



Subsection 1500.1	Quality of Materials
.2	Aggregate Sources
.3	Samples, Tests, and Inspections
.4	Delivery, Storage, and Handling of Materials
.5	Materials Furnished by the Department
.6	Defective Material

### 1500.1 QUALITY OF MATERIALS

- 1500.1.1 Materials used on the project must conform to the specifications in this contract.
- 1500.1.2 If the materials prove unacceptable at any time, the Contractor shall make such arrangements as may be necessary to assure acceptable materials, either by alterations in plant operations or by change of source.

### 1500.2 AGGREGATE SOURCES

- 1500.2.1 The Contractor will only be permitted to use the aggregate sources shown on the plans or as described in the special provisions, or subject to Subsection 1500.2.8, other sources that are not Department-owned or controlled.
- 1500.2.2 Existing stockpiles of material are not available to the Contractor unless otherwise specified in the special provisions.
- 1500.2.3 Test results, measurements and any other information provided by the Department to the bidder regarding the gradation or other properties of material, or the depth of material, represent only the characteristics of the material at the site of the individual test or measurement. The bidder is solely responsible for any assumptions or generalizations about the overall characteristics of the material whether such assumptions are based on information obtained from the Department or otherwise. The Department will not be liable for any damages or costs incurred by the Contractor in the performance of the contract in the event that the actual quantity or quality of the material differs from the quantity or quality of the material assumed by the Contractor for the purpose of submitting a bid.
- 1500.2.4 The quality of material will be acceptable in general but the Contractor shall determine the amount of equipment and work necessary to produce material that complies with the specifications.
- 1500.2.5 Where mixing of materials from various sections of a pit will produce the greatest amount of material conforming to the gradation requirements of materials being produced at the time, the Contractor shall be required to supply sufficient dozers or similar equipment to carry out an operation such that the maximum amount of material will be obtained from that pit.
- 1500.2.6 The excavation of the gravel material shall be extended to the full depth of the deposit, where practicable, the operation being advanced uniformly to obtain the maximum yield from the deposit. Waste of usable material will not be permitted.

- 1500.2.7 No pit will be considered depleted except where, in the opinion of the Engineer, it is impractical to remove further material of the type or types under consideration.
- 1500.2.8 If the Contractor is required to reject a fraction of the raw aggregate to meet the aggregate requirements, the following shall apply:
- 1500.2.8.1 The raw aggregate shall be screened over a maximum 9.0 mm square opening screen or a 5.0 mm slotted screen prior to crushing.
  - 1500.2.8.2 The Contractor shall be responsible for the rejected material up to a maximum of 10% of the raw aggregate by weight.
  - 1500.2.8.3 The quantity of raw aggregate shall be calculated as follows:  
  
Raw aggregate = Crushed Aggregate x 1.11
  - 1500.2.8.4 In case of dispute regarding the percentage of material being wasted, it shall be resolved by a test in which the materials from the plant shall be weighed for a continuous period of not less than two hours.
  - 1500.2.8.5 During the test, the mixing operations prior to crushing shall be carried out to the satisfaction of the Engineer.
  - 1500.2.8.6 The Engineer will not consider the test binding unless the gradation of the product closely approaches the finer limits of the gradation requirements.
  - 1500.2.8.7 Reject aggregate shall be measured by the cross section method. The measurement shall be calculated individually for the type of material being produced. The volume of reject shall be multiplied by 1.9 to calculate tonnes.
  - 1500.2.8.8 Payment for rejecting aggregate in excess of 10% shall be paid for under the bid item for Reject Aggregate In Place In The Stockpile or at the rate designated in the Special Provisions. The payment shall be full compensation for completing the work.
  - 1500.2.8.9 For End Product Specification contracts, rejecting aggregate and all associated work shall be considered a subsidiary obligation of the Contractor.
- 1500.2.9 Alternately to Subsection 1500.2.3.5 above, such a dispute may be resolved by any means which is mutually acceptable and is agreed in writing by the Contractor and the Engineer.
- 1500.2.10 Excluding End Product Specification contracts, the contractor shall be permitted to produce Surplus Processed Aggregate in accordance with the following:
- 1500.2.10.1 Surplus Processed Aggregate is defined as base aggregate, seal coat aggregate or asphalt concrete aggregate which remain after completion of a surfacing contract.
  - 1500.2.10.2 Tender Quantity is defined as the quantity shown in the tender form for the particular material less adjustments for the following where applicable: reclaimed asphalt pavement to be incorporated in the design mix, and/or binder, filler and blender sand.

- 1500.2.10.3 Payment for Surplus Processed Aggregate shall not apply to:
- 1500.2.10.3.1 the quantity of aggregate rejected to meet the specified gradation.
  - 1500.2.10.3.2 to any material that is part of the Tender Quantity.
  - 1500.2.10.3.3 aggregates produced from Contractor supplied sources.
  - 1500.2.10.3.4 aggregates which are paid by a bid item in the stockpile.
  - 1500.2.10.3.5 miscellaneous quantities such as but not limited to stockpile loss, site waste and rejected materials.
- 1500.2.10.4 Measurement of Surplus Processed Aggregate shall be by the cross-section method. The volume of the Surplus Processed Aggregate shall be multiplied by 1.9 to calculate tonnes.
- 1500.2.10.5 Payment for Surplus Processed Aggregate shall be at the rate designated in the Special Provisions for:
- 1500.2.10.5.1 a maximum of 5% of the sum of the tender quantity or 500 t whichever is greater, plus any adjustment ordered by the Engineer;
  - 1500.2.10.5.2 processing aggregate in excess of the tender quantity which is not incorporated in the mix as a result of change orders by the Engineer; and
  - 1500.2.10.5.3 the amount by which the tender quantity exceeds the final mix quantity.
- 1500.2.11 The Contractor shall have the right to use Department-owned or controlled property comprising the source for the plant site or the stockpile site.
- 1500.2.11.1 The Contractor shall be responsible for obtaining the use of a suitable location for the asphalt mixing plant if the asphalt plant cannot be located at the aggregate source due to the conditions in the operating permit granted for the asphalt plant pursuant to *The Clean Air Act*; or any other requirement of the law.
  - 1500.2.11.2 If additional property is required at the aggregate source for plant and stockpile sites, the Department will arrange to lease or purchase such property and in the process will provide sufficient property for all camp facilities.
  - 1500.2.11.3 The Contractor shall clean up any Department-owned or controlled sites as directed by the Engineer.
  - 1500.2.11.4 Where sufficient property for plant and stockpiles exists at the aggregate source, the Contractor shall be responsible for any additional property that he requires for a campsite or other uses.
  - 1500.2.11.5 If the Contractor elects to construct the stockpiles in an area other than those designated, he will be responsible for acquiring the site at no direct expense to the Department.

- 1500.2.11.5.1 The Contractor shall supply the Department with a copy of the lease and signed release from the landowner on any site (stockpile, camp, etc.) leased by the Contractor.
- 1500.2.11.5.2 The Contractor shall clean up the site as required by the landowner.
- 1500.2.12 If the sources do not contain sufficient material to complete the work under the contract, the Engineer will designate additional Department-owned or controlled sources to be used.
- 1500.2.13 Material suitable for sub-base shall not be removed from areas within the source containing aggregate suitable for base course, asphalt surface course, and seal coat aggregates unless written permission is given by the Engineer.
- 1500.2.14 The following conditions shall apply to the removal of material, including aggregate, sand and earth, from land shown on the plan or described in the special provisions as places for the acquisition of material for use in construction:
- 1500.2.14.1 The Contractor shall give sufficient advance notice to the Engineer to permit him to make satisfactory arrangements for the protection of private or public property which may be, or may become, affected by the entry upon land and the removal of material.
- 1500.2.14.2 The Contractor shall notify the Engineer sufficiently in advance of the opening of any material source so that elevations and measurements may be taken before the ground is disturbed.
- 1500.2.14.3 The Contractor shall not be responsible for acquiring right to, or paying royalties for materials.
- 1500.2.14.4 The Engineer may require the Contractor to fence such lands as Extra Work.
- 1500.2.14.5 When specified in the contract special provisions, watchpersons shall be provided to patrol such lands. The Contractor will be responsible for the acts of such watchpersons and pay the expense of such watchpersons.
- 1500.2.14.6 Subject to the approval of the Engineer, the Contractor may use materials from such lands for building and maintaining production facilities (haul roads and access roads are covered elsewhere in this section) necessary for the performance of the work under the contract, but no payment will be made to the Contractor for such material or for any work done in connection therewith. The Contractor, unless authorized by the Engineer, shall not contaminate the granular area of the pits by using overburden for the purpose of providing a base for plant set-ups, haul roads, or for any other use.

- 1500.2.14.7 Oversize material, screenings, waste materials, surplus sand, surplus gravel, or any other material produced by the Contractor's plant and not required or beyond the quantity required shall be deposited as directed, in a manner that will interfere as little as possible with the future use of the deposit and which will present a neat, uniform appearance.
- 1500.2.14.8 Any excess aggregate that was produced from Department owned or controlled sources shall be the property of the Department and shall be stockpiled where the material originated from or as designated in the Special Provisions at no direct expense to the Department.
- 1500.2.14.9 Except by written permission from the Engineer, the Contractor shall not use materials from such lands for works other than those specified under the contract.
- 1500.2.14.10 The Contractor shall not leave a slope exceeding one metre vertical for every four metres horizontal in any area from which material has been removed.
- 1500.2.14.11 Sites from which material has been removed shall be left in a neat and presentable condition upon completion of the work in accordance with Subsection 1300.10.
- 1500.2.14.12 In this subsection "access route" means the right-of-way or easement permitting access to the deposit from a public highway.
- 1500.2.14.13 Access routes will be specified by the Engineer or staked on the ground.
- 1500.2.14.14 The Contractor will not be responsible for acquiring or making compensation for such access routes.
- 1500.2.14.15 The Engineer may require the Contractor to fence such lands as Extra Work.
- 1500.2.14.16 When specified in the contract special provisions, watchpersons shall be provided to patrol such lands. The Contractor will be responsible for the acts of such watchpersons and pay the expense of such watchpersons.
- 1500.2.14.17 If the Contractor elects to use access routes other than those specified, the Contractor shall be responsible at his expense for acquiring or making compensation for such access routes, for fencing such access routes, and for providing watchpersons for the protection of property adjacent to such access routes.
- 1500.2.14.18 When the contract contains a unit price for haul, the shortest practicable haul route will be shown on the plans.
- 1500.2.14.19 If it becomes necessary to move to a new aggregate source, the Engineer will specify the shortest practicable haul route.
- 1500.2.14.20 The Contractor may use a haul route other than that shown on the plans or as specified by the Engineer subject to Subsection 1300.7.

- 1500.2.14.21 When there is no unit price for haul in the contract, a haul route may or may not be shown on the plans. In either case, it shall be the Contractor's responsibility to select a haul route best suited to his operations and in accordance with Subsection 1300.7.
- 1500.2.15 The following conditions shall apply when the Contractor uses material from other sources that are not Department-owned or controlled:
- 1500.2.15.1 The material shall comply with the specifications set forth in the contract.
- 1500.2.15.2 The Contractor shall bear all costs including but not limited to:
- 1500.2.15.2.1 Exploring and developing the sources, including removing and disposing of overburden, supplying and adding binder, filler or blender sand and rejecting any quantity of material to comply with the specifications.
- 1500.2.15.2.2 Acquiring the necessary rights to take the materials and to use the property for plant sites, stockpile sites, access roads, and other purposes.
- 1500.2.15.2.3 Any increase in the length of haul.
- 1500.2.15.2.4 Plant moves, overhead, administration, and incidentals.
- 1500.2.16 The Department shall make monthly interim payments for processing aggregates as follows:
- 1500.2.16.1 payments for processing aggregate shall be at the rate designated in the Special Provisions;
- 1500.2.16.2 payments for hauling shall be at the current minimum rate per tonne kilometre or the contract bid price, whichever is lesser; and
- 1500.2.16.3 payments pursuant to Subsections 1500.2.9.1 and 1500.2.9.2 in any year shall be deducted from subsequent progressive estimates as the aggregate is incorporated into the work and these payments shall not appear on the final estimate.
- 1500.2.17 If a completion date for the interim processing of aggregates is specified in the contract, the Department will supply a scale person if requested in writing by the Contractor.

### **1500.3 SAMPLES, TESTS, AND INSPECTIONS**

- 1500.3.1 Test procedures shall be in accordance with the Saskatchewan Highways and Transportation's Standard Test Procedures Manual. The test procedures in effect on the closing date of the tender shall apply.
- 1500.3.2 The Engineer or his representative will from time to time take samples and carry out testing and inspections of materials incorporated or being incorporated in the work. The Contractor shall afford the Engineer or his representative every opportunity for such sampling, testing, and inspections. Tests will be made by and at the expense of the Department except that the Contractor shall supply and bear the costs of supplying power for the Department mobile laboratory trailer(s) at the work site.

- 1500.3.3 During crushing the Contractor shall, at his own expense, supply surge bin(s) to facilitate sampling of the crushed material being produced. The Contractor shall supply a suitable sampling platform for the purpose of obtaining samples from the discharge conveyor belt from the surge bin(s).
- 1500.3.4 The Contractor shall, at his own expense, provide and maintain a suitable sampling stand for the purpose of sampling from loaded trucks. The stand shall be of solid construction, safe and firmly anchored, and of a convenient height to enable easy acquisition of samples from the haul vehicles. The sampling stand shall be similar in size and construction to Plan No. 50100 in the contract. The stand shall be placed in a location acceptable to the Engineer.
- 1500.3.5 The Contractor shall give the Engineer two working days notice prior to the commencement of crushing operations at any site in order that arrangements can be made for testing of aggregates.
- 1500.3.6 When requested, the Contractor shall furnish a complete written statement of the origin, composition, and/or manufacture of any or all contractor supplied materials used in the work.
- 1500.3.7 The Department may accept certificates of guarantee and compliance with the specifications from suppliers in lieu of testing certain materials. No obligation is assumed to accept such certificates in this manner and the Department reserves the right to test those certified materials.

#### **1500.4 DELIVERY, STORAGE, AND HANDLING OF MATERIALS**

- 1500.4.1 Materials purchased and delivered by the Department shall be handled and stored by the Contractor in such a manner as to assure the preservation of their quality and fitness for the work. Materials that are subject to deterioration by weather conditions shall be provided with adequate protection during their transportation, handling, storage, and use by the Contractor. Stored materials, even though approved before storage, may be inspected prior to their incorporation in the work. Materials shall be stored so as to facilitate inspection.
- 1500.4.2 During the handling of all aggregates or other construction materials, special care shall be taken that no earth or foreign material becomes mixed therewith. Aggregates shall be transported to the work in vehicles so constructed as to prevent loss or segregation. Aggregates shall be stockpiled in such a manner as to prevent segregation.
- 1500.4.3 Stockpiled aggregates, even though tested during stockpiling, shall be subject to test and shall meet the requirements of the specifications at the time they are to be used in the work. However, if such aggregates do not meet the requirements of the specifications due to mistakes in the actual testing of the aggregate samples used by the Department during stockpiling, any additional work that the Contractor is required to perform in order that such aggregates do meet the specifications will be at the expense of the Department.

## **1500.5 MATERIALS FURNISHED BY THE DEPARTMENT**

- 1500.5.1 When the Department is required to deliver materials under this contract, such materials will be delivered f.o.b. to the railroad siding nearest the work, or by truck directly to the work. Except for materials delivered prior to the awarding of the contract, the Contractor shall decide when materials are required on the work, and except when the Contractor is authorized to arrange delivery direct with the supplier, the Contractor shall notify the Engineer. Whether the Contractor arranges for delivery with the supplier, or notifies the Engineer, reasonable advance notice shall be given.
- 1500.5.2 The Contractor shall take delivery of the materials at the delivery point, and shall be responsible for noting on the delivery slip any shortages, breakages, or defects. Material delivered prior to the awarding of the contract will not be the Contractor's responsibility except for subsequent handling and storage. The Contractor shall in advance of receipt or shipment of materials, provide adequate and proper storage facilities and on the receipt of such shipments, he shall promptly place the material in storage, except when they are to be incorporated forthwith in the work. Materials shall be handled and stored as provided for in Subsection 1500.4.
- 1500.5.3 The Contractor must account for all material delivered to him. The Contractor shall compensate the Crown for the value of all material for which he cannot account or which has been lost or damaged, whether the loss or damage is caused by an act or a failure to act on the part of the Contractor or a third party. The compensation shall be payable whether the act or failure to act was intentional or unintentional. Material supplied by the Department shall not be used for any purpose other than that for which it is supplied.
- 1500.5.4 The Contractor shall be liable for demurrage and storage charges on shipments of materials for the contract, except where delivery of such material is made prior to the awarding of the contract.
- 1500.5.5 If a question should arise as to the suitability of any materials supplied by the Department for use on the work, such materials shall remain in the care and at the risk of the Contractor, until it can be examined and tested by the Engineer to determine its fitness for the purpose for which it was purchased.
- 1500.5.6 No claim for damages shall be made against the Minister on account of delays in the delivery of materials except that:
- 1500.5.6.1 If a delay in the delivery of materials arises from inaction by the Department or the supplier the Contractor shall be entitled to a corresponding extension of time within which to complete the work.
- 1500.5.6.2 If work has been bypassed as a result of delay in the delivery of materials and that delay was caused by inaction on the part of the Department or the supplier, the Contractor will be paid Extra Work for moving his equipment back to the bypassed work.

## **1500.6 DEFECTIVE MATERIAL**

- 1500.6.1 Materials furnished by the Contractor that do not conform to the requirements of the specifications will be considered as defective and all such materials, whether in place or not, will be rejected and shall be removed immediately from the site of the work. No rejected material, the defects of which have been substantially corrected, shall be used until approval has been given, or remedied as stipulated in Subsection 1400.7.
- 1500.6.2 Materials furnished by the Department are deemed to conform to the requirements of the specifications; however, any such materials that are obviously defective shall not be used in the work, and the disposition of such materials will be determined by the Engineer. Any materials furnished by the Department and used in the work which subsequently prove defective shall be remedied, or removed and replaced at the Department's expense.