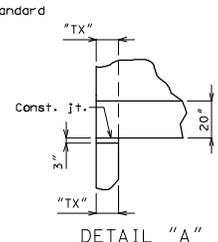
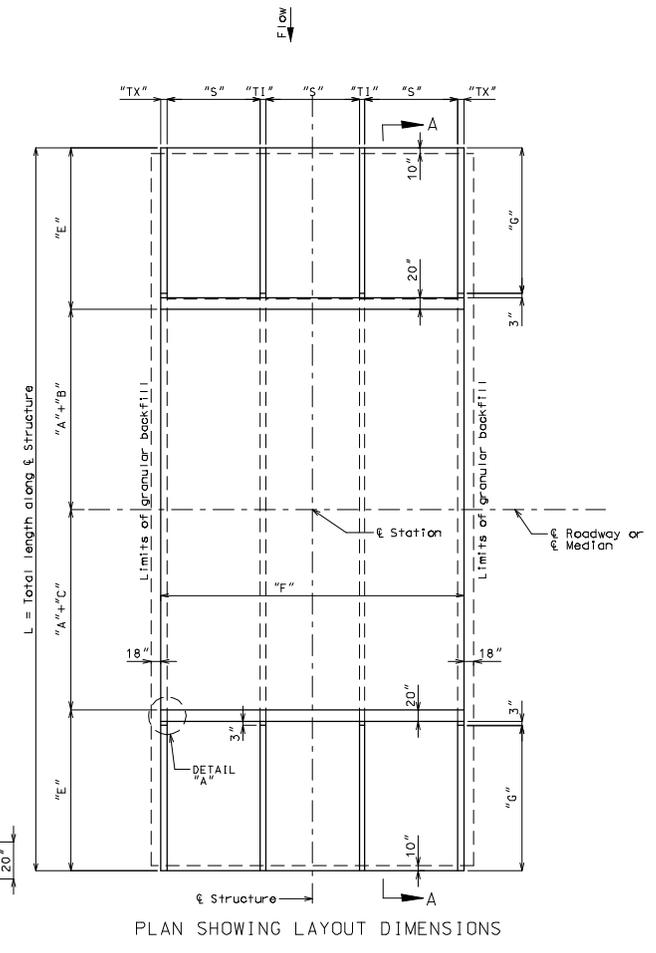
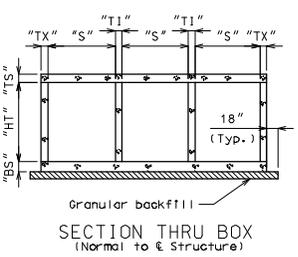
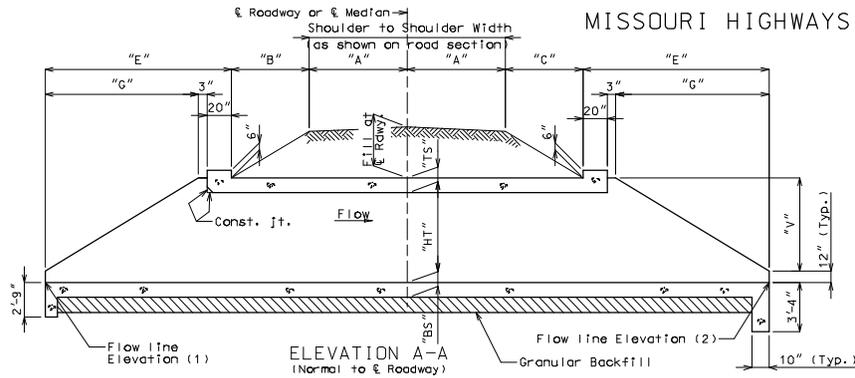


# MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SEC/SUR \* TWP \* RGE \*



Note: Slope of bottom slab shall be placed at natural stream gradient.  
If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.

VARIABLE	EQUATION	DIM.
"S"	---	
"HT"	---	
"TS"	---	
"BS"	---	
"TX"	---	
"TI"	---	
"A"	---	
"B"	---	
"C"	---	
"E"	$G + 23"$	
"F"	$3S + 2TX + 2TI$	
"G"	$2V$	
"L"	$2A + B + C + 2E$	
"V"	$HT + TS - 12"$	

**GENERAL NOTES:**  
**Design Specifications:**  
 2002 - AASHTO 17th Edition  
 Load Factor Design  
**Design Unit Stresses:**  
 Class B-1 concrete  $f'c = 4,000$  psi  
 Reinforcing steel (Grade 60).  $f_y = 60,000$  psi  
**Design Loading:**  
 HS20-44 HS20 Modified  
 Earth 120 #/ft.<sup>3</sup>  
 Equivalent fluid pressure  
 30 #/ft.<sup>2</sup> (Min.) - 60 #/ft.<sup>2</sup> (Max.)  
 All elevations shown are in feet unless otherwise noted.  
 The box shown below indicating whether a precast or c/p box was used should be checked by MODOT construction personnel:  
 Precast Box used  
 Cast-In-Place Box used  
 When alternate precast box sections are used, the minimum barrel length measured along the shortest wall from the first joint to the outside of the headwall, shall be 3'-2". Reinforcement and dimensions for the wings and headwalls shall be in accordance with Missouri Standard Plans drawing.  
 Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.  
 "Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.

Design Fill (*)	
Elev. (1)	feet
Elev. (2)	feet

\* Design fill height is the distance from top of earth fill or roadway to the top of the top slab.

St. =	
Pr. Gr. Elev. at St. =	
Fill at Rdwy. at St. =	

HYDROLOGIC DATA	
Drainage Area =	_____ (sq. mi.)
Design High Water (DHW) Elev. =	_____
Design High Water Frequency =	_____ (year)
Design High Water Discharge =	_____ (cfs)
Backwater/Base Flood Data (100 year)	
High Water Elev. =	_____
Design Discharge =	_____ (cfs)
Estimated Backwater =	_____ (ft)
Outlet Velocity =	_____ (ft/sec)
Roadway Overtopping	
Design Elev. (1' below shoulder) =	_____
Design Discharge =	_____ (cfs)
Design Frequency =	_____ (year)

ESTIMATED QUANTITIES		FINAL QUANTITIES
Class 4 Excavation	cu. yard	
Removal of Bridges	lump sum	
Class B-1 Concrete (Culverts-Bridge)	cu. yard	
Reinforcing Steel (Culverts-Bridge)	pound	

B.M.  
BRIDGE  
STATE ROAD  
ABDUT  
STA.

STD.
STD.
STD.
STD.

Designed  
Detailed  
Checked

Note: This drawing is not to scale. Follow dimensions. Sheet No. of

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.  
 DATE PREPARED: 07/29/2008  
 ROUTE: \* STATE MO \*  
 DISTRICT: BR SHEET NO. \*  
 COUNTY: \*  
 JOB NO.: \*  
 CONTRACT ID.: \*  
 PROJECT NO.: \*  
 BRIDGE NO.: BOX 7  
 DESCRIPTION: \*  
 DATE: \*  
 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
 MODOT  
 105 WEST CAPITOL JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)