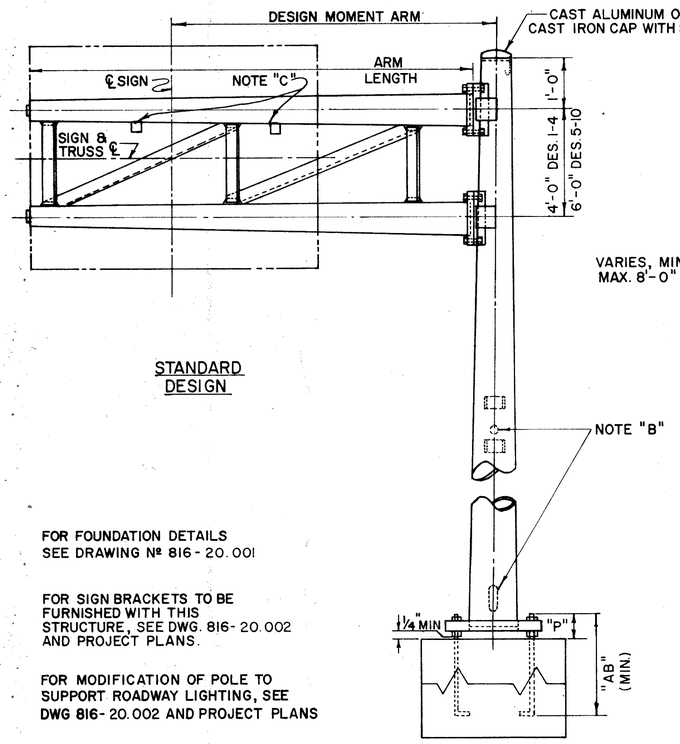
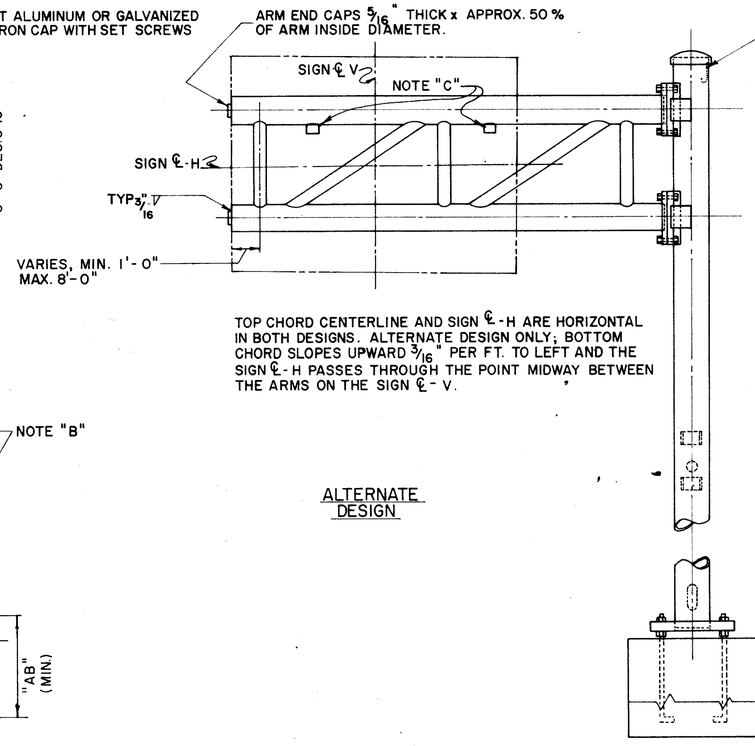
FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

LAKE COUNTY
LAK.-90-3.56

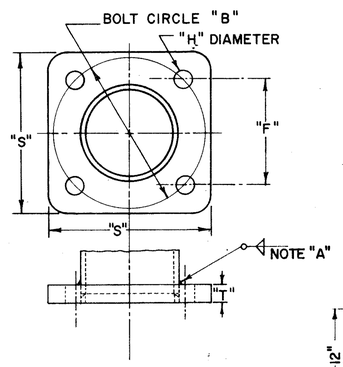


STANDARD DESIGN

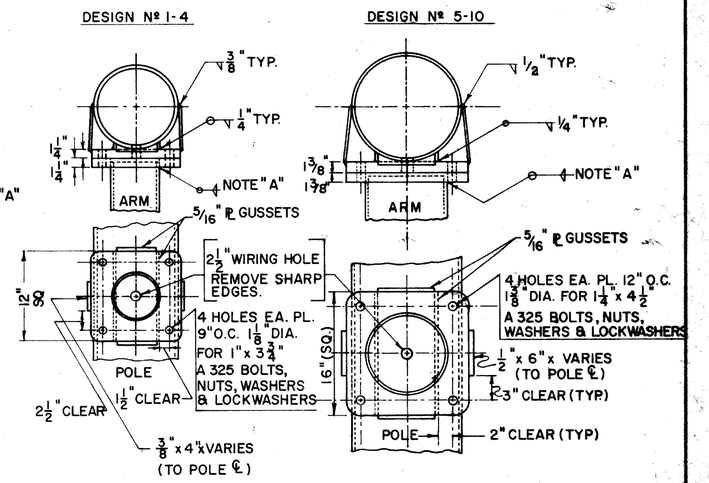


TOP CHORD CENTERLINE AND SIGN ℄-H ARE HORIZONTAL IN BOTH DESIGNS. ALTERNATE DESIGN ONLY; BOTTOM CHORD SLOPES UPWARD 3/16" PER FT. TO LEFT AND THE SIGN ℄-H PASSES THROUGH THE POINT MIDWAY BETWEEN THE ARMS ON THE SIGN ℄-V.

ALTERNATE DESIGN



POLE BASE DETAIL



ARM ATTACHMENT DETAIL

FOR FOUNDATION DETAILS SEE DRAWING Nº 816-20.001

FOR SIGN BRACKETS TO BE FURNISHED WITH THIS STRUCTURE, SEE DWG. 816-20.002 AND PROJECT PLANS.

FOR MODIFICATION OF POLE TO SUPPORT ROADWAY LIGHTING, SEE DWG 816-20.002 AND PROJECT PLANS

NOTE "A"
POLE BASE AND ARM ATTACHMENT PLATE TO BE WELDED INSIDE AND OUTSIDE WITH FILLET WELDS. EACH FILLET WELD SHALL BE EQUAL TO THE WALL THICKNESS OF THE RESPECTIVE TUBING.

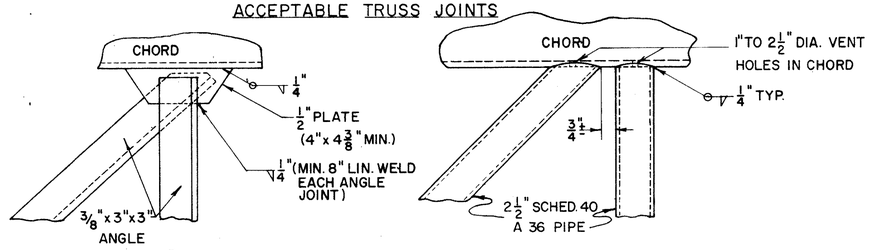
NOTE "B"
CONSTRUCTION DETAILS AND LOCATION OF HANDHOLE AND SWITCH GEAR MOUNTING BRACKETS ARE SHOWN ON DRAWING 816-20.002

NOTE "C"
SIGNS UNDER 20'-0" LONG, ONE 1¼" PIPE COUPLING WELDED TO THE TOP CHORD APPROXIMATELY 12" OUTBOARD OF FIRST SIGN BRACKET. FOR SIGNS 20'-0" OR OVER, A SECOND 1¼" PIPE COUPLING IS REQUIRED APPROXIMATELY 12" OUTBOARD OF THE SECOND SIGN BRACKET. ALL SHARP EDGES INSIDE THE CHORD AND PIPE COUPLING MUST BE REMOVED.

1. UNLESS OTHERWISE NOTED, DIMENSIONS AND INSTRUCTIONS APPLY TO BOTH THE STANDARD DESIGN AND ALTERNATE DESIGN.
2. SIGN SUPPORT ARMS UNDER 18'-0" LONG DO NOT REQUIRE TRUSSING.
3. THE DESIGN OF THESE OVERHEAD SIGN SUPPORTS IS IN ACCORDANCE WITH THE AASHO SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS AS REVISED IN 1968.

DESIGN NUMBER	POLE SIZE OUTSIDE DIAMETERS	ARM SIZE OUTSIDE DIAMETERS
1	2 PLY. 7 GA. 10" x 6.50" x 25'-0"	7 GA. 6" x 3.76" x 16'-0"
1 ALT	8 5/8" x .500" WALL x 25'-0"	5 9/16" x .258" WALL x 16'-0"
2	2 PLY. 7 GA. 10" x 6.50" x 25'-0"	3 GA. 6" x 4.60" x 20'-0"
2 ALT	8 5/8" x .562" WALL x 25'-0"	5 9/16" x .344" WALL x 20'-0"
3	0 GA. 13" x 9.22" x 27'-0"	7 GA. 8" x 5.76" x 16'-0"
3 ALT	10 3/4" x .438 WALL x 27'-0	6 5/8" x .250" WALL x 16'-0"
4	0 GA. 13" x 9.22" x 27'-0"	7 GA. 9" x 6.20" x 20'-0"
4 ALT	10 3/4" x .500" WALL x 27'-0"	6 5/8 x .344" WALL x 20'-0"
5	0 GA. 15" x 11.08" x 28'-0"	7 GA. 9.5" x 6.42" x 22'-0"
5 ALT	12 3/4" x .500" WALL x 28'-0"	8 5/8" x .250" WALL x 22'-0"
6	2 PLY. 7 GA. 15" x 11.08" x 28'-0"	3 GA. 10" x 6.36" x 26'-0"
6 ALT	12 3/4" x .562" WALL x 28'-0"	8 5/8" x .322" WALL x 26'-0"
7	2 PLY. 7 GA. 16.5" x 12.58" x 28'-0"	3 GA. 10" x 6.64" x 24'-0"
7 ALT	14" x .562" WALL x 28'-0"	8 5/8" x .322" WALL x 24'-0"
8	2 PLY. 3 GA. 16.5" x 12.58" x 28'-0"	3 GA. 11" x 7.08" x 28'-0"
8 ALT	14" x .594" WALL x 28'-0"	10 3/4" x .279" WALL x 28'-0"
9	2 PLY. 3 GA. 16.5" x 12.30" x 30'-0"	3 GA. 11" x 7.36" x 26'-0"
9 ALT	14" x .688" WALL x 30'-0"	10 3/4" x .279" WALL 26'-0"
10	2 PLY. 3 GA. 18" x 13.80" x 30'-0"	3 GA. 13" x 8.80" x 30'-0"
10 ALT	16" x .656" WALL x 30'-0"	10 3/4" x .438" WALL x 30'-0"

ACCEPTABLE TRUSS JOINTS



DESIGN NUMBER	DESIGN SIZE (SQ. FT.)	DESIGN MOMENT ARM (FT.)	DIM. "F" (IN)	DIM. "P" (IN)	DIM. "S" (IN)	DIM. "T" (IN)	BOLT CIRCLE "B" (IN.)	ANCHOR BOLTS "AB" (IN)	DIM. "H" (IN.)
1	80	12	10 5/8	7 3/4	15 5/8	2	15	1¾ x 84	2 1/8
2	80	16	10 5/8	7 3/4	15 5/8	2	15	1¾ x 84	2 1/8
3	120	12	12 3/4	8 1/2	18 1/2	2	18	2 x 90	2 3/8
4	120	16	12 3/4	8 1/2	18 1/2	2	18	2 x 90	2 3/8
5	180	14	15 1/2	8 1/2	23	2	22	2 x 90	2 3/8
6	180	18	15 1/2	8 1/2	23	2	22	2 x 90	2 3/8
7	240	14	16 5/8	9 3/4	24 1/2	2 1/2	23 1/2	2 1/2 x 114	2 7/8
8	240	18	16 5/8	9 3/4	24 1/2	2 1/2	23 1/2	2 1/2 x 114	2 7/8
9	300	15 1/2	16 5/8	9 3/4	24 1/2	2 1/2	23 1/2	2 1/2 x 114	2 7/8
10	300	19 1/2	18	9 3/4	26 1/2	2 1/2	25 1/2	2 1/2 x 114	2 7/8

MATERIAL SPECIFICATIONS

POLE & ARMS: ANY STEEL WITH MIN. 52,000 P.S.I. YIELD STRESS AFTER ERECTION.
TRUSS MEMBERS: ASTM A-36
BASE & OTHER PLATE STOCK: ASTM A-36
ANCHOR BOLTS: MIN. 54,000 P.S.I. YIELD STRESS AS ERECTED.
ARM ATTACHMENT BOLTS: ASTM A-325
MISC. BOLTS & NUTS: ASTM A-307 (GALVANIZED PER ASTM A-153)
WELDING: SECTION 513.17, OHIO CONST. & MAT. SPECIFICATIONS
GALVANIZING AFTER FABRICATION, ALL STRUCTURAL PARTS: ASTM A-123

GALVANIZE ONLY TOP 16" OF ALL ANCHOR BOLTS PER ASTM A-123

BUREAU OF DESIGN SERVICES
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORT

Date 3-23-72

STANDARD CONSTRUCTION DRAWING 816-12.30

APPROVED M. J. Cunningham
ENGINEER OF DESIGN SERVICES

BRUNING 44-560 10943