AMENDED

POCONO / HAMILTON JOINT SEWER SYSTEM PROCEDURES MANUAL

Section 4

Initial Service Area Connection Procedures

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SECTION IV - INITIAL SERVICE AREA CONNECTION PROCEDURES

This section outlines the steps necessary for improved properties within the initial service area to connect to the Pocono / Hamilton Township Joint Sewer System (P/HTJSS). The steps described in this section shall only apply to Developed Properties within the Sewered Area as that Sewered Area existed on October 1, 2012 that receive a Connection Notice from either the Pocono Township Board of Commissioners or the Hamilton Township Board of Supervisors.

The initial service area boundaries are defined as follows: the State Route 611 corridor from Pocono/Paradise Township border to the Hamilton/Stroud Township Border on Frantz Road including spurs on the following roads; Swiftwater Road (Route 314) from the intersection at Route 611 to the intersections of Upper and Lower Swiftwater Road, all sections of Wiscasset and Scotrun Avenue (formerly State Route 168) in Scotrun & Swiftwater with the exception of Lower Scotrun Avenue, State Route 715 south from the intersection of Route 611 to Rail Road Ave. and approximately 500 feet west along Railroad Ave, Learn Road, Pigeon Way, Old Mill Road to one block south of Route 611, Alger Avenue from Route 611 to the unnamed tributary of Pocono Creek, Pocono Creek Lane and Barton Circle, Pocono Lane, Ridge View Drive and Dory Place, Bartonsville Ave. for approximately 560 feet north from Route 611 at Rim Rock Road, Cruver Lane and Kirk Lane.

4.01 CONNECTION PROCESS.

To connect to the (P/HTJSS) each Owner shall complete the steps described in this section.

- Obtain from Pocono Township, and complete, a Connection Permit Application Cover Sheet, Connection Permit Application, and Connection Permit Application Fee Agreement.
- Prepare plans and specifications for the Building Sewer connection.
- Submit the completed application documents along with four (4) sets of the Building Sewer connection plans, specifications and the appropriate fees to Pocono Township for review and approval. ***(The review process may require additional submittals before the plans are approved).***
- After review and approval by Pocono Township, receive one set of plans and specifications marked "Approved for Construction" (the "Approved Plans") along with a copy of the Connection Permit Application with Section II signed by the designated representative of Pocono Township.
- Request an inspection schedule for the Building Sewer installation from the designated Pocono Township representative.
- Engage a competent contractor (Owners may opt to install the connection themselves). ***The Owner should be sure to provide a set of the Approved Plans to the contractor prior to the start of work.***
- Submit Contractor information and Insurance Certificate naming Pocono Township as an Additional Insured to Pocono Township.
- Schedule the construction inspections with Pocono Township.
- Install the Building Sewer and other required improvements.
- Test all components of the installation and have the testing observed by a designated representative of Pocono Township.
- Clean-out and abandon all on-lot sewage disposal systems (i.e. septic tanks, cess pools, etc.)
- Mark any deviations from the Approved Plans on a clean set of plans. These are the "As-built" drawings.
- Have Section III, Certificate of Completion of the Connection Permit Application

signed by the designated representative of Pocono Township who inspected the installation of the Building Sewer & components.

- Submit the fully completed/executed Connection Permit Application along with two (2) sets of the "As-built" drawings to Pocono Township.
- Receive a Connection Permit from Pocono Township with the Account Number Assigned and Effective Billing Date filled in.

Once the Connection Permit is issued by Pocono Township, the Building Sewer connection process will be considered complete.

4.02 FORMS, FEES, PERMITS AND CERTIFICATES.

A. Submittals - Description and Approval.

This section outlines the necessary forms to be submitted and indicates how approvals are granted to Applicants to connect to the P/HTJSS in the initial service area.

If the Applicant is not the Owner, the Applicant must have an affidavit from the Owner authorizing the Applicant to act on the Owner's behalf with regard to all applications and contracts.

Examples of the application and other required forms can be found in **Appendix 4A** of this Section. Blank forms for completion and submittal may be obtained at the Pocono Township Municipal Building located at 112 Township Drive, Tannersville, PA 18372. The form is available in both electronic and hard copy format.

A Connection Permit Application Fee, as set forth on the most current Pocono or Hamilton Township (as applicable) rate resolution/fee schedule, shall be submitted to cover the costs for reviewing and processing the Connection Permit Application and conducting the inspections and testing of the Building Sewer installation. The fee for a single family residence utilizing a gravity connection will include:

- One review of the Connection Permit Application;
- Two field inspections;
- One Hydrostatic Test or Air Pressure test observation/field inspection.

If an application is returned to the Applicant as "Incomplete" or requiring revision, an additional fee for review or inspection may be charged based upon actual time spent.

If a test fails, subsequent retesting observations may be charged based upon actual time spent.

For any other proposed connection, the Connection Permit Application fee will be a deposit. All costs to review, process, inspect, and observe testing will be charged based upon time spent. Any unused portion of that deposit will be returned to the Applicant, any shortfall will be invoiced to the Applicant.

No Connection Permit will be issued until all outstanding fees are paid in full.

If the owner and/or the Applicant is a corporate or other legal entity, all signatories must be officers/signatories of the corporation or other legal entity with signatory rights to contract for that corporation or other legal entity, and the position within the corporation or other legal entity must be indicated.

1. **Connection Permit Application.**
This document has three sections.

Section I. Application to construct a Building Sewer for the Owner's property - Application must be accompanied by the required fees.

Section II. Application & Plan Approval - Approval by Pocono Township to proceed with the construction to connect to the P/HTJSS.

Section III. Certificate of Completion - Indicates the Applicant has complied with all of the Pocono Township requirements for construction and testing of the Building Sewer.

2. **Connection Permit.**
Evidences that the Building Sewer connection process is complete and that the Owner is authorized to commence discharging sewage to the P/HTJSS. It shall be issued only after payment of all required fees and compliance with all requirements of this Procedures Manual.

3. **Plans and Specifications.**
Construction plans and specifications shall be submitted to Pocono Township along with the completed Connection Permit Application before the commencement of any construction.

4. **Inspections.**
Depending on the extent of the installation, inspections, in addition to those set forth herein, may be required by Pocono Township, including follow-up inspections after a failed inspection or test.

B. **Application.**
A Connection Permit Application and required fee, along with plans, specifications and a description of the work to be undertaken and supporting documentation required by this Procedures Manual shall be submitted. The plans must show the location of the proposed Building Sewer, the proposed connection of the same to the Lateral, cleanouts, traps, and adapters. The location of the existing septic tank and associated sewer piping shall also be shown on the plans. The plans shall provide the pipe material, size, slope, cleanout locations, and installation details for the proposed Building Sewer and Lateral connection. The plans must also indicate the point of discharge of all roof drains, downspouts, floor drains and sump pumps. ***Connection of roof drains, downspouts, floor drains and sump pumps to the Building Sewer and lateral are prohibited.*** If, in the course of work, it is found necessary to make any change from the Approved Plans and specifications, amended plans and specifications shall be submitted and, if approved, a supplementary approval shall be issued to cover the change after the same conditions required to secure the original approval have been satisfied.

C. **Building Sewer Construction Authorization.**
Upon receipt and approval of a properly executed Connection Permit Application,

and after receipt of the Application Fee, Pocono Township will sign Section II of the Connection Permit application and return a copy to the Applicant to authorize construction of the Building Sewer. Once the construction authorization has been issued the Applicant shall make and complete, within the time period required by the Connection Notice, the connection. No construction/installation shall commence until such construction authorization is issued.

D. Highway Occupancy/Roadway Encroachment Permit.

If any work is required within an improved road beyond the edge of the easement of Right-of-Way the Applicant shall secure a Highway Occupancy or Roadway Encroachment Permit or arrange for said Permit from the proper issuing entity before entering the roadway right-of-way to perform any work. For any highway occupancy permit wherein Pocono Township is the applicant a performance guaranty from the Applicant in favor of Pocono Township to cover the work, shall be required. Any and all requirements for encroachment on a public road right-of-way shall be met and satisfied in accordance with the Highway Occupancy/Roadway Encroachment Permit at the expense of the Applicant including proper restoration of the road after installation of any Building Sewer, Lateral or sewer extension.

E. Contractor Insurance.

As part of the Connection Permit Application, but in any event, before the commencement of any construction, the Applicant shall provide the following information to Pocono Township:

- Name, address, and telephone number of the Contractor and the Contractor's Representative.
- Contractor's License Number
- Insurance Certificate naming Pocono Township as an Additional Insured (see Appendix D for limits).

F. As-built Drawings

Upon completion of the Building Sewer installation, the Applicant shall furnish Pocono Township with two (2) copies of an "As-built" plan which accurately shows locations and elevations of the building, Building Sewer, gravity connection lateral and/or low pressure connection lateral, cleanouts, valves, traps, control panels, grinder pump, sewage pumps, etc. noting any deviations from the Approved Plans.

4.03 CERTIFICATE OF COMPLETION AND CONNECTION PERMIT.

The Owner shall not discharge any sewage into the P/HTJSS system until Pocono Township or an Authorized Representative of Pocono Township has signed the Certificate of Completion section of the Application, and issued a Connection Permit.

A. Preparation, Submittal and Review of Plans.

All plans shall be prepared and sealed by a Professional Engineer registered in the Commonwealth of Pennsylvania except for plans for a single family dwelling meeting the following conditions:

- A gravity connection Building Sewer to an existing gravity Lateral.

- Single Building Sewer passing only within the Owner's property.
  - Plans for a single family dwelling meeting these conditions may be prepared and submitted by a person qualified to prepare such plans.
- Pressure Sewer Laterals Associated with a Grinder Pumping System Serving a Residential Property
  - Design calculations indicating that the proposed pump and associated force main are properly sized to accommodate the proposed sewage flows shall be provided. These calculations can be prepared by either a Professional Engineer or the pump supplier.

B. Plans

The Applicant shall submit four (4) sets of plans and specifications to Pocono Township who shall forward two (2) sets to the Township's designated reviewer. If revisions are needed the reviewer will return one (1) set of marked-up plans to the Applicant. The Applicant shall have the plans revised and return four (4) sets of the revised plans to Pocono Township for review. It is the Applicant's responsibility to make sure all of the reviewer's comments are addressed and corrected. The review and re-submittal process will continue until the reviewer is satisfied that the plans are in conformance with these standards and can be approved. Once approved, Pocono Township shall return one (1) set of the plans and specifications stamped Approved for Construction to the Applicant. ***It is the Applicant's responsibility to provide a copy of the Approved Plans to their contractor.***

No work shall be performed to install the Building Sewer and no inspection shall be scheduled prior to issuance of the Approved Plan. Any work performed prior to receipt of the Approved Plans with the "Approved for Construction" stamp on them will be summarily rejected.

All Plans prepared for the construction of a Commercial Building Sewer, whether gravity or pressurized, shall comply with the following standards. Residential Building Sewer plans shall include as much information identified below to summarize how the proposed sewer connection will be constructed.

1. **Size.**
   All plans shall be on a minimum 8-1/2 by 11 inch sheets.

2. **Scale.**
   Plan and profile drawings shall be at a maximum scale of 1" = 50 ' horizontal and 1" = 5' vertical.

3. **Information to be Included.**

   Plans shall show:

   a. Street names.

   b. North arrow.

   c. The location of all utility lines, existing and proposed;

   d. Location of the existing on-lot sewage disposal system and piping;

e. The size of the pipe proposed to connect to the P/HTJSS;

f. The direction of flow;

g. The location of any above-ground or below-ground structures on the property;

h. The location of all existing manholes and proposed manholes cleanouts, tanks, grease traps etc;

i. A profile of the proposed Building Sewer showing all existing sewer lines, water lines, storm sewers, electric lines and any other underground utilities that may be intersected;

j. Trench reconstruction details.

k. Clean-out detail.

l. Detail showing the connection of Building Sewer to the Lateral

m. Detail showing connection to existing Building Drain;

n. Erosion and sediment control measures;

o. Proposed easements/rights of way if and where required;

p. Details and procedures for abandonment of the existing septic tank, cesspool, on-site sewage treatment plant or grease trap.

q. All information required by the "Public Underground Utilities Act," and amendments, which lists the utilities within the work area shall be shown on the plans; and "PA One Call" serial number shall be indicated on the plans.

r. Testing specification and procedures

s. Installations that require either a grinder or sewage pump shall also include details of the pump station installation, including dimensions, float mechanism, check valve, tank vent, electrical junction box, circuit breakers or disconnect switches, control panel with visual and audible alarms, bedding material, concrete anchor, etc. Calculations for the sizing of the pump, pipe and appurtenances shall also be provided with the plans.

C. Plan Review and Revision Submittals.

All plans shall be submitted to Pocono Township. The submission shall be accompanied by payment of all applicable fees, charges, etc. The Application shall constitute a formal request for review by Pocono Township.

All subsequent revisions, regardless of the reason, shall also be submitted to Pocono Township and be subject to additional review fee charges, as appropriate.

Pocono Township shall issue a submission receipt each time plans are submitted. Subsequent submissions shall bear a revision date each time submitted and numbered. Four sets of plans shall be submitted as part of each submission. Upon final approval of the plans, they shall be stamped "Approved for Construction", whereupon one copy will be returned to the Applicant, one copy will remain with the Pocono Township Board of Commissioners, one copy will be retained by the Pocono Township Reviewer and one copy shall be forwarded to the Pocono

Township Inspector.

4.04 CONSTRUCTION MATERIALS AND STANDARDS.

Construction standards for all Building Sewers, Laterals, including mechanical and electrical equipment will be as per the Pocono / Hamilton Joint Sewer System Procedures Manual, or if more stringent, the most stringent of the following:

- Regulations of the PaDEP enacted after the P/HJSS Procedures Manual was formally adopted;
- The latest edition of the International Plumbing Code (IPC) which is at least one year old when construction commences.

A. Pressure Building Sewer and Lateral.

Pipes for Building Sewers and Laterals under pressure shall be as follows:

1. Pipe less than three (3) inches in diameter shall be Sch. 40, 80, or DR 21 PVC or High-density Polyethylene pipe having a pressure rating of 150 PSI or greater, as a minimum. Fittings shall have a pressure rating equal to that of the pipe.
2. Pipe three (3) inches in diameter or greater shall be Sch. 80 or DR 21 PVC having a pressure rating of 150 PSI or greater or PVC class 150 pressure pipe conforming to AWWA Specification C-900 or Protecto 901 ceramic cement lined ductile iron for higher pressure applications.
3. Joints shall be braced with thrust blocking on low pressure lines and with thrust blocking and mechanical restraints for higher pressure applications
4. The minimum depth of all pressure pipes shall be four and one-half (4-1/2) feet measured from finished grade to the top of the pipe.

B. Gravity Laterals and Building Sewers.

Pipe for gravity Laterals and Building Sewers shall be a minimum of 4-inches in diameter and as follows:

1. All Pipe and fittings 4-inches internal diameter or greater shall be PVC schedule 40 or 80 conforming to ASTM D2665 or SDR 35 at a minimum.
2. The slope or grade of the pipe shall be no less than one-quarter (1/4) inch per foot of length sloping downward in the direction the waste material is to flow. (0.02 Ft /Ft and 2% are equivalent slopes to ¼-inch per foot)
3. The minimum depth of a Building Sewer or a gravity Lateral measured from finished grade to the top of the pipe shall be thirty six (36) inches.
4. Building Sewers serving single family residential properties require a clean out at the point of connection with the Building Drain, at the connection to the Lateral and every 50 feet in between for 4 inch pipe, or every 100 feet for 6 inch pipe. Clean outs are also required at all changes in pipe direction.
5. For other than single family residential properties, the Applicant must furnish the calculations verifying that the proposed Building Sewer is properly sized based on slope, volume, velocity, and pipe material.

C. Installation of Whole House Trap ("P" Trap)

The installation of a Whole House Trap or "P" trap shall be included in the installation of all new Building Sewers in the Township. "P" traps can be located either inside a building in the basement or in a conditioned crawl space if plumbing and available space allow or outside the building at a location where ground cover requirements of 42 inches over the trap permit. Installation details are shown in Figure 15.

D. Fittings and Adapters.

All fittings shall be designed for use with the pipe used in construction, and shall have a service rating equal to that of the pipe. Any fitting or tap-in which has an enlargement, chamber, or recess with a ledge, shoulder or reduction of pipe area, that offers an obstructed flow through the pipe, is prohibited. Connections between different types of pipe materials shall be made by adapter fittings or by means of an acceptable prefabricated sealing ring or sleeve specifically approved by Pocono Township. No cement mortar joints shall be permitted.

1. The connection to the Building Drain shall be made using the same class and diameter of pipe as the Building Sewer. If the existing pipe is of a different material type or class than the new pipe the connection shall be made using appropriate concentric PVC push-on type or compression adaptor couplings where possible. The use of a rubber style coupling with stainless steel band clamps will only be considered if either of these types of adaptor coupling is not manufactured for joining the two types of pipe involved and then only with the approval of Pocono Township.

2. The connection to the service roadway edge Lateral shall be made using SDR 35 PVC pipe for the first 5 to 10 feet at the edge of the property. Connections between the SDR 35 pipe and pipes of a different class shall be made using the appropriate concentric PVC push-on type adaptor couplings. Glued fittings shall **NOT** be permitted for making the connections within 10 feet of the Lateral. If the fitting at the end of the Lateral is damaged, it shall be replaced in-kind. No repairs to the existing fitting at the end of the Lateral shall be permitted. If the Lateral terminates with a pipe end, the pipe may be cut if it is damage. The pipe end must be beveled and a new section of SDR 35 PVC pipe installed to the edge of the property line so that the clean-out is not installed within the Right-of–Way or easement. Township approval is required in special circumstances where a clean-out must be installed in the Right-of-Way.

3. 90 degree elbows and Tees, other than tee fittings used for Clean-out Test Tees, shall be long radius sweep fittings. Two (2) 45 degree elbows may be used is series to accomplish 90-degree horizontal or vertical bends in lieu of a 90-degree sweep elbow.

4. Any Building Sewer that is proposed to connect to the P/HTJSS main at a location where a Lateral is not already provided shall connect to the sewer main with the use of a Pocono Township approved sewer saddle.

    a. Sewer saddles will be approved on an individual basis based upon project specific conditions. Sewer saddles shall be either a "CB" Style Sewer Saddle as manufactured by Romac Industries, Inc. or a Sealtite Sewer Pipe Saddle as manufactured by Geneco Products. The

Applicant must submit shop drawings of the proposed sewer saddle to Pocono Township for review and approval with the plan submission.

b. Installation of the Pocono Township approved sewer saddle on the Township's sewer main shall be in accordance with the manufacturer's instructions.

c. In the special circumstance where a new gravity lateral "Wye" fitting and spool piece is to be installed on an existing sewer main a bolt-up compression style coupling will be required to connect the free end of the spool piece to the sewer main. The use of slip-on style couplings will not be allowed. The Applicant must submit shop drawings for both the Wye and coupler to Pocono Township with the plan submission for review and approval. Installation of the Wye and coupling on a gravity sewer main shall be in accordance with Figure 8d.

E. Pipe Bedding.

All piping shall be installed on suitable bedding material, a minimum 6-inches in depth consisting of either sand, PennDOT type No. 1B crushed stone, or other material approved by Pocono Township. The pipe bedding shall be placed on undisturbed earth or compacted material suitable for the loads imposed.

F. Select Backfill.

Select backfill shall be placed around the pipe and above the pipe to a height of one (1) foot above the pipe. The select backfill shall consist of sand, PennDot No. 1B crushed stone, or other material approved by Pocono Township. Select backfill shall contain no stone or rock exceeding one (1) inch in any dimension.

G. Backfill.

Backfill material to be placed above the Select Backfill shall not contain any rock larger than four (4) inches in any dimension. Backfill placed within a Township or PennDOT Right-of-Way shall comply with the requirements of any PennDOT Highway Occupancy or Township Roadway Encroachment Permit. Backfill placed in paved areas or driveways shall be PennDOT 2A crushed stone.

H. Compaction.

All backfill shall be compacted as follows:

1. Pipe Bedding and Select Backfill shall be firmly consolidated and chalked under and around the pipe using manual and mechanical means. The Select Fill shall be leveled in the trench above the pipe.

2. The initial lift of backfill placed above the Select Backfill shall be placed in a 1-foot lift, leveled and lightly tamped by mechanical means. Each subsequent lift of backfill shall be placed in loose lifts not to exceed eight (8) inches and compacted to ninety (90) percent of maximum density using approved compaction equipment in non-traffic locations and to ninety five (95) percent of maximum density in traffic areas.

I. Test Tee/Cleanout.

Each Building Sewer shall be equipped with a test tee/cleanout located at the Building Drain connection point. The test tee shall be installed to allow hydrostatic testing of the gravity Building Sewer and will serve as a cleanout after

testing. It shall then be terminated to conform with the details shown in Figure 14.

J. Individual Sewage Pump Installations.

This section is for Building Sewers where an individual household sewage pump (capable of passing 2-inch solids) and grinder pump installation is required.

1. **General Requirements.**

a. Pumping units serving a single family dwelling shall be a single pump simplex system. Pumps serving multi-residential or commercial installations with a flow of 2 EDUs or more shall require duplex pumps. All necessary components shall be installed in a tank made for that purpose. The unit shall include the tank, tank cover, grinder or sewage pump and motor, quick disconnect system, check valve, junction box, start-stop level controls, motor high temperature shut-off, alarms, etc. Design calculations shall be provided with the plan and profile.

b. Conform to the requirements of Section 4.04A. The discharge pipe material shall, at a minimum, be Schedule 40, 80 or DR 21 PVC, SDRI 7 High-Density Polyethylene or equal having a minimum pressure rating of 150 psi at 70 degrees Fahrenheit.

c. All fittings, valves, and adapters shall be of similar material so as to make a complete pipeline suitable for working pressures of 150 psi.

d. A brass packer joint coupling with a stiffener shall be used to make all connections between SDRI 7 HDPE pipe and any other type of pipe, fitting or curb stop.

e. In areas served with a low pressure force main, a shut-off valve with curb box and an extended operator has been provided on the end of each existing Lateral at the property line. The Applicant shall install their pressure Building Sewer to that point and connect to the curb valve as shown on Figures 2a and 4a in Appendix 4B.

f. In areas where service is provided by a gravity sewer main the Applicant shall provide a pressure Building Sewer to gravity Building Sewer transition 10 feet from the Lateral. A gravity sewer Building Sewer clean out shall be installed where the gravity Building Sewer connects to the Lateral. The connection to the existing gravity Lateral shall be made as shown on Figures 2b and 4b in Appendix 4B.

g. Where there is no Lateral provided the Applicant shall be responsible to install both the Building Sewer and the Lateral and provide the shut-off valves & cleanouts as necessary to comply with Figure 2a for connection to a low pressure main or Figure 2b for connection to a gravity main in **Appendix 4B**. Details for installation of a new Building Sewer are provided in Figure 8a, b and c in **Appendix 4B**. If a tapping saddle is the method of choice for making the connection to a P/HTJSS low pressure force main the saddle must be pressure rated for a minimum of 150 psi. A template should be used to lay-out the hole location on the main. Holes should be cut in the main using a

mechanical hole-cutter, de-burred and beveled to provide a smooth hole that conforms to the shape of the fitting.

h. The installation shall be made in accordance with the manufacturer's specifications, the IPC or PaDEP regulations, whichever are more stringent.

i. The pump tank shall be installed outside the building and shall have a concrete anti-floatation collar cast around it, if necessary.

j. It shall be the responsibility of the Owner to maintain all the components on his/her property.

2. **Individual Residential Pressure Building Sewer - Grinder Pump.**
(for connection to Low Pressure Force mains or gravity sewer mains)

a. The individual residential pressure Building Sewer for a grinder pump installation shall be either 1-1/4 inch or 1-1/2-inch diameter, depending on the individual design requirements. The 1-1/2-inch diameter pipe may only be used where the Building Sewer connects to a Lateral, at either of the two (2) 6-inch Laterals in Swiftwater, any of the three (3) locations where a 1-1/2 or 2-inch diameter Lateral is provided in Bartonsville or the one (1) location where a 1-1/2-inch service connection is provided in Tannersville.

b. Grinder pump units shall be an E/One Sewer System as manufactured by Environmental One Corporation; 2773 Balltown Rd.; Niskayuna, NY; www.eone.com or Barnes Easy Electric Ultra Cap2 or J-box or Ecotran with compatible pump to be selected by the designer as manufactured by Crane Pumps & Systems; 420 third Street; Piqua, Oh; www.cranepumps.com or SRA Systems as manufactured by Myers, distributed by Mid Atlantic Pump and Equipment Co. or Pocono Township approved equal.

3. **Individual Residential Pressure Building Sewer - Sewage Pump.**
(for connection to gravity sewer mains)

a. If connecting to a gravity sewer the Applicant may use a residential sewage pump or ejector pump capable of passing 2-inch solids or a grinder pump. The pump size shall be determined as part of the Building Sewer design and the pump calculations submitted for review with the plans.

b. The individual residential pressure Building Sewer for a sewage pump installation shall be either 3-inches or 4-inches in diameter, depending on the individual design requirements to maintain a scour velocity in the pressure portion of the Building Sewer.

c. All pressure Building Sewers shall be connected to a gravity Building Sewer ten (10) feet upstream of the Lateral connection. A gravity cleanout shall be provided at the Lateral connection.

K. Grease Traps and Interceptors.

Grease traps or interceptors shall be required for any commercial property that serves, prepares or processes food or any business that releases any fatty, oily or greasy waste. Any such property that does not have an existing grease trap or interceptor shall be required to install a new grease trap in accordance with the provisions of this section. Properties that have an existing grease trap or interceptor shall follow the provisions in this section to determine if the existing unit may be connected to the (P/I-ITJSS). Each new or replacement grease trap and grease interceptor shall be installed and connected so that it is easily accessible for inspection, sampling, cleaning and removal of the intercepted grease.

Properties that require a grease trap must furnish the following additional information with the Connection Permit Application submittal;

For new installations or modifications/additions to existing traps:

o Shop drawings
o Sizing calculations
o Show the location of the grease trap on the plans that are submitted • Provide an operation and maintenance plan and pump-out schedule.
For existing traps with or without modifications or augmentation:

e A sketch of the existing grease trap showing the diameter of the pipe connections, length, depth and width of the tank.
o Show the location of the grease trap on the plans that are submitted. • An operation and maintenance plan and pump-out schedule.

1. New Installations

a. Where determined necessary and where none is already provided, grease traps shall be installed so as to intercept greasy wastes prior to entering the sewer system. The grease trap must be located so as to collect waste from the grease source only and no other sanitary waste from the building shall pass through the grease trap. Grease traps should be located as close as possible to the source of the waste so as to minimize blockage of pipes.

b. Grease traps installed outside of the building shall be constructed of precast concrete. Grease traps to be installed in-ground must be made of precast concrete constructed in accordance with the Figure 9 provided in Appendix 4B. Alterative designs for yeast traps may be considered by Pocono Township upon submission and review.

c. Indoor in-line type grease traps may be acceptable providing that an exterior location is not practical and the owner submits calculations verifying adequate size, manufacturer's shop drawings and directions for installation and operation.

d. New construction shall utilize exterior grease traps unless the Township Official accepts the use of interior units based on site constraints limiting placement of an exterior unit on the site.

e.Grease traps shall be sized in accordance with Schedule A below based on the EPA- 2 Model:

Note: If no cooking/frying occurs and the User engages in preparation of pre-cooked food only, then an adequately sized 20, 30, 40-pound grease trap may be provided based on flow per the current edition of the IPC.

Schedule A Grease Trap Sizing — Six Step Design Process

The following Design Criteria shall be utilized to size the Grease Trap

Step 1 — Number of Meals during peak Hour, M

S = Seating Capacity, total number of seats in restaurant

F= Meal Factor

Fast Food (45 minutes per seat) = 1.33

Sit Down Restaurant (60 Minutes per seat) 1.00

Medium Turn Over Restaurant (90 minutes per seat) = 0.67

Low Turn Over Restaurant (120 minutes per seat) = 0.50

Maximum number seats per hour = M = SxF

(add 25 meals per hour for drive thru Services)

Step 2 — Waste Flow Rate, Q

Standard Dishwasher= 6 gpm

No Dishwasher= 5 gpm

High efficiency dishwasher (< 3 gpm) =3 gpm

Food Waste Disposal Only= I gpm

Step 3 — Retention Time, R

Full Service, reusable dishes =2.5 Hrs.

Single Service Dishes= 1.5 Hrs.

Step 4 — Storage Factor, Sf

Full Service, reusable dishes

Hours of Operation

8 Hours	1.0
12 Hours	1.5
15 Hours	2.0
24 Hours	3.0

Single Service Dishes 1.5

Step 5 — Calculated Capacity, G, gallons

M x Q x R x Sf= Size in Gallons

Step 6 — Select grease trap based on the required capacity from the minimum storage capacity above. The trap shall provide the volume below the outlet invert elevation and shall meet the minimum requirements below:

1. The minimum dimension (length, width, or diameter) shall be not less than 4 feet.

2. The baffle shall be set 6" above the invert out, and, the bottom of the baffle shall be no less than 18" above the bottom of the trap.

3. The top of the trap shall be set no less than 16" above the inlet invert of the trap.

4. The outlet invert shall be 1.5" below the inlet invert elevation.

5. 4" Inspection Ports shall be provided at both the inlet and outlet connections.

6. Each grease trap with a length in excess of 8 feet or a diameter in excess of 8 feet shall have a 24" diameter manhole access over both the inlet and outlet sides of the trap. Those less than 8 foot in length shall have a single 24" access in the center of the trap.

2. Facilities that have existing grease traps may utilize the existing grease traps provided they are sized adequately to meet the volume standards of this Manual, are inspected to confirm integrity of the baffles, dimensions, and shall be hydrostatic tested to confirm water tightness as described in 2.a. Existing grease traps that are not of adequate size may utilize the FOG Testing procedures outlined

a) Existing grease traps shall be inspected and tested and shall meet the following:

1. The tank shall be drained and cleaned of all debris prior to inspection by the designated Township official. The grease trap shall be free of any cracking, spalling, delamination, leakage, or any other indication of failure of the grease trap.

11. As part of the permitting, the applicant shall provide drawings of the location, connections, and configuration of the grease trap, including all dimensions.

111. The Township Official shall verify all dimensions of the grease trap meet the requirements of this Manual.

iv. The location and sizes of baffles and manifolds shall be documented by the Applicant and confirmed by the Township Official to meet the requirements of this Manual.

v. The grease trap shall be plugged and filled with clean water to conduct a hydrostatic test. The test shall conform to the PA Domestic Waste Water Facilities Manual. The test shall permit a maximum allowable leakage of 0.145 gpd/ft. of perimeter per foot of depth. The test shall be conducted by filling the grease trap with water to a set elevation, no less than 18" below finished grade, allowed to sit four hours, then re-filled with water back to the original set elevation. The amount of water added shall be less than the allowable leakage as calculated above. Vacuum tests may be conducted in place of hydrostatic testing in compliance with manufacture's testing procedures.

vi. A 24" inspection access manhole shall be provided above both the inlet and outlet sides of the grease trap for any traps that are longer/wider than 8 feet

in diameter or longer than 6 feet for square installations. One 24" manhole is acceptable for smaller grease traps, to be centered in the grease trap.

vii. An inspection port, 4" in diameter, shall be provided on the connection to the inlet and outlet side of all connections to the grease trap.

b) FOG Testing Procedure

Interior manufactured grease traps may be utilized for existing construction provided that the Township is provided with the manufacture's data sheet for the grease trap and it is sized adequately based on the manufacture's sizing criteria.

i. Properties that are already equipped with a grease trap or interceptor may be permitted to keep that unit provided that the Applicant can demonstrate that the discharge does not exceed the maximum allowable FOG concentration of 87 milligrams per liter (mg/L) and that the trap and associated piping are tested pursuant to the inspection and testing requirements are outlined above. If it is determined that the discharge from the existing unit cannot meet the maximum 87 mg/L grease discharge and/or the trap is found to be leaking then the Applicant shall be required to replace, repair and/or augment the existing unit. The cost of the testing for acceptance of the existing trap shall be the responsibility of the Applicant.

11. Testing for fat, oil and grease concentration in the discharge shall be by EPA Method 1664 Rev. B Standard Method 5520-B-2001 or ASTM Method D7066-04 commonly known as a FOG test. Collection and testing samples shall be performed by a PA DEF certified testing lab following the below procedures:

a. Submit a sampling plan that demonstrates the facility's peak utilization time based on a detailed review of the utilization. The justification for the testing time shall be submitted to the Township Official for review.

b. Over a two-hour period, determined to be the peak facility utilization, every 20 minutes, a 250 ml grab sample shall be taken from the discharge of the grease trap. The procedure shall be provided for two non-consecutive weeks, within 6 weeks of one another to provide two sample sets.

c. The Township shall be notified of the test and shall be given the opportunity to witness the test. The costs of witnessing the test, and of the test itself shall be the responsibility of the Applicant.

d. If the average of the samples is at or below the 87 mg/L allowable concentration the Applicant will be permitted to continue to use the existing unit without modification provided the trap and associated piping pass a leak test. If the average of the tests is above 87 mg/L allowable concentration then the Applicant will be required to replace the existing unit; provided, however, that augmentation or modification

of the trap will be permitted provided a leak test is performed on the unit and the FOG test is repeated with satisfactory results after the modifications are complete.

iii. If the concentration of FOG in the discharge from the existing trap is below the allowable limit then the trap and associated piping shall be tested for infiltration by hydrostatic testing. The test must be witnessed by an authorized representative of Pocono Township pursuant to the existing grease trap testing requirements above.

3. Maintenance

The Applicant shall provide a maintenance plan and pump out schedule for the grease traps as part of the Connection Permit Application. The grease trap shall be maintained by the Owner at their own expense in a manner to provide satisfactory and effective removal of grease, fats and oils. If a problem arises in any Pocono Township, Hamilton Township or BCRA facility from non-maintenance of the grease trap, the Owner shall be held responsible for any cost to remedy the problem. The maintenance shall include that the exterior grease traps shall be drained monthly until such a time that the user can provide 12 months of documented clean out records that indicates a longer clean out period is justified. All interior units shall be cleaned out weekly. The User shall maintain a log of all cleanout activity and provide the log to the Township upon request.

4.05 INSPECTION AND TESTING.

This section describes the requirements for inspection and testing for all connections made to the P/HTJSS. Any Building Sewers installed or connections made to the system without direct observation and verification of testing by a representative from Pocono Township will be rejected. The Owner shall be responsible for the cost of any repairs to the Lateral or sewer main. If any sewage is discharged into the P/HTJSS System through any such rejected installation, the Owner shall be subject to any fines, penalties and fees as prescribed by Pocono Township. The Owner will also be required to uncover any sections of the installation requested by Pocono Township or their authorized representative for inspection and testing. The cost of any excavation, testing and revisions to the installation will be borne by the Owner in addition to any fines, penalties and fees. Pocono Township shall not be held responsible for any damage that may result when an uninspected Building Sewer or Lateral is exposed for inspection and testing.

A. **Inspection.**

In order to ensure compliance with the approved plans and specifications, all work related to installation of a Building Sewer to the sewer system shall be inspected by Pocono Township or a designated agent/representative of Pocono Township. There will be a minimum of three (3) inspections during installation of the Building Sewer. In some cases, such as for a short gravity Building Sewer for a single family home, it may be possible to have the installation and all inspections completed in a single day and for the third inspection to include the witnessing of the testing. For low pressure Building Sewers, commercial properties, multi-family housing units and single family homes requiring longer gravity Building Sewers the Applicant is advised to discuss the construction schedule with their contractor

and request an inspection schedule from Pocono Township. The Applicant will be held responsible for all inspection costs beyond the initial inspection deposit.

1. **General.**
   a. Appointments must be made with Pocono Township for an inspection at least 48 hours prior to the date of the proposed start of the Building Sewer installation. Inspections are subject to the schedule of Pocono Township's designated agent.

   b. Pocono Township and/or its designated agent shall determine the frequency of inspection when making the initial appointment. The Agent shall have the discretion to revise the schedule as they deem appropriate once on-site and after witnessing the contractor's work.

   c. No changes in the work from the Approved Plans are to be made without approval from Pocono Township.

   d. After installing the pipe but before testing and making the connection to the Lateral, flush the Building Sewer to remove debris. Collect and dispose of flushing water and debris.

   e. Do **NOT** make the connections between the Building Sewer and the Building Drain or the Lateral until flushing is completed.

2. **Gravity Building Sewers.**
   a. Pocono Township's Inspector shall observe the condition of the excavated trench prior to placement of the pipe bedding. The trench should be excavated to the depth(s) and slope(s) shown on the approved plans. The bottom of the trench should be smooth and free of rocks, roots, concrete rubble or other matter that could act as a shear point on the pipe. It should also be free of standing water and well tamped.

   b. After acceptance of the trench the bedding may be placed in the trench. Bedding shall be placed in a minimum 6-inch depth layer and graded to the design slope of the pipe and tamped lightly for consolidation. A cradle matching the curvature of the pipe shall be formed in the surface of the bedding with a template. Any rocks or debris larger than ½ inch in any dimension shall be removed from the bedding.

   c. The pipe shall be assembled in the trench with clean-out risers at the locations and spacing shown on the plans. The slope of the pipe should be verified to insure that it matches the design. The test tees should be installed at the service lateral and building sewer connections at this time. Clean out risers and test tee should be cut to a length so that the tops are at the same elevation as the test-tee/clean-out outside of the building.

   d. Once the pipe and bedding are accepted the select fill can be placed to the top of the pipe. Place select fill around the sides of the pipe but not over the pipe. The fill along the sides of the pipe should be consolidated around the pipe. The pipe is now ready for Hydrostatic

Leak Testing or Air Pressure Testing.

e. Testing of the Building Sewer by the Hydrostatic Leak Testing or Air Pressure Testing Methods shall be performed with the top of the pipe exposed. The procedure for Hydrostatic Leak Testing is presented in 4.05 B. 4 below and the procedure for Air Pressure Testing is presented in 4.05 B.5 below. For larger installations such as may be required for a commercial property, multi-family dwelling or where the trench may be exceedingly long, and leaving the trench open for extended periods of time would pose an unacceptable safety risk the trench may be backfilled in segments and testing completed after the installation is complete.

f. Once the Testing requirements have been successfully completed the test tee at the Lateral connection shall have the riser pipe removed and be plugged.

g. Select fill shall be placed to a minimum 12-inch depth over the top of the pipe and to the full depth and width of the excavation around the Lateral. The fill shall be chalked around the Lateral connection to insure that all voids are filled and that the stone is adequately consolidated.

h. Backfilling of the trench can then be completed as described in Section 4.04 D through G above.

i. In conjunction with the completion of trench backfilling the clean-outs should be trimmed and curb boxes installed to final grade and capped with an FSPT X FNPT adapter and treaded cap as per the approved plans. Cleanouts shall be cut below finished grade and be within a valve box.

3. **Low Pressure Building Sewers.**

a. The Pocono Township Inspector shall observe the condition of the excavated trench prior to placement of the pipe bedding. The trench shall be excavated to a minimum 5-foot depth. The bottom of the trench should be smooth and free of rocks, roots, concrete rubble or other matter that could act as a shear point on the pipe. It should also be well tamped and free of standing water.

b. After acceptance of the trench the bedding may be placed in the trench. Bedding shall be placed in a minimum 6-inch depth layer and graded to thc design slope of the pipe and tamped lightly for consolidation. A cradle matching the curvature of the pipe shall be formed in the surface of the bedding with a template. Any rocks or debris larger than ½ inch in any dimension shall be removed from the bedding.

c. The Building Sewer may be installed progressively as the bedding is placed or after the bedding is completed. The pipe and bedding may be inspected concurrently. The pipe shall be assembled in the trench. Clean-outs, if required, should be installed at the locations shown on

the plans.

d. Connections to a low pressure Lateral shall be made in accordance with Figure 4a in Appendix 4B. Connections made to a gravity Lateral shall be made in accordance with Figure 4b in Appendix 4B. If the Applicant wishes to install a low pressure Building Sewer at a location other than where a Lateral is provided or if the connection requires a larger diameter pipe than is provided, the connection shall be made in accordance with Figure 8c in Appendix 4B. When connecting to the Lateral the use of glued fittings shall **NOT** be permitted within 10 feet of the road Right-of-Way. If the fitting at the end of the existing Lateral is damaged it shall be replaced in-kind. No repairs to an existing fitting at the end of the Lateral shall be permitted. If the Lateral terminates with a pipe end the pipe may be cut if it is damaged. The pipe end must be beveled and a new section of similar pipe installed to the edge of the property line so that the curb stop valve at the end of the Building Sewer is not installed within the Right-of–Way or easement.

e. Do **NOT** connect the Building Sewer to the outlet port of the pump unit at this time. Leave this end free for connection of the hydrostatic pressure test head assembly.

f. Install concrete reaction support blocking at all wyes, tees and elbows. Allow concrete to set a minimum of 24-hours before testing.

g. Place select fill thoroughly densified around the pipe.

h. Leak testing of the Lateral shall be by either the Low Pressure Hydrostatic Leak Test method or the Air Pressure Test Method. The procedure for both of these test methods is presented in Section 4.05. Do not place fill over the pipe until after testing is successfully completed.

i. Select fill shall be placed to a minimum 12-inch depth over the top of the pipe and well consolidated.

j. Backfilling of the trench can then be completed as described in section 4.04 D. through G. above.

k. In conjunction with the completion of trench backfilling, the clean-outs should be trimmed and the curb boxes on the curb stops set to final grade. The caps should be installed on the clean-outs as per the approved plans.

B. **Testing.**

This section presents the testing requirements and procedures for both gravity and low pressure Building Sewers. All Building Sewers shall be tested before final connection to the Lateral.

1. No part of the installation shall be covered until it has been visually inspected, and accepted by an authorized representative of Pocono Township.

2. The pipe is not to be covered for either the Hydrostatic Leakage Test, Air Pressure Test, or Low Pressure Hydrostatic Leak Test methods for performing the leakage testing. This will allow the locations of the leaks to be identified and corrected.

3. Gravity Building Sewers, including the gravity section of a pressure Building Sewer between the building test tee/clean-out and the pump unit, shall be tested by either the Hydrostatic Leak Testing Method or the Air Pressure Testing Method. Lateral pipes are not to be covered until the Testing process is accepted by the Township inspector.

4. Hydrostatic Leakage Test Procedures.

   a. Plug the test tees or cleanouts at the Building Drain and Lateral connections using an inflatable ball plug.

   b. Fill the Building Sewer with water to the brim of the test tee/clean-out riser at the Building Drain connection.

   c. After one-half hour of stabilization, refill the Building Sewer with water to brim of test tee/clean-out riser at the Building Drain connection.

   d. Observe joints and fittings under test. Remove and replace any cracked pipes, joints and fittings showing visible leakage.

   e. After one hour, if there is no drop in water, the hydrostatic test passes. If there is a drop in water, the contractor shall find the leak, repair the leak and re-test the Building Sewer.

   f. No leakage shall be permitted for this portion of the installation.

5. Air Pressure Test Procedures.

   a. Plug the test tees or cleanouts at the Building Drain and Lateral connections using an inflatable ball plug.

   b. Pressurize the lateral with air to a pressure of 5 psi and hold for a period of 10 minutes.

   c. If the pressure in the pipe does not hold at 5 psi locate any leaks and remove and replace the damaged pipe, joint or fitting showing signs of damage.

   d. After the pipe is repaired or replaced the air test shall be performed again at a pressure of 5 psi for 10 minutes. If there is no drop in pressure observed on the pressure gauge the air pressure test passes.

   e. No leakage shall be permitted for this portion of the installation.

   f. Air Pressure Testing shall not be used in lateral installations using push-in joint type pipe due to joint separation under pressure.

6. Where a pressure Building Sewer connects to a gravity Lateral the section of pipe between the new ball valve curb stop and the clean-out at the end of the Lateral will not require testing. This section will only require visual inspection by Pocono Township for acceptance.

7. The low pressure Building Sewer connection between the ball valve curb stop and check valve in the pump unit shall be included in the Low Pressure Hydrostatic Leak Test.

8. The low pressure Building Sewer connection to a low pressure Lateral at the existing ball valve curb stop shall not require leak testing. This portion of the connection will only require visual inspection by Pocono Township for acceptance.

9. Low Pressure Hydrostatic Test Procedures and Equipment

   a. Required Equipment

      - Hydrostatic pump
      - Suction Hose
      - Pressure hose
      - Volumetric Measuring devise calibrated in ounces
      - Test tap-in
      - Pressure gauge, calibrated to 0.1 lbs. /sq. in.
      - Pressure relief valve

   b. Low Pressure Hydrostatic Leakage Test.

      1) Test each low-pressure Building Sewer, including any valved section thereof, hydrostatically at 50 psi.

      2) Slowly fill the section to be tested with water, expelling air from the pipeline at the high points. Install corporation stops at high points if necessary. After all air is expelled, close air vents and corporation stops and raise the pressure to the specified test pressure.

      3) Observe joints, fittings and valves under test. Remove and replace cracked pipe, joints fittings, and valves showing visible leakage.

      4) After visible deficiencies are corrected repeat the test as described above.

10. No leakage shall be permitted for this portion of the installation.

11. The Applicant's contractor shall, at no expense to Pocono Township, determine and correct the causes of test failure and re-test until successful test results are achieved. The cost for inspection of the repairs and observation of additional testing are the responsibility of the Applicant.

4.06 SEPTIC TANK, CESS POOL AND ON-LOT TREATMENT SYSTEM ABANDONMENT

Upon completion of the connection to the Pocono / Hamilton Joint Sewer main the Owner shall abandon the existing on lot sewage system on that property. The following procedure should be used for abandoning an on-lot disposal system

A. Have licensed hauler pump or vacuum all liquids and sludge out the septic tank or cesspool. Dispose of the contents in a DEP approved facility.

B. Disconnect the piping from the inlet and outlet of the cesspool or septic tank. The Building Drain and building test Tee/Clean Out can be used for the new Building Sewer provided they pass leak testing.

C. Cap the end of the outlet pipe that is away from the infiltration area.

D. Excavate and remove or break through the top of the tank so that all chambers are exposed.

E. Wash-down the inside of the tank and have the liquid and sludge removed and disposed of by a licensed hauler to a PA DEP approved facility.

F. Break the bottom of each chamber.

G. Fill each chamber to the top with sand or AASHTO # 57, # 67, # 7 or PennDOT #2B or # 2 crushed stone. Place a layer of geotextile (landscaping) fabric over the top of the stone.

H. Fill the area above the stone with soil removed from excavation of the tank to the within 4 to 6-inches of the surrounding grade in lawn areas or to the bottom of the sub-base in paved areas. Place the soil in 8-inch lifts and compact to 90% of the Maximum Dry Density.

I. In lawn areas, place a 4 to 6-inch layer of topsoil over the excavated area with light compaction. Spread seed, fertilizer and lime over the topsoil and cover with hay or straw mulch or erosion control matting.

J. In areas that are paved with concrete or asphalt or stabilized with stone, match the profile of the existing surface treatment with the same materials and depths as the existing final cover.

K. Water lawn areas regularly until the grass obtains a satisfactory growth.

APPENDIX 4A

FORMS

POCONO/HAMILTON TOWNSHIP
CONNECTION PERMIT APPLICATION
COVER SHEET

(To be completed by the Applicant and attached at the front of the application documents)

CONNECTION PERMIT APPLICATION

☐ Completed Connection Permit Application form

☐ Provide copy of Connection Notice received from Pocono Township

☐ Check made payable to "Pocono Township" in the amount of the applicable Tapping Fee as stated in the Connection Notice, or as otherwise determined by Pocono Township if different from the number in the Connection Notice (provide written documentation of the alternate determination by Pocono Township).

☐ Check for applicable Application and Inspection fees made payable to "Pocono Township"

ADDITIONAL REQUIRED DESIGN INFORMATION FOR SPECIAL CASES

☐ Flow calculations for non-single family structures.

☐ Grease trap sizing calculations for any property with a commercial kitchen or food preparation.

☐ Pump sizing calculations

HIGHWAY OCCUPANCY/ROADWAY ENCROACHMENT PERMIT
(Include only if encroachment on State or Township Road Right-Of-Way is necessary to install the lateral)

☐ Encroachment on Roadway Right-of-Way required – Permit Attached

☐ No Encroachment necessary

PLEASE REVIEW THE FOLLOWING PRIOR TO SUBMITTING YOUR CONNECTION PERMIT APPLICATION

☐ Have you provided the information requested on the Connection Permit Application Cover Sheet listed above?

☐ Have you completed the UCC Plumbing Permit Application and Folder for the required Uniform Construction Code Sewer Hook-up permit?

☐ If your property requires a Grinder Pump have you completed an Electrical Permit Application and provided the specifications on the pump and the pump sizing calculations?

☐ Have you completed the Department of Environmental Protection Permit required for the abandonment of your on-lot septic tank or cesspool?

INCOMPLETE OR PARTIAL SUBMISSIONS WILL NOT BE ACCEPTED

Each check should be made out separately with the notes "Tapping Fee", "Application/Inspection Fees" written in the Memo and the individual check attached to the appropriate form. DO NOT COMBINE THE FEES ON A SINGLE CHECK. Applications received with a single check for the combined amounts of the fees will be returned without review. Connection to the system must still be completed within the time period set forth in the Connection Notice issued by Pocono Township.

POCONO/HAMILTON TOWNSHIP
CONNECTION PERMIT APPLICATION

PIN:	DATE:
PROPERTY ADDRESS:	
OWNER NAME:	APPLICANT NAME: (If not owner)
ADDRESS:	ADDRESS:
TELEPHONE #:	TELEPHONE#:
EMAIL ADDRESS:	EMAIL ADDRESS:

The undersigned does hereby apply for a Connection Permit to make a connection from the above referenced property to the Pocono/Hamilton Township Joint Sewer System, and in making this Application does hereby agree to conform with all the Ordinances, rules and regulations of Pocono Township/Hamilton Township (as applicable), including but not limited to the Pocono/Hamilton Townships Joint Sewer System Procedures Manual concerning said system and connections thereto.

The Applicant hereby requests that the Pocono Township Board of Commissioners issue a Connection Permit for _____ EDUs for the above property.

Method used for calculating EDUs:

(Circle One) (1) Attributed by Pocono/Hamilton Township in the Connection Notice

(2) OTHER Approved by Pocono Township per Appendix 4C or BCRA Water Meter

Calculation of Amount Due:

$(Applicable Tapping Fee) $_____ X _____EDUs = $_____

Enclosed is a check in the amount of $_____ for the Tapping Fee for _____ EDUs.

The application must be accompanied by the supporting materials described in the Pocono/Hamilton Townships Joint Sewer System Procedures Manual.

If the Property Owner is making the application for a number of EDUs that is different from the number of EDUs attributed to the property by Pocono Township, the revised number of EDUs must be approved by the Pocono Township prior to issuing this permit. If the revised number of EDUs is not acceptable and this application is not approved, the check will be returned to the Applicant. Otherwise, the Tapping Fee is non-refundable.

It is the responsibility of the Applicant(s) to arrange for an inspection of the installation of the Building Sewer by the Pocono Township Inspector by calling the Pocono Township Office Manager at 570-629-1922 at least 48-hours in advance of the planned inspection.
Attached hereto on a separate sheet(s) (at least 8 ½ x 11) is a plan and profile indicating all property lines, buildings, proposed building sewers, traps, cleanouts, adapters, bends, points of discharge of all other drains on the premises, the new Building Sewer, and the location of the Lateral. The same information should be provided if a portion of an existing building sewer remains in service, including the diameter and type of sewer pipe.

Print Name _____ Signature _____

If Corporation or other legal entity, Name & Title of Signatory

Applicant (s)

_____

Name

Corporate Seal

_____

Title

****

Application: (Approved) (Disapproved) by the Pocono Township Board of Commissioners on _____.

Pocono Township Board of Commissioners

By: _____

Township Manager

****

SECTION II PLAN APPROVAL

The above Application and attached plan are approved and the Applicant is authorized to proceed with the work outlined. The Applicant shall notify the Pocono Township designated Sewer Inspector at least 48 hours before the time of any inspection required.

_____

DATE AUTHORIZED POCONO TOWNSHIP

SECTION III CERTIFICATE OF COMPLETION

The completed work authorized by this Application and the approved plans has been inspected, tested and found to be acceptable for its intended use.

_____

DATE POCONO TOWNSHIP INSPECTOR

CONNECTION PERMIT APPLICATION FEE AGREEMENT

THIS AGREEMENT MADE THE _____ day of _____, 2____, by and between POCONO TOWNSHIP, hereinafter called the "Township", and

_____ of

_____, hereinafter called the "APPLICANT(s)."

WHEREAS, Pocono Township has adopted the Pocono/Hamilton Townships Joint Sewer System Procedures Manual, as the same may be amended/supplemented from time to time (the "Procedures Manual"), and,

WHEREAS, said Procedures Manual provides that the APPLICANT(s), upon the submission of Plans for review by Pocono Township (and/or Pocono Township Solicitor, if necessary), shall place certain funds on deposit to pay for said review.

NOW, THEREFORE, in consideration of the terms, conditions and covenants set forth hereunder the parties hereto agree as follows:

Single Family Residence – Gravity Building Sewer

Along with any submission for review by Pocono Township, the APPLICANT(s) shall simultaneously remit a Connection Permit Application Fee in the amount established by resolution by the Pocono Township Commissioners. Failure of the APPLICANT(s) to submit said fee shall result in the submission being deemed incomplete, and the same will not be accepted by the Township for review.

All other properties shall remit a Connection Permit Application deposit in the amount established by resolution by the Pocono Township Commissioners. It is mutually agreed and expressly understood between the parties that all professional review fees and costs incurred by the Township in reviewing the APPLICANT(s) submission and for field inspections are the sole responsibility of the APPLICANT(s). This responsibility shall not be affected in any way by the Township approval/disapproval of said submission. If the Connection Permit Application deposit is insufficient to pay all applicable review and inspection fees and costs, , the APPLICANT(s) shall pay all additional amounts owed prior to the Township's decision on said submission. Failure of the APPLICANT(s) to promptly pay said costs shall be deemed the granting of a waiver by the APPLICANT(s) to the Township, of any statutory time limitation that would mandate a decision by the Township. Any unused portion of the Connection Permit Application deposit will be refunded to the Applicant.

The parties hereto intend to be legally bound hereby.

IN WITNESS WHEREOF the parties have set their hands the date first mentioned above.

ATTEST **ATTEST**

_____ _____

POCONO TOWNSHIP **OWNER/APPLICANT**

SEAL:

_____

NAME

_____

TITLE IF CORPORATE

CORPORATE SEAL

APPENDIX 4B

STANDARD DETAILS

LIST OF FIGURES

APPENDIX 4C

EDU ATTRIBUTIONS

TABLE C.1 –EDU ATTRIBUTIONS

Classification	Equivalent Dwelling Units
Two (2) Family Dwelling (per each family unit)	1
Multi-Family Dwelling (per each family unit)	1
High-rise and Multi Apartment Complex (per each family unit)	1
Apartment House (per each family Unit)	1
Mobile Homes, Trailers	1
Each Hotel, Motel or Boarding House (per each four (4) rental Units or fraction thereof)	1
Barber Shop, whether or not attached to or forming a part of owners residence/property, per each two (2) chairs	1
Each retail store, business, industry or office attached to or forming a part of owner's residence/property:	
(1) Having ten (10) or fewer employees	1
(2) Each additional ten (10) employees or fraction thereof	1
Each retail store, business, industry or office not attached to or forming part of owner's residence/property	
(1) Having five (5) or fewer employees	1
(2) Having six (6) to ten (10) or fewer employees	2
(3) Each additional ten (10) employees or fraction thereof	1
Each restaurant, tavern and club with or without alcoholic beverages, per fifteen (15) seats or fraction thereof; or drive-in, per four (4) car spaces or fraction thereof	1
(1) Each additional fifteen (15) seats or fraction thereof	1
Each service station, garage, and automobile repair shop, without car wash facilities	1

TABLE C.1 –EDU ATTRIBUTIONS
(Continued)

Classification	Equivalent Dwelling Units
Each shop, with carwash facilities, each bay	5
Each Laundromat, per washer	½
Beauty shop, whether or not attached to or forming part of owner's residence/property per each two (2) chairs	1
Each commercial swimming pool	3

TABLE C.1 –EDU ATTRIBUTIONS
(Continued)

Classification	Equivalent Dwelling Units
Each school, public or private, or daycare facility having:	
(1) Toilet facilities only, per twenty-five (25) pupils* or fraction thereof	1
(2) Toilet facilities and kitchen per twenty (20) pupils* or fraction thereof	1
(3) Toilet facilities and gymnasium with shower facilities per fifteen (15) pupils or fraction thereof	1
(4) Toilet facilities, kitchen, and gymnasium with shower facilities per twelve (12) pupils or fraction thereof	1
*Pupils shall include students, employees, teachers, aids, administrative personnel, supervisory personnel, custodians and kitchen personnel.	
Each business or industry providing showers for employees:	
(1) Seven (7) or fewer employees	1
(2) Each additional seven (7) employees or fraction thereof	1
Fraternal or Social Service Club (per 30 seats or fraction thereof)	1
Gym/Fitness Center:	
(1) With showers and toilets (per fifteen (15) patrons or fraction thereof)	1
(2) Without showers but with toilets (per twenty (20) patrons or fraction Thereof)	1
Racquet or Tennis Club:	
(1) First four (4) courts	1
(2) For each additional court in excess of four (4)	¼
Church Complex (including hall) or	

TABLE C.1 –EDU ATTRIBUTIONS
(Continued)

Classification	Equivalent Dwelling Units
Community Building	1
Parsonage and/or Rectory	1
Post Office, Fire House (less social Quarters)	1
Nursing Home/Hospital, per bed	½
Funeral Home	2
Stadium (with toilet facilities)	1
Commercial Banquet Hall	1
Non-profit Service Hall	1
Municipal Building (having ten (10) or fewer employees and Occupants)	1
Municipal Building (having more than ten (10) employees and Occupants)	2
Outdoor picnic area	1
Movie Theaters and Drive-In Theaters, per seventy-five (75) seats or seventy-five (75) car spaces	1
Any user having a commercial (i.e., three-quarters (3/4) HP or greater) garbage grinder per each such grinder	1
Warehouse, Distribution Center of Trucking Terminal (based on the number of full-time office employees) per ten (10) employees or fraction thereof.	1

The commercial rate for a business which is comprised of more than one classification shall be the total of the classifications comprising the business.

END OF SECTION

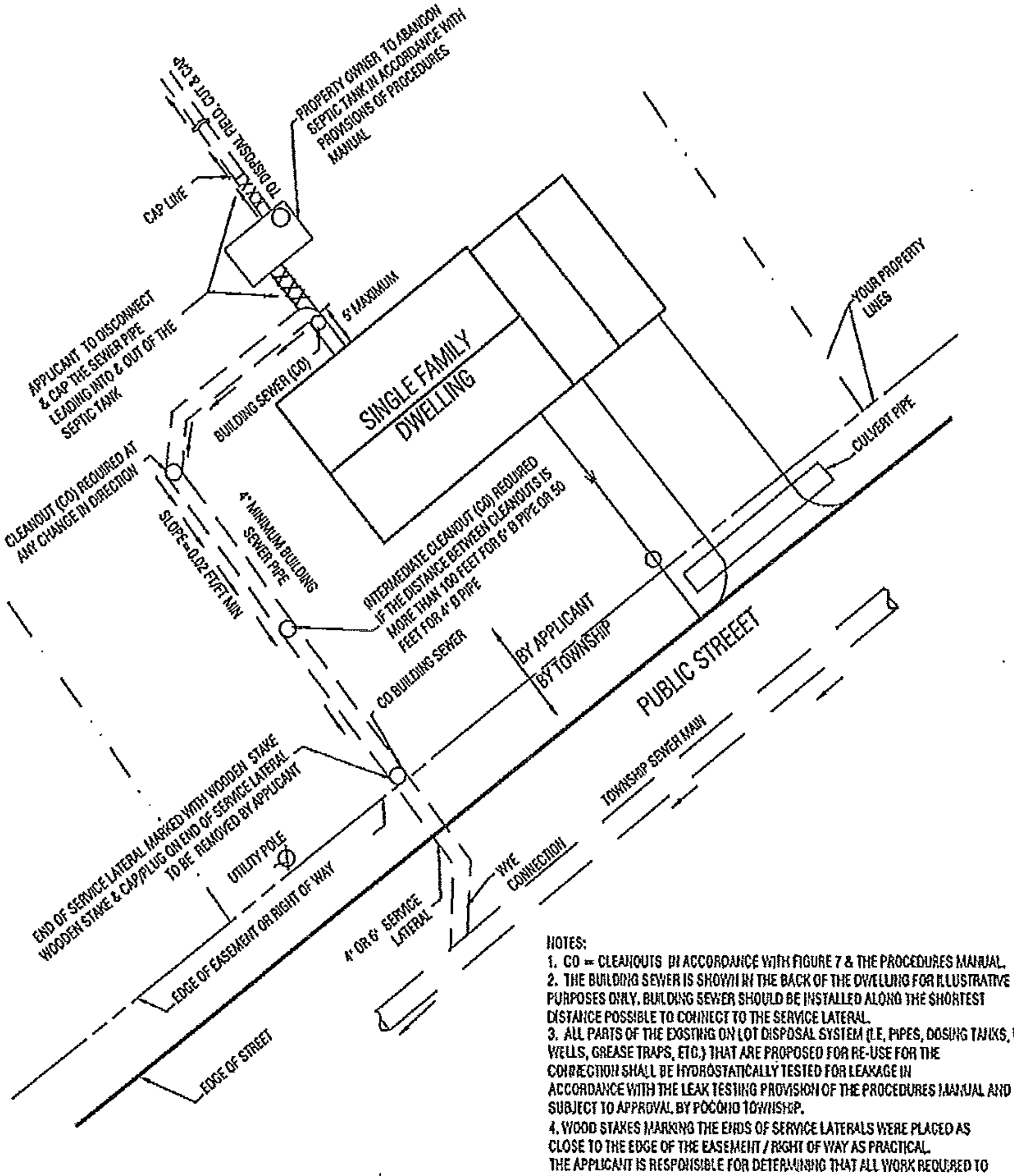
APPENDIX 4D

INSURANCE

Insurance Requirements

1) Workman's Compensation - Statutory
2) Vehicles - $100,000.00
3) General Liability - $100,000.00

END OF SECTION



NOTES:
1. CO = CLEANOUTS IN ACCORDANCE WITH FIGURE 7 & THE PROCEDURES MANUAL.
2. THE BUILDING SEWER IS SHOWN IN THE BACK OF THE DWELLING FOR ILLUSTRATIVE PURPOSES ONLY. BUILDING SEWER SHOULD BE INSTALLED ALONG THE SHORTEST DISTANCE POSSIBLE TO CONNECT TO THE SERVICE LATERAL.
3. ALL PARTS OF THE EXISTING ON LOT DISPOSAL SYSTEM (I.E. PIPES, DOSING TANKS, WET WELLS, GREASE TRAPS, ETC.) THAT ARE PROPOSED FOR RE-USE FOR THE CONNECTION SHALL BE HYDROSTATICALLY TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LEAK TESTING PROVISION OF THE PROCEDURES MANUAL AND SUBJECT TO APPROVAL BY POCONO TOWNSHIP.
4. WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL. THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE BUILDING SEWER WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.
5. ALL 90° BENDS TO BE 90° LONG RADIUS SWEEP ELBOWS OR TWO (2) 45° ELBOWS IN SERIES. TEES OTHER THAN THE TEST TEE CLEANOUT TO BE LONG SWEEP TEE FITTINGS.

FIGURE 1

PROJECT MANAGER	DESIGNED BY		AUTHORIZED USE:	
ROS	DRC	GRAVITY BUILDING SEWER		R.K.R. HESS
DRAWN BY MCS/MJK	CHECKED BY DRC	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM		A DIVISION OF UTRS
DATE 5-28-13	CHECKED DATE 7-09-2013			Civil Engineers • Environmental Engineers • Surveyors 112 North Courtland Street, P.O. Box 268, East Stroudsburg, Pa. 18301 Telephone (570) 421-1550, Fax (570) 421-6720 Website: www.rkrhess.com Email: engr@rkrhess.com ©2013 All Rights Reserved
SCALE NTS	PROJECT NO. 10130.052(3)054	MONROE COUNTY, PA		

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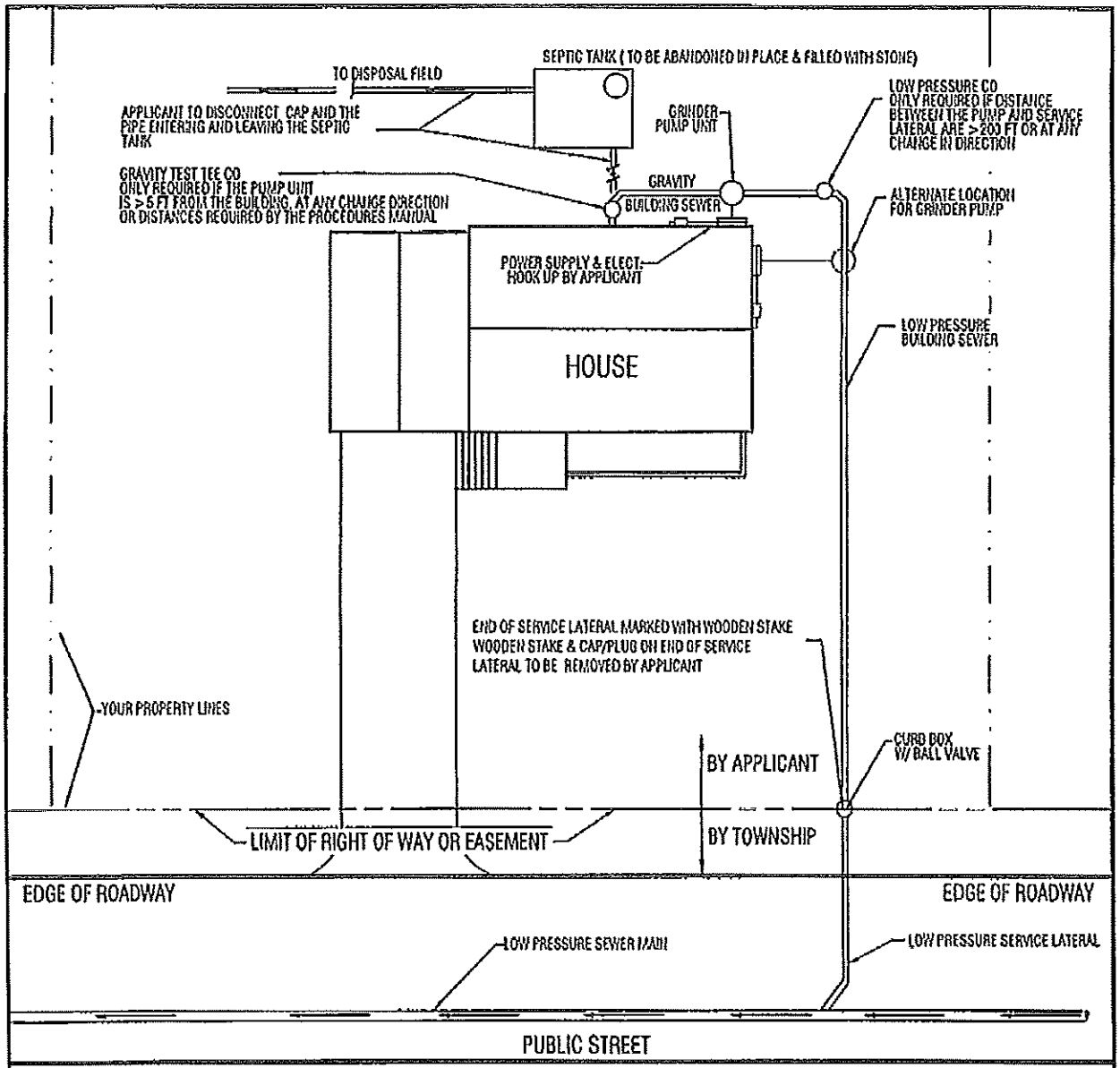

NOTES:

1. CO = CLEANOUTS SHOWN ON FIGURE 5 FOR CLEANOUT ON LOW PRESSURE SECTION & FIGURE 7 FOR GRAVITY SECTION AND AS REQUIRED BY THE PROCEDURES MANUAL.
2. THE BUILDING SEWER IS SHOWN IN THE BACK OF THE DWELLING FOR ILLUSTRATIVE PURPOSES ONLY. BUILDING SEWER SHOULD BE INSTALLED ALONG THE SHORTEST DISTANCE POSSIBLE TO CONNECT TO THE SERVICE LATERAL.
3. ALL PARTS OF THE EXISTING ON LOT DISPOSAL SYSTEM (I.E. PIPES, DOSING TANKS, WET WELLS, GREASE TRAPS, ETC.) THAT ARE PROPOSED FOR RE-USE FOR THE CONNECTION SHALL BE HYDROSTATICALLY TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LEAK TESTING PROVISION OF THE PROCEDURES MANUAL AND SUBJECT TO APPROVAL BY POCONO TOWNSHIP.
4. CURB STOPS & WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL, THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE CONNECTION LATERAL WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.
5. USE OF THE ELECTRICAL SYSTEM AND POWER SUPPLY FROM AN EXISTING ON LOT DISPOSAL SYSTEM WILL BE SUBJECT TO APPROVAL BY THE POCONO TOWNSHIP CODE ENFORCEMENT OFFICER.
6. ALL 90° BENDS TO BE 90° LONG RADIUS SWEEP ELBOWS OR TWO (2) 45° ELBOWS IN SERIES. TEES OTHER THAN THE TEST TEE CLEANOUT TO BE LONG SWEEP TEE FITTINGS.

FIGURE 2a

LOW PRESSURE SERVICE LATERAL

PROJECT MANAGER	DESIGNED BY
RDS	ORC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-09-2013
SCALE	PROJECT NO.
NTS	10130.052005

LOW PRESSURE BUILDING SEWER

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE

RKRHESS
A DIVISION OF UTRS
Civil Engineers • Environmental Engineers • Surveyors
132 North Courtland Street, P.O. Box 268, East Stroudsburg, Pa, 18301
Telephone (570) 421-1550, Fax (570) 421-6720
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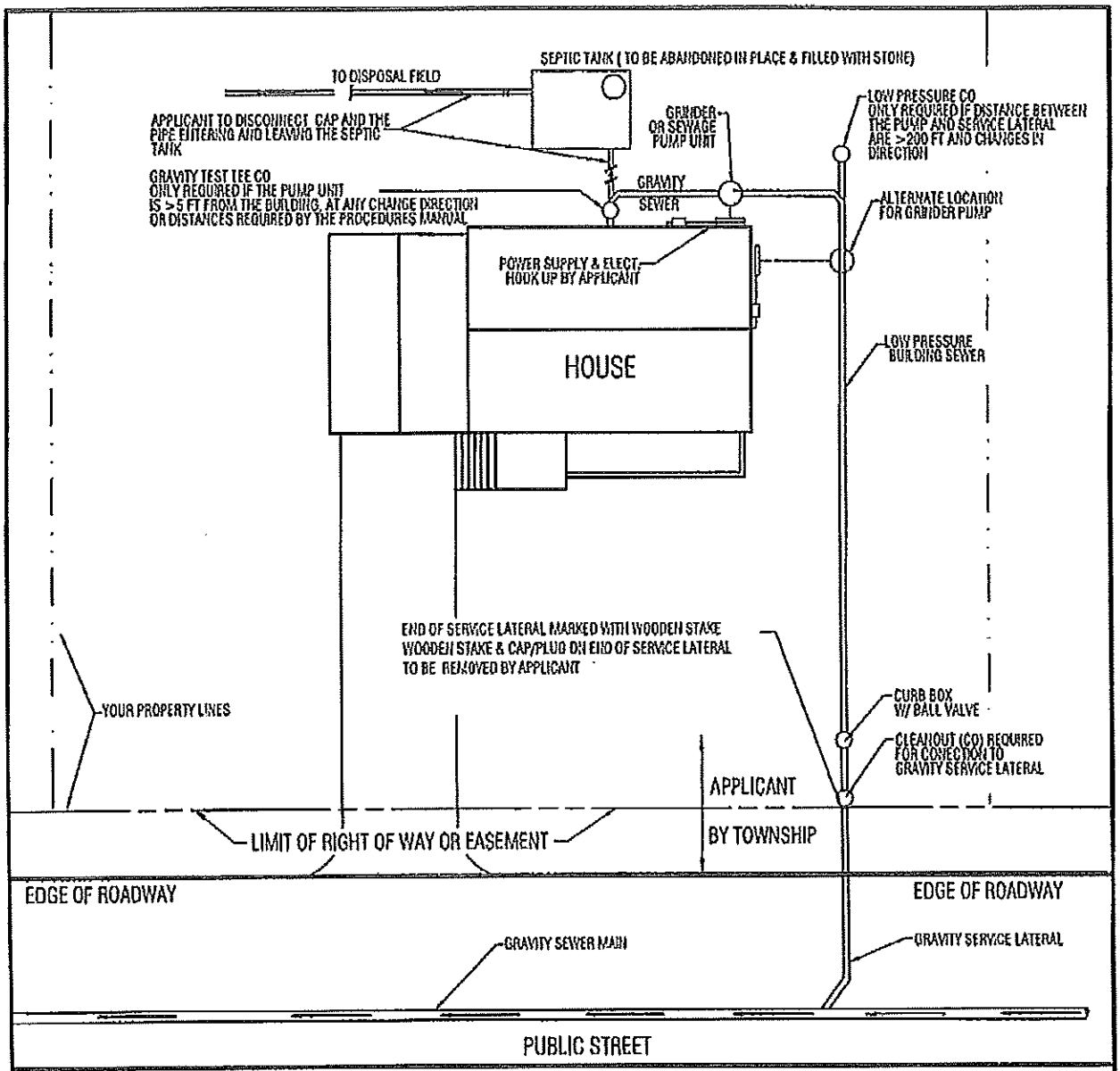

NOTES:

1. CO = CLEANOUTS AS REQUIRED BY THE PROCEDURES MANUAL FIGURE 5 FOR CLEANOUT ON LOW PRESSURE SECTION & FIGURE 7 FOR GRAVITY SECTION.
2. THE BUILDING SEWER IS SHOWN IN THE BACK OF THE DWELLING FOR ILLUSTRATIVE PURPOSES ONLY. BUILDING SEWER SHOULD BE INSTALLED ALONG THE SHORTEST DISTANCE POSSIBLE TO CONNECT TO THE SERVICE LATERAL.
3. ALL PARTS OF THE EXISTING ON LOT DISPOSAL SYSTEM (I.E. PIPES, DOSING TANKS, WET WELLS, GREASE TRAPS, ETC.) THAT ARE PROPOSED FOR RE-USE FOR THE CONNECTION SHALL BE HYDROSTATICALLY TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LEAK TESTING PROVISION OF THE PROCEDURES MANUAL AND SUBJECT TO APPROVAL BY POCONO TOWNSHIP.
4. WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL. THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE CONNECTION LATERAL WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.
5. USE OF THE ELECTRICAL SYSTEM AND POWER SUPPLY FROM AN EXISTING ON LOT DISPOSAL SYSTEM WILL BE SUBJECT TO APPROVAL BY THE POCONO TOWNSHIP CODE ENFORCEMENT OFFICER.
6. ALL 90° BENDS TO BE 90° LONG RADIUS SWEEP ELBOWS OR TWO (2) 45° ELBOWS IN SERIES. TEES OTHER THAN THE TEST TEE CLEANOUT TO BE LONG SWEEP TEE FITTINGS.

FIGURE 2b GRAVITY SERVICE LATERAL

PROJECT MANAGER	DESIGNED BY	LOW PRESSURE BUILDING SEWER	AUTHORIZED USE:
RDS	DRC		
DRAWN BY	CHECKED BY	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
MCS/MJK	DRC		
DATE	CHECKED DATE		
5-28-13	7-09-2013		
SCALE	PROJECT NO.	MONROE COUNTY, PA	
NTS	10139.052005A		

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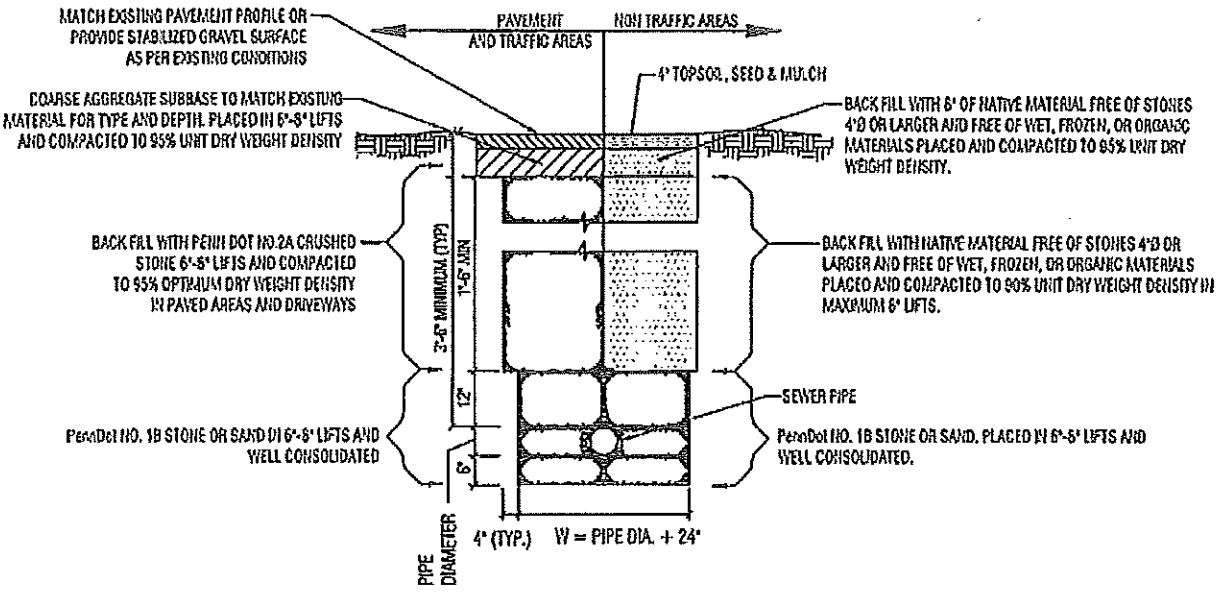

TYPICAL LATERAL TRENCH DETAIL

NTS

NOTES:

1) PENNDOT 2A AGGREGATE BACKFILL IS REQUIRED WHEREVER THE LATERAL IS WITHIN 3 FEET OF THE SHOULDER OR WITHIN 7 FEET OF EDGE OF PAVEMENT IN UNIMPROVED SHOULDER AREAS, ALONG TOWNSHIP OR STATE ROADS.
2) PROPERTY OWNER IS RESPONSIBLE TO OBTAIN PAVEMENT REQUIREMENTS FROM POCONO TOWNSHIP FOR RESTORATION WITHIN A TOWNSHIP ROADWAY AND FROM PENNDOT FOR RESTORATION WITHIN A STATE ROADWAY.

PIPE SIZE	"W"
1 1/4"-12"	PIPE DIA + 24"
>12"	2 X PIPE DIA.

FIGURE 3

PROJECT MANAGER	DESIGNED BY
ROS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520054

TYPICAL TRENCH DETAIL

PDCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE

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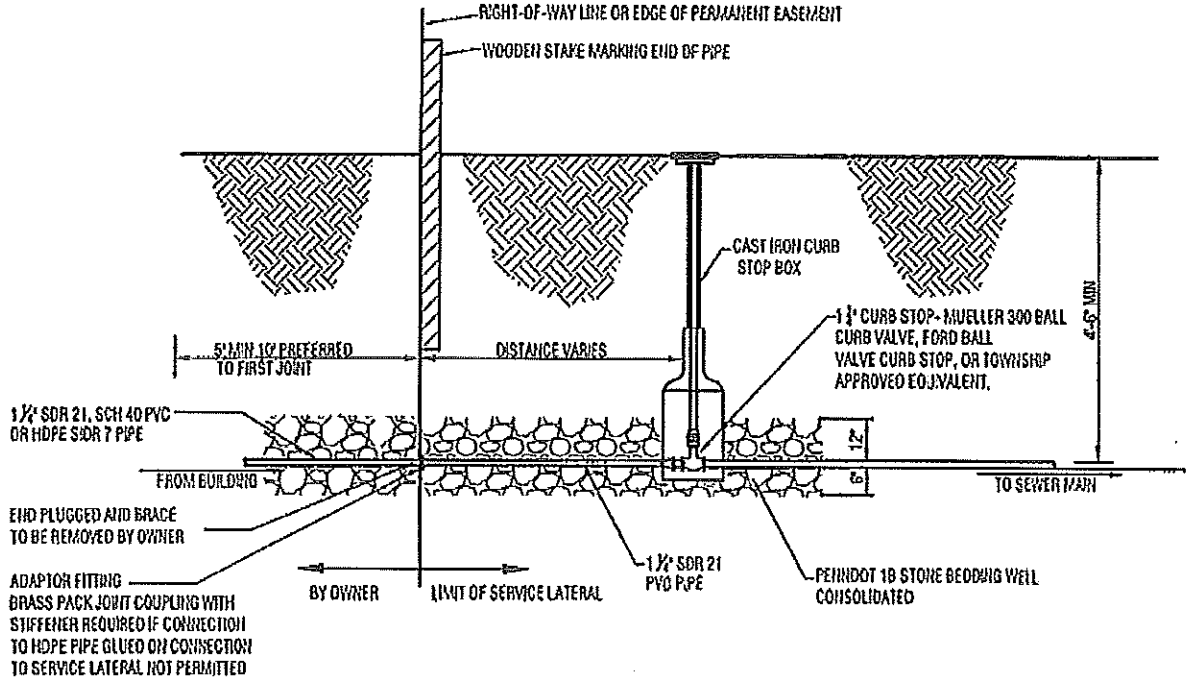

CONNECTION TO EXISTING LOW PRESSURE SERVICE LATERAL

NTS

NOTE:

1. REFER TO FIGURE 3 FOR TRENCH BEDDING, BACKFILL AND SURFACE RESTORATION FOR INSTALLATION OF THE BUILDING SEWER LATERAL.

2. CURB STOPS & WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL. THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE BUILDING SEWER WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.

FIGURE 4 a

PROJECT MANAGER	DESIGNED BY	LOW PRESSURE BUILDING SEWER DETAIL	AUTHORIZED USE
RDS	DRC		
DRAWN BY	CHECKED BY	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
MCS/MJK	DRC		
DATE	CHECKED DATE		
5-28-13	7-03-2013		
SCALE	PROJECT NO.	MONROE COUNTY, PA	
NTS	10130.0520054		

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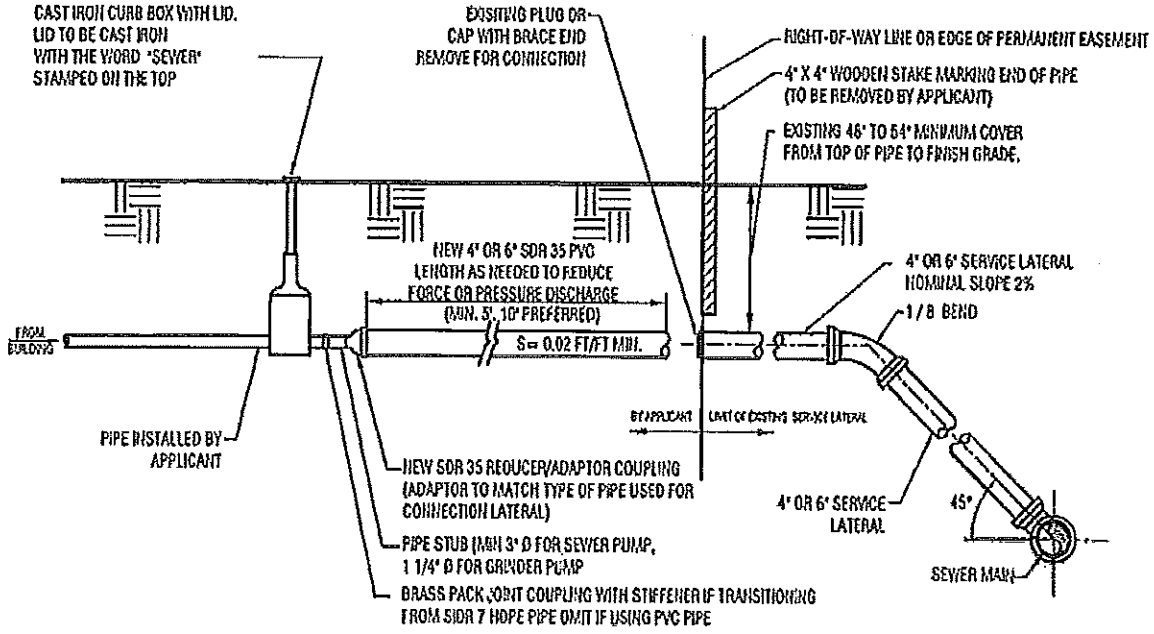

ELEVATION

CONNECTION TO EXISTING GRAVITY SERVICE LATERAL

NTS

NOTE:

1. REFER TO FIGURE 3 FOR TRENCH BEDDING, BACKFILL AND SURFACE RESTORATION FOR INSTALLATION OF THE BUILDING SEWER.
2. ALL PIPING FOR SERVICE LATERAL TO BE SCH. 40, 80 OR SDR 21 PVC OR HDPE PIPE.
3. WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL. THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE BUILDING SEWER WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.

FIGURE 4 b

PROJECT NUMBER	DESIGNED BY	LOW PRESSURE BUILDING SEWER DETAIL	AUTHORIZED USE
RDS	DRC		
DRAWN BY	CHECKED BY		
MCS/MJK	DRC		
DATE	CHECKED DATE	POCONO & HAMILTON TOWNSHIPS	
5-28-13	7-03-2013	JOINT MUNICIPAL SEWERAGE SYSTEM	
SCALE	PROJECT NO.		
NTS	10130.0520054	MONROE COUNTY, PA	

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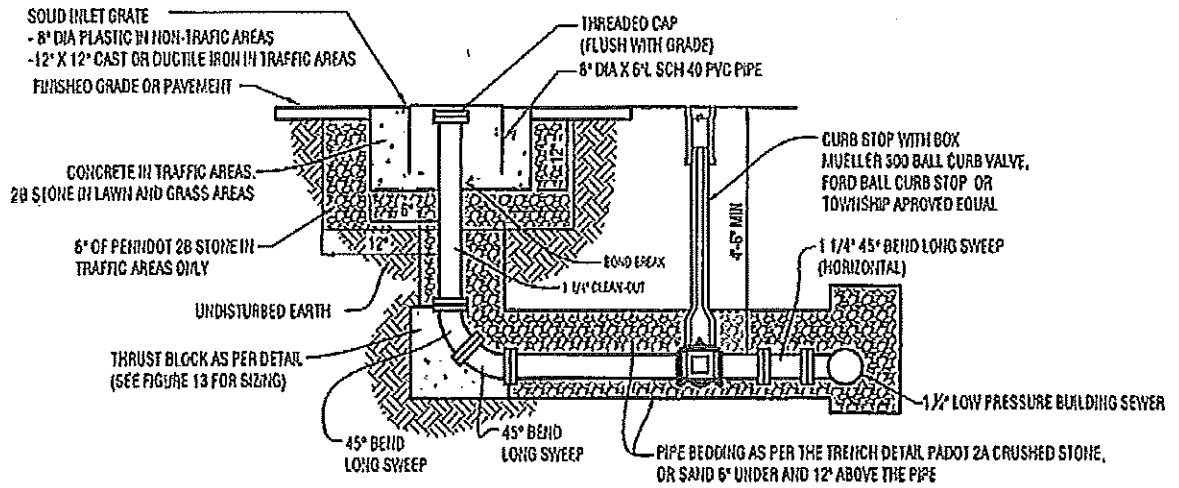
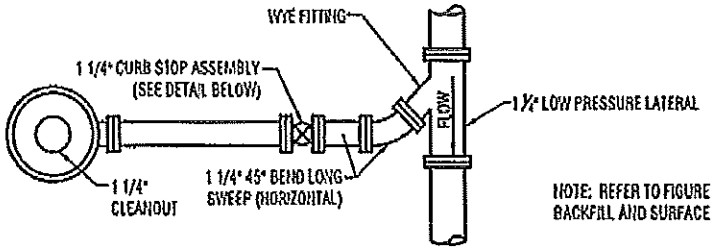


PRESSURE BUILDING SEWER CLEANOUT - PROFILE

NTS

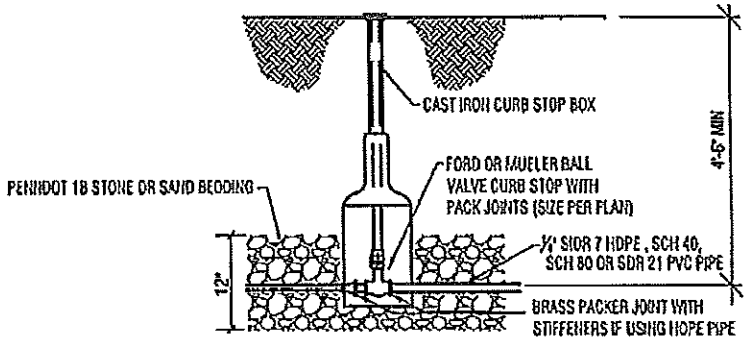
NOTE
ANY LIQUID REMAINING IN THE RISER SECTION AFTER FLUSHING SHALL BE SUCTIONED OUT TO PREVENT FREEZING.



NOTE: REFER TO FIGURE 3 FOR TRENCH BEDDING, BACKFILL AND SURFACE RESTORATION DETAILS.

PRESSURE LATERAL CLEANOUT - PLAN VIEW

NTS



NOTE:
CLEANOUT REQUIRED AT CHANGE IN DIRECTION AND/OR IF THE DISTANCE FROM THE PUMP UNIT TO THE CONNECTION TO THE SERVICE LATERAL IS GREATER THAN 200 FEET.

CURB STOP & BOX INSTALLATION FOR PRESSURE SEWER BUILDING SEWERS

NTS

FIGURE 5

PROJECT MANAGER	DESIGNED BY	LOW PRESSURE BUILDING SEWER CLEANOUT DETAIL	AUTHORIZED USE
RDS	ORC		
DRAWN BY	CHECKED BY	POCONO & HAMILTON TOWNSHIPS	
MCS/MJK	DRC	JOINT MUNICIPAL SEWERAGE SYSTEM	
DATE	CHECKED DATE		
5-28-13	7-03-2013	MONROE COUNTY, PA	
SCALE	PROJECT NO.		
NTS	10130.0520054		

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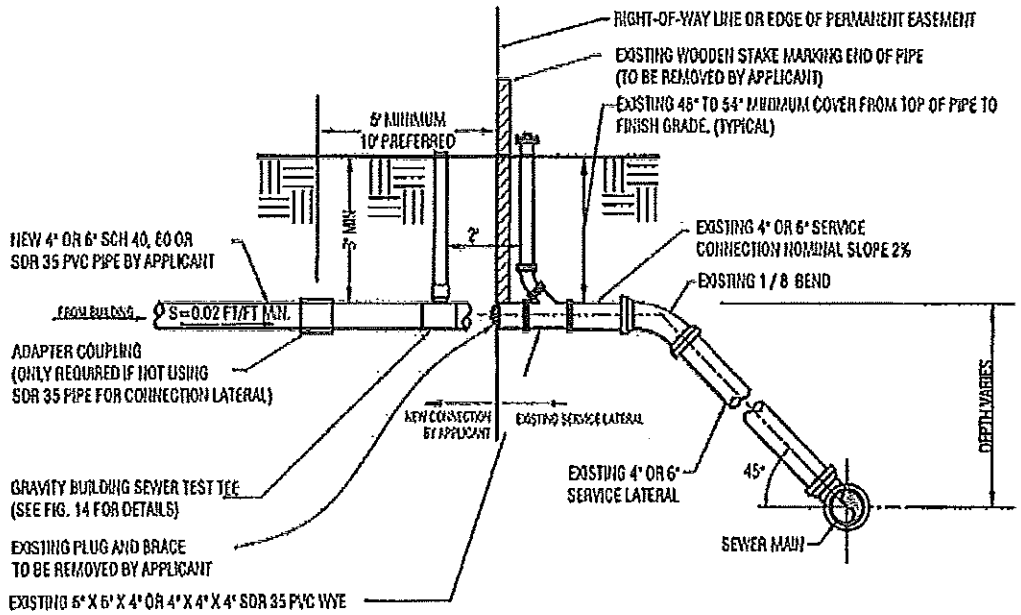

NOTE: REFER TO FIGURE 3 FOR TRENCH BEDDING, BACKFILL AND SURFACE RESTORATION FOR INSTALLATION OF THE BUILDING SEWER.

ELEVATION

CONNECTION TO SERVICE LATERAL WITH EXISTING CLEAN-OUT WYE

NTS

NOTES:
EXISTING GRAVITY SERVICE LATERAL IS TERMINATED AT THE EDGE OF THE RIGHT OF WAY IN ONE OF THREE WAYS:

1. PLUG IN BELL END OF PIPE.
2. CAP ON SPIGOT END OF PIPE.
3. PLUG IN UPSTREAM SIDE OF CLEANOUT WYE (ONLY IN TANNERSVILLE BETWEEN RTE 715 & CHERRY LANE ROAD).
4. WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL. THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE CONNECTION LATERAL WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.

FIGURE 6 a

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520051

GRAVITY BUILDING SEWER DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE:

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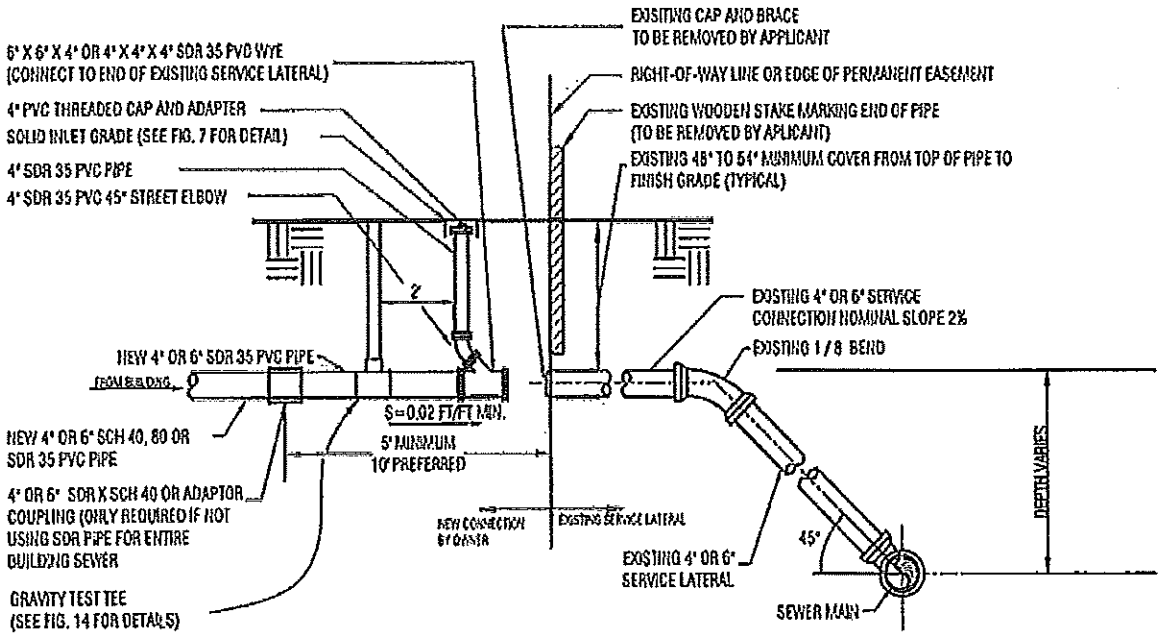

NOTE: REFER TO FIGURE 3 FOR TRENCH BEDDING, BACKFILL AND SURFACE RESTORATION FOR INSTALLATION OF THE BUILDING SEWER.

ELEVATION

CONNECTION TO SERVICE LATERAL WITH SPIGOT END

NTS

NOTES:
EXISTING GRAVITY SERVICE LATERAL IS TERMINATED AT THE EDGE OF THE
RIGHT OF WAY IN ONE OF THREE WAYS:
1. PLUG IN BELL END OF PIPE.
2. CAP ON SPIGOT END OF PIPE.
3. PLUG IN UPSTREAM SIDE OF CLEANOUT WYE
(ONLY IN TANNERSVILLE BETWEEN RTE 715 & CHERRY LANE ROAD).
4. WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL.
THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE BUILDING SEWER WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.

FIGURE 6 b

PROJECT MANAGER	DESIGNED BY	GRAVITY BUILDING SEWER DETAILS	AUTHORIZED USE:
RDS	DRC		
DRAWN BY	CHECKED BY	POCONO & HAMILTON TOWNSHIPS	
MCS/MJK	DRC	JOINT MUNICIPAL SEWERAGE SYSTEM	
DATE	CHECKED DATE		
5-28-13	7-03-2013		
SCALE	PROJECT NO.	MONROE COUNTY, PA	
NTS	10130.0520054		

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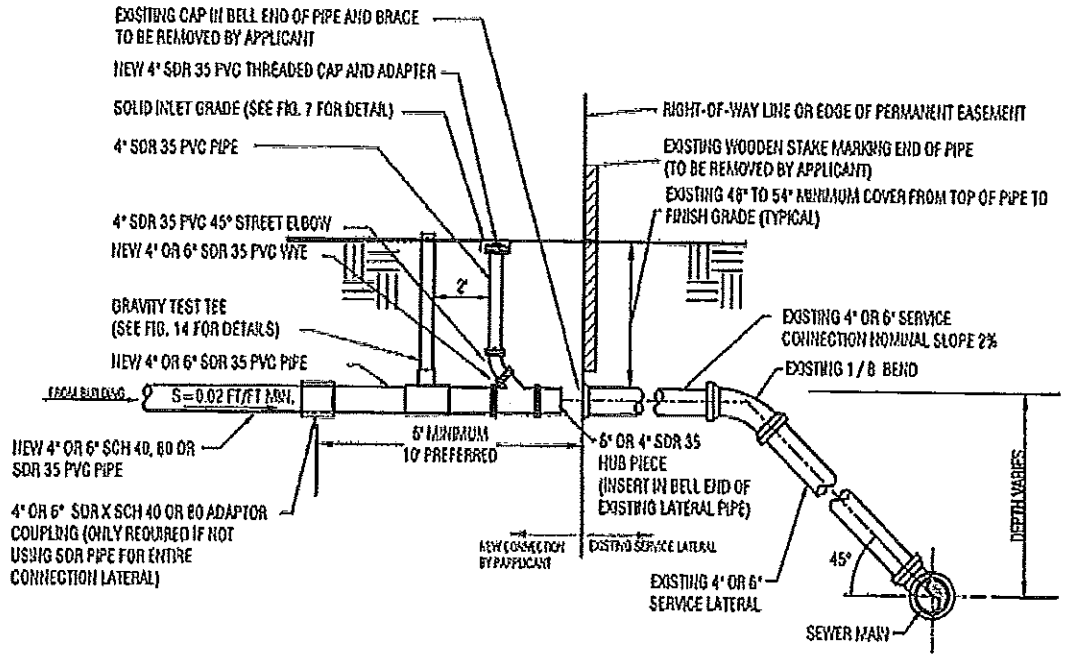

NOTE: REFER TO FIGURE 3 FOR TRENCH BEDDING, BACKFILL AND SURFACE RESTORATION FOR INSTALLATION OF THE BUILDING SEWER.

ELEVATION

CONNECTION TO SERVICE LATERAL WITH BELL END

NTS

NOTES:
EXISTING GRAVITY SERVICE LATERAL IS TERMINATED AT THE EDGE OF THE RIGHT OF WAY IN ONE OF THREE WAYS;
1. PLUG IN BELL END OF PIPE,
2. CAP ON SPIGOT END OF PIPE,
3. PLUG IN UPSTREAM SIDE OF CLEANOUT WYE (ONLY IN TANNERSVILLE BETWEEN RTE 715 & CHERRY LANE ROAD).
4. WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL. THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE CONNECTION LATERAL WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.

FIGURE 6 c

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520054

GRAVITY BUILDING SEWER DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE:

R.K.RHESS
A DIVISION OF UTRS
Civil Engineers • Environmental Engineers • Surveyors
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Telephone (570) 421-1550, Fax (570) 421-6720
Website: www.rkrhess.com Email: engr@rkrhess.com

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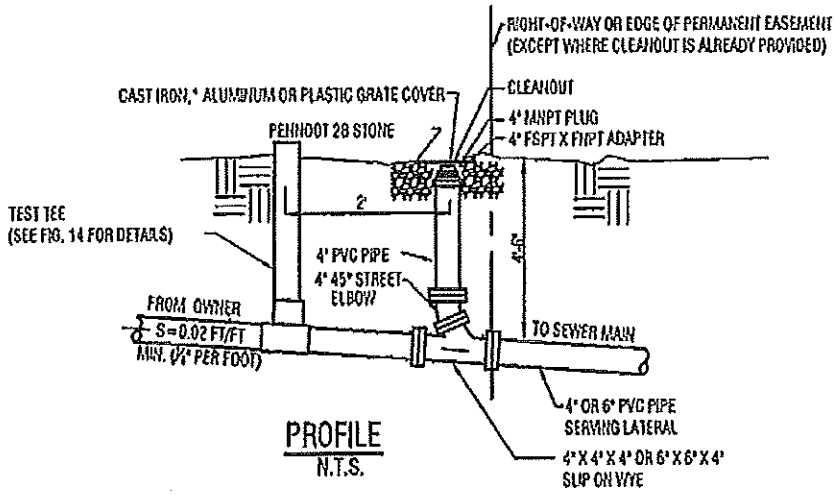
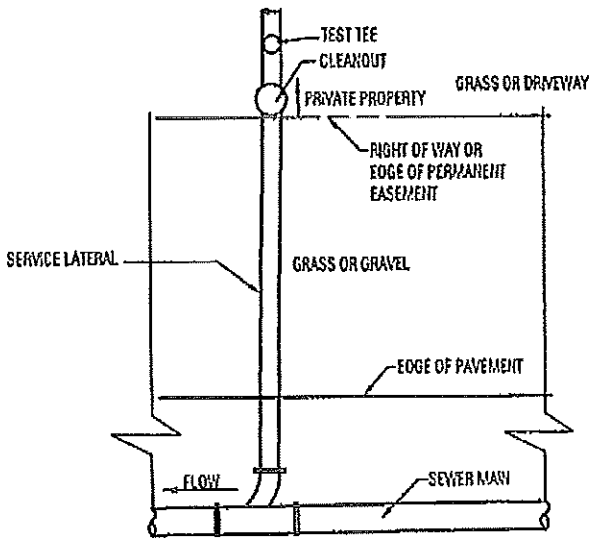
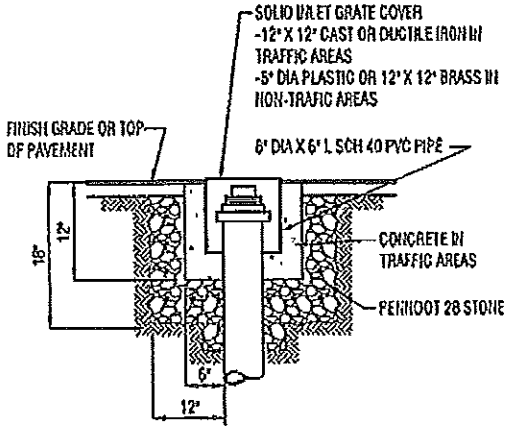


PROFILE
N.T.S.



GRAVITY LATERAL CLEANOUT DETAIL
N.T.S.



SOLID INLET GRATE DETAIL
N.T.S.

NOTES:

1. ALL LATERALS FROM BUILDING SEWER TO END PLUG AT R.O.W. OR EDGE OF PERMANENT EASEMENT SHALL BE SCH 40, 80 OR SDR 35 PVC PIPE AND FITTINGS OF THE SAME MATERIAL.
2. THE STANDARD SERVICE LATERAL CLEANOUT DETAIL MAY NOT DEPICT THE ACTUAL SITE CONDITIONS. IT IS THE PROPERTY OWNERS RESPONSIBILITY TO VERIFY THE ACTUAL SITE CONDITION AND TO ENSURE THAT THE FINAL PRODUCT MEETS THE REQUIREMENTS OF THE PROCEDURES MANUAL.
3. ONE CLEANOUT SHALL BE REQUIRED WITHIN 5 FT OF THE BUILDING (TEST TEE / CLEANOUT) & ONE AT THE PROPERTY LINE/ EDGE OF EASEMENT/ RIGHT-OF-WAY AND EVERY 50 FT FOR 4" Ø LATERAL OR EVERY 100 FT FOR 6" Ø LATERAL.
4. USE CAST IRON HAND BOX IN TRAFFIC AREAS.*
5. WOOD STAKES MARKING THE ENDS OF SERVICE LATERALS WERE PLACED AS CLOSE TO THE EDGE OF THE EASEMENT / RIGHT OF WAY AS PRACTICAL. THE APPLICANT IS RESPONSIBLE FOR DETERMINING THAT ALL WORK REQUIRED TO INSTALL THE CONNECTION LATERAL WILL BE WITHIN THEIR PROPERTY AND THAT NO ROADWAY ENCROACHMENT PERMIT IS NEEDED.

FIGURE 7

PROJECT MANAGER	DESIGNED BY	GRAVITY SEWER CLEANOUT DETAIL	AUTHORIZED USE
RDS	DRC		
DRAWN BY	CHECKED BY		
MCS/MJK	DRC		
DATE	CHECKED DATE	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
5-28-13	7-03-2013		
SCALE	PROJECT NO.		
NTS	10130.0520051	MONROE COUNTY, PA	

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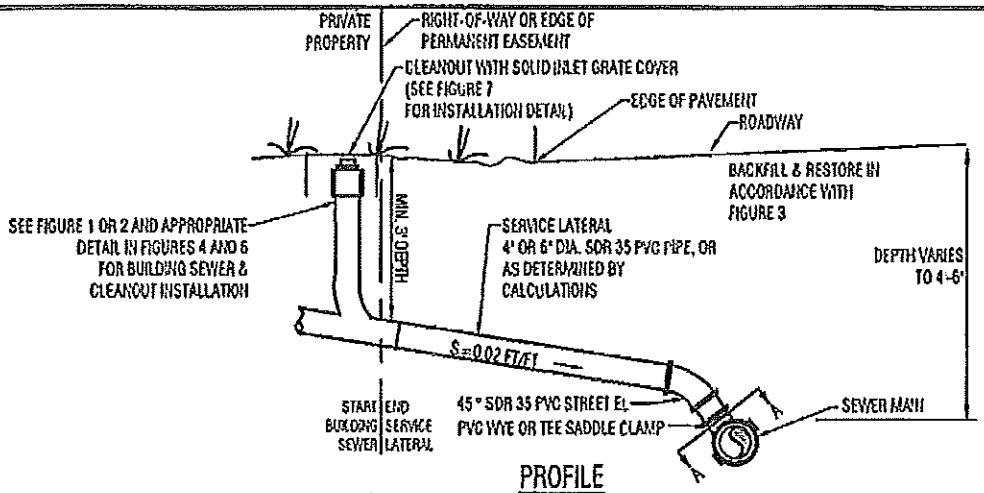

GRAVITY SERVICE LATERAL CONNECTION TO 8 TO 12 INCH GRAVITY SEWER MAIN

TABLE OF SEWER MAIN PIPE DIAMETERS (Continued on Figure 8 b)

SECTION	BEGINNING & END OF SECTION	Pipe Dia. (in)
Swiftwater - North of Lower Swiftwater Rd		
Rte 611S Corridor	Paradise Twp Line to manhole upstream of pump station	15
Rte 611N Spur #1	Route 611N, Manholes north of Marion Drive	8
Rte 611N Spur #2	Route 611N, Manholes north Gas/convenience Store	8
Rte 314S Spur	Church to manhole at Rte 611N	12
Swiftwater - South of Discovery Drive to Northern End of Wiscasset Rd.		
Rte 611N Corridor	Discovery Drive to northern end Lower Wiscasselte Road	18
MCTA Drive Spur	MCTA Drive	8
Scotrun - Northern End of Wiscasset Rd. to northern end of The Crossings North Parking Lot		
Rte 611 Corridor	Northern end Lower Wiscasset Rd to MH @ tributary of Scotrun south of post office	18
Scotrun Ave Spur	Northern end Scotrun Ave at Rte 611 to Pocono Psychiatric	8
Rte 611N Spur # 3	DeHavens excavating to Shine Hill Road	8
Rte 611N Spur # 3	Shine Hill Rd to Lower Scotrun Ave	12
Rte 611 Corridor	MH @ tributray of Scotrun south of post officeto The Crossings North parking lot	24
Rte 611N Spur # 4	Candy Shoppe to Scotrun Plaza	8

FIGURE 8 a

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520054

NEW SERVICE LATERAL CONNECTION DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

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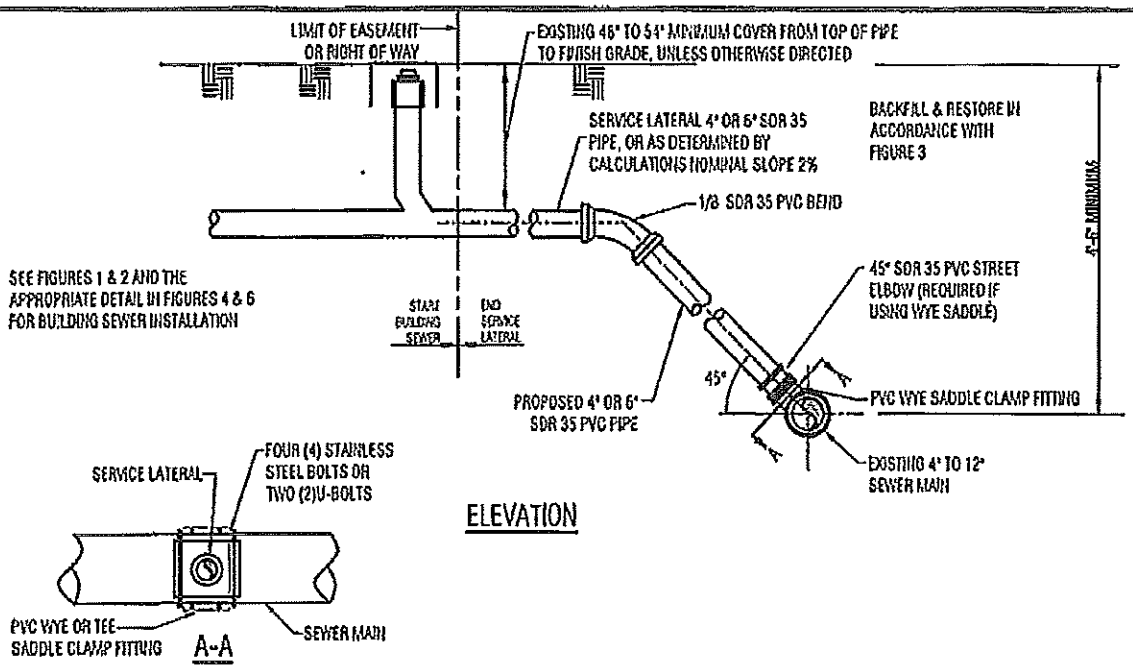

GRAVITY SERVICE LATERAL CONNECTION TO 8 TO 12 INCH DEEP GRAVITY MAIN

(ALL PIPE FITTINGS TO BE SDR 35 PVC)

NTS

TABLE OF SEWER MAIN PIPE DIAMETERS (Continued From Figure 8 a)

Tannersville - South of the northern end of The Crossings North Parking Lot to Learn Rd at Rd		PIPE DIA
Route 611 Corridor	North end of The Crossings Parking to Cherry Lane Rd	24
Rail Road Ave Spur	Route 715S 5 feet back from intersection	8
Route 715S	Railroad Ave to Convenience/gas Store	8
Route 715S	Convenience/gas Store to Sullivan's Trail	12
Sullivan's Trail Spur	United Curch of Christ to Rte 715 S	8
Rte 611N Spur # 5	From 2793 Rte 611N to Howells Lane	8
Weis Plaza Spur	Manhole at ESSA bank across Werkheiser Garden Center	6
Old Mill Rd Spur	Rear of CVS to Alger Ave	12
Learn Road Spur	Rear of 2803 Rte 611N to Cherry Lane Rd	12
Learn Road Subspur	Learn Rd spur @ Rte 611N @ Old Mill to Pigeon Way	8
Alger Ave Spur	End of Ally @ rear of Gabel's to unamed culvert crossing	8
Learn Rd Main	Cherry Lane Rd thru Pocono Farm Stand	24
DePue Spur	Between Depue Plaza & 1st Northern Bank	8
Learn Rd Southern Spur	Crest of hill to Southern end of Learn Rd	8
Bartonsville - Rte 611 at Learn Rd & Rd to Hamilton/Stroud Township Line		
Rte 611 Corridor	Southern end Learn Rd to northern end of Bartonsville Ave	24
Stadden Rd Spur	611S from Stadden Rd to Cranberry Creek Culvert	8
Pocono Lane Main	Northern end of Pocono Lane to Golden Slipper Road	8
Ridgeview Drive Main	Crest of hill on RidgeView Drive to Golden Slipper Road	8
West of Rte 611	Northern side of Golden Slipper Road to pump station along Pocono Creek	12
Bartonsville Ave Main	Southern end Bartonsville Ave, 300 Ft north of Rte 611N to Frantz Road	8
Rim Rock spur	Northern side of Rim Rock Road to along Rte 611S to Rte 611N	8
Frantz Road Main	Stroud/Hamilton Twp Line to Rte 611S @ Turtle Way	8
Turtle Way Main	Rte 611N @ Frantz Rd to pump station	12

FIGURE 8 b

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520054

NEW SERVICE LATERAL CONNECTION DETAIL

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE:

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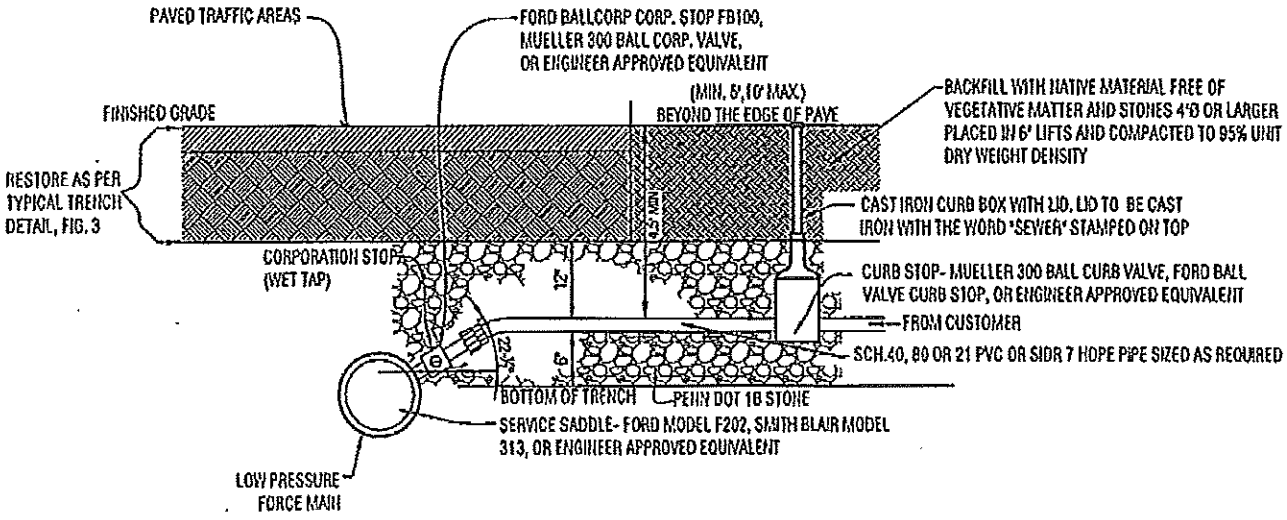

LOW PRESSURE SERVICE LATERAL CONNECTION TO LOW PRESSURE MAIN

NTS

NOTE:
1. ALL CONNECTIONS MADE TO A LOW PRESSURE MAIN REQUIRE THE USE OF GRINDER PUMPS.
2. CONNECTION TO ANY SEWER MAIN WILL REQUIRE A ROADWAY ENCROACHMENT PERMIT. IT IS THE APPLICANT'S RESPONSIBILITY TO SECURE SUCH PERMIT FROM POCONO OR HAMILTON TOWNSHIP OR PENNDOT.

FIGURE 8 c

PROJECT MANAGER	DESIGNED BY	NEW SERVICE LATERAL CONNECTION TO EXISTING MAINS	AUTHORIZED USE:
RDS	DRC		
DRAWN BY	CHECKED BY	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
MCS/MJK	DRC		
DATE	CHECKED DATE		
5-28-13	7-03-2013		
SCALE	PROJECT NO.		
NTS	10130.0520054	MONROE COUNTY, PA	

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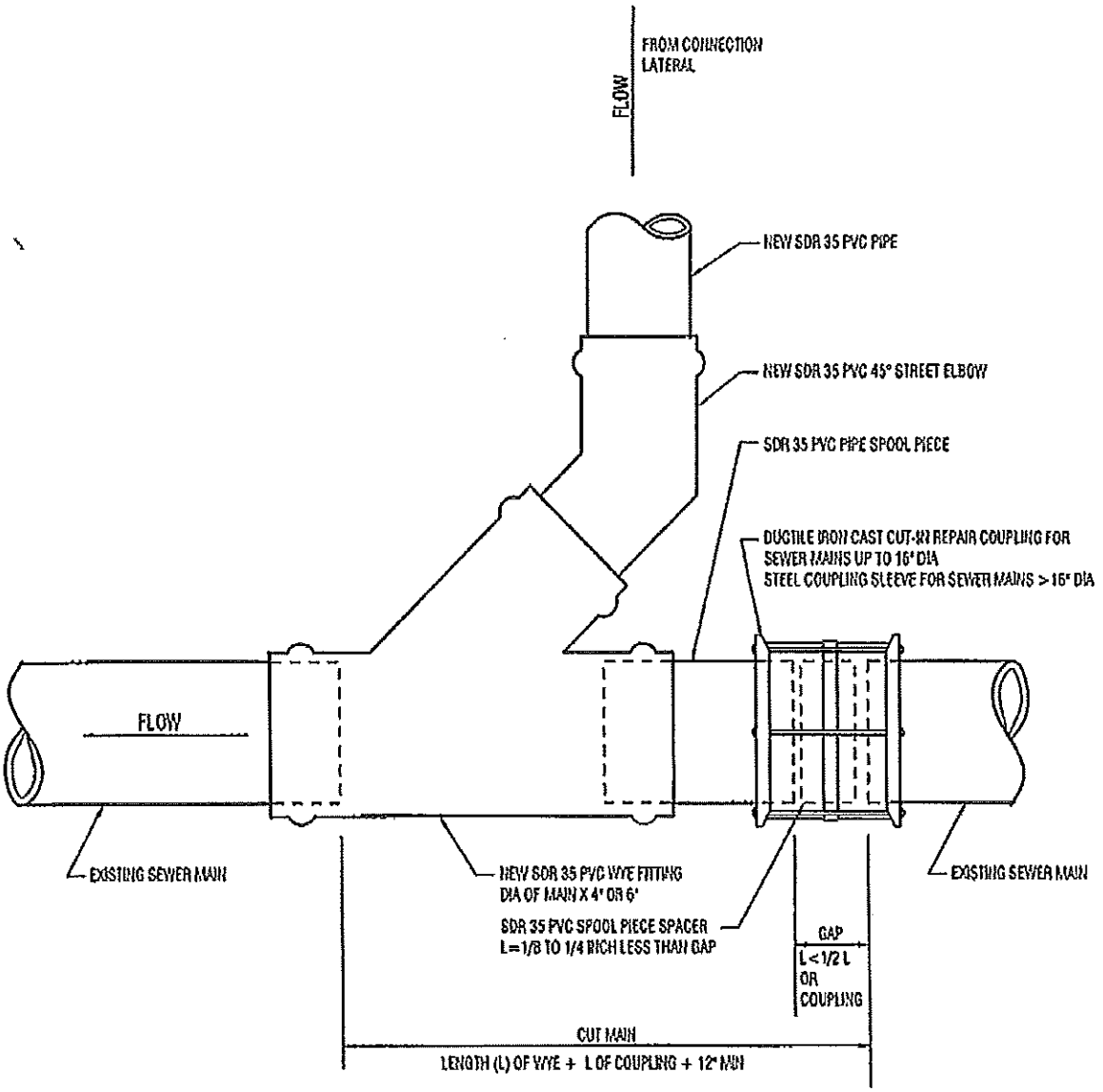

NOTE;
REFER TO FIGURES 8a OR 8b FOR ORIENTATION OF THE WYE & STREET ELBOW DEPENDING ON DEPTH OF THE SEWER MAIN.

GRAVITY LATERAL CONNECTION ON MAIN >12" IN DIA.

(ANY DEPTH) NTS

FIGURE 8 d

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MJK	DRC
DATE	CHECKED DATE
6-27-13	7-03-13
SCALE	PROJECT NO.
NTS	10130.0520054

NEW SERVICE LATERAL CONNECTION DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE

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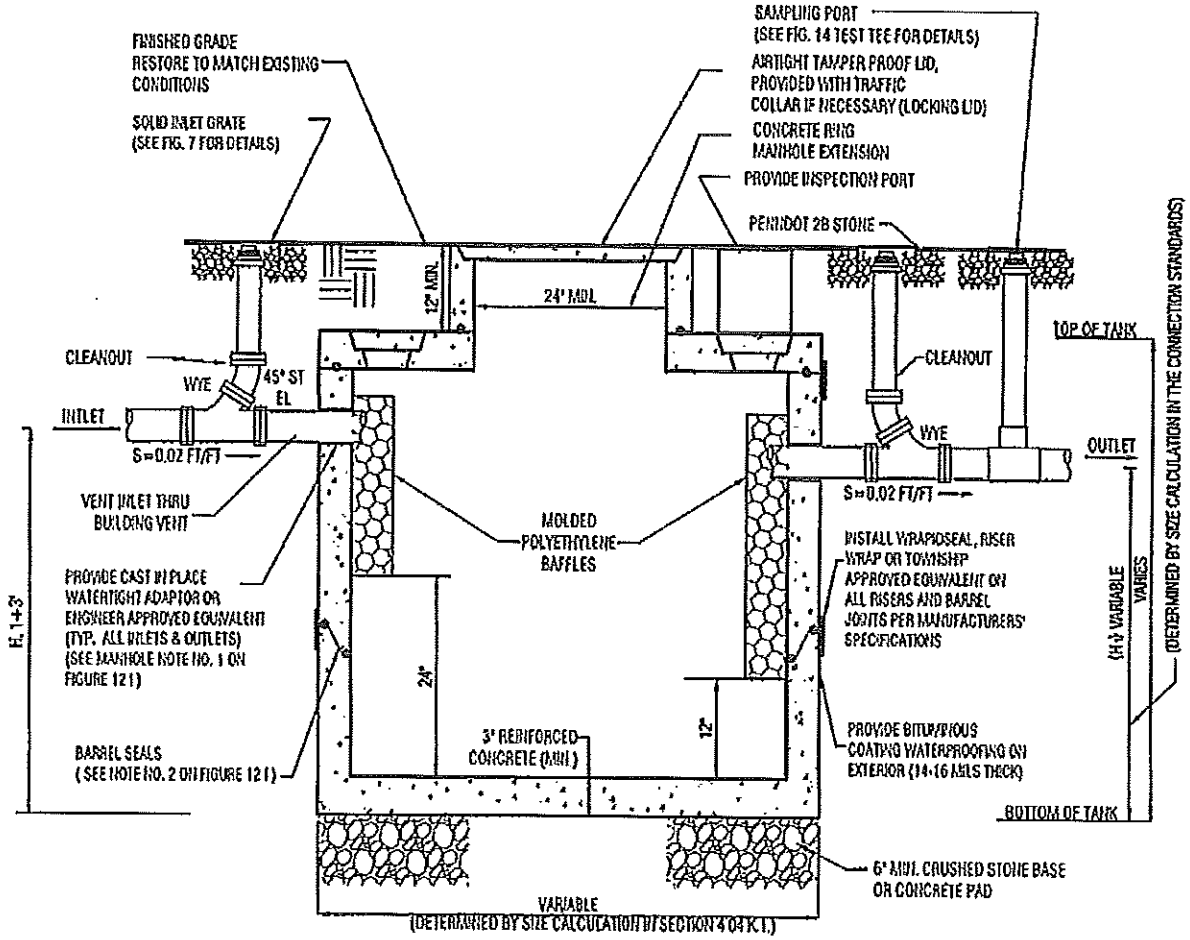

TYPICAL REINFORCED CONCRETE GREASE TRAP

N.T.S.

NOTE:
1. SPECIAL PRECAUTIONS MAY BE REQUIRED TO PREVENT FLOTATION ON SITES WITH GROUNDWATER DEPTHS THAT ARE ABOVE THE LEVEL OF THE BOTTOM OF THE TANK.

FIGURE 9

PROJECT MANAGER: RDS	DESIGNED BY: DRC	TYPICAL GREASE TRAP DETAIL	AUTHORIZED USE:
DRAWN BY: MCS/MJK	CHECKED BY: DRC	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
DATE: 5-28-13	CHECKED DATE: 7-03-2013		
SCALE: NTS	PROJECT NO.: 10130.0520054	MONROE COUNTY, PA	

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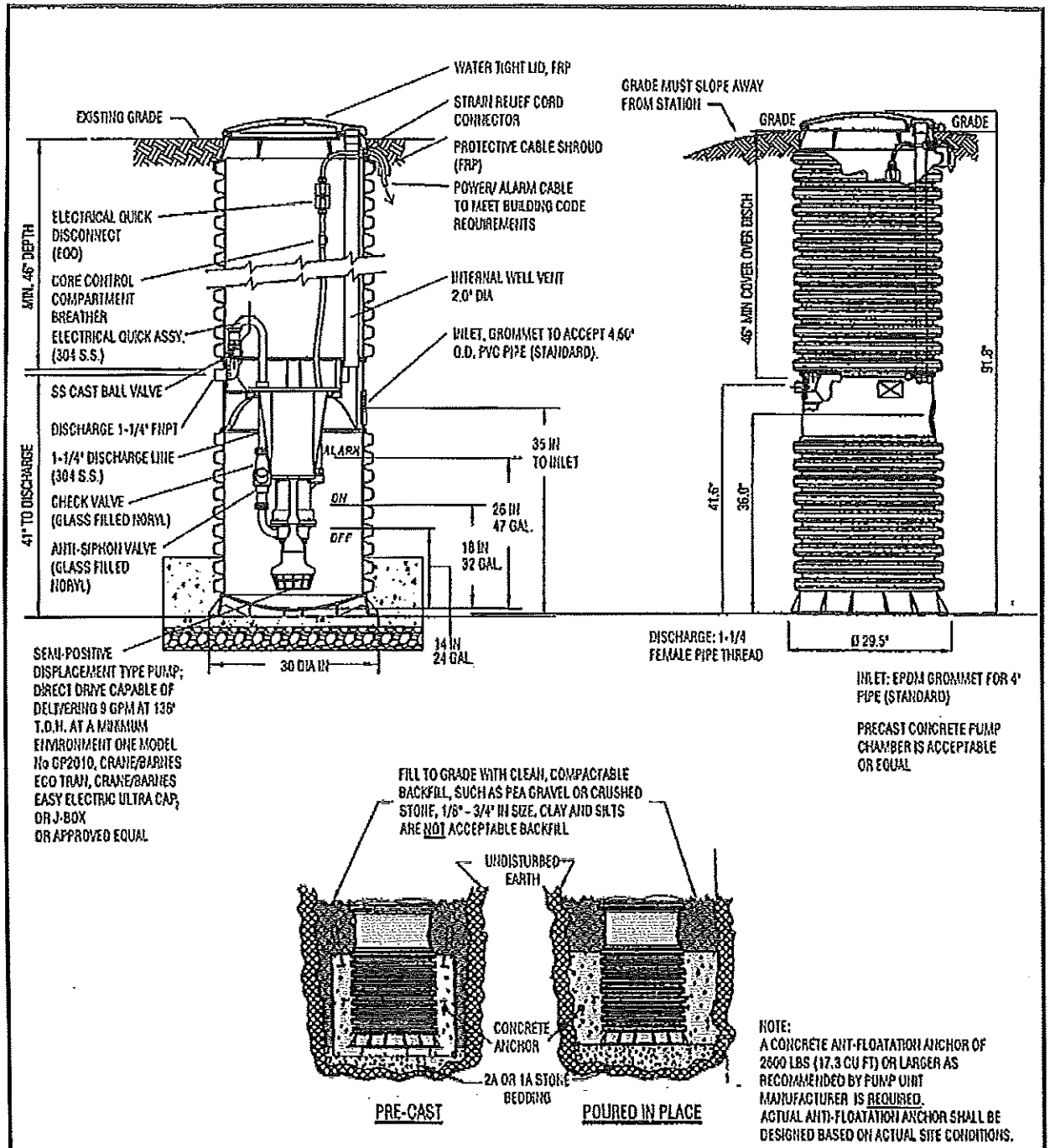

PROPOSED GRINDER PUMP STATION

NTS

FIGURE 10

PROJECT MANAGER	DESIGNED BY	SIMPLEX GRINDER PUMP UNIT	AUTHORIZED USE
RDS	DRC		
DRAWN BY	CHECKED BY		
MCS/MJK	DRC		
DATE	CHECKED DATE	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
5-28-13	7-03-2013		
SCALE	PROJECT NO.		
NTS	10130.052005-I	MONROE COUNTY, PA	

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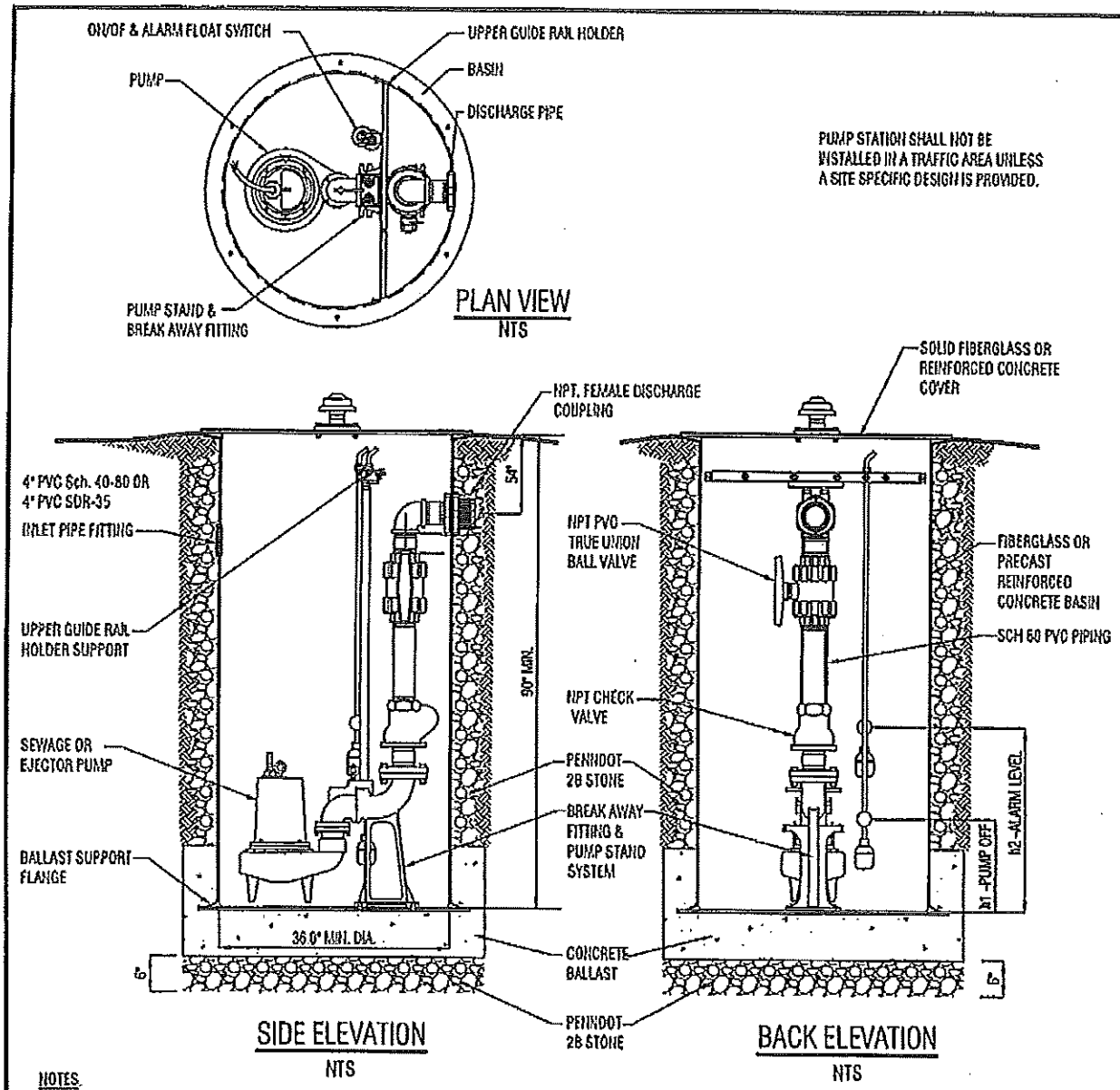

NOTES:

1. ALL DIMENSIONS TO BE ± 1/4" UNLESS OTHERWISE SPECIFIED.
2. INTERMEDIATE SUPPORT REQUIRED FOR DEPTHS 13 FT. AND DEEPER.
3. CONSULT BASIN MANUFACTURER FOR VOLUME OF CONCRETE FOR BALLAST, DESIGN BASED ON SITE CONDITIONS.
4. LEVEL CONTROLS MUST BE INSTALLED OUT OF THE INFLUENT FLOW TO AVOID TURBULENCE.
5. ELECTRICAL CONDUIT & FITTINGS TO BE INSTALLED ACCORDING TO BUILDING CODE REQUIREMENTS.
6. PROVIDE NEMA 4X WEATHER TIGHT THERMOPLASTIC ENCLOSURE IF CONTROLS AND/OR ALARMS ARE INSTALLED OUTDOORS.
7. PIPE DIAMETER TO BE DETERMINED BY APPLICANT'S SYSTEM DESIGNER.
8. PUMP HORSE POWER & OUTLET DIAMETER TO BE DETERMINED BY APPLICANT'S SYSTEM DESIGNER.
9. BASIN WALL & BOTTOM THICKNESS TO BE DETERMINED BY THE APPLICANT'S SYSTEM DESIGNER IF BASIN IS TO BE MADE OF PRECAST REINFORCED CONCRETE.
10. REFER TO STANDARD MANHOLE DETAIL FIGURE 12e FOR SEALS ON PIPE PENETRATIONS & BARREL JOINTS IF BASIN IS TO BE MADE OF PRECAST REINFORCED CONCRETE.
11. h1 & h2 TO BE DETERMINED BY APPLICANT'S SYSTEM DESIGNER.

FIGURE 11

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MJK	DRC
DATE	CHECKED DATE
7-02-13	7-03-13
SCALE	PROJECT NO.
NTS	10130.052005.4

SEWAGE PUMP DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

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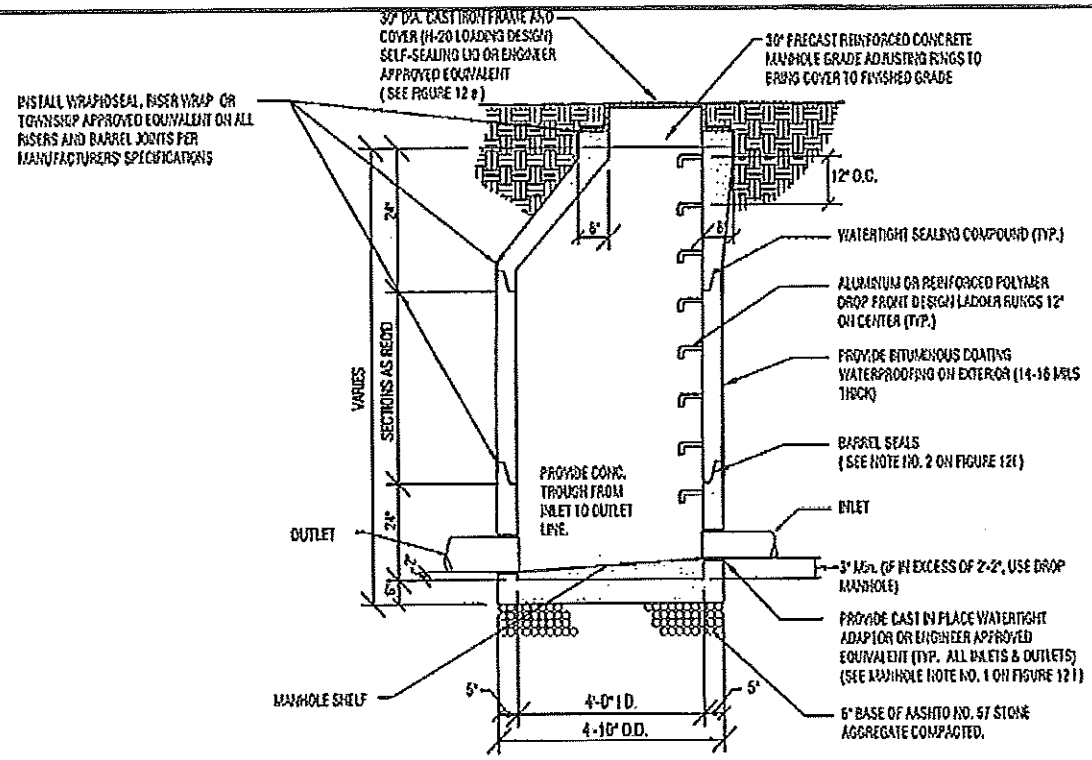
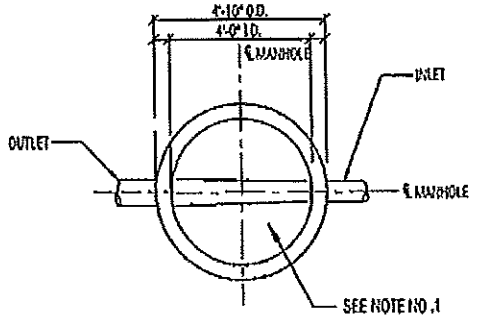


STANDARD 4' DIA. MANHOLE PROFILE

N.T.S.

NOTE:

1. STANDARD MANHOLE DEFINED AS MANHOLES WITH DEPTH LESS THAN 15 FEET, MEASURED FROM MANHOLE SHELF TO BOTTOM OF MANHOLE LID FRAME.
2. REFER TO NOTES ON FIGURE 12 f.



TYPICAL 4' DIA. STANDARD MANHOLE BASE SHAPED CHANNEL DETAIL

N.T.S.

FIGURE 12 a

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130 0520054

MANHOLE DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

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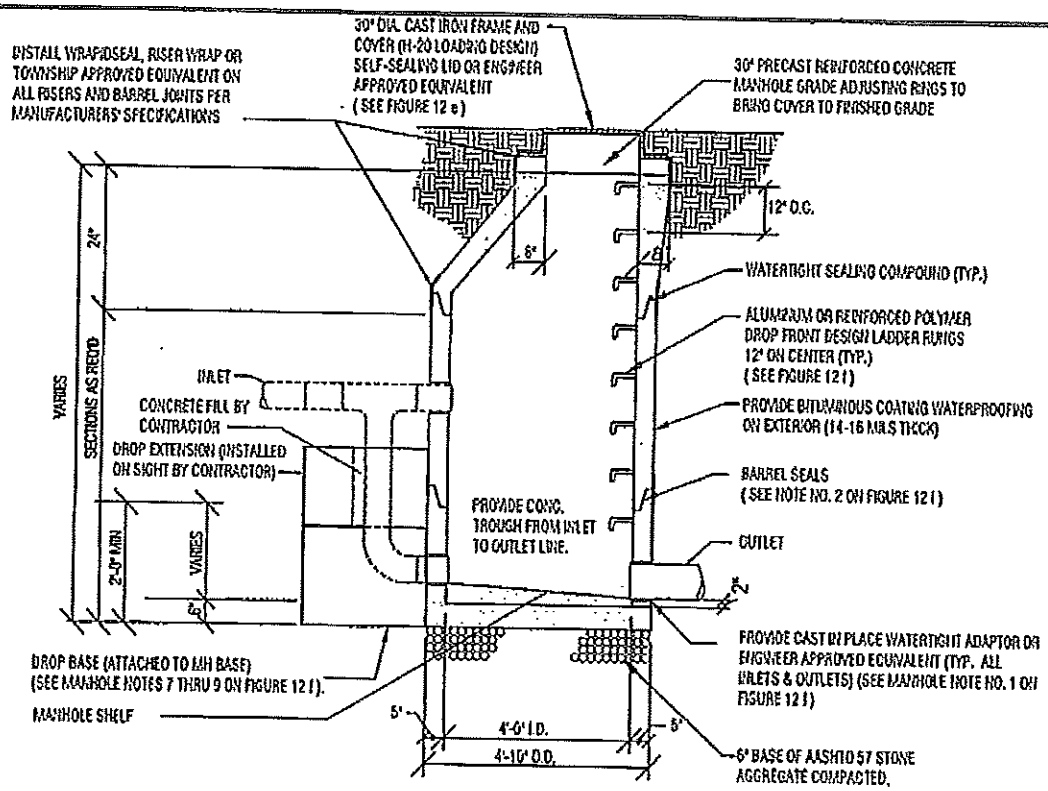
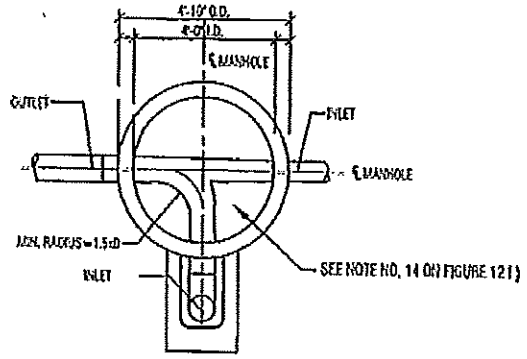


STANDARD 4' DIA. DROP MANHOLE PROFILE

N.T.S.

NOTE:

1. STANDARD MANHOLE DEFINED AS MANHOLES WITH DEPTH LESS THAN 15 FEET, MEASURED FROM MANHOLE SHELF TO BOTTOM OF MANHOLE LID FRAME.
2. REFER TO NOTES ON FUGURE 12 f.



TYPICAL DROP MANHOLE BASE SHAPED CHANNEL DETAIL

N.T.S.

FIGURE 12 b

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520054

MANHOLE DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

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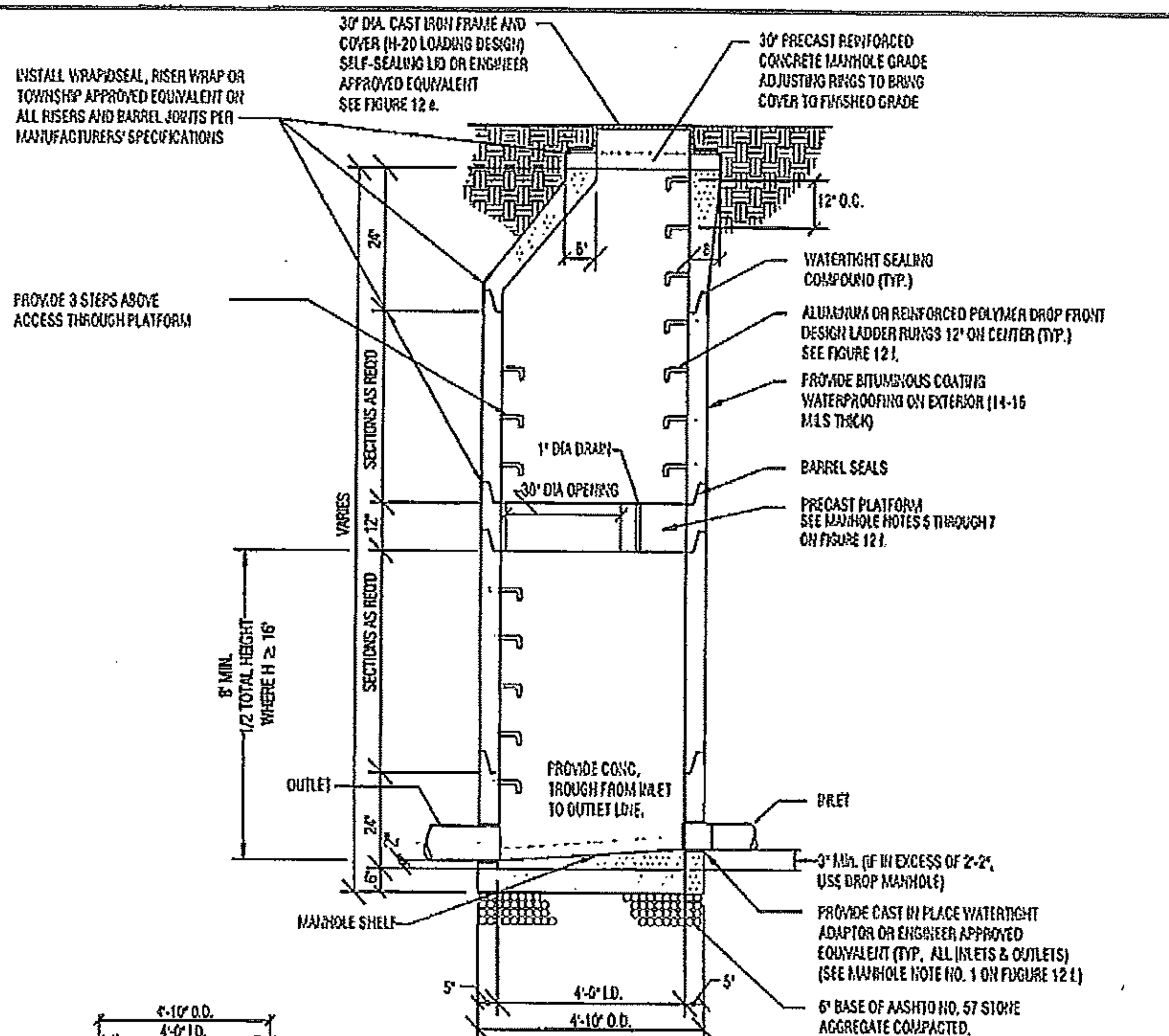
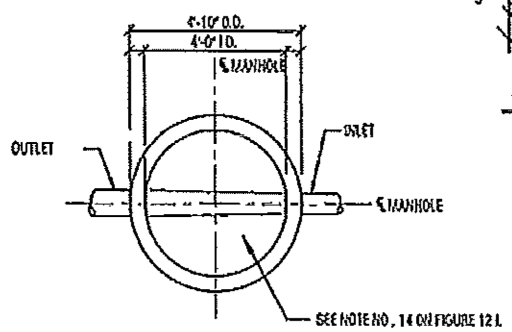


4' DIA. DEEP MANHOLE PROFILE

N.T.S.



NOTE:

1. STANDARD MANHOLE DEFINED AS MANHOLES WITH DEPTH LESS THAN 16 FEET, MEASURED FROM MANHOLE SHELF TO BOTTOM OF MANHOLE LID FRAME.
2. REFER TO NOTES ON FUGURE 12 I.

TYPICAL STANDARD MANHOLE BASE SHAPED CHANNEL DETAIL

N.T.S.

FIGURE 12 c

PROJECT MANAGER	DESIGNED BY	MANHOLE DETAILS	AUTHORIZED USE:	R·K·R HESS
RDS	DRC	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM		A DIVISION OF UTRS
DRAWN BY: MCS/MJK	CHECKED BY: DRC			Civil Engineers • Environmental Engineers • Surveyors
DATE: 6-28-13	CHECKED DATE: 7-03-2013			112 North Courtland Street, P.O. Box 268, East Stroudsburg, Pa. 18301 Telephone (570) 421-1550, Fax (570) 421-6720
SCALE: NTS	PROJECT NO. 10130.0520054	MONROE COUNTY, PA		Website: www.rkrhess.com Email: engr@rkrhess.com ©2013 All rights reserved

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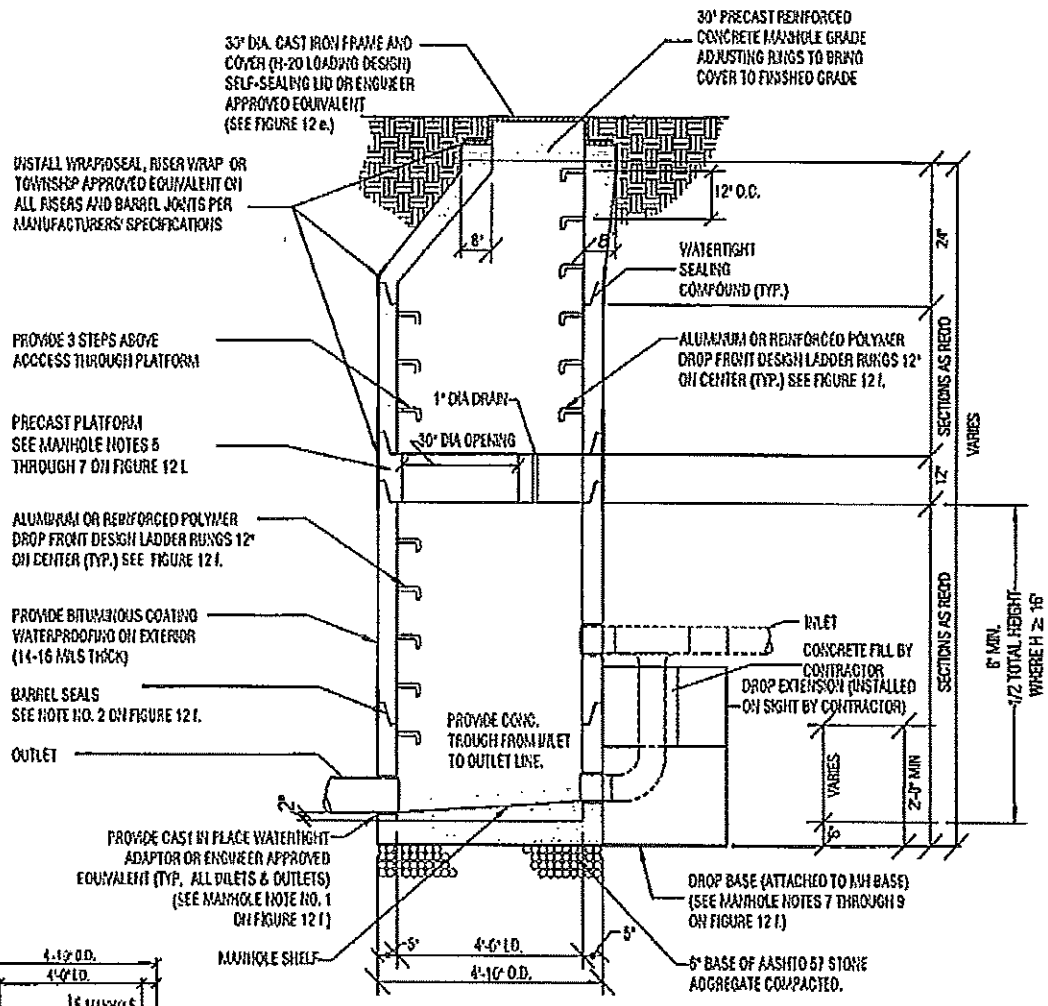
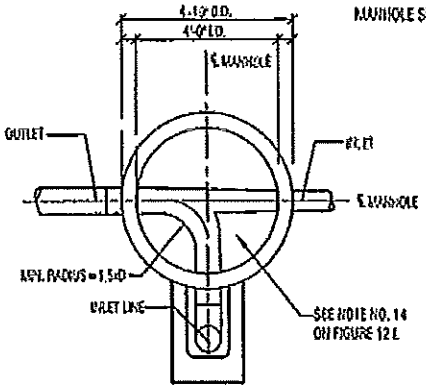


4' DIA. DEEP DROP MANHOLE PROFILE

N.T.S.

NOTE:
1. STANDARD MANHOLE DEFINED AS MANHOLES WITH DEPTH LESS THAN 15 FEET, MEASURED FROM MANHOLE SHELF TO BOTTOM OF MANHOLE LID FRAME.
2. REFER TO NOTES ON FUGURE 12 f.



TYPICAL DROP MANHOLE BASE SHAPED CHANNEL DETAIL

N.T.S.

FIGURE 12 d

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520054

MANHOLE DETAILS

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE

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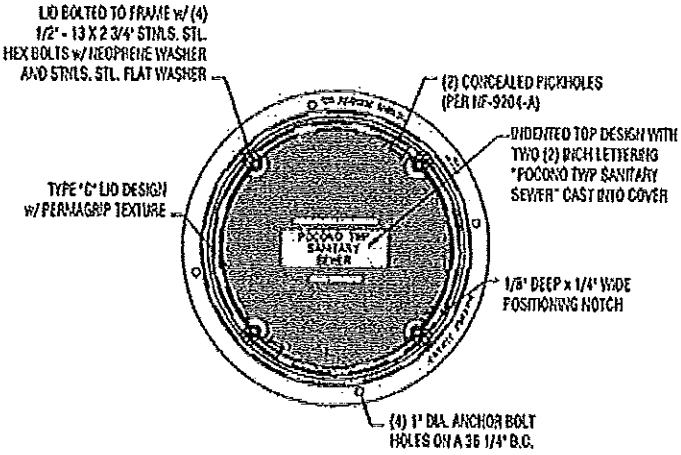
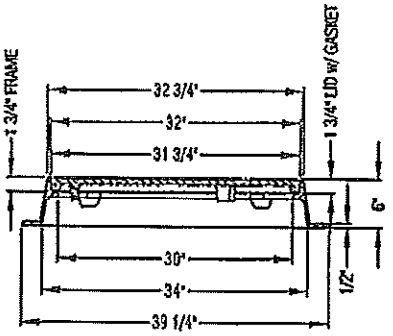
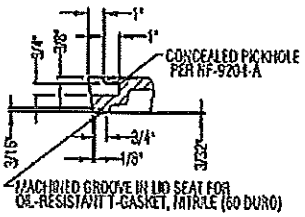


WATERTIGHT MANHOLE FRAME AND COVER DETAIL

NTS

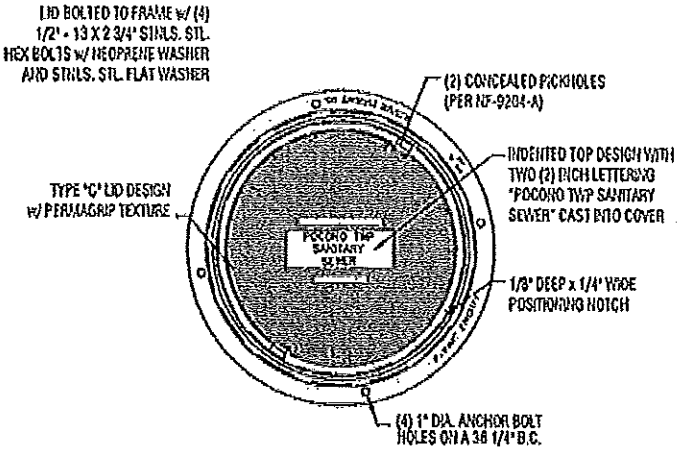


NOTE: A WATER TIGHT MANHOLE FRAME AND COVER MODEL R-1916-H1 (AS SHOWN), AS MANUFACTURED BY NEENAH FOUNDRY COMPANY, MODEL 1012A BOLTED AND GASKETED, AS MANUFACTURED BY BRIDGESTATE FOUNDRY CORPORATION OR TOWNSHIP APPROVED EQUIVALENT, WILL BE USED IN AREAS WHERE THE MANHOLE WILL BE LOCATED WITHIN THE FLOODPLAIN OR POORLY DRAINED SOIL AS DIRECTED BY POCONO TOWNSHIP.



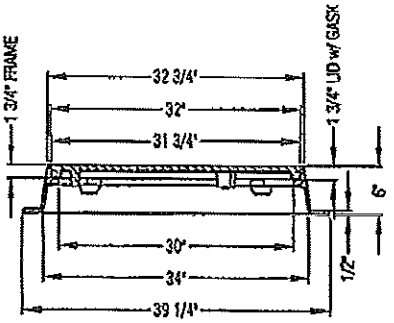
T-SEAL / CONCEALED PICKHOLE DETAIL

NTS



STANDARD MANHOLE FRAME AND COVER DETAIL

NTS



NOTE: A STANDARD SELF SEALING MANHOLE FRAME AND COVER MODEL R-1743 (AS SHOWN), AS MANUFACTURED BY NEENAH FOUNDRY COMPANY, MODEL 1012A, AS MANUFACTURED BY BRIDGESTATE FOUNDRY CORPORATION, OR TOWNSHIP APPROVED EQUIVALENT, WILL BE USED IN AREAS WHERE THE MANHOLE WILL BE LOCATED OUTSIDE THE FLOODPLAIN.

FIGURE 12 e

PROJECT MANAGER: RDS	DESIGNED BY: ORC	MANHOLE DETAILS	AUTHORIZED USE:
DRAWN BY: MCS/MJK	CHECKED BY: ORC	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
DATE: 5-28-13	CHECKED DATE: 7-03-2013		
SCALE: NTS	PROJECT NO.: 10130.0520054	MONROE COUNTY, PA	

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MANHOLE NOTES:

1. CONNECTION BY SEWER PIPING TO PRECAST CONCRETE MANHOLE PASSES SHALL BE MADE USING A CAST IN PLACE RUBBER GASKET TYPE SEAL SIMILAR TO OR EQUAL TO DURA-SEAL III AS MANUFACTURED BY BLACKHORN, INC. OR Z-LOC MANUFACTURED BY A-LOC PRODUCTS, INC. OR POCONO TOWNSHIP APPROVED EQUIVALENT. CAST IN PLACE CONNECTOR MUST BE USED, EXCEPT WHEN CONNECTING TO EXISTING MANHOLES.

2. MANHOLE SECTIONS SHALL BE JOINED USING A PREFORMED PLASTIC SEALING COMPOUND. THE SEALING COMPOUND SHALL BE SUPPLIED IN EXTRUDED ROPE FORM OF SUITABLE CROSS SECTION. THE SIZE OF THE SEALING COMPOUND SHALL BE IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATION AND SUFFICIENT TO OBTAIN SQUEEZE-OUT OF THE MATERIAL AROUND THE ENTIRE INTERIOR AND EXTERIOR CIRCUMFERENCE WHEN THE JOINT IS COMPLETED. JOINT SURFACES SHALL BE PRIMED, SEALING COMPOUND APPLIED AND JOINT MADE IN STRICT CONFORMANCE WITH THE WRITTEN SPECIFICATIONS OF THE SEALING COMPOUND MANUFACTURER.

3. A STANDARD SELF SEALING MANHOLE FRAME AND COVER AS SHOWN AND SPECIFIED ON FIGURE 12 e OR TOWNSHIP APPROVED EQUIVALENT, WILL BE USED IN AREAS WHERE THE MANHOLE WILL BE LOCATED OUTSIDE THE FLOODPLAIN.

4. A WATER TIGHT MANHOLE FRAME AND COVER AS SHOWN AND SPECIFIED ON FIGURE 12 e OR TOWNSHIP APPROVED EQUIVALENT, WILL BE USED IN AREAS WHERE THE MANHOLE WILL BE LOCATED WITHIN THE FLOODPLAIN OR POORLY DRAINED SOIL AS DIRECTED BY THE ENGINEER.

5. IF OVERALL INSIDE DEPTH OF MANHOLE IS GREATER THAN 15 FEET, MANHOLE SHALL BE CLASSIFIED AS DEEP MANHOLE (MEASURED FOR THE MANHOLE SHELF TO THE BOTTOM OF THE MANHOLE LID FRAME) THEN FURNISH AND INSTALL PRECAST PLATFORM UNLESS DIRECTED OTHERWISE.

6. PRECAST PLATFORM SHALL BE INSTALLED WITH A MINIMUM OF 8 FEET HEADROOM MEASURED FROM THE TOP OF THE MANHOLE CHANNEL THE BOTTOM OF THE PRECAST PLATFORM OR AT THE APPROXIMATE MID POINT OF THE MANHOLE.

7. DO NOT USE A PRECAST PLATFORM IN DROP MANHOLES WHERE THE INVERT OF IN INFLUENT PIPE IS ABOVE THE TOP OF THE PLATFORM.

8. FOR DROP MANHOLES WITH SEWER PIPES 15 INCH DIAMETER OR LESS USE PRECAST OUTSIDE DROP MANHOLE BASE.

9. FOR DROP MANHOLES WITH SEWER PIPES LARGER THAN 15 INCH DIAMETER OUTSIDE DROP PIPING TO BE ENCASED IN CONCRETE ON SITE.

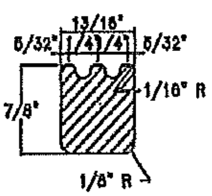
10. FURNISH A 5 FOOT DIAMETER MANHOLE IF ANY OF THE EFFLUENT AND/OR INFLUENT SEWER PIPES ARE 24 INCHES IN DIAMETER OR GREATER.

11. WHEN USING A 5 FOOT DIAMETER MANHOLE, PROVIDE A CONVERSION CONE TO BRING THE FINAL MANHOLE DIAMETER TO 4 FOOT.

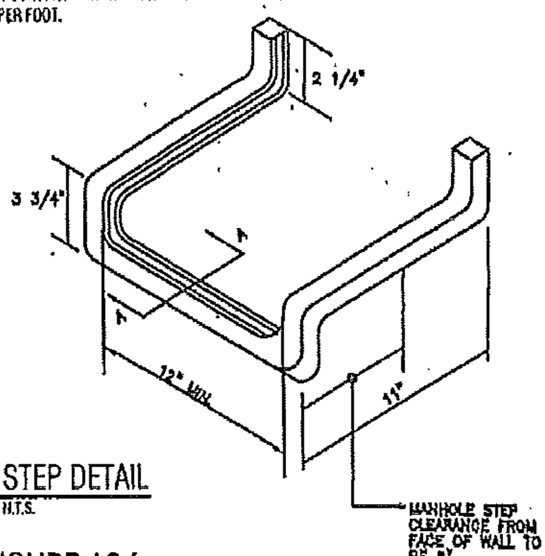
12. CONTRACTOR SHALL VERIFY ACTUAL GRADE ELEVATIONS AND ADJUST THE INSTALLATION OF MANHOLES ACCORDINGLY SO THAT MANHOLE FRAME AND COVER WILL BE FLUSH WITH THE ACTUAL GRADE ELEVATION.

13. FOR PROPOSED MANHOLES LOCATED ON PAVED ROADWAYS/SHOULDERS/DRIVEWAYS, APPROPRIATE SLOPED MANHOLE GRADE ADJUSTMENT RINGS SHALL BE PROVIDED TO MATCH SLOPE OF SUCH ROADWAYS/SHOULDERS/DRIVEWAYS SO THAT MANHOLE FRAME AND COVER WILL BE FLUSH WITH THE ACTUAL SLOPED GRADE ELEVATION.

14. MANHOLE BASE SHALL HAVE PRECAST CONCRETE CHANNEL. INVERTS SHALL BE FORMED DIRECTLY IN THE CONCRETE CHANNEL AND BE SMOOTH AND ACCURATELY SHAPED TO A SEMI-CIRCLE BOTTOM CONFORMING TO THE INSIDE OF THE ADJACENT SEWER SECTIONS. CHANGES IN THE SIZE AND GRADE SHALL BE MADE GRADUALLY. ALL SHELF AREAS SHALL SLOPE TO THE INVERT CHANNELS AT A RATE OF ONE HALF (1/2) INCH PER FOOT.



ENLARGED SECTION A-A
DROP FRONT MANHOLE
STEP DETAIL



MANHOLE STEP DETAIL
N.T.S.

FIGURE 12 f

PROJECT MANAGER	DESIGNED BY	MANHOLE DETAILS	AUTHORIZED USE:	R-K-R HESS
RDS	DRC			A DIVISION OF UTRS
DRAWN BY	CHECKED BY	POCONO & HAMILTON TOWNSHIPS		Civil Engineers • Environmental Engineers • Surveyors
MCS/MJK	DRC	JOINT MUNICIPAL SEWERAGE SYSTEM		112 North Courtland Street, P.O. Box 268, East Stroudsburg, Pa. 18301
DATE	CHECKED DATE			Telephone (570) 421-1550, Fax (570) 421-6720
5-28-13	7-03-2013			Website www.rkrhess.com Email: engr@rkrhess.com
SCALE	PROJECT NO.	MONROE COUNTY, PA		©2013 All rights reserved
NTS	10130.0520054			

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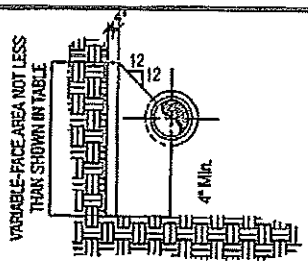
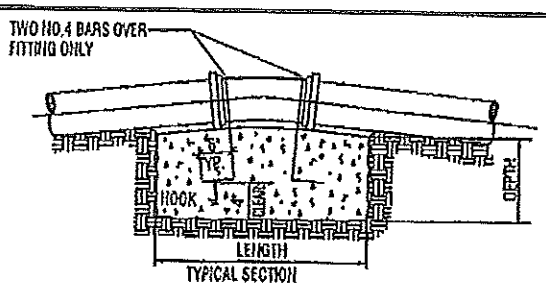
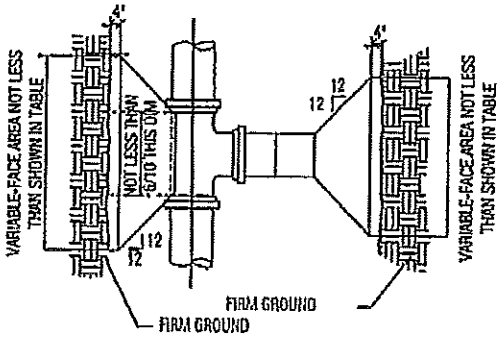


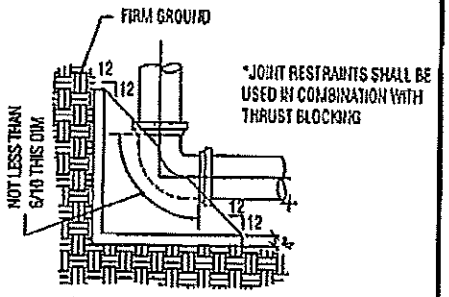
APPLICABLE TO TEES
WYES & BENDS
N.T.S.



BLOCKING FOR BENDS*
(VERTICAL) N.T.S.



BLOCKING FOR TEES & PLUGS
N.T.S.



BLOCKING FOR BENDS*
(HORIZONTAL) N.T.S.

ANCHORAGE SCHEDULE

PIPE SIZE	11-1/4° BEND		22-1/2° BEND		45° BEND		90° BEND		TEE	
	L	D	L	D	L	D	L	D	L	D
TO 6"	18"	12"	18"	12"	24"	12"	3'-6"	12"	2'-6"	12"
8"	18"	12"	24"	12"	3'-6"	12"	4'-0"	18"	3'-0"	12"
10"	18"	12"	3'-0"	12"	2'-6"	2'-0"	4'-0"	2'-6"	3'-6"	2'-0"
12"	2'-0"	12"	2'-6"	18"	4'-0"	2'-0"	4'-6"	3'-0"	3'-6"	3'-0"
14"	2'-6"	12"	3'-6"	18"	4'-0"	2'-6"	5'-6"	3'-6"	4'-6"	3'-0"
16"	2'-6"	18"	3'-6"	2'-0"	4'-6"	3'-0"	6'-0"	4'-0"	5'-0"	5'-0"

L = LENGTH; D = WIDTH

NOTES:

GENERAL

1. NO COUPLING OR JOINTS SHALL BE COVERED WITH CONCRETE.
2. PLASTIC SHEET TO BE PLACED BETWEEN CONCRETE BLOCK AND PORTION OF PIPE BEING ANCHORED

VERTICAL PIPES

1. VERTICAL THRUSTS UPWARD (UP TO 150 psi WORKING PRESSURE)
2. REINFORCING BAR STRAPS TO BE SHAPED TO PIPE CURVATURE
3. ALL EXPOSED STEEL TO BE PAINTED WITH TWO COATS ASPHALTIC PAINT

THRUST BLOCKING FOR PRESSURE CONNECTION LATERALS

FIGURE 13

PROJECT MANAGER	DESIGNED BY
RDS	DRC
DRAWN BY	CHECKED BY
MCS/MJK	DRC
DATE	CHECKED DATE
5-28-13	7-03-2013
SCALE	PROJECT NO.
NTS	10130.0520054

THRUST BLOCKING DETAILS & SCHEDULE

POCONO & HAMILTON TOWNSHIPS
JOINT MUNICIPAL SEWERAGE SYSTEM

MONROE COUNTY, PA

AUTHORIZED USE:

RKRHESS
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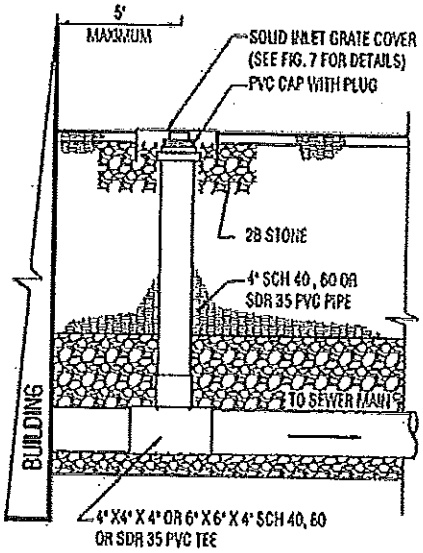
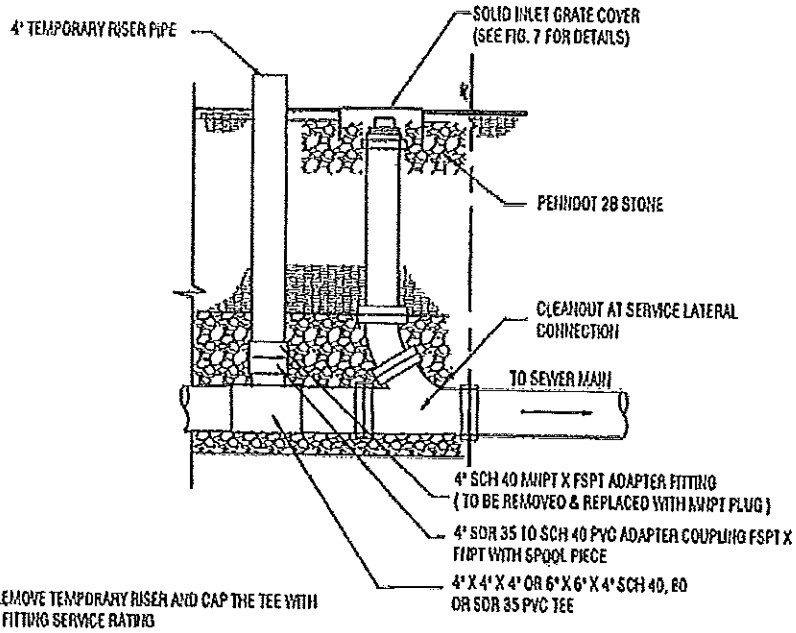


BUILDING TEST TEE / CLEANOUT

N.T.S.



NOTE:
AFTER TESTING IS COMPLETE REMOVE TEMPORARY RISER AND CAP THE TEE WITH A THREADED PLUG TO MATCH FITTING SERVICE RATING

GRAVITY BUILDING SEWER TEST TEES

N.T.S.

FIGURE 14

PROJECT MANAGER	DESIGNED BY	TEST TEE DETAILS	AUTHORIZED USE
RDS	ORC		
DRAWN BY	CHECKED BY	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM	
MJK	DRC		
DATE	CHECKED DATE		
6-18-13	7-03-2013		
SCALE	PROJECT NO.	MONROE COUNTY, PA	
NTS	10130.052005d		

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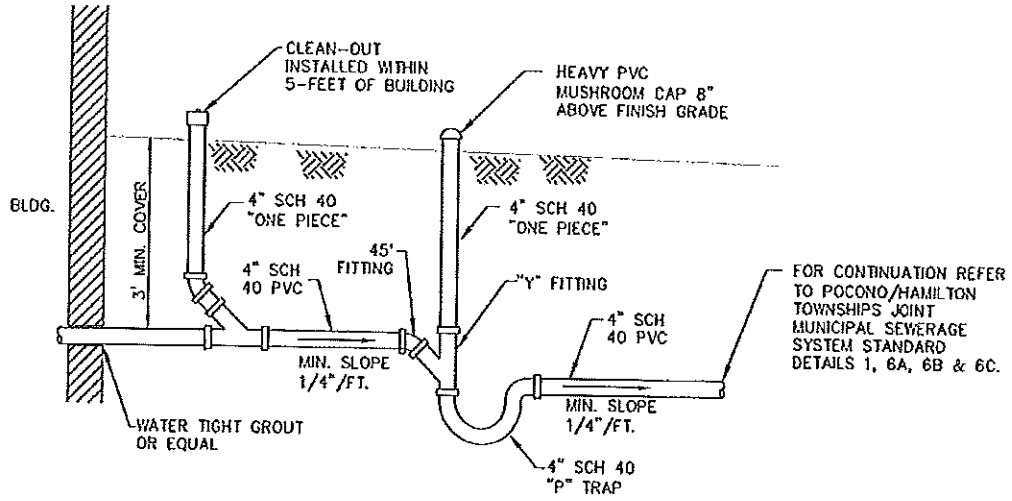
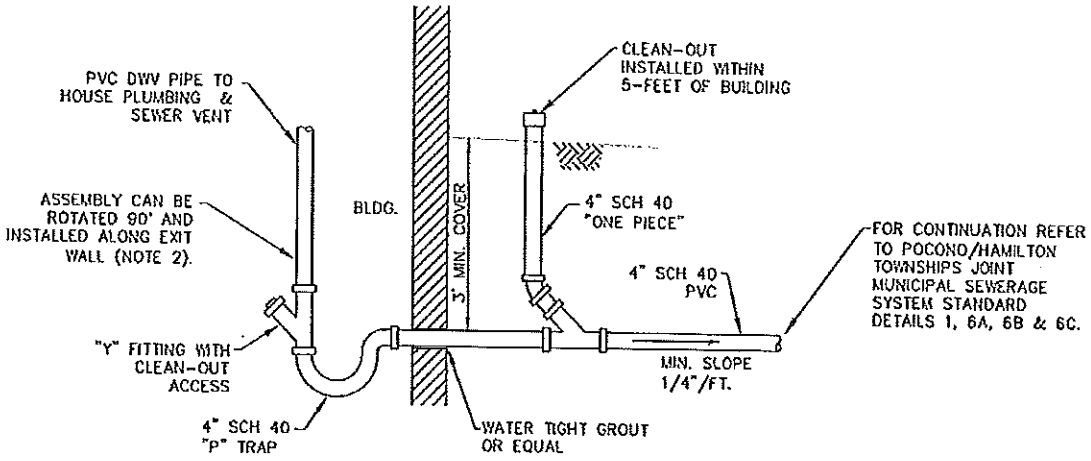
STANDARD DETAIL	POCONO & HAMILTON TOWNSHIPS JOINT MUNICIPAL SEWERAGE SYSTEM				
SEWER LATERAL INSTALLATION	T&M ASSOCIATES		6/15	FIGURE 15	
BUILDING TRAP INSTALLATION	CONSULTING ENGINEERS	APP'D.	DATE	DRAWING NUMBER	REV.



INSTALLATION OUTSIDE OF BUILDING

ELEVATION



INSTALLATION INSIDE OF BUILDING

ELEVATION

NOTES:

1. TRAPS SHALL BE INSTALLED IN A CONDITIONED CRAWL SPACE OR BASEMENT WHERE POSSIBLE.
2. WHEN INSTALLED IN BASEMENTS TRAPS SHALL BE INSTALLED ALONG THE EXIT WALL OR AS CLOSE TO THE EXIT WALL AS POSSIBLE.
3. ALL INSIDE INSTALLATIONS SHALL INCLUDE A "Y" CLEAN-OUT AS SHOWN.
4. OUTSIDE INSTALLATIONS SHALL HAVE A MINIMUM COVER OF 42-INCHES MEASURED FROM THE TOP OF THE TRAP TO FINISHED GRADE. SITE CONDITIONS MAY REQUIRE A DEEPER INSTALLATION OR OTHER MEASURES NECESSARY TO PREVENT FREEZING.
5. INSTALLATION MUST COMPLY WITH ALL APPLICABLE BUILDING CODES.