# SECURITY PERIMETER BARRIER WALL BALZANO MARINE TERMINAL

	LIST OF UTILITIES						
WATER & SEWER:	CAMDEN WATER L.L.C. 1257 S. SECOND ST. CAMDEN, NJ 08104 856-635-1264						
WATER:	NEW JERSEY AMERICAN WATER CO. 213 CARRIAGE LANE DELRAN, NJ 08075						
GAS:	PSE&G GAS DISTRIBUTION DIVISION 300 CONNECTICUT DRIVE BURLINGTON, NJ 08086 856-778-6776 ATTN: GEORGE BAKER						
ELECTRIC:	PSE&G ELECTRIC DISTRIBUTION DIVISION 300 NEW ALBANY ROAD MOORESTOWN, NJ 08057 856-573-2077 ATTN: BOB SODER						
CABLE:	COMCAST 1250 HADDONFIELD ROAD CHERRY HILL, NJ 08034 856-272-1000						
TELEPHONE:	VERIZON - NEW JERSEY  10 TANSBORO ROAD  BERLIN, NJ 08009						
АТ&Т:	TRANSCONTINENTAL CABLE ROUTE UNDERGROUND LOCATION SERVICE NEW JERSEY UTILITIES ASSOCIATION 800-252-1133						

	CITY OF CAMDEN  NJ TRANSIT -Entertainment Scienter Scient
PROJECT SITE	Spruce St  Joint St Scherry St  Walnut St  Walnut St  St  Chestnut St  Chestnut St
	Sycalmore-St Signal Sycalmore St Signal Sycalmore St St Signal Sycalmore Sycalmore St Signal Sycalmore St Signal Sycalmore Syc
Delaware	Atlantic Ave. Lansdowne Av.

	SHEET INDEX
SHEET#	DESCRIPTION
1	TITLE SHEET
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3	QUANTITIES & GENERAL & STRUCTURAL NOTES
4	OVERALL SITE PLAN
5 - 6	CONSTRUCTION PLAN
7	BARRIER WALL PANELS AND POSTS
8	DRILLED PIER, POSTS AND GENERAL DETAILS
9	CHAIN-LINK FENCE DETAILS

PLANS WHICH DO NOT BEAR AN EMBOSSED SEAL ARE NOT VALID

2059 SPRINGDALE ROAD CHERRY HILL, NJ 08003 (856) 795-9595, FAX (856) 795-1882 WEB SITE ADDRESS: WWW.RVE.COM

~ENGINEERING EXCELLENCE~

NJ PROFESSIONAL ENGINEER LIC. No. 4701

ENGINEERS AND AFFILIATES ARE INSTRUMENTS O SERVICE IN RESPECT OF THE PROJECT. THEY ARE NO NTENDED OR REPRESENTED TO BE SUITABLE FOR REUS BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT WRITTEN VERIFICATION OR ADAPTATION BY REMINGTON VERNICK ENGINEERS AND AFFILIATES FOR THE SPECIFI PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AN WITHOUT LIABILITY OR LEGAL EXPOSURE TO REMINGTO & VERNICK ENGINEERS AND AFFILIATES; AND OWNE SHALL INDEMNIFY AND HOLD HARMLESS REMINGTON DAMAGES, LOSSES AND EXPENSES ARISING OUT OF O RESULTING THEREFROM

2/23/2022 of 9 JOB No. :

PROJECT LOCATION MAP

SCALE: 1" = 1000'

THE ELECTRONIC VERSION OF THE 2019 NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, EFFECTIVE SEPTEMBER 1, 2019, AS REFERENCED IN BASELINE DOCUMENT CHANGE ANNOUNCEMENT BDC19S-01, UNLESS MODIFIED WITHIN THE TECHNICAL SPECIFICATIONS OF THIS CONTRACT, SHALL GOVERN.

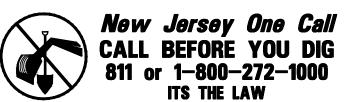
THE NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD ROADWAY CONSTRUCTION\TRAFFIC CONTROL\BRIDGE CONSTRUCTION DETAILS" BOOKLET DATED 2007 AND "ELECTRICAL BUREAU STANDARD DETAILS, 2007" AND ALL BASELINE DOCUMENT CHANGES MADE TO THESE CONSTRUCTION DETAILS, SHALL GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

# CITY OF CAMDEN CAMDEN COUNTY, NEW JERSEY

**JUNE, 2022** 

### **FUNDING SOURCE:**

SJPC



(3) FULL BUSINESS DAYS IN ADVANCE AND BEGIN **EXCAVATION WITHIN 10 DAYS. ALL CONTRACTORS** ON-SITE MUST HAVE THEIR OWN MARKOUT.

## STANDARD LEGEND

<u>/</u>	DESCRIPTION	EXISTING	PROPOSED	ITEM	DESCRIPTION	L SYMBOLS MAY NOT BE ( EXISTING	PROPOSED	ITEM	DESCRIPTION	EXISTING	PROPOSED	1901
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	OVERHEAD WIRE				CROWS FOOT	¥			EDGE OF PAVEMENT			& VERNIC ENGINE
	SANITARY FORCE MAIN PIPE		FM		AERIAL TARGET		+		CURB			2059 SPRINGDALE CHERRY HILL, NJ
	STORM SEWER PIPE ≤12"	(SIZE & TYPE)	D (SIZE & TYPE) ==		CONCRETE MONUMENT	⊡	■ (SET)		PAVEMENT / CONC. / SIDEWALK	BITUMINOUS/ASPHALT	ASPHALT DRIVEWAY	(856) 795-9595, FAX (85 WEB SITE ADDRESS : WV
	STORM SEWER PIPE > 12"		=======================================		PK / MAG NAIL DRILL HOLE	0	• (SET)			CONCRETE	CONCRETE	Certification of Authorization: 2  ~ENGINEERING EXCEL
	GAS SERVICE		G		SPIKE					BRICK/PAVERS	BRICK/PAVERS	L. Charlo West
	SANITARY SEWER PIPE ≤12"	(SIZE & TYPE)	s		DRILL HOLE W/ WINGS	- 0 -				STONE	STONE	DATE: 06/03/2022
	SANITARY SEWER PIPE > 12"	=========	=======================================		STAKE	Δ	▲ (SET)				MILLING	KIM C. WEST
	ELECTRIC SERVICE	E	———Е——		HUB	Δ	△ (SET)		LIMIT OF EXCAVATION			NJ PROFESSIONAL ENGINEE
	FIBER OPTIC SERVICE	F0 ———	FO		PIN W/ CAP IRON PIPE	<b>©</b>	• (SET)		GUIDE RAIL		<del> </del>	
	TELEPHONE SERVICE	Τ —	———т		IRON PIN		• (SET)	ORK	BOLLARD	⊗	<b>⊘</b>	
	COMMUNICATIONS SERVICE	c			CROSS CUT	×	<b>★</b> (SET)		MAILBOX	M	M	
	IRRIGATION PIPE		IRR		DISK				SIGNS	<del></del>	<del> +</del>	
	WATER SERVICE	——————————————————————————————————————	——————————————————————————————————————	S	STONE	Ο			FLAG POLE	$\sim$	<b>←</b>	
	WATER SHUT-OFF	w\$C			REBAR	⊗			BENCH			
	WATER METER	w <sub>M</sub>	<b>₩</b> M		BASELINE	<del>-</del>	<del></del>		PILE	<b>(a)</b>	<b>©</b>	
	WATER VALVE	wv ⊠	M NEW M RESET		CENTERLINE		<del></del>	<u>~</u>	DETECTABLE WARNING SURFACE		<b>3888</b> ■	
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	WELL	<b>@</b>	<b>®</b>		RIGHT-OF-WAY				ADA STRIPING	ب	<b>Ł</b>	PLANS WHICH DO
	YARD HYDRANT	Ø			PROPERTY BOUNDARY			SIT	TRAFFIC CONTROL BOX	[TCB]	<b>⊠</b>	AN EMBOSSED SEAL AR
	METER PIT	⊙			ADJACENT PROPERTY BOUNDARY				TRAFFIC LIGHT		(ARM TO SCALE)	ENGINEERS AND AFFILIATES ARE SERVICE IN RESPECT OF THE PROJ INTENDED OR REPRESENTED TO BE S
	GAS SHUT-OFF	ess.			RAILROAD TRACKS	+ + + + + + + + + + + + + + + + + + + +			DEPT. OF TRANSPORTATION MANHOLE	<i>⊚</i>		BY OWNER OR OTHERS ON EXTENSIC OR ON ANY OTHER PROJECT. AN WRITTEN VERIFICATION OR ADAPTAT VERNICK ENGINEERS AND AFFILIATE
	GAS METER	6 M			STATE BOUNDARY				STATE HIGHWAY DEPARTMENT	™ MANHOLE SHD BOX		PURPOSE INTENDED WILL BE AT OW WITHOUT LIABILITY OR LEGAL EXPO: & VERNICK ENGINEERS AND AFFIL SHALL INDEMNIFY AND HOLD HARM
	GAS VALVE	×	M NEW M RESET		MUNICIPAL / COUNTY BOUNDARY				RAILROAD CROSSING BEACON	$\boxtimes$		VERNICK ENGINEERS AND AFFILIATE DAMAGES, LOSSES AND EXPENSES R E S U L T I N G T H E
	GAS LINE MARKER	<u>-Ç</u>						_	CALL BOX	<b>∅</b>		
	CLEANOUT	E	•	<b>4</b>	BORING LOCATION	₩ 8-#	<b>♦</b> B-#		OIL FILL	€		
	SEWER VENT	₩			MONITORING WELL LOCATION	<b>⊕</b> MW-#	<b>⊕</b> MW-#		UNDERGROUND STORAGE TANK LID	UST		
	INLET TYPE A		RESET/ RECONSTRUCT		TEST PIT LOCATION	<b>₽</b> 172−#	₽ TP-#		RISER PIPE	É		
	INLET TYPE B		RESET/RECONSTRUCT		FRESHWATER WETLAND FLAG	<i>₹ FW-#</i>			RAISED PAVEMENT MARKER	B	•	
	INLET TYPE E		RESET/ RECONSTRUCT		FRESHWATER WETLAND LINE							$ \parallel$
	AREA DRAIN		•	<b>     </b>	FRESHWATER WETLAND BUFFER				BBQ GRILL			
	MANHOLES	S SANITARY D DRAINAGE T TELEPHONE	A NEW CO DESCRIPTION		EDGE OF WATER				WATER FOUNTAIN	WF		
		W   WATER   ©   CATV   W   UNDERDRAIN     E   ELECTRIC   ©   GAS   W   UNKNOWN	NEW RESET RECONSTRUCT		STREAM CENTERLINE			ြပ	KIOSK			
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	IRRIGATION BOX				GRASS/SOD	Service Log	CHARE CONAMEN		PARKING METER	PM E		
	IRRIGATION CONTROL BOX	IR ©		<u> </u>	DECIDUOUS TREE	La Carlo Car	SHADE ORNAMEN	NIAL	FIRE CONTROL VALVE	£V ⊠		
	SPRINKLER HEAD	<b>©</b>	ullet		SHRUBS / BUSH		Sulver.		BARRICADE	<del>-0-0-</del>	<del>- 0 0</del>	
	UNKNOWN VALVE	×		AP	EVERGREENS		Finne					-
	COMMUNICATIONS PEDESTAL				STUMP	·			PHOTO LOCATION		#	
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	TELEPHONE PEDESTAL	7			WIRE FENCE	////	////	🔁	TYPICAL SECTION ARROW		<b>└~ A</b>	ORPOR/
	TELEPHONE LINE MARKER	<del>-</del>		💆	SPLIT RAIL FENCE	<del></del>	<del></del>		MATCH LINE			M M Naticor
	ELEC. BOX			-	WOOD / VINYL FENCE		<del></del>	GENER	TYPICAL NORTH ARROW	NAD-1983		
	ELEC. METER	FM			CHAIN-LINK FENCE	xx	xx				ON STANDARD CONSTRUCTION SHEETS O STATE PLANE COORDINATE SYSTEM.	
	ELEC. TRANSFORMER PAD	E			TOP OF BANK / DITCH						The state of the s	<b> </b>
	ELEC. VAULT	EV			BOTTOM OF BANK / DITCH	BB		<u>v</u>		BOUND, SOUTHBOUND PC POINT	STATE HIGHWAY  OF CURVATURE  S.H.D. DEPARTMENT	OS
	ELEC. LINE MARKER	<u>-£</u>		O	CONTOUR (MAJOR)		5	6	BL BASELINE G GUTTE BM BENCH MARK GR GRATE	PT POINT	FOR TANGENCY  SHLD. SHOULDER  STY. STORY  T. P. A. TO BE ABANDONED	
	UTILITY POLE	♥ STANDARD ♥ W/ LIGHT ♥ W/ SOLAR	ر الله الله الله	DING	CONTOUR (MINOR)		3			ENSITY POLYETHYLENE PIPE PROP. PROP	ER KAYLON MASONRY NAIL  T.B.A. TO BE ABANDONED  T.B.R. TO BE REMOVED  VINYL CHLORIDE PIPE  TC  TOP OF CURB	
	GUY ANCHOR	~ · · · · · · · · · · · · · · · · · · ·			FLOW LINE / SWALE	> > > _	>>		C.I.P. CAST IRON PIPE IP IRON P	IN PVC POINT	VINYL CHLORIDE PIPE TO TOP OF CURB  T OF VERTICAL CURVATURE TEL TELEPHONE  T OF VERTICAL INTERSECTION TEMP. TEMPORARY	
	ELEC. OUTLET	<b>(3</b> -	<b>G</b> =		TIME OF CONCENTRATION	>	<b>&gt;</b> ———			CAPE TIE PVT POINT	FOF VERTICAL TANGENCY TYP. TYPICAL	
	LIGHTS	<sup>‡</sup> POLE <sup>₩</sup> AREA	<b>₩ ₩</b>	S	SPOT GRADE	<sub>X</sub> 3.48	<sub>X</sub> 3.48		D.O	F PAVING R.C.P. REINF	FORCED CONCRETE PIPE U.P. UTILITY POLE METALLIC CONDUIT VAR. VARIES	DRAWN BY: DESIGN BY: CHECK
	VENT	WT			ROADWAY GRADE	TC5.45 GL 4.95	TC5.45 GL4.95	BBR	DIA. DIAMETER MAX. MAXIM DWY DRIVEWAY MIN. MINIMU	JM R.O.W. RIGHT	T OF WAY VIF VERIFY IN FIELD	CFC KCW DM:
	VENT PIPE	VP			DRAINAGE FLOW	—————————————————————————————————————	<del></del>		D.I.P. DUCTILE IRON PIPE NO. NUMBE EL. ELEVATION N.T.S. NOT TO	R RTE. ROUT	E	2/23/2022 <u>JOB No. :</u> <b>2</b>

### GENERAL NOTES:

- 1. CONTRACTOR SHALL PROVIDE DESIGN, LAYOUT DRAWINGS, AND CALCULATIONS FOR THE BARRIER WALL AND DRILLED PIER FOUNDATIONS. THE DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY.
- 2. THE BARRIER WALL SHALL BE PROVIDED BY FADDIS CONCRETE PRODUCTS OR APPROVED EQUAL.

CONTACT: GARY S. FIGALLO 201-888-1553 GFIGALLO@FADDIS.COM

- 3. THE 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, INCLUDING ALL BASELINE DOCUMENT CHANGES THROUGH MAY 2022, SHALL GOVERN ON THIS PROJECT UNLESS OTHERWISE NOTED.
- 4. A GEOTECHNICAL REPORT PREPARED BY REMINGTON & VERNICK ENGINEERS DATED MARCH 17, 2021 IS PROVIDED IN THE CONTRACT DOCUMENTS. ANY ADDITIONAL GEOTECHNICAL INFORMATION NEED FOR THE DESIGN OF THE WALL FOUNDATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS ADDITIONAL WORK, IF REQUIRED, SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.
- 5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO THE START OF THE CONSTRUCTION. ANY ERRORS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- 6. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. COST FOR PRIVATE THIRD PARTY UTILITY MARKOUTS SHALL BE BORNE BY THE CONTRACTOR.
- 7. THE CONTRACTOR SHALL USE EXCAVATED MATERIALS FOR BACKFILL UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 8. ALL PAVED AND CONCRETE AREAS DISTRIBUTED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO THE START OF CONSTRUCTION.
- 9. ALL GRASSED OR WOODED AREAS DISTRIBUTED DURING CONSTRUCTION SHALL BE TOPSOILED AND SEEDED.
- 10. ALL FILL SHALL BE PLACED IN 12" LAYERS AND THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER. IF BORROW FILL IS REQUIRED, IT SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF THE UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION AND IT SHALL BE AT HIS OWN EXPENSE TO REPAIR OR REPLACE ANYTHING THAT HE DAMAGES.
- 12. APPROXIMATE DEPTH OF ALL WATER MAINS ARE  $\pm$  4 FEET.
- 13. APPROXIMATE DEPTH OF ALL GAS MAINS ARE  $\pm$  3 FEET.
- 14. ALL UNUSED AND REGULATED MATERIAL EXCAVATED FROM THE PROJECT SITE ARE TO BE DISPOSED OF AT AN APPROVED FACILITY.
- 15. ADDITIONAL TESTING FOR LEGAL DISPOSAL OF REGULATED MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. MATERIAL SHALL BE STOCKPILED ON SITE UNTIL TESTING RESULTS RECEIVED. SEPARATE PAYMENT WILL NOT BE MADE FOR MATERIAL TESTING. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE PRICE BID FOR REMOVAL AND DISPOSAL OF REGULATED MATERIAL.

### STRUCTURAL NOTES:

- 1. DESIGN SPECIFICATIONS:
- A. 1989 AASHTO "GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS" (WITH INTERIMS).
- B. AASHTO "STANDARD SPECIFICATIONS FOR TRANSPORTATION MATERIAL AND METHODS OF SAMPLING AND TESTING, 15TH EDITION.
- C. ACI 318-19 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
- D. NJDOT DESIGN MANUAL FOR BRIDGES AND STRUCTURES 6TH EDITION, 2016 INCLUDING ALL BASELINE DOCUMENT CHANGES.
- 2. UNFACTORED DESIGN LOAD:

WIND PRESSURE: 40 PSF CORRESPONDING TO A WING VELOCITY OF 80 MPH, AS SPECIFIED IN TABLE 40-1 OF SECTION 40 OF NJDOT DESIGN MANUAL FOR BRIDGES AND STRUCTURES.

ICE LOAD: 3 PSF

LATERAL MATERIAL LOAD ON WALL: 40 PSF

- 3. ALL DIMENSIONS SHOWN ARE IN FT-IN, UNLESS OTHERWISE NOTED.
- 4. INSTALL ANCHOR BOLTS, POSTS, AND PANELS TRULY VERTICAL.
- 5. PROVIDE PLAIN NEOPRENE BEARING PADS WITH A DUROMETER HARDNESS OF 50  $\pm 5$ .
- 6. PROVIDE SHIMS AS REQUIRED.
- 7. CHAMFER EXPOSED CONCRETE EDGES ON THE PRECAST CONCRETE PANELS  $\frac{1}{2}$ "  $\times$   $\frac{1}{2}$ ", EXCEPT AS NOTED.
- 8. PROVIDE 1½ MIN. CONCRETE COVER ON ALL REINFORCEMENT BARS IN PANELS, EXCEPT AS NOTED.
- 9. FABRICATE POSTS WITH A SMOOTH FORM TEXTURE ON ALL SIDES EXCEPT THE OUTSIDE FACE. OUTSIDE FACE OF POSTS TO HAVE BROOM FINISH.
- 10. FABRICATE PANELS WITH SURFACE TREATMENTS AS DETAILED IN THE PLANS.
- 11. LIFTING INSERTS TO BE PATTERSON QUICK LIFT ERECTION ANCHOR WITH SHEAR PLATE (PART #QL3126) OR EQUAL FOR PRECAST PANELS.
- 12. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS AND GEOMETRY IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.

### **DEMOLITION NOTES:**

- 1. DEMOLITION OF EXISTING CHAIN-LINK FENCE INCLUDES THE REMOVAL AND DISPOSAL OF ALL FENCING MATERIAL INCLUDING, BUT NOT LIMITED TO, MESH, POSTS, AND HARDWARE. THE REMOVAL OF ALL CONCRETE POST FOUNDATIONS IS ALSO INCLUDED. ANY PAVEMENT DAMAGED/DISTURBED DURING FENCE REMOVAL SHALL ALSO BE REMOVED AND DISPOSED OF AT NO ADDITIONAL COST.
- 2. THE EXISTING CHAIN-LINK FENCE HAS BEEN FORTIFIED WITH SHIPPING CONTAINERS. CONTRACTOR SHALL COORDINATE HANDLING/MOVING OF THE CONTAINERS WITH SJPC. SJPC SHALL RELOCATE CONTAINERS.
- 3. A SECURE PERIMETER MUST BE MAINTAINED AT ALL TIMES. THE LENGTH OF EXISTING FENCE/CONTAINERS ALLOWED TO BE REMOVED AT ONE TIME IS LIMITED TO 400'. TEMPORARY SECURITY FENCING IS REQUIRED.
- 4. TEMPORARY SECURITY FENCE SHALL BE 8' HIGH WITH POSTS DRIVEN INTO THE GROUND AND REMOVED UPON COMPLETION OF PERMANENT CONSTRUCTION. TEMPORARY FENCING ON STANCHIONS WILL NOT BE ACCEPTABLE.
- 5. THE SECURITY OF THE PERIMETER IS DETERMINED BY THE PORT. ALL REQUIREMENTS OF THE PORT MUST BE COMPLIED WITH.
  NO SEPARATE PAYMENT WILL BE MADE FOR MEASURES REQUIRED TO MAINTAIN A SECURE PERIMETER. THE COST SHALL BE
  INCLUDED IN THE VARIOUS BID ITEMS.

### MATERIAL NOTES:

- 1. CONCRETE
  - A. CLASSES OF CONCRETE:
    - a. NJDOT CLASS OF CONCRETE USED:
    - CLASS P CONCRETE FOR POST AND PANELS
    - CLASS B CONCRETE FOR FOUNDATIONS, PEDESTALS, AND MATS
    - b. NJDOT CLASS DESIGN STRENGTHS (MIX DESIGN REQUIREMENTS)
      - CLASS P = 5,500 PSI CLASS B = 3,700 PSI
  - B. TESTING OF CAST-IN-PLACE CONCRETE
    - a. DURING THE PROGRESS OF THE WORK, TEST SHALL BE MADE BY AN APPROVED LABORATORY IN ACCORDANCE WITH THE STANDARD METHOD OF MAKING AND CURING CONCRETE COMPRESSION AND FLEXURE TEST SPECIMENS IN THE FIELD, A.S.T.M. DESIGNATION: C-31. COST OF ALL CONCRETE TESTS SHALL BE BORNE BY CONTRACTOR, WHO SHALL PROVIDE MOLDS AND SLUMP CONE ON THE PROJECT. CASTING OF ALL TEST CYLINDERS SHALL BE MADE UNDER OBSERVATION OF THE ENGINEER.
    - b. PROVING TEST SHALL CONSIST OF AT LEAST SIX (6) CYLINDERS FOR EACH 50 CUBIC YARD OF CONCRETE OF WHICH TWO (2) SHALL BE BROKEN AT 7 DAYS AND TWO (2) AT 28 DAYS WITH TWO (2) HELD FOR 56 DAY BREAK, IF NECESSARY. IMMEDIATELY FOLLOWING EACH LABORATORY TEST, ENGINEER SHALL BE FURNISHED WITH A CERTIFIED TEST REPORT IN DUPLICATE.
    - c. WHERE THE AVERAGE STRENGTH OF THE CYLINDERS SHOWN BY THESE TESTS FOR ANY PORTIONS OF THE STRUCTURE FALLS BELOW THE MINIMUM ULTIMATE COMPRESSIVE STRENGTHS CALLED FOR, THE ENGINEER SHALL HAVE THE RIGHT TO ORDER A CHANGE IN THE MIX OR IN THE WATER CONTENT FOR REMAINING PORTION OF STRUCTURE, OR REQUIRED CONDITIONS OF TEMPERATURE AND MOISTURE MAINTAINED TO SECURE THE REQUIRED STRENGTH AND MAY REQUIRE LOAD TESTS TO BE MADE ON THE PORTIONS OF THE STRUCTURE SO AFFECTED. SHOULD RESULTS OF LOAD TEST BE UNSATISFACTORY, CONCRETE SHALL BE REMOVED AND NEW CONCRETE PLACED AT NO COST TO OWNER.
    - d. NO SEPARATE PAYMENT WILL BE MADE FOR TESTING. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE VARIOUS CONCRETE BID ITEMS.

### 2. REINFORCEMENT STEEL:

A. PROVIDE GRADE 60 DEFORMED UNCOATED REINFORCING BARS CONFORMING TO ASTM A615/A615M, A996/A996M, AND A706/A706M. COLD GALVANIZE THE BOTTOM 10" (INCLUDING THREADS) FOR THE VERTICAL BARS USING ZRC SPRAY OR EQUAL. DO NOT SPLICE THE VERTICAL REINFORCING BARS IN THE PRECAST CONCRETE POSTS.

### 3. WELDED WIRE FABRIC:

A. PROVIDE GRADE 70 OR HIGHER DEFORMED UNCOATED WELDED WIRE FABRIC THAT MEET THE REQUIREMENTS OF ASTM A1064 IN THE PRECAST CONCRETE PANELS. IF ANY SPLICING OF THE MESH IN THE PANELS IS REQUIRED, IT SHALL BE NO LESS THAN TWO (2) SQUARES OF THE MESH.

### 4. ANCHOR BOLTS, NUTS, & WASHERS:

- A. PROVIDE ANCHOR BOLTS CONFORMING TO ASTM F1554, GRADE 105.
- B. PROVIDE HEAVY HEX NUTS CONFORMING TO ASTM A563DH
- C. PROVIDE PLATE WASHERS CONFORMING TO ASTM A36.
- D. PROVIDE LOCK WASHERS AND FLAT WASHERS CONFORMING TO ASTM F436.
- E. GALVANIZE ALL ANCHOR BOLTS AND HARDWARE IN ACCORDANCE WITH ASTM A153.

### 5. BASE PLATES:

- A. PROVIDE STRUCTURAL STEEL CONFORMING TO ASTM A572, GRADE 50.
- B. GALVANIZE PLATES IN ACCORDANCE WITH ASTM A123.
- C. REPAIR DAMAGED GALVANIZING IN ACCORDANCE WITH ASTM 708.

### 6. CHAIN LINK FABRIC

- A. STEEL CHAIN LINK FABRIC: 2IN. MESH, 9 GAUGE, 8FT. HIGH
  - e. ZINC-COATED STEEL FABRIC: ASTM A392 HOT DIPPED GALVANIZED BEFORE OR AFTER WEAVING. f. CLASS 1 1.2  $OZ/FT^2$
- B. FABRIC SELVAGE:
- STANDARD FABRIC SELVAGE FOR 2 IN (50 MM) MESH 72 IN. (1.8 M) HIGH AND

  OVER IS KNUCKLE FINISH AT ONE END, TWIST AT THE OTHER, K&T. FABRIC LESS

  THAN 72 IN (1.8 M), AND MESH SIZE LESS THAN 2 IN. (50 MM), KNUCKLE FINISH

  TOP AND BOTTOM, K&K. T&T AVAILABLE FOR 2" (50 MM) MESH.

### 7. STEEL FENCE FRAMEWORK

- A. ROUND STEEL PIPE AND RAIL: ASTM F1043 GROUP IA HEAVY INDUSTRIAL FENCE FRAMEWORK, SCHEDULE 40 GALVANIZED PIPE PER ASTM F1083. EXTERIOR HOT DIPPED ZINC COATING MINIMUM AVERAGE 1.8 OZ/FT<sup>2</sup>

  a. LINE POST: 2-1/2" OD
  - b. END, CORNER, PULL POST: 3" OD
  - c. TOP, BRACE, BOTTOM AND INTERMEDIATE RAILS, 1-5/8" OD

### 8. TENSION WIRE

A. METALLIC COATED STEEL TENSION WIRE: 7 GAUGE (0.177 IN.) MARCELLED WIRE COMPLYING WITH ASTM A824 a. TYPE II ZINC-COATED CLASS 4-1.2 OZ/FT<sup>2</sup>

### 9. BARBED WIRE

A. METALLIC COATED STEEL BARBED WIRE: COMPLY WITH ASTM A121, DESIGN NUMBER 12-4-5-14R, DOUBLE 12-1/2 GAUGE (0.099 IN.) TWISTED STRAND WIRE, WITH 4 POINT 14 GAUGE (0.080 IN.) ROUND BARBS SPACED 5 INCHES ON CENTER.

### 10. FITTINGS

- A. BRACE BANDS AND LINE RAIL CLAMPS: GALVANIZED PRESSED STEEL COMPLYING WITH ASTM F626, STEEL THICKNESS 1/8 IN., BAND WIDTH 1 IN., ZINC COATED 1.20 OZ/FT<sup>2</sup>. SECURE WITH 3/8 IN. GALVANIZED STEEL CARRIAGE BOLTS.
- B. TERMINAL POST CAPS, LINE POST LOOP TOPS, RAIL AND BRACE ENDS, BOULEVARD CLAMPS, RAIL SLEEVES: IN COMPLIANCE TO ASTM F626, PRESSED STEEL GALVANIZED AFTER FABRICATION HAVING A MINIMUM ZINC COATING OF 1.20 OZ/FT².
- C. TRUSS ROD ASSEMBLY: IN COMPLIANCE WITH ASTM F626, 3/8 IN. DIAMETER STEEL TRUSS ROD WITH A PRESSED STEEL TIGHTENER, MINIMUM ZINC COATING OF 1.2 OZ/FT², ASSEMBLY CAPABLE OF WITHSTANDING A TENSION OF 2,000 LBS. (970 KG).
- D. TENSION BARS: IN COMPLIANCE WITH ASTM F626. GALVANIZED STEEL ONE-PIECE LENGTH 2 IN. LESS THAN THE FABRIC HEIGHT. MINIMUM ZINC COATING 1.2 OZ. /FT²
- IN. (19 MM).

  E. BARBED WIRE ARMS: IN COMPLIANCE WITH ASTM F626, PRESSED STEEL GALVANIZED AFTER FABRICATION, MINIMUM

a. BARS FOR 2 IN. AND 1 % IN. MESH SHALL HAVE A MINIMUM CROSS SECTION OF 3/16 IN. (4.8 MM) BY 3/4

E. BARBED WIRE ARMS: IN COMPLIANCE WITH ASTM F626, PRESSED STEEL GALVANIZED AFTER FABRICATION, MINIMUNIZED COATING OF 1.20 OZ. /FT², CAPABLE OF SUPPORTING A VERTICAL 250 LB LOAD. TYPE I — THREE STRAND 45 DEGREE (0.785 RAD) ARM.

### 11. TIE WIRE AND HOG RINGS

A. TIE WIRE AND HOGS RINGS PER ASTM F626. 9 GAUGE (0.148 IN.) GALVANIZED STEEL PREFORMED POWER-FASTENED WIRE TIES, 9 GAUGE (0.148 IN.) GALVANIZED STEEL HOG RINGS. MINIMUM ZINC COATING 1.20 OZ/FT² (366 G/M²) FOR TIES AND HOG RINGS.

### ESTIMATE OF QUANTITIES ΠEΜ DESCRIPTION QTY 001 MOBILZATION CLEARING SITE DEMOLITION OF EXISTING CHAIN LINK FENCE EARTHWORK LS 1500 60 - 36" DIA. DRILLED PIER PRECAST CONCRETE BARRIER WALL - TOP PANEL WITH BARBED WIRE TOP PRECAST CONCRETE BARRIER WALL EΑ **BOTTOM PANEL** PRECAST CONCRETE BARRIER WALL - POST

8 FT. HIGH CHAIN LINK FENCE WITH BARBED

REINFORCED CONCRETE PAD FOR

REMOVAL & DISPOSAL OF REGULATED

PRECAST CONCRETE TOP PANEL FOR SJPC

PRECAST CONCRETE BOTTOM PANEL FOR

PRECAST LINE POST FOR SJPC STOCK

10" DIA. PIPE BOLLARS

CONTAINERS

SJPC STOCK

MATERIAL

# UNIT LS LS LF LS LF EA EA LF EA LF TON

RVE
1901
REMINGTON

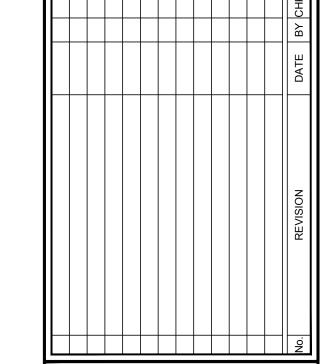
& VERNICK ENGINEERS

2059 SPRINGDALE ROAD
CHERRY HILL, NJ 08003
(856) 795-9595, FAX (856) 795-1882
WEB SITE ADDRESS: WWW.RVE.COM
Certification of Authorization: 24 GA 28003300
~ENGINEERING EXCELLENCE~

DATE: 06/03/2022
KIM C. WESTEN
NJ PROFESSIONAL ENGINEER LIC. No. 47013

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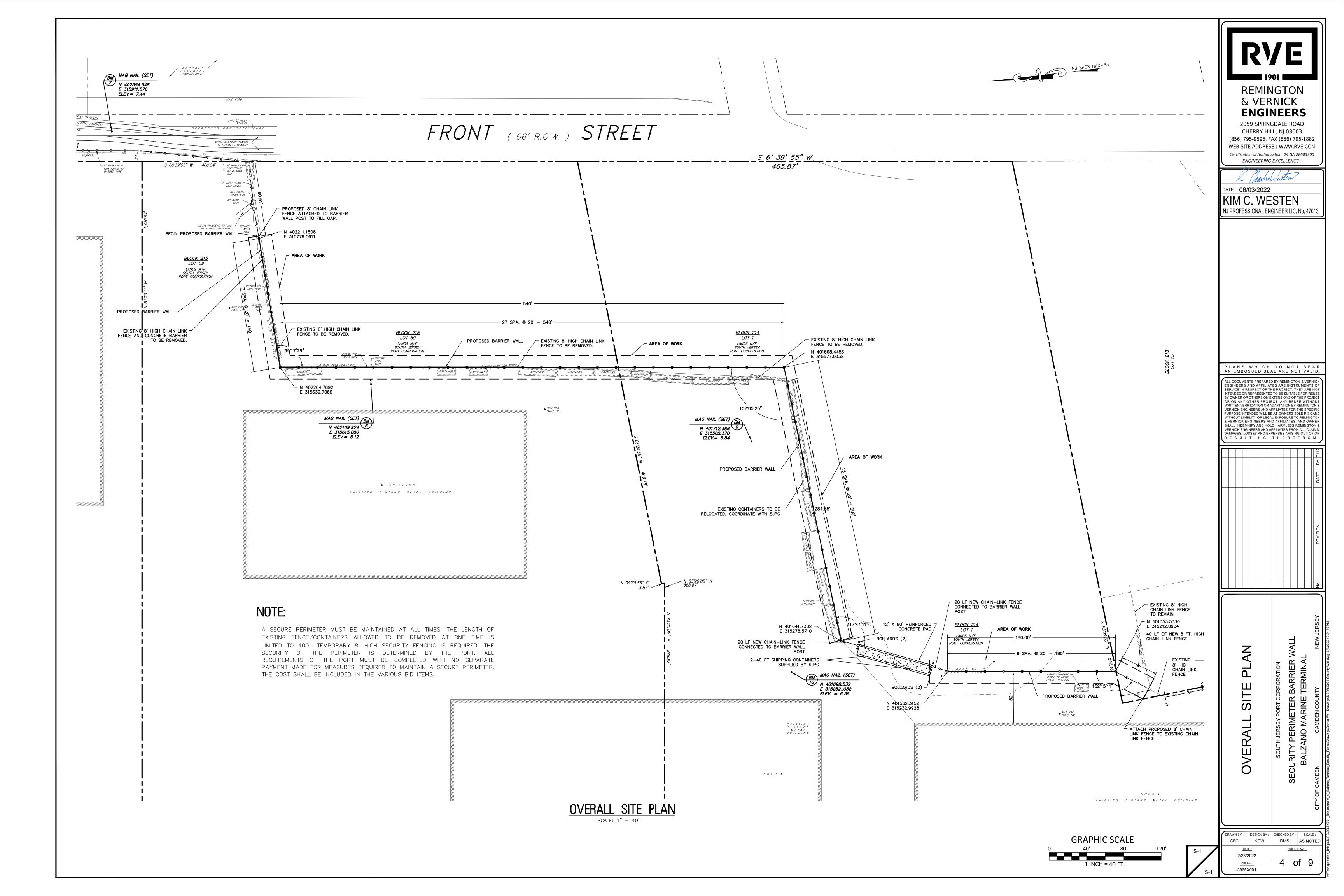
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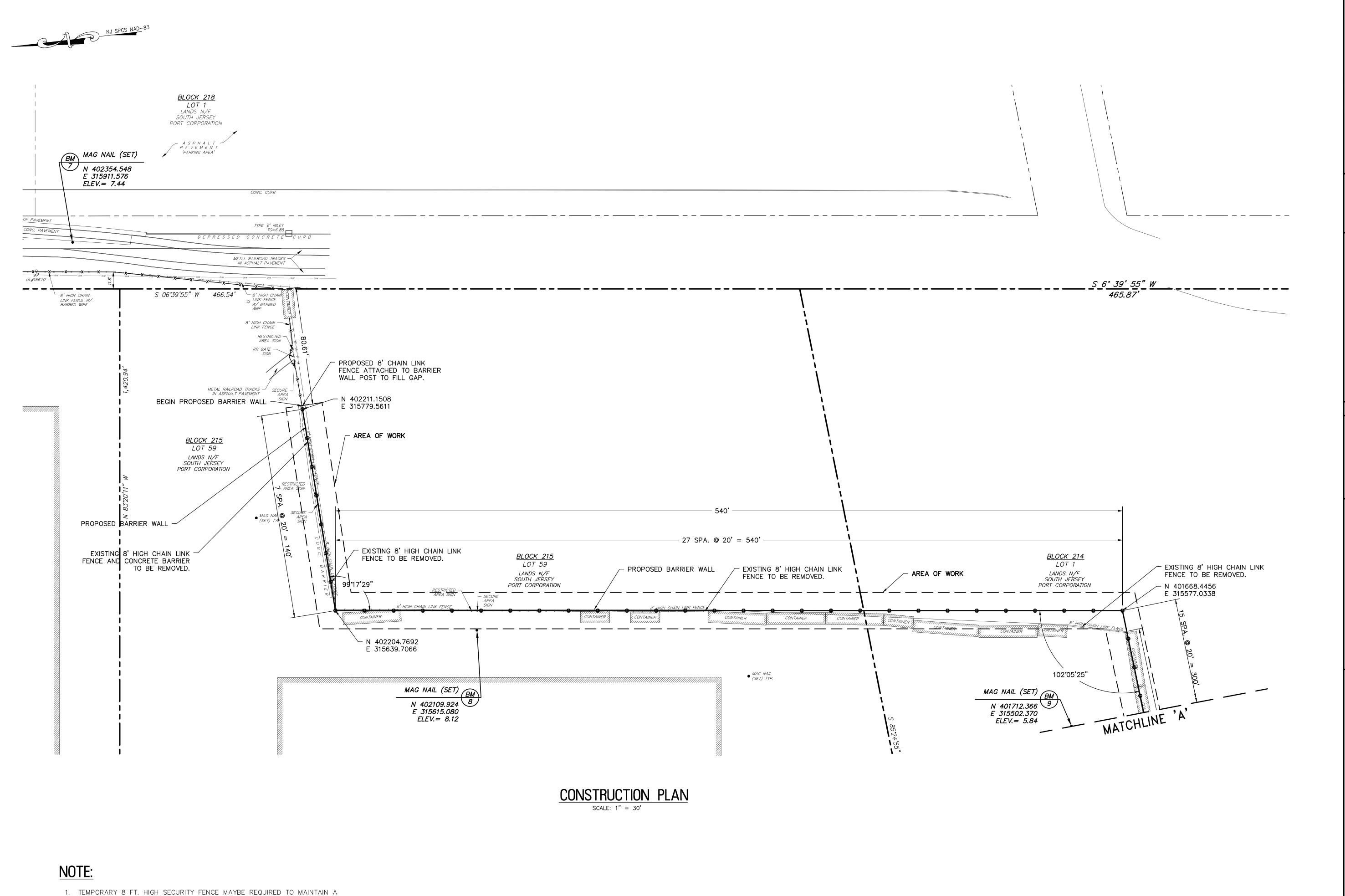
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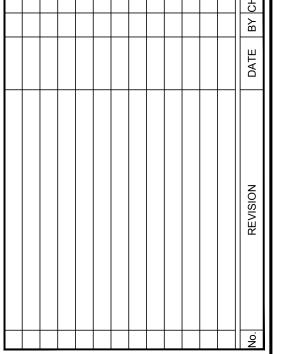
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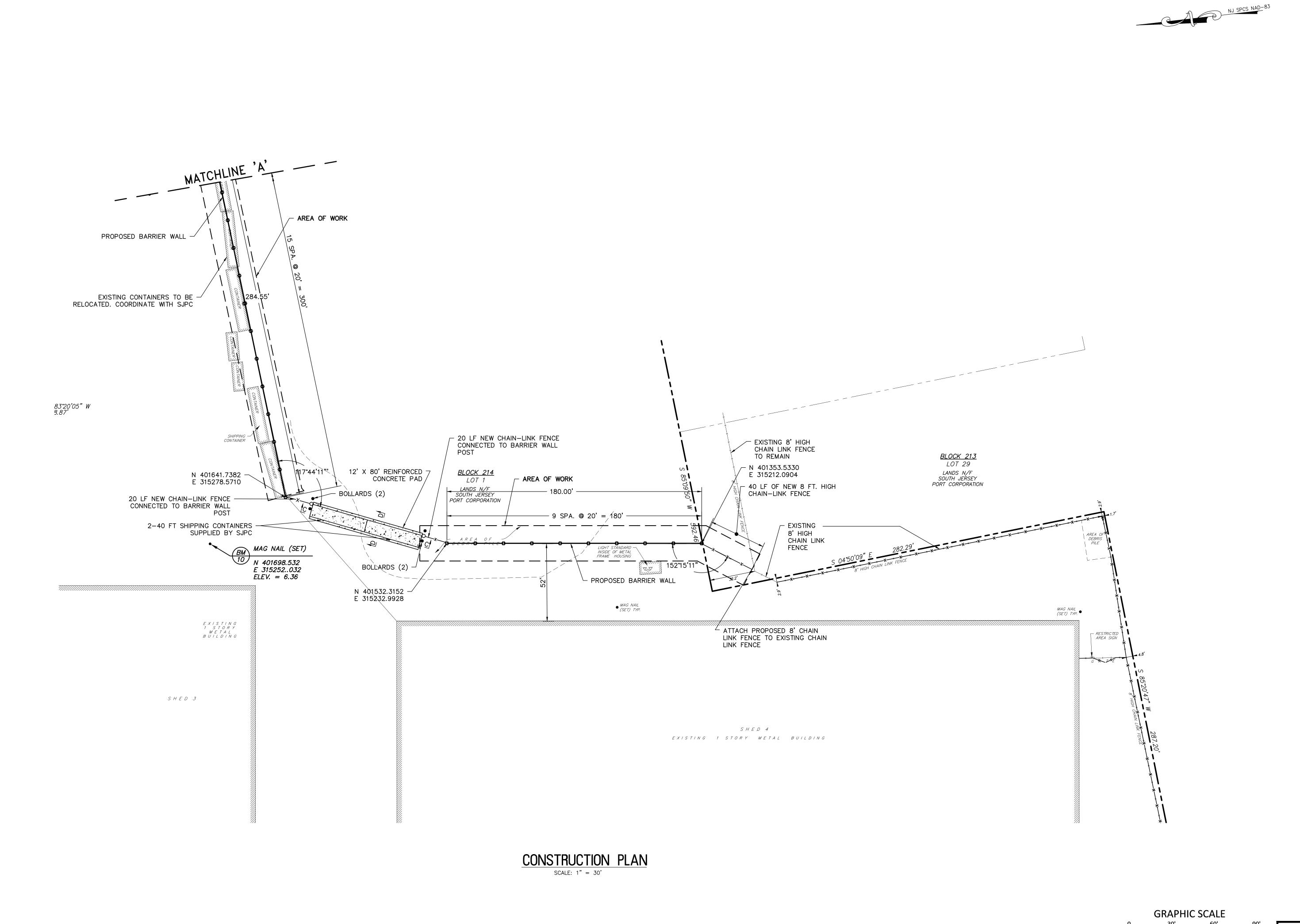
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**GRAPHIC SCALE** 1 INCH = 30 FT.



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