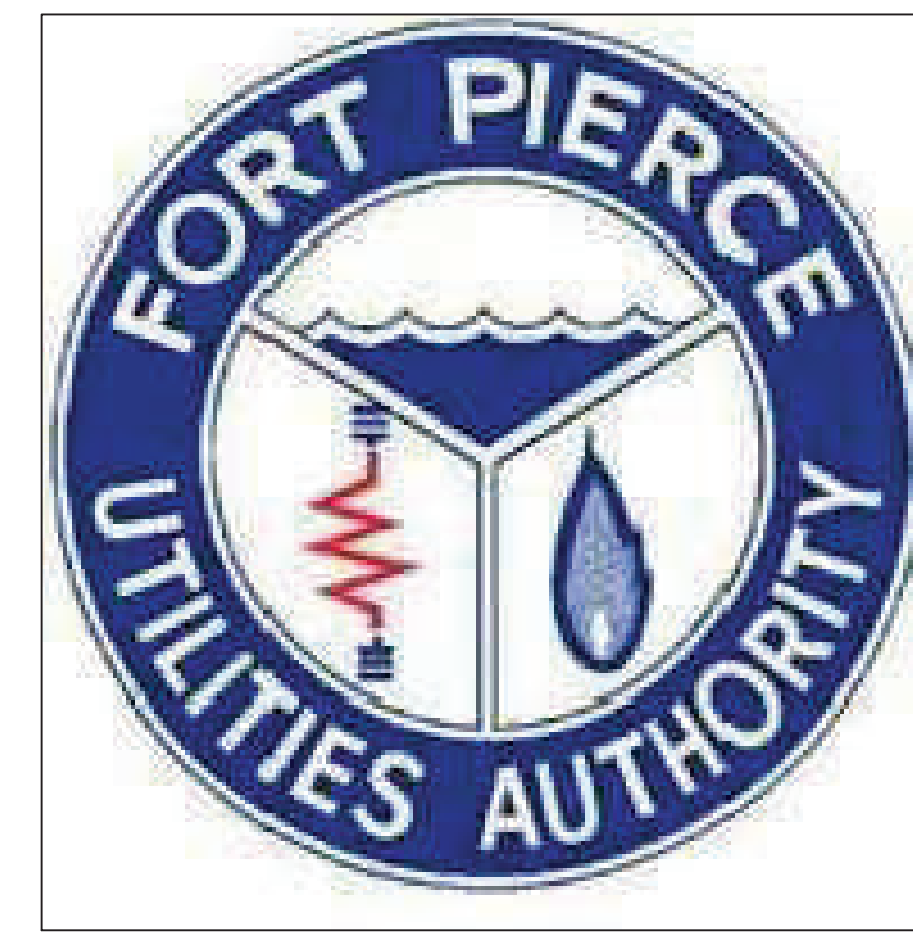


FORT PIERCE UTILITIES AUTHORITY

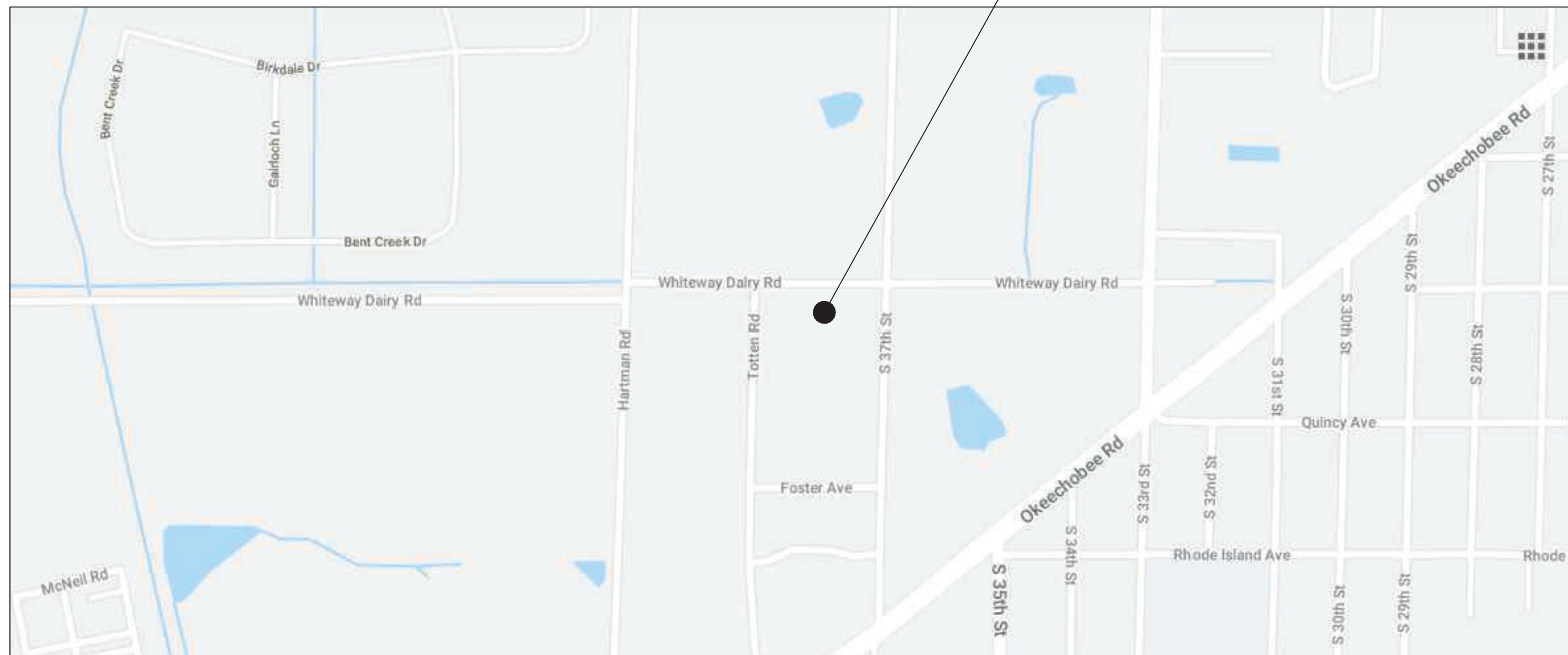
CNG FUELING STATION

1701 S 37TH STREET FORT PIERCE FL, 34947

9/18/2018



LOCATION MAP



PROJECT DESCRIPTION

THIS PROJECT IS INTENDED TO ADD A NEW COMPRESSED NATURAL GAS (CNG) VEHICLE FUELING STATION TO THE FACILITY OWNED BY FORT PIERCE UTILITIES AUTHORITY LOCATED AT: 1701 S 37TH STREET FORT PIERCE FL, 34947. WORK WILL INCLUDE THE INSTALLATION OF ONE ELECTRICALLY DRIVEN CNG COMPRESSOR, ABOVE GROUND STORAGE, 5 SINGLE HOSE TIME FILL POSTS, AND ASSOCIATED PADS, K-RAIL, INTERCONNECTING PIPING AND ELECTRICAL, AND SAFETY EQUIPMENT. THE STATION WILL SERVE 5 VEHICLES TO START AND WILL BE CAPABLE FOR FUTURE EXPANSION.

INDEX OF DRAWINGS	
SHT. NO.	DRAWING TITLE
T-1	COVER SHEET
C-1	MAP LAYOUT
C-2	DEMO/EROSION CONTROL PLAN
C-3	PARTIAL SITE PLAN
C-4	EQUIPMENT LAYOUT
C-5	CIVIL DETAILS
G-1	SAFETY SIGNAGE PLAN
E-1	ELECTRICAL GENERAL NOTES AND ABBREVIATIONS
E-2	ONE-LINE DIAGRAM
E-3	ELECTRICAL SITE PLAN
E-4	HAZARDOUS AREAS PLAN
E-5	INTERCONNECTION DIAGRAM
E-6	CONDUIT AND CABLE SCHEDULE
E-7	ELECTRICAL DETAILS
M-1	MECHANICAL GENERAL NOTES
M-2	MECHANICAL SITE PLAN
M-3	P&ID
M-4	MECHANICAL DETAILS

PROJECT TEAM

OWNER
 FORT PIERCE UTILITIES AUTHORITY
 ATTN: CRAIG CRAWFORD
 P.O. BOX 3191, FT. PIERCE, FL 34947
 772-370-7779

CONTRACTOR:
 ZEIT ENERGY LLC
 ATTN: YOUNES ROUISSI
 1717 MCKINNEY AVE SUITE 700
 DALLAS TX 75202
 214-773-5394

ENGINEER OF RECORD
CIVIL:
 HAMMOND ENGINEERING, INC.
 3802 NORTH "S" STREET
 PENSACOLA, FL 32505
 850-434-2603

ELECTRICAL:
 FREESE AND NICHOLS INC
 4055 INTERNATIONAL PLAZA #200,
 FORT WORTH, TX 76109
 817-881-5820

MECHANICAL:
 FREESE AND NICHOLS INC
 4055 INTERNATIONAL PLAZA #200,
 FORT WORTH, TX 76109
 817-881-5820

ZEIT ENERGY
Energy Solutions
ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75240
 Phone: 214.773.5394
 Fax: 214.593.3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947

COVER

GENERAL NOTES

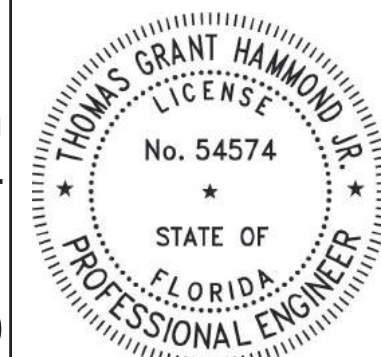
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTORS SHALL BE RESPONSIBLE TO VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION OF ANY ITEM SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLANS AND ANY OTHER DOCUMENTATION FROM ALL OF THE PERMITTING AND ANY OTHER REGULATORY AUTHORITIES. FAILURE OF THE CONTRACTOR TO FOLLOW THE PROCEDURE SHALL CAUSE THE CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ANY SUBSEQUENT MODIFICATION OF THE WORK MANDATED BY ANY REGULATORY AUTHORITY.
- CONTRACTOR TO PROVIDE ELECTRICAL POWER AND GAS SERVICE LINES SHOWN AND IN ACCORDANCE WITH REQUIREMENTS OF ELECTRIC CODE AND LOCAL GOVERNING CODES.
- ALL WORK SHALL COMPLY WITH APPLICABLE STATE AND LOCAL CODES AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE.
- ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL FINISHED AND WORKMAN LIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER AND ENGINEER AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
- CONTRACTOR SHALL BE REQUIRED TO HAVE STUDIED THE DOCUMENTS INCLUDING THE DRAWINGS AND PROJECT MANUALS, TO HAVE VISITED THE SITE, AND TO HAVE SATISFIED HIMSELF REGARDING ALL EXISTING CONDITIONS AND NEW WORK UNDER WHICH HE WILL BE OBLIGATED TO PERFORM.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK PRIOR TO THE START OF THE SITE WORK. ALL DAMAGES MADE TO THE EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL COORDINATE ALL DELIVERIES AND ACCESSIBILITY FOR ALL ITEMS DURING WORKING HOURS.
- CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT FIXTURES, AND SERVICE NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
- ALL MATERIALS AND EQUIPMENT INCORPORATED IN THE WORK SHALL BE NEW AND ALL WORK SHALL BE OF GOOD QUALITY, FREE FROM FAULTS AND IN CONFORMANCE TO ALL REQUIREMENTS.
- CONTRACTOR SHALL KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS OPERATIONS. AT THE COMPLETION OF THE WORK THE CONTRACTOR SHALL PERFORM A FINAL CLEAN-UP, CLEAN ALL SURFACES AND LEAVE THE PROJECT AREA CLEAN.
- CONTRACTOR SHALL PROVIDE PORTABLE TOILET FACILITIES. QUANTITY OF PORTABLE TOILET FACILITIES SHALL BE BASED ON TOTAL NUMBER OF WORKERS.
- CONTRACTOR SHALL GUARANTEE FOR ONE (1) YEAR THAT ALL OF THE WORK UNDER THE CONTRACT IS FREE FROM FAULTY MATERIALS AND FREE FROM IMPROPER WORKMANSHIP.
- CONTRACTOR SHALL SUPERVISE THE WORK AND COORDINATE ALL PORTIONS THEREOF.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF EXISTING AND NEW WORK. ANY WORK DAMAGED FOR ANY REASON SHALL BE REPLACED AT NO COST TO THE OWNER.
- CONTRACTOR SHALL NOT SCALE DRAWINGS - LARGER SCALE DRAWINGS AND DETAILS SHALL TAKE PRECEDENCE OVER SMALLER REFERENCED DRAWINGS AND DETAILS.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVES AND PARKING AREAS DURING CONSTRUCTION.

NO.	ISSUE	BY	DATE	DESIGNED	DRAWN	REVISION	CHECKED	FILE NAME
1	CONSTRUCTION DOCUMENT	ZE	9/18/18	ZE	ZE			FPUA
2								
3								
4								
VERIFY SCALE								Bar is one inch on original drawing / not one inch on this sheet, adjust scale.
T-1								
SEQ.								


Freese and Nichols, INC
 4055 International Plaza #200,
 Fort worth, TX 76109
 Phone:817-881-5820

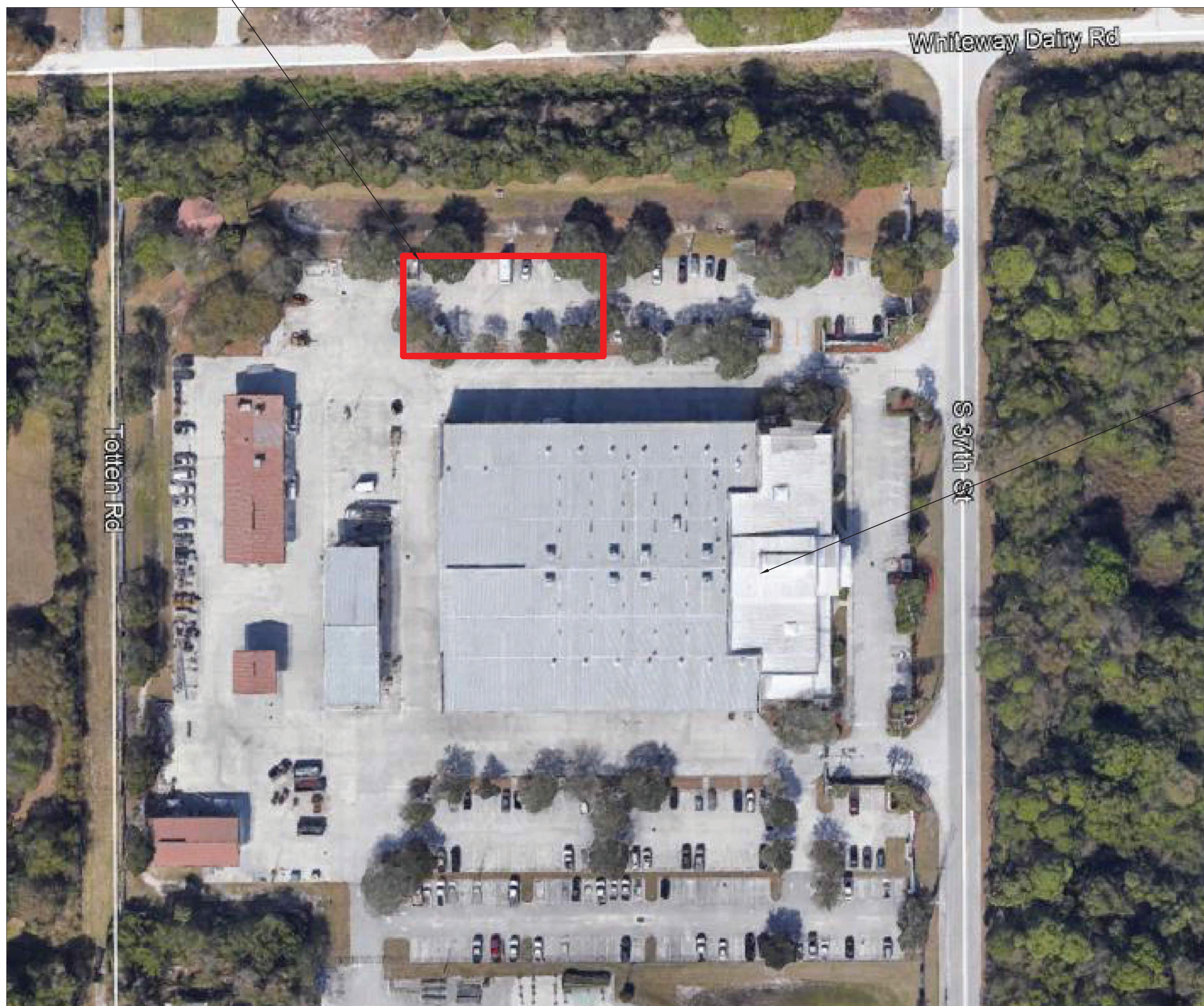

HAMMOND ENGINEERING, INC.
 FLORIDA AUTHORIZATION NO. 9130
 ALABAMA AUTHORIZATION NO. 3277
 3802 NORTH "S" STREET
 PENSACOLA, FLORIDA 32505
 850-434-2603
 FAX 850-434-2650
 TOM@HENDDESIGN.COM

Digitally signed
 by Thomas G
 Hammond, Jr
 Date: 2018.09.21
 '11:41:23 -05'00



ZEIT ENERGY
ONE FORT PIERCE
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75202
 Phone: 214 773 5394
 Fax: 214 593 3344

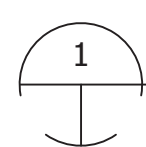
NEW CNG STATION



FORT PIERCE UTILITIES AUTHORITY

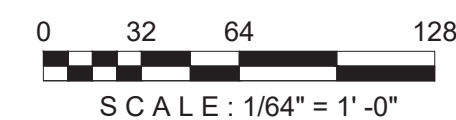
FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 S 37TH STREET FORT PIERCE FL, 34947

CIVIL
 MAP LAYOUT



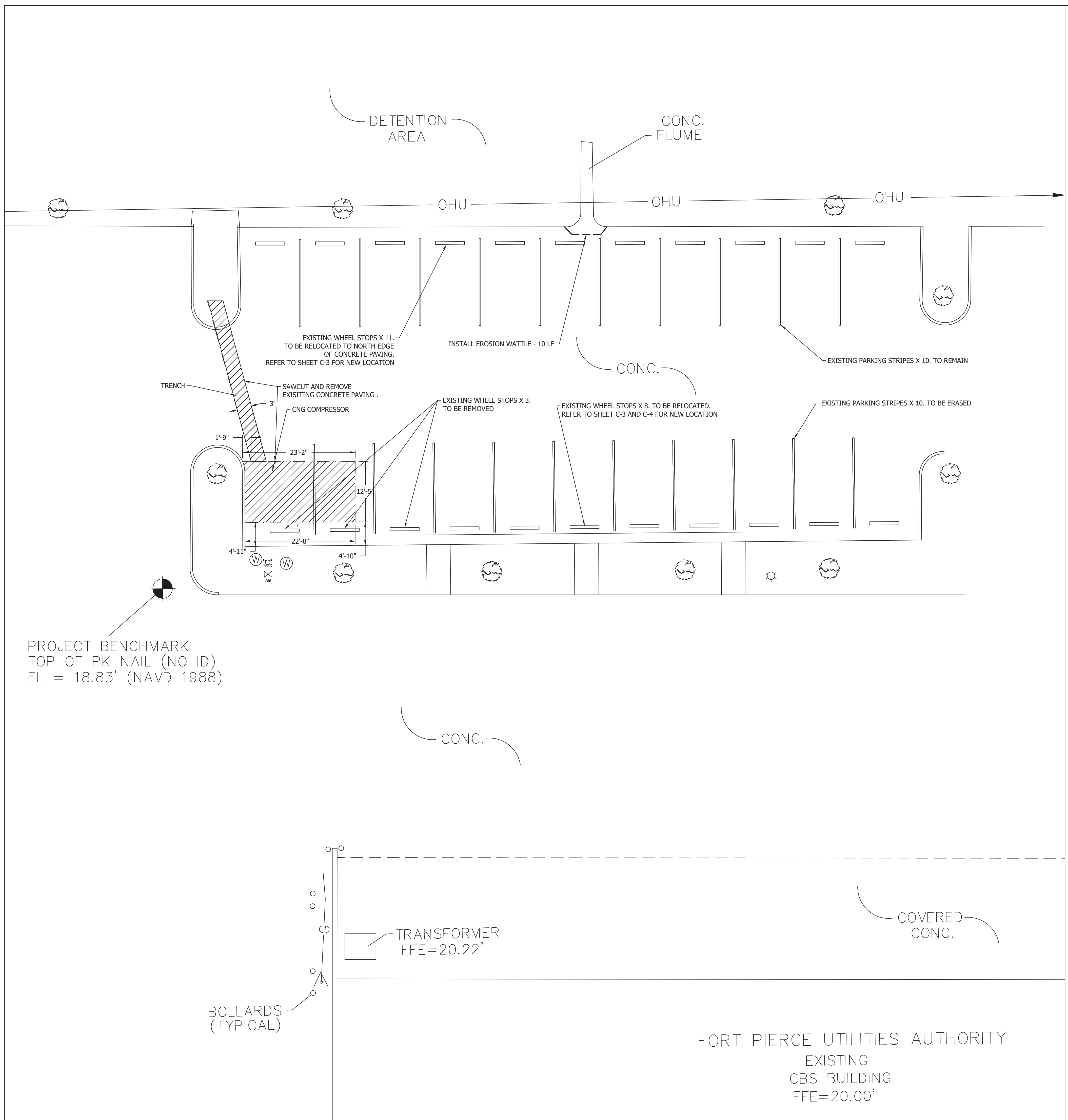
MAP LAYOUT

1/64"=1'-0"



NO.	ISSUE	BY	DATE	DESIGNED	DRAWN	CHECKED	FILE NAME
1	CONSTRUCTION DOCUMENT	ZE	9/18/18				FPUA
2		ZE					
3		ZE					
4		ZE					
VERIFY SCALE							
0 1							
Bar is one inch on original drawing, not one inch on this sheet, adjust scale.							
SEQ.	C-1						

JOB NO.	FPUA
DATE	9/18/18
DESIGNED	YR
DRAWN	YR
REVISION	
CHECKED	
FILE NAME	FPUA

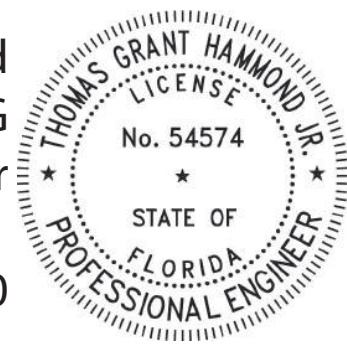


PROJECT BENCHMARK
TOP OF PK NAIL (NO ID)
EL = 18.83' (NAVD 1988)

- LEGEND**
- Δ = CENTRAL ANGLE
 - R = CURVE RADIUS
 - L = CURVE LENGTH
 - (C) = CALCULATED
 - (P) = PLAT
 - (D) = DEED
 - FND = FOUND
 - CMP = CORRUGATED METAL PIPE
 - PE = POLYETHYLENE
 - CM = CONCRETE MONUMENT
 - FFE = FINISH FLOOR ELEVATION
 - FPL = FLORIDA POWER AND LIGHT
 - OHU = OVERHEAD UTILITIES
 - MD = MAG NAIL AND DISK
 - ND = NAIL AND DISK
 - P.L.S. = PROFESSIONAL LAND SURVEYOR
 - LB = LICENSED BUSINESS
 - P.B. = PLAT BOOK
 - PS: = PAGE
 - R/W = RIGHT-OF-WAY
 - U.E. = UTILITY EASEMENT
 - EL = ELEVATION
 - DUE = DRAINAGE & UTILITY EASEMENT
 - CBS = CONCRETE BLOCK STRUCTURE
 - MH = MANHOLE
 - CI = CURB INLET
 - SI = STORM INLET/BASIN
 - IR = SET IRC LB 7056
 - LP = LAMP POST
 - TP = AT&T PEDESTAL
 - CT = CABLE TELEVISION BOX
 - WP = WOOD POWER POLE
 - CP = CONCRETE POWER POLE
 - GW = GUY WIRE
 - CONC = CONCRETE
 - WPP = WOOD POWER POLE
 - FH = FIRE HYDRANT
 - WV = WATER VALVE
 - SV = SANITARY VALVE
 - TOB = TOP OF BANK
 - ORB = OFFICIAL RECORD BOOK
 - PG = PAGE
 - RCP = REINFORCED CONCRETE PIPE
 - INV. = INVERT
 - DM = DRAINAGE MANHOLE
 - WM = WATER METER
 - ES = EXISTING SEPTIC TANK
 - ESB = ELECTRIC SERVICE BOX
 - IP = 1/2" IRON PIPE
 - IR = #5 IRON ROD
 - IRC = #5 IRON ROD AND CAP
 - OW = 6" WOOD FENCE
 - CLF = 6" CHAIN LINK FENCE
 - GR = GAS REGULATOR
 - EX = EXISTING ELEVATION
 - PT = PINE TREE (SIZE)
 - OT = OAK TREE (SIZE)
 - NAVD = NORTH AMERICAN VERTICAL DATUM (1988)
 - GL = GAS LINE



Digitally signed
by Thomas G
Hammond, Jr
Date: 2018.09.21
11:41:39 -05'00'



ZEIT ENERGY
CNG FILLING STATION
ZEIT ENERGY LLC
1717 MCKINNEY AVE, STE 700
DALLAS, TX 75202
Phone: 214.773.5394
Fax: 214.593.3344

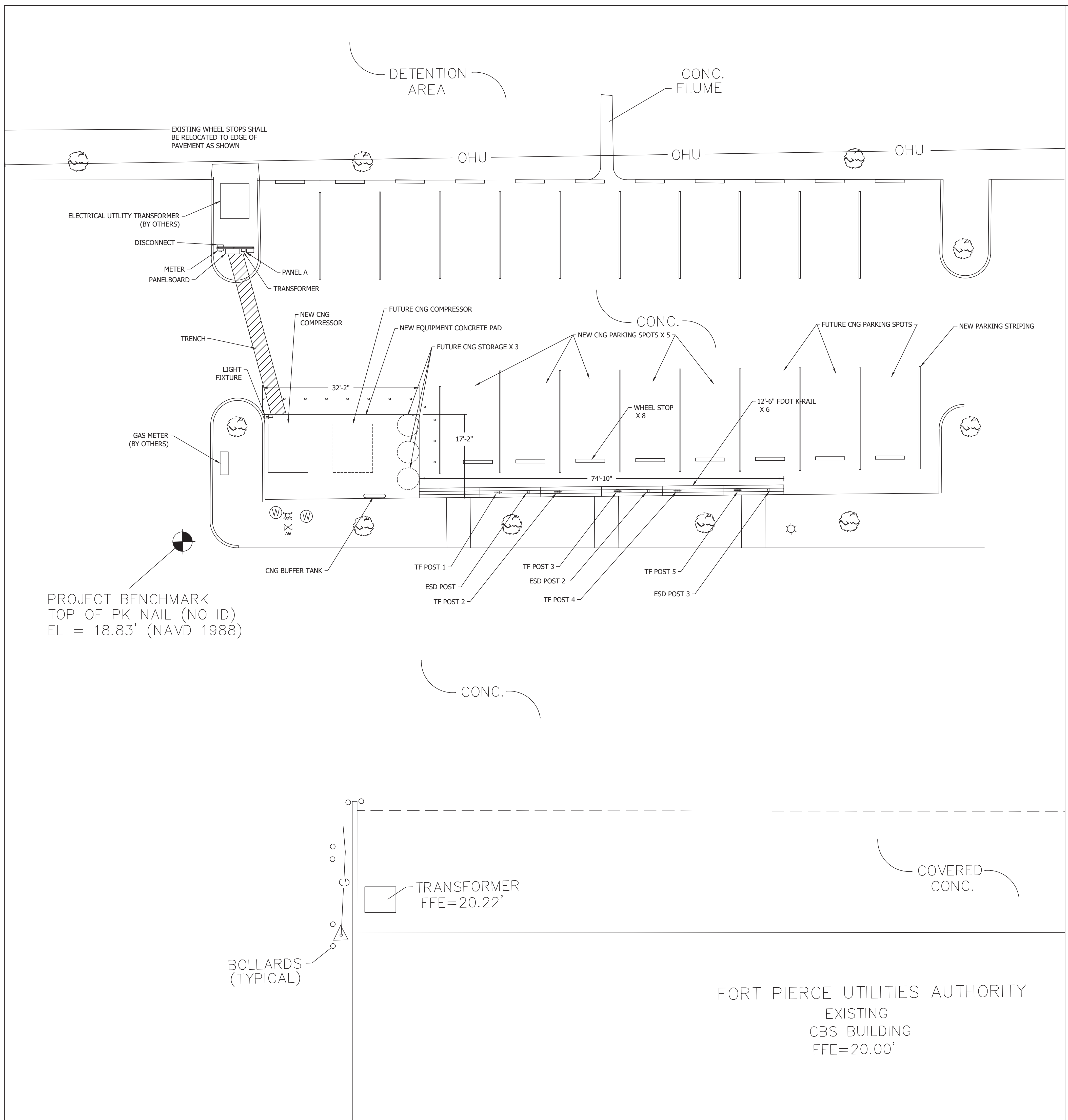
FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 S 37TH STREET FORT PIERCE FL, 34947

CIVIL
DEMO/EROSION CONTROL PLAN

1 DEMO/EROSION CONTROL PLAN
1"=10'

NO. 1	ISSUE	DATE	DESIGNED	DRAWN	REVISED	CHECKED	FILE NAME
	DEVELOPMENT DESIGN	9/18/18	ZE	ZE			PPUA
	2						
	3						
4							
0	VERIFY SCALE						Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
SEQ. C-2							

HEI
HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FLORIDA 32505
850-434-2603
FAX 850-434-2650
TDM@SELANDDESIGN.COM



LEGEND

- Δ = CENTRAL ANGLE
- R = CURVE RADIUS
- L = CURVE LENGTH
- (C) = CALCULATED
- (P) = PLAT
- (D) = DEED
- FND = FOUND
- CMP = CORRUGATED METAL PIPE
- PE = POLYETHYLENE
- CM = CONCRETE MONUMENT
- FFE = FINISH FLOOR ELEVATION
- FPL = FLORIDA POWER AND LIGHT
- OHU = OVERHEAD UTILITIES
- MD = MAG NAIL AND DISK
- ND = NAIL AND DISK
- P.L.S. = PROFESSIONAL LAND SURVEYOR
- LB = LICENSED BUSINESS
- P.B. = PLAT BOOK
- PG. = PAGE
- R/W = RIGHT-OF-WAY
- U.E. = UTILITY EASEMENT
- EL = ELEVATION
- DUE = DRAINAGE & UTILITY EASEMENT
- CBS = CONCRETE BLOCK STRUCTURE
- MH = MANHOLE
- CI = CURB INLET
- SI = STORM INLET/BASIN
- IRC = SET IRC LB 7056
- ☆ = LAMP POST
- ⊙ = AT&T PEDESTAL
- ⊙ = CABLE TELEVISION BOX
- ⊙ = WOOD POWER POLE
- ⊙ = CONCRETE POWER POLE
- ⊙ = GUY WIRE
- CONC = CONCRETE
- WPP = WOOD POWER POLE
- ⊙ = FIRE HYDRANT
- ⊙ = WATER VALVE
- ⊙ = SANITARY VALVE
- TOB = TOP OF BANK
- ORB = OFFICIAL RECORD BOOK
- PG = PAGE
- RCP = REINFORCED CONCRETE PIPE
- INV. = INVERT
- ⊙ = DRAINAGE MANHOLE
- ⊙ = WATER METER
- ⊙ = EXISTING SEPTIC TANK
- ⊙ = ELECTRIC SERVICE BOX
- IP = 1/2" IRON PIPE
- IR = #5 IRON ROD
- IRC = #5 IRON ROD AND CAP
- = 6" WOOD FENCE
- x— = 6" CHAIN LINK FENCE
- △ = GAS REGULATOR
- x 24.50 = EXISTING ELEVATION
- ⊙ = PINE TREE (SIZE)
- ⊙ = OAK TREE (SIZE)
- NAVD = NORTH AMERICAN VERTICAL DATUM (1988)
- G— = GAS LINE
- TF POST = 5
- ESD POST = 3

1 PARTIAL SITE PLAN
1"=10'



Digitally signed
by Thomas G
Hammond, Jr
Date: 2018.09.21
11:41:55 -05'00



ZEIT ENERGY
CNG FORT PIERCE STATION
ZEIT ENERGY LLC
1717 MCKINNEY AVE, STE 700
DALLAS, TX 75202
Phone: 214 773 5394
Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 S 37TH STREET FORT PIERCE FL, 34947

CIVIL
PARTIAL SITE PLAN

JOB NO.	FPUA
DATE	9/18/18
DESIGNED	YR
DRAWN	YR
REVISED	YR
CHECKED	

BY	ZE	ZE	ZE	FILE NAME
CONSTRUCTION DOCUMENT				FPUA

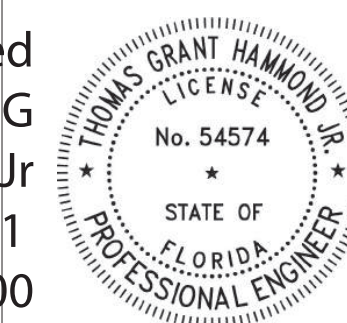
NO.	ISSUE	VERIFY SCALE
1		0
2		1
3		2
4		3
0		4

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

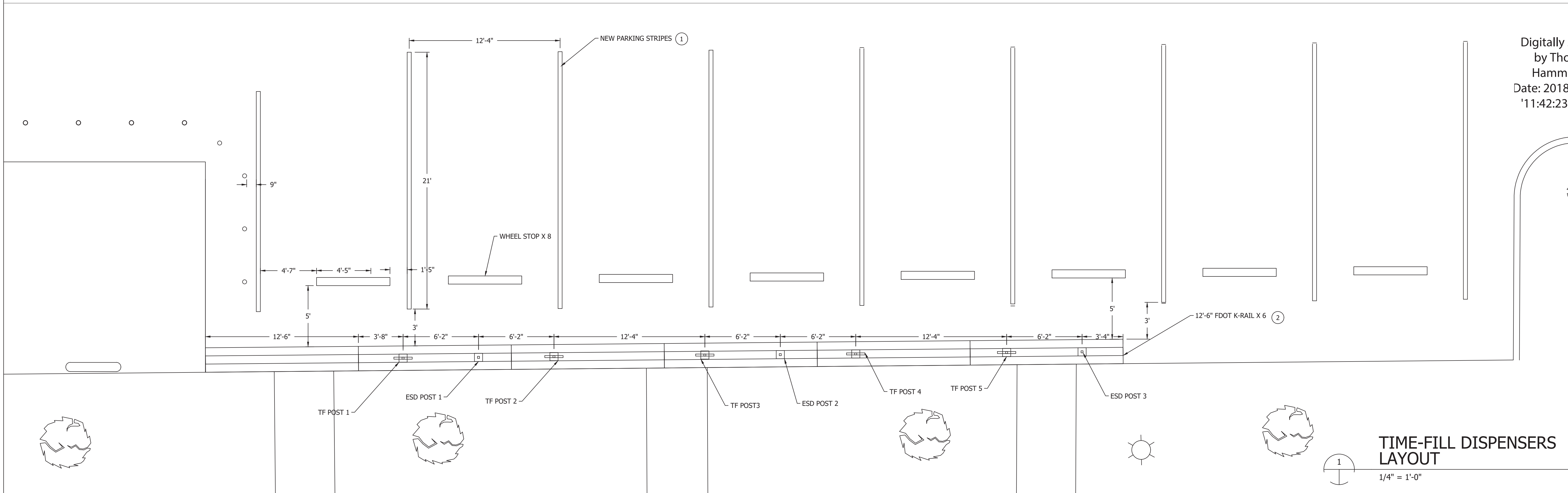
SEQ. **C-3**

HE
HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 15TH STREET
PENSACOLA, FLORIDA 32505
850-434-2603
FAX 850-434-2650
TOM@BELANDESIGN.COM

Digitally signed
by Thomas G
Hammond, Jr
Date: 2018.09.21
11:42:23 -05'00

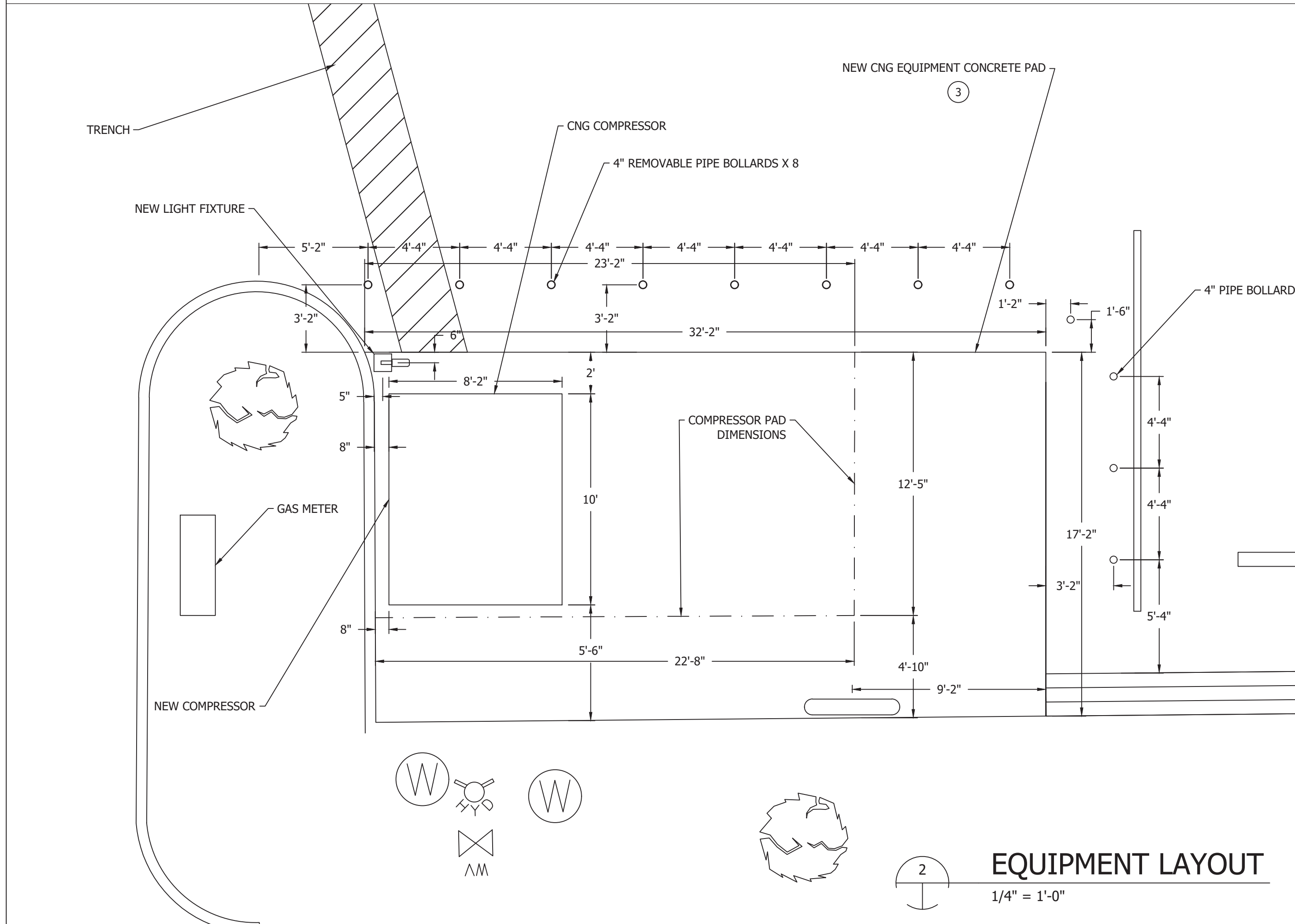


ZEIT ENERGY
CNGC Permit Services
ZEIT ENERGY LLC
1717 MCKINNEY AVE, STE 700
DALLAS, TX 75202
Phone: 214 773 5394
Fax: 214 593 3344



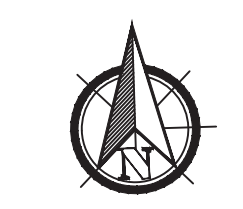
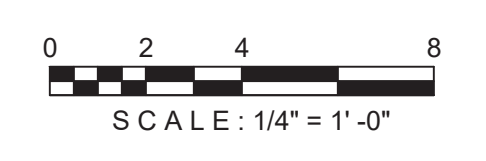
FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 S 37TH STREET FORT PIERCE FL, 34947

CIVIL
EQUIPMENT LAYOUT



- LEGEND**
- Δ = CENTRAL ANGLE
 - R = CURVE RADIUS
 - L = CURVE LENGTH
 - (C) = CALCULATED
 - (P) = PLAT
 - (D) = DEED
 - FND = FOUND
 - CMP = CORRUGATED METAL PIPE
 - PE = POLYETHYLENE
 - CM = CONCRETE MONUMENT
 - FFE = FINISH FLOOR ELEVATION
 - FPL = FLORIDA POWER AND LIGHT
 - OHU = OVERHEAD UTILITIES
 - MD = MAG NAIL AND DISK
 - ND = NAIL AND DISK
 - P.L.S. = PROFESSIONAL LAND SURVEYOR
 - LB = LICENSED BUSINESS
 - P.B. = PLAT BOOK
 - PG. = PAGE
 - R/W = RIGHT-OF-WAY
 - U.E. = UTILITY EASEMENT
 - EL = ELEVATION
 - DUE = DRAINAGE & UTILITY EASEMENT
 - CBS = CONCRETE BLOCK STRUCTURE
 - MH = MANHOLE
 - CI = CURB INLET
 - SI = STORM INLET/BASIN
 - IRC = SET IRC LB 7056
 - LP = LAMP POST
 - AT&T = AT&T PEDESTAL
 - CTV = CABLE TELEVISION BOX
 - WP = WOOD POWER POLE
 - CP = CONCRETE POWER POLE
 - C = GUY WIRE
 - CONC = CONCRETE
 - WPP = WOOD POWER POLE
 - FD = FIRE HYDRANT
 - WV = WATER VALVE
 - SV = SANITARY VALVE
 - TOB = TOP OF BANK
 - ORB = OFFICIAL RECORD BOOK
 - PG = PAGE
 - RCP = REINFORCED CONCRETE PIPE
 - INV. = INVERT
 - DM = DRAINAGE MANHOLE
 - WM = WATER METER
 - EST = EXISTING SEPTIC TANK
 - ESB = ELECTRIC SERVICE BOX
 - IP = 1/2" IRON PIPE
 - IR = #5 IRON ROD
 - IRC = #5 IRON ROD AND CAP
 - WF = 6" WOOD FENCE
 - CLF = 6" CHAIN LINK FENCE
 - GR = GAS REGULATOR
 - EE = EXISTING ELEVATION
 - PT = PINE TREE (SIZE)
 - OT = OAK TREE (SIZE)
 - NAVD = NORTH AMERICAN VERTICAL DATUM (1988)
 - G = GAS LINE
 - TF POST = 5
 - ESD POST = 3

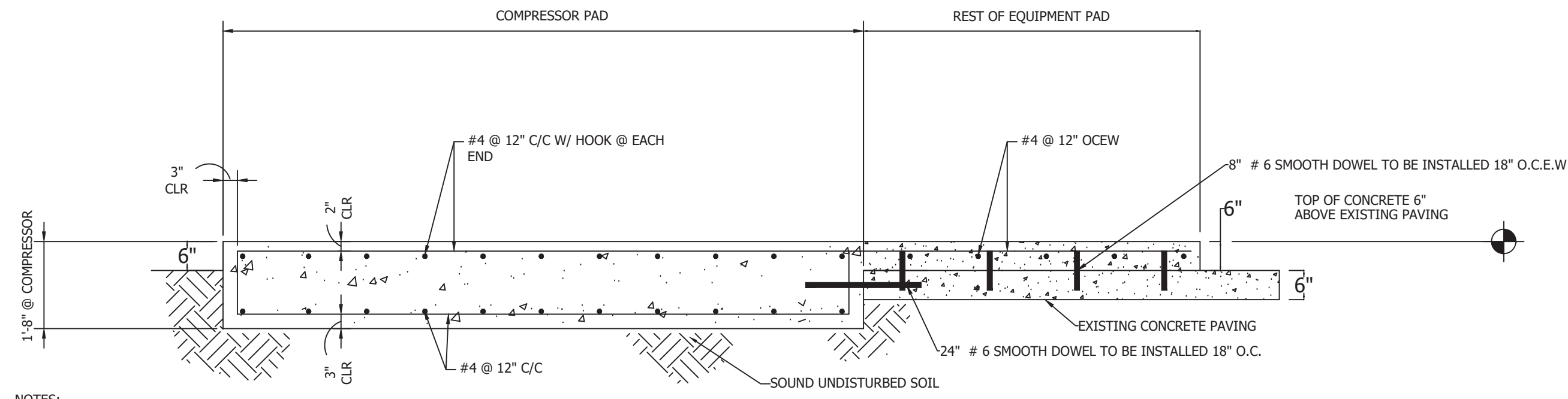
- NOTES BY SYMBOL "O"**
- NEW 4" WHITE PARKING STRIPE. PROVIDE SHERWIN-WILLIAMS SETFAST ALKYD ZONE MARKING PAINT OR APPROVED EQUAL. DIMENSIONS SHOWN ARE FROM CENTER TO CENTER OF THE STRIPES.
 - K-RAIL SHALL BE INSTALLED ALONG EDGE OF EXISTING PARKING PAVEMENT
 - EXISTING CONCRETE PAVING SHALL BE SAWCUT AND REMOVED BY CONTRACTOR. SOIL SHALL BE PREPARED TO RECEIVE NEW CONCRETE PAD. SEE SHEET C5 FOR DETAILS



HEI
HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 5TH STREET
PENSACOLA, FLORIDA 32505
850-434-2603
FAX 850-434-2650
TGM@BELANDESIGN.COM

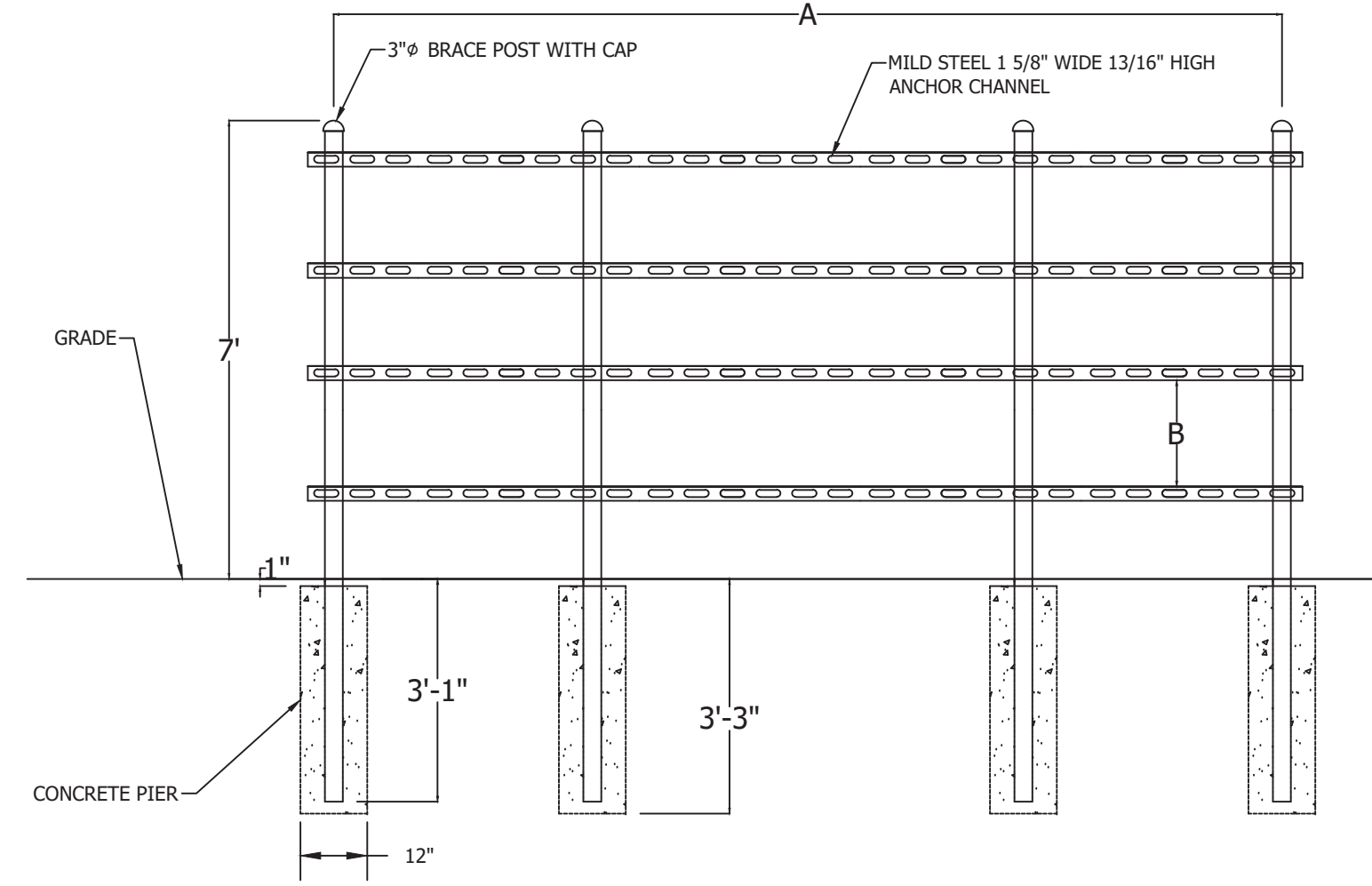
NO. 1	ISSUE	CONSTRUCTION DOCUMENT	BY ZE	DATE 9/18/18	DESIGNED YR	DRAWN YR	CHECKED YR	FILE NAME
2			ZE					FPUA
3			ZE					
4			ZE					
VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.								
SCALE: 1/4" = 1'-0"								
SHEET C-4								
SEQ.								

- GENERAL NOTES:
 1. CONCRETE SHALL HAVE 4000 PSI COMPRESSIVE STRENGTH.
 2. ALL REINFORCEMENTS SHALL BE ACCORDING TO ASTM A615 GRADE 60.



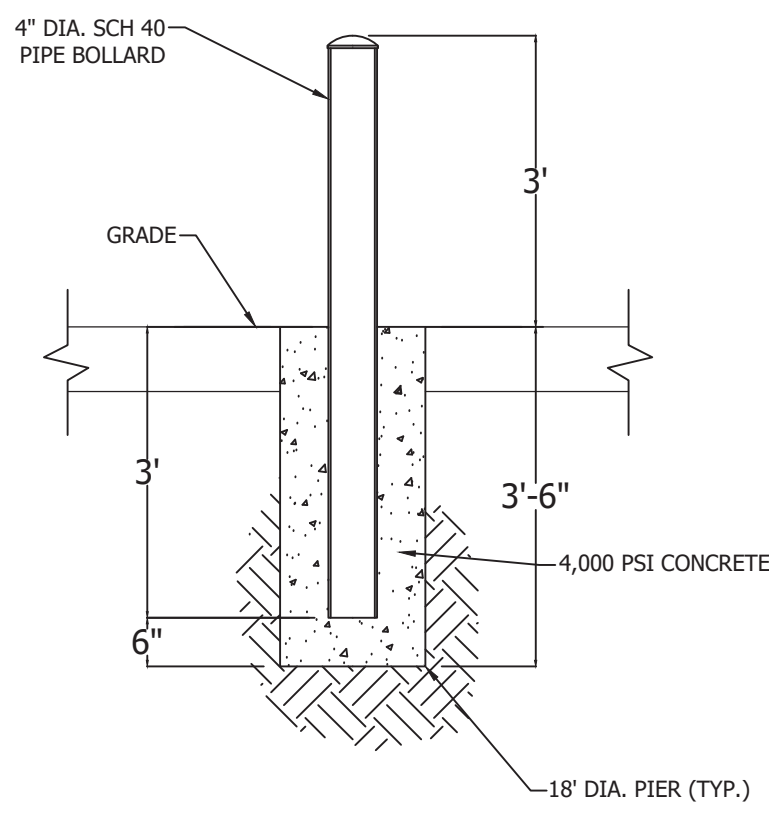
- NOTES:
 1. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE FORM OR TOOLED TO 1/2" RADIUS ON SLABS UNLESS OTHERWISE NOTED.
 2. COMPRESSOR PAD DIMENSIONS; REFER TO C-4
 3. DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE

1 CNG EQUIPMENT PAD FOUNDATION DETAIL N.T.S.



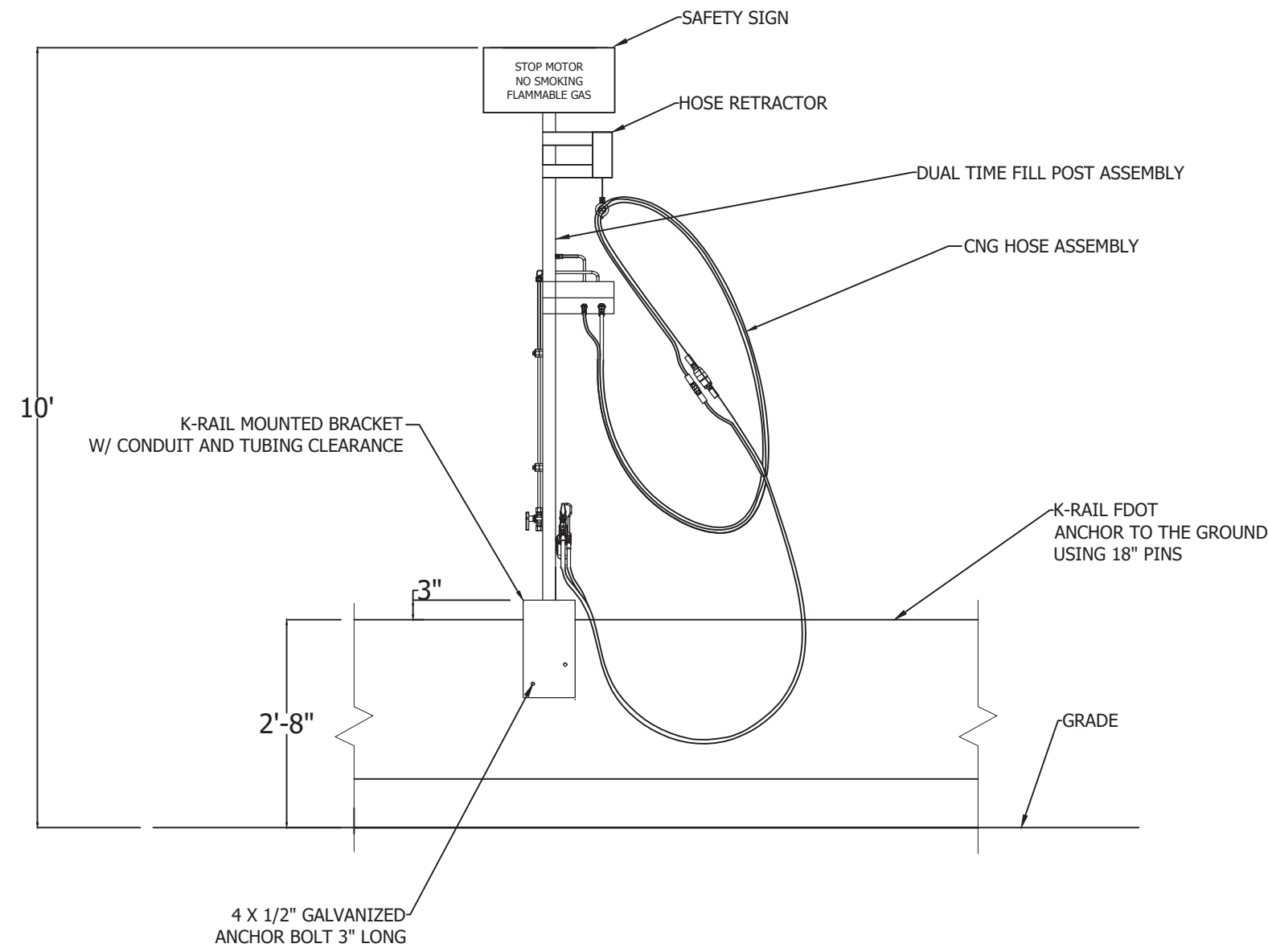
- NOTES:
 1. SECURE ANCHOR CHANNELS TO BRACE POSTS USING 3" GALVANIZED U-BOLTS.
 2. DIMENSION A AND B WILL VARY DEPENDING ON EQUIPMENT TO BE INSTALLED.

103 ELECTRICAL EQUIPMENT ANCHORING FRAME ASSEMBLY N.T.S.

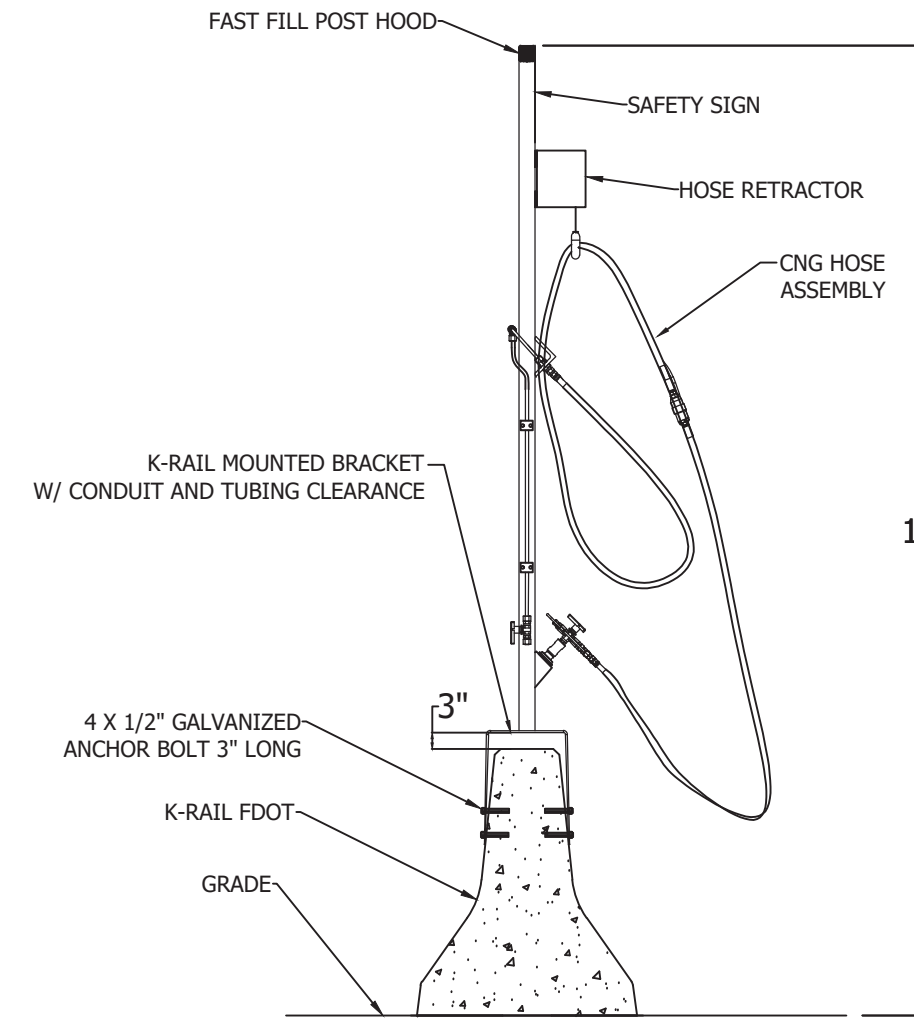


- NOTE:
 BOLLARDS ARE TO BE PAINTED REFLECTIVE & SAFETY YELLOW POLYURETHANE EPOXY.

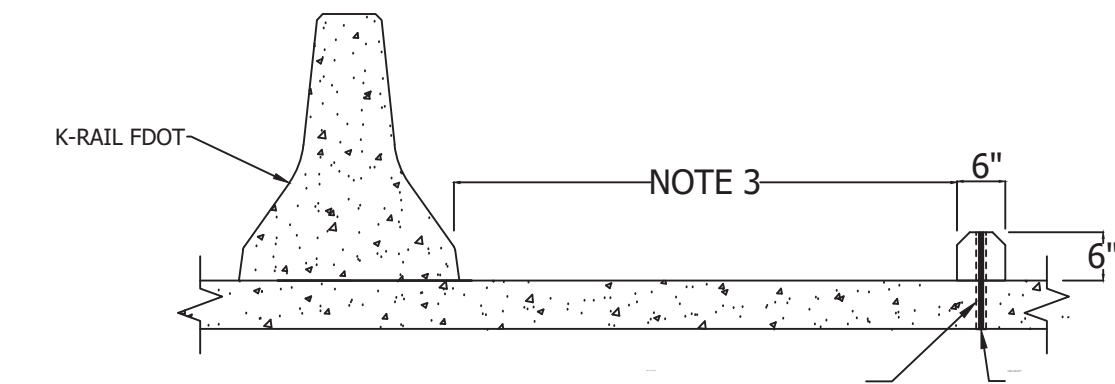
95 BOLLARD DETAIL N.T.S.



42 SINGLE HOSE TIME FILL POST FRONT VIEW N.T.S.

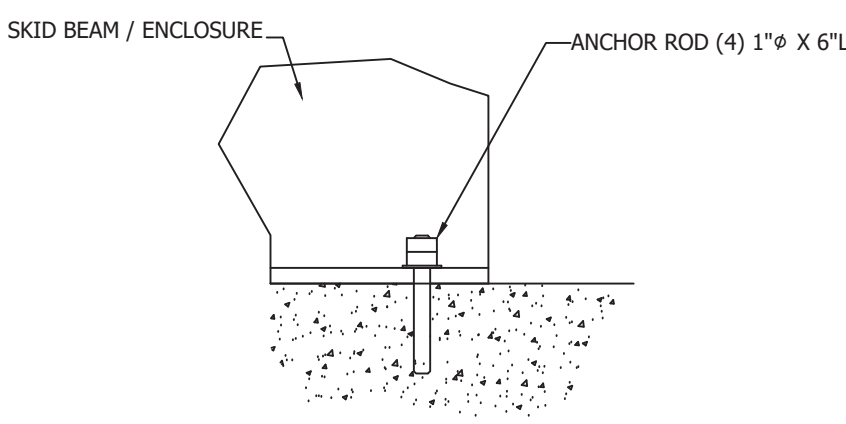


43 SINGLE HOSE TIME FILL POST SIDE VIEW N.T.S.

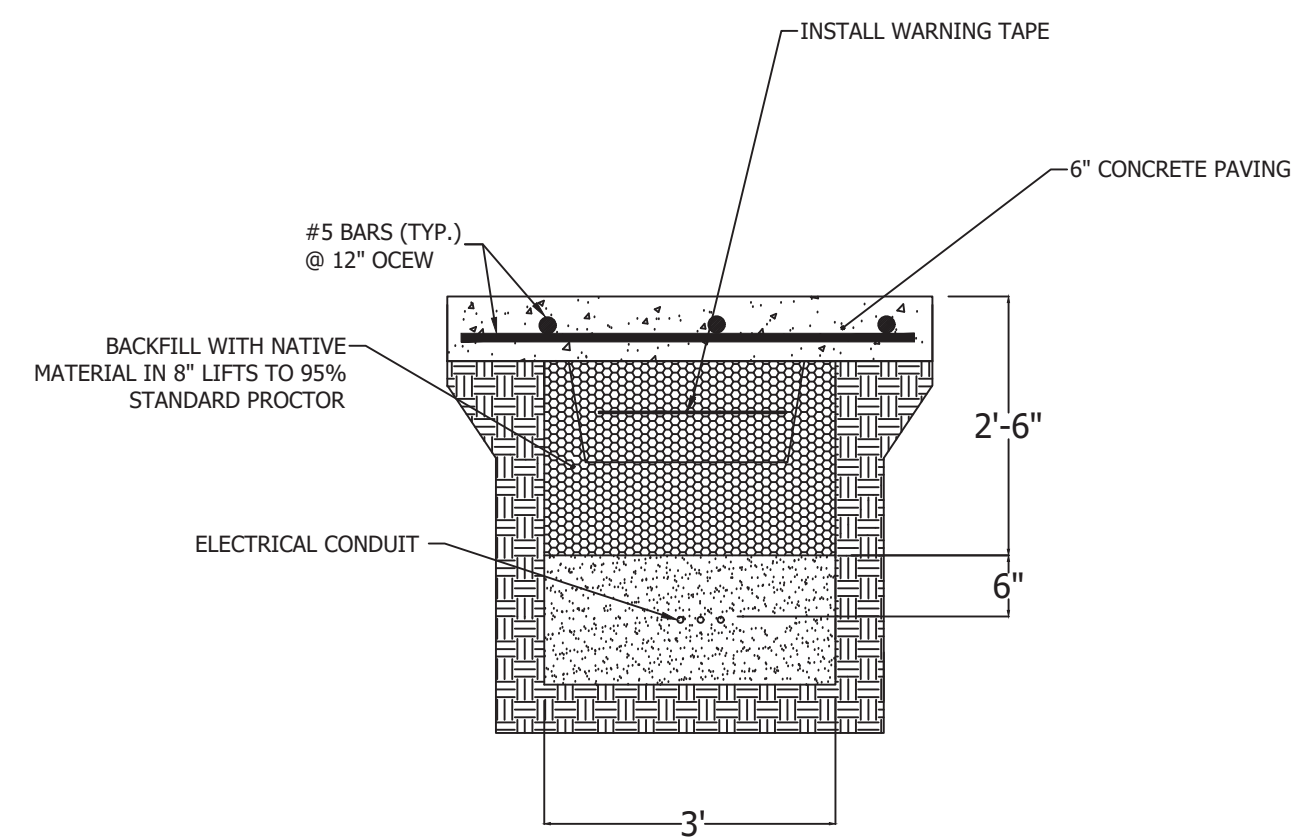


- NOTE:
 1. WHEEL STOPS ARE 6" X 6" X 6".
 2. CONTRACTOR TO PROVIDE LABOR, EQUIPMENT AND MATERIALS FOR ALL WHEEL STOPS.
 3. REFER TO SHEET C-5 FOR WHEEL STOP POSITION.

50 WHEEL STOP DETAIL N.T.S.

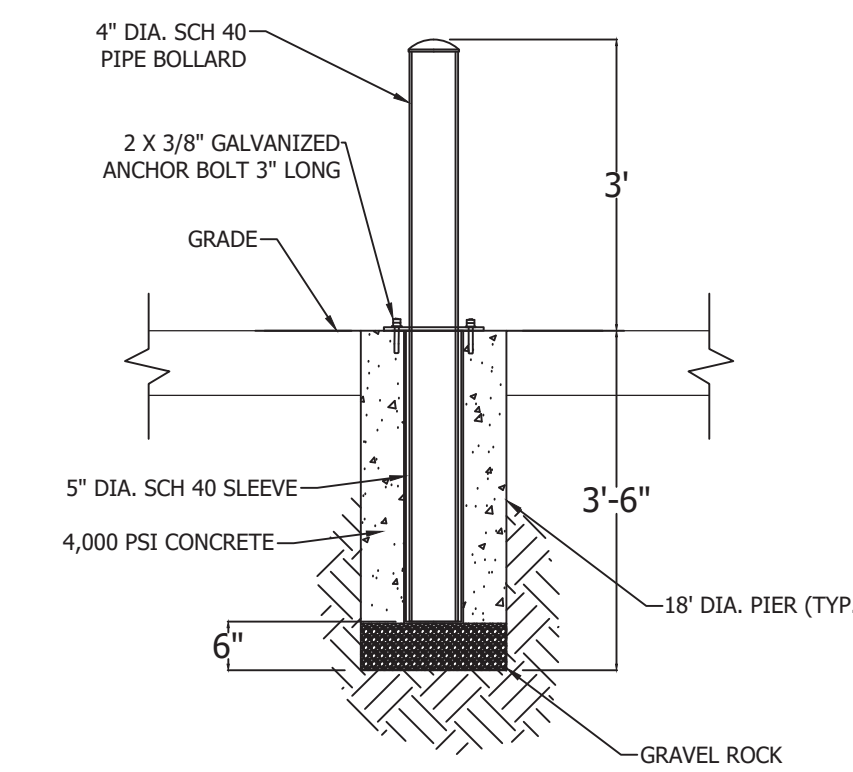


5 COMPRESSOR ANCHOR DETAIL N.T.S.



- GENERAL NOTES:
 1. CONCRETE SHALL HAVE 4000 PSI COMPRESSIVE STRENGTH.
 2. ALL REINFORCEMENTS SHALL BE ACCORDING TO ASTM A615 GRADE 60.

98 TRENCH DETAIL N.T.S.



- NOTE:
 BOLLARDS ARE TO BE PAINTED REFLECTIVE & SAFETY YELLOW POLYURETHANE EPOXY.

95 REMOVABLE BOLLARD DETAIL N.T.S.

Digitally signed
 by Thomas G
 Hammond, Jr
 Date: 2018.09.21
 11:42:43 -05'00



ZEIT ENERGY
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75240
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947

CIVIL
 DETAILS

NO.	ISSUE	DATE	DESIGNED	DRAWN	CHECKED	FILE NAME
1	CONSTRUCTION DOCUMENT	9/18/18	ZE	ZE	ZE	FPUA
2						
3						
4						

Bar is one inch on original drawing / not one inch on this sheet, adjust scale.

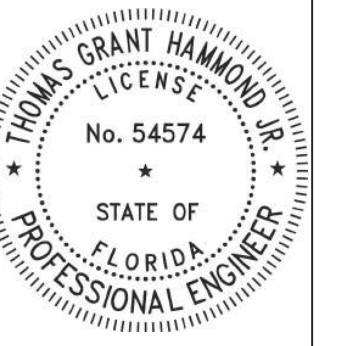
VERIFY SCALE

0 1

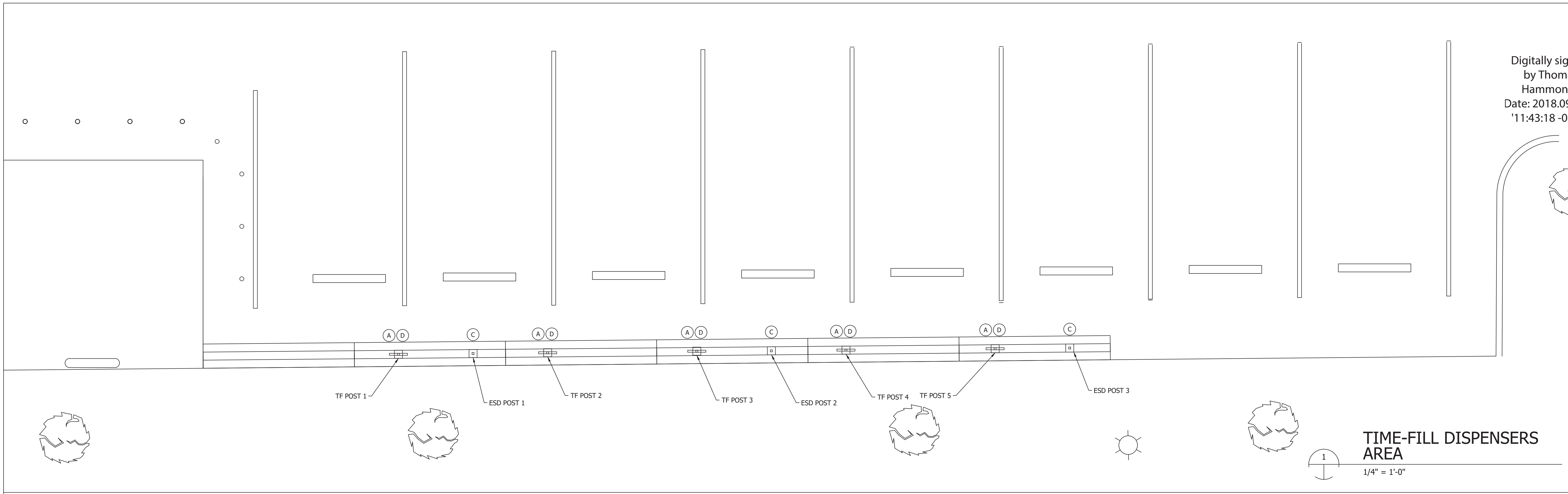
SEQ. C-5

HE
 HAMMOND ENGINEERING, INC.
 FLORIDA AUTHORIZATION NO. 9130
 ALABAMA AUTHORIZATION NO. 32777
 3802 NORTH "S" STREET
 PENSACOLA, FLORIDA 32505
 850-434-2603
 FAX 850-434-2650
 TDM@SELANDDESIGN.COM

Digitally signed
by Thomas G
Hammond, Jr
Date: 2018.09.21
'11:43:18 -05'00



ZEIT ENERGY
CNG Pressure Services
ZEIT ENERGY LLC
1717 MCKINNEY AVE, STE 700
DALLAS, TX 75202
Phone: 214 773 5394
Fax: 214 593 3344

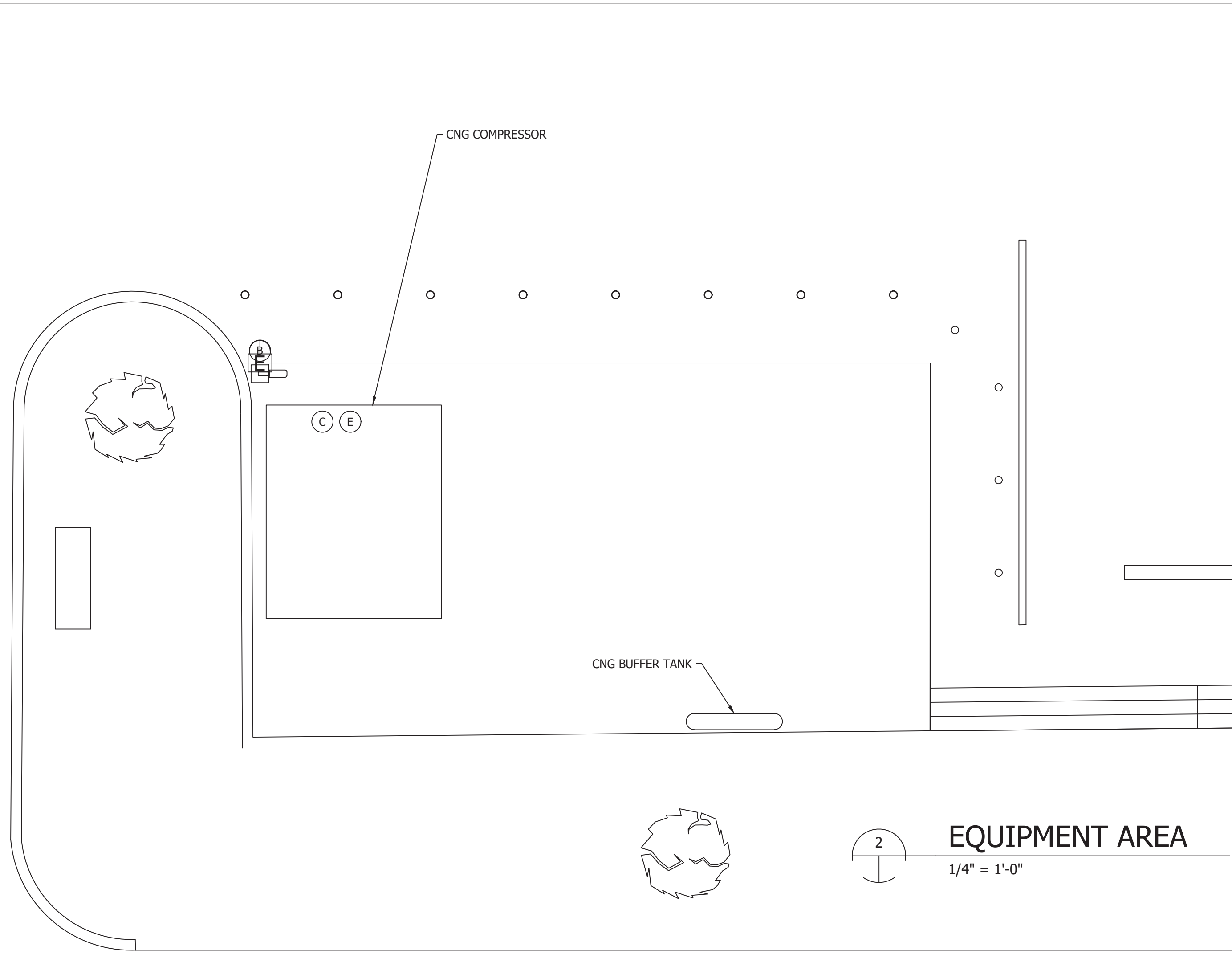


TIME-FILL DISPENSERS AREA
1/4" = 1'-0"

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 S 37TH STREET FORT PIERCE FL, 34947

GENERAL SIGNAGE PLAN

WARNING SIGNS	
	<p>A "STOP MOTOR, NO SMOKING, FLAMMABLE GAS". PROVIDE RED TEXT WITH LETTERS AT LEAST 2" HIGH ON WHITE BACKGROUND SHEET METAL SIGN. LOCATION: DISPENSER.</p>
	<p>B SIGN WITH RED LETTERS AT LEAST 4" HIGH, ON WHITE BACKGROUND: "WARNING-FLAMMABLE GAS"; BLACK LETTERS: "NO TRESPASSING" LOCATION: COMPRESSION AREA</p>
	<p>C 14"x10" "CNG EMERGENCY SHUTDOWN". PROVIDE BLACK TEXT ON WHITE BACKGROUND SHEET METAL WARNING SIGN LOCATION: EQUIPMENT AREA, DISPENSER AREA</p>
	<p>D 20"x12" "CAUTION ONLY AUTHORIZED PERSONNEL PERMITTED TO OPERATE THIS MACHINE". PROVIDE BLACK TEXT ON YELLOW BACKGROUND SHEET METAL SIGN. LOCATION: TIME FILL DISPENSER ONE SIGN FOR EACH DISPENSER</p>
	<p>E 10"x14" "THIS EQUIPMENT STARTS AUTOMATICALLY". PROVIDE BLACK TEXT ON WHITE BACKGROUND SHEET METAL SIGN. LOCATION: COMPRESSOR</p>



EQUIPMENT AREA
1/4" = 1'-0"

NO.	ISSUE	BY	DATE	JOB NO.	FPJA
1	CONSTRUCTION DOCUMENT	ZE	9/18/18		
2		ZE	DESIGNED	YR	
3		ZE	DRAWN	YR	
4		ZE	REVISED	CHECKED	
VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.					FILE NAME
					FPJA

GENERAL NOTES:

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND WITH LOCAL ELECTRICAL ORDINANCES.
- THE ENTIRE INSTALLATION MUST COMPLY WITH THE 2014 NATIONAL ELECTRICAL CODE, INCLUDING BUT NOT LIMITED TO ARTICLE 514.
- ALL ELECTRICAL WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A MASTER ELECTRICIAN WHO HOLDS A VALID LICENSE IN THE LOCAL STATE. ALL WIRING, EQUIPMENT, DEVICES, AND INSTALLATIONS SHALL CONFORM TO LOCAL, STATE, BUILDING AND FEDERAL CODES AS WELL AS ALL AUTHORITIES HAVING JURISDICTION. ALL ELECTRICAL WORK MUST COMPLY WITH THE REQUIREMENTS OF NFPA 70E, NEC, NFPA 70B, NFPA 70E, IECC, OASHA IN ADDITION TO OTHER REFERENCES REQUIRED BY CONTRACT.
- ALL ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE DEAD FRONT RATED NEMA 3R UNLESS NOTED OTHERWISE. ALL ENCLOSURES SHALL BE LOCKABLE WITH A SINGLE THREE POINT LATCH LOCATED ON THE DOOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LOCKS AS REQUIRED BY THE OWNER. THE CONTRACTOR SHALL FURNISH KEYS TO THE OWNER AS REQUIRED. ALL LOCKS SHALL BE KEYPED ALIKE.
- ALL CONDUCTORS SHALL BE 600V COPPER AND SHALL BE INSULATED WITH TYPE XHHW/XHWN INSULATION.
- USE THE FOLLOWING COLOR CODE FOR 120/240V, 1-PHASE WIRING:
PHASE A - BLACK
PHASE B - RED
NEUTRAL - WHITE
EQUIPMENT GROUNDING CONDUCTOR - GREEN
- USE THE FOLLOWING COLOR CODE FOR 480Y/277V, 3-PHASE WIRING:
PHASE A - BROWN
PHASE B - ORANGE
PHASE C - YELLOW
NEUTRAL - GRAY
EQUIPMENT GROUNDING CONDUCTOR - GREEN
- ALL 480V CIRCUIT CONDUITS ABOVE GROUND SHALL BE GALVANIZED RIGID ALUMINUM.
- ALL CONDUITS ABOVE GROUND FOR 240V CIRCUITS AND BELOW SHALL BE GALVANIZED RIGID ALUMINUM CONDUIT UNLESS NOTED OTHERWISE. PROVIDE END BELLS, GROUND BUSHINGS, LOCKNUTS, CONDUIT DRAINS, BUSHINGS, ETC. AS REQUIRED.
- ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE. PVC CONDUIT SHALL NOT BE INSTALLED ABOVE GRADE.
- ALL UNDERGROUND CONDUIT BENDS SHALL BE FACTORY COATED (PVC) RIGID STEEL BENDS. PVC COATED RIGID STEEL CONDUIT SHALL BE AS MANUFACTURED BY PERMA-COTE. CONDUITS STUBBED-UP OUT OF THE GROUND SHALL BE PVC COATED RIGID STEEL.
- PROVIDE CONDUIT SEALS AND EXPLOSION PROOF FITTINGS AS REQUIRED PER THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND THE NATIONAL ELECTRICAL CODE (NEC).
- EXCAVATION, TRENCHING, BACKFILLING AND GRADING: PRIOR TO ANY EXCAVATION OR TRENCHING, NOTIFY THE OWNER'S REPRESENTATIVE, UTILITY COMPANIES AND OWNER'S FACILITIES DEPARTMENT. ALLOW SUFFICIENT TIME FOR UTILITIES TO BE LOCATED PRIOR TO EXCAVATION TO AVOID DISRUPTION OF SERVICES. PROVIDE A MINIMUM OF 72 HOURS WRITTEN NOTICE TO THE OWNER PRIOR TO TRENCHING OR EXCAVATION. DO NOT PROCEED WITH TRENCHING OR EXCAVATION UNTIL AUTHORIZED BY THE OWNER. UTILITIES OR SERVICES WHICH ARE DAMAGED, WHICH ARE IDENTIFIED PRIOR TO EXCAVATION OR TRENCHING, OR WHERE CONFIRMATION BY UTILITY COMPANIES HAS NOT BEEN OBTAINED VERIFYING THAT UTILITIES ARE MARKED, SHALL BE REPAIRED TO OPERABLE CONDITION IMMEDIATELY, AT NO COST TO THE OWNER. BARRICADE OPEN TRENCHES AND EXCAVATIONS FOR THE ENTIRE DURATION OF THE PROJECT. BARRICADES FOR EXCAVATIONS SHALL HAVE WARNING LIGHTS MAINTAINED DURING HOURS OF DARKNESS. TRENCHES SHALL BE MARKED WITH WARNING TAPE, OR ACCESS TO TRENCHES SHALL BE PROHIBITED WITH READILY IDENTIFIABLE SAWHORSES, WARNING TAPE OR OTHER ACCEPTABLE MEANS. BARRIERS SHALL BE ILLUMINATED OR RECOGNIZABLE DURING HOURS OF DARKNESS. BARRIERS AND TAPE SHALL BE PROPERLY MAINTAINED AT ALL TIMES. PROTECT ALL ADJACENT WORK, STRUCTURES AND PROPERTIES. DAMAGE TO ADJACENT WORK, STRUCTURES OR PROPERTIES SHALL BE REPAIRED, OR THE COST OF REPAIR REIMBURSED IN FULL. ALL CONSTRUCTION AREAS SHALL BE FINALLY GRADED AS INDICATED ON THE CONTRACT DOCUMENTS, OR TO THE CONDITIONS OF THE SITE PRIOR TO CONSTRUCTION. GRADING SHALL BRING THE SITE BACK TO THE EXISTING CONDITIONS AS CLOSE AS PRACTICAL. TURFED AREAS SHALL BE SODDED, OR HYDRO-MULCHED WITH MATCHING TURF. LANDSCAPING SHALL BE REPLACED WITH IDENTICAL SHRUBBERY, GROUND COVER, OR PLANTS AS EXISTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING WATER ON NEW TURF AND LANDSCAPING UNTIL ESTABLISHED. IF NEW TURF AND LANDSCAPING IS IMPRACTICAL DUE TO WEATHER CONDITIONS, CONTRACTOR SHALL PROVIDE SATISFACTORY ARRANGEMENTS TO HAVE TURF AND LANDSCAPING FURNISHED AND INSTALLED AT THE EARLIEST OPPORTUNITY THEREAFTER. PROVIDE A 90-DAY YEAR WARRANTY ON NEW TURF AND LANDSCAPING. DETERMINE IF IRRIGATION SYSTEMS EXIST PRIOR TO TRENCHING AND EXCAVATION. OBTAIN RECORD OR AS-BUILT DRAWINGS AND LOCATE CONTROL WIRING AND PRESSURE MAIN BRANCHES AND DEVICES. DETERMINE BY ACTUAL OPERATION THAT SYSTEMS ARE FUNCTIONAL AND REPAIR OR REPLACE DAMAGED SYSTEMS TO THEIR ORIGINAL CONDITION PRIOR TO BEGINNING CONSTRUCTION.
- ELECTRICAL EQUIPMENT, LIGHTING CONTACTOR, PANELBOARDS, TRANSFORMERS, ETC. SHALL BE MANUFACTURED BY SQUARE D, CUTLER-HAMMER, SIEMENS OR GE. PANELBOARDS SHALL HAVE TIN-PLATED COPPER BUS. SERIES RATING OF BREAKERS IS NOT ACCEPTABLE. TRANSFORMERS SHALL HAVE COPPER WINDINGS.
- PROVIDE A GROUNDING SYSTEM THAT INCLUDES ALL CONNECTIONS AND THE TESTING OF GROUND RODS, GROUND CABLES, GROUND BUSES, CONDUITS, FITTINGS, ANCHOR SUPPORTS, THERMITE PROCESS MATERIALS AND EQUIPMENT AND OTHER MATERIALS REQUIRED FOR A COMPLETE INSTALLATION. GROUNDING SYSTEM SHALL BE INSTALLED AND SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. MEASURE THE GROUND GRID RESISTANCE WITH THE EARTH TEST MEGGER AND INSTALL ADDITIONAL GROUND RODS AND CONDUCTORS AS REQUIRED UNTIL THE RESISTANCE TO THE GROUND CONFORMS TO NATIONAL ELECTRICAL CODE REQUIREMENTS. GROUND RESISTANCE MEASUREMENT SHALL NOT EXCEED 2 OHMS. ADD GROUND RODS AS REQUIRED TO BRING RESISTANCE TO 2 OHMS AND CONNECT TO GROUNDING SYSTEM.
- THESE PLANS ARE SCHEMATIC, VERIFY EQUIPMENT SIZES, LOCATION AND CONDUIT ROUTING, ETC. PRIOR TO BID. CONTRACTOR SHALL VERIFY NUMBER/SIZE OF CONDUCTORS AND CONDUIT REQUIRED BASED ON EQUIPMENT BEING PROVIDED AND PROVIDE AS REQUIRED. ALL CONDUIT, CABLE, GROUNDING, ETC. SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- PROVIDE ALL WIRING, CONDUIT, LABOR AND MATERIALS NOT SHOWN ON PLAN, BUT NECESSARY FOR COMPLETE AND PROPER OPERATIONS OF THE ELECTRICAL SYSTEM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES AND PERMITS AS NECESSARY TO COMPLETE THIS JOB. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSURE A COMPLETE WORKING SYSTEM.
- INSTALLATION OF SWITCHES AND CONTROL DEVICES SHALL COMPLY WITH LOCAL CODES AND STATE ADA REQUIREMENT.
- ALL ELECTRICAL EQUIPMENT, DEVICES AND CIRCUITS SHALL CONTAIN A GROUNDING CONDUCTOR. CONDUITS SYSTEM SHALL NOT BE USED AS GROUNDING NETWORK. ALL GROUNDING SHALL BE IN STRICT COMPLIANCE WITH ARTICLE NO. 250 OF THE NATIONAL ELECTRIC CODE.
- COORDINATE LOCATION AND VERIFY REQUIREMENTS OF ALL EXTERIOR EQUIPMENT AND METER BASE WITH OWNER AND UTILITY COMPANY.
- ALL PANELS, TRANSFORMERS AND BREAKERS SHALL HAVE ENGRAVED IDENTIFICATION LABELS.
- CONTRACTOR IS RESPONSIBLE FOR NEC REQUIREMENT CLEARANCES AROUND AND ABOVE OF ALL ELECTRICAL EQUIPMENT AND DEVICES.
- SHORT CIRCUIT AIC RATING OF ALL ELECTRICAL PRODUCTS SHALL BE GREATER THAN THE MAXIMUM AVAILABLE SHORT CIRCUIT CURRENT. COORDINATE WITH THE UTILITY FOR MAXIMUM AVAILABLE SHORT CIRCUIT CURRENT.
- WIRE AND CONDUIT SIZES SHALL BE INSTALLED AND SIZED TO COMPENSATE FOR VOLTAGE DROP PER THE NEC.
- ALL CONDUCTORS SHALL BE 98% COPPER (NO ALUMINUM CONDUCTORS WILL BE ACCEPTED).
- ALL ELECTRICAL WIRING, VOICE/COMMUNICATION WIRING AND COAXIAL CABLES SHALL BE INSTALLED IN CONDUIT, WIREWAY OR OTHER PROTECTIVE COVE AS REQUIRED TO COMPLY WITH GOVERNING CODE.
- CONTRACTOR SHALL PROVIDE FIRE PROOFING FOR ANY PIPES OR CONDUITS THAT PENETRATE THROUGH ANY FLOORS, WALLS, CEILINGS, ROOFS OR RUNS INSIDE OF CHASES.
- CONTRACTOR TO PROVIDE AND INSTALL GROUNDING SYSTEM FOR EQUIPMENT, METAL FENCE, STEEL COLUMNS, ETC.

ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR OR GRADE
AIC	AMPERES INTERRUPTING CAPACITY
AL OR ALUM	ALUMINUM
AMP OR A	AMPERE
AWG	AMERICAN WIRE GAUGE
C.	CONDUIT
CKT	CIRCUIT
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CT	CURRENT TRANSFORMER
CU	COPPER
ELEV	ELEVATION
EM	EMERGENCY
ESD	EMERGENCY SHUTDOWN BUTTON
EXIST.	EXISTING
FO	FIBER OPTIC
FT	FEET
G. OR GRD	GROUND
GA.	GAUGE
GFI	GROUND FAULT INTERRUPTER
GFS	GROUND FAULT SENSING
HP	HORSEPOWER
HTR	HEATER
HZ	HERTZ
ID	INTERNAL DIAMETER
IRP	INTERPOSING RELAY PANEL
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LC	LIGHTING CONTACTOR
LED	LIGH EMITTING DIODE
LGTS ON LTG	LIGHTS/LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR'S	MANUFACTURER'S
MDP	MAIN DISTRIBUTION PANEL
MH	MANHOLE
MLO	MAIN LUGS ONLY
MPR	MOTOR PROTECTION RELAY
NC OR N.C.	NORMALLY CLOSED
NF	NON-FUSED
NO OR N.O.	NORMALLY OPEN OR NUMBER
OD	OUTSIDE DIAMETER
OHE	OVERHEAD ELECTRIC
P	POLE
PB	PULL BOX OR PUSH BUTTON
PC	PHOTOCELL
PH	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PR.	PAIR OR PAIR CABLE
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RC	REMOTE CONTROL
REC	CIRCUIT RECLOSURE
REQD	REQUIRED
RTU	REMOTE TERMINAL UNIT
SHLD. OR SH	SHIELD OR SHIELDED
SN OR S/N	SOLID NEUTRAL
SPD	SURGE PROTECTION DEVICE
SSRVS	SOLID STATE REDUCED VOLTAGE STARTER
SS	STAINLESS STEEL
TR.	TRIAD
TYP	TYPICAL
UG	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	INSHEILED TWISTED PAIR CABLE
V	VOLTS
W	WITH, WIRE OR WATT
WP	WEATHERPROOF
XFMR	TRANSFORMER

PLAN SYMBOL	DESCRIPTION
	LIGHTING FIXTURE "A"-FIXTURE TYPE "b" -SWITCH NUMBER
	CONDUIT, EXPOSED/SURFACE MOUNTED
	CONDUIT OR DUCTBANK, CONCEALED
	CONDUIT STUBBED OUT AND CAPPED
	OVERHEAD ELECTRICAL LINE
	UNDERGROUND ELECTRICAL LINE
	UNDERGROUND COMMUNICATION LINE
	PANEL A, CIRCUIT 1
	HOMERUN, CIRCUITS 1 AND 3 RUN TO PANEL LA
	SINGLE POLE SWITCH, "b" INDICATES SWITCH LEG SHALL CONTROL LIGHT FIXTURES WITH "b" DESIGNATION
	MANUAL MOTOR STARTER/ DISCONNECT
	3 WAY SWITCH
	4 WAY SWITCH
	TIME SWITCH
	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W
	FLOOR MOUNTED RECEPTACLE
	SIMPLEX RECEPTACLE, GROUNDED TYPE
	QUADPLEX RECEPTACLE
	JUNCTION BOX
	PULL BOX
	OCCUPANCY SENSOR
	PHOTOCELL
	MANHOLE
	UTILITY METER
	EMERGENCY SUTDOWN
	GROUND

ONE-LINE OR CONTROL	PLAN	DESCRIPTION
		PANEL
		MOTOR, NUMBER DESIGNATES HORSEPOWER
		LOW VOLTAGE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED A - AMP TRIP, P - POLES
		MOTOR CIRCUIT PROTECTOR
		TRANSFORMER, RATINGS, AND CONNECTIONS AS NOTED
	-	CONDUCTORS OR CONDUITS CROSSING PATHS BUT NOT CONNECTED
	-	CONDUCTORS ELECTRICALLY CONNECTED
	-	INDICATES LIMITS OF EQUIPMENT OR WIRING ENCLOSURE

NOTE:
THIS IS A STANDARD LEGEND. THEREFORE, NOT ALL OF THIS INFORMATION MAY BE USED ON THIS PROJECT.

FREASE AND NICHOLS
Freese and Nichols, INC
4055 International Plaza #200,
Fort worth, TX 76109
Phone: 817-881-5820



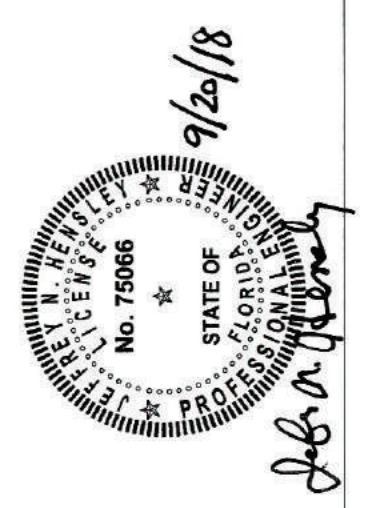
ZEIT ENERGY
Zeit Energy LLC
1717 MCKINNEY AVE, STE 700
DALLAS, TX 75240
Phone: 214 773 5394
Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947
ELECTRICAL
GENERAL NOTES AND ABBREVIATIONS

NO. 1	ISSUE	BY	DATE	FILE NAME
1	CONSTRUCTION DOCUMENT	ZE	9/18/18	FPLA
2		ZE	DESIGNED YR	
3		ZE	DRAWN YR	
4		ZE	REVISED YR	
0			CHECKED	

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SEQ. **E-1**



ZEIT ENERGY
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75240
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947
ELECTRICAL ONE-LINE DIAGRAM

NO. 1	ISSUE	BY	DATE	DESIGNED	DRAWN	REVISION	CHECKED	FILE NAME
1	CONSTRUCTION DOCUMENT	ZE	9/18/18					PPUA
2		ZE						
3		ZE						
4		ZE						

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

VERIFY SCALE

SHEET **E-2**

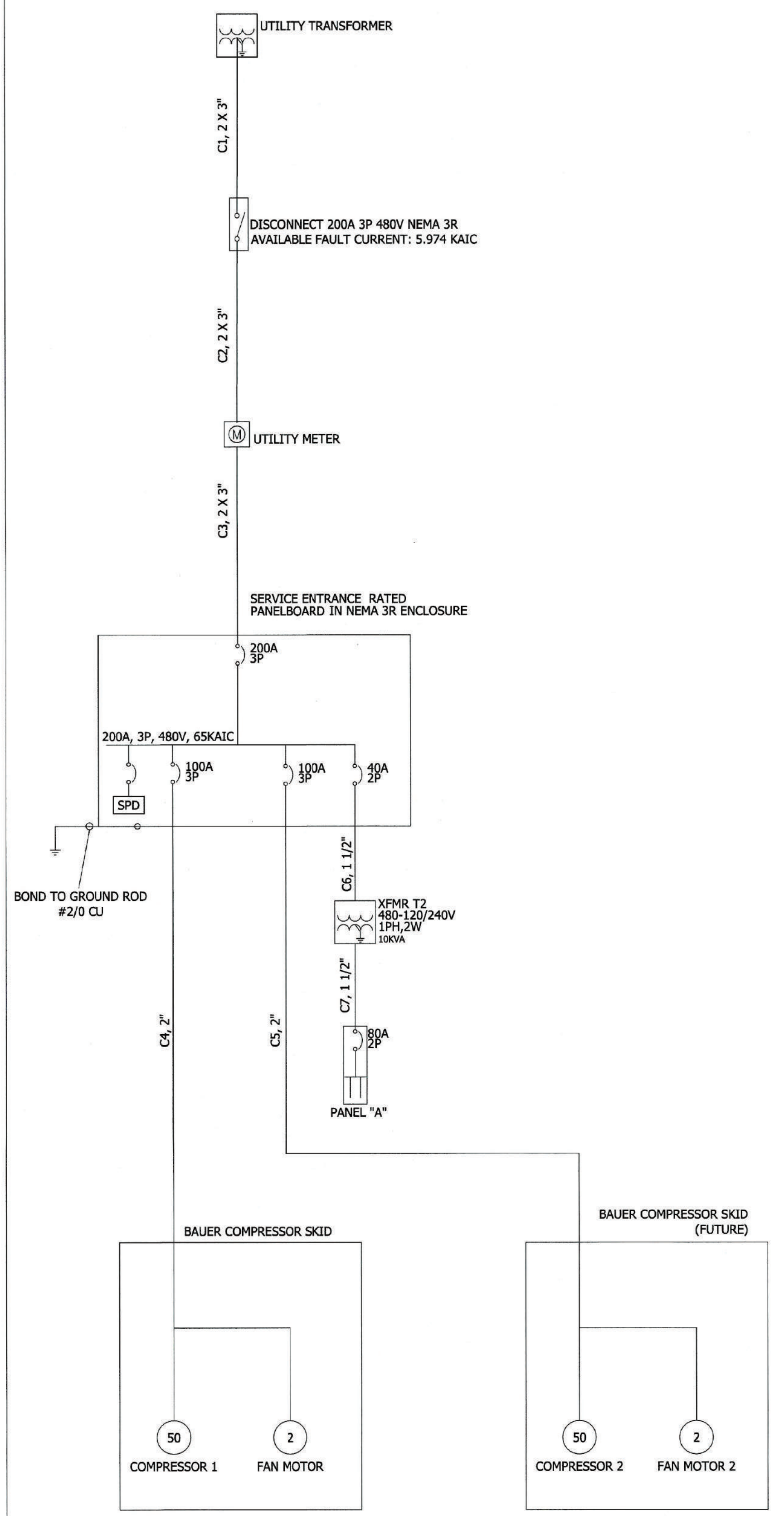
SEQ.

QTY	BHP	Description	FLA	FLA
1	50	COMPRESSOR 1 MOTOR	65	x 1.25 82
1	2	COMPRESSOR 1 FAN MOTOR	3.4	3.4
1	50	FUTURE COMPRESSOR 2 MOTOR	65	65
1	2	FUTURE COMPRESSOR 2 FAN MOTOR	3.4	3.4
1	10KVA	SITE 120V TRANSFORMER	21	21
Total			174.8	

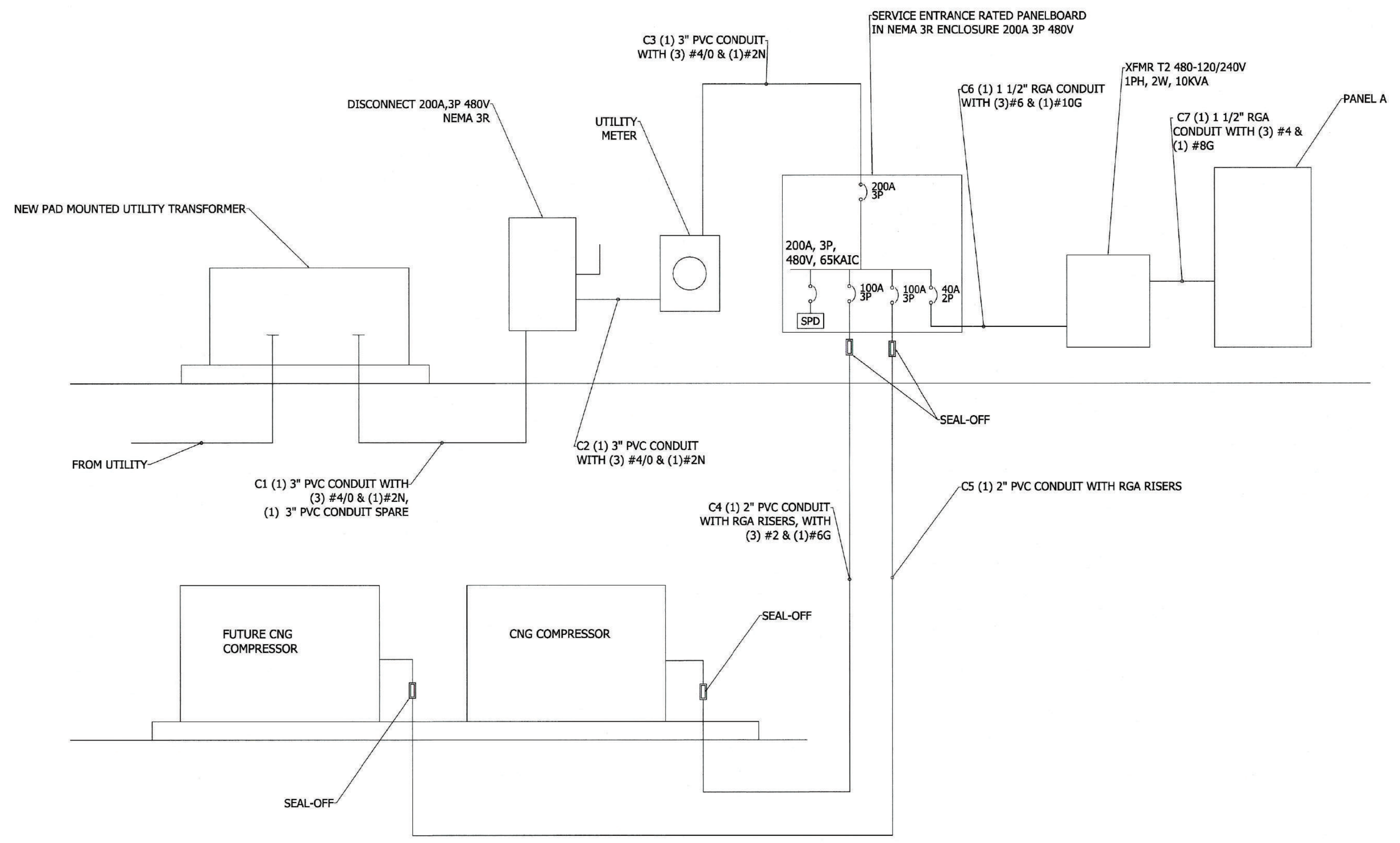
2 LOAD TABLE
N.T.S.

DESCRIPTION	BREAKER		VOLT AMPS		CKT NO	CKT NO	VOLT AMPS		BREAKER		DESCRIPTION
	POLE	AMP	A	B			A	B	POLE	AMP	
EQUIPMENT YARD LIGHT	1	20	600		1	2	360		1	20	COMPANEL RECEPTACLE
FUTURE DISPENSER	1	20	600	600	3	4	360	360	1	20	EQUIPMENT YARD RECEPTACLE
FUTURE CARD READER	1	20	600		5	6	500		1	20	SPACE
SPACE	1	20		500	7	8					SPACE
SPACE					9	10					SPACE
SPACE					11	12					SPACE
SPACE					13	14					SPACE
SPACE					15	16					SPACE
SPACE					17	18					SPACE
SPACE					19	20					SPACE
CONNECTED BUS A			2,060	VA			1200	1100			DEMAND KVA:
CONNECTED BUS B			1,460	VA			TOTAL: 3520		860	360	DEMAND AMPS:
											29.3

3 PANEL A SCHEDULE
N.T.S.

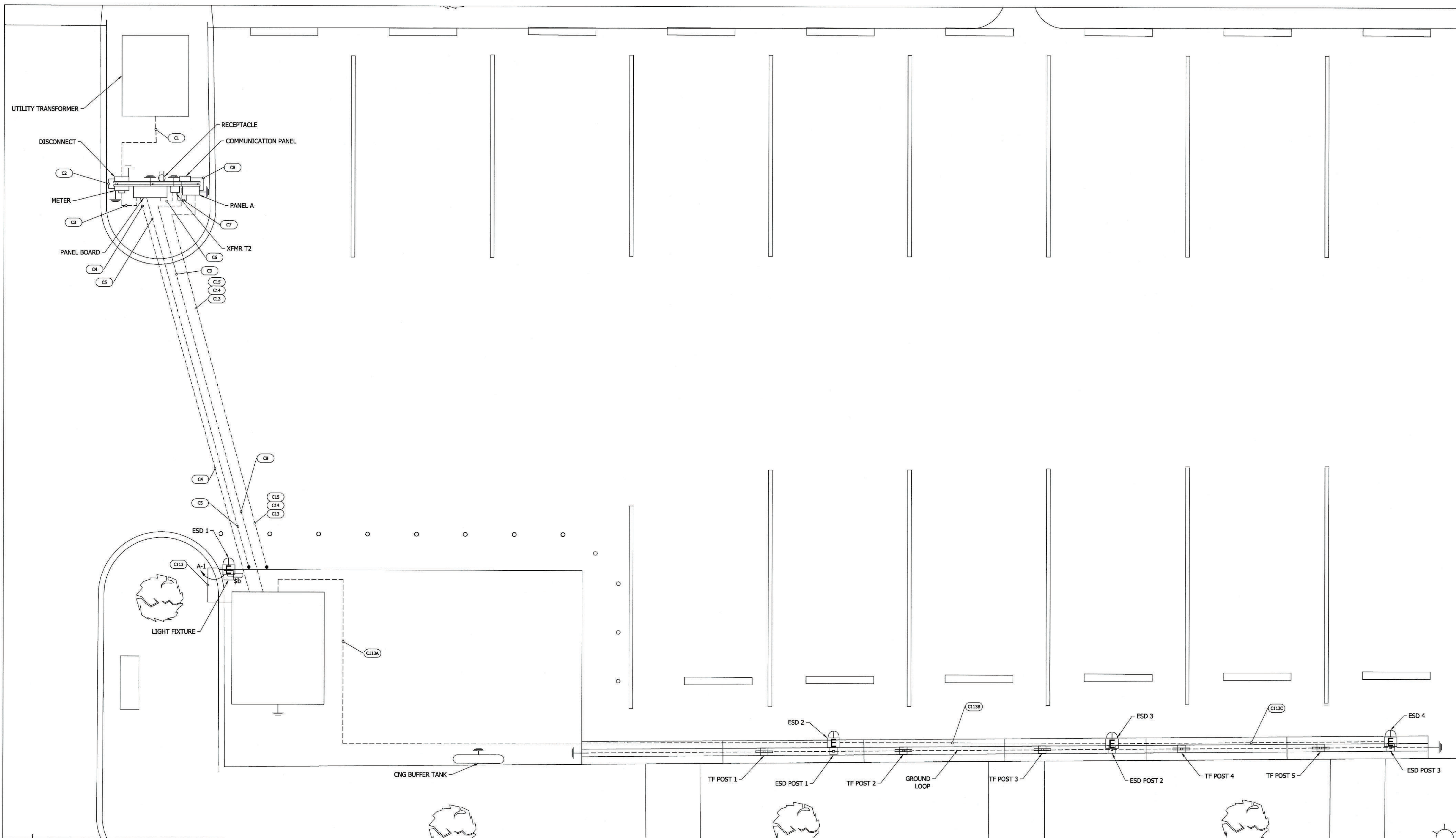


1 ONE-LINE DIAGRAM
N.T.S.



3 ELECTRICAL RISER
N.T.S.

FREASE AND NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort Worth, TX 76109
 Phone: 817-881-5820



GENERAL NOTES

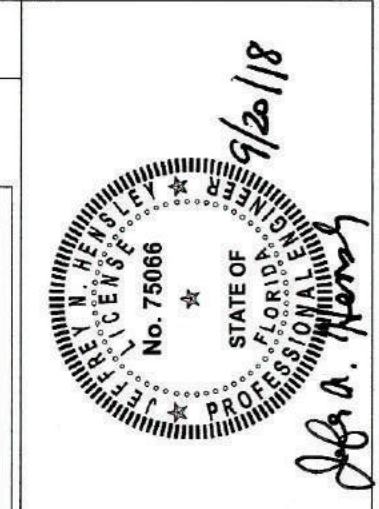
1. ALL GROUNDING SHALL BE #2CU OR LARGER.
2. INCOMING SERVICE EQUIPMENT ALL OTHER ELECTRICAL EQUIPMENT MOUNTING RACK SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. PROVIDE CONDUIT SEAL OFFS ON ALL CONDUITS (ON BOTH ENDS OF THE CONDUITS) BETWEEN HAZARDOUS AND NON HAZARDOUS AREAS.
4. EMERGENCY SHUT-DOWN MUST DISCONNECT ALL CIRCUITS LEADING TO AND THROUGH DISPENSING EQUIPMENT INCLUDING POWER AND COMMUNICATION CIRCUITS.
5. BOND CONDUITS AND METAL ACCORDING TO NEC 501.30
6. CONTRACTOR SHALL PROVIDE PULL BOXES AS REQUIRED PER THE NATIONAL ELECTRICAL CODE.
7. COORDINATE WITH ELECTRICAL UTILITY FOR CONDUITS TERMINATIONS.
8. PROVIDE EQUIPMENT AREA LIGHT FIXTURE 2 FOR CLASS I DIV 2 HAZARDOUS AREA, AS MANUFACTURED BY COOPER GROUSE -HINDS MODEL NUMBER VMV-F-P-084/UNV-S826. PROVIDE 10' STRAIGHT STEEL POLE. POLE SHALL HAVE 140MPH EPA RATING MINIMUM, WITH FIXTURE. CONTRACTOR RESPONSIBLE FOR PROVIDING ALL MOUNTING HARDWARE AS REQUIRED.
9. LIGHT FIXTURE SWITCH SHALL BE RATED FOR CLASS I DIV 2 HAZARDOUS AREA AND SHALL BE MOUNTED ON LIGHT POLE.
10. REFER TO SHEET E-6 FOR CONDUITS AND WIRES SCHEDULE.
11. AN 18" SEPERATION BETWEEN ETHERNET CCONDUIT AND POWER CONDUITS TO AVOID INTERFERENCE.



LEGEND

--- ELECTRICAL CONDUIT

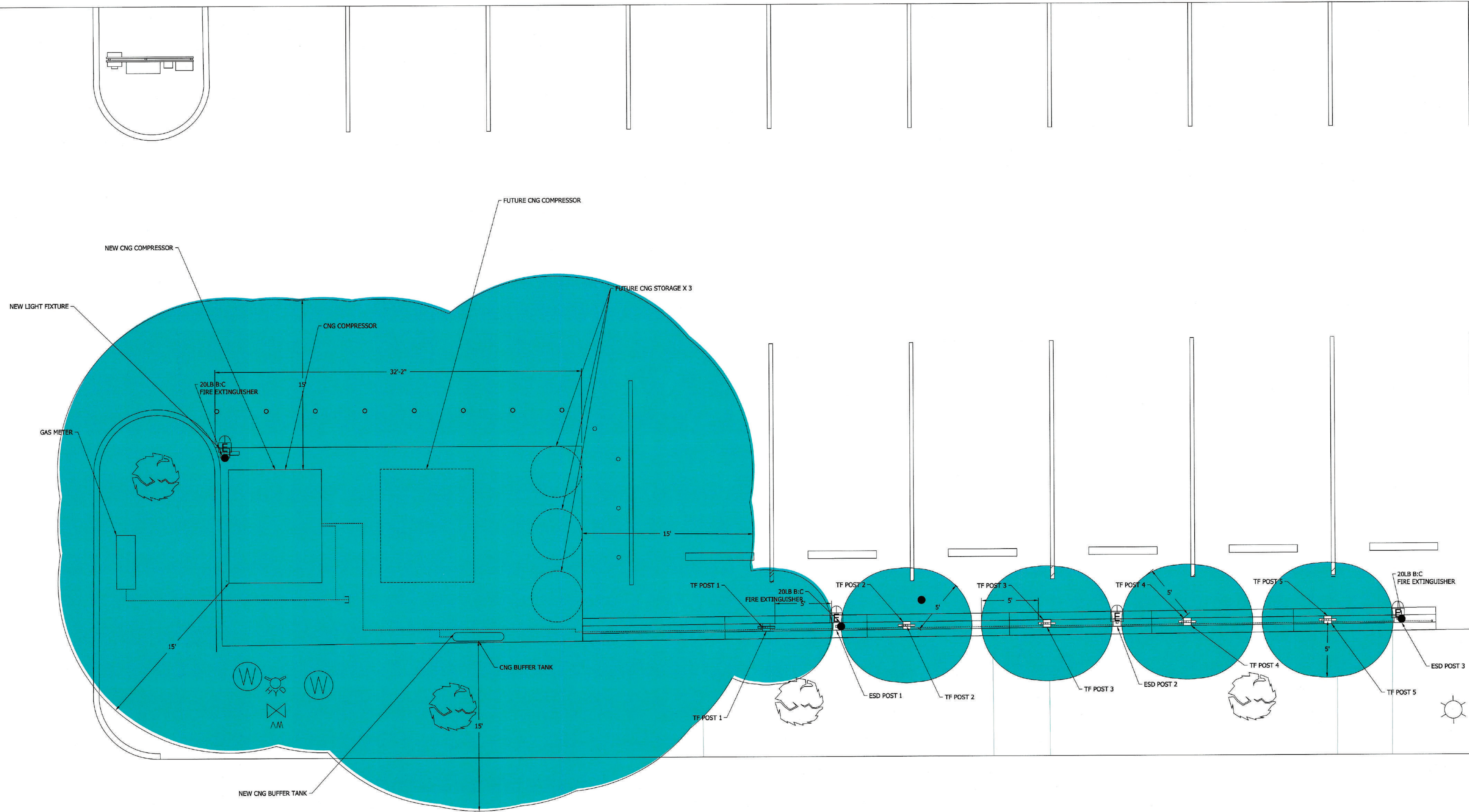
FREASE & NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort worth, TX 76109
 Phone: 817-881-5820



ZETT ENERGY
 ZETT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75202
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 S 37TH STREET FORT PIERCE FL, 34947
ELECTRICAL
SITE PLAN

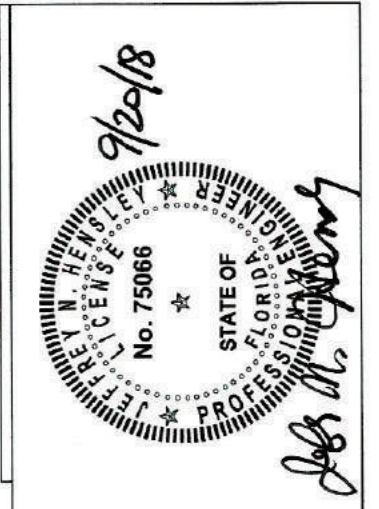
NO.	ISSUE	FILE NAME
1	CONSTRUCTION DOCUMENT	FPLUA
2		
3		
4		
VERIFY SCALE		0
Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.		1
BY		ZE
DATE		9/18/18
DESIGNED		YR
DRAWN		YR
REVISED		YR
CHECKED		YR
JOB NO.		FPLUA
SHEET		F-3
SEQ.		



1 HAZARDOUS AREA PLAN
1/4" = 1'-0"



LEGEND
 HAZARDOUS AREA CLASS 1 DIV 2



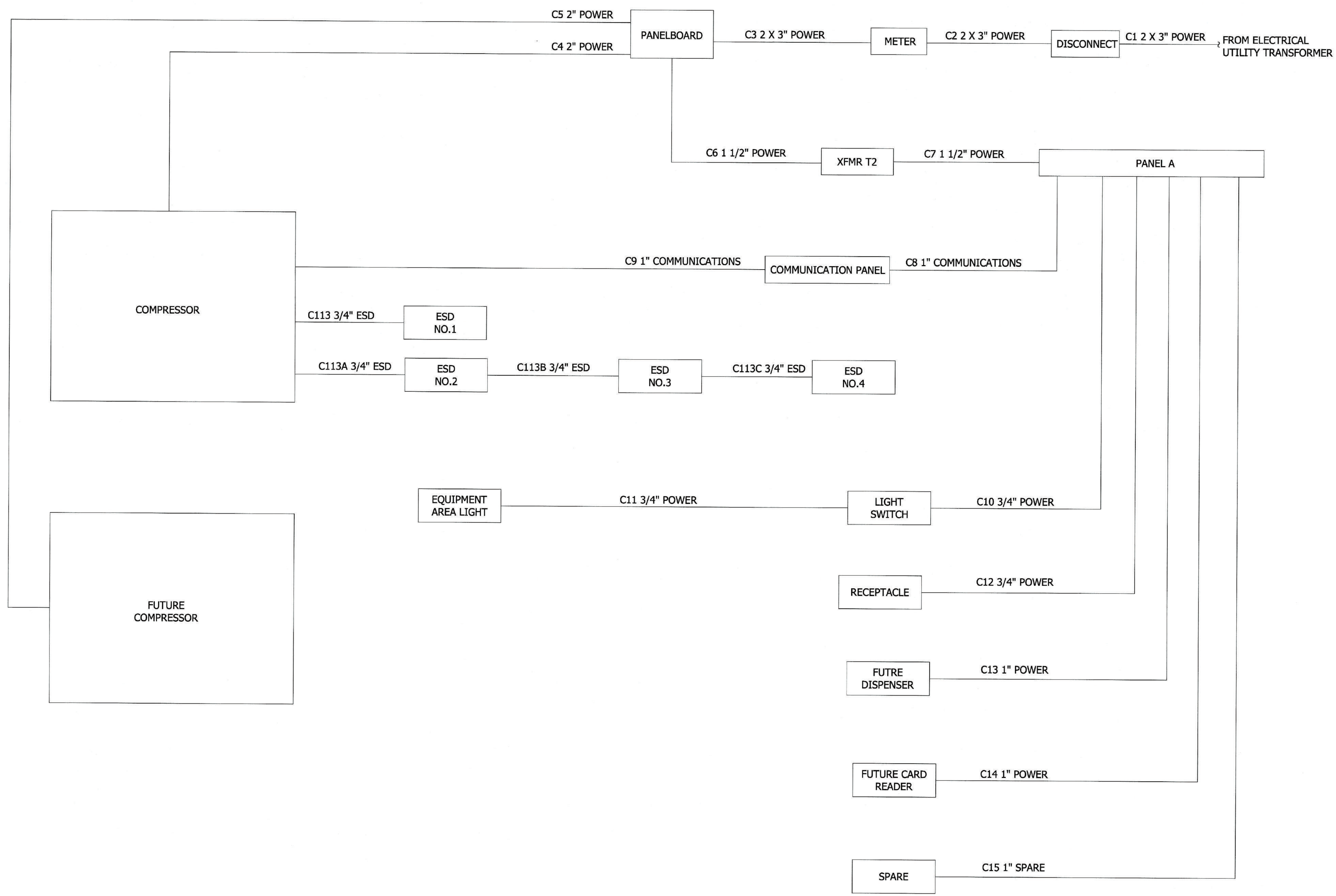
ZEIT ENERGY
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75202
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 S 37TH STREET FORT PIERCE FL, 34947
ELECTRICAL
HAZARDOUS AREAS PLAN

NO.	ISSUE	BY	DATE	DESIGNED	DRAWN	REVISION	FILE NAME
1	CONSTRUCTION DOCUMENT	ZE	9/18/18	YR	YR		FPLA
2		ZE					
3		ZE					
4		ZE					

By is one inch or original drawing if not one inch on this sheet, adjust scale.
 VERIFY SCALE

FREASE AND NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort Worth, TX 76109
 Phone: 817-881-5820



ZEIT ENERGY
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75240
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947
ELECTRICAL INTERCONNECTION DIAGRAM

NO. 1	ISSUE	BY	DATE	DESIGNED	DRAWN	REVISION	FILE NAME
1	CONSTRUCTION DOCUMENT	ZE	9/18/18	ZE	ZE	-	PRUA
2							
3							
4							

VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SEQ. **F-5**

FREESE AND NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort Worth, TX 76109
 Phone: 817-881-5820

CONDUIT	CONDUIT SIZE	FROM	TO	COMMENT
C1	2 X 3" PVC	UTILITY TRANSFORMER	DISCONNECT	1 CONDUIT AS SPARE
C2	2 X 3" PVC	DISCONNECT	METER	1 CONDUIT AS SPARE
C3	2 X 3" PVC	METER	PANELBOARD	1 CONDUIT AS SPARE
C4	2" PVC WITH RGA RISER	PANELBOARD	CNG COMPRESSOR	
C5	2" PVC WITH RGA RISER	PANELBOARD	CONDUIT SHALL BE CAPPED AT EQUIPMENT PAD	FUTURE CNG COMPRESSOR
C6	1 1/2" RGA	PANELBOARD	TRANSFORMER T2	
C7	1 1/2" RGA	TRANSFORMER T2	PANEL A	
C8	1" RGA	PANEL A	COMMUNICATION PANEL	
C9	1" RGA	COMMUNICATION PANEL	CNG COMPRESSOR	
C10	3/4" PVC WITH RGA RISERS	PANEL A	LIGHT SWITCH	
C11	3/4" RGA	LIGHT SWITCH	LIGHT FIXTURE	
C12	3/4" RGA	PANEL A	RECEPTACLE	
C13	1" RGA	PANEL A	CONDUIT SHALL BE CAPPED AT EQUIPMENT PAD	FUTURE CNG DISPENSER
C14	1" RGA	PANEL A	CONDUIT SHALL BE CAPPED AT EQUIPMENT PAD	FUTURE CARD READER
C15	1" RGA	PANEL A	CONDUIT SHALL BE CAPPED AT EQUIPMENT PAD	SPARE CONDUIT
C113	3/4" RGA	CNG COMPRESSOR	ESD 1	
C113A	3/4" RGA	CNG COMPRESSOR	ESD 2	
C113B	3/4" RGA	ESD 2	ESD 3	
C113C	3/4" RGA	ESD 3	ESD 4	

CONDUCTOR	FROM	TO	CONDUIT ROUTING	CONDUCTOR TYPE	DESCRIPTION
3 #4/0, #2N	UTILITY TRANSFORMER	DISCONNECT	C1	POWER	DISCONNECT POWER
3 #4/0, #2N	DISCONNECT	METER	C2	POWER	METER POWER
3 #4/0, #2N	METER	PANELBOARD	C3	POWER	PANELBOARD POWER
3 #2, #6G	PANELBOARD	CNG COMPRESSOR	C4	POWER	COMPRESSOR MOTOR POWER
3 #6, #10G	PANELBOARD	TRANSFORMER T2	C6	POWER	TRANSFORMER T2 POWER
3 #4, #8G	TRANSFORMER T2	PANEL A	C7	POWER	PANEL A POWER
2 #12, #12G	PANEL A	COMMUNICATION PANEL	C8	POWER	ROUTER POWER
CAT 5	COMMUNICATION PANEL	CNG COMPRESSOR	C9	COMMUNICATIONS	INTERNET
2 #12, #12G	PANEL A	LIGHT SWITCH	C10	POWER	LIGHT SWITCH POWER
2 #12, #12G	LIGHT SWITCH	LIGHT FIXTURE	C11	POWER	LIGHT FIXTURE POWER
2 #12, #12G	PANEL A	RECEPTACLE	C12	POWER	RECEPTACLE POWER
2 #14, #14G	CNG COMPRESSOR	ESD 1	C113	ESD	ESD 1 POWER
2 #14, #14G	CNG COMPRESSOR	ESD 2	C113A	ESD	ESD 2 POWER
2 #14, #14G	ESD 2	ESD 3	C113B	ESD	ESD 3 POWER
2 #14, #14G	ESD 3	ESD 4	C113C	ESD	ESD 4 POWER

NOTE:
10% SPARES MUST BE INCLUDED AND CLEARLY LABELED IN
CONDUIT RUNS WHENEVER POSSIBLE



ZEIT ENERGY
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75240
 Phone: 214 773 5394
 Fax: 214 593 3344

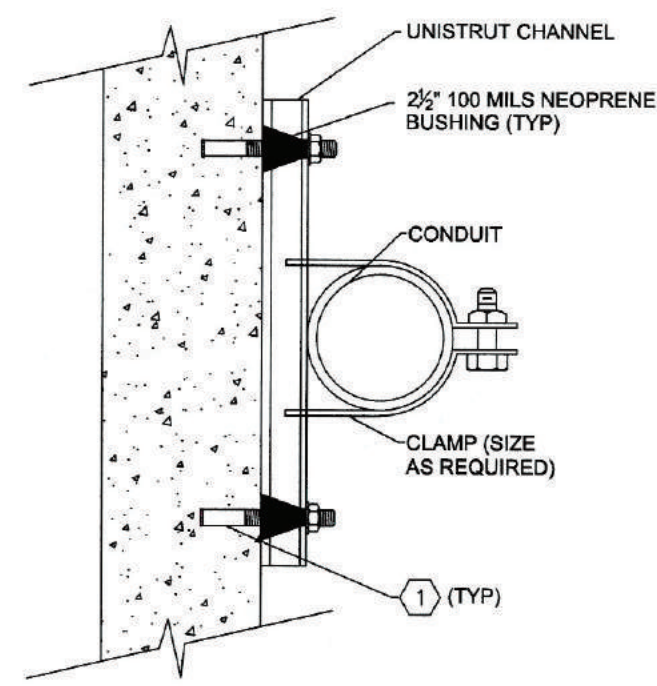
FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947
 ELECTRICAL
 CONDUIT AND CABLE SCHEDULE

NO. 1 ISSUE	BY	DATE	DESIGNED	DRAWN	REVISIONS	FILE NAME
1 CONSTRUCTION DOCUMENT	ZE	9/10/18	ZE	ZE	-	FPLA
2	ZE					
3	ZE					
4	ZE					

Scale: 1" = 10' (not on this sheet, adjust scale.)

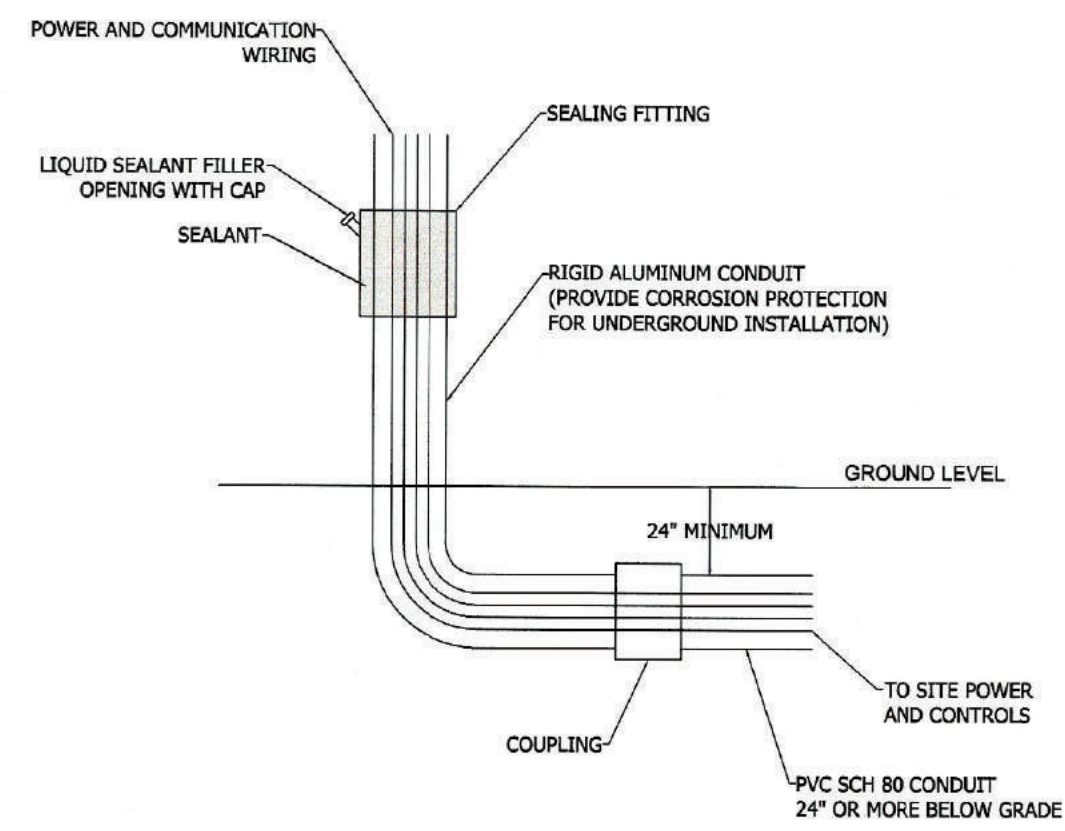
SEQ. **E-6**

FREASE AND NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort worth, TX 76109
 Phone: 817-881-5820

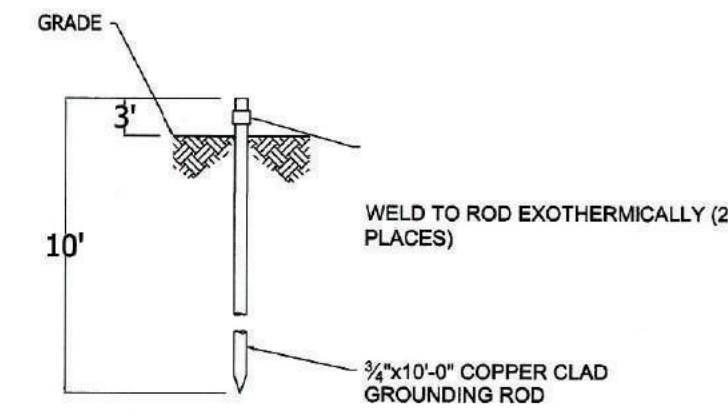


NOTES BY SYMBOL
 1. 1/2\"/>

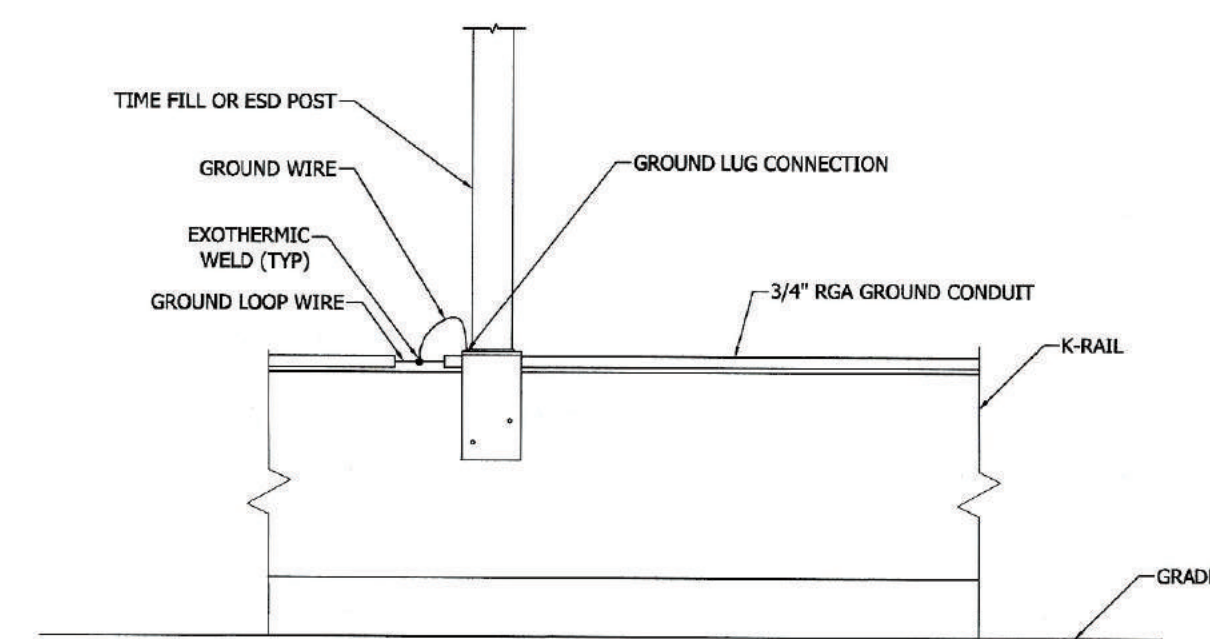
201 GROUND OR WALL EXPOSED CONDUIT INSTALLATION
 N.T.S.



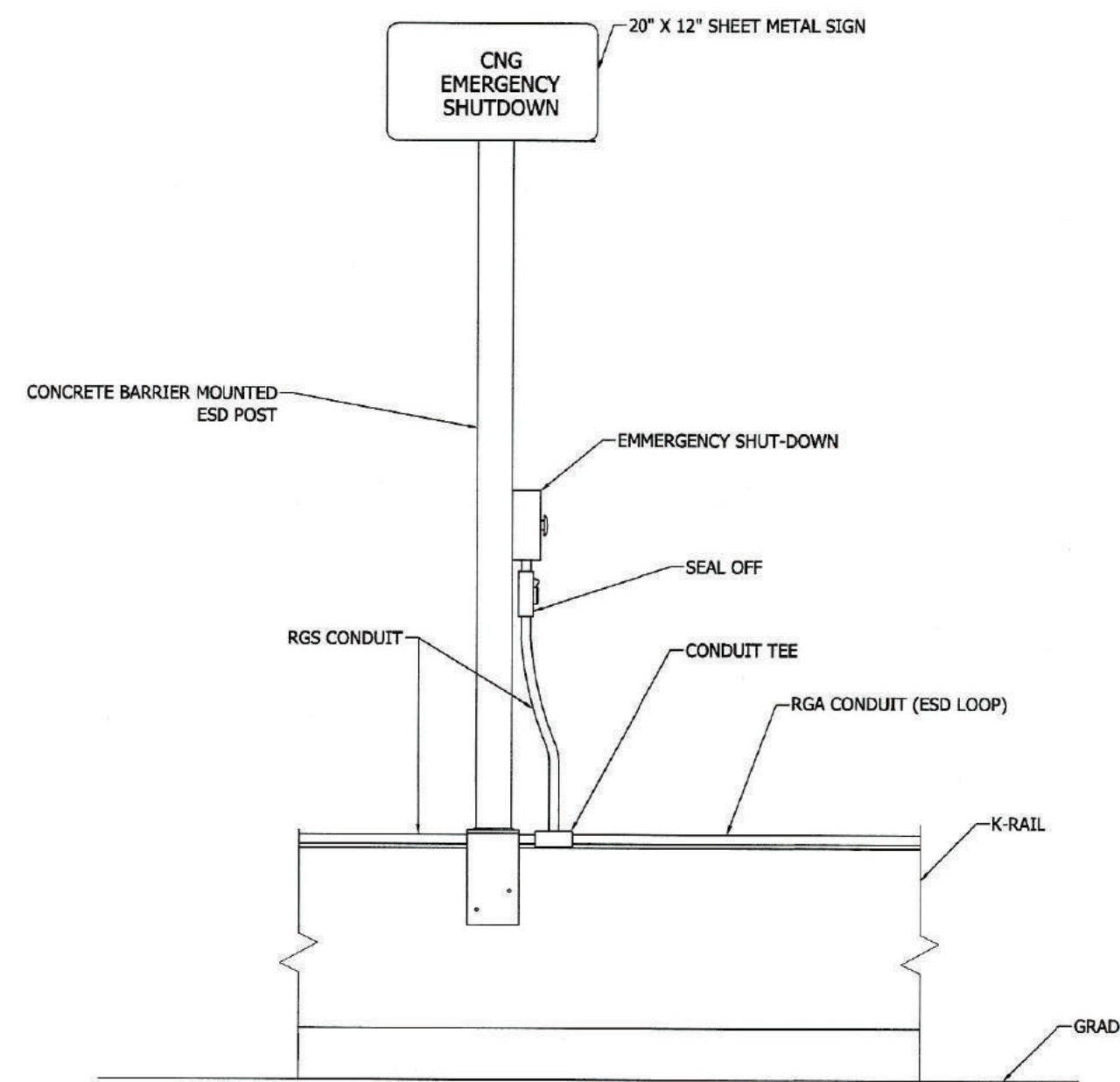
201 UNDERGROUND CONDUIT SEAL-OFF
 N.T.S.



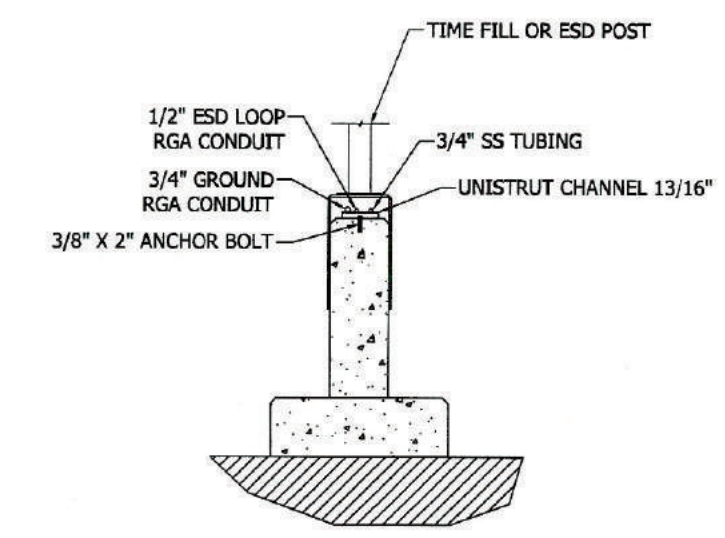
202 GROUNDING/GROUND ROD DETAIL
 N.T.S.



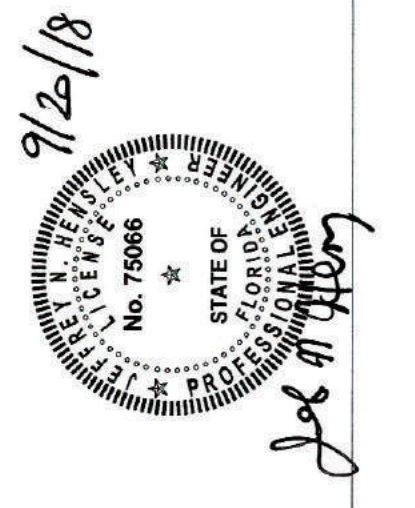
203 TIME FILL/ESD POST GROUNDING
 N.T.S.



204 ESD LOOP DETAIL CONCRETE WALL INSTALLATION
 N.T.S.



205 TIME FILL/ESD POST CONCRETE WALL INSTALLATION SECTION VIEW
 N.T.S.



ZEITT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75240
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947
 CIVIL
 DETAILS

NO. 1	CONSTRUCTION DOCUMENT	BY ZE	DATE 9/18/18	DESIGNED YR	DRAWN YR	REVISED	CHECKED	FILE NAME
2		ZE						FP1A
3		ZE						
4		ZE						

VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SEQ. F-7

FREASE AND NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort worth, TX 76109
 Phone: 817-881-5820

GENERAL NOTES:

1. COORDINATE WORK WITH LOCAL UTILITY COMPANY(S) TO FACILITATE INSTALLATION OF NEW SERVICE. PROVIDE ANY NECESSARY PADS OR BARRIERS AS REQUIRED BY UTILITY COMPANY STANDARD AND LOCAL ORDINANCES.
2. ALL BELOW GROUND CARBON STEEL LINES SHALL BE PVC COATED OR COATED AND MACHINE WRAPPED, AND CATHODICALLY PROTECTED IN ACCORDANCE WITH AGA STANDARDS, NACE STD RP0169 AND LOCAL UTILITY COMPANY REQUIREMENTS, AND SHALL BE ELECTRICALLY ISOLATED USING LISTED DI-ELECTRIC UNIONS OR FLANGE KITS. ALL ABOVE GROUND NATURAL GAS LINES SHALL BE CLEANED, PRIMED AND PAINTED GRAY. CATHODIC PROTECTION SYSTEM SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
3. BURIED PORTIONS OF STAINLESS STEEL TUBING RUNS, IF USED, SHALL BE INSTALLED INSIDE A CONTINUOUS PVC CONDUIT OR SIMILAR SLEEVES. ALL UNDERGROUND CNG TUBING SHALL BE CONTINUOUS WITH NO BURIED OR INACCESSIBLE MECHANICAL JOINTS, FITTINGS OR CONNECTIONS. PARALLEL TUBE RUNS MAY BE INSTALLED WITHIN A COMMON LINER WHERE APPLICABLE.
4. VENT PIPING SHIPPED LOOSE WITH COMPRESSOR SKID. PRIME AND PAINT BLACK. PROVIDE RAIN CAP OR SOCK TO PREVENT WATER INTRUSION.
5. VENT STACKS SIZED TO BE EQUAL TO, OR EXCEED, SUM OF CROSS SECTIONAL AREA OF DISCHARGE OF ALL RELIEF VALVES SERVED. TERMINATE WITH VENT CAP OR SOCK AT 10' A.G.L.. PROVIDE WEEP HOLE OR DRAIN VALVE AT BASE OF STACK TO PREVENT ACCUMULATION OF WATER IN STACK. PAINT STACK BLACK, PAINT SHALL BE A MINIMUM OF 2 COATS OF WEATHERPROOF ENAMEL.
6. LOCKABLE SERVICE VALVES PROVIDED BY VENDOR ON INLET AND OUTLET OF EACH CNG STORAGE VESSEL. PADLOCKS WILL BE PROVIDED BY OWNER.
7. CONTRACTOR SHALL PROVIDE PVC PIPE SLEEVES FOR ALL METAL .
8. WHERE APPLICABLE, PROVIDE LONG RADIUS BENDS FOR BELOW GRADE 316 SS TUBING IN LIEU OF FITTINGS.
9. PIPE UNIONS, VALVES, COUPLINGS OR SIMILAR FITTINGS SHALL NOT BE BURIED NOR INACCESSIBLE FOR TESTING AND INSPECTION.
10. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. ALL PIPING ABOVE GRADE SHALL BE LABELED WITH THE NAME OF THE MATERIALS CONVEYED AND WITH DIRECTIONAL FLOW ARROWS.
11. ALL EXPOSED CARBON STEEL GAS PIPING SHALL BE PRIMED AND PAINTED.
12. ALL PIPE AND TUBING WELDING SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE NATIONAL FUEL GAS CODE AND ANSI B31.3 AND SHALL BE PERFORMED BY CERTIFIED PIPE WELDERS. PROVIDE PROOF OF CERTIFICATION AND WELDING PROCEDURES FOR REVIEW PRIOR TO COMMENCEMENT OF WORK.

DESIGN CONDITIONS

- A. THIS CNG STATION HAS BEEN DESIGNED WITH THE FOLLOWING PRESSURE AND TEMPERATURE PARAMETERS.
- OPERATING PRESSURE: 4500 psig
 - DESIGN PRESSURE: 5000 psig
 - DESIGN TEMPERATURE: 20 TO 110 DEG F

PIPE SPECIFICATIONS

- A. NATURAL GAS ABOVE AND BELOW GRADE
1. CARBON STEEL: ASTM 106 GRADE B SCHEDULE 80 BLACK.
 - a. ALL FITTINGS : 2 " AND UNDER - CARBON STEEL, SOCKET WELD OR SCREWED. GREATER THAN 2" - CARBON STEEL, BUTT WELD.
 - B. COMPRESSED NATURAL GAS (CNG) TUBING
 - TUBING(SST)- SEAMLESS, BRIGHT ANNEALED TUBE FOR GENERAL SERVICE CONFORMING TO THE REQUIREMENTS OF ROCKWELL 80 ASTM SA-213, FOR GRADES TP 304 OR TP 316 MATERIAL HAVING A MINIMUM ULTIMATE TENSILE STRENGTH OF 75,000 PSI. TUBING SHALL BE COLD FINISHED AND FREE OF SCRATCHES. ALL TUBING IS SIZED ACCORDING TO THE MAXIMUM EXPECTED FLOW RATE AND MUST BE INSTALLED PER THE DRAWINGS. NO TUBING WITH OTHER THAN THE MINIMUM WALL THICKNESS REQUIRED IS TO BE USED WITHOUT THE APPROVAL OF THE OWNER. THE INTERNAL AND EXTERNAL SURFACES OF THE TUBING SHALL BE PROVIDED WITH ADEQUATE PROTECTION FROM CORROSION AND ABRASION DURING NORMAL HANDLING AND STORAGE. THE MANUFACTURER OR VENDOR SHALL BE PREPARED TO CERTIFY THAT ALL TUBING CONFORMS TO THE REQUIREMENTS OF THIS SPECIFICATION AND SHALL PROVIDE FORMAL MILL CERTIFICATE FOR EACH LOT.
 - ALL UNDERGROUND TUBING SHALL BE CONTINUOUS WITH NO INTERMEDIATE JOINTS FITTINGS OR UNIONS THAT ARE INACCESSIBLE AND SHALL BE INSTALLED INSIDE A BURIED PLASTIC PIPE OR PVC CONDUIT SLEEVE.

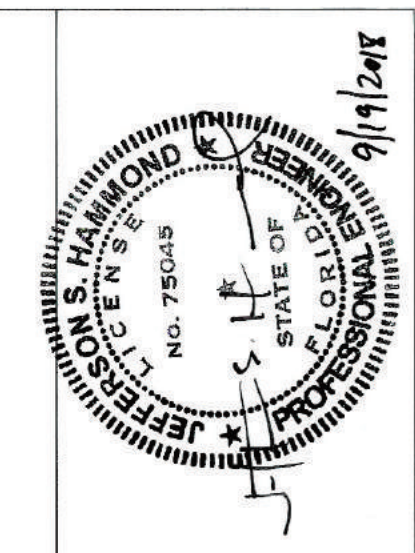
SLEEVE (FOR BURIED TUBING): PVC OR PLP(POLYETHYLENE) PIPE.
ALL PIPES MUST BE BURIED NO LESS THAN 18" BELOW GRADE PER NFPA 52 REQUIREMENTS.

TESTING

1. INSTALLED SS TUBING SHALL BE PRESSURE TESTED WITH NITROGEN AT 4500 PSI. TEST MUST RUN FOR AT LEAST 30 MIN.
2. CARBON STEEL INLET SHALL BE TESTED AT 1.5 MAWP. AIR IS ACCEPTABLE AS MEDIUM FOR TEST. TEST MUST RUN FOR AT LEAST 30 MIN.
3. CONTRACTOR SHALL USE AN APPROVED LEAK DETECTION SOLUTION TO TEST ALL PIPE FITTINGS AND CONNECTIONS DURING TESTING AND AT START-UP.

PURGING AND PRESSURIZING

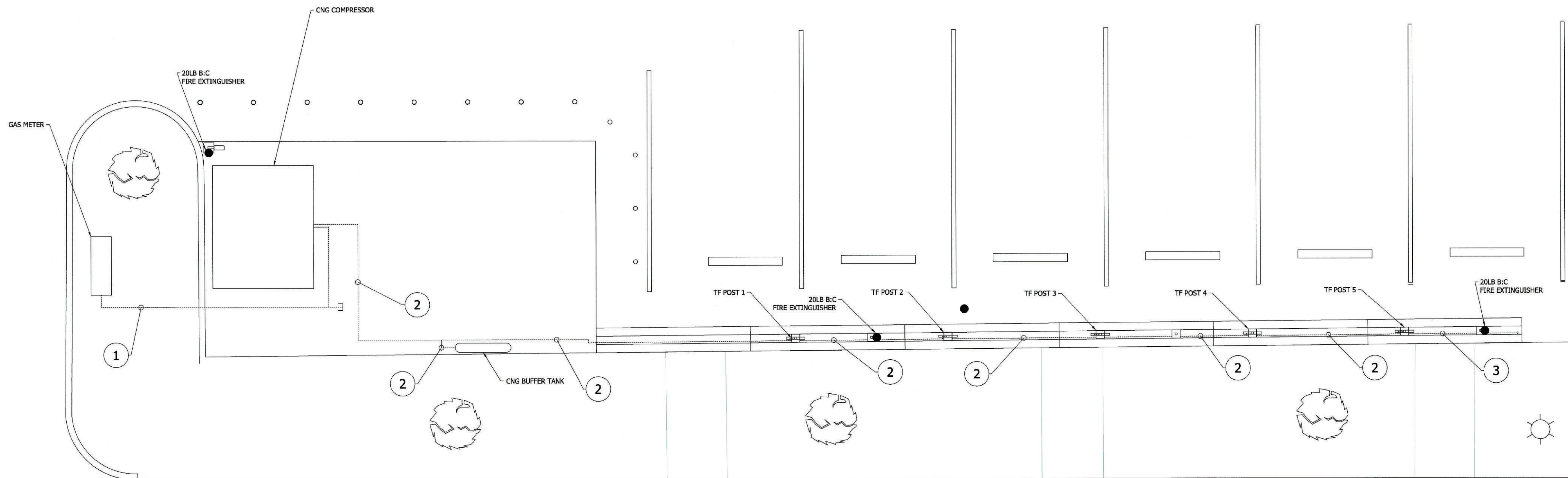
1. ALL PURGING AND PRESSURIZING SHALL BE DONE BY CONTRACTOR AND OBSERVED BY THE OWNER OR DESIGNATED REPRESENTATIVE.
2. PRIOR TO PRESSURIZING THE SYSTEM WITH NATURAL GAS, THE ESD SYSTEM MUST BE OPERATIONAL. NATURAL GAS SHALL NOT BE INTRODUCED INTO THE SYSTEM WITHOUT PRIOR AUTHORIZATION FROM THE OWNER. ALL AIR SHALL BE PURGED FROM THE ENTIRE SYSTEM TO THE SATISFACTION OF THE OWNER AND IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS PRIOR TO PRESSURIZING THE SYSTEM.
3. PRIOR TO NATURAL GAS BEING INTRODUCED INTO ANY PIPING SYSTEM, ALL FABRICATION, TESTING AND WORK REQUIRING FLAME OR SPARKING DEVICES SHALL BE COMPLETE. AFTER NATURAL GAS HAS BEEN INTRODUCED, THE OWNER SHALL DO WELDING OR OTHER WORK, WHICH COULD IGNITE NATURAL GAS VAPORS, ONLY UPON AUTHORIZATION.
4. ONCE THE SYSTEM IS PRESSURIZED (TO FULL OPERATING PRESSURE) ALL VALVES, WELDS, JOINTS AND FITTINGS SHALL BE LEAK TESTED AT FULL OPERATING PRESSURE.
5. FINAL LEAK TEST SHALL BE WITNESSED BY OWNER.



ZEIT ENERGY
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75240
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947
MECHANICAL
GENERAL NOTES

NO. ISSUE	1	CONSTRUCTION DOCUMENT	BY	ZE	DATE	9/16/18	DESIGNED YR	ZE	DRAWN YR	ZE	REVISED	FILE NAME	FP/UA
	2		ZE										
	3		ZE										
	4		ZE										
SHEET	Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.												
SEQ.	M-1												



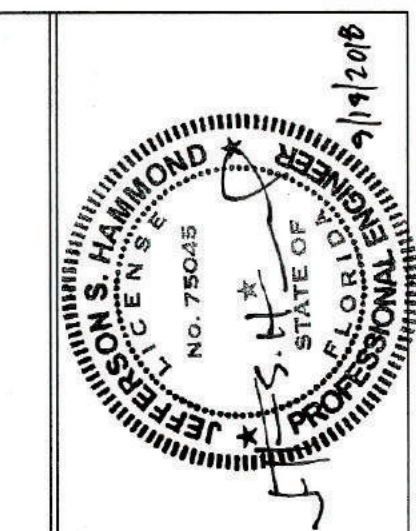
GENERAL NOTES

- ALL EXISTING PIPING AND TUBING TO EXISTING EQUIPMENT SHALL REMAIN AND IS NOT PART OF THE SCOPE OF THIS PROJECT, UNLESS OTHERWISE NOTED.
- COMPRESSOR SCFM: 75
- AVAILABLE MAX GAS PRESSURE AT THE UTILITY METER: 45 PSI

NOTES BY SYMBOL "○"

1. 2" CARBON STEEL SCH 40 INLET GAS LINE ABOVE GROUND FROM GAS METER TO CNG COMPRESSOR
2. 1/2" SS TUBING, 0.083 W.T. ABOVE GROUND FROM CNG COMPRESSOR TO TF POSTS AND CNG BUFFER TANK
3. RUN 1/2" SS TUBING, 0.083 W.T. ABOVE GROUND TO END OF K-RAIL AND CAP. TO BE USED FOR FUTURE ADDITION

--- NEW PIPING/TUBING



ZEIT ENERGY
 CNG Fuel System Services
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75202
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 S 37TH STREET FORT PIERCE FL, 34947

MECHANICAL
SITE PLAN

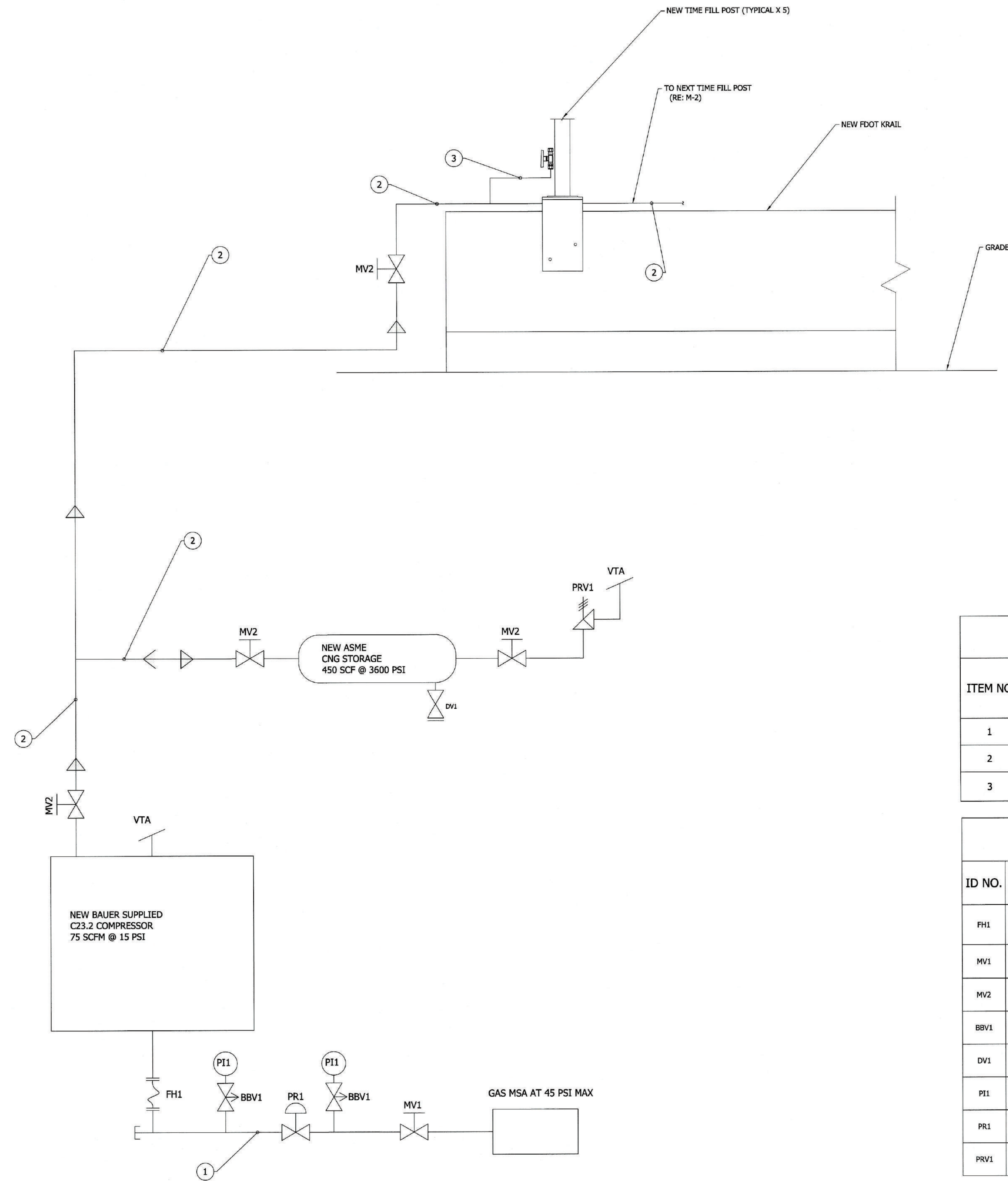
NO.	ISSUE	BY	DATE	DESIGNED	DRAWN	REVISION	CHECKED	FILE NAME
1	CONSTRUCTION DOCUMENT	ZE	9/18/18					FPIUA
2								
3								
4								

VERIFY SCALE: Base is on field, all original drawings plotted on this sheet, adjust scale.

NO. SHEET: 1
 SEQ. **M-2**

FREESSE AND NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort Worth, TX 76109
 Phone: 817-881-5820

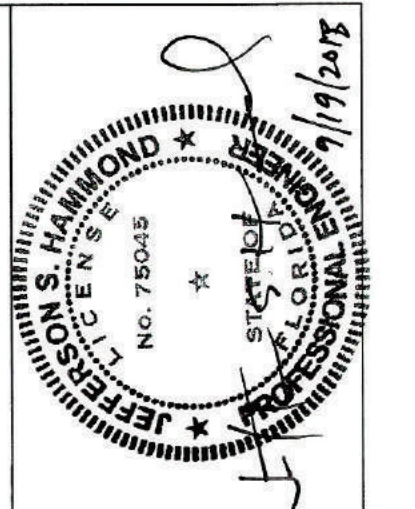
- INLET PIPING GENERAL NOTES:**
1. INLET PIPING FOR NATURAL GAS AT 45 PSI WORKING PRESSURE AND AMBIENT TEMPERATURE.
 2. FIELD VERIFY QUANTITIES AND LENGTHS.
 3. ALL MANUAL SHUT-OFF VALVES SHALL BE QUARTER TURN VALVES.
 4. PROVIDE GASKET AS MANUFACTURED BY FLEXITALLIC.
 5. FLANGE CONNECTIONS TO BE RATED FOR 55 PSI AND AMBIENT TEMPERATURE.
 6. ALL ABOVE GROUND CARBON STEEL PIPING SHALL BE SUPPORTED ON BOTH SIDES OF UNIONS, AT EVERY CHANGE OF DIRECTION AND EVERY 10' OF RUN.



LEGEND	
SYMBOL	DESCRIPTION
	DIRECTION OF FLOW
	CHECK VALVE
	SHUT-OFF BALL VALVE
	PRESSURE RELIEVE VALVE
	VENT TO AIR (VTA)
	BLEED BLOCK VALVE
	DRAIN VALVE
	METER /REGULATOR
	STRAINER Y-TYPE
	PRESSURE REGULATOR
	GAS ACTUATED VALVE
	FLANGED CONNECTION
	FLEX CONNECTOR
	CONE STRAINER
	GAUGE
	REDUCER FITTING
	METR SET ASSEMBLY
	STAINLESS STEEL
	PIPE CAP

PIPE AND TUBING SCHEDULE					
ITEM NO	DESCRIPTION	MATERIAL TYPE	NOMINAL SIZE (IN)	APPROX LENGTH (FT)	PROVIDER
1	PIPE, SCH 40	CARBON STEEL	2	40	CONTRACTOR
2	TUBE, .083 W.T.	316SS	1/2	200	CONTRACTOR
3	TUBE, .065 W.T.	316SS	3/8	40	CONTRACTOR

VALVE AND INSTRUMENT SCHEDULE					
ID NO.	SIZE (IN)	MATERIAL	DESCRIPTION	QTY	PROVIDER
FH1	2	SS	BRAIDED FLEX CONNECTOR, ANSI 150 SERIES	1	CONTRACTOR
MV1	2	CS	SHUT-OFF VALVE, CLASS 150	1	CONTRACTOR
MV2	1/2	SS	BALL VALVE 6000 PSI RATED, FNPT CONNECTION	4	CONTRACTOR
BBV1	1/4	SS	BLEED BLOCK VALVE, MNPT/FNPT CONNECTIONS	2	CONTRACTOR
DV1	1/4	SS	DRAIN NEEDLE VALVE 6000 PSI RATED, FNPT CONNECTION	1	CONTRACTOR
PI1	1	SS	PRESSURE GAUGE 2-1/2, LF(0-100)	2	CONTRACTOR
PR1	2	CAST IRON	PRESSURE REGULATOR VALVE, SET AT 15 PSI	1	CONTRACTOR
PRV1	1	CS	PRESSURE RELIEF VALVE, SET @ 5500 PSI	1	CONTRACTOR



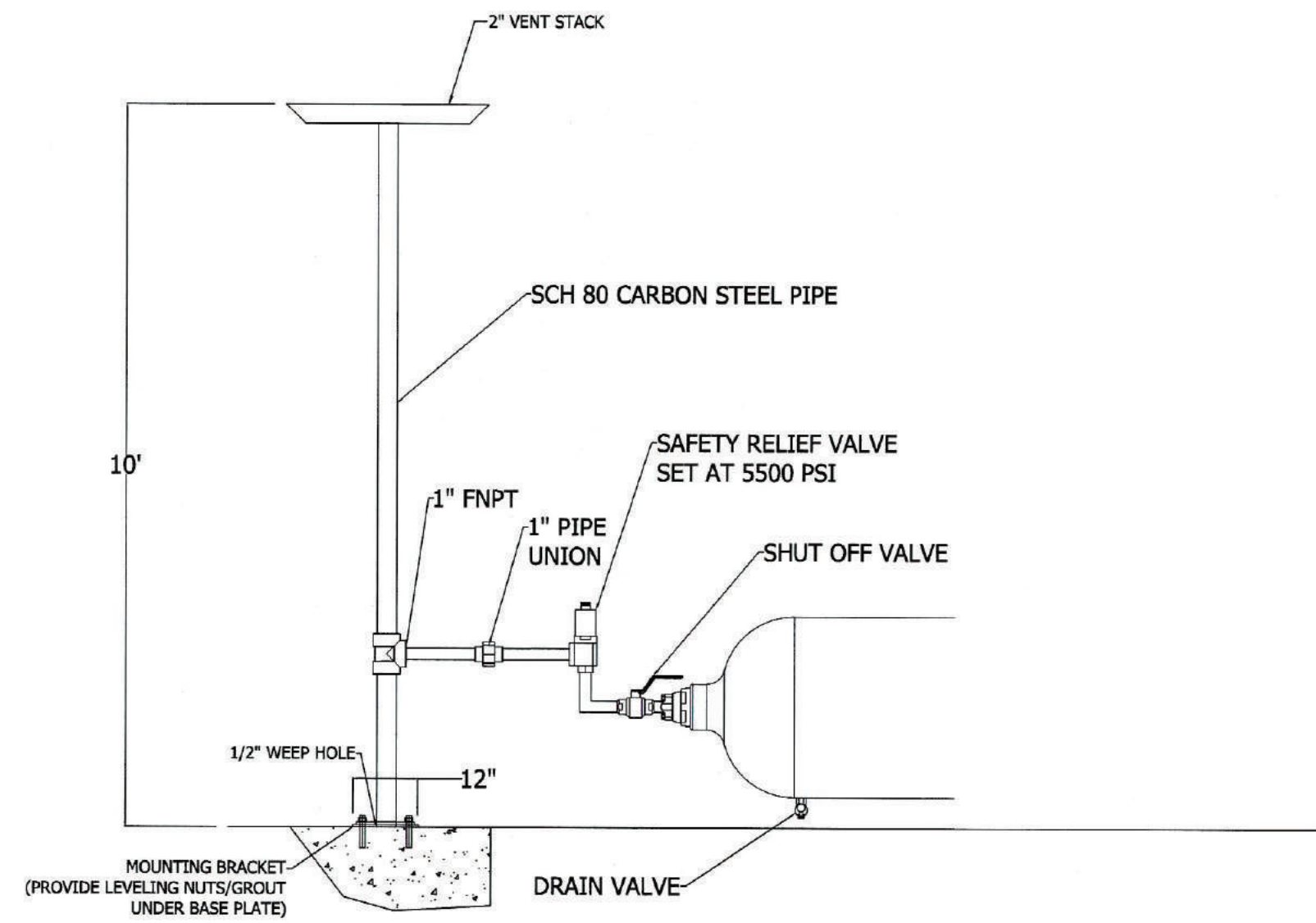
ZEIT ENERGY
 ZEIT ENERGY LLC
 1717 MCKINNEY AVE, STE 700
 DALLAS, TX 75202
 Phone: 214 773 5394
 Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
 1701 S 37TH STREET FORT PIERCE FL, 34947
MECHANICAL P&ID

JOB NO.	FPUA
DATE	9/19/18
DESIGNED	YR
DRAWN	YR
REVISED	YR
CHECKED	
FILE NAME	FPUA

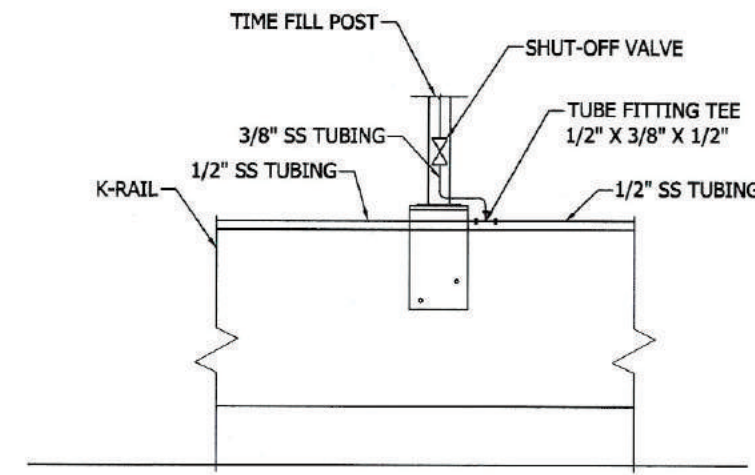
FREASE AND NICHOLS
 Freese and Nichols, INC
 4055 International Plaza #200,
 Fort Worth, TX 76109
 Phone: 817-881-5820

NO. 1 CONSTRUCTION DOCUMENT
 SHEET
 SEQ. M-3

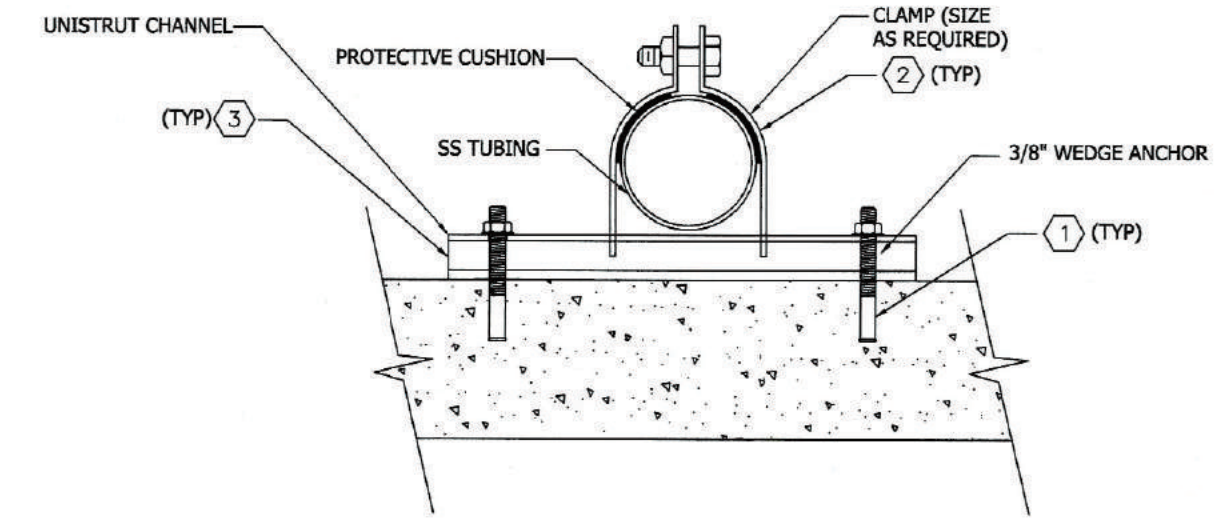


- NOTES:
1. ISOLATION VALVE MUST BE LOCKED IN THE OPEN POSITION.
 2. RELIEF ASSEMBLY TO BE FACTORY ASSEMBLED.

309 STORAGE VENT STACK DETAIL
N.T.S.

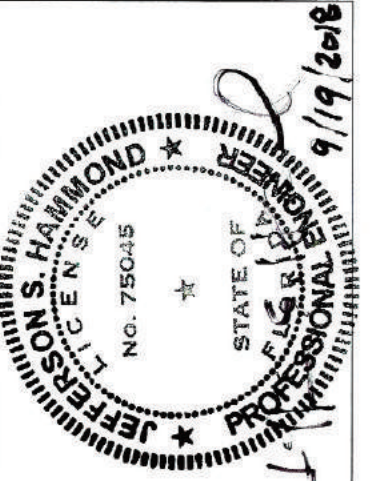


4 TIME FILL POST CONNECTION
N.T.S.



- NOTES BY SYMBOL:
1. 3/8" X 2" DIAMETER CADMIUM ANCHOR BOLT. (PROVIDED BY ZEIT ENERGY)
 2. MILD STEEL HYDRA-ZORB CUSHION CLAMPS OR EQUIVALENT. (PROVIDED BY ZEIT ENERGY)
 3. MILD STEEL 1 5/8" WIDE 13/16" HIGH ANCHOR CHANNEL. (PROVIDED BY ZEIT ENERGY)

302 ABOVE GROUND TUBING INSTALLATION
N.T.S.



ZEIT ENERGY
CNG Stations
ZEIT ENERGY LLC
1717 MCKINNEY AVE, STE 700
DALLAS, TX 75240
Phone: 214 773 5394
Fax: 214 593 3344

FORT PIERCE UTILITIES AUTHORITY - CNG STATION
1701 SOUTH 37TH STREET, FORT PIERCE, FL 34947
MECHANICAL
DETAILS

NO. 1 ISSUE	BY	DATE	DESIGNED YR	DRAWN YR	REVISION	CHECKED	FILE NAME
1 CONSTRUCTION DOCUMENT	ZE	9/18/18					FPUA
2	ZE						
3	ZE						
4	ZE						

VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

SEQ. M-4

FREASE AND NICHOLS
Freese and Nichols, INC
4055 International Plaza #200,
Fort worth, TX 76109
Phone: 817-881-5820