

NATURAL RESOURCES CONSERVATION SERVICE
MISSOURI CONSTRUCTION SPECIFICATION
HEAVY USE AREA PROTECTION
(GRAVEL SURFACE)
CODE 561

GENERAL

Work shall consist of furnishing all labor, equipment, materials and constructing the heavy use area protection surface and appurtenances at locations shown on the drawings. Construction operations shall be carried out in a manner and sequence that erosion and air and water pollution are minimized and held within legal limits.

The completed job shall present a workmanlike appearance and shall conform to the line, grades, and elevations shown on the drawings or as staked in the field.

All operations shall be carried out in a safe and skillful manner. Safety and health regulations shall be observed and appropriate safety measures used. Contractor shall be assured that all state laws concerning buried utilities have been met.

A land disturbance permit from the Missouri Department of Natural Resources may be needed if the disturbed area is greater than one (1) acre in size.

MATERIALS

Materials and fabrication shall be as specified herein or on the drawings.

Rock aggregate shall be composed of hard durable gravel or crushed limestone meeting the graduation requirements as shown on the drawings.

Geotextiles shall be of the type as specified on the drawings and shall conform to NRCS Missouri Construction Specification (753) Geotextile. Geocell material shall be of the type as specified on the drawings.

EXCAVATION AND BACKFILL OF SUBGRADE

Foundation area shall be cleared of trees, stumps, roots, sod, and unsuitable materials to the neat lines shown on the drawings. Over excavated areas shall be backfilled with moist soil compacted to the density of the surrounding material or by the method specified on the drawings.

Suitable excavated material may be used as fill and backfill. Unsuitable fill shall be disposed of in a location and manner as described on the drawings.

CONSTRUCTION

Geotextile if required shall be installed according to NRCS Missouri Construction Specification (753) Geotextile. Geocell material shall be installed according to manufacturer's recommendations.

Base course of aggregate if required shall be placed and graded to the thickness required by the drawings before placing top course of aggregate material.

Top course of surfacing aggregate shall be placed and graded to the thickness, lines and grades as shown on the drawings.

Finish grading shall consist of smoothing and grading the area adjacent to the heavy use protection area to provide drainage as specified on the drawings and to form a smooth uniform

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surface between the adjacent ground and the top of the finished gravel surface. When completed the entire disturbed area shall be ready for seeding.

SEEDING AND MULCING

Refer to JS-AGRON-25 or equivalent for seeding and mulching recommendations.

Additional Details: _____

NATURAL RESOURCES CONSERVATION SERVICE
MISSOURI OPERATION AND MAINTENANCE
HEAVY USE AREA PROTECTION
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OPERATION AND MAINTENANCE

Operation and maintenance shall address maintaining the heavy use area protection surface and associated diversion berms, outlets, buffers, fences and Comprehensive Nutrient Management Plan (CNMP). Site should be checked every six months and after any significant rainfall events.

Any damaged component(s) found at the site should be corrected as soon as possible to prevent major damages.

Add aggregate as needed to maintain the design thickness of the surface. Grade surface of the area to maintain the drainage characteristics of the site. Additional aggregate shall be of the quality and gradation as required of the original design surface.

For livestock heavy use areas, refer to the CNMP for requirements for the periodic removal and management of manure accumulations.

VEGETATION

Associated vegetation will require periodic mowing, fertilization and control of unwanted species to maintain the desired species composition and prevent erosion or gulling. Refer to O&M guidance contained on the JS-AGRON-25 seeding specification.

Additional Details: _____

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The completed job shall present a workmanlike appearance and shall conform to the line, grades, and elevations shown on the drawings or as staked in the field.

All operations shall be carried out in a safe and skillful manner. Safety and health regulations shall be observed and appropriate safety measures used. Contractor shall be assured that all state laws concerning buried utilities have been met.

A land disturbance permit from the Missouri Department of Natural Resources may be needed if the disturbed area is greater than one (1) acre in size.

MATERIALS

Materials and fabrication shall be as specified herein or on the drawings.

Rock aggregate shall be composed of hard durable gravel or crushed limestone meeting the graduation requirements as shown on the drawings.

Concrete and reinforcement steel shall be as specified on the drawings and shall conform to NRCS Missouri Construction Specification (750) Reinforced Concrete.

EXCAVATION AND BACKFILL OF SUBGRADE

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Suitable excavated material may be used as fill and backfill. Unsuitable fill shall be disposed of in a location and manner as described on the drawings.

CONSTRUCTION

Base course of aggregate if required shall be placed and graded to the thickness required by the drawings.

Concrete and steel reinforcement shall be handled, placed, formed and cured as shown on the drawings and as required by NRCS Missouri Construction Specification (750) Reinforced Concrete.

Finish grading shall consist of smoothing and grading the area adjacent to the heavy use protection area to provide drainage as specified on the drawings and to form a smooth uniform surface between the adjacent ground and the top of the finished gravel surface. When completed the entire disturbed area shall be ready for seeding.

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