

ITEM 0103501

BANK RUN GRAVEL

DESCRIPTION

This item shall consist of furnishing and installing one or more courses of bank run gravel constructed on the prepared sub-grade or placed in a trench in accordance with these specifications and in conformity with the lines, grades, compacted thickness and typical cross-section/details as shown on the plans. Also included in this item is the trucking and disposal off site of any excavated unsuitable material replaced by bank run gravel. Excavation of unsuitable material will be paid for under other items.

REFERENCED ITEMS

None

REQUIRED SUBMITTALS

Material Certificate of Compliance:

Submit 5 copies of material certificate of compliance for Bank Run Gravel in accordance with the contract general requirements.

Certified Test Report:

Submit 5 copies of certified test reports for Bank Run Gravel in accordance with the contract general requirements.

MATERIAL

Bank run gravel shall consist of sound, tough, durable particles of uncrushed gravel, free from soft, thin, elongated or laminated pieces and vegetable matter or other deleterious substances.

Bank run gravel shall conform to the following gradation and plasticity requirements.

1. **GRADATION**

<u>Square Mesh Sieves</u>	<u>Percent Passing by Weight</u>
Pass 3-1/2"	100
Pass 1-1/2"	55-100

Pass 1/4"	25- 60
Pass #10	15- 45
Pass #40	5- 25
Pass #100	0- 10
Pass #200	0- 5

The grading percentages specified above shall apply to the material after it has been delivered to the construction site as well as when tested at the pit or other source of supply.

When the fraction of the dry sample passing the No. 100 mesh sieve is greater than eight (8) percent by weight, the sample will be washed as indicated. The amount obtained from washing shall be added to that obtained by dry sieving and the total amount passing each sieve shall meet the above gradation.

2. **PLASTICITY**

- a. When the fraction of the dry sample passing the No. 100 mesh sieve is four percent or less by weight, no plastic limit test will be made.
- b. When the fraction of the dry sample passing the No. 100 mesh sieve is greater than four percent and not greater than eight percent by weight, that fraction shall not have sufficient plasticity to permit the performing of the plastic limit test using AASHTO Method T-90-00.
- c. When the fraction of the dry sample passing the No. 100 mesh sieve is greater than eight percent by weight, the sample will be washed; and the additional material passing the No. 100 mesh sieve shall be determined by AASHTO Method T-146-96, except that the No. 100 mesh sieve will be substituted for the No. 40 mesh sieve where the latter is specified in AASHTO Method T-146-96. The combined materials that passed the No. 100 mesh sieve shall not have sufficient plasticity to permit the performing of the plastic limit test using AASHTO Method T-90-00.

CONSTRUCTION METHODS

The prepared foundation for the sub-base or backfill material shall be carefully shaped to the required cross-section and compacted so that its dry density shall not be less than 95 percent of the dry density for that soil when tested in accordance with AASHTO T-180-01 Method D.

The material shall be spread uniformly upon the required grade, in courses not to exceed 6" in thickness and shall be carefully shaped to the required cross-section and compacted so that its dry density shall not be less than 95 percent of the dry density when tested in accordance with AASHTO T-180-01 Method D.

After each course has been placed as specified above, its entire area shall be compacted with equipment specifically manufactured for that purpose. The sole use of hauling and spreading equipment shall not be considered as a substitute for compacting equipment. Compaction shall be continued until the entire course is uniformly compacted to the required minimum density as specified above.

Should the foundation material beneath the sub-base become churned up and mixed with sub-base material at any time, the contractor shall, without additional compensation, remove the mixture and replace it with new sub-base material to the required thickness shown on the plans or as previously required by the Engineer. Such replaced sub-base material shall be compacted to the required minimum density.

METHOD OF MEASUREMENT

All bank run gravel required for this work shall be weighed on scales or by automatic recording equipment furnished by and at the expense of the Contractor. The scales or automatic recording equipment shall be of a type satisfactory to the Engineer. The total weight will be the summation of the weight slips of bank run gravel actually incorporated in the work included in this item. Excavated material replaced by bank run gravel will not be measured for additional payment.

BASIS OF PAYMENT

This work will be paid at the contract unit price per cubic yard for "BANK RUN GRAVEL" which price shall include all materials, equipment, tools and labor incidental thereto to place the material. The Engineer and the Contractor shall agree upon a conversion factor for the purpose of converting the weight of material to cubic yards of material to be paid. The price shall include trucking and off site disposal of unsuitable excavated material.

<u>PAY ITEM</u>	<u>DESCRIPTION</u>	<u>PAY UNIT</u>
0103501	Bank Run Gravel	CY