

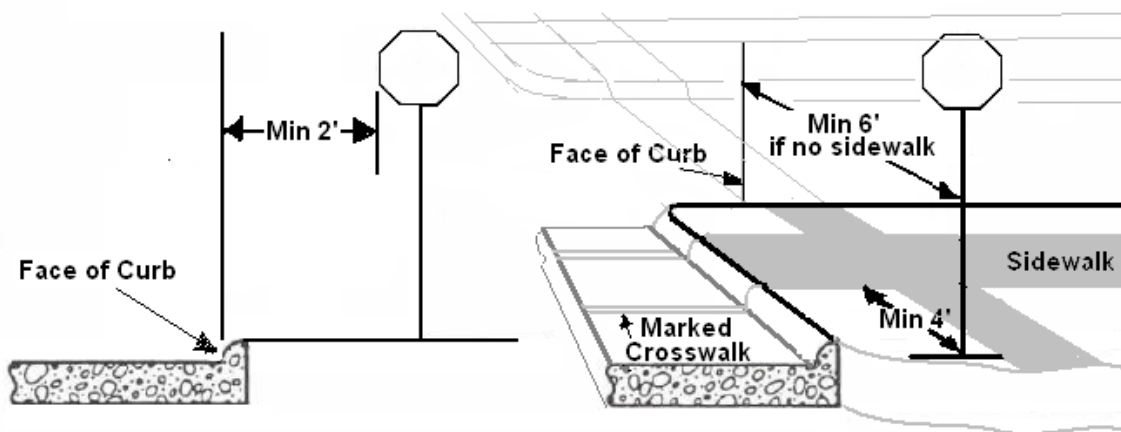
All Town Sign Replacement Program – 2011

Urban Stop Sign Placement

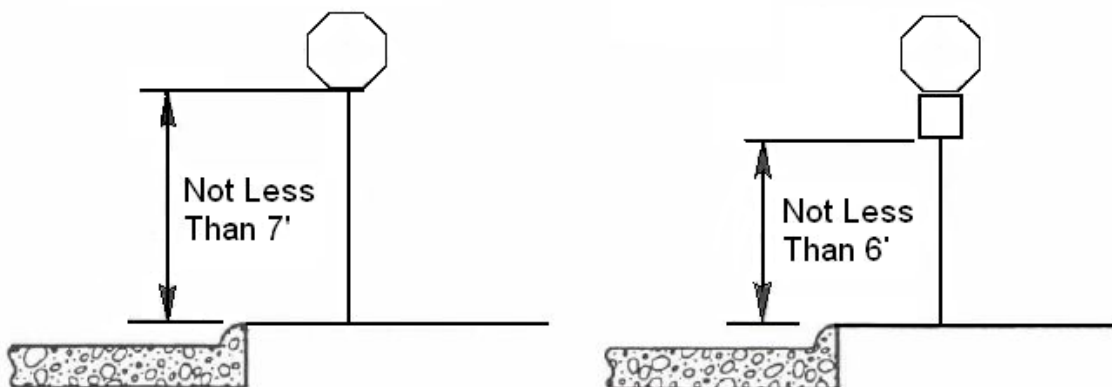
- **Urban Longitudinal Placement** -- a minimum of 6 feet from the near edge of the intersected street or a minimum of 4 feet in advance of the near edge of a marked crosswalk.
- **Urban Lateral Placement** -- Lateral clearance may be reduced to a minimum of 2 feet from the face of a curb. This minimum offset would also apply where stop signs are placed in medians or channelizing islands.

Stop Sign Lateral and Longitudinal Placement

In Urban Areas



Sign Mounting Heights



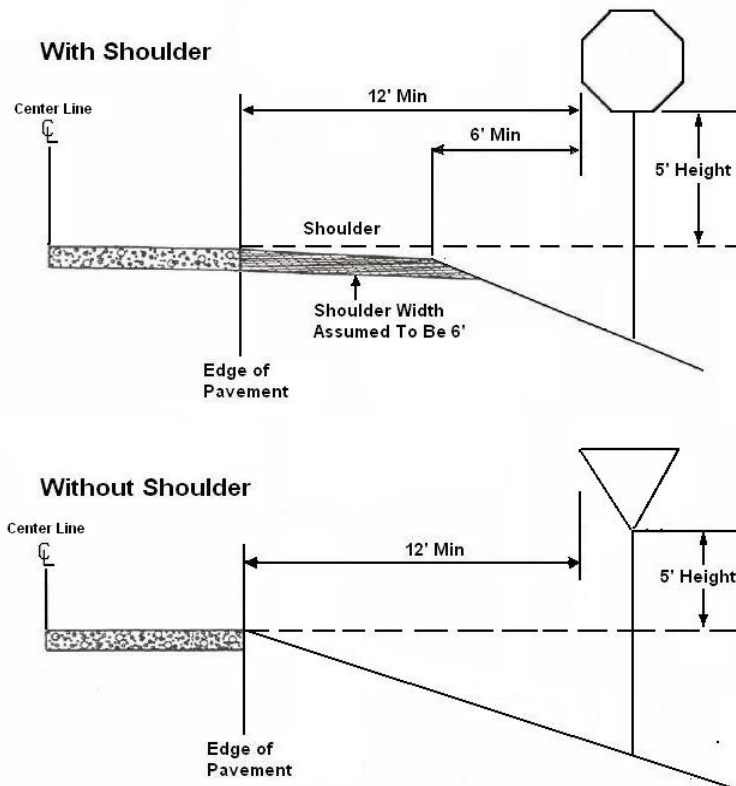
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Rural Stop Sign Placement

Lateral Placement of Signs

Rural or No Curb

Figure 5



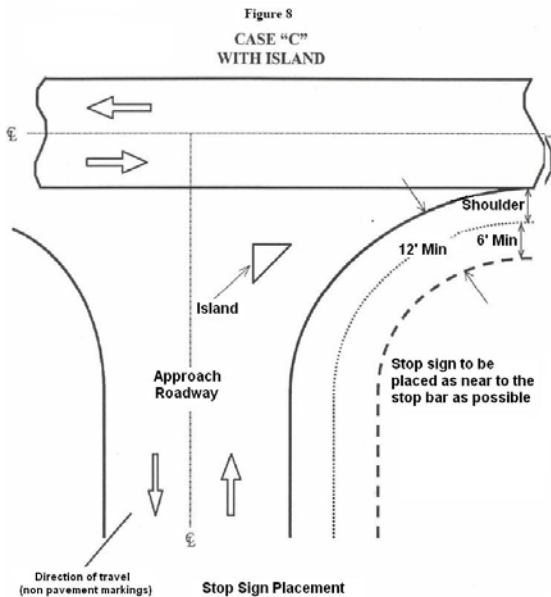
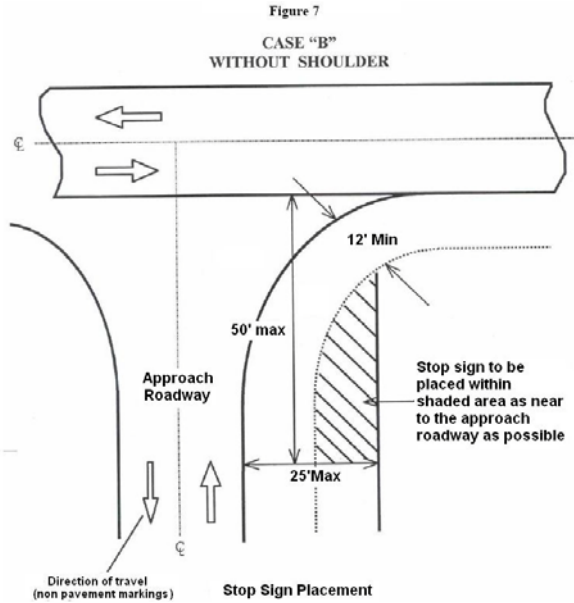
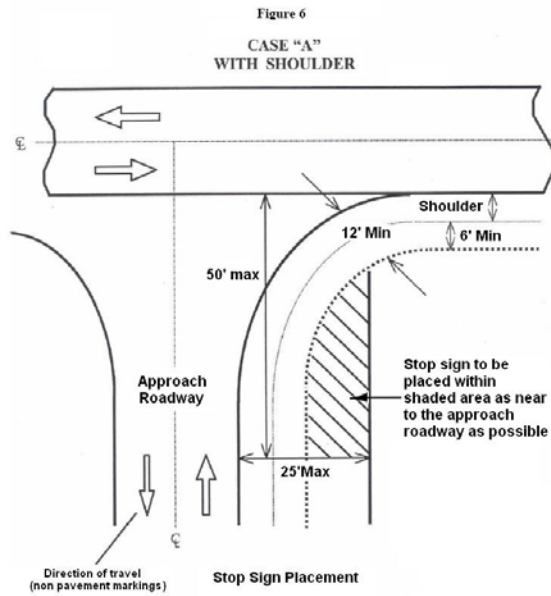
Stop signs should be placed at the point where vehicles are to stop or as near as practical thereto. The Manual of Uniform Traffic Control Devices (MUTCD) suggests that:

- **Rural Longitudinal Placement** -- Stop signs are to be located a maximum of 50 feet from the edge of the intersected street or highway.
- **Rural Lateral Placement** -- in areas where there are no curbs, the lateral clearance should be no closer than 6 feet from the edge of a usable shoulder (shoulder is assumed to be 6 feet). If a usable shoulder is nonexistent, the lateral clearance should be no closer than 12 feet from the edge of the traveled way.

These offset distances are illustrated in Figure 5. Figure 6, Figure 7, and Figure 8 illustrate stop sign locations where there is a shoulder (Case A), where there is no shoulder (Case B) and where there is an island (Case C), respectively. Stop signs should be confined to the shaded areas, but as close to the approach roadway as possible to provide the motorist with the best visibility.

Diagrams detailing cases A, B and C may be found on the following page. on the next page.

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Where only one stop sign is used, it shall be located on the right side of the approach traffic lane. Where the approach roadway consists of two lanes of traffic, a second stop sign should be placed where it is visible to traffic in the inner lane if a suitable location exists.

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Warning Sign Mounting Height

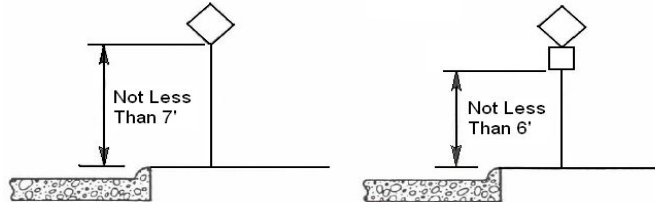
On two-lane routes in rural areas, the Manual on Uniform Traffic Control Devices specifies that signs be mounted at a height of at least 5 feet measured from the bottom of the sign to the near edge of the pavement. In areas where parking or pedestrian movements are likely to occur or where there are other obstructions to view, the clearance from the bottom of the sign to the curb or ground at the base of the sign shall be at least 7 feet. When a secondary sign is mounted below another sign, the mounting heights prescribed above may be reduced to 4 feet and 6 feet respectively.

Sign Mounting Heights

Rural Areas



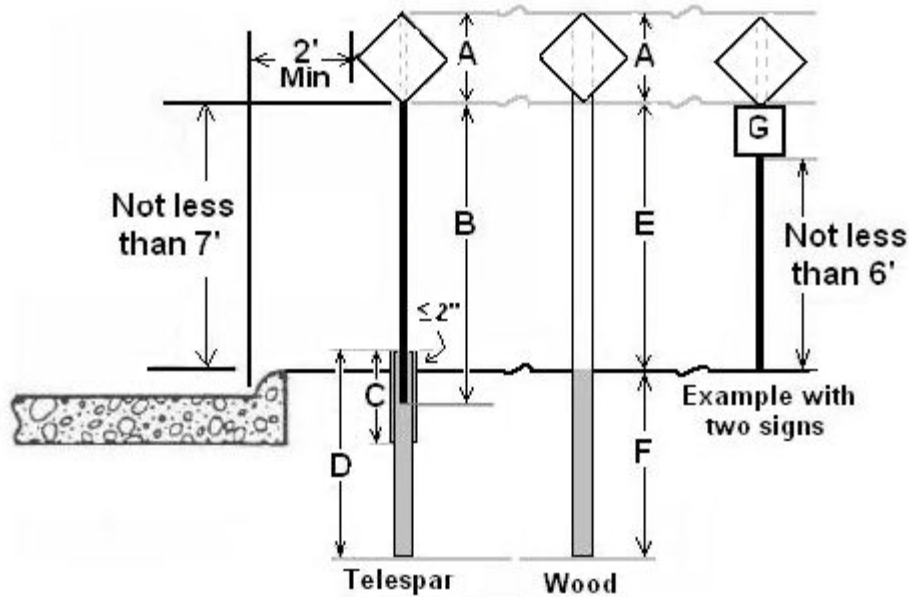
Urban Areas



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Calculating Sign Post Lengths

Urban with Curb



Calculations for Telespar

- A Sign verticle height 36"
- B 7' plus 6" to 8" inserted into base - total length of 7'6" to 7' 8".
- C 18" outer Sleeve for double wall breakaway.
- D 48" Minimum with 1" to 2" exposed above ground.

$$\text{Sign Post length in Telespar} = A+B = 10' 8"$$

Where A = 36" and B = 7' 8"

Outer Sleeve = C (18")

Anchor Base = D (48")

Calculations For Wood Posts

- A Sign verticle height
- E Height of sign from grade
- F Depth below grade

$$\text{Wood Sign Post Length} = A+E+F = 14' 7"$$

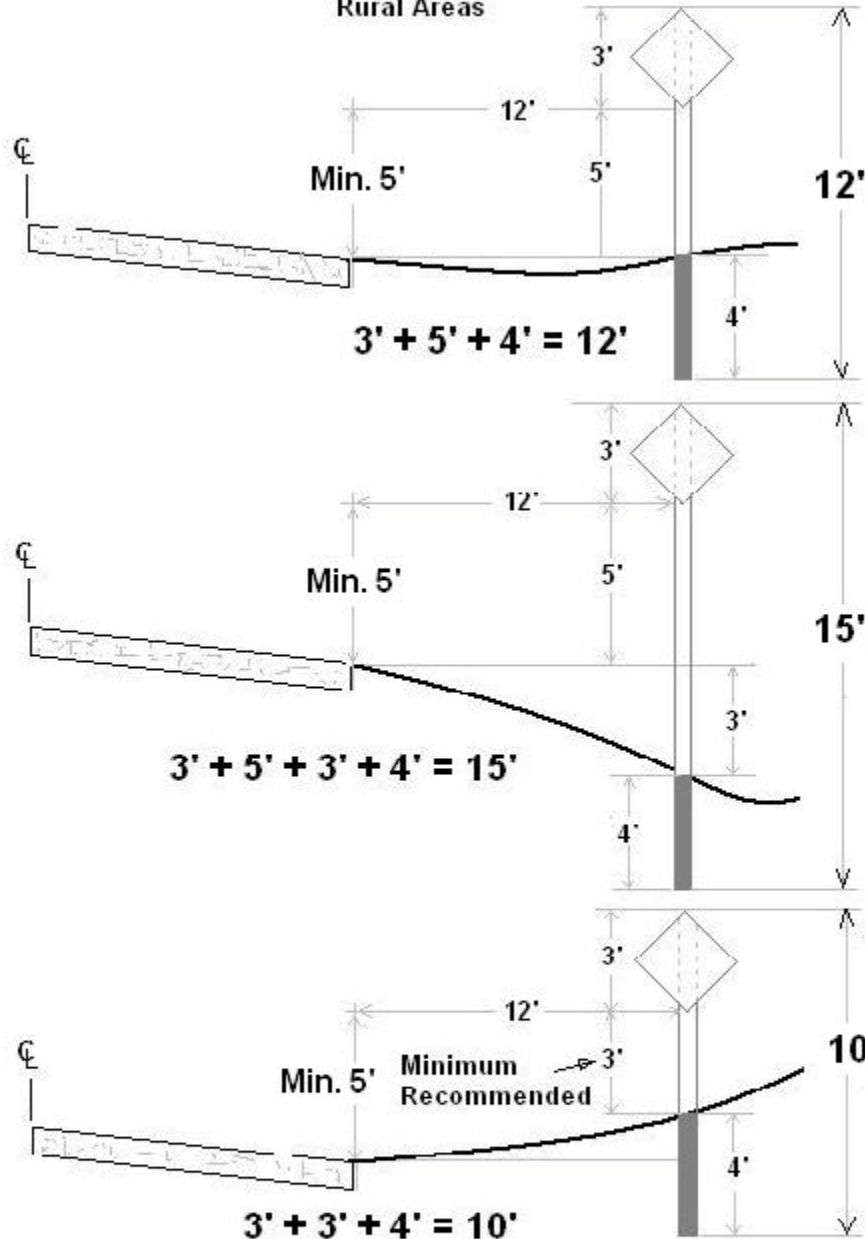
Where A=36" and E=7" and F=4'

Make adjustments for vertical height of sign "G"

All Town Sign Replacement Program – 2011

Calculating Sign Post Lengths

Rural Areas



In cases where the sign post is either too long or too close to the ground, judgement must be exercised to adjust the position of the sign to assure reasonable mounting height and placement.

Signs should be placed a minimum of 6' from the edge of a paved shoulder. Shoulders are assumed to be a min. of 6'. If the shoulder is wider, then the sign should be placed at least 6' beyond the shoulder. (ie, with a 10' shoulder the sign would be 16' from the edge of the pavement.

Posts Available Through Program

Wood

4" x 4" - 12ft

4" x 4" - 14ft

4" x 6" - 16ft

4" x 6" - 18ft

Steel

U-Channel 14ft Galvanized

Square Steel Tubing (Telespar)

2" x 2" - 12ft Telespar

Telespar Hardware

Pre-cut 4ft Anchor Base 2-1/4" x 2-1/4"

Telespar Concrete Mounting Base

Stabilization Anchor Sleeve 2-1/2" x 2-1/2"

Corner Bolt 2-1/4" to 2-1/2" (medium)

Drive Rivet 3/8" x 5/8"

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Installation of Wood Sign Posts (4"X 4" and 4"X 6" posts)

Posthole and filling requirements

Hole Size -- Wood posts shall be set in holes which are 12 inches (300mm) in diameter. Posts for smaller signs with less than 10 sq. ft. of area should be installed approximately 4 feet below the ground surface. For larger signs and longer post lengths, the portion of the post below the ground surface should be a minimum of 5 feet.

Backfilling -- Postholes should be backfilled with suitable soil tamped in place. In cases where the soil is unsuitable, crushed rock or crushed concrete should be used. Care should be taken in the process to see that the posts are plumb, insofar as possible, at all times. If properly placed, posts should remain firmly in position without needing further attention.

Breakaway Modifications for 4" X 6" Posts

Based upon crash tests, each 4 inch by 6 inch (100mm by 150mm) wood sign post shall be modified after installation by field drilling a horizontal 1-1/2 inch (38mm) diameter hole, parallel to the sign face and centered on the side of the post at 4 inches (100mm) above the ground line and another at 1 foot 6 inches (460mm) above the ground line.

4 inch by 4 inch posts do not require holes to be drilled as they are already considered to have sufficient breakaway characteristics.

Splicing Posts

Post splices should be made just above the ground surface to allow the breakaway features to function properly. No part of the splice is to be placed below the ground surface. The splice is to be made in the direction of traffic with the upper post on the front and the lower post on the back. The distance from the bottom of the splice to the ground should be not less than 3" or more than 6". The overlap should be 24" using at least two bolts to fasten the posts together. Flat washers are to be placed at both ends of the bolt.

