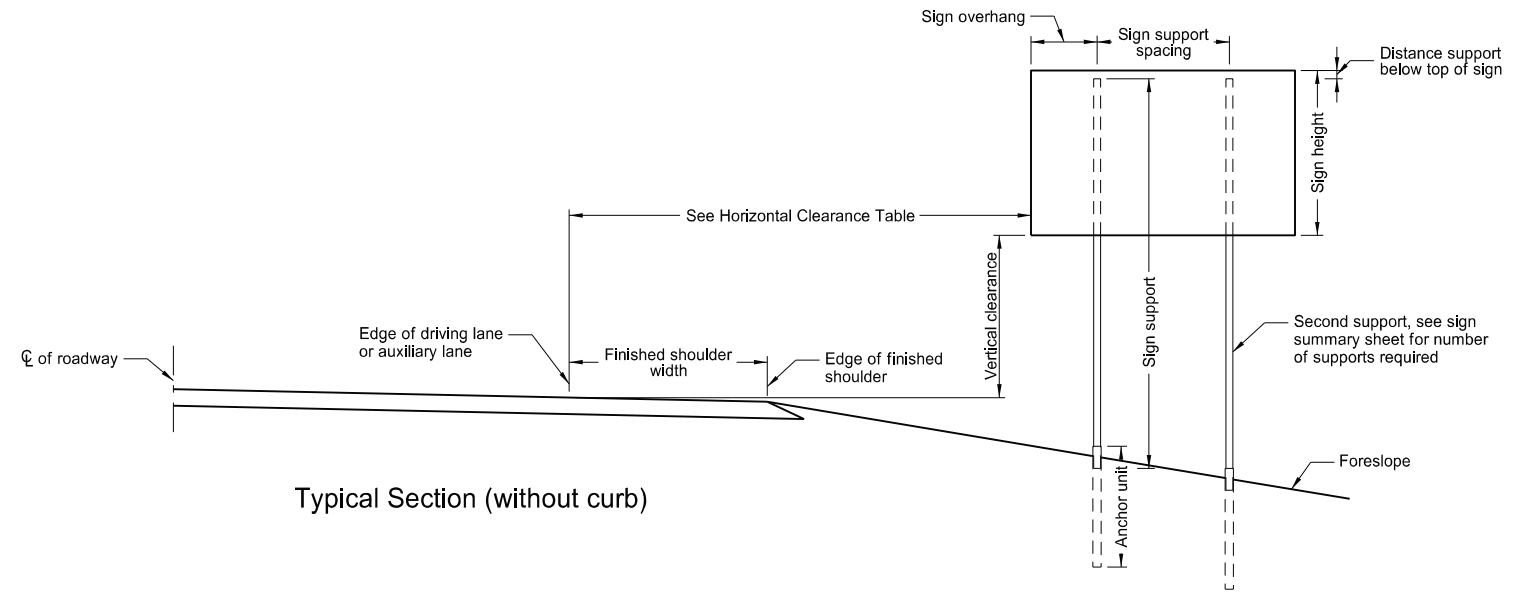


# PERFORATED TUBE ASSEMBLY DETAILS

D-754-23

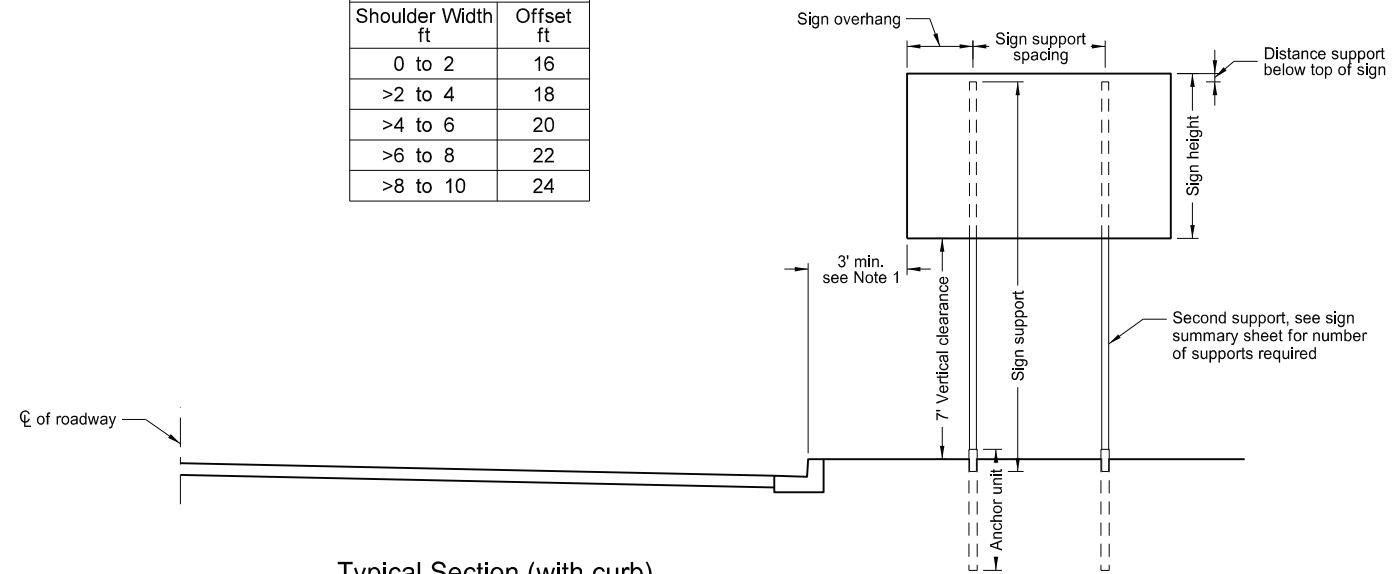
**Notes:**

1. Curbed Roadways: Use a 3' clearance from face of the curb except where right of way or sidewalk width is limited; Use a minimum 2' clearance. Increase the horizontal clearance if required to maintain a minimum sidewalk clear width of 4' from the sign support, not including any attached curb.
2. Minimum vertical clearance: Provide at least 5' measured from the bottom of the sign to the edge of the driving lane or auxiliary lane at the side of the road in rural districts. Provide at least 7' clearance to the bottom of the sign, where parking or pedestrian movements occur.  
Install signs on expressways a minimum height of 7'.  
Install adopt-a-highway signs on Freeways at least 7' above the edge of the driving lane.  
Maximum vertical clearance is 6" greater than the minimum vertical clearance.
3. Offset signs: Use a vertical clearance of 5' above the edge of the driving lane for signs placed 30 feet or more from the edge of the traveled way.
4. Provide a horizontal clearance from edge of shared use path to edge of sign of 3', except where width is limited. Provide a minimum clearance of 2'.

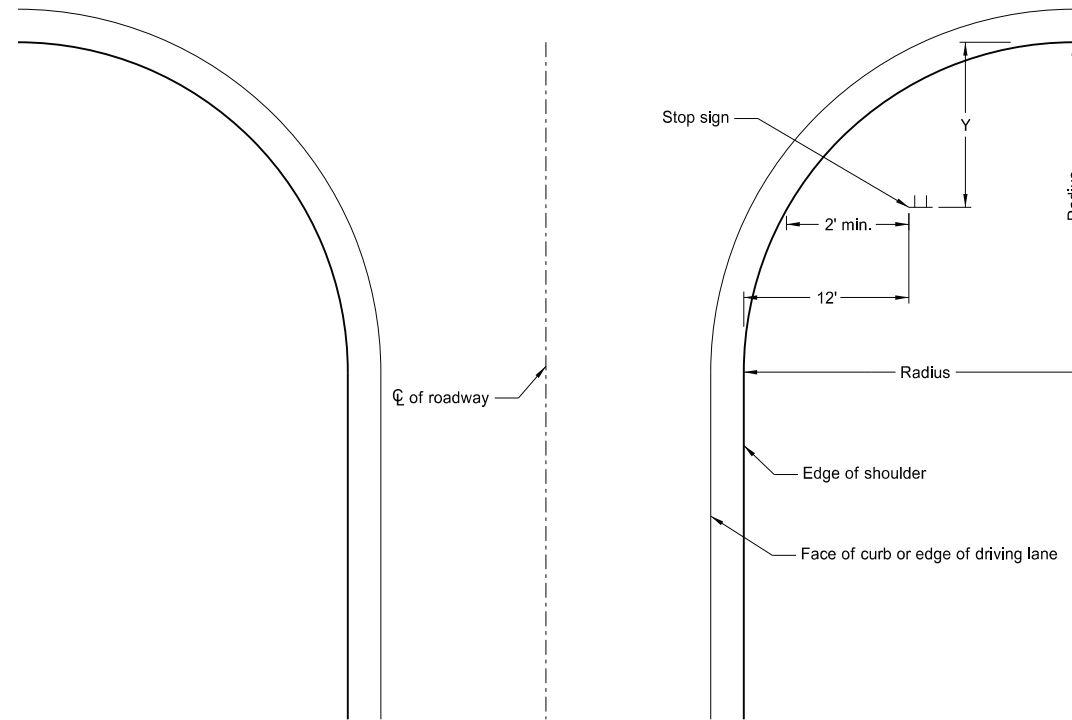


Typical Section (without curb)

Shoulder Width ft	Offset ft
0 to 2	16
>2 to 4	18
>4 to 6	20
>6 to 8	22
>8 to 10	24

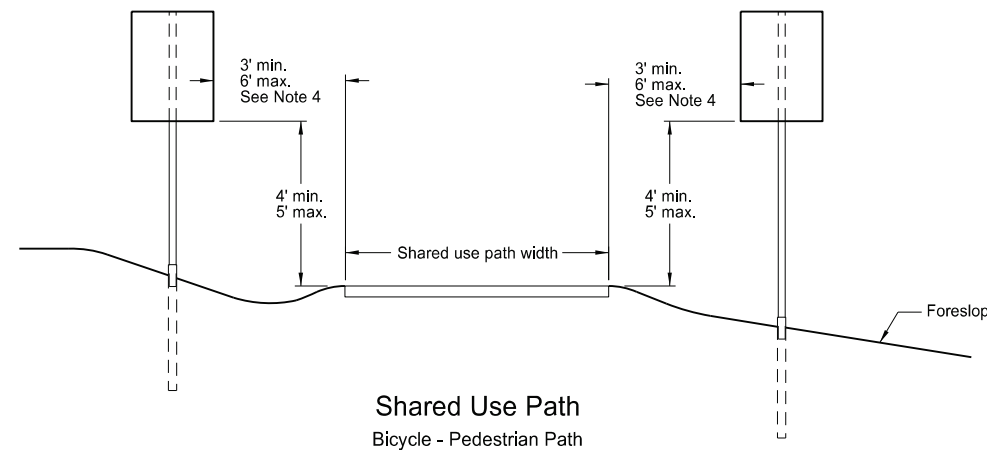


Typical Section (with curb)  
Residential or Business District



Stop Sign Location  
Wide Throat Intersection  
Use layout for the placement of "Stop" signs.

Radius ft.	Y-max. ft.	Y-min. ft.
40	50	15
45	50	18
50	50	21
55	50	25
60	50	28
65	50	32
70	50	35
75	50	39
80	50	43



Shared Use Path  
Bicycle - Pedestrian Path

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
10-3-13	
REVISIONS	
DATE	CHANGE
7-8-14	Revised note 2, added note 4.
8-30-18	Updated notes to active voice.
8-29-19	New Design Engineer PE Stamp.
8-05-24	Electronic Stamp/Signature.



08/05/24