
Part 1 General

1.1 REFERENCES

- .1 Saskatchewan Highways and Transportation Specifications, January 1996.
- .2 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM D698-00a, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).

Part 2 Products

2.1 MATERIALS

- .1 Sub-Base Course: Saskatchewan Highways and Transportation specification 3300, Type 8.
- .2 Granular Base Course: Saskatchewan Highways and Transportation specification 3505, Type 32 or 33.
- .3 Asphalt concrete: spreader-laid hot mix to Saskatchewan Highways and Transportation Mix Design Type 2 (Specification No. 4100). Use AC 150-200A asphalt cement as defined by Saskatchewan Highways and Transportation Specifications for Manufactures Materials (SMM101).

Part 3 Execution

3.1 PAVEMENT STRUCTURE / COMPACTION

- .1 Pavement structure thickness:
 - .1 100 mm asphalt concrete.
 - .2 200 mm Granular Base Course compacted to minimum of 100% Standard Proctor density.
 - .3 380 mm Sub-Base Course compacted to minimum of 97% Standard Proctor density.

3.2 SUBGRADE PREPARATION

- .1 Remove loose fill and other deleterious materials from the proposed pavement area and compact the upper 150 mm of subgrade to at least 96 percent of standard Proctor density at optimum moisture content.
- .2 Provide geotextile with a grab tensile strength of 1000 N as required over subgrade soils.
- .3 In areas where there is to be no grade raise above the existing ground surface, excavate/subcut the clay to a minimum depth of 0.3 metres below the underside of the granular sub-base. Select clay removed during the subcut that is free from objectionable materials may be stockpiled in an approved storage area, for later re-use. If unconsolidated clay fills or unusually dry clays are encountered below the initial subcut depth then the subcutting shall be increased to the underside of such materials.

- .4 The final excavated areas are to be inspected for approval. If any undesirable materials are found they shall be removed. Upon approval, scarify and moisture condition to a depth of 150 mm. Recompact subgrade to a minimum average of 96 percent of Standard Proctor maximum dry density, with no reading falling below 95 percent at a minimum of 1 to 2 percent above optimum moisture content. Compaction shall be undertaken using a heavy sheepfoot vibratory compactor. Should areas require special attention, take remedial construction measures to rectify.
- .5 Areas that require a grade raise above the existing ground surface or that will require a significant grade raise shall use select fill consisting of pit run sand, containing less than 10% particles finer than a 80um sieve, to the underside of the sub-base course. All granular fill placed above the subgrade elevation should be placed in thin lifts (maximum 150mm loose) and compacted to a minimum of 98% of standard Proctor density.
- .6 Grade finished subgrade surface to promote subdrainage beneath the pavement structure.
- .7 Final surface elevations of paved areas shall be positively sloped towards catchbasins and as shown on grading drawing.
- .8 All fill materials are to be placed and uniformly compacted in 150mm maximum lifts.
- .9 Cohesive soils shall be compacted to the following:
 - .1 Bottom lifts: compact to minimum average 96 percent of Standard Proctor maximum dry density at a minimum of 1 to 2% wet of optimum water content. No individual density test shall be below 95% of Standard Proctor maximum dry density.
 - .2 Upper two lifts: (minimum combined thickness of 300mm) compact to minimum 98 percent of Standard Proctor maximum dry density at a minimum of 1% wet of optimum water content.
- .10 Do not allow prepared subgrade to dry out prior to placement of the sub-base material.

3.3 FIELD QUALITY CONTROL

- .1 Inspection and testing of asphalt paving will be carried out by designated testing laboratory.
- .2 Costs of tests will be paid by Contractor.

3.4 FINISH TOLERANCES

- .1 Finished asphalt surface to be within 5mm of design elevation but not uniformly high or low.
- .2 Finished asphalt surface not to have irregularities exceeding 5 mm when checked with 4.5m straight edge placed in any direction.

END OF SECTION