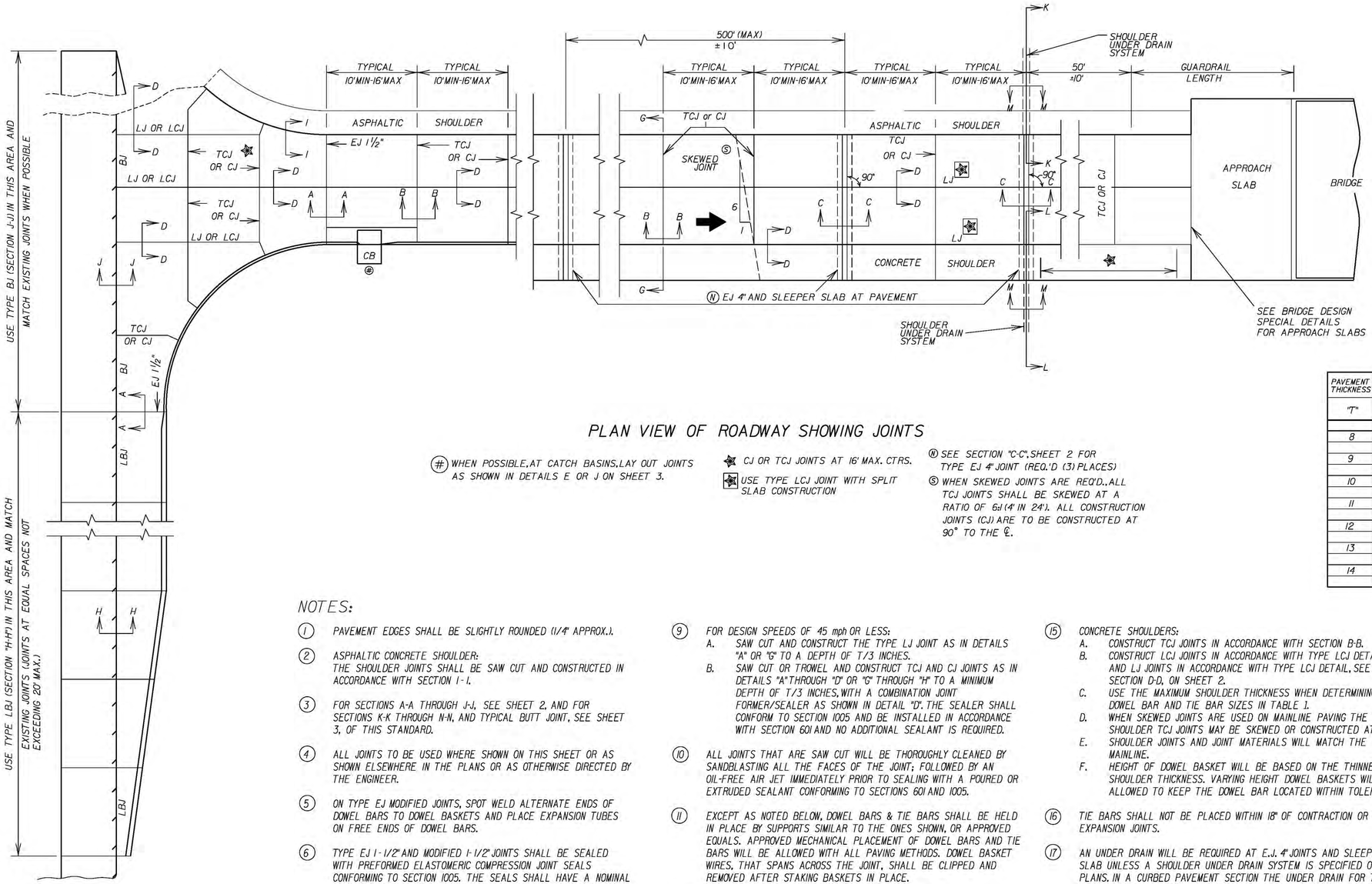

PLAN VIEW OF ROADWAY SHOWING JOINTS

(#) WHEN POSSIBLE, AT CATCH BASINS, LAY OUT JOINTS AS SHOWN IN DETAILS E OR J ON SHEET 3.

★ CJ OR TCJ JOINTS AT 16' MAX. CTRS.

★ USE TYPE LCJ JOINT WITH SPLIT SLAB CONSTRUCTION

(N) SEE SECTION "C-C", SHEET 2 FOR TYPE EJ 4" JOINT (REQ.'D (3) PLACES)

(S) WHEN SKEWED JOINTS ARE REQ'D., ALL TCJ JOINTS SHALL BE SKEWED AT A RATIO OF 6:1 (4' IN 24'). ALL CONSTRUCTION JOINTS (CJ) ARE TO BE CONSTRUCTED AT 90° TO THE ℄.

JOINT LEGEND

- LJ: LONGITUDINAL JOINT
- EJ: TRANSVERSE EXPANSION JOINT
- TCJ: TRANSVERSE CONTRACTION JOINT
- CJ: CONSTRUCTION JOINT
- LCJ: LONGITUDINAL CONSTRUCTION JOINT
- LBJ: LONGITUDINAL BUTT JOINT
- BJ: TRANSVERSE BUTT JOINT

TABLE 1
(ALL DIMENSIONS ARE IN INCHES)

PAVEMENT THICKNESS	SMOOTH DOWEL BARS ⊗			DEF. TIE BARS ⊠			KEYWAY ★	
"T"	SIZE	LENGTH	SPACING	SIZE	LENGTH	SPACING	A ±¼"	B ±¼"
8	1	18	12	½	24	24	2½	1¼
9	1¼	18	12	½	24	24	2½	1¼
10	1½	18	12	½	24	24	2½	1¼
11	1½	18	12	⅝	30	24	2½	1¼
12	1½	18	12	⅝	30	24	3	1½
13	1½	18	12	⅝	30	24	3	1½
14	1½	18	12	⅝	30	24	3	1½

NOTES:

(1) PAVEMENT EDGES SHALL BE SLIGHTLY ROUNDED (1/4" APPROX.).

(2) ASPHALTIC CONCRETE SHOULDER:
THE SHOULDER JOINTS SHALL BE SAW CUT AND CONSTRUCTED IN ACCORDANCE WITH SECTION 1-1.

(3) FOR SECTIONS A-A THROUGH J-J, SEE SHEET 2, AND FOR SECTIONS K-K THROUGH N-N, AND TYPICAL BUTT JOINT, SEE SHEET 3, OF THIS STANDARD.

(4) ALL JOINTS TO BE USED WHERE SHOWN ON THIS SHEET OR AS SHOWN ELSEWHERE IN THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER.

(5) ON TYPE EJ MODIFIED JOINTS, SPOT WELD ALTERNATE ENDS OF DOWEL BARS TO DOWEL BASKETS AND PLACE EXPANSION TUBES ON FREE ENDS OF DOWEL BARS.

(6) TYPE EJ 1-1/2" AND MODIFIED 1-1/2" JOINTS SHALL BE SEALED WITH PREFORMED ELASTOMERIC COMPRESSION JOINT SEALS CONFORMING TO SECTION 1005. THE SEALS SHALL HAVE A NOMINAL WIDTH OF 2 1/4" TO 2 1/2" BEFORE COMPRESSION. JOINTS SHALL BE CLEANED PRIOR TO SEALING.

(7) DEPTH OF SAWCUT SHALL BE T/3 ± 1/4", EXCEPT DETAIL 'C' JOINT SHALL BE T/4 ± 1/4".

(8) FOR DESIGN SPEEDS GREATER THAN 45 mph:
A. SAW CUT AND CONSTRUCT THE TYPE LJ JOINT AS IN DETAILS "A" OR "G" TO A DEPTH OF T/3 INCHES.
B. SAW CUT AND CONSTRUCT TCJ AND CJ JOINTS AS IN DETAILS "A", "B", "G" OR "I" TO A DEPTH OF T/3 INCHES.

(9) FOR DESIGN SPEEDS OF 45 mph OR LESS:
A. SAW CUT AND CONSTRUCT THE TYPE LJ JOINT AS IN DETAILS "A" OR "G" TO A DEPTH OF T/3 INCHES.
B. SAW CUT OR TROWEL AND CONSTRUCT TCJ AND CJ JOINTS AS IN DETAILS "A" THROUGH "D" OR "G" THROUGH "H" TO A MINIMUM DEPTH OF T/3 INCHES, WITH A COMBINATION JOINT FORMER/SEALER AS SHOWN IN DETAIL "D". THE SEALER SHALL CONFORM TO SECTION 1005 AND BE INSTALLED IN ACCORDANCE WITH SECTION 601 AND NO ADDITIONAL SEALANT IS REQUIRED.

(10) ALL JOINTS THAT ARE SAW CUT WILL BE THOROUGHLY CLEANED BY SANDBLASTING ALL THE FACES OF THE JOINT; FOLLOWED BY AN OIL-FREE AIR JET IMMEDIATELY PRIOR TO SEALING WITH A POURED OR EXTRUDED SEALANT CONFORMING TO SECTIONS 601 AND 1005.

(11) EXCEPT AS NOTED BELOW, DOWEL BARS & TIE BARS SHALL BE HELD IN PLACE BY SUPPORTS SIMILAR TO THE ONES SHOWN, OR APPROVED EQUALS. APPROVED MECHANICAL PLACEMENT OF DOWEL BARS AND TIE BARS WILL BE ALLOWED WITH ALL PAVING METHODS. DOWEL BASKET WIRES, THAT SPANS ACROSS THE JOINT, SHALL BE CLIPPED AND REMOVED AFTER STAKING BASKETS IN PLACE.

(12) INSTALL AND ANCHOR GEOTEXTILE FABRIC (TYPE B, C, OR D) UNDER ALL TCJ, CJ AND EJ MODIFIED 1½" JOINTS WHEN CONCRETE PAVEMENT IS PLACED ON ANYTHING OTHER THAN ASPHALT BASE. WHEN DOWEL BARS ARE MECHANICALLY IMPLANTED THE GEOTEXTILE FABRIC SHALL BE ANCHORED TO THE BASE COURSE WITH PINS.

(13) TRANSVERSE EXPANSION JOINTS ARE NOT TO BE USED FOR CONSTRUCTION JOINTS.

(14) WHEN CONSTRUCTING CONCRETE CURB AND GUTTER ADJACENT TO NEW P. C. C. PAVEMENT, USE TYPE LCJ JOINT. WHEN ADJACENT TO EXISTING P. C. C. PAVEMENT, USE TYPE LBJ JOINT. THE FIRST LOAD TRANSFER DEVICE SHALL BE INSTALLED 18" FROM THE PAVEMENT EDGE.

(15) CONCRETE SHOULDERS:
A. CONSTRUCT TCJ JOINTS IN ACCORDANCE WITH SECTION B-B.
B. CONSTRUCT LCJ JOINTS IN ACCORDANCE WITH TYPE LCJ DETAIL AND LJ JOINTS IN ACCORDANCE WITH TYPE LCJ DETAIL, SEE SECTION D-D, ON SHEET 2.
C. USE THE MAXIMUM SHOULDER THICKNESS WHEN DETERMINING DOWEL BAR AND TIE BAR SIZES IN TABLE 1.
D. WHEN SKEWED JOINTS ARE USED ON MAINLINE PAVING THE SHOULDER TCJ JOINTS MAY BE SKEWED OR CONSTRUCTED AT 90°.
E. SHOULDER JOINTS AND JOINT MATERIALS WILL MATCH THE MAINLINE.
F. HEIGHT OF DOWEL BASKET WILL BE BASED ON THE THINNEST SHOULDER THICKNESS. VARYING HEIGHT DOWEL BASKETS WILL BE ALLOWED TO KEEP THE DOWEL BAR LOCATED WITHIN TOLERANCE.

(16) TIE BARS SHALL NOT BE PLACED WITHIN 18" OF CONTRACTION OR EXPANSION JOINTS.

(17) AN UNDER DRAIN WILL BE REQUIRED AT E.J. 4" JOINTS AND SLEEPER SLAB UNLESS A SHOULDER UNDER DRAIN SYSTEM IS SPECIFIED ON THE PLANS. IN A CURBED PAVEMENT SECTION THE UNDER DRAIN FOR THE E.J. 4" JOINT AND SLEEPER SLAB SHALL BE CONNECTED TO THE NEAREST STORM SEWER OR DISCHARGED THROUGH AN OPEN PIPE AS SHOWN. ALL MATERIALS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF SECTION 703 OF THE LCG STANDARD SPECIFICATIONS. THE UNDER DRAIN FOR THE E.J. 4" JOINT AND SLEEPER SLAB IS TO BE PLACED AT NO DIRECT PAY.

○ 18 FOR TRANSVERSE BUTT JOINTS (BJ) AND TRANSVERSE EXPANSION JOINTS (EJ) MODIFIED 1-½" ALL SMOOTH DOWEL BARS SHALL BE GREASED APPROPRIATELY PRIOR TO PLACEMENT OF CONCRETE PAVEMENT.

○ 19 DOWEL BARS AND LONGITUDINAL TIE BARS SHALL CONFORM TO TABLE 1.

NOT TO SCALE

FEBRUARY 2016

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS
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