

831 - CONCRETE DITCH LINING

831.1 DESCRIPTION

This work shall consist of the construction of concrete ditch lining in accordance with Section 831 of the Standard Specifications, except as otherwise modified herein and as shown on the plans.

Ditch lining connections shall consist of the removal of the existing ditch lining, excavation, backfilling, and construction of the concrete cutoff wall, headwalls, base slabs, replacement ditch lining, deflection walls, toewalls, fill concrete, and other associated work to form completed connections to the existing ditch lining as shown on the contract plans.

831.2 MATERIALS

All ditch liners shall be constructed using Portland Cement Concrete. Portland Cement Concrete shall conform to Section 401 "Concrete Construction".

All concrete used in construction of ditch liners shall KCM MB 4K.

831.3 CONSTRUCTION REQUIREMENTS

The subgrade for the ditch lining shall be excavated to a smooth surface parallel to the proposed finished surface and to a depth sufficient for the full thickness of the lining. Soft, unstable subgrade material shall be removed and replaced with suitable materials. The subgrade shall be firm and well-compacted.

(1) Reinforcing

The reinforcing for the concrete shall be designed to withstand all earth and water pressures imposed upon the sides. The reinforcing for the concrete shall be consistent with what is required in the construction plans.

(2) Joints

Transverse expansion joints shall be placed at maximum intervals of 250 feet, and where new construction adjoins existing liners or other structures. Smooth dowel bars, two feet long by five-eighths inch diameter, sleeved, at 18-inch centers, shall be carried through the expansion joints. Expansion joints shall consist of one-half inch premolded, non-extruding expansion joint material. Cut-off walls shall be placed at the downstream side of all expansion joints.

Contraction joints shall be sawed or tooled to a minimum depth of one and one-half inches, at ten-foot maximum centers. No longitudinal joints shall be placed at the flow line. Joints shall be filled with an approved joint sealer material.

(3) Weep Holes

Two inch diameter plastic weep holes shall be placed at 15 foot centers and backfilled with three-quarter inch clean rock, 15 inches in all directions above the flow line. Weep holes shall be flush with the face of the concrete and the back screened.

831.4 MEASUREMENT AND PAYMENT

The Engineer will measure concrete ditch lining by the square yard of specified thickness, measured along the inside face of walls and top surface of the base slab.

Payment for "Concrete Ditch Lining" at the contract unit price bid is full compensation for the specified work. The price shall be full compensation for all labor, tools, equipment, and incidentals necessary to complete the work, including, but not limited to the removal of existing ditch lining, excavation, backfilling, reinforcing steel, joints and seal.

The Engineer will measure each ditch lining connection as shown on the plans.

Payment for "Ditch Lining, Connection" at the contract unit price bid is full compensation for the specified work.