

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATION

CS-13: “EXCAVATION AND BACKFILL OF TRENCHES FOR CONDUITS AND PIPELINES”

13.1 SCOPE

This specification applies when trench excavation is necessary for installation of a conduit and/or pipeline for spillways, irrigation systems, drainage systems, animal waste systems and other installations where liquid is conveyed and discharged in an underground conduit or pipeline.

13.2 EXCAVATION

The bottom width, side slopes, and gradeline of the trench excavation shall be to the dimensions and lines shown on the drawings.

Excavated trenches shall be within state and local laws and regulations for trenching. Trenches shall be supported as necessary to safeguard the work and workers. Trench supports shall prevent sliding or settling of the adjacent ground and avoid damage to improvements. The width of the excavation shall be increased, if necessary, to provide space for sheeting, bracing, shoring, and other supporting installations.

13.3 BACKFILL

- a. The initial backfill shall be select material, placed and compacted around and above the conduit to the specified depth and density, taking care not to displace or damage the conduit or its protective coating.
- b. The final backfill shall be the material from the trench excavation and shall be compacted to the density of the surrounding material.
- c. Backfill material shall contain no frozen soil, sod, brush, roots, or other perishable material.
- d. Rock fragments greater than 3 inches shall not be placed within 2 feet of the pipe.
- e. The minimum depth of cover on all pipelines shall be as shown on the drawings.

13.4 FINAL GRADING

All disturbed areas shall be graded without surface depressions to blend with the surrounding area.