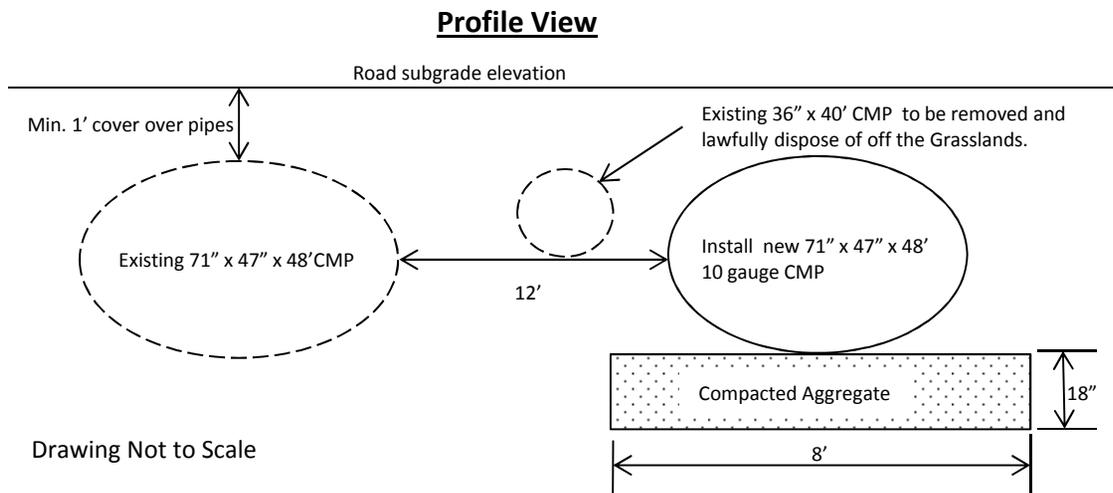
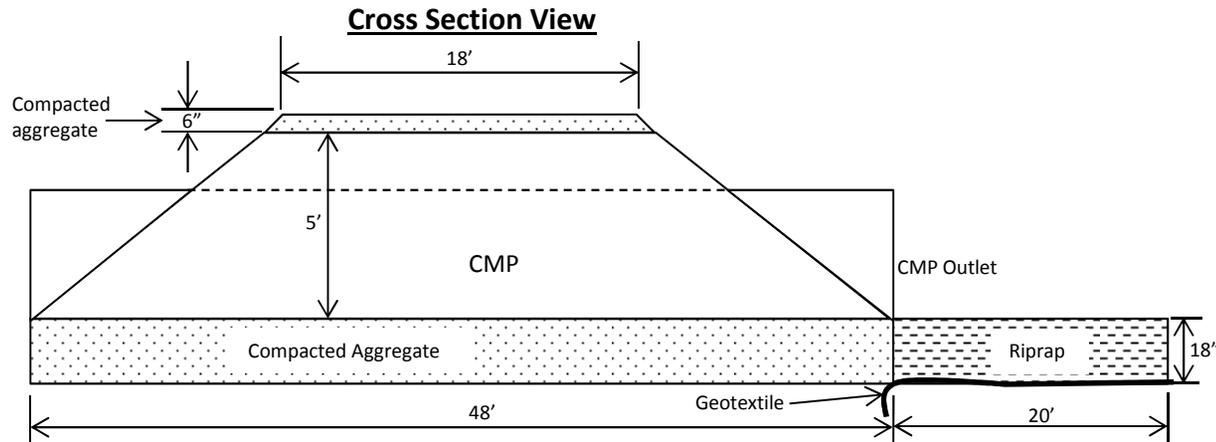
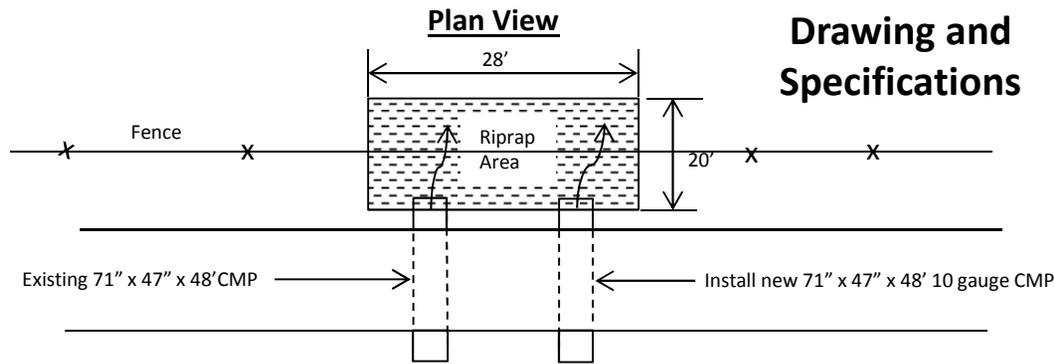


Culvert Installation Drawing and Specifications



Drawing Not to Scale

Culvert (602) This work consists of removal and disposal of an existing 36" x 40' corrugated metal pipe (cmp) and install a new 71" x 47" x 48', 10 gauge, with 2 2/3 x 1/2" corrugations cmp all as described in the plans, drawings and specifications. Cmp certifications must be submitted prior to acceptance. Do not disturb material and vegetation outside the construction limits. Ensure that the final installed alignment of the pipe allows no reverse grades, is parallel and at the same elevation as the existing cmp. Borrow material can be obtained from a stockpile on south side of the road.

Topsoil Remove and conserve topsoil from the construction area and replace on fill slopes at end of construction.

Foundation Excavate material beneath the entire length of the cmp to the dimensions shown on the drawing, and replace it with **Government Furnished Material (GFM)** aggregate. Load, haul, place and compact the foundation fill material as described below. Place the culvert on un-compacted 2" deep bedding layer roughly shaped to fit bottom of pipe. Foundation shall be approved by the COR before placing cmp.

Compaction Compact at haunches and sides of cmp. Place and compact all fill material in evenly balanced layers when compacted do not exceed 6 inches in thickness on each side of the cmp to a minimum height of 12 inches above the top of the pipe. Complete the backfilling with suitable roadway excavation or unclassified borrow. Adjust the moisture content of the fill material to a moisture content suitable for compaction. Compact each layer and foundation fill using a mechanical vibratory compactor over the full area of each layer until visual displacement ceases, but no fewer than three passes. A pass shall consist of one complete coverage of the surface. Compaction equipment shall be approved by the COR.

Fence Remove existing fence and install new fence with new fencing material to approximately the same dimensions and configuration as the original fence ($\pm 100'$). Firmly set new fence posts. Provide temporary fence, or other adequate means to prevent livestock from entering the road during construction.

Haul Roads Contractor shall repair any damage they cause to haul roads and restore them to their original condition or better.

Finishing Leave all earth slopes with uniform roughened surfaces. Shape the subgrade to a smooth surface and to the cross-section required. Shape slopes to gradually transition without noticeable breaks. All of the above is incidental to pay item (602)

Aggregate Surfacing (301) Remove and conserve aggregate surfacing. Replace and compact conserved aggregate on the road after cmp installation to the depth shown on the drawings. Load, haul and place additional surfacing to achieve desired thickness from the **GFM** source shown on map $\pm 20cy$. Compact by operating spreading and hauling equipment over the full width of the road.

Riprap (251) Load, haul and place the **GFM** riprap over non-woven Geotex 601 or equivalent to the dimensions shown on drawings. Anchor upstream end of fabric by excavating a 1' deep trench 28' long. Place fabric in trench, back fill and compact. Place geotextile fabric smooth and free of tension, stress or wrinkles at base of area. Remove all sharp objects and large rocks from the base. Replace or repair all geotextile that is torn or punctured. Remove the damaged area and place a patch of the same type of geotextile overlapping 3 feet beyond damaged area on all sides. Overlap the geotextile a minimum of 2 feet at the ends and the sides of adjoining sheets or sew the geotextile joints according to the manufacturer's recommendations. Place or rearrange individual rocks by mechanical or hand methods to obtain a dense uniform blanket with a reasonably smooth surface.