

**SPECIAL PROVISIONS – CONTRACT ITEMS  
SUPPLEMENTARY**

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## **1. GENERAL REQUIREMENTS & INFORMATION**

All Bidders are to note that the Special Provisions - Contract Items Supplementary are regularly revised and in some cases modified to a specific project. The City will not be responsible for any Bidder not being aware of the changes from previous tender documents.

The following General Requirements should be considered as amendments and/or extensions to the Special Provisions – Supplementary Special Provisions, as listed in the Niagara Peninsula Standard Contract Document, latest revision.

The City shall, at its discretion, reduce or increase the scope of the crack sealing contract in accordance with the approved budgeted amount for the work. There shall be **NO COMPENSATION** to the Contractor for any reduction in the contract value and scope.

## **2. RENEWAL FOR 2020 & 2021**

Subject to budgetary approvals and provided both the City and Contractor agree, this contract will be extended to include work performed in 2020 and 2021. The Contractor will hold all unit prices for each year the contract is extended. Should either party NOT agree to extend the contract for 2020 and 2021, the contract will expire upon completion of the work in each subsequent year.

Please note the Contractor is required to submit new bonding and insurance documentation at the start of each year for which the contract is extended. No work may commence until this documentation is received and approved by the City.

## **3. COMMENCEMENT & COMPLETION**

The successful bidder will be expected to commence the work as specified and to proceed continuously to the completion and to complete the work at the unit prices tendered within **twenty (20) working days**. Should the contract extend into 2020 and 2021, the working days allotted shall remain the same and will be applied each year the contract is in place. Where, in the opinion of the Contractor, significant increases in the budget and list of streets warrant additional working days, the Contractor shall submit a request for additional days in writing to the contract administrator prior to commencing the work.

## **4. SCOPE**

This contract encompasses the provision of all labour, materials and equipment necessary for the completion of crack sealing on various local, collector and arterial roads and other City Facilities.

The work involves the routing and sealing of cracks on various local, collector and arterial streets, parking lots, tennis courts and other City facilities, as well as streets that may be included under the asphalt overlay and asphalt patching contract. This will require co-ordination and co-operation between all Contractors involved. The purpose of this project is to seal roads that have been resurfaced or repaired in recent years.

The Contractor is advised that the amount of cracks will vary on each street ranging from few cracks to many cracks. Therefore, there shall be no compensation to the Contractor for pavements that have only a few cracks. It is the bidder's responsibility to inspect all streets to determine the extent of crack sealing required. The Contractor shall allow for this requirement in their unit prices bid.

The above description is general only and shall not be construed as limiting the scope of the contract.

Bidders will note that the contract has provided for an approximate length of 25,000 linear metres. The final amount of crack sealing will be based upon the budgeted amount.

Work shall take place during daylight hours of 8:00 AM to 5:00 PM, Monday to Friday inclusive, excluding statutory holidays, No work will be permitted on windy days due to dust problems.

The required work shall be carried out in accordance with the most current version of OPSS.PROV 341 and by a contractor of recognized standing, having proven experience in this type of work and the necessary equipment and labour to carry out the work properly.

The successful contractor shall not, without the written consent of the Corporation of the City of Niagara Falls, make assignment or any subcontract for the execution of any of the work hereby tendered on.

The Contractor is advised that any crack sealing that may be required within the tourist area of the City shall be scheduled at the discretion of the contract administrator in order not to interfere with the tourist traffic. Any costs associated with mobilizing and demobilizing shall be deemed to be included in the unit price bid for crack sealing.

Crack sealing shall not take place on highly distressed pavement areas, alligator areas, block cracks, slippage cracks, or cracks resulting from a defect below the pavement.

#### **A8\*. CONSTRUCTION SIGNS, TRAFFIC CONTROL & TRAFFIC MANAGEMENT PLAN**

**Please note: the unit price bid for crack sealing is to include all necessary traffic control.**

Interference with normal flow of traffic shall be kept to a minimum. The Contractor shall be prepared to supply and erect any barricades and signs which may be required for complete control of both pedestrians and vehicular traffic including competent flag persons in accordance with Ontario Manual of Uniform Traffic Control Devices. The Contractor shall further provide a Traffic Control and Management plan in accordance with the most recent amendments of the OHSA. The unit price bid shall be deemed to have included this provision.

The Contractor shall also be responsible for supplying their hired help with any necessary safety and/or protective equipment required to perform the work safely.

A minimum of one lane of traffic shall be maintained at all times during construction. Two lanes of traffic shall be maintained at all other times. The Contractor's proposed sequencing and staging of works and operations is to make due allowance for this requirement. Work within intersections is to be staged such that a minimum of one lane of traffic is maintained on the cross street as well.

On **All Streets**, one lane of traffic may be closed to traffic during construction, in accordance with the "Traffic Control Manual for Roadway Work Operations". At all other times, all lanes of traffic shall be maintained. Road closures of any kind will only be allowed on an exception basis, and only upon approval of the Project Manager. These operations will need to be requested by the Contractor, in writing, at least one week prior to implementation, to the City for review and approval. These operations are to be allowed for in the Contractor's Traffic Control and Management plan, and any associated costs will be the Contractor's responsibility.

It is of critical importance that all planned construction activities be coordinated with the City's Operational, Traffic, Parking and Transit departments. Notification on at least a weekly basis of planned works (schedule) will be required to ensure that the necessary detour signage, parking accommodations, bus routing and maintenance activities account for the active work zones within the project area. The Contractor will also be required to keep property owners informed of potential impacts to their businesses and residences, in order to minimize disruption to access and servicing to their properties by planned construction activities.

Pedestrian access to all businesses and residences is to be maintained at all times whenever possible. Access closures are to be scheduled at least 2 business days in advance between the City, the Contractor and the Business owner and/or Residents, including the type and form of any temporary access provisions. Any disruption to pedestrian access is to be kept to a minimum duration.

On **All Streets**, the Contractor will be required to backfill all their trench cuts and install temporary restoration in accordance with the Regional Municipality of Niagara specifications at the end of the day's operations so that all lanes of two-way traffic can be maintained at night. All hazards and obstructions shall be properly barricaded and

delineated with flashers in accordance with the Ontario Manual of Uniform Traffic Control Devices.

It will be the Contractor's responsibility to inform the various businesses and residences of, and/or the placement of no parking signs the day before, in order to reduce/eliminate any problems with parked vehicles that may interfere with their operations. Access to the abutting businesses and residences must be maintained at all times.

The Contractor shall advise the Police Department, Fire Department and Niagara Emergency Medical Service on a daily basis, with current status of the construction as it pertains to the passage of traffic within the contract limits.

The Contractor will co-ordinate with Niagara Falls Transit to ensure minimum interruption to their bus schedules on **All Streets**. Niagara Transit, school buses and garbage service vehicles will be given priority to maintain their schedule.

The Contractor shall also maintain/provide existing pedestrian access at all times to the businesses and residents during all phases of construction in an acceptable manner.

The traffic control signage requirements shall include the following:

Supply, locate, erect, operate, maintain, relocate as necessary and remove all necessary traffic signs, construction signs, including delineators, barricades and flashing lights, in accordance with the Ontario Traffic Manual (OTM) Book 7 and the latest edition of the "Traffic Control Manual for Roadway Work Operations – Field Edition".

The Contractor is responsible for the installation and removal of all construction signage. The Contractor is also responsible for daily maintenance of all signs throughout the contract.

Regulatory signs and Street name signs cannot be removed without approval of the City.

Any existing signs removed by the Contractor to accommodate construction shall be kept operational by placement on a temporary support.

All signs will be replaced permanently by City forces.

## **B39 ROUT AND SEAL**

Specifications for routing and sealing cracks are based upon OPSS.PROV 341, with the following amendments:

### **A. PREPARATION OF JOINTS AND CRACKS**

Crack sealing transverse cracks will include routing to a predefined geometry, cleaning and sealing with hot applied sealant. All transverse cracks greater than 3 mm wide and

less than 25 mm wide located on the driving lanes shall be routed to a minimum of 40 mm wide and a depth of 8 mm. 'V' or 'U' shaped grooves are not acceptable. The routing of all transverse and skewed cracks shall be terminated within 25 mm of the pavement edge.

Occasional cracks greater than 25 mm wide will not be routed and will be filled in accordance with the overfill method described in Section D entitled Application.

## **B. HOT RUBBER - ASPHALT JOINT SEALING**

### **Material**

Hot applied rubber asphalt sealing compounds, specifically designed materials that form a resilient adhesive effective seal for cracks and joints in pavements on highways, bridges, sidewalks, etc., will fully conform with Federal Specifications SS-S-164, OPSS 1212, CAA Specifications P-605 and ASTM D-6690-01, Type IV with a modified resiliency. The sealant material must be listed on the All District MTO Designated Sources list.

The City shall be provided with the following manufacturer's data at least five (5) working days prior to placement of sealant:

- a) Application recommendations
- b) Recommended heating time and temperature
- c) Allowable storage time and temperature after initial heating
- d) Allowable reheating criteria
- e) Application temperature range

## **C. EQUIPMENT**

### **Heating Kettle**

The equipment shall consist of a portable melting kettle of the double boiler indirect heating type, which uses a high flash point oil (minimum 316 C), as a heat transfer medium. This kettle must be equipped with an effective mechanically operated agitator to keep the material under constant movement during heating. It must also be equipped with thermometers that show both the heat of the material and the heat of the transfer oil, in order that a positive control can be kept on the material at all times. The kettle shall be of the portable type, mounted on rubber tires, have a filling spigot and shall be equipped with a metal shield beneath the fire box to protect the pavements.

## **Router**

All routing equipment shall consist of mechanical routers capable of continually creating well-defined right angled routs and keeping the rout centreline within 5 mm of the centre of the crack and providing a rout width of 40 mm to 50 mm and a shape factor (width/depth) of 1:1 or greater. The routing equipment shall be sufficiently portable and flexible to accurately follow random cracks without undue spalling of the crack edge.

When the Contractor cannot demonstrate to the satisfaction of the Engineer that a router is capable of maintaining the specified dimensions and shape of the rout, the Contractor shall then adjust or replace as many cutters in the router's cutting head as necessary until the dimensions and shape of the rout again meets the specification requirements.

## **D. APPLICATION - ROUT & SEAL METHOD**

The application shall be carried out by a joint sealing contractor, experienced in the heating and application of hot applied rubber asphalt compounds and having the properly designed equipment for controlled heating of the material. The bags shall be stripped from the compound and the material cut into blocks of approximately ten (10) pounds each, prior to being placed in the melting kettle. The sealing compound shall not be less than 175C and is not to reach temperatures of greater than 232C at any stage of the melting or pouring operations. The material shall be subject to continuous and positive mechanical agitation. Material heated in excess of 232C shall be wasted and properly disposed of at the expense of the Contractor. The joint sealing compound shall be poured as soon as possible after the pouring temperature is reached. Only as much compound as can be poured in a given day shall be melted that day.

Sealing compound shall not be placed unless the joint/crack is dry, clean and free of dust.

The joints/cracks within municipal roadways shall be sealed as per the overfill method as outlined in OPSD 508.010 in a neat and workmanlike manner. Joints/cracks within walking/biking/fitness trails shall be sealed as per the flush fill method outlined in OPSD 508.010. The sealant shall be placed into the unrouted or routed crack. The sealed groove shall be dusted with sand or stone dust to prevent the sealing compound from tracking.

The sealing operation must take place during the daylight hours and when the air temperature is 5C or higher and the asphalt temperature is less than 50C. If the Contractor decides to proceed under less than ideal conditions, all defects shall be repaired at no additional cost to the contract.

## **E. METHOD OF PAYMENT**

Payment shall be made in accordance with field measurements on the actual total length of cracks. Progress payments are made once a month from the date of commencement

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of the work and will be for 90% of the work completed with the balance paid 45 days after completion of the contract in accordance with the Construction Lien Act, R.S.O. 1990.