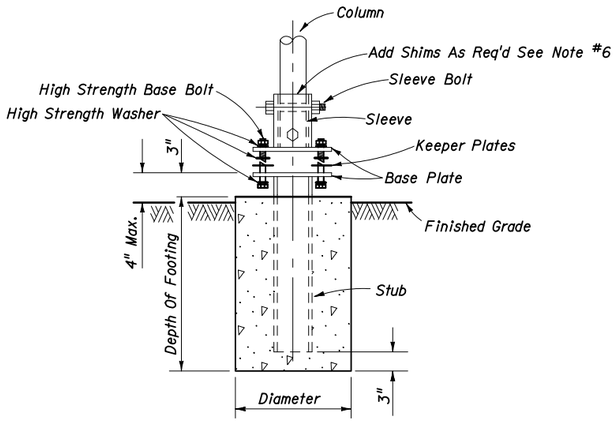
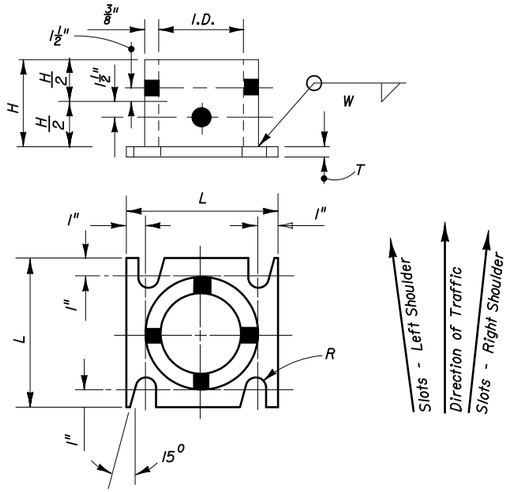
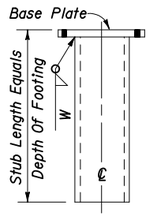


SLIP BASE AND FOOTING DETAIL



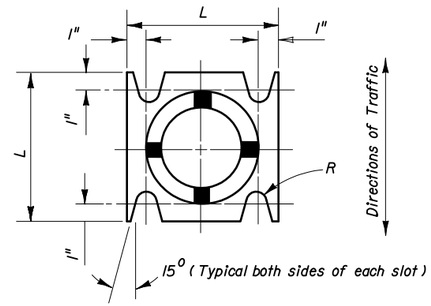
SLEEVE & BASE PLATE DETAILS (SINGLE BEVELED SLOT)

(Right Shoulder Shown)
For Left Shoulder, Plate Slot Bevels are opposite hand from that shown.



Stub Size Equals Min. Sleeve Size Or Longer

STUB DETAIL



SLEEVE & BASE PLATE DETAILS (DOUBLE BEVELED SLOTS)

(Right Shoulder Shown)
For Left Shoulder, Plate Slot Bevels are opposite hand from that shown.

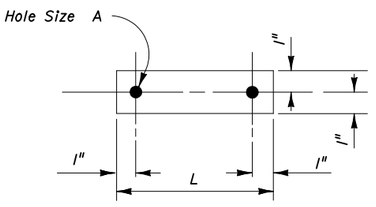
SLIP BASE NOTES :

1. The Inside Diameter (I.D.) of the sleeve shall be no more than $\frac{1}{16}$" larger than the Outside Diameter (O.D.) of the Column.
2. The sleeve bolts shall be $\frac{1}{2}$" Ø with locknuts. The bolts shall be galvanized steel (ASTM A-307) or Aluminum Association Alloy 2024-T4 or 6061-T6 (ASTM B-211).
3. The base bolts, nuts and washers shall be high strength ASTM A-325 and shall have an electroplated zinc coating SC3, Type II applied in accordance with ASTM B633.
4. An alternate cast base of aluminum alloy 356 and T6 temper in lieu of the fabricated base may be submitted for approval by the Engineer. If a cast base is used the stub will be the same as the column and will be bolted to the casting.
5. Assemble the slip base connection in the following manner :
   Connect column to sleeve using two (2) $\frac{1}{2}$" Ø machine bolts.
   Assemble top base plate to stub base plate using high strength bolts with three (3) hardened washers per bolt. One (1) washer per bolt and two (2) bolt keeper plates go between the base plates.
   Use shim stock as required to plumb the column.
   Tighten all bolts the maximum possible with a 12" to 15" wrench to bed the washers and shims and to clear the bolt threads. Loosen each bolt one (1) turn and retighten to the prescribed torque (see table). Bolts shall be tightened with properly calibrated wrenches under the supervision of the project engineer.
   Burr threads at junction with nut using a center punch to prevent nut loosening.
6. Use galvanized steel shims to obtain a tight fit between the column face and the sleeve. Place shims in all quadrants between the $\frac{1}{2}$" Ø sleeve bolts. The shim length shall be 1" shorter than the height of the sleeve.
7. Base plates may be either fabrications or castings and may have either single or double beveled slots.
8. Both fabricated and cast base assemblies were impact tested by the Texas Transportation Institute, College Station, TX on February 10, 2003, and both alternate assemblies were determined to be compliant with the performance recommendations of the National Cooperative Highway Research Program (NCHRP) Report 350.

SLIP BASE DETAILS

Note: Unless noted otherwise, all dimensions are in inches

Column Size	Sleeve I.D. (Max)	Sleeve Height H	Weld W	Base Plate L	Base Plate T	Radius R	Base Bolt Size	Base Bolt Length	Base Bolt Torque Ft-lbs	Base Bolt Torque In-lbs	Hole Size A
4 x $\frac{1}{4}$	4 $\frac{1}{16}$	6	$\frac{5}{8}$	8	$\frac{3}{4}$	$\frac{11}{32}$	$\frac{5}{8}$	3	29	345	$\frac{11}{16}$
4 $\frac{1}{2}$ x $\frac{1}{4}$	4 $\frac{9}{16}$	6	$\frac{5}{8}$	8	$\frac{7}{8}$	$\frac{11}{32}$	$\frac{5}{8}$	3 $\frac{1}{4}$	29	345	$\frac{11}{16}$
5 x $\frac{1}{4}$	5 $\frac{1}{16}$	7	$\frac{5}{8}$	8	$\frac{7}{8}$	$\frac{11}{32}$	$\frac{5}{8}$	3 $\frac{1}{4}$	29	345	$\frac{11}{16}$
6 x $\frac{1}{4}$	6 $\frac{1}{16}$	8	$\frac{11}{16}$	9	1	$\frac{13}{32}$	$\frac{3}{4}$	3 $\frac{1}{2}$	46	554	$\frac{13}{16}$
8 x $\frac{5}{16}$	8 $\frac{1}{16}$	10	$\frac{3}{4}$	11	1	$\frac{15}{32}$	$\frac{7}{8}$	3 $\frac{3}{4}$	53	640	$\frac{15}{16}$



0.0149" Thick Alum. Strip-2 Req'd Per Base

BOLT KEEPER DETAIL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
06/16/06	A.P.	SLIP BASE AND FOOTING DETAIL 3" Above Finished Grade dimension revised 4" Max. added.			

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

2006 Interim Design Standard

SINGLE COLUMN GROUND SIGNS

Interim Date 07/01/06

Sheet No. 4 of 4

Index No. 11860