

**National Committee on Uniform Traffic Control Devices  
RWSTC RECOMMENDATION TO COUNCIL 6-21-07**

**APPROVED BY NCUTCD COUNCIL 6-21-07**

**TECHNICAL COMMITTEE : Regulatory/Warning Sign TC**

**TASK FORCE:** FHWA 2006 New issues – Issue # 6 and issue # 24

**DATE OF ACTION:** 5-7-05 TASK FORCE revised 5-15-05 revised 5-18-05, revised 5-25-05, revised 11-04-05, revised 12-11-05; approved 1-19-06 by RWSTC. **Approved by TTC and G/MI on 1-19-06**, Rejected by Council, June 30, 2006; **REVISED** by RWSTC Task Force on 11-19-06, Approved 1-18-07 by RWSTC, **REVISED June 6, 2007 following sponsor comments**; Approved 6-20-07 by RWSTC following sponsor comments

**REQUEST NUMBER**

**TOPIC:** Section 2A.18 and Section 6F.03 **MOUNTING HEIGHT OF SIGNS**

**ORIGIN OF REQUEST:** NPA R/W Sign issues - FHWA

**DISCUSSION:**

**Problem statement:** (FROM NPA)

Make sure that Section 2A.18 and 6F.03 discussion about Mounting Height is consistent.

The standard statement needs to be clear that it is vertical height even though Fig 2A-1 depicts it that way.

Figure 2A-1 indicates a 7' mounting height measured from the top of the curb in one detail and measured from the roadway surface where used in the median.

**Response:**

While these two sections need to be consistent, there are differences between temporary signs and permanent sign installations.

1. Section 2A.18 under the **Standard** paragraph uses the term rural district. Section 6F.03 uses the term rural areas in the text and districts in the Figure. Section 2A.18 needs to be changed to rural areas. Figure 6F-1 needs to be changed to

“areas” rather than “districts”. The term “urban” needs to be changed to “business, commercial or residential areas”

2. Section 2A.18 under the **Standard** paragraph says:

**Where parking or pedestrian movements occur, the clearance to the bottom of the sign shall be at least 2.1m (7 ft)**

Section 6F.03 says

**In business, commercial, and residential districts where parking and or bicycle or pedestrian movement is likely to occur, or where there are obstructions to view, the distance between the bottom of the sign and the top of the near edge of the traveled way shall be at least 2.1 m (7 ft).**

Both sections need to be changed to clarify as noted below. The Temporary Traffic Control technical committee needs to provide their approval of the change of this language to 6F.03.

3. 6F.03 guidance paragraph contains language as follows: “Signs mounted lower than 2.1 m (7 ft) should not project more than 100 mm (4 in) into pedestrian facilities.” While this paragraph is not in 2A.18, it is not considered an inconsistency, since 6F.03 is dealing with a temporary condition.
4. Change 2A.18 so it is clear that this is vertical dimension.
5. Change Figure 2A-1 to indicate 7’ clearance from the top of curb where pedestrians might be. Change Figure 2A-1 headings to read ROADSIDE SIGN RURAL DISTRICT to read ROADSIDE SIGN RURAL AREA. Change the sign on median nose to indicate vertical measurement is from top of curb to bottom of sign.
6. Change Figure 2H-3 headings from RURAL DISTRICT to read RURAL AREA on the details. Remove the curb and gutter from the lower left detail of Figure 2H-3 to illustrate an urban detail without curb and gutter. **The G/MI Technical committee approved this change on 1-19-06**
7. Change Figure 6F-1 headings from RURAL DISTRICT to read RURAL AREA. Change the detail on the left from URBAN DISTRICT to RESIDENTIAL, COMMERCIAL, OR BUSINESS AREA. Change the detail on the right from URBAN DISTRICT to RESIDENTIAL, COMMERCIAL, OR BUSINESS AREA WITHOUT WALKWAY, and delete the curb in order to match the text in 6F.03. **The Temporary Traffic Control Technical committee approved this change on 1-19-06.**

**Proposal**

Change the language in 2A.18 and 6F.03 regarding 7' mounting height.

Change 2A.18 so it is clear that this is vertical dimension.

RECOMMENDED CHANGES to Figures 2A-1, 2H-3 and 6F-1.

Change Figures 2A-1, 2H-3, and 6F-1 to revise clearance details. Change “district” to “area”. Change business or residential district to residential, commercial and business area. Provide business area detail without curb.

## RECOMMENDED WORDING

Proposed changes TO MUTCD. (new text shown red underlined, removed text shown ~~red strikethrough~~) Changes shown in blue were approved by NCUTCD January 2007.

### Section 2A.18 Mounting Height

Support:

The provisions of this Section apply unless specifically stated otherwise for a particular sign elsewhere in this Manual.

#### Standard:

~~Signs installed at the side of the road in rural districts shall be at least 1.5 m (5 ft), measured from the bottom of the sign to the near edge of the pavement.~~

~~Where parking or pedestrian movements occur, the clearance to the bottom of the sign shall be at least 2.1 m (7 ft).~~

Signs installed at the side of the road in rural areas shall be at least 1.5 m (5 ft), measured vertically from the bottom of the sign to the elevation of the near edge of the pavement traveled way as illustrated in Figure 2A-1.

In business, commercial, and residential areas, where parking and or pedestrian movement is likely to occur, or where there are obstructions to view, the vertical distance between the bottom of the sign and the top of curb, shall be at least 2.1 m (7 ft) as illustrated in Figure 2A-1, or in the absence of curb, measured to the near edge of the traveled way.

Signs placed above sidewalks shall be at least 2.1 m (7 ft) above the sidewalk.

Directional signs on freeways and expressways shall be installed with a minimum height of 2.1 m (7 ft). If a secondary sign is mounted below another sign, the major sign shall be installed at least 2.4 m (8 ft) and the secondary sign at least 1.5 m (5 ft) above the level of the pavement edge. All route signs, warning signs, and regulatory signs on freeways and expressways shall be at least 2.1 m (7 ft) above the level of the pavement edge

Option:

The height to the bottom of a secondary sign mounted below another sign may be 0.3 m (1 ft) less than the height specified above.

Where signs are placed 9 m (30 ft) or more from the edge of the traveled way, the height to the bottom of such signs may be 1.5 m (5 ft) above the level of the pavement edge.

A route sign assembly consisting of a route sign and auxiliary signs (see [Section 2D.27](#)) may be treated as a single sign for the purposes of this Section.

The mounting height may be adjusted when supports are located near the edge of the right-of-way on a steep back slope.

[The mounting height of DO NOT ENTER \(R5-1\) or WRONG WAY \(R5-1a\) signs located along the exit ramp or one way roadway away from the crossroad at freeway and expressway exit ramps may be reduced to a minimum of 0.9 m \(3 ft\) measured from the bottom of the sign to the near edge of the pavement, where there are no parked cars, pedestrian activity or other obstructions such as snow or vegetation. \(Note: changes in blue approved by NCUTCD council January 2007\)](#)

Support:

Without this flexibility regarding steep back slopes, some agencies might decide to relocate the sign closer to the road, which might be less desirable.

**Standard:**

**Overhead mounted signs shall provide a vertical clearance of not less than 5.2 m (17 ft) to the sign, light fixture, or sign bridge, over the entire width of the pavement and shoulders except where a lesser vertical clearance is used for the design of other structures.**

Option:

If the vertical clearance of other structures is less than 4.9 m (16 ft), the vertical clearance to overhead sign structures or supports may be as low as 0.3 m (1 ft) higher than the vertical clearance of the other structures.

In special cases it may be necessary to reduce the clearance to overhead signs because of substandard dimensions in tunnels and other major structures such as double-deck bridges.

Support:

[Figure 2A-1](#) illustrates some examples of the mounting height requirements contained in this Section.

### **Section 2A.19 Lateral Offset**

**Standard:**

**For overhead sign supports, the minimum lateral offset from the edge of the shoulder (or if no shoulder exists, from the edge of the pavement) to the near edge of overhead sign supports (cantilever or sign bridges) shall be 1.8 m (6 ft). Overhead sign supports shall have a barrier or crash cushion to shield them if they are within the clear zone.**

**Ground-mounted sign supports shall be breakaway, yielding, or shielded with a longitudinal barrier or crash cushion if within the clear zone.**

Guidance: For ground-mounted signs, the minimum lateral offset should be 3.7 m (12 ft) (6 ft) from the edge of the traveled way. If a shoulder wider than 1.8 m (6 ft) exists, the minimum lateral offset for ground-mounted signs should be 1.8 m (6 ft) from the edge of the shoulder. 3.6 m (12 ft) offset is recommended.

Support:

The minimum lateral offset is intended to keep trucks and cars that use the shoulders from striking the signs or supports.

Guidance:

All supports should be located as far as practical from the edge of the shoulder. Advantage should be taken to place signs behind existing roadside barriers, on over-crossing structures, or other locations that minimize the exposure of the traffic to sign supports.

Option:

Where permitted, signs may be placed on existing supports used for other purposes, such as highway traffic signal supports, highway lighting supports, and utility poles.

**Standard:**

**If signs are placed on existing supports, they shall meet other placement criteria contained in this Manual.**

Option:

Lesser lateral offsets may be used on connecting roadways or ramps at interchanges, but not less than 1.8 m (6 ft) from the edge of the traveled way.

The lateral offset in rural areas may be reduced below 12 ft (6 ft from shoulder if shoulder exists), if physical conditions prevent sign placement at the desired offset distance.

In business, commercial or residential areas where lateral offsets are limited, a minimum lateral offset of 0.6 m (2 ft) may be used.

A minimum offset of 0.3 m (1 ft) from the face of the curb may be used in business, commercial or residential urban areas where sidewalk width is limited or where existing poles are close to the curb.

Support:

Figures [2A-1](#) and [2A-2](#) illustrate some examples of the lateral offset requirements contained in this Section.

**It is recommended to the Temporary Traffic Control Technical committee that the following changes be made: Approved by Temporary Traffic Control Technical committee on 1-19-06**

### **Section 6F.03 Sign Placement**

Guidance:

Signs should be located on the right side of the roadway unless otherwise specified in this Manual.

Option:

Where special emphasis is needed, signs may be placed on both the left and right sides of the roadway.

Signs mounted on portable supports may be placed within the roadway itself. Signs may also be mounted on or above barricades.

Support:

The Provisions of this section regarding mounting height apply unless specifically stated otherwise for a particular sign elsewhere in this Manual.

Guidelines for height and lateral clearance of temporary ground-mounted signs are shown in Figure 6F-1.

**Standard:**

**Ground-mounted signs installed at the side of the road in rural areas shall be mounted at a height at least 1.5 m (5 ft), measured from the bottom of the sign to the near edge of the pavement.**

**In business, commercial, and residential ~~districts~~ areas where parking and/or ~~bicycle or pedestrian movement is likely to occur, or where there are obstructions to view~~, the vertical distance between the bottom of the sign and the top of the near edge of the traveled way and the top of the curb, or in the absence of curb measured to the near edge of the traveled way, shall be at least 2.1 m (7 ft) as illustrated in Figure 6F-1.**

**Signs placed above sidewalks shall be at least 2.1 m (7 ft) above the sidewalk.**

**Signs mounted on barricades and barricade/sign combinations shall be crashworthy.**

**Where it has been determined that the accommodation of pedestrians with disabilities is necessary, signs shall be mounted and placed in accordance with Section 4.4 of the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)” (see Section 1A.11).**

Guidance:

Neither portable nor permanent sign supports should be located on sidewalks, bicycle facilities, or areas designated for pedestrian or bicycle traffic. Signs mounted lower than 2.1 m (7 ft) should not project more than 100 mm (4 in) into pedestrian facilities.

Option:

A 2.1 m (7 ft) mounting height may be used in rural areas for increased visibility.

The height to the bottom of a secondary sign mounted below another sign may be 0.3 m (1 ft) less than the appropriate height specified above.

Guidance:

Except as noted in the Option, signs mounted on portable supports should not be used for a duration of more than 3 days.

Option:

The R9-8 through R9-11a series, R11 series, W1-6 through W1-8 series, M4-10, E5-1, or other similar type signs (see Figures 6F-3, 6F-4, and 6F-5) may be used on portable supports for longer than 3 days.

Support:

Methods of mounting signs other than on posts are illustrated in Figure 6F-2.

Guidance:

Signs mounted on Type III barricades should not cover more than 50 percent of the top two rails or 33 percent of the total area of the three rails.

**Standard:**

**Sign supports shall be crashworthy. Large signs having an area exceeding 5 square meters (50 square feet) that are installed on multiple breakaway posts shall be mounted a minimum of 2.1 m (7 ft) above the ground.**

**Signs mounted on barricades, or other portable supports, shall be no less than 0.3 m (1 ft) above the traveled way.**

Option:

For mobile operations, a sign may be mounted on a work vehicle, a shadow vehicle, or a trailer stationed in advance of the TTC zone or moving along with it. The work vehicle, the shadow vehicle, or the trailer may or may not have an impact attenuator.

Guidance:

Unshielded sign posts placed in the clear zone should yield or breakaway upon impact to minimize obstructions to road users.

Support:

If alterations are made to specific traffic control device supports that have been successfully crash tested in accordance with NCHRP Report 350 (see Section 1A.11), the altered supports might not be considered to be crashworthy.

### **Figure 6F-1 – Change “District” to “Area”**

It is recommended to the G/MI technical committee that the following changes be made:  
Approved by G/MI on 1-19-06

### **Section 2D.37 Location of Distance Signs**

Guidance:

If used, Distance signs should be installed on important routes leaving municipalities and just beyond intersections of numbered routes in rural areas. If used, they should be placed just outside the municipal limits or at the edge of the built-up ~~district~~ area if it extends beyond the limits.

### **Section 2D.38 Street Name Sign (D3-1)**

Guidance:

In business ~~districts~~ areas and on principal arterials, Street Name signs should be placed at least on diagonally opposite corners.

The following change to Section 8B.04 is considered editorial since the word district is being removed throughout the manual for consistency.

### **Section 8B.04 Highway-Rail Grade Crossing Advance Warning Signs (W10 Series)**

Standard:

- C. In business ~~districts~~ areas where active highway-rail grade crossing traffic control devices are in use; or

Change Figures 2A-1, 2H-3, and 6F-1 as shown on the following pages.

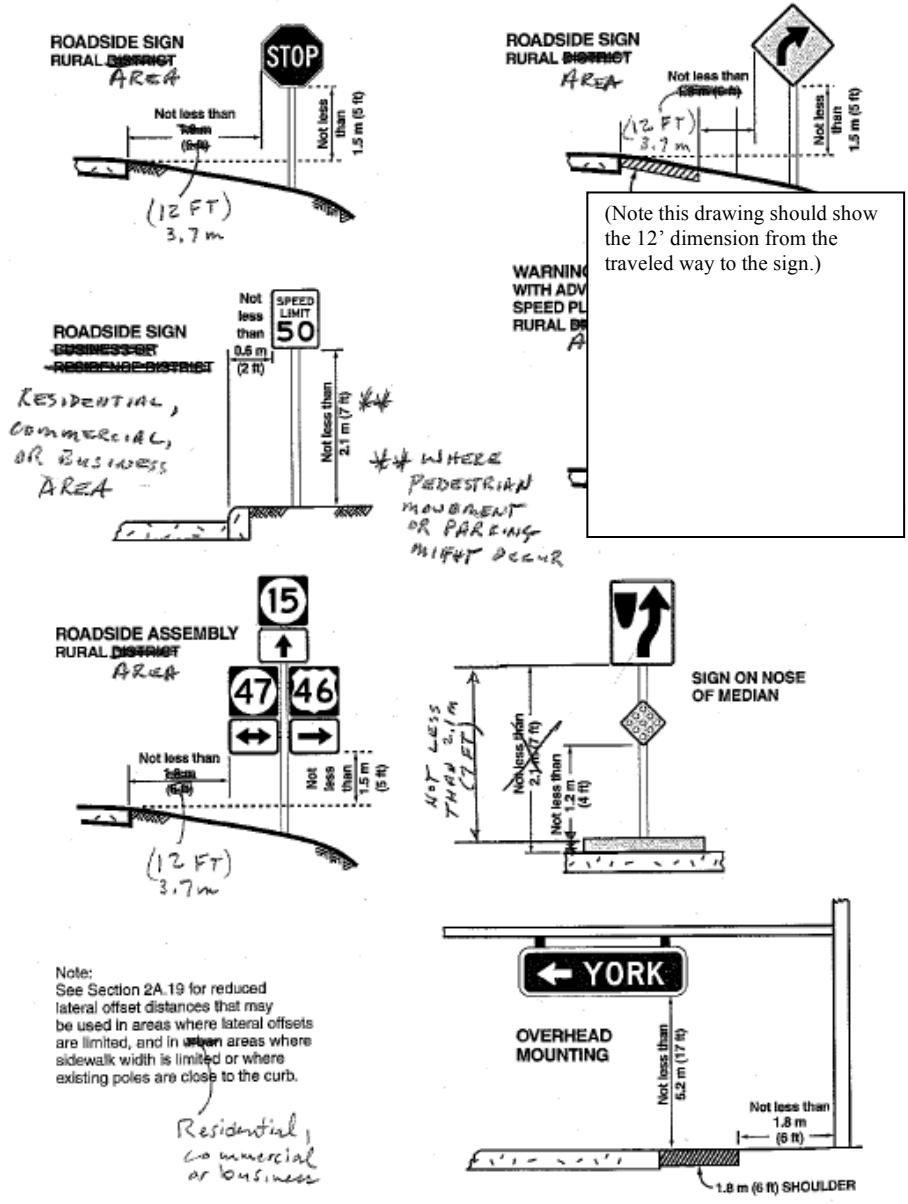
Change Figure 2A-1 to indicate 7' clearance from the top of curb where pedestrian movement or parking might occur. Change the sign on the median nose to indicate vertical measurement is from top of curb to bottom of sign. Change District to Area.

Change Figure 2H-3 by omitting the curb in the bottom left detail to illustrate residential, commercial, or business area without curb. Change District to Area.

Change Figure 6F-1 headings from District to Area and change the detail in the bottom right to illustrate residential, commercial, or business area without curb.

REVISED (JUNE 2007)

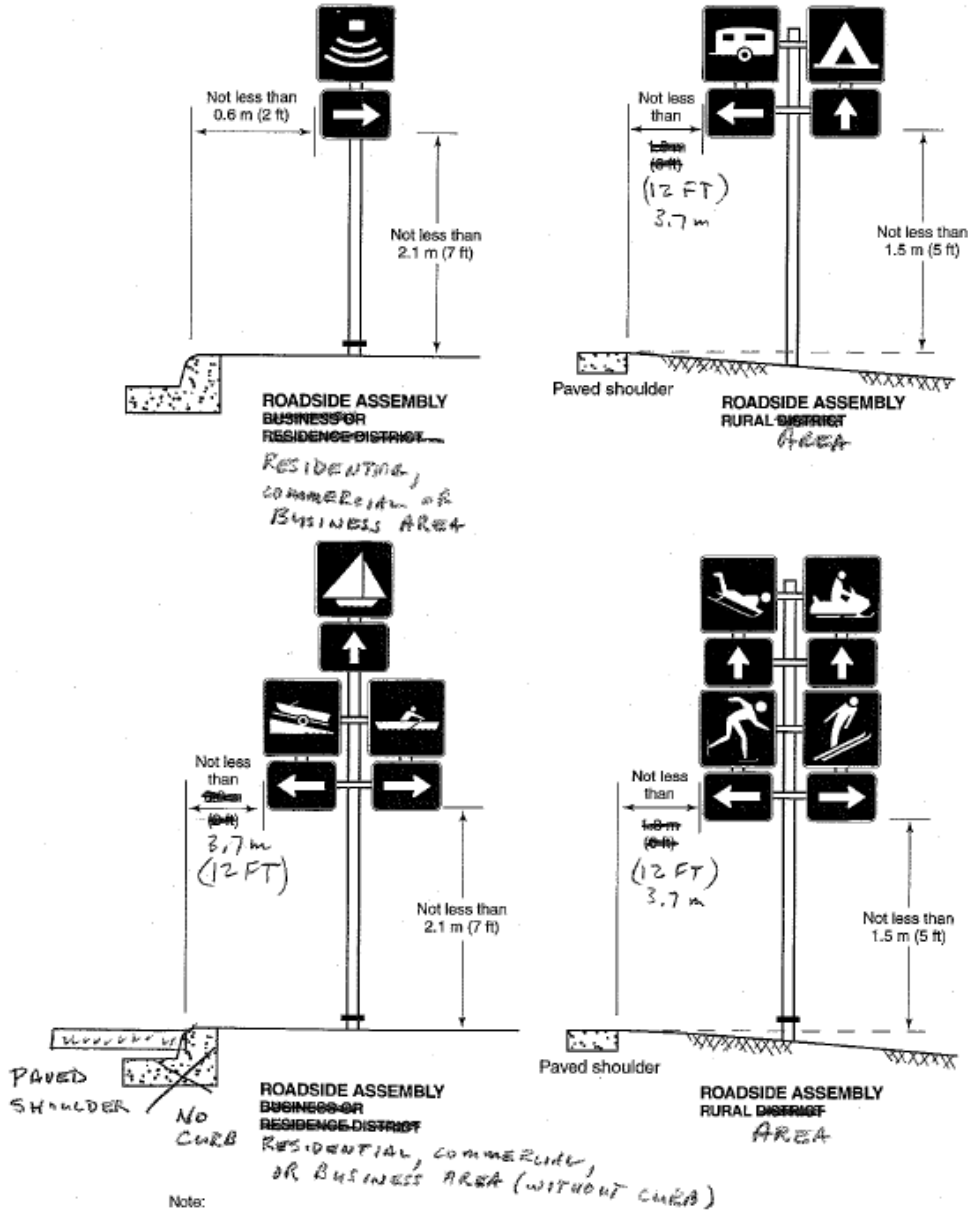
Figure 2A-1. Examples of Heights and Lateral Locations of Signs for Typical Installations





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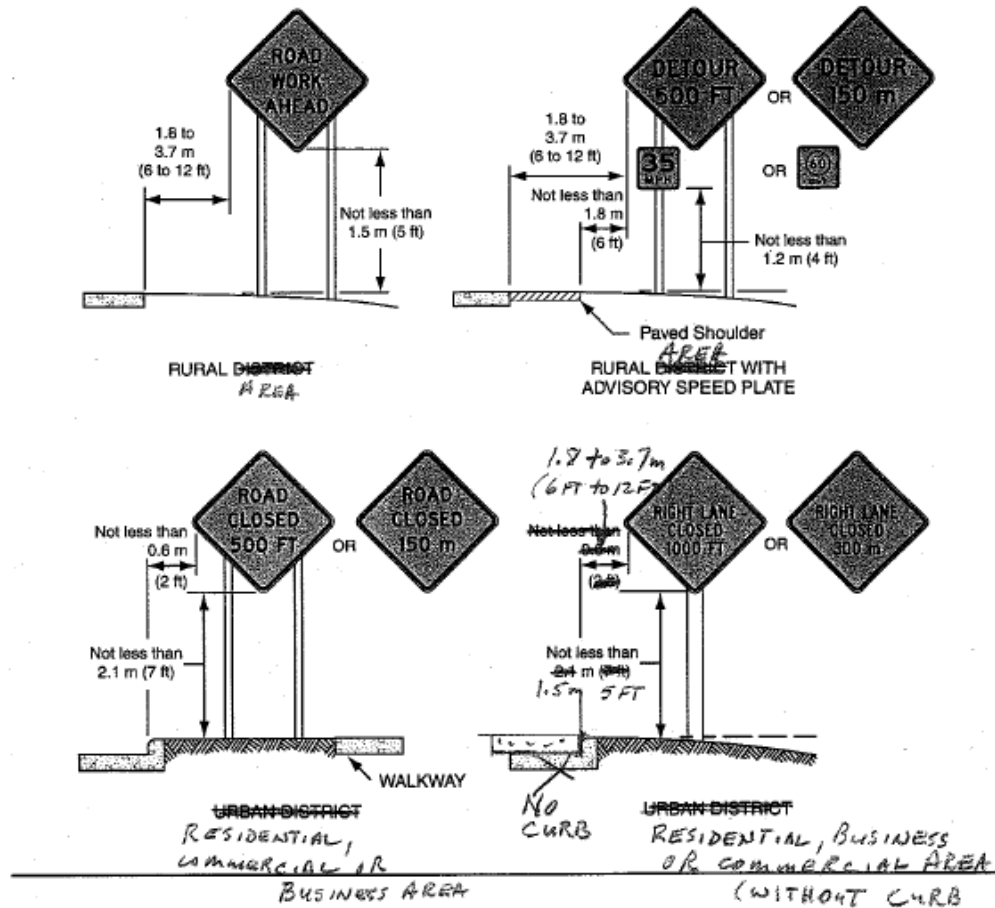
Figure 2H-3. Height and Lateral Position of Signs Located Within Recreational and Cultural Interest Areas



Note: See Section 2A.19 for reduced lateral offset distances that may be used in areas where lateral offsets are limited, and in urban areas where sidewalk width is limited or where existing poles are close to the curb.

REVISED

Figure 6F-1. Height and Lateral Location of Signs—Typical Installations



Option:

A 2.1 m (7 ft) mounting height may be used in rural areas for increased visibility.

The height to the bottom of a secondary sign mounted below another sign may be 0.3 m (1 ft) less than the appropriate height specified above.

Guidance:

Except as noted in the Option, signs mounted on portable supports should not be used for a duration of more than 3 days.

Option:

The R9-8 through R9-11a series, R11 series, W1-6 through W1-8 series, M4-10, E5-1, or other similar type signs (see Figures 6F-3, 6F-4, and 6F-5) may be used on portable supports for longer than 3 days.

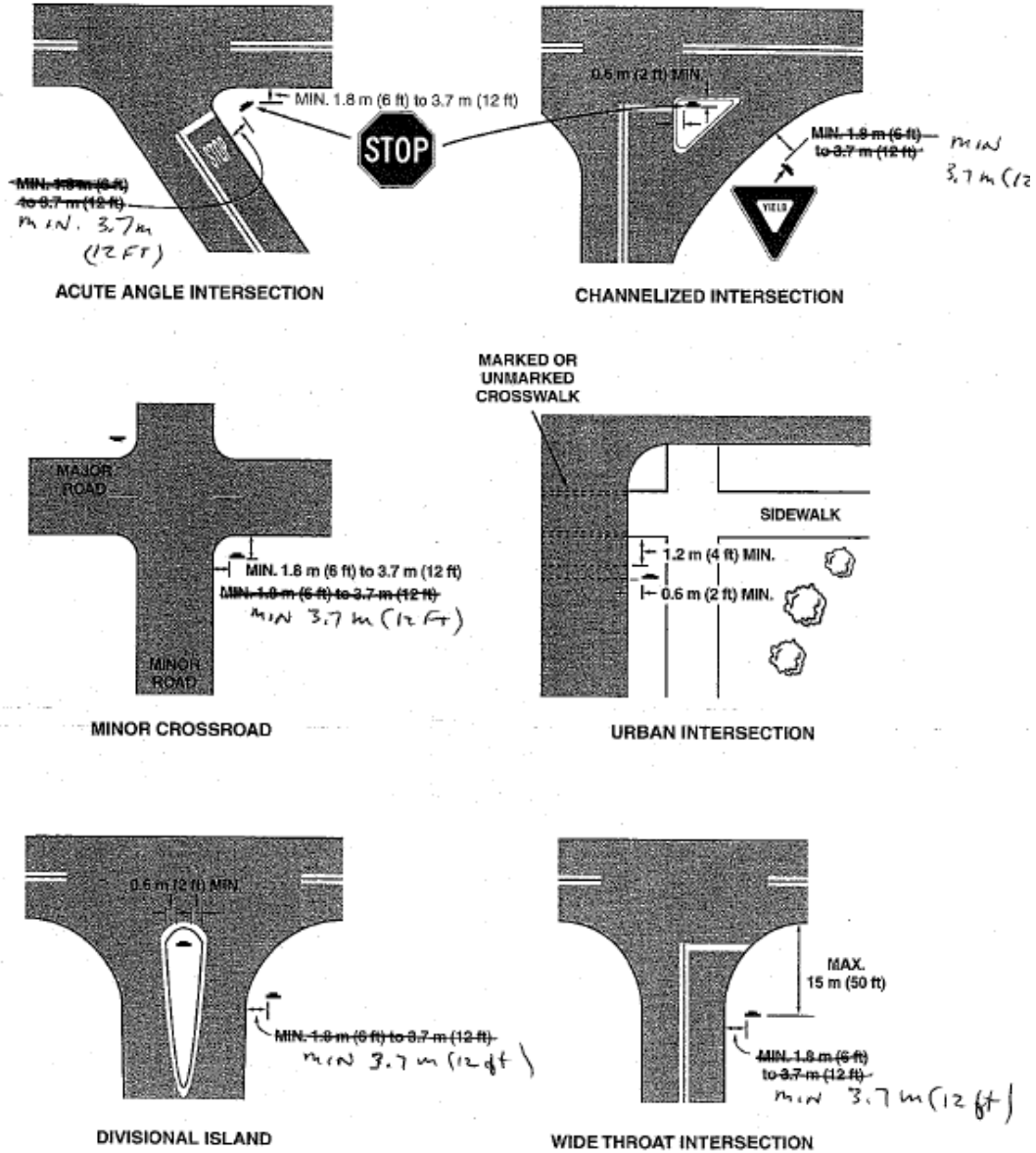
Support:

Methods of mounting signs other than on posts are illustrated in Figure 6F-2.

Guidance:

Signs mounted on Type III barricades should not cover more than 50 percent of the top two rails or 33 percent of the total area of the three rails.

Figure 2A-2. Examples of Locations for Some Typical Signs at Intersections



Note: Lateral offset is a minimum of 1.8 m (6 ft) measured from the edge of the shoulder, or 3.7 m (12 ft) measured from the edge of the traveled way. See Section 2A.19 for lower minimums that may be used in urban areas, or where lateral offset space is limited.

Note: Figures 2A-1 and 2H-3 revised to 12' lateral offset. Figure 2A-2 added to match Figure 2A-1 lateral offset. No change to Figure 6F-1 from that sent to sponsors.

VOTE: For: Unanimous  
Opposed:  
Abstentions: