

FORM 317



GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Transportation and Works
Highway Design Division

SECTION 317 WINTER SAND

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317.01 SCOPE

This specification covers the requirements for the supply and delivery of winter sand.

317.02 PHYSICAL AND GRADATION REQUIREMENTS

Materials shall be natural or manufactured from natural aggregates and consist of sound and durable predominately angular particles completely resistant to breakdown under traffic or freezing conditions.

Materials shall be composed of clean, hard uncoated particles and shall be free from organic matter, clay lumps, and deleterious materials such as shale, salts, ochre and schists.

Materials shall conform to the gradation requirements as given in Table I. The gradation shall not show marked fluctuations from opposite extremes of the limiting sizes and the plotted curve shall flow in a manner free from acute changes in direction.

TABLE 1 GRADATION REQUIREMENTS

Sieve Sizes	<u>% Passing by Dry Weight</u>
6.35 mm	100
4.76 mm	70-95
2.00mm	50-80
0.420 mm	5-25
0.075 mm	0-6

317.03 SAMPLING AND INSPECTION

Materials will be sampled and inspected by the Department at the designated stockpile locations. This acceptance shall not preclude further stockpile sampling, which may or may not lead to material rejection. Materials will not be sampled at the source.

The quantity of these tests shall be determined by the Engineer. They shall be sufficient in number to ensure an acceptable product.

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317.04 USE OF PITS AND STOCKPILES

The use of pits for the production of winter sand, together with the requirements for the stockpiling of the winter sand, shall be in compliance with the provisions of Section 310 "Use of Pits, Quarries and Stockpiles for Production of Materials Supplied by Contractor".

317.05 ENVIRONMENTAL PROVISIONS

The work shall be carried out in accordance with the environmental provisions of Section 310 "Use of Pits, Quarries and Stockpiles for Production of Materials Supplied by Contractor".

317.06 MEASUREMENT FOR PAYMENT

The measurement for payment will only be for those materials accepted for use under this specification.

317.06.01 Volume Measurement for Payment

Where the contract unit price table states that winter sand is to be stockpiled and the unit of measurement is stated in cubic metres, then such stockpiles shall be cross sectioned and the volume computed in cubic metres rounded to the nearest whole number.

The quantity to be measured shall be the number of cubic metres of stockpiled winter sand as shown on the cross section sheets between the graded base of the stockpile as cross sectioned before stockpiling begins and the cross sections made over the completed stockpile. The volume of this stockpile being computed by the average end area method of computation or as wedges or pyramids, as the case may be when terminating at grade points.

In the event cross sections determine excess material has been placed in the stockpile, the contractor has five (5) days after this determination is made to remove the sand if he so desires. The owner reserves the right to then do a final cross section. Engineering costs will be free on first quantity measurement and charged to contractors for additional engineering quantity measurements.

317.06.02 Weight Measurement for Payment

Where the contract price table states that winter sand is to be stockpiled and the unit of measurement is stated in tonnes, then the material shall be weighed on scales.

The scales shall be provided by the Contractor and they shall conform with the requirements of Section 501 "Weighing of Materials in Trucks". The Department will supply scale tickets, and the Department Scale Checker will issue the tickets. Only loads certified by the Department Road Checker as being placed in the works at the required locations shall be included in measurement for payment.

The weight shall be computed in tonnes, rounded to one decimal place.

For quantities of winter sand less than or equal to 10 000 tonnes, the department will measure the material in stockpile by cross sectioning, calculating the number of cubic metres and converting the quantities to tonnes if the Contractor so desires. A standard conversion factor of 1.8 t/m³ will be applied for winter sand measured in stockpile.

For quantities of winter sand greater than 10 000 tonnes, the Contractor must provide weight scales.

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317.07 BASIS OF PAYMENT

Payment at the contract price per cubic metre for winter sand shall be full compensation for all labour, equipment-use, materials and any other expenses to; provide a pit, obtain environmental approval, provide and transport pit samples to the Department's Soils Laboratory in St. John's, clear, grub and strip the pit, process pit material to the required gradation and physical requirements, transport and place the material in the stockpile, clean up the pit, pay any royalties for the material, and provide such other restoration to the pit as may be required, together with the provision of scales if required.