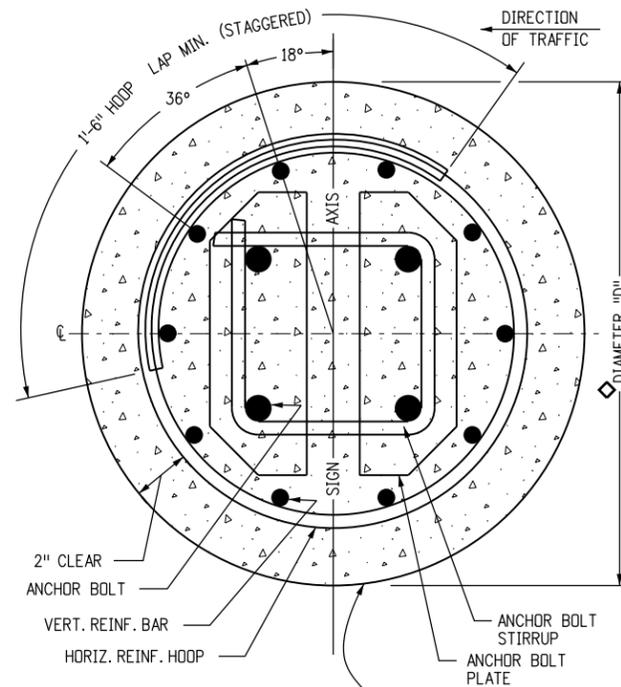
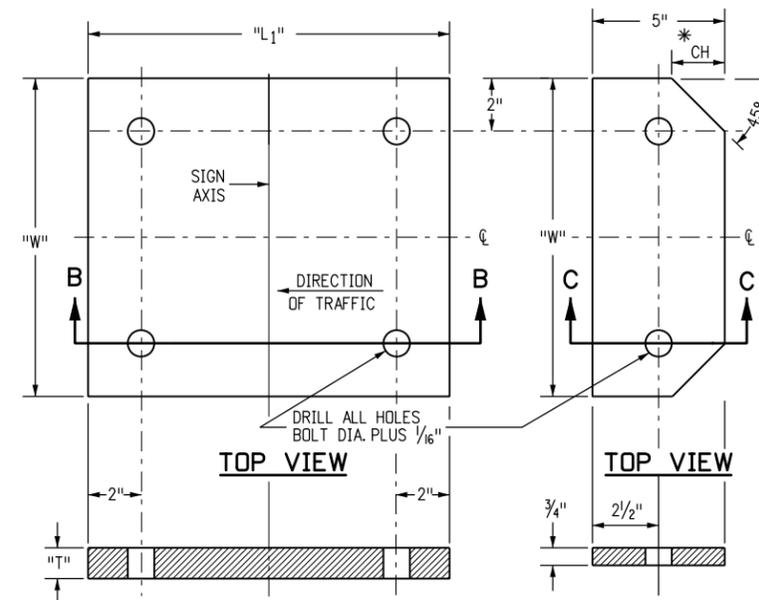


TYPICAL CONCRETE FOOTING ASSEMBLY



EXCAVATION PROCEDURE
 DRILL TO O. D. OF FOOTING NEAT LINE AND TO DEPTH SHOWN, AND IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR DRILLED CAISSONS. (FOOTINGS SHALL BE CAST IN PLACE AGAINST UNDISTURBED MATERIAL.)

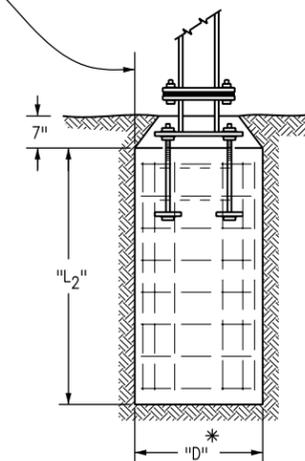
SECTION A-A



BASE PLATE TYPICAL DETAILS

BOLT PLATE TYPICAL DETAILS

* OUTSIDE CORNERS OF BOLT PLATES CHAMFERED AS SHOWN FOR FOOTING TYPES 1-4 ONLY. PLATES FOR TYPES 5-7 HAVE SQUARE CORNERS.



TYPICAL FOOTING INSTALLATION

CONCRETE FOOTING TABLE															
POST BASE STRUCTURAL DATA										FOOTING STRUCTURAL DATA					
SIZE	MAXIMUM ALLOWABLE MOMENT	POST TO BASE ϕ WELD Z	BASE PLATE			ANCHOR COMPONENTS					SIZE		REINFORCING		
			"L ₁ "	"W"	"T"	ANCHOR BOLTS	BOLT PLATES	"CH"	STIRRUPS	"p"	TYPE	"D"	"L ₂ "	VERT. BAR	HORIZ. HOOP
W 12X26	46.5 KIP FT.	3/8" FILLET	20 1/4"	14"	1 3/8"	4-1 1/4"ØX2'-6"	2-5"X3 3/4"X14"	N/A	2-1/2"Ø	6 5/8"	7	36"	10'	10-#9X9'-6"	20-#4Ø6"
W 10X26	38.9 KIP FT.	3/8" FILLET	17"	14"	1 1/4"	4-1"ØX2'-6"	2-5"X3 3/4"X14"	N/A	2-1/2"Ø	6 1/4"	6	30"	9'	10-#9X8'-6"	18-#4Ø6"
W 10X22	32.3 KIP FT.	3/8" FILLET	16 1/4"	14"	1 1/4"	4-1"ØX2'-6"	2-5"X3 3/4"X14"	N/A	2-1/2"Ø	6 1/4"	5	30"	8'	10-#8X7'-6"	16-#4Ø6"
W 8X21	24.4 KIP FT.	3/8" FILLET	15"	13 1/4"	1 1/8"	4-7/8"ØX2'-0"	2-5"X3 3/4"X13 3/4"	2-1/2"	2-1/2"Ø	6"	4	24"	7'	10-#8X6'-6"	14-#4Ø6"
W 8X18	20.4 KIP FT.	3/8" FILLET	14"	13 1/4"	1 1/8"	4-7/8"ØX2'-0"	2-5"X3 3/4"X13 3/4"	2-1/2"	2-1/2"Ø	6"	3	24"	6'	10-#7X5'-6"	12-#4Ø6"
W 6X15	13.8 KIP FT.	3/8" FILLET	14"	12 1/4"	1"	4-3/4"ØX1'-6"	2-5"X3 3/4"X12 1/4"	2"	2-1/2"Ø	5 3/4"	2	24"	5'	10-#6X4'-6"	10-#4Ø6"
W 6X12	8.3 KIP FT.	1/4" FILLET	13"	12"	7/8"	4-3/4"ØX1'-6"	2-5"X3 3/4"X12"	2"	2-1/2"Ø	5 5/8"	1	24"	4'	10-#5X3'-6"	8-#4Ø6"
6X6 TIMBER	5.0 KIP FT.	TIMBER POSTS SHALL BE SET IN DRILLED OR EXCAVATED HOLES--DEPTH SHALL BE 5 FT. FOR 6X6 POSTS AND 3 FT. FOR 4X4 POSTS UNLESS OTHERWISE NOTED ON THE TABULATION OF SIGNS IN THE PLANS. POSTS SHALL BE PLACED PLUMB, BACKFILLED WITH EXCAVATED MATERIALS, AND THOROUGHLY TAMPED INTO PLACE.													
4X4 TIMBER	1.4 KIP FT.	TIMBER POSTS SHALL BE SET IN DRILLED OR EXCAVATED HOLES--DEPTH SHALL BE 5 FT. FOR 6X6 POSTS AND 3 FT. FOR 4X4 POSTS UNLESS OTHERWISE NOTED ON THE TABULATION OF SIGNS IN THE PLANS. POSTS SHALL BE PLACED PLUMB, BACKFILLED WITH EXCAVATED MATERIALS, AND THOROUGHLY TAMPED INTO PLACE.													

* FOR MULTI-DIRECTIONAL BREAKAWAY ONLY: TYPE 1 THRU TYPE 6 FOOTINGS REQUIRE A 6 IN. INCREASE IN DIAMETER ("D") TO ACCOMMODATE ANCHORS SHOWN ON THE DETAILS INCLUDED IN THE PLANS. ALSO, HORIZONTAL REINFORCING HOOP DIAMETER WILL BE INCREASED TO MAINTAIN A 2 IN. CLEARANCE FROM THE FOOTING SIDES. VERTICAL BARS AND OTHER STRUCTURAL DATA REMAIN THE SAME. TYPE 7 FOOTINGS REQUIRE NO CHANGES.

Computer File Information	
Creation Date: 07/04/12	Initials: KCM
Last Modification Date: 09/16/13	Initials: NNC
Full Path: www.coloradodot.info/library/traffic/traffic-s-standard-plans	
Drawing File Name: S-614-06.dgn	
CAD Ver.: MicroStation V8i Scale: Not to Scale Units: English	

Sheet Revisions	
Date:	Comments
09/16/13	SHEET 2 - REVISED NOTE 1

Colorado Department of Transportation



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Safety & Traffic Engineering KCM

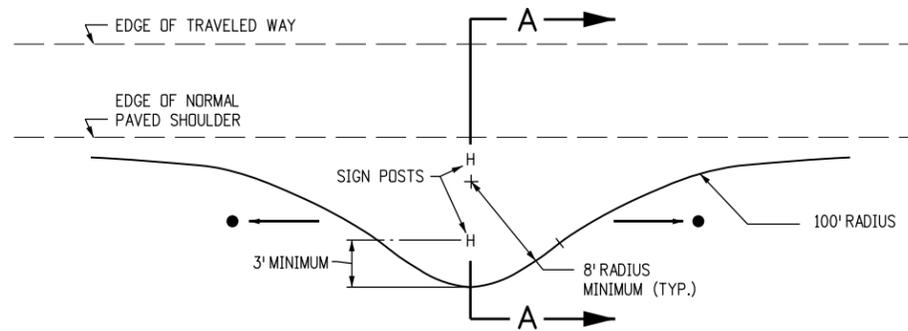
CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS

Issued By: Safety & Traffic Engineering Branch July 4, 2012

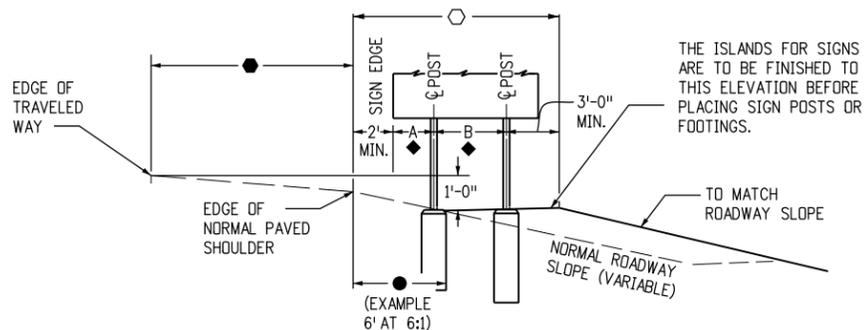
STANDARD PLAN NO.

S-614-6

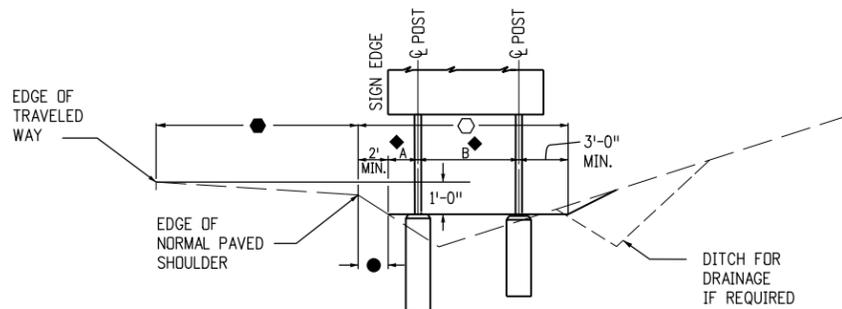
Sheet No. 1 of 2



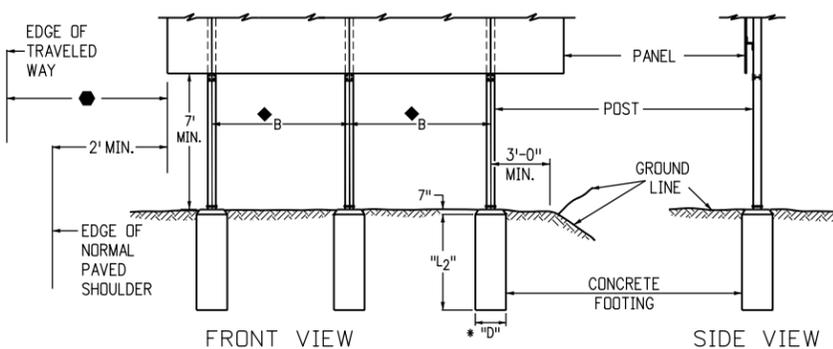
TYPICAL SIGN ISLAND PLAN



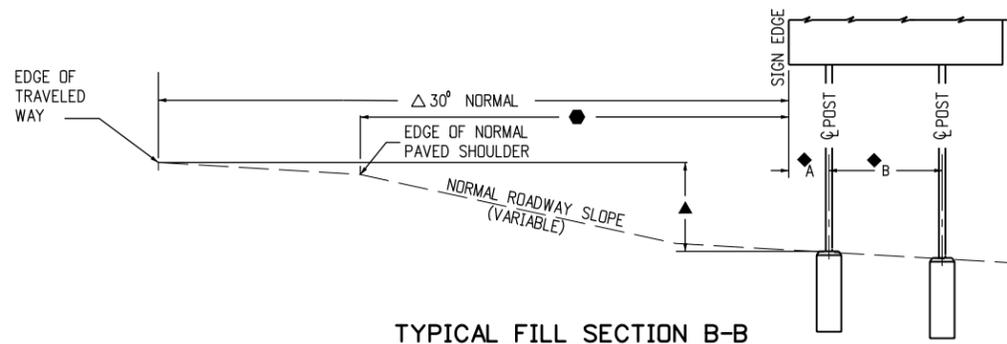
TYPICAL FILL SECTION A-A



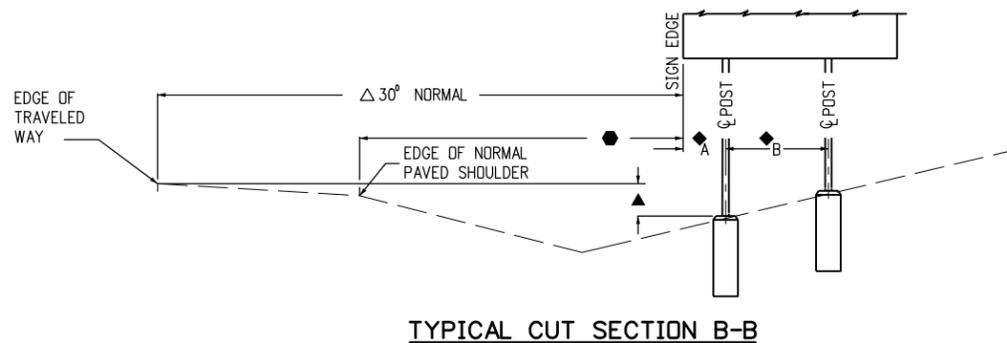
TYPICAL CUT SECTION A-A



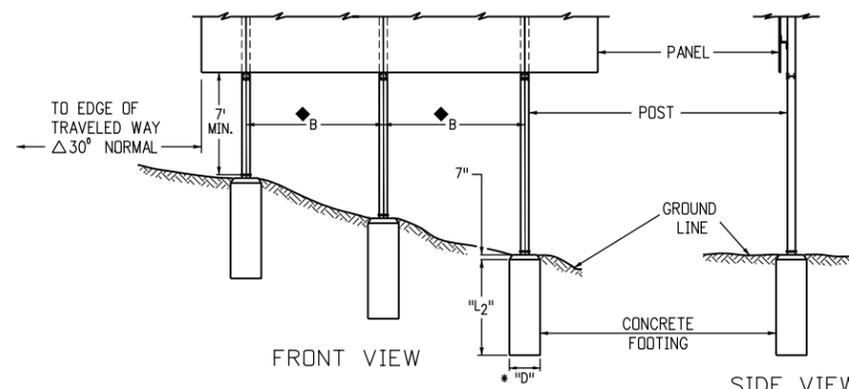
TYPICAL SIGN ISLAND ELEVATIONS



TYPICAL FILL SECTION B-B



TYPICAL CUT SECTION B-B



TYPICAL ELEVATIONS

GENERAL NOTES

1. ALL CONCRETE IS TO BE CLASS "B2" AIR ENTRAINED. GROUT SHALL CONFORM TO "JOINT MORTAR".
2. USE AASHTO M270 (ASTM A709) GRADE 36 STEEL FOR BASE PLATES AND BOLT PLATES. USE ASTM-A307 STEEL FOR ANCHOR BOLTS.
3. USE GRADE 60 FOR REINFORCING STEEL VERTICAL BARS, HORIZONTAL HOOPS, AND ANCHOR BOLT STIRRUPS.
4. FOR ALL STEEL WORK ABOVE THE BASE PLATE, AND FOR ANGULAR PLACEMENT OF SIGNS, SEE APPLICABLE STANDARDS INCLUDED IN THE PLANS.
5. FOR ADDITIONAL INFORMATION, REFER TO "TABULATION OF SIGNS" AND "CROSS SECTIONS FOR CLASS III SIGNS" INCLUDED IN THE PLANS.
6. ◆ FOR "A" AND "B" DIMENSIONS. SEE COLORADO STANDARD PLAN S-614-4.
7. ● THE SIGN ISLAND SIDE SLOPE PARALLEL TO THE ROADWAY SHALL BE 6:1 OR FLATTER. SEE TYPICAL SECTIONS.
8. ○ THE SIGN ISLAND SIDE SLOPE PARALLEL TO THE ROADWAY SHALL BE 6:1 OR FLATTER. SEE TYPICAL SECTIONS.
9. ● VARIABLE DIMENSIONS. SEE CROSS SECTIONS.
10. ▲ VARIABLE FOOTING ELEVATIONS. SEE CROSS SECTIONS FOR PLACEMENT.
11. △ THE LATERAL PLACEMENT MAY BE REDUCED TO A MINIMUM OF 2 FT. FROM THE EDGE OF NORMAL PAVED SHOULDER TO FIT FIELD CONDITIONS WHEN 30 FT. FROM THE EDGE OF THE TRAVELED WAY IS NOT FEASIBLE. SEE THE CROSS SECTIONS AND/OR TYPICAL GROUND SIGN PLACEMENT STANDARD.
12. EMBANKMENT FOR SIGN ISLANDS IS TO BE COMPACTED AS REQUIRED UNDER ITEM 203 OF THE STANDARD SPECIFICATIONS.
13. FOR ANGULAR PLACEMENT OF SIGNS, SEE COLORADO STANDARD PLAN S-614-1.
14. THE 4-INCH "BASE POST" AND LOWER "BREAK-AWAY PLATE" SHALL BE PAID FOR AS PART OF THE FOOTING.

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Sheet Revisions

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8/26/2013	REVISED NOTE 1

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STANDARD PLAN NO.

S-614-6

Sheet No. 2 of 2