

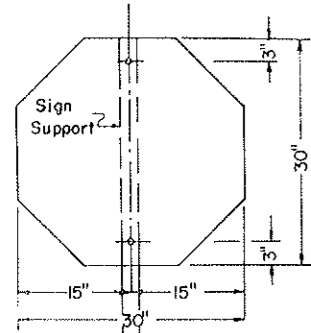
ASSEMBLY DETAILS Regulatory, Warning and Guide Signs

② 5' on Rural Roadways
6' on Rural or Urban Expressways
7' in Residential and Business districts where parking will occur

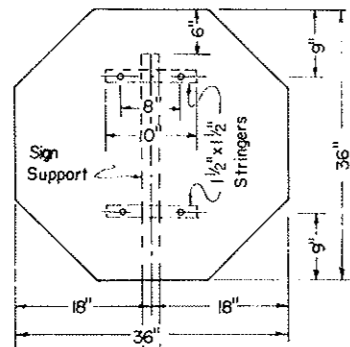
FHWA REGION	STATE	FED AID PROJ NO	SHEET NO.
8	N.D.	F-1-094(03)	105

ASSEMBLY NO.	SIGN TYPE OR SIZE	ULTIMATE PAVMT DEPTH PLUS SIGN HEIGHT MINUS THE SIGN OVERHANG SUPPORT SPACING																SUPPORT LENGTH & SIZE without Sleeve		SUPPORT LENGTH & SIZE with Sleeve		SUPPORT LENGTH & SIZE Using "A" Frame		AREA Sq. Ft.										
		DISTANCE SIGN SUPPORT IS BELOW THE SIGN TOP																Max Support Length	Size	Max Support Length	Size	Post Size	Max Support Length		Size									
		8"	9"	10"	11"	12"	13"	14"	15"	16"	18"	20"	22"	24"	26"	6 1/2"	4 1/2"									3 1/2"	2 1/2"	6 1/2"	4 1/2"	3 1/2"	2 1/2"	6 1/2"	4 1/2"	3 1/2"
1	30" STOP	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	2	3	4	5	7	1/2	146	2	190	2 1/4	223 1/2	2" x 2 1/4"	5.18
2	36" STOP	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	2	3	4	5	7	1/2	134 1/2	2 1/4	190	2 1/4	223 1/2	2" x 2 1/4"	7.46
3	48" STOP	50	51	52	53	54	55	56	57	58	60	62	64	66	68	70	72	74	76	78	80	2	3	4	5	7	1/2	155 1/2	2 1/4	256	2" x 2 1/4"	1325		13.25
4	36" YIELD	39	40	41	42	43	44	45	46	47	49	51	53	55	57	59	61	63	65	67	69	2	3	4	5	7	1/2	189	2	248 1/2	2" x 2 1/4"	3.90		3.90
5	48" YIELD	49	50	51	52	53	54	55	56	57	59	61	63	65	67	69	71	73	75	77	79	2	3	4	5	7	1/2	152 1/2	2 1/4	248 1/2	2" x 2 1/4"	6.93		6.93
6	60" YIELD	60	61	62	63	64	65	66	67	68	70	72	74	76	78	80	82	84	86	88	90	2	3	4	5	7	1/2	111	2 1/4	172 1/2	2" x 2 1/4"	10.82		10.82
7	12X18	26	27	28	29	30	31	32	33	34	36	38	40	42	44	46	48	50	52	54	56	1	1 1/2	2	3	4	5	236	2	455	2	236	2	1.50
8	18X24	32	33	34	35	36	37	38	39	40	42	44	46	48	50	52	54	56	58	60	62	1	1 1/2	2	3	4	5	236	2	455	2	236	2	3.00
9	24X30	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	1	1 1/2	2	3	4	5	151	2	151	2	151	2	5.00
10	30X36	44	45	46	47	48	49	50	51	52	54	56	58	60	62	64	66	68	70	72	74	1	1 1/2	2	3	4	5	139 1/2	2 1/4	228 1/2	2" x 2 1/4"	7.50		7.50
11	36X48	50	51	52	53	54	55	56	57	58	60	62	64	66	68	70	72	74	76	78	80	1	1 1/2	2	3	4	5	169 1/2	2 1/4	280 1/2	2" x 2 1/4"	12.00		12.00
12	48X60	62	63	64	65	66	67	68	69	70	72	74	76	78	80	82	84	86	88	90	92	1	1 1/2	2	3	4	5	116	2 1/4	182 1/2	2" x 2 1/4"	20.00		20.00
13	18X18	26	27	28	29	30	31	32	33	34	36	38	40	42	44	46	48	50	52	54	56	1	1 1/2	2	3	4	5	308	2	308	2	308	2	2.25
14	24X24	32	33	34	35	36	37	38	39	40	42	44	46	48	50	52	54	56	58	60	62	1	1 1/2	2	3	4	5	181	2	181	2	181	2	4.00
15	30X30	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	1	1 1/2	2	3	4	5	124	2	160 1/2	2 1/4	160 1/2	2 1/4	6.25
16	36X36	44	45	46	47	48	49	50	51	52	54	56	58	60	62	64	66	68	70	72	74	1	1 1/2	2	3	4	5	120	2 1/4	194	2" x 2 1/4"	9.00		9.00
17	48X48	50	51	52	53	54	55	56	57	58	60	62	64	66	70	2	3	4	6	8	12						132 1/2	2 1/4	215 1/2	2" x 2 1/4"	16.00		16.00	
18	24" Dia.	36	37	38	39	40	41	42	43	44	46	48	50	52	54	56	58	60	62	64	66	1	1 1/2	2	3	4	5	180	2	180	2	180	2	4.00
19	30" Dia.	44	45	46	47	48	49	50	51	52	54	56	58	60	62	64	66	68	70	72	74	1	1 1/2	2	3	4	5	161	2 1/4	267	2" x 2 1/4"	6.25		6.25
20	36" Dia.	53	54	55	56	57	58	59	60	61	63	65	67	69	71	73	75	77	79	81	83	1	1 1/2	2	3	4	5	121 1/2	2 1/4	191 1/2	2" x 2 1/4"	9.00		9.00
21	48" Dia.	61	62	63	64	65	66	67	68	69	71	73	75	77	79	81	83	85	87	89	91	1	1 1/2	2	3	4	5	133 1/2	2 1/4	216 1/2	2" x 2 1/4"	16.00		16.00
22	24X36	44	45	46	47	48	49	50	51	52	54	56	58	60	62	64	66	68	70	72	74	1	1 1/2	2	3	4	5	131 1/2	2	169 1/2	2 1/4	169 1/2	2 1/4	6.00
23	24X48	56	57	58	59	60	61	62	63	64	66	68	70	72	74	76	78	80	82	84	86	1	1 1/2	2	3	4	5	138 1/2	2 1/4	221 1/2	2" x 2 1/4"	8.00		8.00
24	36X72	74	75	76	77	78	79	80	81	82	84	86	88	90	92	94	96	98	100	102	104	1	1 1/2	2	3	4	5	132	2 1/4	206	2" x 2 1/4"	18.00		18.00
25	48X96	98	99	100	101	102	103	104	105	106	108	110	112	114	116	118	120	122	124	126	128	1	1 1/2	2	3	4	5	86 1/2	2	100 1/2	2 1/4	142	2" x 2 1/4"	32.00
26	24X12	20	21	22	23	24	25	26	27	28	30	32	34	36	38	40	42	44	46	48	50	1	1 1/2	2	3	4	5	319	2	319	2	319	2	2.00
27	36X12	20	21	22	23	24	25	26	27	28	30	32	34	36	38	40	42	44	46	48	50	1	1 1/2	2	3	4	5	216	2	216	2	216	2	3.00
28	20X18	26	27	28	29	30	31	32	33	34	36	38	40	42	44	46	48	50	52	54	56	1	1 1/2	2	3	4	5	252	2	252	2	252	2	2.50
29	24X18	26	27	28	29	30	31	32	33	34	36	38	40	42	44	46	48	50	52	54	56	1	1 1/2	2	3	4	5	220	2	220	2	220	2	3.00
30	30X18	26	27	28	29	30	31	32	33	34	36	38	40	42	44	46	48	50	52	54	56	1	1 1/2	2	3	4	5	178	2	178	2	178	2	3.75
31	36X18	26	27	28	29	30	31	32	33	34	36	38	40	42	44	46	48	50	52	54	56	1	1 1/2	2	3	4	5	151	2	151	2	151	2	4.50
32	30X24	32	33	34	35	36	37	38	39	40	42	44	46	48	50	52	54	56	58	60	62	1	1 1/2	2	3	4	5	140	2	182 1/2	2 1/4	182 1/2	2 1/4	5.00
33	36X24	32	33	34	35	36	37	38	39	40	42	44	46	48	50	52	54	56	58	60	62	1	1 1/2	2	3	4	5	119	2	155 1/2	2 1/4	155 1/2	2 1/4	6.00
34	48X24	32	33	34	35	36	37	38	39	40	42	44	46	48	50	52	54	56	58	60	62	1	1 1/2	2	3	4	5	119	2 1/4	198	2" x 2 1/4"	8.00		8.00
35	36X30	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	1	1 1/2	2	3	4	5	129 1/2	2 1/4	213	2" x 2 1/4"	7.50		7.50
36	42X30	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	1	1 1/2	2	3	4	5	113 1/2	2 1/4	185 1/2	2" x 2 1/4"	8.75		8.75
37	48X30	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	1	1 1/2	2	3	4	5	101 1/2	2 1/4	164 1/2	2" x 2 1/4"	10.00		10.00
38	60X30	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	1	1 1/2	2	3	4	5	152	2 1/4	252 1/2	2" x 2 1/4"	12.50		12.50
39	42X36	44	45	46	47	48	49	50	51	52	54	56	58	60	62	64	66	68	70	72	74	1	1 1/2	2	3	4	5	100 1/2	2 1/4	160 1/2	2" x 2 1/4"	10.50		10.50
40	48X36	44	45	46	47	48	49	50	51	52	54	56	58	60	62	64	66	68	70	72	74	1	1 1/2	2	3	4	5	160 1/2	2 1/4	265	2" x 2 1/4"	12.00		12.00
41	72X48	56	57	58	59	60	61	62	63	64	66	68	70	72	74	76	78	80	82	84	86	1	1 1/2	2	3	4	5	90 1/2	2 1/4	143	2" x 2 1/4"	24.00		24.00
42	24X24P	32	33	34	35	36	37	38	39	40	42	44	46	48	50	52	54	56	58	60	62	1	1 1/2	2	3	4	5	171 1/2	2	171 1/2	2	171 1/2	2	7.00
43	30X30P	38	39	40	41	42	43	44	45	46	48	50	52	54	56	58	60	62	64	66	68	1	1 1/2	2	3	4	5	152	2	152	2	152	2	9.25
44	36X36P	44	45	46	47	48	49	50	51	52	54	56	58	60	62	64	66	68	70	72	74	1	1 1/											

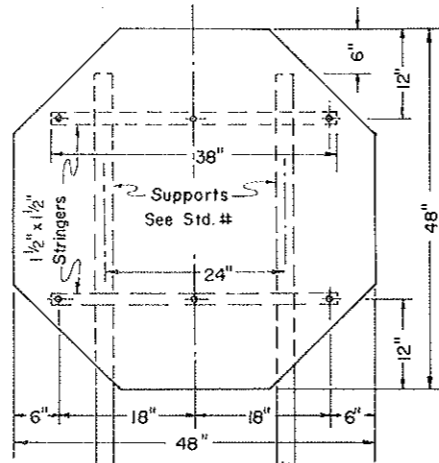
**SIGN PUNCHING, STRINGER AND SUPPORT LOCATION DETAILS
REGULATORY AND WARNING SIGNS**



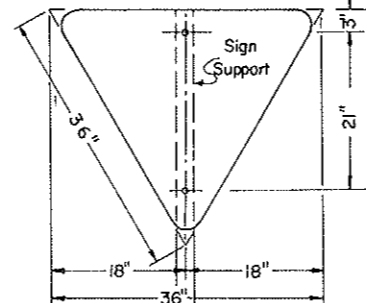
RI-1-30
Assembly 1



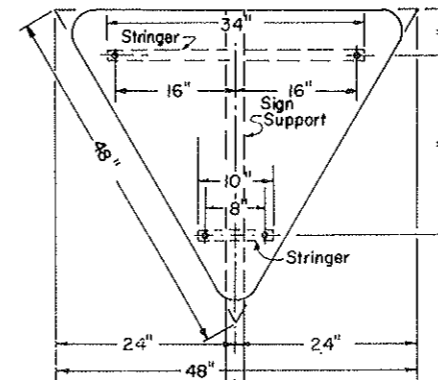
RI-1-36
Assembly 2



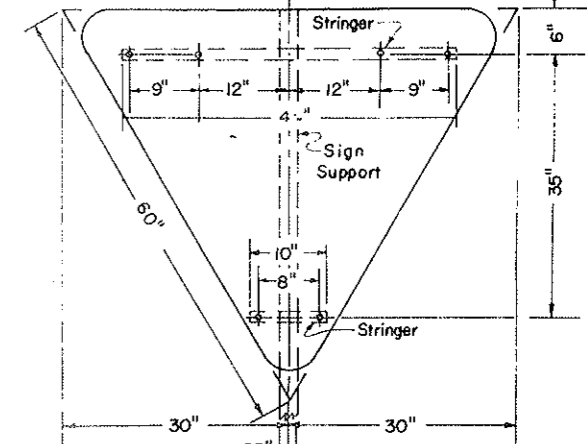
RI-1-48
Assembly 3



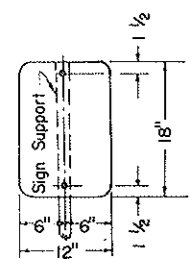
RI-2-36
Assembly 4



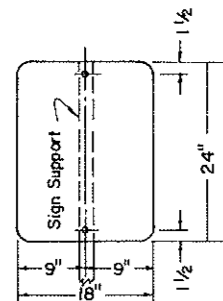
RI-2-48
Assembly 5



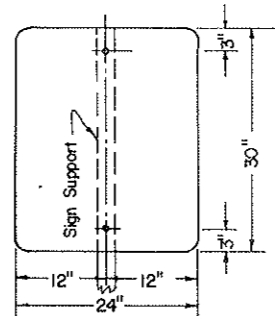
RI-2-60
Assembly 6



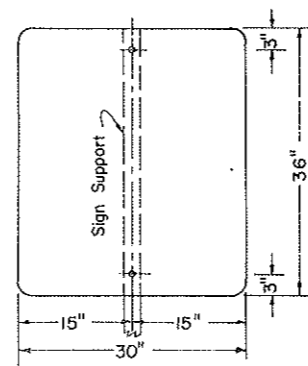
12"X18"
Assembly 7



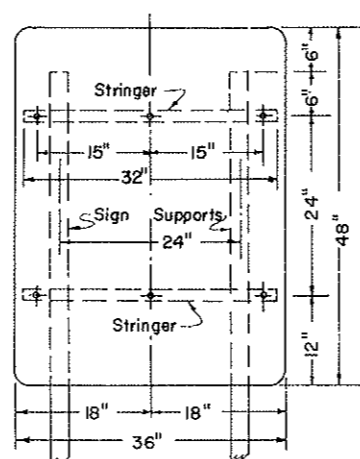
18"X24"
Assembly 8



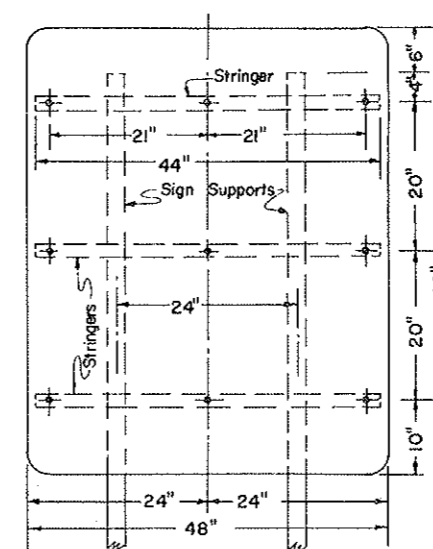
24"X30"
Assembly 9



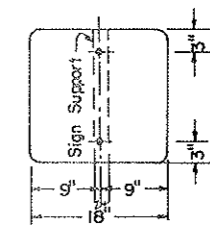
30"X36"
Assembly 10



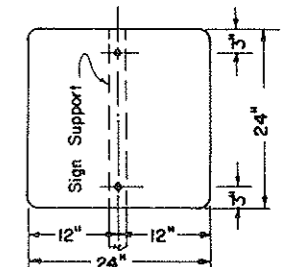
36"X48"
Assembly 11



48"X60"
Assembly 12



18"X18"
Assembly 13



24"X24"
Assembly 14

NOTE:

MATERIAL:

SIGN BACKING: THE SIGN BACKING MATERIAL SHALL BE AS FOLLOWS.

STEEL: SIGNS HAVING A WIDTH OF LESS THAN 30" SHALL USE 14 GAUGE MATERIAL. SIGNS 30" OR MORE SHALL USE 12 GAUGE MATERIAL.

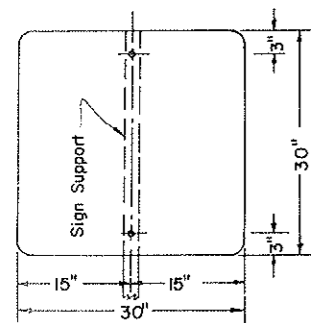
ALUMINUM: ALUMINUM ALLOY 6061-T6 AND 5052-H38 SHALL HAVE THE FOLLOWING MINIMUM THICKNESS: SIGNS 24" OR LESS IN WIDTH SHALL BE 0.100 INCH. SIGNS OVER 24" IN WIDTH SHALL BE 0.125 INCH.

THE YIELD SIGN RI-2-36 ASSEMBLY 4, SHALL HAVE A MINIMUM THICKNESS OF .100 INCH FOR BOTH 6061-T6 AND 5052-H38 ALLOYS.

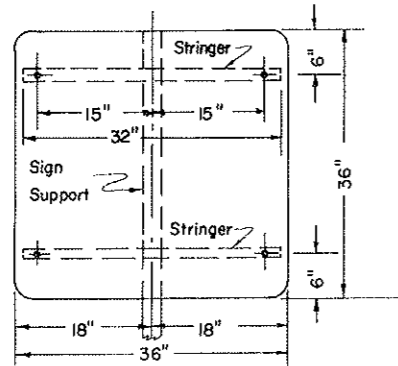
STRINGERS: ALL STRINGERS SHALL BE SQUARE TUBE, PERFORATED 1 1/2 X 1 1/2 AND OF THE LENGTH SHOWN.

HOLES: ALL HOLES SHALL BE PUNCHED ROUND FOR 3/8" DIAMETER BOLTS.

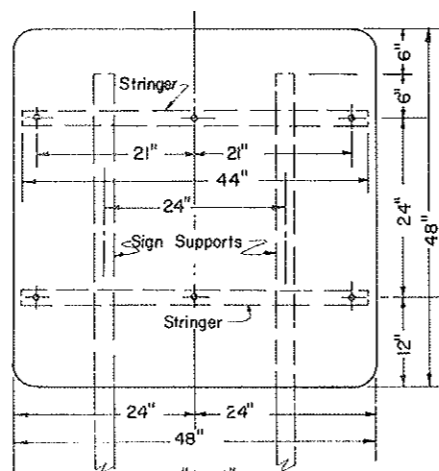
GENERAL: SEE PLANS FOR SIGN RUBBERS TO BE USED AT EACH LOCATION.
SEE STD. D-754-44 FOR MOUNTING DETAILS.
SEE STD. D-754-23 & 24 FOR POST LENGTH AND SIZES.



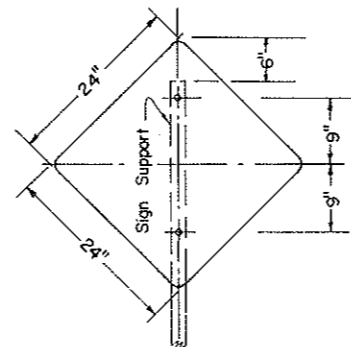
30"X30"
Assembly 15



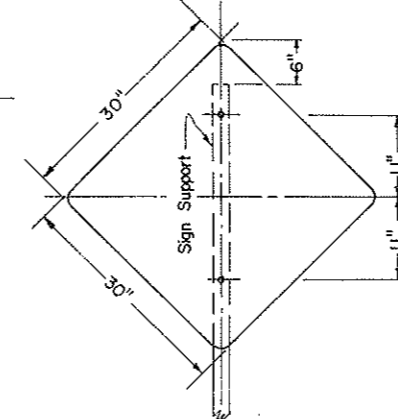
36"X36"
Assembly 16



48"X48"
Assembly 17



24"X24"
Assembly 18



30"X30"
Assembly 19

11-10-75		NORTH DAKOTA STATE HIGHWAY DEPARTMENT
DATE	REVISIONS CHANGES	
5-8-77	MESSAGE	Submitted: <i>Richard J. Sly</i> Design Engineer
8-11-70	MATERIAL NOTE	
		Recommended: _____ Asst. Chief Engineer, Pre-Const.
		Approved: <i>Richard J. Sly</i> Chief Engineer