**SECTION 214**

**ROCK FILL**

**214.1 Description.** This work shall consist of constructing fill of rock or broken concrete for protection of embankment.

**214.2 Material.** The material for rock fill shall be durable stone or broken concrete. The material shall be similar to quarry-run stone graded from coarse to fine with a minimum of voids. The coarse stone shall be as large as can be conveniently handled, but at least 25 percent of the material shall be of pieces having a volume of one cubic foot or more.

**214.3 Construction Requirements.** Successive horizontal layers of stone or broken concrete not exceeding 24 inches thick shall be spread over the area of the rock fill. The larger pieces shall be well distributed and the voids filled with smaller pieces. Each layer shall be spread in accordance with [Sec 203.4.16](file:///C:/Users/meyerm3/Text/Sec203.xhtml#S203_4_16). Where rock fill is placed as a portion of embankment with controlled density, the material shall be compacted in accordance with [Sec 203.5.5](file:///C:/Users/meyerm3/Text/Sec203.xhtml#S203_5_5). The fill shall conform to the elevations and dimensions shown on the plans, and the slopes shall present a dense, finished appearance free from segregation with a proportionate quantity of the large pieces exposed.

**214.4 Quality Control.** The contractor shall control and monitor the quality of the work. No QC plan is required for rock fill work.

**214.4 Fill Cleanliness.**  The contractor shall visually inspect all material for rock fill as it is unloaded or placed to ensure it is clean material with no more than 10 percent of earth, sand, shale and non-durable rock. If the cleanliness is considered borderline by visual judgment, the engineer shall be notified.

**214.4 Gradation.** The contractor shall visually inspect all material for rock fill as it is unloaded or placed to determine if it meets the graduation requirements. Acceptable material will meet the requirements in Sec 214.2. If the gradation is considered borderline by visual judgment, the engineer shall be notified.

**214.5 Quality Assurance.** The engineer or designated representative will be responsible for monitoring the work and quality control efforts of the contractor.

**214.5.1 Independent QA Samples.**  Unless otherwise stated, a favorable comparison shall be obtained when independent QA samples meet the same specification criteria as QC.

**214.5.2 Split QA Samples.**  No split samples are called for in Sec 214.

**214.6 QC/QA Frequency Table.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tested Property** | **QC Frequency** | **QA Frequency** | |
| **Independent Samples** | **Split Samples** |
| Fill Cleanliness | As needed | 1 per project | - |
| Gradation |

**214.4 Method of Measurement.** Measurement will be made to the nearest cubic yard of material in place in the completed fill.

**214.5 Basis of Payment.**

**214.5.1 Commission Furnished Rock Fill.** If shown on the plans that the material for rock fill is to be obtained from the right of way or other source furnished by the Commission, the excavating, including all breaking, loading and hauling, regardless of haul distance, will be paid for and considered completely covered under the contract items of Class A Excavation, Class C Excavation, Unclassified Excavation, Excavation for Structures or other applicable items. If payment is made under these conditions, separate payment for furnishing rock fill will not be made.

**214.5.1.1** If the rock fill from the right of way or other sources furnished by the Commission is made unsuitable or unattainable by the contractor's operations, the contractor shall provide suitable material and dispose of any surplus material at the contractor’s expense.

**214.5.1.2** If all or part of the required quantity of acceptable material is not actually available and was not made unacceptable by the contractor’s operations, payment will be made per cubic yard at the fixed unit price specified in [Sec 109](file:///C:/Users/meyerm3/Text/Sec109.xhtml#S109) for such additional rock fill material that the contractor is required to furnish and haul.

**214.5.2 Contractor Furnished Rock Fill.** If the plans do not provide for a source of material, the contractor shall provide the material and all costs of securing the source, quarrying, excavating, breaking and hauling the material to the site will be paid for at the contract unit price per cubic yard for furnishing rock fill.

**214.5.3 Placing Rock Fill.** Payment for placing rock fill will be made at the contract unit price per cubic yard.