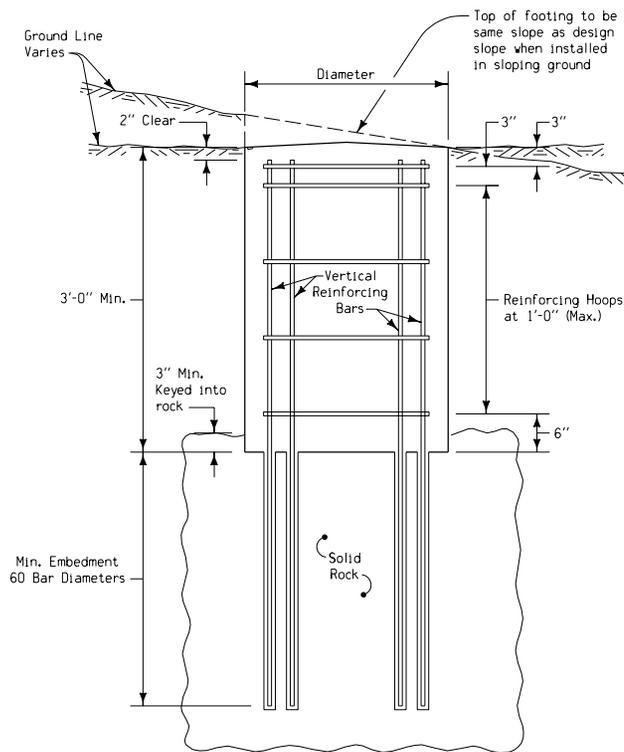
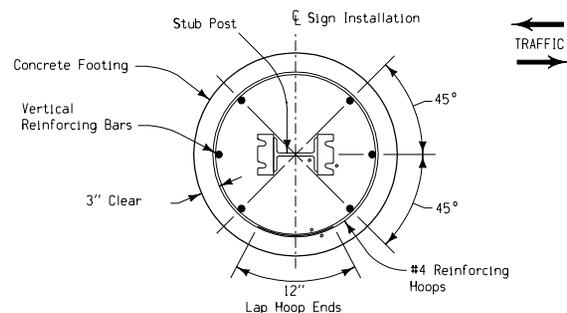


TYPICAL INSTALLATION  
NORMAL FOOTING IN EARTH

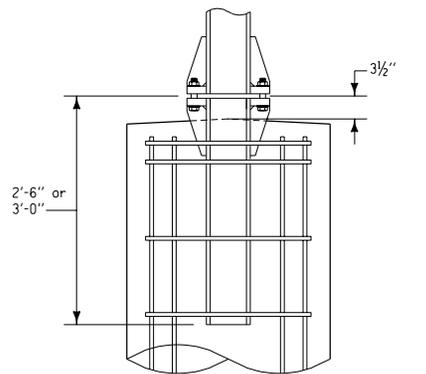


ALTERNATE DESIGN  
FOOTING IN SOLID ROCK



PLAN VIEW

(REINFORCING PLACEMENT AND SIGN ORIENTATION)  
Note: Refer to RD-21A for details of sign post and stub.



TYPICAL BREAKAWAY POST INSTALLATION

**GENERAL NOTES:**

Material and methods for construction of concrete footings for breakaway sign posts detailed hereon shall be in conformance with current Standard and Supplemental Specifications.

The footing shall be constructed as shown for normal footing in earth. Where solid rock is encountered, the alternate design for footing in solid rock may be used with the approval of the Engineer.

All excavation for the footing shall be disposed of in the area adjacent to the footing and shaped to normal ground contour, unless directed otherwise by the Engineer.

The stub post shall be held in proper position by an approved device which will ensure that it remains in proper position upon completion of concrete placement.

Structural grade concrete shall be used for the footing.

The contract price for size of footing required shall be full compensation for construction of footing as detailed hereon, including all necessary excavation regardless of character.

**NOTE:**

Vertical bars in solid rock shall be set as follows:

1. Drill holes twice bar diameter and fill with water.
2. When hole is fully saturated; blow water out and fill two-thirds depth with sand cement mortar.
3. Insert bar and consolidate mortar.
4. Fill hole to top with mortar.

**FOOTING REINFORCING DATA**

Post Size	Stub Length	Footing		Vertical Rein. Bar	
		Diameter	Depth	Size	Length (1)
W6x12	2'-6"	2'-0"	6'-0"	No. 6	5'-8
W6x15	2'-6"	2'-0"	6'-6"	No. 6	6'-2
W8x18	2'-6"	2'-0"	7'-0"	No. 6	6'-8
W8x21	3'-0"	2'-8"	7'-6"	No. 8	7'-2
W10x22	3'-0"	2'-8"	8'-0"	No. 8	7'-8
W10x26	3'-0"	2'-8"	8'-6"	No. 8	8'-2
W12x26	3'-0"	2'-8"	9'-0"	No. 8	8'-8

(1) Lengths are for normal footings. Required length may vary where alternate rock design is used.

Iowa Department of Transportation  
Project Development Division

**STANDARD ROAD PLAN RD-22A**

REVISION: Redrawn in CAD.	REVISION NO.
	6
APPROVED BY:  DESIGN METHODS ENGINEER	REVISION DATE
05-24-99	09-21-99

FOOTING DETAILS  
FOR BREAKAWAY SIGN POST