

Acceptable Values for 3R Roadway Features (requires approval according to Section 1C-8)

Design Element	Freeway	Non-Freeway			
Regulatory Speed (m.p.h.)	65/55	55	45	35	25
Minimum Vertical Curve (m.p.h.) (a)	65/55	35	25	15	5
Maximum Horizontal Curve (degrees) (b)	3	6	8	14	28
Maximum Gradient	3%	6%	7%	10%	13%
Lane Width (feet)	12	11 (c)	11	11	11
Parking Lane Width (feet)	--	--	8	8	8
Shoulder Width (feet)	10/6	6	4	4	2
Foreslopes	3 : 1	3 : 1	3 : 1	--	--
Transverse Slopes	6 : 1 (d)	6 : 1 (d)	6 : 1 (d)	--	--
Horizontal Clearance (feet)	(e)	(e)	(e)	3 (f)	3 (f)
Bridge Width (g)	Approach Lanes + Shoulder Width			Approach Lanes + Offset	
Vertical Clearance - Over NHS (feet) (h)	16.5	16.5	16.5	16.5	16.5
Vertical Clearance - Over Local (feet) (h)	14.5	14.5	14.5	14.5	14.5

(a) Any length of stopping sight distance within the range of values established in the Current AASHTO "Greenbook" is acceptable for a specified speed.

(b) Based on e maximum = 0.04 (urban) and e maximum = 0.08 (rural).
Nonsuperelevated curves should be according to Table 111-12 in AASHTO "Greenbook" for high speed and Figure 111-17 for low speed.

(c) Use 12' lanes if:

- (1) Route is on National Truck Network, or
- (2) Design year ADT is greater than 2,000 and truck volume is greater than 10%, or
- (3) Design year ADT is greater than 750 and truck volume is greater than 10% and regulatory speed is greater than 50 m.p.h.

(d) If transverse slopes are modified with project, use 8:1 with drainage structures and 10:1 without drainage structures.

(e) Current AASHTO Roadside Design Guide.

(f) Fixed objects (utility poles, fire hydrants, traffic signals, etc.) which are installed or relocated due to the project should be placed at the right-of-way line or at 10' from the traveled lane.

(g) Design Year ADT	Offset (each side)
0 - 750	0
751 - 2,000	2'
2,001 - 4,000	4'
over 4,000	6'

Design loading - legal load

Bridge rail and approach guardrail to be upgraded.

(h) Railroad clearances are higher, generally 23.5' over a railroad track. Need to verify each Railroad's requirement.