

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE GENERAL SPECIFICATIONS**

WATER AND SEDIMENT CONTROL BASIN

(No.)

CODE 638

1. Scope

The work shall consist of all construction operations and furnishing all materials as required by the drawings and specifications for the installation of the water and sediment control basin. All work shall be conducted in a skilled and workmanlike manner. The completed job shall present a workmanlike appearance. Construction operations shall ensure that erosion and air and water pollution are minimized and held within legal limits.

2. Location

The water and sediment control basin shall be constructed to the line, grade, and dimensions staked in the field.

3. Public and Private Utilities

Utilities are defined to be overhead and underground power or communication lines, and pipelines. All utilities discovered to be in the work area will be identified on drawings or sketches. However, the absence of indicators on the drawings or sketches does not assure the nonexistence of utilities in the work area. The contractor is alerted to conduct his/her own search and discovery for utilities in order to avoid potential damages. The owner/operator shall complete TX-ENG-80, UTILITIES INVENTORY prior to layout or any ground disturbance and return it to an NRCS representative.

4. CONTROL OF WATER

Control or removal of surface or ground water shall be performed as needed to complete the required construction in accordance with the specifications and drawings. The foundation area shall be kept free of standing water during fill placement. The cutoff trench, if specified, shall be kept free of water during backfill.

5. FOUNDATION PREPARATION

All ditches or gullies not filled before construction begins shall be filled as part of water and sediment control basin construction. In addition, undesirable trees and other obstructions not removed before construction begins shall be removed as part of construction. All old terraces, fence rows, brush, and tall standing vegetation shall be removed from the area occupied by the water and sediment control basin ridge and borrow areas.

Foundation surfaces shall be sloped no steeper than 1:1. If deep cuts expose an unfavorable subsoil, the topsoil shall be stripped, stockpiled, and replaced. Cuts and fills shall be made in a

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manner that enhances the topography.

The cutoff trench, if specified, and any other required excavation shall be excavated to the lines and grades shown on the drawings or as staked in the field and shall be backfilled with suitable material in the same manner as specified for earthfill. Suitable excavated materials may be used in the permanent water and sediment control basin fill.

7. PLACEMENT OF EARTHFILL

Material for earthfill shall be obtained from excavation in the channel or other designated borrow areas and shall be free of objectionable materials, such as, brush, roots, and rock particles that endanger the performance of the water and sediment control basin.

The water and sediment control basin shall be constructed to planned alignment, grade, and cross section as specified on the drawings or as staked in the field. All fills shall be full-bodied with cross section conforming to that specified at all stations. The top of the constructed ridge shall not be lower at any point than the design elevation plus the specified overbuild for settlement.

Construction equipment shall be routed over the fill to provide compaction such that no bridging results. Water and sediment control basin ridges constructed across gullies or depressions shall be compacted sufficiently to keep settlement within specified limits. The top and side slopes of the ridge, channel, and other excavated areas shall be finished to a smoothness so the surface can be readily traveled upon by farm type equipment.

If an allowance for settlement in the ridge height is specified, it shall be made at the rate of 5 percent for motorgraders and similar equipment, 10 percent for dozers, disk plows, and similar equipment, and 20 percent for elevating graders, belt machines, and similar equipment.

If vegetation is needed, topsoil should be stockpiled and spread over areas shown on the drawings or specified in Item 11, Construction Details. Seedbed preparation, seeding, fertilizing, and mulching shall comply with Texas, Conservation Practice Standard, 342, Critical Area Planting.

8. Underground Outlet (when specified)

If underground conduits are located under the water and sediment control basin ridge, underground outlet materials and installation shall be as specified on the drawings and according to Texas, General Specification, GS-620, Underground Outlet. Installation and backfill of conduit trenches shall be made in advance of water and sediment control basin construction to allow adequate settlement.

Materials used for Underground Outlet shall meet requirements of Texas, Conservation Practice Standard 620, Underground Outlet, and its companion Texas, General Specification, GS-620.

9. EMERGENCY SPILLWAY EXCAVATION

The completed emergency spillway shall conform to the lines, grades, bottom width, and side slopes specified on the drawings or as staked in the field.

10. MEASUREMENT

Excavation. Unless otherwise specified, measurement for excavation will not be made.

Earthfill. Unless otherwise specified, the volume of earthfill will be determined from design dimensions as shown on the drawings and as staked in the field.

Unless otherwise specified, the design dimensions shall be defined as follows. The lower limit shall be the original ground surface as it existed prior to the start of construction and the upper limit shall be the specified neat lines of the settled fill surface.

Volume of earthfill will be computed to the nearest cubic yard. No reduction will be made for embedded conduits and appurtenances.

11. CONSTRUCTION DETAIL