

Construction Specification 761 – Rock Riprap

1. Scope

The work shall consist of the construction of rock riprap revetments and blankets, including filter layers or bedding where specified.

2. Materials

Rock for riprap, filter layers or bedding shall come from sources approved by WVDOT. The rock shall be excavated and handled as necessary to meet the quality and grading requirements of this specification and the construction drawings.

Individual rock fragments shall be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of individual rock fragment shall not be less than one-third the greatest dimension of the fragment.

3. Subgrade Preparation

The subgrade surface on which the rock riprap, filter, bedding or geotextile is to be placed shall be cut or filled and graded to the lines and grades shown on the drawings. When fill to subgrade lines is required, it shall consist of approved materials and shall be compacted to a density equal to the adjacent existing soil material.

Riprap shall not be placed until the foundation preparation is completed and the subgrade surfaces have been inspected and approved by the NRCS representative.

4. Placement

The rock shall be delivered and placed in a manner that ensures that the riprap in place is reasonably homogeneous. The larger rocks shall be uniformly distributed and firmly in contact with one another without bridging. Spaces between larger rocks shall be filled with smaller rocks and spalls. Smaller rocks shall not be grouped as a substitute for larger rock.

Riprap shall be placed in a manner as to prevent damage to structures. Hand placing will be required to the extent necessary to prevent damage to the permanent works.

5. Filter Layers or Bedding

When the drawings specify filter, bedding or geotextile beneath the rock riprap, the designated material shall be placed on the prepared subgrade surface as specified. Compaction of filter layers or bedding aggregate is not required, but the surface of such material shall be finished reasonably smooth and free of mounds, dips or windows. When specified, geotextile shall conform to the requirement in Construction Specification 795, Geotextile.