

SECTION 3.0 STONE

3.01 Coarse Aggregate Base Course

The stone required under this item shall be for the construction of coarse aggregate base course for City streets, parking lots, and pavement repairs or patches. This material shall consist of crushed stone and/or crushed or uncrushed gravel. This material shall meet the North Carolina Department of Transportation gradation for size ABC (7) stone and shall comply to the requirements as set forth in Section 520 (7-9 of the North Carolina Department of Transportation Standard Specification (latest revision). Also, see table 1005-1.

ABC shall be placed according to NCDOT 520-5 & 520-7; specifically the material shall be placed, shaped and compacted to minimize segregation. Where the material is visibly segregated the Engineer may require that the contractor to road mix those areas.

The material shall be compacted at a moisture content which is approximately that required to achieve a maximum density in accordance with AASHTO T180. The material should be compacted in lifts not greater than ten inches but not less than five inches.

The final layer shall meet the lines, grades and typical sections shown on the plans or Standard Details. The ABC shall be finished so that it is smooth, hard, dense, unyielding and well bonded upon completion. The final layer shall be within +/- ½ inch of base thickness indicated on the plans; and +/- ½ inch deviation from smooth grade in 100 foot sections.

3.02 Rip Rap

Rip rap shall be Class A, B, 1 or 2 rip rap as specified by the NCDOT Standard Specifications for Roads and Structures.

Place rip rap carefully to avoid disturbing the filter fabric. Average depth of rip rap shall be as shown on the Drawings with a plus or minus tolerance of not more than 2". Intermix the sizes of rip rap material to provide uniform gradation between small and large material. Prevent damage to pipe or other facilities.

Filter fabric shall be nonwoven polypropylene, polyethylene, polyester, and/or nylon continuous filament fabric with an equivalent opening size of 80-100 openings per inch. Dry grab strength (ASTM D 1682) shall be at least 100 pounds and dry grab elongation (ASTM D 1682) shall be no more than 35 percent. Minimum weight shall be 4 ounces per square yard.

Install filter fabric as recommended by the manufacturer and these specifications. Provide a minimum of 2 feet of overlap at joints. Loosely secure fabric in rip rap area during placement.

3.03 Washed Stone

The material shall be either, #57, #67 or #78M as indicated on the plans and meeting the gradation of NCDOT Table 1005-1 for the size indicated; aggregates shall be provided from NCDOT approved sources.

Stockpiles shall be protected from contamination with other materials.

3.04 Test Results

When required by the City, the contractor shall present to the City a materials analysis report, at the contractor's expense, certified by an approved engineering testing laboratory showing that the material supplied meets all specifications as set forth above. The City also reserves the right to perform any tests on the materials as it may deem necessary. Any material which does not meet the minimum requirements when tested by the City's laboratory or contractor's laboratory shall be corrected or removed before further work is begun or continued. All materials found to be unsatisfactory by the City Engineer shall be removed from City or public property at contractor's expense.

3.05 Gradation Requirements

All gradations shall be per NCDOT Standard Specifications Table 1005-1.