

SYMBOL	PACKAGED GAS HEATING/ELECTRIC AREA SERVED	COOLING UNIT MFG.	SCHEDULE MODEL NO.	NOM. TONS	TOTAL COOLING MBTU/HR	SENS. COOLING MBTU/HR	EER (SEER)	HEATING MBTU/HR IN	HEATING MBTU/HR OUT	EEF %	SUPPLY CFM	NUMBER OF PEOPLE	CFM / PERSON	OUTSIDE AIR CFM	EXT. S.P. INCHES	VOLTS/ PHASE	MIN. CURR. AMPS	MOPC AMPS	WT. LBS	REMARKS :
AC/A1-1	CLASSROOM A106	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	30	20	600	1.5	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/A1-2	CLASSROOM A109	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-3	CLASSROOM A110	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-4	CLASSROOM A111	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-5	BOOK ARCHIVE A125	CARRIER	48HLU004	3	37.8	27.2	13.0	60	50	80	1,200	8	20	160	1.5	460/3	10.1	15	1,225	+2*4*5*6*9*11*12
AC/A1-6	CLASSROOM A128	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-7	CLASSROOM A61-8	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-8	CLASSROOM A132	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	30	20	600	1.5	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/A1-9	CLASSROOM A139	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-10	CLASSROOM A140	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-11	CLASSROOM A143	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A1-12	KINDERGARTEN A145	CARRIER	48HJ007	6	78.9	59.2	11.0	50 / 72	41 / 59	82	2,400	30	20	600	1.5	460/3	16.3	20	1,400	+2*4*5*6*9*10*11*12
AC/A1-13	KINDERGARTEN A150	CARRIER	48HJ007	6	78.9	59.2	11.0	50 / 72	41 / 59	82	2,400	30	20	600	1.5	460/3	16.3	20	1,400	+2*4*5*6*9*10*11*12
AC/A1-14	STACKS A115	CARRIER	48HJ012	10	125.8	91.5	11.0	120/180	98/148	80	0,000	40	20	800	1.4	460/3	30	40	2,050	+3*4*5*6*9*10*11*12
AC/A1-15	READING RMS A117 / A118	CARRIER	48HJ012	10	125.8	91.5	11.0	120/180	98/148	80	0,000	40	20	800	1.4	460/3	30	40	2,050	+3*4*5*6*9*10*11*12
AC/A1-16	OFFICES A120 / A121 / FOY	CARRIER	48HLU004	3	37.8	27.2	13.0	60	50	80	1,200	10	20	200	1.5	460/3	11.1	15	1,225	+2*4*5*6*9*11*12
AC/A1-17	HEADEND ROOM A124	CARRIER	48HLU004	3	37.8	27.2	13.0	60	50	80	1,200	4	20	80	1.5	460/3	10.1	15	1,225	+2*4*5*6*9*11*12
AC/A2-1	CLASSROOM A204	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	30	20	600	1.1	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/A2-2	CLASSROOM A207	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-3	CLASSROOM A208	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.4	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-4	CLASSROOM A209	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	30	20	600	1.1	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/A2-5	CLASSROOM A217	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-6	CLASSROOM A219	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-7	CLASSROOM A220	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.4	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-8	CLASSROOM A223	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-9	CLASSROOM A228	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.4	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-10	CLASSROOM A229	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.4	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-11	CLASSROOM A230	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-12	CLASSROOM A233	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/A2-13	SCIENCE CLASSROOM A234	CARRIER	48HJ007	6	78.9	59.2	11.0	50 / 72	41 / 59	82	2,400	30	20	600	1.2	460/3	16.3	20	1,400	+2*4*5*6*9*10*11*12
AC/A2-14	SCIENCE CLASSROOM A239	CARRIER	48HJ007	6	78.9	59.2	11.0	50 / 72	41 / 59	82	2,400	30	20	600	1.2	460/3	16.3	20	1,400	+2*4*5*6*9*10*11*12
AC/A2-15	COMPUTER LAB A213	CARRIER	48HJ008	7.5	92.9	67.2	11.0	50 / 125	73 / 103	80	3,000	35	20	700	1.5	460/3	21.7	25	1,725	+2*4*5*6*9*10*11*12
AC/B1-1	1ST FLR ADMIN	CARRIER	48BK024	20	254.0	188.0	10.3	263/350	215/283	82	8,000	80	20	1600	1.5	460/3	68.4	80	7,000	+3*4*5*6*9*10*11*12
AC/B2-1	CLASSROOM	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	35	20	700	1.4	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/B2-2	CLASSROOM	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	15	20	300	1.1	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/B2-3	CLASSROOM	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	35	20	700	1.4	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/C1	KITCHEN C130	CARRIER	48HJ007	6	78.9	59.2	11.0	50 / 72	41 / 59	82	2,400	30	20	600	1.2	460/3	16.3	20	1,400	+2*4*5*6*9*11*12
AC/C2	COACHES OFFICE 132	CARRIER	48EX024	2	23.4	16.1	10.2	40	32.8	81	800	15	20	300	0.7	208/230/1	19.5	30	750	+1*4*5*6*9*11*12
AC/C3	COACHES OFFICE 135	CARRIER	48EX024	2	23.4	16.1	10.2	40	32.8	81	800	15	20	300	0.7	208/230/1	19.5	30	750	+1*4*5*6*9*11*12
AC/C4	LOBBY C100	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	35	20	700	1.4	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/C5	MUSIC C152	CARRIER	48HJ012	10	125.8	91.5	11.0	120/180	98/148	80	0,000	60	20	1200	1.2	460/3	30	40	2,050	+3*4*5*6*9*10*11*12
AC/C6	MULTI-PURPOSE C171	CARRIER	48EJ024	20	254.0	188.0	10.3	263/350	215/283	82	8,000	80	20	3000	1.5	460/3	68.4	80	6,900	+3*4*5*6*9*10*11*12
AC/C7	MULTI-PURPOSE C171	CARRIER	48EJ024	20	254.0	188.0	10.3	263/350	215/283	82	8,000	150	20	3000	1.5	460/3	68.4	80	6,900	+3*4*5*6*9*10*11*12
AC/C8	PLATFORM C168	CARRIER	48HJ014	12.5	149.6	114.4	9.6	180/220	148/180	80	5,000	40	20	1200	1.0	460/3	31.5	40	2,125	+3*4*5*6*9*10*11*12
AC/C9	CLASSROOM C167	CARRIER	48HJ007	6	78.9	59.2	11.0	50 / 72	41 / 59	82	2,400	30	20	600	1.2	460/3	16.3	20	1,400	+2*4*5*6*9*10*11*12
AC/D1-1	CLASSROOM C16	CARRIER	48BLU012	4	48.9	34.7	13.0	60	50	81	1,690	30	20	600	1.1	208/91/1	16.3	30	750	+1*4*5*6*9*11*12
AC/D1-1	CLASSROOM 104	CARRIER	48HJ007	6	78.9	59.2	11.0	50 / 72	41 / 59	82	2,400	30	20	600	1.4	460/3	16.3	20	1,400	+2*4*5*6*9*10*11*12
AC/D1-2	CLASSROOM 105	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	30	20	600	1.5	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/D1-3	CLASSROOM 107	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/D1-4	CLASSROOM 109	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/D2-1	CLASSROOM D202	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	30	20	600	1.1	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/D2-2	CLASSROOM D203	CARRIER	48HLU005	4	48.9	34.7	13.0	60	50	80	1,690	30	20	600	1.1	460/3	13	15	1,275	+2*4*5*6*9*11*12
AC/D2-3	CLASSROOM D205	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12
AC/D2-4	CLASSROOM D207	CARRIER	48HLU006	5	63.8	46.7	13.0	60	50	80	1,950	30	20	600	1.6	460/3	15.8	20	1,325	+2*4*5*6*9*10*11*12

SPLIT SYSTEM SYMBOL	HEAT PUMP AREA SERVED	FAN COIL UNIT	SCHEDULE MFG.	MODEL NO.	NOM. TONS	TOTAL COOLING MBTU/HR	SENS. COOLING MBTU/HR	EER (SEER)	HEATING MBTU/HR	COP (HSPF)	SUPPLY CFM	NUMBER OF PEOPLE	CFM/ PERSON	OUTSIDE AIR CFM	EXT. S. P. INCHES	SUPPLY FAN HP	VOLTS/ PHASE	MIN. CKT. AMPS	MOCP AMPS	WT. LBS	REMARKS:
FC-1	COMMUNICATIONS	A138	CARRIER	40QKB-036-3	3	33.6	23.4	10.5	36	3.2	1,200	N/A	N/A	N/A	N/A	N/A	208/1	1.1	15	150	*1+2+3+4+5+6

SPLIT SYSTEM SYMBOL	HEAT PUMP AREA SERVED	CONDENSING UNIT MFG.	SCHEDULE NO.	NOM. TONS	TOTAL COOLING MBTU/HR	SENS. COOLING MBTU/HR	EER (SEER)	HEATING MBTU/HR	COP (HSPF)	VOLTS/PHASE	MIN. CKT. AMPS	MOCP AMPS	WT. LBS	REMARKS:	
CU 1	COMMUNICATIONS	A118	CARRIER	380CQ3660	3	36.0	25.2	9.6	36.0	3.2	460/3	3.3	15	350	1-1-2-3-4-5-6-7

VAV BOX SCHEDULE SYMBOL	AREA SERVED	MFG.	MODEL NO.	DESIGN CFM	NUMBER OF PEOPLE	CFM/PERSON	OUTSIDE AIR CFM	MIN CFM	AIR P.D. INCHES MBTU/HR MAX	-----HEATING P.D. ENT. DEG	HOT WATER P.D. ENT. DEG	-----L.V.G. DEG	WT. LBS.	REMARKS:
VAV_R1_1	HEALTH_R103	ENVIRO TEC	SDR-VG-10	750	5	20	100	175	0.25 15.8	1.1	2.0	180	170	110374567

	8,000	1,460	168	11
*1 MINIMUM CFM BASED ON 40% OUTSIDE AND 60% RETURN AIR.	3,100			
*2 PROVIDE 1 INCH THICK LINED SUPPLY PLENUM.				
*3 PROVIDE A 24 VOLT ELECTRIC ACTUATOR MOUNTED ON VAV BOX. REFER TO CONTROL SECTION FOR TYPE OF ACTUATOR.				

ROOFTOP HEATING AND VENTILATION UNIT SCHEDULE SYMBOL	AREA SERVED	MFG.	MODEL NO.	HEATING MBTU/HR IN	HEATING MBTU/HR OUT	EEF %	TEMP RISE DEG F	SUPPLY CFM	OUTSIDE AIR CFM	EXT. S.P. INCHES	FAN MOTOR HP	FAN MOTOR VOLTS/PH	FAN MOTOR FLA	UNIT FLA 120/1PH	WT. LBS	REMARKS:
HV/C1	GREASE KITCHEN HOOD	REZNOR	HCRGB-225	225	180	80	48	3,500	3,500	1	5	460/3	6.6	1.5	1,500	*1*2*3*4*5*6*7*8*9*10

\*1 PROVIDE A FACTORY ONE PIECE PITCH ROOF CURB.  
\*2 PROVIDE 1 INCH THICK LINED SUPPLY PLENUM.  
\*3 PROVIDE A 100% OUTSIDE AIR HOOD.  
\*4 PROVIDE UPDRAFT PADS BETWEEN UNIT AND CURB. PROVIDE SEISMIC RESTRAINTS.  
\*5 PROVIDE 2 NEW SETS OF 2 INCH THICK FARR 30/30 FILTERS (ONE FOR STARTUP AND TEST AND BALANCE - ONE FOR OCCUPANCY).  
\*6 PROVIDE 409 STAINLESS STEEL HEAT EXCHANGER, 409 STAINLESS STEEL BURNERS, AND 409 STAINLESS STEEL DRIP PAN.

**MECHANICAL ROOF TOP HEAT VENT  
HV/C4, HV/C5 ARE IN SCOPE AND ARE  
TO BE REPLACED.**




CENTERLINE OF THERMOSTAT





24" MAX.




TOP OF THERMOSTAT

4	5	6	7	8	9	10	11	12	13	14	15
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HVAC LEGEND	
SYMBOL	DESCRIPTION
	CEILING MOUNT SUPPLY DIFFUSER

	RIGID DUCT
	LINED DUCTWORK (1" THICK U.N.O.)
	FLEXIBLE DUCT (2' MAX.)

	DUCT PENETRATION THRU ROOF
	VOLUME DAMPER
	SMOKE DETECTOR - SD
	

	FIRE/SMOKE DAMPER - F/SD
	TWO HOUR FIRE/SMOKE DAMPER - F/SD
	THERMOSTAT

A.F.F.	ABOVE FINISHED FLOOR	ELEC.	ELECTRICAL	P.O.C.	POINT OF CONNECTION
A.F.G.	ABOVE FINISHED GRADE	ELEV.	ELEVATION	S.O.V.	SHUT OFF VALVE
ABV.	ABOVE	FUR.	FLOOR	SA	SUPPLY AIR
ARCH.	ARCHITECT(URAL)	FT.	FOOT OR FEET	(R)	TO BE REMOVED
B/G	BELOW GRADE	I.	INTERIOR UNID	RA	RETURN AIR
BEL.	BELOW	MAX.	MAXIMUM	RTU	ROOFTOP UNIT

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<b>NOTE:</b>
ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION PER 1998 CBC, SECTION 1632A & TABLE 16A-D.
WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE MECHANICAL ENGINEER AND THE FIELD ENGINEER OF THE OFFICE OF THE STATE ARCHITECT.

**GENERAL NOTES:**

1. ALL PRE-FORMED FILTER HAVING A COMBUSTIBLE FRAME SHALL BE TESTED AS A COMPLETE ASSEMBLY. ALL FILTERS IN ALL OCCUPANCIES SHALL BE CLASS II OR BETTER, AS SHOWN ON THE STATE FIRE MARSHALL LISTING. AIR FILTERS SHALL BE ACCESSIBLE FOR CLEANING OR REPLACEMENT.
2. ALL INSULATION AND DUCT LINER SHALL HAVE A CLASS I FIRE

SEISMIC NOTES:
APPLICABLE TO ALL BUILDING WHERE MECHANICAL RENOVATION IS TAKING PLACE - SEE MECHANICAL SHEETS.

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AGENCY APPROVAL	IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
	04 - 102653 AC ____ FLS ____ SS ____ DATE _____

PROJECT TITLE					
SAN MARCOS UNIFIED SCHOOL DISTRICT					
SAN ELIJO MIDDLE SCHOOL					
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 30%;"></div> <div style="width: 30%; text-align: center;">© HMC GROUP 2002</div> <div style="width: 30%;"></div> </div>					
NO.	REVISIONS	DATE	NO.	REVISIONS	DATE


2	PRE-BID ADD.	FEB 24, 2003			
4	DSA REVISIONS	5/7/03			

DRAWING TITLE

# MECHANICAL SCHEDULES

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ARCHITECT: SEAL      DESIGNED:      PROJECT NO:

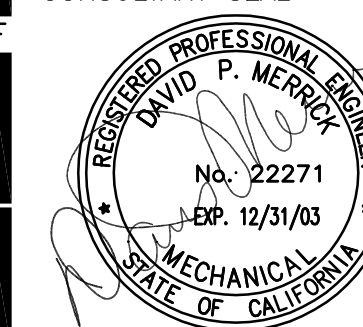
	PROJECT NO.	3-249-001
	DRAWN	SCALE
	MPP	1/8" = 1'-0"
	CHECKED	DRAWING NO.
	DPM	MO.1
DATE		OF .
JAN. 6, 2003		

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NOTES

- A. COORDINATE ALL DUCTWORK PENETRATIONS THROUGH MASONRY SHEER WALLS WITH STRUCTURAL DRAWINGS 82-4 THRU 82-1.
- B. ALL DUCTWORK PLenum DROPS DOWN FROM ROOFTOP UNITS ARE TO BE FULL SIZE OF UNIT CURB OPENINGS. INTERNALLY LINE THE FIRST 10'-0" OF ALL DUCTWORK (MIN) WITH 1" ACOUSTICAL LINER.
- C. REFER TO SHEET M01 AND SPECIFICATIONS FOR DIFFUSER TYPES AND SIZES. WHERE MODEL NUMBERS ARE CALLED OUT THE MODEL IS AS MANUFACTURED BY KRUEGER. WHERE MODEL NUMBERS ARE NOT SPECIFIED SHEET M01 AND SPECIFICATIONS SHALL DICTATE.
- D. ALL DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.

CONSULTANT SEAL



CONSULTANT



AGENCY APPROVAL

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
04 - 102653  
AC \_\_\_\_\_ FL \_\_\_\_\_ SS \_\_\_\_\_  
DATE \_\_\_\_\_

PROJECT TITLE

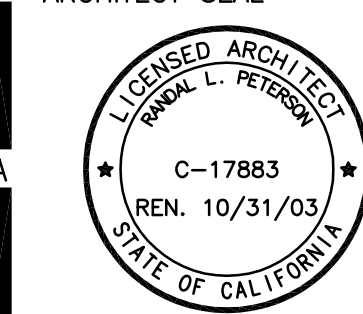
SAN MARCOS UNIFIED SCHOOL DISTRICT  
SAN ELIJO MIDDLE SCHOOL

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C NO.	REVISIONS	DATE	NO.	REVISIONS	DATE	
2	PRE-BID ADD.	FEB 24, 2003				
4	DSA REVISIONS	5/7/03				

DRAWING TITLE

BUILDING C - PARTIAL  
MECHANICAL ROOF PLAN

ARCHITECT SEAL



DESIGNED

MPP

DRAWN

MPP

CHECKED

DPM

DATE

JAN. 6, 2003

PROJECT NO.

3-249-001

SCALE

1/8" = 1'-0"

DRAWING NO.

MC3.1

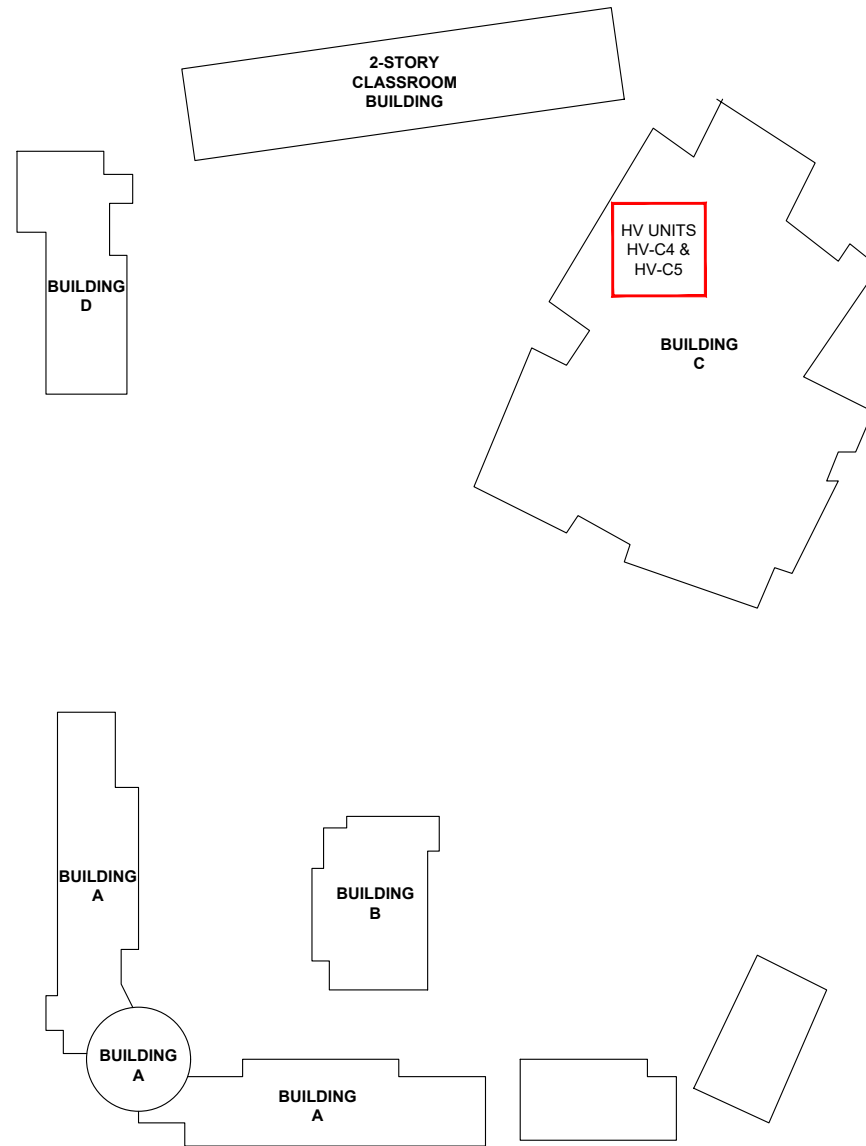
OF .

SEE SHEET MC3.2 FOR  
CONTINUATION OF PLAN

PARTIAL MECHANICAL ROOF PLAN - BUILDING 'C'

1/8" = 1'-0"

1



**2023 - SAN ELIJO MS - HV UNIT REPLACEMENT NOTES:**

- SAFE-OFF EXISTING DDC CONTROLS ON EXISTING LOCKER ROOM HV UNITS HV-C4 & HV-C5 BEFORE HV UNIT REMOVAL.
- FURNISH, PROGRAM AND INSTALL NEW LONWORKS BASED DDC CONTROLS FOR NEW LOCKER ROOM HV UNITS HV-C4 & HV-C5.
- PROVIDE STARTUP & TESTING ASSISTANCE.
- PROVIDE INTEGRATION OF NEW CONTROLS INTO THE SMUSD ENERGY MANAGEMENT SYSTEM.

**SAN ELIJO MIDDLE SCHOOL SITE LAYOUT**

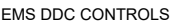
**SMUSD - SAN ELIJO MS - HV UNIT REPLACEMENTS**

E			<b>SEMS-M-601</b>			
D			SAN ELIJO MIDDLE SCHOOL 1600 SCHOOLHOUSE ROAD SAN MARCOS, CALIFORNIA 92078			
C						
B						
A						
REVISIONS			DATE		SITE LAYOUT	
DATE:	07/20/23	SALES: RDD	ENG: CLS	DWG: 1	OF ##	DWG. SEMS-M-601
					REV	---

OWNER: SAN MARCOS UNIFIED SCHOOL DISTRICT  
CONTROLS CONTRACTOR: R&R CONTROLS, INC.



4564 ALVARADO CANYON ROAD  
SUITE B  
SAN DIEGO, CALIFORNIA 92120  
PHONE: 619-516-1880  
FAX: 619-516-1881



SEQUENCE OF OPERATION:

GYM HEAT VENTILATION (HV) UNITS:

THE HV UNIT WILL BE ENABLED BASED ON A TIME-OF-DAY SCHEDULE FROM THE SMUSD EMS. THE SYSTEM CAN ALSO BE STARTED VIA THE ROOM SENSOR BYPASS BUTTON. WHEN THE HV UNIT IS RUNNING THE DDC CONTROLLER WILL ENABLE THE HEATING AND MODULATE THE HEAT AS REQUIRED TO MAINTAIN SETPOINT. IF THE HV UNIT HAS A VFD FOR THE SUPPLY FAN SPEED, THE DDC MAY BE USED TO CONTROL THE FAN SPEED BASED ON COOLING OR HEATING LOAD.

THE EMS WILL MONITOR THE VARIOUS DATA POINTS AS SHOWN ON THIS DRAWING.  
VERIFY THAT UNITS WITH SMOKE DETECTORS OR SHUTDOWNS ARE WIRED TO SHUTDOWN THE HV UNIT WHEN  
SMOKE IS DETECTED.

## 2023 - SAN ELIJO MS - HV UNIT REPLACEMENT NOTES:

- SAFE-OFF EXISTING DDC CONTROLS ON EXISTING LOCKER ROOM HV UNITS HV-C4 & HV-C5 BEFORE HV UNIT REMOVAL.
- FURNISH, PROGRAM AND INSTALL NEW LONWORKS BASED DDC CONTROLS FOR NEW LOCKER ROOM HV UNITS HV-C4 & HV-C5.
- PROVIDE STARTUP & TESTING ASSISTANCE.
- PROVIDE INTEGRATION OF NEW CONTROLS INTO THE SMUSD ENERGY MANAGEMENT SYSTEM.

NOTES:

1. MECHANICAL CONTRACTOR IS TO PROVIDE HV UNIT WITH FACTORY INSTALLED SUPPLY FAN AND OUTSIDE AIR DAMPER CONTROL.
2. DDC TO CONTROL SUPPLY FAN SPEED (IF AVAILABLE AND REQUIRED).
3. MECHANICAL CONTRACTOR SHALL PROVIDE OUTDOOR AIR DAMPER SECTION WITH 2-POSITION ACTUATOR AND CONTROL.
4. EACH HV UNIT DDC WILL ALSO ENABLE (2) EXHAUST FANS. (SEE SCHEDULE ABOVE).

## BUILDING C - LOCKER ROOMS



## SMUSD - SAN ELIJO MS - HV UNIT REPLACEMENTS

E					<b>SEMS-M-602</b>  SAN ELIJO MIDDLE SCHOOL 1600 SCHOOLHOUSE ROAD SAN MARCOS, CALIFORNIA 92078
D					
C					
B					
A					
REVISIONS				DATE	LOCKER ROOMS HV UNIT CONTROLS
DATE:	07/20/23	SALES: RDD	ENG: CLS	DWG: 2 OF ##	DWG. SEMS-M-602 REV ---

OWNER: SAN MARCOS UNIFIED SCHOOL DISTRICT  
CONTROLS CONTRACTOR: R&R CONTROLS, INC.



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