

GENERAL SYMBOLS

	FEEDER TAG - SEE FEEDER SCHEDULE
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
PR	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC., TO REMAIN
PRN	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC., TO BE REMOVED AND REPLACED WITH NEW.
PRR	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC., SHOWN AT NEW LOCATION.
PRX	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC., TO BE REMOVED AND OUTLET BOX EXTENSION INSTALLED FOR SURFACE CONDUIT OR SMR AND WIRE EXTENSION TO NEW OUTLET SHOWN. REINSTALL PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC.
RPC	REMOVE PRESENT FIXTURE, SWITCH, DEVICE, ETC., AND CAP OUTLET.
RPP	REMOVE PRESENT FIXTURE, SWITCH, DEVICE, ETC., PATCH THE PLASTER IF IN PLASTER; CAP IF IN METAL OR WOOD.
RPR	REMOVE PRESENT FIXTURE, SWITCH, DEVICE, ETC., TO BE REMOVED AND RELOCATED WITH NEW FIXTURE AS SHOWN.
RFX	REMOVE PRESENT FIXTURE, SWITCH, DEVICE, ETC., WIRE AND ALL RELATED EXPOSED RACEWAY INsofar AS IS POSSIBLE. ALL DAMAGED SURFACES TO BE REPAIRED.

WIRING SYMBOLS

	CONCEALED CONDUIT AND WIRING
	UNDER FLOOR OR UNDER GROUND CONDUIT AND WIRING
	SURFACE CONDUIT AND WIRING
	GROUND CABLE
	WIRING HOMERUN, INDICATES BRANCH CIRCUIT CONDUIT AND WIRE TO PANELBOARD

MOUNTING HEIGHT SCHEDULE

6'-3" AFF OR 6" BELOW FINISHED CEILING (WHICHEVER IS LOWER (BOTTOM OF LENS, MIN.))	FIRE ALARM HORNS/STROBES
REFERENCE LIGHTING FIXTURE SCHEDULE FOR MOUNTING REQUIREMENTS	PENDANT MOUNTED LIGHT FIXTURES
6'-6"	TOP OF PANELBOARDS, CABINETS
6'-0"	TOP OF DISCONNECT SWITCHES, STARTERS, AND CONTACTORS
4'-0"	TOP OF ACTUATING DEVICE ON LIGHT SWITCHES, FIRE ALARM PULL STATIONS, MANUAL MOTOR STARTERS OR PUSH BUTTON
CTR	COUNTER TOP RECEPTACLE MOUNT CENTER OF RECEPTACLE 6" ABOVE COUNTER TOP OR BACKSPLASH
3'-6"	WALL MOUNTED HANDICAPPED TELEPHONE OUTLETS
2'-0"	ELECTRICAL RECEPTACLES IN MECHANICAL/ELECTRICAL ROOMS & ELEVATOR MACHINE ROOMS
1'-6"	ELECTRICAL RECEPTACLES (U.N.O.) COMMUNICATIONS/DATA OUTLETS (U.N.O.)
0'-0"	FINISHED FLOOR

LIGHTING SYMBOLS

	2x2 RECESSED FIXTURE
	2x4 RECESSED FIXTURE
	4 RECESSED FIXTURE
	8 RECESSED FIXTURE
	4 SURFACE MOUNTED FIXTURE
	2x4 SURFACE MOUNTED FIXTURE
	STRIP FIXTURE
	DOWNLIGHT FIXTURE
	WALL MOUNTED FIXTURE

LIGHTING FIXTURE KEY

SHADING INDICATES FIXTURE ON EMER. CIRCUIT

INDICATES PANEL NAME

INDICATES CIRCUIT NUMBER

INDICATES FIXTURE TYPE SEE SCHEDULE FOR DESCRIPTION

INDICATES SWITCH CONTROL (a)

POWER SYMBOLS

WALL	FLR	CLG	DESCRIPTION
			DUPLEX RECEPTACLE
			EMERGENCY DUPLEX RECEPTACLE
			QUAD RECEPTACLE
			EMERGENCY QUAD RECEPTACLE
			SIMPLEX RECEPTACLE
			SPLIT WIRED RECEPTACLE
			SPECIAL RECEPTACLE NEMA TYPE AS SHOWN
			SPECIAL RECEPTACLE NEMA TYPE AS SHOWN
			JUNCTION BOX

POWER DEVICE KEY

INDICATES PANEL NAME

INDICATES CIRCUIT NUMBER

DEVICE SYMBOL

NO. OF POLES

NO. OF LUGS

NEMA TYPE

FUSED # OR NF

SECURITY SYMBOLS

	SECURITY ACCESS CONTROL PANEL
	ELECTRONIC KEY SWITCH
	DOOR CONTACT
	ELECTRONIC LOCK DEVICE
	REQUEST TO EXIT
	PANIC BUTTON
	VIDEO CAMERA IN DOME
	VIDEO CAMERA

NOMENCLATURE:

FW FIXED WALL MOUNTED VIDEO CAMERA

FC FIXED CEILING MOUNTED

PTZ-C PAN, TILT, ZOOM CEILING MTD

PTZ-W PAN, TILT, ZOOM WALL MTD

POWER SYMBOLS

WALL	FLR	CLG	DESCRIPTION
			DUPLEX RECEPTACLE
			EMERGENCY DUPLEX RECEPTACLE
			QUAD RECEPTACLE
			EMERGENCY QUAD RECEPTACLE
			SIMPLEX RECEPTACLE
			SPLIT WIRED RECEPTACLE
			SPECIAL RECEPTACLE NEMA TYPE AS SHOWN
			SPECIAL RECEPTACLE NEMA TYPE AS SHOWN
			JUNCTION BOX

NOMENCLATURE:

6" ABOVE COUNTER

+48 MOUNTED 48" A.F.F.

CR OVERHEAD CORD REEL

GF GROUND FAULT INTERRUPTER

IG ISOLATED GROUND

TR TAMPER RESISTANT

WP WEATHER PROOF

NUMERICAL NUMBER INDICATES THE NUMBER OF DEVICES

POWER DEVICE KEY

INDICATES PANEL NAME

INDICATES CIRCUIT NUMBER

DEVICE SYMBOL

NO. OF POLES

NO. OF LUGS

NEMA TYPE

FUSED # OR NF

DISCONNECT SWITCH KEY

SIZE

NO. OF POLES

NEMA TYPE

FUSED # OR NF

ACCESS / CONTROL SYMBOLS

	DOOR RELEASE BUTTON
	CARD READER
	TOUCH PAD
	ELECTROMAGNETIC LOCK
	DOOR HOLDER
	DOOR CHIME
	DOOR BELL PUSHBUTTON
	DOOR BELL
	BELL
	BUZZER

COMMUNICATION SYMBOLS

	VOICE/DATA OUTLET. PROVIDE 4" SQUARE BOX WITH SINGLE GANG DEVICE BRACKET AND 1" EMT CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING - PROVIDE (3) DATA KEYSTONES, COVERPLATE AND PULL STRING. (CAT6 CABLE AND NETWORK INTERCONNECTION IS BY OTHERS.)
	FLOOR MOUNTED VOICE/DATA OUTLET. PROVIDE LEGRAND RFB9 AVY FLOOR BOX AND 1" EMT CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING - PROVIDE (3) DATA KEYSTONES, COVERPLATE AND PULL STRING. (CAT6 CABLE AND NETWORK INTERCONNECTION IS BY OTHERS.)
	WIRELESS ACCESS POINT - PROVIDE IN-CEILING BRACKET AND PLENUM RATED SURFACE BOX. LEVITON 41089-2XP WITH 49223-CBC BRACKET. (OR APPROVED EQUAL.) (AP AND NETWORK INTERCONNECTION BY OTHERS.)
	TV OR SHORT THROW PROJECTOR INSTALLATION LOCATION. PROVIDE (2) 2-GANG BOXES EACH WITH (1) DUPLEX RECEPTACLE AND (1) CAT6 DATA KEYSTONE AT 84" HEIGHT AND 18" HEIGHT. (CAT6 CABLE AND NETWORK INTERCONNECTION IS BY OTHERS.)

FIRE ALARM SYMBOLS

	FIRE ALARM STROBE DEVICE
	FIRE ALARM SPEAKER/STROBE DEVICE
	FIRE ALARM HORN/STROBE DEVICE
	FIRE ALARM HORN
	FIRE ALARM MANUAL PULL STATION
	FIREMAN'S TELEPHONE JACK
	SMOKE DETECTOR
	HEAT DETECTOR
	CARBON MONOXIDE DETECTOR
	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY PANEL
	FIRE ALARM CONTROL MODULE
	FIRE ALARM DUCT SMOKE DETECTOR
	FIRE ALARM DOOR HOLD OPEN
	FIRE ALARM ANNUNCIATOR
	FIRE ALARM COMMAND CENTER
	FIRE ALARM CONTROL PANEL
	FIRE ALARM TERMINAL CABINET
	FIRE FIGHTERS TELEPHONE SYSTEM
	FLOW SWITCH WITH FIRE ALARM MONITORING MODULE
	TAMPER SWITCH WITH FIRE ALARM MONITORING MODULE
	FIRE ALARM SMOKE DAMPER
	SPRINKLER ALARM PANEL
	TWO WAY ELEVATOR CALL STATION W/SIGNAGE.
	TWO WAY ELEVATOR COMMUNICATION MASTER STATION. LOCATE AS DIRECTED BY AHJ.

ABBREVIATIONS

ABBREV.	DEFINITION
A	AMPS
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
EGC	EQUIPMENT GROUNDING CONDUCTOR
FLA	FULL LOAD AMPS
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
KVA	KILOVOLT AMPS
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRIC CODE
P	POLE
OR PH	OR PHASE
PVC	POLYVINYL CHLORIDE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTAGE
WP	WEATHERPROOF

GENERAL NOTES

- PERFORM INSTALLATION IN ACCORDANCE WITH THE CODES OF RECORD, NATIONAL ELECTRICAL CODE (NEC), AND THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), LOCAL INSPECTION REQUIREMENTS, WAKE ELECTRIC (LOCAL UTILITY) REGULATIONS, AND EQUIPMENT MANUFACTURER REQUIREMENTS.
- EQUIPMENT SHALL BE LISTED BY A THIRD PARTY AGENCY ACCREDITED BY THE NCCBC TO LABEL ELECTRICAL AND MECHANICAL EQUIPMENT.
- PROVIDE PROVISIONS TO LOCK EACH CIRCUIT BREAKER. PROVISIONS SHALL REMAIN IN PLACE WITH OR WITHOUT THE LOCK INSTALLED.
- ROUTE RACEWAYS TO SUIT EQUIPMENT AND BUILDING STRUCTURE. LIMIT THE USE OF EMT TO AREAS WHERE IT WILL NOT BE SUBJECT TO PHYSICAL DAMAGE OR CORROSION. USE IMC, PVC, OR RMC FOR WORK EMBEDDED IN CONCRETE. USE IMC OR RMC FOR WORK EXPOSED TO PHYSICAL DAMAGE. USE MINIMUM 3/4 INCH CONDUIT EXCEPT AS FOLLOWS: 1/2" CONDUIT MAY BE USED FOR CONTROL CIRCUITS; 3/8" FLEXIBLE METAL CONDUIT MAY BE USED TO CONNECT LIGHT FIXTURES IN SUSPENDED CEILINGS. USE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR FLEXIBLE CONNECTIONS TO EQUIPMENT IN MECHANICAL ROOMS OR OUTDOORS.
- NEW BRANCH CIRCUITS SHALL BE LABELED AT THE ORIGINATING PANELBOARD, ON THE PANELBOARD LEGEND. THEY SHALL BE ALSO LABELED AT THE LOAD END ON THE RECEPTACLE, LIGHT SWITCH, OR THE PIECE OF EQUIPMENT (E.G. MOTOR STARTER, SAFETY SWITCH).
- ENERGIZATION OF NEW SYSTEMS AND NECESSARY POWER OUTAGES REQUIRE AUTHORIZATION OF FACILITY PROJECT MANAGEMENT. THIS MAY INVOLVE NIGHT SHIFT WORK OR SPECIFIC TIME FRAMES OF LIMITED DURATION TO MINIMIZE OCCUPANT DISRUPTION.
- RACEWAY PENETRATIONS THROUGH WALLS AND/OR FLOORS SHALL BE SEALED APPROPRIATELY WITH AN APPROVED SEALANT. IF THE PENETRATION IS THROUGH A FIRE-RATED ASSEMBLY, IT SHALL BE A LISTED FIRE SEAL INSTALLED IN COMPLIANCE WITH THE UL DETAIL (UL 1479).
- INTERNAL RACEWAY SEALS FOR WATER, TEMPERATURE, SHALL BE IDENTIFIED FOR USE WITH THE CONDUCTOR OR CABLE INSULATION.
- ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. COORDINATE ROUGH-IN REQUIREMENTS AND INSTALLATION REQUIREMENTS WITH OTHER TRADES.
- PROVIDE ALL NECESSARY ANGLES, CHANNELS, SLOTTED CHANNEL, AND SUPPORTS, AS REQUIRED TO ADEQUATELY SUPPORT ELECTRICAL RACEWAYS AND ASSOCIATED EQUIPMENT IN A MANNER THAT DOES NOT OVERLOAD THE BUILDING STRUCTURAL SYSTEM.
- THE NEC SIZE REQUIREMENTS FOR PULL BOXES, JUNCTION BOXES, AND CONDUIT BODIES ARE AS FOLLOWS:
 - USE 314.16 FOR CONDUCTORS 6 AWG AND SMALLER.
 - USE 314.28 FOR CONDUCTORS 4 AWG AND LARGER.
- ALL PRODUCTS MUST MEET BABAA REQUIREMENTS.

CONTRACTOR SHALL INCLUDE MANUFACTURER'S CERTIFICATION FOR BABAA REQUIREMENTS WITH ALL APPLICABLE SUBMITTALS. IF A SPECIFIC MANUFACTURE IS USED IN THE BIDDING, A STATEMENT THAT MANUFACTURER WILL COMPLY WITH BABAA MUST BE INCLUDED WITH THE BID SUBMISSION. CONTRACTOR SHALL COMPLY WITH BABAA REQUIREMENTS, INCLUDING COORDINATION WITH MANUFACTURERS, DISTRIBUTORS, AND SUPPLIERS TO CORRECT DEFICIENCIES IN ANY BABAA DOCUMENTATION.

ENGINEER/ARCHITECT APPROVAL OF SHOP DRAWINGS OR SAMPLES SHALL INCLUDE REVIEW OF BABAA DOCUMENTATION.

CONTRACTOR SHALL CERTIFY UPON COMPLETION THAT ALL WORK AND MATERIALS HAVE COMPLIED WITH BABAA REQUIREMENTS.

FOR ANY CHANGE ORDERS, CONTRACTOR SHALL PROVIDE BABAA DOCUMENTATION FOR ANY NEW PRODUCTS OR MATERIALS REQUIRED BY THE CHANGE.

INSTALLATION OF MATERIALS OR PRODUCTS THAT ARE NOT COMPLIANT WITH BABAA REQUIREMENTS SHALL BE CONSIDERED DEFECTIVE WORK. CONTRACTOR SHOULD ENSURE THAT ENGINEER/ARCHITECT HAS AN APPROVED MANUFACTURER'S CERTIFICATION OR WAIVER PRIOR TO ITEMS BEING DELIVERED TO THE PROJECT SITE.

ABBREVIATIONS

ABBREV.	DEFINITION
A	AMPS
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
EGC	EQUIPMENT GROUNDING CONDUCTOR
FLA	FULL LOAD AMPS
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
KVA	KILOVOLT AMPS
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRIC CODE
P	POLE
OR PH	OR PHASE
PVC	POLYVINYL CHLORIDE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTAGE
WP	WEATHERPROOF



YOUNGSVILLE ACADEMY
NEW HIGH SCHOOL
2179 Hicks Rd
Youngsville, NC 27596



NO.	REASON	DATE
1	FRANKLIN COUNTY BUILDING SUBMISSION	12/15/2022
2	COUNTY REVIEW CYCLE 1	02/13/2023
3	COUNTY REVIEW CYCLE 2	03/08/2023
4	CONSTRUCTION DOCUMENTS FOR BID	04/03/2023

Issue Date: 12/15/2022
Job Number: 60796-1
Drawn By: JDB
Checked By: JDB

ELECTRICAL - SYMBOLS, ABBREVIATIONS & GEN. NOTES

E001

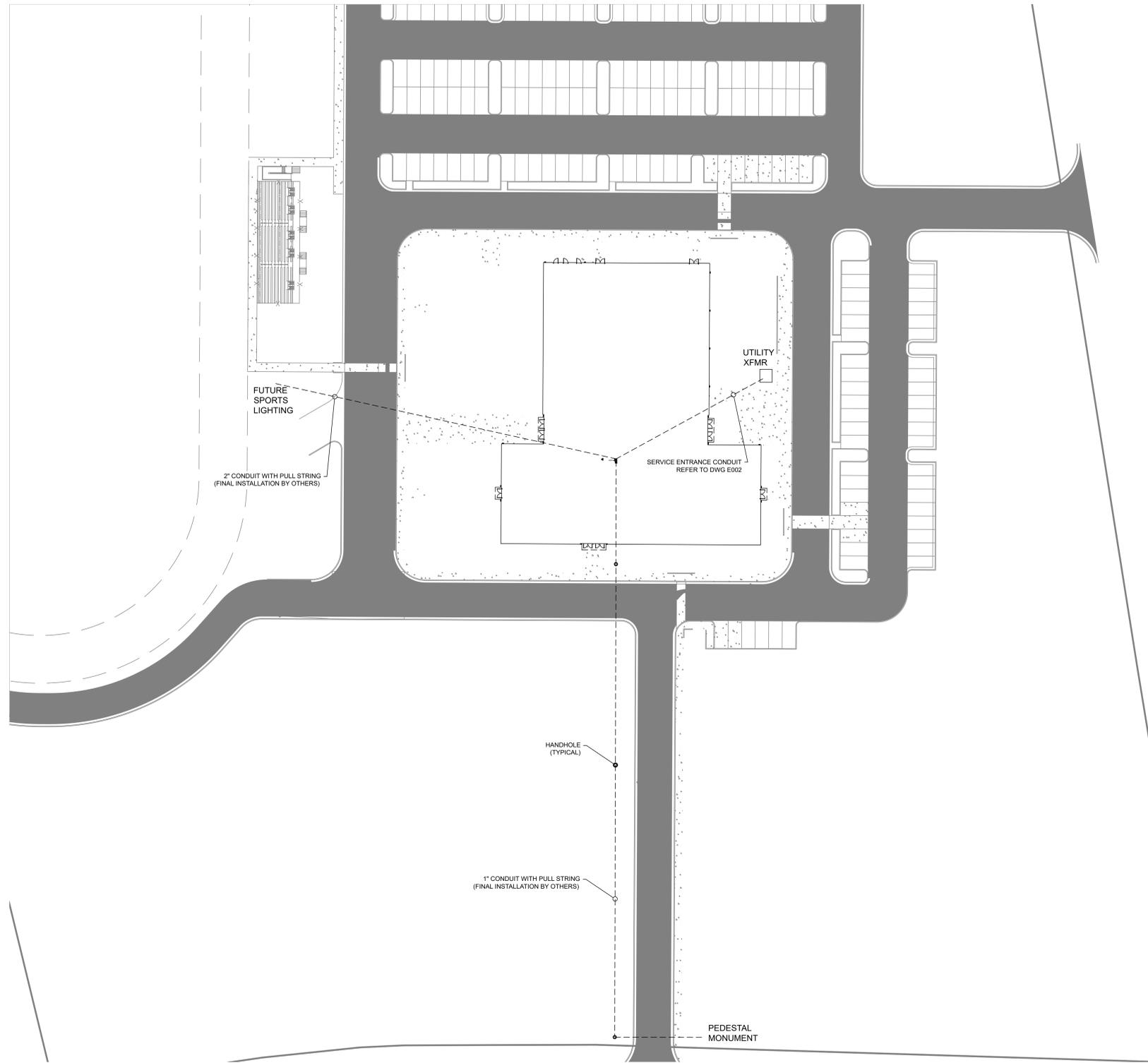
PANELBOARD: MDP																		
SERVED FROM: UTILITY		TYPE: M.C.B.		VOLTAGE (L-L): 480		MINIMUM		CONNECTED LOAD:										
ENCLOSURE RATING: NEMA 1		RATING: 800		VOLTAGE (L-N): 277		AIC RATING: 42,000		447.10 KVA		538 AMPERES								
MOUNTING: SURFACE				PHASE: 3		WIRE: 4												
CIR. NO.	DESCRIPTION	RACWVA Y	EQUIPMENT GROUND WIRE	COPPER WIRE FSC TERMINALS	BREAKER TYPE	OVERCURRENT PROTECTION SIZE	POLE	PHASE LOADS (KVA)			OVERCURRENT PROTECTION SIZE	BREAKER TYPE	COPPER WIRE FSC TERMINALS	EQUIPMENT GROUND WIRE	RACWVA Y	DESCRIPTION	CIR. NO.	
								A	B	C								
1	PANEL DP1A	1-1/4"	8	3	STANDARD	100	3	11.91	100.56		3	400				PANEL DP2A	2	
3	SEE ABOVE							12.08	102.29							SEE ABOVE	4	
5	SEE ABOVE							9.58	98.49							SEE ABOVE	6	
7	FUTURE TRACK CKT.	1-1/4"	8	3	STANDARD	100	3	14.00	4.43		3	20	STANDARD	12	12	3/4"	ELEVATOR	8
9	SEE ABOVE							14.00	4.43							SEE ABOVE	10	
11	SEE ABOVE							14.00	4.43							SEE ABOVE	12	
13	SPACE							3.00	20.28		3	110	STANDARD	2	6	3-1/2"	75KVA XFM (THIS RM)	14
15	SPACE							0.00	20.74							SEE ABOVE	16	
17	SPACE							0.00	16.26							SEE ABOVE	18	
NOTES:								CONNECTED LOAD PHASE TOTALS (KVA)										
								A = 150.80	B = 153.54	C = 142.76								

PANELBOARD: DP1A																		
SERVED FROM: MDP		TYPE: M.L.O.		VOLTAGE (L-L): 480		MINIMUM		CONNECTED LOAD:										
ENCLOSURE RATING: NEMA 1		RATING: 100		VOLTAGE (L-N): 277		AIC RATING: 42,000		33.02 KVA		40 AMPERES								
MOUNTING: SURFACE				PHASE: 3		WIRE: 4												
CIR. NO.	DESCRIPTION	RACWVA Y	EQUIPMENT GROUND WIRE	COPPER WIRE FSC TERMINALS	BREAKER TYPE	OVERCURRENT PROTECTION SIZE	POLE	PHASE LOADS (KVA)			OVERCURRENT PROTECTION SIZE	BREAKER TYPE	COPPER WIRE FSC TERMINALS	EQUIPMENT GROUND WIRE	RACWVA Y	DESCRIPTION	CIR. NO.	
								A	B	C								
1	LIGHTING FL 1 CKT #1	3/4"	12	12	STANDARD	20	3	2.10	6.00		3	30	STANDARD	10	10	1"	DW-1	2
3	LIGHTING FL 1 CKT #2	3/4"	12	12	STANDARD	20	3	1.98	6.00								SEE ABOVE	4
5	LIGHTING FL 1 CKT #3	3/4"	12	12	STANDARD	20	3	2.47	6.00								SEE ABOVE	6
7	LIGHTING GYM AUX. ROOMS	3/4"	12	12	STANDARD	20	3	2.91	0.00		1	20	STANDARD				SEE ABOVE	8
9	LIGHTING GYM (A14)	3/4"	12	12	STANDARD	20	3	4.10	0.00		1	20	STANDARD				SPARE	10
11	LIGHTING EXTENSION	3/4"	12	12	STANDARD	20	3	0.96	0.00		1	20	STANDARD				SPARE	12
13	(FUTURE) LIGHTS SHN	3/4"	12	12	STANDARD	20	3	0.50	0.00		1	20	STANDARD				SPARE	14
15	SPACE							0.00	0.00		1	20	STANDARD				SPARE	16
17	SPACE							0.00	0.00		1	20	STANDARD				SPARE	18
NOTES:								CONNECTED LOAD PHASE TOTALS (KVA)										
								A = 11.51	B = 12.08	C = 9.43								

PANELBOARD: RP1A																			
SERVED FROM: UTILITY		TYPE: M.C.B. W/FEEED THROUGH		VOLTAGE (L-L): 208		MINIMUM		CONNECTED LOAD:											
ENCLOSURE RATING: NEMA 1		RATING: 225		VOLTAGE (L-N): 120		AIC RATING: 10,000		31.20 KVA		87 AMPERES									
MOUNTING: SURFACE				PHASE: 3		WIRE: 4													
CIR. NO.	DESCRIPTION	RACWVA Y	EQUIPMENT GROUND WIRE	COPPER WIRE FSC TERMINALS	BREAKER TYPE	OVERCURRENT PROTECTION SIZE	POLE	PHASE LOADS (KVA)			OVERCURRENT PROTECTION SIZE	BREAKER TYPE	COPPER WIRE FSC TERMINALS	EQUIPMENT GROUND WIRE	RACWVA Y	DESCRIPTION	CIR. NO.		
								A	B	C									
1	A107 RECEIPTS	3/4"	12	12	STANDARD	20	1	1.08	1.00		1	20	STANDARD	12	12	3/4"	IT Q1AD A11343	2	
3	A106/A102 RECEIPTS	3/4"	12	12	STANDARD	20	1	1.62	0.18		1	20	STANDARD	12	12	3/4"	ELEV RECEIPT #1	4	
5	A102 COPPER (D80)	3/4"	12	12	STANDARD	20	1			1.00	0.18	1	20	STANDARD	12	12	3/4"	ELEV RECEIPT #2	6
7	A101/A100/A103 RECEIPTS	3/4"	12	12	STANDARD	20	1	0.90	0.72		1	20	STANDARD	12	12	3/4"	A111/A101 RECEIPTS #1	8	
9	A108/A109 RECEIPTS	3/4"	12	12	STANDARD	20	1			1.62	0.36	1	20	STANDARD	12	12	3/4"	A111/A101 RECEIPTS #2	10
11	A102/A104 RECEIPTS	3/4"	12	12	STANDARD	20	1			1.26	0.90	1	20	STANDARD	12	12	3/4"	A102 CORR	12
13	A125/INTX RECEIPTS	3/4"	12	12	STANDARD	20	1	1.26	1.00		1	20	STANDARD	12	12	3/4"	A111 COPPER (D10)	14	
15	A124 TEACH WALL RECEIPTS	3/4"	12	12	STANDARD	20	1	0.90	0.90		1	20	STANDARD	12	12	3/4"	A110 TEACH WALL RECEIPTS	16	
17	A123/A124 RECEIPTS	3/4"	12	12	STANDARD	20	1			1.62	1.08	1	20	STANDARD	12	12	3/4"	A110 RECEIPTS	18
19	A121 TEACH WALL RECEIPTS	3/4"	12	12	STANDARD	20	1	1.08	0.50		1	20	STANDARD	12	12	3/4"	FIRE ALARM CKT	20	
21	A121/A122 RECEIPTS	3/4"	12	12	STANDARD	20	1			1.26	0.94	1	20	STANDARD	12	12	3/4"	A126 RECEIPTS	22
23	CORR A102/INTX RECEIPTS	3/4"	12	12	STANDARD	20	1			1.26	0.18	1	20	STANDARD	12	12	3/4"	ELEVATOR CONV REC	24
25	A119 TEACH WALL RECEIPTS	3/4"	12	12	STANDARD	20	1	0.72	0.12		1	20	STANDARD	12	12	3/4"	ELEVATOR LIGHTS	26	
27	A119 RECEIPTS	3/4"	12	12	STANDARD	20	1			1.08	1.18	1	20	STANDARD	12	12	3/4"	ELEVATOR SUMP REC	28
29	A118 TEACH WALL RECEIPTS	3/4"	12	12	STANDARD	20	1			0.90		1	20	STANDARD				SPARE	30
31	A118 RECEIPTS	3/4"	12	12	STANDARD	20	1	1.08				1	20	STANDARD				SPARE	32
33	A115/COOLER	3/4"	12	12	STANDARD	20	1		1.18			1	20	STANDARD				SPARE	34
35	A117 RECEIPTS	3/4"	12	12	STANDARD	20	1			0.36		1	20	STANDARD				SPARE	36
37	A115/COOLER	3/4"	12	12	STANDARD	20	1	1.18				1	20	STANDARD				SPARE	38
39	IT Q1AD A11342	3/4"	12	12	STANDARD	20	1			1.00		1	20	STANDARD				SPARE	40
41	IT Q1AD A11342	3/4"	12	12	STANDARD	20	1					1	20	STANDARD				SPARE	42
NOTES:								CONNECTED LOAD PHASE TOTALS (KVA)											
								A = 10.64	B = 11.82	C = 8.74									

PANELBOARD: DP2A																			
SERVED FROM: MDP		TYPE: M.L.O.		VOLTAGE (L-L): 480		MINIMUM		CONNECTED LOAD:											
ENCLOSURE RATING: NEMA 1		RATING: 800		VOLTAGE (L-N): 277		AIC RATING: 42,000		301.81 KVA		362 AMPERES									
MOUNTING: SURFACE				PHASE: 3		WIRE: 4													
CIR. NO.	DESCRIPTION	RACWVA Y	EQUIPMENT GROUND WIRE	COPPER WIRE FSC TERMINALS	BREAKER TYPE	OVERCURRENT PROTECTION SIZE	POLE	PHASE LOADS (KVA)			OVERCURRENT PROTECTION SIZE	BREAKER TYPE	COPPER WIRE FSC TERMINALS	EQUIPMENT GROUND WIRE	RACWVA Y	DESCRIPTION	CIR. NO.		
								A	B	C									
1	RTU-1-1	3/4"	12	12	STANDARD	20	3	5.54	8.31		3	30	STANDARD	10	10	1"	RTU-2-1	2	
3	SEE ABOVE								5.54	8.31							SEE ABOVE	4	
5	SEE ABOVE									5.54	8.31						SEE ABOVE	6	
7	RTU-1-2	3/4"	10	10	STANDARD	25	3	6.93	8.31		3	30	STANDARD	10	10	1"	RTU-2-2	8	
9	SEE ABOVE								6.93	8.31							SEE ABOVE	10	
11	SEE ABOVE									6.93	8.31						SEE ABOVE	12	
13	RTU-1-3	3/4"	12	12	STANDARD	20	3	5.54	8.31		3	30	STANDARD	10	10	1"	RTU-2-3	14	
15	SEE ABOVE								5.54	8.31							SEE ABOVE	16	
17	SEE ABOVE									5.54	8.31						SEE ABOVE	18	
19	RTU-1-4	1"	10	10	STANDARD	30	3	8.31	8.31		3	30	STANDARD	10	10	1"	RTU-2-4	20	
21	SEE ABOVE								8.31	8.31							SEE ABOVE	22	
23	SEE ABOVE									8.31	8.31						SEE ABOVE	24	
25	RTU-1-5	1"	10	10	STANDARD	30	3	8.31	1.61		1	20	STANDARD	12	12	3/4"	LIGHTING FL 2 CKT#1	26	
27	SEE ABOVE								8.32	2.00		1	20	STANDARD	12	12	3/4"	LIGHTING FL 2 CKT#2	28
29	SEE ABOVE								8.31	1.94		1	20	STANDARD	12	12	3/4"	LIGHTING FL 2 CKT#3	30
31	RTU-1-6	1-1/4"	8	4	STANDARD	70	3	19.40	0.00		3	30	STANDARD	10	10	1"	SPACE	32	
33	SEE ABOVE								19.40	0.00							SEE ABOVE	34	
35	SEE ABOVE								19.40	0.00							SEE ABOVE	36	
37	M-1	3/4"	10	10	STANDARD	25	2	2.60	9.10		3	70	STANDARD	4	8	1-1/4"	65KVA XFM (THIS ROOM)	38	
39	SEE ABOVE								2.60	9.51							SEE ABOVE	40	
41	SPACE							0.00	9.69								SEE ABOVE	42	
NOTES:								CONNECTED LOAD PHASE TOTALS (KVA)											
								A = 100.58	B = 102.20	C = 98.94									

PANELBOARD: RP1B															
SERVED FROM: UTILITY		TYPE: M.L.O.		VOLTAGE (L-L): 208		MINIMUM		CONNECTED LOAD:							
ENCLOSURE RATING: NEMA 1		RATING: 225		VOLTAGE (L-N): 120		AIC RATING: 10,000		26.08 KVA		72 AMPERES					
MOUNTING: SURFACE				PHASE: 3		WIRE: 4									
CIR. NO.	DESCRIPTION	RACWVA Y	EQUIPMENT GROUND WIRE	COPPER WIRE FSC TERMINALS	BREAKER TYPE	OVERCURRENT PROTECTION SIZE	POLE	PHASE LOADS (KVA)			OVERCURRENT PROTECTION SIZE	BREAKER TYPE	COPPER WIRE FSC TERMINALS	EQUIPMENT GROUND WIRE	RACWVA Y



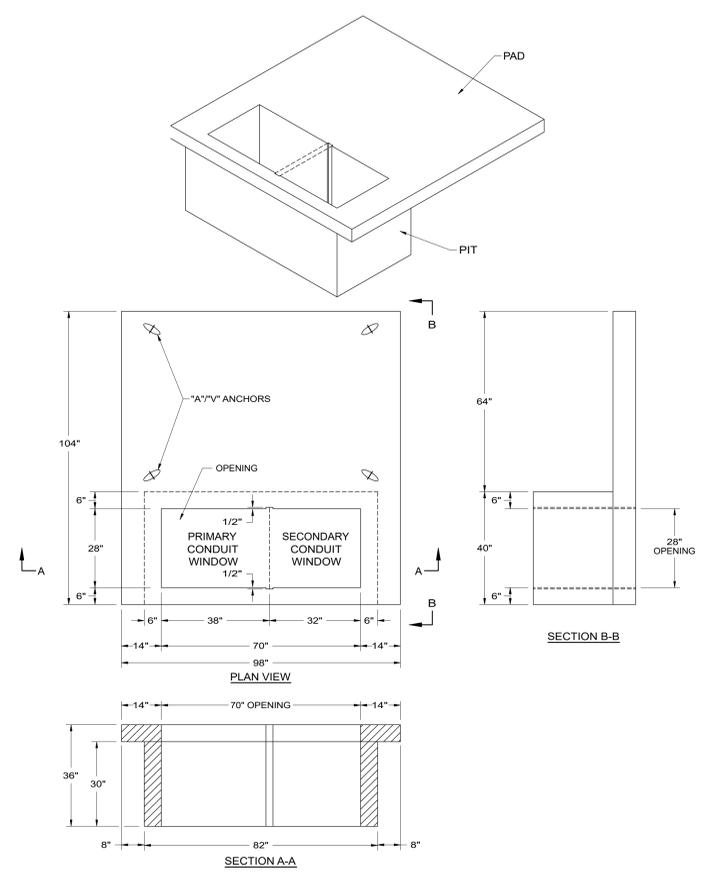
1
E-003
SCALE: 1/32" = 10"

KEYED NOTES:

◇ UNDERGROUND WIRING SHALL BE INSTALLED IN PVC SCHEDULE 40 CONDUIT AND SHALL BE AT A MINIMUM DEPTH OF 24 INCHES WHEN UNDER STREETS, HIGHWAYS, ROADS, ALLEYS, DRIVEWAYS AND PARKING LOTS AND FOR SERVICE ENTRANCE REQUIREMENTS AND 18 INCHES TYPICALLY OTHERWISE. [REFER TO NEC TABLE T300.5 FOR MINIMUM COVER REQUIREMENTS.] TRENCHES SHALL BE BACK-FILLED WITH EXCAVATED SOIL AND COMPACTED TO APPROXIMATELY THE SAME DENSITY OF THE SURROUNDING SOIL TO MINIMIZE SETTLEMENT.

2
E003
SCALE: N.T.S.

1. COORDINATE WITH UTILITY PRIOR TO INSTALLATION. TRANSFORMER PIT PAD SHALL BE SUPPLIED BY ELECTRICAL CONTRACTOR.



REVIEWED FOR CODE COMPLIANCE
 FRANKLIN COUNTY NORTH CAROLINA
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03/30/2023



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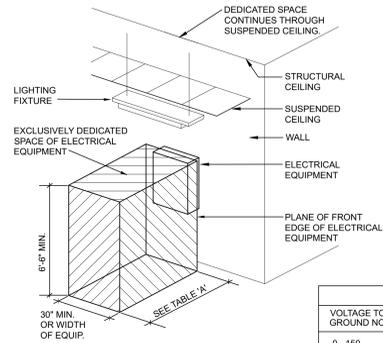
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 2179 Hicks Rd
Youngsville, NC 27596



NO.	REASON	DATE
1	FRANKLIN COUNTY BUILDING SUBMISSION	12/15/2022
2	COUNTY REVIEW CYCLE 1	02/13/2023
3	COUNTY REVIEW CYCLE 2	03/08/2023

Issue Date: 12/15/2022
Job Number: 60796-1
Drawn By: JDB
Checked By: JDB

ELECTRICAL - UNDERGROUND CONDUIT PLAN
E003



VOLTAGE TO GROUND NOMINAL	MINIMUM CLEAR DISTANCE (FEET)		
	CONDITION: 1	2	3
0 - 150	3	3	3
151 - 600	3	3.5	4

THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. SEE N.E.C. FOR VOLTAGES GREATER THAN THOSE LISTED. SEE N.E.C. FOR EXCEPTIONS TO TABLE 'A'.

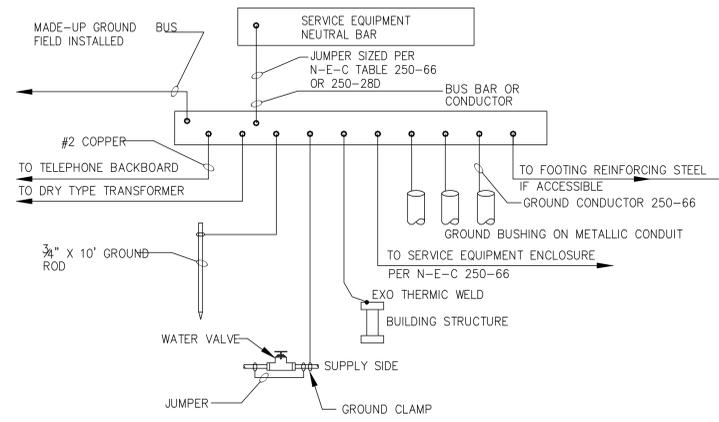
VOLTAGE TO GROUND NOMINAL	MINIMUM CLEAR DISTANCE (FEET)		
	CONDITION: 1	2	3
601 - 2500	3	4	5
2501 - 9000	4	5	6
9001 - 25,000	5	6	9
25,001 - 75 kV	6	8	10
ABOVE 75kV	8	10	12

WHERE THE CONDITIONS ARE AS FOLLOWS:

1. 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 OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300 VOLTS SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

1 ELECTRICAL EQUIPMENT WORKING CLEARANCES

E-004 SCALE: NOT TO SCALE



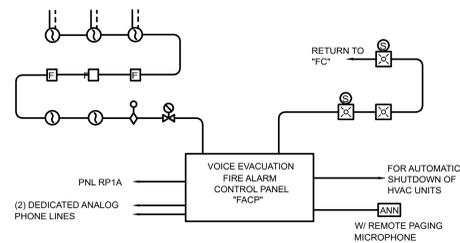
2 SERVICE EQUIPMENT GROUNDING

E-004 SCALE: NOT TO SCALE

	SYSTEM OUTPUTS																																	
	CONTROL UNIT ANNUNCIATION					NOTIFICATION					REQUIRED FIRE SAFETY CONTROL					SUPPLEMENTARY																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	
1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
9	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
11	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
12	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
13	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
14	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
15	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
16	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
17	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
18	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
19	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
20	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
21	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

3 FIRE ALARM SYSTEM MATRIX

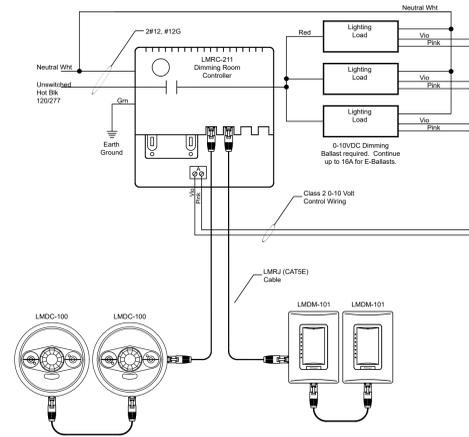
E-004 SCALE: NOT TO SCALE



5 FIRE ALARM RISER DIAGRAM

E-004 SCALE: NOT TO SCALE

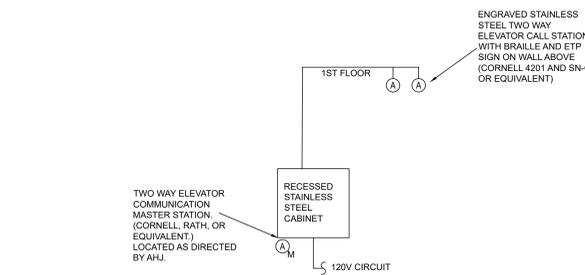
1. ALL CONDUIT SHALL BE 3/4" MIN WITH WIRING AS REQUIRED BY MANUFACTURER. PAINT ALL JUNCTION BOXES, COVERS AND MARK CONDUIT EVERY 10' WITH RED PAINT.
2. DUCT MOUNTED SMOKE DETECTORS TO BE PROVIDED AND WIRED TO FACP BY ELECTRICAL. MOUNTED IN RETURN DUCT OF EACH HVAC UNIT BY MECHANICAL.
3. REFERENCE MECHANICAL DRAWINGS FOR EXACT LOCATIONS. PROVIDE AUXILIARY CONTACT FOR MECHANICAL USE.
4. ELECTRICAL CONTRACTOR SHALL WIRE FROM FACP TO EACH INDIVIDUAL AIR HANDLER CONTROL CIRCUIT TO INSTALL SHUT DOWN CONTACT AS REQUIRED BY NFPA.



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03/30/2023

4 TYPICAL LIGHTING OVERHEAD DIMMER WITH OCCUPANCY SENSORS

E-004 SCALE: NOT TO SCALE



6 TWO WAY COMMUNICATION SYSTEM DETAILS

E003 SCALE: N.T.S.

1. A TWO WAY COMMUNICATION SYSTEM SHALL BE PROVIDED AT THE ELEVATOR LANDING ON EACH ACCESSIBLE FLOOR THAT IS ONE OR MORE STORIES OR BELOW THE STORY OF EXIT DISCHARGE COMPLYING WITH SECTION 1009.8.1 AND 1009.8.2 OF THE NC STATE BUILDING CODE.
2. ALL EQUIPMENT SHALL BE OF THE SAME MANUFACTURER AND MEET THE REQUIREMENTS OF ADA AND OTHER CODES AND REQUIREMENTS.
3. SYSTEM SHALL BE WIRED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION MANUAL IN A MINIMUM OF 1/2" CONDUIT.
4. OPERATION OF SYSTEM SHALL BE HANDS FREE.
5. SYSTEM SHALL INCLUDE BOTH AUDIBLE AND VISIBLE SIGNALS.
6. CALL STATIONS TO HAVE PANIC BUTTONS LABELED "PUSH FOR HELP" MOUNTED AT 44" A.F.F. TO CENTER.
7. SEE PLANS FOR EXACT LOCATIONS AND QUANTITY. MASTER STATION LOCATION SHALL BE COORDINATED WITH FIRE MARSHAL BEFORE INSTALLATION.
8. PROVIDE ONE (1) RJ11 MODULAR PHONE PORT FOR MASTER STATION. UNIT SHALL BE PROGRAMMED TO AUTOMATICALLY CALL OUT TO 911 IN THE EVENT THE MASTER STATION IS NOT PICKED UP.
9. COMMAND UNIT SHALL HAVE A BATTERY BACK UP FOR A MINIMUM OF THREE (3) HOURS. ALL BATTERY BACK UP SHALL BE CONCEALED ABOVE LOCAL UNIT OR WITHIN MASTER STATION (FLUSH).
10. PATHWAY SURVIVABILITY OF TWO (2) HOURS IS REQUIRED FOR ALL CABLING.



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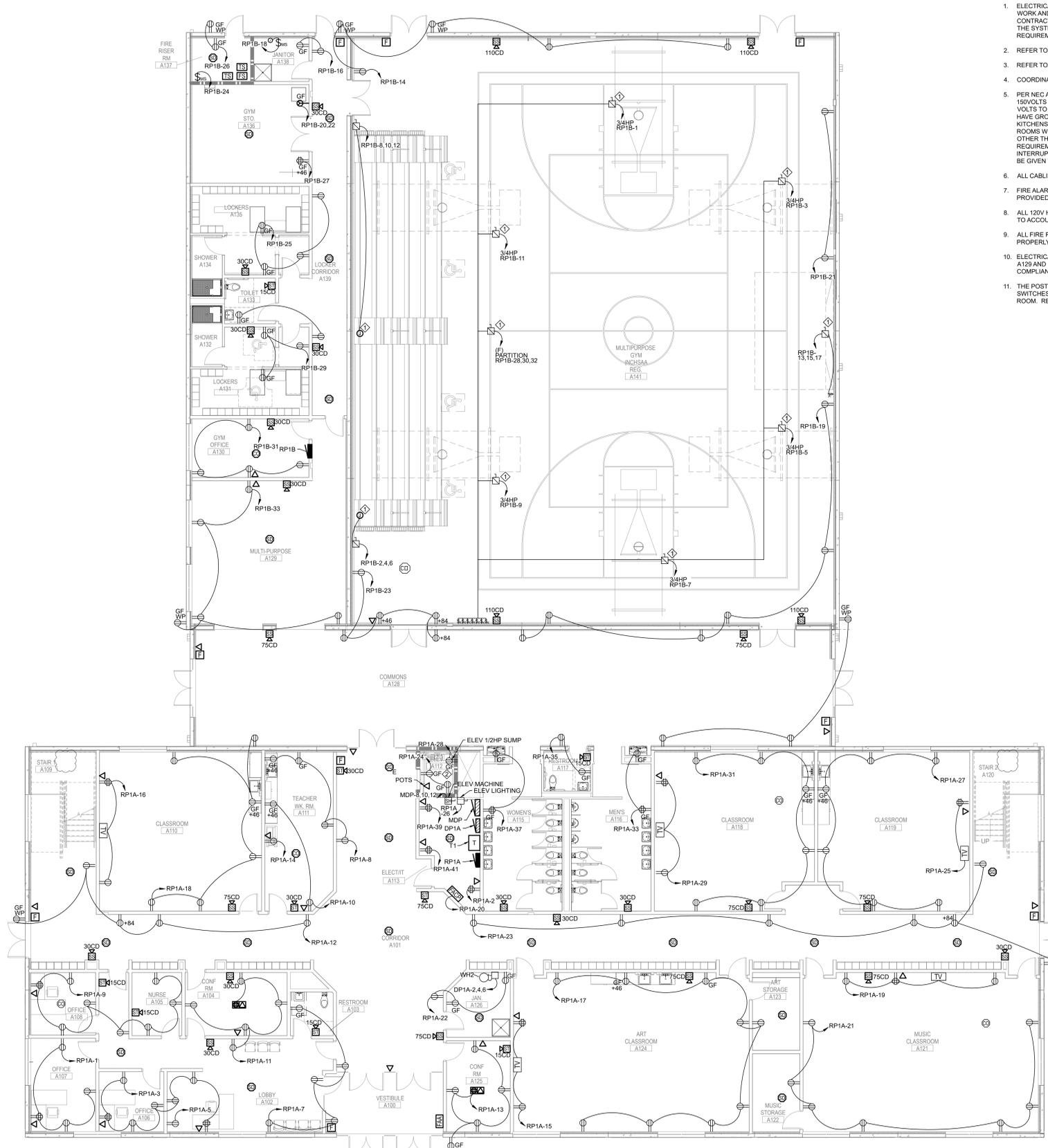


NO.	REASON	DATE
1	FRANKLIN COUNTY BUILDING SUBMISSION	12/15/2022
2	COUNTY REVIEW CYCLE 1	02/13/2023
3	COUNTY REVIEW CYCLE 2	03/08/2023

Issue Date: 12/15/2022
Job Number: 60796-1
Drawn By: JDB
Checked By: JDB

ELECTRICAL - DETAILS

E004



1 POWER, TELE/DATA, FIRE ALARM - NEW WORK PLAN - LEVEL 01
E101 SCALE: 1/8" = 1'-0"

- KEYED NOTES:**
- BLEACHERS, RETRACTABLE PLATFORM, PARTITION AND BASKETBALL NETS ALL HAVE CAPTIVE KEY CONTROL SWITCHES. REFER TO VENDOR DOCUMENTS AND COORDINATE FINAL KEY CONTROL LOCATION WITH ARCHITECT. PER NEC 422.31 PERMANENTLY CONNECTED APPLIANCES OVER 300VA OR 15HP SHALL HAVE A DISCONNECTING MEANS WITHIN SIGHT OF APPLIANCE OR CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
 - ELEVATOR IS BASIS OF DESIGN IS A SCHINDLER 3100 TRACTION DRIVE MACHINEROOMLESS ELEVATOR. CAB LIGHTING AND EMERGENCY LIGHTING PACKAGE IS INCLUDED WITH SELECTION. EXTERNAL DISCONNECT AND SHUNT TRIP DISCONNECT BY ELECTRICAL CONTRACTOR. REFER TO FINAL SELECTION VENDOR DOCUMENTS FOR ADDITIONAL INSTALLATION REQUIREMENTS.

- GENERAL SHEET NOTES:**
- ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. ROUTING SHOWN IN DRAWINGS IS FOCUSED ON CLARITY OF CIRCUITING ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN APPROPRIATE WIRE COUNT AND RACEWAY TO MAKE THE SYSTEM FUNCTION AS SHOWN. COORDINATE ROUGH-IN REQUIREMENTS AND INSTALLATION REQUIREMENTS WITH OTHER TRADES.
 - REFER TO DRAWING E001 FOR GENERAL NOTES AND SYMBOL LEGEND.
 - REFER TO DRAWING E002 FOR PANEL SCHEDULES, FEEDER AND CONDUIT SIZING.
 - COORDINATE FINAL LOCATION OF ALL DEVICES WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
 - PER NEC ARTICLE 210.8(B) (OTHER THAN DWELLING UNITS) ALL SINGLE PHASE RECEPTACLES RATED 150VOLTS TO GROUND OR LESS, 50 AMPERES OR LESS AND THREE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 100 AMPERES OR LESS INSTALLED IN THE FOLLOWING LOCATIONS SHALL HAVE GROUND-FAULT-CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL: 1) BATHROOMS, 2) KITCHENS, 3) ROOFTOPS, 4) OUTDOORS, 5) SINKS (WITHIN 6 FT), 6) INDOOR WET LOCATIONS, 7) LOCKER ROOMS WITH ASSOCIATED SHOWERING FACILITIES, 8) GARAGES, SERVICE BAYS, AND SIMILAR AREAS OTHER THAN VEHICLE EXHIBITION HALLS AND SHOWROOMS. REFERENCE NEC 422.5 FOR GFCI REQUIREMENTS ON VENDING MACHINES AND WATER COOLERS. THE GROUND FAULT CIRCUIT INTERRUPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION. [CONSIDERATIONS SHOULD BE GIVEN TO GFCI BREAKERS TO MEET THIS REQUIREMENT.]
 - ALL CABLING ABOVE CEILING SHALL BE FLENUM RATED.
 - FIRE ALARM DETAILS AND MATRIX ARE TO ILLUSTRATE DESIGN INTENT. SHOP DRAWINGS ARE PROVIDED BY AWARDED FIRE ALARM CONTRACTOR.
 - ALL 120V HOMERUNS OVER 75 FEET IN LENGTH SHALL BE UPSIZED TO THE NEXT LARGER WIRE GAUGE TO ACCOUNT FOR VOLTAGE DROP.
 - ALL FIRE RATED WALL PENETRATIONS AS INDICATED ON THE ARCHITECTURAL PLANS SHALL BE PROPERLY FIRE STOPPED IN COMPLIANCE WITH THE SELECTED PRODUCT UL LISTING.
 - ELECTRICAL CONTRACTOR SHALL NOTE THE LIMITED WALL DEPTH SPECIFICALLY IN ROOMS A128 AND A129 AND SELECT OUTLET BOXES AND JUNCTION BOXES APPROPRIATELY FOR A FLUSH AND NEC COMPLIANT INSTALLATION.
 - THE POST INDICATOR VALVE (PIV) AND BACKFLOW VALVE SERVING THE FIRE LINE SHALL HAVE TAMPER SWITCHES SUPERVISED BY THE FIRE ALARM SYSTEM. DIAGRAMMATICALLY SHOWN IN THE FIRE RISER ROOM. REFER TO FIRE PROTECTION AND CIVIL PLANS FOR FINAL LOCATIONS.



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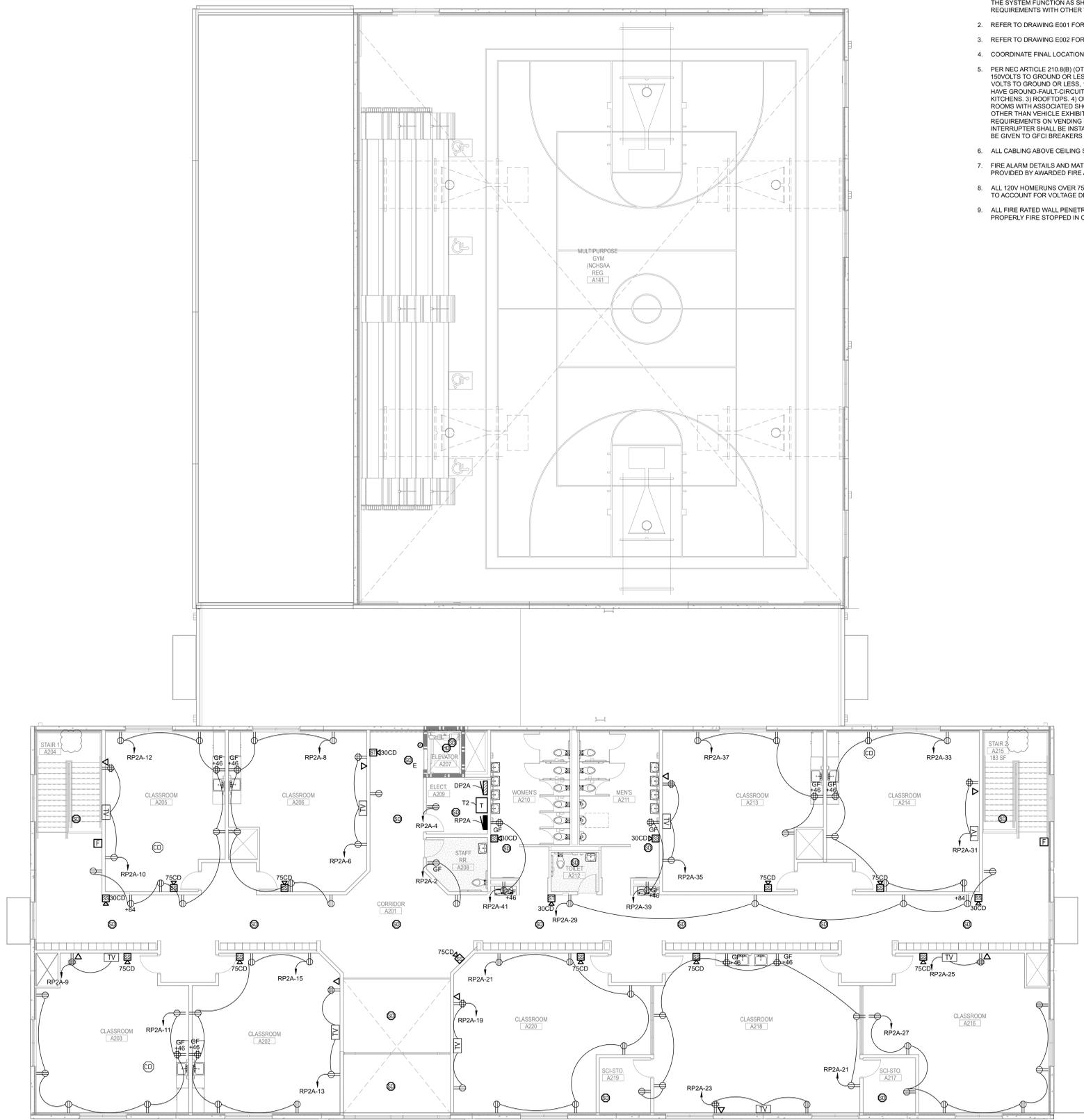
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4	CONSTRUCTION DOCUMENTS FOR BID	04/03/2023

Issue Date: 12/15/2022
 Job Number: 60796-1
 Drawn By: JDB
 Checked By: JDB

ELECTRICAL - POWER,
 TELE/DATA, FIRE ALARM - LVL 1
E101



1 POWER, TELE/DATA, FIRE ALARM - NEW WORK PLAN - LEVEL 02
 E102 SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES:

- ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. ROUTING SHOWN IN DRAWINGS IS FOCUSED ON CLARITY OF CIRCUITING ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN APPROPRIATE WIRE COUNT AND RACEWAY TO MAKE THE SYSTEM FUNCTION AS SHOWN. COORDINATE ROUGH-IN REQUIREMENTS AND INSTALLATION REQUIREMENTS WITH OTHER TRADES.
- REFER TO DRAWING E001 FOR GENERAL NOTES AND SYMBOL LEGEND.
- REFER TO DRAWING E002 FOR PANEL SCHEDULES, FEEDER AND CONDUIT SIZING.
- COORDINATE FINAL LOCATION OF ALL DEVICES WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
- PER NEC ARTICLE 210.8(B) (OTHER THAN DWELLING UNITS) ALL SINGLE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 50 AMPERES OR LESS AND THREE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 100 AMPERES OR LESS INSTALLED IN THE FOLLOWING LOCATIONS SHALL HAVE GROUND-FAULT-CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL: 1) BATHROOMS, 2) KITCHENS, 3) ROOFTOPS, 4) OUTDOORS, 5) SINKS (WITHIN 6 FT), 6) INDOOR WET LOCATIONS, 7) LOCKER ROOMS WITH ASSOCIATED SHOWERING FACILITIES, 8) GARAGES, SERVICE BAYS, AND SIMILAR AREAS OTHER THAN VEHICLE EXHIBITION HALLS AND SHOWROOMS. REFERENCE NEC 422.5 FOR GFCI REQUIREMENTS ON VENDING MACHINES AND WATER COOLERS. THE GROUND FAULT CIRCUIT INTERRUPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION. (CONSIDERATIONS SHOULD BE GIVEN TO GFCI BREAKERS TO MEET THIS REQUIREMENT)
- ALL CABLING ABOVE CEILING SHALL BE PLENUM RATED.
- FIRE ALARM DETAILS AND MATRIX ARE TO ILLUSTRATE DESIGN INTENT. SHOP DRAWINGS ARE PROVIDED BY AWARDED FIRE ALARM CONTRACTOR.
- ALL 120V HOMERUNS OVER 75 FEET IN LENGTH SHALL BE UPSIZED TO THE NEXT LARGER WIRE GAUGE TO ACCOUNT FOR VOLTAGE DROP.
- ALL FIRE RATED WALL PENETRATIONS AS INDICATED ON THE ARCHITECTURAL PLANS SHALL BE PROPERLY FIRE STOPPED IN COMPLIANCE WITH THE SELECTED PRODUCT UL LISTING.



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Issue Date: 12/15/2022
 Job Number: 60796-1
 Drawn By: JDB
 Checked By: JDB

ELECTRICAL - POWER,
 TELE/DATA, FIRE ALARM - LVL 2

E102



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RESERVED AREA
FOR SEAL



NO.	REASON	DATE
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Drawn By: JDB
Checked By: JDB

ELECTRICAL POWER,
TELE/DATA, FIRE ALARM - ROOF

E103

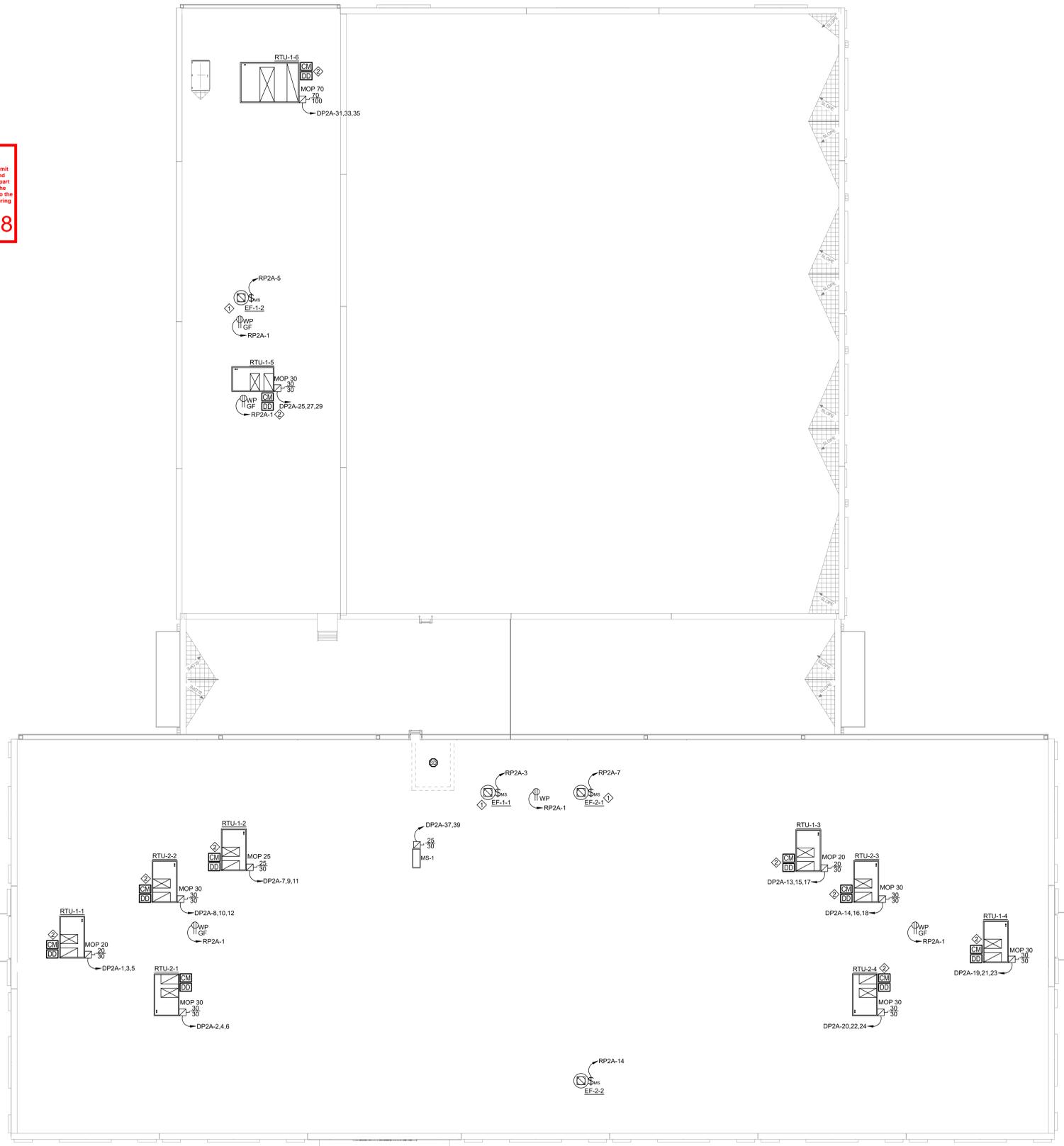
GENERAL SHEET NOTES:

- ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. COORDINATE ROUGH-IN REQUIREMENTS AND INSTALLATION REQUIREMENTS WITH OTHER TRADES.
- REFER TO DRAWING E001 FOR GENERAL NOTES AND SYMBOL LEGEND.
- COORDINATE FINAL LOCATION OF ALL ROOFTOP DEVICES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- FIRE ALARM DETAILS AND MATRIX ARE TO ILLUSTRATE DESIGN INTENT. SHOP DRAWINGS ARE PROVIDED BY AWARDED FIRE ALARM CONTRACTOR.

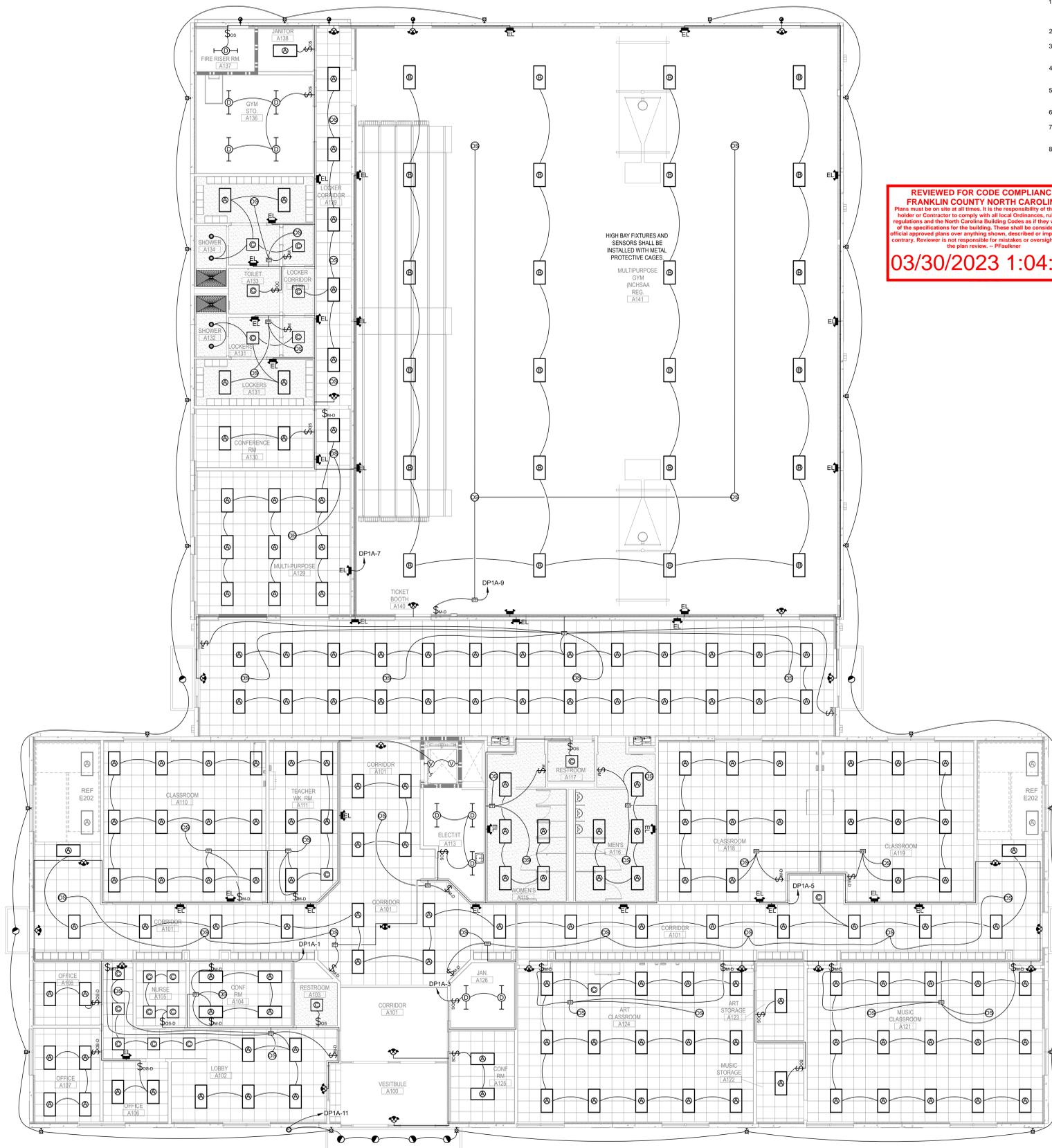
KEYED NOTES:

- EXHAUST FANS TO BE CONTROLLED FROM BUILDING AUTOMATION SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
- COORDINATE LOCATION WITH MECHANICAL CONTRACTOR FOR NEW CONTROL MODULE AND DUCT DETECTOR FOR RTU.

REVIEWED FOR CODE COMPLIANCE
FRANKLIN COUNTY NORTH CAROLINA
Plans must be on site at all times. It is the responsibility of the Permit holder or Contractor to comply with all local Ordinances, rules and regulations and the North Carolina Building Codes as if they were part of the specifications for the building. These shall be considered the official approved plans over anything shown, described or implied to the contrary. Reviewer is not responsible for mistakes or oversights during the plan review. - P.Faulkner
03/30/2023 1:04:08



1 POWER, TELE/DATA, FIRE ALARM - NEW WORK PLAN - ROOF
E102 SCALE: 1/8" = 1'-0"



GENERAL SHEET NOTES:

1. ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. COORDINATE ROUGH-IN REQUIREMENTS AND INSTALLATION REQUIREMENTS WITH OTHER TRADES.
2. REFER TO DRAWING E001 FOR GENERAL NOTES AND SYMBOL LEGEND.
3. REFER TO DRAWING E002 FOR PANEL SCHEDULES, FEEDER AND CONDUIT SIZING, AND LIGHTING SCHEDULE.
4. COORDINATE FINAL LOCATION OF ALL NEW DEVICES WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
5. EGRESS LIGHTING AND EXIT SIGNS SHALL BE CONNECTED TO AN UNSWITCHED CONDUCTOR OF THE CIRCUIT SERVING THE AREA LIGHTING.
6. ALL CABLING ABOVE CEILING SHALL BE PLENUM RATED.
7. ALL 120V HOMERUNS OVER 75 FEET IN LENGTH SHALL BE UPSIZED TO THE NEXT LARGER WIRE GAUGE TO ACCOUNT FOR VOLTAGE DROP.
8. ALL FIRE RATED WALL PENETRATIONS AS INDICATED ON THE ARCHITECTURAL PLANS SHALL BE PROPERLY FIRE STOPPED IN COMPLIANCE WITH THE SELECTED PRODUCT UL LISTING.

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03/30/2023 1:04:51

1 LIGHTING - NEW WORK PLAN - LEVEL 01
E201 SCALE: 1/8" = 1'-0"



9829 Spencer Road
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NEW HIGH SCHOOL**
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NO.	REASON	DATE
1	FRANKLIN COUNTY BUILDING SUBMISSION	12/15/2022
2	COUNTY REVIEW CYCLE 1	02/13/2023
3	COUNTY REVIEW CYCLE 2	03/08/2023

Issue Date: 12/15/2022
Job Number: 60796-1
Drawn By: JDB
Checked By: JDB

ELECTRICAL - LIGHTING - LEVEL 1
E201

TYPE	MANUFACTURER	CATALOG #	LAMP	BALLAST	WATTS	VOLTAGE	MOUNTING	DESCRIPTION
☉	LITHONIA	BLT SERIES						
	DAY-BRITE	EQUAL	4960 LUMEN PACKAGE LED 3500 K MIN 85 CRI	0-10V DIMMING DRIVER DIM TO BLACK	52W	277V	CEILING RECESSED	2'X4' RECESSED LED TROFFER, CURVED LINEAR PRISMS, SUPPLY WITH TRIM KIT WHERE INSTALLED IN GYPSUM CEILING.
	COOPER	EQUAL						
☉	LITHONIA	IBG HEF SERIES						
	DAY-BRITE	EQUAL	30000 LUMEN PACKAGE LED 4000 K MIN 80 CRI	0-10V DIMMING DRIVER	171W	277V	PENDANT MOUNTED CHAIN HUNG	2'X4' HIGH BAY HIGH EFFICIENCY LED STRIP FIXTURE. PROVIDE WITH WIRE COVER FOR GYMNASIUM.
	COOPER	EQUAL						
☉	LITHONIA	JUNO WF6						
	DAY-BRITE	EQUAL	970 LUMENS 3500 K	LED DRIVER	13W	277V	CEILING RECESSED	6" ULTRATHIN WAFER. WET LOCATION LISTED.
	PRESCOLITE	EQUAL						
☉	LITHONIA	STL4 SERIES						
	DAY-BRITE	EQUAL	4800 LUMENS 3500 K	LED DRIVER 0-10V	40W	120/277	SURFACE MOUNTED	4' VOLUMETRIC SURFACE MOUNTED FIXTURE, WHITE FINISH.
	PRESCOLITE	EQUAL						
H-O-I	LITHONIA	ZILN SERIES						
	DAY-BRITE	EQUAL	400 LUMENS LED MODULE PACKAGE 3500 K MIN 85 CRI	LED DRIVER 0-10V	36W	120/277	PENDANT MOUNT 8' AFF CHAIN HUNG	4' LED STRIP LIGHT, FACTORY CHAIN MOUNT.
	COOPER	EQUAL						
☉	LITHONIA	WSR SERIES						
	DAY-BRITE	EQUAL	4799 LUMENS LED OUTPUT	LED DRIVER	29W	277V	EXTERIOR WALL MOUNTED 12.5' AFG (REFER TO ARCHITECTURAL PLACEMENT)	FULL FUTOFF HALF CYLINDER WALL PACK, DARK BRONZE COLOR, DARK BRONZE FINISH.
	PRESCOLITE	EQUAL						
EL	LITHONIA	ELM2 SERIES						
	DAY-BRITE	EQUAL	TWO LAMP LED WITH POLYCARBONATE LENS 12 SERIES-PARALLEL LEADS PER LAMP	LED	2W	120/277	WALL MOUNTED 8' AFF	TWO HEADED, SELF CONTAINED EMERGENCY LIGHTING UNIT, HIGH-IMPACT POLYCARBONATE HOUSING, MAINTENANCE FREE LEAD CALCIUM BATTERY, WHITE HOUSING.
	COOPER	EQUAL						
☉	CANLET	EQUAL						
	DAY-BRITE	EQUAL						
	METALUX	EQUAL	TRT LED GUARDED SCONCE	-	32W	120/277	SEE ELEVATOR EQUIPMENT DETAIL	WALL MOUNTED SCONCE, NON METALLIC JELLY JAR WITH POLY- CARBONATE GLOBE; 32 WATT TRT LAMP SILVER FINISH
☉	LITHONIA	QUANTUM SERIES						
	SURE LITES	COX SERIES						
	McPHILBEN	COXL SERIES	LED COMBO EXIT SIGN	LED	5W	120/277	CEILING OR WALL - 12" ABOVE DOOR	THERMOPLASTIC LED EXIT LIGHT WITH EMERGENCY BATTERY BACK-UP, WHITE HOUSING, GREEN LETTERS, COMBINATION EMERGENCY/EXIT EQUAL TO LITHONIA TRIM.
☉	LITHONIA	QUANTUM COMBINATION EXIT/EMERGENCY						
	ILP	OP SL U 50 LEDBCT						
	SURE LITES	EQUAL	WET RATED CANOPY LIGHT WITH INTEGRAL BATTERY BACKUP	LED	40W	277V	SURFACE (IN CANOPY)	ALUMINUM FIXTURE, POLYCARBONATE LENS, WET RATED, CANOPY LIGHT WITH BATTERY BACKUP.
☉	McPHILBEN	EQUAL						
	LITHONIA	EQUAL						
	LITHONIA	EQUAL						

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03/30/2023 1:05:50

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

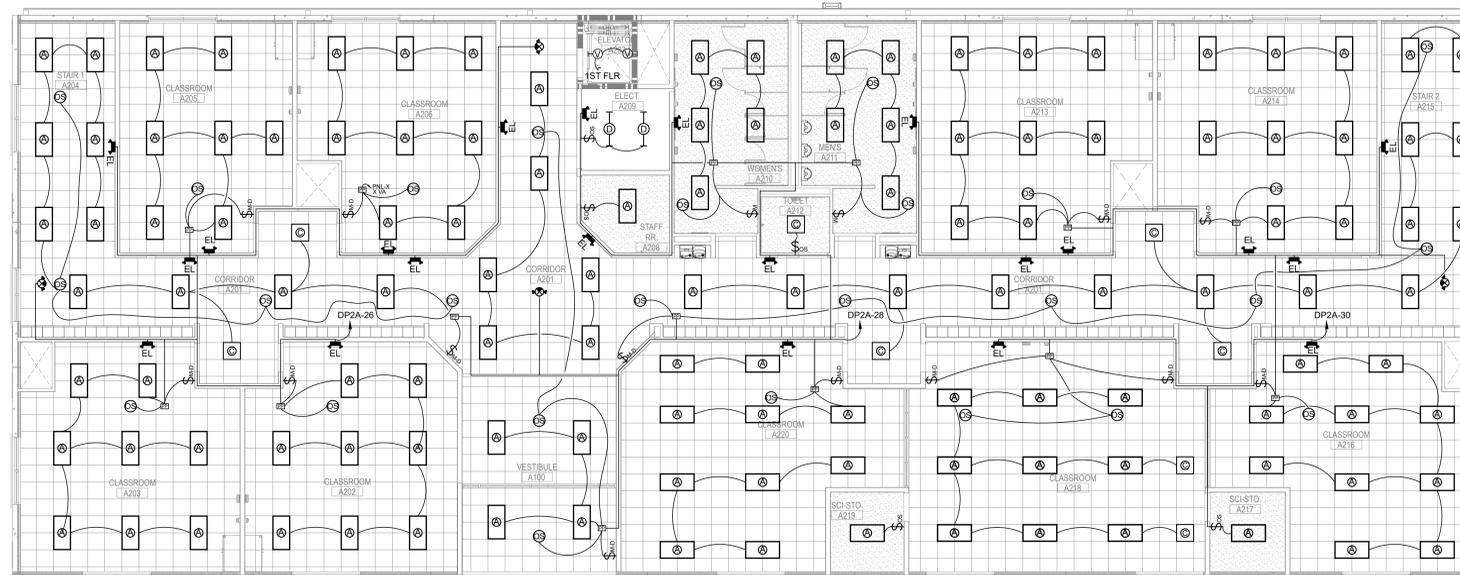
Method of Compliance:
 Energy Code: Prescriptive Performance
 ASHRAE 90.1: Prescriptive Performance

Lighting Schedule (each fixture type)
 Lamp type required in fixture: LED
 Number of lamps in fixture: LED ARRAY
 Ballast type used in the fixture: INVERTER
 Number of ballasts in fixture: 1
 Total wattage per fixture: SEE SCHEDULE
 Total interior wattage specified vs. allowed (whole building or space by space): 19,378W VS. 28,662W
 Total exterior wattage specified vs. allowed: 959 W VS. 2550W

Additional Efficiency Package Options
 (When using the 2018 NCECC; not required for ASHRAE 90.1)
 C406.2 More Efficient Mechanical Equipment
 C406.3 Reduced Lighting Power Density
 C406.4 Enhanced Digital Lighting Controls
 C406.5 On-Site Renewable Energy
 C406.6 Dedicated Outdoor Air System
 C406.7 Reduced Energy Use in Service Water Heating

3 **ELECTRICAL SUMMARY**
 E002 SCALE: N.T.S.

2 **LIGHTING SCHEDULES**
 E002 SCALE: N.T.S.



1 **LIGHTING - NEW WORK PLAN - LEVEL 02**
 E202 SCALE: 1/8" = 1'-0"
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RESERVED AREA FOR SEAL



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Issue Date: 12/15/2022
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 Checked By: JDB

ELECTRICAL - LIGHTING - LEVEL 2, SCHEDULE, SUMMARY

E202