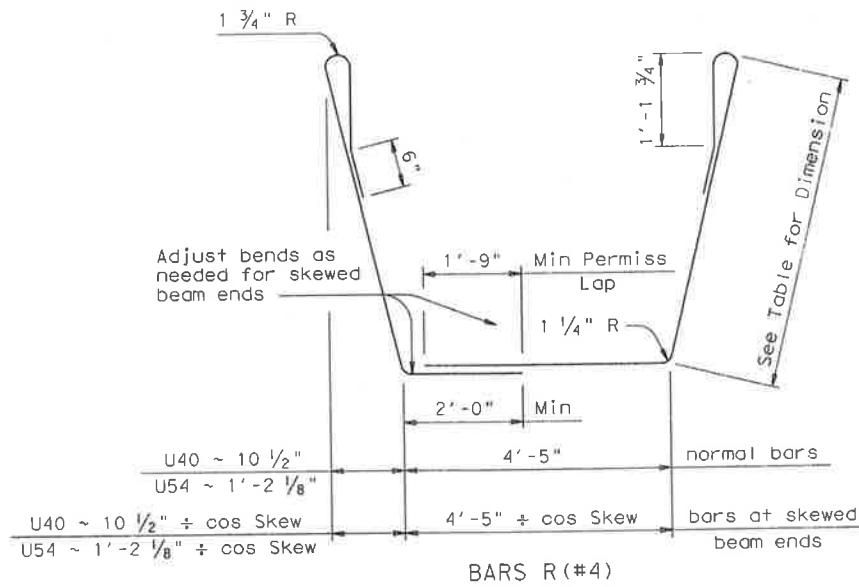
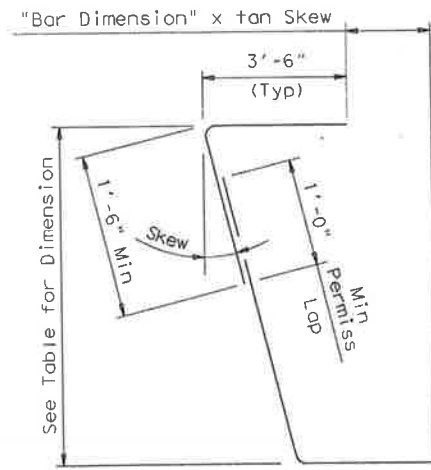


DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

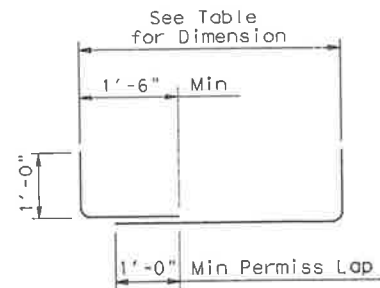
LEVELS DISPLAYED
 PATH:



BARS R (#4)

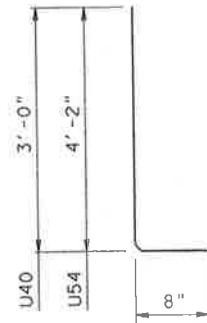


BARS DS1-5 (#4)

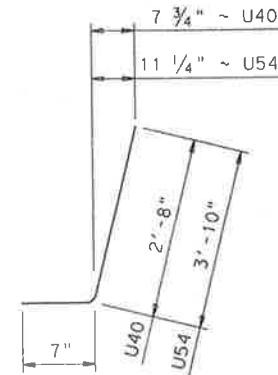


BARS D1-5 (#4)

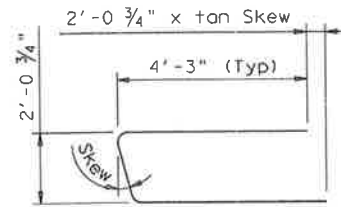
BAR R DIMENSION		
Skew Angle	Beam Type	
	U40	U54
0° thru 15°	3' - 9 1/4"	4' - 11 1/2"
15° thru 30°	3' - 9 1/2"	5' - 0"
30° thru 45°	3' - 10 1/4"	5' - 1"



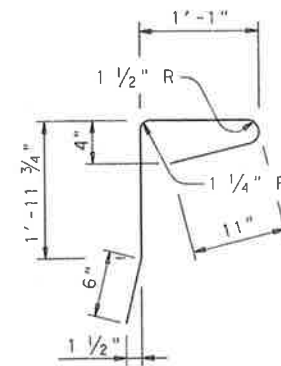
BARS F (#4)



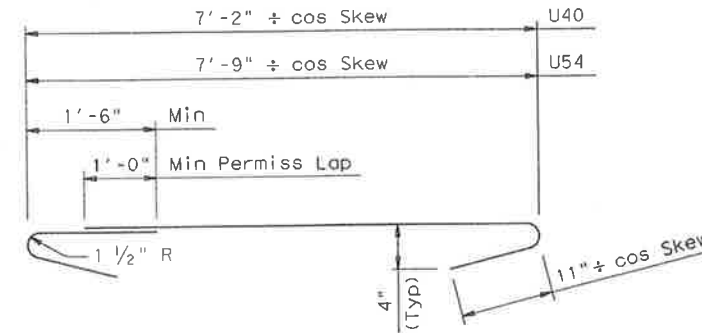
BARS P (#4)



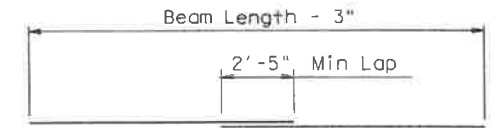
BARS W (#4)



BARS X (#4)

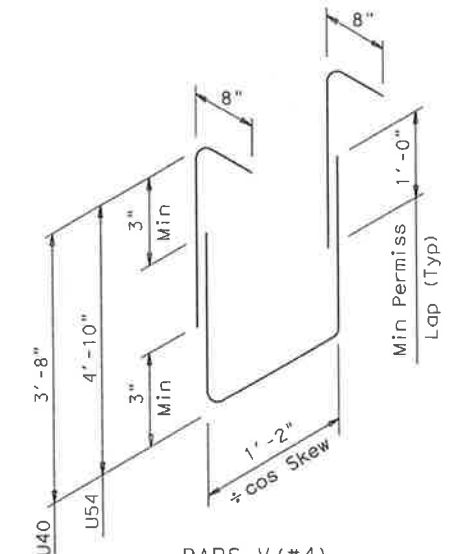


BARS Y (#4)



BARS U (#5)

Bars U may be placed with multiple segments, provided no segment is less than 10 ft in length and 40 ft Min C-C splices.



BARS V (#4)
(ISOMETRIC VIEW)

GENERAL NOTES:
 Designed according to AASHTO LRFD Specifications.
 Details are provided for skew angles up to 45 degrees.
 Concrete must be Class H. Use Class H (HPC) if required elsewhere in plans.
 All reinforcing steel must be Grade 60. An equal area of welded wire reinforcement, conforming to ASTM A 497, may be substituted for Bars R, P, X and Y.
 Reinforcing steel dimensions and bend radii are shown to bar centerlines.
 Provide a minimum of 1" clear cover to all reinforcing steel unless shown otherwise.
 Chamfer all acute corners for skews over 20 degrees. Provide 3/4" chamfer or 1 3/8" radius at all corners noted to require a chamfer.
 Horizontal form joints on exterior forms are not permitted.
 Shop drawings can be prepared with horizontal skews rounded to nearest 1/4 degree and beam end vertical batter rounded to the nearest 1/4". These shop drawing tolerances are in addition to the fabrication tolerances listed in Item 424, "Precast Concrete Structures (Fabrication)".

PRESTRESSED CONCRETE
 U-BEAM DETAILS

UBD

FILE#	ubstde01.dgn	DWG	TxDOT	CHK#	TxDOT	DATE	TxDOT	CRK#	TxDOT
© TxDOT	July 2006	DISTRICT		FEDERAL AID PROJECT		SHEET		S4-21	
REVISIONS		COUNTY		CONTROL SECT		JOB		HIGHWAY	