



Site Plan
Scale: None

Plan schematic piping symbols	Suction strainer
Valve, manual, ball or butterfly	Filter/pump skid assembly
Valve, solenoid or pilot operated	Filter, sand, top mount valve
Valve, check	Filter, sand, high rate, flanged
Tee connection	Nozzle, Cascade type
Elbow connection	Nozzle, smoothbore type
Reducer	
Backflow preventer	
Piping line	
Isometric schematic piping symbols	
Tee connection	
Elbow connection	
Valve, manual	
Valve, check	
Reducer	
Pump, end suction	
Pump, self priming	
Pump, submersible	
Pump, horizontal split case	

Mechanical Symbols
Scale: None

A.C.....AIR CONDITIONING	EQUIP.....EQUIPMENT	OC.....ON CENTER
ADD.....ADDENDUM	EXT.....EXTERIOR	OD.....OUTSIDE DIAMETER
ADJ.....ADJACENT, ADJUSTABLE	F.....FAHRENHEIT	OPP.....OPPOSITE
AG, AGG.....AGGREGATE	FD.....FLOOR DRAIN	P.....POINT
ALT.....ALTERNATE	FF.....FINISHED FLOOR	PC.....PERSONAL COMPUTER
APPD.....APPROVED	FIN.....FINISH	PERF.....PERFORATED
APPROX.....APPROXIMATE	FLG.....FLANGED	PID.....PIPING & INSTRUMENTATION DETAIL
ARCH.....ARCHITECTURAL	FO.....FACE OF	PLC.....PROGRAMMABLE LOGIC CONTROLLER
ASA.....AMERICAN STANDARDS ASSOC.	GA.....GAUGE	PROJ.....PROJECT
AUTO.....AUTOMATIC	GALV.....GALVANISED	PROP.....PROPERTY
BET.....BETWEEN CENTERS	GC.....GENERAL CONTRACTOR	PSI.....POUNDS PER SQUARE INCH
BET.....BETWEEN	GI.....GALVANISED IRON	R.....RED, RADIUS
BHP.....BRAKE HORSEPOWER	GPM.....GALLONS PER MINUTE	RAD.....RADIUS
BLDG.....BUILDING	HORIZ.....HORIZONTAL	RED.....RED BRASS PIPE
BO.....BOTTOM OF	HP.....HORSEPOWER	RED.....REDUCER
BZ.....BRONZE	HVAC.....HEATING, VENTILATION & A.C.	RED. BUSH.....REDUCER BUSHING
C.....CONDUIT	ID.....INSIDE DIAMETER	RQD.....REQUIRED
C TO C.....CENTER TO CENTER	IN.....INCH	RPM.....REVOLUTIONS PER MINUTE
CAB.....CABINET	INFO.....INFORMATION	S. S.....STAINLESS STEEL
CFM.....CUBIC FEET PER MINUTE	INSTL.....INSTALL, INSTALLATION	SAN.....SANITARY
CI.....CAST IRON	INT.....INTERIOR	SECT.....SECTION
CJ.....CONSTRUCTION JOINT	LEN.....LENGTH	SPEC.....SPECIFICATION
CL.....CENTER LINE	LOA.....LENGTH OVER ALL	SQ.....SQUARE
CLR.....CLEAR	LPM.....LITERS PER MINUTE	STD.....STANDARD
COL.....COLUMN	MAINT.....MAINTENANCE	TDH.....TOTAL DYNAMIC HEAD
COMP.....COMPUTER	MAN.....MANUAL	TEMP.....TEMPERATURE
CONC.....CONCRETE	MATL.....MATERIAL	THD.....THREAD
CONT.....CONTINUOUS	MAX.....MAXIMUM	THK.....THICK
CWS.....CITY WATER SUPPLY	MECH.....MECHANICAL	THRU.....THROUGH
DET.....DETAIL	MFG.....MANUFACTURER	TOW.....TOP OF WALL
DIA.....DIAMETER	MFR.....MANUFACTURER	TYP.....TYPICAL
DIM.....DIMENSION	MIN.....MINIMUM	UBC.....UNIFORM BUILDING CODE
DN.....DOWN	MISC.....MISCELLANEOUS	UON.....UNLESS OTHERWISE NOTED
DR.....DRAIN	NA.....NOT APPLICABLE	VAR.....VARIES, VARIABLE
DWG.....DRAWING	NBS.....NATIONAL BUREAU OF STANDARDS	VENT.....VENTILATION
EA.....EACH	NG.....NATIONAL COARSE THREAD	VIF.....VERIFY IN FIELD
EFF.....EFFICIENCY	NCT.....NATIONAL COARSE THREAD	W/.....WITH
EJ.....EXPANSION JOINT	NFT.....NATIONAL FINE THREAD	W/O.....WITHOUT
EL.....ELEVATION	NFT.....NATIONAL FINE THREAD	WL.....WATER LEVEL
ELEV.....ELEVATION	NPT.....NATIONAL PIPE THREAD	WP.....WATER PROOFING
EQ.....EQUAL	NTS.....NOT TO SCALE	Y.....YELLOW

Mechanical Abbreviations
Scale: None

- ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED BY QUALIFIED WORKMEN, IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND ALL APPLICABLE FEDERAL AND LOCAL CODES.
- VERIFY THE EXACT LOCATION OF THE EQUIPMENT SPACE AND WATER DISPLAYS WITH THE ARCHITECTURAL OR LANDSCAPE DRAWINGS IF NOT SPECIFIED BY THE FOUNTAIN DOCUMENTATION.
- THE PIPE ROUTING SHOWN ON THE PIPING PLAN IS OPTIMISED WITHIN THE FRAMEWORK OF KNOWN CONDITIONS AT THE SITE. THE CONTRACTOR SHALL, HOWEVER, DETERMINE THE EXACT ROUTING AT THE SITE TO AVOID CONFLICT WITH SITE CONDITIONS. ANY RE-ROUTING WHICH CREATES A TRAPPED CONDITION IN THE PIPING, OR ANY OTHER IMBALANCE, MUST BE CALLED TO THE FOUNTAIN CONSULTANT'S ATTENTION BEFORE THE PIPE IS INSTALLED.
- ALL PIPING BETWEEN THE FOUNTAIN AND THE EQUIPMENT SPACE SHALL BE SLOPED DOWN TOWARD THE EQUIPMENT SPACE UNLESS OTHERWISE INDICATED IN THE FOUNTAIN DOCUMENTATION.
- PROVIDE WATERSTOP, FLASHING FLANGE OR PENETRATION SEAL AS APPROPRIATE AND AS SHOWN IN THE DETAILS PROVIDED, AT EACH WALL OR FLOOR PENETRATION UNDER THIS WORK.
- PIPING IN PARALLEL OR CROSSING SHALL HAVE A THREE INCH MINIMUM CLEARANCE TO OTHER PIPE.
- PROVIDE PIPING SUPPORTS AND HANGERS AS NECESSARY TO SUPPORT & MAINTAIN ALIGNMENT UNDER THRUST, PREVENT STRESSES AND ALLOW REMOVAL AND MAINTENANCE OF FUNCTIONAL EQUIPMENT. PIPING SHALL NOT BE SUPPORTED BY THE EQUIPMENT.
- ALL EQUIPMENT AND PIPING SHOWN ON THE EQUIPMENT SPACE PLANS ARE DRAWN GRAPHICALLY TO SCALE WITH PROPER CLEARANCES. ANY DEVIATION FROM THE ARRANGEMENTS SHOWN MUST BE APPROVED BY THE FOUNTAIN CONSULTANT PRIOR TO THE INSTALLATION OF EQUIPMENT OR PIPING.
- PROVIDE UNIONS AND / OR FLANGES AS SHOWN, AND AS REQUIRED TO FACILITATE REMOVAL OF ALL VALVES, PUMPS AND OTHER EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS THAT MIGHT BE CRITICAL TO OR AFFECT FOUNTAIN PERFORMANCE. SUCH AS ALL DIMENSIONS REFERENCED TO WATER LEVEL.
- PROVIDE DRAINAGE PIPING OF PROPER SIZE FOR ALL EQUIPMENT CONTAINED WITHIN THE EQUIPMENT SPACE WHICH DISCHARGES WATER UNDER NORMAL OPERATION, SUCH AS THE BACK FLOW PREVENTER. DRAIN TO VAULT SUMP.
- THE RAINWATER FITTINGS ON THE HATCH AND VENTILATION CULVERTS MUST NEVER BE ROUTED TO THE EQUIPMENT SPACE SUMP.
- INTERCONNECTING PIPING BETWEEN THE POOL AND THE EQUIPMENT SPACE SHALL BE OF COPPER, CAST IRON OR SCHEDULE 80 PVC TYPE 1, CLASS 1245A-B. SELECT AND INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- NOT USED.
- NO GALVANISED, STEEL, ABS OR PVC TYPE 2 PIPING IS ALLOWABLE UNDER THE SCOPE OF THIS WORK.
- NOT USED.
- ALL PIPING PENETRATIONS THROUGH THE POOL FLOOR SHALL BE OF RED BRASS PIPE FOR THE APPLICATION UNLESS OTHER-WISE NOTED. ALL PENETRATIONS SHALL BE FLASHED TO PREVENT LEAKAGE.
- THE SUCTION EYE OF FLOODED END SUCTION PUMPS MUST BE LOCATED BELOW THE WATER LEVEL OF THE FOUNTAIN.
- NOT USED.
- MAKE ALL PIPING RUNS AS DIRECT AS IS POSSIBLE, USING A MINIMUM NUMBER OF FITTINGS.
- IF NO EQUIPMENT SPACE SUMP PUMP IS SPECIFIED, PROVIDE ADEQUATE DRAINAGE TO PREVENT DAMAGE TO EQUIPMENT IN CASE OF FLOODING.
- PROVIDE EQUIPMENT SPACE VENTILATION IN ACCORDANCE WITH THE SPECIFIED DESIGN. ANY DEVIATION MUST BE APPROVED BY THE FOUNTAIN CONSULTANT PRIOR TO INSTALLATION.

Mechanical Notes
Scale: None

ALL LAYOUT DIMENSIONS ARE FROM PLAN VIEW CALCULATIONS. ACTUAL FIELD DIMENSIONS MAY VARY FROM PLAN DUE TO ACTUAL SITE CONDITIONS OR THIRD DIMENSION DISTANCES.

ALL EXISTING CONDITIONS ARE SHOWN FOR INFORMATION ONLY.

ALL PROPOSED UTILITY INFORMATION IS SHOWN FOR REFERENCE ONLY. REFER TO THE CIVIL PLANS FOR CONFIRMATION.

THESE DRAWINGS USE A SYSTEM OF KEYNOTES, SYMBOLS, AND ABBREVIATIONS FOR MATERIAL DESIGNATIONS AND SPECIFIC FUNCTION. THE CONTRACTOR SHALL BE FAMILIAR WITH THESE ITEMS PRIOR TO COMMENCING WORK. CONTACT THE ARCHITECT OR CIVIL ENGINEER IF ANY CONFLICTS ARE FOUND.

ALL SYMBOLS ARE SHOWN DIAGRAMMATIC, ILLUSTRATING THE APPROXIMATE LOCATION OF EXISTING AND PROPOSED MATERIALS. ANY DISCREPANCIES OR CONFLICTS BETWEEN EXISTING AND PROPOSED CONDITIONS SHALL BE REPORTED TO THE ARCHITECT OR CIVIL ENGINEER PRIOR TO PERFORMING WORK.

REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION PERTAINING TO THE PROJECT MATERIALS, PROCEDURES, AND INSTALLATION.

WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.

VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED BUILT CONDITIONS. ALL BRACING, TEMPORARY SUPPORTS, AND SHORING NECESSARY FOR CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

DIMENSIONS MARKED "VERIFY" ARE TO BE FIELD MEASURED. ANY DISCREPANCIES FROM THE NOTED DIMENSION ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR CIVIL ENGINEER PRIOR TO CONTINUING WORK.

ALL ARCHITECTURAL INFORMATION IS SHOWN FOR REFERENCE ONLY. REFER TO THE ARCHITECTURAL DRAWINGS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.

REFER TO THE CIVIL DRAWINGS FOR ALL UNDERGROUND DRAINAGE, INLET, AND UTILITY LOCATIONS, ELEVATIONS, AND DETAILS. VERIFY THAT ALL UTILITIES DO NOT CONFLICT WITH PROPOSED CONSTRUCTION PRIOR TO WORK.

LAYOUT OF ARCS AND CURVES ARE TO BE SMOOTH AND CONTINUOUS. OBTAIN ARCHITECT OR CIVIL ENGINEER APPROVAL PRIOR TO ALL CONSTRUCTION.

Construction Notes
Scale: None

Dig Alert ! Call 811 on any phone.

EXCAVATORS WILL:

- CALL US AND GIVE AT LEAST TWO WORKING DAYS NOTICE PRIOR TO EXCAVATING.
- DELINEATE (OUTLINE) THEIR JOB IN WHITE PAINT.
- HAND EXPOSE TO THE POINT OF NO CONFLICT WITHIN THE TOLERANCE ZONE.
- MEMBERS WILL:
- MARK OR LOCATE THEIR LINES WITHIN TWO WORKING DAYS OF THE START OF CONSTRUCTION.
- USE THE APWA COLOR CODE TO MARK THEIR FACILITIES.
- BE ACCURATE WITHIN 24 INCHES EITHER SIDE OF THE BURIED FACILITY (TOLERANCE ZONE).

Underground Service Alert

Call: TOLL FREE
1-800-422-4133

TWO WORKING DAYS BEFORE YOU DIG



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IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
APR 09 2009
DATE

College of San Mateo
Site Package
San Mateo, CA
Developed for
San Mateo County Community College District

Date	Description

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