Taylor Regional Sewer District
Construction Standards
& Specifications

These guidelines are applicable for customer connections to the low-pressure system for customers in the service area.

2025

See footer for specific date and last page for version history notes

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Guidelines for Building Sewer Construction

Taylor Regional Sewer District

Howard County, Indiana

The following guidelines shall apply for all single-family residential, multi-family residential, and commercial/industrial services users connecting to Taylor Regional Sewer District (District) sanitary sewer collection system.

These guidelines cover the administrative procedure and the construction requirements of the customer connections to the existing low-pressure system.

The provisions of this document are intended to provide guidance to retire existing septic systems and to provide uniform sewer connection procedures to prevent infiltration and contaminants from entering and damaging the District's sewer system.

Future connections to the systems above will be performed under the development standards of the appropriate utility jurisdiction.

PART 1 – Administrative

1.1 Background-

A. The Regional Sewer District low-pressure system was designed in 2004.
B. Description of Property Owner and Utility Responsibility
    1. For the low-pressure system-
        a.) The utility will own and maintain:
            1. The main pressure sewer line located in the existing road right of way.
            2. Grinder pump maintenance not installation.

        b.) The property owner will be responsible for operating and maintaining the following items installed by the project:

            1. The pressure sewer lateral from the force main to grinder pump station including stainless steel curb stop.
            2. The installation of grinder pump station and alarm control panel.

        c.) The property owner will also be responsible for installing, operating and maintaining:
            1. The electrical circuit to energize the grinder pump station.
            2. The gravity sewer lateral from the grinder pump station lateral stub to the point where the building sewer line exits the structure.
            3. In addition, the property owner is responsible for abandoning the existing septic system using proper decommission procedures.

1.2 Forms

A. The following documents shall be executed during the building sewer application process.

1. Application for Sewer Connection Permit
2. Sewer Connection Permit issued permit.
3. Any private easements needed through neighboring properties must be signed and recorded. A copy of the recorded private sewer easement must be submitted to the District.

1.3 Submittals and Permitting Process

A. Customer/installing contractor completes the District permit application and submits it to the District.

B. District reviews/confirms the following:
   1. Submitted forms for completeness.
   2. Confirms permit, inspection, capacity fees and any other charges have been paid.
   3. Once all required documents are received (insurance, bonds, etc.), the District signs off on the forms and sends them back to the customer via email or US Postal Service.

C. After the customer/contractor receives the approved permit application, the customer/contractor is allowed to proceed with the connection work. The customer/contractor may:
   1. Install sewer pipe and fittings with partial bedding leaving top of pipe exposed.
   2. Make connection to the house end (but not utility end).
   3. Make final connection/hot tap at time of inspection-leaving all connection work exposed.
   4. The base and bedding of grinder pump stations must be visible for inspection by the District inspector, or

photo/video documentation must be submitted for approval.

D. Prior to final connection the customer/contractor shall schedule an inspection (at least 48-hour notice) with the District.

E. Upon successful inspection of sewer connection, then the following will occur:
    1. The District will sign off on connection after receiving a passed inspection report.
    2. Billing from District will begin.
    3. If septic tank abandonment is required, the District inspector will inspect and fill out the inspection report and they will be emailed to Drew Cornell drew.cornell@howardcountyin.gov or the appropriate Health Department personnel.

PART 2 – Agreements, Codes, Standards and Ordinances

The following agreements, codes, standards, and ordinances are all applicable to the work herein described, either in part or entirety, except that where more stringent requirements are set forth under codes, laws, and ordinances of federal, state and/or local governing bodies having jurisdiction, those more stringent requirements take precedence. Wherever a conflict exists between this document and the Sewer Use Ordinance, the Ordinance shall govern.

1. Sewer Use and Rate Ordinances as published by Taylor Regional Sewer District
2. BOCA National Plumbing Code, current edition, with Indiana amendments

3. NFPA 70 National Electrical Code, current edition, with Indiana amendments
4. Indiana State Department of Health, Bulletin S.E. 13 “On Site Water Supply and Wastewater Disposal for Public and Commercial Establishments”, current edition
5. Indiana Administrative Code 410 IAC 6-8.1 “Residential Sewage Disposal Systems”
6. Wastewater Ten State Standards

2.1 – Insurance

Prior to execution of the work, all contractors must procure and maintain insurance of the types and limits specified by the Board from a carrier licensed to do business in the State of Indiana. All such insurance must be evidenced by a “Certificate of Insurance” to be submitted with the “Application for Sewer Connection Permit”.

Certificate of Insurance Requirements:
Before the District accepts the “Application for Sewer Connection Permit”, the contractor shall show one of the following proofs of insurance when filing the application.

Public Liability and Property Damage Insurance in an amount not less than one Million dollars ($1,000,000.00) in case of damage or injury to one or more persons.

Homeowners completing work without a contractor shall either present a Property Owner’s policy amended, or obtain a separate policy, to cover damages to the public sewer system from their operations. Such coverage shall be issued in the amount of $10,000 and be evidenced by a “Certificate of Insurance” to be submitted with the “Application for Sewer Connection Permit”.

2.2 – Bonds

In addition to Insurance, all contractors and their subcontractors engaged in providing all or any part of the work of connecting a building or buildings to the main sewer system with a building sewer must furnish guaranteed surety to the District in the form of a permit bond in the amount of $10,000, in the event that the contractor or subcontractor damages any part of the public sewer
system or the grinder pump station for which corrective action must be taken by the District.

2.3 – Local Permit Fees

Customer or Installing Contractor (CIC) shall obtain any appropriate permit from the County and City Building Department for the electrical connection to the grinder pump station.

PART 3 – Materials

3.1 Gravity Sewer and Pressure Sewer Laterals

A. Sewer laterals 50’ or more from water wells (public or private):

1. Any new building sewer gravity laterals, installed between the structure and the grinder pump station or the structure and the gravity sewer, shall be SDR 26 Polyvinyl Chloride (PVC) pipe or SDR 35 Polyvinyl Chloride (PVC) pipe with gasketed, push on joints. Glued-joint pipes are not acceptable. Glued fittings are only allowed at the connection point to the existing building sewer or the connection point to the grinder pump station lateral stub. Existing lateral pipes conforming to current County Health Department

standards may continue to be utilized, provided all other applicable standards herein are maintained.

B. Sewer laterals less than 50’ from water wells (public or private)

1. Minimum separation requirements as stipulated in IAC 410 shall be observed whenever potable water wells are located within the minimum isolation distances defined therein.

2. Specifically, IAC 410-6-8.3 57d – Sewers shall not be located within fifty (50) feet of any water supply well or subsurface pump action line, except as follows:
    a. Sewers constructed of waterworks grade ductile iron pipe with tyton or mechanical joints, or PVC pressure sewer pipe with an SDR rating of twenty-one(21) or less with compression on gasket joints, may be located within the fifty (50) foot distance.

    b. In no case shall sewers be located closer than twenty (20) feet to dug and bored water supply wells or closer than ten (10) feet to drilled and driven water supply wells or subsurface pump suction lines.

C. Sewer lateral size and scope:

1. Sanitary service laterals shall be:
    a. six (6) inches for single family residential dwellings or small commercial connections connecting to a grinder pump station, or
    b. six (6) inches in diameter for single family residential dwelling connecting to a gravity sewer, or
    c. If the existing sewer lateral coming from the house is not six (6) inches in diameter, the contractor or property owner shall install a fitting to increase or reduce the size to six (6) inches.

2. 6-inch diameter laterals shall be laid at a minimum depth of 4 feet, minimum slope of 1.0% and a maximum slope of 12.0%. (Minimum and maximum slopes taken directly from 410 IAC 6-8.2-62)

D. The property owner is responsible for everything from the sewer main (force main) to the home. There are sewer lateral spurs with Grinder Pump Stations that were installed by the District in 2004; however, not all properties will have access to one. (Refer to current sewer use ordinance for clarification.) In instances where pressure sewer laterals must be constructed due to inadequate or negative slope between building sewer and the gravity sewer lateral stub or the grinder pump stations lateral stub, a property owner may need to install a sewage ejector (either inside or outside of the house) and a pressure sewer lateral, the following special provisions will apply:
    1. Pipe shall be of waterworks grade, with gasket, pressure grade push on joints (i.e., SDR 21 PVC or Class 52 ductile iron pipe or HDPE DR 11, 200 psi pressure rating.)

    2. The ejector pit shall be located greater than 50 feet of potable water wells (public or private).

    3. The pump a/o ejector pit shall not be capable of exceeding a flow rate of 14 gallons per minute and shall not pump waste in intervals exceeding 10 gallons. (Sometimes referred to as "slugs".)

    4. The District reserves the right to require anyone obtaining a permit for this type of connection to also provide pump curve performance data and shop drawings for the pump and ejector pit they are proposing to use.

PART 4 – Installation

4.1 Installation

A. Building sewers should be installed using the shortest and most direct route to the grinder pump station. Interior plumbing modifications are suggested rather than excessive changes of direction in the building sewer. Any new plumbing done inside the house to within 5 feet of the home must be performed by a licensed plumber unless the homeowner does this work.

B. Prior to the start of the work, both the location and elevation for the building sanitary drain and lateral connection to the sewer system must be identified to determine if slope is available at the allowable distance. The lateral connection location can be obtained from record drawings maintained by the District. Should inadequate or negative slope exist, the only method of sewer hookup available would be the use of a sewage ejector pump and pressure sewer lateral.

C. All fittings shall be installed to guide sewage in the direction of flow. There shall be no elbows or bends greater than 45 degrees. Two consecutive 45-degree elbows shall not be closer than 1’ apart.

D. When connecting laterals to pipe of differing material or pipe diameters (typically at the connection to the grinder pump station gravity lateral, or connection to the existing building sewer), a Strong Back heavy duty Fernco coupling (or approved equivalent) shall be used. These are the only locations where such connectors shall be used.

E. Any open trench lateral construction shall be bedded in a minimum of 4” granular material conforming to Indiana Department of Transportation (INDOT) No. 8 or No. 11 gradations. Native soil may be used only if they consist of sand or other similar materials. Native

materials that include vegetables or other organic matter, all types of refuse, large pieces or fragments of concrete, large stones, boulders, or other similar materials shall not be used. Bedding shall be carefully placed up to the spring line of the pipe making sure that the lower quadrants of the pipe are firmly bedded and supported. Bedding shall continue to be placed to the top of the pipe. After inspection of the gravity sewer lateral, bedding shall be placed to 12” above the top of pipe. The trench section from the top of the pipe bedding to existing grade shall be carefully backfilled with suitable excavated material.

F. Backfill material shall be grade “B” borrow or approved bank run sand or gravel and shall be placed as backfill in six-inch layers equally on both sides of the pipe mechanically compacted to a point 12 inches above the top of the sewer pipe.The placement of this backfill material must be equally placed so as not to disalign the sewer pipe. The top of the granular backfill material shall be uniform so as to assure that the compacted backfill material will provide the necessary proper support to the sewer pipe. Backfill material to be placed between the area which is one foot above the top of the pipe and the surface of the ground shall be installed in a good workmanlike manner, and shall either be compacted with mechanical compaction equipment or by the use of water jetting. If water jetting is selected, the spacing of each jetting hole shall not exceed ten feet. The area immediately below the ground surface shall be replaced with a minimum of four inches of topsoil. The topsoil layer shall be seeded.

G. Backfilling for areas which are under hard surfaces, such as sidewalks, drives, alleys, streets, and parking lots, shall be performed with granular backfill which shall be either mechanically compacted or water jetted between the area of one foot above the top of the pipe to the bottom of the sub-base required for the various types of hard surface.

H. Suitable excavated material used for backfilling shall consist of loam, sand, or other similar materials. Backfill materials that include vegetables or other organic matter, all types of refuse, large pieces or fragments of concrete, large stones, boulders, or other similar materials shall not be used. At all times during work, proper care must be taken to keep the trench and any other excavation free from any ground and surface water. Such equipment must be supplied and maintained to keep excavations dry until the sewer pipe bedding and backfill are complete. Drain or pump water away from work to a suitable location without interference to adjoining property Refer to typical details attached hereto for details regarding building sewer connections, pipe bedding and backfill requirements.

I. A two directional sewer cleanout shall be installed a maximum of 5 feet from the building, or from the connection point to the building's existing gravity waste line.

J. Sewer cleanouts downstream of the first cleanout next to the house, shall be installed at a maximum of every 100 feet along any gravity type building sewer and can be two directions or single direction (towards grinder station). Accessible cleanouts can be installed at every change of direction or grade.

K. Cleanouts shall be extended to grade, pipe liners (frost sleeves) are recommended to be placed around the cleanout extension to grade. The cleanout shall be a "Y" fitting installed in the direction of sewer flow with a 45-degree fitting directed to grade. (See Figure 4.)

L. Cleanouts shall be the same diameter as the sewer lateral pipe.

M. Cleanout access shall not be covered and shall be readily accessible. Cleanouts shall be plugged or capped with an approved watertight lid.

N. The property owner is responsible for installing a green #12 tracer wire clamped to the house cleanout using a stainless steel hose clamp. This wire must be buried directly on top of the building sewer and shall terminate at the lid of the grinder station. Additionally, a separate green #12 tracer wire must be installed from the force main to the grinder pump station lid. In any location where the tracer wire will be installed beneath a roadway, two green #12 tracer wires are required to ensure redundancy and facilitate future location efforts.

O. Those existing sewer lines presently connecting the building sanitary drain to the septic tank, holding tank, which are also tied directly to a storm drain or drainage tile or other structure must be disconnected and abandoned.

P. The property owner shall make every effort necessary to avoid prohibited connections, which include but may not be limited to the following: rain, surface or subsurface water, sump pumps collecting rain and/or ground water, septic tanks, holding tanks, dry wells, and field drains. Under no circumstances shall stormwater, sump pump discharge, foundation drains, or any other unpolluted water source be connected to the sanitary sewer system. Internal piping shall be verified and inspected by the District before any connections are made. All Piping and fixtures on the property of the customer are assumed to be in satisfactory condition at the time the sewer connection is made, and sewer service furnished. The District reserves the right to require the correction of any unsatisfactory plumbing condition that may affect the integrity of the District sewer system if, during the inspection, such condition is found to exist. The

District reserves the right to make any necessary repairs, if the customer refuses to do so, and shall bill the customer for the cost of said repairs.

Q. The sewer lateral for all non-residential properties engaged in food service or food processing must include an acceptable self-contained grease trap. All non-residential properties engaged in food service or food processing are required to comply with the fats, oils, and grease (FOG) control provisions outlined in the **Taylor Regional Sewer District Sewer Use Ordinance 2024-2**. This includes the installation, maintenance, and reporting requirements for grease traps, grease interceptors, or oil-water separators. Developers and property owners should refer to **Articles VI and VII of the Ordinance** for full details.

R. The District recommends that the property owner install a check valve between their building drain and nearest cleanout. The District also recommends that the grinder pump station outlet nipple be constructed of flexible material to prevent cracking or failure later due to settling.

4.2 Electrical

A. Residential grinder pump station:
   a. single phase, 1 hp, 240 V, 1725 RPM motor.

   b. For Standard 240 V the grinder pump station requires a dedicated 30A circuit breaker with #10 wire to the E/One panel.

   c. The property owner may choose to install a separate disconnect switch either on the alarm panel post or within a line of site of the alarm panel, in accordance with state and local electrical codes.

d. The pump alarm panel supplied for the service areas are provided with an internal Main Service Disconnect. Wire sizes and grounding shall be in accordance with state and local electrical codes.

e. Electrical wire diagrams and installation instructions from the grinder pump station manufacturer. (See attached E-One document, including drawings LM00326, ESD 08-0024, and pages 4–8.)

B. Commercial grinder pump station:
   a. Provide a dedicated electrical service sized and configured per the grinder pump manufacturer's requirements. Acceptable voltages include 240V single-phase or 208V/230V/460V three-phase, as required. Minimum service shall be 60 amps for single-phase or 30 amps per leg for three-phase, unless otherwise specified. Final voltage and phase shall be confirmed with the Engineer prior to submittals.

4.3 Septic Tank Abandonment

A. All existing septic tanks, holding tanks and drywells, distribution boxes, including all other buried containers and receptacles presently tied into the building and collecting waste, shall be disconnected, and properly abandoned or removed. All tanks, basins, containers, etc. shall, prior to backfill or removal, be emptied clean by a licensed septage service. Such work shall be documented by a receipt from a licensed septic hauler.

B. The contents of the septic tank must be disposed of in a way meeting all Local and State health department standards. Contents of the waste shall not be disposed of in the Districts system.

C. Containers or receptacles constructed of materials subject to deterioration over a short period of time shall be removed and hauled from site.

D. Those septic tanks constructed of concrete or masonry may remain in place if found in sound condition. Tops or lids shall be removed and hauled from site or crushed into the tank. If built with solid bottoms, material must be broken up to allow for proper drainage, then backfilled with debris- free sand or granular material, compacted in place to prevent settling. Where flowable mortar is used, the septic tank top may remain intact, provided all voids within the tank are filled adequately.

E. The Sewer District Inspector shall inspect septic tank abandonment to ensure compliance with all local and State of Indiana regulations and submit documents to local Health Department.

F. Properly grade and establish vegetative cover.

G. If electrical power is involved with the existing septic system, it must be disconnected at the source and all control and lines removed.

PART 5 – Inspections

A. The District shall inspect all building sewers and sewer laterals to ensure compliance with these standards. At least a 48-hour notice for inspections is required.

B. The entire installation and final hookup shall be inspected prior to backfilling, to verify materials and installation. Any building sewer

lateral backfilled prior to an inspection approval shall be re-excavated at the owner's expense for inspection. In instances where service laterals are installed by directional drilling, the owner shall retain a sample of the piping material for verification by the inspector.

C. If it is to remain in place, the existing septic tank abandonment must be inspected prior to backfill.

D. Grinder pump station startup and warranty documents must be provided to the District.

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Figure 1 Sewer Force Main Typical Service Lateral Detail

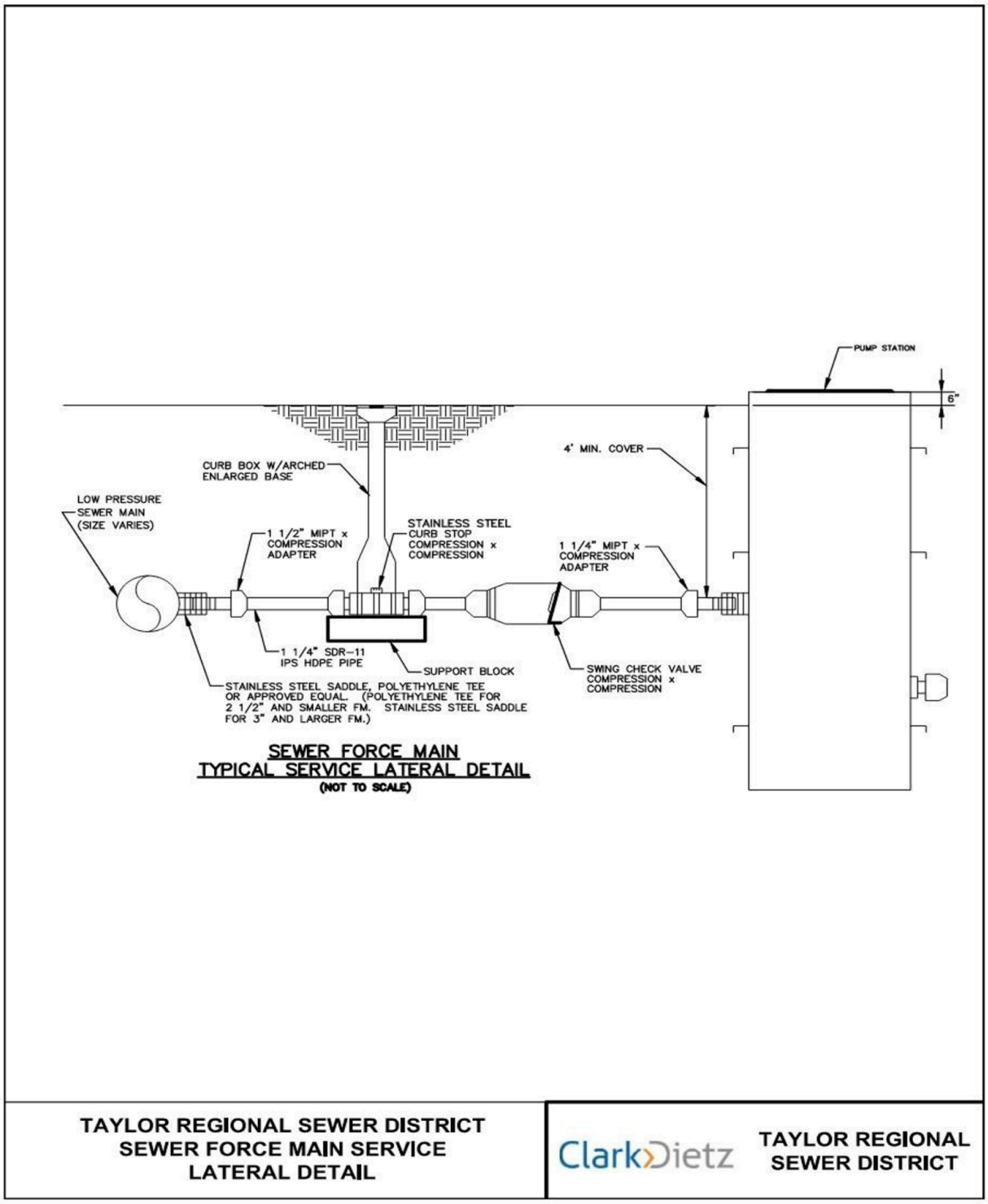
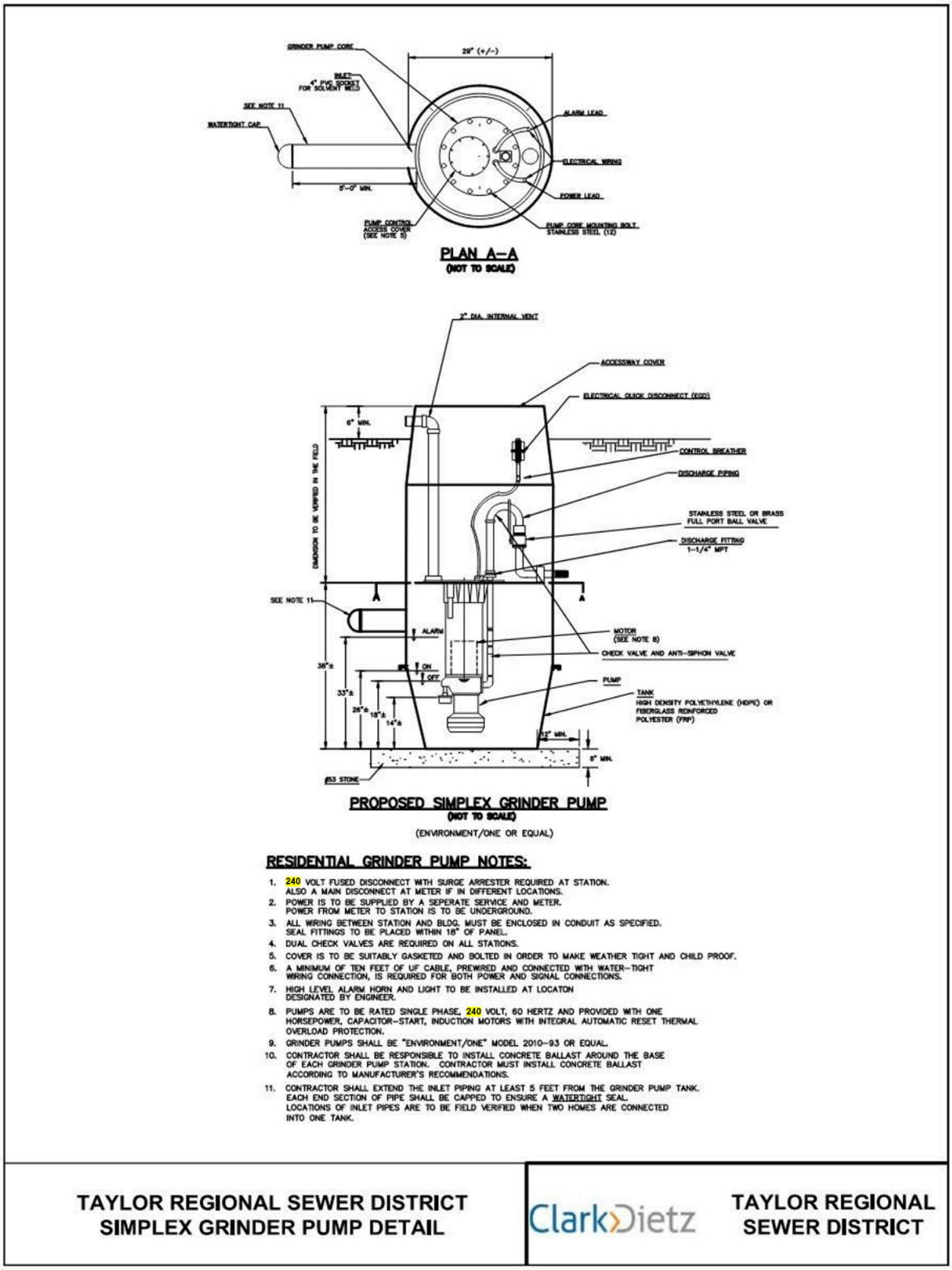


Figure 2 Proposed Simplex Grinder Pump Detail



RESIDENTIAL GRINDER PUMP NOTES:

1. 240 VOLT FUSED DISCONNECT WITH SURGE ARRESTER REQUIRED AT STATION. ALSO A MAIN DISCONNECT AT METER IF IN DIFFERENT LOCATIONS.
2. POWER IS TO BE SUPPLIED BY A SEPERATE SERVICE AND METER. POWER FROM METER TO STATION IS TO BE UNDERGROUND.
3. ALL WIRING BETWEEN STATION AND BLDG. MUST BE ENCLOSED IN CONDUIT AS SPECIFIED. SEAL FITTINGS TO BE PLACED WITHIN 18" OF PANEL.
4. DUAL CHECK VALVES ARE REQUIRED ON ALL STATIONS.
5. COVER IS TO BE SUITABLY GASKETED AND BOLTED IN ORDER TO MAKE WEATHER TIGHT AND CHILD PROOF.
6. A MINIMUM OF TEN FEET OF UF CABLE, PREWIRED AND CONNECTED WITH WATER-TIGHT WIRING CONNECTION, IS REQUIRED FOR BOTH POWER AND SIGNAL CONNECTIONS.
7. HIGH LEVEL ALARM HORN AND LIGHT TO BE INSTALLED AT LOCATON DESIGNATED BY ENGINEER.
8. PUMPS ARE TO BE RATED SINGLE PHASE, 240 VOLT, 60 HERTZ AND PROVIDED WITH ONE HORSEPOWER, CAPACITOR-START, INDUCTION MOTORS WITH INTEGRAL AUTOMATIC RESET THERMAL OVERLOAD PROTECTION.
9. GRINDER PUMPS SHALL BE "ENVIRONMENT/ONE" MODEL 2010-93 OR EQUAL.
10. CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL CONCRETE BALLAST AROUND THE BASE OF EACH GRINDER PUMP STATION. CONTRACTOR MUST INSTALL CONCRETE BALLAST ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
11. CONTRACTOR SHALL EXTEND THE INLET PIPING AT LEAST 5 FEET FROM THE GRINDER PUMP TANK. EACH END SECTION OF PIPE SHALL BE CAPPED TO ENSURE A WATERTIGHT SEAL. LOCATIONS OF INLET PIPES ARE TO BE FIELD VERIFIED WHEN TWO HOMES ARE CONNECTED INTO ONE TANK.

TAYLOR REGIONAL SEWER DISTRICT SIMPLEX GRINDER PUMP DETAIL	ClarkDietz	TAYLOR REGIONAL SEWER DISTRICT

Figure 3 Typical Pipe Bedding Detail

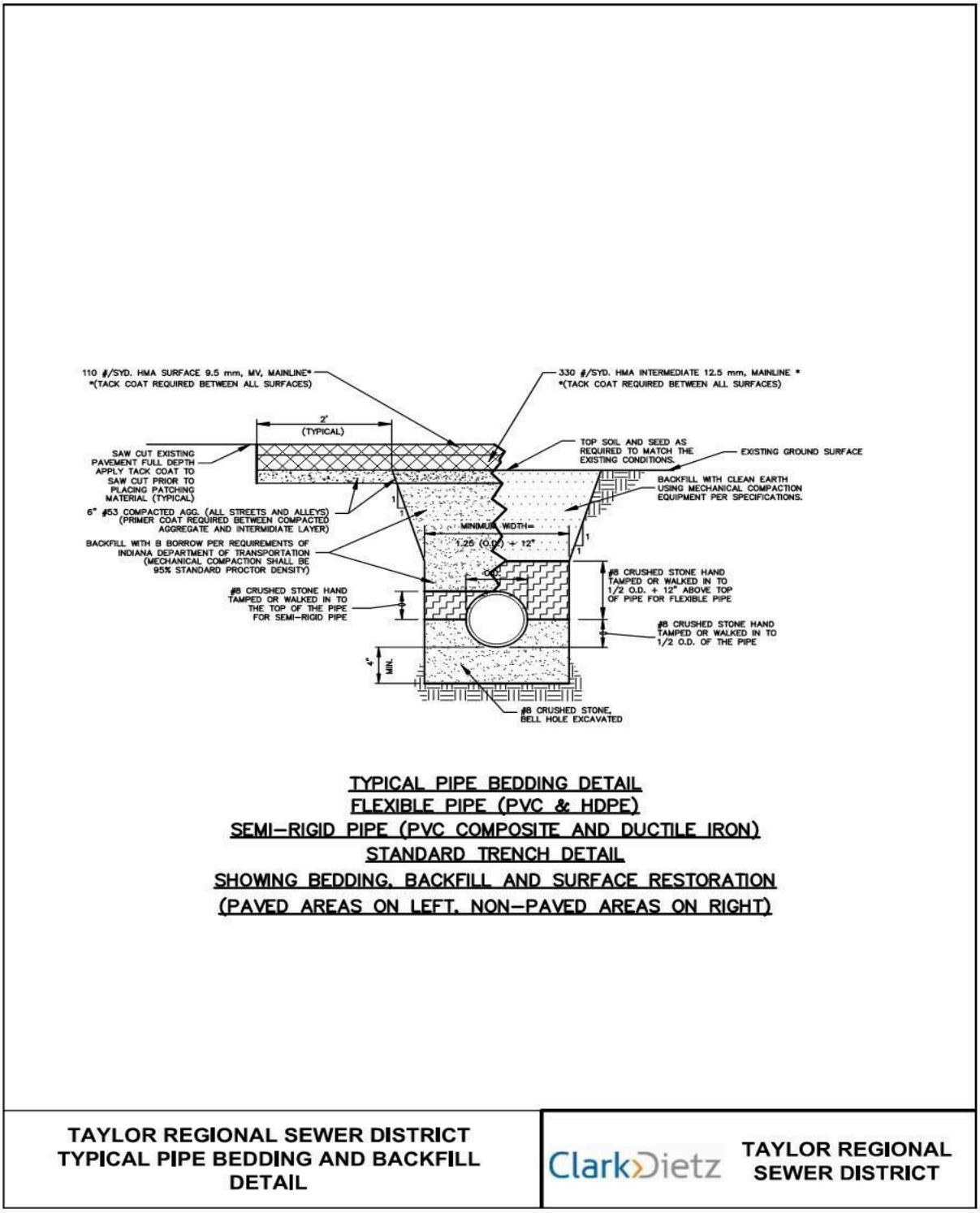
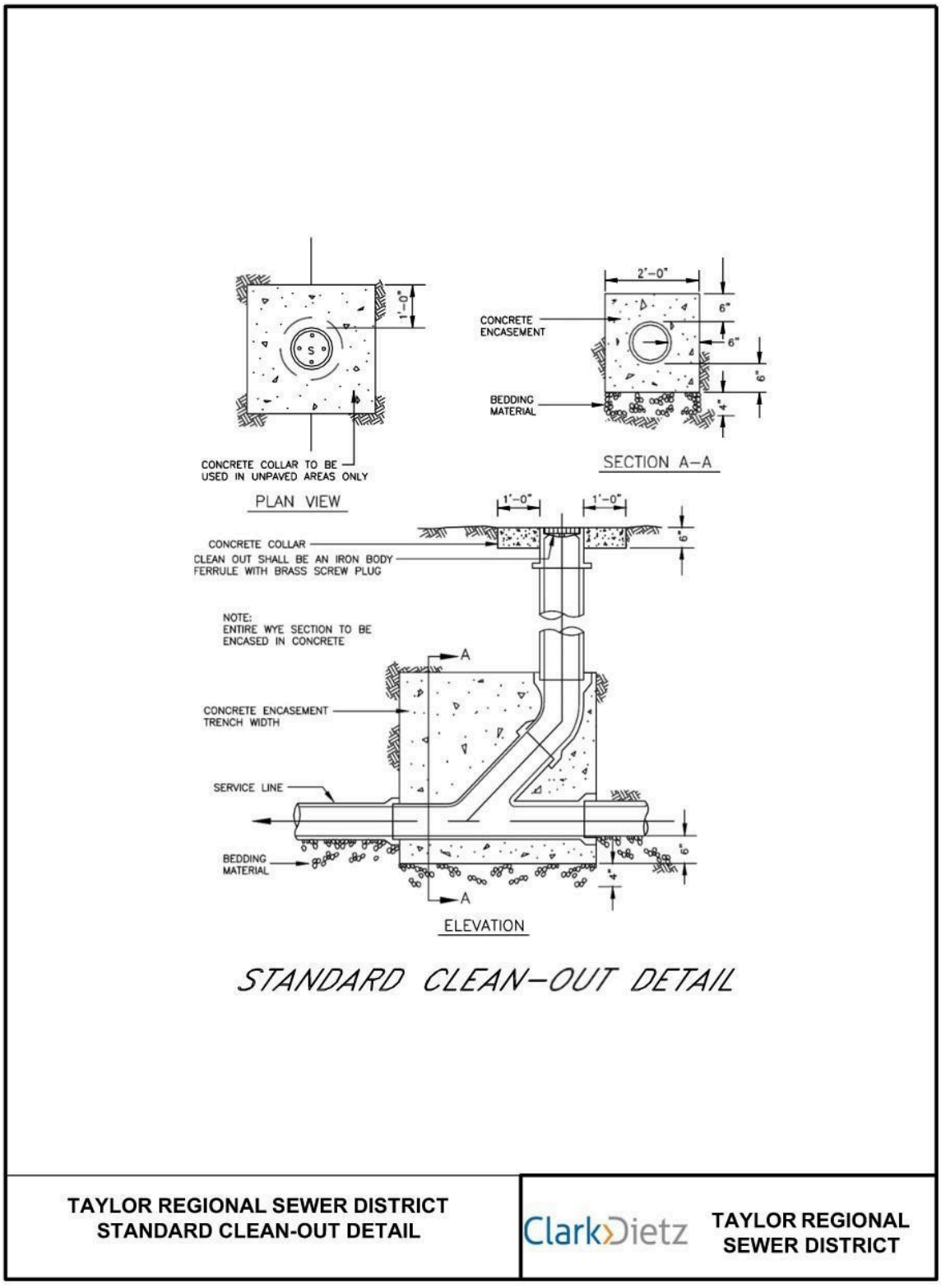


Figure 4 Typical Cleanout Detail



Version History / Update Notes

May 12, 2025 - final draft presented by Clark Dietz to district for adoption. Project complete.

June 4, 2025 -To maintain specification consistency, the 120V grinder pump previously listed in the standards has been removed, leaving the 240V model details in place. This change aligns with the district's current practice of stocking and exchanging 240V grinder pumps for property owners at the district's expense.

December 23, 2025 - The curb stop, located between the main and the grinder pump, was updated to a stainless steel construction. Additionally, Part 4 Installation was revised to include Letter R, which recommends installing a check valve between the nearest cleanout and the building drain. A flexible nipple outlet from the grinder pump station is also now recommended.