

MUNICIPAL PEST MANAGEMENT SERVICES, INC.

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City of Dover, NH 2021 Curbside Weed Control Services Request for Proposal #B21084

As part of Request For Proposal #B21084, this is a description of curbside weed control services to be provided to the City of Dover in 2021. Crack and crevice weeds are unsightly but also cause severe damage to paved surfaces. The root systems of weeds allow water infiltration into the sub grade. Water expands and contracts causing the subgrade to deteriorate. Weeds are slippery when wet and pose significant hazard to pedestrian and bicycle traffic. Weed control increases the replacement time of sidewalks dramatically.

SWEEP Program

This is a proposal for starting a SWEEP Program in Dover in 2021. SWEEP is an acronym for Sustainable Weed Control on Pavements. SWEEP was first started in the Netherlands and my company is the first to start a program in the United States. Sustainability is defined as emphasizing weed prevention and not relying on annual application of synthetic herbicides.

The SWEEP Program will consist of crack filling, sediment removal and hand pulling. Also included in this proposal is the use of an organic herbicide (Finalsan Herbicide) and testing of several new organic herbicides for potential.

This proposal includes 27.9 miles of curbing and/or sidewalks. This proposal is based upon the listed streets presented as part of this bid. We recognize that the City has the right to change the streets as they seem fit.

Crack Filling

Crack and crevice filling was completed on traffic islands last fall in Dover by MPMS. The filling was successful and is still intact. The filler prevents weed growth by preventing seedling development. The filler also prevents water infiltration and premature aging of pavement surfaces. The filler includes polymeric sand and crushed sea shells. It is very labor intensive but it's long term benefits far outweigh it's initial cost. MPMS has a specific way of preparing the cracks for filling and assuring long term benefits.

Pavement cracks and crevices vary considerably in depth, width and weed severity. Therefore, linear distances are impossible to propose. Instead, we propose to complete 135 labor hours of crack and crevice filling as part of this proposal. We will concentrate on the downtown area and Weeks Crossing traffic islands. The city reserves the right to choose any particular areas.

Crack Filling will reduce the need for organic spray applications each year. Prior crack and crevice areas will be inspected and repaired each year. The goal of a SWEEP Program is to eventually have all it's sidewalks completed with no spray applications necessary.

Crack sealing is not crack filling. Crack sealers are asphalt based and do not fill cracks deep enough. They are unsightly and not an effective tool for long term weed control.

Sediment removal and breakup

Weeds commonly establish in areas where sediment collects at the base and tops of curbing. Street sweepers typically remove most of the sediment but "hard" sediment forms along the seams. This sediment will be removed and/ or broken up so that weeds cannot devlope. Weeds need soil for development. This is an excellent sustainable method for preventing weeds and will be completing during organic spray applications.

Hand Pulling and hand tools

Large unsightly weeds will be removed. Careful attention will be given to removal of roots also. Hand pulling is a safe way to eliminate weeds near water or sensitive plants.

Finalsan Herbicide (Organic Herbicide)

Finalsan will be used to quickly eliminate weeds and will supplement the other SWEEP activities. Municipal Pest Management Services, Inc. (MPMS) will provide seven Finalsan applications to the bid designated sidewalks, curbing and traffic island areas. Applications will be completed within the months of June, July, August, September and early October of 2021.

All Finalsan areas will be completed within two working days each application. The use of specialized utility vehicles will assure this. Four utility (Kawasaki Mules) vehicles with two applicators per vehicle will be employed. No ATV's will be utilized since they are illegal on city sidewalks and roads.

Finalsan Herbicide will be utilized to complete all herbicide applications. Applications will be determined following surveys of weed populations. Proper timing of applications is crucial in minimizing the use herbicides and preventing unsightly dead weeds. Finalsaan Herbicide is not active in the soil

and will not leach or move to nontarget areas.

Finalsan applications will be supervised by Michael Morrison, Entomologist. Michael has academic (BS Entomology 1979 UNH) and field experience since 1979 regarding municipal weed control programs. Michael is an expert on plant identification and specific control procedures associated with individual species. Michael has designed and implemented weed control programs for the Dept. of Defense, US Fish and Wildlife Service, The Nature Conservancy, NH Fish and Game and many local and state agencies. MPMS has licensed applicators with many years of experience in curbside weed control programs. Lee Tsetseranos will be the Foreman in charge of operations.

As part of this bid, MPMS will try new organic herbicides as they appear on the market. Finalsan is the only organic herbicide I have found to work to date. However, with the removal of glyphosate in many communities there is interest in developing new organic herbicides.

SWEEP Program Proposal Costs

The following is a breakdown of the \$40,000.00 municipal budget.

Crack and crevice filling- \$14,365.00 (135 man hours)

Sediment removal- \$990.00

Hand pulling/ hand tools- \$1,190

Organic Herbicide- \$23,455.00

Summary

Since 1985, MPMS has completed curbside weed control programs in many New Hampshire and Maine communities. Every street is completed annually in Lewiston, Saco, Biddeford, Rochester, Salem, Derry, etc. We are the only company in the northeast that specializes in sidewalk weed control programs. Our use of specialized vehicles separates us from other companies who rely on walking streets. Walking can be alarming to the public and should be discouraged in municipal weed control programs. The vehicles prevent weeds from getting tall and unsightly.

There are many rules and regulations associated with a municipal weed control program and experienced applicators are extremely important for regulatory compliance. New Hampshire requires all applicators be licensed.

No subcontractors will be utilized.

No vinegar will be utilized. Acetic acid kills soil microorganisms and is dangerous to handle in concentrated forms.

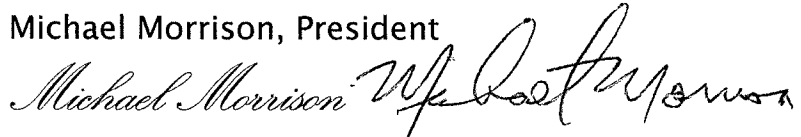
No burning, Co2 or liquid nitrogen will be utilized. These methods do not control root growth and are ineffective and dangerous.

Municipal Pest Management Services, Inc. will provide pesticide liability insurance including pollution coverage. The City of Dover will be listed as "Additional Insured". MPMS is one of only a few companies offering "pollution coverage" which protects against accidental or purposeful herbicide contacts with aquatic habitats.

MPMS will provide the required weed control permit from the New Hampshire Division of Pesticide Control. This requires GIS mapping. We have a GIS technician on our staff. The state ROW Weed Control permit application will be submitted immediately following bid award.

Referances include The City of Rochester DPW, Dave Green 603-335-6942 ; Saco, Maine DPW Director Patrick Fox 207-284-664; and Kittery DPW Director Dave Rich 207-439-0333.

Michael Morrison, President

A handwritten signature in black ink that reads "Michael Morrison" and includes a stylized flourish at the end.

Municipal Pest Management Services, Inc.

May 24, 2021