



# MEMORANDUM

**TO:** District Engineers

**DATE:** January 30, 2006

**FROM:** William R. Cox, P.E.

**SUBJECT:** New Prestressed Concrete Double-T Beam Standard Drawings (English)

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New prestressed concrete double-T beam standard drawings with an issue date of January 2006 are posted on the TxDOT web site and are available for immediate use. The designs reflected by these standard drawings are based on HL93 live loading as required by the AASHTO *LRFD Bridge Design Specifications*.

New beam sections are introduced with this set of double-T beam standard drawings. These new beams are labeled HT sections, and they extend the span range beyond that of TxDOT's traditional double-T beam sections. The HT sections are predicted to cost more than traditional double-T beams until form costs are recovered by fabricators.

Key features of these standard drawings include the following:

- Superstructure and substructure details are provided for a 24-foot roadway width with no skew.
- Beam depths are 22, 28, and 36 inches and beam widths are 6-, 7-, and 8-feet.
- Beams are topped with a 5-inch minimum cast-in-place concrete slab or with a 2-inch minimum two course surface treatment and asphaltic concrete pavement (ACP).
- Foundation options are drilled shafts (30-inch), prestressed concrete piling (16-, 18-, and 20-inch), and steel piling (HP14x73 and HP14x117)
- Drawings accommodate abutment header slopes of 2:1 and 3:1.

Double-T beam bridges, when topped with the 2-inch minimum ACP surface, are good for rapid bridge construction projects; however, design speed is limited to 45 mph and less due to limited rail anchorage achieved with this system.

These and other bridge standard drawings are available on the Bridge Standards web pages in MicroStation® "dgn" and Adobe® Acrobat® "pdf" formats. See <http://www.dot.state.tx.us/business/standardplanfiles.htm> .

If you have questions or comments concerning these standard drawings, please contact John M. Holt, P.E., at (512) 416-2212, or Jon T. Ries at (512) 416-2191.

Note: Original Signed By William R. Cox

cc: Federal Highway Administration  
Bridge Design Consultants  
Administration  
Division and Office Directors  
Directors of Transportation Planning and Development  
District Bridge Engineers  
Bridge Division Employees