

# **GENERAL SPECIFICATIONS**

## **CHEMICAL ROOT TREATMENT OF SEWER LINES**

### **1. MOBILIZATION**

The work will consist of the mobilization and demobilization of the Contractor's forces and equipment necessary for performing the work required under the contract. Payment will be made to cover the costs of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site. Fifty percent of each mobilization bid item will be paid upon the start of work at that site and the remaining balance will be paid when the related work is over fifty percent complete.

### **2. BONDS AND INSURANCE**

The work will consist of providing the performance, guaranty bond and the certificates of insurance as are required in the contract documents. Payment will be made with the first pay request processed after the required performance, guaranty bonds and the required certificates of insurance are provided.

The Contractor will be required to furnish insurance as specified. Insurance Carrier must be licensed to do business in the State. Insurance must be provided on a comprehensive form to include the following:

1. 1. General Liability (CGL) Insurance Occurrence Form with a limit of \$1,000,000 per occurrence and \$2,000,000 aggregate. The following endorsements must be included:
  - a. Product/completed operations
  - b. Contractual liability
  - c. Personal injury
  - d. The Owner shall be named as an additional insured with respect to General Liability.
2. Workers Compensation Insurance as required by the state law.
3. Employers liability - \$500,000
4. Auto Liability Coverage of \$1,000,000 for "any auto".

### **3. SITE SAFETY**

Site Safety measures will be required on this project. Site Safety will be provided by the Contractor to protect the Public, Owner and Contractor's forces from construction activities. All safety barricades, lighting, barrier fencing, and other materials to cordon off and protect the public from the construction activities will be provided by the Contractor. Proposed site safety and construction site protection will be coordinated with the Owner

### **4. TRAFFIC CONTROL**

This item shall include providing sufficient barricades, signs, flashers, striping, flagmen and other warning devices necessary to control vehicular traffic and maintain a safe work site.

### **5. SITE INSPECTION**

The Contractor shall be responsible for visiting the sites of the proposed work to be fully acquainted with existing conditions and to fully understand any difficulties and restrictions attending the execution of the work under the proposed contract. The Contractor shall thoroughly examine drawings and documents. To view the plans for chemical root treatment of sewer lines, contact the Sewerage Department. The failure of the Contractor to examine all forms and documents or to visit the sites and become acquainted with conditions shall in no way relieve the contractor from any obligation with respect to the contract.

# **TECHNICAL SPECIFICATONS**

## **CHEMICAL ROOT TREATMENT OF SEWER LINES**

### **1. GENERAL**

The purpose of this project is to chemically treat sewer lines with an EPA Accepted Chemical Root Control Agent, in order to kill the existing roots in the sewer line and to inhibit their re-growth. The chemical used shall be RootX® Foaming Root Control or an equivalent approved by the owner in writing prior to the bid date.

### **2. CONTRACTOR RESPONSIBILITIES**

The following are a list of the Responsibilities of the Contractor:

- A. Contractor shall provide all equipment and materials necessary to complete chemical root treatment to sewer lines.
- B. The chemical shall be stored at the contractor's location. However, if this is not possible, the contractor must make arrangements in advance with the Owner to store the chemical.
- C. The Contractor must have a State Certified Pesticide Applicator on site at all times when doing chemical applications.
- D. The Contractor is responsible for all clean up and restoration associated with any chemical spill or property damage caused by the Contractor. The Contractor will not be responsible for any damages caused by sewer back-ups.
- E. The Contractor shall provide Pollution Liability Insurance in addition to all other insurance required by the Owner.
- F. The Contractor shall provide proper traffic control and safety devices in high traffic areas to protect the public and Contractor from personal injury and any damage to the job site.
- G. The Contractor shall follow the manufacture's directions for use and all Federal, State and Local laws when using, transporting and disposing of the chemical and associated packaging.
- H. The Contractor shall provide a money back or retreatment guarantee per the Owner's request upon a back up due to live roots.

### **3. GUARANTEE**

For each sewer section (manhole to manhole) that is treated under the Contract, the Contractor shall guarantee the work as follows. At the option of the Owner, the Contractor shall, at his own expense, re-treat a sewer section, or refund 100% of the payment received to treat that section, in the event that: (1) live roots are found in the section within six months after the application; or, (2) the section plugs up and floods due to tree root obstructions within a period of two years, beginning on the date of treatment, and ending two years after the date of treatment. Re-treatments, performed at no charge in honor of the guarantee, do not extend the expiration date of the guarantee.

The guarantee applies to sewer stoppages caused by live tree roots. It does not apply to stoppages caused by grease or other foreign matter; flat, collapsed or deformed pipe; or flooding caused by a surcharged or plugged sewer section downstream from a guaranteed sewer section. This guarantee applies to main line sewers only. The Contractor is not responsible for any damages caused by main line sewer stoppages, regardless of cause. The decision of the Owner as to the cause of a stoppage is binding.

### **4. COMPOSITION OF THE CHEMICAL ROOT CONTROL MATERIAL**

The chemical root control agent shall be RootX® Foaming Root Control or an equivalent product that is approved by the Owner in writing prior to the bid opening. The chemical root control agent shall be registered with the EPA and the State Department of Agriculture as a General Use Herbicide, and shall be labeled for use in sanitary and storm sewers to control tree roots. The active ingredient shall be 2,6 dichlorobenzonitrile for controlling sewer roots and inhibiting their re-growth. The chemical agent shall also contain a surfactant system to deliver the active ingredient (herbicide) to the target root tissue.

- A. In an effort to minimize any risk and with respect to worker safety, the active ingredient shall:
1. Be classified by the U.S. EPA as a "General Use", or "Non-Restricted Use" pesticide. Materials classified as "Restricted Use" by the U.S. EPA shall not be accepted.
  2. Have a "Signal Word" assigned by the U.S. EPA of "Caution" which is the lowest chemical hazard rating according to the ISO 3864-2 standard for hazard severity panels. Pesticides carrying the signal word "Warning" or "Danger" shall not be accepted.

3. Be non-volatile in order to minimize exposure to workers and other individuals by inhalation.
- B. The surfactant system contained in the product shall:
1. Produce a foam spray that is sprayed onto the pipe walls, existing roots and thoroughly penetrate the "wye" connections of any service laterals.
  2. Enhance the penetration of the herbicide into root masses.
  3. The characteristics of the desired foam can be achieved by working with the existing flow in the sewer line or with the aid of industry standard hose attachments. Products that require blocking the existing flow, or that completely block the sewer line will not be accepted.

## **5. MANNER OF APPLICATION**

All work shall be performed according to label instructions and in accordance with the best recommended practice for conditions present in the line under treatment. All materials shall be delivered to the site in undamaged, unopened containers bearing the manufacturer's original label. The product shall be contained in one package in which the mixing process shall occur. The container shall eliminate the need for the worker to come in direct contact with the product.

The chemical root control agent shall be applied by the FDU 100 (Foam Dispersal Unit) or by adding the chemical root control agent directly into the sanitary or storm sewers from the product's package. The application method of utilizing the FDU 100 shall be done in conjunction with a high velocity sewer-cleaning machine. This machine shall use water to assure that a foam spray is dispensed to coat the pipe walls and penetrate the roots.

The chemical root control agent may also be poured directly into the sewer line where once it comes in contact with the flow or added water the chemical root control agent will foam filling the pipe with a dense bubble foam coating the roots and the pipe walls.

The application of material shall be performed in such a way as to contact roots within the primary main line sewer to be treated.

## **6. PROPERTY DAMAGES CAUSED BY THE CONTRACTOR**

Should the Contractor or his employees cause any damage to public or private property, the Contractor will be required to make repairs immediately. The Owner may, however, elect to make repairs or replacements of damaged property and deduct the cost of such from moneys due or to become due the Contractor under this contract with the Owner. The Contractor shall not be responsible for any damages caused by sewer stoppages.

## **7. PROTECTION OF WASTEWATER TREATMENT PLANT**

The Contractor shall take all steps necessary and appropriate to prevent adverse effects on wastewater treatment plant processes during the application process.

The active ingredient shall not adversely affect wastewater treatment plant processes. In the event that a wastewater treatment plant experiences any reduction in operating efficiency during the execution of the contract, the Contractor shall immediately suspend all applications, at the direction of the Owner. The Contractor shall continue operations only after problems at the wastewater treatment plant have been corrected, satisfactory to the Wastewater Treatment Plant Operator.

The Contractor shall provide a Respirometer Study performed with the chemical root control agent as evidence that the chemical root control agent will not have harmful effects to the treatment plant process or be toxic to or inhibit the activated sludge process.

## **8. POLLUTION AND LIABILITY INSURANCE**

The Pollution Liability Insurance described herein is in addition to all other insurance required of the Contractor by the Owner, including any insurance described in the general conditions, any insurance required by law, or any other insurance requested by the Owner.

At the time of the bid opening, the Contractor shall submit written evidence that he has obtained pollution liability coverage. This coverage shall protect the Contractor, the Owner, and the Owner's officers, agents and employees from claims for damages for bodily or personal injury, sickness or disease. Including death, and from claims for damages to property and/or the environment, this may arise directly out of the use of chemicals and/or pollution.

## **9. COMPLIANCE WITH LAWS**

The Contractor is directed to ensure compliance with all Federal, State and Local ordinances pertaining to the type of work specified herein. Particular attention shall be paid to those laws and ordinances relating to transportation of material (DOT), the application of sewer root control herbicides (US EPA), and traffic safety regulations. The Contractor's Federal DOT number and material EPA registration number must be submitted with bid.

## **10. QUALIFICATIONS**

The Contractor shall be licensed as a Certified Pesticide Applicator with the State prior to the bid date. Contractors not meeting the requirements will be evaluated on a case by case basis if said contractor is apparent low bidder. The contract will be awarded to the most qualified, responsive and responsible bidder submitting the lowest bid complying with the conditions of the bidding documents, as determined by the sole discretion of the Owner. It is the intent of the Owner to award to the lowest qualified bidder. The Owner reserves the right to reject any or all proposals or to waive any formality or irregularity in any proposal in the interest of the Owner.

Each bidder is required to submit with his bid the contractor qualification form attached to these specifications. Additional references may be requested by the Owner.

All work shall be performed by Certified Pesticide Applicators licensed with the State. A license number for the applicator shall be submitted with the bid.

## **11. ASSISTANCE PROVIDED BY THE OWNER**

- a. A representative of the Owner will accompany the Contractor's crew, and/or sewer system drawings will be provided showing the exact locations of the pipes to be treated.
- b. The Owner shall provide for the entering of private lands, public lands and right-of-ways.
- c. The Owner shall provide a source of fresh water at a location or locations to be designated by the Owner.
- d. The Owner shall locate and uncover hidden or buried manholes, and restore street surfaces, easements, etc.

## **12. CONTRACT PERIOD**

The initial term of the contract shall be for the period of one year. The contract may be extended for additional one-year periods up to a total of three additional years, with the mutual consent of the Owner and Contractor. Price changes for succeeding years shall be adjusted in accordance with the consumer price index for the Owner's locale.

## **13. PAYMENT**

Payment to the contractor shall be made only after all work specified by the Contract has been completed to the Owner's satisfaction, and all reports and submittals requested by the specifications or the Owner have been received by the Owner

## **14. SUBSTITUTES AND PROVEN EQUIVALENTS**

Use of any substitute or equivalent procedures, methods, or materials must be approved by the Owner in writing prior to the bid date.

Should the Contractor wish to use any brand of material other than as specified herein, he shall submit to the Owner for review, complete descriptive literature naming the proposed substitution and manufacturer. Any equivalent material or methods shall comply with the requirements set forth above.

**Contractors Qualification Form**

Failure to complete this page in full, and to provide valid, existing licenses and insurance, as required, will render this bid non-responsive and result in the rejection of this bid.

Contractor Name: \_\_\_\_\_

Contractor's State Pesticide Business License #: \_\_\_\_\_

Contractor's Federal Department of Transportation #: \_\_\_\_\_

Name of proposed chemical root control agent: \_\_\_\_\_

USEPA Root Control Agent Registration #: \_\_\_\_\_

State Root Control Product Registration #: \_\_\_\_\_

Does the Contractor have Pollution Liability Insurance as specified?  
\_\_\_\_\_

Contractor's Pollution Liability Insurance carrier:  
\_\_\_\_\_

Are two (2) Copies of Contractor employee Certificates of Completion in confined space entry training, per federal code 29 CFR 1910.146, attached?  
\_\_\_\_\_

Contractor's State Certified Pesticide Applicator:

Name: \_\_\_\_\_ Certification # \_\_\_\_\_

**BIDDER'S REFERENCE PAGE**  
(Submit with Bid)

The Contractor shall submit municipal references for sewer line work, which the Owner can verify. Each reference shall be for work actually performed by the Bidder. All references shall pertain to actual sewer line work performed by the Bidder (sub-contractor references are not applicable).

ALL REFERENCES WILL BE TREATED AS THE CONTRACTOR'S CONFIDENTIAL BUSINESS INFORMATION. Previous work for the Owner may be used as references.

<b>Owner/Agency:</b>	
<b>Address:</b>	
<b>Address:</b>	
<b>City, State, Zip</b>	
<b>Contact:</b>	
<b>Phone:</b>	

<b>Owner/Agency:</b>	
<b>Address:</b>	
<b>Address:</b>	
<b>City, State, Zip</b>	
<b>Contact:</b>	
<b>Phone:</b>	

<b>Owner/Agency:</b>	
<b>Address:</b>	
<b>Address:</b>	
<b>City, State, Zip</b>	
<b>Contact:</b>	
<b>Phone:</b>	

TOTAL CHEMICAL ROOT CONTROL FOOTAGE TREATED \_\_\_\_\_

TOTAL FOOTAGE OF ALL SEWER LINE WORK \_\_\_\_\_

The contract will be awarded to the most qualified, responsive and responsible bidder, as determined in the sole discretion of the Owner, submitting the lowest bid complying with the conditions of the bidding documents. It is the intent of the Owner to award to the lowest qualified bidder. The Owner reserves the right to reject any or all proposals or to waive any formality or irregularity in any proposal in the interest of the Owner.