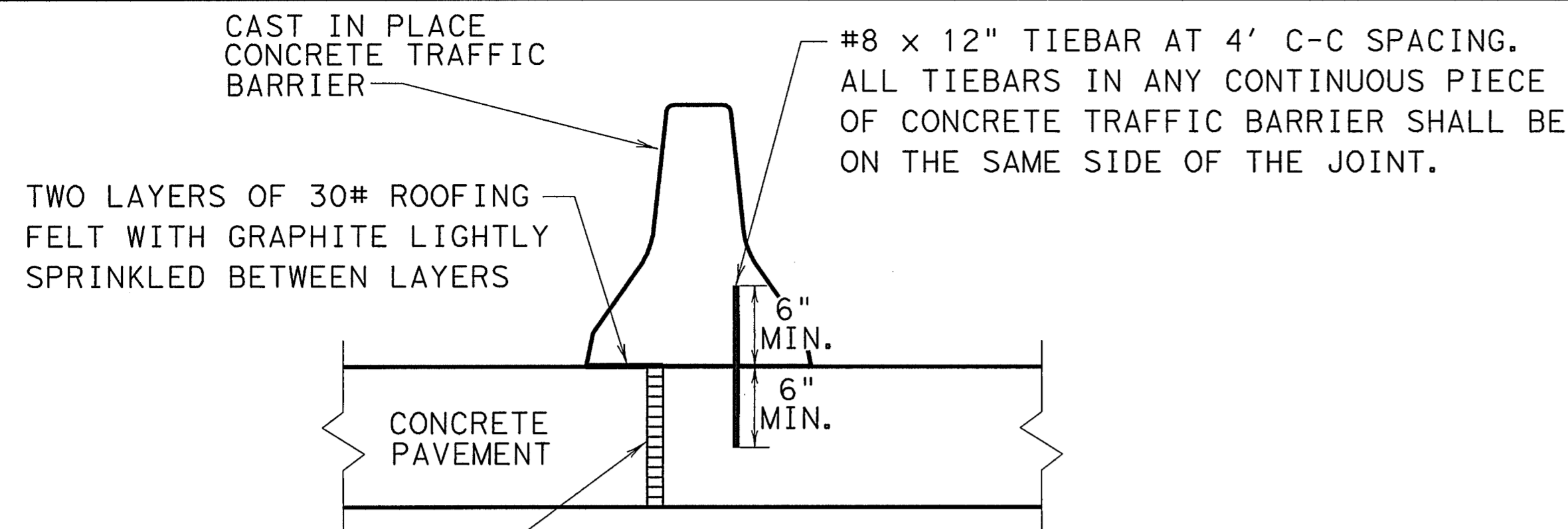
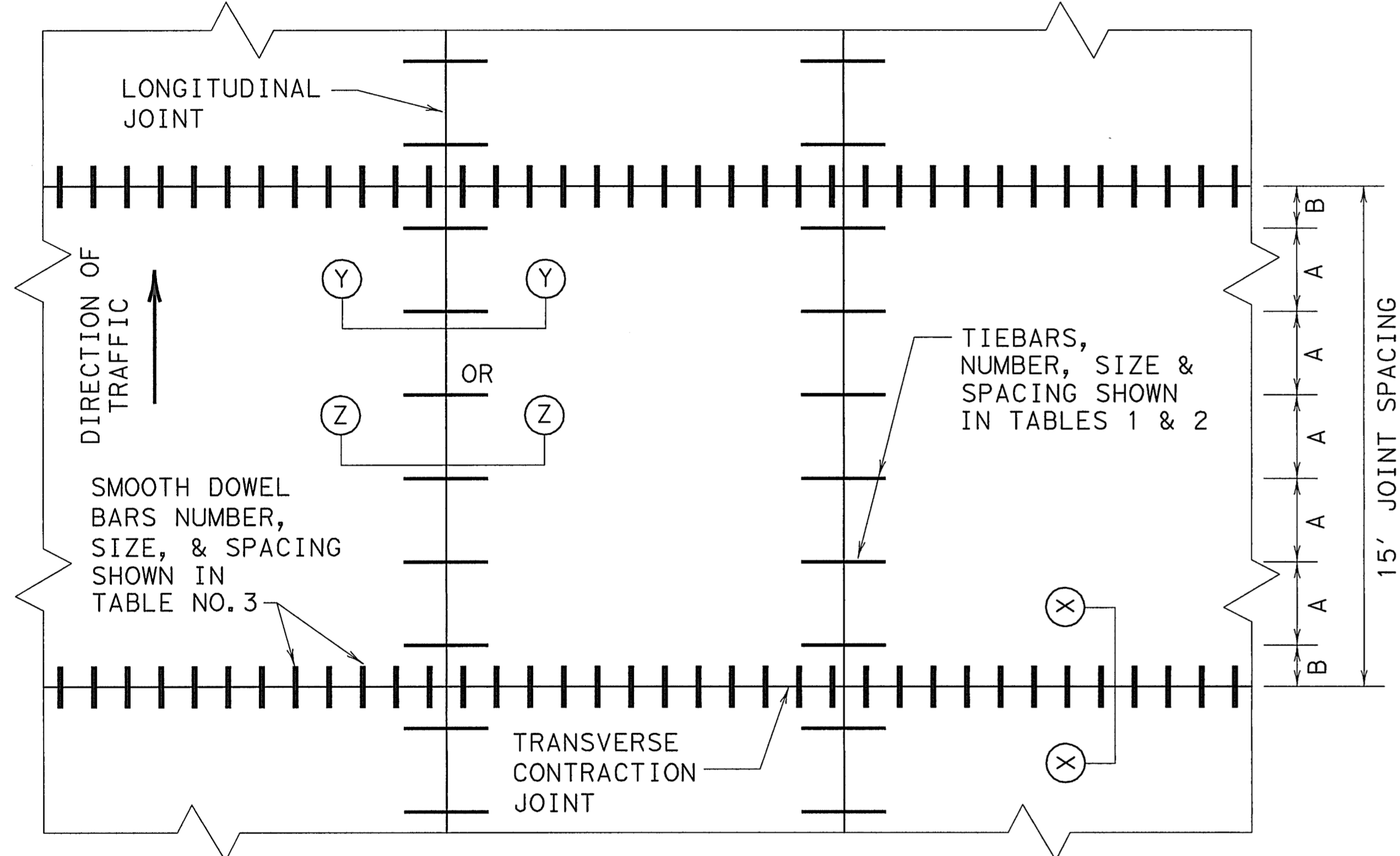


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FREE LONGITUDINAL JOINT WITH NO TIEBARS. LOCATION OF THE JOINT WILL BE AS DIRECTED BY THE ENGINEER FORMED WITH PREFORMED FIBER BOARD OR ASPHALT BOARD IN ACCORDANCE WITH ITEM "JOINT SEALANT AND FILLERS".

FREE LONGITUDINAL JOINT DETAIL



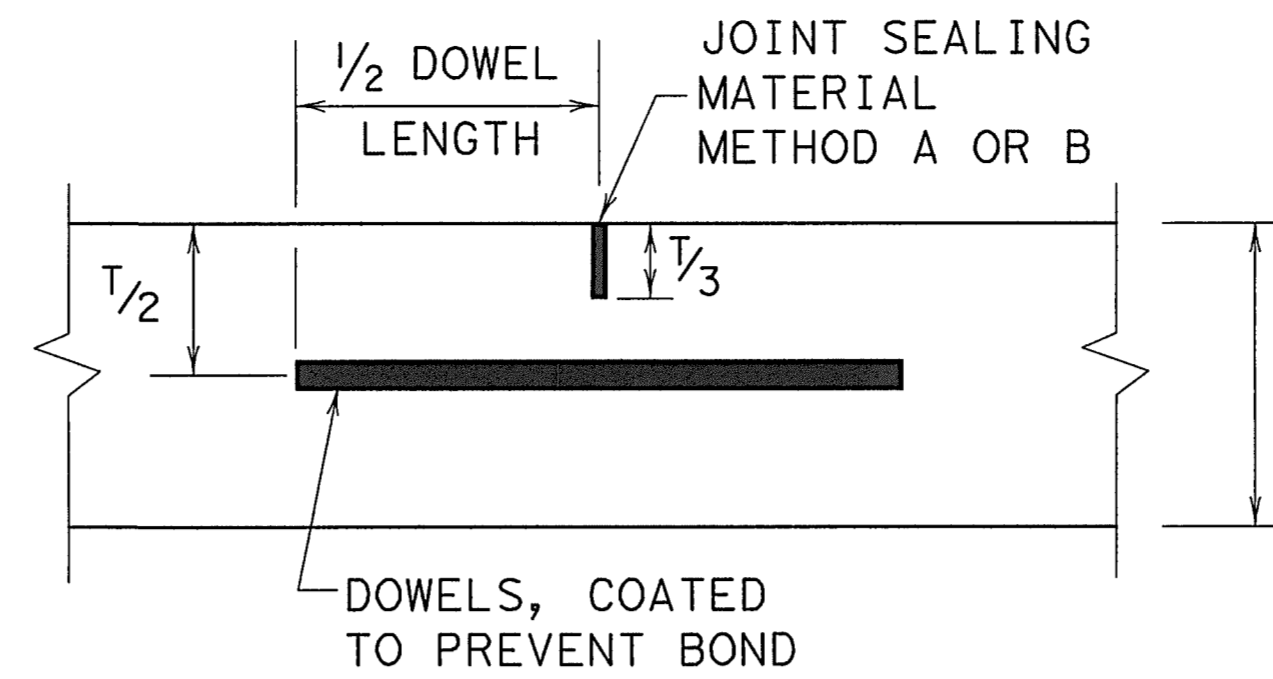
PAVEMENT DETAIL LAYOUT

ASTM A-616 OR A-615 (GRADE 60) STRAIGHT OR MULTIPLE PIECE REINFORCING TIEBARS		CONCRETE SLAB THICKNESS "T" INCHES	DISTANCE FROM THE LONGITUDINAL JOINT TO THE NEAREST LONGITUDINAL FREE EDGE			
BAR LENGTH, "L" INCHES	BAR SIZE		< OR =16'	< OR =24'	< OR =34'	< OR =50'
42	#5 (5/8")	8	5	5	6	9
		9	5	5	7	10
		10	5	5	7	11
		11	5	6	8	12
		12	5	6	9	13
		13	5	7	9	13
50	#6 (3/4")	14	6	7	10	NA
		15	6	8	11	NA
		8	5	5	5	6
		9	5	5	5	7
		10	5	5	5	8
		11	5	5	6	8
		12	5	5	6	9
		13	5	5	7	10
14	5	5	7	10		
15	5	6	8	11		

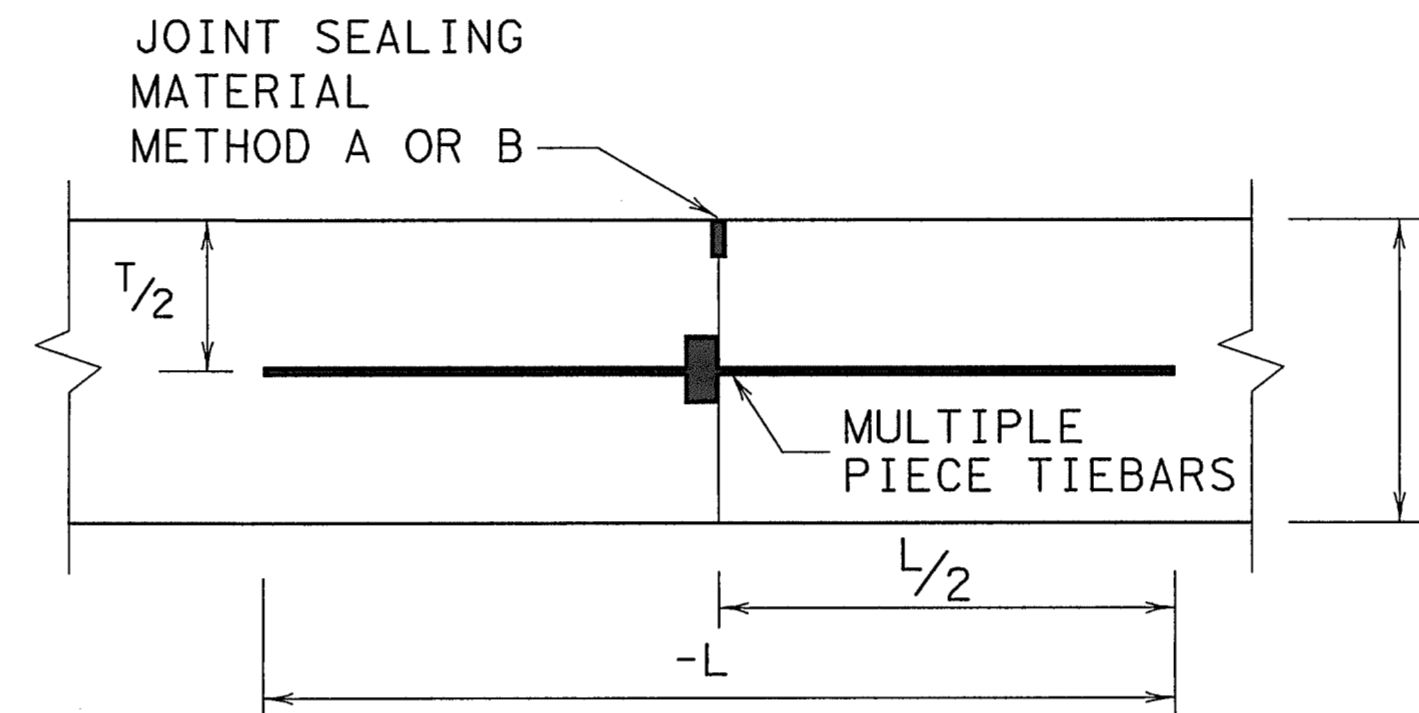
SPACING REQUIREMENT FOR 15' SLAB FOR REQUIRED NUMBER OF BARS		
REQUIRED NO. OF BARS	REGULAR SPACING "A" INCHES	FIRST AT JOINT "B" INCHES
5	36	18
6	30	15
7	25	15
8	21	16.5
9	18	18
10	16	18
11	15	15
12	13	18.5
13	12	18

T, IN.	DOWELS (SMOOTH BARS)	
	SIZE AND LENGTH	AVERAGE SPACING (INCHES)
8	1" X 18"	12
9	1 1/8" X 18"	12
10	1 1/4" X 18"	12
11	1 3/8" X 18"	12
12	1 1/2" X 18"	12
13	1 5/8" X 18"	12
14	1 3/4" X 18"	12
15	1 7/8" X 18"	12

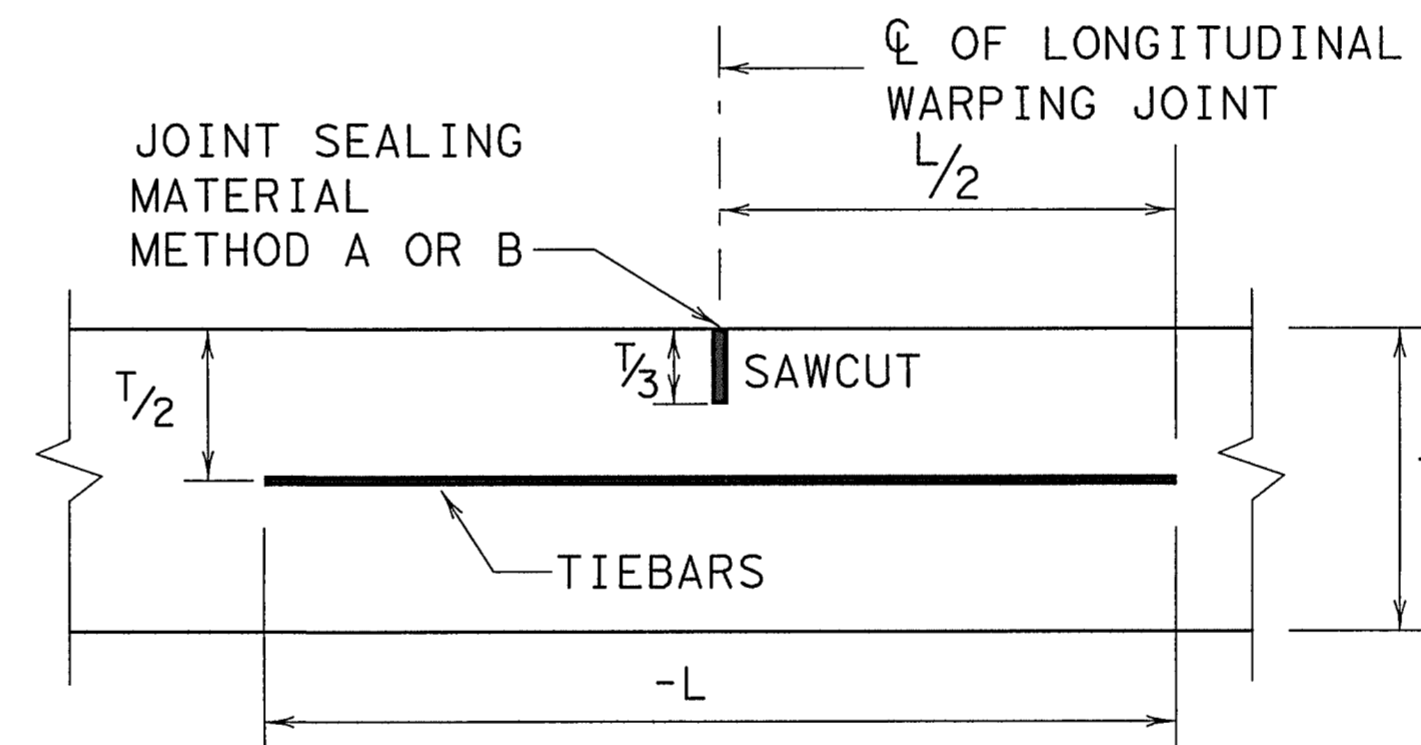
THE DISTANCE TO THE FREE EDGE WILL BE DETERMINED BY THE ENGINEER AND THE DISTANCE WILL BE BASED ON THE NOMINAL WIDTHS OF THE LANES AND SHOULDERS PLUS ANY TIED RAMPS OR CONNECTING ROADWAYS.



TRANSVERSE CONTRACTION JOINT SECTION X-X



LONGITUDINAL CONSTRUCTION JOINT SECTION Y-Y



LONGITUDINAL WARPING JOINT SECTION Z-Z

GENERAL NOTES

- CONCRETE SLABS WIDER THAN 100' WITHOUT A FREE JOINT, ARE NOT COVERED BY THIS STANDARD.
- FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND LOAD TRANSFER DEVICES REFER TO THE GOVERNING SPECIFICATIONS FOR "CONCRETE PAVEMENT" AND "REINFORCING STEEL."
- DETAILS FOR PAVEMENT WIDTH, PAVEMENT THICKNESS, AND CROWN CROSS SLOPE SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
- THE DETAIL FOR THE JOINT SEALANT AND RESERVOIR WILL BE SHOWN IN CONCRETE PAVEMENT DETAIL, JOINT SEALANT STANDARD (JS-94).
- PAVEMENT WIDTHS IN EXCESS OF 16' SHALL BE PROVIDED WITH A LONGITUDINAL JOINT (SECTION Z-Z OR Y-Y). THESE JOINTS SHALL BE LOCATED WITHIN 6" OF THE LANE LINES UNLESS SHOWN ELSEWHERE ON THE PLANS.
- THE JOINT BETWEEN OUTSIDE LANE AND SHOULDER SHALL BE A LONGITUDINAL WARPING JOINT (SECTION Z-Z) UNLESS OTHERWISE SHOWN IN THE PLANS.
- THE SPACING BETWEEN TRANSVERSE JOINTS SHALL BE 15 FEET UNLESS OTHERWISE SHOWN IN THE PLANS.
- WHERE A MONOLITHIC CURB IS SPECIFIED, THE JOINT IN THE CURB SHALL COINCIDE WITH PAVEMENT JOINTS AND MAY BE FORMED BY ANY MEANS APPROVED BY THE ENGINEER.
- TRANSVERSE CONSTRUCTION JOINTS MAY BE FORMED BY USE OF METAL OR WOOD FORMS EQUAL IN DEPTH TO THE NOMINAL DEPTH OF THE PAVEMENT, OR BY METHODS APPROVED BY THE ENGINEER.
- THE ENGINEER WILL ADJUST THE REQUIRED NUMBER OF TIEBARS FOR SLABS SHORTER OR LONGER THAN 15'. SPACING "B" WILL BE ADJUSTED TO MAINTAIN A MINIMUM CLEARANCE OF 2" BETWEEN THE TIEBAR AND THE DOWEL BARS AT THE TRANSVERSE JOINT AND THE "A" SPACING WILL REMAIN AS REQUIRED FOR THE PAVEMENT SLAB WIDTH.
- MULTIPLE PIECE TIEBARS SHALL BE USED AT LONGITUDINAL CONSTRUCTION JOINTS UNLESS OTHERWISE SPECIFIED IN THE PLANS.
- THE SAW CUT FOR LONGITUDINAL WARPING AND THE TRANSVERSE CONSTRUCTION JOINTS MAY BE ONE FOURTH THE SLAB THICKNESS WHEN CRUSHED LIMESTONE IS USED AS THE COARSE AGGREGATE.



CONCRETE PAVEMENT DETAILS
CONTRACTION DESIGN
T-8 THROUGH 15 INCHES
CPCD-94

FILE# cpcd94.dgn	DW# TxDOT	CK# LJB	DW# BD	CK# GLG
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