NOTES:

ALL BRACING OF DUCTS AND PIPINGS SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES AS APPROVED BY DSA.

WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECTED TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND DSA FIELD ENGINEER.

A COPY OF THE GUIDELINES PUBLISHED BY SMACNA AND APPROVED BY DSA SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON THE JOB AT ALL TIMES.

THE SEISMIC ANCHORAGE OF MECHANICAL AND ELECTRICAL EQUIPMENT SHALL CONFORM TO C.C.R. TITLE 24, 2001 CBC, SECTION 1632A AND TABLE 16A-O. ANCHORAGE DETAILS FOR ROOF / FLOOR MOUNTED EQUIPMENT SHALL BE SHOWN ON PLANS.

NOTE

AIR FILTERS SHALL BE A STATE FIRE MARSHAL APPROVED AND LISTED TYPE. PREFORMED FILTERS HAVING COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS IN ALL OCCUPANCIES SHALL BE CLASS 1 OR 2 (AS SHOWN IN THE STATE FIRE MARCHAL LISTING). AIR FILTERS SHALL BE ACCESSIBLE FOR CLEANING OR REPLACEMENT. (402.3 CMC)

MECHANICAL TITLE 24 MANDATORY MEASURES NOTES:

1. Any appliance for which there is a California standard established in the Appliance Efficiency Standards may be installed only if the manufacturer has certified to the Energy Commission that the appliance complies with applicable standards.
2. Piping, except those conveying fluids between 60 and 105 degrees F, or within HVAC equipment, shall be insulated in accordance with Standards section 123.
3. Air handling duct systems shall be constructed, installed, sealed, and insulated in accordance with UMC chapter 6.
4. Each space conditioning system shall be installed with an automatic time switch with an accessible manual override. Time switch shall be capable of weekday and weekend programming, and have night heating and cooling set back features. Thermostats shall have adjustable setpoint limiters accessible only by service personnel.
5. Controls and dampers shall be provided to allow ventilation rates as specified on these plans. Gravity or motorized dampers shall be provided that close outside air and exhaust system duct openings when not in use.
6. All ventilation systems shall be documented in accordance with California Title 8, Section 5142 (b). All space conditioning systems shall be air and water balanced to the quantities specified in these plans, in accordance with NEEB standards (1983) or AABC standards (1984).
7. Domestic hot water circulators shall have an automatic control to turn off pump(s) based on demand.
8. Lavatories in restrooms or public facilities shall be equipped with 0.5 GPM flow limiter on the H.W. supply, foot actuated control valves or proximity actuated controls with 0.75 GPM max. Lavs shall have self-closing valves and outlet devices that limit the H.W. flow to 0.25 gallons per cycle (circulating system), 0.50 gallons per cycle (non-circulating system), 0.75 gallons per cycle (foot controls and proximity sensors). Controls shall be provided to limit the outlet temperature to 110 degrees F.

MECHANICAL EQUIPMENT SCHEDULE

MUA 1 — Packaged Rooftop Make-Up-Air Unit, "Reznor" # RPBL - 400. 5800 CFM @1.6" T.S.P., 5 H.P. motor, 400,000 BTUH 2 stage heating input, 320,000 BTUH output, nat. gas, Unit complete with 409 stainless steel heat exchanger, burners and drip pan, 12" deep "CellDek" section (complete with pump, flood and bleed-off), factory mounted and wired motor starter. Remote monitoring panel # RIC-7 with status lights, system on/off switch and Heat/Cool/Off switch. Provide integral exhaust fan relays per detail on plan and AR-8 O.A. damper with motor (2 position, open/closed) Full perimeter 14 gauge flat roof curb. 30/30 field supplied filters in shop fabricated rack. Controls to include A6-13 2 stage ductstat control and room thermostat (see plans for location). Provide the following sequence of operation. Heating - 100% O.A.; Cooling and Ventilating - 100% O.A.; cooler pump runs in cooling mode.

Electrical: 5 H.P. @ 208v-3ph. Operating weight: 1812 lbs.

AC 4 — 4 ton
Rooftop Packaged Heating-Cooling Unit, "Trane" YHC043. 1,600 CFM @ .50" ESP., 0.63 BHP, 44,000 BTUH total, 34,400 BTUH sensible cooling capacity (gross) @ A.R.I. 40,000 BTUH heating input, 33,000 BTUH output, natural gas. Unit complete with fully integrated economizer with differential enthalpy control and barometric relief, non-fused disconnect option, optional belt drive supply fan, time delay relay, high and low pressure switches, (2) 25" x 20" x 2" deep "Farr" 30/30 filters in factory filter rack, and optional 14 gauge (8" high) flat roof curb. 13 SEER, 8.0% AFUE minimum.

Electrical: 11.8 MCA @ 460v-3ph. Operating weight: 775 lbs.

AC 5 — 5 ton
Rooftop Packaged Heating-Cooling Unit, "Trane" YHC063. 1,950 CFM @ .50" ESP., .93 BHP, . 50,500 BTUH total, 50,500 BTUH sensible cooling capacity (gross) @ 80/61/105. 40,000 BTUH heating input, 33,000 BTUH output, natural gas. Unit complete with fully integrated economizer with differential enthalpy control and barometric relief, non-fused disconnect option, optional belt drive supply fan, time delay relay, high and low pressure switches, (2) 20" x 20" x 2" deep "Farr" 30/30 filters in factory filter rack, and optional 14 gauge (8" high) flat roof curb. 13 SEER, 8.0% AFUE minimum.

Electrical: 15.9 MCA @ 460v-3ph. Operating weight: 800 lbs.

AC 6 — 6 ton
Rooftop Packaged Heating-Cooling Unit, "Trane" YHC074. 2,500 CFM @ .6" ESP., .83 BHP, 80.5 RPM. 61,100 BTUH total, 61,100 BTUH sensible cooling capacity (gross) @ 80/61/105. 120,000 BTUH heating input, 97,000 BTUH output, two stage heating, natural gas. Unit complete with fully integrated economizer with differential enthalpy control, non-fused disconnect option, dual compressors, belt drive supply fan, time delay relay, high and low pressure switches, (4) 16" x 25" x 2" deep "Farr" 30/30 filters in factory filter rack, and optional 14 gauge (8" high) flat roof curb. 11.50 EER, 8.1% AFUE minimum.

Electrical: 16.6 MCA @ 460v-3ph. Operating weight: 1050 lbs.

AC 7.5 — 7.5 ton
Rooftop Packaged Heating-Cooling Unit, "Trane" YHC091 (dual compressor). 3,000 CFM @ .7" ESP., 1.22 BHP, 79.2 RPM. 72,500 BTUH total, 72,500 BTUH sensible cooling capacity (gross) @ 80/61/105. 150,000 BTUH heating input, 121,500 BTUH output, two stage heating, natural gas. Unit complete with fully integrated economizer with differential enthalpy control, option, belt drive supply fan, time delay relay, high and low pressure switches, (4) 16" x 25" x 2" deep "Farr" 30/30 filters in factory filter rack, and optional 14 gauge (8" high) flat roof curb. 11.50 EER, 8.1% AFUE minimum.

Electrical: 20.8 MCA @ 460v-3ph. Operating weight: 1200 lbs.

AC 8.5 — 8.5 ton
Rooftop Packaged Heating-Cooling Unit, "Trane" YHC103. 3,400 CFM @ .6" ESP., 1.87 BHP, 94.3 RPM. 84,100 BTUH total, 84,100 BTUH sensible cooling capacity (gross) @ 80/61/105. 150,000 BTUH heating input, 122,000 BTUH output, two stage heating, natural gas. Unit complete with fully integrated economizer with differential enthalpy control, non-fused disconnect option, dual compressors, belt drive supply fan, time delay relay, high and low pressure switches, (3) 20" x 20" x 2" & (3) 20" x 16" x 2" deep "Farr" 30/30 filters in factory filter rack, and optional 14 gauge (8" high) flat roof curb. 11.50 EER, 8.1% AFUE minimum.

Electrical: 24 MCA @ 460v-3ph. Operating weight: 1300 lbs.

EF 1 — Ceiling Exhaust Fan, "Greenheck" SP-15. 92 CFM @ .125" E.S.P.. 1.4 sones, 1,050 RPM, Interlock with light switch. Aluminum ceiling grille.

Electrical: 34 watts @ 120v-1ph. Operating weight: 18 lbs.

EF 2 — Rooftop upblast direct drive exh. fan, "Greenheck" RQUE-0906, 1/25 H.P., 500 C.F.M. @ .25" S.P., 5.4 sones, 1300 R.P.M., sloped curb, B.D.D., solid state speed controller mounted in fan, wall switch by 16000.

Electrical: 1/25 H.P. @ 120v-1ph. Operating weight: 50 lbs.

Note:
Confirm voltage & phase electrical power service prior to ordering any equipment.

GRILLE SCHEDULE

MR-1 Wall return: "Nailor" #61FH 46"x46" (steel)
GR-1 Ceil. t-bar return: "Nailor" #61EGL 22"x34" neck
SA-1 Surface supply: "Nailor" 6550-25 (21"x21") w/ O.B.D.
SA-2 Surface supply: "Nailor" 6550-D-3A-5GR16 (18"x18")
SA-3 Surface supply: "Nailor" 6550-D-25 (6"x6") w/ O.B.D.
CE-1 Surface exh. "Nailor" 61FH-HD (12"x12")

Notes:
1. Paint all visible surfaces behind diffusers and grilles flat black.
2. Provide blow patterns as shown on plans.

SCHOOL EQUIPMENT ANCHORAGE

FOR PUBLIC SCHOOLS (NON-ESSENTIAL FACILITIES ONLY)

ALL ELECTRICAL AND MECHANICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST HORIZONTAL FORCE ACTING IN ANY DIRECTION PER 2001 CBC 1632A AND TABLE 16 A-O AS FOLLOWS:

1. FOR BUILDINGS WITH GREATER THAN 300 OCCUPANTS, ABOVE FORCE SHALL BE INCREASED BY 15%.
2. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND THE FIELD ENGINEER OF THE DIVISION OF THE STATE ARCHITECT.

CODES

2001 CALIFORNIA CODE OF REGULATIONS (C.C.R.):

PART 1 - 2001 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, TITLE 24 C.C.R.

PART 2 - 2001 CALIFORNIA BUILDING CODE (CBC), TITLE 24, C.C.R. VOLUMES 1 & 2.

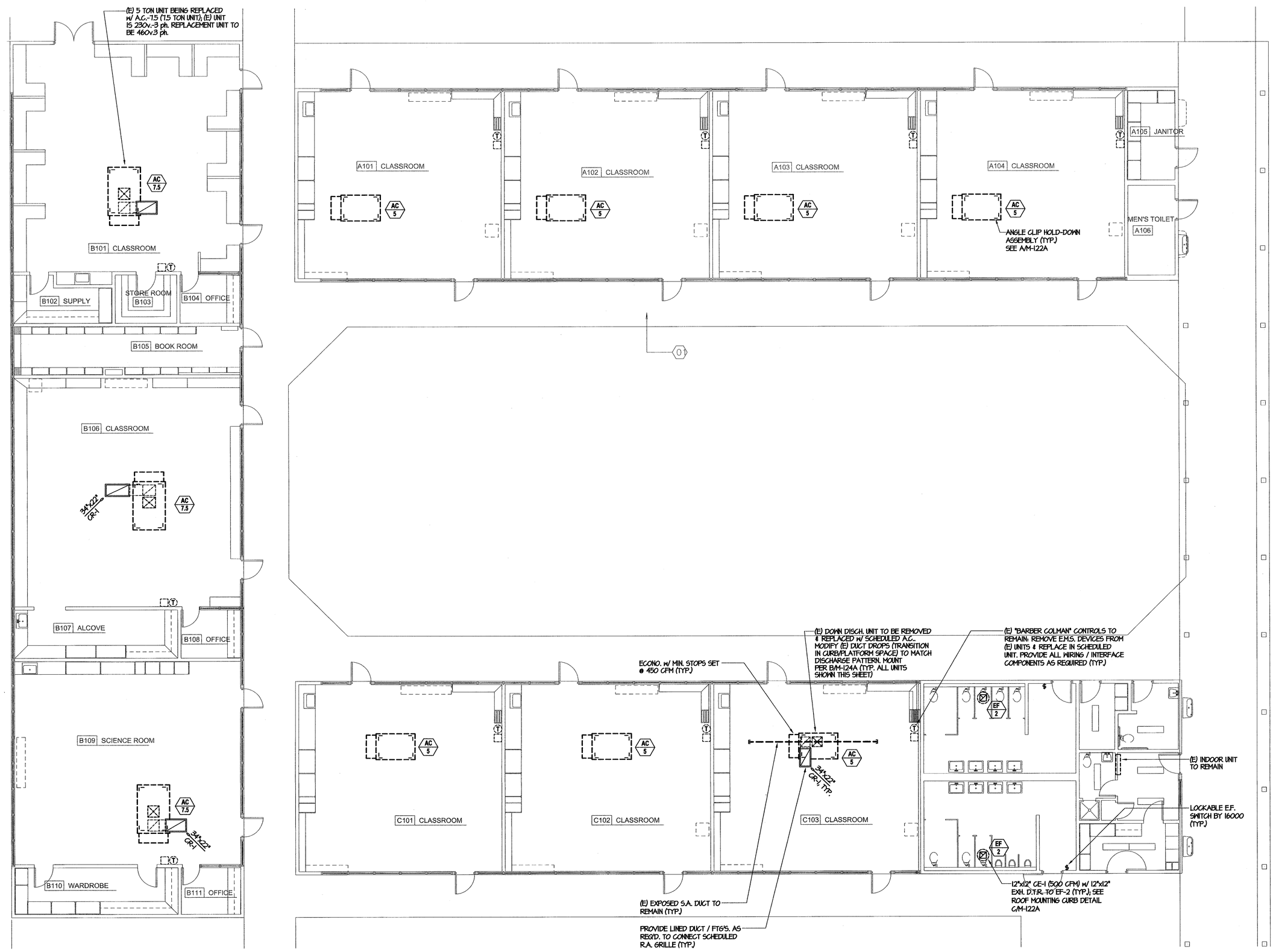
PART 3 - 2001 CALIFORNIA ELECTRICAL CODE, TITLE 24, C.C.R.

PART 4 - 2001 CALIFORNIA MECHANICAL CODE (CMC), TITLE 24, C.C.R.

PART 5 - 2001 CALIFORNIA PLUMBING CODE, TITLE 24, C.C.R.

PART 6 - 2001 CALIFORNIA ENERGY CODE, TITLE 24, C.C.R.

PART 9 - 2001 CALIFORNIA FIRE CODE, TITLE 24, C.C.R. (WITH 2000 UNIFORM FIRE CODE OF THE WESTERN FIRE CHIEFS ASSOCIATION)



NORTH

MECHANICAL FLOOR PLAN - BUILDING 'A', 'B' & 'C'

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

ORDIZ MELBY ARCHITECTS, INC.
5500 MING AVENUE SUITE 280
BAKERSFIELD, CALIFORNIA 93309
TELEPHONE (661) 832-5258
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LICENSED ARCHITECT WILLIAM JOHN MELBY No. C-16835 DEC. 31 2007 CIVIL STATE OF CALIFORNIA

DANNY E. ORDIZ, A.I.A.
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#02089 PLOTTED: 11-1-07

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DIVISION OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL. # 03-107003
FILE # 15-6
AC ____ FLS ____ SS ____
DATE ____

MODERNIZTION FOR CURRAN JUNIOR HIGH SCHOOL FOR:

BAKERSFIELD CITY SCHOOL DISTRICT

1116 LYMRIC WAY
BAKERSFIELD, CALIFORNIA
93309

MARK	DATE	DESCRIPTION
SD		
CD		
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JOB NUMBER: 2002480
CAD DWG FILE:
DRAWN BY: MA
CHECKED BY: RB

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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REGISTERED PROFESSIONAL ENGINEER MARK JAMES BASSON No. M35578 Exp. 9-30-08 MECHANICAL STATE OF CALIFORNIA

SHEET TITLE
MECHANICAL FLOOR PLAN
BUILDINGS 'A', 'B' & 'C'

SHEET IDENTIFICATION NUMBER
M-121A
SHEET 1 OF 5