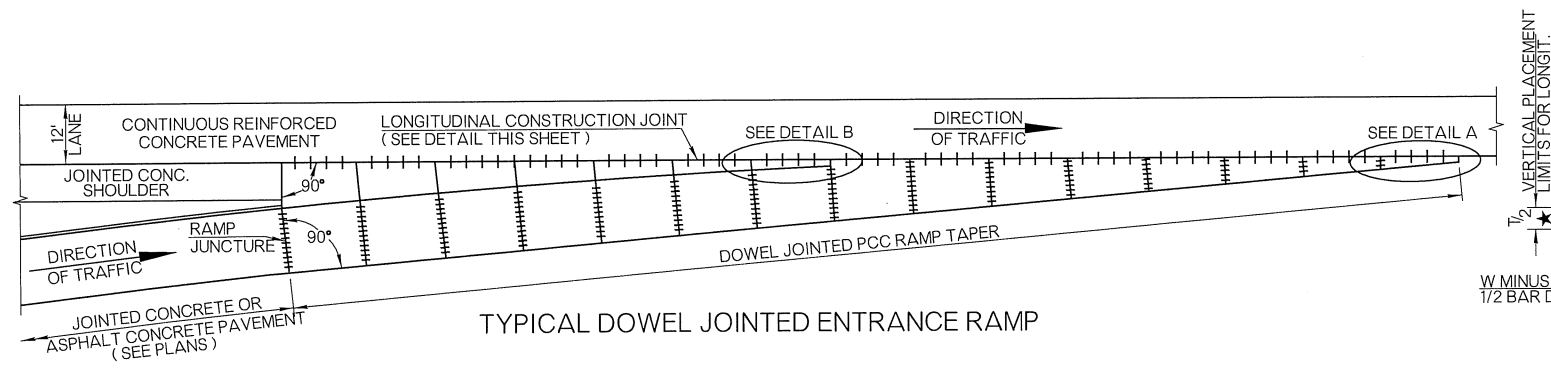
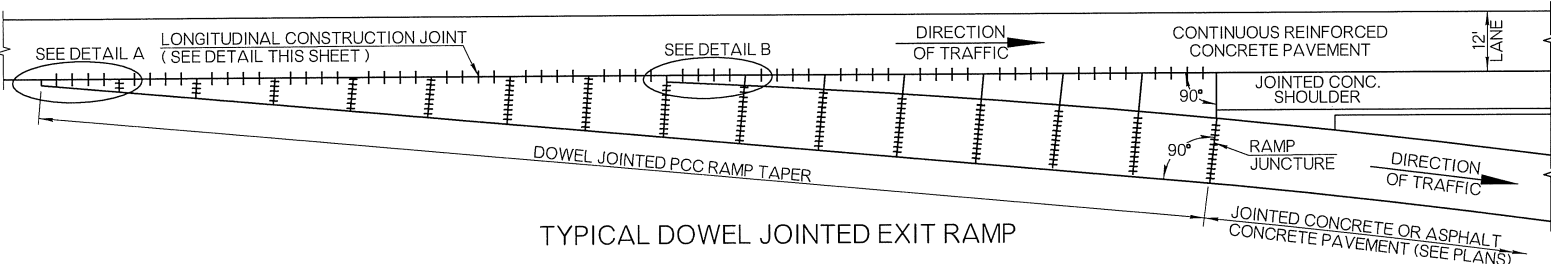


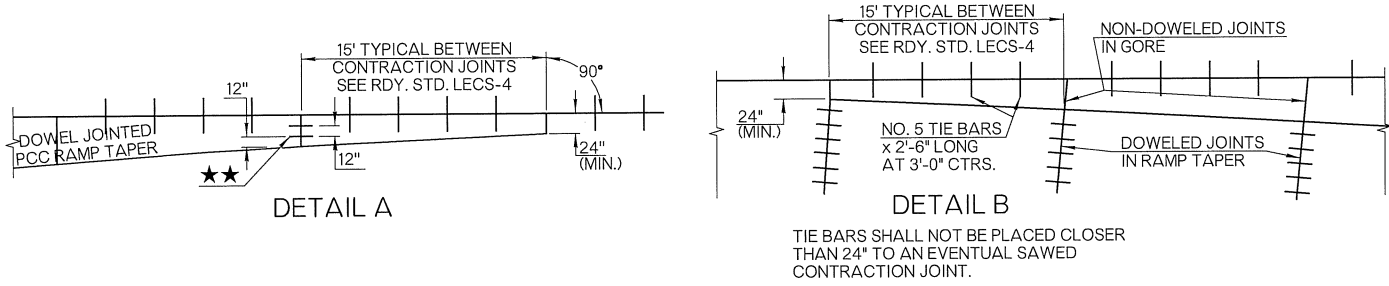
OKLAHOMA DEPARTMENT OF TRANSPORTATION		
STANDARD REVISIONS		
DESCRIPTION		DATE



TYPICAL DOWEL JOINTED ENTRANCE RAMP

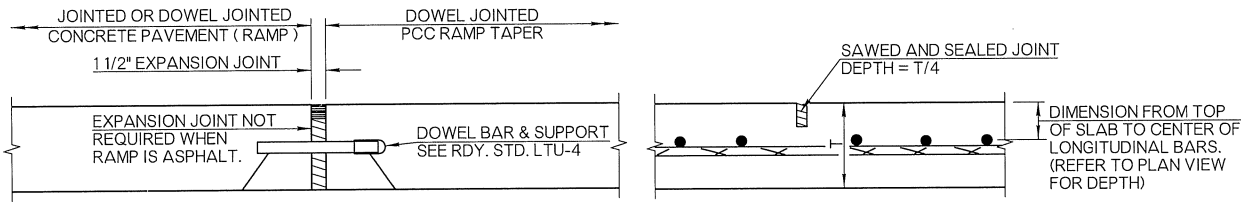


TYPICAL DOWEL JOINTED EXIT RAMP



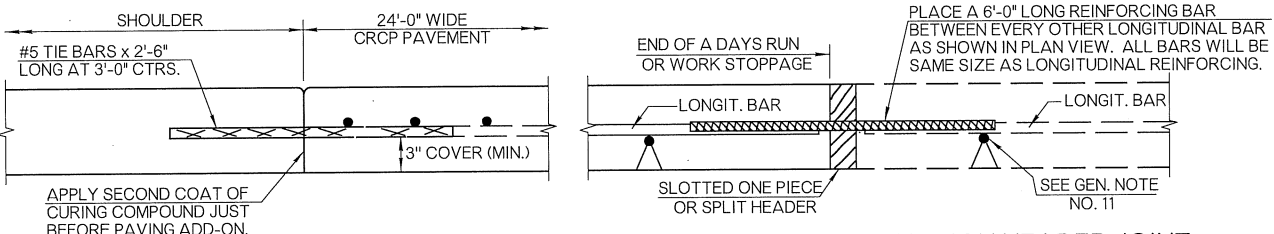
DETAIL A

DETAIL B



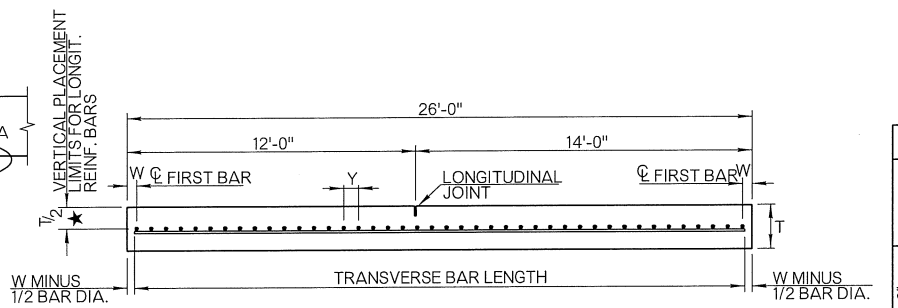
JOINT AT RAMP JUNCTURE

LONGITUDINAL CONTRACTION JOINT
TO BE AS SHOWN ON ROADWAY STANDARD LECS-4
EXCEPT FOR WHEN OTHERWISE SHOWN IN THIS DETAIL.

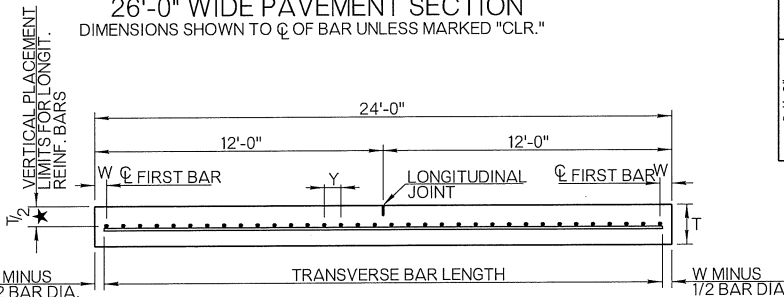


■ **LONGITUDINAL CONSTRUCTION JOINT**
 TO BE AS SHOWN ON ROADWAY STANDARD LECS-4
 AND AS SHOWN IN THIS DETAIL. HEIGHT OF REINFORCING
 AND TIE BARS MAY BE ADJUSTED TO AVOID CONFLICT, AS
 APPROVED BY THE ENGINEER.

TRANSVERSE CONSTRUCTION HEADER JOINT
 TO BE USED AT THE END OF EACH DAYS CONCRETE PLACEMENT
 OR AT ANY WORK STOPPAGE OF 30 MINUTES OR LONGER.



26'-0" WIDE PAVEMENT SECTION
 DIMENSIONS SHOWN TO ϕ OF BAR UNLESS MARKED "CLR."



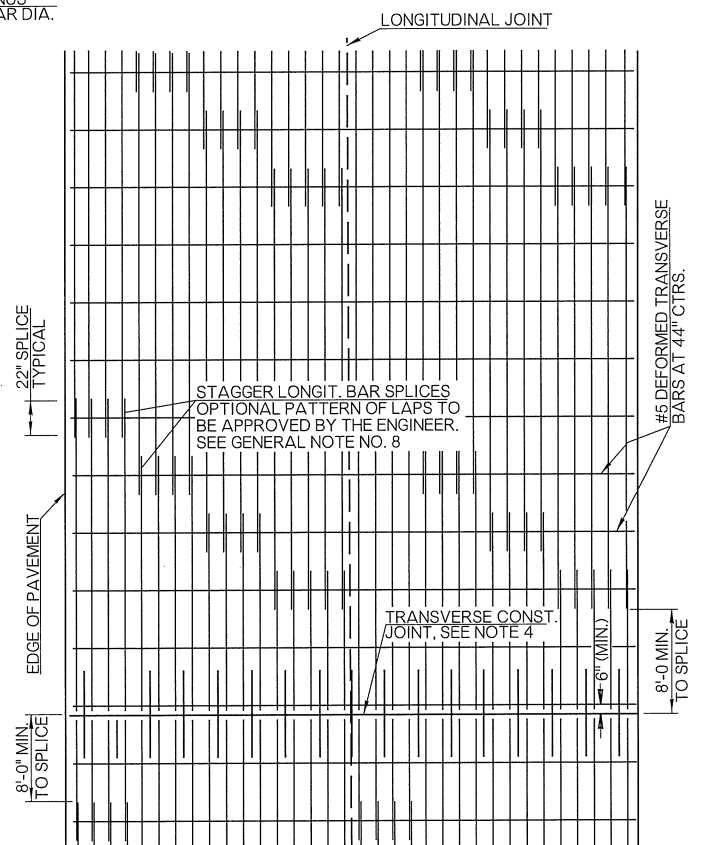
24'-0" WIDE PAVEMENT SECTION
 DIMENSIONS SHOWN TO ϕ OF BAR UNLESS MARKED "CLR."

- ★ TOLERANCE FOR PLACEMENT OF LONGITUDINAL STEEL:
 UPPER LIMIT = $T/2 + 1"$ (UP FROM $T/2$)
 LOWER LIMIT = $T/2 - 1/2"$ (DOWN FROM $T/2$)
 PLACEMENT IS MEASURED AT CENTERLINE OF BARS.
 TRANSVERSE PLACEMENT LIMITS EQUALS PLANS LOCATION
 OF EACH BAR PLUS OR MINUS 2 INCHES.
- ★★ DOWEL BARS LOCATED IN RAMP TAPER SHALL BE PLACED
 ON 12 INCH CENTERS SUCH THAT DOWEL BARS ARE NO
 CLOSER THAN 12 INCHES OR FARTHER THAN 24 INCHES
 FROM THE LONGITUDINAL SHOULDER JOINT. DOWEL BAR
 DETAILS ARE SHOWN ON ROADWAY STANDARD LTU-4.

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- ALL LONGITUDINAL BARS SHALL BE SPliced A MINIMUM OF 22" AND HAVE A MINIMUM LENGTH OF 30'-0". LONGITUDINAL BARS SHORTER THAN THE 30'-0" WILL BE NECESSARY FOR THE PURPOSE OF STARTING OR ENDING THE STAGGERED LAP PATTERN. MECHANICAL CONNECTORS WILL BE ALLOWED, IF THEIR TENSILE STRENGTH EQUALS OR EXCEEDS THAT OF THE REINFORCING STEEL.
- EXPANSION JOINTS WILL NOT BE USED, EXCEPT AT TERMINAL POINTS AS SHOWN IN THE PLANS, FOR MAINLINE AND/OR SHOULDER PAVEMENT.
- TRANSVERSE CONSTRUCTION JOINTS MAY BE FORMED BY HEADERS OTHER THAN SHOWN, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER.
- COST OF ALL STEEL, INCLUDING ADDITIONAL STEEL REQUIRED AT TRANSVERSE JOINTS, WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF CONTINUOUSLY REINFORCED P. C. C. PAVEMENT (PLACEMENT).
- VIBRATORY EQUIPMENT WILL BE REQUIRED TO ENSURE COMPLETE AND UNIFORM CONSOLIDATION OF CONCRETE AROUND THE CLOSELY SPACED STEEL MEMBERS. THE CONCRETE ADJACENT TO TRANSVERSE CONSTRUCTION JOINTS AND EXPANSION JOINTS SHALL BE VIBRATED WITH HAND MANIPULATED MECHANICAL VIBRATORS.
- CHAIR ASSEMBLIES SHALL BE OF A TYPE APPROVED BY THE ENGINEER AND AT LEAST ONE CHAIR WILL BE REQUIRED FOR EACH 16 SQUARE FEET OF PAVEMENT.
- NOT OVER 30 PERCENT OF THE REGULAR LONGITUDINAL STEEL SHALL BE SPlices WITHIN ANY GIVEN AREA MEASURED 12'-0" TRANSVERSELY BY 2'-6" LONGITUDINALLY.
- 'LEAVE OUT' SECTIONS (OMISSIONS) WILL NOT BE PERMITTED. TEMPORARY BRIDGES WILL BE USED WHERE REQUIRED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.
- LONGITUDINAL CONSTRUCTION JOINT IS TO BE USED ON PAVEMENT EDGES WHERE TIED SHOULDERS ARE CALLED FOR, AS WELL AS RAMP TERMINALS AND STREET INTERSECTIONS, UNLESS OTHERWISE NOTED.
- IN ALL DETAILS THE TRANSVERSE STEEL IS SHOWN BELOW THE LONGITUDINAL STEEL. THIS IS THE RECOMMENDED PLACEMENT FOR LONGITUDINAL STEEL SUPPORTED ON TRANSVERSE STEEL & CHAIR ASSEMBLIES. CHAIR ASSEMBLIES MUST BE USED. MECHANICAL PLACEMENT USING TUBE FEEDERS WILL NOT BE ALLOWED.
- SAW CUTS SHOULD BE MADE AS SOON AS POSSIBLE, WITHOUT RAVELLING THE CUT JOINT EDGE. IF A RAPID TEMPERATURE DROP IS EXPECTED, WHICH WILL CAUSE AN AIR TEMPERATURE DIFFERENTIAL OVER 20° F, OR WILL MOVE THE AIR TEMPERATURE BELOW 40° F WITH PROSPECTS OF IT REMAINING THERE OVER 3 HOURS, SAWING THE JOINT MUST BE CARRIED OUT PRIOR TO THE TEMPERATURE DROP.
- SAW JOINTS FOR THE INSIDE AND OUTSIDE SHOULDERS WILL MATCH TRANSVERSELY ACROSS THE CONT. REINF. CONC. PAVEMENT. THE JOINTS SHALL BE MARKED AND LOCATED PRIOR TO PLACING THE CRCP SO THAT THE TIE BARS ARE NOT PLACED WITHIN 24" OF THE TRANSVERSE CONTRACTION JOINTS IN THE SHOULDERS.

PAVEMENT DESIGN DATA - (C.R.C.P.)									
DESIGN TYPE		T SLAB THICK-NESS	TRANS. #5 BAR LENGTH	BAR SIZE	SPACING		NO. OF BARS	LBS. PER SY	DES. (%)
					W	Y			
26'-0" PAVEMENT	A1	8"	25'-1 1/2"	#6	4 7/8"	7 3/4"	40	25.3	0.71
	A	9"	25'-0 3/16"	#6	5 9/16"	6 11/16"	46	27.7	0.72
	B	10"	24'-11 3/4"	#7	5 11/16"	8 1/8"	38	30.2	0.73
	B1	11"	25'-1 1/2"	#7	4 13/16"	7 3/8"	42	33.5	0.73
	C	12"	25'-2 13/16"	#7	4 3/16"	7 1/16"	44	36.8	0.71
24'-0" PAVEMENT	A1	8"	23'-0 3/4"	#6	5 1/4"	7 1/2"	38	25.3	0.73
	A	9"	23'-0"	#6	5 5/8"	6 3/4"	42	27.7	0.71
	B	10"	22'-11 1/2"	#7	5 13/16"	8 3/8"	34	30.2	0.71
	B1	11"	23'-0 5/8"	#7	5 1/4"	7 1/2"	38	33.5	0.72
	C	12"	22'-11 7/8"	#7	5 5/8"	6 3/4"	42	36.8	0.73



24'-0" WIDE PAVEMENT PLAN

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
414 (C)	CONT. REINF. P. C. C. PAVT. (PLACEMENT)	SY
414 (G)	P. C. CONCRETE FOR PAVEMENT	CY

APPROVED BY
ROADWAY ENGINEER: *Caleb F. A.* DATE: *04/14/15*

ROADWAY DESIGN DIVISION STANDARD

CONTINUOUSLY REINFORCED CONCRETE
PAVEMENT DETAILS