

APPENDIX C

SPECIFICATIONS FOR THE CONSTRUCTION OF BUILDING LATERAL SANITARY SEWERS

DECEMBER 2004, INCLUDING AMENDMENTS
ADOPTED ON FEBRUARY 6, 2008 AND APRIL 2,
2008;
EFFECTIVE ON MAY 1, 2008



11265 Center Highway
North Huntingdon, PA
15642

**NORTH HUNTINGDON TOWNSHIP MUNICIPAL AUTHORITY
SEWER USE RULES AND REGULATIONS**

APPENDIX C

**SPECIFICATIONS FOR THE CONSTRUCTION OF BUILDING LATERAL
SANITARY SEWERS**

Before you Dig - Pennsylvania Act 187, Underground Utility Line Protection Law of 1996
Requires You Call Pennsylvania One Call 1-800-242-1776

1. General – Building lateral sanitary sewer shall include connection to the main sanitary sewer, test tee, running trap with fresh air vent, a grease trap where required, and connection to the building drain. Downspouts, rain conductors, driveway drains, area drains, stair well drains or french drains shall not be connected to the building lateral sanitary sewer.
2. Application and Permit - Every premises owner desiring to or required to connect to the Authority sewer system shall first complete and submit a “Sewer Connection Permit Application” (application attached to these specifications), along with the established tap-in fee and obtain a permit from the Authority prior to beginning the installation or connections of any sewer pipe to the Authority sewer system.
3. Size - Residential - 4" minimum diameter pipe that is installed to a minimum slope of 1/4" per foot. Commercial - 6" minimum diameter pipe that is installed to a minimum slope of 1/8" per foot.
4. Materials - All sewers below floors of building and to a maximum of 5 feet outside the building wall and the building lateral sanitary sewer shall be SDR-35 or Schedule 40 PVC. Four (4) inch building lateral sanitary sewers shall be Schedule 40 PVC pipe with solvent weld joints. Six (6) inch building lateral sanitary sewers shall be SDR-35 PVC pipe with rubber O-ring joints. A running trap with a vent pipe and vent cap shall be installed at the end of the drain as shown. All pipe under the floor and passing through the floor shall be a minimum of 4" unless prior approval is granted by the Authority. The pipe as it exits the building wall shall be installed at a minimum depth of 36". From the trap to the building sewer tap connection, the pipe shall be the same as listed above. Vent pipes and clean-outs are not permitted to be located in driveways, carpaths, walkways or other finished surface areas unless prior approval is granted by the Authority. The vent cap shall be installed 6" above grade to prevent the inflow of water into the sewer line.

Food preparation establishments and other establishments at the discretion of the Authority shall install grease traps of a style and size acceptable to the Authority. Sinks in food preparation areas of these establishments shall also have under-sink grease traps.

5. Traps, Clean-Outs, Directional Changes and Inspection Ports – All new building lateral sanitary sewers are required to have an outside trap. Clean-outs, consisting of a wye branch fitting, a curved fitting, riser pipe and a watertight cap are required every 50 feet for residential premises and every 100 feet for commercial premises, or at all directional changes greater than 45 degrees. No 90 degree bends shall be permitted except on an inside vertical end of run. No exceptions. Clean-outs located in lawns, open fields, or other unfinished surface areas, shall be installed 6" above grade and encased in concrete to provide support for the riser pipe. Inspection ports shall be installed in all building lateral sanitary sewer at the property line. The inspection port shall consist of a two way sweeping tee, a riser pipe with a minimum diameter of 6" and a tamper-resistant cap (male end). Traps, clean-outs and inspection ports to be installed as shown on attached detail.
6. Adapters - Approved adapters such as donuts or shielded couplings with stainless steel banding clamps by Fernco, Inc., or approved equivalent, may be used to connect pipe joints, reduce 6" pipe to 4" and connect the building drain to the running trap.
7. Installation - Before digging the trench, the installer should expose the building sewer tap connection and the building drain. Trench width shall be kept to a minimum width and have uniform slope as near as possible at right angles to the street. Excavate all trenches at least 6" below the bottom of the pipe. Place an aggregate backfill consisting of 2B limestone, maximum of 3/4" gravel size, in the trench to grade of the pipe. Install the pipe keeping any gravel, dirt or water from entering the pipe. Place 12" 2B limestone on top of the pipe ensuring uniform bedding to all sides of the pipe. The remainder of the trench may be backfilled with material from the original excavation. Underground detectable marking tape shall be installed a minimum of two (2) feet above the pipe along the alignment of the building lateral sanitary sewer. Marking tape shall be a minimum of three (3) inches wide, vivid green with foil backing and marked "Gravity Sewer Line" at Gravity Sewers or marked "Intermittent Pressure Sewer" at Force Main Sewers. The marking tape for sewer lines shall be green with a foil back. The sewer line trench shall have a minimum 3 feet horizontal separation and 18" vertical separation from other pipelines such as water service lines, gas lines, french drains or storm sewers. An Authority inspector must be present to visually inspect the backfilling of the sewer lateral trench.
8. Inspection - The Authority shall be notified at least 24 hours prior to the inspection of the building drain, building lateral sanitary sewer and related appurtenances. The inspection shall be conducted prior to the connection to the trap, unless the building drain and the building lateral sanitary sewer are to be inspected at the same date, and prior to any backfilling. All lines shall be capped prior to inspection. The inspection shall consist of an air test of 5 lbs. for 15 minutes without any loss of pressure, or a hydrostatic test when no water is lost from a filled building lateral sanitary sewer subjected to a minimum of 10 feet of water head for 15 minutes, a visual inspection of the pipe and the recording of pertinent information relating to the installation of the pipe. Inspection will not be scheduled until all Applications for Service have been submitted. An as-built plumbing plan shall be submitted to the Authority prior to service being rendered. If the building lateral sanitary sewer does not pass inspection, a fee will be levied and must be paid before re-inspection of the sewer

lines will be scheduled.

NHTMA Detail No. C-1 is included in this Appendix and illustrates the installation and testing of the building lateral sanitary sewer.

9. Final Connection - If a completed connection to the building drain is not made at the time of the installation of the building lateral sanitary sewer, a temporary plug shall be solvent welded into the end of the lateral and shall not be removed until such time as the connection is made to the building drain and an Authority Representative is present to visually inspect the final connection and backfilling of the trench.
10. Final Inspection - Prior to the issuance of an Occupancy Permit by North Huntingdon Township, the Authority will conduct a final inspection of the property to ensure that all sewer facilities located within the property have been installed and maintained in accordance with Authority specifications. The Authority's inspector will complete and sign a Final Inspection Form to be forwarded to North Huntingdon Township for their subsequent issuance of the Occupancy Permit. Any deficiencies cited during the Final Inspection must be corrected prior to the Authority's release of the Final Inspection Form to North Huntingdon Township.
11. Connections to Existing Sewer – Connection to both the building drain and the building sewer tap connection shall be with a proper fitting specially manufactured for such use and as specified by the Authority. In the event there is no building sewer tap connection available at the required point of connection to the public sewer, the Authority shall be contacted to provide the saddle connection. The work shall then be scheduled with the Authority and the existing line cored and saddle installed by Authority Staff. No “Break-in” connections will be permitted. The replacement of all wye fittings broken by the property owner or his private contractor shall also only be done by the Authority, with the costs of such replacement being borne by the premises owner.
12. Grinder Pumps - Grinder pumps for individual sewer service to private premises are used only when gravity service is not available or is not a viable option. The installation of the pump and its operation, maintenance, and power costs are not the responsibility of the Authority, but that of the premises owner.

In general, grinder pump units shall be factory built and tested and shall consist of a grinder pump suitably mounted in a basin constructed of fiberglass or high density polyethylene (HDPE), electrical quick disconnect (NEMA 4X), pump removal system, shut-off valve, anti-siphon valve, and check valve assembled within the basin, remote electrical Alarm/Disconnect Panel, and all necessary internal wiring and controls. The Alarm/Disconnect Panel shall consist of a NEMA 3R, UL listed enclosure suitable for wall or pole mounting. The NEMA 3R enclosure shall be manufactured of thermoplastic to assure corrosion resistance. The Alarm/Disconnect Panel shall include an audio and visual alarm, push-to-run switch, and high level (redundant) pump starting control. Alarm sequence shall be as follows:

1. When liquid level in the sewage wet-well rises above the alarm level, visual and audio alarms will be activated. The contacts on the alarm pressure switch will close. The redundant pump starting system will be energized.
2. The audio alarm may be silenced by means of the externally mounted, push-to-silence button.
3. Visual alarm remains illuminated until the sewage level in the wet-well drops below the “off” setting of the alarm pressure switch.

Visual alarm lamp shall be inside a red fluted lens at least 2-5/8” in diameter and 1-11/16” in height. Visual alarm shall be mounted to the top of the enclosure in such a manner as to maintain NEMA 3R rating.

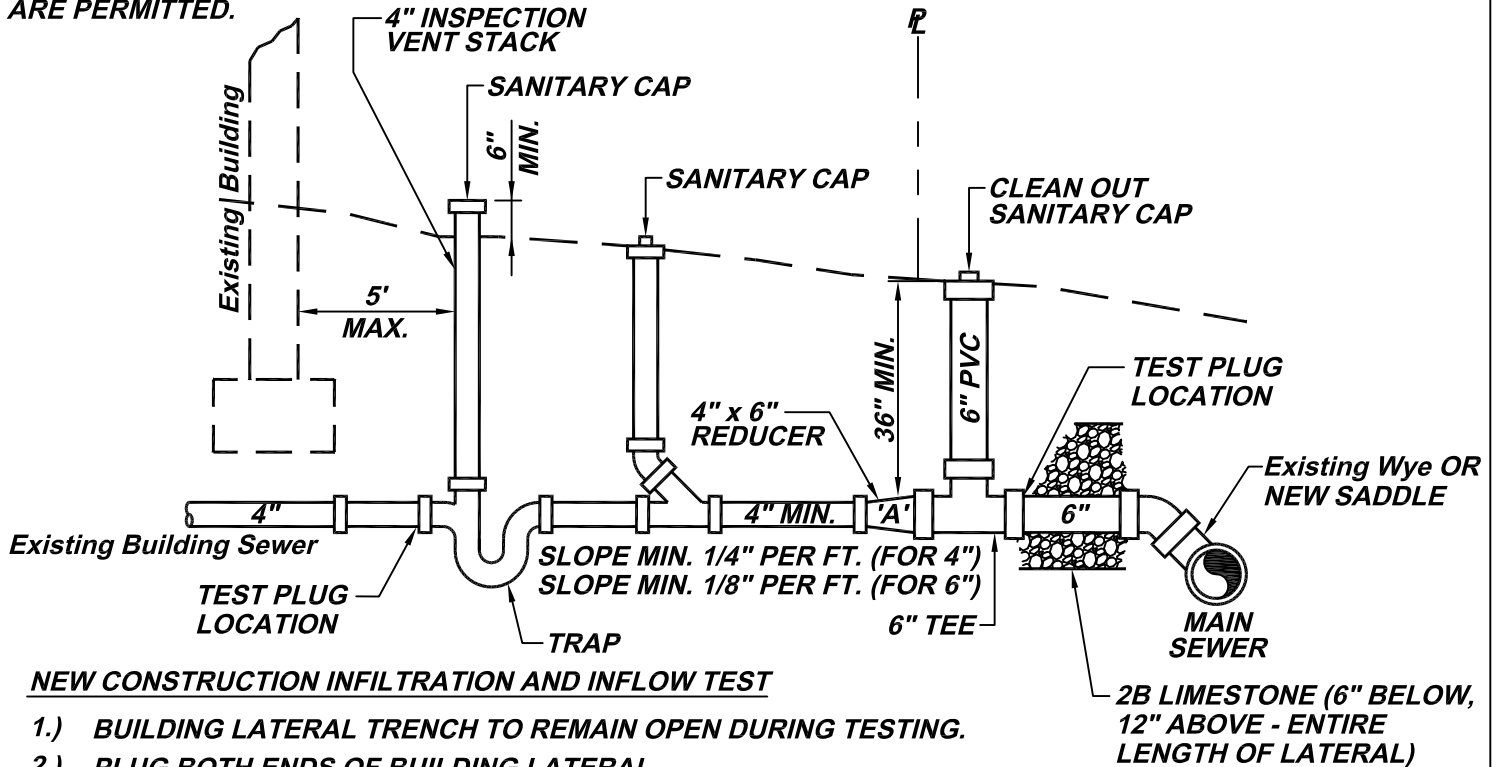
The audio alarm shall be a printed circuit board in conjunction with an 86 dB buzzer with quick mounting terminal strip mounted in the interior of the enclosure. The audio alarm shall be capable of being de-activated by depressing a push-type switch which is encapsulated in a waterproof silicone boot and mounted on the bottom of the enclosure.

An overflow indicator lamp assembly requiring 120 volts and suitable for remote installation in a standard device box shall be furnished. This indicator shall be mounted on a decorative wall plate 2-3/4” x 4-1/2” and marked “Grinder Pump Monitor.” Recommended location of indicator lamp shall be in the kitchen or bathroom and shall be the decision of the homeowner.

END OF APPENDIX C

NOTE: YOU MUST OBTAIN A NO-COST REPAIR PERMIT FROM THE AUTHORITY BEFORE MAKING ANY REPAIRS.

THE TRAP IS TO BE INSTALLED PER THE LATEST EDITION OF THE IRC. A CLEAN OUT SHALL BE INSTALLED AFTER THE TRAP. ADDITIONAL CLEAN OUTS MUST BE INSTALLED EVERY 50' FOR 4" LATERALS AND EVERY 100' FOR 6" LATERALS AND AT ALL DIRECTIONAL CHANGES GREATER THAN 45 DEGREES. NO 90° ELBOWS ARE PERMITTED.



NEW CONSTRUCTION INFILTRATION AND INFLOW TEST

- 1.) BUILDING LATERAL TRENCH TO REMAIN OPEN DURING TESTING.
- 2.) PLUG BOTH ENDS OF BUILDING LATERAL.
- 3.) PERFORM EITHER WATER OR AIR LEAK TEST.
 - a.) FILL ENTIRE BUILDING LATERAL WITH WATER THROUGH INSPECTION VENT STACK. PROVIDE MINIMUM 10 FEET OF WATER HEAD. TEST REQUIRES 15 MIN. HOLD.
 - b.) PRESSURIZE SYSTEM WITH AIR TO GAUGE PRESSURE OF 5 PSI. TEST REQUIRES 15 MIN. HOLD.
- 4.) INSPECTIONS AND TESTS ARE TO COMPLY WITH THE LATEST EDITION OF THE IRC, AS ADOPTED BY THE TOWNSHIP.
- 5.) CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE INFILTRATION/ INFLOW TEST.
- 6.) THE AUTHORITY MUST BE NOTIFIED OF THE TEST 24 HOURS IN ADVANCE.
- 7.) THE AUTHORITY PERSONNEL MUST BE PRESENT TO WITNESS THE TEST.

'A' = 'FERNCO' COUPLING (SHIELDED AND W/ STAINLESS STEEL CLAMPS) OR REDUCER AS NEEDED
CAP = 'CARLON 4' THREADED CLEAN OUT ADAPTER (Z343N OR Z352N)

4" THREADED PLUG (Z35N) OR EQUAL

6" PIPE SHALL BE: ASTM3034 OR SCHEDULE 40. SOLVENT - CEMENT JOINT

4" PIPE SHALL BE: SCHEDULE 40. SOLVENT - CEMENT JOINT

(IRC - INTERNATIONAL RESIDENTIAL CODE)

LINE MUST NOT BE BACKFILLED UNTIL AN INSPECTION IS MADE. ACCESS TO THE INSIDE OF THE HOME WILL BE REQUIRED TO COMPLETE THE INSPECTION PROCESS. ALL INSPECTIONS REQUIRE AN APPOINTMENT SCHEDULED AT LEAST 24 HOURS IN ADVANCE. BEFORE A NEW HOME IS OCCUPIED, CALL FOR A FINAL INSPECTION. OUR WORK CREW IS AVAILABLE FOR INSPECTIONS MONDAY - FRIDAY FROM 7:30 A.M. UNTIL 2:00 P.M. AND ON SATURDAY FROM 7:30 A.M. UNTIL 11:00 A.M. PLEASE CONTACT OUR OFFICE AT (724) 863-2860 BETWEEN THE HOURS OF 8:00 A.M. - 4:00 P.M. TO SCHEDULE AN INSPECTION.

INFILTRATION AND INFLOW TESTING DETAIL

DATE: DECEMBER 2004 / REV. JUNE 2010

N.H.T.M.A. No.: C-1

**NORTH HUNTINGDON TOWNSHIP MUNICIPAL AUTHORITY
WESTMORELAND COUNTY, PA**