Typical Septic & Pump Tank

- Wastewater from Dwelling
- Inlet Baffle
- Floating Scum Layer
- Effluent
- Outlet Baffle
- Sludge
- Effluent to Chamber
- Alarm Float
- On Float
- Effluent to Absorption Area
Typical Lift Station
TYPES OF FLOATS AND SWITCHES
FLOATS AND SWITCHES
Best Installation Practices

- Locate control panel where it is easily accessible
INSTALLING CONTROL PANELS

Best Installation Practices

• Locate panel where it is easily accessible
• Use the proper drill bit when making penetrations in enclosure
• Avoid holes in top and sides of panel enclosure
INSTALLING CONTROL PANELS

Best Installation Practices

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DISCONNECT SWITCH
INSTALLING CONTROL PANELS
INSTALLING CONTROL PANELS

Best Installation Practices

• Locate panel where it is easily accessible
• Use the proper drill bit when making penetrations in enclosure
• Avoid holes in top and sides of panel enclosure
• Use proper “Liquid tight” fittings on penetrations
• Seal conduits coming from sewage tank
• Seal off possible ground moisture into panel
INSTALLING CONTROL PANELS

**Cable Connectors**
Provides strain relief and a liquid-tight seal. Round or flat models.

**Hub Assembly**
Provides liquid-tight conduit attachment location.

**Cord Seals**
Provides strain relief and a liquid-tight seal.
INSTALLING CONTROL PANELS

Best Installation Practices

• Locate panel where it is easily accessible
• Use the proper drill bit when making penetrations in enclosure
• Avoid holes in top and sides of panel enclosure
• Use proper “Liquid tight” fittings on penetrations
• Seal conduits coming from sewage tank
• Seal off possible ground moisture from panel
• Mount float switches so they actuate freely
• Mount float switches so they can be easily removed
• Label float switch cables prior to pulling through conduit
TWO ELECTRICAL CIRCUITS FOR CONTROL PANEL

CONTROL AND ALARM CIRCUIT

PUMP CIRCUIT

SINGLE PHASE POWER
CONTROL AND ALARM CIRCUITS

• THE CONTROL/ALARM CIRCUIT SENDS POWER TO THE FLOATS.

• THE CONTROL/ALARM CIRCUIT POWERS THE MOTOR CONTACTOR COIL, ALL THE LIGHTS, AND THE BEACON & HORN.

• THE CONTROL/ALARM CIRCUIT IS SEPARATE ELECTRICALLY FROM THE PUMP CIRCUIT.
PUMP CIRCUIT IS SEPARATE FROM THE CONTROL/ALARM CIRCUIT.

PUMP CIRCUIT PROVIDES POWER TO THE PUMP MOTOR.
SAFETY
SAFETY IS THE MOST IMPORTANT THING. IT TAKES LESS THAN 1 AMP OF CURRENT TO STOP YOUR HEART. ALWAYS TURN OFF POWER WHEN WORKING INSIDE A CONTROL PANEL, OR ON ANY OTHER ELECTRICAL DEVICE.
• TURN OFF THE SERVICE BREAKER FEEDING THE CONTROL PANEL OR ELECTRICAL DEVICE, USUALLY LOCATED OUTSIDE OF THE CONTROL PANEL.

• TURNING OFF THE BREAKERS IN THE CONTROL PANEL ONLY KILLS POWER TO THE COMPONENTS DOWN STREAM OF THE BREAKER – THERE IS STILL POWER TO THE TOP OF THE BREAKERS AND ANYTHING BEFORE IT IN THE CIRCUIT.
THANK YOU!!!