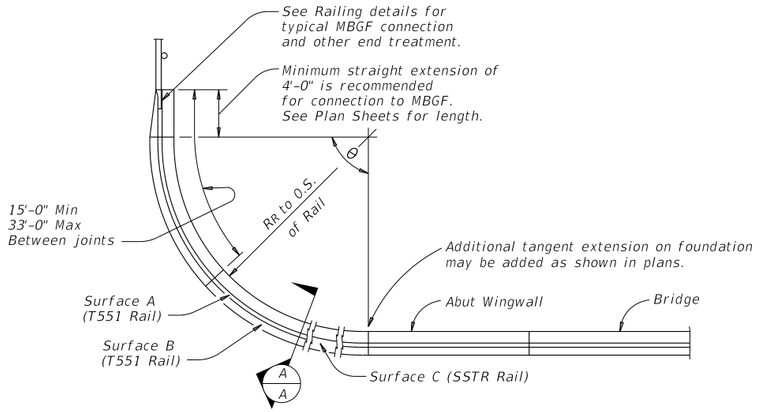
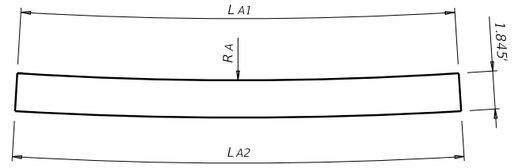
DATE:
FILE:

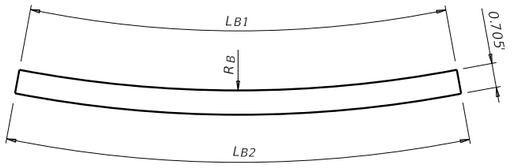


PLAN OF CURVED T551 OR SSTR RAILING AT BRIDGE ENDS



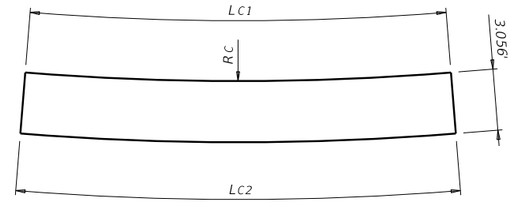
DEVELOPED SURFACE-A

(T551 Rail)



DEVELOPED SURFACE-B

(T551 Rail)



DEVELOPED SURFACE-C

(SSTR Rail)

TABLE OF DEVELOPED SURFACES

DIMENSIONS FOR Θ = 90°

Reference Radius RR (ft) to back of Rail	T551 RAIL						SSTR RAIL		
	Radius	Arc Length		Radius	Arc Length		Radius	Arc Length	
	RA ft	LA1 ft	LA2 ft	RB ft	LB1 ft	LB2 ft	RC ft	LC1 ft	LC2 ft
10	95.76	16.99	17.31	19.63	17.31	17.93	55.66	16.69	17.61
15	140.04	24.84	25.17	28.54	25.17	25.79	81.86	24.54	25.46
20	184.32	32.69	33.02	37.44	33.02	33.64	108.05	32.40	33.31
25	228.60	40.55	40.87	46.35	40.87	41.50	134.25	40.25	41.17
30	272.88	48.40	48.73	55.25	48.73	49.35	160.44	48.11	49.02

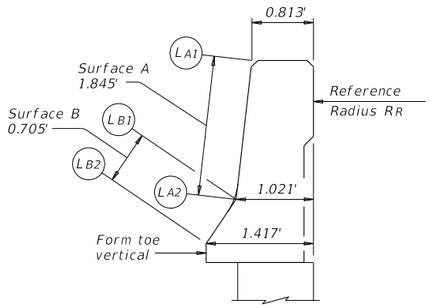
$R_A = 8.8560(R_R + 0.813')$ $R_B = 1.7811(R_R + 1.021')$ $R_C = 5.2389(R_R + 0.625')$

$L_{A1} = 1.5708(R_R + 0.813')$ $L_{B1} = 1.5708(R_R + 1.021')$ $L_{C1} = 1.5708(R_R + 0.625')$

$L_{A2} = 1.5708(R_R + 1.021')$ $L_{B2} = 1.5708(R_R + 1.417')$ $L_{C2} = 1.5708(R_R + 1.208')$

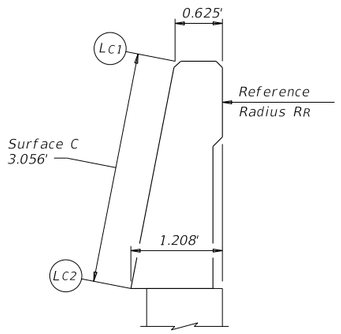
The linear ratio may be used to obtain the above arc length dimensions for included θ angles other than 90°. The dimensions are intended as an aid in constructing forms for curved SSTR & Type T551 Railing.

Example: For R_R = 10' & 80° ~ L_{A1} = 16.99($^8/_9$)



SECTION A-A

(T551 Rail)



SECTION A-A

(SSTR Rail)

GENERAL NOTES:

See Railing standards for details not shown.

The primary use of the curved railing detail is to avoid the necessity of curved MBGF at the ends of bridges adjacent to grade intersections.

The associated bridge railing will be paid for by the linear foot which includes the concrete and reinforcement.

DESIGN GUIDANCE:

The use of curved rail sections at bridge ends must be appropriate for the speed and site conditions.

Texas Department of Transportation

Bridge Division Standard

TRAFFIC RAIL DEVELOPED SURFACES FOR T551 & SSTR BRIDGE RAILS

TRDS

FILE: rlstd048-20.dgn	DN: TxDOT	CK: TxDOT	DW: JTR	CK: TxDOT
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REVISIONS				
	DIST	COUNTY		SHEET NO.