

**PANELBOARD NOTES**

1. TERMINATE GROUND ON ISOLATED GROUND BUS
2. INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-OFF FOR MAINTENANCE)
3. INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-ON FOR CRITICAL LOAD)
4. GFI BREAKER FOR PERSONNEL PROTECTION (30 mA)
5. GFI BREAKER FOR EQUIPMENT PROTECTION (30 mA)
6. CONDUCTOR SIZE SHOWN IN PANEL SCHEDULE HAS BEEN INCREASED FOR VOLTAGE DROP EQUIPMENT PROPORTIONALLY PER NEC. REFERENCE GROUND WIRE SIZING CHART.
7. REFER TO ONE-LINE DIAGRAM FOR AVAILABLE FAULT CURRENT FOR INTERRUPT RATINGS.
8. REFER TO ONE-LINE DIAGRAM FOR WIRE SIZES.
9. FACTORY WIRED TO LOAD
10. REFER TO SITE LIGHTING PLAN FOR WIRE SIZES.
11. THRU CONTACTOR
- SN. DESIGNATES A SWITCHED NEUTRAL CIRCUIT BREAKER
- ES. CIRCUIT IS DISCONNECTED BY EMERGENCY STOP
- DK. DESIGNATES "SMART" BREAKER

**KEYNOTES**

- 15.830 COORDINATE LOCATION OF TRANSFORMER WITH CIVIL DRAWINGS. COORDINATE METERING REQUIREMENTS WITH LOCAL UTILITY PROVIDER
- 15.832 GROUNDING CONDUCTOR TO BE FLUSH WITH FINISHED GROUND. ENCLOSE LAST 12" IN 4" FOR FUTURE GROUNDING OF OWNER PROVIDED EQUIPMENT. THIS IS SEPARATE FROM GROUNDING ELECTRODE FROM TRANSFORMER TO BE AT TRANSFORMER.
- 15.842 INSTALL MONITOR PANEL FURNISHED BY OWNER. DIRECT CONNECT. PROVIDE ISOLATED GROUND FROM TRANSFORMER TO MONITOR PANEL. GROUNDING CONDUCTOR PER MANUFACTURER'S RECOMMENDATION. ALL TERMINATIONS SHOULD BE INSTALLED PER RECOMMENDATION OF MANUFACTURER, REF 1-FSES.

ESTIMATION FOR REUSE

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DATE: 08/20/19

PROJECT: 24278 - PROTO

CONSULTANTS

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STATE OF NORTH CAROLINA  
EXPIRES: 08/31/2024  
NO. 00010778

**Charlotte, NC**

**Sam's Club**

CLUB#: 6540

JOB NUMBER: 24278 - PROTO

ISSUE BLOCK

1	REV #1	10/18/19
2	REV #2	12/18/19

CHECKED BY: SAG

DRAWN BY: JUN

FILE NAME: FSE3

PROTO CYCLE: 102516

DOCUMENT DATE: 08/20/19

NOT FOR CONSTRUCTION

SERVICE BUILDING ONE-LINE AND SCHEDULES

SHEET: FSE3

**ELECTRICAL SYMBOLS LEGEND**

(SYMBOLS APPLY ONLY WHEN USED ON DRAWINGS)

SYMBOL	DESCRIPTION
[Symbol]	FLUORESCENT FIXTURE
[Symbol]	FLUORESCENT FIXTURE, NIGHT LIGHT
[Symbol]	EMERGENCY FIXTURE
[Symbol]	SWITCH, SINGLE POLE
[Symbol]	SWITCH, OCCUPANCY SENSOR
[Symbol]	RECEPTACLE, DUPLEX
[Symbol]	RECEPTACLE, SIMPLEX
[Symbol]	RECEPTACLE, DUPLEX IG
[Symbol]	RECEPTACLE, QUAD
[Symbol]	RECEPTACLE, SIMPLEX TWIST LOCK, ISOLATED GROUND, LS-15R, LNO
[Symbol]	JUNCTION BOX (WALL MOUNTED/CEILING MOUNTED)
[Symbol]	ALARM JUNCTION BOX (WALL MOUNTED/CEILING MOUNTED)
[Symbol]	NON-FUSED DISCONNECT
[Symbol]	CIRCUIT, CONCEALED IN WALLS OR CEILING, E INDICATES EXISTING WIRING
[Symbol]	CIRCUIT, CONCEALED IN SLAB FLOOR, E INDICATES EXISTING WIRING
[Symbol]	CIRCUIT, EXPOSED, E INDICATES EXISTING WIRING
[Symbol]	TELEPHONE / DATA BOX FOR ISD
[Symbol]	MOTOR
[Symbol]	EQUIPMENT SCHEDULE CALLOUT

**ABBREVIATIONS**

CU	CONDENSING UNIT
EF	EXHAUST FAN
G	GROUND
GF	GROUND FAULT CIRCUIT INTERRUPTER
IG	ISOLATED GROUND
SC	SECURITY CAMERA
UH	UNIT HEATER
WH	WATER HEATER
WP	WEATHER PROOF COVERPLATE
WR	WEATHER RESISTANT RECEPTACLE

**PANEL A POWER INTEGRITY NEW**

120/208 V<sub>ph</sub>, 3PH, 4W  
225 A MAIN CIRCUIT BREAKER  
10,000 AIC  
SURFACE MOUNT  
GROUND BAR  
ISOLATED GROUND BAR

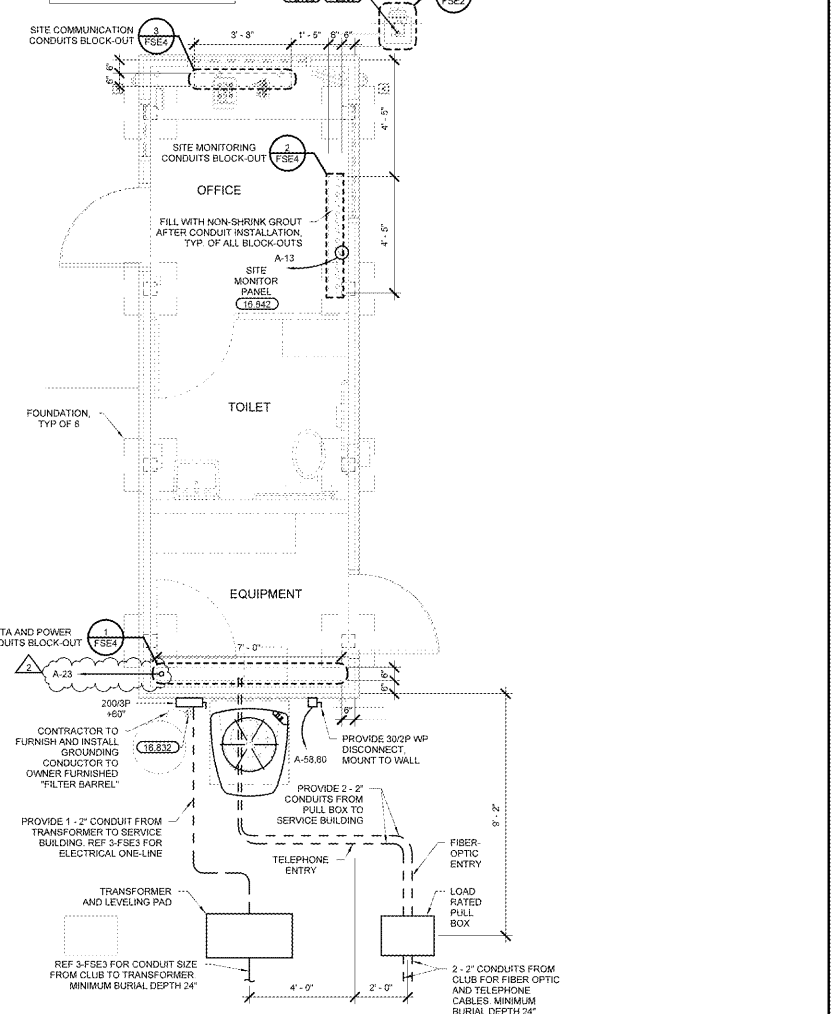
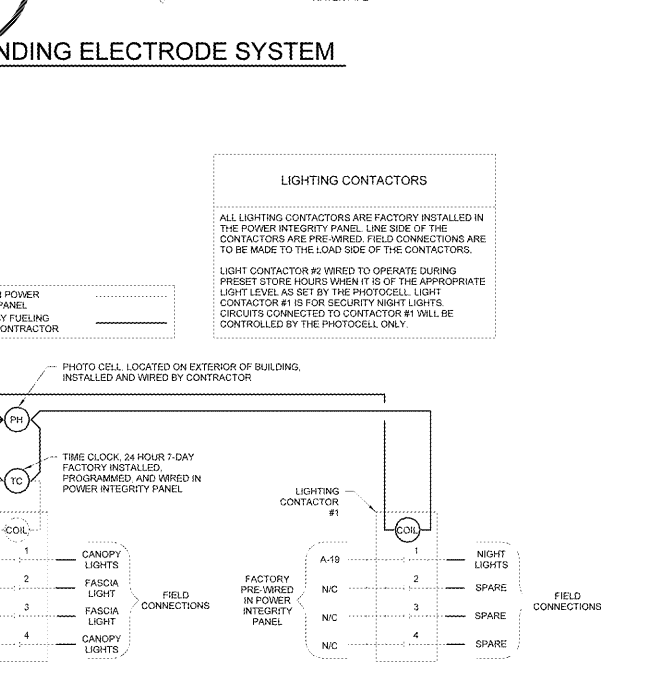
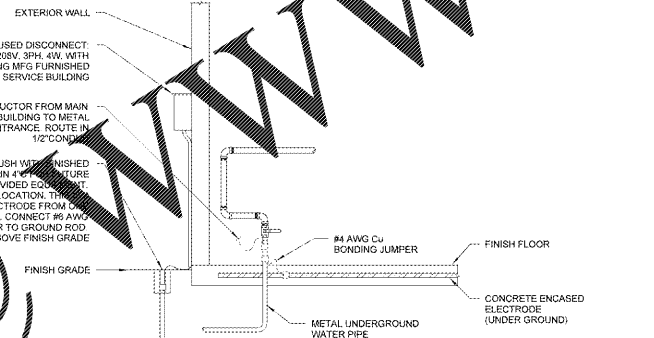
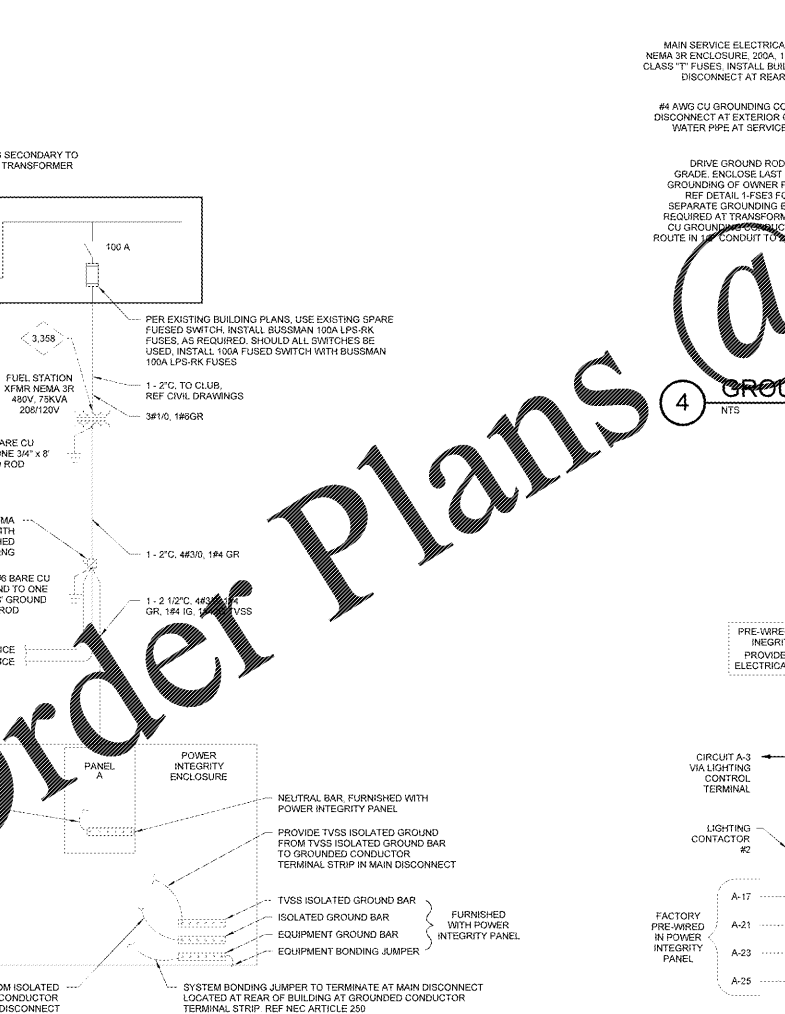
SERVES: FUELING STATION  
LOCATION: PANEL FURNISHED BY POWER INTEGRITY

DESCRIPTION	WIRE SIZE	BRKR	PL	A	B	C	PL	BRKR	WIRE SIZE	DESCRIPTION	QTY
1. STOP POWER (3.9)	15 A	1	0.09	0.76					2 20 A	DISPENSER #1 (3.SN.ES)	2
3. LIGHT CONTROL POWER (9)	15 A	1			0.18	0.00				SPACE	6
5. SPACE											
7. GAS SWITCH / LUU (1.9)	20 A	1	0.35	0.76					2 20 A	DISPENSER #2 (3.SN.ES)	8
9. DVR / CAMERA (1.9)	20 A	1			0.90	0.00				SPACE	10
11. FIRE ALARM CTRL PANEL (1.9)	20 A	1								SPACE	12
13. SITE MONITOR POWER (1)	20 A	1	0.18	0.76					2 20 A	DISPENSER #3 (3.SN.ES)	14
15. SPACE											
17. CANOPY LIGHTS (8.1)	20 A	1								SPACE	18
19. CANOPY NIGHT LIGHTS (8.1)	20 A	1	0.18	0.76					2 20 A	DISPENSER #4 (3.SN.ES)	20
21. GFI BREAKER (1.9)	20 A	1			1.80	0.00				SPACE	22
23. GFI BREAKER (1.9)	20 A	1				0.54	0.00			SPACE	24
25. SPACE			0.62	0.76							
27. FASCIA LIGHTS (1.1)	20 A	1			1.20	0.00			2 20 A	DISPENSER #5 (3.SN.ES)	28
29. PRICE SIGNS	20 A	1								SPACE	30
31. SPACE			0.00	0.76					2 20 A	DISPENSER #6 (3.SN.ES)	32
33. BLDG INTERIOR LIGHTS (9)	20 A	1			0.99	0.00				SPACE	34
35. SPACE											
37. STP #1 UNLEADED (2.8.ES)	10 20 A	2	1.44	0.00						SPACE	36
39. STP #2 SUPER UNLGD (2.6.ES)	10 20 A	2	1.44	0.00						SPACE	38
41. RECEPTACLES (9)	20 A	1								SPACE	40
43. STP #3 DIESEL (2.8.ES)	10 20 A	2	1.44	0.00						SPACE	42
45. STP #4 UNLEADED (2.8.ES)	10 20 A	2	1.44	0.00						SPACE	44
47. RECEPTACLES (9)	20 A	1			0.72	2.25			2 30 A	WATER HEATER (2.9)	48
49. STP #5 DIESEL (2.8.ES)	10 20 A	2	1.44	2.25						SPACE	50
51. STP #6 UNLEADED (2.8.ES)	10 20 A	2	1.44	0.00						SPACE	52
53. HAND DRYER (2.9)	20 A	1			1.73	3.75			2 50 A	AIR HANDLER (9) 7.8KW/HEAT	54
55. STP #7 UNLEADED (2.8.ES)	10 20 A	2	1.44	0.00						SPACE	56
57. STP #8 UNLEADED (2.8.ES)	10 20 A	2	1.44	1.78					2 25 A	CONDENSING UNIT	58
59. SPACE											60
TOTAL CONNECTED				13.68		19.12		13.68	N/A		
TOTAL CONNECTED				117.02		134.86		113.27	AMPS		
TOTAL LOAD				43.70		57.54		121.29	AMPS		
PER NEC ARTICLE 220 FEEDER LOAD				46.92		61.86		127.73	AMPS		

**CONNECTED LOADS TABLE**

LOAD CLASSIFICATION	LOAD (VA)
HEATING	
COOLING	8003 VA
LIGHTS	
CONTINUOUS	
NON-CONTINUOUS	23809 VA
RECEPTACLES	1970 VA
MOTORS	12240 VA
REFRIGERATION	
KITCHENS	
HEATING OR COOLING	46018 VA

Notes:  
1. FEEDER COMPANY SHALL APPLY PROPER DEMAND FACTORS TO CALCULATE ESTIMATED MAXIMUM DEMAND



**3 ELECTRICAL ONE-LINE DIAGRAM**

**2 LIGHTING CONTACTORS SCHEMATIC**

**1 SERVICE BUILDING ELECTRICAL PLAN**

FURNISH AND INSTALL APPROVED AND LISTED HANDLE-TIE BETWEEN CIRCUIT BREAKERS FEEDING MULTIWIRE BRANCH CIRCUITS FOR SIMULTANEOUS DISCONNECT IN ACCORDANCE WITH NEC.