



Pre-Engineered Lift Stations

- Wastewater
- Stormwater
- Industrial

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DUPLEX – 6' X 20' CUSTOM SYSTEM

Wet Well, Valve Vault, Meter Vault, Electrical Controls, Generator, Odor Control, SCADA & Control Shelter

DESIGN REQUIREMENTS FOR THIS LIFT STATION:

51 Lot Subdivision with dedicated lift station site

122 GPM @ 132' TDH (Duty point)

City specified: PLC controller, SCADA system, auxiliary power & chemical feed system

THIS ROMTEC UTILITIES SYSTEM INCLUDED:

Concrete wet well: fall & confined space entry control, interior coating

Pump disconnect panel: with free air stand, cable hatch

Davit crane: Thern 5124 crane with hand winch

Piping & accessories: all stainless steel

ITT Flygt pumps: NP3153 HT, 18 HP

Level monitoring & control: Primary -MultiTrode probe, Redundant / back-up – Multitrode probe w/MTR relays

Concrete valve vault: fall & confined space entry control, 4" system, check & plug valves, discharge pressure gauge, by-pass pumping port

Concrete meter vault: Seimens Mag-meter, by-pass piping & valves

Generator: Cummins 60 kW w/A.T.S., NG fuel, sound attenuation

Weather shelter: post/beam open structure

Electrical controls: UL listed

Communication: radio modem, SCADA system

Odor control: US Filter Bioxide chemical feed system

ROMTEC UTILITIES' FREE DESIGN SERVICES INCLUDED:

- All lift station sizing, design, drawings, specifications
- All structural & mechanical drawings
- All control & communication design & drawings
- Layout of equipment on the site plan
- Development of submittal documentation
- Secure agency approval of submittals
- Provide onsite construction advisor & start-up services
- Provide operations & maintenance manuals, onsite training of agency personnel

SITE DETAILS

New 51 lot residential subdivision. Due to site topography, subdivision's sewer terminated approximately 100' below the nearest gravity sewer, thus requiring a lift station. Romtec Utilities was the solution.



DESIGN YOUR LIFT STATION AND GET A QUOTE

Romtec Utilities provides lift station design and quotation service on our website, www.romtecutilities.com. Click on the Design/Quote button at the top of the web page.

LIFT STATION DESIGN DETAILS:

WET WELL

Dimensions: 6' dia. x 20' depth

Lining/Coating: Raven 405 w/A-10 primer (field applied)

Top Slab: Custom Romtec Utilities H-20 traffic rated with Flygt Safe-Hatch access cover with patented cable hatch, Thern davit crane, Romtec pump disconnect panel in stainless enclosure/stand

Influent: 8" dia. PVC with Kor-N-Seal flexible boot, HDPE influent deflector

Discharge: Flygt 4" discharge elbow (2), 4" dia. Sch. 10 stn/SS steel discharge piping

FLYGT PUMPS

Model/HP: NP3153/18HP (2), one pump equipped with Flygt Mix-Flush Valve model 4901

Electrical: 480V/3-phase

VALVE VAULT

Dimensions: 8'-8"l x 6'-8"w x 7'-3"d

Hatch in Top Slab: ITT Flygt FDRND-HD-33X61 H-20 RATED

Piping: 4" dia. ductile

Valves: Val-Matic Swing-Flex check valve – 504MI/BF

DeZurik eccentric plug valve – PEC,4,F1,CI,NBR,CR,GS-6HD8

Pressure Sensor: Red Valve – Series 40

METER VAULT

Dimensions: 8'-8"l x 6'-8"w x 7'-3"d

Hatch in Top Slab: ITT Flygt FDRND-HD-33X61 H-20 RATED

Piping: 4" dia. ductile

Valves: DeZurik eccentric plug valve – PEC,4,F1,CI,NBR,CR,GS-6HD8

Flow Meter: Siemens MAGFLO 5100W w/MAG 6000 transmitter

CONTROLS

Enclosure: NEMA 4, 36" x 48" x 12" w/12" leg kit

Controller: Allen Bradley SLC500

SCADA: Romtec Utilities provided custom programming, integration of control panel & wastewater treatment plant receiving base station

Telemetry: Radio modem with antenna & mast

Level Sensors: Primary - MultiTrode probe 1.5/10-10m, Redundant level control – MultiTrode probe .6/3-10m, high water alarm – MultiTrode probe .2/1-10m

STANDBY POWER GENERATOR

Cummins 60GGHE, 60KW, 480V/3-phase, Natural gas fueled, Quiet-Site II sound attenuation, OTEC150 Automatic Transfer Switch

ELECTRICAL CONTROL SHELTER

Dimensions: 9' x 8' x 8'

Roof Construction: wood roof truss, 1/2" plywood sheathing

Roofing: Composition three tab asphalt shingles

Floor: Concrete slab, 4" thick with thickened post foundations

DOCUMENTATION

Scope of Supply & Design Submittals: Full submittals for:

- Wet well hatch, discharge elbows, pumps, piping & accessories
- Valve vault, hatch, check & operational valves, pressure gauge & piping.
- Meter vault, hatch, MAG meter, operational valves & piping
- Electrical controls, controller, starters, radio, battery backup, level sensing etc.
- Generator, ATS.
- Integration, copies of all custom programming completed for agency

Operations & maintenance manuals: Complete as-built drawings & manuals including parts list for all Romtec Utilities supplied items.

