

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
HEAVY USE AREA PROTECTION
CODE 561
SPECIFICATIONS

SCOPE

This item shall include all construction drawings, specifications, sequence, and operations necessary for the installation of this practice as designed.

Construction shall be carried out in such a manner that erosion, water, air, and noise pollution will be minimized and held within legal limits as established by state regulations.

LOCATION

The treatment area shall be installed at the location shown on the drawings, or at the location staked in the field by NRCS.

MATERIALS

All materials used in the installation shall be equal in size and quality to that specified or shown on the drawings.

INSTALLATION

Clearing and Grubbing. All trees, roots, stumps, grass, weeds, and other undesirable material shall be removed from the work area as required for the proper installation of the planned and designed measure. Debris shall be disposed of by burning, burying at approved locations, or removing to an approved disposal site. Disposal methods shall meet all federal, state, and local regulations.

Subgrade. Excavation and/or backfilling may be required to prepare an earthen subgrade prior to placement of the designed surface treatment. An earthen

subgrade shall be either a dense, consolidated earth, dense excavated earth surface or compacted earthfill surface unless otherwise specified in the plans. Any soil or other material determined to be unsuitable for use as subgrade material because of texture, bearing strength, saturation, etc., shall be removed by excavation and properly disposed of. The subgrade surface shall be constructed to the required lines and grades shown on the drawings by excavating, grading, leveling, or backfilling with suitable soil material. The subgrade surface may be planned such that the outside edge of the completed surface treatment will be at the same elevation as the adjacent ground surface.

All subgrade material shall be properly compacted. The soil moisture content of the subgrade material shall be sufficient to achieve good compaction.

When a base course is required, it shall be constructed of the material specified by the design and as shown on the drawings. The base course layer shall be placed in maximum 6-inch lifts, spread uniformly and compacted by the use of a plate-vibratory compactor or by wheel equipment. If equipment wheel compaction is used it shall consist of at least two passage of the wheel over the entire surface of each layer.

Geotextile. When geotextile is required, it shall be of the type and grade as specified in the design or as shown on

the drawings. Geotextile material may be either woven or non-woven fabric and shall meet the minimum requirements in the table below.

Property	Test Method	Woven	Non Woven
Tensile Strength (pounds)	ASTM D 4632 grab test	180 min	115 min
Elongation at Failure (pounds)	ASTM D 4632 grab test	<50	>50
Puncture (pounds)	ASTM D 4833	60 min	40 min
Ultraviolet light (% resid. tensile strength)	ASTM D 4355 150-hr exposure	70 min	70 min
Apparent opening size (AOS)	ASTM D 4751	>0.212 mm (#70)	max. #40
Permittivity (sec -1)	ASTM D 4491	0.1 min	0.1 min

The geotextile shall be installed as recommended by the manufacturer's instructions. No equipment shall be allowed to operate directly on top of the geotextile material; a layer of stone, sand, or other specified material shall be placed on top of the geotextile before equipment will be allowed to pass over the fabric.

SURFACE TREATMENT

The materials used, the extent of treatment, and the installation of the structure shall be as specified herein and on the drawings. The finished surface of all structures shall be uniformly sloped to prevent the ponding of water at the grades shown on the drawings.

Aggregate Treatment. When aggregate is used for the treatment area it shall be crushed run stone, or graded stone as called for by the design. The aggregate

shall be placed in maximum 6-inch lifts, spread uniformly and compacted by the use of a plate-vibratory compactor or by wheel equipment. If equipment wheel compaction is used it shall consist of at least two passage of the wheel over the entire surface of each layer. The finished surface shall be sloped to prevent the ponding of water.

Concrete Treatment. When concrete is used for the treatment area it shall meet the requirements called for by the design and/or the "Standard". All concrete shall be poured against proper forming material. Joints shall be placed as shown on the drawings. All concrete treatment areas shall have a perimeter footing and reinforcement steel to the extent showed on the drawing. The concrete surface shall have a rough finish and sloped to prevent the ponding of water.

PROTECTION

The construction shall be performed in a workmanlike manner and the job site shall have a neat appearance when finished.

All disturbed areas shall be vegetated according to Conservation Practice Standard Code 342, "Critical Area Planting". Measures to establish a permanent protective cover of vegetation shall include seedbed preparation, liming, fertilizing, seeding, and either mulching or netting when needed and as specified in the plans.