

DIVERSION

Ground Preparation

Excessive surface trash or crop residues shall be removed from the area to be occupied by the diversion. All dead furrows, ditches or gullies to be crossed shall be filled before, or concurrently with, diversion construction. All old fence rows and other obstructions that will interfere with the successful operation of the diversion shall be removed.

Excavating, Filling, and Shaping

The material to be used to make the fill portion of the diversion ridge will normally be obtained from the area above the ridge. However, materials can be cast-up from below the diversion ridge providing a channel is not left below toe of back slope of diversion, when diversion is complete.

The material in fills shall be free from rocks, brush, stones over six (6) inches in diameter and from any objectionable material. Frozen materials will not be placed in the fill.

The moisture content of the fill material shall be such that proper compaction can be obtained, or enough fill added to provide the minimum design height after settlement.

The fill portion of diversion ridge and fills across depressions shall be compacted using the wheels and tracks of construction machinery.

The minimum cross-section obtained shall meet design specifications including minimum effective settled height.

The surface of the finished diversion (channel and ridge) shall be reasonably smooth.

Applicable Nebraska construction and materials specification will be used where needed.

DIVERSION (FT)

Installation Requirements

All dead furrows, ditches, rodent holes, or gullies shall be filled prior to construction of the diversion or as a part of construction. All old terraces, fence rows, hedge rows, trees, and other obstructions shall be removed as necessary to install a farmable system.

The diversion shall be constructed to designed alignment, grade, and cross section.

Any ditch or depression at the bottom of the backslope occurring naturally or caused by borrow operations shall be filled and smoothed so that drainage will be away from the diversion and not parallel to it.

Provisions must be made where underground conduits are located under diversion ridges to prevent piping. Mechanical compaction, water packing, installation, and backfill of conduit trenches far enough in advance to allow adequate settlement are methods that can be used. The installation methods and materials used for the inlet and conduit will meet the requirements of specification S-362.

When the diversion alignment crosses a gully, ditch, or depression, the existing vertical banks shall be shaped to a 1:1 slope or flatter, these voids shall then be backfilled with compacted fill to the original ground line.

All diversions which store water shall be built with compacted fill. If compacted fill is required on non-storage diversions, it will be indicated on the data sheets.

Compacted fill will be accomplished by one longitudinal pass of the construction equipment on each lift of fill. A pass is defined as complete coverage of the surface of the lift. Each lift shall have a maximum thickness of one foot. The surface of the finished terrace shall be reasonably smooth and present a workmanlike finish.

Where it is necessary, topsoil is to be stockpiled and spread over excavations and other areas to facilitate restoration of productivity.