

IRRIGATION DITCH LINING

Design Survey

The following information shall be obtained and recorded in the survey notes:

- a. Profile along centerline of ditch.
- b. Cross-sections as required for volume calculations.
- c. Location and extent of critical soil conditions. (May be noted on a soils map.)
- d. Location and extent of areas requiring special provisions for drainage.

Design Data

The following shall be considered minimum in the design of all irrigation ditch linings. The information shall be recorded in the design notes.

- a. Capacity requirements based on needs.
- b. Hydraulic design.
- c. Structural design (if required).
- d. Quantity computations.
- e. Drainage requirements (if required).
- f. Evidence of compliance with NEPA regulations. (NRCS-CPA-52)

Drawings and Specifications

The construction drawings shall include but will not be limited to the following:

- a. Profile and cross sections along length of ditch to be lined.
- b. Plan view showing alignment.
- c. Structure details (if required).
- d. Ditch lining details, including dimensions, materials, and construction requirements.
- e. Table of quantities.
- f. Location map. (May be combined with b.)
- g. Engineering job classification is shown and proper engineering approval is obtained.
- h. Cooperator's signature is obtained agreeing to construct the project according to the plans and specifications.

Practice specifications along with any additional specifications necessary shall be provided for each item or phase of construction as needed, to clarify the work.

Layout Survey Notes

The following information shall be recorded in the field notes:

- a. Centerline alignment stakes with offset grade stakes.
- b. Slope stakes as required.
- c. Location, alignment and reference stakes for structures.

Compliance Checks

The complexity of the conveyance will dictate the need for compliance checks during construction. All compliance checks shall be recorded in the field notes. Narratives of construction checks shall be recorded in the job diary or on a sheet in the field notes. Compliance checks shall include but will not be limited to the following.

- a. Profile and cross-section of ditch (maximum 300' interval).
- b. Pad cross section.
- c. Type and thickness of liner material. Depth of cover (if covered).
- d. Length of ditch lined.
- e. Structure dimensions and elevations (if part of plan).
- f. Statement of compliance signed by NRCS personnel with applicable job approval authority that the work meets the plans and specifications.

As-Built Plans

As-Built plans shall be prepared for all installations. These drawings shall reflect all significant changes in linear measurements, quantities, alignment, or design changes. If there were no significant changes, the original drawings shall be marked "As-Built".