

**GENERAL NOTES:**

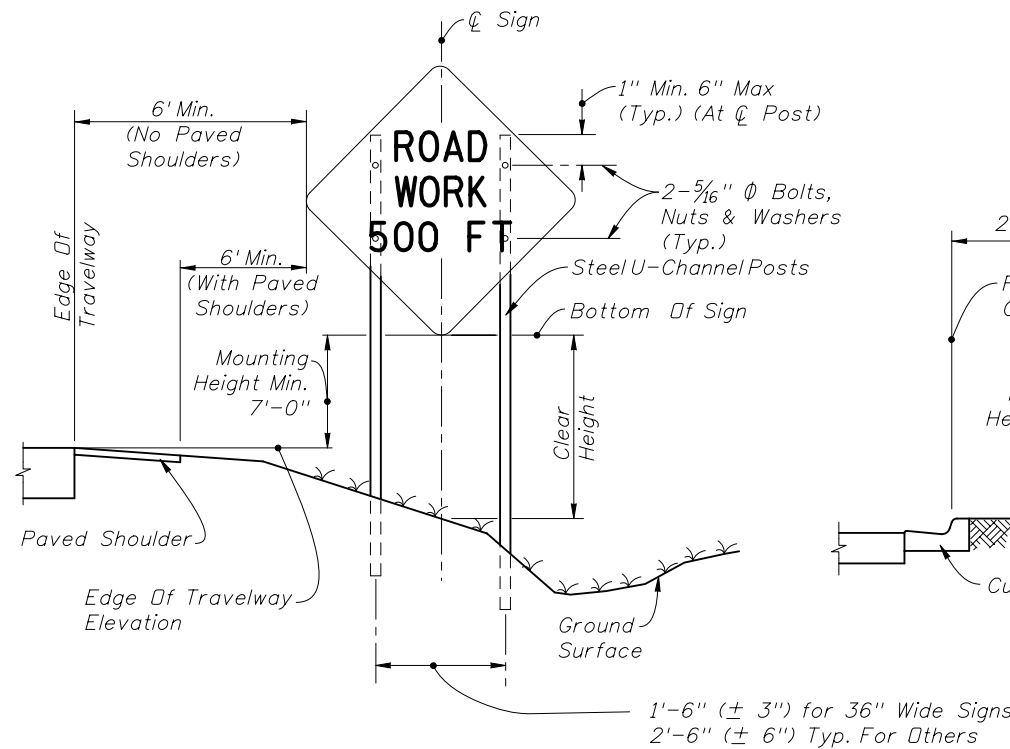
1. All signs shall be post mounted when work operations exceed one day except for:
  - a. Road closure signs mounted in accordance with the vendor drawing for the Type III Barricade shown on the QPL.
  - b. Pedestrian advanced warning or regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the QPL.

**TEMPORARY SIGN SUPPORT NOTE:**

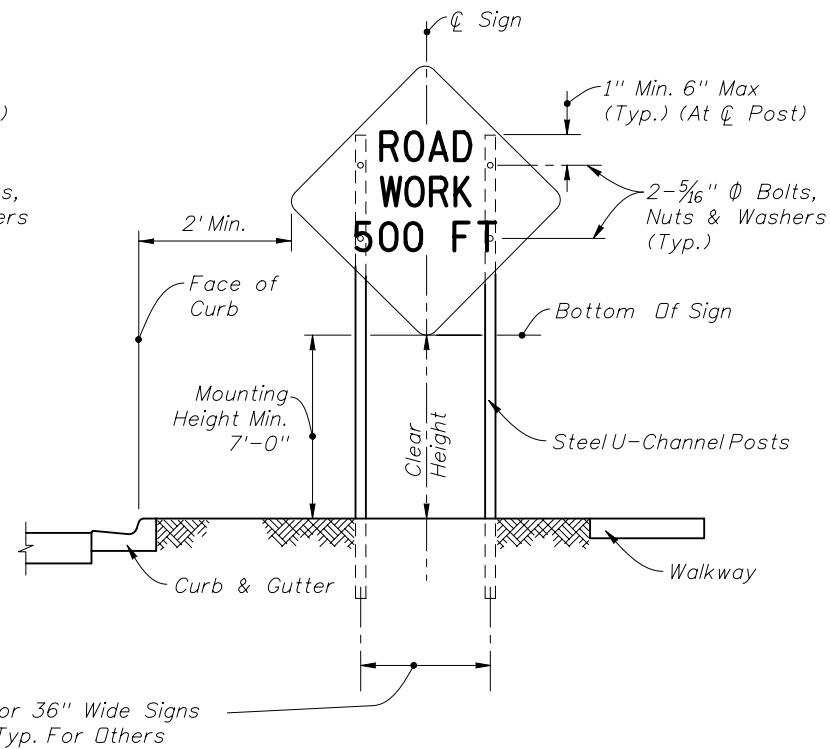
1. Signs mounted on temporary supports or barricades, and barricade/sign combination shall be crashworthy in accordance with NCHRP 350 requirements and included on the Qualified Products List (QPL).

**POST MOUNTED SIGN NOTES:**

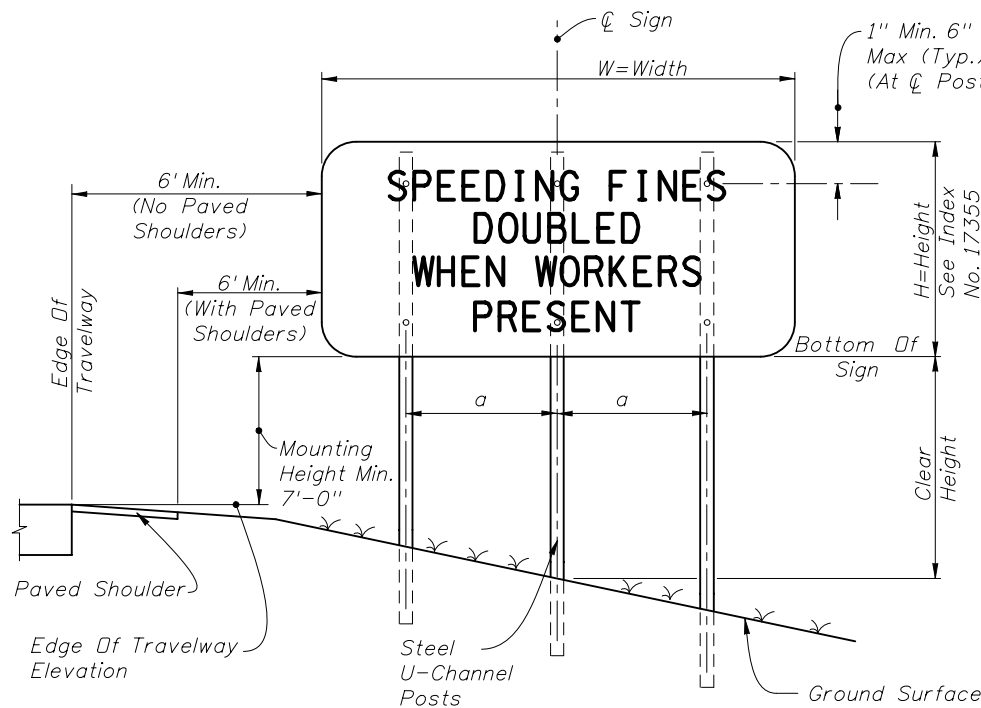
1. Use only approved systems listed on the Department's Qualified Products List.
2. Manufacturers seeking approval of U-Channel and steelsquare tube sign support assemblies for inclusion on the Qualified Products List (QPL) must submit a QPL application, design calculations (for square tube only), and detailed drawings showing the product meets all the requirements of this Index.
3. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in<sup>3</sup> for 60 ksi steel, a minimum section modulus of 0.37 in<sup>3</sup> for 70 ksi steel, or a minimum section modulus of 0.34 in<sup>3</sup> for 80 ksi steel.
4. Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in<sup>3</sup> for 60 ksi steel, or a minimum section modulus of 0.47 in<sup>3</sup> for 70 ksi or 80 ksi steel.
5. U-channel posts shall conform with ASTM A 499, Grade 60, or ASTM A 576, Grade 1080 (with a minimum yield strength of 60 ksi). Square tube posts shall conform with ASTM A 653, Grade 50, or ASTM A 1011, Grade 50.
6. Sign attachment bolts, washers, nuts and spacers shall conform with ASTM A307 or A 36.
7. For diamond warning signs with supplement plaque (up to 3 ft<sup>2</sup> in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).
8. Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the QPL.
9. The contractor may install 3 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the QPL.
10. Install all posts plumb.
11. The contractor may set posts in preformed holes to the specified depth with suitable backfill tamped securely on all sides, or drive 3 lb/ft sign posts and any size base post in accordance with the manufacturer's detail shown on the QPL.



**2 POST SIGN SUPPORT MOUNTING DETAILS (SINGLE POST SIMILAR) RURAL**

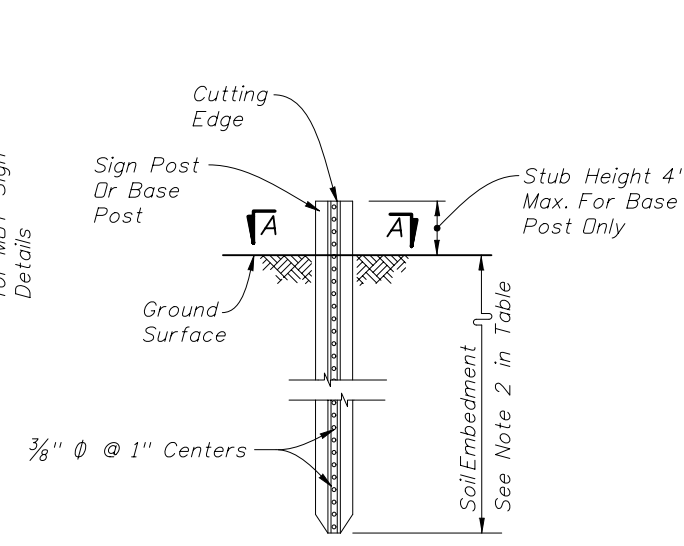


**2 POST SIGN SUPPORT MOUNTING DETAILS (SINGLE POST SIMILAR) URBAN**



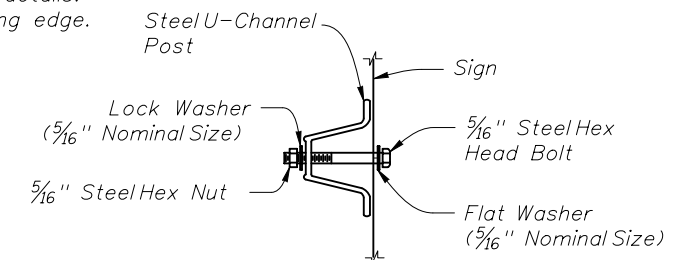
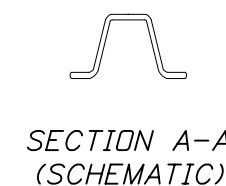
**3 POST SIGN SUPPORT MOUNTING DETAILS WORK ZONE SIGN SUPPORTS**

Where  $W = 48''$ :  $a = 1' - 4\frac{1}{2}'' (\pm 1'')$   
 $W = 60''$ :  $a = 1' - 9'' (\pm 1'')$   
 $W = 72''$ :  $a = 2' - 1'' (\pm 1'')$



**TYPICAL FOUNDATION DETAIL**

See QPL for post, splice and connection details. No bolts installed closer than 1" to cutting edge.



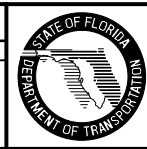
**SIGN ATTACHMENT DETAIL (WITHOUT Z-BRACKET)**

**POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS**

SIGN SHAPE	SIGN SIZE (inches)	NUMBER OF STEEL U CHANNEL POSTS
Octagon	30x30	1
	36x36x36	1
Triangle	48x48x48	1
	60x60x60	2
Rectangle (W x H)	24x18	1
	24x30	1
	30x24	1
	36x18	1
	36x24	1
	48x18	1
	36x48	2
	48x30	2
	48x36	2
	54x36	2
	48x60	3
Square	60x54	3
	72x48	3
	120x60*	4*
Diamond (See Note 6)	30x30	1
	36x36	2
	48x48	2
Circle	36Ø	2

- Notes For Table:**
1. Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.  
 \*Use 4 lb/ft U-channel sign post with a mounting height of 7' min. and 8' max. Attach sign panel using Z-bracket detail on Sheet 7.
  2. Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.
  3. For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.
  4. The soilplate as shown on the QPL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in note 3), asphalt roadway, shoulder pavement or soil under sidewalk.

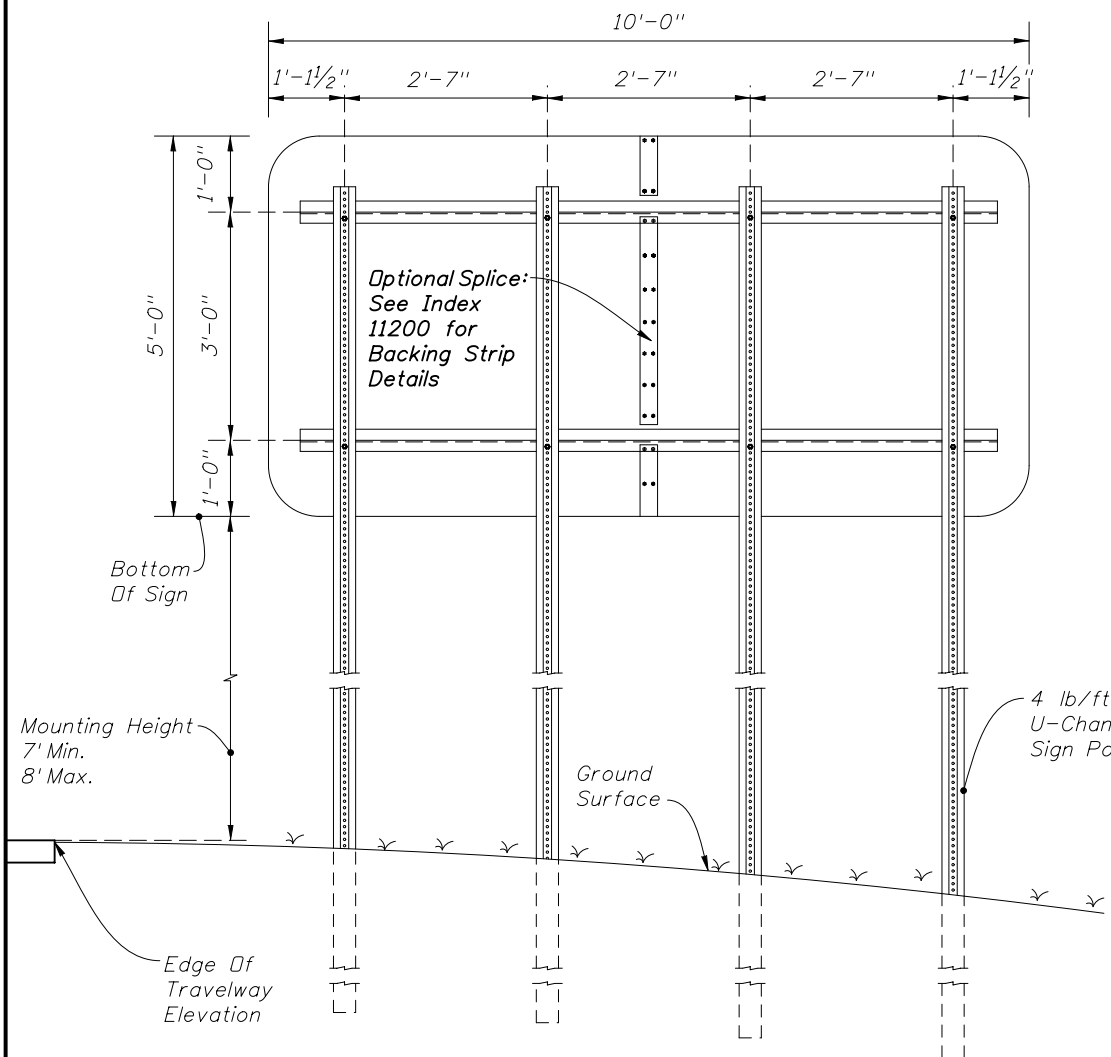
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
07/01/09 12/23/09	MTP CA	Multiple revisions to notes, details and table. Corrected TYPICAL FOUNDATION DETAIL to show only 4 holes above ground level, added to POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS sign sizes 60x54 and 120x60 and changed notes 1 & 4 and added W=60" to 3 POST SIGN SUPPORT MOUNTING DETAILS.			



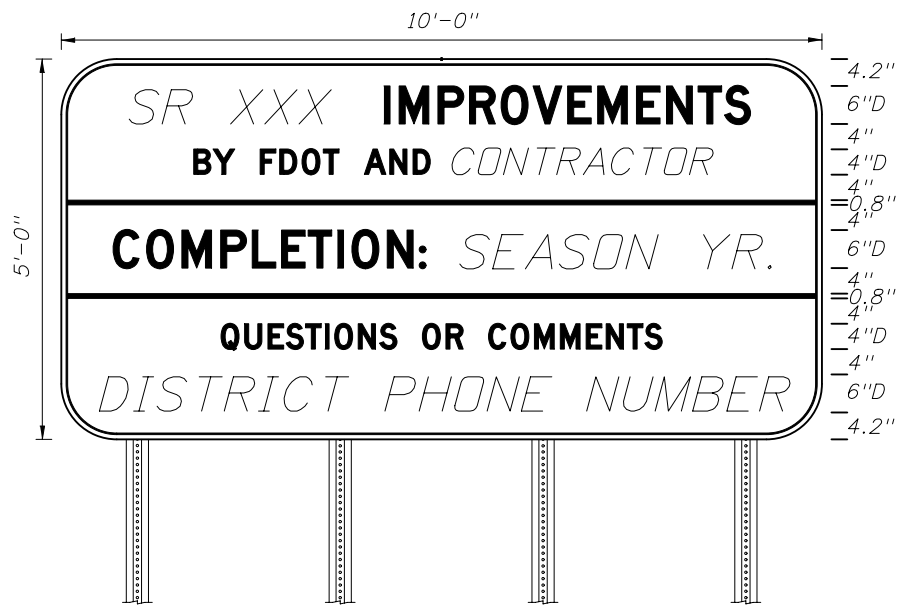
2010 Interim Design Standard

**GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES**

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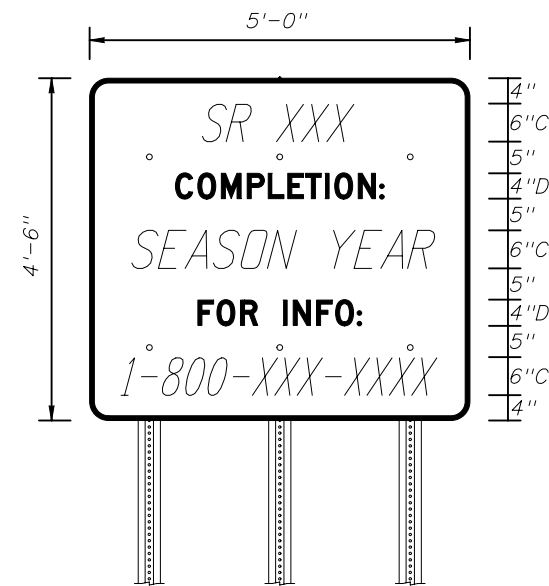
**4 POST SIGN SUPPORT MOUNTING DETAIL**



**BORDER** 10'-0" x 5'-0"  
**R=8"** 8" Radii  
**TH=0.25"** 4" and 6" series D Legend  
**IN=0.75"** Blue Background  
 White Legend and Border

**PROJECT INFORMATION SIGN DETAIL  
 50 MPH OR GREATER**

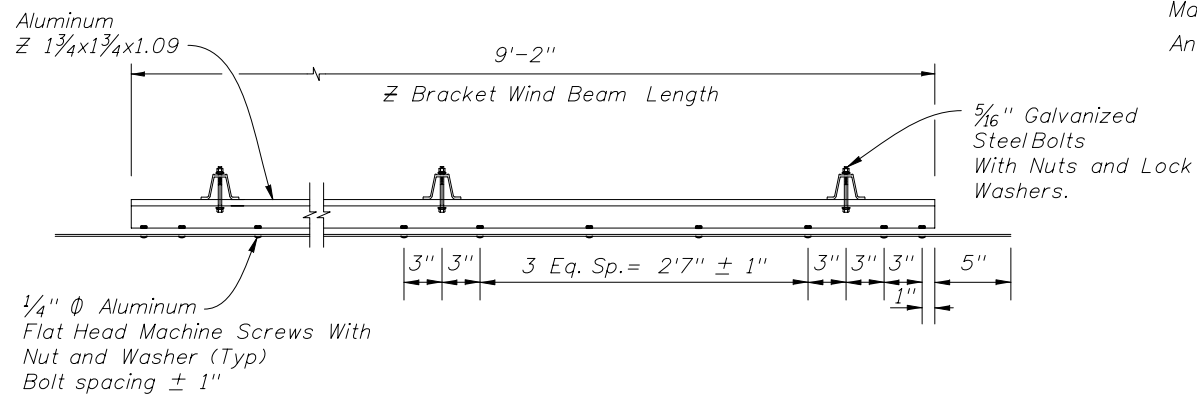
Use SIGN ATTACHMENT DETAIL  
 (WITH Z-BRACKET).



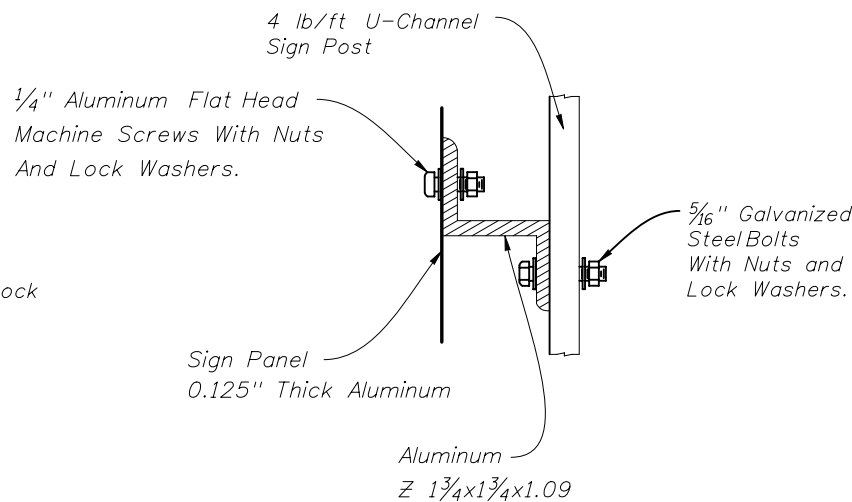
**BORDER** 5'-0" x 4'-6"  
**R=3"** 3" Radii  
**TH=0.25"** 4" series D Legend and  
**IN=0.75"** 6" series C Legend  
 Blue Background  
 White Legend and Border

**PROJECT INFORMATION SIGN DETAIL  
 45 MPH OR LESS**

Use SIGN ATTACHMENT DETAIL  
 (WITHOUT Z-BRACKET)  
 On Sheet 6.



**BRACKET DETAIL**



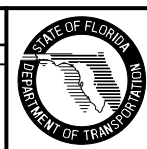
**SIGN ATTACHMENT DETAIL  
 (WITH Z-BRACKET)**

**PROJECT INFORMATION SIGN NOTES:**

1. See sheet 6 for POST AND FOUNDATIONS TABLE FOR WORK ZONE SIGNS.
2. See sheet 6 for TYPICAL FOUNDATION DETAILS.

**PROJECT INFORMATION SIGN**

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
12/11/09	CA	Added PROJECT INFORMATION SIGN NOTES and PROJECT INFORMATION SIGN DETAIL-45 MPH OR LESS, changed PROJECT INFORMATION SIGN DETAIL to PROJECT INFORMATION SIGN DETAIL-50 MPH OR GREATER. Deleted TYPICAL FOUNDATION DETAIL.			



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**GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES**

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 Sheet No.: 7 of 13  
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