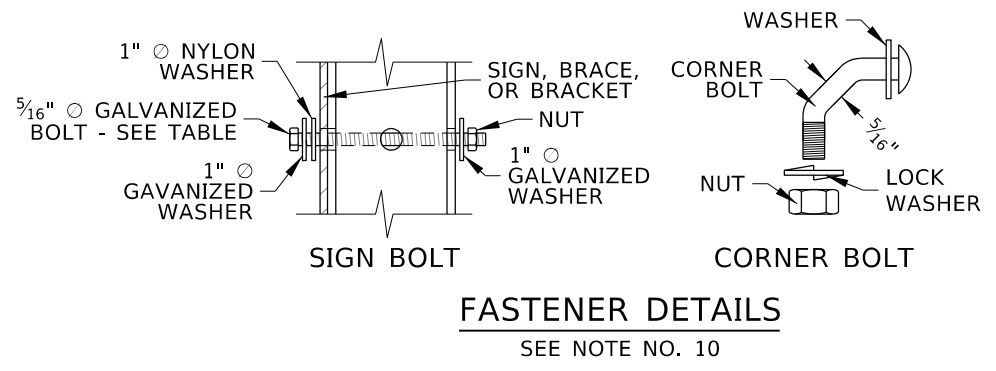
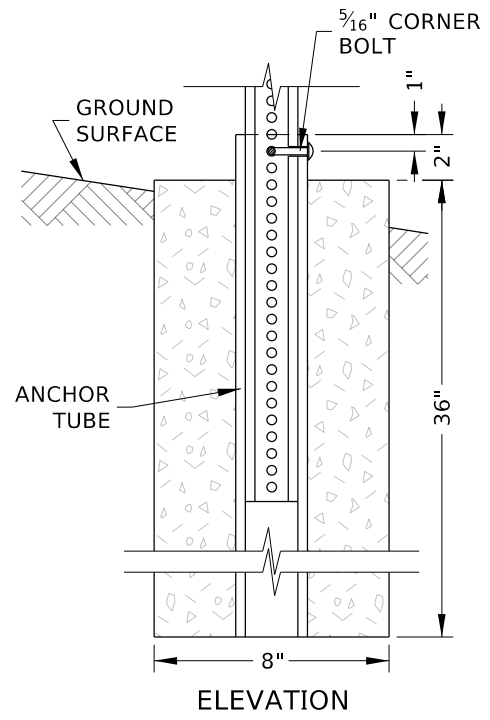
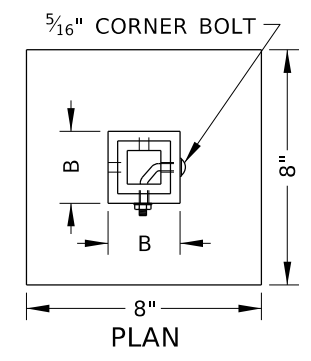


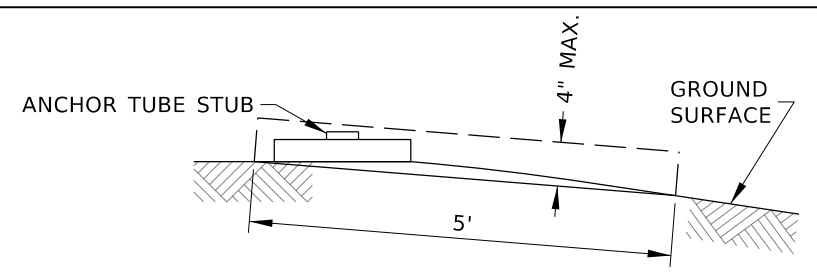
**SIGN ASSEMBLY MEASUREMENTS**



**FASTENER DETAILS**  
SEE NOTE NO. 10



**FOUNDATION**  
SEE NOTE NOS. 12 & 13



**FOUNDATION AND STUB HEIGHT DETAIL**  
SEE NOTE NO. 15

**NOTES**

- USE TYPE E - PERFORATED STEEL TUBE POSTS - WITH TYPE B - SHEET ALUMINUM AND TYPE E - HDO PLYWOOD SIGNS.
- SEE THE TRAFFIC MANUAL TO CALCULATE SIGN LOAD PER POST.
- SEE PROJECT SIGN SUMMARY FOR SIGN ASSEMBLY DIMENSIONS.
- USE ONE OR MORE TYPE E - PERFORATED STEEL TUBE POST. DO NOT MIX E-1 AND E-2 POSTS ON THE SAME SIGN ASSEMBLY.
- POST 1 IS CLOSEST TO THE HIGHWAY, WHETHER INSTALLED ON THE RIGHT OR LEFT SIDE.
- A BREAKAWAY DEVICE MUST BE INSTALLED IF THREE POSTS ARE USED. REFER TO THE ITD QUALIFIED PRODUCTS LIST FOR BREAKAWAY DEVICES.
- TYPE E - PERFORATED STEEL TUBE POSTS - DO NOT NEED TO BE SHIELDED BY GUARDRAIL OR BARRIER. WHEN PERFORATED STEEL POSTS ARE INSTALLED BEHIND GUARDRAIL OR BARRIER, ENSURE THE POSTS ARE OUTSIDE OF THE GUARDRAIL OR BARRIER WORKING WIDTH.
- SIGNS CAN BE MOUNTED BACK-TO-BACK IF THE SHAPE OF STOP, YIELD, OR WARNING SIGNS ARE NOT SHIELDED.
- SIGNS ARE INSTALLED WITH OR WITHOUT BRACES DEPENDENT ON SIGN SIZE AND APPLICATION.
- TYPE B - SHEET ALUMINUM - OR TYPE E - HDO PLYWOOD - SIGNS CAN BE AFFIXED TO THE POST OR THROUGH BRACES OR BRACKETS.
- INSTALL SIGNS AT THE FOLLOWING HEIGHTS:
  - IF INSTALLED IN A RURAL AREA, 5 FEET ABOVE THE PAVEMENT ELEVATION OR 4 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN.
  - IF INSTALLED IN THE VICINITY OF A CURB OR IN A BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY, 7 FEET ABOVE THE PAVEMENT ELEVATION OR 6 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN. IF INSTALLED LOWER THAN 7 FEET, ENSURE SIGNS DO NOT PROJECT MORE THAN 4 INCHES INTO THE PEDESTRIAN FACILITY.
- PRECAST FOUNDATION OR CAST FOUNDATION IN PLACE. ENSURE THE BOTTOM OF THE FOUNDATION IS KEPT OPEN TO DRAIN. IF THE ANCHOR TUBE IS PERFORATED, ENSURE THE INSIDE OF THE ANCHOR REMAINS OPEN.
- IF SOLID BEDROCK IS ENCOUNTERED WITHIN THE FOUNDATION DEPTH, DRILL A 4.5 INCH VERTICAL HOLE AND SOCKET THE ANCHOR TUBE. FILL DRILLED HOLES WITH GROUT, TYPE B, CLASS 1. ENSURE THE INSIDE OF THE ANCHOR TUBE REMAINS OPEN. WHEN INSTALLED IN BEDROCK, ENSURE THE E-1 POST IS EMBEDDED 18 INCHES DEEP AND THE E-2 POST IS EMBEDDED 24 INCHES.
- WHEN THE SIGN IS INSTALLED ON A BACKSLOPE, ENSURE THE SIGN POST IS AT LEAST 5' HIGHER THAN THE GROUND SURFACE.
- ENSURE NO PART OF THE FOUNDATION OR SIGN POST STUB PROJECTS MORE THAN 4 IN. ABOVE ANY 5 FT. CHORD ALIGNED PERPENDICULARLY TO THE EDGE OF THE HIGHWAY BETWEEN A POINT ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE OF THE SUPPORT.
- DRAWING NOT TO SCALE.

POST TYPE	TYPE E PERFORATED STEEL TUBE POST		POST WEIGHT (LB/FT)	MAXIMUM SIGN LOAD (SFxFT)	FOUNDATION		ANCHOR TUBE		POST WEIGHT (LB/FT)	SIGN BOLT LENGTH (IN)
	PERFORATED TUBE POST SIZE A (IN)	STEEL TUBE POST SIZE GAUGE			SIZE (INxINxIN)	CONCRETE (CY)	B (IN)	GAUGE		
E-1	2	12	2.42	43	8x8x36	0.05	2 1/2 x 2 1/2	7	5.59	2 1/2
E-2	2 1/2	12	4.01	91	8x8x36	0.05	3x3	7	6.87	3

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-92	JEC	6	05-15	HEB			
2	12-94	HEB	7	12-16	HEB			
3	06-99	HEB	8	02-23	RDL			
4	12-01	NQB						
5	12-13	HEB						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY  
CADD FILE NAME: 616-7\_0423.dgn  
DRAWING DATE: JULY, 1991

**IDAHO TRANSPORTATION DEPARTMENT**  
YOUR Safety-YOUR Mobility-YOUR Economic Opportunity  
BOISE IDAHO

ORIGINAL SIGNED BY: MONICA CRIDER  
HIGHWAY DESIGN ENGINEER

STANDARD DRAWING  
STEEL SIGN POST AND FOUNDATION  
TYPE E - PERFORATED STEEL TUBE POST

ENGLISH  
STANDARD DRAWING NO.  
616-7  
SHEET 1 OF 1

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER  
RYAN D. LANCASTER  
STATE OF IDAHO  
LICENSED PROFESSIONAL ENGINEER  
NO. 3683  
MAINT. 1, 2014