Jackman Utility District
Water and Sewer Divisions
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Jackman, ME 04945-0340
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Request for Bid
Water and Sewer Infrastructure Jackman and Moose River Maine

The Jackman Utility District operates both the water and sewer systems in the Towns of Jackman and Moose River Maine. The District has a staff of four with a five member Board of Trustees. The Jackman Utility District was established in 1997 when the Sewer District and the Water District merged.

The Sewer system is relatively new having been constructed almost entirely in 1985 and 1986. The sewer system collects and transport wastewater in the town of Jackman. The system consists of six lagoons with a total capacity of 45 million gallons, 7.44 miles of gravity sewer main, 1.66 miles of force main, 166 manholes, 4 duplex pumping stations, and 12 simplex pumping stations. There are 497 service connections. The collection system is made up of PVC and ductile iron pipe all installed in 1985-1986. There are sections of the collection system that travel cross country with limited or no paved access.

Big Wood Pond has served as Jackman and Moose River's primary source of water since 1911. The water company was privately owned until 1971 when it was purchased by the Jackman Water District. The Jackman Utility District provides drinking water to approximately 450 homes. The water filter plant was constructed in 1995-96. Raw water is pumped from the raw water pump house, on Mill road, to the filter plant, on Walton Street. The intake is approximately 600 feet of 8" cast and ductile iron pipe running along the bottom of the lake. The treatment plant has 2 filter units, capable of filtering 100gpm each. The treated water is pumped to a 200,000 gallon underground tank that provides storage and system pressure. The average daily finish water pumped is 60,000 gallons per day. The pressure on the system fluctuates from 20psi to as high as 150psi depending on your elevation as compared to the reservoirs elevation throughout the system. There is 7.5 miles of water mains with in this system with 35 public and 5 private fire hydrants. The distribution system contains a mix of pipe materials consisting mainly of concrete lined ductile iron installed since the 1970's and unlined cast iron mains installed prior to that. The size varies from ¾" copper to 12 inch ductile iron. Design life for these pipes is generally assumed to be 75 to 100 years and nearly half of the pipe in the system is older than this. In addition, unlined cast iron pipe is subject to interior corrosion. There is a section of the raw water transmission line that travels cross country parallel to Spruce Street with limited or no paved access.

The Jackman Utility District is requesting bids for construction season as well as emergency repairs and installations as needed throughout the year. This includes new service line installation and repairs, new main installation and repairs, manhole installation and repairs, fire hydrant installation and repairs, lagoons maintenance and repairs.

The Jackman Utility District's construction season is from June 1st to October 15th as permitted by the Sewer Rules and Regulations and Jackman Utility District Terms and

Conditions. This means all new or existing service lines will be installed or repaired between those dates unless otherwise agreed to and approved by the board of trustees. This construction timeframe was established with the goal of preventing work when there is potential for frost or excess water to be in the ground. Both of these factors can lead to inefficient working conditions and/or improper installation. Exemptions are allowed for emergency repairs of main/service line valves, or main/service line breaks.

The Contractor is required to follow all OSHA rules and abide by the Jackman Utility District Safety Policy. On a construction site when excavating JUD infrastructure the contractor is the competent person responsible for the safety of all within that construction site. The Superintendent and/or Operator working on the site is authorized to ask the competent person to shut down operations if there is a question of safety. It is the JUD responsibility to file for road opening permits with the appropriate town and DOT and to set up proper worksite travel conditions according to DOT traffic safety guidelines.

All water and sewer mains and services should be buried 4 plus feet deep in an attempt to avoid frost from reaching the lines during winter months. Any infrastructure with a bury depth less than 4 feet is required to be insulated to protect from frost.

The current board requires all water mains to be ductile iron and all service lines to be copper from the main to the property line. HDPE is acceptable for service lines from the property line to the building serviced. The board presently requires all gravity sewer mains and service lines to be PVC, force mains and services to be ductile iron or HDPE.

When working on the sewer infrastructure: All pipe shall be laid on six inches of screened gravel and screened gravel shall be shaped to a height of ¼ of the pipe diameter so as to give uniform circumferential support to the pipe. The screened gravel shall cover the pipe to a point twelve inches above the top of the pipe. Screened gravel shall have the following gradation:

Sieve Size	% By Weight Passing
1 inch	100
¾ inch	90-100
3/8 inch	20-55
#4 mesh	0-10
#8 mesh	0-5

When working on water infrastructure: It is important to understand the health hazard potential when working to install or repair water infrastructure. The health of our community is at risk. Best management practices are used in an attempt to prevent possible contamination introduction to our mains during installation and repairs. The following is required when working on the water infrastructure. A 10-foot horizontal separation between water mains and sewer mains; an 18-inch vertical separation for water main/services crossing above or below a sewer or force main. It is preferable to have the water main cross over the sewer main. Maintenance of pipe caps, plugs, or other protective coverings until pipes are joined. Protection of existing mains and service connections with watertight caps or covers. Completion of all pipe and fitting joints in the trench before work is stopped. Gasket cleaning. Disinfection of fittings, joints, valves, and exposed existing connections with swab or spray technique. Disinfection of hand tools, tapping machines, and other equipment that come in contact with pipes and fittings. Main breaks are a problem for many utilities. The causes for breaks are varied and one of the primary causes of main breaks is improper installations. Broken mains may become

depressurized due to water loss or service shutdown. The elements for contamination control associated with preparing a new or repaired main or service line include flushing and cleaning, disinfection, and water quality testing.

Proper facilities shall be provided for lowering sections of pipe into trenches. Under no circumstances shall pipe be laid in water and no pipe shall be laid when trench conditions or weather are unsuitable for such work. Full responsibility for the diversion of drainage and for dewatering of trenches during construction shall be borne by the Contractor. The JUD currently has and maintains 2 working mud suckers with suction and discharge hoses to be available at all construction sites. All dirt and other foreign matter shall be removed from the inside of pipe and fittings before they are lowered into the trench. They shall be kept clean during and after laying, care shall be taken to keep dirt out of the jointing space. Spigot and bells shall be cleaned thoroughly before the application of lubricant and attachment of the gasket shall be in strict accord with the joint. All fittings shall be tightened using torque wrenches to the manufacturer's specifications. At the end of each day's work, and when pipe laying is discontinued for an appreciable period, open ends of pipe shall be closed with a cast plug or cap firmly secured in place. All pipe and fittings shall be lowered carefully into the trench in such manner as to prevent damage to pipe, fittings, or linings. Neither pipe nor fittings shall be dropped or dumped into the trench. Cutting of pipe, where needed, shall be done in a neat and workmanlike manner without damage to pipe or pipe lining. Deflections shall not exceed the maximum recommended by the pipe manufacturer. All non-metallic pipes shall have trace wire. Backfilling shall not be undertaken until water main installation has been inspected and approved by JUD.

Excavation for fire hydrants shall be neat and shall leave the back of the trench and bottom of the trench undisturbed earth for blocking. A standard six-inch gate valve shall be between the main and hydrant. Six (6) inch ductile iron water line shall be used to install fire hydrants. Blocking shall be put underneath and behind the hydrant.

Bedding sand shall be used for ductile or plastic pipe. Sand shall be free of stones. A minimum 8" – 12" of bedding sand shall be laid beneath the pipe, and extend 18" over the pipe. The intent is to cradle the pipe so that the full length of each joint is uniformly supported on firm bedding and the weight of pipe and fill is borne uniformly by the lower ½ of the pipe barrel. Tamping of fill below the spring line of the pipe may be by hand tamps provided the required density is obtained. Bedding sand shall be extended to the width of the trench. Backfilling shall be done with good earth, sand or gravel and shall be free from large rocks or hard lumpy material, unless the rocks or lumps are not more than approximately four (4) inches in greatest diameter and are scattered in the soil. No material of a perishable, spongy, or otherwise unsuitable nature shall be used in backfilling. Excavated material shall be piled adjacent to the work to be used for backfilling as required. Backfill outside the existing or proposed paved areas shall be left slightly over full to allow for settlement. Excavated materials which are unsuitable for backfilling and excess material shall be disposed of legally. Tar and soil can be disposed of at the District pit. Backfilling of water lines shall include the refilling and consolidation of the fill in the excavation up to the surrounding ground surface or road grade at crossings. It is essential that the complete backfill be done in such a manner to minimize voids in the backfill. The backfill of materials in trenches under existing or proposed paved areas shall be compacted with mechanical devices manufactured for that purpose from two feet above the top of the pipe to the top of the existing or proposed subgrade at 18 inch intervals.

Dewatering of trenches shall be accomplished by whatever means elected by the Contractor, however, bedding material or pipe may not be placed in wet or unstable trenches.

Soil that cannot be properly dewatered shall be excavated and dry material tamped in place to such a depth as may be required to provide a firm trench bottom. Surface runoff water shall be diverted away from the trenches. Such diversion shall be into existing drainage structures such as storm drains, ditches or streams. Diversion of surface runoff shall be in such a manner to prevent flooding of streets or private property.

All excavation shall be guarded with barricades and lights as necessary after sunset or in dark weather conditions to protect the public from hazard. Streets, sidewalk, parkways and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the District. Manholes, cleanouts, gate valves, hydrants shall be backfilled with screened gravel as specified above. Gravel backfill shall extend to a minimum of one foot outside the structure.

This section covers the construction methods to be used in the repair of roads, streets, or other public rights-of-way. The JUD will Premark the area to be excavated and call DigSafe. It is the contractor's responsibility to maintain markings during construction to prevent damage to nearby utilities. A tar cutter shall be used to precut the pavement to be removed by the excavation. The pavement shave be removed 2 feet back beyond the excavated trench to prevent undermining of the material. All permanent repairs of streets, roads, or other public rights-of-way shall meet with the construction requirements of the governing agency or private owner and shall meet with the requirements of all local Ordinances, Regulations, Permits, or Codes governing the repairs to roads, streets, or other rights-of-way. Right-of-way shall be left in a neat and orderly manner and left in as good or better shape than it was before construction.

No trees or existing structures shall be removed unless approved by the Superintendent. All existing structures, improvements, and utilities shall be adequately protected, at the expense of the Contractor, from damage that might otherwise occur due to construction operations. The Contractor shall be liable for damage to any utilities resulting from his operation. During construction, all fire hydrants, valve boxes, and other existing utility controls shall be left intact, unobstructed and accessible.

If in the opinion of the District the work performed by the contractor violated any provision of the rules and regulations or terms and conditions or if the work is in the opinion of the District or its engineer is sub-standard, the district may disapprove existing work or any future work.

We are requesting bids from contractors who are willing to put our needs at the top of their priority list. Some projects are planned well in advance; other emergency repairs and installations are unexpected and need immediate attention. Taking that into consideration we ask that you try your best to be able to respond to our request for service as soon as possible. We will hire you to do all our infrastructure construction needs for a 2 year contract from June 1st 2024 – May 31st 2026. If you cannot do one due to other commitments, vacation, or other circumstances we will then contact other contractors to complete that specific task and will then call you first when the next project is scheduled. We would like you to submit a pricing list for each item identified below. We will be requiring these items to be supplied by the contractor to complete the varied jobs we face.

Excavator full size	Number available _____	Price per hour _____
Excavator Mini	Number available _____	Price per hour _____
Dump Truck:	Number available:_____	Price Per hour:_____
Trench Box:	Number available : _____	Price Per Hour: _____
Compactor:	Number available : _____	Price per hour: _____

Tar cutter:	Number available: _____	Price per hour: _____
Bob Cat:	Number available: _____	Price per hour: _____
Dump body trailer:	Number available: ____	Price per hour: _____
Work truck:	Number available:___	Price per hours: _____
Laborer:	Number available: _____	Price per hour:_____

Crushed stone: Price per cubic foot: _____
Loam : Price per tons: _____
Gravel: Price per ton at following specifications: ____

Sieve Size	% By Weight Passing
1 inch	100
¾ inch	90-100
3/8 inch	20-55
#4 mesh	0-10
#8 mesh	0-5

A contractor engaged in construction must present to the District a Certificate of insurance showing a minimum liability of $300,000 for bodily injury and $200,000 for property damage including collapse and underground coverage.
Please submit a copy of your insurance as specified along with your bid.

Please submit sealed bids to:

Jackman Utility District
Construction Bid
P.O. Box 340
Jackman, Maine 04945

Or hand deliver in our drop box to:

Jackman Utility District
Construction Bid
28 Walton Street
Jackman, Maine 04945

Bids must be received by 6:00pm on May 8th, 2024 to be opened at the Jackman Utility District Trustee meeting.

Please direct all questions to Lucas Talpey, Operator Jackman Utility District (207)-668-7686 or email to judwas@myfairpoint.net.