SHEET INDEX					
SHEET NUMBER	DESCRIPTION	DATE			
1	SITE CONSTRUCTION PLAN	02-25-2021			
2	SECURITY BOOTH DETAILS	02-25-2021			
3	ELECTRICAL SYMBOLS, NOTES, ABBREVIATIONS & SCHEDULE	02-25-2021			
4	ELECTRICAL SPECIFICATION	02-25-2021			
5	ELECTRICAL GUARD BOOTH PLAN & SITE LOCATION PLAN	02-25-2021			

#### **SECURITY BOOTH BUILDING NOTES:**

- 1. THE PROPOSED GUARDHOUSE BUILDING IS USE GROUP B GUARDHOUSE BUILDING TYPE V-B UNPROTECTED AREA CONSTRUCTION 100 SQ. FT...
- 2. THE FOLLOWING IS THE APPLICABLE BUILDING CODE TO BE USED FOR DESIGN OF THE SECURITY BOOTH GUARDHOUSE:

NEW JERSEY

2018 INTERNATIONAL BUILDING CODE w/ 2018 INTERNATIONAL MECHANICAL CODE 2017 NATIONAL ELECTRIC CODE

2009 ACCESSIBILITY CODE w/ AMENDMENTS (A117.1) 2016 ASHRAE 90.1

3. DESIGN LOADS PER 2018 IBC (NJ EDITION) REQUIREMENTS ARE AS FOLLOWS:

CONSTRUCTION TYPE V-B OCCUPANT LOAD: 2 PERSONS

BUILDING WT = 6,000 LBS

RISK CATEGORY II

ROOF LIVE LOAD = FLAT ROOF SNOW LOAD =

BASED ON GROUND SNOW LOAD= 40 PSF SNOW IMPORTANCE FACTOR Is = 1.0EXPOSURE FACTOR Ce = 1.0; THERMAL FACTOR Ct = 1.2

WIND LOADS:

MWFRS LATERAL = 21.8 PSF WINDWARD / 18.8 PSF LEEWARD (ULTIMATE LOADS) =13 PSF WINDWARD / 8.7 PSF LEEWARD (USING 0.6W FOR ASD) MWFRS UPLIFT = -27.3 PSF (ULTIMATE LOAD) / -16.4 PSF (USING 0.6W FOR ASD) BASED ON 120 MPH ULTIMATE WIND SPEED (Vult) PER ASCE 7-16 EXPOSURE "C" (EQUIVALENT TO 75 MPH NOMINAL WIND SPEED (Vasd) IMPORTANCE FACTOR = 1.0

le = 1.0, SITE CLASS "D" ASSUMED, SEISMIC DESIGN CATEGORY "B" Sds = 0.214G (Ss = 0.2, Fa = 1.6), Sd1 = 0.104G (S1 = 0.065, Fv = 2.4) R = 3 - STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE Cs = 0.072, DESIGN BASE SHEAR = CsxW = 0.5 K USING EQUIVALENT LATERAL FORCE

- 4. THE FOLLOWING ARE SPECIFIC CODE AND/OR INFORMATION TO BE USED FOR THE DESIGN AND CODE REVIEW OF THE PROPOSED SECURITY BOOTH GUARDHOUSE BUILDING:
- FIRE SEPARATION DISTANCE: OVER 20'-0" FROM ELEVATIONS A, C, & D AND OVER 25'-0" FROM ELEVATION B TO THE PROPERTY LINE OR MIDPOINT BETWEEN TWO BUILDINGS ON THE
- INTERIOR HEIGHT MIN. 90 +/-"CLEARANCE - INSULATED CONCRETE SLAB FLOOR SYSTEM TO BE CONSISTENT WITH THE ENERGY CODE
- ALL STEEL IDENTIFICATION DESIGN, AND FABRICATION SHALL COMPLY WITH AISC 360 AND AISI S100
- ENERGY CONSERVATION DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE 2016 ASHRAE 90.1 ACCESSIBILITY DESIGN AND CONSTRUCTION SHALL COMPLY WITH 2009 ICCI ANSI A117.1
- REST ROOM FACILITIES ARE LOCATED WITHIN 250' - STATE OF NEW JERSEY CERTIFICATIONS AND INSPECTIONS REQUIRED NJ IBC LABELS

## **SCOPE OF WORK:**

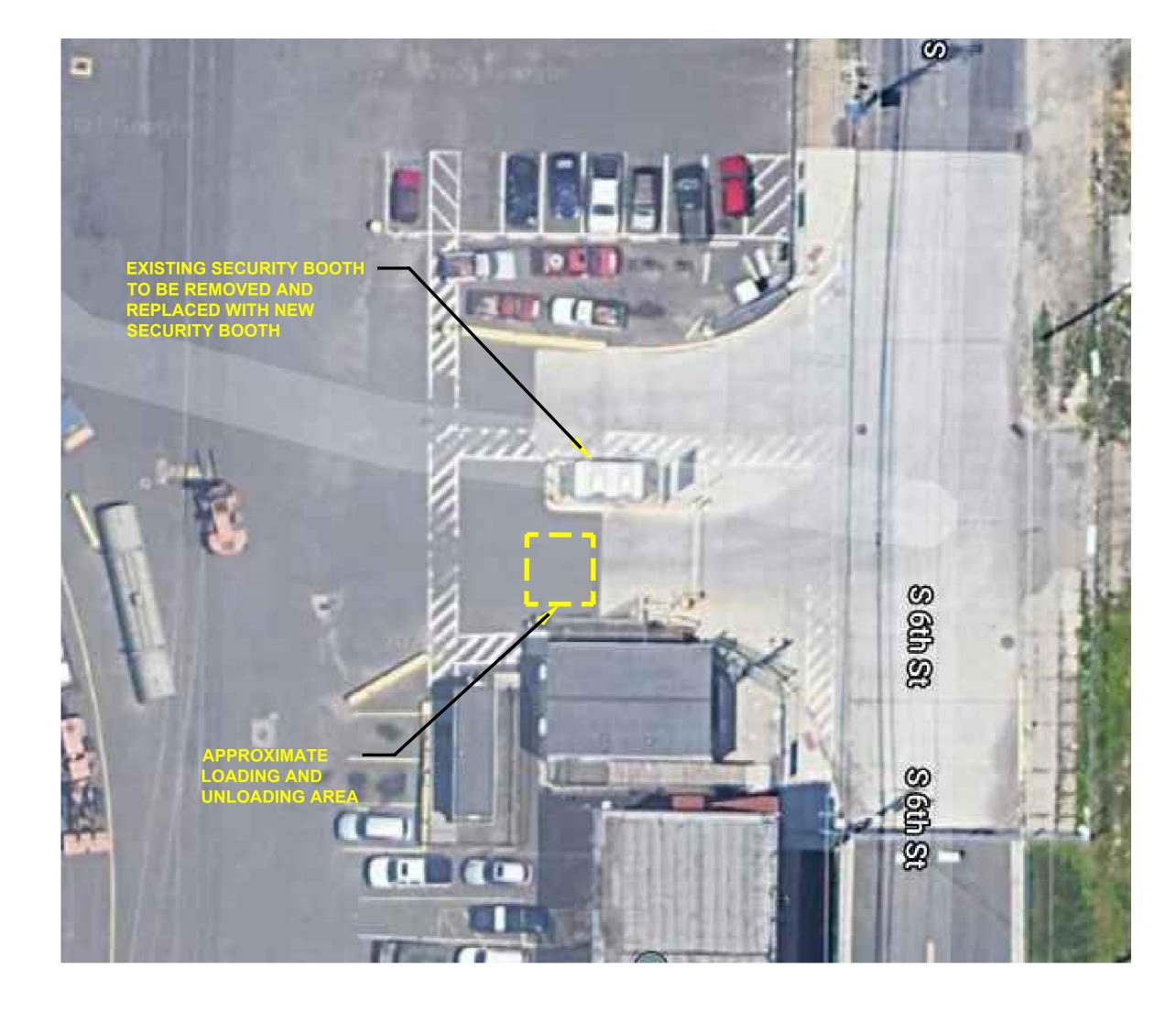
- 1. CONTRACTOR IS RESPONSIBLE TO PREPARE WORKING DRAWINGS FOR THE NEW SECURITY BOOTH IN ACCORDANCE WITH THE CONTRACT PLANS AND DOCUMENTS.
- 2. THE SECURITY BOOTH WORKING DRAWINGS SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL.
- 3. UPON APPROVAL FROM THE OWNER, THE CONTRACTOR SHALL PROVIDE SIGNED AND SEALED PLANS FOR THE SECURITY BOOTH AND SUBMIT FOR BUILDING PERMITS.
- 4. ONCE THE CONTRACTOR RECEIVES BUILDING PERMITS, THEN THE REMOVAL AND REPLACEMENT OF THE SECURITY BOOTH SHALL BE SCHEDULED WITH THE OWNER. THE REMOVAL AND REPLACEMENT OF THE SECURITY BOOTH MUST BE ON THE WEEKEND TO MINIMIZE DISRUPTIONS TO THE PORT TERMINAL.
- 5. THE OWNER WILL REMOVE AND DISCONNECT THE EXISTING EQUIPMENT IN THE SECURITY BOOTH AND REMOVE THE GATE AND READER, FAX MACHINE, COMMUNICATION CONTROLS, AND MISCELLANEOUS OFFICE EQUIPMENT.
- 6. THE CONTRACTOR IS RESPONSIBLE TO REMOVE AND DISCONNECTION THE EXISTING ELECTRICAL AND COMMUNICATION SERVICE TO THE SECURITY BOOTH.
- 7. THE SHALL COORDINATE WITH THE OWNER FOR SCHEDULING THE REMOVAL OF EXISTING SECURITY BOOTH AND THE LOADING AND UNLOADING ASSOCIATED WITH THE INSTALLATION OF THE NEW SECURITY BOOTH IN ACCORDANCE WITH THE CONTRACT PLANS.
- 8. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL THE ELECTRICAL AND COMMUNICATION SERVICES TO THE NEW SECURITY BOOTH.
- 9. THE CONTRACTOR IS RESPONSIBLE TO RESTORE OR REPAIR ANY DAMAGE OR IMPACT TO EXISTING IMPROVEMENTS AS A RESULT OF THIS WORK TO THE SATISFACTION OF THE OWNER.

PROJECT SITE IS NOT LOCATED IN FLOODPLAIN, BASED ON FEMA MAP NO.34007C0036F, EFFECTIVE DATE 8/17/2016, BASED ON N.J.A.C. 7:13-7.3 PERMIT-BY-RULE 3 - IN-KIND REPLACEMENT OF A LAWFULLY EXISTING STRUCTURE:

(A) PERMIT-BY-RULE 3 AUTHORIZES THE IN-KIND REPLACEMENT OF A LAWFULLY EXISTING STRUCTURE, PROVIDED THE CONDITIONS AT N.J.A.C. 7:13-6.7 ARE MET AND:

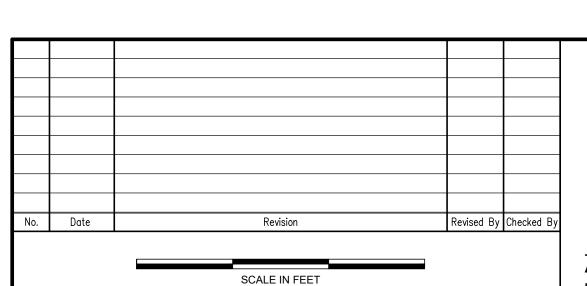
-VEGETATION WILL NOT BE CLEANED, CUT AND/OR REMOVED.

- THE STRUCTURE IS NOT LOCATED WITHIN A FLOODWAY; -STRUCTURE IS NOT LOCATED WITHIN A FLOODWAY.
- 2. THE STRUCTURE BEING REPLACED IS NOT A RETAINING WALL OR BULKHEAD SUBJECT TO THE REQUIREMENTS OF N.J.A.C. 7:13-12:13 OR A HABITABLE BUILDING; -BUILDING IS NON-HABITABLE BUILDING THERE IS NO PLUMBING, WATER AND/OR SEWER IMPROVEMENTS WITHIN THE SECURITY SHELTER.
- 3. NO RIPARIAN ZONE VEGETATION IS CLEARED, CUT, AND/OR REMOVED, EXCEPT FOR VEGETATION WITHIN 20 FEET OF THE STRUCTURE, WHERE SUCH DISTANCE IS NECESSARY TO FACILITATE IT'S REPLACEMENT; AND
- 4. NO MORE THAN ONE-QUARTER ACRE OF RIPARIAN ZONE VEGETATION IS CLEARED, CUT, AND/OR REMOVED. -VEGETATION WILL NOT BE IMPAIRED BY THIS PROJECT.



**LOCATION MAP** SCALE: NOT TO SCALE

ALL WORK IS TO BE PERFORMED BY THE GENERAL CONTRACTOR UNLESS OTHERWISE NOTED. ALL REFERENCES TO "GC", "CONTRACTOR", OR "GENERAL CONTRACTOR" IS TO MEAN GENERAL CONTRACTOR FOR PURPOSES OF THIS WORK.





SITE CONSTRUCTION PLAN Wall, New Jersey 07719 732.312.9800

**KEY MAP** 

SCALE: NOT TO SCALE

1. THE SITE IS KNOWN AS BLOCK 455, LOT 16 AS SHOWN ON THE CITY OF CAMDEN TAX MAP.

2. THE CONTRACTOR IS ADVISED TO VERIFY THE EXISTING INFORMATION SHOWN ON THE PLANS. ACCURACY AND COMPLETENESS ARE NOT GUARANTEED BY THE OWNER, OR ENGINEER.

4. ALL DESIGN FEATURES DEPICTED HEREON WERE BASED ON CONSTRAINTS AND REGULATIONS IN EFFECT

5. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL NECESSARY PERMITS AND LICENSES REQUIRED

TO CARRY OUT HIS WORK IN FULL ACCORDANCE WITH REQUIREMENTS OF ALL REGULATIONS AND

CONTROLLING OR LIMITING THE METHODS, MATERIAL TO BE USED, OR THE ACTIONS OF THOSE

THESE LAWS, CODES, RULES AND REGULATIONS SHALL BE PERFORMED AND FURNISHED BY THE

6. THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION OF ALL ITEMS SHOWN HEREON UNLESS

7. UPON AGREEMENT WITH SOUTH JERSEY PORT CORPORATION, THE CONTRACTOR WARRANTS THAT HE

9. THE CONTRACTOR SHALL SUBMIT FOR THE ENGINEER'S AND OWNER'S APPROVAL, A CONSTRUCTION

10. THE CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN SHEETING, BRACING, SHORING AND OTHER

11. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE THE EXISTING SECURITY BOOTH

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY

COMPANIES PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES TO DETERMINE THE EXACT

OBSERVATIONS AND FROM RECORD INFORMATION PROVIDED BY THE UTILITY COMPANIES. IN ADDITION, THE LOCATION AND TYPE OF THE EXISTING UTILITIES SHOWN ON THESE PLANS IS NOT

GUARANTEED TO BE ACCURATE NOR ALL INCLUSIVE. THE CONTRACTOR SHALL USE THE

EXISTING UTILITY LOCATIONS SHOWN AS AN AID IN DETERMINING EXACT LOCATIONS. THE CONTRACTOR MUST CONTACT THE "ONE CALL SYSTEM" AT 1-800-272-1000 AT LEAST 72

2. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION, SCHEDULING AND ALL COSTS REQUIRED FOR NEW SERVICE CONNECTIONS, EXTENSION OF ELECTRIC AND COMMUNICATION

THE PROJECT ARE DISTURBED BY THE CONTRACTOR OR THE UTILITY COMPANIES, THE

3. IF ANY UTILITY FACILITIES, INCLUDING DISTRIBUTION MAINS OR SERVICES FOR ADJACENT

THE END OF THE WORKING DAY AT NO ADDITIONAL EXPENSE TO THE OWNER.

ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE IMPROVEMENTS IN

SERVICE TO THE SECURITY BOOTH GUARDHOUSE BUILDING, CAP, DISCONNECT AND REMOVE THE

AUTHORITY HAVING JURISDICTION. IN ADDITION, IF THE EXISTING IMPROVEMENTS LOCATED WITHIN

PROPERTIES. ARE DISRUPTED OR DAMAGED DURING THE CONSTRUCTION WORK ASSOCIATED WITH

THIS PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR RESTORING THE UTILITY FACILITIES BY

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION, INSTALLATION AND SUPPLY OF ANY UTILITY SERVICE REQUIRED FOR THIS PROJECT, INCLUDING TEMPORARY POWER AND

TELEPHONE SERVICES. ALL COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID

EXCESS UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY AGENCY OR THE

HOURS PRIOR TO ANY EXCAVATION, DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.

LOCATIONS AS NECESSARY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. UTILITY LOCATIONS SHOWN ON THESE PLANS ARE FROM ABOVE-GROUND

AND ALL CONSTRUCTION DEBRIS AND UNUSED MATERIAL FROM THE PROJECT SITE, ON A DAILY OR OTHER ADEQUATE INTERVAL IN ORDER TO MINIMIZE THE TEMPORARY STOCKPILE AREAS DURING HIS

8. ALL EXCESS CONSTRUCTION DEBRIS AND/OR WASTE MATERIALS ACCUMULATED DURING THE

N.J.D.E.P. APPROVED LANDFILLS. NO ON-SITE BURIAL OF DEBRIS WILL BE ALLOWED.

HAS CARFFULLY EXAMINED THE SITE AND HAS FAMILIARIZED HIMSELF WITH ALL THE PROVISIONS OF ALL THE CONTRACT DOCUMENTS AND THAT WHERE DRAWINGS REQUIRE A GIVEN RESULT, SUCH RESULT

CONSTRUCTION ACTIVITIES ON THE SITE AND CONSTRUCTION OF THE PROJECT SHALL BE REMOVED TO

SUPPORTS REQUIRED BY THE WORK. NO SEPARATE PAYMENT WILL BE MADE FOR PROVIDING SHEETING,

BRACING, SHORING, ETC. FOR THE WORK. ALL COSTS THEREOF SHALL BE INCLUDED IN THE LUMP SUM

LOCAL LAWS AND ALL CODES, RULES AND REGULATIONS OF HEALTH, PUBLIC OR OTHER AUTHORITY

EMPLOYED IN WORK OF THIS KIND. ALL WORK, LABOR OR MATERIAL NECESSARY TO COMPLY WITH

AT THE TIME OF PREPARATION AND INITIAL PRESENTATION OF THIS PLAN. CONTRACTOR SHALL VERIFY

ALL CURRENT DEVELOPMENT CONSTRAINTS AND OBTAIN BUILDING PERMIT PRIOR TO COMMENCEMENT OF

AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND

3. THE GENERAL CONTRACTOR SHALL REMOVE ALL ITEMS IN CONFLICT WITH THE PROPOSED

**GENERAL CONSTRUCTION NOTES:** 

ANY ACTIVITY BASED ON THIS PLAN.

IDENTIFIED AS "BY OTHERS".

BID FOR THIS PROJECT.

**UTILITY NOTES:** 

FOR THIS PROJECT.

SCHEDULE PRIOR TO BEGINNING WORK.

CONSTRUCTION UNLESS INDICATED AS "TO REMAIN".

CAN BE PRODUCED UNDER THE TERMS OF THE DOCUMENTS.

SECURITY BOOTH IMPROVEMENT **BROADWAY MARINE TERMINAL** SOUTH JERSEY PORT CORPORATION

> BLOCK 457 LOT 16 CITY OF CAMDEN CAMDEN COUNTY, NEW JERSEY

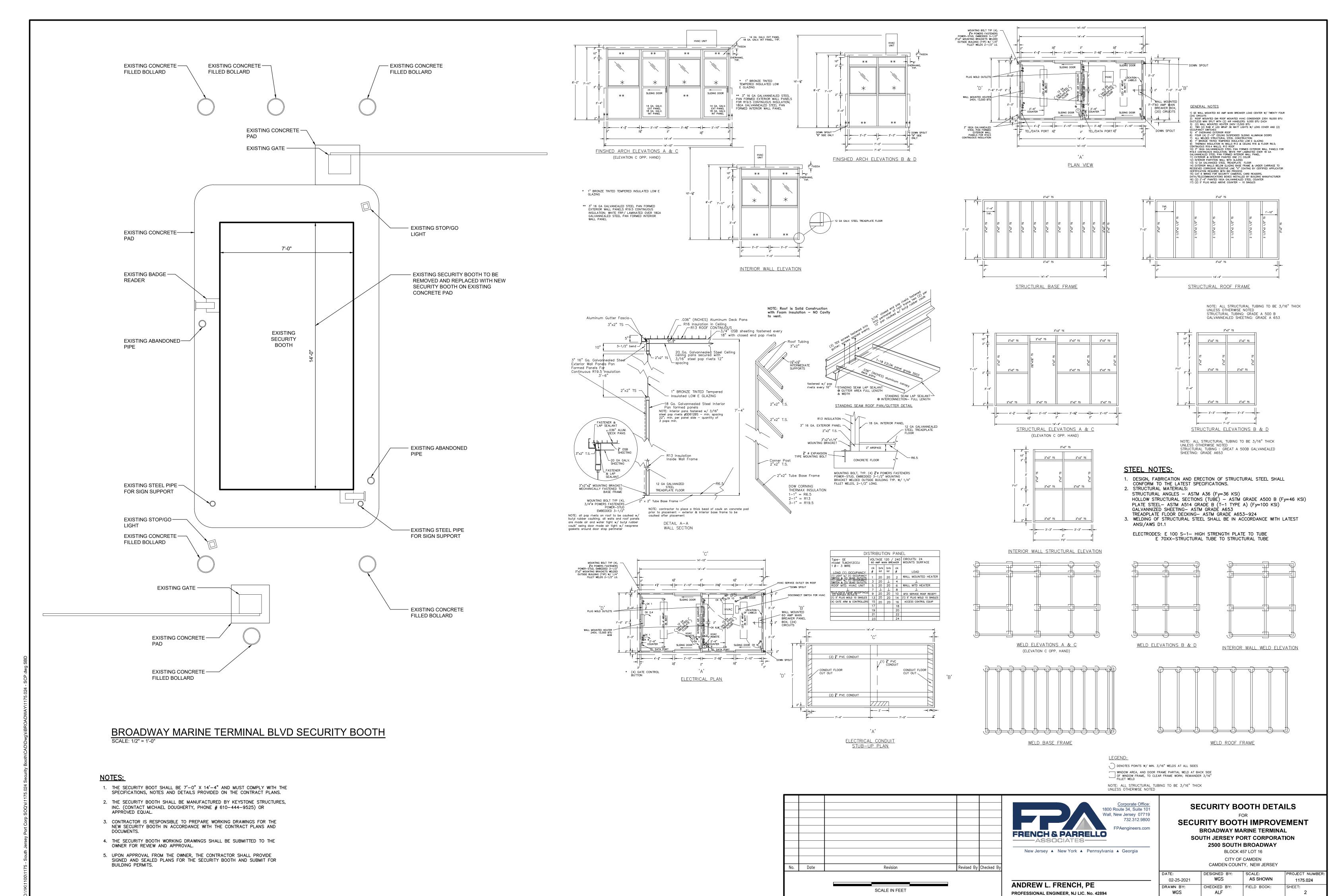
2500 SOUTH BROADWAY

ANDREW L. FRENCH, PE PROFESSIONAL ENGINEER, NJ LIC. No. 42894

New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

DESIGNED BY: 02-25-2021 WGS AS SHOWN 1175.024 DRAWN BY: CHECKED BY FIELD BOOK: ALF WGS

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### **ELECTRICAL GENERAL NOTES**

THE OWNER.

- DRAWINGS ARE DIAGRAMMATIC AND DEFINE THE INTENT OF THE WORK. LOCATIONS OF EQUIPMENT, FIXTURES, DEVICES, PANELBOARDS, ETC. ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATIONS CAUSED BY STRUCTURAL CONDITIONS AND EQUIPMENT PROVIDED BY OTHER CONTRACTORS, SUBCONTRACTORS OR THE OWNER. COORDINATE ALL WORK WITH THE WORK OF OTHER TRADES. DETERMINE ROUGHING LOCATIONS FROM APPROVED SHOP DRAWINGS. MINOR MODIFICATIONS OF LOCATIONS REQUIRED TO EFFECT SUCH COORDINATION SHALL BE MADE AT NO COST TO
- THE DRAWINGS HAVE BEEN PRODUCED ENTIRELY ON FPA CADD SYSTEM. ANY OTHER LETTERING, LINES OR SYMBOLS, OTHER THAN PROFESSIONAL STAMPS AND SIGNATURES, HAVE BEEN MADE WITHOUT THE AUTHORIZATION 34. OF FPA AND ARE INVALID.
- REPRODUCTION OF ANY PORTION OF THE CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED.
- SPECIFICATIONS MAY REQUIRE WORK, EQUIPMENT, SYSTEMS, METHODS, ETC. THAT IS NOT INDICATED ON THE DRAWINGS.
- DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLEMENTARY TO EACH OTHER. WHERE DISCREPANCIES OR CONFLICTS OCCUR, THE CONTRACTOR SHALL INCLUDE THE MORE COSTLY METHOD IN HIS PROPOSAL UNLESS CLARIFIED BY BULLETIN OR ADDENDUM ACKNOWLEDGED PRIOR TO RECEIPT OF BIDS.
- DRAWINGS SHALL NOT BE SCALED. DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND REQUIREMENTS OF THE WORK. ALTHOUGH SIZE AND LOCATION OF EQUIPMENT IS DRAWN TO SCALE WHEREVER POSSIBLE, CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY INFORMATION AT THE PROJECT SITE.
- 7. THE OWNER WILL OCCUPY THE SITE DURING THE ENTIRE CONSTRUCTION PERIOD. COOPERATE WITH THE OWNER DURING CONSTRUCTION OPERATIONS TO AVOID ANY CONFLICTS. PERFORM THE WORK SO AS NOT TO INTERFERE WITH THE OWNER'S OPERATIONS. SCHEDULE ALL POWER OUTAGES FOR OVERTIME ON SUNDAYS AND HOLIDAYS AT NO ADDITIONAL COST TO THE OWNER.
- 8. EXISTING PROJECT CONDITIONS INDICATED ARE BASED ON FIELD OBSERVATION, EXISTING DESIGN / CONSTRUCTION DOCUMENTS AND EXISTING RECORD DOCUMENTS AND ARE INTENDED TO INDICATE THE SCOPE OF THE WORK AFFECTED BY THIS PROJECT.
- 9. THE TERM "OTHERS" SHALL BE UNDERSTOOD TO MEAN CONTRACTORS, SUBCONTRACTORS OR TRADESMEN ON THE PROJECT PERFORMING WORK ON THIS PROJECT UNDER SECTIONS OR DIVISIONS OTHER THAN ELECTRICAL
- 10. VERIFY THAT FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE
- UNDER WHICH THE WORK IS TO BE DONE. SCHEDULE SITE VISIT WITH OWNER.
- 12. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR THE INSTALLATION, RELOCATION AND CONNECTION OF THE ELECTRICAL WORK.

APPLICATION WHERE SUCH LISTING IS APPLICABLE.

APPLIANCES AND SYSTEMS.

- 13. ALL MATERIAL SHALL BE UNDERWRITERS' LABORATORIES LISTED FOR ITS
- 14. ALL EQUIPMENT SHALL BE AS INDICATED OR AS APPROVED BY THE ENGINEER.
- 15. SUBMIT SHOP DRAWINGS, PRODUCT DATA SHEETS AND WIRING DIAGRAMS FOR ALL ELECTRICAL CONSTRUCTION MATERIALS, DEVICES, EQUIPMENT,
- 16. SUBMIT IN QUANTITY TO ALLOW DISTRIBUTION TO A OWNER (2), ENGINEER (1), PRIME CONTRACTORS (1 EACH), AND CONTRACTOR'S OWN USE AS REQUIRED.
- 17. UNLESS SPECIFICALLY INDICATED OR REQUESTED OTHERWISE, BIND ALL PRODUCT DATA TOGETHER INTO A SINGLE SUBMITTAL PROPERLY INDEXED AND IDENTIFIED AND WITH ALL PERTINENT CATALOG NUMBERS, OPTIONS, ETC. HIGHLIGHTED OR TARGETED. LOOSE SHEETS OR BINDING SYSTEMS RELYING ON PAPER CLIPS OR SLIP ON SPLINES WILL BE DISCARDED AND THE TRANSMITTAL RETURNED TO THE CONTRACTOR.
- 18. OBTAIN SHOP DRAWINGS AND WIRING DIAGRAMS FROM OTHER VENDORS AND CONTRACTORS FOR THE PROPER INSTALLATION OF RELATED ELECTRICAL WORK AND, UNLESS OTHERWISE NOTED, WIRE ALL CONTROL DEVICES, VALVES, THERMOSTATS, ETC. REQUIRED FOR THE PROPER OPERATION OF THEIR SYSTEMS.
- 19. OBTAIN ALL PERMITS REQUIRED, HAVE THE WORK INSPECTED FOR CODE COMPLIANCE AND PAY ALL FEES FOR INSPECTION AND CERTIFICATION.
- 20. MAINTAIN CONTINUITY OF EXISTING CIRCUITS AFFECTED BY THIS WORK WHICH MUST REMAIN IN SERVICE.
- 21. MAKE ALL MODIFICATIONS NECESSARY TO EXISTING PANELBOARDS, CIRCUIT BREAKERS AND DISCONNECT SWITCHES TO ACCEPT NEW CIRCUITS.
- 22. EXACT LOCATION OF EQUIPMENT SHALL BE COORDINATED IN THE FIELD.
- 23. REFER TO DRAWINGS AND SPECIFICATIONS OF OTHER TRADES FOR EQUIPMENT LOCATIONS AND CONTROLS.
- 24. GROUNDING AND BONDING SHALL MEET NEC AND EQUIPMENT / SYSTEM MANUFACTURER'S REQUIREMENTS.
- 25. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF DEBRIS GENERATED BY HIS WORK AND WORKERS AT THE END OF EACH WORKING DAY AND FOR GENERAL GOOD HOUSEKEEPING BY HIS WORKERS. CONTRACTOR SHALL PROVIDE REQUIRED REFUSE CONTAINERS.
- 26. DISCONNECT AND REMOVE FROM THE PREMISES, OR STORE ON THE PREMISES IF REQUESTED BY THE OWNER, ALL EQUIPMENT FIXTURES, DEVICES, RACEWAY, WIRING, CABLE, SUPPORTING DEVICES, ETC. REMOVED OR ABANDONED AS A RESULT OF THIS WORK. MAKE SAFE ALL WIRING AND CABLE WHICH MUST REMAIN IN SERVICE.
- 27. ALL NEW WIRING IS TO BE RUN CONCEALED WHERE POSSIBLE. PROVIDE PULLBOXES, SIZE AND LOCATION AS REQUIRED.
- 28. EXPOSED RACEWAY, IF PERMITTED, SHALL BE RUN TRUE, PLUMB AND PARALLEL OR PERPENDICULAR TO BUILDING LINES. RIGID METAL CONDUIT OR EMT WITH RAINTIGHT STEEL FITTINGS, 3/4 INCH MINIMUM, SHALL BE USED OUTDOORS; ELECTRICAL METALLIC TUBING, 3/4 INCH MINIMUM, SHALL BE USED IN INDOOR UNFINISHED SPACES; SURFACE METAL RACEWAY (WIREMOLD) SHALL BE USED IN INDOOR FINISHED SPACES.
- 29. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLTS INSULATION IN METAL RACEWAY WITH APPROVED FITTINGS UNLESS OTHERWISE INDICATED.
- 30. FEEDERS AND BRANCH CIRCUITS UNDERGROUND IN RACEWAY: TYPE THHN-THWN 90 DEGREE C

- 31. INTERIOR FEEDERS AND BRANCH CIRCUITS IN RACEWAY: TYPE THHN 90
- 32. BRANCH CIRCUIT HOMERUNS TO FIRST OUTLET: TYPE THHN IN RACEWAY. AFTER THE FIRST OUTLET BOX, APPROVED CABLE MAY BE USED.
- FEEDERS SHALL BE MINIMUM #8 AWG; BRANCH CIRCUIT WIRING MINIMUM #12 AWG; CONTROL WIRING MINIMUM #14 AWG; UNLESS OTHERWISE INDICATED. FEEDER AND BRANCH CIRCUIT WIRING LARGER THAN #10 AWG SHALL BE STRANDED CONDUCTOR; #10 AWG AND SMALLER, STRANDED CONDUCTOR OR SOLID CONDUCTOR: CONTROL WIRING, STRANDED CONDUCTOR.
- METAL CLAD CABLE TYPE MC WITH 600 VOLT THHN INSULATION AND INSULATED GROUND CONDUCTOR MAY BE USED FOR BRANCH CIRCUITS RUN IN HOLLOW SPACES, FISHED ABOVE EXISTING HUNG CEILINGS, FIXTURE CONNECTIONS AND ELSEWHERE AS PERMITTED BY THE NEC AND THE ENGINEER.
- 35. MAKE FLEXIBLE CONNECTIONS TO MOTORS AND OTHER ROTATING / VIBRATING EQUIPMENT.
- 36. TAPS AND SPLICES FOR BRANCH CIRCUITS AND FEEDERS SHALL BE MADE WITH AN INSULATED TERMINAL BY ILSCO, OR APPROVED EQUAL.
- BRANCH CIRCUIT AND FEEDER TAPS SHALL BE FULL CIRCUIT SIZE UP TO

THEIR OVERCURRENT PROTECTION DEVICE.

- 38. CONNECTIONS TO FIXTURE AND MOTOR LEADS #10 AWG AND SMALLER SHALL BE MADE WITH 3M "SCOTCHLOK" PRE-INSULATED SPRING PRESSURE CONNECTORS TYPES Y, R OR G OR APPROVED EQUAL.
- STRANDED WIRING CONDUCTORS SHALL BE MADE UP TO SCREW TERMINALS WITH 3M, T&B OR PANDUIT LOCKING FORK CRIMP TERMINALS WITH NYLON INSULATED GRIPS.
- 40. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL 120V CONTROL POWER WIRING FEEDERS AND CIRCUIT BREAKERS REQUIRED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT. COORDINATE WITH THE SECURITY BOOTH VENDOR / CONTRACTOR FOR EXTENT OF WORK REQUIRED.
- 41. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION AND INSTALLATION DETAILS AND VERIFY ALL MANUFACTURER'S REQUESTS PRIOR TO ANY SUBMISSION FOR CONSIDERATION BY THE ARCHITECT, ENGINEER OR
- 42. WIRING RUNS INDICATED ON THE DRAWINGS EXPRESS THE INTENT OF CIRCUIT ASSIGNMENT AND SWITCH CONTROL. ACTUAL WIRING METHODS USED SHALL BE SUITED FOR THE CONSTRUCTION OF THE BUILDING. REFER TO DRAWINGS OF OTHER TRADES AND EXISTING CONDITIONS. SEE ARCHITECTURAL DRAWINGS FOR DETAILS. NUMBER OF CONDUCTORS IS NOT ALWAYS INDICATED
- 43. PROVIDE DISCONNECTS FOR ALL APPLIANCES, EQUIPMENT, MOTORS AND
- 11. PRIOR TO BIDDING VISIT THE PROJECT SITE TO DETERMINE THE CONDITIONS 44. PROVIDE UN-SWITCHED 125 VOLT 20 AMP RECEPTACLE OUTLETS LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET OF ALL HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT UNLESS OTHERWISE NOTED.
  - 45. ALL 125 VOLT, SINGLE PHASE, 15- AND 20-AMPERE SINGLE AND DUPLEX RECEPTACLES WHICH DO NOT SERVE A DEDICATED APPLIANCE AND ARE WITHIN A 6 FOOT RADIUS OF A SINK, ARE INSTALLED IN WET LOCATIONS, ARE INSTALLED IN BATHROOMS, ON ROOFS, OR OUTDOORS WITH DIRECT GRADE ACCESS. SHALL BE GROUND FAULT CIRCUIT INTERRUPTING TYPE WHERE AVAILABLE OR SHALL BE PROTECTED BY GROUND FAULT CIRCUIT INTERRUPTING CIRCUIT BREAKERS.
  - 46. TEST PANELBOARDS, CABLES, SWITCHES, CIRCUIT BREAKERS, GROUNDING SYSTEM, GROUND FAULT PROTECTION SYSTEM IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE CURRENT EDITION OF THE INTERNATIONAL ELECTRICAL TESTING ASSOCIATION ACCEPTANCE TESTING SPECIFICATIONS FOR ELECTRIC POWER DISTRIBUTION EQUIPMENT AND SYSTEMS (NETA ATS). PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST
  - 47. PROVIDE TWO SETS OF OPERATION AND MAINTENANCE MANUALS, BOUND AND INDEXED, WITH INSTRUCTIONS FOR ALL ELECTRICAL DEVICES, EQUIPMENT, APPLIANCES AND SYSTEMS.
  - 48. PROVIDE ONE SET OF REPRODUCIBLE CONTRACT DRAWINGS, OR DIGITAL DATA FILES USING SAME SOFTWARE PROGRAM, VERSION, AND OPERATING SYSTEM AS CONTRACT DOCUMENTS, THAT HAVE BEEN REVISED AND ANNOTATED TO REFLECT THE AS-BUILT CONDITIONS OF THE PROJECT
  - 49. DELIVER CERTIFICATES OF ELECTRICAL AND OTHER INSPECTIONS, OR COPIES THEREOF, TO THE OWNER AT THE COMPLETION OF THE PROJECT WITH COPIES TO THE ENGINEER.
  - 50. GUARANTEE ALL WORK IN WRITING TO THE OWNER AGAINST ANY AND ALL DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE AND PERFORM ALL CORRECTIVE WORK AT NO COST TO THE OWNER.
  - 51. A CONTRACTOR MAKING A BID FOR WORK ON THIS PROJECT IS MADE AWARE BY THIS NOTE THAT IT IS THE INTENT OF THE OWNER TO HAVE A COMPLETELY INSTALLED JOB. THE CONTRACTOR MAKING A BID FOR THIS WORK WARRANTS THAT HE WILL COMPLETE AND WIRE, PROVIDING ALL NECESSARY ELECTRICAL WORK FOR EQUIPMENT SHOWN AND / OR DETAILED ON ANY PROJECT DRAWINGS OR SPECIFICATIONS AND NOT JUST THOSE COMMONLY REFERRED TO AS A SINGLE TRADE DRAWING UNLESS SPECIFICALLY IDENTIFIED ELSEWHERE AS WORK OF OTHER TRADES. WHERE EQUIPMENT REQUIRING WIRING IS SPECIFIED OR SHOWN ON DRAWINGS OTHER THAN ELECTRICAL DRAWINGS, OR INDICATED, OR IMPLIED, SUCH AS ON SHOP DRAWINGS SUBMITTED LATER, THE CONTRACTOR CAN AND SHALL REQUEST DIRECTION REGARDING CIRCUIT SIZING PROTECTION AND ROUTING WHERE NECESSARY BUT SHALL UNDERSTAND ALL NECESSARY WORK TO COMPLETE THE INSTALLATION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER OR PROJECT.
  - 52. CONTRACTOR SHALL COORDINATE THE SHORT CIRCUIT RATING WITH THE UTILITY COMPANY AND EXISTING ELECTRIC SERVICE EQUIPMENT. PROVIDE FIELD MARKINGS ON ELECTRICAL SERVICE EQUIPMENT TO INCLUDE THE AVAILABLE SHORT CIRCUIT RATING FROM THE UTILITY PER NEC 110.24.
  - 53. CONTRACTOR SHALL PROVIDE AND INSTALL A LOCAL LOCKABLE DISCONNECT SWITCH BY EACH PIECE OF MOTORIZED OR PACKAGED EQUIPMENT. DISCONNECT AMPACITY RATING SHALL AT LEAST MATCH THAT OF THE UPSTREAM CIRCUIT BREAKER PROTECTING THE EQUIPMENT. INDOOR DISCONNECTS SHALL BE NEMA 1 TYPE AND OUTDOOR DISCONNECTS SHALL BE BE NEMA 3R TYPE.
  - 54. CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY CONFLICT DISCOVERED BEFORE PERFORMING ANY WORK RELATED TO SUCH CONFLICT.

POWER DEVICE LEGEND						
SYMBOLS	DESCRIPTION					
	SURFACE MOUNTED PANELBOARD, POWER AND LIGHTING					
	RECESSED PANELBOARD, POWER AND LIGHTING					
)	HOMERUN TO PANELBOARD					
Φ	JUNCTION BOX - WALL MOUNTED					
0	JUNCTION BOX - CEILING MOUNTED					
M	MOTOR					
<b>□-</b> 'x/Y/Z	DISCONNECT SWITCH. "X" INDICATES SWITCH SIZE, "Y" INDICATES NUMBER OF POLES, "Z" INDICATES FUSE SIZE (NF = NON-FUSED).					
<b>⊠-</b> X/Y/Z	COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH. "X" INDICATES SWITCH SIZE, "Y" INDICATES NUMBER OF POLES, "Z" INDICATES FUSE SIZE (NF = NON-FUSED).					
S <sub>M</sub>	MOTOR RATED DISCONNECT SWITCH.					
•	PUSH BUTTON					

LOW VOLTAGE DEVICE LEGEND						
SYMBOLS	DESCRIPTION					
$\nabla$	DATA COMMUNICATIONS OUTLET: 2-GANG JUNCTION BOX WITH 3/4" CONDUIT AND PULLSTRING UP TO ACCESSIBLE CEILING.					
▼	VOICE COMMUNICATIONS OUTLET: 2-GANG JUNCTION BOX WITH 3/4" CONDUIT AND PULLSTRING UP TO ACCESSIBLE CEILING.					
4	COMBINATION VOICE & DATA COMMUNICATION OUTLET: 2-GANG JUNCTION BOX WITH 3/4" CONDUIT AND PULLSTRING UP TO ACCESSIBLE CEILING.					
▼	CALL SWITCH					
TV	CATV JACK: 2-GANG JUNCTION BOX WITH 3/4" CONDUIT AND PULLSTRING UP TO ACCESSIBLE CEILING.					
INT	INTERCOM					
	CCTV CAMERA: 1-GANG JUNCTION BOX AND 3/4" CONDUIT UP TO ACCESSIBLE CEILING SPACE.					
CARD READER: 1-GANG JUNCTION BOX AND 3/4" CONDUACCESSIBLE CEILING SPACE.						

JOB NAME: SOUTH JERSEY PORTS		BROADWAY SECURITY BOOTH								JOB: NO.: 1175.024	ļ		
RATING: 240/120V, 1 PH, 3W, DELTA, 100A			(NEW)								LOCATION: 2500 BROADWAY	l	
CKT.	CIRCUIT	POLE	LOAD	BKR.	BRANCH	Α	В	BRANCH	BKR.	LOAD	POLE	CIRCUIT	CKT.
NO.	DESCRIPTION		KVA		CIRCUIT			CIRCUIT		KVA		DESCRIPTION	NO.
1	LIGHTING / RECEPTACLES	1	0.8	20	2#12 & 1#12EG IN 3/4"C	2.3		3#12 & 1#12EG IN 3/4"C	20	1.5	2	WALL HEATER	2
3	LIGHTING / RECEPTACLES	1	0.8	20	2#12 & 1#12EG IN 3/4"C		2.3	3#12 & 1#12E3 IN 3/4 C	20	1.5		VVALETIEATEN	4
5	ROOF MOUNTED HEAT PUMP	2	1.0	20	3#12 & 1#12EG IN 3/4"C	2.5		3#12 & 1#12EG IN 3/4"C	20	1.5	2	WALL HEATER	6
7		4	1.0	20	0#12 Q 1#12E0 IIV 0/4 0		2.5	0#12 & 1#12E3 IIV 0/4 3	20	1.5	7		8
9	TELE/DATA EQUIPMENT RECEPT	1	0.4	20	2#12 & 1#12EG IN 3/4"C	0.5		2#12 & 1#12EG IN 3/4"C	20	0.2	1	GFI RECEPTACLE	10
11	PLUGMOLD	1	0.2	20	2#12 & 1#12EG IN 3/4"C		0.4	2#12 & 1#12EG IN 3/4"C	20	0.2	1	PLUGMOLD	12
13	TRAFFIC GATES & CONTROLLER	1	0.5	20	2#12 & 1#12EG IN 3/4"C	1.0		2#12 & 1#12EG IN 3/4"C	20	0.5	1	ACCESS CONTROL EQUIPMENT	14
15	SPACE	1					0.0				1	SPACE	16
17	SPACE	1				0.0					1	SPACE	18
19	SPACE	1					0.0				1	SPACE	20
21	SPACE	1				0.0					1	SPACE	22
23	SPACE	1					0.0				1	SPACE	24
PANEL TYPE: NEMA 1 TOTAL (PHASE): 6.3 5.1													

MOUNTING: SURFACE MAIN CIRCUIT BREAKER: 100A TOTAL CONNECTED LOAD.: 11.4 KVA INTERRUPTING RATING: EXISTING KA SYM. 47.6 AMPS

I. PANELBOARD FURNISHED AND INSTALLED WITH THE SECURITY BOOTH BY THE FABRICATOR. CONTRACTOR TO PROVIDE CONDUIT AND FEEDERS FOR POWER TO THE BOOTH.

PANEL IS SHOWN FOR LOAD CALCULATIONS ONLY.

FED FROM: EXISTING 100A FUSED DISCONNECT SWITCH

. CONTRACTOR IS RESPONSIBLE TO COORDINATE THE SHORT CIRCUIT RATING PRIOR TO PURCHASING ANY EQUIPMENT.

SYMBOLS	DESCRIPTION
ф× <del>ф</del> ×	NEMA 5-20R SIMPLEX RECEPTACLE. "X" INDICATES CIRCUIT NUMB SYMBOL WITH LINE THRU IT DENOTES MOUNTED ABOVE 18". COORDINATE HEIGHT WITH ARCHITECTURAL DRAWINGS.
Фх 🚓х	NEMA 5-20R DUPLEX RECEPTACLE. "X" INDICATES CIRCUIT NUMBE SYMBOL WITH LINE THRU IT DENOTES MOUNTED ABOVE 18". COORDINATE HEIGHT WITH ARCHITECTURAL DRAWINGS.
<b>•</b> • • • • • • • • • • • • • • • • • •	NEMA 5-20R DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER. "X" INDICATES CIRCUIT NUMBER. SYMBOL WITH LI THRU IT DENOTES MOUNTED ABOVE 18". COORDINATE HEIGHT WITH ARCHITECTURAL DRAWINGS.
₩×	NEMA 5-20R DOUBLE DUPLEX RECEPTACLE. "X" INDICATES CIRCUIT NUMBER. COORDINATE HEIGHT WITH ARCHITECTURAL DRAWINGS.
<b>#</b> X	NEMA 5-20R DOUBLE DUPLEX RECEPTACLE PROTECTED BY A CIRCUIT BREAKER WITH GROUND FAULT INTERRUPTER. "X" INDICATES CIRCUIT NUMBER. COORDINATE HEIGHT WITH ARCHITECTURAL DRAWINGS.
<b>♀</b> × <b>♀</b> ×	SPECIAL RECEPTACLE. COORDINATE RECEPTACLE TYPE WITH THE PLUG ON THE EQUIPMENT UTILIZING THIS RECEPTACLE AND THE CIRCUIT BREAKER PROTECTING IT. "X" INDICATES CIRCUIT NUMBER. SYMBOL WITH LINE THRU IT DENOTES MOUNTED ABOVI 18". COORDINATE HEIGHT WITH ARCHITECTURAL DRAWINGS
<u> </u>	PLUGMOLD SURFACE RACEWAY, WIREMOLD #20GB506 OR EQUAL COLOR AS SELECTED BY ARCHITECT OR OWNER.
S <sub>×</sub>	SINGLE POLE LIGHT SWITCH 20A, 120/277V. "X" INDICATES FIXTURE CONTROLLED.
<b>S</b> <sub>D</sub> <sup>X</sup>	DIMMER SWITCH 20A, 120/277V. "X" INDICATES FIXTURE CONTROLLED.
S <sub>3</sub> <sup>x</sup>	THREE WAY LIGHT SWITCH 20A, 120/277V . "X" INDICATES FIXTURE CONTROLLED.
S <sub>K</sub>	KEYED LIGHT SWITCH 20A, 120/277V . "X" INDICATES FIXTURE CONTROLLED.
<b>S</b> <sub>TS</sub>	WALL MOUNTED DIGITAL TIME SWITCH. "X" INDICATES FIXTURE CONTROLLED.

WIRING DEVICE LEGEND

ABBREVIATIONS								
A AFF AFG C CB CH CO CT CU EC EG EM EMT ETR EWC FA FBO GFI	AMPERE ABOVE FINISHED FLOOR ABOVE FINISHED GRADE CONDUIT(S) CIRCUIT BREAKER COUNTER HEIGHT CONDUIT ONLY CURRENT TRANSFORMER COPPER ELECTRICAL CONTRACTOR EQUIPMENT GROUND EMERGENCY ELECTRICAL METALLIC TUBING EXISTING TO REMAIN ELECTRIC WATER COOLER FIRE ALARM FURNISHED BY OTHERS GROUND FAULT INTERRUPTER	GND, G IC IG I/L MC MOD NIC NL NTS RGS SPD TVSS  T/C UON V W WP	GROUND INTERRUPTING CAPACITY ISOLATED GROUND INTERLOCKED MECHANICAL CONTRACTOR MOTOR OPERATED DAMPER NOT IN CONTRACT NIGHT LIGHT NOT TO SCALE RIGID GALVANIZED STEEL SURGE PROTECTIVE DEVICE TRANSIENT VOLTAGE SURGE SUPPRESSOR TIME CLOCK UNLESS OTHERWISE NOTED VOLTS WALL MOUNTED WEATHERPROOF					

# SYMBOL LIST NOTES

- 1. SYMBOLS ARE INDICATED FOR GENERAL REFERENCE ONLY. THE PRESENCE OF A SYMBOL DOES NOT INDICATE ITS USE ON THIS PROJECT. REFER TO PLAN DRAWINGS FOR SPECIFIC SYMBOLS USED.
- 2. ALL WIRING DEVICES SHALL BE LABELED WITH PANEL AND CIRCUIT NUMBER ON DEVICE PLATES.

Date Revision Revised By Checked B SCALE IN FEET



New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

AMIN H. GOMAA. PE

ELECTRICAL SYMBOLS, NOTES, ABBREVIATIONS & SCHEDULES

SECURITY BOOTH IMPROVEMENT **BROADWAY MARINE TERMINAL** SOUTH JERSEY PORT CORPORATION **2500 SOUTH BROADWAY** 

BLOCK 457 LOT 16 CITY OF CAMDEN CAMDEN COUNTY. NEW JERSEY

DESIGNED BY: PROJECT NUMBI AS SHOWN 02-25-2021 1175.024 AMP DRAWN BY: CHECKED BY: FIELD BOOK: PROFESSIONAL ENGINEER, NJ LIC. No. 24GE04842100

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## **ELECTRICAL SPECIFICATIONS**

- A. FURNISH ALL LABOR AND MATERIALS AS REQUIRED TO COMPLETE DEMOLITION AND REMOVAL OF ALL ITEMS AS INDICATED ON DRAWINGS OR AS OTHERWISE DIRECTED BY INCLUDING TEMPORARY PROTECTION AS INDICATED BELOW:
- B. PROVIDE TEMPORARY PROTECTIONS AS REQUIRED TO PRESERVE EXISTING ITEMS INDICATED TO REMAIN AND RESTORE DAMAGED WORK TO THE CONDITION EXISTING PRIOR TO THE START OF WORK, UNLESS OTHERWISE

#### 2. PATCHING AND CUTTING

- A. PERFORM ALL CUTTING, FITTING AND PATCHING WORK THAT MAY BE REQUIRED BY ITS WORK AND AS SHOWN OR REASONABLY IMPLIED BY THE DRAWINGS AND NOTES.
- B. PERFORM WORK IN ADVANCE OF THE WORK OF OTHERS WHENEVER POSSIBLE IN ORDER TO MINIMIZE CUTTING AND PATCHING.
- C. ALL DAMAGED AREAS AND EXISTING AREAS EFFECTED BY DEMOLITION OR NEW CONSTRUCTION WORK SHOWN ON DRAWINGS SHALL BE PATCHED AS

FIRE RATING, FINISH COLOR, UNLESS OTHERWISE NOTED.

D. PROVIDE SUPPORTS TO ASSURE STRUCTURAL INTEGRITY OF SURROUNDINGS. DEVICES AND METHODS TO PROTECT OTHER PORTIONS OF PROJECT FROM DAMAGE.

REQUIRED TO MATCH IMMEDIATE EXISTING ADJACENT AREAS IN MATERIAL,

E. EXECUTE WORK BY METHODS TO AVOID DAMAGE TO OTHER WORK, AND WHICH WILL PROVIDE PROPER SURFACES TO RECEIVE PATCHING AND FINISHING.

#### GENERAL

- A. FURNISH AND INSTALL ALL ELECTRICAL WORK AS SHOWN ON THE DRAWINGS AND THESE SPECIFICATIONS HEREIN. WORK INCLUDES THE FOLLOWING UNDERSTANDINGS:
- a. CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO OUTLINE BASIC ENGINEERING AND SYSTEMS DESIGN, THEREFORE DO NOT SHOW MINOR DETAILS AND ACCESSORIES. BECAUSE A MINOR COMPONENT IS NOT SHOWN, SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FURNISHING AND INSTALLING ALL SUCH ITEMS NECESSARY TO PROVIDE COMPLETE, OPERATIVE AND PROPERLY INSTALLED SYSTEMS TO THE OWNER, UNDER THE BASIC CONTRACT. IF THERE ARE ANY DOUBTS AS TO WORK REQUIRED, THE CONTRACTOR SHALL OBTAIN A CLARIFICATION FROM THE ENGINEER IN THE BID STAGE.
- b. THE CONTRACT DRAWINGS SHOW THE INTENDED LOCATION OF THE EQUIPMENT, HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MINOR ADJUSTMENTS OR RELOCATIONS NECESSARY DUE TO CHOICE OF EQUIPMENT AND COORDINATION CONFLICTS. ALL EQUIPMENT RELOCATIONS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- c. THE PROJECT DRAWINGS, THIS SPECIFICATION, AND OTHER RELATED DOCUMENTS ARE COMPLEMENTARY. ITEMS REQUIRED BY ONE SHALL DESIGNATE REQUIREMENT BY THE OTHER, WHETHER EXPLICITLY STATED OR NOT. WHERE DOCUMENTS CONFLICT. THE WORK OF THE MORE STRINGENT NATURE SHALL BE REQUIRED.
- d. COOPERATION AND COORDINATION WITH OWNER AND OTHER SUBCONTRACTORS IS MANDATORY.
- e. EXISTING WORK AND UTILITIES WHICH ARE DAMAGED OR DISTURBED DUE 7. GROUNDING TO ANY PHASE OF OPERATIONS. SHALL BE RESTORED TO THE SATISFACTION OF FPA, THE OWNER, AND THE GOVERNING AUTHORITIES.
- f. PROCUREMENT AND INSTALLATION OF MATERIALS, PRODUCTS AND EQUIPMENT SHALL BE COORDINATED WITH THE WORK OF THE OTHER TRADES, INCLUDING ALL WORK SHOWN ON THE SECURITY BOOTH SHOP
- B. CLEARANCES FOR WORKING SPACE AND MAINTENANCE SHALL BE MAINTAINED AS REQUIRED BY CODE AND/OR MANUFACTURER'S REQUIREMENT, WHICHEVER IS MORE STRINGENT.
- C. "PROVIDE" AND/OR "FURNISH AND INSTALL" MEANS PURCHASE, ARRANGE DELIVERY, UNLOAD, INSTALL, CONNECT, TEST, AND LEAVE READY FOR OPERATION.
- D. THE WORK CALLED FOR ON THE DRAWINGS AND SPECIFICATIONS HEREIN SHALL BE COORDINATED WITH THE STRUCTURE AND WORK OF ALL OTHER TRADES AND SHALL BE SO ARRANGED THAT THERE WILL BE NO DELAY IN THE PROPER INSTALLATION AND COMPLETION OF ANY PART OR PARTS OF EACH PERSPECTIVE WORK WHEREIN IT MAY BE INTERRELATED WITH THAT OF THIS CONTRACT SO THAT GENERALLY ALL WORK CAN PROCEED IN ITS NATURAL SEQUENCE WITHOUT UNNECESSARY DELAY.
- E. WHERE EXISTING POWER CIRCUITS HAVE BEEN DISTURBED, ALL COSTS FOR RECIRCUITING OF SAME IS TO BE INCLUDED.
- F. SHOP DRAWINGS AND DATA SHEETS ARE REQUIRED FOR ASSEMBLIES AND EQUIPMENT. THEY SHALL PROVIDE ALL PERTINENT DATA AND INFORMATION NECESSARY TO EVALUATE EACH ITEM. IRRELEVANT INFORMATION ON DRAWINGS AND DATA SHEETS SHALL BE COMPLETELY MARKED OUT LEAVING ONLY DATA THAT PERTAINS TO THE ITEMS SUBMITTED FOR APPROVAL. DRAWINGS AND DATA SHEETS SHALL SHOW:
- a. PRINCIPAL DIMENSIONS AND DETAILS OF CONSTRUCTION.
- b. PERFORMANCE DATA AND ALL REQUIRED CALCULATIONS.
- c. UNDERWRITERS LABEL AND OTHER AUTHORITIES HAVING JURISDICTION OF EQUIPMENT REQUIRING LABELS.
- d. CERTIFIED PERFORMANCE GUARANTEES.
- I. BEFORE ENERGIZING ANY FACTORY FABRICATED EQUIPMENT, INSPECT EACH UNIT IN DETAIL. BOLTS AND CONNECTIONS SHALL BE TIGHT (TORQUE TIGHT WHERE REQUIRED) PER MANUFACTURERS SPECIFICATIONS. COMPONENTS SHALL BE ALIGNED AND THE EQUIPMENT SHALL BE PLACED IN A SAFE OPERATIONAL CONDITION.
- J. THE COMPLETE ELECTRICAL SYSTEM SHALL BE FREE OF GROUNDS AND SHORT CIRCUITS. IT SHALL OPERATE PROPERLY UNDER FULL LOAD CONDITIONS WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.
- K. FURNISH AND INSTALL 120VAC CONTROL WIRING FOR OWNER FURNISHED EQUIPMENT. OBTAIN ALL NECESSARY CONTROL WIRING DIAGRAMS FROM THE EQUIPMENT MANUFACTURER.

## 4. CONDUITS

- A. ALL CONDUIT SHALL BE CONCEALED IN CONCRETE SLAB, IN WALLS, OR ABOVE FINISHED CEILINGS, UNLESS OTHERWISE NOTED.
- B. WHERE WORK IS TO BE CONCEALED, CARE SHALL BE TAKEN TO INSURE THAT IT DOES NOT PROJECT BEYOND THE FINISHED LINES OF FLOORS, CEILINGS, OR WALLS.
- C. EXPOSED CONDUIT AND CONDUIT ABOVE CEILINGS SHALL BE RUN PARALLEL & PERPENDICULAR TO LINES OF THE BUILDING. BENDS SHALL BE FREE FROM DENTS OR FLATTENING. CONDUIT SHALL BE SUPPORTED AND SECURELY FASTENED.

- D. POCKETS OR TRAPS IN ALL CONDUIT RUNS WHERE MOISTURE MAY COLLECT SHALL BE AVOIDED. WHERE DIPS ARE UNAVOIDABLE, AN APPROVED DRAIN FITTING SHALL BE LOCATED AT EACH LOW POINT IN ORDER TO PROVIDE A MEANS FOR DRAINAGE.
- CONDUIT SIZES SHALL BE IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE NEC, EXCEPT NO 1/2" CONDUIT WILL BE PERMITTED (ALL CONDUIT SHALL BE A MINIMUM OF 3/4".)
- FLEXIBLE (LIQUID TIGHT) CONDUIT SHALL BE PROVIDED TO CONNECT TO ALL MOTORS, DELICATE INSTRUMENTS AND CONTROLS, AND TO VIBRATING
- G. INSTALLATION SHALL BE SUCH SO AS TO SUPPORT CONDUIT WITHOUT SAGGING AND SHALL BE CLEAR OF THE WORK OF OTHER TRADES. PROVISIONS FOR EXPANSION AND CONTRACTION SHALL BE MADE.

#### BOXES

- A. PULL BOXES SHALL BE OF AMPLE SIZE FOR THE APPLICATION, AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEC REQUIREMENTS.
- B. PULL BOXES SHALL BE INSTALLED BETWEEN A MAXIMUM OF EVERY 3 RIGHT ANGLE BENDS OR THE EQUIVALENT. LONG CONDUITS RUNS SHALL HAVE A PULL BOX AT LEAST EVERY 100'-0".
- C. ALL PULL BOXES SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS.
- D. ALL OUTLET BOXES FOR INTERIOR USE SHALL BE GALVANIZED STAMPED STEEL 4" SQUARE FURNISHED WITH KNOCKOUTS, NEMA 3R.

#### 6. BUILDING WIRE AND CABLE:

- A. USE ONLY APPROVED TYPE LUBRICANT TO FACILITATE THE PULLING OF WIRE
- CONDUCTORS SHALL RUN CONTINUOUS FROM OUTLET TO OUTLET. SPLICES AND TAPS WILL NOT BE ALLOWED ALONG THE CONDUCTOR. CONDUCTORS SHALL TERMINATE IN TERMINAL LUGS OR CONNECTORS MADE UP OF INSULATED TERMINAL POSTS, APPROVED AND LISTED FOR THE PURPOSE.
- C. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER 75°C. TYPE THWN AND THHN. ALL SIZES SHOWN ON THE DRAWINGS ARE BASED ON THHN COPPER.
- D. ALL CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS SHALL NOT BE USED.
- E. ALL PHASE LEG, NEUTRAL AND GROUND CONDUCTORS SHALL BE PROPERLY COLOR CODED IN ALL PANELS, TROUGHS, CABINETS, AND BOXES IN ACCORDANCE WITH THE NEC.
- F. UNLESS OTHERWISE SPECIFIED, FURNISH ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETE INSTALLATION AND PROPER OPERATION OF ALL ELECTRICAL WORK OF THE OTHER TRADES AND OWNER FURNISHED
- G. CONDUCTORS UP TO AND INCLUDING SIZE #6 AWG. SHALL BE TYPE THWN-THHN. CONDUCTORS LARGER THAN SIZE #6 AWG. SHALL BE TYPE THWN, ALL RATED 600 VOLTS, COPPER CONDUCTORS.
- H. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG FOR POWER AND #14 AWG. FOR CONTROL UNLESS OTHERWISE NOTED.
- I. MAKE DIRECT CONNECTIONS AS REQUIRED TO ALL EQUIPMENT NOT FURNISHED WITH CORD AND PLUG.

- A. GROUNDING OF THE NON-CURRENT CARRYING METALLIC PARTS OF ALL ELECTRICAL EQUIPMENT AND ENCLOSURES INCLUDING CONDUITS, SUPPORTS, CABINETS, MOTOR FRAMES, CONTROL PANELS, ETC., WHICH ARE INSTALLED OR CONNECTED UNDER THIS CONTRACT. SHALL BE PROPERLY CONNECTED TO THE GROUNDING SYSTEM, REGARDLESS OF WHETHER OR NOT THESE CONNECTIONS ARE SHOWN ON THE DRAWINGS.
- B. THE GROUNDING INSTALLATION SHALL HAVE PROVISIONS FOR BOTH SYSTEM AND EQUIPMENT GROUNDS AS DEFINED BY THE NEC. THESE GROUNDING SYSTEMS ARE TO BE EFFECTIVELY INSULATED FROM EACH OTHER EXCEPT AT THE SERVICE CONNECTION.
- C. GROUNDING SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF NEC AND THE NESC. LOCAL REQUIREMENTS OF THE INSPECTION AUTHORITY HAVING JURISDICTION SHALL GOVERN IN ALL MATTERS OF INTERPRETATION.

## 8. LIGHTING FIXTURES AND WIRING DEVICES

- A. FURNISH AND INSTALL ALL LIGHTING FIXTURES AS SHOWN AND SPECIFIED ON ELECTRICAL DRAWINGS AND SCHEDULES.
- B. SCOPE SHALL BE BASED UPON REMOVING AND REINSTALLING EXISTING LIGHTING FIXTURES AND SIGNAGE AS INDICATED ON FPA DRAWINGS.
- C. AFTER TESTS HAVE BEEN COMPLETED, CLEAN ALL LIGHTING FIXTURES AND EQUIPMENT LEAVING EVERYTHING IN WORKING ORDER AT THE COMPLETION OF THE ELECTRICAL WORK.
- D. COORDINATE ALL ELECTRICAL LIGHTING INSTALLATION WITH OTHER TRADES AS REQUIRED.

## 9. LOW VOLTAGE AND TELE/DATA:

- A. PROVIDE EMPTY CONDUITS WITH DRAG LINES AS SHOWN ON THE PLANS FOR USE BY THE OWNER'S SECURITY AND TELE/DATA VENDORS.
- B. EMPTY JUNCTION BOXES WITHIN THE SECURITY BOOTH ARE PROVIDED WITH THE BOOTH BY THE MANUFACTURER.
- C. PROVIDE NEW BLANK COVER PLATES FOR OUTLETS NOT BEING USED.

## 10. WIRING DEVICES

A. POWER WIRING DEVICES ARE FURNISHED AND INSTALLED BY THE SECURITY BOOTH FABRICATOR. CONTRACTOR SHALL MAKE ANY REQUIRED FIELD TERMINATIONS.

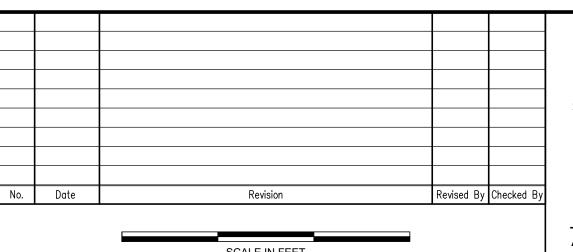
## 11. SAFETY SWITCHES

- A. FURNISH AND INSTALL ALL DISCONNECT SWITCHES AND MOTOR STARTERS INDICATED ON THE DRAWINGS, UNLESS OTHERWISE NOTED
- B. ALL SAFETY SWITCHES SHALL BE QUICK MAKE, QUICK BREAK TYPE.
- C. ALL SAFETY SWITCHES, STARTERS, PUSH BUTTONS, AND ENCLOSURES SHALL BE UL LISTED AND SHALL BE NEMA 1 FOR INDOOR AND NEMA 3R FOR OUTDOOR, UNLESS OTHERWISE NOTED.
- D. ALL SAFETY SWITCHES SHALL BE HORSEPOWER RATED AND HAVE PROVISIONS FOR LOCKOUT.
- ALL SAFETY SWITCHES SHALL BE AS MANUFACTURED BY SQUARE 'D', CUTLER-HAMMER OR APPROVED EQUAL. CONTRACTOR SHALL COORDINATE SHORT CIRCUIT RATING OF ALL SWITCHES WITH THE PANELBOARD OR UTILITY COMPANY SHORT CIRCUIT RATING PRIOR TO ORDERING.

- A. PANELBOARDS ARE FURNISHED AND INSTALLED IN SECURITY BOOTH BY SECURITY BOOTH FABRICATOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND FEEDERS TO THE SECURITY BOOTH ELECTRICAL PANEL LOCATION AND MAKE ALL REQUIRED FIELD TERMINATIONS.
- B. CONTRACTOR SHALL PROVIDE BRANCH CIRCUIT WIRING AND CONDUIT FROM THE SECURITY BOOTH PANELBOARD TO OWNER FURNISHED EQUIPMENT AS SPECIFIED ON THE PLANS.

#### 15.EXISTING UTILITIES

A. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS SET OF PLANS HAS BEEN DETERMINED FROM FIELD MEASUREMENTS AND / OR PLANS PROVIDED TO FRENCH & PARRELLO ASSOCIATES. NO GUARANTEE IS MADE NOR SHOULD BE ASSUMED AS TO THE COMPLETENESS OR ACCURACY OF THE HORIZONTAL OR VERTICAL LOCATIONS. ALL PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN PRIOR TO CONSTRUCTION ACTIVITIES.



Wall, New Jersey 07719 732.312.9800 FPAengineers.com FRENCH & PARRELLO

**BROADWAY MARINE TERMINAL** SOUTH JERSEY PORT CORPORATION **2500 SOUTH BROADWAY** 

> BLOCK 457 LOT 16 CITY OF CAMDEN CAMDEN COUNTY, NEW JERSEY

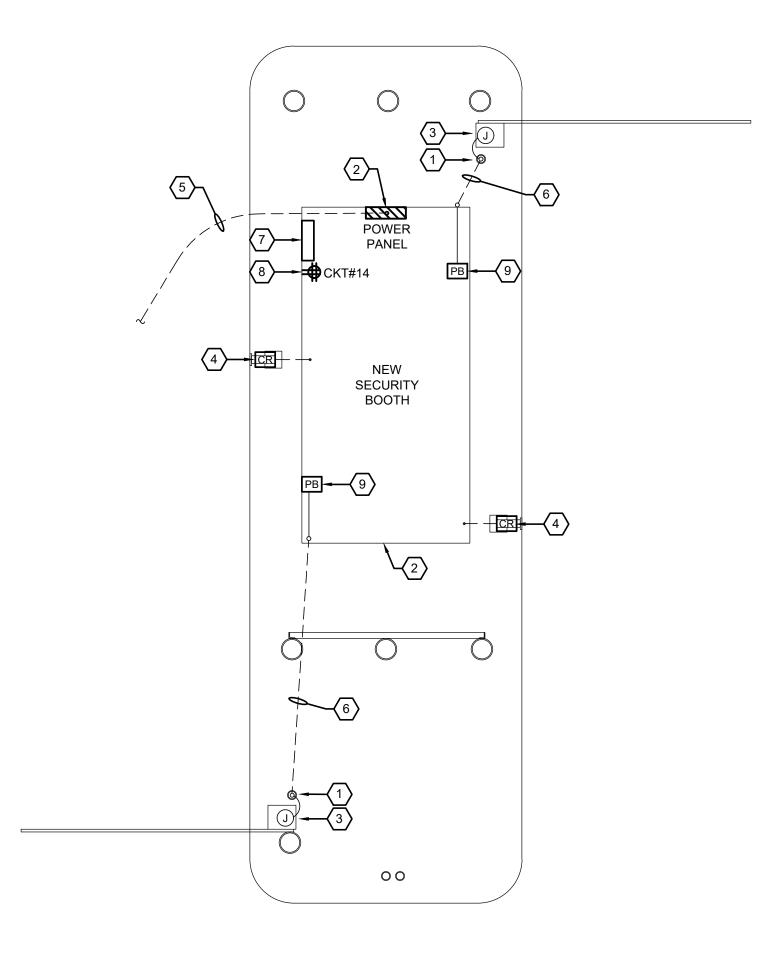
ELECTRICAL

SECURITY BOOTH IMPROVEMENT

SPECIFICATION

DESIGNED BY: PROJECT NUMBI AS SHOWN 1175.024 02-25-2021 AMP DRAWN BY: CHECKED BY: FIELD BOOK:

New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia AMIN H. GOMAA, PE SCALE IN FEET PROFESSIONAL ENGINEER, NJ LIC. No. 24GE04842100



## BROADWAY SECURITY BOOTH PLAN SCALE: 1/4" = 1'-0"

# BROADWAY BOOTH KEY NOTES

- EXISTING STOP / GO SIGN TO REMAIN. DISCONNECT ALL POWER AND CONTROL WIRING FROM THE BOOTH TO THE TO SIGN PRIOR TO REMOVAL OF EXISTING BOOTH. RETAIN WIRING AND UNDERGROUND CONDUIT FOR RE-CONNECTION TO NEW BOOTH POWER PANEL. GATE AND SIGNAL CONTROLS. SIGNAL CONTROL WIRING SHALL BE BY THE OWNER'S SECURITY SYSTEM VENDOR.
- BOOTH POWER PANELBOARD LOCATION.
- POWER AND LOW VOLTAGE WIRING CONDUITS UNDERGROUND FROM CONTROL BOOTH TO SECURITY GATE ARM. DISCONNECT ALL POWER AND CONTROL WIRING FROM THE BOOTH TO THE GATE PRIOR TO REMOVAL OF EXISTING BOOTH. RETAIN WIRING AND UNDERGROUND CONDUIT FOR RE-CONNECTION TO NEW BOOTH POWER PANEL AND GATE CONTROLS. GATE CONTROL LOW VOLTAGE WIRING SHALL BE INSTALLED OR RECONNECTED BY THE OWNER'S SECURITY SYSTEM VENDOR.
- LOW VOLTAGE WIRING AND CONDUITS UNDERGROUND FROM CONTROL BOOTH TO SECURITY CARD READER. DISCONNECT ALL POWER AND CONTROL WIRING TO CARD READER PRIOR TO REMOVAL OF EXISTING BOOTH. RETAIN WIRING AND UNDERGROUND CONDUIT FOR RE-CONNECTION CARD READ / GATE CONTROLS. LOW VOLTAGE WIRING SHALL BE INSTALLED OR RECONNECTED BY THE OWNER'S SECURITY SYSTEM VENDOR.
- COORDINATE EXISTING UNDERGROUND POWER CONDUIT AND FEEDERS FROM EXISTING 100A BOOTH DISCONNECT SWITCH. DISCONNECT FEEDERS PRIOR TO DEMOLITION OF EXISTING BOOTH. EXTEND FEEDERS TO NEW BOOTH PANELBOARD AND MAKE ALL TERMINATIONS. EXTEND CONDUIT AND FEEDERS AS REQUIRED TO MAKE A COMPLETE AND OPERATIONAL INSTALLATION. REFER TO SITE LOCATION PLAN THIS SHEET FOR EXISTING DISCONNECT SWITCH LOCATION.
- EXISTING UNDERGROUND CONDUITS TO REMAIN. CONTRACTOR SHALL RECONNECT EXISTING POWER WIRING TO NEW GUARD BOOTH. LOW VOLTAGE SECURITY WIRING SHALL BE EXTENDED INTO THE NEW BOOTH AND COILED FOR RECONNECTION TO THE SECURITY EQUIPMENT BY THE OWNER'S SECURITY SYSTEM VENDOR.
- SECURITY SYSTEM HEAD END EQUIPMENT CABINET AND TELE/DATA PUNCHDOWN BLOCK AREA, EQUIPMENT FURNISHED BY OWNER. FIELD VERIFY EXACT LOCATION WITH THE OWNER AND OWNER'S SECURITY SYSTEM VENDOR.
- DEDICATED QUAD RECEPTACLE FOR SECURITY AND TELE/DATA EQUIPMENT. LOCATE RECEPTACLE ADJACENT TO OWNER'S HEAD END EQUIPMENT CABINET AND PUNCHDOWN BLOCKS.
- GATE ARM "OPEN/CLOSE/STOP" PUSHBUTTON. PROVIDE JUNCTION BOX AND 1" EMPTY CONDUIT TO GATE ARM CONDUIT ENTRY TO BOOTH. OWNER'S SECURITY SYSTEM VENDOR TO PROVIDE GATE ARM CONTROL WIRING TO HEAD END EQUIPMENT LOCATION. COORDINATE LINE VOLTAGE POWER REQUIREMENTS WITH THE SECURITY SYSTEM VENDOR AND PROVIDE POWER WIRING AND CONDUIT AS REQUIRED.





# SITE LOCATION PLAN

# SITE PLAN KEY NOTES

- (1) GUARD BOOTH LOCATION.
- EXISTING UNDERGROUND CONDUIT TO GUARD BOOTH DISCONNECT SWITCH. FIELD VERIFY EXACT ROUTING.
- EXISTING UNI-STRUT MOUNTED SERVICE EQUIPMENT AND GUARD BOOTH 100A DISCONNECT SWITCH LOCATION.
- CONTRACTOR SHALL FIELD VERIFY EXACT ORIGINATION AND ROUTING OF EXISTING TELE/DATA WIRING AND CONDUIT TO EXISTING GUARD BOOTH. EXTEND AND RECONNECT AS REQUIRED TO NEW GUARD BOOTH.

# SHEET NOTES

- RECEPTACLES, LIGHTING, AND MECHANICAL EQUIPMENT ARE FURNISHED PRE-WIRED TO THE BOOTH PANELBOARD BY THE BOOTH MANUFACTURER. PANELBOARD IS FURNISHED WITH THE BOOTH. PROVIDE ANY REQUIRED FIELD WIRING CONNECTIONS FOR A COMPLETE AND OPERATIONAL INSTALLATION. FIELD COORDINATE WITH THE SECURITY BOOTH FABRICATOR AND INSTALLER.
- LOW VOLTAGE AND TELE/DATA WIRING WITHIN THE SECURITY BOOTH SHALL BE BY THE OWNER'S VENDOR. CONTRACTOR SHALL COORDINATE LOW VOLTAGE AND TELE/DATA DEMARCATION POINT WITH THE EXISTING SERVICES AND SECURITY BOOTH SHOP DRAWINGS.
- REFER TO PANEL SCHEDULE FOR LOAD CALCULATION AND BRANCH CIRCUIT WIRING TO OWNER FURNISHED DEVICES AND SYSTEMS.
- REFER TO DRAWING SC1 AND SC2 FOR ADDITIONAL PROJECT INFORMATION AND SECURITY BOOTH MANUFACTURER'S DRAWINGS.

Date Revised By Checked By Revision SCALE IN FEET



New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

ELECTRICAL GUARD BOOTH PLAN AND SITE LOCATION PLAN

**SECURITY BOOTH IMPROVEMENT BROADWAY MARINE TERMINAL** SOUTH JERSEY PORT CORPORATION **2500 SOUTH BROADWAY** 

> BLOCK 457 LOT 16 CITY OF CAMDEN CAMDEN COUNTY, NEW JERSEY

DESIGNED BY: PROJECT NUMBI AS SHOWN 02-25-2021 1175.024 AMP DRAWN BY: CHECKED BY: FIELD BOOK: AMP

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