ITEM 402

BANK SAND BACKFILL

402.1 Description. This Item shall govern for the furnishing, installing, manipulation, compacting and completing in place, Bank Sand as a bedding and backfill material for water and sewer lines, as construction fill for certain excavation areas, as construction fill for ruts, holes and other similar conditions; as a fill material for project clean-up and as directed by the Engineer. Bank sand shall be in accordance with these Standard Specifications and in conformity with the lines, grades and cross-sections shown on the plans and as directed by the Engineer.

402.2 Materials. Bank sand is to be free of organic matter, foreign material, clay balls, sticks, foreign objects and other objectionable material.

Bank sand shall have a plasticity index less than 3 and shall meet the following gradation:

<table>
<thead>
<tr>
<th>SIEVE SIZE</th>
<th>% PASSING, BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8 Inch</td>
<td>100</td>
</tr>
<tr>
<td>No. 200</td>
<td>5 – 30</td>
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</table>

Prior to use, Contractor shall identify the source of the proposed bank sand for testing.

402.3 Construction. After the water line, sewer line or other similar construction item, such as a trench, has been excavated and brought to grade, bank sand shall be furnished, placed, compacted complete in place, either as bedding or backfill material, as shown on the plan, described in these Standard Specifications or as directed by the Engineer. After the trench or excavation has been brought to grade, the bank sand shall be placed and compacted as a bedding material, the construction item shall be placed and joined properly around and over that construction item as required and as shown on the plans, described in the specifications or directed by the Engineer.

Bank sand shall be placed in layers not exceeding 8 inches. It shall be compacted with mechanical vibratory tamps to maximum dry density in accordance with ASTM D698 “Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³)” at a moisture content ranging from optimum to three percentage points above optimum. Water flooding will not be permitted.
Testing. The Testing Laboratory’s representative will determine the moisture density relationship for each material proposed for use as backfill, in accordance with ASTM D698. In place density will be determined in accordance with ASTM D6938 “Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods” or ASTM D1556 “Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method,” and with each type of construction.

Measurement. No separate payment shall be made for work performed under this Item, except as indicated below. Include the cost of same in the price bid per linear foot of pipe, or wall, for which this work is a component.

Payment. "Extra Bank Sand Backfill", where required, will be measured by the cross-sectional method in its compacted position and paid for at the contract unit price bid per cubic yard. Payment under this bid item is limited to such additional bank sand backfill not shown on the plans that may be required.

There are line code(s), description(s), and unit(s) for this Item.

END OF ITEM 402