

## SUDAS Revision Submittal Form

**Status Date:** As of 5/17/2019      **Topic:** Driveway flares  
**Manual:** Specs & Design      **Manual Location:** Spec Figures 7030.101 and 102;  
Design Section 5L-4, C

**Requested Revision:**      *See attached figures*

### Design Section 5L-4 (Driveway Design Criteria), C (Dimensions)

**Table 5L-4.01: Driveway Dimensions<sup>1</sup>**  
(all dimensions are in feet)

Dimension Reference (See Figure 5L-4.01)		Major Arterial Street				Minor Arterial Street				Collector (Major and Minor)				Local Street			
		Residential	Commercial	Industrial	Agricultural	Residential	Commercial	Industrial	Agricultural	Residential	Commercial	Industrial	Agricultural	Residential	Commercial	Industrial	Agricultural
Width																	
Minimum	W	15	24	24	20	15	24	24	20	10	24	24	20	10	24	24	20
Maximum		30	45	45	30	30	45	45	30	24	40	45	30	24	32	40	30
Right-turn Radius <sup>2</sup>																	
Minimum	R	10	10	25	25	10	10	25	25	10	10	25	25	10	10	10	20
Maximum		25	35	50	35	25	35	50	35	25	35	50	35	15	20	30	35
Min. Acute Angle <sup>3</sup>		60°	70°	70°	70°	60°	70°	70°	70°	60°	70°	70°	70°	60°	70°	70°	70°
Pref. Acute Angle	A	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°
Min. Pavement Thickness (inches)	T	6/8	7/9	*	6	6	7	*	6	6	7	*	6	6	7	*	6

<sup>1</sup> Major entrances require special design.

<sup>2</sup> 3 to 5 foot flares (F) may be used for residential and agricultural entrances.

<sup>3</sup> Any variation from 90° will be evaluated on a case by case basis. The minimum acute angle (measured from the edge of the pavement) is 60°.

\* Requires special design.

1. The width (W) shown applies to rural routes and city streets including neighborhood business, residential, and industrial streets. For joint entrances centered on property lines, the entrance width may increase 5 feet rounded to the nearest 5 foot interval but should not exceed 45 feet. In rural areas (open ditch roadways) widths for paved entrances should include an additional 4 feet for shoulders (Minimum 2 feet shoulders each side).
2. The radius (R) for agricultural uses will vary according to the following intersecting acute angles:

**Table 5L-4.02: Agricultural Acute Angle and Radius**

Acute Angle	Acute Radius Decrease (feet)	Obtuse Radius Increase (feet)
85° to 90°	0	0
75° to 85°	5 feet	5 feet
65° to 75°	5 feet	10 feet
60° to 65°	10 feet	15 feet

Where the entrance radius specified is greater than the distance between the back of curb and the front edge of the sidewalk the radius may be reduced to meet the available space but should be no less than 10 feet. An option to the radius under this condition is the use of flared entrances. When a flare is used, it should be 3 to 5 feet wide and should be constructed from the back of curb to the sidewalk. If no sidewalk exists, flares should be 10 feet long.

**Reason for Revision:** Clarified that the flare should be 3 to 5 feet for residential and agricultural driveways.

**Comments:** None.

---

**District:**  1  2  3  4  5  6

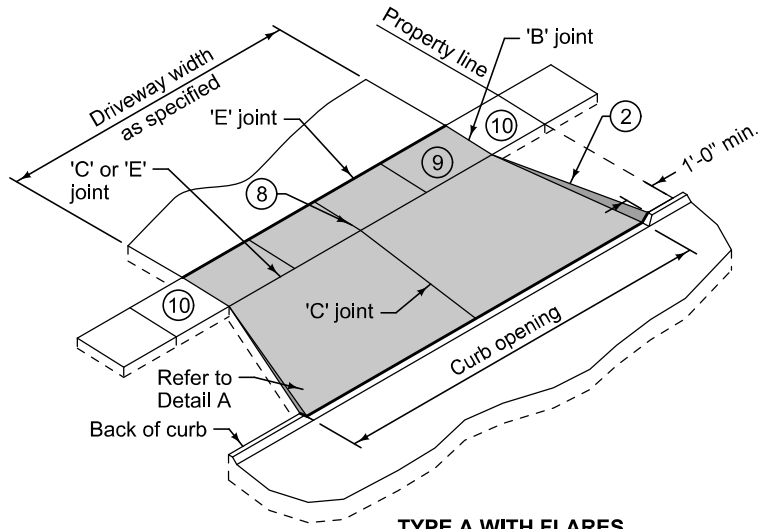
**Comments:** None.

**Action:**  Deferred  Not Approved  Approved

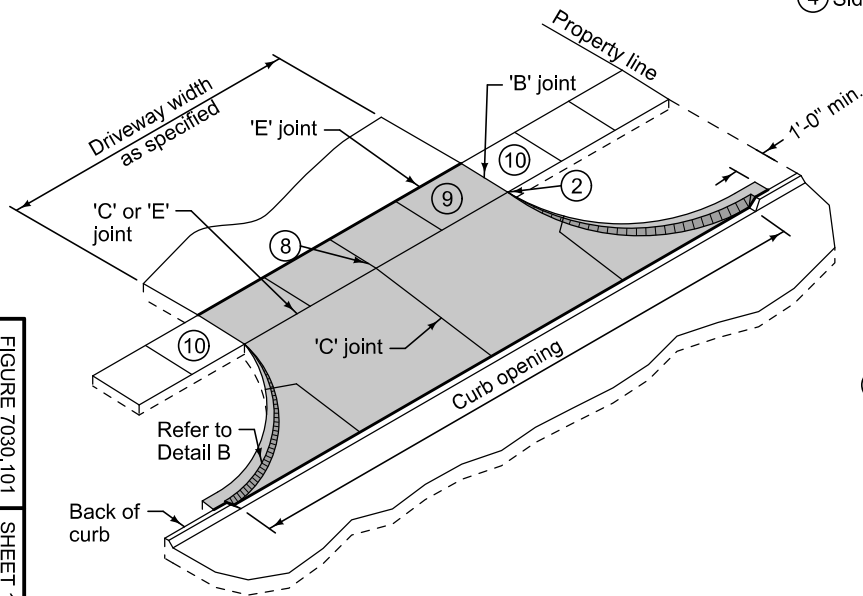
---

**Final District Action Summary:** All 6 districts approved.

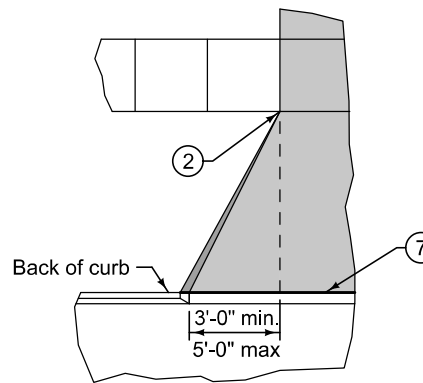
**Board of Directors Action:** Approved.



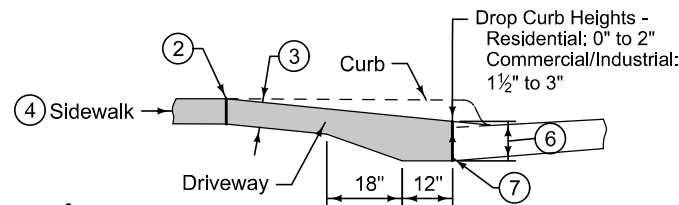
**TYPE A WITH FLARES**



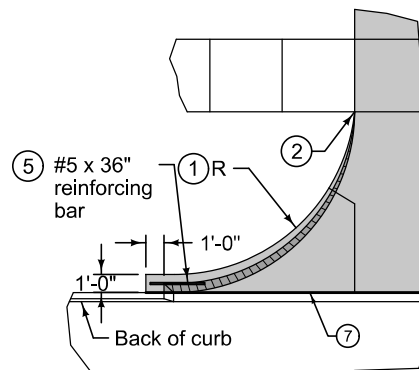
**TYPE A WITH RADII**



**DETAIL A**  
(Residential/Agricultural Only)




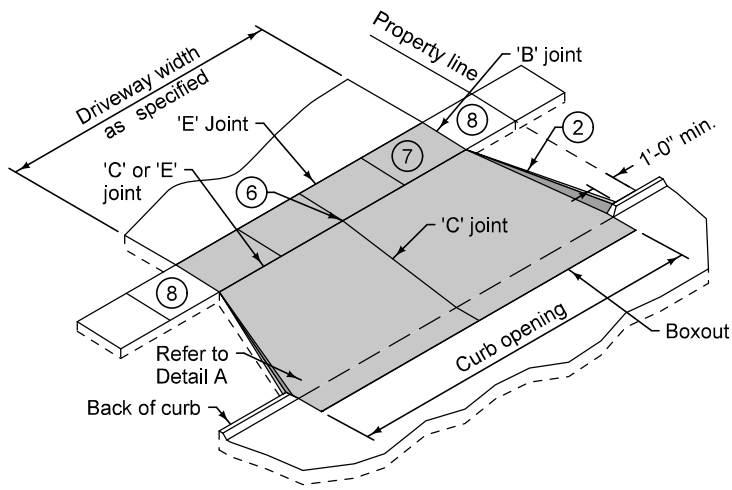
**TYPICAL SECTION**



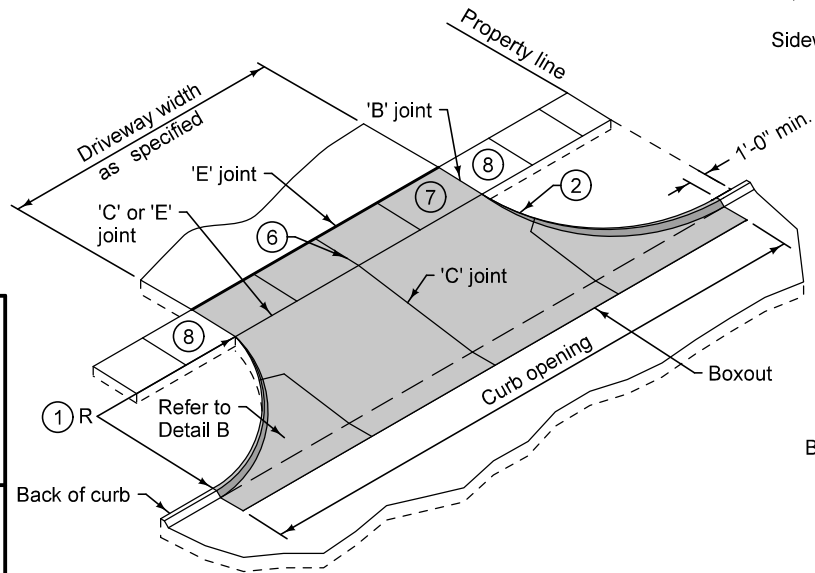
**DETAIL B**

- ① Driveway radius (R).  
Residential: 10 foot minimum, 15 foot maximum.  
Commercial and industrial: As specified in the contract documents.
- ② Transition the curb height to 0 inches at end of taper/radius or at the front edge of sidewalk. Do not extend raised curb across sidewalk.
- ③ Pavement thickness.  
Residential: 6 inches minimum.  
Commercial and industrial: 7 inches minimum.
- ④ Sidewalk thickness through driveway to match thickness of driveway.
- ⑤ Center reinforcing bar vertically in the pavement.
- ⑥ Match thickness of adjacent roadway, 8 inches minimum.
- ⑦ Provide 'E' joint at back of curb unless 'B' joint is specified.
- ⑧ For alleys, invert the pavement crown 2% toward center of alley.
- ⑨ Target cross slope of 1.5% with a maximum cross slope of 2.0%. If specified in the contract documents, construct the sidewalk through the driveway 5 feet wide to serve as a passing space.
- ⑩ If cross slope of adjacent sidewalk panel exceeds 2.0%, remove and replace to transition from existing sidewalk to sidewalk through driveway. If elevation change requires a curb ramp, comply with Figure 7030.205; verify need for detectable warning panel with Engineer.

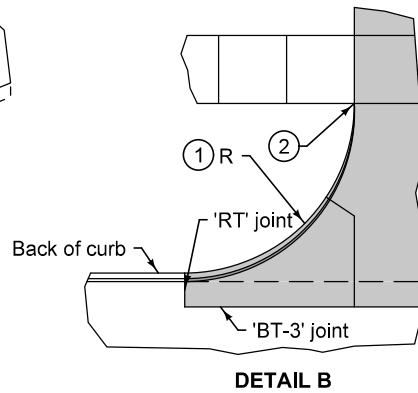
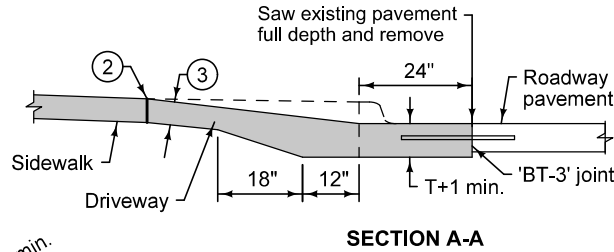
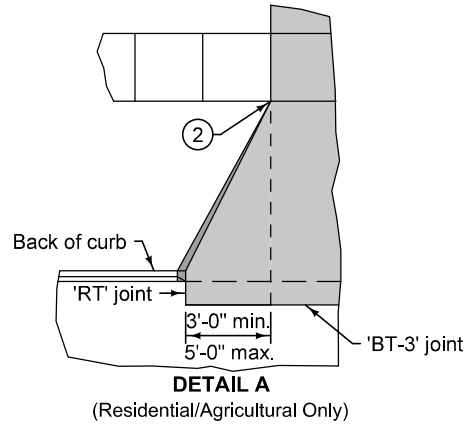
	REVISION 3   2020 Edition
	<b>7030.101</b>
	SHEET 1 of 1
SUDAS Standard Specifications	
CONCRETE DRIVEWAY, TYPE A	



**TYPE B WITH FLARES**




**TYPE B WITH RADII**



- ① Driveway radius (R).  
Residential: 10 foot minimum, 15 foot maximum.  
Commercial and industrial: As specified in the contract documents.
- ② Transition the curb height to 0 inches at end of taper/radius or at the front edge of sidewalk. Do not extend raised curb cross sidewalk.
- ③ Pavement thickness.  
Residential: 6 inches minimum.  
Commercial and industrial: 7 inches minimum.
- ④ Sidewalk thickness through driveway to match thickness of driveway.
- ⑤ If longitudinal joint is located 48 inches or less from the back of curb, extend boxout to joint line. Full depth saw cut is still required.
- ⑥ For alleys, invert the pavement crown 2% toward the center of the alley.
- ⑦ Target cross slope of 1.5% with a maximum cross slope of 2.0%. If specified in the contract documents, construct the sidewalk through the driveway 5 feet wide to serve as a passing space.
- ⑧ If cross slope of adjacent sidewalk panel exceeds 2.0%, remove and replace to transition from existing sidewalk to sidewalk through driveway. If the elevation change requires a curb ramp, comply with Figure 7030.205; verify need for detectable warning panel with Engineer.

FIGURE 7030.102 SHEET 1 OF 1

	REVISION 3   2020 Edition
	<b>7030.102</b> SHEET 1 of 1
SUDAS Standard Specifications	
CONCRETE DRIVEWAY, TYPE B	