DIVISION 300 BASES

SECTION 301 SELECT BORROW BASE COURSE

301	Select Borrow Base Course
302	Graded Aggregate Base Course
304	Asphalt Stabilized Base Course
305	Graded Aggregate for Temporary Roadway Material (TRM)

301.01 Description. This work consists of furnishing, placing, and compacting select borrow material on a prepared subgrade.

301.02 Materials. The material used for the select borrow base course shall conform to the requirements of Subsection 209.04, Borrow Type G.

Source of material for the select borrow base course shall conform to the requirements of Subsection 209.05.

Source testing shall conform to the requirements of Subsection 209.06.

CONSTRUCTION METHODS.

301.03 Equipment. The Contractor shall provide equipment of the proper type and weight to do the grading, leveling, and compacting work as specified. Compaction shall be uniformly attained by approved rollers or compactors.

301.04 Preparation of Subgrade. The subgrade shall be properly shaped. It shall also be uniformly and thoroughly compacted in conformance with the lines and grades as shown on the Plans or as established by the Engineer, before any base course material is placed. These operations shall be performed in accordance with Subsection 202.06.

The subgrade shall be maintained as established in Subsection 202.06. Test rolling shall be performed as established in Subsection 202.02.

No base course material shall be placed until the subgrade has been approved by the Engineer

301.05 Placement of Select Borrow Base Course. Select borrow base course material shall be placed in successive layers. Each layer shall be placed in a level, uniform cross-section not to exceed 8" (200 mm) in depth, loose measurement, unless otherwise approved by the Engineer. The material shall be deposited and promptly spread parallel to the centerline. Each layer shall extend the full plan width.

If a layer does not contain a uniform distribution of moisture and component materials, it shall be disced or processed in a manner to ensure homogeneity. Each layer shall be properly compacted, as specified, before starting the next layer.

Compaction or rolling shall start at the edges and progress toward the center and shall continue until each layer is thoroughly and uniformly compacted to the full width.

In no case shall vehicles be allowed to travel in a single track or form ruts in the base course. If any sharp irregularities are formed, the base course shall be scarified to a depth of 6" (150 mm) and recompacted.

301.06 Performance Requirements. Compaction shall continue until each layer is thoroughly and uniformly compacted to 100% or more of the laboratory maximum density on representative material.

The moisture content of the select borrow base course material at the time of compaction shall be within 2% of the optimum.

The material shall either be moistened or dried, as needed, and thoroughly mixed before compaction. Field compaction shall comply with the requirements of the following AASHTO test methods as modified by the Department:

a. AASHTO T 99 Method C, Moisture-Density Relationship.
b. AASHTO T 191, Density By Sand Cone.
c. AASHTO T 224, Coarse Particle Correction.
d. AASHTO T 238, Density By Nuclear Methods.
e. AASHTO T 239, Moisture Content by Nuclear Methods.
f. AASHTO T 272 Method C, Moisture-Density Family of Curves.

The finished surface of the select borrow base course shall not vary from that required on the Plans by more than **2**" (13 mm) when tested with a 10N (3.048 m) straightedge applied to the surface parallel to the centerline of the pavement, and when tested with a template cut to the cross-section of the pavement.

A straightedge meeting the approval of the Engineer shall be supplied by the Contractor at each placement operation. The straightedge shall be constructed of rigid materials that resist warping and bending.

301.07 Method of Measurement. The quantity of select borrow base course will be measured as the number of cubic yards (cubic meters) of Borrow Type G placed and accepted. Borrow will be measured in its original position by cross-sections and computed by the method of average end areas. The number of cubic yards (cubic meters) of borrow measured, as stated above, will not include any overburden or stripping.

When requested by the Contractor and approved by the Engineer in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities is used. Where the Engineer has determined it impractical to obtain a weight-volume conversion factor, 3,200 lb/yd**;** (1900 kg/m**;**) shall be used as the conversion factor. The weight will be determined according to Subsection 109.01.

301.08 Basis of Payment. The quantity of select borrow base course will be paid for at the Contract unit price per cubic yard (cubic meter). Price and payment will constitute full compensation for all clearing, grubbing, or grading required to prepare the materials source for cross-sectioning; for excavating; for furnishing, hauling, placing, discing if required, and compacting all materials; and for all equipment, tools, labor, and incidentals required to complete the work.

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