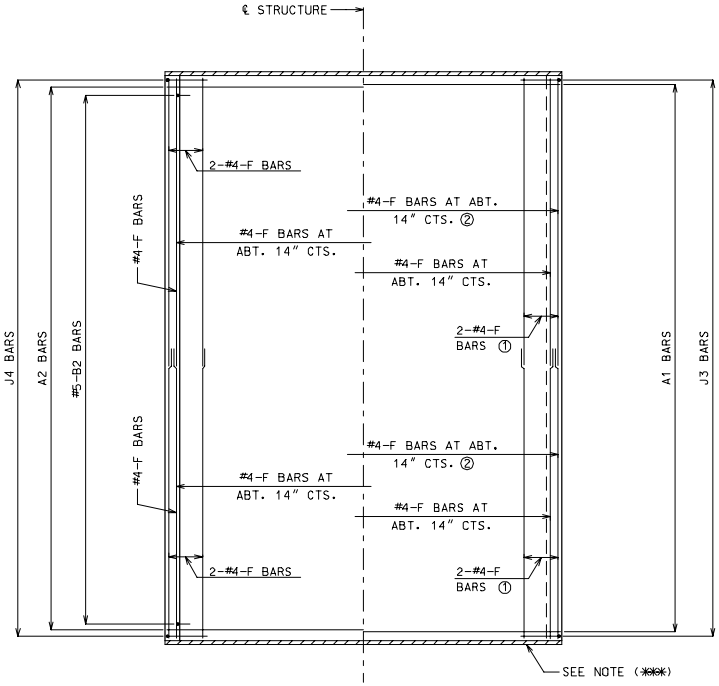
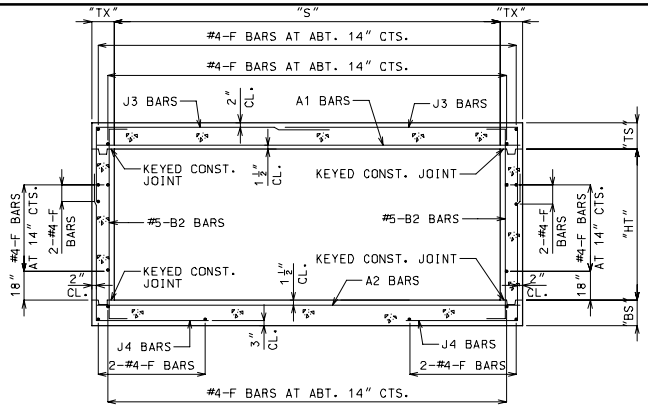
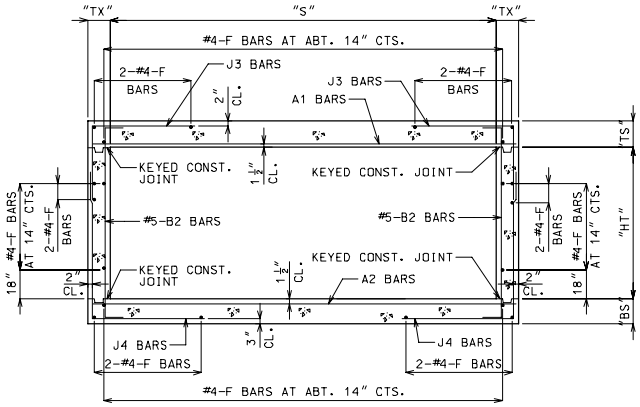


HALF HORIZONTAL SECTION

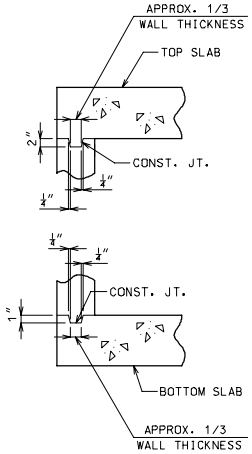
HALF PLAN



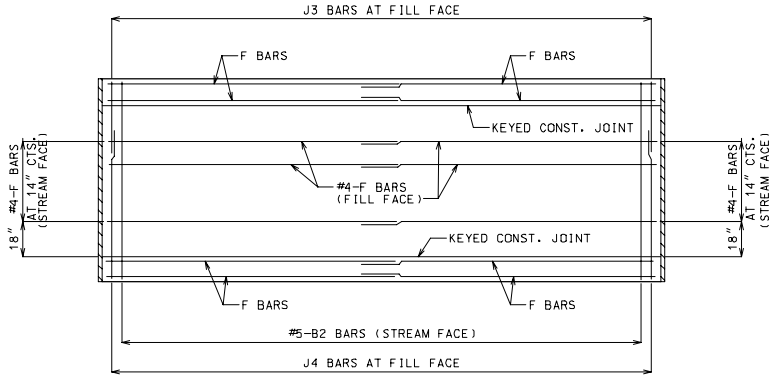
SECTION THRU BOX (DESIGN FILLS 2'-0" OR LESS)



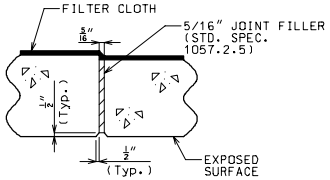
SECTION THRU BOX (DESIGN FILLS OVER 2'-0")



DETAIL OF KEYED CONST. JT.



ELEVATION OF WALL



DETAIL OF TRANSVERSE JOINT THRU BARREL OF CULVERT

① USE THESE BARS FOR DESIGN FILLS OF MORE THAN 2'-0".

② USE THESE BARS FOR DESIGN FILLS OF 2'-0" OR LESS.

(✱✱✱) USE TRANSVERSE JOINT WHEN BARREL IS OVER 80 FEET LONG BETWEEN HEADWALLS MEASURED ALONG ℄ OF BOX.

USE ADDITIONAL TRANSVERSE JOINTS TO PROVIDE 50 FEET MAXIMUM SPACING BETWEEN JOINTS.

GENERAL NOTES:

DESIGN UNIT STRESSES:
CLASS B-1 CONCRETE, f'c = 4,000 psi
REINFORCING STEEL (GRADE 60), fy = 60,000 psi

ALL DIMENSIONS SHOWN ARE IN INCH UNLESS OTHERWISE NOTED.

FOR DIMENSIONS AND SIZE AND SPACING OF REINFORCING STEEL, SEE STANDARD SHEET 703.15C.

LAP ALL LONGITUDINAL BARS A MINIMUM OF 23" AT SPLICES.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1-1/2" UNLESS OTHERWISE SHOWN.

JOINT FILLER SHALL BE SECURELY STITCHED TO ONE FACE OF THE CONCRETE WITH NO. 10 GAGE COPPER WIRE OR NO. 12 GAGE SOFT DRAWN GALVANIZED STEEL WIRE.

A FILTER CLOTH 3 FEET IN WIDTH AND DOUBLE THICKNESS SHALL BE APPLIED TO ALL TRANSVERSE JOINTS IN THE TOP SLAB AND SIDEWALLS. THE MATERIAL SHALL BE CENTERED ON THE JOINT AND THE EDGES SEALED WITH A MASTIC OR WITH TWO SIDED TAPE. THE FILTER CLOTH SHALL BE A GEOTEXTILE MEETING THE APPROVAL OF THE ENGINEER AND HAVING A GRAB TENSILE STRENGTH OF 180 LBS. (ASTM D-4632) AND AN APPARENT OPENING SIZE OF 50 TO 100 (ASTM D-4751). NO DIRECT PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING FILTER CLOTH.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

CONCRETE
SINGLE BOX STRUCTURE

(CUT SECTIONS)

DATE: _____	EFFECTIVE: 01-01-2003	703.12E	1/1