
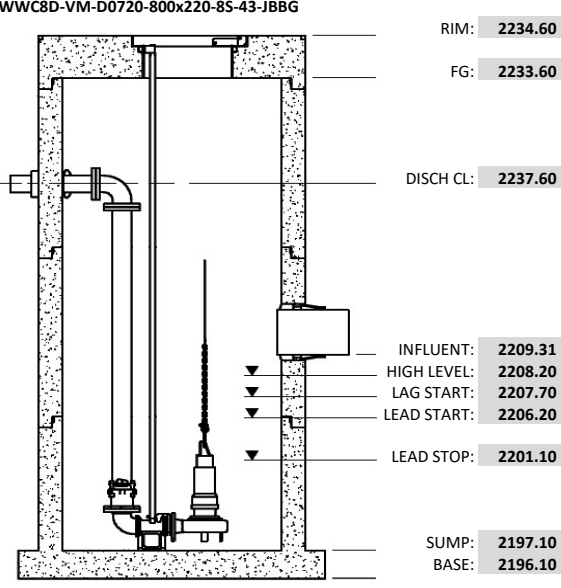


ENGINEERING DESIGN SHEET

PROJECT INFO		PACKAGE/STARTUP		REVISION INFO		Date:		Rev#		Initials																																																													
Job Name:	Fairway Canyon (Tukwet)	Offering:	Complete System	Duplex	1/15/20	0	KB																																																																
Company:	Argent Management	Mechanical:	All by Romtec Utilities	1800 RPM	1/28/21	1	KB																																																																
Contact:	Cheryl Thompson	Pumps:	By Romtec Utilities	LOWER INFLUENT	6/3/21	2	KB																																																																
Job Type:	New Station	Control Panel:	By Romtec Utilities	COMMENTS thru	3/1/22	3	KB																																																																
Water Type/Source:	Wastewater (Sewage)	Generator:	By Romtec Utilities	3600 RPM (again)	4/1/22	4	KB																																																																
Import/Domestic:	Import Acceptable	Startup:	Mechanical & Electrical	As-Built Updates	11/13/23	5	JB																																																																
Bid Job:	Yes	Turnkey:	No																																																																				
FLOW RATE		FORCE MAIN		ELEVATIONS																																																																			
Peak Inflow:	627 GPM	FM Info:	New Dual FM	Rim Elevation:	2234.60							Feet																																																											
Pumping Rate:	763 GPM (Single)	Length:	6223 Feet	Finish Grade:	2233.60							Feet																																																											
Static Head:	154.07 Feet	Nominal ID:	8"	Disch. Piping CL:	2237.60							Feet																																																											
TDH:	220.0 Feet	Type/Rating:	PVC C900 CL235 (DR18)	FM Discharge:	2355.17							Feet																																																											
TDH Calcs:	RU Calcs			FM High Point:	2355.17	Feet																																																																	
C=140 626 GPM at 199.0 TDH				STORAGE VOLUME / BACKUP LEVEL SENSING																																																																			
INFLUENT PIPING		ACTIVE VOLUME		SURCHARGING																																																																			
Influent Invert:	2209.31	Max Pump Starts:	6 Starts/Hr	Time:		Minutes																																																																	
Influent Size:	12"	Cycle Time:	10.0 Minutes	Flow Rate:		GPM																																																																	
Type:	PVC (IPS)	Active Volume:	1907.5 Gallons	Volume:	0	Gallons																																																																	
Degrees Offset:	180	Active Volume:	255.01 Cu Feet	Volume:	0.0	Cu. Feet																																																																	
Orientation:		Well Shape:	Round	Depth Required:	0.00	Feet																																																																	
Notes:		Well Diameter:	8 Feet	Set Storage Depth:		Feet																																																																	
		Well Dimensions:		SURCHARGING																																																																			
		Section Area:	50.27 Sq Feet	Upstream Area:		Sq. Feet																																																																	
		Depth Required:	5.07 Feet	Surcharge Allowed:		Feet*																																																																	
		Set Active Depth:	5.10 Feet	*HL above influent invert.																																																																			
WET WELL		WET WELL TOP		WET WELL BASE																																																																			
Material:	Concrete	Traffic Rating:	Pedestrian	Base:	Sloped wall (RU design)																																																																		
Minimum Barrels:	33.39	Hatch Options:	Cable Tray	Lining:	*See well lining																																																																		
Set Barrels:	34	Vent Options:	Flush Vent (Cast in top slab)	QDC:	6"																																																																		
Disch. Piping Size:	8"	CRANE		Elbow:	Integral																																																																		
Disch. Piping Type:	Stainless Steel (316)	Crane:	5PT20 (2k#)	Adapter:	Alpha																																																																		
Disch. Piping Style:	Straight Through	Crane Base/Winch:	Custom Drill Drive	Notes: Guard Rail Around (Like Phase 4)																																																																			
Lining:	Int./Ext. Coating by RU	Crane Coating:	Powder Coat	Guide rails and fasteners and brackets - 316SS																																																																			
Influent Deflection:	Deflector Panel			8x6 conc reducer FBEC.																																																																			
VALVE VAULT		METER VAULT		PRIMARY PUMPS		SENSOR AND ELEVATION TABLE																																																																	
Valve Size:	8"	Valve Size:	N/A	Manufacturer:	Duplex Flygt		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Elevation</th> <th>Distance</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>2209.31</td><td></td><td>Invert In</td></tr> <tr><td></td><td>0.61</td><td>Spacing</td></tr> <tr><td>2208.70</td><td></td><td>Backup Pumps Start</td></tr> <tr><td></td><td></td><td>Sensor Spacing*</td></tr> <tr><td>2208.70</td><td></td><td>Backup Pumps Stop</td></tr> <tr><td></td><td></td><td>Sensor Spacing*</td></tr> <tr><td>2208.70</td><td></td><td>Backup HL Alarm</td></tr> <tr><td></td><td>0.50</td><td>Sensor Spacing*</td></tr> <tr><td>2208.20</td><td></td><td>HL Alarm</td></tr> <tr><td></td><td>0.50</td><td>Sensor Spacing</td></tr> <tr><td>2207.70</td><td></td><td>Lag Start</td></tr> <tr><td></td><td>1.50</td><td>Sensor Spacing</td></tr> <tr><td>2206.20</td><td></td><td>Lead Start</td></tr> <tr><td></td><td>5.10</td><td>Sensor Spacing</td></tr> <tr><td>2201.10</td><td></td><td>Pump Stop</td></tr> <tr><td></td><td>1.00</td><td>Sensor Spacing*</td></tr> <tr><td>2200.10</td><td></td><td>Backup LL Alarm</td></tr> <tr><td></td><td>4.00</td><td>Sensor Spacing</td></tr> <tr><td>2197.10</td><td></td><td>Sump Floor</td></tr> </tbody> </table>					Elevation	Distance	Description	2209.31		Invert In		0.61	Spacing	2208.70		Backup Pumps Start			Sensor Spacing*	2208.70		Backup Pumps Stop			Sensor Spacing*	2208.70		Backup HL Alarm		0.50	Sensor Spacing*	2208.20		HL Alarm		0.50	Sensor Spacing	2207.70		Lag Start		1.50	Sensor Spacing	2206.20		Lead Start		5.10	Sensor Spacing	2201.10		Pump Stop		1.00	Sensor Spacing*	2200.10		Backup LL Alarm		4.00	Sensor Spacing	2197.10		Sump Floor
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Vault Model:	Concrete Pad	Vault Model:		Model:	NP3202SH																																																																		
Hatch:	N/A	Hatch:		Impeller Model/Dia:	#273																																																																		
Piping Type:	Ductile Iron	Piping Type:		Impeller Trim:	No																																																																		
Pressure Gauge:	on each Diaphragm Seal	Pressure Gauge:		Motor HP:	72 HP																																																																		
Check Options:	External Arm and Spring	Shut Off Options:		Explosion Proof:	Yes																																																																		
Shut Off Options:	Plug Geared Handwheel	Options:		Voltage/Phase:	460V / 3-Phase																																																																		
Options:	Air Release Valve	Options:		Cable Length:	50																																																																		
Options:	Flow Meter	Options:		Mix Flush Valve:	N/A																																																																		
Options:	N/A	Flow Meter (Readout):		Notes: Spare pump with Meltric																																																																			
Notes: Valmatic ARV's, Siemens Flow Meter		Notes:																																																																					
FS: 2233.50' CL:2235.50'																																																																							
Dual flow meters, dual outlets, double ball flex joints																																																																							
CONTROL PANEL		GENERATOR		JOCKEY PUMP																																																																			
Power:	480V / 3-Phase	Model:	200kW Nat. Gas	Manufacturer:	N/A																																																																		
Controller:	Compact Logix	Enclosure:	Sound Attenuation Level 2	Model:																																																																			
Primary Sensor:	Ultrasonic Transducer	Transfer Switch:	600A	Impeller Model/Dia:																																																																			
Secondary Sensor:	2 Floats	Options:	E-Stop	Impeller Trim:																																																																			
Enclosure:	NEMA 3R MCC	Options:	Auxiliary Alarm Contacts	Motor HP:																																																																			
FLA:	308	Pumps Running:	2	Explosion Proof:																																																																			
Pump/Sense Wiring:	Junction Box (Stand)	Notes: Generac, ATS in MCC		Voltage/Phase:																																																																			
Comms:	Radio	CONTROL BUILDING		Cable Length:																																																																			
Options:	Soft Starters	Type:	Control Shelter	Mix Flush Valve:																																																																			
Options:	N/A	Size:	6 post	Notes:																																																																			
Notes:		ODOR CONTROL																																																																					
Freewave Radio & Peplink LTE		Type:	N/A																																																																				
30x30x8 Disconnect panel																																																																							