

SECTION 360

COLD PLANING

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360.01 SCOPE

This specification covers the requirements for cold planing existing pavement. The cold planing shall expose sufficient curb and gutter to allow full curb height restoration after eventual resurfacing, and shall extend to a width sufficient to restore an acceptable cross section.

360.02 EQUIPMENT

The cold planing shall be accomplished using a cold planing machine. The cold planing machine shall be a self-driven rotating drum type, capable of removing asphalt 100 millimetres thick and at least 1.2 metres wide in a single pass. Cutting depth shall be adjustable from 0 to 100 millimetres over the length of the drum. The machine shall have automatic grade control and be able to load milled material directly into trucks, or be able to windrow the material for subsequent pick-up by other equipment.

360.03 OPERATIONS

The existing pavement shall be removed to the depth specified in the contract documents or as directed by the Owner's Representative. If the required depth is not removed in the first pass, the Contractor shall return to mill down the pavement to the required depth.

Removal may be required across the full width of the road, one lane width, one lane and shoulder width or in tapered strips along the curb, depending upon the suitability of the resulting cross section. In areas where the cold planing equipment cannot remove the

pavement to the depths required, such pavement shall be removed to the required depth using other means acceptable to the Owner's Representative.

Except as otherwise provided in Sections 360.04 or 360.05, all asphalt millings shall become the property of the Contractor and shall be disposed of at an approved waste disposal location provided by the Contractor. The Contractor shall obtain all applicable permits and provide copies to the Owner's Representative prior to any milling operations commencing on the project.

Prior to paving operations commencing a transverse butt joint must be constructed. If a transverse vertical cut is milled in the existing pavement at the limit of the work area the Contractor shall immediately construct with hot mix asphalt concrete a temporary smooth 1.5 metre long taper. The temporary taper must be removed prior to paving of the milled area. The Contractor is advised the Department will apply liquidated damages in the amount of \$1000 per day, per joint for any joint where a temporary taper is not constructed on the project. Liquidated Damages will be deducted from the Monthly Progress Estimate.

In locations where cold planing and paving of adjacent lanes is required, sequential mill and fill for longitudinal joint construction and paving is to be followed. The first lane is to be completed (cold planed and paved) prior to cold planing of the adjacent second lane. Cold planing of the adjacent second lane must include the removal of the shared longitudinal joint by cold planing a minimum of 100 millimetres of the first paved lane. Cold planing and paving of the adjacent second lane is not to take place until the next day. All lane edges remaining in the work are to be clean and coated with a double application of tack coat.

All residue left by the cold planing process shall be removed immediately from the road. Mechanical sweeping shall be performed at the end of each day's operations. Low points in the asphalt because of cold planing operations, at the end of each day's operation, where water ponding may occur shall have the shoulder milled for draining rainfall. Any guide rail contaminated as a result of cold planing or sweeping operations shall be cleaned to the satisfaction of the Owner's Representative. Any milled material that is lost over the shoulder shall be immediately retrieved and disposed of in an approved manner.

The Contractor shall continuously maintain the work site free of potholes and standing water and in a condition providing for a safe and efficient flow of traffic, from the time of removal, until such time as the new asphalt concrete is placed. Hot mix asphalt concrete shall be placed in the potholes; cold mix or RAP are acceptable only as a temporary repair. Areas cold planed must be paved within 7 days of the cold planing operation.

Signage indicating the driving condition of the milled surface shall be posted (i.e. Construction Signs TC-47 and TC-49). Milled and aged asphalt concrete surfaces shall be treated with tack coat in accordance with Section 320 prior to the placing of asphalt concrete.

Unless otherwise identified in the Contract Documents or as directed by the Owner's Representative, the maximum length of cold planed areas left exposed shall not exceed 8 lane kilometres over the entire project.

360.04 USE OF MILLED MATERIAL FOR SHOULDERING

For projects where milled material is identified for use as shouldering material, the following conditions apply:

- a) The milled material is to be placed on the shoulder using an approved shouldering machine. Direct placement from the conveyor of the milling machine onto the shoulder will not be permitted.
- b) The material must be graded and compacted immediately after placing.
- c) Milled material shall not be placed on shoulders within 15 meters of a body of water.
- d) Milled material shall not be placed on shoulders near guide rail nor guide posts.
- e) Excess milled material that cannot be used for shoulders will become the property of the Contractor and disposed of accordingly.

Any millings placed on roadway shoulders shall be neatly trimmed and compacted to ensure positive drainage from the adjacent pavement. The Contractor shall not place millings on the shoulder of the road without prior permission from the Owner's Representative, and under no circumstances shall millings be placed on the median shoulders along a divided highway. Areas where millings are placed on the shoulder without the permission of the Department, shall have the associated milling and asphalt quantities deducted from the progress payments and will not be paid until the millings are cleaned up from the shoulder and hauled away to the satisfaction of the Owner's Representative. No additional payment shall be made for placing and compacting millings on shoulders.

Milling depth shall be a nominal 50mm, except in areas where milling will be done to re-establish the cross section of the existing asphalt. Milling depths in those areas will vary and may be less than or greater than 50mm as directed by the Owner's Representative. All milled edges shall be treated, 100% coverage, with two coats of tack coat. All costs associated with the supply and application of tack coat on the milled edges shall be incidental to the asphalt unit price.

All work shall follow the environmental guidelines set out in the document “Guideline for Waste Asphalt Reuse in New Pavement or in Roadbed Construction of Paved Roads; and/or Storage and Final Disposal” issued by the Department of Environment and Climate Change. The document can be found at the following URL: <https://www.gov.nl.ca/ecc/env-protection/waste/>

360.05 USE OF MILLED MATERIAL FOR STOCKPILING FOR DEPARTMENT DESIGNATED AREA

For projects where milled material is identified for use by the Department the material shall be loaded and hauled to a stockpile site as indicated in the contract document or as directed by the Owner’s Representative.

If the Contractor removes the specified thickness in more than one layer, then material from each layer must be stockpiled separately, unless otherwise indicated in the contract documents.

Proper stockpiling procedures must be used and care shall be taken not to contaminate or consolidate the reclaimed asphalt concrete stockpile.

If a potential for contamination of the RAP exists due to ground conditions at the stockpile site a layer of clean, fine grained material shall be evenly distributed as a base for the stockpiles. The cost of preparing and providing the layer of clean, fine grained material as a base for the stockpiles shall be included in the unit price bid for cold planing asphalt.

The height of the RAP stockpiles shall be a maximum of 3 meters to limit the consolidation of the stockpile material and no loaders, excavators, dozers, trucks or other equipment shall be permitted to travel on the stockpile.

360.06 MEASUREMENT FOR PAYMENT

Measurement for payment shall be on the basis of the required surface area subject to cold planing to the required depth. The area shall be computed in square metres, rounded to one decimal place.

360.07 BASIS OF PAYMENT

Payment at the contract unit price shall be compensation in full for all labour, materials and equipment use to; carry out the cold planing to the required depth, load and haul away and dispose of the millings at a waste disposal site provided by the Contractor at their own expense, or a site designated by the Owner’s Representative, and sweep the

planed surface. All work associated with loading, transporting, placing, grading and compacting milling materials along shoulders shall be considered incidental to this item.