

Marshall County Ordinance # 28
Sanitary Sewer

AN ORDINANCE REGULATING THE USE OF PUBLIC SEWER, BUILDING SEWERS AND BUILDING DRAINS, ONSITE SYSTEMS, PRIVATE SEWAGE DISPOSAL, THE INSTALLATION AND CONNECTION OF BUILDING SEWERS, AND THE DISCHARGE OF WATERS AND WASTES INTO THE PUBLIC SEWER; AND PROVIDING PENALTIES FOR VIOLATIONS THEREOF; IN THE PUBLIC SEWER SERVICE AREA, OWNED AND OPERATED BY MARSHALL COUNTY, IOWA, IN MARSHALL COUNTY, STATE OF IOWA.

BE IT ORDAINED AND ENACTED, by Board of Supervisors of Marshall County, State of Iowa as follows:

ARTICLE I

Definitions.

Unless the context specifically indicates otherwise, the meaning of terms used in this ordinance shall be as follows:

Sec. 1. Marshall County, Iowa is the owner of the sewage works.

Sec. 2. "BOD" (denoting Biochemical Oxygen Demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at 20 degrees C, expressed in milligrams per liter.

Sec. 3. "Building Drain" shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from sewage pipes inside the walls of the building and conveys it outside the walls of the building to the building sewer.

Sec. 4. "Building Sewer" shall mean that part of the lowest horizontal pipe which begins outside of the wall of a building and connects the building drain with the public sewer or other disposal terminal.

Sec.5. "Combined Sewer" shall mean a sewer receiving both surface runoff and sewage.

Sec. 6. "Marshall County" shall mean Marshall County, Iowa or its authorized deputy, agent, or representative.

Sec. 7. "Garbage" shall mean solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage, and sale of produce.

Sec. 8. "Industrial Wastes" shall mean the liquid wastes from industrial manufacturing processes, trade, or business as distinct from sewage.

Sec. 9. "Natural Outlet" shall mean any outlet into a watercourse, pond, ditch, lake, or other body of surface or groundwater.

Sec. 10. "Person" shall mean any individual, firm, company, association, society, corporation, tenant, property owner, or group.

Sec. 11. "pH" shall mean the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

Sec. 12. "Private Sewer" shall mean a building sewer line.

Sec. 13. "Properly Shredded Garbage" shall mean the wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half (1/2) inch in any dimension.

Sec. 14. "Public Sewer" shall mean the sewage works.

Sec. 15. "Sanitary Sewer" shall mean a pipeline which carries sewage and to which storm, surface, and ground waters are not intentionally admitted.

Sec. 16. "Service Area" shall mean the portion of the unincorporated or incorporated area(s) in the County served by the public sewer owned and operated by Marshall County, Iowa.

Sec. 17. "Sewage" shall mean a combination of the water-carried wastes such as residences, business buildings, institutions, and industrial establishments from toilets, sinks, kitchen, bath, shower, and laundry facilities.

Sec. 18. "Sewage Treatment Plant" shall mean any arrangement of devices and structures used for treating sewage.

Sec. 19. "Sewage Works" shall mean all facilities for collecting, pumping, treating, and disposing of sewage, including onsite systems owned and operated by Marshall County, Iowa.

Sec. 20. "Sewer" shall mean a pipe or conduit for carrying sewage.

Sec. 21. "Shall" is mandatory; "May" is permissive.

Sec. 22. "Slug" shall mean any discharge of water, sewage, or industrial waste which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration or flows during normal operation.

Sec. 23. "Storm Drain" (sometimes termed "storm sewer") shall mean a sewer which carries storm and surface waters and drainage, but excludes sewage and industrial wastes other than unpolluted cooling water.

Sec. 24. "Superintendent" shall mean the authorized deputy, agent, or representative of Marshall County, Iowa.

Sec. 25. "Suspended Solids" shall mean solids that either float on the surface of, or are in suspension in water, sewage, or other liquids, and which are removable by laboratory filtering.

Sec. 26. "Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently.

ARTICLE II

Use of Public Sewers Required.

Sec. 1. It shall be unlawful for any person to place, deposit, or permit to be deposited any sewage in any unsanitary manner on public or private property within the Service Area or in any area under the jurisdiction of said County.

Sec. 2. It shall be unlawful to discharge to any natural outlet within the Service Area any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this ordinance.

Sec. 3. Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of sewage in the Service Area other than the Public Sewer owned and operated by Marshall County, Iowa.

Sec. 4. A Person that owns a house, building, or properties used for human occupancy, employment, recreation, or other purposes, situated within the Service Area and abutting on any street, alley, or right-of-way in which there is now located or may in the future be located a public sewer is hereby required to connect sewage facilities to the public sewer in accordance with the provisions of this ordinance, within sixty (60) days after date of official notice to do so.

ARTICLE III

Private Sewage Disposal.

Sec. 1. Where a public sewer is not available the building sewer shall be connected to a private sewage disposal system complying with the provisions of the County Board of Health.

ARTICLE IV

Building Sewers and Connections.

Sec. 1. Specific Requirements:

a. Rain Water Leaders: Roof leaders, surface drains, or ground water drains shall not be connected to the sanitary sewer.

b. Connection to the Public Sewer. Before any connection is made to a public sewer, an approved permit for such connection must be obtained from the Marshall County Public Environmental Health Department.

c. Water softener recharge water may not be connected to the building sewer.

Sec. 2. Supervision. The Marshall County Buildings and Grounds Department shall supervise all building sewers, connections, and excavations for the purpose of installing or repairing the same.

Sec. 3. Specifications:

a. Material: Building sewers shall be constructed of materials approved by the Marshall County Buildings and Grounds Department. (See Appendix A)

Sec. 4. Inspection. Each and every part of the building sewer shall be inspected and approved by the Marshall County Buildings and Grounds Department (or its designee) before being concealed or backfilled.

ARTICLE V

Use of Sanitary Sewers.

Sec. 1. No Person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewer:

a. Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid, or gas.

b. Any waters or wastes containing toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, create a public

nuisance, or create any hazard in the receiving waters of the sewage treatment plant, including but not limited to cyanides in excess of two (2) mg/l as CN in the wastes as discharged to the public sewer.

c. Any waters or wastes having a pH lower than 5.5, or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the sewage works.

d. Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, tar, feathers, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.

e. Any waters or wastes having (1) a 5-day biochemical oxygen demand greater than 300 parts per million by weight, or (2) containing more than 350 parts per million by weight of suspended solids, or (3) having an average daily flow greater than 10 percent of the average sewage flow of the service area, shall be subject to the review of the Marshall County Buildings and Grounds Department. Where necessary in the opinion of the Marshall County Buildings and Grounds Department, the Person shall provide, at his expense, such preliminary treatment as may be necessary to (1) reduce the biochemical oxygen demand to 300 parts per million by weight, or (2) reduce the suspended solids to 350 parts per million by weight, or (3) control the quantities and rates of discharge of such waters or wastes. Plans, specifications, and any other pertinent information relating to proposed preliminary treatment facilities shall be submitted for the approval of the Marshall County Buildings and Grounds Department and no construction of such facilities shall be commenced until said approvals are obtained in writing.

Sec. 4. No Person shall discharge or cause to be discharged the following described substances, materials, waters, or wastes if it appears likely in the opinion of the Marshall County Buildings and Grounds Department that such wastes can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the Marshall County Buildings and Grounds Department will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree of treatability of wastes in the sewage treatment plant, and other pertinent factors. The substances prohibited are:

a. Any liquid or vapor having a temperature higher than one hundred fifty (150) degrees F (65 degrees C).

b. Any water or waste containing fats, wax, grease, or oils, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperatures between thirty-two (32) and one hundred fifty (150) degrees F (0 and 65 degrees C).

c. Any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor greater than 1 horsepower, shall be subject to the review and approval of the Marshall County Buildings and Grounds Department.

d. Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not.

e. Any waters or wastes containing iron, chromium, copper, zinc, and similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established by the Marshall County Buildings and Grounds Department for such materials.

f. Any waters or wastes containing phenols or other taste- or odor-producing substances, in such concentrations exceeding limits which may be established by the Marshall County Buildings and Grounds Department as necessary, after treatment of the composite sewage, to meet the requirements of the State, Federal, or other public agencies of jurisdiction for such discharge to the receiving waters.

g. Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Marshall County Buildings and Grounds Department in compliance with applicable State or Federal regulations.

h. Any waters or wastes having a pH in excess of 9.5.

i. Materials which exert or cause:

(1) Unusual concentrations of inert suspended solids (such as, but not limited to, Fullers earth, lime slurries, and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate).

(2) Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions).

(3) Unusual BOD, chemical oxygen demand, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works.

(4) Unusual volume of flow or concentration of wastes constituting "slugs" as defined herein.

j. Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed, or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.

Sec. 5. If any waters or wastes are discharged, or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in Section 4 of this Article, and which in the judgment of the Marshall County Buildings and Grounds Department, may have a deleterious effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Marshall County Buildings and Grounds Department may:

a. Reject the wastes,

b. Require pretreatment to an acceptable condition for discharge to the public sewers,

c. Require control over the quantities and rates of discharge, and/or

d. Require payment to cover the added cost of handling and treating the wastes not covered by the sewer charges.

e. Other agreed upon method.

If the Marshall County Buildings and Grounds Department permits the pretreatment or equalization of waste flows, the design and installation Marshall County Buildings and Grounds Department of the plants and equipment shall be subject to the review and approval of the Marshall County Buildings and Grounds Department, and subject to the requirements of all applicable codes, ordinances, and laws.

Sec. 6. Grease, oil, and sand interceptors shall be provided when, in the opinion of the Marshall County Buildings and Grounds Department, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Marshall County Buildings and Grounds Department, and shall be located as to be readily and easily accessible for cleaning and inspection.

Sec. 7. Where preliminary treatment or flow-equalizing facilities are provided for any waters or wastes, the Person controlling the preliminary treatment or flow-equalizing facility shall maintain it in continuous and satisfactory operation at the Person's expense.

Sec. 8. When required by the Marshall County Buildings and Grounds Department, the Person of any property serviced by a building sewer carrying industrial wastes shall install a suitable control manhole together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such manhole, when required, shall be accessibly and safely located, and shall be constructed in accordance with plans approved by the Marshall County Buildings and Grounds Department. The manhole shall be installed by the Person at their expense, and shall be maintained by the Person so as to be safe and accessible at all times.

Sec. 9. All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in this ordinance shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater," published by the American Public Health Association, and shall be determined at the control manhole provided, or upon suitable samples taken at said control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. Sampling shall be carried out by customarily accepted methods to reflect the effect of constituents upon the sewage works and to determine the existence of hazards to life, limb, and property. (The particular analyses involved will determine whether a twenty-four (24) hour composite of all outfalls of a premise is appropriate or whether a grab sample or samples should be taken. Normally, but not always, BOD and suspended solids analyses are obtained from 24-hr. composites of all outfalls whereas pH's are determined from periodic grab samples.)

Sec. 10. No statement contained in this article shall be construed as preventing any special agreement or arrangement between Marshall County Buildings and Grounds Department and any industrial concern whereby an industrial waste of unusual strength or character may be accepted

by the Marshall County Buildings and Grounds Department for treatment, subject to payment therefore, by the industrial concern.

ARTICLE VI

Protection from Damage.

Sec. 1. No unauthorized Person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment which is a part of the sewage works. Any Person violating this provision shall be subject to immediate arrest under charge of disorderly conduct.

ARTICLE VII

Powers and Authority of Marshall County Buildings and Grounds Department.

Sec. 1. The Marshall County Buildings and Grounds Department bearing proper credentials and identification shall be permitted to enter all properties for the purposes of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this ordinance. The Marshall County Buildings and Grounds Department shall have no authority to inquire into any processes including metallurgical, chemical, oil, refining, ceramic, paper, or other industries beyond that point having a direct bearing on the kind and source of discharge to the public sewers or waterways.

Sec. 2. While performing the necessary work on private properties referred to in Article V, the Marshall County Buildings and Grounds Department shall observe all safety rules applicable to the premises established by the Person and the Person shall be held harmless for injury or death to the Marshall County Buildings and Grounds Department. Marshall County, Iowa shall indemnify the Person against loss or damage to its property by the Marshall County Buildings and Grounds Department and against liability claims and demands for personal injury or property damage asserted against the Person and growing out of the gauging and sampling operation, except as such may be caused by negligence or failure of the Person to maintain safe conditions as required in Article V.

Sec. 3. The Marshall County Buildings and Grounds Department bearing proper credentials and identification shall be permitted to enter all private properties through which Marshall County, Iowa holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the sewage works lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement pertaining to the private property involved.

ARTICLE VIII

Infractions.

Sec. 1. Any violation of this ordinance shall be a county infraction punishable by a civil penalty of not more than seven hundred fifty dollars (\$750) for the first infraction and a civil penalty of not more than one thousand dollars (\$1,000) for each repeat offense.

Sec. 2. In addition to the civil penalty provided in Section 1 of this Article, the County may seek any relief available to it under Iowa Code to assure the abatement or correction of any violation of this ordinance.

Sec. 3. Any Person or other entity violating any of the provisions of this ordinance shall become liable to the County for any expense, loss or damage occasioned the County by reason of such violation.

ARTICLE IX

Repealer.

Sec. 1. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Sec. 2. The invalidity of any section, clause, sentence, or provision of this ordinance shall not affect the validity of any other part of this ordinance which can be given effect without such invalid part or parts.

ARTICLE X

Ordinance in Force.

Sec. 1. This ordinance shall be in full force and effect from and after its passage, approval, and publication as provided by law.

Sec. 2. Passed and adopted by Marshall County, Iowa.

Dated at Marshalltown, Iowa, this 11th day of December, 2007

Includes Appendixes A, B, C & D.

History:

December 11, 2007, Recorded Instrument No. 2008-00000669

Appendix A

Gravity Sewer Service Pipe

- A. Pipe:
 - 1. Solid wall polyvinyl chloride (PVC) pipe and fittings manufactured in accordance with ASTM D3034; minimum SDR: 23.5, unless shown otherwise on plans.
 - 2. Joints: Gasketed pipe joints meeting requirements of ASTM F477.
 - 3. Materials: PVC materials meeting or exceeding requirements of ASTM D1784, Cell Classification 12454B.
- B. Magnetic Tape: Minimum 2" wide tape designed for locating non-metallic pipe lines with magnetic locator: solid aluminum core with impervious plastic jacket.
 - 1. Legend: "Buried Sewer Pipe Below".
 - 2. Color: Orange.
- C. Flexible Couplings:
 - 1. Flexible couplings designed to connect spigot ends of similar or dissimilar pipe and provide positive seal against infiltration or exfiltration; Fernco Flexible Coupling's or equal.
 - 2. Flexible elastomeric PVC body conforming to applicable requirements of ASTM C443, C425, C564 and D1869; Series 300 Stainless Steel bonds and housings.
 - 3. Provide shear rings where shown on plans and designed to provide extra strength and rigidity to construction.
 - a. Series 300 Stainless Steel bonds, nuts and housing.

Sewer Pipe Installation

- A. Bed and install pipe as specified herein, as shown on Standard Drawings and in accordance with the following standard: Flexible Pipe, PVC and PVCC: ASTM D2321.
- B. Protect pipe and joints during handling against impact, shocks, freefall and gouging.
- C. Handle pipe so that no weight will bear on joints or attached coupling; do not allow damage to joint.
- D. Examine pipe for defects and specification compliance prior to lowering in trench; damaged or unsound pipe or pipes with defective joints will be rejected.
- E. Before laying pipe, verify all measurements at site; make necessary field measurements to accurately determine sewer make-up length.
- F. Place in trench in sound, undamaged condition.
- G. Make joints with equipment recommended by pipe manufacturer; do not use backhoe to push joints together.
 - 1. Clean joint contact surfaces immediately prior to jointing; use lubricants, primers, cement or adhesives as recommended by pipe joint manufacturer.
- H. Begin at lowest point in line; lay bell end upstream. (Spigot ends point in direction of flow).
- I. Provide smooth uniform invert; bear spigots against bell shoulder.
- J. Lay all pipe straight between changes in alignment and at uniform grade unless shown otherwise on plans.
- K. Avoid contact between pipe and compaction equipment; do not use compaction equipment directly above pipe to 1 foot over top of pipe.
- L. Line and Grade:

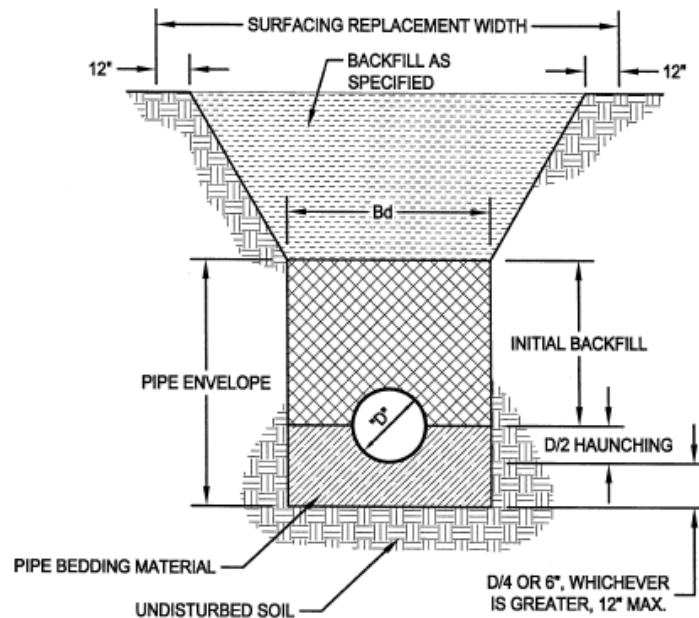
1. Lay pipe to exact grade and line:
 - a. Minimum grade for service line shall be 2%, or as required by building code.
 2. Check line and grade for each pipe length.
- M. After each pipe has been brought to grade, aligned and placed in final position, deposit and shovel slice or spade bedding material under pipe haunches; bed wyes and tees to prevent shear loadings.

Service Connections

- A. Conform with details shown on Standard Drawing. (Appendix B-D)
- B. Install wyes; use standard tee and riser in lieu of wye where invert of sewer is 10' or more below ground surface.
- C. Place stopper in end of service pipe:
 1. Provide weather tight joint on stopper to match that on pipe spigot; block plug to undisturbed earth with 2" x 4" strut.
 2. Mark location of sewer service connection with magnetic tape; connect to end of service.
 - a. Install as recommended by manufacturer.
- D. Backfill trench after recording exact location of service connection.

Appendix B

Standard Trench Section

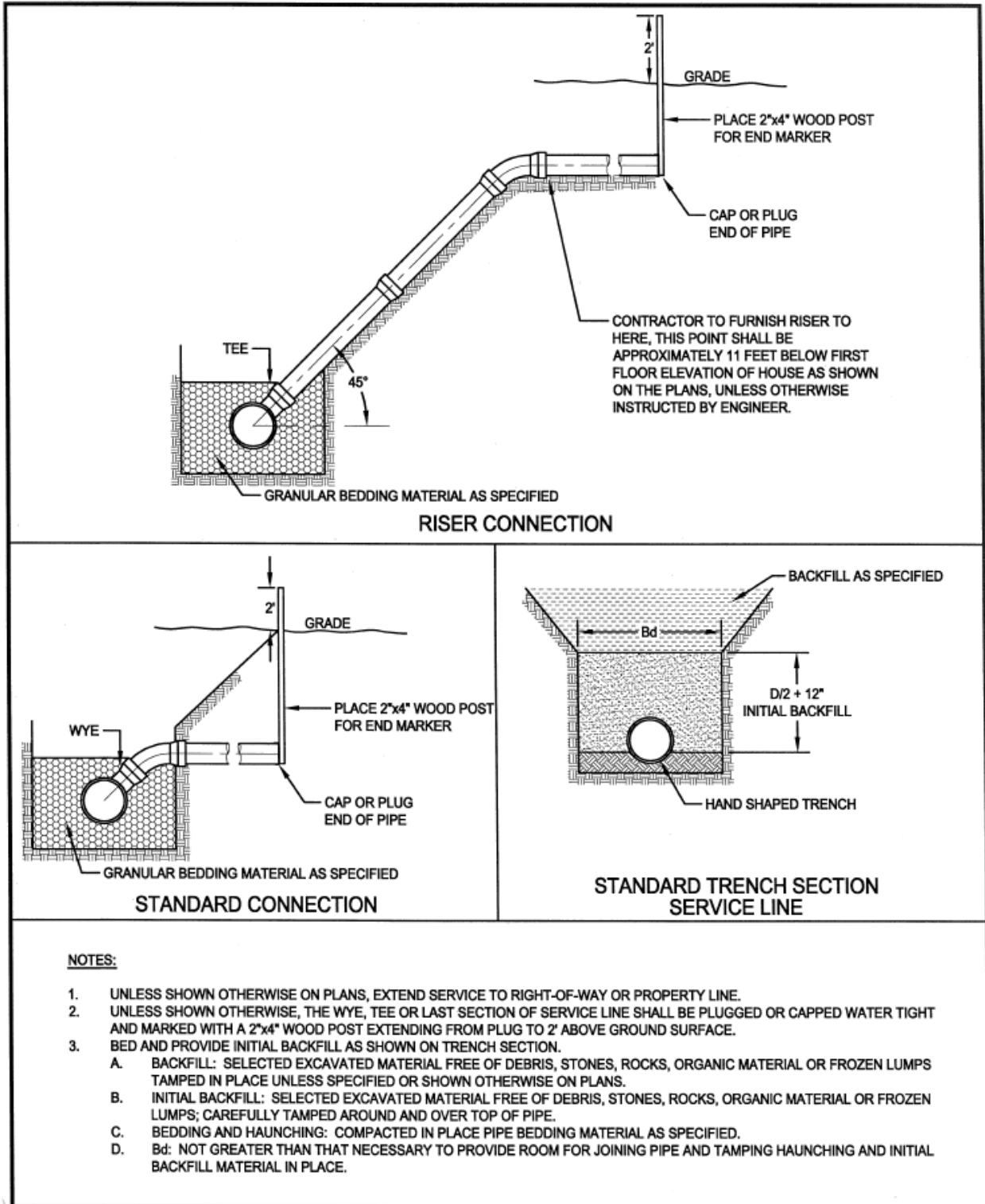


NOTES:

1. BACKFILL:
FINELY DIVIDED EXCAVATED MATERIAL FREE OF DEBRIS, STONES, ROCKS, ORGANIC MATERIAL, OR FROZEN LUMPS, UNLESS SPECIFIED OR SHOWN OTHERWISE ON PLANS.
2. INITIAL BACKFILL:
PIPE BEDDING MATERIAL AS SPECIFIED, COMPACTED IN PLACE.
3. HAUNCHING:
PIPE BEDDING MATERIAL AS SPECIFIED, COMPACTED IN PLACE.
4. BEDDING: PIPE BEDDING MATERIAL AS SPECIFIED.
5. Bd:
TRENCH WIDTH AT TOP OF PIPE AND EXTENDING FROM UNDISTURBED SOIL TO MINIMUM 12" OVER CROWN OF PIPE:
A. MINIMUM Bd: 18" PLUS PIPE O.D.
B. MAXIMUM Bd FOR PIPES 6" TO 24" DIAMETER: 24" PLUS PIPE O.D.
C. MAXIMUM Bd FOR PIPES LARGER THAN 24" DIAMETER: 30" PLUS PIPE O.D.
6. SUPPORT AND SLOPE TRENCH WALLS AS REQUIRED TO MEET OSHA SAFETY STANDARDS AND TO PREVENT CAVE-INS, SLIDING, OR ROLLOVERBACKS.

Appendix C

Sewer Service Connections



EXPANSION PLUG

FRAME AND COVER AS SPECIFIED

SLOPE

SLOPE

2' SQUARE X 8" THICK CAST-IN-PLACE CONCRETE PAD

2 LAYERS OF BUILDING PAPER BETWEEN PIPE AND CONCRETE

COMPACTED BACKFILL

INSTALL RISER PIPE PLUMB

45° BEND

45° BEND

UNDISTURBED EARTH

PIPE BEDDING MATERIAL

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