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DIV. OF THE STATE ARCHITECT
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College of San Mateo
Site Package
San Mateo, CA
Developed for
San Mateo County Community College District

Revision	Description	Date
19	SEPT 2008	
09	APRIL 2009	
03	APRIL 2009	
06	JUNE 2011	

Revision	Description	Date
03A	SUBMITTAL	19 SEPT 2008
03B	FINAL	09 APRIL 2009
03C	PROJECT RECORD DRAWING	06 JUNE 2011

Job No.	27082.30
Date	09 APRIL 2009
Drawn by	NFC
Checked by	SJF
Scale	1/2"=1'-0"

MECHANICAL ROOM LAYOUT PLAN

MR-1

EQUIPMENT LIST

- COMPETITION POOL/SWIMMING POOL STRAINER(S): MER-MADE F.O. SERIES FRP REDUCING BASKET STRAINERS, ONE (1) 12"x12" AND ONE (1) 6"x4" STANDARD, WITH ACRYLIC LID AND TUB (2) STAINLESS STEEL STRAINERS EA. (150lbs) TWO (2) TOTAL.
- COMPETITION POOL CIRCULATION PUMP: PACO #3035-3 OR 4, 8"x10"x15" TYPE KPV SPLIT CASE CENTRIFUGAL PUMP, 1150 RPM 46.0V, 3PH, 40HP, RATED AT 1810 GPM @ 60 FT. TDH, 90% EFFICIENT; PREMIUM EFFICIENCY TEFC MOTOR, EPOXY COAT ALL WET SURFACES, PACO, AURORA OR EQUAL, (2300 lbs.)
- SWIMMING POOL CIRCULATION PUMP: PACO #3035-1, 3"x4"x9 1/2" TYPE LC BRONZE FITTED, STAINLESS STEEL SHAFT END SUCTION PUMP, 1150 RPM 46.0V, 3PH, 1 1/2 HP, RATED AT 350 GPM @ 60 FT. TDH, 11% EFFICIENT; PREMIUM EFFICIENCY TEFC MOTOR, EPOXY COAT ALL WET SURFACES, PACO, AURORA OR EQUAL, (700 lbs.)
- COMPETITION POOL FILTERS: EKOS SYSTEMS #42-250-5 AUTOMATIC FILTER CONTROL (AFC) FULLY AUTOMATIC HI-RATE PERMANENT MEDIA FILTER WITH 125 SQ. FT. OF FILTER AREA RATED AT 1815 GPM AT 15 GPM/SQ. FT. COMPLETE WITH 12" FACE PIPING, 6" BACKWASH, SEISMIC ANCHORAGE, PROVIDE ALL UTILITIES, PIPING, VALVING, ETC. (6576lbs EACH TANK) EKOS, NEMATO, OR EQUAL. PROVIDE SIGNET MK-515 FLOSENSOR WITH DIGITAL READ-OUT.
- EXIST. SWIMMING POOL FILTER: EKOS SYSTEMS #42-310-1 AUTOMATIC FILTER CONTROL (AFC) FULLY AUTOMATIC HI-RATE PERMANENT MEDIA FILTER WITH 25 SQ. FT. OF FILTER AREA RATED AT 465 GPM AT 15 GPM/SQ. FT. COMPLETE WITH 12" FACE PIPING, 6" BACKWASH, SEISMIC ANCHORAGE, PROVIDE ALL UTILITIES, PIPING, VALVING, ETC. (1380lbs) EKOS, NEMATO, OR EQUAL. PROVIDE SIGNET MK-515 FLOSENSOR WITH DIGITAL READ-OUT.
- COMPETITION POOL HEATER(S): LOCHINVAR #CFN201 2010000 BTU INPUT, 2" GAS CONNECTION 2 1/2" WATER INFLUENT/EFFLUENT CONNECTIONS COPPER FIN II HEATER(S) AND 14" SIDEWALL INTAKE AND EXHAUST WITH CATEGORY IX DOUBLE WALL VENTING WITH DRAIN, TWO (2) TOTAL, PIPED IN TANDEM PER MANUFACTURER'S RECOMMENDATIONS. (1400lbs. EA.)
- SWIMMING POOL HEATER(S): LOCHINVAR #CFN144 1440000 BTU INPUT, 2" GAS CONNECTION 2 1/2" WATER INFLUENT/EFFLUENT CONNECTIONS COPPER FIN II HEATER(S) AND 12" SIDEWALL INTAKE AND EXHAUST WITH CATEGORY IX DOUBLE WALL VENTING WITH DRAIN, ONE (1) TOTAL, PIPED PER MANUFACTURER'S RECOMMENDATIONS. (1300lbs.)
- CHLORINE STORAGE/FEED SYSTEM(S): PROVIDE TWO (2) CHEM-TAINER 500 GALLON #C591DC, DUAL STORAGE/CONTAINMENT TANK WITH LID SEISMICALLY RESTRAINED, (4165lbs) COMPLIES WITH FED. REG #40CFR-264-183. COMPETITION POOL FEED PUMPS SHALL BE LMI #SD43-88P-K51, 288 GPD @ 150 PSI TWO (2) TOTAL. SWIMMING POOL FEED PUMP SHALL BE LMI #C121-362S1, 36 GPD @ 100 PSI WITH FRP SHELF BRACKETS. HARD PIPE TO POINT OF INJECTION.
- ACID STORAGE/FEED SYSTEM: PROVIDE CHEM-TAINER 500 GALLON #C591DC, DUAL STORAGE/CONTAINMENT TANK WITH LID SEISMICALLY RESTRAINED, (4165lbs) COMPLIES WITH FED. REG #40CFR-264-183. FEED PUMPS SHALL BE LMI #SD43-88P-K51, 288 GPD @ 150 PSI WITH FRP SHELF BRACKETS. ONE (1) TOTAL. SWIMMING POOL FEED PUMP SHALL BE LMI #C121-362S1, 36 GPD @ 100 PSI; HARD PIPE TO POINT OF INJECTION. PROVIDE A COMPLETE ACID VAPOR RECOVERY SYSTEM.
- WATER CHEMISTRY CONTROLLER(S): PROVIDE TWO (2) DEDICATED ANALOG TELEPHONE LINE FOR IMPACT, GS-IMPACT-FILTERBY-APP WATER CHEMISTRY CONTROLLER. PROVIDE COMPLETE SYSTEM CONTROL PACKAGE, TWO (2) TOTAL.
- ELECTRICAL: PROVIDE ALL ELECTRICAL WIRING, CONDUIT, PANEL(S), STARTER/DISCONNECT, INTERCONNECT(S) ETC. AS REQUIRED FOR PROPER EQUIPMENT INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS AND SHOP DRAWINGS, COORDINATE ALL WORK WITH OTHER TRADES AS REQUIRED. REFER TO ELEC. PLANS FOR ALL ADDITIONAL INFO.
- BACKWASH PIT: 6'-6" X13'-0" X5'-0" DEEP WITH 8" P-TRAP OUTLET TO SEWER, PROVIDE WATERPROOFING PER SPECIFICATIONS. COORDINATE WITH STRUCTURAL AND PLUMBING PLANS.
- PUMP PIT: 13'-0" X12'-10" X5'-0" DEEP, PROVIDE RUNG LADDER ACCESS AND 1 1/2" GALV. STEEL GUARDRAIL, PROVIDE FLOOR DRAIN TO WASTE, PROVIDE WATERPROOFING PER SPECIFICATIONS, RUNG LADDER TO BE NEXTEP MUT354.
- COMPETITION POOL/SWIMMING POOL FILL SYSTEM: 3" 'CL-VAL' FILL SYSTEM FROM DOMESTIC SOURCE PROTECTED WITH REDUCED PRESSURE BACKFLOW PREVENTOR. PROVIDE HYDROL # 124-01AKX-3" VALVE WITH CH-KX FLOAT CONTROL IN 8" PVC STILLING WELL IN SURGE CHAMBER.

HEATER/GAS PIPING INSTALLATION NOTE

LOCHINVAR GAS FIRED POOL HEATER(S) INSTALLED ON A GAS SUPPLY SYSTEM UTILIZING A 2 PSI OR 5 PSI SUPPLY. GAS PRESSURE SHALL REQUIRE A REGULATOR TO REDUCE THE SUPPLY PRESSURE. A PROPERLY SIZED AND INSTALLED LOCK-UP-TYPE HIGH GAS PRESSURE REGULATOR (HGFR) SHALL BE USED TO REDUCE THE GAS PRESSURE AT THE UNIT INLET TO A MAXIMUM OF 105" WATER COLUMN.

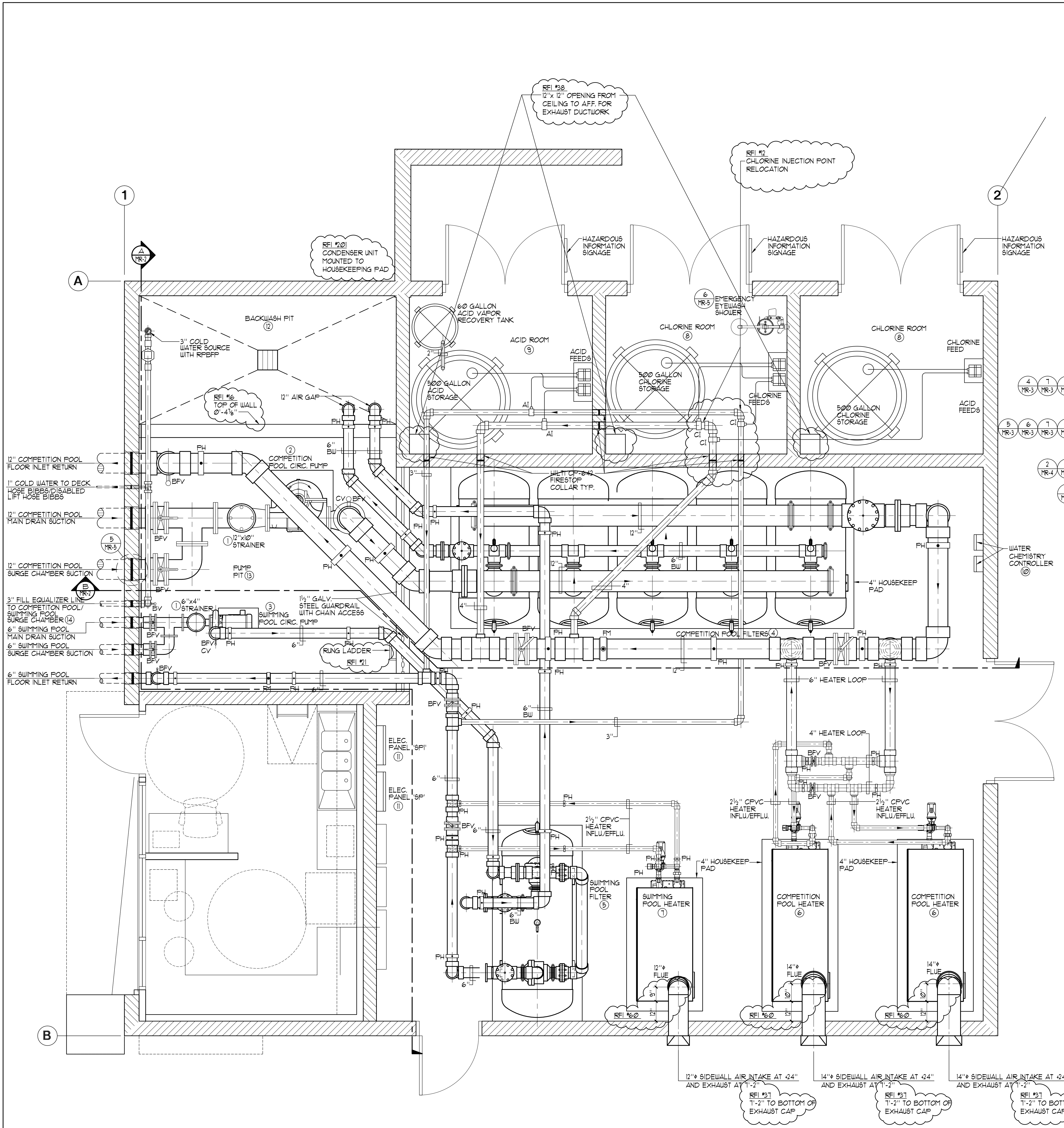
LOCHINVAR RECOMMENDS THAT ANY REQUIRED LINE LOCK-UP-TYPE HIGH GAS PRESSURE REGULATOR BE INSTALLED WITH A MINIMUM OF 8 FEET TO 10 FEET OF PIPE FROM ITS DISCHARGE TO THE UNIT'S GAS INLET. IF A STRAIGHT DISTANCE OF GAS PIPE IS NOT AVAILABLE THE ADDITION OF A VERTICAL 'U' IN THE GAS PIPING DOWN STREAM FROM THE HGFR CAN BE USED TO ACHIEVE THE 8 FEET TO 10 FEET OF DISTANCE.

THREE PHASE MOTOR LOADS AT 460V

COMPETITION POOL CIRCULATION PUMP: 40 HP @ 460V.	=	52 AMPS
SWIMMING POOL CIRCULATION PUMP: 1 1/2 HP @ 460V.	=	11 AMPS
TOTAL AMPS	=	63 AMPS

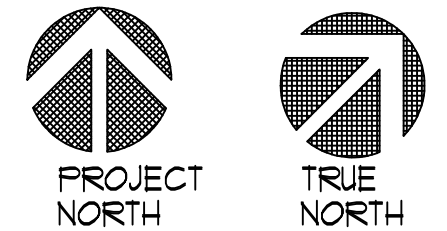
LEGEND

- BV = BALL VALVE
- BFV = BUTTERFLY VALVE
- CV = CHECK VALVE
- FM = FLOWMETER
- AI = ACID INJECTION
- CI = CHLORINE INJECTION
- PH = PIPE HANGER
- FD = FLOOR DRAIN



MECHANICAL ROOM LAYOUT PLAN

1/2"=1'-0"



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