

DATE: 09/21/07

REVISIONS
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PIERSON
 ENGINEERING
 &
 SURVEYING

P.O. BOX 311
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DEVELOPMENT PLANS
 FOR
 FINCASTLE FIRE DEPARTMENT
 BOTETOURT COUNTY, VIRGINIA

PUMP STATION

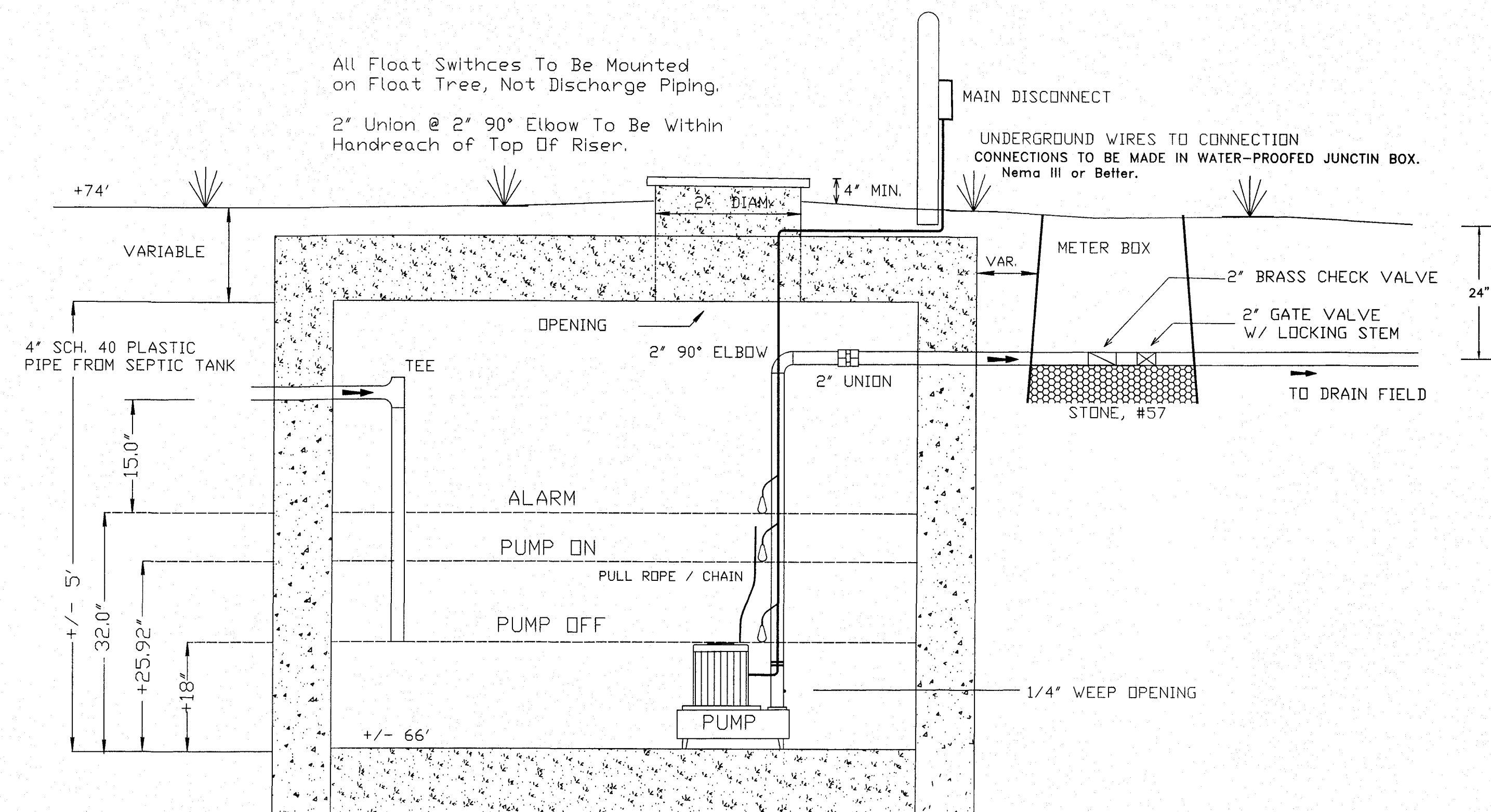
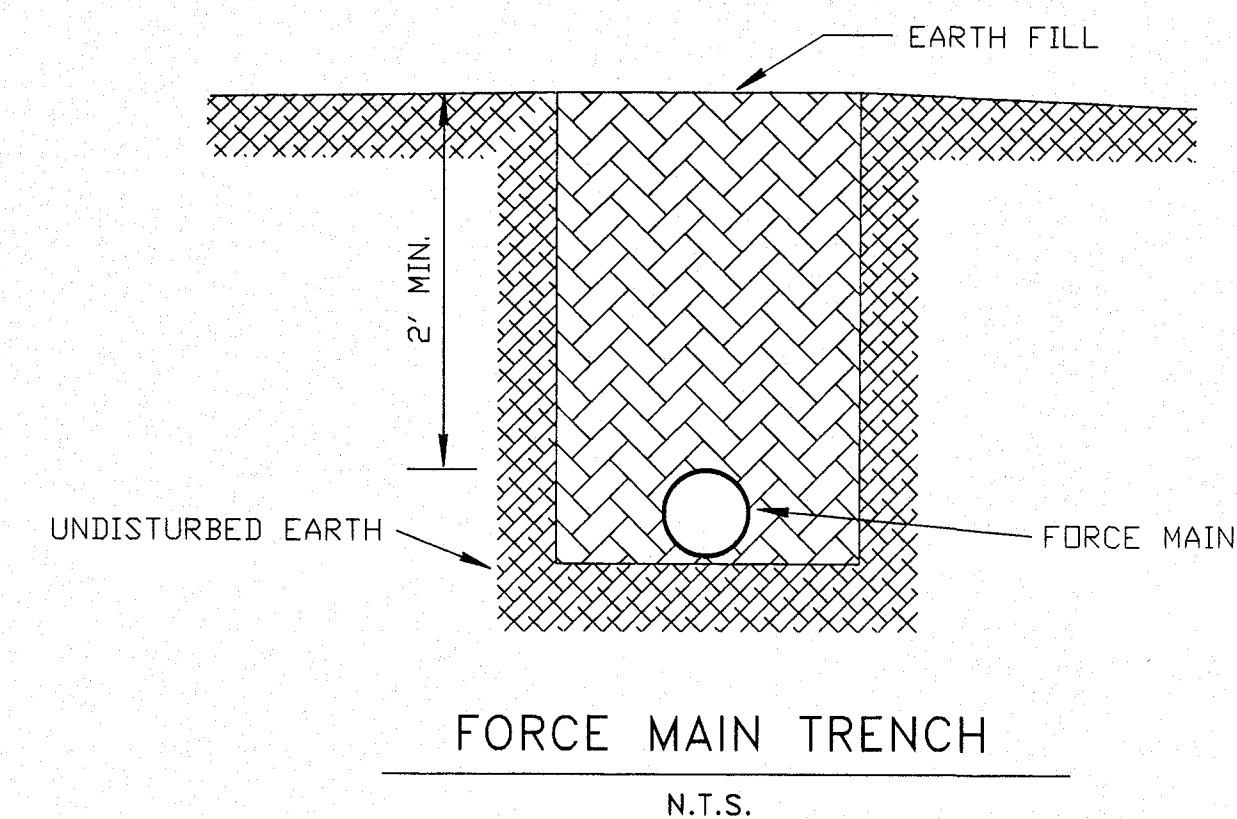
COMMONWEALTH OF VIRGINIA
 9/21/07
 RODERICK F. PIERSON
 NO. 023842
 PROFESSIONAL ENGINEER
 COMMISSION
 R200762
 SHEET
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General Notes:

- Pumps: Goulds Model WE0512HH, 1/2hp, Single Phase, 230 Volts, 3500rpm or approved equal.
- Controls: Switches - Goulds A2-3 (2 - required) or A2-7 (1 - required) or approved equal. Goulds A3 Simplex Pump Control A3-2012 or approved equal.
- Piping and Valves: All gravity lines and force mains to be Schedule 40. All force mains shall be tested to 75 psi for one (1) hour with no leakage permitted.
- Locations of drain fields, septic tanks, pump stations, pipe lines and distribution boxes are approximate and are subject to minor adjustments during construction. Any significant deviations must be approved by the Engineer and the Local Health Department.
- All construction of these sewerage systems to in accordance with the State Board Of Health Sewerage Handling and Disposal Regulations and local building codes.
- Alarms (light and horn) to be mounted on interior of building or inside NEMA III enclosure. Separate electrical circuit to be provided.
- Disconnect switch to be located on building within sight of pump chamber.
- All bends shall have concrete thrust blocks.
- All pipe fittings on force main shall be pressure rated fittings.
- No junction boxes will be allowed inside the pump chamber.
- Keep well 50' from house and 100' from drainfield.

DESIGN INFORMATION:

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|------------------------------|-------------|
| Static Head, Ft. | 30 ft. |
| Friction Head, Ft. | 5.0 ft. |
| Total Dynamic Head, Ft. | 35.0 ft. |
| Flow rate, G.P.M. | 35 G.P.M. |
| Force Main Velocity, ft/sec. | 3.7 ft/sec. |
| Pump Run Time/Cycle | 3.9 min. |
| Working Volume, gal. | 137 gal. |
| Storage Volume, gal. | 276 gal. |



PUMP CHAMBER
 1000 GALLON
 PRECAST TANK
 NOT TO SCALE