



Specifications For Sanitary Sewer Service Line And Grinder Pump Installation

PA One-Call must be contacted at 1-800-242-1776 prior to excavation beginning

General SAA Sanitary Service Guidelines:

1. All applications must be completed, signed and any applicable fees paid prior to new service being approved – an original sealed survey is required for a tap servicing a newly constructed structure.
2. Only property owners may apply for new service which requires a tap to be constructed.
3. Multi-Unit Residential & Non-Residential applicants are required to meet with the Authority Engineer prior to service approval.
4. All sanitary waste lines including but not limited to toilets, laundry facilities, sinks, dishwashers and any other source of gray water shall be connected into the public wastewater system.
5. No storm water, roof conductors, foundation (French) drains, driveway drains, sump pumps, nor any source of ground or surface water whatsoever is permitted to enter the sewage service line.
6. The Authority will not make a connection from the tap to a service line.
7. Service lines are to be constructed only on the property of the residence or structure being serviced.
8. The grinder pump and all relevant equipment must be Authority-approved. The pump shall be a DH071 model grinder pump manufactured by Environmental One. Relevant equipment includes, but is not limited to, an Environmental One alarm panel and an Environmental One Lateral Kit, consisting of a lateral valve, a curb box, and the relevant 1.5” compression fittings.
9. The purchase, installation, set-up, and maintenance of the pump and all relevant equipment shall be solely the responsibility of the property owner, and shall adhere to the specifications and guidelines laid forth by the manufacturer and vendor of the pump.
10. All work is to be done in compliance with the Saxonburg Area Authority **Rules and Regulations** and any other local, State or Federal laws.

Technical SAA Sanitary Service Specifications:

1. A newly constructed service line shall be required from the exterior building wall to the grinder pump unit, and then from the grinder pump unit outlet to the 6" SDR35 gravity tap-in connection (unless otherwise specified) provided. An inspection by an Authority representative will be performed for each portion. The Authority reserves the right to grant partial waivers of this requirement under exceptional conditions or circumstances.
2. The entire installation, including both gravity and pressurized service lines, requires a visual inspection by a representative of the Authority. Initial inspection fee is included in the tap-in fee. Any additional inspections shall be charged according to the Authority Fee Resolution.
3. The pressurized service line must pass a pressure test in the presence of an Authority representative. The installer must ensure that all pressure test specifications are met for Authority approval. **NOTE;** when pressurizing the service line, the pipe must not be connected to the grinder pump and may require a cap. **Please refer to the SAA Specifications for Pressure Test of Pressurized Service Line from Grinder Pump Unit to Shut-Off Valve detail sheet.**
4. No service line is to be covered until visually inspected from the exterior wall of the building to the tap-in connection with the appropriate depth of limestone bedding underneath the service line installed, but no backfill covering the pipe. After the inspection has been approved by a representative of Saxonburg Area Authority, the remainder of the 2B crushed limestone shall be backfilled in the pipe zone and above the pipe. **NOTE;** The installer may backfill the excavation at any point after the visual inspection has been passed; however, should the pressurized service line fail the pressure test, it is the responsibility of the installer to re-excavate and correct all deficiencies. Additionally, other agencies may require inspections of their own – please contact your municipality for more information before backfilling.
5. A standard 6" SDR35 gravity tap (unless otherwise specified) will be installed by the Authority for the property. A combination of solid-sleeve reducing couplings must be used to connect the one and one half (1.5) inch pressurized service line to the six (6) inch SDR35 tap. This combination shall consist of one 6" SDR35 to 4" PVC reducer and one 4" PVC to 1.5" PVC reducer. The shut-off valve and cleanout must be installed at the Right-of-Way line. All specifications set forth by the manufacturer shall be adhered to during installation. **NOTE;** due to the design of the shut-off valve and cleanout, extra care must be taken to ensure an effective seal during installation. No line will be approved without a pressure-tight seal where connected to the shut-off valve and cleanout.
6. Gravity service lines are to be four (4) inches in diameter at minimum and designed to maintain a minimum one-eighth (1/8) unit vertical to twelve (12) unit horizontal.
7. Pressurized service lines are to be one-and-one-half (1.5) inches in diameter, and all pipes and fittings used in construction are to be rated for high pressure.
8. The gravity service line pipe shall not be reduced in size in the direction of flow between the house and the pump. Likewise, the pressurized service line pipe shall not be reduced in size in the direction of flow between the pump and the shut-off valve.
9. A house trap and vent stack are required within three (3) feet outside of the building wall. **The line from the exterior wall up to and including the trap is to be constructed of Schedule 40 pipe and fittings.**
10. A shielded flexible coupling may be used in some cases when the use of a solid coupling or adapter is impossible to connect the existing sanitary house drain line to the newly constructed service line. **The use of flexible couplers is prohibited when constructing**

the remainder of the service line. See attached drawing for acceptable fittings at various connection points.

11. A cleanout shall be installed at no greater than one hundred (100) foot increments apart on the gravity service line (starting measurement from the exterior vent stack which will be accepted as a cleanout) and at each fitting with a change of direction greater than 45 degrees. For the installation of Schedule 40 or SDR 11 low pressure service lines, a minimum of one (1) cleanout must be installed for runs of two hundred (200) feet or less. When constructing a run of greater than two hundred (200) feet, a cleanout will be required within two hundred (200) feet of the pump unit's connection point, and then at a maximum of every two hundred (200) feet thereafter. Additionally, a cleanout will be required at each and every fitting with a change of direction greater than 45 degrees. In addition, the installer shall install thrust blocks as necessary to ensure lateral forces are minimized in the trench. When constructing a low-pressure service line from SDR 11 pipe, appropriate, high pressure compression-style fittings must be utilized to convert from the primary SDR 11 to pressure-rated Schedule 40 PVC to construct the necessary cleanouts.
12. No single fitting greater than a 45 degree elbow is permitted at any point on the service line except in the construction of the house trap. Change in direction greater than 45 degrees are to be accomplished with the use of two fittings and a minimum 12" section of pipe between.
13. New service lines and fittings from the house trap to the grinder pump unit shall be constructed using **SDR-35** pipe with an elastometric gasket or **Schedule 40 PVC / ABS DWV** pipe. All joints shall be tightly fitted to prevent infiltration and installed in accordance with manufacturer's specifications.
14. All pressurized service lines and fittings from the grinder pump unit to the shut-off valve connection point shall be constructed using **Schedule 40 PVC** pipe or **SDR 11 polyethylene** pipe. All fittings shall be rated for pressure. Solid, solvent weld fittings must be utilized for Schedule 40 PVC installations; appropriate compression type fittings must be utilized for SDR 11 pipe.
15. The gravity service line shall be installed with six (6) inches of **2B crushed limestone** as bedding under the pipe, four (4) inches of **2B crushed limestone** in the pipe zone and six (6) inches of **2B crushed limestone** as backfill above the pipe to provide support and protection. The low-pressure service line shall be installed with four (4) inches of **2B crushed limestone** as bedding under the pipe, one and one half (1.5) inches of **2B crushed limestone** in the pipe zone, and four (4) inches of **2B crushed limestone** as backfill above the pipe to provide support and protection. Slag, pea gravel or modified materials are not considered suitable bedding or backfill. Excavated materials can be used for remaining backfill provided that no large chunks of earth, construction debris or large rocks are placed in the trench.

These guidelines are intended to represent the specifications of the Saxonburg Area Authority. You may be required to meet additional Municipal or State requirements. Please contact your local municipality for more information.



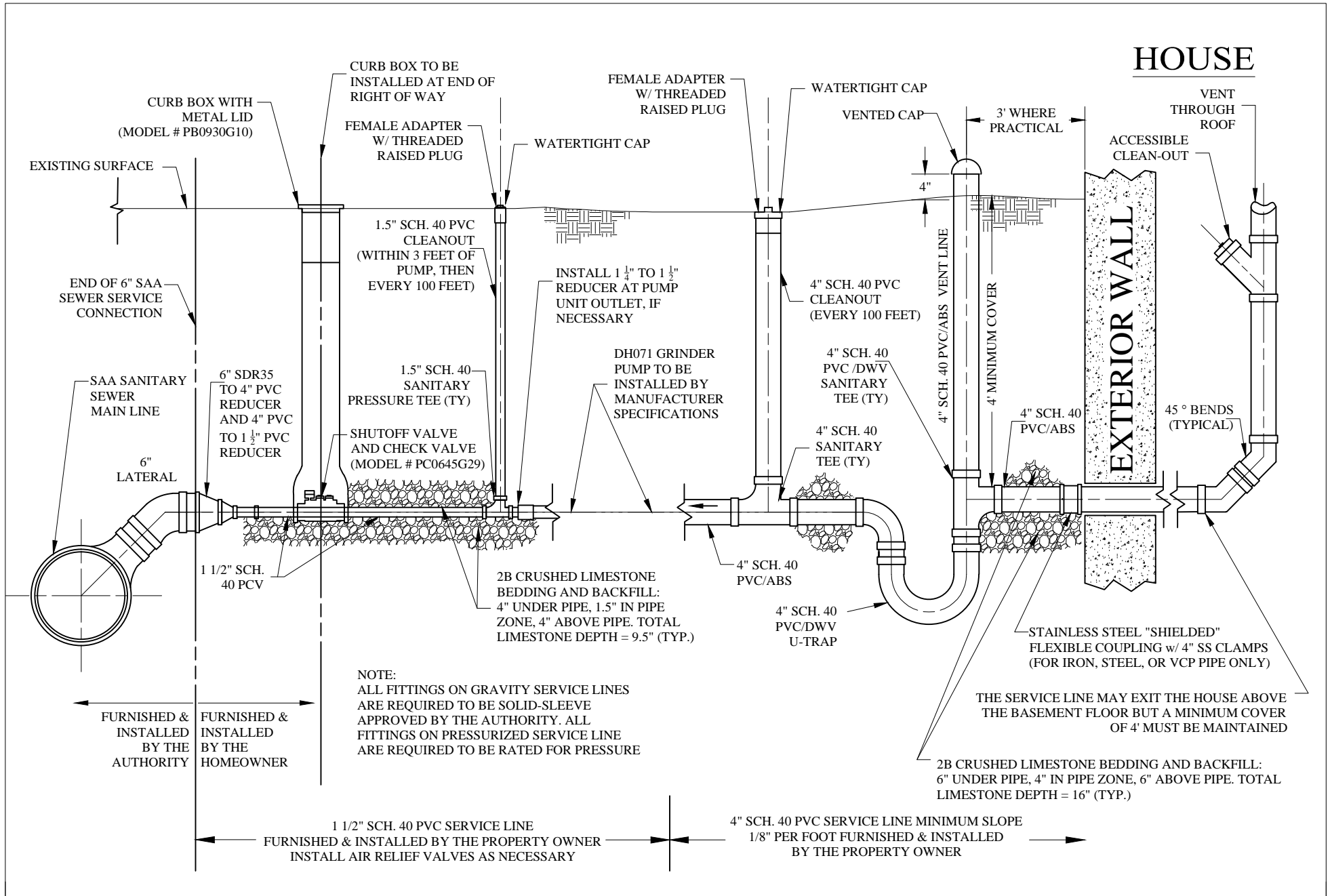
Specifications for Pressure Test of Pressurized Service Lines from Grinder Pump Unit to Shut-Off Valve

Pressure and Leakage Testing of Pressurized Service Lines:

1. The grinder pump unit shall **not** be connected to the pressurized service line at the time of the pressure test, and shall only be connected once the pressure test is passed. In order to conduct the pressure test, the end of the service line must be capped, and connected afterwards.
2. Pressurized service lines of Schedule 40 PVC material shall be tested as follows:
 - a. The section under test shall be filled with water and maintained for a period of not less than 24 hours.
 - b. The pressure and leakage tests shall first consist of increasing the pressure to the maximum rating of the lowest rated part used in its construction, at a minimum of one hundred (100) pounds per square inch. This portion of the test shall last for a period of thirty (30) minutes. This test must be witnessed by the Authority's inspector.
 - c. The pressure and leakage test shall then consist of dropping the pressure to fifty (50) pounds per square inch greater than the normal working pressure of the line. This portion of the test shall be maintained for one and one half (1 ½) hours. This test must be witnessed by the Authority's inspector.
 - d. For all pipelines not underground, the section tested shall be considered having failed to pass the test if the pressure test cannot be maintained without additional pumping.
 - e. For all underground piping the test will be accepted if the total leakage is not greater than .40 gallons per inch diameter per mile of pipe per hour.
3. When possible, all pressure testing shall be measured from the lowest available point on the line. The installer is responsible for furnishing all gauges, meters, pumps, and other equipment required and shall maintain said equipment in condition for accurate testing as determined by the Authority. It is recommended that all pressure testing be conducted by an experienced and qualified installer.
4. Where practical, pipelines shall not be tested in segments reaching more than 1,500 feet. This requirement may be satisfied by installing and testing segments of line shorter than the maximum length, or by installation of valves at intervals to shorten the test distance.

5. Where leaks are visible at exposed joints and/or evident on the surface where leaks are covered, the pipe shall be rejoined and leakage eliminated regardless of total leakage as shown by test.
6. Any line which fails the test shall be repaired and retested in the presence of the Authority's inspector as many times as necessary until the test requirements are met.
7. Any and all pipe, fittings, and other components found to be defective or otherwise fail shall be removed and replaced.
8. Air relief valves shall be provided at all high points on the pressurized service line unless otherwise directed by the grinder pump manufacturer, in which case a corporation stop shall be provided by the installer to bleed off air as the line is filled.
9. The installer may backfill the excavation to specifications at any point after the Authority has visually inspected and approved the pressurized service line. However, should the pressurized service line fail at any point during the pressure test, the installer will be responsible for excavating, repairing, and retesting the line in the presence of the Authority's inspector.
10. The installer will ensure any and all necessary and appropriate joint restraints for the entirety of the installation are properly and securely in place; particular care and interest should be given to the exposed low-pressure system cleanouts.

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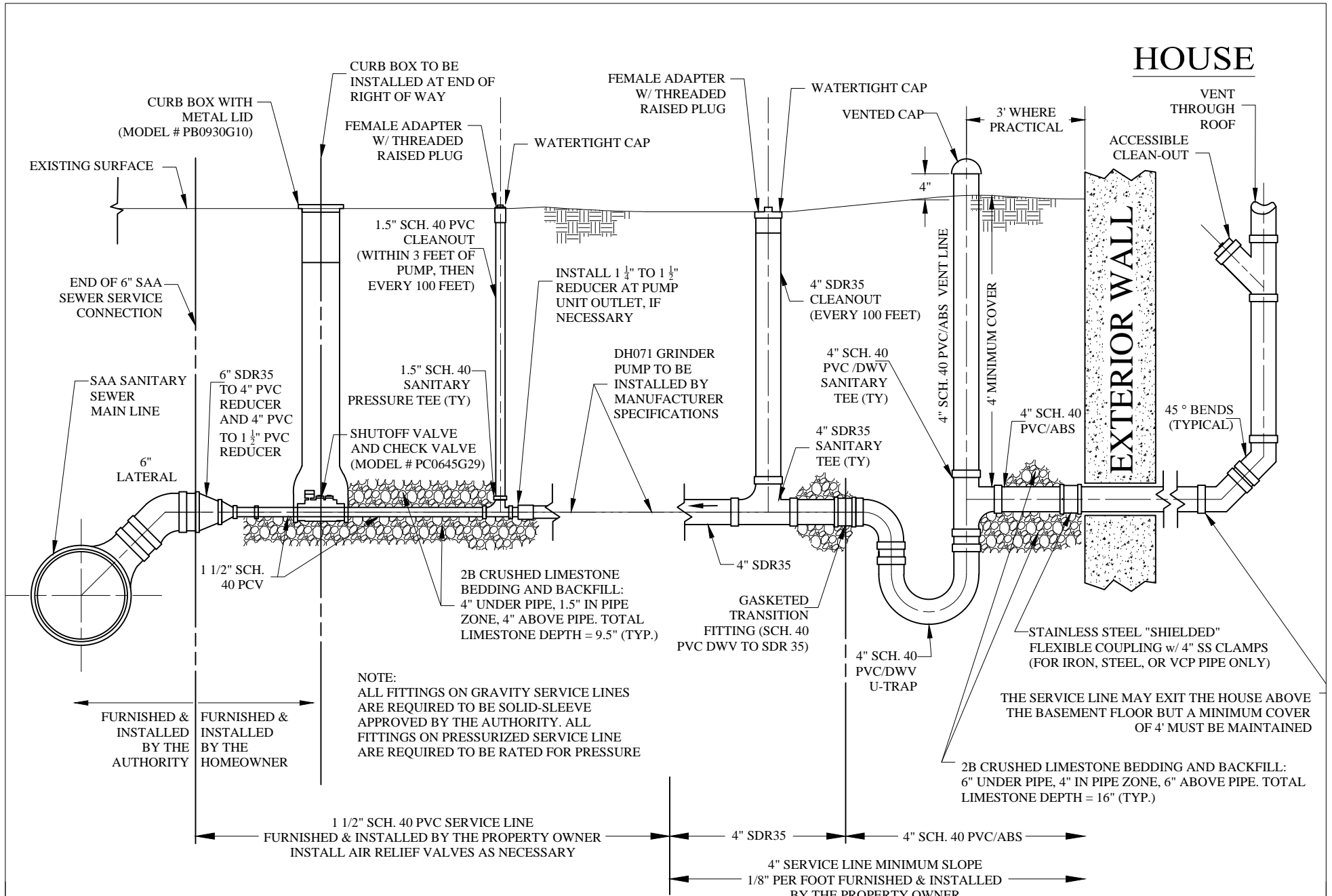


SAXONBURG AREA AUTHORITY
420 W. MAIN STREET
SAXONBURG, PA 16056
(724) 352-1400



**SANITARY SEWER TAP
TYPICAL DOMESTIC INSTALLATION
SCHEDULE 40 PVC TO PUMP**

DRAWING NOT TO SCALE
DRAWN BY: R.J.M.
DATE: FEB 13, 2018
CHECKED BY: ---
REV. DATE: ---, ---



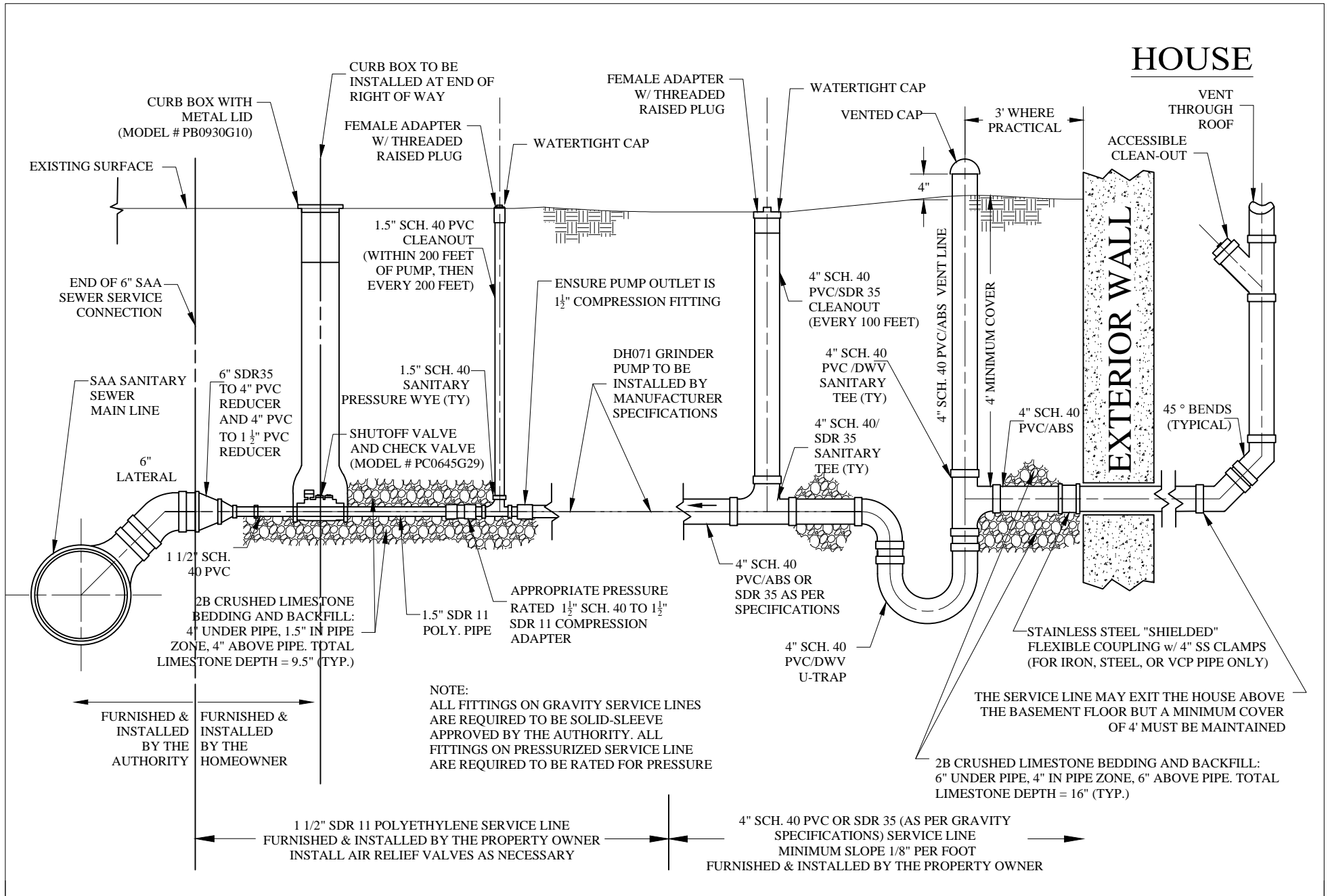
SAXONBURG AREA AUTHORITY
 420 W. MAIN STREET
 SAXONBURG, PA 16056
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SANITARY SEWER TAP
TYPICAL DOMESTIC INSTALLATION
SDR 35 TO PUMP

DRAWING NOT TO SCALE

DRAWN BY: R.J.M.
 DATE: FEB 13, 2018
 CHECKED BY: ---
 REV. DATE: ---, ---



SAXONBURG AREA AUTHORITY
 420 W. MAIN STREET
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**SANITARY SEWER TAP
 TYPICAL DOMESTIC INSTALLATION
 SDR 11 PIPE PUMP TO CURB BOX**

DRAWING NOT TO SCALE
 DRAWN BY: R.J.M.
 DATE: FEB 13, 2018
 CHECKED BY: ---
 REV. DATE: ---, ---