

ITEM 130

BORROW

- 130.1 Description. This Item shall govern proper utilization of fill materials secured from offsite sources obtained by the Contractor and approved by the Engineer. Compaction of borrow shall conform to the density control method as outlined in the Item 132 "Embankment".

Borrow shall be used only when there is an insufficient quantity of suitable onsite material available as outlined by Item 132 "Embankment" and a pay item for "Borrow" is shown on the bid form. Borrow shall be used only as authorized by the Engineer, and shall be supplied from approved sources only.

- 130.2 Materials. Borrow material used for embankment shall consist of soil having a plasticity index not less than 12, nor more than 20 when tested in accordance with ASTM D4318, "Standard Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils" or as directed by the Engineer. The maximum liquid limit allowed is 45, unless otherwise approved by the Engineer. The Contractor is required to inform the Engineer of the location of the pit or pits from which the fill material is to be taken and shall provide samples of the material for approval by the Engineer. In the event the material is not acceptable, as determined by the Engineer, the Contractor shall find other pit locations. All fill material shall be free from organic matter and deleterious material.

The use of a blend of cohesive and granular soils to achieve the required plasticity index will not be permitted.

- 130.3 Construction Methods. All suitable material obtained onsite and/or from borrow sources shall be used in the formation of embankments as required by the Item 132 "Embankment", or shall otherwise be utilized as indicated on the plans or as directed, and the completed work shall conform to the established alignment, grades and cross-section.

The Engineer shall be notified sufficiently in advance of opening any approved borrow source to permit necessary testing, prior to the use of the material as borrow.

The borrow site shall not be located within a "Water of the United States" or environmentally sensitive area. It is the Contractor's responsibility to obtain any and all Federal, State or Local permits associated with operation of the borrow site; if it is not an approved commercial borrow site.

County Borrow Source.

During construction, the borrow source shall be kept drained, insofar as practicable, to permit final cross-sections to be taken when required.

The borrow source shall be left in a suitable condition, so as to provide proper drainage where practicable.

130.4 Measurement and Payment. Borrow is a plan quantity pay item derived by comparing the embankment quantity calculated by the average end area method against the total excavated materials from all sources. These sources include, but may not be limited to:

- “Roadway Excavation” (Item 110),
- “Detention Pond and/or Channel Excavation” (Item 120),
- storm sewer excavation,
- and/or “Structural Excavation” (Item 441).

“Roadway Excavation” and “Detention Pond and/or Channel Excavation” are calculated by cross sections using the average end area method, whereas storm sewer excavation and “Structural Excavation” are volumetrically calculated.

After project award, if the Contractor feels there is an error in the estimated quantities for excavation, as shown on the bid sheet, the plan quantity may be protested as delineated in Item 110.4 “Contesting Earthwork Quantities”.

All work performed as required herein and measured as provided above, will be paid for at the unit price bid for “Borrow”, which price shall be full compensation for furnishing all labor, for all materials, for all royalties and freight involved, for all hauling, delivery and spreading on the road and compacting complete and in place and for all tools, equipment and incidentals necessary to complete the work.

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

NOTE: This Item requires other Standard Specifications

Item 110 “Roadway Excavation”
Item 120 “Detention Pond and/or Channel Excavation”
Item 132 “Embankment”
Item 205 “Subgrade”
Item 441 “Structural Excavation”

END OF ITEM 130