

# **SEWER LINE CHEMICAL ROOT CONTROL**

## **TECHNICAL SPECIFICATIONS**

(as provided by Duke's Root Control, Inc.)

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## 1. GENERAL

The purpose of the project specified herein is to apply chemical root control agent to sanitary sewers, in order to kill the root growth present in the lines and to inhibit re-growth, without permanently damaging the vegetation producing the roots. The chemical agent shall be Razorooter II™ or equivalent products approved by the Owner in writing **prior to the bid date**.

The submission of the Bid shall be considered as prima-facie evidence that the Bidder (a.k.a., the Contractor) has familiarized himself with and understands all the conditions under which the Contract is to be awarded, performed, and administered. **No letter, stipulation, or exception submitted with a bid shall be accepted.**

## 2. CONTRACTOR RESPONSIBILITIES

The Contractor's attention is drawn to the following terms, conditions and responsibilities:

- a. Bidders must be licensed with the **(Please Enter Appropriate State Regulatory Agency Here) prior to the bid date**. All Bidders must have a minimum level of pesticide application experience, (see section 10), and employ a State Certified pesticide applicator on the job site at all times.
- b. Contractor shall provide Pollution Liability Insurance; in addition to all other insurance and bonds specified herein (see section 8).
- c. The Contractor shall provide a money-back guarantee on all work specified herein as set forth below (see section 3).
- d. The Contractor is responsible for all property damage and for all cleanup and restoration associated with any chemical spill. (See section 6). The Contractor is not responsible for any damages caused by sewer stoppages.
- e. Where work is located in high-traffic areas, the Contractor shall place proper traffic warning devices to protect the specific job site and to prevent accidents or personal injury to the public.
- f. The Contractor shall use a reduced-pressure-zone backflow prevention device or air gap whenever accessing fresh water for mixing chemical.
- g. The Contractor shall return every 4 to 8 months throughout the life of the guarantee, in order to evaluate the success of the project, and to arrange any free guarantee work that may arise.
- h. The Contractor shall comply with all Federal, State and Local Laws, with special attention to those laws that pertain to the handling, transportation, and use of any hazardous materials, and disposal of all pesticide containers

## 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 Razorooter™ II or 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 **(Please Enter Appropriate State Regulatory Agency Here)**, **prior to the bid opening**, and shall be labeled for use in sewers to control tree roots. The chemical Root control agent shall contain an active ingredient for controlling sewer roots and deterring their re-growth. There shall also be a surfactant system to deliver the active ingredient (herbicide) to the target root tissue.

##### **A. Active ingredient:**

1. Shall be a Category “E” compound, the most favorable rating attainable on the U.S. EPA’s chronic exposure toxicological rating scale.
2. Shall **not** be considered a carcinogen, teratogen, mutagen, or oncogene, based on laboratory testing.
3. Shall be non-volatile in order to minimize exposure to collections system workers, treatment plant operators and homeowners through inhalation.
4. Products containing the active ingredient(s) metam-sodium or copper sulfate are not allowed.

##### **Surfactant system:**

1. Shall produce a dense, small bubble, clinging foam, which sustains its shape for a minimum of one hour.
2. Shall enhance the penetration of herbicide into root masses.
3. Shall contain an Alkylpolyglucoside (formulations of vegetable oil and carbohydrate from agricultural products).
4. Surfactants designed to foam chemically, upon contact with water, **shall not be accepted** (see section 5 below).

#### **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 applications shall be done by foaming or other methods as provided on the product label.

The application of material shall be performed in such a way as to contact roots within the primary main line sewer to be treated. Effort will also be made to penetrate secondary lateral sewers in order to contact roots residing in the “wye” connections. The foam shall be generated through the use of air injection equipment, and the foam shall be pumped into the sewer under

pressure as foam. Foam quality shall be sufficient to penetrate “wye” connections and effectively treat large diameter pipe. Therefore, applications of chemicals designed to generate foam “chemically” on contact with water shall not be accepted.

Hydraulic sewer cleaning machines will reduce treatment effectiveness by damaging root growths and inhibiting their uptake of chemical. Hydraulic sewer cleaning machines shall not be used prior to, or during the treatment process.

## **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.

Notwithstanding the requirement that the active ingredient shall not adversely effect wastewater treatment plant processes, (See Section 4.B,) 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 submit with bid a recent study from an accredited research facility documenting the effects of the proposed product on wastewater treatment plant facilities. At a minimum, this study shall address the toxicity of the product on wastewater treatment plant biota, including nitrifiers and denitrifiers, the toxicity of the product on treatment plant effluent, and the environmental fate of the product. This requirement is mandatory.

## **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, which may arise directly out of the use of chemicals and/or pollution. The minimum amount of such insurance shall be \$5,000,000 total loss. An “A” rated insurance company shall provide the Contractor’s Pollution liability insurance.

In addition, the Contractor's commercial general liability limits must be not less than \$10,000,000, total occurrence limit, and include pesticide or herbicide applicator coverage.

## 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 demonstrate a minimum level of five (5) years direct experience in applying chemical sewer root control agents. The Contractor must have performed at least 10 other jobs similar in size and scope to the work specified herein, and have treated in excess of 750,000 linear feet of sanitary sewer with it's own personnel within the last 24 months. Any work performed by subcontractors for the Contractor will not be considered.

The Contractor shall be licensed as a pesticide application business with the **(Please Enter Appropriate State Regulatory Agency Here)** prior to the bid opening. Contractors who do not meet the experience and other qualifications specified herein shall not be considered for award of the contract. **Each bidder is required to submit with his bid the contractor qualification form attached to these specifications.** Additional references, up to ten, may be requested by the Owner.

**All work shall be performed by Certified Pesticide Applicators licensed with the (Please Enter Appropriate State Regulatory Agency Here).** Certified Pesticide Applicators, shall have a minimum three years experience in performing the type of work specified, and shall each have personally performed a minimum of 500,000 linear feet of treatments in the last three years as a Certified Pesticide Applicator. A minimum of three Certified Pesticide Applicators that are registered with the **(Please Enter Appropriate State Regulatory Agency Here)**, prior to the bid, is required. License numbers for these three applicators and years of experience shall be submitted with the bid. Additional proof of applicator experience may be requested by the Owner.

## 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 (see sections 4 COMPOSITION OF ROOT-CONTROL MATERIAL, and section 5 MANNER OF APPLICATION).

## 15. BID SECURITY AND BONDING

Each bid proposal shall be accompanied by a bid guaranty which shall not be less than ten percent (10%) of the amount of the bid. The bid guaranty may be in the form of a certified check, cashiers check, United States Postal money order, or a bid bond secured by a guaranty or surety company qualified to do business in the State of **(Please Enter Appropriate State Here)**. The successful bidder shall furnish performance and payment bonds in the mount of one hundred percent (100%) of the accepted bid.

**PROPOSAL PRICE PAGE**  
(Submit with Bid)

Sewer line chemical root control, including all labor, materials, equipment and associated costs, shall be paid for at the unit price bid per linear foot of each size pipe. Unit prices are to be computed per linear foot manhole-to-manhole.

PIPE SIZE	UNIT PRICE PER LINEAR FOOT	ESTIMATED FOOTAGE	EXTENDED PRICE
6 inch			
8 inch			
10 inch			
12 inch			
Total Price (in figures)			

(Total Price in words) \_\_\_\_\_

The Owner reserves the right to reject any or all bids. Bidders are cautioned not to attach any conditions, limitations, or provisions to the proposal as such conditions, limitations or provisions will render their bid informal and cause its rejection.

**Submittals:** Failure to enclose the following will render this bid non-responsive and result in the rejection of this bid. Indicate whether the following are enclosed.

Yes	No	
		Bid Security, 10% of the total bid
		Specimen Label with MSDS
		Pollution Liability Insurance Certificate
		Contractor's Qualification Page
		Contractor's Reference Page
		Contractor's Confined Space Entry Employee Certificates (2 minimum)
		Product Study on Wastewater Treatment Plants

**CONTRACTOR'S QUALIFICATION PAGE**

(Submit with Bid)

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 **(Please Enter Appropriate State Here)** Pesticide Business License #:

\_\_\_\_\_

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

Name of Proposed Chemical Root Control Agent: \_\_\_\_\_

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

**(Please Enter Appropriate State Here)** Root Control Product Registration #:

\_\_\_\_\_

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

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

What is the AM Best rating for your Pollution Insurance carrier? \_\_\_\_\_

Does the Contractor have a minimum 5 years of experience in the type of work specified, treated in excess of 750,000 lineal feet of root treatments in the last 24 months, and completed at least 10 other jobs similar in size and scope, which the Owner can verify? \_\_\_\_\_

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

Has the Contractor enclosed a recent study documenting the effects of the submitted product on wastewater treatment plants? \_\_\_\_\_

Contractor's **(Please Enter Appropriate State Here)** Certified Pesticide Applicators

(List 3 minimum)

1. Name: \_\_\_\_\_ Certification #: \_\_\_\_\_ Years of Experience: \_\_\_\_\_

2. Name: \_\_\_\_\_ Certification #: \_\_\_\_\_ Years of Experience: \_\_\_\_\_

3. Name: \_\_\_\_\_ Certification #: \_\_\_\_\_ Years of Experience: \_\_\_\_\_

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

The Contractor shall submit municipal references for chemical sewer root control work, which the Owner can verify. Each reference shall be for work actually performed by the Bidder. All references shall pertain to actual root control work performed by the Bidder (sub-contractor references are not applicable). Reference work shall have been performed with the manner of application specified herein. Submit sufficient references on a project by project basis; so that the completed work in total for said municipalities exceeds the specified limit of 750,000 lineal feet of root treatments (minimum of three).

**ALL REFERENCES WILL BE TREATED AS THE CONTRACTOR'S CONFIDENTIAL BUSINESS INFORMATION.** Previous work for the Owner may be used as references. Complete each item for all 3 references

<b>Owner/Agency:</b>		
<b>Address:</b>		
<b>City, State, Zip</b>		
<b>Contact/Phone:</b>		(    )
<b>Footage Treated:</b>		
<b>Date of Treatment:</b>		

<b>Owner/Agency:</b>		
<b>Address:</b>		
<b>City, State, Zip</b>		
<b>Contact/Phone:</b>		(    )
<b>Footage Treated:</b>		
<b>Date of Treatment:</b>		

<b>Owner/Agency:</b>		
<b>Address:</b>		
<b>City, State, Zip</b>		
<b>Contact/Phone:</b>		(    )
<b>Footage Treated:</b>		
<b>Date of Treatment:</b>		

TOTAL FOOTAGE TREATED: \_\_\_\_\_

Only Contractor's experienced in this type of work will be considered for award. Failure to provide sufficient verifiable references whose total work exceeds 750,000 linear feet will result in rejection of this bid.