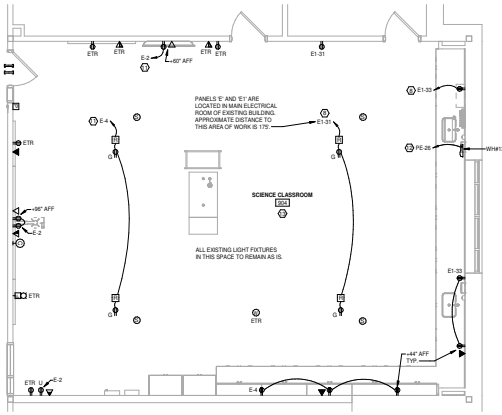


EXISTING SCIENCE CLASSROOM 904 - ELECTRICAL NEW WORK
1/4" = 1'-0"

Existing Panel: PB (Siemens Type S2)

Location: Electrical Closet
Supply From: Main Switchboard
Mounting: Surface
Enclosure: Type 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

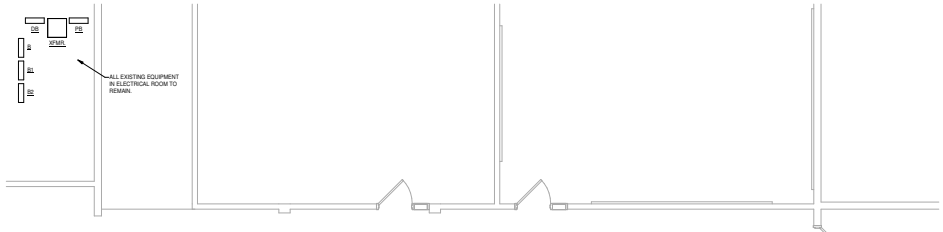
A.I.C. Rating: EX.
Mains Type: 250 A MLO
Panel Rating: 250 A

NOTES: EXISTING LOAD RECORDED ON THIS PANEL ON A NORMAL WORKING DAY WAS 19.5 AMPS.

CKT	Circuit Description	Trip	Wire	Poles	A (KVA)		B (KVA)		C (KVA)		Poles	Wire	Trip	Circuit Description	CKT
1	EXISTING LIGHTING	20 A	EX	1	EX	EX					1	EX	20 A	EXISTING LIGHTING	2
3	EXISTING LIGHTING	20 A	EX	1			EX	EX			1	EX	20 A	EXISTING LIGHTING	4
5	EXISTING LIGHTING	20 A	EX	1					EX	EX	1	EX	20 A	EXISTING LIGHTING	6
7	EXISTING LIGHTING	20 A	EX	1	EX	EX					1	EX	20 A	EXISTING LIGHTING	8
9	EXISTING LIGHTING	20 A	EX	1			EX	EX			1	EX	20 A	EXISTING LIGHTING	10
11	EXISTING LIGHTING	20 A	EX	1					EX	EX	1	EX	20 A	EXISTING LIGHTING	12
13	EXISTING LIGHTING	20 A	EX	1	EX	EX					1	EX	20 A	EXISTING LIGHTING	14
15	WATER HTR, WH#11 (SCI. CR 718) - NOTE #1	40 A	8	1			8.31	0.00			1		20 A	SPARE	16
17	WATER HTR, WH#12 (SCI. CR 722) - NOTE #1	40 A	8	1					8.31	0.00	1		20 A	SPARE	18
19	WATER HTR, WH#14 (SCI. CR 718)	20 A	12	1	4.15	9.13									20
21	WATER HTR, WH#15 (SCI. CR 722)	20 A	12	1			4.15	9.13			3	6	45 A	DOAS#5 (MCA = 41) (ROOF) - NOTE #1	22
23	WATER HTR, WH#16 (PREP 720)	20 A	12	1					4.15	9.13					24
25	SPARE	20 A		1	0.00	0.00					1		20 A	SPARE	26
27	SPARE	20 A		1			0.00	0.00			1		20 A	SPARE	28
29	SPARE	20 A		1					0.00	0.00	1		20 A	SPARE	30
31	SPACE	--		1	--	--					1		--	SPACE	32
33	SPACE	--		1			--	--			1		--	SPACE	34
35	SPACE	--		1					--	--	1		--	SPACE	36
37	SPACE	--		1	--	--					1		--	SPACE	38
39	SPACE	--		1			--	--			1		--	SPACE	40
41	SPACE	--		1					--	--	1		--	SPACE	42
	Total New Load Added:				13280 VA		21590 VA		21590 VA						
	Total New Amps Added:				48 A		83 A		83 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
RVAC	27390 VA	100.00%	27390 VA		
WATER HEATER	29070 VA	100.00%	29070 VA	**Total New Load Added:**	56460 VA
				Total New Amps Added:	71 A

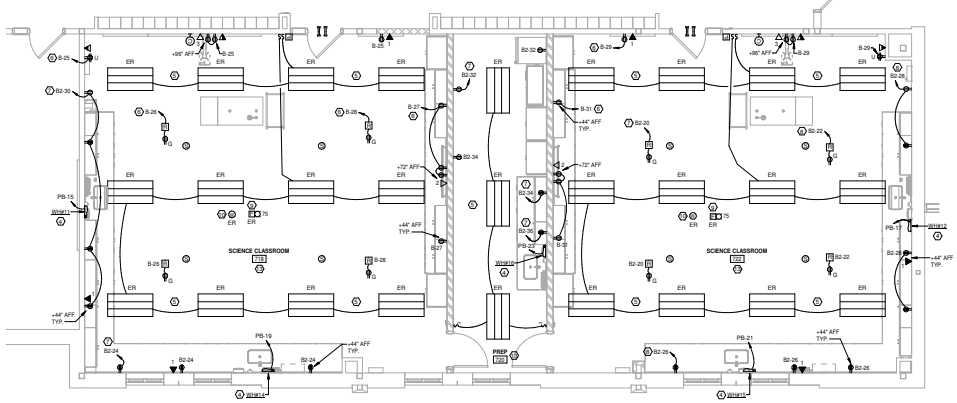
Notes:
1. REPLACE EXISTING BREAKER WITH NEW BREAKER SHOWN. NEW BREAKER TYPE AND KAIC RATING SHALL MATCH EXISTING.



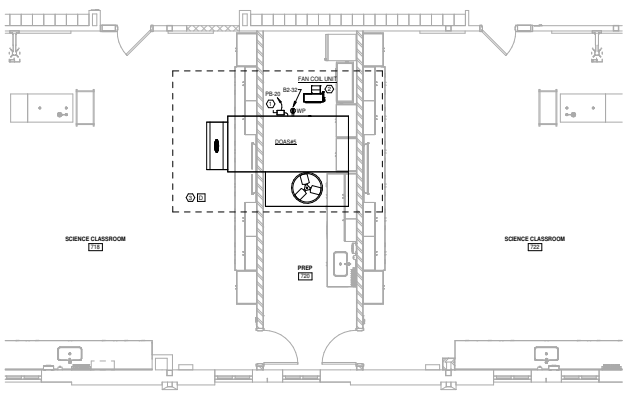
ADD ALTERNATE NO. 1 - ELECTRICAL NEW WORK NOTES

1. PROVIDE A 60A/480V/3P/3R HEAVY DUTY DISCONNECT SWITCH FOR THE DOAS UNIT AND CONNECT TO CIRCUIT SHOWN. COORDINATE DISCONNECT SWITCH MOUNTING LOCATION WITH DOAS UNIT INSTALLER.
2. EXISTING FAN COIL UNIT TO BE LOWERED BY MECHANICAL CONTRACTOR. EXTEND ALL EXISTING WIRE AND CONDUIT TO NEW LOCATION. NEW WIRE SHALL MATCH EXISTING. EXISTING FAN COIL UNIT SHALL FUNCTION AS INTENDED.
3. PROVIDE DUCT SMOKE DETECTOR IN THE EXHAUST DUCT OF DOAS UNIT. WIRE SO THAT A SIGNAL WILL BE SENT TO FACP AND THE UNIT WILL SHUT DOWN UPON DETECTION OF SMOKE.
4. WATER HEATER COMES WITH DISCONNECT SWITCH. CONNECT TO CIRCUIT SHOWN.
5. REINSTALL EXISTING RETAINED LIGHT FIXTURES AT NEW LOCATIONS SHOWN. RECONNECT TO EXISTING RETAINED WIRE AND CONDUIT. EXTEND AS NEEDED. USE (2) #12, (1) #12 G, 3/4" C. RELOCATED LIGHT FIXTURES SHALL FUNCTION AS INTENDED.
6. CONNECT NEW RECEPTACLES TO EXISTING CIRCUIT THAT BECAME AVAILABLE BY REMOVING EXISTING RECEPTACLES. EXTEND EXISTING WIRE AND CONDUIT AS NEEDED. USE (2) #12, (1) #12 G, 3/4" C.
7. CONNECT NEW RECEPTACLES TO EXISTING 20A/1P SPARE CIRCUIT SHOWN. USE (2) #12, (1) #12 G, 3/4" C.
8. CONNECT NEW RECEPTACLES TO EXISTING 20A/1P SPARE CIRCUIT SHOWN. USE (2) #10, (1) #10 G, 3/4" C.
9. REINSTALL EXISTING RETAINED FIRE ALARM DEVICE AT NEW LOCATION SHOWN. RECONNECT TO EXISTING RETAINED WIRE AND CONDUIT. EXTEND AS NEEDED. NEW WIRE SHALL MATCH EXISTING. RELOCATED FIRE ALARM DEVICE SHALL FUNCTION AS INTENDED.
10. REINSTALL EXISTING RETAINED WAP DEVICE AT NEW LOCATION SHOWN. RECONNECT TO EXISTING RETAINED WIRE AND CONDUIT. EXTEND AS NEEDED. NEW WIRE SHALL MATCH EXISTING. RELOCATED WAP DEVICE SHALL FUNCTION AS INTENDED.
11. CONNECT NEW RECEPTACLES TO EXISTING CIRCUIT THAT BECAME AVAILABLE BY REMOVING EXISTING RECEPTACLES. EXTEND EXISTING WIRE AND CONDUIT AS NEEDED. USE (2) #10, (1) #10 G, 3/4" C.
12. REPLACE EXISTING 20A/1P SPARE BREAKER IN CIRCUIT #26 OF PANEL 'PE' WITH A 40A/1P BREAKER FOR CONNECTION TO NEW WATER HEATER #13. PANEL 'PE' IS 'SIEMENS TYPE S3, 400A MLO, 277/480V, 3 PH, 4W'. NEW BREAKER TYPE AND KAIC RATING SHALL MATCH EXISTING. USE (2) #8, (1) #8 G, 3/4" C. PANEL 'PE' IS LOCATED IN THE MAIN ELECTRICAL ROOM OF EXISTING BUILDING. APPROXIMATE LENGTH OF RUN IS 175'.
13. CONCEAL ALL WIRING IN CHASES AND CABINETS AS MUCH AS POSSIBLE. PROVIDE SURFACE METALLIC RACEWAY WHERE EXPOSED. PAINT TO MATCH ADJACENT SURFACES.

ALL SHOWN LIGHT IS EXISTING TO REMAIN/EXISTING RELOCATED
ALL SHOWN DARK IS NEW WORK.
SEE SHEET A-007 FOR LOCATIONS OF INETRIOR RENOVATION AREAS



EXISTING CLASSROOMS 718, 720, 722 - ELECTRICAL NEW WORK
1/4" = 1'-0"



EXISTING CLASSROOMS 718, 720, 722 - HVAC CONNECTION PLAN
1/4" = 1'-0"

MARK	DATE	BY	DESCRIPTION

REVISIONS

DATE 4/8/24
PROJECT 23143.00
DESIGNED RKCM
DRAWN RKCM
CHECKED RKCM

RRMM ARCHITECTS, PC
115 South 15th Street, Suite 502
Richmond, Virginia 23219
(804)277-8987

6 APRIL 2024

PROJECT LOUISA COUNTY PUBLIC SCHOOLS
LOUISA COUNTY MIDDLE SCHOOL ADDITION
1309 DAVIS HIGHWAY
MINERAL, VIRGINIA

DRAWING ADD ALTERNATE NO. 1 - ELECTRICAL NEW WORK PLAN

SHEET
E-502