Marshall Elementary Rooftop Package Unit Replacement (9) Project- Bid # 24.065

Questions and Answers

1. Are there drawings for the "Rooftop Package Unit Replacement (9) at Marshall Elementary # 24.065?

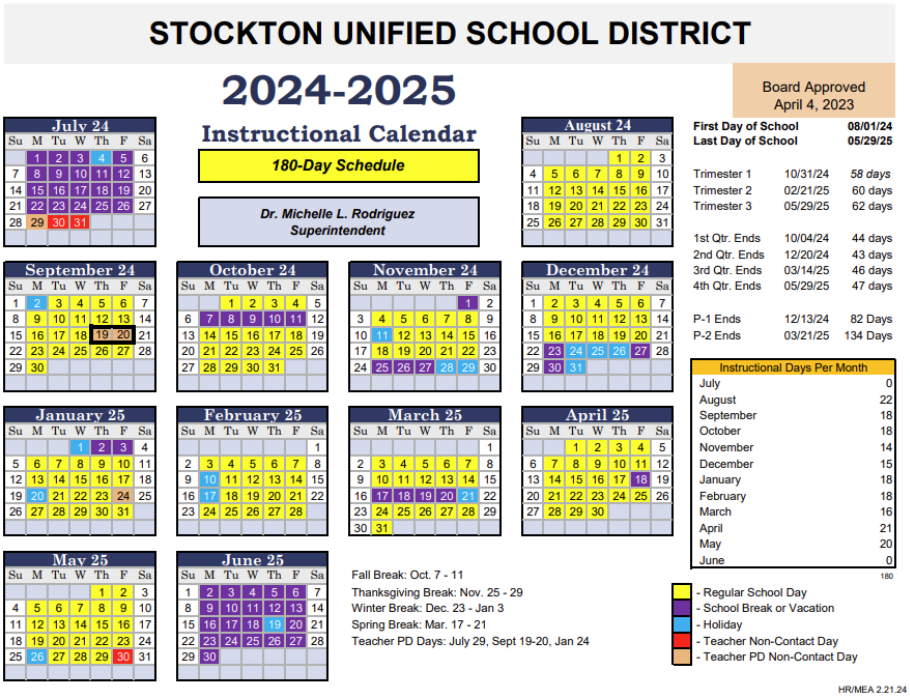
   Answer: We have As-Builts for the existing equipment only. See Page 3,4,5,6

2. We have had some contractors reach out for the upcoming Marshall & King replacement RTU job and wanted to confirm if they district would approve Tran Rooftop units if we required curb adapters?

   Answer: Yes

3. When did you want the work to be done?

   Answer: Depending on how long the equipment takes to be delivered. We would like the work completed during our Fall break, Oct 7th through October 11th, 2024.



STOCKTON UNIFIED SCHOOL DISTRICT

2024-2025

Instructional Calendar

180-Day Schedule

Dr. Michelle L. Rodriguez
Superintendent

Board Approved
April 4, 2023

July 24

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August 24

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

First Day of School		08/01/24
Last Day of School		05/29/25
Trimester 1	10/31/24	58 days
Trimester 2	02/21/25	60 days
Trimester 3	05/29/25	62 days
1st Qtr. Ends	10/04/24	44 days
2nd Qtr. Ends	12/20/24	43 days
3rd Qtr. Ends	03/14/25	46 days
4th Qtr. Ends	05/29/25	47 days
P-1 Ends	12/13/24	82 Days
P-2 Ends	03/21/25	134 Days

September 24

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October 24

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November 24

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

December 24

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January 25

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February 25

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

March 25

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April 25

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

May 25

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

June 25

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Instructional Days Per Month

July	0
August	22
September	18
October	18
November	14
December	15
January	18
February	18
March	16
April	21
May	20
June	0
	180

Fall Break: Oct. 7 - 11
Thanksgiving Break: Nov. 25 - 29
Winter Break: Dec. 23 - Jan 3
Spring Break: Mar. 17 - 21
Teacher PD Days: July 29, Sept 19-20, Jan 24

- Regular School Day
- School Break or Vacation
- Holiday
- Teacher Non-Contact Day
- Teacher PD Non-Contact Day

HR/MEA 2.21.24

4. When you open the Marshall Specifications document it says that its for King Elementary and it has a different Project number on it, is this the correct specifications for the job?

   Answer: The Specifications for Stockton Unified School District are for Mechanical General Provisions and remain the same from project to project. The description should have been left off.

5. Where do you want the point of connection to be on the ductwork?

   Answer: From the unit to the penetration.

6. Do you want all the PVC condensate drain replaced or do you want us to connect to the existing PC piping?

   Answer: Connect to existing PVC.

7. Do you want new disconnect SW's?

   Answer: Yes. Rated Heavy-Duty

8. Do you want new equipment pad covers?

   Answer: Curbs and curb caps

9. Do you want Title 24 economizers?

   Answer: Yes

10. Do you want all the existing ductwork and grills pressure tested and cleaned?

    Answer: Yes

11. Do you want all the classroom's air balanced?

    Answer: Yes

12. Are the existing controls to be disconnected and reconnected to the new units?

    Answer: Disconnect only, we will reconnect in-house.

13. Do you want the economizers added to the existing controls and the controls Graphix update?

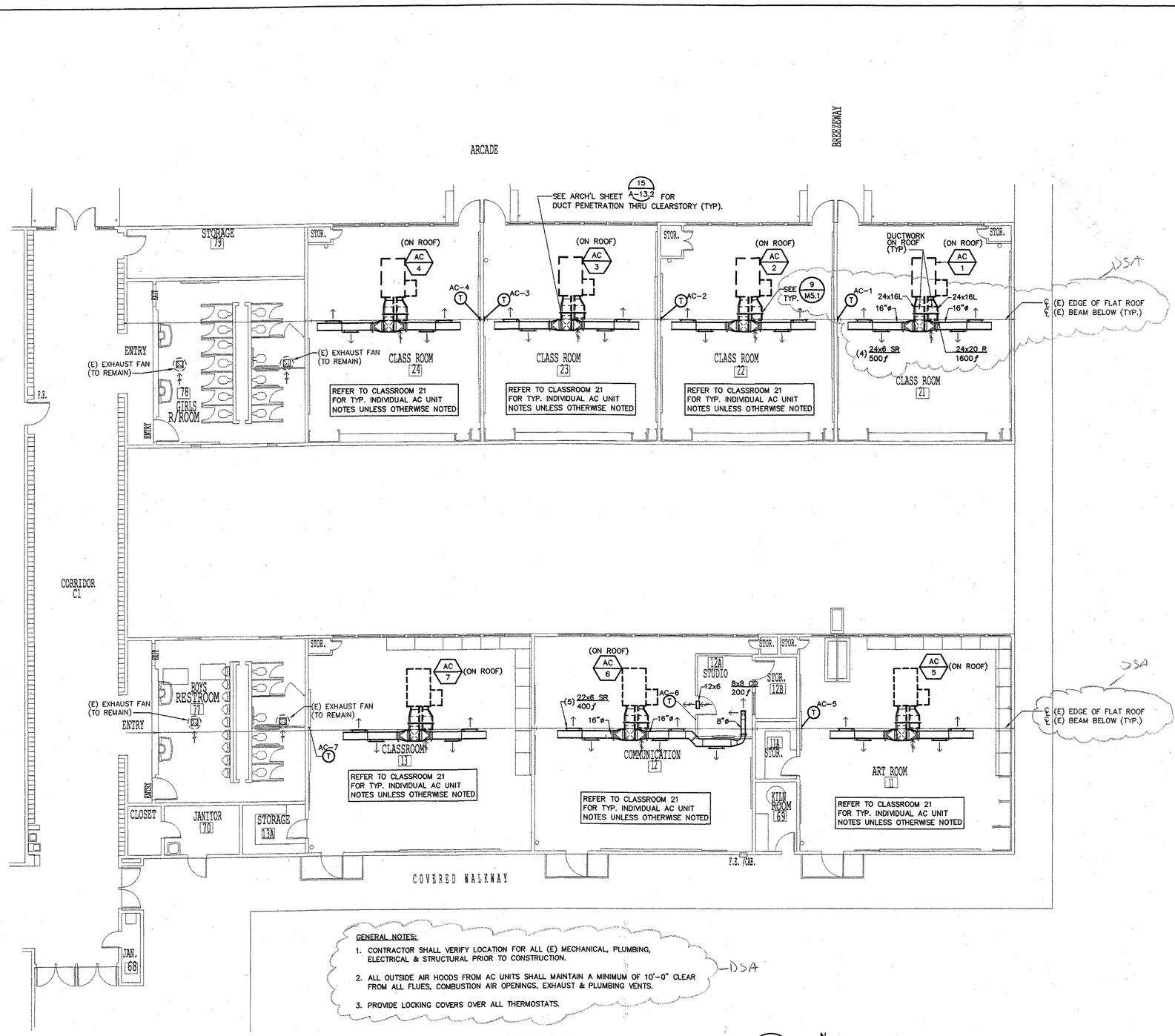
    Answer: No

14. Is an ASSC factory certified technician acceptable for the start-up of the equipment?

    Answer: Yes

15. Do you require Title 24 commissioning?

    Answer: Yes



GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION FOR ALL (E) MECHANICAL, PLUMBING, ELECTRICAL & STRUCTURAL PRIOR TO CONSTRUCTION.
2. ALL OUTSIDE AIR HOODS FROM AC UNITS SHALL MAINTAIN A MINIMUM OF 10'-0" CLEAR FROM ALL FLUES, COMBUSTION AIR OPENINGS, EXHAUST & PLUMBING VENTS.
3. PROVIDE LOCKING COVERS OVER ALL THERMOSTATS.

DSA

HVAC PLAN - SECTION I

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

1 / M2.2

N

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DIV. OF THE STATE ARCHITECT
02 104030
AC ___ FLC EM SS 21
DATE ___

52802

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Marshall Middle School Modernization

Stockton Unified School District
Stockton, California

Consultant's Stamp

Capital Engineering Consultants, Inc.
Sacramento, California

RY/YY
DESIGNER/DRAFTER

010529.00
PROJECT NO.

Sheet Title

HVAC Floor Plan

Key Plan

Job Number
00.445

Drawn By
-

Date
December 31,01

Sheet Number
M2.2

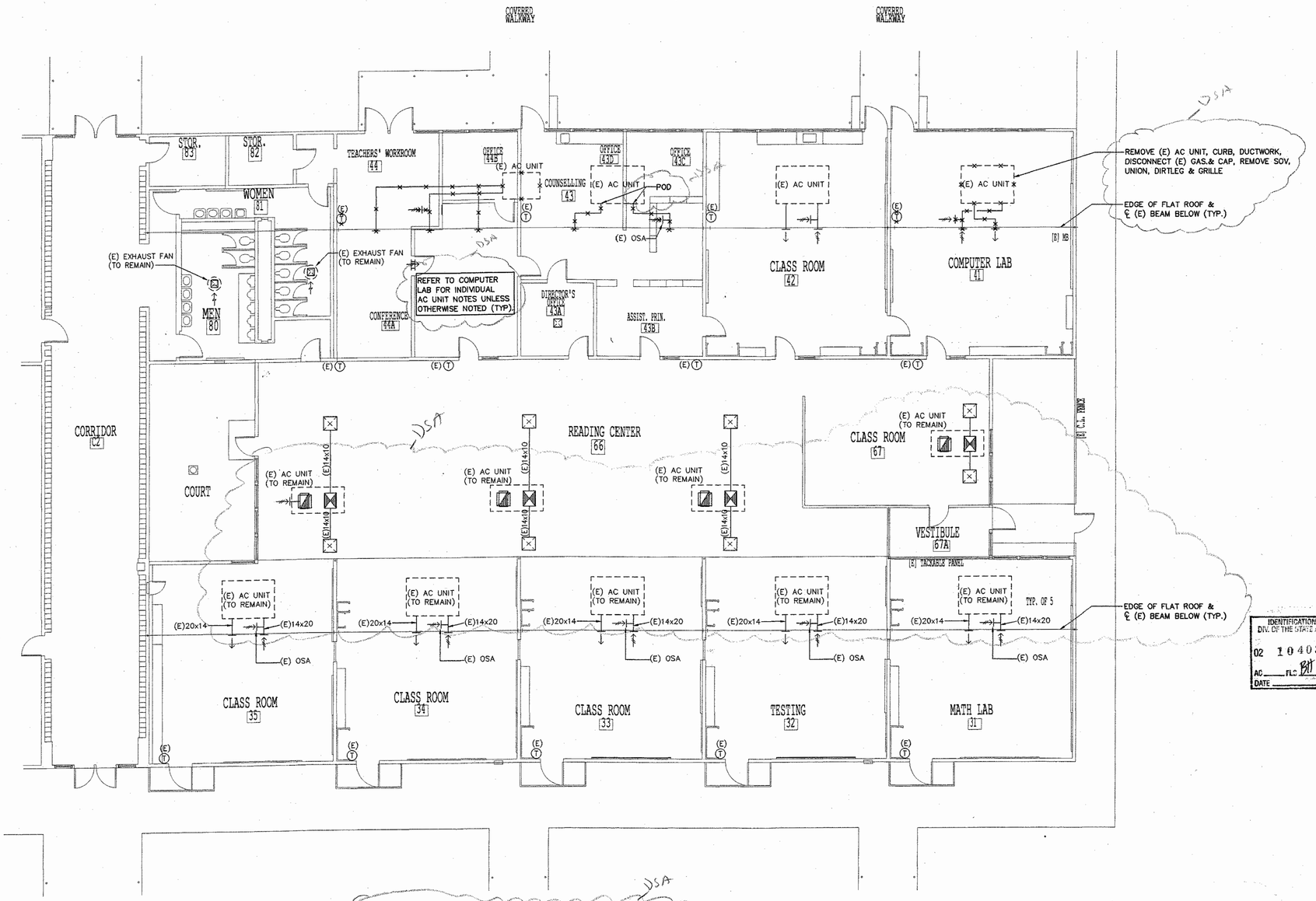
Total Sheets
of

Revisions

DSA Number

Architect's Stamp

REGISTERED PROFESSIONAL ENGINEER
THOMAS A. CUNIO
M 22836
EXPIRES 9/30/04
MECHANICAL
STATE OF CALIFORNIA



GENERAL NOTES:

1. CONTRACTOR SHALL RETURN (E) AC UNITS BACK TO SCHOOL DISTRICT IF STILL IN GOOD RUNNING CONDITION.
2. CONTRACTOR SHALL VERIFY LOCATION FOR ALL (E) MECHANICAL, PLUMBING, ELECTRICAL & STRUCTURAL PRIOR TO CONSTRUCTION.
3. REPLACE (E) BELTS, FILTERS AND CLEAN INSIDE (E) AC UNITS.

HVAC DEMOLITION PLAN - SECTION II

1 / M2.3

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

N

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REGISTERED PROFESSIONAL ENGINEER
THOMAS A. DURAN
M 22836
EXPIRES 9/30/04
MECHANICAL
STATE OF CALIFORNIA

5-28-02

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Stockton, California

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Capital Engineering Consultants, Inc.
Sacramento, California

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010529.00 PROJECT NO.

Sheet Title

HVAC Demolition Plan

Key Plan

Job Number
00.445

Drawn By
-

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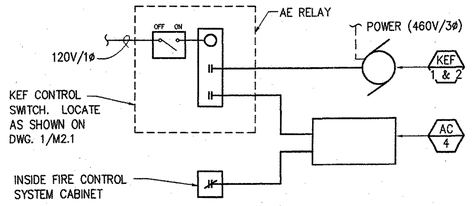


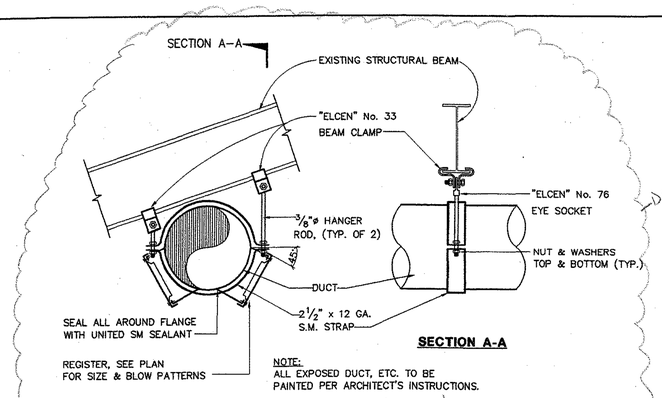
DESCRIPTION OF OPERATION

THE KITCHEN EXHAUST FAN WILL BE MANUALLY OPERATED BY AN ON/OFF SWITCH, AND WILL BE INTERLOCKED WITH AC-4 SUCH THAT WHEN KEF-1 & 2 IS ENERGIZED, THE SUPPLY FAN OF AC-4 SHALL OPERATE SIMULTANEOUSLY. MECHANICAL COOLING/HEATING WILL BE ALLOWED TO OPERATE TO MAINTAIN SPACE SET POINT. WHEN KEF-1 & 2 IS NOT ENERGIZED AC-4 WILL FUNCTION NORMALLY.

KEF-1 & 2 CONTROL DIAGRAM

7 / M5.1

SCALE : NONE

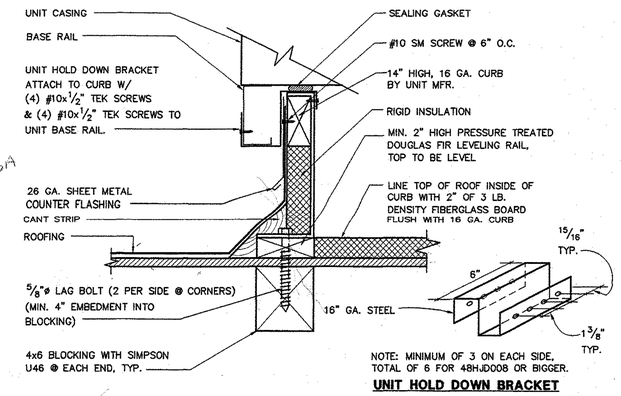


SECTION A-A

DIFFUSER @ EXPOSED DUCT - AT GYM

4 / M5.1

SCALE : NONE

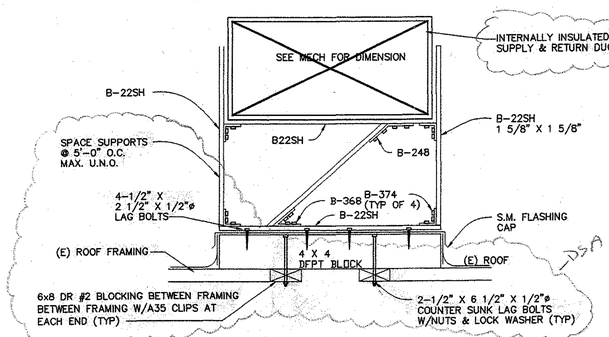


UNIT HOLD DOWN BRACKET

AC - UNIT MOUNTING

1 / M5.1

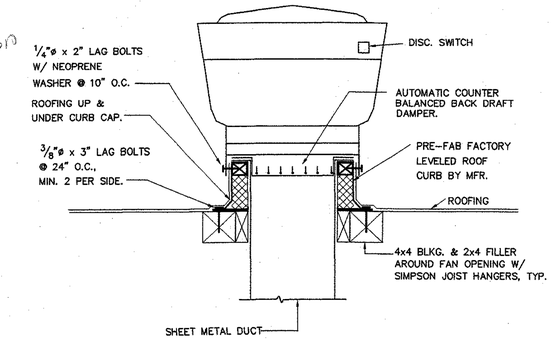
SCALE : NONE



DUCT SUPPORT ON ROOF DETAIL (B-LINE OR UNISTRUT)

9 / M5.1

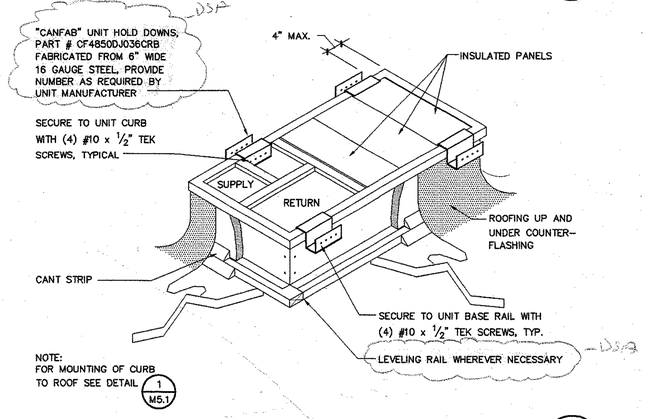
SCALE : NONE



REF MOUNTING

5 / M5.1

SCALE : NONE



AC - UNIT "HOLD DOWN"

2 / M5.1

SCALE : NONE

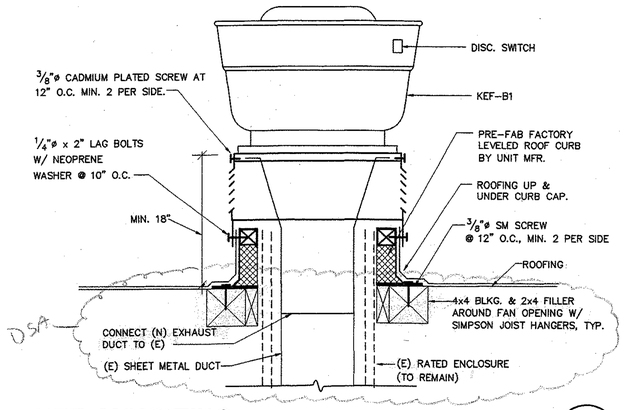
EQUIPMENT ANCHORAGE

ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING CRITERIA AND STATE CHAPTER 16A, VOLUME 2 1998 CALIFORNIA BUILDING CODE:

FIXED EQUIPMENT ON GRADE	20% OF OPERATING WEIGHT
FIXED EQUIPMENT ON STRUCTURE	34% OF OPERATING WEIGHT

SIMULTANEOUS VERTICAL FORCE – USE 1/3 X HORIZONTAL FORCE.

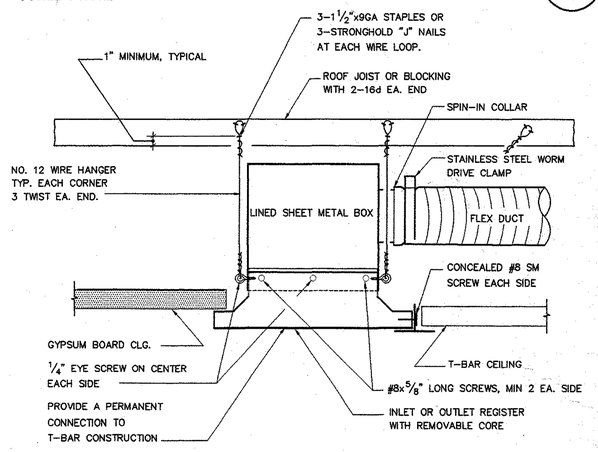
WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER & DSA.



KEF MOUNTING

6 / M5.1

SCALE : NONE

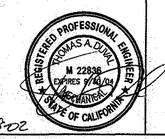


NOTE: 1. PLENUM HEIGHT EQUAL TO FLEX DIAMETER PLUS 4", NECK SIZE SHOWN ON PLAN.
2. PLENUM TO BE 2" LARGER THAN DIFFUSER NECK SIZE FOR LINER.

TYPICAL DIFFUSER/GRILLE MOUNTING

3 / M5.1

SCALE : NONE



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Stockton Unified School District
Stockton, California

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Sacramento, California

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010529.00 PROJECT NO.

Sheet Title

HVAC DETAILS

Key Plan

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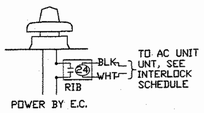
02 104030
AC FLS BLK SS 02
DATE

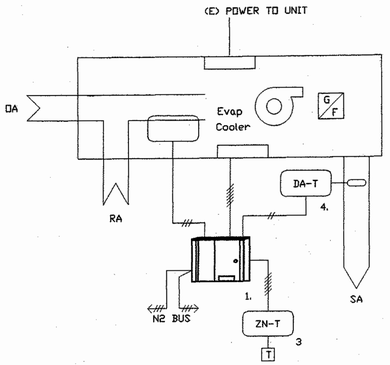
Job Number: 00.445
Drawn By: -
Date: December 31,01
Sheet Number: M5.1
Total Sheets: of
Revisions:
DSA Number:
Architect's Stamp



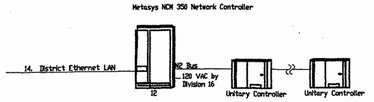
INTERLOCK SCHEDULE

NOTE:
REFER TO THE AC UNIT SCHEDULES FOR ALL EXHAUST FAN INTERLOCKS

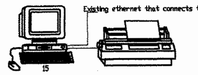
EXHAUST FAN INTERLOCKS



LOCKER ROOM EXISTING FURNACE - ADD EVAP COOLING

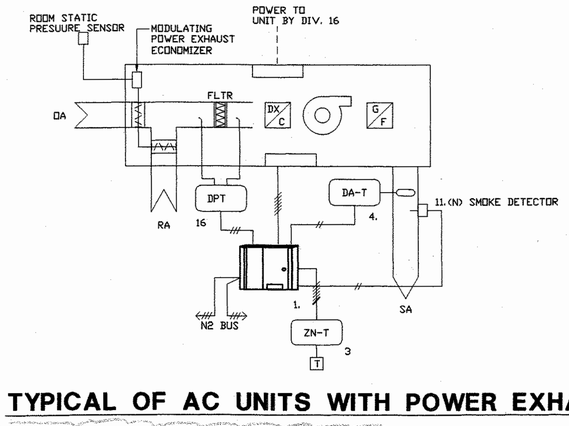


Add Metasys Controls to New Package AC Units Specified For each building.



Existing METASYS M5 Workstation Located at the District Office
Program New M5 Graphics to Match Existing

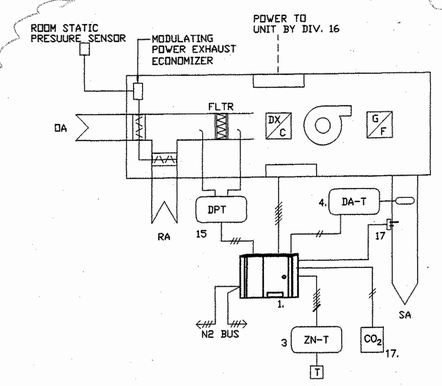
METASYS SYSTEM ARCHITECTURE



TYPICAL OF AC UNITS WITH POWER EXHAUST

NOTE:
1. THE MODULATING POWER EXHAUST FAN SPEED SHALL BE CONTROLLED VIA A STATIC PRESSURE SENSOR AND INTEGRAL VFD TO MAINTAIN ZONE STATIC PRESSURE SET POINT OF ± 0.03" SP.
2. REFER TO THE AC UNIT SCHEDULES FOR ALL EXHAUST FAN INTERLOCKS
3. REFER TO THE AC UNIT SCHEDULES FOR THE SMOKE INTERLOCKS
4. REFER TO THE AC UNIT SCHEDULES FOR THE CO_2 INTERLOCKS

DSA



DSA

MULTI-PURPOSE ROOM AC UNITS WITH POWER EXHAUST (2 / M6.1)

NOTE:
THE MODULATING POWER EXHAUST FAN SPEED SHALL BE CONTROLLED VIA A STATIC PRESSURE SENSOR AND INTEGRAL VFD TO MAINTAIN ZONE STATIC PRESSURE SET POINT BETWEEN 0.00" AND 0.03" W.C.

DESCRIPTION OF OPERATION

GENERAL

THE NEW CONTROLLERS SHALL DIRECTLY INTEGRATE INTO THE EXISITING JOHNSON METATSYS ENERGY MANAGEMENT SYSTEM (EMS) . IN ADDITION THE NEW CONTROLS WILL FULLY-INTERFACE WITH THE EXISTING METASYS M5 OPERATOR WORKSTATION LOCATED AT THE DISTRICT OFFICE. THE NCM 350 SHALL BE PROGRAMMED TO PROVIDE THE OPERATING SCHEDLUES OF EACH UNT CONTROLLER AS DESIGNATED BY THE SCHOOL DISTRICT. A TITLE 24 COMPLIANT PRE-OCCUPANCY PURGE CYCLE SHALL BE PROGRAMMED INTO THE OPERATION OF EACH HVAC SYSTEM. TIMED TEMPORARY OCCUPANCY OVERRIDE CAN BE ACTIVATED VIA PUSHBUTTON AT EACH THERMOSTAT. THE TEMPERATURE CONTROL CONTRATOR (TCC) SHALL PROVIDE THE FOLLOWING COLORGRAPHIC COMPUTER SCREENS ONTO THE EXISITING EMS COMPUTER AND EXISTING LAPTOP SERVICE TOOL:

A. SITE PLAN
B. INDIVIDUAL BUILDING PLAN SHOWING BASIC FLOOR PLAN AND ZONE SENSOR LOCKATIONS
C. EQUIPMENT GRAPHIC DEPICTING ACTUAL EQUIPMENT SHOWING STATUS AND TEMPERATURES.

AC PACKAGE UNITS

DURING PERIODS OF OCCUPANCY THE METASYS UNITARY CONTROLLER WILL ENABLE THE FAN AND PROVIDE STAGED HEATING AND COOLING TO MAINTAIN ROOM SETPOINT. EACH AC UNIT WILL HAVE ECONOMIZER CONTROLS THAT WILL POSITION THE ECONOMIZER DAMPERS TO PROVIDE COOLING AS REQUIRED. A FILTER DIFFERENTIAL PRESSURE TRANSDUCER WILL PROVIDE FAN PROOF AND FILTER LOADING MONITORING. WHEN DIFFERENTIAL PRESSURE EXCEEDS SETPOINT (ADJUSTABLE) THE UNIT WILL GO INTO ALARM MODE WHICH CAN BE AUTOMATICALLY DIALED-OUT TO THE DISTRICT WORKSTATION.
PROVIDE SUPPLY AIR SMOKE DETECTOR FOR ALL UNITS LISTED TO SHUT-DOWN AC UNIT UPON DETECTION OF SMOKE.

KITCHEN EXHAUST FAN INTERLOCKS

INTERLOCK THE KITCHEN EXHAUST FANS TO AC 4
REFER TO THE MECHANICAL DRAWING FOR DETAILS

ALARMS
THE FOLLOWING ALARMS SHALL BE SET AT THE NCN 350 AND SENT OVER ETHERNET TO THE SCHOOL DISTRICT CENTRAL M5 METASYS WORKSTATION:
1. DIRTY FILTER (1.0-IN. WG.)
2. SUPPLY FAN FAILURE
3. HEATING FAILURE
4. COOLING FAILURE
5. ZONE HIGH TEMPERATURE (5 DEGF HIGHER THAN SETPOINT FOR 15 MINUTES)
6. ZONE LOW TEMPERATURE (5 DEGF LOWER THAN SETPOINT FOR 15 MINUTES)

CONTROL NOTES:
1. ONE GLOBAL OUTSIDE AIR TEMPERATURE SENSOR FOR THE CAMPUS REQUIRED.
2. SMOKE DETECTORS SHALL BE FACTORY SUPPLIED, INSTALLED, WIRED, AND POWERED BY UNIT MANUFACTURER
3. ADDITIONAL COMPONENTS TO COMPLETE DESIGN INTENT ARE THE RESPONSIBILITY OF THE CONTROL CONTRACTOR.
4. CONNECT THE NCM 350 CONTROLLER TO THE DISTRICT ETHERNET

CONTROL MATERIAL LEGEND
1. METASYS CONTROLLER (AS-UNT141-1) TYPICAL FOR ALL NEW AND EXISTING HVAC SYSTEMS
2. GLOBAL OUTSIDE AIR TEMPERATURE SENSOR (TE-6313P-1)
3. ZONE TEMPERATURE SENSOR (TE-6411W-1110)
4. HOT DECK, COLD DECK AND RETURN AIR TEMPERATURE SENSOR (TE-6311P-1)
5. MIXED AIR AVERAGING ELEMENT TEMPERATURE SENSOR (TE-6315P-1)
6. CURRENT SENSING RELAY (VERIS H-900)
7. DIFFERENTIAL PRESSURE SWITCH (P32AF-2C)
8. CONTROL RELAY (IDEC RH2B WITH LED)
9. PROPORTIONAL DAMPER ACTUATOR (M9216-HGA-2)
10. PROPORTIONAL DAMPER ACTUATOR (M9108-GGA-2)
11. SMOKE DETECTOR (SYSTEM SENSOR DH100ACDCP AND SENSING TUBES (ST).
12. METASYS NCM 350 CONTROLLER WITH ETHERNET CARD (NCM-350-8 NETWORK CONTROLLER WITH 8 MEG OF MEMORY)
13. VT-100 TERMINAL (WYSE)
14. CONNECT THIS SCHOOL USING THE EXISTING DISTRICT ETHERNET
15. EXISTING DISTRICT WORKSTATION TO BE UPGRADED BY THE CONTROL CONTRACTOR TO ALLOW COMMUNICATION WITH THE NEW NCM 350 CONTROLLER.
16. DPT DIFFERENTIAL PRESSURE TRANSDUCER 0-1.5" WC JOHNSON DPT-2015
17. CO_2 SENSOR.

DSA

GENERAL NOTES

1 - CONTROL WIRING SHALL BE IN CONDUIT.

2 - CONCEALED CONTROL WIRING WILL BE RUN EXPOSED USING #18 - PLENIUM RATED CABLE

WIRING BY DIV. 15

WIRING BY DIV. 16

5-28-02

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Sheet Title

CONTROLS

Key Plan

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02 104080
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DATE

Job Number
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Date
December 31,01

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M6.1

Total Sheets
of

Revisions

DSA Number

Architect's Stamp