GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS (C.C.R.) AND THE 1997 UMC EDITION WITH CALIFORNIA STATE AMENDMENTS (CMC-98).
2. FURNISH ALL LABOR, MATERIALS, TRANSPORTATION, AND PERFORM ALL REQUIRED OPERATIONS TO PROVIDE COMPLETE AND OPERABLE MECHANICAL SYSTEM, IN ACCORDANCE WITH THE FULL INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS AND PER STANDARD TRADE PRACTICES.
3. LOCATIONS OF DUCTWORK AND EQUIPMENT ARE SHOWN DIAGRAMMATICALLY. ADHERE TO EQUIPMENT LOCATIONS AND DUCT RUNS AS CLOSELY AS POSSIBLE. PROVIDE ADDITIONAL OFF-SETS AND VARY RUNS OR SHAPE OF DUCTWORK AS REQUIRED TO CLEAR STRUCTURAL AND OTHER INTERFERENCES SO FINISHED INSTALLATION IS NEAT AND ORDERLY AND CONCEALED BEHIND ALL WALL AND CEILING FINISHES. NO ABRUPT FITTINGS SHALL BE ALLOWED WITHOUT PRIOR APPROVAL BY PROJECT ENGINEER.
4. FLASH AND COUNTER FLASH ALL ROOF PENETRATIONS AS REQUIRED TO SEAL WEATHER TIGHT. (SEE ARCHITECTURAL ROOFING DETAILS, SPECIFICATIONS, NATIONAL ROOFING ASSOCIATION AND SMACNA STANDARDS – VERIFY WITH ARCHITECT/COMPLY WITH MOST STRINGENT).
5. THE CONTRACTOR SHALL COORDINATE ALL AIR OUTLETS WITH THE REFLECTED CEILING PLAN AND ALL DUCTWORK LOCATIONS WITH WORK OF OTHER TRADES BEFORE PROCEEDING WITH FABRICATION.
6. ALL EQUIPMENT, DUCTWORK AND PIPING SHALL BE SUPPORTED AND SEISMICALLY RESTRAINED TO COMPLY WITH 1998 CMC SECTION 308.1 AND 1998 CBC VOLUME 2 SECTION 1632.
7. VERIFY EXACT LOCATION AND MOUNTING HEIGHTS OF THERMOSTATS, TEMPERATURE SENSORS AND ALL OTHER WALL MOUNTED CONTROLS WITH ARCHITECT BEFORE INSTALLATION. IF NOT DIRECTED OTHERWISE, MOUNT ALL WALL MOUNTED CONTROL ELEMENTS AT 48" AFF.
8. INSTALL ALL DUCTWORK WITH VOLUME DAMPERS AND ANY OTHER ITEMS REQUIRING MAINTENANCE ACCESS AT AN ELEVATION AS TO BE WITHIN REACH OF THE ACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR TYPES OF CEILINGS AND THEIR ELEVATIONS.
9. DUCT DIMENSIONS INDICATED ON PLAN ARE NET INTERIOR DIMENSIONS. PROVIDE MINIMUM LENGTHS OF ACOUSTICALLY LINED SA AND RA DUCTS AS INDICATED IN FAN COIL UNIT SCHEDULE.
10. ALL EQUIPMENT SHALL BE INSTALLED WITH SUFFICIENT ACCESS TO CONTROLS, FILTERS, ELECTRIC MOTORS, ETC. CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE REQUIRED.
11. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR ALL EQUIPMENT PADS AND CURB LOCATIONS.
12. NO PRODUCT WILL BE ACCEPTED ON THE JOB SITE WITHOUT PRIOR APPROVAL BY THE ARCHITECT. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CATALOG SHEETS OF ALL MECHANICAL EQUIPMENT AND MATERIALS THAT THE CONTRACTOR EXPECTS TO USE.
13. DUCT DIMENSIONS SHOWN ARE INTERNAL (NET CLEAR OF ACOUSTICAL LINING).
14. ALL VISIBLE INTERIOR PORTIONS OF DUCTWORK AND AIR TERMINALS SHALL BE PAINTED FLAT BLACK BY MECHANICAL CONTRACTOR.
15. UON, THE MECHANICAL CONTRACTOR MAY USE FLEXIBLE DUCT FOR THE LAST FIVE FEET OF RUN TO AIR OUTLETS.
16. WHERE EQUIPMENT ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCH/STRUCTURAL ENGINEER AND DSA INSPECTOR OF RECORD.
17. WITHIN TWO WEEKS OF AWARD OF CONTRACT AND PRIOR TO ISSUING MATERIAL SUBMITTALS, CONTRACTOR SHALL FIELD MEASURE AVAILABLE PRESSURE AT POINT OF CONNECTION TO EXISTING CAMPUS HEATING HOT WATER LOOP AND SUBMIT FINDINGS TO ARCHITECT FOR REVIEW. MEASUREMENT TO INCLUDE PRESSURES AT BOTH SUPPLY AND RETURN PIPES AND BE TAKEN WHEN ALL OTHER BUILDINGS ON SAME BRANCH LINE FROM CENTRAL PLANT ARE AS CLOSE TO FULL DESIGN FLOW AS POSSIBLE (COORDINATE WITH CAMPUS BUILDINGS AND GROUNDS DEPARTMENT).

EQUIPMENT ANCHORAGE NOTES

IN ACCORDANCE WITH TITLE 24, SECTION 1632A, DETAILS SHALL BE PROVIDED FOR THE SEISMIC ANCHORAGE OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT. ANCHORAGE DETAILS SHALL BE BASED UPON APPROPRIATE DESIGN CALCULATIONS.

FOR EQUIPMENT WEIGHING 400 POUNDS OR MORE ANCHORAGE DETAILS AND APPROPRIATE DESIGN CALCULATIONS SHALL BE SUBMITTED AS PART OF THE MECHANICAL AND ELECTRICAL DRAWING. "DEFERRED APPROVAL" ITEMS WILL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BT THE PLAN CHECK SUPERVISOR.

EXCEPTION: ATTACHMENTS OF EQUIPMENT WEIGHING LESS THAN 400 POUNDS AND SUPPORTED DIRECTLY ON THE FLOOR OR ROOF STRUCTURE, FURNITURE OR TEMPORARY OR MOVABLE EQUIPMENT AND EQUIPMENT WEIGHING LESS THAN 20 POUNDS THAT IS SUPPORTED BY VIBRATION DEVICES SUSPENDED FROM THE ROOF, WALL OR FLOOR, NEED NOT BE DETAILED ON THE PLANS PROVIDED THE FOLOWING NOTES ARE INCLUDED ON THE MECHANICAL AND ELECTRICAL PLANS.

> ALL MECHANICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING CRITERIA:
>
> THE TOTAL DESIGN LATERAL SEISMIC FORCE SHALL BE DETERMINED FROM SECTION 1632A.2 CALIFORNIA BUILDING CODE (CBC) 1998. FORCES SHALL BE APPLIED IN THE HORIZONTAL DIRECTIONS WHICH RESULT IN THE MOST CRITICAL LOADINGS FOR THE DESIGN. THE VALUE OF a_p (COMPONENT AMPLIFICATION FACTOR) AND R_p (COMPONENT RESPONSE MODIFICATION FACTOR) OF SECTION 1632A.2 SHALL BE SELECTED FROM TABLE 16A-O, CBC 1998. THE VALUE OF I_p (SEISMIC IMPORTANCE FACTOR) AND C_a (SEISMIC COEFFICIENT) SHALL BE SELECTED FROM TABLE 16A-K AND 16A-Q, CBC 1998, RESPECTIVELY.
>
> 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 REPRESENTATIVE OF THE DIVISION OF THE STATE ARCHITECT.

DUCT AND PIPE BRACING:

PER SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINE FOR MECHANICAL SYSTEMS" FIRST EDITION, 1991, PROVIDE LONGITUDINAL AS WELL AS TRANSVERSE BRACING FOR ALL GAS PIPING 1 INCH NOMINAL DIAMETER AND LARGER, ALL PIPING IN BOILER OR MECHANICAL ROOMS 1-1/4 INCHES AND LARGER AND ALL OTHER PIPING 2-1/2 INCHES LARGER SIMILARLY, BRACE ALL RECTANGULAR OR FLATOVAL DUCTWORK WITH CROSS SECTIONAL AREAS OF 6 SQUARE FEET AND LARGER OR ROUND DUCTWORK 28 INCHES IN DIAMETER AND LARGER.

DRAWING INDEX

LEGEND

SYMBOL	ABBR	DESCRIPTION
1 / M-1		DETAIL NUMBER / DRAWING NUMBER
1 / M-1		SECTION NUMBER / DRAWING NUMBER
AC / 1		EQUIPMENT IDENTIFICATION / EQUIPMENT NUMBER
CODE / SIZE CFM		AIR OUTLET (SIZE IS INLET SIZE)(4 WAY U.O.N.) (MAX/MIN CFM IF TWO VALUES ARE GIVEN)
	CSD	CEILING SUPPLY DIFFUSER
	CRG/R	CEILING RETURN GRILLE/REGISTER
	CEG/R	CEILING EXHAUST GRILLE/REGISTER
	WSG/R	WALL SUPPLY GRILLE/REGISTER
	WRG/R	WALL RETURN GRILLE/REGISTER
	WEG/R	WALL EXHAUST GRILLE/REGISTER
		SECTION THRU SUPPLY DUCT
		SECTION THRU RETURN OR OUTSIDE AIR DUCT
		SECTION THRU EXHAUST OR RELIEF AIR DUCT
	R (D)	DUCT RISE OR DROP
OR		(N) OR (R) DUCTWORK, PIPING OR EQUIPMENT
OR	AL	ACOUSTICAL LINING (1" FIBERGLASS U.O.N.)
		DIRECTION OF AIRFLOW
	FC	FLEXIBLE DUCT CONNECTION
	VD	VOLUME DAMPER
OR	FD	FIRE DAMPER
	TV	TURNING VANES
		FLEXIBLE DUCT
		SQUARE TO ROUND DUCT
		REDUCING TRANSITION
OR		REDUCING TRANSITION
		LINE CONTINUED
		SLOPE DOWN
HWS	HWS	HEATING HOT WATER SUPPLY
HWR	HWR	HEATING HOT WATER RETURN
CHWS	CHWS	CHILLED WATER SUPPLY
CHWR	CHWR	CHILLED WATER RETURN
CD	CD,D	CONDENSATE DRAIN
	TF	TEST FITTING (PETE'S PLUG)
		UNION
	PG	PRESSURE GAUGE
	TH	THERMOMETER
	GV	GATE VALVE FOR SIZES 6" AND UP, (TYPICAL)
	BV	BALL VALVE FOR SIZES 4" AND SMALLER, (TYPICAL)
	BD	BALANCING DEVICE (B & G CIRCUIT SETTER)
	ST	STRAINER
	SRV,RV	SAFETY RELIEF VALVE, RELIEF VALVE
	PRV	PRESSURE REDUCING VALVE
	FS	FLOW SWITCH
	ACV	3-WAY AUTOMATIC CONTROL VALVE
T	T'STAT	THERMOSTAT MAX. 48" F.F.
S		DDC ROOM TEMPERATURE SENSOR
BP	BP	EXHAUST FAN BY-PASS TIMER
	AD	ACCESS DOOR (DUCT)
	AFF	ABOVE FINISHED FLOOR
	AP	ACCESS PANEL (CEILING)
	BDD	BACK DRAFT DAMPER
	BOD	BOTTOM OF DUCT
	DDC	DIRECT DIGITAL CONTROL
	EA,OA	EXHAUST AIR, OUTSIDE AIR
	EMS	ENERGY MANAGEMENT SYSTEM
	EQ.	EQUAL
	M/S	MOTOR STARTER
	NFA	NET FREE AREA
	OBD	OPPOSED BLADE DAMPER
	RA,SA	RETURN AIR, SUPPLY AIR
	SAD	SEE ARCHITECTURAL DRAWINGS
	SPD	SEE PLUMBING DRAWINGS
	SSD	SEE STRUCTURAL DRAWINGS
	SF	SQUARE FEET
	TA	TRANSFER AIR
	UON	UNLESS OTHERWISE NOTED
	VIB	VIBRATION ISOLATOR

AS-BUILTS

REVISIONS: (△ INDICATES REVISIONS MADE TO THIS SHEET.)

NO.:	DATE	REASON	BY

ISSUE FOR PROGRESS REVIEW	
ISSUE FOR OWNER APPROVAL	
ISSUE FOR PERMIT	05/09/01
ISSUE FOR BID	
ISSUE FOR CONSTRUCTION	

SEAL:

LICENSED ARCHITECT
PAUL D. CIANFICHI
No. C-5310
REN. 10-31-01
STATE OF CALIFORNIA

ARCHITECT:

CONSULTANT:

CONSULTANT:
MECHANICAL DESIGN STUDIO inc
3330 Clayton Rd. Suite B
Concord California 94519-2838
tel 925. 680 6858
fax 925. 680 4346
www.mds-sf.com
PROJECT # 2108.00

REGISTERED PROFESSIONAL ENGINEER
DOREL ANGHEL
No. M 26561
EXP. 9/30/02
MECHANICAL
STATE OF CALIFORNIA

ARCHITECT:
CIANFICHI
ARCHITECTURE • PLANNING
30 ANNE COURT
WALNUT CREEK, CA. 94598
TEL.: (925) 256-8638
FAX.: (925) 256-8652

PROJECT:

CHILD DEVELOPMENT CENTER CAÑADA COLLEGE

4200 FARM HILL BLVD.
REDWOOD CITY, CA 94061

SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

STAMP:

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
APPL 01 103529
AC [illegible] FLS [illegible] SS [illegible]
DATE 5/9/01 Redate 5/21/01
~~APPL. NUMBER:~~

KEY PLAN:

SHEET TITLE:

LEGEND AND GENERAL NOTES

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CHECKED BY: .	DATE: 01-22-2001
APPL NO.:	SHEET: **M0.1**
DATA NO.:	NO.: OF:

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