

ABBREVIATIONS LEGEND (SOME ABBREVIATIONS MAY NOT BE USED)

ACOUS	ACOUSTICAL	FF	FINISHED FLOOR	PLUMB	PLUMBING
AC	ACOUSTICAL CEILING	FTG	FOOTING	PS	PROJECTOR SCREEN
AF	ABOVE FINISHED FLOOR	FLR	FLOOR	PT	PRESSURE TREATED
ALT	ALTERNATE	FE	FIRE EXTINGUISHER	QT	QUARRY TILE
ALUM	ALUMINUM	FEC	FIRE EXTINGUISHER CABINET	PLYWD	PLYWOOD
BCJ	BRICK CONTROL JOINT	FM	FORCE MAIN	RAD	RADIUS
BLDG	BUILDING	FH	FIRE HYDRANT	RB	RUBBER
BRG	BEARING	GB	GRAB BAR	RCP	REINFORCED CONCRETE PIPE
BOTT	BOTTOM	GA	GAUGE	REIN	REINFORCEMENT
BM	BEAM	GALV	GALVANIZED	RM	ROOM
BLKG	BLOCKING	GL	GLASS	RO	ROUGH OPENING
CW	COLD WATER	GWB	GYPSUM WALL BOARD	SD	STORM DRAIN
CB	CHALK BOARD	HB	HOSE BIB	SC	SCALE
CJ	CONTROL JOINT	HDWD	HARDWOOD	SIM	SIMILAR
CLG	CEILING	HM	HOLLOW METAL	SPEC	SPECIFICATIONS
CH	CEILING HEIGHT	HMF	HOLLOW METAL FRAME	SS	SANITARY SEWER
CMU	CONCRETE MASONRY UNIT	HORIZ	HORIZONTAL	ST STL	STAINLESS STEEL
CO	CASED OPENING	HT	HEIGHT	STL	STEEL
COL	COLUMN	INFO	INFORMATION	STOR	STORAGE
CN	CONCRETE	INSUL	INSULATION	STRUCT	STRUCTURE
CONST	CONSTRUCTION	INT	INTERIOR	SUSP	SUSPENDED
CONT	CONTINUOUS	JAN	JANITOR	TB	TACK BOARD
CP	CARPET	L	LENGTH	TYP	TYPICAL
CR	CHAIR RAIL	LM	LINEAR METAL	TCP	THINCOAT PLASTER
CT	CERAMIC TILE	MB	MARKER BOARD	TW	TOWEL/WASTE
CU	COPPER	MCJ	MASONRY CONTROL JOINT	TP	TOILET PAPER DISPENSER
DET	DETAIL	MECH	MECHANICAL	UON	UNLESS OTHERWISE NOTED
DIA	DIAMETER	MEMB	MEMBRANE	VCT	VINYL COMPOSITION TILE
DWG	DRAWING	MDF	MEDIUM DENSITY FIBERBOARD	W	WASHER
DS	DOWN SPOUT	MH	MAN HOLE	W/	WITH
DN	DOWN	MO	MASONRY OPENING	WC	WATER COOLER
EA	EACH	MR	MIRROR	WD	WOOD
EJ	EXPANSION JOINT	MTL	METAL	WP	WATERPROOF
ELEV	ELEVATION	MTD	MOUNTED		
EQ	EQUAL	MW	MILLWORK		
EQUIP	EQUIPMENT	ND	NAPKIN DISPENSER		
EXIST	EXISTING	MIC	NOT IN CONTRACT		
FBO	FURNISHED BY OWNER	NO	NUMBER		
FD	FLOOR DRAIN	NTS	NOT TO SCALE		
FC	FIRE CODE (GYP. BD.)	OC	ON CENTER		
FIN	FINISH	OPP	OPPOSITE		
FFE	FINISHED FLOOR ELEVATION	P/L	PLASTIC LAMINATE		

SYMBOLS LEGEND (SOME SYMBOLS MAY NOT BE USED)

<div>206</div>	ROOM NUMBER	<div>1</div>	DEMOLITION NOTE	<div>1</div>	DETAIL NUMBER	<div></div> <div></div>	WALL TYPE
<div>105</div>	DOOR NUMBER	<div>1</div>	CONSTRUCTION NOTE	<div>A4</div>	BUILDING SECTION/ WALL SECTION	<div></div>	ELEVATION
<div>A</div>	WINDOW TYPE	<div>1</div> <div>A4</div>	DETAIL NUMBER SHEET NUMBER	<div></div> <div>A4</div>	BUILDING ELEVATION/INTERIOR ELEVATION		

CONSULTANTS

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AREA MAP



HOBBS MIDDLE SCHOOL

ENERGY UPGRADES

PHASE II SUBMITTAL

SEP 11, 2020

PRODUCT APPROVAL NUMBERS

FL-10388R3 KAWNEER SWINGING DOOR
ASSEMBLIES

FL11492-R2 KAWNEER ALUMINUM STOREFRONT

FL16355-R1 CECO SWINGING DOOR
ASSEMBLIES

THESE ITEMS REPRESENT THE BASIS FOR THE
DESIGN. EACH SECTION OF
THE SPECIFICATIONS LISTS EQUAL PRODUCTS.
THE EQUALS ARE
REQUIRED TO HAVE PRODUCT APPROVAL
NUMBERS SUBMITTED AS WELL.

BUILDING CODE

THIS PROJECT WAS DESIGNED IN ACCORDANCE
WITH THE 2017 SIXTH EDITION FLORIDA BUILDING
CODE AND THE 2017 SIXTH EDITION EXISTING
BUILDING CODE.

SHEET INDEX

ARCHITECTURAL

A100 ARCHITECTURAL SITE PLAN
A101 DEMO FLOOR PLAN SOUTHEAST
A102 DEMO FLOOR PLAN SOUTHWEST
A103 FLOOR PLAN SOUTHEAST
A104 FLOOR PLAN SOUTHWEST
A105 DEMO REFLECTED CEILING PLAN SOUTHEAST
A106 DEMO REFLECTED CEILING PLAN SOUTHWEST
A107 REFLECTED CEILING PLAN SOUTHEAST
A108 REFLECTED CEILING PLAN SOUTHWEST
A109 MECHANICAL AREA

MECHANICAL

M001 MECHANICAL LEGEND & ABBREVIATIONS
M002 MECHANICAL NOTES
M003 MECHANICAL SCHEDULES
M004 MECHANICAL SCHEDULES
M101 MECHANICAL ROOF AND SITE DEMO PLAN
M102 MECHANICAL ROOF AND SITE PLAN
M103 ENLARGED MECHANICAL PLAN
M104 ENLARGED MECHANICAL PLAN
M201 PARTIAL MECHANICAL DEMO PLAN SOUTHWEST
M202 PARTIAL MECHANICAL DEMO PLAN SOUTHEAST
M301 PATIAL MECHANICAL PLAN SOUTHWEST
M302 PARTIAL MECHANICAL PLAN SOUTHEAST
M401 PARTIAL MECHANICAL PIPING PLAN SOUTHWEST
M402 PARTIAL MECHANICAL PIPING PLAN SOUTHEAST

ELECTRICAL

E001 ELECTRICAL LEGEND AND NOTES
E002 ELECTRICAL DETAILS
E101 DEMO PLAN LIGHTING SOUTHWEST
E102 DEMO PLAN LIGHTING SOUTHEAST
E103 DEMO PLAN MECHANICAL ROOFTOP
E104 DEMO PLAN MECHANICAL SOUTHWEST
E105 DEMO PLAN MECHANICAL SOUTHEAST
E200 NEW WORK ELECTRICAL SITE PLAN
E201 NEW WORK LIGHTING SOUTHWEST
E202 NEW WORK LIGHTING SOUTHEAST
E203 NEW WORK MECHANICAL ROOFTOP
E204 NEW WORK MECHANICAL SOUTHWEST
E205 NEW WORK MECHANICAL SOUTHEAST
E207 NEW WROK CHILLER BOILER PLANT
E301 LIGHTING MATRIX, SCHEDULE AND DETAILS

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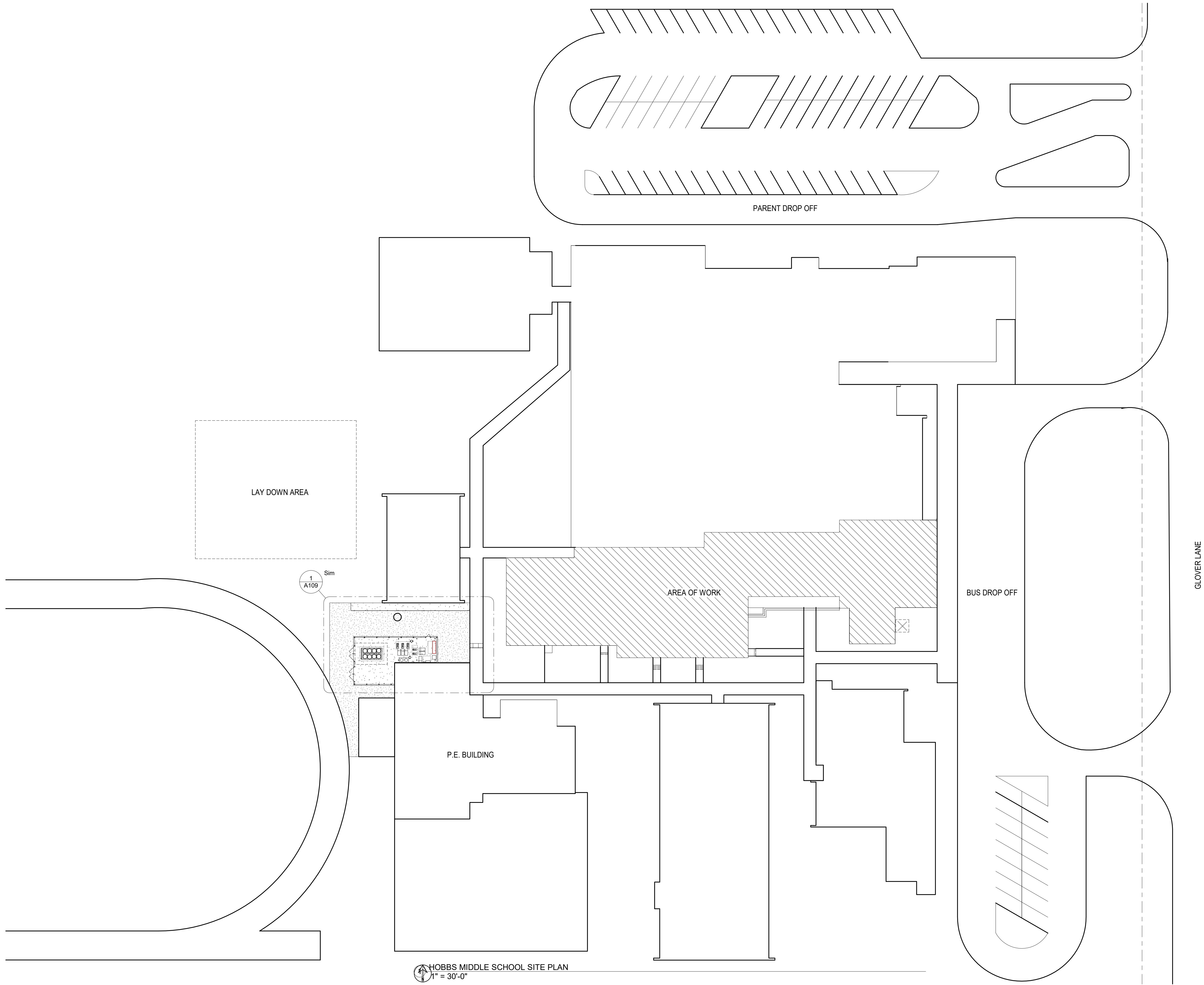
HOBBS MIDDLE SCHOOL
ENERGY UPGRADES
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

TITLE SHEET

Date 09/11/20
Drawn By MM
Checked By JF

A001



HOBBS MIDDLE SCHOOL SITE PLAN
1" = 30'-0"

**HOBBS MIDDLE SCHOOL
ENERGY UPGRADES**
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

SITE PLAN		
Date	09/11/20	
Drawn By	LM	
Checked By	MM	

A100

HOBBS MIDDLE SCHOOL
ENERGY UPGRADES
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

DEMO FLOOR
PLAN
SOUTHEAST

Date	09/11/20
Drawn By	Author
Checked By	Checker

A101

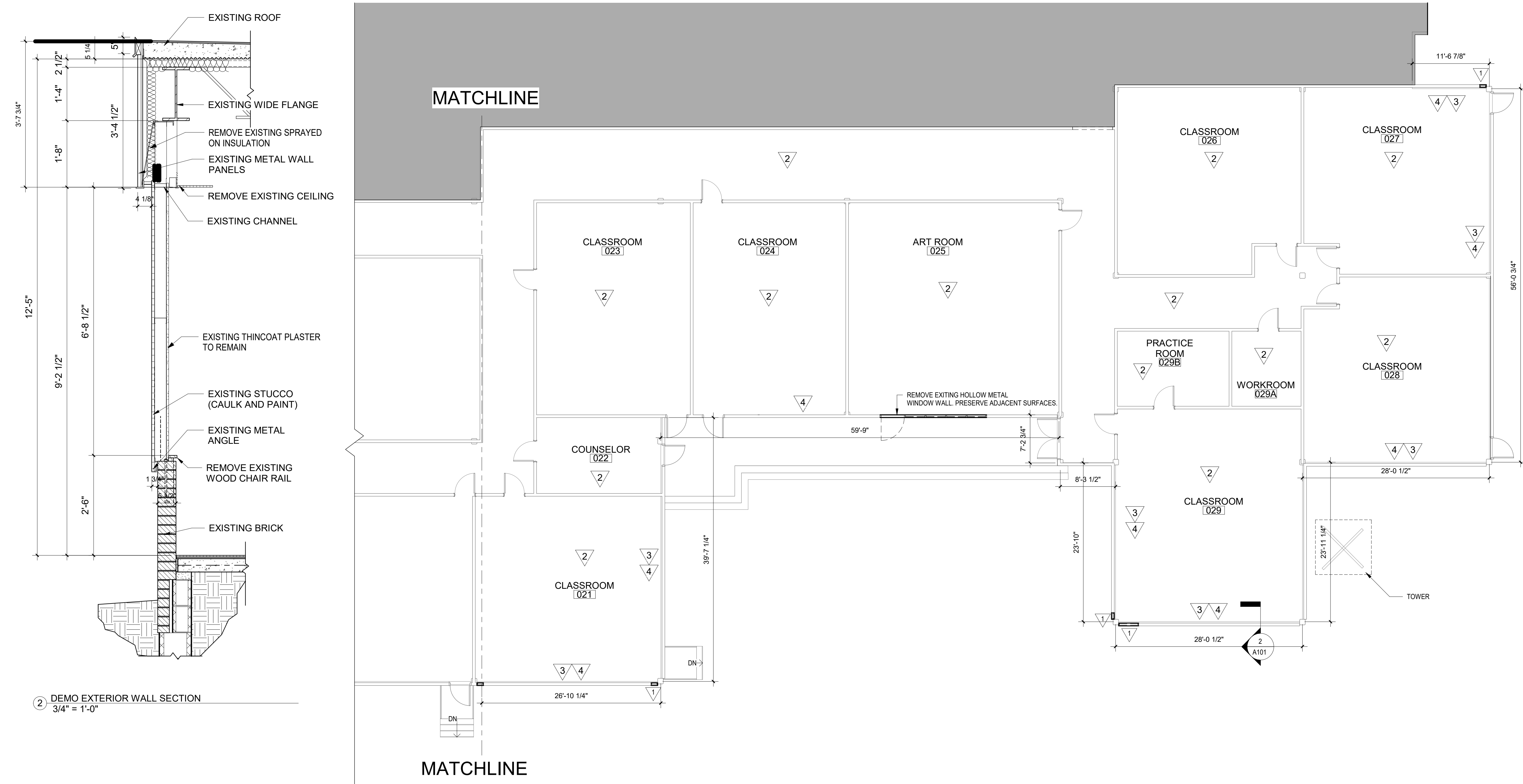
- DEMOLITION NOTES
- 1

REMOVE EXISTING WINDOW. PRESERVE ADJACENT SURFACES.
- 2

REMOVE EXISTING CEILINGS. SEE DEMO REFLECTED CEILING PLANS.
- 3

REMOVE WOOD TRIM FROM EXISTING EXTERIOR WALLS. SEE DEMO WALL SECTIONS.
- 4

REMOVE SPRAYED ON INSULATION ABOVE CEILINGS. SEE DEMO WALL SECTION.



HOBBS MIDDLE SCHOOL

ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

DEMO FLOOR

PLAN

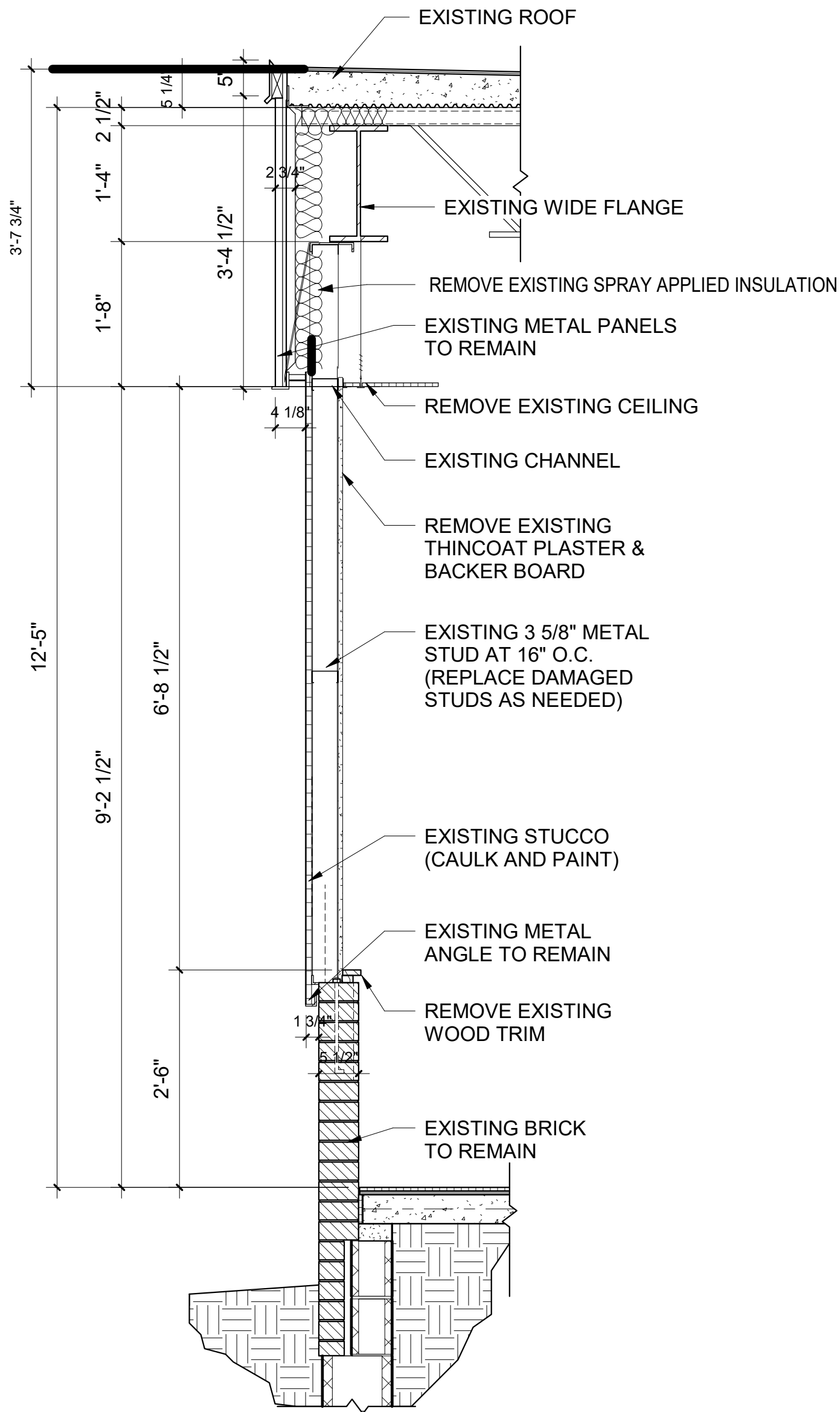
SOUTHWEST

Date	09/11/20
Drawn By	Author
Checked By	Checker

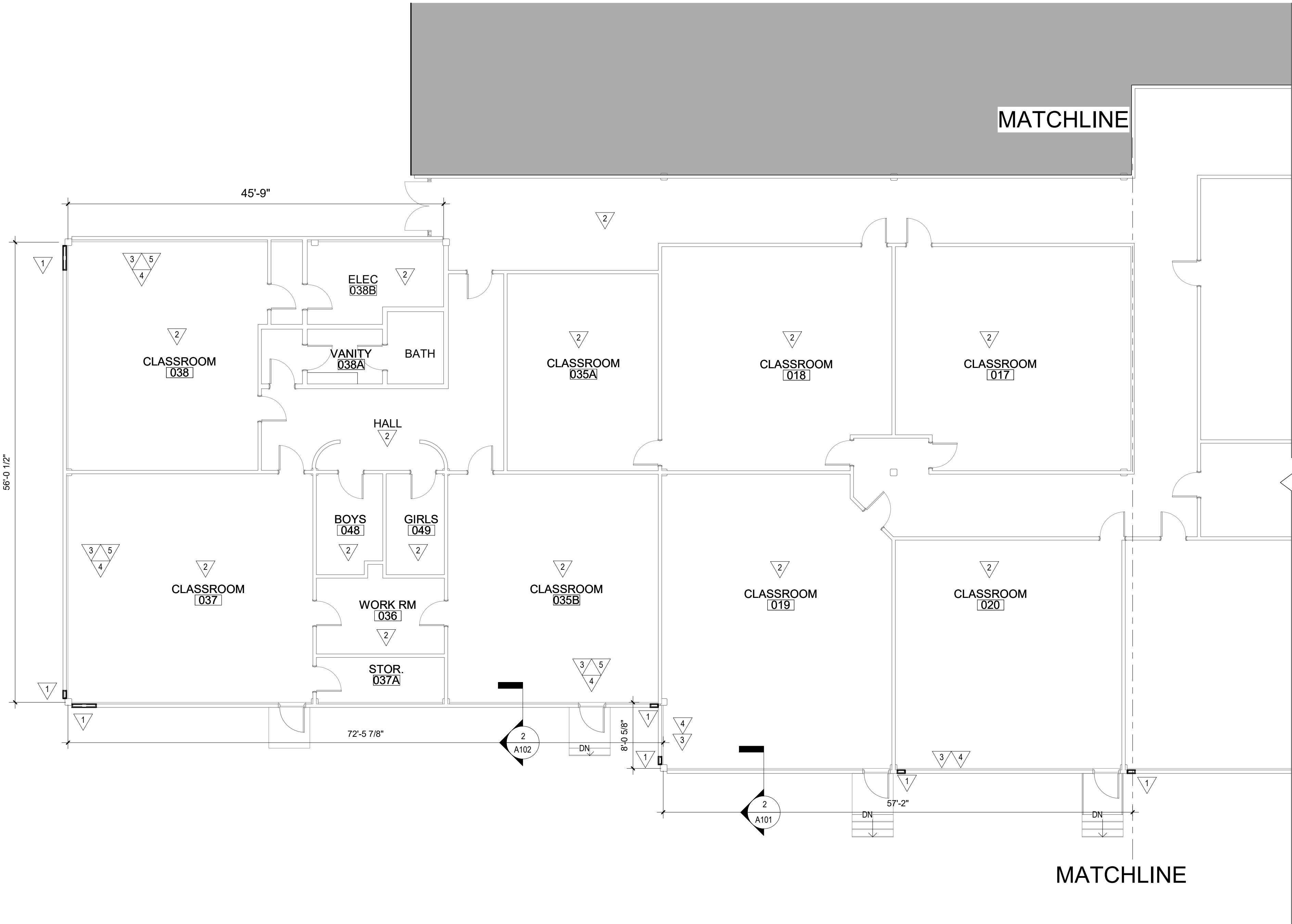
A102

DEMOLITION NOTES

- 1 REMOVE EXISTING WINDOW. PRESERVE ADJACENT SURFACES.
- 2 REMOVE EXISTING CEILINGS. SEE DEMO REFLECTED CEILING PLANS.
- 3 REMOVE WOOD TRIM FROM EXISTING EXTERIOR WALLS. SEE DEMO WALL SECTIONS.
- 4 REMOVE SPRAYED ON INSULATION ABOVE CEILINGS. SEE DEMO WALL SECTION.
- 5 REMOVE THINCOAT PLASTER AND WALLBOARD FROM INTERIOR SURFACE OF WALL.



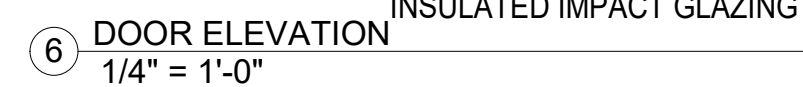
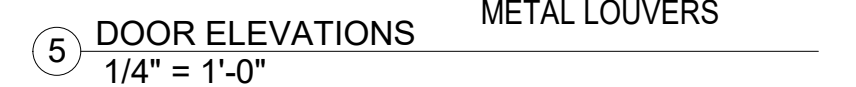
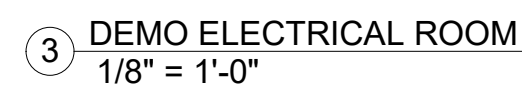
2 DEMO EXTERIOR WALL SECTION.
3/4" = 1'-0"



1 DEMO SOUTHWEST AREA FLOOR PLAN
1/8" = 1'-0"



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- 1 INSULATE EXTERIOR WALLS
- 2 INSTALL ACOUSTICAL CEILING
- 3 INSTALL WOOD TRIM AT EXTERIOR WALL
- 4 INSTALL SPRAY FOAM INSULATION IN EXTERIOR WALL
- 5 INSTALL SPRAY FOAM INSULATION AT ROOF DECK



HOBBS MIDDLE SCHOOL ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

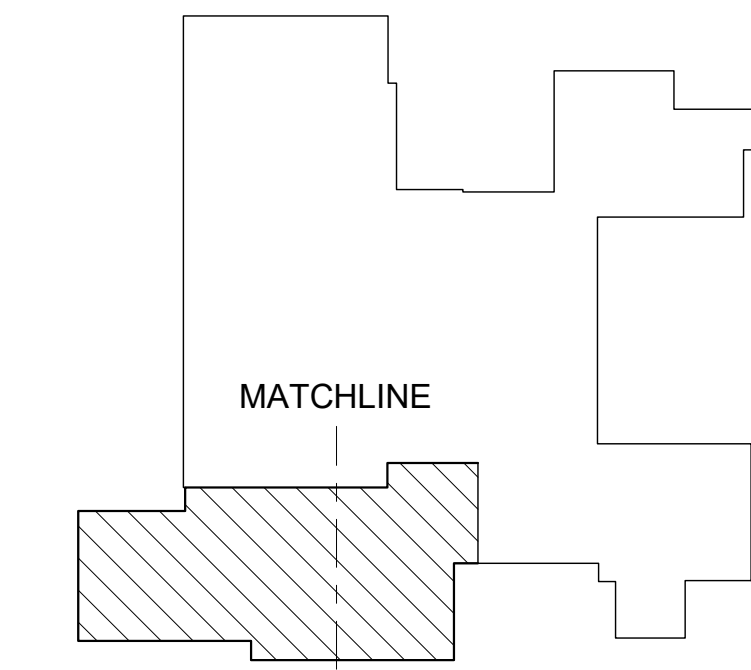
HOBBS MIDDLE SCHOOL 5317 GLOVER LANE MILTON FL 32570

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FLOOR PLAN
SOUTHEAST

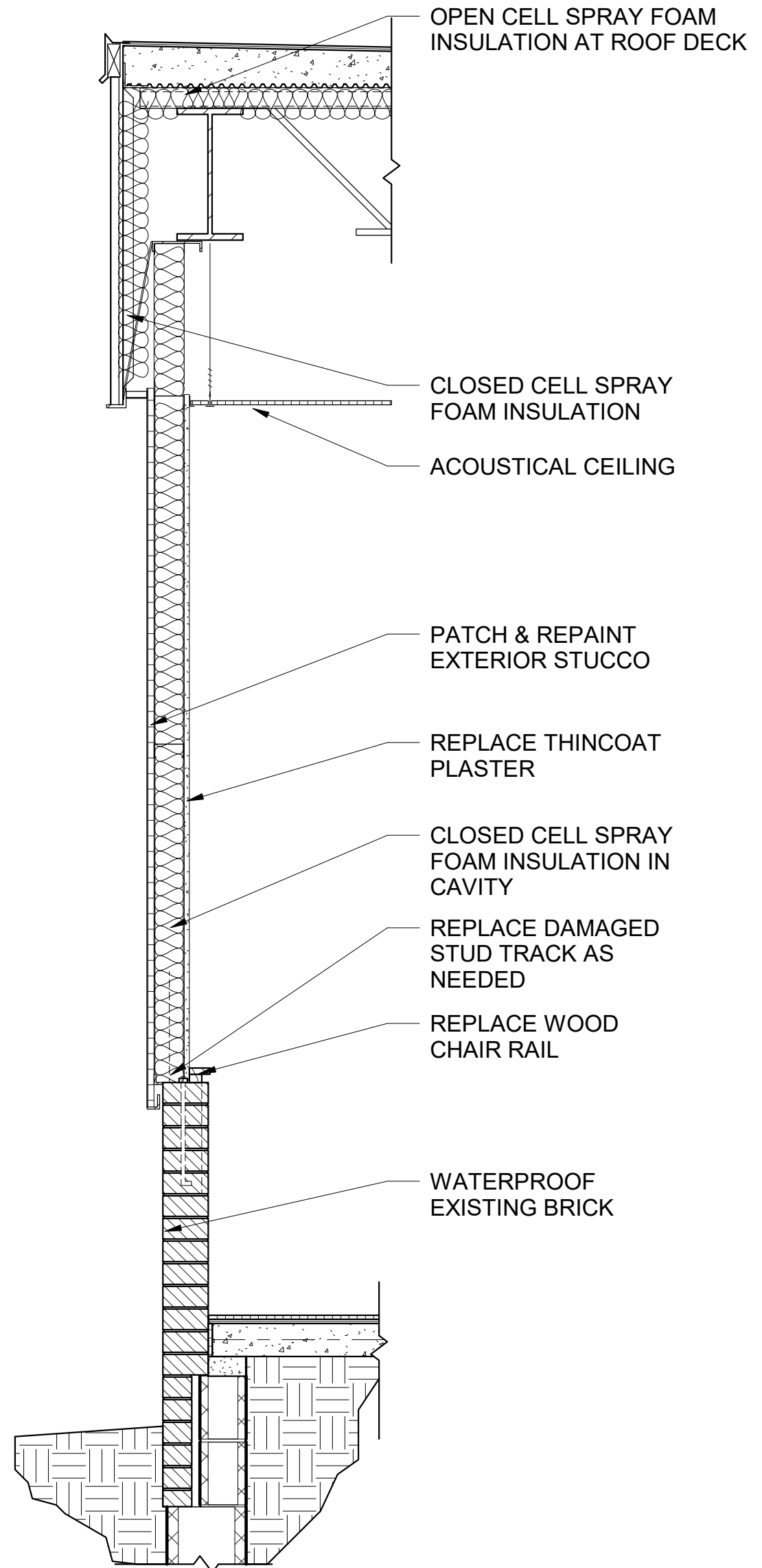
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A103

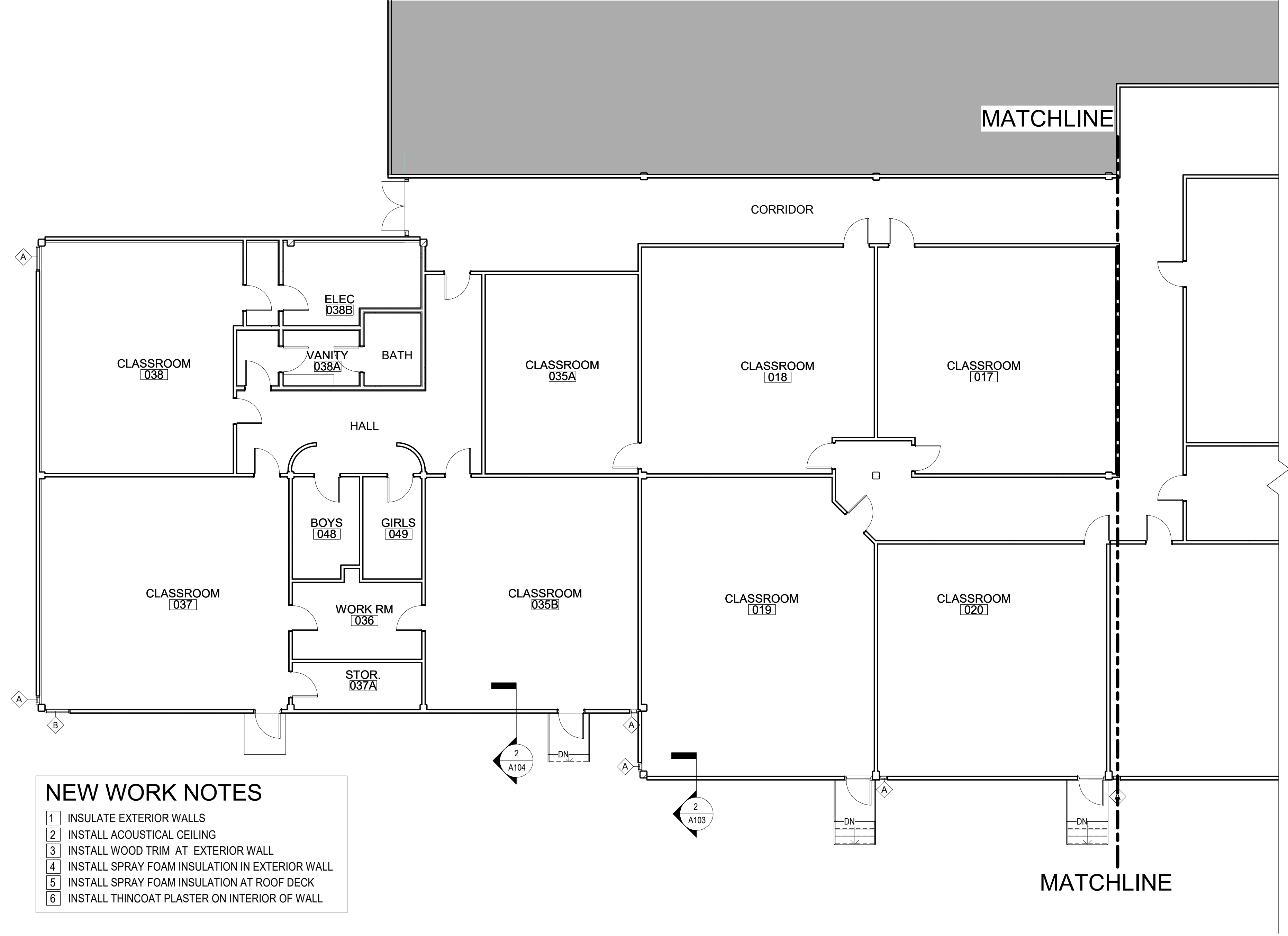


REFERENCE PLAN

**HOBBS MIDDLE SCHOOL
ENERGY UPGRADES**
SANTA ROSA COUNTY SCHOOLS



2 FINISHED EXTERIOR WALL SECTION.
3/4" = 1'-0"



- NEW WORK NOTES**
- 1 INSULATE EXTERIOR WALLS
 - 2 INSTALL ACOUSTICAL CEILING
 - 3 INSTALL WOOD TRIM AT EXTERIOR WALL
 - 4 INSTALL SPRAY FOAM INSULATION IN EXTERIOR WALL
 - 5 INSTALL SPRAY FOAM INSULATION AT ROOF DECK
 - 6 INSTALL THINCOAT PLASTER ON INTERIOR OF WALL

1 SOUTHWEST AREA FLOOR PLAN
1/8" = 1'-0"

No.	Description	Date

**FLOOR PLAN
SOUTHWEST**

Date	09/11/20
Drawn By	LM
Checked By	MM

A104

HOBBS MIDDLE SCHOOL

ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

DEMO REFLECTED CEILING PLAN SOUTHEAST	
Date	09/11/20
Drawn By	Author
Checked By	Checker

A105

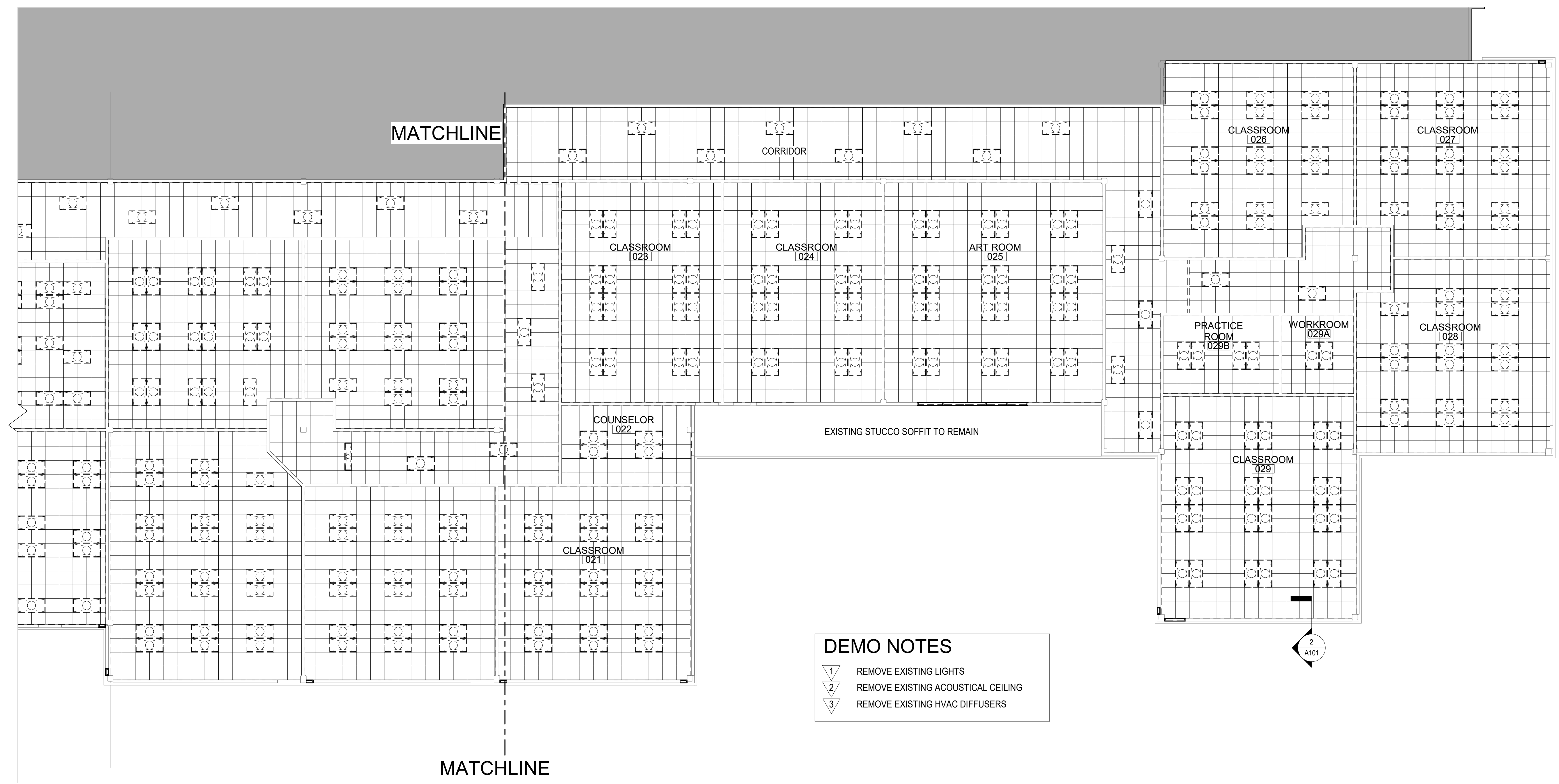
- DEMOLITION NOTES
- 1

REMOVE EXISTING WINDOW. PRESERVE ADJACENT SURFACES.
- 2

REMOVE EXISTING CEILINGS. SEE DEMO REFLECTED CEILING PLANS.
- 3

REMOVE WOOD TRIM FROM EXISTING EXTERIOR WALLS. SEE DEMO WALL SECTIONS.
- 4

REMOVE SPRAYED ON INSULATION ABOVE CEILINGS. SEE DEMO WALL SECTION.



- DEMO NOTES
- 1

REMOVE EXISTING LIGHTS
- 2

REMOVE EXISTING ACOUSTICAL CEILING
- 3

REMOVE EXISTING HVAC DIFFUSERS

HOBBS MIDDLE SCHOOL

ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

DEMO REFLECTED CEILING PLAN SOUTHEAST	
Date	09/11/20
Drawn By	Author
Checked By	Checker

A105

DEMOLITION NOTES

1

REMOVE EXISTING WINDOW. PRESERVE ADJACENT SURFACES.

2

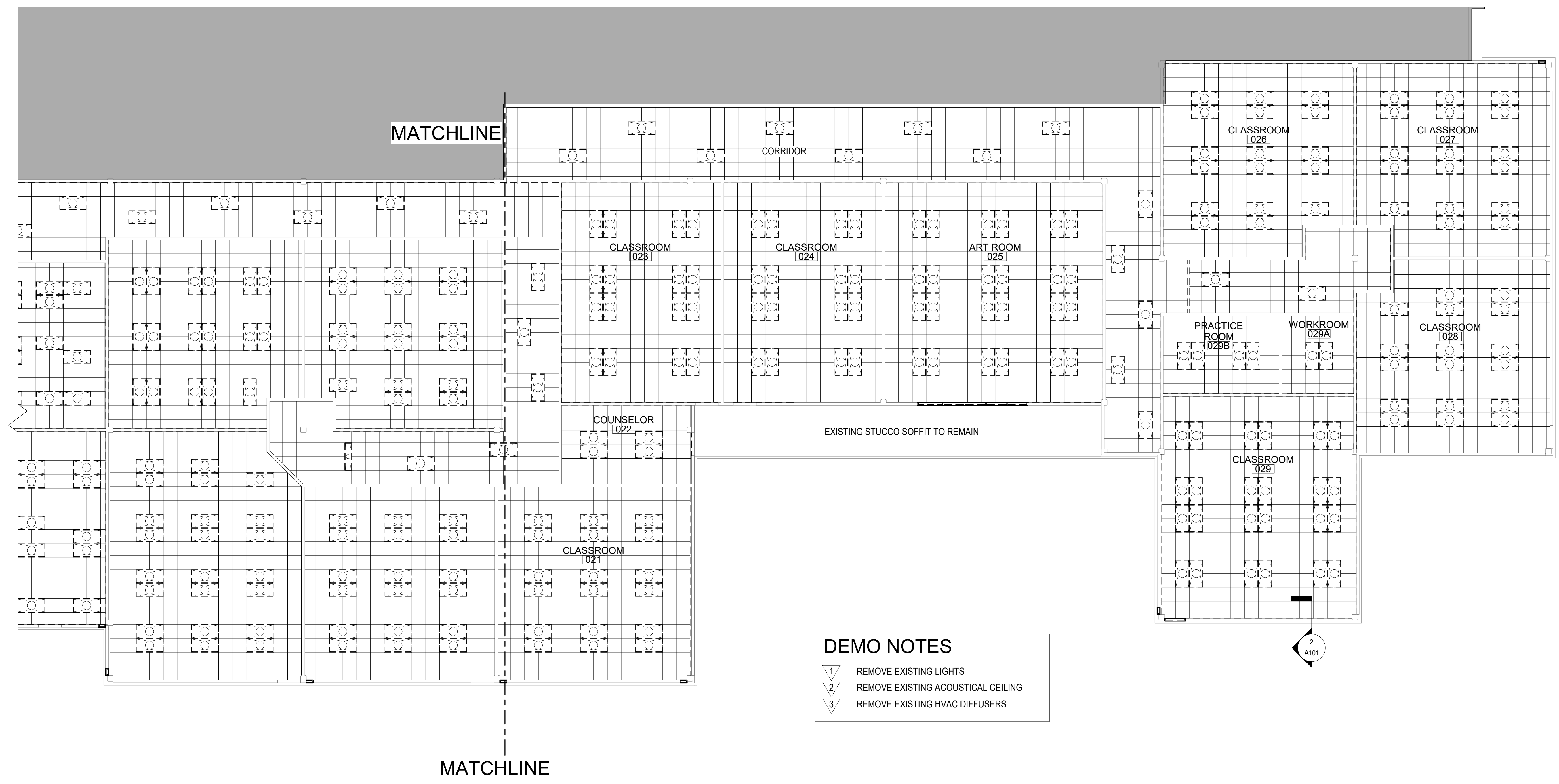
REMOVE EXISTING CEILINGS. SEE DEMO REFLECTED CEILING PLANS.

3

REMOVE WOOD TRIM FROM EXISTING EXTERIOR WALLS. SEE DEMO WALL SECTIONS.

4

REMOVE SPRAYED ON INSULATION ABOVE CEILINGS. SEE DEMO WALL SECTION.



DEMO NOTES

1

REMOVE EXISTING LIGHTS

2

REMOVE EXISTING ACOUSTICAL CEILING

3

REMOVE EXISTING HVAC DIFFUSERS

HOBBS MIDDLE SCHOOL

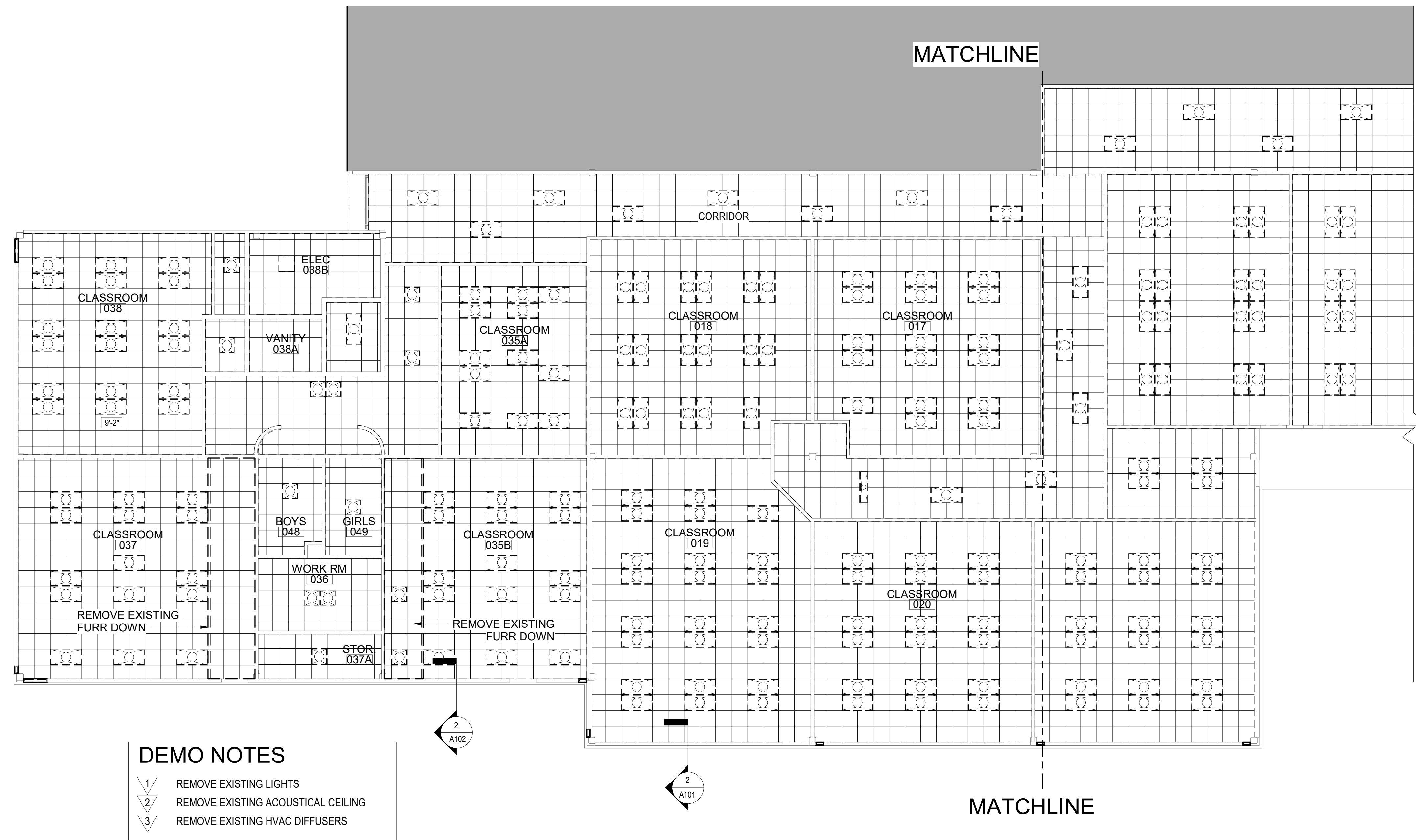
ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

DEMO REFLECTED CEILING PLAN SOUTHWEST		
Date	09/11/20	
Drawn By	Author	
Checked By	Checker	

A106



1

DEMO REFLECTED CEILING PLAN
SOUTHWEST
1/8" = 1'-0"

HOBBS MIDDLE SCHOOL

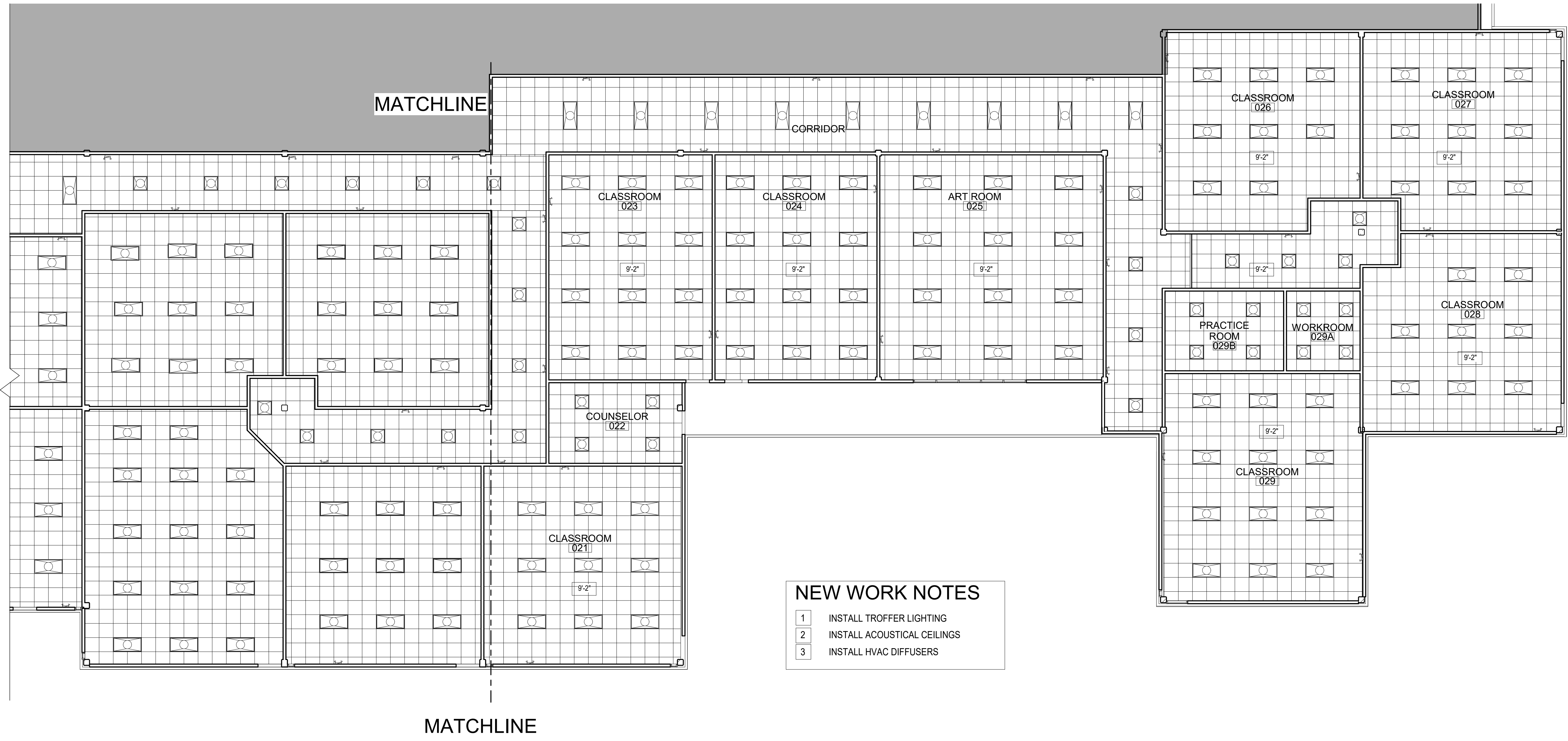
ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

REFLECTED CEILING PLAN SOUTHEAST	
Date	09/11/20
Drawn By	Author
Checked By	Checker

A107



- NEW WORK NOTES
- 1

INSTALL TROFFER LIGHTING
- 2

INSTALL ACOUSTICAL CEILINGS
- 3

INSTALL HVAC DIFFUSERS

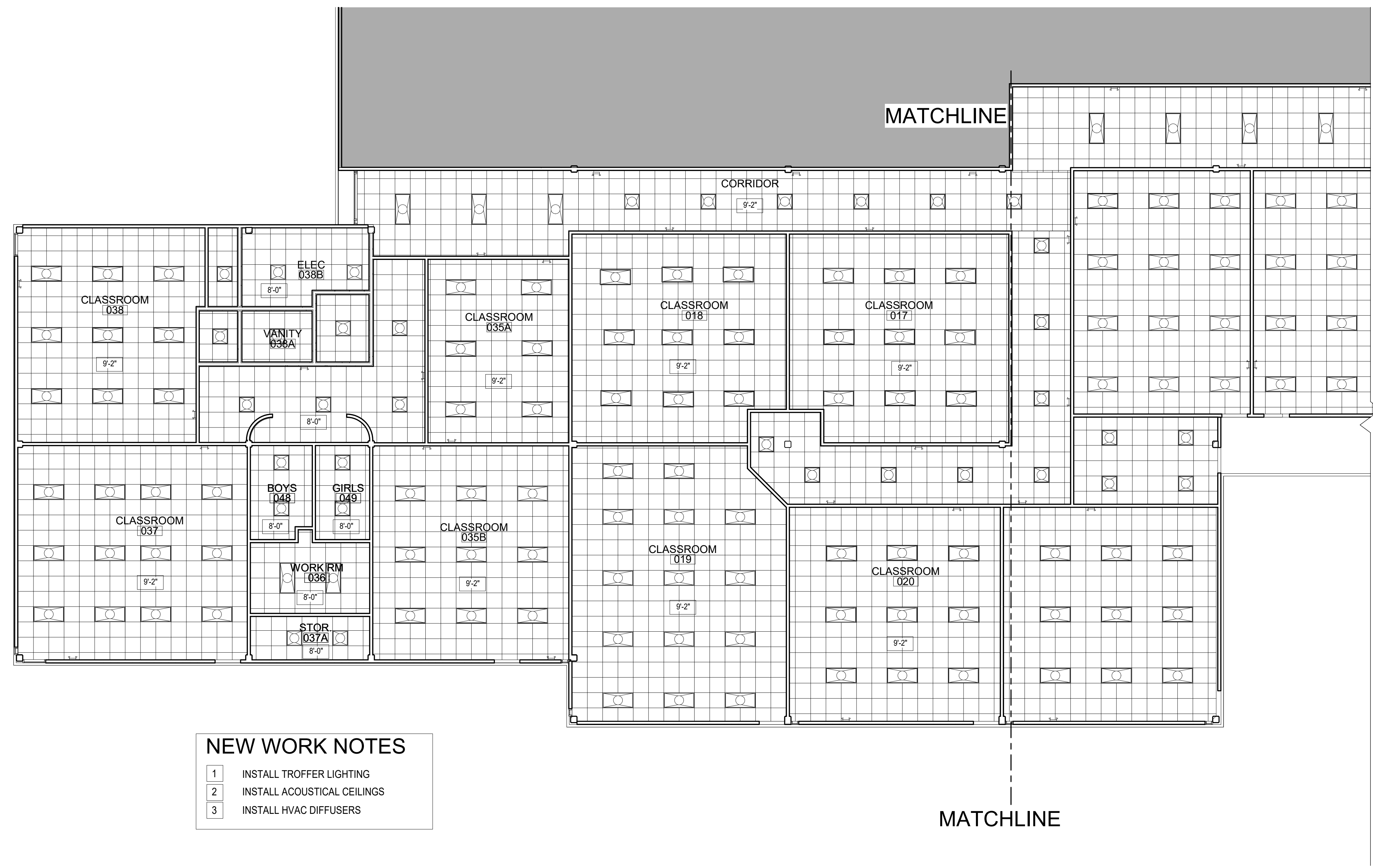
HOBBS MIDDLE SCHOOL
ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

REFLECTED CEILING PLAN SOUTHWEST	
Date	09/11/20
Drawn By	Author
Checked By	Checker

A108



- NEW WORK NOTES
- 1

INSTALL TROFFER LIGHTING
- 2

INSTALL ACOUSTICAL CEILINGS
- 3

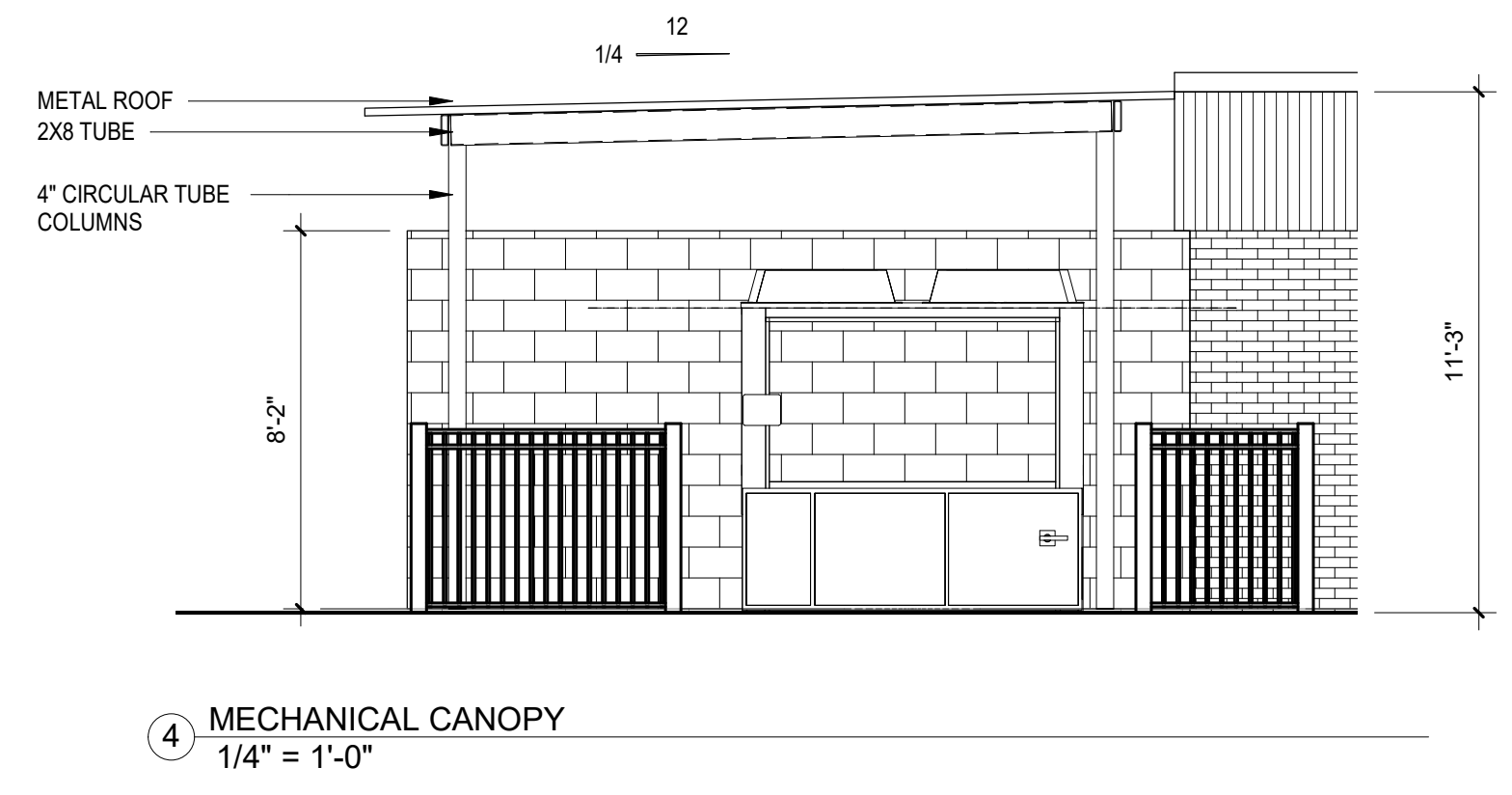
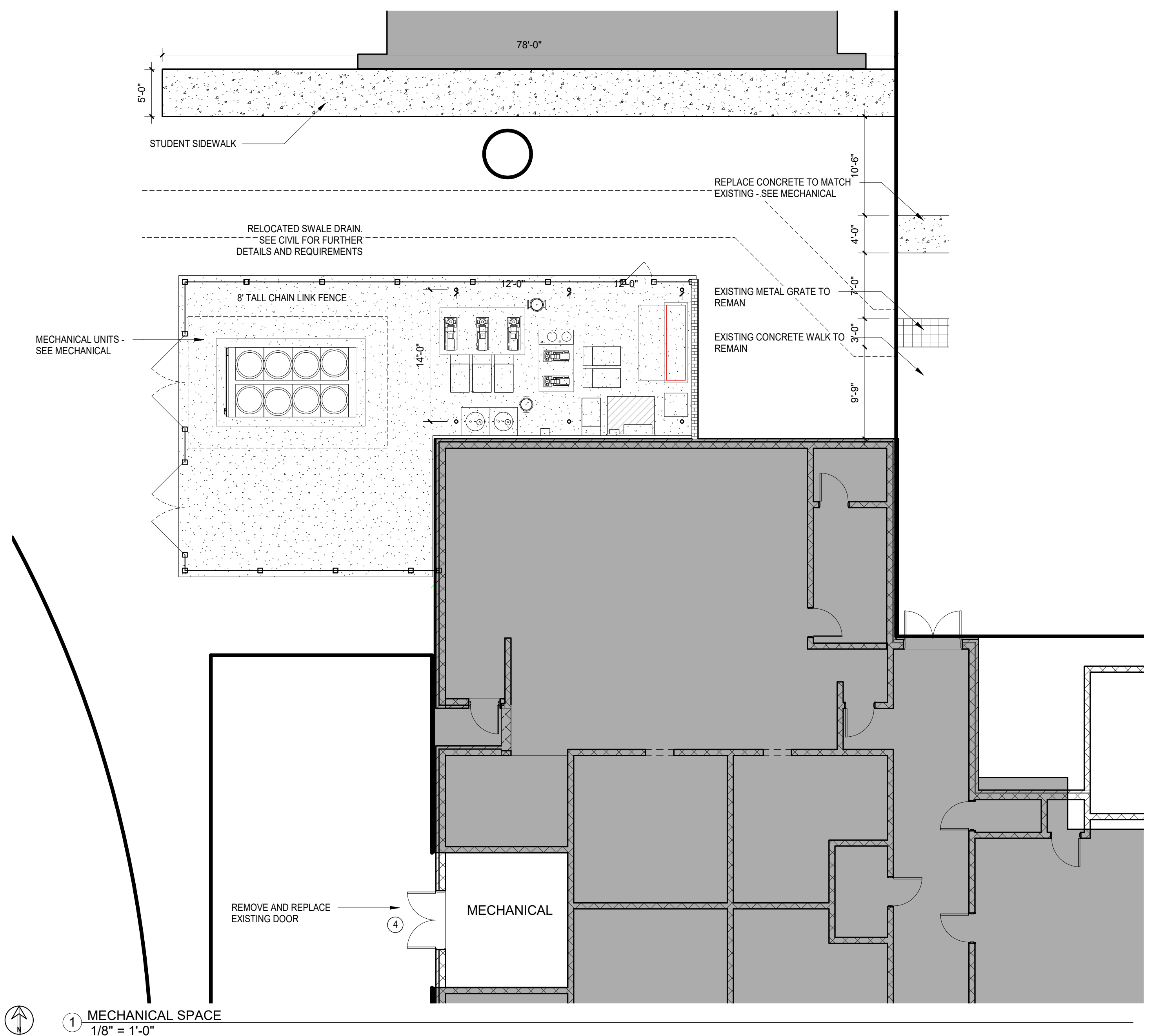
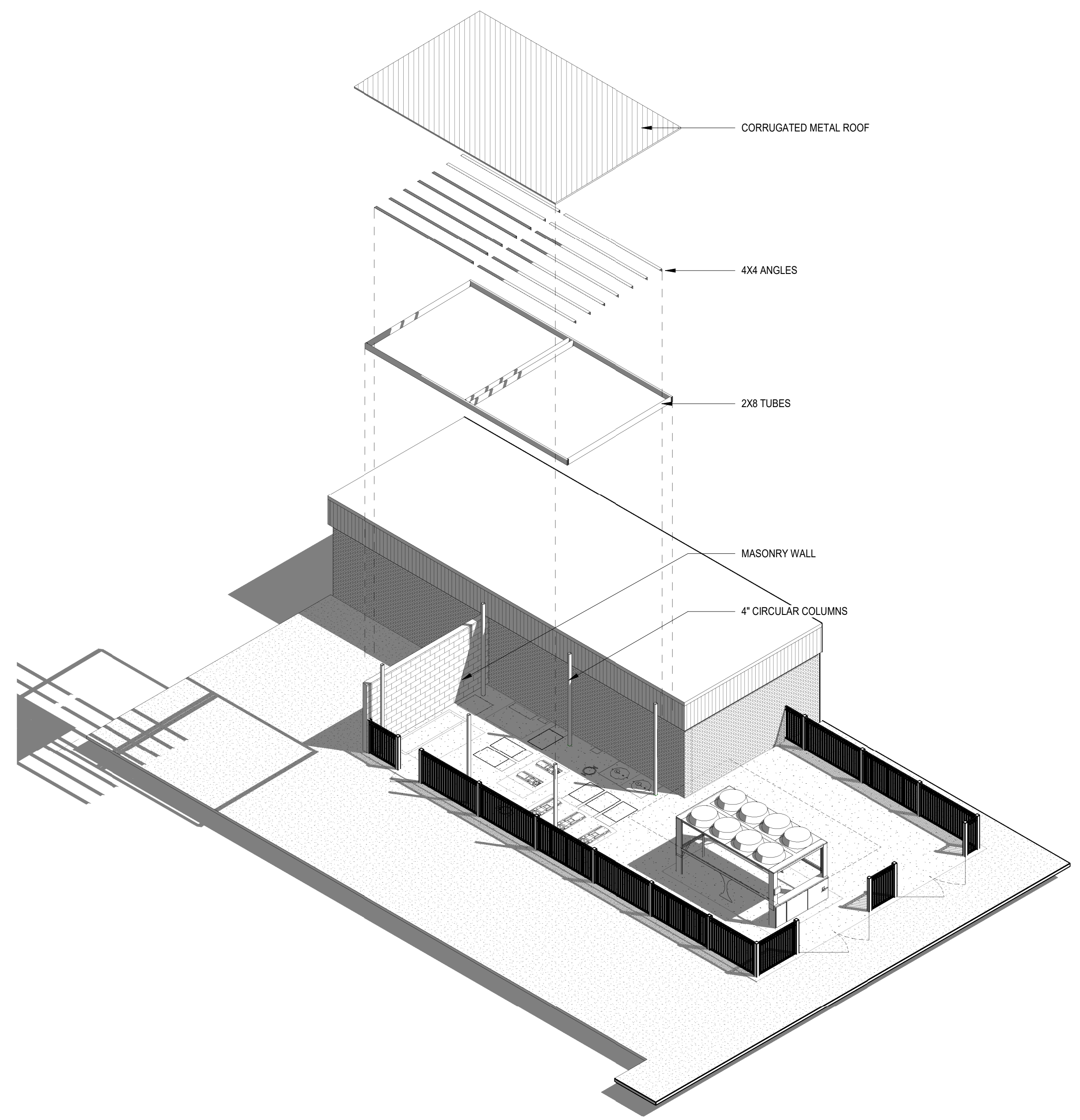
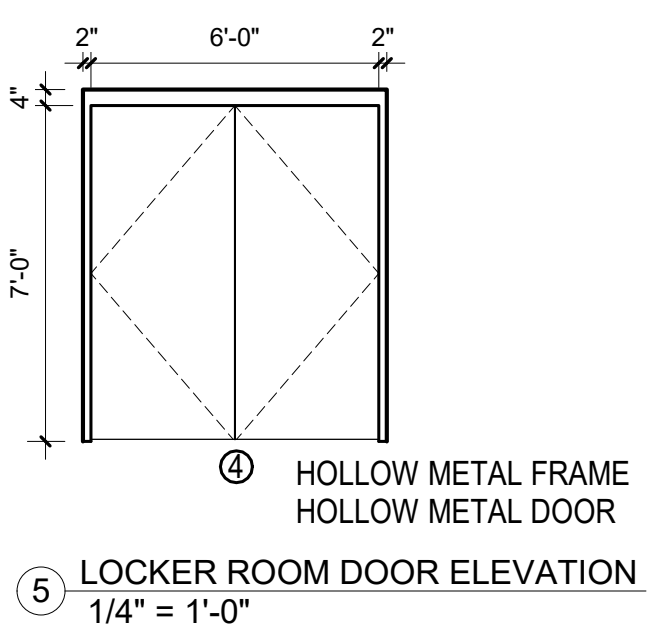
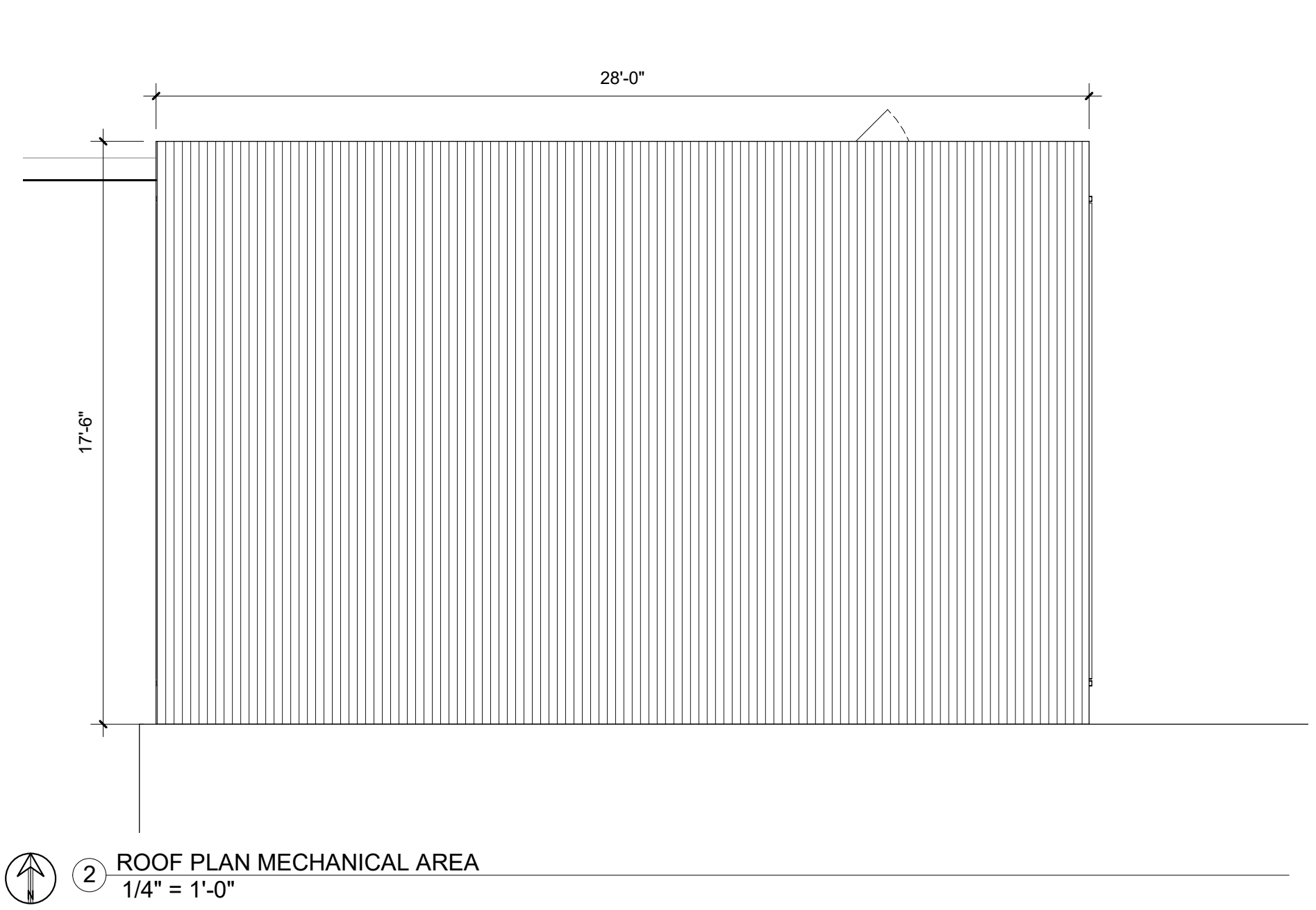
INSTALL HVAC DIFFUSERS

**HOBBS MIDDLE SCHOOL
ENERGY UPGRADES**
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

MECHANICAL AREA	
Date	09/11/20
Drawn By	Author
Checked By	Checker

A109



ABBREVIATIONS				LEGEND			
<div><div>@</div><div>A/C</div><div>A/E</div><div>A/G</div><div>ACC</div><div>ACD</div><div>AD</div><div>ADJ</div><div>AFF</div><div>AFMS</div><div>AHRI</div><div>AHU</div><div>ALT</div><div>ASHRAE</div><div>AS</div><div>ATU</div><div>AI</div><div>AO</div><div>B</div><div>BAS</div><div>BD</div><div>BLDG</div><div>BMS</div><div>BP</div><div>BTUH</div><div>CEF</div><div>CFM</div><div>CF</div><div>CFH</div><div>CHWS/R</div><div>CHWS</div><div>CHWR</div><div>CHWP</div><div>CO</div><div>CONT</div><div>COP</div><div>COMP</div><div>CT</div><div>CWV</div><div>Cv</div><div>CS</div><div>CR</div><div>DB</div><div>DBA</div><div>DCW</div><div>DD</div><div>DDC</div><div>DEG. F</div><div>DN</div><div>DP</div><div>DPS</div><div>DWGS</div><div>DX</div><div>DI</div><div>DO</div><div>(E)</div><div>EA</div><div>EAG</div><div>EAL</div><div>EAR</div><div>EAT</div><div>EER</div><div>EF</div><div>EMCS</div><div>ENT</div><div>ERV</div><div>ESP</div><div>ET</div><div>EUH</div><div>EWT</div><div>FD</div><div>FLA</div><div>FLP</div><div>FPM</div><div>FT</div><div>FT W.C.</div></div> <div><div>AT</div><div>ABOVE CEILING</div><div>ARCHITECTS AND ENGINEERS</div><div>ABOVE GRADE</div><div>AIR COOLED CHILLER</div><div>AUTOMATIC CONTROL DAMPER</div><div>ACCESS DOOR</div><div>ADJUSTABLE</div><div>ABOVE FINISHED FLOOR</div><div>AIRFLOW MEASURING STATION</div><div>AIR-CONDITIONING, HEATING AND REFRIGERATION INSTITUTE</div><div>AIR HANDLING UNIT</div><div>ALTERNATE</div><div>AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS</div><div>AIR SEPARATOR</div><div>AIR TERMINAL UNIT</div><div>ANALOG INPUT</div><div>ANALOG OUTPUT</div><div>BOILER</div><div>BUILDING AUTOMATION SYSTEM</div><div>BELT DRIVE</div><div>BUILDING</div><div>BUILDING MANAGEMENT SYSTEM</div><div>BOILER PUMP -PRIMARY LOOP</div><div>BRITISH THERMAL UNIT PER HOUR</div><div>CEILING EXHAUST FAN</div><div>CUBIC FEET PER MINUTE</div><div>CHEMICAL FEEDER</div><div>CUBIC FEET PER HOUR</div><div>CHILLED WATER PIPING SUPPLY AND RETURN</div><div>CHILLED WATER PIPING SUPPLY</div><div>CHILLED WATER PIPING RETURN</div><div>CHILLED WATER PUMP</div><div>CARBON MONOXIDE / CLEANOUT</div><div>CONTINUOUS</div><div>COEFFICIENT OF PERFORMANCE</div><div>COMPRESSOR</div><div>COOLING TOWER</div><div>CHILLED WATER VALVE</div><div>FLOW COEFFICIENT</div><div>CONDENSER WATER PIPING SUPPLY</div><div>CONDENSER WATER PIPING RETURN</div><div>DRY BULB TEMPERATURE</div><div>DECIBEL A RATING</div><div>DOMESTIC COLD POTABLE WATER</div><div>DIRECT DRIVE</div><div>DIRECT DIGITAL CONTROL</div><div>DEGREES IN FAHRENHEIT</div><div>DOWN</div><div>DEW POINT TEMPERATURE</div><div>DIFFERENTIAL PRESSURE SENSOR</div><div>DRAWINGS</div><div>DIRECT EXPANSION</div><div>DIGITAL INPUT</div><div>DIGITAL OUTPUT</div><div>EXISTING</div><div>EXHAUST AIR OR EACH</div><div>EXHAUST AIR GRILLE</div><div>EXHAUST AIR LOUVER</div><div>EXHAUST AIR REGISTER</div><div>ENTERING AIR TEMPERATURE</div><div>ENERGY EFFICIENCY RATIO</div><div>EXHAUST FAN</div><div>ENERGY MANAGEMENT AND CONTROL SYSTEM</div><div>ENTERING</div><div>ENERGY RECOVERY VENTILATOR</div><div>EXTERNAL STATIC PRESSURE</div><div>EXPANSION TANK</div><div>ELECTRIC UNIT HEATER</div><div>ENTERING WATER TEMPERATURE</div><div>FLOOR DRAIN</div><div>FULL LOAD AMPS</div><div>FLOOR PLAN</div><div>FEET PER MINUTE</div><div>FEET</div><div>FEET OF WATER COLUMN</div></div> <div><div>GI</div><div>GR</div><div>GPM</div><div>HDPE</div><div>HDT</div><div>HBT</div><div>HOA</div><div>HP</div><div>HPU</div><div>HVAC</div><div>HWS/R</div><div>HWS</div><div>HWR</div><div>HWP</div><div>HWV</div><div>HZ</div><div>IL</div><div>IPLV</div><div>IN W.C.</div><div>LAT</div><div>LWT</div><div>LSS</div><div>MAX</div><div>MBH</div><div>MCA</div><div>MERV</div><div>MFG</div><div>MFR</div><div>MIN</div><div>MOCP</div><div>MVD</div><div>NEC</div><div>NFPA</div><div>NO</div><div>NC</div><div>NPLV</div><div>NTS</div><div>OA</div><div>OAL</div><div>OAU</div><div>O.C.</div><div>PD</div><div>PEX</div><div>PH</div><div>PPM</div><div>PRV</div><div>P/T</div><div>PSI</div><div>PSIG</div><div>QTY</div><div>RA</div><div>RAG</div><div>RAR</div><div>RH</div><div>RPBFP</div><div>RPM</div><div>RLA</div><div>SA</div><div>SAR</div><div>SD</div><div>SEER</div><div>SF</div><div>SMACNA</div><div>SPT</div></div> <div><div>GRAVITY INTAKE</div><div>GRAVITY RELIEF</div><div>GALLONS PER MINUTE</div><div>HIGH-DENSITY POLYETHYLENE</div><div>HORIZONTAL DRAW THROUGH</div><div>HORIZONTAL BLOW THROUGH</div><div>HAND-OFF-AUTO</div><div>HORSEPOWER</div><div>HEAT PUMP UNIT</div><div>HEATING VENTILATING AND AIR CONDITIONING</div><div>HOT WATER PIPING SUPPLY AND RETURN</div><div>HOT WATER SUPPLY</div><div>HOT WATER RETURN</div><div>HOT WATER PUMP</div><div>HOT WATER VALVE</div><div>HERTZ</div><div>INLINE</div><div>INTEGRATED PART LOAD VALUE</div><div>INCH OF WATER COLUMN</div><div>LEAVING AIR TEMPERATURE</div><div>LEAVING WATER TEMPERATURE</div><div>LIQUID SOLID SEPARATOR</div><div>MAXIMUM</div><div>1000 BTUHS</div><div>MINIMUM CIRCUIT AMPS</div><div>MINIMUM EFFICIENCY REPORTING VALUE (FILTER)</div><div>MANUFACTURING</div><div>MANUFACTURER</div><div>MINIMUM</div><div>MAXIMUM OVERCURRENT PROTECTION DEVICE</div><div>MANUAL VOLUME DAMPER</div><div>NATIONAL ELECTRICAL CODE</div><div>NATIONAL FIRE PROTECTION ASSOCIATION</div><div>NORMALLY OPEN</div><div>NORMALLY CLOSED OR NOISE CRITERIA</div><div>NON-STANDARD PART LOAD VALUE</div><div>NOT TO SCALE</div><div>OUTSIDE AIR</div><div>OUTSIDE AIR LOUVER</div><div>OUTSIDE AIR UNIT</div><div>ON CENTER</div><div>PRESSURE DROP</div><div>CROSS-LINKED POLYETHYLENE</div><div>PHASE</div><div>PARTS PER MILLION</div><div>PRESSURE REDUCING VALVE</div><div>PRESSURE/TEMPERATURE PORTS</div><div>POUNDS PER SQUARE INCH</div><div>POUNDS PER SQUARE INCH (GAGE PRESSURE)</div><div>QUANTITY</div><div>RETURN AIR</div><div>RETURN AIR GRILLE</div><div>RETURN AIR REGISTER</div><div>RELATIVE HUMIDITY</div><div>REDUCED PRESSURE BACKFLOW PREVENTER</div><div>REVOLUTION PER MINUTE</div><div>RATED LOAD AMPS</div><div>SUPPLY AIR</div><div>SUPPLY AIR REGISTER</div><div>SMOKE DETECTOR</div><div>SEASONAL ENERGY EFFICIENCY RATIO</div><div>SUPPLY FAN</div><div>SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION</div><div>STATIC PRESSURE TRANSMITTER</div></div> <div><div>TA</div><div>TAG</div><div>T'STAT</div><div>TT</div><div>TSP</div><div>TYP.</div><div>UNO</div><div>UV</div><div>UV-C</div><div>U/G</div><div>V</div><div>VAV</div><div>VFD</div><div>W/</div><div>WB</div><div>WCC</div><div>WOG</div><div>W.G.</div><div>NOTE:</div><div>NOT ALL ABBREVIATIONS ARE USED ON THESE DRAWINGS</div></div> <div><div>TRANSFER AIR</div><div>TRANSFER AIR GRILLE</div><div>THERMOSTAT</div><div>TEMPERATURE TRANSMITTER</div><div>TOTAL STATIC PRESSURE</div><div>TYPICAL</div><div>UNLESS NOTED OTHERWISE</div><div>ULTRAVIOLET</div><div>ULTRAVIOLET TYPE C</div><div>UNDERGROUND</div><div>VOLTS</div><div>VARIABLE AIR VOLUME</div><div>VARIABLE FREQUENCY DRIVE</div><div>WITH</div><div>WET BULB TEMPERATURE</div><div>WATER COOLED CHILLER</div><div>WATER, OIL, GAS</div><div>WATER GAUGE</div></div>	<div><div>DUCTWORK</div><div><div><div>24x12"</div></div><div>RECTANGULAR DUCT SIZE. FIRST SIZE LISTED IS SIDE SHOWN IN PLANS & ROUND DUCT SIZE</div></div><div><div><div>12"Ø</div></div><div>EXTERNALLY INSULATED DUCTWORK</div></div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div><div>EXTERNALLY INSULATED ROUND FLEXIBLE DUCTWORK (MIN R-6)</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>DUCT 90° ELBOW WITH TURNING VANES</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>DUCT 45° TRANSITION WITH TURNING VANES</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>RADIUSED DUCT ELBOW. TURNING RADIUS SHALL BE 1.5 TIMES THE TURNING DIMENSION</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>FLEXIBLE DUCT CONNECTION</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>TRANSITION</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>SUPPLY OR OUTSIDE AIR DUCT TURNING UP (POSITIVE PRESSURE)</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>RETURN OR EXHAUST AIR DUCT TURNING UP (NEGATIVE PRESSURE)</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>SUPPLY OR OUTSIDE AIR DUCT TURNING DOWN (POSITIVE PRESSURE)</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>RETURN OR EXHAUST AIR DUCT TURNING DOWN (NEGATIVE PRESSURE)</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>MANUAL VOLUME DAMPER</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>EQUIPMENT WITH CLEARANCE SHOWN IN DASHED LINE</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>NEW EQUIPMENT TAG</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>EXISTING EQUIPMENT TAG</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>CONNECT TO EXISTING</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>EQUIPMENT TO BE DEMOLISHED</div></div></div> <div><div><div><div><div>1</div><div>TITLE</div><div>SCALE</div></div><div><div>DESCRIPTION</div><div>DWG SCALE, SCHEMATIC, OR NOT TO SCALE (NTS)</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>BUILDING SECTION</div></div><div><div><div><div><div></div><div></div><div></div><div></div></div></div></div><div>BUILDING ELEVATION</div></div></div></div><div><div><div><div><div>SHEET NOTE</div><div>DETAIL NOTE</div><div>REVISION # AND CLOUD</div><div>THERMOSTAT MOUNT TO MATCH LIGHT SWITCH ('1' INDICATES EQUIPMENT CONTROLLED).</div><div>DUCT MOUNT OR WALL MOUNT CARBON DIOXIDE SENSOR</div><div>DUCT MOUNT SMOKE DETECTOR (PROVIDED BY DIVISION 26, INSTALLED BY DIVISION 23 AND WIRED BY DIVISION 26).</div><div>UNDER CUT DOOR 3/4"</div></div><div><div><div><div><div>SINGLE LINE PIPING</div><div>ELBOW TURN UP</div><div>ELBOW TURN DOWN</div><div>CONNECTION, BOTTOM</div><div>CONNECTION, TOP</div><div>CONDENSATE DRAIN PIPING</div><div>REFRIGERANT PIPING</div><div>GATE VALVE</div><div>BALL VALVE</div><div>BUTTERFLY VALVE</div><div>SWING CHECK VALVE</div><div>SPRING CHECK VALVE</div><div>CHWS</div><div>CHWR</div><div>HWS</div><div>HWR</div><div>CS</div><div>CR</div><div>PRV</div><div>PRESSURE RELIEF VALVE. PIPE FULL SIZE DISCHARGE TO FLOOR DRAIN.</div><div>AUTOMATIC FLOW CONTROL VALVE</div><div>2-WAY CONTROL VALVE</div><div>3-WAY CONTROL VALVE</div></div><div><div><div><div>DOUBLE LINE PIPING</div><div>ELBOW TURN UP</div><div>ELBOW TURN DOWN</div><div>CONNECTION, BOTTOM</div><div>CONNECTION, TOP</div><div>PIPE ELBOW</div><div>TRANSITION</div><div>NEW PIPING</div><div>EXISTING PIPING TO REMAIN</div><div>EXISTING PIPING TO BE DEMOLISHED</div><div>UNDERGROUND PIPING</div><div>PRESSURE GAUGE (0-160PSI) WITH ISOLATION VALVE</div><div>TEMPERATURE GAUGE 0°F - 100°F FOR CHW 30°F - 180°F FOR CW 30°F - 240°F FOR HW</div><div>HYDRONIC TEMPERATURE SENSOR (SEE CONTROLS)</div><div>HYDRONIC FLOW METER (SEE CONTROLS)</div><div>HYDRONIC DIFFERENTIAL PRESSURE SENSOR (SEE CONTROLS)</div><div>COMBINATION VENTURI AND BALL VALVE WITH MEMORY STOP FOR FLOW BALANCING AND SHUT OFF SERVICE</div><div>UNION</div><div>GLOBE VALVE</div><div>STAINLESS STEEL BRAIDED FLEXIBLE PIPE CONNECTOR</div><div>COMBINATION PRESSURE AND TEMPERATURE TEST PLUG WITH EXTENDED NECK AND CAP</div><div>STRAINER WITH BLOW DOWN GATE VALVE FULL SIZE OF STRAINER AND 3/4" HOSE END CONNECTION WITH CAP</div><div>MANUAL AIR VENT WITH 1/2" BALL VALVE. ROUTE 1/2" SOFT COPPER TUBING FROM DISCHARGE TO FLOOR DRAIN UNLESS OTHERWISE NOTED.</div></div></div></div></div><div><div>PH. 2 SUBMITTAL NOT FOR CONSTRUCTION</div></div></div></div></div></div></div></div>	<div><div><div><div><div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div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DESIGN CONDITIONS				
	OUTSIDE		INSIDE - OCCUPIED MODE	
	DB (DEG. F)	WB (DEG. F)	DB (DEG. F)	RH
	94	78	72	50%
SUMMER				
WINTER	29	-	70	

NOTES:

- INSIDE SUMMER DESIGN TEMPERATURE IS +0/-2 DEG. F.
- INSIDE SUMMER DESIGN RELATIVE HUMIDITY IS + 10%.
- INSIDE WINTER DESIGN TEMPERATURE IS +2/-0 DEG. F.
- OUTDOOR DESIGN CONDITIONS ARE BASED ON ASHRAE FUNDAMENTALS WEATHER DATA FOR PENSACOLA, FL. COOLING 0.4% DB/MCWB AND HEATING 99.6% DB

AIR SEPARATOR SCHEDULE					
MARK	SERVICE	FLOW RATE (GPM)	MIN. INLET AND OUTLET SIZE (INCH)	MAX. PRESS. DROP (FT. W.C.)	MAX. WORKING PRESS. (PSI)
AS-1	CHW	600	6	2	125
AS-2	HW	300	4	2	125

NOTES:

- PROVIDE TANGENTIAL SEPARATOR TYPE.
- PROVIDE WITH BLOWDOWN VALVE AND AIR VENT PER SPECS.
- PROVIDE WITH BASE STRUCTURAL SUPPORT PER DETAIL.
- BASIS OF DESIGN IS TACO AC SERIES.

EXPANSION TANK SCHEDULE				
MARK	SERVICE	VOLUME (GAL.)		CHARGE PRESS. (PSI)
		MIN. TANK	MIN. ACCEPT - ANCE	
ET-1	CHW	31	31	12
ET-2	HW	31	31	12

NOTES:

- FULL BLADDER TYPE EXPANSION TANK.
- RATED PRESSURE 125 PSI.
- PROVIDE WITH ANCHOR CLIPS AND SECURE TO CONCRETE PAD.
- BASIS OF DESIGN IS TACO CA SERIES.

CHEM. SHOT FEEDER SCHEDULE			
MARK	SERVICE	VOLUME (GAL)	RATED PRESSURE (PSI)
CF-1	CHW	5	200
CF-2	HW	5	200

NOTES:

- FURNISH ENOUGH CHEMICALS FOR INITIAL SYSTEM STARTUP AND FOR PREVENTIVE MAINTENANCE FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- PROVIDE INTERNAL AND EXTERNAL EPOXY COATING. REFER TO DETAIL FOR ALL OTHER ACCESSORIES.
- BASIS OF DESIGN IS J. L. WINGERT SHD.

HYDRONIC PUMP SCHEDULE												
MARK	SERVICE	TYPE	PERFORMANCE DATA						ELECTRICAL DATA			
			FLOW RATE (GPM)	HEAD (FT. W.C.)	MIN. SHUTOFF HEAD (FT. W.C.)	NON-OVER LOADING (HP)	MIN. EFF. (%)	MAX. SPEED (RPM)	MIN. MOTOR POWER (HP)	VOLTS	PHASE	Hz
CHWP-1	CHILLED	FI	200	120	135	13	80	1,760	15	460	3	60
CHWP-2	CHILLED	FI	200	120	135	13	80	1,760	15	460	3	60
CHWP-2	CHILLED	FI	200	120	135	13	80	1,760	15	460	3	60
HWP-1	HOT WATER	FI	150	80	85	6	80	1,760	7.5	460	3	60
HWP-2	HOT WATER	FI	150	80	85	6	80	1,760	7.5	460	3	60

NOTES:

- FI - BASE MOUNTED FLEX COUPLED END SUCTION PUMP. TRIPLE DUTY VALVE IS NOT ALLOWABLE. SEE PUMP DETAIL.
- PROVIDE TEFC - TOTALLY ENCLOSED FAN COOLED PUMP MOTOR.
- COORDINATE FINAL POWER REQUIREMENTS WITH ELECTRICAL.
- PROVIDE LASER ALIGNMENT REPORT BY FACTORY REPRESENTATIVE AS PART OF THE O&M MANUAL.
- CONTROLS CONTRACTOR SHALL PROVIDE EACH CW PUMP WITH VFD FOR VARIABLE FLOW PUMPING AND FLOW BALANCING PURPOSES.
- PROVIDE THE MAXIMUM IMPELLER DIAMETER SIZE BUT STILL BELOW THE MAXIMUM NOMINAL HP. PROVIDE NON-OVERLOADING PUMP.
- BASIS OF DESIGN IS PATTERSON. EQUAL BY TACO OR BELL AND GOSSETT.

TAB NOTES:

- ALL PUMPS ARE SIZED FOR ANTICIPATED FUTURE LOADS.
- BALANCE AND MEASURE VENTURI PER SUBMITTED EQUIPMENT FLOW RATE REQUIREMENTS

AIR COOLED CHILLER SCHEDULE																												
MARK	NOM. CHILLER CAPACITY (TONS)	FLUID TYPE	CHILLER TYPE	EFF. EER (NOTE 1)	IPLV EER (NOTE 2)	EVAPORATOR DATA						CONDENSER DATA				COMPRESSOR DATA								ELECTRICAL DATA				
						MIN. FLOW RATE (GPM)	FLOW RATE (GPM)	EWT (DEG. F)	LWT (DEG. F)	MAX. PD (FT. WC)	FOULING FACTOR	AMBIENT AIR TEMP.		CONDENSER FANS		# CAP. STEPS	COMP. QTY.	# OF CIRCUITS	COMP #1 RLA	COMP #2 RLA	COMP #3 RLA	COMP #4 RLA	MCA	MOPD	VOLTS	PHASE	Hz	
												DESIGN (DEG. F)	MIN. (DEG. F)	QTY	TOTAL FLA													
ACC-1	110	WATER	SCROLL	9.8	15.3	125	200	54	42	15	0.00010	95	32	8	3.2	4	4	2	41.9	50.6	50.6	41.9	226	250	460	3	60	

NOTES:

- EER SHALL INCLUDE POWER INPUT FOR ALL CONDENSER FANS, COMPRESSORS AND UNIT CONTROL POWER AT FULL LOAD CONDITION.
- IPLV BASED ON STANDARD RATING BASED ON AHRI CONDITION.
- PROVIDE WITH R-410 REFRIGERANT.
- PROVIDE BRAZE PLATE EVAPORATOR WITH INSULATION AND HEAT TRACE FOR FREEZE PROTECTION.
- PROVIDE FACTORY RECOMMENDED SOLID STATE FLOW SWITCH AND SHALL BE FIELD INSTALLED PER MFR RECOMMENDED INSTALLATION. PADDLE TYPE FLOW SWITCH IS NOT ALLOWED
- PROVIDE CONDENSER COILS WITH FACTORY DIPPED AND BAKED EPOXY COATING PROVIDING 6000+ HOUR SALT SPRAY RESISTANCE APPLIED TO BOTH THE COIL AND THE COIL FRAMES.
- PROVIDE WITH BACNET COMMUNICATION PROTOCOL. COORDINATE WITH BUILDING DDC SYSTEM.
- PROVIDE WITH MFR RECOMMENDED BASE VIBRATION NEOPRENE ISOLATOR KIT.
- BASIS OF DESIGN IS TRANE CGAM 110 - HIGH EFFICIENCY.

HYDRONIC BOILER SCHEDULE																			
MARK	NOMINAL CAPACITY (MBH)	HEATING RATING		GAS PRESSURE (PSIG)	BLR DESIGN PRESSURE (PSIG)	RELIEF VALVE (PSIG)	FIRING RATE (CFH)	FLOW RATE (GPM)	PRESSURE DROP (FT)	VOLUME CAPACITY (GALLON)	EWT (DEG F)	LWT (DEG F)	THERMAL EFFICIENCY		MIN. TURNDOWN RATIO	ELECTRICAL DATA			
		MAX. INPUT (MBH)	GROSS OUTPUT (MBH)										NOTE 7	AHRI CERTIFIED		FLA	VOLTS	PHASE	Hz
B-1	1,500	1,458	1,400	4-14	160	100	1,459	150	2	50	60	80	96%	93.5%	5:1	20	120	1	60

NOTES:

- PROVIDE HIGH MASS FIRE TUBE BOILER WITH CONDENSATE NEUTRALIZATION KIT AND ROUTE CONDENSATE TO EXISTING FLOOR DRAIN.
- PROVIDE CSD-1 NATURAL GAS TRAIN BY BOILER MFR.
- PROVIDE WITH BACNET MS/TP CONTROLS INTERFACE AND START-UP SUPPORT
- PROVIDE GAS REGULATOR AND MODULATING COMBUSTION CONTROL.
- PROVIDE 6" FLUE STACK AND 8" COMBUSTION AIR INLET CAP. ROUTING PER FLP.
- COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
- THERMAL EFFICIENCY BASED ON FULL LOAD AT INDICATED RETURN WATER TEMPERATURE.
- BASIS OF DESIGN IS FULTON ENDURA. OTHER ACCEPTABLE MFR IS RAYPAK XVERS.

AL

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FL PER 82369 | AL PER 37427-E
PROJECT NUMBER 20-114

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NOT FOR CONSTRUCTION

HOBBS MIDDLE SCHOOL ENERGY
UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

MECHANICAL
SCHEDULES

Date	09/11/20
Drawn By	AL
Checked By	AL

M003

HYDRONIC ROOFTOP AIR HANDLER EQUIPMENT SCHEDULE																				
INDOOR UNIT																				
MARK	FAN DATA						COOLING COIL DATA						COOLING COIL PERFORMANCE				ELECTRICAL DATA. SEE NOTE 10.			
	COOLING AIRFLOW (CFM)	HEATING AIRFLOW (CFM)	OA AIRFLOW (CFM)	EXT. S. P. (IN. W.C.)	FAN BHP POWER (HP)	FAN POWER (HP)	TOTAL CAP. (MBH)	SENS. CAP. (MBH)	EAT (DB) (DEG. F)	EAT (WB) (DEG. F)	LAT (DB) (DEG. F)	LAT (WB) (DEG. F)	EWT (DEG. F)	LWT (DEG. F)	FLOW RATE (GPM)	WATER P.D. (FT. W.G.)				
	RTU-1	6,725	6,480	2,600	2.50	9.3	10	377.6	209.8	80.8	69.5	52.0	51.7	44	56	62.9	15	18.8	460	3
RTU-2	7,395	6,460	2,700	2.50	9.3	10	414.0	250.5	81.7	69.3	52.0	51.3	44	56	69.0	15	18.8	460	3	60

NOTES:

1. PROVIDE HORIZONTAL DRAW THROUGH UNIT WITH PLENUM TYPE FAN WITH ALUMINUM CONSTRUCTION
2. FAN AIR VOLUME CONTROL SHALL BE VIA VFD. VFD SHALL BE PROVIDED BY CONTROLS CONTRACTOR. BHP - BRAKE HORSEPOWER.
3. EXTERNAL PRESSURE DROP DOES NOT INCLUDE THRU CASING, COILS, FILTERS, OR FILTER HOUSING.
4. PROVIDE UNIT WITH 18 GAUGE G90 GALVANIZED FACTORY PAINTED WITH MIN. R-13 DOUBLE WALL INJECTED FOAM INSULATION. SEE SPECIFICATION.
5. PROVIDE UNIT WITH STAINLESS STEEL DRAIN PAN, 4" PLEATED THROWAWAY MERV 8 FILTER AND 12" CARTRIDGE MERV 13 FILTER
6. PROVIDE UNIT WITH PIPE VESTIBULE ACROSS THE LENGTH OF THE CHILLED WATER COIL. PROVIDE COIL ACCESS DOORS ON OPPOSITE SIDE OF UNIT.
7. CHILLED WATER COIL SHALL BE PROVIDED WITH MIN. 8 ROWS AND 10 FINS PER INCH.
8. RETURN AIR MOTORIZED DAMPERS AND ACTUATORS SHALL BE FACTORY MOUNTED INSIDE THE UNIT.
9. PROVIDE 3-WAY CHILLED WATER CONTROL VALVE. COORDINATE WITH CONTROLS CONTRACTOR FOR ALL OTHER REQUIRED CONTROLS ACCESSORIES.
10. PROVIDE 3 SEPARATE POWER CONNECTIONS FOR SUPPLY FAN+CONTROLS+LIGHTS+SWITCH, UV LIGHTS, AND RECEPTACLE.

COORDINATE POWER REQUIREMENTS WITH MFR PRIOR TO FABRICATION.
11. BASIS OF DESIGN IS TRANE CSAA.

AIR TERMINAL UNIT SCHEDULE (RTU-1)															
MARK	MAX. AIRFLOW (CFM)	MIN. AIRFLOW (CFM)	MIN. ROUND INLET SIZE (IN.)	HOT WATER REHEAT COIL DATA								ELECTRICAL DATA			
				HEATING AIRFLOW (CFM)	TOTAL HEATING LOAD (MBH)	EAT (DEG. F)	LAT (DEG. F)	EWT (DEG. F)	LWT (DEG. F)	HW FLOW RATE (GPM)	CONTROL VALVE		VOLTS	PHASE	Hz
											TYPE	(Cv)			
ATU 1-1	725	290	8"	725	25.2	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 1-2	725	290	8"	725	25.2	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 1-3	725	290	8"	725	25.2	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 1-4	935	375	10"	935	32.5	51.9	84.0	140	120	3.3	3-WAY	2.0	277	1	60
ATU 1-5	1,285	515	10"	1,040	36.2	51.9	84.0	140	120	3.6	3-WAY	2.2	277	1	60
ATU 1-6	725	290	8"	725	25.2	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 1-7	725	290	8"	725	25.2	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 1-8	880	355	8"	880	30.6	51.9	84.0	140	120	3.1	3-WAY	1.9	277	1	60

AIR TERMINAL UNIT SCHEDULE (RTU-2)															
MARK	MAX. AIRFLOW (CFM)	MIN. AIRFLOW (CFM)	MIN. ROUND INLET SIZE (IN.)	HOT WATER REHEAT COIL DATA								ELECTRICAL DATA			
				HEATING AIRFLOW (CFM)	TOTAL HEATING LOAD (MBH)	EAT (DEG. F)	LAT (DEG. F)	EWT (DEG. F)	LWT (DEG. F)	HW FLOW RATE (GPM)	CONTROL VALVE		VOLTS	PHASE	Hz
											TYPE	(Cv)			
ATU 2-1	725	290	8"	725	25.2	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 2-2	725	290	8"	725	25.2	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 2-3	800	320	8"	800	27.8	51.9	84.0	140	120	2.8	3-WAY	1.7	277	1	60
ATU 2-4	730	295	8"	730	25.4	51.9	84.0	140	120	2.5	3-WAY	1.6	277	1	60
ATU 2-5	1,110	445	10"	450	15.7	51.9	84.0	140	120	1.6	3-WAY	1.0	277	1	60
ATU 2-6	655	265	8"	655	22.8	51.9	84.0	140	120	2.3	3-WAY	1.4	277	1	60
ATU 2-7	715	290	8"	715	24.9	51.9	84.0	140	120	2.5	3-WAY	1.5	277	1	60
ATU 2-8	750	300	8"	750	26.1	51.9	84.0	140	120	2.6	3-WAY	1.6	277	1	60
ATU 2-9	710	285	8"	710	24.7	51.9	84.0	140	120	2.5	3-WAY	1.5	277	1	60
ATU 2-10	475	190	8"	200	7.0	51.9	84.0	140	120	0.7	3-WAY	0.4	277	1	60

NOTES:

1. ROUND INLET DUCT CONNECTION SHALL NOT BE SMALLER THAN SIZE INDICATED.
2. SEE DETAILS FOR AIR TERMINAL UNIT SUPPORT AND HOT WATER COIL CONNECTION DETAIL.
3. PROVIDE ALL AIR TERMINAL UNITS WITH FACTORY MOUNTED DISCONNECTS AS PER NEC.
4. PROVIDE ALL AIR TERMINAL UNITS WITH CONTROL TRANSFORMER FOR ATU CONTROL.
5. MAX AIR PD IS .25 INCHES W.C. DURING MAXIMUM AIR FLOW. MAX. HW COIL PD IS 5 FT W.C.
6. BASIS OF DESIGN IS TRANE.

EQUIPMENT FILTER NOTES:

1. CONTRACTOR SHALL CLEAN EACH UNIT OF CONSTRUCTION DUST AND DEBRIS, INSTALL NEW FILTERS AT TIME OF COMMISSIONING, AND SHALL SUPPLY TO THE OWNER ONE COMPLETE SET OF SPARE FILTERS FOR EACH UNIT ON THE PROJECT.

2. CONTRACTOR SHALL NOT USE ANY UNIT AS "CONSTRUCTION VENTILATION" AT ANY TIME DURING ANY PHASE OF CONSTRUCTION. VERY LOW TEMPERATURES, HARMFUL VAPORS, GYPSUM DUST FROM DRY WALL FINISHING, MAY ALL DAMAGE THE UNIT AND AFFECT ITS EFFICIENCY AND USEFUL SERVICE LIFE. FAILURE TO PROPERLY PROTECT THE UNIT FROM CONSTRUCTION DIRT AND DEBRIS AND FROM CONDENSATION FORMING WITHIN THE UNIT MAY CAUSE ELECTRONIC COMPONENT FAILURE, AND THERFORE VOID THE MANUFACTURER'S WARRANTY. CONTRACTOR SHALL REPLACE THE UNIT AT THEIR OWN COST.

HOBBS MIDDLE SCHOOL ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

MECHANICAL SCHEDULES

Date	09/11/20
Drawn By	AL
Checked By	AL

M004



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AA C000293

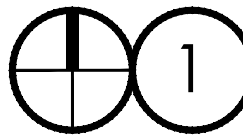
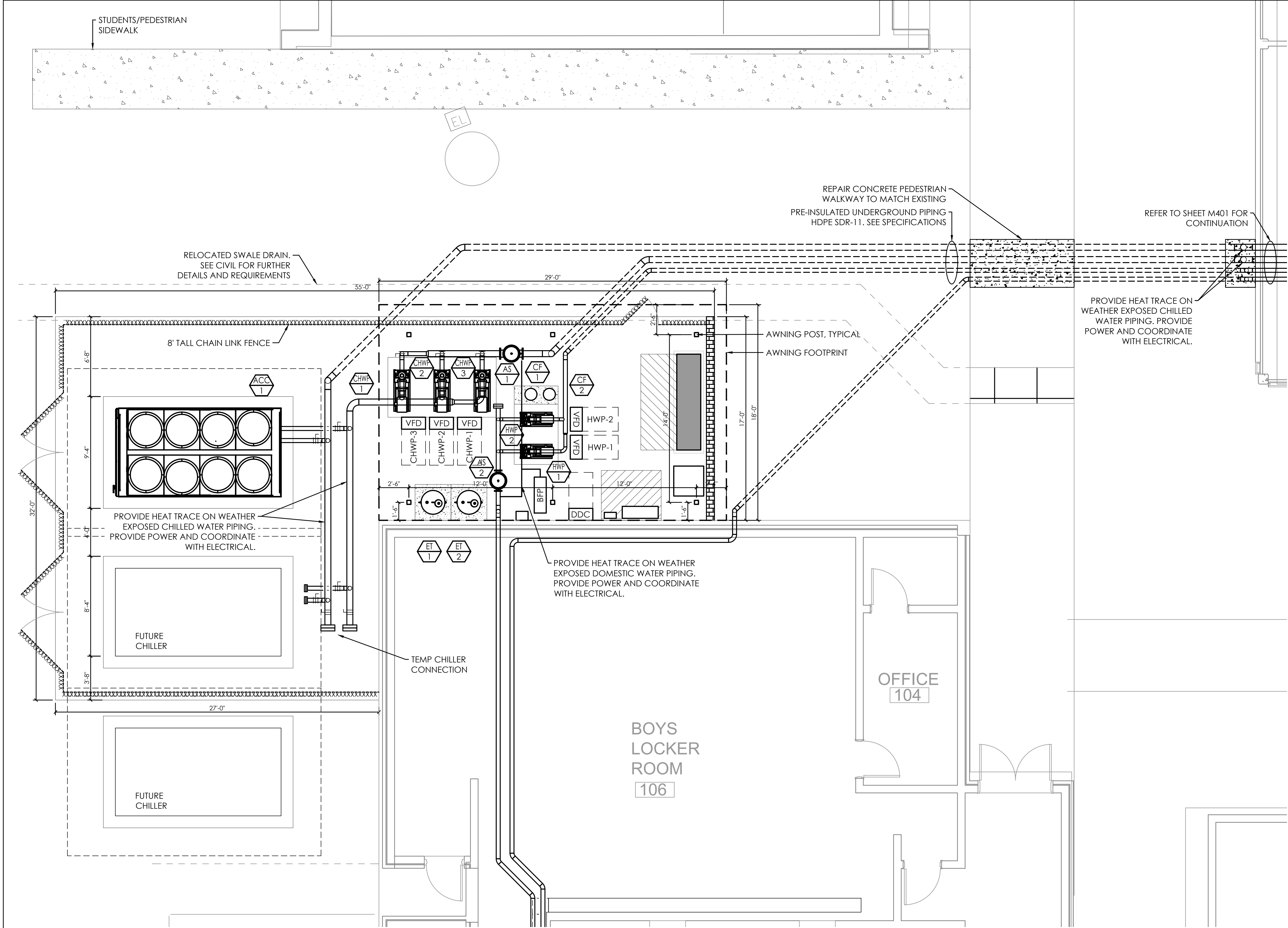
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ANTON LEE P.E.
FL PER 82369 | AL PER 37427-E
PROJECT NUMBER 20-114



ENLARGED MECHANICAL PLAN

4' 0' 4' 8'
SCALE: 1/4"=1'-0"



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HOBBS MIDDLE SCHOOL ENERGY
UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

ENLARGED
MECHANICAL
PLAN

Date 09/11/20
Drawn By AL
Checked By AL

M103



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SANTA ROSA COUNTY SCHOOLS

<p>ENLARGED MECHANICAL PLAN</p>	
Date	09/11/20
Drawn By	AL
Checked By	AL

Checked By	AL
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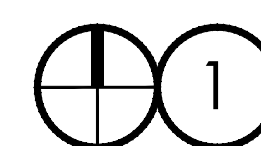
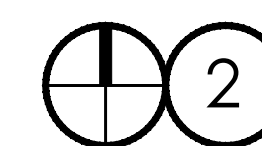
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PROJECT NUMBER 20.114

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4' 0' 4'

SCALE: 1/4"=1'-0"

**HOBBS MIDDLE SCHOOL ENERGY
UPGRADES**
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

**MECHANICAL
ROOF AND SITE
DEMO PLAN**

Date	09/11/20
Drawn By	AL
Checked By	AL

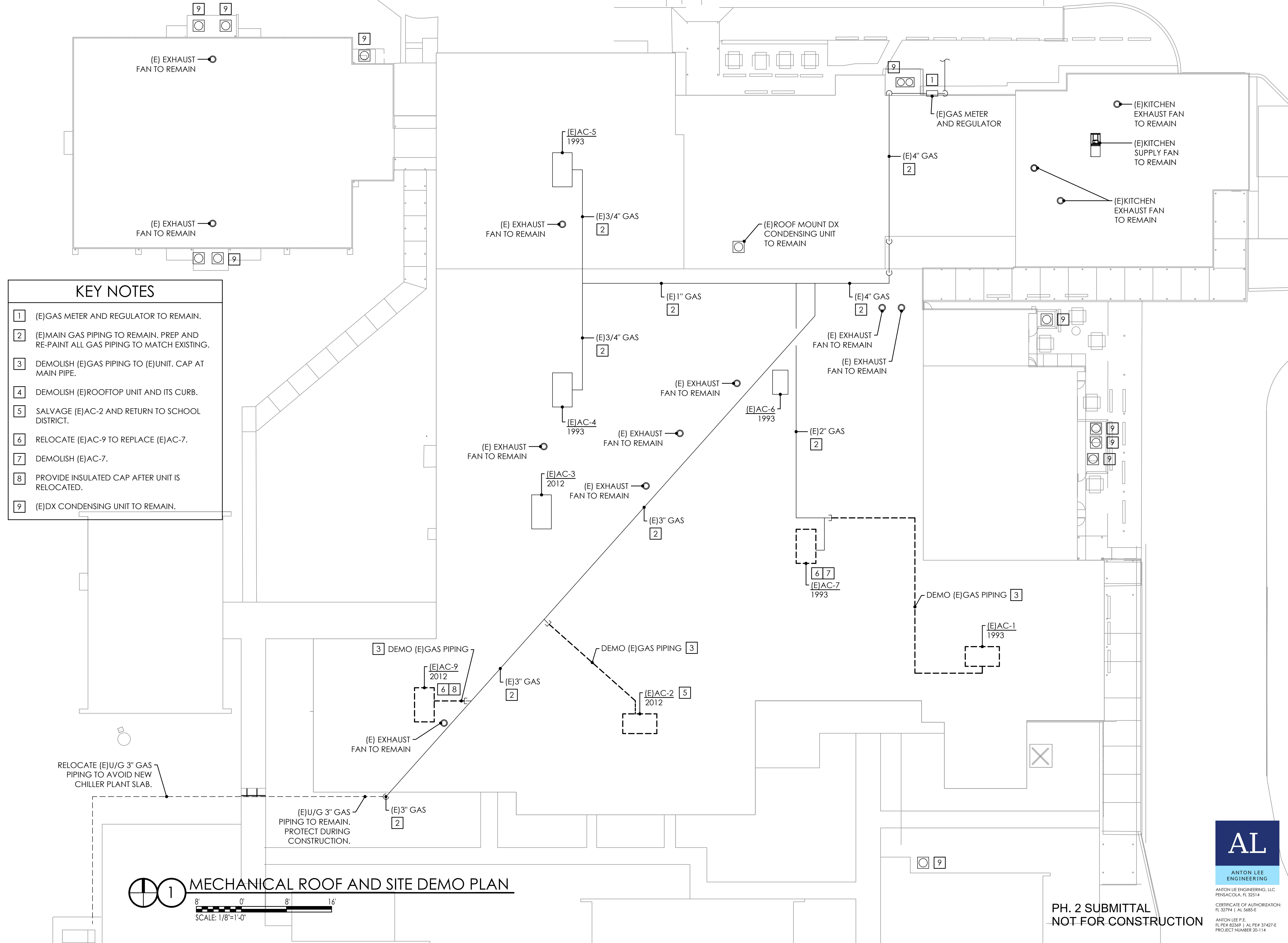
M101

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PROJECT NUMBER 20-114

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- KEY NOTES
- 1

(E)GAS METER AND REGULATOR TO REMAIN.
- 2

(E)MAIN GAS PIPING TO REMAIN. PREP AND RE-PAINT ALL GAS PIPING TO MATCH EXISTING.
- 3

DEMOLISH (E)GAS PIPING TO (E)UNIT. CAP AT MAIN PIPE.
- 4

DEMOLISH (E)ROOFTOP UNIT AND ITS CURB.
- 5

SALVAGE (E)AC-2 AND RETURN TO SCHOOL DISTRICT.
- 6

RELOCATE (E)AC-9 TO REPLACE (E)AC-7.
- 7

DEMOLISH (E)AC-7.
- 8

PROVIDE INSULATED CAP AFTER UNIT IS RELOCATED.
- 9

(E)DX CONDENSING UNIT TO REMAIN.

1

MECHANICAL ROOF AND SITE DEMO PLAN

8'0"16'

SCALE: 1/8"=1'-0"

HOBBS MIDDLE SCHOOL ENERGY
UPGRADES
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

MECHANICAL
ROOF AND
SITE PLAN

Date	09/11/20
Drawn By	AL
Checked By	AL

M102

AL

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FL PE# 82369 | AL PE# 37427-E
PROJECT NUMBER 20-114

PH. 2 SUBMITTAL
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- GENERAL NOTES
- COORDINATE ALL ROOF WORK TO AVOID CONFLICT WITH EXISTING EQUIPMENTS.
 - PROTECT EXISTING ROOF DRAIN SYSTEM FROM DAMAGE AND CONSTRUCTION DEBRIS.
 - ALL MODIFICATIONS TO EXISTING ROOFING SHALL BE COORDINATED THROUGH THE SCHOOL DISTRICT TO MAINTAIN EXISTING WARRANTY.
 - EXISTING PLUMBING VENTS NOT SHOWN ON THIS DRAWINGS. FIELD COORDINATE EXACT LOCATION.

- KEY NOTES
- MODIFY EXISTING CURB AND OPENING AS REQUIRED TO FOR NEW CHILLED WATER ROOFTOP UNIT INSTALLATION.
 - CAP EXISTING ROOF OPENING WITH INSULATED METAL PANEL.

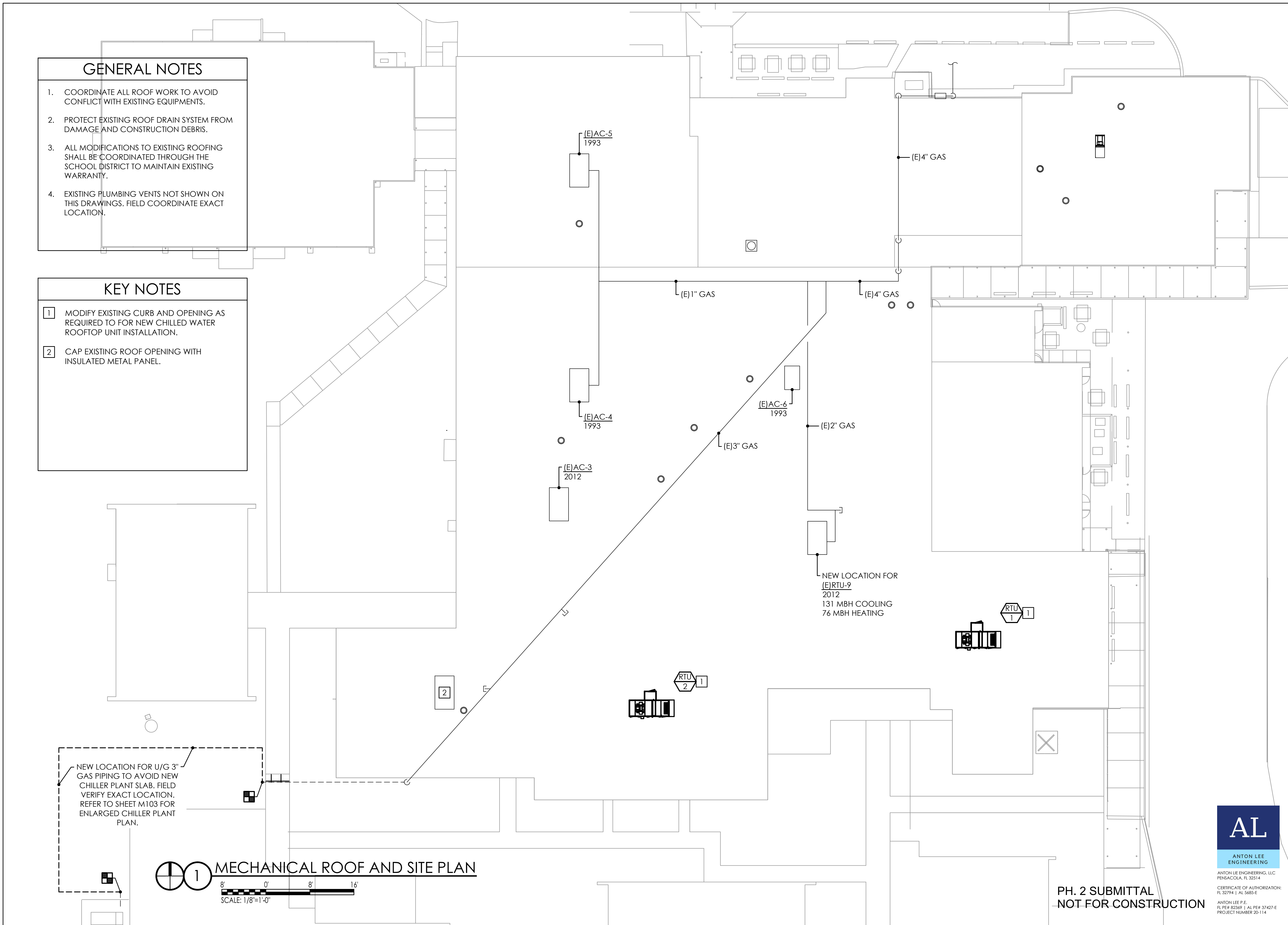
NEW LOCATION FOR U/G 3" GAS PIPING TO AVOID NEW CHILLER PLANT SLAB. FIELD VERIFY EXACT LOCATION. REFER TO SHEET M103 FOR ENLARGED CHILLER PLANT PLAN.

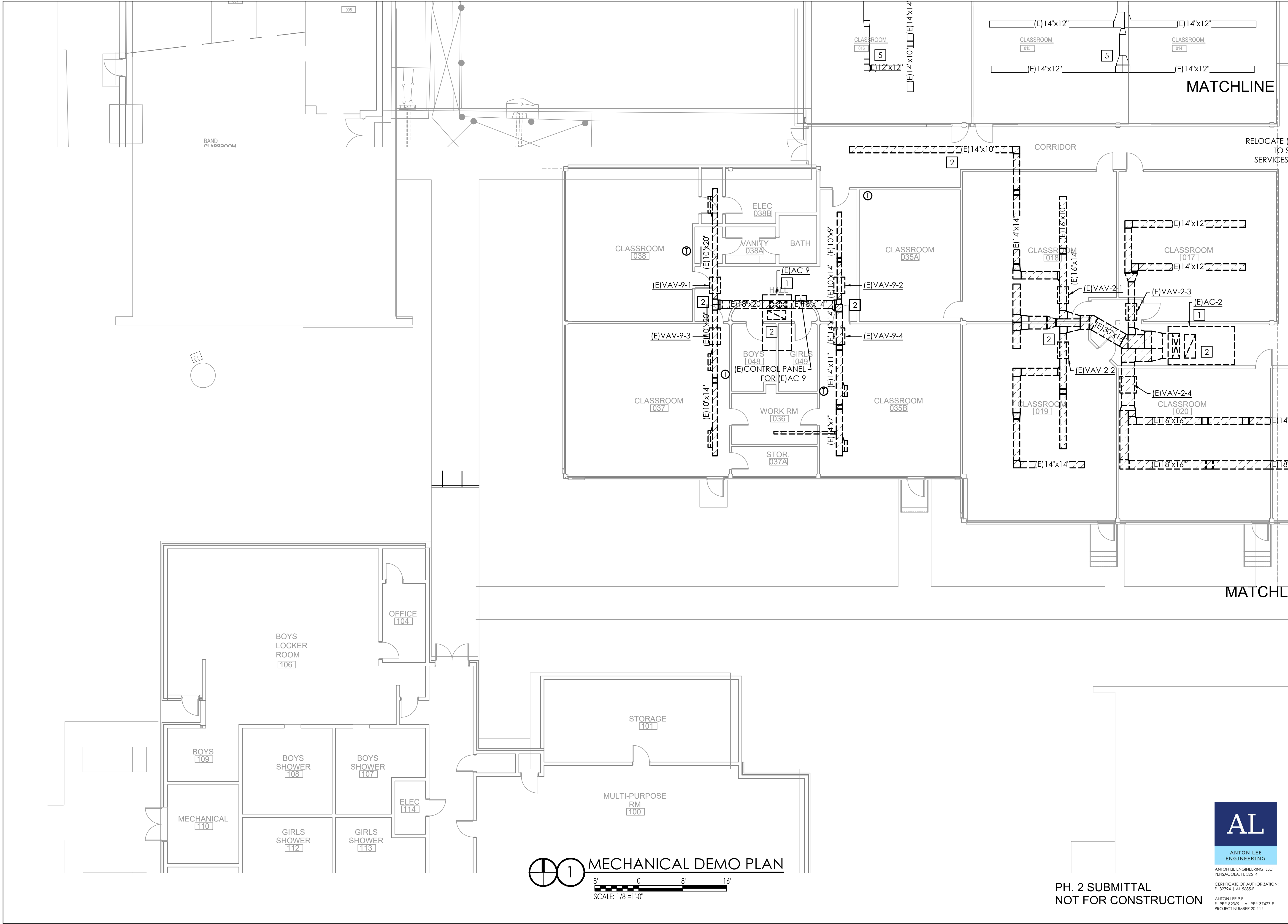
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MECHANICAL ROOF AND SITE PLAN

8' 0' 8' 16'

SCALE: 1/8"=1'-0"





**HOBBS MIDDLE SCHOOL ENERGY
UPGRADES**
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

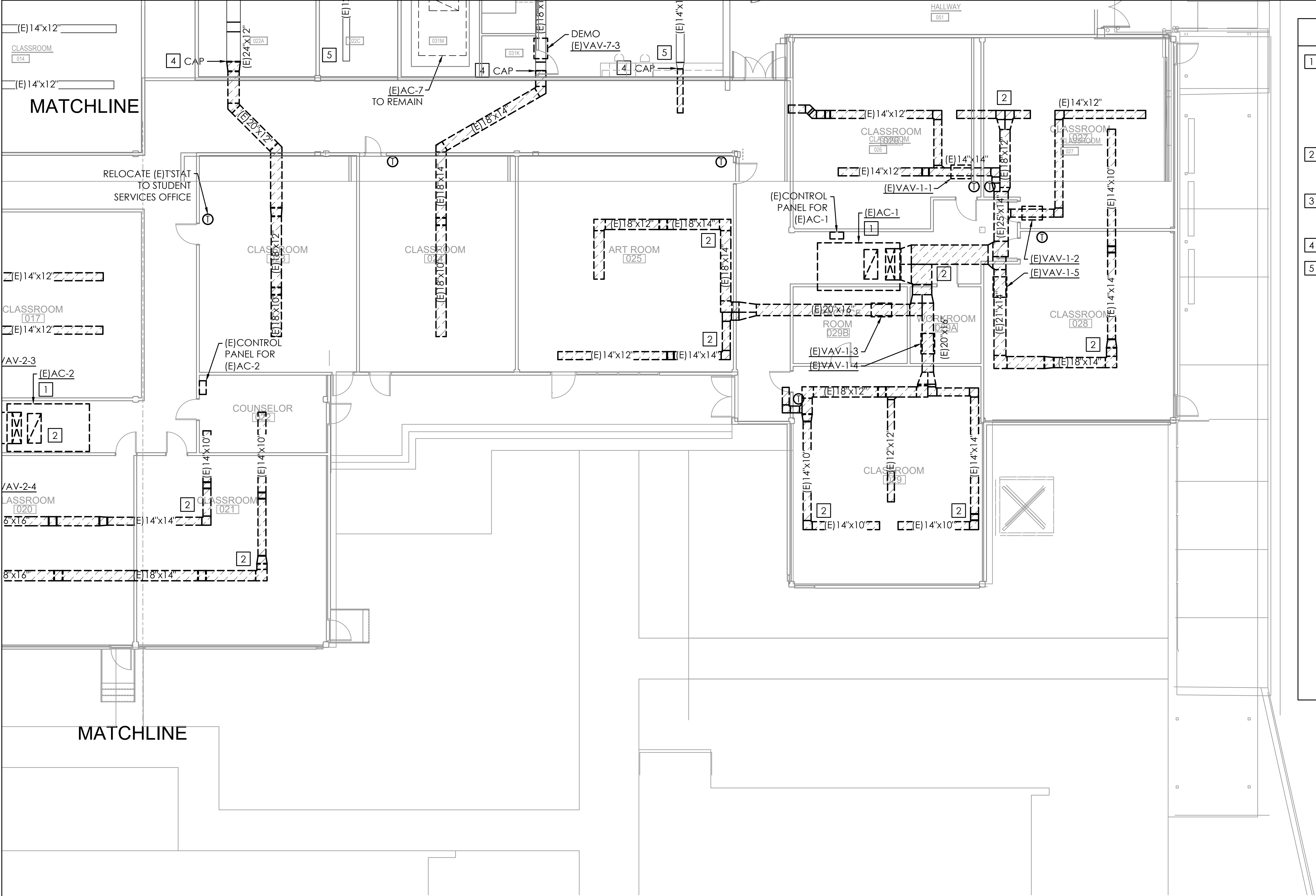
PARTIAL MECHANICAL DEMO PLAN SOUTHWEST	
Date	09/11/20
Drawn By	AL
Checked By	AL

M201



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PROJECT NUMBER 20-114

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KEY NOTES

1

DEMOLISH (E)ROOFTOP UNIT ALONG WITH ITS ASSOCIATED CONTROL PANEL. SUPPLY AND RETURN DUCTWORK SHALL BE DEMOLISHED. SALVAGED EXISTING SMOKE DETECTORS AND TO BE REUSE FOR NEW ROOFTOP UNIT. ALL UNUSED SMOKE DETECTOR SHALL BE RETURNED TO THE SCHOOL DISTRICT.

2

DEMOLISH (E)DUCTWORK AS INDICATED ALONG WITH ITS ASSOCIATED CEILING DIFFUSERS (NOT SHOWN).

3

DEMOLISH (E) VAV BOX - ELECTRIC HEAT WITH ITS THERMOSTAT. PATCH EXISTING WALL TO MATCH EXISTING FINISH AND COLOR.

4

CAP EXISTING DUCTWORK AS INDICATED.

5

EXISTING DUCTWORK TO REMAIN.

SMA

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HOBBS MIDDLE SCHOOL ENERGY
UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

PARTIAL
MECHANICAL
DEMO PLAN
SOUTHEAST

Date09/11/20

Drawn ByAL

Checked ByAL

M202

1

MECHANICAL DEMO PLAN

8'0"16'

SCALE: 1/8"=1'-0"

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SANTA ROSA COUNTY SCHOOLS

[illegible]

PARTIAL
MECHANICAL
PLAN
SOUTHWEST

Date	09/11/20
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Drawn By	AL
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Checked By	AL
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M301



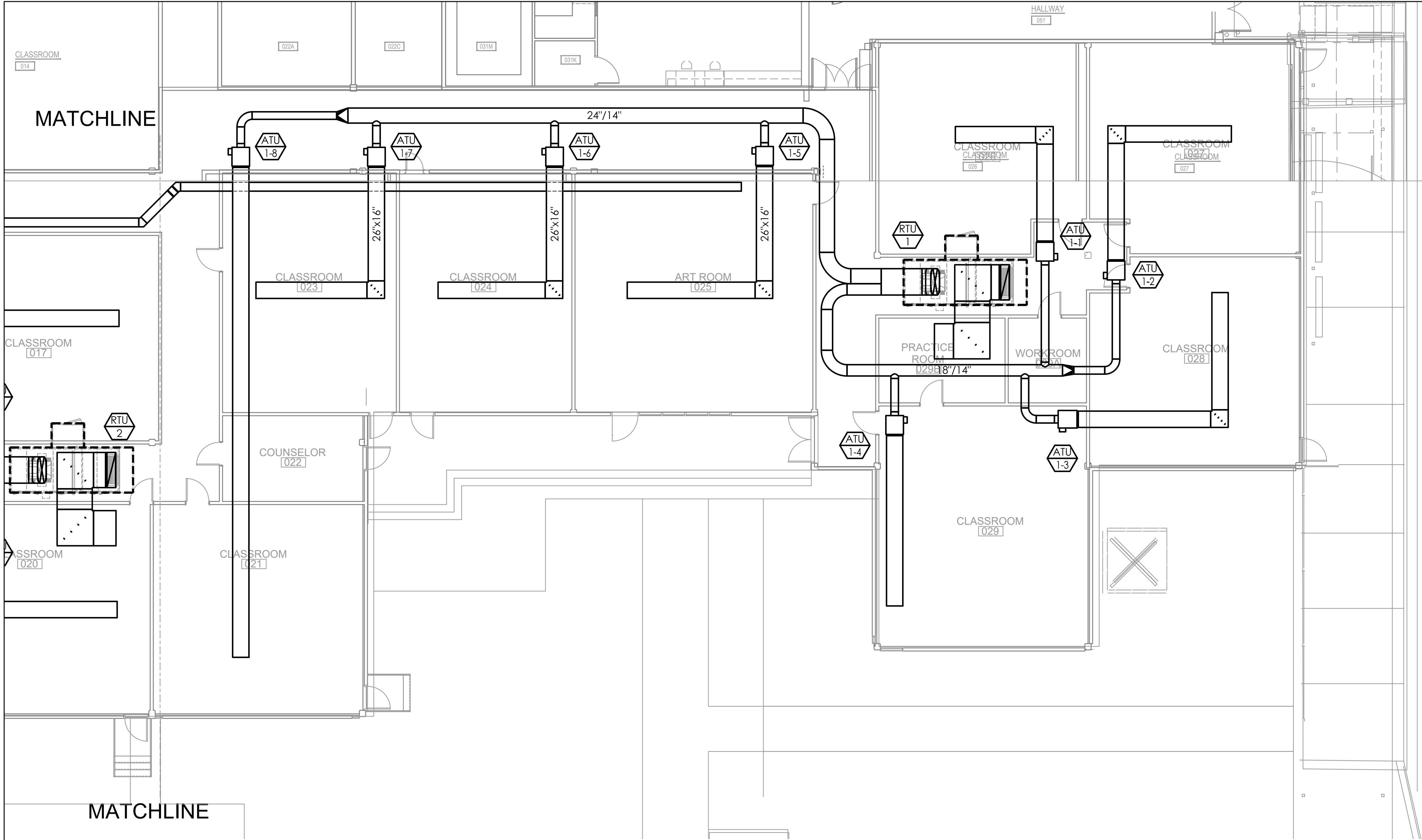
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FL PE# 82369 | AL PE# 37427-
PROJECT NUMBER 20-114



KEY NOTES		
1		
2		
3		
4		
5		
6		

HOBBS MIDDLE SCHOOL ENERGY
UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

PARTIAL
MECHANICAL
PLAN
SOUTHEAST

Date	09/11/20
Drawn By	AL
Checked By	AL

M302

1

MECHANICAL PLAN

8'0"16'

SCALE: 1/8"=1'-0"

PH. 2 SUBMITTAL
NOT FOR CONSTRUCTION

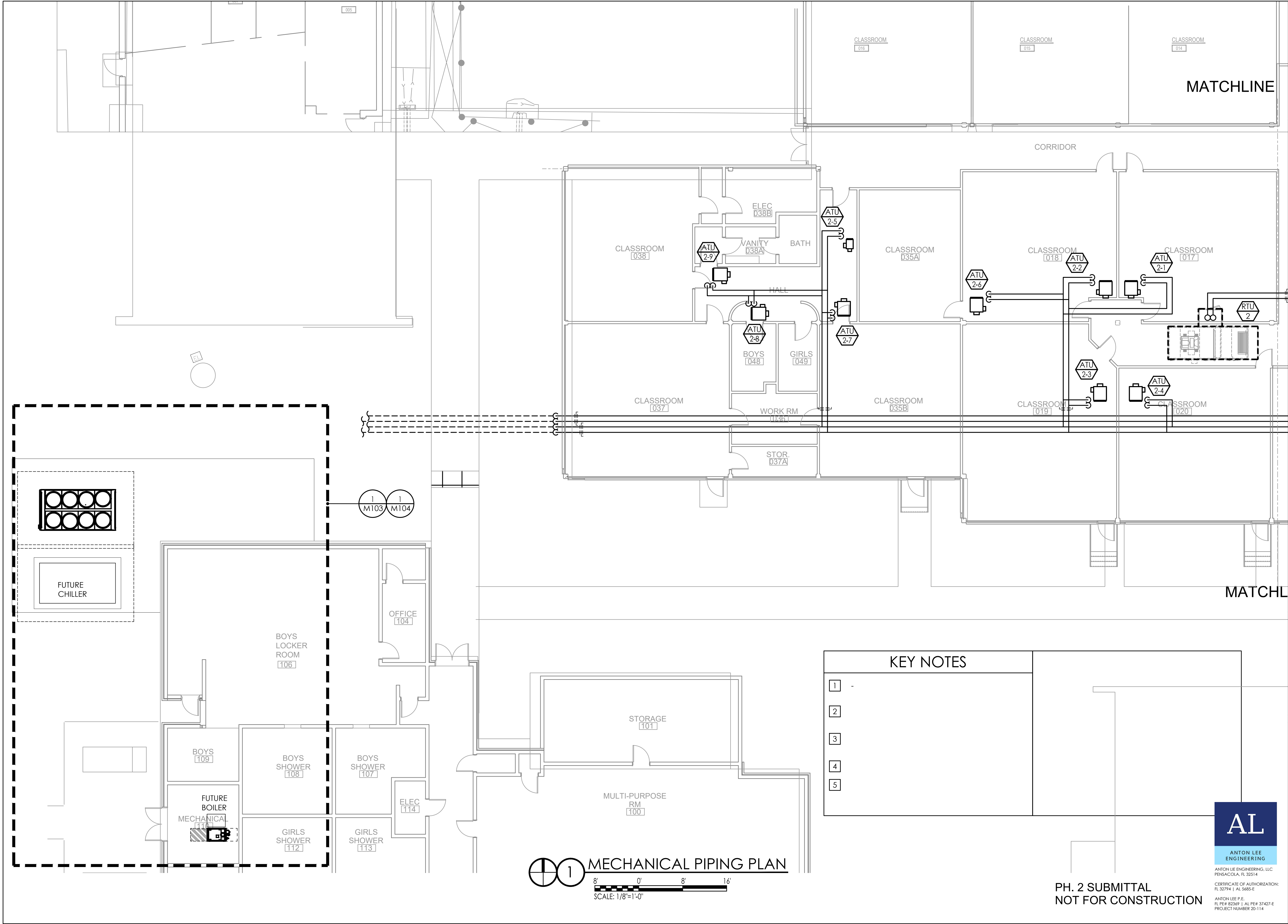
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PROJECT NUMBER 20-114



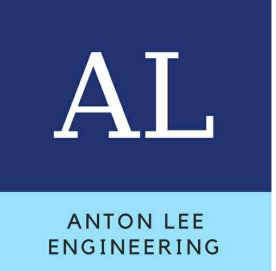
**HOBBS MIDDLE SCHOOL ENERGY
UPGRADES**
SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

PARTIAL MECHANICAL PIPING PLAN SOUTHWEST		
Date	09/11/20	
Drawn By	AL	
Checked By	AL	

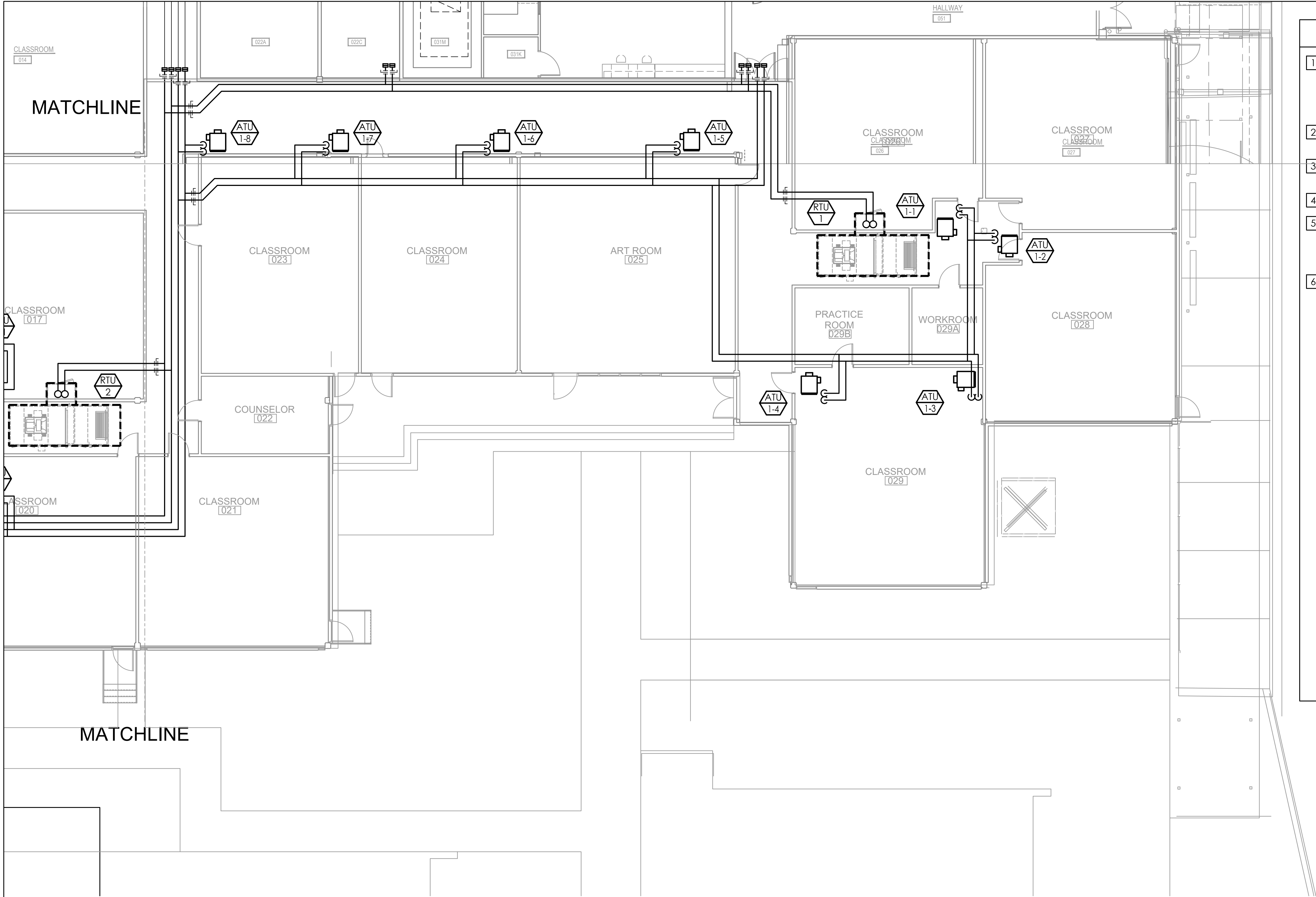
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KEY NOTES	
1	-
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PROJECT NUMBER 20-114

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KEY NOTES		
1	-	
2		
3		
4		
5		
6		

1

MECHANICAL PLAN

8'0"

0'

8'

16'

SCALE: 1/8"=1'-0"

PH. 2 SUBMITTAL
NOT FOR CONSTRUCTION

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PROJECT NUMBER 20-114

HOBBS MIDDLE SCHOOL ENERGY
UPGRADES

SANTA ROSA COUNTY SCHOOLS

No.	Description	Date

PARTIAL
MECHANICAL
PIPING PLAN
SOUTHEAST

Date09/11/20

Drawn ByAL

Checked ByAL

M402

SMA

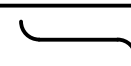
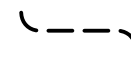
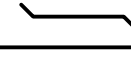
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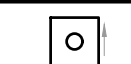
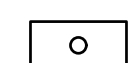


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J:\Current Jobs\Jobs-20\2062 - Hobbs Middle School Renovation\Drawings\WorkingSet\Sheets\E001 ELECTRICAL NOTES AND LEGEND.dwg, 9/10/2020 4:47:50 PM

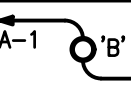

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ABBREVIATIONS	
1P	- ONE POLE
2P	- TWO POLE
3P	- THREE POLE
4P	- FOUR POLE
A	- AMPERE
AC	- ALTERNATING CURRENT
AFF	- ABOVE FINISHED FLOOR
AFG	- ABOVE FINISHED GRADE
AHU	- AIR HANDLING UNIT
AIC	- AMPERE INTERRUPTING CAPACITY
AL	- ALUMINUM
ARCH	- ARCHITECT
AWG	- AMERICAN WIRE GAUGE
BLDG	- BUILDING
C	- CONDUIT
CB	- CIRCUIT BREAKER
CKT	- CIRCUIT
C.T.	- CURRENT TRANSFORMER
CU	- COPPER
DC	- DIRECT CURRENT
DISC	- DISCONNECT
DN	- DOWN
DWG	- DRAWING
EC	- ELECTRICAL CONTRACTOR
EF	- EXHAUST FAN
ELEC	- ELECTRICAL
EWC	- ELECTRIC WATER COOLER
FA	- FIRE ALARM
FLA	- FULL LOAD AMPS
FLEX	- FLEXIBLE
FURN	- FURNITURE
GC	- GENERAL CONTRACTOR
GFCI	- GROUND FAULT CIRCUIT INTERRUPTER
GND	- GROUNDED
HP	- HORSEPOWER
HVAC	- HEATING, VENTILATING AND AIR CONDITIONING
HZ	- HERTZ (CYCLE) PER SECOND
JB	- JUNCTION BOX
KCMIL	- THOUSAND CIRCULAR MILS
KVA	- KILOVOLT AMPERE
KW	- KILOWATT
LTG	- LIGHTING
LV	- LOW VOLTAGE
MCB	- MAIN CIRCUIT BREAKER
MLO	- MAIN LUGS ONLY
MTD	- MOUNTED
MTG	- MOUNTING
NEC	- NATIONAL ELECTRICAL CODE
Φ	- PHASE
PNL	- PANELBOARD
PRI	- PRIMARY
RTU	- ROOFTOP UNIT
SEC	- SECONDARY
SW	- SWITCH
UG	- UNDERGROUND
V	- VOLT
W	- WATT
XFMR	- TRANSFORMER
+72	- MOUNTING HEIGHT IN INCHES TO CENTERLINE ABOVE FINISHED FLOOR OR GRADE

RACEWAYS	
	RACEWAY INSTALLED CONCEALED IN WALLS AND/OR ABOVE CEILING
	RACEWAY INSTALLED CONCEALED IN FLOOR SLAB AND/OR BELOW GRADE
	RACEWAY INSTALLED EXPOSED

LIGHTING	
	2' X 2' TROFFER FIXTURE; CEILING MOUNTED; ARROW INDICATES LAMP DIRECTION
	2' X 4' FIXTURE; CEILING MOUNTED;
	EXIT SIGN; CEILING MOUNTED; ARROWS AS NOTED; SHADED SECTION INDICATES LIGHTED FACE OF EXIT SIGN
	EXIT SIGN; BACK MOUNTED; ARROWS AS NOTED; SHADED SECTION INDICATES LIGHTED FACE OF EXIT SIGN

REFERENCE DESIGNATIONS	
①	KEY NOTE REFERENCE
①	FEEDER OR PARTS REFERENCE. SEE SCHEDULE.

WIRE DESIGNATIONS	
	A-1 ADJACENT TO ARROW INDICATES HOMERUN OF CIRCUIT NO. 1 TO PANEL A; "B" INDICATES FIXTURE TYPE;
	TICK MARKS REPRESENT WIRE COUNT AS INDICATED. EACH TICK MARK REPRESENTS 1 PHASE CONDUCTOR AND/OR GROUNDED (NEUTRAL) CONDUCTOR. DOTTED TICK MARK REPRESENTS EQUIPMENT GROUNDING CONDUCTOR. UNLESS NOTED OTHERWISE, NO MARKS INDICATES TWO NO. 12 CONDUCTORS AND ONE NO. 12 GREEN GROUND CONDUCTOR IN 1/2" CONDUIT (2#12 & 1#12 GND-1/2")

POWER DISTRIBUTION	
	SURFACE MOUNTED PANELBOARD; 120/208V; MT 72" AFF TO TOP
	FLUSH MOUNTED PANELBOARD; 120/208V; MT 72" AFF TO TOP
	SURFACE MOUNTED PANELBOARD; 277/480V; MT 72" AFF TO TOP
	FLUSH MOUNTED PANELBOARD; 277/480V; MT 72" AFF TO TOP
	DRY TYPE TRANSFORMER; SIZE AND RATING AS NOTED
	DISCONNECT SWITCH; AMP SIZE AS NOTED;
	FUSED DISCONNECT SWITCH; AMP SIZE AS NOTED; FUSE SIZE PER EQUIPMENT NAMEPLATE DATA
①	JUNCTION BOX; MOUNTED ABOVE CEILING
⊕	JUNCTION BOX; MOUNTED FLUSH IN WALL WITH BLANK COVER

SPECIAL DEMOLITION NOTE	
THE LOCATIONS OF ALL ELECTRICAL EQUIPMENT INDICATED (FIXTURES & DEVICES) MAY VARY FROM DRAWING. EXISTING CONDITIONS AND DEMOLITION WORK WAS DETERMINED BY SITE OBSERVATION AND REVIEW OF EXISTING DOCUMENTS WITHOUT THE BENEFIT OF DESTRUCTIVE INVESTIGATION. VERIFY ACTUAL LOCATIONS, TYPES, AND QUANTITIES OF EQUIPMENT AND APPLY DEMOLITION NOTES AS APPROPRIATE FOR THE EQUIPMENT AND ROOM OR AREA.	

ELECTRICAL GENERAL NOTES

- CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT SIZE AND LOCATION OF EQUIPMENT WHICH IS FURNISHED BY OTHERS AND CONNECTED BY ELECTRICAL.
- RECEPTACLES, SWITCHES AND COVERPLATES COLOR SHALL BE SELECTED BY THE ARCHITECT FROM STANDARD COLORS.
- VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGHING-IN WALL FOR SWITCHES.
- LOCATION OF LIGHTING FIXTURES, DISCONNECT SWITCHES, ETC. FOR MECHANICAL EQUIPMENT/ROOM SHALL BE COORDINATED WITH FINAL MECHANICAL EQUIPMENT LOCATION TO PROVIDE NATIONAL ELECTRIC CODE REQUIRED ACCESS SPACE.
- FINAL CONNECTION TO ALL MOTORS SHALL BE WITH FLEXIBLE CONDUIT CONNECTION.
- ALL EXIT AND EMERGENCY FIXTURES SHALL BE CONNECTED TO LIGHT CIRCUIT AHEAD OF LOCAL SWITCH.
- ALL PANELBOARDS, BACKBOARDS, TERMINAL CABINETS, ETC SHALL HAVE CUSTOM ENGRAVED MICARTA NAMEPLATE MECHANICALLY AFFIXED IDENTIFYING SYSTEM.
- PROVIDE GREEN GROUND CONDUCTOR IN ALL CIRCUITS – SIZE PER N.E.C.
- ALL EXPOSED CONDUITS, BOXES, STRAPS AND HANGERS IN THE CONTRACT AREA WHETHER NEW OR EXISTING THAT ARE PART OF THE ELECTRICAL SYSTEM SHALL BE PAINTED TO MATCH ADJACENT FINISH.
- PROVIDE CONCRETE MARKER AT END OF ALL CONDUITS STUBBED OUT OF BUILDING FOR FUTURE USE. MARKER SHALL BE 6" DIA X 18" HIGH WITH 2" ABOVE FINISHED GRADE. INSCRIBE IN TOP OF MARKER "E" FOR ELECTRICAL,"T" FOR TELEPHONE,"V" FOR TV CABLE,"F" FOR FIRE ALARM, AND "IC" FOR INTERCOM.
- GENERAL CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST, AND SHALL PERFORM THE WORK REQUIRED AS SHOWN AND SPECIFIED.
- THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND REVIEW THE MECHANICAL AND SPECIAL EQUIPMENT SUBMITTALS PRIOR TO SUBMITTING THE ELECTRICAL SUBMITTALS. ANY ELECTRICAL EQUIPMENT, CONDUIT, AND WIRE SIZE CHANGES RESULTING FROM THIS REVIEW SHALL ALSO BE SUBMITTED FOR APPROVAL.
- FIRE ALARM LOW VOLTAGE SOURCE AND BATTERY STANDBY SHALL ENERGIZE ALL ITEMS IN FIRE ALARM SYSTEM THAT REQUIRE POWER.
- VERIFY EXACT LOCATION OF ALL FLOOR OUTLETS WITH THE ARCHITECT PRIOR TO ROUGHING-IN.
- FINAL CONNECTION TO ALL DRY TYPE TRANSFORMERS SHALL BE WITH FLEXIBLE CONDUIT CONNECTION
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE FAULT CURRENT CALCULATIONS FOR THE SERVICE EQUIPMENT AND SHALL MARK THE EQUIPMENT WITH THE AVAILABLE FAULT CURRENT AND DATE OF THE CALCULATION PER NEC 110.24. REFER TO TYPICAL SERVICE EQUIPMENT FAULT CURRENT LABEL DETAIL.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ARC FAULT LABELS PER NFPA 70E ARTICLE 110.16 FOR NEW EQUIPMENT. THE OWNER SHALL PROVIDE AVAILABLE CALCULATION DATA FOR THE EXISTING EQUIPMENT IN THE ELECTRICAL SYSTEM. REFER TO TYPICAL ARC FLASH HAZARD LABEL DETAIL.
- PROVIDE NEUTRAL AT ALL LINE VOLTAGE SWITCH LOCATIONS PER N.E.C. 404.2(C).
- PROVIDE 'LSI' TRIP UNITS FOR ALL BREAKERS GREATER THAN OR EQUAL TO 200A.

ELECTRICAL DEMOLITION NOTES

- PLANNED INTERRUPTIONS OF UTILITY SERVICE TO ANY FACILITY OR AREAS WITHIN ANY FACILITY AFFECTED BY THIS CONTRACT, SHALL BE CAREFULLY PLANNED AND COORDINATED WITH THE FACILITY PERSONNEL IN ADVANCE OF THE REQUESTED INTERRUPTION. THE CONTRACTOR SHALL NOT INTERRUPT SERVICES UNTIL SPECIFIED APPROVAL HAS BEEN GRANTED. THE REQUEST SHALL INDICATE SERVICES AND AREAS TO BE AFFECTED, DATE AND TIME OF INTERRUPTION AND DURATION OF OUTAGE. REQUEST FOR INTERRUPTION OF SERVICE WILL NOT BE APPROVED UNTIL ALL EQUIPMENT AND MATERIAL REQUIRED FOR THE COMPLETION OF THAT PARTICULAR PHASE OF WORK ARE ON THE JOB SITE.
- ALL DEMOLITION WORK REQUIRED SHALL BE PERFORMED WITH CARE SO AS NOT TO INTERRUPT OTHER EXISTING SERVICES (WATER, GAS, ELECTRICAL, SEWER, SPRINKLERS, ETC.). IF ACCIDENTAL UTILITY INTERRUPTION, DAMAGE, ETC., RESULTS FROM WORK PERFORMED BY THE CONTRACTOR, THE AFFECTED UTILITY OR SERVICE SHALL BE RETURNED TO ITS ORIGINAL CONDITION WITHOUT DELAY, BY AND AT THE EXPENSE OF THE CONTRACTOR, USING SKILLED WORKMEN OF THE TRADE INVOLVED.
- REMOVE ALL OUTLETS, PULL BOXES, JUNCTION BOXES, ETC., AS REQUIRED TO COMPLETELY REMOVE THE ELECTRICAL ITEMS SHOWN FOR DEMOLITION UNLESS NOTED TO REMAIN. DISCONNECT AND REMOVE ALL ELECTRICAL PROVISIONS TO EQUIPMENT BEING REMOVED.
- REMOVE ALL WIRING, CONDUIT, RACEWAYS, OUTLET BOXES, SUPPORTING APPARATUS ETC., AS REQUIRED.
- SYMBOLS SHOWN ARE TYPICAL AND LOCATIONS ARE APPROXIMATE AND ARE NOT INTENDED TO LIMIT THE AMOUNT OF DEMOLITION. COORDINATE WITH EXISTING CONDITIONS AND THESE NOTES AND REMOVE ALL APPLICABLE SYSTEMS AND COMPONENTS CONFLICTING WITH FINISHED DESIGN INTENT.
- EXISTING BRANCH WIRING SHOWN IS DIAGRAMMATICAL ONLY AND IS BASED UPON EXISTING AS-BUILT DRAWINGS AND SURVEYS. COORDINATE WITH ACTUAL EXISTING CONDITIONS FOR NUMBER OF CONDUCTORS PER CONDUIT AND EXACT LOCATIONS OF CONDUIT RUNS AND EQUIPMENT.
- ALL FEEDERS, SYSTEMS, CONTROL WIRING, MISCELLANEOUS AUXILIARY SYSTEMS, ETC., PASSING THROUGH THE AREA OF WORK SHALL BE MAINTAINED AT ALL TIMES, REMAIN IN SERVICE, CONTINUOUS AND UNINTERRUPTED. ANY DAMAGE, DISRUPTION OR DISCONNECTION SHALL BE IMMEDIATELY REPAIRED, REPLACED AND/OR REROUTED AS REQUIRED TO MAINTAIN CONTINUITY OF SYSTEMS. ANY EXISTING SERVICE OR OPERATING SYSTEM WHICH MUST BE INTERRUPTED SHALL BE SUPPLIED WITH A TEMPORARY SERVICE FOR CONTINUATION OF THE NORMAL OPERATIONS OF THE FACILITY.
- ANY EQUIPMENT THAT REQUIRES REMOVAL FROM EXISTING LOCATION FOR RE-USE OR TO BE RETURNED TO OWNER SHALL BE INSPECTED AND TESTED TO CONFIRM EQUIPMENT OPERATES AS INTENDED. OWNER SHALL BE NOTIFIED OF ANY EQUIPMENT THAT DOES NOT OPERATE AS INTENDED BEFORE REMOVAL.
- CONCEALED CONDUIT THAT CANNOT BE REMOVED DUE TO INACCESSIBILITY MAY BE ABANDONED. CONDUCTORS SHALL BE REMOVED AND CONDUIT CUT FLUSH WITH SURFACE.
- OUTLET BOXES THAT CANNOT BE REMOVED DUE TO FLUSH MOUNTING IN PARTITIONS SHALL BE FILLED WITH GROUT, PATCHED AND FINISHED FLUSH TO MATCH EXISTING WALL CONDITIONS.
- IN GENERAL, THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
 - PROVIDE ALL DEMOLITION AS REQUIRED OF EX-ISTING SYSTEMS REMOVING ALL ITEMS THAT CONFLICT WITH FINISHED DESIGN INTENT AS INDICATED ABOVE.
 - MODIFY, REPLACE, REPAIR, REVISE ETC., EXISTING SYSTEMS AND/OR EQUIPMENT.
 - EXTEND EXISTING SYSTEMS AS REQUIRED TO FUNCTION AS SPECIFIED AND IN ACCORDANCE WITH SYSTEM REQUIREMENTS.
 - NEW SYSTEM COMPONENTS SHALL MATCH EXISTING SYSTEMS PROVISIONS AND BE COMPLETELY COMPATIBLE AND IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. WHEN REQUIRED, APPROVAL FROM A SYSTEM MANUFACTURER SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO INSTALLING ANY NEW EQUIPMENT OR DEVICES TO AN EXISTING SYSTEM.
 - ALL EQUIPMENT, DEVICES, OUTLETS, COMPONENTS, ETC., TO BE REUSED SHALL BE CLEANED, REPAIRED AND PLACED IN OPERATING CONDITION. LUMINARIES NOTED TO BE REUSED SHALL BE CLEANED, REPAIRED, PROVIDED WITH NEW LAMPS AND PLACED IN OPERATING CONDITION.
 - EXISTING OUTLET BOXES MAY BE USED AS NOTED IF OF THE PROPER CONFIGURATION AND SIZE REQUIRED. MODIFICATIONS SHALL BE MADE WHEN REQUIRED SUCH AS PROVIDING EXTENSION RINGS, LOCKNUTS, BUSHINGS, ETC.
 - EXISTING PANELBOARDS SHALL BE UTILIZED TO THE EXTENT SHOWN ON THE DRAWINGS AND MODIFIED AS REQUIRED TO FACILITATE THE NEW REQUIREMENTS AS INDICATED HEREIN OR SHOWN ON THE DRAWINGS. NEW CIRCUIT BREAKERS SHALL BE OF THE SAME MANUFACTURER, FRAME SIZE, SHORT CIRCUIT RATING AND TYPE AS EXISTING. WHERE APPLICABLE, THE CONTRACTOR SHALL BE REQUIRED TO FURNISH AND INSTALL ADDITIONAL MOUNTING HARDWARE AS REQUIRED BY THE MANUFACTURER.
 - WHEN EXISTING DEVICES, SWITCHES, EQUIPMENT ETC., ARE NOTED TO BE REMOVED AND THE CIRCUIT(S) SERVING SUCH ITEMS SERVES OTHER ITEMS OR DEVICES WHICH ARE TO BE MAINTAINED, THE CONTRACTOR SHALL REROUTE, EXTEND, MODIFY, ETC., EXISTING CIRCUITS AS REQUIRED TO MAINTAIN COMPLETE AND OPERATING SYSTEMS.



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HOBBS MIDDLE SCHOOL ENERGY
UPGRADES

SANTA ROSA COUNTY SCHOOLS

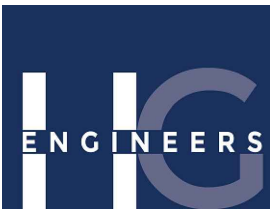
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No.	Description	Date

ELECTRICAL NOTES AND LEGEND

Date	09/10/20
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E001

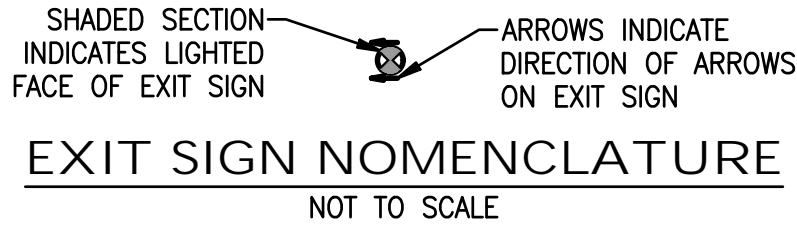
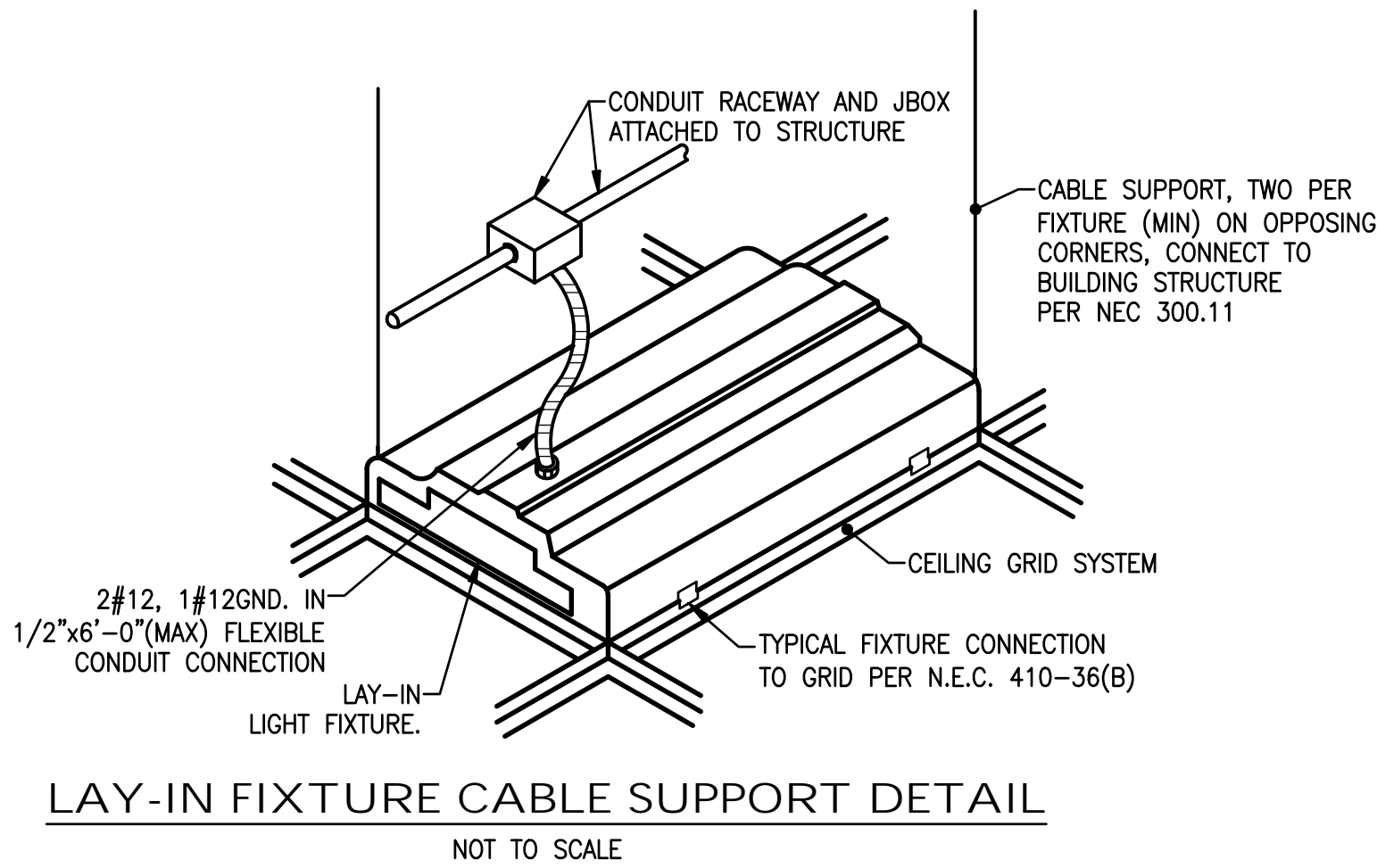
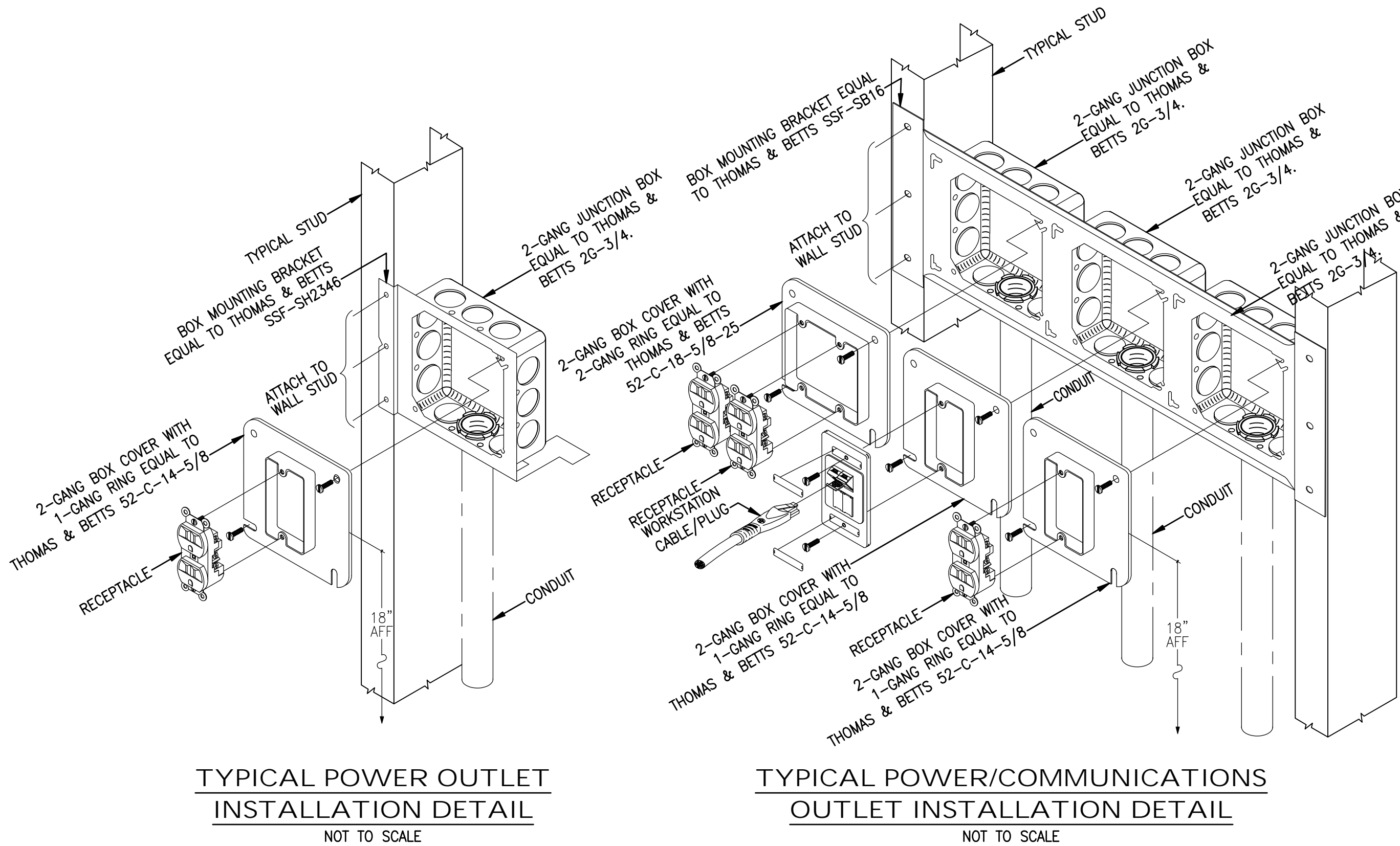


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HOBBS MIDDLE SCHOOL ENERGY UPGRADES

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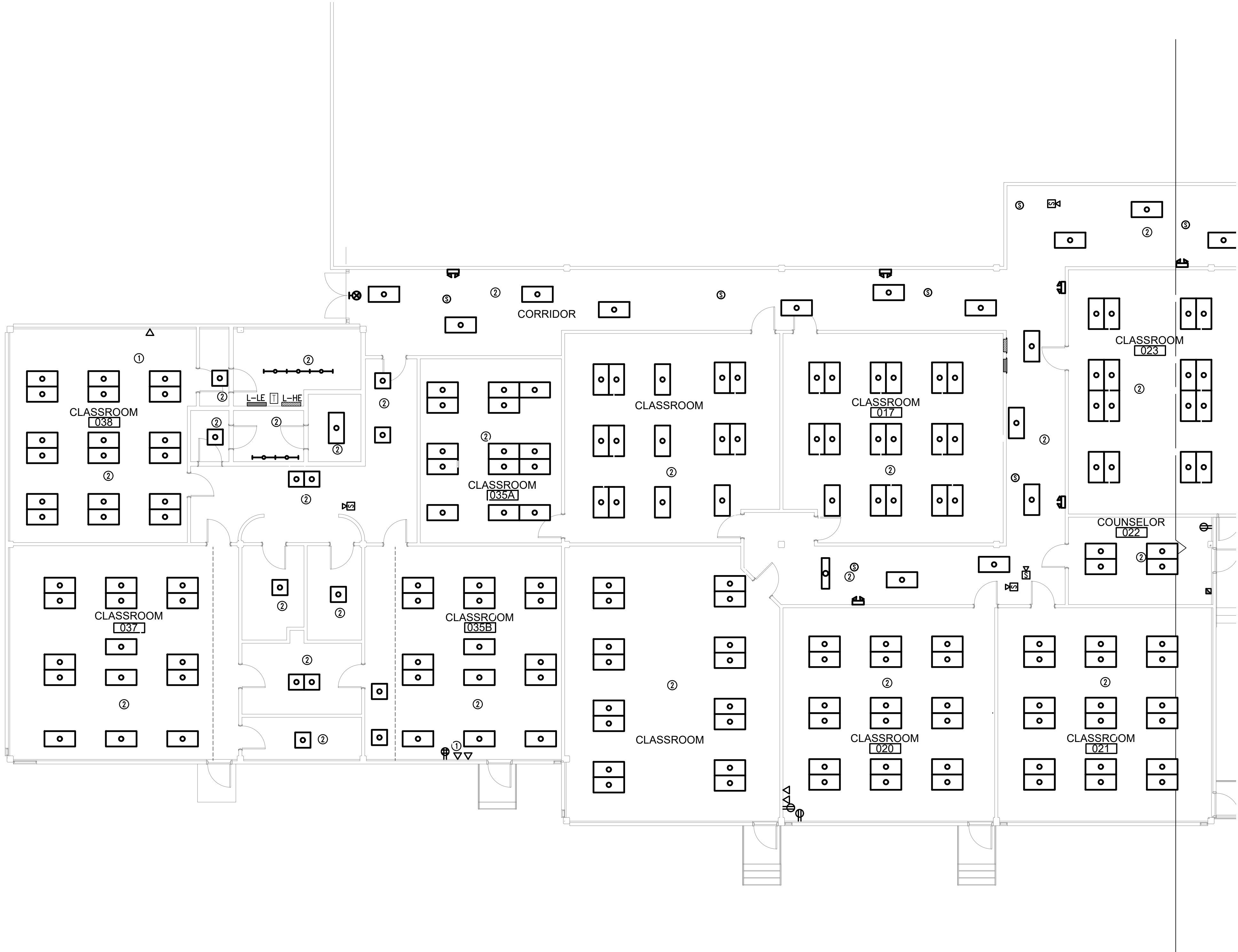
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Job No.

E002

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GENERAL NOTES

1. ALL FIRE ALARM, SECURITY, INTERCOM, AND DATA DEVICES LOCATED IN DEMOLISHED CEILING SHALL BE REMOVED AND PRESERVED FOR REINSTALLATION.

KEYNOTES

- ① ALL EXTERIOR WALL SURFACE MOUNT DEVICES TO BE RE-INSTALLED AS CONCEALED FLUSH MOUNT IN STUD WALL ABOVE BRICK.
- ② DEMOLISH ALL LIGHTING CONTROL DEVICES FOR THIS ROOM.

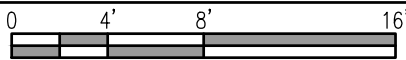
ELECTRICAL ROOM

MATCHLINE



DEMO PLAN - LIGHTING SOUTHWEST

1/8" = 1'-0"



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HOBBS MIDDLE SCHOOL ENERGY UPGRADES

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DEMO PLAN - LIGHTING SOUTHWEST

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DEMO PLAN -
LIGHTING
SOUTHEAST

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1. ALL FIRE ALARM, SECURITY, INTERCOM, AND DATA DEVICES LOCATED IN DEMOLISHED CEILING SHALL BE REMOVED AND PRESERVED FOR REINSTALLATION.

- ① ALL EXTERIOR WALL SURFACE MOUNT DEVICES TO BE RE-INSTALLED AS CONCEALED FLUSH MOUNT IN STUD WALL ABOVE BRICK.
- ② DEMOLISH ALL LIGHTING CONTROL DEVICES FOR THIS ROOM.
- ③ DEVICES SHARE SAME SURFACE RACEWAY.

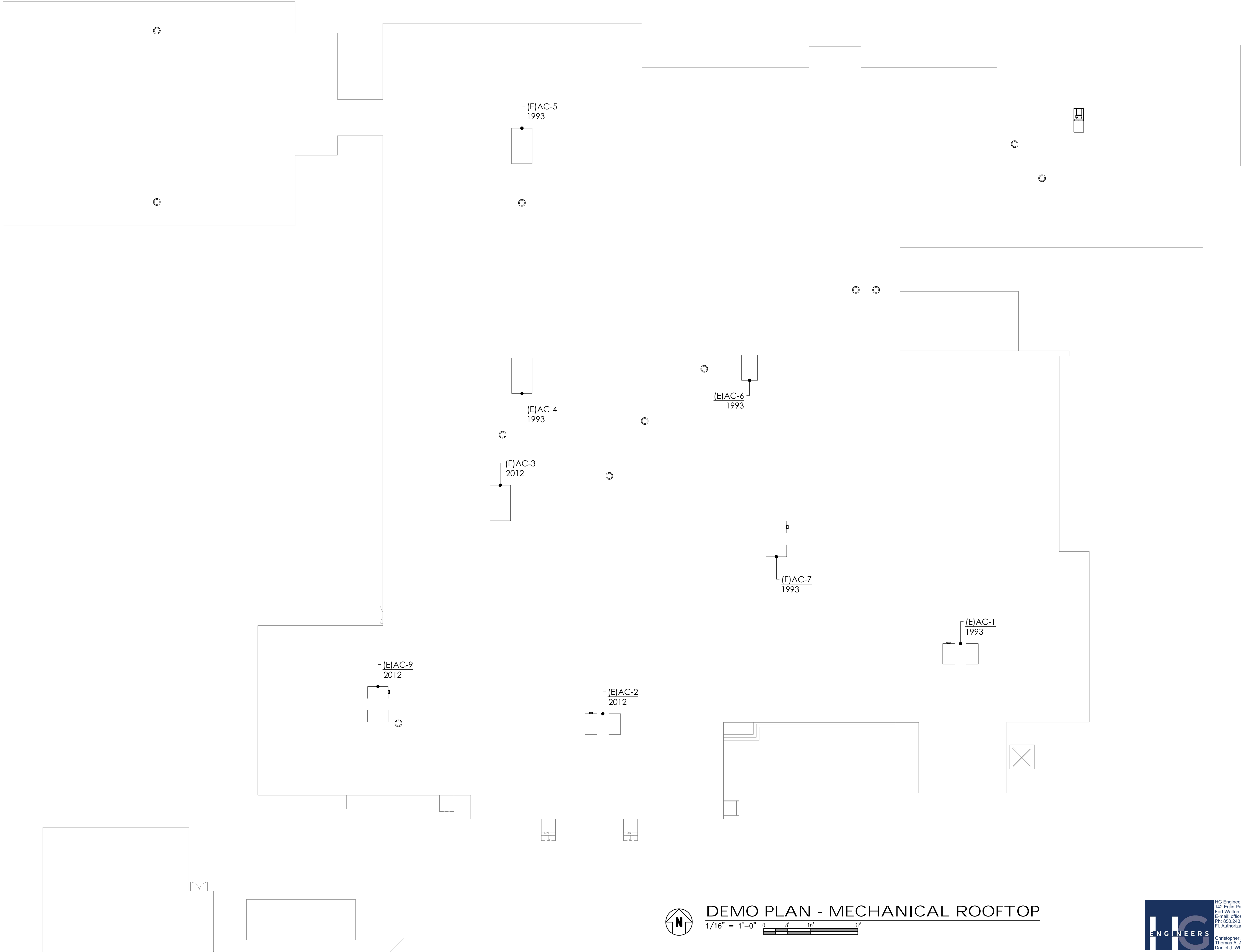


$1/8" = 1'-0"$ 0 4' 8' 12'



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Thomas A. Alexander; FL. PE No.7317
Daniel J. White; FL. PE No. 72700

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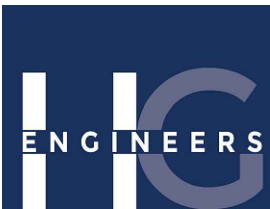
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DEMO PLAN -
MECHANICAL
ROOFTOP

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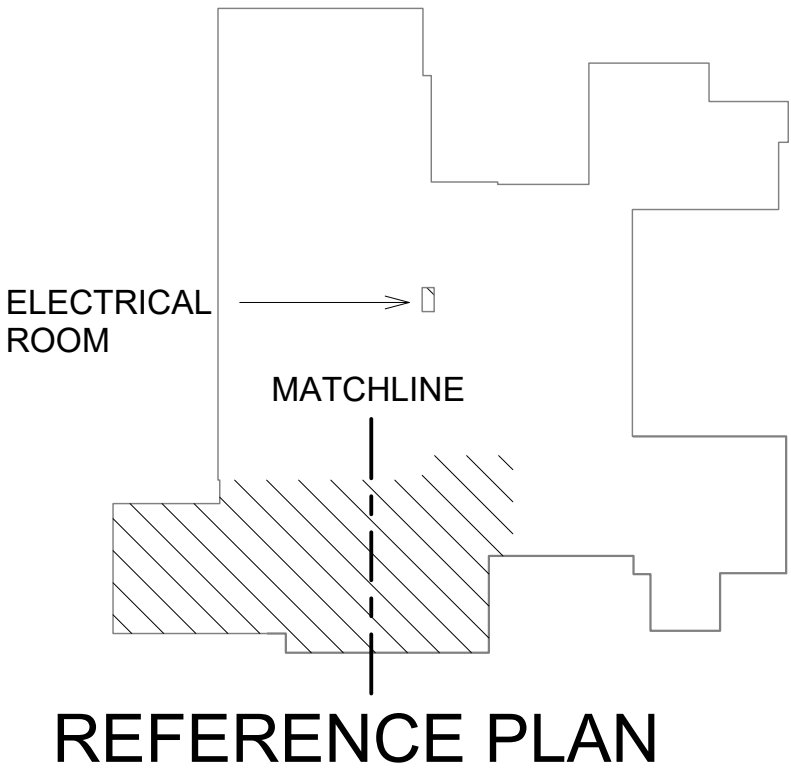
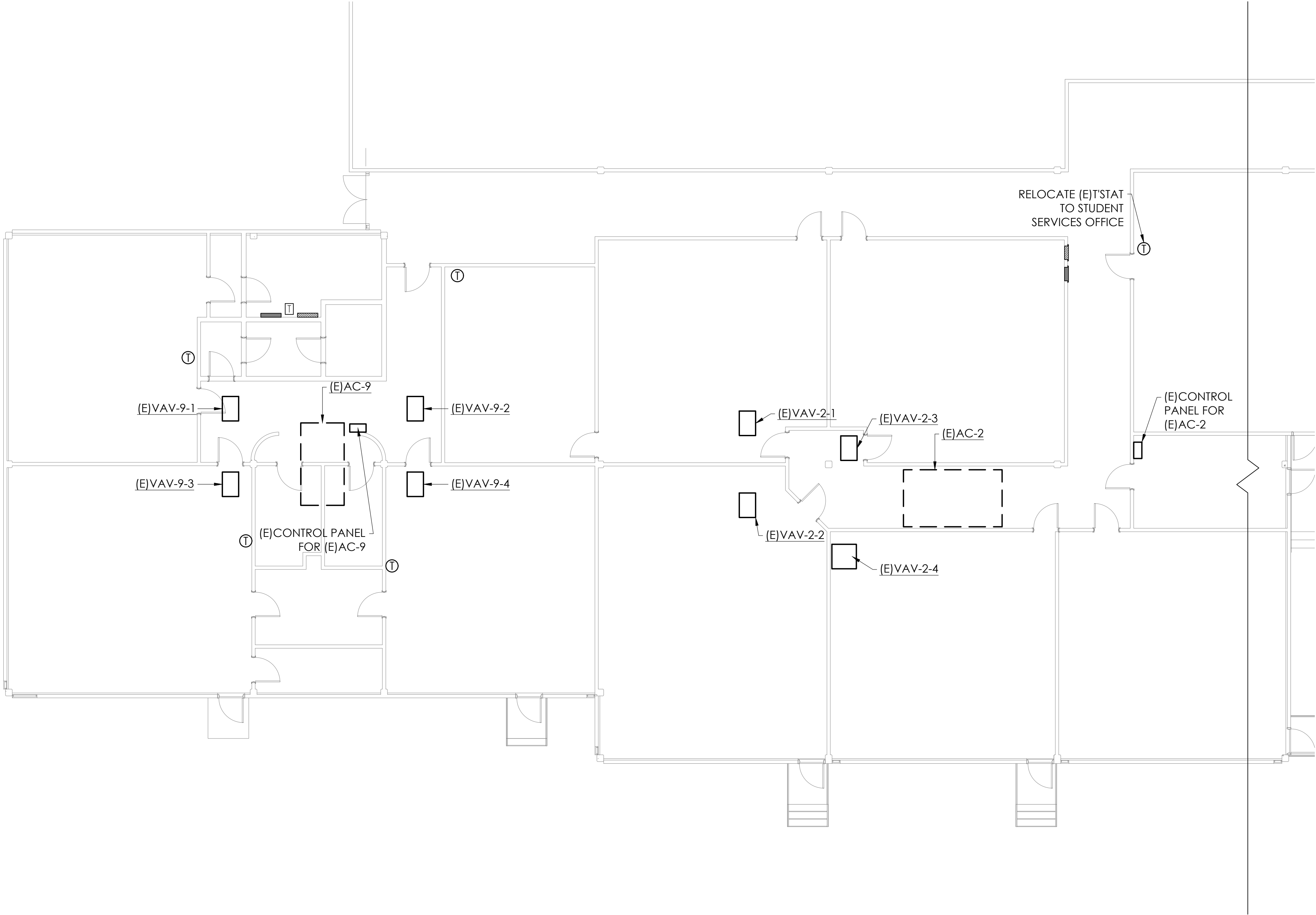
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DEMO PLAN - MECHANICAL SOUTHWEST
1/8" = 1'-0" 0 4' 8' 16'



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No.	Description	Date

DEMO PLAN -
MECHANICAL
SOUTHWEST

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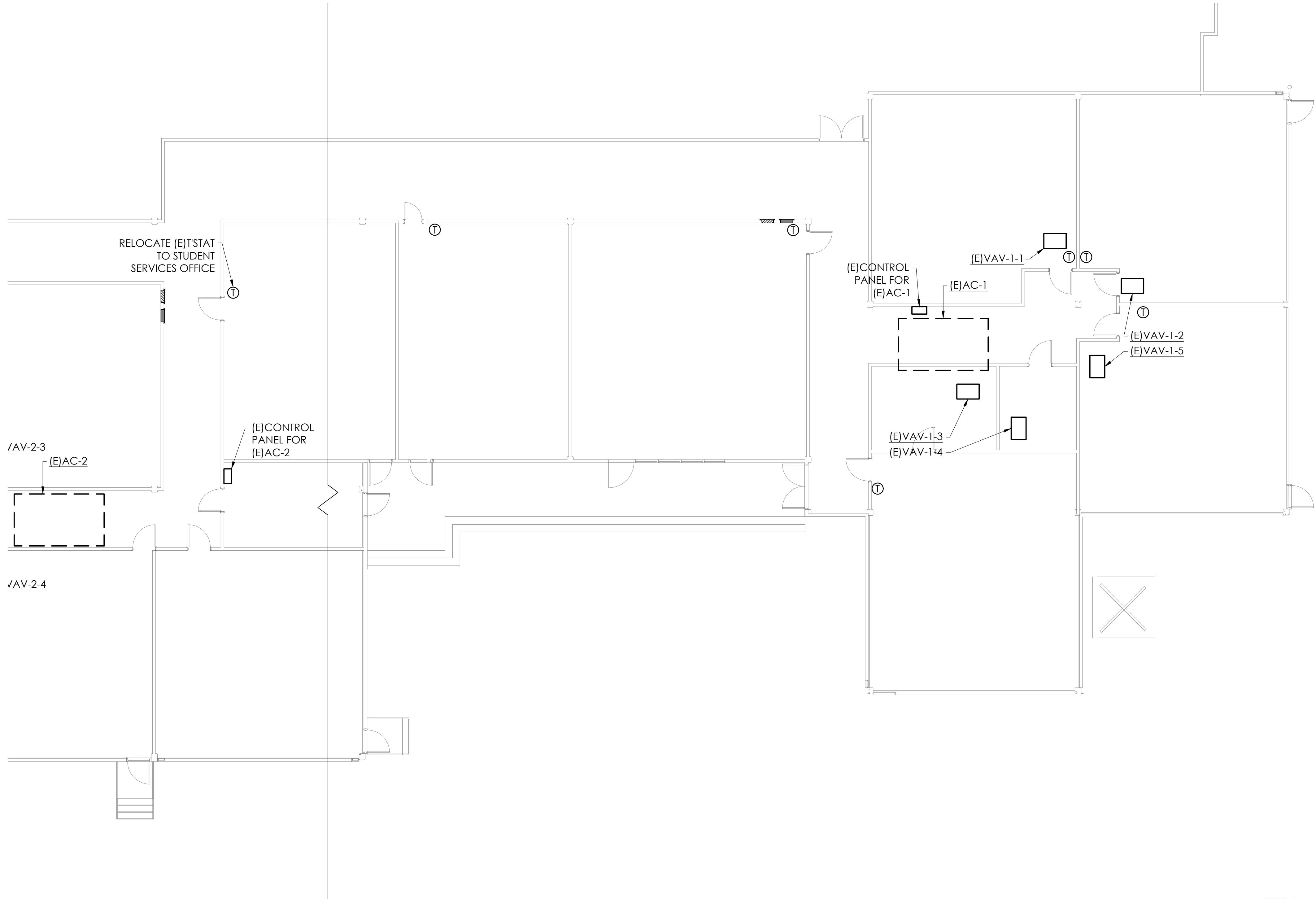
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DEMO PLAN - MECHANICAL SOUTHEAST

1/8" = 1'-0" 0 4' 8' 16'



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DEMO PLAN -
MECHANICAL
SOUTHEAST

Date 09/10/20

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UPGRADES

SANTA ROSA COUNTY SCHOOLS

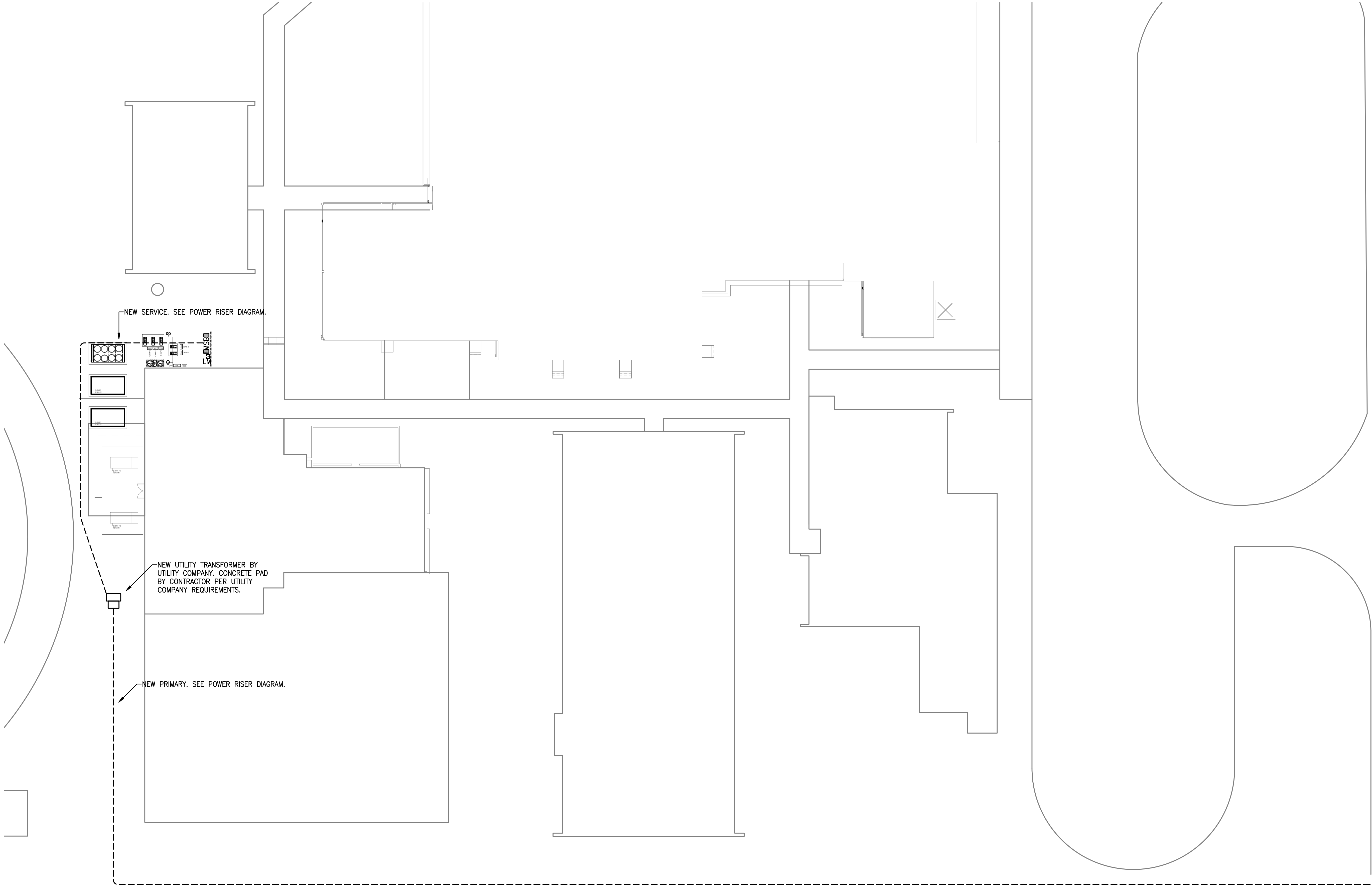
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**HOBBS MIDDLE SCHOOL ENERGY
UPGRADES**

SANTA ROSA COUNTY SCHOOLS

HOBBS MIDDLE SCHOOL 5317 GLOVER LANE MILTON FL 32570

No.	Description	Date

NEW WORK -
ELECTRICAL SITE
PLAN

Date	09/10/20
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E200



NEW WORK - ELECTRICAL SITE PLAN



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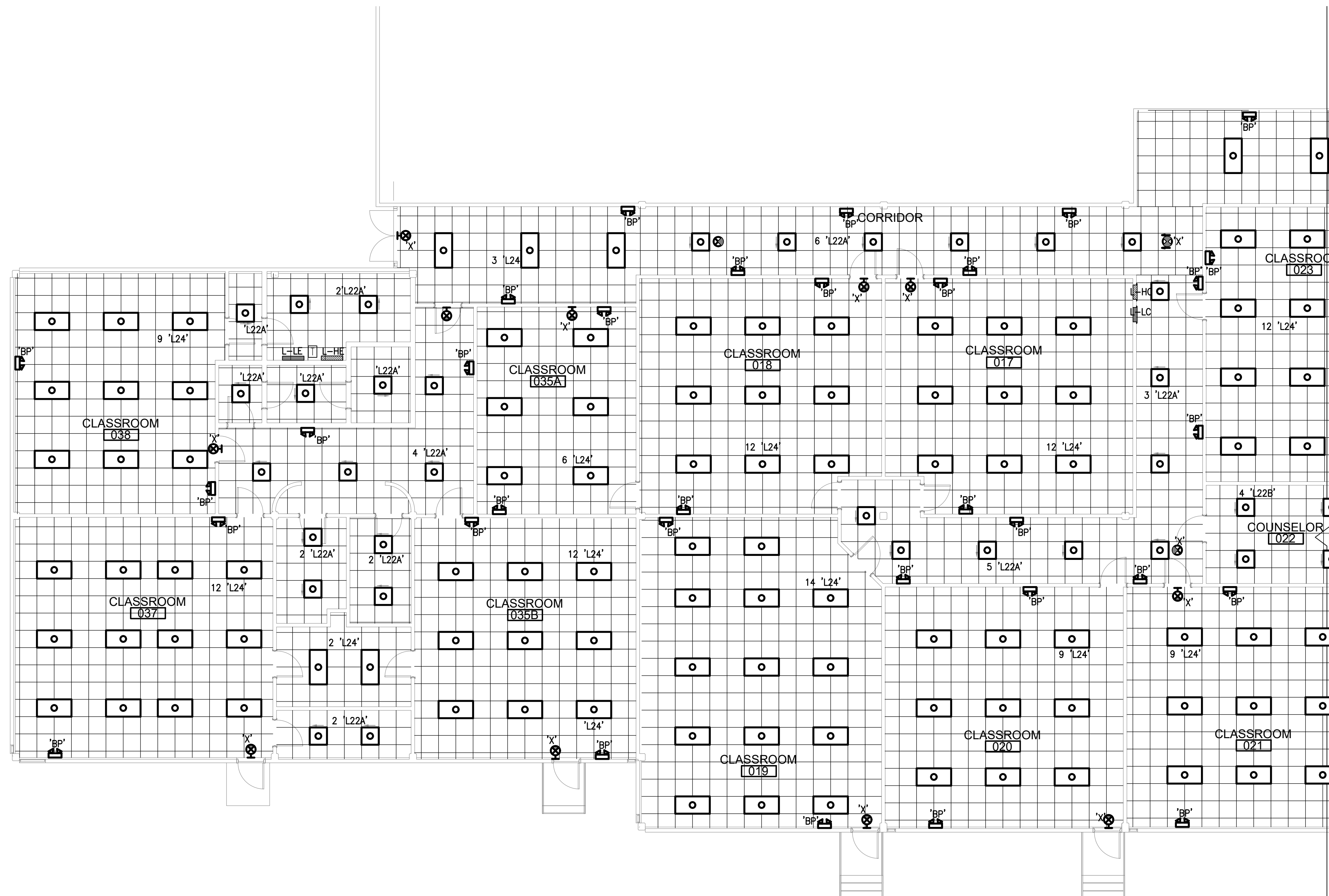
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NEW WORK -
LIGHTING
SOUTHWEST

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E201

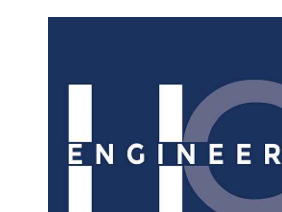
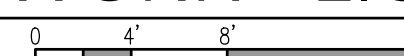


MATCHLINE

REFERENCE PLAN



NEW WORK - LIGHTING SOUTHWEST

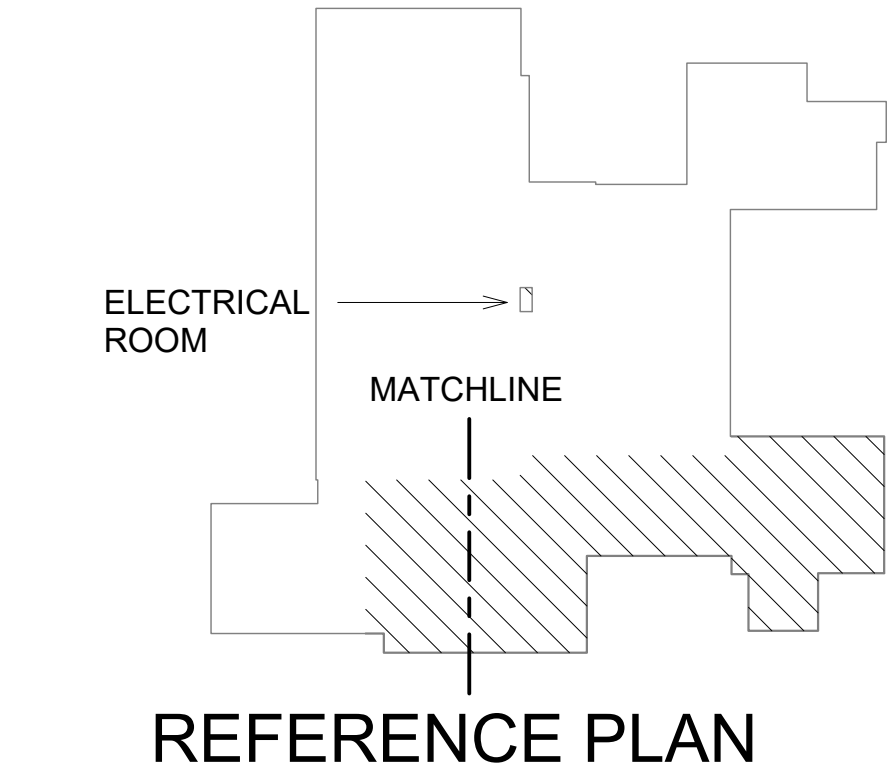
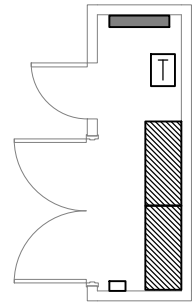
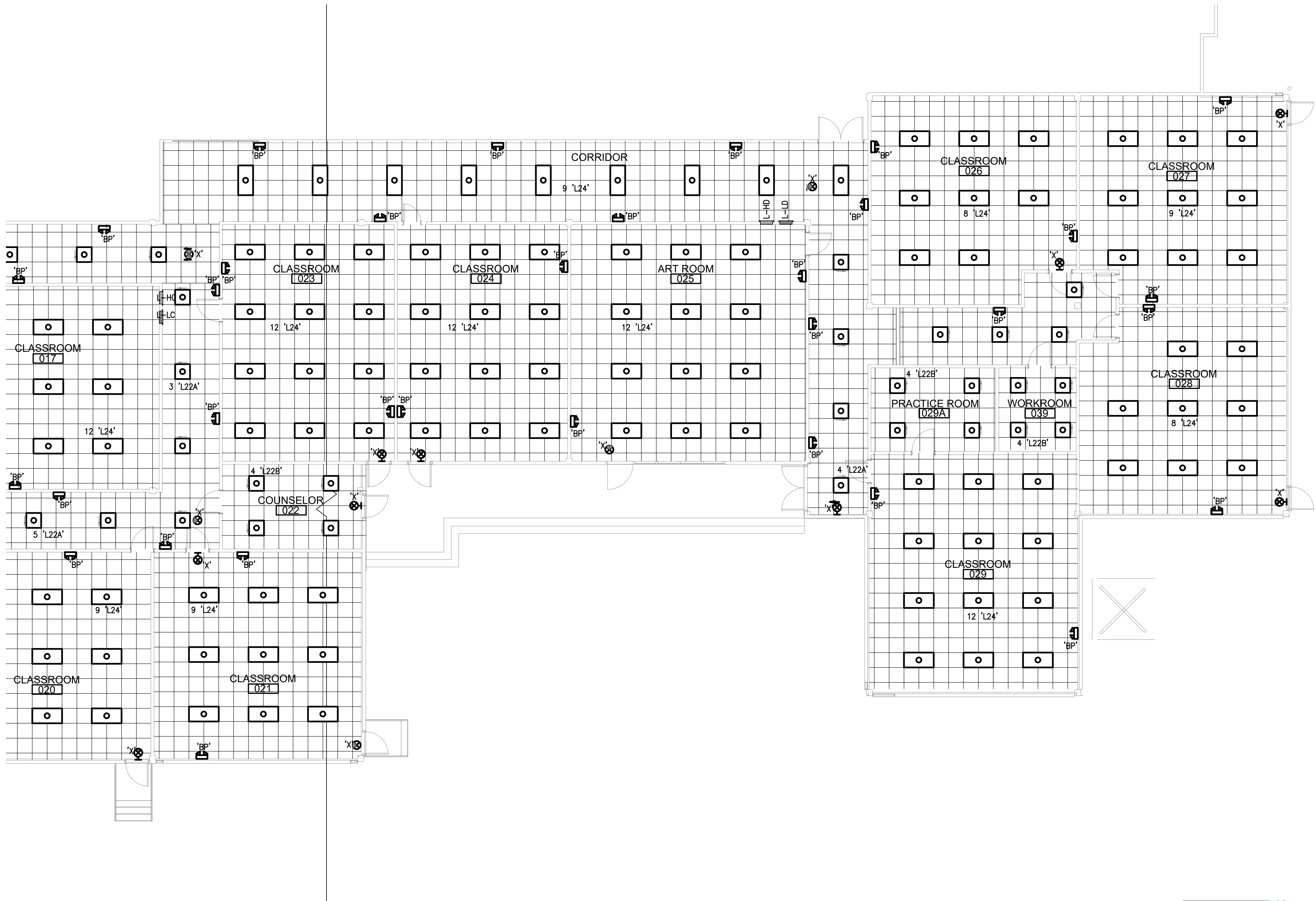
$$\overline{1/8'' = 1'-0''}$$


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E-mail: office@hgengineers.com
Ph: 850.243.6723 Fax: 850.664.5420
FL Authorization No.00006680

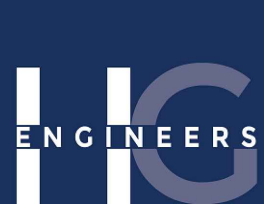
Christopher A. Garick; FL. PE No.5392
Thomas A. Alexander; FL. PE No.7317
Daniel J. White; FL. PE No.72700

2062
Job No.

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NEW WORK - LIGHTING SOUTHEAST
1/8" = 1'-0" 0 4' 8' 16'



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Christopher A. Garick, FL PE No. 53924
Thomas A. Alexander, FL PE No. 73172
Daniel J. White, FL PE No. 73790

2062
Job No.

No.	Description	Date

NEW WORK -
LIGHTING
SOUTHEAST

Date 09/10/20
Drawn By MP
Checked By CL / DW

HOBBS MIDDLE SCHOOL ENERGY
UPGRADES
SANTA ROSA COUNTY SCHOOLS
HOBBS MIDDLE SCHOOL 5317 GLOVER LANE MILTON FL 32570

SAM MARSHALL ARCHITECTS
AA C000293
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E202

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NEW WORK - MECHANICAL ROOFTOP

1/16" = 1'-0" 0 8' 16' 32'



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Daniel J. White, FL PE No. 73790

2062
Job No.

NEW WORK -
MECHANICAL
ROOFTOP

Date 09/10/20
Drawn By MP
Checked By CL / DW

E203

HOBBS MIDDLE SCHOOL ENERGY
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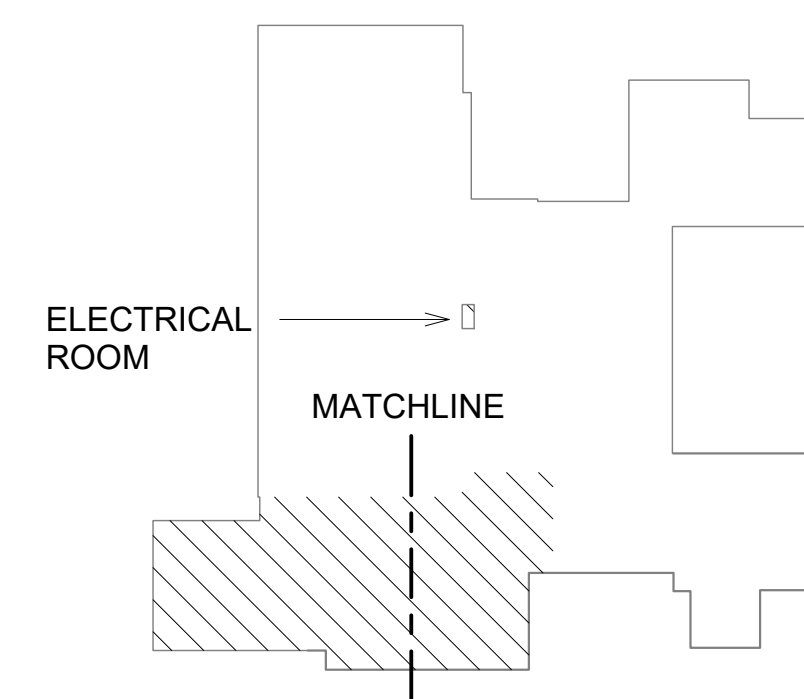
NEW WORK -
MECHANICAL
SOUTHWEST

Date	09/10/20
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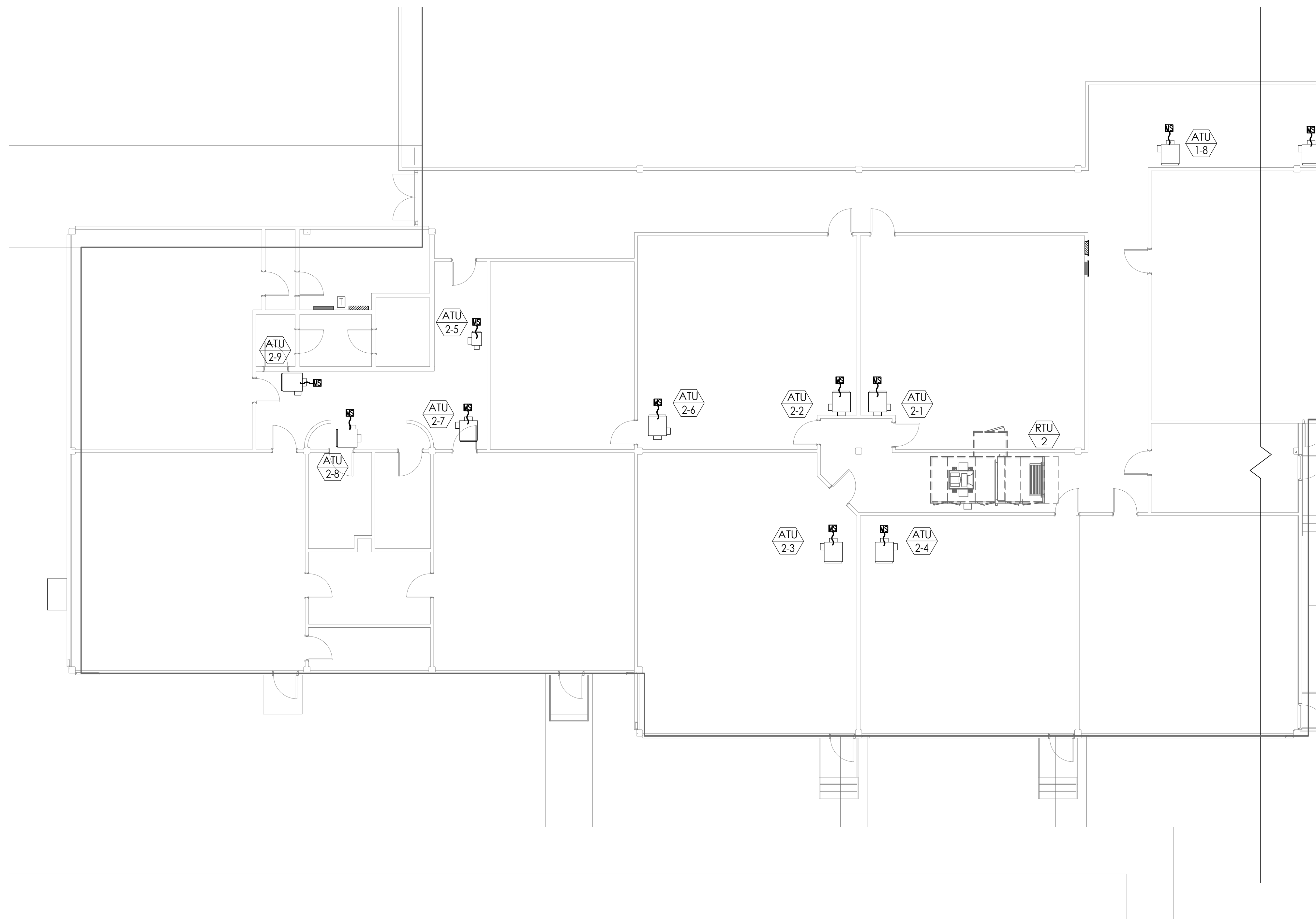
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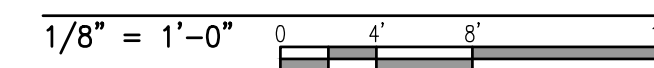
E204



REFERENCE PLAN



NEW WORK - MECHANICAL SOUTHWEST



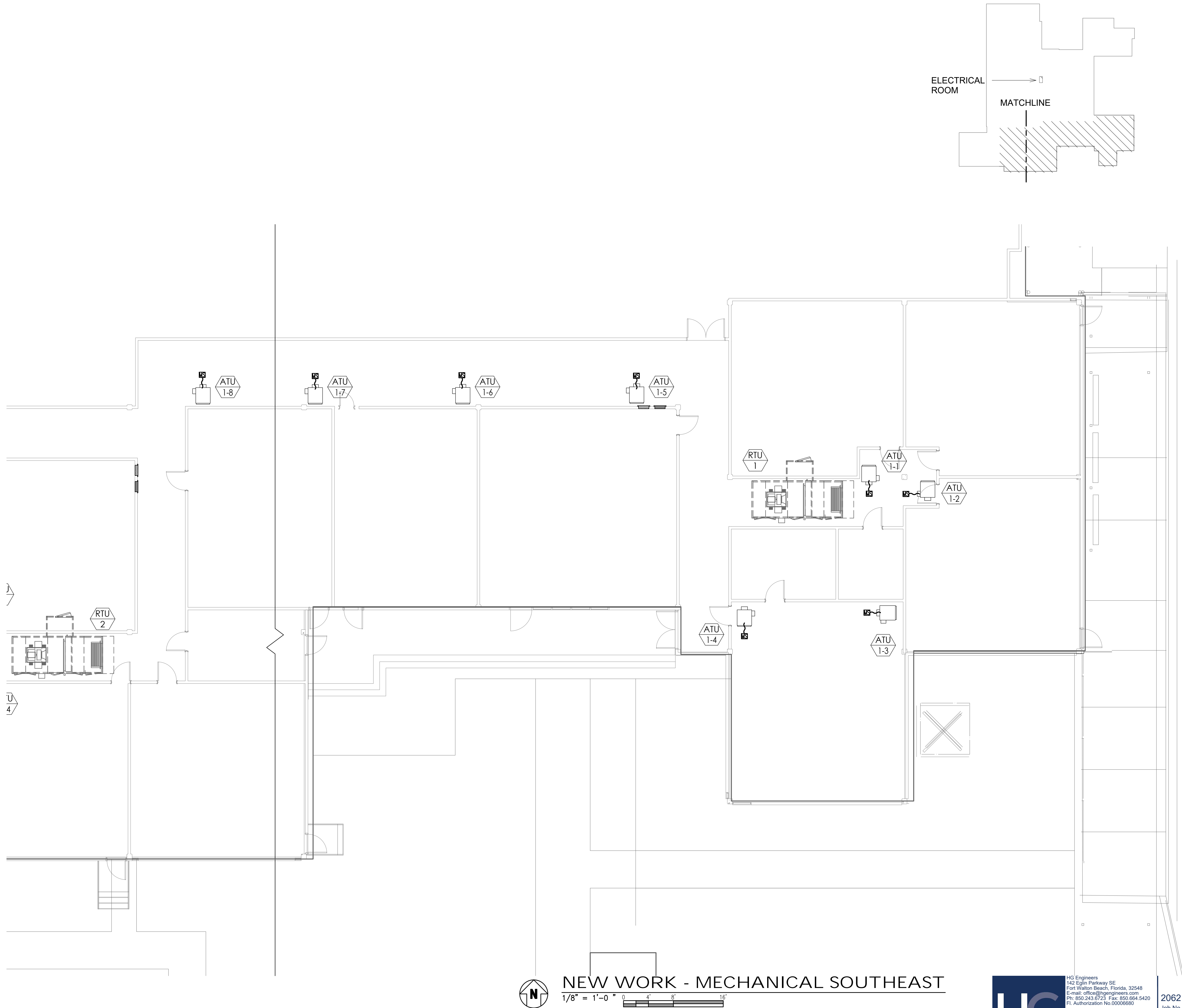
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FL Authorization No. 00006680

S Christopher A. Garick; FL. PE No.5392
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Daniel J. White; FL. PE No.73700

2062
Job No.

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UPGRADES**

SANTA ROSA COUNTY SCHOOLS

HOBBS MIDDLE SCHOOL 5317 GLOVER LANE MILTON FL 32570

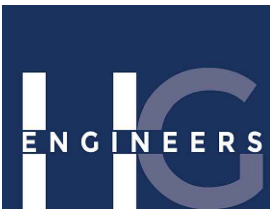
No.	Description	Date

NEW WORK -
MECHANICAL
SOUTHEAST

Date	09/10/20
Drawn By	MP
Checked By	CL / DW

E205

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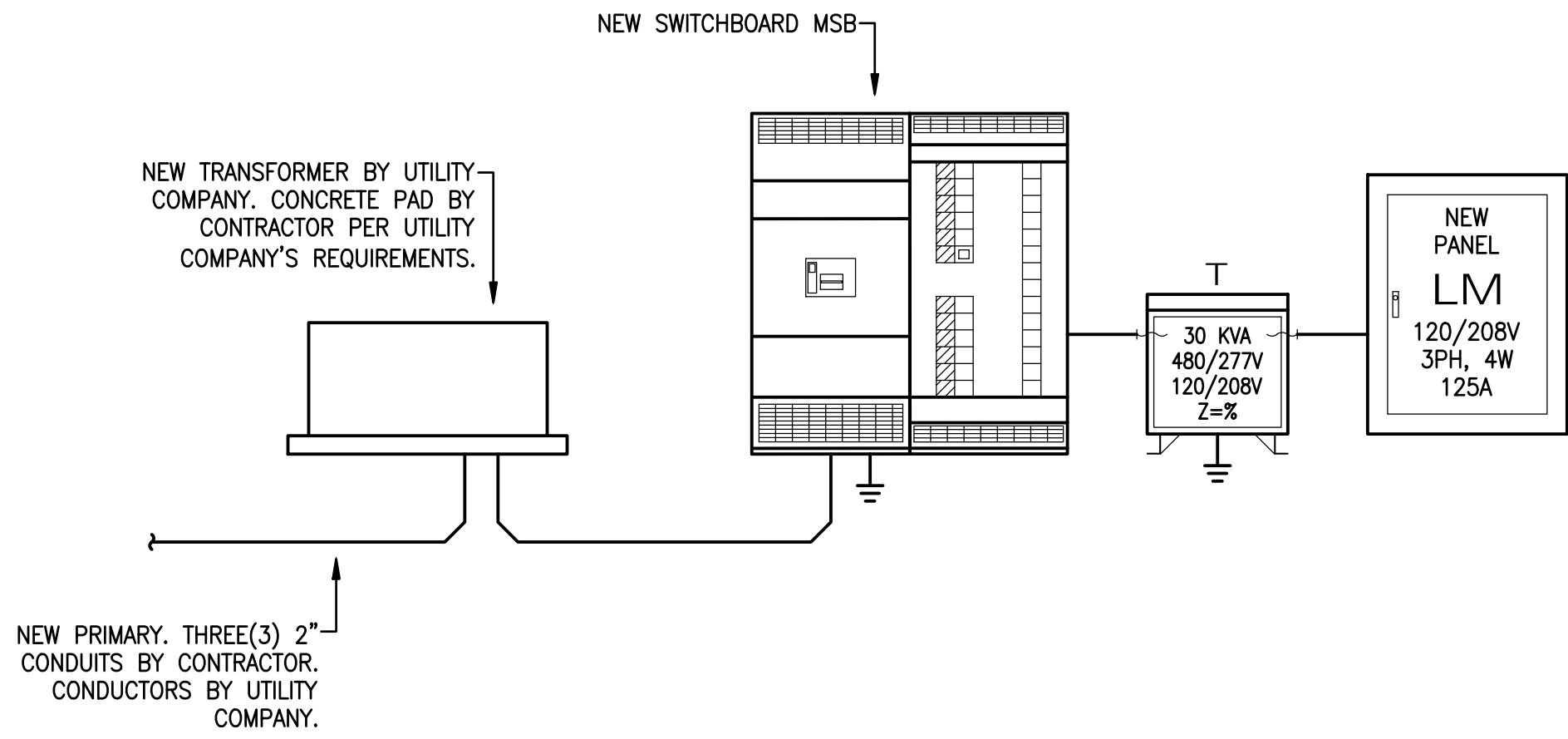


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Daniel J. White, FL PE No. 73790

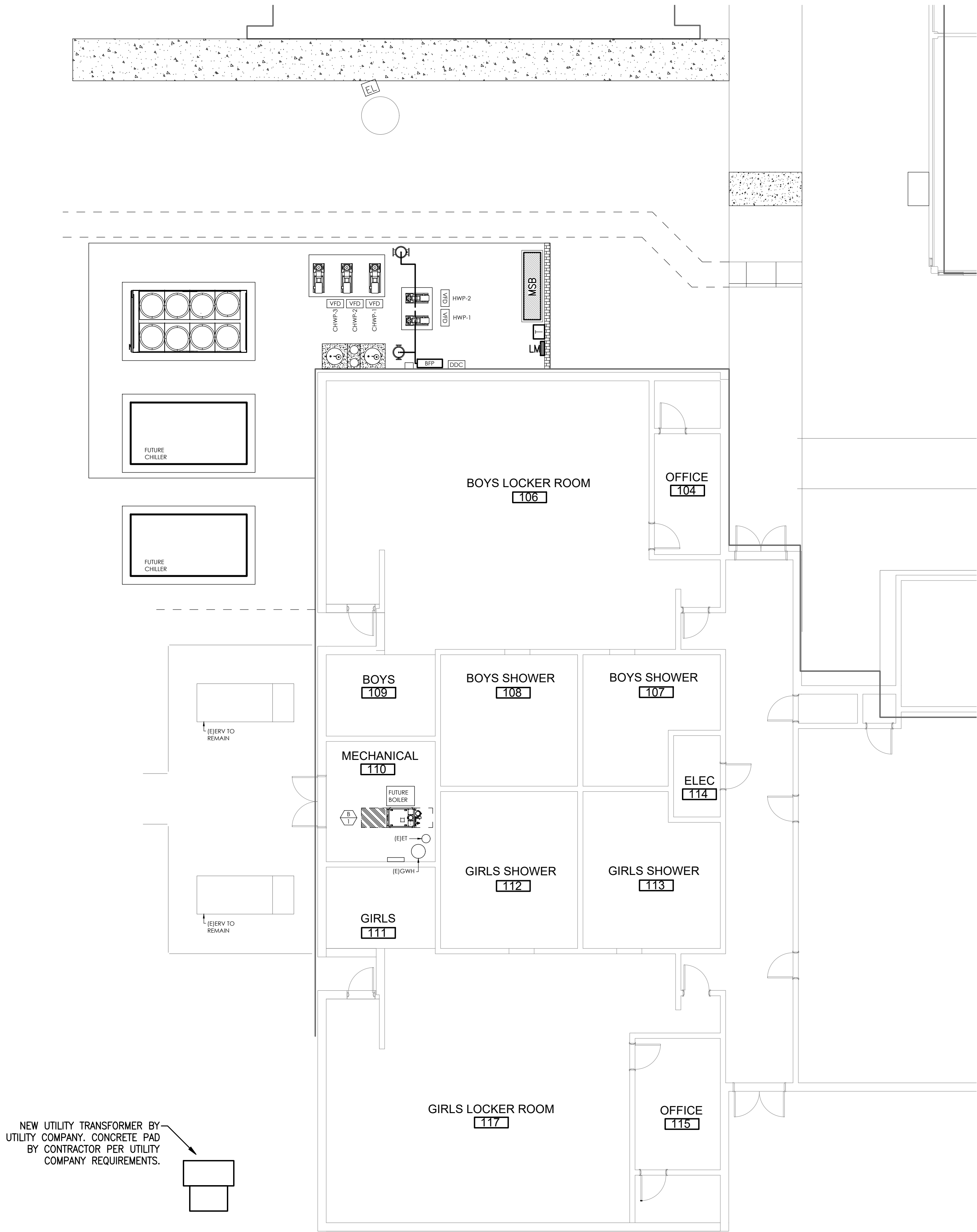
2062
Job No.

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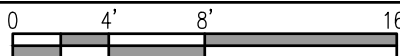
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POWER RISER DIAGRAM
NOT TO SCALE



NEW WORK - CHILLER BOILER PLANT
1/8" = 1'-0"



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2062
Job No.

HOBBS MIDDLE SCHOOL ENERGY
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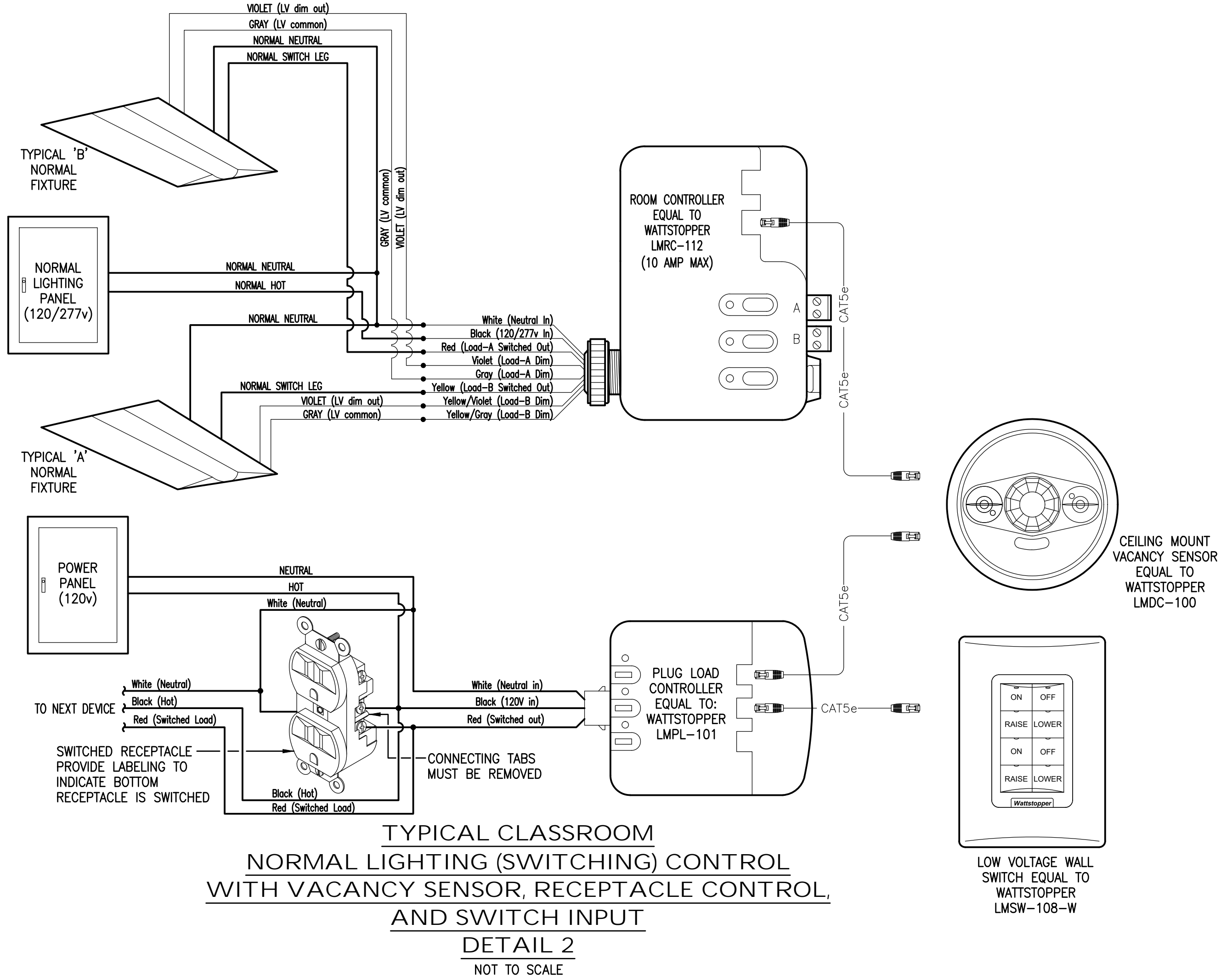
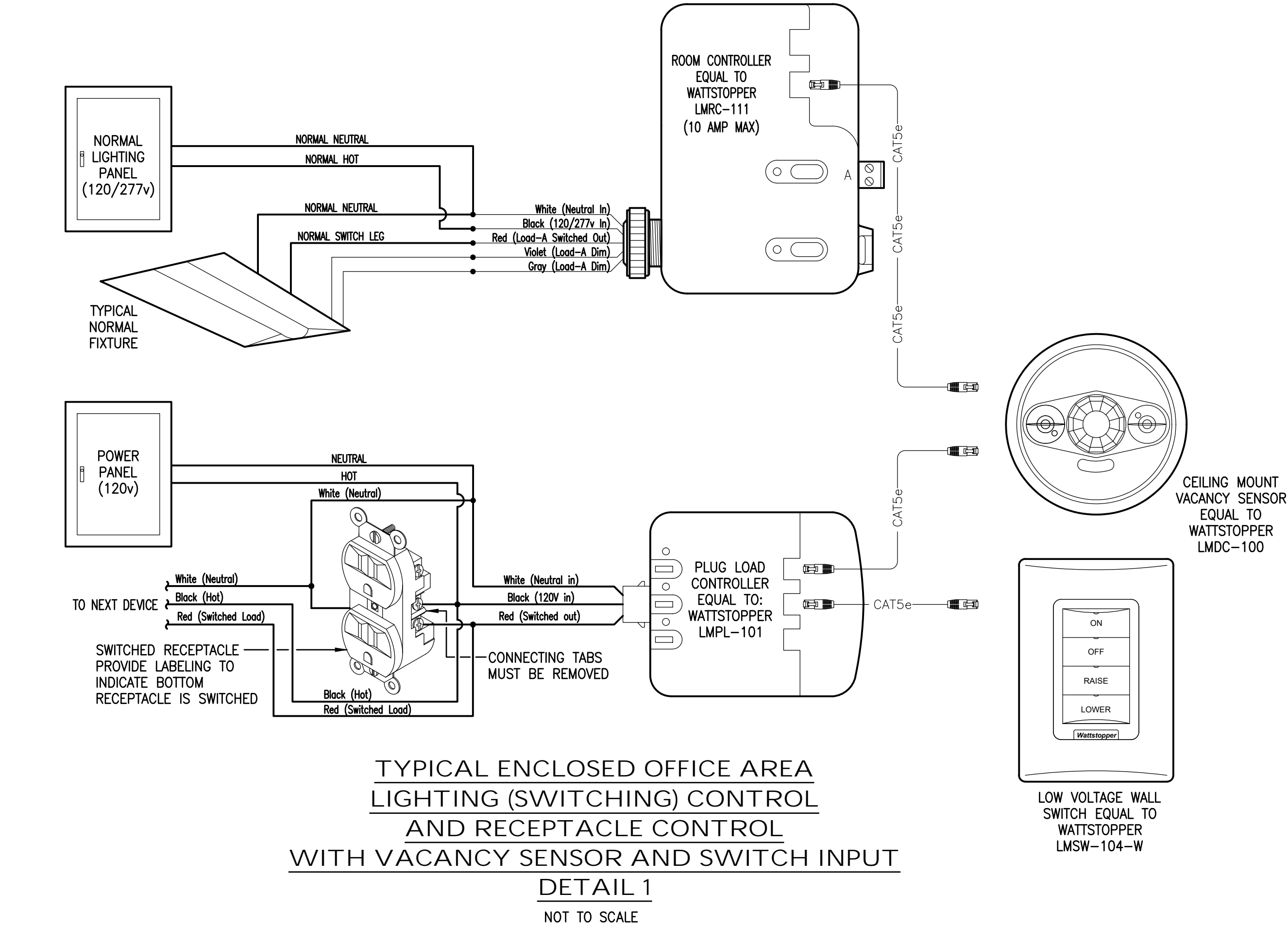
No.	Description	Date

NEW WORK -
CHILLER BOILER
PLANT

Date	09/10/20
Drawn By	MP
Checked By	CL / DW

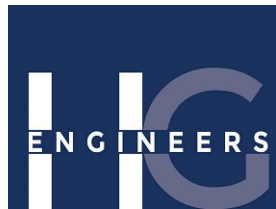
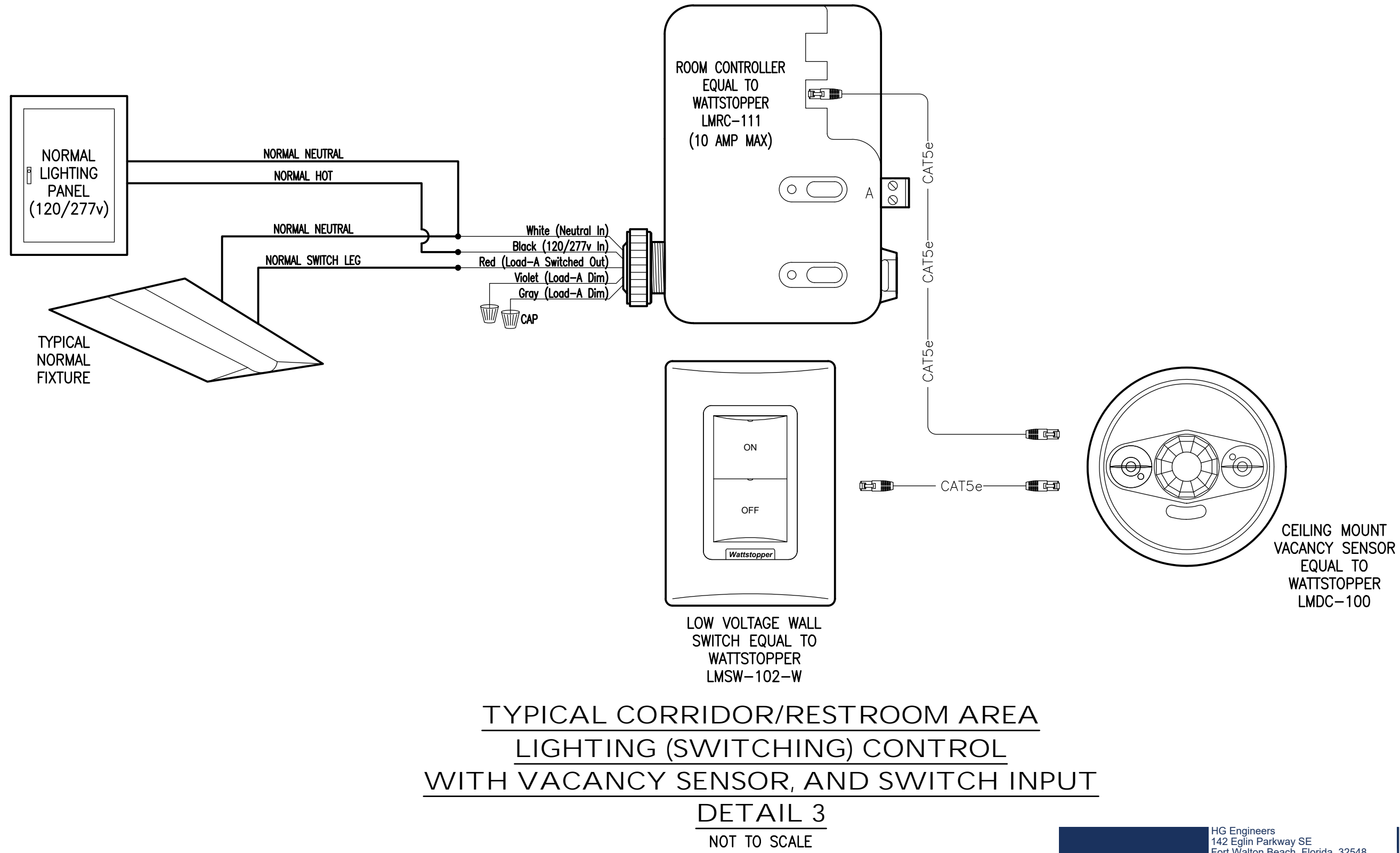
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Lighting Space and Zones			Lighting Control Matrix														Low Voltage (Button Labels to be designated by owner during installation)	
Space Type	Room Number	Automatic Receptacle Control	ZONE OF CONTROL		CONTROL SCENARIOS												CONNECT TO LOCAL ROOM CONTROL	Detail No.
			Description	Designator	Manual On	Manual Off	Dimming	Multi-Level Control	Timeclock On	Timeclock Off	Occupancy Sensor On	Vacancy Sensor Off	Daylight Harvesting	Photo Sensor On	Fire Alarm System Override to On	Security System Override to On		
CORRIDOR	TYPICAL				X	X					X	X					SL2 (2-Button)	3
RESTROOM	TYPICAL				X	X					X	X					SL4 (4-Button)	3
CLASSROOM	TYPICAL	X	NORMAL	a	X	X	X					X					SL8 (8-Button)	2
ART ROOM	25	X	AV	b	X	X	X					X						
			NORMAL	a	X	X	X					X						
OFFICE	TYPICAL	X	AV	b	X	X	X					X	X					4
			DAYLIGHT	c	X	X	X					X						1

LIGHTING FIXTURE SCHEDULE									
Project: 2062 - HABBS MIDDLE SCHOOL RENOVATIONS									
Note: Per electrical specifications, alternate fixtures shall be submitted to the engineer for prior approval a minimum of (10) ten business days prior to bid date. Any alternate fixtures not submitted for prior approval will not be reviewed.									
Luminaire Designation	Manufacturer	Catalog Number	Connected Voltage	Luminaire Load (va)	Lamping Source	Color Rendering Index (CRI)	Kelvin Temperature	Mounting	Comments
BP	HE WILLIAMS	EMER/LED-WHT-HL-SDT-D	277	1.6	LED			WALL	MOUNT FIXTURE 8' AFF
L22A	HE WILLIAMS	AT2-22-L30/840-D-DIM-UNV	277	30	LED	80	4000	RECESSED	
L22B	HE WILLIAMS	AT2-22-L40/840-D-DIM-UNV	277	37.2	LED	80	4000	RECESSED	
L24	HE WILLIAMS	AT2-24-L40/840-D-DIM-UNV	277	34.2	LED	80	4000	RECESSED	
X	HE WILLIAMS	EXIT-R-EM-WHT-SDT-D	277		LED			UNIVERSAL	UNIVERSAL SINGLE FACE/DOUBLE FACE



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2062
Job No.

HOBBS MIDDLE SCHOOL ENERGY UPGRADES

SANTA ROSA COUNTY SCHOOLS
HOBBS MIDDLE SCHOOL 5317 GLOVER LANE MILTON FL 32570

No.	Description	Date

LIGHTING MATRIX, SCHEDULE, AND DETAILS

Date	09/10/20
Drawn By	MP
Checked By	CL / DW

E301