



RF SIGNR

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PROFESSIONAL
SEAL



SUBMITTAL

03.17.2021

CONSTRUCTION
DOCUMENTS

REVISIONS

NO.	DATE	DESCRIPTION

KFY
PI AN

SHEET
POOL RETURN
PIPING PLAN

AQ4.1

DESIGN: CMR
DRAWN: CMR
REVIEW: JUN
CN 7904-A

- ### GENERAL PIPING NOTES
1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERATIONAL PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
 2. PIPE SIZES INDICATED ARE NOMINAL, I.P.S.
 3. UNLESS OTHERWISE NOTED, ALL OVERHEAD PIPING SHALL BE TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB.
 4. ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
 5. ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.
 6. PROVIDE CHAIN WHEEL OPERATORS FOR ALL VALVES IN EQUIPMENT ROOMS MOUNTED GREATER THAN 7'-0" ABOVE FINISHED FLOOR. CHAIN SHALL EXTEND TO 7'-0" ABOVE FINISHED FLOOR LEVEL.
 7. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
 8. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES AND SITE CONDITIONS, OFFSETS, EXPANSION LOOPS, OR TRANSITIONS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
 9. ALL PIPING INDICATED SHALL BE CONSIDERED DIAGRAMMATIC.
 10. ALL SWIMMING POOL PIPING ROUTED BELOW THE POOL SHELL SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. REFER: 12AQ2.2
 11. ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL REFER TO PLANS AND SPECIFICATIONS FOR ANY SPECIFIC REQUIREMENTS REGARDING PLACEMENT AND BACKFILLING OF BELOW GRADE POOL PIPE.
 12. ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCE.
 13. THE CHEMICAL SENSOR LINE SHALL BE A 3/4" TO 1" DIAMETER, SCHEDULE 80 PVC PIPE EXTENDED FROM THE WET CELL SENSOR TO ITS RESPECTIVE MANIFOLD AND BACKWASH CATCH BASIN OR PUMP SUCTION.
 14. ALL FLOOR INLETS SHALL BE ADJUSTED TO ACHIEVE AN EVEN FLOW DISTRIBUTION THROUGHOUT SYSTEMS.
 15. ALL PIPE TEES SHALL BE SIZED FOR LARGEST PIPE CONNECTION.
- ### POOL PIPING WINTERIZATION NOTES
1. ALL POOL PIPING SHALL HAVE THE CAPABILITY TO BE DRAINED FOR WINTERIZATION.
 2. MAIN DRAIN SUCTION PIPING SHALL BE INSTALLED WITH A CONSTANT SLOPE TO THE MAIN DRAIN.
 3. OWNER INTENDS TO OPERATE REDUCED FLOW PUMP YEAR ROUND WITH MINIMAL CHEMICALS TO ELIMINATE POOL WINTERIZATION ACTIVITIES.

PUMP SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	SIZE	GPM	TDH	HP	NOTES
PP1	POOL CIRCULATION	PENTAIR	EQ1000	6.4	416	72	10	1.2, 4.5
PP2	FEATURE FLOW	PENTAIR	EQ500	6.4	220	54	5	1.2, 3.5

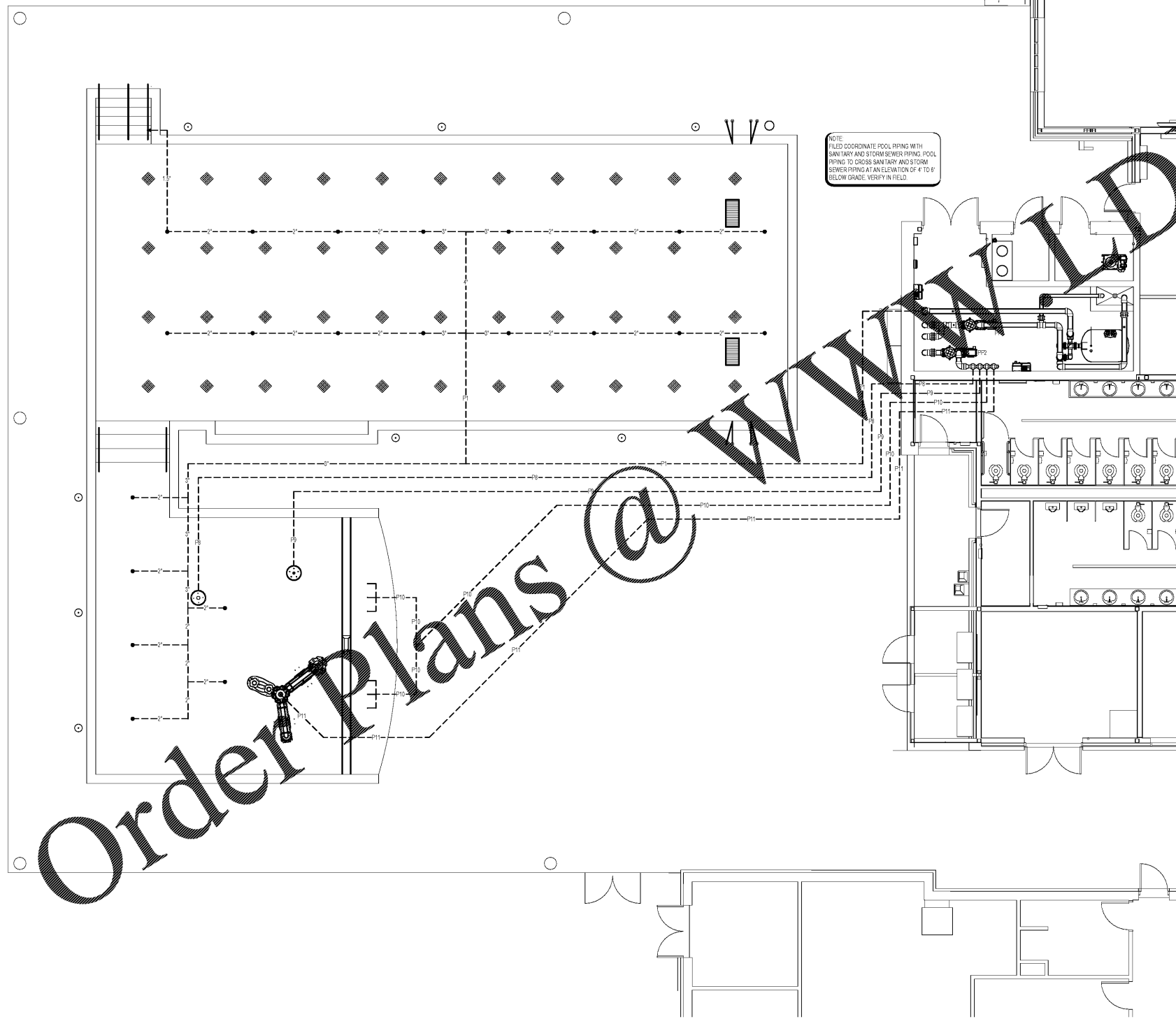
NOTE:
1. THE MANUFACTURER SPECIFIED IS BASIS OF DESIGN.
2. PROVIDE CONSTANT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-80 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-30 HG / 0-80 PSI.
3. PUMP WITH 208 VOLT, 3 PHASE, 60 HZ, 1/2 HP MOTOR.
4. PROVIDE WITH CHECK VALVE.
5. PROVIDE VARIABLE FREQUENCY DRIVE.

PIPE SCHEDULE

ID	DESCRIPTION
P1	8" FROM POOL FILTERS TO POOL INLETS
P2	8" FROM POOL MAIN DRAINS TO PP1
P3	8" FROM POOL SKIMMERS TO PP1
P4	8" FROM POOL MAIN DRAINS TO PP2
P5	8" FROM PP1 TO POOL FILTERS
P6	4" FROM P5 TO BACKWASH CATCH BASIN
P7	8" FROM PP2 TO FEATURE MANIFOLD
P8	2.5" FROM FEATURE MANIFOLD TO WATERBUS NO. 4
P9	1" FROM FEATURE MANIFOLD TO WATERBUS NO. 2
P10	8" FROM FEATURE MANIFOLD TO BUBBLERS
P11	2" FROM FEATURE MANIFOLD TO CASCADES
P12	8" FROM POOL FILTERS TO BACKWASH CATCH BASIN
P13	1.5" FILL LINE

PIPING LEGEND

LEGEND	QTY.	ITEM
▲	1	WALL INLET REFER: 12AQ2.2
●	22	FLOOR INLET REFER: 8AQ2.2
○	8	SKIMMERS REFER: 10AQ2.2
■	2	MAIN DRAIN REFER: 8AQ2.2
▭	1	TRENCH SUMP REFER: 11AQ2.2
○	1	WATER LEVEL CONTROLLER REFER: 14AQ2.1
---	NA	BELOW GRADE PIPING



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AQ4.1
POOL RETURN PIPING PLAN
3/16" = 1'-0"