS
D	PENNY (NAIL SIZE)
DEMO.	DEMOLISH, DEMOLITION
DET	DETAIL
DFT	DRY FILM THICKNESS
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DOT	DEPARTMENT OF TRANSPORTATION
DWG	DRAWING
DWL	DOWEL
E	EAST
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
EMBED	EMBEDMENT
ENGR	ENGINEER
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EW	EACH WAY
EX	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
f_c'	SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE
FD	FLOOR DRAIN
FIN	FINISH
f_m'	SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE MASONRY
FRC	FIBER REINFORCED CONCRETE
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FAR SIDE
FT	FEET
FTG	FOOTING
f_y	MINIMUM YIELD STRESS
GA	GAGE
GALV	GALVANIZED
GR BM	GRADE BEAM
GRTG	GRATING
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HP	HIGH POINT
HS	HIGH STRENGTH
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
IBC	INTERNATIONAL BUILDING CODE
ICC-ES	INTERNATIONAL CODE COUNCIL EVALUATING SERVICE
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
INV	INVERT

JT	JOINT
K OR KIP	THOUSAND POUNDS (1 K = 1000 LBS)
KB	KNEE BRACE
KD	KILN DRIED
K/FT	KIPS PER FOOT
KIP FT	THOUSAND FOOT/POUNDS
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
LBS	POUNDS
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLO	LONG LEG OUTSTANDING
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LPT	LOW POINT
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
LW	LIGHTWEIGHT
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MD	METAL DECK
MH	MANHOLE
MIL	ONE THOUSANDTH OF AN INCH
MIN	MINIMUM
MISC	MISCELLANEOUS
ML	MASONRY LINTEL (STEEL)
MTL	METAL
MO	MASONRY OPENING
MPII	MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
N	NORTH
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER
#	NUMBER SYMBOL FOR REBAR SIZE
No.	NUMBER SYMBOL FOR WOOD GRADE
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADIMINISTRATION
P/C OR PCP	PRECAST PLANK
PCC	PRECAST CONCRETE
PCI	PRECAST / PRESTRESSED CONCRETE INSTITUTE
PH	PENTHOUSE
PL	PLATE
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORINE
R	RADIUS OR RISER
RD	ROOF DRAIN
REBAR	REINFORCING STEEL BAR
REF	REFERENCE
REINF	REINFORCED
REQD	REQUIRED
REV	REVISION
RM	ROOM
S	SOUTH
SCG	SELF-CONSOLIDATING GROUT
SCHED	SCHEDULE
SE	STRUCTURAL ENGINEER
SECT	SECTION
SF	SQUARE FEET
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SQ	SQUARE
SS	STANDING SEAM (ROOF)
SSR	STANDING SEAM ROOFING
SST	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SYMM	SYMMETRICAL
(T)	TENSION
T	TREAD, TOP
T&B	TOP AND BOTTOM
T&G	TONGUE & GROOVE
TE	TOP ELEVATION
TEMP	TEMPERATURE, TEMPORARY
TFF	TOP OF FINISH FLOOR
TO	TOP OF _____
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB, TOP OF STEEL
TOW	TOP OF WALL
TPER	THERMOPLASTIC ELASTOMERIC RUBBER
TPI	TRUSS PLATE INSTITUTE
TYP	TYPICAL
UN	UNLESS NOTED
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VRFY	VERIFY
W	WEST
W/	WITH
WF	WIDE FLANGE
WF BM	WIDE FLANGE BEAM
W/O	WITHOUT
WP	WORKING POINT
WS	WATERSTOP
XBRA	CROSSBRACING



STRUCTURAL DESIGN CRITERIA

(BUILDING NAME) {DUPLICATE AS REQUIRED}

FLOOR LIVE LOADS:

ELECTRICAL ROOMS:	***250***	(PSF)
MECHANICAL ROOMS:	***250***	(PSF)
OFFICE AND CONTROL ROOMS:	***na***	(PSF)
STAIRWAYS, LANDINGS, & GRATED WALKWAYS:	***100***	(PSF)

FLOOR DEAD LOADS:

CONCRETE ON STEEL DECK:	***15***	(PSF)
COLLATERAL LOADS:	***5***	(PSF)

ROOF LIVE LOADS:

MINIMUM ROOF LIVE LOAD:	***20***	(PSF)

ROOF DEAD LOADS:

ROOFING DEAD LOADS:	***10***	(PSF)
COLLATERAL LOADS:	***5***	(PSF)
HVAC EQUIPMENT:	SEE PLANS	

ROOF SNOW LOADS:

GROUND SNOW LOAD, P_g:	***40.0***	(PSF)
FLAT-ROOF SNOW LOAD, P_f:	***28.0***	(PSF)
SNOW EXPOSURE FACTOR, C_e:	***0.9***	
SNOW LOAD IMPORTANCE FACTOR, I_s:	***1.1***	
THERMAL FACTOR, C_t:	***1.0***	
DRIFT SURCHARGE LOADS:	SEE LOADING DIAGRAM	

WIND DESIGN DATA:

ULTIMATE DESIGN WIND SPEED, Vult (3s):	***140***	(mph)
NOMINAL DESIGN WIND SPEED, Vasd:	***108***	(mph)
RISK CATEGORY:	III	
WIND IMPORTANCE FACTOR, I_w:	***1.00 (ONLY FOR NOMINAL WIND)***	
WIND EXPOSURE:	***C***	
INTERNAL PRESSURE COEFFICIENTS:	+/- ***0.55***	
DESIGN WIND PRESSURE USED FOR COMPONENTS AND CLADDING:	Varies Per Component and Location On Structure	

EARTHQUAKE DESIGN DATA:

SITE LATITUDE:	***40.63 N***
SITE LONGITUDE:	***-70.66 W***
SESIMIC IMPORTANCE FACTOR, I_c:	***7.25***
RISK CATEGORY:	***III***
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	
S_s =	***0.245***g
S_1 =	***0.055***g
SITE CLASS:	***D***
DESIGN SPECTRAL RESPONSE ACCELERATIONS:	
S_{DS} =	***0.213***g
S_{D1} =	***0.055***g
SEISMIC DESIGN CATEGORY:	***B***
BASIC SEISMIC FORCE-RESISTING SYSTEM:	
DESIGN BASE SHEAR, V:	
SEISMIC RESPONSE COEFFICIENT(S), C_S:	
RESPONSE MODIFICATION COEFFICIENT(S), R:	
ANALYSIS PROCEDURE:	

GEOTECHNICAL INFORMATION:

NET ALLOWABLE SOIL BEARING PRESSURE:	***6000***	PSF
MODULUS OF SUBGRADE REACTION:	***260***	PCI
MINIMUM FOOTING DEPTH:	***4' - 0"***	BELOW FINISH GRADE
PRESUMPTIVE BEARING PRESSURE:	***REF. GEOTECH REPORT***	
PRESUMPTIVE SOIL TYPE:	***REF. GEOTECH REPORT***	

FLOOD DESIGN DATA:

FLOOD DESIGN CLASS:	***III***	
LOWEST FLOOR ELEVATION:	***17***	(FT)
DRY FLOODPROOF ELEVATION:	***17***	(FT)
BOTTOM OF LOWEST HORIZONTAL STRUCTURAL MEMBER:	-***25.5***	(FT)

COMPONENTS AND CLADDING WIND PRESSURES

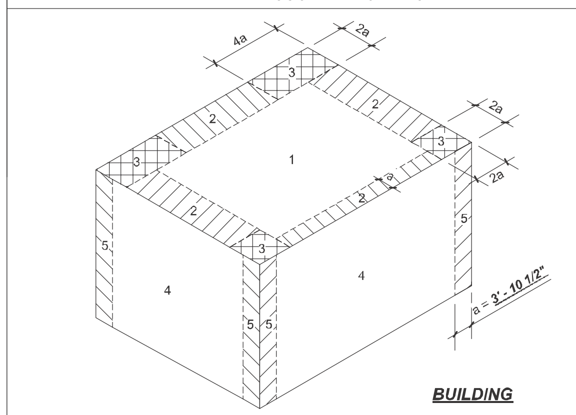
DESIGN WIND PRESSURES (ULTIMATE)

FOR COMPONENTS & CLADDING (PSF)

TYPE	WIND ZONE	LOAD CASE	EFFECTIVE WIND AREA (SQ FT) <10	50	100	200	500	REMARKS
BUILDING	1	UPLIFT			***-70.3***			
	2	UPLIFT			***-110.4***			
	3	UPLIFT			***-150.4***			
	4	NEGATIVE			***-48.1***			
	5	NEGATIVE			***--88.1***			
	1, 2, & 3	POSITIVE						
	4 & 5	POSITIVE			***48.1***			

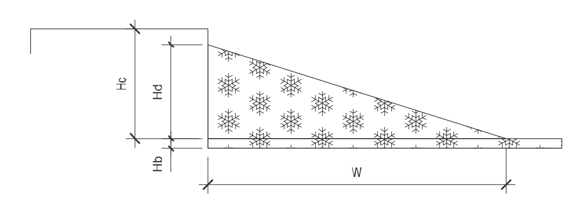
1. DESIGN AND WIND PRESSURES INDICATED SHALL BE USED IN THE DESIGN OF ALL COMPONENTS & CLADDING ELEMENTS COMPRISING THE BUILDING ENVELOPE.
2. POSITIVE PRESSURES ACT INWARD, TOWARD THE WIND SURFACE. NEGATIVE PRESSURES ACT OUTWARD, AWAY FROM THE WIND SURFACE.
3. PRESSURES GIVEN ARE UNFACTORED AND INCLUDE NO GRAVITY LOADS.
4. LINEAR INTERPOLATION IS PERMITTED FOR INTERMEDIATE EFFECTIVE WIND AREAS.

WIND PRESSURE DIAGRAMS

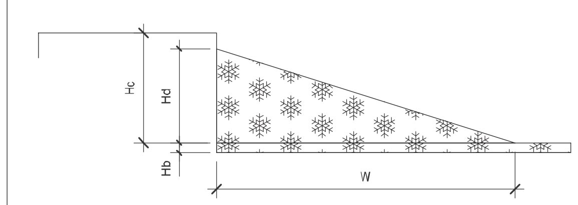


BUILDING

SNOW DRIFT LOADING DIAGRAM



BUILDING (AREA) NAME



BUILDING (AREA) NAME

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S050
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK

DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

SYMBOLS, ABBREVIATIONS, DESIGN CRITERIA

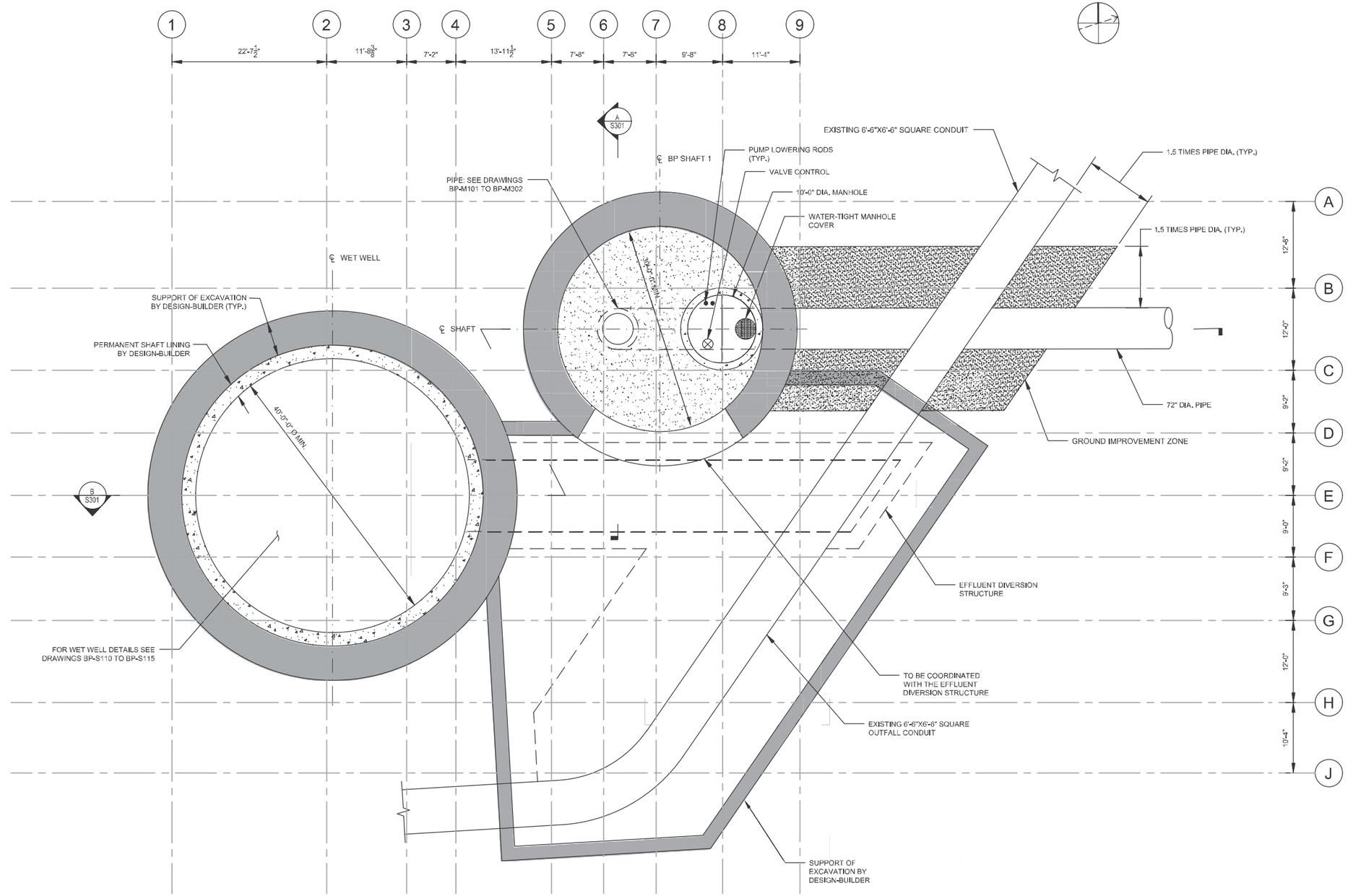
SCALE: AS NOTED

BP-S050

NOTES:

1. GROUND IMPROVEMENT SHOWN IS MANDATORY.

PLAN NORTH



LEGEND:

- SUPPORT OF EXCAVATION
- GROUND IMPROVEMENT
- PERMANENT SHAFT LINING
- BACKFILL

BAY PARK TREATMENT PLANT PUMP STATION PLAN - AT GRADE

1/8" = 1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-S101
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

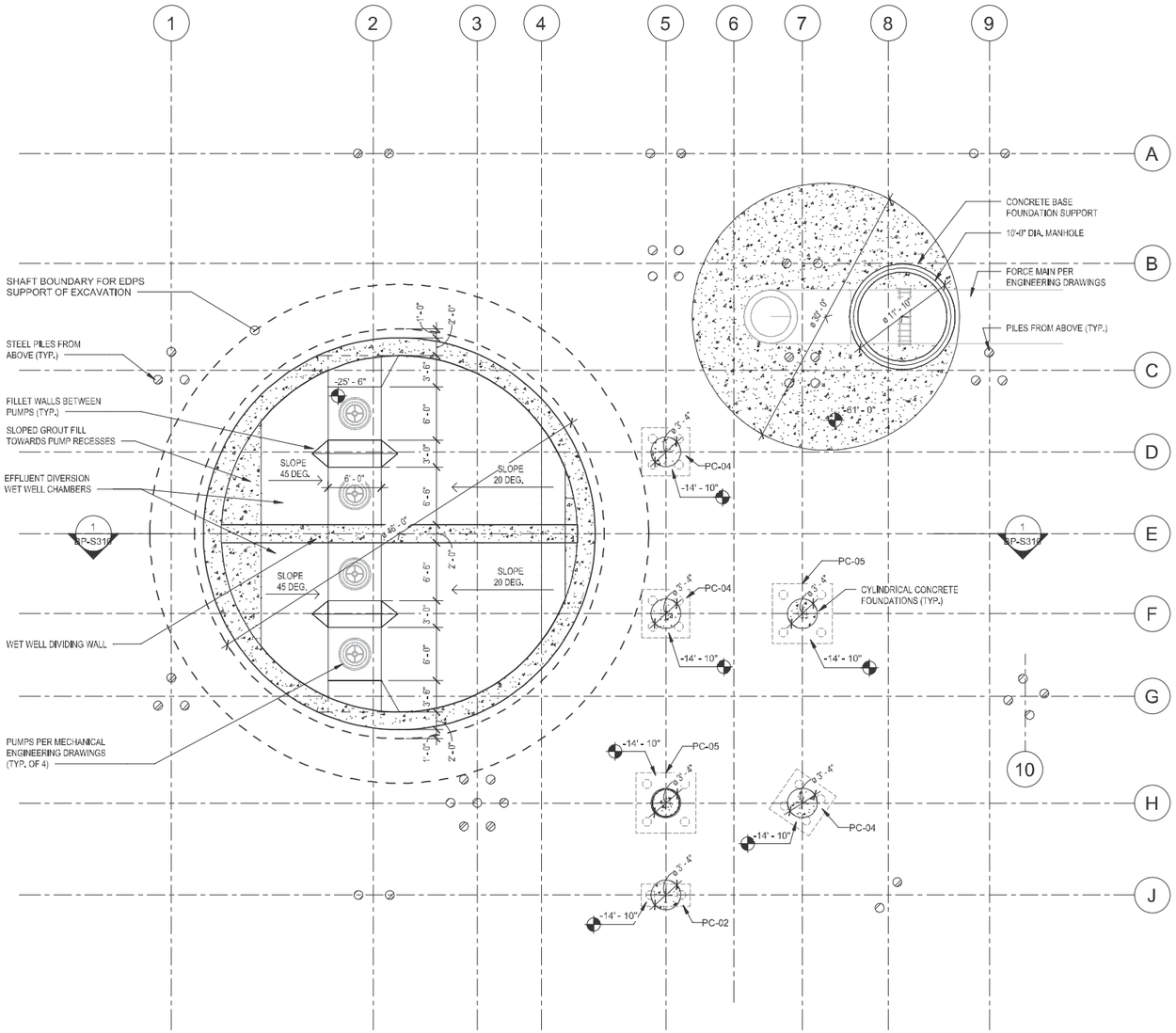
BAY PARK FORCE MAIN

EFFLUENT DIVERSION
PUMP STATION

SUPPORT OF EXCAVATION

SCALE: AS SHOWN

BP-S101



1 BP-S110 STRUCTURAL PLAN - T/SLAB AT EFFLUENT DIVERSION WET WELL FLOW DISTRIBUTION CHAMBER

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S110
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

STRUCTURAL
FLOOR PLAN - EFFLUENT
DIVERSION CHAMBER
LEVEL

SCALE:
AS NOTED

BP-S110

PAGE 10

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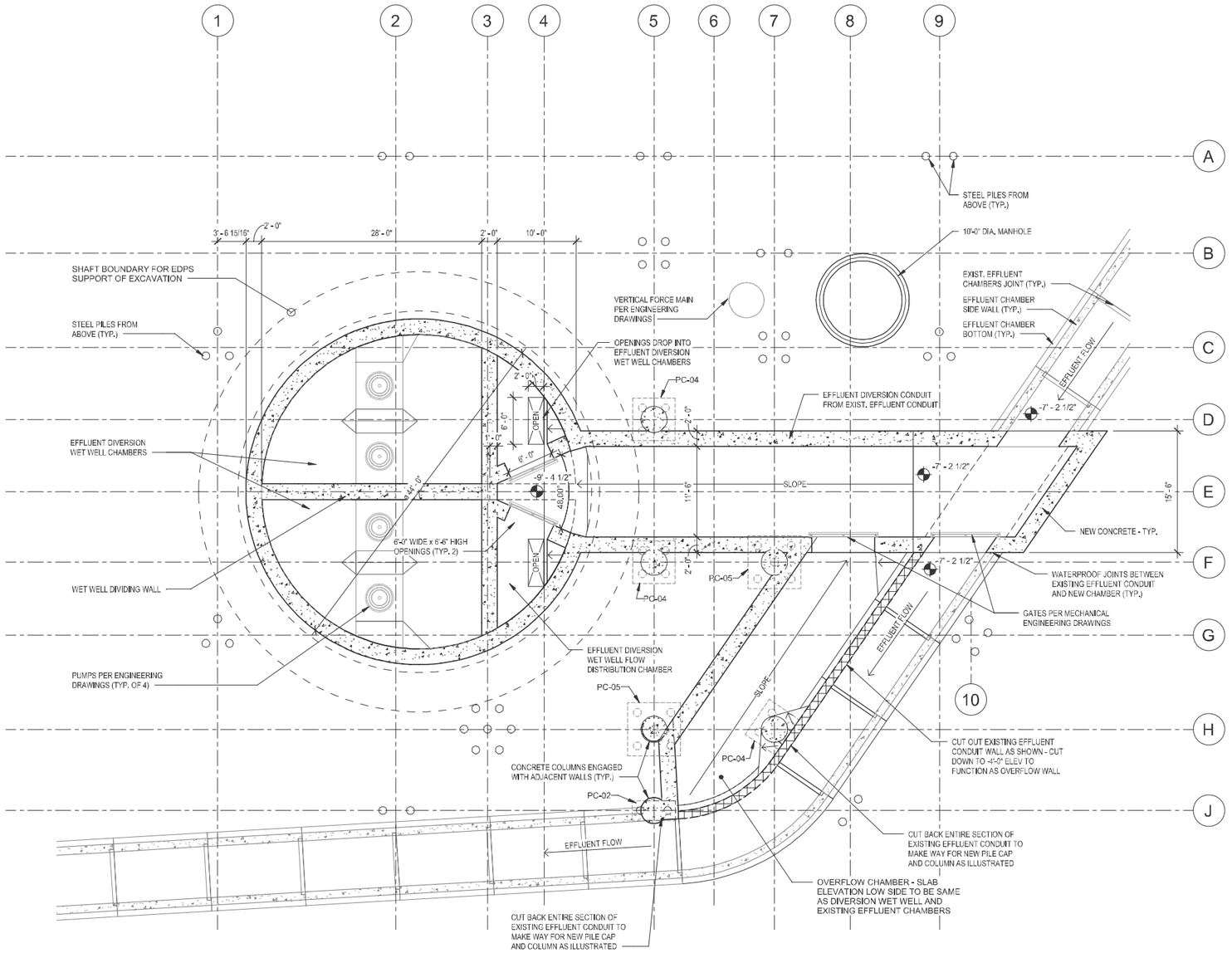


1 BP-S111 **STRUCTURAL PLAN - EXIST. EFFLUENT CONDUIT & EFFLUENT DIVERSION STRUCTURE T/ SLAB**

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S111
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. Ciurzynski

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

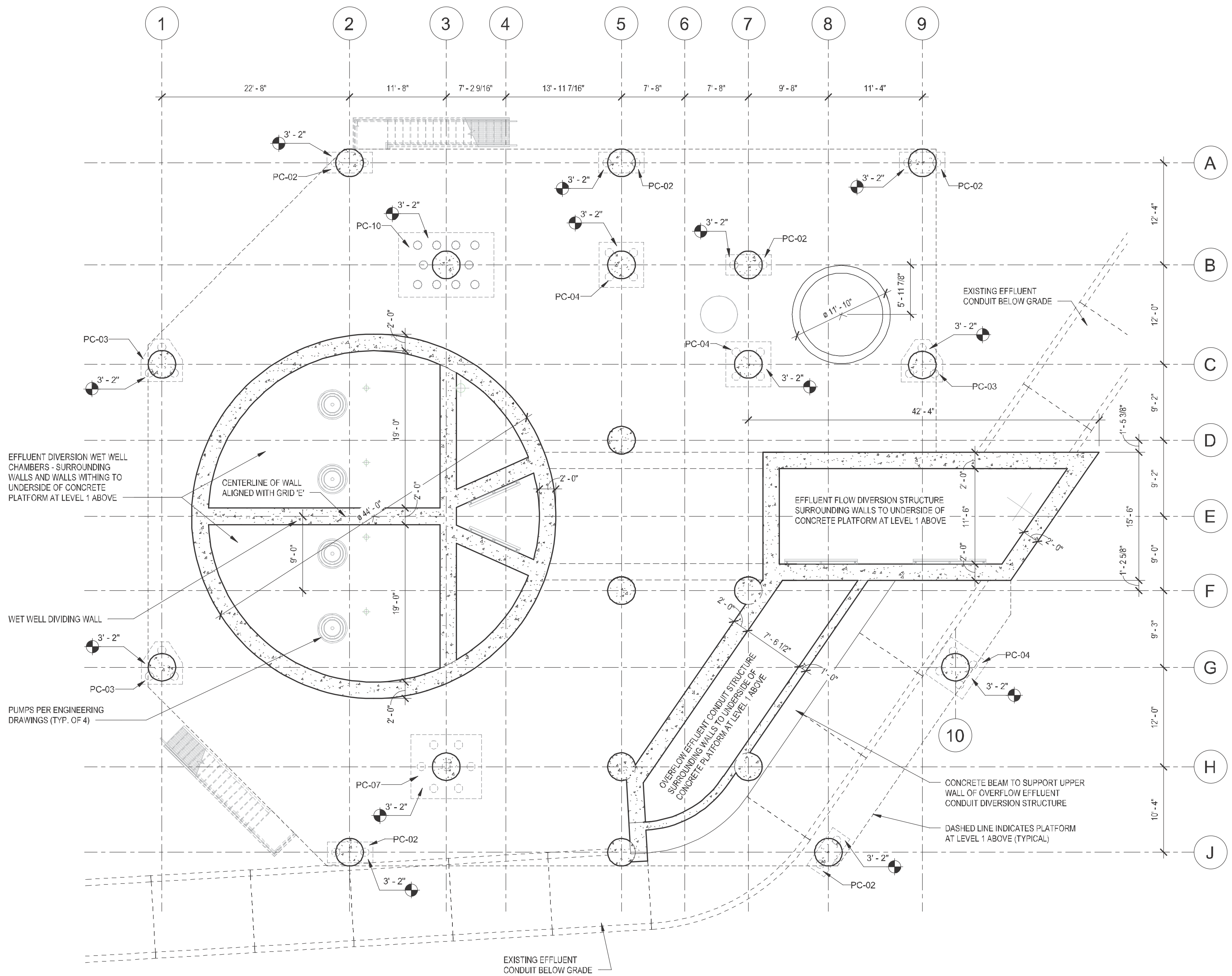
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

STRUCTURAL
PLAN AT EXISTING
EFFLUENT CONDUIT LEVEL

SCALE:
AS NOTED

BP-S111



1 BP-S112 STRUCTURAL PLAN - AT GRADE FOUNDATIONS

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

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PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S112
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK

DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

STRUCTURAL FLOOR PLAN - AT GRADE

SCALE: AS NOTED

BP-S112

PAGE 12

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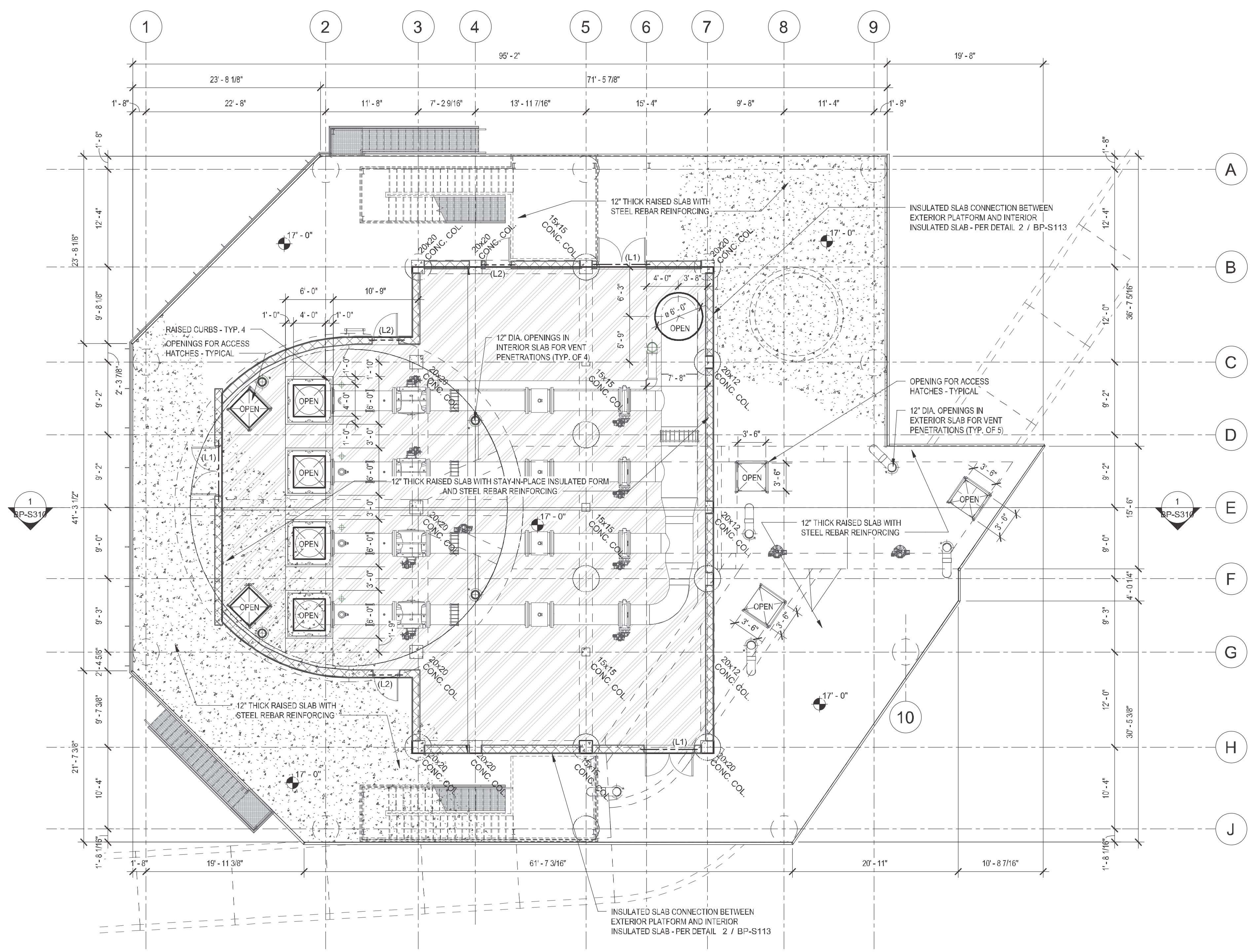

STRUCTURAL PLAN - LEVEL 1 - PUMP ROOM

1 / BP-S113 — 1/8" = 1'-0"

0 4' 8' 16'

ISOMETRIC - CAST-IN-PLACE INSULATED SLAB CONNECTOR

ISOMETRIC - SLAB CONNECTOR W/REBAR & CONCRETE

CAST-IN-PLACE INSULATED SLAB CONNECTOR

2 / BP-S113 — NOT TO SCALE

PLAN NORTH

wsp

FoitAlbert ASSOCIATES

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S113
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

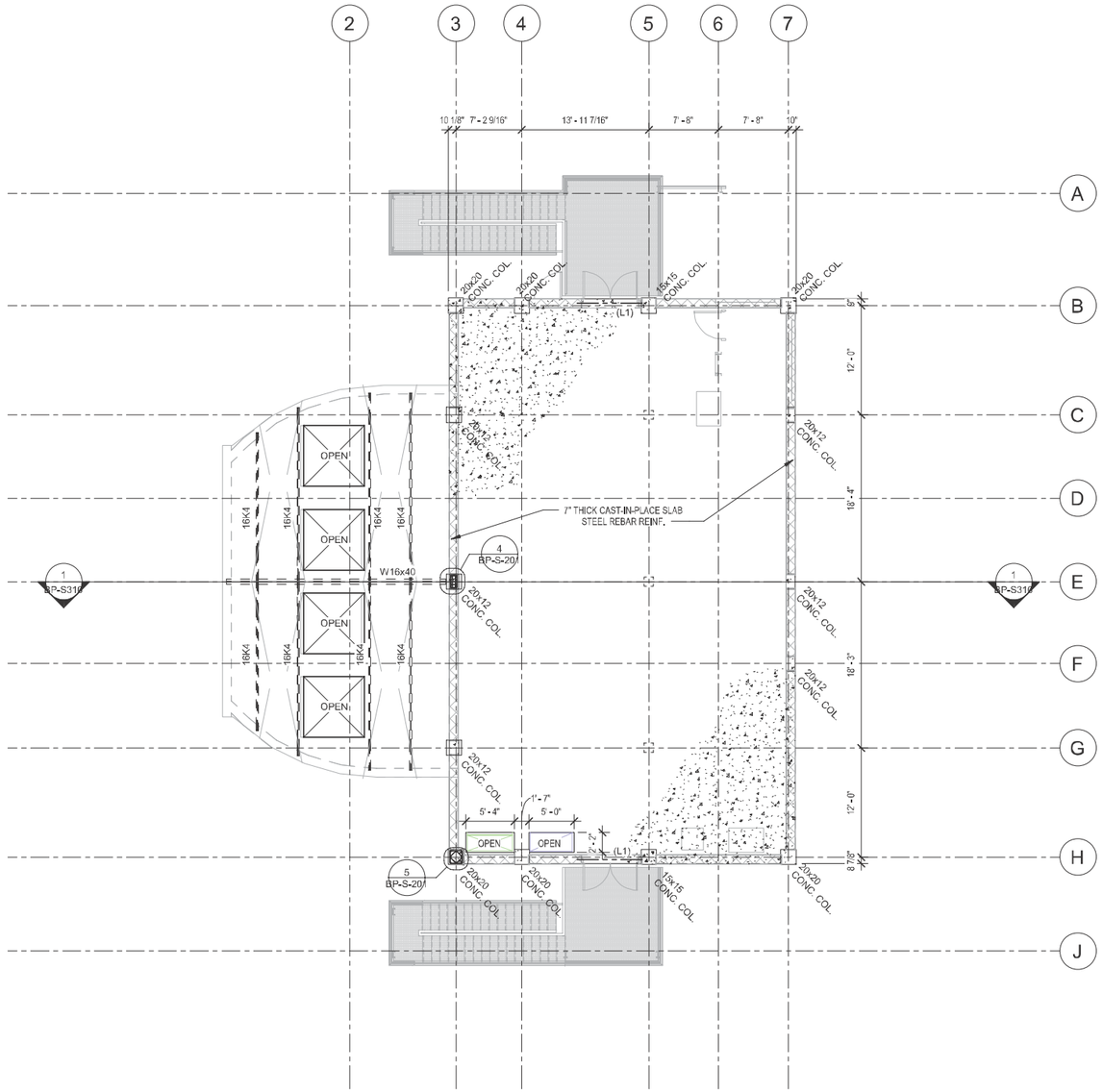
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

STRUCTURAL FLOOR PLAN - LEVEL 1

SCALE: AS NOTED

BP-S113



1 BP-S114 STRUCTURAL PLAN - LEVEL 2 - ELECTRICAL ROOM

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S114
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

STRUCTURAL
FLOOR PLAN - LEVEL 2

SCALE:
AS NOTED

BP-S114

PAGE 14

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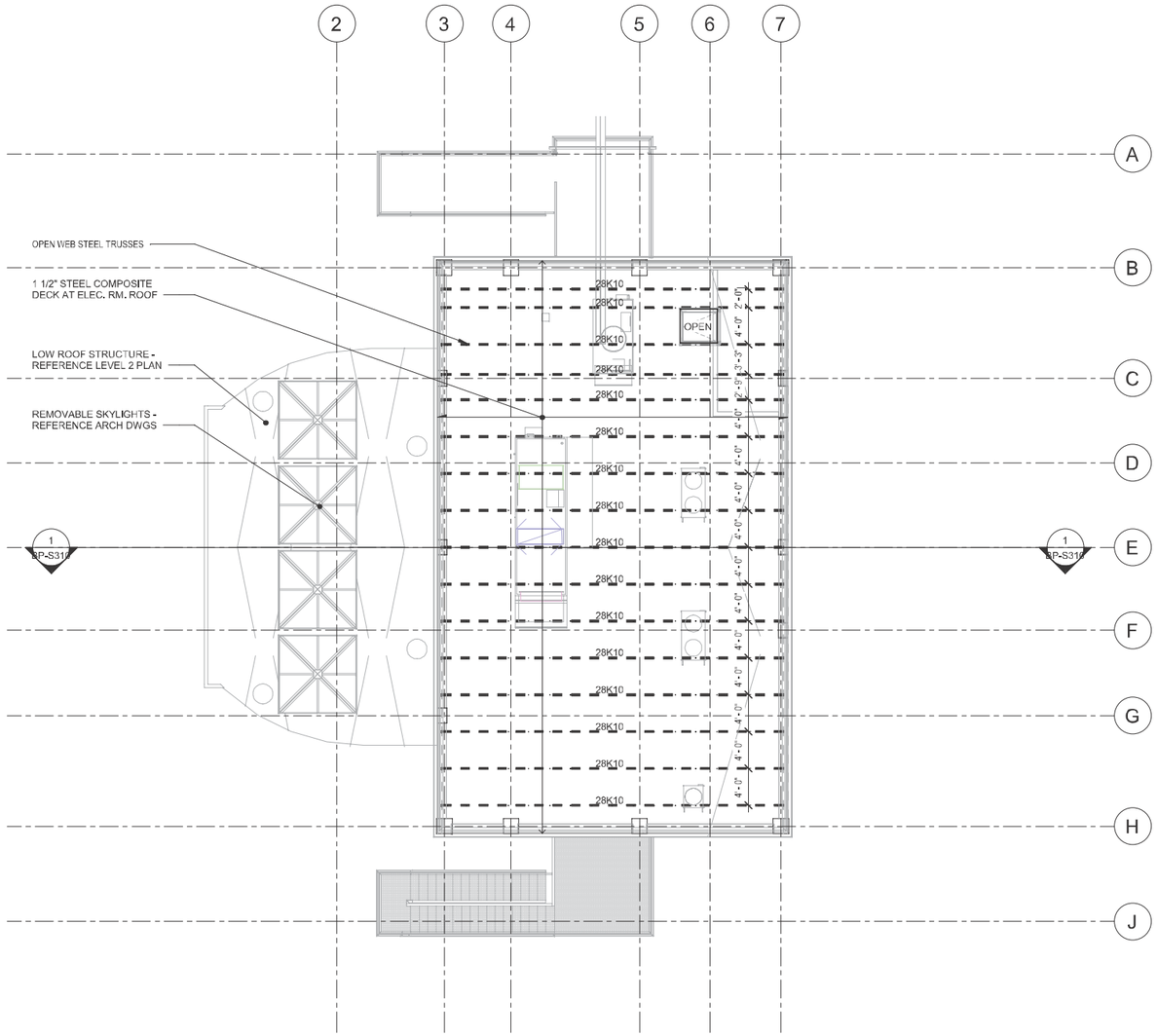

1 BP-S115 STRUCTURAL - ROOF FRAMING PLAN

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

FoitAlbert ASSOCIATES

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S115
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

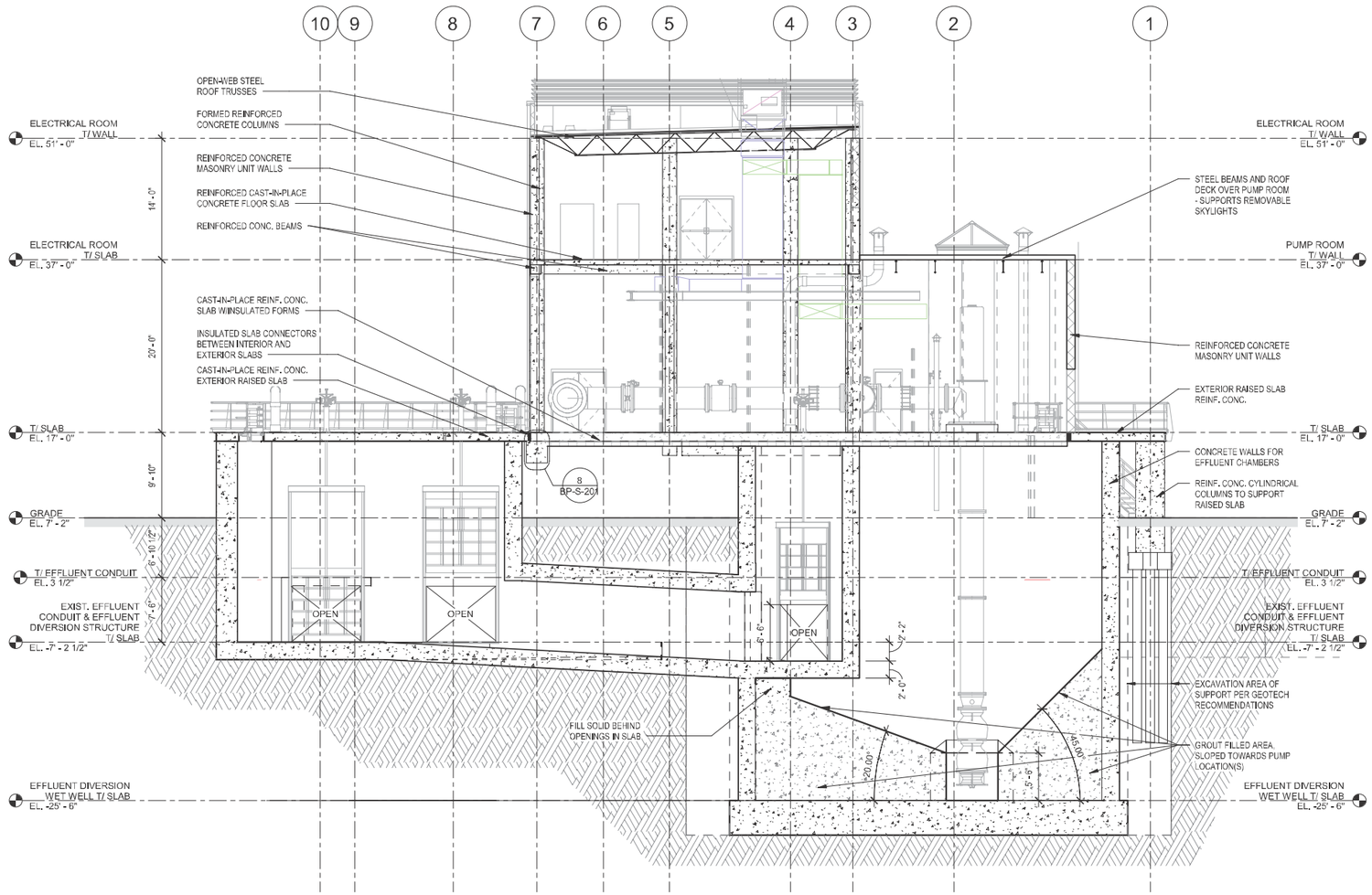
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

STRUCTURAL ROOF FRAMING PLAN

SCALE: AS NOTED

BP-S115



1 BP-S310 STRUCTURAL BUILDING SECTION

1/8" = 1'-0"

8' 4' 0 8'

wsp

FoitAlbert ASSOCIATES

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S310
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION
STRUCTURAL BUILDING SECTION

SCALE: AS NOTED

BP-S310

PAGE 16

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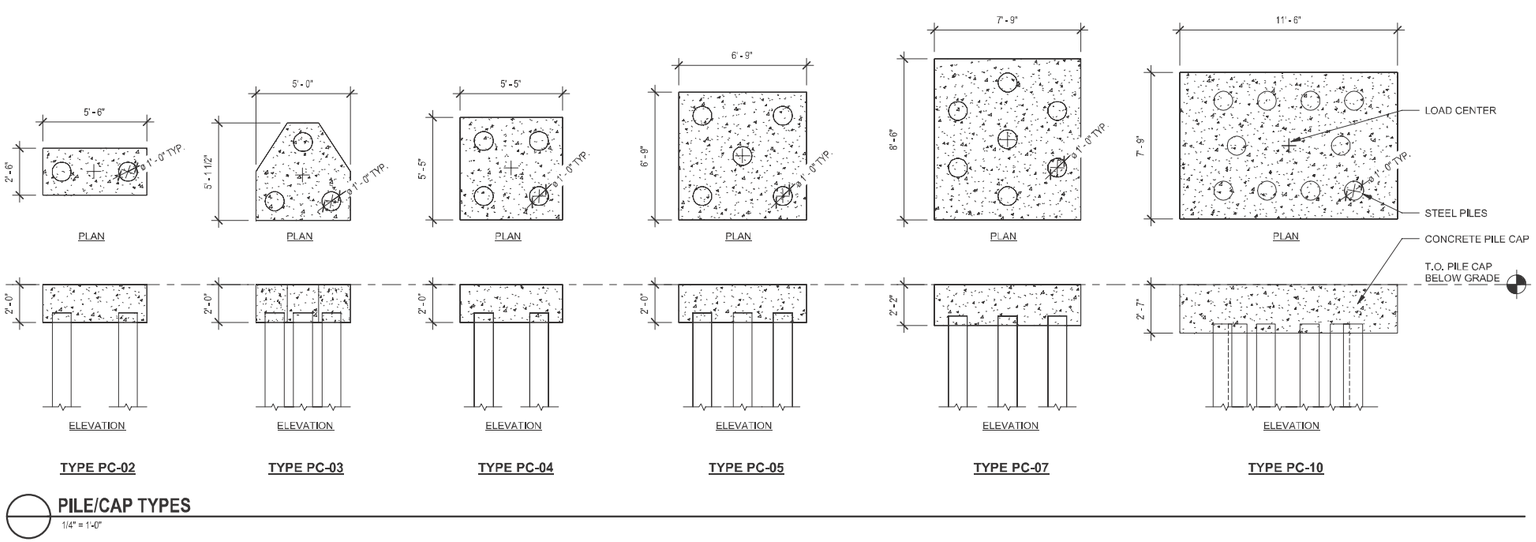


PILE/CAP TYPES

1/4" = 1'-0"

PILE AND CAP SCHEDULE

COLUMN	NUMBER OF PILES	PILE CAP DETAIL	T.O. CAP DEPTH (BELOW GRADE)	PILE DEPTH (BELOW GRADE)
1C	3	PC-03	-4'-0"	-30'-0"
1G	3	PC-03	-4'-0"	-30'-0"
2A	2	PC-02	-4'-0"	-30'-0"
2J	2	PC-02	-4'-0"	-30'-0"
3B	10	PC-10	-4'-0"	-30'-0"
3H	7	PC-07	-4'-0"	-30'-0"
5A	2	PC-02	-4'-0"	-30'-0"
5B	4	PC-04	-4'-0"	-30'-0"
5D	4	PC-04	-22'-0"	-30'-0"
5F	4	PC-04	-22'-0"	-30'-0"
5H	5	PC-05	-22'-0"	-30'-0"
5J	2	PC-02	-22'-0"	-30'-0"
7B	2	PC-02	-4'-0"	-30'-0"
7C	4	PC-04	-4'-0"	-30'-0"
7F	5	PC-05	-22'-0"	-30'-0"
7H	4	PC-04	-22'-0"	-30'-0"
8J	2	PC-02	-4'-0"	-30'-0"
9A	2	PC-02	-4'-0"	-30'-0"
9C	3	PC-03	-4'-0"	-30'-0"
10G	4	PC-04	-4'-0"	-30'-0"

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-S601
DESIGNED BY: T. EFFA
DRAWN BY: M. BRAY
CHECKED BY: J. CIURZYNSKI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
SCHEDULES & DIAGRAMS

SCALE:
AS NOTED

BP-S601

REFERENCE STANDARDS

ANSI
AMERICAN NATIONAL STANDARDS INSTITUTE
1819 L STREET, NW, 6TH FLOOR
WASHINGTON, DC 20036
GENERAL INQUIRIES: 212.642.4900
PHONE: 202.293.8020
FAX: 202.293.9287
HTTP://WWW.ANSI.ORG/

ASTM
AMERICAN SOCIETY FOR TESTING AND MATERIALS
100 BARR HARBOR DRIVE
WEST CONSHOHOCKEN, PA 19428-2959
TEL: 610.832.9585
FAX: 610.832.9555
HTTP://WWW.ASTM.ORG/

IMI
INTERNATIONAL MASONRY INSTITUTE
17101 SCIENCE DRIVE
BOWIE, MD 20715
PHONE: (301)291-2124
FAX: (301)291-2107
HTTP://WWW.IMIWEB.ORG

GANA
GLASS ASSOCIATION OF NORTH AMERICA
2945 SW WANAMAKER DRIVE, SUITE A
TOPEKA, KS 66614
TEL: 785.271.0208
FAX: 785.271.0166
HTTP://WWW.GLASSWEBSITE.COM/GANA/

BIA
THE BRICK INDUSTRY ASSOCIATION
11490 COMMERCE PARK DRIVE
RESTON, VA 28191-1525
PHONE: 703.620.0010
FAX 703.620.3928
HTTP://WWW.BIA.ORG/

UL
UNDERWRITERS LABORATORIES
333 PFINGSTEN RD.
NORTHBROOK, IL 60062
TEL: 847.272.8800
FAX: 847.272.8129
HTTP://WWW.UL.COM/

NPCA
NATIONAL PAINT AND COATINGS ASSOCIATION
1500 RHODE ISLAND AVENUE, NW
WASHINGTON, DC 20005
TEL: 202.462.6272
FAX: 202.462.8549
HTTP://WWW.PAINT.ORG/

BHMA
BUILDERS' HARDWARE MANUFACTURERS ASSOCIATION
355 LEXINGTON AVENUE, 17TH FLOOR
NEW YORK, NY 10017
TEL: 212.297.2122
FAX: 212.370.9047
HTTP://BUILDERSHARDWARE.COM/

APA
AMERICAN PLYWOOD ASSOCIATION
PO BOX 11700
TACOMA, WA 98411-0700
TEL: 253.565.6600
FAX: 253.565.7265
HTTP://WWW.APAWOOD.ORG/

AISC
AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ONE EAST WACKER DRIVE, SUITE 3100
CHICAGO, IL 60601-2001
PHONE: 312.670.5403
FAX: 312.670.2400
HTTP://WWW.AISC.ORG/

AGC
ASSOCIATED GENERAL CONTRACTORS OF AMERICA
333 JOHN CARLYLE STREET, SUITE 200
ALEXANDRIA, VA 22314
TEL: 703.548.3118
FAX: 703.548.3119
HTTP://WWW.AGC.ORG/

AEC
ALUMINUM EXTRUDERS COUNCIL
1000 N. RAND ROAD, SUITE 214
WAUCONDA, IL 60084
TEL: 847.526.2010
FAX: 847.526.3993
HTTP://WWW.AEC.ORG/

ABC
ASSOCIATED BUILDERS AND CONTRACTORS
1300 N. 17TH STREET, SUITE 800
ROSSLYN, VA 22209
TEL: 703.812.2000
FAX: 703.812.8200
HTTP://WWW.ABC.ORG/

BOCA
BUILDING OFFICIALS AND CODE ADMINISTRATORS INTERNATIONAL
4051 W. FLOSSMOOR ROAD
COUNTRY CLUB HILLS, IL 60478-5795
PHONE: 800.214.4321
FAX: 708.799.4981
HTTP://WWW.BOCAI.ORG/

NPS
NATIONAL PARK SERVICE
PRESERVATION BRIEFS
HTTPS://WWW.NPS.GOV/TPS/HOW-TO-PRESERVE/BRIEFS.HTM

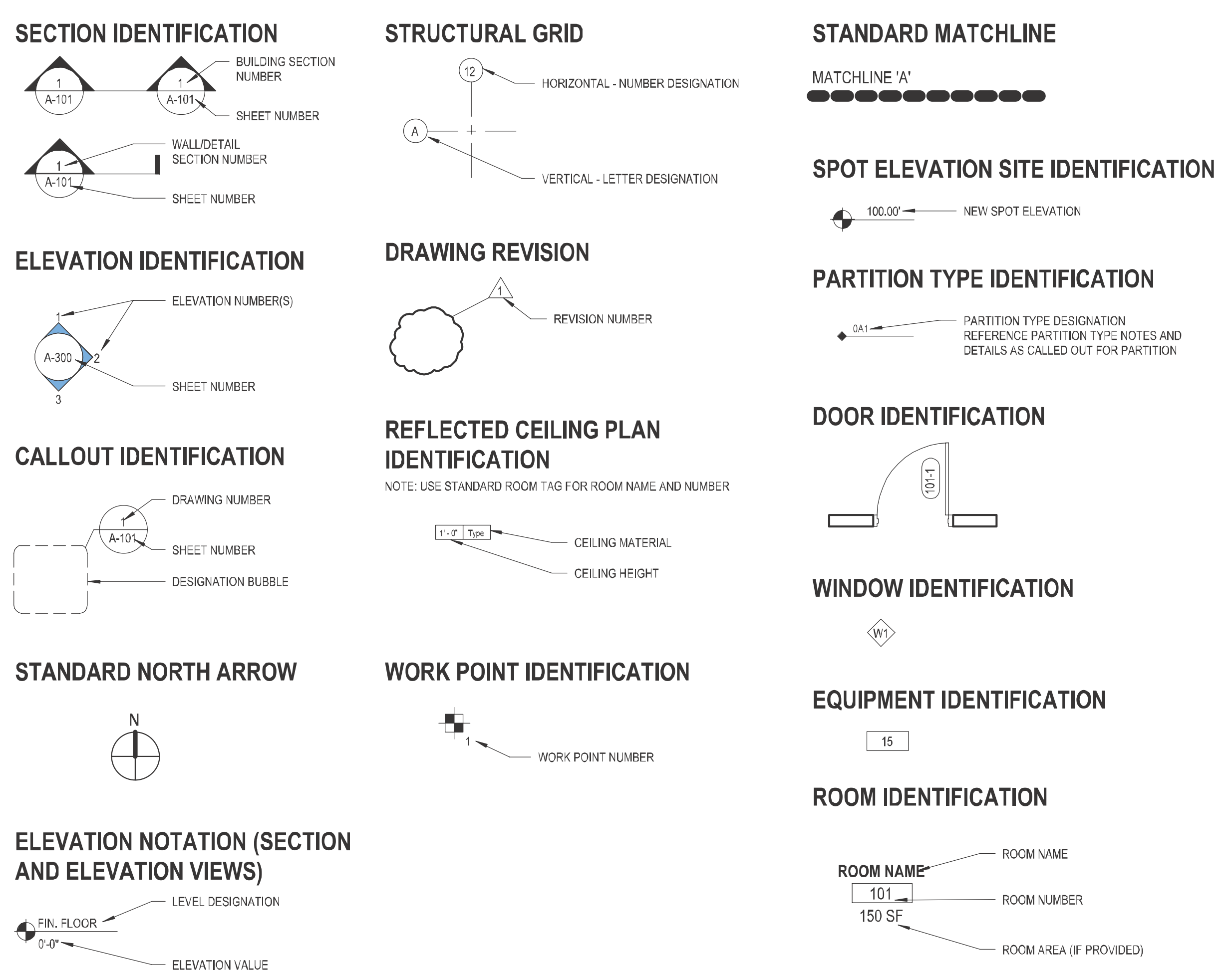
REFERENCES ARE MADE IN THE CONTRACT DOCUMENTS TO TRADE ASSOCIATIONS, TECHNICAL SOCIETIES, RECOGNIZED AUTHORITIES, AND OTHER INSTITUTIONS. STANDARDS (PRODUCTS, MATERIALS, SYSTEMS, AND IN SOME CASES, WORKMANSHIP) FOR WORK NOT SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE DETERMINED ON THE BASIS OF DATA AND STANDARDS PUBLISHED BY THESE ORGANIZATIONS. THE PRODUCTS, MATERIALS, SYSTEMS, AND WORKMANSHIP NECESSARY TO COMPLETE THE WORK IS TO BE IN COMPLIANCE WITH THE APPLICABLE RECOGNIZED STANDARDS OF THE CONSTRUCTION INDUSTRY FOR ITS INTENDED USE. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND AN INDIVIDUAL REFERENCE STANDARD, OR BETWEEN TWO OR MORE REFERENCED STANDARDS, THE MORE STRINGENT SHALL GOVERN. PRODUCTS, MATERIALS AND/OR SYSTEMS INCORPORATED INTO THE WORK SHALL BE SOURCED ONLY FROM MANUFACTURERS OR SUPPLIERS WHO HAVE PUBLISHED DATA SHOWING COMPLIANCE WITH SPECIFIED REQUIREMENTS OR WHO WILL CERTIFY IN WRITING TO SUCH COMPLIANCE (INCLUDING LABORATORY TESTING, IF APPLICABLE).

GENERAL PROJECT NOTES

1. THESE **GENERAL ARCHITECTURAL PROJECT NOTES** ARE TO BE READ IN CONJUNCTION WITH THE WRITTEN SPECIFICATIONS AND DRAWINGS. IN THE EVENT OF CONFLICT WITHIN THE INFORMATION IN THE DRAWINGS AND IN THE SPECIFICATIONS, NOTIFY THE ARCHITECT IN WRITING.
2. SHOULD THERE BE ANY **CONFLICT(S) BETWEEN OR WITHIN DRAWINGS AND/ OR SPECIFICATIONS** WHICH REQUIRES THE HIGHEST DEGREE OF PERFORMANCE QUALITY, QUANTITY, STRENGTH, FINISH, COMPLETION, COMPLEXITY, SOPHISTICATION, COST, ETC., WILL BE REQUIRED AND SHALL BE PROVIDED. ALL SUCH CONFLICTS MUST BE REFERRED TO ARCHITECT IMMEDIATELY UPON DISCOVERY.
3. THE **GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING FIELD CONDITIONS** SO AS TO FAMILIARIZE THEMSELVES WITH DEMOLITION AND REMOVAL WORK WHICH MAY BE REQUIRED TO PRODUCE THE END RESULTS INTENDED BY THE DRAWINGS. IT IS THE INTENT THAT EACH PORTION OF THE DEMOLITION WORK AND NEW CONSTRUCTION WORK BE DONE BY THE SPECIAL TRADE INVOLVED IN THE INITIAL INSTALLATION. THEREFORE, EACH CONTRACTOR AND SUBCONTRACTOR SHALL THOROUGHLY EXAMINE THE PROPOSED WORK AND MAKE AN ALLOWANCE IN THE PROPOSAL FOR THE COST OF THE WORK INCLUDING DEMOLITION AND REMOVAL WORK WHICH MAY BE REQUIRED BY HIS TRADE.
4. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE TO **VERIFY ALL EXISTING CONDITIONS IN THE FIELD**, THE CONTRACTOR IS RESPONSIBLE FOR INFORMING THE ARCHITECT OF ANY DISCREPANCIES THAT MAY BE FOUND.
5. THE CONTRACTOR SHALL SHALL **FIELD VERIFY ALL BUILDING DIMENSIONS, PARTITIONS, WALL LOCATIONS, FLOOR ELEVATIONS, AND OTHERWISE VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS**, INCLUDING SUBCONTRACTOR'S AND MANUFACTURER'S SHOP DRAWINGS. SHOULD ANY DISCREPANCY OR INCONSISTENCY EXIST THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK AFFECTED THEREBY UNTIL HE HAS NOTIFIED THE ARCHITECT.
6. THE CONTRACTOR SHALL **VERIFY SIZES OF ALL OPENINGS, CURBS, BASES, RECESSES, ANCHOR BOLT SIZES AND LOCATIONS, WITH CERTIFIED DRAWINGS OF EQUIPMENT APPROVED** FOR SUBJECT LOCATIONS BEFORE PROCEEDING WITH THE WORK.
7. THE **CONTRACTOR SHALL COORDINATE ALL STEEL AND CONCRETE SLAB PENETRATIONS, SLAB & WALL OPENINGS** REQUIRED BY PLUMBING, MECHANICAL & ELECTRICAL TRADES BEFORE ANY SUCH WORK BEGINS.
8. THE **GENERAL CONTRACTOR SHALL BE REGISTERED WITH THE COUNTY**, AS REQUIRED. CONTRACTORS SHALL BE BONDABLE, LICENSED CONTRACTORS AND QUALIFIED BY THE GENERAL CONTRACTOR.
9. CONTRACTORS SHALL BE SOLELY REPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, LOCAL, ADA/BARRIER FREE, LANDLORD, OSHA CODES, RULES AND REGULATIONS.
10. **CONTRACTORS SHALL COORDINATE** THEIR WORK WITH THE WORK OF OTHERS AND WITH EXISTING CONDITIONS OCCURING ON THE PREMISES, AND SHALL MAKE CHANGES AS REQUIRED TO ACCOMMODATE SUCH WORK OR CONDITIONS.
11. WORK WHICH **DISRUPTS THE OPERATION OF ANY OWNER OCCUPIED SPACE** SHALL BE DONE DURING NON-OPERATIONAL HOURS. THE GENERAL CONTRACTOR SHALL INCLUDE ALL COSTS ASSOCIATED WITH ANY OVERTIME WORK IN HIS BASE BID. NO EXTRAS WILL BE APPROVED FOR OVERTIME FOR THIS TYPE OF WORK.
12. **CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO COMMENCING WORK.** CONTRACTOR TO STAKE ALL NEW CONSTRUCTION AND VERIFY/MAINTAIN APPROVED SETBACKS. CONTRACTOR SHALL ALSO VERIFY ACCURACY OF SURVEY INFORMATION AND ENSURE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE.
13. **REMOVE ALL DEBRIS TO A DUMPSTER AREA** DESIGNATED BY THE OWNER. DUMPSTERS ARE TO BE PROVIDED BY THE GENERAL CONTRACTOR.
13. **DIMENSIONAL LUMBER, PLYWOOD, PARTICAL BOARD**, ETC USED IN CONSTRUCTION SHALL BE UL CERTIFIED AND CONFORM WITH THE TYPE OF CONSTRUCTION AS DEFINED IN THE BUILDING CODE.
14. **DETAILS SHOWN ARE INTENDED TO DESCRIBE SCOPE AND PROFILE.** WHERE DETAILS HAVE NOT BEEN PROVIDED, THE WORK IS INTENDED TO BE SIMILAR IN CHARACTER TO THOSE AREAS DETAILED. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
15. **ALL EGRESS DOORS** SHALL BE READILY OPENED FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. ALL MAIN EXIT DOORS MUST HAVE PANIC HARDWARE.
16. **EXIT SIGN, EMERGENCY LIGHTING, AND PANIC HARDWARE** SHALL BE VERIFIED WITH FIRE MARSHALL AND BUILDING INSPECTOR OF AUTHORITY HAVING JURISDICTION.
17. THE CONTRACTOR SHALL NOT PROCEED WITH DETAILING, FABRICATION OR CONSTRUCTION OF ANY WORK CONNECTED WITH OR DEPENDANT ON **EQUIPMENT FURNISHED BY "OWNER" OR "OTHER CONTRACTORS"** UNTIL HE HAS RECEIVED CERTIFIED OR APPROVED EQUIPMENT DRAWINGS.
18. CONSTRUCTION SHALL COMPLY WITH ALL **2015 INTERNATIONAL BUILDING CODES AND LATEST NEW YORK STATE UNIFORM CODE SUPPLEMENTS**, RECOGNIZED STANDARDS AND BUILDING PRACTICES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. IN ADDITION, CONSTRUCTION SHALL COMPLY WITH RECOMMENDATIONS, PROCEDURES, SPECIFICATIONS AND STANDARD DETAILS OF MANUFACTURER'S AND LICENSED INSTALLERS OF BUILDING COMPONENTS, SYSTEMS AND ASSEMBLIES.
19. CONTRACTORS ARE **CAUTIONED NOT TO DISTURB ANY STRUCTURAL SUPPORTS, HEADERS, ETC** WITHOUT NOTIFYING THE ARCHITECT & STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
20. ANY **STRUCTURAL MODIFICATIONS** TO THE BUILDING OUTSIDE OF THESE CONTRACT DOCUMENTS ARE TO BE REVIEWED BY A LICENSED STRUCTURAL ENGINEER FOR REQUIRED INPUT, THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING REQUIRED (INCLUDING, IF REQUIRED, DRAWINGS AND/OR CALCULATIONS SEALED BY A LICENSED STRUCTURAL ENGINEER) TO COMPLETE THE INTENT OF ALL THE CHANGES SHOWN.
21. **HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES** ON ALL NEWLY PROVIDED DOORS SHALL HAVE A SHAPE WHICH IS EASY TO GRASP WITH ONE HAND AND WHICH DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
22. **SHOP DRAWINGS:** CONTRACTOR TO SUBMIT APPLICABLE SHOP DRAWINGS AND MATERIAL SUBMITTALS FOR APPROVAL BY ARCHITECT, AND HIS CONSULTANTS, IN A TIMELY MANNER TO ALLOW FOR ADEQUATE REVIEW/REVISION/APPROVAL PRIOR TO ORDERING OF MATERIAL AND FABRICATION OF WORK. ALL SHOP DRAWINGS AND SUBMITTALS SHALL SPECIFICALLY CALL OUT, AT ALL LOCATIONS, WHERE THE ARCHITECT'S ENGINEERING CONSULTANT MUST REVIEW AND APPROVE A DESIGN. CONTRACTOR MAY NOT PROCEED WITH THE WORK IF ENGINEER HAS NOT APPROVED SHOP DRAWINGS AS REQUIRED.
23. **FOIT-ALBERT ASSOCIATES** AND ITS CONSULTANTS ASSUME NO RESPONSIBILITY FOR THE DESIGN OR PROPER INSTALLATION OF TEMPORARY BUILDING BRACING OR SHORING REQUIRED TO COMPLETE THE PROJECT. THE CONTRACTOR AND HIS ENGINEER ARE RESPONSIBLE FOR THE DESIGN AND PROPER INSTALLATION OF ALL TEMPORARY SHORING REQUIRED FOR A SAFE AND STRUCTURALLY SOUND PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES INCURRED DUE TO IMPROPER SHORING AND BRACING DURING THE CONSTRUCTION PROJECT.
24. PROVIDE **DRAFTSTOPPING AND FIRE BLOCKING** AS REQUIRED BY CODE.

STANDARD SYMBOL LEGEND

REFERENCE INDIVIDUAL SHEET LEGENDS FOR THOSE SYMBOLS NOT COVERED BY THIS GENERAL LEGEND



STANDARD ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR	F#	FOOTING MARK	MAS	MASONRY	T	TOP
AB	ANCHOR BOLT	FD	FLOOR DRAIN	MAX.	MAXIMUM	TB	TACK BOARD
ACOUST	ACOUSTICAL	FDN	FOUNDATION	MECH	MECHANICAL	TC	TOP OF CURB
ADJ.	ADJUSTABLE	F.E.C.	FIRE EXTINSUISHER CABINET	MIN.	MINIMUM	T/CONC	TOP OF CONCRETE
ALT.	ALTERNATE	FE	FIRE EXTINGUISHER	M.O.	MASONRY OPENING	T/DP	TOP OF DRILLED PIER
APPROX.	APPROXIMATE	F.F.F.	FINISHED FIRST FLOOR	M.R.	MOISTURE RESISTANT	TEMP	TEMPORARY
ARCH'L	ARCHITECTURAL	F.F.	FINISHED FLOOR	MEP	MECHANICAL, ELECTRICAL & PLUMBING	T/FTG	TOP OF FOOTING (STRUCTURAL)
		F.G.	FINISHED GRADE	MMR	MOLD AND MOISURE RESISTANT	T/FW	TOP OF FOUNDATION WALL (STRUCT)
B.P.	BEAM POCKET	FIN.	FINISH (ED)	MET MTL	METAL	T.O.D.	TOP OF DECK
B.PL.	BEARING PALTE	F.C.S.	FINISHED CONCRETE SLAB			T.O.F.	TOP OF FOUNDATION
BLK.	BLOCK (ING)	F.O.M.	FACE OF MASONRY	N.I.C.	NOT IN CONTRACT	T.O.L.	TOP OF STAIR LANDING
BD.	BOARD	FRP	FIBERGLASS REINFORCED PANEL	NO.	NUMBER	T.O.M.	TOP OF MASONRY
BRG.	BEARING	F.S.F.	FINISHED SECOND FLOOR	NOM.	NOMINAL	T.O.P.	TOP OF PARAPET
B.S.	BOTH SIDES	F.S.	FIRE SHUTTER	N.T.S.	NOT TO SCALE	T.O.S.	TOP OF STEEL
B.W.	BOTH WAYS	FT.	FOOT, FEET			T.O.W.	TOP OF WALL
BOT.	BOTTOM	F.T.F.	FINISHED THIRD FLOOR	O.C.	ON CENTER	TYP.	TYPICAL
BLDG.	BUILDING	FTG	FOOTING	O.D.	OUTER DIAMETER	T/W	TOP OF WALL (STRUCTURAL)
		FRT	FIRE TREATED	OH	OPPOSITE HAND		
C*	COLUMN MARK			OPP.	OPPOSITE	U.N.O.	UNLESS NOTED OTHERWISE
CIP	CAST-IN-PLACE CONCRETE	GA	GAUGE			UTIL	UTILITIES
CLNG	CEILING	GALV	GALVANIZED	PART. BD	PARTICLE BOARD		
CL	CENTERLINE	GB	GRADE BEAM	PARTN	PARTITION	W/	WITH
CLR	CLEAR	GC	GENERAL CONTRACTOR	PC	PIER CAP (STRUCTURAL)	WD	WOOD
CMU	CONCRETE MASONRY UNIT	GWB	GYPSUM WALL BOARD	PC	POINT OF CURVE	WWF	WELDED WIRE FABRIC
COL	COLUMN	GYP	GYPSUM	PL	PLATE (STRUCTURAL)		
CONC	CONCRETE			PL	PROPERTY LINE	V.B.	VAPOR BARRIER
CONN	CONNECTION	HORIZ	HORIZONTAL	P.LAM.	PLASTIC LAMINATE	V.C.T.	VINYL COMPOSITION TILE
CONT.	CONTINUOUS	HT	HEIGHT	P.L.F.	POUNDS PER LINEAL FOOT	VERT.	VERTICAL
C.J.	CONTROL JOINT	HM	HOLLOW METAL	PLYWD	PLYWOOD	V.I.F.	VERIFY IN FIELD
C.T.	CERAMIC TILE			PREFAB	PREFABRICATED		
		IN	INCH (ES)	P.S.F.	POUNDS PER SQUARE FOOT		
D.F.	DRINKING FOUNTAIN	INSUL	INSULATE (D) (ION)	P.S.I.	POUNDS PER SQUARE INCH		
DBA	DEFORMED BAR ANCHORS	I.D.	INSIDE DIAMETER	P.T.	PRESSURE TREATED		
DBL	DOUBLE	INV.	INVERT				
DIA	DIAMETER			R	RADIUS		
DIM	DIMENSION	JAN CLOS	JANITOR'S CLOSET	RTU	ROOF TOP UNIT		
D.L.	DEAD LOAD	JT	JOINT	REINF	REINFORCED (ING) (MENT)		
DWG(S)	DRAWING(S)			REQ'D.	REQUIRED		
		L.L.V.	LONG LEG VERTICAL	REV	REVISION, REVISED		
E.C.	EPOXY COATED	LF	LINEAL FEET	RM.	ROOM		
E.F.	EACH FACE	LT. WT.	LIGHT WEIGHT				
E.F.F.	ELEVATION FINISHED FLOOR	L.L.	LIVE LOAD	SECT	SECTION		
EIFS	EXTERIOR INSULATION FINISH SYSTEM	L.L.H.	LONG LEG HORIZONTAL	SERV	SERVICES		
E.J.	EXPANSION JOINT			SHT	SHEET		
ELEV	ELEVATION			SIM	SIMILAR		
ENCL	ENCLOSE (URE)			S.L.	SNOW LOAD		
ENG	ENGINEERING, ENGINEERED			S.O.G.	SLAB-ON-GRADE		
EP	ELECTRIC PANEL			SPEC	SPECIFICATION		
EQ	EQUIPMENT			SQ.	SQUARE		
E.R.D.	EXISTING ROOF DRAIN			SS	STAINLESS STEEL		
E.W.	EACH WAY			STL	STEEL		
EXIST.	EXISTING			STRUCT	STRUCTURE, STRUCTURAL		
				SUSP	SUSPENDED		

wsp
FoitAlbert ASSOCIATES

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

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FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-3SB116-03CR
FILE NAME: BP-A001
DESIGNED BY: M. BRAY
DRAWN BY: M. BRAY
CHECKED BY: S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE
BAY PARK EFFLUENT DIVERSION PUMP STATION
ARCHITECTURE SYMBOLS, ABBREVIATIONS AND NOTES

SCALE: AS NOTED

BP-A001

BUILDING CODE SUMMARY

NAME OF PROJECT: BAY PARK PROGRAM MANAGEMENT EFFLUENT PUMPING STATION
ADDRESS: 2 Marjorie Ln, East Rockaway, NY 11518
PROPOSED USE: UTILITY STRUCTURE FOR PUMPING STATION
OWNER/AUTHORIZED AGENT: ______ PHONE NO. ______
OWNED BY: ☒ CITY/COUNTY ☐ PRIVATE ☐ STATE
CODE ENFORCEMENT JURISDICTION: ☒ CITY ☐ COUNTY

LEAD DESIGN PROFESSIONAL

DISCIPLINE	FIRM NAME	DESIGNER NAME	LICENSE #	PHONE NUMBER
CIVIL	WSP			
STRUCTURAL	FOIT-ALBERT ASSOCIATES	GERALD SENTZ, P.E.		(716) 856-3933
ARCHITECTURAL	FOIT-ALBERT ASSOCIATES	GWEN A. HOWARD, AIA		(716) 856-3933
MECHANICAL	WSP			
ELECTRICAL	WSP			
PLUMBING	N/A			
FIRE ALARM	OBG			
SPRINKLER-STANDPIPE	N/A			
OTHER	OBG/RAMBOLL			

BUILDING CODE

☒ BUILDING: INTERNATIONAL BUILDING CODE 2015 AS ADOPTED BY NEW YORK STATE
☒ LOCAL AMENDMENTS: TOWN OF HEMPSTEAD BUILDING CODE
☒ FIRE CODE: INTERNATIONAL FIRE CODE 2015 AS ADOPTED BY NEW YORK STATE, NFPA (LATEST VERSION)
☒ ACCESSIBILITY: ICC/ ANSI A117.1-2009 AND BUILDING CODE OF NEW YORK STATE
☒ ENERGY: INTERNATIONAL ENERGY CODE 2015 AS ADOPTED BY NEW YORK STATE

☒ NEW CONSTRUCTION ☐ EXISTING STRUCTURE
☐ CHANGE OF OCCUPANCY ☐ ADDITION ☐ ALTERATION ☐ REPAIR ☐ UPLIFT

BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ☒ I-B ☐ II-A ☐ II-B ☐ III-A ☐ III-B
MIXED CONSTRUCTION: ☐ YES ☒ NO TYPES: ______
FIRE DISTRICT: ☐ YES ☐ NO
BUILDING HEIGHT: ______ FEET ______ NUMBER OF STORIES ☐ UNLIMITED PER ______
MEZZANINE: ☐ YES ☒ NO
HIGH RISE: ☐ YES ☒ NO CENTRAL REFERENCE SHEET # IF PROVIDED ______

BUILDING USES

LEVEL	GROSS AREA	BLDG. AREA	
1	8,057 SF	3,435 SF	NOTE: GROSS AREA INCLUDES EXTERIOR PLATFORM AREA AND ENCLOSED BUILDING AREA
2		2,435 SF	
TOTAL		5,870 SF	

LEVEL	CLASSIFICATION	USE		AREA (SF)	AREA/OCCUPANT TABLE 1004.1.2	OCCUPANT LOAD	EXCEPTIONS
1	PUMP ROOM	UTILITY	U	3,435 SF			
2	PUMP ELECTRICAL	UTILITY	U	2,435 SF			

FIRE PROTECTION REQUIREMENTS

LIFE SAFETY PLAN SHEET #, IF PROVIDED ______

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ * REDUCTION)	DETAIL # SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION
STRUCTURAL FRAME (INCLUDING COLUMNS, GIRDERS, TRUSSES)		1 HR.	1 HR.			
BEARING WALLS						
EXTERIOR						
NORTH		2 HR.	2 HR.			
EAST		2 HR.	2 HR.			
WEST		2 HR.	2 HR.			
SOUTH		2 HR.	2 HR.			
INTERIOR		2 HR.	2 HR.			
NONBEARING WALLS & PARTITIONS						
EXTERIOR						
NORTH	>30 FEET	0 HR.	2 HR.			
EAST	>30 FEET	0 HR.	2 HR.			
WEST	>30 FEET	0 HR.	2 HR.			
SOUTH	>30 FEET	0 HR.	2 HR.			
INTERIOR		0 HR.	2 HR.			
FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOISTS)		2 HR.	2 HR.			
ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOISTS)		1 HR.	1 HR.			
SHAFTS - EXIT		2 HR.	2 HR.			
SHAFTS - OTHER		N/A				
CORRIDOR SEPARATION		N/A				
OCCUPANCY SEPARATION		N/A				
PARTY/ FIRE WALL SEPARATION		N/A				
SMOKE BARRIER SEPARATION		N/A				
TENANT SEPARATION		N/A				

* INDICATE SECTION NUMBER PERMITTING REDUCTION

ALLOWABLE AREA

PRIMARY OCCUPANCY:
ASSEMBLY: ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
BUSINESS: ☐ B
EDUCATIONAL: ☐ E
FACTORY: ☐ F-1 ☐ F-2
HAZARDOUS: ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5
INSTITUTIONAL: ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 USE CONDITION: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
MERCANTILE: ☐ M
RESIDENTIAL: ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
STORAGE: ☐ S-1 ☐ S-2 ☐ HIGH PILED
UTILITY AND MISC.: ☒ U

SECONDARY OCCUPANCY:
SPECIAL OCCUPANCY: ☐ 508.2 ☐ 508.3 ☐ 508.4 ☐ 508.5 ☐ 508.6 ☐ 508.7 ☐ 508.8
MIXED OCCUPANCY: ☒ NO ☐ YES SEPARATION: ______ HR. EXCEPTION: ______
☐ NON-SEPARATED MIXED OCCUPANCY (302.3 EXCEPTION)
☐ SEPARATED MIXED OCCUPANCY (302.3.2) - SEE BELOW FOR CALCULATIONS.

STORY NO.	DESCRIPTION & USE	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA [5]	(C) AREA FOR FRONTAGE INCREASE [1]	(D) AREA FOR SPRINKLER INCREASE [2]	(E) ALLOWABLE AREA OR UNLIMITED [3]	(F) MAXIMUM BUILDING AREA [4]
1	PUMP ROOM	3,435 SF	19,000 SF	NR			
2	PUMP ELECTRICAL	2,435 SF	19,000 SF	NR			
TOTAL		5,870 SF	38,000 SF				

[1] FRONTAGE INCREASES FROM SECTION 506.2 ARE COMPUTED THUS:

A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH = (F) ______
B. TOTAL BUILDING PERIMETER = ______ (P)
C. RATIO (F/P) = ______ (F/P)
D. W=MINIMUM WIDTH OF PUBLIC WAY = ______ (W)
E. PERCENT OF FRONTAGE INCREASE = 100 ((F/P) - 0.25) x W/30 = ______ %
= 100((/)-0.25) x /30 = ______ %

[2] THE SPRINKLER INCREASE PER SECTION 506.3 IS AS FOLLOWS:

A. MULTI-STORY BUILDING = 200 PERCENT
B. SINGLE STORY BUILDING = 300 PERCENT

[3] UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS GROUP B, F, M, S, A-4 (507.1, 507.2, 507.3, 507.5), GROUP A MOTION PICTURE (507.8), MALLS (402.6), AND H-2 AIRCRAFT PAINT HANGERS (507.6).

[4] MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING x E BUT NOT GREATER THAN 3xE.

[5] THE MAXIMUM AREA OF PARKING GARAGES MUST COMPLY WITH 406.3.5. THE MAXIMUM AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH 412.1.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 504.3)	SHOWN ON PLANS	CODE REFERENCE (TABLE 504.3 AND 504.4)
TYPE OF CONSTRUCTION	TYPE II-A	TYPE II-A	COMPLIES
BUILDING HEIGHT (FT)	65 FEET	51 FEET 0 INCHES	COMPLIES
BUILDING HEIGHT (STORIES)	U = 5 STORIES	3 STORIES	COMPLIES

LIFE SAFETY SYSTEM REQUIREMENTS

SPRINKLER SYSTEMS: ☐ YES ☒ NO ☐ NFPA 13 ☐ NFPA 13R
STANDPIPE SYSTEMS: ☐ YES ☒ NO CLASS: ☐ I ☐ II ☐ III ☐ WET ☐ DRY
EXTINGUISHING SYSTEMS: ☐ YES ☒ NO
FIRE EXTINGUISHERS: ☒ YES ☐ NO
FIRE ALARM SYSTEMS: ☒ YES ☐ NO
SMOKE DETECTION: ☒ YES ☐ NO
HI-RISE FIRE SAFETY: ☐ YES ☒ NO
VISIBLE ALARMS: ☒ YES ☐ NO
SMOKE CONTROL: ☐ YES ☒ NO
SMOKE VENTS: ☐ YES ☒ NO
KITCHEN HOOD EXT: ☐ YES ☒ NO
SUPERVISORY SERVICE: ☒ YES ☐ NO
EXIT SIGNS: ☒ YES ☐ NO
EMERGENCY LIGHTS: ☒ YES ☐ NO
EMERGENCY POWER: ☒ YES ☐ NO
PANIC HARDWARE: ☒ YES ☐ NO

INTERIOR FINISHES - WALL AND CEILING

SPRINKLER SYSTEMS: ☐ YES ☒ NO

VALUES INDICATED ARE AS REQUIRED BY IBC TABLE 803.11

GROUP OCCUPANCY	INTERIOR STAIRWAYS, RAMPS AND EXIT PASSAGEWAYS	CORRIDORS AND ENCLOSURES FOR EXIT ACCESS	ROOMS AND ENCLOSED SPACES
UTILITY (U)	C	C	C

EXIT REQUIREMENTS

NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM, OR SPACE DESIGNATION	MINIMUM NUMBER OF EXITS [2] REQ'D	SHOWN ON PLANS	TRAVEL DISTANCE [3] COMMON PATH ALLOW.	COMMON PATH ACTUAL	TRAVEL DISTANCE ALLOW.	TRAVEL DISTANCE ACTUAL	ARRANGEMENT MEANS OF EGRESS (SECTION 1014.2) [1&3] REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS
1 PUMP ROOM	2	3						
2 PUMP ELECTRICAL	2	2						

[1] CORRIDOR DEAD ENDS (SECTION 1016.3)
[2] SINGLE EXITS (TABLE 1014.1)
[3] COMMON PATH OF TRAVEL (SECTION 1015)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(A)[1] AREA SQ. FT.	(B)[1] AREA PER OCCUPANT (TABLE 1004.1.2)	(C) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1) STAIR	(C) LEVEL	EXIT WIDTH (IN) [2,3,4,5,6] REQUIRED WIDTH (SECTION 1005.1) (A/B) X C STAIR	REQUIRED WIDTH LEVEL	ACTUAL WIDTH SHOWN ON PLANS STAIR	ACTUAL WIDTH LEVEL
UTILITY (U)	5,870 SF	1/500 = 11	0.2	0.15	0.2	0.9	36"	44"

[1] SEE TABLE 1004.1.2 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE. SEE DEFINITION "FLOOR AREA, GROSS" AND "FLOOR AREA, NET" (SECTION 1002)

[2] THE SPRINKLER INCREASE PER SECTION 506.3 IS AS FOLLOWS:
C. MULIT-STORY BUILDING 1 = 200 PERCENT
D. SINGLE STORY BUILDING 1 = 300 PERCENT

[3] MINIMUM STAIRWAY WIDTH (SECTION 1009.1), MIN. CORRIDOR WIDTH (SECTION 1016.2), MIN. DOOR WIDTH (SECTION 1008.1)

[4] MINIMUM WIDTH OF EXIT PASSAGEWAY (SECTION 1020.2)

[5] THE LOSS OF ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50 PERCENT OF THE TOTAL REQUIRED (SECTION 1005.1)

[6] ASSEMBLY OCCUPANCIES (SECTION 1024)

PLUMBING FIXTURE REQUIREMENTS

FIXTURE & COUNT PROVIDED	MALE	FEMALE
WATERCLOSETS	0	0
URINALS	0	0
LAVATORIES	0	0
SHOWERS/ TUBS	0	0
DRINKING FOUNTAINS	0	
SERVICE SINK	0	

PLUMBING LOAD CALCULATIONS

AS A UTILITY (U OCCUPANCY) BUILDING USE CLASSIFICATION, THERE ARE NO REQUIREMENTS TO PROVIDE PLUMBING FIXTURES

ENERGY CODE COMPLIANCE

STATE NY COUNTY NEW YORK CLIMATE ZONE 4

ENVELOPE COMPONENT	REQUIRED R-VALUE / U-VALUE (Table C402.1.3 and C402.1.4)	PROVIDED R-VALUE / U-VALUE	DETAILS/COMMENTS
ROOFS - INSULATION ENTIRELY ABOVE DECK	R-30 ci	R-30 ci	WALL SECTIONS ILLUSTRATE CONT. RIGID INSULATION ABOVE DECK, R-30 MIN. USE CLOSED-CELL SPRAY FOAM INSULATION TO SEAL AIR GAPS AND ROOF PENETRATIONS AT UNDERSIDE OF DECK
WALLS - ABOVE GRADE METAL BUILDING	u-VALUE 0.052	u-VALUE 0.0432	INSULATION AT EXTERIOR WALLS IS ACHIEVED THROUGH THE USE OF 3" THICK PRE-INSULATED METAL WALL PANELS
WALLS - BELOW GRADE	R-7.5 ci	R-10 ci	2" THICK RIGID INSULATION TO MINIMUM DEPTH OF 4'-0"
FLOOR SLABS - RAISED ABOVE GRADE	R-10 ci	R-10 MIN. underside of slab, continuous	PROVIDE INSULATING STAY-IN-PLACE CONCRETE FORMING AS DETAILED AND SPECIFIED TO MEET THE RAISED FLOOR SLAB INSULATION REQUIREMENTS.
OPAQUE DOORS - NON-SWINGING	R-4.75 MIN.		ALL DOORS ON THE BUILDING ARE SWINGING TYPE
OPAQUE DOORS - SWINGING	U-0.37 MIN.	U-0.37 MIN.	INSULATED HOLLOW METAL OR FRP DOORS AS SPECIFIED
FENESTRATION - FIXED FENESTRATION - OPERABLE FENESTRATION - ENTRANCE DOOR	U-0.36 MIN. U-0.43 MIN. U-0.77 MIN.		NO GLAZED WINDOWS OR DOORS HAVE BEEN PROVIDED

wsp

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

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FILE NAME: BP-A050
DESIGNED BY: M. BRAY
DRAWN BY: M. BRAY
CHECKED BY: S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

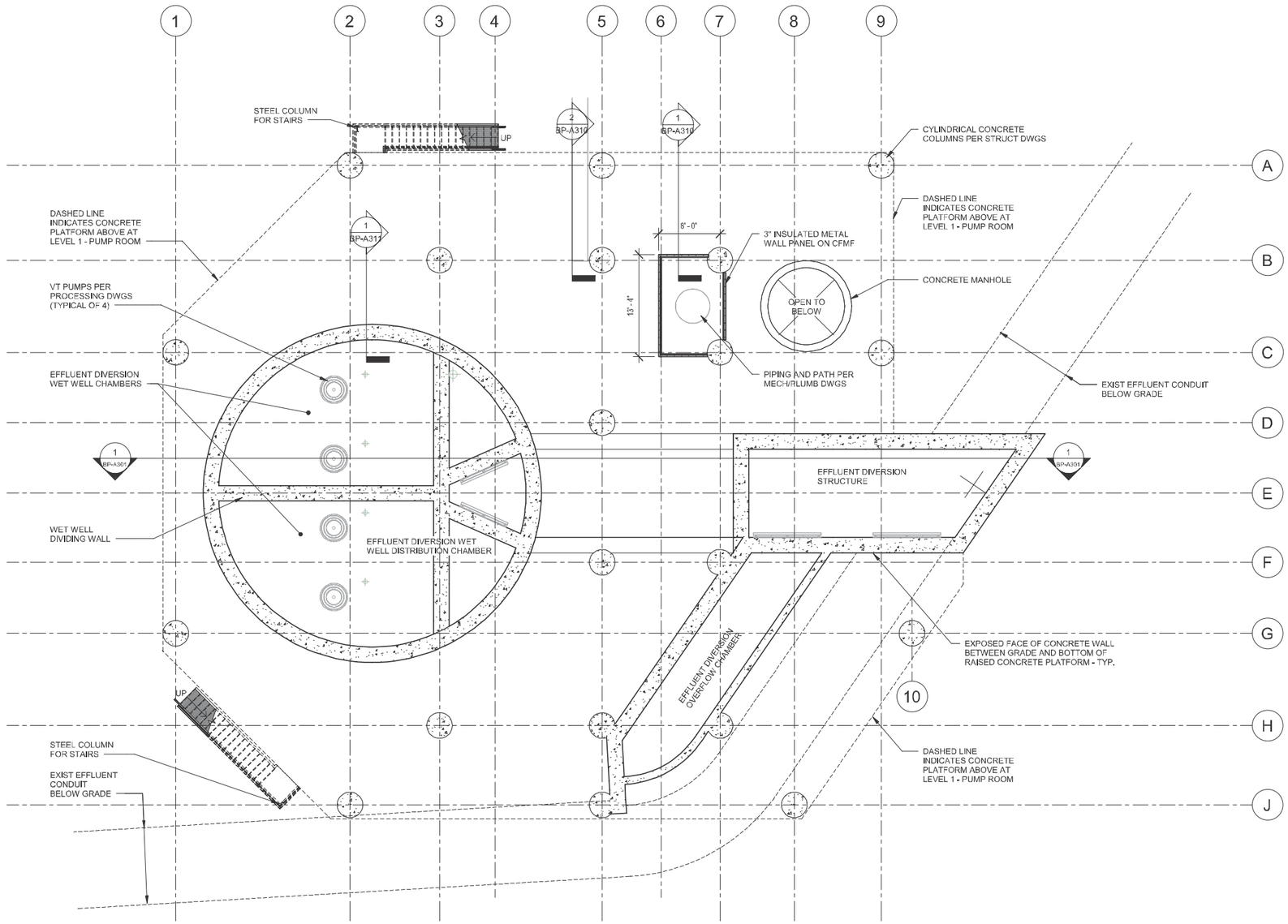
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

CODE COMPLIANCE - SUMMARY

SCALE: AS NOTED

BP-A050



1 BP-A101 **FLOOR PLAN AT GRADE**

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

PRELIMINARY NOT FOR CONSTRUCTION

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DRAWN BY:	M. BRAY
CHECKED BY:	S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

ARCHITECTURE
FLOOR PLAN AT GRADE

SCALE: AS NOTED

BP-A101

PAGE 20

Scale: Saved Date: 11/12/2019 11:55:28 AM Plot Date: 11/12/2019 11:55:28 AM
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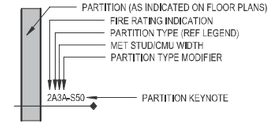
PARTITION TYPE GENERAL NOTES

PARTITION TYPE TAG



1. THE "PARTITION TYPE TAG", ILLUSTRATED ABOVE, INDICATES THE ASSEMBLY OF THE PRODUCTS MAKING UP EACH PARTITION INDICATED BY THE TAG ON THE FLOOR PLANS, AND OTHER DRAWINGS IN THE PROJECT DOCUMENTS.
2. REFER TO PARTITION TYPE DETAILS INDICATED BY THE "PARTITION TYPE" CHARACTER ON THE TAG
   - EXAMPLE: PARTITION TAG ID "A" = REFERENCE TO DETAIL "TYPE A".
3. REFER TO THE "FIRE RATING LEGEND" BELOW FOR THE FIRE-RESISTANCE CLASSIFICATION NOTED BY THE "FIRE RATING IDENTIFICATION" ON THE TAG
   - EXAMPLE: "1" = 60 MIN FIRE-RESISTANCE RATED PARTITION ASSEMBLY.
4. THE "METAL STUD/CMU NOM WIDTH" CHARACTER ON THE TAG, AND AS SHOWN ON PARTITION TYPE DETAILS, INDICATES THE METAL STUD OR CMU NOM WIDTH
   - EXAMPLE: "2" = 12 INCH CMU WALL THICKNESS. NOM.
5. THE "PARTITION TYPE MODIFIER" CHARACTERS REFER TO THE "PARTITION TYPE MODIFIER" NOTES SHOWN BELOW, WHICH APPLY TO THE COMPLETE EXTENT OF EACH PARTITION WHERE SO TAGGED.
   - EXAMPLE: 'A' FOR INSULATION AS DESCRIBED IN THE MODIFIER.

FIRE RATING LEGEND

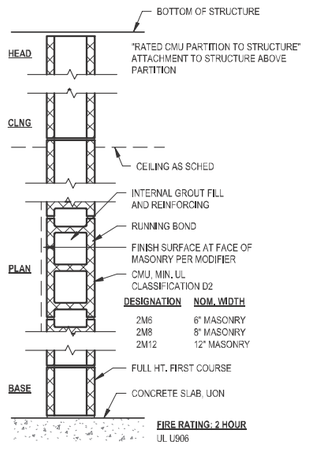
THE COMPLETE ASSEMBLY OF EACH PARTITION WITH A FIRE RATING INDICATION SYMBOL SHOWN ON THE TAG, SHALL COMPLY WITH ALL REQUIREMENTS OF THE FIRE-RESISTANCE RATING CLASSIFICATION:

SYMBOL	RATING CLASSIFICATION
<OMITTED>	NON-RATED PARTITION, UON
1	60 MIN FIRE-RESISTANCE RATED FIRE PARTITION
1S	60 MIN FIRE-RESISTANCE RATED & SMOKE BARRIER PARTITION
2	120 MIN FIRE-RESISTANCE RATED FIRE BARRIER
3	180 MIN FIRE-RESISTANCE RATED FIRE BARRIER
4	240 MIN FIRE-RESISTANCE RATED FIRE BARRIER

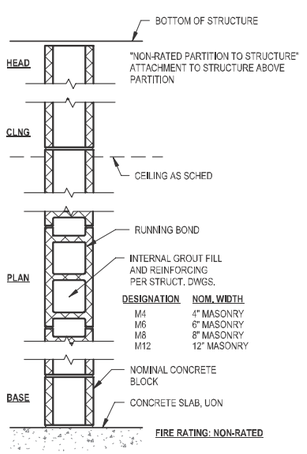
PARTITION TYPE MODIFIERS

THE FOLLOWING NOTES APPLY TO THE FULL EXTENT OF EACH PARTITION, WHERE "PARTITION TYPE MODIFIER" CHARACTER(S) ARE SHOWN ON THE TAG:

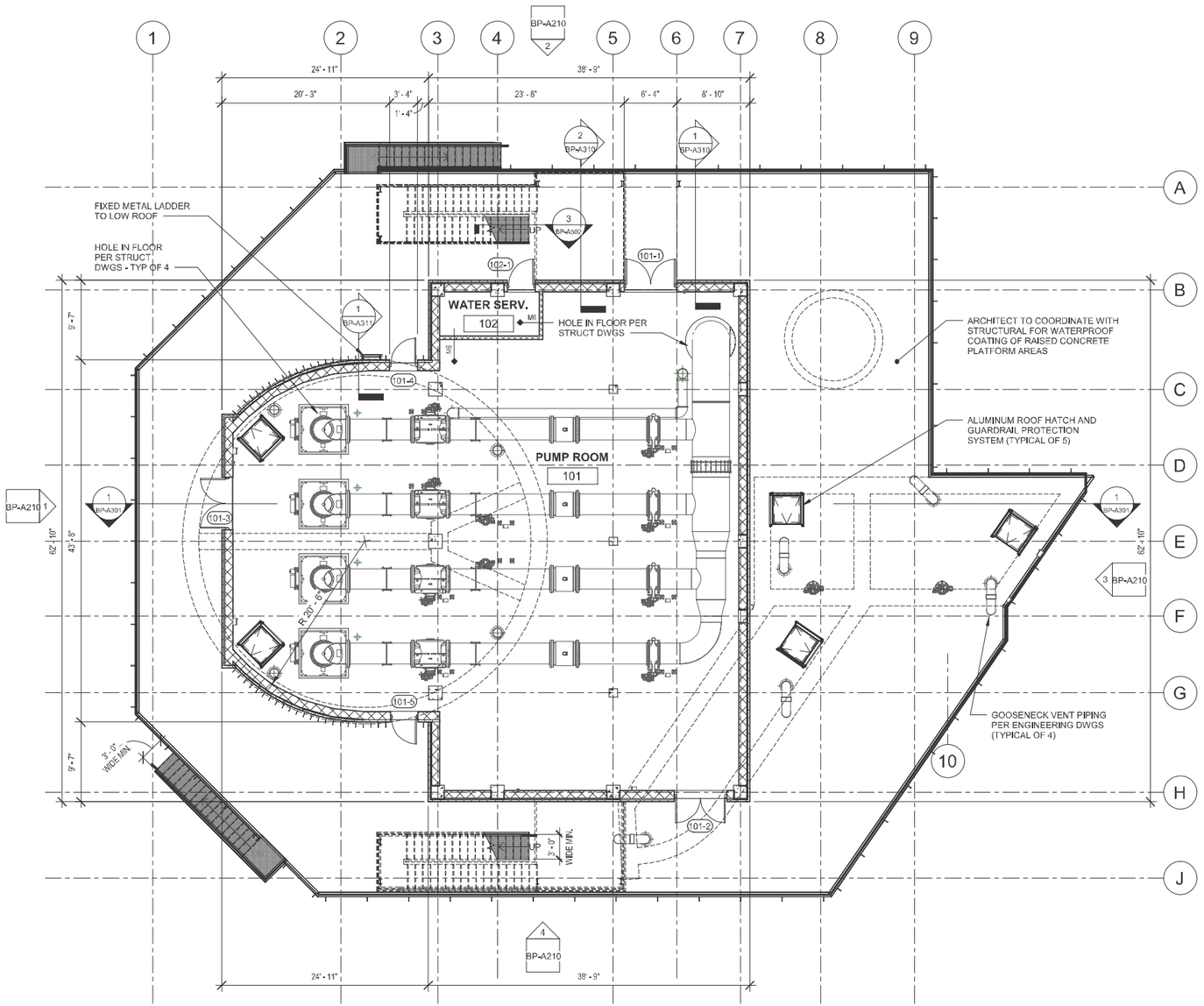
A. PROVIDE THERMAL INSULATION BATT FULL HEIGHT IN EACH STUD CAVITY, AS SPECIFIED.
B. PROVIDE RIGID INSULATION FULL HEIGHT OF WALL ON ONE SIDE, AS SPECIFIED.
C. PROVIDE PARTN TYPE AS SCHED, WITH MIN 20 GA MET STUDS @ 16" OC
D. PROVIDE PARTN TYPE AS SCHED, WITH MIN 18 GA MET STUDS @ 16" OC
E. PROVIDE PARTN TYPE AS SCHED, WITH MIN 16 GA MET STUDS @ 16" OC
F. PROVIDE ADDITIONAL (1) LAYER 5/8" WR GYP BD AND 7/8" HAT CHANNEL FURRING OVER MASONRY WALL, FINISH GYP AND FURRING TO EXTERIOR OF MASONRY AS SHOWN ON PLANS.
G. PROVIDE SINGLE LAYER OF EXPANDED METAL LATHE BEHIND THE CORRIDOR/WALKWAY SIDE BEFORE INSTALLING GYP BOARD AS CALLED FOR IN PARTITION TYPE.



3 BP-A102 **TYPE 2M - MASONRY WALL - 2 HR. RATED**
1" = 1'-0"



2 BP-A102 **TYPE 0M - MASONRY WALL - NON-RATED**
1" = 1'-0"



1 BP-A102 **FLOOR PLAN - LEVEL 1**
1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

WSP
FoitAlbert ASSOCIATES

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-3SB116-03CR
FILE NAME:	BP-A102
DESIGNED BY:	M. BRAY
DRAWN BY:	M. BRAY
CHECKED BY:	S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

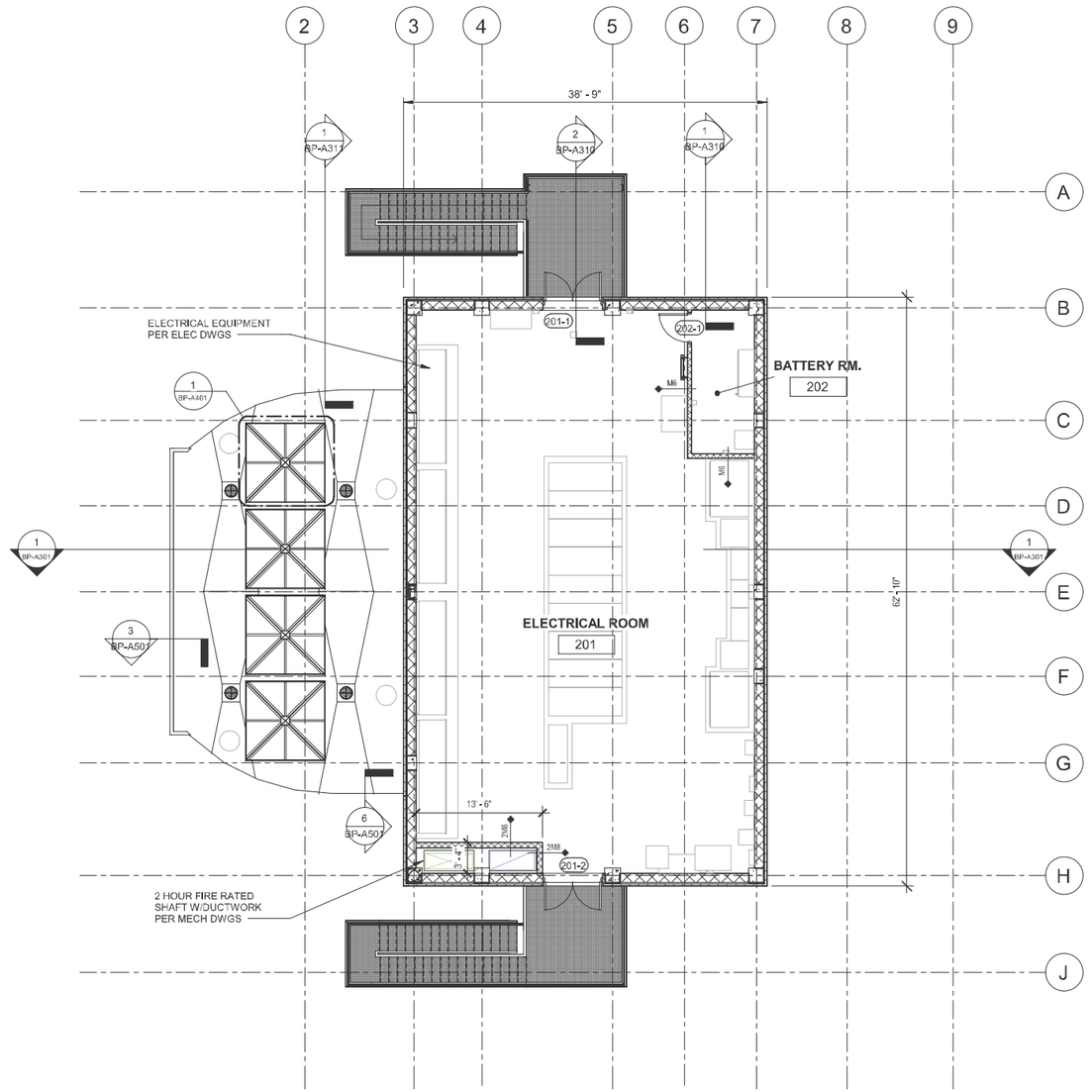
BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
ARCHITECTURE
FLOOR PLAN - LEVEL 1

SCALE: AS NOTED

BP-A102



1 BP-A103 **FLOOR PLAN - LEVEL 2**

1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

WSP

FoitAlbert ASSOCIATES

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DATE: 10/2019

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FINAL DESIGN
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DATE:	OCTOBER 2019
PROJECT NO.:	PW-3SB116-03CR
FILE NAME:	BP-A103
DESIGNED BY:	M. BRAY
DRAWN BY:	M. BRAY
CHECKED BY:	S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM
MANAGEMENT EFFLUENT
DIVERSION PUMPING
STATION

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

ARCHITECTURE
FLOOR PLAN - LEVEL 2

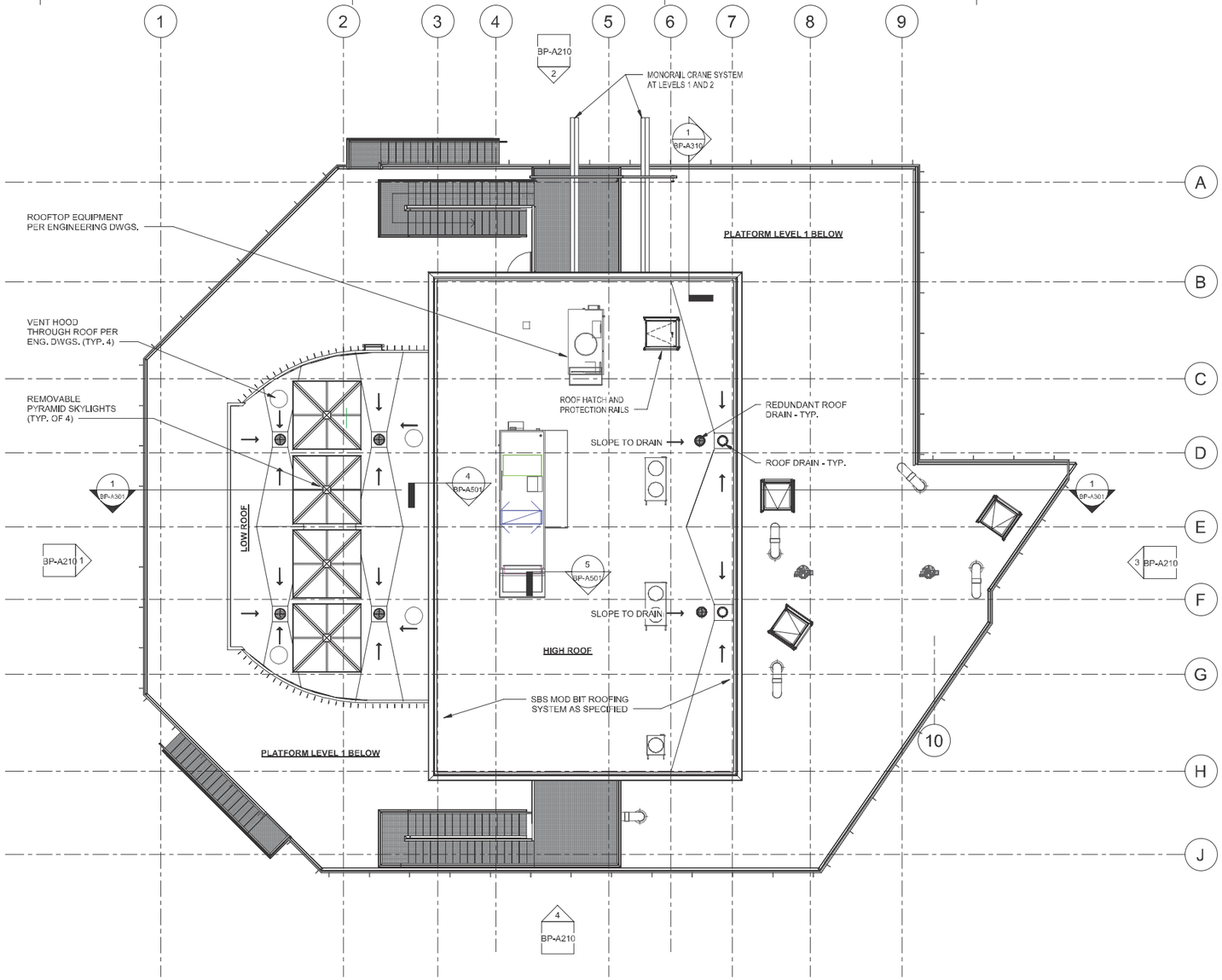
SCALE:
AS NOTED

BP-A103

PAGE 22

ROOF PLAN NOTES

1. ALL ROOF AREAS SHALL HAVE A SLOPE OF 1/4" PER FOOT MINIMUM.
2. ROOF INSULATION SHALL BE A MINIMUM OF R-30 PER IBC IECC AS ADOPTED BY NEW YORK STATE.



1 BP-A104 **ROOF PLAN**
1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-3SB116-03CR
FILE NAME: BP-A104
DESIGNED BY: M. BRAY
DRAWN BY: M. BRAY
CHECKED BY: S. ARCHAMBAULT

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DEPARTMENT OF PUBLIC WORKS

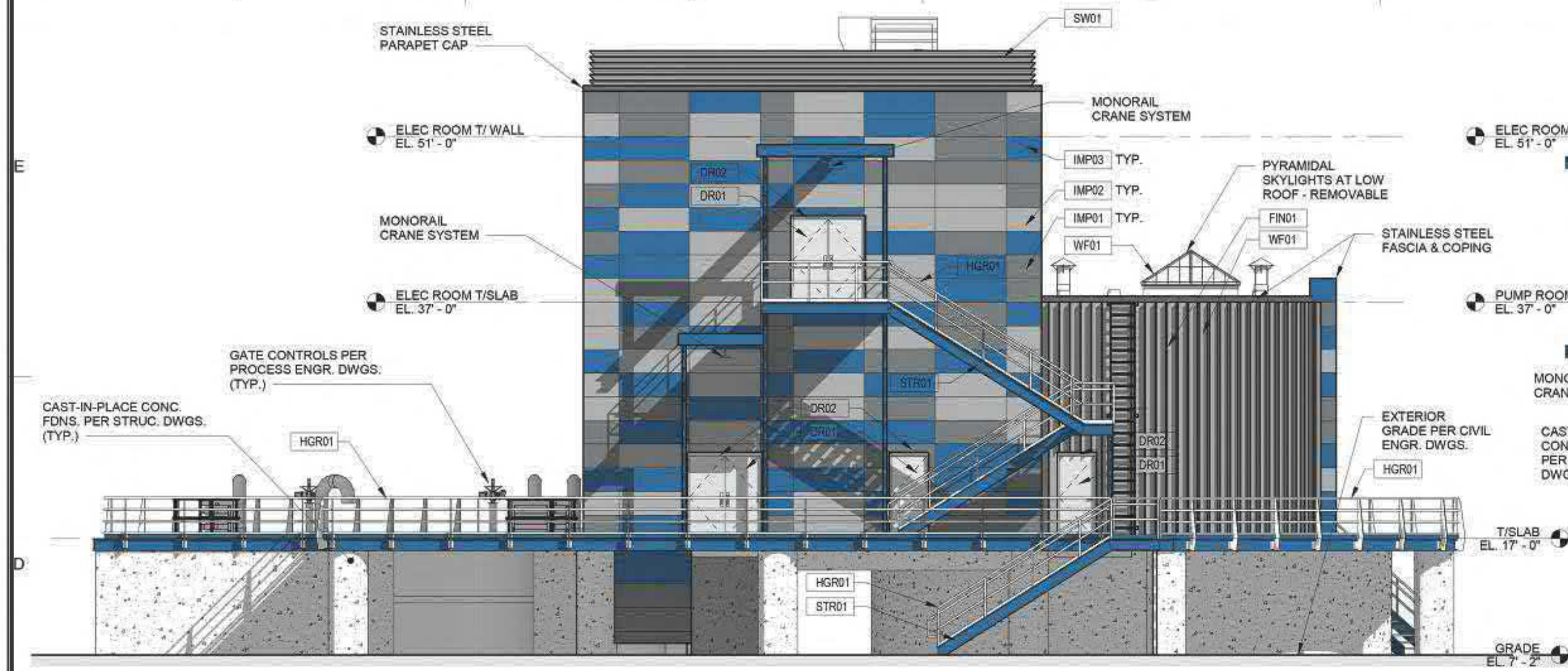
BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
ARCHITECTURE
ROOF PLAN

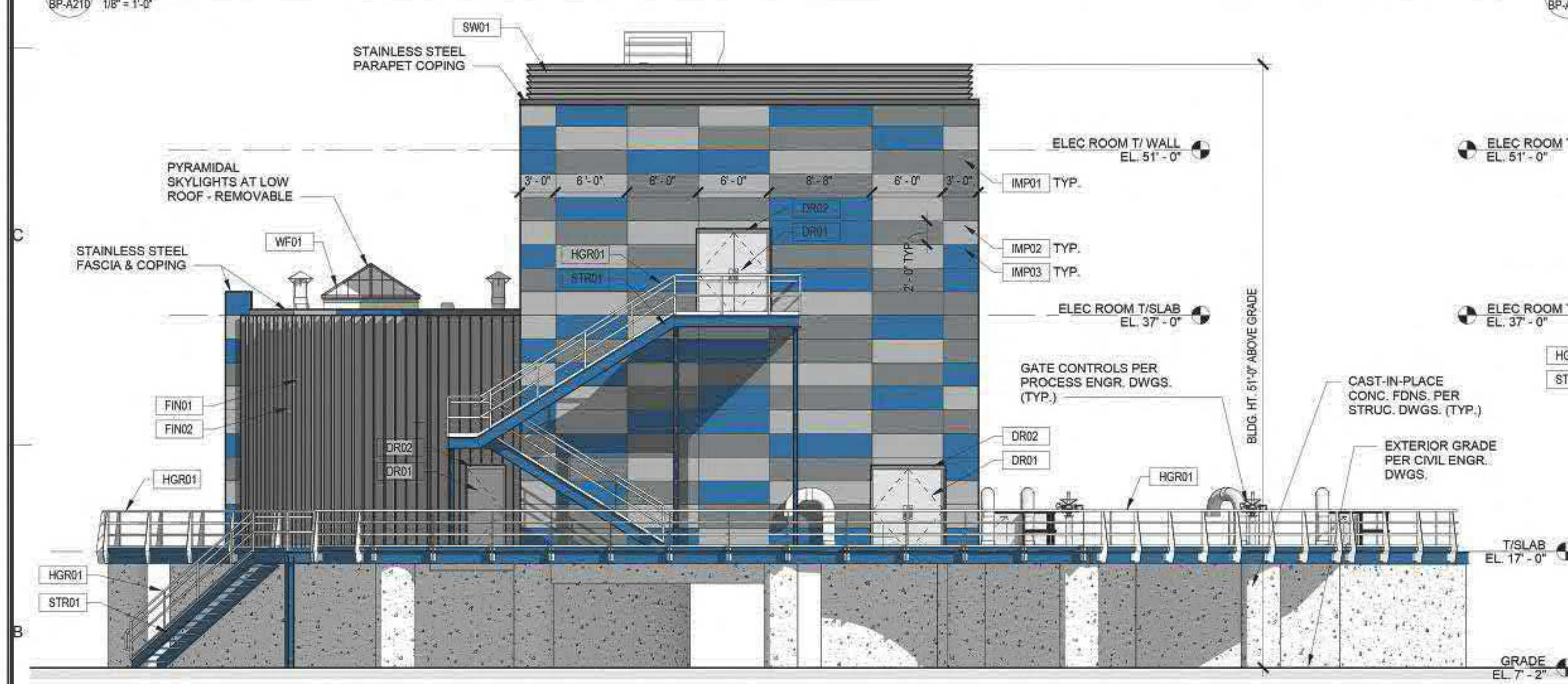
SCALE: AS NOTED

BP-A104

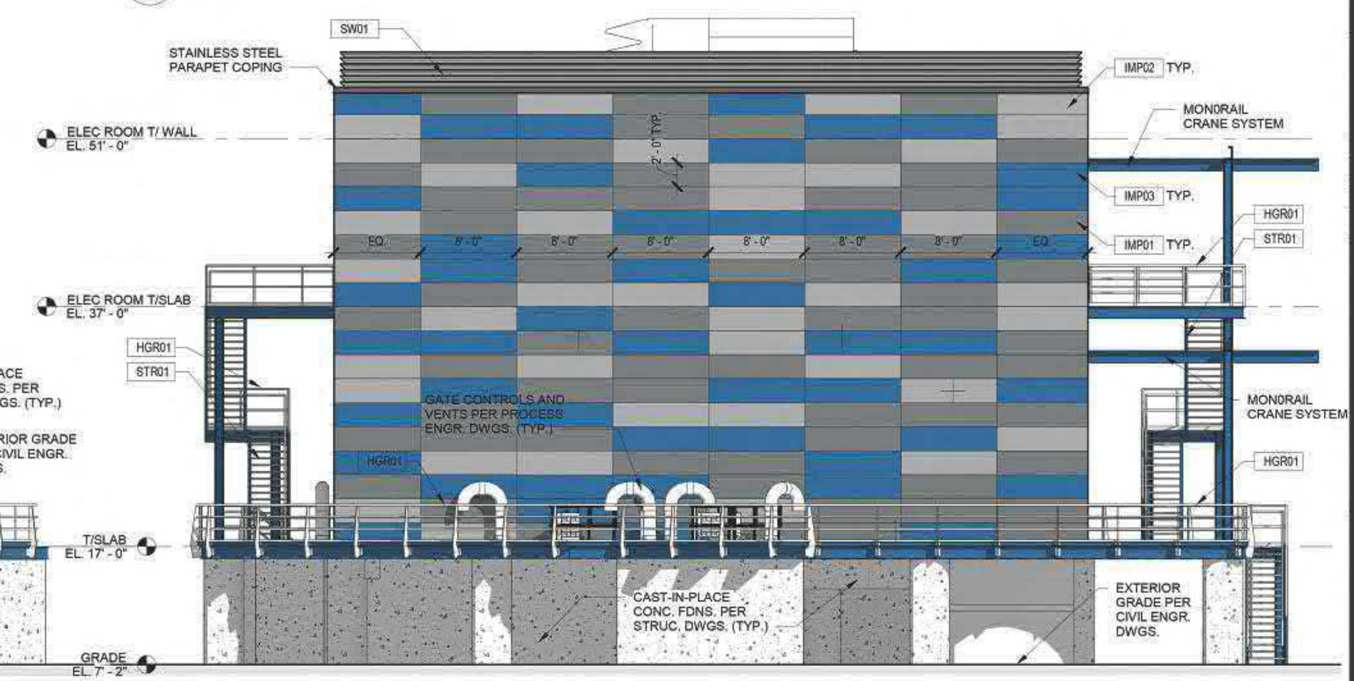


2 BP-A210 FINISH EXTERIOR ELEVATION - WEST FACING
1/8" = 1'-0"

1 BP-A210 FINISH EXTERIOR ELEVATION - SOUTH FACING
1/8" = 1'-0"



4 BP-A210 FINISH EXTERIOR ELEVATION - EAST FACING
1/8" = 1'-0"



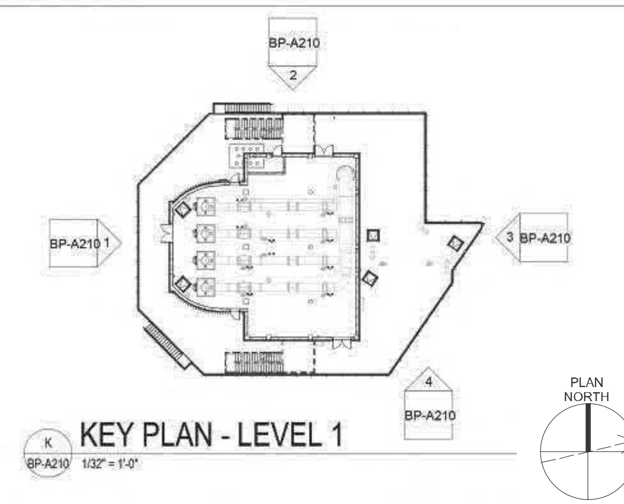
3 BP-A210 FINISH EXTERIOR ELEVATION - NORTH FACING
1/8" = 1'-0"

EXTERIOR MATERIAL AND FINISH SELECTION SCHEDULE

THE MATERIALS AND COLORS LISTED BELOW ARE PART OF THE BAY PARK APPROVED COLOR SCHEME, AND SHALL BE CONSIDERED MANDATORY, WHEREVER THE FINAL DESIGN BY THE DESIGN-BUILDER MAY REQUIRE EACH OF THEM TO BE APPLIED.

TAG	SPEC	BUILDING COMPONENT	MATERIAL/COLOR/FINISH	FEDERAL STANDARD 595C COLOR
IMP01	074213.19	INSULATED METAL PANEL SIDING	STAINLESS STEEL/COATING/MEDIUM GRAY (RGB 797F7F)	16270
IMP02			STAINLESS STEEL/COATING/AIRCRAFT GRAY (RGB 9EA2A3)	16473
IMP03			STAINLESS STEEL/COATING/CFV10300 BLUE	15092
MP01	074213	METAL PANEL SIDING	STAINLESS STEEL/POWDER COAT/CFV10300 BLUE	15092
MTL01	077100	METAL CANOPY/COPINGS/TRIM	STAINLESS STEEL NO. 4 FINISH - 16 GAUGE	----
DR01	081613	DOORS	FIBERGLASS/WHITE/PEBBLE	----
DR02	081119	DOOR FRAMES	STAINLESS STEEL NO. 4 FINISH	----
WF01	084523	SKYLIGHT WINDOW FRAME	ALUMINUM/POWDER COAT/9946 SILVERSMITH	17178
FIN01	055000	VERTICAL FEATURE FINS	STAINLESS STEEL NO. 4 FINISH - 16 GAUGE	----
FIN02	055000	VERTICAL FIN SUPPORTS	EPOXY/CFV10300 BLUE	15092
STL01	055000	EXTERIOR EXPOSED BUILDING STEEL	EPOXY PAINT/CFV10300 BLUE	15092
SW01		SCREENWALL LOUVER/BLADES	ALUMINUM/POWDER COAT/BRIGHT SILVER - SRI 52 - AL222	17178
STR01	055119	EGRESS STAIR	EPOXY/CFV10300 BLUE, W/STAINLESS TREADS	13538
HGR01	055213	ALUMINUM HANDRAILS/GUARDRAILS	POWDER COAT/7040 BY CODY BUILDER SUPPLY	26373

http://www.fed-std-595.com/FS-595-Paint-Spec.html



K BP-A210 KEY PLAN - LEVEL 1
1/32" = 1'-0"

wsp

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DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-3SB116-03CR
FILE NAME: BP-A210
DESIGNED BY: M. BRAY
DRAWN BY: M. BRAY
CHECKED BY: S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION
EXTERIOR FINISH ELEVATIONS

SCALE: AS NOTED

BP-A210

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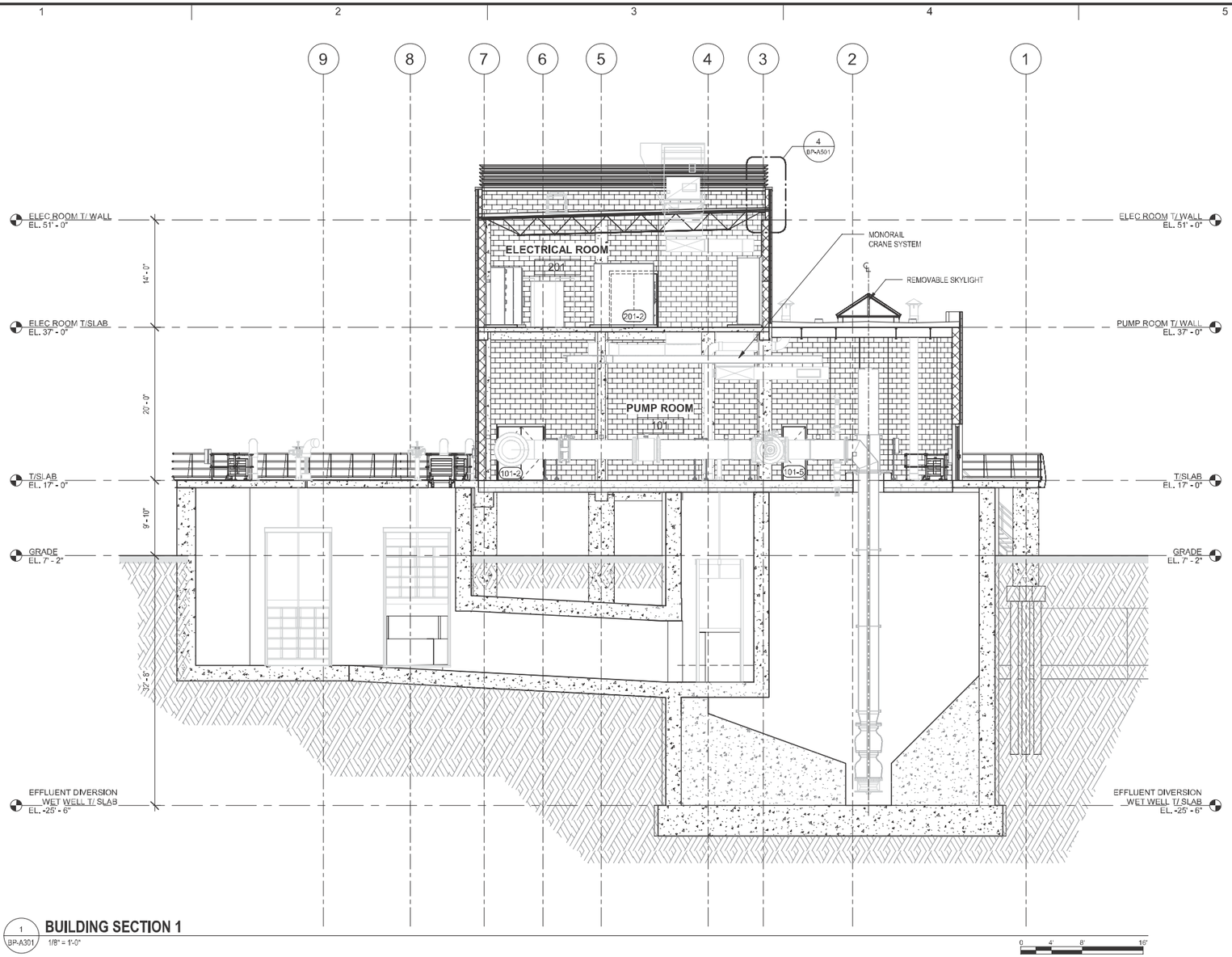
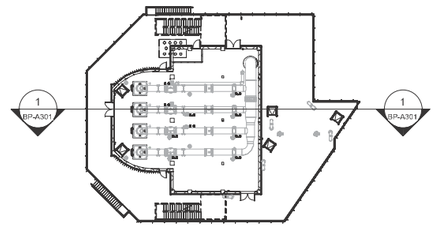


1 BP-A301 **BUILDING SECTION 1**
1/8" = 1'-0"



2 BP-A301 **KEY PLAN - LEVEL 1**
1/32" = 1'-0"

PLAN NORTH

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

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FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-3SB116-03CR
FILE NAME:	BP-A301
DESIGNED BY:	M. BRAY
DRAWN BY:	M. BRAY
CHECKED BY:	S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
ARCHITECTURE
BUILDING SECTION

SCALE:
AS NOTED

BP-A301

PAGE 25

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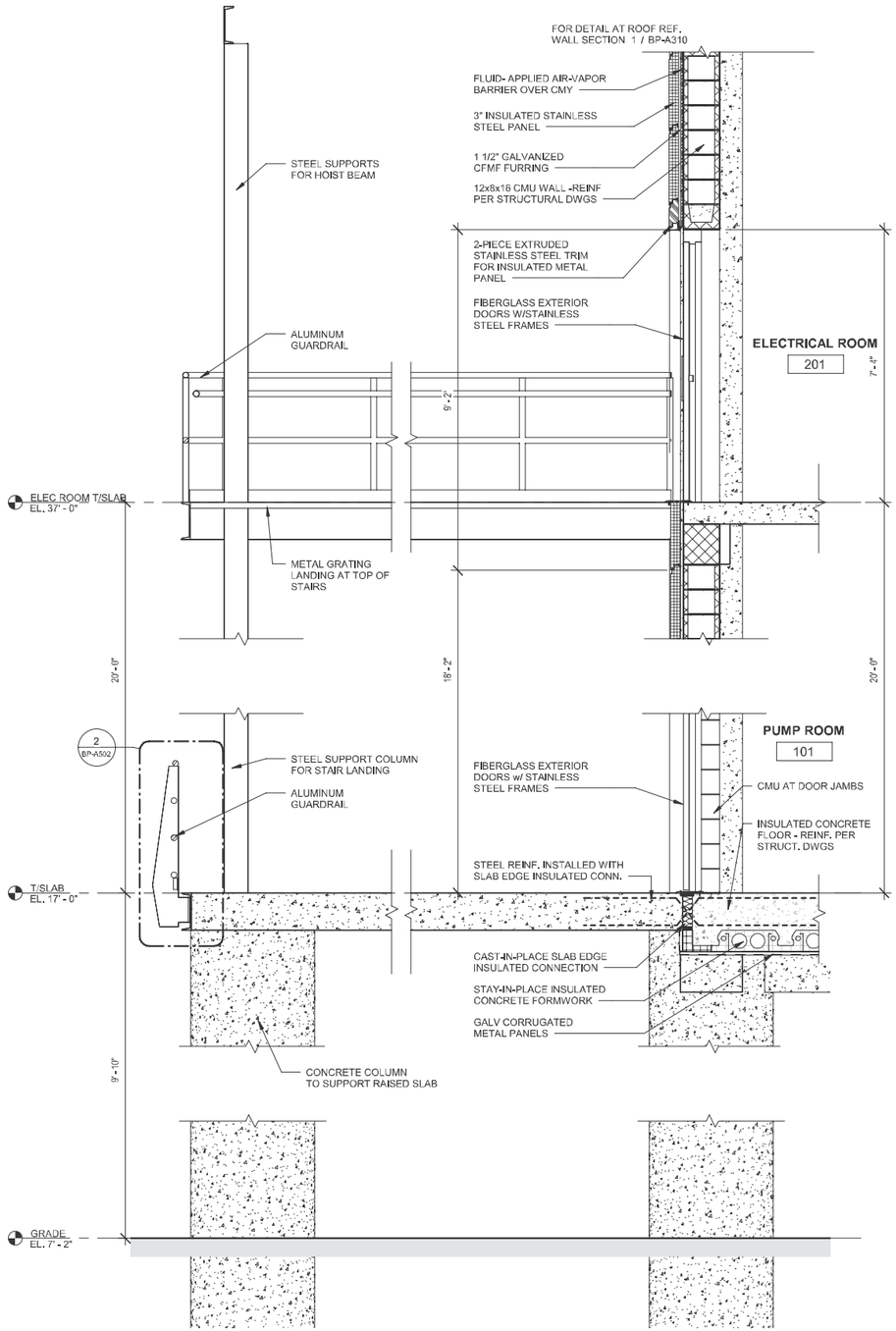
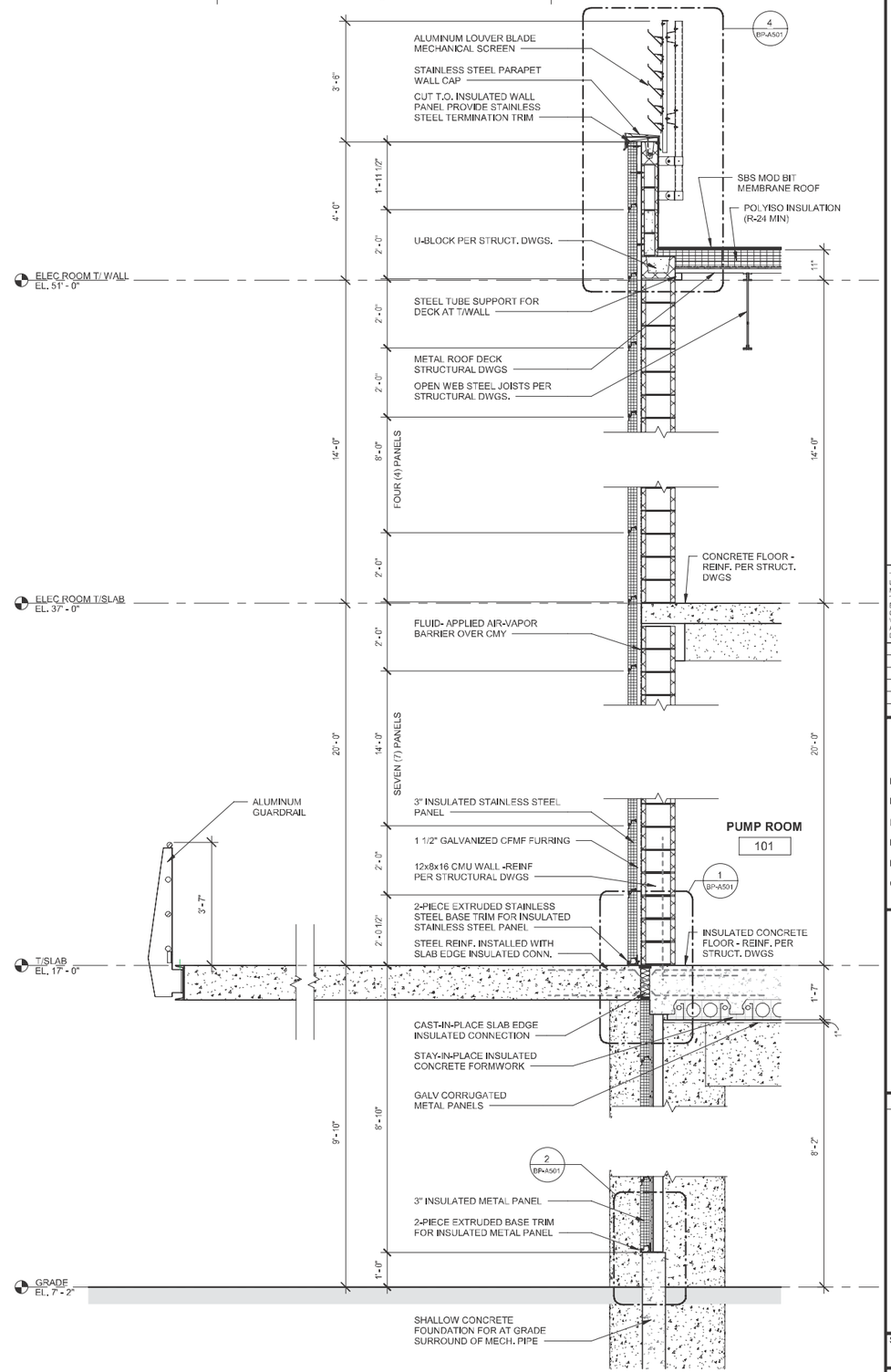


2 BP-A310 **WALL SECTION - NORTH WALL @ DOORS**
1/2" = 1'-0"



1 BP-A310 **WALL SECTION - NORTH WALL**
1/2" = 1'-0"

WSP
FoitAlbert ASSOCIATES

PRELIMINARY
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DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-3SB116-03CR
FILE NAME:	BP-A310
DESIGNED BY:	M. BRAY
DRAWN BY:	M. BRAY
CHECKED BY:	S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

ARCHITECTURE
WALL SECTIONS

SCALE: AS NOTED

BP-A310

PAGE 26

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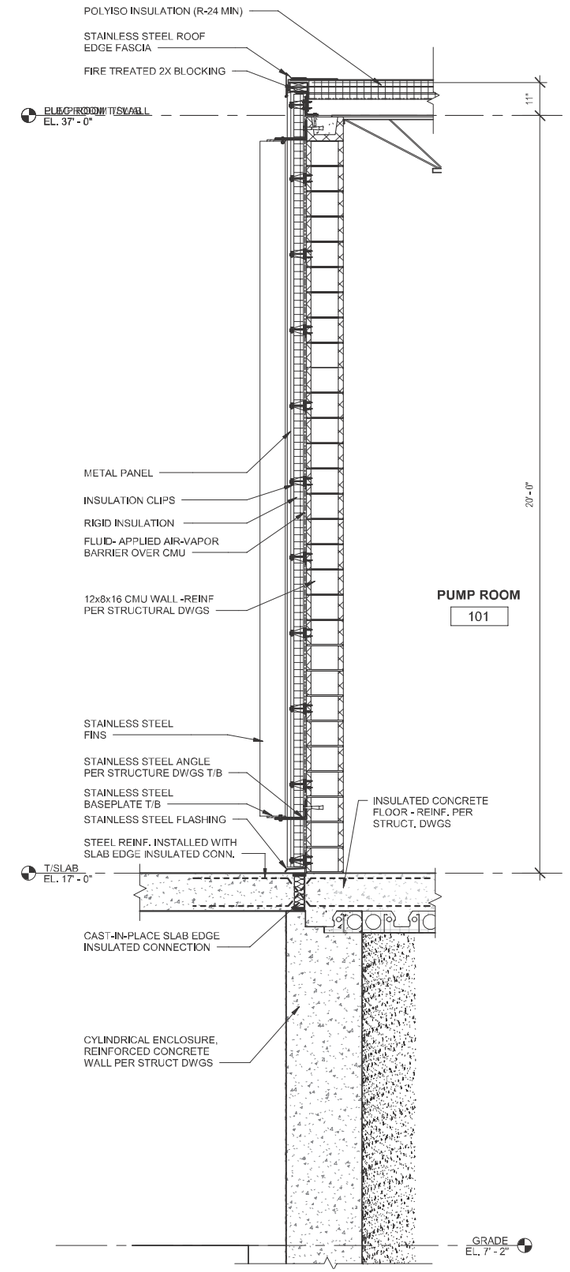

1 / BP-A311 **WALL SECTION - NORTH WALL @ WET WELL**

1/2" = 1'-0"

wsp

FoitAlbert ASSOCIATES

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CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-3SB116-03CR
FILE NAME: BP-A311
DESIGNED BY: M. BRAY
DRAWN BY: M. BRAY
CHECKED BY: S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

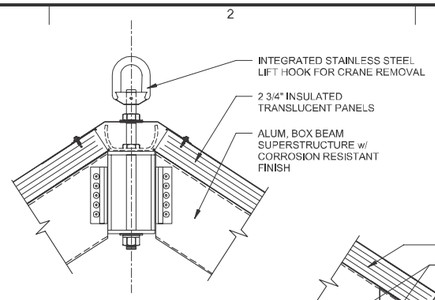
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

ARCHITECTURE
WALL SECTIONS

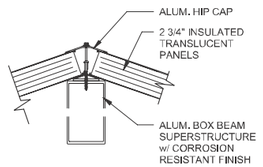
SCALE: AS NOTED

BP-A311



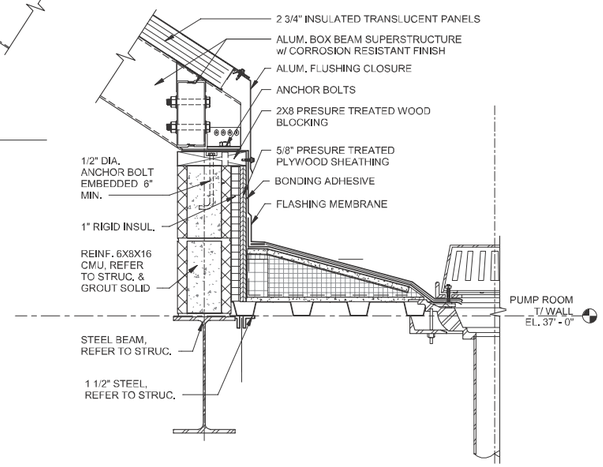
SKYLIGHT PEAK DETAIL

4 / BP-A401 — 1 1/2" = 1'-0"



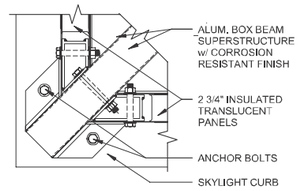
SKYLIGHT HIP DETAIL

2 / BP-A401 — 1 1/2" = 1'-0"



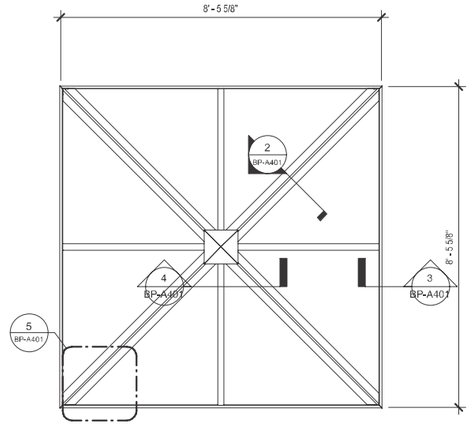
SKYLIGHT CURB DETAIL

3 / BP-A401 — 1 1/2" = 1'-0"



SKYLIGHT CORNER PLAN DETAIL

5 / BP-A401 — 1 1/2" = 1'-0"



ENLARGED SKYLIGHT PLAN

1 / BP-A401 — 1/2" = 1'-0"

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DATE: 10/2019

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FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-3SB116-03CR
FILE NAME: BP-A401
DESIGNED BY: M. BRAY
DRAWN BY: F. WONG
CHECKED BY: S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
ENLARGED PLANS

SCALE: AS NOTED

BP-A401

PAGE 28

Scale: Saved Date: 11/12/2019 11:56:32 AM Plot Date: 11/12/2019 11:56:32 AM
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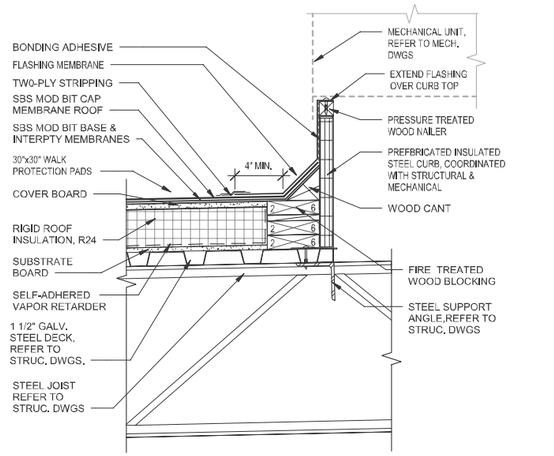
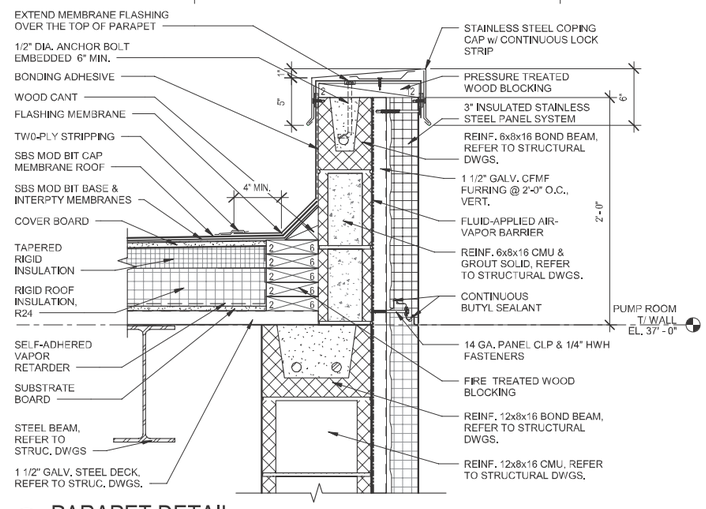


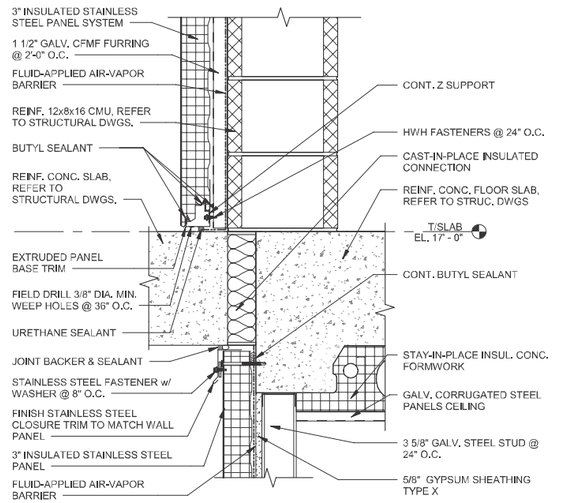
5 BP-A501 1 1/2" = 1'-0"

MECHANICAL CURB DETAIL



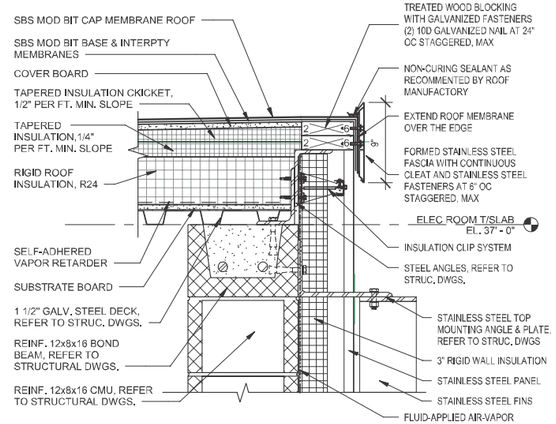
3 BP-A501 1 1/2" = 1'-0"

PARAPET DETAIL



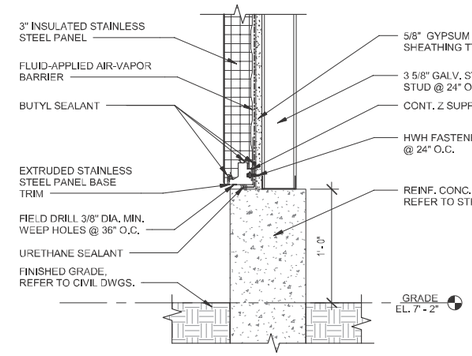
1 BP-A501 1 1/2" = 1'-0"

WALL/ DECK DETAIL



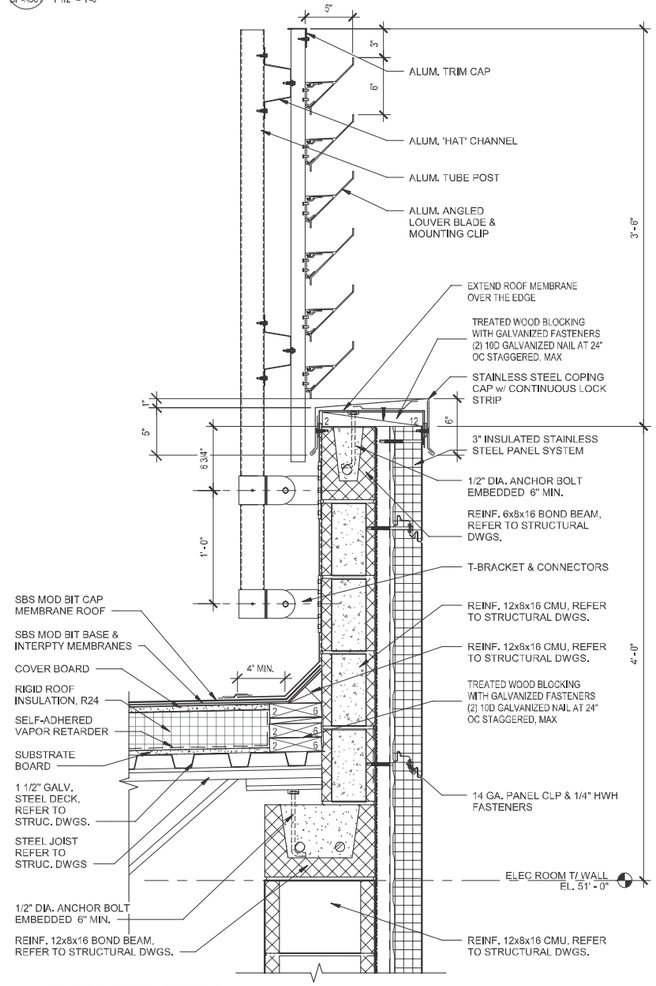
6 BP-A501 1 1/2" = 1'-0"

FASCIA DETAIL



2 BP-A501 1 1/2" = 1'-0"

EXT. WALL BASE DETAIL



4 BP-A501 1 1/2" = 1'-0"

PARAPET DETAIL

WSP

FoitAlbert ASSOCIATES

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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PROJECT NO.:	PW-3SB116-03CR
FILE NAME:	BP-A501
DESIGNED BY:	M. Bray
DRAWN BY:	F. Wong
CHECKED BY:	S. Archambault

NASSAU COUNTY, NEW YORK

DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

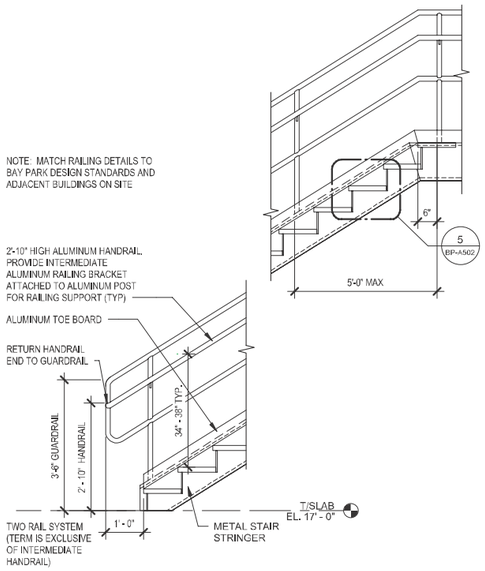
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

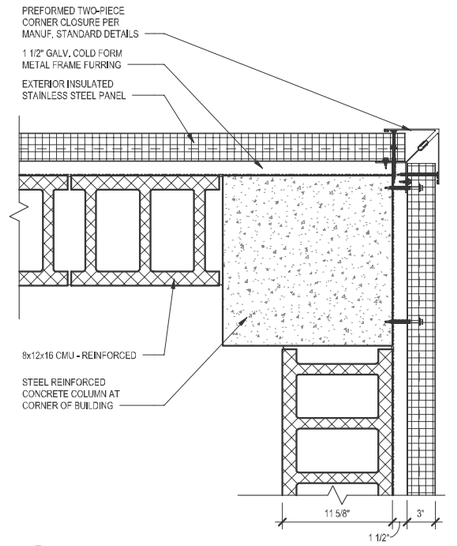
DETAILS

SCALE: AS NOTED

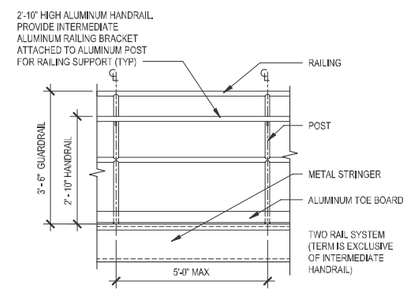
BP-A501



3 BP-A502 **STAIR RAILING END DETAIL**
1/2" = 1'-0"



1 BP-A502 **HORIZ. SECTION - CORNER**
1 1/2" = 1'-0"



4 BP-A502 **STAIR LANDING RAILING DETAIL**
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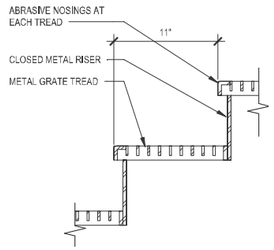
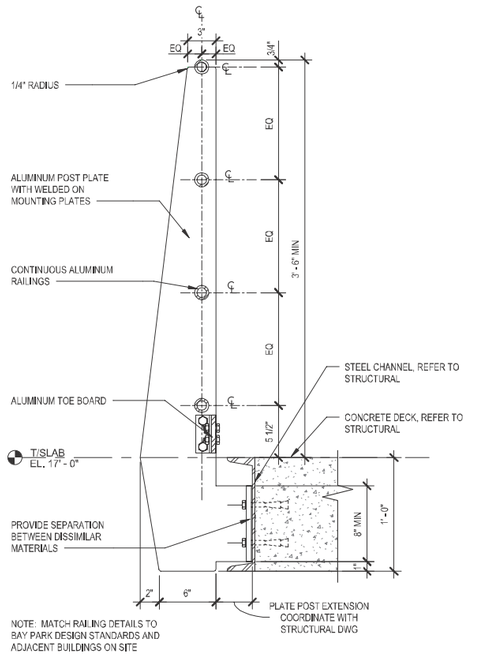


5 BP-A502 **STAIR TREAD/RISER DETAIL**
1 1/2" = 1'-0"



2 BP-A502 **RAIL SYSTEM SIDE MOUNT DETAIL**
1 1/2" = 1'-0"

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-3SB116-03CR
FILE NAME:	BP-A502
DESIGNED BY:	M. BRAY
DRAWN BY:	F. WONG
CHECKED BY:	S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM
MANAGEMENT EFFLUENT
DIVERSION PUMPING
STATION

SHEET TITLE

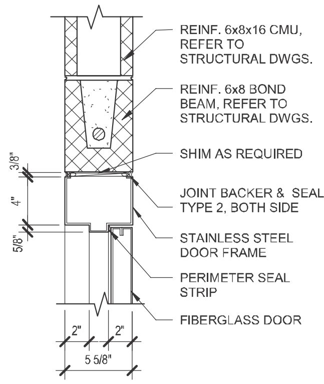
BAY PARK
EFFLUENT DIVERSION
PUMP STATION
DETAILS

SCALE:
AS NOTED

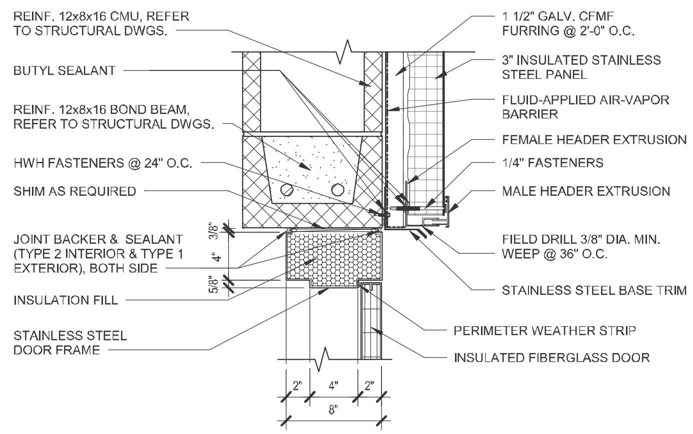
BP-A502

DOOR AND FRAME SCHEDULE

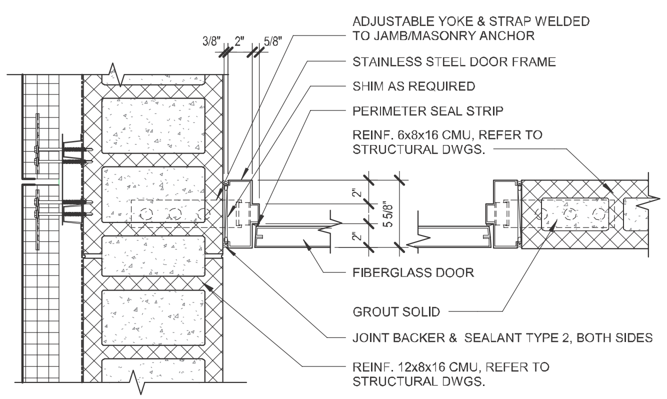
DOOR NO	ROOM NO	ROOM NAME (TO/FROM)	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME ANCHORS	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	FIRE RATING	HARDWARE SET NO	HARDWARE HAND	HARDWARE KEY SIDE	REMARKS	DOOR NO
101-1	101	EXTERIOR/ PUMP ROOM	6'-0"	7'-0"	1 3/4"	D1	FIB	PEBBLE/ WHITE	F1	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	5/BP-A601	-	-	RH	-		101-1
101-2	101	EXTERIOR/ PUMP ROOM	6'-0"	7'-0"	1 3/4"	D1	FIB	PEBBLE/ WHITE	F1	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	5/BP-A601	-	-	LH	-		101-2
101-3	101	EXTERIOR/ PUMP ROOM	6'-0"	7'-0"	1 3/4"	D1	FIB	PEBBLE/ WHITE	F1	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	5/BP-A601	-	-	RH	-		101-3
101-4	101	EXTERIOR/ PUMP ROOM	3'-0"	7'-0"	1 3/4"	D2	FIB	PEBBLE/ WHITE	F2	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	5/BP-A601	-	-	LH	-		101-4
101-5	101	EXTERIOR/ PUMP ROOM	3'-0"	7'-0"	1 3/4"	D2	FIB	PEBBLE/ WHITE	F2	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	5/BP-A601	-	-	RH	-		101-5
102-1	102	EXTERIOR/ WATER SERVICE	3'-0"	7'-0"	1 3/4"	D2	FIB	PEBBLE/ WHITE	F2	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	5/BP-A601	-	-	LH	-		102-1
201-1	201	EXTERIOR/ ELECTRICAL ROOM	6'-0"	7'-0"	1 3/4"	D1	FIB	PEBBLE/ WHITE	F1	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	6/BP-A601	-	-	LH	-		201-1
201-2	201	EXTERIOR/ ELECTRICAL ROOM	6'-0"	7'-0"	1 3/4"	D1	FIB	PEBBLE/ WHITE	F1	S.S.	NO. 4 FINISH	-	4/BP-A601	7/BP-A601	6/BP-A601	-	-	LH	-		201-2
202-1	202	ELECTRICAL ROOM/ BATTERY ROOM	3'-0"	7'-0"	1 3/4"	D2	FIB	PEBBLE/ WHITE	F2	S.S.	NO. 4 FINISH	-	8/BP-A601	9/BP-A601	-	-	-	LH	-		202-1



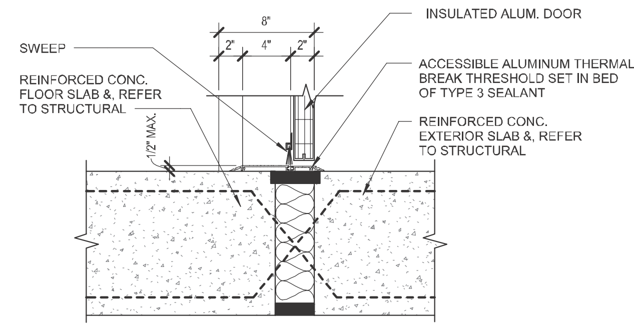
8 BP-A601 DOOR HEAD DETAIL
1 1/2" = 1'-0"



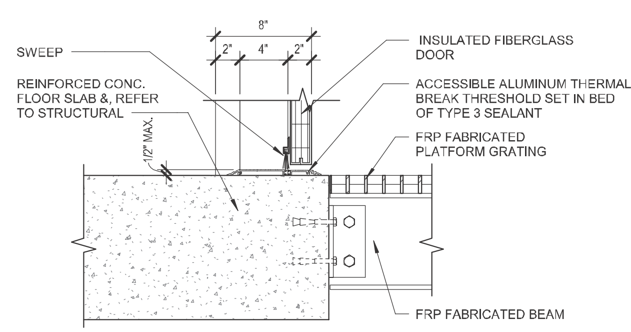
4 BP-A601 DOOR HEAD DETAIL
1 1/2" = 1'-0"



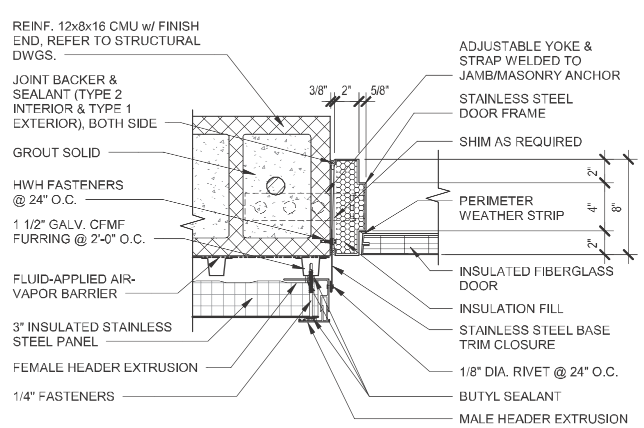
9 BP-A601 DOOR JAMB DETAIL
1 1/2" = 1'-0"



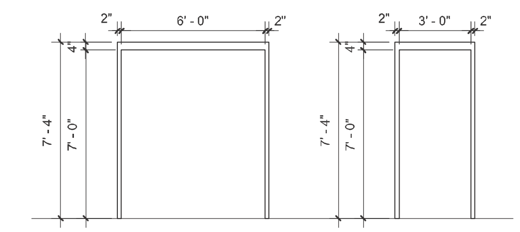
5 BP-A601 DOOR THRESHOLD DETAIL
1 1/2" = 1'-0"



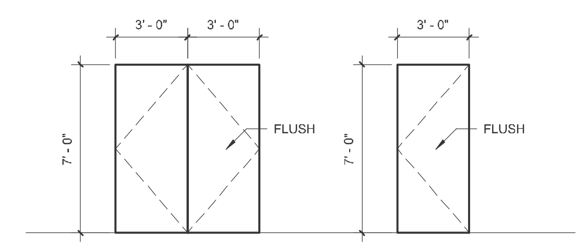
6 BP-A601 DOOR THRESHOLD DETAIL
1 1/2" = 1'-0"



7 BP-A601 DOOR JAMB DETAIL
1 1/2" = 1'-0"



2 BP-A601 DOOR FRAME TYPE
1/4" = 1'-0"



3 BP-A601 DOOR TYPE
1/4" = 1'-0"

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-3SB116-03CR
FILE NAME:	BP-A601
DESIGNED BY:	M. BRAY
DRAWN BY:	F. WONG
CHECKED BY:	S. ARCHAMBAULT

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

BAY PARK PROGRAM MANAGEMENT EFFLUENT DIVERSION PUMPING STATION

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

DOOR AND FRAME SCHEDULE, TYPES AND DETAILS

SCALE: AS NOTED

BP-A601

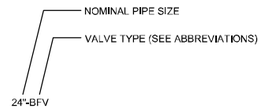
GENERAL MECHANICAL NOTES (APPLY TO ALL MECHANICAL DRAWINGS)

1. REFER TO APPLICABLE TECHNICAL SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
2. COUPLINGS SHOWN ON THE DRAWINGS ARE REQUIRED FOR REMOVAL OF EQUIPMENT AND PIPING BY THE OWNER AFTER COMPLETION OF THE WORK. ADDITIONAL COUPLINGS MAY BE REQUIRED TO FACILITATE INSTALLATION BY THE DESIGN/BUILD CONTRACTOR.
3. PROVIDE HARNESSING FOR ALL COUPLINGS, UNLESS OTHERWISE INDICATED.
4. IN GENERAL, SMALL DIAMETER PIPING (I.E., 2-1/2" AND SMALLER) IS SHOWN FOR GENERAL LAYOUT PURPOSES ONLY, AND IS NOT INTENDED TO SHOW EXACT ALIGNMENT, NUMBER OF FITTINGS, VALVES AND APPURTENANCES. ALL PIPING, FITTINGS AND APPURTENANCES SHALL BE PROVIDED AS SPECIFIED OR SHOWN ON APPLICABLE DRAWINGS AND DIAGRAMS, AND AS REQUIRED FOR A COMPLETE INSTALLATION. ACTUAL PIPE ROUTING SHALL BE DETERMINED BY THE DESIGN/BUILD CONTRACTOR SUBJECT TO REVIEW BY THE OWNER'S AGENT, AND SHALL BE COORDINATED TO AVOID CONFLICTS WITH EXISTING AND NEW WORK OF ELECTRICAL, HVAC AND PLUMBING SYSTEMS, AND SO AS NOT TO INTERFERE WITH ACCESS TO OR OPERATION OF ANY OTHER PIPE, VALVE OR EQUIPMENT. SMALL DIAMETER PIPING SYSTEMS SHALL BE LAID OUT AND INSTALLED IN AN ORGANIZED, NEAT AND WORKMANLIKE MANNER.
5. PIPE SIZES SHOWN MAY NOT BE THE SAME AS SIZES OF CONNECTIONS TO THE EQUIPMENT SUPPLIED. PROVIDE ALL NECESSARY REDUCERS, BUSHINGS AND APPURTENANCES REQUIRED TO MAKE EQUIPMENT CONNECTIONS.
6. REPAIR INTERIOR AND EXTERIOR PIPE COATINGS DAMAGED DURING INSTALLATION.
7. DESIGN/BUILD CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK TO DESIGN PIPE SUPPORT SYSTEMS FOR ALL PIPING PROVIDED UNDER THIS PROJECT. PIPE SUPPORT SYSTEMS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS BASED ON THE PIPING LAYOUT DESIGNED AND PROVIDED BY THE DESIGN/BUILD CONTRACTOR AND AS APPROVED BY THE OWNER'S AGENT.
8. SEE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, HVAC AND PLUMBING DRAWINGS FOR RELATED INSTALLATIONS TO BE PERFORMED UNDER THIS PROJECT AND COORDINATE ALL INSTALLATION WORK.
9. PROVIDE NEW GASKETS AND HARDWARE AT ALL CONNECTIONS BETWEEN NEW AND EXISTING PIPING AND AT ALL PIPE JOINTS DISASSEMBLED IN CONNECTION WITH THIS PROJECT.

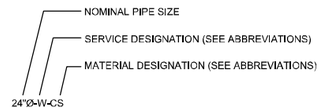
GENERAL DEMOLITION NOTES:

1. SEE STRUCTURAL, ELECTRICAL, HVAC AND PLUMBING DRAWINGS FOR RELATED REMOVALS AND DEMOLITION TO BE PERFORMED UNDER THIS PROJECT AND COORDINATE ALL DEMOLITION WORK.
2. ALL DEMOLITION SHOWN ON DRAWINGS SHALL BE PERFORMED BY THE DESIGN/BUILD CONTRACTOR.
3. ALL WALL, FLOOR AND ROOF OPENINGS RESULTING FROM DEMOLITION WORK SHALL BE PROPERLY SEALED. FIREWALL PENETRATIONS SHALL BE SEALED TO MAINTAIN APPROPRIATE FIRE RATING. BELOW GRADE AND WET AREA PENETRATIONS SHALL BE SEALED WATERTIGHT.
4. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL MATERIALS REMOVED OR DEMOLISHED UNDER THIS PROJECT SHALL BE LEGALLY DISPOSED OF OFF-SITE BY THE DESIGN/BUILD CONTRACTOR. WHERE SPECIFICALLY REQUESTED, CERTAIN ITEMS OF EQUIPMENT SHALL BE TURNED OVER TO OWNER.
5. SCHEDULE AND SEQUENCE OF REMOVAL AND DEMOLITION WORK SHALL BE IN ACCORDANCE WITH CONSTRAINTS STIPULATED IN THE FINAL DESIGN CRITERIA DOCUMENTS.
6. UNLESS OTHERWISE NOTED, FOR EXISTING MECHANICAL EQUIPMENT INDICATED FOR REMOVAL, REMOVAL SHALL INCLUDE DEMOLITION OF EXISTING ANCHOR BOLTS AND CONCRETE BASE PAD, AND REPAIR OF CONCRETE FLOOR TO MATCH CONDITION OF SURROUNDING FLOOR.
7. UNLESS OTHERWISE NOTED, REMOVAL OF EXISTING INTERIOR PIPING SYSTEMS SHALL INCLUDE REMOVAL OF INSULATION, HANGERS, SUPPORTS, ANCHORS, FIXTURES AND ACCESSORIES. ANY EMBEDDED HARDWARE OR ANCHORS SHALL BE CUT FLUSH WITH WALL, FLOOR OR SLAB SURFACE AND PATCHED APPROPRIATELY.
8. OWNER'S AGENT WILL IDENTIFY EQUIPMENT TO BE SALVAGED. CONTRACTOR SHALL REMOVE AND PROTECT EQUIPMENT TO BE SALVAGED AND DELIVER TO OWNER. DESIGN/BUILD CONTRACTOR SHALL SECURE AND STORE EQUIPMENT UNTIL OWNER CAN TAKE DELIVERY.
9. FOR CLARITY, EXISTING FACILITIES AND PIPING ARE GENERALLY SHOWN LIGHT. NEW FACILITIES AND PIPING ARE GENERALLY SHOWN HEAVY.
10. THE DESIGN/BUILD CONTRACTORS SHALL COORDINATE EXISTING EQUIPMENT REMOVALS TO ENSURE THAT ALL EQUIPMENT IS ELECTRICALLY DISCONNECTED PRIOR TO DEMOLITION.

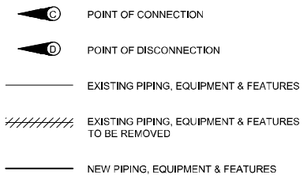
TYPICAL VALVE IDENTIFICATION



TYPICAL PIPING IDENTIFICATION



LEGEND



MECHANICAL ABBREVIATIONS

PIPING SERVICE IDENTIFICATION

CA	COMPRESSED AIR
D/W	DRAIN/WASTE
DCW	DOMESTIC COLD WATER
EFF	PLANT EFFLUENT
HPA	HIGH PRESSURE AIR
HW	HOT WATER, POTABLE
INF	PLANT INFLUENT
LPA	LOW PRESSURE AIR
NPW	NON-POTABLE WATER
PW	PLANT WATER
RW	RAW WATER
SAN	SANITARY SEWER
SAW	SAMPLE WATER
ST	STORM SEWER
TW	TEMPERED WATER
V	VENT
WW	WASTE WATER

VALVES

AVV	AIR/VACUUM VALVE
ARV	AIR RELEASE VALVE
BV	BALL VALVE
BFV	BUTTERFLY VALVE
CV	CHECK VALVE
GV	GATE VALVE
NV	NEEDLE VALVE
PDCV	PUMP DISCHARGE CONTROL VALVE
PV	PINCH VALVE
PRV	PRESSURE REGULATING VALVE
PRLV	PRESSURE RELIEF VALVE
PLV	PLUG VALVE
RPZ	REDUCED PRESSURE ZONE/BACKFLOW PREVENTOR
WSAV	WELL SERVICE AIR VALVE

MISCELLANEOUS

B/	BOTTOM OF
BI	BLACK IRON
BOP	BOTTOM OF PIPE
CI	CAST IRON
CONC.	CONCRETE OR CONCENTRIC
CORP.	CORPORATION STOP
CL	CENTERLINE
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
DWGS.	DRAWINGS
ECC.	ECCENTRIC
EL.	ELEVATION
ELEC.	ELECTRIC OR ELECTRICAL
EXIST.	EXISTING
FLG.	FLANGED
FRP	FIBERGLASS REINFORCED PLASTIC
FOT	FLAT ON TOP
GALV.	GALVANIZED
HP	HIGH POINT
ID	INTERNAL DIAMETER
INV.	INVERT
LP	LOW POINT
MH	STORM MANHOLE
MJ	MECHANICAL JOINT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O.C.	ON CENTER
O/F	OVERFLOW
PE	PLAIN END
PO	PUSH ON
RED.	REDUCING OR REDUCER
RJ	RESTRAINED JOINT
SG	SLUICE GATE OR SLIDE GATE
SS	STAINLESS STEEL (PIPING)
ST. STL.	STAINLESS STEEL (OTHER THAN PIPING)
SMH	SANITARY MANHOLE
TYP.	TYPICAL
T/	TOP OF
T-O-L	THREAD-O-LET
TURB.	TURBIDITY
W/	WITH
W-O-L	WELD-O-LET

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL RELEASED FOR CONSTRUCTION SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-M001
DESIGNED BY: A. STEINHAUER
DRAWN BY: T. LARAMAY
CHECKED BY: A. STEIN HAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

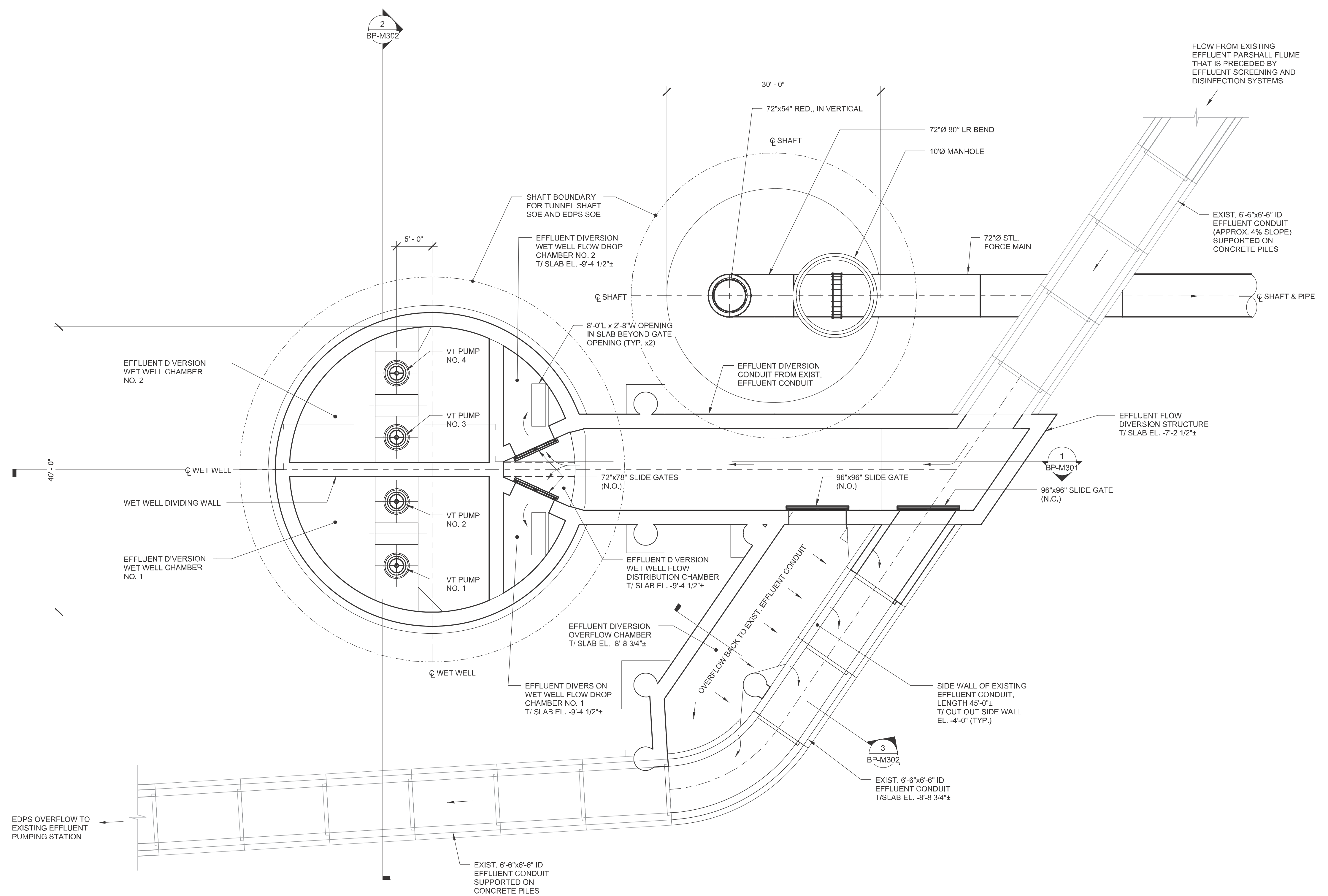
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

GENERAL NOTES, SYMBOLS & ABBREVIATIONS

SCALE: NOT TO SCALE

BP-M001



EFFLUENT DIVERSION PUMPING STATION (VERTICAL TURBINE PUMPS IN CIRCULAR WET WELL) ELEVATION -5'-0" PLAN

1/8" = 1'-0"

0 4' 8' 16'

PLANT NORTH

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-M101
DESIGNED BY: L. REID
DRAWN BY: T. LARAMAY
CHECKED BY: A. STEINHAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

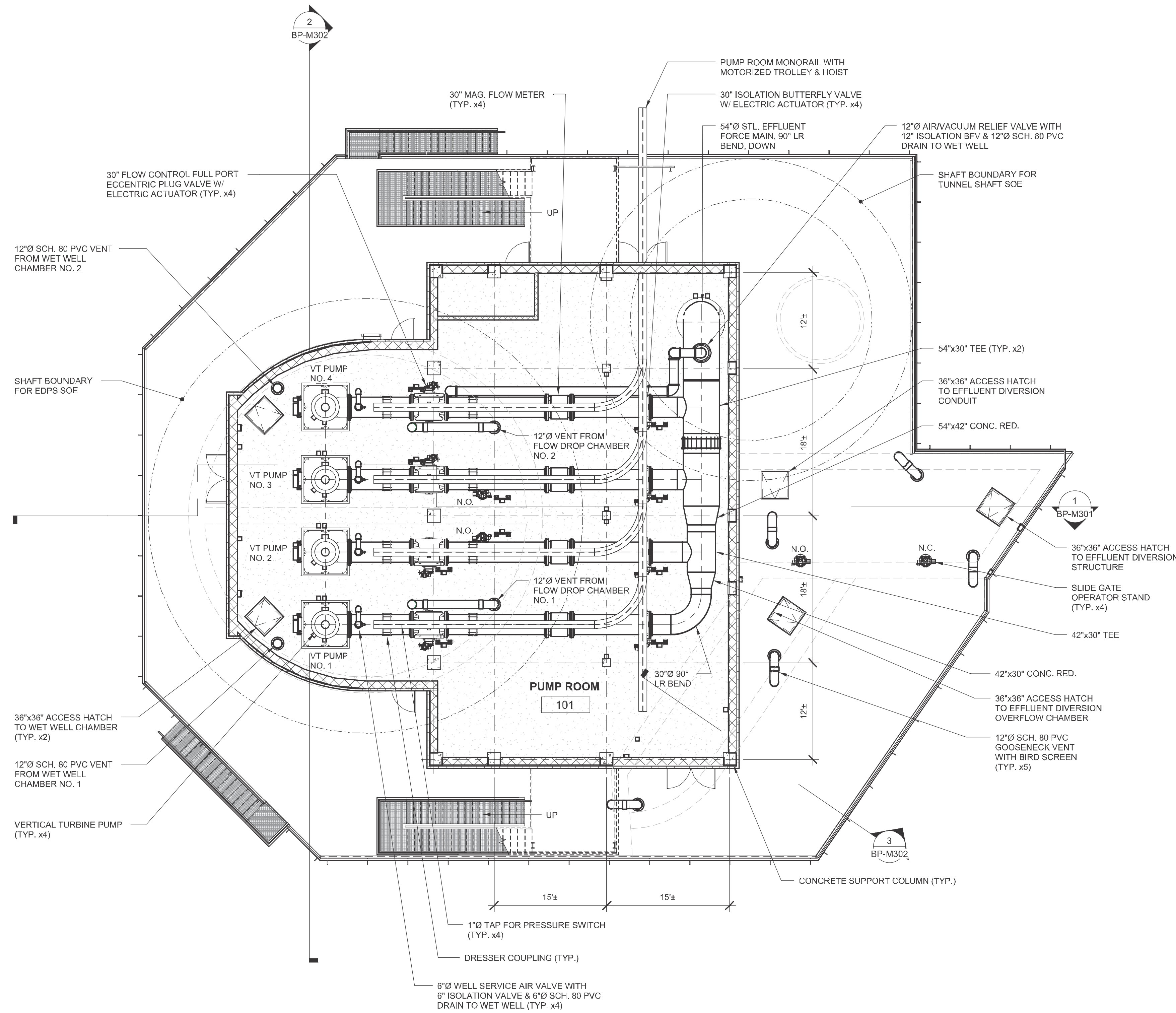
BAY PARK EFFLUENT DIVERSION PUMP STATION

EFFLUENT DIVERSION PUMPING STATION ELEVATION -5'-0" PLAN

SCALE: AS SHOWN

BP-M101

Scale: AS SHOWN Saved Date: 12/9/2019 2:41:58 PM Plot Date: 12/9/2019 2:41:58 PM



EFFLUENT DIVERSION PUMPING STATION (VERTICAL TURBINE PUMPS IN CIRCULAR WET WELL) ELEVATION 23'-0" PLAN

1/8" = 1'-0"

PLANT NORTH

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-M102
DESIGNED BY:	L. REID
DRAWN BY:	T. LARAMAY
CHECKED BY:	A. STEINHAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

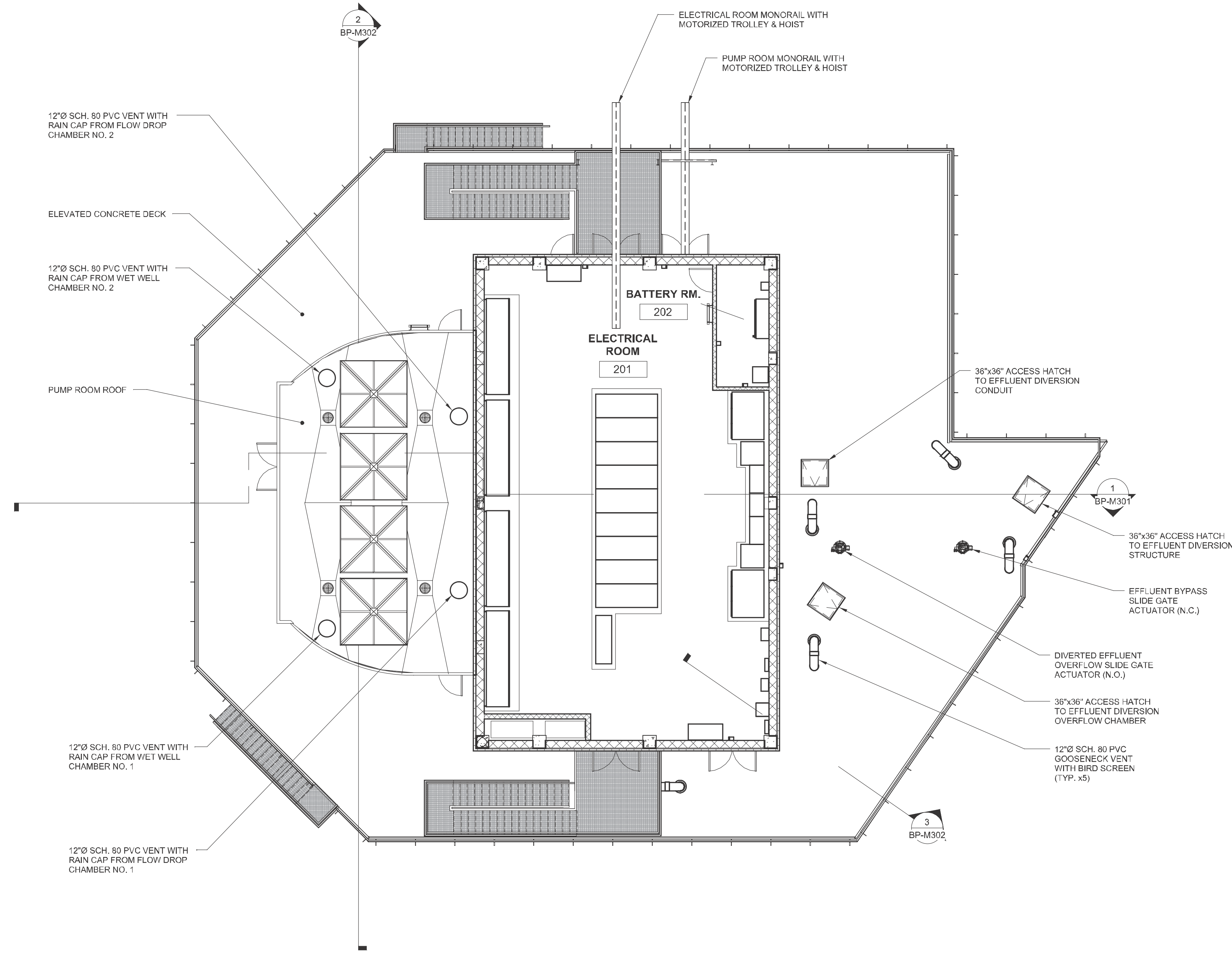
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

EFFLUENT DIVERSION PUMPING STATION ELEVATION 23'-0" PLAN

SCALE: AS SHOWN

BP-M102



EFFLUENT DIVERSION PUMPING STATION (VERTICAL TURBINE PUMPS IN CIRCULAR WET WELL) ELEVATION 41'-0" PLAN

1/8" = 1'-0"

PLANT NORTH

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-M103
DESIGNED BY: L. REID
DRAWN BY: T. LARAMAY
CHECKED BY: A. STEINHAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

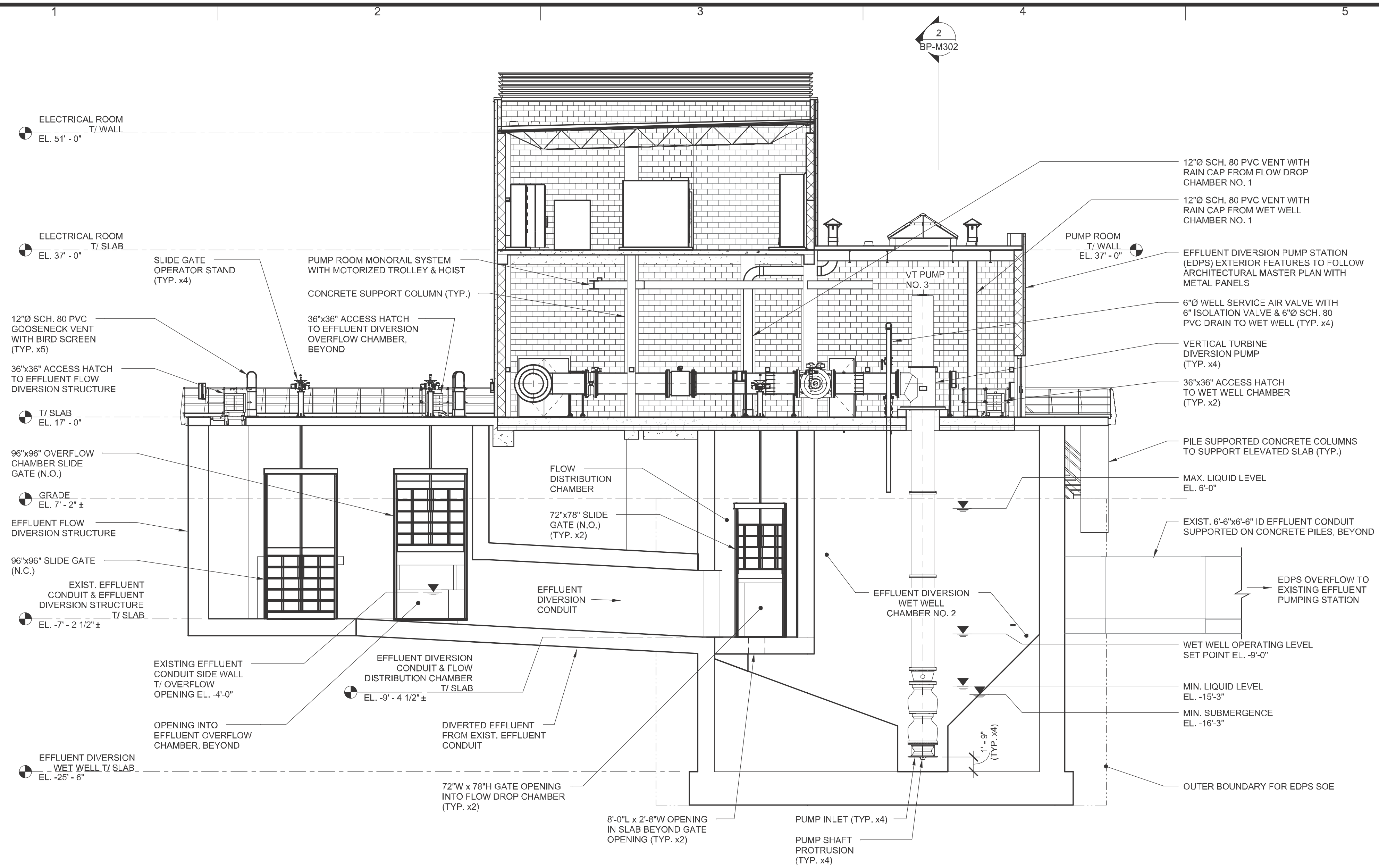
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

EFFLUENT DIVERSION PUMPING STATION ELEVATION 41'-0" PLAN

SCALE: AS SHOWN

BP-M103



1 SECTION - BP-M101, M102 & M103

1/8" = 1'-0"

0 4' 8' 16'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-M301
DESIGNED BY: L. REID
DRAWN BY: T. LARAMAY
CHECKED BY: A. STEINHAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

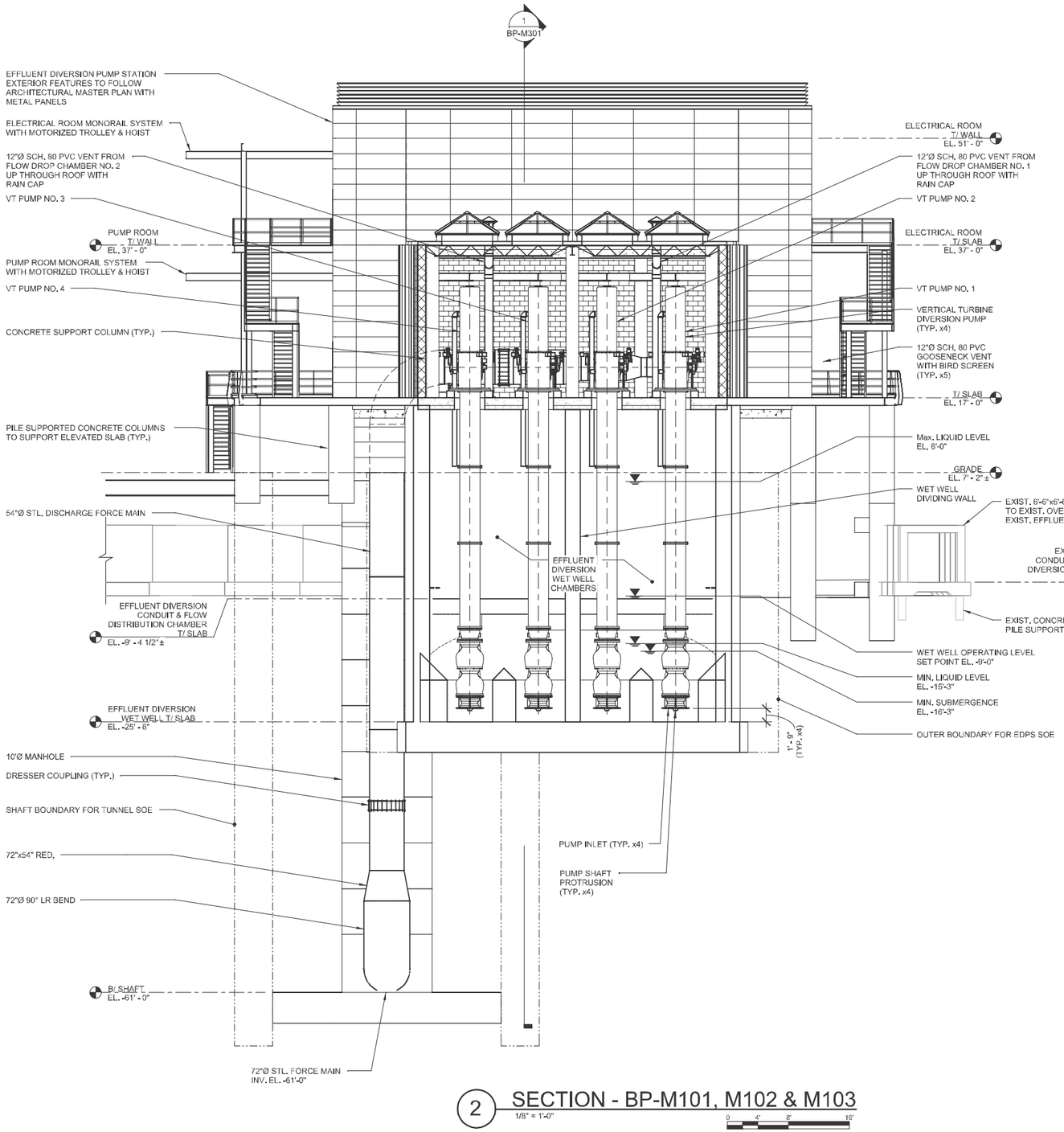
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

EFFLUENT DIVERSION
PUMPING STATION
SECTION 1

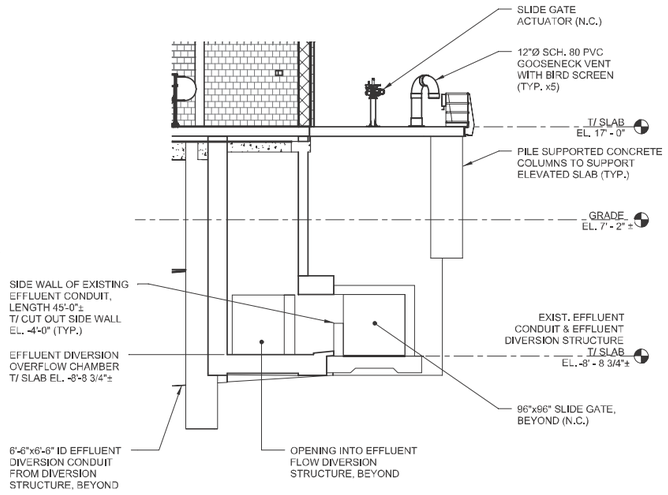
SCALE: AS SHOWN

BP-M301



2 SECTION - BP-M101, M102 & M103

1/8" = 1'-0"



3 SECTION - BP-M101, M102 & M103

1/8" = 1'-0"

0 4' 8' 16'

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO,:	PW-S3B116-03CR
FILE NAME:	BP-M302
DESIGNED BY:	L. REID
DRAWN BY:	T. LARAMAY
CHECKED BY:	A. STEINHAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

EFFLUENT DIVERSION
PUMPING STATION
SECTIONS 2 AND 3

SCALE:
AS SHOWN

BP-M302

PAGE 37

Scale: AS SHOWN Saved Date: 12/9/2019 2:42:47 PM Plot Date: 12/9/2019 2:42:47 PM
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Spec:
User:

HEATING, VENTILATING, & AIR CONDITIONING LEGEND AND ABBREVIATIONS

ABBREVIATIONS

ABV	ABOVE
AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACD	AUTOMATIC CONTROL DAMPER
AD	ACCESS DOOR
AHU	AIR HANDLING UNIT
AL	ACOUSTICAL LINING
ALD	AUTOMATIC LOUVER DAMPER
ARCH	ARCHITECTURAL
ATC	AUTOMATIC TEMPERATURE CONTROL
B	BOILER
BD	BALANCING DAMPER
BDD	BACK DRAFT DAMPER
BMS	BUILDING MANAGEMENT SYSTEM
BO	BLANK OFF
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
CA	COMPRESSED AIR
CC	COOLING COIL
CD	CEILING DIFFUSER
CFF	CAP FOR FUTURE
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
CH	CHILLER
CO	CLEAN OUT
COMP	COMPRESSOR
CONV	CONVECTOR
CR	CEILING REGISTER
CT	COOLING TOWER
CU	CONDENSING UNIT
CW	CONDENSER WATER
DB	DRY BULB
DEC	DIRECT EVAPORATIVE COOLER
DF	DUCT FURNACE
DIA	DIAMETER
DN	DOWN
DRX	CLOTHES DRYER EXHAUST
DX	DIRECT EXPANSION
E	EXISTING TO REMAIN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECH	ELECTRIC CABINET HEATER
EC	EVAPORATIVE CONDENSER
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EFF	EFFICIENCY
ELEV	ELEVATOR
EHC	ELECTRIC HEATING COIL
EUH	ELECTRIC UNIT HEATER
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
°F	DEGREES FAHRENHEIT
F	FILTER
FBO	FURNISHED BY OTHERS
FC	FLEXIBLE CONNECTION (DUCT OR PIPE)
FCC	FIRE CONTROL CENTER
FCU	FAN COIL UNIT
FD	FUSIBLE LINK FIRE DAMPER W/DUCT ACCESS DOOR
FHX	FUME HOOD EXHAUST
FLR	FLOOR
FLA	FULL LOAD AMPS
F.O.	FLAT OVAL DUCTWORK
FPI	FINS PER INCH

ABBREVIATIONS (CONTINUED)

FRE	FIRE RATED ENCLOSURE
FSD	COMBINATION FIRE AND SMOKE DAMPER
FT	FEET
FTR	FIN TUBE RADIATOR
GLY	GLYCOL
GPM	GALLONS PER MINUTE
GX	GENERAL EXHAUST
H	HUMIDIFIER
HC	HEATING COIL
HTP	HEAT PUMP
HP	HORSE POWER
HR	HOUR
HRU	HEAT RECOVERY UNIT
HTW	HEATWHEEL
HV	HEATING AND VENTILATING UNIT
HW	HOT WATER
HX	HEAT EXCHANGER
ID	INSIDE DIMENSION
IDEC	INDIRECT EVAPORATIVE COOLER
KW	KILOWATT
KWH	KILOWATT HOURS
KX	KITCHEN EXHAUST
KRX	KITCHEN RANGE HOOD EXHAUST (RESIDENTIAL)
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LD	LINEAR DIFFUSER
LRA	LOCK ROTOR AMPS
LWS	LOUVER WITH WIRE SCREEN
LWT	LEAVING WATER TEMPERATURE
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MCC	MOTOR CONTROL CENTER
MFG	MANUFACTURER
MFS	MAXIMUM FUSE SIZE
MIN	MINIMUM
MUA	MAKE UP AIR UNIT
MOCP	MAXIMUM OVERCURRENT PROTECTION
N	NEW
NC	NORMALLY CLOSED
NFA	NET FREE AREA
NIC	NOT IN THIS CONTRACT
NK	NECK
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIMENSION
P	PUMP
PD	PRESSURE DROP
PHC	PRE-HEAT COIL
PHX	PLATE HEAT EXCHANGER
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH (GAUGE)
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
R	EXISTING TO BE RELOCATED
RA	RETURN AIR
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SAD	SEE ARCHITECTURAL DRAWINGS

ABBREVIATIONS (CONTINUED)

SD	SMOKE DAMPER
SF	SUPPLY FAN
SED	SEE ELECTRICAL DRAWINGS
SENS	SENSIBLE
SM	SHEET METAL
SP	STATIC PRESSURE
STP	STAIR PRESSURIZATION
SQFT	SQUARE FEET
ST	SOUND TRAP
SX	SMOKE EXHAUST
TF	TRANSFER FAN
TRD	TRANSFER DUCT
TRG	TRANSFER GRILLE
TX	TOILET EXHAUST
TYP	TYPICAL
UFAD	UNDERFLOOR AIR DISTRIBUTION
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
VAR	VARIABLE
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VX	VAPOR HOOD EXHAUST
W/	WITH
WB	WET BULB
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
WO-SIZE	WALL OPENING-(SIZE)
X	EXISTING TO BE REMOVED
300	CUBIC FEET OF AIR PER MINUTE OR GALLONS PER MINUTE

DUCTWORK LEGEND

	DUCT SPLIT WITH SPLIT SIZE
	RADIUS ELBOW
	ELBOW WITH TURNING VANES
	RECTANGULAR BRANCH TAKEOFF WITH BALANCING DAMPER
	RECTANGULAR SUPPLY DUCT UP
	RECTANGULAR SUPPLY DUCT DOWN
	RECTANGULAR RETURN OR EXHAUST DUCT UP
	RECTANGULAR RETURN OR EXHAUST DUCT DOWN
	ROUND DUCT, UP
	ROUND DUCT, DOWN
	BEAM PENETRATION
	SLOPING RISE IN DUCTWORK
	SLOPING DROP IN DUCTWORK
18x12 / 18x12	DUCT SIZE (CLEAR INSIDE DIMENSION) FIRST FIGURE INDICATES PLAN SIZE
18 ϕ / 18 ϕ	ROUND DUCT DIAMETER SIZE (CLEAR INSIDE DIMENSION)
18 / 18	OVAL DUCT SIZE

DUCTWORK LEGEND (CONT.)

	SIDE, TOP OR BOTTOM DUCT ACCESS DOOR
	ACOUSTIC LINING IN DUCT (DUCT SIZE NOTED INDICATES INSIDE DIMENSIONS)
	RECTANGULAR OR SQUARE TO ROUND OR OVAL TRANSITION
	FLEXIBLE CONNECTION
	FLEXIBLE DUCT
	DUCT COIL WITH ACCESS DOOR
	VOLUME DAMPER IN DUCT
	AUTOMATIC LOUVER DAMPER
	FUSIBLE LINK FIRE DAMPER WITH DUCT ACCESS DOOR
	SMOKE DAMPER WITH DUCT ACCESS DOOR
	COMBINATION FIRE AND SMOKE DAMPER WITH DUCT ACCESS DOOR
	BACK DRAFT DAMPER WITH DUCT ACCESS DOOR
	LINEAR DIFFUSER
	LINEAR DIFFUSER WITH PLENUM
CEILING DIFFUSER	1-WAY BLOW, 2-WAY BLOW, 3-WAY BLOW, 4-WAY BLOW
	CEILING DIFFUSER WITH FLEXIBLE DUCT CONNECTION
	RETURN REGISTER OR GRILLE
	RETURN REGISTER OR GRILLE WITH FLEXIBLE DUCT CONNECTION
	TRANSFER GRILLES ON BOTH SIDES OF PARTITION OR WALL (SIZE)
W0-SIZE	WALL OPENING ABOVE HUNG CEILING (SIZE)
SR-A 12x6 (200) / SR-A 12x6 (200)	SUPPLY REGISTER WITH AIR OUTLET DEVICE DESIGNATION
ER-C 12x6 (200) / ER-C 12x6 (200)	RETURN OR EXHAUST REGISTER OR GRILLE WITH AIR INLET DEVICE DESIGNATION

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: M-001
DESIGNED BY: ML
DRAWN BY: ML
CHECKED BY: SC

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

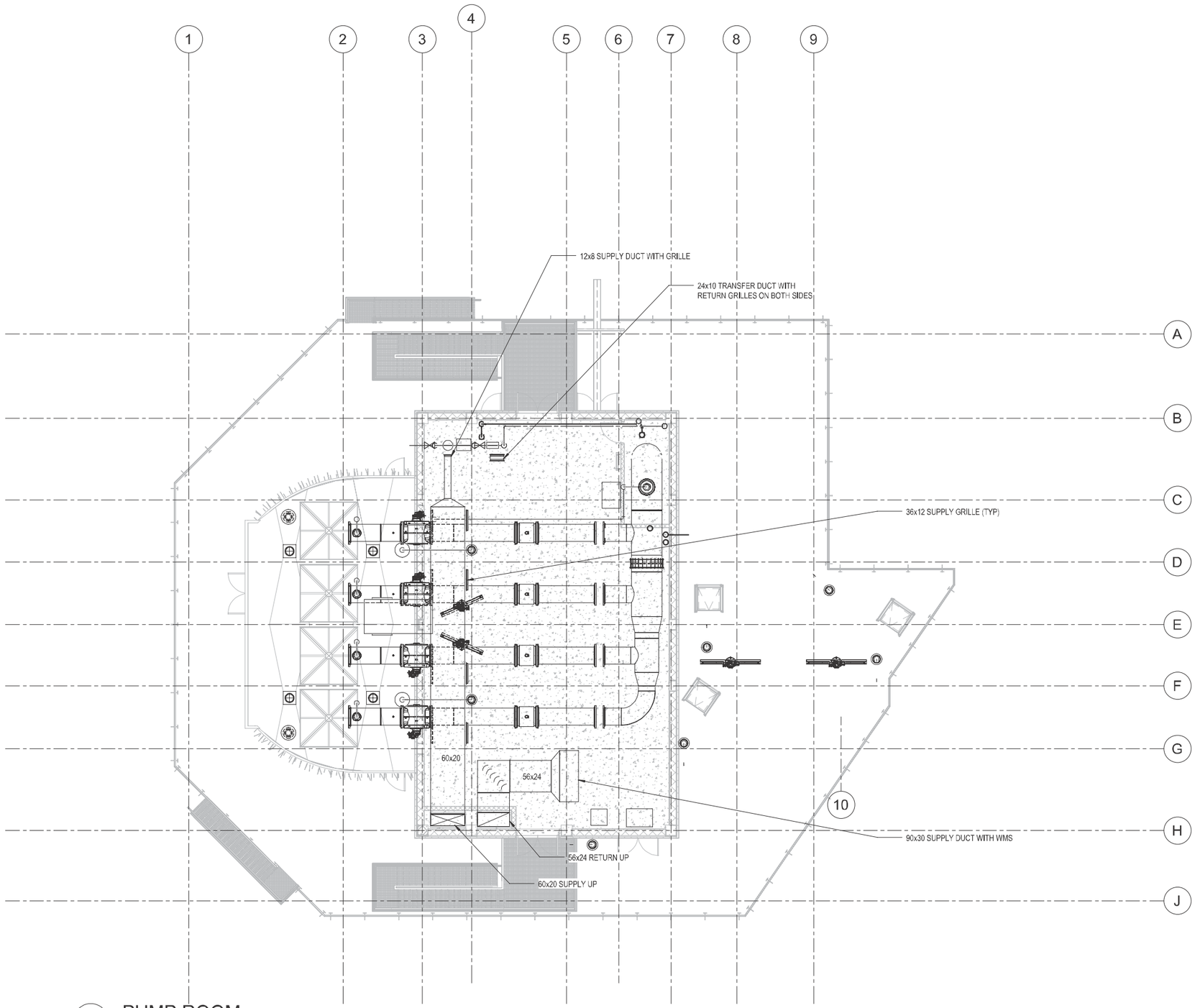
BAY PARK FORCE MAIN

BAY PARK EFFLUENT
DIVERSION PUMP STATION

HVAC DRAWING LIST,
LEGEND AND
ABBREVIATIONS

SCALE:
NOT TO SCALE

BP-MH001



1 PUMP ROOM

Scale: 1/8"= 1'-0"

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 10/2019

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FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
APPROVED BY: SC
DESIGNED BY: ML
DRAWN BY: ML
CHECKED BY: SC

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK EFFLUENT DIVERSION
PUMP STATION

HVAC PUMP ROOM NEW
WORK PLAN

SCALE: AS NOTED

BP-MH201
PAGE 39

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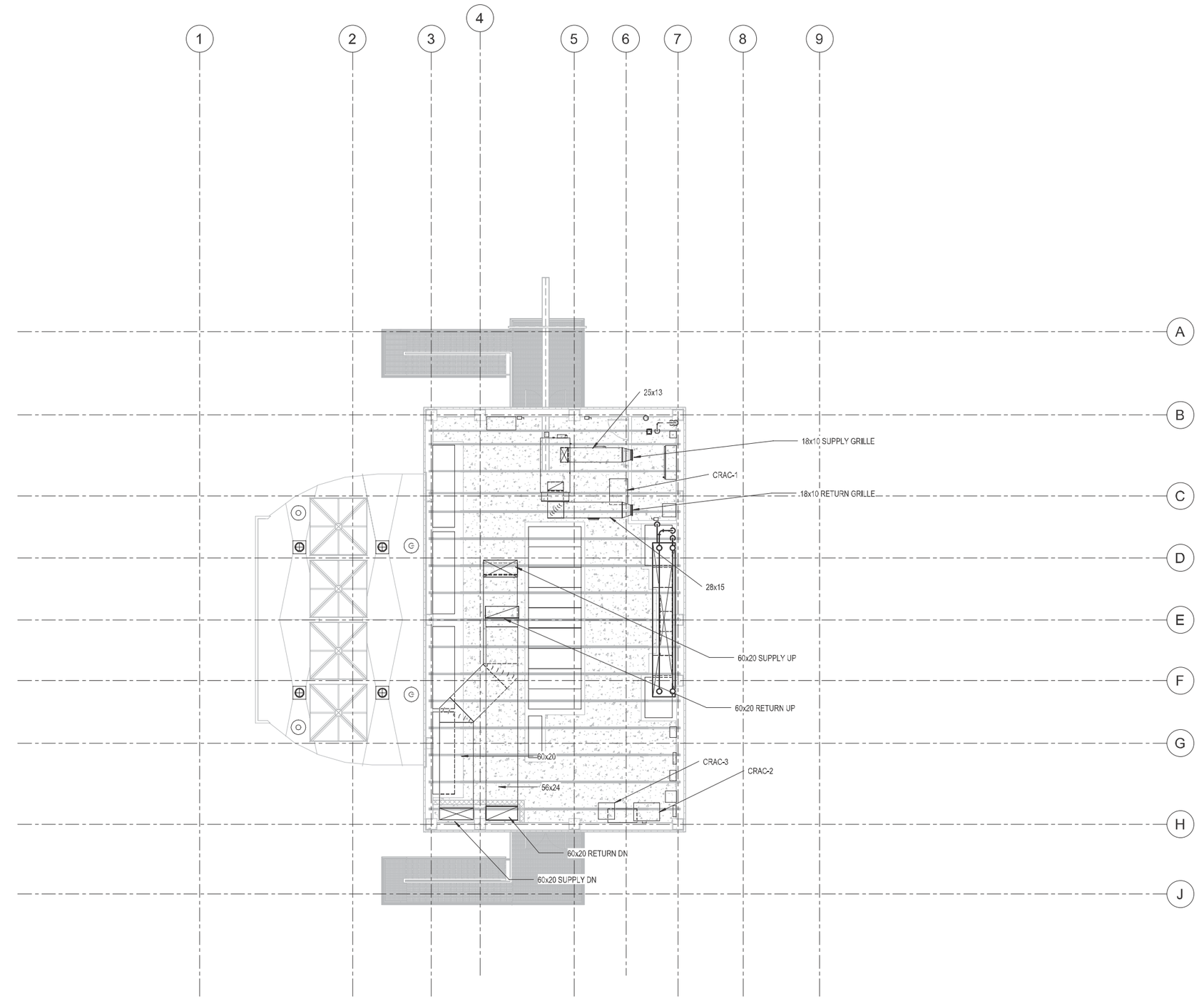


1 ELECTRICAL ROOM

Scale: 1/8"= 1'-0"

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
APPROVED BY:	SC
DESIGNED BY:	ML
DRAWN BY:	ML
CHECKED BY:	SC

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

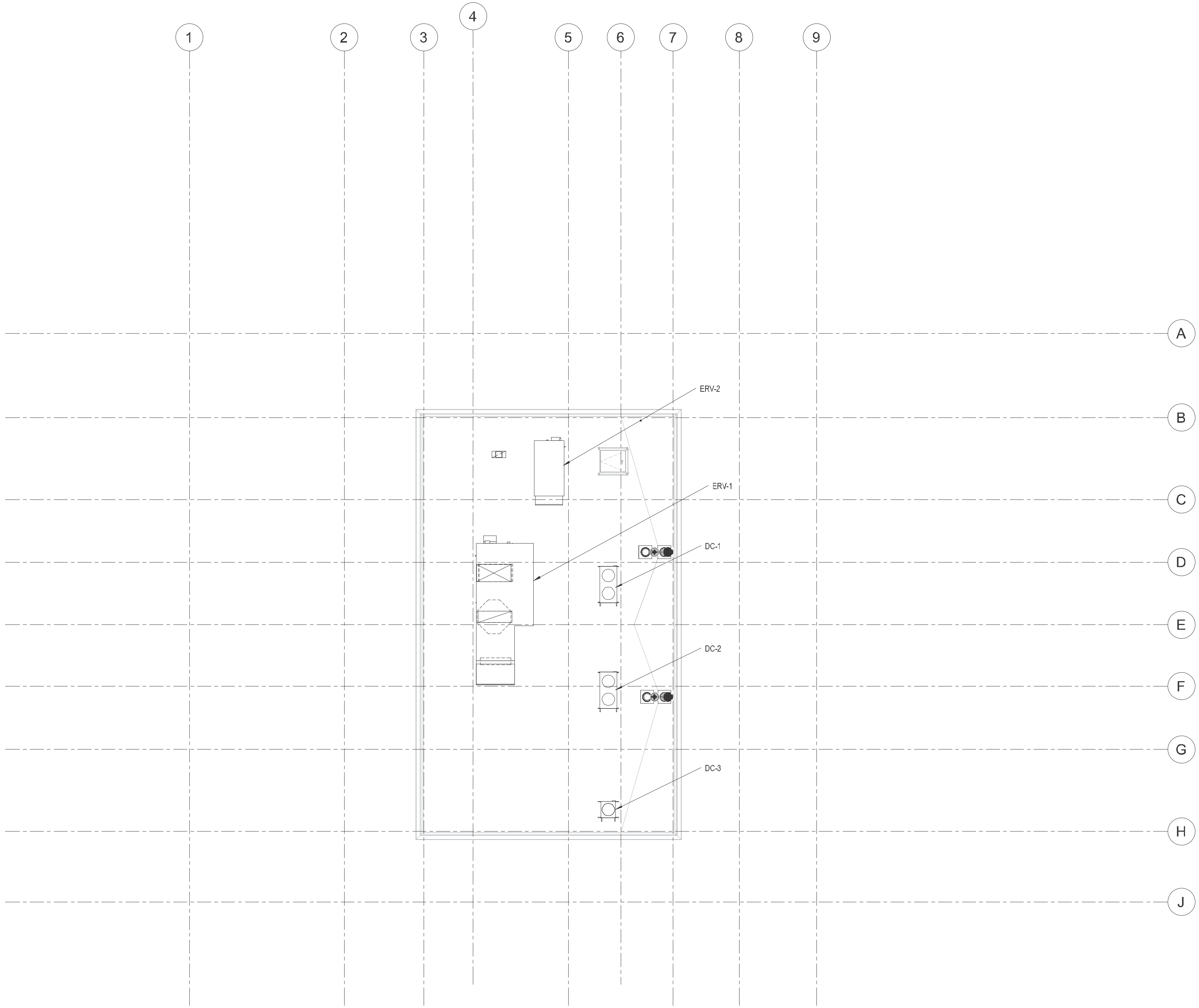
SHEET TITLE

BAY PARK EFFLUENT DIVERSION
PUMP STATION

HVAC ELECTRICAL ROOM
NEW WORK PLAN

SCALE:
AS NOTED

BP-MH202
PAGE 40



ROOF

Scale: 1/8"= 1'-0"

wsp

PRELIMINARY NOT FOR CONSTRUCTION

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FINAL DESIGN
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DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
APPROVED BY:	SC
DESIGNED BY:	ML
DRAWN BY:	ML
CHECKED BY:	SC

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

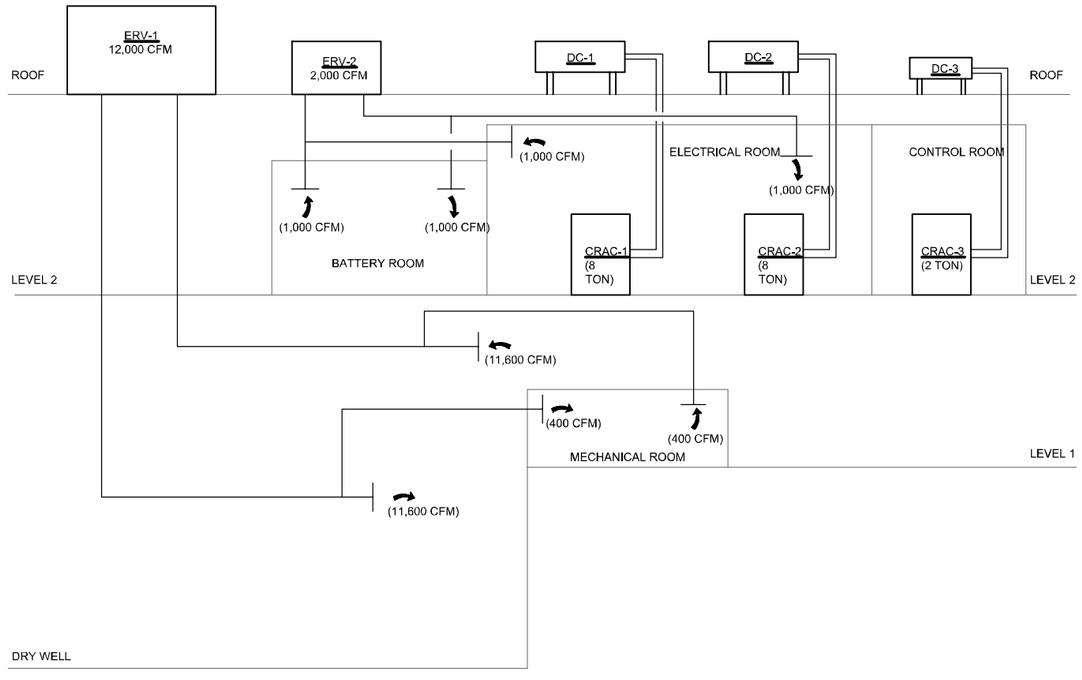
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

HVAC ROOF NEW WORK PLAN

SCALE: AS NOTED

BP-MH203



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DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: M-500
DESIGNED BY: ML
DRAWN BY: ML
CHECKED BY: SC

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

BAY PARK EFFLUENT
DIVERSION PUMP STATION

HVAC AIR RISER

SCALE: NOT TO SCALE

BP-MH500

AIR COOLED ENERGY RECOVERY HEAT PUMP SYSTEMS

(TRANE AS STANDARD)

DESIGNATION	SERVICE	LOCATION	TOTAL AIR QUANTITY (CFM)	OUTSIDE AIR QUANTITY (CFM)	PERCENT OUTSIDE AIR	SUPPLY FILTER			ELECTRIC HEATING PERFORMANCE					HEAT PUMP HEATING PERFORMANCE					COOLING PERFORMANCE									SUPPLY FAN						EXHAUST FAN						VIBRATION ISOLATION		UNIT ELECTRICAL DATA							
									AIR SIDE			ELECTRIC		AIR SIDE					ENT. TEMP.		LVG. TEMP.																											
						SPECIFICATION TYPE	AIR FRICTION (IN. OF WATER) INITIAL	AIR FRICTION (IN. OF WATER) FINAL	ENT. TEMPERATURE (°F)	LVG. TEMPERATURE (°F)	MINIMUM AIR FRICTION (IN. OF WATER)	CAPACITY (KW)	VOLTAGE-PH-HZ	ENT. TEMPERATURE (°F)	LVG. TEMPERATURE (°F)	ENT. TEMPERATURE AMBIENT (°F)	COP	HEATING CAPACITY (MBH)	DRY BULB (°F)	WET BULB (°F)	DRY BULB (°F)	WET BULB (°F)	EER	TOTAL COOLING CAPACITY (MBH)	SENSIBLE COOLING CAPACITY (MBH)	FACE VELOCITY (FPM)	TOTAL STATIC PRESSURE (IN. OF WATER)	STATIC PRESSURE EXT. OF CASING (IN. OF WATER)	NUMBER OF FANS	MOTOR (EACH FAN) MINIMUM MOTOR HP	MOTOR (EACH FAN) VOLTS/PHASE	MOTOR (EACH FAN) FLA	TOTAL STATIC PRESSURE (IN. OF WATER)	STATIC PRESSURE EXT. OF CASING (IN. OF WATER)	NUMBER OF FANS	MOTOR (EACH FAN) MINIMUM MOTOR HP	MOTOR (EACH FAN) VOLTS/PHASE	MOTOR (EACH FAN) FLA	SPECIFICATION TYPE	STATIC DEFLECTION (INCHES)	VOLTS/PHASE	UNIT FLA (AMPS)	UNIT MCA (AMPS)	UNIT MFS (AMPS)	VARIABLE SPEED	UNIT MOUNTED STARTER	STARTER PROVIDED BY	STARTER TYPE	OPERATING WEIGHT (LBS)	UNIT SIZE LxWxH (INCHES)	REMARKS
ERV-1	PUMP ROOM DRY WELL	ROOF	12,000	12,000	100%	MERV 8	0,21	0,75	43,3	79,9	0,07	139	460-3-60	43,3	73,2	0	3,1	416,5	82,3	67,9	53,6	53,6	12,2	529	380	434	3,54	1,5	2	7,5	460/3	10	2,19	1,0	2	5	460/3	6,6	F	2	460/3	210	282	300	YES	UNIT	MECH	VFD	9176	260 x 101 x 93	
ERV-2	ELEC. ROOM BATTERY ROOM	ROOF	2,000	2,000	100%	MERV 8	0,21	0,75	54	92	0,03	24	460-3-60	54	76,3	0	2,8	53,8	82,3	67,9	53,6	53,6	14,9	76,4	55,3	304	2,83	1,5	1	2,5	460/3	3,5	2,05	1,0	1	2,5	460/3	3,5	F	2	460/3	38,6	48,2	50	YES	UNIT	MECH	VFD	1987	161 x 52 x 55	

COMPUTER ROOM AIR CONDITIONING UNITS

(STULZ AS STANDARD)

TAG	LOCATION	SERVICE	TYPE/CONFIG	EVAPORATOR COIL					FAN SECTION						COMPRESSOR		FILTER	ELECTRICAL							EVAPORATOR DIMENSIONS (L x W x H)	CONDENSER DIMENSIONS (L x W x H)	EVAPORATOR WEIGHT	CONDENSER WEIGHT	MODEL		REMARKS
				THC (MBH)	SHC (MBH)	EAT (DB / WB / %RH)	FACE VELOCITY	LAT (DB / WB)	NO. FANS	CFM	ESP (IN WG)	RPM	HP	DRIVE	QTY/TYPE	REFRIG.	TYPE	(V/PH)	EVAPORATOR FLA	EVAPORATOR MCA	EVAPORATOR MFS	CONDENSER FLA	CONDENSER MCA	CONDENSER MFS					EVAPORATOR	CONDENSER	
CRAC/DC-1,2	ROOF	ELEC.RM.	UPFLOW	93,8	71	75 / 62,5 / 50	308	51,9 / 50,6	1	3000	0	-	4	BELT	2/SCROLL	R-407C	MERV 8	208/3	57,2	75,3	100	8,0	9,0	15	46x36x76	75x33x32	-	240	COS-096-AR	SCS-096-ES	
CRAC/DC-3	ROOF	CONTR.RM.	UPFLOW	25,9	21	75 / 62,5 / 50	182	51,9 / 50,6	1	1000	0	-	4	BELT	2/SCROLL	R-407C	MERV 8	208/3	29,8	36,5	40	3,4	4,1	15	29x29x76	28x28x31	-	85	COS-024-AR	COS-024-ES	

PRELIMINARY
NOT FOR CONSTRUCTION
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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
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FILE NAME: M-600
DESIGNED BY: ML
DRAWN BY: ML
CHECKED BY: SC

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

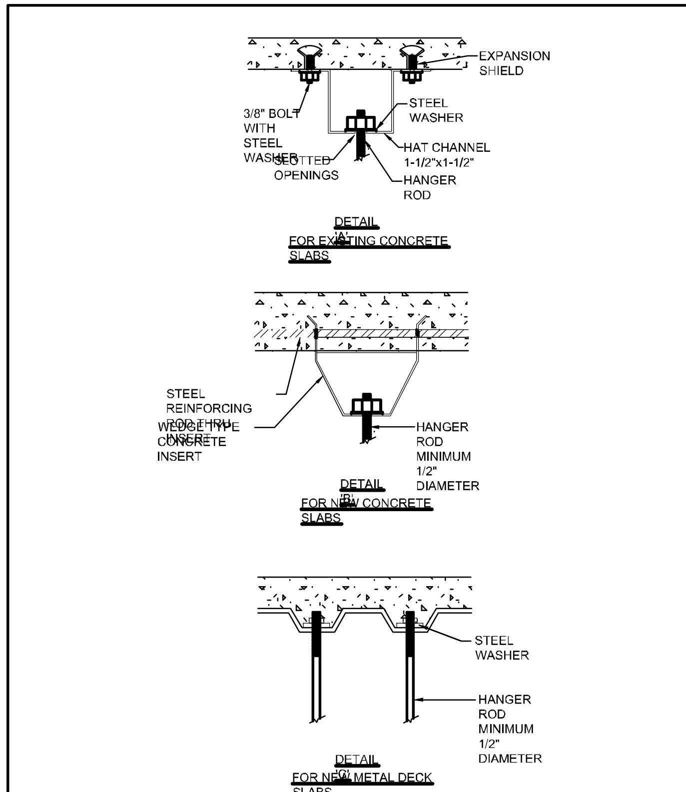
BAY PARK FORCE MAIN

BAY PARK EFFLUENT
DIVERSION PUMP STATION

HVAC SCHEDULES

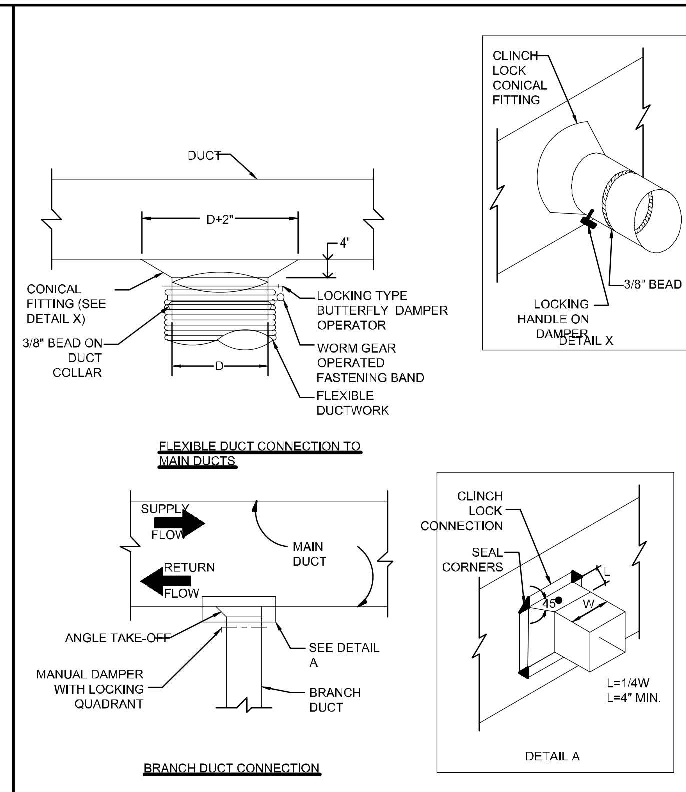
SCALE: NOT TO SCALE

BP-MH600



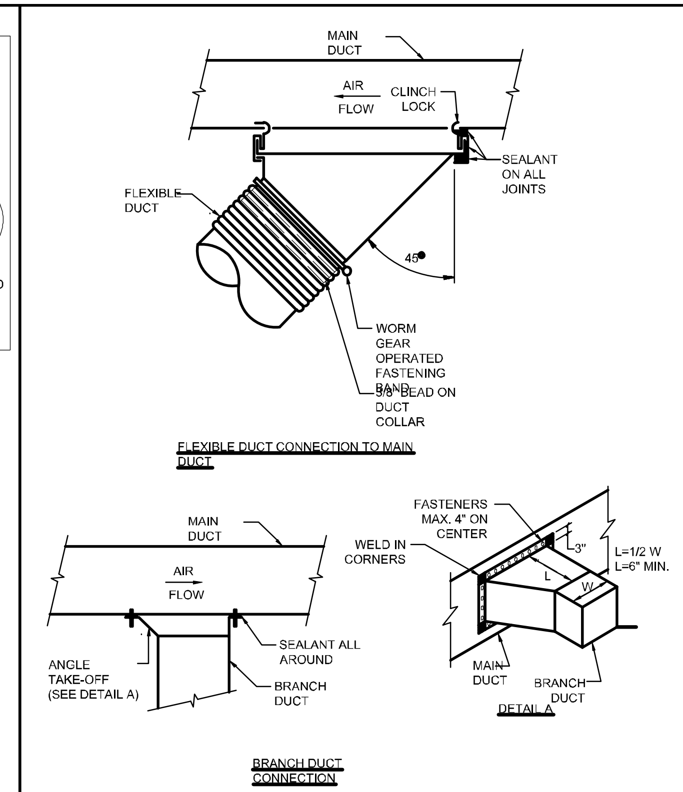
M453 STRUCTURE ATTACHMENTS

NOT TO SCALE



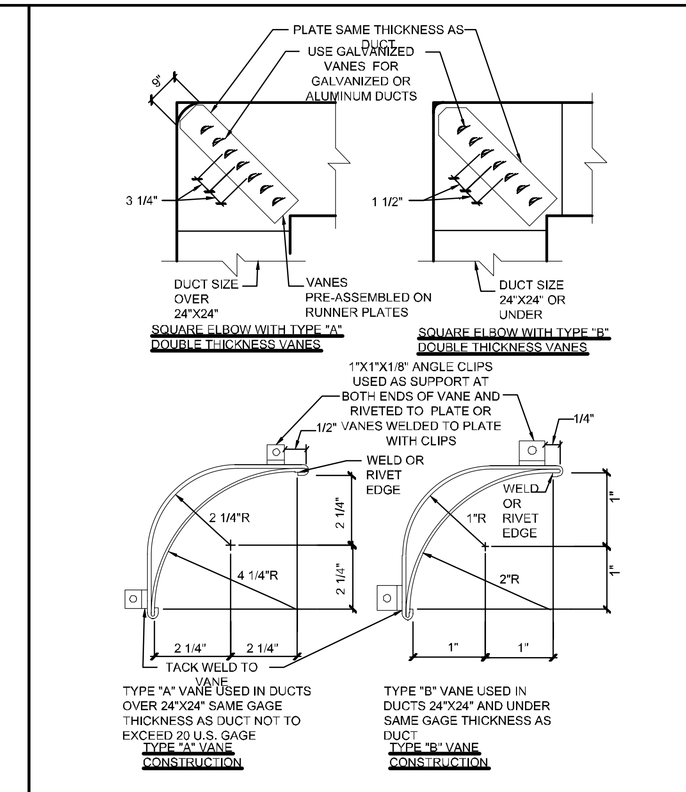
M705 LOW PRESSURE BRANCH DUCT CONNECTIONS

NOT TO SCALE



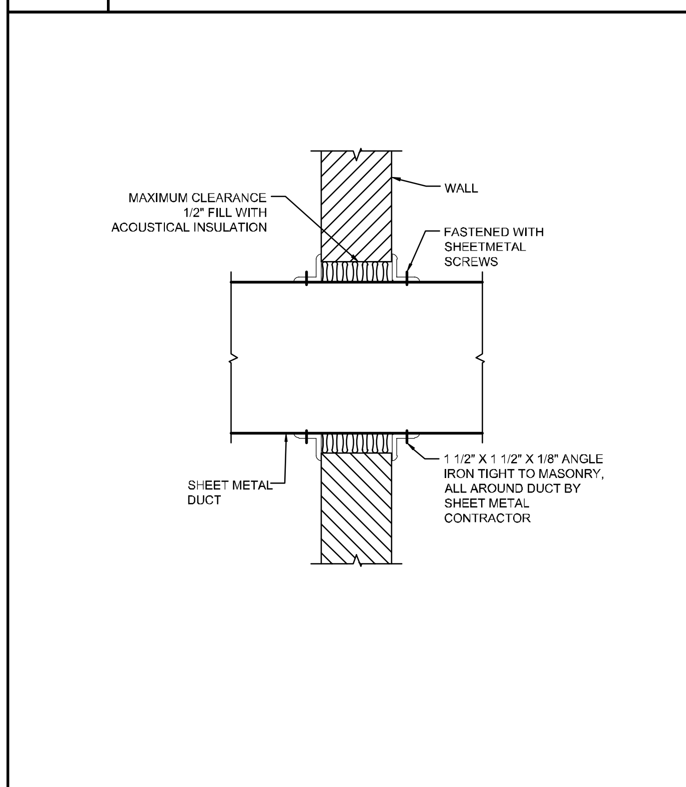
M706 HIGH PRESSURE BRANCH DUCT CONNECTIONS (UP TO 6"SP)

NOT TO SCALE



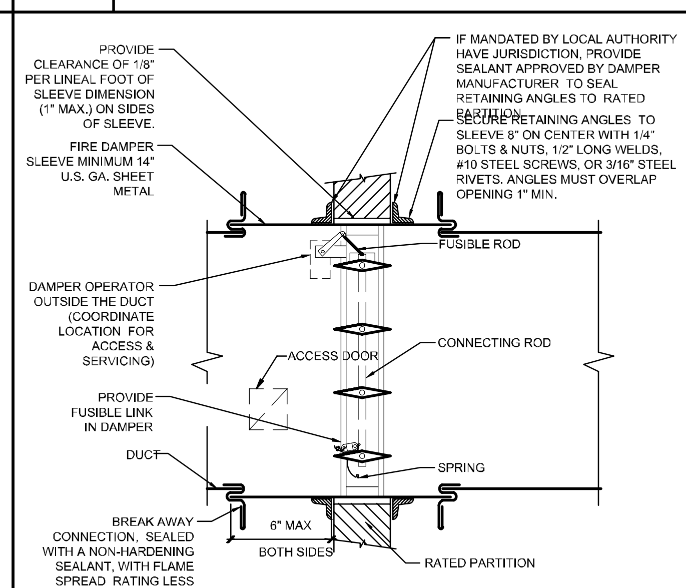
M711 SQUARE DUCT ELBOWS

NOT TO SCALE



M712 DUCT PIERCING NON-RATED WALLS

NOT TO SCALE

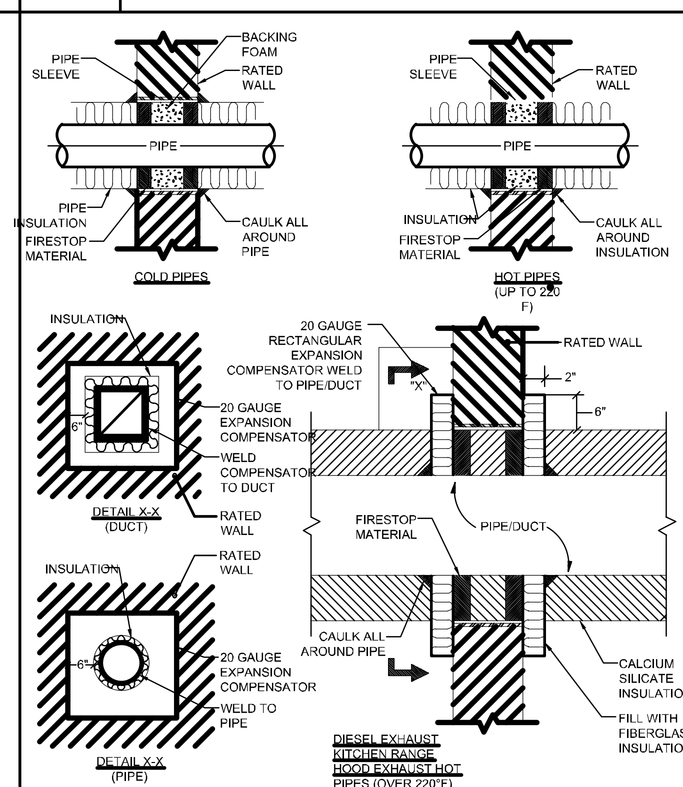


GENERAL NOTES:

1. DAMPER TO BE U.L. LABELED N.F.P.A. 90A APPROVED
2. N.F.P.A. APPROVED INSTALLATION DETAILS TO BE PART OF SUBMISSION OF COMBINATION FIRE & SMOKE DAMPER FOR APPROVAL, WHICH SHALL MEET N.F.P.A. STANDARD 90A
3. DETAILS SHOWN ARE FOR COMBINATION FIRE SMOKE DAMPERS IN HORIZONTAL DUCTWORK. FOR DAMPERS IN VERTICAL DUCTWORK, DETAIL IS SIMILAR.
4. INSTALL DAMPER IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

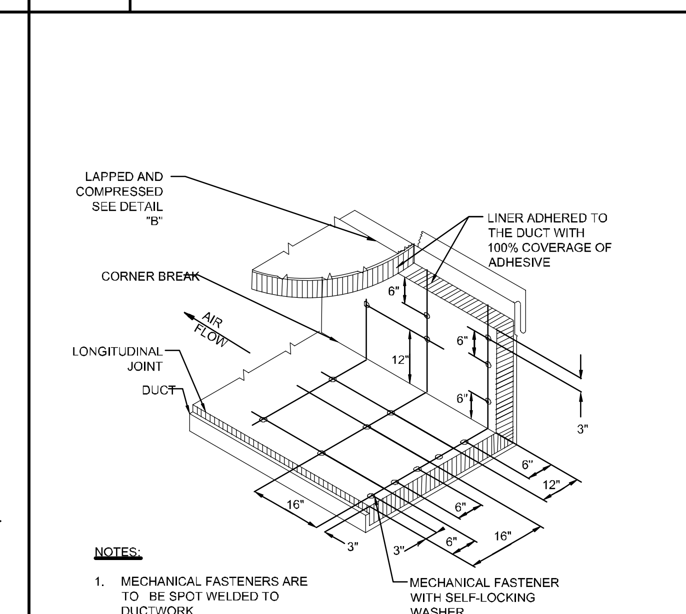
M766 COMBINATION FIRE AND SMOKE DAMPER WITH FUSIBLE LINK (FSD & FSD-3)

NOT TO SCALE



M800 PENETRATIONS THRU RATED WALLS

NOT TO SCALE



NOTES:

1. MECHANICAL FASTENERS ARE TO BE SPOT WELDED TO DUCTWORK
2. PROVIDE NOSING AT LEADING EDGE OF ACOUSTICALLY LINED DUCTWORK

M801 ACOUSTICAL DUCT LINING DETAIL

NOT TO SCALE

WSP

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: M-700
DESIGNED BY: ML
DRAWN BY: ML
CHECKED BY: SC

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

BAY PARK EFFLUENT DIVERSION PUMP STATION

HVAC DETAILS

SCALE: NOT TO SCALE

BP-MH700

PLUMBING DRAWING LIST			
#	DRAWING NO.	DESCRIPTION	SCALE
1	BP-MP-001	DRAWING LIST, LEGENDS & ABBREVIATIONS, SINGLE LINE RISERS	NTS

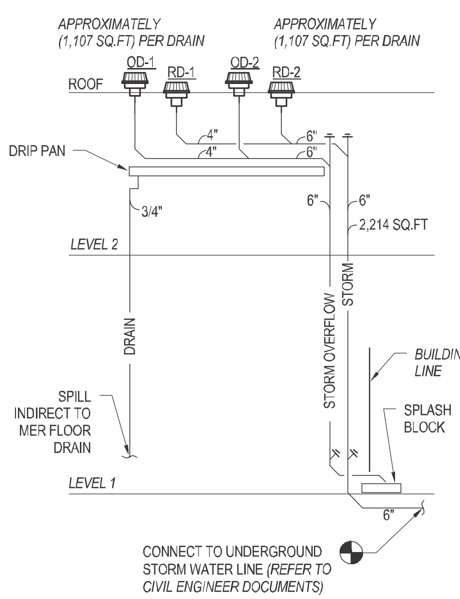
PLUMBING LEGEND AND ABBREVIATIONS

PLUMBING SYMBOLS	
	Y STRAINER WITH BLOW OFF VALVE
	PRESSURE GAUGE AND COCK
	VALVE
	REDUCER
	ECCENTRIC REDUCER (E.R.)
	SLEEVE
M	METER
	HOSE BIBB
	WATER HAMMER ARRESTER
	FLOOR DRAIN
RD-#	ROOF DRAIN-ITEM#
OD-#	OVERFLOW ROOF DRAIN - ITEM#
	POINT OF CONNECTION (NEW TO EXISTING)
	BOTTOM PIPE CONNECTION
	TOP PIPE CONNECTION
	P-TRAP
	FLOOR CLEANOUT/GRADE CLEANOUT

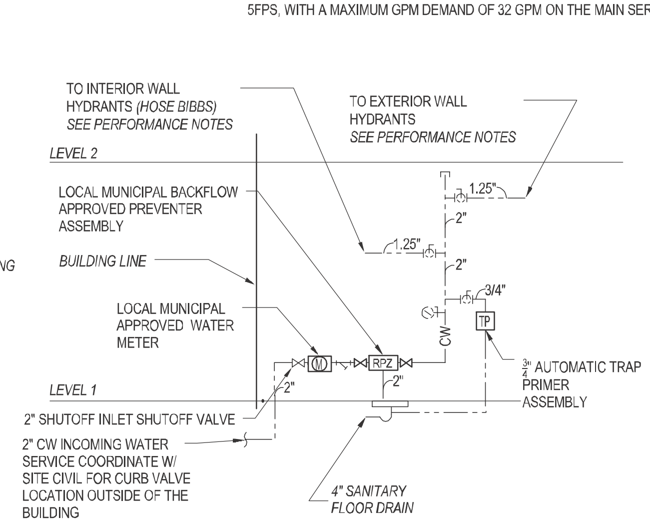
PLUMBING SYMBOLS	
	CLEANOUT/PLUG
	PIPE DOWN
	PIPE UP
	CAP
	CHANGE IN PIPE ELEVATION
	ARROW INDICATES DIRECTION OF FLOW
	PITCH PIPE DOWN IN DIRECTION OF ARROW
	INSULATED AND HEAT TRACED PIPING
	FRESH AIR INLET
	WALL HYDRANT

PLUMBING SHEET NOTES:

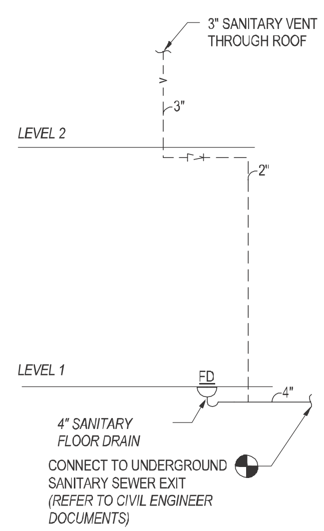
1. WORK SCOPE HEREIN IS DIAGRAMMATIC; IT IS THE INTENT OF THESE DOCUMENTS THAT ALL SPACES WITHIN THE AREA OF WORK SHALL BE PIPED AS CLOSE AS POSSIBLE TO THE ROUTING INDICATED ON THE PLANS. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE LAYOUT AND INSTALLATION OF THE PLUMBING SYSTEMS DESCRIBED HEREIN ON THE PLANS, NOTES AND DESCRIBED IN THE SPECIFICATIONS.
2. RAINFALL RATE IS TO BE DESIGNED IN ACCORDANCE WITH THE RAINFALL RATE OF 3.0 IN. (1 HOUR DURATION 100-YEAR RETURN PERIOD)
3. WATER PIPE SIZING SHALL BE BASED ON COPPER TUBING (TYPE K,L) WITH A WATER VELOCITY OF 5FPS, WITH A MAXIMUM GPM DEMAND OF 32 GPM ON THE MAIN SERVICE.



STORM RISER DIAGRAM
SCALE: NOT TO SCALE



DOMESTIC WATER RISER DIAGRAM
SCALE: NOT TO SCALE



WASTE RISER DIAGRAM
SCALE: NOT TO SCALE

GENERAL NOTES:
A. COMPLETE WORK IN FULL COMPLIANCE WITH THE LATEST EDITION OF THE NEW YORK STATE PLUMBING CODE (NYS PC-2015) AND NEW YORK STATE BUILDING AND FIRE CODE (VERSION 2015).
B. A BOOK SPECIFICATION IS ASSOCIATED WITH THIS PROJECT WORK SCOPE.

PLUMBING SHEET NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE LAYOUT AND INSTALLATION OF THE PLUMBING SYSTEMS FOR THIS PROJECT, INCLUDING ALL COORDINATION WITH NEW AND EXISTING SERVICES, MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, CONDUIT, CEILING AND ANY OTHER EQUIPMENT THAT MAY REQUIRE COORDINATION EFFORTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF TEMPORARY CUT-OFF WATER WITH THE OWNER AND FOR ALL NECESSARY TRENCHING, BACKFILLING, CUTTING, PATCHING AND REPAIRING OF FLOORS AND SLABS, ASSOCIATED WITH THE INSTALLATION OF THE PLUMBING SYSTEMS SHOWN ON THE PLANS.
3. VERIFY INVERTS BEFORE ROUTING ALL PIPING. NO COMPENSATION WILL BE MADE FOR CONTRACTOR'S FAILURE TO COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OWNER, AND UNFAMILIARITY WITH THE CONSTRAINTS AND LIMITATIONS OF THE WORK REQUIRED.
4. INCOMING WATER SERVICE, AND STORM WATER AND SEWER EXITS SHALL BE COORDINATED WITH SITE UTILITIES TO ESTABLISH TIE-IN CONNECTIONS.
5. ALL DOMESTIC HOT AND COLD WATER PIPING SHALL BE INSULATED ACCORDING TO THE ENERGY CODE.
6. CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED TRANSITIONS, OFFSETS AND MINOR RELOCATIONS AND ALL ASSOCIATED FITTING, PIPING AND EQUIPMENT TO INSTALL A COMPLETE AND OPERATIONAL SYSTEM.
7. IN THE EVENT THAT FIELD CONDITIONS ARE DIFFERENCE THEN THAT SHOWN ON PLANS, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO CALL THE ITEMS AT VARIANCE TO THE ATTENTION OF THE ARCHITECT AND CONSTRUCTION MANAGER AND RESOLVE THE DIFFERENCE IN A MANNER THAT IS CODE COMPLIANT.
8. ALL EXPOSED PIPING PENETRATIONS THROUGH WALLS OR CEILINGS SHALL BE PROVIDED WITH APPROPRIATE FIRE RETARDANT SEALANT AND ESCUTCHEONS.
9. ALL SANITARY AND STORM DRAINAGE SHALL HAVE A UNIFORM GRADE OF 1/4" PER FOOT, FOR 2 1/2" AND SMALLER AND AN 1/8" PER FOOT FOR 3" OR LARGER, UNLESS OTHERWISE NOTED.
10. PROVIDE CLEANOUTS OF SAME SIZE AS THE PIPES THEY SERVE UP TO 4 INCHES, AND NOT LESS THAN 4 INCHES FOR LARGER PIPING. CLEANOUTS SHALL BE PROVIDED AT ALL CHANGES IN PIPE DIRECTION.

CONCRETE ANCHOR PERFORMANCE WORK SCOPE CRITERIA:

POST-INSTALLED CONCRETE ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES , COMPARABLE TO HILTI, INC, OR APPROVED EQUAL.

1. ANCHORAGE TO CONCRETE
   a. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
      i. ADHESIVE:
         1. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HIT-Z ROD PER ICC ESR-3187
         2. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM WITH HAS THREADED ROD PER ICC ESR-3187
         3. HILTI HIT-RE 500 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM WITH HAS THREADED ROD PER ICC ESR-3814
         4. HILTI HIT-RE 500 V3 SAFE SET SYSTEM WITH HILTI ROUGHENING TOOL (HIT RT) WITH HILTI HAS THREADED ROD PER ICC ESR-3814 FOR DIAMOND CORED HOLES
         5. STEEL ELEMENTS FOR USE WITH ADHESIVE:
            a. HILTI HAS-V-36 GRADE 36 CARBON STEEL ROD
            b. HILTI HAS-E-55 GRADE 55 CARBON STEEL ROD
            c. HILTI HAS-B-105 GRADE 105 CARBON STEEL ROD
            d. HILTI HAS-R-304 STAINLESS STEEL ROD
            e. HILTI HAS-R-316 STAINLESS STEEL ROD
            f. HILTI HIT-Z ROD (WITH HY 200 ONLY)
      ii. MEDIUM DUTY MECHANICAL ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
         1. HILTI KWIK HUS-EZ AND KWIK HUS-EZ I, AND KWIK HUS-EZ E SCREW ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM PER ICC ESR-3027
   b. ANCHORAGE TO SOLID GROUTED MASONRY
      i. ADHESIVE ANCHORS USE: HILTI HIT-HY 270 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM PER ICC ESR-4143
      ii. STEEL ANCHOR ELEMENT SHALL BE HILTI HAS CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR
      iii. MECHANICAL ANCHORS USE: HILTI KWIK HUS-EZ SCREW ANCHOR PER ICC ESR 3056

2) ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR OTHER SUCH METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS OR DRILLING METHODS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT MEETS OR EXCEEDS THE PERFORMANCE CAPACITIES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND/OR AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE, AND INSTALLATION TEMPERATURE.

3) USE OF DIAMOND CORE BIT WITH ROUGHENING TOOL FOR ANCHOR HOLES REQUIRES APPROVAL FROM ENGINEER OF RECORD PRIOR TO DRILLING. UNLESS OTHERWISE SHOWN IN THE DRAWINGS, ALL HOLES SHALL BE DRILLED PERPENDICULAR TO THE CONCRETE SURFACE

4) INSTALL ANCHORS PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.

5) OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFI PISTON PLUG SYSTEM.

6)THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL ANCHOR PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF ANCHOR INSTALLATION.

7)ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

8) EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS BY HILTI PS 1000 OR OTHER GPR, X-RAY, CHIPPING OR OTHER APPROVED MEANS.

9) ALL ANCHORS SHALL BE INSTALLED PER MANUFACTURER INSTRUCTIONS.

EQUIPMENT PERFORMANCE WORK SCOPE CRITERIA:

1. CONTRACTOR TO COORDINATE WITH THE LOCAL MUNICIPAL AUTHORITY FOR THE CONNECTION OF NEW INCOMING WATER SERVICE, WITH METER AND BACKFLOW PREVENTION. BACKFLOW SHALL BE SIMILAR TO WATTS LF009 REDUCED PRESSURE ZONE ASSEMBLIES OR EQUAL.

VALVE SHOULD HAVE SINGLE ACCESS COVER AND MODULAR CHECK CONSTRUCTION FOR
1.1. TOP ENTRY – ALL INTERNALS IMMEDIATELY ACCESSIBLE
1.2. INTERNAL RELIEF VALVE FOR REDUCED INSTALLATION CLEARANCES
1.3. REPLACEABLE SEATS FOR ECONOMICAL REPAIR
1.4. LEAD FREE* CAST COPPER SILICON ALLOY BODY CONSTRUCTION FOR DURABILITY
1.5. BALL VALVE TEST COCKS — SCREWDRIVER SLOTTED
1.6. LARGE BODY PASSAGES PROVIDES LOW PRESSURE DROP
1.7. COMPACT, SPACE SAVING DESIGN
1.8. NO SPECIAL TOOLS REQUIRED FOR SERVICING

2. TRAP PRIMER SHALL BE SIMILAR TO PRECISION PLUMBING PRODUCTS ELECTRONIC TRAP PRIMER MODEL SMP-500-115V OR EQUAL. ASSEMBLY SHALL BE DESIGNED TO DELIVER POTABLE WATER TO SELDOM USED FLOOR DRAINS. SYSTEM SHOULD INCLUDE A SOLENOID VALVE, PHYSICAL AIR GAP AND 6' ELECTRICAL CORD WITH THREE PRONG OUTLET CONNECTION. MUST HAVE A MINIMUM OF 12" FROM BOTTOM OF OUTLET BEFORE 90° DEGREE ELBOW CAN BE INSTALLED. THE FURTHEST DISTANCE OF MAKE UP LINE IS APPROXIMATELY 20' TO FLOOR DRAIN. WIRING MUST BE DONE IN ACCORDANCE WITH NATIONAL, STATE, AND LOCAL ELECTRICAL CODES

3. INCOMING WATER SERVICE SHALL BE FILED BY THIS CONTRACTOR AND INSTALLED IN ACCORDANCE WITH ALL OF THE RULES AND REQUIREMENTS OF THE GOVERNING MUNICIPAL WATER AUTHORITY. METER AND BACKFLOW PREVENTION DEVICES SHALL BE A TYPE APPROVED FOR USE BY THE GOVERNING MUNICIPAL WATER AUTHORITY.

4. CONTRACTOR TO COORDINATE INLET WATER SERVICE, STORM AND SANITARY SEWER EXITS WITH THE LOCATIONS AND PIPE SIZE PROVIDED UNDER THE SITE CIVIL WORK SCOPE. WORK SCOPE SHALL BE COORDINATED 10 FEET OUTSIDE FROM BUILDING LINE BY THIS CONTRACTOR.

5. NON-FREEZE WALL HYDRANT SHALL BE SIMILAR TO WATTS DRAINAGE HY-725 CONCEALED NON-FREEZE KEY OPERATED WALL HYDRANT OR EQUAL. HYDRANT TO BE PROVIDED WITH NICKEL BRONZE BOX AND DOOR, CHROME PLATED HYDRANT FACE, INTEGRAL VACUUM BREAKER, 3/4"(19) HOSE CONNECTION, 3/4"(19) FEMALE X 1"(25) MALE PIPE CONNECTION, ALL BRONZE HEAD, SEAT CASTING AND INTERNAL WORKING PARTS, BRONZE WALL CASING, AND LOOSE KEY. COMPLIES WITH ASME B1.20.7 AND ASSE 1019-2004, UPC/IAMPO LISTED. MAX. OPERATING PRESSURE 125 PSI. ONE HYDRANT SHOULD BE PROVIDED ON EACH EXTERIOR BUILDING FACE.

6. WALL MOUNTED HOSE BIBB SHALL BE SIMILAR TO ZURN Z1341XL EXPOSED, LEAD-FREE, ANTI-SIPHON, MODERATE CLIMATE WALL HYDRANT FOR RESIDENTIAL AND LIGHT COMMERCIAL APPLICATIONS. HYDRANT FEATURES Z1399-VB EXTERNAL VACUUM BREAKER WITH 3/4" [19] MALE HOSE CONNECTION, BRONZE AND STAINLESS STEEL INTERIOR COMPONENTS, VANDAL RESISTANT OPERATING STEM, AND SECURED WHEEL-TYPE HANDLE. ONE HYDRANT SHALL BE PROVIDED WITH 50 FEET FOR EACH INTERIOR ACCESS HATCH.

7. BEAM CLAMPS SHALL BE SIMILAR TO ANVIL INTERNATIONAL FIG 86 C-CLAMP W/ SET SCREW & LOCK NUT, SIZE RANGE: 3/8" THROUGH 3/4" .
·MATERIAL: MALLEABLE IRON CLAMP; HARDENED STEEL CUP POINT SET SCREW.
·FINISH: ZINC PLATED
·ROD: ZINC PLATED
·SERVICE: RECOMMENDED FOR ATTACHMENT TO "W" AND "M" BEAMS WHERE THICKNESS OF FLANGE Z DOES NOT EXCEED 0.75". WHEN CLAMP IS USED WITH FIG. 89 RETAINING CLIP, FLANGE THICKNESS MAY NOT EXCEED 0.62".
·APPROVALS: COMPLIES WITH FEDERAL SPECIFICATION A-A-1192A (TYPE 23), WW-H-171-E (TYPE 23), ANSI/MSS SP-69 AND MSS SP-58 (TYPE 23). UL, ULC LISTED (SIZES 3/8", 1/2", 5/8" AND 3/4") AND FM APPROVED (SIZE 3/8").
·INSTALLATION: FOLLOW RECOMMENDED SET SCREW TORQUE VALUES PER MSS-SP-69. THE FIG. 88 IS ONLY TO BE USED ON INSTALLATIONS WHERE THE CLAMP CANNOT BECOME DISLODGED FROM THE BEAM.

EQUIPMENT PERFORMANCE WORK SCOPE CRITERIA:

PRIMARY ROOF DRAIN SHALL BE SIMILAR TO MIFAB SERIES R1100 LACQUERED CAST IRON ROOF DRAIN WITH ANCHOR FLANGE, CAST IRON WATERPROOFING MEMBRANE CLAMP RING WITH INTEGRAL GRAVEL STOP, AND STANDARD SELF-LOCKING VANDAL PROOF DOME STRAINER, WITH A FREE AREA OF 43 SQUARE INCHES. DRAIN TO ACCOMMODATE ; NOTE THE UNDERSIDE OF DECK CONTAINS R-25 MIN. CLOSED-CELL SPRAY FOAM INSULATION. PROVIDE UNDERDECK CLAMP AND SUMP RECEIVER SHALL BE PROVIDED. DRAIN SHALL BE SIZE SHALL BE 6-INCH.

OVERFLOW ROOF DRAIN SHALL BE SIMILAR TO MIFAB SERIES R1200-W LACQUERED CAST IRON DEEP SUMP ROOF DRAIN WITH 15" DIAMETER ANCHOR FLANGE, LARGE CAST IRON WATERPROOFING MEMBRANE CLAMP RING WITH INTEGRAL GRAVEL STOP, ADJUSTABLE INTERNAL STANDPIPE DAM AND STANDARD SELF-LOCKING POLYETHYLENE DOME STRAINER WITH A FREE AREA OF 125 SQUARE INCHES. HEIGHT OF INTERNAL PIPE SHALL BE DETERMINED BY THE INSTALLING CONTRACTOR. NOTE THE UNDERSIDE OF DECK CONTAINS R-25 MIN. CLOSED-CELL SPRAY FOAM INSULATION. PROVIDE UNDERDECK CLAMP AND SUMP RECEIVER SHALL BE PROVIDED. DRAIN SHALL BE SIZE SHALL BE 6-INCH.

OVERFLOW SHALL DAYLIGHT AT BUILDING EXTERIOR IN AN APPROVED LOCATION THAT DOES NOT YIELD A HAZARD. PROVIDE MIFAB SERIES R1940 DOWNSPOUT NOZZLE OR EQUAL WITH NICKEL BRONZE BODY AND THREADED OUTLET, WALL ANCHOR FLANGE WITH COUNTERSUNK HOLES, AND DECORATIVE OUTLET NOZZLE. NOZZLE SHALL SHALL BE THE SAME SIZE AS THE DRAIN LINE IT IS CONNECTED ONTO.

SANITARY FLOOR DRAIN SHALL BE SIMILAR TO MIFAB SERIES F1300-C LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, CAST IRON CLAMP RING WITH PRIMARY AND SECONDARY
WEEPHOLES FOR WATERPROOFING MEMBRANE, AND STANDARD 1" (25) THICK, 7" (178) ROUND, DUCTILE IRON TRACTOR GRATE. DRAIN SHALL BE SIZED PER DRAWING HEREIN. PROVIDE 6" ROUND FUNNEL TO ACCEPT INDIRECT DISCHARGE.

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
APPROVED BY:	M. ZABORSKIS
DESIGNED BY:	M. ZABORSKIS
DRAWN BY:	M. ZABORSKIS
CHECKED BY:	F. TOPCUBASI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
BAY PARK EFFLUENT DIVERSION PUMP STATION

DRAWING LIST, LEGEND, ABBREVIATIONS NOTES & RISER DIAGRAMS

SCALE: AS NOTED

BP-MP-001

ELECTRICAL SYMBOLS

ONE-LINE DIAGRAMS

SYMBOL	DESCRIPTION
A	METERING DEVICES: A-AMMETER, V-VOLTMETER, PF-POWER FACTOR, HZ-FREQUENCY METER
XA	FUSE, SIZE AS INDICATED
	GROUND CONNECTION
	CURRENT TRANSFORMER
	ZERO SEQUENCE CURRENT TRANSFORMER
	TRANSFORMER
	POTENTIAL TRANSFORMER
	MOTOR STARTER CONTACTOR AND OVERLOAD RELAY, FVNR UON
	DISCONNECT SWITCH
AT AF	CIRCUIT BREAKER WITH RATINGS AS INDICATED
	CIRCUIT BREAKER - DRAW OUT
	LINE REACTOR
	ATS - AUTOMATIC TRANSFER SWITCH
SPD	SURGE PROTECTIVE DEVICE
5 HP	MOTOR
	CONDUCTORS NOT CONNECTED
	CONDUCTORS CONNECTED
K	ELECTRONIC KEY INTERLOCK
MVTU	MEDIUM VOLTAGE TRIP UNIT
LVTU	LOW VOTAGE TRIP UNIT
MMD	METER MONITOR DEVICE
32	REVERSE POWER RELAY
50	INSTANTANEOUS OVERCURRENT PROTECTION
50G	GROUND INSTANTANEOUS OVERCURRENT PROTECTION
51	INVERSE TIME OVERCURRENT PROTECTION
51G	GROUND INVERSE TIME OVERCURRENT PROTECTION
51N	NEUTRAL INVERSE TIME OVERCURRENT PROTECTION
86	LOCKOUT RELAY
87	DIFFERENTIAL PROTECTION RELAY
A	AMMETER
52	DRAWOUT MEDIUM VOLTAGE CIRCUIT BREAKER
LA	LIGHTING ARRESTOR
	OPEN DELTA WINDING
	DELTA WINDING
	GROUNDED WYE WINDING
	GROUNDED OPEN DELTA WINDING

ELECTRICAL SYMBOLS

ELEMENTARY DIAGRAMS

SYMBOL	DESCRIPTION
START	N.O. MOMENTARY CONTACT PUSH BUTTON WITH NAMEPLATE AS INDICATED ON DIAGRAM
STOP	N.C. MOMENTARY CONTACT PUSH BUTTON WITH NAMEPLATE AS INDICATED ON DIAGRAM
	N.C. MAINTAINED CONTACT PUSH BUTTON WITH MUSHROOM BUTTON
OFF ON	TWO POSITION MAINTAINED CONTACT SELECTOR SWITCH WITH NAMEPLATE AS INDICATED ON DIAGRAMS
ON LOCAL REMOTE	THREE POSITION MAINTAINED CONTACT SELECTOR SWITCH WITH NAMEPLATE AS INDICATED ON THE CONTROL DIAGRAMS. X =CLOSED O = OPEN
	N.C. PRESSURE SWITCH - OPENS ON RISING PRESSURE
	N.O. PRESSURE SWITCH - CLOSES ON RISING PRESSURE
	N.C. TEMPERATURE SWITCH - OPENS ON RISING TEMPERATURE
	N.O. TEMPERATURE SWITCH - CLOSES ON RISING TEMPERATURE
	N.C. FLOW SWITCH - OPENS ON RISING FLOW
	N.O. FLOW SWITCH - CLOSES ON RISING FLOW
	N.C. TORQUE SWITCH - OPENS ON INCREASING TORQUE
	N.O. TORQUE SWITCH - CLOSES ON INCREASING TORQUE
	N.C. LIMIT SWITCH (HELD OPEN)
	N.C. LIMIT SWITCH
	N.O. LIMIT SWITCH
	N.O. LIMIT SWITCH (HELD CLOSED)
	SOLENOID VALVE OR RELAY COIL
	RELAY OR CONTACTOR COIL WITH TAG NUMBER AS SHOWN
	N.O. RELAY CONTACT
	N.C. RELAY CONTACT
	ON-DELAY OR OFF-DELAY RELAY
	ON-DELAY RELAY N.C. TIMED OPENING CONTACT
	ON-DELAY RELAY N.O. TIMED CLOSING CONTACT
	OFF-DELAY N.C. CONTACT (OPENS WHEN ENERGIZED, TIMED CLOSING AFTER DE-ENERGIZING)
	OFF-DELAY N.O. CONTACT (CLOSES WHEN ENERGIZED, TIMED OPENING AFTER DE-ENERGIZING)
	INDICATOR OR PILOT LIGHT: R-RED, B-BLUE, W-WHITE, G-GREEN, A-AMBER O-ORANGE, C-CLEAR, NE-NEON, OP-OPALESCENT, P-PURPLE
L U	LATCHING RELAY L = LATCH COIL U = UNLATCH COIL
	FIELD WIRING
ETM	ELAPSED TIME METER
	CONTROL POWER TRANSFORMER (WITHIN MOTOR STARTER)
SV	SOLENOID VALVE
PB	PUSH BUTTON STATION MOMENTARY CONTACT START-STOP
PBM	PUSH BUTTON STATION MAINTAINED CONTACT START-STOP
ES	PUSH BUTTON STATION EMERGENCY STOP MAINTAINED CONTACT START-STOP
T	THERMOSTAT

ELECTRICAL SYMBOLS

POWER

SYMBOL	DESCRIPTION
	PANELBOARD
T	TRANSFORMER
	DISCONNECT SWITCH, NON-FUSED
	DISCONNECT SWITCH - FUSED
	COMBINATION MOTOR STARTER
	LOCAL-OFF-REMOTE CONTROL STATION (LOR)
J	JUNCTION BOX
P	PULL BOX
CB	ENCLOSED CIRCUIT BREAKER
EPO	EMERGENCY POWER OFF SWITCH
	ELECTRICAL PULLBOX
	UTILITY POLE
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE (15 AMP UNLESS OTHERWISE NOTED)
NEMA 4X	NEMA 4X RECEPTACLE
	GROUND FAULT INTERRUPTER TYPE RECEPTACLE
WP	GROUND FAULT INTERRUPTER TYPE RECEPTACLE WITHIN WEATHER-PROOF WHILE IN USE BOX
	SPECIAL PURPOSE RECEPTACLE - 480V
	SPECIAL PURPOSE RECEPTACLE - 208V
	BRANCH CIRCUIT HOME RUN. SWBD = SWITCHBOARD HOME RUN PP = PANELBOARD "PP" HOME RUN LP = PANELBOARD "LP" HOME RUN
	INSTRUMENT

LIGHTING

SYMBOL	DESCRIPTION
F-#	LIGHTING FIXTURE (TYPE AS SHOWN)
F-#EM	LIGHTING FIXTURE (EMERGENCY OR NIGHT LIGHT)
	HID WALL PACK
	EXIT SIGN - CEILING OR PENDANT MOUNTED (SHADED PORTION INDICATES FACE)
	EXIT SIGN - WALL MOUNTED
	POLE MOUNTED LIGHTING FIXTURE SINGLE, DOUBLE HEAD
	CEILING MOUNTED LIGHTING FIXTURE (TYPE AS SHOWN)
	WALL MOUNTED LIGHTING FIXTURE (TYPE AS SHOWN)
	EMERGENCY BATTERY UNIT WITH REMOTE HEADS
OC	OCCUPANCY SENSOR
PC	PHOTOCELL
S	SINGLE POLE LINE VOLTAGE SWITCH

GROUNDING

SYMBOL	DESCRIPTION
	3/4" X 10' COPPER CLAD GROUND ROD
	GROUND GRID TEST WELL
	EXOTHERMIC WELD CONNECTION (BELOW GROUND)
	BOLTED GROUND CONNECTION (ABOVE GROUND)
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
A	LIGHTNING PROTECTION AIR TERMINAL

ELECTRICAL SYMBOLS

GENERAL

SYMBOL	DESCRIPTION
#	DRAWING NOTE NUMBER 2
PC###	POWER CIRCUIT NUMBER
P	POINT OF CONNECTION
#	COMPARTMENT NUMBER 2
CLASS__ DIV__ GROUP__	NEC ARTICLE 500 HAZARDOUS (CLASSIFIED) AREA DEFINITION
	DEMOLITION LINE TYPE
	EXISTING
	PROPOSED ELECTRICAL WORK
	PROPOSED UNDERGROUND ELECTRICAL WORK
	FUTURE ELECTRICAL WORK
G G	UNDERGROUND COPPER GROUNDING CONDUCTOR (SIZE AS SHOWN ON DRAWING)
OHE	OVERHEAD ELECTRIC
UE UE	UNDERGROUND ELECTRIC
	CONCRETE ENCASED DUCT BANK

ELECTRICAL ABBREVIATIONS

A, AMP	-AMPERE
AC	-ALTERNATING CURRENT
AIC	-AMPS INTERRUPTING CAPACITY
AF	-AMP FRAME
AT	-AMP TRIP
ATS	-AUTOMATIC TRANSFER SWITCH
AWG	-AMERICAN WIRE GAUGE
C	-CONDUIT
CCTV	-CLOSED CIRCUIT TELEVISION
CEP	-CONCRETE EQUIPMENT PAD
CKT	-CIRCUIT
CMH	-COMMUNICATION MANHOLE
COND	-CONDUCTOR
CPT	-CONTROL POWER TRANSFORMER
CR	-CONTROL RELAY
CU	-COPPER
CWA	-CONSTANT WATTAGE AUTOTRANSFORMER
CRAC	-COMPUTER ROOM AIR CONDITIONER
DC	-DIRECT EXPANSION CONDENSER
DISC	-DISCONNECT
DP	-DISTRIBUTION PANEL
DPST	-DOUBLE POLE SINGLE THROW
DPDT	-DOUBLE POLE DOUBLE THROW
DS	-DISCONNECT SWITCH
DT	-DOUBLE THROW
E,EMERG	-EMERGENCY
EC	-EMPTY CONDUIT
EMT	-ELECTRICAL METALLIC TUBING
ETM	-ELAPSED TIME METER
ERV	-ENERGY RECOVERY VENTILATOR
EXIST.	-EXISTING
FA	-FIRE ALARM
FE	-FLOW PRIMARY ELEMENT
FAAP	-FIRE ALARM ANNUNCIATOR PANEL
FACP	-FIRE ALARM CONTROL PANEL
FDR	-FEEDER
FIT	-FLOW INDICATING TRANSMITTER
FLA	-FULL LOAD AMPERES
FMC	-FLEXIBLE METAL CONDUIT
FS	-FLOW SWITCH
FU	-FUSED OR FUSIBLE
FVR	-FULL VOLTAGE REVERSING
FVNR	-FULL VOLTAGE NON-REVERSING
G, GND	-GROUND
GFI	-GROUND FAULT INTERRUPTER
GFR	-GROUND FAULT RELAY
GRS	-GALVANIZED RIGID STEEL CONDUIT
HH	-HANDHOLE
HT	-HIGH TEMPERATURE
HV	-HIGH VOLTAGE
HZ	-HERTZ
IC	-INTERRUPTING CAPACITY
IG	-ISOLATED GROUND
I/I	-CURRENT/CURRENT TRANSDUCER
I/O	-INPUT/OUTPUT
IT	-INSTANTANEOUS TRIP OR INTERCHANGEABLE
JB	-JUNCTION BOX
KCMIL	-THOUSAND CIRCULAR MILS
KV	-KILOVOLTS
KVA	-KILOVOLT AMPERES
KVAR	-KILOVOLT AMPERES REACTIVE
KW	-KILOWATTS
KWH	-KILOWATT HOUR

ELECTRICAL ABBREVIATIONS

LA	-LIGHTING ARRESTOR
LE	-LEVEL ELEMENT
LFMC	-LIQUID TIGHT FLEXIBLE METAL CONDUIT
LOR	-LOCAL-OFF-REMOTE
LP	-LIGHTING PANELBOARD
LS	-LIMIT SWITCH
LIT	-LEVEL INDICATING TRANSMITTER
LVL	-LEVEL SWITCH
LTG	-LIGHTING
LPS	-LIGHTNING PROTECTION SYSTEM
LVTU	-LOW VOLTAGE TRIP UNIT
mA	-MILLIAMPS
MA	-MAIN A
MB	-MAIN B
MF	-MAIN FEEDER
MCB	-MAIN CIRCUIT BREAKER
MCP	-MOTOR CIRCUIT PROTECTOR
MH	-MANHOLE
MLO	-MAIN LUGS ONLY
MMD	-METER MONITORING DEVICE
MV	-MEDIUM VOLTAGE
MVTU	-MEDIUM VOLTAGE TRIP UNIT
NC	-NORMALLY CLOSED
NF	-NON-FUSED
NFSS	-NON-FUSED SAFETY SWITCH
NGR	-NEUTAL GROUNDING RESISTOR
NO	-NORMALLY OPEN
ODP	-OPEN DRIP PROOF
OL	-OVERLOAD
(#)P	-(#) NUMBER OF POLES
Ø, PH	-PHASE
P/I	-PNEUMATIC/CURRENT TRANSDUCER
PB	-PUSHBUTTON
PCP	-PUMP CONTROL PANEL
PE	-PRESSURE ELEMENT
PF	-POWER FACTOR
PL	-PILOT LIGHT
PLC	-PROGRAMMABLE LOGIC CONTROLLER
PIT	-PRESSURE INDICATING TRANSMITTER
PP	-POWER PANELBOARD
PS	-PRESSURE SWITCH
PT	-POTENTIAL TRANSFORMER
RFI	-RADIO FREQUENCY INTERFERENCE
RLA	-RUNNING LOAD AMPERES
RMS	-ROOT MEAN SQUARE
RSC	-RIGID STEEL CONDUIT
RTD	-RESISTIVE TEMPERATURE DETECTOR
RVAT	-REDUCED VOLTAGE AUTO TRANSFORMER
RECPT	-RECEPTACLE
SC	-SURGE CAPACITOR
SS	-SAFETY SWITCH OR STAINLESS STEEL
SST	-SOLID STATE
ST	-SINGLE THROW
SWS	-SWITCHES
SWBD	-SWITCHBOARD
SWGR	-SWITCHGEAR
T-STAT,T	-THERMOSTAT
TEL, TELE	-TELEPHONE
TMH	-TELECOM MANHOLE
TR	-TIMING RELAY
TS	-TEMPERATURE SWITCH
TSP	-TWISTED SHIELDED PAIR
UTP	-UNSHIELDED TWISTED PAIR - VOLTS
V	-VOLT
VA	-VOLT - AMPERES
VFD	-VARIABLE FREQUENCY DRIVE
VS	-VIBRATION SWITCH
W	-WATTS, WIRE
XFMR	-TRANSFORMER
XP	-EXPLOSION PROOF
2S1W	-2 SPEED SINGLE WINDING
2S2W	-2 SPEED TWO WINDING

GENERAL NOTES:

1. THIS IS A STANDARD SYMBOL LIST, SOME SYMBOLS MAY NOT APPEAR ON THE ACCOMPANYING DRAWINGS.
2. ALL ELECTRICAL EQUIPMENT AND WIRING IS NEW UNLESS OTHERWISE NOTED.
3. WHERE EXISTING EQUIPMENT AND WIRING IS SHOWN TO BE MODIFIED OR REMOVED, FIELD VERIFY EXISTING LOCATIONS, CONNECTIONS AND WIRING TO ENSURE ACTUAL FEATURES ARE AS SHOWN OR NOTED.
4. FIELD VERIFY EXISTING FEATURES AS NECESSARY TO COORDINATE EXECUTION OF THE WORK SHOWN.
5. ELECTRICAL EQUIPMENT SHALL BE MOUNTED WITH OPERATING CONTROLS BETWEEN APPROXIMATELY 4'-0" AND 6'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE SHOWN OR SPECIFIED.

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK

DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

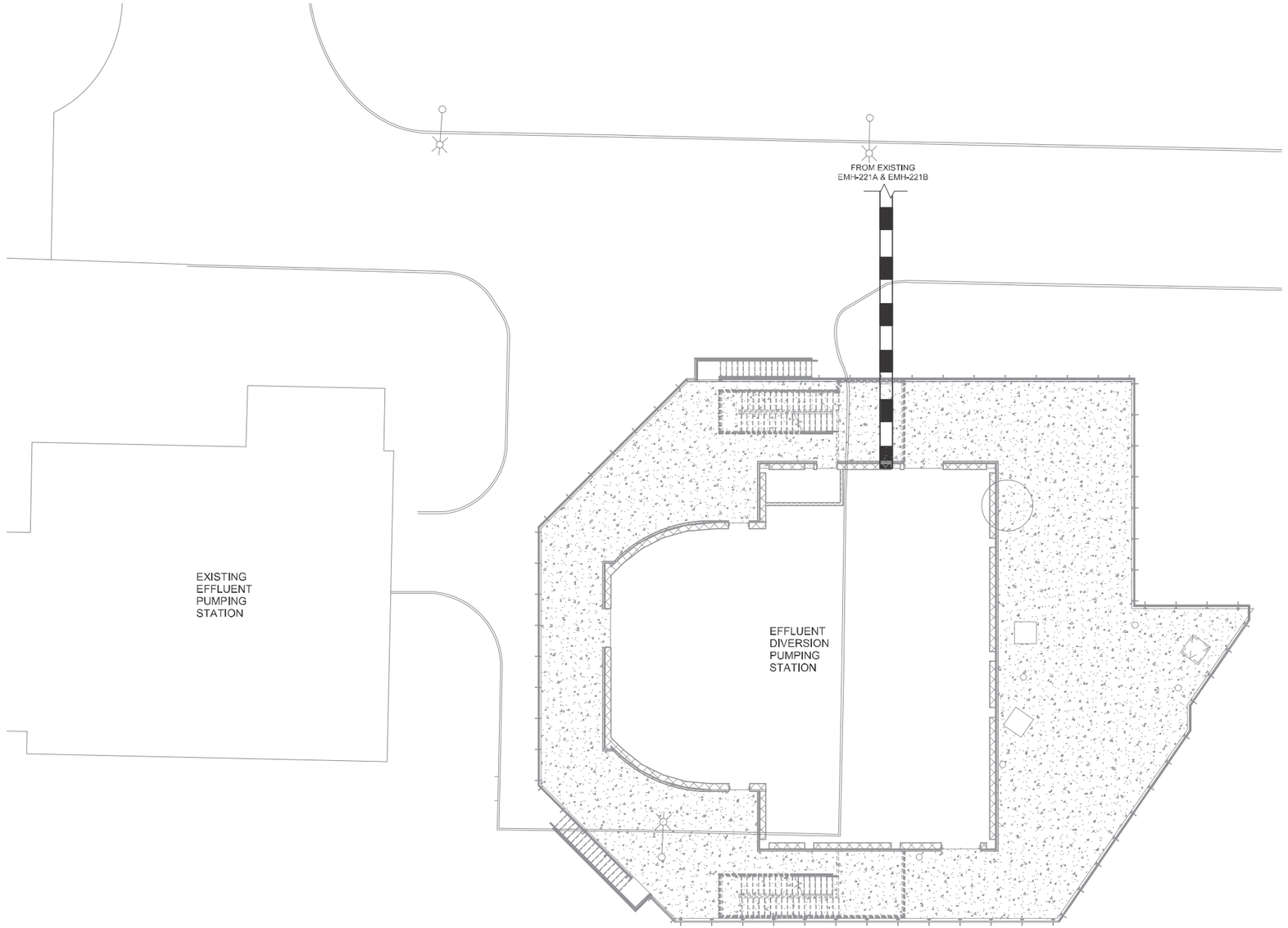
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

GENERAL NOTES, SYMBOLS & ABBREVIATIONS

SCALE: AS NOTED

BP-E001



SITE PLAN
1" = 10'-0"

PLAN NORTH

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

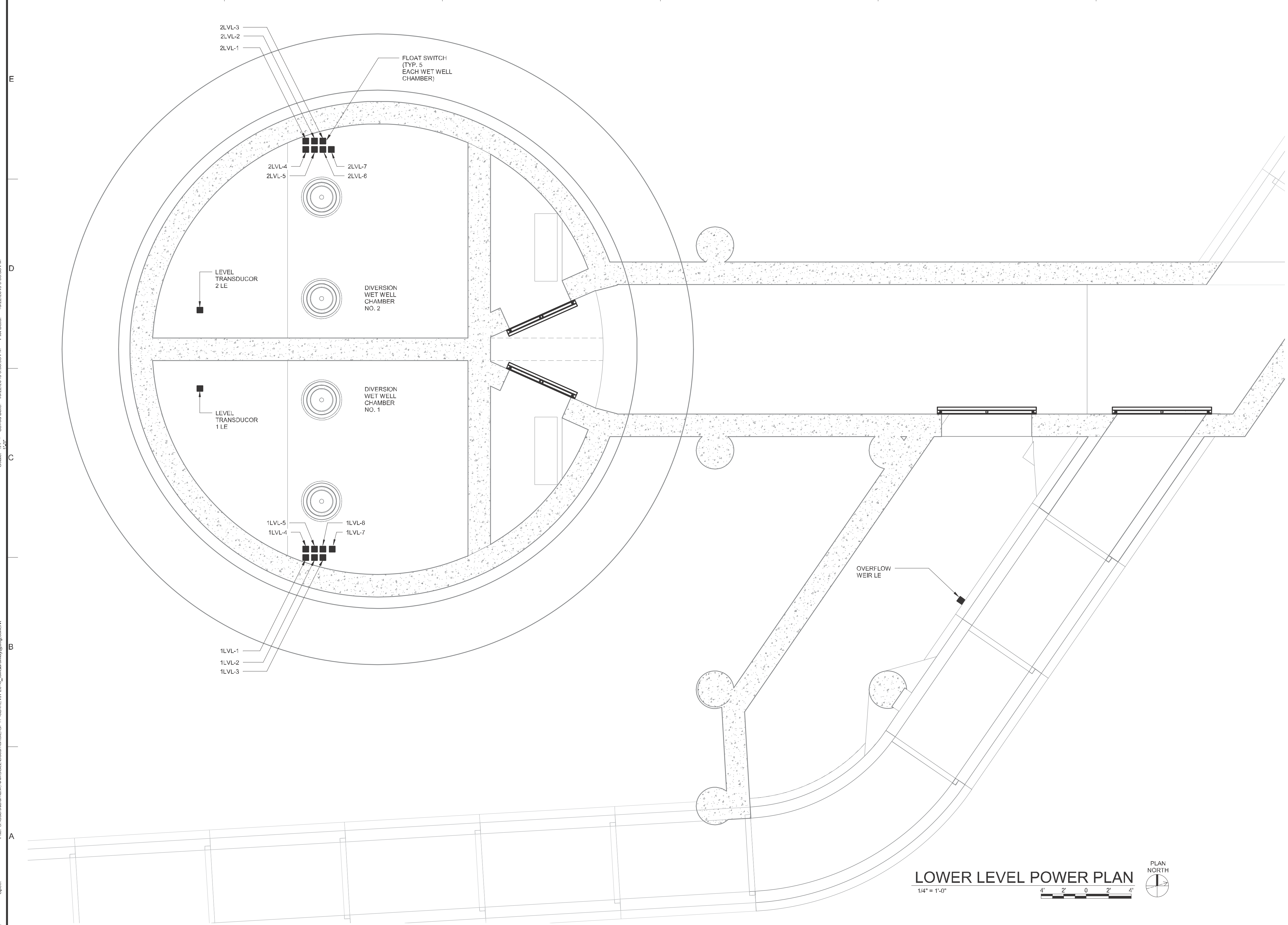
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
SITE PLAN

SCALE:
AS NOTED

BP-E101

PAGE 47



LOWER LEVEL POWER PLAN

1/4" = 1'-0"

PLAN NORTH

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DATE: 10/2019

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

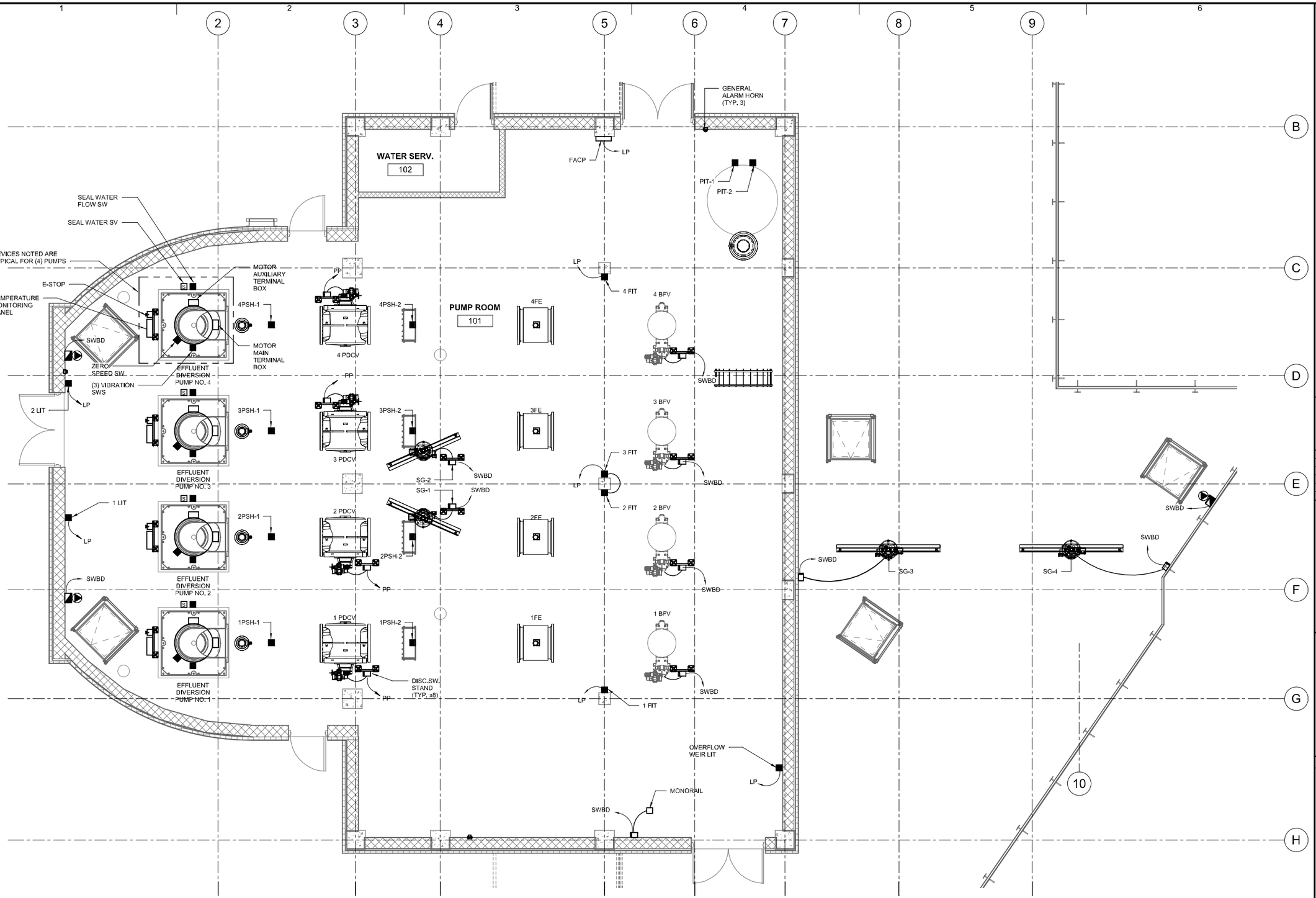
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

LOWER LEVEL POWER PLAN

SCALE: AS NOTED

BP-E102



UPPER LEVEL POWER PLAN

1/4" = 1'-0"

PLAN NORTH

4' 2' 0 2' 4'

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

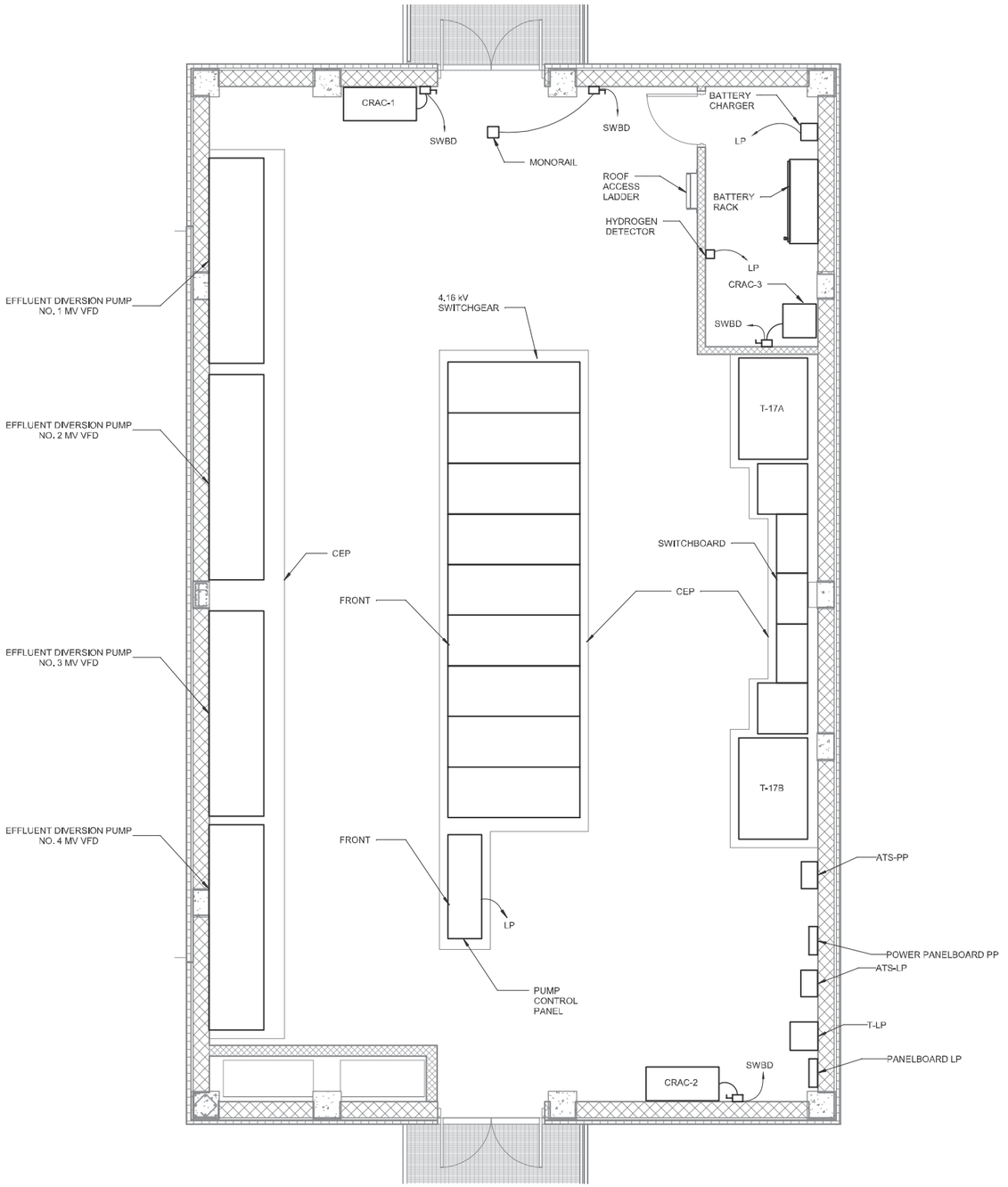
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

UPPER LEVEL
POWER PLAN

SCALE:
AS NOTED

BP-E103



ELECTRICAL ROOM POWER PLAN

1/4" = 1'-0"

PLAN NORTH

4' 2' 0 2' 4'

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

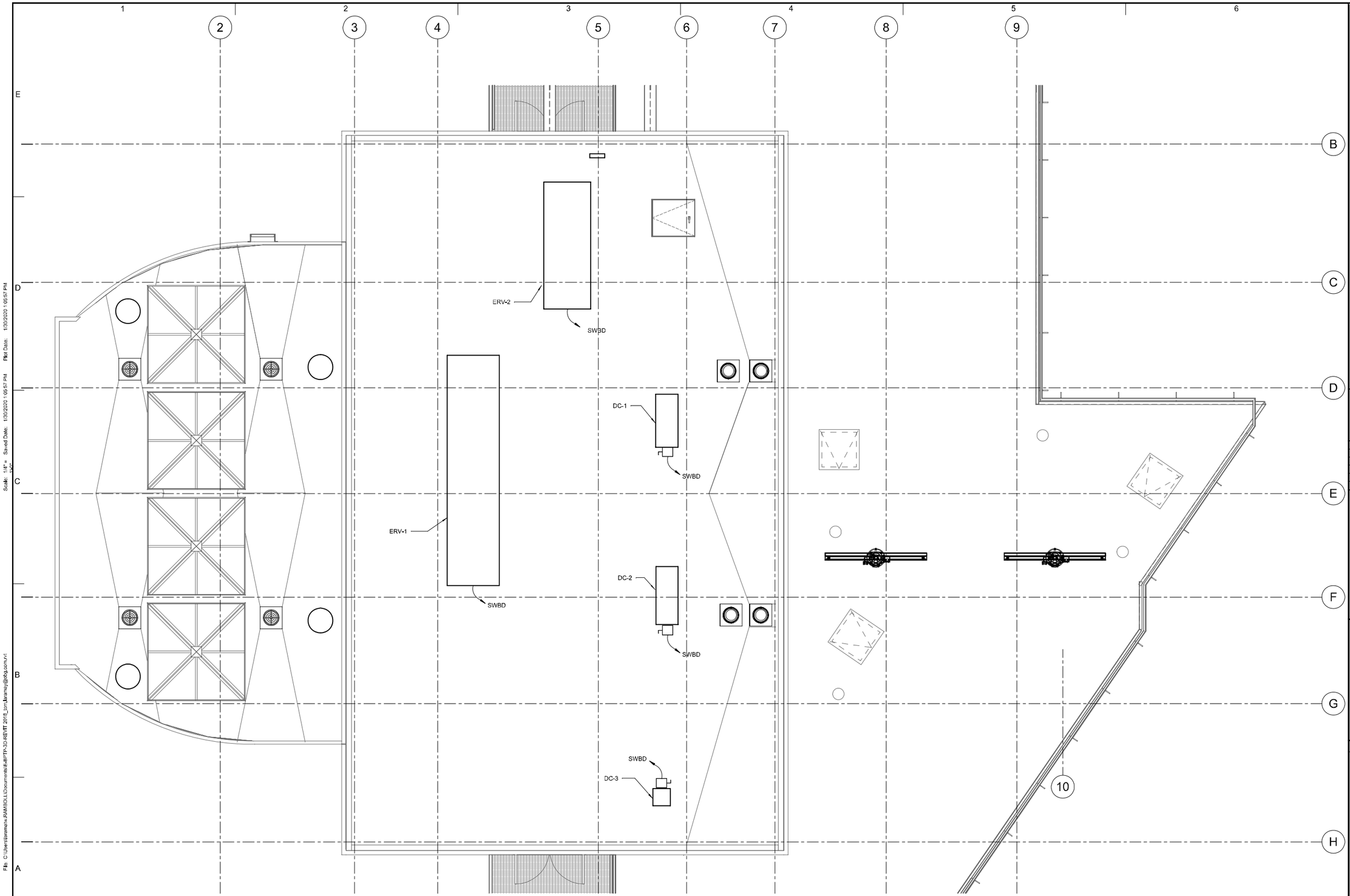
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

ELECTRICAL ROOM POWER PLAN

SCALE:
AS NOTED

BP-E104



ROOF POWER PLAN

1/4" = 1'-0"

PLAN NORTH

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 10/2019

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

ROOF POWER PLAN

SCALE:
AS NOTED

BP-E105

PAGE 51

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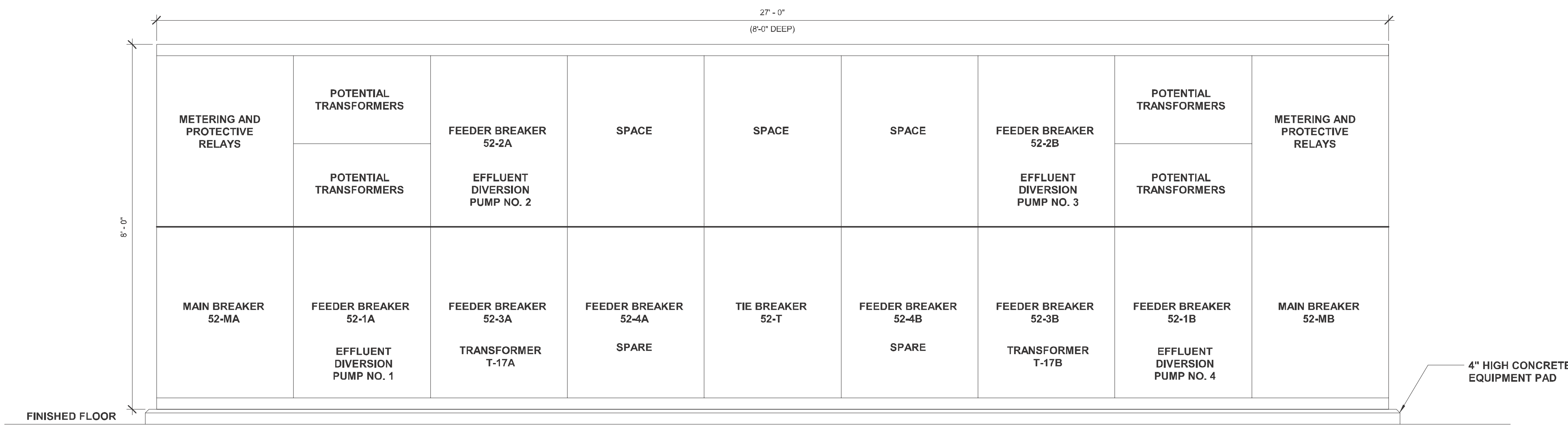

4.16 KV SWITCHGEAR ELEVATION

NOT TO SCALE

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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CHECKED BY: J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

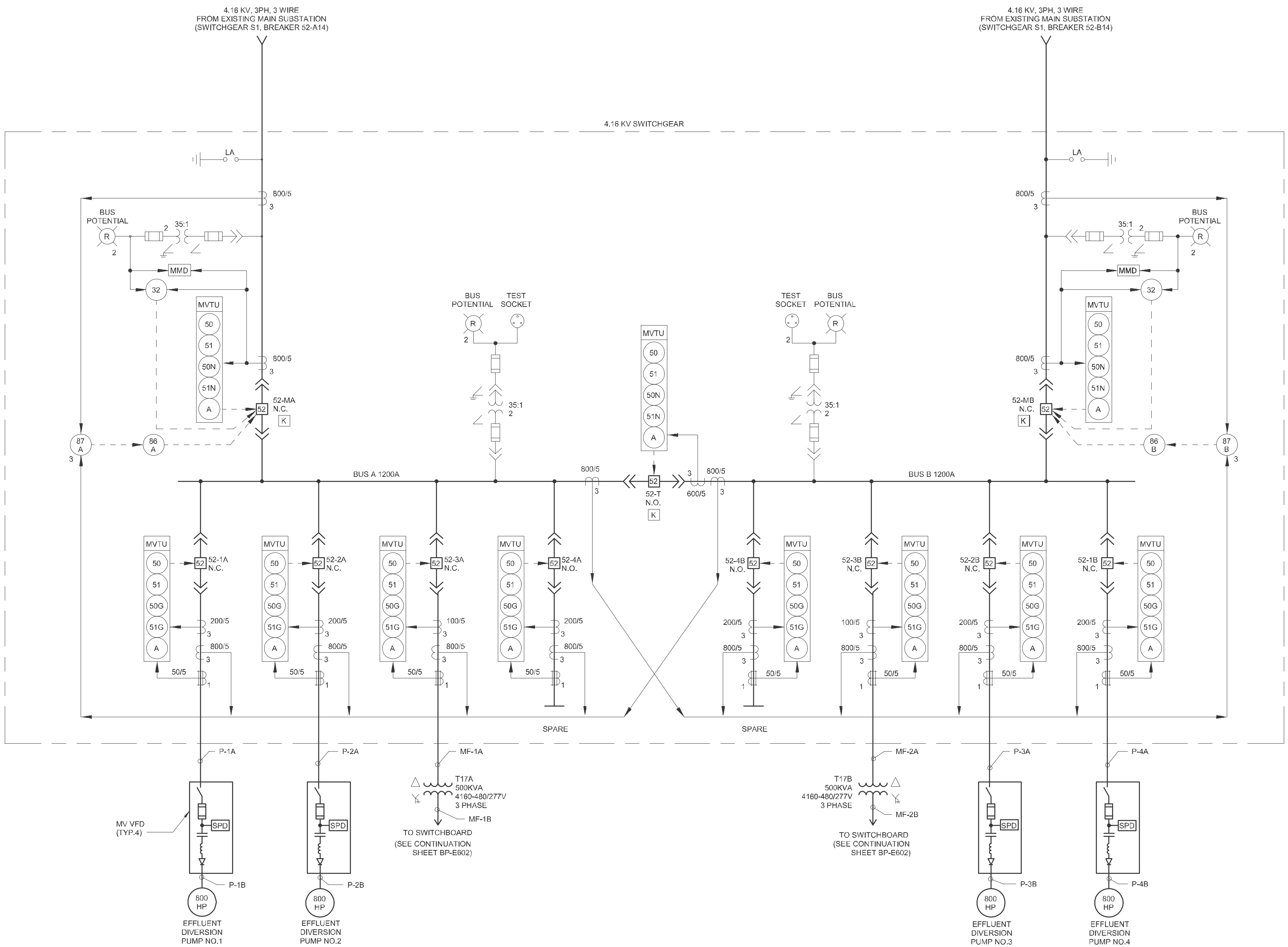
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION
4.16 kV SWITCHGEAR ELEVATION

SCALE: AS NOTED

BP-E201



4.16 KV POWER DISTRIBUTION ONE-LINE DIAGRAM

NOT TO SCALE

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/2019

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CRITERIA PACKAGE

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DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
4.16 KV POWER
DISTRIBUTION ONE-LINE
DIAGRAM

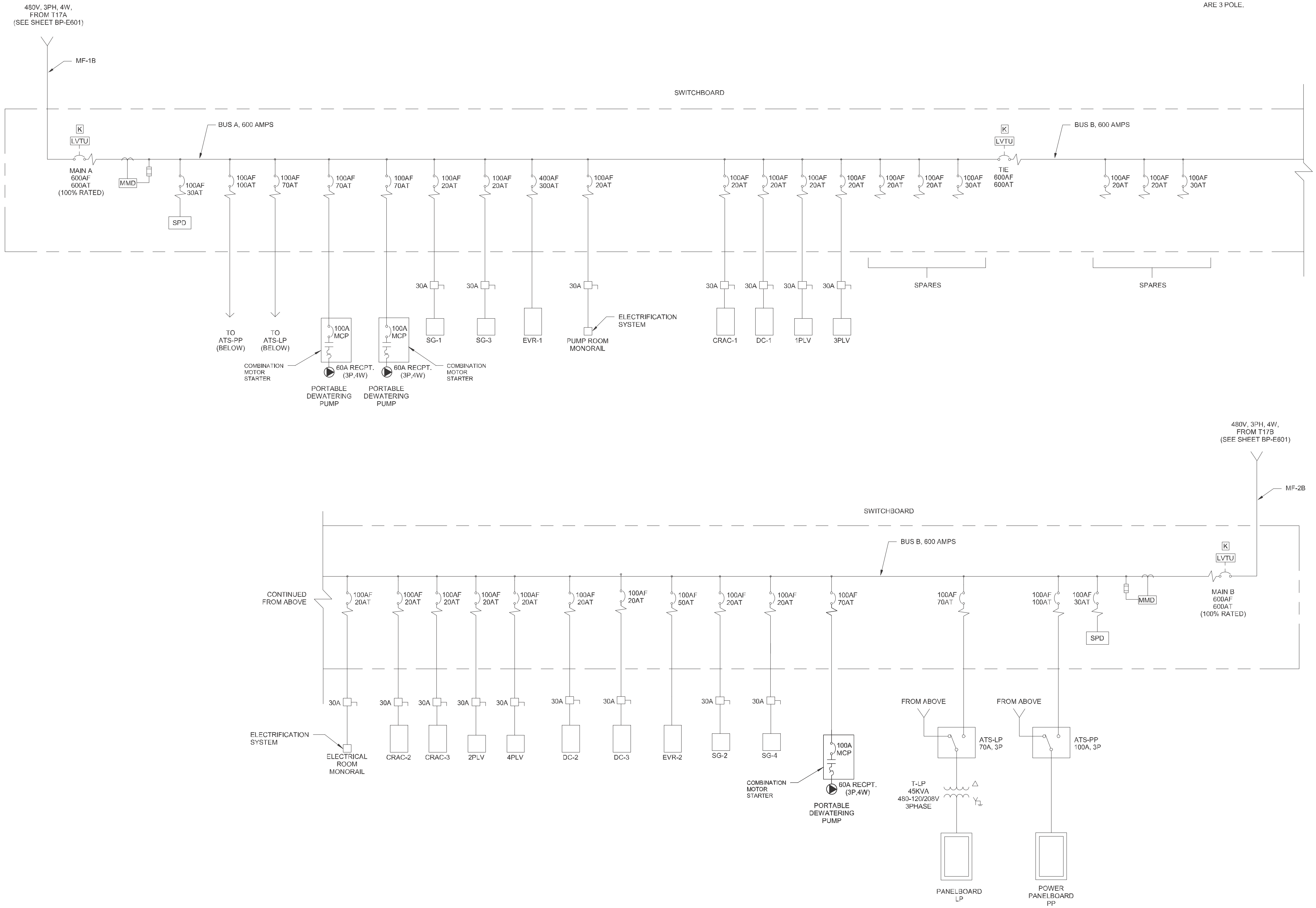
SCALE: AS NOTED

BP-E601

Scale: AS SHOWN Saved Date: 10/22/2019 3:36:38 PM Plot Date: 10/22/2019 3:36:38 PM

DRAWING NOTES:

1. ALL CIRCUIT BREAKERS AND DISCONNECT SWITCHES ARE 3 POLE.



SWITCHBOARD ONE-LINE DIAGRAM

NOT TO SCALE

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
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DRAWN BY: J.CLARK
CHECKED BY: J. CROSIER

NASSAU COUNTY, NEW YORK

DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

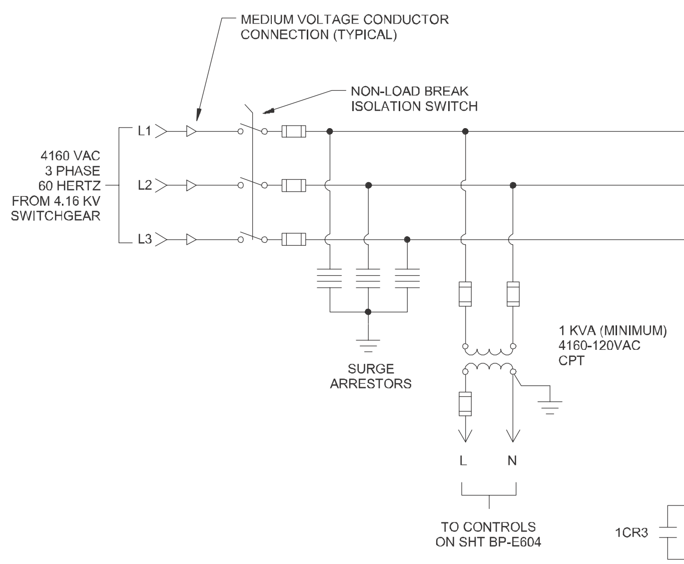
SWITCHBOARD ONE-LINE DIAGRAM

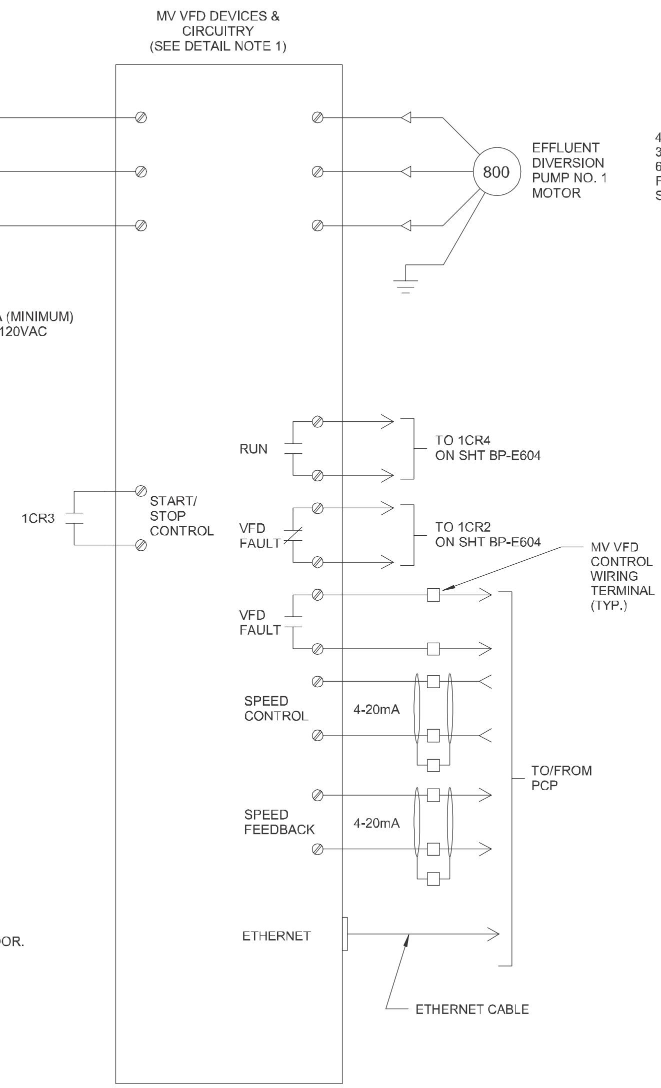
SCALE: AS NOTED

BP-E602

1 2 3 4 5 6

E D C B A





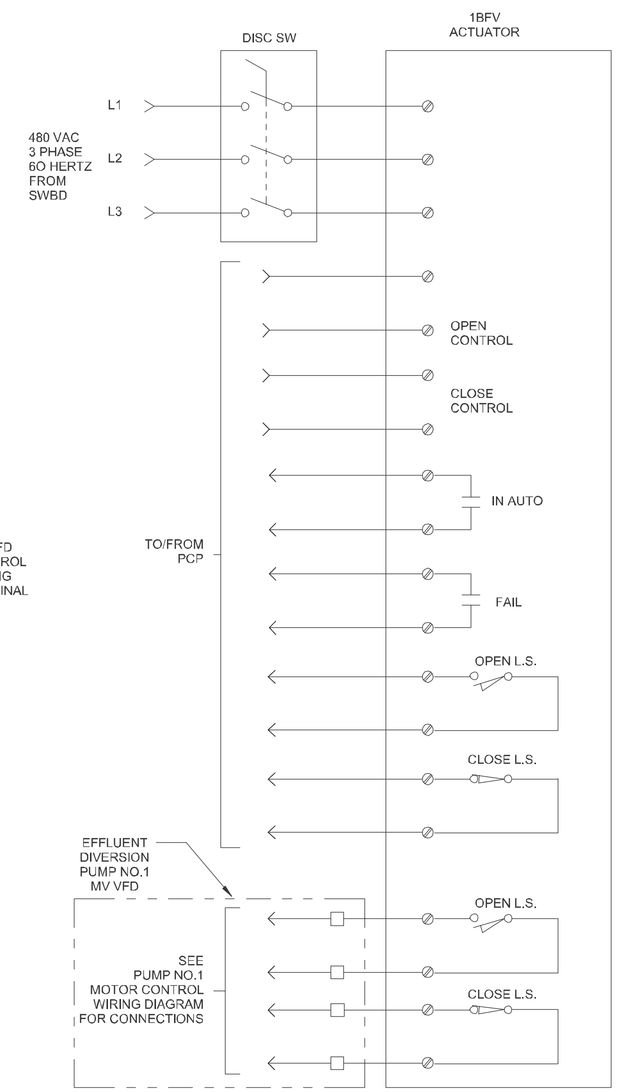
DETAIL NOTES/MANDATORY REQUIREMENTS:

1. MEDIUM VOLTAGE VFD DEVICES AND CIRCUITRY SHALL INCLUDE INPUT CONTACTOR, LINE REACTOR, ACTIVE FRONT END, DC LINK, INVERTER, AUXILIARY POWER SUPPLIES, PT'S, CT'S, METERING, CONTROLS, PROTECTIVE DEVICES, OPERATOR INTERFACE TERMINAL, COOLING FANS AND OTHER COMPONENTS AS SPECIFIED.
2. THE CONTROLS SHOWN ARE MINIMUM REQUIREMENTS. IN ADDITION TO THE CONTROLS SHOWN, PROVIDE ALL SAFETY DEVICES, INTERLOCKS AND FEATURES AS SPECIFIED AND AS RECOMMENDED BY THE MEDIUM VOLTAGE VFD MANUFACTURER FOR SAFE OPERATION, EQUIPMENT PROTECTION AND MAINTAINABILITY.
3. SELECTOR SWITCHES, PUSH BUTTONS, INDICATING LIGHTS AND OPERATOR INTERFACE TERMINAL THAT ARE REQUIRED TO BE COMPONENTS OF THE MEDIUM VOLTAGE VFD SHALL BE MOUNTED ON THE MEDIUM VOLTAGE VFD ENCLOSURE DOOR. CONTROL RELAYS, TIMING RELAYS AND ASSOCIATED WIRING TERMINALS SHALL BE MOUNTED ON THE INTERIOR OF THE MEDIUM VOLTAGE VFD ENCLOSURE IN A DEDICATED LOW VOLTAGE CONTROLS COMPARTMENT.
4. DEVICES FOR EFFLUENT DIVERSION PUMP NO. 1 SHALL BE IDENTIFIED WITH PREFIX 1 AS SHOWN. DEVICES FOR EFFLUENT DIVERSION PUMPS NO. 2, 3, AND 4 SHALL BE IDENTIFIED WITH PREFIXES 2, 3, AND 4 RESPECTIVELY.

EFFLUENT DIVERSION PUMP NO. 1

NOT TO SCALE

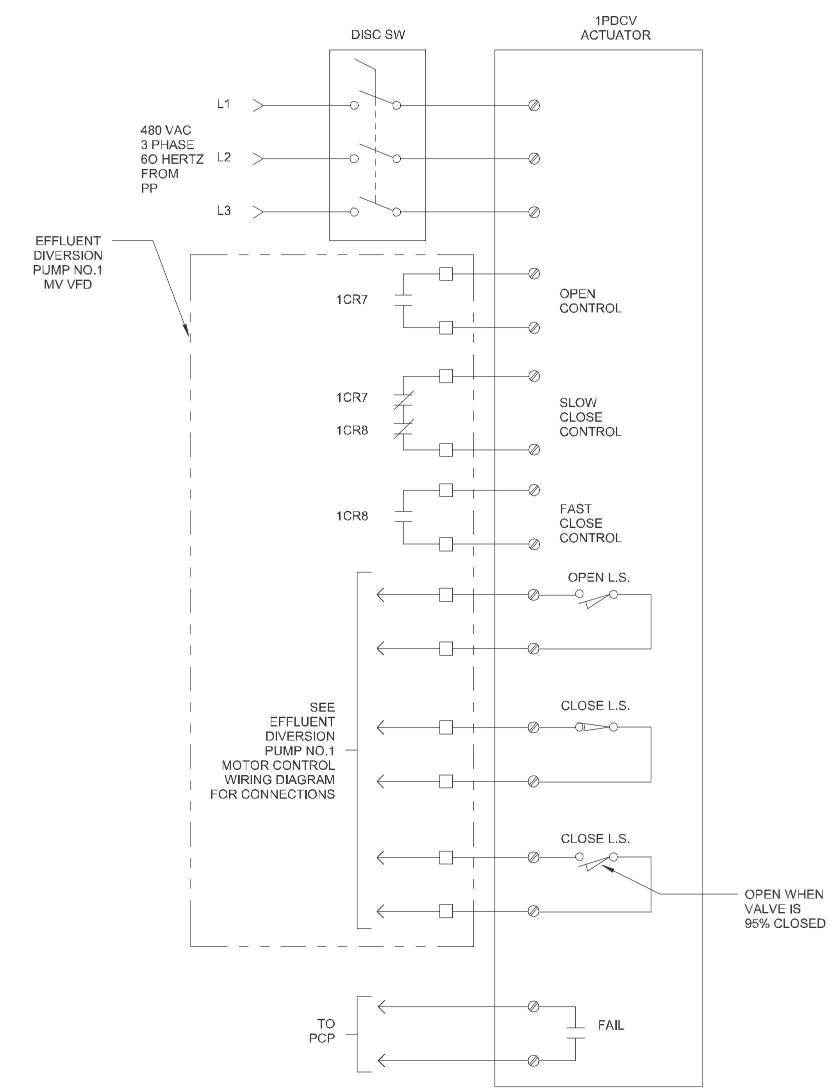
TYPICAL: EFFLUENT DIVERSION PUMP NO. 2
EFFLUENT DIVERSION PUMP NO. 3
EFFLUENT DIVERSION PUMP NO. 4



EFFLUENT DIVERSION PUMP NO.1 PLUG VALVE (1BFV)

NOT TO SCALE

TYPICAL: 2BFV WITH EFFLUENT DIVERSION PUMP NO. 2
3BFV WITH EFFLUENT DIVERSION PUMP NO. 3
4BFV WITH EFFLUENT DIVERSION PUMP NO. 4



EFFLUENT DIVERSION PUMP NO.1 PUMP DISCHARGE CONTROL VALVE (1PDCV)

NOT TO SCALE

TYPICAL: 2PDCV WITH EFFLUENT DIVERSION PUMP NO. 2
3PDCV WITH EFFLUENT DIVERSION PUMP NO. 3
4PDCV WITH EFFLUENT DIVERSION PUMP NO. 4

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FINAL DESIGN CRITERIA PACKAGE

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APPROVED BY: J. DOMANSKI
DESIGNED BY: J. CROSIER
DRAWN BY: J.CLARK
CHECKED BY: J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

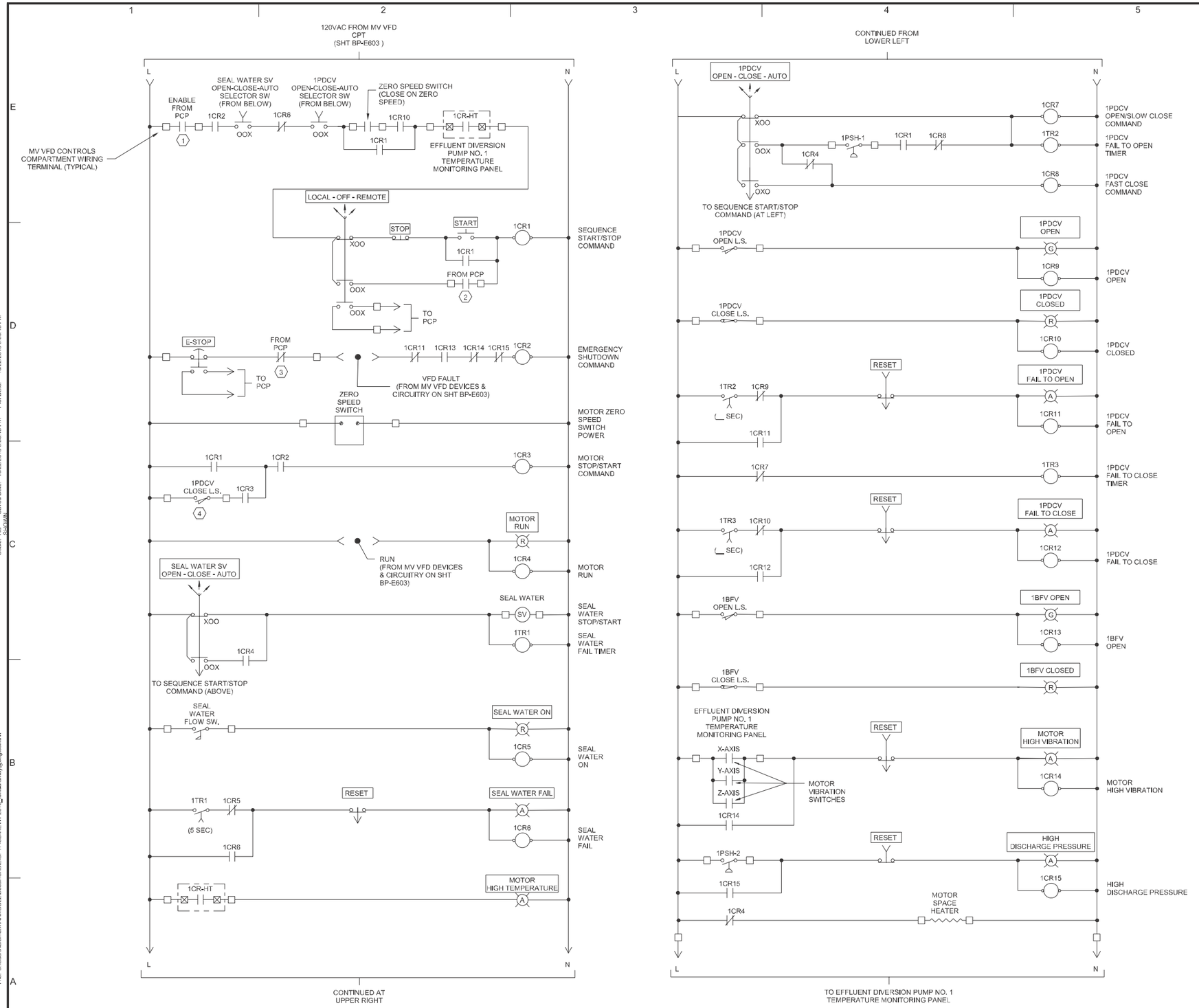
BAY PARK EFFLUENT DIVERSION PUMP STATION

MOTOR CONTROL WIRING DIAGRAMS

SCALE: AS NOTED

BP-E603

File: C:\Users\laramaw.RAMBOLL\Documents\E-BPTP-3D-REVIT 2018_romlaramay@cdg.com.rvt Spec: User: Scale: AS SHOWN Saved Date: 10/22/2019 3:36:41 PM Plot Date: 10/22/2019 3:36:41 PM



KEYED NOTES:

1. PCP DISCRETE OUTPUT FOR WET WELL LOW LEVEL (CONTACT SHALL OPEN ON LOW LEVEL).
2. PCP FOR DISCRETE OUTPUT FOR SEQUENCE STOP/START CONTROL (CONTACT SHALL CLOSE TO INITIATE START SEQUENCE/OPEN TO INTIATE STOP SEQUENCE).
3. PCP DISCRETE OUTPUT FOR EMERGENCY STOP COMMAND (CONTACT SHALL OPEN TO INITIATE EMERGENCY STOP).
4. LIMIT SWITCH SHALL OPEN WHEN 1PDCV IS 95% CLOSED.

DETAIL NOTES:

1. SEE DETAIL NOTES 2, 3, AND 4 ON SHEET BP-E603

EFFLUENT DIVERSION PUMP NO. 1 VFD CONTROL DIAGRAM

NOT TO SCALE

TYPICAL: EFFLUENT DIVERSION PUMP NO. 2 VFD
EFFLUENT DIVERSION PUMP NO. 3 VFD
EFFLUENT DIVERSION PUMP NO. 4 VFD

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION

MOTOR CONTROL WIRING DIAGRAM

SCALE: AS NOTED

BP-E604

PAGE 56

Scale: AS Saved Date: 10/22/2019 3:36:43 PM Plot Date: 10/22/2019 3:36:43 PM
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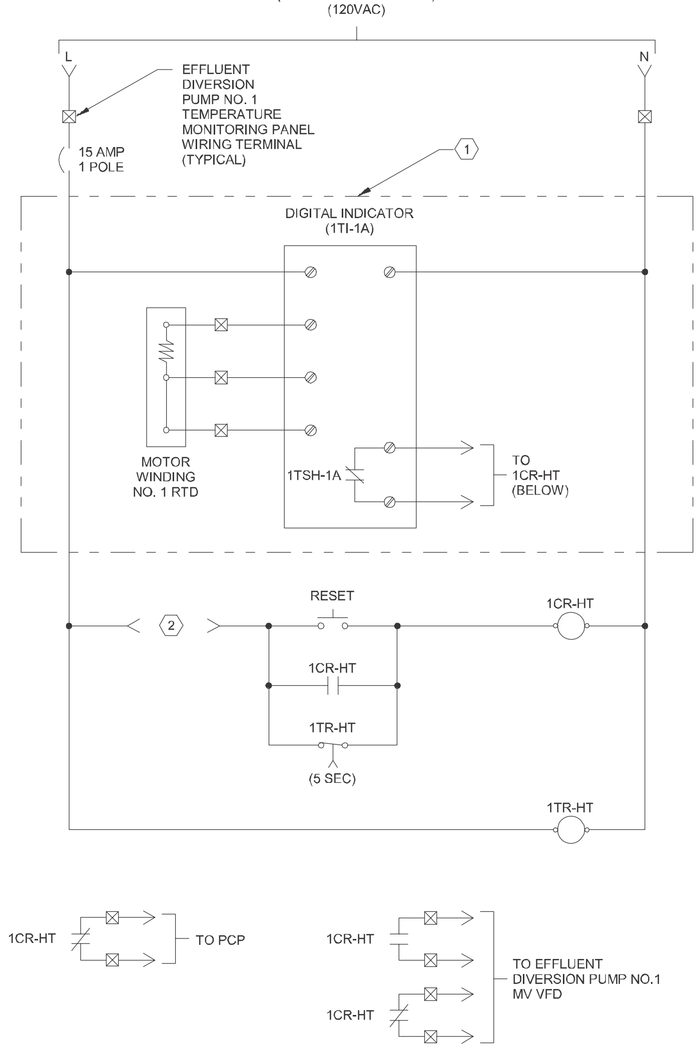
User:



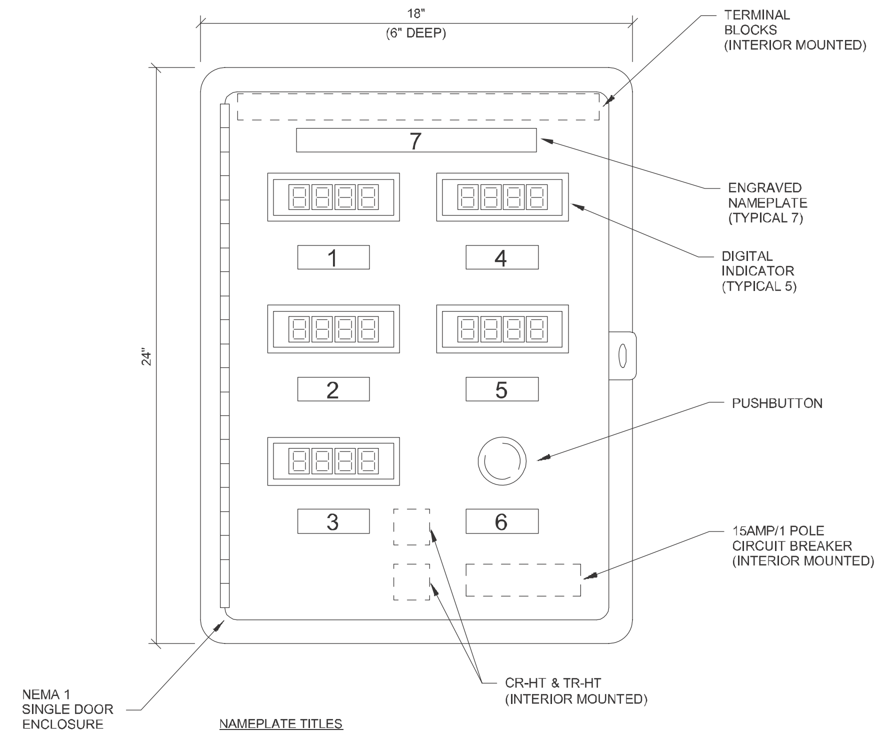
KEYED NOTES:

1. DEVICES AND WIRING SHALL BE TYPICAL FOR THE FOLLOWING:
   - -MOTOR WINDING NO.2 RTD WITH 1TI-1B/TSH-1B.
   - -MOTOR WINDING NO.3 RTD WITH 1TI-1C/TSH-1C.
   - -MOTOR TOP BEARING RTD WITH 1TI-1D/TSH-1D.
   - -MOTOR BOTTOM BEARING RTD WITH 1TI-1E/TSH-1E.
2. PROVIDE SERIES CONNECTION OF N.C. CONTACTS 1TSH-1A, 1TSH-1B, 1TSH-1C, 1TSH-1D AND 1TSH-1E.

EFFLUENT DIVERSION PUMP NO. 1 TEMPERATURE MONITORING PANEL

NOT TO SCALE

TYPICAL: EFFLUENT DIVERSION PUMP NO. 2 TEMPERATURE MONITORING PANEL
EFFLUENT DIVERSION PUMP NO. 3 TEMPERATURE MONITORING PANEL
EFFLUENT DIVERSION PUMP NO. 4 TEMPERATURE MONITORING PANEL



NAMEPLATE TITLES

1. MOTOR WINDING NO. 1
2. MOTOR WINDING NO. 2
3. MOTOR WINDING NO. 3
4. MOTOR TOP BEARING
5. MOTOR BOTTOM BEARING
6. RESET
7. EFFLUENT DIVERSION PUMP NO. 1 TEMPERATURE MONITORING PANEL

EFFLUENT DIVERSION PUMP NO. 1 TEMPERATURE MONITORING PANEL DETAIL

NOT TO SCALE

TYPICAL: EFFLUENT DIVERSION PUMP NO. 2 TEMPERATURE MONITORING PANEL
EFFLUENT DIVERSION PUMP NO. 3 TEMPERATURE MONITORING PANEL
EFFLUENT DIVERSION PUMP NO. 4 TEMPERATURE MONITORING PANEL

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

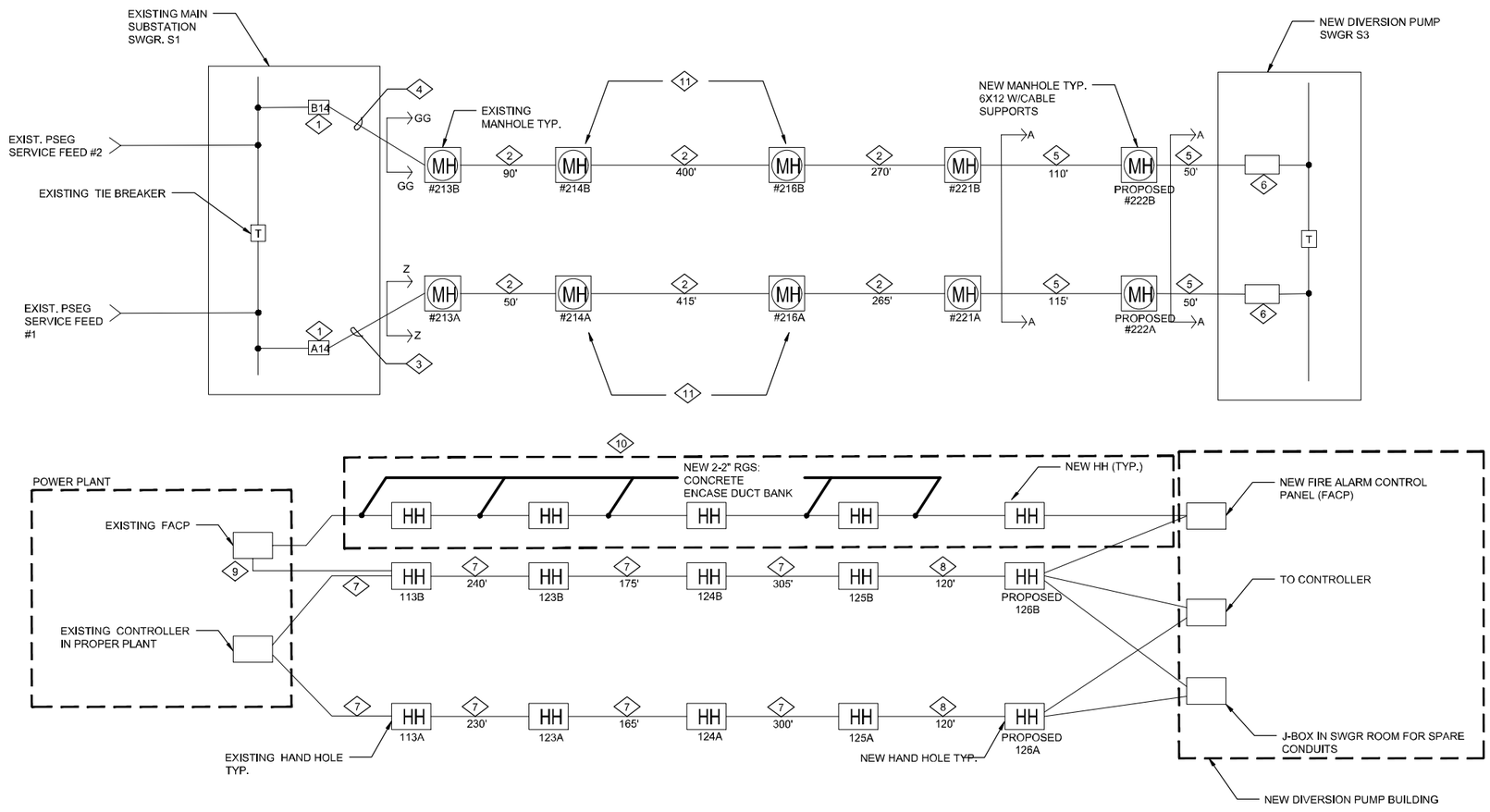
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

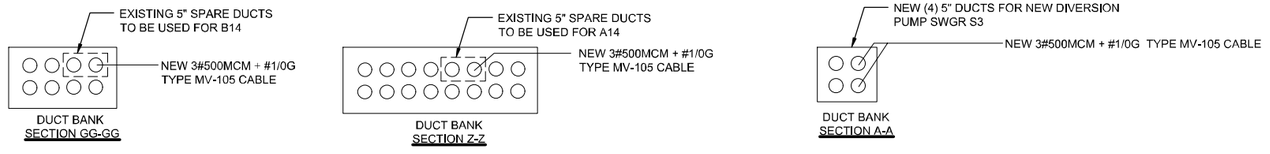
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION
MOTOR CONTROL WIRING DIAGRAMS

SCALE: AS NOTED

BP-E605





GENERAL NOTES/MANDATORY REQUIREMENTS:

1. REFER TO CIVIL DRAWINGS PREPARED BY HAZEN & SAWYER (PROJECT# H&S 90500-A08-500) FOR EXISTING MANHOLE AND HAND HOLE LOCATIONS.
2. ALL SPLICE KITS SHALL BE SUBMERSIBLE TYPE RATED FOR MIN. 20' DEPTH.
3. LENGTHS INDICATED ARE APPROXIMATE. CONTRACTOR TO CONFIRM LENGTH INFIELD.
4. CONTRACTOR SHALL PROVIDE 2-4 STRAND SINGLE MODE FIBER FROM EXISTING FACP IN THE POWER HOUSE TO THE NEW FACP IN NEW DIVERSION PUMP BUILDING. CONTRACTOR SHALL USE TWO(2) EXISTING SPACE & SEPERATE CONDUITS FOR THE STYLE 7 LOOP AS REQUIRED BY NFPA. TWO(2) SPARE CONDUITS SHALL BE DEDICATED FOR NEW FIRE ALARM FIBER. IF TWO (SPARE) CONDUITS FOR FIRE ALARM SYSTEM DO NOT EXIST REFER TO CODED NOTE #10 ON THIS DRAWING.

KEY NOTES:

1. USE EXISTING SPARE BREAKERS A14 AND B14 TO FEED NEW 5KV DIVERSION PUMP SWGR S3. BREAKERS TO BE SET AT 500 AMP TRIP.
2. USE EXISTING SPARE 5" RACEWAY IN DUCT BANK INSTALLED UNDER CONTRACT S35121-14F. PROVIDE NEW 5KV CONDUCTORS 3#500MCM + #1/0G TYPE MV-105 SHIELDED POWER CABLE.
3. TWO (2) SPARE 5" CONDUITS ENTER CUBICLE #3 UPPER FOR BREAKER A14.
4. TWO (2) SPARE 5" CONDUITS ENTER CUBICLE #27 UPPER FOR BREAKER B14.
5. PROVIDE NEW DUCT BANK WITH TWO (2) 5" RACEWAYS WITH NEW 5KV CONDUCTORS 3#500 MCM + #1/0 G TYPE MV-105 SHIELDED POWER CABLE AND (2) 5" RACEWAYS SPARE.
6. MAIN 5KV SWITCHES FOR DIVERSION PUMP SWGR S3 SHALL BE SET A 500 AMP TRIP BASED ON A LOAD CONSISTING OF (3) 800 HP DIVERSION PUMPS AND A 750 KVA 4160V PRIMARY/480 SECONDARY TRANSFORMER.
7. UTILIZE EXISTING SPARE CONTROL CONDUITS. COORDINATE IN FIELD.
8. PROVIDE DUCT BANK WITH (2) 4" RACEWAYS FOR COMMUNICATIONS CABLING.
9. PROVIDE FIBER TO COPPER CONNECTION IN EXISTING FACP. REPROGRAM EXISTING FACP AS REQUIRED. NEW FACP SHALL MATCH EXISTING FACP.
10. THE CONTRACTOR SHALL PROVIDE ADD/ALTERNATE PRICE FOR NEW CONCRETE ENCASED DUCT BANK BETWEEN EXISTING POWER HOUSE AND NEW FACP FOR DIMENSION PUMP BUILDING. ALL HAVEL HOLES SHALL BE HS-20 RATED.
11. PROVIDE SPLICE OF 5KV CONDUCTORS IN THIS MANHOLE.

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: ES-001
DESIGNED BY: PS
DRAWN BY: PS
CHECKED BY: RO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

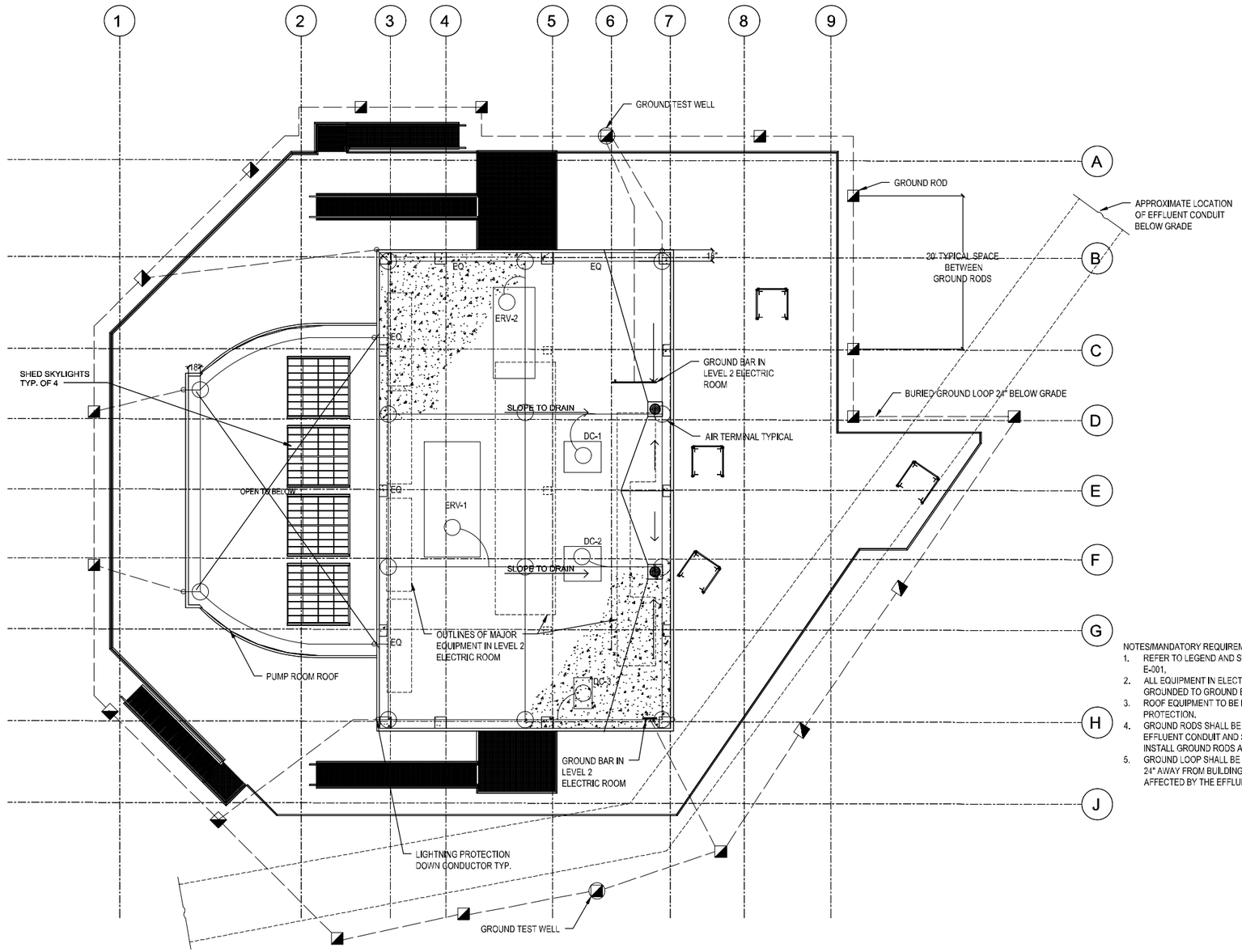
BAY PARK FORCE MAIN

BAY PARK EFFLUENT DIVERSION PUMP STATION

ELECTRICAL BLOCK DIAGRAM

SCALE: NOT TO SCALE

BP-ES001



BAY PARK PUMP STATION - ROOF LEVEL

1/8" = 1'-0"

NOTES/MANDATORY REQUIREMENTS:

1. REFER TO LEGEND AND SYMBOLS ON DRAWING E-001.
2. ALL EQUIPMENT IN ELECTRIC ROOM TO BE GROUNDED TO GROUND BARS IN THAT ROOM.
3. ROOF EQUIPMENT TO BE BONDED TO LIGHTNING PROTECTION.
4. GROUND RODS SHALL BE LOCATED CLEAR OF EFFLUENT CONDUIT AND SITE UTILITIES. DO NOT INSTALL GROUND RODS ABOVE EFFLUENT CONDUIT.
5. GROUND LOOP SHALL BE BURIED APPROXIMATELY 24" AWAY FROM BUILDING OUTLINE EXCEPT WHERE AFFECTED BY THE EFFLUENT CONDUIT.

0 4' 8' 16'

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: EG-001
DESIGNED BY: PS
DRAWN BY: PS
CHECKED BY: RO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

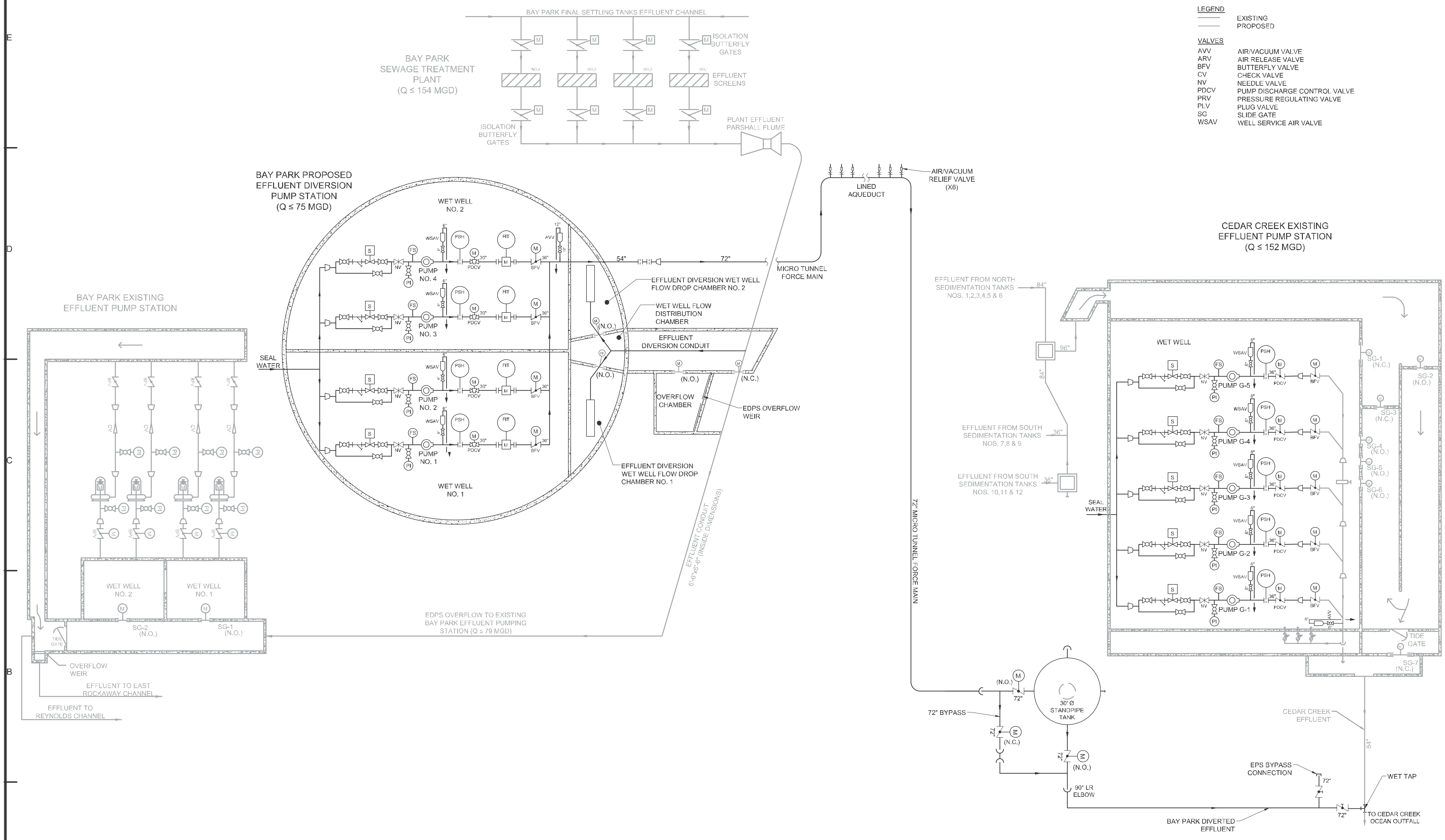
BAY PARK FORCE MAIN

BAY PARK EFFLUENT
DIVERSION PUMP STATION

ROOF LEVEL LIGHTNING
AND GROUNDING PLAN

SCALE:
AS SHOWN

BP-EG001



PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BPCC-M001
DESIGNED BY:	A. STEINHAUER
DRAWN BY:	J. OWENS
CHECKED BY:	A. STEIN HAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

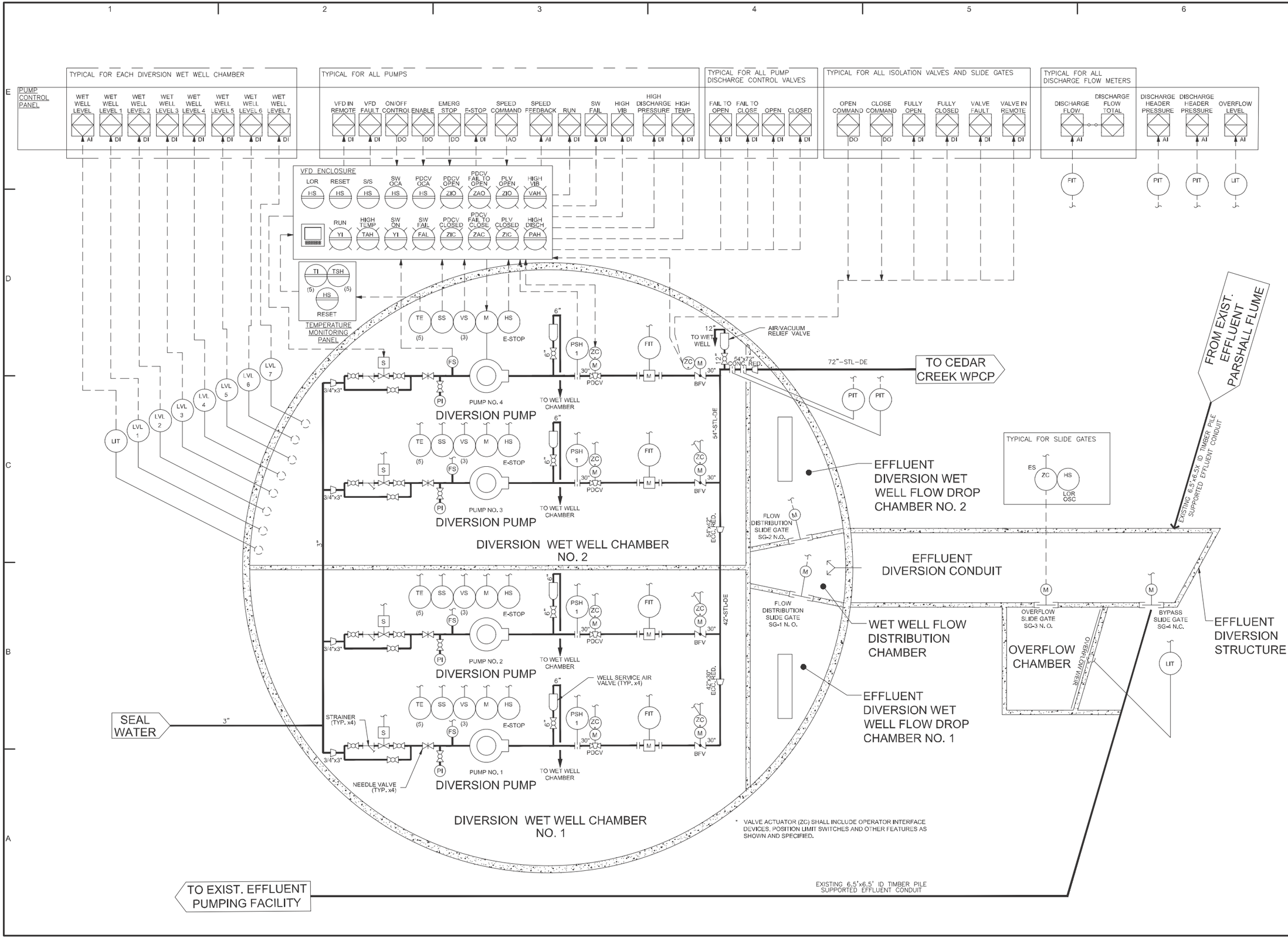
SHEET TITLE

BAY PARK EFFLUENT DIVERSION PUMP STATION AND CEDAR CREEK EXISTING EFFLUENT PUMP STATION

PROCESS FLOW DIAGRAM

SCALE: AS SHOWN

BPCC-M001



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NOT FOR
CONSTRUCTION

DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-I601
DESIGNED BY:	A. STEINHAUER
DRAWN BY:	J. OWENS
CHECKED BY:	F. PULIDO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

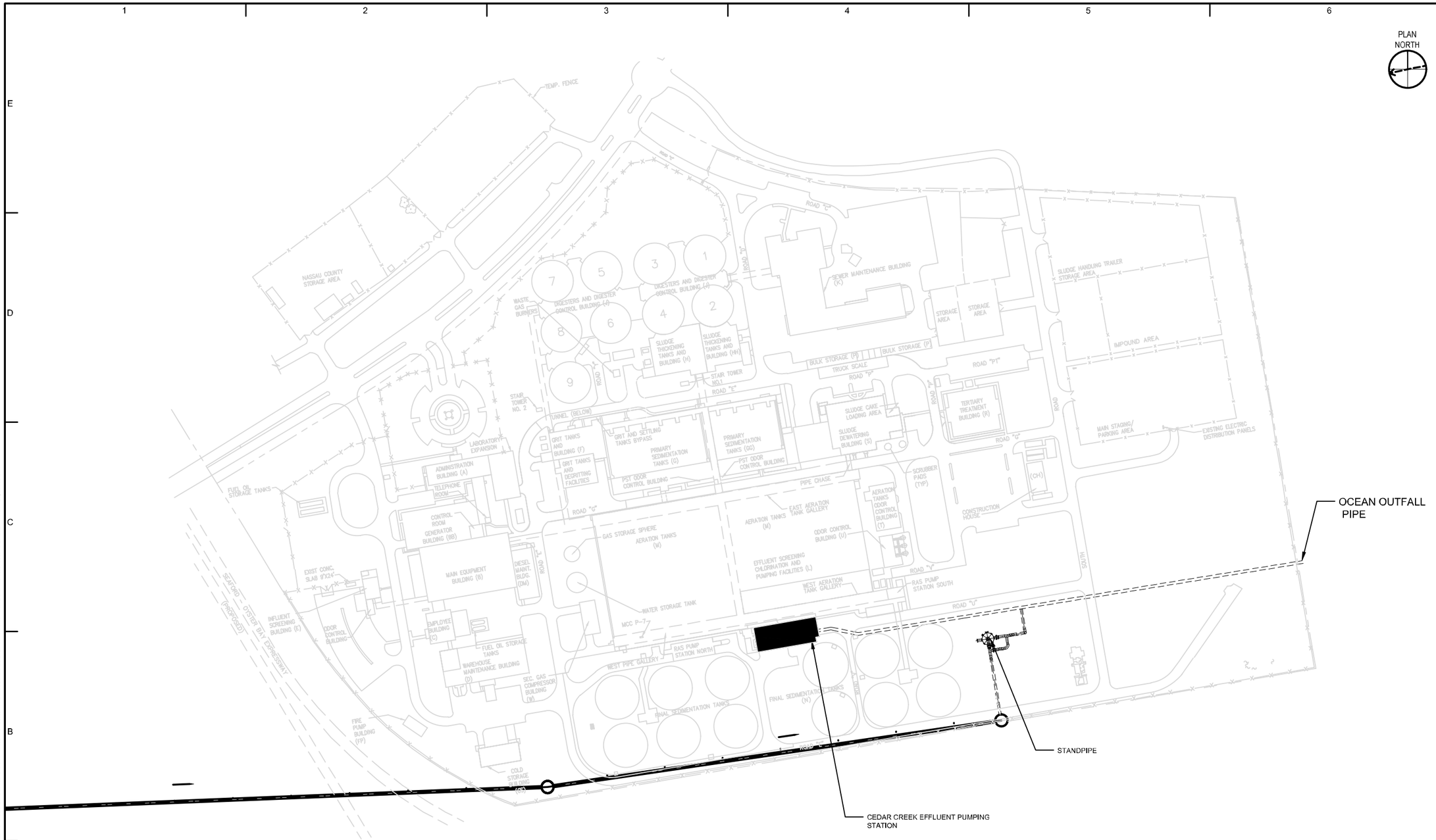
SHEET TITLE

BAY PARK
EFFLUENT DIVERSION
PUMP STATION

EFFLUENT DIVERSION
PUMPING STATION
P&ID

SCALE: AS SHOWN

BP-I601



wsp

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-CCTP-100
DESIGNED BY:	J. MORALES
DRAWN BY:	J. ALTINYUREK
CHECKED BY:	D. SMITH

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

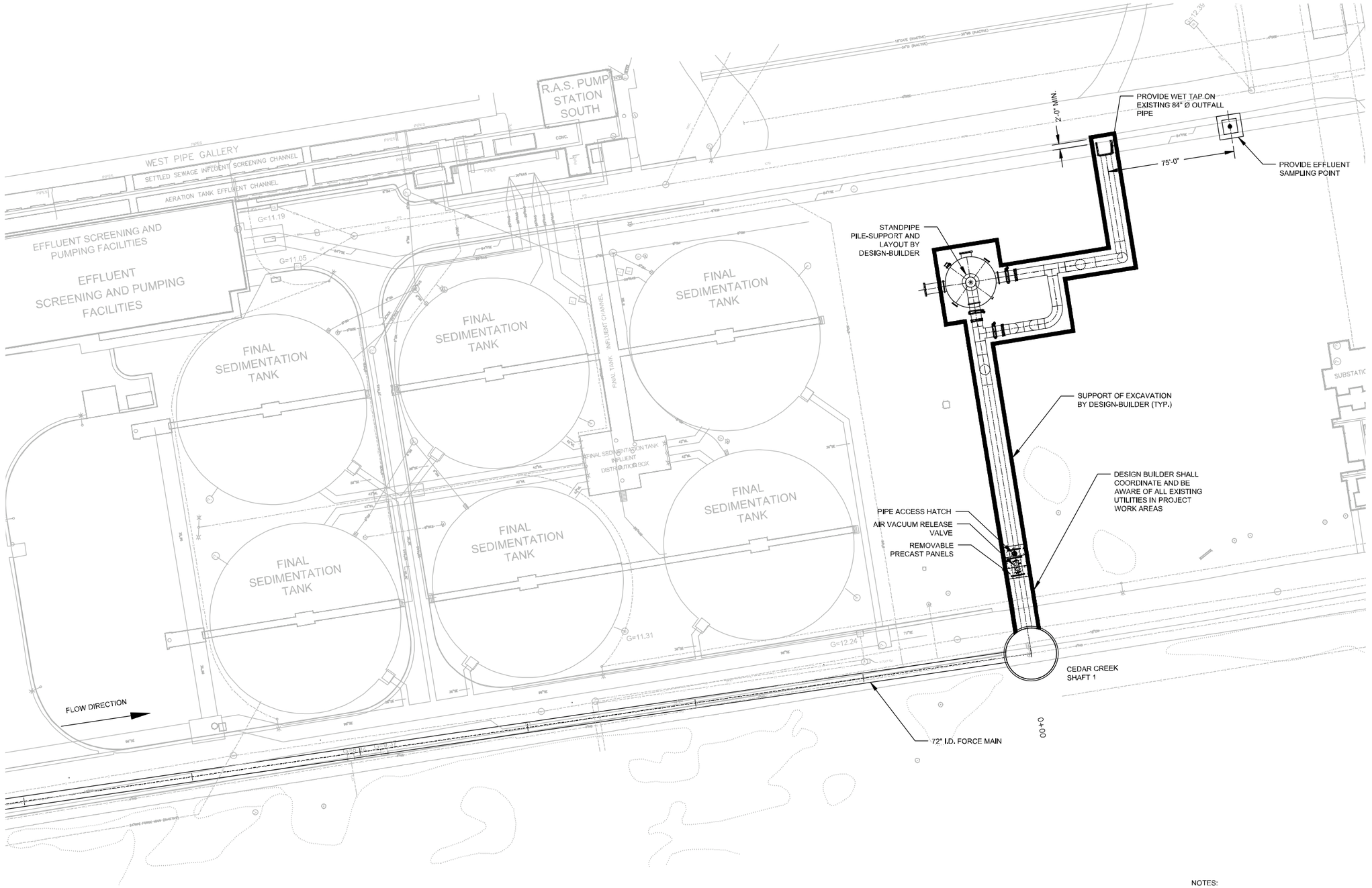
OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK WPCP
FACILITY PLAN

SCALE:
NOT TO SCALE

CC-C100



CEDAR CREEK FACILITY

1" = 30'-0" 0 30 60

NOTES:

1. DESIGN-BUILDER SHALL LOCATE FACILITIES FOR EASE OF MAINTENANCE ACCESS AND TO PROVIDE AS MUCH SPACE AS PRACTICAL FOR FUTURE DEVELOPMENT.
2. LAYOUT SHALL BE SUBJECT TO REVIEW AND APPROVAL BY NASSAU COUNTY DPW.
3. DESIGN-BUILDER SHALL DESIGN AND INSTALL WATERPROOFING AND SEAL INTERFACES. DETAIL SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL.

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-C101
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

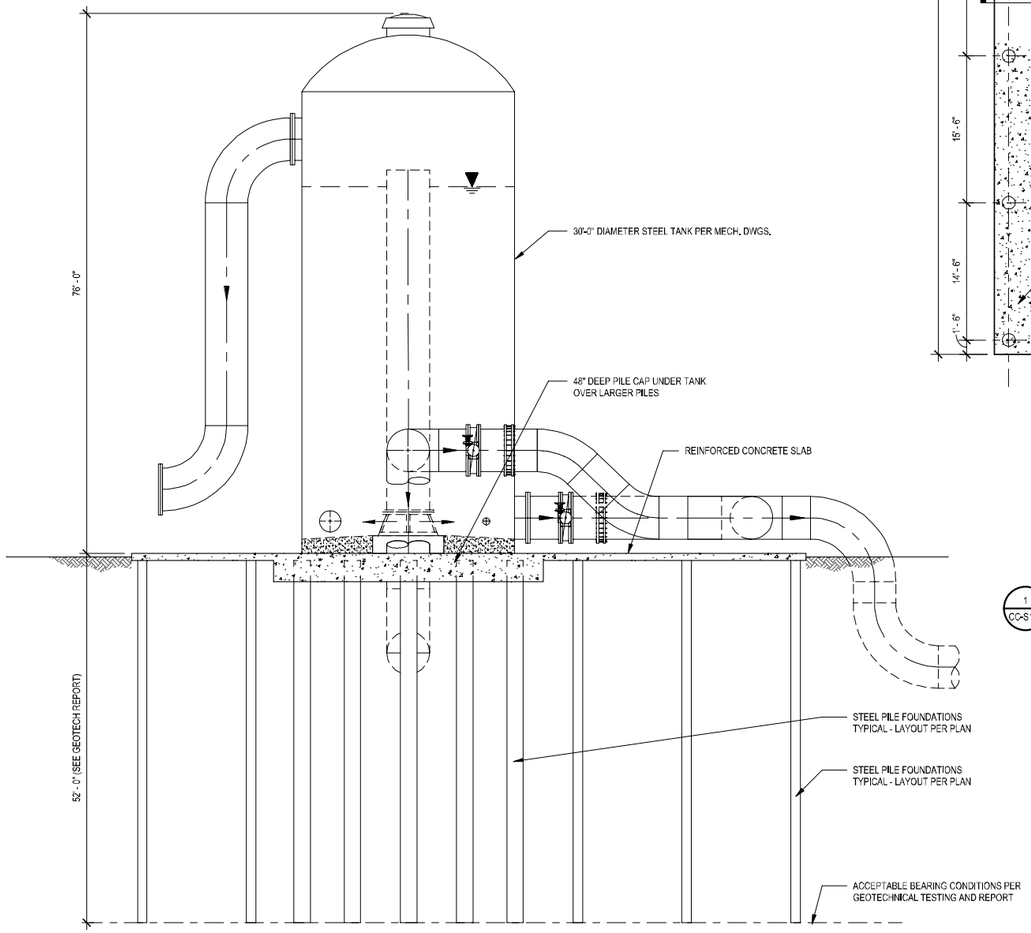
SHEET TITLE

CEDAR CREEK FORCE MAIN

WORK PLAN

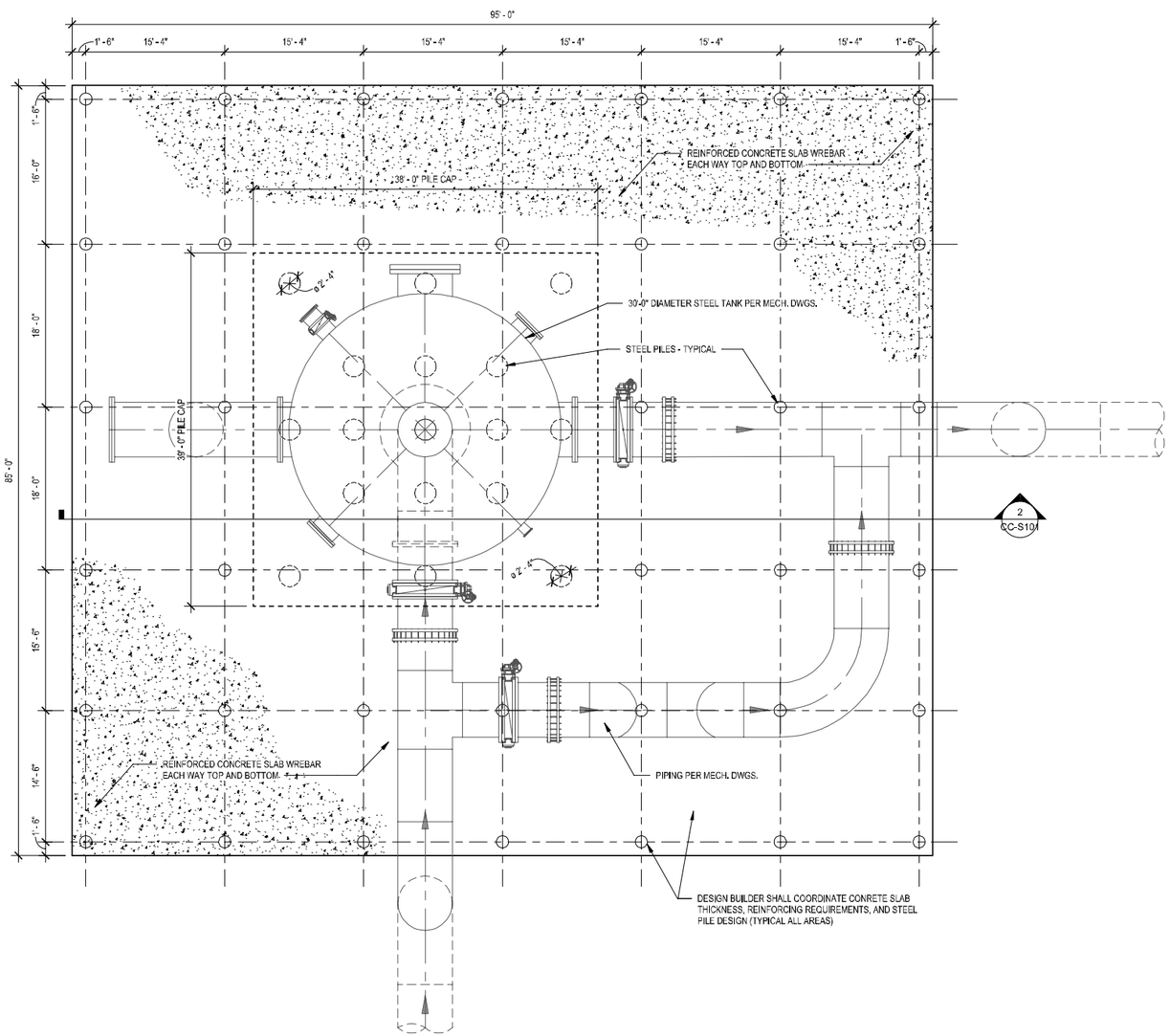
SCALE: AS SHOWN

CC-C101



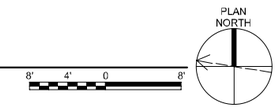
2 CC-S101 **CEDAR CREEK FOUNDATION SECTION**

3/32" = 1'-0"



1 CC-S101 **CEDAR CREEK - FOUNDATION PLAN**

1/8" = 1'-0"



PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-S101
DESIGNED BY:	T. EFFA
DRAWN BY:	M. BRAY
CHECKED BY:	J. CIURZYNSKI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK WATER
POLUTION CONTROL PLANT

STRUCTURAL
STANDPIPE AND RECEIVING
TANK FOUNDATION PLAN
AND SECTION

SCALE:
AS NOTED

CC-S101

PAGE 64

Scale: Saved Date: 12/11/2019 10:34:08 AM Plot Date: 12/11/2019 10:34:08 AM
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User:
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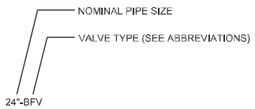
GENERAL MECHANICAL NOTES (APPLY TO ALL MECHANICAL DRAWINGS)

1. REFER TO APPLICABLE TECHNICAL SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
2. COUPLINGS SHOWN ON THE DRAWINGS ARE REQUIRED FOR REMOVAL OF EQUIPMENT AND PIPING BY THE OWNER AFTER COMPLETION OF THE WORK. ADDITIONAL COUPLINGS MAY BE REQUIRED TO FACILITATE INSTALLATION BY THE DESIGN/BUILD CONTRACTOR.
3. PROVIDE HARNESSING FOR ALL COUPLINGS, UNLESS OTHERWISE INDICATED.
4. IN GENERAL, SMALL DIAMETER PIPING (I.E., 2-1/2" AND SMALLER) IS SHOWN FOR GENERAL LAYOUT PURPOSES ONLY, AND IS NOT INTENDED TO SHOW EXACT ALIGNMENT, NUMBER OF FITTINGS, VALVES AND APPURTENANCES. ALL PIPING, FITTINGS AND APPURTENANCES SHALL BE PROVIDED AS SPECIFIED OR SHOWN ON APPLICABLE DRAWINGS AND DIAGRAMS, AND AS REQUIRED FOR A COMPLETE INSTALLATION. ACTUAL PIPE ROUTING SHALL BE DETERMINED BY THE DESIGN/BUILD CONTRACTOR SUBJECT TO REVIEW BY THE OWNER'S AGENT, AND SHALL BE COORDINATED TO AVOID CONFLICTS WITH EXISTING AND NEW WORK OF ELECTRICAL, HVAC AND PLUMBING SYSTEMS, AND SO AS NOT TO INTERFERE WITH ACCESS TO OR OPERATION OF ANY OTHER PIPE, VALVE OR EQUIPMENT. SMALL DIAMETER PIPING SYSTEMS SHALL BE LAID OUT AND INSTALLED IN AN ORGANIZED, NEAT AND WORKMANLIKE MANNER.
5. PIPE SIZES SHOWN MAY NOT BE THE SAME AS SIZES OF CONNECTIONS TO THE EQUIPMENT SUPPLIED. PROVIDE ALL NECESSARY REDUCERS, BUSHINGS AND APPURTENANCES REQUIRED TO MAKE EQUIPMENT CONNECTIONS.
6. REPAIR INTERIOR AND EXTERIOR PIPE COATINGS DAMAGED DURING INSTALLATION.
7. DESIGN/BUILD CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK TO DESIGN PIPE SUPPORT SYSTEMS FOR ALL PIPING PROVIDED UNDER THIS PROJECT. PIPE SUPPORT SYSTEMS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS BASED ON THE PIPING LAYOUT DESIGNED AND PROVIDED BY THE DESIGN/BUILD CONTRACTOR AND AS APPROVED BY THE OWNER'S AGENT.
8. SEE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, HVAC AND PLUMBING DRAWINGS FOR RELATED INSTALLATIONS TO BE PERFORMED UNDER THIS PROJECT AND COORDINATE ALL INSTALLATION WORK.
9. PROVIDE NEW GASKETS AND HARDWARE AT ALL CONNECTIONS BETWEEN NEW AND EXISTING PIPING AND AT ALL PIPE JOINTS DISASSEMBLED IN CONNECTION WITH THIS PROJECT.

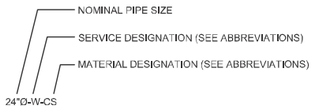
GENERAL DEMOLITION NOTES:

1. SEE STRUCTURAL, ELECTRICAL, HVAC AND PLUMBING DRAWINGS FOR RELATED REMOVALS AND DEMOLITION TO BE PERFORMED UNDER THIS PROJECT AND COORDINATE ALL DEMOLITION WORK.
2. ALL DEMOLITION SHOWN ON DRAWINGS SHALL BE PERFORMED BY THE DESIGN/BUILD CONTRACTOR.
3. ALL WALL, FLOOR AND ROOF OPENINGS RESULTING FROM DEMOLITION WORK SHALL BE PROPERLY SEALED. FIREWALL PENETRATIONS SHALL BE SEALED TO MAINTAIN APPROPRIATE FIRE RATING. BELOW GRADE AND WET AREA PENETRATIONS SHALL BE SEALED WATERTIGHT.
4. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL MATERIALS REMOVED OR DEMOLISHED UNDER THIS PROJECT SHALL BE LEGALLY DISPOSED OF OFF-SITE BY THE DESIGN/BUILD CONTRACTOR. WHERE SPECIFICALLY REQUESTED, CERTAIN ITEMS OF EQUIPMENT SHALL BE TURNED OVER TO OWNER.
5. SCHEDULE AND SEQUENCE OF REMOVAL AND DEMOLITION WORK SHALL BE IN ACCORDANCE WITH CONSTRAINTS STIPULATED IN THE FINAL DESIGN CRITERIA DOCUMENTS.
6. UNLESS OTHERWISE NOTED, FOR EXISTING MECHANICAL EQUIPMENT INDICATED FOR REMOVAL, REMOVAL SHALL INCLUDE DEMOLITION OF EXISTING ANCHOR BOLTS AND CONCRETE BASE PAD, AND REPAIR OF CONCRETE FLOOR TO MATCH CONDITION OF SURROUNDING FLOOR.
7. UNLESS OTHERWISE NOTED, REMOVAL OF EXISTING INTERIOR PIPING SYSTEMS SHALL INCLUDE REMOVAL OF INSULATION, HANGERS, SUPPORTS, ANCHORS, FIXTURES AND ACCESSORIES. ANY EMBEDDED HARDWARE OR ANCHORS SHALL BE CUT FLUSH WITH WALL, FLOOR OR SLAB SURFACE AND PATCHED APPROPRIATELY.
8. OWNER'S AGENT WILL IDENTIFY EQUIPMENT TO BE SALVAGED. CONTRACTOR SHALL REMOVE AND PROTECT EQUIPMENT TO BE SALVAGED AND DELIVER TO OWNER. DESIGN/BUILD CONTRACTOR SHALL SECURE AND STORE EQUIPMENT UNTIL OWNER CAN TAKE DELIVERY.
9. FOR CLARITY, EXISTING FACILITIES AND PIPING ARE GENERALLY SHOWN LIGHT. NEW FACILITIES AND PIPING ARE GENERALLY SHOWN HEAVY.
10. THE DESIGN/BUILD CONTRACTORS SHALL COORDINATE EXISTING EQUIPMENT REMOVALS TO ENSURE THAT ALL EQUIPMENT IS ELECTRICALLY DISCONNECTED PRIOR TO DEMOLITION.

TYPICAL VALVE IDENTIFICATION



TYPICAL PIPING IDENTIFICATION



LEGEND

- POINT OF CONNECTION
- POINT OF DISCONNECTION
- EXISTING PIPING, EQUIPMENT & FEATURES
- EXISTING PIPING, EQUIPMENT & FEATURES TO BE REMOVED
- NEW PIPING, EQUIPMENT & FEATURES

MECHANICAL ABBREVIATIONS

PIPING SERVICE IDENTIFICATION

CA	COMPRESSED AIR
D/W	DRAIN/WASTE
DCW	DOMESTIC COLD WATER
EFF	PLANT EFFLUENT
HPA	HIGH PRESSURE AIR
HW	HOT WATER, POTABLE
INF	PLANT INFLUENT
LPA	LOW PRESSURE AIR
NPW	NON-POTABLE WATER
PW	PLANT WATER
RW	RAW WATER
SAN	SANITARY SEWER
SAW	SAMPLE WATER
ST	STORM SEWER
TW	TEMPERED WATER
V	VENT
WW	WASTE WATER

VALVES

AVV	AIR/VACUUM VALVE
ARV	AIR RELEASE VALVE
BV	BALL VALVE
BFV	BUTTERFLY VALVE
CV	CHECK VALVE
GV	GATE VALVE
NV	NEEDLE VALVE
PDCV	PUMP DISCHARGE CONTROL VALVE
PV	PINCH VALVE
PRV	PRESSURE REGULATING VALVE
PRLV	PRESSURE RELIEF VALVE
PLV	PLUG VALVE
RPZ	REDUCED PRESSURE ZONE/BACKFLOW PREVENTOR
WSAV	WELL SERVICE AIR VALVE

MISCELLANEOUS

B/	BOTTOM OF
BI	BLACK IRON
BOP	BOTTOM OF PIPE
CI	CAST IRON
CONC.	CONCRETE OR CONCENTRIC
CORP.	CORPORATION STOP
CL	CENTERLINE
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
DWGS.	DRAWINGS
ECC.	ECCENTRIC
EL.	ELEVATION
ELEC.	ELECTRIC OR ELECTRICAL
EXIST.	EXISTING
FLG.	FLANGED
FRP	FIBERGLASS REINFORCED PLASTIC
FOT	FLAT ON TOP
GALV.	GALVANIZED
HP	HIGH POINT
ID	INTERNAL DIAMETER
INV.	INVERT
LP	LOW POINT
MH	STORM MANHOLE
MJ	MECHANICAL JOINT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O.C.	ON CENTER
O/F	OVERFLOW
PE	PLAIN END
PO	PUSH ON
RED.	REDUCING OR REDUCER
RJ	RESTRAINED JOINT
SG	SLUICE GATE OR SLIDE GATE
SS	STAINLESS STEEL (PIPING)
ST. STL.	STAINLESS STEEL (OTHER THAN PIPING)
SMH	SANITARY MANHOLE
TYP.	TYPICAL
T/	TOP OF
T-O-L	THREAD-O-LET
TURB.	TURBIDITY
W/	WITH
W-O-L	WELD-O-LET

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-M001
DESIGNED BY:	**A. STEINHAUER**
DRAWN BY:	**T. LARAMAY**
CHECKED BY:	**A. STEIN HAUER**

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

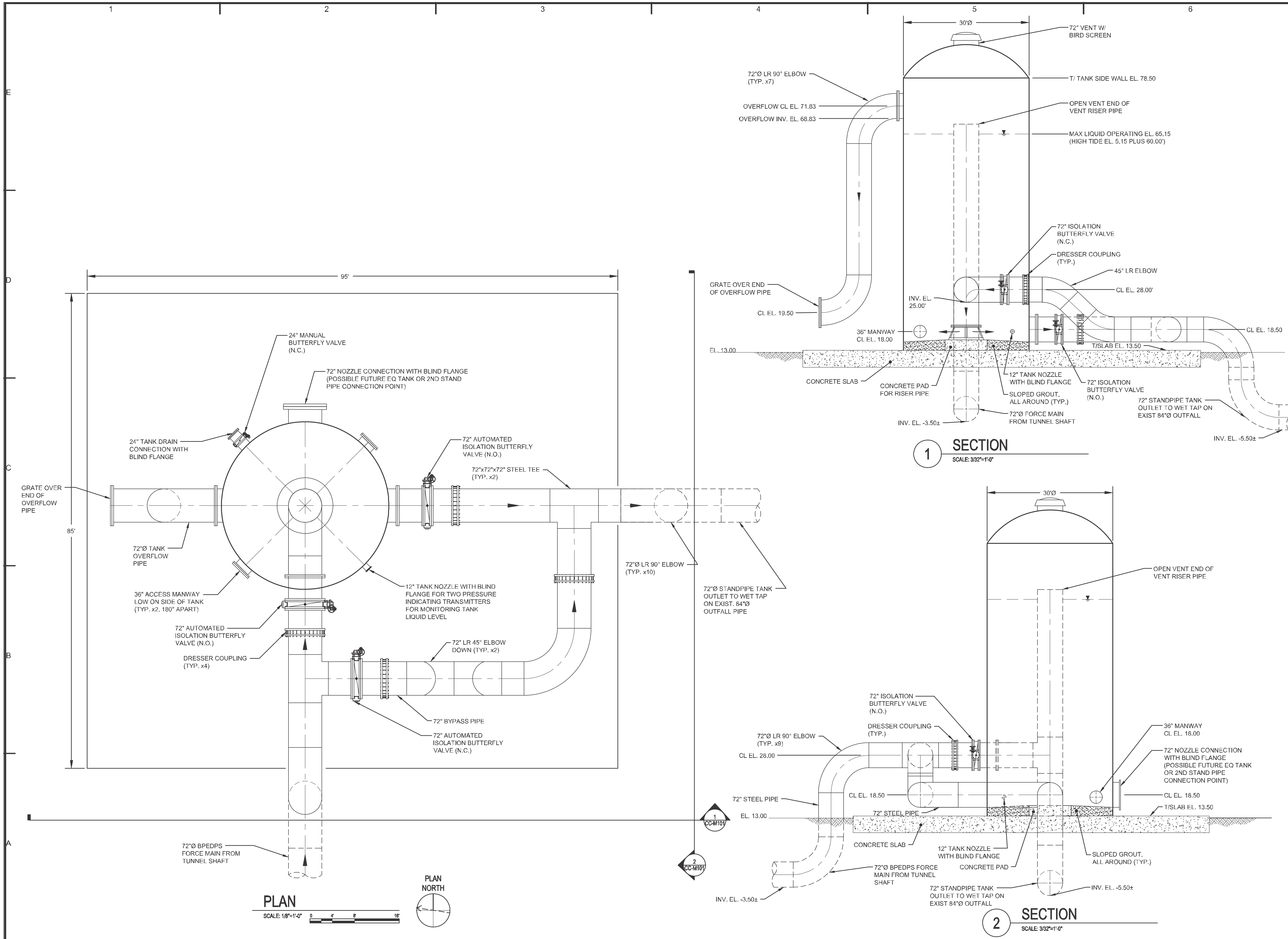
CEDAR CREEK
WATER POLLUTION
CONTROL PLANT

GENERAL NOTES, SYMBOLS & ABBREVIATIONS

SCALE: **AS SHOWN**

CC-M001

PAGE 65



wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-M101
DESIGNED BY:	A. STEINHAUER
DRAWN BY:	J. OWENS
CHECKED BY:	A. STEIN HAUER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

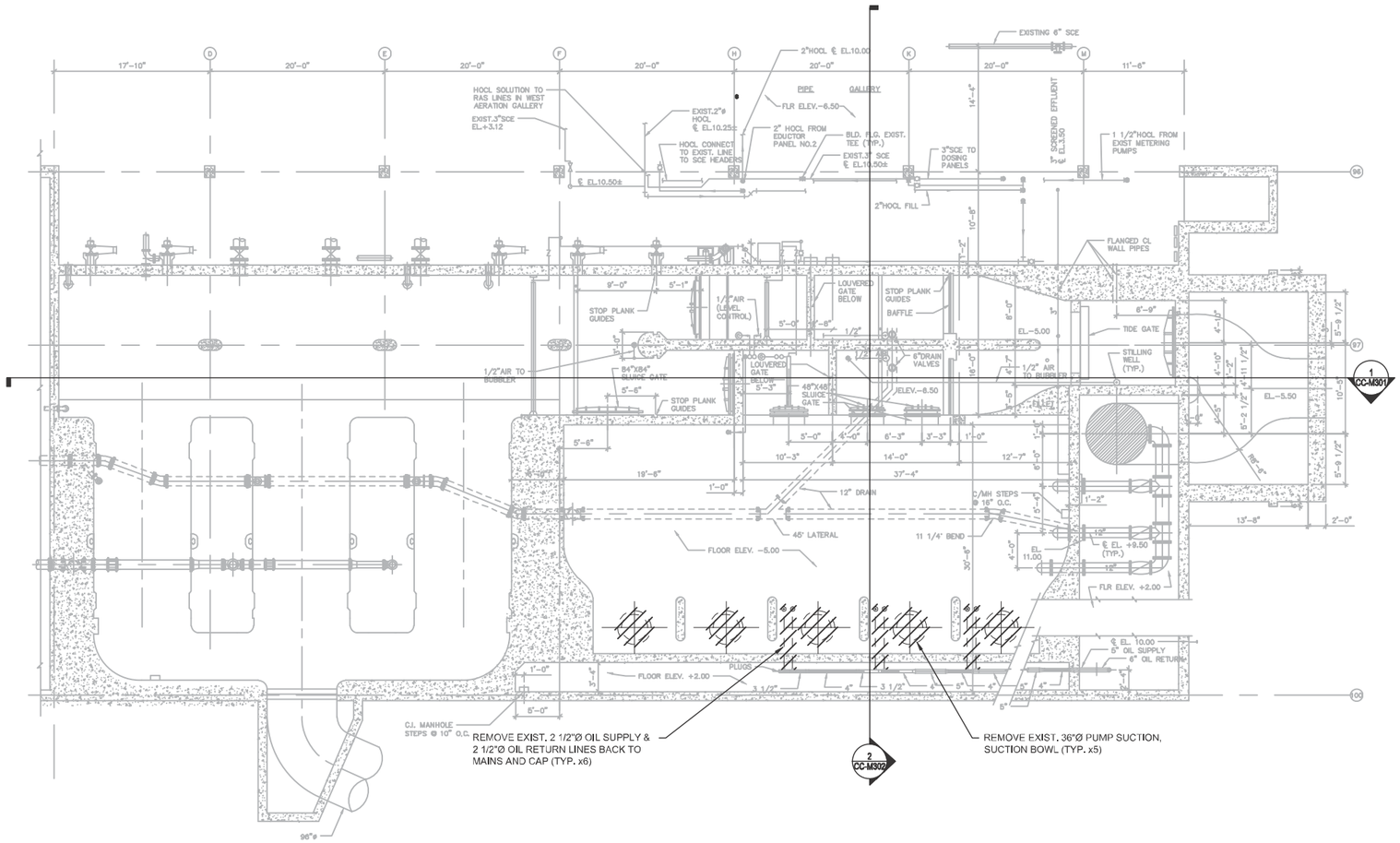
SHEET TITLE

CEDAR CREEK WATER POLLUTION CONTROL PLANT

STAND PIPE AND RECEIVING TANK PLAN AND SECTIONS

SCALE: AS SHOWN

CC-M101



DEMOLITION PLAN AT EL. -5.00'

SCALE: 1/8"=1'-0"

PLAN NORTH

LEGEND

EXISTING TO BE REMOVED

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-M102
DESIGNED BY:	A. STEINHAUER
DRAWN BY:	T. LARAMAY
CHECKED BY:	F. PULIDO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

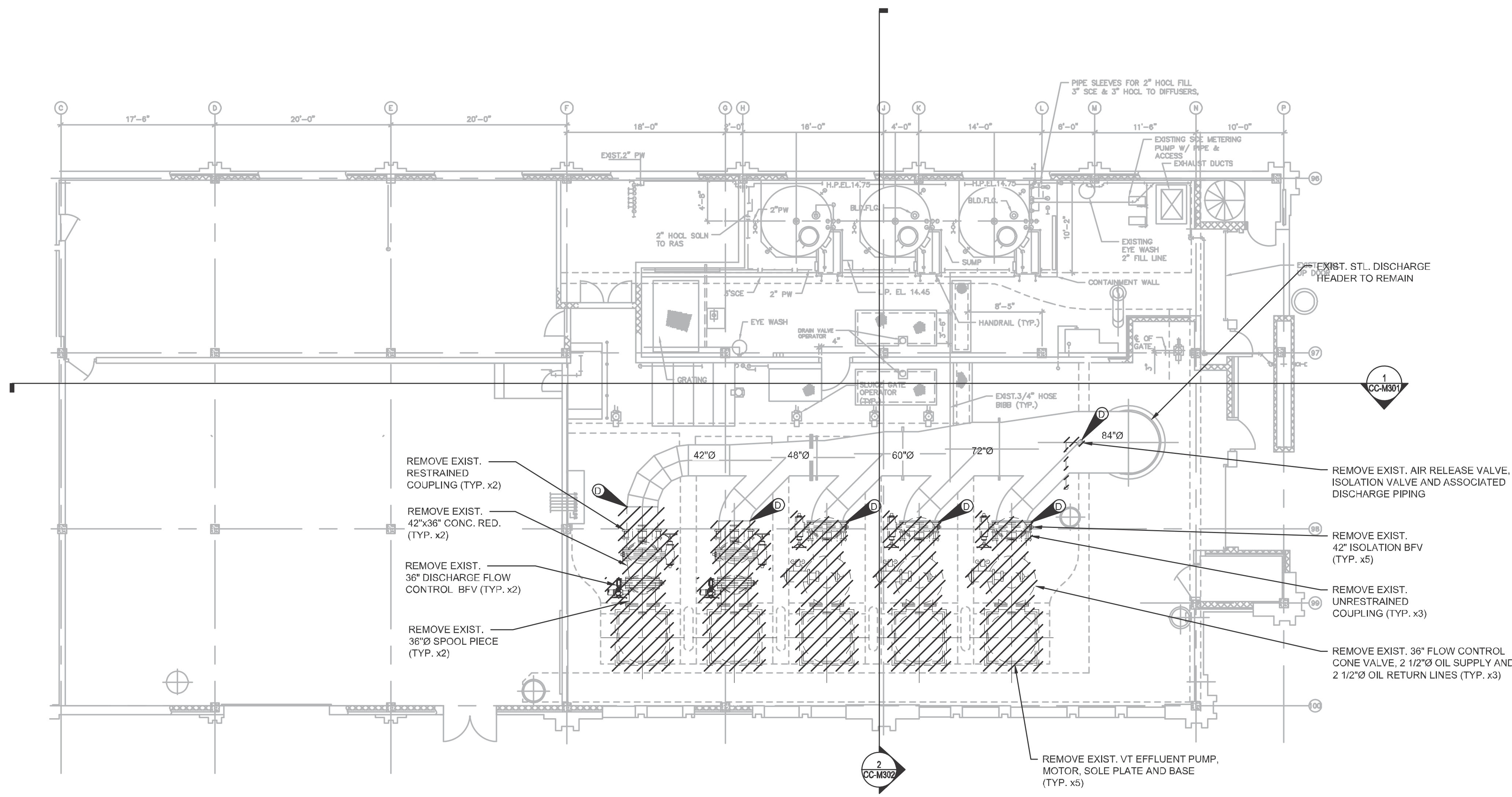
CEDAR CREEK
EFFLUENT PUMP STATION

EFFLUENT SCREENING & DISINFECTION FACILITY
DEMOLITION PLAN
AT EL. -5.00

SCALE: **AS SHOWN**

CC-M102

PAGE 67



DEMOLITION PLAN AT EL. 13.50'

SCALE: 1/8"=1'-0"

PLAN NORTH

LEGEND

POINT OF DISCONNECTION

EXISTING TO BE REMOVED

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-M103
DESIGNED BY: A. STEINHAUER
DRAWN BY: T. LARAMAY
CHECKED BY: F. PULIDO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

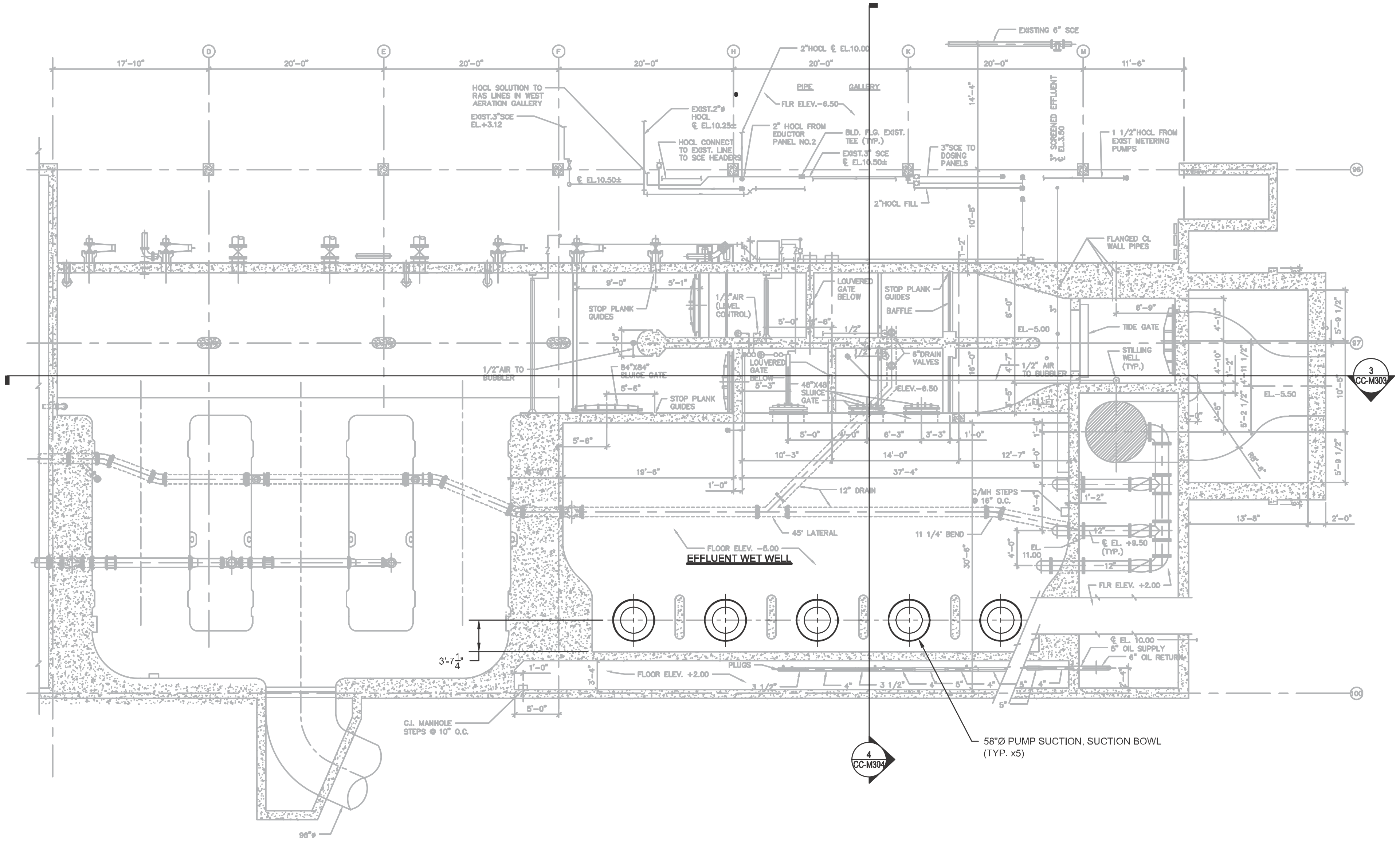
SHEET TITLE

CEDAR CREEK EFFLUENT PUMP STATION

EFFLUENT SCREENING & DISINFECTION FACILITY DEMOLITION PLAN AT EL. 13.50

SCALE: AS SHOWN

CC-M103



PLAN AT EL. -5.00'

SCALE: 1/8"=1'-0"

0 4' 8' 16'

PLAN NORTH

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-M104
DESIGNED BY: A. STEINHAUER
DRAWN BY: T. LARAMAY
CHECKED BY: F. PULIDO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

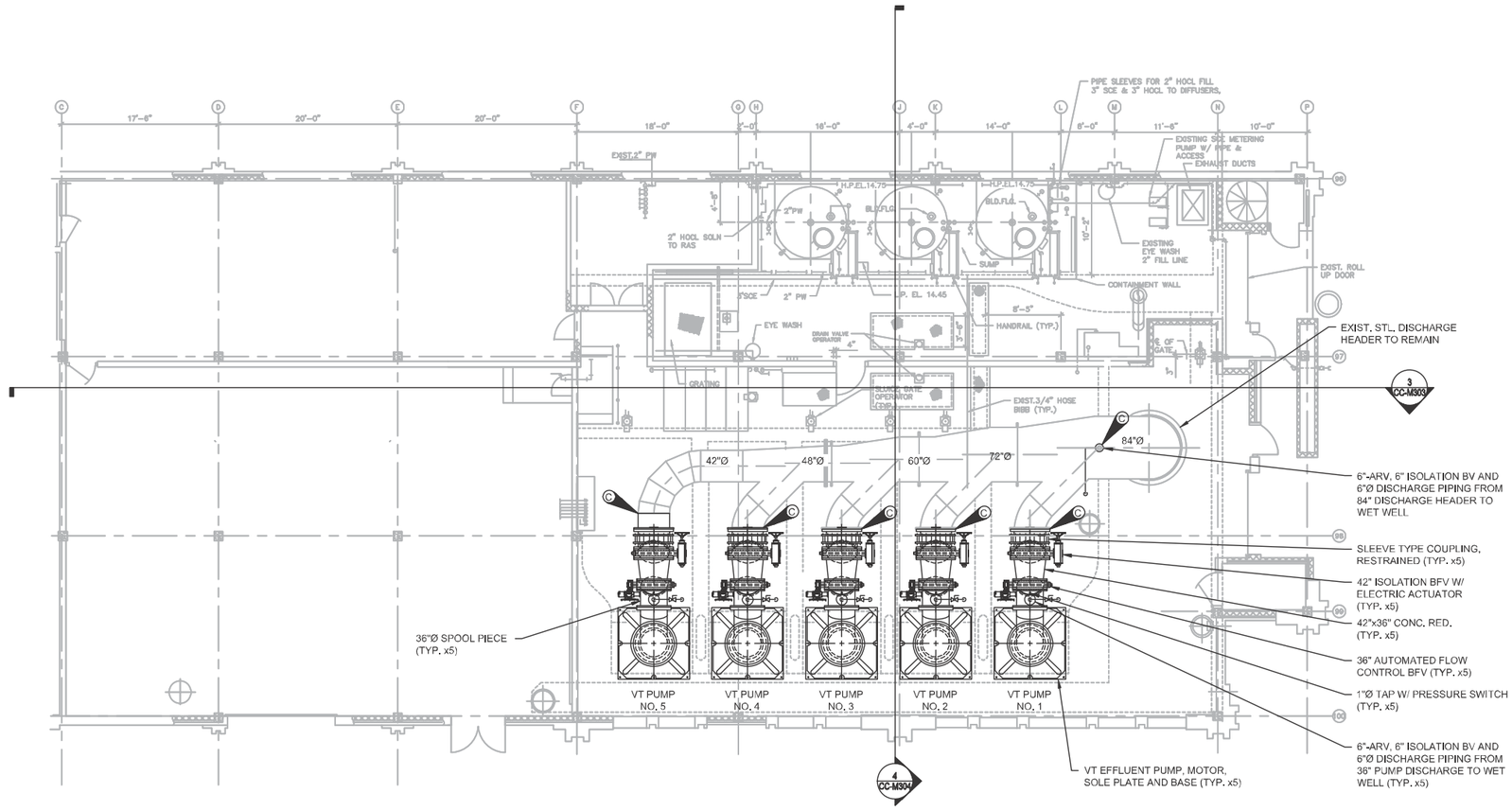
SHEET TITLE

CEDAR CREEK EFFLUENT PUMP STATION

EFFLUENT SCREENING & DISINFECTION FACILITY PLAN AT EL. -5.00

SCALE: AS SHOWN

CC-M104



PLAN AT EL. 13.50'

SCALE: 1/8"=1'-0"

PLAN NORTH

LEGEND

POINT OF CONNECTION

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-M105
DESIGNED BY: **A. STEINHAUER**
DRAWN BY: **T. LARAMAY**
CHECKED BY: **F. PULIDO**

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK
EFFLUENT PUMP STATION

EFFLUENT SCREENING &
DISINFECTION FACILITY
PLAN AT EL. 13.50

SCALE: **AS SHOWN**

CC-M105

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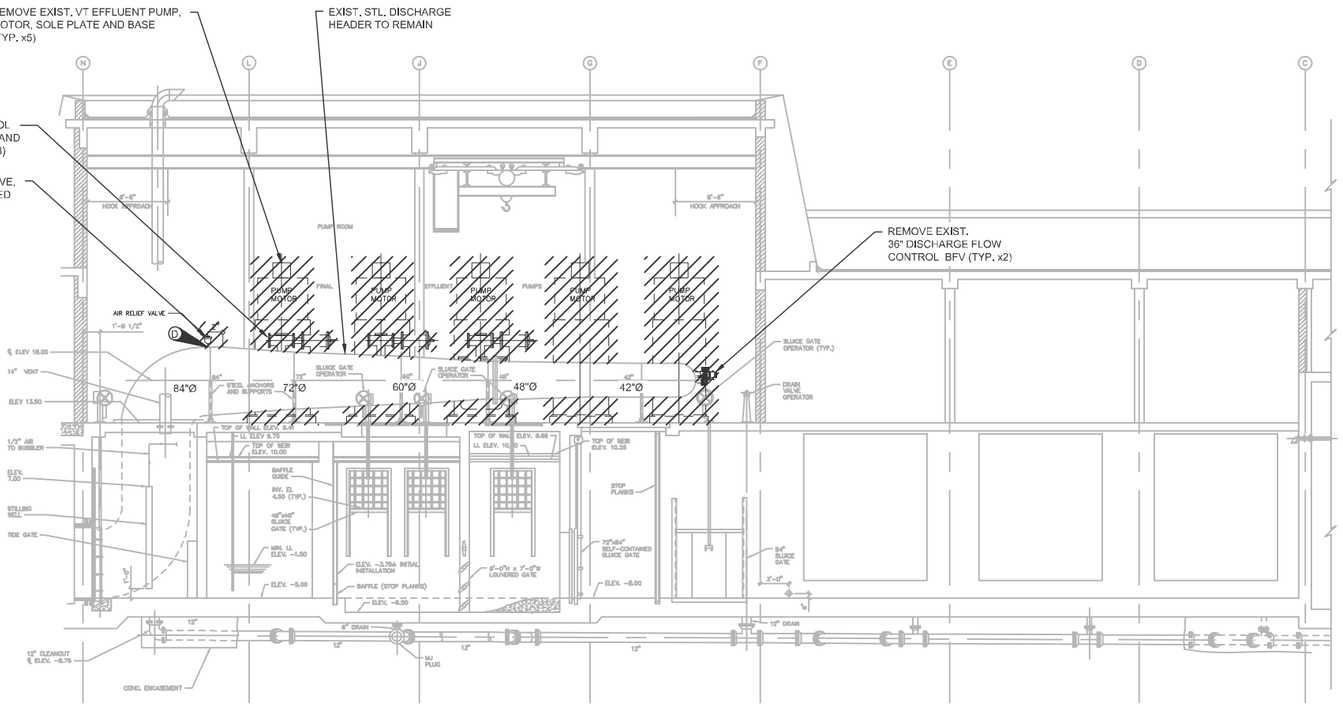

1 **SECTION**
SCALE: 1/8"=1'-0"

LEGEND

- POINT OF DISCONNECTION
- EXISTING TO BE REMOVED

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-M301
DESIGNED BY:	**A. STEINHAUER**
DRAWN BY:	**T. LARAMAY**
CHECKED BY:	**F. PULIDO**

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

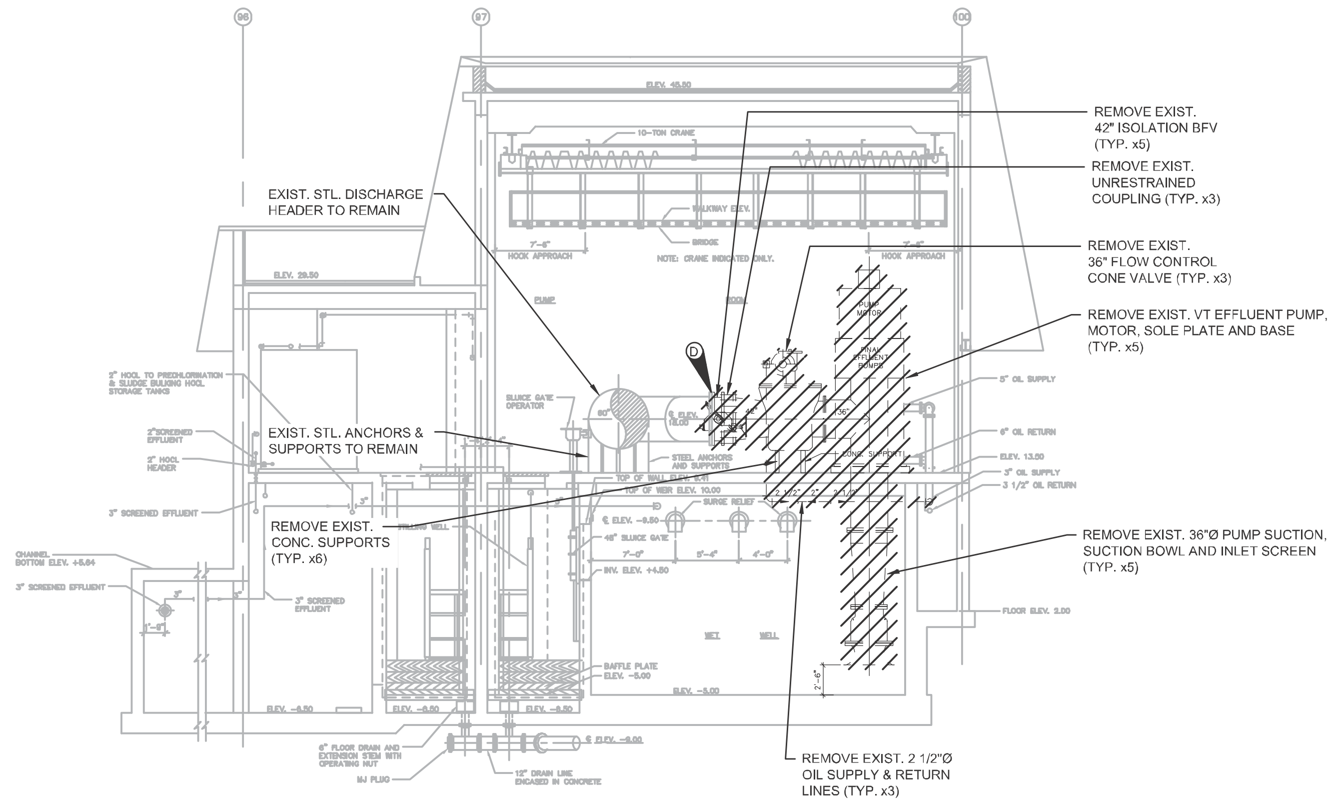
CEDAR CREEK
EFFLUENT PUMP STATION

EFFLUENT SCREENING &
DISINFECTION FACILITY
DEMOLITION SECTION 1

SCALE:
AS SHOWN

CC-M301

PAGE 71



2 SECTION

SCALE: 1/8"=1'-0"

LEGEND

POINT OF DISCONNECTION

EXISTING TO BE REMOVED

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-M302
DESIGNED BY: A. STEINHAUER
DRAWN BY: T. LARAMAY
CHECKED BY: F. PULIDO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

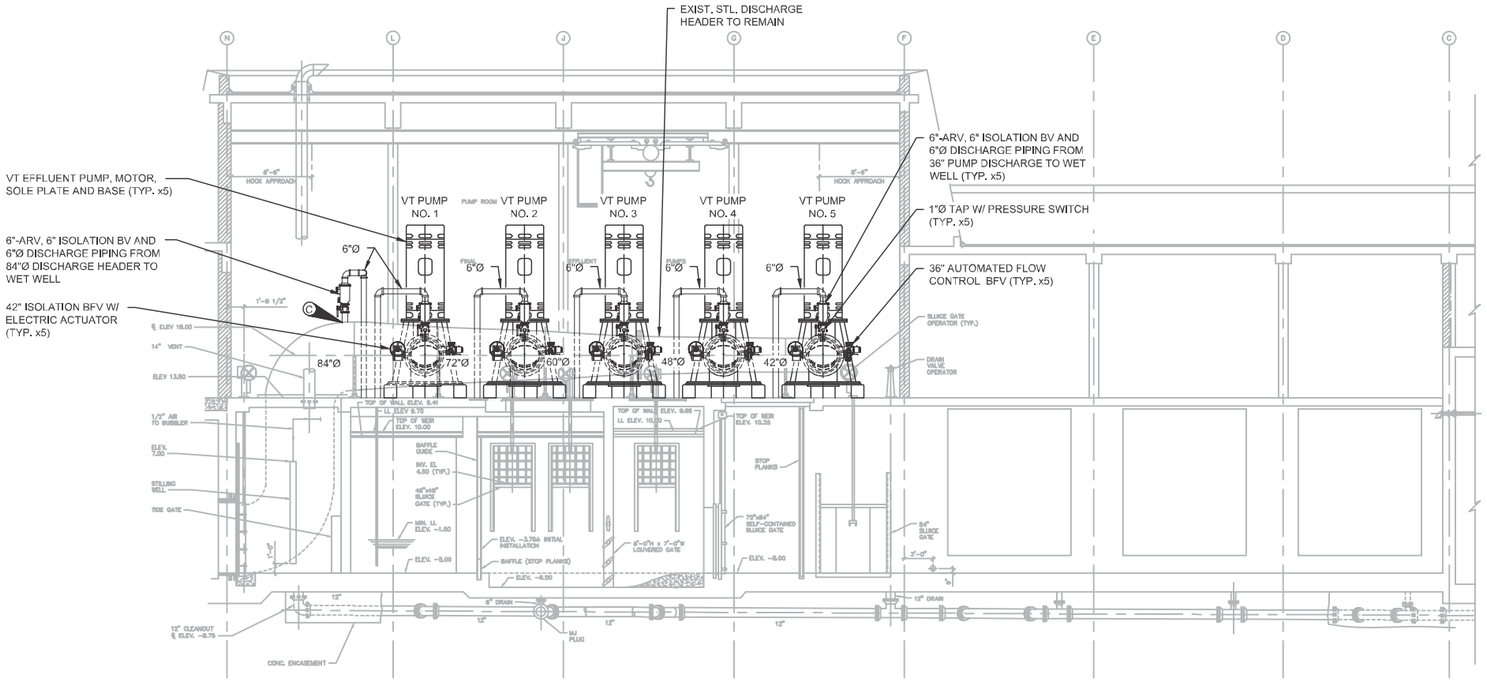
SHEET TITLE

CEDAR CREEK EFFLUENT PUMP STATION

EFFLUENT SCREENING & DISINFECTION FACILITY DEMOLITION SECTION 2

SCALE: AS SHOWN

CC-M302



3 **SECTION**
SCALE: 1/8"=1'-0"

LEGEND

POINT OF CONNECTION

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-M303
DESIGNED BY:	**A. STEINHAUER**
DRAWN BY:	**T. LARAMAY**
CHECKED BY:	**F. PULIDO**

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

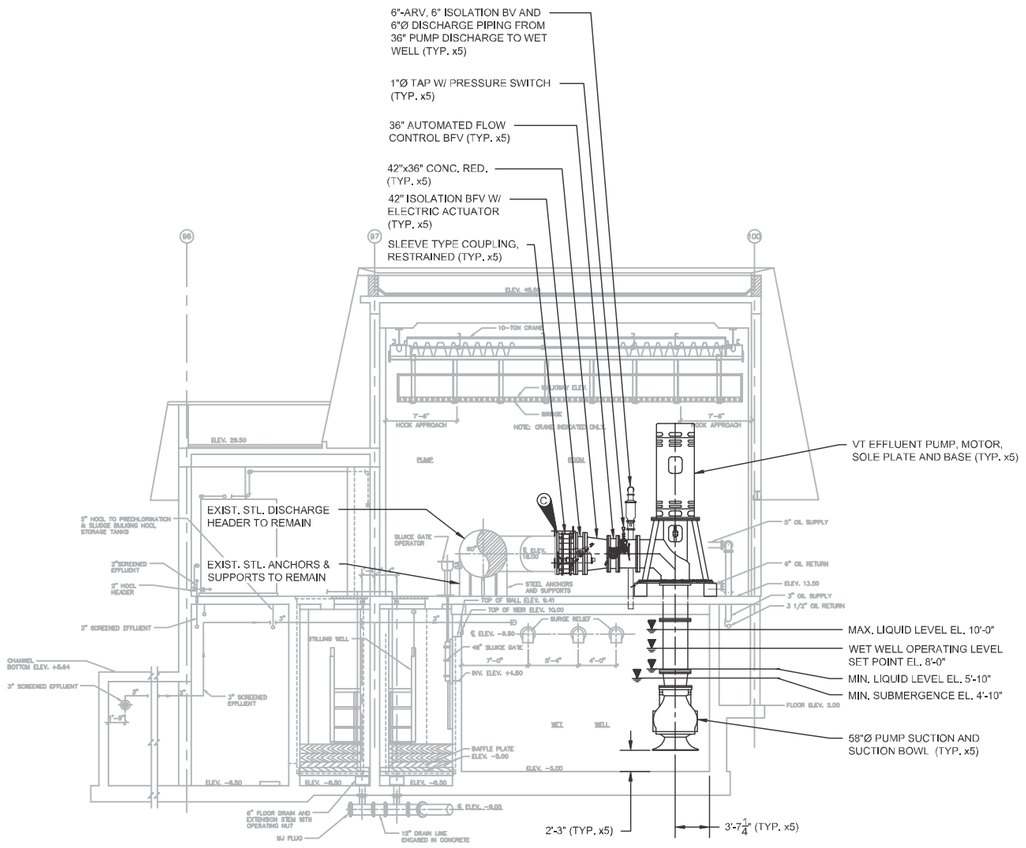
SHEET TITLE

CEDAR CREEK
EFFLUENT PUMP STATION

EFFLUENT SCREENING &
DISINFECTION FACILITY
SECTION 3

SCALE: **AS SHOWN**

CC-M303



4 **SECTION**
SCALE: 1/8"=1'-0"

LEGEND

POINT OF CONNECTION

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-M304
DESIGNED BY: **A. STEINHAUER**
DRAWN BY: **T. LARAMAY**
CHECKED BY: **F. PULIDO**

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK
EFFLUENT PUMP STATION

EFFLUENT SCREENING &
DISINFECTION FACILITY
SECTION 4

SCALE: **AS SHOWN**

CC-M304

1 | 2 | 3 | 4 | 5 | 6

E
D
C
B
A

ELECTRICAL SYMBOLS
ONE-LINE DIAGRAMS

SYMBOL	DESCRIPTION
A	METERING DEVICES: A-AMMETER, V-VOLTMETER, PF-POWER FACTOR, HZ-FREQUENCY METER
XA	FUSE, SIZE AS INDICATED
	GROUND CONNECTION
	CURRENT TRANSFORMER
	ZERO SEQUENCE CURRENT TRANSFORMER
	TRANSFORMER
	POTENTIAL TRANSFORMER
	MOTOR STARTER CONTACTOR AND OVERLOAD RELAY, FVNR UON
	DISCONNECT SWITCH
AT AF	CIRCUIT BREAKER WITH RATINGS AS INDICATED
	CIRCUIT BREAKER - DRAW OUT
	LINE REACTOR
	ATS - AUTOMATIC TRANSFER SWITCH
SPD	SURGE PROTECTIVE DEVICE
5 HP	MOTOR
	CONDUCTORS NOT CONNECTED
	CONDUCTORS CONNECTED
K	ELECTRONIC KEY INTERLOCK
MVTU	MEDIUM VOLTAGE TRIP UNIT
LVTU	LOW VOTAGE TRIP UNIT
MMD	METER MONITOR DEVICE
32	REVERSE POWER RELAY
50	INSTANTANEOUS OVERCURRENT PROTECTION
50G	GROUND INSTANTANEOUS OVERCURRENT PROTECTION
51	INVERSE TIME OVERCURRENT PROTECTION
51G	GROUND INVERSE TIME OVERCURRENT PROTECTION
51N	NEUTRAL INVERSE TIME OVERCURRENT PROTECTION
86	LOCKOUT RELAY
87	DIFFERENTIAL PROTECTION RELAY
A	AMMETER
52	DRAWOUT MEDIUM VOLTAGE CIRCUIT BREAKER
LA	LIGHTING ARRESTOR
	OPEN DELTA WINDING
	DELTA WINDING
	GROUNDED WYE WINDING
	GROUNDED OPEN DELTA WINDING

ELECTRICAL SYMBOLS
ELEMENTARY DIAGRAMS

SYMBOL	DESCRIPTION
START	N.O. MOMENTARY CONTACT PUSH BUTTON WITH NAMEPLATE AS INDICATED ON DIAGRAM
STOP	N.C. MOMENTARY CONTACT PUSH BUTTON WITH NAMEPLATE AS INDICATED ON DIAGRAM
	N.C. MAINTAINED CONTACT PUSH BUTTON WITH MUSHROOM BUTTON
OFF / ON	TWO POSITION MAINTAINED CONTACT SELECTOR SWITCH WITH NAMEPLATE AS INDICATED ON DIAGRAMS
ON LOCAL / REMOTE	THREE POSITION MAINTAINED CONTACT SELECTOR SWITCH WITH NAMEPLATE AS INDICATED ON THE CONTROL DIAGRAMS. X =CLOSED O = OPEN
	N.C. PRESSURE SWITCH - OPENS ON RISING PRESSURE
	N.O. PRESSURE SWITCH - CLOSES ON RISING PRESSURE
	N.C. TEMPERATURE SWITCH - OPENS ON RISING TEMPERATURE
	N.O. TEMPERATURE SWITCH - CLOSES ON RISING TEMPERATURE
	N.C. FLOW SWITCH - OPENS ON RISING FLOW
	N.O. FLOW SWITCH - CLOSES ON RISING FLOW
	N.C. TORQUE SWITCH - OPENS ON INCREASING TORQUE
	N.O. TORQUE SWITCH - CLOSES ON INCREASING TORQUE
	N.C. LIMIT SWITCH (HELD OPEN)
	N.C. LIMIT SWITCH
	N.O. LIMIT SWITCH
	N.O. LIMIT SWITCH (HELD CLOSED)
	SOLENOID VALVE OR RELAY COIL
	RELAY OR CONTACTOR COIL WITH TAG NUMBER AS SHOWN
	N.O. RELAY CONTACT
	N.C. RELAY CONTACT
	ON-DELAY OR OFF-DELAY RELAY
	ON-DELAY RELAY N.C. TIMED OPENING CONTACT
	ON-DELAY RELAY N.O. TIMED CLOSING CONTACT OFF-DELAY N.C. CONTACT (OPENS WHEN ENERGIZED, TIMED CLOSING AFTER DE-ENERGIZING)
	OFF-DELAY N.O. CONTACT (CLOSES WHEN ENERGIZED, TIMED OPENING AFTER DE-ENERGIZING)
	INDICATOR OR PILOT LIGHT: R-RED, B-BLUE, W-WHITE, G-GREEN, A-AMBER O-ORANGE, C-CLEAR, NE-NEON, OP-OPALESCENT, P-PURPLE
L / U	LATCHING RELAY L = LATCH COIL U = UNLATCH COIL
	FIELD WIRING
ETM	ELAPSED TIME METER
	CONTROL POWER TRANSFORMER (WITHIN MOTOR STARTER)
SV	SOLENOID VALVE
PB	PUSH BUTTON STATION MOMENTARY CONTACT START-STOP
PBM	PUSH BUTTON STATION MAINTAINED CONTACT START-STOP
ES	PUSH BUTTON STATION EMERGENCY STOP MAINTAINED CONTACT START-STOP
T	THERMOSTAT

ELECTRICAL SYMBOLS
POWER

SYMBOL	DESCRIPTION
	PANELBOARD
T	TRANSFORMER
	DISCONNECT SWITCH, NON-FUSED
	DISCONNECT SWITCH - FUSED
	COMBINATION MOTOR STARTER
	LOCAL-OFF-REMOTE CONTROL STATION (LOR)
J	JUNCTION BOX
P	PULL BOX
CB	ENCLOSED CIRCUIT BREAKER
EPO	EMERGENCY POWER OFF SWITCH
	ELECTRICAL PULLBOX
	UTILITY POLE
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE (15 AMP UNLESS OTHERWISE NOTED)
NEMA 4X	NEMA 4X RECEPTACLE
	GROUND FAULT INTERRUPTER TYPE RECEPTACLE
WP	GROUND FAULT INTERRUPTER TYPE RECEPTACLE WITHIN WEATHER-PROOF WHILE IN USE BOX
	SPECIAL PURPOSE RECEPTACLE - 480V
	SPECIAL PURPOSE RECEPTACLE - 208V
	BRANCH CIRCUIT HOME RUN. SWBD = SWITCHBOARD HOME RUN PP = PANELBOARD "PP" HOME RUN LP = PANELBOARD "LP" HOME RUN
	INSTRUMENT

LIGHTING

SYMBOL	DESCRIPTION
F-#	LIGHTING FIXTURE (TYPE AS SHOWN)
F-#EM	LIGHTING FIXTURE (EMERGENCY OR NIGHT LIGHT)
	HID WALL PACK
	EXIT SIGN - CEILING OR PENDANT MOUNTED (SHADED PORTION INDICATES FACE)
	EXIT SIGN - WALL MOUNTED
	POLE MOUNTED LIGHTING FIXTURE SINGLE, DOUBLE HEAD
	CEILING MOUNTED LIGHTING FIXTURE (TYPE AS SHOWN)
	WALL MOUNTED LIGHTING FIXTURE (TYPE AS SHOWN)
	EMERGENCY BATTERY UNIT WITH REMOTE HEADS
OC	OCCUPANCY SENSOR
PC	PHOTOCELL
S	SINGLE POLE LINE VOLTAGE SWITCH

GROUNDING

SYMBOL	DESCRIPTION
	3/4" X 10' COPPER CLAD GROUND ROD
	GROUND GRID TEST WELL
	EXOTHERMIC WELD CONNECTION (BELOW GROUND)
	BOLTED GROUND CONNECTION (ABOVE GROUND)
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
A	LIGHTNING PROTECTION AIR TERMINAL

ELECTRICAL SYMBOLS
GENERAL

SYMBOL	DESCRIPTION
#	DRAWING NOTE NUMBER 2
PC###	POWER CIRCUIT NUMBER
P	POINT OF CONNECTION
#	COMPARTMENT NUMBER 2
CLASS__ DIV.__ GROUP__	NEC ARTICLE 500 HAZARDOUS (CLASSIFIED) AREA DEFINITION
	DEMOLITION LINE TYPE
	EXISTING
	PROPOSED ELECTRICAL WORK
	PROPOSED UNDERGROUND ELECTRICAL WORK
	FUTURE ELECTRICAL WORK
G G	UNDERGROUND COPPER GROUNDING CONDUCTOR (SIZE AS SHOWN ON DRAWING)
OHE	OVERHEAD ELECTRIC
UE UE	UNDERGROUND ELECTRIC
	CONCRETE ENCASED DUCT BANK

ELECTRICAL ABBREVIATIONS

A, AMP	-AMPERE
AC	-ALTERNATING CURRENT
AIC	-AMPS INTERRUPTING CAPACITY
AF	-AMP FRAME
AT	-AMP TRIP
ATS	-AUTOMATIC TRANSFER SWITCH
AWG	-AMERICAN WIRE GAUGE
C	-CONDUIT
CCTV	-CLOSED CIRCUIT TELEVISION
CEP	-CONCRETE EQUIPMENT PAD
CKT	-CIRCUIT
CMH	-COMMUNICATION MANHOLE
COND	-CONDUCTOR
CPT	-CONTROL POWER TRANSFORMER
CR	-CONTROL RELAY
CU	-COPPER
CWA	-CONSTANT WATTAGE AUTOTRANSFORMER
CRAC	-COMPUTER ROOM AIR CONDITIONER
DC	-DIRECT EXPANSION CONDENSER
DISC	-DISCONNECT
DP	-DISTRIBUTION PANEL
DPST	-DOUBLE POLE SINGLE THROW
DPDT	-DOUBLE POLE DOUBLE THROW
DS	-DISCONNECT SWITCH
DT	-DOUBLE THROW
E,EMERG	-EMERGENCY
EC	-EMPTY CONDUIT
EMT	-ELECTRICAL METALLIC TUBING
ETM	-ELAPSED TIME METER
ERV	-ENERGY RECOVERY VENTILATOR
EXIST.	-EXISTING
FA	-FIRE ALARM
FE	-FLOW PRIMARY ELEMENT
FAAP	-FIRE ALARM ANNUNCIATOR PANEL
FACP	-FIRE ALARM CONTROL PANEL
FDR	-FEEDER
FIT	-FLOW INDICATING TRANSMITTER
FLA	-FULL LOAD AMPERES
FMC	-FLEXIBLE METAL CONDUIT
FS	-FLOW SWITCH
FU	-FUSED OR FUSIBLE
FVR	-FULL VOLTAGE REVERSING
FVNR	-FULL VOLTAGE NON-REVERSING
G, GND	-GROUND
GFI	-GROUND FAULT INTERRUPTER
GFR	-GROUND FAULT RELAY
GRS	-GALVANIZED RIGID STEEL CONDUIT
HH	-HANDHOLE
HT	-HIGH TEMPERATURE
HV	-HIGH VOLTAGE
HZ	-HERTZ
IC	-INTERRUPTING CAPACITY
IG	-ISOLATED GROUND
I/I	-CURRENT/CURRENT TRANSDUCER
I/O	-INPUT/OUTPUT
IT	-INSTANTANEOUS TRIP OR INTERCHANGEABLE
JB	-JUNCTION BOX
KCMIL	-THOUSAND CIRCULAR MILS
KV	-KILOVOLTS
KVA	-KILOVOLT AMPERES
KVAR	-KILOVOLT AMPERES REACTIVE
KW	-KILOWATTS
KWH	-KILOWATT HOUR

ELECTRICAL ABBREVIATIONS

LA	-LIGHTING ARRESTOR
LE	-LEVEL ELEMENT
LFMC	-LIQUID TIGHT FLEXIBLE METAL CONDUIT
LOR	-LOCAL-OFF-REMOTE
LP	-LIGHTING PANELBOARD
LS	-LIMIT SWITCH
LIT	-LEVEL INDICATING TRANSMITTER
LVL	-LEVEL SWITCH
LTG	-LIGHTING
LPS	-LIGHTNING PROTECTION SYSTEM
LVTU	-LOW VOLTAGE TRIP UNIT
mA	-MILLIAMPS
MA	-MAIN A
MB	-MAIN B
MF	-MAIN FEEDER
MCB	-MAIN CIRCUIT BREAKER
MCP	-MOTOR CIRCUIT PROTECTOR
MH	-MANHOLE
MLO	-MAIN LUGS ONLY
MMD	-METER MONITORING DEVICE
MV	-MEDIUM VOLTAGE
MVTU	-MEDIUM VOLTAGE TRIP UNIT
NC	-NORMALLY CLOSED
NF	-NON-FUSED
NFSS	-NON-FUSED SAFETY SWITCH
NGR	-NEUTAL GROUNDING RESISTOR
NO	-NORMALLY OPEN
ODP	-OPEN DRIP PROOF
OL	-OVERLOAD
(#)P	-(#) NUMBER OF POLES
Ø, PH	-PHASE
P/I	-PNEUMATIC/CURRENT TRANSDUCER
PB	-PUSHBUTTON
PCP	-PUMP CONTROL PANEL
PE	-PRESSURE ELEMENT
PF	-POWER FACTOR
PL	-PILOT LIGHT
PLC	-PROGRAMMABLE LOGIC CONTROLLER
PIT	-PRESSURE INDICATING TRANSMITTER
PP	-POWER PANELBOARD
PS	-PRESSURE SWITCH
PT	-POTENTIAL TRANSFORMER
RFI	-RADIO FREQUENCY INTERFERENCE
RLA	-RUNNING LOAD AMPERES
RMS	-ROOT MEAN SQUARE
RSC	-RIGID STEEL CONDUIT
RTD	-RESISTIVE TEMPERATURE DETECTOR
RVAT	-REDUCED VOLTAGE AUTO TRANSFORMER
RECPT	-RECEPTACLE
SC	-SURGE CAPACITOR
SS	-SAFETY SWITCH OR STAINLESS STEEL
SST	-SOLID STATE
ST	-SINGLE THROW
SWS	-SWITCHES
SWBD	-SWITCHBOARD
SWGR	-SWITCHGEAR
T-STAT,T	-THERMOSTAT
TEL, TELE	-TELEPHONE
TMH	-TELECOM MANHOLE
TR	-TIMING RELAY
TS	-TEMPERATURE SWITCH
TSP	-TWISTED SHIELDED PAIR
UTP	-UNSHIELDED TWISTED PAIR - VOLTS
V	-VOLT
VA	-VOLT - AMPERES
VFD	-VARIABLE FREQUENCY DRIVE
VS	-VIBRATION SWITCH
W	-WATTS, WIRE
XFMR	-TRANSFORMER
XP	-EXPLOSION PROOF
2S1W	-2 SPEED SINGLE WINDING
2S2W	-2 SPEED TWO WINDING

GENERAL NOTES:

1. THIS IS A STANDARD SYMBOL LIST, SOME SYMBOLS MAY NOT APPEAR ON THE ACCOMPANYING DRAWINGS.
2. ALL ELECTRICAL EQUIPMENT AND WIRING IS NEW UNLESS OTHERWISE NOTED.
3. WHERE EXISTING EQUIPMENT AND WIRING IS SHOWN TO BE MODIFIED OR REMOVED, FIELD VERIFY EXISTING LOCATIONS, CONNECTIONS AND WIRING TO ENSURE ACTUAL FEATURES ARE AS SHOWN OR NOTED.
4. FIELD VERIFY EXISTING FEATURES AS NECESSARY TO COORDINATE EXECUTION OF THE WORK SHOWN.
5. ELECTRICAL EQUIPMENT SHALL BE MOUNTED WITH OPERATING CONTROLS BETWEEN APPROXIMATELY 4'-0" AND 6'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE SHOWN OR SPECIFIED.

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

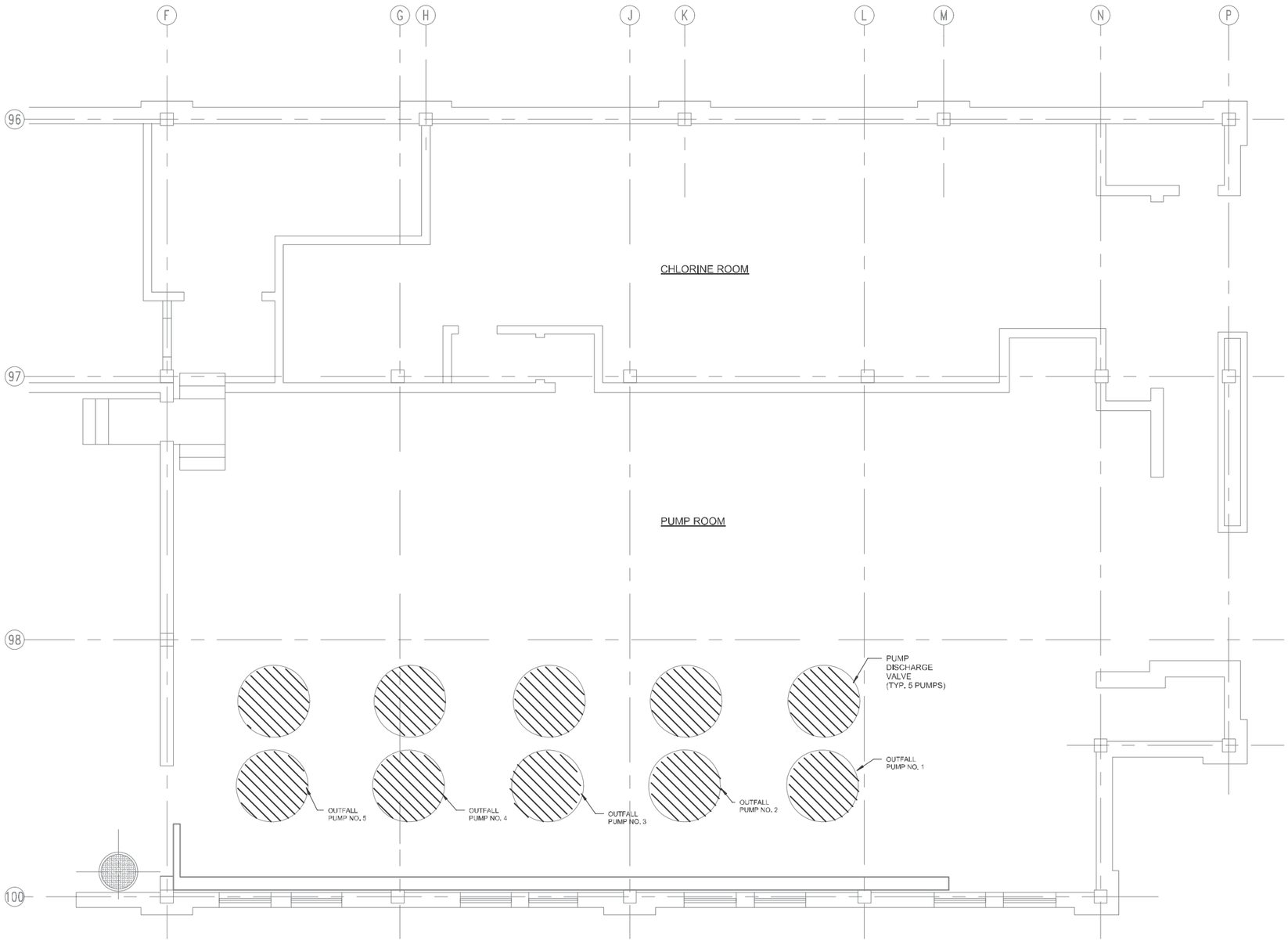
SHEET TITLE

CEDAR CREEK EFFLUENT PUMP STATION

GENERAL NOTES, SYMBOLS & ABBREVIATIONS

SCALE: AS NOTED

CC-E001



FIRST FLOOR DEMOLITION PLAN

1/4" = 1'-0"

4' 2' 0 2' 4'

PLAN NORTH

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL 'RELEASED FOR CONSTRUCTION' SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: 71681
APPROVED BY: J. DOMANSKI
DESIGNED BY: J. CROSIER
DRAWN BY: J.CLARK
CHECKED BY: J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

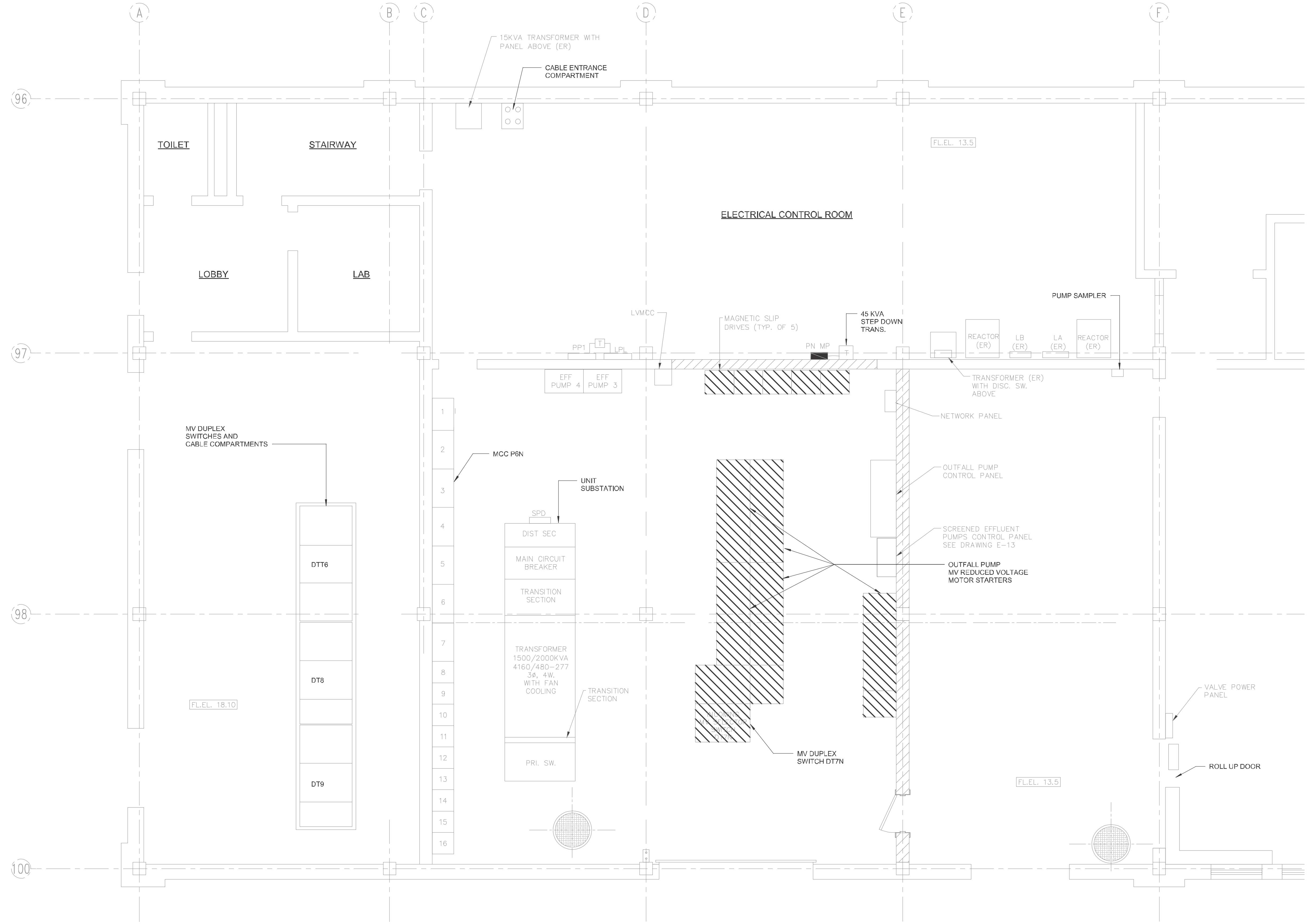
SHEET TITLE

CEDAR CREEK
EFFLUENT PUMP STATION

FIRST FLOOR DEMOLITION PLAN

SCALE: AS NOTED

CC-E101



FIRST FLOOR DEMOLITION PLAN

1/4" = 1'-0"

PLAN NORTH

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK

DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

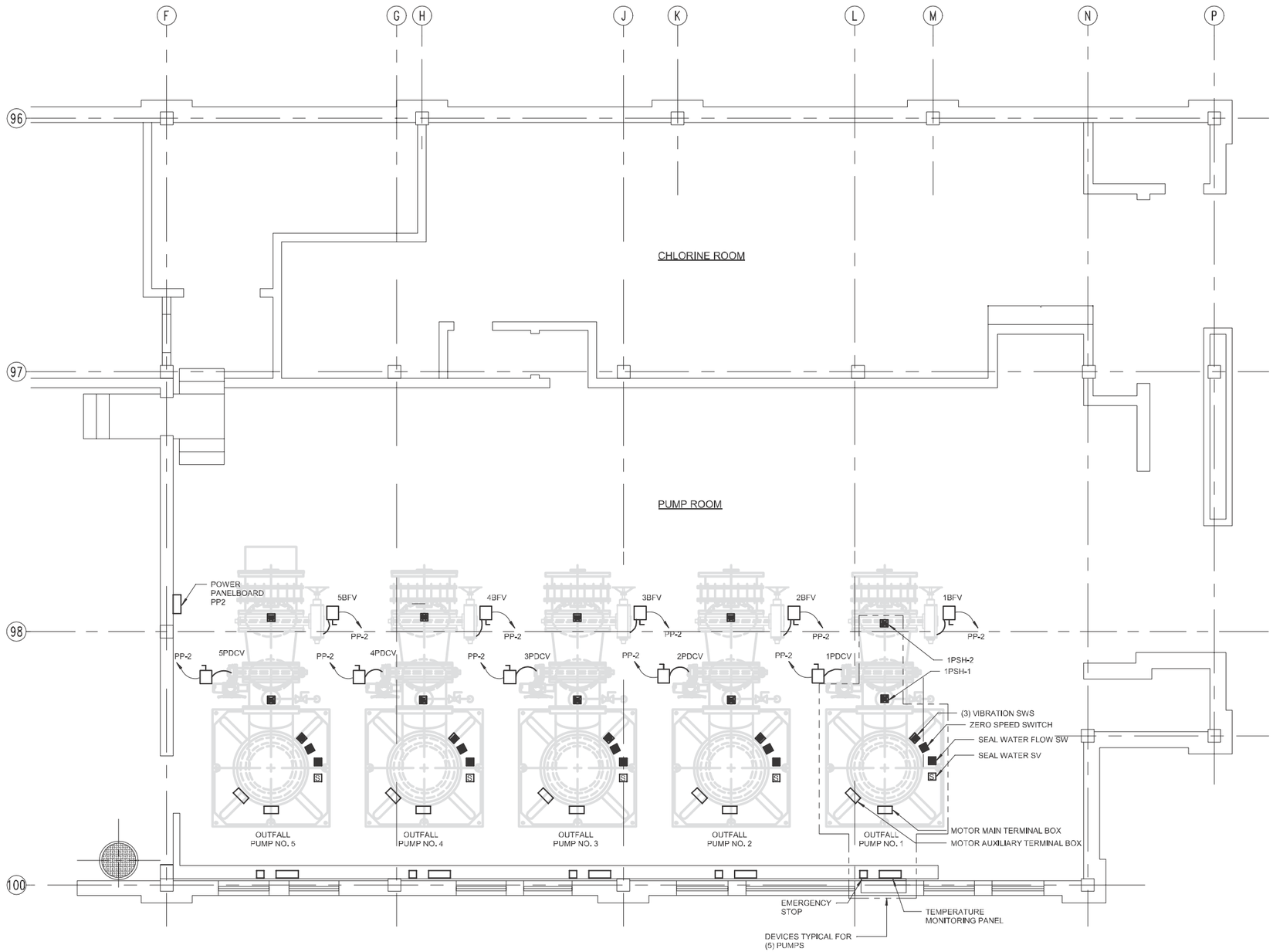
SHEET TITLE

CEDAR CREEK EFFLUENT PUMP STATION

FIRST FLOOR DEMOLITION PLAN

SCALE: AS NOTED

CC-E102



FIRST FLOOR POWER & CONTROL PLAN

1/4" = 1'-0"

PLAN NORTH

4' 2' 0 2' 4'

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

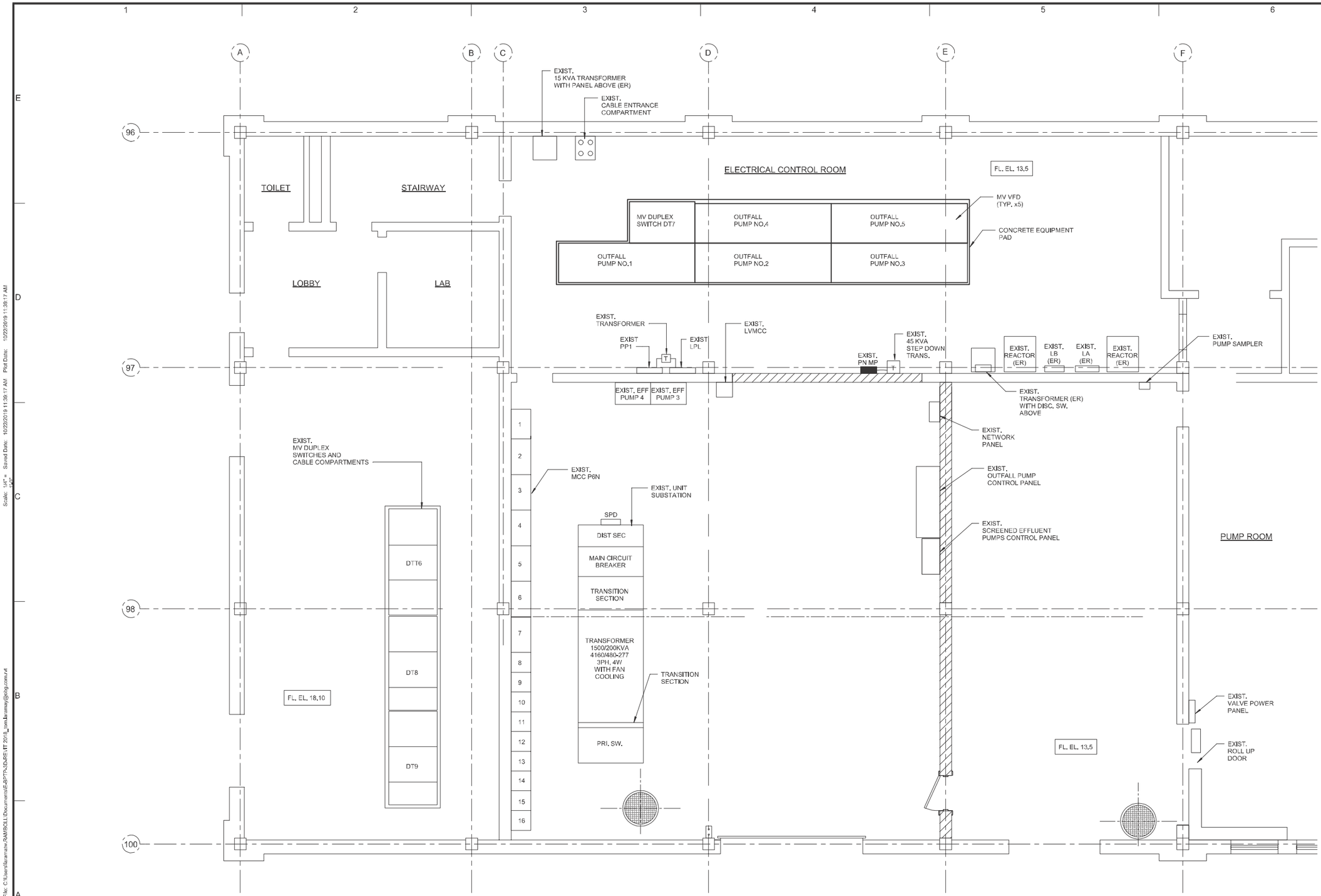
SHEET TITLE

CEDAR CREEK
EFFLUENT PUMP STATION

FIRST FLOOR POWER & CONTROL PLAN

SCALE:
AS NOTED

CC-E103



FIRST FLOOR POWER & CONTROL PLAN

1/4" = 1'-0"

PLAN NORTH

4' 2' 0 2' 4'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 10/2019

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FINAL DESIGN
CRITERIA PACKAGE

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DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

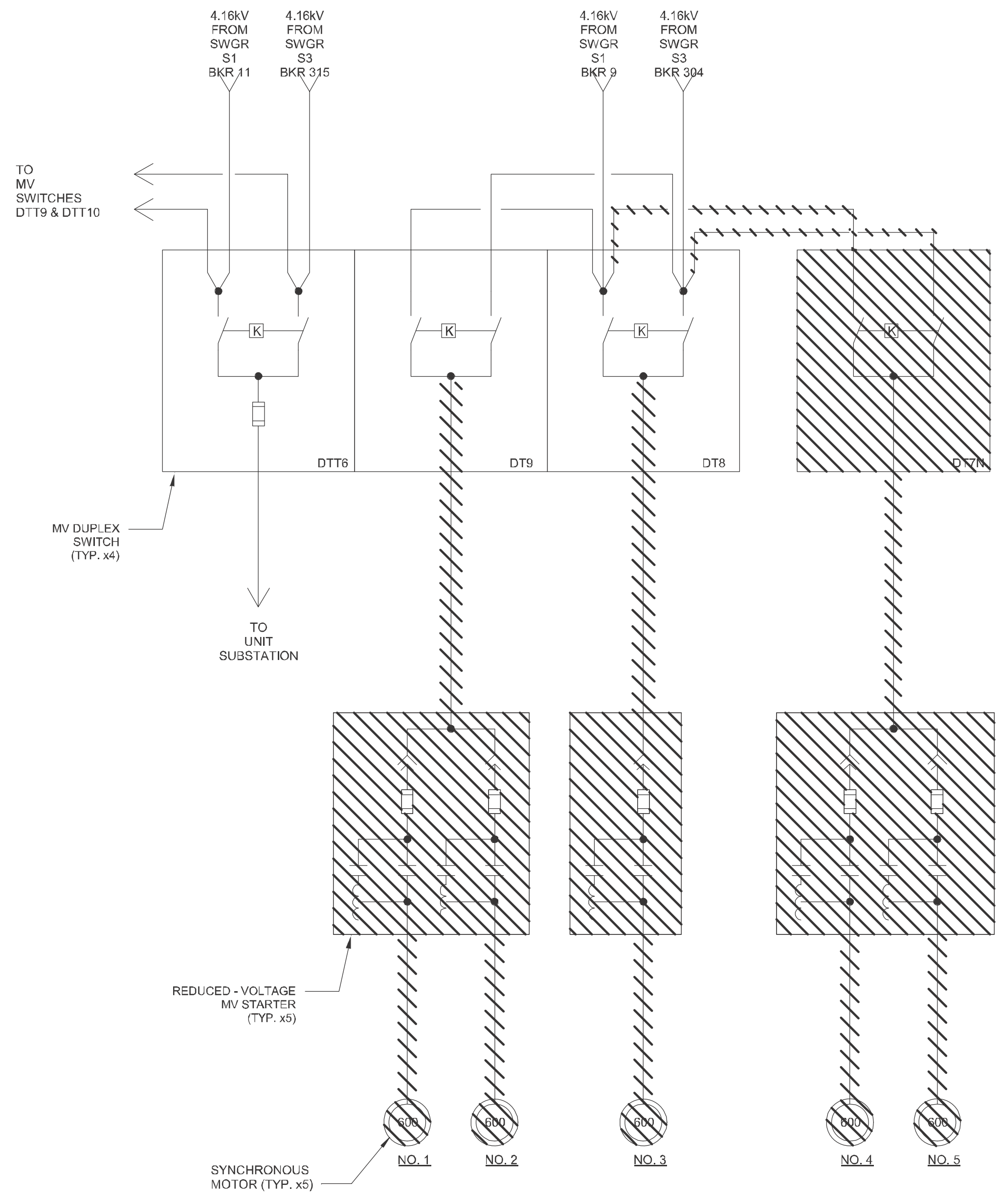
CEDAR CREEK
EFFLUENT PUMP STATION

FIRST FLOOR POWER &
CONTROL PLAN

SCALE:
AS NOTED

CC-E104

PAGE 79



4.16 kV DEMOLITION ONE-LINE DIAGRAM

NOT TO SCALE

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 10/2019

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

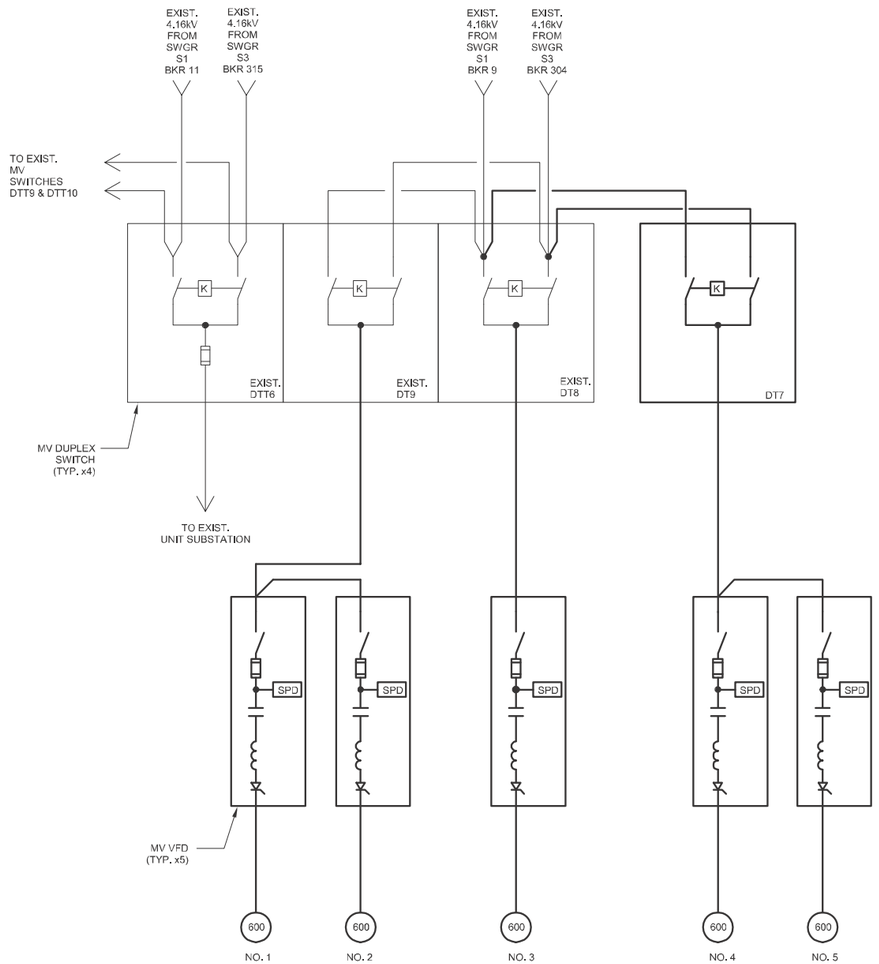
SHEET TITLE

CEDAR CREEK EFFLUENT PUMP STATION

4.16 kV DEMOLITION ONE-LINE DIAGRAM

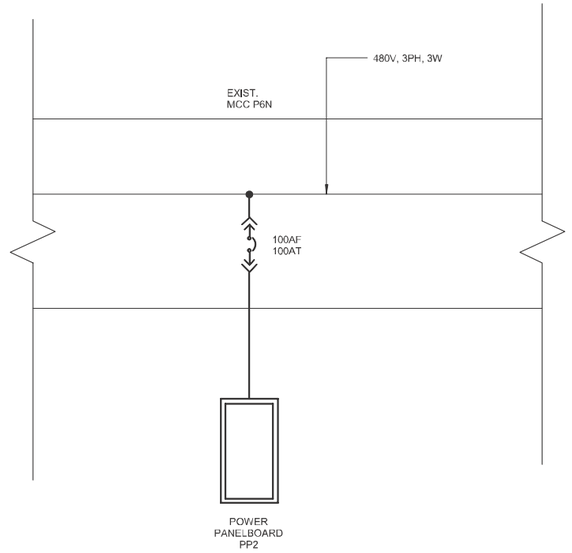
SCALE: AS NOTED

CC-E601



4.16 kV ONE-LINE DIAGRAM

NOT TO SCALE



MCC P6N PARTIAL ONE-LINE DIAGRAM

NOT TO SCALE

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

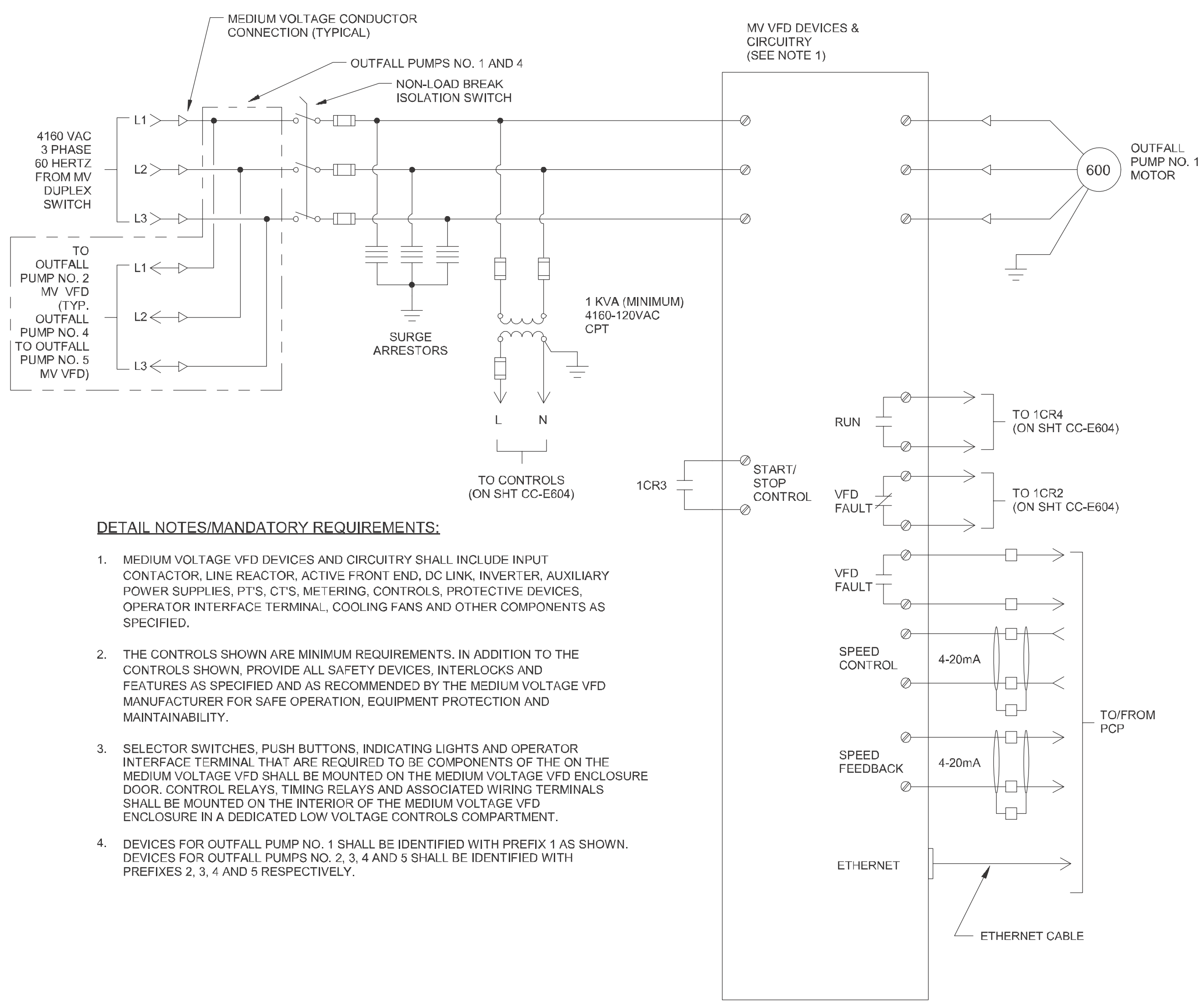
SHEET TITLE

CEDAR CREEK
EFFLUENT PUMP STATION

ONE-LINE DIAGRAMS

SCALE:
AS NOTED

CC-E602



DETAIL NOTES/MANDATORY REQUIREMENTS:

1. MEDIUM VOLTAGE VFD DEVICES AND CIRCUITRY SHALL INCLUDE INPUT CONTACTOR, LINE REACTOR, ACTIVE FRONT END, DC LINK, INVERTER, AUXILIARY POWER SUPPLIES, PT'S, CT'S, METERING, CONTROLS, PROTECTIVE DEVICES, OPERATOR INTERFACE TERMINAL, COOLING FANS AND OTHER COMPONENTS AS SPECIFIED.

2. THE CONTROLS SHOWN ARE MINIMUM REQUIREMENTS. IN ADDITION TO THE CONTROLS SHOWN, PROVIDE ALL SAFETY DEVICES, INTERLOCKS AND FEATURES AS SPECIFIED AND AS RECOMMENDED BY THE MEDIUM VOLTAGE VFD MANUFACTURER FOR SAFE OPERATION, EQUIPMENT PROTECTION AND MAINTAINABILITY.

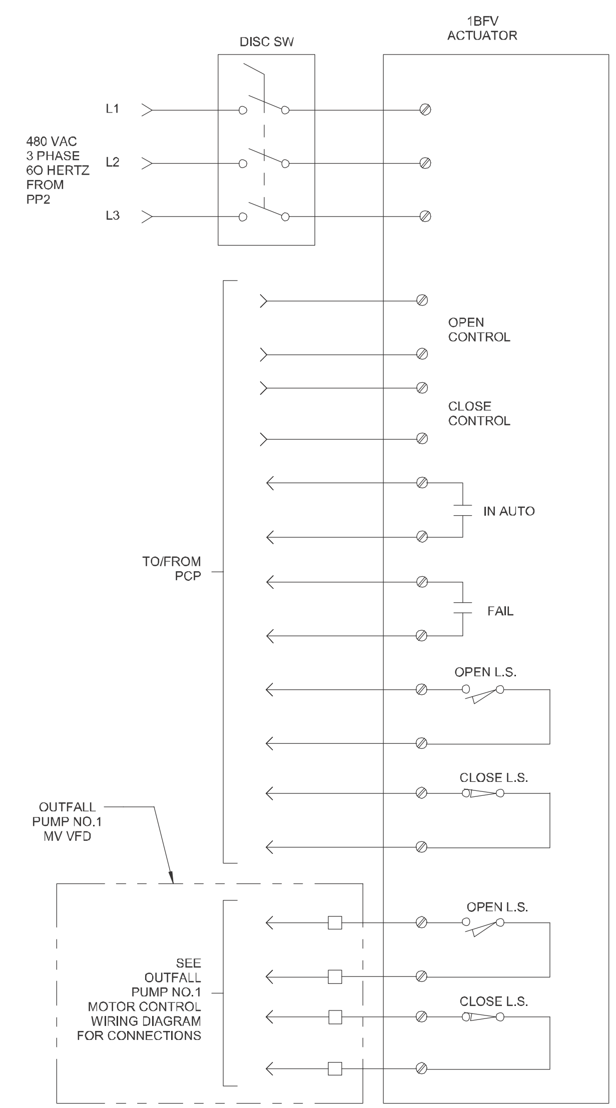
3. SELECTOR SWITCHES, PUSH BUTTONS, INDICATING LIGHTS AND OPERATOR INTERFACE TERMINAL THAT ARE REQUIRED TO BE COMPONENTS OF THE ON THE MEDIUM VOLTAGE VFD SHALL BE MOUNTED ON THE MEDIUM VOLTAGE VFD ENCLOSURE DOOR. CONTROL RELAYS, TIMING RELAYS AND ASSOCIATED WIRING TERMINALS SHALL BE MOUNTED ON THE INTERIOR OF THE MEDIUM VOLTAGE VFD ENCLOSURE IN A DEDICATED LOW VOLTAGE CONTROLS COMPARTMENT.

4. DEVICES FOR OUTFALL PUMP NO. 1 SHALL BE IDENTIFIED WITH PREFIX 1 AS SHOWN. DEVICES FOR OUTFALL PUMPS NO. 2, 3, 4 AND 5 SHALL BE IDENTIFIED WITH PREFIXES 2, 3, 4 AND 5 RESPECTIVELY.

OUTFALL PUMP NO. 1

NOT TO SCALE

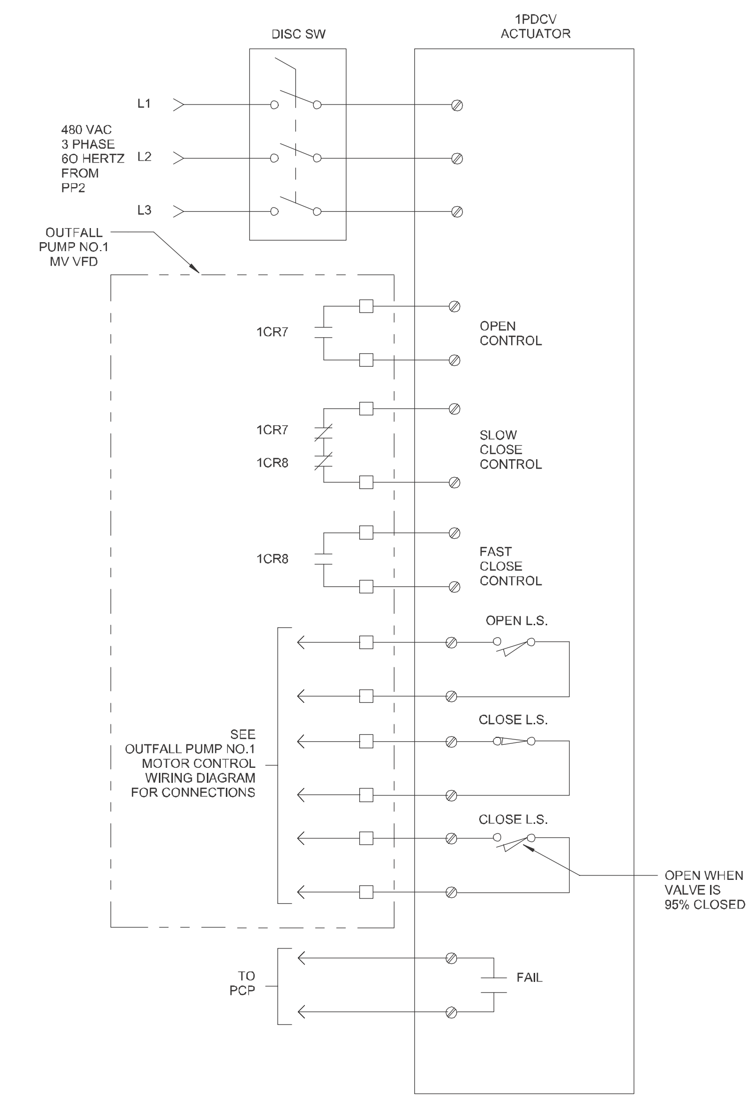
TYPICAL:
2PLV WITH OUTFALL PUMP NO. 2
3PLV WITH OUTFALL PUMP NO. 3
4PLV WITH OUTFALL PUMP NO. 4
5PLV WITH OUTFALL PUMP NO. 5



OUTFALL PUMP NO.1 PLUG VALVE (1BFV)

NOT TO SCALE

TYPICAL:
2BFV WITH OUTFALL PUMP NO. 2
3BFV WITH OUTFALL PUMP NO. 3
4BFV WITH OUTFALL PUMP NO. 4
5BFV WITH OUTFALL PUMP NO. 5



OUTFALL PUMP NO.1 PUMP DISCHARGE CONTROL VALVE (1PDCV)

NOT TO SCALE

TYPICAL:
2PDCV WITH OUTFALL PUMP NO. 2
3PDCV WITH OUTFALL PUMP NO. 3
4PDCV WITH OUTFALL PUMP NO. 4
5PDCV WITH OUTFALL PUMP NO. 5

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

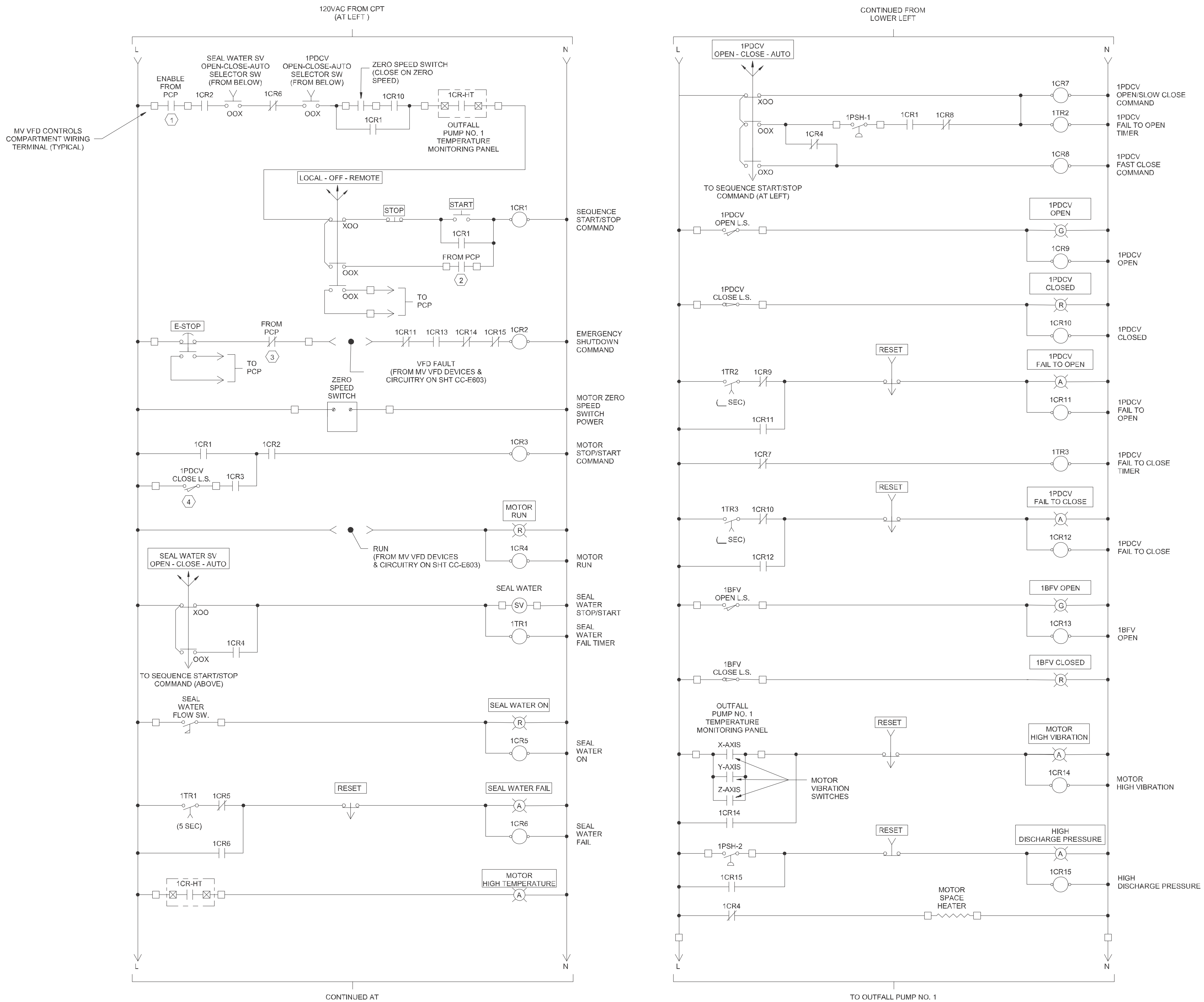
SHEET TITLE

CEDAR CREEK EFFLUENT PUMP STATION

MOTOR CONTROL WIRING DIAGRAMS

SCALE: AS NOTED

CC-E603

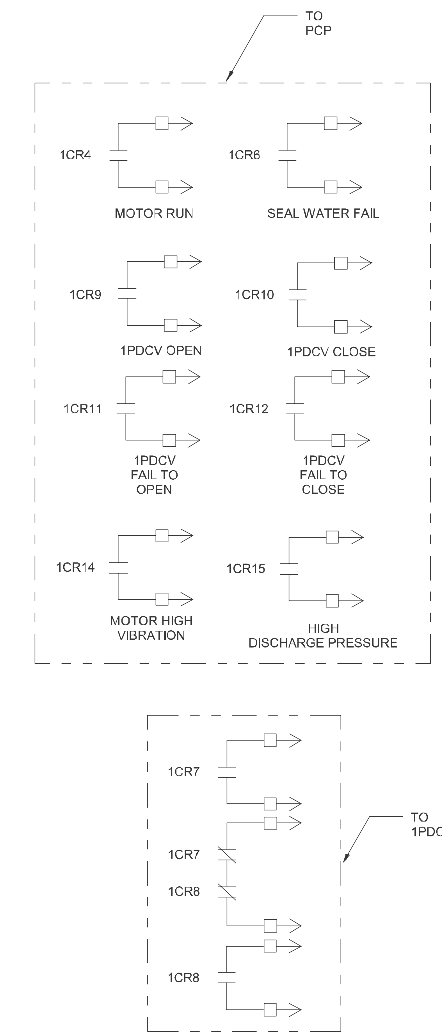


KEYED NOTES:

1. PCP DISCRETE OUTPUT FOR WET WELL LOW LEVEL (CONTACT SHALL OPEN ON LOW LEVEL).
2. PCP FOR DISCRETE OUTPUT FOR SEQUENCE STOP/START CONTROL (CONTACT SHALL CLOSE TO INITIATE START SEQUENCE/OPEN TO INITIATE STOP SEQUENCE).
3. PCP DISCRETE OUTPUT FOR EMERGENCY STOP COMMAND (CONTACT SHALL OPEN TO INITIATE EMERGENCY STOP).
4. LIMIT SWITCH SHALL OPEN WHEN 1PDCV IS 95% CLOSED.

DETAIL NOTES:

1. SEE DETAIL NOTES 2, 3, AND 4 ON SHEET BP-E603



OUTFALL PUMP NO. 1 VFD CONTROL DIAGRAM

NOT TO SCALE

TYPICAL: OUTFALL PUMP NO. 2 VFD
OUTFALL PUMP NO. 3 VFD
OUTFALL PUMP NO. 4 VFD
OUTFALL PUMP NO. 5 VFD

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

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FINAL DESIGN CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	71681
APPROVED BY:	J. DOMANSKI
DESIGNED BY:	J. CROSIER
DRAWN BY:	J.CLARK
CHECKED BY:	J. CROSIER

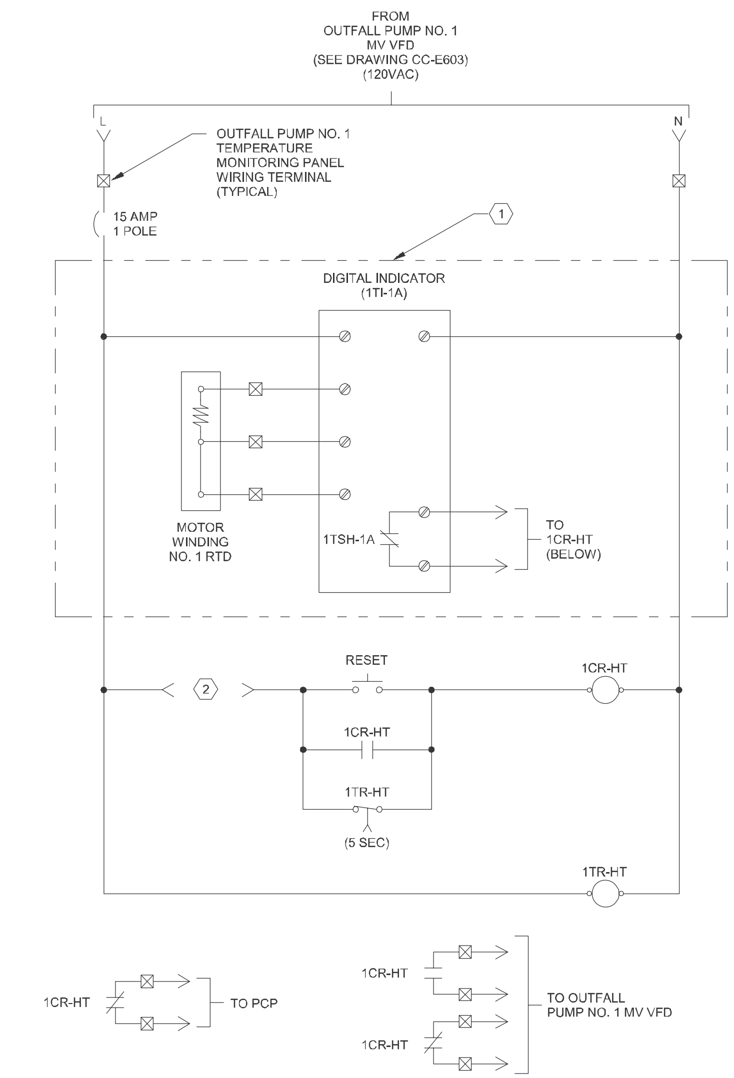
NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
CEDAR CREEK EFFLUENT PUMP STATION
MOTOR CONTROL WIRING DIAGRAM

SCALE: AS NOTED

CC-E604



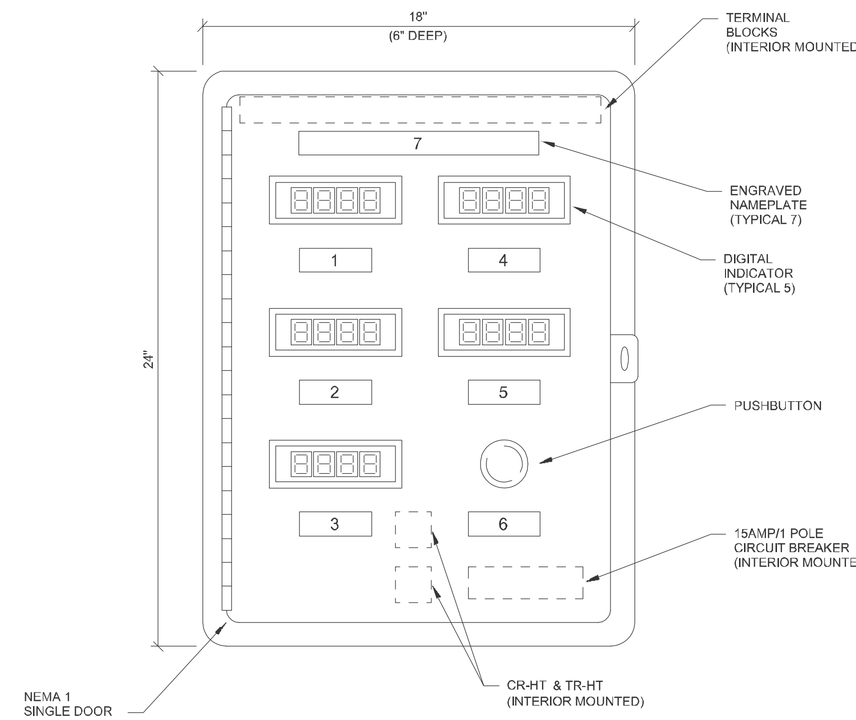
KEYED NOTES:

1. DEVICES AND WIRING SHALL BE TYPICAL FOR THE FOLLOWING:
   - -MOTOR WINDING NO.2 RTD WITH 1TI-1B/1TSH-1B.
   - -MOTOR WINDING NO.3 RTD WITH 1TI-1C/1TSH-1C.
   - -MOTOR TOP BEARING RTD WITH 1TI-1D/1TSH-1D.
   - -MOTOR BOTTOM BEARING RTD WITH 1TI-1E/1TSH-1E.
2. PROVIDE SERIES CONNECTION OF N.C. CONTACTS 1TSH-1A, 1TSH-1B, 1TSH-1C, 1TSH-1D AND 1TSH-1E.

OUTFALL PUMP NO. 1 TEMPERATURE MONITORING PANEL

NOT TO SCALE

TYPICAL: OUTFALL PUMP NO. 2 TEMPERATURE MONITORING PANEL
OUTFALL PUMP NO. 3 TEMPERATURE MONITORING PANEL
OUTFALL PUMP NO. 4 TEMPERATURE MONITORING PANEL
OUTFALL PUMP NO. 5 TEMPERATURE MONITORING PANEL



NAMEPLATE TITLES

1. MOTOR WINDING NO. 1
2. MOTOR WINDING NO. 2
3. MOTOR WINDING NO. 3
4. MOTOR TOP BEARING
5. MOTOR BOTTOM BEARING
6. RESET
7. OUTFALL PUMP NO. 1 TEMPERATURE MONITORING PANEL

OUTFALL PUMP NO. 1 TEMPERATURE MONITORING PANEL DETAIL

NOT TO SCALE

TYPICAL: OUTFALL PUMP NO. 2 TEMPERATURE MONITORING PANEL
OUTFALL PUMP NO. 3 TEMPERATURE MONITORING PANEL
OUTFALL PUMP NO. 4 TEMPERATURE MONITORING PANEL
OUTFALL PUMP NO. 5 TEMPERATURE MONITORING PANEL

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 10/2019

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FINAL DESIGN CRITERIA PACKAGE

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PROJECT NO.: 71681
APPROVED BY: J. DOMANSKI
DESIGNED BY: J. CROSIER
DRAWN BY: J.CLARK
CHECKED BY: J. CROSIER

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

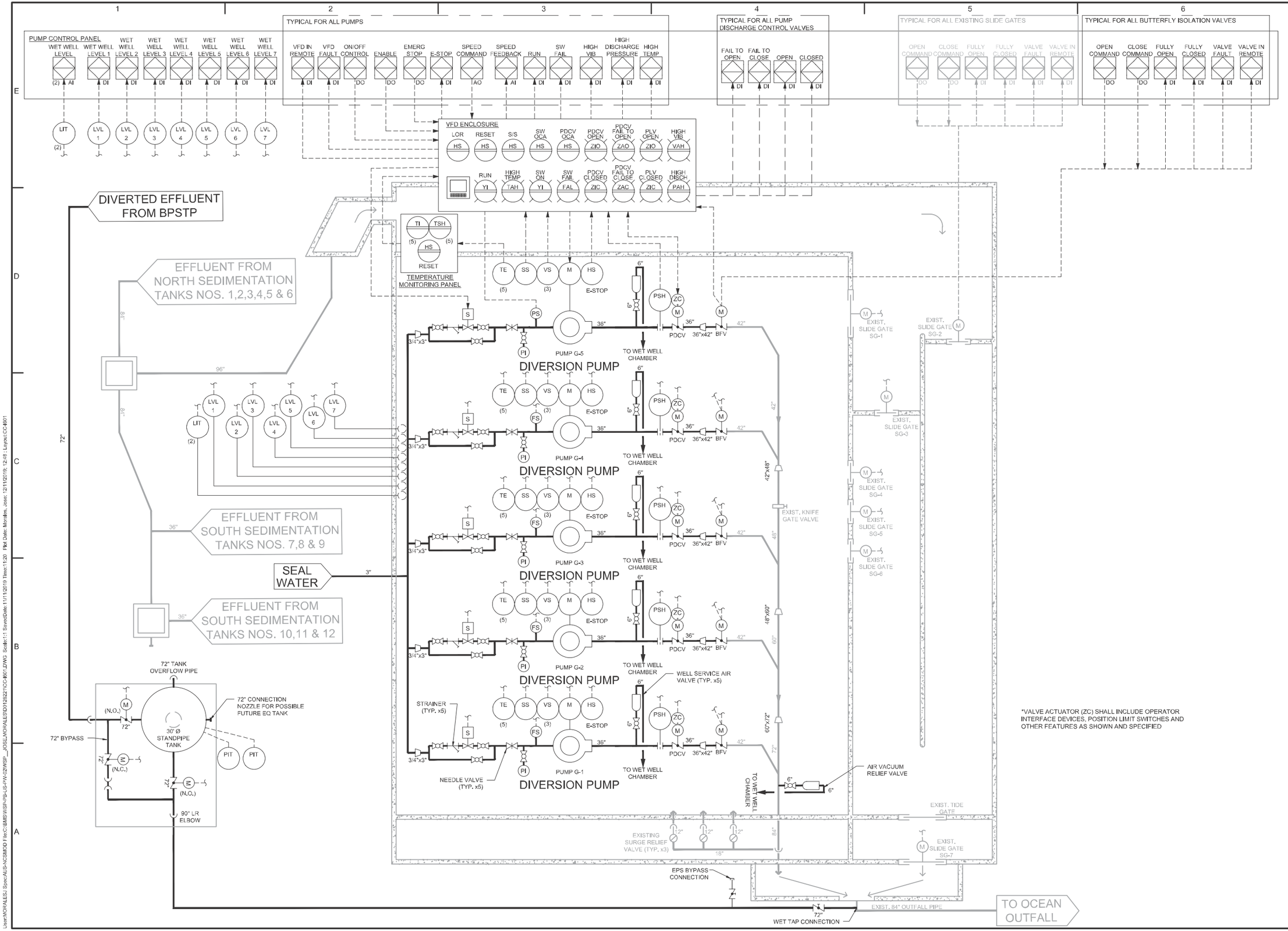
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
CEDAR CREEK EFFLUENT PUMP STATION

MOTOR CONTROL WIRING DIAGRAMS

SCALE: AS NOTED

CC-E605



*VALVE ACTUATOR (ZC) SHALL INCLUDE OPERATOR INTERFACE DEVICES, POSITION LIMIT SWITCHES AND OTHER FEATURES AS SHOWN AND SPECIFIED

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-I601
DESIGNED BY:	A. STEINHAUER
DRAWN BY:	J. OWENS
CHECKED BY:	F. PULIDO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK
EFFLUENT PUMP STATION

EXISTING EFFLUENT
PUMPING STATION
UPGRADE
P&ID

SCALE: AS SHOWN

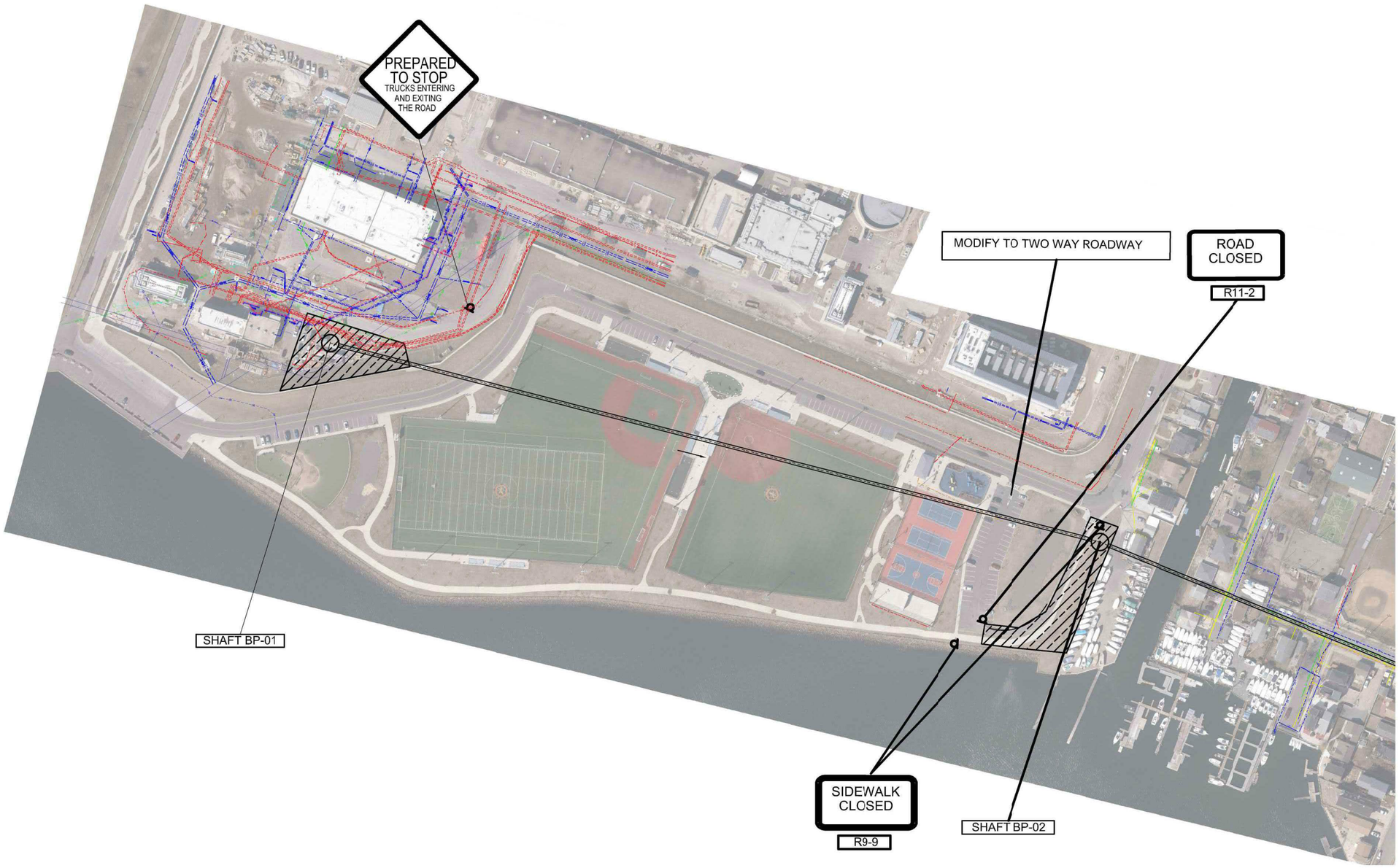
CC-I601

1 2 3 4 5 6

FOR ADDITIONAL STAGING AREASEE DRAWING BP-C100

NORTH

E D C B A



NOTES:
1.ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK
2.ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3.SIGNS SHALL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4.EXISTING SIGNS IN CONFLICT WITHTRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 100' 200'

wsp

JPCL ENGINEERING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-BPTP-110_BP-C114
DESIGNED BY:	S.OUABI
DRAWN BY:	S.OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

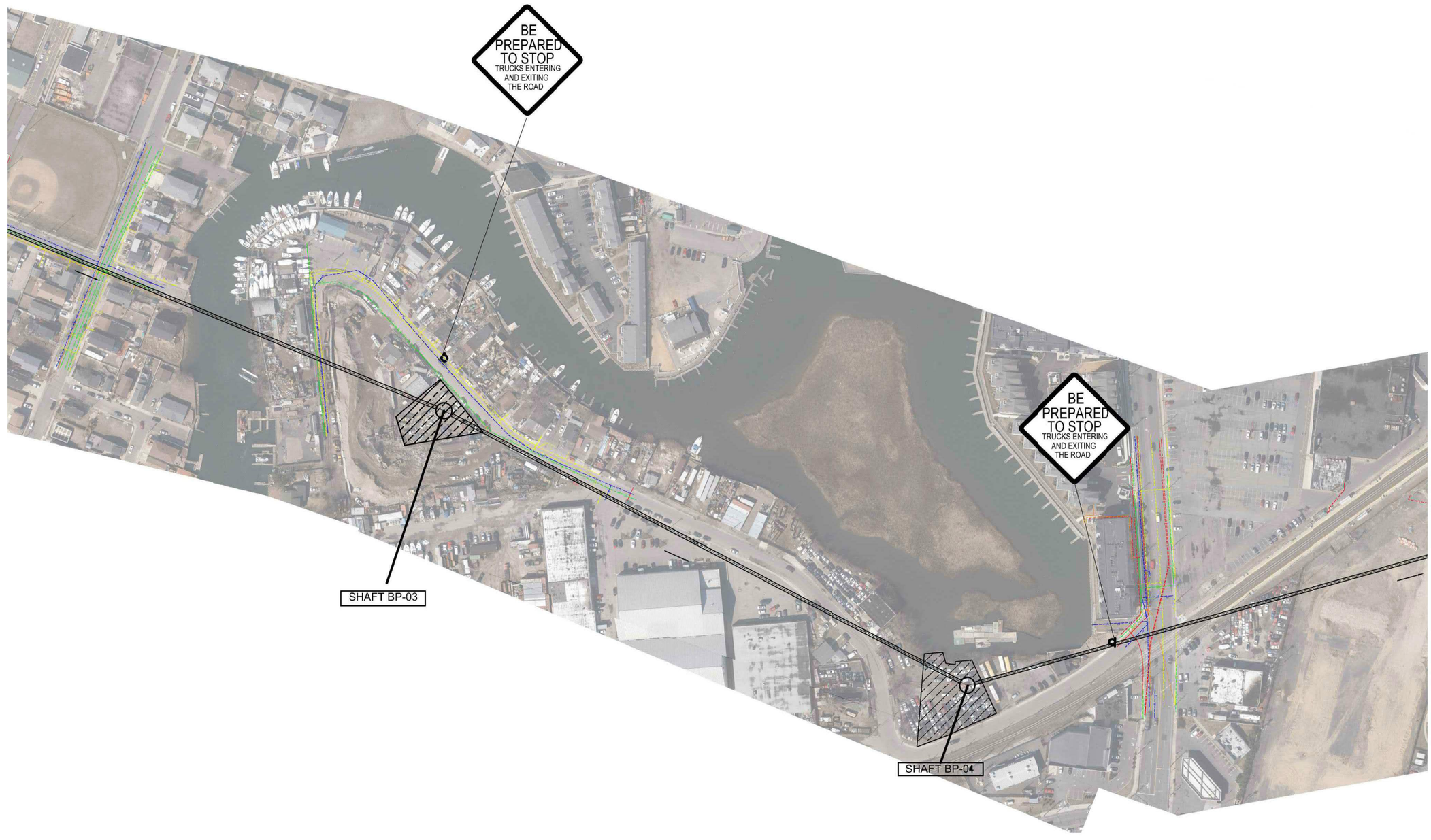
SHEET TITLE

BAY PARK FORCE MAIN

WORK ZONE SHAFT 1 & 2 TRAFFIC CONTROL AND EXISTING UTILITIES

SCALE: AS SHOWN

BP-C110



NOTES:
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4. EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 100' 200'

wsp

JPCL ENGINEERING

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

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CRITERIA PACKAGE

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PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-BPTP-110_BP-C114
DESIGNED BY:	S.OUABI
DRAWN BY:	S.OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

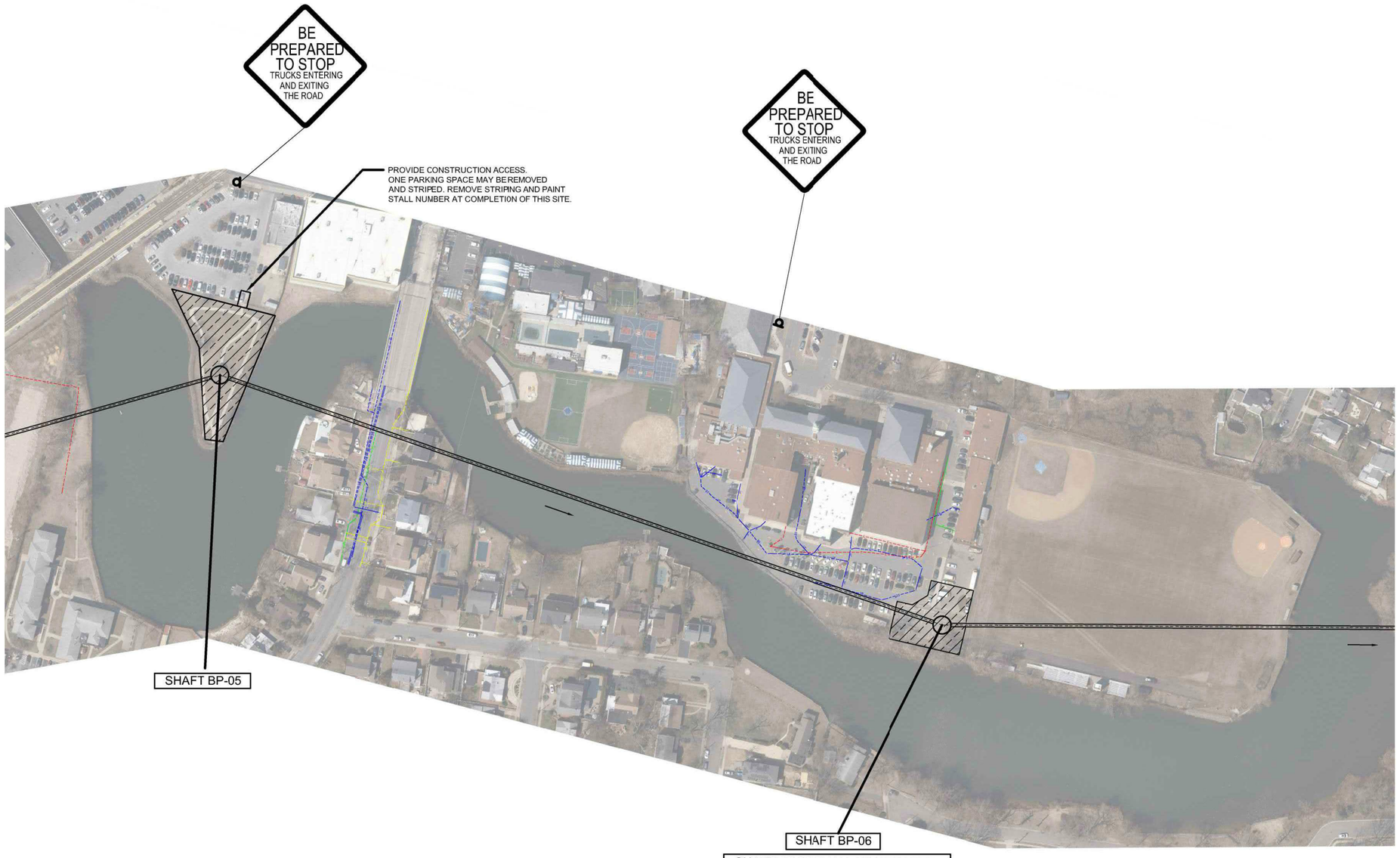
BAY PARK FORCE MAIN

WORK ZONE SHAFT 3 & 4
TRAFFIC CONTROL AND
EXISTING UTILITIES

SCALE:
AS SHOWN

BP-C111

NORTH



NOTES:
1.ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK
2.ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3.SIGNS SHAL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4.EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 100' 200'

wsp

JPCL ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-BPTP-110_BP-C114
DESIGNED BY:	S.OUABI
DRAWN BY:	S.OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

WORK ZONE SHAFT 5 & 6
TRAFFIC CONTROL AND
EXISTING UTILITIES

SCALE:
AS SHOWN

BP-C112

NORTH

NOTES:
1.ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK
2.ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3.SIGNS SHALL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4.EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 100' 200

wsp

JPCL ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-BPTP-110_BP-C114
DESIGNED BY: S.OUABI
DRAWN BY: S.OUABI
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

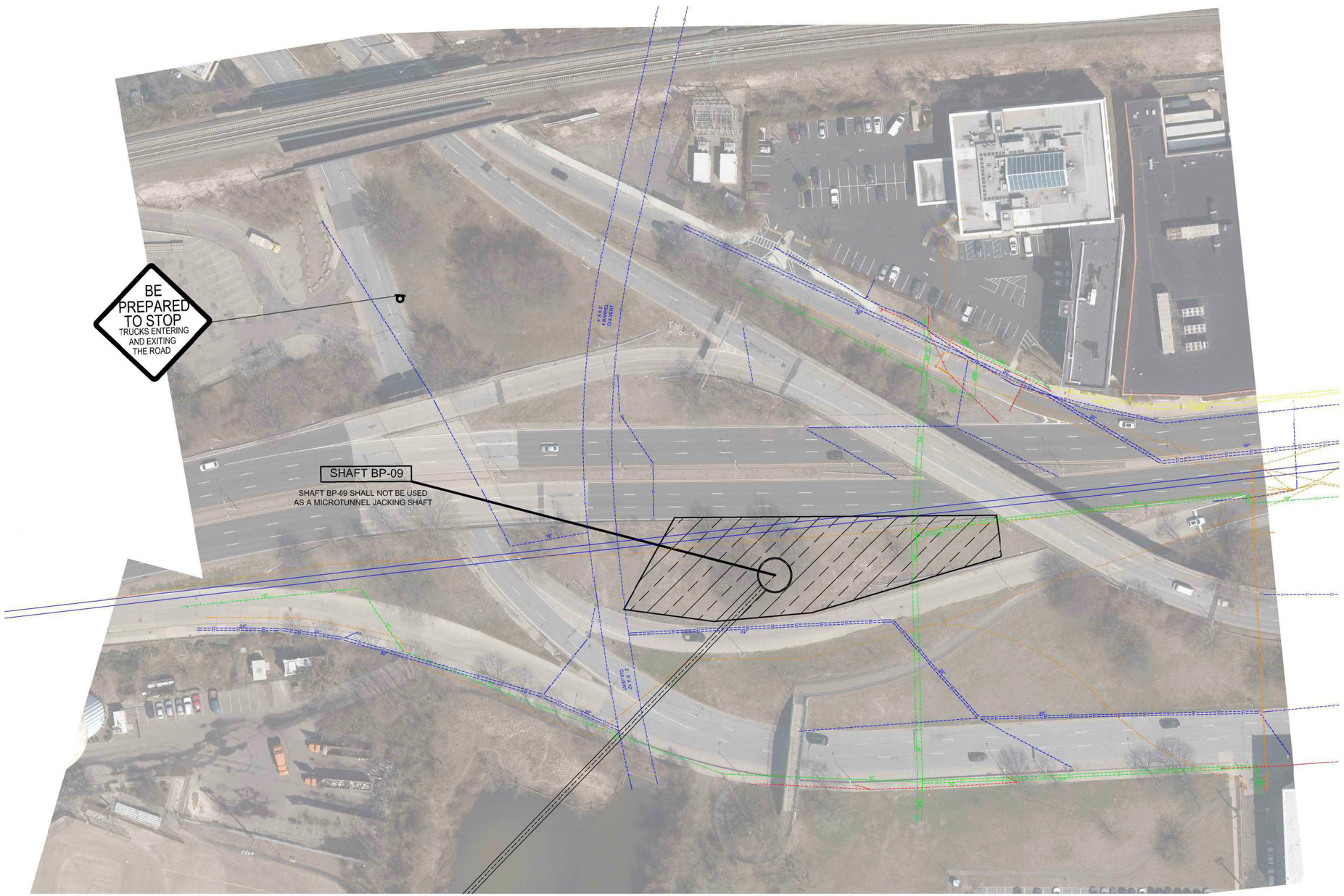
SHEET TITLE

BAY PARK FORCE MAIN

WORK ZONE SHAFT 7 & 8
TRAFFIC CONTROL AND
EXISTING UTILITIES

SCALE:
AS SHOWN

BP-C113



NOTES:
1. ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK
2. ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3. SIGNS SHAL NOT BE LOCATEE ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4. EXISTING SIGNS IN CONFLICTWITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 50' 100'

wsp

JPCL ENGINEERING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-BPTP-110_BP-C114
DESIGNED BY:	S.OUABI
DRAWN BY:	S.OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YCRK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

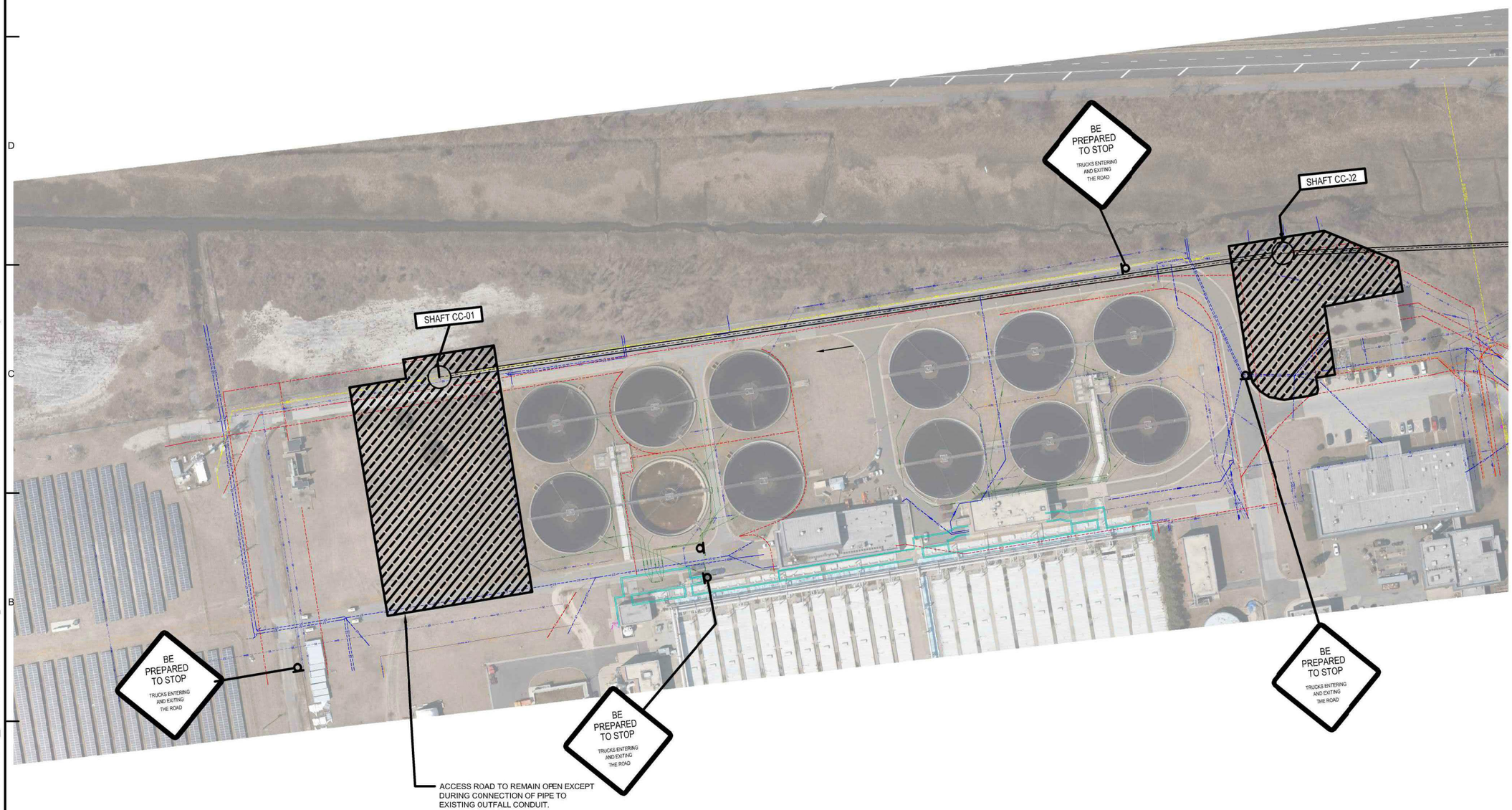
SHEET TITLE

BAY PARK FORCE MAIN

WORK ZONE SHAFT 9 TRAFFIC CONTROL AND EXISTING UTILITIES

SCALE: AS SHOWN

BP-C114



NOTES:
1.ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK
2.ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3.SIGNS SHAL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICUILAR TRAFFIC.
4.EXISTING SIGNS IN CONFLICT WITH TRAFFC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 75' 150'

wsp

JPCL ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-CCTP-107_110
DESIGNED BY:	S. OUABI
DRAWN BY:	S. OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YCRK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

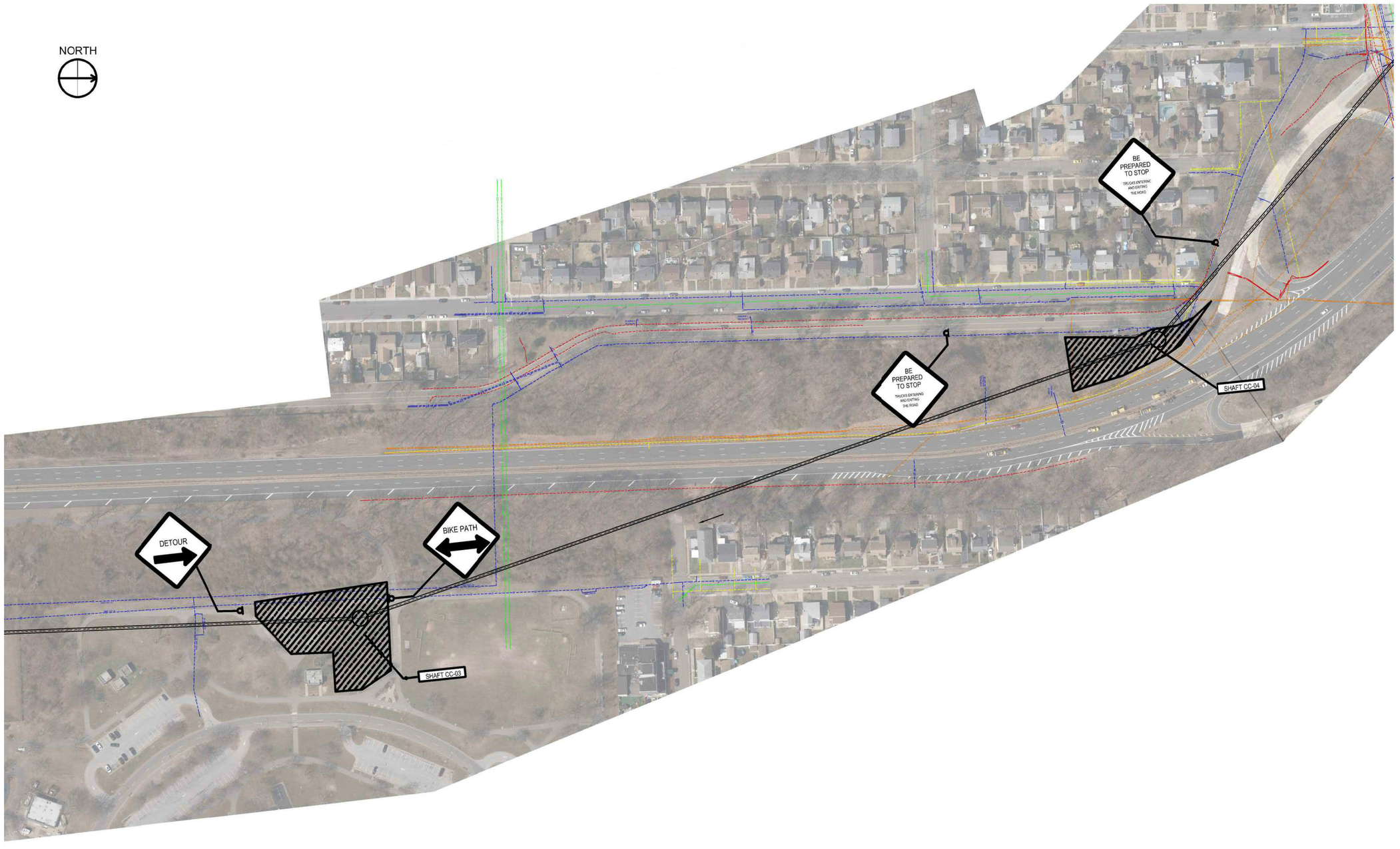
CEDAR CREEK FORCE MAIN

WORK ZONE SHAFT 1 & 2
TRAFFIC CONTROL AND
EXISTING UTILITIES

SCALE:
AS SHOWN

CC-C107

PAGE 91



NOTES:
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2.ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF W ORK.
3.SIGNS SHAL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4.EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLCSURES AND/OR TRAFFIC STOP SHALL 3E AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 100' 200'

wsp

JPCL ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-CCTP-107_110
DESIGNED BY:	S. OUABI
DRAWN BY:	S. OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YCRK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

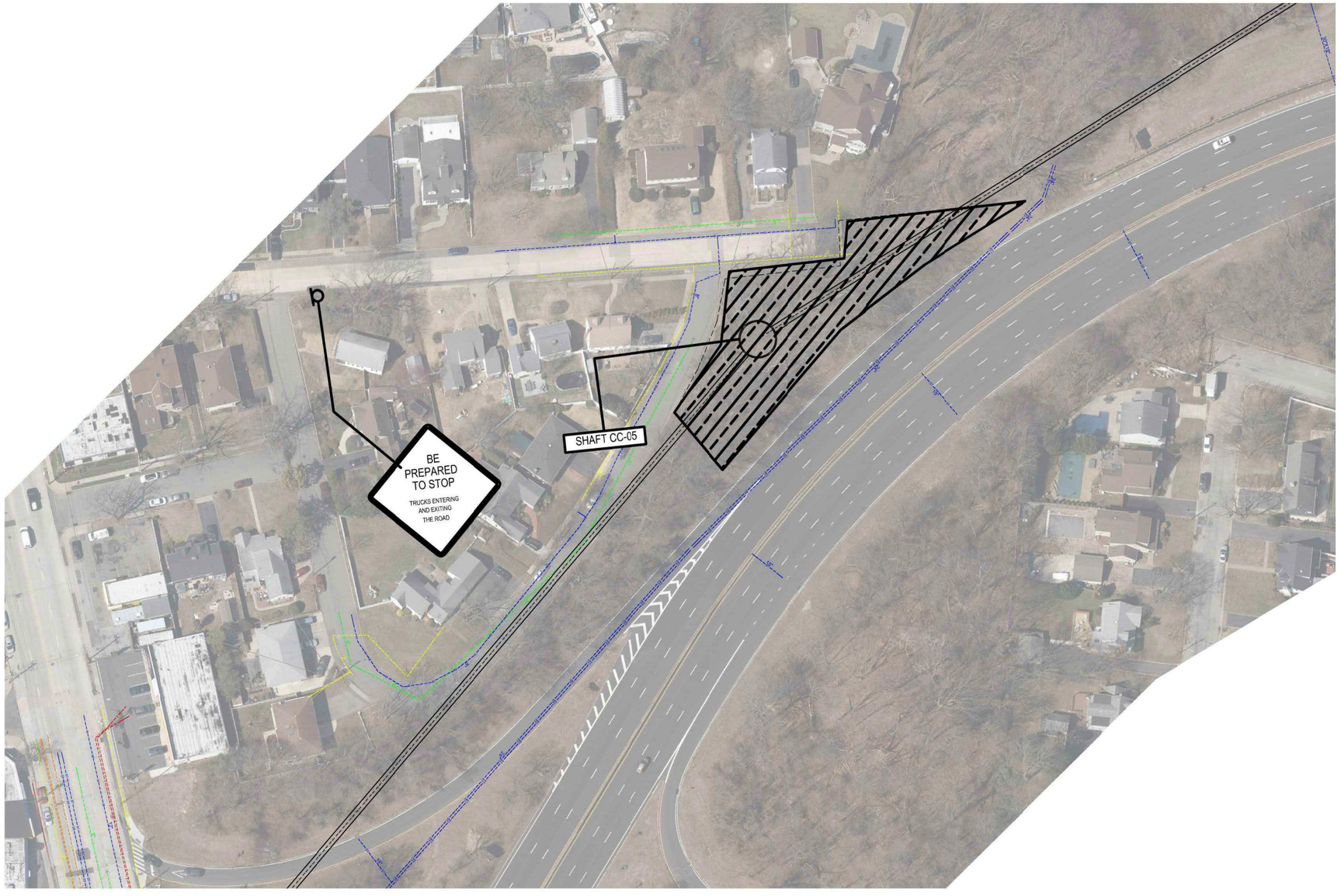
CEDAR CREEK FORCE MAIN

WORK ZONE SHAFT 3 & 4
TRAFFIC CONTROL AND
EXISTING UTILITIES

SCALE:
AS SHOWN

CC-C108

NORTH



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4.EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT.

LEGEND:

STAGING AREA

0 50' 100'

wsp

JPCL ENGINEERING

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-CCTP-107_110
DESIGNED BY:	S. OUABI
DRAWN BY:	S. OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

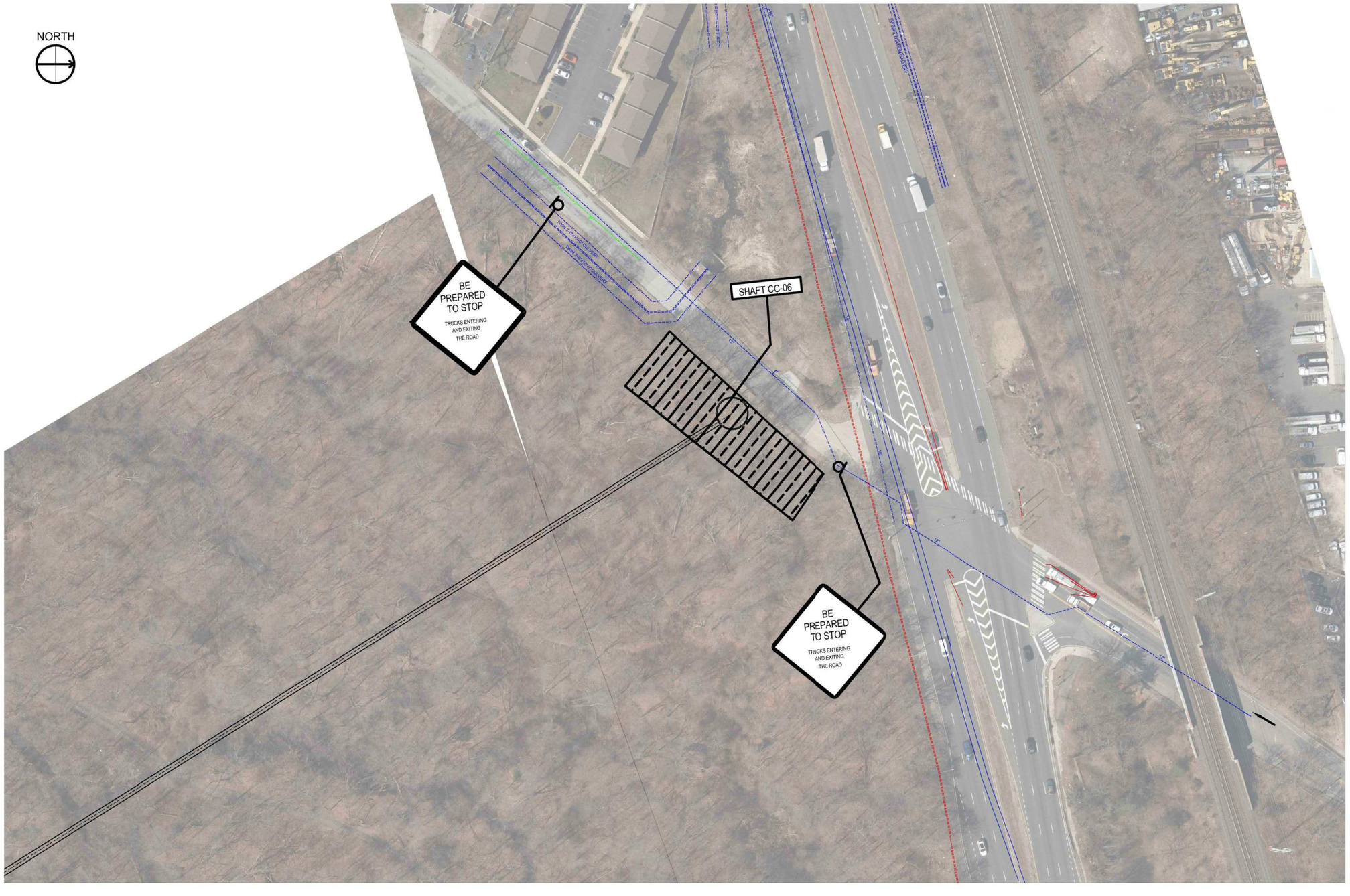
SHEET TITLE

CEDAR CREEK FORCE MAIN

WORK ZONE SHAFT 5
TRAFFIC CONTROL AND
EXISTING UTILITIES

SCALE:
AS SHOWN

CC-C109



NOTES:
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5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY INYSDOT.

LEGEND:

STAGING AREA

0 50' 100'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-CCTP-107_110
DESIGNED BY:	S. OUABI
DRAWN BY:	S. OUABI
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YCRK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

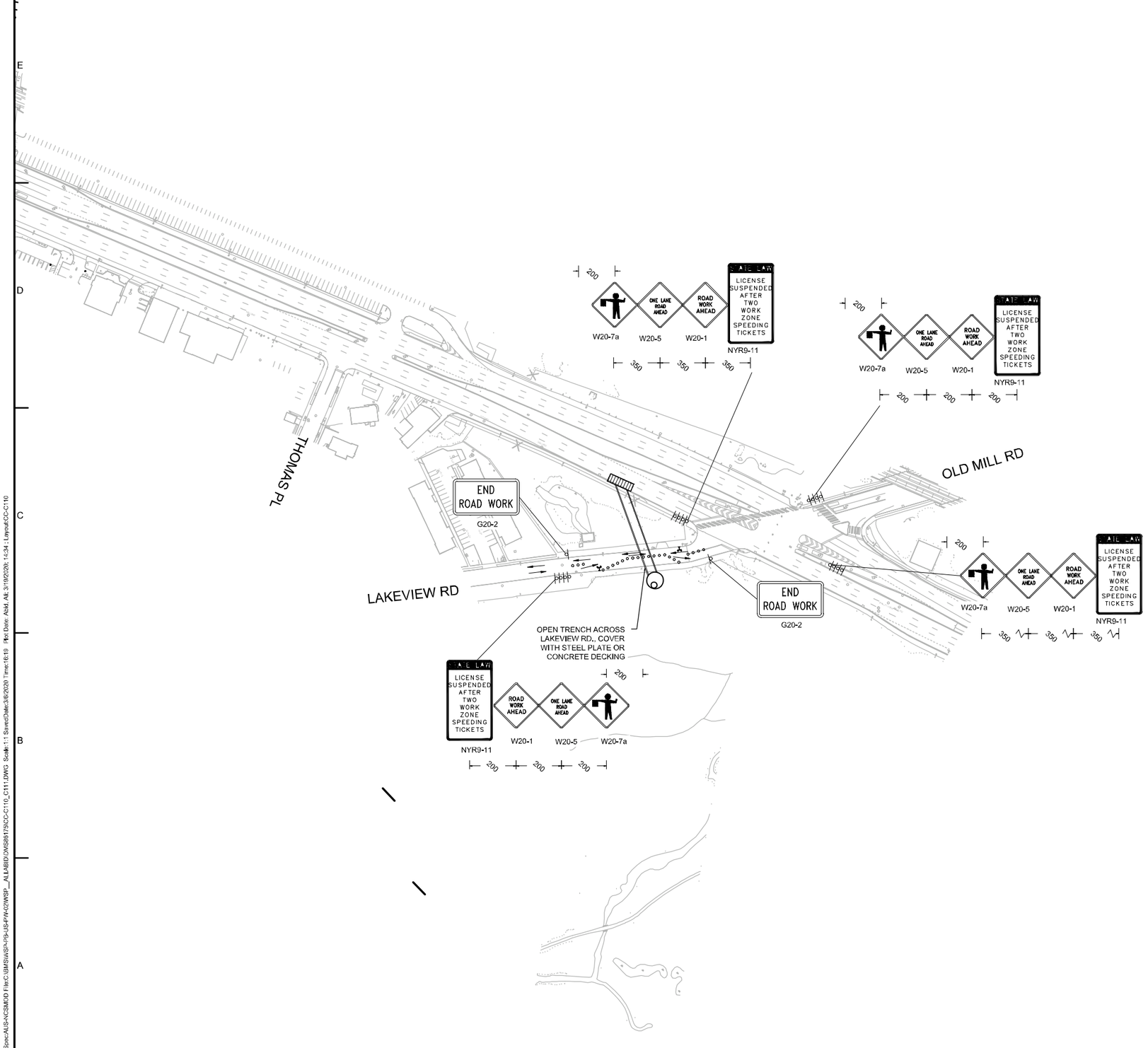
SHEET TITLE

CEDAR CREEK FORCEMAIN

WORK ZONE SHAFT 6
TRAFFIC CONTROL AND
EXISTING UTILITIES

SCALE:
AS SHOWN

CC-C110



PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-C110_C111
DESIGNED BY:	M. BROWN
DRAWN BY:	J. JARRETT
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

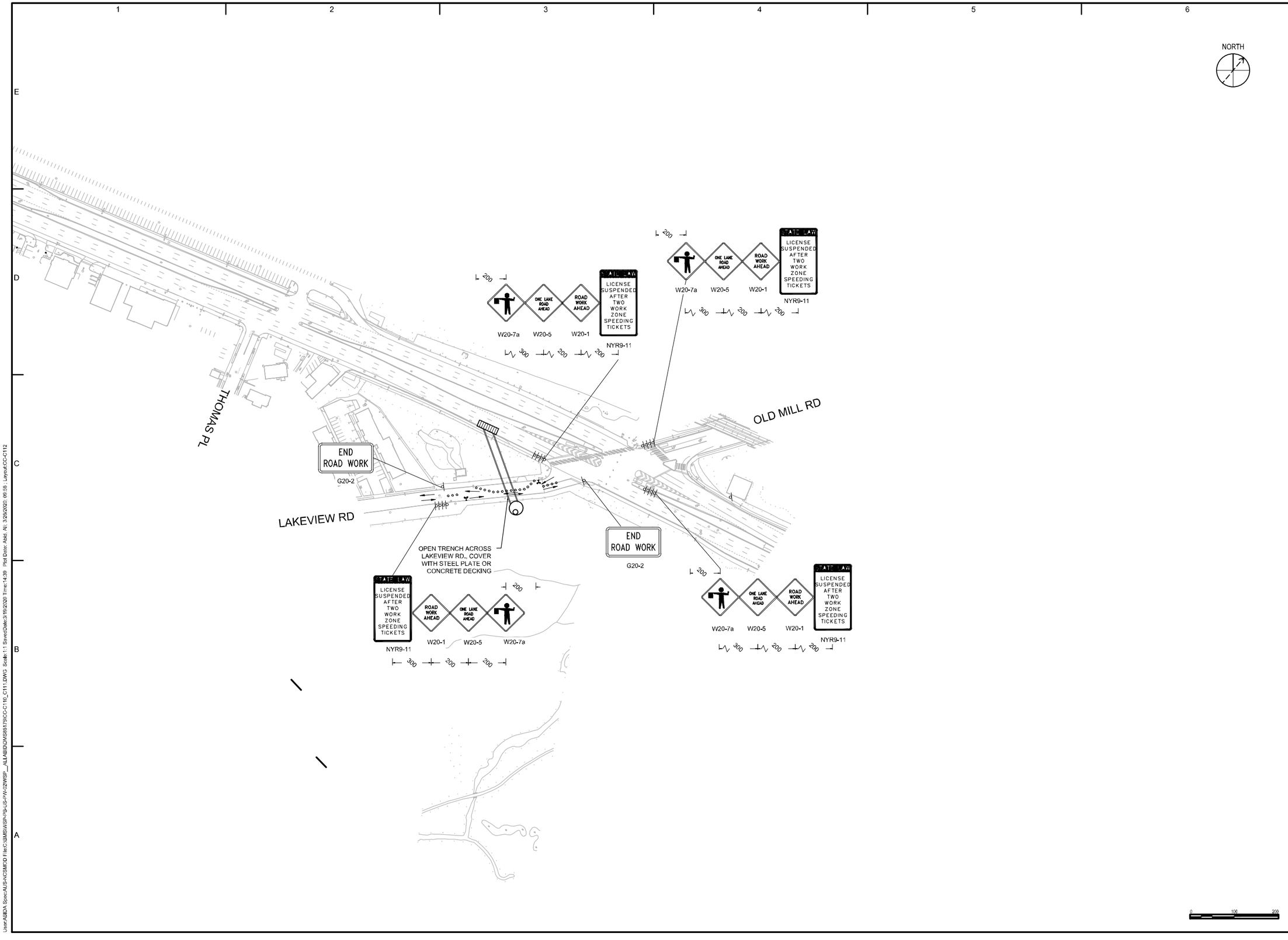
SHEET TITLE

CEDAR CREEK

WORK ZONE TRAFFIC CONTROL NORTHBOUND LAKEVIEW ROAD

SCALE:
AS SHOWN

CC-C111



PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-C110_C111
DESIGNED BY:	M. BROWN
DRAWN BY:	J. JARRETT
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK

WORK ZONE TRAFFIC CONTROL SOUTHBOUND LAKEVIEW ROAD

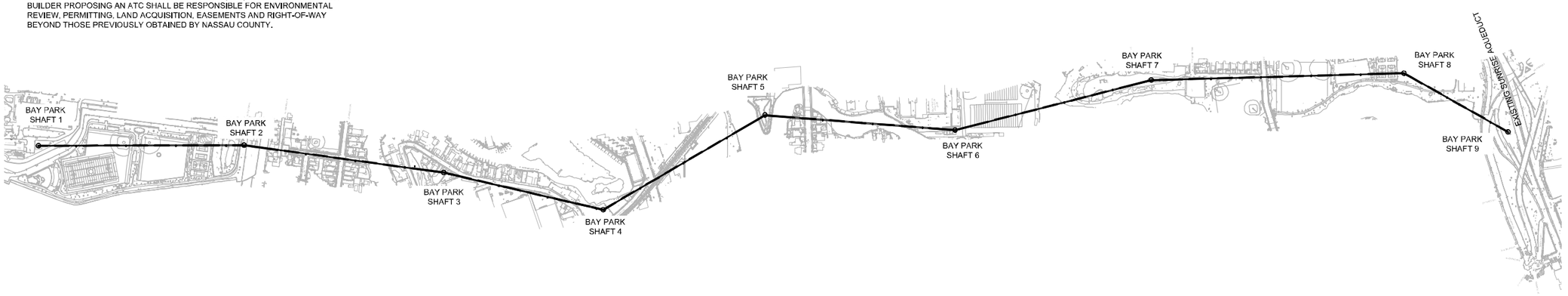
SCALE:
AS SHOWN

CC-C112

NOTES / MANDATORY REQUIREMENTS::

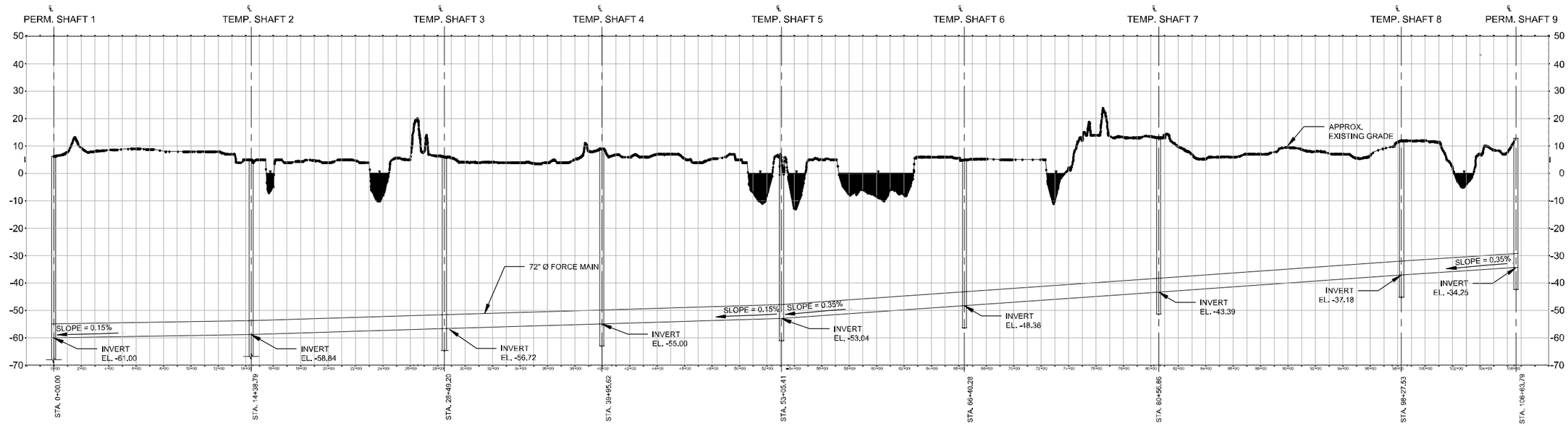
1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING.
2. DESIGN-BUILDER SHALL TEMPORARILY SUPPORT OR RELOCATE AT NO ADDITIONAL COST, ANY UTILITIES AFFECTED BY SHAFT CONSTRUCTION OR CONNECTION TO SUNRISE HIGHWAY AQUEDUCT.
3. THE MICROTUNNEL PROFILE IS INDICATIVE. DESIGN-BUILDER SHALL BE RESPONSIBLE FOR DESIGNING THE PROFILE, ACCOUNTING FOR ALL FACTORS INCLUDING GROUND CONDITIONS, DEPTH OF POTENTIAL OBSTRUCTIONS, SETTLEMENT AND BUOYANCY. IN NO CASE SHALL CROWN OF TUNNEL BE LESS THAT 15 FT. BELOW EXISTING GROUND LEVEL OR MUD LINE. FORCE MAIN SHALL SLOPE DOWN CONTINUOUSLY FROM SUNRISE HIGHWAY TO BPDPS TO FACILITATE FUTURE DRAINAGE.
4. THE MICROTUNNEL HORIZONTAL ALIGNMENTS AND SHAFT LOCATIONS SHOWN ARE MANDATORY REQUIREMENTS. MINOR ADJUSTMENTS ARE ALLOWED, AS DESCRIBED IN THE DESIGN CRITERIA REPORT. ALTERNATIVES SHALL BE SUBJECT TO ALTERNATIVE TECHNICAL CONCEPT (ATC) PROCEDURES. DESIGN BUILDER PROPOSING AN ATC SHALL BE RESPONSIBLE FOR ENVIRONMENTAL REVIEW, PERMITTING, LAND ACQUISITION, EASEMENTS AND RIGHT-OF-WAY BEYOND THOSE PREVIOUSLY OBTAINED BY NASSAU COUNTY.
5. FOR RESTRICTIONS ON WHICH MICROTUNNELS CAN BE CONSTRUCTED FIRST, AND WHERE 24 / 7 MINING IS REQUIRED, SEE DESIGN CRITERIA REPORT.
6. FOR ADDITIONAL REQUIREMENTS, SEE SPECIFICATION 02739 - MICROTUNNELING.

PLAN NORTH



BAY PARK FORCE MAIN PLAN

N.T.S.



BAY PARK FORCE MAIN PROFILE

HORZ. 1" = 400'
VERT. 1" = 20'

SCALE IN FEET

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-C201
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

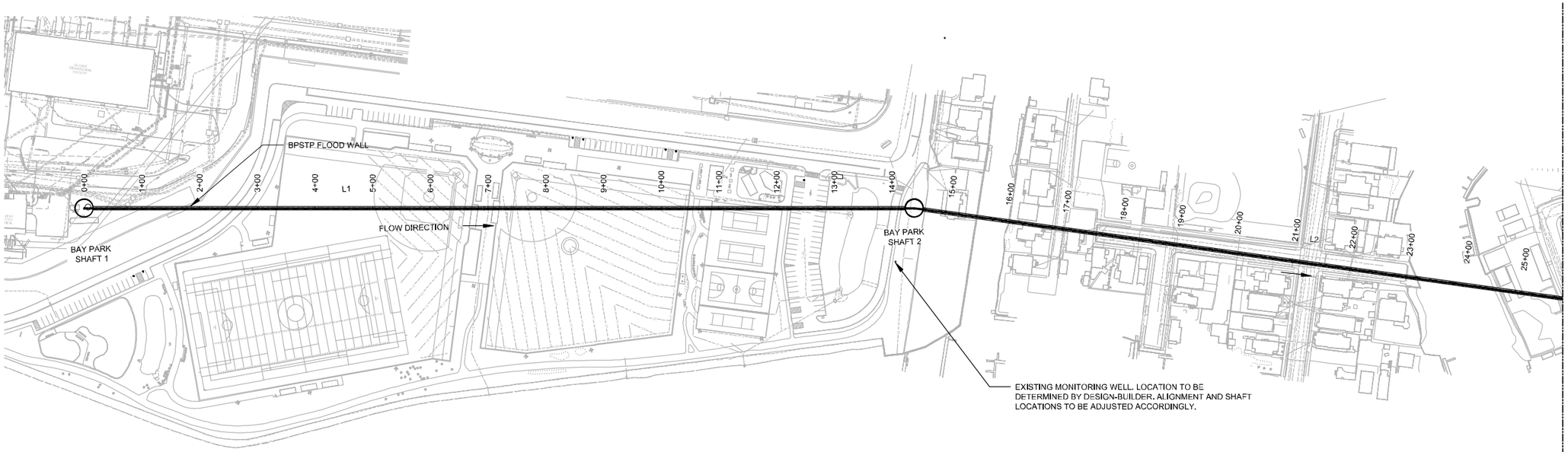
BAY PARK FORCE MAIN

ALIGNMENT PLAN AND PROFILE

SCALE: AS SHOWN

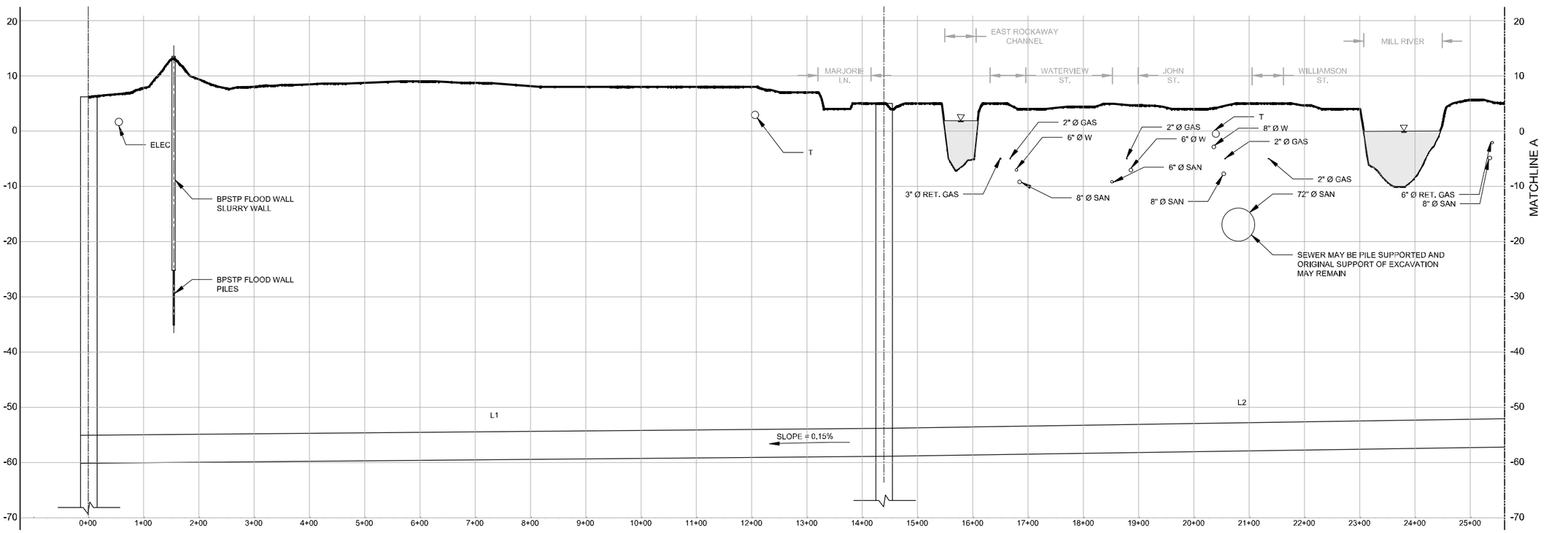
BP-C201

PAGE 97



BAY PARK FORCE MAIN PLAN

1" = 100'-0"



BAY PARK FORCE MAIN PROFILE

HORZ. 1" = 100'
VERT. 1" = 10'

NOTES / MANDATORY REQUIREMENTS:

1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING. HORIZONTAL UTILITY LOCATION IS BASED ON QUALITY LEVEL C MAPPING. DEPTH OF UTILITIES SHOWN IS BASED ON TYPICAL DEPTHS. ACTUAL DEPTHS SHALL BE DETERMINED BY DESIGN-BUILDER.
2. DESIGN-BUILDER SHALL TEMPORARILY SUPPORT OR RELOCATE AT NO ADDITIONAL COST, ANY UTILITIES AFFECTED BY SHAFT CONSTRUCTION OR CONNECTION TO SUNRISE HIGHWAY AQUEDUCT.

0 100 200
0 10 20

wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-C202_C205
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

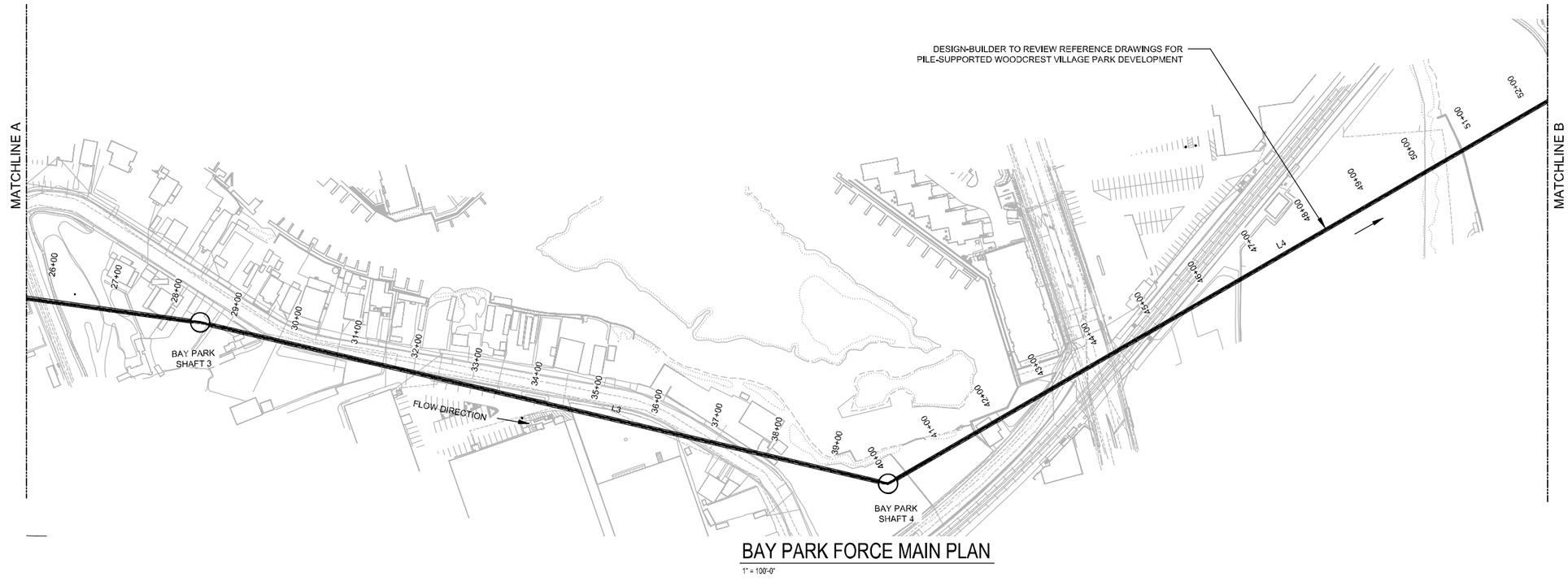
SHEET TITLE

BAY PARK FORCE MAIN

ALIGNMENT PLAN AND PROFILE 1

SCALE: AS SHOWN

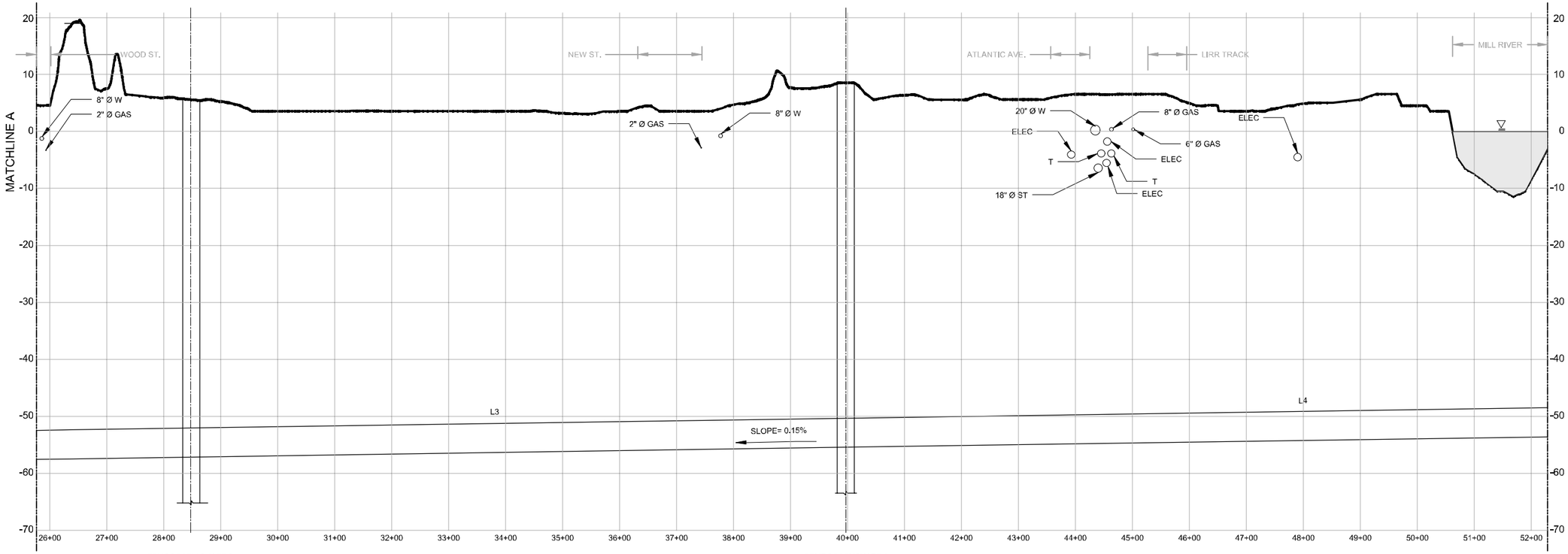
BP-C202



PLAN NORTH

BAY PARK FORCE MAIN PLAN

1" = 100'-0"



TEMPORARY SHAFT 3
STN: 28+49.20

TEMPORARYSHAFT 4
STN: 39+95.66

BAY PARK FORCE MAIN PROFILE

HORZ. 1" = 100' (0, 100, 200)
VERT. 1" = 10' (0, 10, 20)

NOTES / MANDATORY REQUIREMENTS:

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wsp

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FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-C202_C205
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

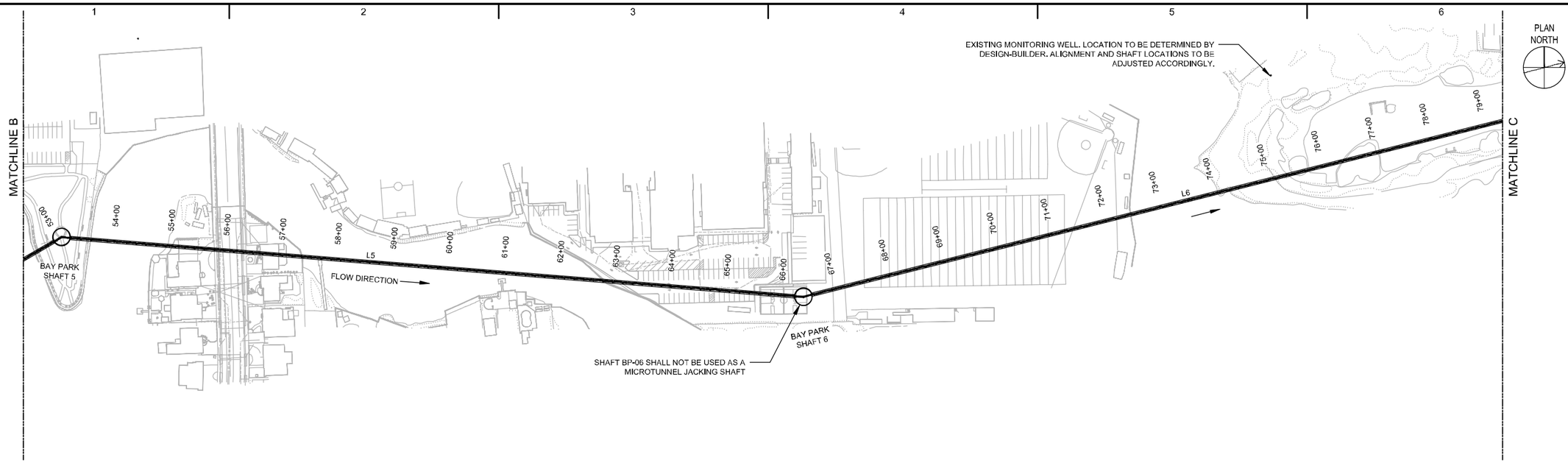
BAY PARK FORCE MAIN

ALIGNMENT
PLAN AND PROFILE 2

SCALE: AS SHOWN

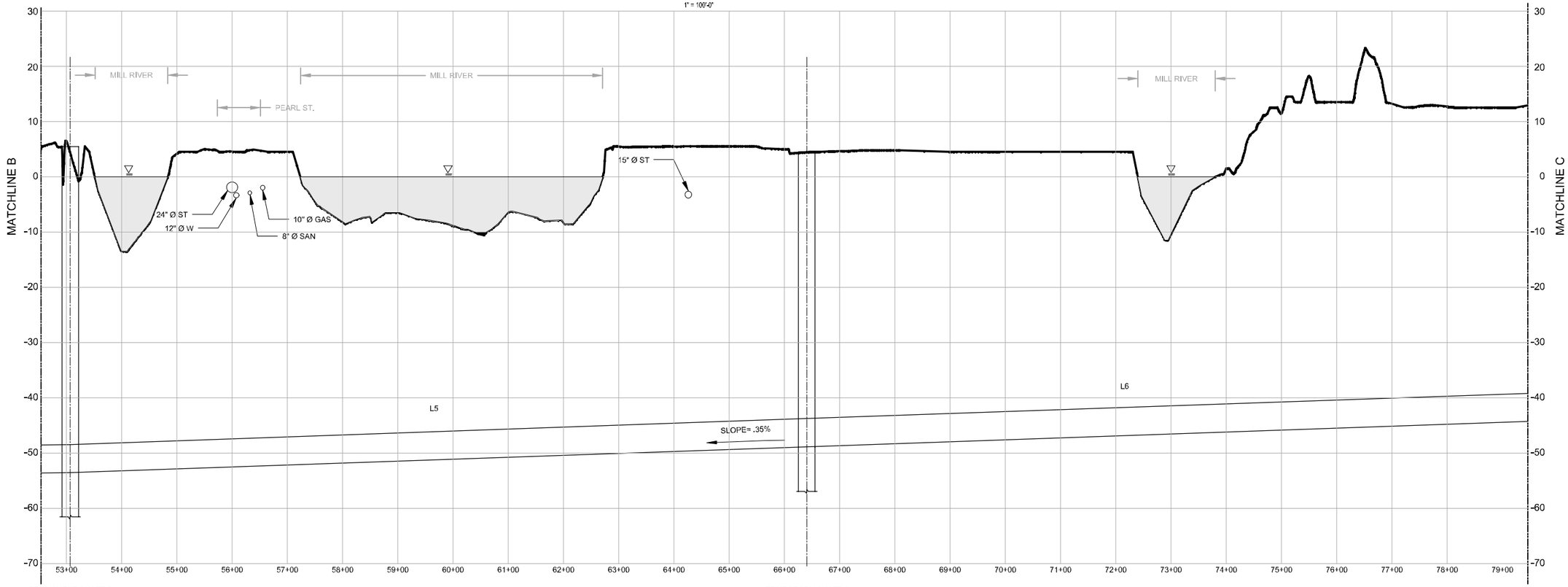
BP-C203

PAGE 99



BAY PARK FORCE MAIN PLAN

1" = 100'-0"



PERMANENT SHAFT 5
STN: 53+05.45

TEMPORARY SHAFT 6
STN: 66+40.32

BAY PARK FORCE MAIN PROFILE

HORZ. 1" = 100'
VERT. 1" = 10'

NOTES / MANDATORY REQUIREMENTS:

1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING. HORIZONTAL UTILITY LOCATION IS BASED ON QUALITY LEVEL C MAPPING. DEPTH OF UTILITIES SHOWN IS BASED ON TYPICAL DEPTHS. ACTUAL DEPTHS SHALL BE DETERMINED BY DESIGN-BUILDER.
2. DESIGN-BUILDER SHALL TEMPORARILY SUPPORT OR RELOCATE AT NO ADDITIONAL COST, ANY UTILITIES AFFECTED BY SHAFT CONSTRUCTION OR CONNECTION TO SUNRISE HIGHWAY AQUEDUCT.

wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL 'RELEASED FOR CONSTRUCTION' SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-C202_C205
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

ALIGNMENT
PLAN AND PROFILE 3

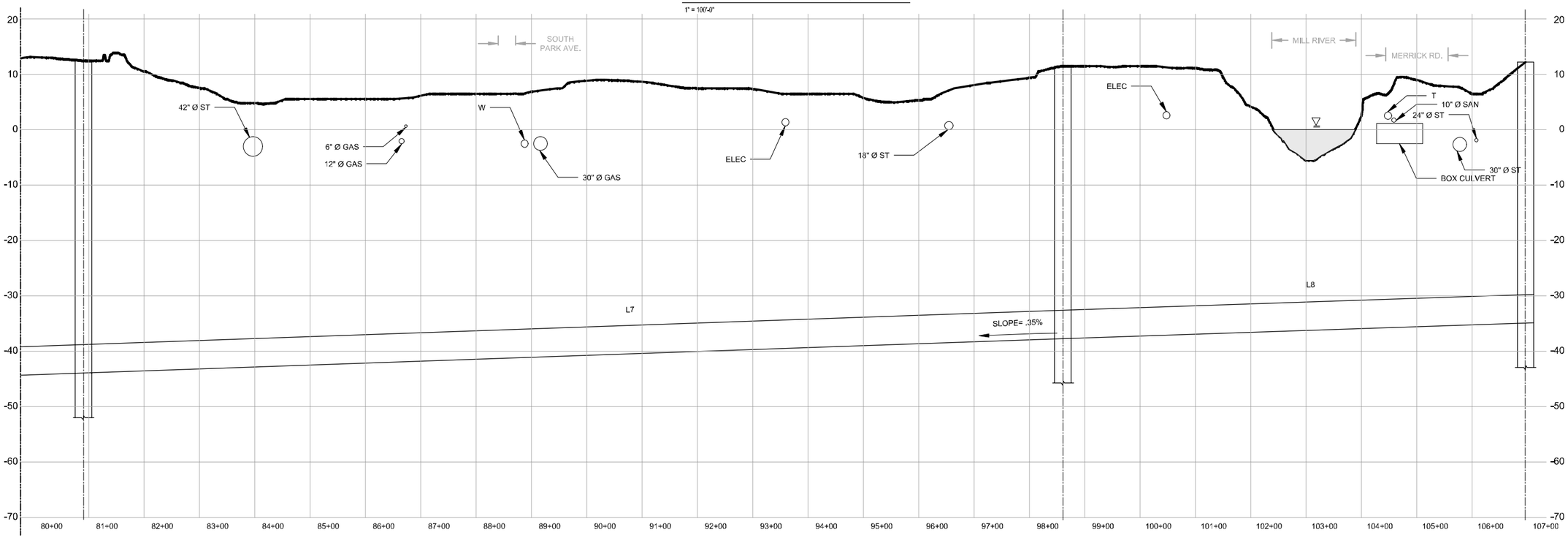
SCALE:
AS SHOWN

BP-C204

PAGE 100

BAY PARK FORCE MAIN PLAN

1" = 100'-0"



BAY PARK FORCE MAIN PROFILE

HORZ. 1" = 100'
VERT. 1" = 10'

NOTES:

1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING. HORIZONTAL UTILITY LOCATION IS BASED ON QUALITY LEVEL C MAPPING. DEPTH OF UTILITIES SHOWN IS BASED ON TYPICAL DEPTHS. ACTUAL DEPTHS SHALL BE DETERMINED BY DESIGN-BUILDER.
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wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-C202_C205
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

ALIGNMENT
PLAN AND PROFILE 4

SCALE: AS SHOWN

BP-C205

PAGE 101

BAY PARK ALIGNMENT DATA TABLE

NUMBER	LENGTH (FT.)	LINE/CHORD BEARING	STATION		COORDINATE START STATION		REFERENCE DRAWINGS
			START	END	NORTHING	EASTING	
L1	1438.79	N 14° 28' 27" E	0+00.00	14+38.79	168845.81	1078108.48	BP-C202
L2	1410.42	N 22° 24' 56" E	14+38.79	28+49.20	170238.93	1078468.10	BP-C202
L3	1146.46	N 27° 40' 37" E	28+49.20	39+95.66	171542.78	1079005.92	BP-C203
L4	1310.06	N 15° 41' 03" W	39+95.66	53+05.72	172558.06	1079538.44	BP-C203
L5	1334.44	N 19° 04' 18" E	53+05.72	66+40.17	173819.44	1079184.65	BP-C204
L6	1416.58	N 00° 21' 32" E	66+40.17	80+56.74	175080.64	1079620.68	BP-C204
L7	1770.67	N 13° 00' 36" E	80+56.74	98+27.41	176497.19	1079629.55	BP-C205
L8	836.26	N 43° 59' 38" E	98+27.41	106+63.68	178222.40	1080028.16	BP-C205
END	--	--	END	106+63.68	178824.02	1080609.02	

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-C206
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
BAY PARK FORCE MAIN

BAY PARK ALIGNMENT GEOMETRY TABLE

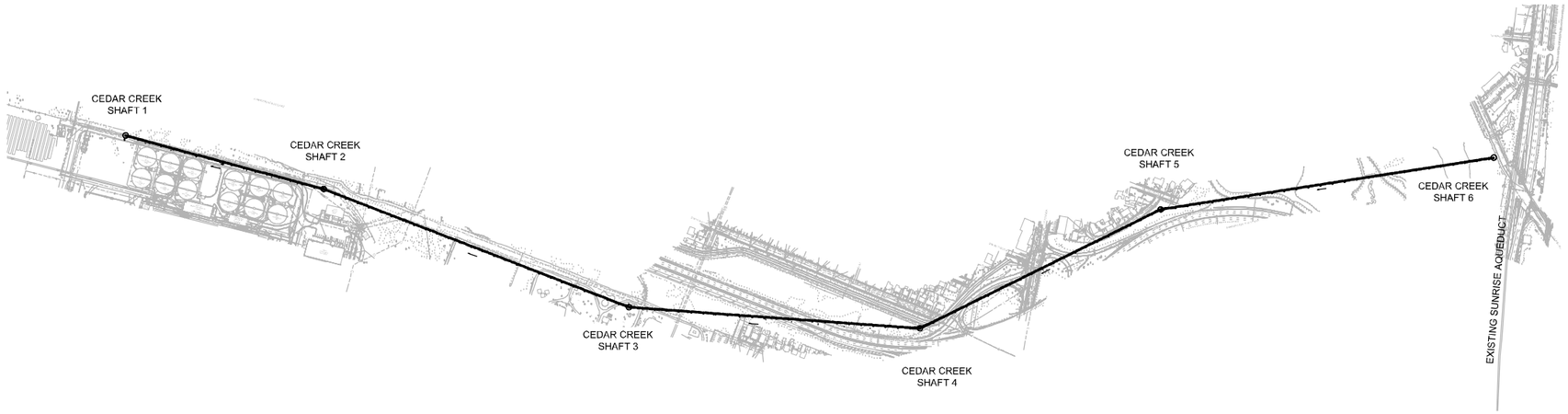
SCALE: N.T.S.

BP-C206

NOTES / MANDATORY REQUIREMENTS:

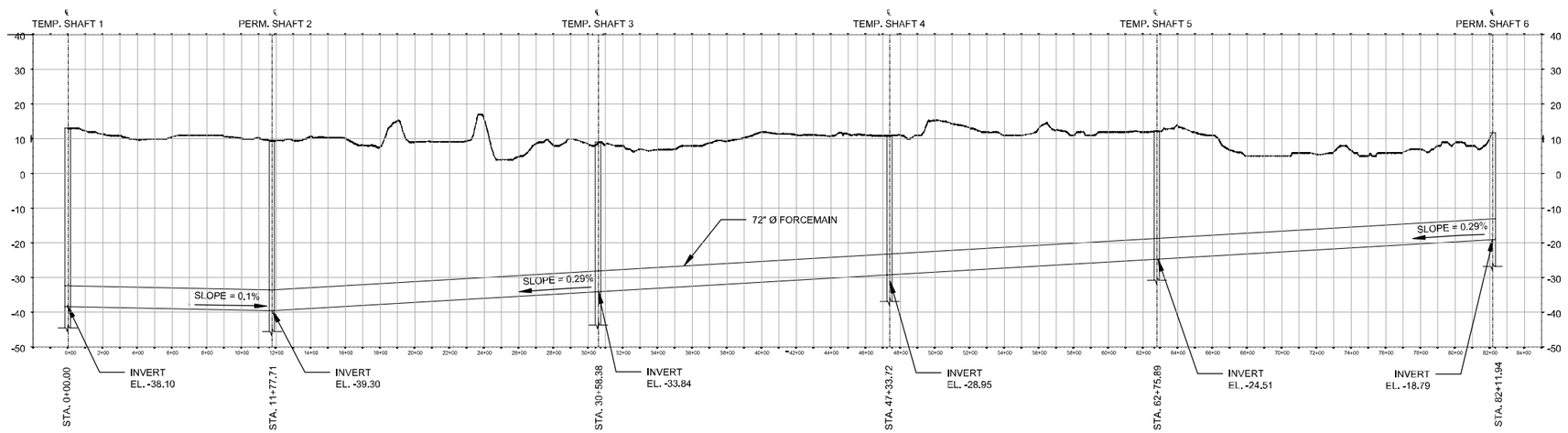
1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING.
2. DESIGN-BUILDER SHALL TEMPORARILY SUPPORT OR RELOCATE AT NO ADDITIONAL COST, ANY UTILITIES AFFECTED BY SHAFT CONSTRUCTION OR CONNECTION TO SUNRISE HIGHWAY AQUEDUCT.
3. THE MICROTUNNEL PROFILE IS INDICATIVE. DESIGN-BUILDER SHALL BE RESPONSIBLE FOR DESIGNING THE PROFILE, ACCOUNTING FOR ALL FACTORS INCLUDING GROUND CONDITIONS, DEPTH OF POTENTIAL OBSTRUCTIONS, SETTLEMENT AND BUOYANCY. IN NO CASE SHALL CROWN OF TUNNEL BE LESS THAN 15 FT. BELOW EXISTING GROUND LEVEL OR MUD LINE. FORCE MAIN SHALL SLOPE DOWN CONTINUOUSLY FROM SUNRISE HIGHWAY TO A PERMANENT SHAFT LOCATED WITHIN THE CCWPCP PROPERTY BOUNDARY. LOW POINT MAY BE RELOCATED TO SHAFT 1 IF PREFERRED, IF PERMANENT ACCESS IS PROVIDED.
4. THE MICROTUNNEL HORIZONTAL ALIGNMENTS AND SHAFT LOCATIONS SHOWN ARE MANDATORY REQUIREMENTS. MINOR ADJUSTMENTS ARE ALLOWED, AS DESCRIBED IN THE DESIGN CRITERIA REPORT. ALTERNATIVES SHALL BE SUBJECT TO ALTERNATIVE TECHNICAL CONCEPT (ATC) PROCEDURES. DESIGN BUILDER PROPOSING AN ATC SHALL BE RESPONSIBLE FOR ENVIRONMENTAL REVIEW, PERMITTING, LAND ACQUISITION, EASEMENTS AND RIGHT-OF-WAY BEYOND THOSE PREVIOUSLY OBTAINED BY NASSAU COUNTY.
5. FOR RESTRICTIONS ON WHICH MICROTUNNELS CAN BE CONSTRUCTED FIRST, AND WHERE 24 / 7 MINING IS REQUIRED, SEE DESIGN CRITERIA REPORT.
6. FOR ADDITIONAL REQUIREMENTS, SEE SPECIFICATION 02739-MICROTUNNELING.

PLAN NORTH



CEDAR CREEK FORCE MAIN PLAN

1" = 400'-0"



CEDAR CREEK FORCE MAIN PROFILE

HORZ. 1" = 400'
VERT. 1" = 20'

0 400 800
SCALE IN FEET
0 20 40

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL 'RELEASED FOR CONSTRUCTION' SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-C201
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

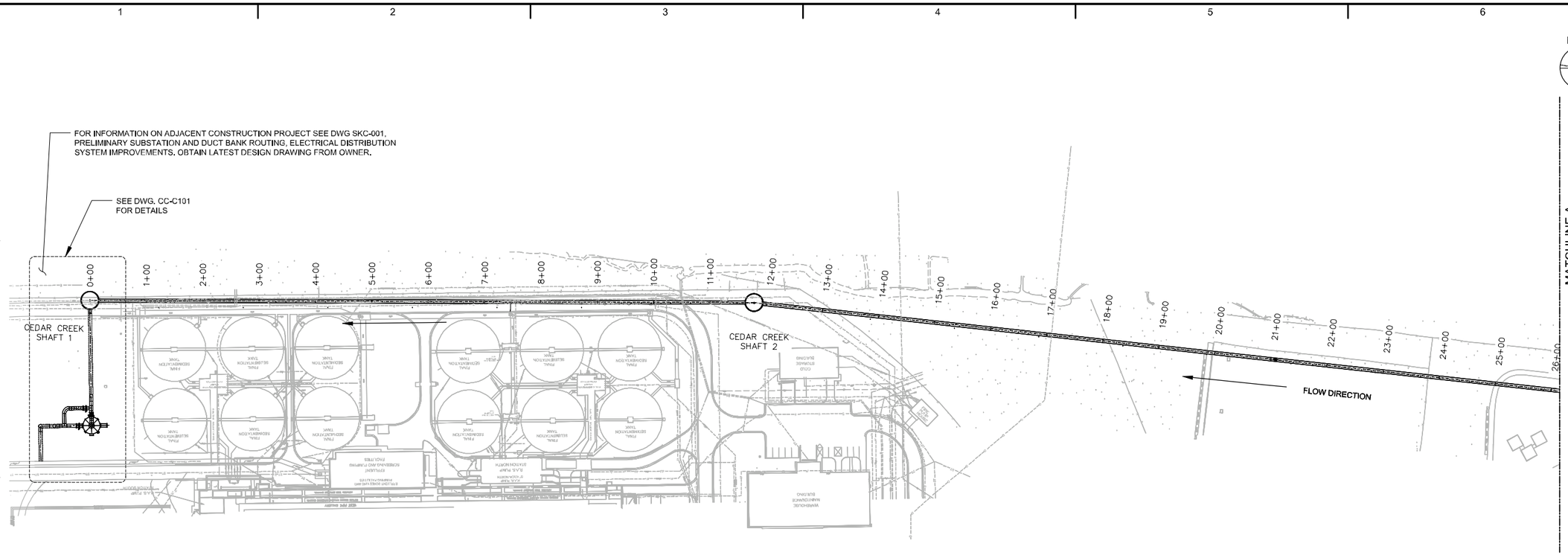
SHEET TITLE

CEDAR CREEK FORCE MAIN

ALIGNMENT PLAN AND PROFILE

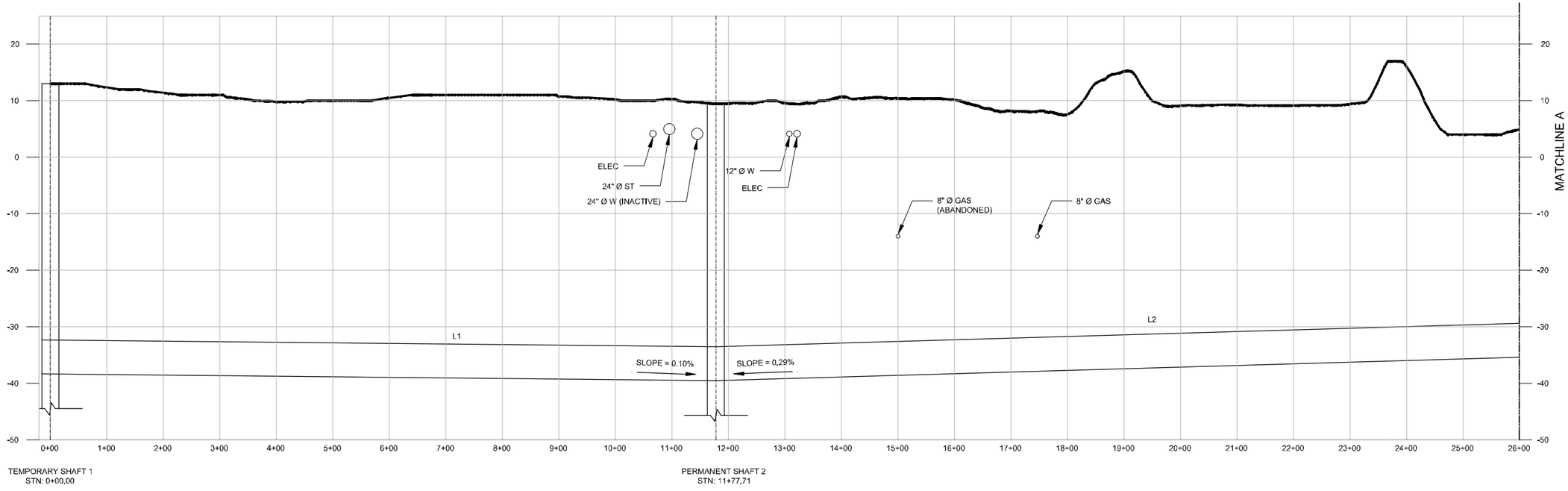
SCALE: AS SHOWN

CC-C201



CEDAR CREEK FORCE MAIN PLAN

1" = 100'-0"



CEDAR CREEK FORCE MAIN PROFILE

HORZ. 1" = 100'
VERT. 1" = 10'

NOTES:

1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING. HORIZONTAL UTILITY LOCATION IS BASED ON QUALITY LEVEL C MAPPING. DEPTH OF UTILITIES SHOWN IS BASED ON TYPICAL DEPTHS. ACTUAL DEPTHS SHALL BE DETERMINED BY DESIGN-BUILDER.
2. DESIGN-BUILDER SHALL TEMPORARILY SUPPORT OR RELOCATE AT NO ADDITIONAL COST, ANY UTILITIES AFFECTED BY SHAFT CONSTRUCTION OR CONNECTION TO SUNRISE HIGHWAY AQUEDUCT.

wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL, RELEASED FOR CONSTRUCTION, SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	JANUARY 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-C202_C205
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

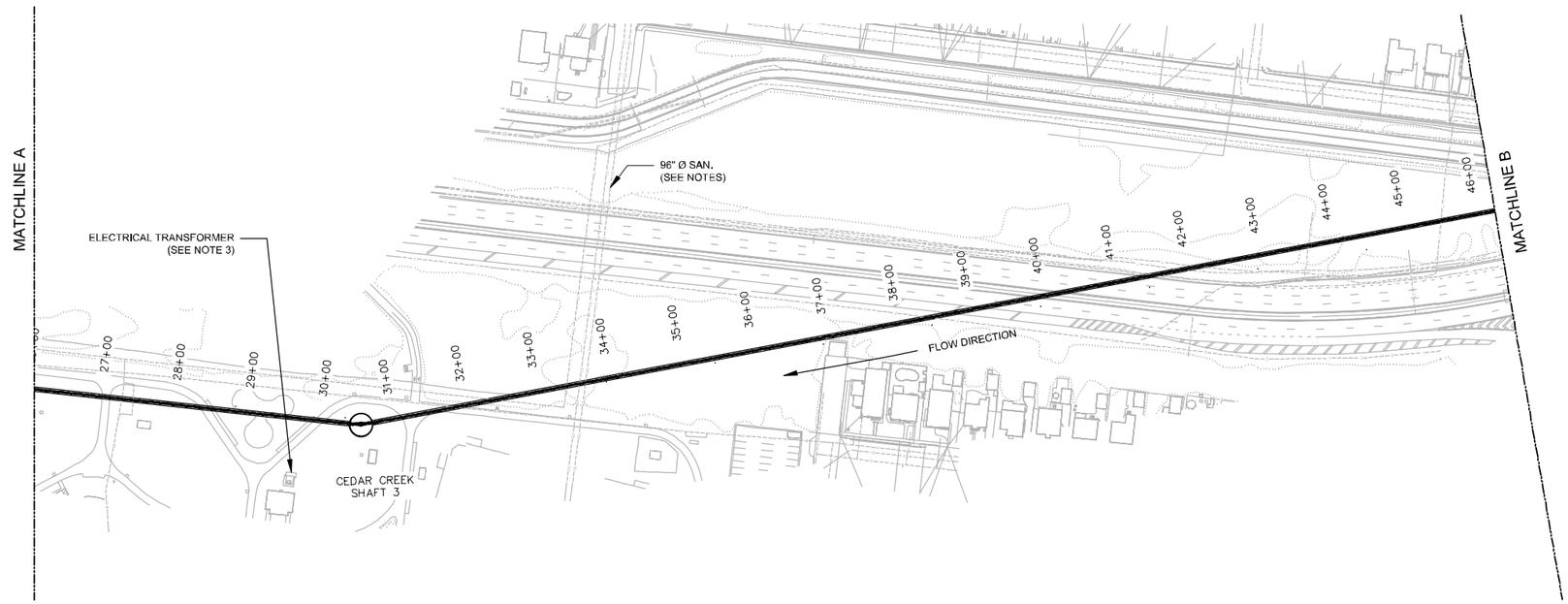
CEDAR CREEK FORCE MAIN

ALIGNMENT
PLAN AND PROFILE 1

SCALE:
AS SHOWN

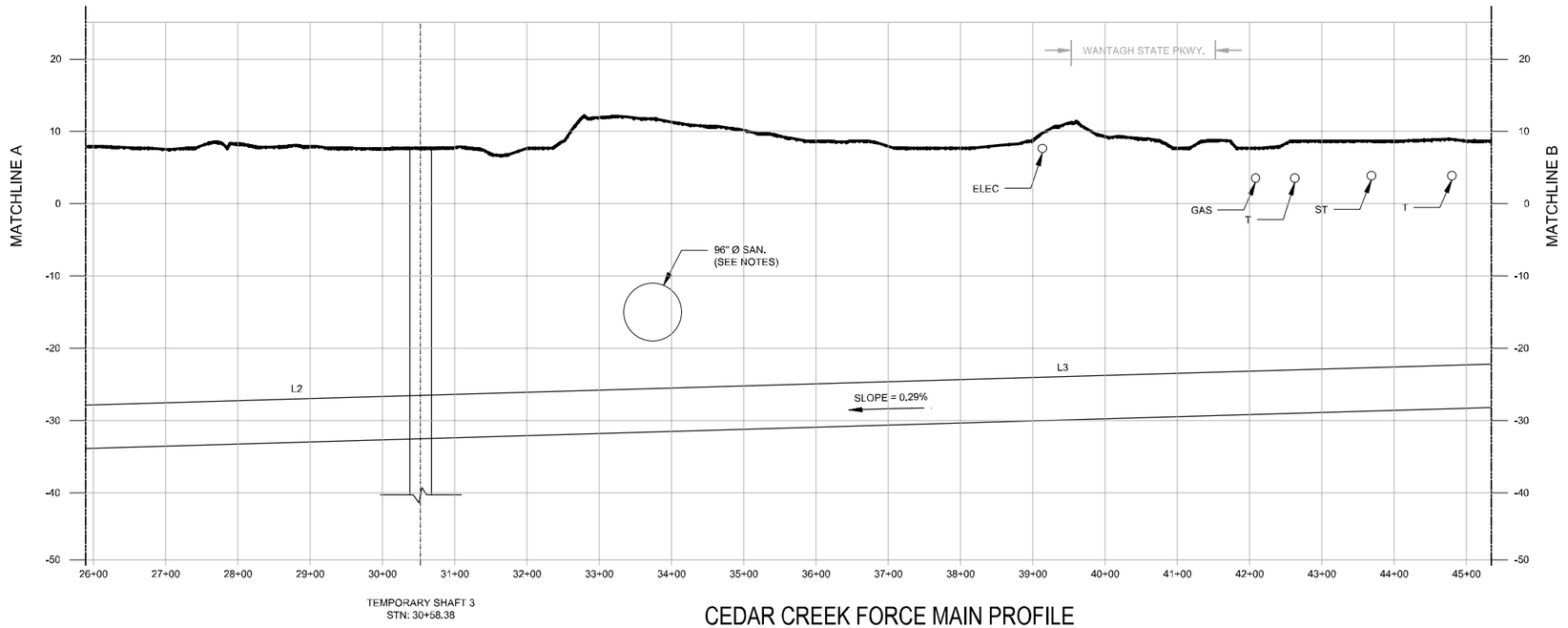
CC-C202

PAGE 104



CEDAR CREEK FORCE MAIN PLAN

1" = 100'-0"



TEMPORARY SHAFT 3
STN: 30+58.38

CEDAR CREEK FORCE MAIN PROFILE

HORZ. 1" = 100'
VERT. 1" = 10'

NOTES/ MANDATORY REQUIREMENTS:

1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING, HORIZONTAL UTILITY LOCATION IS BASED ON QUALITY LEVEL C MAPPING, DEPTH OF UTILITIES SHOWN IS BASED ON TYPICAL DEPTHS. ACTUAL DEPTHS SHALL BE DETERMINED BY DESIGN-BUILDER.
2. DESIGN-BUILDER SHALL TEMPORARILY SUPPORT OR RELOCATE AT NO ADDITIONAL COST, ANY UTILITIES AFFECTED BY SHAFT CONSTRUCTION OR CONNECTION TO SUNRISE HIGHWAY AQUEDUCT.
3. UTILITIES SERVING TRANSFORMER ARE UNKNOWN, DESIGN-BUILDER TO HAND EXCAVATE TOP 6 FEET WHERE REQUIRED TO DETERMINE IF ANY UTILITIES ARE PRESENT.
4. A GROUND PENETRATING RADAR SURVEY AND TEST PITS PERFORMED AT THE LOCATION OF THE 96" SANITARY SEWER DID NOT FIND STEEL SHEETING, WHICH MAY HAVE BEEN INSTALLED DURING CONSTRUCTION.

PLAN NORTH

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-C202_C205
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

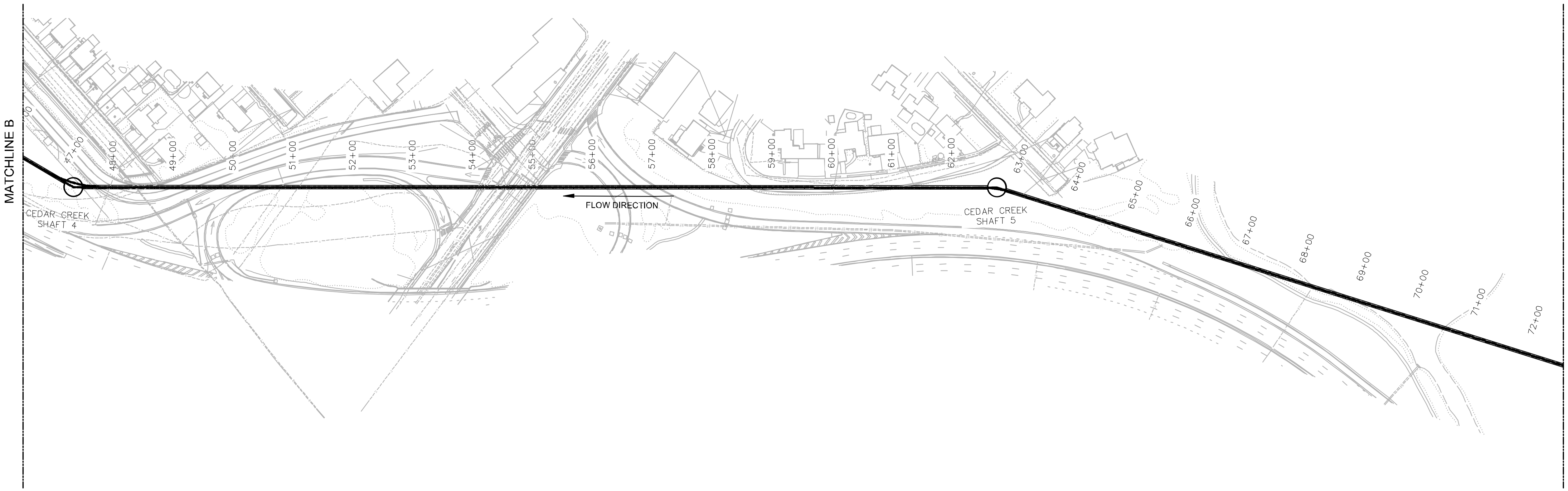
CEDAR CREEK FORCE MAIN

ALIGNMENT
PLAN AND PROFILE 2

SCALE:
AS SHOWN

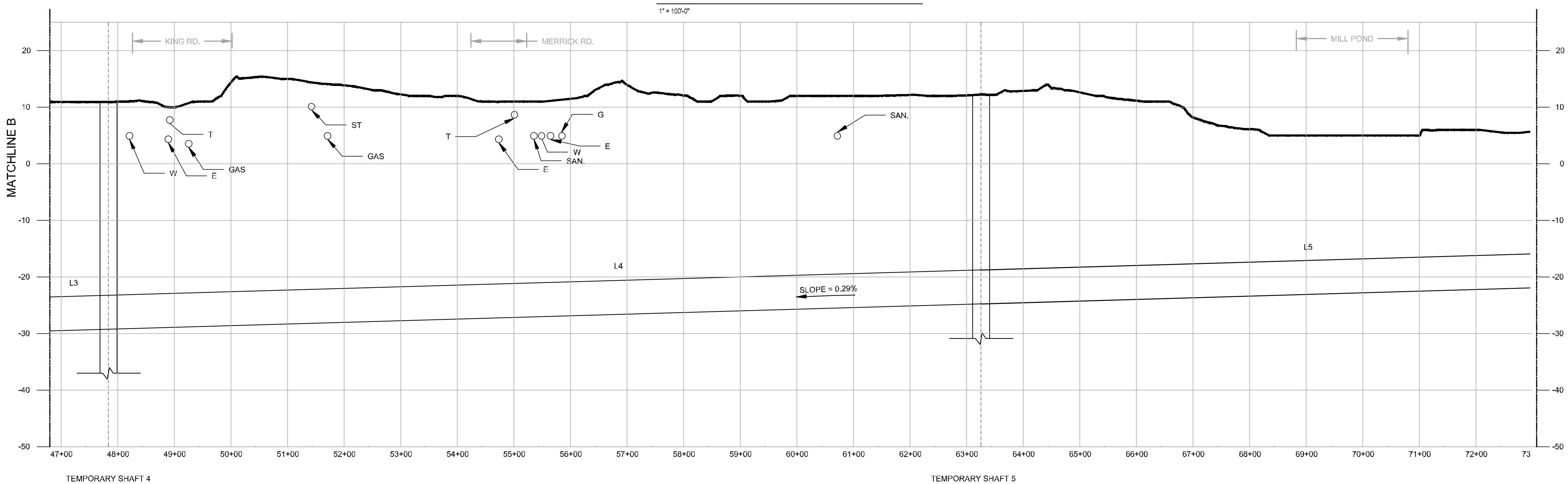
0 100 200
0 10 20

CC-C203



CEDAR CREEK FORCE MAIN PLAN

1" = 100'-0"



CEDAR CREEK FORCE MAIN PROFILE

HORZ. 1" = 100'
VERT. 1" = 10'

NOTES/ MANDATORY REQUIREMENTS:

1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING. HORIZONTAL UTILITY LOCATION IS BASED ON QUALITY LEVEL C MAPPING. DEPTH OF UTILITIES SHOWN IS BASED ON TYPICAL DEPTHS. ACTUAL DEPTHS SHALL BE DETERMINED BY DESIGN-BUILDER.
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0 100 200

0 10 20

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-C202_C205
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

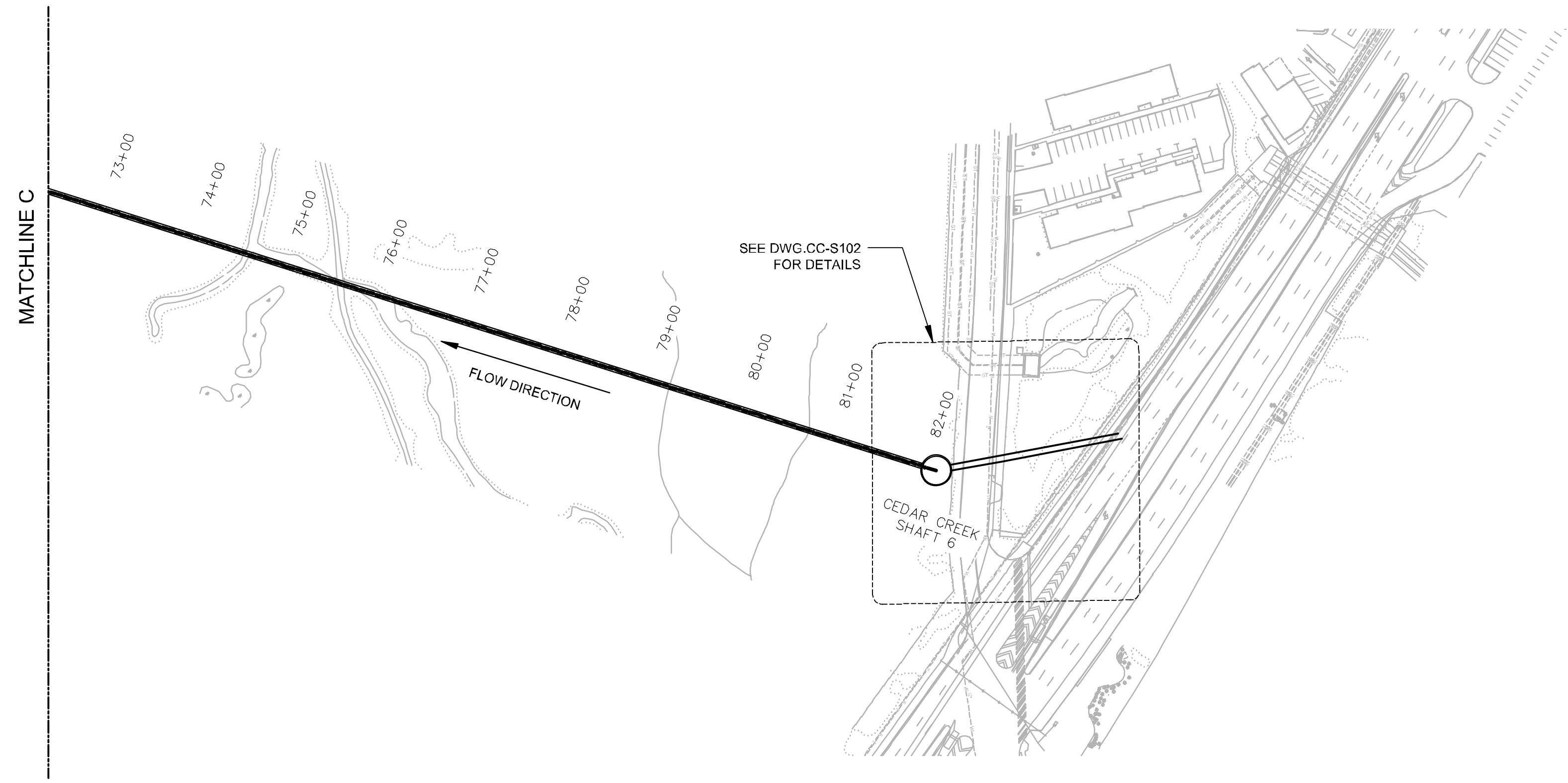
NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
CEDAR CREEK FORCE MAIN
ALIGNMENT PLAN AND PROFILE 3

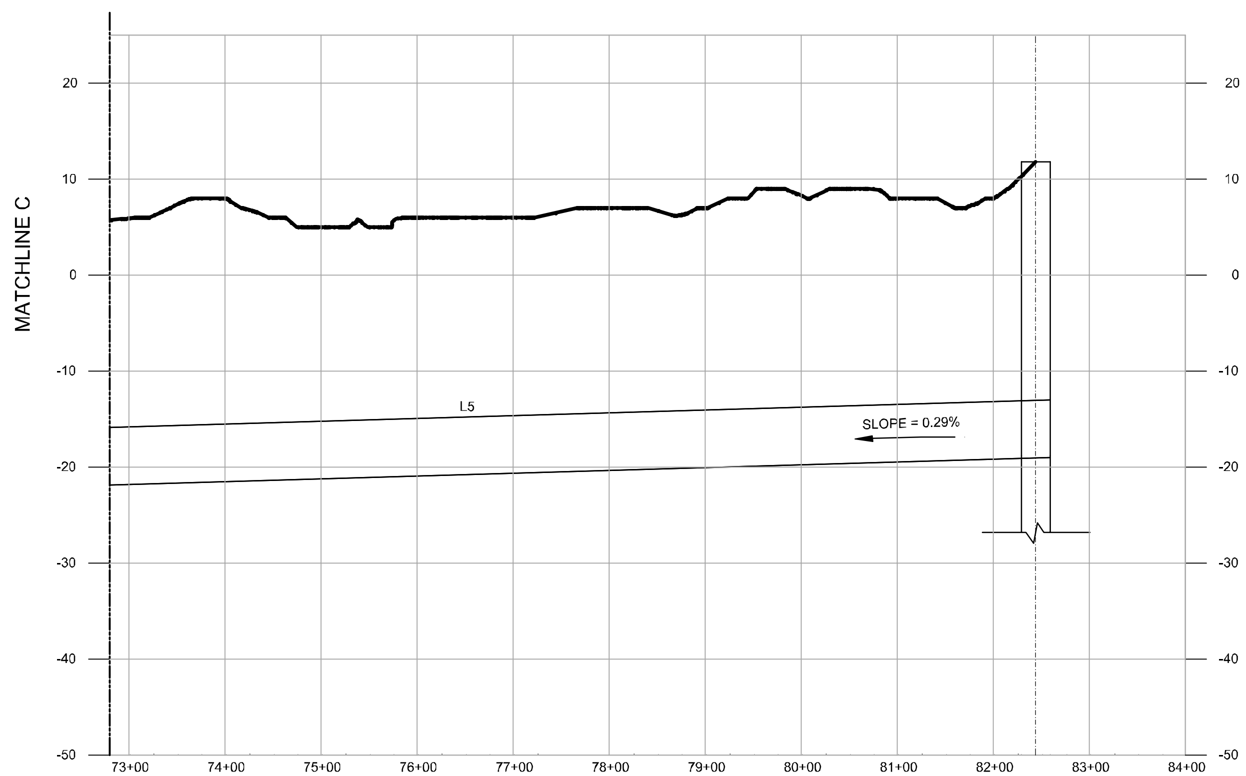
SCALE: AS SHOWN

CC-C204



CEDAR CREEK FORCE MAIN PLAN

1" = 100'-0"



CEDAR CREEK FORCE MAIN PROFILE

HORZ. 1" = 100'
VERT. 1" = 10'

NOTES/ MANDATORY REQUIREMENTS:

1. THE INFORMATION ON THIS PLAN IS PRESENTED ON CURRENTLY AVAILABLE SURVEY MAPPING. HORIZONTAL UTILITY LOCATION IS BASED ON QUALITY LEVEL C MAPPING. DEPTH OF UTILITIES SHOWN IS BASED ON TYPICAL DEPTHS. ACTUAL DEPTHS SHALL BE DETERMINED BY DESIGN-BUILDER.
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PLAN NORTH

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-C202_C205
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

ALIGNMENT PLAN AND PROFILE 4

SCALE: AS SHOWN

CC-C205

CEDAR CREEK ALIGNMENT DATA TABLE

NUMBER	LENGTH (FT.)	LINE/CHORD BEARING	STATION		COORDINATE START STATION		REFERENCE DRAWINGS
			START	END	NORTHING	EASTING	
L1	1177.74	N 08° 21' 05" W	0+00.00	11+77.74	176490.16	1120705.38	CC-C202
L2	1880.67	N 02° 16' 58" W	11+77.74	30+58.41	177655.41	1120534.31	CC-C202 CC-C203
L3	1675.44	N 19° 14' 42" W	30+58.41	47+33.85	179534.59	1120459.41	CC-C203 CC-C204
L4	1542.03	N 49° 40' 30" W	47+33.85	62+75.88	181116.40	1119907.17	CC-C204
L5	1936.00	N 32° 14' 44" W	62+75.88	82+11.88	182114.29	1118731.55	CC-C204 CC-C205
END	--	--	END	82+11.88	183751.70	1117698.60	

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-C206
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

CEDAR CREEK
ALIGNMENT GEOMETRY
TABLE

SCALE:
NOT TO SCALE

CC-C206

PLAN NORTH

BAY PARK FORCE MAIN PLAN

0 100 200

NOTES:

1. THE LOCATION OF THE BORING PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WAS DETERMINED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C., A SUBCONSULTANT TO WSP. THE BORING IS DESIGNATED WITH THE PREFIX "BP".
2. THE LOCATIONS OF BORINGS PERFORMED FOR MUESER RUTLEDGE CONSULTING ENGINEERS, HEREAFTER MRCE, AND PIEZOCONE SOUNDINGS PERFORMED FOR ARCADIS, WERE OBTAINED FROM DRAWING NUMBER B-1, "BORING AND CPTU LOCATION PLAN," INCLUDED IN THE REPORT PREPARED BY MRCE ENTITLED, "GEOTECHNICAL DATA REPORT, BAY PARK SEWAGE TREATMENT PLANT, PERIMETER FLOOD PROTECTION," DATED JANUARY 8, 2014.
3. THE LOCATIONS OF BORINGS PERFORMED FOR CHARLES F. VACHRIS P.E. AND VACHRIS ENGINEERING P.C. WERE OBTAINED FROM DRAWING NUMBER 13161-1, "BORING LOCATION PLAN," INCLUDED IN THE REPORT PREPARED BY VACHRIS ENGINEERING, P.C., ENTITLED, "GEOTECHNICAL INVESTIGATIONS AND RECOMMENDATIONS FOR PHASE E1 ELECTRICAL DISTRIBUTION IMPROVEMENTS, BAY PARK STP," DATED DECEMBER 11, 2013.
4. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.

LEGEND		ENGINEER, YEAR PERFORMED
BP-1 OW	(BP PREFIX BORINGS) OW, OBERVATION WELL	WSP, 2019
CPTU-16	(PIEZOCONE SOUNDINGS)	ARCADIS, 2013
CTA B-6	(CTA PREFIX BORING)	CONSOER, TOWNSEND & ASSOCIATES, 1976
B-6U	(SINGLE DIGIT SERIES BORINGS) P, OBSERVATION WELL	MUESER RUTLEDGE CONSULTING ENGINEERS, 2013
B-6U	(SINGLE DIGIT SERIES BORINGS) P, OBSERVATION WELL	MUESER RUTLEDGE CONSULTING ENGINEERS, 2013
SS3-1	(SS3 PREFIX BORINGS)	VACHRIS ENGINEERING, P.C., 2013
B-203	(200 SERIES BORINGS)	CHARLES F. VACHRIS, P.E., 1985
B-114	(100 SERIES BORINGS)	CHARLES F. VACHRIS, P.E., 1983

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	GDR_BP-B101
DESIGNED BY:	D. BASWANGA
DRAWN BY:	J. JARRETT
CHECKED BY:	R. VAKILI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

BORING LOCATION PLAN

SHEET 1 OF 5

SCALE: AS SHOWN

BP-B101

BAY PARK FORCE MAIN PLAN

0 100 200

NOTES:

1. THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED AS FOLLOWS: BY SURVEY PERFORMED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C.; OR, BY TAPING AND LINE OF SIGHT MEASUREMENT OR GLOBAL POSITIONING SURVEY BY YU & ASSOCIATES; BOTH FIRMS ARE SUBCONSULTANTS TO WSP. THE BORINGS ARE DESIGNATED WITH THE PREFIX "BP".

2. THE LOCATIONS OF BORINGS PERFORMED FOR MUESER RUTLEDGE CONSULTING ENGINEERS, HEREAFTER MRCE, AND PIEZOCONE SOUNDINGS PERFORMED FOR ARCADIS, WERE OBTAINED FROM DRAWING NUMBER B-1, "BORING AND CPTU LOCATION PLAN," INCLUDED IN THE REPORT PREPARED BY MRCE ENTITLED, "GEOTECHNICAL DATA REPORT, BAY PARK SEWAGE TREATMENT PLANT, PERIMETER FLOOD PROTECTION," DATED JANUARY 8, 2014.

3. THE LOCATIONS OF BORINGS PERFORMED FOR CHARLES F. VACHRIS P.E. AND VACHRIS ENGINEERING P.C. WERE OBTAINED FROM DRAWING NUMBER 13161-1, "BORING LOCATION PLAN," INCLUDED IN THE REPORT PREPARED BY VACHRIS ENGINEERING, P.C., ENTITLED, "GEOTECHNICAL INVESTIGATIONS AND RECOMMENDATIONS FOR PHASE E1 ELECTRICAL DISTRIBUTION IMPROVEMENTS, BAY PARK STP," DATED DECEMBER 11, 2013.

4. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.

LEGEND		ENGINEER, YEAR PERFORMED
BP-2 OW	(BP PREFIX BORINGS) OW, OBSERVATION WELL	WSP, 2019
CPTU-16	(PIEZOCONE SOUNDINGS)	ARCADIS, 2013
CTA B-6	(CTA PREFIX BORING)	CONSOER, TOWNSEND & ASSOCIATES, 1976
B-2P	(SINGLE DIGIT SERIES BORINGS) P, OBSERVATION WELL	MUESER RUTLEDGE CONSULTING ENGINEERS, 2013
SS4-2	(SS-4 PREFIX BORINGS)	VACHRIS ENGINEERING, P.C., 2013

PLAN NORTH

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	GDR_BP-B102_B105
DESIGNED BY:	D. BASWANGA
DRAWN BY:	J. JARRETT
CHECKED BY:	R. VAKILI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

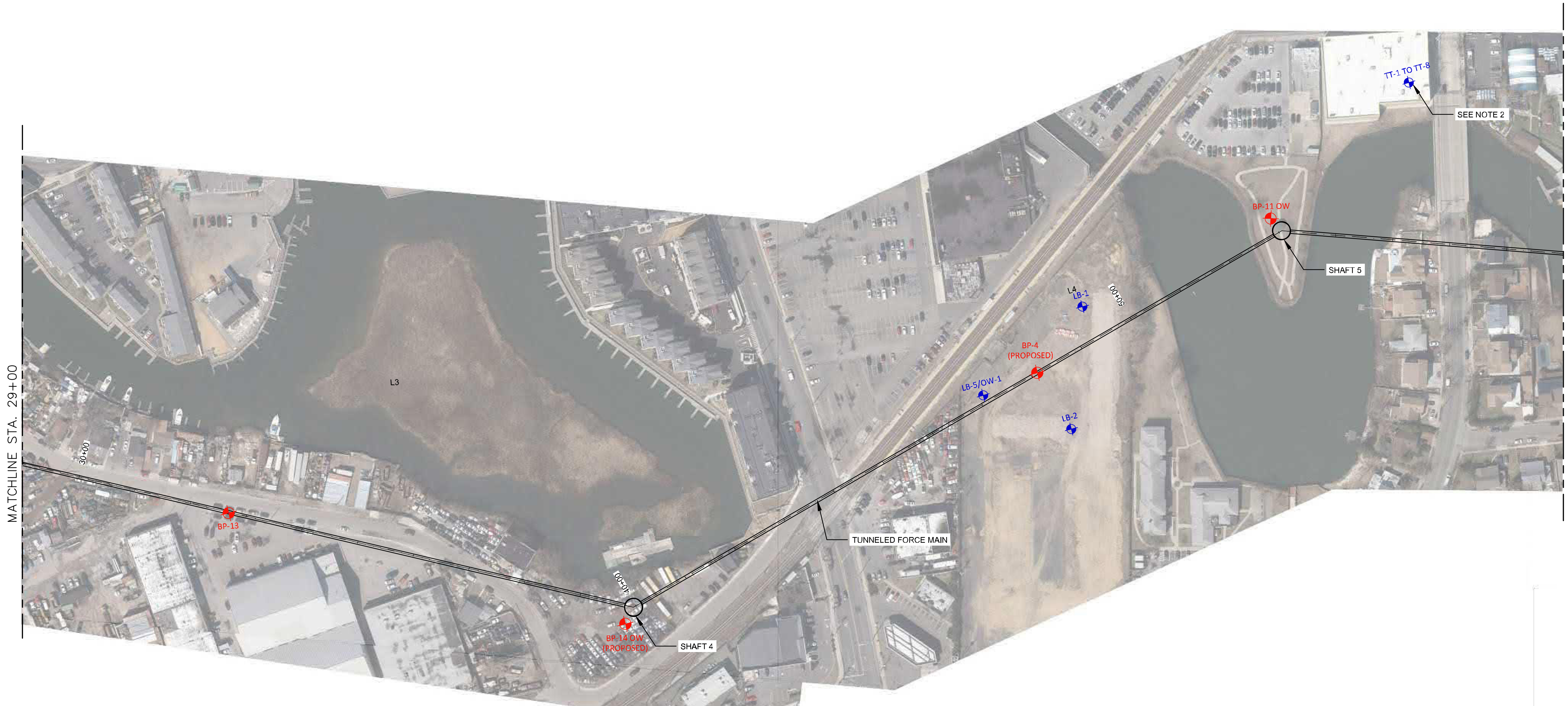
BORING LOCATION PLAN

SHEET 2 OF 5

SCALE: AS SHOWN

BP-B102

PLAN NORTH



BAY PARK FORCE MAIN PLAN

0 100 200

NOTES:

1. THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED AS FOLLOWS: BY SURVEY PERFORMED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C.; OR, BY TAPING AND LINE OF SIGHT MEASUREMENT OR GLOBAL POSITIONING SURVEY BY YU & ASSOCIATES; BOTH FIRMS ARE SUBCONSULTANTS TO WSP. THE BORINGS ARE DESIGNATED WITH THE PREFIX "BP".
2. EIGHT BORINGS WERE PERFORMED DURING MARCH, 2015 FOR TECTONIC ENGINEERING & SURVEYING CONSULTANTS, P.C. AT 499 OCEAN AVENUE, EAST ROCKAWAY, NEW YORK. A BORING LOCATION PLAN WAS NOT AVAILABLE.
3. EIGHT BORINGS WERE PERFORMED DURING JANUARY 2017 BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, P.C., FOR THE WOODCREST APARTMENTS PROJECT, IN OCEANSIDE, NEW YORK. THE LOCATIONS OF THE BORINGS WERE OBTAINED BY SCALING FROM A DRAWING PREPARED BY H2M, ARCHITECTS + ENGINEERS, ENTITLED "GRADING AND DRAINAGE PLAN, WOODCREST APARTMENTS AT OCEANSIDE," DRAWING C2.0, DATED JUNE 2017, REV. THROUGH 02/15/19.
4. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.

LEGEND		ENGINEER, YEAR PERFORMED
BP-3 OW	(BP PREFIX BORINGS) OW, OBSERVATION WELL	WSP, 2019
TT-1	(TT PREFIX BORINGS)	TECTONIC ENGINEERING & SURVEYING CONSULTANTS, P.C., 2015
LB-1	(LB PREFIX BORINGS)	LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, P.C.,2017

WSP

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

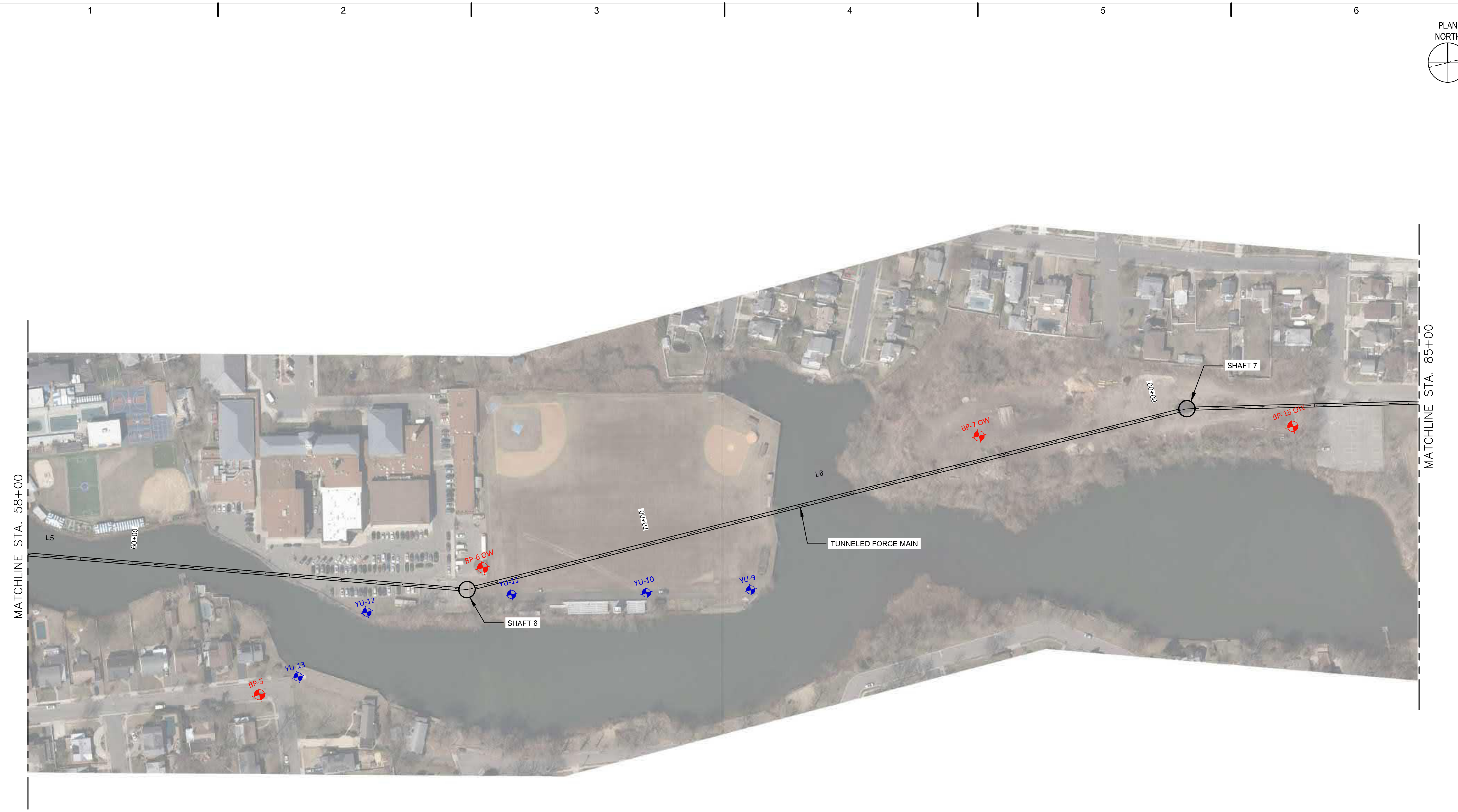
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK FORCE MAIN
BORING LOCATION PLAN
SHEET 3 OF 5

SCALE: AS SHOWN

BP-B103



BAY PARK FORCE MAIN PLAN

0 100 200

NOTES:

1. EXCEPT FOR BORING BP-15 OW, THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C., A SUBCONSULTANT TO WSP. THE LOCATION OF BORING BP-15 OW WAS COVERED BY A STOCKPILE AT THE TIME OF THE SURVEY; THE APPOXIMATE LOCATION IS BASED ON TAPING AND LINE OF SIGHT MEASUREMENTS MADE BY YU & ASSOCIATES, A SUBSCONSULTANT TO WSP, AFTER COMPLETION OF THE WELL INSTALLATION. THE BORINGS ARE DESIGNATED WITH THE PREFIX "BP".

2. THE LOCATION OF BORINGS PERFORMED FOR YU & ASSOCIATES WERE OBTAINED FROM FIGURE NUMBER 2, "BORING LOCATION PLAN," INCLUDED IN THE REPORT PREPARED BY YU & ASSOCIATES ENTITLED "GEOTECHNICAL DATA REPORT FOR EAST ROCKAWAY HIGH SCHOOL/LISTER PARK AND SOUTH CENTER AVENUE," DATED DECEMBER 5, 2018.

3. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.

LEGEND		ENGINEER, YEAR PERFORMED
BP-5 OW	(BP PREFIX BORINGS) OW, OBSERVATION WELL	WSP, 2019
YU-9	(YU PREFIX BORINGS)	YU & ASSOCIATES, 2018

wsp

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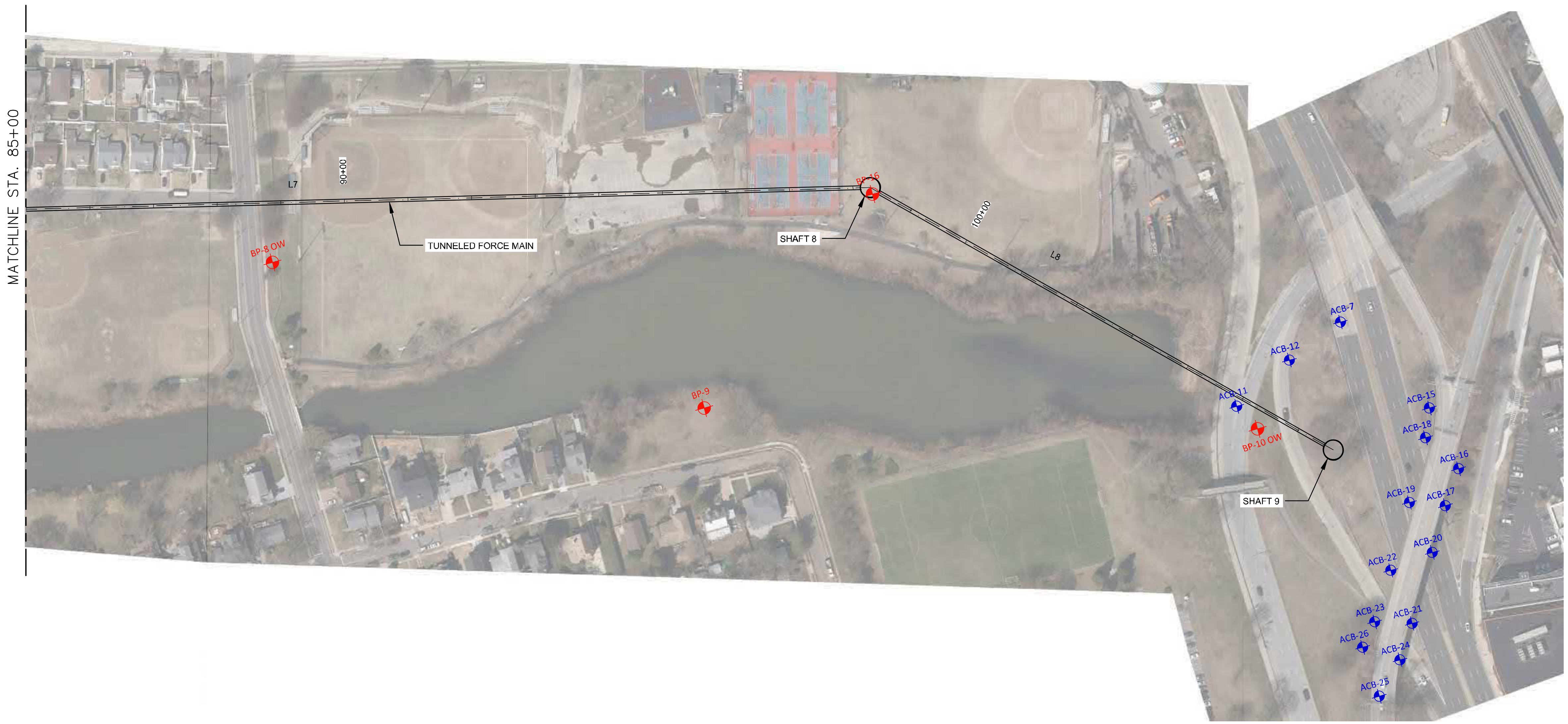
SHEET TITLE

BAY PARK FORCE MAIN
BORING LOCATION PLAN
SHEET 4 OF 5

SCALE: AS SHOWN

BP-B104



PLAN NORTH

BAY PARK FORCE MAIN PLAN

0 100 200

NOTES:

1. THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, PC, A SUBCONSULTANT TO WSP. THE BORINGS ARE DESIGNATED WITH THE PREFIX "BP".
2. THE LOCATION OF BORINGS PERFORMED FOR ANDREWS, CLARK & BUCKLEY IN 1955 WERE OBTAINED FROM THE DOCUMENT "TEST BORINGS FOR SUNRISE HIGHWAY, MERRICK ROAD & LINCOLN AVE. INTERCHANGE," DATED JUNE 20, 1955. THE DRAWING WAS PROVIDED BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION.
3. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.

LEGEND		ENGINEER, YEAR PERFORMED
BP-8 OW	(BP PREFIX BORINGS) OW, OBSERVATION WELL	WSP, 2019
ACB-7	(ACB PREFIX BORINGS)	ANDREWS, CLARK & BUCKLEY, 1955

WSP

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

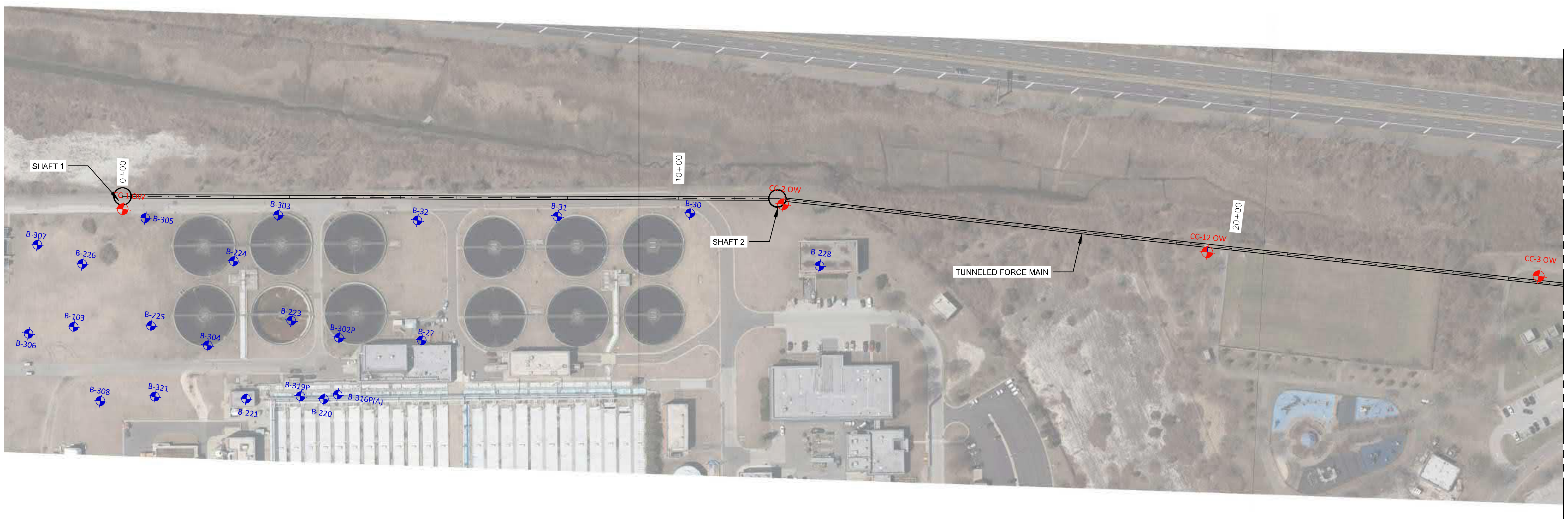
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK FORCE MAIN
BORING LOCATION PLAN
SHEET 5 OF 5

SCALE: AS SHOWN

BP-B105



CEDAR CREEK FORCE MAIN PLAN

0 100 200

NOTES:

1. THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED AS FOLLOWS: BY SURVEY PERFORMED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C.; OR, BY TAPING AND LINE OF SIGHT MEASUREMENT OR GLOBAL POSITIONING SURVEY BY YU & ASSOCIATES; BOTH FIRMS ARE SUBCONSULTANTS TO WSP. THE BORINGS ARE DESIGNATED WITH THE PREFIX "CC".

2. THE LOCATIONS OF BORINGS PERFORMED FOR MUESER RUTLEDGE CONSULTING ENGINEEERS, HEREAFTER MRCE, AND CONVERSE CONSULTANTS, INC., AND BY W.M. WALSH COMPANY, INC. (DRILLER) WERE OBTAINED FROM DRAWING NUMBER B-1, "BORING LOCATION PLAN," INCLUDED IN THE REPORT PREPARED BY MRCE ENTITLED, "GEOTECHNICAL DATA REPORT, CEDAR CREEK WPCP EXPANSION," DATED APRIL 3, 1985.

3. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.

LEGEND		ENGINEER, YEAR PERFORMED
CC-1 OW	(CC PREFIX BORINGS) OW, OBERVATION WELL	WSP, 2019
B-302P	(300-SERIES BORINGS) P, OBSERVATION WELL	MUESER RUTLEDGE CONSULTING ENGINEERS, 1985
B-103	(100-SERIES BORINGS)	CONVERSE CONSULTANTS, INC., 1983
B-220	(200-SERIES BORINGS)	CONVERSE CONSULTANTS, INC., 1983
B-27	(DOUBLE DIGIT SERIES BORINGS)	W.M. WALSH COMPANY, INC., 1966

PRELIMINARY NOT FOR CONSTRUCTION

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DRAWN BY:	J. JARRETT
CHECKED BY:	R. VAKILI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN
BORING LOCATION PLAN
SHEET 1 OF 4

SCALE: AS SHOWN

CC-B101

1 2 3 4 5 6

PLAN NORTH

PRELIMINARY NOT FOR CONSTRUCTION

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN
BORING LOCATION PLAN
SHEET 2 OF 4

CC-10 OW
SEE NOTE 4

NOTES:

1. THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED AS FOLLOWS: BY SURVEY PERFORMED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C.; OR, BY TAPING AND LINE OF SIGHT MEASUREMENT OR GLOBAL POSITIONING SURVEY BY YU & ASSOCIATES; BOTH FIRMS ARE SUBCONSULTANTS TO WSP. THE BORINGS ARE DESIGNATED WITH THE PREFIX "CC".
2. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.
3. BORING CC-9 IS LOCATED AT STA. 32+84, OFFSET 1014' RIGHT.
4. BORING CC-10 OW IS LOCATED AT STA. 47+33, OFFSET 1267' RIGHT.

CC-9
SEE NOTE 3

CEDAR CREEK FORCE MAIN PLAN

0 100 200

LEGEND		ENGINEER, YEAR PERFORMED
CC-4 OW	(CC PREFIX BORINGS) OW, OBERVATION WELL	WSP, 2019

SCALE: AS SHOWN

CC-B102

PLAN NORTH

NOTES:

1. THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, PC, A SUBCONSULTANT TO WSP. THE BORINGS ARE DESIGNATED WITH THE PREFIX "CC".
2. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.
3. BORING CC-11 IS LOCATED AT STA. 51+40, OFFSET 554' RIGHT.

CEDAR CREEK FORCE MAIN PLAN

0 100 200

LEGEND

CC-6 0W (CC PREFIX BORINGS) OW, OBERVATION WELL

ENGINEER, YEAR PERFORMED

WSP, 2019

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

BORING LOCATION PLAN

SHEET 3 OF 4

SCALE: AS SHOWN

CC-B103

PLAN NORTH

CEDAR CREEK FORCE MAIN PLAN

0 100 200

NOTES:

1. THE LOCATIONS OF BORINGS PERFORMED FOR WSP FOR THE SUBSURFACE INVESTIGATION FOR THE OCEAN OUTFALL EFFLUENT DIVERSION PROJECT WERE DETERMINED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, PC, A SUBCONSULTANT TO WSP. THE BORINGS ARE DESIGNATED WITH THE PREFIX 'CC'.
2. LOGS OF THE BORINGS SHOWN ON THIS DRAWING ARE INCLUDED IN THE GEOTECHNICAL DATA REPORT.

LEGEND

CC-8A OW (CC PREFIX BORINGS) OW, OBERVATION WELL

ENGINEER, YEAR PERFORMED

WSP, 2019

wsp

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OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

BORING LOCATION PLAN

SHEET 4 OF 4

SCALE: AS SHOWN

CC-B104

GENERAL NOTES - INSTRUMENTATION:

1. INSTRUMENTS SHALL BE FURNISHED, INSTALLED, INITIALIZED, BASELINED MONITORED, AND MAINTAINED THROUGHOUT THE PERIOD OF THE CONTRACT, IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTION 02495. INSTRUMENTS INSTALLED BY OTHERS BUT USED FOR MONITORING SHALL BE INITIALIZED, MONITORED AND MAINTAINED.

2. THE INSTRUMENTATION INDICATED ON THE DRAWINGS IS THE MINIMUM REQUIREMENT FOR THE FORCE MAIN ALIGNMENTS AND SHAFT LOCATIONS SHOWN ON THE INSTRUMENTATION DRAWINGS.

   2.1 THE CONTRACTOR SHALL SUBMIT A GEOTECHNICAL INSTRUMENTATION PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTION 02495.

   2.2 THE GEOTECHNICAL INSTRUMENTATION PLAN SHALL BE BASED ON THE CONTRACTOR'S PROPOSED ALIGNMENT AND PROFILE OF THE FORCE MAINS, LOCATIONS AND DEPTHS OF SHAFTS, AND MEANS AND METHODS OF CONSTRUCTION.

      2.2.1 IF THE CONTRACTOR MAKES ANY CHANGES IMPACTING THE LAYOUT OF THE INSTRUMENTS, THE LAYOUT OF THE INSTRUMENTATION SHALL BE REVISED TO FOLLOW THE INTENT OF THE SCOPE SHOWN ON THE DRAWINGS.

3. THE ACTUAL LOCATIONS AND ELEVATIONS OF INSTRUMENTS SHALL BE ADJUSTED BASED ON FIELD CONDITIONS.

4. DEFLECTIONS MAY BE MONITORED BY CONVENTIONAL ELECTRONIC THEODOLITES OR AMTS (AUTOMATED MOTORIZED TOTAL STATION THEODOLITES), WITH THE EXCEPTION NOTED BELOW.

   4.1 THE PRISMS TO BE INSTALLED ON THE LIRR (LONG ISLAND RAILROAD) TRACKS, SEE DWG. BP-I104, SHALL BE MONITORED WITH AMTS.

   4.2 ANY STRUCTURES REQUIRED FOR MOUNTING OF AMTS SHALL BE CONSTRUCTED/INSTALLED BY THE CONTRACTOR.

5. BENCHMARKS FOR MONITORING SHALL BE ESTABLISHED BY THE CONTRACTOR'S GEOTECHNICAL INSTRUMENTATION ENGINEER, HEREAFTER GIE.

   5.1 A SEPARATE BENCHMARK SHALL BE ESTABLISHED FOR THE INSTRUMENTATION AT EACH SHAFT LOCATION.

   5.2 ADDITIONAL BENCHMARKS SHALL BE ESTABLISHED AS DETERMINED BY THE GIE.

   5.3 BENCHMARKS SHALL BE INSTALLED IN GENERAL ACCORDANCE WITH THE DETAIL SHOWN ON DWG. GT-1502. ALTERNATIVELY, PLACE BENCHMARKS ON PILE SUPPORTED STRUCTURES OUTSIDE THE INFLUENCE ZONE OF THE CONSTRUCTION.

6. AT THE BEGINNING OF EACH REACH OF TUNNELED FORCE MAIN, SETTLEMENT OF THE GROUND SURFACE SHALL BE MONITORED ALONG A MINIMUM OF ONE (1) CROSS SECTION PERPENDICULAR TO THE TUNNEL ALIGNMENT.

   6.1 THE INITIAL CROSS SECTION SHALL BE LOCATED APPROXIMATELY TEN (10) FEET BEYOND THE LIMIT OF GROUND IMPROVEMENT PERFORMED AT THE BREAKOUT FROM EACH SHAFT.

   6.2 THE FOLLOWING INSTRUMENTS AT THE CROSS SECTION SHALL INCLUDE, AT A MINIMUM: A BOREHOLE EXTENSOMETER OVER THE CENTERLINE OF THE FORCE MAIN; SURFACE MOVEMENT MONITORING POINTS, TYPE 1, OFFSET AT 15 FEET AND 35 FEET ON BOTH SIDES OF THE CENTERLINE OF THE FORCE MAIN.

   6.3 IF THE SETTLEMENT AT THE SHALLOWEST ANCHOR OF THE BOREHOLE EXTENSOMETER OR ANY OF THE SURFACE MOVEMENT MONITORING POINTS EXCEEDS 0.75 INCH, TUNNELING PROCEDURES SHALL BE REVIEWED AND ADJUSTED TO REDUCE GROUND SETTLEMENT. AN ADDITIONAL CROSS SECTION SHALL BE MONITORED TO CONFIRM THE EFFECTIVENESS OF THE MODIFICATIONS IN REDUCING SETTLEMENT. THE ADDITIONAL CROSS SECTION SHALL INCLUDE THE SAME ARRAY OF INSTRUMENTS, EXCEPT A SURFACE MONITORING POINT, TYPE 1 SHALL BE INSTALLED OVER THE CENTERLINE OF THE FORCE MAIN INSTEAD OF THE BOREHOLE EXTENSOMETER.

      6.3.1 THE ENGINEER OF RECORD MAY SPECIFY A LIMIT LESS THAN 0.75 INCH FOR ADDITIONAL MONITORING BASED ON HIS EVALUATION OF POTENTIAL IMPACT OF GROUND LOSS ON EXISTING STRUCTURES, THE LIRR TRACKS, UTILITIES AND OTHER INFRASTRUCTURE ALONG THE FORCE MAIN ALIGNMENTS.

   6.4 IF THE MODIFICATIONS IN TUNNELING PROCEDURES HAVE NOT REDUCED SETTLEMENT TO BELOW THE SPECIFIED LIMIT, ADDITIONAL MODIFICATIONS SHALL BE MADE, AND CROSS SECTIONS INSTRUMENTED AND MONITORED UNTIL THE SPECIFIED LIMIT IS MET.

   6.5 ADDITIONAL CROSS SECTIONS SHALL NOT BE MORE THAN 100 FEET BEYOND THE INITIAL CROSS SECTION OR ANY SUBSEQUENT CROSS SECTION WHICH EXCEEDS THE SPECIFIED LIMITS.

7. VIBRATION SHALL BE MONITORED THROUGHOUT THE CONSTRUCTION PERIOD AT LOCATIONS WHERE CONSTRUCTION ACTIVITY IS LIKELY TO GENERATE SUCH VIBRATION.

   7.1. SEISMOGRAPHS SHALL BE FURNISHED, INSTALLED, AND OPERATED AS REQUIRED FOR THE MONITORING.

   7.2. GEOPHONES SHALL BE ANCHORED TO CONCRETE AS SHOWN ON THE DETAIL ON DWG. GT-1503. IF A SOIL DEPLOYMENT IS POSSIBLE, SPIKES ATTACHED TO THE GEOPHONE MAY BE USED TO ASSURE GOOD COUPLING. WHERE NEITHER OF THESE METHODS IS AVAILABLE, A SANDBAG MAY BE USED ON THE GEOPHONE, SECURELY DRAPED OVER THE GEOPHONE, AND TOUCHING THE GROUND SO NOT TO AMPLIFY GROUND VIBRATION.

   7.3. SEISMOGRAPHS SHALL BE LOCATED AT STRUCTURES DETERMINED TO BE OF CONCERN, DEPLOYED ON THE GROUND OUTSIDE OF THE STRUCTURE.

8. BASED ON THE PRECONDITION SURVEYS, CRACK GAGES, SIMILAR TO THE ONE SHOWN ON THE DETAIL ON DWG. GT-I503, SHALL BE INSTALLED TO MONITOR DEFLECTION.

9. EXISTING GROUNDWATER OBSERVATION WELLS INSTALLED FOR THE PRELIMINARY SUBSURFACE INVESTIGATION ARE SHOWN ON THE INSTRUMENTATION PLANS. THE CONTRACTOR SHALL ABANDON WELLS PRIOR TO CONSTRUCTION IF NECESSARY TO PREVENT INTERFERENCE WITH TUNNELING AND EXCAVATION ACTIVITIES.

10. UPON SUBSTANTIAL COMPLETION OF THE WORK, ALL INSTRUMENTATION SHALL BE REMOVED, AND STRUCTURES AND PAVEMENTS RESTORED TO A CONDITION ACCEPTABLE TO THE PROPERTY OR FACILITY OWNER.

    10.1 ALL IN GROUND INSTRUMENTATION SHALL BE ABANDONED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTION 02495.

GENERAL NOTES - PRE-AND POST-CONSTRUCTION CONDITION SURVEYS:

1. PRE- AND POST- CONSTRUCTION CONDITON SURVEYS SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02120.

2. THE STRUCTURES AND FACILITIES DESIGNATED TO BE SURVEYED ON THE DRAWINGS ARE THE MINIMUM FOR THE FORCE MAIN ALIGNMENTS AND SHAFT LOCATIONS SHOWN ON THE INSTRUMENTATION DRAWINGS.

3. THE STRUCTURES AND FACILITIES TO BE SURVEYED SHALL BE BASED ON THE APPROVED ALIGNMENT AND PROFILE OF THE FORCE MAINS, LOCATIONS AND DEPTHS OF SHAFTS, AND MEANS AND METHODS OF CONSTRUCTION.

   3.1 THE SCOPE OF THE SURVEYS SHALL CORRESPOND TO THE INTENT SHOWN ON THE DRAWINGS.

LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	NONE	SHAFT
	NONE	MICROTUNNELED FORCE MAIN
	S1	SURFACE MOVEMENT MONITORING POINT TYPE 1
	S2	SURFACE MOVEMENT MONITORING POINT TYPE 2 IN MASONRY OR CONCRETE
	S3	SURFACE MOVEMENT MONITORING POINT TYPE 3, PAINT MARK ON CONCRETE OR ASPHALT
	S4	SURFACE MOVEMENT MONITORING POINT TYPE 4, ROAD PRISM
	SP	PRISM OR TARGET FOR STRUCTURAL/RAILROAD (FOR AMTS OR CONVENTIONAL SURVEY)
	IS	INCLINOMETER IN SOIL
	IW	INCLINOMETER INSTALLED WITHIN SUPPORT WALLS
	BX	MULTIPLE POSITION BOREHOLE EXTENSOMETER
	DB	DEEP BENCHMARK
	UMP	UTILITY MONITORING POINT
	OW	OBSERVATION WELL
	OW	EXISTING GROUNDWATER OBSERVATION WELL
		STRUCTURE OR FACILITY FOR WHICH PRE- AND POST-CONSTRUCTION SURVEYS SHALL BE PERFORMED

wsp

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NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	GT-I001
DESIGNED BY:	R. VAKILI
DRAWN BY:	J. DIAZ
CHECKED BY:	K. LARSSON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

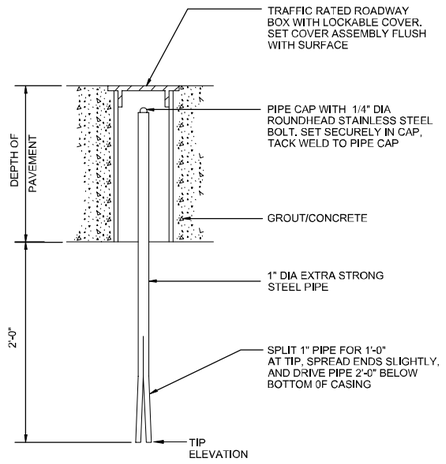
GEOTECHNICAL
INSTRUMENTATION

GENERAL NOTES AND LEGEND

SCALE:
NOT TO SCALE

GT-I001

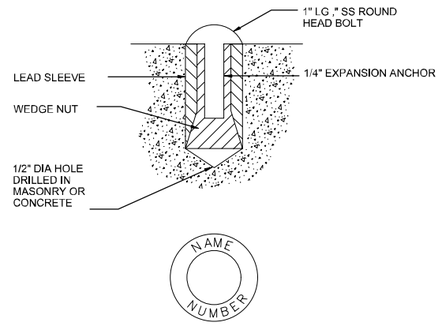
SURFACE MOVEMENT MONITORING POINT, TYPE 1 (S1) ●



NOTES:

1. WHERE PAVEMENT NOT PRESENT, ROADWAY BOX TO BE 2 FEET IN LENGTH AND GROUTED/CONCRETED INTO PLACE.
2. ANNULUS BETWEEN ROADWAY BOX AND 1" DIA. PIPE SHALL BE FREE OF CONCRETE/GROUT. SURFACE OF 1" PIPE SHALL NOT BE IN CONTACT WITH CONCRETE/GROUT.

SURFACE MOVEMENT MONITORING POINT, TYPE 2 (S2) ⊡



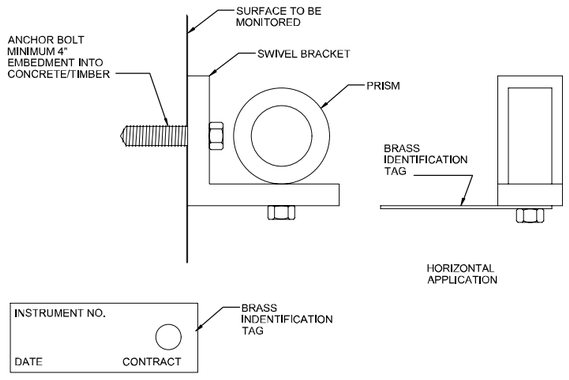
TO BE INSERTED BELOW HEAD OF BOLT

SURFACE MOVEMENT MONITORING POINT, TYPE 3 - PAINT MARK (S3) ●

NOTES:

1. PAINT MARKS TO BE USED TO MONITOR SETTLEMENT OF SURFACES OF ATHLETIC COURTS AND WALKWAYS.
2. IF POSSIBLE, SCRIBE SURFACE AT CENTER OF PAINT MARK.

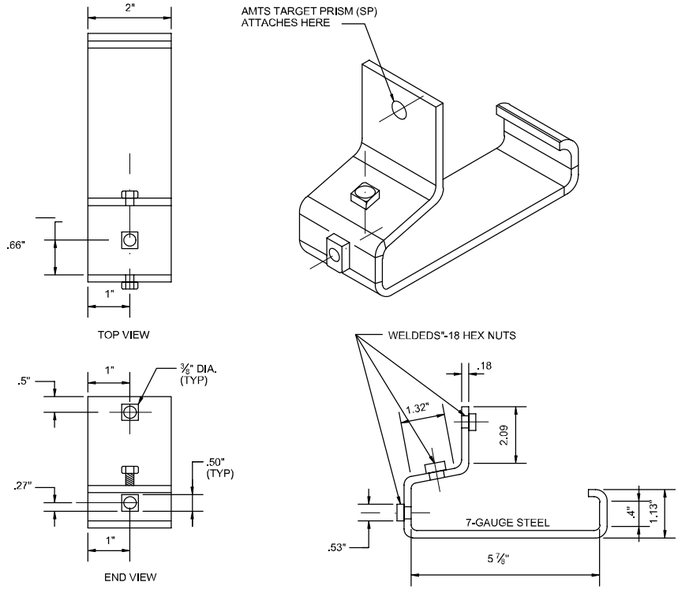
PRISM FOR DEFORMATION MONITORING (SP) ⊗



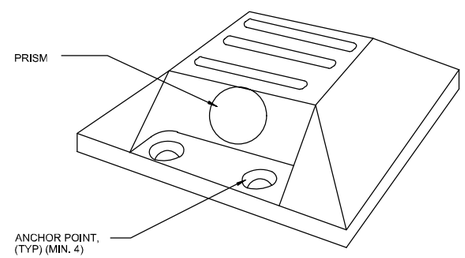
NOTES:

1. ANCHOR EITHER INTO SOUND CONCRETE OR ATTACH TO TIMBER MEMBER.
2. ADHESIVE SURVEY TARGETS MAY BE USED WHERE PROPERTY/FACILITY OWNER WILL NOT ALLOW ANCHOR.
3. BRASS IDENTIFICATION TAGS SHALL BE VISIBLE TO SURVEY CREW.

BRACKET FOR AMTS TARGET PRISM ON RAIL (SP) ⊗



SURFACE MOVEMENT MONITORING POINT, TYPE 4 - ROAD PRISM ⊙



NOTES:

1. ROAD PRISMS TO BE LOW PROFILE, CAST ALUMINUM.
2. PRISMS TO BE ANCHORED INTO ASPHALT PAVEMENTS AND CONCRETE PAVEMENTS AND SIDEWALKS. ANCHORS TO BE SELECTED BY CONTRACTOR BASED ON FIELD CONDITIONS.

wsp

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 04/2020

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FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: GT-I501
DESIGNED BY: R. VAKILI
DRAWN BY: J. DIAZ
CHECKED BY: K. LARSSON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

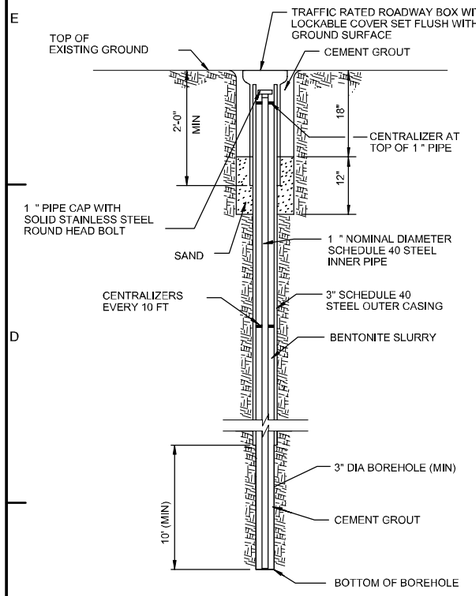
GEOTECHNICAL INSTRUMENTATION

TYPICAL INSTRUMENTATION DETAILS

SCALE: NOT TO SCALE

GT-I501

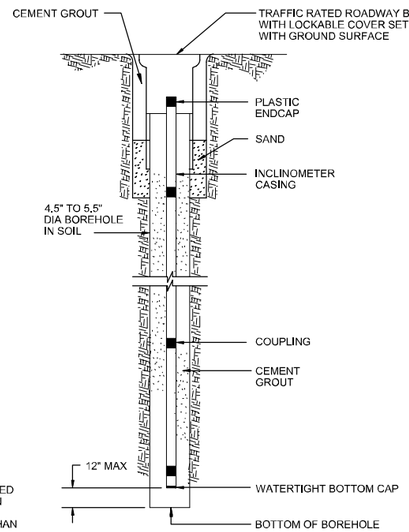
DEEP BENCHMARK (DB) ■



NOTES:

1. BOTTOM OF 1" STEEL PIPE SHALL NOT BE LESS THAN 60 FEET BELOW GROUND SURFACE.
2. WHERE STIFF CLAY ENCOUNTERED, BOTTOM OF STEEL PIPE SHALL NOT BE LESS THAN 10 FEET BELOW BOTTOM OF STIFF CLAY.

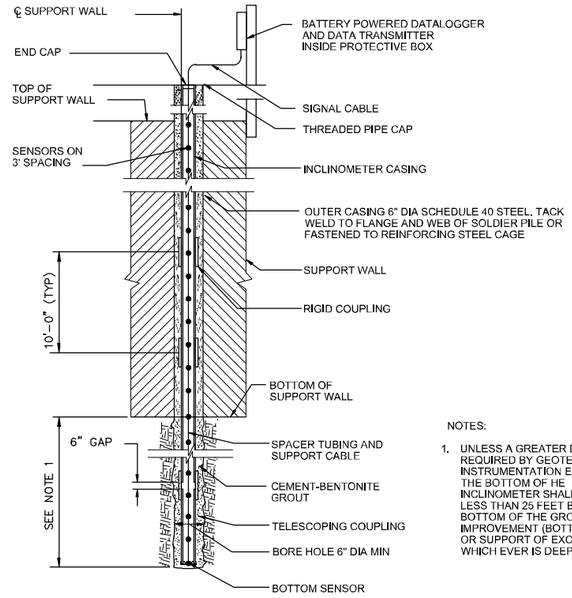
INCLINOMETER IN SOIL (IS) ⊘



NOTES:

1. UNLESS A GREATER DEPTH IS REQUIRED BY GEOTECHNICAL INSTRUMENTATION ENGINEER, THE BOTTOM OF THE INCLINOMETER SHALL NOT BE LESS THAN 25 FEET BELOW THE BOTTOM OF THE GROUND IMPROVEMENT (BOTTOM PLUG), OR SUPPORT OF EXCAVATION, WHICH EVER IS DEEPER.

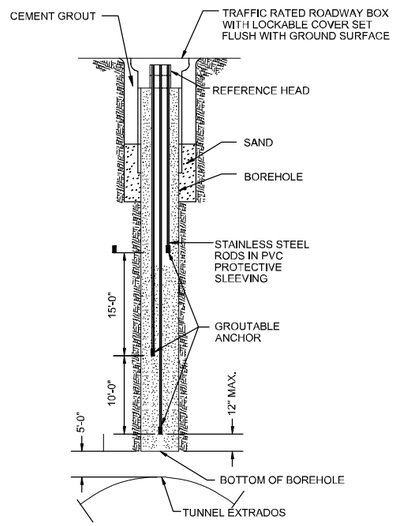
INCLINOMETER IN SUPPORT WALL (IW) ◪IW



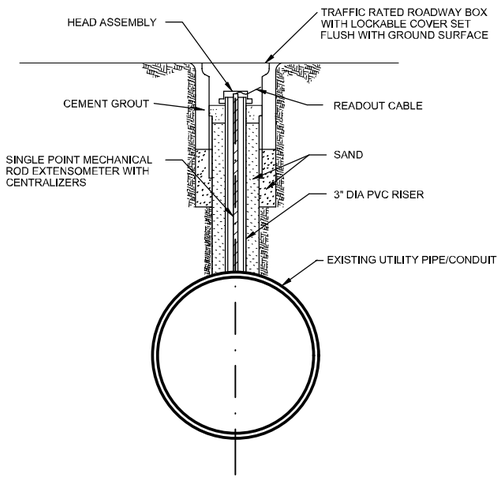
NOTES:

1. UNLESS A GREATER DEPTH IS REQUIRED BY GEOTECHNICAL INSTRUMENTATION ENGINEER, THE BOTTOM OF HE INCLINOMETER SHALL NOT BE LESS THAN 25 FEET BELOW THE BOTTOM OF THE GROUND IMPROVEMENT (BOTTOM PLUG), OR SUPPORT OF EXCAVATION, WHICH EVER IS DEEPER.

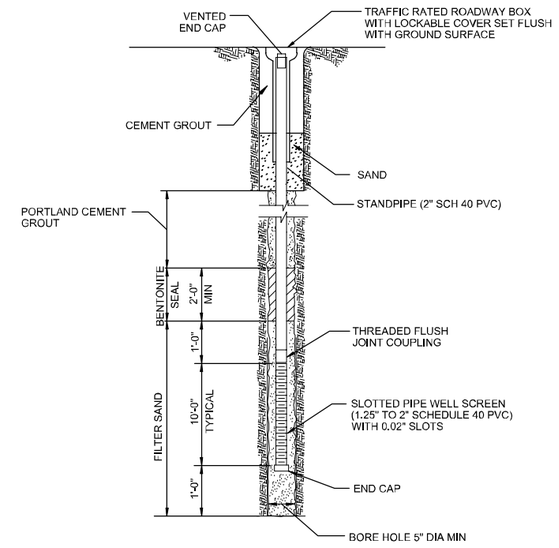
MULTIPLE POSITION BOREHOLE EXTENSOMETER (BX) ⊠



UTILITY MONITORING POINT (UMP) ◎



OBSERVATION WELL (OW) ▽



NOTES:

1. WELL SCREENS SHALL BE SET AT DEPTH NECESSARY TO MEASURE FLUCTUATION ON THE GROUND WATER TABLE, I.E., SURFACE ELEVATION

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: GT-I502
DESIGNED BY: R. VAKILI
DRAWN BY: J. DIAZ
CHECKED BY: K. LARSSON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

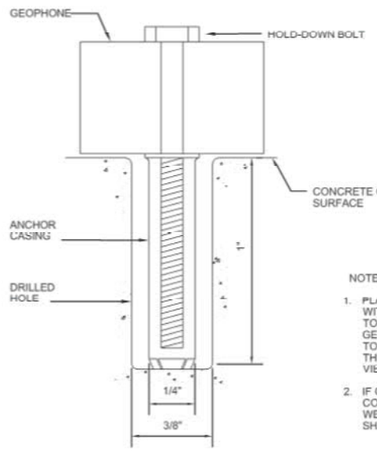
GEOTECHNICAL INSTRUMENTATION

TYPICAL INSTRUMENTATION DETAILS

SCALE: NOT TO SCALE

GT-I502

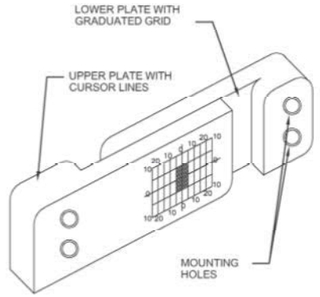
GEOPHONE AND ANCHOR



NOTES:

1. PLACE GEOPHONE IN DIRECT CONTACT WITH THE STRUCTURE OR PAVEMENT TO BE MONITORED USING AN ANCHOR. GEOPHONE SHALL BE FIRMLY MOUNTED TO MAINTAIN DIRECT CONTACT UNDER THE PRESENCE OF CONSTRUCTION VIBRATIONS.
2. IF GEOPHONE CANNOT BE ANCHORED TO CONCRETE OR PAVEMENT, SAND BAG WEIGHING NOT LESS THAN 30 POUNDS, SHALL BE PLACED OVER THE GEOPHONE.

CRACK GAUGE



PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: OCTOBER 2019
PROJECT NO.: PW-S3B116-03CR
FILE NAME: GT-I503
DESIGNED BY: R. VAKILI
DRAWN BY: J. DIAZ
CHECKED BY: K. LARSSON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

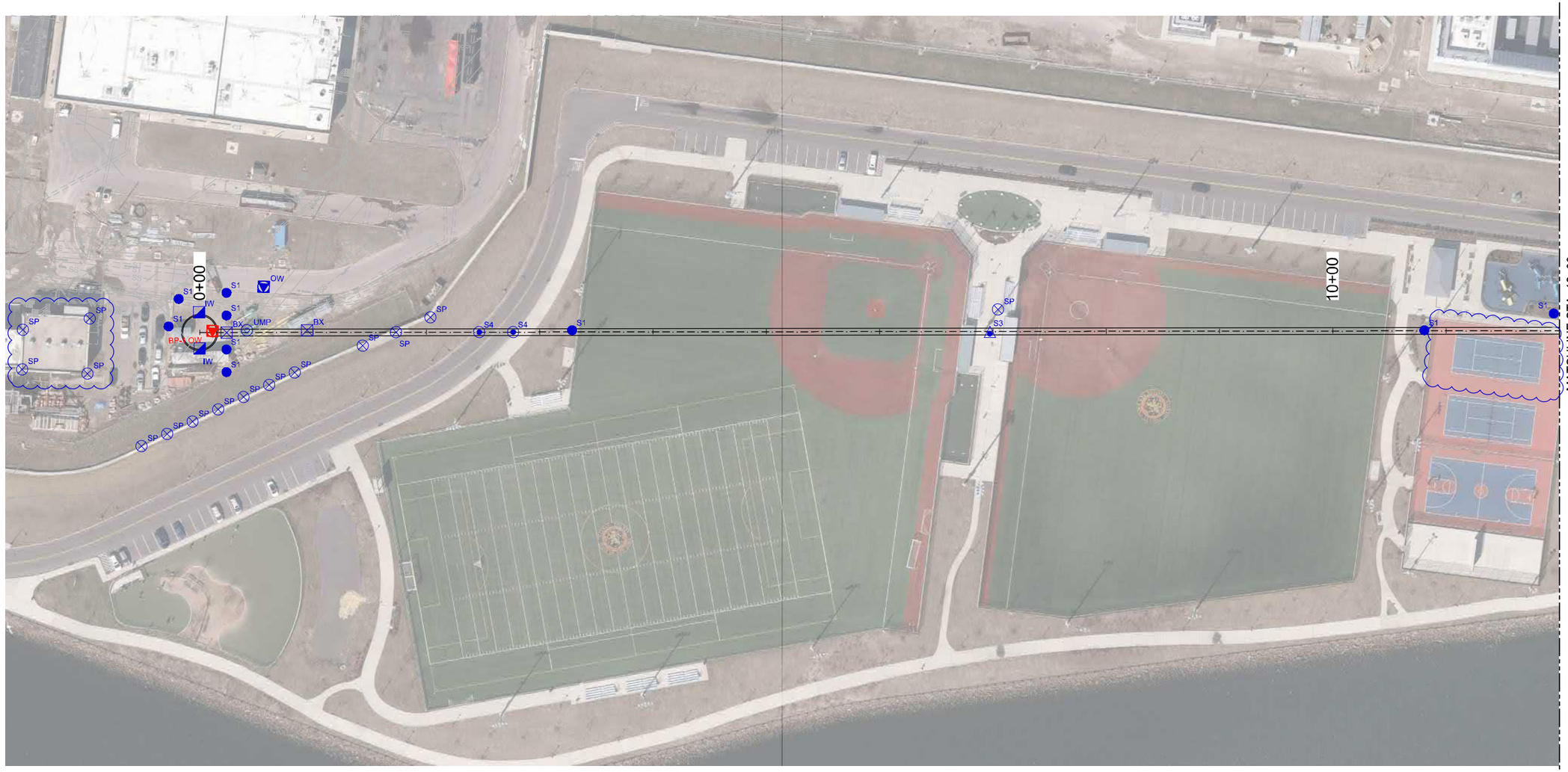
SHEET TITLE

GEOTECHNICAL
INSTRUMENTATION

TYPICAL
INSTRUMENTATION
DETAILS

SCALE: NTS

GT-I503



BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50' 100'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-I101-I108
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 1 OF 8

SCALE:
AS SHOWN

BP-I101

PLAN NORTH

BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-I101-I108
DESIGNED BY: K. LARSSON
DRAWN BY: J. JARRETT
CHECKED BY: E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

GEOTECHNICAL INSTRUMENTATION PLAN

SHEET 2 OF 8

SCALE: AS SHOWN

BP-I102

BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-I101-I108
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

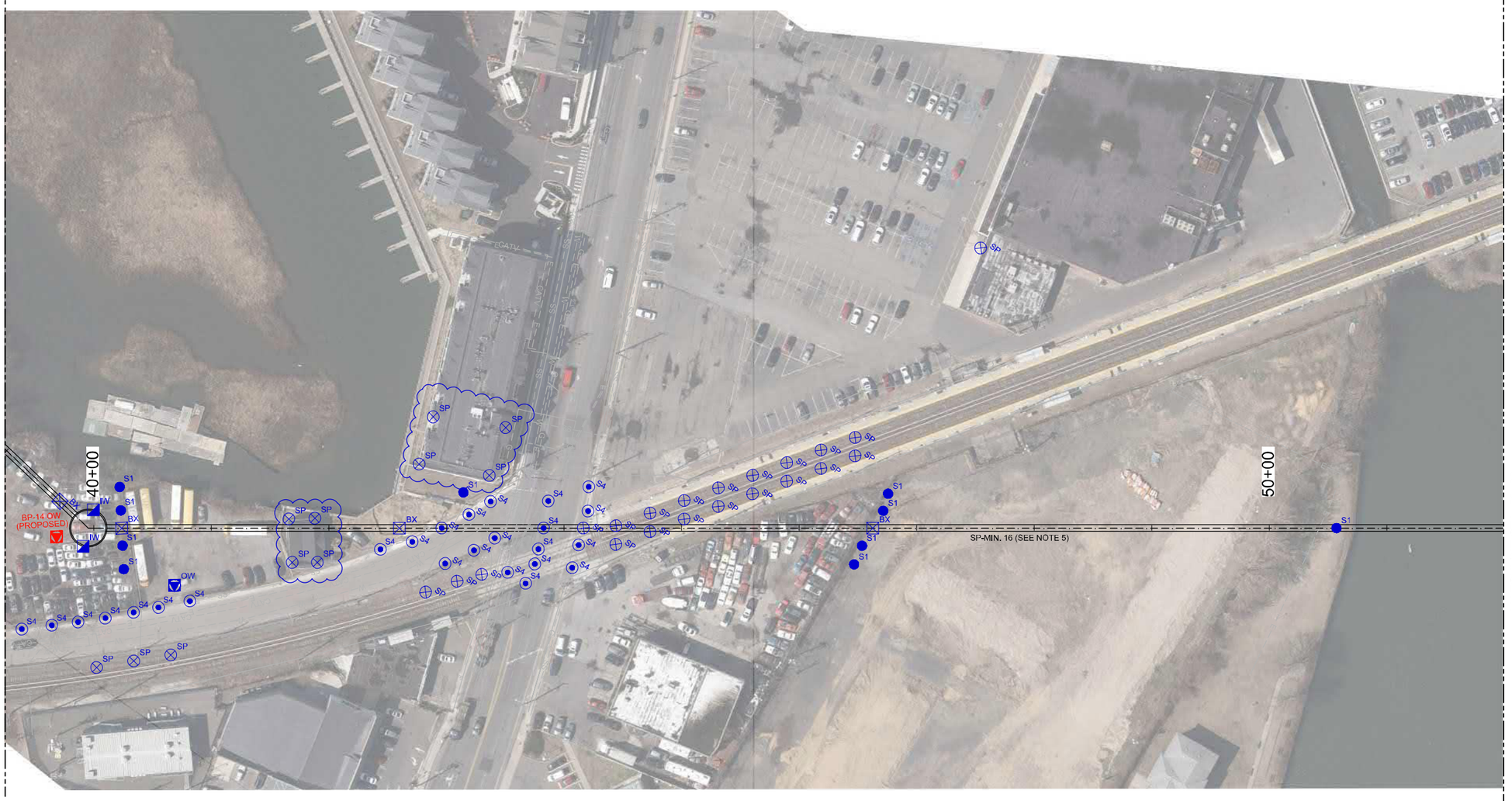
BAY PARK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 3 OF 8

SCALE: AS SHOWN

BP-I103



NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.
3. EACH PRISM SYMBOL SHOWN ON A TRACK REPRESENTS TWO (2) PRISMS, WITH A PRISM TO BE INSTALLED ON EACH RAIL AT THAT LOCATION. IN ADDITION, A PAINT MARK IS TO BE PROVIDED ON THE SIDE OF THE RAIL AT EACH PRISM AND THE POSITION OF THE TOP OF RAIL LOCATED HORIZONTALLY AND VERTICALLY BY GROUND SURVEY PRIOR TO THE START OF MONITORING BY AMTS (AUTOMATED MOTORIZED TOTAL STATION THEODOLITE). THE PAINT MARKS SHALL BE AVAILABLE FOR CONVENTIONAL SURVEY OF THE TOP OF THE RAIL, IF WARRANTED.
4. PRISMS TO BE LOCATED ON RAILS ARE TO BE SPACED AT APPROXIMATELY 31 FEET ON- CENTER.
5. THE WOODCREST VILLAGE DEVELOPMENT IS BEING CONSTRUCTED ON THIS PROPERTY AND IS ANTICIPATED TO BE COMPLETED AT THE TIME OF TUNNELING. EACH OF THE TWO PLANNED BUILDINGS IS TO BE MONITORED FOR DEFLECTION AT NOT LESS THAN FOUR PRISMS/TARGETS PLACED ON THE NORTH AND SOUTH FACES OF EACH STRUCTURE.

BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

9 59 100

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

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CRITERIA PACKAGE

DATE:	APRIL 2020
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FILE NAME:	BP-I101-I108
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

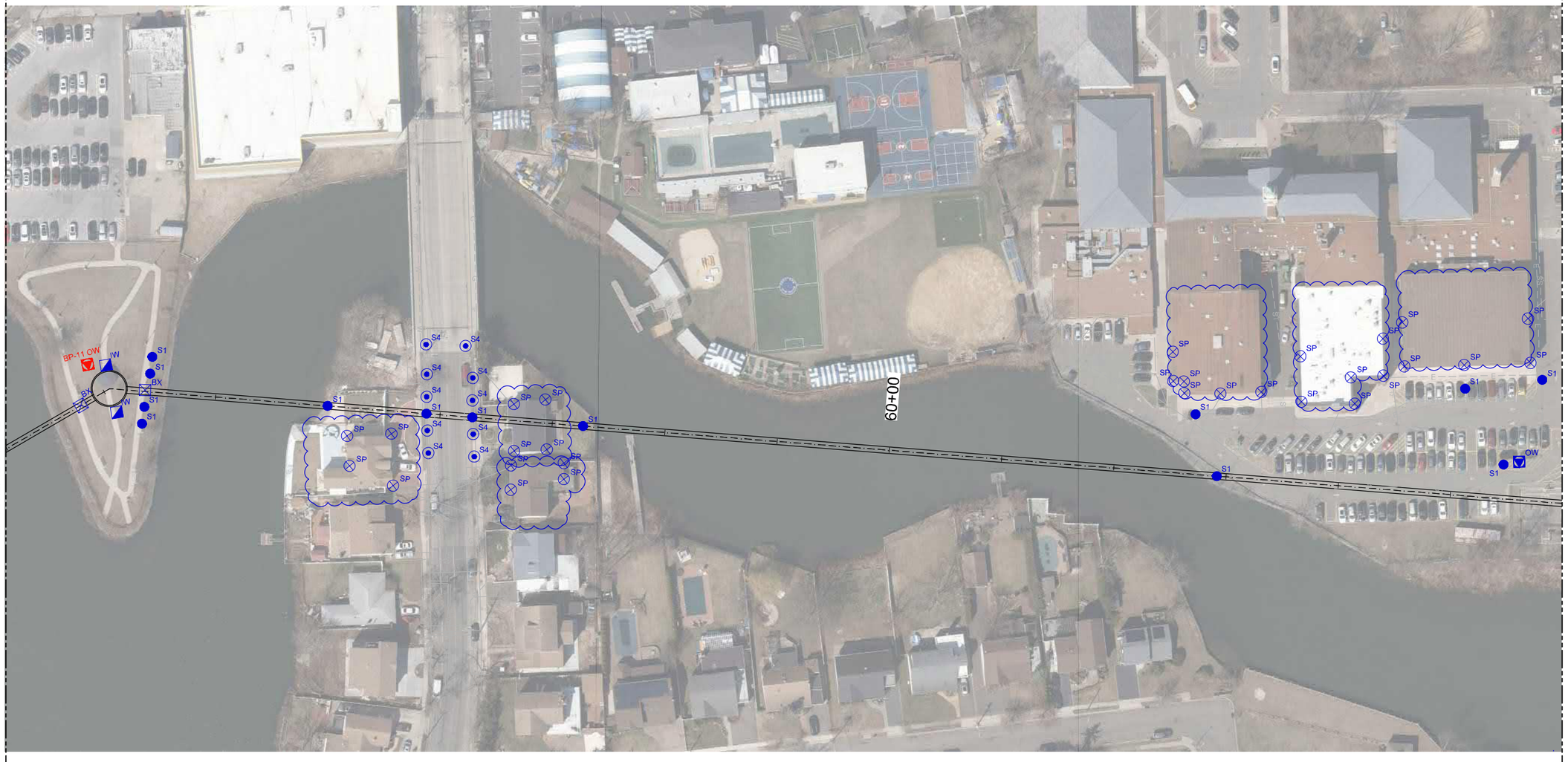
BAY PARK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 4 OF 8

SCALE: AS SHOWN

BP-I104



BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

PRELIMINARY
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DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-I101-I108
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

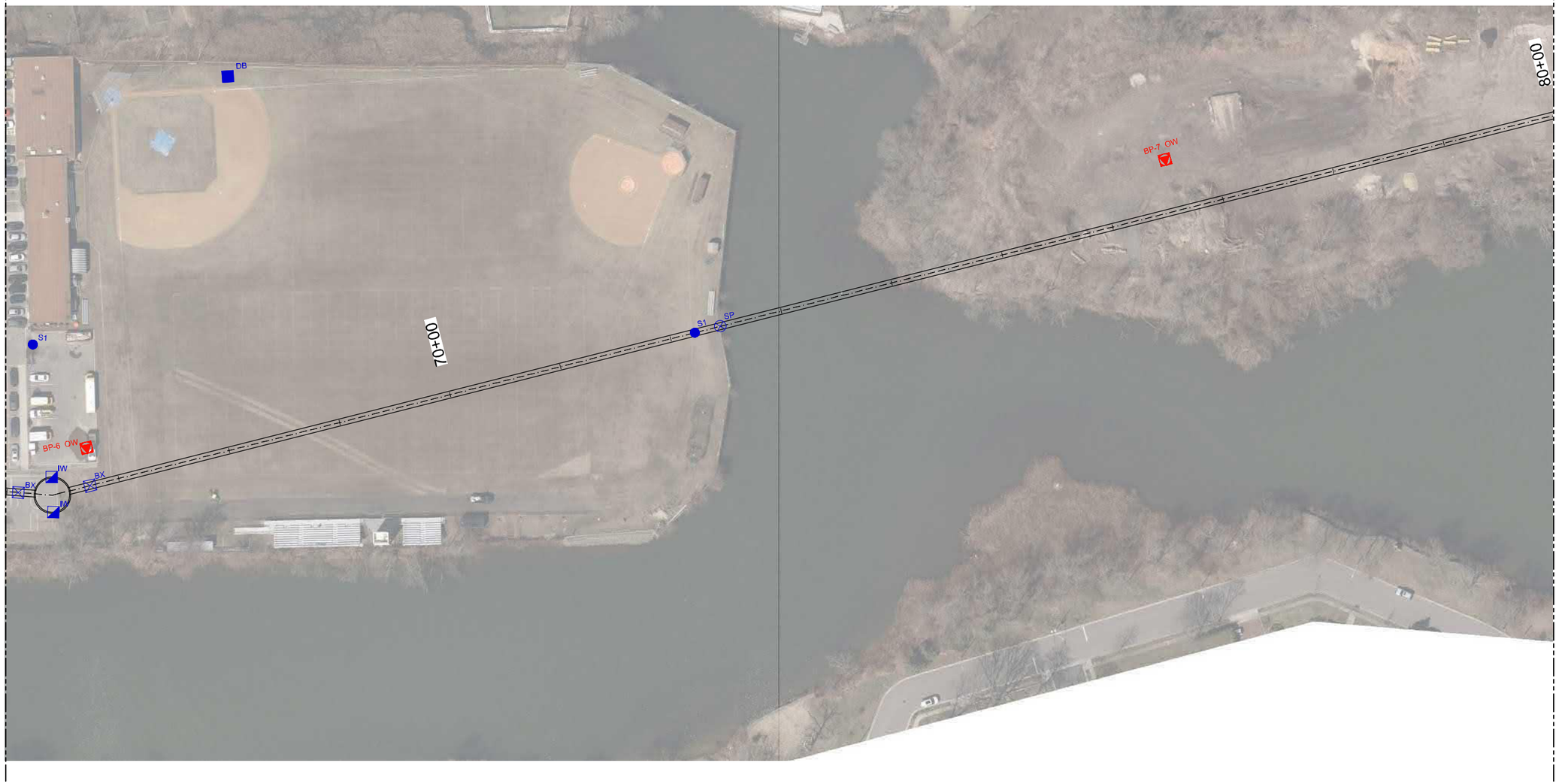
GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 5 OF 8

SCALE: AS SHOWN

BP-I105

PAGE 126



PLAN NORTH

BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

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FILE NAME: BP-I101-I108
DESIGNED BY: K. LARSSON
DRAWN BY: J. JARRETT
CHECKED BY: E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 6 OF 8

SCALE: AS SHOWN

BP-I106

BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

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FILE NAME:	BP-I101-I108
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

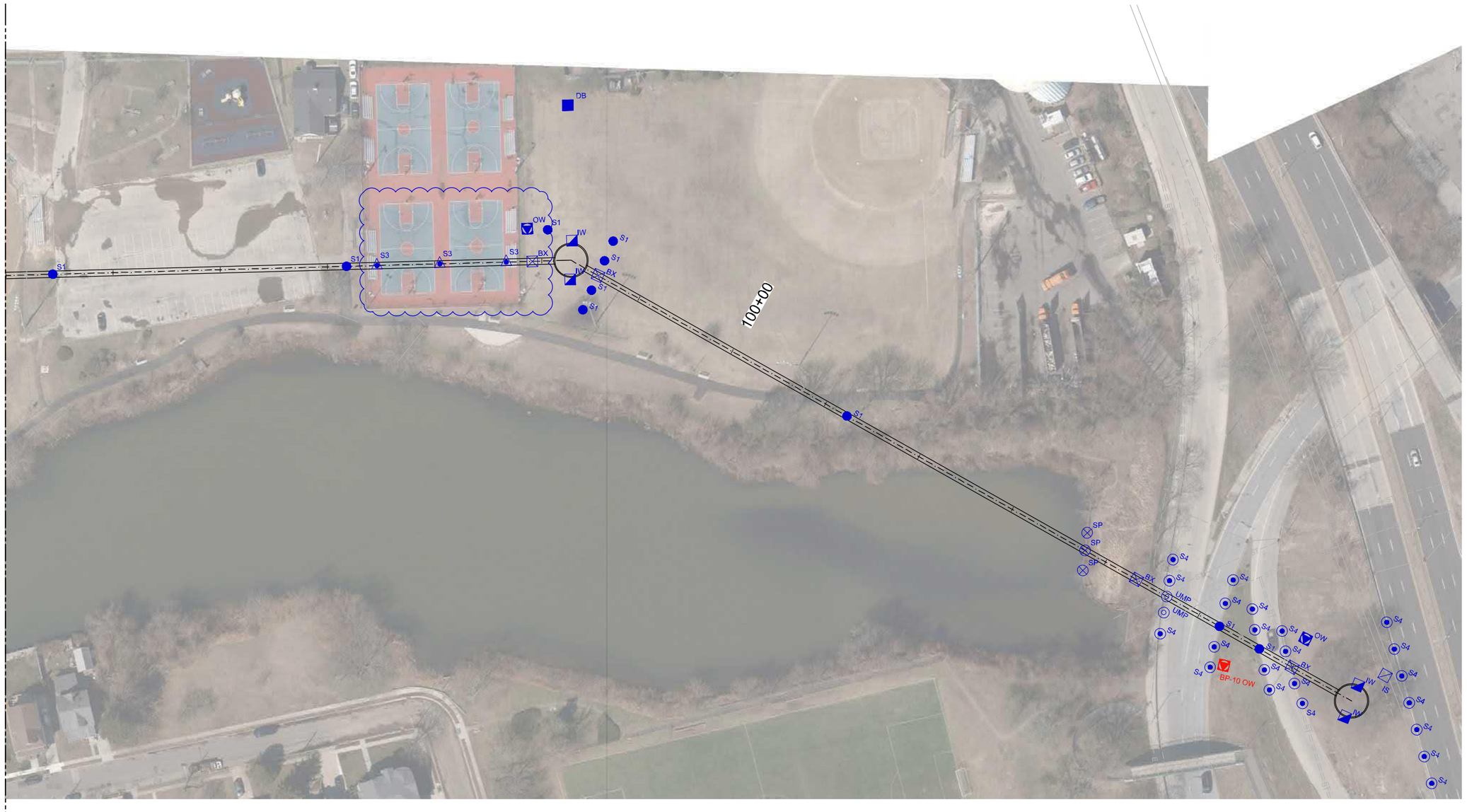
BAY PARK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 7 OF 8

SCALE: AS SHOWN

BP-I107



BAY PARK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

All information shown on this drawing represents mandatory minimum requirements. Refer to specifications for minimum requirements to be included in the final "released for construction" specifications developed by the design-builder. All dimensions and information on existing conditions are approximate and shall be verified and revised as needed for code compliance and/or for other technical requirements by the design-builder.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-I101-I108
DESIGNED BY: K. LARSSON
DRAWN BY: J. JARRETT
CHECKED BY: E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

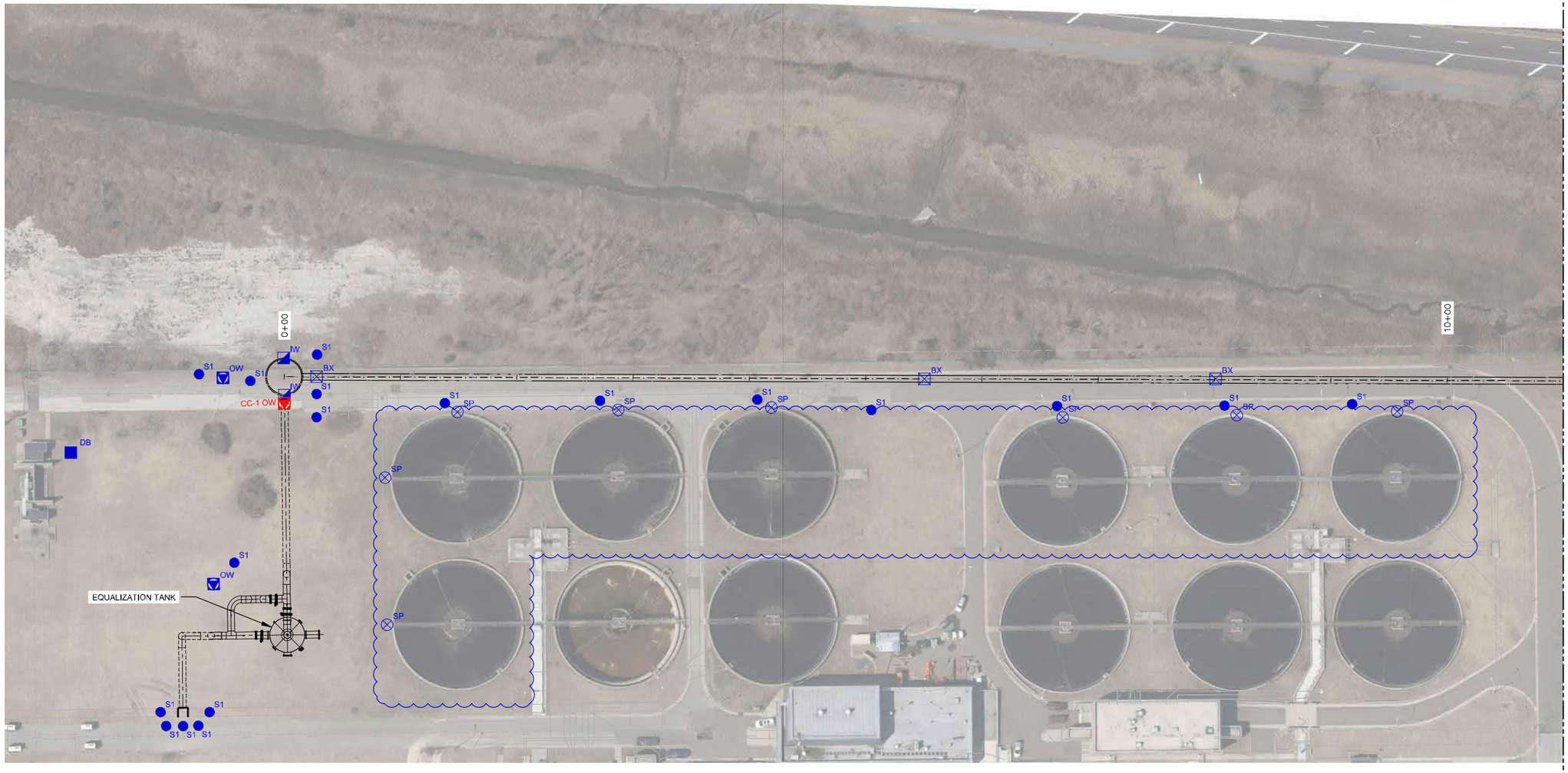
BAY PARK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 8 OF 8

SCALE: AS SHOWN

BP-I108



CEDAR CREEK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 04/2020

ALL INFORMATION SHOWN ON THIS DRAWING REPRESENTS MANDATORY MINIMUM REQUIREMENTS. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-I101_107
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 1 OF 7

SCALE: AS SHOWN

CC-I101

CEDAR CREEK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-I101_107
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

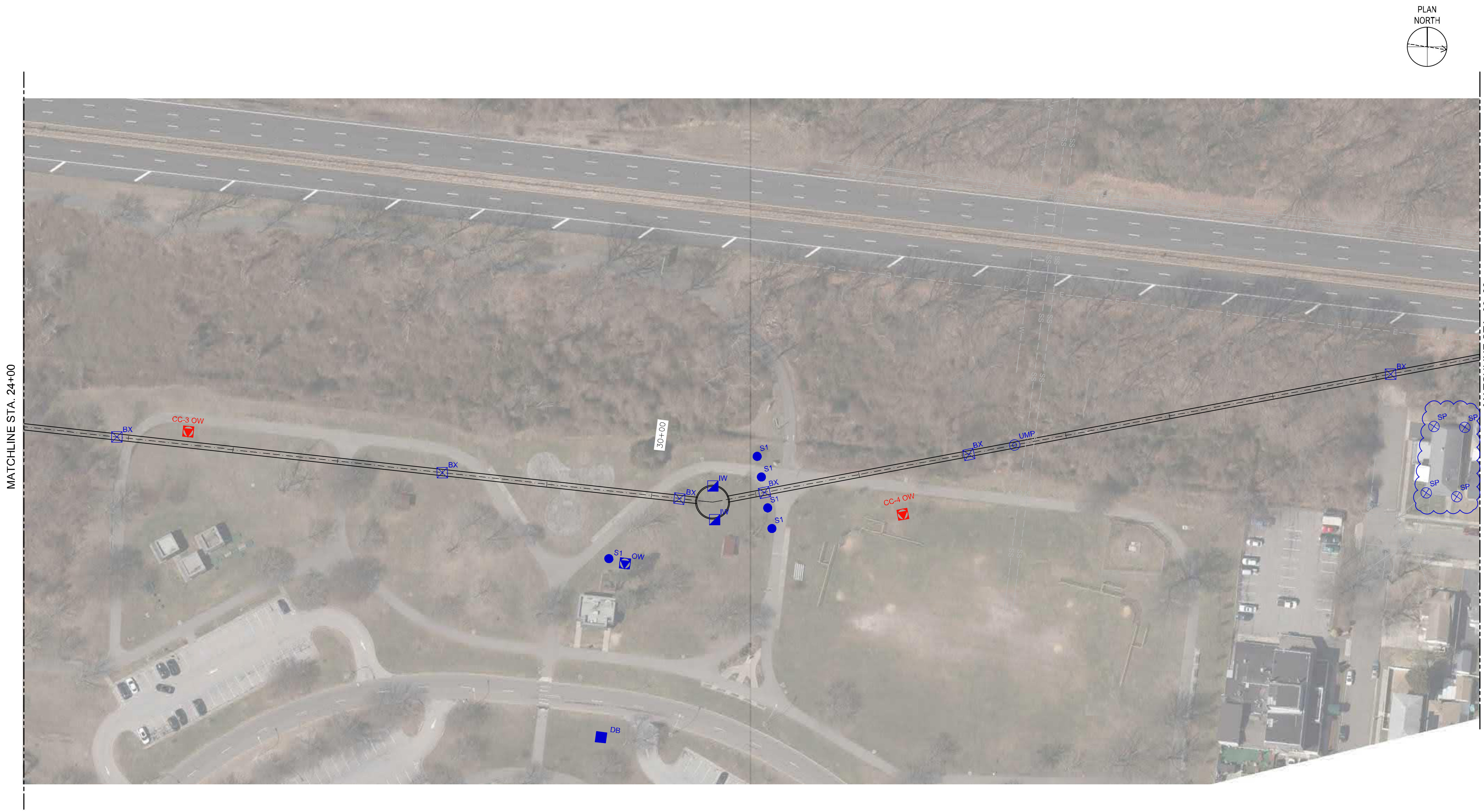
CEDAR CREEK FORCE MAIN

GEOTECHNICAL INSTRUMENTATION PLAN

SHEET 2 OF 7

SCALE: AS SHOWN

CC-I102



CEDAR CREEK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.
3. EXISTING OBSERVATION WELL CC-9 OW LOCATED AT APPROXIMATELY STA.32+84, OFFSET 1014 FEET FROM THE CENTERLINE OF THE FORCE MAIN ALIGNMENT SHALL BE ABANDONED IN ACCORDANCE WITH REQUIREMENTS OF SPECIFICATION SECTION 02495.

0 50 100

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-I101_107
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

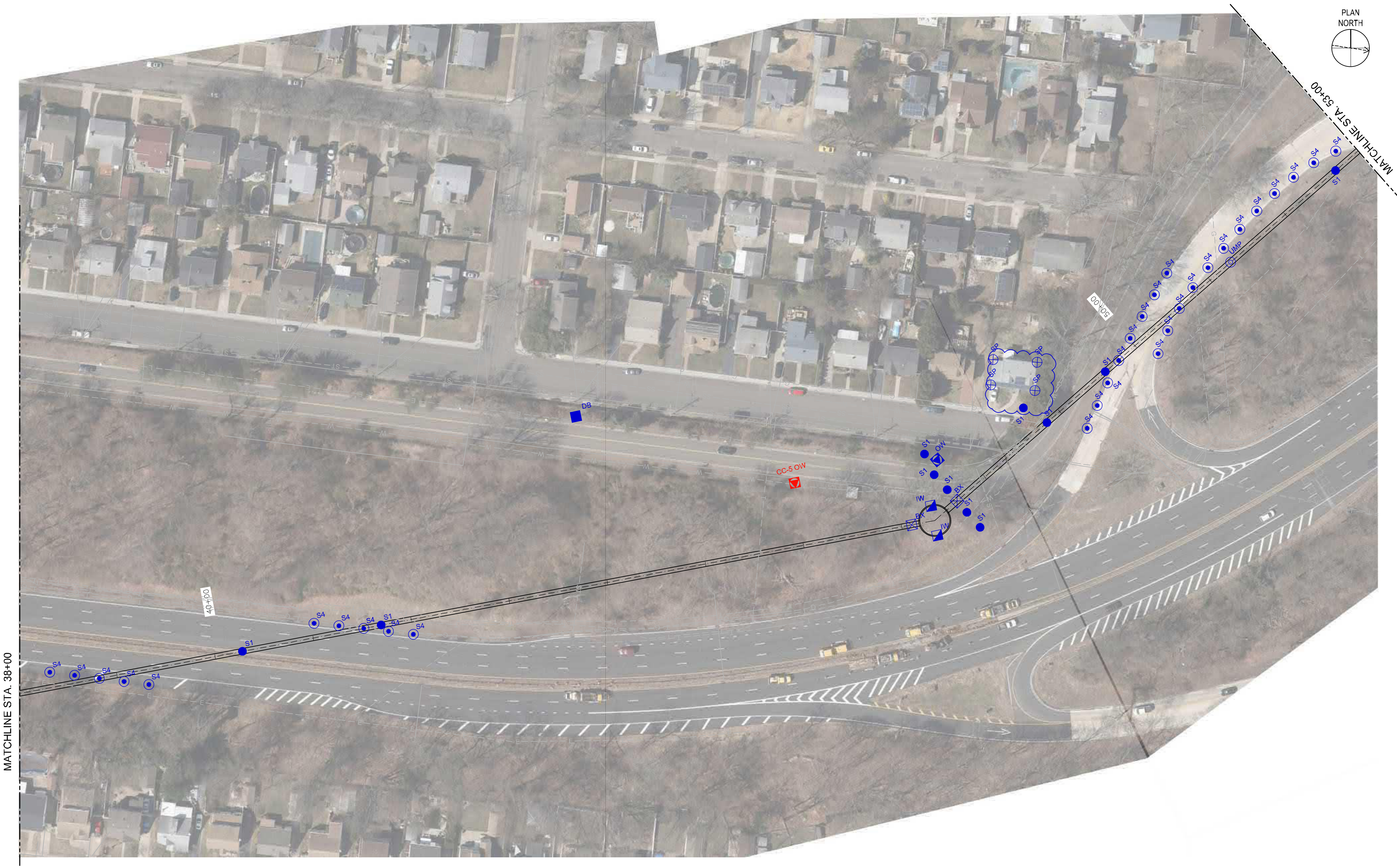
CEDAR CREEK FORCE MAIN

GEOTECHNICAL INSTRUMENTATION PLAN

SHEET 3 OF 7

SCALE: AS SHOWN

CC-I103



CEDAR CREEK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.
3. EXISTING OBSERVATION WELL CC-10 OW LOCATED AT APPROXIMATELY STA.47+33, OFFSET 1267 FEET FROM THE CENTERLINE OF THE FORCE MAIN ALIGNMENT SHALL BE ABANDONED IN ACCORDANCE WITH REQUIREMENTS OF SPECIFICATION SECTION 02495.

0 50 100

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-I101_107
DESIGNED BY: K. LARSSON
DRAWN BY: J. JARRETT
CHECKED BY: E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

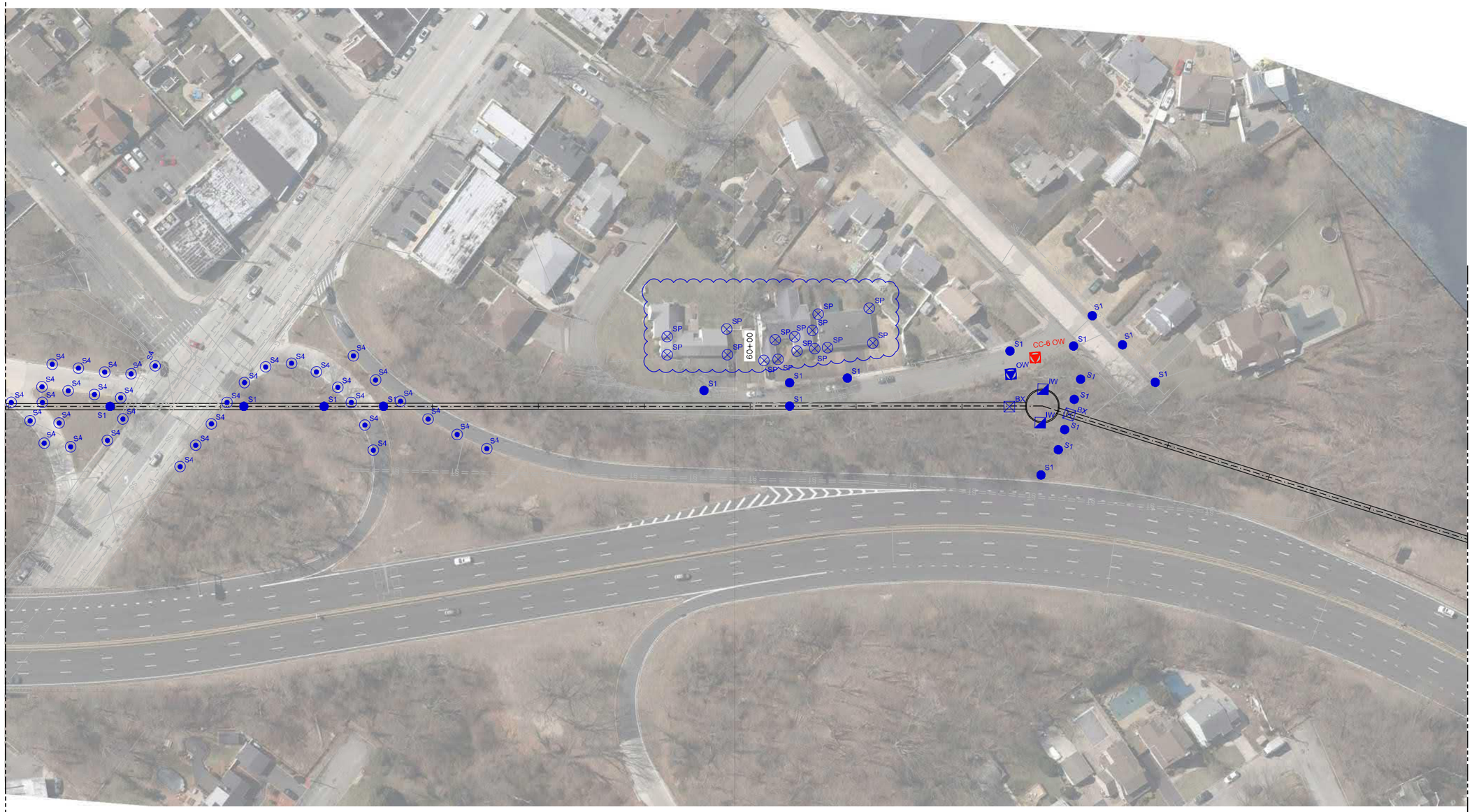
CEDAR CREEK FORCE MAIN

GEOTECHNICAL INSTRUMENTATION PLAN

SHEET 4 OF 7

SCALE: AS SHOWN

CC-I104



CEDAR CREEK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-I101_107
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

GEOTECHNICAL
INSTRUMENTATION PLAN

SHEET 5 OF 7

SCALE: AS SHOWN

CC-I105

CEDAR CREEK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

WSP

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-I101_107
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

GEOTECHNICAL INSTRUMENTATION PLAN

SHEET 6 OF 7

SCALE: AS SHOWN

CC-I106

PLAN NORTH

CEDAR CREEK INSTRUMENTATION PLAN

1" = 50'-0"

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE DWG. GT-I001.
2. GROUND SETTLEMENT ALONG A CROSS SECTION PERPENDICULAR TO THE FORCE MAIN ALIGNMENT SHALL BE MONITORED AT A MINIMUM OF ONE LOCATION AFTER BREAKOUT FROM EACH SHAFT. SEE GENERAL NOTE 5, DWG. GT-I001. THE LOCATIONS OF THE CROSS SECTIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BASED ON THE DIRECTION OF TUNNELING FROM EACH SHAFT.

0 50 100

wsp

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DATE: 04/2020

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FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-I101_107
DESIGNED BY:	K. LARSSON
DRAWN BY:	J. JARRETT
CHECKED BY:	E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

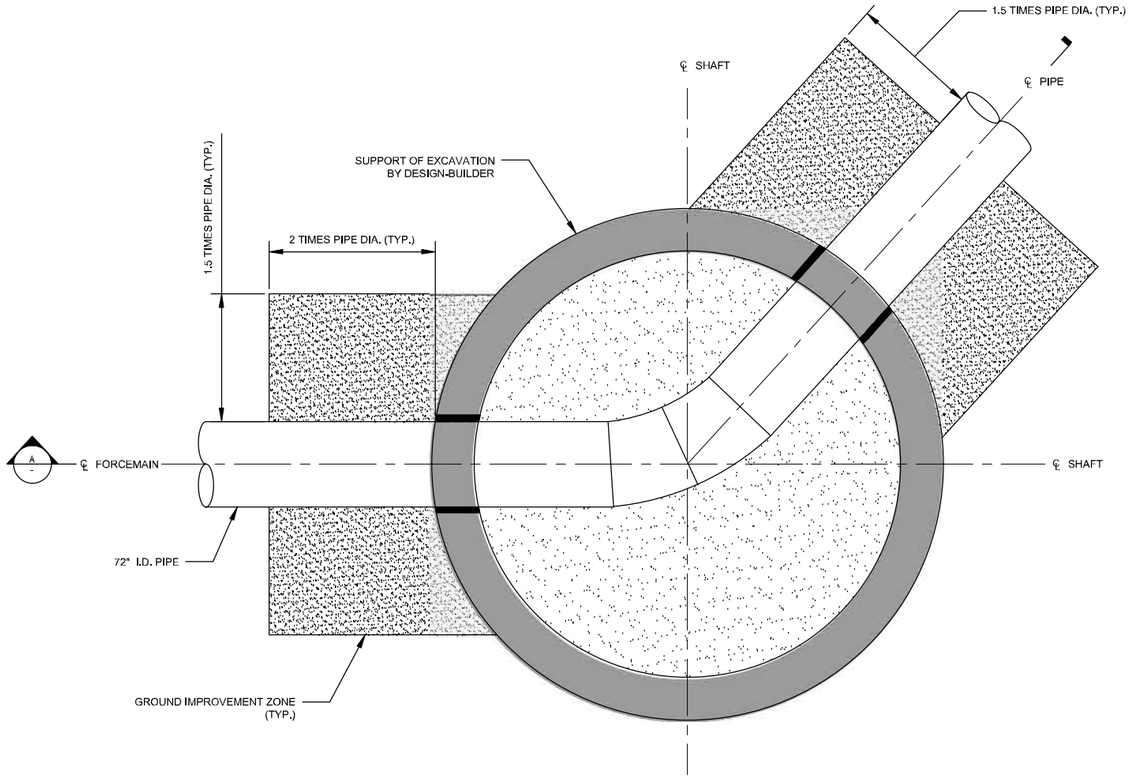
CEDAR CREEK FORCE MAIN

GEOTECHNICAL INSTRUMENTATION PLAN

SHEET 7 OF 7

SCALE: AS SHOWN

CC-I107



GENERAL SHAFT SUPPORT OF EXCAVATION

3/16" = 1'-0"

NOTES / MANDATORY REQUIREMENTS:

1. DESIGN-BUILDER SHALL DESIGN AND INSTALL WATERPROOFING DETAIL AT THE INTERFACE OF THE MTBM OPENING AND SHAFT TO ENSURE A WATERTIGHT CONNECTION. DETAIL SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL.

2. DESIGN-BUILDER RESPONSIBLE FOR CONFIRMING UTILITY LOCATION.

3. SUPPORT OF EXCAVATION SHALL BE CUT 5'-0" BELOW FINAL GRADE.

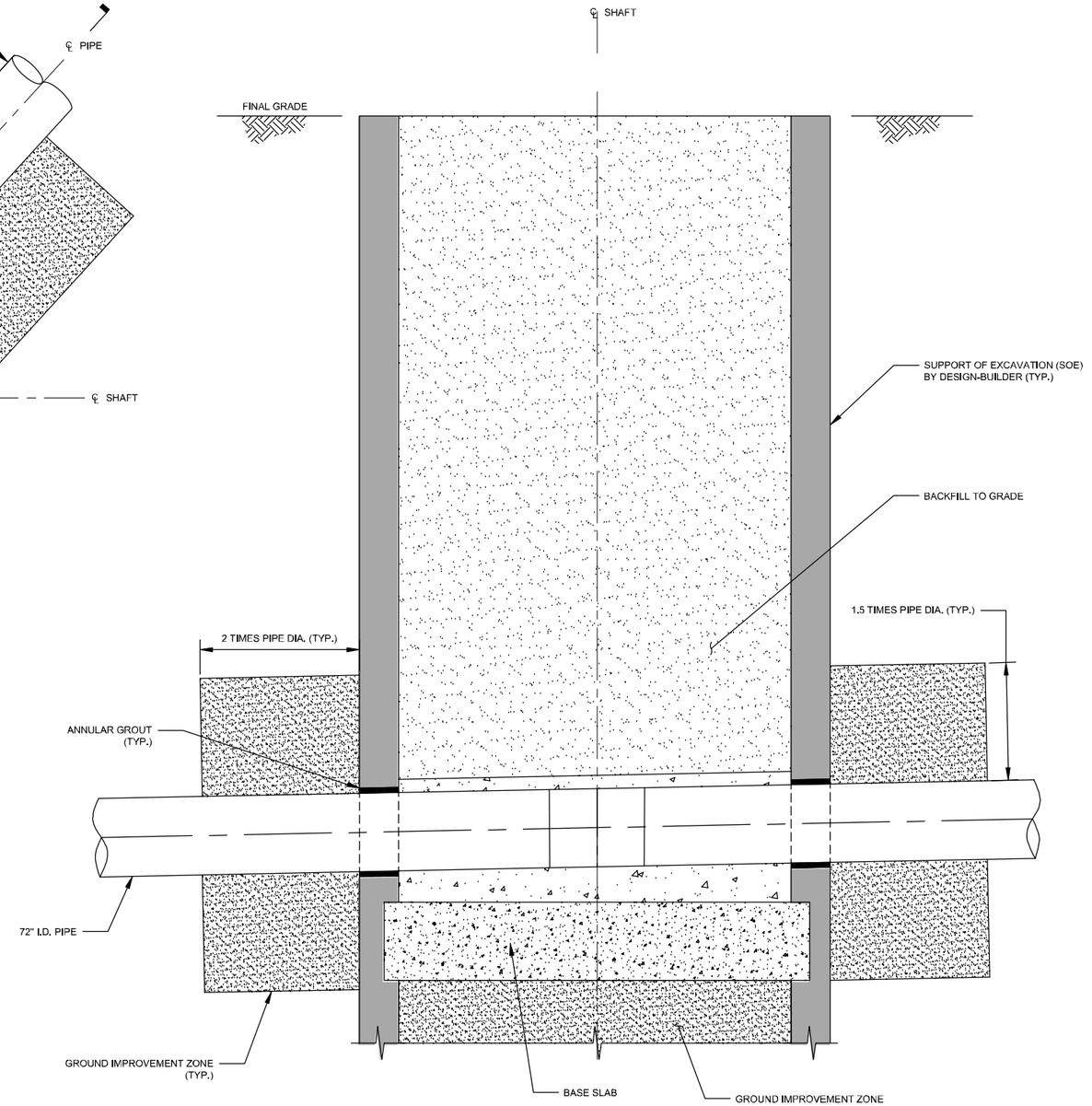
4. PIPEWORK JOINTS AND BENDS SHALL BE CONSIDERED BY THE DESIGN-BUILDER TO DETERMINE IF ANY REINFORCED CONCRETE THRUST BLOCKS ARE REQUIRED.

5. GROUND IMPROVEMENT DIMENSIONS SHOWN ARE MINIMUM REQUIREMENTS.

6. DESIGN-BUILDER SHALL INSTALL CATHODIC PROTECTION OF FORCE MAIN WHERE REQUIRED.

LEGEND:

- SUPPORT OF EXCAVATION
- ANNULAR GROUT
- GROUND IMPROVEMENT
- PERMANENT SHAFT LINING
- BACKFILL
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE



A — SECTION

3/16" = 1'-0"

0 6 12

SCALE IN FEET

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S503
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

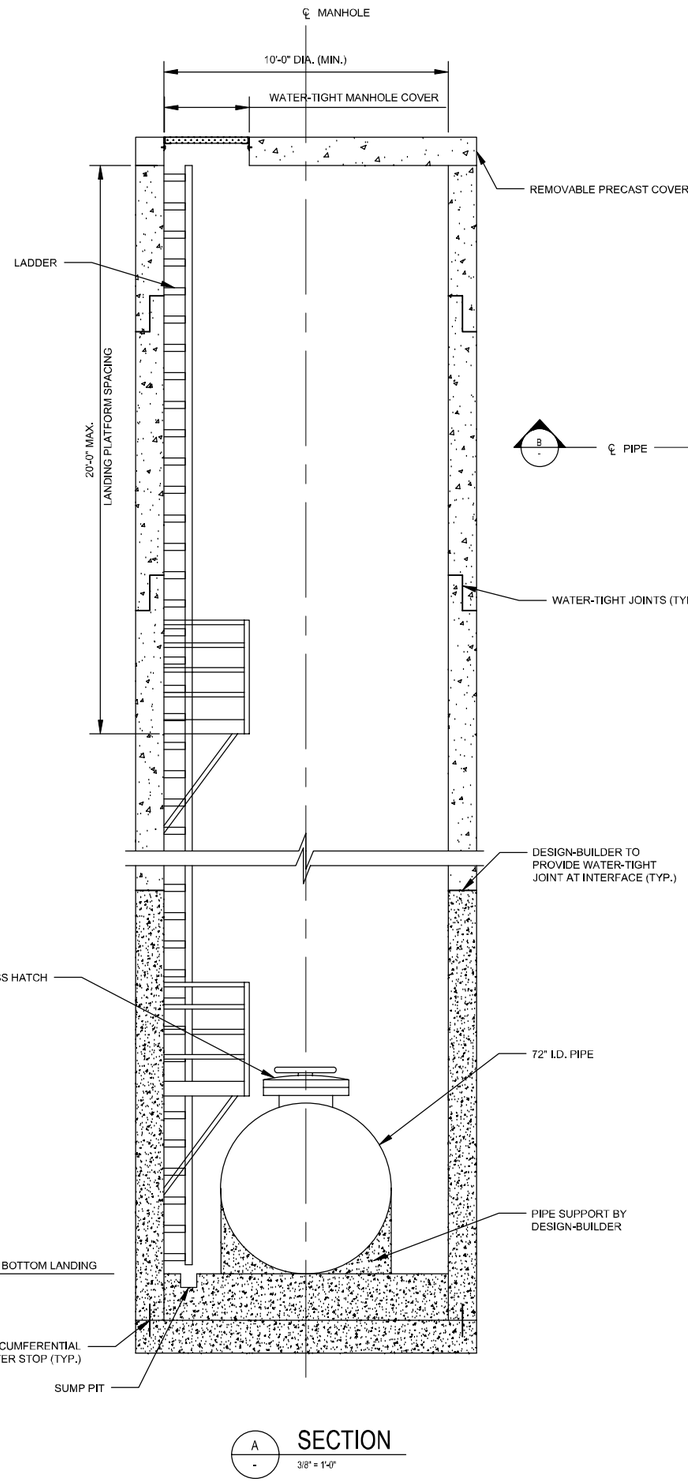
SHEET TITLE

BAY PARK & CEDAR CREEK
FORCE MAIN

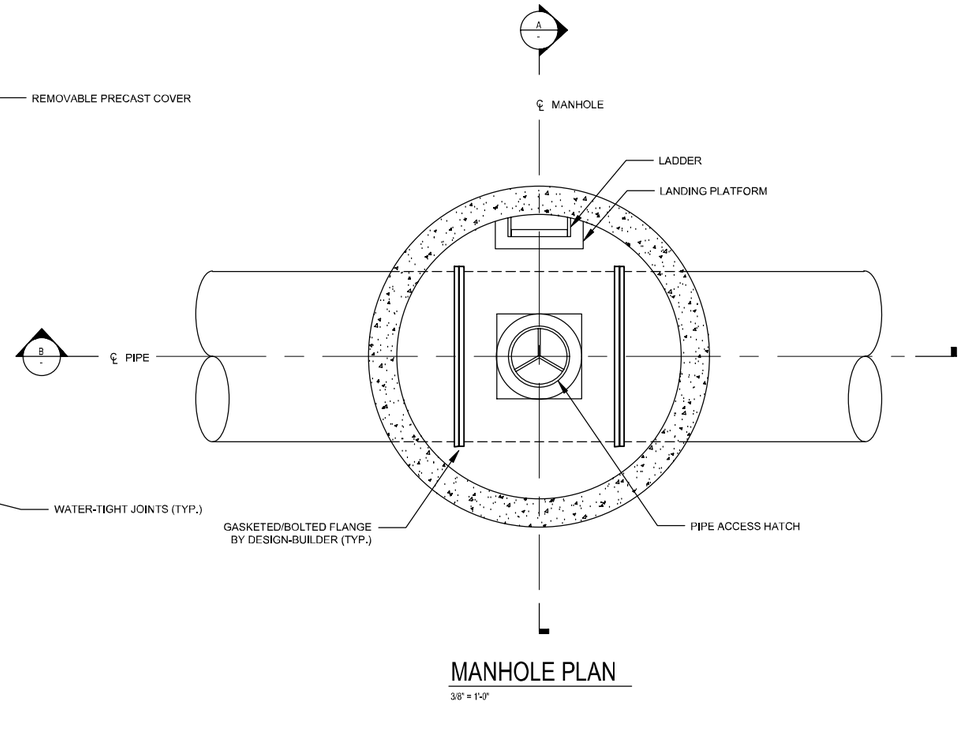
GENERAL SHAFT SUPPORT
OF EXCAVATION

SCALE:
AS SHOWN

BP-S503



A
-
SECTION
3/8" = 1'-0"



MANHOLE PLAN
3/8" = 1'-0"

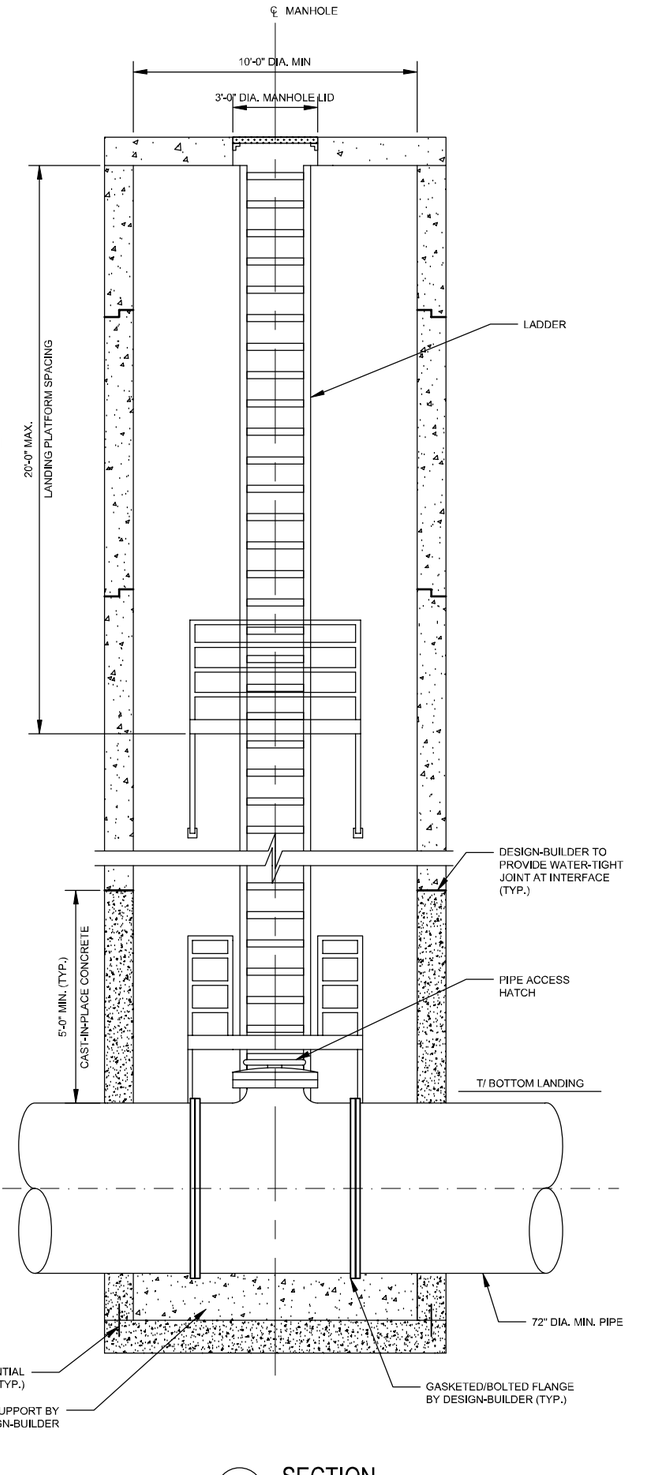
NOTES / MANDATORY REQUIREMENTS:

1. ALL ELEMENTS SHOWN ON THIS DRAWING ARE MANDATORY REQUIREMENTS. DESIGNS SHALL BE FINALIZED BY DESIGN BUILDER.
2. CENTER OF MANHOLE SHALL BE CONSTRUCTED TO WITHIN 3 INCHES OF DESIGNED LOCATION.
3. MANHOLE RINGS SHALL BE CONSTRUCTED TO WITHIN 2% OF VERTICAL.
4. DESIGN-BUILDER SHALL CONSTRUCT LADDER AND LANDINGS OF STAINLESS STEEL 316L OR FIBER REINFORCED POLYMER.
5. LADDERS AND LANDINGS SHALL BE DESIGNED IN ACCORDANCE WITH OSHA REQUIREMENTS IN CONJUNCTION WITH THE PROJECT MANDATORY REQUIREMENTS.
6. A SUMP PIT SHALL BE PROVIDED FOR REMOVING WATER FROM MANHOLE.

LEGEND:

PRECAST CONCRETE

CAST-IN-PLACE CONCRETE



B
-
SECTION
3/8" = 1'-0"

0 2' 4' 6'

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-S505
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

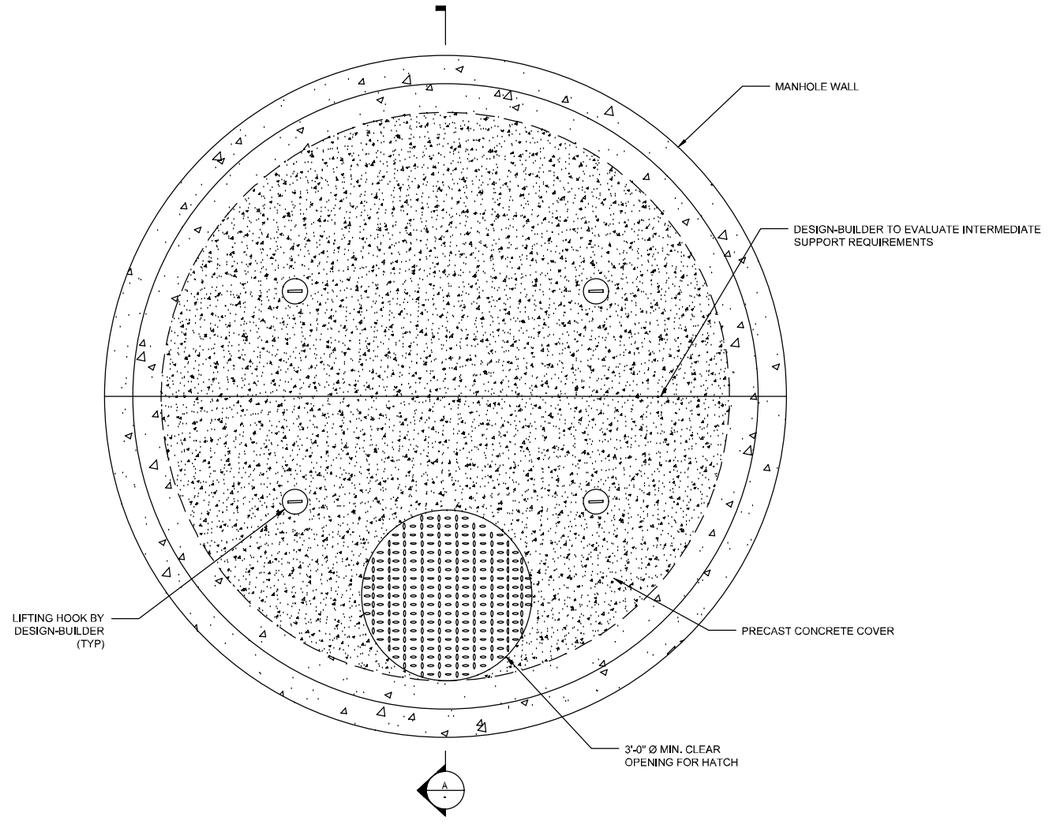
SHEET TITLE

BAY PARK & CEDAR CREEK
FORCE MAIN

ACCESS MANHOLE PLAN
AND SECTION

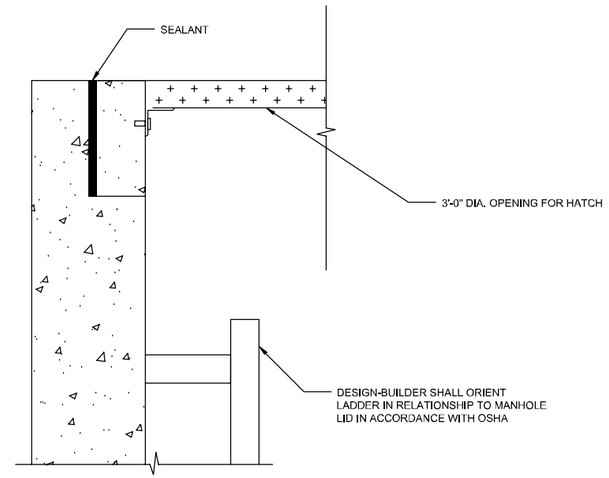
SCALE: AS SHOWN

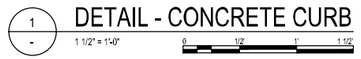
BP-S505



MANHOLE COVER PLAN

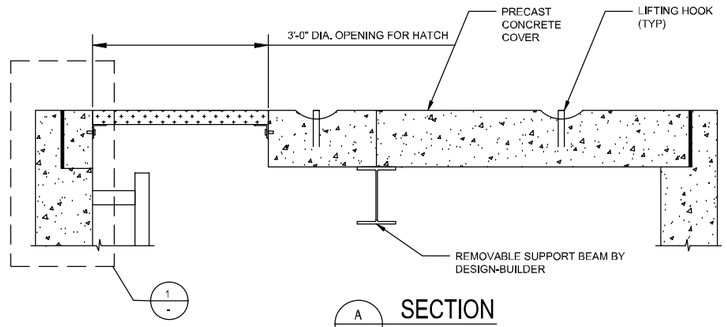
3/4" = 1'-0"





DETAIL - CONCRETE CURB

1 1/2" = 1'-0"



SECTION

A
-
3/4" = 1'-0"

NOTES / MANDATORY REQUIREMENTS:

1. ALL ELEMENTS SHOWN ON THIS DRAWING ARE MANDATORY REQUIREMENTS. DESIGNS SHALL BE FINALISED BY DESIGN BUILDER.
2. PANELS SHALL BE DESIGNED FOR AASHTO HS-20 WHEEL LOADS BUT NOT LESS THAN 600 PSF LIVE LOAD.
3. SEALANT SHALL BE APPLIED ALL AROUND THE PERIMETER OF THE MANHOLE COVER AND ALONG ANY INTERMEDIATE POINTS.
4. DESIGN-BUILDER TO PROVIDE STAINLESS STEEL LIFTING HOOKS.

PRELIMINARY
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FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S506
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

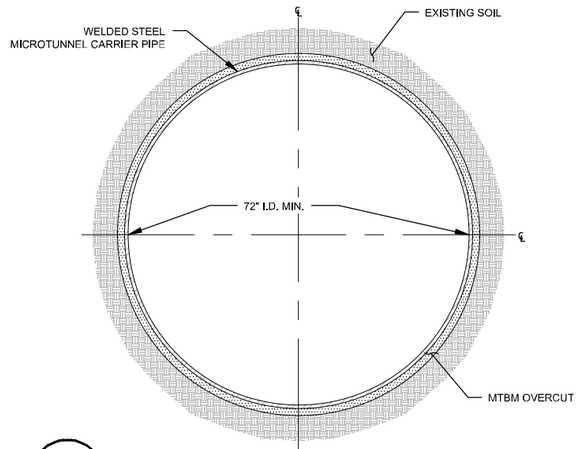
BAY PARK & CEDAR CREEK
FORCE MAIN

SHAFT
ACCESS/MANHOLE
REMOVABLE PRECAST
CONCRETE COVER

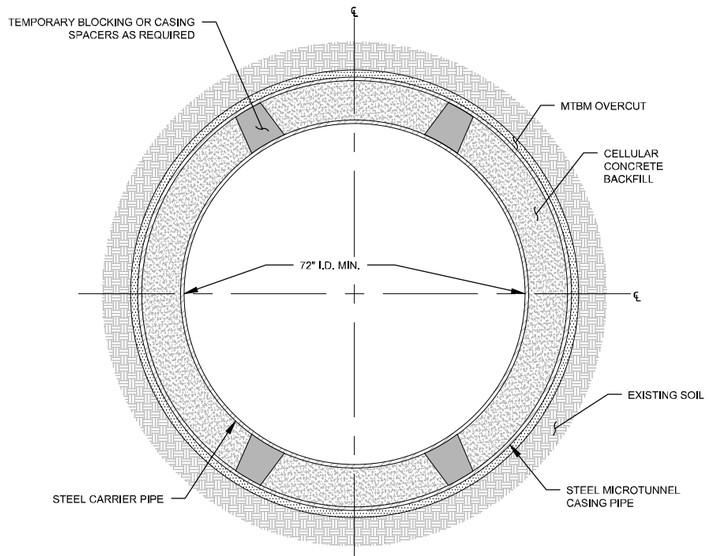
SCALE:
AS SHOWN

BP-S506

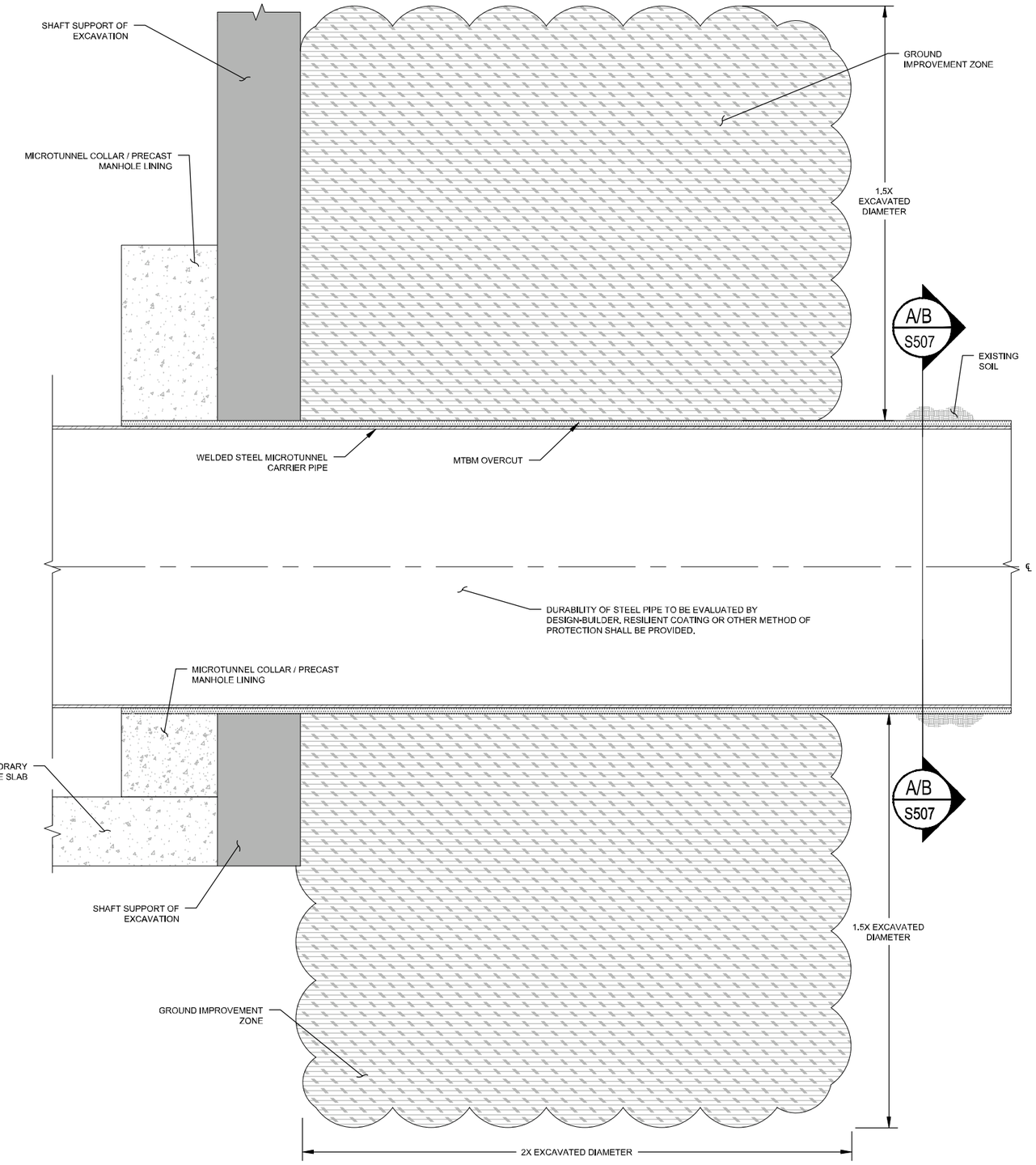
NOTES:
1. TYPICAL ONE-PASS LAUNCH SHAFT MICROTUNNEL INTERFACE DEPICTS THE ONE-PASS MICROTUNNEL OPTION.
2. CARRIER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 02801 - STEEL PIPE FOR MICROTUNNELING.
3. INSTRUMENTATION EQUIPMENT, MATERIALS, FREQUENCY OF MONITORING, AND REPORTING OF RESULTS SHALL BE IN ACCORDANCE WITH SECTION 02495 - GEOTECHNICAL INSTRUMENTATION AND MONITORING.
4. SHAFT EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 02167 - SLURRY WALL CONSTRUCTION OR SECTION 02171 - SECANT PILE WALLS.
5. MICROTUNNELING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 02739 - MICROTUNNELING.



A S507 ONE-PASS MICROTUNNEL SECTION
SCALE: NTS



B S507 TWO-PASS MICROTUNNEL SECTION
SCALE: NTS



TYPICAL ONE-PASS LAUNCH SHAFT MICROTUNNEL INTERFACE
SCALE: NTS

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHWRWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CP-S507
DESIGNED BY: O. EL-QUQA
DRAWN BY: K. WILLIAMS
CHECKED BY: E. LITTON

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

BAY PARK AND CEDAR
CREEK TREATMENT PLANTS

MICROTUNNEL LINING AND
SHAFT/TUNNEL INTERFACE

SCALE:
NOT TO SCALE

BP-S507

NOTES/ MANDATORY REQUIREMENTS:

1. DESIGN-BUILDER SHALL DESIGN AND INSTALL WATERPROOFING DETAIL AT THE INTERFACE OF THE MTBM OPENING AND SHAFT TO ENSURE A WATERTIGHT CONNECTION. DETAIL SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL.

2. DESIGN-BUILDER SHALL DESIGN SLAB DIMENSIONS AND CONNECTION TO SHAFT WALL.

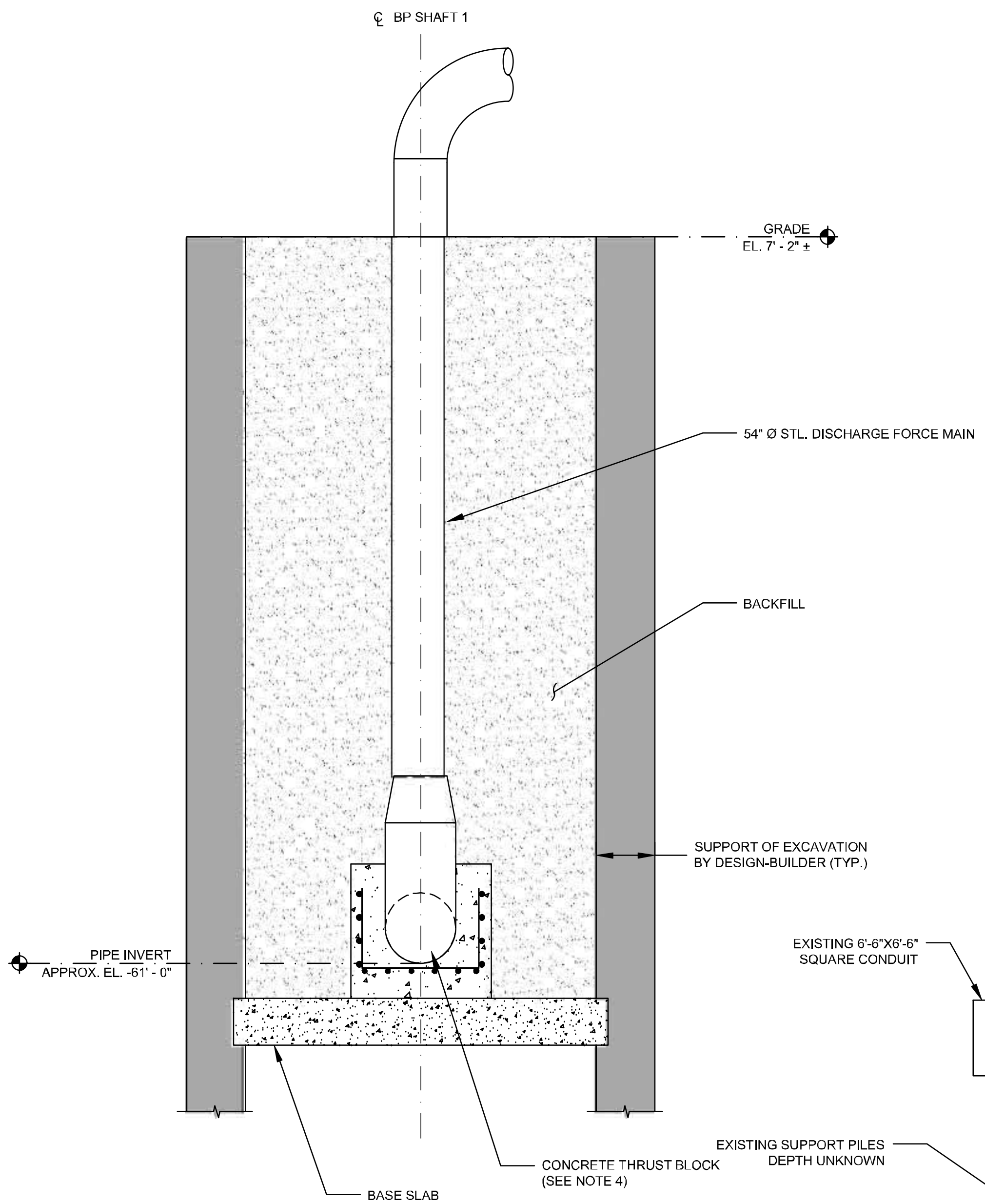
3. SUPPORT OF EXCAVATION SHALL BE CUT 5'-0" BELOW FINAL GRADE.

4. PIPEWORK JOINTS AND BENDS SHALL BE CONSIDERED BY THE DESIGN-BUILDER TO DETERMINE IF ANY REINFORCED CONCRETE THRUST BLOCKS ARE REQUIRED.

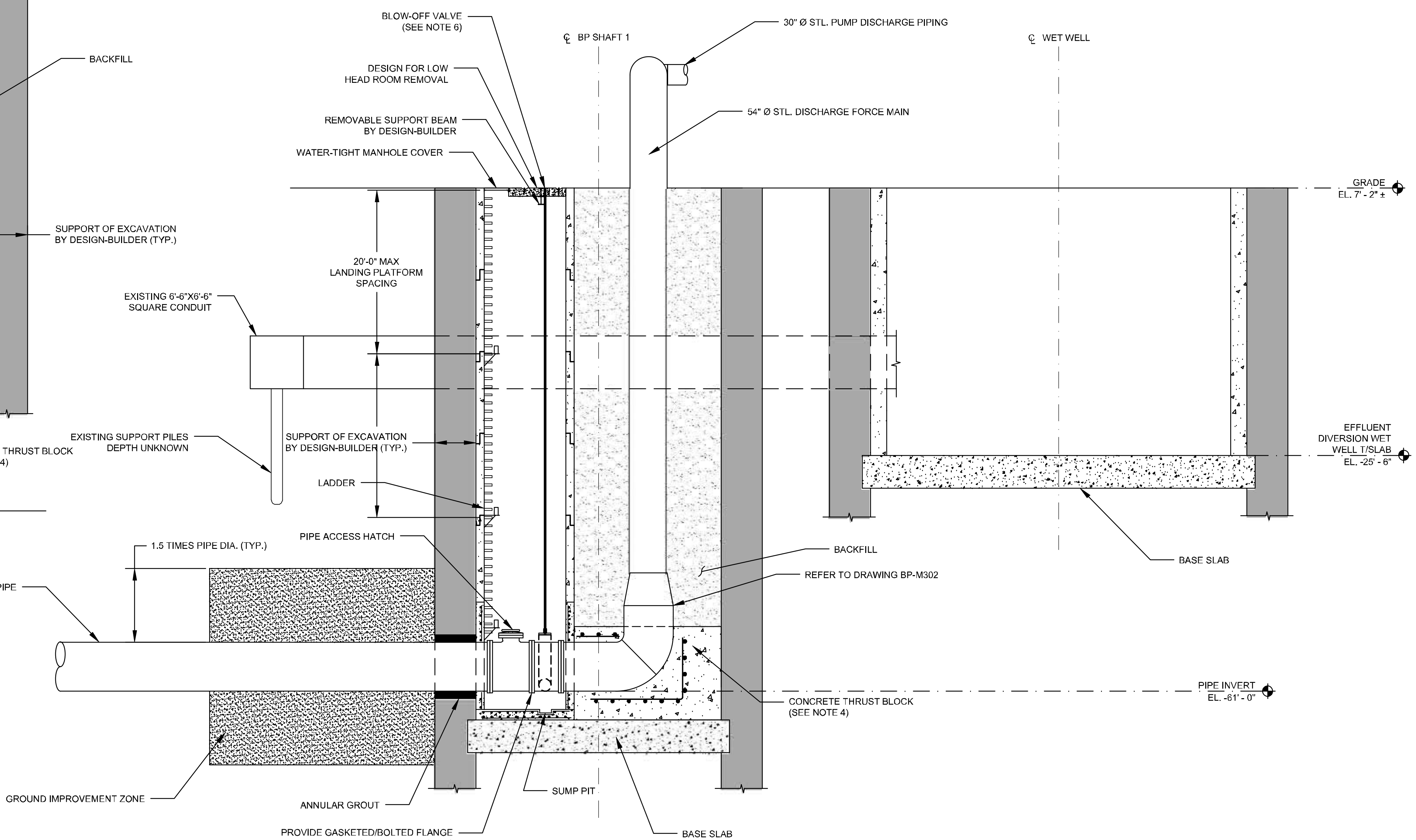
5. FOR EDPS PIPING DETAILS SEE MECHANICAL DRAWINGS.

6. BLOW-OFF VALVE CONTROL IN LOCKABLE COVER BOX EMBEDDED AT GRADE SLAB.

7. DESIGN-BUILDER SHALL DESIGN THE MANHOLE SHAFT TO PREVENT UPLIFT DUE TO BUOYANCY FORCE WHEN THE SHAFT IS INUNDATED.



A SECTION BP-S101 1/8" = 1'-0"



B SECTION BP-S101 1/8" = 1'-0"

LEGEND:

- SUPPORT OF EXCAVATION
- ANNULAR GROUT
- GROUND IMPROVEMENT
- PERMANENT SHAFT LINING
- BACKFILL
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S301
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

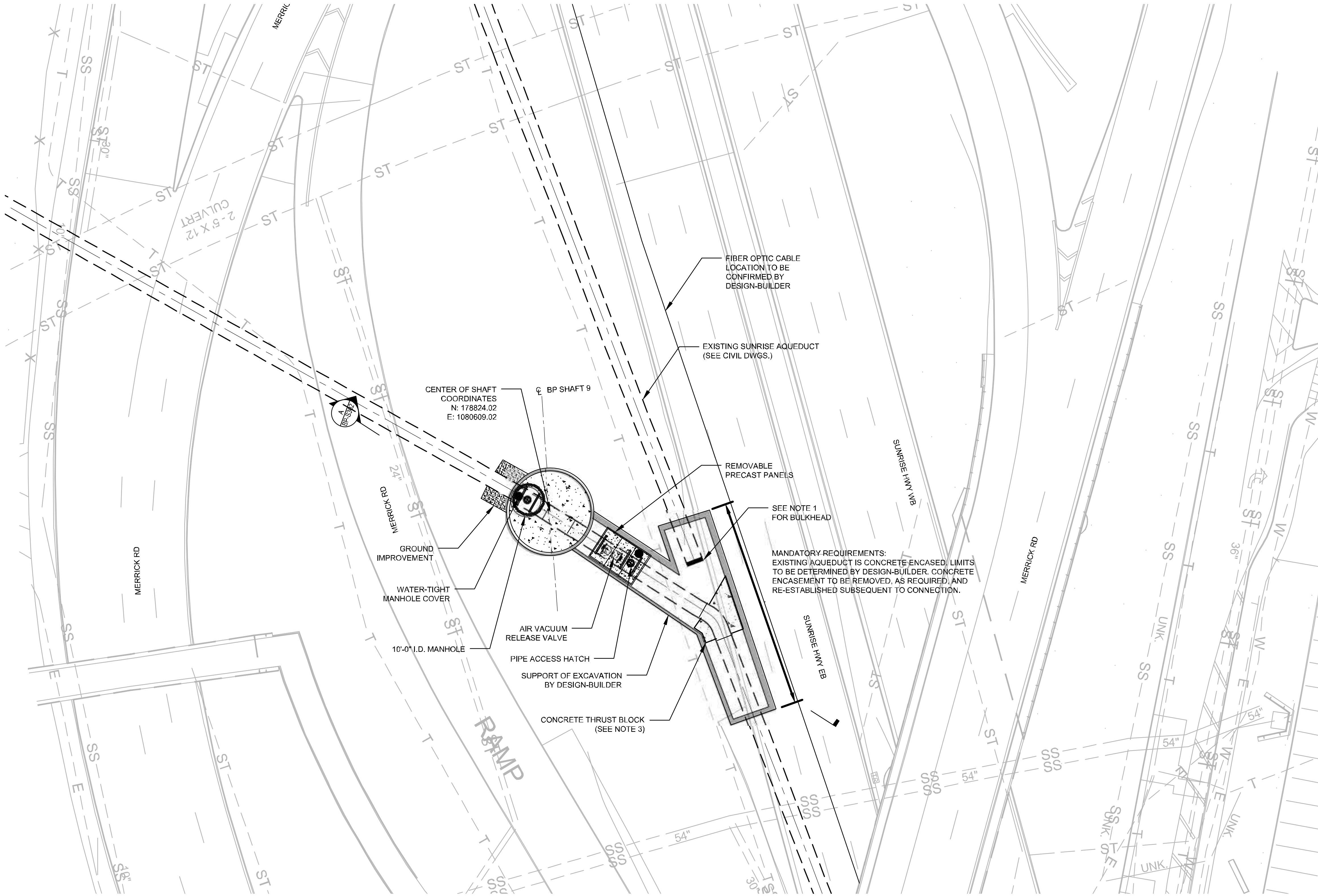
BAY PARK FORCE MAIN

EFFLUENT DIVERSION PUMP STATION

SHAFT 1 SECTIONS

SCALE: AS SHOWN

BP-S301



NOTES / MANDATORY REQUIREMENTS:

1. DESIGN-BUILDER TO FULLY SEAL AND PROVIDE BULKHEAD FOR EXISTING SUNRISE AQUEDUCT AT EACH DISCONNECTION LOCATION.

2. DESIGN-BUILDER SHALL CONSIDER ACCESS AND MAINTENANCE REQUIREMENTS FOR THE FINAL GRADING AROUND THIS SHAFT. DESIGN-BUILDER SHALL ALLOW FOR PERMANENT TRUCK ACCESS TO REMOVE SHAFT COVER/MANHOLE. PANELS SHALL BE DESIGNED FOR AASHTO HS-20 WHEEL LOADS BUT NOT LESS THAN 600 PSF LIVE LOAD.

3. PIPEWORK JOINTS AND BENDS SHALL BE CONSIDERED BY THE DESIGN-BUILDER TO DETERMINE IF ANY REINFORCED CONCRETE THRUST BLOCKS ARE REQUIRED.

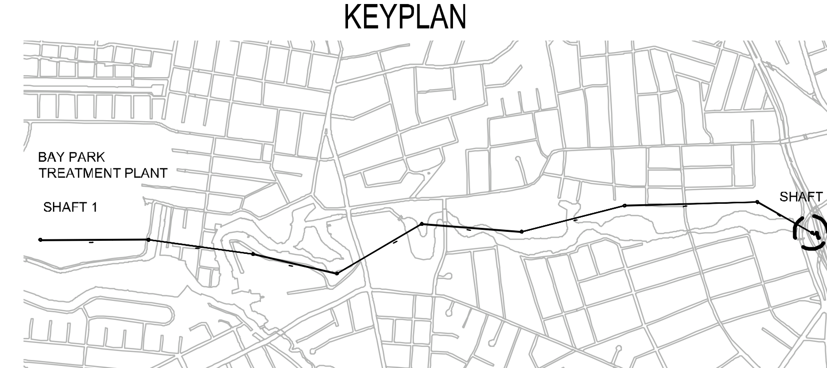
LEGEND:

- SUPPORT OF EXCAVATION
- GROUND IMPROVEMENT
- CAST-IN-PLACE

BAY PARK CONNECTION TO SUNRISE HIGHWAY

1" = 10'-0"

KEYPLAN



PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: BP-S102
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

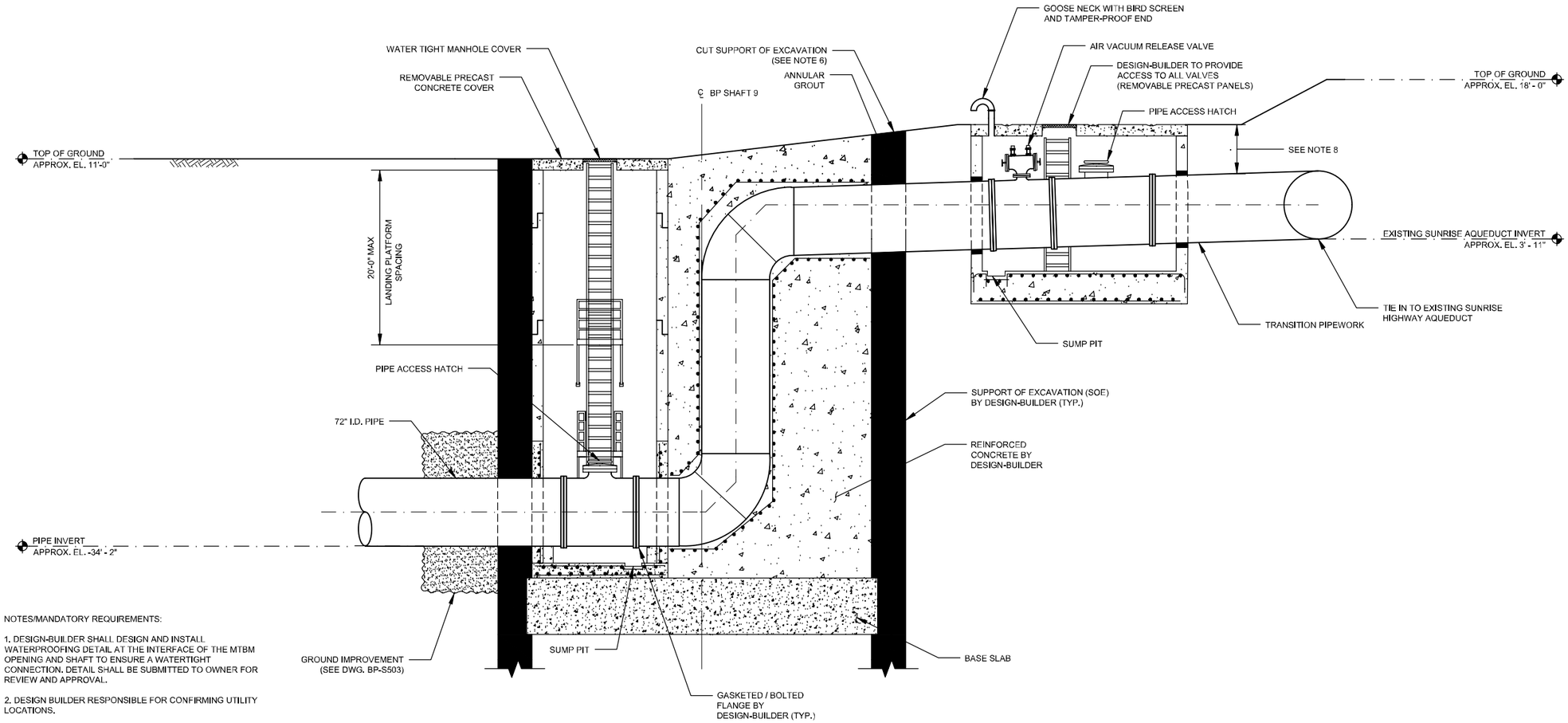
SHEET TITLE
BAY PARK FORCE MAIN

BAY PARK SHAFT 9 CONNECTION T0 SUNRISE 72" MAIN

PLAN

SCALE: AS SHOWN

BP-S102



NOTES/MANDATORY REQUIREMENTS:

1. DESIGN-BUILDER SHALL DESIGN AND INSTALL WATERPROOFING DETAIL AT THE INTERFACE OF THE MTBM OPENING AND SHAFT TO ENSURE A WATERTIGHT CONNECTION. DETAIL SHALL BE SUBMITTED TO OWNER FOR REVIEW AND APPROVAL.

2. DESIGN BUILDER RESPONSIBLE FOR CONFIRMING UTILITY LOCATIONS.

3. REFER TO GBR FOR GROUND AND GROUNDWATER CONDITIONS TO BE STABILIZED BY GROUND IMPROVEMENT.

4. SUPPORT SHAFT AND BREAK-IN/ BREAK-OUT INTERFACES LOCALLY TO ACCOMMODATE THE PENETRATIONS.

5. DESIGN BUILDER SHALL DESIGN SUPPORT OF EXCAVATION, MANHOLE AND BASE SLAB.

6. SUPPORT OF EXCAVATION SHALL BE CUT 5'-0" BELOW FINAL GRADE.

7. PIPEWORK JOINTS AND BENDS SHALL BE CONSIDERED BY THE DESIGN-BUILDER TO DETERMINE IF ANY REINFORCED CONCRETE THRUST BLOCKS ARE REQUIRED.

8. CROWN OF PIPE SHALL BE BELOW FROST LINE PER BUILDING CODE.

9. THE TWO ACCESS MANHOLES AND COMPONENT ELEMENTS SHOWN ON THIS DRAWING ARE MANDATORY REQUIREMENTS. DESIGNS SHALL BE FINALIZED BY DESIGN-BUILDER.

10. TRANSITION PIPEWORK BETWEEN SUNRISE HIGHWAY PIPE AND MICROTUNNEL PIPE SHALL HAVE AN I.D. NO LESS THAN THE I.D. OF SUNRISE HIGHWAY PIPE. CHANGE IN DIAMETER SHALL BE GRADUAL.

A / BP-S102 BAY PARK PERMANENT SHAFT 9 SECTION

3/16" = 1'-0"

LEGEND:

- SUPPORT OF EXCAVATION
- ANNULAR GROUT
- GROUND IMPROVEMENT
- PERMANENT SHAFT LINING
- BACKFILL
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE

0 6 12
SCALE IN FEET

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	BP-S302
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

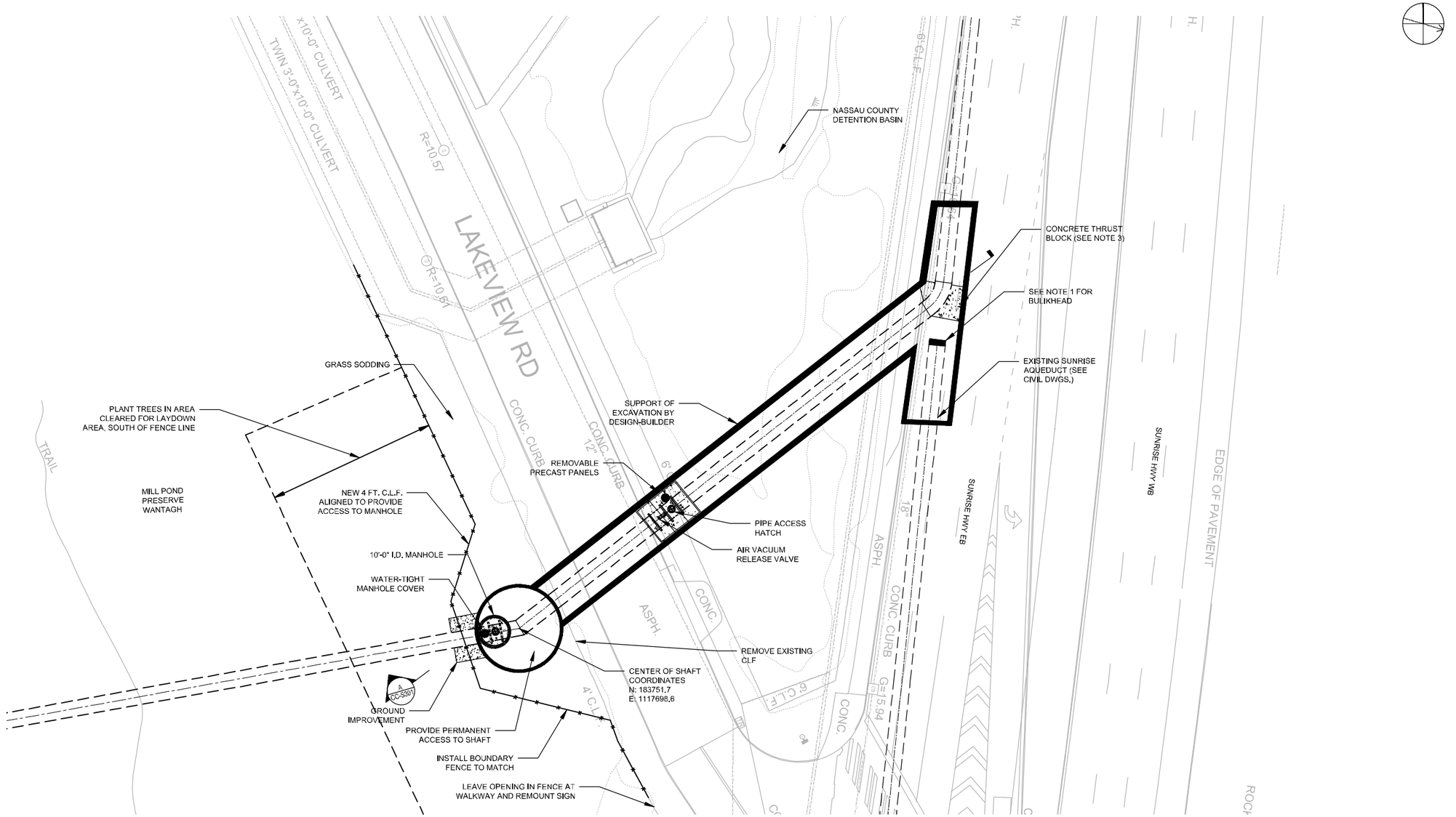
BAY PARK FORCE MAIN

BAY PARK SHAFT 9
CONNECTION TO
SUNRISE 72" MAIN

SECTION

SCALE:
AS SHOWN

BP-S302



CEDAR CREEK CONNECTION TO SUNRISE HIGHWAY

1" = 20'-0"

NOTES / MANDATORY REQUIREMENTS:

1. DESIGN-BUILDER TO FULLY SEAL AND PROVIDE BULKHEAD FOR EXISTING SUNRISE AQUEDUCT AT EACH DISCONNECTION LOCATION.

2. DESIGN-BUILDER SHALL CONSIDER ACCESS AND MAINTENANCE REQUIREMENTS FOR THE FINAL GRADING OF THIS SHAFT. DESIGN-BUILDER SHALL ALLOW FOR PERMANENT TRUCK ACCESS TO REMOVE SHAFT COVER/MANHOLE. PANELS SHALL BE DESIGNED FOR AASHTO HS-20 WHEEL LOADS BUT NOT LESS THAN 600 PSF LIVE LOAD.

3. PIPEWORK JOINTS AND BENDS SHALL BE CONSIDERED BY THE DESIGN-BUILDER TO DETERMINE IF ANY REINFORCED CONCRETE THRUST BLOCKS ARE REQUIRED.

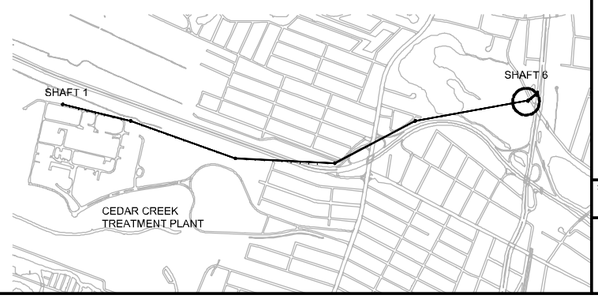
LEGEND:

SUPPORT OF EXCAVATION

GROUND IMPROVEMENT

PRECAST CONCRETE

KEYPLAN



PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-S102
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

CEDAR CREEK FORCE MAIN

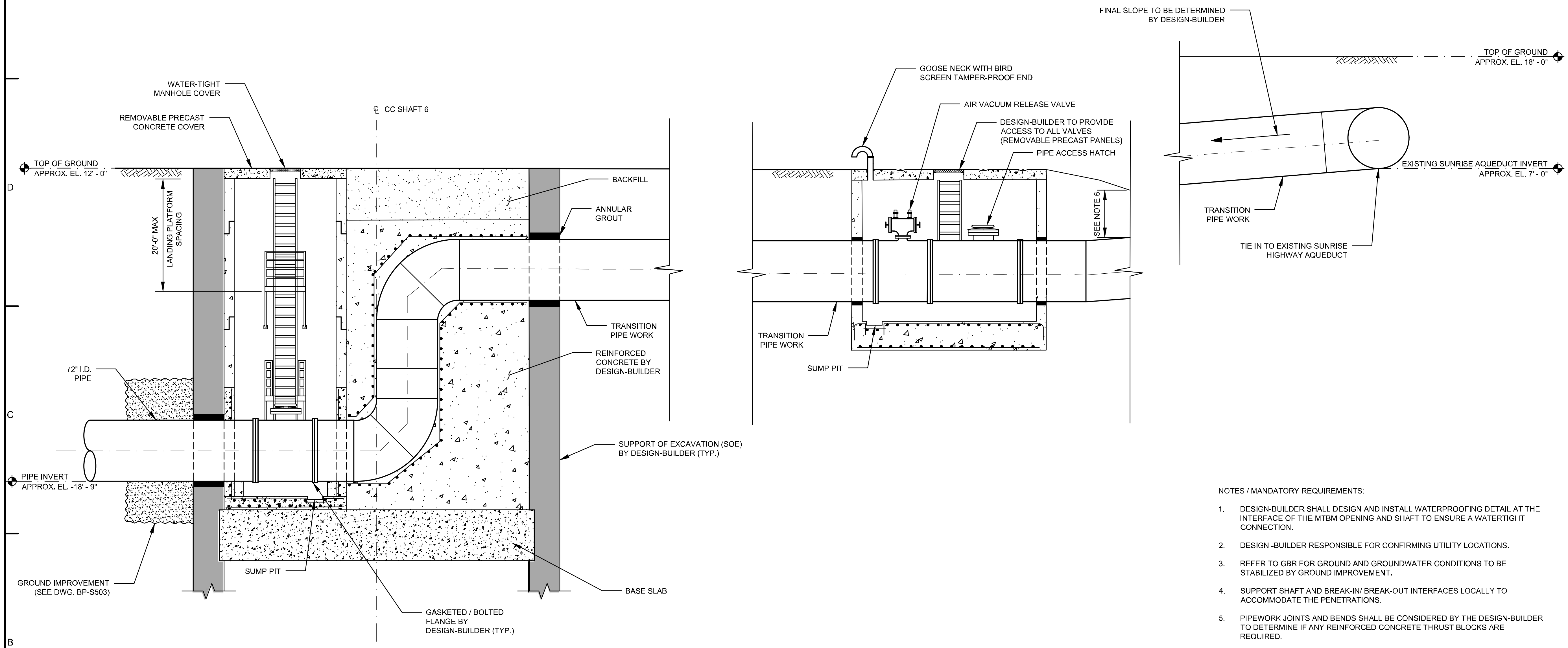
CEDAR CREEK SHAFT 6 CONNECTION TO SUNRISE 72" MAIN

PLAN

SCALE: AS SHOWN

CC-S102

PAGE 144



A CC-S102 **CEDAR CREEK PERMANENT SHAFT 6 SECTION**
3/16" = 1'-0"

NOTES / MANDATORY REQUIREMENTS:

1. DESIGN-BUILDER SHALL DESIGN AND INSTALL WATERPROOFING DETAIL AT THE INTERFACE OF THE MTBM OPENING AND SHAFT TO ENSURE A WATERTIGHT CONNECTION.
2. DESIGN -BUILDER RESPONSIBLE FOR CONFIRMING UTILITY LOCATIONS.
3. REFER TO GBR FOR GROUND AND GROUNDWATER CONDITIONS TO BE STABILIZED BY GROUND IMPROVEMENT.
4. SUPPORT SHAFT AND BREAK-IN/ BREAK-OUT INTERFACES LOCALLY TO ACCOMMODATE THE PENETRATIONS.
5. PIPEWORK JOINTS AND BENDS SHALL BE CONSIDERED BY THE DESIGN-BUILDER TO DETERMINE IF ANY REINFORCED CONCRETE THRUST BLOCKS ARE REQUIRED.
6. CROWN OF PIPE SHALL BE BELOW FROST LINE PER BUILDING CODE.
7. THE TWO ACCESS MANHOLES AND COMPONENT ELEMENTS SHOWN ON THIS DRAWING ARE MANDATORY REQUIREMENTS. DESIGNS SHALL BE FINALIZED BY DESIGN BUILDER.
8. TRANSITION PIPEWORK BETWEEN SUNRISE HIGHWAY PIPE AND MICROTUNNEL PIPE SHALL HAVE AN I.D. NO LESS THAN THE I.D. OF SUNRISE HIGHWAY PIPE. CHANGE IN DIAMETER SHALL BE GRADUAL.

LEGEND:

- SUPPORT OF EXCAVATION
- ANNULAR GROUT
- GROUND IMPROVEMENT
- PERMANENT SHAFT LINING
- BACKFILL
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE

0 6 12
SCALE IN FEET

wsp

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-S301
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

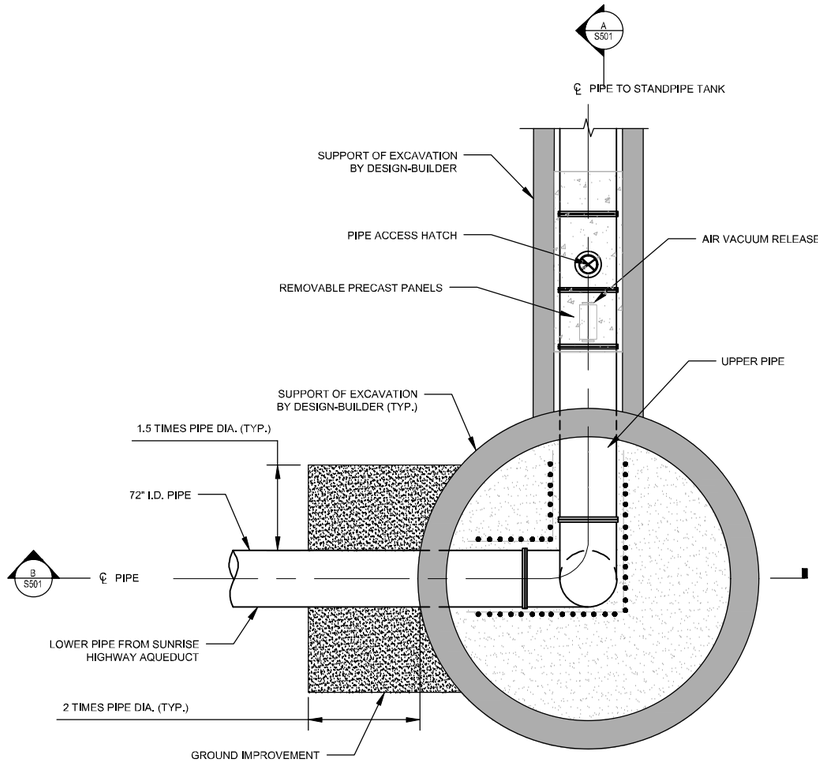
SHEET TITLE
CEDAR CREEK FORCE MAIN

CEDAR CREEK SHAFT 6 CONNECTION TO SUNRISE 72" MAIN

SECTION

SCALE: AS SHOWN

CC-S301



UPPER SHAFT PLAN

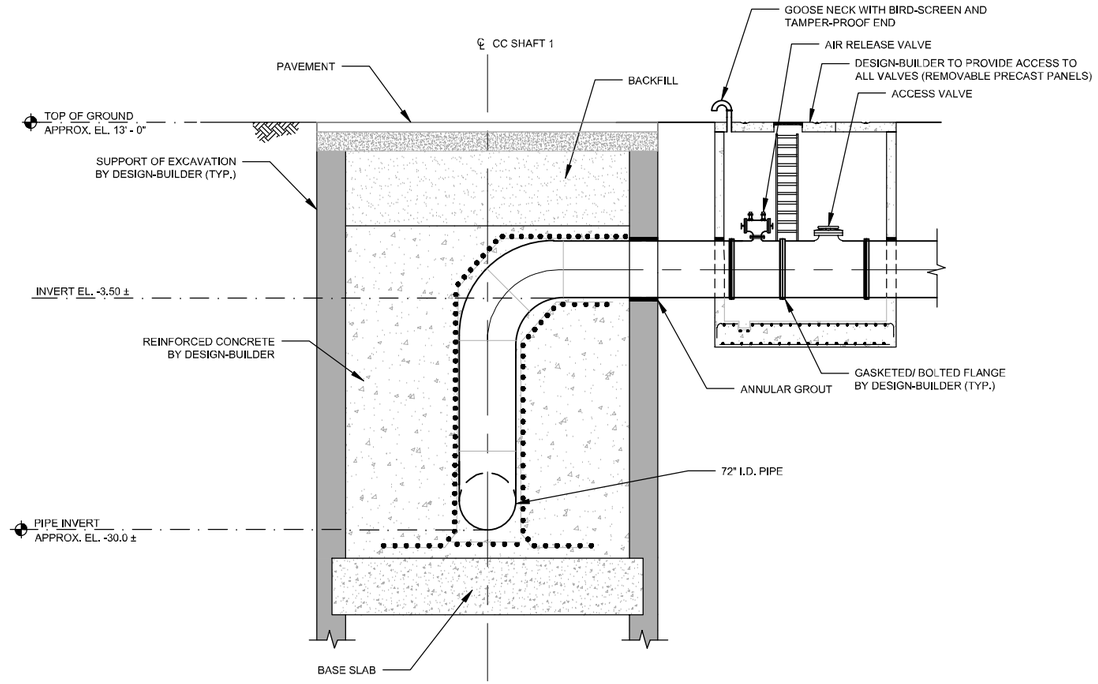
1/8" = 1'-0"

LEGEND:

- SUPPORT OF EXCAVATION
- ANNULAR GROUT
- GROUND IMPROVEMENT
- PERMANENT SHAFT LINING
- BACKFILL
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE

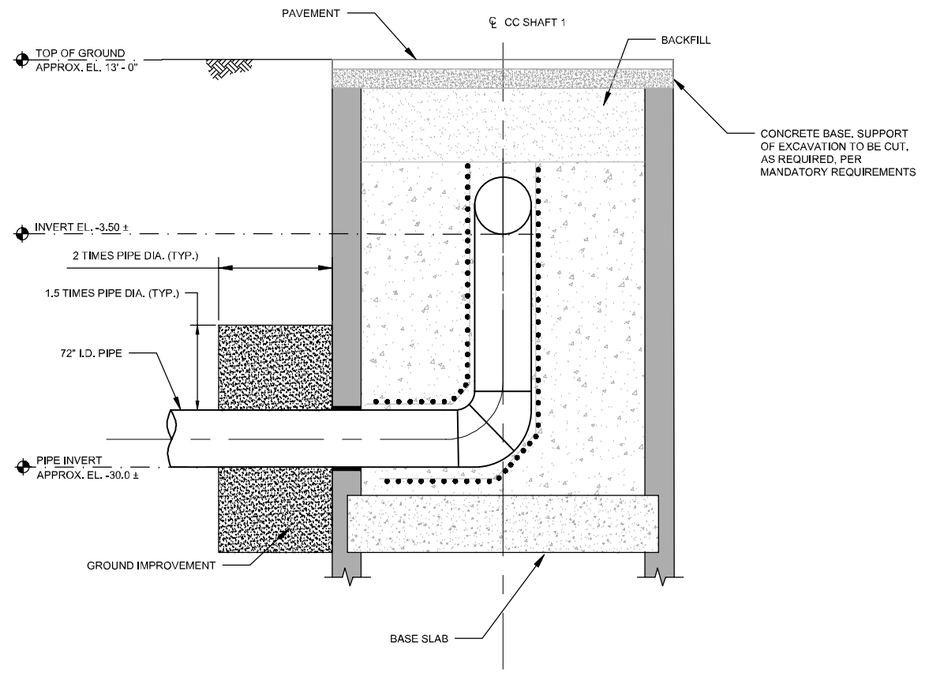
NOTE / MANDATORY REQUIREMENTS:

1. PIPEWORK JOINTS AND BENDS SHALL BE CONSIDERED BY THE DESIGN-BUILDER TO DETERMINE IF ANY REINFORCED CONCRETE THRUST BLOCKS ARE REQUIRED.
2. ACCESS MANHOLE AND COMPONENT ELEMENTS ARE MANDATORY REQUIREMENTS. DESIGNS SHALL BE FINALISED BY DESIGN BUILDER.



A - SECTION

1/8" = 1'-0"



B - SECTION

1/8" = 1'-0"

0 4' 8' 16'

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	CC-S501
DESIGNED BY:	X. ZONG
DRAWN BY:	R. CAESAR
CHECKED BY:	R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

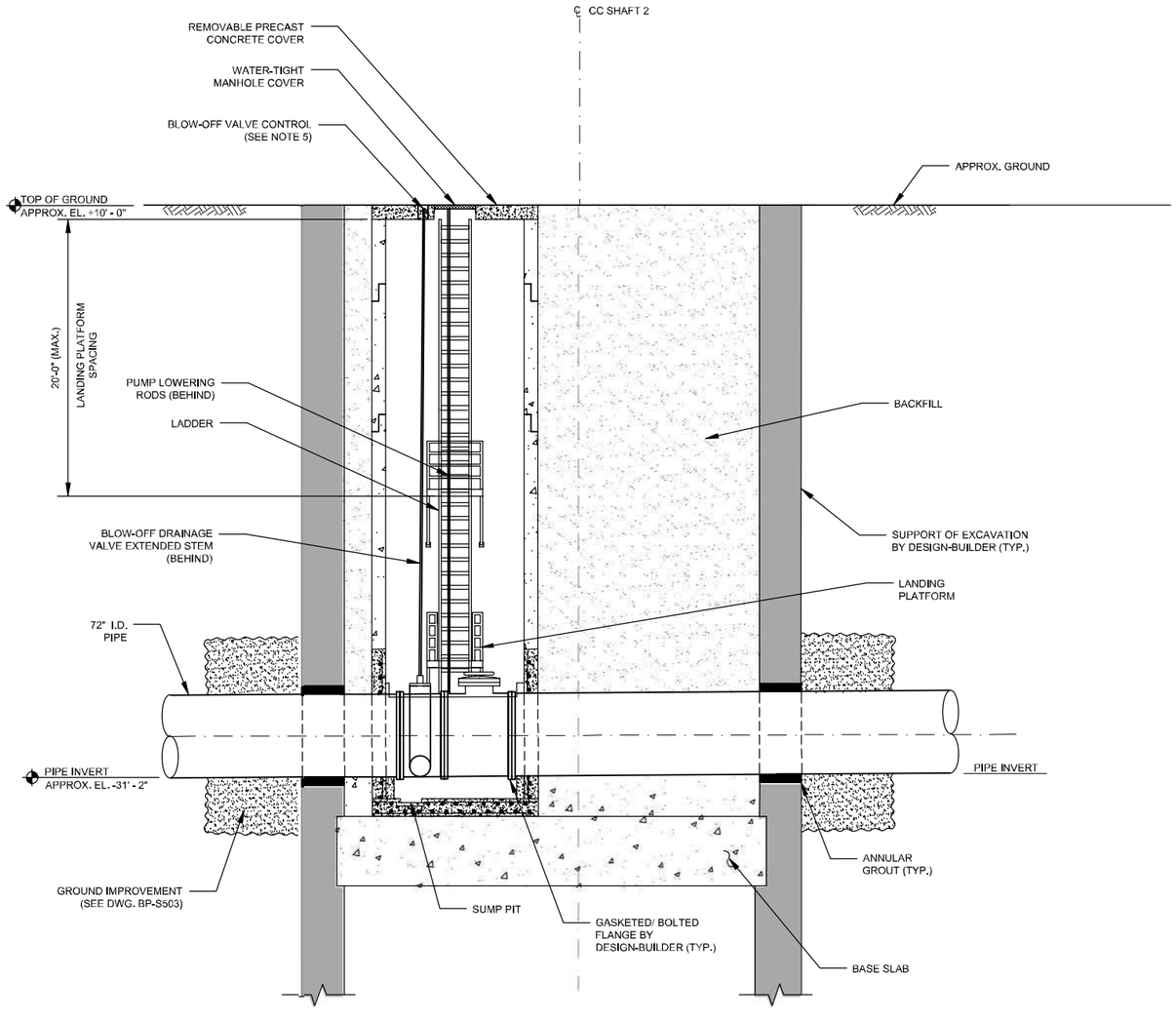
SHEET TITLE

CEDAR CREEK FORCE MAIN

CEDAR CREEK
SHAFT 1

SCALE:
AS SHOWN

CC-S501



A
CC-S502

CEDAR CREEK PERMANENT SHAFT 2 SECTION

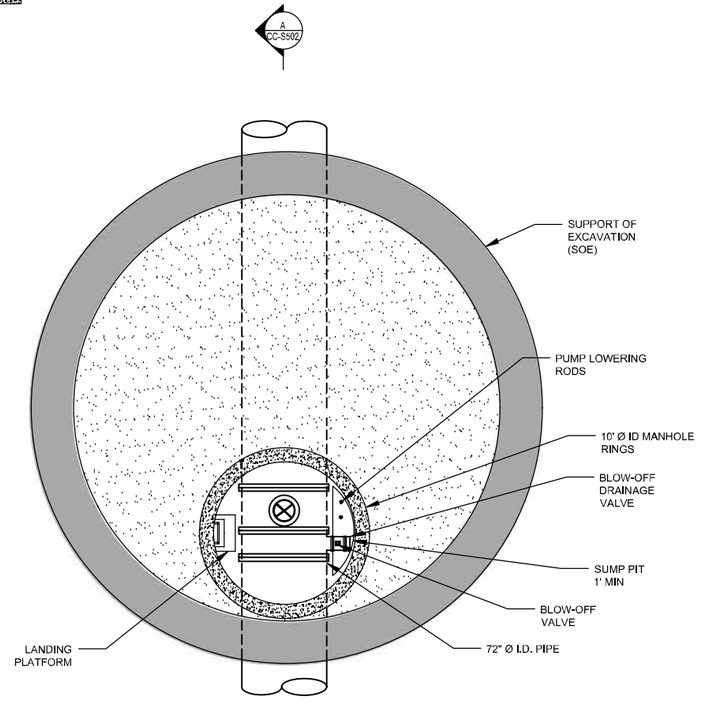
3/16" = 1'-0"

LEGEND:

- SUPPORT OF EXCAVATION
- ANNULAR GROUT
- GROUND IMPROVEMENT
- PERMANENT SHAFT LINING
- BACKFILL
- PRECAST CONCRETE
- CAST-IN-PLACE CONCRETE

NOTES / MANDATORY REQUIREMENTS:

1. DESIGN-BUILDER SHALL DESIGN AND INSTALL WATERPROOFING DETAIL AT THE INTERFACE OF THE MTBM OPENING AND SHAFT TO ENSURE A WATERTIGHT CONNECTION. DETAIL SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL.
2. DESIGN-BUILDER RESPONSIBLE FOR CONFIRMING UTILITY LOCATIONS.
3. REFER TO GBR FOR GROUND AND GROUNDWATER CONDITIONS TO BE STABILIZED BY GROUND IMPROVEMENT.
4. SUPPORT SHAFT AND BREAK-IN/ BREAK-OUT INTERFACES LOCALLY TO ACCOMMODATE THE PENETRATIONS.
5. BLOW-OFF VALVE CONTROL IN LOCKABLE COVER BOX EMBEDDED AT GRADE SLAB.



CEDAR CREEK PERMANENT SHAFT 2 PLAN

3/16" = 1'-0"

0 6 12
SCALE IN FEET

wsp

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: CC-S502
DESIGNED BY: X. ZONG
DRAWN BY: R. CAESAR
CHECKED BY: R. JAIN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

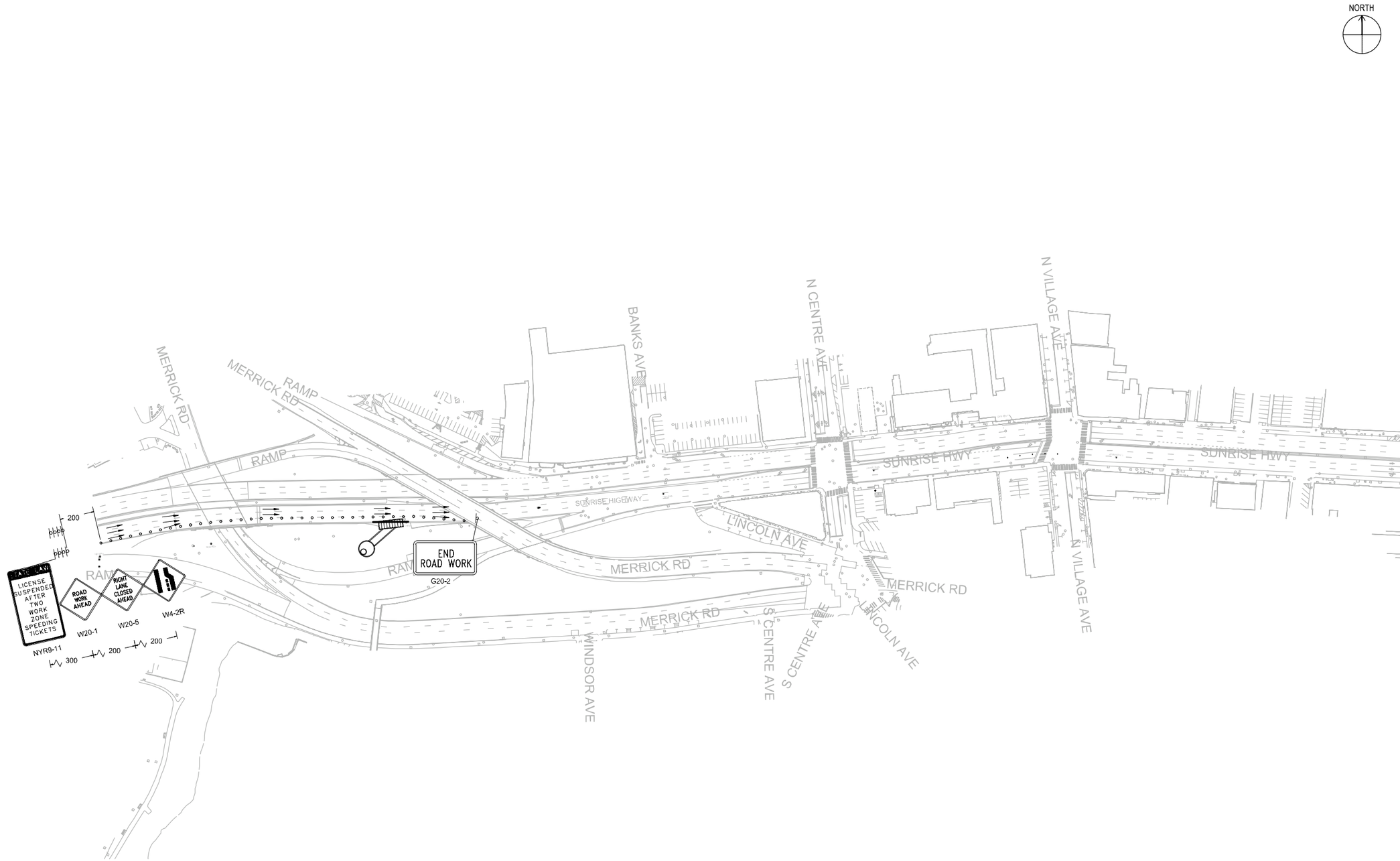
SHEET TITLE

CEDAR CREEK FORCE MAIN

CEDAR CREEK
SHAFT 2

SCALE: NTS

CC-S502



NOTES:

1. ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK.
2. ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3. SIGNS SHALL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4. EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT
6. SEE NYSDOT STANDARD DRAWING 619-40 FOR LONGITUDINAL BUFFER SPACE BETWEEN LANE CLOSURES AND WORK ZONE. PROVIDE 2L SPACING BETWEEN LANE REDUCTIONS.

0 100 200

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-0101_0123
DESIGNED BY:	M. BROWN
DRAWN BY:	B. VAN BEEK
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

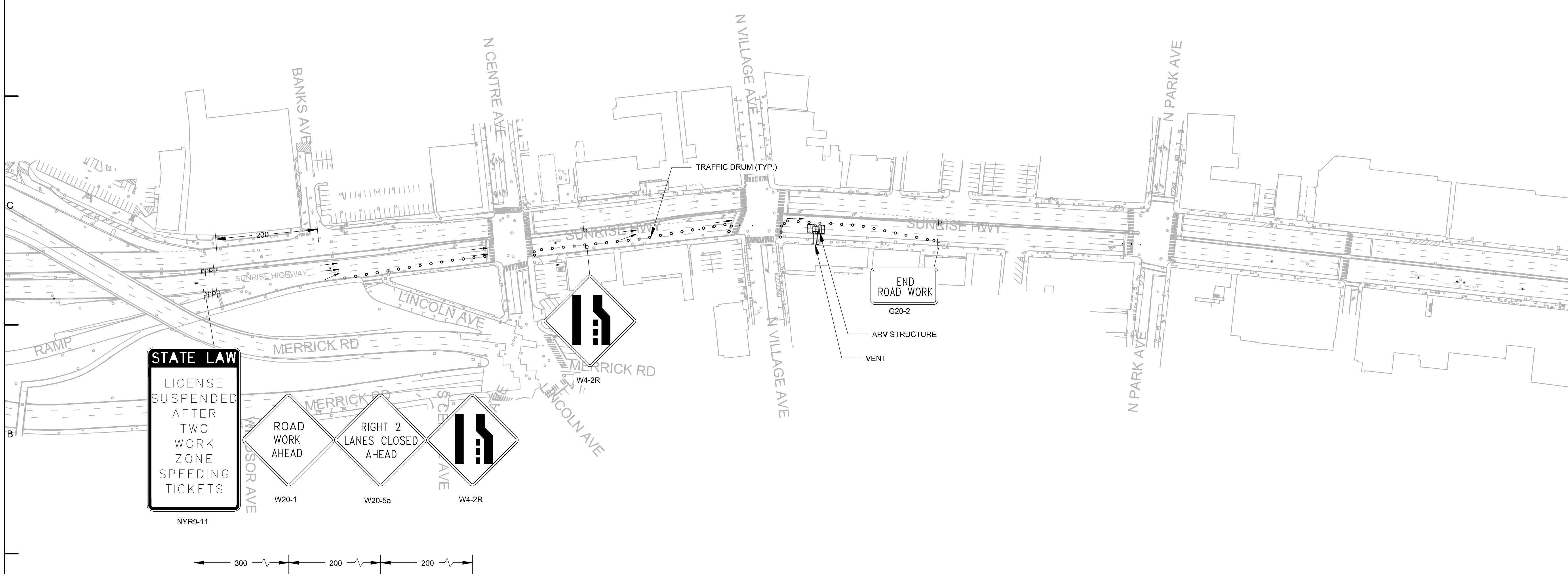
SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 661+61

SCALE:
AS SHOWN

SH-C101

PAGE 148



PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-0101_0123
DESIGNED BY: M. BROWN
DRAWN BY: B. VAN BEEK
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

SUNRISE HIGHWAY

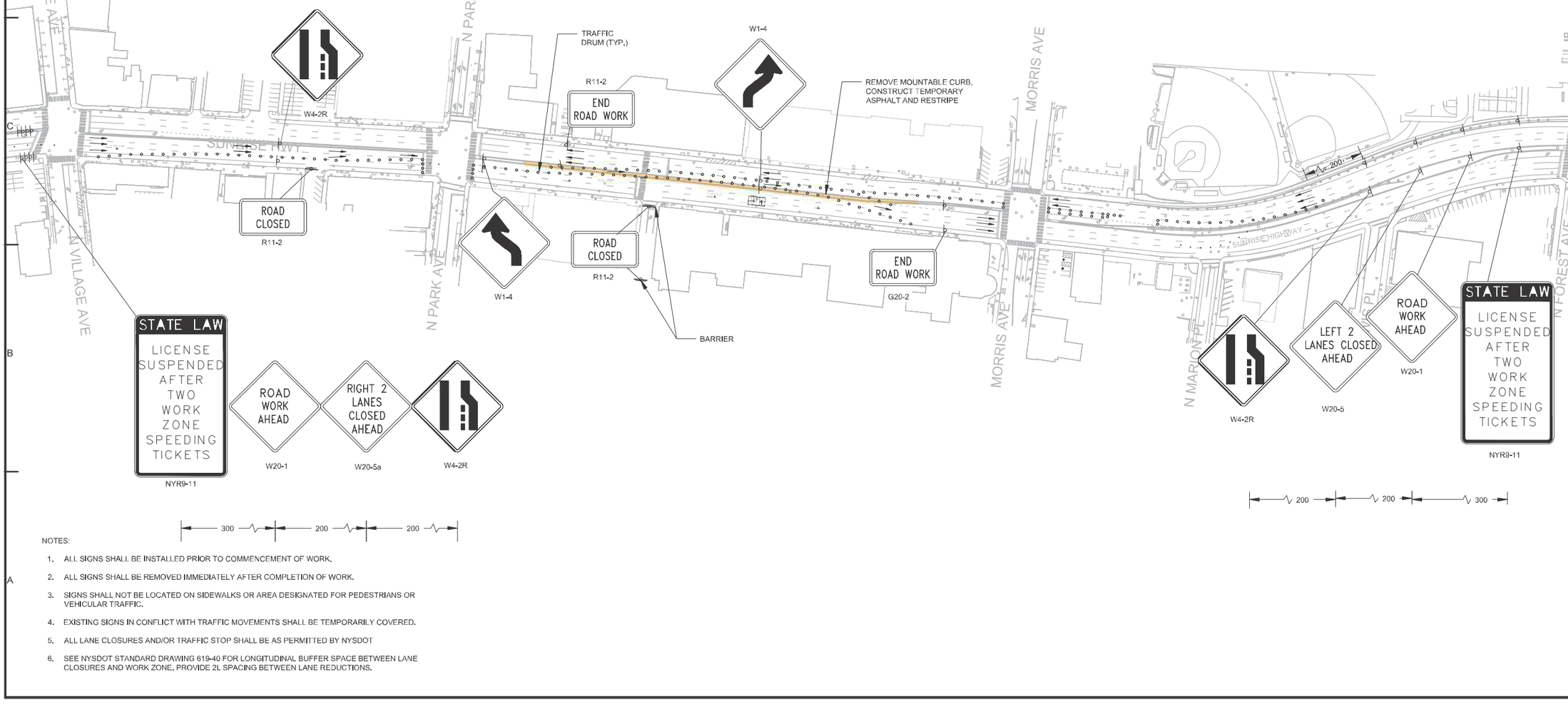
WORK ZONE TRAFFIC CONTROL STA. 675+93

SCALE: AS SHOWN

SH-C102

NOTES:

1. ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK.
2. ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3. SIGNS SHALL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4. EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT
6. SEE NYSDOT STANDARD DRAWING 619-40 FOR LONGITUDINAL BUFFER SPACE BETWEEN LANE CLOSURES AND WORK ZONE. PROVIDE 2L SPACING BETWEEN LANE REDUCTIONS.



NOTES:

1. ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK.
2. ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3. SIGNS SHALL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
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6. SEE NYSDOT STANDARD DRAWING 619-40 FOR LONGITUDINAL BUFFER SPACE BETWEEN LANE CLOSURES AND WORK ZONE. PROVIDE 2L SPACING BETWEEN LANE REDUCTIONS.

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	OCTOBER 2019
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-0101_0123
DESIGNED BY:	M. BROWN
DRAWN BY:	B. VAN BEEK
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

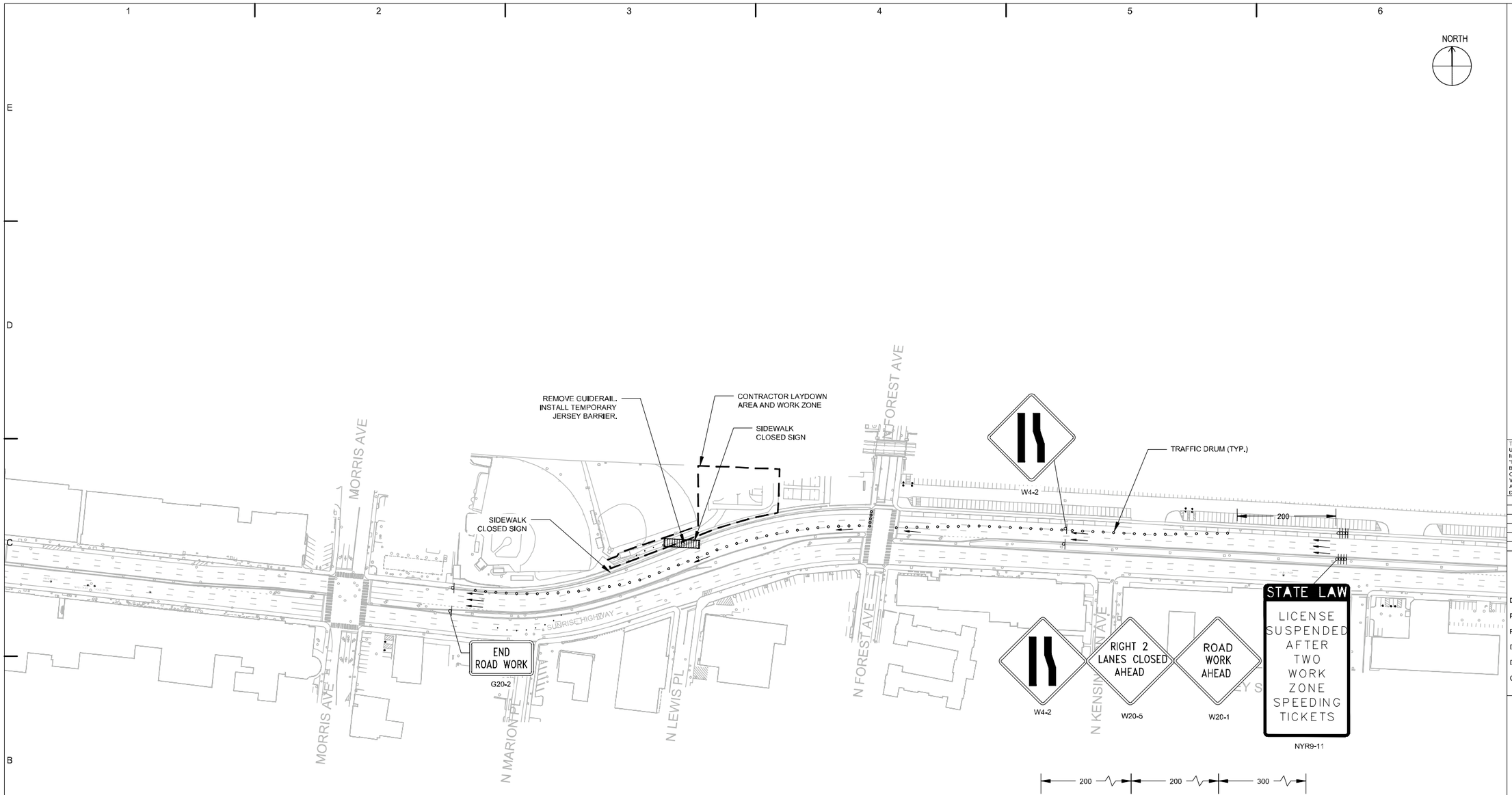
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 687+81

SCALE:
AS SHOWN

SH-C103



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0 100 200

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-0101_0123
DESIGNED BY:	M. BROWN
DRAWN BY:	B. VAN BEEK
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

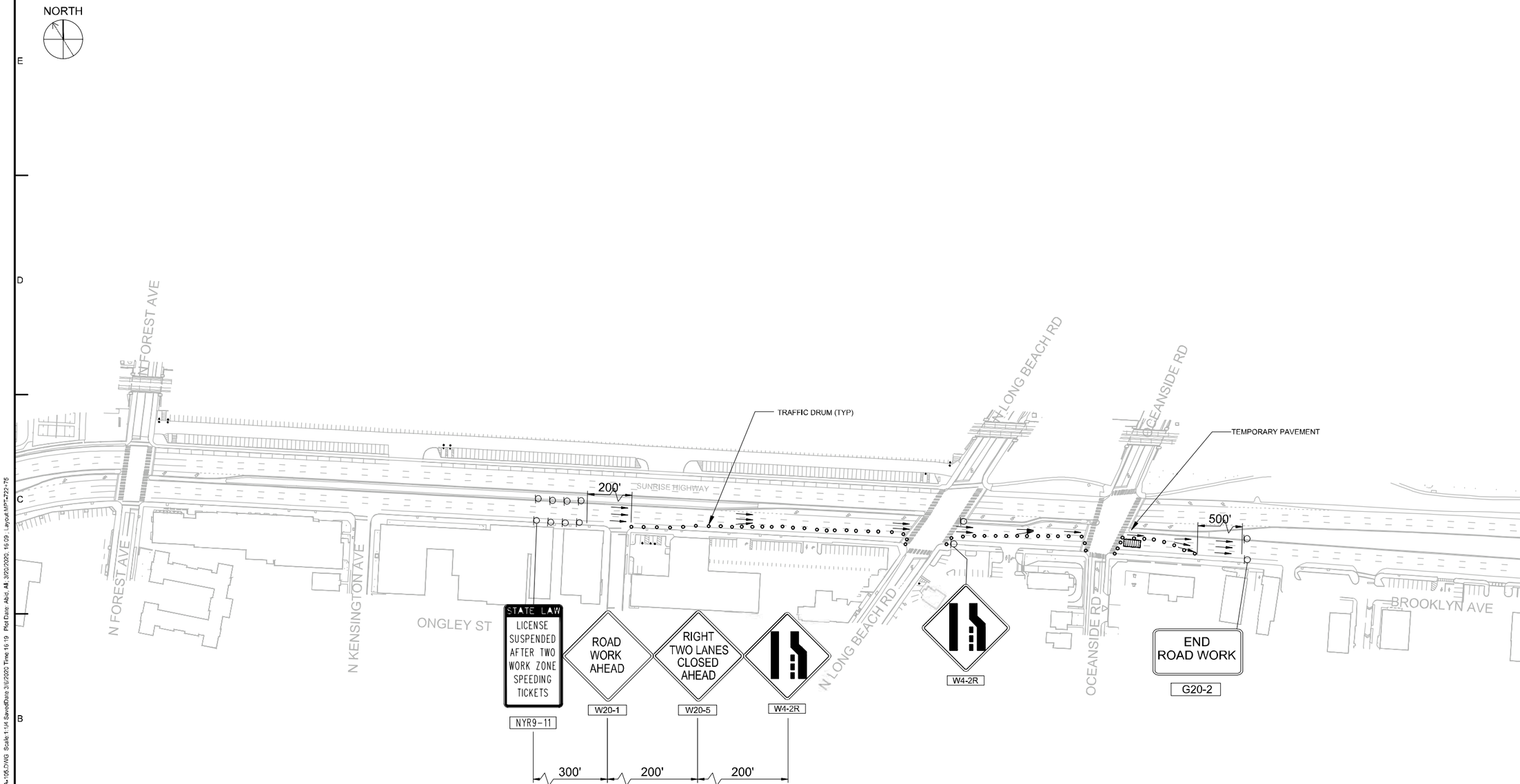
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 700+00

SCALE: AS SHOWN

SH-C104



NOTES:

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2. ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
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0 100 200

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-SHA-105
DESIGNED BY:	A. SAMADI
DRAWN BY:	A. SAMADI
CHECKED BY:	S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

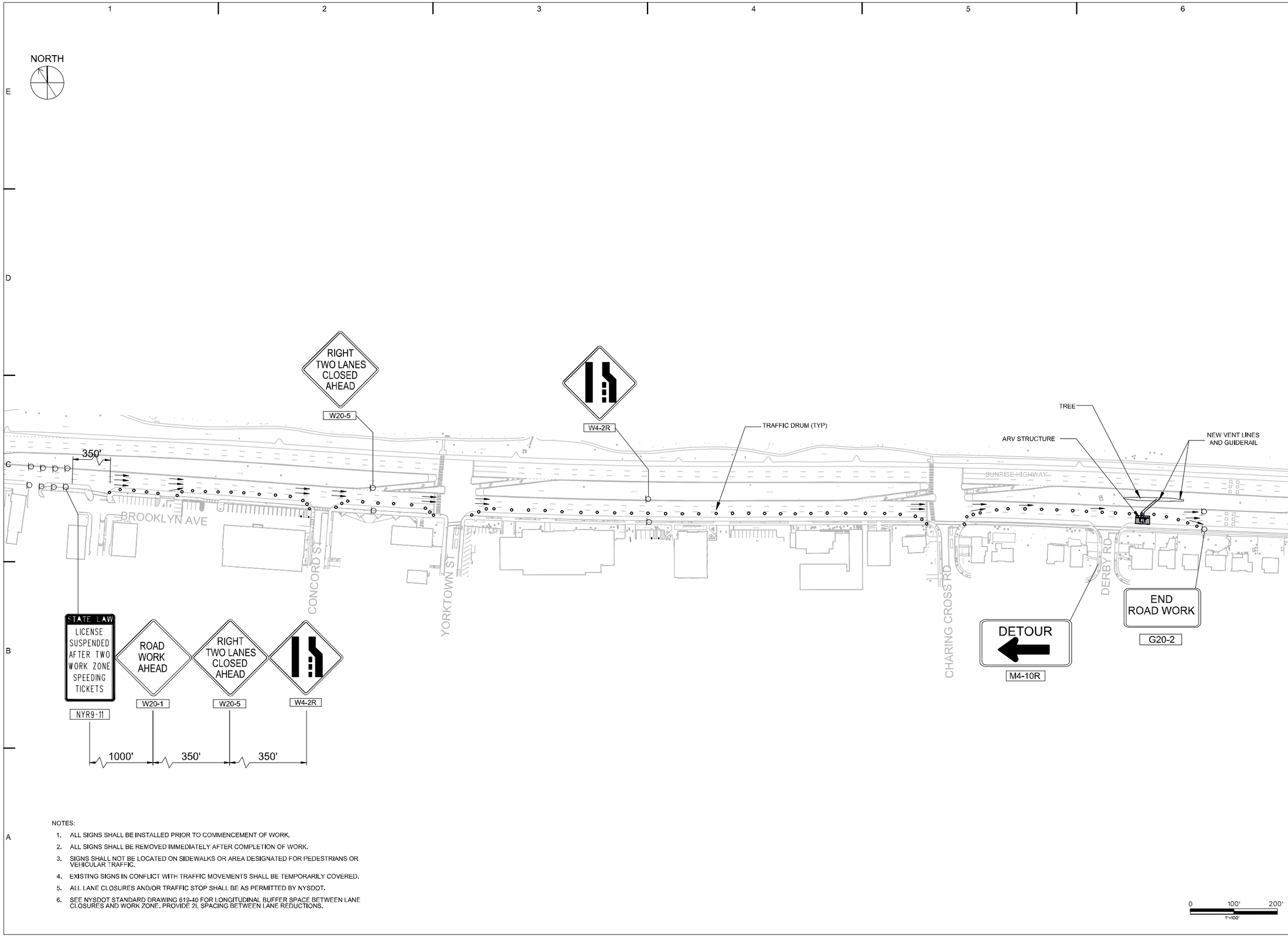
SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 772+75

SCALE:
AS SHOWN

SH-C105

PAGE 152



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PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 10/2019

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-SHA-106A
DESIGNED BY:	A. SAMADI
DRAWN BY:	A. SAMADI
CHECKED BY:	S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

SUNRISE HIGHWAY

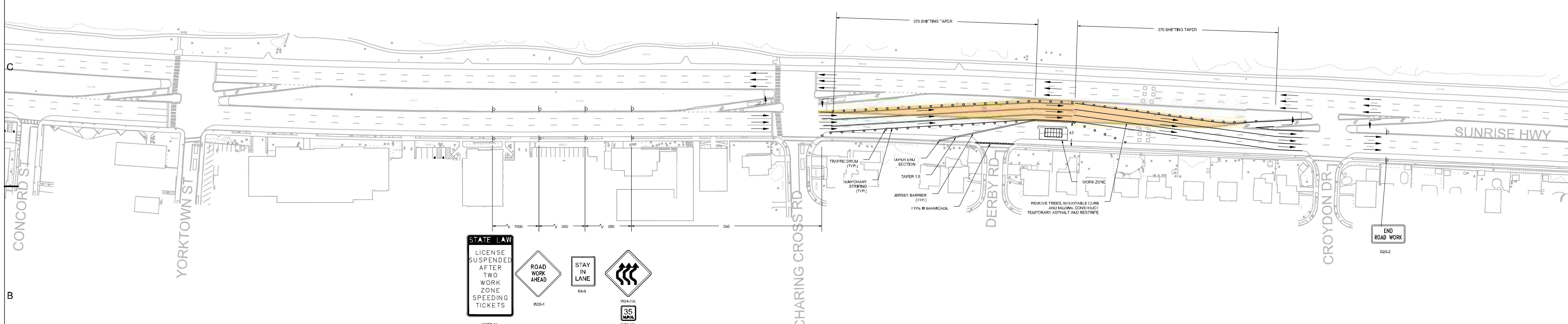
WORK ZONE TRAFFIC
CONTROL STA. 751+02
NIGHTTIME WORKING

SCALE:
AS SHOWN

SH-C106A

PAGE 153

NORTH



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0 100' 200'

1"=100'

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-106B
DESIGNED BY: K. PHU
DRAWN BY: K. PHU
CHECKED BY: J. MILEO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

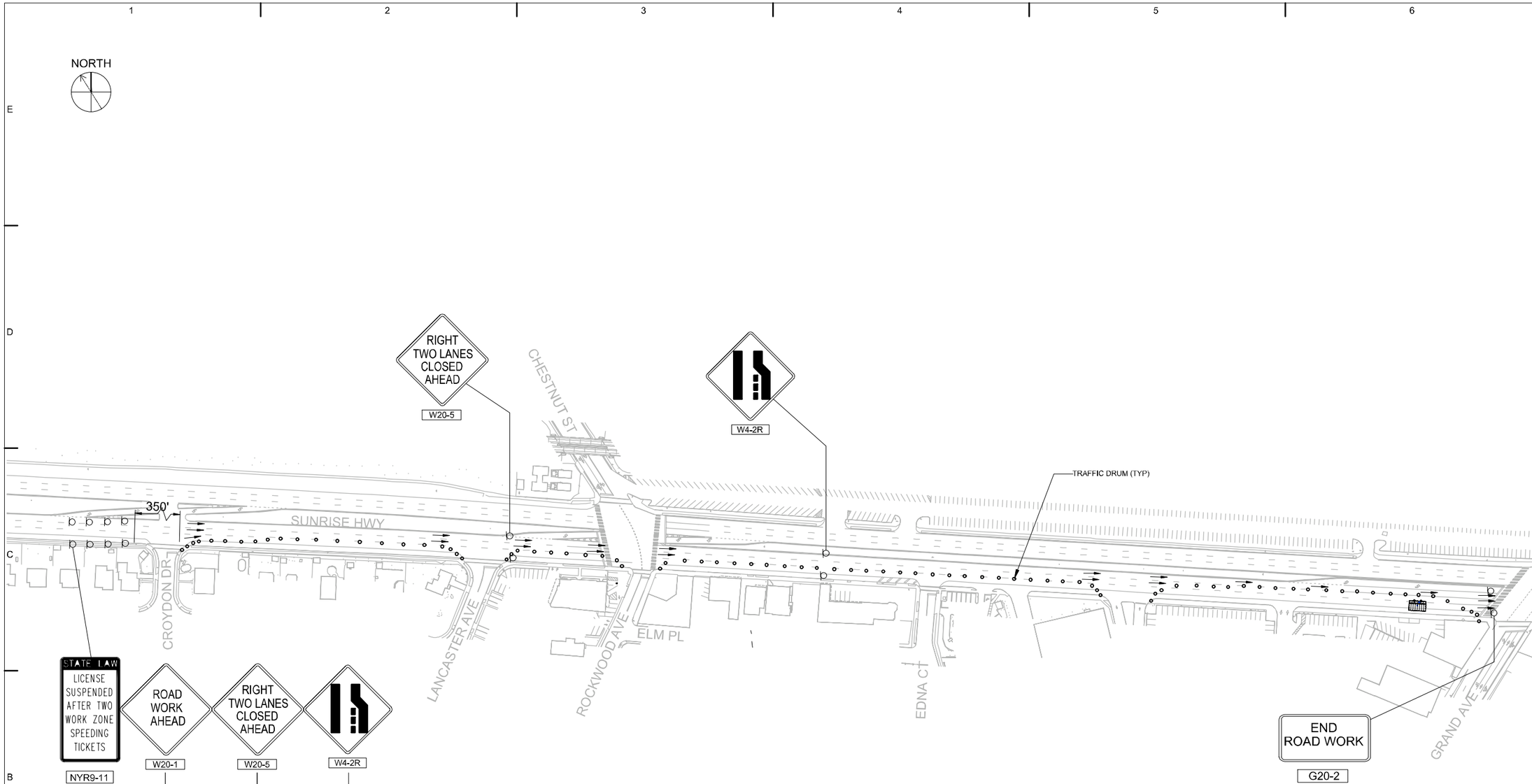
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 751+02 DAYTIME WORKING

SCALE: AS SHOWN

SH-C106B



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0 100' 200'

WSP

JPCL ENGINEERING

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-SHA-107
DESIGNED BY:	A. SAMADI
DRAWN BY:	A. SAMADI
CHECKED BY:	S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

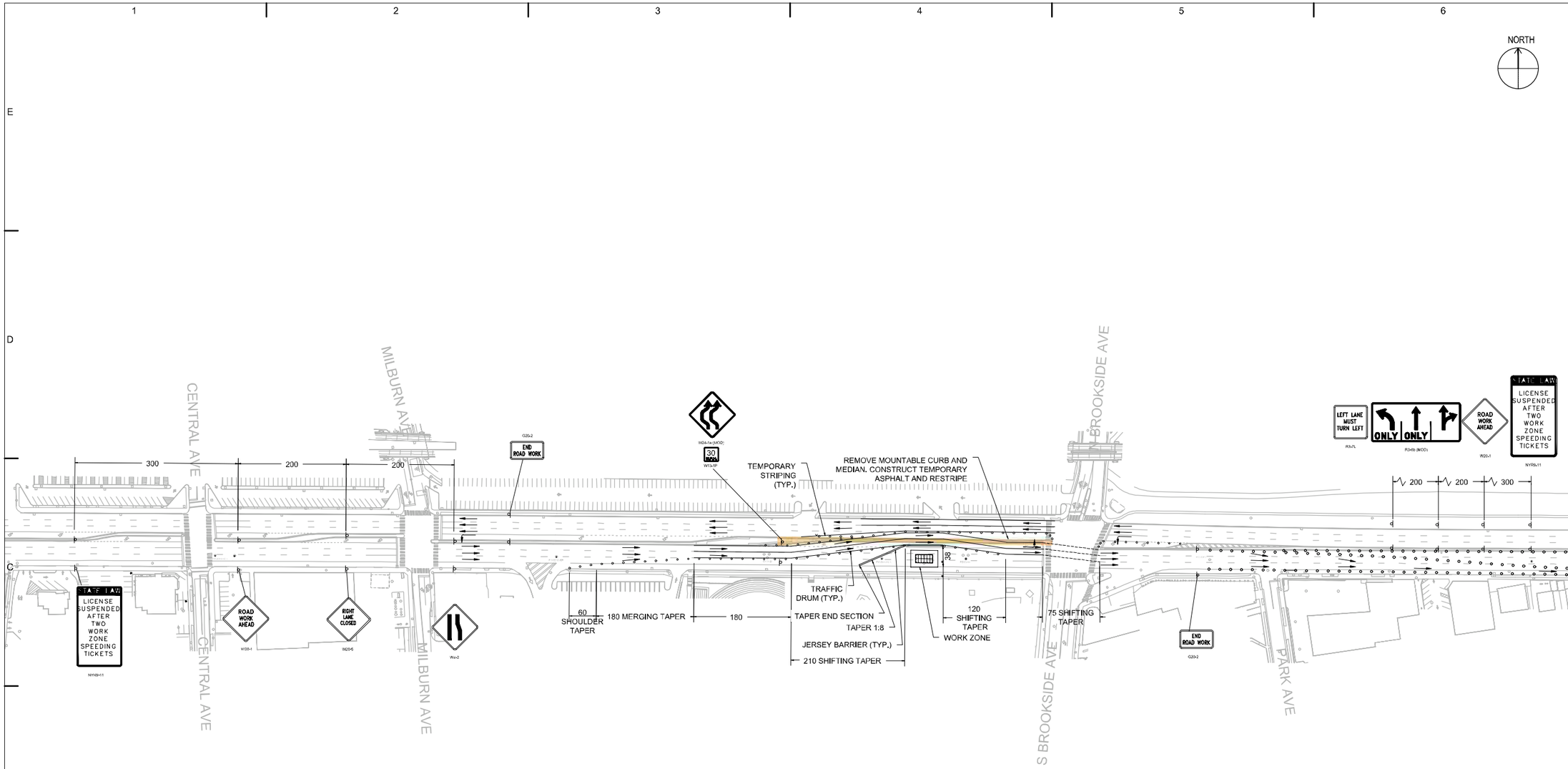
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 779+95

SCALE:
AS SHOWN

SH-C107



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PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-0101_0123
DESIGNED BY:	K. PHU
DRAWN BY:	K. PHU
CHECKED BY:	J. MILEO

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

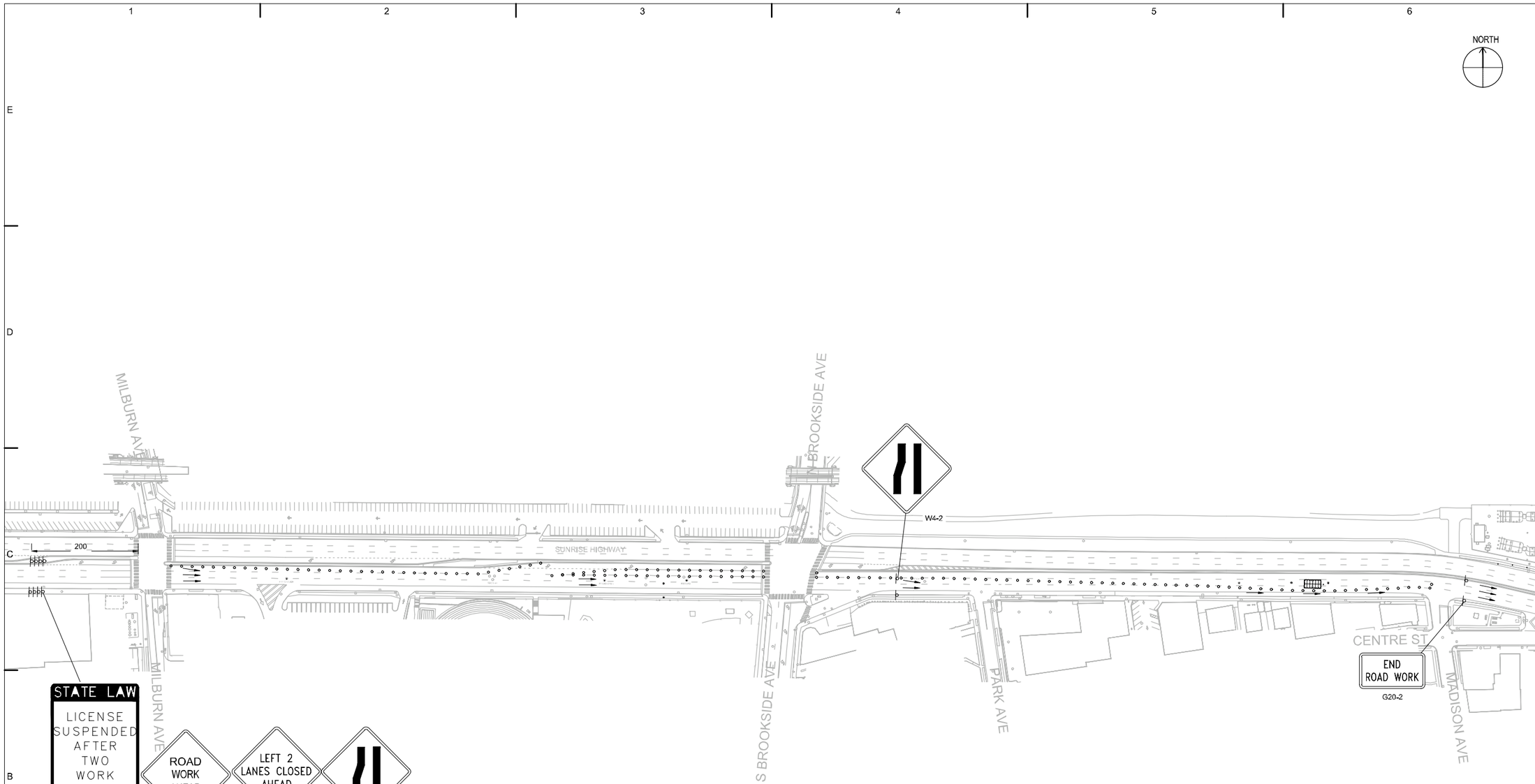
SHEET TITLE

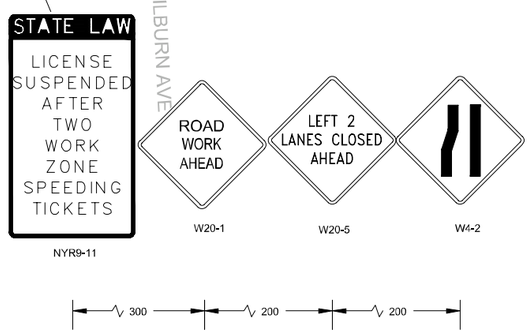
SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 802+57

SCALE:
AS SHOWN

SH-C108





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6. SEE NYSDOT STANDARD DRAWING 619-40 FOR LONGITUDINAL BUFFER SPACE BETWEEN LANE CLOSURES AND WORK ZONE. PROVIDE 2L SPACING BETWEEN LANE REDUCTIONS.

0 100' 200'
1"=100'

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-0101_0123
DESIGNED BY: M. BROWN
DRAWN BY: B. VAN BEEK
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

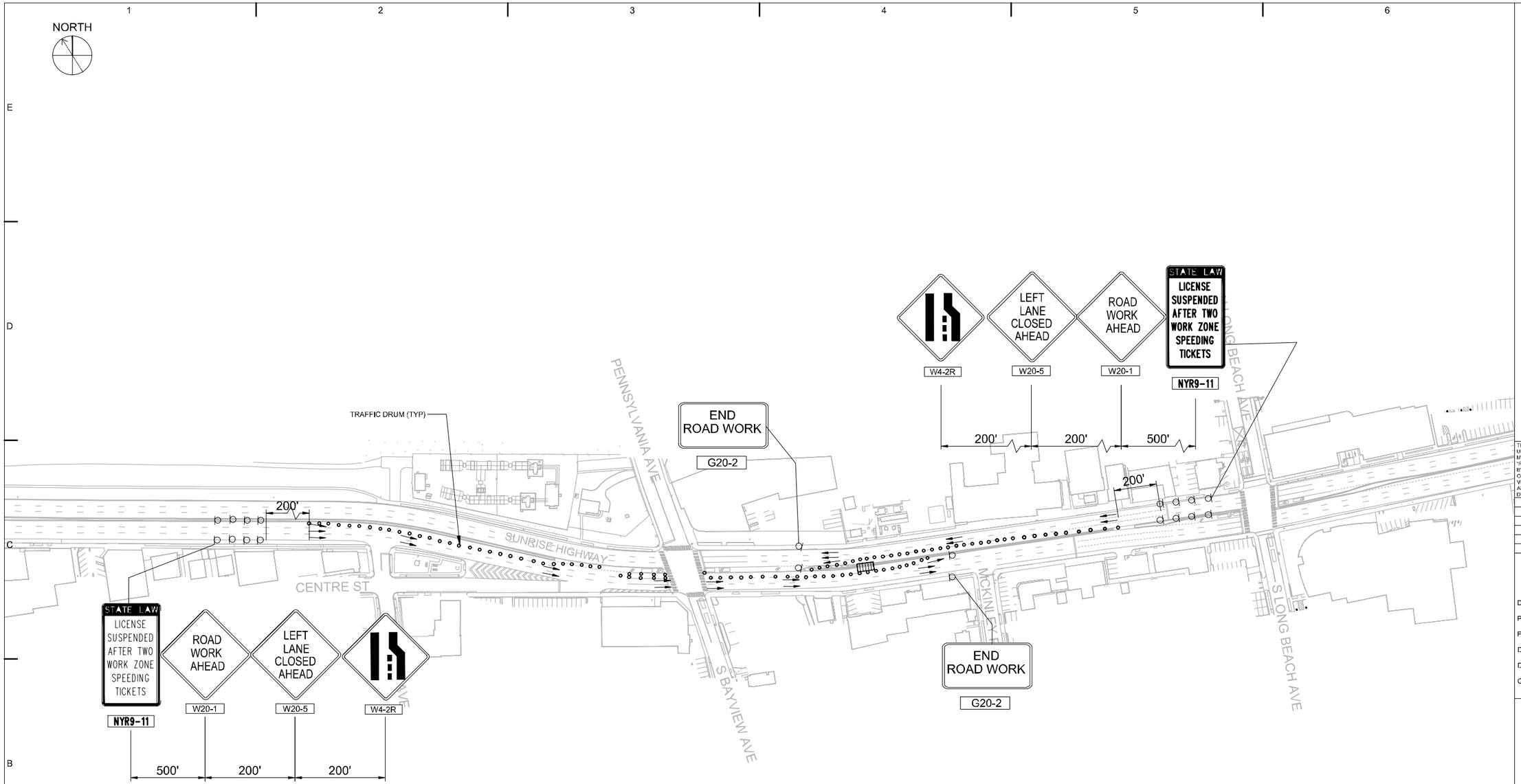
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 815+18

SCALE:
AS SHOWN

SH-C109



NOTES:

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PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-110
DESIGNED BY: A. SAMADI
DRAWN BY: A. SAMADI
CHECKED BY: S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

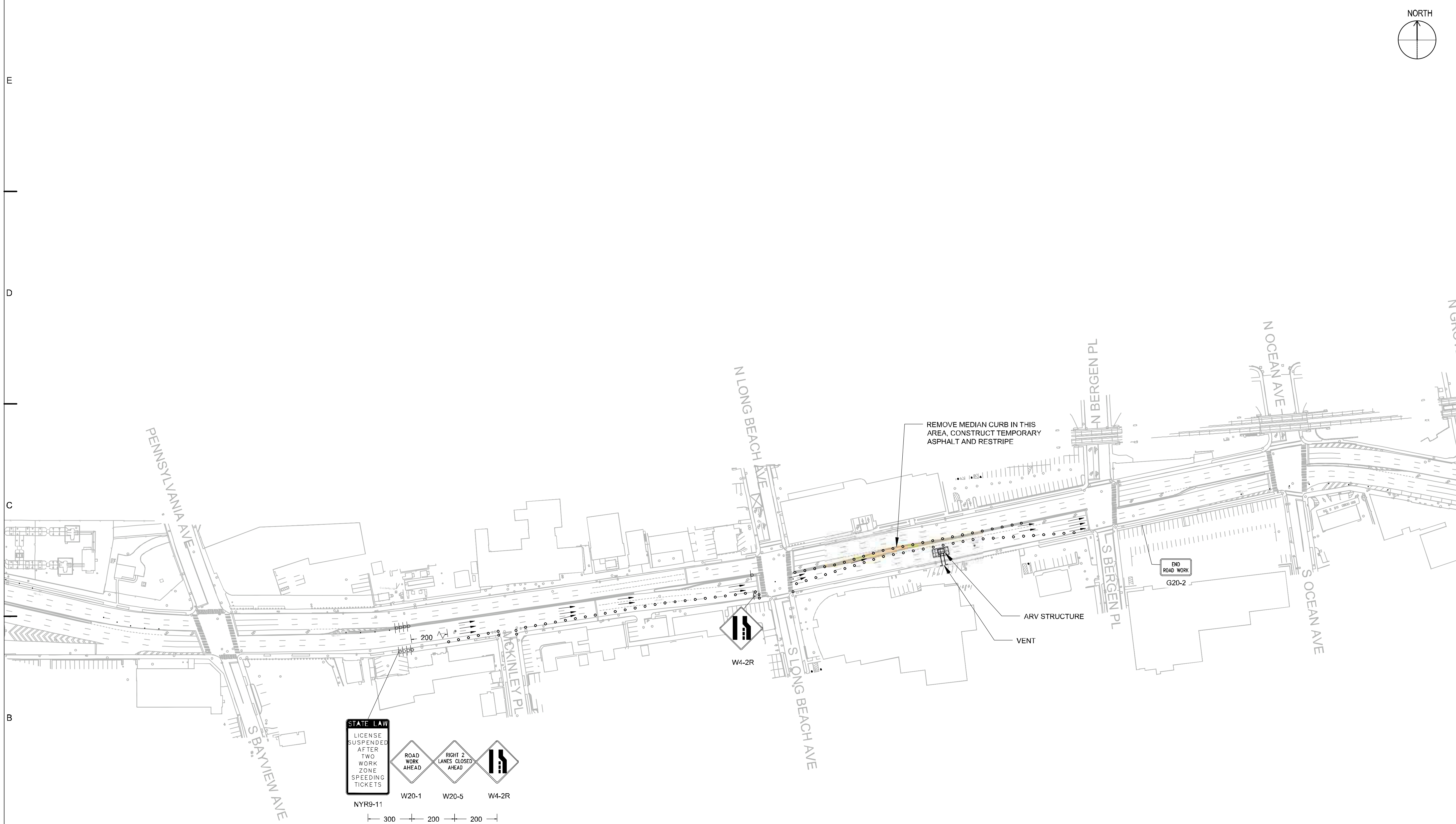
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 827+00

SCALE:
AS SHOWN

SH-C110



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0 100' 200'

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-0101_0123
DESIGNED BY: M. BROWN
DRAWN BY: B. VAN BEEK
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 838+05

SCALE: AS SHOWN

SH-C111

NOTES:

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0 100' 200'

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-112
DESIGNED BY: A. SAMADI
DRAWN BY: A. SAMADI
CHECKED BY: S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

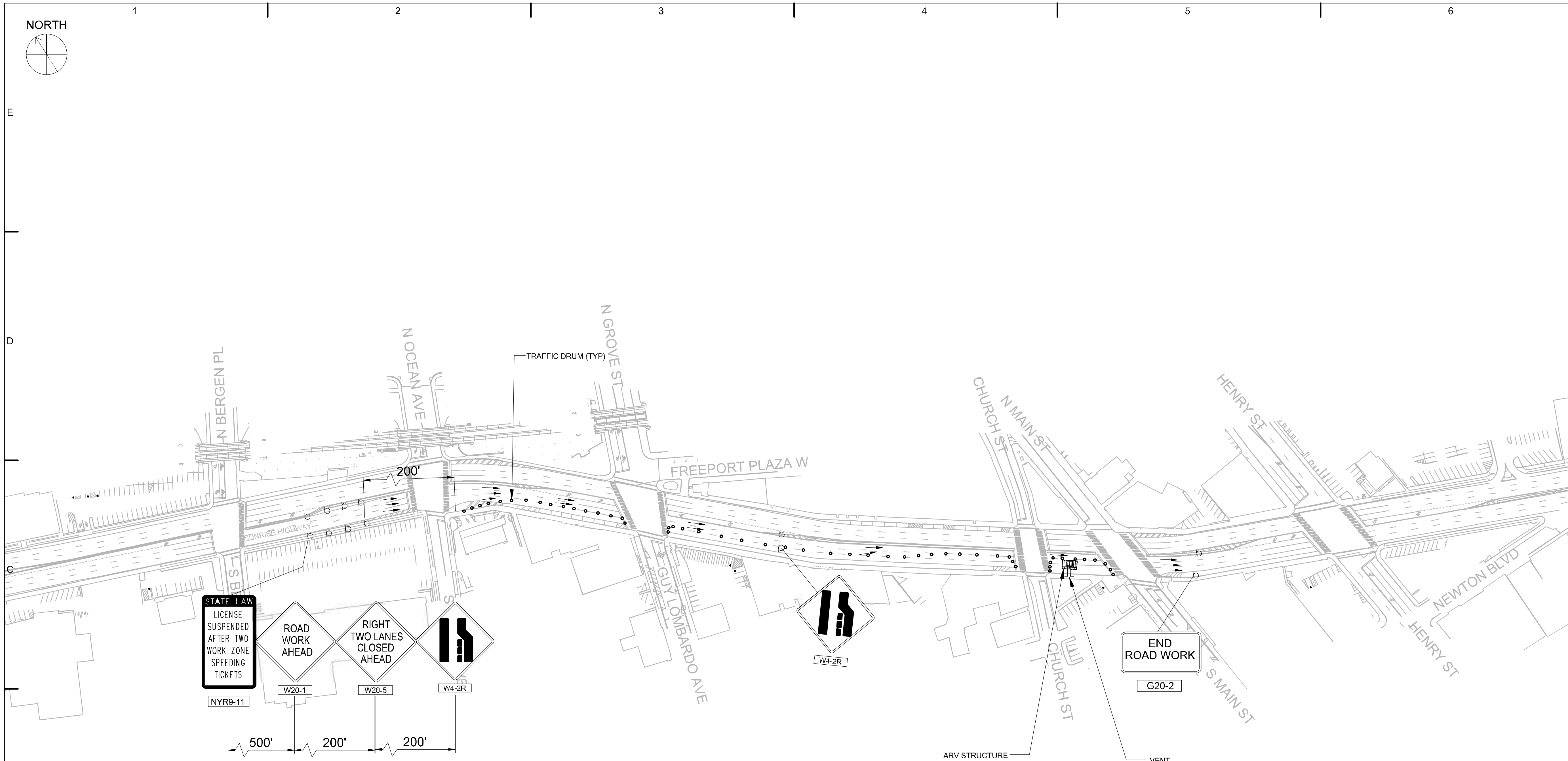
SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 849+82

SCALE:
AS SHOWN

SH-C112

PAGE 160



NOTES:

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0 100' 200'

wsp

JPCL ENGINEERING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	C-SHA-113
DESIGNED BY:	A. SAMADI
DRAWN BY:	A. SAMADI
CHECKED BY:	S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

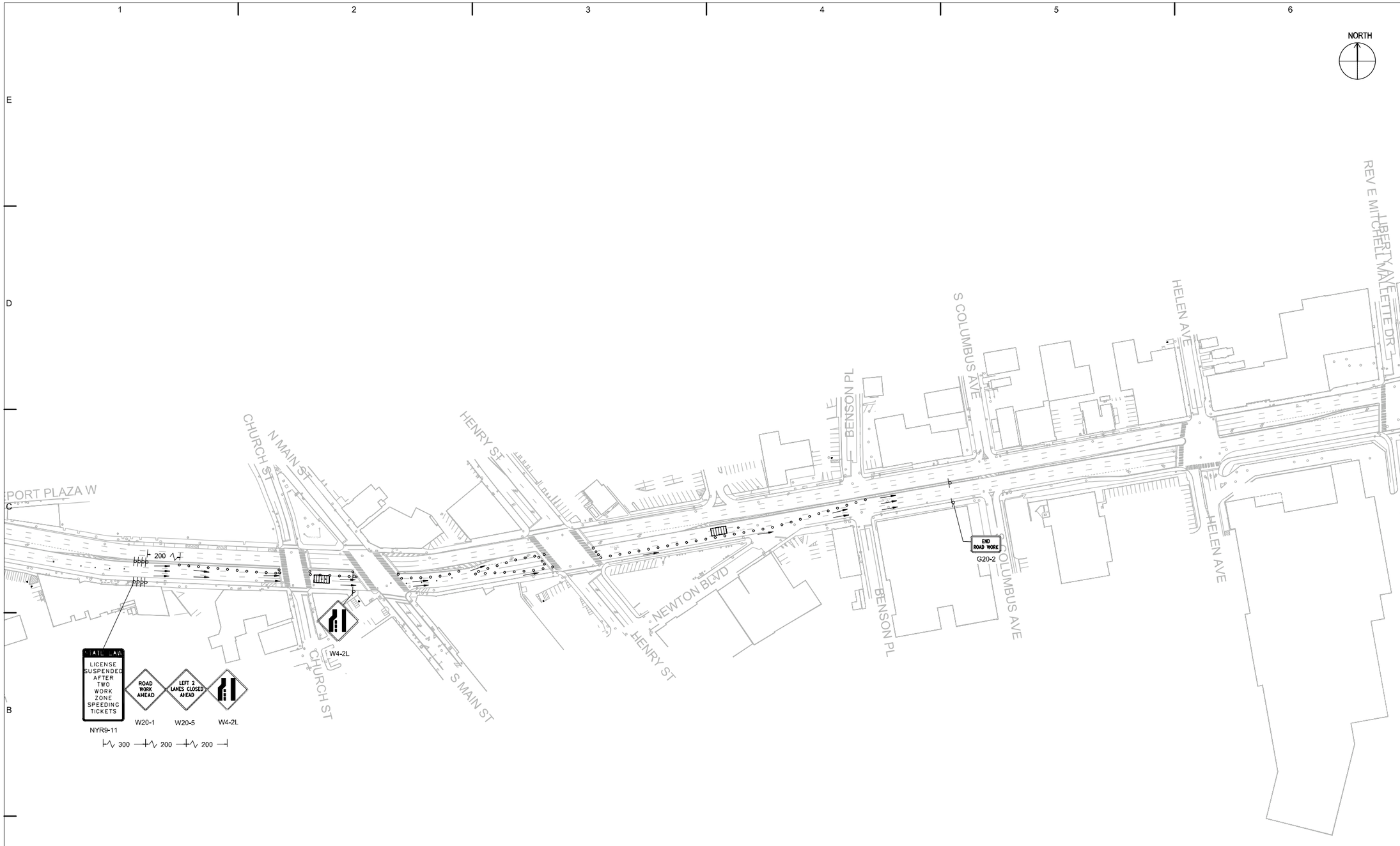
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 856+71

SCALE: AS SHOWN

SH-C113



NOTES:

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0 100' 200'

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-0101_0123
DESIGNED BY: M. BROWN
DRAWN BY: B. VAN BEEK
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

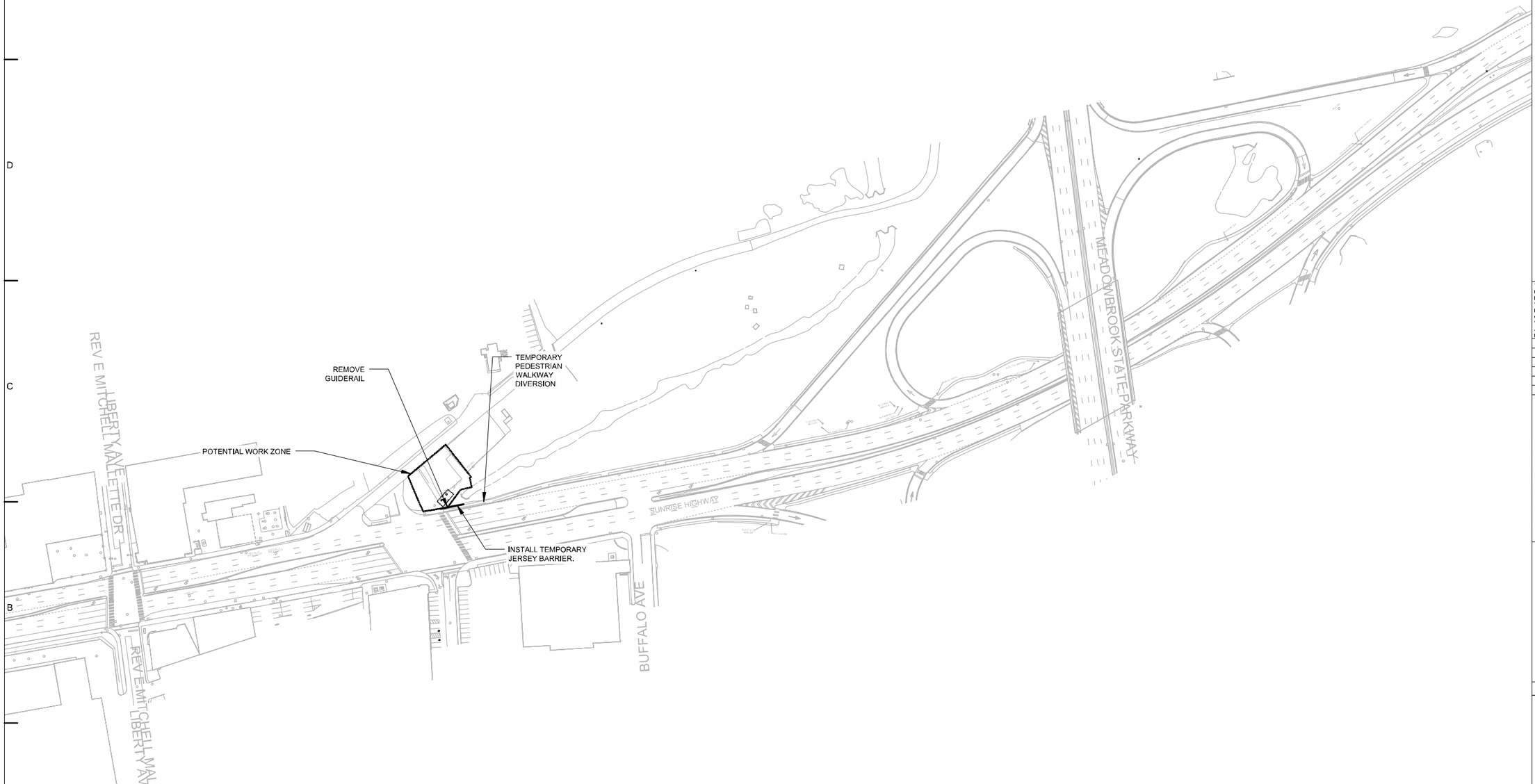
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 865+00

SCALE:
AS SHOWN

SH-C114



NOTES:

1. ALL SIGNS SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK.
2. ALL SIGNS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF WORK.
3. SIGNS SHALL NOT BE LOCATED ON SIDEWALKS OR AREA DESIGNATED FOR PEDESTRIANS OR VEHICULAR TRAFFIC.
4. EXISTING SIGNS IN CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE TEMPORARILY COVERED.
5. ALL LANE CLOSURES AND/OR TRAFFIC STOP SHALL BE AS PERMITTED BY NYSDOT
6. SEE NYSDOT STANDARD DRAWING 619-40 FOR LONGITUDINAL BUFFER SPACE BETWEEN LANE CLOSURES AND WORK ZONE. PROVIDE 2L SPACING BETWEEN LANE REDUCTIONS.

0 100' 200'
1"=100'

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-0101_0123
DESIGNED BY:	M. BROWN
DRAWN BY:	B. VAN BEEK
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

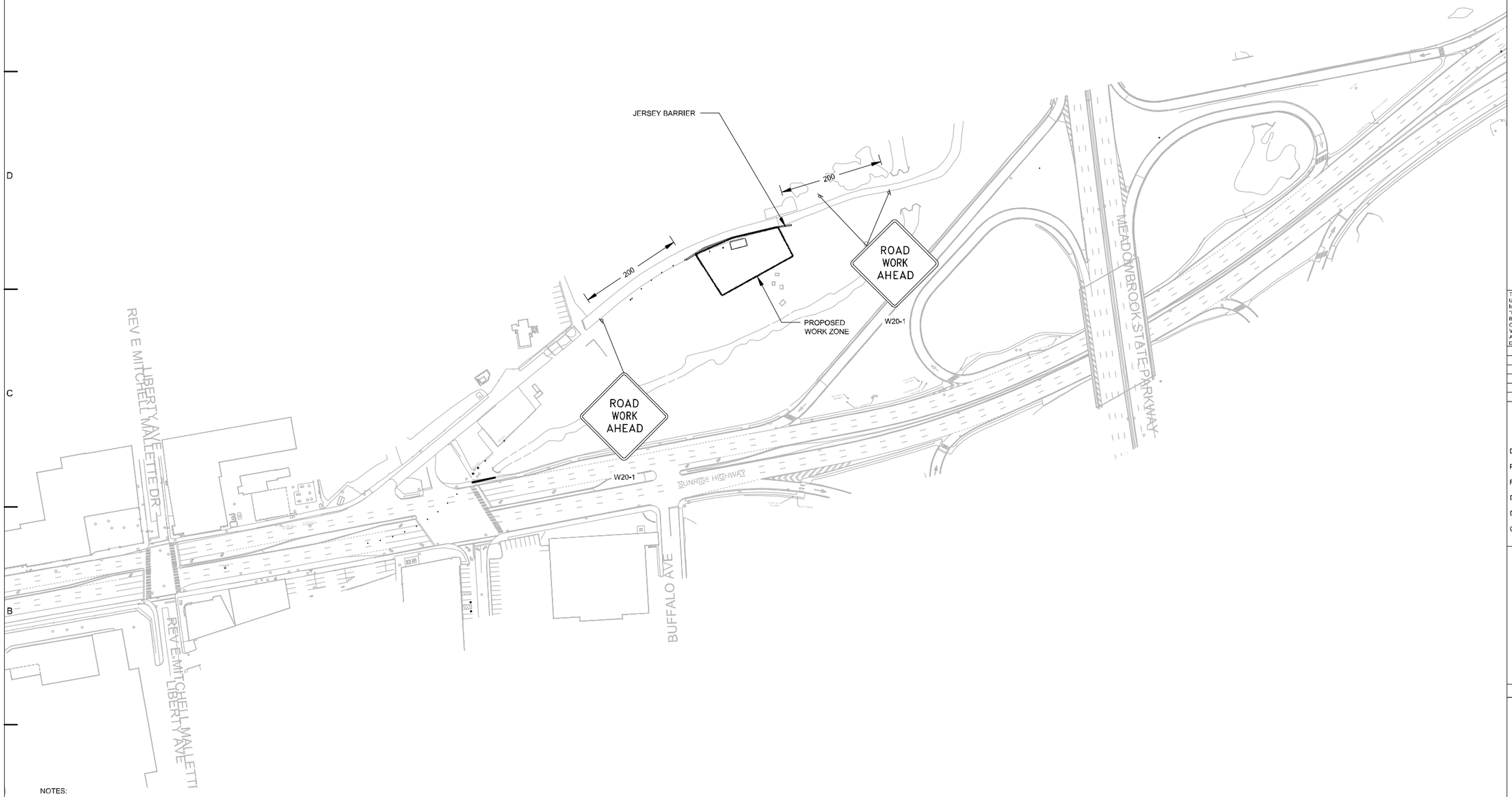
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 885+80

SCALE:
AS SHOWN

SH-C115



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0 100' 200'

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-0101_0123
DESIGNED BY: M. BROWN
DRAWN BY: B. VAN BEEK
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

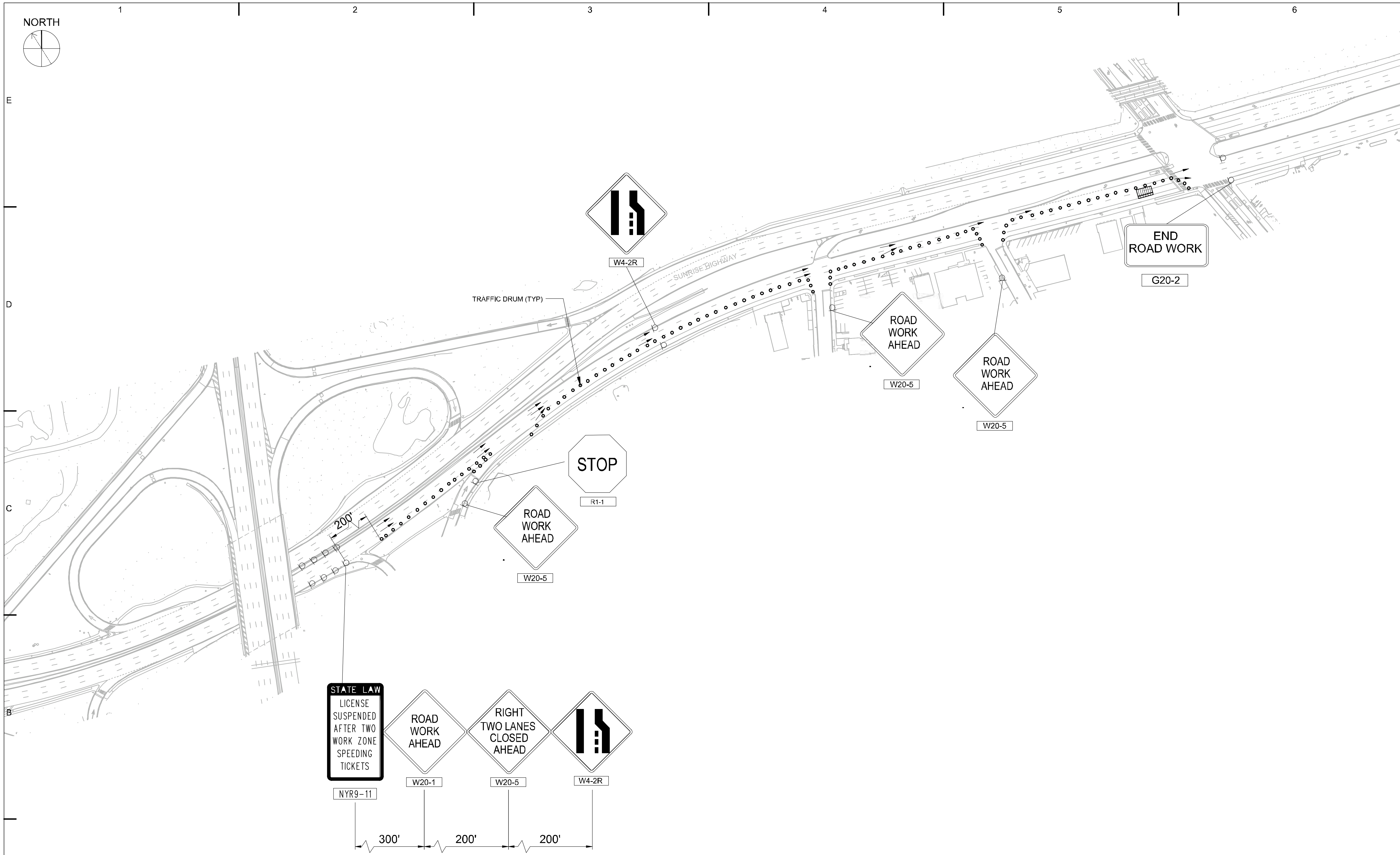
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 892+50

SCALE:
AS SHOWN

SH-C116



NOTES:

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0 100' 200'
1"=100'

WSP

JPCL ENGINEERING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-117
DESIGNED BY: A. SAMADI
DRAWN BY: A. SAMADI
CHECKED BY: S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

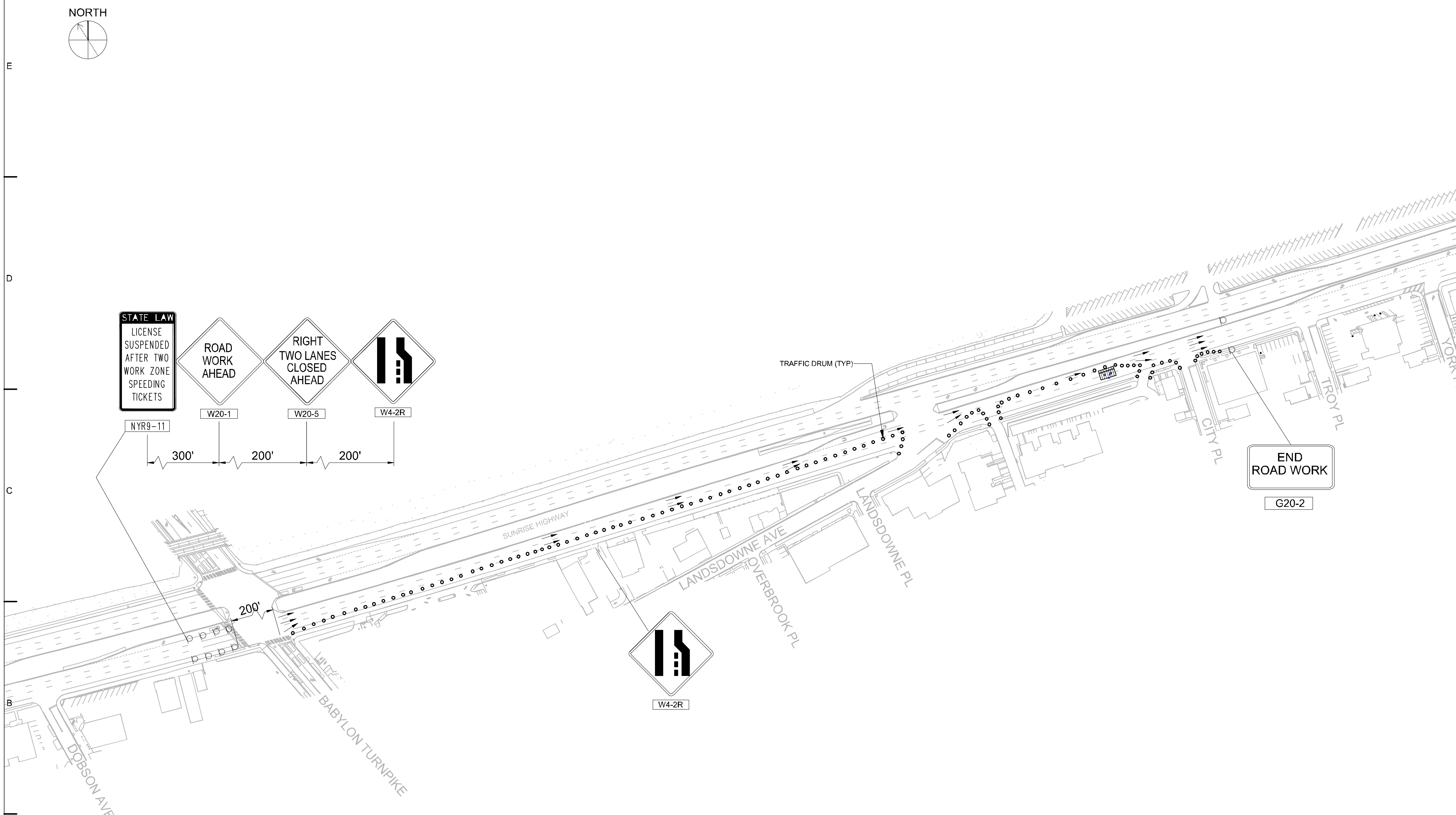
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 918+82

SCALE: AS SHOWN

SH-C117



NOTES:

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0 100' 200'
1"=100'

WSP

JPCL ENGINEERING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-118
DESIGNED BY: A. SAMADI
DRAWN BY: A. SAMADI
CHECKED BY: S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

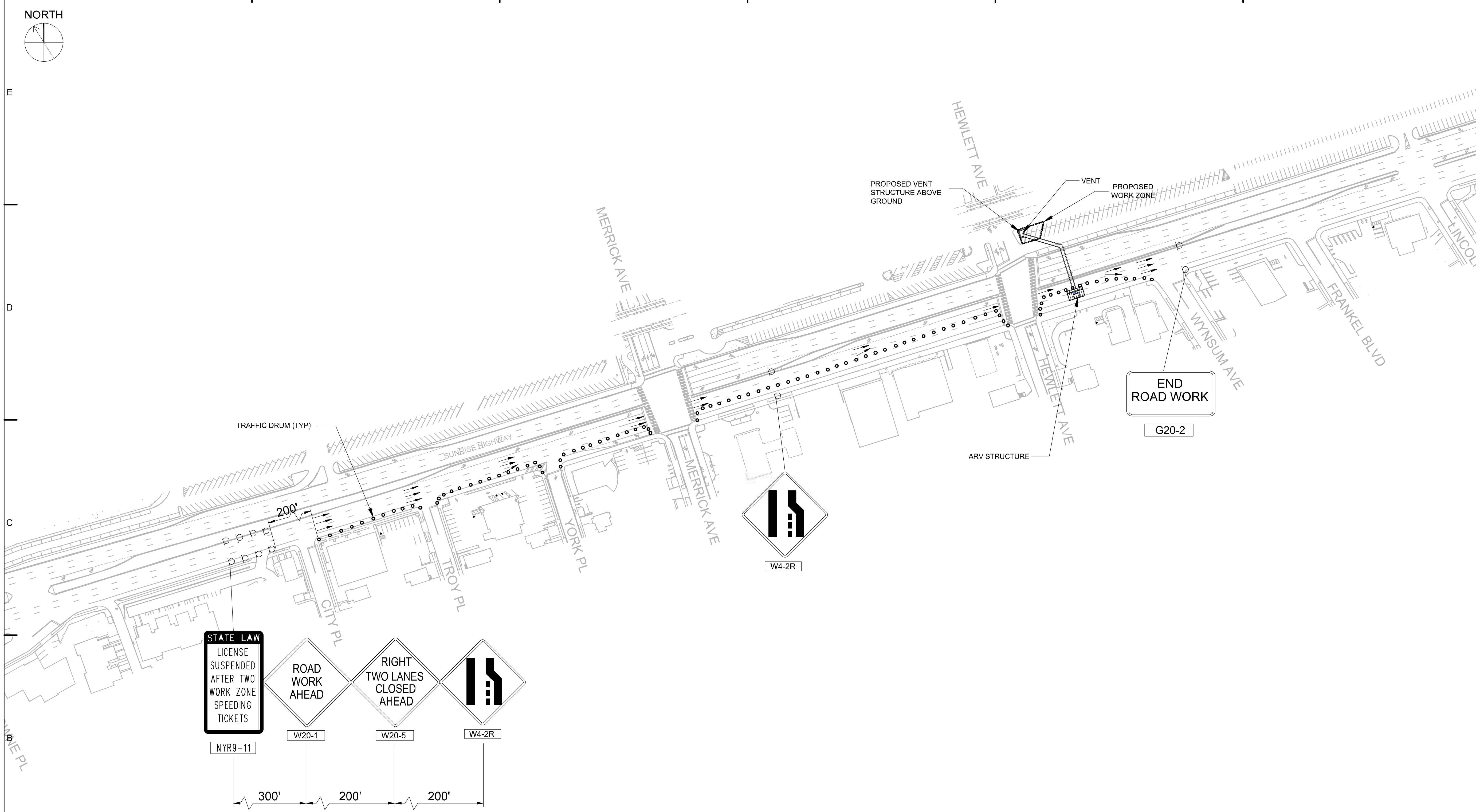
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 938+00

SCALE: AS SHOWN

SH-C118



NOTES:

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WSP

JPCL ENGINEERING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-119
DESIGNED BY: A. SAMADI
DRAWN BY: A. SAMADI
CHECKED BY: S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

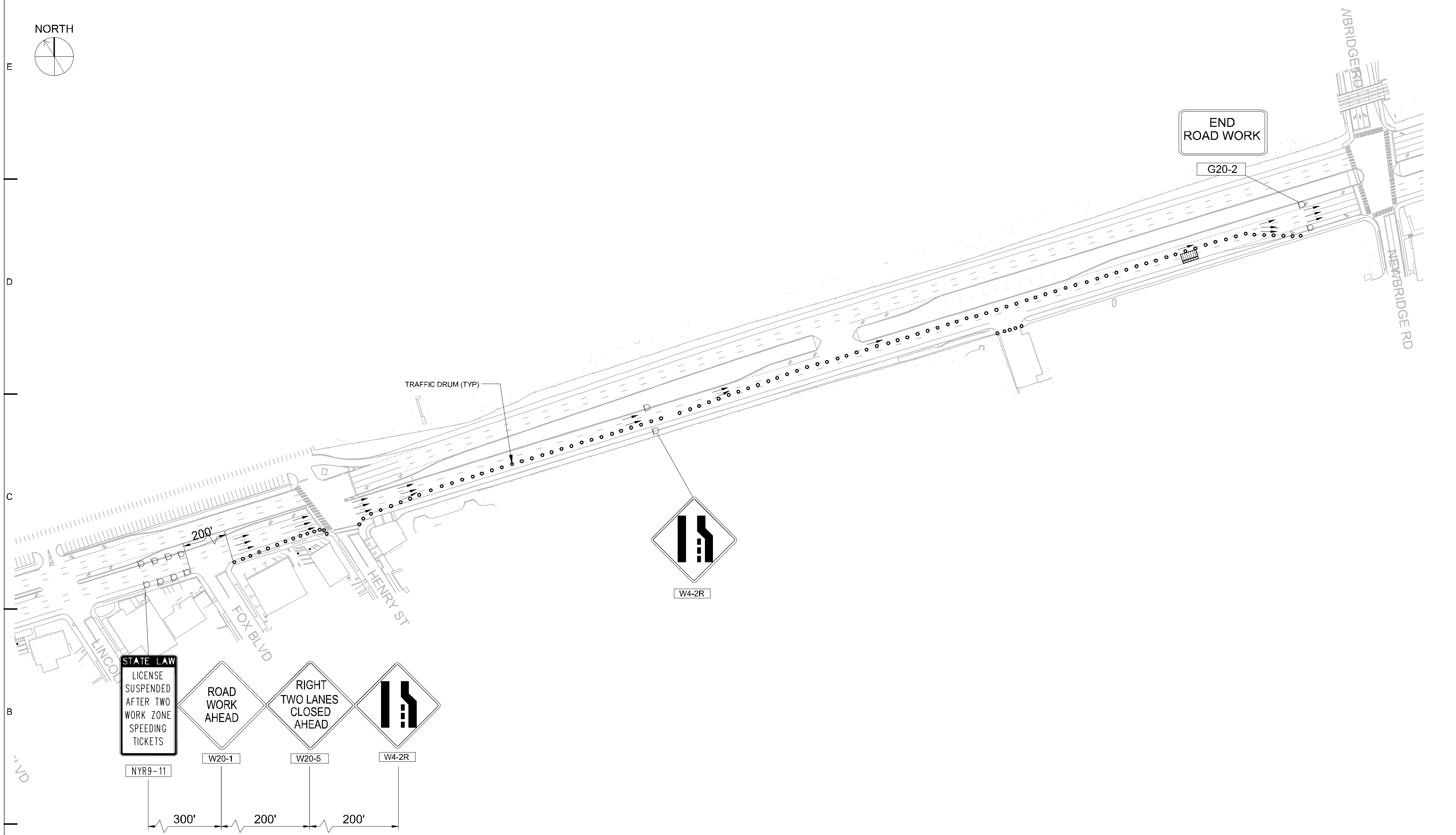
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 954+96

SCALE: AS SHOWN

SH-C119



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0 100' 200'
1"=100'

JPCL ENGINEERING

PRELIMINARY
NOT FOR
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DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-121
DESIGNED BY: A. SAMADI
DRAWN BY: A. SAMADI
CHECKED BY: S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

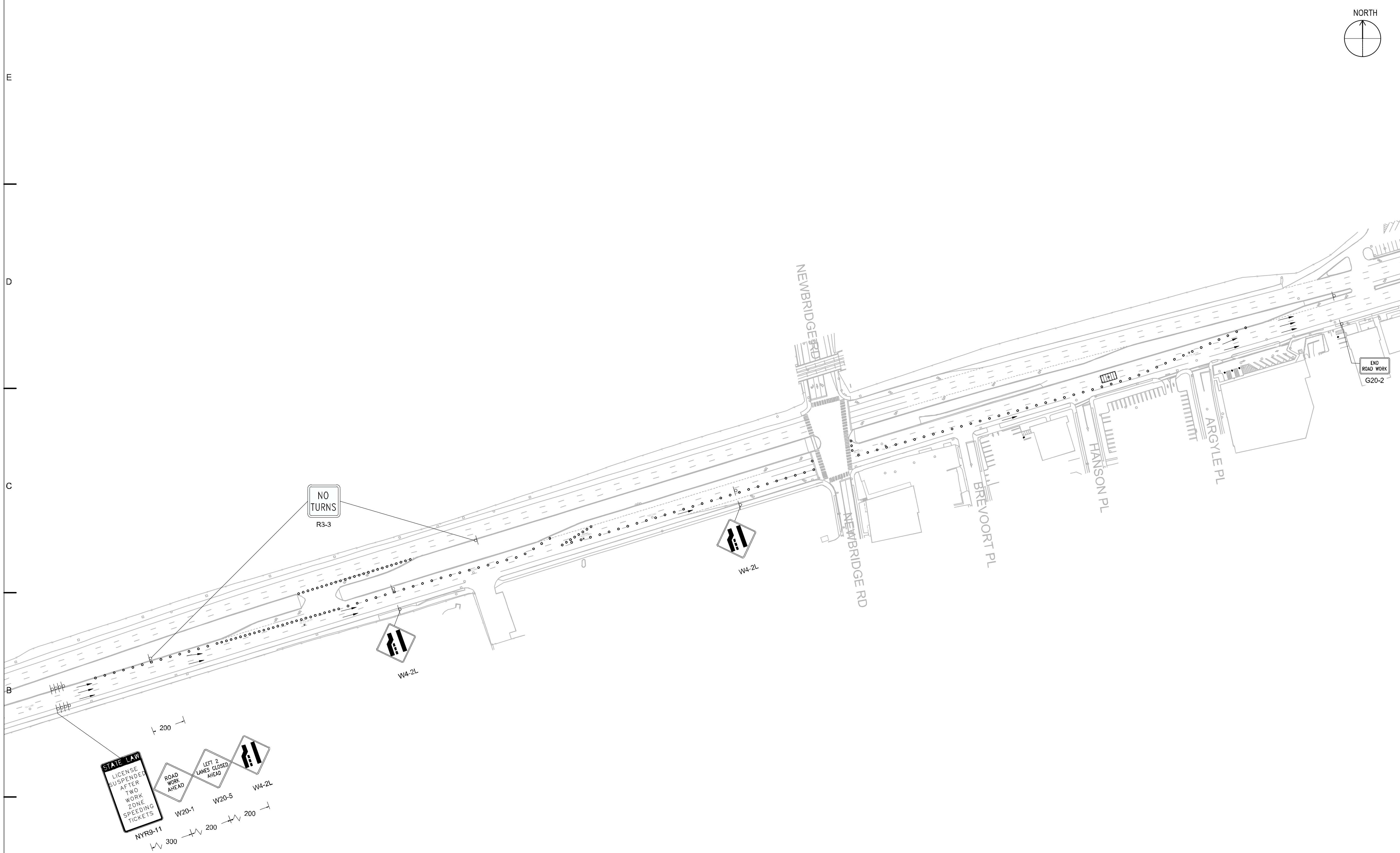
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 984+91

SCALE: AS SHOWN

SH-C121



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wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-0101_0123
DESIGNED BY: M. BROWN
DRAWN BY: B. VAN BEEK
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

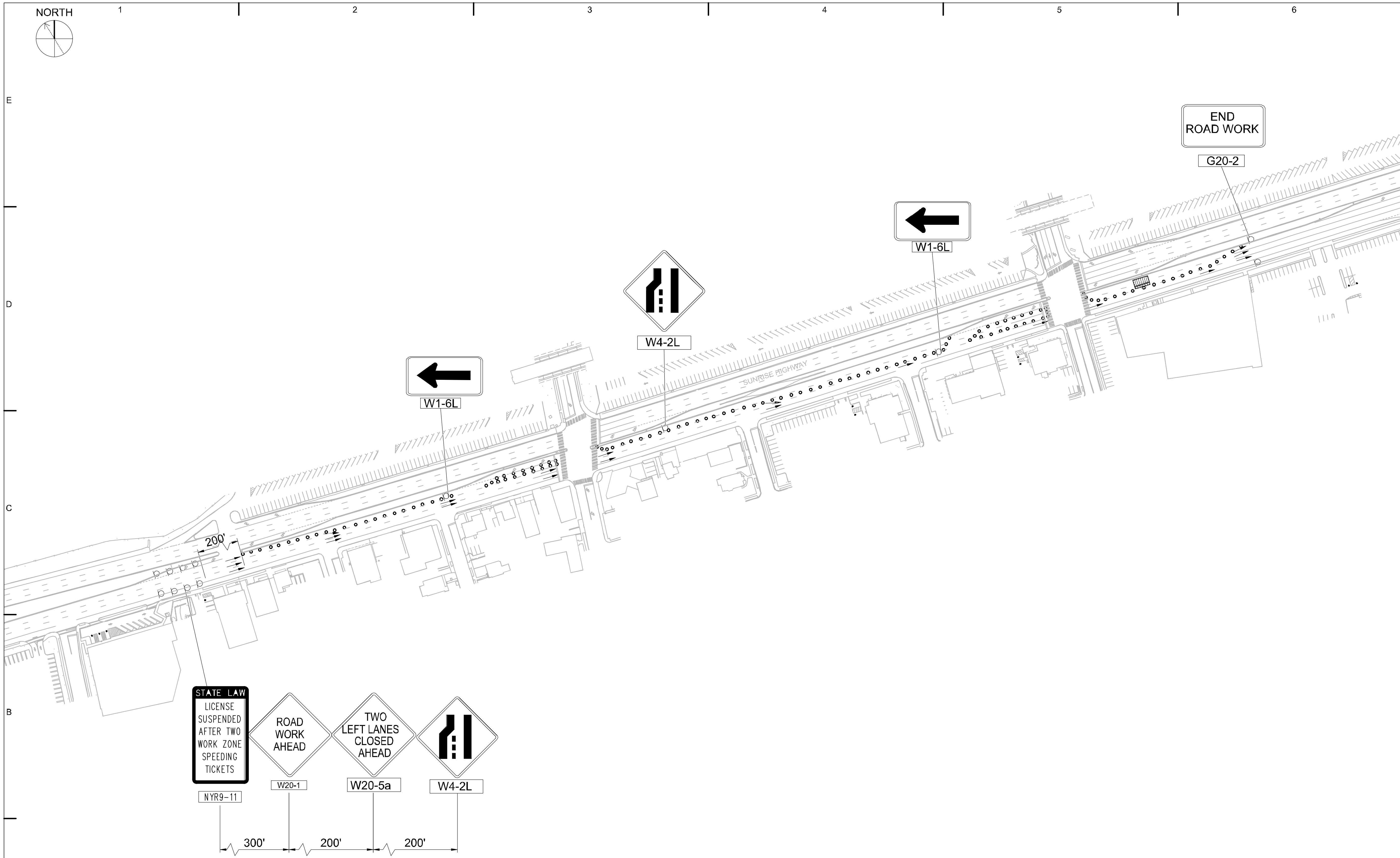
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 994+73

SCALE: AS SHOWN

SH-C122



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0 100' 200'
1"=100'

WSP

JPCL ENGINEERING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: C-SHA-123
DESIGNED BY: A. SAMADI
DRAWN BY: A. SAMADI
CHECKED BY: S.OUABI

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

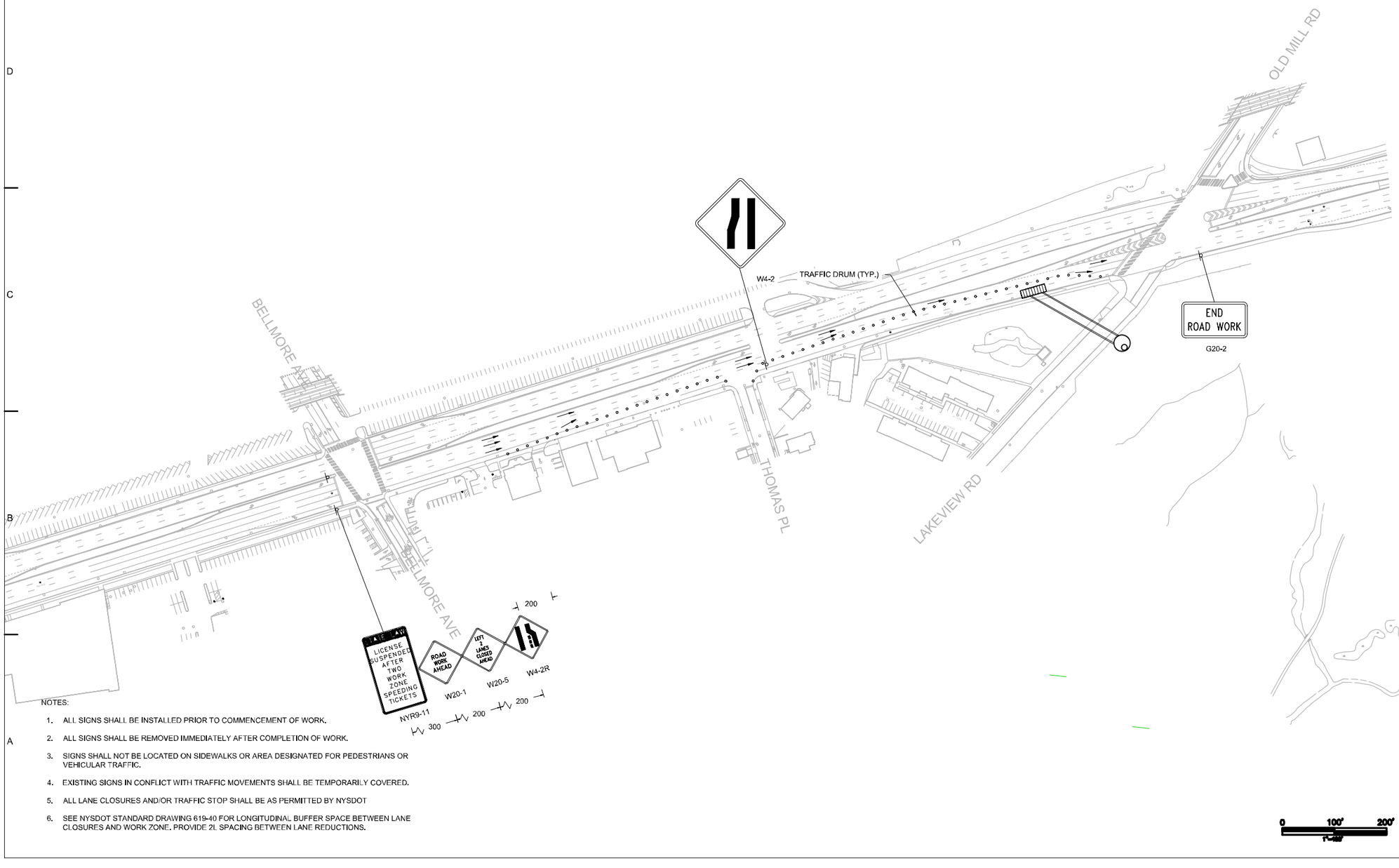
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC CONTROL STA. 1019+86

SCALE: AS SHOWN

SH-C123



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PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-0101_0123
DESIGNED BY:	M. BROWN
DRAWN BY:	B. VAN BEEK
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

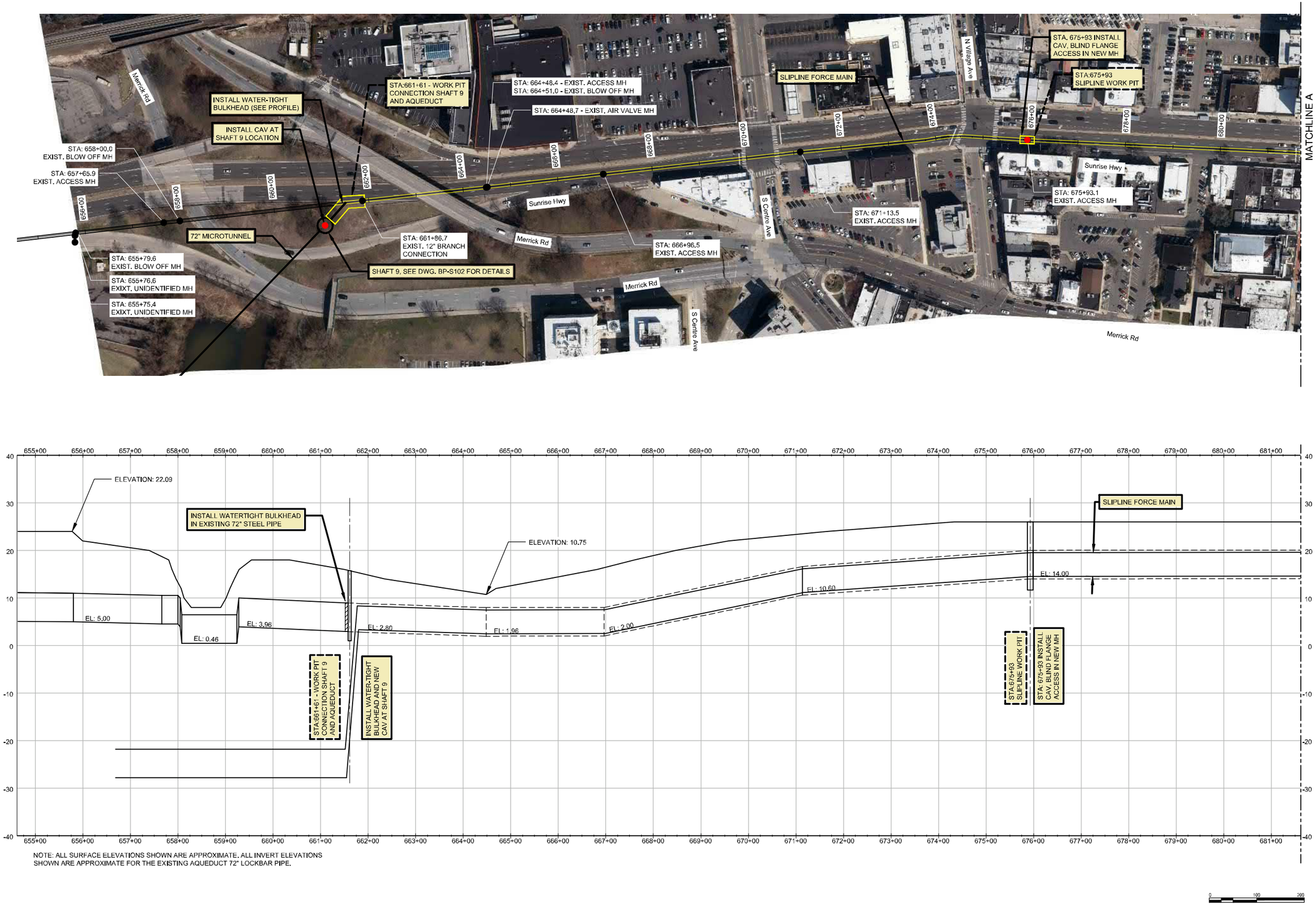
SHEET TITLE

SUNRISE HIGHWAY

WORK ZONE TRAFFIC
CONTROL STA. 1040+37

SCALE:
AS SHOWN

SH-C124



NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

LEGEND:

- EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
- AQUEDUCT TO BE SLIPLINED
- 48" GATE VALVE (GV) TO BE REMOVED
- PROPOSED WORK PIT
- EXISTING AQUEDUCT ACCESS MANHOLE, BLOWOFF, AIR COCK, OR STRUCTURE AS INDICATED
- PROPOSED ACCESS MH, WITH MANUAL AIR RELIEF VALVE (MARV); OR COMBINED AIR/VAC STRUCTURE (CAV) AS INDICATED

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-C201_C215
DESIGNED BY:	W. CHAFFEE
DRAWN BY:	J. JARRETT
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

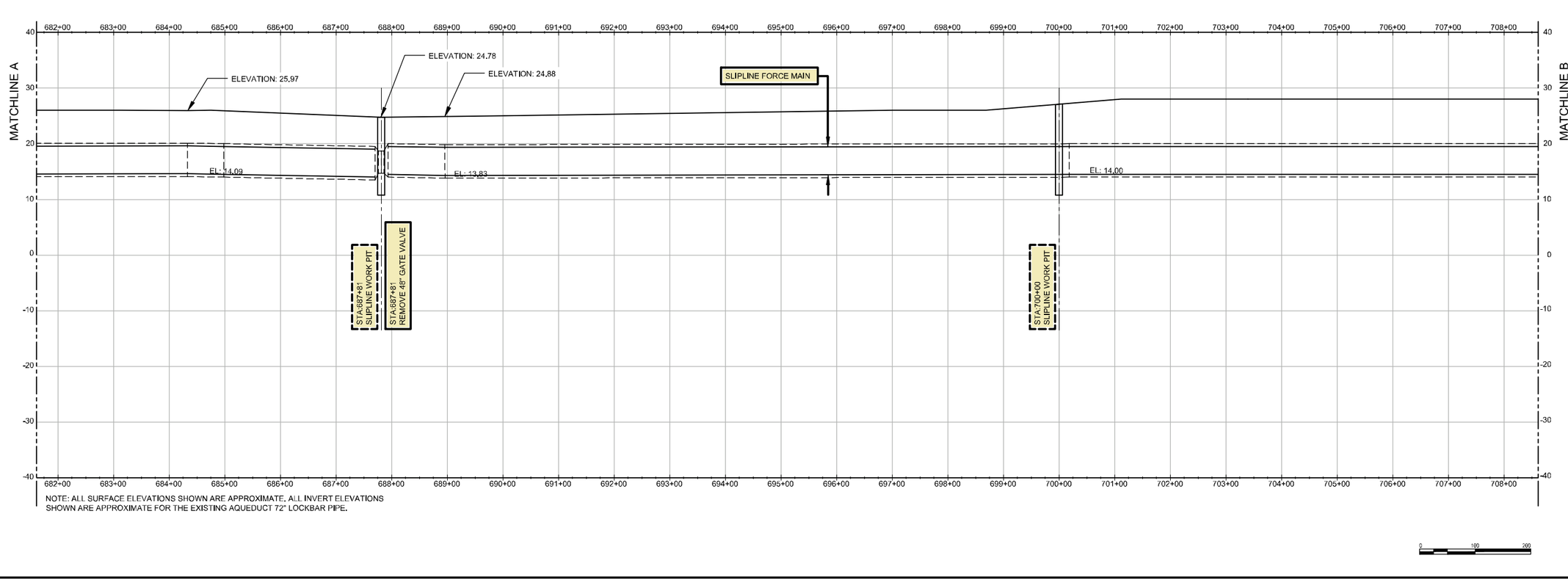
SHEET TITLE

SUNRISE HIGHWAY

PLAN AND PROFILE 1

SCALE: AS SHOWN

SH-C201



NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

0 100 200

LEGEND:

- XXXXX → EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX → MANDATORY ITEMS
- XXXXX → INDICATIVE ITEMS
- AQUEDUCT TO BE SLIPLINED
- 48" GATE VALVE (GV) TO BE REMOVED
- PROPOSED WORK PIT
- EXISTING AQUEDUCT ACCESS MANHOLE, BLOWOFF, AIR COCK, OR STRUCTURE AS INDICATED
- PROPOSED ACCESS MH, WITH MANUAL AIR RELIEF VALVE (MARV); OR COMBINED AIR/VAC STRUCTURE (CAV) AS INDICATED

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-C201_C215
DESIGNED BY:	W. CHAFFEE
DRAWN BY:	J. JARRETT
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

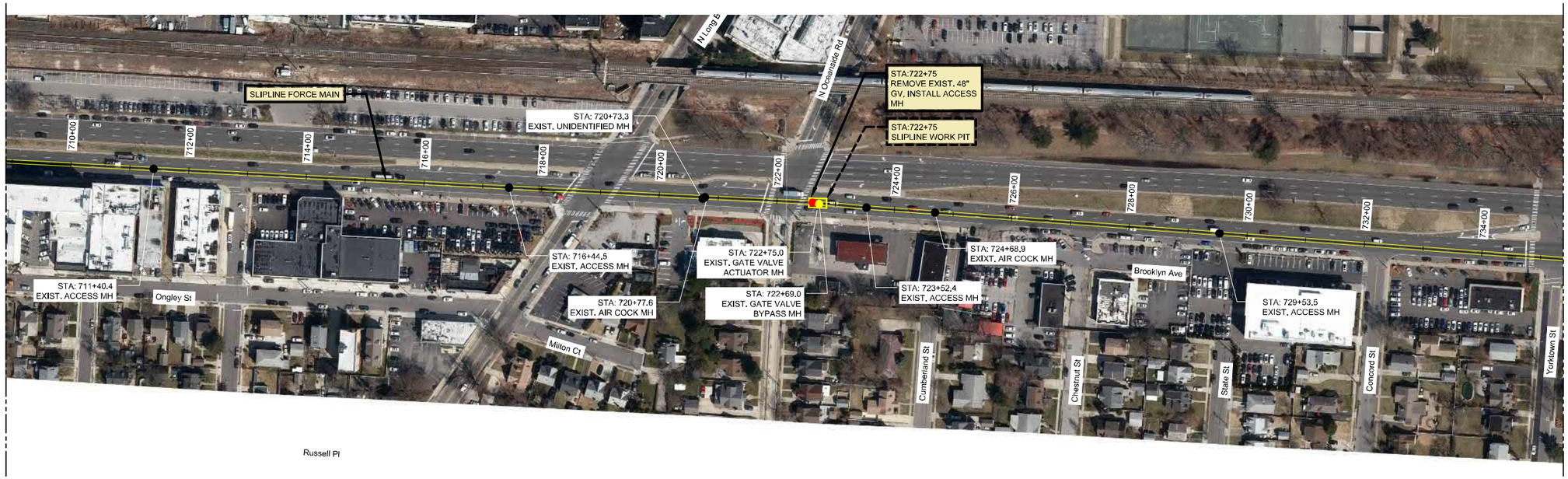
SUNRISE HIGHWAY

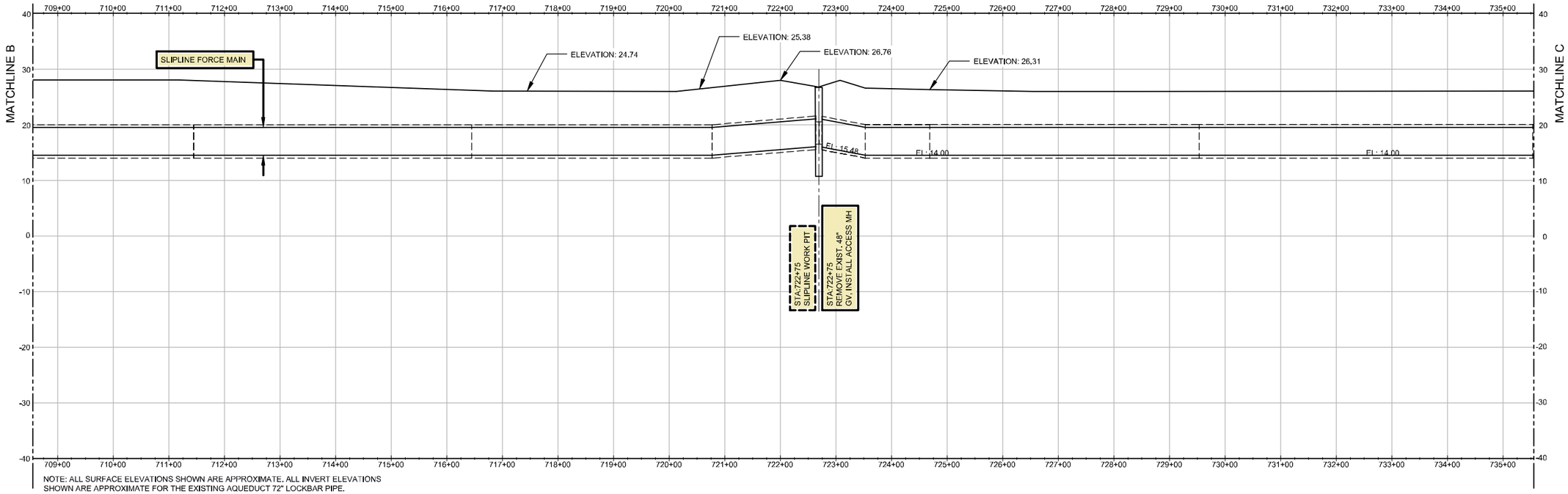
PLAN AND PROFILE 2

SCALE:
AS SHOWN

SH-C202

PAGE 173





NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

PLAN NORTH

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
- AQUEDUCT TO BE SLIPLINED
- 48" GATE VALVE (GV) TO BE REMOVED
- PROPOSED WORK PIT
- EXISTING AQUEDUCT ACCESS MANHOLE, BLOWOFF, AIR COCK, OR STRUCTURE AS INDICATED
- PROPOSED ACCESS MH, WITH MANUAL AIR RELIEF VALVE (MARV); OR COMBINED AIR/VAC STRUCTURE (CAV) AS INDICATED

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: JANUARY 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-C201_C215
DESIGNED BY: W. CHAFFEE
DRAWN BY: J. JARRETT
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

SUNRISE HIGHWAY

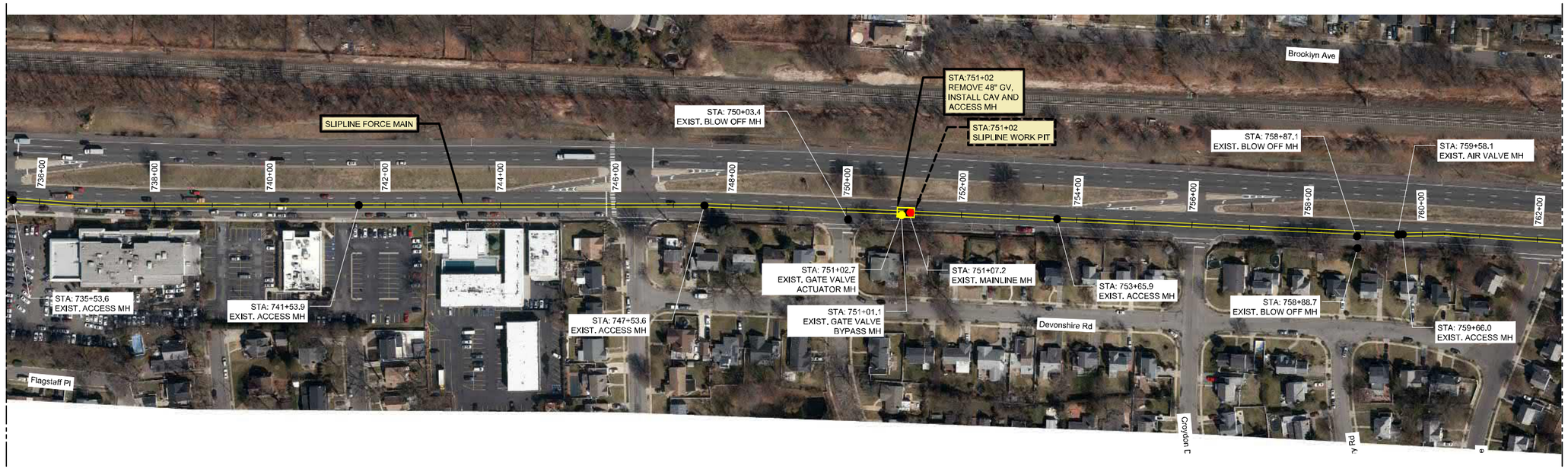
PLAN AND PROFILE 3

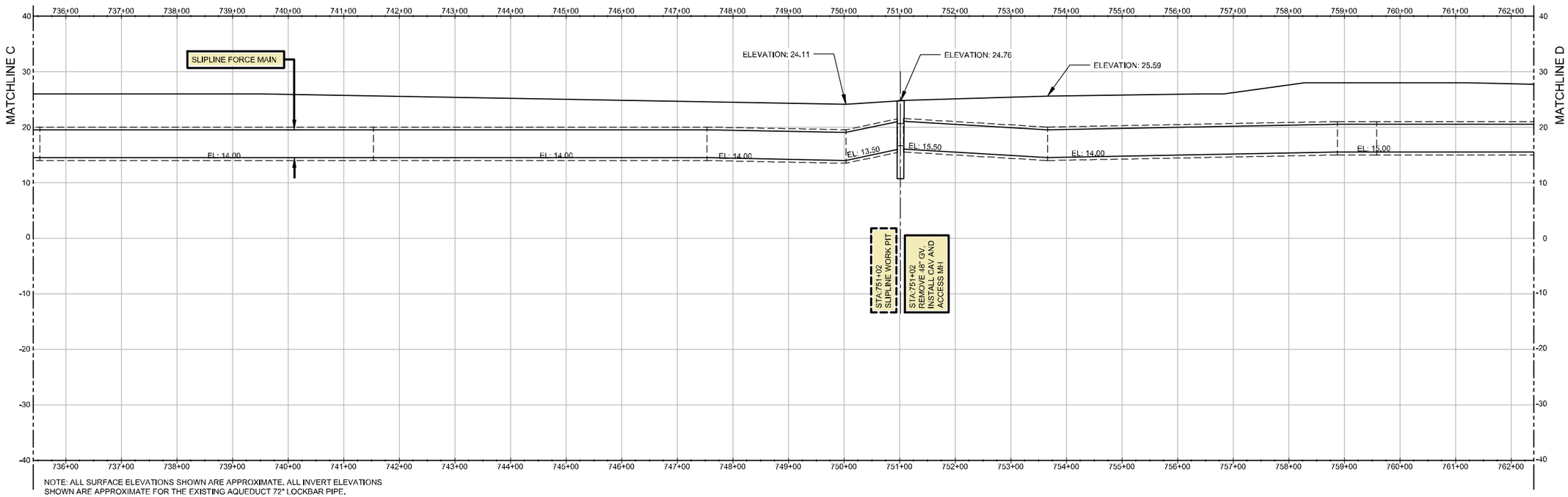
SCALE: AS SHOWN

SH-C203

PAGE 174

User:ABIDA Spec:AUS-NCSMCD File:C:\BIM\SIWSP-PB-US-PW-02\WSP_ALL\ABIDA\DM\586190\SH-C201_C215.DWG Scale:1:1/2 Saved/Date:3/6/2020 Time:15:01 Plot Date: Abid, Ali: 3/22/2020; 15:37 Layout:SH-C203





NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

PLAN NORTH

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
- AQUEDUCT TO BE SLIPLINED
- 48" GATE VALVE (GV) TO BE REMOVED
- PROPOSED WORK PIT
- EXISTING AQUEDUCT ACCESS MANHOLE, BLOWOFF, AIR COCK, OR STRUCTURE AS INDICATED
- PROPOSED ACCESS MH, WITH MANUAL AIR RELIEF VALVE (MARV); OR COMBINED AIR/VAC STRUCTURE (CAV) AS INDICATED

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-C201_C215
DESIGNED BY:	W. CHAFFEE
DRAWN BY:	J. JARRETT
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

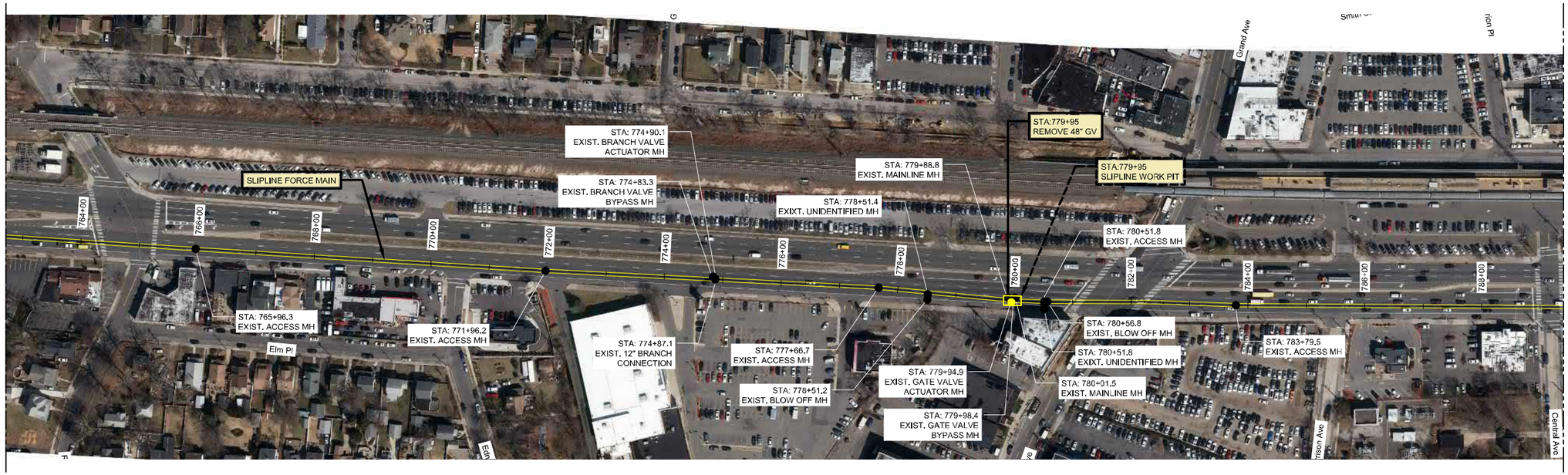
SUNRISE HIGHWAY

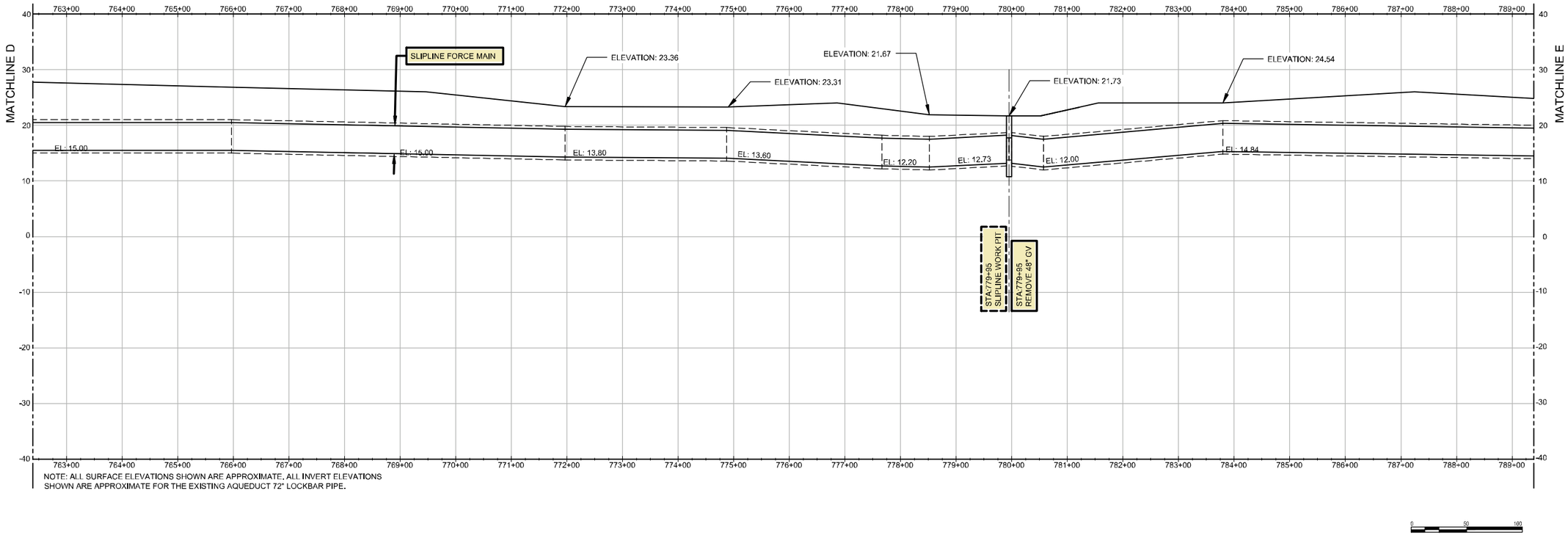
PLAN AND PROFILE 4

SCALE: AS SHOWN

SH-C204

PAGE 175





LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
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DESIGNED BY: W. CHAFFEE
DRAWN BY: J. JARRETT
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

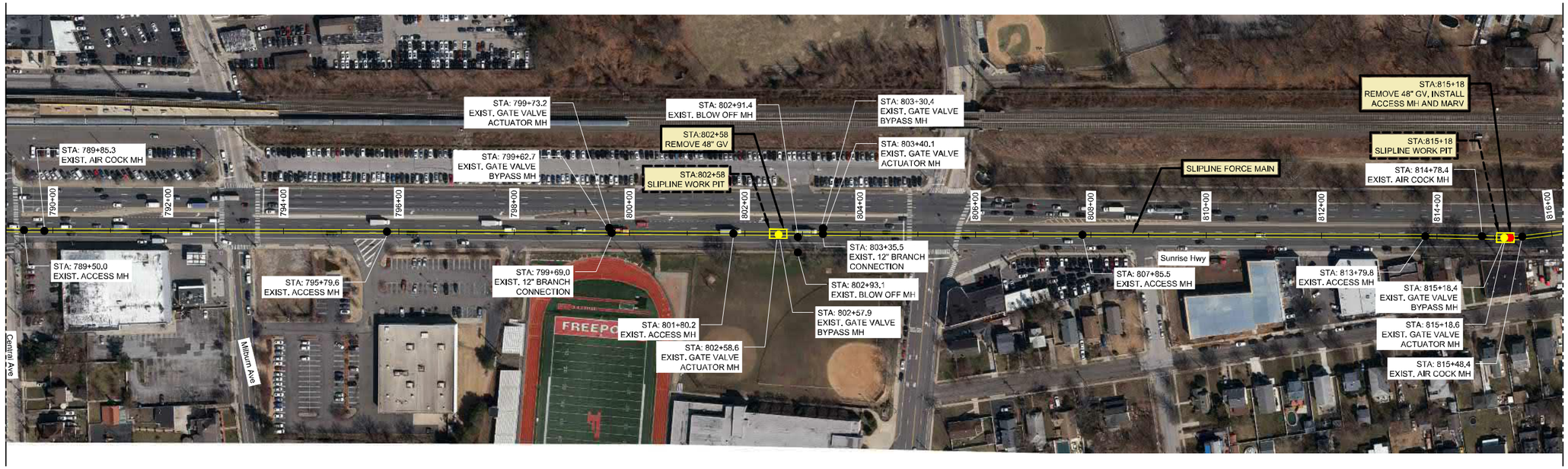
SUNRISE HIGHWAY

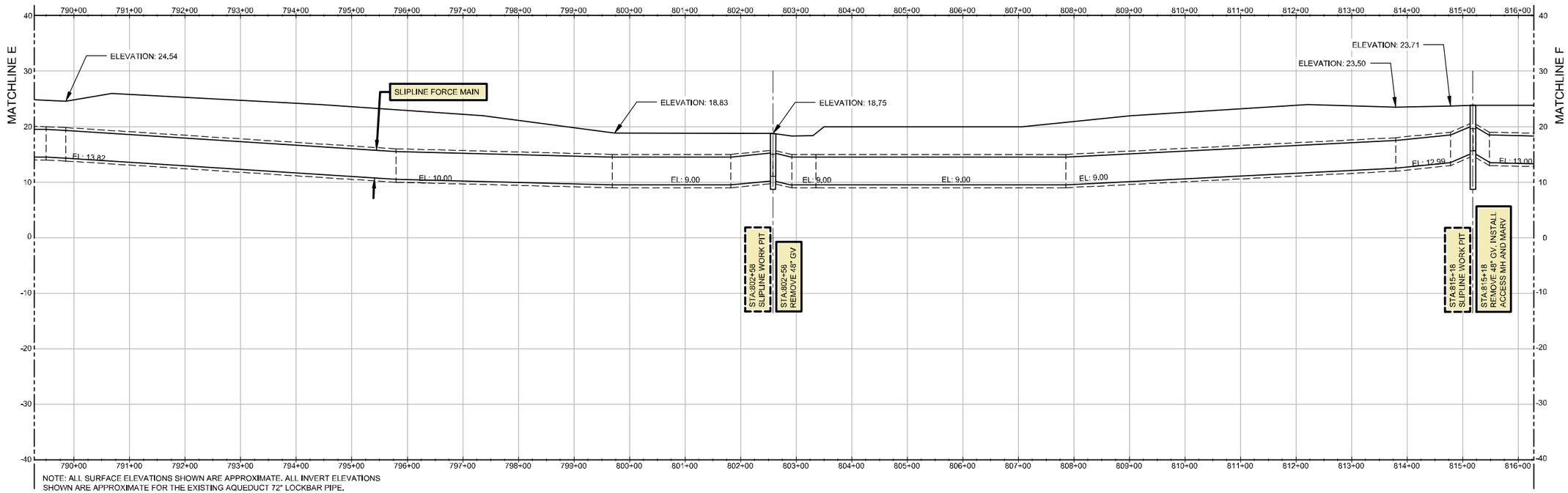
PLAN AND PROFILE 5

SCALE:
AS SHOWN

SH-C205

PAGE 176





NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

0 50 100

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

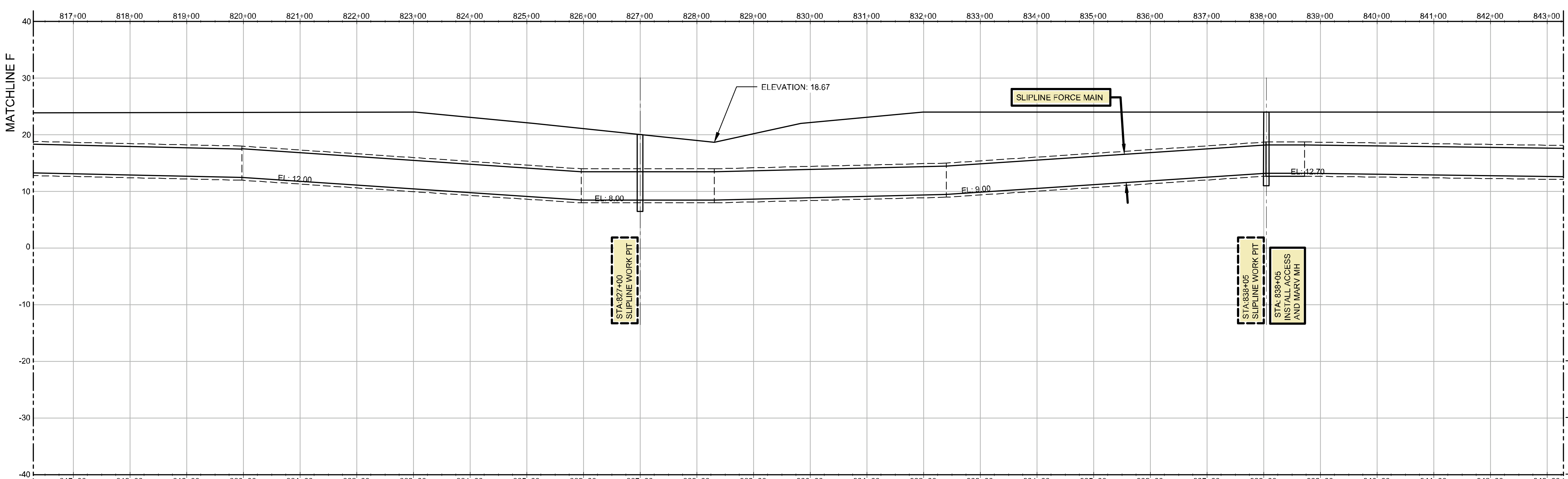
SUNRISE HIGHWAY

PLAN AND PROFILE 6

SCALE: AS SHOWN

SH-C206

PLAN
NORTH



NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

0 50 100

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

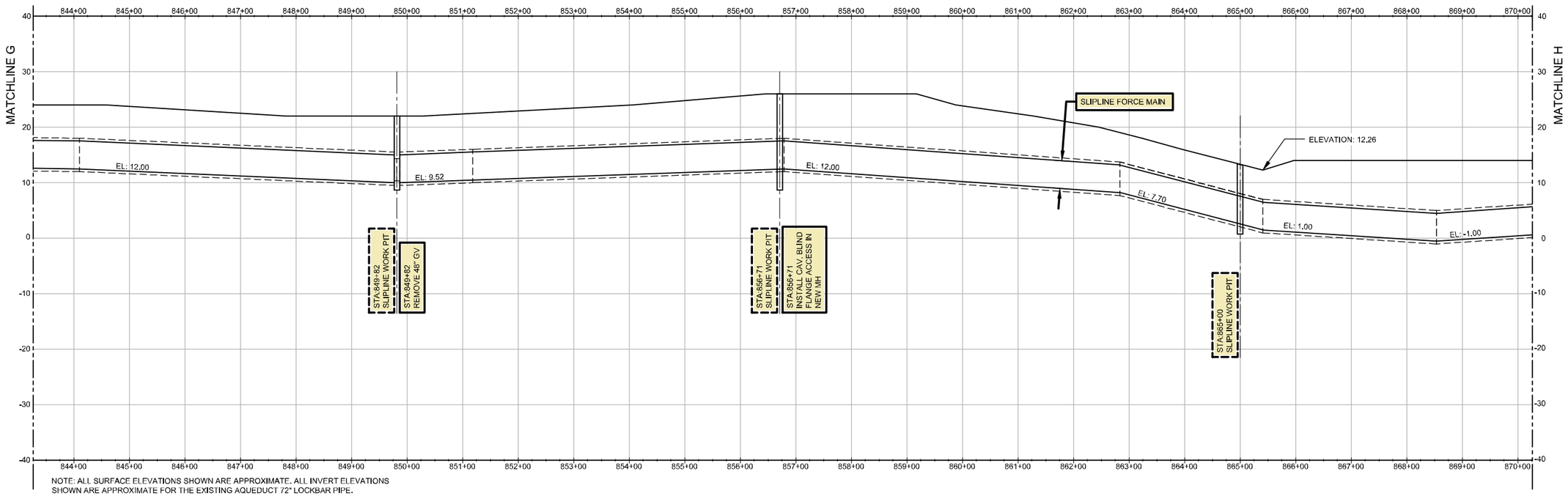
SHEET TITLE

SUNRISE HIGHWAY

PLAN AND PROFILE 7

SCALE: AS SHOWN

SH-C207



NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

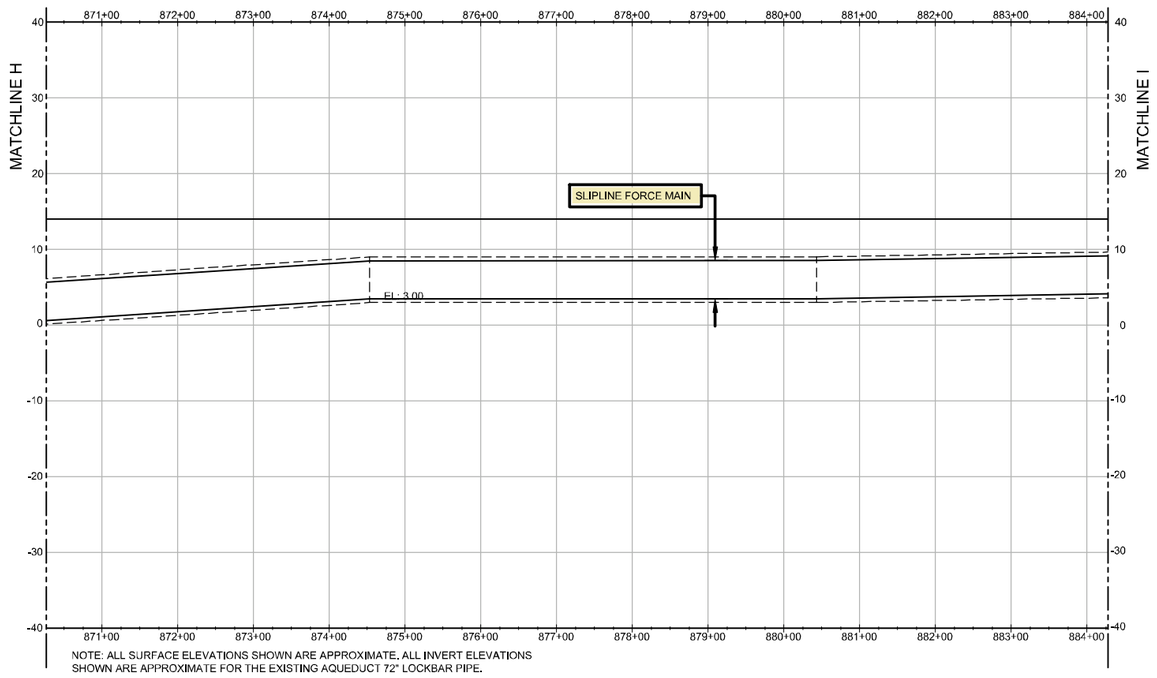
SHEET TITLE

SUNRISE HIGHWAY

PLAN AND PROFILE 8

SCALE: AS SHOWN

SH-C208



NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

PLAN NORTH

0 50 100

wsp

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

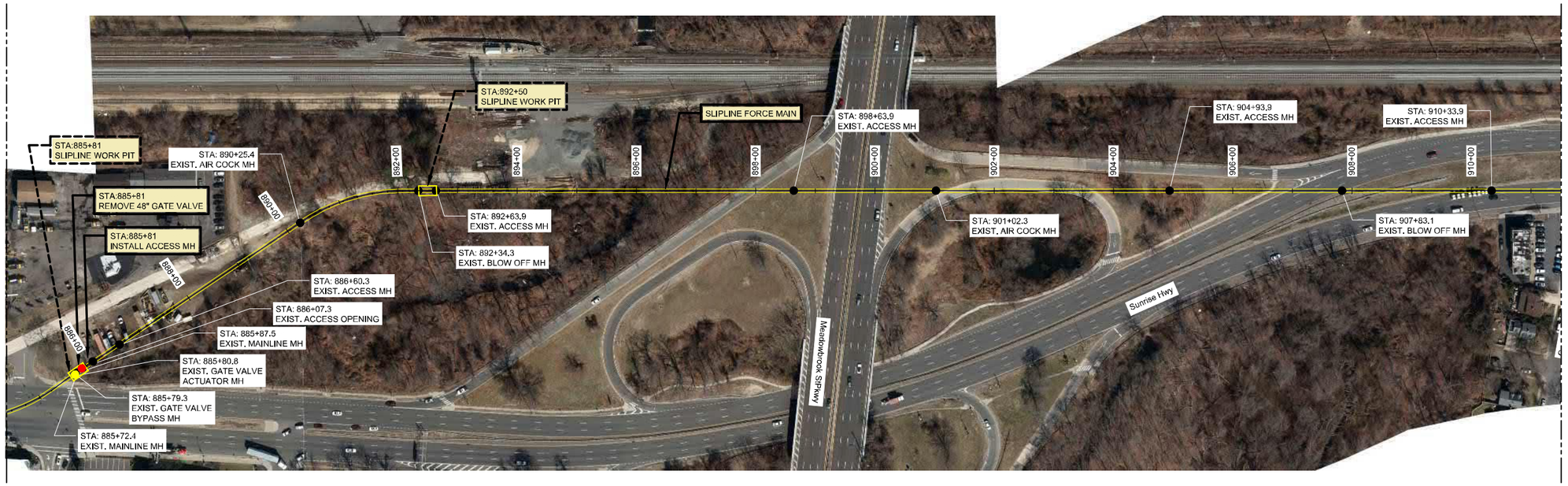
SUNRISE HIGHWAY

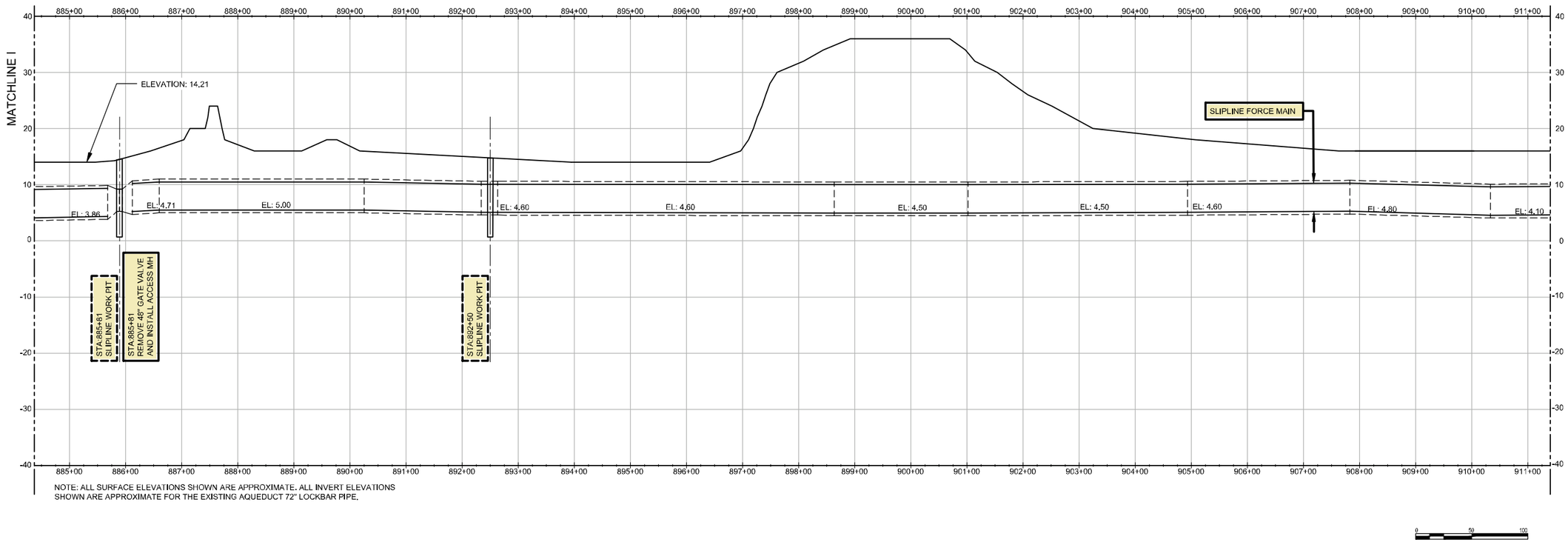
PLAN AND PROFILE 9

SCALE:
AS SHOWN

SH-C209

PAGE 180





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LEGEND:

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- XXXXX — MANDATORY ITEMS
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

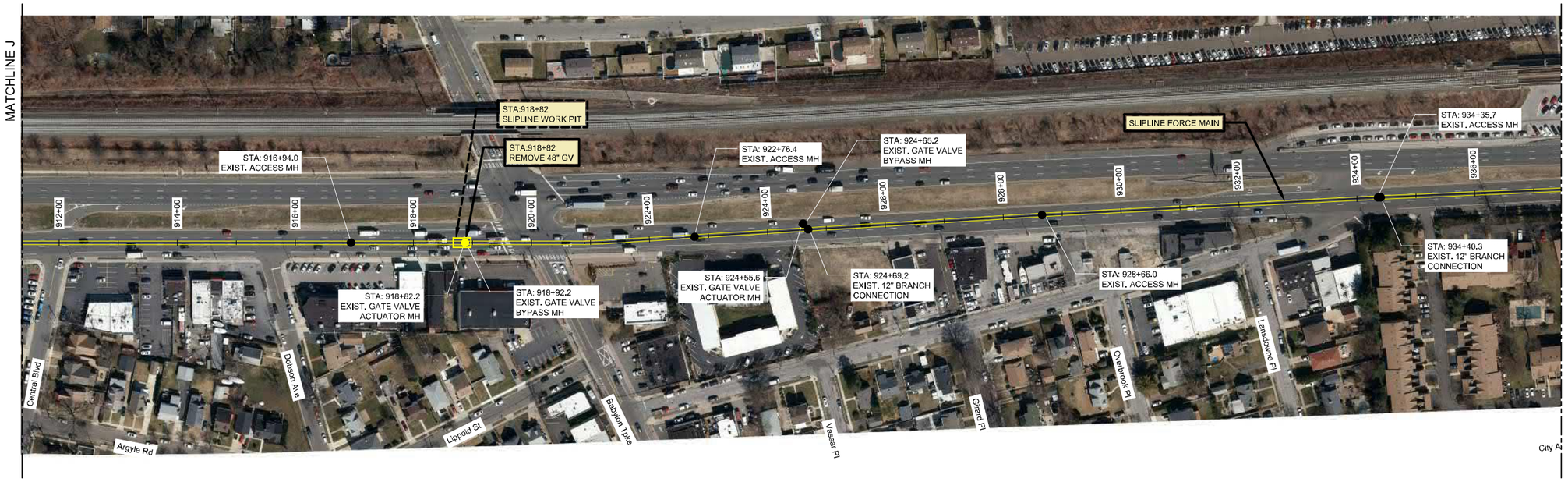
SHEET TITLE

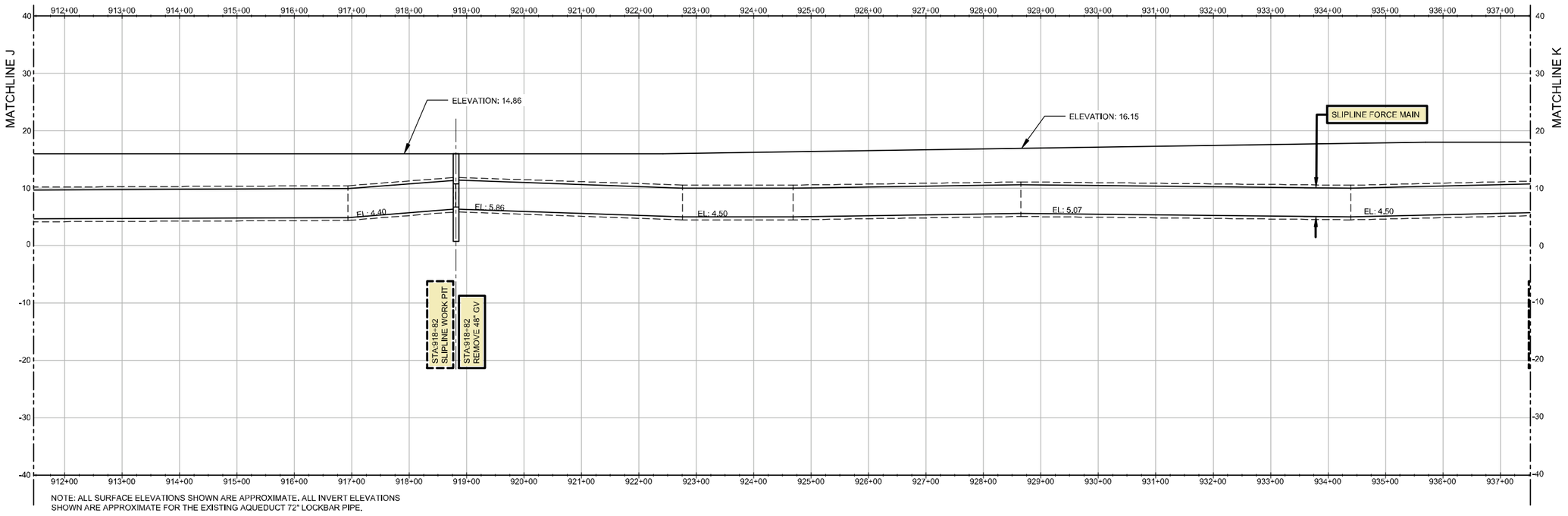
SUNRISE HIGHWAY

PLAN AND PROFILE 10

SCALE:
AS SHOWN

SH-C210





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0 50 100

wsp

LEGEND:

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

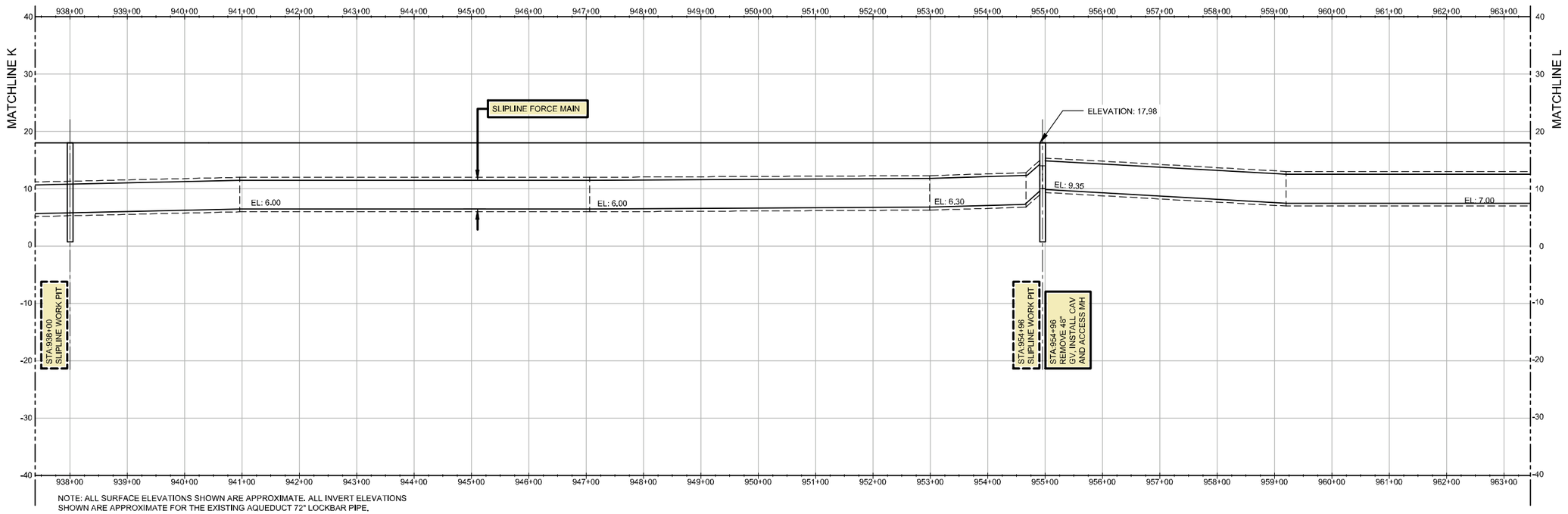
SUNRISE HIGHWAY

PLAN AND PROFILE 11

SCALE:
AS SHOWN

SH-C211

PLAN NORTH



NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

0 50 100

wsp

LEGEND:

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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

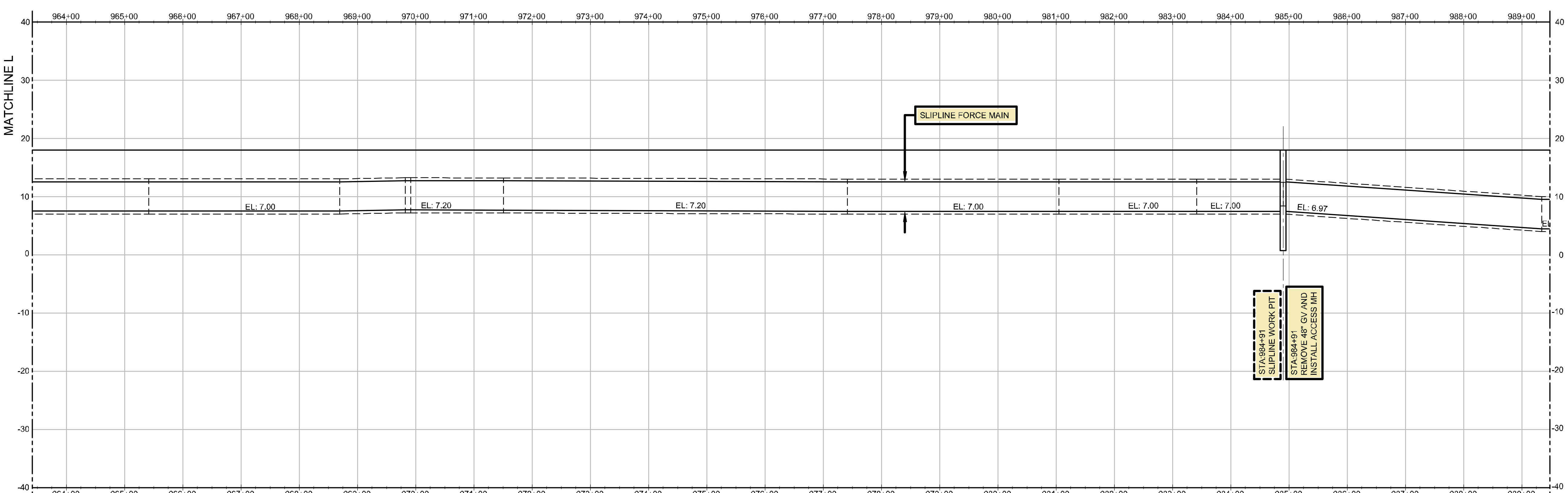
SHEET TITLE

SUNRISE HIGHWAY

PLAN AND PROFILE 12

SCALE: AS SHOWN

SH-C212



NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

wsp

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

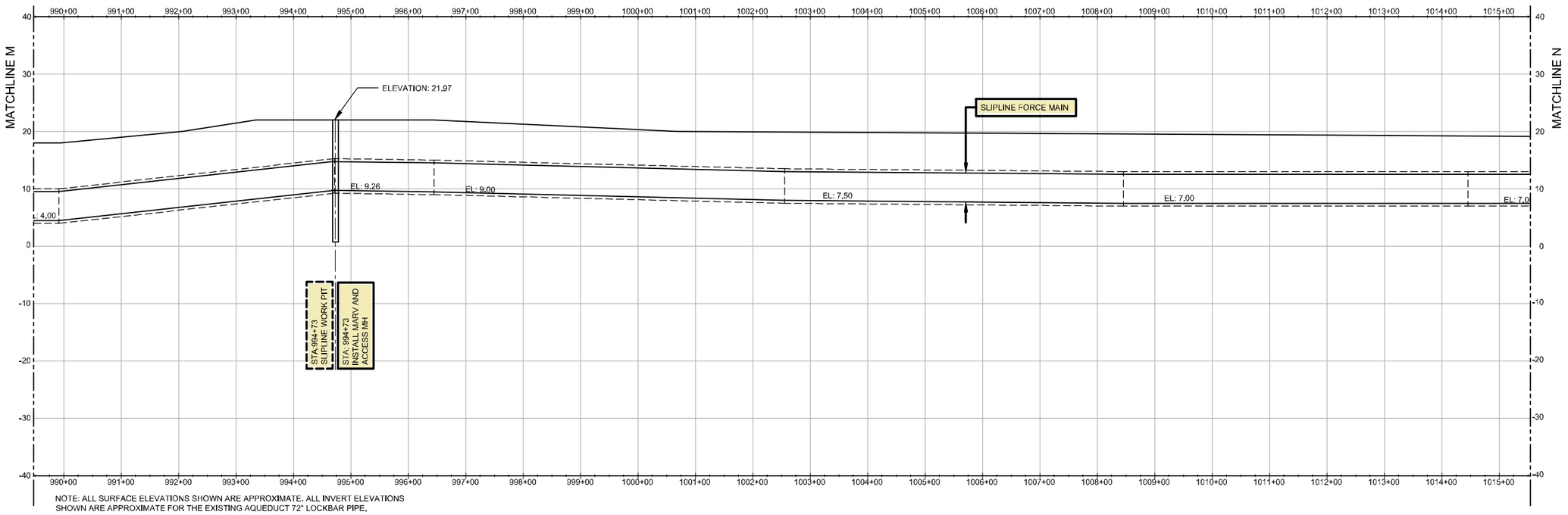
OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE
SUNRISE HIGHWAY

PLAN AND PROFILE 13

SCALE: AS SHOWN

SH-C213



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0 50 100

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
- XXXXX — MANDATORY ITEMS
- XXXXX — INDICATIVE ITEMS
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NASSAU COUNTY, NEW YORK
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SHEET TITLE

SUNRISE HIGHWAY

PLAN AND PROFILE 14

SCALE: AS SHOWN

SH-C214

NOTE: ALL SURFACE ELEVATIONS SHOWN ARE APPROXIMATE. ALL INVERT ELEVATIONS SHOWN ARE APPROXIMATE FOR THE EXISTING AQUEDUCT 72" LOCKBAR PIPE.

PLAN NORTH

LEGEND:

- XXXXX — EXISTING AQUEDUCT ANCILLARY STRUCTURES INFORMATION
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

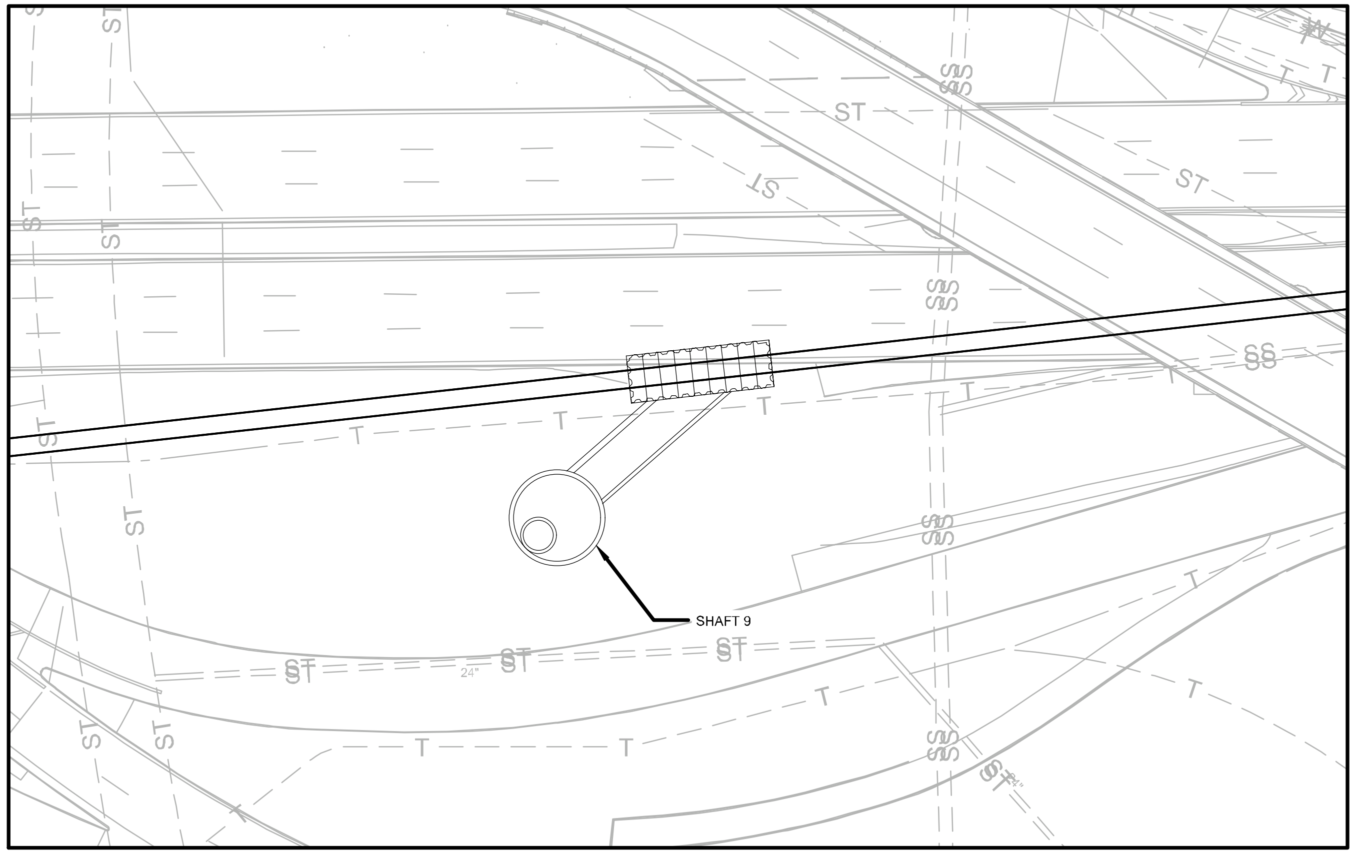
SHEET TITLE

SUNRISE HIGHWAY

PLAN AND PROFILE 15

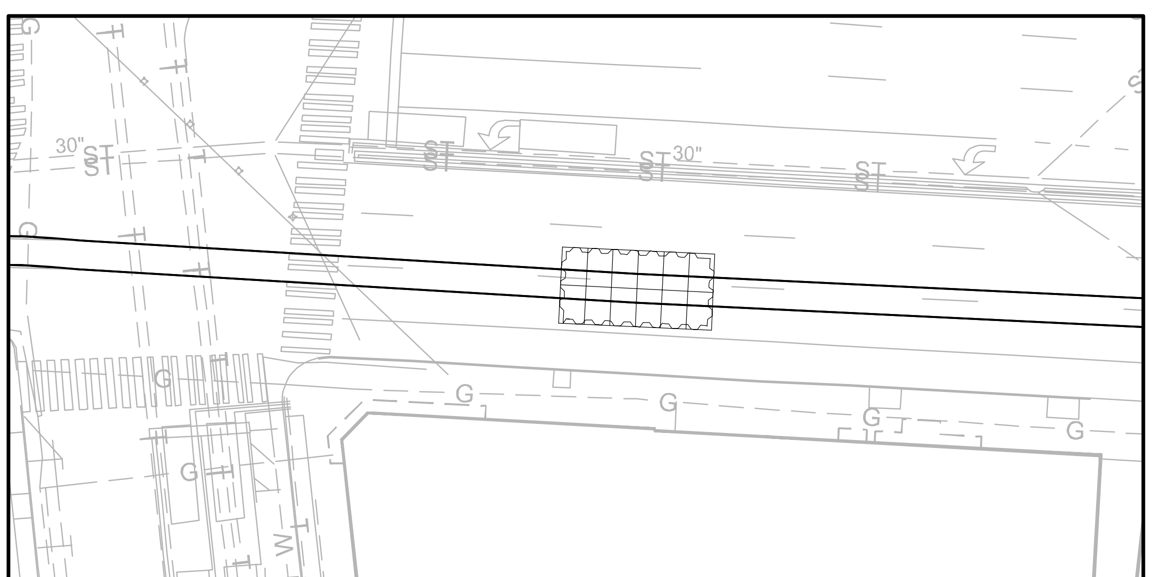
SCALE:
AS SHOWN

SH-C215



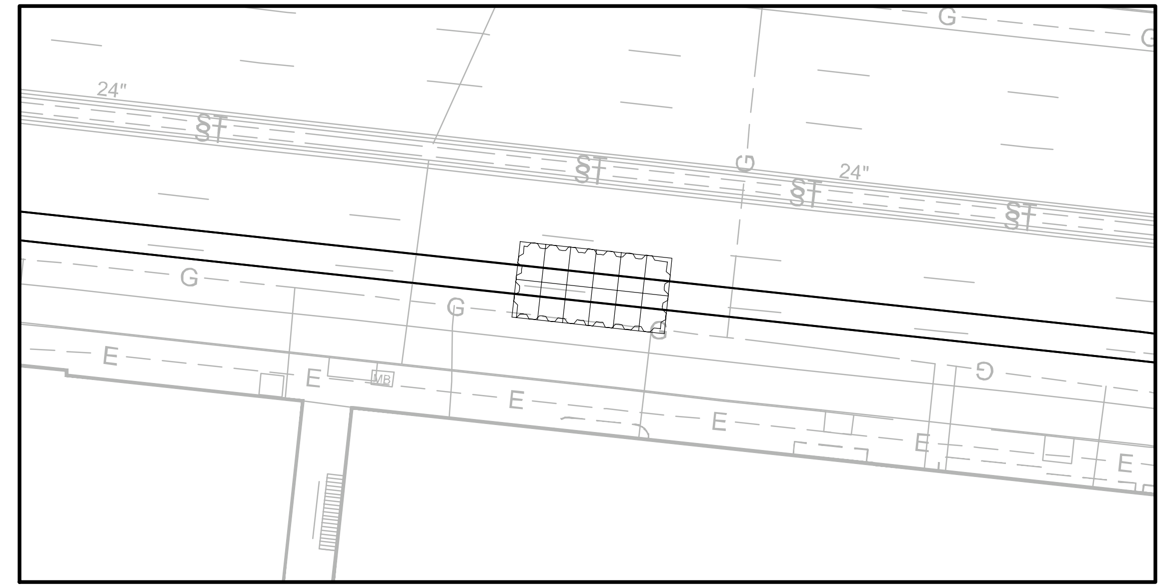
CONNECTION CHAMBER AT MICROTUNNEL SHAFT 9

1" = 20'-0"



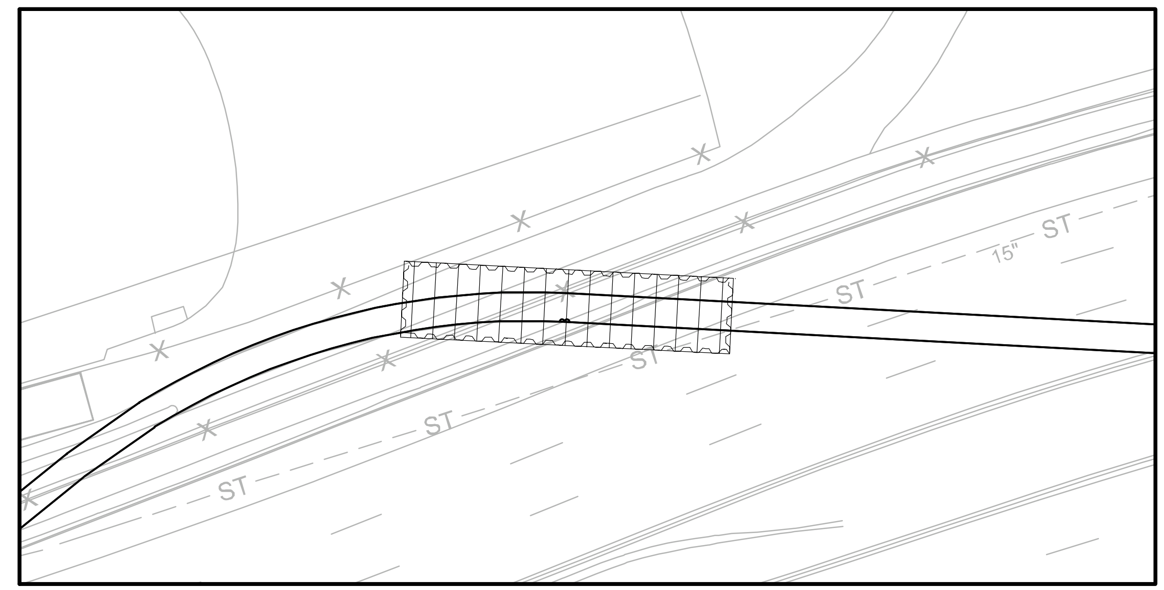
AQUEDUCT STA. 675+93

1" = 20'-0"



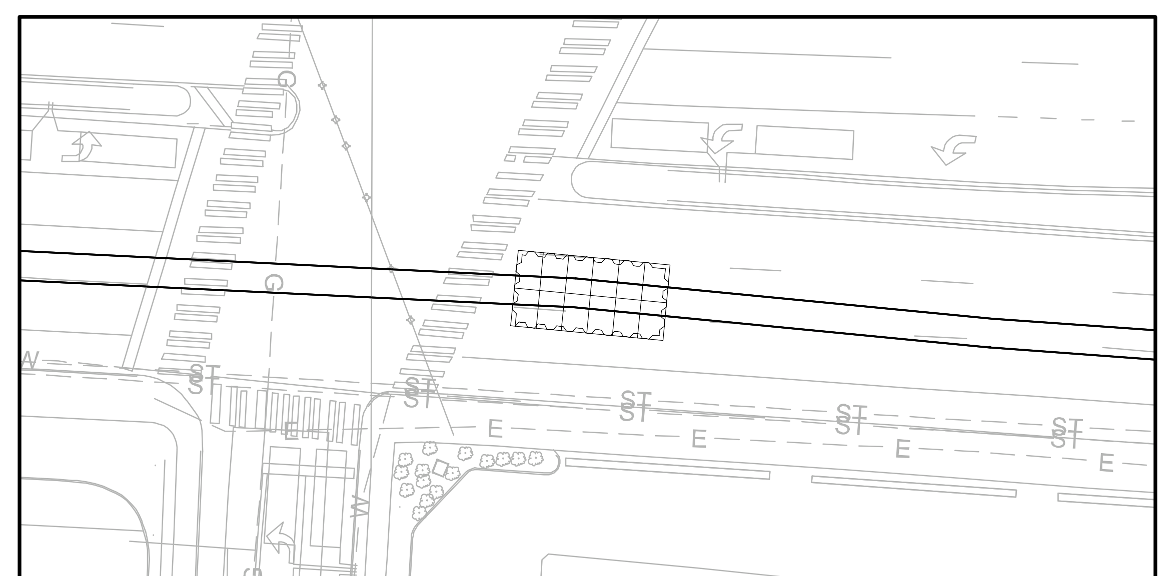
AQUEDUCT STA. 687+81

1" = 20'-0"



AQUEDUCT STA. 700.00

1" = 20'-0"



AQUEDUCT STA. 722+75

1" = 20'-0"

NOTES:

1. APPROXIMATE WORKPIT LOCATIONS SHOWN 16'X30' FOR PRELIMINARY TRAFFIC IMPACT ASSESSMENT. SEE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAIL
2. FOR ADDITIONAL UTILITY INFORMATION REFER TO RECORD PLANS (REFERENCE DOCUMENTS) AND OBTAIN ADDITIONAL INFORMATION FROM NYSDOT AND UTILITY PROVIDERS.
3. DESIGN-BUILDER SHALL PROTECT UTILITIES OR RELOCATE UTILITIES AFTER OBTAINING ALL PERMITS AND APPROVALS.

LEGEND:

EXIST. AQUEDUCT PRELIM. ALIGHMENT, TO BE SLIPLINED

APPROXIMATE WORKPIT FOOTPRINT FOR SLIPLINING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

THE INFORMATION PROVIDED IN THIS DRAWING IS INDICATIVE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR MINIMUM REQUIREMENTS TO BE INCLUDED IN THE FINAL "RELEASED FOR CONSTRUCTION" SPECIFICATIONS DEVELOPED BY THE DESIGN-BUILDER. ALL DIMENSIONS AND INFORMATION ON EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED AND REVISED AS NEEDED FOR CODE COMPLIANCE AND/OR FOR OTHER TECHNICAL REQUIREMENTS BY THE DESIGN-BUILDER.

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020

PROJECT NO.: PW-S3B116-03CR

FILE NAME: SH-C401_C404

DESIGNED BY: W. CHAFFEE

DRAWN BY: J. JARRETT

CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK

DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

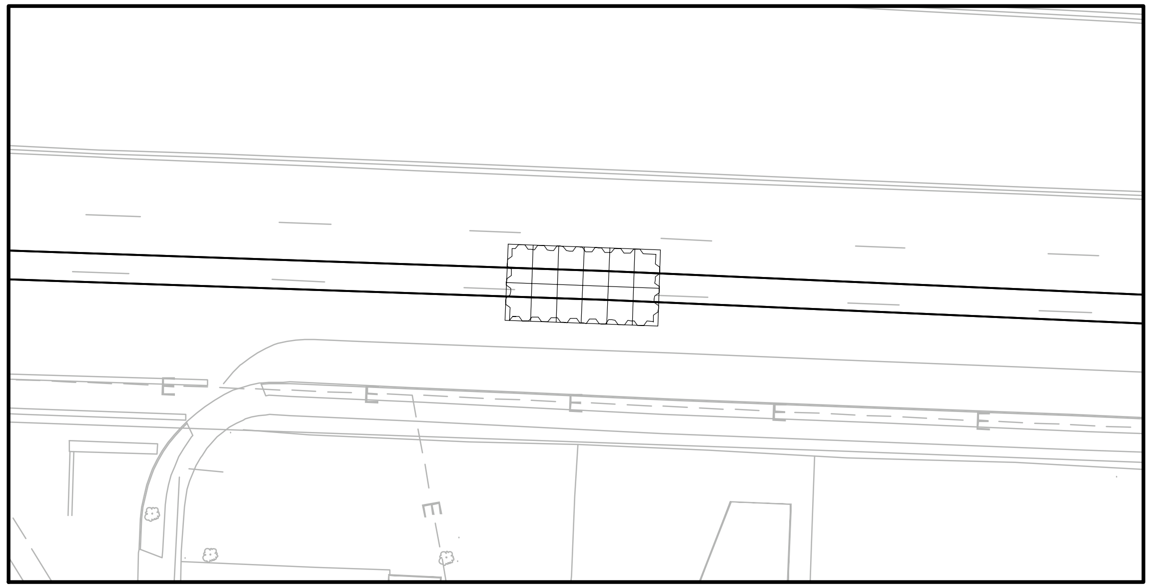
SHEET TITLE

SUNRISE HIGHWAY

SLIPLINE WORKPIT PRELIMINARY LOCATION PLAN 1

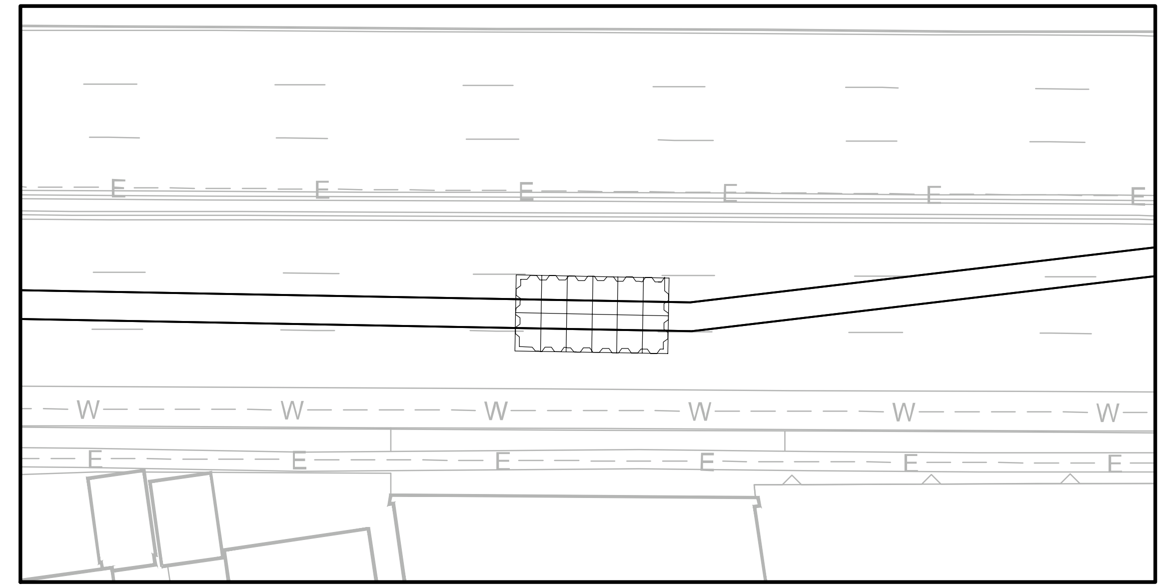
SCALE: AS SHOWN

SH-C401



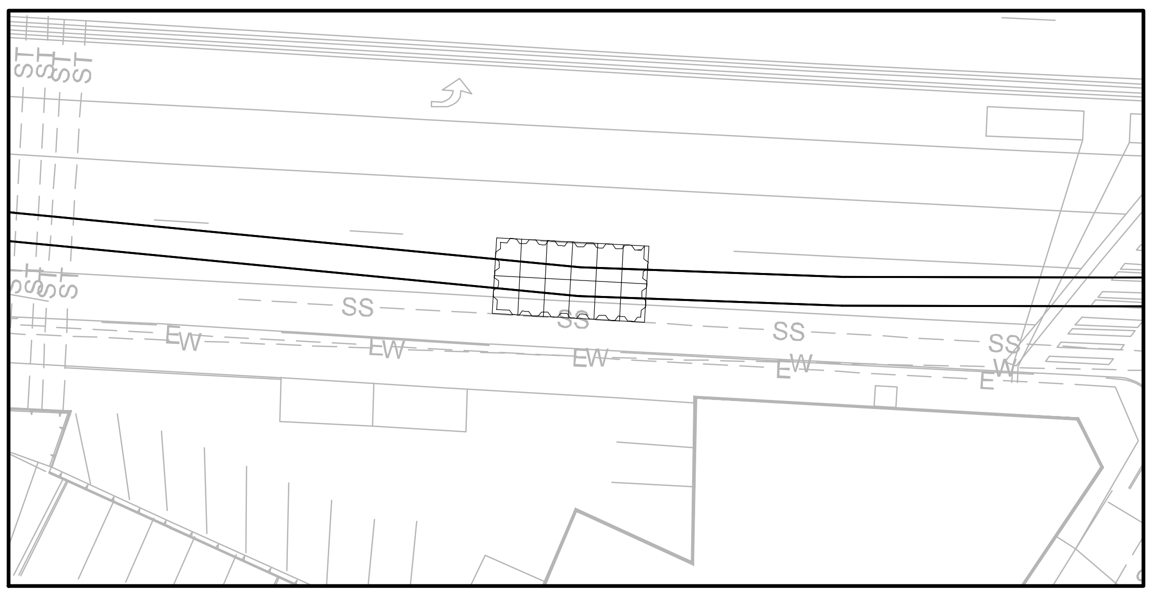
AQUEDUCT STA. 751+02

1" = 20'-0"



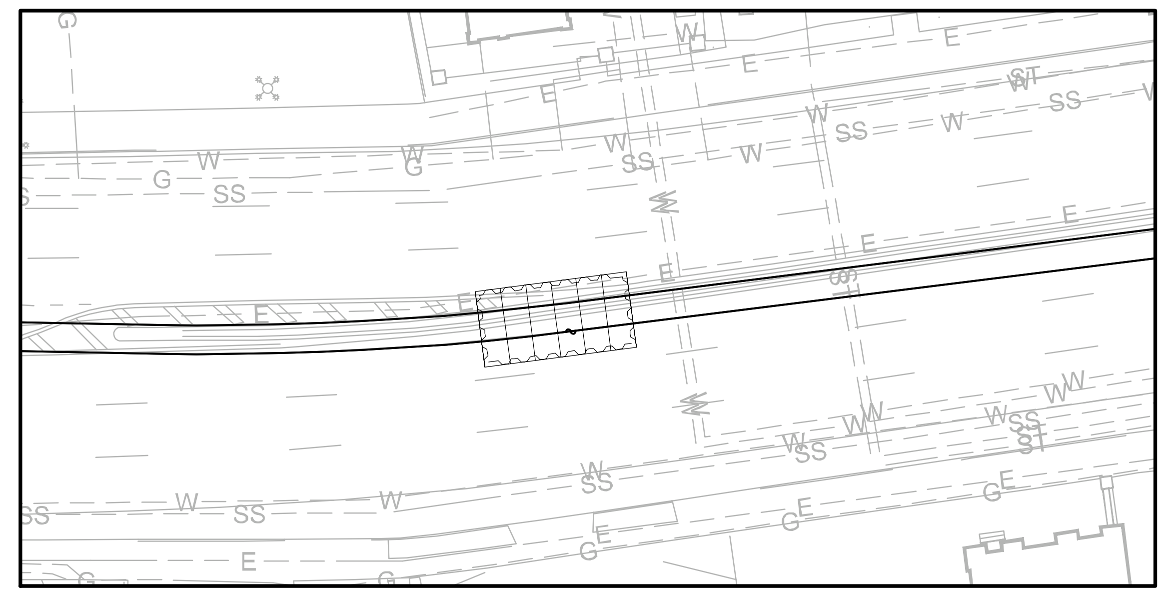
AQUEDUCT STA. 815+18

1" = 20'-0"



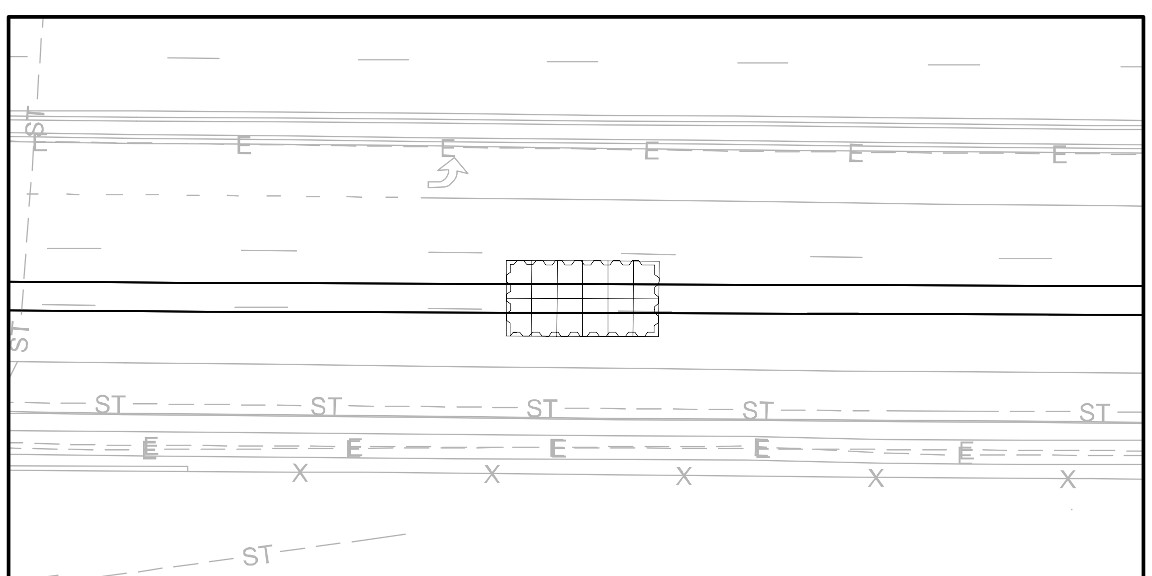
AQUEDUCT STA. 779+95

1" = 20'-0"



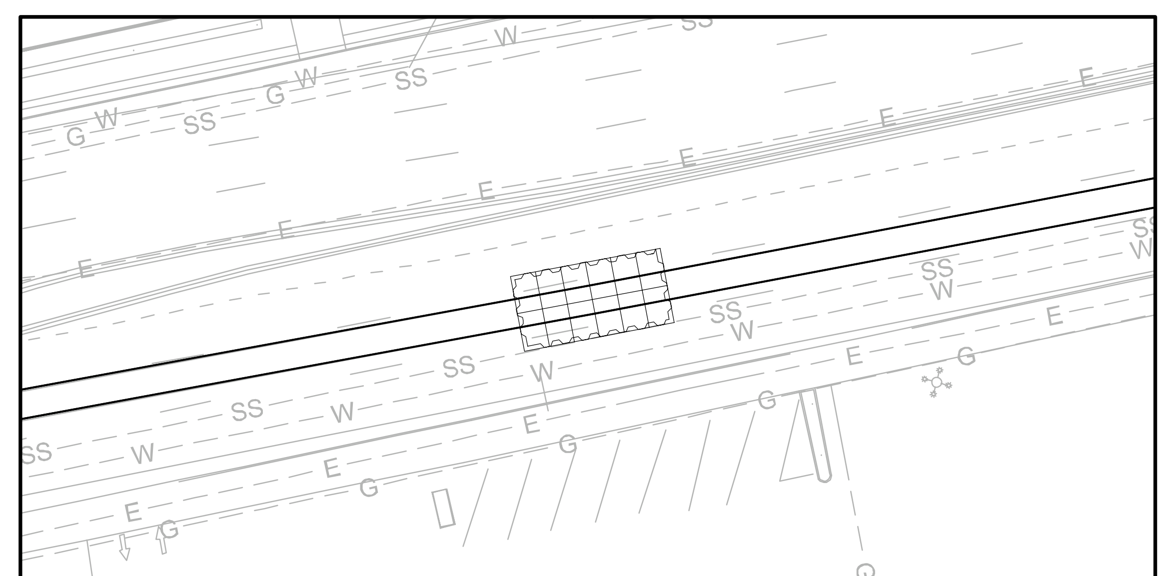
AQUEDUCT STA. 827+00

1" = 20'-0"



AQUEDUCT STA. 802+58

1" = 20'-0"



AQUEDUCT STA. 838+05

1" = 20'-0"

NOTES:

1. APPROXIMATE WORKPIT LOCATIONS SHOWN 16'X30' FOR PRELIMINARY TRAFFIC IMPACT ASSESSMENT. SEE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAIL
2. FOR ADDITIONAL UTILITY INFORMATION REFER TO RECORD PLANS (REFERENCE DOCUMENTS) AND OBTAIN ADDITIONAL INFORMATION FROM NYSDOT AND UTILITY PROVIDERS.
3. DESIGN-BUILDER SHALL PROTECT UTILITIES OR RELOCATE UTILITIES AFTER OBTAINING ALL PERMITS AND APPROVALS.

LEGEND:

EXIST. AQUEDUCT PRELIM. ALIGHMENT, TO BE SLIPLINED

APPROXIMATE WORKPIT FOOTPRINT FOR SLIPLINING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-C401_C404
DESIGNED BY: W. CHAFFEE
DRAWN BY: J. JARRETT
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

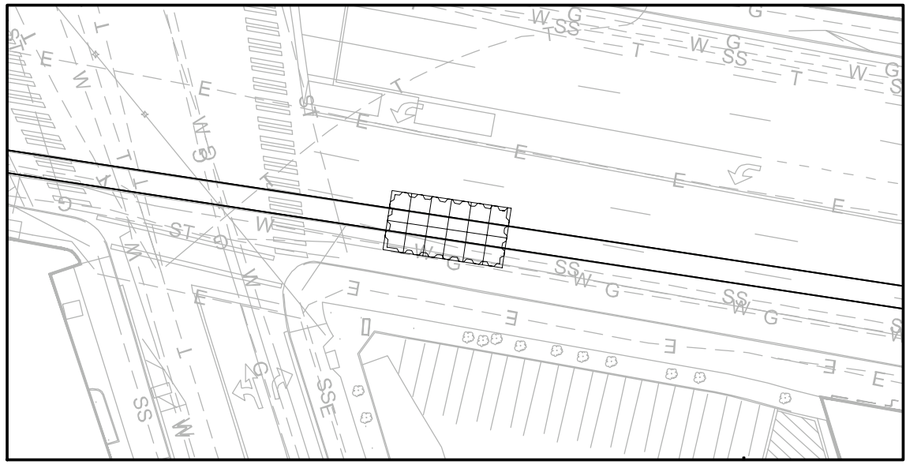
SHEET TITLE

SUNRISE HIGHWAY

SLIPLINE WORKPIT PRELIMINARY LOCATION PLAN 2

SCALE: AS SHOWN

SH-C402

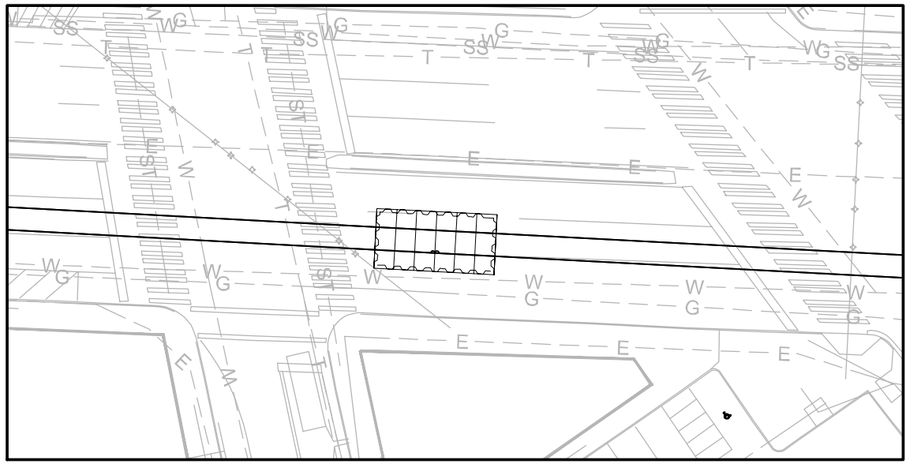


AQUEDUCT STA. 849+82

1" = 20'-0"

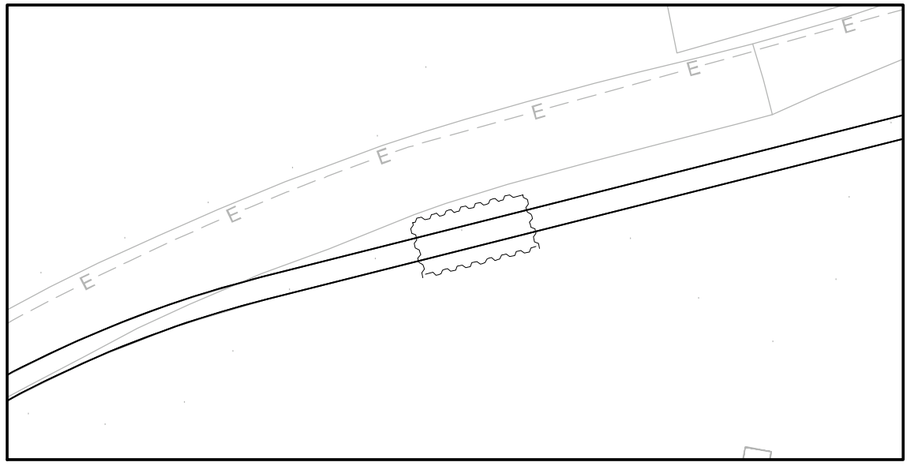
AQUEDUCT STA. 885+81

1" = 20'-0"



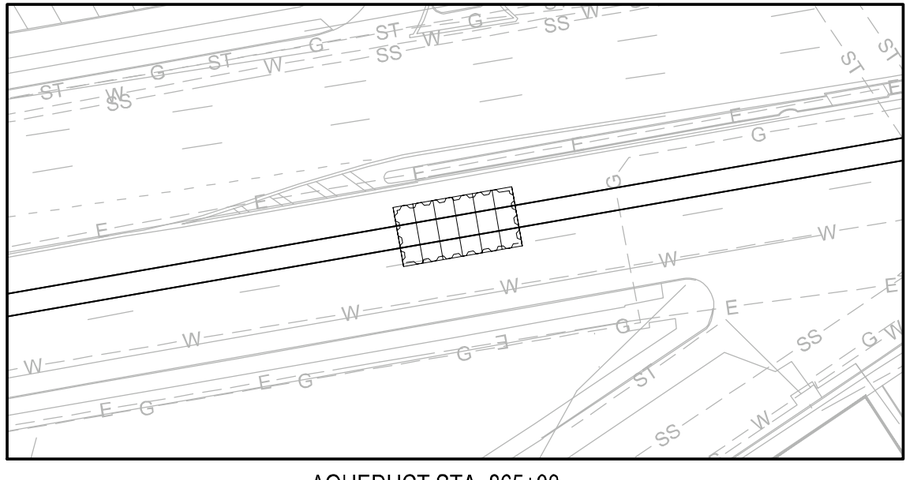
AQUEDUCT STA. 856+71

1" = 20'-0"



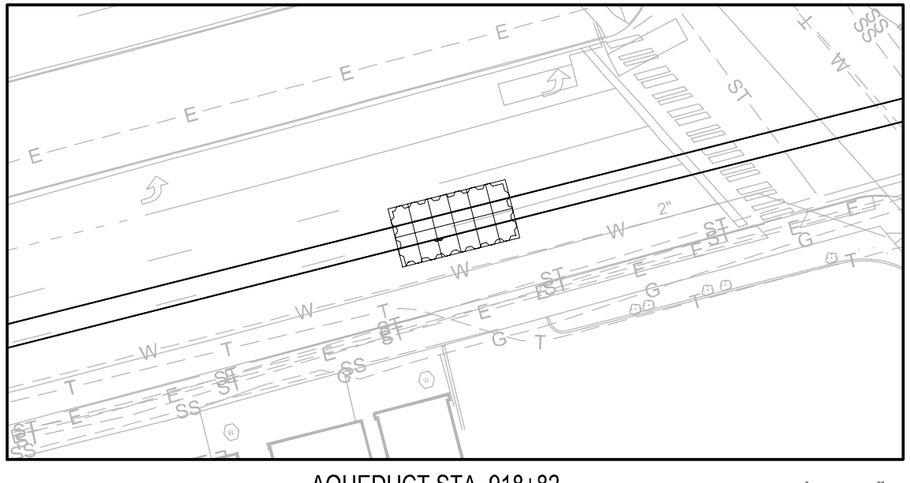
AQUEDUCT STA. 892+50

1" = 20'-0"



AQUEDUCT STA. 865+00

1" = 20'-0"



AQUEDUCT STA. 918+82

1" = 20'-0"

0 20 40

NOTES:

1. APPROXIMATE WORKPIT LOCATIONS SHOWN 16'X30' FOR PRELIMINARY TRAFFIC IMPACT ASSESSMENT. SEE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAIL
2. FOR ADDITIONAL UTILITY INFORMATION REFER TO RECORD PLANS (REFERENCE DOCUMENTS) AND OBTAIN ADDITIONAL INFORMATION FROM NYSDOT AND UTILITY PROVIDERS.
3. DESIGN-BUILDER SHALL PROTECT UTILITIES OR RELOCATE UTILITIES AFTER OBTAINING ALL PERMITS AND APPROVALS.

LEGEND:

EXIST. AQUEDUCT PRELIM. ALIGHMENT, TO BE SLIPLINED

APPROXIMATE WORKPIT FOOTPRINT FOR SLIPLINING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-C401_C404
DESIGNED BY: W. CHAFFEE
DRAWN BY: J. JARRETT
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

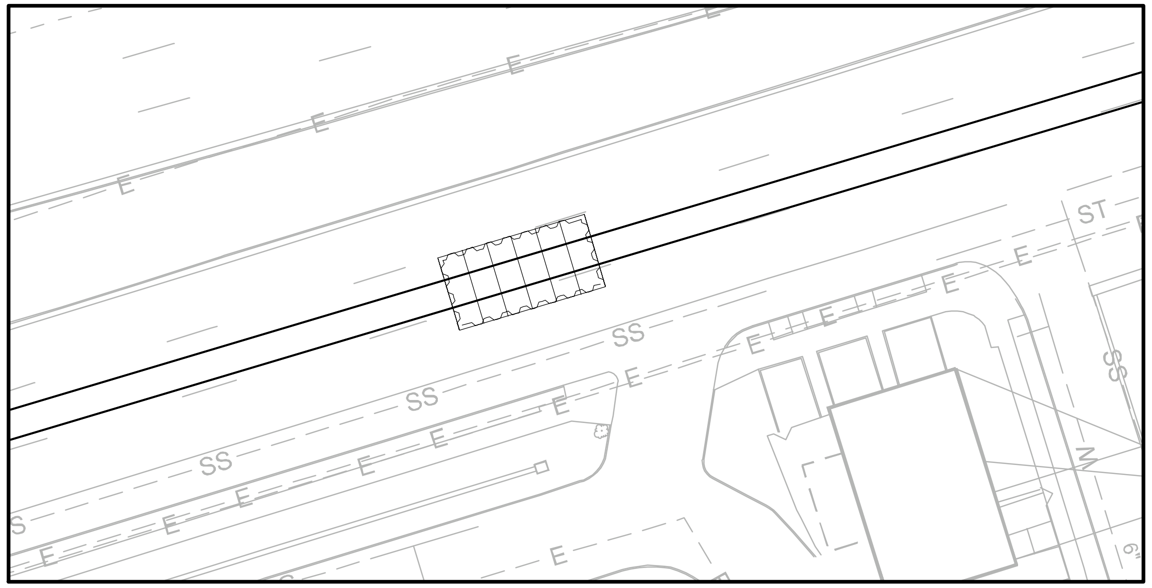
SHEET TITLE

SUNRISE HIGHWAY

SLIPLINE WORKPIT
PRELIMINARY LOCATION
PLAN 3

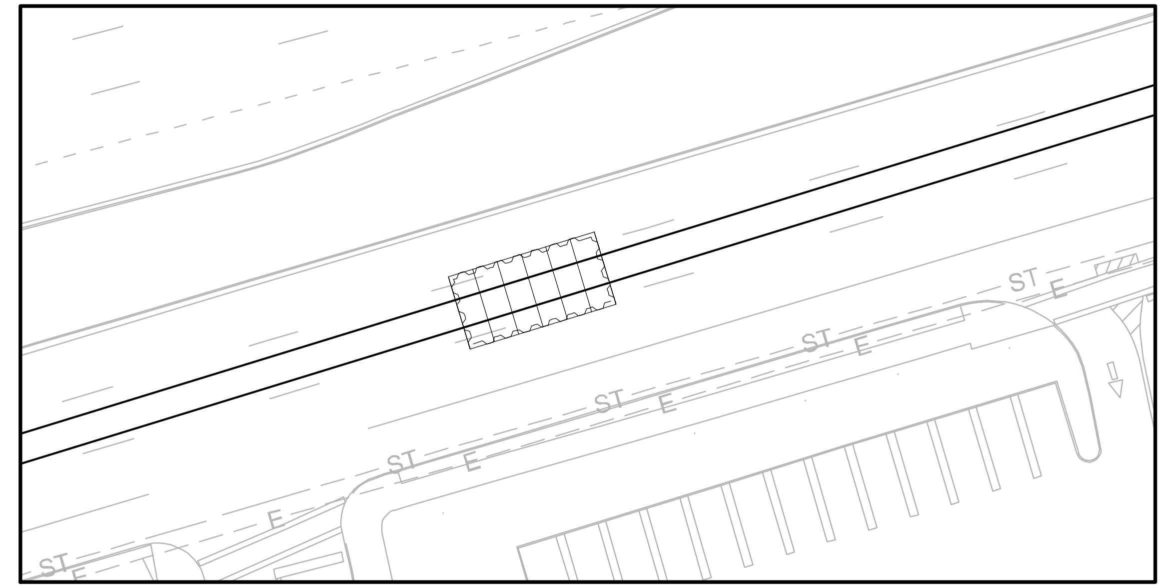
SCALE: AS SHOWN

SH-C403



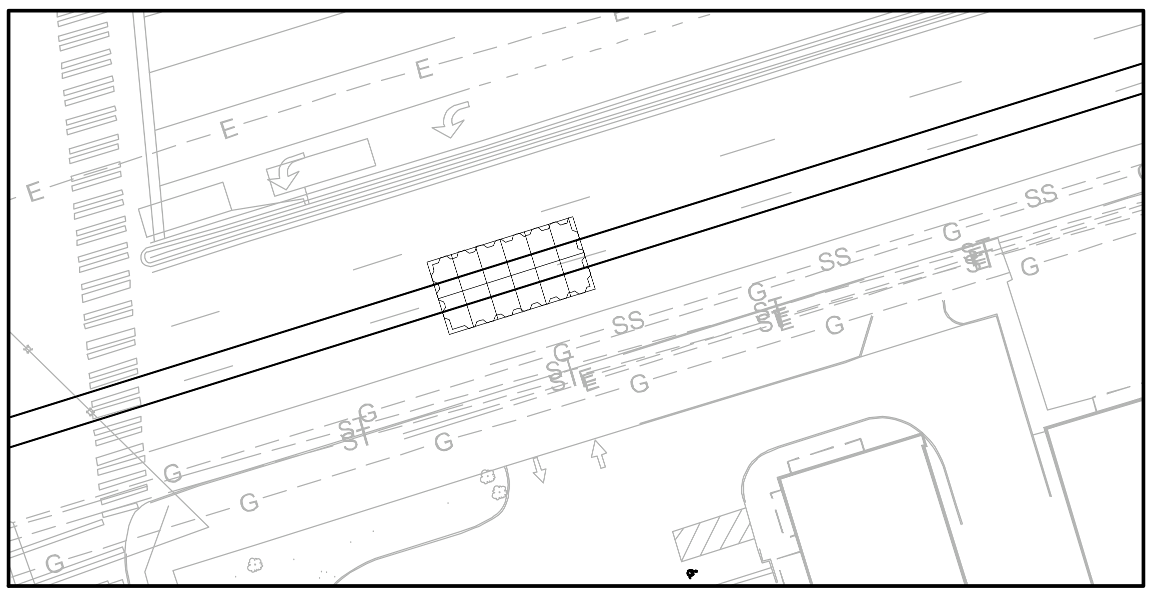
AQUEDUCT STA. 938+00

1" = 20'-0"



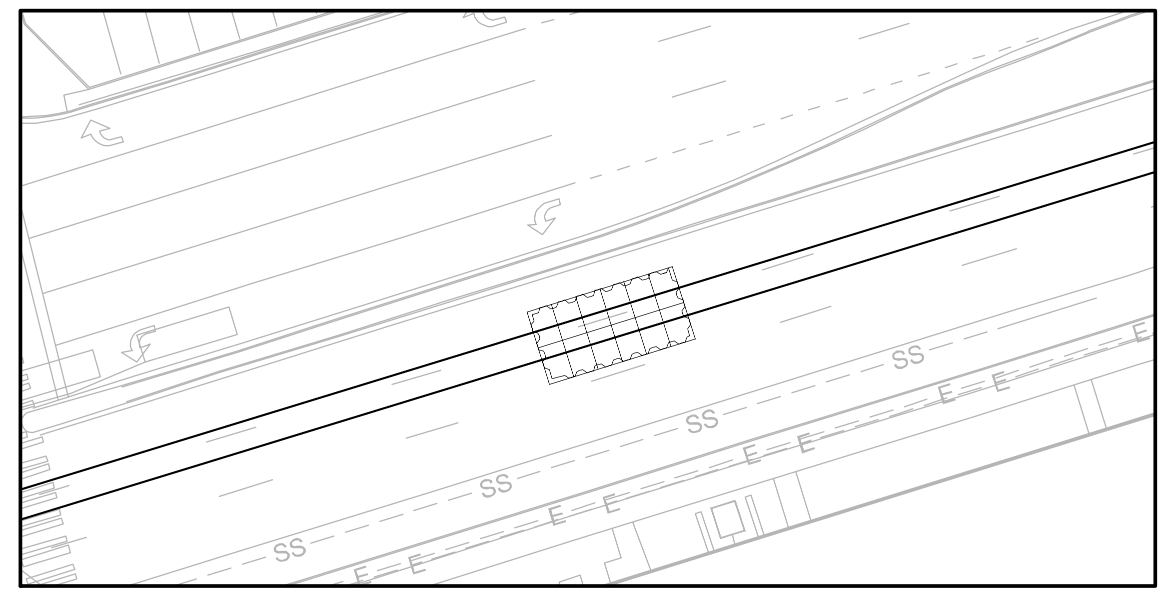
AQUEDUCT STA. 994+73

1" = 20'-0"



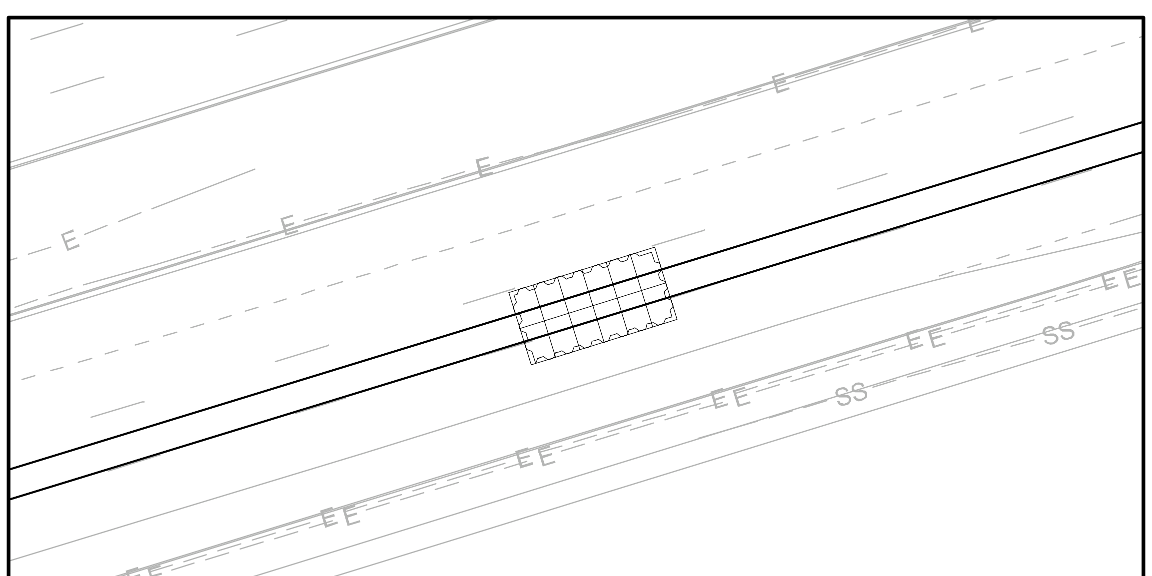
AQUEDUCT STA. 954+96

1" = 20'-0"



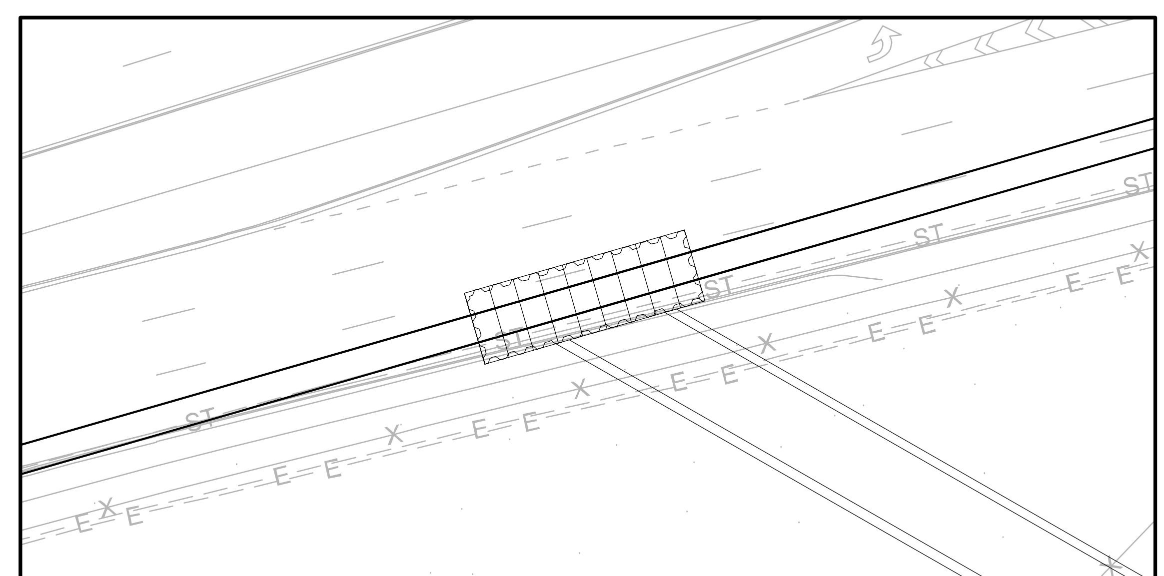
AQUEDUCT STA. 1019+86

1" = 20'-0"



AQUEDUCT STA. 984+91

1" = 20'-0"



AQUEDUCT STA. 1040+37 CONNECTION TO CEDAR CREEK CHAMBER

1" = 20'-0"

wsp

NOTES:

1. APPROXIMATE WORKPIT LOCATIONS SHOWN 16'X30' FOR PRELIMINARY TRAFFIC IMPACT ASSESSMENT. SEE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAIL.
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3. DESIGN-BUILDER SHALL PROTECT UTILITIES OR RELOCATE UTILITIES AFTER OBTAINING ALL PERMITS AND APPROVALS.

LEGEND:

EXIST. AQUEDUCT PRELIM. ALIGHMENT, TO BE SLIPLINED

APPROXIMATE WORKPIT FOOTPRINT FOR SLIPLINING

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE: APRIL 2020
PROJECT NO.: PW-S3B116-03CR
FILE NAME: SH-C401_C404
DESIGNED BY: W. CHAFFEE
DRAWN BY: J. JARRETT
CHECKED BY: S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

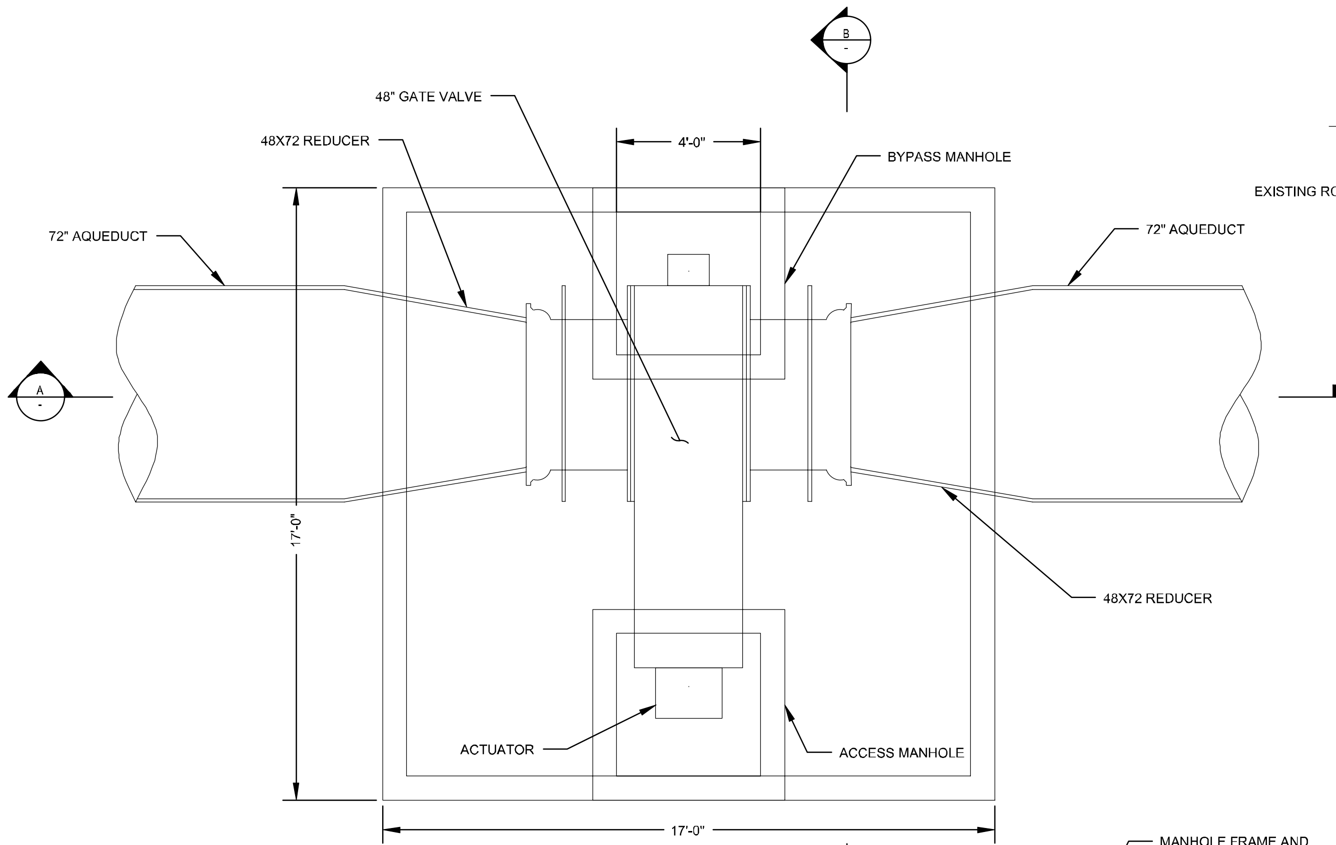
SUNRISE HIGHWAY

SLIPLINE WORKPIT PRELIMINARY LOCATION PLAN 4

SCALE: AS SHOWN

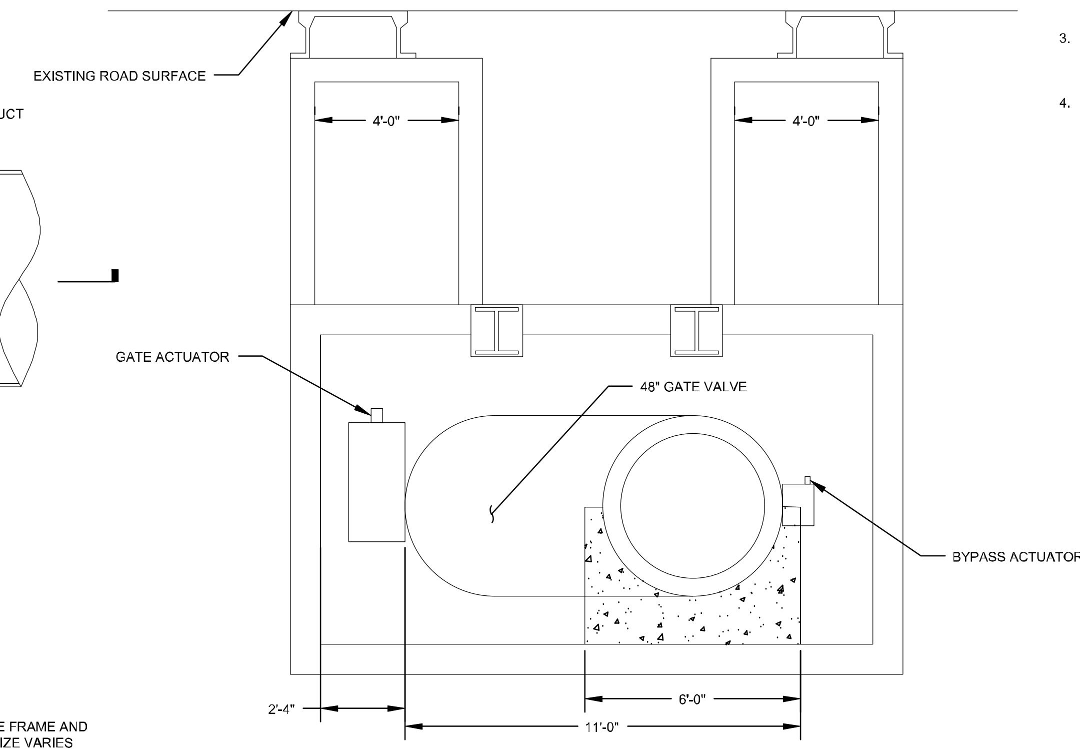
SH-C404

PAGE 190



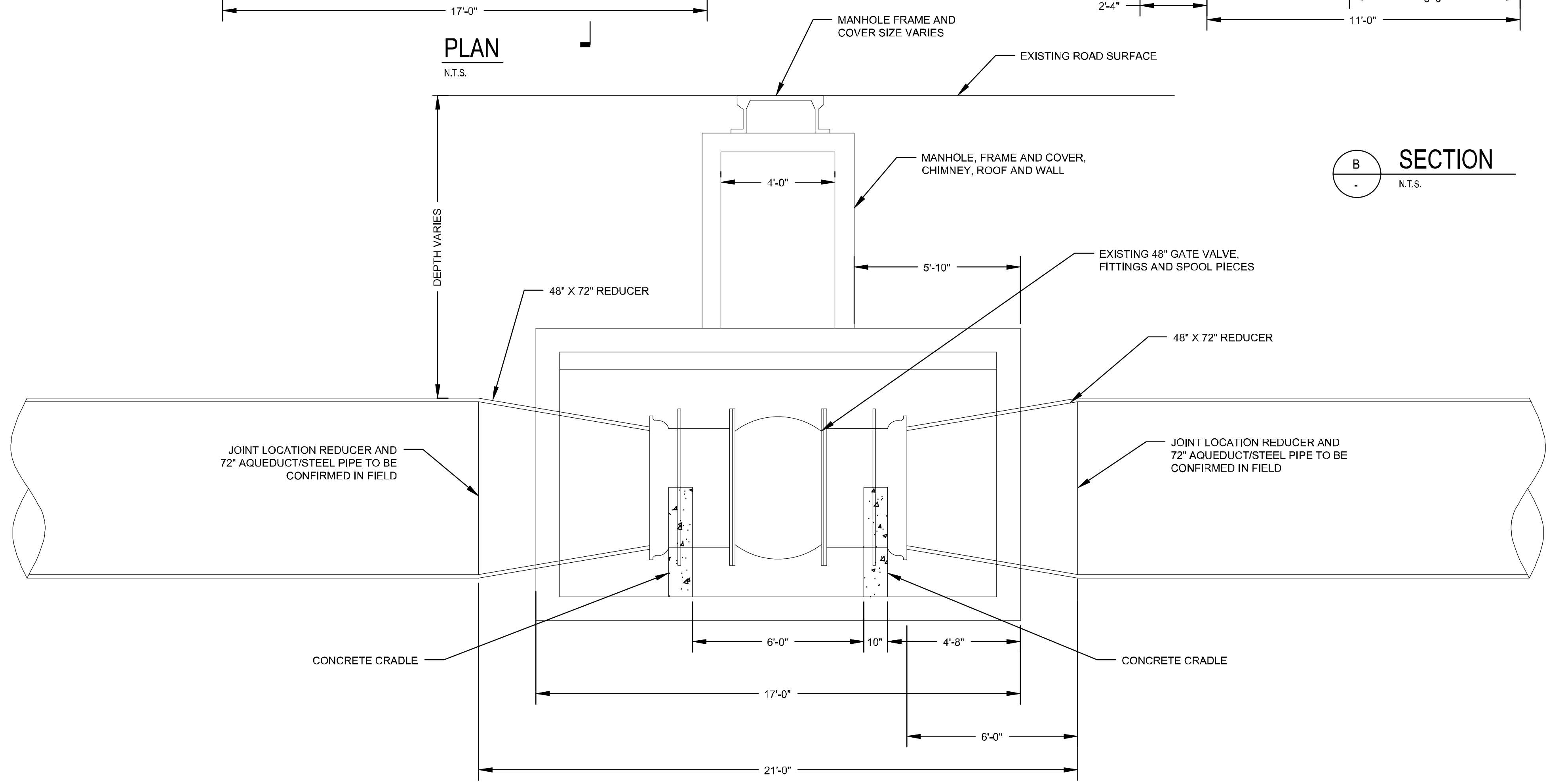
PLAN

N.T.S.



B - SECTION

N.T.S.



A - SECTION

N.T.S.

NOTES:

1. ALL DIMENSIONS ARE APPROXIMATE, SEE AS-BUILT DWG NO 25 D.W.S.G. AND E. GATE VALVE CHAMBER DETAILS BY ANDREWS & CLARK CONSULTING ENGINEERS, DATED JULY, 1952 FOR DETAILS.
2. CONTRACTOR TO FIELD VERIFY DIMENSIONS PRIOR TO WORK AT EACH 48" GATE VALVE TO BE REMOVED.
3. EXCAVATION AND FINAL CLOSURE SHALL BE IN ACCORDANCE WITH THE TRAFFIC MANAGEMENT PLAN AND AS SPECIFIED.
4. EXISTING GATE VALVES AND STRUCTURE AND REDUCERS TO BE REMOVED TO THE EXTENT NECESSARY TO ALLOW FOR SLIPLINE PIPE INSTALLATION WORK.

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-C501_C502
DESIGNED BY:	NA
DRAWN BY:	B. VAN BEEK
CHECKED BY:	M. BROWN

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

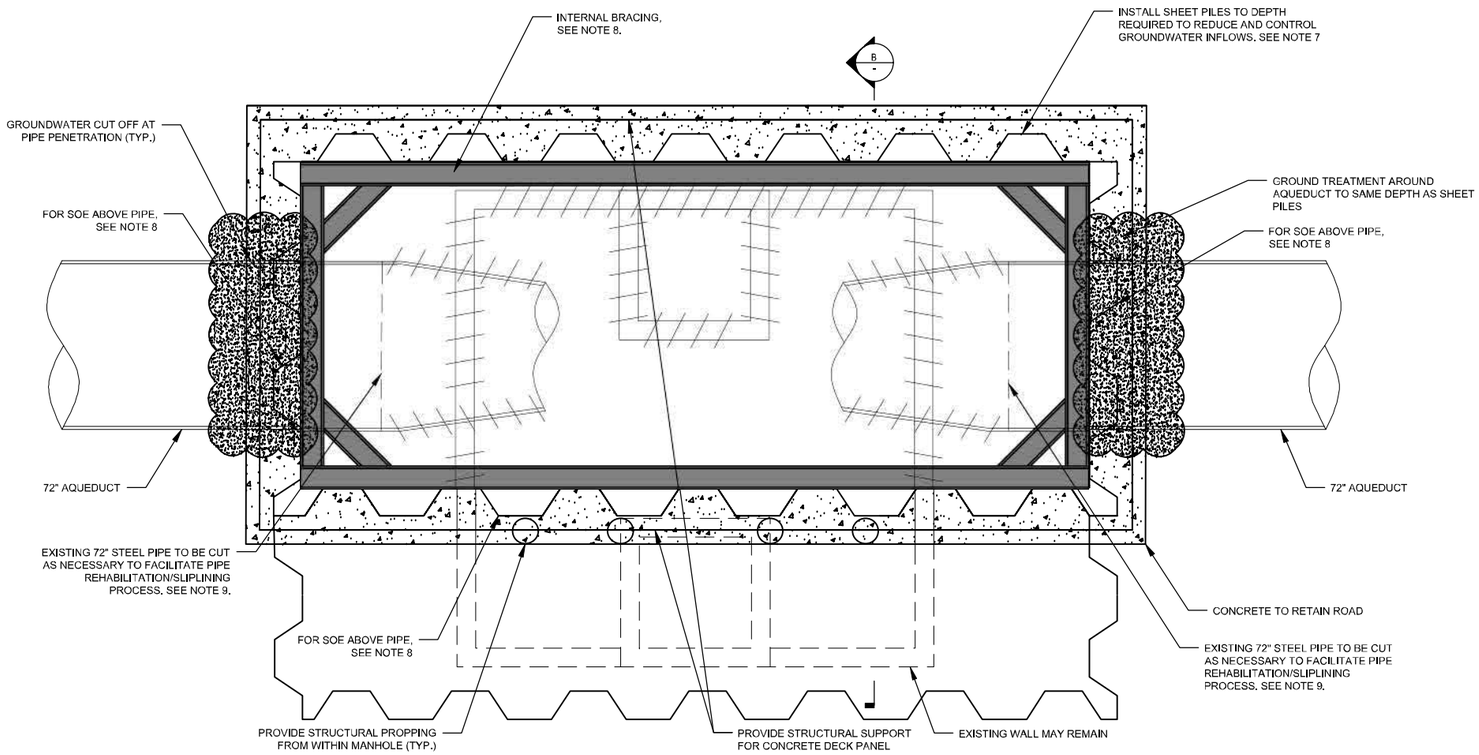
SHEET TITLE

SUNRISE HIGHWAY

EXISTING 48" GATE VALVE CHAMBER

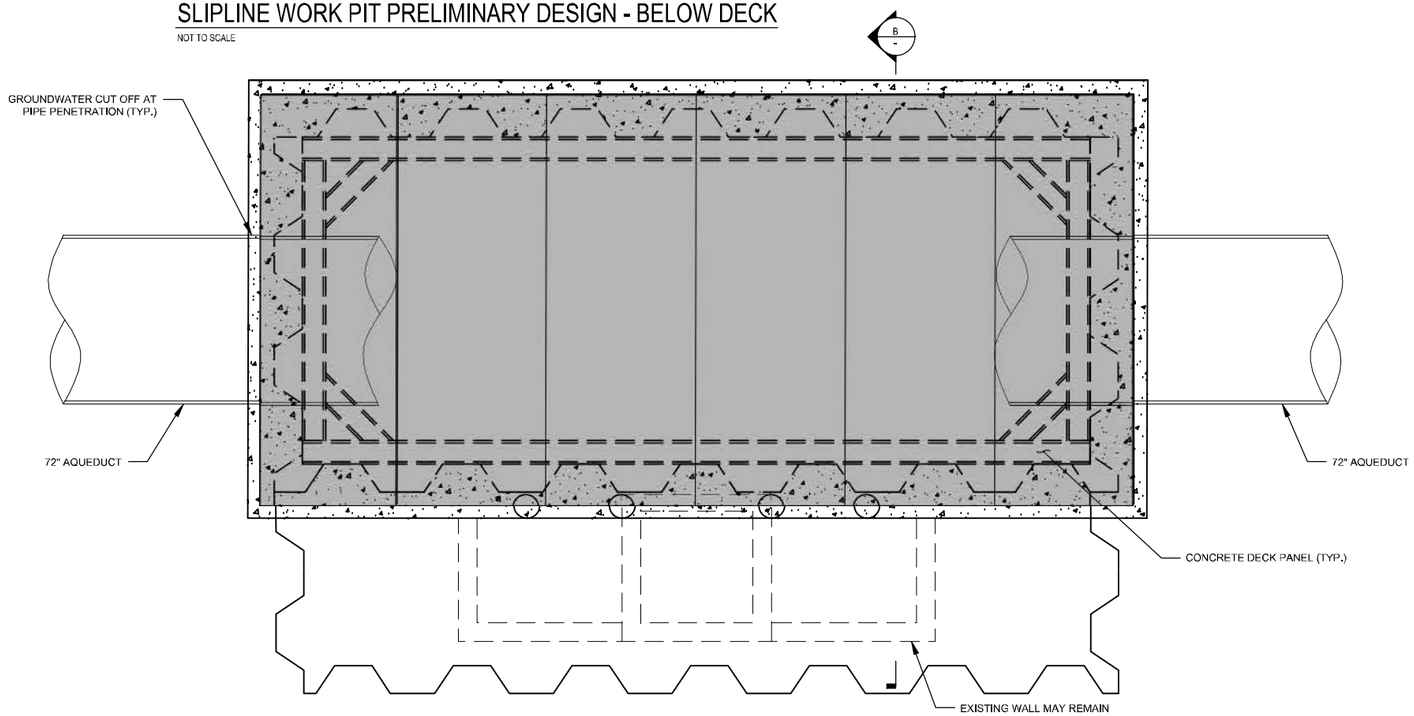
SCALE: NOT TO SCALE

SH-C501



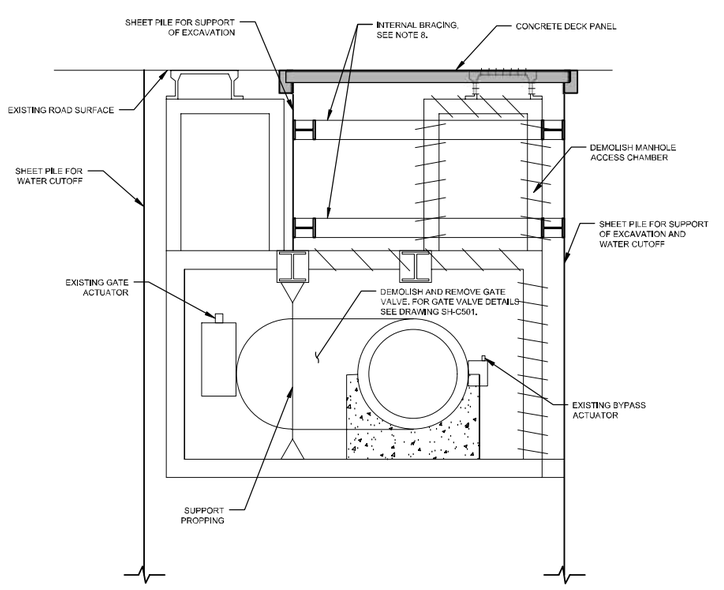
SLIPLINE WORK PIT PRELIMINARY DESIGN - BELOW DECK

NOT TO SCALE



SLIPLINE WORK PIT PRELIMINARY DESIGN - DECK PANEL LAYOUT

NOT TO SCALE



B
-
SECTION
N.T.S.

NOTES:

1. ALL DIMENSIONS ARE APPROXIMATE. EXISTING MANHOLE DIMENSION AND PIPEWORK VARY BY LOCATION.
2. CONTRACTOR TO FIELD VERIFY LIMITS OF DEMOLITION WORK AT EACH 48" GATE VALVE STRUCTURE TO BE REMOVED AND DEVELOP WORKPIT PLAN/DIMENSIONS ACCORDINGLY.
3. ALL MATERIALS REMOVED SHALL BE DISPOSED AS SPECIFIED.
4. EXCAVATION AND FINAL CLOSURE SHALL BE IN ACCORDANCE WITH THE TRAFFIC MANAGEMENT PLAN AND AS SPECIFIED.
5. PRELIMINARY DIMENSIONS SHOWN FOR WORKPIT FOOTPRINT ARE APPROXIMATE AND ESTIMATED FOR PRELIMINARY DESIGN TRAFFIC IMPACT ASSESSMENT.
6. CONCRETE DECK PANELS AND INSTALLATION SHALL BE AS SPECIFIED IN ACCORDANCE WITH THE TRAFFIC MANAGEMENT PLAN.
7. DESIGN-BUILDER SHALL DESIGN AND CONSTRUCT SUITABLE SUPPORT OF EXCAVATION SYSTEM, ACCOUNTING FOR EXISTING STRUCTURE, EXISTING PIPE, EXISTING UTILITIES AND OTHER BURIED OBJECTS.
8. WHERE SUPPORT OF EXCAVATION SYSTEM IS DIRECTLY ABOVE AQUEDUCT PIPE OR MANHOLE BOX, LENGTH SHALL BE SELECTED TO PREVENT DAMAGE TO EXISTING STRUCTURE. DESIGN AND INSTALL BRACING TO PREVENT MOVEMENT DURING EXCAVATION.
9. SAW CUT AQUEDUCT TO FACILITATE SLIPLINE INSTALLATION. REMOVE ANY EXISTING INTERNAL EQUIPMENT WITHIN BOX, AS NEEDED.

wsp

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 04/2020

NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-C501_C502
DESIGNED BY:	M. BROWN
DRAWN BY:	B. VAN BEEK
CHECKED BY:	W. CHAFFEE

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

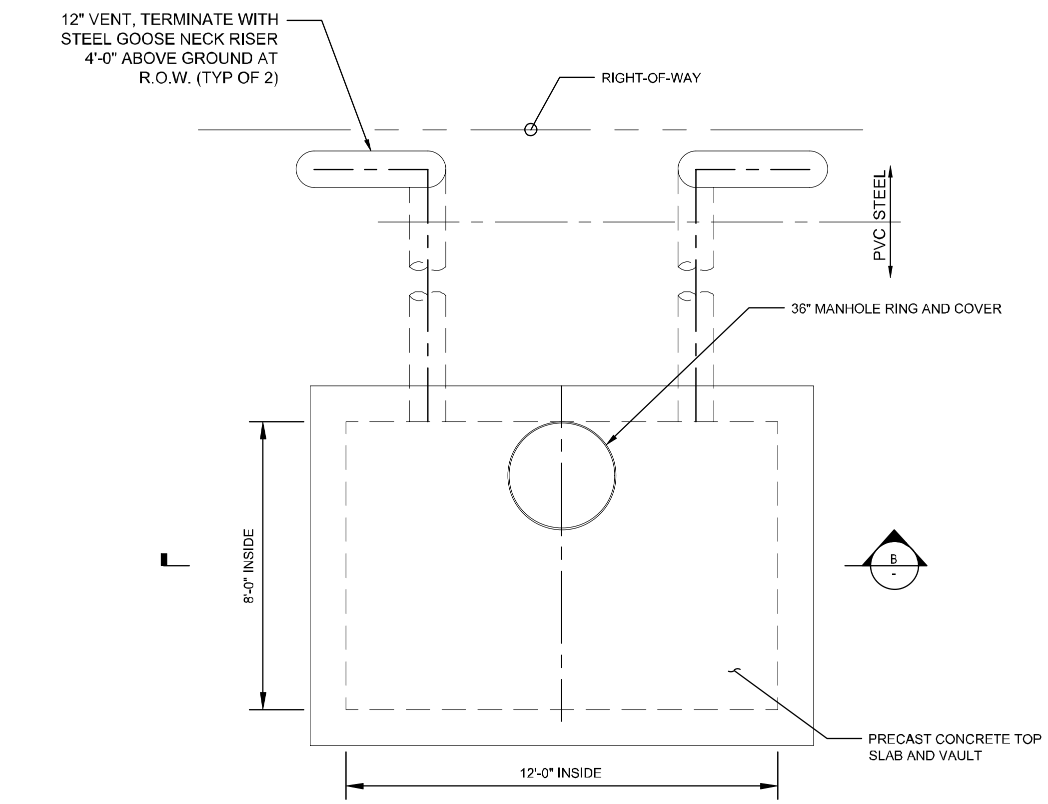
SHEET TITLE

SUNRISE HIGHWAY

SLIPLINE WORKPIT
PRELIMINARY DESIGN

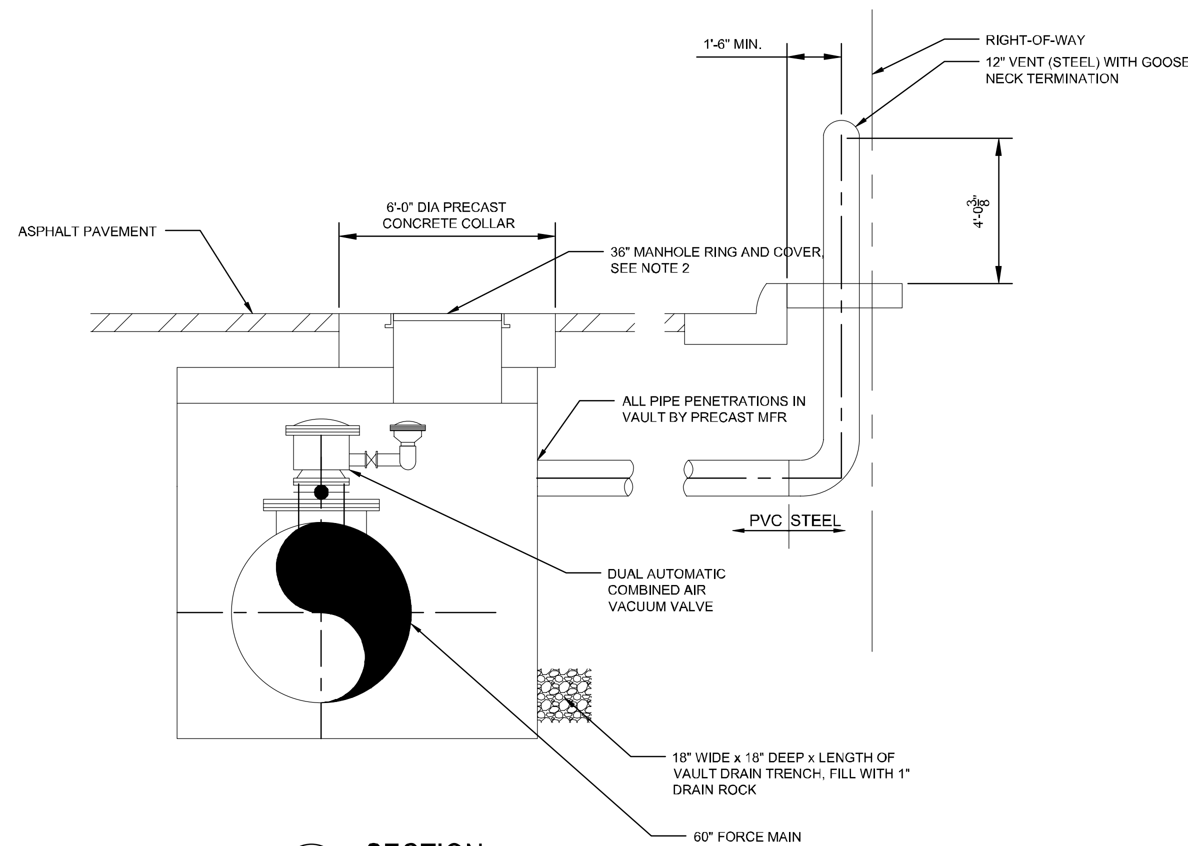
SCALE:
NOT TO SCALE

SH-C502



TOP PLAN

N.T.S.

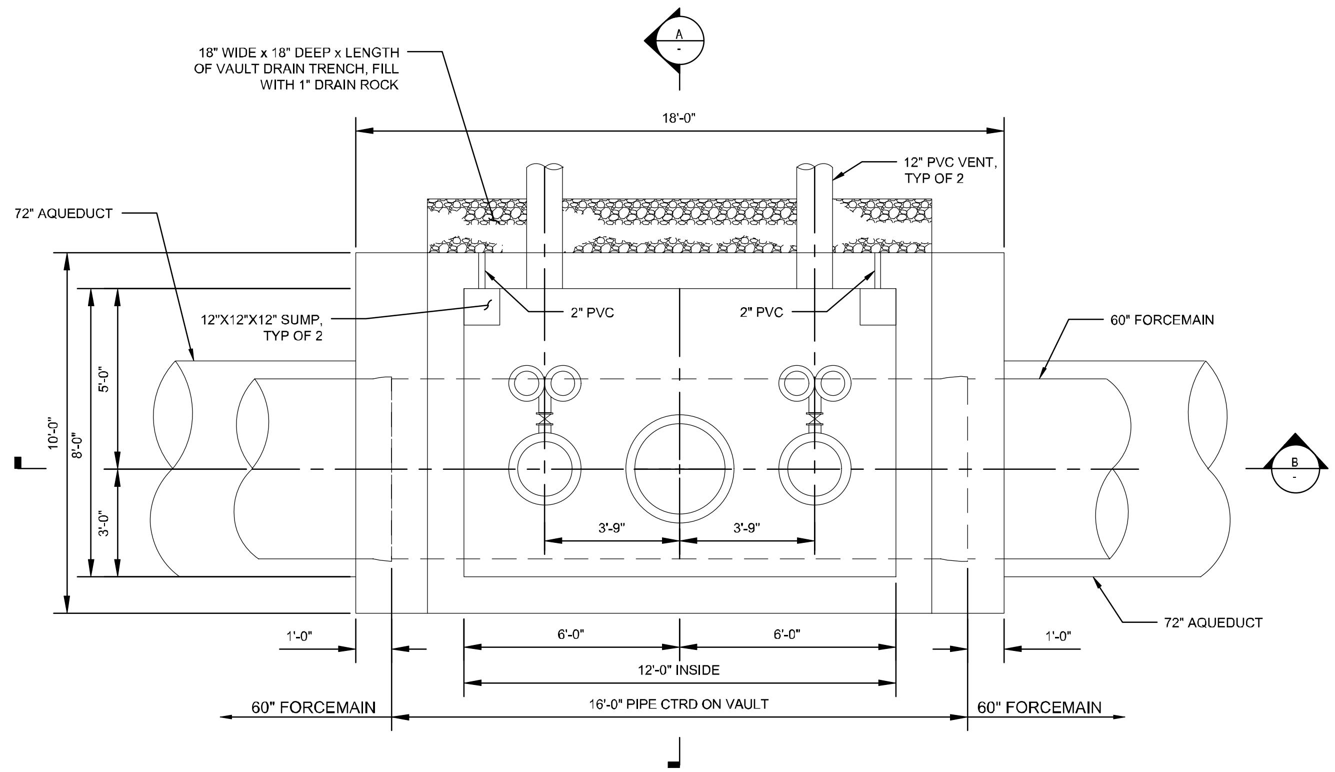


A SECTION

N.T.S.

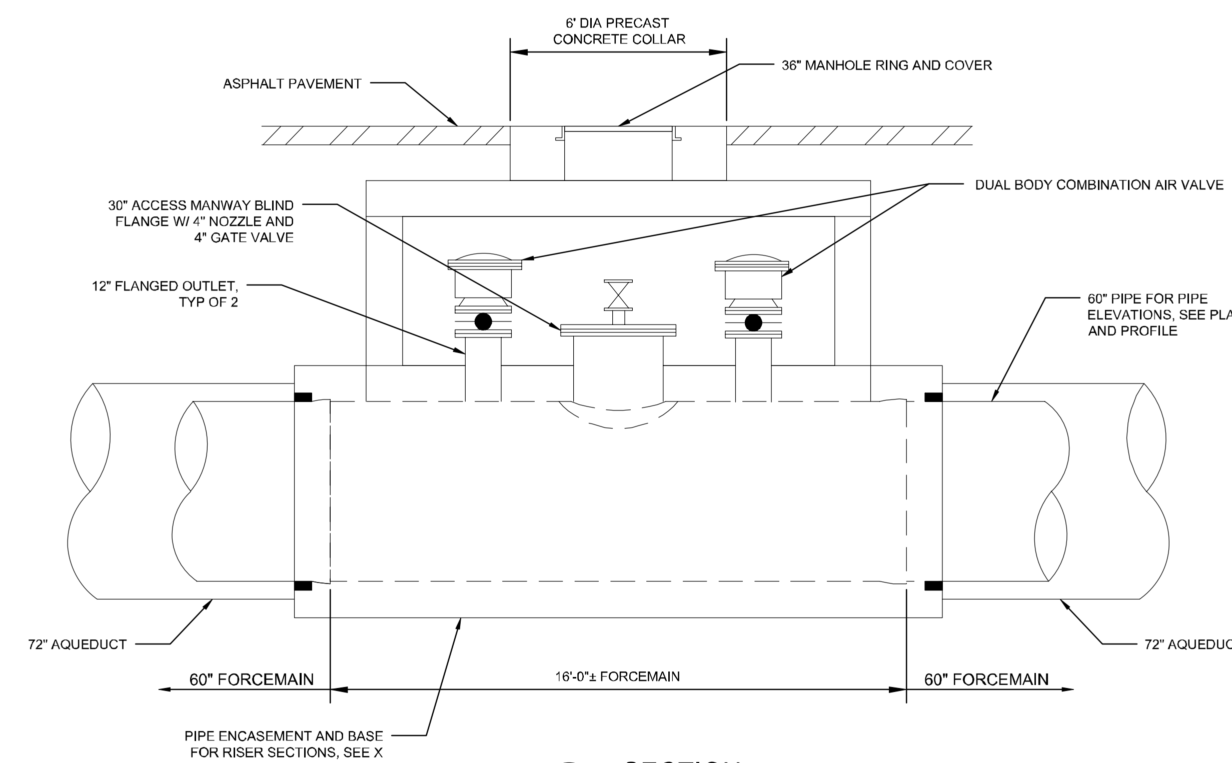
NOTES:

1. DESIGN DETAILS SHOWN FOR STRUCTURE, EQUIPMENT, PIPES, AND MATERIALS ARE GENERAL FOR PRELIMINARY DESIGN. ALL DIMENSIONS ARE APPROXIMATE. AQUEDUCT BURIAL DEPTH, SURFACE ELEVATIONS AND MATERIALS WILL VARY BY CHAMBER LOCATION. DESIGNER-BUILDER TO FINALIZE CAV CHAMBER DESIGN BASED ON SITE SPECIFIC INFORMATION (I.E. DEPTH OF COVER, CONNECTIONS FOR AIR AND DRAINAGE, EQUIPMENT SIZE, VALVES, FITTINGS,COUPLINGS, EXISTING UTILITIES).



BASE PLAN

N.T.S.



B SECTION

N.T.S.

wsp

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-C503
DESIGNED BY:	S. WILLIAMSON
DRAWN BY:	J. JARRETT
CHECKED BY:	S. HAQ

NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL EFFLUENT DIVERSION PROJECT

SHEET TITLE

SUNRISE HIGHWAY

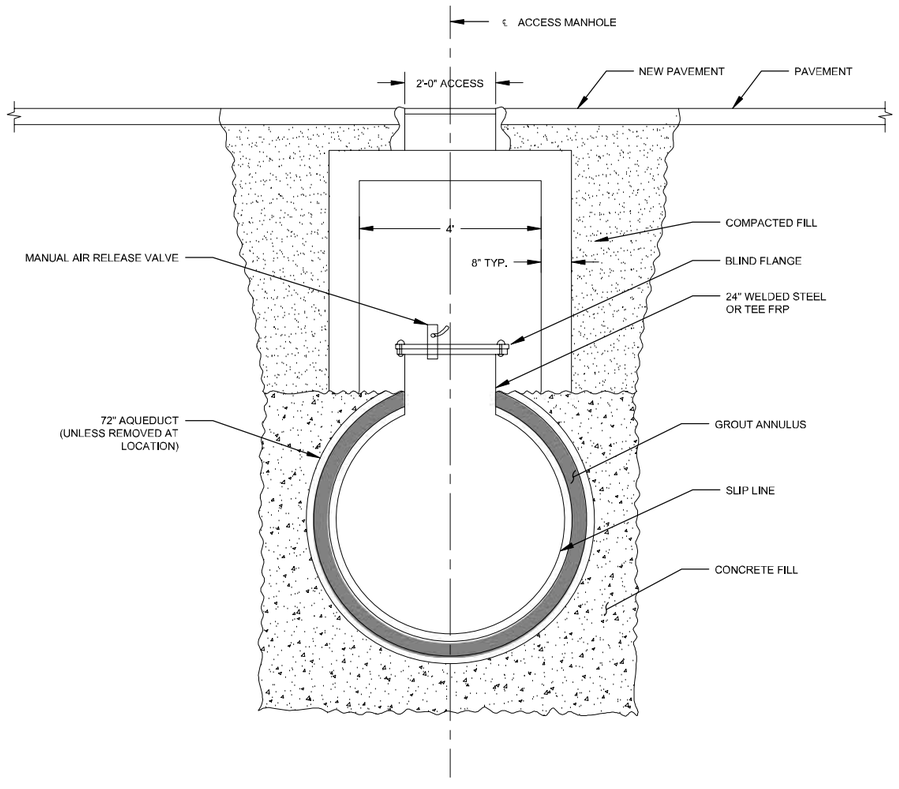
COMBINATION AIR RELIEF/VACUUM CHAMBER

SCALE: NOT TO SCALE

SH-C503

NOTES:

1. DESIGN DETAILS SHOWN FOR STRUCTURE, EQUIPMENT, PIPES, AND MATERIALS ARE GENERAL FOR PRELIMINARY DESIGN. ALL DIMENSIONS ARE APPROXIMATE. AQUEDUCT BURIAL DEPTH SURFACE ELEVATIONS AND MATERIALS WILL VARY BY ACCESS MANHOLE LOCATION. DESIGNER-BUILDER TO FINALIZE ACCESS MANHOLE DESIGN BASED ON SITE SPECIFIC INFORMATION (I.E. DEPTH OF COVER, EQUIPMENT SIZE, VALVES, FITTINGS, COUPLINGS, EXISTING UTILITIES),



ACCESS MANHOLE WITH MARV

N.T.S.

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 04/2020

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NO.	DATE	ISSUED FOR	BY

FINAL DESIGN
CRITERIA PACKAGE

DATE:	APRIL 2020
PROJECT NO.:	PW-S3B116-03CR
FILE NAME:	SH-C504
DESIGNED BY:	S. WILLIAMSON
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NASSAU COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS

OCEAN OUTFALL
EFFLUENT DIVERSION
PROJECT

SHEET TITLE

SUNRISE HIGHWAY

ANCILLARY
STRUCTURES

SCALE:
NOT TO SCALE

SH-C504