

Town of Kingfield Wastewater Policy for new connections to the public sewer system.

The purpose of this policy is to set forth policies and procedures for additions/new hook-ups to the Town of Kingfield Waste Water System.

1. All excavations for the installation of a building sewer shall be open trench work unless otherwise approved by the Road Commissioner. Pipe laying and backfill shall be performed in accordance with accepted construction practices. No backfill shall be placed until the work has been inspected by the Code Enforcement Officer. If the trench is filled before inspection the Code Enforcement Officer may require it to be re-excavated for inspection.

No person may make any opening into a paved street for the purpose of installing a building sewer without first obtaining a written road opening permit from the municipal office. The person opening the street shall be responsible for filling and compacting the opening with gravel in a manner acceptable to the Road Commissioner. The owner will resurface the street opening under the supervision of the Wastewater Superintendent and under the supervision of the Road Commissioner.

The fee for a road opening permit shall be two hundred dollars **(\$200.00)**, however if the actual cost of resurfacing the opening exceeds this amount the person making the opening shall be billed for any balance.

2. All joints and connections shall be made gastight and watertight. All pipe joints shall be made in strict conformance with the pipe manufacturer's installation instructions. The transition joint between pipes of different materials shall be made with adapters and joint materials approved by the Wastewater Superintendent or Code Enforcement Officer.
3. All costs and expense incidents to the installation, connection and maintenance of the entire length of building sewer **shall be borne by the Owner**. The owner shall indemnify the Town from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer. The method of connection of the building sewer to the public sewer will be dependent upon the type of pipe material used and in all cases shall be approved by the Wastewater Superintendent.

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4. The applicant for the building sewer permit shall notify the Wastewater Superintendent when the building sewer is ready for connection to the public sewer. The connection shall be made under the supervision of the Wastewater Superintendent or his/her representative.
5. All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways and other public property disturbed in the course of work shall be restored in a manner satisfactory to the Road Commissioner.
6. When any building sewer is to serve a school, hospital, or similar institutional or public building, or is to serve a complex of industrial or commercial buildings, or which, in the opinion of the Wastewater Superintendent, will receive sewage or industrial wastes of such volume or character that frequent maintenance of said building sewer is anticipated, then such building sewer shall be connected to the public sewer through a manhole. The Wastewater Superintendent shall determine if and where this type of connection to the public sewer is required. Connections to existing manholes shall be made as directed by the Wastewater Superintendent. If required, a new manhole shall be installed in the public sewer pursuant to Section 15. and the building sewer connection made thereto as directed by the Wastewater Superintendent.
7. Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the Wastewater Superintendent or Code Enforcement Officer, to meet all requirements of this Policy.
8. The diameter of the building sewer shall not be less than four (4) inches, and shall have a slope of one-quarter ($\frac{1}{4}$) inch per foot. Any exceptions shall require the prior approval of the Code Enforcement Officer.
9. All buildings connected to the public sewer shall have a backflow valve or check valve installed in the building drain or building sewer positioned so as to prevent any backflow of sewage into the building. In addition all buildings which have sewer inspection ports shall have a cover capable of sealing the port gastight. This cover must remain in place at all times.
10. The ends of building sewers which are not connected to the building drain of the structure for any reason, shall be sealed against infiltration by a suitable stopper,

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masonry plug or other means approved by the Wastewater Superintendent or Code Enforcement Officer.

Sewer Extensions

11. The design of extensions to the sanitary or storm sewer system must anticipate and allow for flows from all possible future extensions or developments within the immediate drainage area.
12. Property owners may propose extensions to the public sewer within the Town by drafting a written petition with the necessary signatures as determined by the Selectpersons. The Selectpersons shall consider the cost and benefits of the extension, the method of financing its construction, its conformance to any approved plans for future development within the Town, its impact upon existing infrastructure and utilities and any other factors they deem appropriate before voting whether to present the proposal to the Town for approval.
13. The owner, builder or developer constructing a private sewer extension must pay for the entire installation, including all expenses incidental thereto. Each building sewer must be installed and inspected by the Wastewater Superintendent and the entire sewer must be subject to periodic inspection by the Town during installation. Private sewer extensions will be operated, maintained and repaired by the owner, builder or developer unless and until the extension is accepted as a public sewer under the provisions of Section 17.
14. Private sewer extensions shall not be connected to the public sewer until:
 - a. The completed extension has passed all testing requirements set forth in this Policy.
 - b. The Engineer supervising construction has certified that the extension was constructed in accordance with the plans and all specifications in this Policy.
 - c. All the expenses incurred by the Town to review the construction plans and to inspect and monitor construction are paid; and
 - d. Reproducible Mylar record drawings of the completed sewer have been provided to the Town.

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15. Sewer design shall be in accordance with the following provisions. Minimum internal pipe diameter shall be eight (8) inches. Joints for pipe shall employ "O" ring gaskets of the "snap-on" type. Gaskets shall be continuous, solid, natural or synthetic rubber and shall provide a positive compression seal in the assembled joint such that the requirements of Section 16 are met.

Joint preparation and assembly shall be in accordance with the manufacturer's recommendations. Pipe shall be firmly and evenly bedded on a minimum of six (6) inches of granular material with stone size not exceeding 1½ inches.

Pipe thickness and field strength shall be calculated on the following criteria:

Safety Factor 1.9
Load Factor 1.7
Weight of Soil 120 lbs/cu. ft.
Wheel Loading 16,000 lbs.

Manholes shall be constructed at all changes in slope or alignment or at intervals not exceeding three hundred (300) linear feet. The manholes shall be constructed with precast concrete bases satisfactory to the Superintendent and precast 4-foot diameter concrete barrel sections (at a minimum) with eccentric tapered top section, as specified by ASTM C-478. The manhole frame and cover shall be the standard design of the Town and shall be set with no less than two (2) courses of brick underneath to allow for later adjustment in elevation. All joints shall be sealed against infiltration. Manholes shall be constructed with forged aluminum safety type steps cast into the walls of the precast sections.

16. All sewers shall satisfy requirements of a final leakage test before they will be approved and sewage flow accepted from them by the Town. Where groundwater is high or other conditions make the testing of sewers by the methods outlined below impractical the Wastewater Superintendent, Road Commissioner or Code Enforcement Officer may elect to accept infiltration measurements or other alternative methods of testing.

The contractor, owner, builder or developer shall furnish, at his/her own expense, the necessary facilities for acceptance testing including labor and equipment. All testing will be done under the supervision of the Wastewater Superintendent or Code Enforcement Officer or certification provided to the Town that acceptance testing had been performed in accordance with this Section by a firm or individual qualified to perform such testing. This certification will also specify the date the test was performed, the methods and equipment utilized and the results of each test.

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In the event of a testing failure the contractor shall, at his/her own expense, determine the source of the leakage and repair or replace all defective materials or workmanship. All force mains shall be tested hydrostatically for one (1) hour at a pressure of one hundred fifty percent (150%) of the pressure to which the pipe will normally be subjected. In no case shall the test pressure be less than fifty (50) pounds per square inch. The rate of leakage shall not exceed one hundred (100) gallons per mile of pipe per 24 hours per inch of nominal diameter of the pipe being tested.

All manholes shall be tested for water tightness immediately after assembly by performing a vacuum test prior to backfilling. The manhole lifting holes and pipe lines shall be plugged prior to the test. A test head shall be placed at the inside of the top of the cone section and the seal inflated in accordance with the manufacturer's recommendations. A vacuum of ten (10) inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to nine (9) inches. The manhole shall pass if the time is greater than sixty (60) seconds for forty-eight (48") inch diameter manholes, seventy five (75) seconds for sixty (60")inch and ninety (90) seconds for seventy-two (72") inch diameter manholes. Refer to Section 15.

Gravity sewers shall be tested with a low pressure air test. Equipment used shall meet the following minimum requirements:

- a. Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be inspected.
- b. Pneumatic plugs shall resist internal pressures without requiring external bracing or blocking.
- c. All air used shall pass through a single control panel.
- d. Three individual hoses shall be used for the following connections:
 1. From control panel to pneumatic plugs for inflation.
 2. From control panel to sealed line for introducing the low pressure air.
 3. From sealed line to control panel for continually monitoring the air pressure rise in the sealed line.

All pneumatic plugs shall be seal tested before being used in the actual low pressure air test. One length of pipe shall be laid on the ground and sealed at both ends with the plugs to be checked. Air shall be introduced into the plugs to twenty-five (25) psig. The plugs shall hold against this pressure without bracing and without movement of the plugs out of the pipe. After a manhole to manhole reach of pipe has been backfilled and

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cleaned, and the pneumatic plugs have been checked by the above procedure, the plugs shall be placed in the line at each manhole and inflated to twenty-five (25) psig. Low pressure air shall be introduced into this sealed line until the internal air pressure reaches four (4) psig greater than the average backpressure of any groundwater that may be over the pipe. At least two minutes shall be allowed for the air pressure to stabilize. After the stabilization period (3.5 psig minimum pressure in the pipe), the air hose from the control panel to the air supply shall be disconnected. The section of line being tested shall be termed "acceptable" if the time required in minutes for the pressure to decrease from 3.5 to 2.5 psig (greater than the average backpressure of any groundwater that may be over the pipe) shall not be less than the time shown for the given diameters in the following table.

Pipe Diameter in Inches Minutes:

4	2.0
6	3.0
8	4.0
10	5.0
12	5.5
15	7.5
18	8.5
21	10.0
24	11.5

17. The owner of a privately constructed sewer may request that the Town take over ownership of the extension provided that all of the following conditions have been met.

a. The owner must establish that the sewer, including pump stations and other equipment, meets all requirements of this Article regarding design of sewer extensions as existing and in force at the time the Town agrees to take over ownership.

b. The owner shall have the sewer tested to establish that it meets or exceeds the standards set forth in this section unless, the Wastewater Superintendent or Code Enforcement Officer certifies that such tests are not feasible, in which case the Wastewater Superintendent or Code Enforcement Officer shall specify alternative methods of testing.

c. The Town shall determine the extent to which a transfer of real property associated with the sewer extension may be accomplished by easement or by conveyance of a fee interest. All easements shall be conveyed by good and sufficient easement deeds in a form acceptable to the Town. All fee interests shall be conveyed by warranty deed.

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Regardless of whether an easement or fee is conveyed, the conveyance shall be free of any and all claims or encumbrances. Further, the owner of the sewer extension shall provide the Town with a survey in recordable form describing any interest in real property which the owner proposes to convey to the Town.

d. At the time of the transfer the owner shall execute a written warranty in a form acceptable to the Town guaranteeing that the extension meets each and every requirement contained herein, and that for a period of twelve (12) months from the date of the transfer, the sewer extension and all equipment associated with it will operate without the need for any repairs other than normal maintenance. Further, the owner will provide the Town with a bond or letter of credit in a form acceptable to the Town which will be payable in the event that the extension is repaired during warranty period and the owner does not make timely payment for those repairs.

e. The owner shall pay all costs or expenses, including but not limited to attorney's and engineering fees, which the Town incurs in order to accomplish the transfer of ownership of a sewer extension.

18. A contractor must present a certificate of insurance showing minimum liability coverage of \$300,000.00 for bodily injury to one person and \$1,000,000 for bodily injury to more than one person and \$300,000.00 for property damage before a permit will be issued for construction of public sewers or sewer extensions.

19. The Town reserves the right to change or modify pricing, specifications, options, dimensions and materials without notice or obligation.

This policy has been reviewed and accepted:

Owner/Contractor

Owner/Contractor

Owner/Contractor

Owner/Contractor

Policy adopted by Municipal Officers March 21, 2016