March 28, 2003

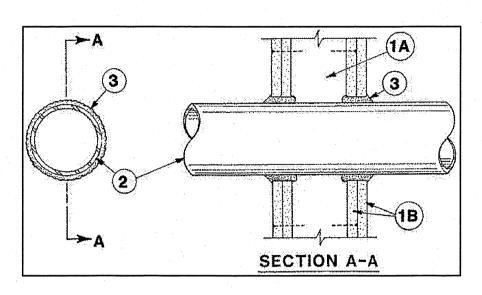
(Formerly System No. 147)

F Ratings -- 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings -- 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient - less than 1 CFM/sq ft

L Rating At 400 F - less than 1 CFM/sq ft



1. Wall Assembly -- The 1,2,3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL FIre Resistance Directory and shall include the following construction features:

> A. Studs -- Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in.

B. Gypsum Board* -- Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastenes type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26

2. Through-Penetrant-- One metalic pipe, conduit or tubing installed either concentrically or eccentrically with the firestop system. The annular space between pipe, conduit, or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

> A. Steel Pipe -- Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe -- Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron

C. Conduit -- Nom 6 in. diam (or smaller) steel metallic tubing.

D. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier) copper tubing.

F. through Penetrating Product* -- Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall

OMEGA FLEX INC

2. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

TITLEFLEX CORP

A BUNDY CO

3. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall

WARD MFG INC

Fill, Void or Cavity Material* -- Caulk -- Min 5/8, 1-1/4,1-7/8 and 2-1/2 in. thickness for caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. dia bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In	F RATING Hr	T RATING Hr
1	1 or 2	0+, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY -- CP 25WB+.

*Bearing the UL Classification Mark

DIVISION 16 - ELECTRICAL

PART 1 - GENERAL 1.1 DESCRIPTION OF THE WORK

A. Work under this section includes, but is not necessarily

2.8 CONDUIT

3.4 NOT USED

3.6 NOT USED

3.7 NOT USED

3.9 PULL WIRE

3.10 NOT USED

3.11 GROUNDING

3.13 CLEAN UP

3.14 GUARANTEE

additional cost to the Owner.

3.5 EQUIPMENT LABELING

where they terminate.

3.8 JUNCTION AND/OR PULL BOXES

PART 3 - EXECUTION

3.1 CIRCUIT GROUNDING

A. PVC conduit will be allowed where N.E.C. approved.

device or enclosure at the other end.

nut on the convenience outlet or switch.

or exposed to the elements or hazardous conditions.

B. All service conduit shall be rigid where exposed below 8'-0" AFF

A. All circuits shall contain an insulated, green, copper grounding

3.2 GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES

conductor, sized in accordance with Table 250-95 of the NEC.

bus in panelboard and securely attached and grounded to the

Grounding conductors shall be connected to equipment grounding

A. Outlets and switches shall be solidly grounded to equipment grounding

A. All motors shall be connected to conduit system with short length

A. Provide permanent name plates for all panelboards, safety switches,

wiring troughs, etc., for identification of equipment controlled.

services, etc. Nameplates shall be securely and permanently

include the name of the equipment and where it is fed from.

A. Boxes shall be installed where necessary to avoid excessive runs

A. All grounding shall be in accordance with Article 250 of the NEC.

1. Grounding conductors shall be installed as to permit the shortest and most direct path from equipment to ground.

2. Equipment ground continuity shall be maintained through

All connections to grounding conductors shall be accessible.

3. All wiring devices equipped with grounding connection shall be

4. The frame of all lighting fixtures shall be securely grounded

5. All equipment enclosures, and non-current-carrying metallic

6. All equipment enclosures, and non-current-carrying metallic

effectively and adequately bonded to ground.

effectively and adequately bonded to ground.

3.12 ELECTRICAL WORK IN CONNECTION WITH OTHER WORK

A. PLUMBING WORK: The Electrical Contractor shall furnis

B. HEATING AND AIR CONDITIONING WORK: The Electrical

A. During construction, keep the site clean of debris. Upon

the premises to remove all evidence of work. In addition

A. Guarantee all materials and labor included in the electrical work

for a period of one year from date of final acceptance by the

Owner. Any part or parts of the work or equipment which prove to

be defective during the guarantee period shall be replaced at no

upon completion of construction leave equipment clean.

completion, and before final inspection, clean up

and install switches and devices as shown and electrically

required will be performed by the PLUMBING CONTRACTOR.

connect electric water heaters, etc. All other electrical work

Contractor shall provide all disconnect switches, starters, and

associated hardware for the equipment furnished including all line and

be by the HVAC contractor. All control wiring will be accomplished by

load side wiring and conduit. Final connections to the equipment will

the HVAC contractor. Coordinate all work associated with the HVAC

solidly grounded to ground system with grounding conductors.

to the equipment ground system with grounding conductors.

parts of electrical equipment, raceway systems, etc., shall be

parts of electrical equipment, raceway systems, etc., shall be

In addition, the following requirements shall be met:

C. All empty conduit runs shall be identified and indicated

D. Provide typewritten directory in each panelboard to

clearly identify each circuit, service, etc.

and/or too many bends between outlets.

A. Leave pull wire in each empty conduit run.

flexible metal conduit.

B. All switch plates, receptacle plates and outlet covers shall be labeled

with machine printed vinyl labels identifying the circuit(s) within.

attached to equipment with stainless steel screws. Nameplates shall

(minimum length 24" and maximum length 36") of flexible liquidtight

system with a green colored insulated conductor. Electrical connections

shall be continuous from equipment ground bus in panelboard to the hex

limited to, furnishing and installing the following: 1. Electrical service and service equipment. 2. Lighting and power distribution system.

3. Provide lighting fixtures selected by owner with lamps to match.

4. Wiring devices, boxes, cover plates, etc. 5. Source of power for all items of equipment. 6. Grounding.

7. Other requirements and/or systems where shown. B. All work shall be complete and items, equipment, etc., shall be electrically connected for proper and correct

C. All work under this contract shall be installed in accordance with the latest edition of the following codes and

standards insofar as they apply: 1. The 2017 National Electrical Code.

2. The National Electrical Safety Code. 3. Underwriter's Laboratories, Inc., Standards and

approved listings. 4. Electrical Testing Labatories standards. 5. North Carolina Building Code, Latest Edition and Revisions.

6. All local codes and ordinances

D. The Electrical Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work. E. Obtain all permits, licenses, inspections, etc., required

for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical inspector having jurisdiction prior to acceptance of the work.

F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

A. The intent of these specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Electrical Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming

B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

1.4 SHOP DRAWINGS

A. Shop drawings shall be submitted for panels and service equipment, lighting, wiring devices, and cover plates. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 - PRODUCTS AND MATERIALS

2.1 GENERAL

A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard of the required type of equipment and the manufacturer's latest approved design.

1. Boxes installed in concealed locations shall be set flush with

the finished surfaces. 2. Provide rated boxes in all fire barriers & walls installed per code

2.2 NOT USED

2.3 CONDUCTORS

A. Conductors shall be color coded, sizes #8 and larger may be color taped on the job. Color coding shall be: Standard Practice.

B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.

C. Metallic sheathed "MC" cable may be used where allowed by N.E.C.

D. Conductors shall be spliced and taped as follows: 1. Size #10 and #12, use Ideal "Wing Nuts" or T&B "Piggy" connectors. Connectors shall be rated for

150 degrees C for use in recessed lighting fixtures. 2. Size #8 and larger shall be solderless screw and screw-clamping type, smoothly covered and shaped with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall

be UL approved. 3. No split-bolt type connectors may be used.

E. All branch wire and connections shall be copper and sized per National Electric Code.

F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in

panelboard cabinets, safety switches, etc.

G. All wiring in mechanical spaces shall be plenum rated.

H. Provide GFI protection within 6'-0" of any sink.

I. All multi-wire branch circuits shall comply with 2017 NEC, 210.4(B). J. All wiring at medical facilities shall comply with 2017 NEC, 517.1.

2.4 PANELBOARDS, SAFETY SWITCHES

A. Panelboards shall comply with NEMA Standard PB 1 - Latest Edition and as manufactured by Square D or ITE—Siemens. B. The contractor shall be responsible for correctly phasing the

circuits in the panelboards. C. Safety switches shall be general duty type, size and rating as required for lead service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.

2.5 NOT USED

2.6 WIRING DEVICES A. Wiring devices shall be commercial grade by Bryant, Leviton, or

approved equal. With matching cover. Color by Architect. B. Wiring devices installed under a Kitchen Hood shall have

C. Wiring devices installed over counters shall comply with ANSI A117.1.

2.7 NOT USED

GENERAL NOTES

1 ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.

2 ALL BRANCH CIRCUIT CONDUCTORS TO BE COPPER (SERVICE CONDUCTORS MAY BE ALUMINUM WITH SAME AMPACITY AS COPPER CONDUCTORS. RE-SIZE CONDUCTERS AND CONDUIT PER NEC.)

3 ALL CIRCUITS TO BE 2 #12, 1 #12 GND IN 1/2" EMT CONDUIT AS A MINIMUM. PROVIDE WIRING FOR LARGER CIRCUITS AS REQUIRED BY NEC. RIGID

CONDUIT IS REQUIRED WHERE EXPOSED BELOW 8'-0" A.F.F. 4 ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.

5 CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.

6 ALL BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL BE INCREASED TO THE NEXT LARGER SIZE WHERE THE LENGTH OF THE HOME RUN EXCEEDS 120 FEET ON 120V AND 208V CIRCUITS.

7 THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS, ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.

8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.

9 THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR TO INSURE THAT ALL LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.

10 ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.

11 IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.

12 PROVIDE BOXES, JACKS, WRING AND CONDUIT FROM LOCATIONS SHOWN TO MTP LOCATION. VERIFY EXACT REQUIREMENTS WITH OWNER.

13 ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS FOR MECHANICAL & PLUMBING EQUIPMENT. DISCONNECTS SHALL BE PER MANUFACTURES RECOMMENDATIONS AND FUSED PER NAME PLATE. PROVIDE NEMA 3R ENCLOSURES ON EXTERIOR. COORDINATE FUSE SIZES.

14 THE EC SHALL MEET WITH THE ARCHITECT AND TENANT PRIOR TO INSTALLING OUTLET BOXES TO VERIFY LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND TELEPHONE

APPENDIX B

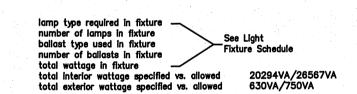
2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

> ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE) ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

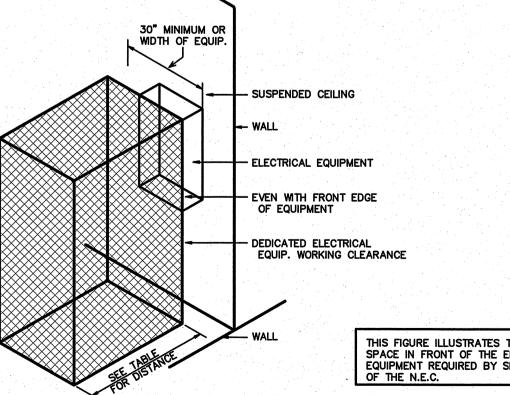
Method of Compliance

Lighting Schedule



Additional Prescriptive Compliance

506.2.1 More Efficient Mechanical Equipment 506.2.2 Reduced Lighting Power Density 506.2.3 Energy Recovery Ventilation Systems 506.2.4 Higher Efficiency Service Water Heater 506.2.5 On-Site Supply of Renewable Energy 506.2.6 automatic Daylighting Control System



- STRUCTURAL CEILING

ELECTRICAL CLEARANCES

ELECTRICAL EQUIPMENT WORKING CLEARANCE PER ARTICLE 110-26 OF N.E.C.

	WORKING CLEAR	ANCES	:
VOLTAGE TO		DISTANCE IN F	EET
GROUND NOMINAL	CONDITION: 1	2	3
0-150 151-600	3 3	3 3–1/2	3 4
	La		

THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-16

WHERE THE CONDITIONS ARE AS FOLLOWS:

EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OF INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS. 2 EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED

PARTS ON THE OTHER SIDE. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

ELECTRICAL LEGEND

LIGHT FIXTURE: LETTER DENOTES FIXTURE TYPE (REFER TO LIGHTING PLAN AND FIXTURE SCHEDULE). O_{x} NL = NIGHT LIGHT (NOT SWITCHED/ALWAYS ON) _____x

(S) U DUPLEX RECEPTACLE - 120V; MOUNT 18" TO CENTER AFF UNLESS NOTED OTHERWISE; 'WP' INDICATES WEATHER PROOF, 'GFI' INDICATES GROUND FAULT CURRENT INTERRUPT PROTECTED. 'U' INDICATES RECEPTACLE WITH (2) USB PORTS. (S) INDICATES SHUNT TRIP BREAKER, OR WRING THROUGH RELAYS IN HOOD CONTROL CABINET

QUADRAPLEX RECEPTACLE - 120V

TELEVISION/MONITOR POWER & DATA LOCATION.
PROVIDE TELE/DATA BOX/CONDUIT & COAX CABLE BACK TO MTP
VERIFY EXACT HEIGHT/LOCATIONS.

FLOOR BOX (FB) OR CEILING-MOUNT (CM) POWER & DATA CONNECTIONS.
PROVIDE A COMPLETE POWER/DATA FLOOR/CEILING BOX SYSTEM W/ ALL ACCESSORIES.

SPECIAL PURPOSE RECEPTACLE - REFER TO POWER PLAN AND PANEL SCHEDULE

DISCONNECTING MEANS AS REQUIRED BY CODE

SWITCH WITH INTEGRAL PIR/US MOTION SENSOR FOR AUTOMATIC SHUT-OFF WITH UP TO 2 HOUR ADJUSTABLE DELAY.

 S_{D} DIMMABLE LIGHT SWITCH

(S) HAND DRYER (THINAIR TYPE. CONFIRM W/ ARCH/OWNER)

JUNCTION BOX

CLOSED-CIRCUIT TELEVISION / SECURITY CAM PROVIDE CAT 6 WIRING TO EACH DEVICE.

MOTOR RATED SWITCH

TELE/DATA OUTLET - PROVIDE JUNCTION BOX WITH 3/4" CONDUIT WITH BUSHINGS & PULL STRING TO ABOVE CEILING OR OTHER CONCEALED ACCESSABLE LOCATION. PROVIDE J-HOOK SYSTEM FROM

TWO-POLE OR 3-POLE HOMERUN TO PANELBOARD

MAIN TELEPHONE PANEL - PROVIDE FIRE RESISTANT 4'X8'X3/4" PLYWOOD BACKBOARD, TWO 2" CONDUITS BACK TO TELEPHONE SERVICE ENTRY POINT AND ONE 2" CONDUIT BACK TO CABLE TV SERVICE ENTRY POINT. FIELD VERIFY EXACT LOCATIONS.

DOOR W/ CARD-READER/SWIPE ENTRY

MULTI-CIRCUIT TIME CLOCK

SINGLE-POLE HOMERUN TO PANELBOARD

EMERGENCY EGRESS FIXTURE

(CM) CEILING MOUNT (DS) DOUBLE SIDED

PHOTOCELL

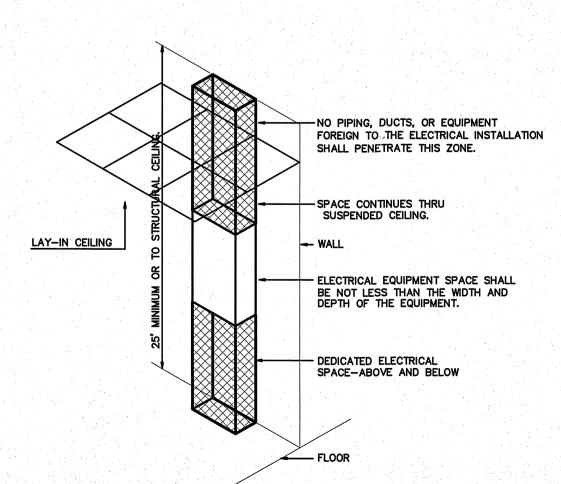
GROUND CONNECTION

DISTRIBUTION PANEL (VERIFY TYPE/REQUIREMENTS)

WIRELESS ACCESSS POINT

BRANCH CIRCUIT WIRING

TWO HOUR FIRE BARRIER THREE HOUR FIRE BARRIER



ELECTRICAL EQUIPMENT DEDICATED SPACE PER ARTICLE 110.26.F.1 OF N.E.C.

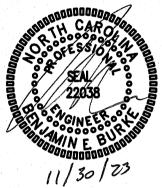
DEDICATED SPACE



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ENGINEER

BURIKE DESIGN GROUP, Pa CONSULTING ENGINEERS 3305-109 Durham Drive Raleigh, North Carolina 27603 919.771.1916 fax: 919.779.0826 email: benburke@nc.rr.com email: benburke@nc.rr.com Corp. License # C-2652



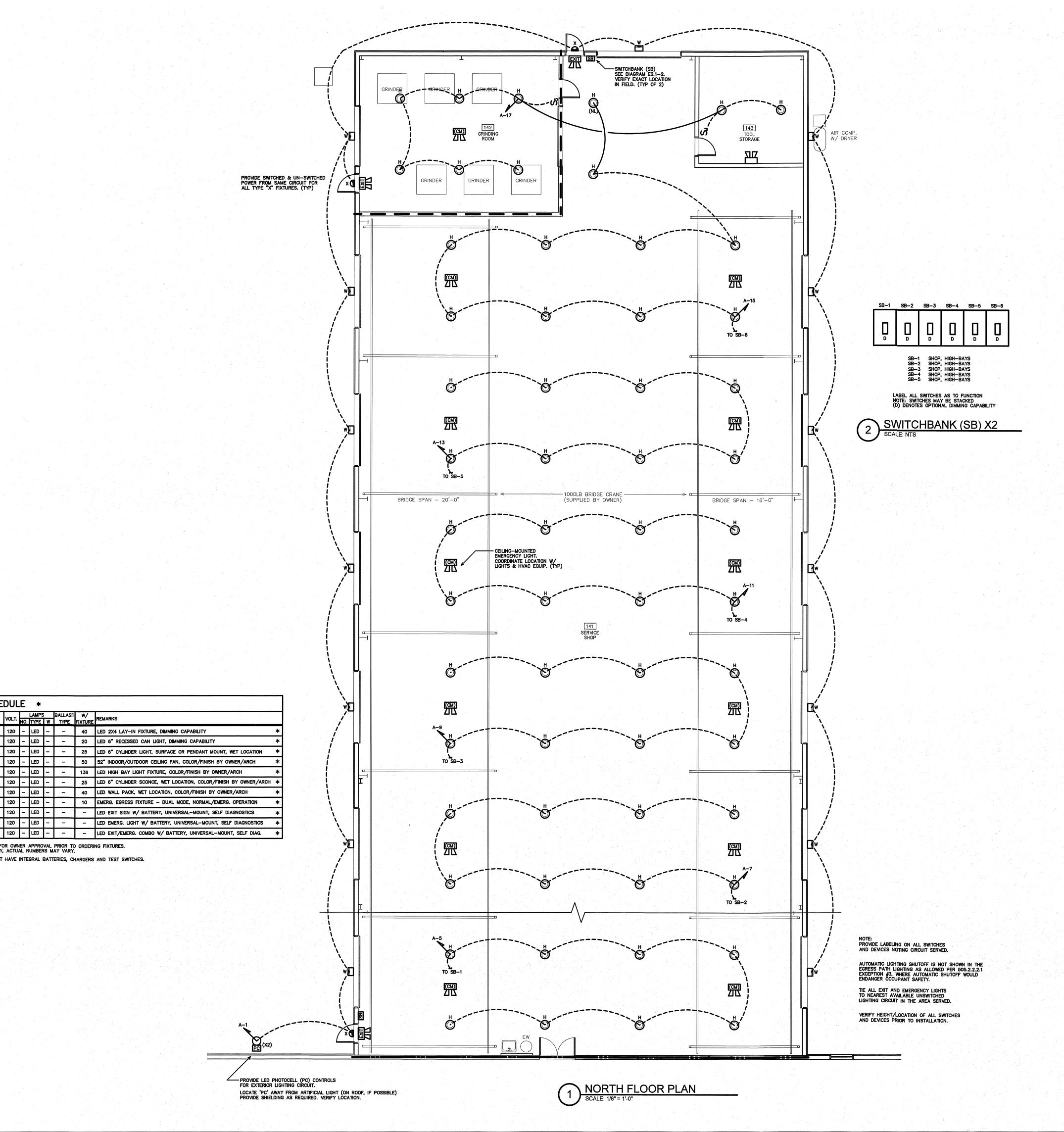
PROJECT TITLE REVELS TURF & TRACTOR RAWLS CHURCH RD. FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO. DRAWING TITLE **ELECTRICAL SPECS**

PLOT DATE

12/01/23

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LIGHTING SCHEDULE *

* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY.

THE EMERGENCY LIGHTS AND EXIT SIGNS MUST HAVE INTEGRAL BATTERIES, CHARGERS AND TEST SWITCHES.

CATALOG NO.

CPX-2X4-4000LM-30K-M2

LTC-6RD-(S/P)30L35K8MD

SG1-40-3K7-FT-UNV-BLT

JEBL-18L-40K-80CRI

C PRESCOLITE LF6LEDG4-6MFLED6G430K

S PRESCOLITE LTC-6RD-W30L35K8MD

MARK MANUFACTURER

B LITHONIA

CL PRESCOLITE

H LITHONIA

W HUBBELL

X COMPASS

EXIT COMPASS

TTT COMPASS

COMPASS

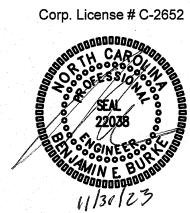
F BIG ASS FANS HAIKU



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PROJECT TITLE REVELS TURF & TRACTOR

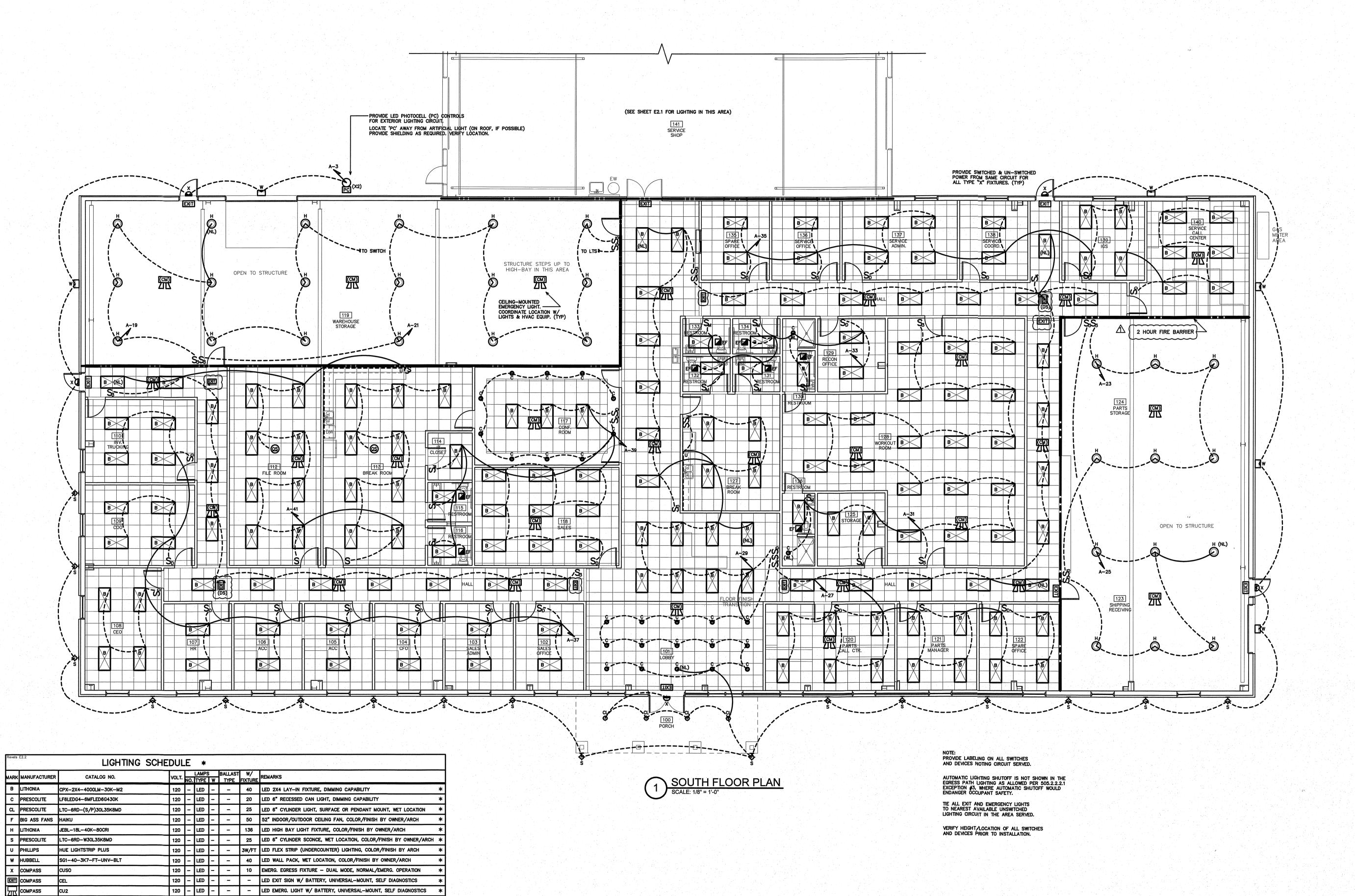
RAWLS CHURCH RD. FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO. DRAWING TITLE LIGHTING PLAN

PLOT DATE

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COMPASS

120 - LED - - LED EMERG. LIGHT W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAGNOSTICS

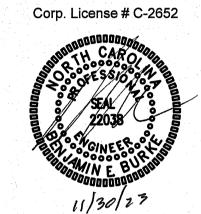
120 - LED - - LED EXIT/EMERG. COMBO W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAG.



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PROJECT TITLE REVELS TURF & TRACTOR

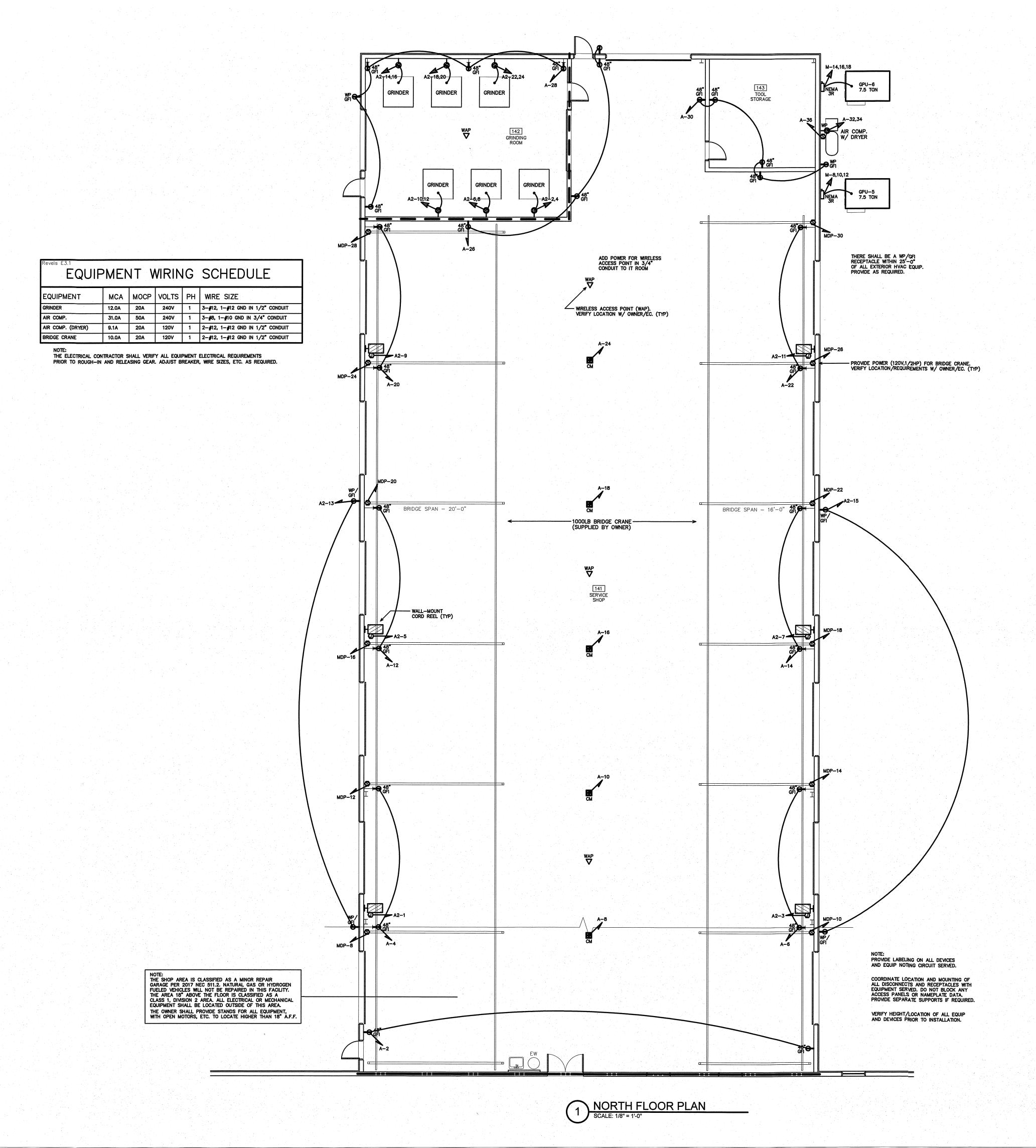
RAWLS CHURCH RD. FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO. 2232 DRAWING TITLE LIGHTING PLAN

PLOT DATE AHJ COMMENTS

12/01/23 11/30/23

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919.771.1916 fax: 919.779.0826
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PROJECT TITLE

REVELS TURF &
TRACTOR

RAWLS CHURCH RD.
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
2232
DRAWING TITLE
POWER PLAN

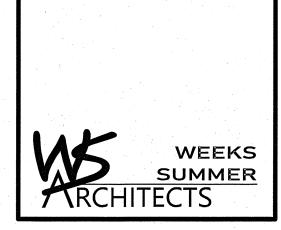
F 3.1

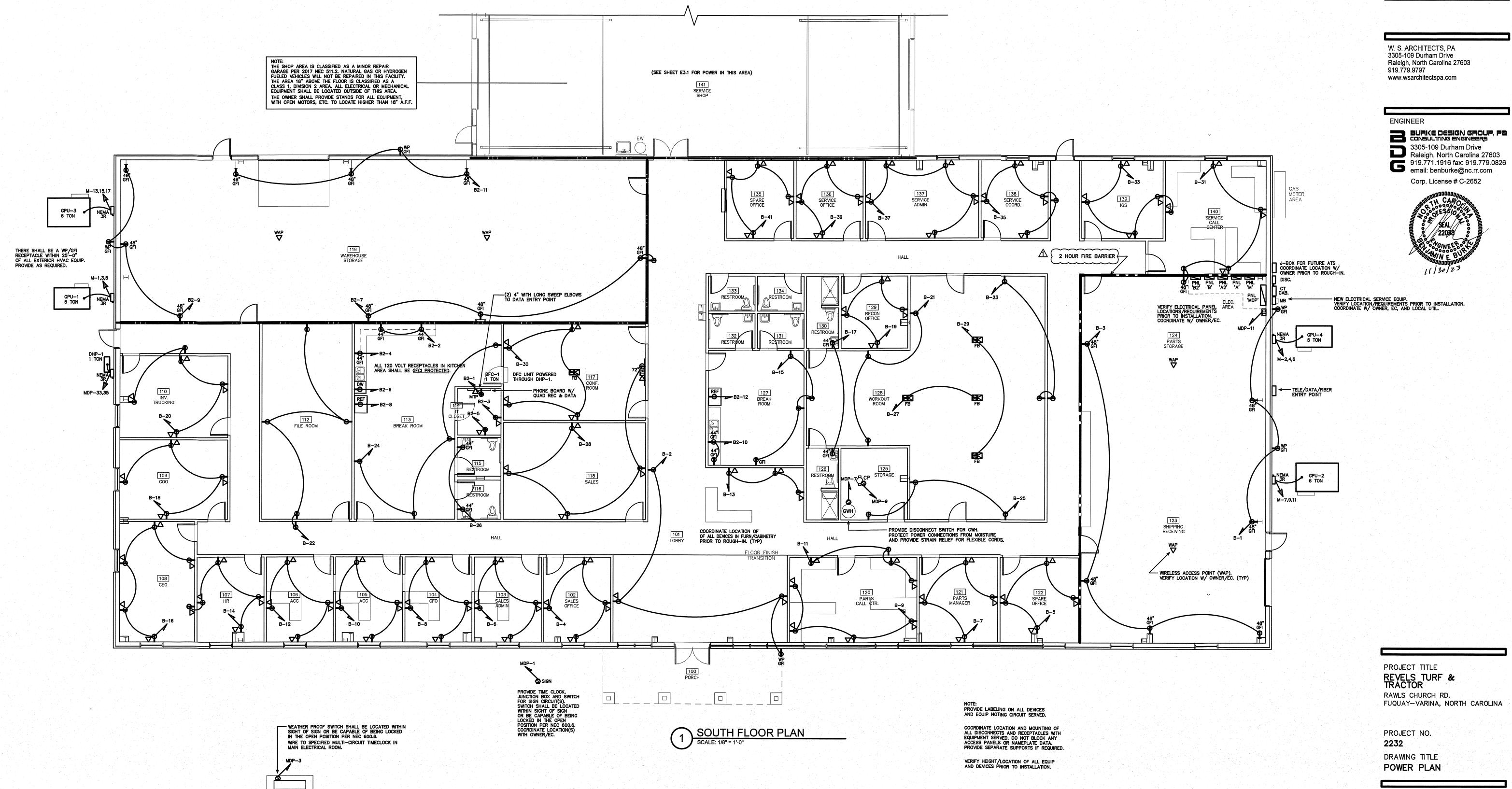
PLOT DATE

12/01/23

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MONUMENTAL SIGN (SEE SITE PLAN FOR LOCATION)

PROVIDE 1" CONDUIT FROM BUILDING PANELS TO NEW SIGN LOCATION (COORDINATE W/ OWNER/EC).

F 3.2

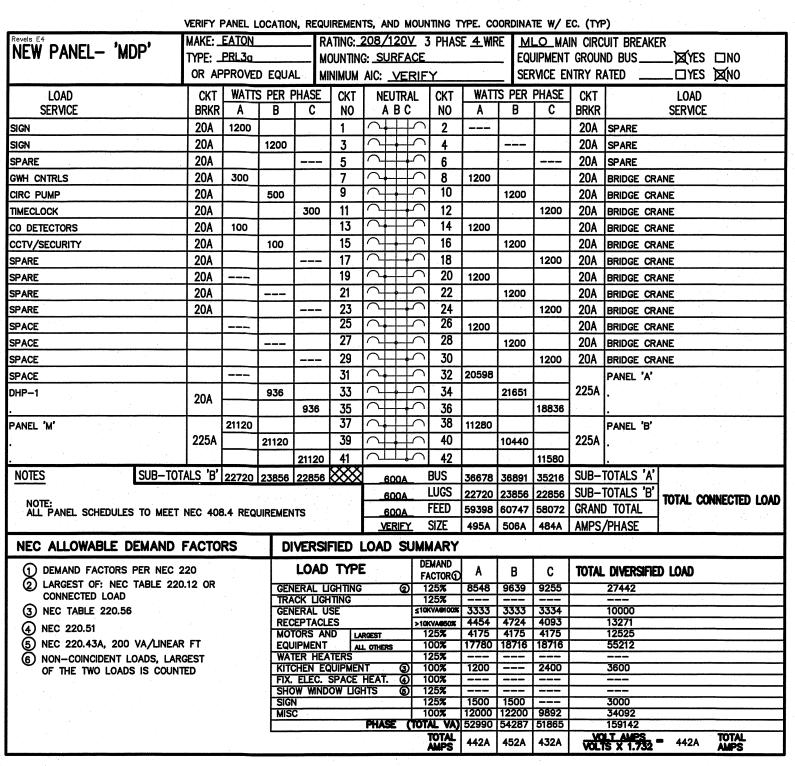
PLOT DATE

AHJ COMMENTS

12/01/23 NTS 11/30/23

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NEW PANEL— 'A'	MAKE: _ TYPE: _ OR AP	PRL1a		M	OUNTIN	208/120V G: <u>SURFACE</u> AIC: <u>VERIF</u>		E <u>4</u> WF	_ EQL		GROUN	ND BUS	
LOAD	CKT	,	S PER I		СКТ	NEUTRAL	СКТ	WATT	S PER		СКТ	,,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	LOAD
SERVICE	BRKR	A	В	C	NO	ABC	NO	A	В	C	BRKR		SERVICE
LTS: EXT	20A	630			1		2	360			 	REC: SHOP	
LTS: EXT	20A		815		3		4		360			REC: SHOP	
LTS: SHOP	20A			1088	5		6			360	20A	REC: SHOP	
LTS: SHOP	20A	1088			7		8	360			20A	REC: SHOP	
LTS: SHOP	20A		1088		9		10		360		20A	REC: SHOP	
LTS: SHOP	20A			1088	11		12			360	20A	REC: SHOP	
LTS: SHOP	20A	1088			13	\sim	14	360			20A	REC: SHOP	
LTS: SHOP	20A		1360		15		16		360		20A	REC: SHOP	
LTS: GRINDING,TOOLS	20A			1088	17		18			360	20A	REC: SHOP	
LTS: WAREHOUSE,STOR	20A	1224			19	\sim	20	360			20A	REC: SHOP	· .
LTS: WAREHOUSE,STOR	20A		1224		21	\wedge	22		360		20A	REC: SHOP	
LTS: PARTS STOR	20A	٠.		816	23		24			360	20A	REC: SHOP)
LTS: SHIPPING/RECEIVING	20A	816			25	\sim	26	720			20A	REC: SHOP	•
LTS: PARTS,HALL	20A		1240		27		28		900		20A	REC: GRIN	DING
LTS: LOBBY,BREAK,HALL	20A			1060	29		30			900	20A	REC: SHOP	
LTS: WORKOUT,STOR	20A	1032			31		32	3600			EOA	AIR COMP.	
LTS: RECON, RESTROOMS	20A		960		33		34		3600		50A		
LTS: SERVICE	20A			1104	35	\cap	36		·	1092	20A	AIR COMP.	DRYER
LTS: OFFICES	20A	960			37		38	8000				PANEL 'A2	•
LTS: SALES,CONF	20A		1024		39		40		8000		100A		
LTS: BREAK,FILE,HALL	20A			1160	41		42			8000			
NOTES SUB-TO	OTALS 'B'	6838	7711	7404	\bowtie	_225A	BUS	13760	13940	11432	SUB-	TOTALS 'A'	
		100				_225A	LUGS	6838	7711	7404	SUB-	TOTALS 'B'	TOTAL CONNECT
						225A	FEED	20598	21651	18836	GRAN	D TOTAL	IOIAL CONNECII
	*					VERIFY	SIZE	172A	180A	157A	AMPS	/PHASE	
NEC ALLOWABLE DEMAND	FACTO	RS	D	VERS	FIED	LOAD SUM	MARY						
1 DEMAND FACTORS PER NEC 2 LARGEST OF: NEC TABLE 2					TYPE	- F	EMAND ACTOR①	Α	В	С	TOTAL	. DIVERSIFIE	D LOAD
CONNECTED LOAD	20.12 UK			IERAL LICK LIG	JGHTING		25% 25%	8548	9639	9255		27442	
3 NEC TABLE 220.56			GEN	IERAL L	JSE		KVAGI00%		2340	2340		6840	· · · · · · · · · · · · · · · · · · ·
(4) NEC 220.51				EPTACL			KVA 650%						
5 NEC 220.43A, 200 VA/LINE	AR FT		1	JIPMENT			25%						
6 NON-COINCIDENT LOADS, LA	RGEST		WA.	TER HE	ATERS		25%						
OF THE TWO LOADS IS COU	NTED				QUIPMEN SPACE		00%						
			SHO	OW WINE	OW LIG	HTS 🔞 1	25%						
			SIG				25% 00%	11600	11600	9092		32292	
			MIS					22308		20687	<u> </u>	66574	
				.'	:	1	TOTAL AMPS	186A	196A	172A	<u></u>	S X 1.732	= 185A TOTA

COR APPROVED EQUAL MINIMUM AIC VERIFY SERVICE ENTRY RATED DYES \$\infty{\text{NO}}\) Correct WATTS PER PHASE CXT WATTS PER PHASE CXT WATTS PER PHASE CXT UAD	INIEW DANIEL 'D' - L	MAKE: _								<u>4</u> WR				UIT BREAKE			
LOAD CKT WATTS PER PHASE CKT NOUTRAL CKT WATTS PER PHASE CKT SHIPPING, PARTS 20A 720 1	NEW PANEL— 'B'					DUNTING	G: SURF	ACE			_ EQ	EQUIPMENT GROUND BUSXYES □NO					
SERVICE BRKR A B C NO A B C BKR SERVICE		OR AP				NIMUM	AIC: <u>V</u> E	RIE	Υ		SEI	RVICE EN	NTRY R	ATED	<u></u> Y	es Xino	
REC: SHIPPING,PARTS			WATTS			CKT			CKT	WATT	s per	PHASE	CKT		LO/	'D	
REC: SHIPPING,PARTS	SERVICE	BRKR	A	В	С	NO	A B	C	NO	Α	В	C	BRKR	i i	SERV	CE	
REC: OFFICE	REC: SHIPPING, PARTS		720			1_	\cap	$\pm \bigcirc$	2	720			20A	REC: EXT,L	OBBY		
REC: PARTS MANAGER	REC: SHIPPING, PARTS			720		3	\cap	$\perp \!$	4		720		20A	REC: SALE	S OFFIC	E	
REC: PARTS CALL CTR	REC: OFFICE		·		720	5		\leftarrow	6			720	20A	REC: SALE	S ADMIN	,	
REC. PARTS CAIL CTR 20A 540 13 14 900 20A REC: ACC REC. LOBBY 20A 540 13 14 900 20A REC: HR REC. BREAK 20A 720 15 16 900 20A REC: COO REC. OFFICE 20A 720 19 19 10 20 900 20A REC: COO REC. OFFICE 20A 720 19 19 10 20 900 20A REC: TRUCKING REC. WORKOUT 20A 540 21 10 22 900 20A REC: TRUCKING REC. WORKOUT 20A 540 21 10 22 900 20A REC: TRUCKING REC. WORKOUT 20A 540 21 10 22 900 20A REC: RECRAK REC. WORKOUT 20A 540 25 10 26 360 20A REC: RESTROOM REC. WORKOUT 20A 540 25 10 26 360 20A REC: RESTROOM REC. WORKOUT 20A 560 27 10 28 900 20A REC: RESTROOM REC. WORKOUT 20A 360 27 10 28 900 20A REC: RESTROOM REC. SERVICE COORD 20A 900 31 10 32 20A SPARE REC. SERVICE COORD 20A 900 31 10 32 20A SPARE REC. SERVICE ADMIN 20A 900 33 10 30 20 20A REC. CONF REC. SERVICE ADMIN 20A 900 37 10 38 2540 100A REC. OFFICE 20A 720 41 20 340 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 720 41 10 42 20 3480 100A REC. OFFICE 20A 74 20 45 10 28 34 10 20 3480 100A REC. OFFICE 20A 74 20 45 10 20 3480 100A REC. OFFICE 20A 74 20 45 10 20 3480 100A REC. OFFICE 20A 75 20 45 20 45 20 45 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 45 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 45 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 45 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 45 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 45 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE 20A 75 20 5760 7260 SUB-TOTALS 'A' REC. OFFICE	REC: PARTS MANAGER		720			<u> </u>	\triangle	+		720			20A	REC: CFO			
REC: LOBBY 20A 540 13 14 900 20A REC: HR REC: BRAK 20A 720 15 16 900 20A REC: GEO	REC: PARTS CALL CTR			720				+			720		20A	REC: ACC			
REC: BREAK 20A 720 15	REC: PARTS CALL CTR	 			720			+				720	20A	REC: ACC			
REC: RESTROOM 20A 720 19 19	REC: LOBBY		540					+		900			20A	REC: HR			
REC: OFFICE 20A 720 19 19 20 900 20A REC: TRUCKING REC: WORKOUT 20A 540 21 722 900 20A REC: FILE ROOM REC: WORKOUT 20A 540 23 7 24 720 20A REC: BILE ROOM REC: WORKOUT 20A 540 25 725 360 20A REC: BILE ROOM REC: WORKOUT 20A 360 27 7 28 900 20A REC: SEINGOM REC: WORKOUT 20A 360 27 7 28 900 20A REC: SEINGOM REC: WORKOUT 20A 360 29 7 30 900 20A REC: CONF REC: SERVICE CALL CTR 20A 900 31 1 7 32 7 2 20				720				+			900			REC: CEO		<u> </u>	
REC: WORKOUT	REC: RESTROOM				360			+_				720	20A	REC: COO			
REC: WORKOUT	REC: OFFICE		720					 		900		·	20A	REC: TRUC	KING		
REC: WORKOUT				540				#			900		20A	 			
REC: WORKOUT 20A 360 27 28 900 20A REC: SALES REC: WORKOUT 20A 360 29 30 900 20A REC: CONF REC: SERVICE CALL CTR 20A 900 31 32 20A SPARE REC: IGS 20A 900 33 34 34 20A SPARE REC: SERVICE COORD 20A 900 35 36 20A SPARE REC: SERVICE COORD 20A 900 37 38 2640 PANEL 'B2' REC: SERVICE ADMIN 20A 900 37 38 2640 PANEL 'B2' REC: OFFICE 20A 720 39 40 1620 100A 1620 100A REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' REC: OFFICE 20A 4800 4320 SUB-TOTALS 'B' LOAD TYPE DEMAND FACTORS I DEMAND FACTORS PER NEC 220 2 LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD S NEC ABLE 20.56 NEC 220.51 S NEC 220.51 S NEC 220.55 NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED OF THE TWO LOADS IS COUNTED REC: SPACE HEAT. (6) 100% 1200 2400 3600 TRACK LIGHTING 125%		 			540			10				720		REC: BREA	K		
REC: WORKOUT 20A 360 29 30 30 900 20A REC: CONF REC: SERVICE CALL CTR 20A 900 31 31 32 20A SPARE REC: SERVICE CORD 20A 900 33 34 20A SPARE REC: SERVICE CORD 20A 900 35 35 36 20A SPARE REC: SERVICE ADMIN 20A 900 37 38 2640 PANEL 'B2' REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' REC: OFFICE 20A 720 41 720 41 1580 GRAND TOTAL S'A' REC: OFFICE 20A 720 41 720 44 1580 GRAND TOTAL S'A' REC: OFFICE 30A 720 VALIBLE 22012 OR CONNECTED LOAD NOTES SUB-TOTALS 'B' 5040 4680 4320 SUB-TOTALS 'B' REC: OFFICE 30A 87A 97A AMPS/PHASE DIVERSIFIED LOAD SUMMARY LOAD TYPE FACTOR A B C TOTAL DIVERSIFED LOAD GENERAL LIGHTING 125%	REC: WORKOUT		540	<u> </u>				七.		360				REC: REST	ROOM		
REC: SERVICE CALL CTR				360		ļ		+			900	ļ		REC: SALE	<u>s</u>	•	
REC: IGS					360			1				900					
REC: SERVICE COORD 20A 900 35 36 20A SPARE REC: SERVICE ADMIN 20A 900 37 38 2840 20A SPARE REC: OFFICE 20A 720 39 40 1620 100A PANEL 'B2' REC: OFFICE 20A 720 41 42 3480 PANEL 'B2' NOTES SUB-TOTALS 'B' 5040 4680 4320 XX 225A BUS 6240 5760 7260 SUB-TOTALS 'A' 225A LUGS 5040 4680 4320 SUB-TOTALS 'B' VERIEY SIZE 94A 87A 97A AMPS/PHASE NEC ALLOWABLE DEMAND FACTORS I DEMAND FACTORS PER NEC 220 2 LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.43A, 200 VA/LINEAR FT 6 NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED OF THE TWO LOADS IS COUNTED DEMAND FACTORS PER NEC 220 LOAD TYPE DEMAND FACTORS DIVERSIFIED LOAD SUMMARY LOAD TYPE DEMAND FACTOR A B C TOTAL DIVERSIFED LOAD GENERAL LIGHTING 125%	REC: SERVICE CALL CTR		900					+			-						
REC: SERVICE ADMIN 20A 900 37				900				K		•				SPARE			
REC: OFFICE	REC: SERVICE COORD	-			900			+					20A				
NOTES SUB-TOTALS 'B' 5040 4680 4320 \$\infty 225A BUS 6240 5760 7260 SUB-TOTALS 'A' 225A LUGS 5040 4680 4320 SUB-TOTALS 'B' 225A LUGS 5040 4680 4320 SUB-TOTALS 'B' 225A FEED 11280 10440 11580 GRAND TOTAL CONNECTED LOAD VERIFY SIZE 94A 87A 97A AMPS/PHASE NEC ALLOWABLE DEMAND FACTORS DIVERSIFIED LOAD SUMMARY DEMAND FACTORS PER NEC 220 2 LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD TYPE DEMAND FACTORG A B C TOTAL DIVERSIFIED LOAD GENERAL UGHTING 125%	REC: SERVICE ADMIN		900					+_		2640				PANEL 'B2'			
NOTES SUB-TOTALS 'B' 5040 4680 4320 XXX 225A BUS 6240 5760 7280 SUB-TOTALS 'A' 225A EUGS 5040 4680 4320 SUB-TOTALS 'B' 225A EED 11280 10440 11580 GRAND TOTAL YERIFY SIZE 94A 87A 97A AMPS/PHASE AMPS/PHASE AMPS/PHASE YERIFY SIZE 94A 87A 97A AMPS/PHASE AMPS/PHASE YERIFY SIZE 94A 87A 97A AMPS/PHASE AMPS/PHASE YERIFY SIZE 94A 87A 97A AMPS/PHASE YERIFY SIZE 94A 87A 97A AMPS/PHASE YERIFY SIZE 94A 87A 97A AMPS/PHASE YERIFY SIZE SECONDOR A B C TOTAL DIVERSIFED LOAD TRACK LIGHTING 125%				720				+			1620		100A	•			
225A LUGS 5040 4880 4320 SUB-TOTALS 'B' 225A FEED 11280 10440 11580 GRAND TOTAL TOTAL CONNECTED LOW						41 X X X X		۲۷				3480		<u>l </u>			
225A FEED 11280 10440 11580 GRAND TOTAL 1/4 11580 GRAND TOTAL 1/4 11580 10440 11580 GRAND TOTAL 1/4	NOTES SUB-TOTA	ALS B	5040	4680	4320	<u> </u>	225										
VERIFY SIZE 94A 87A 97A AMPS/PHASE							225								TOTAL	CONNECTE	D LOAD
DEMAND FACTORS DIVERSIFIED LOAD SUMMARY												 	 				
DEMAND FACTORS PER NEC 220				T-			VERIE	<u>Y</u>	SIZE	94A	87A	97A	AMPS	/PHASE		· · · · · · · · · · · · · · · · · · ·	
Converted Load Conv	NEC ALLOWABLE DEMAND F	FACTO	RS	DI	VERSI	FIED	LOAD S	MUE	MARY								
Connected Load Conn	1 DEMAND FACTORS PER NEC 2	20			LOAD	TYPE	Ε .			Α	В	С	TOTAL	DIVERSIFIE	D LOAD)	
3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 VA/LINEAR FT 6 NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED 10 NON-COINCIDENT LOADS IS COUNTED 125%		.12 OR		GEN	ERAL LI	GHTING	; (_									
A NEC 220.51 RECEPTACLES >10KVA650X 3374 3554 2923 9851			100														
MOTORS AND LARGEST 125%																	
NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED		ET		MOT	ORS AN	ID LA		1	25%								
OF THE TWO LOADS IS COUNTED KITCHEN EQUIPMENT 3 100% 1200 2400 3600 FIX. ELEC. SPACE HEAT. 4 100% SHOW WINDOW LIGHTS 6 125% SIGN 125% MISC 100% MISC 100% 2400 3600 536							l others						,				
SHOW WINDOW LIGHTS 6 125% SIGN 125% MISC 100%				KITC	HEN EC	UIPMEN		3 1	00%	1200							
SIGN 125% MISC 100%																	
				SIGN	1			1	25%								
				MISC	C		PHASE			 7907	 6887	8657		23451			
TOTAL VOLT AMPS TOTAL				L			111105		TOTAL					ALT AMPS	054	TOTAL	
AMPS 66A 57A 72A VOLTS X 1.732 65A AMPS							-		AMPS	DOA	3/A	/2A	VOL	S X 1.732	- 65A	AMPS	

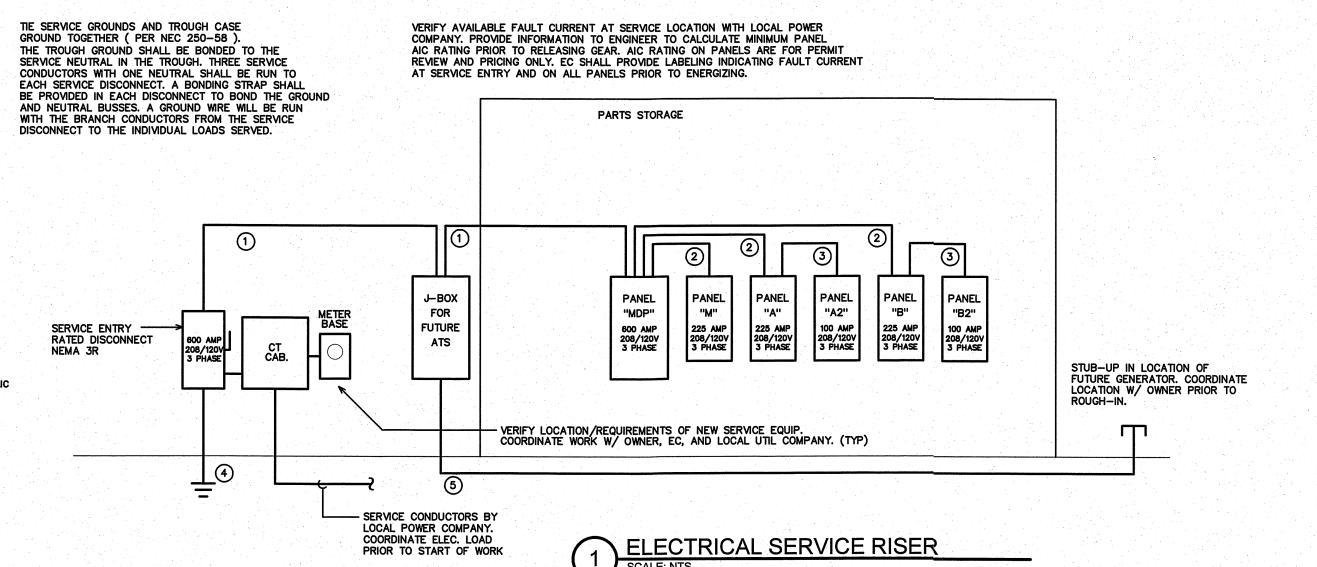
NEW PANEL— 'M'	MAKE: _ Type: _					208/120V G: SURFA		E 4 WIR	_ EQI	JIPMENT	GROUN	UIT BREAKE ND BUS	_⊠YES □NO
	OR AP	PROVE	D EQUA	L M	INIMUM	AIC: VEF	RIFY		_ SEF	RVICE EI	NTRY R	ated	□YES ⊠NO
LOAD	CKT	WATT	s per p	HASE	CKT	NEUTRA	L CKT	WATT	s per	PHASE	CKT		LOAD
SERVICE	BRKR	Α	В	С	NO	ABC	NO	Α	В	C	BRKR		SERVICE
GPU-1		2900	100		1		\cap 2	2900				GPU-4	
	40A		2900		3		\cap 4		2900		40A	l .	
				2900	5	\cap	\bigcap 6			2900	1		
SPU-2		3340			7	$\overline{}$	$\overline{\bigcirc 8}$	4320				GPU-5	
	50A		3340		9	$\overline{}$	$\overline{}$		4320	1	50A		
	00/1		0010	3340	11		\bigcirc 12		1020	4320	1	·	
NO.1 2		3340		3370	13		$\frac{12}{14}$	4320	S-1.0201.1	7020		ODU 6	·
GPU-3	50A	3340	3340		15		16	4320	4320		50A	GPU-6	
	DUA		3340						4320		DUA	•	
				3340	17		$\begin{array}{c c} & 18 \\ \hline & 00 \\ \hline \end{array}$			4320		•	
SPACE					19		\bigcirc 20			 		SPACE	
SPACE					21		\bigcirc 22					SPACE	
SPACE					23	\cap	<u> 24</u>				·	SPACE	
SPACE	-				25		○ 26					SPACE	
SPACE				- 1	27	$\overline{}$	○ 28					SPACE	
SPACE					29		30					SPACE	
NOTES SUB-TO	TALS 'B'	9580	9580	9580	XXX	225A	BUS	11540	11540	11540	SUB-	TOTALS 'A'	
		-	, 0000	0000	1000	225A	LUGS	9580	9580	9580		TOTALS 'B'	
						225A	FEED	21120	21120	21120		D TOTAL	TOTAL CONNECTED LO
						VERIFY		176A	176A	176A		/PHASE	
									170A	170A	[AMF3	/ FINASE	
NEC ALLOWABLE DEMAND	FACTO	RS	DI	VERSI	IFIED	LOAD SU	MMARY						•
1) DEMAND FACTORS PER NEC	220			LOAD	TYPI		DEMAND	Α	В	С	TOTAL	. DIVERSIFIE	D LOAD
(2) LARGEST OF: NEC TABLE 22					JGHTING		FACTOR (125%	1			10172		J LOND
CONNECTED LOAD				CK LIGI		2	125%						
3 NEC TABLE 220.56			GEN	ERAL L	JSE		≤10KVA@100%						
(4) NEC 220.51				EPTACL			>10KVA650% 125%	4175	4175	4175		12525	
(5) NEC 220.43A, 200 VA/LINEA	R FT			IPMENT	_	RGEST L OTHERS	100%	17780	17780	17780	1	53340	
6 NON-COINCIDENT LOADS, LA	RGEST			ER HE/	ATERS		125%						
OF THE TWO LOADS IS COUN	NTED				QUIPMEN SPACE								
					OOW LIG		125%			===			
	* * * * * * * * * * * * * * * * * * *		SIGN	1			125%						
			MISC	2		PHASE (100% IOTAL VA	21055	 21955	21955		 65865	
			<u> </u>			FINASE (TOTAL				VC	LT AMPS	TOTAL
							AMPS	183A	183A	183A		S X 1.732	= 183A AMPS

NEW PANEL— 'A2'	, MAKE: _ TYPE: _					208/120V G: SURFAC		E 4 WR				UIT BREAKEI		
	1	PROVE	D EQUA			AIC: <u>VERI</u>				NOE EN		ID BUS Aten	`)⊠(YES [□'YES]:	
LOAD	CKT	,	S PER F		CKT	NEUTRAL		WATT		PHASE			<u>-</u>	2(110
SERVICE	BRKR		B	C	NO	A B C	CKT NO	A	B	C	CKT BRKR		LOAD SERVICE	
CORD REEL	20A	1000			1	ATT	1 2	1500				GRINDER	OLIVIOL	
CORD REEL	20A		1000		3		1 4		1500		20A	GRINDLIN		
CORD REEL	20A		1.000	1000	5		6			1500		GRINDER		
CORD REEL	20A	1000			7	$\overline{}$	8	1500			20A	OKINDEN		
CORD REEL	20A		1000		9	$\overline{}$	10		1500			GRINDER		
CORD REEL	20A			1000	11		12			1500	20A	OMINDEN		
REC: EXTERIOR	20A	360			13		14	1500		1.555		GRINDER		
REC: EXTERIOR	20A		360		15	$\overline{}$	16	1000	1500	1.0	20A	OMINDEN		
SPARE	20A		-		17	$\overline{}$	18	- N		1500		GRINDER		
SPARE	20A				19		20	1500		1000	20A	GININDLIN		
SPARE	20A				21		22		1500			GRINDER		
SPARE	20A				23		24			1500	20A	GININDLIN		
SPACE					25		26			1000		SPACE		
SPACE					27		28					SPACE	***************************************	
SPACE					29		30					SPACE		
	SUB-TOTALS 'B'	2000	2000	2000	XXX	_100A	BUS	6000	6000	6000	SUB-	TOTALS 'A'		
1.0120	COD TOTALO D	2000	2000	2000	<u>~~~</u>		LUGS	2000	2000	2000		TOTALS 'B'		
						100A	FEED	8000	8000	8000) TOTAL	TOTAL CON	NECTED LO
						100A 	SIZE	67A	67A	67A		/PHASE		
			1					6/A	0/A	0/A	AMPS	/PHASE		
NEC ALLOWABLE DE	MAND FACTO	RS	DI	VERSI	FIED	LOAD SUI	MMARY			1				
1 DEMAND FACTORS P				LOAD	TYPE	: T	DEMAND	А	В	С	TOTAL	DIVERSIFIED	LOAD	
2 LARGEST OF: NEC T	PER NEC 220		GEN	LOAD IERAL L				A -	В	C	TOTAL	DIVERSIFIED	LOAD	
2 LARGEST OF: NEC T CONNECTED LOAD	PER NEC 220		TRA	IERAL L	IGHTING HTING	0	DEMAND FACTOR(1) 125% 125%				TOTAL		LOAD	
2 LARGEST OF: NEC T	PER NEC 220		TRA	IERAL L ICK LIGH IERAL U	IGHTING HTING ISE	2	DEMAND FACTOR① 125% 125% 10KVA@100%				TOTAL		LOAD	
2 LARGEST OF: NEC T CONNECTED LOAD	PER NEC 220		TRA GEN REC	IERAL LIGH IERAL U EPTACL	IGHTING ITING ISE ES	9	DEMAND FACTOR(1) 125% 125% 10KVA@100%	 			TOTAL) LOAD	
2 LARGEST OF: NEC T CONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51	PER NEC 220 TABLE 220.12 OR		GEN REC	IERAL L ICK LIGH IERAL U ICEPTACL IORS AN	IGHTING HTING ISE ES	② S	DEMAND FACTOR ① 125% 125% 10KVA6100% 10KVA650% 125%				TOTAL		LOAD	
2 LARGEST OF: NEC T CONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 N	PER NEC 220 [ABLE 220.12 OR		GEN REC MOT EQL	IERAL LIGH IERAL U EPTACL	IGHTING HTING ISE ES ND LA	9	DEMAND FACTOR(1) 125% 125% 10KVA@100%				TOTAL		LOAD	
2 LARGEST OF: NEC TONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 NEC 220.43A, 200 NEC 200.43A, 200 NEC 200.43A, 200 NEC 200.43A, 200 NEC 220.43A, 200 NEC 220	PER NEC 220 TABLE 220.12 OR VA/LINEAR FT DADS, LARGEST		TRA GEN REC MOT EQL WAT	IERAL LACK LIGHIERAL UCEPTACLIORS AND INFORMENT	IGHTING HTING USE ES ND LA ATERS	2 S	DEMAND FACTOR(1) 125% 125% 10KVA6900% 10KVA6900% 125% 100%				TOTAL		LOAD	
2 LARGEST OF: NEC T CONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 N	PER NEC 220 TABLE 220.12 OR VA/LINEAR FT DADS, LARGEST		TRA GEN REC MO EQL WA KITO	IERAL LACK LIGHIERAL UEPTACLIORS AND INPMENTER HEACHEN ECELEC.	IGHTING HTING ISE ES ND LA ATERS QUIPMEN	RGEST L OTHERS	DEMAND FACTOR① 125% 125% 100X 100X 100X 100X 100X 100X				TOTAL) LOAD	
2 LARGEST OF: NEC TONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 NEC 200.43A, 200 NEC 200	PER NEC 220 TABLE 220.12 OR VA/LINEAR FT DADS, LARGEST		TRA GEN REC MOT EQU WAT KITO FIX.	IERAL LICK LIGHIERAL UCEPTACLIORS AND IIPMENT IER HEACHEN ECONOMIC CONTRACTOR CONTRACTOR IN THE IER HEACHEN ECONOMIC CONTRACTOR IN THE	IGHTING HTING ISE ES ND LA ATERS QUIPMEN	RGEST L OTHERS	DEMAND FACTOR① 125% 125% 125% 1000% 100% 100% 100% 100% 100% 100%				TOTAL) LOAD	
2 LARGEST OF: NEC TONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 NEC 200.43A, 200 NEC 200	PER NEC 220 TABLE 220.12 OR VA/LINEAR FT DADS, LARGEST		TRA GEN REC MO EQU WA KITO FIX. SHO SIGI	IERAL L ICK LIGH IERAL U EPTACL FORS AN IIPMENT IER HEA CHEN EC ELEC. DW WIND	IGHTING HTING ISE ES ND LA ATERS QUIPMEN	RGEST L OTHERS	DEMAND FACTOR() 125% 125% 125% 100VA6100% 125% 100% 125% 100% 125% 100% 125% 100%				TOTAL		LOAD	
2 LARGEST OF: NEC T CONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 NEC 220.43A, 200 NEC 200.43A	PER NEC 220 TABLE 220.12 OR VA/LINEAR FT DADS, LARGEST		TRA GEN REC MOT EQU WAT KITO FIX.	IERAL L ICK LIGH IERAL U EPTACL FORS AN IIPMENT IER HEA CHEN EC ELEC. DW WIND	IGHTING HTING ISE ES ND LA ATERS QUIPMEN	S S S S S S S S S S S S S S S S S S S	DEMAND FACTOR() 125% 125% 1000% 125% 1000% 125% 1000% 125% 1000% 125% 1000% 125% 1000% 125% 1000%	 8000		 8000	TOTAL	 24000	LOAD	
2 LARGEST OF: NEC T CONNECTED LOAD 3 NEC TABLE 220.56 4 NEC 220.51 5 NEC 220.43A, 200 NEC 220.43A, 200 NEC 200.43A	PER NEC 220 TABLE 220.12 OR VA/LINEAR FT DADS, LARGEST		TRA GEN REC MO EQU WA KITO FIX. SHO SIGI	IERAL L ICK LIGH IERAL U EPTACL FORS AN IIPMENT IER HEA CHEN EC ELEC. DW WIND	IGHTING HTING ISE ES ND LA ATERS QUIPMEN	S S S S S S S S S S S S S S S S S S S	DEMAND FACTOR() 125% 125% 125% 100VA6100% 125% 100% 125% 100% 125% 100% 125% 100%	 8000						TOTAL

NEW PANEL— 'B2'		PRL1a PROVED		M(NITAUC	208/120V G: <u>Surfac</u> AIC: <u>v</u> ef	CE		_ EQU _ SEF	JIPMENT RVICE EI	GROUN	UIT BREAKE ID BUS ATED	:R }XYES □YES		
LOAD Service	CKT BRKR	WATTS	PER F	HASE C	CKT NO	NEUTRA A B C	L CKT NO	WATT	S PER B	PHASE C	CKT BRKR		LOAD SERVICE		•
REC: MTP	20A	360			1	$\overline{\Box}$	\bigcap 2	360				REC: BREA			
REC: IT	20A		360		3	$\overline{}$	$\overline{\uparrow}$		180		20A	REC: BREA			· · · · · ·
REC: IT	20A			360	5		\bigcap 6			1200	20A	DISHWASH			
REC: WAREHOUSE	20A	720			7	$\overline{}$	$\overline{}$	1200			20A	REFRIG			
REC: WAREHOUSE	20A		720		9	$\overline{}$	$\overline{}$ 10	1000	360		20A	REC: BREA	K		
REC: WAREHOUSE	20A			720	11	$\overline{}$	12			1200	20A	REFRIG			
SPARE	20A				13	$\overline{}$	14				20A	SPARE			
SPARE	20A				15		16				20A	SPARE			
SPARE	20A				17		\bigcap 18				20A	SPARE	· · · · · · · · · · · · · · · · · · ·	-::	-
SPACE					19		$\overline{}$ 20				2011	SPACE			
SPACE					21		$\frac{1}{22}$					SPACE			
SPACE					23		24					SPACE			-
SPACE					25	$\overline{}$	$\frac{\overline{26}}{26}$					SPACE			-
SPACE					27		$\frac{}{}$ 28					SPACE	ر.		
SPACE					29		$\overline{}$ 30					SPACE			
NOTES SUB-TOT	ALS 'B'	1080	1080	1080	XXX	4004	BUS	4500	E40			TOTALS 'A'		 	
		1000 1	1000	1000	<u>~~~</u>	100A	LUGS	1560 1080	540	2400		TOTALS 'B'	٠		
GFCI BREAKER						100A	FEED	2640	1080 1620	1080 3480		O TOTAL	TOTAL CO	NECTED	LOAD
						_100A _VERIFY	SIZE	22A	14A	29A		/PHASE			
NEC ALLOWABLE DEMAND	FACTO	RS	DI	VERSI	FIED	LOAD SU		ZZA	ITA	29A	AMPS	/PHASE			
① DEMAND FACTORS PER NEC				LOAD			DEMAND FACTOR ①	Α	В	С	TOTAL	. DIVERSIFIE	D LOAD		
② LARGEST OF: NEC TABLE 220 CONNECTED LOAD).12 OR			ERAL L		2	125%								
(3) NEC TABLE 220.56				CK LIGH ERAL U			125% ≤10KVA@100%	1440	1620	1080		4140			
(4) NEC 220.51			REC	EPTACL	ES		>10KVA 650%								
(5) NEC 220.43A, 200 VA/LINEAR	R FT.			ORS AN	· =	RGEST	125% 100%								
(6) NON-COINCIDENT LOADS, LAR				ER HEA		L OTHERS	125%			===				-	
OF THE TWO LOADS IS COUN				HEN EC			100%	1200		2400		3600			
				ELEC.			100% 125%								
			SIGN	4			125%								
			MIS	3		PHASE (100% IOTAL VA)	2640	1620	3480		7740			
							TOTAL AMPS	22A	14A	29A		LT AMPS	- 22A	TOTAL	

	Revels E4 EQUIF	MEN	IT V	VIRIN	IG	SCHEDULE				
	EQUIPMENT	МСА	моср	VOLTS	PH	WIRE SIZE				
	GPU-1	29.0	40A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT				
	GPU-2	33.0	50A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT				
	GPU-3	33.0	50A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT				
	GPU-4	29.0	40A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT				
	GPU-5	39.0	50A	208V	-3	4-#8, 1-#10 GND IN 1" CONDUIT				
* . *	GPU-6	39.0	50A	208V	3	4-#8, 1-#10 GND IN 1" CONDUIT				
	DHP-1	9.0A	15A	208V	1	3-#12, 1-#12 GND IN 1/2" CONDUIT				

THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS
PRIOR TO ROUGH—IN AND RELEASING GEAR. ADJUST BREAKER, WIRE SIZES, ETC. AS REQUIRED.



RISER WIRING SCHEDULE

- 1 600A: (2 SETS) 4-#350MCM, 1-#1 CU GND, IN (2) 3" CONDUIT
- 2 225A: 4-#4/0, 1-#4 CU GND, IN 2 1/2" CONDUIT
- (3) 100A: 4-#3, 1-#8 CU GND, IN 1 1/4" CONDUIT
- #3/0 CU GND TO BUILDING STEEL, FOUNDATION STEEL AND METALLIC WATER MAIN AND #6 CU GND TO 10" X 5/8" DRIVEN GROUND ROD
- (2) 3" CONDUIT W/ PULL STRING

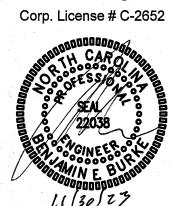
NOTE: UNLESS OTHERWISE NOTED ALL OTHER CIRCUITS ARE 20A, 120V. PROVIDE 2-#12, 1-#12 CU GND IN 1/2" CONDUIT. SEE EQUIPMENT SCHEDULES FOR ADDITIONAL WIRE SIZES.



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ENGINEER





PROJECT TITLE REVELS TURF & TRACTOR

RAWLS CHURCH RD. FUQUAY-VARINA, NORTH CAROLINA

> PROJECT NO. 2232

DRAWING TITLE PANELS & RISER



PLOT DATE AHJ COMMENTS

12/01/23 11/30/23

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