



3050 - SPECIFICATION FOR SURFACE MIXING AND COMPACTION

3050.1 DESCRIPTION

- 3050.1.1 The work shall consist of mixing and compacting the existing Pavement Structure and/or the existing Subgrade to the required grade, cross section, and density.

3050.2 MATERIALS

- 3050.2.1 Only those materials present in the existing Pavement Structure and/or the existing Subgrade will be required for surface mixing. Additional material will not be required to be loaded, hauled and incorporated during surface mixing, unless indicated in the Special Provisions or Plans.

3050.3 CONSTRUCTION

3050.3.1 General

- 3050.3.1.1 The total depth of surface mixing and compaction will be specified in the Special Provisions.
- 3050.3.1.2 The work area shall be limited to an area that can be completed in two days.

3050.3.2 Mixing

- 3050.3.2.1 The Contractor shall incorporate the Surface Course to the specified depth of the Pavement Structure and Subgrade, if applicable, to form a homogeneous well-graded material.
- 3050.3.2.1.1 The homogeneous well-graded mixed material will be referred to as the Mixed Course.
- 3050.3.2.1.2 The maximum dimension of the existing Surface Course material shall not be larger than 50 mm when measured in any direction after the completion of the mixing and incorporation of the material.
- 3050.3.2.1.3 The Contractor shall provide a means of breaking down all existing Surface Course material larger than 50 mm in size so that no material is wasted.
- 3050.3.2.2 The Contractor shall remove and dispose of all surplus rock resulting from the surface mixing and compaction operation in accordance with Specification 2320 For Disposal Of Surplus Rock. This work will not be paid for directly but will be considered as a subsidiary obligation of the Contractor under this Contract.
- 3050.3.2.3 The crests of Pavement Structure undulations not greater than the specified mixing depth above the designated grade shall be moved crossways or longitudinally to raise the Pavement Structure depressions to the designated grade.
- 3050.3.2.3.1 If the crests of undulations are greater than the specified mixing depth above the designated grade, work required to move the material will be performed on an Extra Work basis.
- 3050.3.2.4 Surplus material shall be bladed to the side slope and spread and trimmed as directed by the Engineer.

3050.3.3 Compaction

- 3050.3.3.1 The Mixed Course shall be dried to at least the optimum moisture content and compacted to not less than 100% of the maximum density as determined in accordance with STP 205-5 for Moisture-Density Proctor.
- 3050.3.3.2 The Engineer will determine, from the test results, the section of the Road to be considered for evaluation. The moisture and density on this section will be considered satisfactory when:
- 3050.3.3.2.1 All individual moisture test results are equal to or less than the optimum moisture,
- 3050.3.3.2.2 Test results average not less than 100% of maximum density, and
- 3050.3.3.2.3 All individual test results are greater than 98% of maximum density.
- 3050.3.3.3 If the moisture in the Mixed Course is insufficient for compacting to the specified density and for finishing, the Contractor may elect to add water. The water shall be added in accordance with the requirements for Specification 2500 For Watering.
- 3050.3.3.4 If excess moisture exists within the Mixed Course, it shall be dried, to the optimum moisture content at no direct expense to the Ministry.
- 3050.3.3.5 Final compaction of the Mixed Course shall be done with pneumatic-tire rollers. Rolling shall be continued until all loose material is properly compacted true to grade and cross section and free from irregularities.
- 3050.3.3.6 When the Contractor is required to place a surfacing structure on the completed Mixed Course; the Mixed Course, at the time of placement of the surfacing structure, shall be true to grade and cross section, dried to at least the optimum moisture content, and compacted to not less than the specified density at no direct expense to the Ministry.
- 3050.3.3.7 The Contractor shall complete the repair of all Surface Failures.
- 3050.3.3.7.1 For the purpose of this Specification, a Surface Failure is defined as a section of the Mixed Course that is unable to support normal traffic because of a pre-existing condition that requires repair below the Mixed Course.
- 3050.3.3.7.1.1 The repairing of Surface Failures will be considered Failure Repair.
- 3050.3.3.7.2 Failures which develop in the Mixed Course after surfacing materials have been deposited on any portion of the Roadway shall be repaired at no direct expense to the Ministry.
- 3050.3.3.7.3 If excess moisture originating from external causes including but not limited to precipitation and/or the Contractor's operation is present in the Mixed Course during the period between acceptance of the Mixed Course and the acceptance of the completed surfacing structure, the Contractor shall dry the Mixed Course to the optimum moisture content and compact the Mixed Course to not less than 100% of the maximum density at no direct expense to the Ministry. If the Engineer determines that the excess moisture originated from below the Mixed Course, the repair work will be considered Failure Repair.

3050.4 MEASUREMENT

- 3050.4.1 Surface Mixing And Compaction In Place will be measured in square metres. The finished trimmed top surface of the Mixed Course, as staked by the Engineer, will be the basis of measurement.

3050.5 PAYMENT

- 3050.5.1 Payment for SURFACE MIXING AND COMPACTION IN PLACE will be at the contract unit price per square metre. The unit price will be full compensation for completing the work except for those activities for which specific provision for payment is made in this section.
- 3050.5.2 Payment for watering on the road will be in accordance with the requirements for Specification 2500 For Watering.