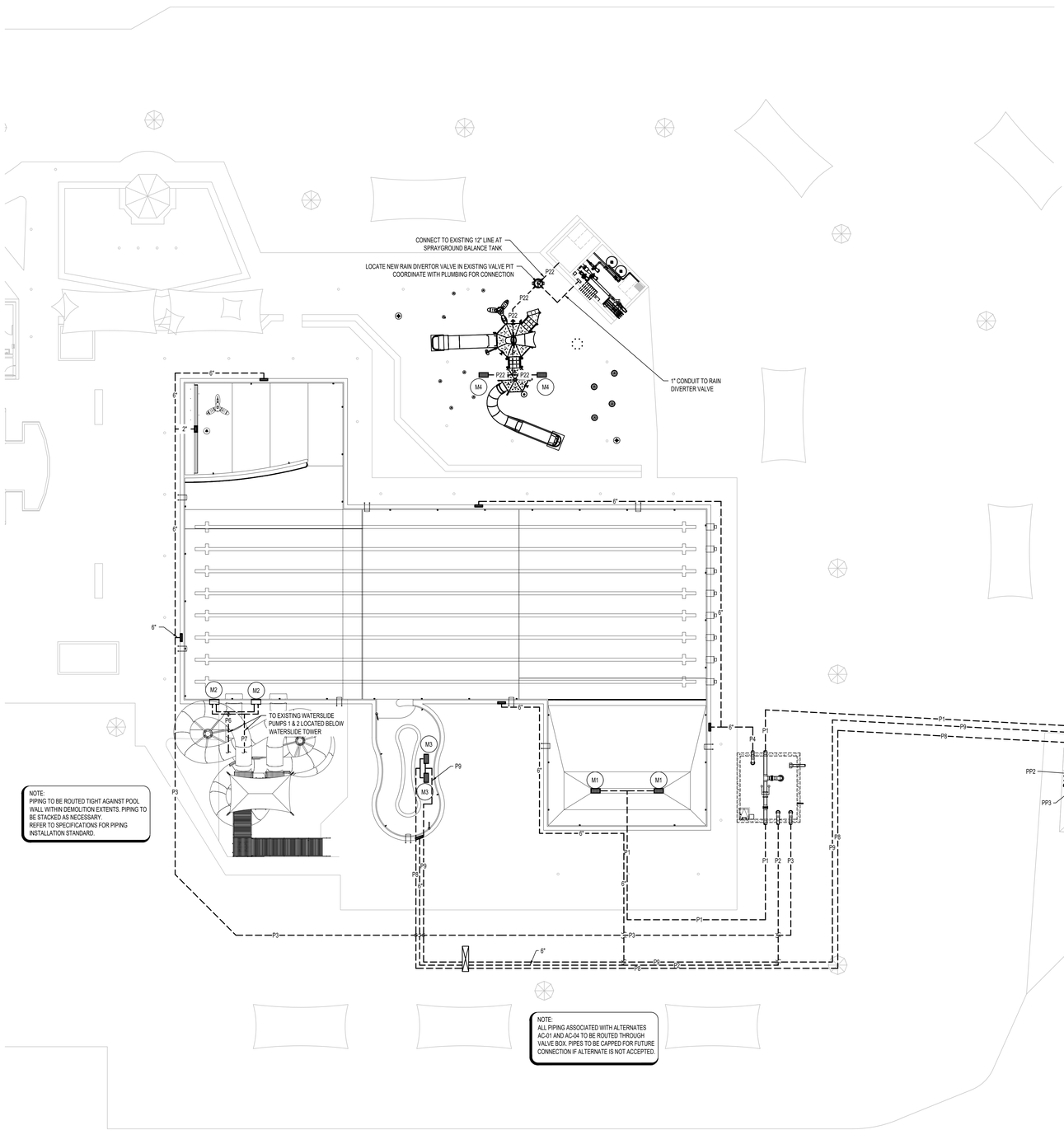

1 AQ300 POOL SUCTION PIPING PLAN

1/16" = 1'-0"

PIPING LEGEND

LEGEND	QTY.	ITEM	MAKE	MODEL
POOL				
	7	NEW WALL INLET (ALTERNATE AC-01 & AC-04) REFER: 14/AQ504	HAYWARD	SP1421E & SP1022S
	35	EXISTING WALL INLET	EXISTING	
	6	GUTTER DROPOUT BOX REFER: 17/AQ504	FIELD FABRICATED	
	4	MAIN DRAIN REFER: 18/AQ504	REFER TO MAIN DRAIN SCHEDULE	
	2	CURRENT CHANNEL NOZZLE (ALTERNATE AC-01) REFER: 16/AQ504	FIELD FABRICATED	
	1	VALVE BOX REFER: 1/AQ506	DALDORADO	CUSTOM
	2	WALL DRAIN REFER: 20/AQ505	REFER TO MAIN DRAIN SCHEDULE	
	1	TRENCH DRAIN SUMP REFER: 28/AQ506	FIELD FABRICATED	
SPRAYGROUND				
	2	MAIN DRAIN REFER: 18/AQ504	REFER TO MAIN DRAIN SCHEDULE	
	1	RAIN DIVERTOR VALVE REFER: 19/AQ505	WATERPLAY	0010-4666
COMBINED				
	N/A	BELOW GRADE PIPING	CHEMTROL	SCH 40 PVC, SCH 80 PVC

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 MUST BE TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB.
4. ALL BALANCING VALVES AND BUTTERFLY VALVES MUST BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
5. ALL VALVES MUST 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 MUST EXTEND TO 7'-0" ABOVE FINISHED FLOOR LEVEL.
7. ALL VALVE HARDWARE MUST BE 316L STAINLESS STEEL AND MEET ANSI HARDWARE INSTALLATION GUIDELINES. REFER: 12/AQ505
8. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
9. ALL PIPING WORK MUST BE COORDINATED WITH ALL TRADES AND SITE CONDITIONS. OFFSETS, EXPANSION LOOPS, OR TRANSITIONS IN PIPING AROUND OBSTRUCTIONS MUST BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
10. ALL PIPING INDICATED MUST BE CONSIDERED DIAGRAMMATIC.
11. ALL SWIMMING POOL PIPING ROUTED BELOW THE POOL SHELL MUST BE CONCRETE ENCASED SCHEDULE 40 PVC UNLESS OTHERWISE NOTED. REFER: 7/AQ505
12. ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING MUST BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. CONTRACTOR MUST REFER TO PLANS AND SPECIFICATIONS FOR ANY SPECIFIC REQUIREMENTS REGARDING PLACEMENT AND BACKFILLING OF BELOW GRADE POOL PIPE.
13. ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCES.
14. THE CHEMICAL SENSOR LINE MUST BE A 3/4" TO 1" DIAMETER, SCHEDULE 80 PVC PIPE EXTENDED FROM THE WET CELL SENSOR TO ITS RESPECTIVE FILL FUNNEL AND THE BACKWASH CATCH BASIN.
15. ALL PIPE TEES MUST BE SIZED FOR LARGEST PIPE CONNECTION.
16. SURGE TANK VENT PIPING TO ATMOSPHERE.
17. ALL GUTTER DROPOUT LINES MUST SLOPE 1/8" PER FOOT MINIMUM.

POOL PIPING WINTERIZATION NOTES

1. ALL POOL PIPING MUST HAVE THE CAPABILITY TO BE DRAINED FOR WINTERIZATION.
2. ALL POOL SUCTION AND GRAVITY PIPING MUST BE INSTALLED WITH A CONSTANT SLOPE TO THE MAIN DRAINS AND/OR SURGE TANK.
3. ALL POOL RETURN PIPING MUST HAVE THE ABILITY TO COMPLETELY DRAIN TO THE 2" WINTERIZATION LINE AS SHOWN ON THE DRAWINGS.
4. ALL POOL SUCTION AND RETURN PIPING MUST SLOPE BACK TO THE POOL MECHANICAL ROOM. A WINTERIZATION TAP AND VALVE MUST BE PROVIDED ON PIPING ALLOWING THE ABILITY FOR ALL PIPING TO BE COMPLETELY DRAINED.
5. BLOW OUT ALL PIPES BY MEANS OF AN AIR BLOWER AND A WINTERIZATION TAP. CAP ALL PIPES. FOR ADDED PROTECTION AGAINST FREEZING PIPES, THE PIPES CAN BE FILLED WITH RV ANTI-FREEZE. REFER: 14/AQ505

PUMP SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	SIZE	GPM	TDH	HP	NPSHR	HAIR & LINT		NOTES
									MAKE	SIZE	
PP1	POOL RECIRCULATION PUMP REFER: 1/AQ504	PACO	50123LC	6X5	1400	80	40	12.9	MERMADE	12X6	1-6
PP2	POOL FEATURE PUMP (ALTERNATE AC-04) REFER: 1/AQ504	PACO	40707LC	3X2.5	210	35	3	9.3	MERMADE	6X3	1-4,7-8
PP3	POOL CURRENT CHANNEL PUMP (ALTERNATE AC-01) REFER: 1/AQ504	PACO	60951LC	8X6	1600	45	25	13.3	MERMADE	12X8	1-4,7-8

NOTE:
1. THE MANUFACTURER INDICATED IS BASIS OF DESIGN. PUMP MANUFACTURERS: GRISWOLD, HERBORNER, PACO OR AURORA MUST BE CONSIDERED EQUAL PROVIDED THEY MEET SPECIFICATIONS AS INDICATED IN BID DOCUMENTS.
2. POOL PUMPS AND STRAINERS MUST BE INSTALLED ON HOUSEKEEPING PADS.
3. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-60 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-30 HG / 0-60 PSI.
4. PROVIDE WITH 460 VOLT, 3 PHASE, 60HZ, 1750 RPM MOTOR.
5. PROVIDE WITH CHECK VALVE.
6. PROVIDE VARIABLE FREQUENCY DRIVE AND BYPASS.
7. PROVIDE REMOTE PUMP START.
8. PROVIDE WITH VARIABLE FREQUENCY DRIVE.

MAIN DRAIN SCHEDULE

ID	DESCRIPTION	SIZE	QTY	DESIGN FLOW (GPM)	DESIGN VELOCITY (FPS)	MFG ALLOWABLE FLOW @ COVER (GPM)	MODEL	MANUFACTURER	NOTES
M1	POOL RECIRCULATION PUMP	18"X36"	2	1400	0.56	2869	DALMAX-SG-183634	DALDORADO	1-7
M2	POOL WATERSLIDE PUMPS	18"X36"	2	2000	0.80	2080	DALMAX-SG-183628	DALDORADO	1-5
M3	POOL CURRENT CHANNEL AND FEATURE PUMP (ALTERNATE AC-01 & AC-04)	18"X36"	2	1810	0.72	2869	DALMAX-SG-183634	DALDORADO	1-5,7
M4	SPRAYGROUND	18"X36"	2	N/A	N/A	2869	DALMAX-SG-183634	DALDORADO	1-5

NOTE:
1. MAIN DRAIN GRATING MUST BE MANUFACTURED BY DALDORADO OR APPROVED EQUAL.
2. MAXIMUM FACE VELOCITY MUST NOT EXCEED 1.5 FEET PER SECOND.
3. OPEN AREA IS BASED ON MANUFACTURER'S DATA.
4. THE INSTALLED LIFE OF THE MAIN DRAIN COVER MUST BE A MINIMUM OF 10 YEARS .
5. FASTEN MAIN DRAIN COVER TO EMBEDDED PVC FRAME/POOL FLOOR WITH S/S TAMPER PROOF FASTENERS AT A SPACING NO GREATER THAN 24" O.C. REFER TO FRAME AND GRATE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6. PROVIDE WATER BONDING FITTING IN MAIN DRAIN SUMP AT DEEPEST SECTION OF THE POOL. BASIS OF DESIGN: PERMA-CAST SWIMMING POOL PRODUCTS MODEL PB-SK-20.
7. PROVIDE HYDROSTATIC RELIEF VALVE IN EACH MAIN DRAIN SUMP AT DEEPEST SECTION OF THE POOL. BASIS OF DESIGN: HAYWARD MODEL SP1056 & SP1055.

PIPE SCHEDULE

ID	DESCRIPTION
P1	12" FROM M1 TO PP1
P2	10" FROM GUTTER DROPOUT BOXES TO POOL SURGE TANK
P3	10" FROM GUTTER DROPOUT BOXES TO POOL SURGE TANK
P4	10" FROM GUTTER DROPOUT BOXES TO POOL SURGE TANK
P5	6" FROM L1 TO POOL SURGE TANK
P6	10" FROM M2 TO EXISTING WATERSLIDE PUMP 1
P7	10" FROM M2 TO EXISTING WATERSLIDE PUMP 2
P8	6" FROM M3 TO PP2 (ALTERNATE AC-04)
P9	12" FROM M3 TO PP3 (ALTERNATE AC-01)
P10	10" FROM PP1 TO F1
P11	10" FROM F1 TO POOL RETURN MANIFOLD
P12	8" FROM POOL RETURN MANIFOLD TO EXISTING RETURN INLETS
P13	3" FROM POOL RETURN MANIFOLD TO CHANNEL RETURN INLETS (ALTERNATE AC-01)
P14	2" FROM POOL RETURN MANIFOLD TO ZERO ENTRY RETURN INLETS (ALTERNATE AC-04)
P15	6" FROM F1 TO BACKWASH CATCH BASIN
P16	3" FROM P10 TO BACKWASH CATCH BASIN
P17	6" FROM PP2 TO VALVE BOX (ALTERNATE AC-04)
P18	1.5" FROM VALVE BOX TO FS WATERFALL 3 FEATURE (ALTERNATE AC-04)
P19	1.5" FROM VALVE BOX TO FS SLOSH 1 FEATURE (ALTERNATE AC-04)
P20	4" FROM VALVE BOX TO BUBBLERS (ALTERNATE AC-04)
P21	10" FROM PP3 TO CURRENT CHANNEL NOZZLES (ALTERNATE AC-01)
P22	12" FROM M4 TO EXISTING SPRAYGROUND BALANCE TANK (ALTERNATE AC-03)
P23	1.5" FROM SPRAYGROUND MANIFOLD TO GS GEYSER SPRAY FEATURES (ALTERNATE AC-03)
P24	1.5" FROM SPRAYGROUND MANIFOLD TO FS WATERFALL 2 SPRAY FEATURE (ALTERNATE AC-03)
P25	1.5" FROM SPRAYGROUND MANIFOLD TO FS DOUGHNUT SPRAY FEATURE (ALTERNATE AC-03)
P26	6" FROM SPRAYGROUND MANIFOLD K250 EXPLORATION SERIES PLAY STRUCTURE (ALTERNATE AC-03)
P27	1.5" FROM SPRAYGROUND MANIFOLD TO GS TULIP SPRAY FEATURES (ALTERNATE AC-03)
P28	1.5" FROM SPRAYGROUND MANIFOLD TO GS PUDDLE 1 SPRAY FEATURES (ALTERNATE AC-03)
P29	3" SURGE TANK VENT

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Hampden Township Aquatics Center Improvements

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REVISIONS

05/19/23 - ISSUED FOR PERMIT

No.	Date	Description

DRAWING TITLE

POOL SUCTION PIPING PLAN

PROJECT NUMBER 22.226

DRAWN BY KAS

SCALE AS NOTED

DATE 05/19/2023

DRAWING NUMBER

AQ300

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