DESIGN TEAM INFORMATION:

MECHANICAL/PLUMBING ENGINEER

SCHMIDT CONSULTING GROUP, INC. 901 W. GARDEN ST.

PENSACOLA, FL 32502

PHONE: 850-438-0050 FAX: 850-432-8631

WILLIAM JOSEPH JONES, P.E.

EMAIL: JOE@SCHMIDTCONSULTINGGROUP.COM

ELECTRICAL ENGINEER

SCHMIDT CONSULTING GROUP, INC.

901 W. GARDEN ST.

PENSACOLA, FL 32502

PHONE: 850-438-0050

FAX: 850-432-8631

TODD NICHOLSON, P.E.

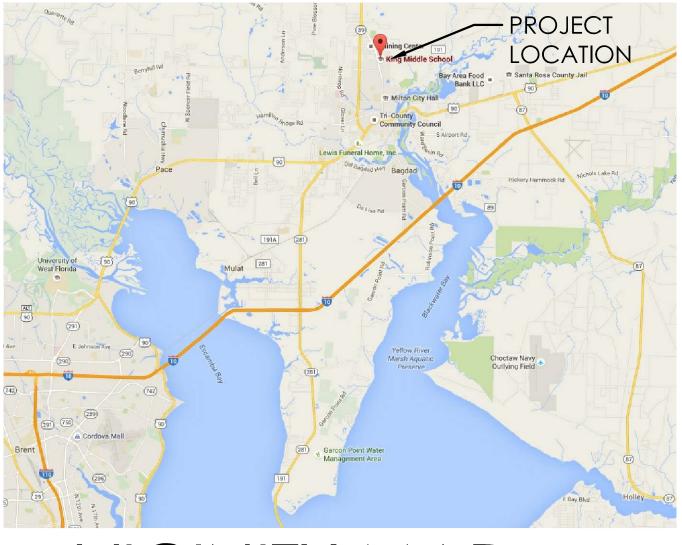
EMAIL: TODDN@SCHMIDTCONSULTINGGROUP.COM



Santa Rosa County SCHOOL BOARD OF SANTA ROSA COUNTY SCHOOL DISTRICT

OWNER CONTACTS: SANTA ROSA COUNTY SCHOOL BOARD SANTA ROSA COUNTY, FL PHONE: 850-983-5123 FAX: 850-983-5115

JOSEPH B. HARRELL ASSISTANT SUPERINTENDENT FOR ADMINISTRATIVE SERVICES EMAIL: HARRELJ@MAIL.SANTAROSA.K12.FL.US



VICINITY MAP NOT TO SCALE

HVAC RENOVATION PHASE B

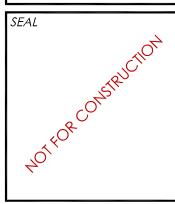
KING MIDDLE SCHOOL 5928 STEWART STREET

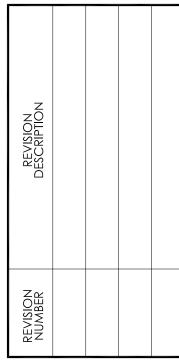
MILTON, FL (850) 916-4100

PHASE 2 - DESIGN REVIEW SET

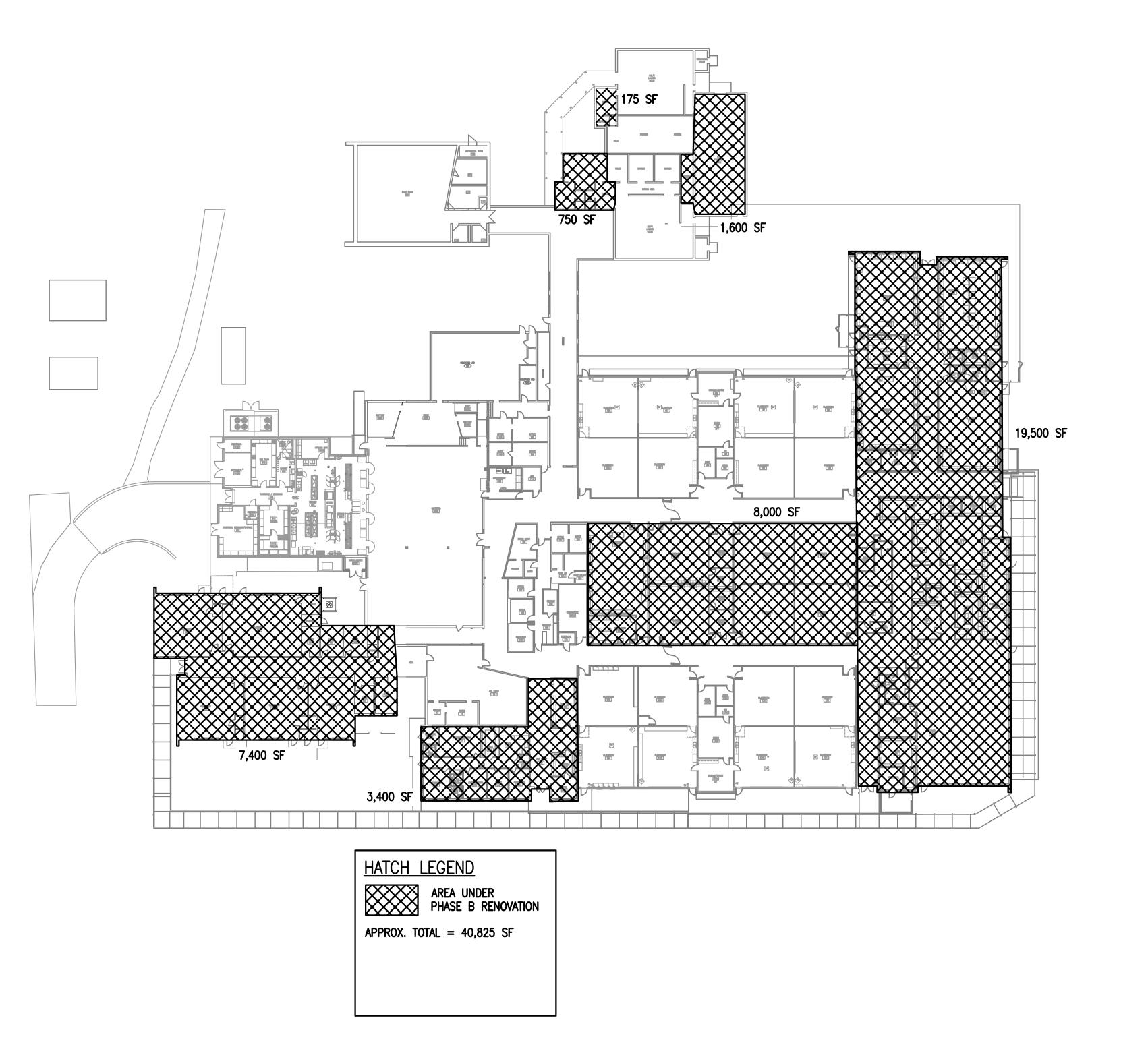
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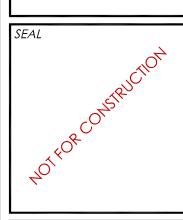
G001



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43	OF OF	49	M503	MECHANICAL DETAILS MECHANICAL DETAILS
	OF OF	49	 	MECHANICAL CONTROLS
44	OF OF	+	M601	
45 46	OF OF	49 49	M602	MECHANICAL CONTROLS
		+	M603	MECHANICAL CONTROLS
47	OF OF	49	M604	MECHANICAL CONTROLS
48	OF OF	49	M605	MECHANICAL CONTROLS
49	OF	49	M606	MECHANICAL CONTROLS

HVAC RENOVATION PHASE B AREA SCOPE OF WORK SCALE: 1/32"=1'-0"

MECHANICAL · ELECTRICAL · STRUCTURAL COMMUNICATIONS · INDUSTRIAL FLORIDA LICENSE. NUMBER 05371 901 W. Garden St. Pensacola, FL 32502 P: 850-438-0050 • F: 850-432-8631



REVISION DESCRIPTION		
REVISION NUMBER		

DRAWN BY: CHECKED BY:

DECEMBER 5, 2018

DRAWING

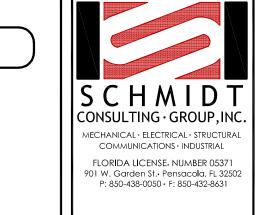
INDEX AND
PHASE B AREA
SCOPE OF WORK

G002



- 1 PROVIDE LAY DOWN AREAS WITH TEMPORARY SAFETY FENCING.
- 2 REPAIR EXISTING AREA AS REQUIRED TO MATCH ORIGINAL.

OVERALL CAMPUS AERIAL VIEW



AOT FOR CONSTRUCTION

П			
	REVISION DESCRIPTION		
	REVISION NUMBER		

KING MIDDLE SCHOOL HVAC RENOVATION PH. B

DESIGNED B

DRAWN BY:

CHECKED BY:

WJJ DATE:

DECEMBER 5, 2018

SHEET TITLE:

GENERAL SITE

CONSTRUCTION

INFORMATION

SHEET:

G003

LEGEND **ABBREVIATIONS PIPING** ΑT POSITIVE PRESSURE SUPPLY DUCT —O ELBOW TURN UP ACD AUTOMATIC CONTROL DAMPER TURNING UP ACCESS DOOR → ELBOW TURN DOWN ABOVE FINISHED FLOOR NEGATIVE PRESSURE RETURN OR EXHAUST AIR SEPARATOR DUCT TURNING UP CONNECTION, BOTTOM AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS — CONNECTION, TOP POSITIVE PRESSURE SUPPLY DUCT BOILER TURNING DOWN ——CHWS—— CHILLED WATER SUPPLY PIPING BELT DRIVE BMS BUILDING MANAGEMENT SYSTEM ——CHWR—— CHILLED WATER RETURN PIPING BOILER PUMP -PRIMARY LOOP NEGATIVE PRESSURE RETURN OR EXHAUST DUCT TURNING DOWN -----HWS------ HEATING WATER SUPPLY PIPING CD CEILING DIFFUSER CHEMICAL FEEDER -----HWR------ HEATING WATER RETURN PIPING CHWS CHILLED WATER PIPING SUPPLY RECTANGULAR DUCT SIZE. FIRST SIZE > 24x12 > CHWR CHILLED WATER PIPING RETURN LISTED IS SIDE SHOWN IN PLANS. CHWP CHILLED WATER PUMP CFM CUBIC FEET PER MINUTE EXTERNALLY INSULATED DUCTWORK -----CWR------ CONDENSER WATER RETURN PIPING COAC CLEANOUT ABOVE CEILING CONT CONTINUOUS EXISTING DUCTWORK TO REMAIN ---- NEW UNDERGROUND PIPING COP COEFFICIENT OF PERFORMANCE ₹==== ≯ EXISTING DUCTWORK TO BE DEMOLISHED ——D—— CONDENSATE DRAIN PIPING DUCTLESS SPLIT DX AIR CONDITIONING UNIT DCU DUCTLESS SPLIT DX CONDENSING UNIT DD DIRECT DRIVE DUCTWORK DDC DIRECT DIGITAL CONTROL ——Ö—— BALL VALVE DPS DIFFERENTIAL PRESSURE SENSOR DPT DEW POINT TEMPERATURE DUCT ELBOW WITH TURNING VANES BUTTERFLY VALVE **DWGS** DRAWINGS EΑ EXHAUST AIR RADIUSED DUCT ELBOW EXHAUST AIR LOUVER EER **ENERGY EFFICIENCY RATIO** PRESSURE REDUCING VALVE EXHAUST FAN FLEXIBLE DUCT CONNECTION ELEVATION **EMCS** ENERGY MANAGEMENT AND CONTROL SYSTEM MANUAL VOLUME BALANCING DAMPER PRESSURE RELIEF VALVE. PIPE ENT ENTERING FULL SIZE DISCHARGE TO FLOOR DRAIN. ESP EXTERNAL STATIC PRESSURE TRANSITION EXPANSION TANK CIRCUIT SETTER EUH ELECTRIC UNIT HEATER FLEX DUCT TAKE OFF WITH MVD — TRIPLE DUTY VALVE FD FIRE DAMPER FPM FEET PER MINUTE AUTOMATIC FLOW CONTROL VALVE GRAVITY INTAKE Gl — 2-WAY CONTROL VALVE GRAVITY RELIEF BRANCH DUCT TAKEOFF WITH MVD — 3-WAY CONTROL VALVE HUB DRAIN (SEE SHEET M002) HORSEPOWER TS RETURN OR SUPPLY DEVICE WITH MVD DIRECTLY BELOW MAIN TRUNK DUCT HOT WATER SUPPLY COMBINATION VENTURI AND BALL VALVE HOT WATER RETURN WITH MEMORY STOP FOR FLOW HOT WATER PUMP TEE WITH TURNING VANES BALANCING AND SHUT OFF SERVICE MAXIMUM MULTI-TURN BALANCING VALVE MODULAR CENTRAL PLANT MCP MOTORIZED DAMPER MINIMUM — UNION MODULE MANAGEMENT SYSTEM MANUAL VOLUME DAMPER GLOBE VALVE NATIONAL FIRE PROTECTION ASSOCIATION THERMAL EXPANSION VALVE NORMALLY OPEN NORMALLY CLOSED OUTSIDE AIR —SHEET REFERENCED ANGLE VALVE OAU OUTSIDE AIR UNIT 0.C. ON CENTER SOLENOID VALVE **EQUIPMENT TAG** PARTS PER MILLION BACKPRESSURE RELIEF OR SAFETY VALVE SHEET NOTE PRESSURE REDUCING VALVE PRV PRESSURE/TEMPERATURE BACKPRESSURE REGULATOR THERMOSTAT MOUNTED AT 56" AFF OR TO (SELF-CONTAINED) MATCH EXISTING. ('1' INDICATES AHU OR RETURN AIR FCU OR BCU CONTROLLED). PROVIDE BACKPRESSURE REGULATOR (EXTERNAL LOCKABLE COVER WITH USER OVERRIDE. SUPPLY AIR PRESSURE) SMOKE DETECTOR SEER SEASONAL ENERGY EFFICIENCY RATIO SMOKE DETECTOR — FLEXIBLE PIPE CONNECTOR SUPPLY FAN (PROVIDED BY DIVISION 26, INSTALLED BY SMACNA SHEET METAL AND AIR CONDITIONING DIVISION 23 AND WIRED BY DIVISION 26). COMBINATION PRESSURE AND CONTRACTORS' NATIONAL ASSOCIATION TEMPERATURE TEST PLUG WITH EXTENDED STATIC PRESSURE TRANSMITTER UNDER CUT DOOR 3/4" NECK AND CAP THERMOSTAT CONNECT TO EXISTING STRAINER WITH BLOW DOWN GATE VALVE TEMPERATURE TRANSMITTER FULL SIZE OF STRAINER AND 3/4" HOSE TSP TOTAL STATIC PRESSURE END CONNECTION WITH CAP TYP. **TYPICAL** HVAC EQUIPMENT WITH CLEARANCE UNDERGROUND

WATER GAUGE

WATER COOLED CHILLER

GENERAL MECHANICAL NOTES

- THE CONTRACTOR IS TO COORDINATE WITH OTHER TRADES REQUIRED OPENINGS IN WALLS, FOUNDATIONS, FLOORS, AND ROOFS.
- 2. OUTSIDE AIR INLETS TO BE LOCATED A MINIMUM OF 10 FT FROM ANY EXHAUST AIR OUTLET OR PLUMBING VENT STACK. FIELD COORDINATE WITH EXISTING **CONDITIONS**
- 3. THE CONTRACTOR TO VERIFY MECHANICAL EQUIPMENT LOCATIONS AND BE RESPONSIBLE FOR ALL RELATED CLEARANCES IN THE FIELD. PROVIDE ADEQUATE MAINTENANCE CLEARANCE AROUND EACH PIECE OF EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE CLEARANCE IN FRONT OF ELECTRICAL PANELS AND OTHER ELECTRICAL EQUIPMENT PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS. COORDINATE WITH THE ELECTRICAL AND GENERAL CONTRACTORS IN THE FIELD.
- 4. PROVIDE WATER PROOF SEALING OF PIPE AND DUCT PENETRATIONS OF EXTERIOR WALLS. FLOORS. AND/OR ROOF.
- THE PIPING SYSTEM IS TO BE FLUSHED UNTIL CLEAN BEFORE EQUIPMENT CONNECTION.
- PIPING PENETRATING THROUGH INTERIOR WALLS IS TO BE SLEEVED.
- PIPING SHOWN ON THESE DRAWINGS IS DIAGRAMMATIC. ARRANGE IN A NEAT AND ORDERLY MANNER.
- THE CONTRACTOR IS TO COORDINATE EXISTING FLOOR DRAIN LOCATIONS IN MECHANICAL ROOMS WITH ANY EQUIPMENT LOCATED IN THE MECHANICAL ROOM. 9. ALL DUCTWORK AND PIPING PENETRATING THROUGH RATED WALLS TO BE FIRE STOPPED. PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS ARE TO BE FIRE SEALED SO AS TO MAINTAIN FLOOR OR WALL INTEGRITY IN THE EVENT OF A FIRE. PENETRATIONS OF FIREWALLS, CEILINGS, FLOORS, ETC. FOR PIPING TO BE UL LISTED FIRESTOPS AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION. CONTRACTOR TO OBTAIN MANUFACTURER SHOP DRAWINGS AT JOBSITE FOR PENETRATIONS.
- 10. VERIFY COLLAR SIZES ON ALL EQUIPMENT INLETS AND OUTLETS. TRANSITION DUCTWORK AS NECESSARY. EXTERNALLY INSULATE ALL TRANSITIONS AT EQUIPMENT CONNECTIONS.
- 11. INSTALL EQUIPMENT AND DUCTWORK TO MANUFACTURERS RECOMMENDED CLEARANCES.
- 12. PROVIDE FLEXIBLE DUCT, PIPE CONNECTIONS, AND VIBRATION ISOLATORS FOR INTERNALLY ISOLATED UNITS.
- 13. DO NOT MOUNT DISCONNECT SWITCHES ON HVAC EQUIPMENT EXCEPT AS RECOMMENDED BY MANUFACTURER.
- 14. ALL NEW ROUND FLEXIBLE DUCT TO BE FACTORY PRE-INSULATED. MAXIMUM LENGTH OF ANY FLEXIBLE DUCT RUNOUT TO BE 6'. WHERE LENGTH REQUIRED EXCEEDS 6'. INSTALL EXTERNALLY INSULATED ROUND SNAPLOCK DUCT FOR BALANCE OF DISTANCE TO SPIN-IN TAP AT MAIN DUCT TRUNK.
- 15. NEW SUPPLY AIR DUCTWORK EXCEPT TAKEOFFS TO SUPPLY AIR DIFFUSERS TO BE SINGLE WALL RECTANGULAR, SMACNA STATIC PRESSURE CLASS 2" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS DUCT WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- 16. NEW RETURN AIR DUCTWORK TO BE SINGLE WALL RECTANGULAR, SMACNA STATIC PRESSURE CLASS 2" W.G., SEAL CLASS A. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS. PROVIDE 2" THICK EXTERNAL FIBERGLASS WRAP.
- 17. NEW OUTSIDE AIR INTAKE DUCTWORK TO BE SINGLE WALL RECTANGULAR, SMACNA STATIC PRESSURE CLASS 2" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- 18. AVOID ROUTING DUCTWORK OVER LIGHTS WHEREVER POSSIBLE. MAINTAIN MINIMUM 6" CLEARANCE BETWEEN DUCT INSULATION TO TOP OF LIGHTS.
- 19. WORK SHALL COMPLY WITH THE FOLLOWING AGENCIES
 - -2017 FLORIDA BUILDING CODE.
 - -2017 FLORIDA MECHANICAL CODE. -2017 FLORIDA PLUMBING CODE.
- -2017 FLORIDA FUEL GAS CODE
- -NATIONAL FIRE PROTECTION AGENCY (NFPA)
- -AMERICAN SOCIETY OF HEATING AND REFRIGERATION ENGINEERS (ASHRAE)
- 20. TRANSFER DUCTS TO BE INTERNALLY INSULATED WITH 1" THICK ACOUSTICAL DUCT LINER. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- 21. KEEP MECHANICAL SYSTEMS TIGHT TO STRUCTURE AT ALL TIMES.
- 22. ALL ROOF PENETRATIONS AND ROOF MOUNTED EQUIPMENT THRU AND /OR LOCATED ON THE SLOPED PORTION OF THE ROOF SHALL BE PAINTED. PAINT TO MATCH EXISTING ROOF.
- 23. ALL PIPING LOCATIONS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL PIPING ELEVATIONS IN THE FIELD PRIOR TO FABRICATION. CONTRACTOR TO FIELD ADJUST PIPING RUNS TO COORDINATE WITH EXISTING STRUCTURAL AND BUILDING SYSTEMS AS NECESSARY.
- 24. REFER TO SPECIFICATIONS FOR COMMISSIONING REQUIREMENTS.
- 25. ALL REQUIRED TESTING AND BALANCING OF HVAC SYSTEMS AS REQUIRED BY THE PROJECT MANUAL WILL BE OWNER PROVIDED UNDER SEPARATE CONTRACT. SEE SPECIFICATION. THE CONTRACTOR SHALL COORDINATE ALL SCHEDULED TEST AND BALANCE ACTIVITIES WITH THE OWNER'S TEST AND BALANCE CONTRACTOR AS REQUIRED. PROVIDE TESTING, ADJUSTING, AND BALANCING OF HVAC SYSTEMS BY A NEBB OR AABC CERTIFIED TESTING, ADJUSTING, AND BALANCING CONTRACTOR. PROVIDE TAB REPORTS AS PER THE STANDARD NEBB OR AABC REPORT FORMS. BALANCE AND ADJUST SYSTEMS AS PER DESIGN DOCUMENT REQUIREMENTS. PROVIDE WARRANTY AND PERFORMANCE GUARANTEE FOR TESTING, ADJUSTING, AND BALANCING.

DIFFUSER/GRILLE LEGEND

- CEILING DIFFUSER (CD)

EQUAL TO TITUS OMNI-AA OR PRICE ASPD ALUMINUM CEILING DIFFUSER SUITABLE FOR INSTALLATION IN GYPSUM BOARD CEILINGS OR LAY-IN INSTALLATION IN TILE CEILINGS. SIZE AND AIRFLOW AS INDICATED. PROVIDE WITH SQUARE-TO-ROUND NECK TRANSITION AS REQUIRED.

RETURN REGISTER (RAR) RETURN GRILLE (RAG)

EQUAL TO TITUS 350 ZF ALUMINUM REGISTER/GRILLE WITH 0° DEFLECTION AND 19mm (3/4") SPACING SUITABLE FOR SURFACE MOUNTING TO SIDEWALL GYPSUM BOARD CEILINGS OR LAY-IN INSTALLATION IN TILE CEILING. REGISTER DESIGNATION INDICATES GRILLE TO BE PROVIDED WITH OPPOSED BLADE DAMPER. SIZE AS INDICATED. FOR LAY-IN INSTALLATION, PROVIDE LAY-IN BORDER FRAME AND PROVIDE FILLER PANEL FOR CEILING TILE LOCATION.

RETURN REGISTER WITH FILTER (RAR2)

TRANSFER GRILLE (TAG)

TRANSFER REGISTER (TAR)

EXHAUST GRILLE (EAG) EXHAUST REGISTER (EAR)

— SUPPLY REGISTER (SAR) SIDEWALL SUPPLY REGISTER (SWR)

EQUAL TO TITUS 300FS ALUMINUM SUPPLY GRILLE. PROVIDE WITH OPPOSED BLADE DAMPER. SIZE AND AIRFLOW AS INDICATED. FOR LAY-IN INSTALLATION, PROVIDE LAY-IN BORDER FRAME AND PROVIDE FILLER PANEL FOR CEILING TILE LOCATION.

— OUTSIDE AIR LOUVER (OAL)

MANUAL AIR VENT WITH 1/2" BALL

VALVE. ROUTE 1/2" SOFT COPPER TUBING FROM DISCHARGE TO FLOOR

DRAIN UNLESS OTHERWISE NOTED

EXHAUST AIR LOUVER (EAL)

WALL LOUVER SHALL BE FLORIDA PRODUCT APPROVED, MIAMI-DADE QUALIFIED, AND COMPLIES WITH AMCA 540 AND 550. STATIONARY DRAINABLE BLADE EXTRUDED ALUMINUM LOUVER. PROVIDE WITH BIRD SCREEN. COORDINATE FINISH WITH ARCHITECT. LOUVER SIZE AS INDICATED (FACE AREA) WITH A MINIMUM OF 30% FREE AREA. COORDINATE EXACT WALL OPENING WITH STRUCTURAL. LOUVER EQUAL TO POTTORFF ECV-645 OR EQUIVALENT.

COORDINATE DIFFUSERS/GRILLES/LOUVERS COLOR REQUIREMENTS WITH ENGINEER

CONSULTING · GROUP, INC MECHANICAL · ELECTRICAL · STRUCTURAL COMMUNICATIONS - INDUSTRIAL FLORIDA LICENSE, NUMBER 05371 P: 850-438-0050 • F: 850-432-8631

WILLIAM JOSEPH JONES P.E.

FLORIDA LICENSE NUMBER 58080

DISTRIC $\mathbf{\Omega}$ 0 SE ()WIDD ENO < ~ AND CAN RO

DRAWN BY: CAP

DESIGNED BY

CHECKED BY: WJJ

DATE: DECEMBER 5, 2018

> MECHANICAL LEGEND, NOTES, & **ABBREVIATIONS**

GENERAL PHASING NOTES

- 1. ALL WORK WHICH REQUIRES POWER OUTAGE SHUTDOWN SHALL BE COMPLETED IN A CONSECUTIVE 24 HOUR PERIOD, THE WORK SHALL BE COMMENCED AT 7:00 AM ON THE SHUTDOWN DAY AND SHALL BE COMPLETED AT OR BEFORE 7:00 AM ON THE FOLLOWING DAY. COORDINATE WITH OWNER.
- 2. THE OWNER WITH THE ASSISTANCE OF THE PLANT MANUFACTURER REPRESENTATIVE WILL SHUT DOWN THE CENTRAL PLANT AND THE CONTRACTOR SHALL DRAIN THE HYDRONIC WATER SYSTEM PRIOR TO THE COMMENCEMENT OF WORK ON THE SHUTDOWN DAY.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REFILLING THE SYSTEM AND LEAK TESTING THE PIPING PRIOR TO COMPLETION OF SHUTDOWN WORK.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VENTING AIR FROM THE SYSTEM AND ASSISTING THE OWNER IN RESTARTING THE SYSTEM FOLLOWING COMPLETION OF SHUTDOWN WORK AT 7:00 AM ON THE DAY FOLLOWING THE SHUTDOWN DAY.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND DELIVERING TO THE SITE ALL EQUIPMENT, PIPING, VALVES, ACCESSORIES AND OTHER MATERIALS REQUIRED FOR COMPLETION OF THE SHUTDOWN WORK IN THE SPECIFIED TIME PERIOD. THE CONTRACTOR IS ENCOURAGED TO UTILIZE PREFABRICATED PIPING ASSEMBLIES TO THE MAXIMUM EXTENT PRACTICABLE.
- 6. RE-INSULATION WORK, CLEAN-UP, AND OTHER TASKS NOT REQUIRING SYSTEM SHUTDOWN SHALL BE ACCOMPLISHED WITHIN 3 WORKING DAYS OF SUCCESSFUL SYSTEM START-UP.

	GRAVIT	Y VENTILA	TOR SCHEDU	LE
			DIMENSIO	NS (IN.)
MARK	CFM	SP (IN W.G.)	CURB CAP (WxL)	THROAT (WxL)
GI-5	2,665	0.005	56x56	50x50
NO	OTES:			

- 1. GI GRAVITY INTAKE
- 2. PROVIDE WITH PRE-FABRICATED CURB, ALUMINUM MESH INSECT SCREEN, AND BACKDRAFT DAMPER.
- 3 PROVIDE LOW SILHOUETTE, ROOF MOUNTED MIAMI DADE/FLORIDA PRODUCT APPROVED HIGH WIND RATED GRAVITY VENTILATOR AND MFR INSULATED CURB ASSEMBLY
- 4. BASIS OF DESIGN IS GREENHECK FGI.
- 5. REFER TO DETAIL 1 ON SHEET M504.

GENERAL PIPING NOTES

- 1. ALL PIPING LOCATIONS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL PIPING FI FVATIONS IN THE FIELD PRIOR TO SUBMITTING A BID.
- 2. BUTTERFLY VALVES SHALL BE RATED AT A MINIMUM OF 150 PSIG WOG AND SHALL PROVIDE BUBBLETIGHT SHUTOFF. VALVES SHALL HAVE LUG STYLE CAST IRON BODY, ALUMINUM BRONZE DISC. 416 STAINLESS STEEL STEM, EPDM SLEEVES, SEATS AND O-RINGS. AND GEAR OPERATOR WITH DUCTILE IRON HANDWHEEL. VALVES SHALL BE SUITABLE FOR DEAD END SERVICE AND SHALL BE MILWAUKEE 'M' SERIES. -NO EQUAL. GEAR OPERATORS SHALL HAVE MEMORY POSITIONING DEVICE (TRAVEL ADJUSTMENT SCREW) FOR PERMANENT REGISTERING OF FINAL TAB SETTING.
- 3. ALL BALL VALVES SHALL BE BRONZE BODY, THREADED ENDS, ALL STAINLESS STEEL TRIM, MILWAUKEE 20BSOR-02.
- 4. PRESSURE/TEMPERATURE TEST PORTS SHALL BE BRASS BODY 1/4" MPT WITH DUAL NORDEL SEALS AND BRASS CAP W/RETAINER STRAP, FLOW DESIGN INC. SUPERSEAL. PROVIDE 2-3/4" LENGTH FOR INSULATED PIPING AND 1-1/4" LENGTH FOR NON-INSULATED PIPING. INSTALL P/T PORTS IN GALVANIZED MALLEABLE IRON SCREWED REDUCING TEE IN STEEL PIPING SIZE 2" AND SMALLER. INSTALL P/T PORTS IN FORGED STEEL THREDOLETS OR WELDED REDUCING TEE IN PIPING SIZE 2 1/2" AND LARGER. HALF COUPLINGS ARE NOT ALLOWABLE. MOUNT P/T PORTS IN VERTICAL POSITION.
- 5. THE USE OF BUSHINGS AND CLOSE NIPPLES FOR THREADED CONNECTIONS OF ANY KIND IS NOT ALLOWABLE.
- 6. PROVIDE PIPE CONNECTIONS AND VIBRATION ISOLATORS FOR INTERNALLY ISOLATED MECHANICAL EQUIPMENTS.
- 7. COMPLY WITH MSS SP-58 (PIPE HANGERS AND SUPPORTS-MATERIALS, DESIGN, AND MANUFACTURE), MSS SP-69 (PIPE HANGERS AND SUPPORTS-SELECTION AND APPLICATION), MSS SP-89 (PIPE HANGERS AND SUPPORTS-FABRICATION AND INSTALLATION) FOR PIPE HANGER SELECTIONS AND APPLICATIONS.
- 8. PROVIDE WALL SLEEVE AND ESCUTCHEON PLATES FOR ALL WALL PIPING PENETRATIONS. GALVANIZED STEEL SHEET SLEEVES. PROVIDE A MINIMUM 1" ANNULAR SPACE. PROVIDE CONTINUOUS INSULATION THROUGH SLEEVE.
- 9. ALL PIPING PENETRATIONS (FIRE WALLS, CEILINGS, FLOORS) SHALL BE UL LISTED FIRESTOPS AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION. CONTRACTOR SHALL OBTAIN MANUFACTURER SHOP DRAWINGS AT JOBSITE FOR ALL PENETRATIONS.
- 10. SLOPE ABOVE CEILING WASTE LINE MIN. 1/8" PER FOOT. SEE FLOOR PLAN FOR SIZE AND ROUTING. INSULATE ABOVE CEILING WASTE PIPING PER SPECIFICATIONS. PROVIDE ABOVE CEILING CAST IRON BODY HUB DRAIN (HD) WITH BOTTOM OUTLET AND WATERLESS TRAP GUARD. SIZE AS INDICATED. BASIS OF DESIGN IS ZURN.

				FAN	N SCHEDU	JLE				
				PEF	RFORMANCE DA	ATA		El	LECTRICAL DAT	·A
MARK	TYPE	DRIVE	CFM	E.S.P. (IN. W.C.)	MAX. RPM	MAX. SONES	FAN POWER (W)	VOLTS	PHASE	Hz
EF-6	CEF	DD	150	0.52	900	3.5	50 W	115	1	60
EF-7	CEF	DD	150	0.52	900	3.5	50 W	115	1	60
EF-8	CEF	DD	50	0.50	808	0.3	12 W	115	1	60
EF-9	CEF	DD	50	0.27	850	0.3	13 W	115	1	60
EF-10	CEF	DD	50	0.27	850	0.3	13 W	115	1	60
EF-11	CEF	DD	50	0.27	850	0.3	13 W	115	1	60
EF-12	CEF	DD	150	0.52	900	3.5	50 W	115	1	60
EF-13	CEF	DD	150	0.52	900	3.5	50 W	115	1	60
EF-14	CEF	DD	50	0.50	808	0.3	12 W	115	1	60
EF-15	CEF	DD	50	0.27	580	0.3	13 W	115	1	60
EF-16	RME	DD	50	0.20	1,187	2.1	8 W	115	1	60
EF-17	RME	DD	70	0.25	1,365	2.7	8 W	115	1	60

NOTES:

- 1. CEF- CEILING EXHAUST FAN: DD DIRECT DRIVE: RME- ROOF MOUNTED EXHAUST
- 2. PROVIDE FANS WITH SOLID STATE SPEED CONTROLLER FOR AIR FLOW BALANCING.
- PROVIDE FAN WITH AN INTEGRAL DISCONNECT.
- 4. PROVIDE WITH BACKDRAFT DAMPER AND ROUTE TO ASSOCIATED GRAVITY RELIEF VENTILATOR.
- 5. INTERLOCK FANS WITH DDC SYSTEM OCCUPANCY SCHEDULE.
- 6. REFER TO FIRE ALARM DRAWINGS FOR FIRE ALARM SHUTDOWN RELAYS.
- 7 SEE ELECTRICAL FOR COMBINATION MOTOR STARTER/DISCONNECT.
- 8 BASIS OF DESIGN IS GREENHECK SP (CEILING MOUNT) AND G (ROOF MOUNT).

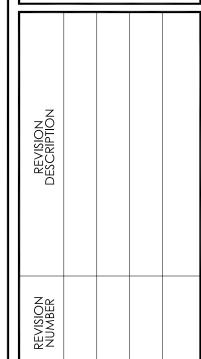
DEMOLITION NOTES

- 1. ALL DEMOLISHED ITEMS NOT SPECIFICALLY INDICATED TO BE REUSED SHALL BE REMOVED FROM THE OWNER'S PROPERTY AND LEGALLY DISPOSED OF BY THE CONTRACTOR AS PART OF WORK UNDER THIS CONTRACT
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY AND PERMANENT WEATHERPROOFING OF THE INSTALLATION. THE CONTRACTOR SHALL BE FULLY LIABLE FOR ANY WATER DAMAGE OR OTHER DAMAGE FROM THE ELEMENTS CAUSED TO THE OWNER'S PROPERTY AS A RESULT OF THE CONTRACTOR'S FAILURE TO PROVIDE THE NECESSARY WEATHERPROOFING DURING THE COURSE OF WORK UNDER THIS CONTRACT.
- 3. DRAWINGS SHOWING EXISTING ROOF CURBS, DUCTWORK CONNECTIONS, AND ELECTRICAL CONNECTIONS ARE DIAGRAMMATIC AND ARE INTENDED ONLY TO DEPICT THE GENERAL ARRANGEMENT, APPROXIMATE SIZE, AND OVERALL PROXIMITY OF THE EXISTING SYSTEM ELEMENTS. EACH CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE OF WORK TO VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING THE CONSTRUCTION.
- 4. THE CONTRACTOR SHALL ADDITIONALLY BE RESPONSIBLE FOR MAKING ACCURATE FIELD MEASUREMENTS OF ALL EXISTING CONDITIONS RELATING TO THE DESIGN AND INSTALLATION OF NEW MECHANICAL EQUIPMENT, PIPING, DUCTWORK, ETC PRIOR TO COMMENCING WORK. PROPER SIZING OF THE PHYSICAL ASPECTS OF NEW EQUIPMENT TO MATCH EXISTING SITE CONDITIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 5. UNLESS NOTED OTHERWISE, ANY AND ALL DAMAGE TO THE EXISTING BUILDING SITE, EXTERIOR BUILDING FINISHES, BUILDING STRUCTURE, BUILDING SYSTEMS (MECHANICAL, ELECTRICAL, ETC.), INTERIOR BUILDING FINISHES, OR BUILDING FURNISHINGS CAUSED BY THE CONTRACTOR DURING THE COURSE OF WORK UNDER THIS CONTRACT SHALL BE REPLACED AND/OR REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. REPLACEMENT AND/OR REPAIR OF DAMAGED ITEMS SHALL BE MADE TO THE COMPLETE SATISFACTION OF THE OWNER. AND AS A MINIMUM SHALL RETURN THE DAMAGED ITEMS TO THE CONDITION IN WHICH THEY WERE FOUND PRIOR TO THE COMMENCEMENT OF THIS WORK.
- 6. PLACEMENT OF EQUIPMENT AND MATERIALS REQUIRED FOR THIS WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 7. ACCORDINGLY, THE CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF PROPER PLACEMENT OF MACHINERY AND EQUIPMENT. THE CONTRACTOR SHALL BE FULLY LIABLE FOR ANY DAMAGE CAUSED TO THE BUILDING OR BUILDING SITE (AS NOTED ABOVE) DURING EQUIPMENT PLACEMENT OPERATIONS. THIS INCLUDES BUT IS NOT LIMITED TO DAMAGE TO SITE ITEMS SUCH AS LANDSCAPING, GRASSING, SIDEWALKS, AND EXTERIOR LIGHTING.
- 8. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR OUTAGES OF ELECTRICAL POWER, AIR CONDITIONING/HEATING, ETC. TO THE OWNER NOT LESS THAN 10 WORKING DAYS PRIOR TO THE DATE PLANNED FOR SUCH OUTAGES. ALL OUTAGES SHALL REQUIRE THE PRIOR WRITTEN APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE.
- 9. REMOVE INDICATED UNITS AND IMMEDIATELY COMPLETE THE FOLLOWING WORK:
- REMOVE CONDENSATE DRAIN PIPING.
- CAP EXISTING ROOF CURBS AS INDICATED. SEE STRUCTURAL AND ARCHITECTURAL FOR COORDINATION.
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR TERMINATING POWER PROCEDURES.
- 10. EXISTING UNUSED SUPPLY OR RETURN AIR REGISTER/GRILLE TO BE REMOVED. REMOVE ITS ASSOCIATED FLEX DUCT AND CAP ALL DUCT OPENINGS TIGHT. PROVIDE CEILING OPENING WITH CEILING TILES TO MATCH EXISTING.
- 11. REMOVE EXISTING UNUSED SUPPLY DUCTWORK FROM DEMOLISHED PACKAGED DX UNIT. REMOVE AS NECESSARY TO EASE NEW WORK CONSTRUCTION.
- 12. CLEAN ALL RE-USED EXISTING DIFFUSER/REGISTER.
- 13. REMOVE CEILING TILES AS NECESSARY TO INSTALL NEW DUCTWORK. EXISTING CEILING TILES TO BE STORED AND REUSED AS NECESSARY. SEE NEW WORK FOR EXTENT OF NEW DUCTWORK. CARE SHALL BE TAKEN NOT TO DAMAGE ANY FURNITURE, WALL, FLOOR. AND EQUIPMENT IN THIS SPACE. COORDINATE WITH SHEETS G200'S TO G300'S FOR CEILING TILES SCOPE OF WORK.
- 14. INFORMATION INDICATING LOCATION OF EXISTING DUCTWORK, CEILING DIFFUSERS AND RETURN REGISTERS WAS OBTAINED FROM EXISTING AS BUILT DRAWINGS AND SITE VISITS AND ARE REPRESENTATIVE OF THE BEST AVAILABLE SOURCE TO DATE.
- 15. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY DUCTWORK AND PIPING LOCATION AND SIZE.
- 16. CONTRACTOR SHALL CUT ANY AREAS NECESSARY TO PERFORM WORK AND PATCH TO MATCH EXISTING. COORDINATE WALL OR FLOOR FINISH WITH ARCHITECTURAL.
- 17. PRIOR TO SUBSTANTIAL, CONTRACTOR SHALL PATCH OR REPLACE ALL DAMAGED EQUIPMENT (SMART BOARDS, TACK BOARDS, PROJECTORS, TELEVISIONS, COMPUTERS, ETC) WALL, CEILING, AND FLOOR DURING CONSTRUCTION TO MATCH EXISTING, IF ANY, OR NEW WORK. COORDINATE WITH ENGINEER OF RECORD AND THE SCHOOL DISTRICT. THIS SHALL BE AT NO COST TO THE OWNER.
- 18. ALL REMOVED MECHANICAL ASSOCIATED ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE TRANSFERRED FROM JOB SITE, EXCEPT ITEMS SELECTED BY OWNER AND THESE ITEMS SHALL BE RELOCATED TO STORAGE AREA DESIGNATED BY THE SCHOOL DISTRICT.
- 19. CONTRACTOR SHALL NOT DISRUPT EXISTING UTILITY SERVICES WITHOUT ASCERTAINING WRITTEN PERMISSION FROM OWNER. REQUIRED OUTAGES OR SHUTDOWNS SHALL BE KEPT TO A MINIMUM AND SHALL BE PERFORMED WITHIN A PREDETERMINED TIME FOR DURATION OF SHUT-DOWN.
- 20. UNLESS NOTED OR SHOWN OTHERWISE, ALL EXISTING UTILITY SERVICES SHALL REMAIN INTACT AND ACTIVE TO FACILITATE REVISED CONDITIONS.

MECHANICAL · ELECTRICAL · STRUCTURAL FLORIDA LICENSE, NUMBER 05371 P: 850-438-0050 • F: 850-432-8631 WILLIAM JOSEPH JONES P.E.



FLORIDA LICENSE NUMBER 58080



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DESIGNED BY:

DRAWN BY:

CAP CHECKED BY:

DECEMBER 5, 2018

MECHANICAL NOTES AND **SCHEDULES**

										VAV AIR H	IANDLING	UNIT S	CHEDUL	<u>E</u>										
					FAN DA	NTA										CHILLE	D WATER C	OIL DATA						
								ELECTR	RICAL DATA							AIR	SIDE				WATER SID)E		
MARK	AIR VOLUME CONTROL	MAX. AIRFLOW (CFM)	MIN. AIRFLOW (CFM)	HEATING AIRFLOW (CFM)	OA AIRFLOW (CFM)	E.S.P. (IN. W.G.)	QTY OF FAN	FAN HP (EACH)	TOTAL FAN HP	V/PH/HZ	MAX. FACE VEL. (FPM)	MIN. TOTAL CAP. (MBH)	MIN. SENS. CAP. (MBH)	MIN. LATENT 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 (GPM)	CONTROL VALVE TYPE	MAX. WATER PRESS. DROP (FT. W.C.)	UV LIGHT RATING
AHU 1	VAV	5,790	1,737	3,475	1,400	3.0	1	7.5	7.5	208/3/60	500	209.5	139.6	69.9	76.3	65.0	54.0	53.0	44	56	34.9	2-WAY	15	13
AHU 2	VAV	5,700	1,710	4,015	940	3.0	1	7.5	7.5	208/3/60	500	184.0	132.7	51.3	74.9	63.3	53.8	52.4	44	56	30.7	2-WAY	15	13

NOTES:

- 1. MANUFACTURER SHALL ALLOW A MINIMUM OF 0.5" EXTRA STATIC FOR DIRTY INITIAL FILTERS. EXTERNAL STATIC DOES NOT INCLUDE PRESSURE DROP THROUGH CASING COILS, INITIAL FILTERS, AND FILTER HOUSINGS.
- 2. PROVIDE EXTENDED LUBE LINES TO OUTSIDE OF UNIT CASING ON THE SIDE WHICH IS ACCESSIBLE FOR SERVICING ON ALL UNITS.
- 3. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MFR'S PRINTED INSTRUCTIONS AND APPLICABLE CODES AND STANDARDS.
- 4. ADJUST LOCATION OF UNITS IN MECHANICAL ROOMS AS REQUIRED FOR SERVICE AS RECOMMENDED BY MANUFACTURER. COORDINATE ACCESS DOOR LOCATION FOR UNIT ACCESS.
- 5. AIR HANDLING UNITS SHALL BE KNOCKDOWN CONSTRUCTION.
- 6. PIPE ALL CONDENSATE FROM UNITS TO DRAIN WITH TRAP. PROVIDE PADS AND BASE RAILS OF SUFFICIENT HEIGHT TO ENABLE CORRECT TRAP DEPTH.
- 7. PROVIDE FACTORY MOUNTED FIRE STATS TO SHUT UNIT DOWN UPON DETECTION OF EXCESSIVE HEAT IN THE SUPPLY SIDE DISCHARGE OF UNIT.
- 8. INTERLOCK AHU'S TO ENABLE FAN SHUTDOWN UPON AN INDICATION OF ALARM CONDITION BY THE BLDG. FIRE ALARM SYSTEM.
- 9. CONTROL VALVE C√ TO BE CALCULATED AT THE SCHEDULED WATER FLOW WITH A VALVE AUTHORITY OF 0.5 BY CONTROLS SUB-CONTRACTOR.
- 10. PROVIDE UNIT WITH FILTER DIFFERENTIAL PRESSURE GAUGE AND VIEWING WINDOWS USE SPECIALLY DESIGNED GLASS THAT BLOCKS UV LIGHTS
- 11. PROVIDE UNIT WITH UVC (ULTRA VIOLET C-BAND) DISINFECTION SYSTEM ON DISCHARGE SIDE OF CHILLED WATER COIL. SEE SHEET M503 FOR UV NOTES.
- 12. PROVIDE UNIT WITH VFD VARIABLE FREQUENCY DRIVE. SEE MECHANICAL SPECIFICATIONS FOR VFD REQUIREMENTS.
- 13. PROVIDE UNIT WITH MERV 8 PRE-FILTER AND MERV-13 FINAL FILTERS.
- 14. VAV VARIABLE AIR VOLUME. PROVIDE WITH MULTI FAN ARRAY SYSTEMS. ALL FAN HP SHALL BE THE SAME SIZE.
- 15. PROVIDE FACTORY VFD STARTUP AND CERTIFICATION. PROVIDE WRITTEN CONFIRMATION FROM MANUFACTURER CONFIRMING COMPLETION OF START UP.
- 16. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
- 17. REFER TO SECTIONS AND ELEVATIONS FOR EQUIPMENT PHYSICAL DIMENSIONS AND OTHER PHYSICAL ATTRIBUTES.
- 18. BASIS OF DESIGN IS TEMTROL.
- 19. PROVIDE BASIS OF DESIGN MANUFACTURER AND MODEL OR APPROVED EQUAL WITH PERFORMANCE.

 COMPONENTS AND TRIM OPTIONS WHICH EXCEED OR EQUAL TO BASIS OF DESIGN.

										BLOWER	COIL	UNIT S	CHEDU	E											
										COOLING CO	IL DATA								HEAT	ING COIL	_ DATA			ELECTRIC	CAL DATA
				EXT. STATIC PRESS. (IN.		MIN. TOTAL CAP.	MIN. SENS. CAP.	MIN. LAT. CAP.	ENT. AIR TEMP. (DEG F)	LVG. AIR TEMP. (DEG F)		TEMP.		CONTROL	MAX. PRESS. DROP (FT.	MIN. TOTAL	AIR 1 (DEC			TEMP.		CONTROL	MAX. PRESS. DROP (FT.	SA FAN	
MARK	TYPE	BASIS OF DESIGN	FAN CFM	W.C.)	MIN. OA CFM	(MBH)	(MBH)	(MBH)	DB/WB	DB/WB	EWT	LWT	GP M	VALVE TYPE	W.C.)	CAP. (MBH)	EDB	LDB	EWT	LWT	GPM	VALVE TYPE	W.C.)	POWER (HP)	V/PH/HZ
BCU 2-1	HDT	SEE NOTE 11	1,575	0.5	125	40.3	32.9	7.4	73.5/61.5	54.6/52.6	44	56	6.7	2-WAY	10	34.8	65.2	85	130	100	2.3	3-WAY	5	1/2 x 2	115/1/60
BCU 2-2	HDT	SEE NOTE 11	1,540	0.5	300	48.4	35.0	13.4	75.7/63.9	54.6/53.3	44	56	8.1	2-WAY	10	41.0	61.1	85	130	100	2.7	3-WAY	5	1/2 x 2	115/1/60
BCU 2-3	HDT	SEE NOTE 11	660	0.5	200	25.2	16.5	8.7	77.4/66.1	54.6/53.3	44	56	4.2	2-WAY	10	20.1	57.6	85	130	100	1.3	3-WAY	5	1/2	115/1/60
BCU 2-4	HDT	SEE NOTE 11	230	0.5	50	7.7	5.3	2.4	76.0/64.5	54.6/53.4	44	56	1.3	2-WAY	10	6.3	60.4	85	130	100	0.4	3-WAY	5	1/3	115/1/60
BCU 2-5	HDT	SEE NOTE 11	395	0.5	55	12.6	8.7	3.9	74.7/64.0	54.6/53.3	44	56	2.1	2-WAY	10	9.7	62.9	85	130	100	0.6	3-WAY	5	1/2	115/1/60
BCU 2-6	HDT	SEE NOTE 11	1,255	0.5	15	18.3	17.7	0.6	72.4/60.6	59.6/55.6	44	56	3.1	2-WAY	10				CO	OLING C	NLY			1/2 x 2	115/1/60
BCU 2-7	VDT	SEE NOTE 12	2,865	0.5	560	91.5	62.2	29.3	75.4/64.3	55.0/53.7	44	56	15.3	2-WAY	10	76.1	61.2	85	130	100	5.1	3-WAY	5	1.0	115/1/60
BCU 2-8	VDT	SEE NOTE 12	2,870	0.5	505	89.0	62.3	26.7	75.1/63.6	54.5/53.2	44	56	14.8	2-WAY	10	74.1	61.8	85	130	100	4.9	3-WAY	5	1.0	115/1/60

NOTES:

- 1. MANUFACTURER SHALL ALLOW A MINIMUM OF 0.5" EXTRA STATIC FOR DIRTY INITIAL FILTERS. EXTERNAL STATIC DOES NOT INCLUDE PRESSURE DROP THROUGH CASING COILS, FILTERS, AND FILTER HOUSINGS.
- 2. PIPE ALL CONDENSATE FROM UNITS TO DRAIN WITH TRAP.
- 3. TRAP CONDENSATE PIPING AT UNIT AND ROUTE TO NEAREST FLOOR DRAIN OR HUB DRAIN.
- 4. PROVIDE WITH FACTORY MOUNTED DISCONNECT. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
- 5. PROVIDE WITH ECM MOTOR AND SPRING ISOLATOR HANGING BRACKETS.
- 6. PROVIDE DOUBLE WALL CONSTRUCTION WITH MIN. 1" FOAM INSULATION.

- 7. PROVIDE 2 INCH MERV 8 RATED PLEATED FILTERS IN ASSOCIATED FILTER GRILLES FOR BCU'S 2-1 THRU 2-5. SEAL FILTER ACCESS COMPLETE.
- 8. PROVIDE 2 INCH MERV 8 RATED PLEATED FILER FOR BCU'S 2-6 THRU 2-8
- 9. HDT HORIZONTAL DRAW THRU; VDT- VERTICAL DRAW THRU
- 10. PROVIDE WITH CONCEALED CONDENSATE PUMP. COORDINATE POWER WITH ELECTRICAL.

 PROVIDE STAINLES STEEL PRIMARY AND SECONDARY DRAIN PAN WITH OVERFLOW SAFETY FLOAT SWITCH. PROVIDE ALARM POINT TO DDC PANEL.
- 11. WIRE SWITCH INTO LOW VOLTAGE POWER SUPPLY TO SHUT UNIT DOWN IF THE CONDENSATE PUMP FAILS.
- 12. BASIS OF DESIGN IS PRICE FCHG.
- 13. BASIS OF DESIGN IS JOHNSON CONTROLS SBV

S C H M I D T
CONSULTING • GROUP, INC

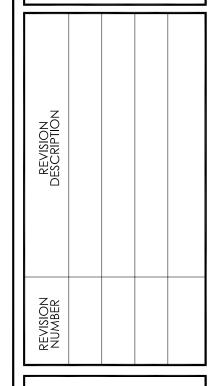
MECHANICAL • ELECTRICAL • STRUCTURAL
COMMUNICATIONS • INDUSTRIAL

FLORIDA LICENSE. NUMBER 05371
901 W. Garden St. • Pensacola, FL 32502
P: 850-438-0050 • F: 850-432-8631

WILLIAM JOSEPH JONES P.E.

WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080





KING MIDDLE SCHOOL HVAC RENOVATION PH. B

*DESIGNE*CAP

DRAWN BY:

CHECKED BY:

DATE:
DECEMBER 5, 2018

SHFFT TITLE:

MECHANICAL SCHEDULES

									CLASSR	OOM FAN	N COIL	UNI	r sche	DULE									
								OA COOLIN	G COIL DATA	A (PRECONDI	TIONED)								OA HEA	ATING COI	_ DATA (F	REHEAT)	
	(SEE NOTE 9 TO			MIN. TOTAL	MIN. SENS.	MIN. LAT.	EAT (DEG F)	EAT (DEG F)	LAT (DEG F)	LAT (DEG F)		TEMP. G F)		CONTROL VALVE	MAX. PRESS. DROP	MIN. TOTAL		TEMP. G F)		TEMP. G F)		CONTROL VALVE	MAX. PRESS. DROP
MARK	12) TYPE	FAN CFM	OA FAN CFM	CAP. (MBH)	CAP. (MBH)	CAP. (MBH)	DB	WB	DB	WB	EWT	LWT	GPM	TYPE	(FT. W.C.)	CAP. (MBH)	EAT	LAT	EWT	LWT	GPM	TYPE	(FT. W.C.)
FCU 1-18	VDT	1185	370	31.3	15.2	16.1	89.6	77	54	53.9	44	56	5.2	2-WAY	15	9.0	33	54	130	100	0.6	2-WAY	10
FCU 1-19	VDT	1590	445	36.2	17.7	18.5	89.6	77	54	53.9	44	56	6.0	2-WAY	15	10.4	33	54	130	100	0.7	2-WAY	10
FCU 1-20	VDT	1560	415	33.8	16.5	17.3	89.6	77	54	53.9	44	56	5.6	2-WAY	15	9.7	33	54	130	100	0.6	2-WAY	10
FCU 1-21	VBT	1110	355	28.8	14.0	14.8	89.6	77	54	53.9	44	56	4.8	2-WAY	15	8.3	33	54	130	100	0.6	2-WAY	10
FCU 1-22	VBT	1110	355	28.8	14.0	14.8	89.6	77	54	53.9	44	56	4.8	2-WAY	15	8.3	33	54	130	100	0.6	2-WAY	10
FCU 1-23	VBT	1110	355	28.8	14.0	14.8	89.6	77	54	53.9	44	56	4.8	2-WAY	15	8.3	33	54	130	100	0.6	2-WAY	10
FCU 1-24	VBT	1110	355	28.8	14.0	14.8	89.6	77	54	53.9	44	56	4.8	2-WAY	15	8.3	33	54	130	100	0.6	2-WAY	10
FCU 2-1	VDT	1450	395	32.1	15.6	16.5	89.6	77	54	53.9	44	56	5.4	2-WAY	15	16.3	33	70	130	100	1.1	2-WAY	10
FCU 2-2	VDT	1535	395	32.2	15.7	16.5	89.6	77	54	53.9	44	56	5.4	2-WAY	15	16.3	33	70	130	100	1.1	2-WAY	10
FCU 3-1	VBT	1445	360	29.4	14.3	15.1	89.6	77	54	53.9	44	56	4.9	2-WAY	15	8.4	33	54	130	100	0.6	2-WAY	10
FCU 3-2	VBT	1210	385	31.4	15.3	16.1	89.6	77	54	53.9	44	56	5.2	2-WAY	15	9.0	33	54	130	100	0.6	2-WAY	10
FCU 3-3	VBT	1580	360	29.4	14.3	15.1	89.6	77	54	53.9	44	56	4.9	2-WAY	15	8.4	33	54	130	100	0.6	2-WAY	10
FCU 3-4	VBT	1530	360	29.1	14.2	14.9	89.6	77	54	53.9	44	56	4.9	2-WAY	15	8.4	33	54	130	100	0.6	2-WAY	10
FCU 3-5	VBT	1100	235	19.2	9.4	9.8	89.6	77	54	53.9	44	56	3.2	2-WAY	15	5.5	33	54	130	100	0.4	2-WAY	10
FCU 3-6	VDT	760	100	5.8	2.8	3.0	89.6	77	54	53.9	44	56	1.0	2-WAY	15	1.7	33	54	130	100	0.1	2-WAY	10
FCU 3-7	VDT	1050	100	6.4	3.1	3.3	89.6	77	54	53.9	44	56	1.1	2-WAY	15	1.8	33	54	130	100	0.1	2-WAY	10
FCU 3-8	VDT	1095	100	5.3	2.6	2.7	89.6	77	54	53.9	44	56	0.9	2-WAY	15	1.5	33	54	130	100	0.1	2-WAY	10
AHU-3	VDT	1400	215	17.3	8.5	8.8	89.6	77	54	53.9	44	56	2.9	2-WAY	15	5.0	33	54	130	100	0.3	2-WAY	10

								722KC	UM F	AN CO	IL UNII SC	CHEDULE (JUNIINUED)									
					COOLI	NG COIL DATA ((PRIMARY)								H	EATING (COIL DATA	A (REHE	AT)		[ELECTRICAL DA	ATA
	MIN. TOTAL	MIN. SENS.	MIN. LAT. CAP.	EAT (DEG F)	EAT (DEG F)	LAT (DEG F)	LAT (DEG F)	WATER (DEC	TEMP.		CONTROL	MAX. PRESS. DROP (FT.	MIN. TOTAL	AIR T (DEG	EMP. F)		TEMP. G F)		CONTROL	MAX. PRESS. DROP (FT.	SA FAN POWER	OA FAN	
MARK	CAP. (MBH)	CAP. (MBH)	(MBH)	DB	WB	DB	WB	EWT	LWT	GPM	VALVE TYPE	w.c.)	CAP. (MBH)	EAT	LAT	EWT	LWT	GPM	VALVE TYPE	W.C.	(HP)	POWER (W)	V/PH/HZ
FCU 1-18	22.5	17.1	5.4	66.6	58.7	54.5	52.3	44	56	3.8	2-WAY	10	30.1	63.8	85.0	130	100	2.0	2-WAY	10	3/4	77	115/1/60
FCU 1-19	29.3	22.1	7.2	67.0	58.9	54.5	52.4	44	56	4.9	2-WAY	10	37.1	64.1	85.0	130	100	2.5	2-WAY	10	3/4	77	115/1/60
FCU 1-20	28.1	22.4	5.7	67.2	58.7	54.5	52.2	44	56	4.7	2-WAY	10	36.2	64.3	85.0	130	100	2.4	2-WAY	10	3/4	77	115/1/60
FCU 1-21	19.6	14.6	5.0	66.4	58.8	54.6	52.5	44	56	3.3	2-WAY	10	26.6	63.5	85.0	130	100	1.8	2-WAY	10	1/2	77	115/1/60
FCU 1-22	19.6	14.6	5.0	66.4	58.8	54.6	52.5	44	56	3.3	2-WAY	10	26.6	63.5	85.0	130	100	1.8	2-WAY	10	1/2	77	115/1/6
FCU 1-23	19.6	14.6	5.0	66.4	58.8	54.6	52.5	44	56	3.3	2-WAY	10	26.6	63.5	85.0	130	100	1.8	2-WAY	10	1/2	77	115/1/6
FCU 1-24	19.6	14.6	5.0	66.4	58.8	54.6	52.5	44	56	3.3	2-WAY	10	26.6	63.5	85.0	130	100	1.8	2-WAY	10	1/2	77	115/1/6
FCU 2-1	33.0	27.5	5.5	71.6	60.6	54.6	52.4	44	56	5.5	2-WAY	10	26.6	68.5	85.0	130	100	1.8	2-WAY	10	3/4	77	115/1/6
FCU 2-2	34.8	29.1	5.7	71.7	60.4	54.6	52.4	44	56	5.8	2-WAY	10	28.2	68.5	85.0	130	100	1.9	2-WAY	10	3/4	77	115/1/6
FCU 3-1	26.6	21.0	5.6	67.5	58.8	54.5	52.3	44	56	4.4	2-WAY	10	33.0	64.5	85.0	130	100	2.2	2-WAY	10	1/3	77	115/1/6
FCU 3-2	30.1	25.1	5.0	73.2	61.2	54.5	52.4	44	56	5.0	2-WAY	10	33.3	60.4	85.0	130	100	2.2	2-WAY	10	1/3	77	115/1/60
FCU 3-3	29.3	23.6	5.7	67.9	58.9	54.5	52.2	44	56	4.9	2-WAY	10	35.6	64.8	85.0	130	100	2.4	2-WAY	10	1/3	77	115/1/60
FCU 3-4	28.3	22.7	5.6	67.8	58.9	54.5	52.2	44	56	4.7	2-WAY	10	34.5	64.7	85.0	130	100	2.3	2-WAY	10	1/3	77	115/1/6
FCU 3-5	20.5	16.7	3.8	68.1	58.9	54.5	52.2	44	56	3.4	2-WAY	10	24.5	65.0	85.0	130	100	1.6	2-WAY	10	1/2	77	115/1/6
FCU 3-6	14.9	13.4	1.5	70.3	58.9	54.5	51.8	44	56	2.5	2-WAY	10	15.5	66.7	85.0	130	100	1.0	2-WAY	10	3/4	77	115/1/6
FCU 3-7	20.1	19.1	1.0	70.7	58.2	54.5	51.2	44	56	3.4	2-WAY	10	21.3	67.0	85.0	130	100	1.4	2-WAY	10	3/4	77	115/1/6
FCU 3-8	21.4	20.0	1.4	70.9	58.6	54.5	51.2	44	56	3.6	2-WAY	10	21.7	67.2	85.0	130	100	1.4	2-WAY	10	3/4	77	115/1/6
AHU-3	43.3	37.9	5.4	78.8	62.4	54	51.8	44	56	7.2	2-WAY	10	36.6	61.7	85.0	130	100	2.4	2-WAY	10	3/4	77	115/1/6

					DUCT	LESS SF	PLIT DX	WALL	MOUNT	AIR C	OITIDNC	NER S	CHEDU	LE						
					WALL M	OUNT INDOC	OR UNIT							OUTD	OOR UNIT				ARI COOL	ING DATA
						FAN DATA		_				COMPR	RESSOR			ELE	CTRICAL D	ATA		
	FAN MIN. TOTAL CAP. EAT (DEG. F EAT (DEG. LAT (DEG. LAT (DEG. LAT (DEG. ELECTRIC									CONDENSER	UNIT				RATED COOLING CAPACITY					
MARK	SERVICE	(CFM)	CAP. (MBH)	(MBH)	DB)	F WB)	F DB)	F WB)	VOLTS	PHASE	Hz	QTY	RLA	FAN QTY	MCA	VOLTS	PHASE	Hz	(MBH)	MIN. SEER
DAC/DCU-2	111	720	13.9	13.7	72.2	57.4	54.6	50.8	208	1	60	1	7.0	1	11.0	208	1	60	18	18
DAC/DCU-3	115B	500	10.8	9.6	72.3	58.2	54.6	50.1	208	1	60	1	7.0	1	11.0	208	1	60	12	18
DAC/DCU-4	054B	840	16.5	16.5	72.2	56.0	54.6	48.5	208	1	60	1	7.0	1	19	208	1	60	24	18

CLASSROOM FAN COIL UNIT SCHEDULE NOTES:

- 1. MANUFACTURER SHALL ALLOW A MINIMUM OF 0.5" EXTRA STATIC FOR DIRTY INITIAL FILTERS EXTERNAL STATIC DOES NOT INCLUDE PRESSURE DROP THROUGH COILS AND FILTERS LOCATED INSIDE FAN COIL UNIT.
- 2. PROVIDE WITH FACTORY CONTROL VALVE PACKAGE, AUTOFLOW, MANUAL AIR VENT, AND INTERNAL COIL DRAIN. SEE SPECS.
- 3. PROVIDE SINGLE POWER POINT CONNECTION. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
- 4. PROVIDE WITH FACTORY SIZED AND MOUNTED INTERNAL CONDENSATE PUMP.
- 5. PROVIDE INSULATED IAQ STAINLESS STEEL DRAIN PANS. FURNISH AND FIELD INSTALL CONDENSATE DRAIN PAN FLOAT VALVE.
- 6. WIRE VALVE INTO LOW VOLTAGE POWER SUPPLY TO SHUT UNIT DOWN IF THE CONDENSATE PUMP FAILS. PROVIDE ALARM TO DDC PANEL.
- CONDENSATE PUMP FAILS. PROVIDE ALARM TO DDC PANEL.

 7. PROVIDE FACTORY MOUNTED AND WIRED SPEED CONTROLLER FOR BOTH OA FAN AND SA FAN.
- 8. PROVIDE WITH FACTORY MOUNTED DISCONNECT.

 9. VBT VERTICAL BLOW THROUGH (NON—DUCTED UNIT) WITH HINGED FRONT—ACCESS PANEL.
- 10. VBT TYPE FCU PROVIDE TOP-MOUNTED ACOUSTICAL DISCHARGE PLENUM WITH SUPPLY AIR REGISTERS, TITUS 272FL WITH OBD OR EQUAL.
- 11. VDT VERTICAL DRAW THROUGH (DUCTED UNIT) WITH HINGED FRONT ACCESS PANEL.
- 12. VDT TYPE FCU PROVIDE TOP DUCTWORK CONNECTION. COORDINATE WITH EXISTING CLASSROOM CEILING HEIGHT.
- 13. PROVIDE UNIT WITH FACTORY MOUNTED FREEZESTAT FOR FREEZE PROTECTION.
- 14. PROVIDE 2 INCH MERV 8 RATED PLEATED FILTERS.
- 15. PROVIDE FACTORY FURNISHED OUTDOOR AIR PLENUM AND MOTORIZED DAMPER. SEE SPECIFICATIONS.
- 16. CABINET SHALL BE POWDER COATED 14 GA. STEEL WITH 1" THICK. COATED 3.0 P.C.F. DENSITY INSULATION.
- 17. BASIS OF DESIGN IS TEMSPEC.

DUCTLESS SPLIT DX NOTES:

- 1. UNIT RATED AT ARI STANDARD CONDITIONS.
- 2. PROVIDE COMPRESSOR WITH ANTI-SHORT CYCLE CONTROLS AND TIME DELAY ON COMPRESSOR RESTART.
- 3. REFRIGERANT PIPING SIZE, ROUTING, AND CONFIGURATION SHALL BE AS RECOMMENDED BY MANUFACTURER.
- 4. INSULATE ENTIRE LENGTH OF BOTH REFRIGERANT LINES WITH MINIMUM 3/4" THICK UNICELLULAR INSULATION.
- 5. PROVIDE UNIT WITH LOW AMBIENT CONTROLS FOR OPERATION DOWN TO 0 DEG F.
- 6. PROVIDE OUTDOOR UNIT WITH MFR STANDARD SEACOAST CORROSION PROTECTION FOR COILS AND CASINGS.
- 7. MOUNT AND SECURE OUTDOOR UNIT ON 4" THICK CONCRETE PAD.
- 8. UNIT SHALL BE COOLING ONLY
- 9. BASIS OF DESIGN IS MITSUBISHI PKA-A/PUY-A SERIES

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CONSULTING · GROUP, INC.

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COMMUNICATIONS · INDUSTRIAL

FLORIDA LICENSE. NUMBER 05371
901 W. Garden St. Pensacola, FL 32502
P: 850-438-0050 · F: 850-432-8631

WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080



l :			
	REVISION DESCRIPTION		
	REVISION NUMBER		

KING MIDDLE SCHOOL
HVAC RENOVATION PH. I
SANTA ROSA COUNTY SCHOOL DISTRIC

DESIGNED BY:

DRAWN BY: CAP

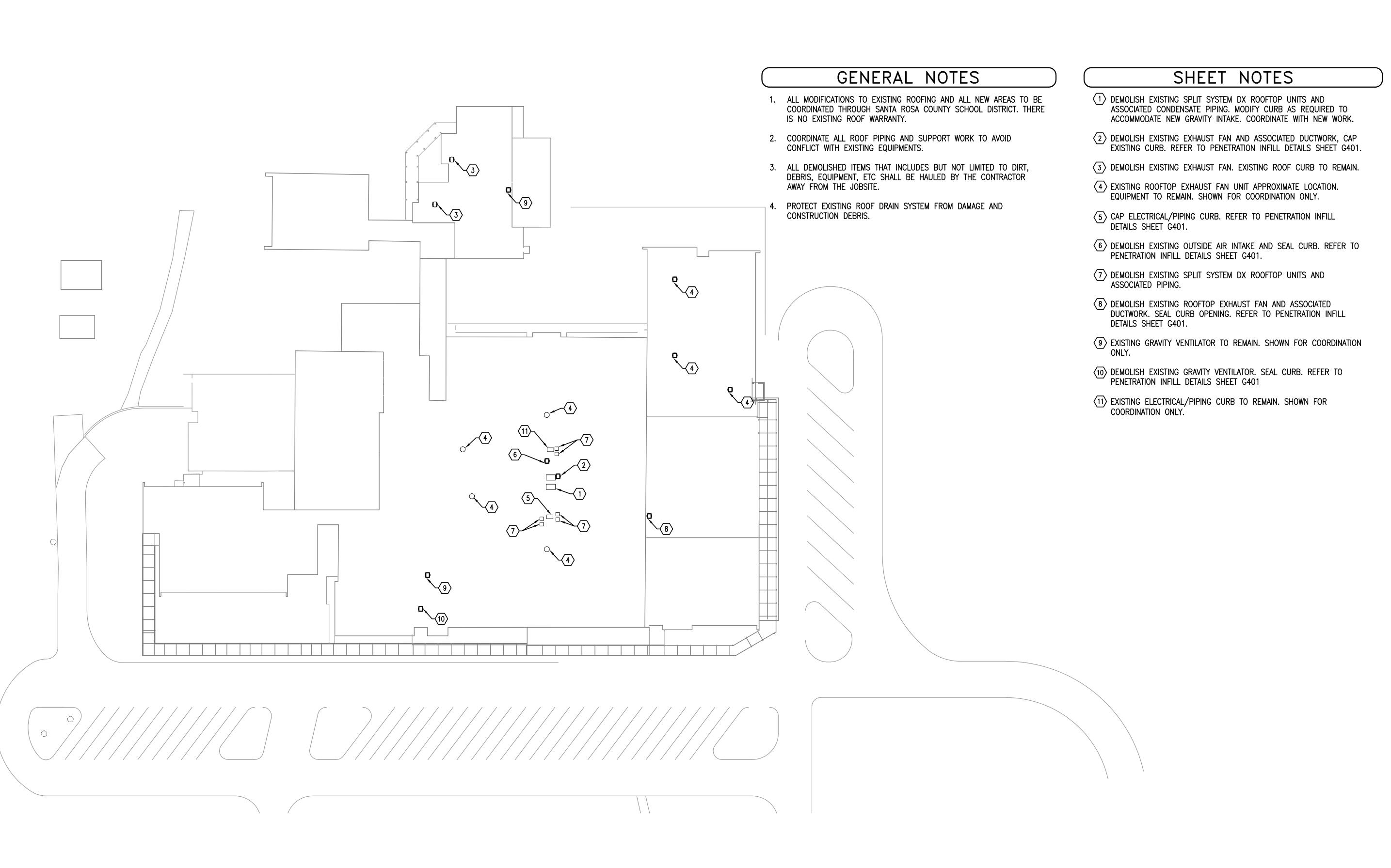
CHECKED BY:

DATE:
DECEMBER 5, 2018

SHEET TITLE:

MECHANICAL SCHEDULES

SHEET:

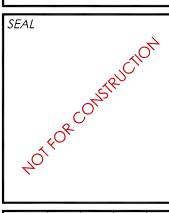


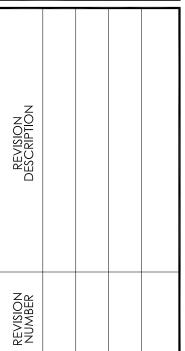
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WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080





HVAC RENOVATION PH. B

DESIGNED CAP

> *DRAWN BY:* CAP

CHECKED BY:

DATE:
DECEMBER 5, 2018

SHEET TITLE:

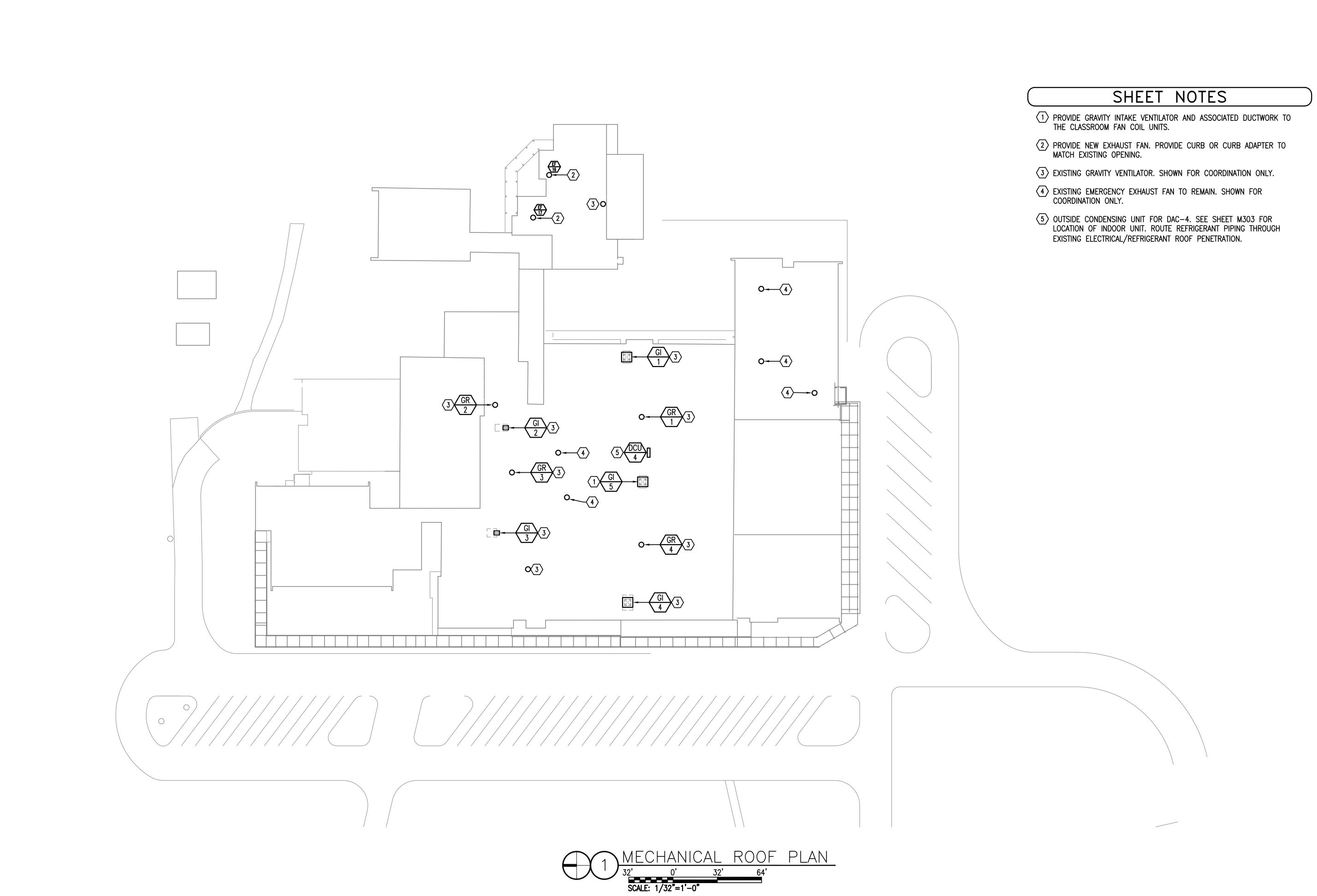
MECHANICAL DEMOLITION ROOF PLAN

M101

MECHANICAL DEMOLITION ROOF PLAN

32' 0' 32' 64'

SCALE: 1/32"=1'-0"



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WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080

SEAL CONSTRUCTION AND FOR CONSTRUCTION

REVISION

REVISION NUMBER

KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

DESIGNED

DRAWN BY: CAP

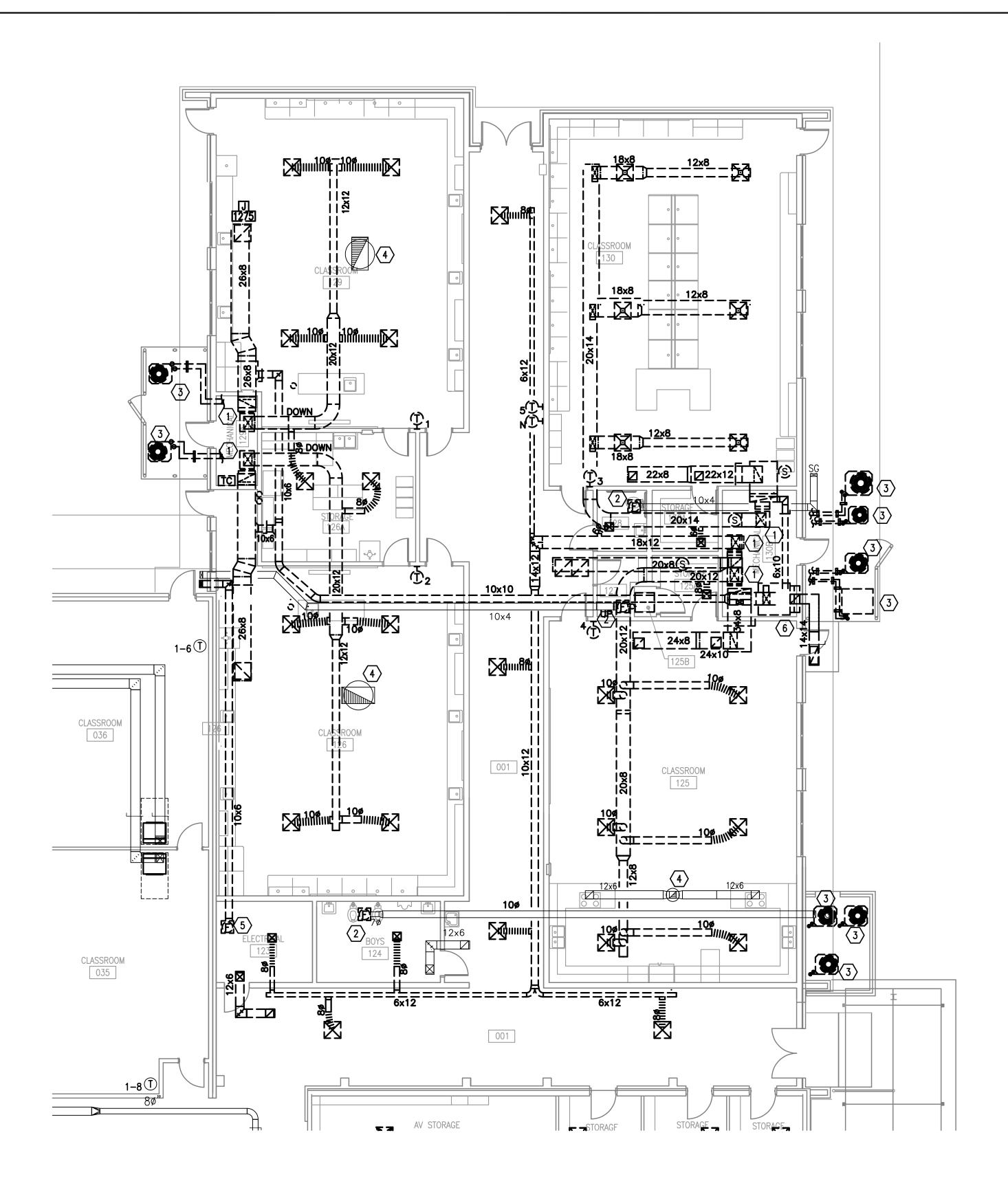
CHECKED BY:

DATE:
DECEMBER 5, 2018

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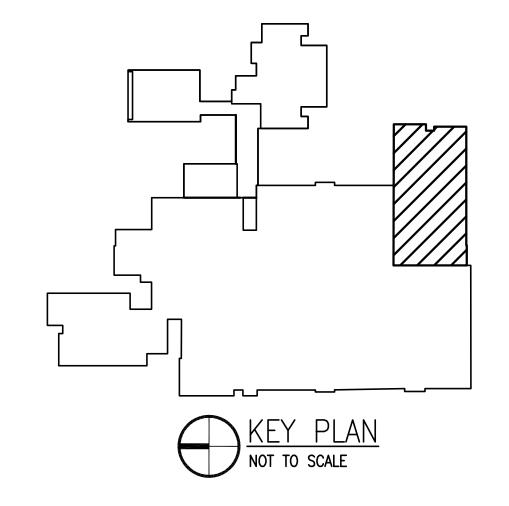
MECHANICAL ROOF PLAN

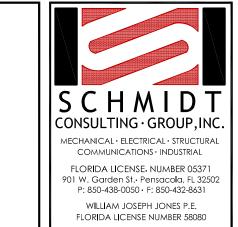
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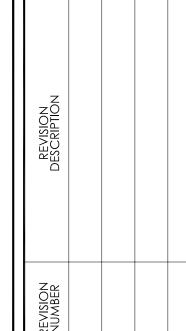
- DEMOLISH AND REMOVE EXISTING DX EQUIPMENT, DUCTWORK AND GRILLES. REMOVE EXISTING CONTROLS COMPLETE. REPLACE ALL EXISTING THERMOSTATS WITH NEW DDC THERMOSTAT/HUMIDISTAT AS NOTED. MATCH NEW THERMOSTAT LOCATION TO EXISTING HEIGHT/LOCATION. PATCH AND PAINT OPENINGS IN WALL TO MATCH EXISTING. SEE NEW WORK.
- REMOVE EXISTING EXHAUST FAN AND REPLACE IN KIND. DUCTWORK, CONTROLS, AND GRILLES TO REMAIN.
- 3 APPROXIMATE LOCATION OF OUTSIDE CONDENSING UNIT. DEMOLISH UNIT AND ASSOCIATED PIPING COMPLETE.
- (4) EMERGENCY EXHAUST FAN. SHOWN FOR COORDINATION ONLY.
- 5 DEMOLISH AND REMOVE EXISTING EXHAUST FAN AND DUCTWORK COMPLETE.
- DEMOLISH AND REMOVE EXISTING OUTSIDE AIR DX EQUIPMENT, DUCTWORK AND CONTROLS COMPLETE.











KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

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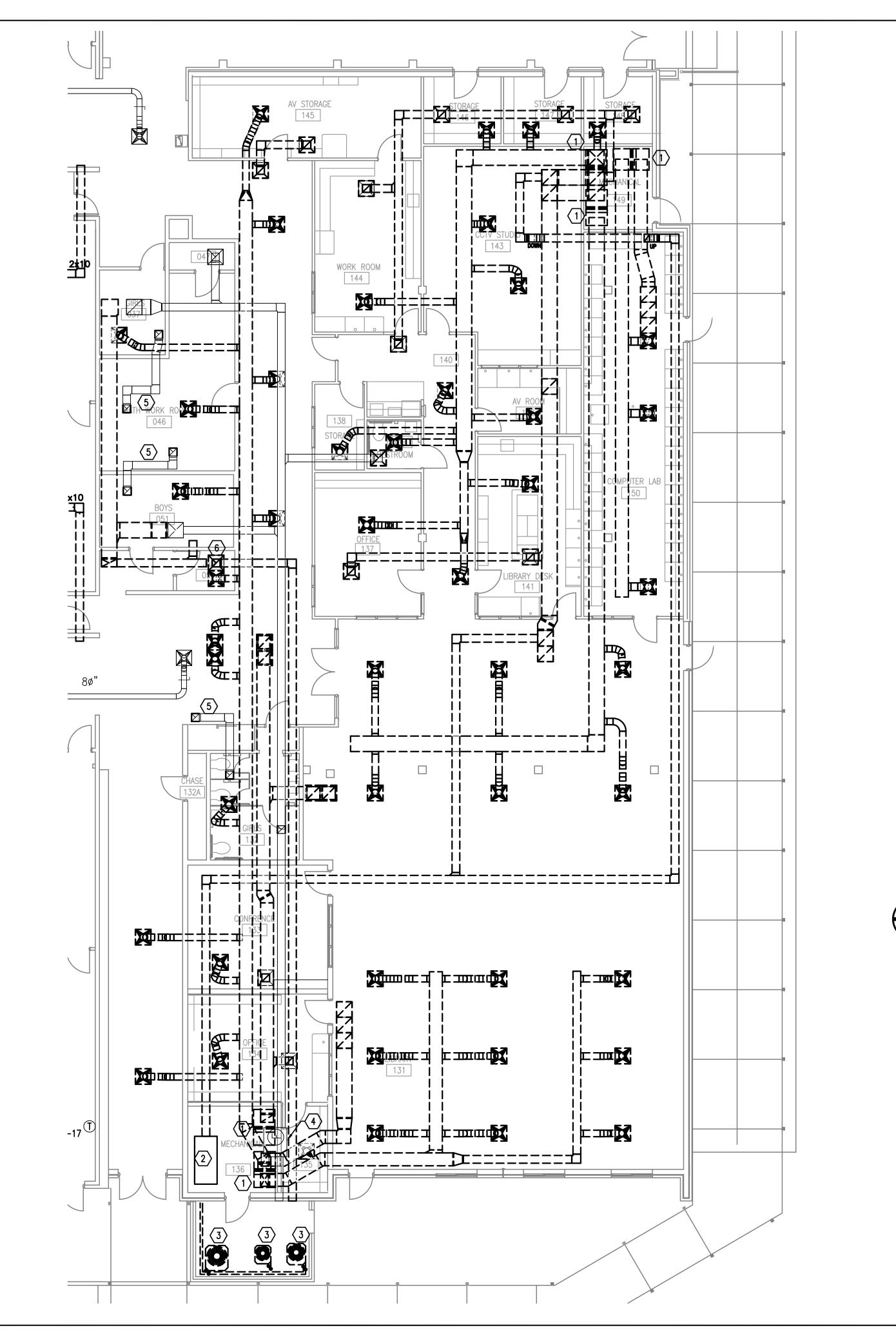
CHECKED BY:

CHECKED BY:

DECEMBER 5, 2018

SHEET TITLE:

PARTIAL MECHANICAL DEMOLITION PLAN







NEVISION DESCRIPTION

NUMBER

EXISTING TRANSFER GRILLES AND DUCTWORK TO REMAIN. SHOWN FOR COORDINATION ONLY.
 DEMOLISH AND REMOVE EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK COMPLETE.

SHEET NOTES

DEMOLISH AND REMOVE EXISTING DX EQUIPMENT, DUCTWORK AND GRILLES. REMOVE EXISTING CONTROLS COMPLETE. REPLACE ALL EXISTING

APPROXIMATE LOCATION OF OUTSIDE CONDENSING UNIT. DEMOLISH UNIT AND ASSOCIATED PIPING COMPLETE.

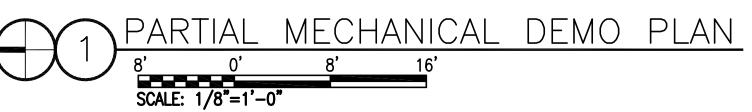
(4) EXISTING INLINE EXHAUST FAN AND ASSOCIATED DUCTWORK TO REMAIN.

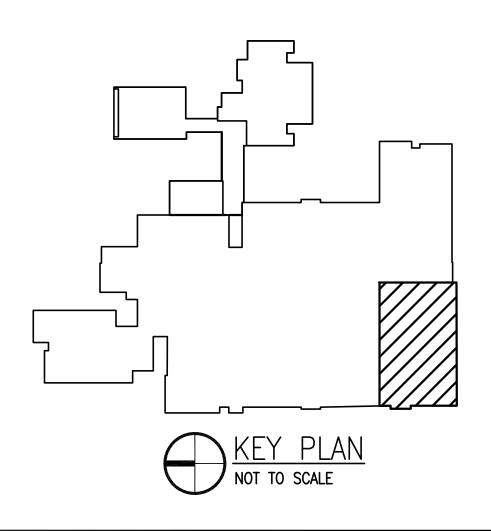
DEMOLISH EXISTING OA DX EQUIPMENT AND DUCTWORK. REMOVE EXISTING CONTROLS COMPLETE.

WALL TO MATCH EXISTING.

SHOWN FOR COORDINATION ONLY.

THERMOSTATS WITH NEW DDC THERMOSTAT/HUMIDISTAT AS NOTED. SEE NEW WORK DRAWINGS FOR LOCATION. PATCH AND PAINT OPENINGS IN





DESIGNED BY:

CAP

DRAWN BY:

CAP

CHECKED BY:

WJJ

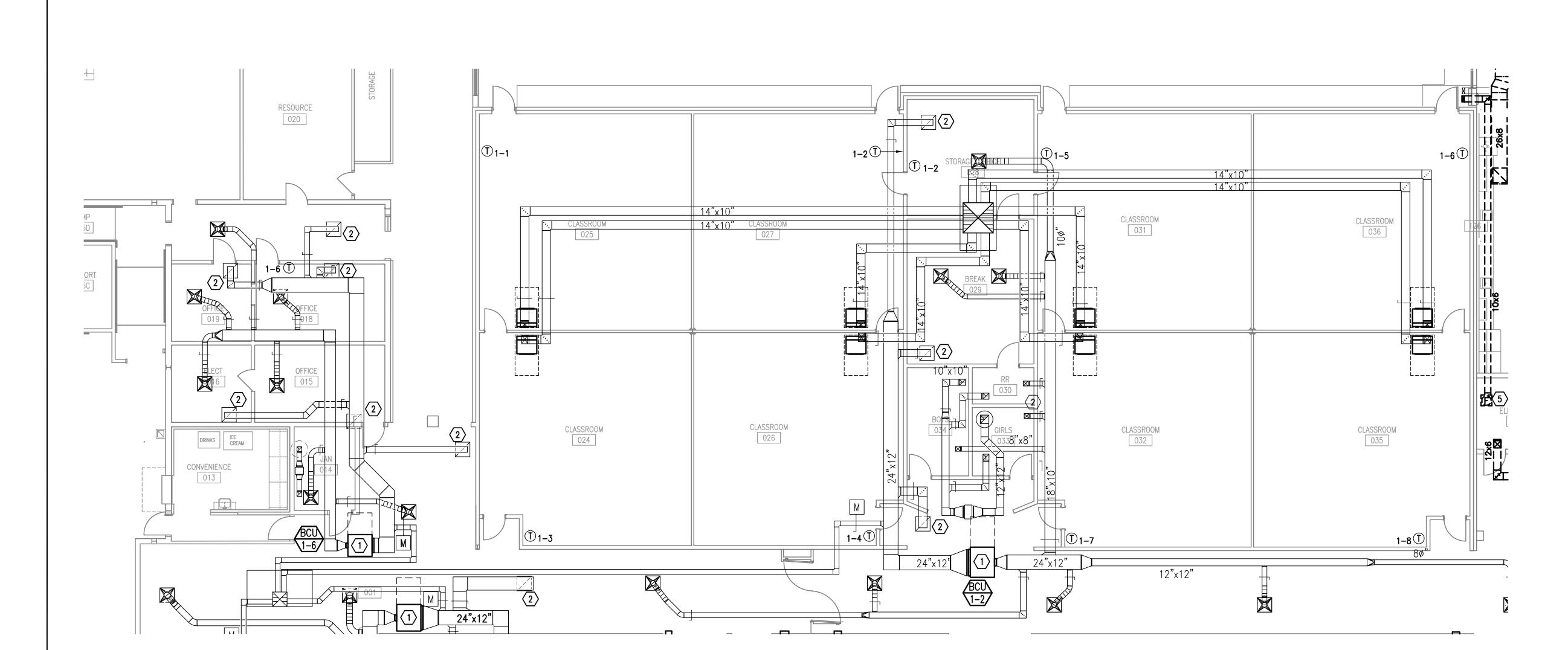
COUNTY

*DATE:*DECEMBER 5, 2018

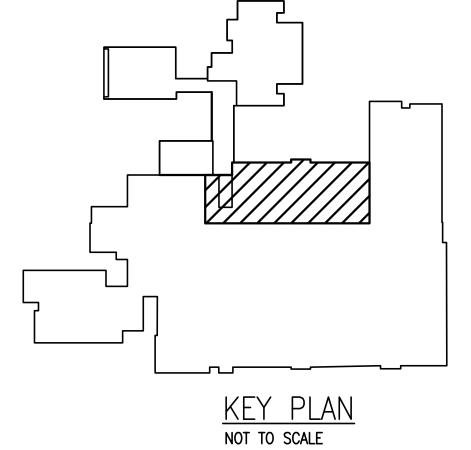
SHEET TITLE:
PARTIAL

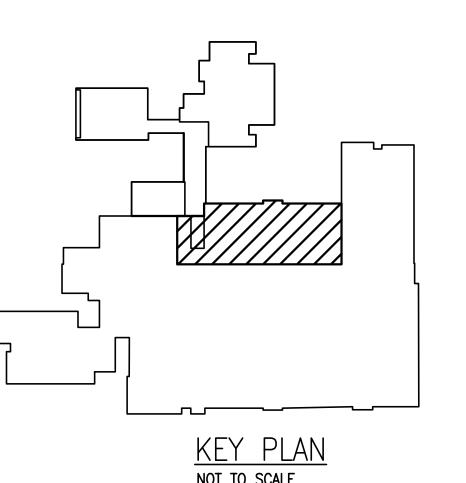
MECHANICAL DEMOLITION PLAN

SHEET: M202



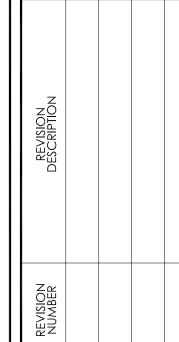
- REMOVE FILTER FROM EXISTING BCU. PROVIDE SHEET METAL COVER TO SEAL FILTER ACCESS.
- REMOVE EXISTING RETURN AIR REGISTER AND RETURN TO SRCSD. CONTACT RICHARD LAING [(850) 983-5120, LaingR@mail.santarosa.k12.fl.us] FOR STORAGE LOCATION. REPLACE WITH RETURN AIR FILTER GRILLE. SEE NEW





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DRAWN BY:

CHECKED BY:

DECEMBER 5, 2018

PARTIAL MECHANICAL DEMOLITION PLAN



CHECKED BY:

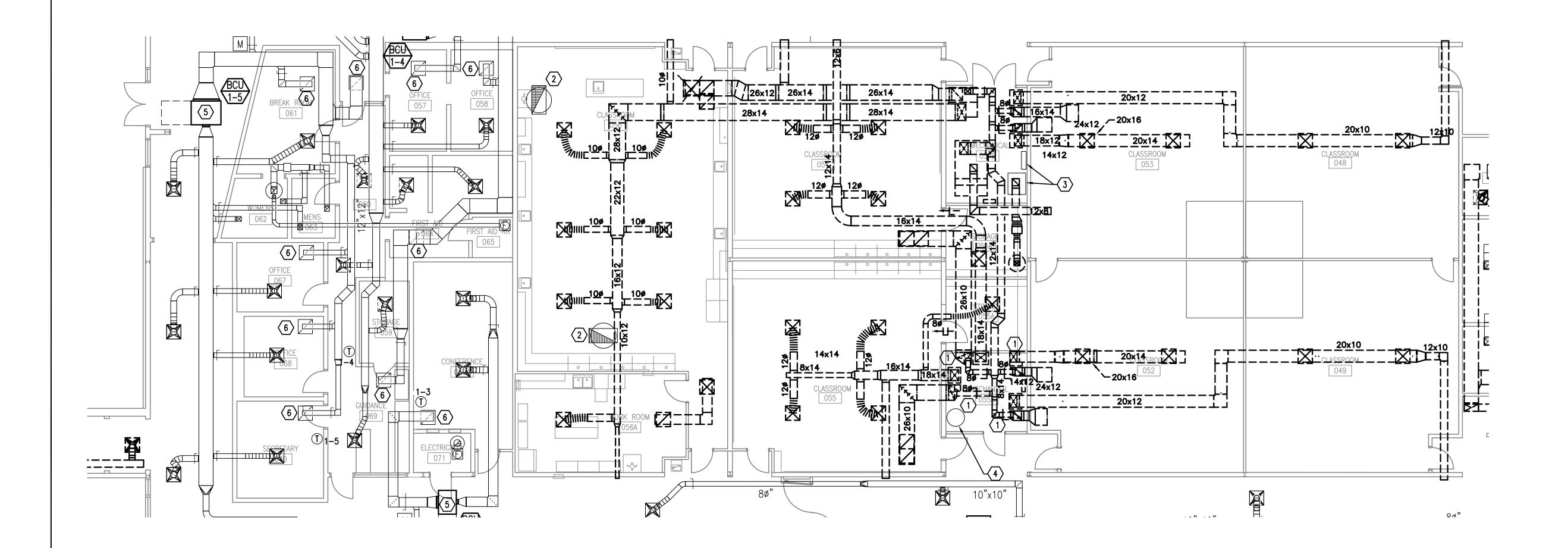
DECEMBER 5, 2018

PARTIAL MECHANICAL DEMOLITION PLAN

M204

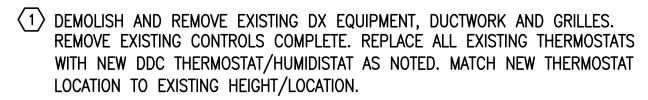
KEY PLAN

NOT TO SCALE

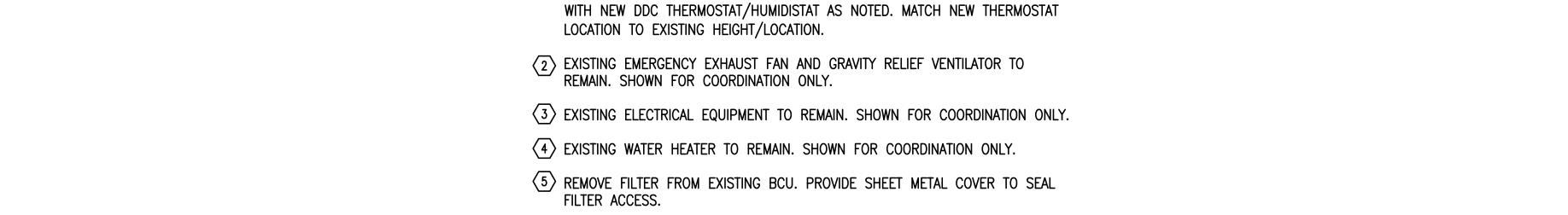


SHEET NOTES

- 6 REMOVE EXISTING RETURN AIR REGISTER AND RETURN TO SRCSD. CONTACT RICHARD LAING [(850) 983-5120, LaingR@mail.santarosa.k12.fl.us] FOR STORAGE LOCATION. REPLACE WITH RETURN AIR FILTER GRILLE. SEE NEW WORK.



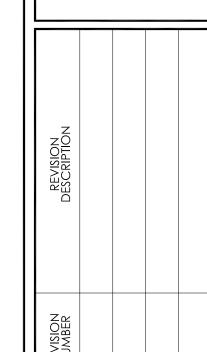












REVISION NUMBER

KING MIDDLE SCHOOL HVAC RENOVATION PH. B.

DESIGNED BY:
CAP

DRAWN BY:
CAP

CAP

CHECKED BY:

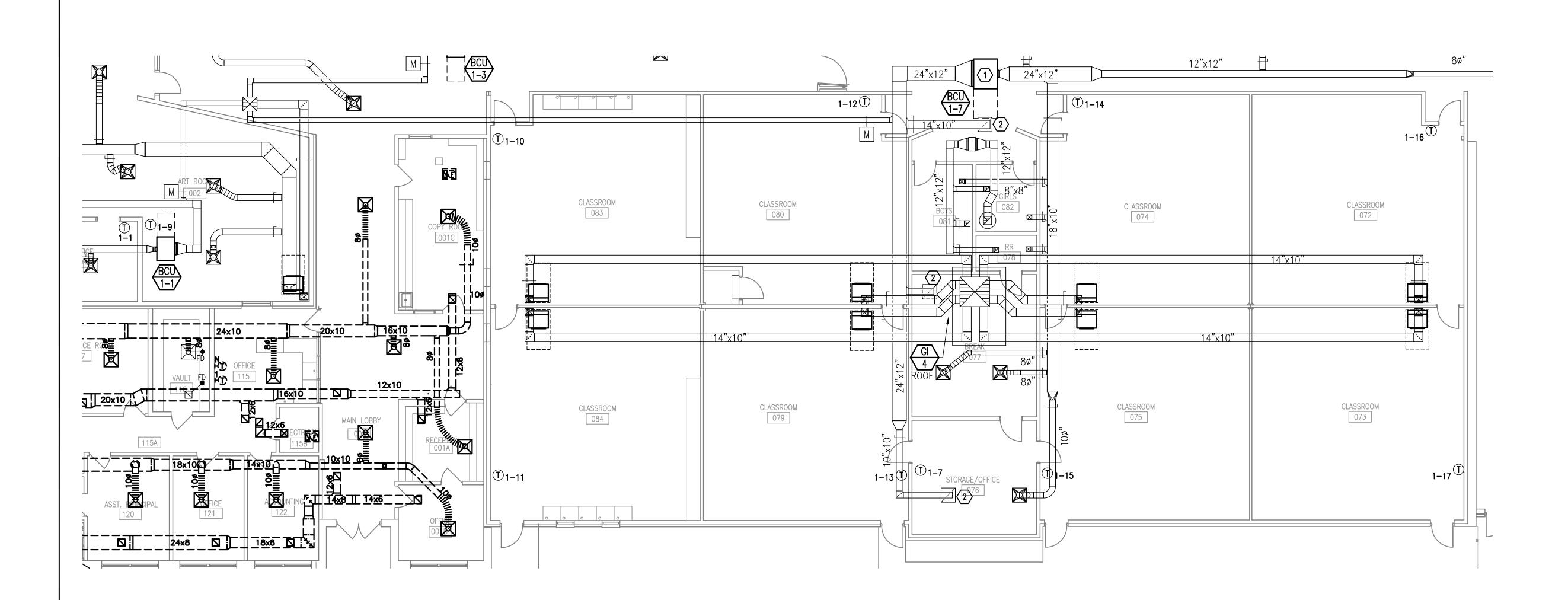
DATE:

DECEMBER 5, 2018

SHEET TITLE:
PARTIAL

MECHANICAL DEMOLITION PLAN

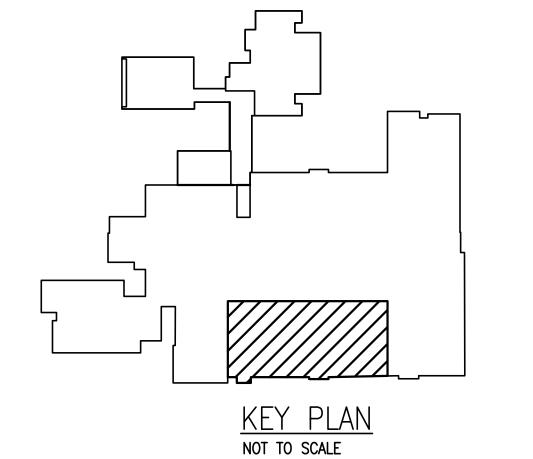
M205

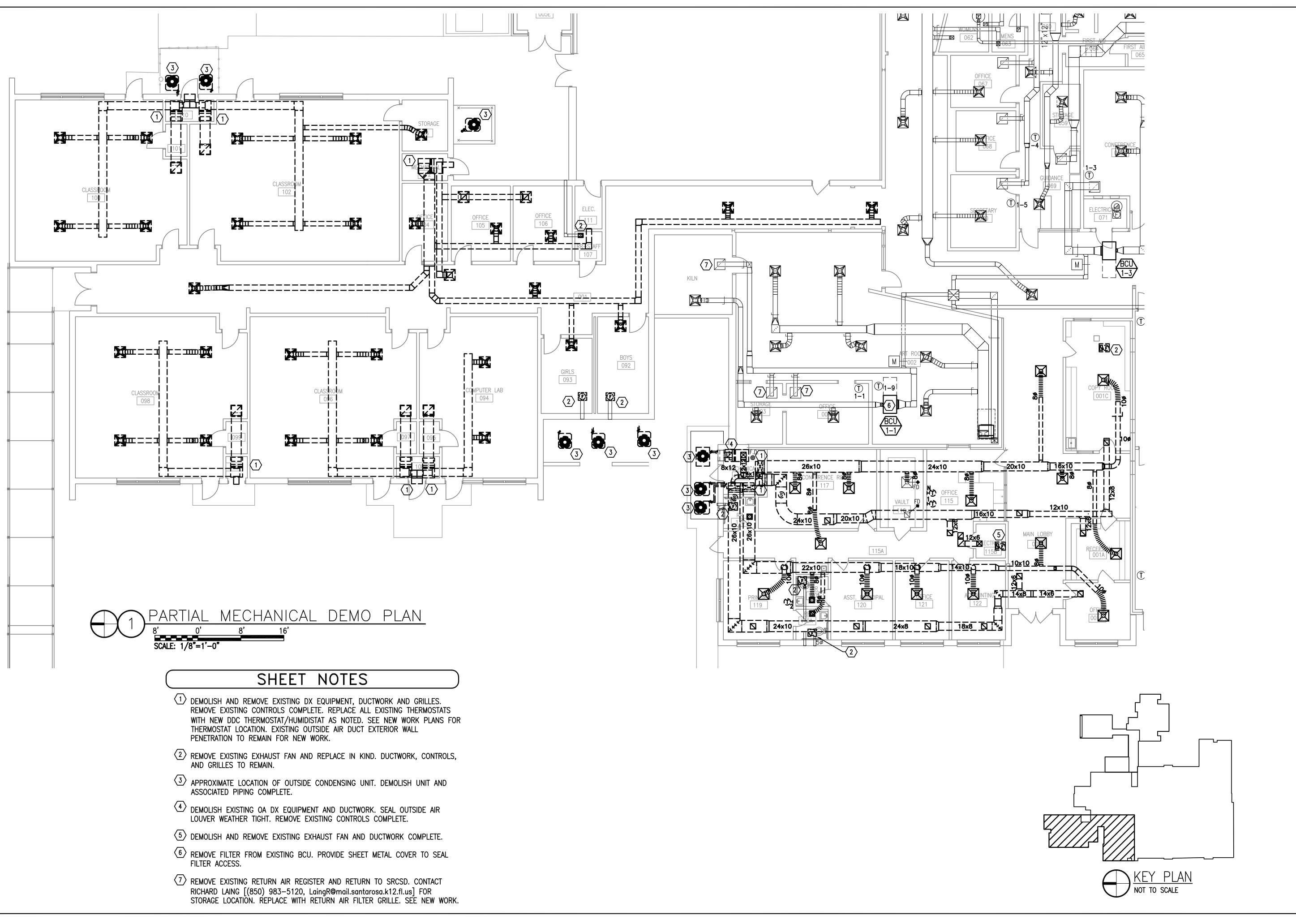


SHEET NOTES

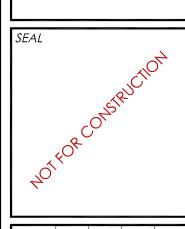
- REMOVE FILTER FROM EXISTING BCU. PROVIDE SHEET METAL COVER TO SEAL FILTER ACCESS.
- 2 REMOVE EXISTING RETURN AIR REGISTER AND RETURN TO SRCSD. CONTACT RICHARD LAING [(850) 983-5120, LaingR@mail.santarosa.k12.fl.us] FOR STORAGE LOCATION. REPLACE WITH RETURN AIR FILTER GRILLE. SEE NEW WORK.

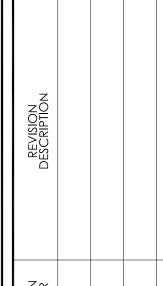






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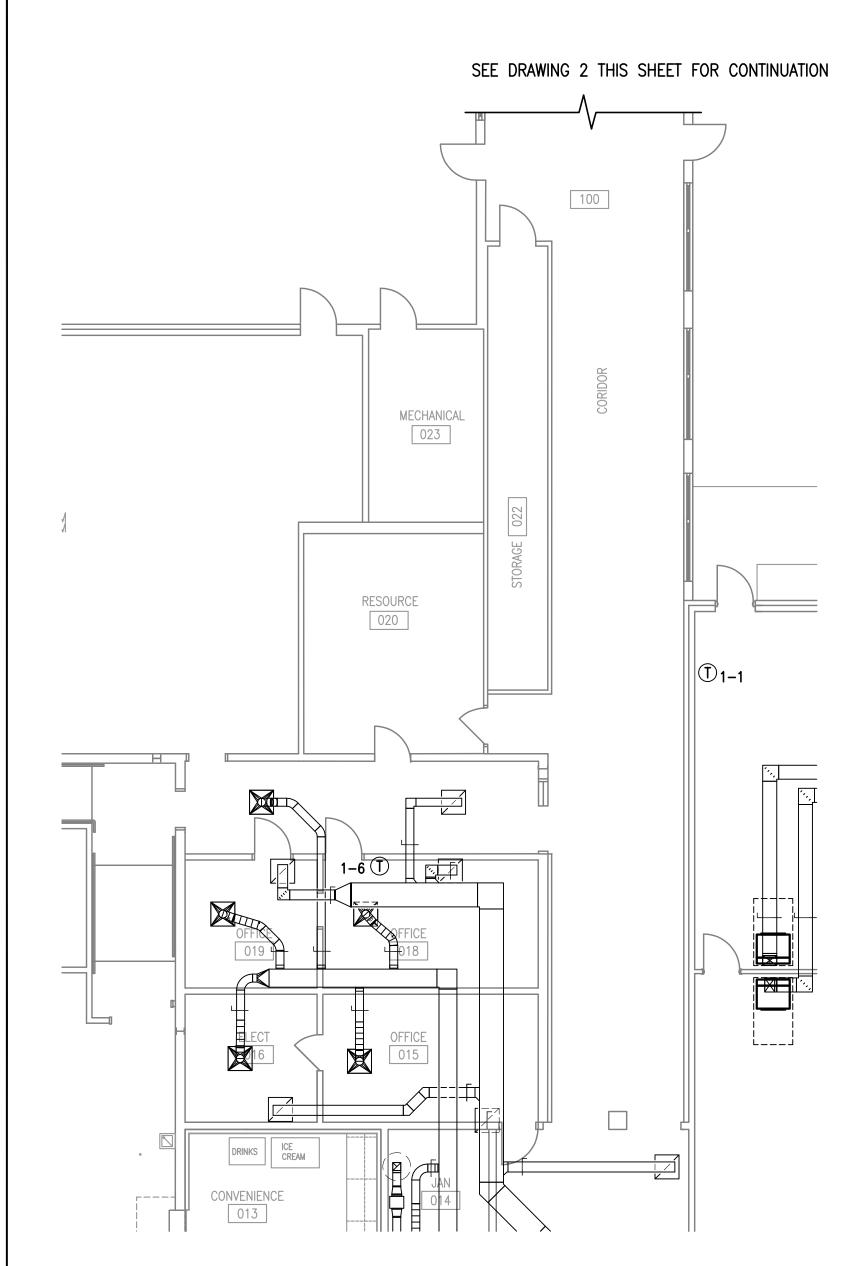
DESIGNED BY: DRAWN BY: CHECKED BY:

DECEMBER 5, 2018

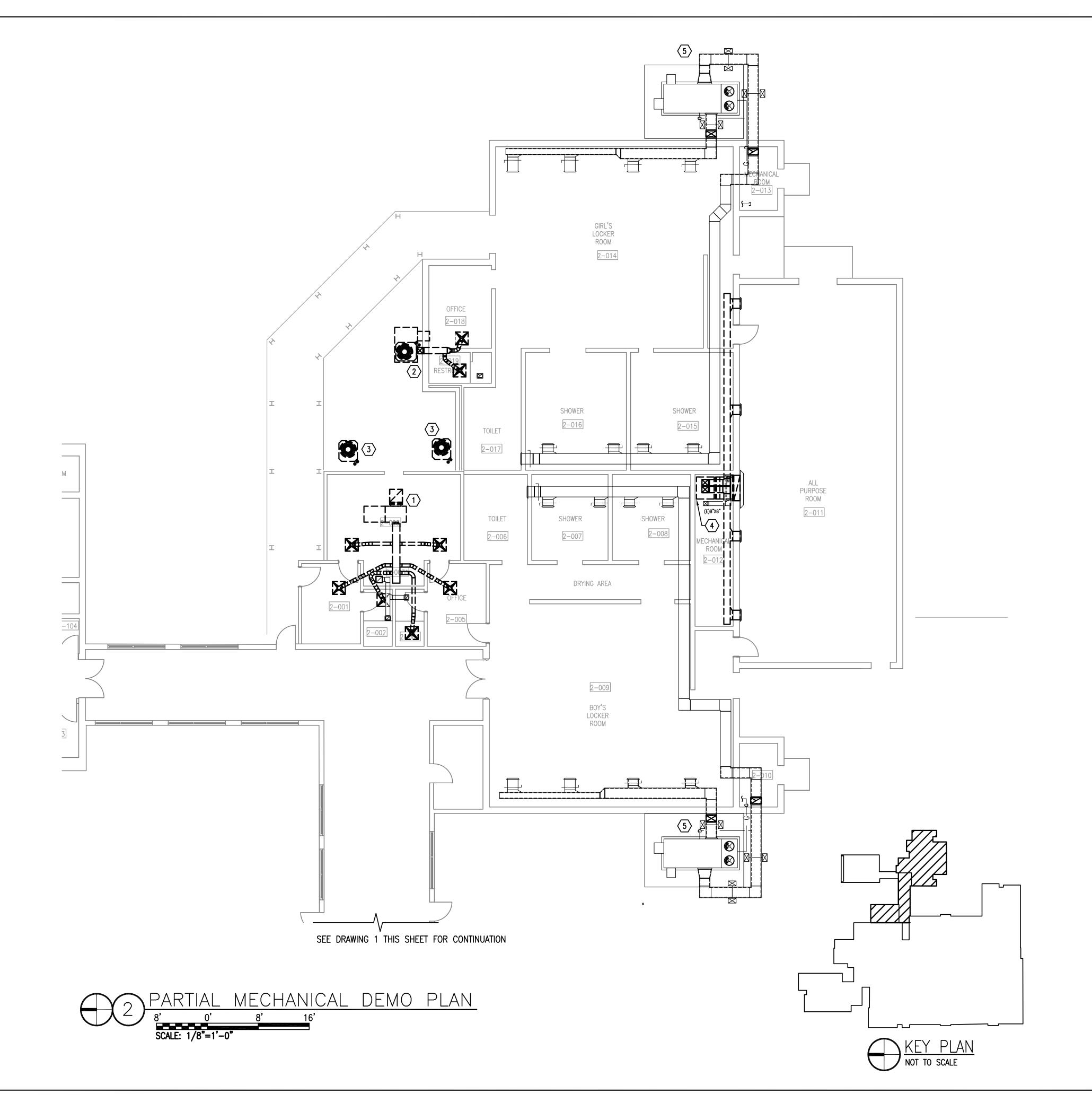
PARTIAL **MECHANICAL** DEMOLITION

PLAN

- DEMOLISH AND REMOVE EXISTING DX EQUIPMENT, SUPPLY AND RETURN DUCTWORK AND GRILLES. REMOVE EXISTING CONTROLS COMPLETE. REPLACE ALL EXISTING THERMOSTATS WITH NEW DDC THERMOSTAT/HUMIDISTAT AS NOTED. MATCH NEW THERMOSTAT LOCATION TO EXISTING HEIGHT/LOCATION.
- DEMOLISH AND REMOVE EXISTING PACKAGED DX EQUIPMENT, DUCTWORK AND GRILLES. REMOVE EXISTING CONTROLS COMPLETE. SEAL RETURN AIR DUCT PENETRATION WEATHER TIGHT. SUPPLY AIR EXTERIOR PENETRATION TO REMAIN AND BE RE-USED FOR OUTSIDE AIR LOUVER. REPLACE EXISTING THERMOSTATS WITH NEW DDC THERMOSTAT/HUMIDISTAT AS NOTED. MATCH NEW THERMOSTAT LOCATION TO EXISTING HEIGHT/LOCATION.
- APPROXIMATE LOCATION OF OUTSIDE CONDENSING UNIT. DEMOLISH UNIT AND ASSOCIATED PIPING COMPLETE.
- DEMOLISH AND REMOVE EXISTING DX EQUIPMENT, SUPPLY AND RETURN DUCTWORK, AND EXISTING CONTROLS COMPLETE. OUTSIDE AIR DUCT AND SUPPLY/RETURN GRILLES TO REMAIN. REPLACE EXISTING THERMOSTAT WITH NEW DDC THERMOSTAT/HUMIDISTAT AS NOTED. MATCH NEW THERMOSTAT LOCATION TO EXISTING HEIGHT/LOCATION.
- 5 EXISTING ERV UNITS AND DUCTWORK TO REMAIN. SHOWN FOR COORDINATION ONLY.







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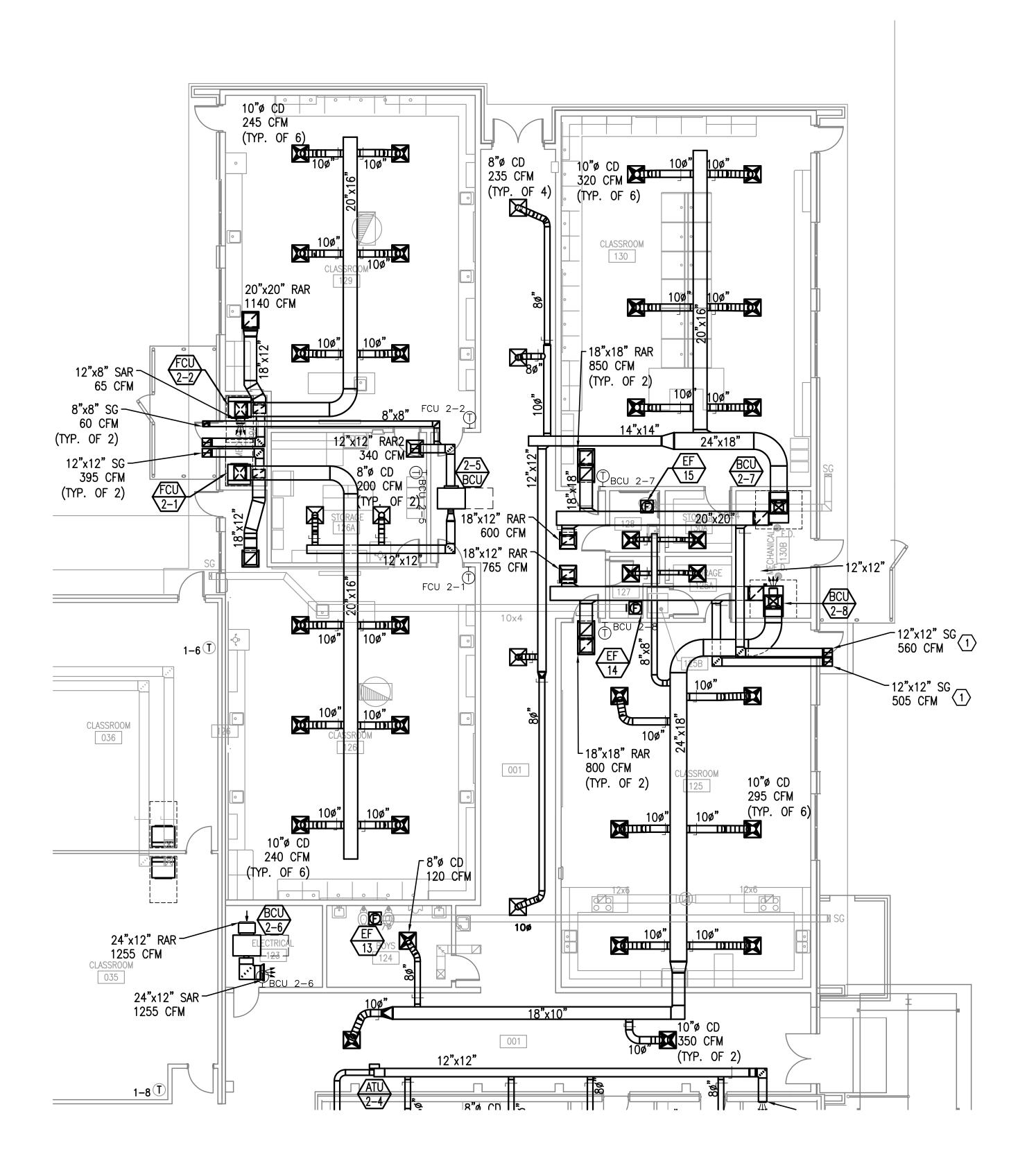
DRAWN BY:

CHECKED BY:

DECEMBER 5, 2018

PARTIAL MECHANICAL DEMOLITION

PLAN



PHASING NOTES

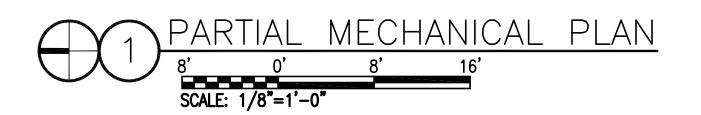
- 1. CONTRACTOR SHALL NOT DEMOLISH EXISTING HVAC SYSTEM SERVING THE AREAS UNTIL NEW CHILLED WATER UNITS ARE RUNNING AND MAINTAINING SPACE CONDITION FOR 72 HOURS.
- 2. EXISTING MECHANICAL ROOM SHALL BE CLEANED FROM ANY EXISTING DEBRIS. SEAL ALL EXISTING OPENINGS WEATHER TIGHT. SEAL ALL UNUSED OPENINGS WEATHER TIGHT.

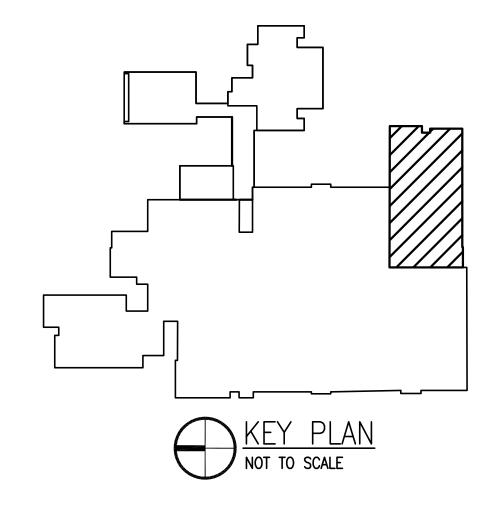
GENERAL NOTES

- 1. COORDINATE LOCATION OF NEW DIFFUSERS WITH EXISTING LIGHT FIXTURES
- COORDINATE LOCATION OF GRAVITY VENTILATORS AND ROOF PENETRATIONS WITH EXISTING STRUCTURE.
- 3. PROVIDE OUTSIDE AIR MOTORIZED DAMPER FOR EACH BLOWER COIL UNIT (BCU). COORDINATE MOTORIZED DAMPER ACTUATOR WITH CONTROLS CONTRACTOR.

SHEET NOTES

USE EXISTING OUTSIDE AIR LOUVER PENETRATION FOR NEW UNIT'S OUTSIDE AIR SOFFIT GRILLES







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KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

DESIGNED BY:

CAP

DRAWN BY:

CAP

CHECKED BY:

WJJ

DATE:

SEPTEMBER 25, 2018

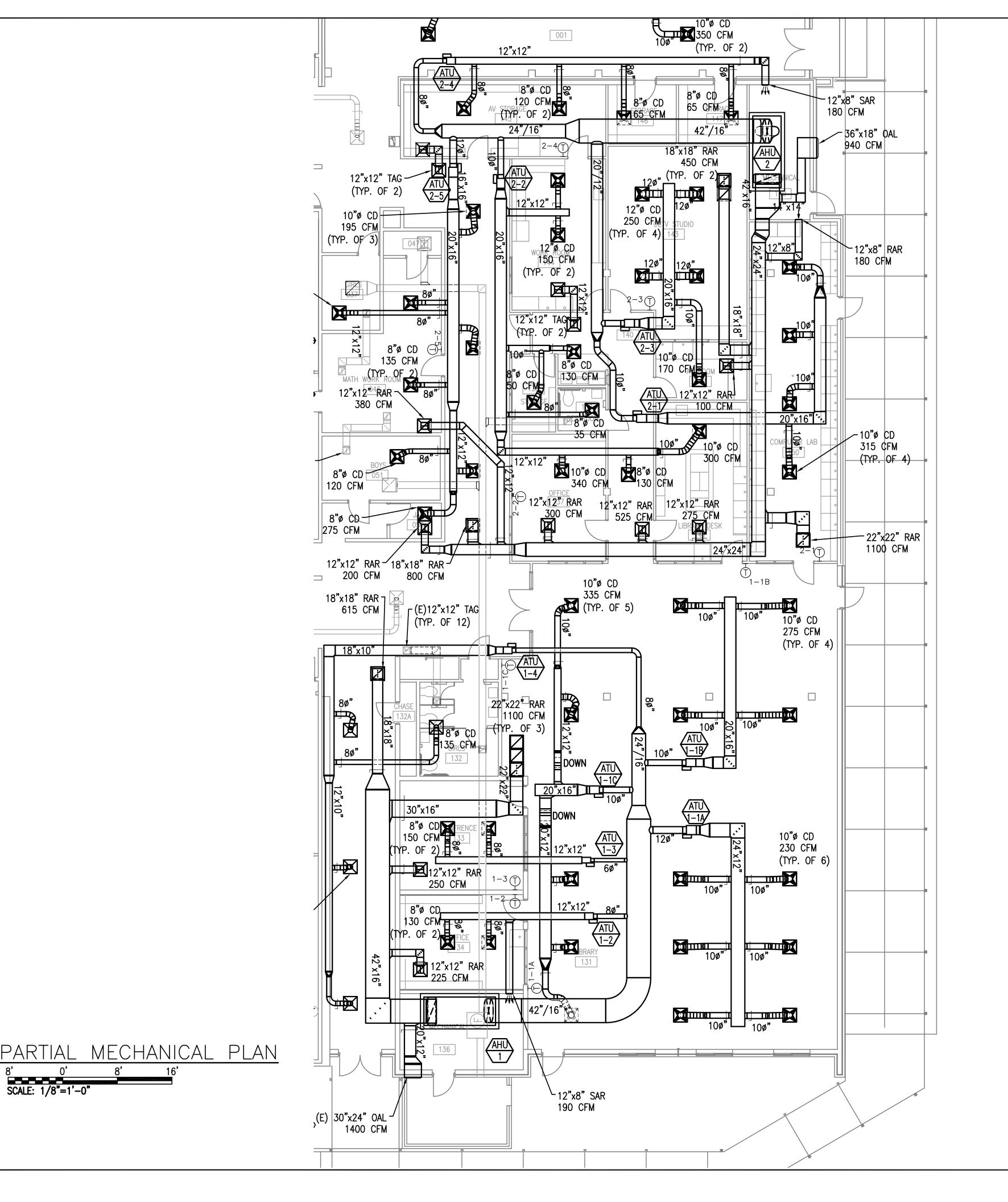
SHEET TITLE:

PARTIAL

MECHANICAL

PLAN

SHEET: M301



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



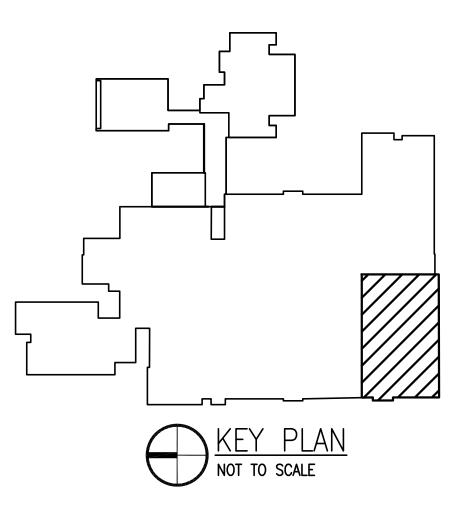
- 1. CONTRACTOR SHALL NOT DEMOLISH EXISTING HVAC SYSTEM SERVING THE AREAS UNTIL NEW CHILLED WATER UNITS ARE RUNNING AND MAINTAINING SPACE CONDITION FOR 72 HOURS.
- 2. EXISTING MECHANICAL ROOM SHALL BE CLEANED FROM ANY EXISTING DEBRIS. SEAL ALL EXISTING OPENINGS WEATHER TIGHT. SEAL ALL UNUSED OPENINGS WEATHER TIGHT.

GENERAL NOTES

- COORDINATE LOCATION OF NEW DIFFUSERS WITH EXISTING LIGHT **FIXTURES**
- 2. COORDINATE LOCATION OF GRAVITY VENTILATORS AND ROOF PENETRATIONS WITH EXISTING STRUCTURE.
- 3. PROVIDE OUTSIDE AIR MOTORIZED DAMPER FOR EACH BLOWER COIL UNIT (BCU). COORDINATE MOTORIZED DAMPER ACTUATOR WITH CONTROLS CONTRACTOR.

SHEET NOTES

(1) USE EXISTING OUTSIDE AIR LOUVER FOR NEW UNIT'S OUTSIDE AIR DUCT.



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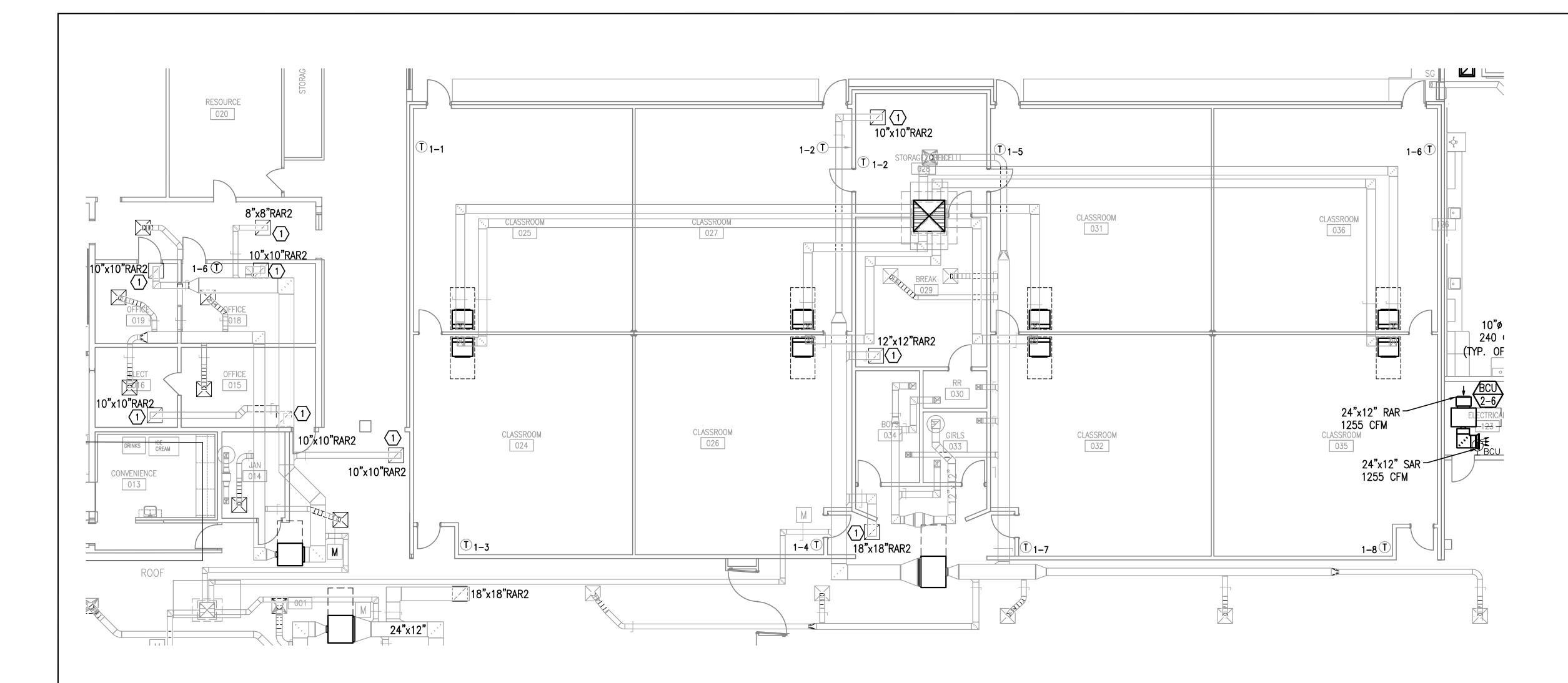
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DATE: SEPTEMBER 25, 2018

PARTIAL MECHANICAL

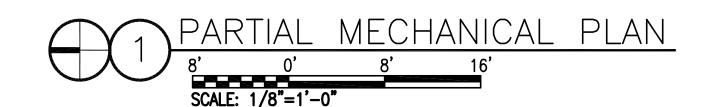
M302

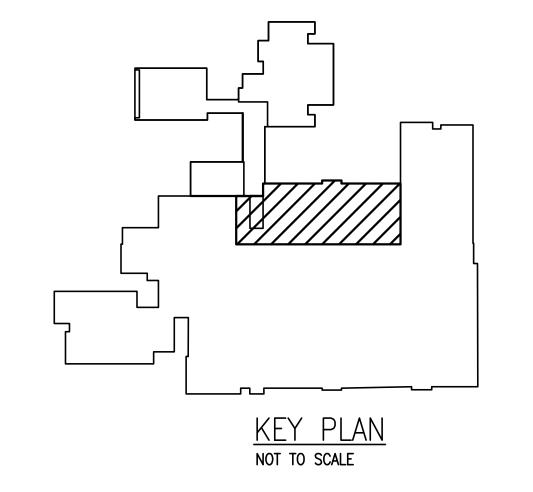
PLAN





1) INSTALL RETURN FILTER REGISTER THE SAME SIZE AS PREVIOUS RETURN REGISTER.





SEAL LOR CONSTRUCTION



KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

DESIGNED BY:

CAP

DRAWN BY:

CAP

CAP

CHECKED BY:

DATE: SEPTEMBER 25, 20

SEPTEMBER 25, 2018

SHEET TITLE:

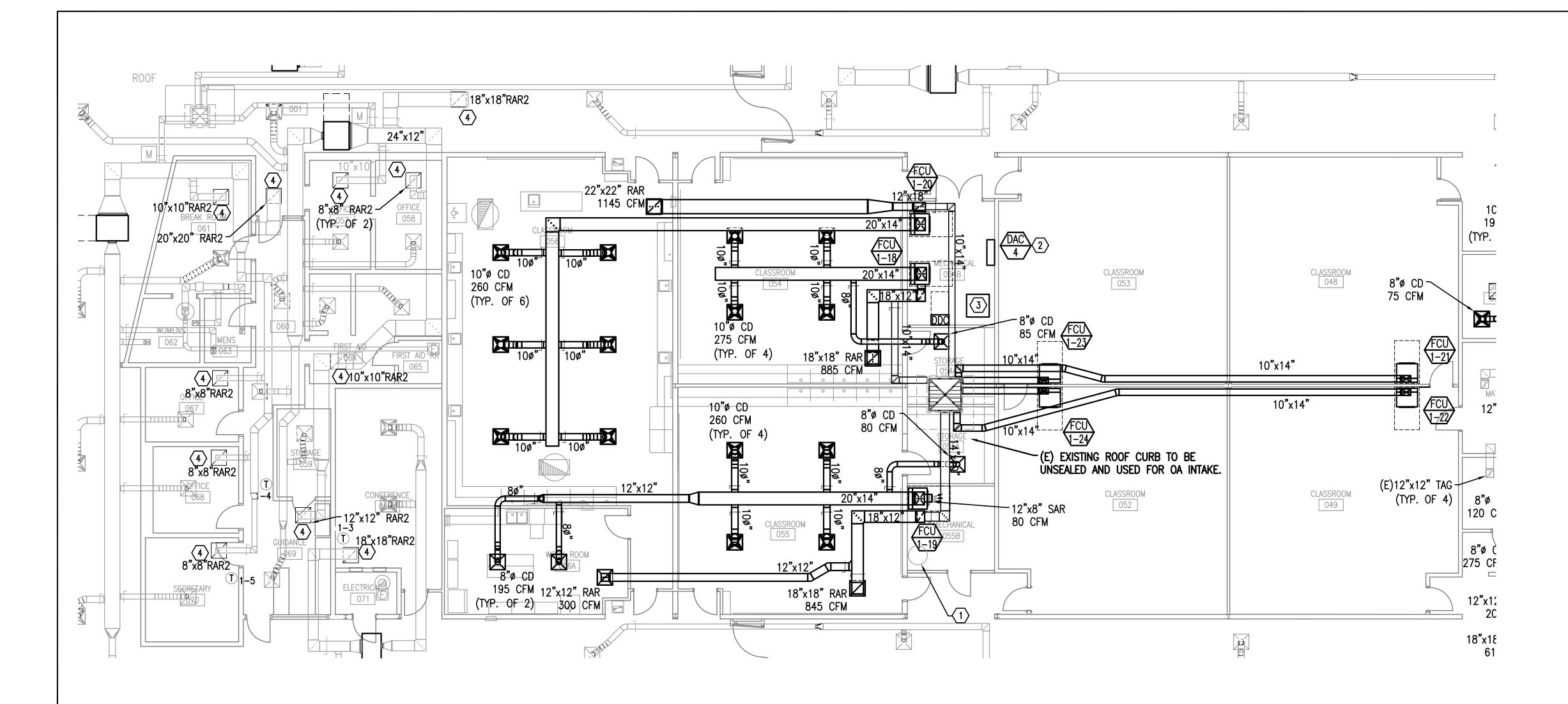
PARTIAL

MECHANICAL

SHEET:

M303

PLAN



PHASING NOTES

- 1. CONTRACTOR SHALL NOT DEMOLISH EXISTING HVAC SYSTEM SERVING THE AREAS UNTIL NEW CHILLED WATER UNITS ARE RUNNING AND MAINTAINING SPACE CONDITION FOR 72 HOURS.
- 2. EXISTING MECHANICAL ROOM SHALL BE CLEANED FROM ANY EXISTING DEBRIS. SEAL ALL EXISTING OPENINGS WEATHER TIGHT. SEAL ALL UNUSED OPENINGS WEATHER TIGHT.

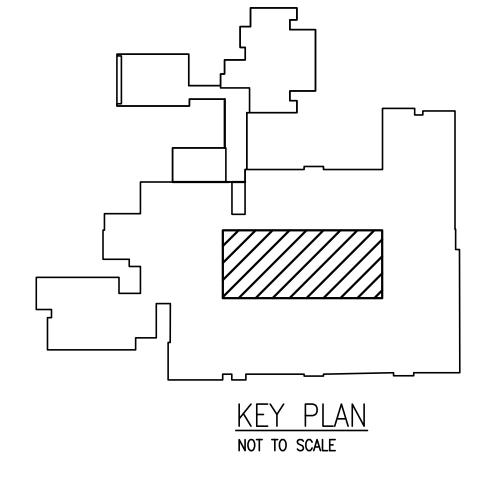
GENERAL NOTES

- 1. COORDINATE LOCATION OF NEW DIFFUSERS WITH EXISTING LIGHT FIXTURES
- COORDINATE LOCATION OF GRAVITY VENTILATORS AND ROOF PENETRATIONS WITH EXISTING STRUCTURE.
- PROVIDE OUTSIDE AIR MOTORIZED DAMPER FOR EACH BLOWER COIL UNIT (BCU). COORDINATE MOTORIZED DAMPER ACTUATOR WITH CONTROLS CONTRACTOR.

SHEET NOTES

- (1) EXISTING WATER HEATER. SHOWN FOR COORDINATION ONLY.
- 2 OUTDOOR CONDENSING UNIT LOCATED ON ROOF. SEE SHEET M102 FOR LOCATION.
- (3) EXISTING TRANSFORMER SHOWN FOR COORDINATION ONLY.
- (4) INSTALL RETURN FILTER REGISTER THE SAME SIZE AS PREVIOUS RETURN REGISTER.



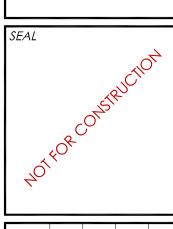


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FLORIDA LICENSE. NUMBER 05371
901 W. Garden St. • Pensacola, Fl. 32502
P: 850-438-0050 • F: 850-432-8631

WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080





KING MIDDLE SCHOOL
HVAC RENOVATION PH. B

DESIGNED BY:

CAP

DRAWN BY:

CAP

CHECKED BY: WJJ

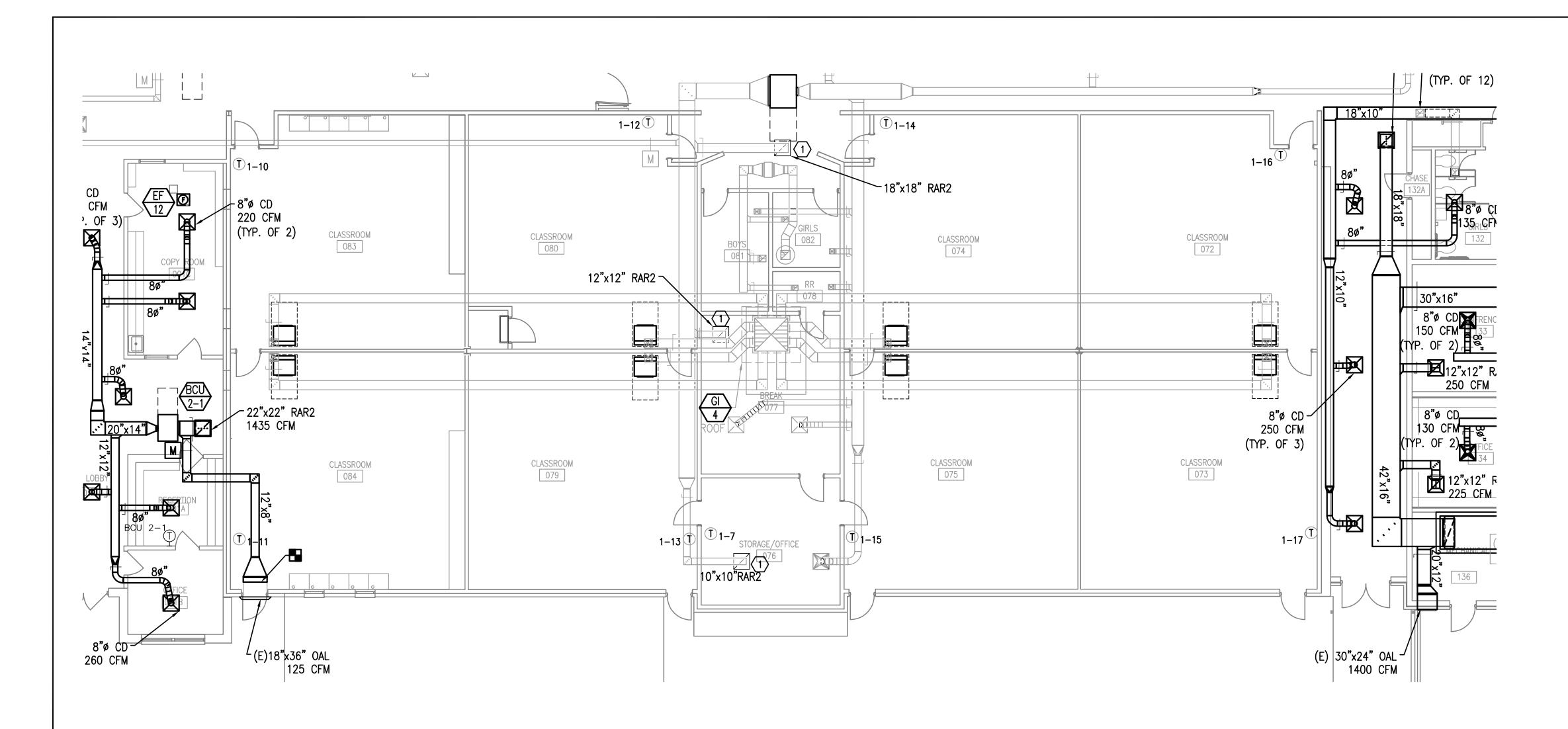
DATE: SEPTEMBER 25, 2018

SHEET TITLE:

PARTIAL

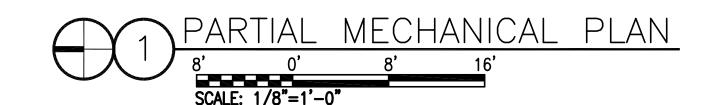
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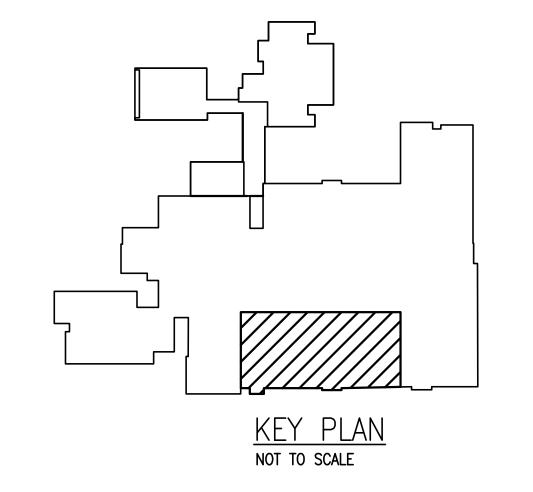
PLAN

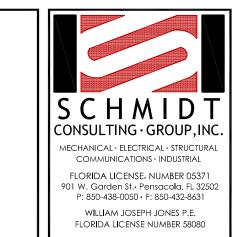




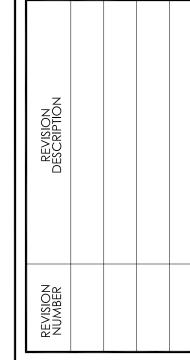
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KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

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CAP

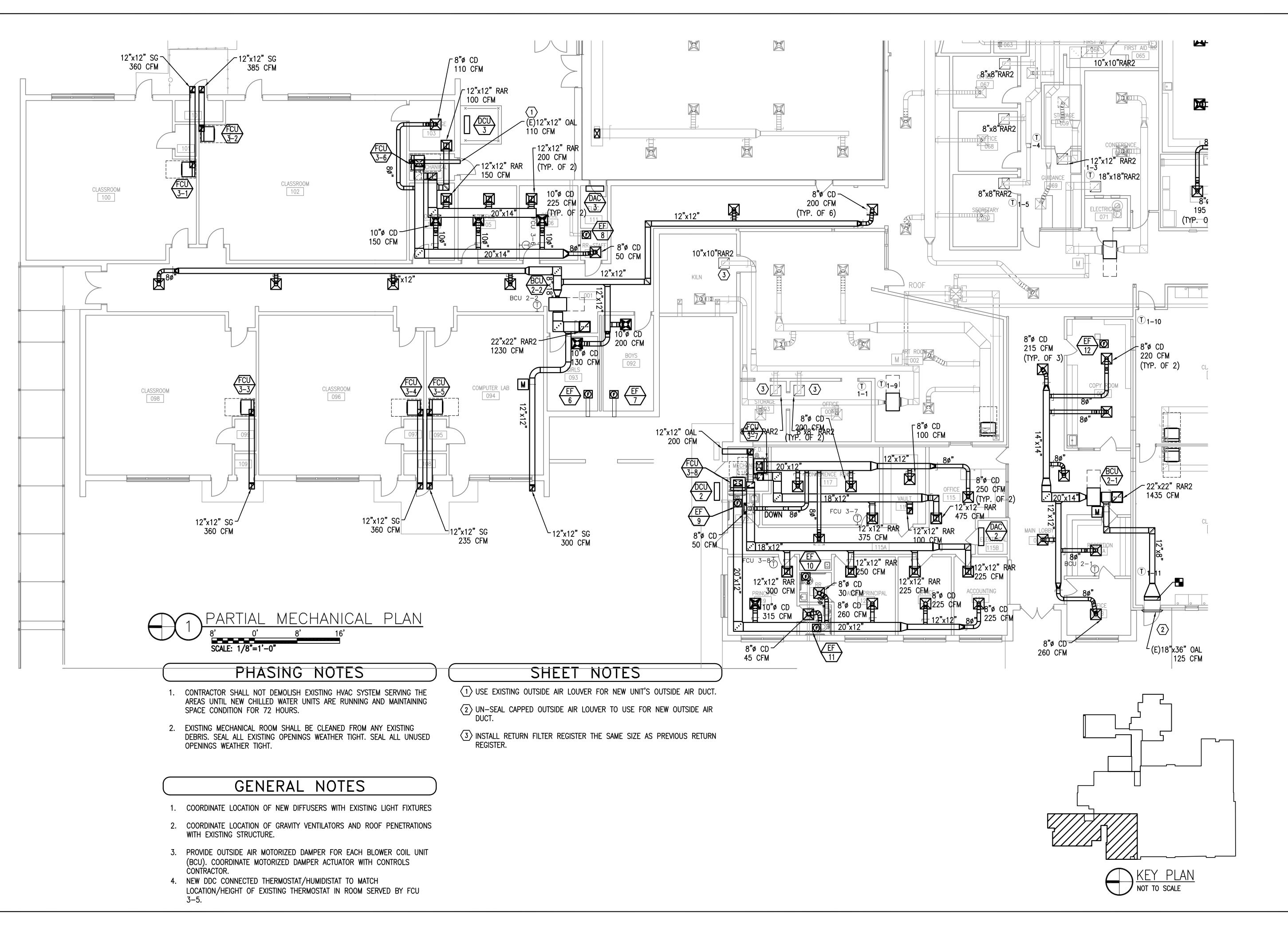
CHECKED BY:

*DATE:*SEPTEMBER 25, 2018

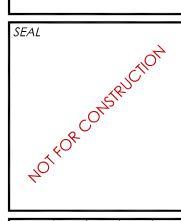
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MECHANICAL

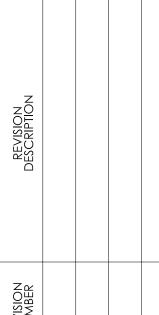
SHEET:
M305

PLAN



MECHANICAL · ELECTRICAL · STRUCTURAL COMMUNICATIONS · INDUSTRIAL FLORIDA LICENSE. NUMBER 05371 901 W. Garden St. Pensacola, FL 32502 P: 850-438-0050 • F: 850-432-8631 WILLIAM JOSEPH JONES P.E. FLORIDA LICENSE NUMBER 58080





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DESIGNED BY: DRAWN BY:

CHECKED BY:

SEPTEMBER 25, 2018

PARTIAL MECHANICAL

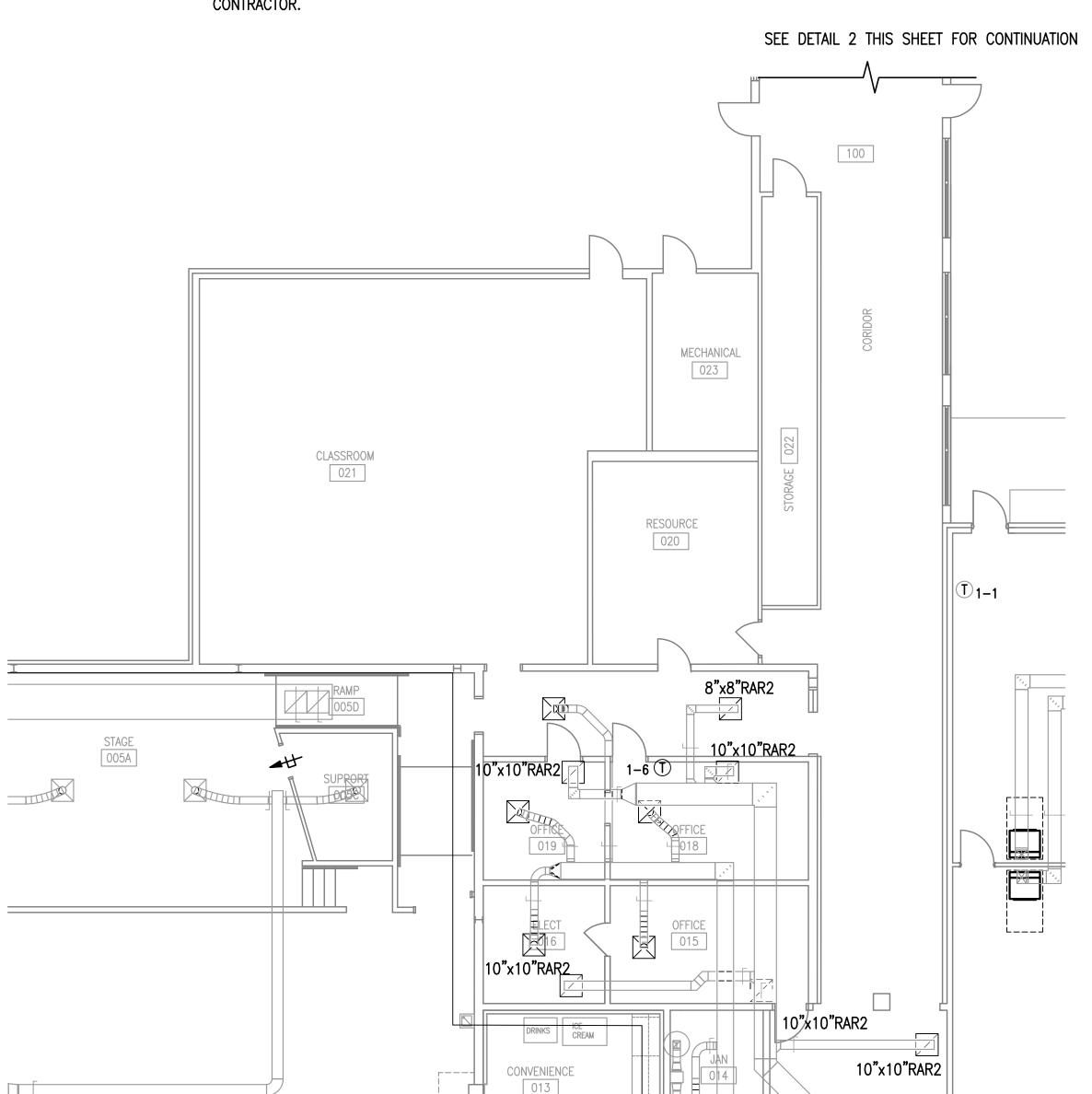
PLAN

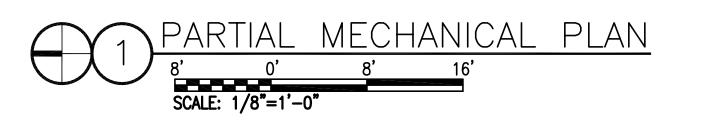


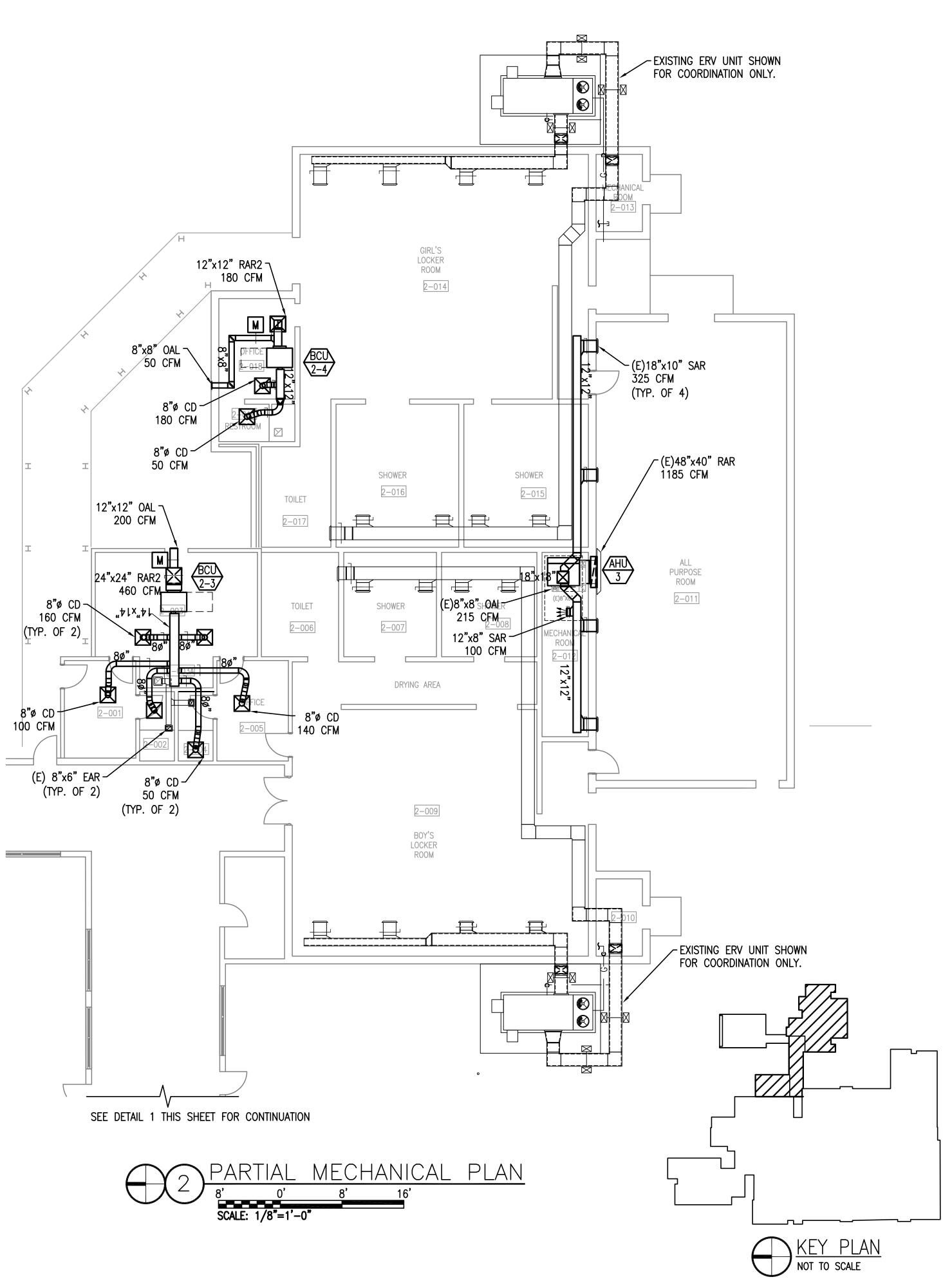
- 1. CONTRACTOR SHALL NOT DEMOLISH EXISTING HVAC SYSTEM SERVING THE AREAS UNTIL NEW CHILLED WATER UNITS ARE RUNNING AND MAINTAINING SPACE CONDITION FOR 72 HOURS.
- 2. EXISTING MECHANICAL ROOM SHALL BE CLEANED FROM ANY EXISTING DEBRIS. SEAL ALL EXISTING OPENINGS WEATHER TIGHT. SEAL ALL UNUSED OPENINGS WEATHER TIGHT.

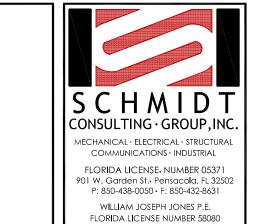
GENERAL NOTES

- 1. COORDINATE LOCATION OF NEW DIFFUSERS WITH EXISTING LIGHT FIXTURES
- 2. COORDINATE LOCATION OF GRAVITY VENTILATORS AND ROOF PENETRATIONS WITH EXISTING STRUCTURE.
- 3. PROVIDE OUTSIDE AIR MOTORIZED DAMPER FOR EACH BLOWER COIL UNIT (BCU). COORDINATE MOTORIZED DAMPER ACTUATOR WITH CONTROLS CONTRACTOR.

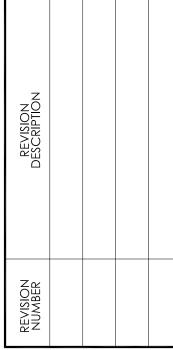












KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

DESIGNED BY:

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DRAWN BY:

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CHECKED BY:

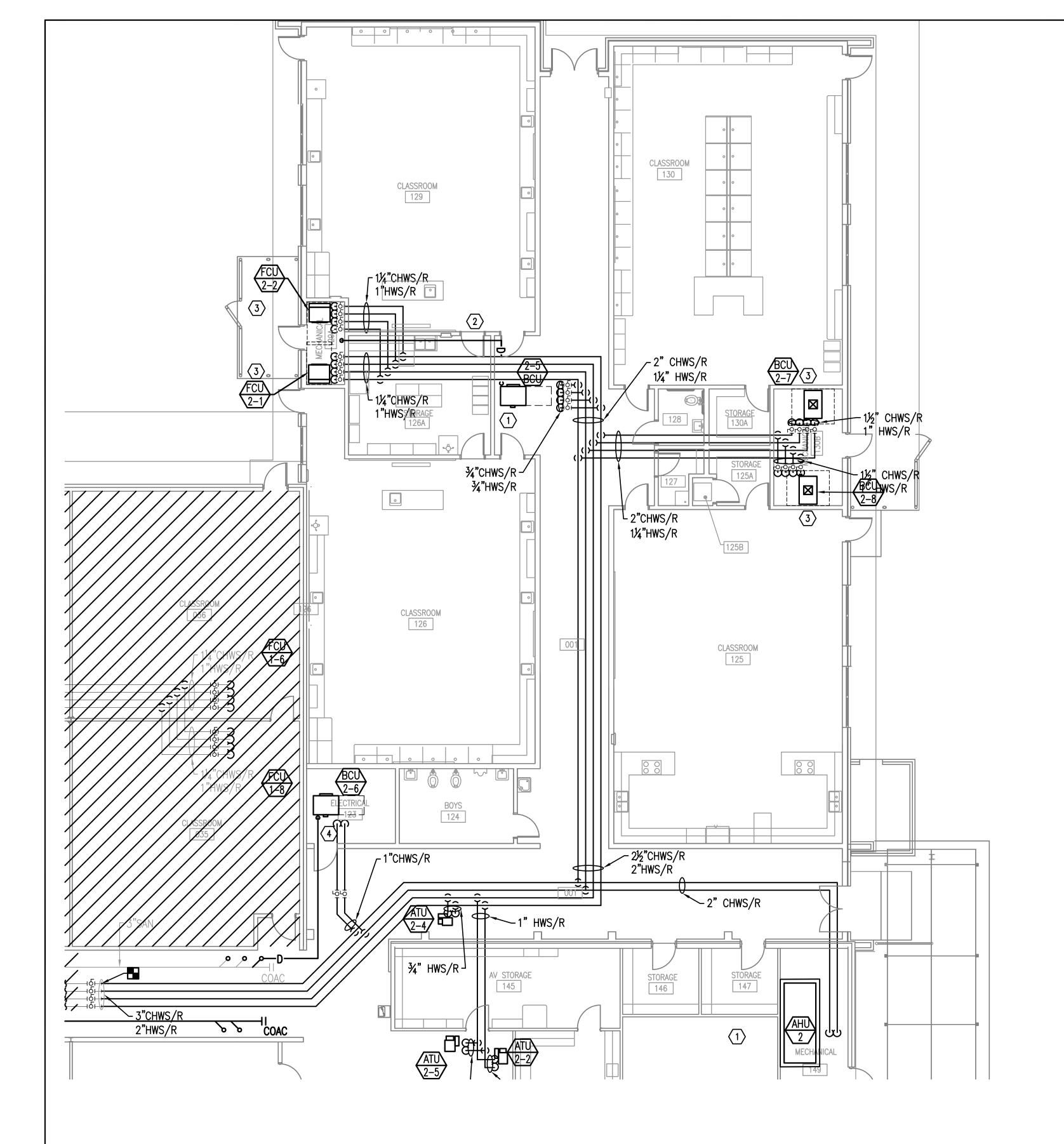
WJJ

DATE: SEPTEMBER 25, 2018

PARTIAL

MECHANICAL

PLAN



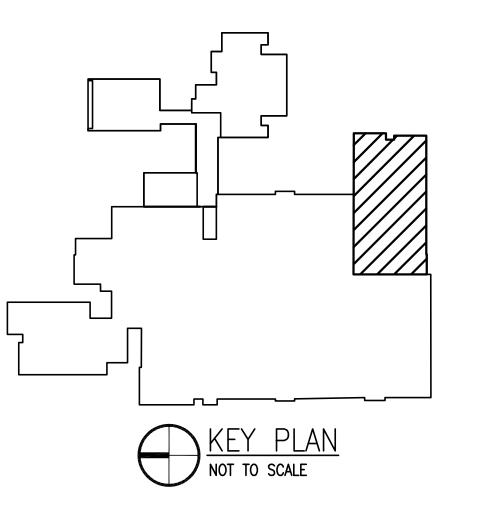
PARTIAL MECHANICAL PIPING PLAN 8' 0' 8' 16' SCALE: 1/8"=1'-0"

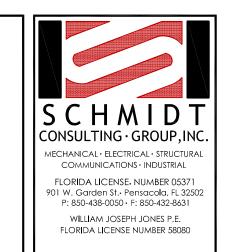
SHEET NOTES

- ROUTE CONDENSATE PIPING TO EXISTING FLOOR DRAIN LOCATED IN THE MECHANICAL ROOM. PROVIDE WITH AIR GAP. SECURE PIPING TO STRUCTURAL ELEMENTS. INSULATE PER SPECIFICATIONS. ROUTE ALONG OTHER CONDENSATE DRAIN AWAY FROM FCU FILTER RACK CLEARANCE.
- (2) ROUTE PIPING BESIDE DUCTWORK. PROVIDE TRANSITION AS REQUIRED.
- ROUTE CONDENSATE PIPING AWAY FROM FILTER RACK CLEARANCE TO FLOOR DRAIN.
- ROUTE CONDENSATE PIPING FROM BCU TO ABOVE CEILING HUB DRAIN LOCATED AT THE CORRIDOR. INSULATE PIPE PER SPECIFICATIONS.

GENERAL NOTES

- 1. HATCHED SYMBOL INDICATE NO NEW WORK TO BE PERFORMED IN THIS ARFA.
- 2. UNLESS NOTED OTHERWISE, ALL PIPING RUNOUTS TO THE CLASSROOM FAN COIL UNIT (FCU) SHALL BE 1¼"CHWS/R AND 1"HWS/R. PROVIDE ALL UNIT WITH ISOLATION VALVE FOR UNIT MAINTENANCE.





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DESCRIPTION

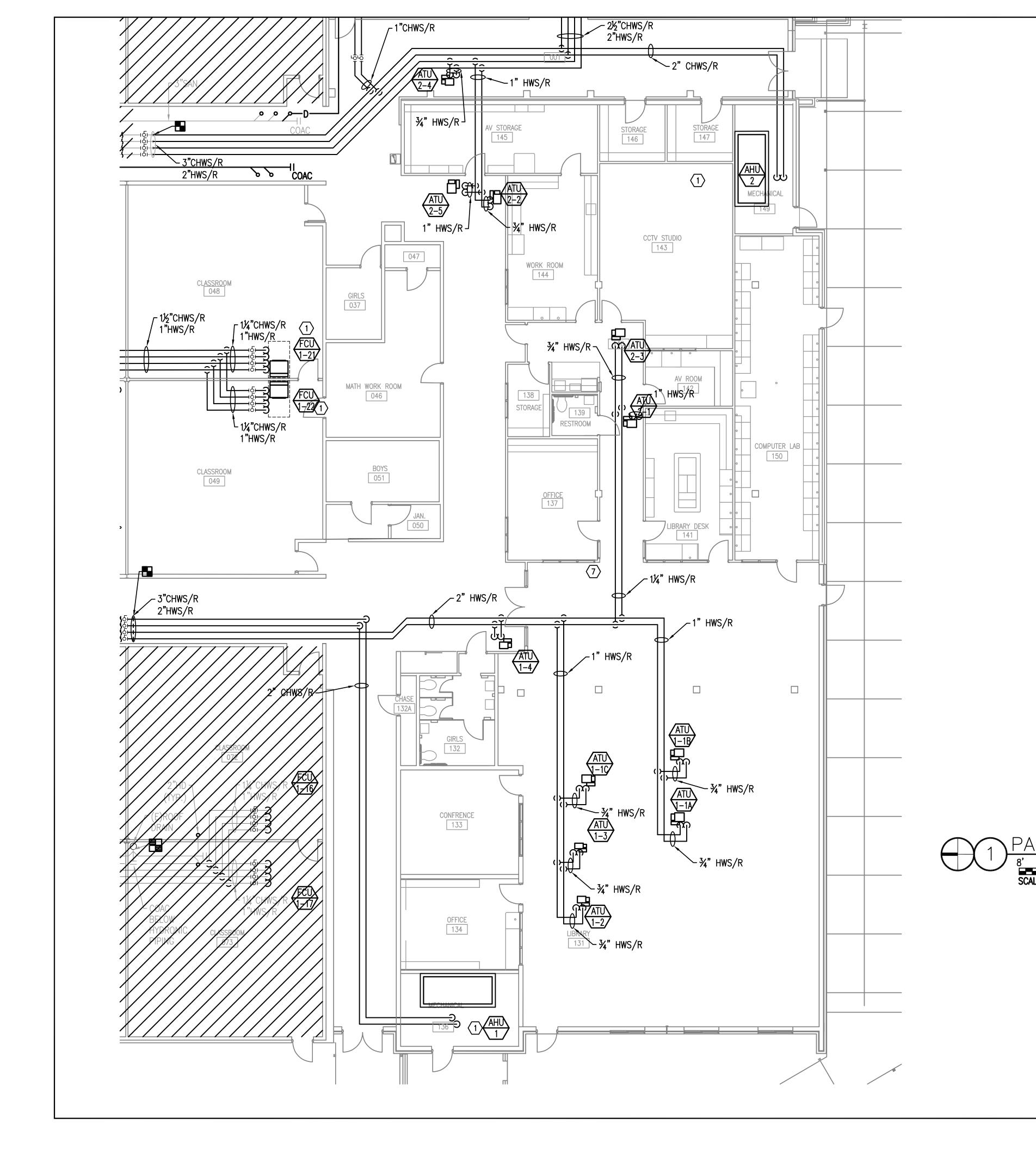
KING MIDDLE SCHOOL
HVAC RENOVATION PH. B
SANTA ROSA COUNTY SCHOOL DISTRICT

DESIGNED BY:
CAP
DRAWN BY:
CAP
CHECKED BY:
WJJ
DATE:

DATE: SEPTEMBER 25, 2018

SHEET TITLE:

PARTIAL MECHANICAL PIPING PLAN



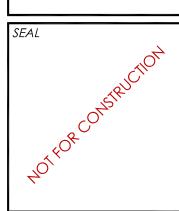
ROUTE CONDENSATE PIPING TO EXISTING FLOOR DRAIN LOCATED IN THE MECHANICAL ROOM. PROVIDE WITH AIR GAP. SECURE PIPING TO STRUCTURAL ELEMENTS. INSULATE PER SPECIFICATIONS. ROUTE ALONG OTHER CONDENSATE DRAIN AWAY FROM AHU FILTER RACK CLEARANCE.

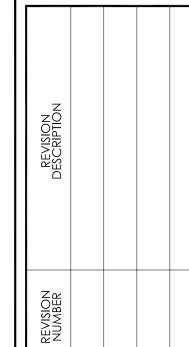
GENERAL NOTES

1. HATCHED SYMBOL INDICATE NO NEW WORK TO BE PERFORMED IN THIS ARFA.

MECHANICAL PIPING PLAN







KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

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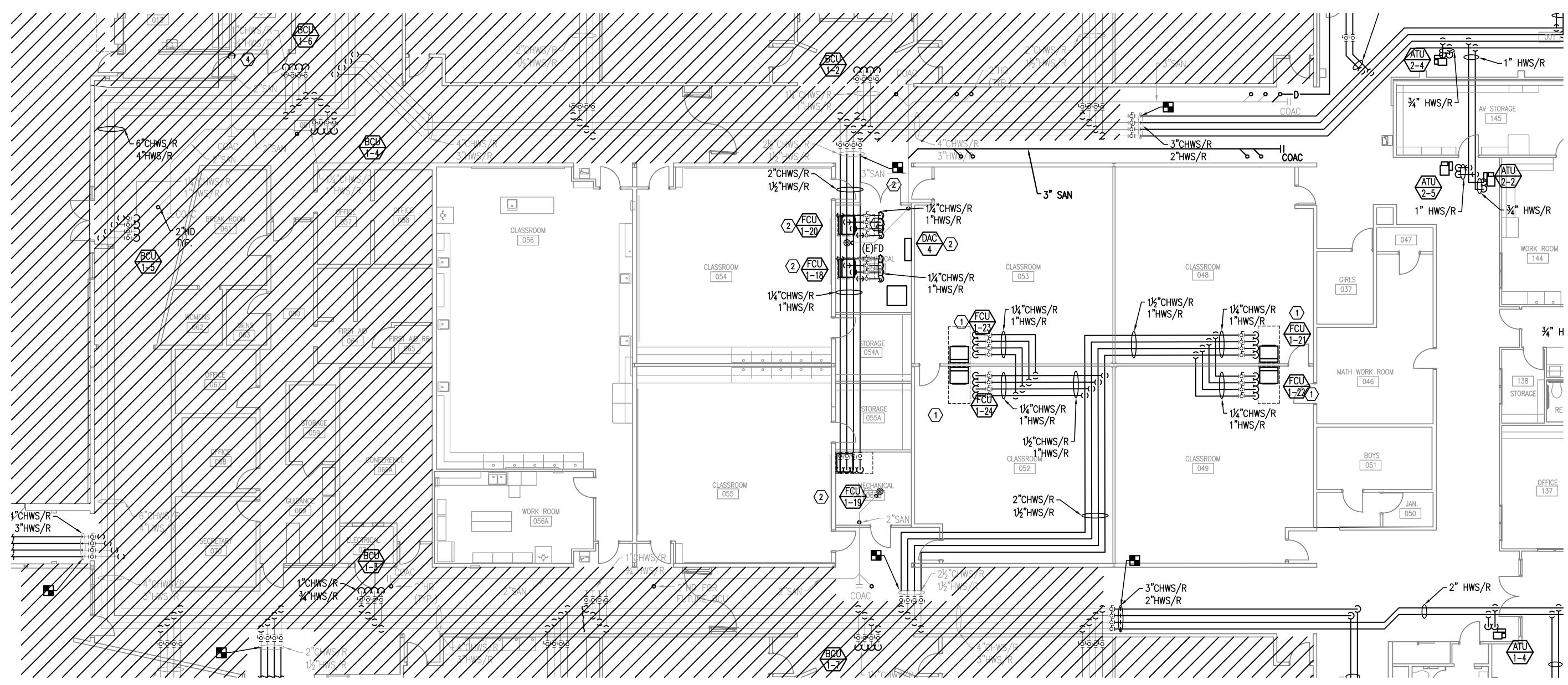
DRAWN BY:
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DATE:
SEPTEMBER 25, 2018

SHEET TITLE:

PARTIAL MECHANICAL PIPING PLAN

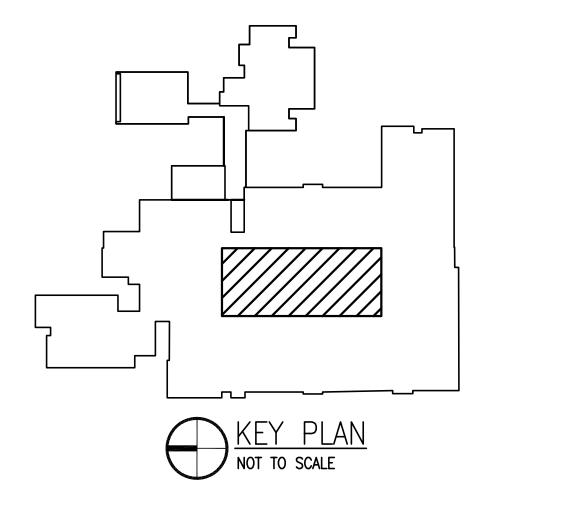


- ROUTE CONDENSATE PIPING FROM FCU UP TO ABOVE CEILING HUB DRAIN LOCATED AT THE CORRIDOR. INSULATE PIPE PER SPECIFICATIONS.
- ROUTE CONDENSATE PIPING TO EXISTING FLOOR DRAIN LOCATED IN THE MECHANICAL ROOM. PROVIDE WITH AIR GAP. SECURE PIPING TO STRUCTURAL ELEMENTS. INSULATE PER SPECIFICATIONS. ROUTE ALONG OTHER CONDENSATE DRAIN AWAY FROM FCU FILTER RACK CLEARANCE.

GENERAL NOTES

- 1. HATCHED SYMBOL INDICATE NO NEW WORK TO BE PERFORMED IN THIS AREA.
- 2. UNLESS NOTED OTHERWISE, ALL PIPING RUNOUTS TO THE CLASSROOM FAN COIL UNIT (FCU) SHALL BE 1¼"CHWS/R AND 1"HWS/R. PROVIDE ALL UNIT WITH ISOLATION VALVE FOR UNIT MAINTENANCE.





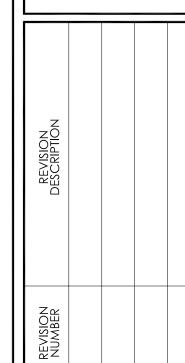
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FLORIDA LICENSE. NUMBER 05371
901 W. Garden St. Pensacola, FL 32502
P: 850-438-0050 · F: 850-432-8631

WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080



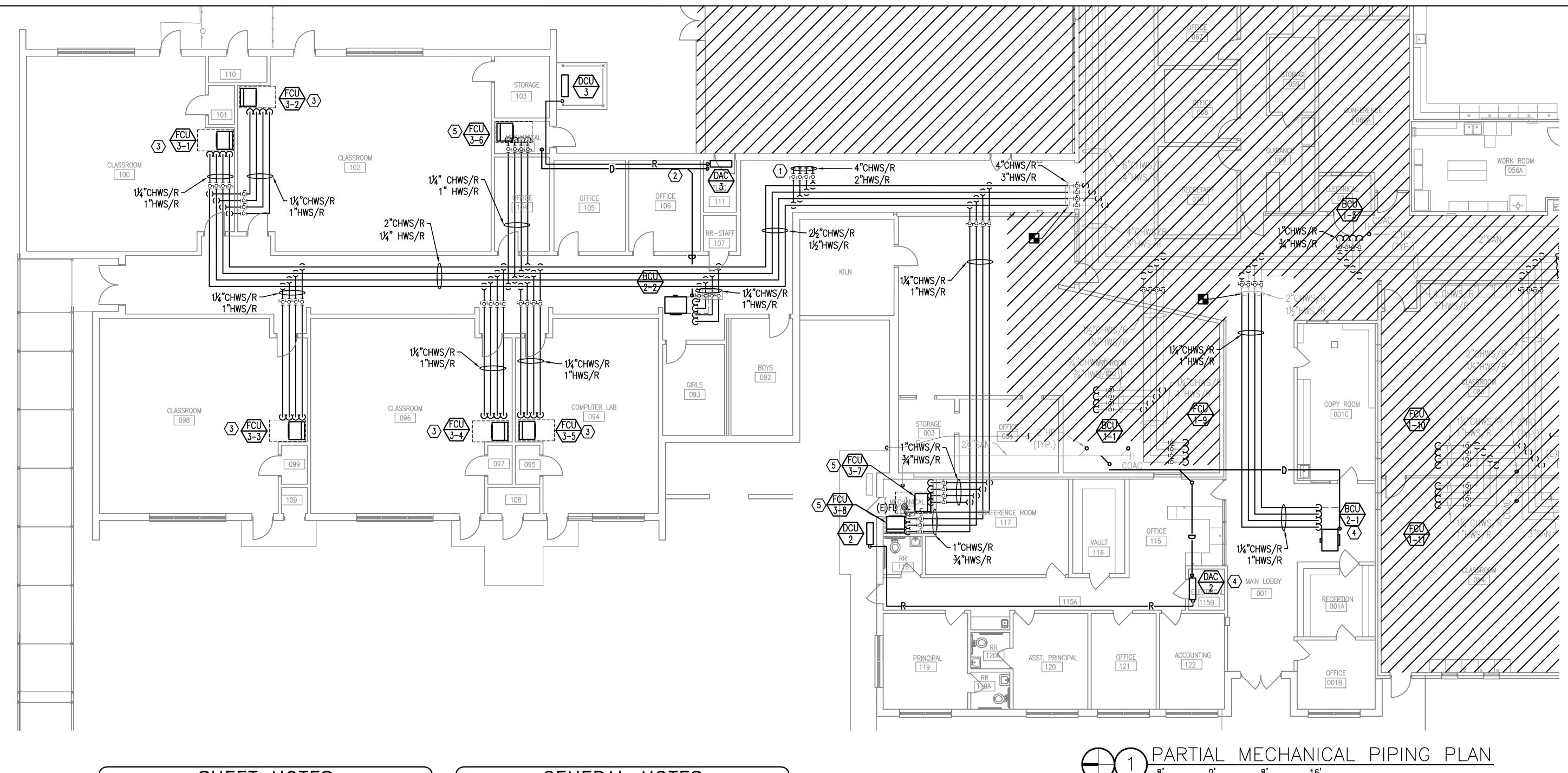


KING MIDDLE SCHOOL HVAC RENOVATION PH. B SANTA ROSA COUNTY SCHOOL DISTRICT

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DRAWN BY:
CAP
CHECKED BY:
WJJ

DATE: SEPTEMBER 25, 2018

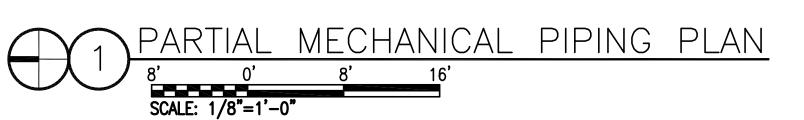
PARTIAL
MECHANICAL
PIPING PLAN

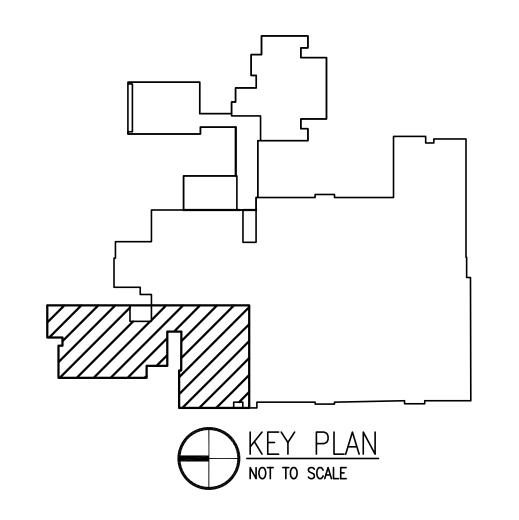


- PROVIDE ISOLATION VALVE AND BLIND FLANGE ABOVE CEILING FOR FUTURE CONNECTIONS. TYP.
- ROUTE SAN PVC PIPING TO EXISTING FLOOR DRAIN LOCATED AT THE MECHANICAL ROOM. PROVIDE WITH AIR GAP. SECURE PIPING TO STRUCTURAL ELEMENTS. INSULATE PER SPECIFICATIONS.
- ROUTE CONDENSATE PIPING UP FROM FCU TO FLOOR DRAIN IN CLOSEST MECHANICAL ROOM. PROVIDE WITH AIR GAP. SECURE PIPING TO STRUCTURAL ELEMENTS. INSULATE PER SPECIFICATIONS.
- ROUTE CONDENSATE PIPING TO ABOVE CEILING HUB DRAIN LOCATED ABOVE ART ROOM. INSULATE PIPE PER SPECIFICATIONS.
- ROUTE CONDENSATE PIPING TO FLOOR DRAIN IN MECHANICAL ROOM. PROVIDE WITH AIR GAP. SECURE PIPING TO STRUCTURAL ELEMENTS. INSULATE PER SPECIFICATIONS.

GENERAL NOTES

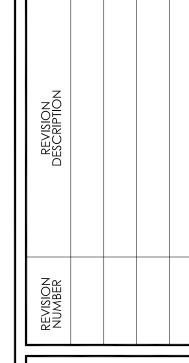
- 1. HATCHED SYMBOL INDICATE NO NEW WORK TO BE PERFORMED IN THIS AREA.
- 2. UNLESS NOTED OTHERWISE, ALL PIPING RUNOUTS TO THE CLASSROOM FAN COIL UNIT (FCU) SHALL BE 11/4"CHWS/R AND 1"HWS/R. PROVIDE ALL UNIT WITH ISOLATION VALVE FOR UNIT MAINTENANCE.





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DISTRICT CHOOL SCHC ROSA KING

DESIGNED BY: DRAWN BY: CAP CHECKED BY:

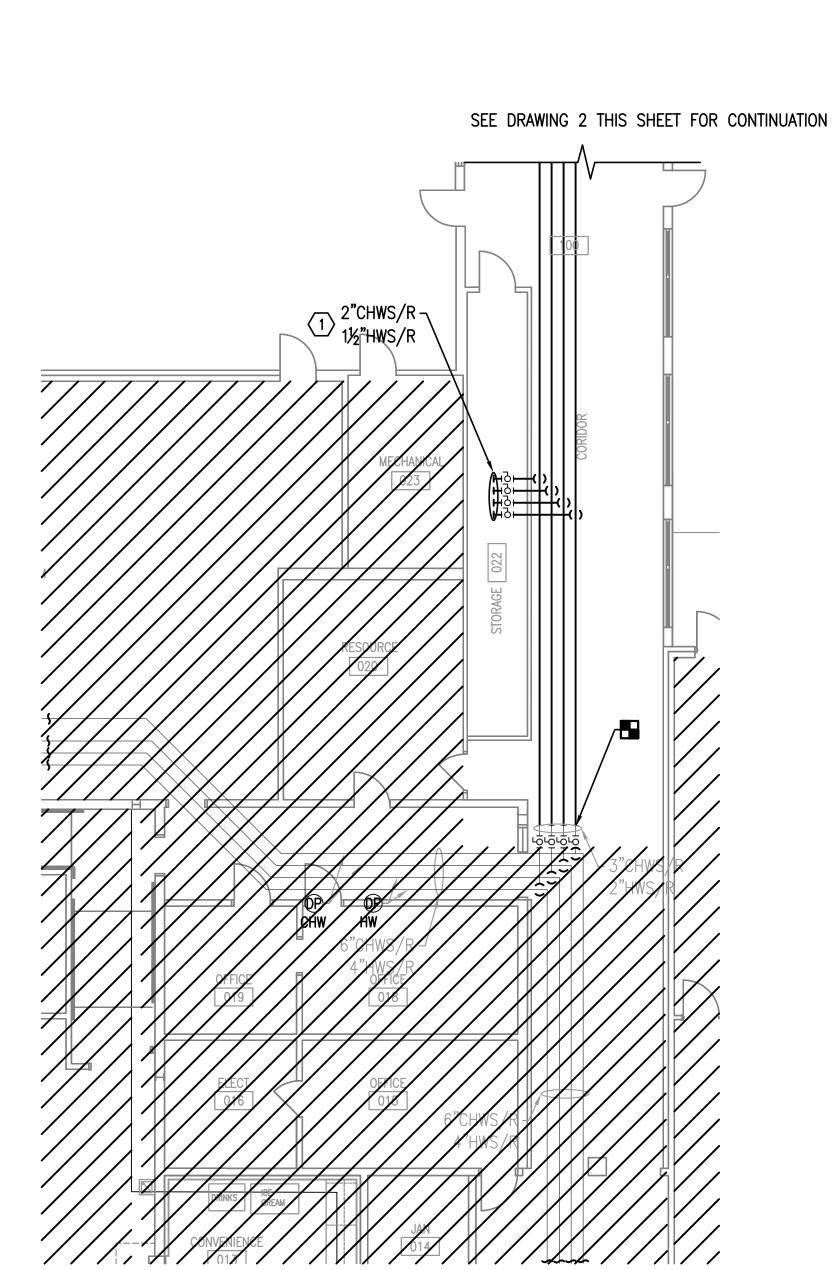
SEPTEMBER 25, 2018

PARTIAL MECHANICAL PIPING PLAN

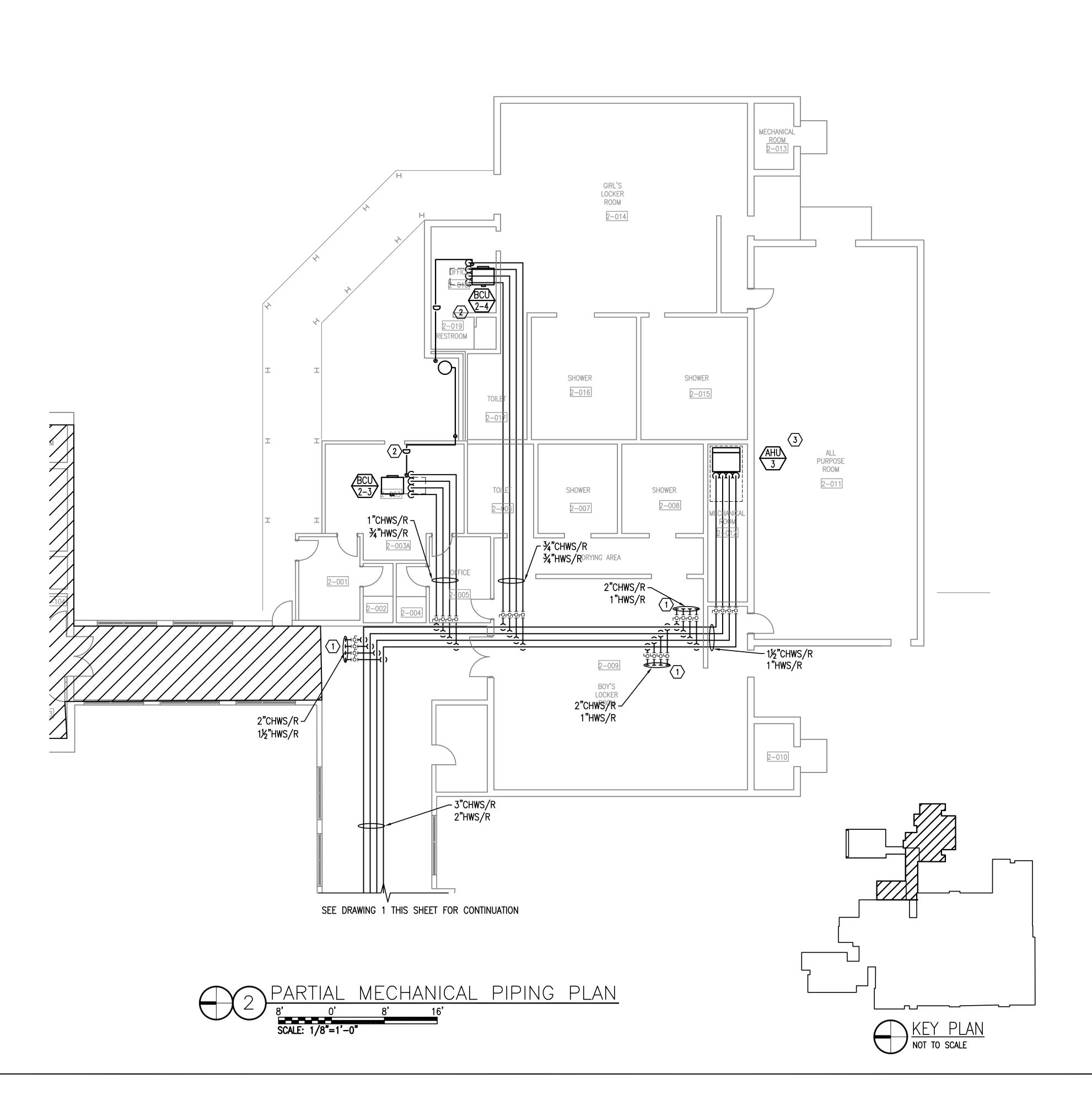
- PROVIDE ISOLATION VALVE AND BLIND FLANGE ABOVE CEILING FOR FUTURE CONNECTIONS. TYP.
- ROUTE CONDENSATE PIPING ABOVE CEILING AND DOWN ALONG EXTERIOR WALL TO DRYWELL. INSULATE PER SPECIFICATIONS.
- ROUTE CONDENSATE PIPING TO FLOOR DRAIN IN MECHANICAL ROOM. SECURE TO STRUCTURAL ELEMENTS. INSULATE PIPING PER SPECIFICATIONS. ROUTE AWAY FROM FILTER RACK CLEARANCE.

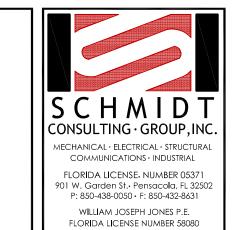
GENERAL NOTES

1. HATCHED SYMBOL INDICATE NO NEW WORK TO BE PERFORMED IN THIS AREA.

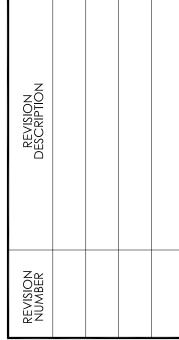












KING MIDDLE SCHOOL HVAC RENOVATION PH. B

DESIGNED BY
CAP

DRAWN BY:

CHECKED BY:

DATE: SEPTEMBER 25, 2018

PARTIAL
MECHANICAL

PIPING PLAN