

53.27 MAINTENANCE OF GRAVEL SURFACE ROADS AND ICE CONTROL ON PAVED SURFACES

53.27.1 GENERAL

The Work consists of using a grader to maintain gravel surface roads during the summer months and perform snow removal and ice control on gravel surfaced roads and paved surfaces during the winter months.

53.27.2 MATERIALS

No materials are required for this Work.

53.27.3 EQUIPMENT

The Contractor shall supply a motor grader in good working condition and meeting the following requirements:

- possesses a 150 horsepower engine or greater,
- is less than 12 years old,
- is equipped with headlights, tail lights, 4-way flashers, back up alarm, revolving light, slow moving symbol and warning flags on the outward edges of the cab and moldboard,
- is equipped with an adequate set of blades, scarifier teeth, shanks and Sandvik blades and bits (System 2000) or equivalent,
- is equipped with a wing mounted on the right hand side for winter operations, and
- properly fitting tire chains available at the worksite.

The Engineer reserves the right to inspect the equipment prior to commencement of the Work and at any time during the term of the Contract to ensure the equipment meets all requirements. Equipment downgrades will not be accepted unless specifically authorized by the Engineer.

53.27.4 PROCEDURE

53.27.4.1 General

Graders shall travel in the same direction as the traffic at all times.

53.27.4.2 Summer Maintenance

The Work shall be performed during daylight hours only.

The roadway shall be bladed to eliminate pot holes, washboards and ruts.

The finished surface shall be free of ridges, rocks or other material which may be hazardous to traffic and shall have a uniform crown between 3% and 5%. The superelevation on curves shall be retained or restored over the entire roadway width.

At intersections, the crown on the main roadway shall be maintained through the intersection. The crown on the intersecting roadway shall be feathered back.

Material shall not be carried onto structures such as bridge decks, cattle guards and railway crossing flangeways. Should this occur, the Contractor shall remove the material from the structures at his expense. Backblading may be required to remove excess material from the edges of such structures.

After crossing railway tracks, the Contractor shall immediately inspect the flangeways and remove any material which may have been deposited. In the event any damage is evident, the Contractor shall immediately inform the railway company roadmaster and the Engineer.

Windrowed material shall not be left on the roadway overnight.

The Contractor shall make every effort to minimize the loss of gravel from the roadway surface.

53.27.4.3 Winter Maintenance

When maintaining roadways in winter, high snowbanks which limit visibility of traffic shall be removed from areas near railway tracks, intersections, signs or other points designated by the Engineer.

Snow shall be removed from the roadway surface and sideslopes. When necessary, ice shall be scarified or removed from the roadway surface.

53.27.4.4 Signing

When required by the Engineer, the Contractor shall supply and erect the following signs when performing summer maintenance.

GENERAL SPECIFICATIONS FOR TEMPORARY SIGNS					
Sign No.	Message or Description	Size (Centimetre)	Shape	Legend	Background
WD-A-41	Road Work	75 x 75	Diamond	Black	Orange
WD-167	Gravel Windrow	75 x 75	Diamond	Black	Orange
RD-156	Maximum 50 Passing Workers	60 x 75	Rectangle	Black	White
Sign sizes, shapes, symbols and colours are to be in accordance with the latest Edition of the Uniform Traffic Control Devices for Canada Manual.					

53.27.5 SCHEDULING OF WORK

The hours and location of the Work will be determined daily by the Engineer.

The Contractor shall schedule his operations based on priority routes as identified by the Engineer.

53.27.6 MEASUREMENT AND PAYMENT

53.27.6.1 General

Measurement will be made of the number of hours the equipment is engaged in the Work.

Payment will not be made for time required to change blades or refuel.

53.27.6.2 Summer Maintenance

Payment will be made at the unit price bid per hour for "Maintain Gravel Surface Roads (Grader)." This payment will be full compensation for supplying the grader complete with blades and all specified attachments, maintaining the roadway, signing, and all labour, equipment, tools and incidentals necessary to complete the Work.

53.27.6.3 Winter Maintenance

Payment will be made at the unit price bid per hour for "Snow Removal and Ice Control (Grader)". This payment will be full compensation for supplying the grader complete with blades and all specified attachments, removing snow and/or ice from the roadway and all labour, equipment, tools and incidentals necessary to complete the Work.

Payment will be made at the unit price bid per hour for "Snow Removal and Ice Control on Paved Surfaces (Grader)". This payment will be full compensation for supplying the grader complete with blades and all specified attachments, removing snow and/or ice from the roadway and all labour, equipment, tools and incidentals necessary to complete the Work.

53.27.7 WARRANTY

There is no warranty period for this Work.