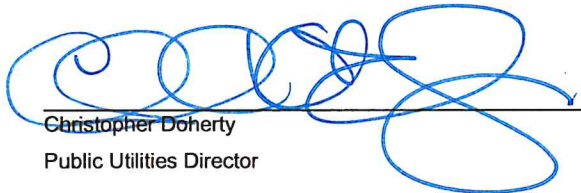


## LIFT STATION SPECIFICATIONS AND DRAWINGS

These Lift Station Specifications and Drawings were prepared for, and apply to general conditions only. They supplement and supersede the Franklin County Public Utilities Standard Specifications dated April 2013 for the items described in this document. The need may arise to alter them to meet a specific design condition. If this occurs, all alterations, substitutions or variances shall be approved in writing by the Franklin County Public Utilities director or designee.

In the event an error or omission is discovered in these Specifications and Drawings, whether through an oversight or a change in technology, written notification shall be made to Franklin County Public Utilities Department for review.

It is further understood that Franklin County Public Utilities or its authorized agents are not responsible for errors or omissions.



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Christopher Doherty  
Public Utilities Director

11.10.2020

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Date

Any variance from these specifications and drawings needs express written authorization from the Franklin County Public Utilities director or designee.

### **PUMPS**

The acceptable pumps for use in the design and construction of lift stations are non-clog submersible pumps. The following are the acceptable manufacturers:

- Flyght
- ABS
- Gorman – Rupp

### **PUMP CONTROL PANEL**

The pump control panel shall be Contegra Station Master 700 Series

### **CHECK VALVES**

Check valves are to be the swing type lever and weight. Check valves are to be installed in a separate vault connected to the wet well with a solid length of pipe. Up stream of each check valve shall be a liquid filled pressure gauge directly tapped into the pipe. Downstream of the check valves where the two lines converge another liquid filled pressure gauge shall be directly tapped into the force main with isolating plug valves. Each pressure gauge shall have a quarter turn resilient seat ball valve installed. The following is a list of acceptable manufacturers for the check valves

- American
- Mueller
- M & H
- Clow

### **FLOW METER**

The flow meter shall be Rosemont Model 8750 W

### **WET WELL & MANHOLE COATINGS**

The coating systems below provide the quality and performance standard for concrete surfaces. Equal coating systems are acceptable as long as the submitted product meets or exceeds the performance and quality standards of the coating system below

#### **HIGH H<sub>2</sub>S RESISTANT COATINGS FOR CONCRETE WET WELL & MANHOLES:**

- Cementitious Resurfacer (Existing Concrete Only) – Tnemec Series 217 MortarCrete
- 1<sup>st</sup> Coat: applied 100.0 – 125.0 mils – Tnemec Series 434 Perma-Shield H<sub>2</sub>S
- 2<sup>nd</sup> Coat: applied 15.0 – 20.0 mils – Tnemec Series 435 Perma-Glaze
- NOTE: Follow Tnemec Perma-Shield Details Guide on terminations, penetrations, joint details, etc.

### **SCADA & REMOTE CONTROLS/MONITORING**

The following list are the items that need to be monitored through the Franklin County Public Utilities SCADA System. The SCADA system is DFA and the local integrator is K.L. Shane.

- Station Flow
- Pump Status

- Seal Fail (with alarm)
- Over Temp (with alarm)
- Levels
  - Low Level (with alarm)
  - High Level (with alarm)
  - Current Level
- Generator Status
  - Battery voltage
  - Fuel
  - Hours
- ATS Status
  - Commercial Power
  - Generator Power
- Power Loss
- Phase Loss
- Rain Gauge (if equipped)

### **GENERATOR & AUTOMATIC TRANSFER SWITCH**

The generator shall be diesel and sized appropriately to run the entire lift station with a matching sized Automatic Transfer Switch (ATS). The generator and ATS shall be:

- CAT Generator
- ASCO ATS

### **FENCING**

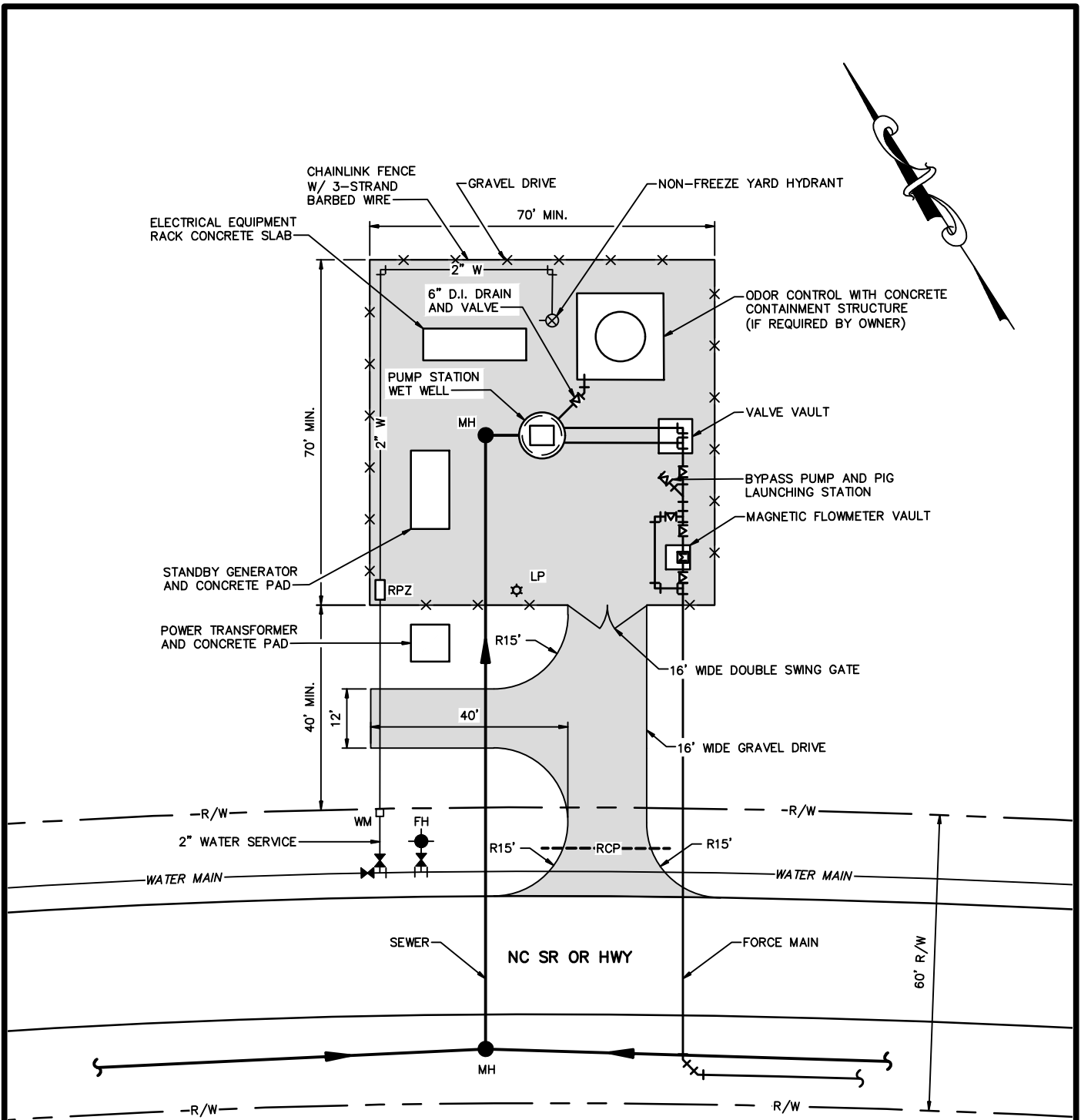
All lift station sites need to be secured. The fencing for the sites shall be six (6) foot black vinyl coated chain link with 3 strand barbed wire at the top. There shall be a top and bottom rail. The access gate shall be twelve (12') in width and placed where the Franklin County Public Utilities Department determines. The fence shall have the black privacy slats installed. An identification sign is to be installed on the gate that measures 12" x 18" and has the following text:



**SITE LAYOUT**

The attached sketch shows the typical layout of all pump stations being designed. The light pole height needs to fifteen (15') from the ground to the light. The light needs to be an exterior LED fixture with a photocell at 300 Watts with 40,000 lumens, with direct to pole mounting. Variance from the sketch needs written approval from Franklin County Public Utilities Department.

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|                                  |   |
|----------------------------------|---|
| FRANKLIN COUNTY PUBLIC UTILITIES |   |
| DRAWING #                        | GENERAL SITE PLAN<br>SEWER PUMP STATION |
| S-20                             |   |