



EAST COVENTRY TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA

855 Ellis Woods Road
Pottstown, PA 19465
610-495-5443
610-495-9925 (Fax)

APPLICATION FOR
SANITARY SEWER PERMIT

PART I - OWNER INFORMATION (person or entity responsible for all costs)

Owner Name (person or entity that will own the property upon completion of Sewer connection, repair/replacement):

Owner Street Address (if P.O. Box, include street address also):

City, State and Zip Code:

Telephone Number:	Fax Number:
	Email Address:

PART II - IMPROVED PROPERTY INFORMATION

Street Address of Improved Property for which Sewer Connection, Repair/Replacement is Proposed (if P.O. Box, include street address also):

City, State and Zip Code:

Tax Map ID#:	Subdivision Name (if applicable):	Lot # (if applicable):
Proposed Use (check one): *Refer to Township's EDU Allocation Resolution for definition	<input type="checkbox"/> Residential Dwelling* <input type="checkbox"/> Single-Family <input type="checkbox"/> Townhouse <input type="checkbox"/> Two-Family <input type="checkbox"/> Multi-Family (# of units____) <input type="checkbox"/> Garden Apt. (# of units) <input type="checkbox"/> Independent Mobile-Home	<input type="checkbox"/> Non-Residential* <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Multi-Use <input type="checkbox"/> Other _____
		Proposed Water Supply (check one): <input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Other _____

Proposed Connection to Public Sewer (check one):	<input type="checkbox"/> Gravity Building Sewer only (existing Lateral) <input type="checkbox"/> Gravity Building Sewer and Lateral <input type="checkbox"/> Low-Pressure Building Sewer only (existing Lower-Pressure Lateral) <input type="checkbox"/> Low-Pressure Building Sewer and Lateral <input type="checkbox"/> Repair to or Replacement of Existing Building Drain and/or Building Sewer PLEASE NOTE: <u>Costs of Construction and Connection of Building Sewers.</u> All sewer costs and expenses of construction of a building sewer, and all costs and expenses of connection of a building sewer to a public sewer, shall be borne by the owner of the improved property to be connected. The owner shall indemnify and shall save harmless the Township and the Authority from all loss or damage that may be occasioned, directly or indirectly, as a result of the construction of the building sewer and/or the connection of the building sewer to the public sewer. <u>Inspection and Approval of Building Sewers.</u> A. No building sewer connection, maintenance, repair and/or replacement shall be covered until it has been inspected and approved by the Township, as provided in and by the Township technical specifications and other applicable rules, regulations and requirements. If any part of a building sewer is covered before so inspected and approved, it shall be uncovered, at the cost and expense of the owner of the improved property, for such inspection and approval. B. All such inspections and approval by the Township shall be at the cost and expense of the owner of the improved property. C. All such inspections by the Township shall be undertaken by the Township Engineer, and shall be completed not less than forty-eight (48) to seventy-two (72) hours after the Township is given notice by the owner of the improved property that the uncovered building sewer is ready for inspection. D. Unless otherwise directed by the Board of Supervisors, all such approvals by the Township shall be given by the Township Engineer.
Provide detailed description of existing and/or proposed buildings/structures and use(s) of Improved Property (for Township's use in calculating required capacity allocation), and attach sketch or drawing or enclose other documents if appropriate or required by Township: <input type="checkbox"/> Check if sketch or drawing is attached <input type="checkbox"/> Check if other documents are enclosed and identify documents: _____	

PART III – CERTIFICATION

I certify that I (check appropriate box below):

- am the Owner
- am an officer or official of the Owner
- have the authority to make this application (attach delegation of signatory authority) and that all above information is true and correct to the best of my knowledge and belief.

Name (type or print legibly)	Official Title
Street Address	City, State Zip
Phone Number	E-Mail Address
Signature	Date

PART IV – TOWNSHIP ACTION

Required Equivalent Dwelling Units (EDUs):

Use and Occupancy Permit Issue Date:

Permit Application Fee*:	\$ 500.00	<input type="checkbox"/> Paid	<input type="checkbox"/> Not Paid
Tapping Fee:	\$6,797.00	<input type="checkbox"/> Paid	<input type="checkbox"/> Not Paid
Inspection Fee:	PLEASE SEE NOTE, Inspection & Approval, Item B		
TOTAL:	*Application and inspection fees as per Township's Fee Schedule.		
Application Status:	<input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Permit #: Date: Fee Paid:\$	Township Official's Signature:

Township Official's Comments:

*Non-refundable and payable at time Sanitary Sewer Permit application is submitted and execute the East Coventry Township Contract for Professional Services agreeing to reimburse the Township in accordance with the annual fee and cost schedule of the Township Engineer, Township Solicitor or other Township Consultant in effect at the time for work associated with any and all reviews, approvals and inspections required. The \$500.00 will be credited toward costs incurred for services performed under the East Coventry Township Contract for Professional Services.

**EAST COVENTRY TOWNSHIP
CONTRACT FOR PROFESSIONAL SERVICES
(SANITARY SEWER SYSTEM)**

THIS AGREEMENT made this _____ day of _____, 20__, by and between EAST COVENTRY TOWNSHIP, a township of the second class, with a place of business located at 855 Ellis Woods Road, Pottstown, Pennsylvania 19465 (hereinafter referred to as the "Township") and _____ (hereinafter referred to as "Owner/Developer").

WITNESSETH:

WHEREAS, the Owner/Developer is the legal or equitable owner of certain real estate located at or described as follows: _____, in the Township of East Coventry, Chester County, Pennsylvania; and

WHEREAS, the Owner/Developer has presented or will present to the Township plans for connection to the Township Public Sanitary Sewage System; and

WHEREAS, the Owner/Developer has filed or will file the Plans with the Township and has requested or will request review and approval of the Plans and connect the aforesaid property to the Public Sanitary Sewage System, which Plans are hereby incorporated herein by reference and made a part hereof; and

WHEREAS, Owner/Developer, in order to permit the Township to review the Plans and determine the propriety of the same, agrees to post financial security in an escrow account held by the Township so that disbursements can be made from the same, as hereinafter set forth.

NOW, THEREFORE, the parties hereto agree as follows:

1. The Owner/Developer and the Township hereby authorize and direct the Township's consulting engineer (hereinafter, the "Engineer") and the Township's Solicitor (hereinafter, the "Solicitor") and any other consultants or professionals as determined by Township to be necessary or desirable, to review the Plans and to make such recommendations and reviews as may be necessary with respect to the Plans and to make any and all engineering inspections as required by the Township in the opinion of the Township and its Engineer or other consultant, in accordance with applicable legal requirements and best practices.

2. The Owner/Developer shall pay (a) the Engineer's charges and fees for reviews and/or recommendations concerning the Plans and other professional fees that the Township, in its sole discretion, deems appropriate for reviews of and/or recommendations concerning the Plans; (b) legal fees for reviews by the Solicitor of any plans, documents or other legal consultation relating to the application for approval of the Plans and consultant reviews which, in Township's opinion, are necessary or appropriate; and (c) the Township's administrative fees for issuing invoices to the Owner/Developer and administering this Agreement. All charges and

fees shall be paid by the Owner/Developer as required by the Township and in accordance with Paragraph 3 hereof.

3. The Owner/Developer hereby agrees to deposit with the Township, within five (5) days of the date of this Agreement, financial security in the amount set forth in the Township's Fee Schedule, to be held in escrow and applied to the payment of all costs and expenses, charges and fees as set forth in Paragraph 2 hereof (the "Escrow"). The Escrow shall be deposited by the Township into an interest-bearing escrow account and the interest thereon shall be added to the Escrow and applied as provided in this Agreement. It is agreed and understood by the parties hereto that neither the Township nor its Engineer or other consultant shall commence processing and/or review of the Plans, or any other applications or requests until the Escrow has been deposited with the Township.

4. In the event the Township determines that the funds in the Escrow will or are likely to be exhausted before the work required of the Engineer or other consultants will be completed, the Owner/Developer agrees that an additional amount, as determined by Township in its sole discretion, shall be deposited by Owner/Developer within five (5) days from the date of written notice to make such deposit and the amount thereof. Owner/Developer agrees that Township may direct the Engineer or other consultants to suspend all further work until such additional sums have been deposited with the Township.

5. In the event the Township shall expend or become liable for engineering, professional, legal or administrative costs and expenses in an amount in excess of the deposit required in Paragraph 3 hereof, Owner/Developer agrees to promptly deposit such additional sum with the Township as the Township shall reasonably determine in its sole discretion. All unpaid sums shall accrue interest commencing five (5) days after the due date at the rate of twelve percent (12%) per annum from the due date until paid in full to the Township.

6. The Township agrees to authorize services to be rendered from the Engineer, Solicitor or other consultants in accordance with the review procedures established by the Township. Plans shall not be reviewed until the financial security has been paid as provided in this Agreement. Owner/Developer further agrees not to commence work or construction of any sort on the property until authorized to do so by the Township.

7. The Owner/Developer shall pay for any and all legal fees from the Solicitor for the preparation of legal documents, review of any legal documents or plans or any other legal work authorized by the Township relating to the performance of any of the construction as applied for by the Owner/Developer and acceptance of dedication of any improvements to be dedicated to the Township.

8. The Owner/Developer agrees and shall pay any and all engineering and legal costs incurred by the Township for the reviews and inspections which may be required for the purpose of ensuring compliance with the Plans as filed, and the work to be done complies in all respects to the requirements of the Township and any other laws and regulations of the Commonwealth of Pennsylvania, of the United States or any other regulations or laws required for the work to be performed at Owner/Developer's property.

9. The Owner/Developer agrees and shall pay any and all administrative fees charged by the Township in an amount equal to five percent (5%) of all monetary amounts invoiced or billed by the Township to the Owner/Developer for all fees or costs incurred by the Township during the review period relating to the Plans and the application of Owner/Developer filed with the Township.

10. The Owner/Developer and the Township further agree that all fees or costs arising out of this Agreement or any fee schedule of the Township in effect, shall be paid promptly upon request by the Township.

11. The Owner/Developer may at any time terminate all further obligations under this Agreement by giving written notice to the Township that it does not desire to proceed with the work, and upon receipt of such notice by the Township, the Owner/Developer shall only be liable to the Township for costs and expenses incurred by the Township to the date and time of its receipt of the notice, provided the Plans and application are officially withdrawn to the satisfaction of the Solicitor.

12. Any unused portion of the Escrow shall be returned to the Owner/Developer upon termination by the Owner/Developer of all further obligations under this Agreement in accordance with Section 11 above. In the event the Escrow at any time falls below twenty five percent (25%) of the original Escrow, and it seems likely, in Township's opinion, that costs will run in excess of the unused portion of the Escrow, the Township reserves the right to require an additional escrow deposit from Owner/Developer in an amount up to the original amount of the Escrow. This additional escrow deposit shall be paid when requested and all further review shall be suspended until full payment of the additional deposit has been made.

13. In the event of a dispute concerning the amount of fees, Owner/Developer shall be required to comply with the terms of this Agreement, including provisions requiring prompt replenishment of the Escrow pending a determination of the dispute. Disputes hereunder shall be submitted in accordance with Sections 503 and 510(g) of the Pennsylvania Municipalities Planning Code, as applicable. Dispute of fees shall not, under any circumstances, relieve Owner/Developer from prompt reimbursement and/or replenishment of the Escrow.

14. The Township reserves the right to report to one or more credit reporting agencies a default by the Owner/Developer arising from the failure of Owner/Developer to reimburse the Township for sums expended by the Township on behalf of the Owner/Developer pursuant to this Agreement, provided, that the Owner/Developer has failed to cure the default within thirty (30) days after the Township provides to the Owner/Developer written notice of such default.

15. The Owner/Developer and the Township acknowledge that this Agreement represents their full understanding of the terms hereof and that they intend to be legally bound hereby. This Agreement may not be amended or modified in any manner except by a written agreement signed by all of the parties hereto.

EAST COVENTRY TOWNSHIP

BY: _____
Name: David G. Kraynik
Title: Township Manager

DEVELOPER/OWNER

BY: _____
Name:
Title:

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

Print or type See Specific Instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.		
	2 Business name/disregarded entity name, if different from above		
	3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____		4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
	5 Address (number, street, and apt. or suite no.)		Requester's name and address (optional)
	6 City, state, and ZIP code		
	7 List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)																																																			
Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> on page 3.																																																			
Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="10" style="text-align: center;">Social security number</td> </tr> <tr> <td style="width: 30px;"> </td><td style="width: 30px;"> </td> </tr> <tr> <td colspan="10" style="text-align: center;">or</td> </tr> <tr> <td colspan="10" style="text-align: center;">Employer identification number</td> </tr> <tr> <td style="width: 30px;"> </td><td style="width: 30px;"> </td> </tr> </table>	Social security number																				or										Employer identification number																			
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Part II Certification	
Under penalties of perjury, I certify that:	
1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and	
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and	
3. I am a U.S. citizen or other U.S. person (defined below); and	
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.	
Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.	
Sign Here	Signature of U.S. person ▶ _____
	Date ▶ _____

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/efw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

SECTION 6 GRAVITY LATERALS AND BUILDING SEWERS

6.1 Materials

- A. Pipe: Pipe materials shall be as follows (refer to Standard Details to correlate Lateral and Building Sewer components to materials):
1. Ductile Iron Pipe (DIP) shall be Class 52 (4" minimum) conforming to ANSI A 21.51 or AWWA C151 latest edition, and shall have push-on joints with elastomeric gaskets.
 2. PVC SDR-26 shall meet ASTM D3034 specifications, and shall have push-on joints with elastomeric gaskets.
- B. Pipe Plugs: Designed for permanent installation and removable. Obtain plugs for various types of pipe used from the respective pipe manufacturer.
- C. Vent Cap: Vent cap on top of sewer vent riser pipe shall be Philadelphia Style Vent Cap as manufactured by Sioux Chief Manufacturing Company, Inc., or equal.
- D. Wye Connections: Wye connections are to be used for Lateral connections on new sewer mains and for Lateral connections to existing sewer mains.

6.2 Installation

- A. Pipe and fittings (saddles, risers, bends, wyes, and plugs) shall be furnished and installed in strict accordance with these Technical Specifications and any and all practices and precautions required above for the gravity sanitary sewers in Section 5 of these Technical Specifications are equally applicable to the Laterals and Building Sewers.
- B. If rock is encountered during the installation of a Lateral or Building Sewer, the Extender shall construct the Lateral or Building Sewer to provide a minimum "rock-free" distance of one foot beyond the end of the Lateral or Building Sewer. No Lateral or Building Sewer shall be "butted" against rock.
- C. All Laterals and Building Sewers shall be installed with a minimum grade of $\frac{1}{4}$ "/ft. A straight alignment shall be maintained where possible. A minimum cover of four feet (4') shall be maintained to prevent crushing and freezing of the pipe, unless the Township Manager approves a lesser minimum cover.
- D. No trench shall be backfilled until the Lateral or Building Sewer has been visually inspected and approved by the Engineer or Building Code Official, respectively (refer to the Standard Details for pipe bedding and backfill).
- E. Trap: A main or intercepting trap shall be installed as shown in the Standard Details.

- F. Testing of Building Sewer: The Building Sewer shall not be deemed acceptable until said Building Sewer has satisfactorily passed the test hereinafter described. All costs of testing and any subsequent test(s), including equipment, material and labor required shall be the responsibility of the Owner.
1. The Building Sewer shall be tested by plugging the lines at the points identified in the Standard Details. All risers, vents and cleanouts shall be adequately blocked, plugged or supported to withstand the pressure associated with the test. The test shall be made by air, and shall be designed to provide a residual pressure of 5.0 psi throughout the length of the Building Sewer.
 2. The test shall be made by attaching an air compressor testing apparatus to any suitable opening and after closing and supporting all other inlets and outlets to the Building Sewer, forcing air or water into the Building Sewer until there is a uniform gauge pressure of 5.0 psi. The Building Sewer shall be deemed acceptable if this pressure is maintained for 15 minutes without the introduction of additional air.
 3. Care shall be taken that the pressures generated by the test do not exceed the pipe manufacturer's recommendations.
- G. Testing of Laterals: Laterals shall be tested in accordance with the procedures specified in Section 5 of these Technical Specifications for gravity sanitary sewers. However, in the case of a new Lateral tying into an existing gravity sewer main, the Lateral shall be tested concurrently with the Building Sewer in accordance with Subsection F above.
- H. For a new connection into an existing sewer main, the following requirements shall be applicable for that portion of the Lateral installed within the paved portion of street rights-of-way and it shall be the responsibility of the Owner of the Improved Property served to require his plumber or Extender to adhere to these requirements.
1. The trench shall be thoroughly compacted using mechanical tamping equipment.
 2. The trench area shall be graded to conform to existing grade.
 3. No surplus excavated materials or debris shall be piled or stored in this area.
 4. All street surfaces that are disturbed or damaged by the Owner or his plumber or contractor shall be properly repaired at the Owner's cost.
 5. Subsequent settlement of the street resulting from improper construction practices shall be promptly repaired at the Owner's cost.
 6. In no case, shall the sewer lateral be installed at a higher elevation than any potable water service within 18-inches.

7. In no case, shall a sewer lateral be installed within a 24-inch radius of any other utility, except for potable water lines, in which case a minimum separation of ten (10) feet is required.
8. If the Owner or his plumber or contractor fails to comply with any of the requirements of this Subsection H, then after reasonable notice to the Owner, the Township may proceed on its own to make any necessary corrections or repairs so that the aforesaid requirements are fulfilled. If the Township does so repair, then the Owner of the Improved Property shall be liable to the Township for the entire cost of such repairs and said cost will be included in the Owner's next quarterly billing for sewer services.
9. Only one (1) drop lateral connection may be employed in any single lateral.

6.3 Special Conditions and Requirements

- A. The Township Manager may approve minor a deviation from the requirements of the related Standard Details on a case-by-case basis (e.g. depth of cover over building sewer, trap location, etc.) upon being furnished sufficient justification that said requirement(s) cannot be met due to actual field conditions.
- B. Cleanouts shall be installed at maximum fifty (50) foot intervals, unless 6" diameter building sewer pipe is utilized, in which case the cleanouts shall be installed at maximum one hundred (100) foot intervals. A cleanout shall be installed at each change in horizontal direction.
- C. Basement floor drains shall not be connected in any manner to the Public Sewer.
- D. All cleanouts, traps, vents and test tees shall be located as shown in the Standard Details.
- E. According to field conditions, vertical risers may be utilized when authorized or directed by the Engineer. Vertical riser Lateral connections shall be in accordance with the Standard Details.
- F. Cleanouts and vents shall be located in lawn/agricultural areas (i.e. non-paved areas) to the greatest extent practicable. If a cleanout or cleanout and vent combination must be located in a paved area, such as a driveway, due to site constraints, written Township approval must first be obtained, and the cleanout and/or vent risers shall be specially installed in accordance with the Standard Details.

SECTION 8 LOW PRESSURE SEWER SYSTEMS

8.1 Materials

- A. Ductile Iron Pipe: Ductile iron pipe conforming to ANSI A21.51 or AWWA C151, Latest Edition, for the material class or pressure designated and ANSI A21.50 AWWA C150, Latest Edition, for wall thickness. Minimum wall thickness shall be Class 50 for 6-inch diameter and Class 51 for 3-inch and 4-inch diameter pipe except as may be required for flanged pipe or restrained joints. Use Special Class 53 pipe where flanged connections are required. AWWA rated SDR 21 PVC may be substituted where approved by the Engineer.
1. *Corrosion-Resistant Linings*: Ductile iron pipe and fittings shall be lined (interior) with a corrosion-resistant ceramic-epoxy lining. The lining material shall be an amine-cured novalac epoxy containing at least 20% by volume of ceramic quartz pigment. Interior lining shall be U.S. Pipe PROTECTO 401, or approved equal.
 2. *Fittings*: Ductile or gray iron in accordance with the requirements set forth in ANSI A21.10 or AWWA C110, Latest Edition. All fittings shall be minimum Class 250 with cement lining and joints as required for pipe restraint. Iron fittings to be enclosed in pits, vaults, or manholes shall be of the short-body flanged type in order to minimize the size of the pits, vaults, and manholes.
 3. *Joints*: Push-on type or mechanical joint type in accordance with ANSI A21.11 or AWWA C111, for all pipe except at changes in alignment, valves, tees, caps, and plugs not restrained with thrust blocking.
 - a) Joints requiring pipe restraint and not restrained with thrust blocking shall be Lok-Type or TR Flex as manufactured by U. S. Pipe; Super-Lock as manufactured by Clow; Lok-Fast as manufactured by American Pipe; Snap-Lok or locked mechanical joint as manufactured by Griffin; Locked mechanical joint as manufactured by Atlantic State; or approved equal.
 - b) In addition to restrained joints, adequate tie rods shall be provided to develop full joint restraint and must extend to the adjacent fitting or joint as approved by the Township.
 - c) Mechanical joint retainer glands shall not be used. Only ductile or SDR-8 Mega-lug style joint glands or approved equal shall be required.
 - d) Prior to construction, joint restraint system details shall be submitted for Township's review and approval.

B. Polyvinyl Chloride Pipe and Fittings (PVC):

1. *Less than or equal to 4-inch Diameter:* PVC pipe conforming to ASTM D2241, SDR-21, except 1.5-inch pipe or smaller shall be SDR-26.
 - a) *Fittings:* Compatible PVC fittings as recommended by pipe manufacturers, and of same class as the pipe.
2. *Joints:* Push-on type conforming to ASTM D3139.
 - a) Solvent weld joints permitted only for special situations as approved by Engineer (e.g. bored service line highway crossings).
 - b) PVC pipe joints shall be restrained at changes in alignment, valves, tees, caps, and plugs with thrust blocking.
 - c) Split retainer flanges shall not be used in place of thrust blocks.
 - d) Proposed joint restraint system shall be submitted for Engineer's review and approval.

C. Air Valves: The Township reserves the right to require air valves, of any one of the following types, at any location in the force main.

1. *Sewage Air Release Valve:* Designed to automatically release air, gas or vapor under pressure during system operation. Valve design shall feature long body and float stem components so that the operating mechanism is kept free from contact with sewage during operation. Valve construction shall be as follows:
 - a) *Maximum Working Pressure Rating:* 150 psi.
 - b) *Valve Body and Cover:* Cast iron, ASTM A48, Class 35.
 - c) *Discharge Orifice Seat, Mechanism and Valve Stem:* Stainless Steel.
 - d) *Orifice Button:* Stainless steel and Buna-N, Nitrile Rubber ASTM SB800.
 - e) *Mechanism Lever Pins and Float:* High strength stainless steel, ASTM A240.
 - f) *Backflushing and Cleaning Accessories:* Factory assembled to the valve and consisting of a shut-off valve at bottom inlet, a blow-off valve near the bottom of the valve body, quick disconnect couplings and shut-off valve at top of valve, and a 5-foot section of rubber hose with quick disconnect coupling.
 - g) *Acceptable Manufacturers:*
 - 1) Val-Matic Valve and Manufacturing Corp.; Model No. 48 BWA.

- 2) Or Equal.
2. *Sewage Air and Vacuum Valve*: Designed to automatically exhaust large quantities of air during the filling of a system and to allow air to re-enter the system during draining or when a vacuum occurs. Valve design shall feature long body and float stem components so that the operating mechanism is kept free from contact with sewage during operation. Valve construction shall be as follows:
- a) *Minimum Working Pressure Rating*: 150 psi.
 - b) *Valve Body and Cover*: Cast iron, ASTM A48, Class 35.
 - c) *Float Stem and Guide*: Bronze, ASTM B584.
 - d) *Floats*: Stainless Steel, ASTM A240.
 - e) *Orifice Seat*: Buna-N, Nitrile Rubber, ASTM SB800.
 - f) *Backflushing and Cleaning Accessories*: Factory assembled to the valve and consisting of an inlet shut-off valve, a 1-inch blow-off valve near the bottom of the valve body, quick disconnect couplings and a ½-shut-off valve at the top of valve, and a 5-foot section of rubber hose with quick disconnect coupling.
 - g) *Acceptable Manufacturers*:
 - 1) Val-Matic Valve and Manufacturing Corp.; Model No. 300 Series.
 - 2) Or Equal.
3. *Sewage Combination Air Release Valves*: Consisting of an air release valve and an air and vacuum valve factory piped into a compact assembly. The combination assembly shall automatically release air, gas or vapor under system operating pressure and shall also allow air to re-enter the system during draining or when a vacuum occurs. Combination valve designs shall feature long bodies and float stem components so that the operating mechanisms are kept free from contact with sewage during operation. Valve construction shall be as follows:
- a) *Maximum Working Pressure Rating*: 75 psi.
 - b) *Valve Bodies and Covers*: Cast iron, ASTM A48, Class 35.
 - c) *Air Release Valve Discharge Orifice Seat, Mechanism and Valve Stem*: Stainless Steel.
 - d) *Air Release Valve Orifice Button*: Stainless Steel and Buna-N, Nitrile Rubber, ASTM SB800.

- e) *Air Release Valve Mechanism Lever Pins and Float*: High strength stainless steel, ASTM A240.
- f) *Air and Vacuum Valve Float Stem and Guide*: Bronze, ASTM B584.
- g) *Air and Vacuum Valve Floats*: Stainless Steel, ASTM A240.
- h) *Air and Vacuum Valve Orifice Seat*: Buna-N, Nitrile Rubber, ASTM SB800.
- i) *Backflushing and Cleaning Accessories*: Factory assembled to the combination valves and consisting of two inlet shut-off valves, two blow-off valves, two clear water inlet valves, and a 5-foot section of rubber hose and quick disconnect couplings.
- j) *Acceptable Manufacturers*:
 - 1) Val-Matic Valve and Manufacturing Corp.; Model No. 48 or 49/300 Series.
 - 2) Or Equal.

D. Underground Warning Tape:

- 1. Printed polyethylene tape, 3 inches minimum width, magnetic for PVC pipe, green for force mains, one-inch minimum lettering, printed with name of utility buried below, and suitable for installation in all soil types. Tape must be placed above all force mains (reference Standard Details).

E. Cleanouts:

- 1. Cleanouts shall be constructed as shown in the Standard Details. Valves shall be installed in each cleanout manhole.

F. Valves and Appurtenances:

- 1. *Valves*: Valves shall be installed on force main at locations shown in the Standard Details and as required by the Township.
- 2. *Ball or Plug Valves*: Valves installed in valve/cleanout pits shall be actuated with a quarter turn type hand lever. Buried valves shall be actuated with an underground actuator through a cast iron valve box. Ball valves on individual properties shall be oriented with the seat in place for pressure. Valves 3-inch and larger shall be flanged end Dresser, Series 800, X-Centric, or equal. Valves 2-inch and 2½ inch shall be flanged end DeZurik, Eccentric, or equal. One and one-half inch valves shall be screwed end DeZurik, Eccentric, or equal.

- a) Valves shall open left (counter-clockwise).
 - b) Buried valves shall have 2-inch square cast iron operating nuts. Each valve shall also be supplied with a roadway type valve box.
 - c) Buried valves shall be supplied with mechanical joint end connections.
 - d) Valves located in vaults, pits, or manholes shall have flanged ends.
3. *Valve Boxes:* Standard 5-1/4-inch cast iron extension roadway type valve boxes shall be installed over buried valves and service line cleanouts in accordance with AWWA C500. Screw threads shall be cast integrally with box wall. Welded screw threads are not acceptable.

8.2 Installation

A. Pipe Installation:

1. *General:* All pipe shall be laid and maintained to the required lines and grades with fittings and valves at the required locations, spigots centered in bells, and all valves plumb. Pipe laying shall commence at the lowest point and proceed upgrade.
2. *Depth:* All low-pressure force mains shall be buried at a minimum depth of 4 feet, measured from finished grade to the top of pipe.
3. *Construction Control:* During the installation of a force main, the pipe shall be laid at a constantly increasing grade to each high point, air valve, or point of discharge. The Extender shall provide sufficient construction control to assure that there are no sags in the force main which could tend to accumulate air other than at the high points. Failure to comply with this requirement shall necessitate that the Extender take remedial steps to correct this situation. All associated costs shall be borne by the Extender.
4. *Cleaning Pipe and Fittings:* All lumps, blisters and excess coal tar coating shall be removed from the bell and spigot end of each pipe, and the outside of the spigot and the inside of the bell shall be wire-brushed and wiped clean and dry and free from oil and grease before the pipe is laid.

5. *Laying Pipe:* Every precaution shall be taken to prevent foreign material from entering the pipe while the pipe is being placed in the trench. If the pipe-laying crew cannot put the pipe into the trench and in place without allowing earth into it, the Engineer may require that before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and let there until the connection is to be made into the adjacent pipe. During laying operations, no debris, tools, clothing or other material shall be placed in the pipe. After placing a length of pipe in the trench, the spigot end shall be centered in the bell or coupling and the pipe forced home and brought to correct line and grade. The pipe shall be secured in place with approved backfill material tamped under it except at the joints. Pipe and fittings, which do not allow a sufficient and uniform space for joints, shall be removed and replaced with pipe and fittings of proper dimensions to ensure such uniform space.

6. *Jointing Ductile Iron Pipe:*

a) *Mechanical Joints:* The spigot end of the pipe shall be centrally located in the bell so that the rubber gasket is evenly seated. All loose rust or foreign matter shall be removed from the inside surfaces of the bell and outside surface of the spigot prior to assembly. Bolts shall be tightened uniformly with a ratchet wrench so as to affect the joint seal. The normal range of bolt torques to be applied are:

<u>Bolt Size (Inches)</u>	<u>Torque-Ft. Lbs.</u>
5/8	45 - 60
3/4	75 - 90
1	100 - 120

If effective sealing is not attained at the maximum torque indicated above, the joint shall be disassembled and reassembled after thorough cleaning.

b) *Push-On Type Joints:* Make joints as recommended by the manufacturer so as to affect the joint seal.

7. *Joining PVC Pipe:* Make joints as recommended by the manufacturer so as to affect the joint seal.

B. Setting Fittings And Valves

1. *General:* Valves and fittings shall be set and jointed to pipe in the manner specified previously for cleaning, laying and jointing pipe.
2. Provide a precast concrete manhole for every air release and vacuum valve meeting the requirements for manholes as previously specified. The manholes shall be constructed to permit valve repairs and afford protection to the valve and

pipe from impact where they pass through the manhole walls. All valves and fittings shall be supported by saddles as indicated on the Drawings. The saddles shall be continuous under all valves and fittings within the valve manholes.

C. Anchorage:

1. *Concrete Thrust Blocks:* Provide concrete thrust blocks for all fittings, and at all locations where horizontal and/or vertical deflections are made in the joints of the piping. Only by authorization of the Township.
2. *Reaction Backing:* Reaction backing shall be Penn DOT Class C concrete. Backing shall be placed between solid ground and the fitting to be anchored. The backing shall, unless otherwise indicated or directed, be so placed that the pipe and fitting joints will be accessible for repair.
3. *Metal Harness:* Metal harness of tie rods of adequate strength to prevent movement shall be used. Steel rods or clamps shall be type 304 stainless steel.
4. *Anchorage for Bends:* All bends deflecting 11.25 degrees or more on force mains 6 inches in diameter or greater shall be provided with a thrust restraint system to prevent movement.
 - a) Either a restrained joint pipe or thrust block system (only by authorization of the Township) will be permitted.
 - b) Only a thrust block system will be used for PVC pipe.
 - c) Suitable metal rods shall be used only as directed by the Engineer.
 - d) Mechanical joint retainer glands shall not be used to obtain a restrained joint.

D. Cleanout Installation: Cleanout manholes shall be provided at each dead end and at 500-foot intervals (maximum), unless otherwise approved by the Engineer, on long stretches of low-pressure force main. Terminal cleanout manholes shall be used on all dead ends and at other locations as required by the Township.

8.3 Tests

A. Hydrostatic Tests:

1. *Pressure Test:* After the pipe has been laid and backfilled as specified, all newly laid pipe or any valved section thereof, shall be subjected to a hydrostatic pressure of 150 psi or 50% in excess of the normal working pressure, whichever is greater. Where any section of a main is provided with concrete reaction backing, the hydrostatic pressure test shall not be made until at least five days have elapsed

after the concrete reaction backing was installed. If high early strength cement is used in the concrete reaction backing, the hydrostatic pressure test shall not be made until at least two days have elapsed.

- a) *Duration of Test:* Two hours.
 - b) *Procedure:* Each section of pipe shall be slowly filled with water and the specified test pressure, based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the Township. The pump, pipe connections, and all necessary apparatus including gauges, shall be furnished by the Extender. The Extender will make all taps into the pipe, and furnish all necessary assistance for conducting the tests.
 - c) *Expelling Air Before Test:* Before applying the specified test pressure, all air shall be expelled from the pipe. If permanent air vents are not located at all high points, the Extender shall make the necessary taps at such points before the test is made. After the test has been completed, the Extender shall insert plugs at the tapping points.
 - d) *Examination Under Pressure:* Any cracks or defective pipes, fittings, or valves discovered in consequence of this pressure test, shall be removed and replaced by the Extender with sound material, and the test shall be repeated until satisfactory to the Township.
2. *Leakage Test:* A leakage test shall be conducted concurrently with the pressure test. The Extender will furnish laboratory calibrated test gauge and measuring device, and all necessary assistance to conduct the test.
- a) *Leakage Definition:* Leakage is defined as the quantity of water that must be supplied into the newly laid pipe, or any valve section thereof, to maintain pressure within 5 psi of the specified leakage test pressure after the pipe has been filled with water and the air expelled.

- b) *Permitted Leakage*: No pipe installed will be accepted until the leakage is less than the number of gallons per hour as determined by the formula:

$$L = \frac{SD\sqrt{P}}{133,200}$$

in which "L" equals the allowable leakage in gallons per hour; "S" is the length of pipeline tested in feet; "D" is the nominal diameter of the pipe, in inches, and "P" is the average test pressure during the leakage test, in pounds per square inch gauge. (The allowable leakage according to the formula is equivalent to 11.65 U. S. Gal. per 24 hours per mile of pipe per inch nominal diameter, for pipe in 18-foot lengths evaluated on a pressure basis of 150 psi). When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gallon per hour per inch of nominal valve size shall be allowed. There shall be no additional leakage allowed for service connections.

- c) The Township will record both the makeup water and pressure at one-half hour intervals during the test period.
- d) Should any test of pipe laid disclose leakage greater than that specified above, the Extender should, at his own expense, locate, repair, and replace the defective joints, pipe, or fittings until the leakage is within the specified allowance.

3. *Common Requirements*:

- a) *Township Presence*: The Township or Engineer shall monitor the pressure and leakage tests. The Extender shall notify the Township of the test day at least 48 hours (2 working days) in advance.
- b) If testing fails to meet the test requirements, the Extender shall pay for all additional engineering personnel testing time.
- c) *Weather*: No testing will be authorized unless air temperature is 35 degrees Fahrenheit or higher.
- d) *Acceptance*: Observation of successful testing of low-pressure force mains by the Township does not constitute acceptance of the system or any portion thereof. Upon completion of any determined portion of a total system, and successful testing thereof, the Engineer may recommend final acceptance to the Township. Only upon final inspection by the Engineer and upon written acceptance for same will the system or portion thereof be considered acceptable. If, during this final inspection, any irregularities are observed, the condition must be corrected at the Extender's expense prior to acceptance.

SECTION 13 GRINDER PUMPING SYSTEMS

13.1 General

- A. Gravity collection systems shall be utilized to the greatest extent practicable. The use of grinder pumping systems for individual single-family dwellings will be considered by the Township on a case-by-case basis. In order to obtain approval of a grinder pumping system, the Owner or Extender shall submit the following information to the Township:
1. The number of dwelling units for which a grinder pumping system is proposed.
 2. Capacity and horsepower for the proposed pump.
 3. Size and construction of the wet well.
 4. Details of the electrical power, control, and alarm systems.
 5. Size and material of proposed pump discharge line and associated valves.
 6. Details of the connection to the Public Sewer.
 7. Proposed location of all system components.
 8. Design computations.
 9. Copies of permits and approval notifications from agencies other than the Township.
- B. Plans and specifications for all proposed grinder pumping systems must be reviewed and approved by the Engineer before installation.
- C. Following approval by the Engineer, the Owner or Extender will be responsible for all costs associated with construction of the system, for all permit and approval costs, and for all costs which may result from damage to the Public Sewer, or to other utilities and facilities, during construction of the system. The Owner or Extender shall be responsible for continuously maintaining the system after installation.

13.2 Equipment

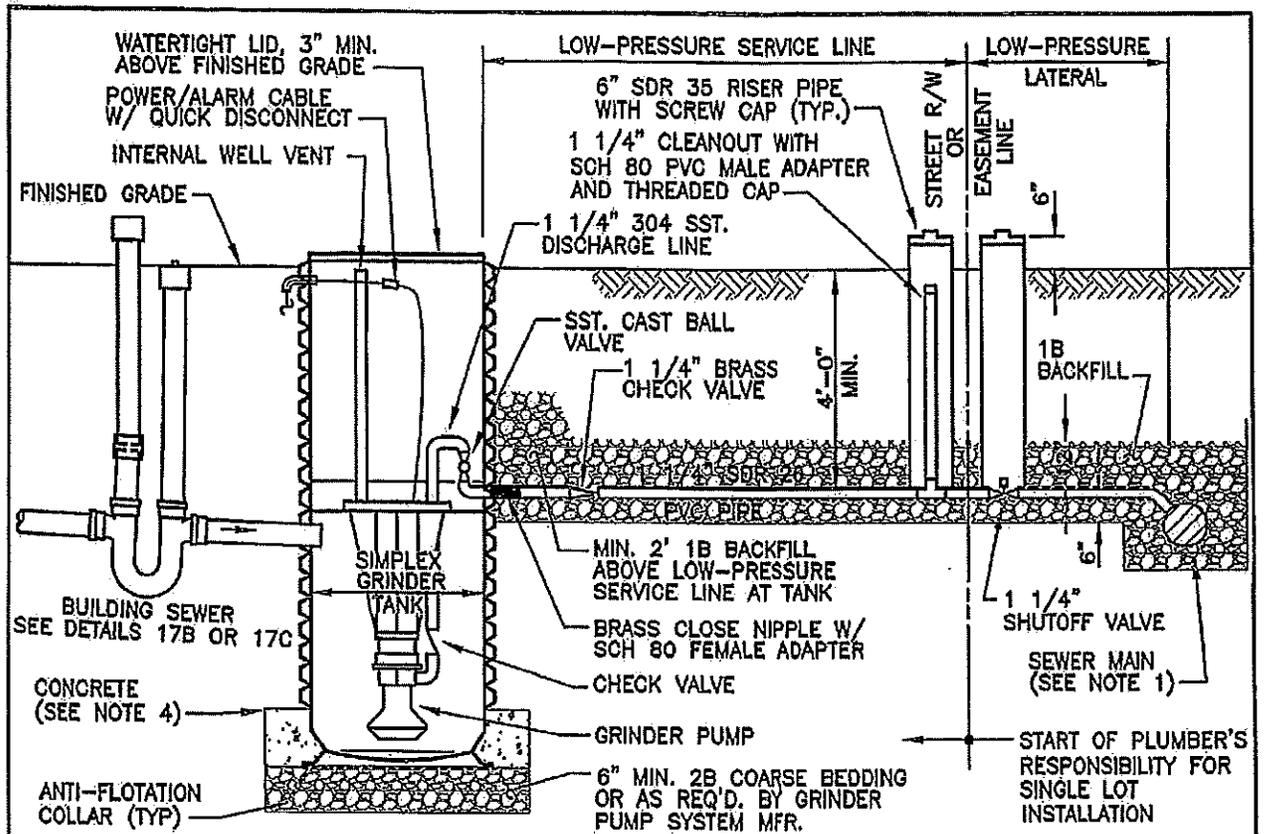
- A. Grinder pumping system for each single-family dwelling shall be as follows:
1. Grinder pumping system shall be Model E|One DH071 grinder pumping station as manufactured by Environment One Corporation, complete with a pre-fabricated and pre-assembled HDPE basin system (70-gallon minimum capacity), submersible progressing cavity grinder pump, check valve, ball valve, control

panel, and associated piping, valves, wiring and appurtenances. The complete grinder pumping system shall be UL Listed and NSF Certified.

2. Grinder pumping system shall be the simplex (single-unit) type, and shall be installed as shown in the Standard Details.
3. For new residential developments, the Extender shall provide the Township with one spare grinder pump for every five (5) grinder pumps installed.
4. No grinder pump shall be installed indoors. All grinder pumps shall be installed outdoors as shown in the Standard Details.

13.3 Installation

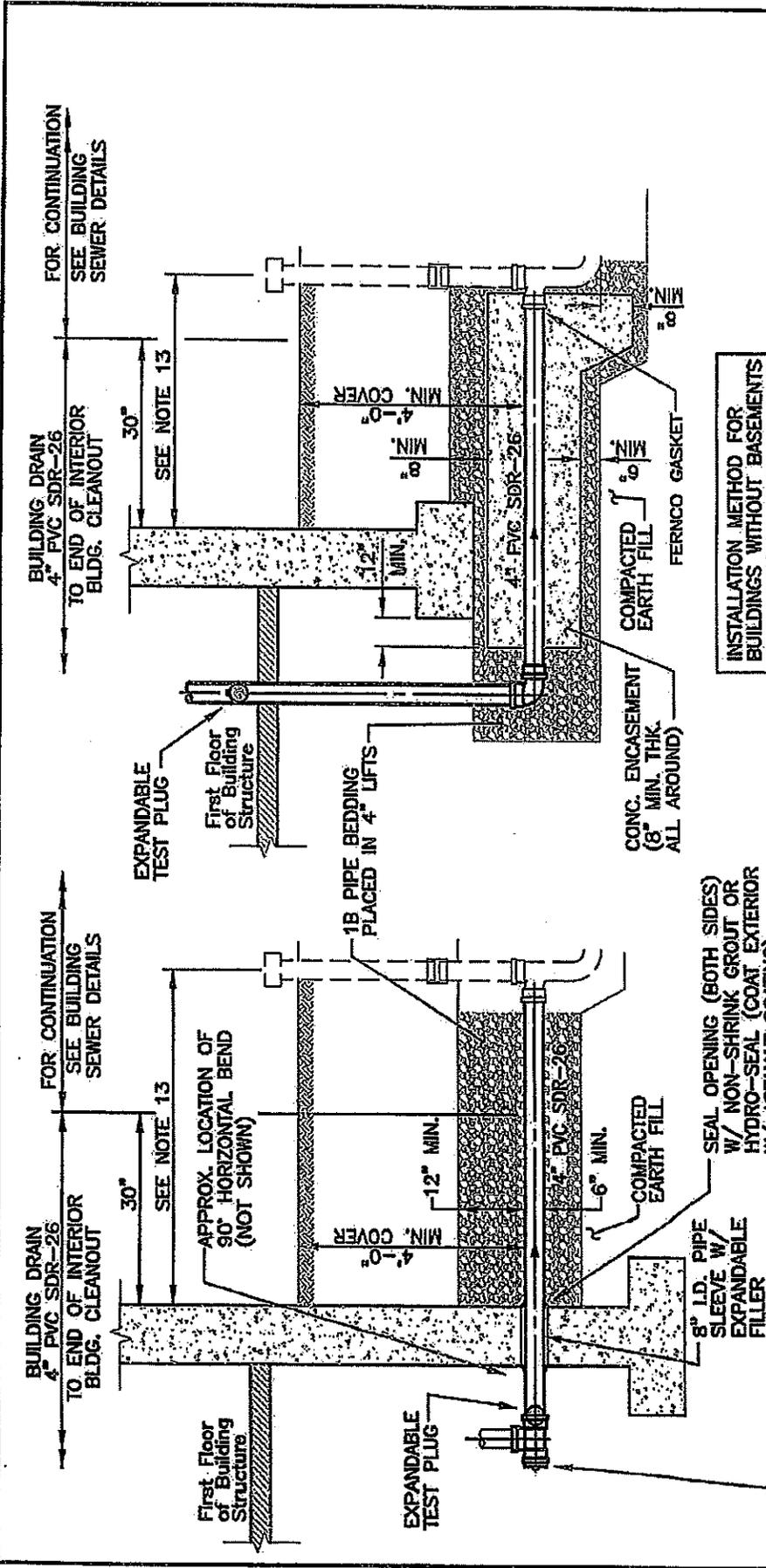
- A. Grinder pumping system shall be installed as shown in the Standard Details.
- B. Grinder pumping system shall also be installed in accordance with the manufacturer's instructions. Where a conflict may exist between the Standard Details and the manufacturer's instructions, the Standard Details shall govern unless otherwise approved by the Engineer.



NOTES:

1. MANHOLE CONNECTIONS - LOW-PRESSURE LATERAL SHALL PENETRATE MANHOLE (SEAL WATERTIGHT) AND TURN DOWN (90°) TO THE MANHOLE BENCH. THE BENCH SHALL BE MODIFIED WITH A FLOW CHANNEL TO ACCOMMODATE THE PRESSURE DISCHARGE IN THE DIRECTION OF FLOW.
GRAVITY MAIN CONNECTIONS - LOW-PRESSURE LATERAL SHALL BE ROLLED (45°) AND CONNECT WITH A WYE (OR SADDLE IF GRAVITY MAIN IS EXISTING) USING APPROPRIATE REDUCERS AND ADAPTERS TO CREATE A SMOOTH DISCHARGE INTO THE DIRECTION OF FLOW.
LOW-PRESSURE SEWER CONNECTIONS - LOW-PRESSURE LATERAL SHALL BE ROLLED (45°) AND CONNECTED TO THE LOW-PRESSURE SEWER WITH A WYE AND APPROPRIATE ADAPTERS TO ENSURE A SMOOTH DISCHARGE INTO THE DIRECTION OF FLOW.
 ALL CONNECTIONS ARE SUBJECT TO ENGINEERS APPROVAL. CONNECTIONS TO HIGH-PRESSURE FORCE MAINS SHALL NOT BE PERMITTED.
2. FOR PUBLIC LOW-PRESSURE SYSTEM INSTALLATION, CONTRACTOR'S RESPONSIBILITY ENDS AT RIGHT-OF-WAY OR EASEMENT LINE.
3. METALLIC DETECTION TAPE SHALL BE PLACED ABOVE LOW-PRESSURE SERVICE LINE AND LATERAL MAX. 2" BELOW FINISHED GRADE.
4. CONCRETE ANCHOR AS REQUIRED BY GRINDER PUMP SYSTEM MFR.

		EAST COVENTRY TOWNSHIP STANDARD DETAIL - SEWER SYSTEM	 ARRO Consulting, Inc. Suite 100, 649 North Lewis Road Limerick, Pennsylvania 19488 Tel 610.495.0303
4	3/10/08		
3	8/28/07		
2	9/21/06		
1	2/9/04		
REVISION	DATE	SIMPLEX GRINDER PUMP DETAIL-PLUMBING	DATE: JUNE 2002 DETAIL: 12



INSTALLATION METHOD FOR BUILDINGS WITHOUT BASEMENTS

INSTALLATION METHOD FOR BUILDINGS WITH BASEMENTS

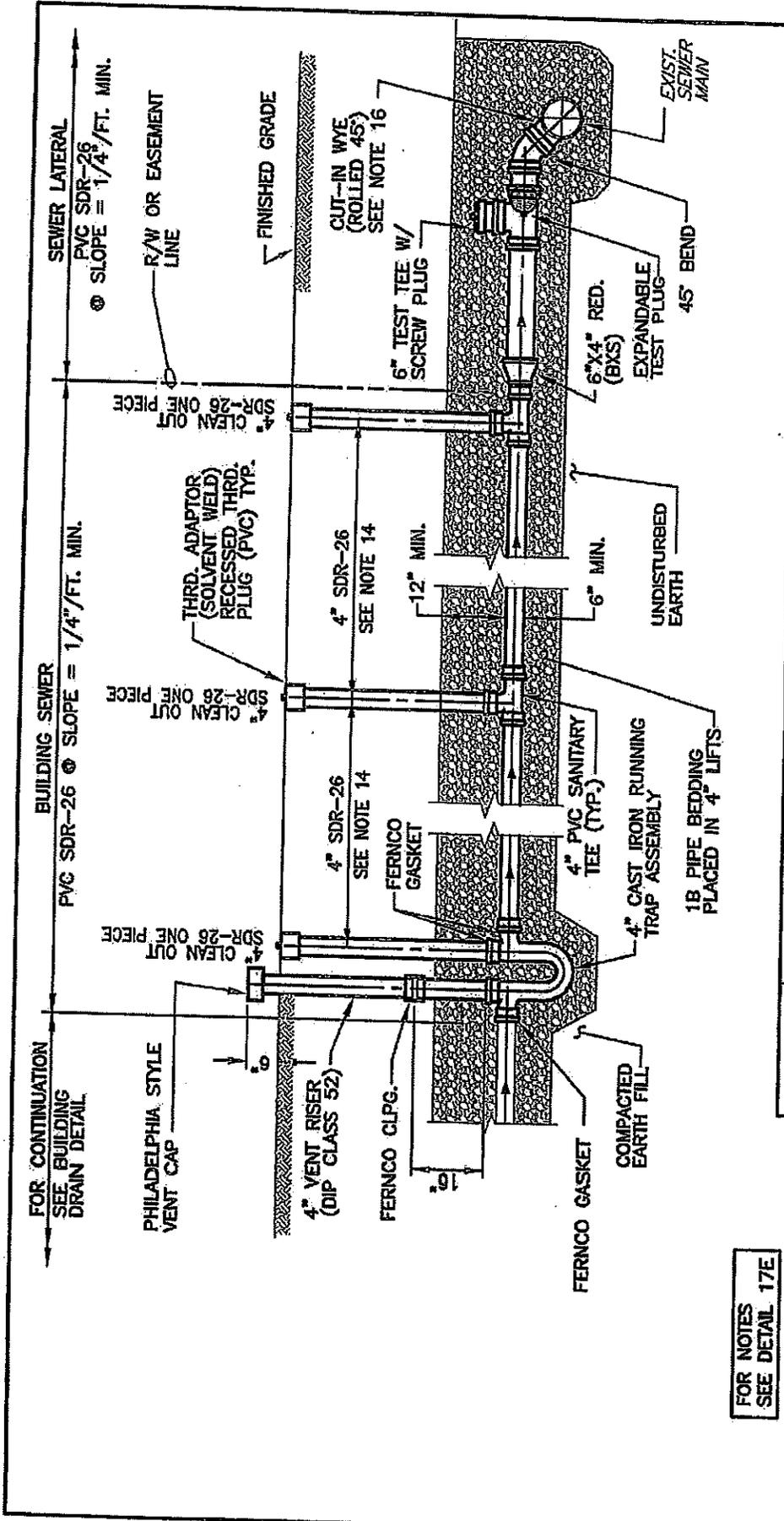
EAST COVENTRY TOWNSHIP
STANDARD DETAIL - SEWER SYSTEM

NEW BUILDING DRAIN
Through Foundation Or Under Foundation

ARRC
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 Suite 100, 649 North Lewis Road
 Limerick, Pennsylvania 19468
 Tel 610.485.0303

DATE: MARCH 10, 2008
 DETAIL: 17A

FOR NOTES SEE DETAIL 17E



Suite 100, 649 North Lewis Road
 Limerick, Pennsylvania 19468
 Tel. 610.495.0303

DATE: MARCH 10, 2008

DETAIL: 17C

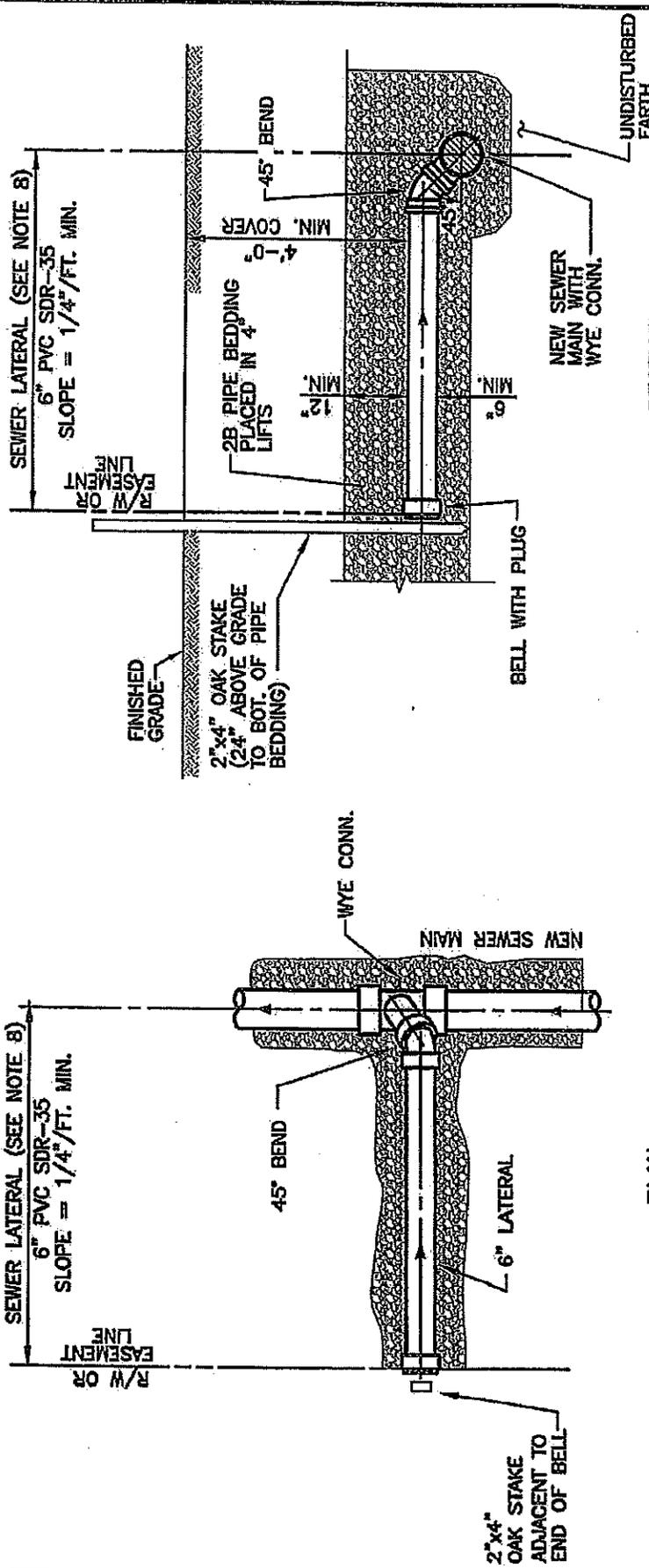
EAST COVENTRY TOWNSHIP

STANDARD DETAIL - SEWER SYSTEM

**NEW BUILDING SEWER & LATERAL
 CONNECTION TO EXISTING MAIN**

REVISION	DATE

FOR NOTES
 SEE DETAIL 17E



PLAN

SECTION

FOR NOTES
SEE DETAIL 17E.

ARRO
ARRO Consulting, Inc.
Suite 100, 849 North Lewis Road
Limerick, Pennsylvania 19468
Tel. 610.495.0303

DATE: MARCH 10, 2008
DETAIL: 17D

EAST COVENTRY TOWNSHIP
STANDARD DETAIL - SEWER SYSTEM
NEW LATERAL
AND SEWER MAIN

REVISION	DATE

NOTES:

1. BUILDING SEWER SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL PLUMBING CODE.
2. BUILDING SEWER (4") IS MINIMUM, LARGER PIPE MAY BE USED IF REQUIRED & CONSISTENT WITH LOCAL PLUMBING CODE.
3. ALL LATERALS SHALL BE PLUGGED & MARKED WITH A STAKE AS INDICATED WHEN INSTALLED PRIOR TO BUILDING SEWER.
4. ACCORDING TO FIELD CONDITIONS, VERTICAL RISER (SEE STANDARD DETAIL) MAY BE UTILIZED WHEN AUTHORIZED BY THE TOWNSHIP ENGINEER.
5. TO CONDUCT TESTING OF BUILDING SEWER, INSTALL EXPANDABLE TEST PLUGS AT LOCATIONS SHOWN. AT COMPLETION OF SUCCESSFUL TESTING, REMOVE PLUGS.
6. NO BUILDING SEWER VENT CAPS SHALL BE INSTALLED WITHIN A 100-YR FLOOD PLAIN OR WITHIN FLOOD PRONE AREAS.
7. NO VENT CAPS OR CLEANOUTS SHALL BE INSTALLED IN DRIVEWAYS OR OTHER PAVED AREAS, UNLESS SPECIFICALLY APPROVED BY THE TOWNSHIP.
8. WHEN INSTALLED PRIOR TO BUILDING SEWER THE LATERAL SHALL BE INSTALLED TO THE EDGE OF THE SEWER EASEMENT FOR SEWERS LOCATED IN AN EASEMENT OR TO THE STREET RIGHT-OF-WAY AS A MIN., OR TO SUCH POINT, AS REQUIRED, TO CLEAR STREET SIDEWALKS & UNDERGROUND UTILITIES.
9. FOR NEW SEWER MAINS AND LATERALS INSTALLED PRIOR TO BUILDING SEWER, INSTALL & TEST LATERAL CONCURRENTLY WITH MAIN. INSTALL 2"x4" ONE-PIECE WOOD MARKER 24" ABOVE GRADE WITH FOOTAGE MARK TO INDICATE DEPTH TO INVERT AT END OF LATERAL. AFTER CONNECTION OF BUILDING SEWER, REMOVE MARKER.
10. FOR CONNECTION TO EXISTING SEWER MAINS, CONCURRENTLY TEST BUILDING SEWER & LATERAL UP TO TEST TEE.
11. REFER TO SECTION 6 OF TECHNICAL SPECIFICATIONS FOR COMPLETE MATERIAL, INSTALLATION & TESTING REQUIREMENTS.
12. TEST PRESSURE: MINIMUM RESIDUAL PRESSURE OF 5.0 PSI MUST BE MAINTAINED FOR 15 MINUTES WITHOUT INTRODUCTION OF ADDITIONAL AIR.
13. FOR NEW BUILDING STRUCTURES, THE DISTANCE FROM OUTSIDE FACE OF EXTERIOR WALL TO CENTERLINE OF VENT SHALL BE 10'-0" MAXIMUM. FOR EXISTING BUILDING STRUCTURES, THE PLUMBER SHALL DETERMINE THE APPROPRIATE DISTANCE, BUT IT SHALL BE AS CLOSE TO THE BUILDING STRUCTURE AS PRACTICABLE.
14. CLEANOUTS SHALL BE INSTALLED AT MAXIMUM FIFTY (50) FOOT INTERVALS, UNLESS 6" DIAMETER BUILDING SEWER PIPE IS UTILIZED, IN WHICH CASE THE CLEANOUTS SHALL BE INSTALLED AT MAXIMUM ONE HUNDRED (100) FOOT INTERVALS. A CLEANOUT SHALL BE INSTALLED AT EACH CHANGE IN HORIZONTAL DIRECTION.
15. THE TOWNSHIP MANAGER MAY APPROVE MINOR DEVIATION(S) FROM THE REQUIREMENT(S) OF THE 17-SERIES DETAILS ON A CASE-BY-CASE BASIS (E.G. DEPTH OF COVER OVER BUILDING SEWER, TRAP LOCATION, ETC.) UPON BEING FURNISHED SUFFICIENT JUSTIFICATION THAT SAID REQUIREMENT(S) CANNOT BE MET DUE TO ACTUAL FIELD CONDITIONS.
16. NEW BUILDING SEWERS & LATERALS SHALL BE CONNECTED TO EXISTING MAINS VIA CUT-IN WYES. THE CUT-IN WYE SHALL BE CONNECTED TO THE EXISTING MAIN ON BOTH SIDES WITH FRESCO COUPLINGS.
17. ON DETAIL 17B, THE CONNECTION TO THE EXISTING LATERAL MAY ALTERNATIVELY BE MADE WITH A 6"x4" REDUCER (BxS) FOLLOWED BY A 4" TEST TEE (BxBxS) WITH 4" CLEAN OUT RISER.

NOTE:
USE THE ABOVE NOTES WITH DETAILS 17A, 17B, 17C & 17D

DWG. NAME 5222SD17_ABCDE

		EAST COVENTRY TOWNSHIP STANDARD DETAIL - SEWER SYSTEM	 ARRO <i>ARRO Consulting, Inc.</i> Suite 100, 649 North Lewis Road Umerick, Pennsylvania 19468 Tel 610.495.0303
REVISION	DATE		DETAIL: 17E