SECTION 302
AGGREGATE BASE COURSES

DESCRIPTION

302.01.01 GENERAL
A. This work shall consist of furnishing, placing, and compacting aggregate base courses constructed as specified below and in conformity with the lines, grades, thicknesses, and cross sections shown on the plans or established by the Engineer.

302.01.02 REFERENCE CODES AND STANDARDS

MATERIALS

302.02.01 GENERAL
A. Materials shall meet the requirements of the following subsections:

<table>
<thead>
<tr>
<th>Materials</th>
<th>Subsection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I Aggregate Base</td>
<td>704.03.03</td>
</tr>
<tr>
<td>Type II Aggregate Base</td>
<td>704.03.04</td>
</tr>
</tbody>
</table>

CONSTRUCTION

302.03.01 SUBGRADE PREPARATION
A. Any ruts, holes, defects, or soft yielding places which occur in the subgrade or subbase for any cause whatsoever shall be corrected and compacted to required density and stability before an aggregate base course is placed thereon.

1. The above mentioned repairs shall be made at no additional cost to Contracting Agency, except as provided for in Subsection 203.03.03, "Unsuitable Material."

2. The tolerance to the plan elevation grade shall be +0 foot and -0.1 foot.

B. Unless otherwise specified, the top 6 inches of subgrade shall be compacted to not less than 90 percent compaction.

302.03.02 SPREADING AGGREGATES
A. The aggregate shall be uniformly deposited on the approved subgrade by means of the hauling vehicle with or without spreading devices. Aggregate shall be distributed over the surface to the depth specified on the plans or established by the Engineer.

B. After base course material has been deposited, it shall be thoroughly blade-mixed to full depth of the layer by alternately blading the entire layer to the center and back to the edges of the road. The material shall then be spread and finished to the required cross section by means of a self-propelled pneumatic-tired motor grader.
C. At the option of the Contractor, the aggregate may be spread with an approved self-propelled spreader with the aggregate ready for compaction without further shaping. If this option is exercised, however, the operation shall become subject to the requirements of Subsection 302.03.03, "Watering and Mixing Aggregates."

D. Reference points will be established on one side of the roadway at intervals approved by the Engineer.

E. Furnish, place, maintain, remove, and dispose of all materials required to provide continuous line and grade control to the placing machine.

302.03.03 WATERING AND MIXING AGGREGATES

A. The base course material and water may be mixed at the plant in a mixer approved by the Engineer.

B. Water shall be added during the mixing operation by means of spray bars in the amount necessary to provide the optimum moisture content for compacting.

C. After mixing to the extent that the product has a uniform homogeneous appearance, the material shall be transported to the job while it contains the proper moisture content and may be placed on the roadbed by means of an approved self-propelled aggregate spreader.

D. If the material has dried appreciably prior to final compacting, additional water shall be added by means of a pressurized water truck to assist in compaction and to prevent raveling.

302.03.04 WATERING

A. Water may be applied prior to and during all blading and processing operations to moisten the material sufficiently to prevent segregation of the fine and coarse particles.

B. Water shall be applied during the compaction and maintenance stages in sufficient amounts to assist in compaction and prevent raveling.

C. Comply with Section 210, "Watering."

302.03.05 COMPACTION

A. Compaction shall immediately follow the spreading operation.

1. Where the required thickness is 6 inches or less, the base course may be spread and compacted in 1 layer.

2. However, if vibratory compaction equipment of a type approved by the Engineer is used, and the requirement for density is complied with, the compacted thickness of any 1 layer may be increased to 8 inches.

B. Aggregate bases placed on road approaches and connections, street intersection areas, median strip areas, shoulder areas, and at locations that are inaccessible to the spreading equipment may be spread in one or more layers by any means to obtain the specified results.

C. Each layer of material shall be compacted to not less than 95 percent compaction, except for under sidewalk areas, where the material shall be compacted to not less than 90 percent compaction.
D. A loss of density in the upper portions of the material may occur due to the elements or for other reasons. Recompaction to the specified density will be required prior to placement of any subsequent course and no additional compensation will be allowed for such recompaction.

302.03.06 TOLERANCE FOR FINISHED SURFACE
A. When a 10-foot straightedge is laid in any direction, the finished surface shall not deviate at any point more than 1/2 inch from the bottom thereof.
B. The tolerance to the plan elevation grade shall be +0 foot and -0.05 foot.

METHOD OF MEASUREMENT

302.04.01 MEASUREMENT
A. The quantity of aggregate base to be measured for payment will be the number of cubic yards or tons complete and in place.
   1. The weight of material will be determined by deducting from the weight of material delivered to the work, the weight of water in excess of optimum plus one percentage point.
   2. Optimum moisture will be determined by AASHTO T180 by the Contractor with the moisture content determined by AASHTO T255 and confirmed by the Engineer.
   3. The weight of water thus deducted will not be measured for payment.
B. Due to possible variations in the specific gravity and voids of the aggregates, the tonnage used may vary from proposal quantities and no adjustment in contract unit price will be made because of such variation.
C. All measurements will be made in accordance with Subsection 109.01, "Measurement of Quantities."

BASIS OF PAYMENT

302.05.01 PAYMENT
A. The accepted quantity of aggregate base material, measured as provided in Subsection 302.04.01, "Measurement," will be paid for at the contract unit price bid per cubic yard or ton for the type specified, which shall be full compensation for stripping the pit, crushing, screening, mixing, hauling, placing, compacting, and maintaining the base course as shown on the plans and as directed by the Engineer.
B. Deviations in thickness will likely occur in placing aggregate base courses. The Contractor shall bring the various base courses to the required grade line. Payment will be limited to the number of tons or cubic yards complete and in place and no additional payment will be made for any labor or equipment used in bringing the course to grade.
C. All payments will be made in accordance with Subsection 109.02, "Scope of Payment."
D. Partial payments may be made in accordance with Subsection 109.06, "Partial Payment."
E. Payment will be made under:
<table>
<thead>
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<th>PAY ITEM</th>
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<tbody>
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