

MECHANICAL SPECIFICATIONS

ABBREVIATIONS

PLUMBING SYMBOLS AND LEGENDS

ABBREV	DESCRIPTION
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ARCH	ARCHITECTURAL
AS	AIR SEPARATOR
BHP	BRAKE HORSEPOWER
BP	BOILER PUMP
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
BV	BALANCING VALVE
C	CONVERTOR
CAC	CALIFORNIA ADMINISTRATIVE CODE
OFF	PIPING CAPPED FOR FUTURE CONNECTION
CFM	CUBIC FEET PER MINUTE
CHV	CHECK VALVE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CP	CHILLER PUMP
CT	COOLING TOWER
CTP	COOLING TOWER PUMP
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUATION
CU FT	CUBIC FEET
CU IN	CUBIC INCHES
CW	DOMESTIC COLD WATER PIPING
DIA	DIAMETER
DR	DRAIN
EL	ELEVATION
ELEC	ELECTRICAL
ENT	ENTERING
ET	EXPANSION TANK
(E)	EXISTING
EWT	ENTERING WATER TEMPERATURE
F	FIRE MAIN PIPING
FCO,COTG	FLOOR CLEANOUT,CLEANOUT TO GRADE
FCV	FLOW CONTROL VALVE
FD	FLOOR DRAIN
FIN.FL.R.	FINISH FLOOR
FLA	FULL LOAD AMP
FPM	FEET PER MINUTE
FS	FLOOR SINK
FS	FLOW SWITCH
FT	FEET
FT	NATURAL GAS PIPING
GAL	GALLON
GPM	GALLON PER MINUTE
GV	GATE VALVE
HB	HOT WATER BOILER
HP	HOT WATER PUMP
HW	DOMESTIC HOT WATER PIPING
HWR	DOMESTIC HOT WATER RETURN PIPING
HWS	DOMESTIC HOT WATER SUPPLY PIPING
HZ	HERTZ
IN	INCHES
KW	KILOWATT
LB	POUND
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
(N)	NEW
NO.	NUMBER
OFD	OVERFLOW DRAINAGE PIPING
—	OVERFLOW DRAIN
OPER.WT.	OPERATING WEIGHT
OPNG	OPENING
P	PUMP
PD	PRESSURE DROP
PG	PRESSURE GAUGE
PIV	POST INDICATING VALVE
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE ASSEMBLY
PS	POUNDS PER SQUARE INCH
PSIG	PSI GAUGE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
SD	RAINWATER LEADER PIPING
SK	SINK
S or W	SOIL OR WASTE PIPING
SQ.FT.	SQUARE FEET
TYP	TYPICAL
UR	URINAL
V	SANITARY VENT PIPING
VAC	VACUUM
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WATER HEATER

—	SOIL OR WASTE PIPING BELOW FLOOR SLAB		GATE VALVE
— SD	STORM DRAIN BELOW FLOOR SLAB		ANGLE VALVE
—	SOIL OR WASTE PIPING		GLOBE VALVE
— SD	STORM DRAIN PIPING		BALL VALVE
— OFD	OVERFLOW DRAINAGE PIPING		BUTTERFLY VALVE
—	SANITARY VENT PIPING		PLUG VALVE
—	DOMESTIC COLD WATER		PRESSURE GAUGE
— G	GAS (FUEL)		THREE-WAY VALVE
— A	COMPRESSED AIR (100 PSIG)		TEMPERATURE AND PRESSURE RELIEF VALVE
— C	CONDENSATE		SWING CHECK VALVE
— D	DRAIN (INDIRECT)		SPRING OR SILENT CHECK VALVE
— MPS	MEDIUM PRESSURE STEAM (15 TO 100 PSIG)		PIPELINE STRAINER
— F	FIRE MAIN PIPING		METER
— AS	AUTOMATIC FIRE SPRINKLER PIPING		FLEXIBLE CONNECTION
— CO	WALL CLEANOUT		POST INDICATING VALVE
—	FLOOR CLEANOUT/GRADE CLEANOUT		PIPE RISE
⊙ RD	ROOF DRAIN		PIPE DROP
⊙ OFD	OVERFLOW DRAIN		PIPE CONNECTION, BOTTOM
— FD	FLOOR DRAIN		PIPE CONNECTION, TOP
— FS	FLOOR SINK		PRESSURE REDUCING VALVE OR REGULATOR
—	FLOOR SINK, 1/2 GRATE		EXPANSION JOINT
— FLD	FUNNEL DRAIN		POINT OF CONNECTION
—	OUTSIDE STEM AND YOKE GATE VALVE		ACTIVE DRAIN STUB-UP
—	HOSE BIBB		PLUGGED DRAIN STUB-UP (FOR FUTURE CONNECTION)
—	LEAVING WATER TEMPERATURE		FLOW SWITCH
—	PIPING CAPPED FOR CONNECTION		EXPANSION LOOP
— BFP	BACKFLOW PREVENTER		FLANGED CONNECTION
—	SOLENOID VALVE		UNION
—	RELIEF VALVE		REDUCER
—	MANUAL AIR VENT		DIRECTION OF FLOW
—	AUTOMATIC AIR VENT		PIPE ANCHOR
—	VACUUM BREAKER		THERMOMETER
—			BALANCING VALVE
—			FLOW CONTROL VALVE

CONSTRUCTION NOTES

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS IN THE FIELD BEFORE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL ALSO REPORT DISCREPANCIES OR INCONSISTENCIES BETWEEN THE SPECIFIED DESIGN AND EXISTING CONDITIONS TO THE ENGINEER FOR CLARIFICATION PRIOR TO COMMENCEMENT OF THE WORK.
- THE SUBMISSION OF BID PROPOSAL SHALL BE CONSIDERED AS CONCLUSIVE EVIDENCE THAT THE CONTRACTOR IS THOROUGHLY FAMILIAR WITH THE INTENT OF THE CONTRACT DOCUMENTS AND SCOPE OF WORK. THE CONTRACTOR, PRIOR TO BIDDING, SHALL VISIT THE JOB SITE, CHECK EXISTING INSTALLATIONS AND SYSTEMS RELATED TO HIS WORK AND SHALL IN THE BID PROPOSAL INCLUDE ALL LABOR AND MATERIAL REQUIRED TO COMPLETE THE SYSTEM.
- CONTRACTOR SHALL COMPLETE WORK WITH MINIMUM INTERFERENCE WITH EXISTING SYSTEMS. ANY SHUTDOWN OF THE EXISTING SYSTEMS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE OWNER'S REPRESENTATIVE TWO WEEKS IN ADVANCE.
- ALL WORK UNDER THIS DIVISION SHALL BE COORDINATED WITH OTHER TRADES.
- THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND LEAVE WORK AREA CLEAN DAILY.
- IN THE AREA OF THE NEW CONSTRUCTION WILL BE FOUND A NUMBER OF EXISTING SERVICES. PROTECT ALL ACTIVE LINES AND MAINTAIN SAME IN GOOD OPERATING CONDITION.
- PROTECT EXISTING BUILDING STRUCTURES, AND ADJACENT FINISHED SURFACES DURING CONSTRUCTION. PATCH, REPAIR AND REFINISH EXISTING WORK DAMAGED BY WORK UNDER THE DIVISION TO MATCH ADJACENT UNDISTURBED AREAS, PATCHING AND REFINISHING IS TO BE PERFORMED BY WORKMEN SKILLED IN THE TRADES INVOLVED.
- ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT. ANY PORTION OF THE WORK FOUND TO BE DEFECTIVE SHALL BE REPLACED BY THE CONTRACTOR AS PART OF THIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER.
- ABSOLUTE ACCURACY OF DRAWING CAN NOT BE GUARANTEED. WHILE EVERY EFFORT HAS BEEN MADE TO COORDINATE THE LOCATION OF THE EXISTING EQUIPMENT, PIPING, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE EXACT REQUIREMENTS GOVERNED BY ACTUAL JOB CONDITIONS.
- ANY PIPING OR DUCT OFFSETS REQUIRED AS RESULT OF EXISTING JOB CONDITIONS, OR LACK OF COORDINATION WITH OTHER TRADES SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER AND IS SUBJECT TO REVIEW BY THE ARCHITECT.
- THE CONTRACTOR SHALL VERIFY AND COORDINATE THE UTILITIES FOR ALL THE EQUIPMENT WITH THE USER'S PRIOR TO COMMENCEMENT OF THE WORK.
- VISIT THE SITE, TAKE MEASUREMENTS, EXAMINE ALL EXISTING, AREAS WHERE WORK IS TO BE PERFORMED AND GET ALL INFORMATION NECESSARY FOR PROPER EXECUTION OF THE WORK BEFORE STARTING WORK IN ANY SECTION. ASCERTAIN AND CHECK ALL CONDITIONS WITH THE DRAWINGS AND SPECIFICATIONS, OTHER TRADES, EXISTING CONDITIONS AND BY WHAT MEANS THE WORK IS TO BE PERFORMED. VERIFY THAT EXISTING SITE UTILITIES TO BE CONNECTED ARE PRESENT.
- REPORT TO OWNER'S REPRESENTATIVE, IN WRITING, CONDITIONS WHICH WILL PREVENT PROPER EXECUTION OF THIS WORK.
- BEGINNING WORK OF ANY SECTION WITHOUT REPORTING UNSUITABLE CONDITIONS TO OWNER'S REPRESENTATIVE CONSTITUTES ACCEPTANCE OF CONDITIONS BY CONTRACTOR.
- PERFORM ANY REQUIRED REMOVAL, REPAIR OR REPLACEMENT OF THIS WORK CAUSED BY UNSUITABLE CONDITIONS AT NO ADDITIONAL COST TO OWNER.
- NOT ALL EXISTING PIPES, CONDUITS OR DUCTS ETC. ARE SHOWN ON THESE DRAWINGS. WHERE EXISTING PIPES, CONDUITS AND/OR DUCTS WHICH ARE TO REMAIN PREVENT INSTALLATION OF NEW WORK, RELOCATE, EXISTING PIPES, CONDUITS AND/OR DUCTS, TO FACILITATE NOW WORK.
- PROVIDE NEW MATERIAL AND EQUIPMENT REQUIRED FOR RELOCATED EQUIPMENT.
- MAINTAIN SERVICE ENTRANCES USABLE TO PEDESTRIAN, AND TRUCK TRAFFIC AT ALL TIMES.
- COORDINATE STAGING AND STORAGE AREAS AS NECESSARY.
- SEISMICALLY BRACE ALL NEW EQUIPMENT & MATERIAL PER SMACNA GUIDELINES.

GENERAL SYMBOLS

	DETAIL IDENTIFICATION NUMBER		EQUIPMENT DESIGNATION
	SECTION IDENTIFICATION LETTER		
U.O.N.	UNLESS OTHERWISE NOTED	TYP.	TYPICAL OF
	NOTE	OFF	CAP FOR FUTURE
	REVISION	NIMW	NOT IN MECHANICAL WORK
	POINT OF CONNECTION	(E)	EXISTING TO REMAIN
	POINT OF DISCONNECT	(R)	RELOCATED
	CENTER LINE	TBB	EXISTING TERMINAL BOX WITH REHEAT COIL
---	MATCH LINE	TBA	EXISTING TERMINAL BOX WITHOUT REHEAT COIL
			TO BE DEMOLISHED

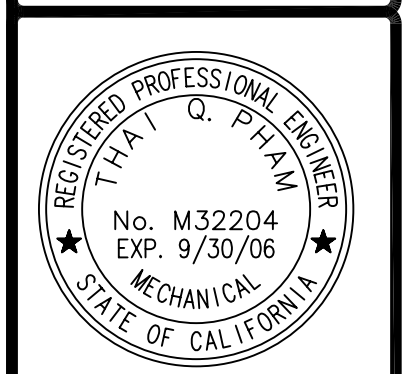
NOTE: ABBREVIATIONS LISTED ARE FOR GENERAL USE. DISREGARD THOSE WHICH ARE NOT USED IN DWG.



REV	DATE	BY	DESCRIPTION
1	1/27/06		SIZE DO
2	2/19/06		SIZE DO
3	3/17/06		USA REVIEW
4	5/27/06		REVISION TO USA COMMENTS
5	6/22/06		REVISION TO USA COMMENTS
6	5/1/06		AS BUILTS

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Canada College Modernization  
 CENTRAL PLANT RENOVATION  
 San Mateo County Community College District



PLUMBING SPEC.  
 SYMBOLS,  
 NOTES AND  
 ABBREVIATIONS

DATE	
PROJECT NO.	22524-008
DRAWN BY	
CHECKED BY	
DATE	
OUTPUT NO.	
REVISIONS	
REVISIONS (CONT)	
REVISIONS (CONT)	
REVISIONS (CONT)	
FILE NAME	

