STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 800.01-01	*TRAFFIC SIGNAL SYMBOLS*	*05/17/07*	*05/02/07*
MD 800.01-02	*DESIGN STANDARD SYMBOLS*	*05/17/07*	*05/02/07*
MD 800.01-03	*SIGNING AND LIGHTING SYMBOLS*	*05/17/07*	*05/02/07*
MD 800.01-04	*LIGHTING LEGEND*	*05/17/07*	*05/02/07*
MD 800.01-05	*LIGHTING GENERAL NOTES*	*05/17/07*	*05/02/07*
MD 800.02-01	*LIGHTING STRUCTURE PLACEMENT*	*05/17/07*	*05/02/07*
MD 801.01	*SIGNAL STRUCTURE FOUNDATIONS*	*11/20/19*	*09/04/19*
MD 801.01-01	*SIGNAL STRUCTURE FOUNDATIONS FOR PUSHBUTTON AND PEDESTRIAN SIGNAL POLE*	*11/20/19*	*09/04/19*
MD 801.02	*LIGHTING STRUCTURE FOUNDATION*	*05/18/20*	*03/10/20*
MD 801.03	*FOUNDATION DETAILS FOR BASE-MOUNTED LIGHTING CONTROL CABINET*	*05/17/07*	*05/02/07*
MD 801.04	*GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS – TYPE A*	*05/18/20*	*03/10/20*
MD 801.04-01	*GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS – TYPE B*	*05/17/07*	*05/02/07*
MD 801.04-02	*GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS – TYPE C*	*05/17/07*	*05/02/07*
MD 802.01	*GALVANIZED STEEL BEAM SIGN POSTS VERTICAL AND LATERAL CLEARANCE*	*11/10/18*	*10/26/18*
MD 802.02	*GALVANIZED STEEL BEAM SIGN POSTS SERVICE PANEL ATTACHMENT DETAILS*	*05/17/07*	*05/02/07*
MD 802.03	*GALVANIZED STEEL BEAM SIGN POSTS NON BREAKAWAY BASE PLATE AND ANCHOR BOLTS*	*05/17/07*	*05/02/07*
MD 802.04	*BREAKAWAY TUBULAR STEEL SIGN SUPPORTS*	*05/17/07*	*05/02/07*
MD 803.01	*SIGN / LUMINAIRE SUPPORTS MOUNTING FOR EXISTING STRUCTURES*	*05/17/07*	*05/02/07*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 803.02	*SIGN / LUMINAIRE SUPPORTS MOUNTING FOR NEW STRUCTURES*	*05/17/07*	*05/02/07*
MD 803.02-01	*SIGN SUPPORTS MOUNTING FOR NEW STRUCTURES*	*05/17/07*	*05/02/07*
MD 803.03	*SIGN / LUMINAIRES SUPPORTS MOUNTING FOR BRIDGE STRUCTURES*	*10/01/01*	*02/01/01*
MD 803.04	*OVERHEAD SIGN STRUCTURES GENERAL NOTES*	*05/17/07*	*05/02/07*
MD 803.05	*SINGLE PLANE CANTILEVER SIGN STRUCTURES ELEVATION*	*05/20/11*	*04/22/11*
MD 803.05-01	*SINGLE PLANE CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.05-02	*SINGLE PLANE CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.05-03	*SINGLE PLANE CANTILEVER SIGN STRUCTURES TRUSS CHORD TO POLE CONNECTION DETAILS*	*08/12/02*	*09/04/02*
MD 803.05-04	*SINGLE PLANE CANTILEVER SIGN STRUCTURES TRUSS CHORD TO POLE CONNECTION DATA*	*08/12/02*	*09/04/02*
MD 803.05-05	*SINGLE PLANE CANTILEVER SIGN STRUCTURES GUSSET PLATE CONNECTION DETAILS*	*08/12/02*	*09/04/02*
MD 803.05-06	*CANTILEVER SIGN STRUCTURES ANCHOR BASE DETAILS*	*05/17/07*	*05/02/07*
MD 803.05-07	*CANTILEVER SIGN STRUCTURES ANCHOR BASE DATA*	*08/12/02*	*09/04/02*
MD 803.06	*BOX TRUSS CANTILEVER SIGN STRUCTURES ELEVATION*	*05/20/11*	*04/22/11*
MD 803.06-01	*BOX TRUSS CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.06-02	*BOX TRUSS CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.06-03	*BOX TRUSS CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 803.06-04	*BOX TRUSS CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.06-05	*BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS CHORD TO POLE CONNECTION DETAILS*	*08/12/02*	*09/04/02*
MD 803.06-06	*BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS TOP CONNECTION PLATE DETAILS*	*08/12/02*	*09/04/02*
MD 803.06-07	*BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS TOP CONNECTION PLATE DETAILS*	*08/12/02*	*09/04/02*
MD 803.06-08	*BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS BOTTOM CONNECTION PLATE DETAILS*	*08/12/02*	*09/04/02*
MD 803.06-09	*BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS BOTTOM CONNECTION PLATE DETAILS*	*08/12/02*	*09/04/02*
MD 803.06-10	*BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS TO POLE CONNECTION DATA*	*08/12/02*	*09/04/02*
MD 803.06-11	*BOX TRUSS CANTILEVER SIGN STRUCTURES POLE ANCHOR BASE DETAILS / DATA*	*05/17/07*	*05/02/07*
MD 803.06-12	*BOX TRUSS CANTILEVER SIGN STRUCTURES POLE ANCHOR BASE DETAILS / DATA*	*05/17/07*	*05/02/07*
MD 803.07	*CANTILEVER SIGN STRUCTURE FOUNDATION DATA*	*08/12/02*	*09/04/02*
MD 803.07-01	*CANTILEVER SIGN STRUCTURE FOUNDATION TYPE A*	*05/20/11*	*04/22/11*
MD 803.07-02	*CANTILEVER SIGN STRUCTURE FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER*	*05/20/11*	*04/22/11*
MD 803.07-03	*CANTILEVER SIGN STRUCTURE FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER*	*05/20/11*	*04/22/11*
MD 803.08	*OVERHEAD SPAN SIGN STRUCTURES ELEVATION*	*05/20/11*	*04/22/11*
MD 803.08-01	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 803.08-02	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-03	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-04	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-05	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-06	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-07	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-08	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-09	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-10	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-11	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-12	*OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA*	*08/12/02*	*09/04/02*
MD 803.08-13	*OVERHEAD SPAN SIGN STRUCTURES POLE AND CHORD CONNECTION DETAIL*	*08/12/02*	*09/04/02*
MD 803.08-14	*OVERHEAD SPAN SIGN STRUCTURES TRUSS DETAILS / DATA*	*08/12/02*	*09/04/02*
MD 803.08-15	*OVERHEAD SPAN SIGN STRUCTURES CHORD SPLICE DETAILS / DATA*	*08/12/02*	*09/04/02*
MD 803.08-16	*OVERHEAD SPAN SIGN STRUCTURES TOWER (END SUPPORT) BRACING DETAIL / DATA*	*08/12/02*	*09/04/02*
MD 803.08-17	*OVERHEAD SPAN SIGN STRUCTURES ANCHOR BASE DETAILS*	*05/17/07*	*05/02/07*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 803.08-18	*OVERHEAD SPAN SIGN STRUCTURES ANCHOR BASE DATA*	*08/12/02*	*09/04/02*
MD 803.08-19	*OVERHEAD SPAN SIGN STRUCTURES FOUNDATION DETAILS TYPE A*	*05/20/11*	*04/22/11*
MD 803.08-20	*OVERHEAD SPAN SIGN STRUCTURES FOUNDATION DETAILS TYPE A*	*05/20/11*	*04/22/11*
MD 803.08-21	*OVERHEAD SPAN SIGN STRUCTURES FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER*	*05/20/11*	*04/22/11*
MD 803.08-22	*OVERHEAD SPAN SIGN STRUCTURES FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER*	*05/20/11*	*04/22/11*
MD 803.08-23	*OVERHEAD SPAN SIGN STRUCTURES FOUNDATION DATA FOR TYPE 'A' AND TYPE 'B'*	*08/12/02*	*09/04/02*
MD 805.01	*CONDUIT IN SLOTTED PAVEMENT*	*09/25/07*	*09/18/07*
MD 805.02	*TYPICAL BORED CONDUIT DETAIL AND MANHOLE LOCATION FOR LIGHTING*	*05/17/07*	*05/02/07*
MD 806.02	*MOUNTING FOR SIGN / LUMINAIRES OVERHEAD STRUCTURES*	*05/17/07*	*05/02/07*
MD 807.01	*ROADWAY LIGHTING CONTROL CABINET 277/480 VOLT SYSTEM 277 VOLT LUMINAIRE OPERATION*	*05/17/07*	*05/02/07*
MD 807.02	*ROADWAY LIGHTING CONTROL CABINET 120/240 VOLT SYSTEM 240 VOLTS LUMINAIRE OPERATION*	*05/17/07*	*05/02/07*
MD 807.03	*LIGHTING CONTROL CABINET*	*05/17/07*	*05/02/07*
MD 807.04	*REMOTE LIGHTING CONTROL CABINET*	*05/15/17*	*03/24/17*
MD 807.05	*REMOTE LIGHTING CONTROL CABINET 120/240 VOLT SYSTEM 240 VOLTS LUMINAIRE OPERATION*	*05/15/17*	*03/24/17*
MD 808.01	*LIGHTING STRUCTURE WITH BRACKET ARM*	*05/17/07*	*05/02/07*
MD 808.01-01	*12 FT–35 FT BRACKET ARM CONNECTION DETAIL*	*05/17/07*	*05/02/07*
MD 808.01-02	*4 FT–10 FT ARM CONNECTION DETAIL*	*05/17/07*	*05/02/07*
MD 808.02	*SQUARE LIGHTING STRUCTURE*	*05/17/07*	*05/02/07*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 808.03	*LIGHTING STRUCTURE IDENIFICATION TAG*	*05/17/07*	*05/02/07*
MD 809.01	*LIGHTING TRENCHING DETAILS*	*05/17/07*	*05/02/07*
MD 810.01	*SPLICE KIT FOR LOOP DETECTOR WIRE AND LOOP DETECTOR LEAD IN*	*05/17/07*	*05/02/07*
MD 810.02	*LOOP DETECTOR LEAD IN INSTALLATION*	*05/17/07*	*05/02/07*
MD 810.03	*LOOP DETECTOR LEAD IN INSTALLATION*	*05/17/07*	*05/02/07*
MD 810.04	*ROADWAY LIGHTING 277/480 VOLT SYSTEM 277 VOLT POLE CONNECTIONS*	*05/17/07*	*05/02/07*
MD 810.05	*ROADWAY LIGHTING 120/240 VOLT SYSTEM 240 VOLT POLE CONNECTIONS*	*05/17/07*	*05/02/07*
MD 811.01	*HANDHOLE (MATERIALS DETAIL)*	*05/17/07*	*05/02/07*
MD 811.02	*HANDHOLE FRAME AND COVER*	*05/17/07*	*05/02/07*
MD 811.03	*HANDHOLE INSTALLATION*	*05/17/07*	*05/02/07*
MD 811.04	*ELECTRICAL MANHOLE*	*05/15/17*	*03/24/17*
MD 811.04-01	*ELECTRICAL MANHOLE NOTES*	*05/15/17*	*03/24/17*
MD 811.05	*OVERSIZED ELECTRICAL HANDHOLE MATERIAL DETAILS*	*05/15/17*	*03/24/17*
MD 811.06	*OVERSIZED ELECTRICAL HANDHOLE FRAME AND COVER*	*05/15/17*	*03/24/17*
MD 811.07	*OVERSIZED ELECTRICAL HANDHOLE INSTALLATION DETAILS*	*05/15/17*	*03/24/17*
MD 812.01	*WOOD SIGN SUPPORTS FOUNDATIONS AND BREAKAWAY FEATURES*	*05/17/07*	*05/02/07*
MD 812.02	*WOOD SIGN SUPPORTS SIGN MOUNTING*	*05/17/07*	*05/02/07*
MD 812.03	*WOOD SIGN SUPPORTS ROUTE MARKER ASSEMBLIES*	*05/17/07*	*05/02/07*
MD 812.04	*WOOD SIGN SUPPORTS POSTS SIZES & SPACING*	*05/17/07*	*05/02/07*

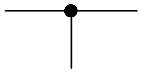
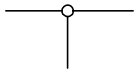
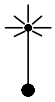
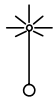
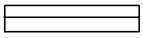
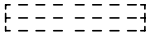
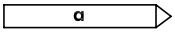
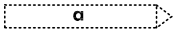
STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 812.05-01	*WOOD SIGN SUPPORTS SLEEVED FOUNDATION*	*11/10/18*	*10/26/18*
MD 812.05-02	*WOOD SIGN SUPPORTS SLEEVED FOUNDATION*	*08/05/10*	*12/22/09*
MD 813.01	*GROUND MOUNTED SIGN DETAILS (W3-3 NEW)*	*05/17/07*	*05/02/07*
MD 813.02	*WOOD SIGN POSTS VERTICAL AND LATERAL CLEARANCE*	*05/17/07*	*05/02/07*
MD 813.03	*EXTRUDED ALUMINUM DETAILS SIGN PANEL DIMENSIONS*	*12/07/09*	*07/27/09*
MD 813.04	*EXTRUDED ALUMINUM DETAILS*	*12/07/09*	*07/27/09*
MD 813.05	*EXTRUDED ALUMINUM DETAILS AND VERTICAL SUPPORT ATTACHMENT*	*11/10/18*	*10/26/18*
MD 813.06	*EXTRUDED ALUMINUM DETAILS SIGN PANEL ASSEMBLY*	*05/17/07*	*05/02/07*
MD 813.07	*PUSHBUTTON SIGN BANDING DETAIL*	*05/17/07*	*05/02/07*
MD 813.08	*SIGN BANDING DETAIL*	*05/17/07*	*05/02/07*
MD 813.08-01	*SQUARE STEEL TUBE SIGN POST SIGN MOUNTING*	*05/17/07*	*05/02/07*
MD 813.09-01	*SPECIAL SIGN SUPPORTS CONCRETE BARRIER MOUNTED SIGN*	*10/01/01*	*02/01/01*
MD 813.09-02	*SPECIAL SIGN SUPPORTS FOR CAST-IN-PLACE CONCRETE BARRIER*	*10/01/01*	*02/01/01*
MD 813.09-03	*SPECIAL SIGN SUPPORTS CONCRETE BARRIER MOUNTED SIGN*	*10/01/01*	*02/01/01*
MD 813.09-04	*SPECIAL SIGN SUPPORTS FOR EXISTING CONCRETE BARRIER*	*10/01/01*	*02/01/01*
MD 814.01	*SIGNAL HEAD MOUNTING DETAILS RIGID MOUNT*	*05/17/07*	*05/02/07*
MD 814.02	*SIGNAL HEAD MOUNTING DETAILS*	*05/17/07*	*05/02/07*
MD 814.03	*SIDE POLE MOUNTING FOR VEHICULAR AND PEDESTRIAN SIGNAL HEADS*	*05/17/07*	*05/02/07*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 814.04	*TOP POLE MOUNTING FOR VEHICULAR AND PEDESTRIAN SIGNAL HEADS*	*05/17/07*	*05/02/07*
MD 814.05	*SPAN-WIRE MOUNTING FOR VEHICULAR SIGNAL HEADS*	*05/17/07*	*05/02/07*
MD 815.01	*LOOP DETECTOR INSTALLATION*	*09/23/09*	*07/27/09*
MD 815.02	*PROBE INSTALLATION*	*05/17/07*	*05/02/07*
MD 816.01	*NEMA SIZE 5 BASE MOUNTED CABINET LAYOUT*	*05/17/07*	*05/02/07*
MD 816.02	*NEMA SIZE 6 BASE MOUNTED CABINET LAYOUT*	*05/17/07*	*05/02/07*
MD 816.03	*FOUNDATION DETAILS FOR BASE MOUNTED SIGNAL CABINETS*	*05/17/07*	*05/02/07*
MD 816.06	*SIZE S – BASE MOUNTED CABINET LAYOUT*	*11/10/18*	*10/26/18*
MD 816.07	*FOUNDATION DETAILS FOR SIZE S BASE MOUNTED CABINET*	*01/15/19*	*10/26/18*
MD 817.01	*ACCESSIBLE PEDESTRIAN SIGNAL (APS)PUSHBUTTON LOCATION ON POLE*	*09/25/07*	*09/18/07*
MD 817.02	*PEDESTRIAN PUSH BUTTON ASSEMBLY*	*05/17/07*	*05/02/07*
MD 818.01	*METAL POLE (STRAIN AND MAST ARM) MOUNTING DETAIL*	*11/20/19*	*09/04/19*
MD 818.02	*MAST ARM POLE DETAILS*	*11/20/19*	*09/04/19*
MD 818.02-01	*MAST ARM VIBRATION MITIGATION DEVICE*	*11/20/19*	*09/04/19*
MD 818.03	*ORIENTATION OF STRAIN POLE AND FIELD DRILLED POLE / ARM DETAIL*	*05/17/07*	*05/02/07*
MD 818.04	*PLACEMENT OF STRAIN POLE AND INCIDENTAL HARDWARE*	*05/17/07*	*05/02/07*
MD 818.06	*SINGLE MAST ARM POLE*	*11/20/19*	*09/04/19*
MD 818.06-01	*CURVED SINGLE MAST ARM POLE*	*11/20/19*	*09/04/19*
MD 818.06-02	*SINGLE MAST ARM POLE WITH 22'-0" "T" DIMENSION*	*11/20/19*	*09/04/19*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 818.07	*TWIN MAST ARM POLE WITH IDENTICAL FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.07-01	*CURVED TWIN MAST ARM POLE WITH IDENTICAL FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.08	*STANDARD TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.08-01	*CURVED TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.09	*ALTERNATE TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.09-01	*REVERSE CURVED TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.10	*TRIPLE MAST ARM POLE WITH DIFFERENT FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.11	*ACCESS HOLE FOR TRAFFIC STRUCTURES*	*11/20/19*	*09/04/19*
MD 818.12	*MAST ARM FLANGE PLATES*	*11/20/19*	*09/04/19*
MD 818.13	*MAST ARMS*	*11/20/19*	*09/04/19*
MD 818.13-01	*MAST ARMS FOR STRUCTURES WITH 15'-0" "T"*	*11/20/19*	*09/04/19*
MD 818.13-02	*10 FOOT CLAMP ON MINI-MAST ARM FOR SIGNAL ATTACHMENT*	*11/20/19*	*09/04/19*
MD 818.14	*ANCHOR BOLT COVER*	*11/20/19*	*09/04/19*
MD 818.15	*STRAIN POLE DETAIL*	*05/17/07*	*05/02/07*
MD 818.16	*10' PEDESTAL POLE*	*05/17/07*	*05/02/07*
MD 818.16-01	*6' TO 10' PEDESTAL POLE FOR USE WITH BREAKAWAY COUPLINGS*	*11/20/19*	*09/04/19*
MD 818.17	*14' PEDESTAL POLE DETAIL*	*05/17/07*	*05/02/07*
MD 818.17-01	*20' PEDESTAL / DETECTOR POLE DETAIL*	*05/17/07*	*05/02/07*
MD 818.20	*LIGHTING ARM AND VIDEO DETECTION CAMERA ARM PLACED ON TRAFFIC SIGNAL POLES*	*11/20/19*	*09/04/19*

STANDARD NUMBERS	DESCRIPTION	Dates	
		MDSHA	FHWA
	CATEGORY "8" TRAFFIC		
MD 821.01	*BREAKAWAY TRANSFORMER BASE FOR SIGNAL STRUCTURE*	*11/20/19*	*09/04/19*
MD 821.01-01	*BREAKAWAY TRANSFORMER BASE FOR 10', 14' AND 20' PEDESTAL POLES*	*05/17/07*	*05/02/07*
MD 821.02	*BREAKAWAY TRANSFORMER BASE FOR LIGHTING STRUCTURE*	*05/17/07*	*05/02/07*
MD 821.02-01	*TYPICAL LIGHTING STRUCTURE FOUNDATION ON SLOPE*	*10/01/01*	*02/01/01*
MD 821.03	*BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS*	*11/10/18*	*10/26/18*
MD 821.03-01	*BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS*	*11/10/18*	*10/26/18*
MD 821.03-02	*BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS*	*03/22/10*	*03/10/10*
MD 821.03-03	*BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS*	*03/22/10*	*03/10/10*
MD 821.03-04	*BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS*	*03/22/10*	*03/10/10*
MD 821.03-05	*BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS*	*03/22/10*	*03/10/10*
MD 821.03-06	*BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS*	*03/22/10*	*03/10/10*
MD 821.03-07	*BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS*	*03/22/10*	*03/10/10*
MD 821.03-08	*BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS*	*03/22/10*	*03/10/10*
MD 821.08-01	*BREAKAWAY POLES ADJUSTMENT FOR GROUND SLOPES*	*10/01/01*	*02/01/01*

TRAFFIC SIGNAL SYMBOLS

PROPOSED		EXISTING
	SIGNAL POLE	
	SINGLE MAST ARM AND POLE	
	TWIN MAST ARM AND POLE	
	TRIPLE MAST ARM AND POLE	
	LIGHTING ARM AND LUMINAIRE ON SIGNAL POLE	
	PEDESTRIAN PUSH BUTTON AND SIGN ON SIGNAL POLE	
	POLE MOUNTED CABINET	
	BASE MOUNTED NEMA SIZE "5" CABINET AND CONCRETE PAD	
	BASE MOUNTED NEMA SIZE "6" CABINET AND CONCRETE PAD	
	HANDHOLE	
	LOOP DETECTOR (6′ x 30′)	
	LOOP DETECTOR (6′ x 6′)	
	VIDEO DETECTION ZONE FOR PRESENCE DETECTION	
	VIDEO DETECTION ZONE FOR SAMPLING OR ADVANCED DETECTION	
	MICRO LOOP PROBE SET	
	CONDUIT	
	VEHICLE SIGNAL HEAD	
	PEDESTRIAN SIGNAL HEAD	
	OPTICAL PRE-EMPTION DETECTOR EYE	
	VIDEO DETECTION CAMERA	

SPECIFICATION	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 7-1-94	APPROVAL 7-1-94
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

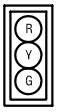
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TRAFFIC SIGNAL SYMBOLS

STANDARD NO. MD 800.01-01

DESIGN STANDARD SYMBOLS

LED VEHICLE SIGNAL HEAD



LED VEHICLE SIGNAL HEAD
WITH BACKPLATE

COUNTDOWN PEDESTRIAN SIGNAL HEAD

OPTICALLY PROGRAMMED
VEHICLE SIGNAL HEAD

APS SIGN AND PUSHBUTTON

BACK GUY

GAS VALVE

WATER METER

WATER VALVE

MANHOLE

GROUND ROD

LIGHTING MANHOLE

JUNCTION BOX

WOOD POLE

UTILITY POLE

SHA UTILITY POLE

OVERHEAD POWER FEED WITH UTILITY SERVICE EQUIPMENT

METERED SERVICE PEDESTAL

LIGHTING CONTROL CABINET

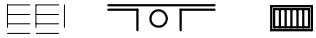
NORTH ARROW

SHRUBS/TREES

FIRE HYDRANT

DRAINAGE PIPE

FENCE



STORM DRAIN INLETS

LOUVERS ON SIGNAL FACE

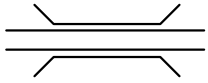
WOOD POLE WITH TRANSFORMER

PAD MOUNTED TRANSFORMER

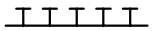
DRIVEWAY

BUILDING CORNER

RAILROAD

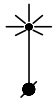


BRIDGE

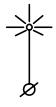


W-BEAM TRAFFIC BARRIER
(PROPOSED)

W-BEAM TRAFFIC BARRIER
(EXISTING)



LIGHTING ARM AND LUMINAIRE
ON WOOD POLE (PROPOSED)



LIGHTING ARM AND LUMINAIRE
ON WOOD POLE (EXISTING)

SPECIFICATION	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 7-1-94	APPROVAL 7-1-94
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

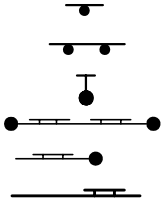
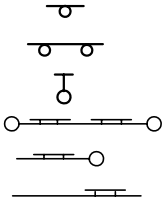
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

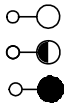
DESIGN STANDARD SYMBOLS

STANDARD NO. MD 800.01-02

SIGNING SYMBOLS

PROPOSED		EXISTING
	SINGLE POST GROUND MOUNTED SIGN DOUBLE POST GROUND MOUNTED SIGN SPAN WIRE AND MAST ARM MOUNTED SIGN OVERHEAD SIGN STRUCTURE CANTILEVER SIGN STRUCTURE BRIDGE MOUNTED SIGN STRUCTURE	

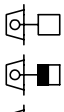
LIGHTING SYMBOLS



200 WATT COBRAHEAD LUMINAIRE ON GROUND MOUNT LIGHTING STRUCTURE
250 WATT COBRAHEAD LUMINAIRE ON GROUND MOUNT LIGHTING STRUCTURE
400 WATT COBRAHEAD LUMINAIRE ON GROUND MOUNT LIGHTING STRUCTURE

200 WATT COBRAHEAD LUMINAIRE ON BRIDGE MOUNT LIGHTING STRUCTURE
250 WATT COBRAHEAD LUMINAIRE ON BRIDGE MOUNT LIGHTING STRUCTURE
400 WATT COBRAHEAD LUMINAIRE ON BRIDGE MOUNT LIGHTING STRUCTURE

200 WATT RECTANGULAR LUMINAIRE ON SQUARE LIGHTING STRUCTURE GROUND MOUNT
250 WATT RECTANGULAR LUMINAIRE ON SQUARE LIGHTING STRUCTURE GROUND MOUNT
400 WATT RECTANGULAR LUMINAIRE ON SQUARE LIGHTING STRUCTURE GROUND MOUNT

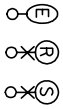


200 WATT RECTANGULAR LUMINAIRE ON SQUARE LIGHTING STRUCTURE BRIDGE MOUNT
250 WATT RECTANGULAR LUMINAIRE ON SQUARE LIGHTING STRUCTURE BRIDGE MOUNT
400 WATT RECTANGULAR LUMINAIRE ON SQUARE LIGHTING STRUCTURE BRIDGE MOUNT

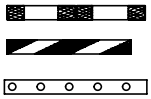
250 WATT OFF ROAD FLOOD LIGHT ON SQUARE LIGHTING STRUCTURE GROUND MOUNT
400 WATT OFF ROAD FLOOD LIGHT ON SQUARE LIGHTING STRUCTURE GROUND MOUNT

200 WATT BRIDGE UNDERPASS LUMINAIRE
250 WATT BRIDGE UNDERPASS LUMINAIRE
400 WATT BRIDGE UNDERPASS LUMINAIRE

PROPOSED PEDESTRIAN LIGHTING POLE AND LUMINAIRE (WATTAGE AS NOTED ON PLANS)
EXISTING PEDESTRIAN LIGHTING POLE AND LUMINAIRE (WATTAGE AS NOTED ON PLANS)



EXISTING LIGHTING STRUCTURE, TO REMAIN
EXISTING LIGHTING STRUCTURE, TO BE REMOVED
EXISTING LIGHTING STRUCTURE, TO BE REMOVED AND REUSED ON SAME PROJECT



4" CONDUIT, PUSHED OR BORED
2 1/2" CONDUIT, PUSHED OR BORED
BRIDGE MOUNTED CONDUIT

SPECIFICATION	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

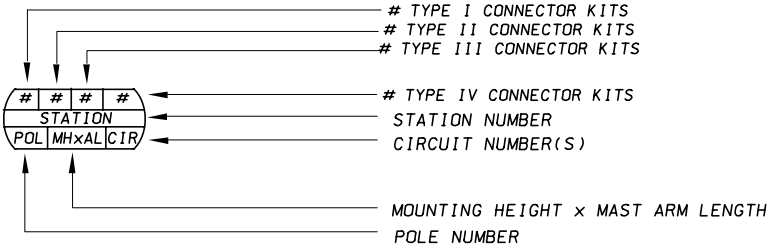
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 7-1-94	APPROVAL 7-1-94
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

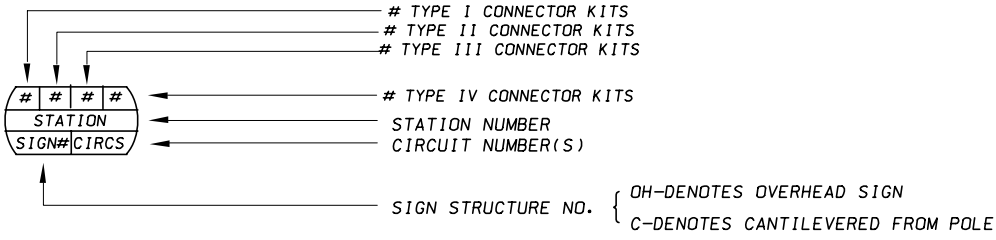
SHA State Highway Administration

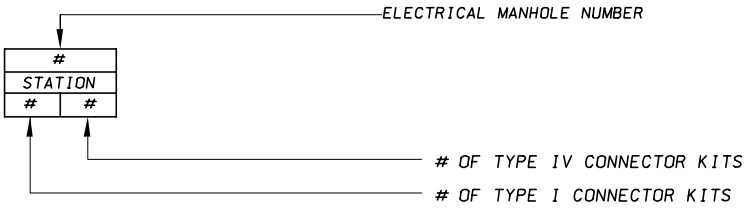
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

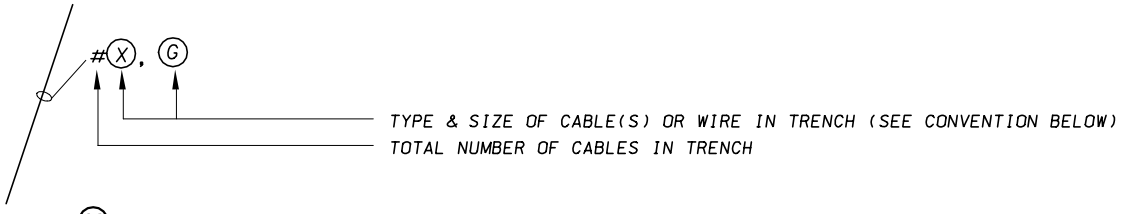
SIGNING AND LIGHTING SYMBOLS

STANDARD NO. MD 800.01-03









6G ~ #6 AWG STRANDED BARE COPPER GROUND WIRE

4G ~ #4 AWG STRANDED BARE COPPER GROUND WIRE

A ~ 2/C #4 AWG DUCT CABLE

B ~ 4/C #4 AWG DUCT CABLE

C ~ 2/C #6 AWG DUCT CABLE

D ~ 4/C #6 AWG DUCT CABLE

E ~ 3/C #4 AWG DUCT CABLE

F ~ 6/C #4 AWG DUCT CABLE

H ~ 3/C #6 AWG DUCT CABLE

I ~ 6/C #6 AWG DUCT CABLE

SPECIFICATION	CATEGORY CODE ITEMS

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 7-1-94	APPROVAL 7-1-94
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LIGHTING LEGEND

STANDARD NO. MD 800.01-04

LIGHTING – GENERAL NOTES

1. CENTER OF CABLE TRENCH SHALL BE 3' BEHIND THE CENTER OF LIGHTING STRUCTURES UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

2. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN CASE OF DAMAGE TO AN EXISTING FACILITY.

3. THE CONTRACTOR SHALL REPLACE ALL CONCRETE GUTTERS, FLUMES, UNDERDRAINS AND OTHER CONCRETE STRUCTURES DAMAGED OR REMOVED DURING THE INSTALLATION OF FOUNDATIONS AND CABLE.

4. LIGHTING STRUCTURES SHALL NOT BE PLACED ON THE ROADWAY SIDE OF EXISTING OR PROPOSED TRAFFIC BARRIER W BEAM OR CONCRETE TRAFFIC BARRIER WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.

5. ALL CONNECTIONS BETWEEN GROUND RODS AND GROUND CABLE SHALL BE BY EXOTHERMIC WELD.

6. CONDUCTORS SHALL NOT BE SPLICED EXCEPT IN STRUCTURES, MANHOLES AND PULL OR JUNCTION BOXES. ALL MANHOLES, CONDUITS UNDER PAVEMENTS, LIGHTING STRUCTURES, ETC. SHALL BE STAKED OUT AND EVERY LOCATION APPROVED BY THE ENGINEER BEFORE ANY WORK IS DONE.

7. ALL DRIVEN CONDUIT SHALL BE PLACED UNDER PAVEMENT BY DIRECTIONAL BORING OR JACKING.

8. UPON RECEIVING NOTICE TO PROCEED, THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL UTILITY COMPANY, THE PROJECT ENGINEER AND THE TRAFFIC OPERATIONS DIVISION TO INSURE THAT POWER IS AVAILABLE WHEN REQUIRED.

9. ALL LIGHTING STRUCTURES NOT PROTECTED BY TRAFFIC BARRIER SHALL BE ON BREAKAWAY BASES.

10. ALL TRENCHING MUST BE BACKFILLED AND RESTORED TO ITS ORIGINAL CONDITION ON THE SAME WORKING DAY ON WHICH IT WAS OPENED. AREAS WHICH ARE NOT RESEEDED, MULCHED OR SODDED MUST BE COVERED TO PREVENT EROSION. ALL SOIL NOT USED FOR BACKFILL MUST BE REMOVED ON THE SAME WORKING DAY.

11. ALL SOIL REMOVED FOR HANDBOXES, FOUNDATIONS, ETC. MUST BE COVERED TO PREVENT EROSION. SOIL NOT USED FOR BACKFILL MUST BE DISPOSED OF TO THE ENGINEER'S SATISFACTION ON THE SAME WORKING DAY THE BACKFILL IS COMPLETED.

SPECIFICATION	CATEGORY CODE ITEMS

APPROVED 

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

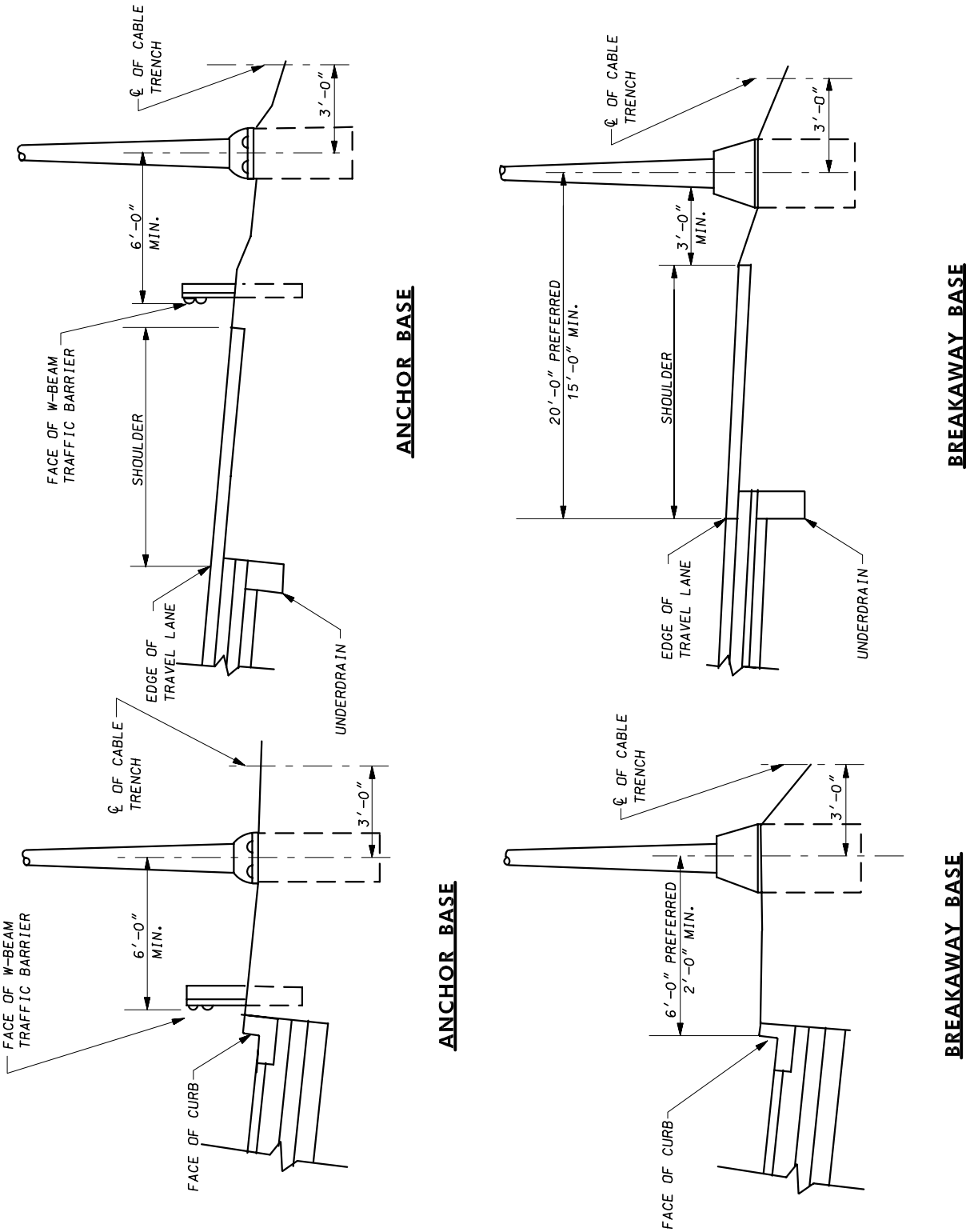
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LIGHTING GENERAL NOTES

STANDARD NO. MD 800.01-05

LIGHTING STRUCTURES SHALL NOT BE PLACED IN FRONT OF TRAFFIC BARRIERS



SPECIFICATION	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

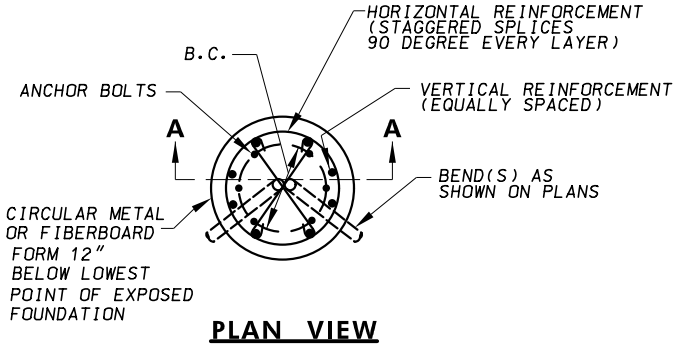
LIGHTING STRUCTURE PLACEMENT

STANDARD NO. MD 800.02-01

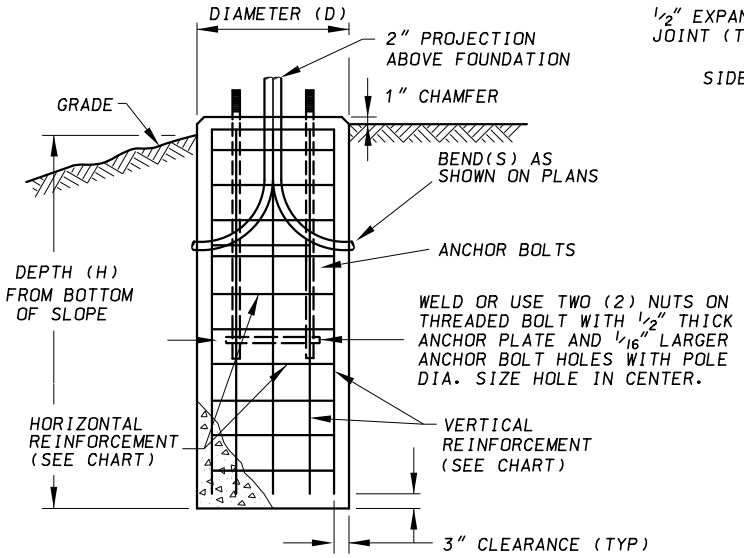
POLE TYPE	ARM LENGTH OR POLE SIZE	BOLT CIRCLE (IN.)	ANCHOR BOLT SIZE (NO.-DIA. IN. x IN.)	ANCHOR BOLT PROJECTION ABOVE FOUNDATION MAX (IN.)	FOUNDATION REINFORCEMENT				CONCRETE REQUIRED C.Y.
					DIAMETER 'D'	DEPTH H IN GROUND	VERTICAL REINFORCEMENT	HORIZONTAL REINFORCEMENT	
BREAKAWAY PEDESTAL	6'- 10'	8	REFER TO MD 801.01-01	FEMALE ANCHOR FOR COUPLING	1'-6"	3'-0"	6 NO.6	NO.3@12"C.C.	0.2
PEDESTAL BREAKAWAY	10'/ 14'/ 20'	11	4 - 1 x 36	3 1/4	2'-0"	6'-0"	6 NO.8	NO.3@12"C.C.	0.7
STRAIN	12" x 30'	16	4 - 1 3/4 x 66	7 1/2	3'-0"	10'-0"	8 NO.10	NO.4@12"C.C.	2.7
	12" x 32'	22	4 - 2 1/4 x 72	8 1/2	4'-0"	10'-0"	16 NO.10	NO.4@12"C.C.	4.7
	14" x 32'	22	4 - 2 1/4 x 72	8 1/2	4'-0"	10'-0"	16 NO.10	NO.4@12"C.C.	4.7
MAST ARM	50'-60' SINGLE	22	6 - 2 x 72	9	4'-0"	10'-0"	16 NO.10	NO.4@12"C.C.	4.7
	50'-60',50'-60' TWIN	22	6 - 2 x 72	9	4'-0"	10'-0"	16 NO.10	NO.4@12"C.C.	4.7
	70'-75' SINGLE	23 1/2	6 - 2 x 72	9	4'-0"	10'-0"	16 NO.10	NO.4@12"C.C.	4.7
	50'-60',70'-75' TWIN	23 1/2	6 - 2 x 72	9	4'-0"	10'-0"	16 NO.10	NO.4@12"C.C.	4.7
	50',50'-60',70'-75' TRIPLE	23 1/2	6 - 2 x 72	9	4'-0"	10'-0"	16 NO.10	NO.4@12"C.C.	4.7

NOTES:

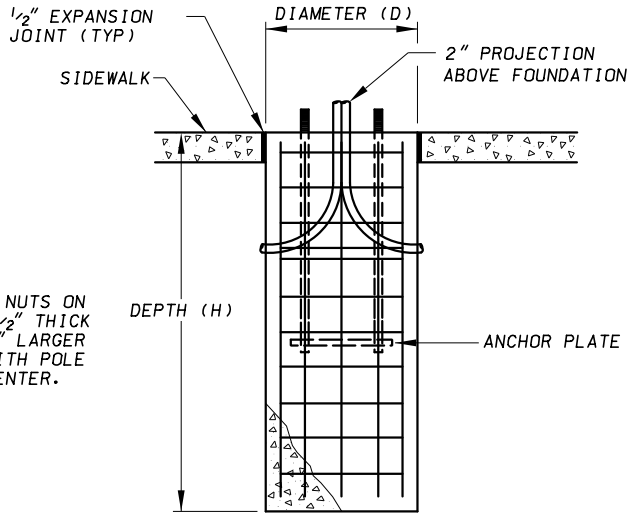
1. MAST ARM POLE FOUNDATIONS SHALL PROJECT ABOVE GRADE TO PROVIDE MAST ARM TO ROADWAY CLEARANCE OF 18' - 20' FULLY LOADED.
2. ALL EXPOSED FOUNDATION FACES SHALL BE FINISHED SMOOTH.
3. GROUT SHALL NOT BE INSTALLED BETWEEN THE BASE PLATE AND THE TOP OF THE FOUNDATION.
4. 1/4" THICK STEEL TEMPLATE PLATE WITH 1/16" LARGER ANCHOR BOLT HOLE SHALL BE USED FOR INSTALLATION.
5. ANCHOR BOLTS SHALL BE PLUMB AND SHALL BE INSTALLED WITH MISALIGNMENT OF LESS THAN 1:40 FROM VERTICAL.



PLAN VIEW



SECTION A-A
NON-SIDEWALK AREA



SECTION A-A
SIDEWALK AREA

SPECIFICATION	CATEGORY CODE ITEMS
801	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

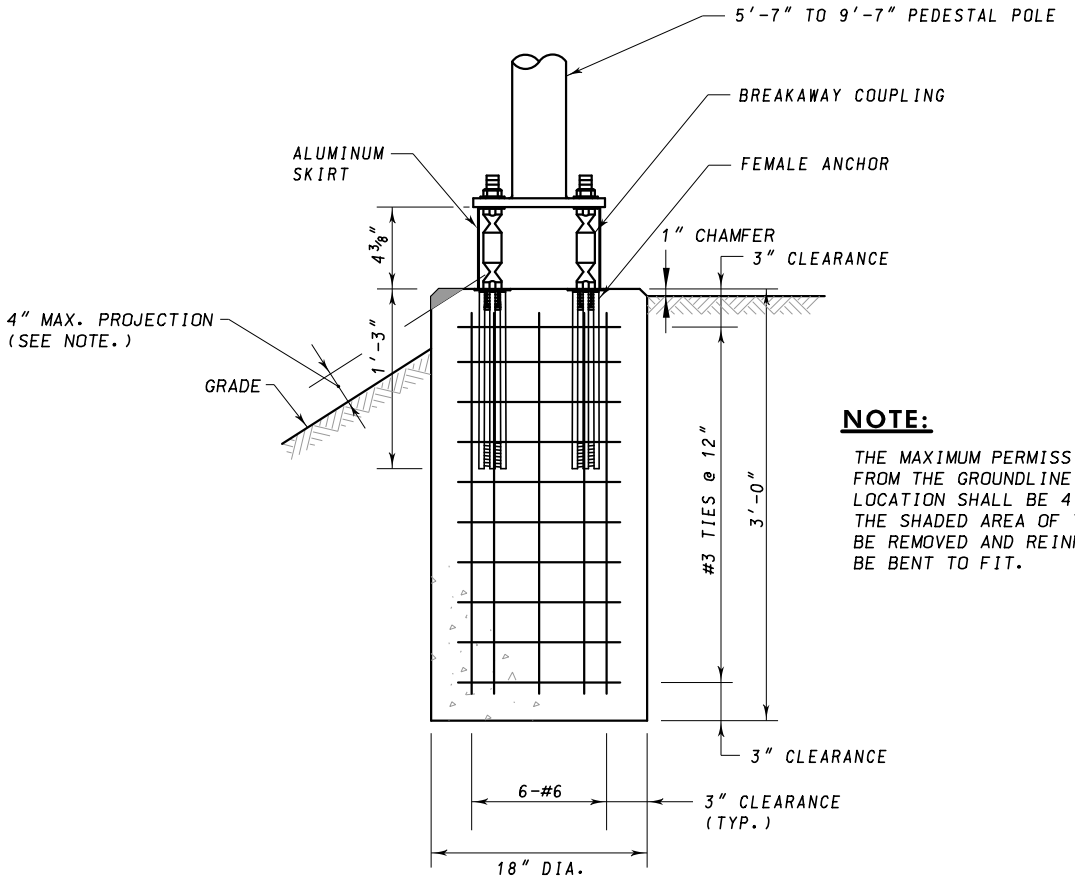
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	10-1-01	REVISED	2-1-01
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGNAL STRUCTURE FOUNDATIONS

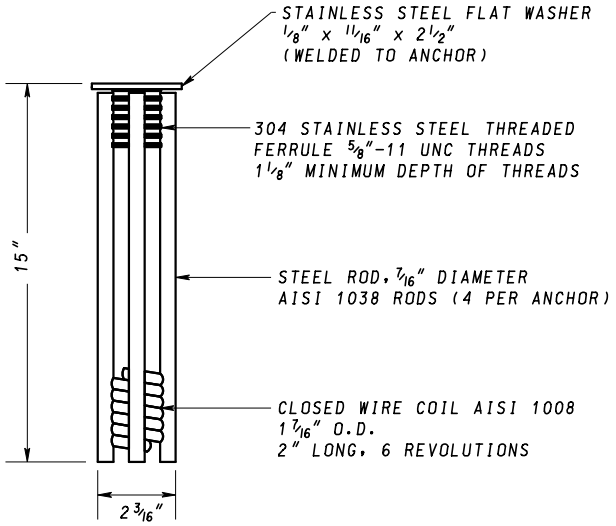
STANDARD NO. MD 801.01



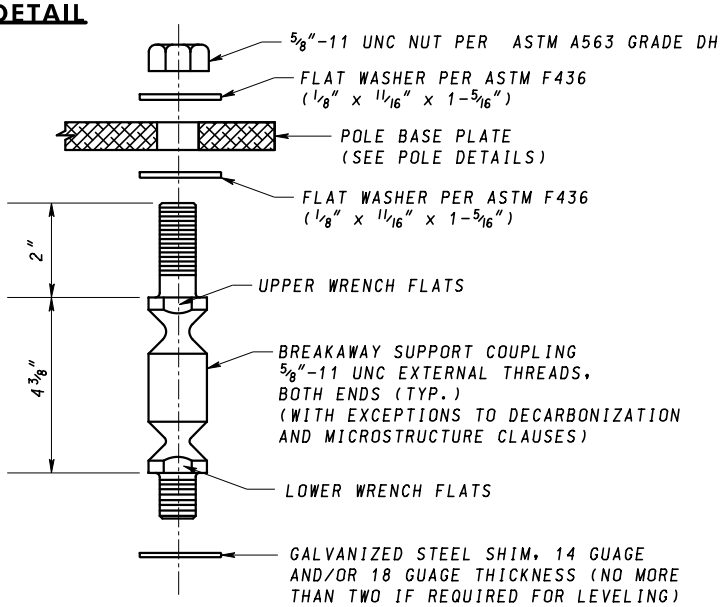
NOTE:

THE MAXIMUM PERMISSIBLE PROJECTION FROM THE GROUNDLINE TO THE BREAKAWAY LOCATION SHALL BE 4". WHERE NECESSARY, THE SHADED AREA OF THE FOOTING SHALL BE REMOVED AND REINFORCEMENT SHALL BE BENT TO FIT.

FOUNDATION DETAIL



FEMALE ANCHOR DETAIL



BREAKAWAY COUPLING DETAIL

SPECIFICATION	CATEGORY CODE ITEMS
801	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

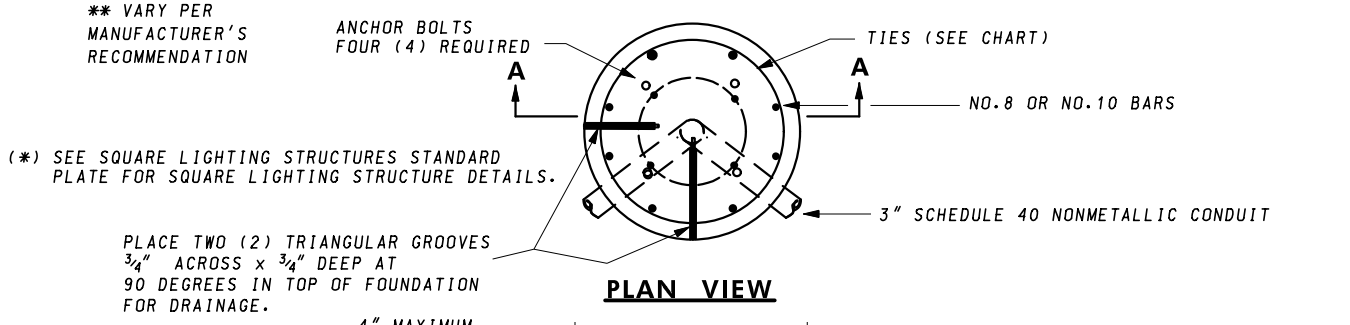
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGNAL STRUCTURE FOUNDATIONS FOR PUSHBUTTON AND PEDESTRIAN SIGNAL POLE

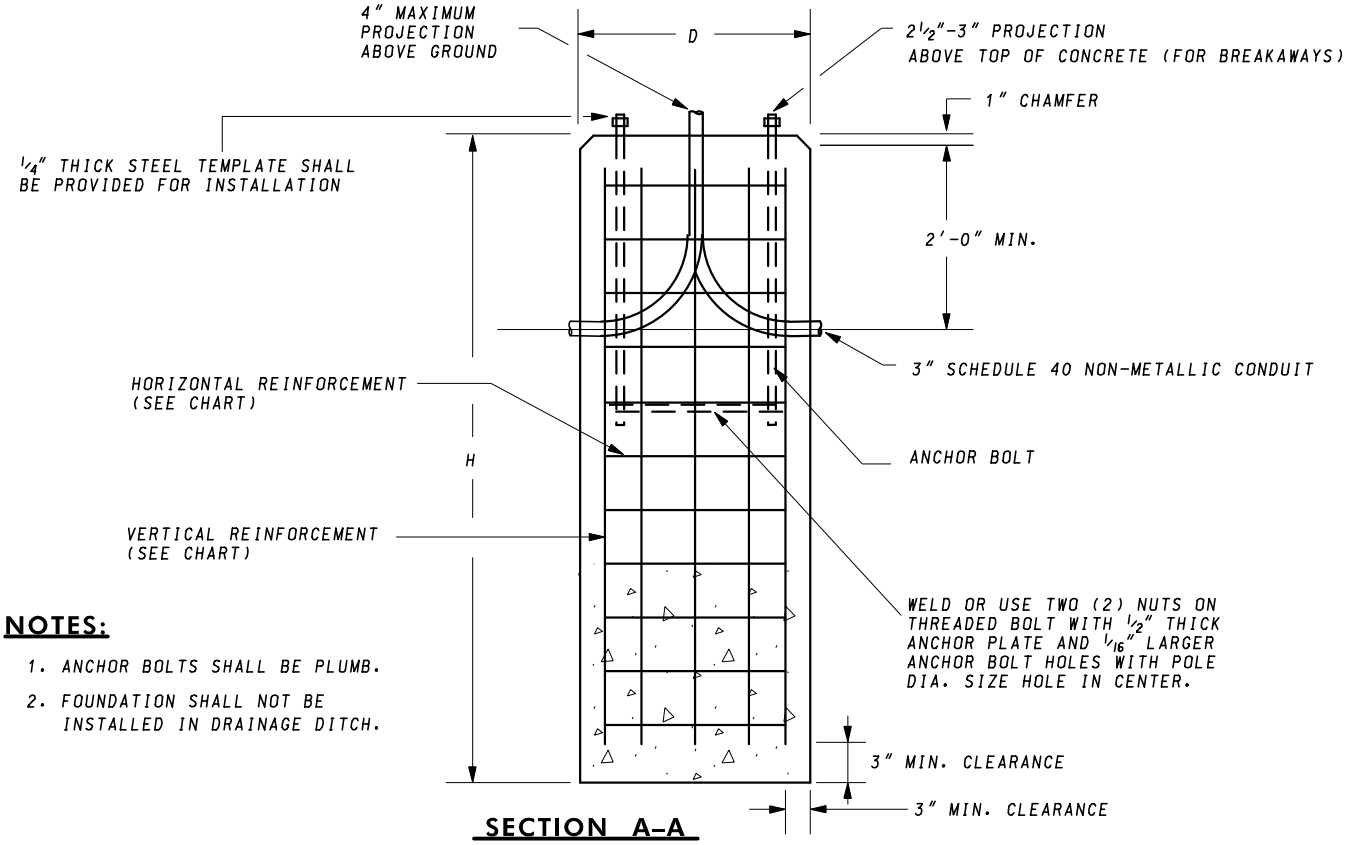
STANDARD NO. MD 801.01-01

NOMINAL MOUNTING HEIGHT FT.	BRACKET ARM LENGTH FT.	ANCHOR BOLT DIMENSIONS (*) P" x X" IN. x IN.	FOUNDATION DIMENSIONS		FOUNDATION REINFORCEMENT		CONCRETE REQUIRED C.Y.
			DIAMETER D FT.	HEIGHT H FT.	VERTICAL REINF. BARS SIZE	HORIZONTAL REINF. SIZE	
UP TO 15	0	**	2	4	6 NO.8	NO.3 TIES AT 1'-0" C.C.	0.5
16-30	0-15	1 x 36	2 1/2	7	8 NO.8		1.3
	20-25	1 x 36	2 1/2	11 1/2	8 NO.8		2.1
	30	1 1/4 x 42	2 1/2	11 1/2	8 NO.8		2.1
35-40	4-20	1 x 36	2 1/2	11 1/2	8 NO.8		2.1
	25-35	1 1/4 x 42	3	15	8 NO.10		4.0
45-50	0-10	1 x 36	2 1/2	11 1/2	8 NO.8		2.1
	15-30	1 1/4 x 42	3	15	8 NO.10		4.0

** VARY PER MANUFACTURER'S RECOMMENDATION



PLAN VIEW



SECTION A-A

NOTES:

1. ANCHOR BOLTS SHALL BE PLUMB.
2. FOUNDATION SHALL NOT BE INSTALLED IN DRAINAGE DITCH.

SPECIFICATION	CATEGORY CODE ITEMS
801	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	5-18-20	REVISED	3-10-20
REVISED		REVISED	

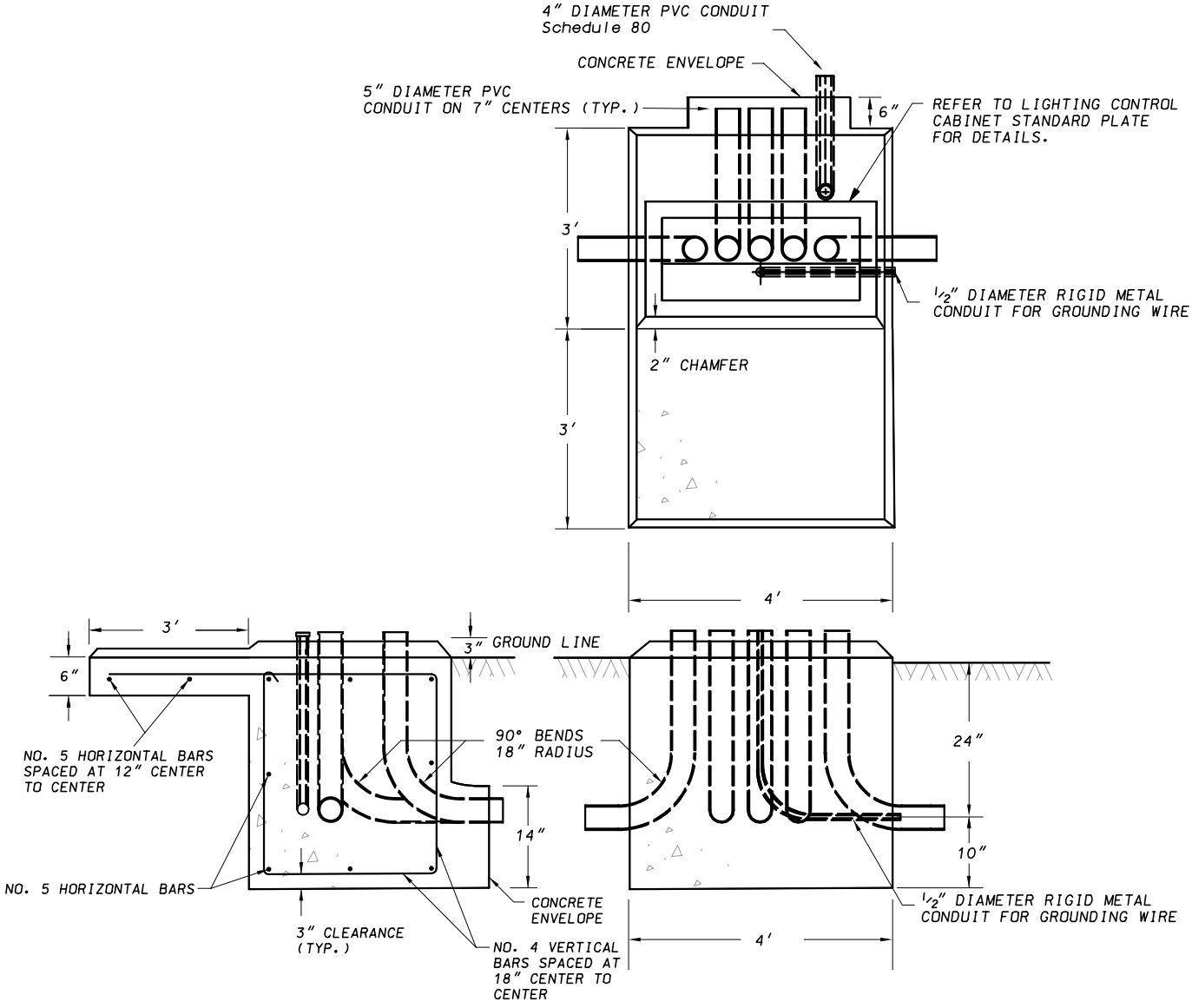
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LIGHTING STRUCTURE FOUNDATION

STANDARD NO. MD 801.02

REFERENCED ON: MD 808.01, MD 808.02



NOTES:

1. CHAMFER ALL EXPOSED CONCRETE EDGES 1".
2. LIGHTING CONTROL CABINET FOUNDATION REQUIRES 1.5 CY CONCRETE.
3. FOUNDATION SHALL NOT BE INSTALLED IN DRAINAGE DITCH.

SPECIFICATION	CATEGORY CODE ITEMS
801,816	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 7-1-94	APPROVAL 7-1-94
	REVISED 5-17-07	REVISED 5-2-07
	REVISED	REVISED
	REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

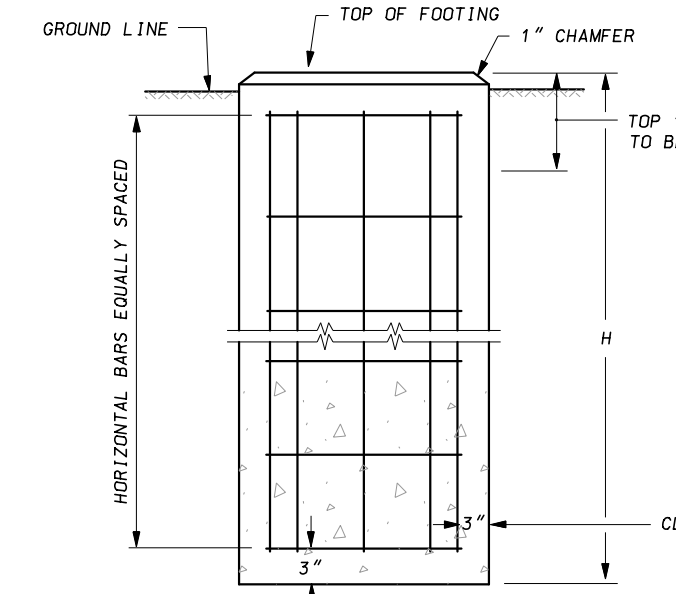
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

FOUNDATION DETAILS FOR BASE-MOUNTED LIGHTING CONTROL CABINET

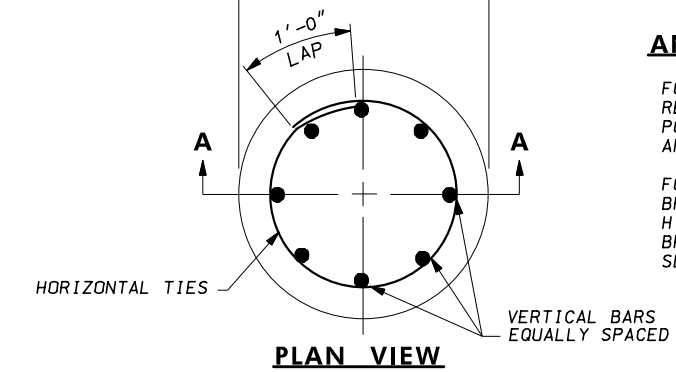
STANDARD NO. MD 801.03

REFERENCED ON: MD 807.03

BREAKAWAY AND NON-BREAKAWAY TYPE A SIGN POST FOUNDATIONS



SECTION A-A



PLAN VIEW

ANCHOR DETAILS

FOR NON-BREAKAWAY ANCHOR DETAILS, REFER TO GALVANIZED STEEL BEAM SIGN POSTS NON BREAKAWAY BASE PLATE AND ANCHOR BOLTS STANDARD PLATE.

FOR BREAKAWAY BASE DETAILS, REFER TO BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES AND BREAKAWAY POLES ADJUSTMENT FOR GROUND SLOPES STANDARD PLATE.

FOUNDATION DATA TABLE

POST SIZE	D	H	VERTICAL REINFORCEMENT	HORIZONTAL REINFORCEMENT	CONCRETE REQ'D C.Y.
W6 x 9	30"	6'-0"	EIGHT (8)- NO.8	SEVEN (7)- NO.4	1.1
W6 x 12 OR TS 5"x 5"x 1/4"	30"	6'-0"	EIGHT (8)- NO.8	SEVEN (7)- NO.4	1.1
W6 x 15 OR W6 x 16 OR TS 6"x 6"x 1/4"	30"	6'-6"	EIGHT (8)- NO.8	SEVEN (7)- NO.4	1.2
W8 x 18	30"	7'-6"	EIGHT (8)- NO.9	EIGHT (8)- NO.4	1.4
W8 x 21 OR TS 7"x 7"x 1/4"	30"	8'-0"	EIGHT (8)- NO.9	NINE (9)- NO.4	1.5
W10 x 22 OR TS 8"x 8"x 5/16"	36"	8'-6"	EIGHT (8)- NO.10	NINE (9)- NO.4	2.3
W10 x 26	36"	9'-0"	EIGHT (8)- NO.10	TEN (10)- NO.4	2.4
W12 x 26	36"	10'-0"	EIGHT (8)- NO.10	ELEVEN (11)- NO.4	2.7
W14 x 30	36"	11'-0"	EIGHT (8)- NO.10	TWELVE (12)- NO.4	2.9
W16 x 31	36"	12'-0"	EIGHT (8)- NO.10	THIRTEEN (13)- NO.4	3.2
W18 x 35 OR W18 X 40	36"	13'-0"	EIGHT (8)- NO.10	FOURTEEN (14)- NO.4	3.5
W21 x 44	42"	12'-0"	TWELVE (12)- NO.10	THIRTEEN (13)- NO.4	4.3

SPECIFICATION	CATEGORY CODE ITEMS
801, 802	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	5-17-07	REVISED	5-2-07
REVISED	5-18-20	REVISED	3-10-20
REVISED		REVISED	

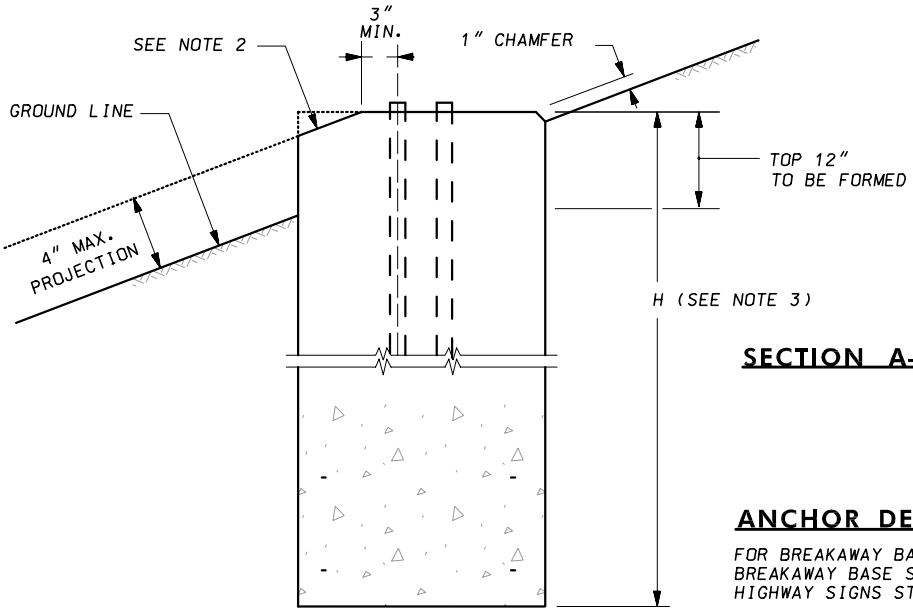
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS – TYPE A

STANDARD NO. MD 801.04

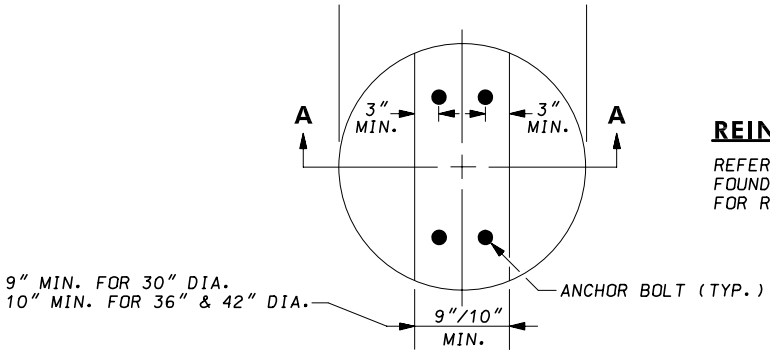
BREAKAWAY TYPE B SIGN POST FOUNDATION



SECTION A-A

ANCHOR DETAILS

FOR BREAKAWAY BASE DETAILS, REFER TO BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES.



PLAN VIEW

REINFORCING STEEL DETAILS

REFER TO GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS - TYPE A STANDARD PLATE FOR REINFORCING STEEL DETAILS.

NOTES:

1. THIS FOUNDATION SHALL BE USED ONLY IN LOCATIONS MEETING SLOPE CRITERIA IN ACCORDANCE WITH THE STEEL BREAKAWAY SUPPORT FOUNDATION SELECTION TABLE ON THE SN-4 SHEET.
2. SLOPED PORTIONS OF THE FOUNDATION SHALL MATCH THE FINISHED GROUND SLOPE.
3. REFER TO GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS - TYPE A FOR FOUNDATION DIMENSIONS AND REINFORCING STEEL DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
801, 802	

APPROVED _____
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-17-07	APPROVAL 5-2-07
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

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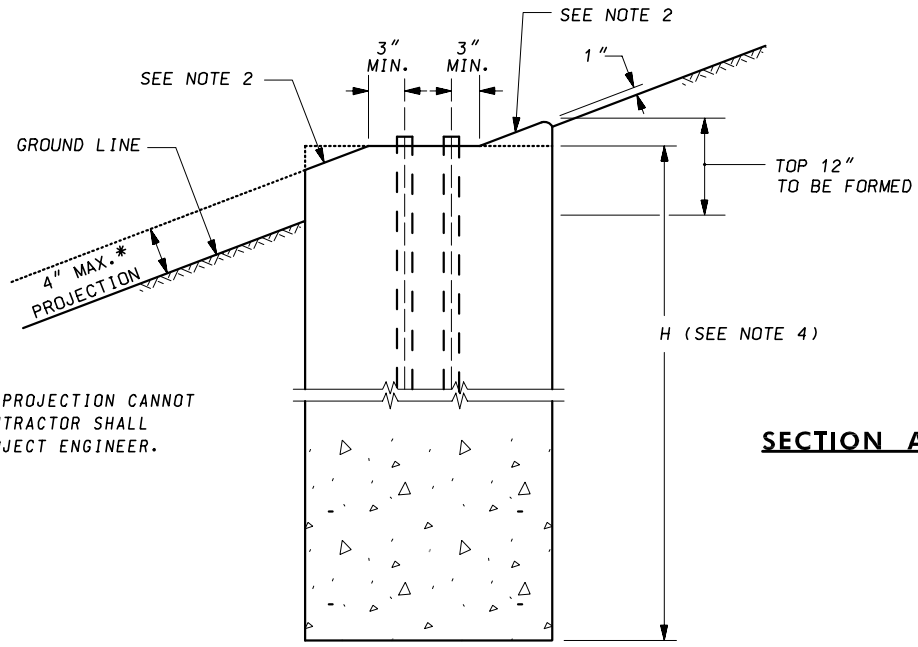
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS - TYPE B

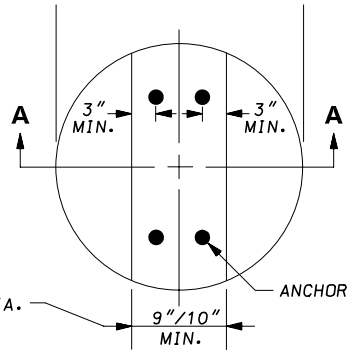
STANDARD NO. MD 801.04-01

BREAKAWAY TYPE C SIGN POST FOUNDATION



* IF 4" MAX. PROJECTION CANNOT BE MET, CONTRACTOR SHALL CONTACT PROJECT ENGINEER.

SECTION A-A



PLAN VIEW

ANCHOR DETAILS

FOR BREAKAWAY BASE DETAILS, REFER TO BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES.

REINFORCING STEEL DETAILS

REFER TO GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS - TYPE A STANDARD PLATE FOR REINFORCING STEEL DETAILS.

NOTES:

1. THIS FOUNDATION SHALL BE USED ONLY IN LOCATIONS MEETING SLOPE CRITERIA IN ACCORDANCE WITH THE STEEL BREAKAWAY SUPPORT FOUNDATION SELECTION TABLE ON THE SN-4 SHEET.
2. SLOPED PORTIONS OF THE FOUNDATION SHALL MATCH THE FINISHED GROUND SLOPE.
3. ON FILL SLOPES GREATER THAN 6:1 BUT NO STEEPER THAN 3:1, FOUNDATIONS DESIRABLY SHOULD BE INSTALLED A MINIMUM OF 14FT BEYOND THE HINGE POINT. THE HINGE POINT IS THE POINT OF SLOPE TRANSITION FROM THE SHOULDER SLOPE, OR A RELATIVELY FLAT RECOVERY AREA ADJACENT TO THE ROADWAY, TO A STEEPER FORESLOPE, (ALSO KNOWN AS THE FORESLOPE BREAK).
4. REFER TO GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS - TYPE A FOR FOUNDATION DIMENSIONS AND REINFORCING STEEL DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
801, 802	

APPROVED _____
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

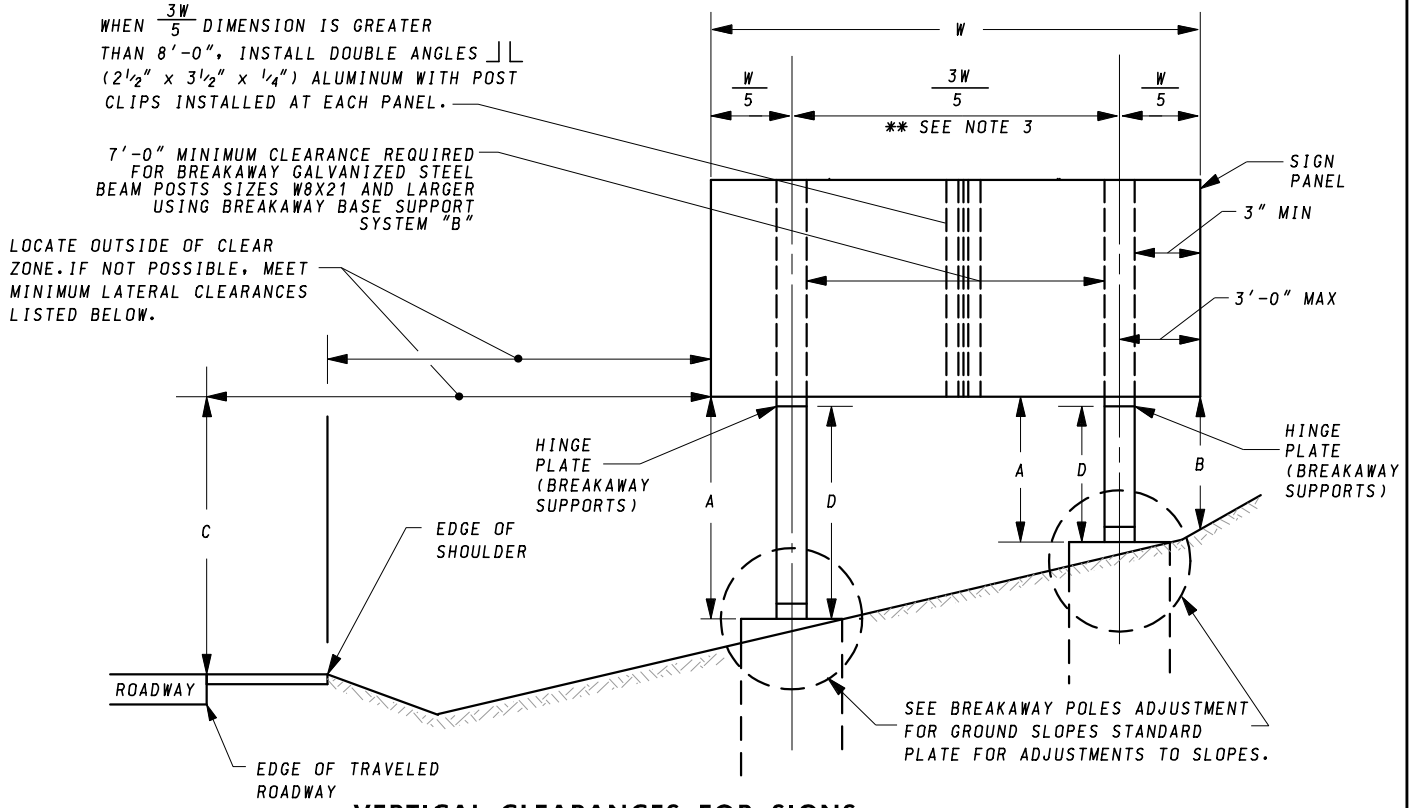
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-17-07	APPROVAL 5-2-07
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS - TYPE C

STANDARD NO. MD 801.04-02



VERTICAL CLEARANCES FOR SIGNS

A. 7'-6" MINIMUM FOR BREAKAWAY SUPPORTS

B. 2'-0" MINIMUM

C. 7'-6" MINIMUM
ALL MOUNTING HEIGHTS LESS THAN 7'-6" REQUIRE MDOT SHA OFFICE OF TRAFFIC AND SAFETY APPROVAL
THIS DIMENSION IS TO BE INCREASED ONLY WHEN REQUIRED TO MEET
'A' (MIN.)= 7'-6" FOR BREAKAWAY AND/OR 'B' (MIN.) = 2'-0"
ALL DIMENSIONS ARE TO BOTTOM OF SIGN

D. 7'-0" MINIMUM FOR BREAKAWAY SUPPORTS MEASURED TO CENTERLINE OF HINGE PLATE

PREFERRED SIGN LOCATION IS OUTSIDE OF THE CLEAR ZONE. IF THIS CONDITION CANNOT BE MET, THE SIGN SHOULD BE PLACED AS FAR FROM THE ROADWAY AS POSSIBLE.

MINIMUM LATERAL CLEARANCES FOR SIGNS

1 = EDGE OF SIGN 6'-0" FROM FACE OF W-BEAM TRAFFIC BARRIER

2 = EDGE OF SIGN 6'-0" PREFERABLE MIN. (2'-0" ABSOLUTE MIN.) FROM FACE OF CURB

3 = EDGE OF SIGN 6'-0" FROM EDGE OF SHOULDER

4 = EDGE OF SIGN 6'-0" PREFERABLE MIN. (2'-0" ABSOLUTE MIN.) FROM EACH EDGE OF SHOULDER IN MEDIAN

5 = EDGE OF SIGN 6'-0" FROM EACH EDGE OF SHOULDER CENTERED IN GORE AREA

NOTES:

1. FOR THREE SUPPORTS, POSTS SHOULD BE SPACED 1/6, 1/3, 1/3, 1/6 X WIDTH OF SIGN, WITHIN MAXIMUM EDGE SPACING AS SHOWN.
2. ALL SUPPORTS WITHIN THE CLEAR ZONE SHALL BE BREAKAWAY UNLESS PROTECTED.
3. REFER TO CONTRACT PLANS FOR POST SPACING.

SPECIFICATION	CATEGORY CODE ITEMS
802, 813	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

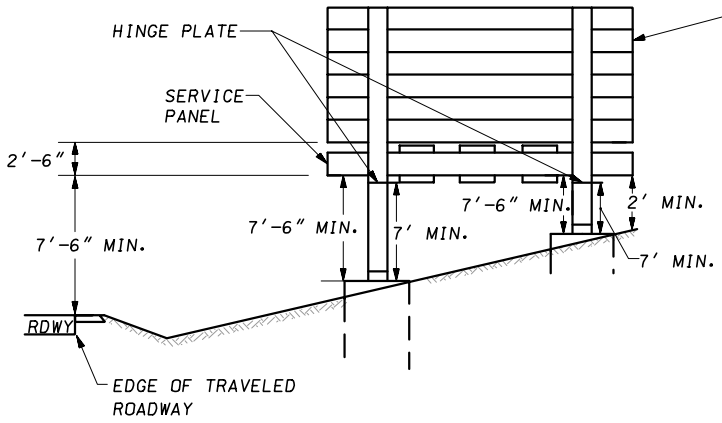
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	11-10-18	REVISED	10-26-18
REVISED		REVISED	
REVISED		REVISED	

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GALVANIZED STEEL BEAM SIGN POSTS VERTICAL AND LATERAL CLEARANCE

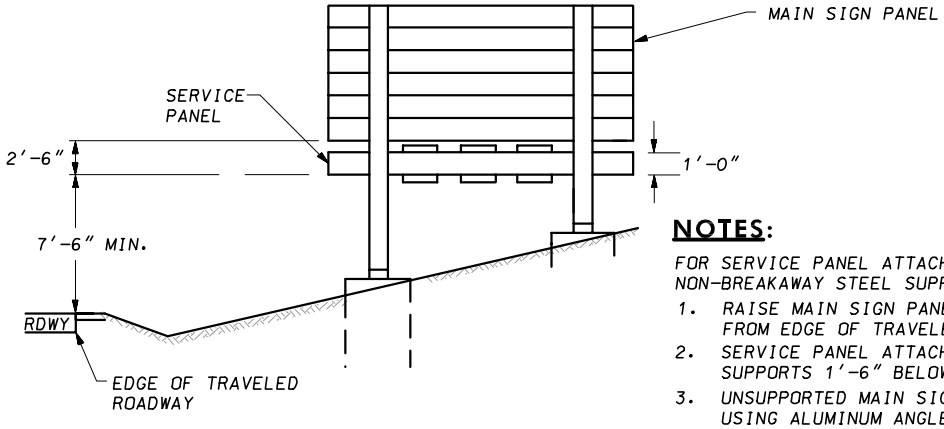
STANDARD NO. MD 802.01



NOTES: (ALL SCENARIOS)

1. MUST MAINTAIN 7'-0" MIN. FROM FOUNDATION TO HINGE PLATE ON BREAKAWAY SUPPORT
2. MUST MAINTAIN 10'-0 FROM BOTTOM OF MAIN SIGN PANEL ABOVE EDGE OF TRAVELED LANE WHEN SERVICE PANEL IS PRESENT
3. (1' x SIGN WIDTH) SERVICE PANEL ATTACHED TO "I" BEAMS WITH POST CLIPS (EIGHT (8) PER SERVICE PANEL)

SERVICE PANEL INSTALLATIONS TO NEW BREAKAWAY SUPPORTS

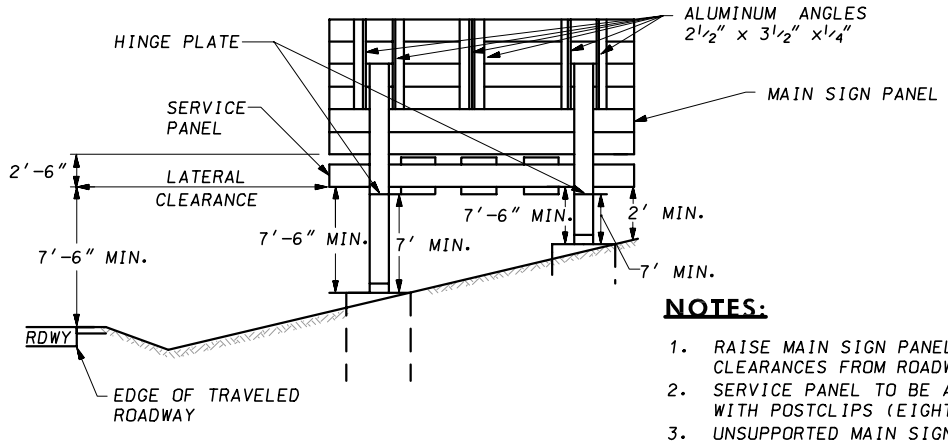


NOTES:

FOR SERVICE PANEL ATTACHMENTS TO EXISTING NON-BREAKAWAY STEEL SUPPORTS:

1. RAISE MAIN SIGN PANEL TO OBTAIN CLEARANCE FROM EDGE OF TRAVELED ROADWAY.
2. SERVICE PANEL ATTACHED TO STEEL SUPPORTS 1'-6" BELOW MAIN SIGN PANEL.
3. UNSUPPORTED MAIN SIGN PANEL TO BE STIFFENED USING ALUMINUM ANGLES $2\frac{1}{2}$" x $3\frac{1}{2}$" x$\frac{1}{4}$".
4. FOR RURAL LOCATIONS, VERTICAL CLEARANCE MAY BE REDUCED TO 5'-6" FOR NON-BREAKAWAY.

SERVICE PANEL ATTACHMENTS TO NON-BREAKAWAY SUPPORTS



NOTES:

1. RAISE MAIN SIGN PANEL 2' MAX. TO OBTAIN THE PROPER CLEARANCES FROM ROADWAY.
2. SERVICE PANEL TO BE ATTACHED ABOVE HINGE PLATE WITH POSTCLIPS (EIGHT (8) PER SERVICE PANEL).
3. UNSUPPORTED MAIN SIGN PANEL TO BE STIFFENED USING ALUMINUM ANGLES $2\frac{1}{2}$" x $3\frac{1}{2}$" x$\frac{1}{4}$".

SERVICE PANEL ATTACHMENTS TO EXISTING BREAKAWAY SUPPORTS

SPECIFICATION	CATEGORY CODE ITEMS
802, 813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

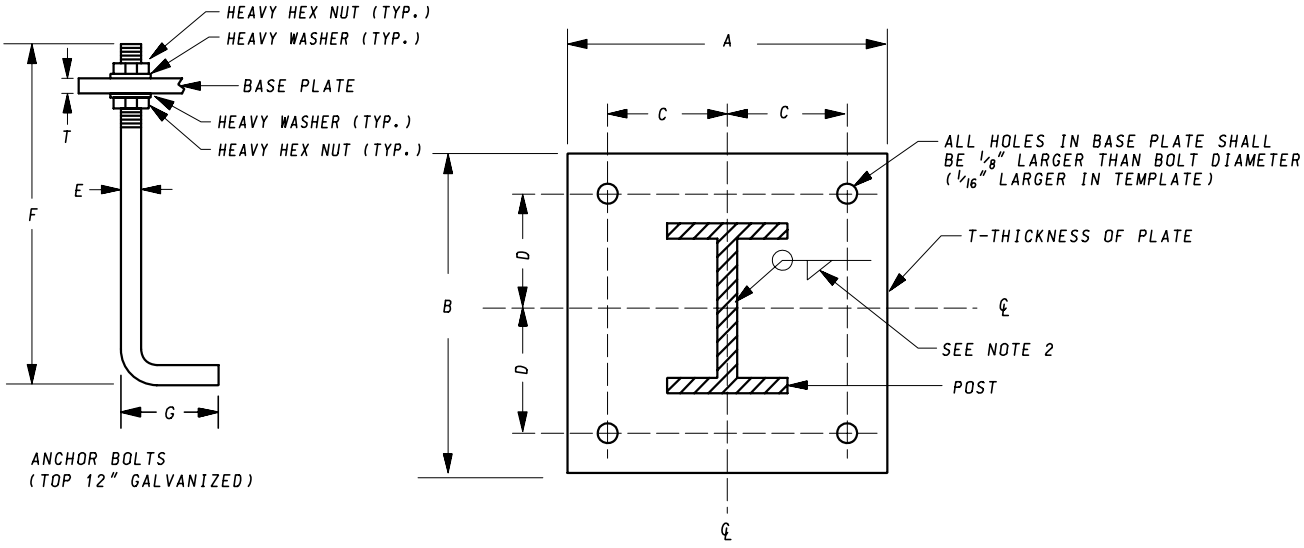
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GALVANIZED STEEL BEAM SIGN POSTS
SERVICE PANEL ATTACHMENT DETAILS

STANDARD NO. MD 802.02

NON BREAKAWAY BASE PLATE AND ANCHOR BOLT DETAILS



NOTES:

1. 1/4" THICK STEEL TEMPLATE FOR SETTING ANCHOR BOLTS SHALL BE ACCURATELY PLACED AND LEFT IN PLACE UNTIL THE CONCRETE HAS ATTAINED ITS INITIAL SET.
2. THE WELD SIZE SHALL BE 5/16" FOR W18 x 35 AND W21 x 44 BEAM SIZES AND 1/4" FOR ALL OTHER BEAM SIZES.

BASE PLATE DIMENSIONS (INCHES)

POST SIZE	A	B	C	D	T	ANCHOR BOLTS		
						E	F	G
W6 x 9	12	14	4	5	1	1	36	4
W6 x 12	12	14	4	5	1	1	36	4
W6 x 15	12	14	4	5	1	1	36	4
W8 x 18	12	16	4	6 1/4	1 1/4	1	36	4
W8 x 21	12	17	4	6 1/4	1 1/4	1 1/4	42	6
W10 x 22	13	19	4	7 1/4	1 1/4	1 1/4	42	6
W10 x 26	13	19	4	7 1/4	1 1/2	1 1/4	42	6
W12 x 26	15	22	5	8 1/4	1 1/2	1 1/4	42	6
W14 x 30	17	23	6	9	1 1/2	1 1/4	42	6
W16 x 31	14	25	4 3/4	10	1 3/4	1 1/2	54	6
W18 x 35	15	27	5	11	1 3/4	1 1/2	54	6
W21 x 44	15	30	5 1/4	12 1/2	2	1 3/4	72	6

SPECIFICATION 802	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

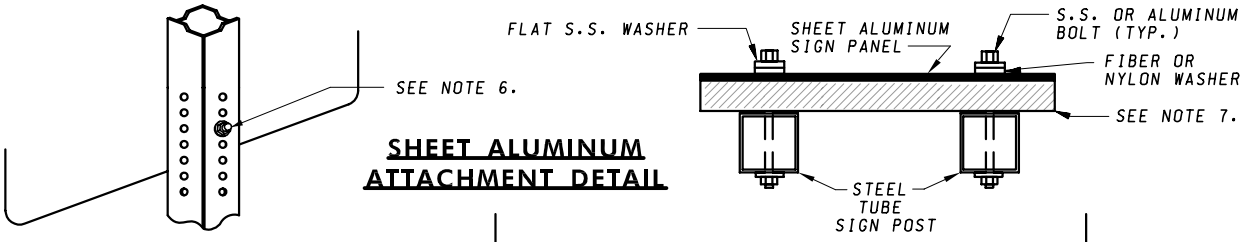
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

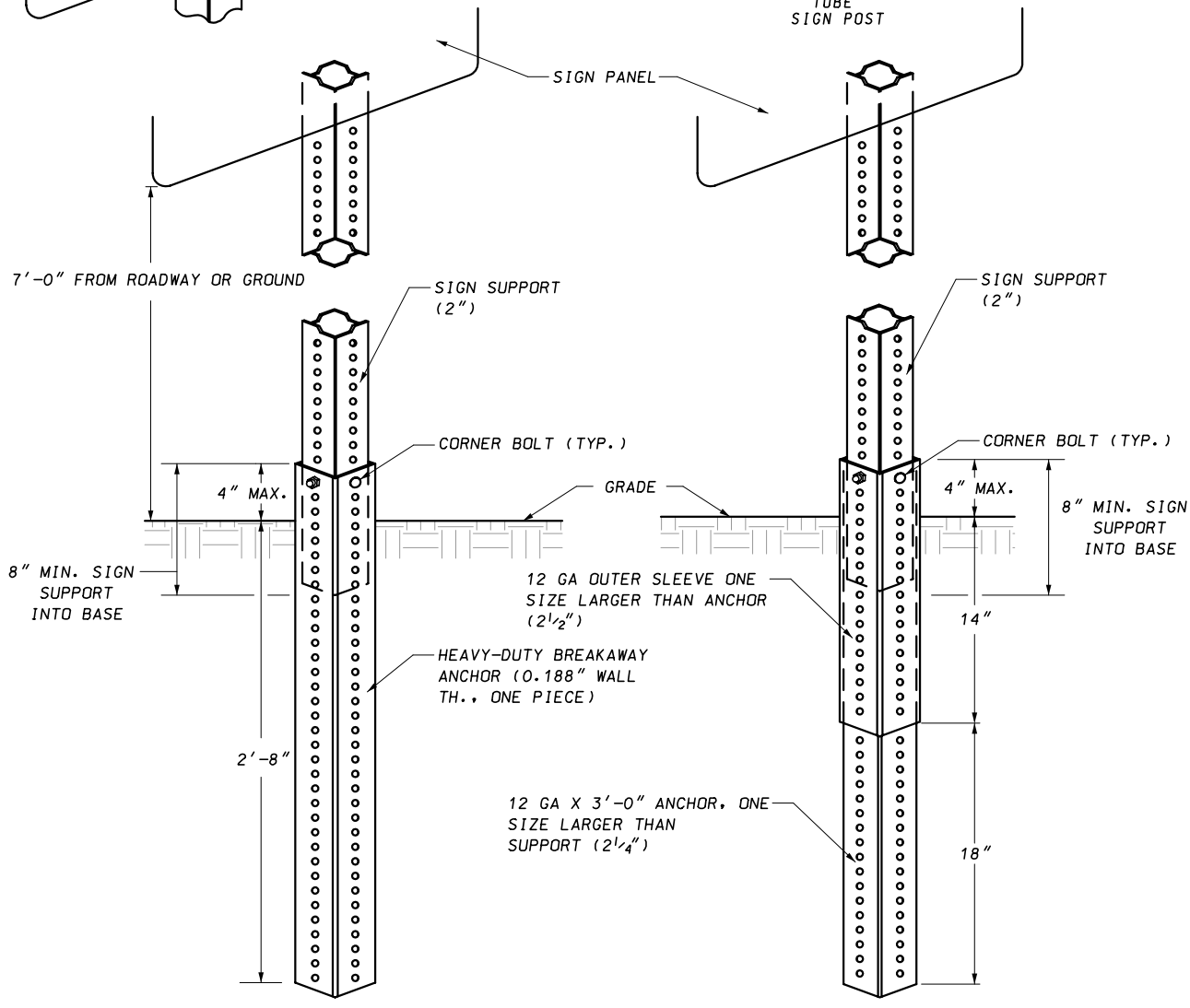
GALVANIZED STEEL BEAM SIGN POSTS
NON BREAKAWAY BASE PLATE & ANCHOR BOLTS

STANDARD NO. MD 802.03

REFERENCED ON: MD 801.04



SHEET ALUMINUM ATTACHMENT DETAIL



ONE PIECE ANCHOR SYSTEM **TWO PIECE ANCHOR SYSTEM**

NOTES:

1. INSTALLATION SHALL BE PERFORMED PER MANUFACTURER'S RECOMMENDATIONS.
2. CORNER BOLTS AND HARDWARE SHALL BE AS APPROVED BY AASHTO AND PER MANUFACTURER'S RECOMMENDATIONS.
3. THE INSTALLATION SHALL MEET THE LATEST AASHTO BREAKAWAY REQUIREMENTS.
4. SPLICES SHALL NOT BE USED TO EXTEND THE HEIGHT OF A SIGN POST.
5. ONLY 2" SIGN SUPPORTS SHALL BE USED. SIGN POSTS GREATER THAN OR LESS THAN 2" ARE NOT PERMITTED.
6. FOR SHEET ALUMINUM ATTACHMENT, ALL BOLTS SHALL BE 3/8" F593 (18-8 TYPE 303-304) STAINLESS STEEL OR ANODIZED ALUMINUM HEX HEAD BOLT WITH WASHERS AND NUTS SPACED AT 12" MAXIMUM.
7. ALL SHEET ALUMINUM SIGNS 5' WIDE AND LARGER SHALL BE BRACED WITH TWO HORIZONTAL 2"X4" TREATED WOOD OR EQUAL, ATTACHED TO THE SUPPORTS. THE BOLT LENGTHS SHALL BE COORDINATED.

SPECIFICATION 802	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-17-07	APPROVAL 5-2-07
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

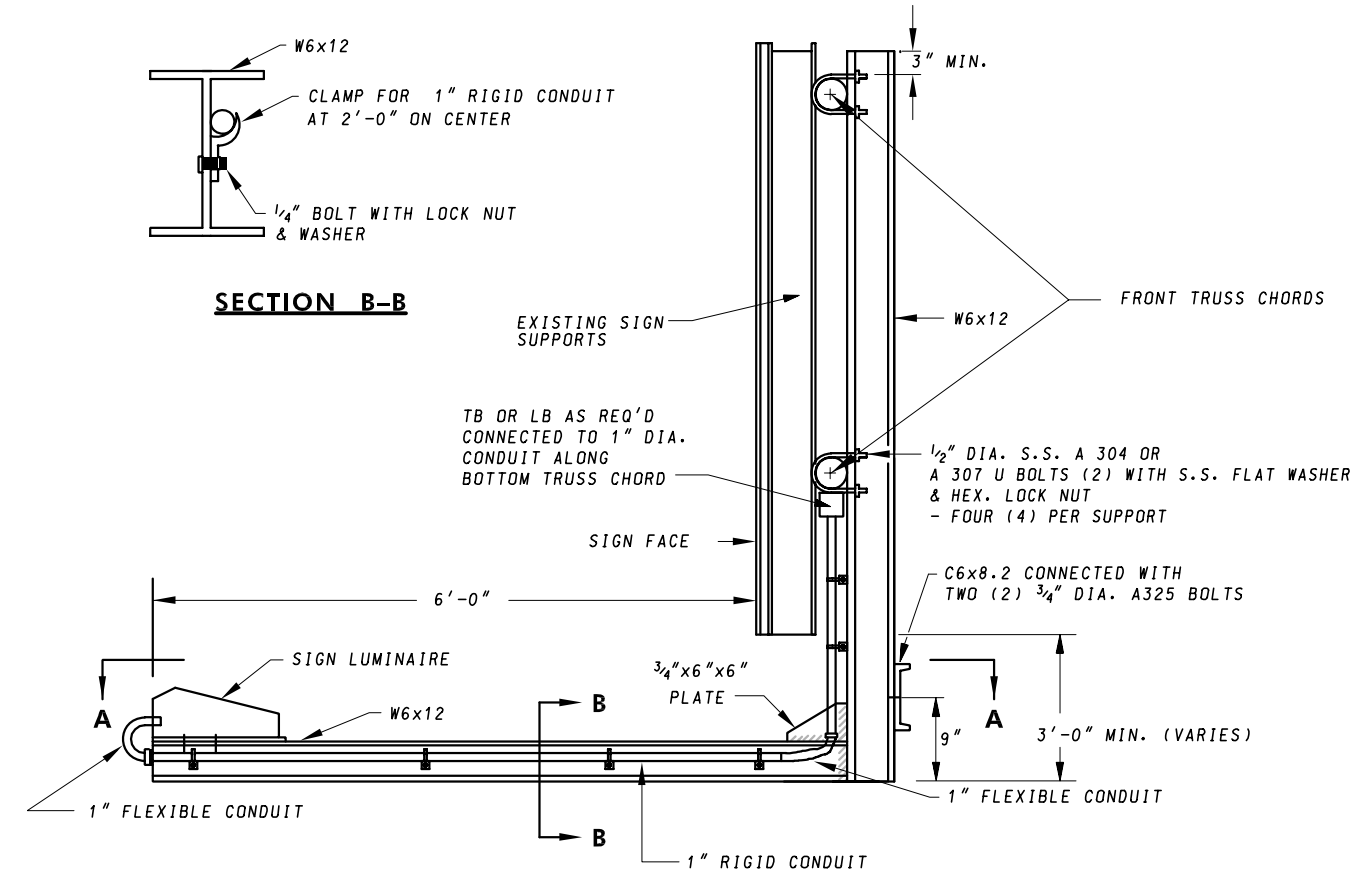
SHA State Highway Administration

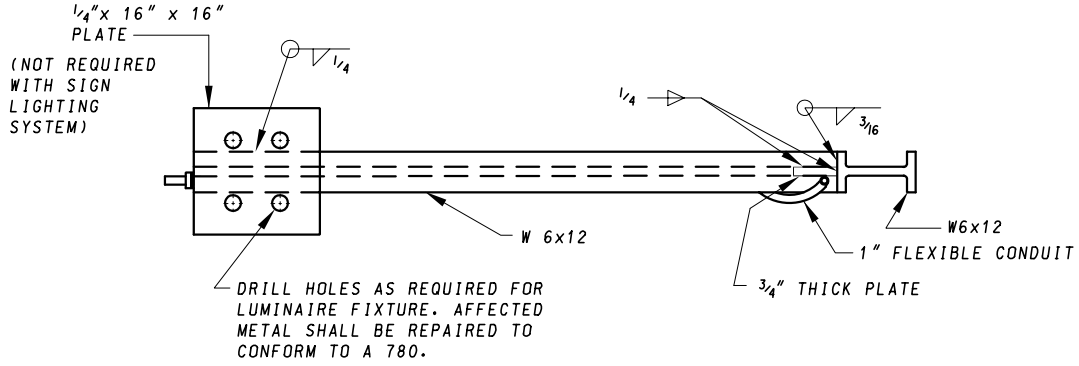
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY TUBULAR STEEL SIGN SUPPORTS

STANDARD NO. MD 802.04





SECTION A-A

NOTES:

1. ALL SUPPORTS IN SAME DIRECTION SHALL BE INSTALLED AT SAME HORIZONTAL LEVEL ACROSS ROADWAY FOR EACH STRUCTURE.
2. REFER TO OVERHEAD SPAN SIGN STRUCTURES STANDARD PLATE FOR DETAILS.
3. ALL W-BEAMS SHALL CONFORM TO A 709, GRADE 36.
4. WHEN SIGN LIGHTING SYSTEM IS USED, CONDUIT SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS.

SPECIFICATION 803, 805, 806	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 2-21-95	APPROVAL 2-21-95
	REVISED 5-17-07	REVISED 5-2-07
	REVISED	REVISED
	REVISED	REVISED

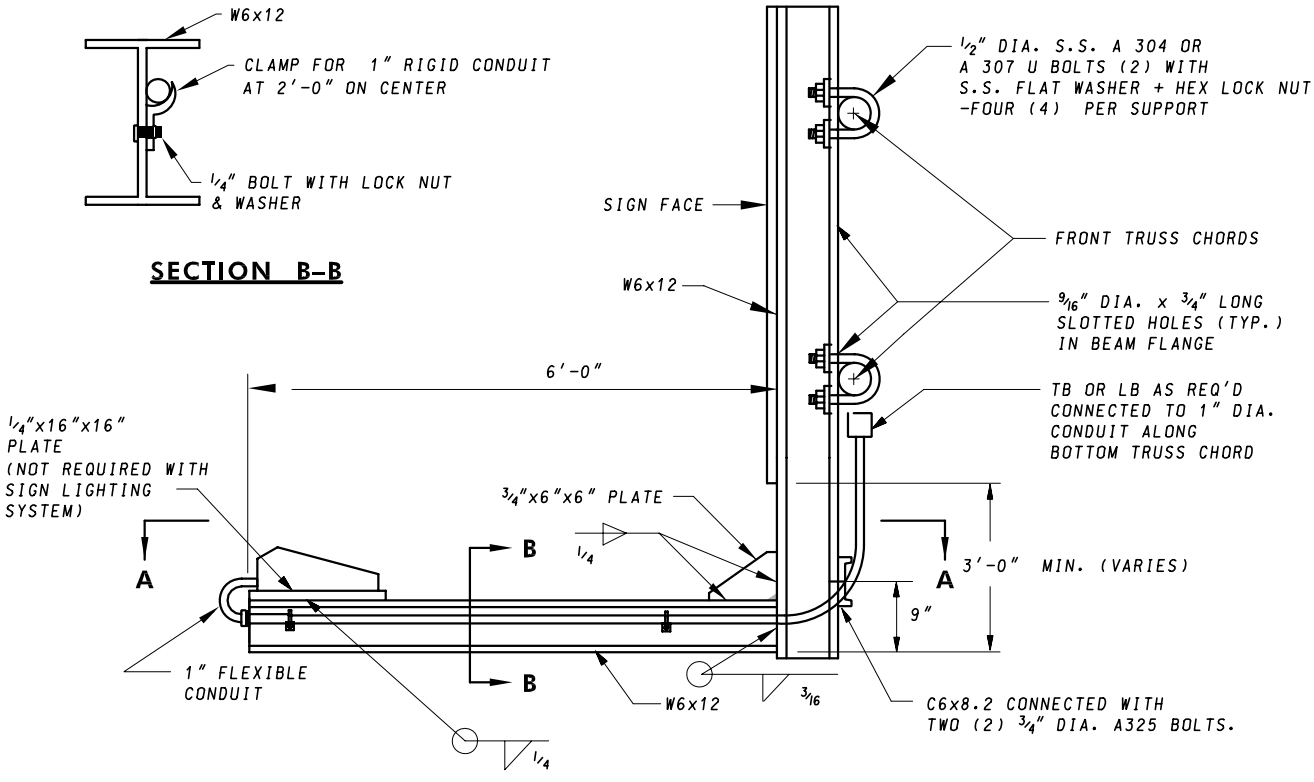
SHA State Highway Administration

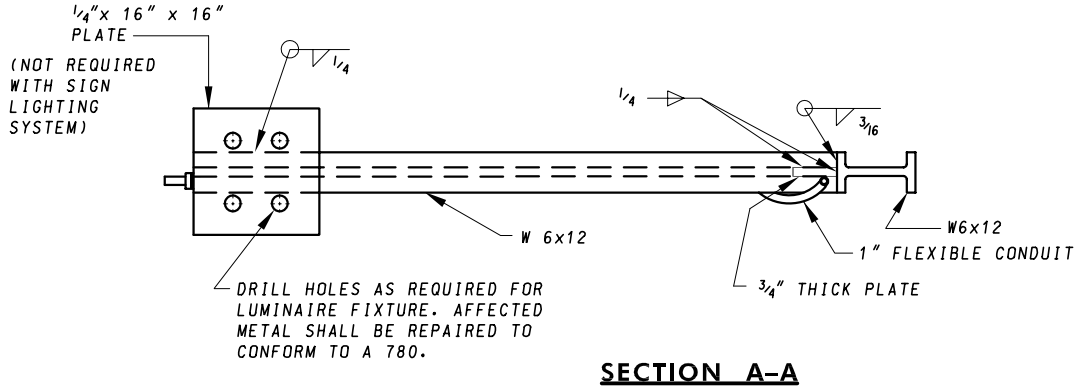
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGN /LUMINAIRE SUPPORTS MOUNTING FOR EXISTING STRUCTURES

STANDARD NO. MD 803.01





NOTES:

1. ALL SUPPORTS IN SAME DIRECTION SHALL BE INSTALLED AT SAME HORIZONTAL LEVEL ACROSS ROADWAY FOR EACH STRUCTURE.
2. REFER TO OVERHEAD SPAN SIGN STRUCTURES STANDARD PLATE FOR DETAILS.
3. ALL W-BEAMS SHALL CONFORM TO A 709, GRADE 36.
4. WHEN SIGN LIGHTING SYSTEM IS USED, CONDUIT SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS.

SPECIFICATION 803, 805, 806	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 2-21-95	APPROVAL 2-21-95
	REVISED 5-17-07	REVISED 5-2-07
	REVISED	REVISED
	REVISED	REVISED

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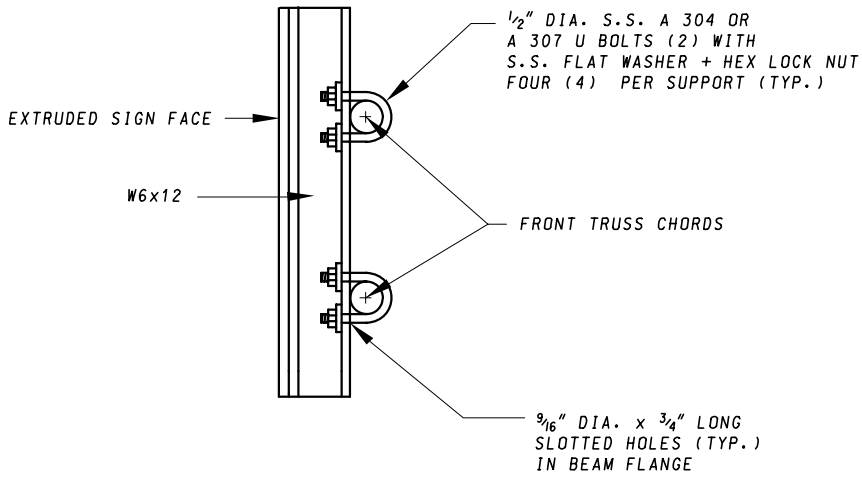
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGN /LUMINAIRE SUPPORTS MOUNTING FOR NEW STRUCTURES

STANDARD NO. MD 803.02



SIGN SUPPORT FOR OVERHEAD SIGN STRUCTURES

NOTES:

1. ALL STEEL SHALL BE HOT DIPPED GALVANIZED.
2. REFER TO OVERHEAD SPAN SIGN STRUCTURES STANDARD PLATE FOR DETAILS.
3. ALL W-BEAMS SHALL CONFORM TO A 709, GRADE 36.
4. WHEN SIGN LIGHTING SYSTEM IS USED, CONDUIT SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS.

SPECIFICATION	CATEGORY CODE ITEMS
803, 806	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	10-10-00	APPROVAL	2-1-01
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

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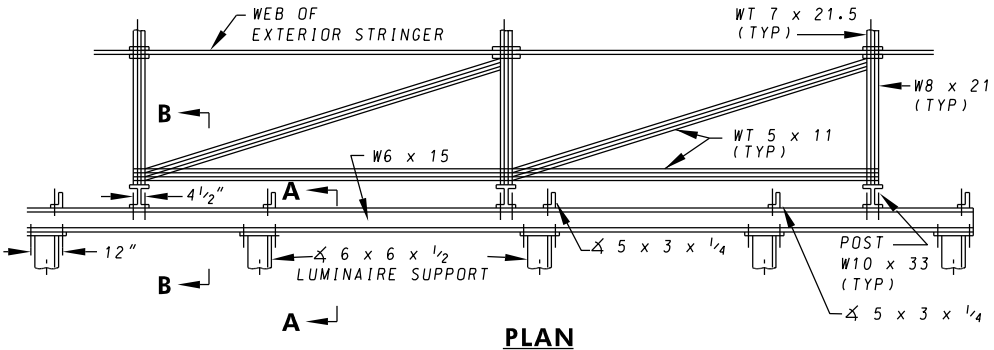
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

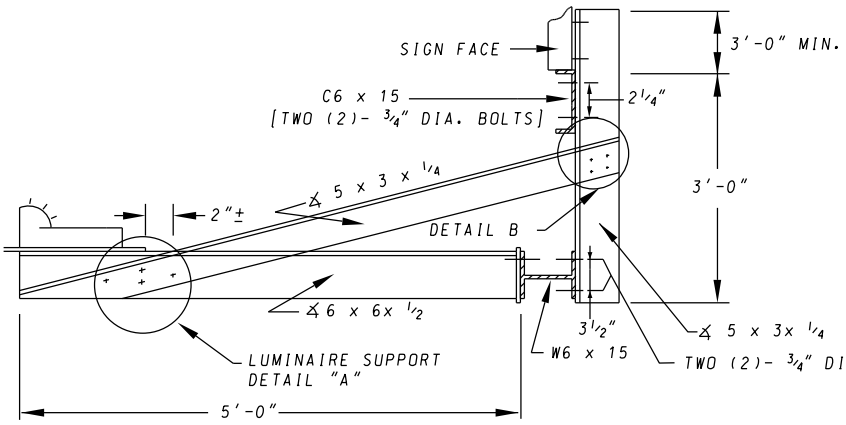
SIGN SUPPORTS MOUNTING FOR NEW STRUCTURES

STANDARD NO. MD 803.02-01

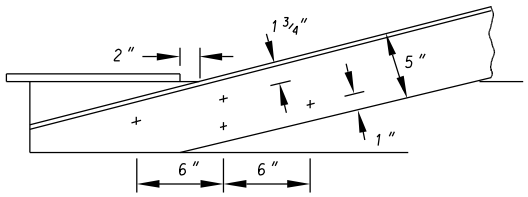
TYPICAL BRIDGE MOUNTED SIGN STRUCTURE



PLAN



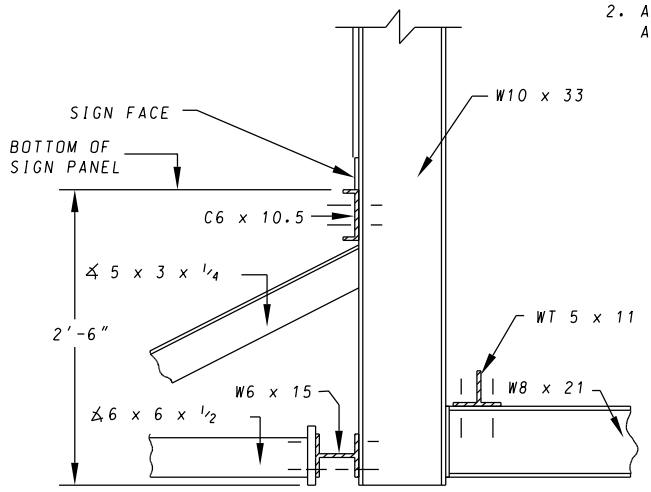
SECTION A–A



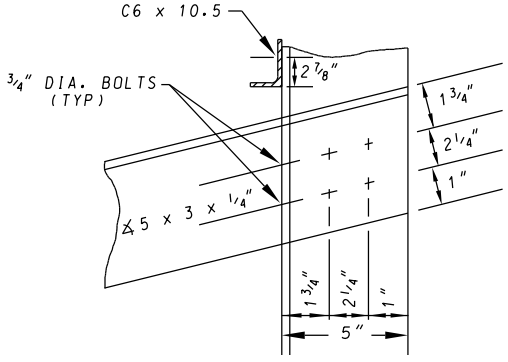
DETAIL 'A'

NOTES:

1. AFFECTED AREAS BY DRILLING HOLES IN THE FIELD SHALL BE CLEANED AND REPAIRED TO CONFORM TO A 780.
2. ALL CONNECTION BOLTS SHALL CONFORM TO A 325 WITH WASHERS & NUTS.



SECTION B–B



DETAIL 'B'

SPECIFICATION 402	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	10-1-01	REVISED	2-1-01
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration — Drives to East

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGN /LUMINAIRE SUPPORTS MOUNTING FOR BRIDGE STRUCTURES

STANDARD NO. MD 803.03

NOTES:

1. REFER TO CONTRACT INVITATION FOR BID (IFB) AND MD. STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS FOR MATERIAL, CONSTRUCTION SPECIFICATIONS AND DETAILS.

2. SIGN STRUCTURE STANDARDS ARE IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 2001". (Category II FOR ALL STRUCTURES)

3. ALL STRUCTURAL MAIN TUBES SHALL CONFORM TO API5-LX52.

4. ALL OTHER TUBES SHALL HAVE MIN. 30 KSI YIELD STRENGTH AND CONFORM TO A 501.

5. ALL STEEL PLATES, W-BEAMS AND MISCELLANEOUS SHAPES SHALL CONFORM TO A 709, GRADE 36.

6. MOUNTING HEIGHT 'H_D' SHALL NOT BE LESS THAN 20'-9"+ (1/2 x DESIGN SIGN HEIGHT)±ELEVATION DIFFERENCE FROM HIGH POINT ON THE ROADWAY.

7. ALL TOWER SUPPORTS SHALL BE LOCATED BEHIND PHYSICAL TRAFFIC BARRIERS.

8. STEEL TEMPLATES SHALL BE USED TO SET ANCHOR BOLTS PLUMB WHEN POURING THE FOUNDATION. ANCHOR BOLT HOLES SHALL BE $1/16$" LARGER THAN ANCHOR BOLT DIAMETER.

9. ALL ANCHOR BOLTS SHALL CONFORM TO F 1554, GRADE 55 S1.

10. ALL CONNECTION BOLTS SHALL CONFORM TO A 325, (BOLTS OVER $1\frac{1}{2}$" DIA. A 449), WASHERS F 436 & NUTS A 194, GRADE 2 OR 2H. THE BOLTS SHALL HAVE A FLAT WASHER UNDER THE ELEMENT TO BE TURNED.

11. REFER TO SIGN/LUMINAIRE SUPPORTS MOUNTING STANDARD PLATES REGARDING MISCELLANEOUS SIGN/LUMINAIRE MOUNTING DETAILS AND ELECTRICAL WIRING DETAILS.

12. THIS NOTE APPLIES TO SINGLE PLANE CANTILEVERS ONLY. FOR SIGN HEIGHTS EQUAL TO OR LESS THAN 12'-0" (NOT INCLUDING THE EXIT PANELS), "S" SHALL EQUAL 4'-0". FOR SIGN HEIGHTS GREATER THAN 12'-0" (NOT INCLUDING THE EXIT PANEL), "S" SHALL EQUAL 6'-0".

13. INSTALL ACCESS HOLE ON POLE OPPOSITE DIRECTION OF TRAFFIC.

14. TRUSS CAMBER ΔV FOR CANTILEVER STRUCTURE SHALL BE INCORPORATED DURING FABRICATION. THE CONTRACTOR SHALL ACHIEVE ΔH CAMBER BY TILTING THE POLE AND ADJUSTING LEVELLING NUTS DURING INSTALLATION.

15. FOR CANTILEVER SIGN STRUCTURES, USE SINGLE PLANE TRUSS FOR SPANS 30 FT AND UNDER. USE BOX TRUSS FOR SPANS OVER 30 FT AND WHEN CHORD SIZES EXCEED 14" O.D. USE BOX TRUSS (4 CHORDS) FOR ALL OVERHEAD SPAN STRUCTURES , UNLESS NOTED OTHERWISE.

16. STRUCTURE SHALL BE GALVANIZED TO CONFORM TO A 123 OR GALVANIZED AND PAINTED AS SPECIFIED IN CONTRACT DOCUMENTS.

17. ALL HARDWARE SHALL BE GALVANIZED TO CONFORM TO A 153.

18. EACH OVERHEAD SPAN STRUCTURE IS DESIGNED FOR THE FOLLOWING TWO CASES:
    CASE 1: DESIGN SIGN AREA IS CENTERED OVER THE SPAN.
    CASE 2: DESIGN SIGN EDGE IS PLACED 5'-0" FROM CENTERLINE OF TOWER.

19. ALL STRUCTURES HAVE BEEN DESIGNED FOR STANDARD ALUMINUM EXTRUDED SIGN PANELS AND NOT FOR DYNAMIC MESSAGE SIGNS (DMS) OR ANY OTHER TYPES OF SIGNS.

20. ALL DYNAMIC MESSAGE SIGN (DMS) STRUCTURES OTHER THAN SHOWN ON DMS PLAN SHEETS, AND OVERHEAD SPAN OR CANTILEVER STRUCTURES OTHER THAN SHOWN ON CURRENT STANDARDS, SUCH AS BUTTERFLY, CANTILEVER-SPAN COMBINED, DOUBLE SPAN WITH COMMON CENTER SUPPORT, ETC. MUST BE DESIGNED USING SABRE ANALYSIS PROGRAM, WHEN NEEDED.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-12-02	APPROVAL	9-4-02
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

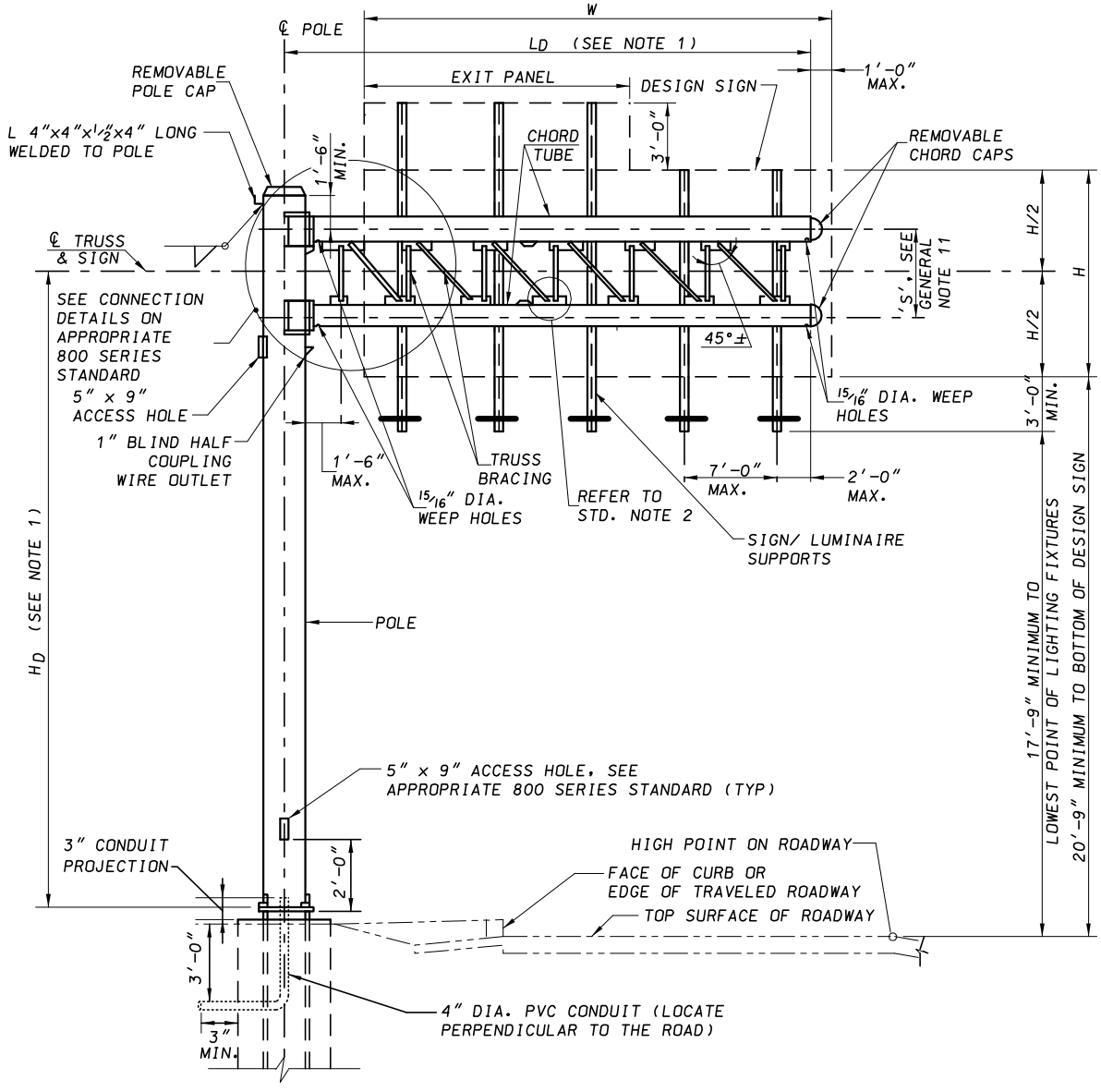
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SIGN STRUCTURES GENERAL NOTES

STANDARD NO. MD 803.04



REAR ELEVATION VIEW

NOTES:

1. TRUSS LENGTH 'L_D' AND POLE HEIGHT 'H_D' ARE FOR DESIGN PURPOSES ONLY. ACTUAL LENGTHS WILL BE AS SPECIFIED IN THE ERECTION DETAIL SHEET. IN DETERMINING THE STRUCTURE TYPE FOR A SIGN SUPPORT, THE DESIGNER WILL CHOOSE A DESIGN HEIGHT 'H_D' AND A CHORD LENGTH 'L_D' EQUAL TO OR GREATER THAN THE ACTUAL DIMENSIONS.
2. REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING STRUCTURE DATA.
3. REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING GENERAL NOTES.
4. REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING ACCESS HOLE.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-12-02	APPROVAL	9-4-02
REVISED	5-20-11	REVISED	4-22-11
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

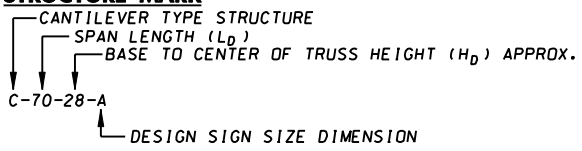
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SINGLE PLANE CANTILEVER SIGN STRUCTURES ELEVATION

STANDARD NO. MD 803.05

STRUCTURE MARK	L_D	H_D	POLE SIZE	TRUSS CHORD TUBE SIZE	TRUSS BRACING TUBE SIZE
C-20-28-A	20'-0"	28'-9"	24" O.D. x .312" THK.	10.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-20-30-A		30'-0"	24" O.D. x .312" THK.	10.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-20-32-A		32'-0"	24" O.D. x .344" THK.	10.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-20-34-A		34'-0"	24" O.D. x .344" THK.	10.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-20-36-A		36'-0"	24" O.D. x .375" THK.	10.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-20-26-B		26'-9"	18" O.D. x .344" THK.	8.625" O.D. x .277" THK.	2.875" O.D. x .203" THK.
C-20-28-B		28'-0"	18" O.D. x .375" THK.	8.625" O.D. x .277" THK.	2.875" O.D. x .203" THK.
C-20-30-B		30'-0"	18" O.D. x .375" THK.	8.625" O.D. x .277" THK.	2.875" O.D. x .203" THK.
C-20-32-B		32'-0"	18" O.D. x .406" THK.	8.625" O.D. x .277" THK.	2.875" O.D. x .203" THK.
C-20-34-B		34'-0"	20" O.D. x .344" THK.	8.625" O.D. x .277" THK.	2.875" O.D. x .203" THK.
C-20-36-B		36'-0"	20" O.D. x .375" THK.	8.625" O.D. x .277" THK.	2.875" O.D. x .203" THK.
C-25-28-A	25'-0"	28'-9"	24" O.D. x .344" THK.	12.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-25-30-A		30'-0"	24" O.D. x .344" THK.	12.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-25-32-A		32'-0"	24" O.D. x .344" THK.	12.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-25-34-A		34'-0"	24" O.D. x .375" THK.	12.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-25-36-A		36'-0"	24" O.D. x .375" THK.	12.75" O.D. x .25" THK.	3.5" O.D. x .216" THK.
C-25-26-B		26'-9"	18" O.D. x .406" THK.	10.75" O.D. x .279" THK.	2.875" O.D. x .203" THK.
C-25-28-B		28'-0"	20" O.D. x .344" THK.	10.75" O.D. x .279" THK.	2.875" O.D. x .203" THK.
C-25-30-B		30'-0"	20" O.D. x .375" THK.	10.75" O.D. x .279" THK.	2.875" O.D. x .203" THK.
C-25-32-B		32'-0"	20" O.D. x .375" THK.	10.75" O.D. x .279" THK.	2.875" O.D. x .203" THK.
C-25-34-B		34'-0"	20" O.D. x .406" THK.	10.75" O.D. x .279" THK.	2.875" O.D. x .203" THK.
C-25-36-B		36'-0"	24" O.D. x .312" THK.	10.75" O.D. x .279" THK.	2.875" O.D. x .203" THK.
C-30-28-A	30'-0"	28'-9"	24" O.D. x .375" THK.	12.75" O.D. x .375" THK.	3.5" O.D. x .216" THK.
C-30-30-A		30'-0"	24" O.D. x .375" THK.	12.75" O.D. x .375" THK.	3.5" O.D. x .216" THK.
C-30-32-A		32'-0"	24" O.D. x .406" THK.	12.75" O.D. x .375" THK.	3.5" O.D. x .216" THK.
C-30-34-A		34'-0"	24" O.D. x .438" THK.	12.75" O.D. x .375" THK.	3.5" O.D. x .216" THK.
C-30-36-A		36'-0"	24" O.D. x .438" THK.	12.75" O.D. x .375" THK.	3.5" O.D. x .216" THK.
C-30-26-B		26'-9"	20" O.D. x .406" THK.	10.75" O.D. x .344" THK.	2.875" O.D. x .203" THK.
C-30-28-B		28'-0"	20" O.D. x .406" THK.	10.75" O.D. x .344" THK.	2.875" O.D. x .203" THK.
C-30-30-B		30'-0"	20" O.D. x .406" THK.	10.75" O.D. x .344" THK.	2.875" O.D. x .203" THK.
C-30-32-B		32'-0"	24" O.D. x .344" THK.	10.75" O.D. x .344" THK.	2.875" O.D. x .203" THK.
C-30-34-B		34'-0"	24" O.D. x .344" THK.	10.75" O.D. x .344" THK.	2.875" O.D. x .203" THK.
C-30-36-B		36'-0"	24" O.D. x .344" THK.	10.75" O.D. x .344" THK.	2.875" O.D. x .203" THK.

STRUCTURE MARK



NOTE:

SEE APPROPRIATE 800 SERIES STANDARD FOR SINGLE PLANE CANTILEVER SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

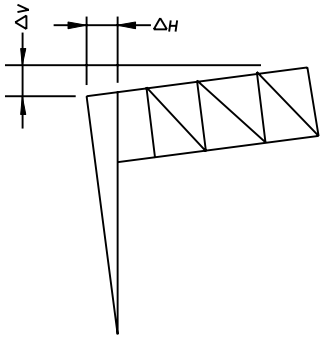
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SINGLE PLANE CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.05-01

STRUCTURE MARK	L_D	H_D	**DESIGN SIGN DIMENSIONS	TOTAL CAMBER		FOOTING MARK	CSR	
				△H	△V		POLE	TRUSS
C-20-28-A	20'-0"	28'-9"	16'-0"(W) x 16'-0"(H)	1 1/16"	1 5/16"	CF-5	0.90	0.77
C-20-30-A		30'-0"	16'-0"(W) x 16'-0"(H)	1 1/16"	1 5/16"	CF-5	0.88	0.77
C-20-32-A		32'-0"	16'-0"(W) x 16'-0"(H)	1 3/16"	1 5/16"	CF-10	0.84	0.77
C-20-34-A		34'-0"	16'-0"(W) x 16'-0"(H)	1 3/16"	1 3/8"	CF-10	0.89	0.77
C-20-36-A		36'-0"	16'-0"(W) x 16'-0"(H)	1 1/4"	1 7/16"	CF-10	0.83	0.78
C-20-26-B		26'-9"	16'-0"(W) x 12'-0"(H)	1 7/16"	1 15/16"	CF-1	0.89	0.83
C-20-28-B		28'-0"	16'-0"(W) x 12'-0"(H)	1 7/16"	1 15/16"	CF-1	0.82	0.84
C-20-30-B		30'-0"	16'-0"(W) x 12'-0"(H)	1 5/8"	2"	CF-1	0.88	0.84
C-20-32-B		32'-0"	16'-0"(W) x 12'-0"(H)	1 5/8"	2"	CF-1	0.88	0.84
C-20-34-B		34'-0"	16'-0"(W) x 12'-0"(H)	1 9/16"	1 13/16"	CF-2	0.88	0.85
C-20-36-B		36'-0"	16'-0"(W) x 12'-0"(H)	1 5/8"	1 13/16"	CF-2	0.81	0.85
C-25-28-A	25'-0"	28'-9"	16'-0"(W) x 16'-0"(H)	1 5/16"	2 1/8"	CF-5	0.81	0.79
C-25-30-A		30'-0"	16'-0"(W) x 16'-0"(H)	1 3/8"	2 3/16"	CF-5	0.81	0.79
C-25-32-A		32'-0"	16'-0"(W) x 16'-0"(H)	1 1/2"	2 5/16"	CF-10	0.89	0.79
C-25-34-A		34'-0"	16'-0"(W) x 16'-0"(H)	1 11/16"	2 7/16"	CF-10	0.87	0.79
C-25-36-A		36'-0"	16'-0"(W) x 16'-0"(H)	1 13/16"	2 1/2"	CF-10	0.87	0.79
C-25-26-B		26'-9"	16'-0"(W) x 12'-0"(H)	1 13/16"	3 1/16"	CF-1	0.90	0.80
C-25-28-B		28'-0"	16'-0"(W) x 12'-0"(H)	1 11/16"	2 13/16"	CF-1	0.87	0.79
C-25-30-B		30'-0"	16'-0"(W) x 12'-0"(H)	1 13/16"	2 13/16"	CF-2	0.85	0.78
C-25-32-B		32'-0"	16'-0"(W) x 12'-0"(H)	2"	2 15/16"	CF-2	0.90	0.78
C-25-34-B		34'-0"	16'-0"(W) x 12'-0"(H)	2 1/8"	2 15/16"	CF-2	0.88	0.79
C-25-36-B		36'-0"	16'-0"(W) x 12'-0"(H)	2 1/16"	2 13/16"	CF-2	0.77	0.77
C-30-28-A	30'-0"	28'-9"	18'-0"(W) x 16'-0"(H)	1 7/8"	3 7/16"	CF-11	0.87	0.76
C-30-30-A		30'-0"	18'-0"(W) x 16'-0"(H)	1 7/8"	3 9/16"	CF-11	0.86	0.76
C-30-32-A		32'-0"	18'-0"(W) x 16'-0"(H)	2 1/16"	3 1/2"	CF-11	0.87	0.75
C-30-34-A		34'-0"	18'-0"(W) x 16'-0"(H)	2 1/4"	3 13/16"	CF-15	0.86	0.76
C-30-36-A		36'-0"	18'-0"(W) x 16'-0"(H)	2 3/8"	3 11/16"	CF-16	0.86	0.75
C-30-26-B		26'-9"	18'-0"(W) x 12'-0"(H)	1 15/16"	4"	CF-3	0.84	0.90
C-30-28-B		28'-0"	18'-0"(W) x 12'-0"(H)	2 1/8"	4 1/8"	CF-3	0.87	0.90
C-30-30-B		30'-0"	18'-0"(W) x 12'-0"(H)	2 7/16"	4 3/8"	CF-3	0.90	0.90
C-30-32-B		32'-0"	18'-0"(W) x 12'-0"(H)	2 3/16"	3 7/8"	CF-3	0.84	0.89
C-30-34-B		34'-0"	18'-0"(W) x 12'-0"(H)	2 1/2"	4 1/8"	CF-6	0.90	0.89
C-30-36-B		36'-0"	18'-0"(W) x 12'-0"(H)	2 9/16"	4 1/16"	CF-6	0.85	0.88

** ADDITIONAL AREA FOR AN EXIT PANEL (12'(WIDE)x3'(HIGH) = 36 SQ. FT.) HAS BEEN INCLUDED FOR DESIGN OF ALL STRUCTURAL MEMBERS.



TOTAL CAMBER

NOTE:

SEE APPROPRIATE 800 SERIES STANDARD FOR SINGLE PLANE CANTILEVER SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

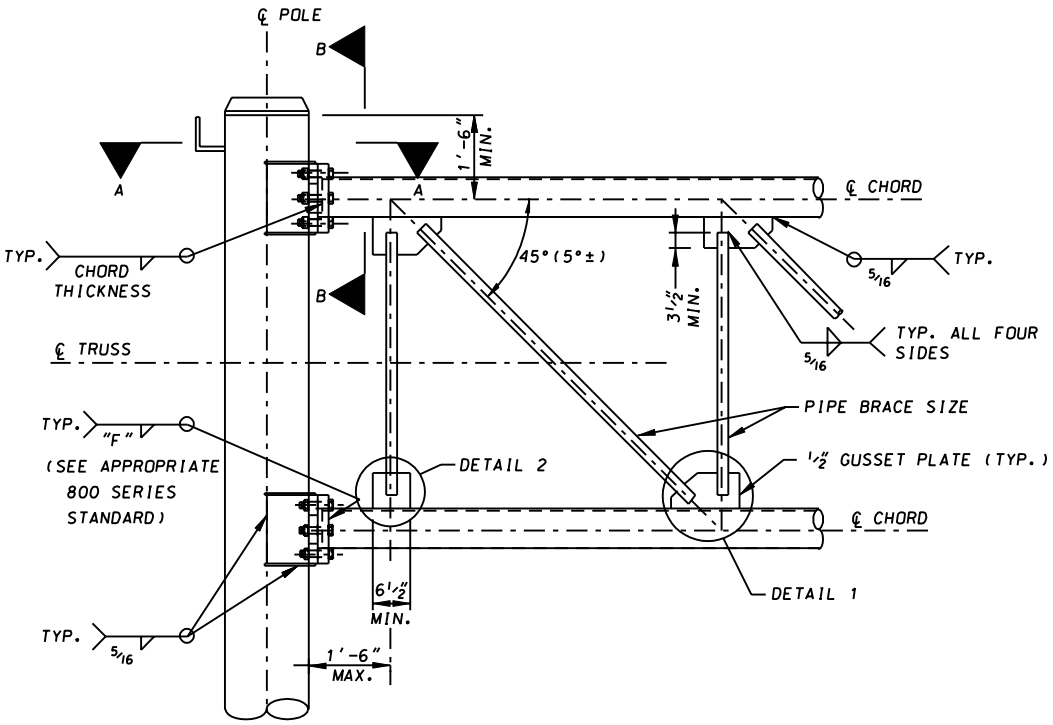
APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

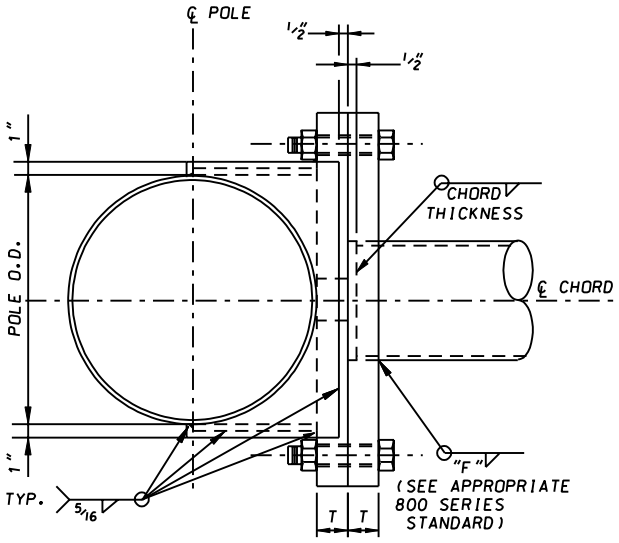
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SINGLE PLANE CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA

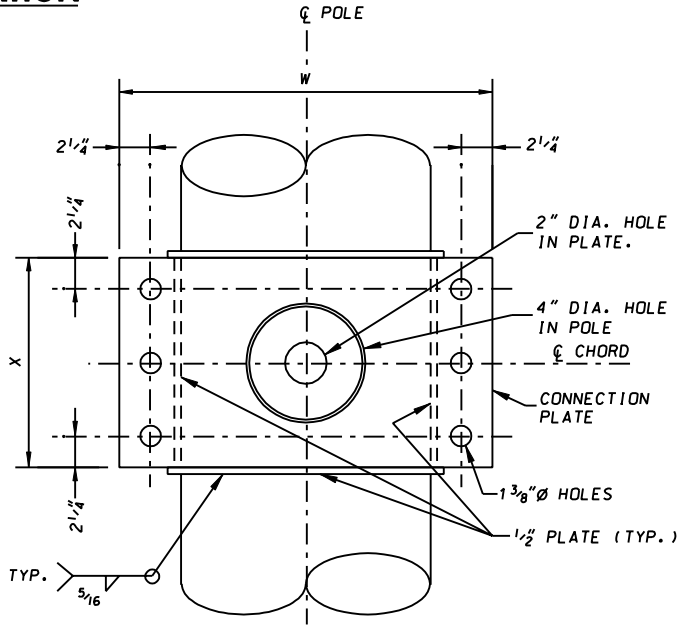
STANDARD NO. MD 803.05-02



ELEVATION



SECTION A–A



SECTION B–B

NOTES:

1. FOR DETAIL 1 AND DETAIL 2 REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.
2. TOP AND BOTTOM CHORD CONNECTIONS ARE SIMILAR.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SINGLE PLANE CANTILEVER SIGN STRUCTURES TRUSS CHORD TO POLE CONNECTION DETAILS

STANDARD NO. MD 803.05–03

SINGLE PLANE CANTILEVER TRUSS TO POLE CONNECTION TABLE						
TRUSS CHORD TUBE SIZE	POLE SIZE (O.D.)	NO. OF BOLTS	CONNECTION PLATE DIMENSIONS			FILLET WELD SIZE
			T	W	X	F
8.625" O.D. x 0.277" THK.	18"	6-1 1/4" DIA.	2 1/4"	28"	15"	5/16"
8.625" O.D. x 0.277" THK.	20"	6-1 1/4" DIA.	2 1/4"	30"	15"	5/16"
8.625" O.D. x 0.312" THK.	18"	6-1 1/4" DIA.	2 1/4"	28"	15"	3/8"
8.625" O.D. x 0.312" THK.	20"	6-1 1/4" DIA.	2 1/4"	30"	15"	3/8"
10.750" O.D. x 0.250" THK.	18"	6-1 1/4" DIA.	2 1/2"	28"	17"	5/16"
10.750" O.D. x 0.250" THK.	20"	6-1 1/4" DIA.	2 1/2"	30"	17"	5/16"
10.750" O.D. x 0.250" THK.	24"	6-1 1/4" DIA.	2 1/2"	34"	17"	5/16"
10.750" O.D. x 0.279" THK.	18"	6-1 1/4" DIA.	2 1/2"	28"	17"	5/16"
10.750" O.D. x 0.279" THK.	20"	6-1 1/4" DIA.	2 1/2"	30"	17"	5/16"
10.750" O.D. x 0.279" THK.	24"	6-1 1/4" DIA.	2 1/2"	34"	17"	5/16"
10.750" O.D. x 0.344" THK.	18"	6-1 1/4" DIA.	2 1/2"	28"	17"	3/8"
10.750" O.D. x 0.344" THK.	20"	6-1 1/4" DIA.	2 1/2"	30"	17"	3/8"
10.750" O.D. x 0.344" THK.	24"	6-1 1/4" DIA.	2 1/2"	34"	17"	3/8"
12.750" O.D. x 0.219" THK.	24"	6-1 1/4" DIA.	3"	34"	19"	5/16"
12.750" O.D. x 0.250" THK.	24"	6-1 1/4" DIA.	3"	34"	19"	5/16"
12.750" O.D. x 0.312" THK.	24"	6-1 1/4" DIA.	3"	34"	19"	3/8"
12.750" O.D. x 0.375" THK.	24"	6-1 1/4" DIA.	3"	34"	19"	7/16"
14.00" O.D. x 0.219" THK.	24"	6-1 1/4" DIA.	3"	34"	20"	5/16"
14.00" O.D. x 0.312" THK.	24"	6-1 1/4" DIA.	3"	34"	20"	3/8"

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING TRUSS CHORD TO POLE CONNECTION DETAILS.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

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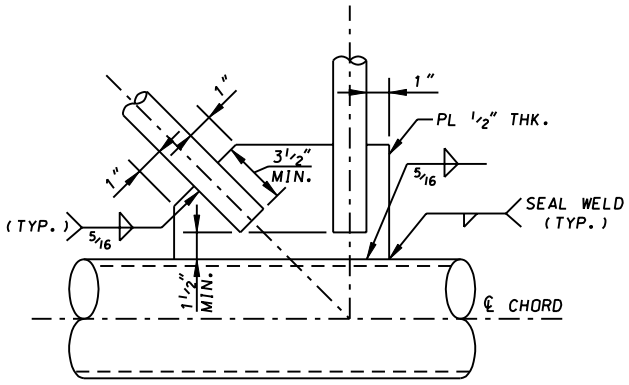
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

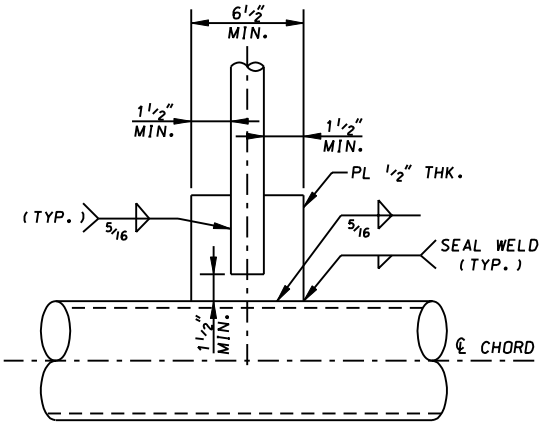
SINGLE PLANE CANTILEVER SIGN STRUCTURES
TRUSS CHORD TO POLE CONNECTION DATA

STANDARD NO. MD 803.05-04



DETAIL NO. 1

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE



DETAIL NO. 2

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE

NOTE:

PROVIDE SLOT IN TRUSS BRACING MEMBERS FOR CONNECTION TO GUSSET PLATES.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

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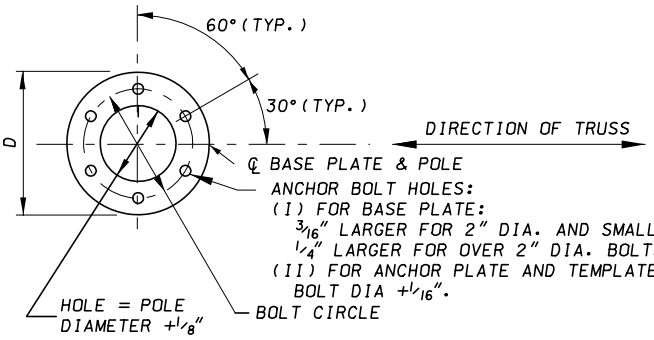
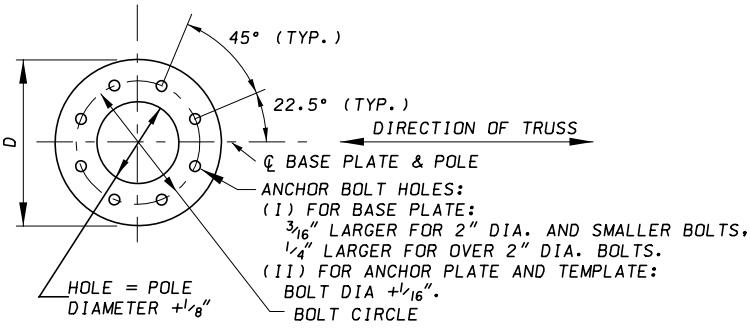
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SINGLE PLANE CANTILEVER SIGN STRUCTURES GUSSET PLATE CONNECTION DETAILS

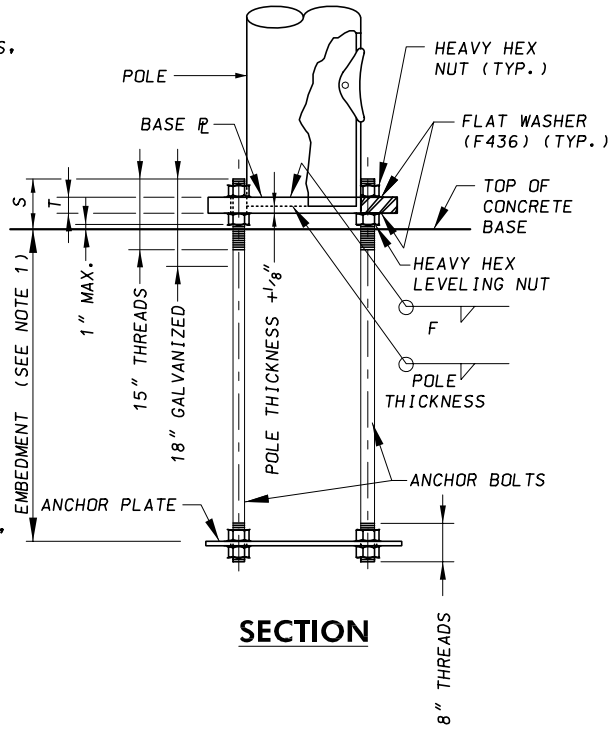
STANDARD NO. MD 803.05-05



PLAN
BASE PLATE & ANCHOR PLATE TYPE 'B'
(SIX (6) BOLT PATTERN)



PLAN
BASE PLATE & ANCHOR PLATE TYPE 'C'
(EIGHT (8) BOLT PATTERN)



SECTION

NOTES:

1. FOR ANCHOR BOLT EMBEDMENT LENGTH AND ANCHOR BASE DATA REFER TO CANTILEVER SIGN STRUCTURE ANCHOR BASE DATA
2. ALL ANCHOR BOLTS SHALL BE PLUMB AFTER FOUNDATION INSTALLATION. STEEL TEMPLATE PLATE SHALL BE USED TO SET ANCHOR BOLTS.
3. BASE PLATE SHALL BE IN FULL CONTACT WITH ALL FLAT WASHERS.
4. ALL ANCHOR BOLT NUTS SHALL BE TIGHTENED USING TURN OF NUT METHOD. (30° min to 45° max turn after snug tight)
5. GROUT SHALL NOT BE PLACED BETWEEN THE BASE PLATE AND CONCRETE BASE.
6. FOR FOUNDATION DETAILS REFER TO CANTILEVER STRUCTURE FOUNDATION DATA

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

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STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CANTILEVER SIGN STRUCTURES
ANCHOR BASE DETAILS

STANDARD NO. MD 803.05-06

CANTILEVER STRUCTURE BASE PLATE AND ANCHORAGE DATA									
POLE SIZE	BASE PLATE TYPE	D	BOLT CIRCLE	T	S	ANCHOR BOLT DIA.	MINIMUM EMBEDMENT LENGTH *	ANCHOR PLATE SIZE	FILLET WELD SIZE (F)
18.00" O.D. x 0.312" THK.	B	33"	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	7/16"
18.00" O.D. x 0.344" THK.	B	33"	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	7/16"
18.00" O.D. x 0.375" THK.	B	33"	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	7/16"
18.00" O.D. x 0.406" THK.	B	33"	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	7/16"
18.00" O.D. x 0.500" THK.	B	33"	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	5/8"
20.00" O.D. x 0.344" THK.	B	36"	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	7/16"
20.00" O.D. x 0.375" THK.	B	36"	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	7/16"
20.00" O.D. x 0.406" THK.	B	36"	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	7/16"
20.00" O.D. x 0.500" THK.	B	36"	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	5/8"
24.00" O.D. x 0.312" THK.	C	38"	31"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 38" DIA.	7/16"
24.00" O.D. x 0.344" THK.	C	38"	31"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 38" DIA.	7/16"
24.00" O.D. x 0.375" THK.	C	38"	31"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 38" DIA.	1/2"
24.00" O.D. x 0.406" THK.	C	39 1/2"	32"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 39 1/2" DIA.	1/2"
24.00" O.D. x 0.438" THK.	C	39 1/2"	32"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 39 1/2" DIA.	9/16"
24.00" O.D. x 0.469" THK.	C	39 1/2"	32"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 39 1/2" DIA.	9/16"
24.00" O.D. x 0.500" THK.	C	39 1/2"	32"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 39 1/2" DIA.	5/8"

NOTES:

* 1. FOR FOUNDATION WITH WING WALLS.
REFER TO APPROPRIATE 800 SERIES
STANDARD PLATE REGARDING MINIMUM EMBEDMENT LENGTH.

2. REFER TO APPROPRIATE 800 SERIES STANDARD PLATE
REGARDING ANCHOR BASE DETAILS.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

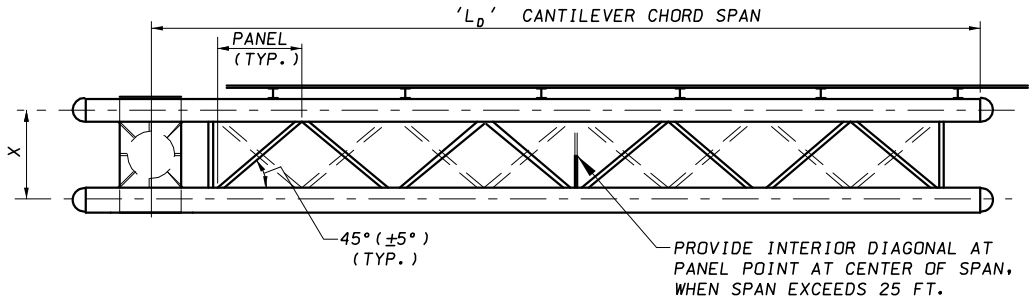
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

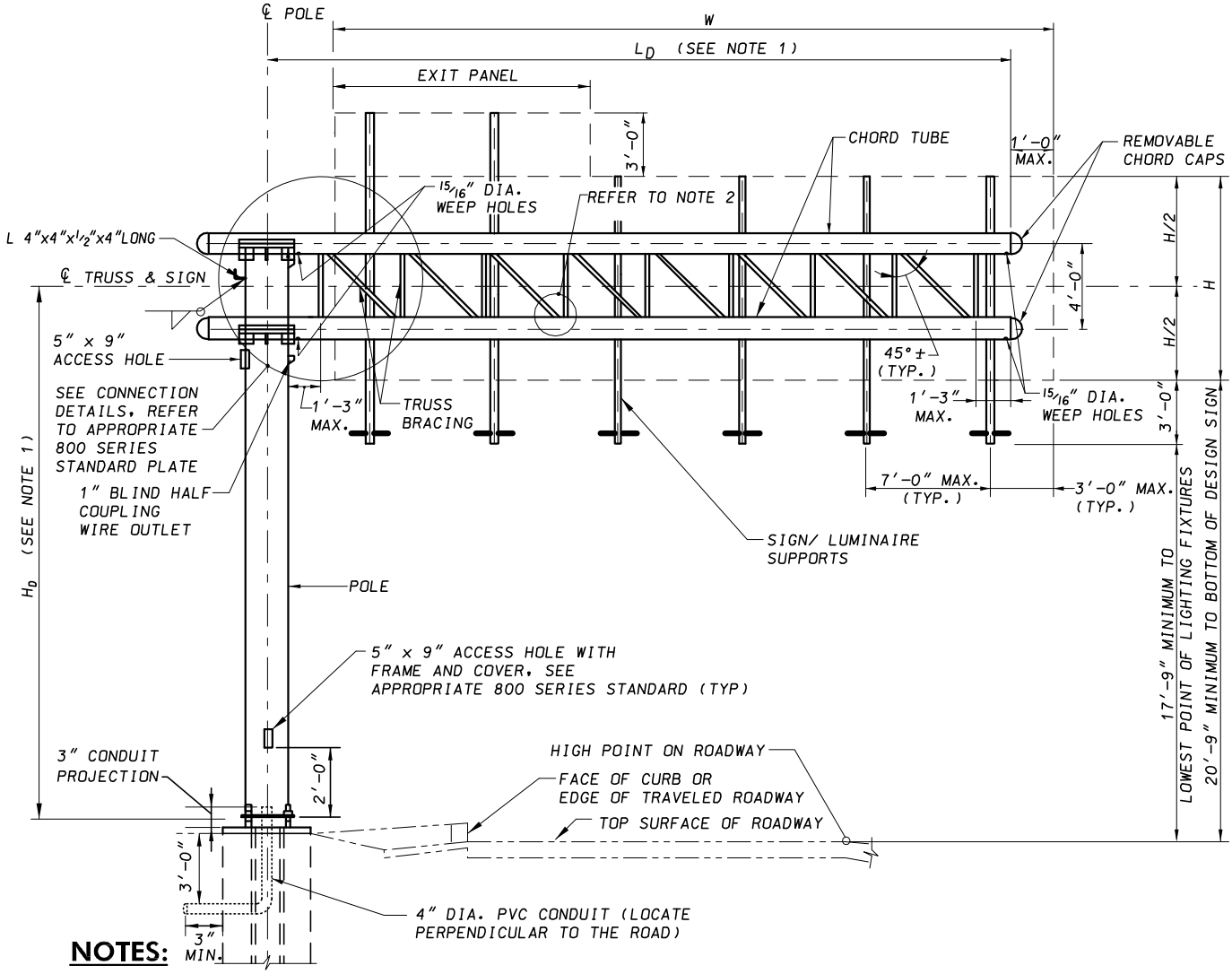
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CANTILEVER SIGN STRUCTURE
ANCHOR BASE DATA

STANDARD NO. **MD 803.05-07**



PLAN VIEW



NOTES:

1. CHORD LENGTH 'L_D' AND POLE HEIGHT 'H_D' ARE FOR DESIGN PURPOSES ONLY. ACTUAL LENGTHS WILL BE AS SPECIFIED IN THE ERECTION DETAIL SHEET. IN DETERMINING THE STRUCTURE TYPE FOR A SIGN SUPPORT, THE DESIGNER WILL CHOOSE A DESIGN HEIGHT 'H_D' AND A CHORD LENGTH 'L_D' EQUAL TO OR GREATER THAN THE ACTUAL DIMENSIONS.
2. REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING STRUCTURE DATA.
3. REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING GENERAL NOTES.

REAR ELEVATION VIEW

SPECIFICATION	CATEGORY CODE ITEMS
803	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-12-02	APPROVAL	9-4-02
REVISED	5-20-11	REVISED	4-22-11
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES ELEVATION

STANDARD NO. MD 803.06

STRUCTURE MARK	L_D	H_D	POLE SIZE	TRUSS CHORD TUBE SIZE	TRUSS BRACING TUBE SIZE
C-35-28-A	35'-0"	28'-9"	24" O.D. x .438" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-35-30-A		30'-0"	24" O.D. x .438" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-35-32-A		32'-0"	24" O.D. x .438" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-35-34-A		34'-0"	24" O.D. x .469" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-35-36-A		36'-0"	24" O.D. x .469" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-35-26-B		26'-9"	24" O.D. x .344" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-28-B		28'-0"	24" O.D. x .344" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-30-B		30'-0"	24" O.D. x .344" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-32-B		32'-0"	24" O.D. x .344" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-34-B		34'-0"	24" O.D. x .375" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-36-B		36'-0"	24" O.D. x .375" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-32-C		32'-0"	24" O.D. x .50" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-35-32-D		32'-0"	24" O.D. x .375" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-28-E		28'-9"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-35-30-E		30'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-35-32-E		32'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-35-34-E		34'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-35-36-E		36'-0"	24" O.D. x .625" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-35-26-F		26'-9"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-28-F		28'-0"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-30-F		30'-0"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-32-F		32'-0"	24" O.D. x .438" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-34-F		34'-0"	24" O.D. x .438" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-35-36-F		36'-0"	24" O.D. x .469" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-28-A	40'-0"	28'-9"	24" O.D. x .469" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-40-30-A		30'-0"	24" O.D. x .469" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-40-32-A		32'-0"	24" O.D. x .500" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-40-34-A		34'-0"	24" O.D. x .500" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-40-36-A		36'-0"	24" O.D. x .562" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-40-26-B		26'-9"	24" O.D. x .344" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-28-B		28'-0"	24" O.D. x .375" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-30-B		30'-0"	24" O.D. x .375" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-32-B		32'-0"	24" O.D. x .375" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-34-B		34'-0"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-36-B		36'-0"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-32-C		32'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-40-32-D		32'-0"	24" O.D. x .438" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-28-E		28'-9"	24" O.D. x .625" THK.	4.5" O.D. x .203" THK.	2.375" O.D. x .154" THK.
C-40-30-E		30'-0"	24" O.D. x .625" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-40-32-E		32'-0"	24" O.D. x .625" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-40-34-E		34'-0"	24" O.D. x .75" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-40-36-E		36'-0"	24" O.D. x .75" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-40-26-F		26'-9"	24" O.D. x .438" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-28-F		28'-0"	24" O.D. x .469" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-30-F		30'-0"	24" O.D. x .469" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-32-F		32'-0"	24" O.D. x .5" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-34-F		34'-0"	24" O.D. x .5" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-40-36-F		36'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.

NOTE:

SEE APPROPRIATE 800 SERIES STANDARD FOR BOX TRUSS CANTILEVER SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION	CATEGORY CODE ITEMS
803	

APPROVED

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	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
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	REVISED	REVISED
	REVISED	REVISED

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STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.06-01

STRUCTURE MARK	L_D	H_D	POLE SIZE	TRUSS CHORD TUBE SIZE	TRUSS BRACING TUBE SIZE
C-45-28-A	45'-0"	28'-9"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-45-30-A		30'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-45-32-A		32'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-45-34-A		34'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-45-36-A		36'-0"	24" O.D. x .562" THK.	4.5" O.D. x .237" THK.	2.375" O.D. x .154" THK.
C-45-26-B		26'-9"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-45-28-B		28'-0"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-45-30-B		30'-0"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-45-32-B		32'-0"	24" O.D. x .406" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-45-34-B		34'-0"	24" O.D. x .438" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-45-36-B		36'-0"	24" O.D. x .438" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-45-32-C		32'-0"	24" O.D. x .688" THK.	6.625" O.D. x .25" THK.	2.375" O.D. x .154" THK.
C-45-32-D		32'-0"	24" O.D. x .50" THK.	4.5" O.D. x .237" THK.	1.9" O.D. x .145" THK.
C-45-28-E		28'-9"	24" O.D. x .75" THK.	6.625" O.D. x .25" THK.	2.375" O.D. x .154" THK.
C-45-30-E		30'-0"	24" O.D. x .75" THK.	6.625" O.D. x .25" THK.	2.375" O.D. x .154" THK.
C-45-32-E		32'-0"	24" O.D. x .75" THK.	6.625" O.D. x .25" THK.	2.375" O.D. x .154" THK.
C-45-34-E		34'-0"	24" O.D. x .75" THK.	6.625" O.D. x .25" THK.	2.375" O.D. x .154" THK.
C-45-36-E		36'-0"	24" O.D. x .75" THK.	6.625" O.D. x .25" THK.	2.375" O.D. x .154" THK.
C-45-26-F		26'-9"	24" O.D. x .562" THK.	6.625" O.D. x .25" THK.	1.9" O.D. x .145" THK.
C-45-28-F		28'-0"	24" O.D. x .562" THK.	6.625" O.D. x .25" THK.	1.9" O.D. x .145" THK.
C-45-30-F		30'-0"	24" O.D. x .562" THK.	6.625" O.D. x .25" THK.	1.9" O.D. x .145" THK.
C-45-32-F		32'-0"	24" O.D. x .562" THK.	6.625" O.D. x .25" THK.	1.9" O.D. x .145" THK.
C-45-34-F		34'-0"	24" O.D. x .625" THK.	6.625" O.D. x .25" THK.	1.9" O.D. x .145" THK.
C-45-36-F		36'-0"	24" O.D. x .625" THK.	6.625" O.D. x .25" THK.	1.9" O.D. x .145" THK.

NOTE:

SEE APPROPRIATE 800 SERIES STANDARD FOR BOX TRUSS CANTILEVER SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

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	REVISED	REVISED

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STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.06-02

STRUCTURE MARK	AREA OF DESIGN SIGN PLUS EXIT PANEL **	TOTAL CAMBER		FOOTING MARK	CSR	
		ΔH	ΔV		POLE	TRUSS
C-35-28-A	18'-0"(W) x 16'-0"(H)	1 5/8"	4 1/8"	CF-16	0.81	0.68
C-35-30-A	18'-0"(W) x 16'-0"(H)	1 3/4"	4 1/4"	CF-16	0.84	0.68
C-35-32-A	18'-0"(W) x 16'-0"(H)	2 1/8"	4 3/4"	CF-16	0.89	0.69
C-35-34-A	18'-0"(W) x 16'-0"(H)	2 1/8"	4 1/2"	CF-16	0.85	0.67
C-35-36-A	18'-0"(W) x 16'-0"(H)	2 1/4"	4 3/4"	CF-16	0.88	0.67
C-35-26-B	18'-0"(W) x 12'-0"(H)	1 7/16"	3 15/16"	CF-4	0.78	0.70
C-35-28-B	18'-0"(W) x 12'-0"(H)	1 9/16"	4 1/16"	CF-4	0.80	0.70
C-35-30-B	18'-0"(W) x 12'-0"(H)	1 3/4"	4 1/4"	CF-7	0.84	0.70
C-35-32-B	18'-0"(W) x 12'-0"(H)	2"	4 9/16"	CF-7	0.88	0.70
C-35-34-B	18'-0"(W) x 12'-0"(H)	2"	4 3/8"	CF-7	0.80	0.69
C-35-36-B	18'-0"(W) x 12'-0"(H)	2 1/4"	4 5/8"	CF-7	0.84	0.69
C-35-32-C	22'-0"(W) x 16'-0"(H)	2"	4 5/8"	CF-20	0.88	0.72
C-35-32-D	22'-0"(W) x 12'-0"(H)	1 15/16"	4 1/2"	CF-11	0.88	0.73
C-35-28-E	26'-0"(W) x 16'-0"(H)	1 9/16"	4 1/16"	CF-20	0.80	0.71
C-35-30-E	26'-0"(W) x 16'-0"(H)	1 11/16"	4 3/16"	CF-20	0.82	0.71
C-35-32-E	26'-0"(W) x 16'-0"(H)	1 15/16"	4 7/16"	CF-22	0.86	0.71
C-35-34-E	26'-0"(W) x 16'-0"(H)	2 1/8"	4 11/16"	CF-22	0.91	0.71
C-35-36-E	26'-0"(W) x 16'-0"(H)	2 3/16"	4 7/16"	CF-22	0.83	0.70
C-35-26-F	26'-0"(W) x 12'-0"(H)	1 3/8"	3 13/16"	CF-11	0.83	0.83
C-35-28-F	26'-0"(W) x 12'-0"(H)	1 1/2"	4"	CF-11	0.85	0.83
C-35-30-F	26'-0"(W) x 12'-0"(H)	1 11/16"	4 3/16"	CF-15	0.90	0.83
C-35-32-F	26'-0"(W) x 12'-0"(H)	1 3/4"	4 1/8"	CF-15	0.85	0.84
C-35-34-F	26'-0"(W) x 12'-0"(H)	1 15/16"	4 3/8"	CF-15	0.90	0.84
C-35-36-F	26'-0"(W) x 12'-0"(H)	2 1/16"	4 3/8"	CF-15	0.88	0.83
C-40-28-A	18'-0"(W) x 16'-0"(H)	1 5/8"	4 1/8"	CF-16	0.81	0.68
C-40-30-A	18'-0"(W) x 16'-0"(H)	1 3/4"	4 1/4"	CF-16	0.84	0.68
C-40-32-A	18'-0"(W) x 16'-0"(H)	2 1/8"	4 3/4"	CF-16	0.89	0.69
C-40-34-A	18'-0"(W) x 16'-0"(H)	2 1/8"	4 1/2"	CF-16	0.85	0.67
C-40-36-A	18'-0"(W) x 16'-0"(H)	2 1/4"	4 3/4"	CF-16	0.88	0.67
C-40-26-B	18'-0"(W) x 12'-0"(H)	1 3/4"	4 15/16"	CF-8	0.89	0.71
C-40-28-B	18'-0"(W) x 12'-0"(H)	1 3/4"	5 1/4"	CF-8	0.80	0.70
C-40-30-B	18'-0"(W) x 12'-0"(H)	2"	5 1/2"	CF-8	0.83	0.70
C-40-32-B	18'-0"(W) x 12'-0"(H)	2 1/4"	5 7/8"	CF-8	0.87	0.70
C-40-34-B	18'-0"(W) x 12'-0"(H)	2 5/16"	5 13/16"	CF-13	0.83	0.69
C-40-36-B	18'-0"(W) x 12'-0"(H)	2 5/8"	6 1/16"	CF-13	0.86	0.69
C-40-32-C	22'-0"(W) x 16'-0"(H)	2"	4 5/8"	CF-20	0.88	0.72
C-40-32-D	22'-0"(W) x 12'-0"(H)	2 3/16"	5 13/16"	CF-12	0.85	0.77
C-40-28-E	26'-0"(W) x 16'-0"(H)	1 9/16"	4 1/16"	CF-20	0.80	0.71
C-40-30-E	26'-0"(W) x 16'-0"(H)	1 11/16"	4 3/16"	CF-20	0.82	0.71
C-40-32-E	26'-0"(W) x 16'-0"(H)	1 15/16"	4 7/16"	CF-22	0.86	0.71
C-40-34-E	26'-0"(W) x 16'-0"(H)	2 1/8"	4 11/16"	CF-22	0.91	0.71
C-40-36-E	26'-0"(W) x 16'-0"(H)	2 3/16"	4 7/16"	CF-22	0.83	0.70
C-40-26-F	26'-0"(W) x 12'-0"(H)	1 5/8"	5 1/16"	CF-17	0.89	0.87
C-40-28-F	26'-0"(W) x 12'-0"(H)	1 5/8"	5"	CF-17	0.85	0.87
C-40-30-F	26'-0"(W) x 12'-0"(H)	1 7/8"	5 5/16"	CF-17	0.89	0.87
C-40-32-F	26'-0"(W) x 12'-0"(H)	1 15/16"	5 5/16"	CF-20	0.86	0.86
C-40-34-F	26'-0"(W) x 12'-0"(H)	2 3/16"	5 1/2"	CF-20	0.89	0.86
C-40-36-F	26'-0"(W) x 12'-0"(H)	2 1/4"	5 7/16"	CF-20	0.82	0.86

SPECIFICATION 803	CATEGORY CODE ITEMS

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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES DESIGN / STRUCTURE DATA

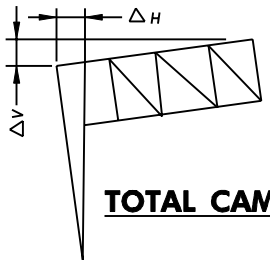
STANDARD NO. MD 803.06-03

STRUCTURE MARK	AREA OF DESIGN SIGN PLUS EXIT PANEL **	TOTAL CAMBER		FOOTING MARK	CSR	
		ΔH	ΔV		POLE	TRUSS
C-45-28-A	18'-0"(W) x 16'-0"(H)	1 7/8"	5 1/2"	CF-17	0.86	0.80
C-45-30-A	18'-0"(W) x 16'-0"(H)	2 "	5 3/4"	CF-17	0.88	0.80
C-45-32-A	18'-0"(W) x 16'-0"(H)	2 1/8"	5 3/4"	CF-17	0.85	0.79
C-45-34-A	18'-0"(W) x 16'-0"(H)	2 3/8"	6 1/2"	CF-17	0.89	0.79
C-45-36-A	18'-0"(W) x 16'-0"(H)	2 1/2"	5 7/8"	CF-20	0.80	0.78
C-45-26-B	18'-0"(W) x 12'-0"(H)	1 13/16"	6 3/8"	CF-9	0.81	0.77
C-45-28-B	18'-0"(W) x 12'-0"(H)	2 "	6 5/8"	CF-9	0.83	0.77
C-45-30-B	18'-0"(W) x 12'-0"(H)	2 1/4"	7 "	CF-9	0.86	0.77
C-45-32-B	18'-0"(W) x 12'-0"(H)	2 1/2"	7 3/8"	CF-14	0.89	0.77
C-45-34-B	18'-0"(W) x 12'-0"(H)	2 5/8"	7 5/16"	CF-14	0.84	0.76
C-45-36-B	18'-0"(W) x 12'-0"(H)	2 7/8"	7 5/8"	CF-14	0.87	0.76
C-45-32-C	23'-0"(W) x 16'-0"(H)	2 1/4"	5 11/16"	CF-21	0.88	0.85
C-45-32-D	23'-0"(W) x 12'-0"(H)	2 1/4"	6 13/16"	CF-18	0.87	0.87
C-45-28-E	28'-0"(W) x 16'-0"(H)	1 5/8"	4 15/16"	CF-23	0.82	0.90
C-45-30-E	28'-0"(W) x 16'-0"(H)	1 3/4"	5 3/16"	CF-23	0.85	0.90
C-45-32-E	28'-0"(W) x 16'-0"(H)	2 "	5 7/16"	CF-23	0.89	0.90
C-45-34-E	28'-0"(W) x 16'-0"(H)	1 13/16"	4 7/8"	CF-24	0.71	0.88
C-45-36-E	28'-0"(W) x 16'-0"(H)	2 "	5 1/16"	CF-24	0.75	0.88
C-45-26-F	28'-0"(W) x 12'-0"(H)	1 3/4"	6 3/16"	CF-21	0.81	0.84
C-45-28-F	28'-0"(W) x 12'-0"(H)	1 15/16"	6 3/8"	CF-21	0.82	0.84
C-45-30-F	28'-0"(W) x 12'-0"(H)	2 3/16"	6 13/16"	CF-21	0.86	0.84
C-45-32-F	28'-0"(W) x 12'-0"(H)	2 1/2"	7 3/16"	CF-21	0.90	0.84
C-45-34-F	28'-0"(W) x 12'-0"(H)	2 1/2"	7 "	CF-23	0.82	0.83
C-45-36-F	28'-0"(W) x 12'-0"(H)	2 13/16"	7 3/8"	CF-23	0.85	0.83

NOTES:

SEE APPROPRIATE 800 SERIES STANDARD FOR BOX TRUSS CANTILEVER SIGN STRUCTURE ELEVATION VIEW.
SEE APPROPRIATE 800 SERIES STANDARD FOR CAMBER DIAGRAM.

** ADDITIONAL AREA FOR AN EXIT PANEL (12'(WIDE)x3'(HIGH) = 36 SQ. FT.) HAS BEEN INCLUDED FOR DESIGN OF ALL STRUCTURAL MEMBERS.



TOTAL CAMBER

SPECIFICATION 803	CATEGORY CODE ITEMS

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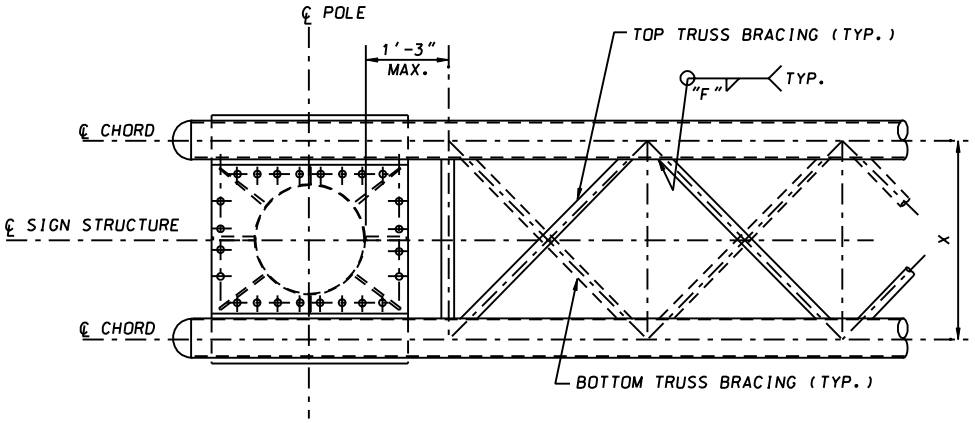
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES
DESIGN / STRUCTURE DATA

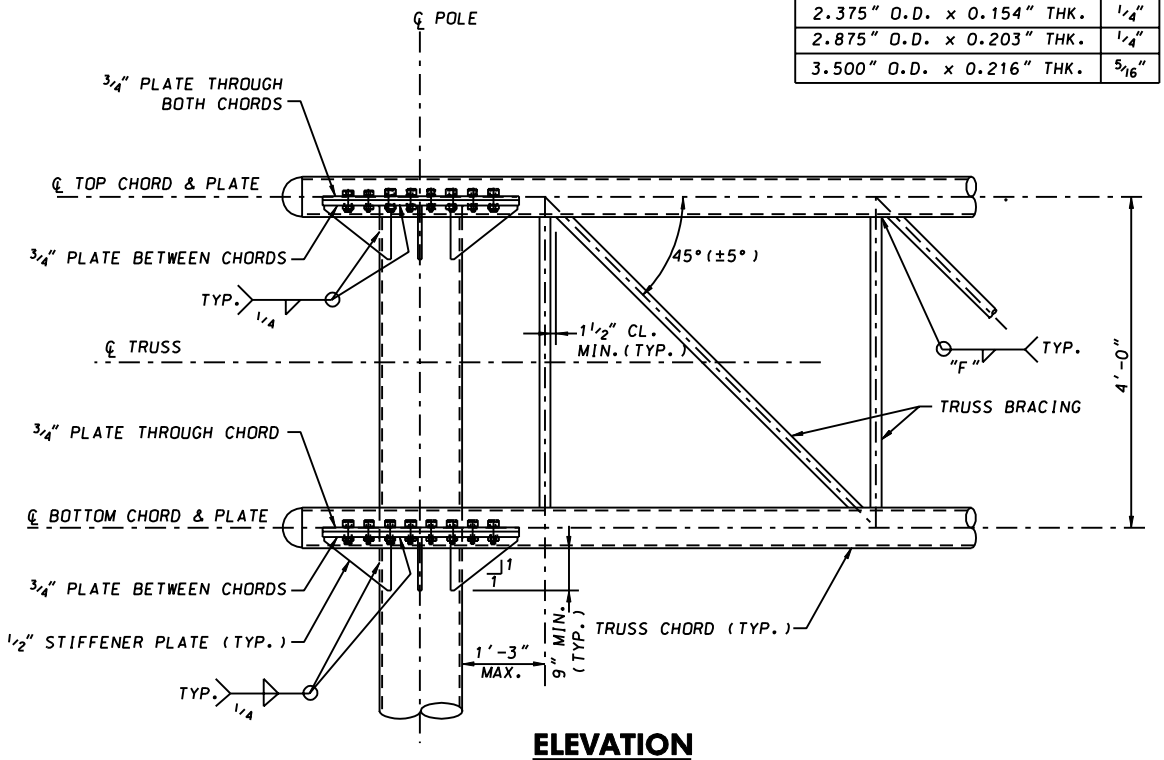
STANDARD NO. MD 803.06-04



PLAN

(FROM 800 SERIES STANDARD)

WELDING SIZE TABLE FOR TRUSS BRACING	
MEMBER SIZE	**F**
1.900" O.D. x 0.145" THK.	1/4"
2.375" O.D. x 0.154" THK.	1/4"
2.875" O.D. x 0.203" THK.	1/4"
3.500" O.D. x 0.216" THK.	5/16"



ELEVATION

(FROM 800 SERIES STANDARD)

NOTES:

1. REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING ADDITIONAL TRUSS TO POLE CONNECTION DETAILS.
2. FOR OPTIONAL CHORD SPLICE DETAIL REFER TO APPROPRIATE 800 SERIES STANDARD PLATE

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
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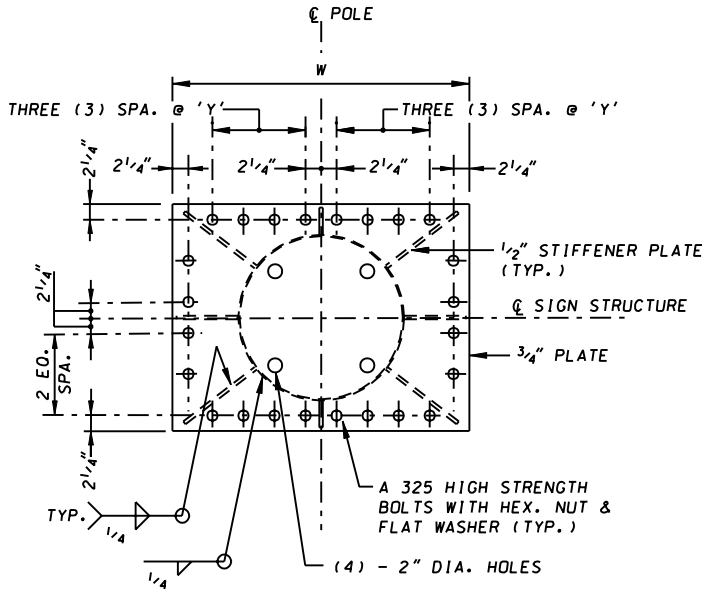
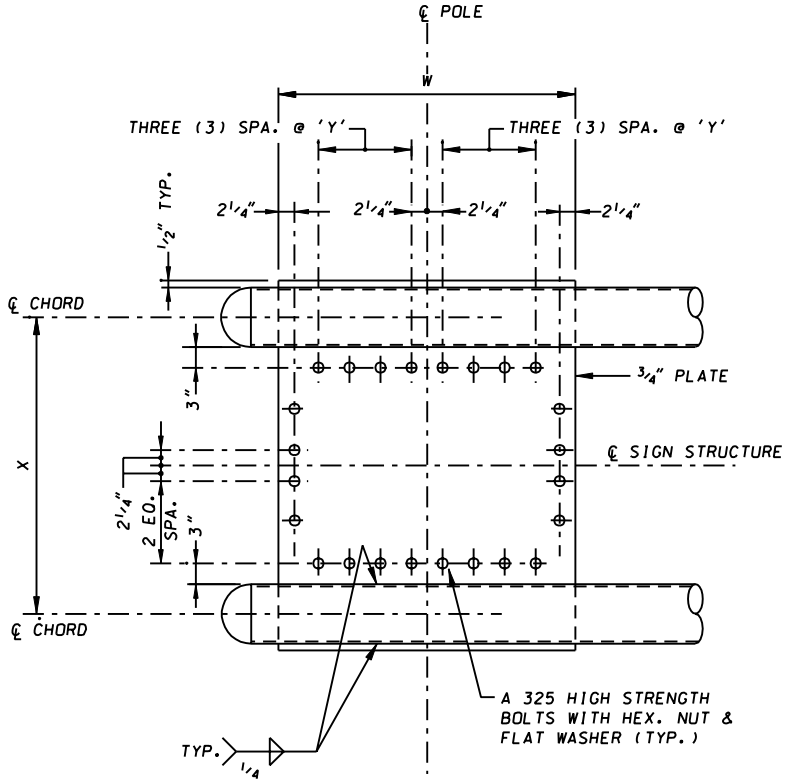
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS CHORD TO POLE CONNECTION DETAILS

STANDARD NO. MD 803.06-05



PLAN – POLE ASSEMBLY



PLAN – TRUSS ASSEMBLY

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING TRUSS TO POLE CONNECTION DATA.

SPECIFICATION 803	CATEGORY CODE ITEMS

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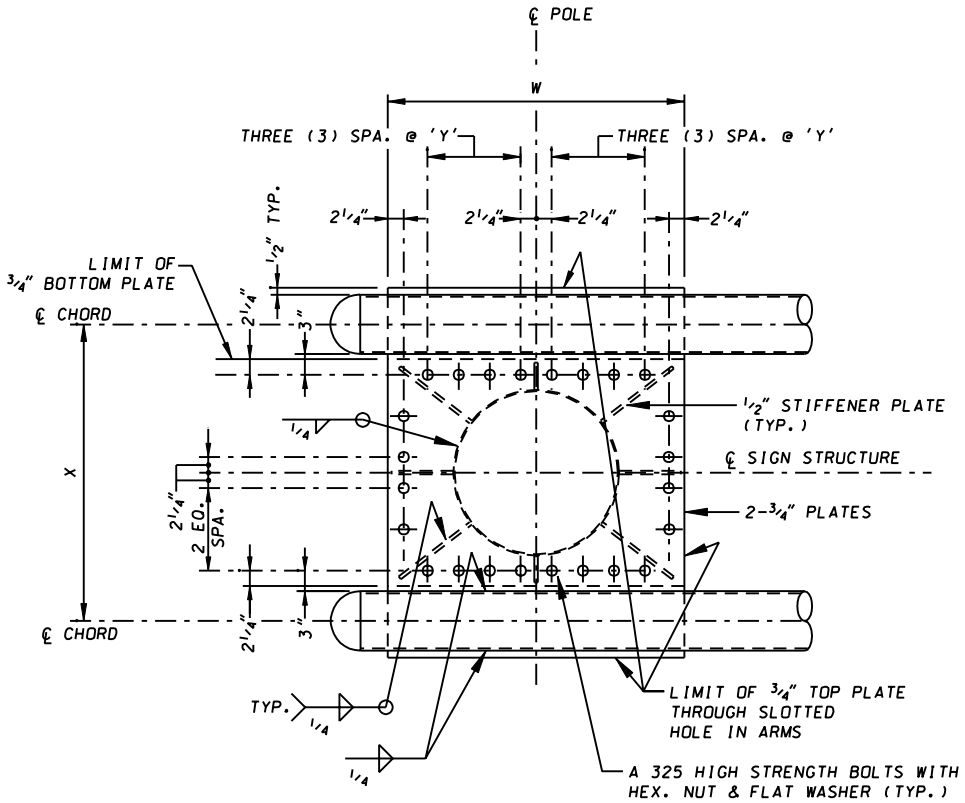
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES
TRUSS TOP CONNECTION PLATE DETAILS

STANDARD NO. MD 803.06-06



PLAN – POLE AND TRUSS ASSEMBLY

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING TRUSS TO POLE CONNECTION DATA.

SPECIFICATION 803	CATEGORY CODE ITEMS
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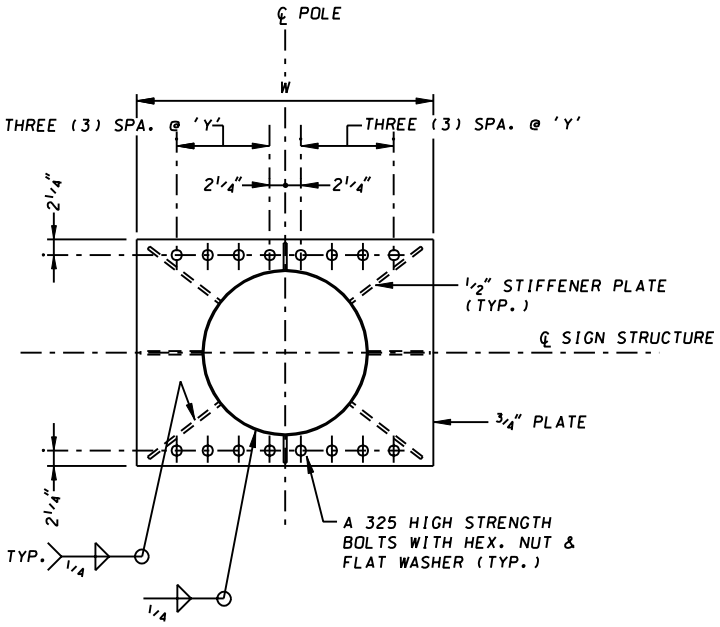
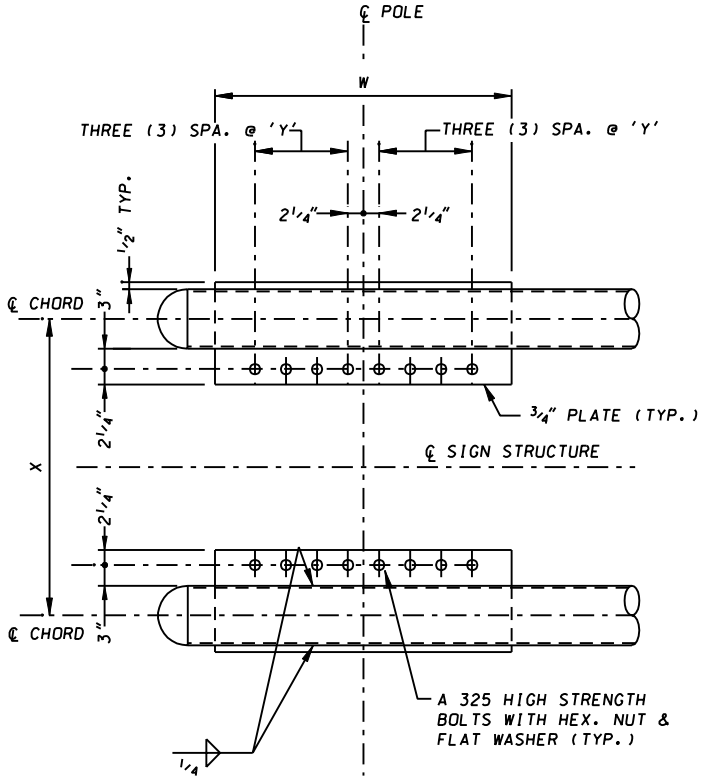
BOX TRUSS CANTILEVER SIGN STRUCTURES
TRUSS TOP CONNECTION PLATE DETAILS

STANDARD NO. MD 803.06-07



PLAN – POLE ASSEMBLY



PLAN – TRUSS ASSEMBLY

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING TRUSS TO POLE CONNECTION DATA.

SPECIFICATION 803	CATEGORY CODE ITEMS

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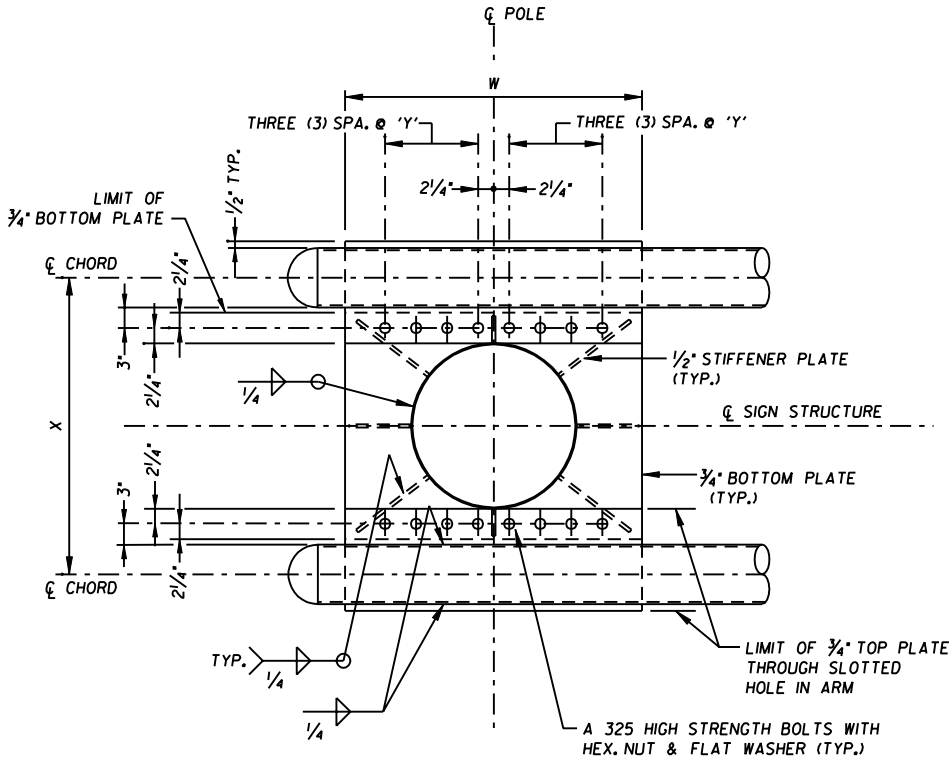
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS BOTTOM CONNECTION PLATE DETAILS

STANDARD NO. MD 803.06-08



PLAN – POLE AND TRUSS ASSEMBLY

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING TRUSS TO POLE CONNECTION DATA.

SPECIFICATION 803	CATEGORY CODE ITEMS
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BOX TRUSS CANTILEVER SIGN STRUCTURES
TRUSS BOTTOM CONNECTION PLATE DETAIL

STANDARD NO. MD 803.06-09

CANTILEVER BOX TRUSS CONNECTION PLATE TABLE				
CHORD SIZE	HORIZ. CHORD SPACING (X)	PLATE LENGTH (W)	SIZE OF BOLTS	BOLT SPACING (Y)
3.50" O.D. x 0.188" THK.	3'-6"	3'-2"	7/8" DIA.	4"
3.50" O.D. x 0.250" THK.	3'-6"	3'-2"	7/8" DIA.	4"
4.50" O.D. x 0.203" THK.	3'-6"	3'-2"	1" DIA.	4"
4.50" O.D. x 0.237" THK.	3'-6"	3'-2"	1" DIA.	4"
4.50" O.D. x 0.250" THK.	3'-6"	3'-2"	1" DIA.	4"
6.625" O.D. x 0.188" THK.	3'-6"	3'-4"	1 1/4" DIA.	4"
6.625" O.D. x 0.250" THK.	3'-6"	3'-4"	1 1/4" DIA.	4"
6.625" O.D. x 0.280" THK.	3'-6"	3'-4"	1 1/4" DIA.	4"
8.625" O.D. x 0.219" THK.	3'-8"	3'-8"	1 1/2" DIA.	4 1/2"
8.625" O.D. x 0.250" THK.	3'-8"	3'-8"	1 1/2" DIA.	4 1/2"
8.625" O.D. x 0.322" THK.	3'-8"	3'-8"	1 1/2" DIA.	4 1/2"

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING TRUSS TO POLE CONNECTION DETAILS.

SPECIFICATION 803	CATEGORY CODE ITEMS

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REVISED	REVISED

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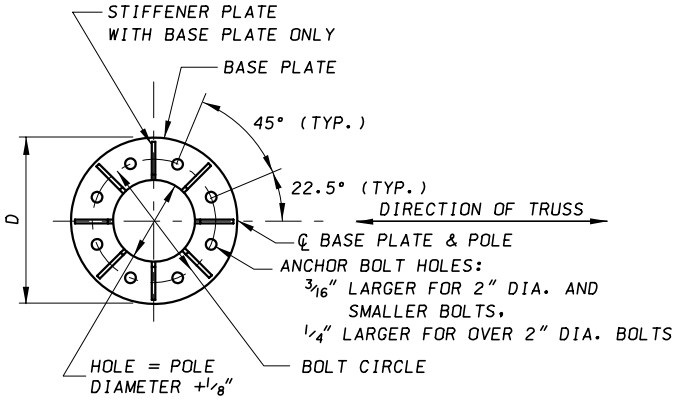
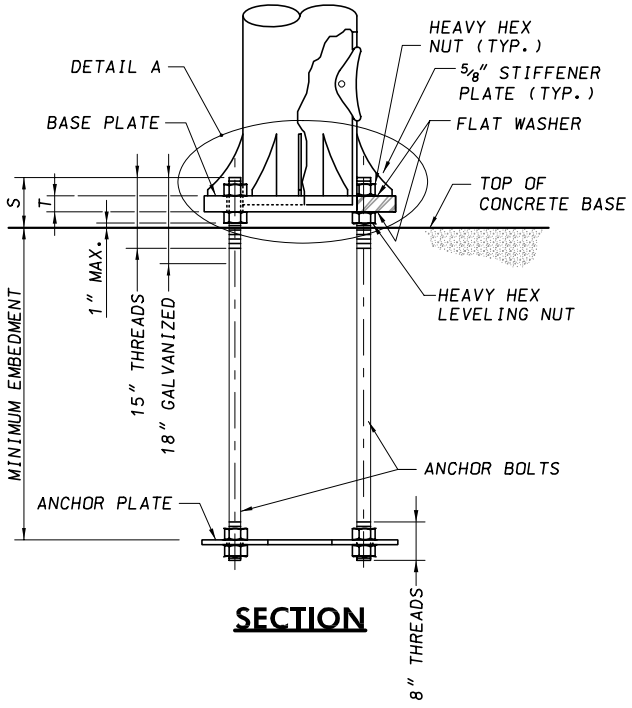
BOX TRUSS CANTILEVER SIGN STRUCTURES TRUSS TO POLE CONNECTION DATA

STANDARD NO. MD 803.06-10

CANTILEVER STRUCTURE BASE PLATE AND ANCHOR BASE DATA							
POLE SIZE	D	BOLT CIRCLE	T	S	ANCHOR BOLT DIA.	MINIMUM EMBEDMENT LENGTH	ANCHOR PLATE SIZE
24" O.D. x 0.562" THK.	40"	32"	2"	10 1/4"	2 1/2"	6'-0"	3/4" THK. x 40" DIA.
24" O.D. x 0.625" THK.	41"	32"	2"	11"	2 3/4"	6'-0"	3/4" THK. x 41" DIA.
24" O.D. x 0.688" THK.	42"	32"	2"	11 3/4"	3"	6'-6"	3/4" THK. x 42" DIA.
24" O.D. x 0.750" THK.	42"	32"	2"	11 3/4"	3"	6'-6"	3/4" THK. x 42" DIA.
24" O.D. x 1.000" THK.	42"	32"	2"	12 1/2"	3 1/4"	7'-6"	3/4" THK. x 42" DIA.



PLAN – BASE PLATE



SECTION

NOTES:

1. FOR DETAIL A AND ANCHOR PLATE PLAN, REFER TO BOX TRUSS CANTILEVER SIGN STRUCTURES POLE ANCHOR BASE DETAILS / DATA STANDARD PLATE.
2. FOR ANCHOR BOLT EMBEDMENT LENGTHS, REFER TO CANTILEVER SIGN STRUCTURE FOUNDATION STANDARD PLATES.
3. ALL ANCHOR BOLTS SHALL BE PLUMB AFTER FOUNDATION INSTALLATION. STEEL TEMPLATE PLATE SHALL BE USED TO SET ANCHOR BOLTS.
4. BASE PLATE SHALL BE IN FULL CONTACT WITH ALL FLAT WASHERS.
5. ALL ANCHOR BOLT NUTS SHALL BE TIGHTENED USING TURN OF NUT METHOD.(30° min. to 45° max. turn after snug tight)
6. GROUT SHALL NOT BE PLACED BETWEEN THE BASE PLATE AND CONCRETE BASE.
7. FOR ADDITIONAL ANCHOR BASE DETAILS AND DATA, REFER TO CANTILEVER SIGN STRUCTURES ANCHOR BASE DETAILS AND ANCHOR BASE DATA STANDARD PLATES.
8. FOR FOUNDATION DETAILS, REFER TO CANTILEVER SIGN STRUCTURE FOUNDATION STANDARD PLATES.
9. FOR ADDITIONAL POLE SIZES, REFER TO SINGLE PLANE CANTILEVER SIGN STRUCTURES ANCHOR BASE DATA STANDARD PLATE.

SPECIFICATION	CATEGORY CODE ITEMS
803	

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REVISED		REVISED	

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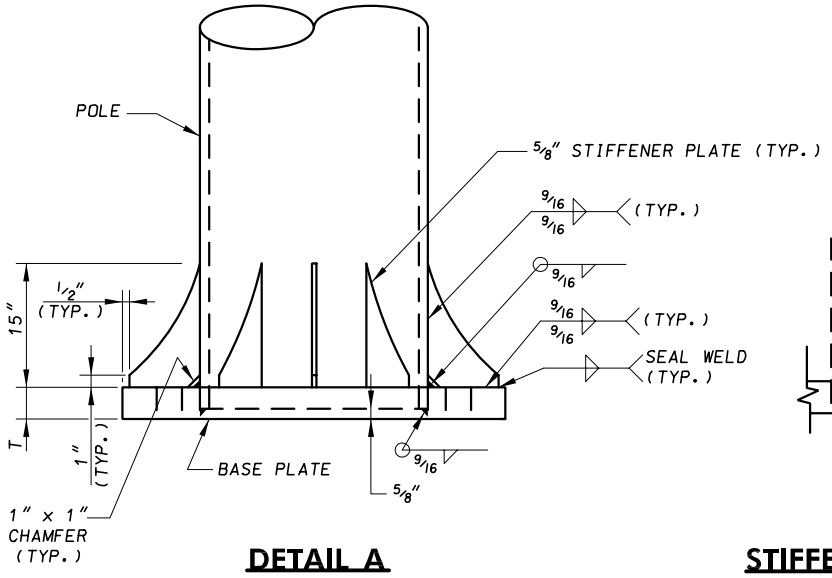
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BOX TRUSS CANTILEVER SIGN STRUCTURES POLE ANCHOR BASE DETAILS / DATA

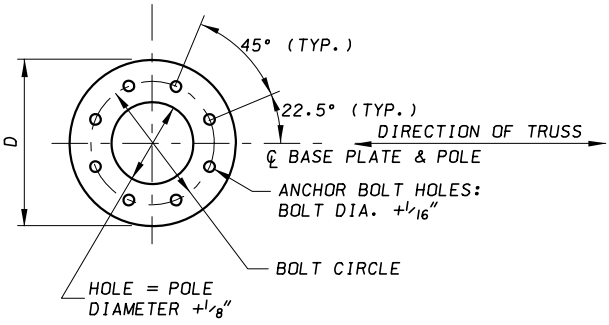
STANDARD NO. MD 803.06-11



DETAIL A

STIFFENER PLATE

REFER TO BOX TRUSS CANTILEVER SIGN STRUCTURES POLE ANCHOR BASE DETAILS / DATA STANDARD PLATE FOR ANCHOR BASE DETAILS.



PLAN – ANCHOR PLATE & TEMPLATE

SPECIFICATION	CATEGORY CODE ITEMS
803	

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APPROVAL	8-12-02	APPROVAL	9-4-02
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REVISED		REVISED	

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BOX TRUSS CANTILEVER SIGN STRUCTURES
POLE ANCHOR BASE DETAILS / DATA

STANDARD NO. MD 803.06-12

FOUNDATION DETAIL SCHEDULE

FOOTING MARK	FOOTING DIMENSIONS			WING WALL REINFORCEMENT "Q" BARS		CUBIC YARD CONCRETE	
	N	P	U	NO.	SIZE	TYPE A	TYPE B
CF-1	12'-0"	-	-	-	-	7.4	11.9
CF-2	13'-0"	-	-	-	-	8.0	12.6
CF-3	13'-0"	3'-6"	5'-0"	6	#5	10.6	15.5
CF-4	13'-0"	4'-0"	5'-0"	7	#5	11.0	15.9
CF-5	14'-0"	-	-	-	-	8.6	13.3
CF-6	14'-0"	3'-6"	5'-0"	6	#5	11.2	16.2
CF-7	14'-0"	4'-0"	5'-0"	7	#5	11.6	16.6
CF-8	14'-0"	5'-0"	5'-0"	9	#5	12.3	17.6
CF-9	14'-0"	4'-6"	6'-0"	8	#6	12.6	17.9
CF-10	15'-0"	-	-	-	-	9.2	14.0
CF-11	15'-0"	4'-6"	5'-0"	9	#5	12.5	17.6
CF-12	15'-0"	4'-0"	6'-0"	7	#6	12.8	18.1
CF-13	15'-0"	5'-0"	5'-0"	9	#5	12.9	18.2
CF-14	15'-0"	4'-6"	6'-0"	8	#6	13.2	18.5
CF-15	16'-0"	4'-6"	5'-0"	8	#5	13.1	18.4
CF-16	16'-0"	5'-0"	5'-0"	9	#5	13.5	18.8
CF-17	16'-0"	4'-6"	6'-0"	9	#6	13.8	19.1
CF-18	16'-0"	5'-0"	6'-0"	9	#6	14.2	19.6
CF-19	16'-0"	5'-6"	6'-0"	10	#6	14.6	20.1
CF-20	17'-0"	4'-6"	6'-0"	8	#6	14.4	19.8
CF-21	17'-0"	5'-6"	6'-0"	10	#6	15.3	20.8
CF-22	18'-0"	4'-6"	6'-0"	8	#6	15.0	20.5
CF-23	18'-0"	5'-6"	6'-0"	10	#6	15.9	21.6
CF-24	19'-0"	5'-6"	6'-0"	10	#6	16.4	22.3
CF-25	19'-0"	5'-6"	7'-0"	10	#7	17.2	23.1
CF-26	20'-0"	5'-6"	7'-0"	10	#7	17.8	23.8

NOTES:

1. FOR FOUNDATION DETAILS AND ADDITIONAL REINFORCEMENT, SEE APPROPRIATE 800 SERIES STANDARDS
2. CIRCULAR FOUNDATION:
   TYPE A: 4'-6" DIAMETER
   TYPE B: 5'-0" DIAMETER
3. CONCRETE QUANTITIES SHOWN ARE BASED ON MINIMUM DIMENSIONS. ACTUAL QUANTITIES WILL BE AS SPECIFIED IN THE ERECTION DRAWING OF CONTRACT DOCUMENTS.

SPECIFICATION	CATEGORY CODE ITEMS
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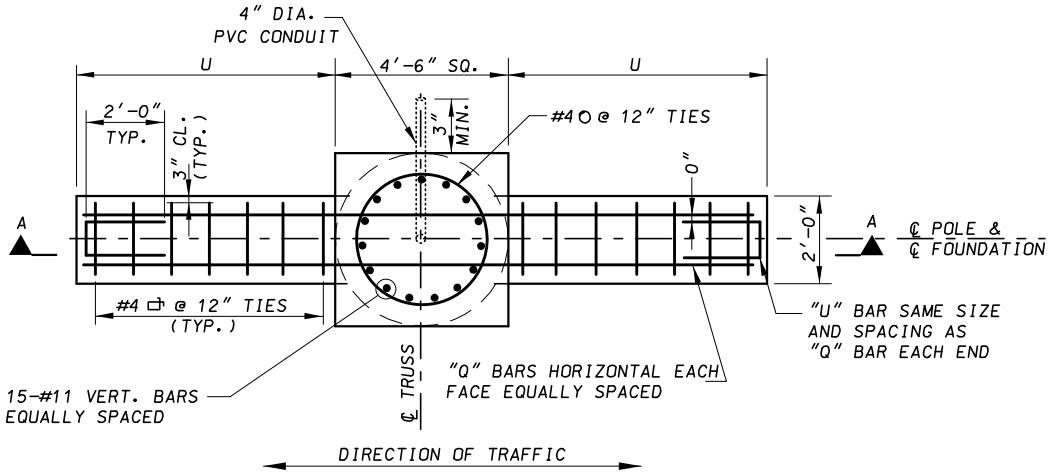
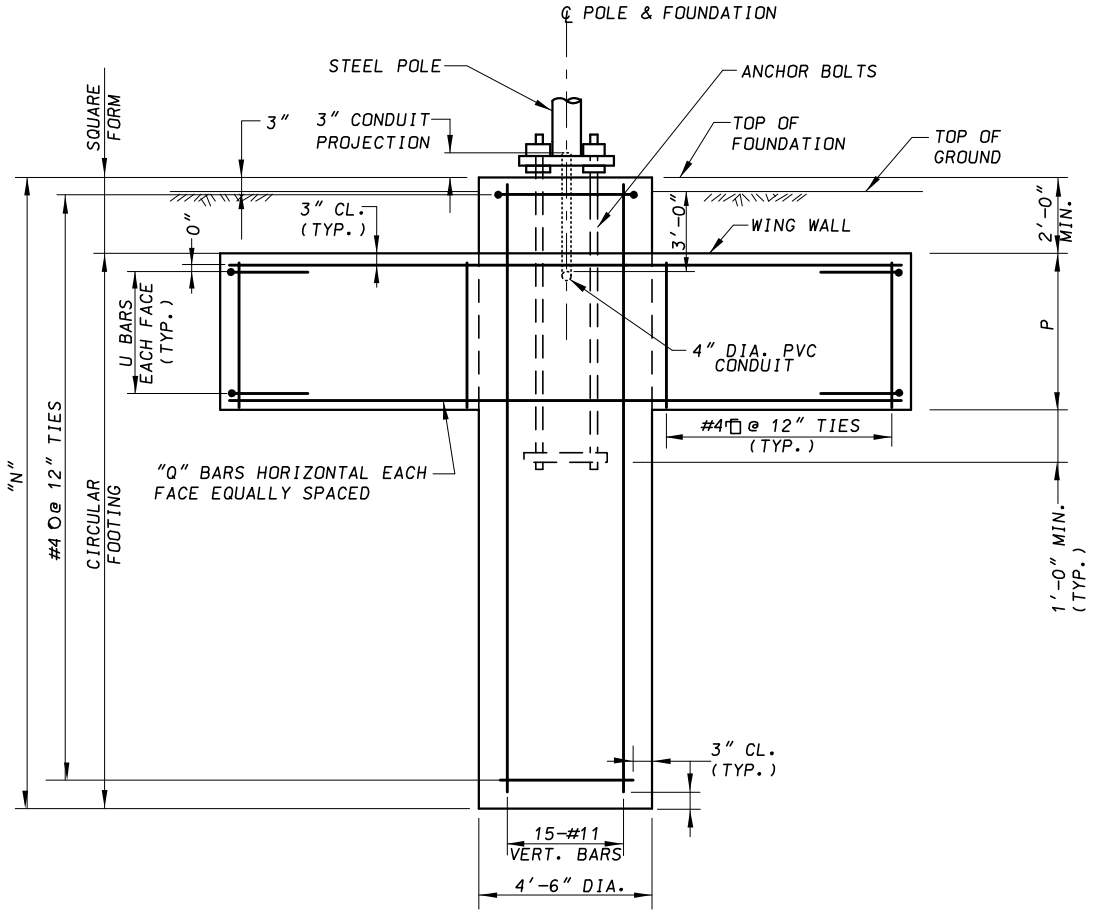
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CANTILEVER SIGN STRUCTURE FOUNDATION DATA

STANDARD NO. MD 803.07



PLAN



SECTION A–A

NOTES:

1. FOR FOUNDATION DETAIL SCHEDULE AND WING WALL REINFORCEMENT, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.
2. FOR ANCHOR BASE DETAILS, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS

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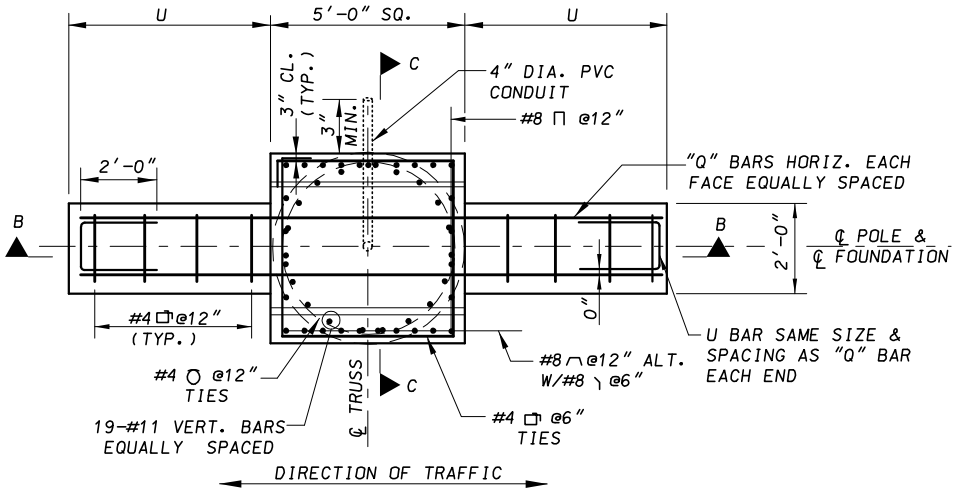
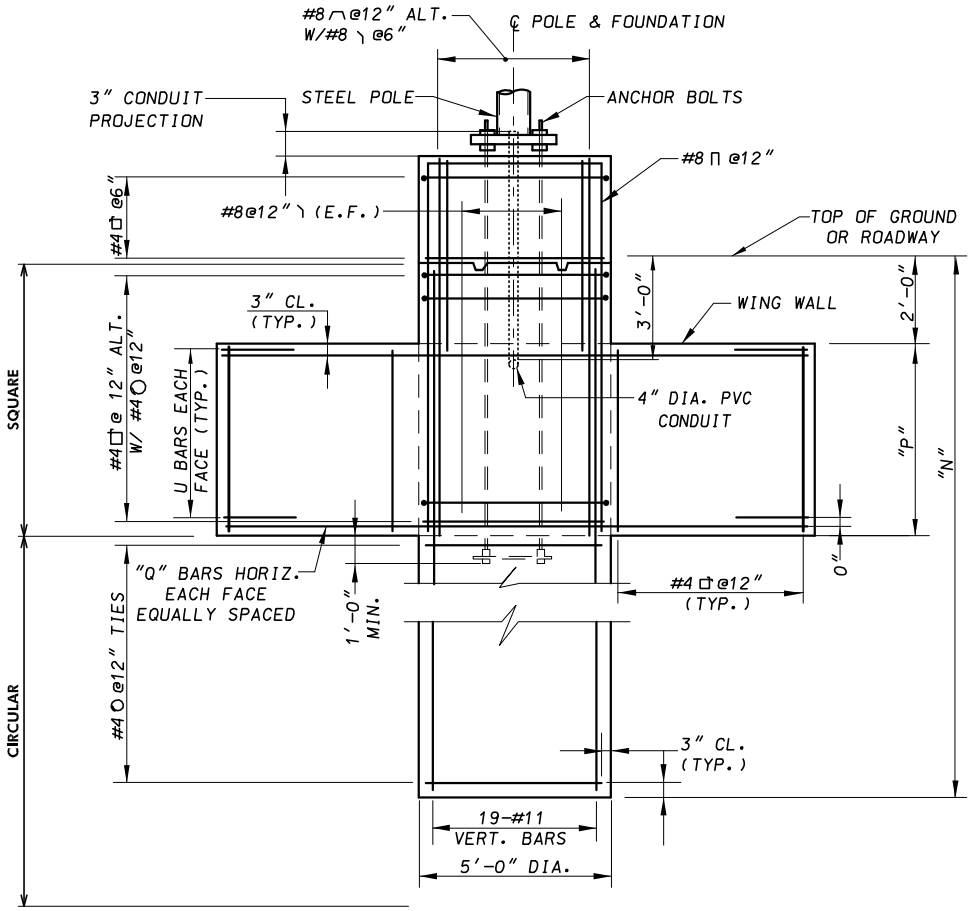
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CANTILEVER SIGN STRUCTURE FOUNDATION TYPE A

STANDARD NO. **MD 803.07-01**



PLAN



SECTION B–B

NOTES:

1. ADJUST REINFORCEMENT FOR SINGLE FACE BARRIER.
2. FOR FOUNDATION DETAIL SCHEDULE, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION	CATEGORY CODE ITEMS
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STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CANTILEVER SIGN STRUCTURE FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER

STANDARD NO. **MD 803.07-02**

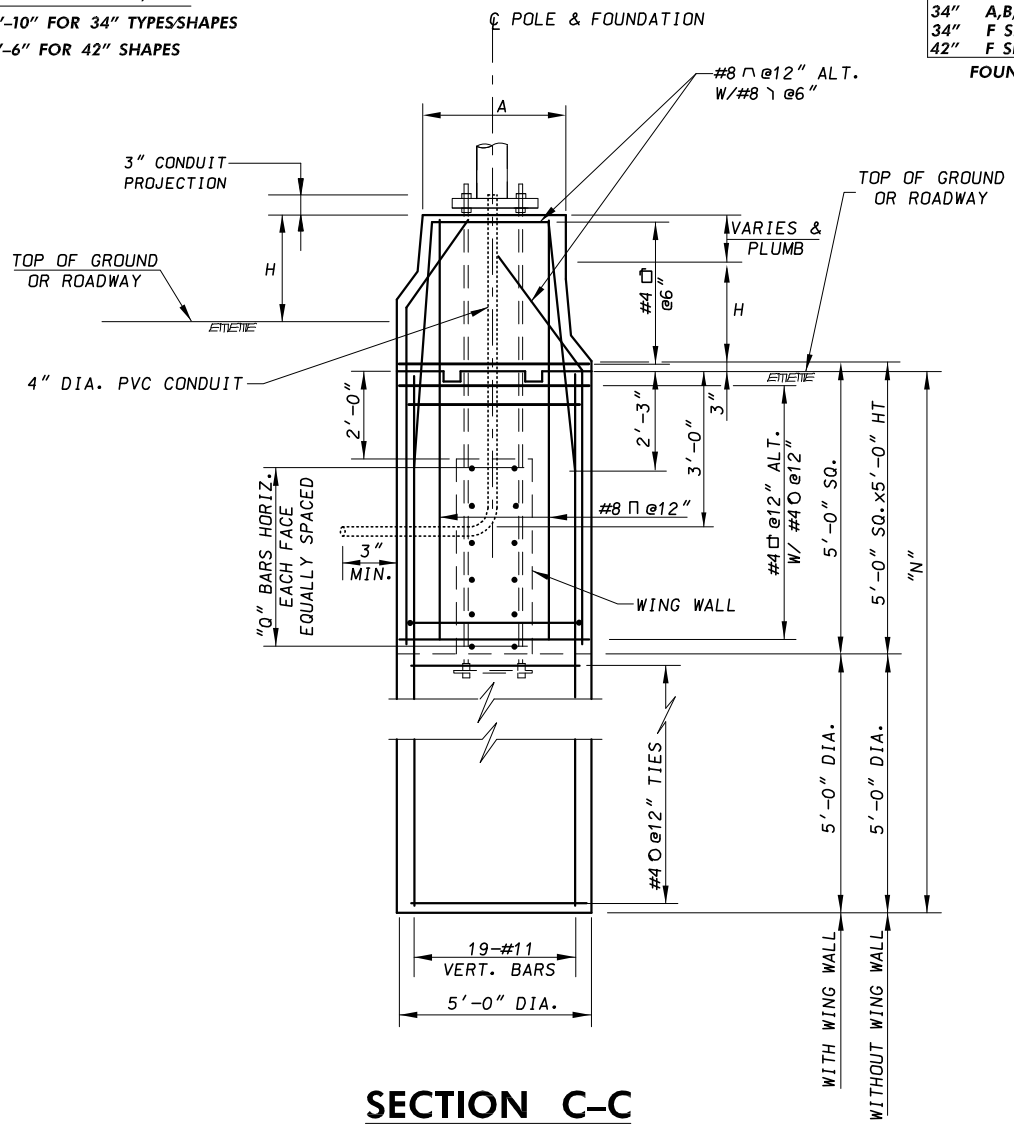
BARRIER HEIGHT, H:

2'-10" FOR 34" TYPES/SHAPES

3'-6" FOR 42" SHAPES

BARRIER TYPE		A
34"	A,B,C,D, E, TYPE	3'-5 1/2"
34"	F SHAPE	3'-9"
42"	F SHAPE	3'-7"

FOUNDATION TOP WIDTH, A



SECTION C-C

NOTES:

1. THIS DIMENSION WILL BE LARGER ON THE LOWER ROADWAY SIDE WHEN THE ROADWAY LEVELS ARE DIFFERENT.
2. ADJUST REINFORCEMENT FOR SINGLE FACE BARRIER.
3. FOR FOUNDATION DETAIL SCHEDULE, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS

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REVISED		

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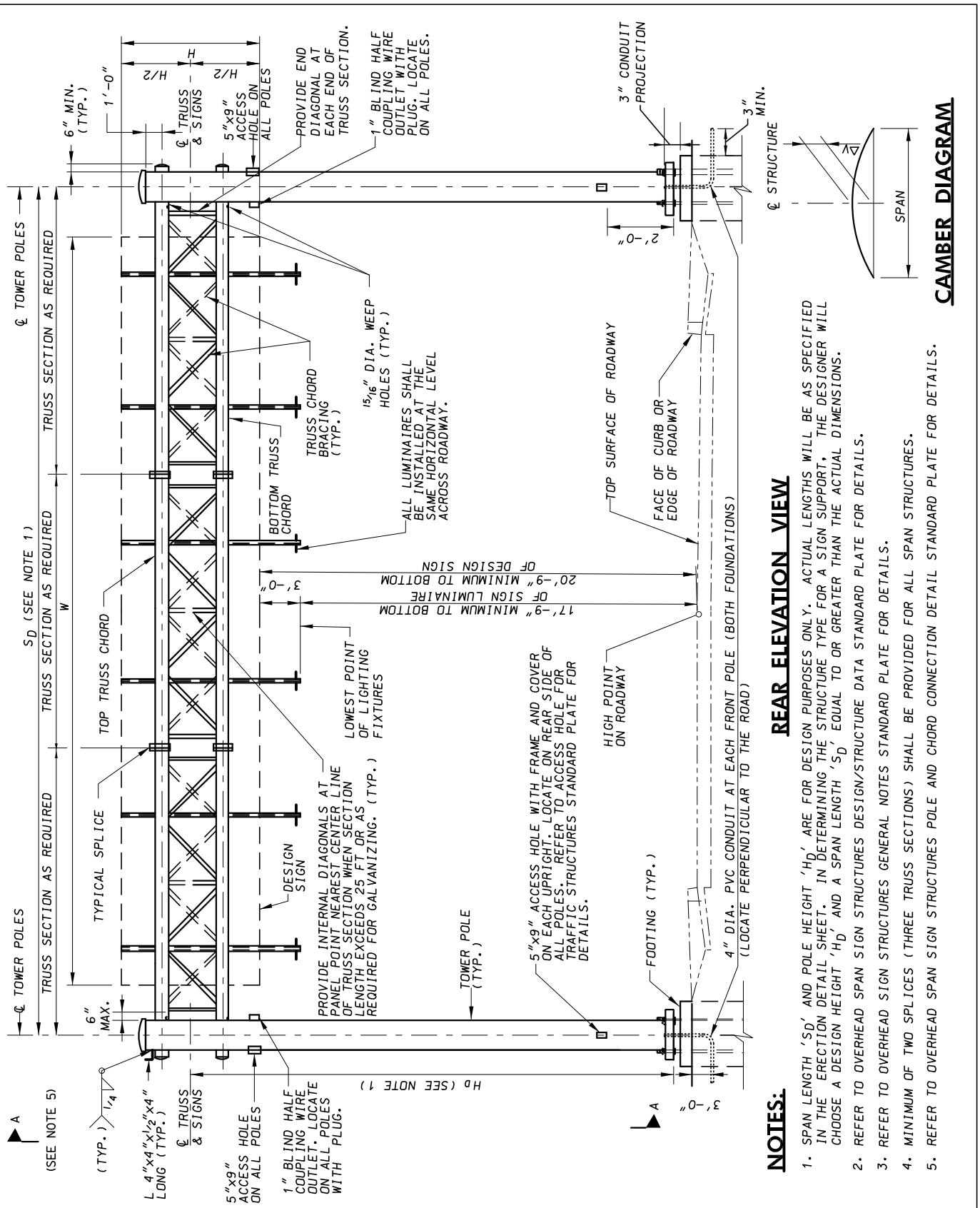
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CANTILEVER SIGN STRUCTURE FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER

STANDARD NO. MD 803.07-03



REAR ELEVATION VIEW

CAMBER DIAGRAM

NOTES:

1. SPAN LENGTH 'S_D' AND POLE HEIGHT 'H_D' ARE FOR DESIGN PURPOSES ONLY. ACTUAL LENGTHS WILL BE AS SPECIFIED IN THE ERECTION DETAIL SHEET. IN DETERMINING THE STRUCTURE TYPE FOR A SIGN SUPPORT, THE DESIGNER WILL CHOOSE A DESIGN HEIGHT 'H_D' AND A SPAN LENGTH 'S_D' EQUAL TO OR GREATER THAN THE ACTUAL DIMENSIONS.
2. REFER TO OVERHEAD SPAN SIGN STRUCTURES DESIGN/STRUCTURE DATA STANDARD PLATE FOR DETAILS.
3. REFER TO OVERHEAD SIGN STRUCTURES GENERAL NOTES STANDARD PLATE FOR DETAILS.
4. MINIMUM OF TWO SPLICES (THREE TRUSS SECTIONS) SHALL BE PROVIDED FOR ALL SPAN STRUCTURES.
5. REFER TO OVERHEAD SPAN SIGN STRUCTURES POLE AND CHORD CONNECTION DETAIL STANDARD PLATE FOR DETAILS.

SPECIFICATION 803	CATEGORY CODE ITEMS

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REVISED		
REVISED		

Maryland Department of Transportation
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STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES ELEVATION

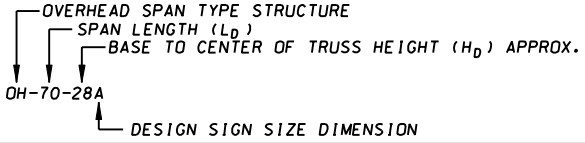
STANDARD NO. MD 803.08

STRUCTURE MARK	SPAN S_D	HEIGHT H_D	TOWER POLE SIZE	TOWER BRACING TUBE SIZE	TRUSS CHORD TUBE SIZE
OH-70-28A	70'-0"	28'-9"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-70-30A		30'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-70-32A		32'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-70-34A		34'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-70-36A		36'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-70-28B	70'-0"	28'-9"	18"O.D. x .25" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-70-30B		30'-0"	18"O.D. x .25" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-70-32B		32'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-70-34B		34'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-70-36B		36'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-70-28C	70'-0"	26'-9"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-70-30C		28'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-70-32C		30'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-70-34C		32'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-70-36C		34'-0"	14"O.D. x .281" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-70-28D	70'-0"	26'-9"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .219" THK.
OH-70-30D		28'-0"	14"O.D. x .25" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.
OH-70-32D		30'-0"	14"O.D. x .25" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.
OH-70-34D		32'-0"	14"O.D. x .281" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.
OH-70-36D		34'-0"	14"O.D. x .312" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.
OH-75-28A	75'-0"	28'-9"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-75-30A		30'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-75-32A		32'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-75-34A		34'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-75-36A		36'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-75-28B	75'-0"	28'-9"	18"O.D. x .25" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-75-30B		30'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-75-32B		32'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-75-34B		34'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-75-36B		36'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-75-28C	75'-0"	26'-9"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-75-30C		28'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-75-32C		30'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-75-34C		32'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-75-36C		34'-0"	14"O.D. x .281" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-75-28D	75'-0"	26'-9"	14"O.D. x .25" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .219" THK.
OH-75-30D		28'-0"	14"O.D. x .25" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.
OH-75-32D		30'-0"	14"O.D. x .281" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.
OH-75-34D		32'-0"	14"O.D. x .312" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.
OH-75-36D		34'-0"	16"O.D. x .25" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .25" THK.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

STRUCTURE MARK



SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-01

STRUCTURE MARK	TRUSS CHORD BRACING SIZE	FOOTING MARK	** DESIGN SIGN	TOTAL CAMBER (ΔV)	CSR	
					POLE	TRUSS
OH-70-28A	2.375"O.D. x .154" THK.	OF-620	36'-0"(W) x 16'-0"(H)	1 3/8"	0.78	0.70
OH-70-30A	2.375"O.D. x .154" THK.	OF-620	36'-0"(W) x 16'-0"(H)	1 3/8"	0.83	0.79
OH-70-32A	2.375"O.D. x .154" THK.	OF-621	36'-0"(W) x 16'-0"(H)	1 3/8"	0.85	0.73
OH-70-34A	2.375"O.D. x .154" THK.	OF-622	36'-0"(W) x 16'-0"(H)	1 3/8"	0.80	0.71
OH-70-36A	2.375"O.D. x .154" THK.	OF-622	36'-0"(W) x 16'-0"(H)	1 3/8"	0.88	0.71
OH-70-28B	2.375"O.D. x .154" THK.	OF-623	52'-6"(W) x 16'-0"(H)	1 3/8"	0.87	0.87
OH-70-30B	2.375"O.D. x .154" THK.	OF-623	52'-6"(W) x 16'-0"(H)	1 3/8"	0.86	0.87
OH-70-32B	2.375"O.D. x .154" THK.	OF-624	52'-6"(W) x 16'-0"(H)	1 3/8"	0.87	0.87
OH-70-34B	2.375"O.D. x .154" THK.	OF-625	52'-6"(W) x 16'-0"(H)	1 3/8"	0.86	0.91
OH-70-36B	2.375"O.D. x .218" THK.	OF-625	52'-6"(W) x 16'-0"(H)	1 3/8"	0.81	0.88
OH-70-28C	1.9"O.D. x .145" THK.	OF-420	36'-0"(W) x 12'-0"(H)	1 3/8"	0.69	0.78
OH-70-30C	1.9"O.D. x .145" THK.	OF-423	36'-0"(W) x 12'-0"(H)	1 5/16"	0.83	0.79
OH-70-32C	1.9"O.D. x .145" THK.	OF-424	36'-0"(W) x 12'-0"(H)	1 5/16"	0.82	0.79
OH-70-34C	1.9"O.D. x .145" THK.	OF-425	36'-0"(W) x 12'-0"(H)	1 3/8"	0.81	0.79
OH-70-36C	1.9"O.D. x .145" THK.	OF-426	36'-0"(W) x 12'-0"(H)	1 3/8"	0.81	0.79
OH-70-28D	2.375"O.D. x .154" THK.	OF-424	52'-6"(W) x 12'-0"(H)	1 7/16"	0.85	0.88
OH-70-30D	2.375"O.D. x .154" THK.	OF-425	52'-6"(W) x 12'-0"(H)	1 3/8"	0.87	0.89
OH-70-32D	2.375"O.D. x .154" THK.	OF-426	52'-6"(W) x 12'-0"(H)	1 7/16"	0.90	0.87
OH-70-34D	2.375"O.D. x .154" THK.	OF-620	52'-6"(W) x 12'-0"(H)	1 7/16"	0.89	0.89
OH-70-36D	2.375"O.D. x .154" THK.	OF-620	52'-6"(W) x 12'-0"(H)	1 3/8"	0.87	0.89
OH-75-28A	2.375"O.D. x .154" THK.	OF-620	36'-0"(W) x 16'-0"(H)	1 1/2"	0.80	0.73
OH-75-30A	2.375"O.D. x .154" THK.	OF-620	36'-0"(W) x 16'-0"(H)	1 1/2"	0.85	0.74
OH-75-32A	2.375"O.D. x .154" THK.	OF-621	36'-0"(W) x 16'-0"(H)	1 1/2"	0.88	0.75
OH-75-34A	2.375"O.D. x .154" THK.	OF-622	36'-0"(W) x 16'-0"(H)	1 1/2"	0.83	0.74
OH-75-36A	2.375"O.D. x .154" THK.	OF-623	36'-0"(W) x 16'-0"(H)	1 1/2"	0.82	0.73
OH-75-28B	2.375"O.D. x .154" THK.	OF-623	56'-3"(W) x 16'-0"(H)	1 1/2"	0.90	0.88
OH-75-30B	2.375"O.D. x .154" THK.	OF-624	56'-3"(W) x 16'-0"(H)	1 1/2"	0.87	0.83
OH-75-32B	2.375"O.D. x .154" THK.	OF-625	56'-3"(W) x 16'-0"(H)	1 9/16"	0.87	0.82
OH-75-34B	2.375"O.D. x .154" THK.	OF-625	56'-3"(W) x 16'-0"(H)	1 9/16"	0.81	0.83
OH-75-36B	2.375"O.D. x .154" THK.	OF-625	56'-3"(W) x 16'-0"(H)	1 9/16"	0.87	0.86
OH-75-28C	1.9"O.D. x .145" THK.	OF-423	36'-0"(W) x 12'-0"(H)	1 9/16"	0.69	0.84
OH-75-30C	1.9"O.D. x .145" THK.	OF-423	36'-0"(W) x 12'-0"(H)	1 9/16"	0.86	0.84
OH-75-32C	1.9"O.D. x .145" THK.	OF-424	36'-0"(W) x 12'-0"(H)	1 9/16"	0.81	0.85
OH-75-34C	1.9"O.D. x .145" THK.	OF-425	36'-0"(W) x 12'-0"(H)	1 9/16"	0.84	0.85
OH-75-36C	1.9"O.D. x .145" THK.	OF-426	36'-0"(W) x 12'-0"(H)	1 9/16"	0.83	0.85
OH-75-28D	2.375"O.D. x .154" THK.	OF-426	56'-3"(W) x 12'-0"(H)	1 5/8"	0.84	0.88
OH-75-30D	2.375"O.D. x .154" THK.	OF-427	56'-3"(W) x 12'-0"(H)	1 5/8"	0.89	0.88
OH-75-32D	2.375"O.D. x .154" THK.	OF-620	56'-3"(W) x 12'-0"(H)	1 5/8"	0.89	0.89
OH-75-34D	2.375"O.D. x .154" THK.	OF-620	56'-3"(W) x 12'-0"(H)	1 5/8"	0.87	0.88
OH-75-36D	2.375"O.D. x .154" THK.	OF-621	56'-3"(W) x 12'-0"(H)	1 5/8"	0.87	0.88

** ADDITIONAL AREA FOR AN EXIT PANEL 12' (WIDE)x3' (HIGH) HAS BEEN INCLUDED FOR THE DESIGN OF ALL STRUCTURAL MEMBERS.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____ DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-02

STRUCTURE MARK	SPAN S_D	HEIGHT H_D	TOWER POLE SIZE	TOWER BRACING TUBE SIZE	TRUSS CHORD TUBE SIZE
OH-80-28A	80'-0"	28'-9"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-80-30A		30'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-80-32A		32'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-80-34A		34'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-80-36A		36'-0"	16"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-80-28B	80'-0"	28'-9"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-80-30B		30'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-80-32B		32'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-80-34B		34'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-80-36B		36'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-80-28C	80'-0"	26'-9"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-80-30C		28'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-80-32C		30'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-80-34C		32'-0"	14"O.D. x .25" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-80-36C		34'-0"	14"O.D. x .281" THK.	3.5"O.D. x .216" THK.	4.5"O.D. x .203" THK.
OH-80-28D	80'-0"	26'-9"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-80-30D		28'-0"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-80-32D		30'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-80-34D		32'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-80-36D		34'-0"	16"O.D. x .281" THK.	4.0"O.D. x .226" THK.	4.5"O.D. x .237" THK.
OH-85-28A	85'-0"	28'-9"	18"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-30A		30'-0"	18"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-32A		32'-0"	18"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-34A		34'-0"	18"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-36A		36'-0"	18"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-28B	85'-0"	28'-9"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-85-30B		30'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-85-32B		32'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-85-34B		34'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-85-36B		36'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .237" THK.
OH-85-28C	85'-0"	26'-9"	14"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-30C		28'-0"	14"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-32C		30'-0"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-34C		32'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-36C		34'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-85-28D	85'-0"	26'-9"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-85-30D		28'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-85-32D		30'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-85-34D		32'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-85-36D		34'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.

NOTE:

REFER TO APPROPRIATE 800 SERIES PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

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OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-03

STRUCTURE MARK	TRUSS CHORD BRACING SIZE	FOOTING MARK	** DESIGN SIGN	TOTAL CAMBER (ΔV)	CSR	
					POLE	TRUSS
OH-80-28A	2.375"O.D. x .154" THK.	OF-620	36'-0"(W) x 16'-0"(H)	1 3/4"	0.81	0.75
OH-80-30A	2.375"O.D. x .154" THK.	OF-621	36'-0"(W) x 16'-0"(H)	1 3/4"	0.85	0.76
OH-80-32A	2.375"O.D. x .154" THK.	OF-622	36'-0"(W) x 16'-0"(H)	1 3/4"	0.84	0.76
OH-80-34A	2.375"O.D. x .154" THK.	OF-622	36'-0"(W) x 16'-0"(H)	1 3/4"	0.87	0.76
OH-80-36A	2.375"O.D. x .154" THK.	OF-623	36'-0"(W) x 16'-0"(H)	1 3/4"	0.85	0.75
OH-80-28B	2.375"O.D. x .154" THK.	OF-624	60'-0"(W) x 16'-0"(H)	1 11/16"	0.82	0.87
OH-80-30B	2.375"O.D. x .154" THK.	OF-625	60'-0"(W) x 16'-0"(H)	1 11/16"	0.85	0.87
OH-80-32B	2.375"O.D. x .154" THK.	OF-625	60'-0"(W) x 16'-0"(H)	1 3/4"	0.81	0.86
OH-80-34B	2.375"O.D. x .154" THK.	OF-625	60'-0"(W) x 16'-0"(H)	1 3/4"	0.86	0.87
OH-80-36B	2.375"O.D. x .218" THK.	OF-626	60'-0"(W) x 16'-0"(H)	1 11/16"	0.84	0.76
OH-80-28C	1.9"O.D. x .145" THK.	OF-423	36'-0"(W) x 12'-0"(H)	1 11/16"	0.71	0.83
OH-80-30C	1.9"O.D. x .145" THK.	OF-424	36'-0"(W) x 12'-0"(H)	1 3/4"	0.90	0.83
OH-80-32C	1.9"O.D. x .145" THK.	OF-425	36'-0"(W) x 12'-0"(H)	1 3/4"	0.84	0.84
OH-80-34C	1.9"O.D. x .145" THK.	OF-426	36'-0"(W) x 12'-0"(H)	1 3/4"	0.88	0.84
OH-80-36C	1.9"O.D. x .145" THK.	OF-427	36'-0"(W) x 12'-0"(H)	1 11/16"	0.86	0.83
OH-80-28D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	1 3/4"	0.84	0.88
OH-80-30D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	1 3/4"	0.86	0.84
OH-80-32D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	1 3/4"	0.89	0.90
OH-80-34D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	1 3/4"	0.87	0.90
OH-80-36D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	1 3/4"	0.88	0.87
OH-85-28A	2.375"O.D. x .154" THK.	OF-623	48'-0"(W) x 16'-0"(H)	2"	0.87	0.90
OH-85-30A	2.375"O.D. x .154" THK.	OF-623	48'-0"(W) x 16'-0"(H)	2"	0.79	0.89
OH-85-32A	2.375"O.D. x .154" THK.	OF-624	48'-0"(W) x 16'-0"(H)	2"	0.85	0.91
OH-85-34A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	2"	0.88	0.85
OH-85-36A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	2"	0.84	0.84
OH-85-28B	2.375"O.D. x .218" THK.	OF-623	60'-0"(W) x 16'-0"(H)	2"	0.87	0.86
OH-85-30B	2.375"O.D. x .218" THK.	OF-626	60'-0"(W) x 16'-0"(H)	2"	0.81	0.85
OH-85-32B	2.375"O.D. x .218" THK.	OF-626	60'-0"(W) x 16'-0"(H)	2"	0.87	0.85
OH-85-34B	2.375"O.D. x .218" THK.	OF-626	60'-0"(W) x 16'-0"(H)	2"	0.87	0.86
OH-85-36B	2.375"O.D. x .218" THK.	OF-626	60'-0"(W) x 16'-0"(H)	2"	0.89	0.91
OH-85-28C	2.375"O.D. x .154" THK.	OF-426	48'-0"(W) x 12'-0"(H)	2"	0.83	0.91
OH-85-30C	2.375"O.D. x .154" THK.	OF-427	48'-0"(W) x 12'-0"(H)	1 15/16"	0.88	0.86
OH-85-32C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	1 15/16"	0.85	0.83
OH-85-34C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	2"	0.90	0.88
OH-85-36C	2.375"O.D. x .154" THK.	OF-621	48'-0"(W) x 12'-0"(H)	2"	0.88	0.87
OH-85-28D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	1 13/16"	0.88	0.74
OH-85-30D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	1 15/16"	0.81	0.91
OH-85-32D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	1 15/16"	0.89	0.91
OH-85-34D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	1 15/16"	0.87	0.84
OH-85-36D	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	1 15/16"	0.89	0.91

** ADDITIONAL AREA FOR AN EXIT PANEL 12'(WIDE) x 3'(HIGH) HAS BEEN INCLUDED FOR THE DESIGN OF ALL STRUCTURAL MEMBERS.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-04

STRUCTURE MARK	SPAN S_D	HEIGHT H_D	TOWER POLE SIZE	TOWER BRACING TUBE SIZE	TRUSS CHORD TUBE SIZE
OH-90-28A		28'-9"	18"O.D. x .25" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-90-30A		30'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-90-32A	90'-0"	32'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-90-34A		34'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-90-36A		36'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-90-28B		28'-9"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-90-30B		30'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-90-32B	90'-0"	32'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-90-34B		34'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-90-36B		36'-0"	18"O.D. x .375" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-90-28C		26'-9"	14"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-90-30C		28'-0"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-90-32C	90'-0"	30'-0"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-90-34C		32'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-90-36C		34'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .203" THK.
OH-90-28D		26'-9"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-90-30D		28'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-90-32D	90'-0"	30'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-90-34D		32'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-90-36D		34'-0"	16"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-28A		28'-9"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-95-30A		30'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-95-32A	95'-0"	32'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-95-34A		34'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-95-36A		36'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .203" THK.
OH-95-28B		28'-9"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-95-30B		30'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-95-32B	95'-0"	32'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-95-34B		34'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-95-36B		36'-0"	18"O.D. x .375" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-95-28C		26'-9"	14"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-30C		28'-0"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-32C	95'-0"	30'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-34C		32'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-36C		34'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-28D		26'-9"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-30D		28'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-32D	95'-0"	30'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-34D		32'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-95-36D		34'-0"	16"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-05

STRUCTURE MARK	TRUSS CHORD BRACING SIZE	FOOTING MARK	**DESIGN SIGN	TOTAL CAMBER (△V)	CSR	
					POLE	TRUSS
OH-90-28A	2.375"O.D. x .154" THK.	OF-623	48'-0"(W) x 16'-0"(H)	$2\frac{3}{16}$"	0.90	0.85
OH-90-30A	2.375"O.D. x .154" THK.	OF-624	48'-0"(W) x 16'-0"(H)	$2\frac{3}{16}$"	0.81	0.85
OH-90-32A	2.375"O.D. x .154" THK.	OF-625	48'-0"(W) x 16'-0"(H)	$2\frac{3}{16}$"	0.88	0.85
OH-90-34A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{3}{16}$"	0.91	0.85
OH-90-36A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{3}{16}$"	0.86	0.84
OH-90-28B	2.375"O.D. x .218" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.88	0.90
OH-90-30B	2.375"O.D. x .218" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.85	0.87
OH-90-32B	2.375"O.D. x .218" THK.	OF-624	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.81	0.87
OH-90-34B	2.375"O.D. x .218" THK.	OF-625	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.86	0.87
OH-90-36B	2.375"O.D. x .218" THK.	OF-626	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.85	0.87
OH-90-28C	2.375"O.D. x .154" THK.	OF-426	48'-0"(W) x 12'-0"(H)	$2\frac{3}{16}$"	0.87	0.87
OH-90-30C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{3}{16}$"	0.87	0.87
OH-90-32C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{3}{16}$"	0.88	0.87
OH-90-34C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{3}{16}$"	0.90	0.87
OH-90-36C	2.375"O.D. x .154" THK.	OF-621	48'-0"(W) x 12'-0"(H)	$2\frac{3}{16}$"	0.81	0.87
OH-90-28D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	$2\frac{1}{16}$"	0.89	0.81
OH-90-30D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	$2\frac{1}{8}$"	0.84	0.85
OH-90-32D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	$2\frac{1}{8}$"	0.88	0.87
OH-90-34D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	$2\frac{3}{16}$"	0.90	0.87
OH-90-36D	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	$2\frac{1}{8}$"	0.81	0.87
OH-95-28A	2.375"O.D. x .154" THK.	OF-624	48'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.81	0.89
OH-95-30A	2.375"O.D. x .154" THK.	OF-624	48'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.83	0.89
OH-95-32A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.90	0.90
OH-95-34A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.88	0.89
OH-95-36A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.90	0.88
OH-95-28B	2.875"O.D. x .203" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.89	0.82
OH-95-30B	2.875"O.D. x .203" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.86	0.85
OH-95-32B	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.83	0.85
OH-95-34B	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.88	0.79
OH-95-36B	2.875"O.D. x .203" THK.	OF-626	60'-0"(W) x 16'-0"(H)	$2\frac{1}{4}$"	0.87	0.86
OH-95-28C	2.375"O.D. x .154" THK.	OF-427	48'-0"(W) x 12'-0"(H)	$2\frac{5}{16}$"	0.90	0.84
OH-95-30C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{5}{16}$"	0.90	0.83
OH-95-32C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{5}{16}$"	0.85	0.85
OH-95-34C	2.375"O.D. x .154" THK.	OF-621	48'-0"(W) x 12'-0"(H)	$2\frac{5}{16}$"	0.90	0.85
OH-95-36C	2.375"O.D. x .154" THK.	OF-622	48'-0"(W) x 12'-0"(H)	$2\frac{5}{16}$"	0.83	0.85
OH-95-28D	2.375"O.D. x .154" THK.	OF-620	60'-0"(W) x 12'-0"(H)	$2\frac{1}{4}$"	0.80	0.88
OH-95-30D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	$2\frac{3}{8}$"	0.84	0.88
OH-95-32D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	$2\frac{5}{16}$"	0.82	0.88
OH-95-34D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	$2\frac{1}{4}$"	0.86	0.88
OH-95-36D	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	$2\frac{5}{16}$"	0.85	0.88

** ADDITIONAL AREA FOR AN EXIT PANEL 12'(WIDE) x 3'(HIGH) HAS BEEN INCLUDED FOR THE DESIGN OF ALL STRUCTURAL MEMBERS.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION	CATEGORY CODE ITEMS
803	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURAL DATA

STANDARD NO. MD 803.08-06

STRUCTURE MARK	SPAN S_D	HEIGHT H_D	TOWER POLE SIZE	TOWER BRACING TUBE SIZE	TRUSS CHORD TUBE SIZE
OH-100-28A		28'-9"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-100-30A		30'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-100-32A	100'-0"	32'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-100-34A		34'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-100-36A		36'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-100-28B		28'-9"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-100-30B		30'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-100-32B	100'-0"	32'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-100-34B		34'-0"	18"O.D. x .375" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-100-36B		36'-0"	18"O.D. x .375" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-100-28C		26'-9"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-30C		28'-0"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-32C	100'-0"	30'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-34C		32'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-36C		34'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-28D		26'-9"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-30D		28'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-32D	100'-0"	30'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-34D		32'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-100-36D		34'-0"	16"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-105-28A		28'-9"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-105-30A		30'-0"	18"O.D. x .281" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-105-32A	105'-0"	32'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-105-34A		34'-0"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-105-36A		36'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	4.5"O.D. x .25" THK.
OH-105-28B		28'-9"	18"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-105-30B		30'-0"	18"O.D. x .344" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-105-32B	105'-0"	32'-0"	18"O.D. x .375" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-105-34B		34'-0"	18"O.D. x .375" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-105-36B		36'-0"	18"O.D. x .375" THK.	6.625"O.D. x .28" THK.	6.625"O.D. x .25" THK.
OH-105-28C		26'-9"	14"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-105-30C		28'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-105-32C	105'-0"	30'-0"	14"O.D. x .312" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-105-34C		32'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-105-36C		34'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	4.5"O.D. x .237" THK.
OH-105-28D		26'-9"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-105-30D		28'-0"	16"O.D. x .25" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-105-32D	105'-0"	30'-0"	16"O.D. x .281" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-105-34D		32'-0"	16"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.
OH-105-36D		34'-0"	16"O.D. x .312" THK.	4.5"O.D. x .237" THK.	6.62"O.D. x .25" THK.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-07

STRUCTURE MARK	TRUSS CHORD BRACING SIZE	FOOTING MARK	**DESIGN SIGN	TOTAL CAMBER (△V)	CSR	
					POLE	TRUSS
OH-100-28A	2.375"O.D. x .154" THK.	OF-624	48'-0"(W) x 16'-0"(H)	$2\frac{5}{8}$"	0.82	0.88
OH-100-30A	2.375"O.D. x .154" THK.	OF-625	48'-0"(W) x 16'-0"(H)	$2\frac{5}{8}$"	0.85	0.88
OH-100-32A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{5}{8}$"	0.91	0.88
OH-100-34A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{5}{8}$"	0.90	0.87
OH-100-36A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{5}{8}$"	0.87	0.87
OH-100-28B	2.875"O.D. x .203" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.86	0.87
OH-100-30B	2.875"O.D. x .203" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.90	0.88
OH-100-32B	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.87	0.88
OH-100-34B	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.84	0.79
OH-100-36B	2.875"O.D. x .203" THK.	OF-626	60'-0"(W) x 16'-0"(H)	$2\frac{1}{2}$"	0.90	0.81
OH-100-28C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{7}{16}$"	0.85	0.82
OH-100-30C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{9}{16}$"	0.86	0.87
OH-100-32C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{9}{16}$"	0.86	0.87
OH-100-34C	2.375"O.D. x .154" THK.	OF-621	48'-0"(W) x 12'-0"(H)	$2\frac{9}{16}$"	0.86	0.87
OH-100-36C	2.375"O.D. x .154" THK.	OF-622	48'-0"(W) x 12'-0"(H)	$2\frac{9}{16}$"	0.84	0.87
OH-100-28D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	$2\frac{9}{16}$"	0.83	0.89
OH-100-30D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	$2\frac{9}{16}$"	0.88	0.89
OH-100-32D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	$2\frac{9}{16}$"	0.83	0.89
OH-100-34D	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	$2\frac{1}{2}$"	0.88	0.89
OH-100-36D	2.375"O.D. x .154" THK.	OF-624	60'-0"(W) x 12'-0"(H)	$2\frac{1}{2}$"	0.87	0.89
OH-105-28A	2.375"O.D. x .154" THK.	OF-625	48'-0"(W) x 16'-0"(H)	$2\frac{7}{8}$"	0.85	0.90
OH-105-30A	2.375"O.D. x .154" THK.	OF-625	48'-0"(W) x 16'-0"(H)	$2\frac{7}{8}$"	0.88	0.90
OH-105-32A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{7}{8}$"	0.84	0.89
OH-105-34A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{7}{8}$"	0.89	0.89
OH-105-36A	2.375"O.D. x .154" THK.	OF-626	48'-0"(W) x 16'-0"(H)	$2\frac{7}{8}$"	0.90	0.89
OH-105-28B	2.875"O.D. x .203" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{3}{4}$"	0.89	0.88
OH-105-30B	2.875"O.D. x .203" THK.	OF-623	60'-0"(W) x 16'-0"(H)	$2\frac{3}{4}$"	0.84	0.86
OH-105-32B	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	$2\frac{3}{4}$"	0.89	0.87
OH-105-34B	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	$2\frac{3}{4}$"	0.87	0.81
OH-105-36B	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	$2\frac{3}{4}$"	0.85	0.80
OH-105-28C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{7}{8}$"	0.88	0.89
OH-105-30C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{7}{8}$"	0.80	0.89
OH-105-32C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	$2\frac{7}{8}$"	0.87	0.89
OH-105-34C	2.375"O.D. x .154" THK.	OF-621	48'-0"(W) x 12'-0"(H)	$2\frac{7}{8}$"	0.84	0.89
OH-105-36C	2.375"O.D. x .154" THK.	OF-622	48'-0"(W) x 12'-0"(H)	$2\frac{7}{8}$"	0.85	0.89
OH-105-28D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	$2\frac{13}{16}$"	0.85	0.88
OH-105-30D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	$2\frac{13}{16}$"	0.90	0.88
OH-105-32D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	$2\frac{5}{8}$"	0.85	0.83
OH-105-34D	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	$2\frac{3}{4}$"	0.87	0.82
OH-105-36D	2.375"O.D. x .154" THK.	OF-624	60'-0"(W) x 12'-0"(H)	$2\frac{3}{4}$"	0.89	0.84

** ADDITIONAL AREA FOR AN EXIT PANEL 12' (WIDE) x 3' (HIGH) HAS BEEN INCLUDED FOR THE DESIGN OF ALL STRUCTURAL MEMBERS.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____ DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURAL DATA

STANDARD NO. MD 803.08-08

STRUCTURE MARK	SPAN S_D	HEIGHT H_D	TOWER POLE SIZE	TOWER BRACING TUBE SIZE	TRUSS CHORD TUBE SIZE
OH-110-28A	110'-0"	28'-9"	20"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-110-30A		30'-0"	20"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-110-32A		32'-0"	20"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-110-34A		34'-0"	20"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-110-36A		36'-0"	20"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-110-28B	110'-0"	28'-9"	20"O.D. x .281" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-110-30B		30'-0"	20"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-110-32B		32'-0"	20"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-110-34B		34'-0"	20"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-110-36B		36'-0"	20"O.D. x .344" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-110-28C	110'-0"	26'-9"	14"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .203" THK.
OH-110-30C		28'-0"	14"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .203" THK.
OH-110-32C		30'-0"	16"O.D. x .25" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .219" THK.
OH-110-34C		32'-0"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .219" THK.
OH-110-36C		34'-0"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .219" THK.
OH-110-28D	110'-0"	26'-9"	16"O.D. x .25" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .219" THK.
OH-110-30D		28'-0"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .219" THK.
OH-110-32D		30'-0"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .219" THK.
OH-110-34D		32'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .219" THK.
OH-110-36D		34'-0"	16"O.D. x .344" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-115-28A	115'-0"	28'-9"	20"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-115-30A		30'-0"	20"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-115-32A		32'-0"	20"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-115-34A		34'-0"	20"O.D. x .344" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-115-36A		36'-0"	20"O.D. x .344" THK.	6.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-115-28B	115'-0"	26'-9"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-115-30B		28'-0"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-115-32B		30'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-115-34B		32'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-115-36B		34'-0"	16"O.D. x .344" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-120-28A	120'-0"	28'-9"	20"O.D. x .312" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-120-30A		30'-0"	20"O.D. x .312" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-120-32A		32'-0"	20"O.D. x .312" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-120-34A		34'-0"	20"O.D. x .344" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-120-36A		36'-0"	20"O.D. x .375" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-120-28B	120'-0"	26'-9"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-120-30B		28'-0"	16"O.D. x .281" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-120-32B		30'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-120-34B		32'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-120-36B		34'-0"	16"O.D. x .344" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

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REVISED	REVISED
REVISED	REVISED

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STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-09

STRUCTURE MARK	TRUSS CHORD BRACING SIZE	FOOTING MARK	** DESIGN SIGN	TOTAL CAMBER (△V)	CSR	
					POLE	TRUSS
OH-110-28A	2.875"O.D. x .203" THK.	OF-625	48'-0"(W) x 16'-0"(H)	3"	0.88	0.77
OH-110-30A	2.875"O.D. x .203" THK.	OF-626	48'-0"(W) x 16'-0"(H)	3"	0.87	0.72
OH-110-32A	2.875"O.D. x .203" THK.	OF-626	48'-0"(W) x 16'-0"(H)	3"	0.87	0.71
OH-110-34A	2.875"O.D. x .203" THK.	OF-626	48'-0"(W) x 16'-0"(H)	3"	0.87	0.68
OH-110-36A	2.875"O.D. x .203" THK.	OF-626	48'-0"(W) x 16'-0"(H)	3"	0.85	0.71
OH-110-28B	2.875"O.D. x .203" THK.	OF-623	60'-0"(W) x 16'-0"(H)	2 13/16"	0.88	0.85
OH-110-30B	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	2 3/4"	0.86	0.79
OH-110-32B	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	2 3/4"	0.83	0.84
OH-110-34B	2.875"O.D. x .203" THK.	OF-626	60'-0"(W) x 16'-0"(H)	2 13/16"	0.88	0.78
OH-110-36B	2.875"O.D. x .203" THK.	OF-626	60'-0"(W) x 16'-0"(H)	2 13/16"	0.86	0.78
OH-110-28C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	3"	0.90	0.88
OH-110-30C	2.375"O.D. x .154" THK.	OF-620	48'-0"(W) x 12'-0"(H)	3"	0.85	0.84
OH-110-32C	2.375"O.D. x .154" THK.	OF-621	48'-0"(W) x 12'-0"(H)	2 15/16"	0.86	0.82
OH-110-34C	2.375"O.D. x .154" THK.	OF-622	48'-0"(W) x 12'-0"(H)	2 15/16"	0.90	0.83
OH-110-36C	2.375"O.D. x .154" THK.	OF-622	48'-0"(W) x 12'-0"(H)	3"	0.90	0.89
OH-110-28D	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	3 1/16"	0.90	0.88
OH-110-30D	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	3"	0.83	0.87
OH-110-32D	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	3"	0.89	0.83
OH-110-34D	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	2 15/16"	0.85	0.86
OH-110-36D	2.375"O.D. x .154" THK.	OF-625	60'-0"(W) x 12'-0"(H)	2 15/16"	0.85	0.82
OH-115-28A	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	3 1/16"	0.87	0.88
OH-115-30A	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	3 1/16"	0.90	0.87
OH-115-32A	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	3 1/16"	0.86	0.90
OH-115-34A	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	3 1/16"	0.84	0.81
OH-115-36A	2.875"O.D. x .203" THK.	OF-626	60'-0"(W) x 16'-0"(H)	3 1/4"	0.89	0.80
OH-115-28B	2.375"O.D. x .154" THK.	OF-621	60'-0"(W) x 12'-0"(H)	3 1/4"	0.85	0.89
OH-115-30B	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	3 3/16"	0.84	0.89
OH-115-32B	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	3 3/16"	0.85	0.91
OH-115-34B	2.375"O.D. x .154" THK.	OF-624	60'-0"(W) x 12'-0"(H)	3 3/16"	0.87	0.89
OH-115-36B	2.375"O.D. x .154" THK.	OF-625	60'-0"(W) x 12'-0"(H)	3 1/4"	0.88	0.89
OH-120-28A	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	3 5/16"	0.82	0.86
OH-120-30A	2.875"O.D. x .203" THK.	OF-624	60'-0"(W) x 16'-0"(H)	3 5/16"	0.84	0.86
OH-120-32A	2.875"O.D. x .203" THK.	OF-625	60'-0"(W) x 16'-0"(H)	3 3/8"	0.89	0.90
OH-120-34A	2.875"O.D. x .203" THK.	OF-626	60'-0"(W) x 16'-0"(H)	3 3/8"	0.88	0.79
OH-120-36A	2.875"O.D. x .203" THK.	OF-626	60'-0"(W) x 16'-0"(H)	3 3/8"	0.82	0.79
OH-120-28B	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	3 9/16"	0.80	0.89
OH-120-30B	2.375"O.D. x .154" THK.	OF-622	60'-0"(W) x 12'-0"(H)	3 9/16"	0.84	0.89
OH-120-32B	2.375"O.D. x .154" THK.	OF-623	60'-0"(W) x 12'-0"(H)	3 1/2"	0.87	0.89
OH-120-34B	2.375"O.D. x .154" THK.	OF-624	60'-0"(W) x 12'-0"(H)	3 1/2"	0.90	0.89
OH-120-36B	2.375"O.D. x .154" THK.	OF-625	60'-0"(W) x 12'-0"(H)	3 1/2"	0.90	0.89

** ADDITIONAL AREA FOR AN EXIT PANEL 12' (WIDE) x 3' (HIGH) HAS BEEN INCLUDED FOR THE DESIGN OF ALL STRUCTURAL MEMBERS.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08–10

STRUCTURE MARK	SPAN S_D	HEIGHT H_D	TOWER POLE SIZE	TOWER BRACING TUBE SIZE	TRUSS CHORD TUBE SIZE
OH-125-28A	125'-0"	28'-9"	20"O.D. x .281" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-125-30A		30'-0"	20"O.D. x .281" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-125-32A		32'-0"	20"O.D. x .281" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-125-34A		34'-0"	20"O.D. x .312" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-125-36A		36'-0"	20"O.D. x .312" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-125-28B	125'-0"	26'-9"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	6.62"O.D. x .25" THK.
OH-125-30B		28'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-125-32B		30'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-125-34B		32'-0"	16"O.D. x .344" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-125-36B		34'-0"	16"O.D. x .375" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-130-28A	130'-0"	28'-9"	20"O.D. x .281" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-130-30A		30'-0"	20"O.D. x .281" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-130-32A		32'-0"	20"O.D. x .312" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-130-34A		34'-0"	20"O.D. x .312" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-130-36A		36'-0"	20"O.D. x .344" THK.	8.625"O.D. x .25" THK.	8.625"O.D. x .25" THK.
OH-130-28B	130'-0"	26'-9"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-130-30B		28'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-130-32B		30'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-130-34B		32'-0"	16"O.D. x .344" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-130-36B		34'-0"	16"O.D. x .375" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-135-28A	135'-0"	28'-9"	20"O.D. x .281" THK.	8.625"O.D. x .28" THK.	8.625"O.D. x .25" THK.
OH-135-30A		30'-0"	20"O.D. x .312" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-135-32A		32'-0"	20"O.D. x .312" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-135-34A		34'-0"	20"O.D. x .312" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-135-36A		36'-0"	20"O.D. x .344" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-135-28B	135'-0"	26'-9"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-135-30B		28'-0"	16"O.D. x .312" THK.	6.625"O.D. x .28" THK.	8.62"O.D. x .25" THK.
OH-135-32B		30'-0"	16"O.D. x .344" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.
OH-135-34B		32'-0"	16"O.D. x .375" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.
OH-135-36B		34'-0"	16"O.D. x .406" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.
OH-140-28A	140'-0"	28'-9"	18"O.D. x .375" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-140-30A		30'-0"	18"O.D. x .375" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-140-32A		32'-0"	20"O.D. x .312" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-140-34A		34'-0"	20"O.D. x .344" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-140-36A		36'-0"	20"O.D. x .375" THK.	8.625"O.D. x .322" THK.	8.625"O.D. x .25" THK.
OH-140-28B	140'-0"	26'-9"	16"O.D. x .312" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.
OH-140-30B		28'-0"	16"O.D. x .344" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.
OH-140-32B		30'-0"	16"O.D. x .344" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.
OH-140-34B		32'-0"	16"O.D. x .375" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.
OH-140-36B		34'-0"	16"O.D. x .406" THK.	8.625"O.D. x .322" THK.	8.62"O.D. x .25" THK.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-11

STRUCTURE MARK	TRUSS CHORD BRACING SIZE	FOOTING MARK	** DESIGN SIGN	TOTAL CAMBER (△V)	CSR	
					POLE	TRUSS
OH-125-28A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 7/16"	0.84	0.84
OH-125-30A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 7/16"	0.86	0.82
OH-125-32A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 1/2"	0.91	0.76
OH-125-34A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 7/16"	0.83	0.76
OH-125-36A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 1/2"	0.89	0.75
OH-125-28B	2.375"O.D. x .154" THK.	OF-621	2-36'-0"(W) x 12'-0"(H)	3 9/16"	0.87	0.87
OH-125-30B	2.375"O.D. x .154" THK.	OF-622	2-36'-0"(W) x 12'-0"(H)	3 7/16"	0.82	0.88
OH-125-32B	2.375"O.D. x .154" THK.	OF-623	2-36'-0"(W) x 12'-0"(H)	3 1/2"	0.88	0.88
OH-125-34B	2.375"O.D. x .154" THK.	OF-624	2-36'-0"(W) x 12'-0"(H)	3 1/2"	0.86	0.85
OH-125-36B	2.375"O.D. x .154" THK.	OF-625	2-36'-0"(W) x 12'-0"(H)	3 7/16"	0.84	0.87
OH-130-28A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 3/4"	0.87	0.85
OH-130-30A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 3/4"	0.90	0.89
OH-130-32A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 13/16"	0.82	0.82
OH-130-34A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	3 13/16"	0.87	0.83
OH-130-36A	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 16'-0"(H)	3 13/16"	0.86	0.81
OH-130-28B	2.875"O.D. x .203" THK.	OF-622	2-36'-0"(W) x 12'-0"(H)	3 3/4"	0.81	0.88
OH-130-30B	2.875"O.D. x .203" THK.	OF-622	2-36'-0"(W) x 12'-0"(H)	3 3/4"	0.84	0.87
OH-130-32B	2.875"O.D. x .203" THK.	OF-623	2-36'-0"(W) x 12'-0"(H)	3 3/4"	0.90	0.87
OH-130-34B	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 12'-0"(H)	3 3/4"	0.87	0.90
OH-130-36B	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 12'-0"(H)	3 11/16"	0.85	0.90
OH-135-28A	2.875"O.D. x .203" THK.	OF-623	2-36'-0"(W) x 16'-0"(H)	4 1/16"	0.90	0.89
OH-135-30A	2.875"O.D. x .203" THK.	OF-623	2-36'-0"(W) x 16'-0"(H)	4 1/4"	0.87	0.85
OH-135-32A	2.875"O.D. x .203" THK.	OF-623	2-36'-0"(W) x 16'-0"(H)	4 1/8"	0.85	0.90
OH-135-34A	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 16'-0"(H)	4 1/8"	0.89	0.82
OH-135-36A	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 16'-0"(H)	4 3/16"	0.87	0.80
OH-135-28B	2.875"O.D. x .203" THK.	OF-622	2-36'-0"(W) x 12'-0"(H)	4"	0.84	0.85
OH-135-30B	2.875"O.D. x .203" THK.	OF-623	2-36'-0"(W) x 12'-0"(H)	4 1/16"	0.87	0.60
OH-135-32B	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 12'-0"(H)	4 1/16"	0.86	0.58
OH-135-34B	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 12'-0"(H)	4 1/16"	0.85	0.57
OH-135-36B	2.875"O.D. x .203" THK.	OF-626	2-36'-0"(W) x 12'-0"(H)	4 1/8"	0.90	0.58
OH-140-28A	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 16'-0"(H)	4 1/2"	0.84	0.87
OH-140-30A	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 16'-0"(H)	4 5/8"	0.86	0.85
OH-140-32A	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 16'-0"(H)	4 11/16"	0.90	0.89
OH-140-34A	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 16'-0"(H)	4 1/2"	0.86	0.89
OH-140-36A	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 16'-0"(H)	4 9/16"	0.86	0.84
OH-140-28B	2.875"O.D. x .203" THK.	OF-622	2-36'-0"(W) x 12'-0"(H)	4 7/16"	0.90	0.87
OH-140-30B	2.875"O.D. x .203" THK.	OF-623	2-36'-0"(W) x 12'-0"(H)	4 7/16"	0.85	0.64
OH-140-32B	2.875"O.D. x .203" THK.	OF-624	2-36'-0"(W) x 12'-0"(H)	4 3/8"	0.89	0.87
OH-140-34B	2.875"O.D. x .203" THK.	OF-625	2-36'-0"(W) x 12'-0"(H)	4 7/16"	0.89	0.86
OH-140-36B	2.875"O.D. x .203" THK.	OF-626	2-36'-0"(W) x 12'-0"(H)	4 1/2"	0.88	0.66

** ADDITIONAL AREA FOR AN EXIT PANEL 12' (WIDE) x 3' (HIGH) HAS BEEN INCLUDED FOR THE DESIGN OF ALL STRUCTURAL MEMBERS.

NOTE:

REFER TO APPROPRIATE 800 SERIES STANDARD PLATE REGARDING OVERHEAD SPAN SIGN STRUCTURE ELEVATION VIEW.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____ DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

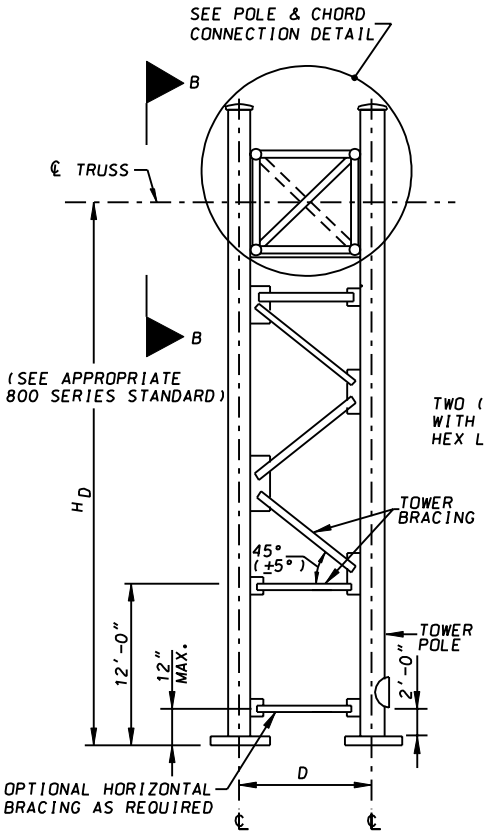
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

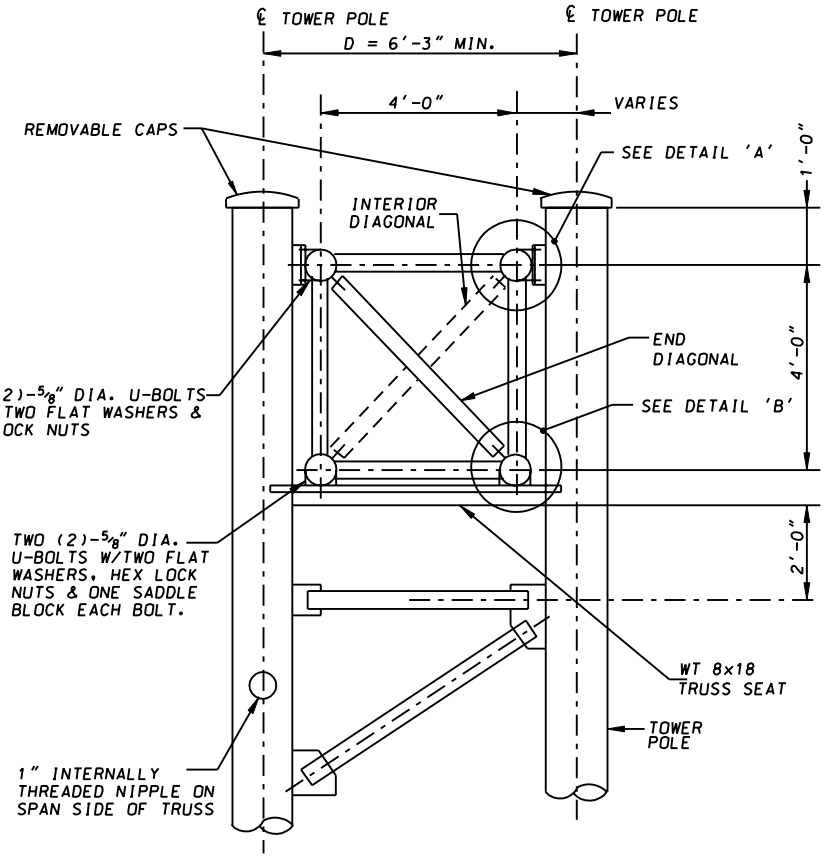
OVERHEAD SPAN SIGN STRUCTURES DESIGN / STRUCTURE DATA

STANDARD NO. MD 803.08-12

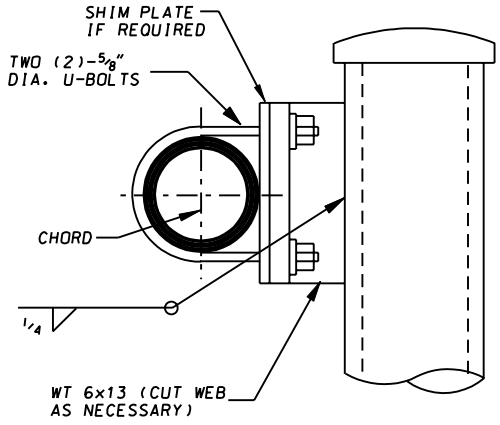


SECTION A–A

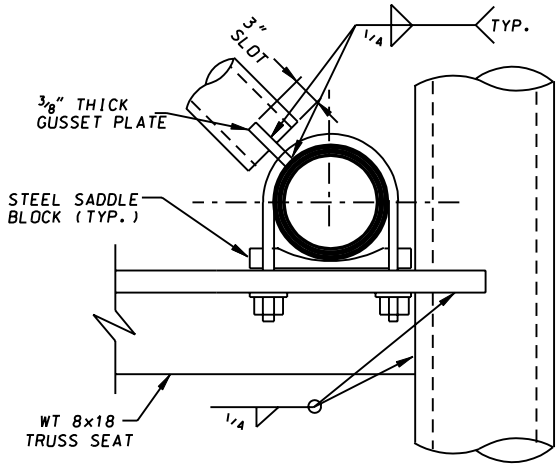
(REFER TO APPROPRIATE 800 SERIES STANDARD)



POLE & CHORD CONNECTION DETAIL



DETAIL A



DETAIL B

(VERTICAL AND HORIZONTAL TRUSS MEMBERS NOT SHOWN FOR CLARITY.)

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

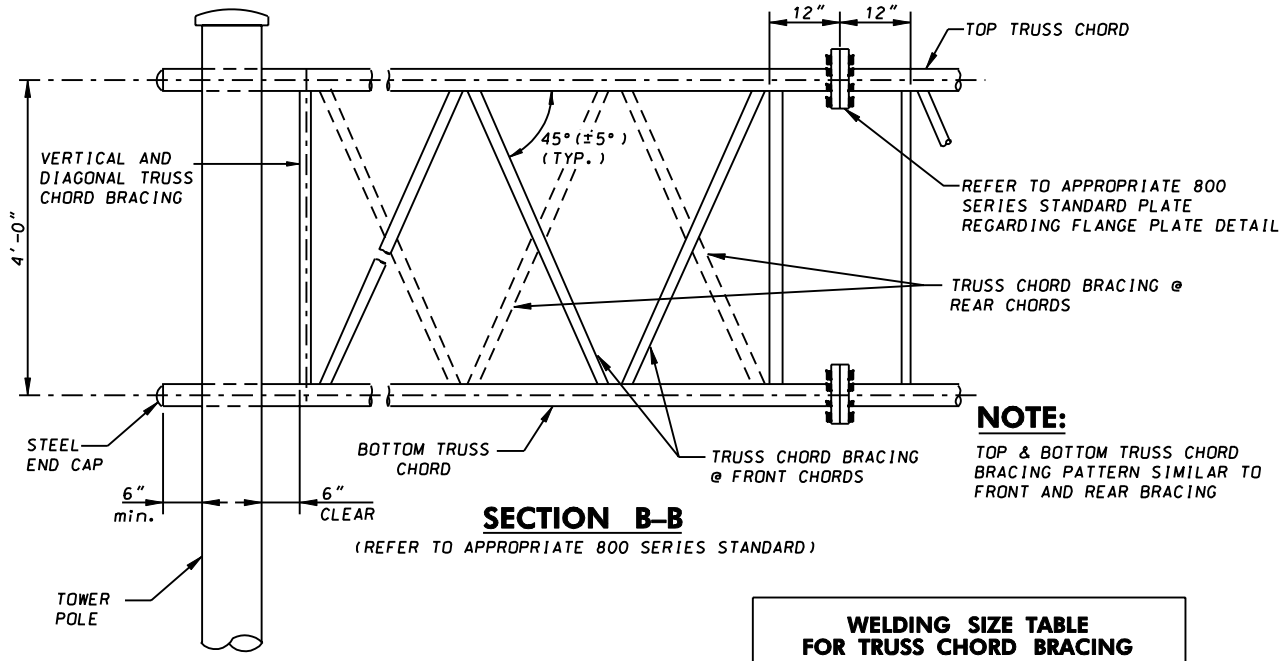
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
POLE AND CHORD CONNECTION DETAIL

STANDARD NO. MD 803.08–13



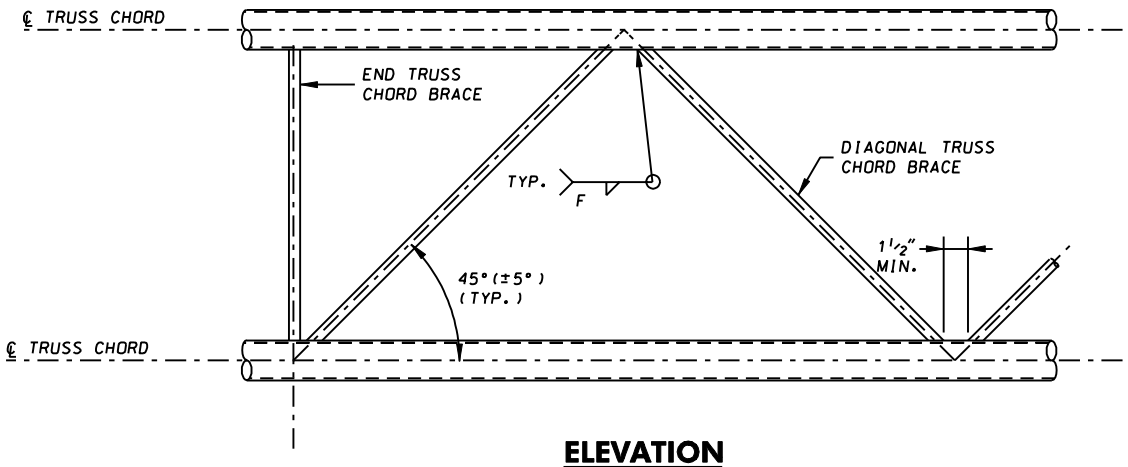
NOTE:

TOP & BOTTOM TRUSS CHORD BRACING PATTERN SIMILAR TO FRONT AND REAR BRACING

SECTION B–B

(REFER TO APPROPRIATE 800 SERIES STANDARD)

WELDING SIZE TABLE FOR TRUSS CHORD BRACING	
MEMBER SIZE	**F**
1.900" O.D. x 0.145" THK.	1/4"
2.375" O.D. x 0.154" THK.	1/4"
2.375" O.D. x 0.218" THK.	1/4"
2.875" O.D. x 0.203" THK.	1/4"
3.500" O.D. x 0.216" THK.	5/16"



ELEVATION

NOTES:

1. TRUSS CHORD BRACING SHALL BE COPED FOR PROPER FIT UP TO TRUSS CHORD IN ACCORDANCE WITH AWS D1.1.
2. PROPER AND ADEQUATE VENTING FOR GALVANIZING SHALL BE PROVIDED. ALL VENTING HOLES SHALL BE INTERNAL AND CONFORM TO ASTM A 385.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
TRUSS DETAILS / DATA

STANDARD NO. MD 803.08–14

OVERHEAD SIGN CHORD SPLICE SCHEDULE				
CHORD SIZE	O.D.	B.C.	NO. & SIZE OF BOLTS	FLANGE PLATE THICKNESS
4.50" O.D.	11 1/2"	8"	SIX (6)-1" DIA.	1 1/2"
6.625" O.D.	13 3/4"	10 1/4"	EIGHT (8)-1" DIA.	1 3/4"
8.625" O.D.	17 1/2"	13"	EIGHT (8)-1 1/4" DIA.	2"

FLANGE SPLICE DETAIL

(FROM 800 SERIES STANDARD)

FLANGE PLATE

(EIGHT (8) BOLT PATTERN)

FLANGE PLATE

(SIX (6) BOLT PATTERN)

NOTE:

OPTIONAL CHORD SPLICES FOR CANTILEVER BOX TRUSS STRUCTURES MAY BE PROVIDED USING THIS DETAIL.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

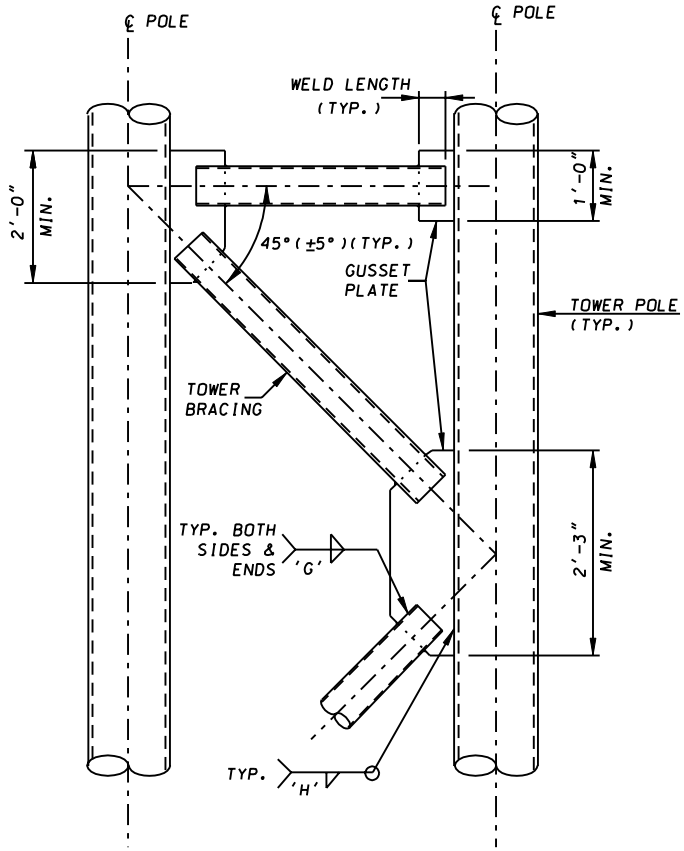
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
CHORD SPLICE DETAILS / DATA

STANDARD NO. MD 803.08–15

GUSSET PLATE AND WELDING SIZE TABLE FOR OVERHEAD SIGN TOWER BRACING

BRACING SIZE	GUSSET PLATE THICKNESS	WELD SIZE		MINIMUM WELD LENGTH
		G	H	
3.50" O.D. x 0.216" THK.	1/2"	5/16"	5/16"	4"
4.00" O.D. x 0.226" THK.	1/2"	5/16"	5/16"	4"
4.50" O.D. x 0.237" THK.	1/2"	5/16"	5/16"	4 1/2"
6.625" O.D. x 0.280" THK.	1/2"	5/16"	5/16"	6"
8.625" O.D. x 0.250" THK.	1/2"	3/8"	5/16"	7"
8.625" O.D. x 0.322" THK.	1/2"	3/8"	7/16"	7"
10.75" O.D. x 0.365" THK.	3/4"	3/8"	9/16"	8"



ELEVATION

NOTES:

1. PIPE TO PIPE WELDED CONNECTION WITHOUT GUSSET PLATES WILL BE ACCEPTABLE WITH "G" FILLET WELD SIZE.
2. FOR TOWER BRACING LOCATION, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.
3. PROVIDE SLOT IN TOWER BRACING MEMBERS FOR CONNECTION TO GUSSET PLATES.

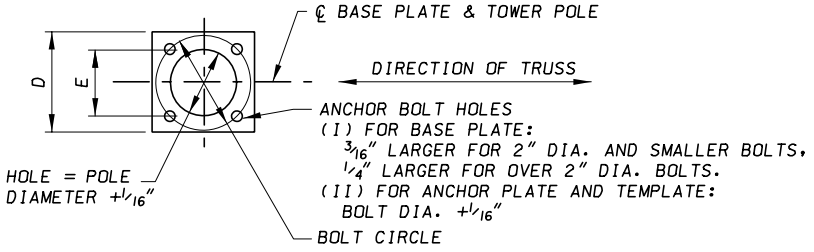
SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

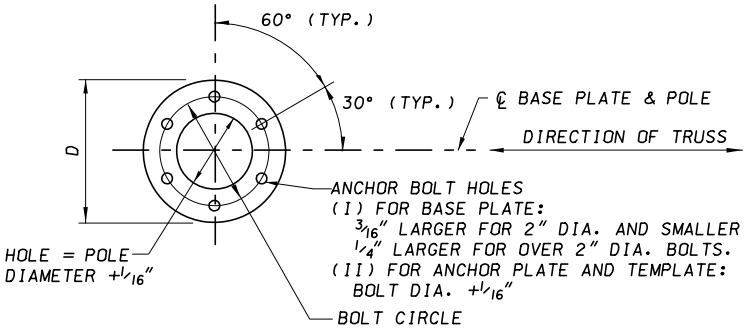
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
TOWER (END SUPPORT) BRACING DETAILS / DATA

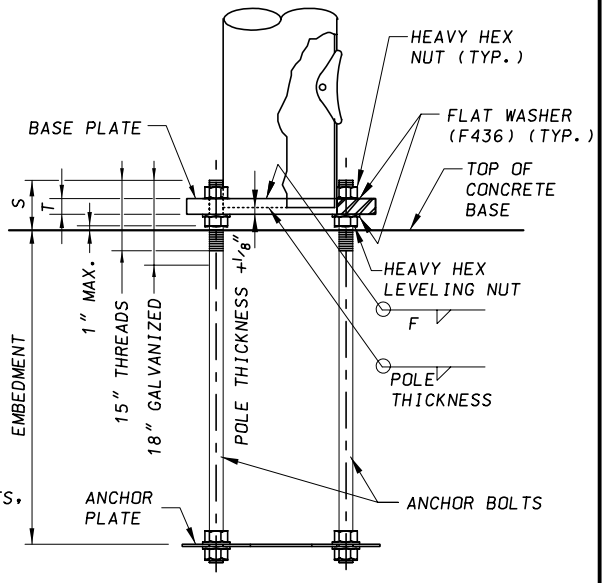
STANDARD NO. MD 803.08-16



PLAN – BASE PLATE & ANCHOR PLATE
TYPE 'A' (FOUR (4) BOLT PATTERN)



PLAN – BASE PLATE & ANCHOR PLATE
TYPE 'B' (SIX (6) BOLT PATTERN)



SECTION

NOTES:

1. FOR ANCHOR BOLT EMBEDMENT LENGTH AND ANCHOR BASE DATA REFER TO OVERHEAD SIGN STRUCTURE ANCHOR BASE DATA.
2. ALL ANCHOR BOLTS SHALL BE PLUMB AFTER FOUNDATION INSTALLATION. STEEL TEMPLATE PLATE SHALL BE USED TO SET ANCHOR BOLTS.
3. BASE PLATE SHALL BE IN FULL CONTACT WITH ALL FLAT WASHERS.
4. ALL ANCHOR BOLTS SHALL BE TIGHTENED USING TURN OF NUT METHOD. (30° min to 45° max turn after snug tight)
5. GROUT SHALL NOT BE PLACED BETWEEN THE BASE PLATE AND CONCRETE BASE.

SPECIFICATION	CATEGORY CODE ITEMS
803	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
ANCHOR BASE DETAILS

STANDARD NO. MD 803.08-17

OVERHEAD SIGN BASE PLATE SCHEDULE

TOWER SIZE	BASE TYPE	D	E	BOLT CIRCLE	T	S	ANCHOR BOLT DIA.	MINIMUM EMBEDMENT LENGTH	ANCHOR PLATE SIZE	FILLET WELD SIZE F
12.75" O.D. x 0.312" THK.	A	20"	13 1/16"	18 1/2"	2 1/4"	9 1/2"	2 1/4"	5'-0"	3/4" x 20" SQ.	7/16"
14.00" O.D. x 0.250" THK.	A	21"	14 1/8"	20"	2 1/4"	9 1/2"	2 1/4"	5'-0"	3/4" x 21" SQ.	7/16"
14.00" O.D. x 0.281" THK.	A	21"	14 1/8"	20"	2 1/4"	9 1/2"	2 1/4"	5'-0"	3/4" x 21" SQ.	7/16"
14.00" O.D. x 0.312" THK.	A	21"	14 1/8"	20"	2 1/4"	9 1/2"	2 1/4"	5'-0"	3/4" x 21" SQ.	7/16"
16.00" O.D. x 0.250" THK.	B	30"	-	23"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 30" DIA.	3/8"
16.00" O.D. x 0.281" THK.	B	30"	-	23"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 30" DIA.	3/8"
16.00" O.D. x 0.312" THK.	B	30"	-	23"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 30" DIA.	7/16"
16.00" O.D. x 0.344" THK.	B	30"	-	23"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 30" DIA.	1/2"
16.00" O.D. x 0.375" THK.	B	30"	-	23"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 30" DIA.	1/2"
16.00" O.D. x 0.406" THK.	B	30"	-	23"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 30" DIA.	1/2"
16.00" O.D. x 0.500" THK.	B	30"	-	23"	2 3/4"	10"	2 1/4"	5'-0"	3/4" x 30" DIA.	5/8"
18.00" O.D. x 0.250" THK.	B	33"	-	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	3/8"
18.00" O.D. x 0.281" THK.	B	33"	-	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	3/8"
18.00" O.D. x 0.312" THK.	B	33"	-	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	7/16"
18.00" O.D. x 0.344" THK.	B	33"	-	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	7/16"
18.00" O.D. x 0.375" THK.	B	33"	-	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	1/2"
18.00" O.D. x 0.500" THK.	B	33"	-	25 1/2"	3"	10 3/4"	2 1/2"	5'-6"	3/4" x 33" DIA.	5/8"
20.00" O.D. x 0.281" THK.	B	36"	-	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	3/8"
20.00" O.D. x 0.312" THK.	B	36"	-	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	7/16"
20.00" O.D. x 0.344" THK.	B	36"	-	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	7/16"
20.00" O.D. x 0.375" THK.	B	36"	-	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	1/2"
20.00" O.D. x 0.500" THK.	B	36"	-	27 1/2"	3"	11 1/4"	2 3/4"	6'-0"	3/4" x 36" DIA.	5/8"
24.00" O.D. x 0.312" THK.	B	41 1/2"	-	32"	3"	12"	3"	6'-6"	3/4" x 41 1/2" DIA.	7/16"
24.00" O.D. x 0.375" THK.	B	41 1/2"	-	32"	3"	12"	3"	6'-6"	3/4" x 41 1/2" DIA.	1/2"
24.00" O.D. x 0.500" THK.	B	41 1/2"	-	32"	3"	12"	3"	6'-6"	3/4" x 41 1/2" DIA.	5/8"

NOTE:

FOR ANCHOR BASE DETAILS, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-12-02	APPROVAL 9-4-02
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

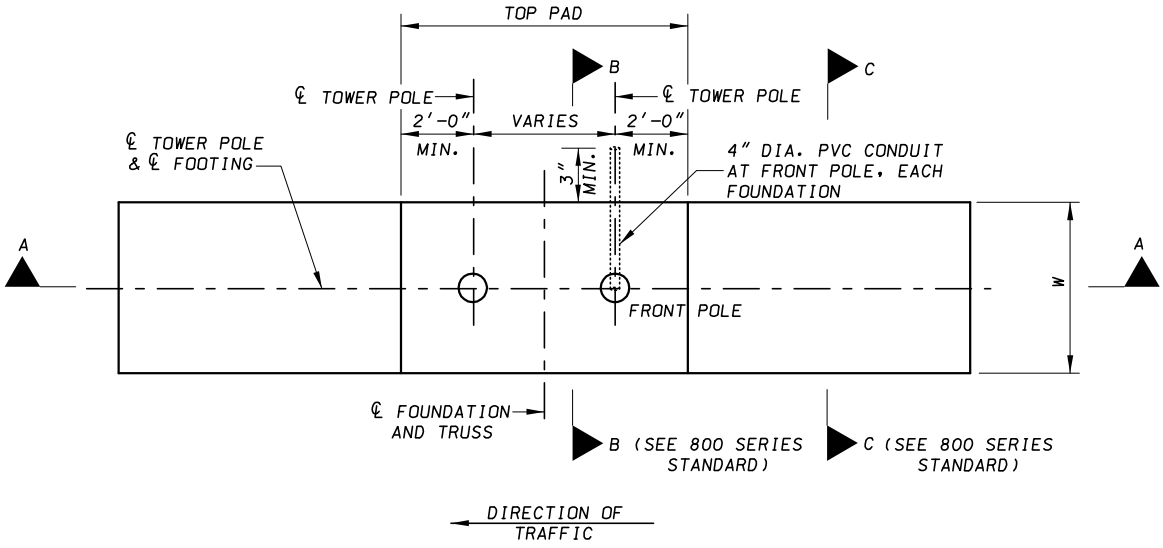
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

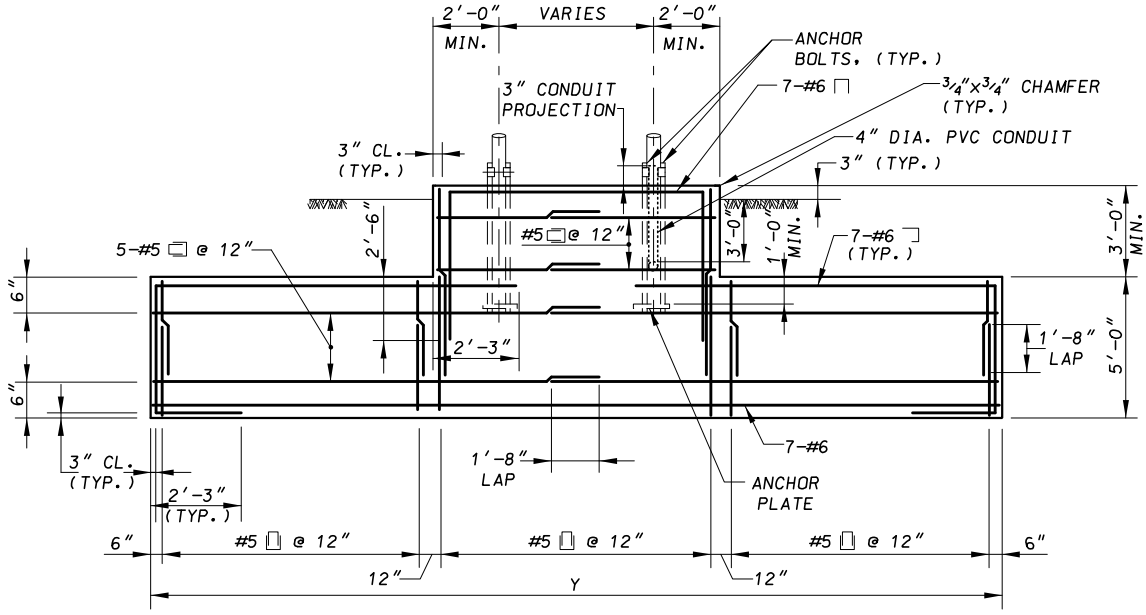
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
ANCHOR BASE DATA

STANDARD NO. MD 803.08-18



PLAN



SECTION A–A

NOTE:

FOR ANCHOR BASE DETAILS, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL	8-12-02	9-4-02
REVISED	5-20-11	4-22-11
REVISED		
REVISED		

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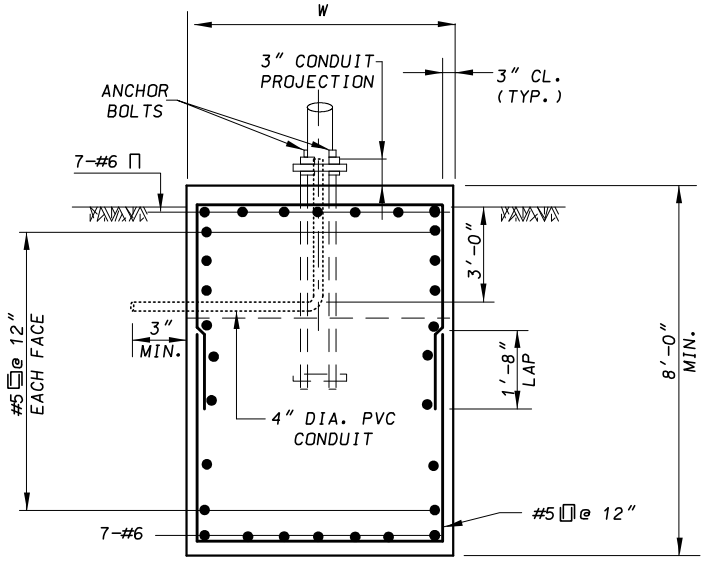
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

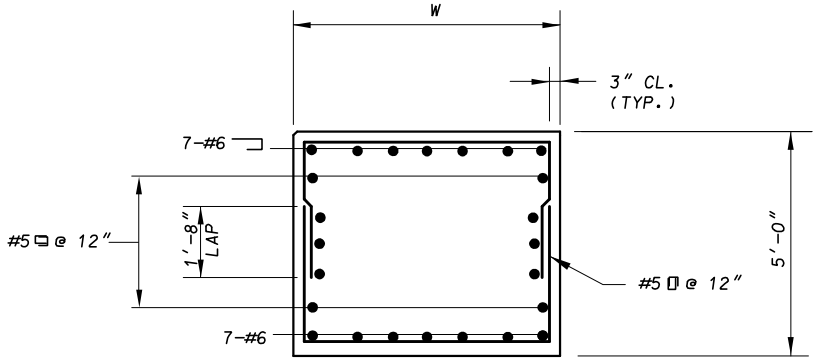
OVERHEAD SPAN SIGN STRUCTURES
FOUNDATION DETAILS
TYPE A

STANDARD NO. MD 803.08–19



SECTION B–B

(FROM 800 SERIES STANDARD)



SECTION C–C

(FROM 800 SERIES STANDARD)

NOTE:

FOR ANCHOR BASE DETAILS, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED 5-20-11	REVISED 4-22-11
	REVISED	REVISED
	REVISED	REVISED

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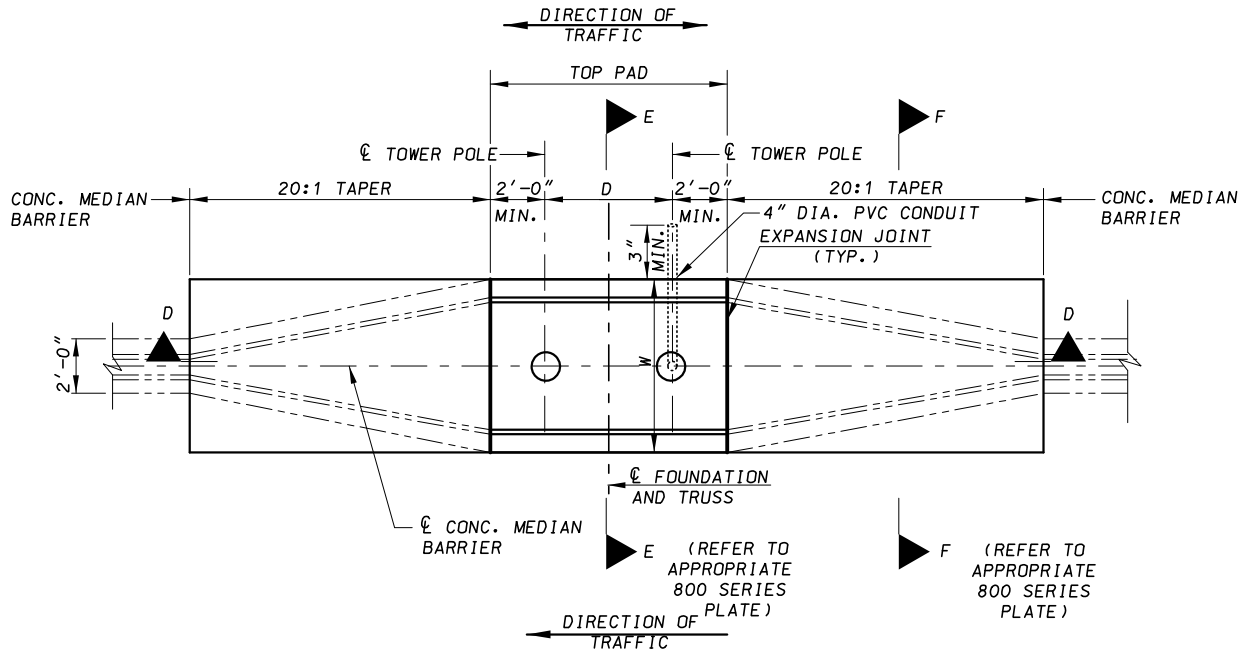
STATE HIGHWAY ADMINISTRATION

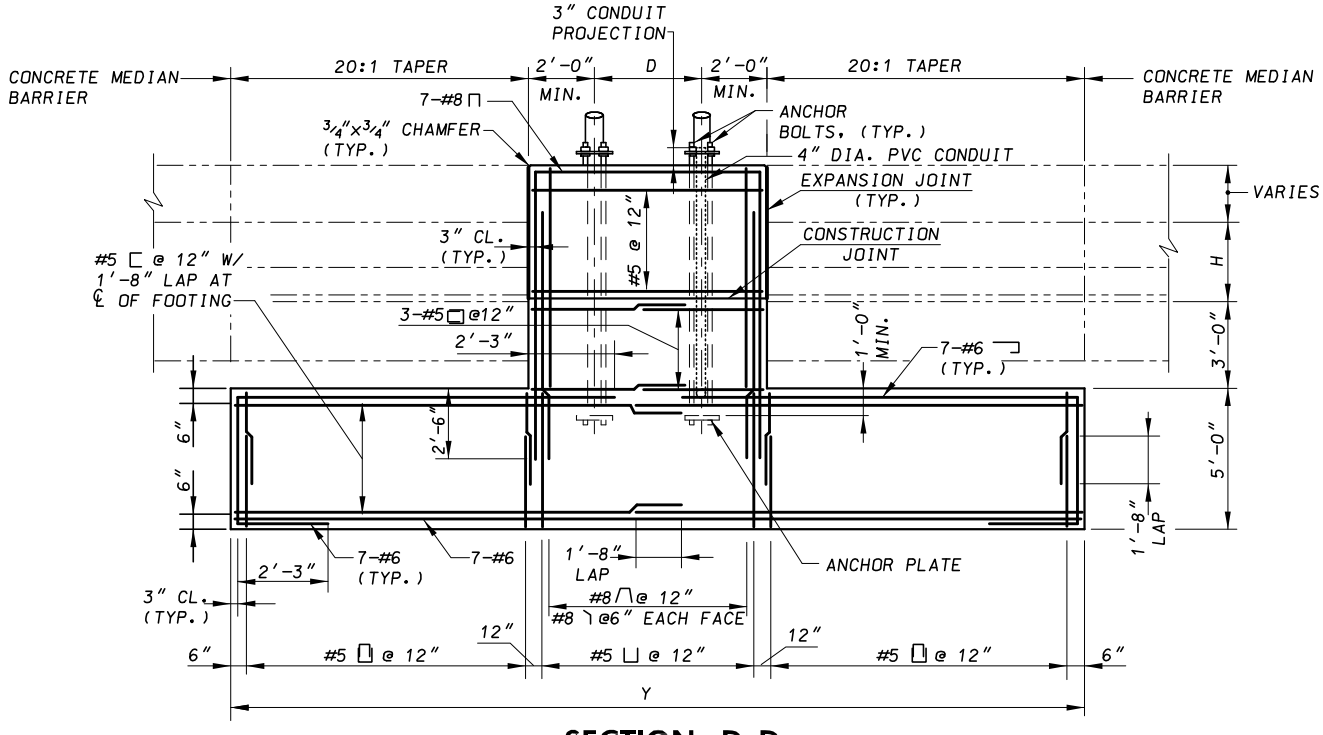
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURES
FOUNDATION DETAILS
TYPE A

STANDARD NO. MD 803.08–20



FOUNDATION PLAN TYPE "B"



SECTION D–D

NOTE:

FOR ANCHOR BASE DETAILS, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-12-02	APPROVAL	9-4-02
REVISED	5-20-11	REVISED	4-22-11
REVISED		REVISED	
REVISED		REVISED	

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STATE HIGHWAY ADMINISTRATION

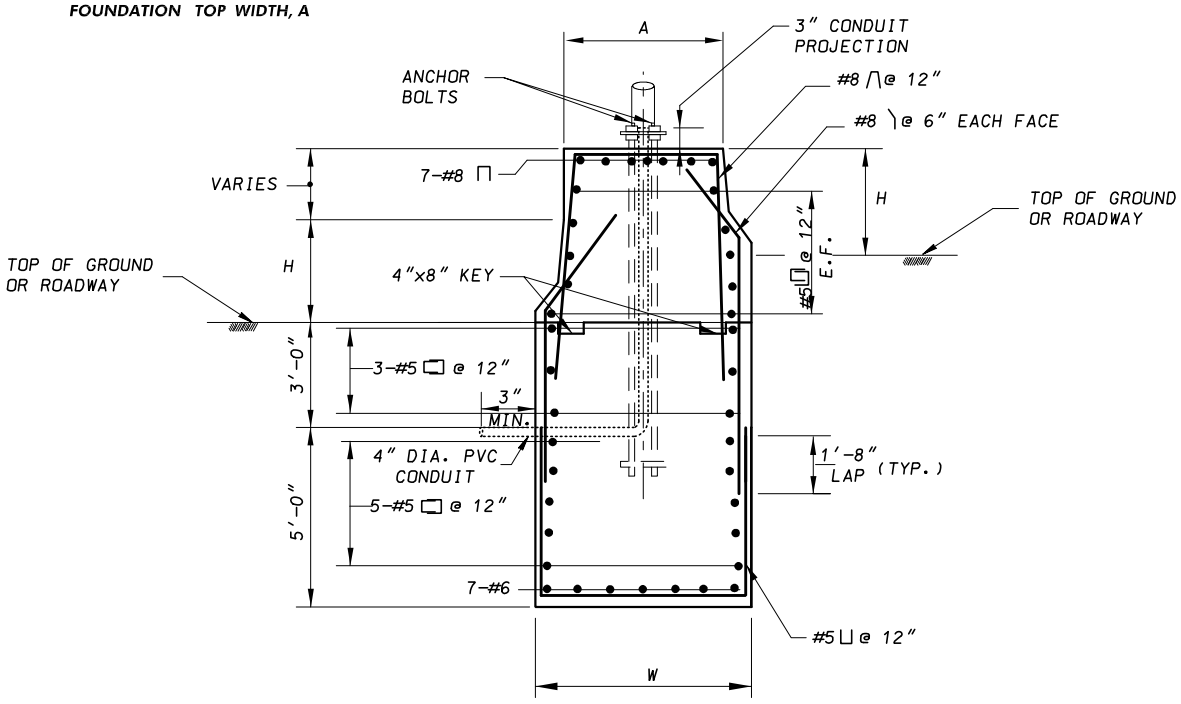
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURE FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER

STANDARD NO. MD 803.08–21

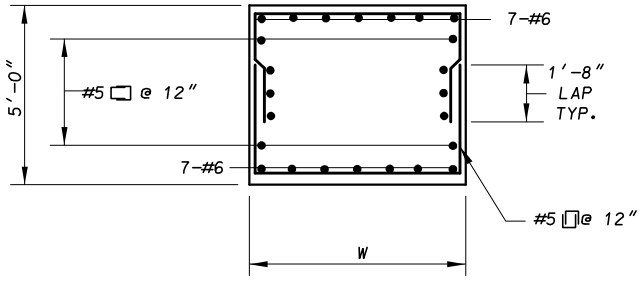
FOUNDATION VS		W= 4 FT	W= 6 FT
BARRIER TYPE	H	A	A
34" A,B,C,D, E, TYPE	2'-10"	2'-5 1/2"	4'-5 1/2"
34" F SHAPE	2'-10"	2'-9"	4'-9"
42" F SHAPE	3'-6"	2'-7"	4'-7"

FOUNDATION TOP WIDTH, A



SECTION E–E

(REFER TO APPROPRIATE 800 SERIES STANDARD)



SECTION F–F

(REFER TO APPROPRIATE 800 SERIES STANDARD)

NOTE:

FOR ANCHOR BASE DETAILS, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-12-02	APPROVAL	9-4-02
REVISED	5-20-11	REVISED	4-22-11
REVISED		REVISED	
REVISED		REVISED	

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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERHEAD SPAN SIGN STRUCTURE FOUNDATION TYPE B AT CONCRETE MEDIAN BARRIER

STANDARD NO. MD 803.08–22

FOUNDATION DETAIL SCHEDULE				
FOOTING MARK	FOOTING DIMENSION		CUBIC YARDS CONCRETE	
	W	Y	TYPE A	TYPE B
OF-420	4'-0"	20'-0"	19.4	22.2
OF-421	4'-0"	21'-0"	20.1	22.9
OF-422	4'-0"	22'-0"	20.9	23.6
OF-423	4'-0"	23'-0"	21.5	24.3
OF-424	4'-0"	24'-0"	22.3	25.1
OF-425	4'-0"	25'-0"	23.0	25.8
OF-426	4'-0"	26'-0"	23.8	26.6
OF-427	4'-0"	27'-0"	24.5	27.3
OF-620	6'-0"	20'-0"	29.2	34.8
OF-621	6'-0"	21'-0"	30.3	35.9
OF-622	6'-0"	22'-0"	31.4	37.0
OF-623	6'-0"	23'-0"	32.5	38.1
OF-624	6'-0"	24'-0"	33.7	39.3
OF-625	6'-0"	25'-0"	34.8	40.4
OF-626	6'-0"	26'-0"	35.9	41.5

NOTES:

1. CONCRETE QUANTITIES SHOWN ARE BASED ON MINIMUM DIMENSIONS. ACTUAL QUANTITIES WILL BE AS SPECIFIED IN THE ERECTION DRAWINGS OF CONTRACT DOCUMENTS.

2. FOR FOOTING DETAILS, REFER TO APPROPRIATE 800 SERIES STANDARD PLATE.

SPECIFICATION 803	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

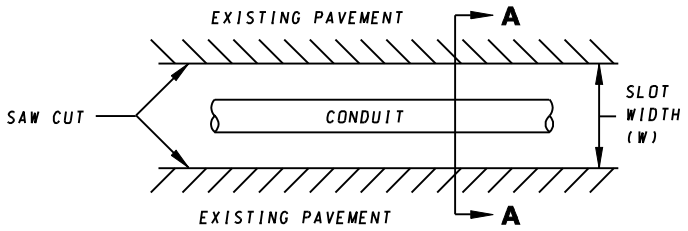
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 8-12-02	APPROVAL 9-4-02
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

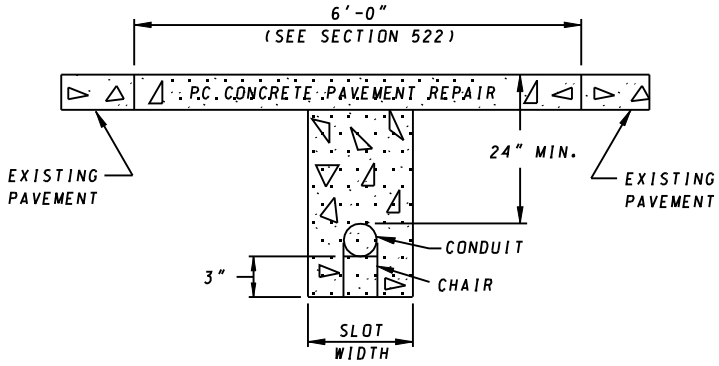
OVERHEAD SPAN SIGN STRUCTURES FOUNDATION DATA FOR TYPE `A' AND TYPE `B'

STANDARD NO. MD 803.08-23



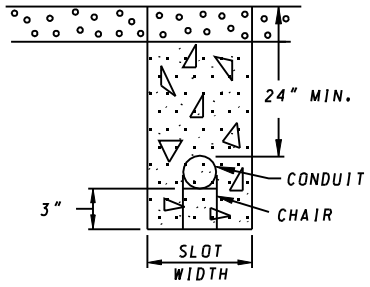
CONDUIT DIAMETER (IN.)	SLOT WIDTH (W)	
	MIN. (IN.)	MAX. (IN.)
1	3	4
2	4	5
3	5	6
4	6	7

PLAN VIEW



SECTION A–A

CONCRETE SURFACE



SECTION A–A

ASPHALT SURFACE

NOTES:

1. IF THE EXISTING ROAD SURFACE IS CONCRETE, FILL THE SLOT WITH CONCRETE MIX NO.6. PROTECT THE SURFACE WITH STEEL PLATES UNTIL THE CONCRETE ATTAINS A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AS INDICATED IN SECTION 522. MINIMUM COMPRESSIVE STRENGTH MUST BE ATTAINED WITHIN 12 HOURS. IF THE CONTRACTOR WISHES TO ATTAIN A QUICKER COMPRESSIVE STRENGTH, THE MATERIALS SHALL BE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL REPAIR THE CONCRETE PAVEMENT ABOVE THE SLOT IN ACCORDANCE WITH SECTION 522.
3. IF THE EXISTING ROAD SURFACE IS ASPHALT, FILL THE SLOT WITH CONCRETE MIX NO. 6 TO 3" OF THE ROAD SURFACE. PROTECT THE SURFACE WITH STEEL PLATES UNTIL THE CONCRETE ATTAINS A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AS INDICATED IN SECTION 522. MINIMUM COMPRESSIVE STRENGTH MUST BE ATTAINED WITHIN 12 HOURS. UPON CONCRETE CURING, PLACE TACK COAT COMPOUND AND 3" HOT MIX ASPHALT CAP UP TO ROAD GRADE.
4. FOR CONCRETE SURFACES, SAWCUT SEALER FOR ROADWAY JOINTS SHALL BE USED AS INDICATED IN SECTION 523.
5. CHAIRS SHALL BE USED TO SUSPEND CONDUIT IN CONCRETE.
6. INSTALL DUCT SEAL IN BOTH CONDUIT SLEEVE ENDS.
7. SLEEVE AND SAWCUT SHALL NOT DAMAGE OR CONTACT EXISTING CURB AND GUTTER, AS INDICATED IN SPECIFICATION SECTION 805.03.
8. CONTRACTOR SHALL USE STEEL PLATES AS INDICATED IN SPECIFICATION SECTION 522.03 ON ROAD SURFACE. STEEL PLATES MUST BE REMOVED WITHIN 24 HOURS.
9. EXISTING PAVEMENT SHALL BE REMOVED BY MAKING A LONGITUDINAL SAWCUT PARALLEL TO THE GUTTER PAN AND AT LEAST 18" FROM COMBINATION CURB AND GUTTER.

SPECIFICATION 805	CATEGORY CODE ITEMS

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 9-25-07	APPROVAL 9-18-07
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

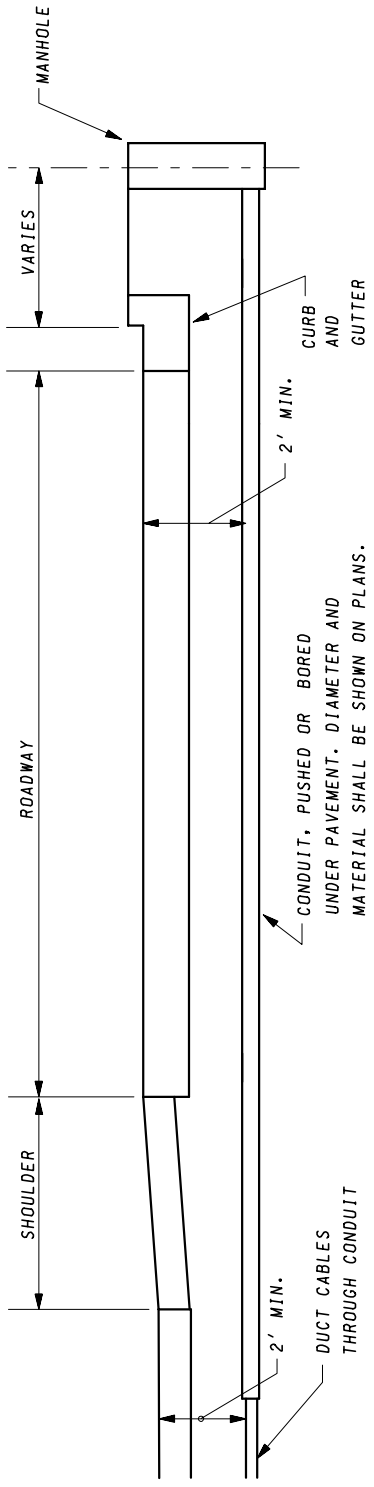
SHA State Highway Administration

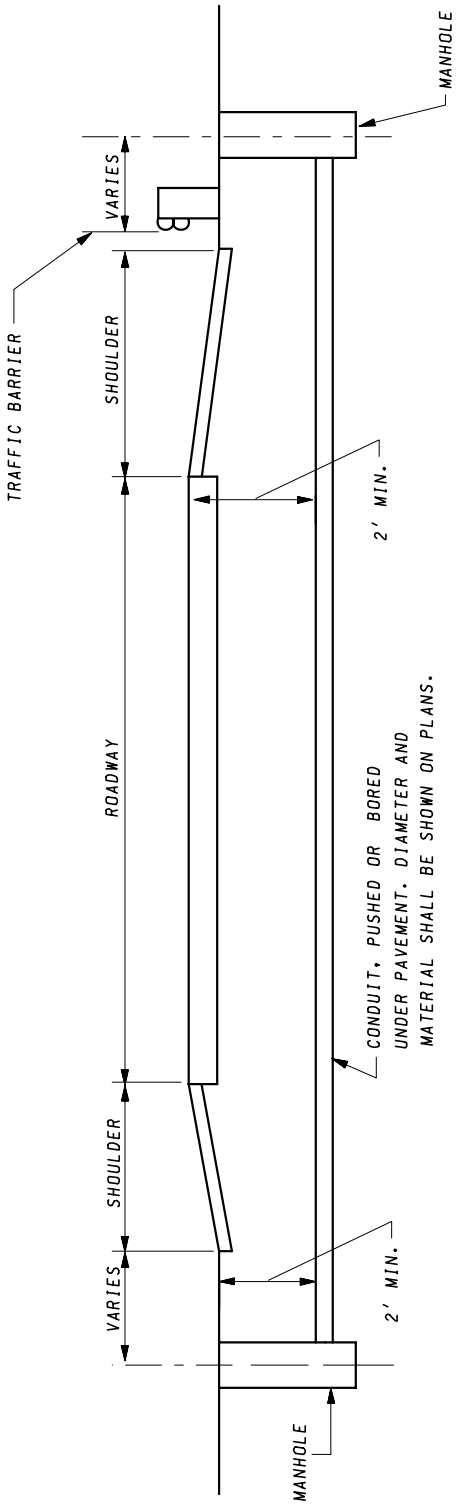
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CONDUIT IN SLOTTED PAVEMENT

STANDARD NO. MD 805.01





NOT TO SCALE

NOTE:
MANHOLE SHALL NOT BE INSTALLED IN DRAINAGE DITCH.

SPECIFICATION 805	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

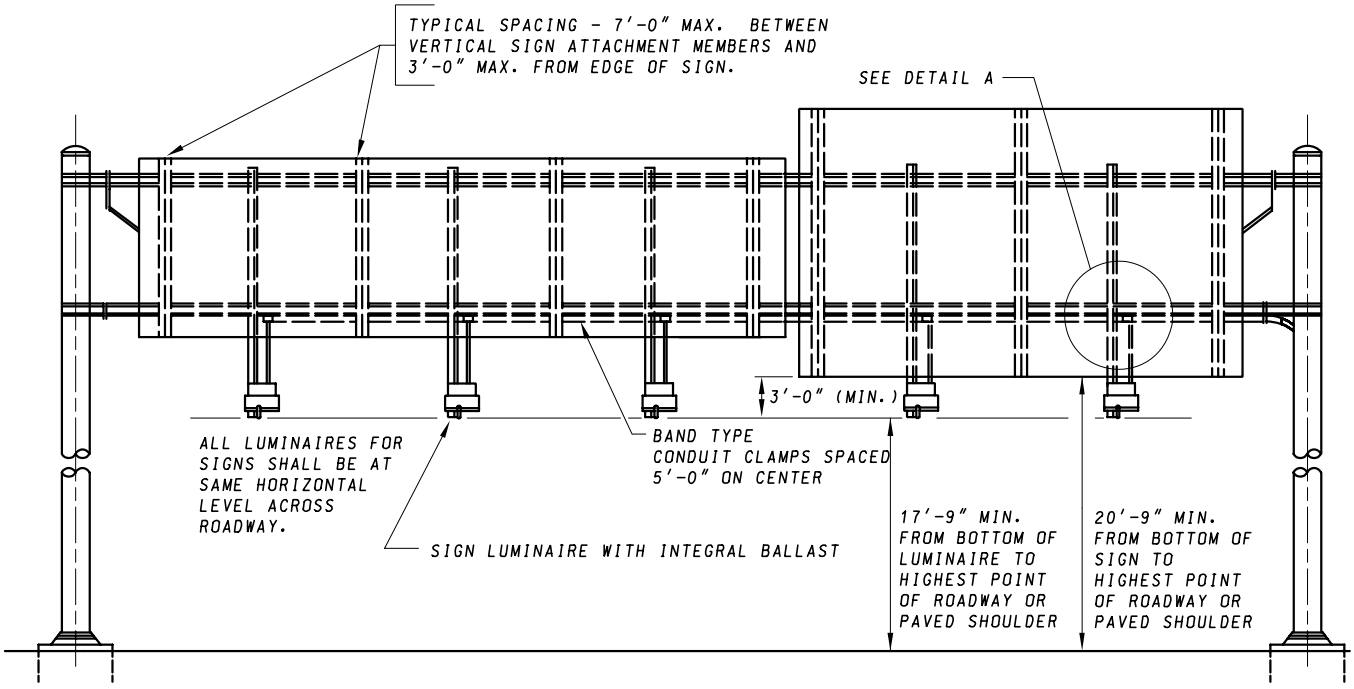
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

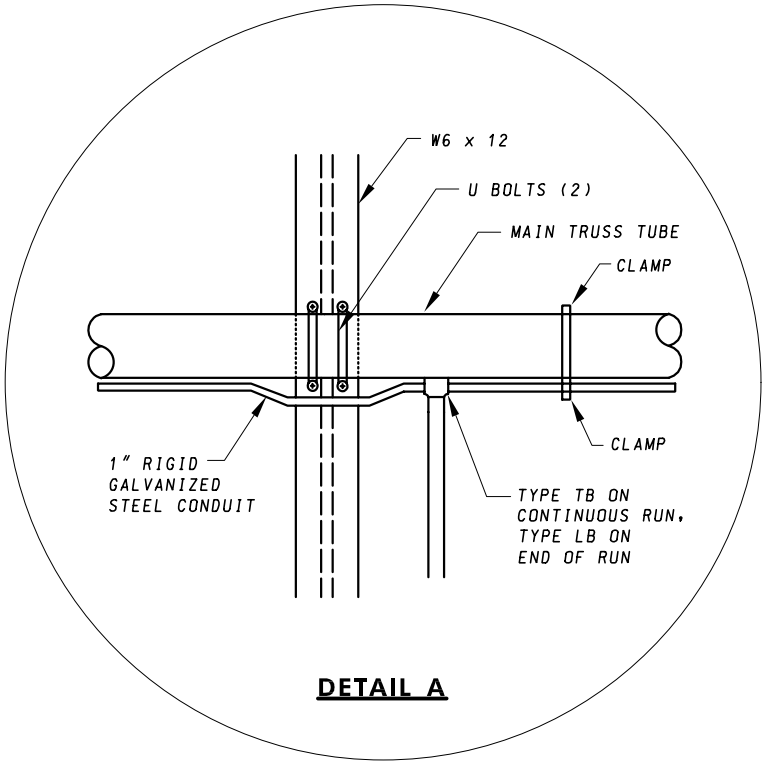
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TYPICAL BORED CONDUIT DETAIL AND MANHOLE LOCATION FOR LIGHTING

STANDARD NO. MD 805.02



TYPICAL OVERHEAD SIGN STRUCTURE



DETAIL A

SPECIFICATION	CATEGORY CODE ITEMS
803, 806	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL	2-21-95	2-21-95
REVISED	5-17-07	5-2-07
REVISED		
REVISED		

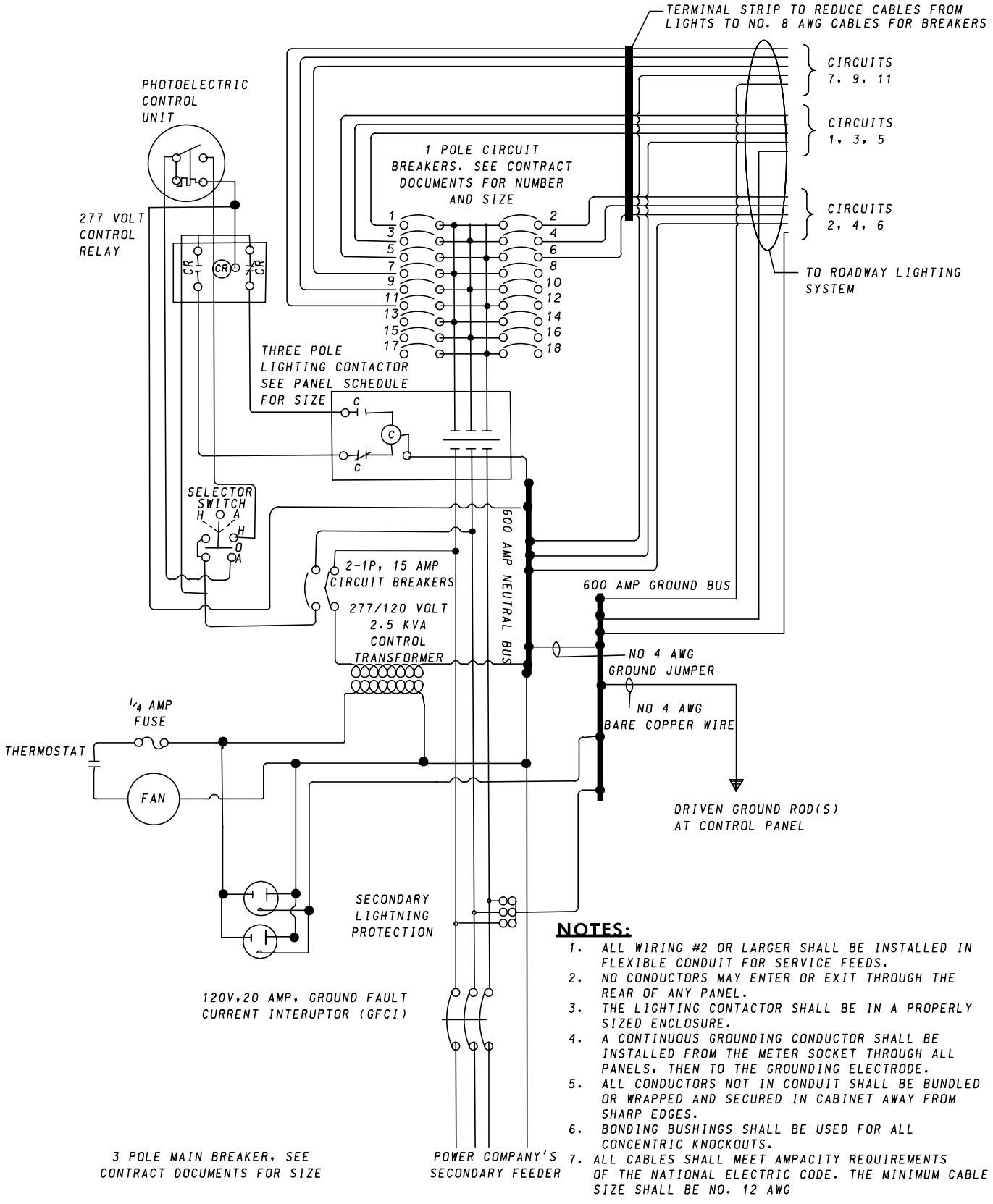
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

MOUNTING FOR SIGN /LUMINAIRE OVERHEAD STRUCTURES

STANDARD NO. MD 806.02



NOTES:

1. ALL WIRING #2 OR LARGER SHALL BE INSTALLED IN FLEXIBLE CONDUIT FOR SERVICE FEEDS.
2. NO CONDUCTORS MAY ENTER OR EXIT THROUGH THE REAR OF ANY PANEL.
3. THE LIGHTING CONTACTOR SHALL BE IN A PROPERLY SIZED ENCLOSURE.
4. A CONTINUOUS GROUNDING CONDUCTOR SHALL BE INSTALLED FROM THE METER SOCKET THROUGH ALL PANELS, THEN TO THE GROUNDING ELECTRODE.
5. ALL CONDUCTORS NOT IN CONDUIT SHALL BE BUNDLED OR WRAPPED AND SECURED IN CABINET AWAY FROM SHARP EDGES.
6. BONDING BUSHINGS SHALL BE USED FOR ALL CONCENTRIC KNOCKOUTS.
7. ALL CABLES SHALL MEET AMPACITY REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. THE MINIMUM CABLE SIZE SHALL BE NO. 12 AWG

SPECIFICATION	CATEGORY CODE ITEMS
807	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

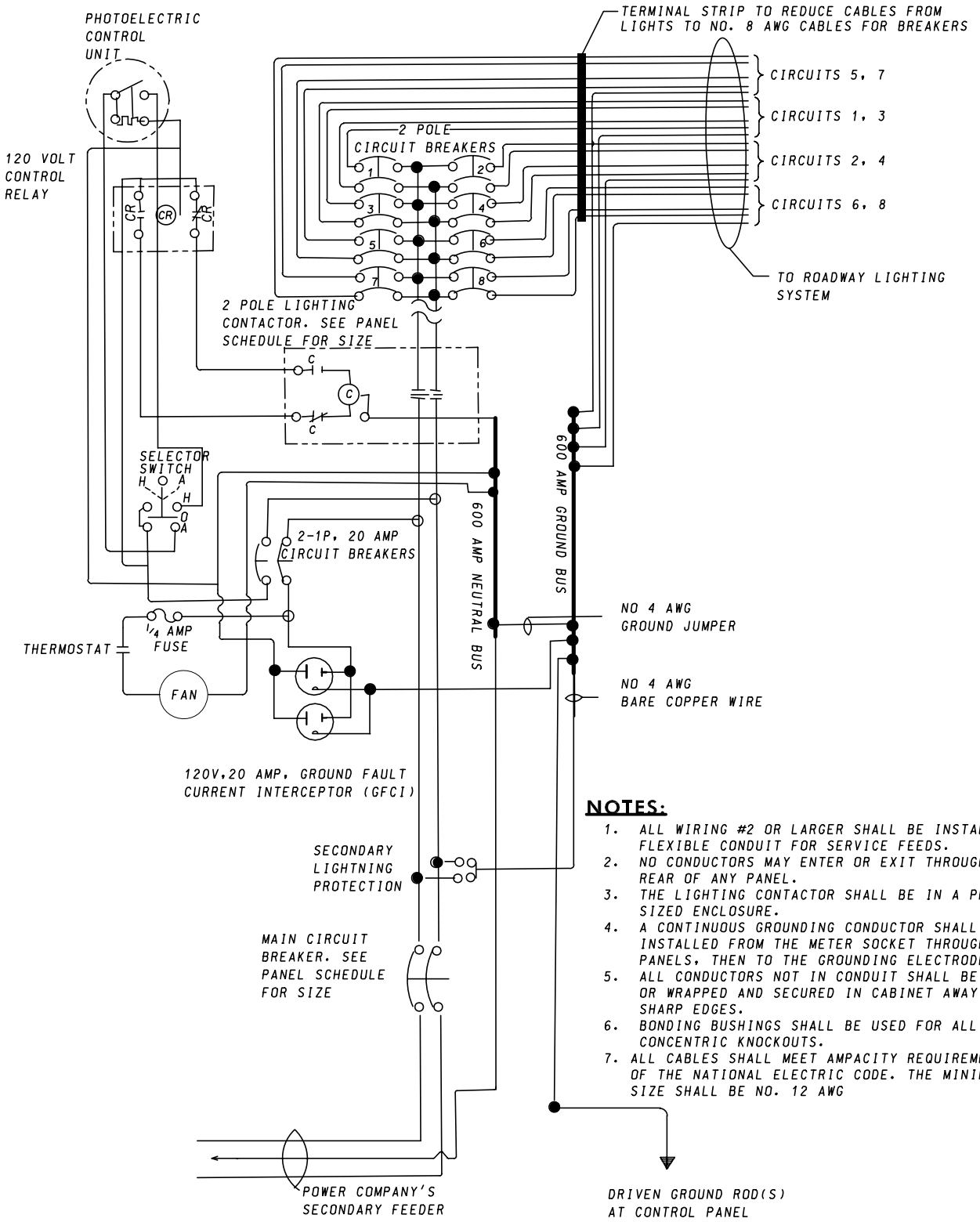
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ROADWAY LIGHTING CONTROL CABINET
277/480 VOLT SYSTEM
277 VOLT LUMINAIRE OPERATION

STANDARD NO. MD 807.01

SEE CONTRACT DOCUMENTS FOR NUMBER OF CIRCUIT BREAKERS REQUIRED



NOTES:

1. ALL WIRING #2 OR LARGER SHALL BE INSTALLED IN FLEXIBLE CONDUIT FOR SERVICE FEEDS.
2. NO CONDUCTORS MAY ENTER OR EXIT THROUGH THE REAR OF ANY PANEL.
3. THE LIGHTING CONTACTOR SHALL BE IN A PROPERLY SIZED ENCLOSURE.
4. A CONTINUOUS GROUNDING CONDUCTOR SHALL BE INSTALLED FROM THE METER SOCKET THROUGH ALL PANELS, THEN TO THE GROUNDING ELECTRODE.
5. ALL CONDUCTORS NOT IN CONDUIT SHALL BE BUNDLED OR WRAPPED AND SECURED IN CABINET AWAY FROM SHARP EDGES.
6. BONDING BUSHINGS SHALL BE USED FOR ALL CONCENTRIC KNOCKOUTS.
7. ALL CABLES SHALL MEET AMPACITY REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. THE MINIMUM CABLE SIZE SHALL BE NO. 12 AWG

SPECIFICATION	CATEGORY CODE ITEMS
807	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

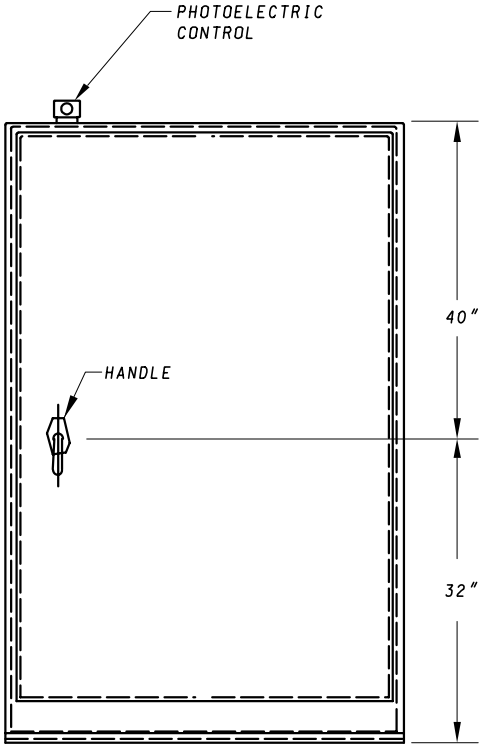
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

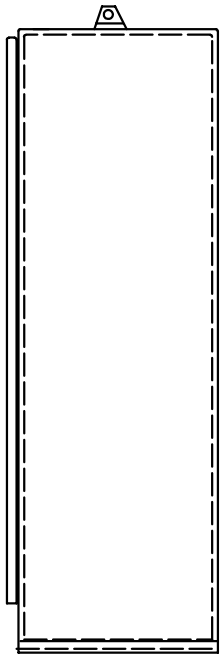
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ROADWAY LIGHTING CONTROL CABINET
120/240 VOLT SYSTEM
240 VOLTS LUMINAIRE OPERATION

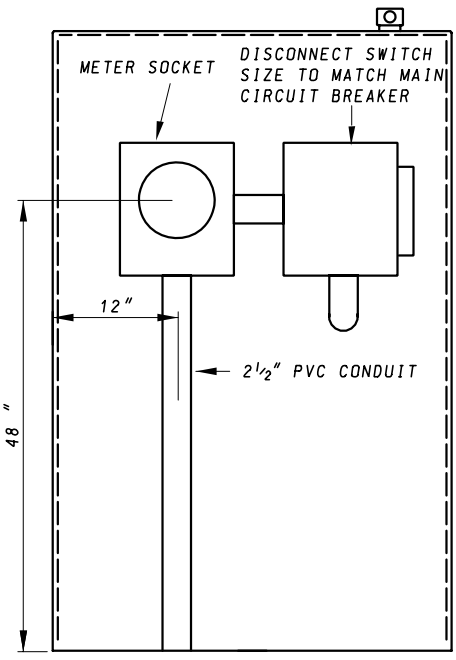
STANDARD NO. MD 807.02



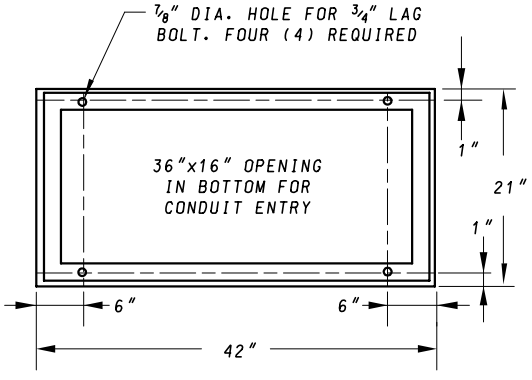
FRONT VIEW



SIDE VIEW



BACK VIEW



BOTTOM VIEW

NOTES:

1. CABINET SHALL BE NEMA 4X AND SHALL BE FABRICATED FROM ALUMINUM ALLOY.
2. REFER TO FOUNDATION DETAILS FOR BASE-MOUNTED LIGHTING CONTROL CABINET STANDARD PLATE FOR DETAILS.
3. AN INTEGRAL DOOR LOCK IS NOT REQUIRED. THE DOOR LATCH SHALL HAVE PROVISIONS FOR A PADLOCK.

SPECIFICATION 807	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 7-1-94	APPROVAL 7-1-94
	REVISED 5-17-07	REVISED 5-2-07
	REVISED	REVISED
	REVISED	REVISED

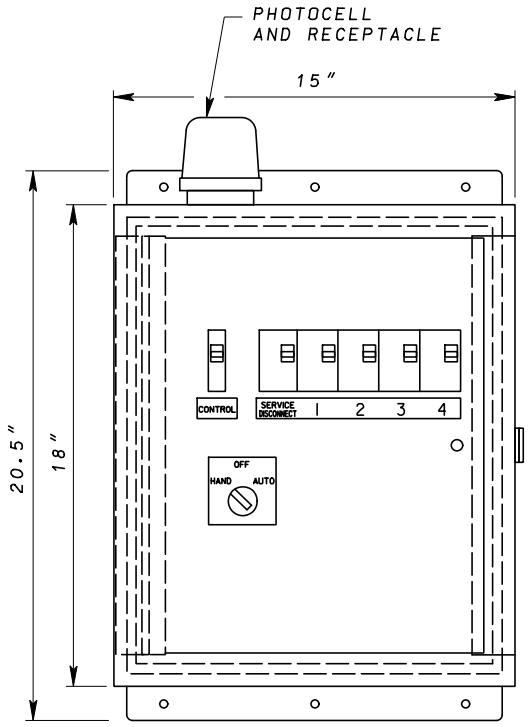
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

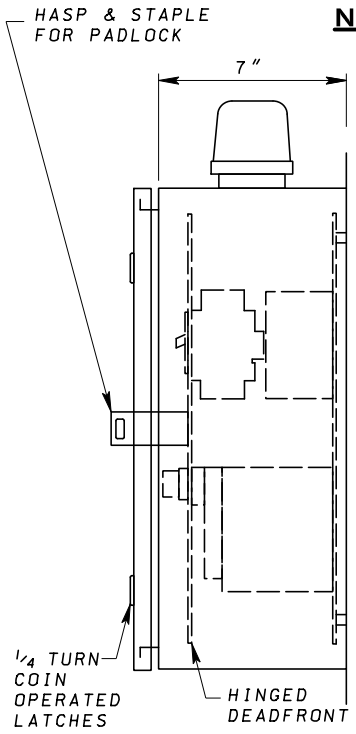
LIGHTING CONTROL CABINET

STANDARD NO. MD 807.03

REFERENCED ON: MD 801.03



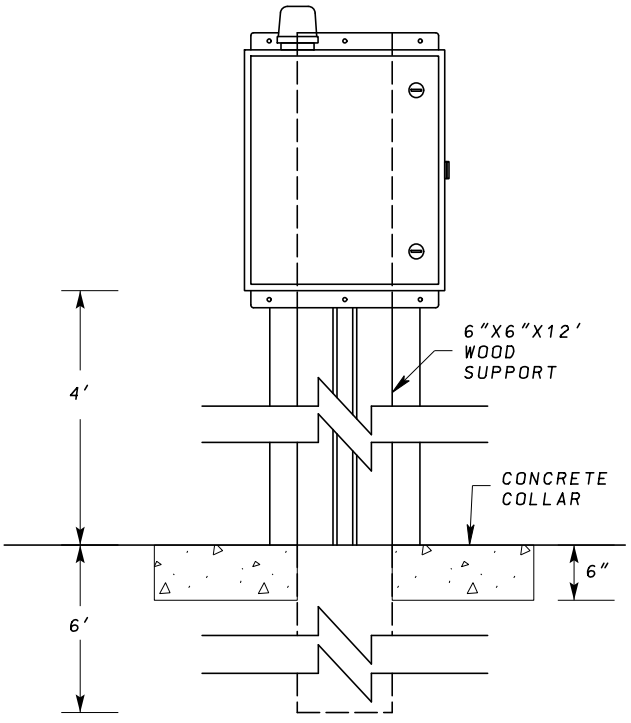
FRONT VIEW



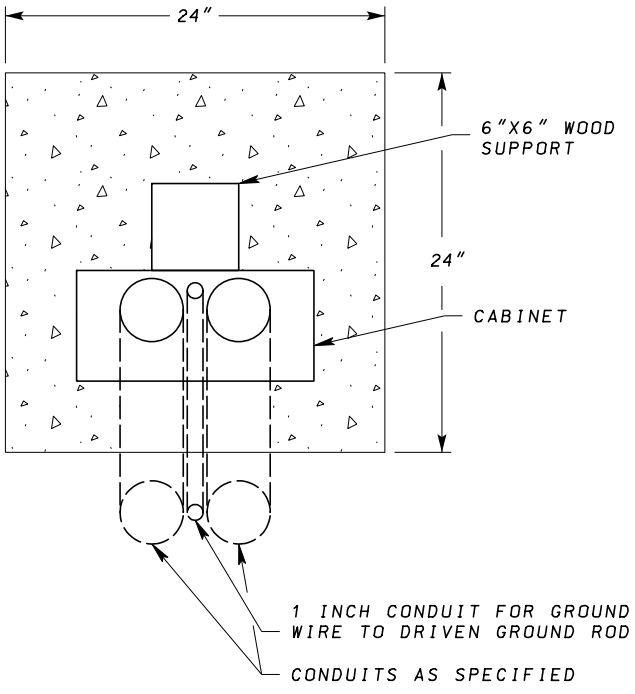
SIDE VIEW

NOTES

1. CABINET ENCLOSURE SHALL BE NEMA 4X AND SHALL BE STAINLESS STEEL WITH GASKETED DOOR.
2. BACKPAN AND DEADFRONT DOOR SHALL BE ALUMINUM.
3. THE CONTRACTOR SHALL INSTALL CONDUIT HUBS TO MATCH THE NEMA 4X DESIGNATION.
4. FOR POLE MOUNTING, TWO SETS OF STAINLESS STEEL BANDS SHALL BE USED TO MOUNT THE CABINET.
5. IF CABINET IS NOT LOCATED WITHIN APPROXIMATELY 50 FT OF SERVICE DISCONNECT POINT, A DISCONNECT SWITCH SHOULD BE INSTALLED AT CABINET LOCATION.



POST MOUNTING – FRONT VIEW



POST MOUNTING – PLAN VIEW

SPECIFICATION	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 5-15-17	APPROVAL 3-24-17
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

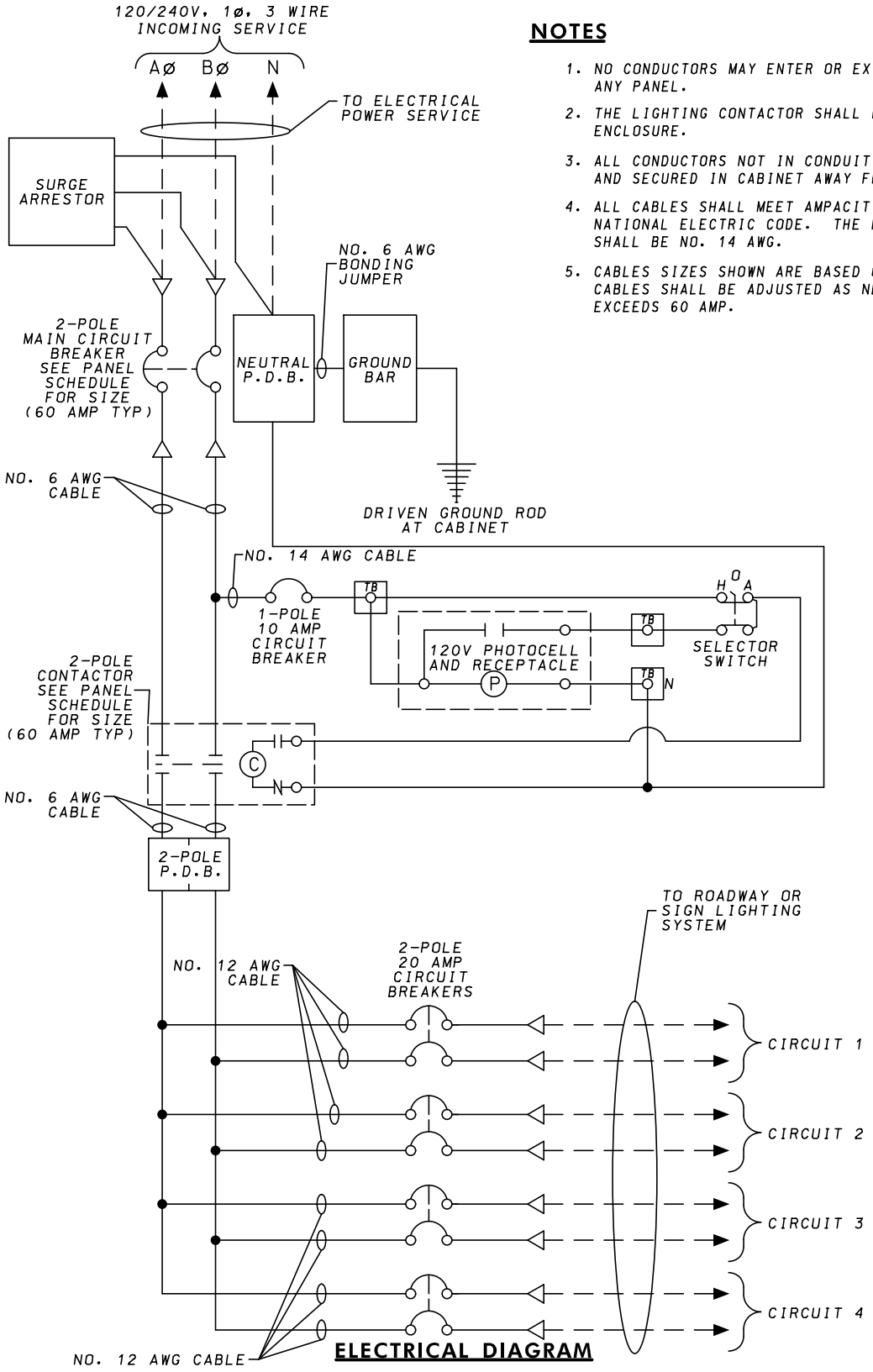
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

REMOTE LIGHTING CONTROL CABINET

STANDARD NO. MD 807.04



ELECTRICAL DIAGRAM

NOTES

1. NO CONDUCTORS MAY ENTER OR EXIT THROUGH THE REAR OF ANY PANEL.
2. THE LIGHTING CONTACTOR SHALL BE IN A PROPERLY SIZED ENCLOSURE.
3. ALL CONDUCTORS NOT IN CONDUIT SHALL BE BUNDLED OR WRAPPED AND SECURED IN CABINET AWAY FROM SHARP EDGES.
4. ALL CABLES SHALL MEET AMPACITY REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. THE MINIMUM CABLE SIZE SHALL BE NO. 14 AWG.
5. CABLES SIZES SHOWN ARE BASED ON A 60 AMP CABINET SIZE. CABLES SHALL BE ADJUSTED AS NECESSARY IF MAIN BREAKER EXCEEDS 60 AMP.

SPECIFICATION	CATEGORY CODE ITEMS

APPROVED Cedric Ward
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

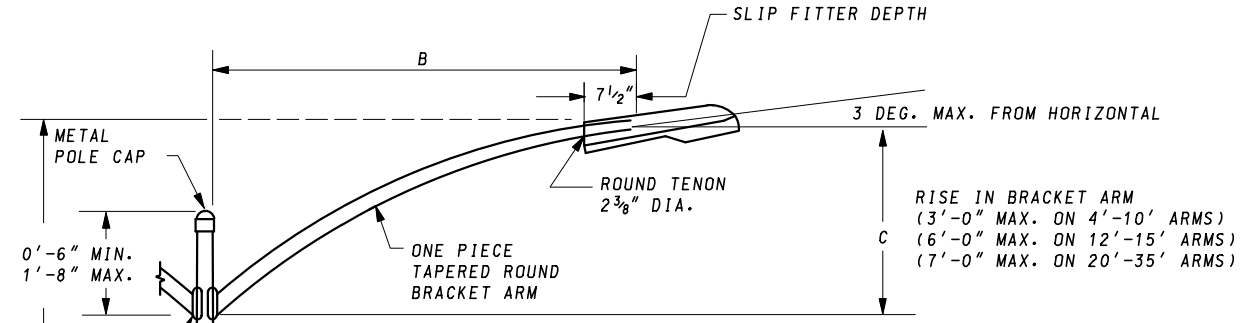
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-15-17	APPROVAL 3-24-17
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

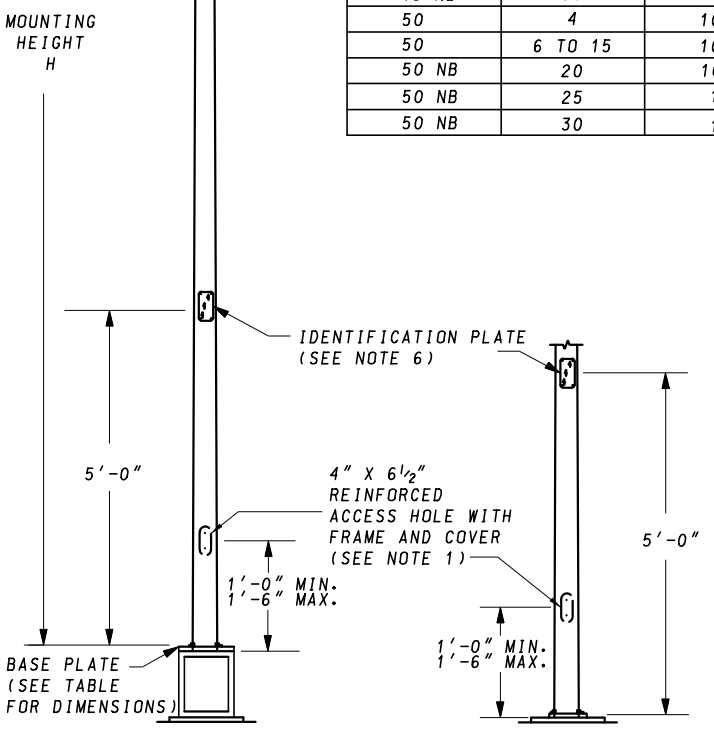
REMOTE LIGHTING CONTROL CABINET
120/240 VOLT SYSTEM
240 VOLTS LUMINAIRE OPERATION

STANDARD NO. MD 807.05



ROUND POLE DATA

MOUNTING HEIGHT H FT.	ARM LENGTH B FT.	POLE DIA. BOTTOM IN.	BASE PLATE		BOLT CIRCLE IN.
			THICKNESS IN.	SIDE IN.	
30	4 TO 10	7 1/2	1	12	13 1/2
30	15	8	1	12	13 1/2
30	20	8 1/2	1	12	13 1/2
30	25	9	1	13	13 1/2
30	30	9 1/2	1 1/4	13	15
40	4 TO 20	9 1/2	1	13	13 1/2
40	25	10 1/2	1 1/4	15	15
40 NB	30	11	1 1/4	15 5/8	15
40 NB	35	12	1 1/2	17	16
50	4	10 1/2	1	15	13 1/2
50	6 TO 15	10 1/2	1 1/4	15	15
50 NB	20	10 1/2	1 1/4	15	15
50 NB	25	12	1 1/4	17	16
50 NB	30	13	1 1/2	18	17



BREAKAWAY TRANSFORMER BASE (WHERE REQUIRED)

NON-BREAKAWAY BASE

NOTES:

1. HANDHOLES AND TRANSFORMER BASE OPENINGS SHALL BE INSTALLED ON THE SIDE OF THE POLE FACING AWAY FROM TRAFFIC.
2. MOUNTING HEIGHT SHALL BE MEASURED FROM THE CENTER OF THE LUMINAIRE TO THE TOP OF THE POLE BASE PLATE.
3. BRACKET ARM ATTACHMENT SHALL BE PROVIDED AS NOTED.
4. POLE TAPER: 0.1" TO 0.14" PER FOOT OF LENGTH
5. TWO PIECE POLE SHAFT MAY BE USED FOR POLES 50' OR HIGHER.
6. IDENTIFICATION PLATE SHALL BE PLACED ON SIDE OF POLE FACING TRAFFIC.
7. "NB" SIGNIFIES THAT POLE SHALL NOT BE USED ON BREAKAWAY BASE.
8. REFER TO LIGHTING STRUCTURE FOUNDATION STANDARD PLATE FOR ANCHOR BOLT REQUIREMENTS.

SPECIFICATION	CATEGORY CODE ITEMS
808	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

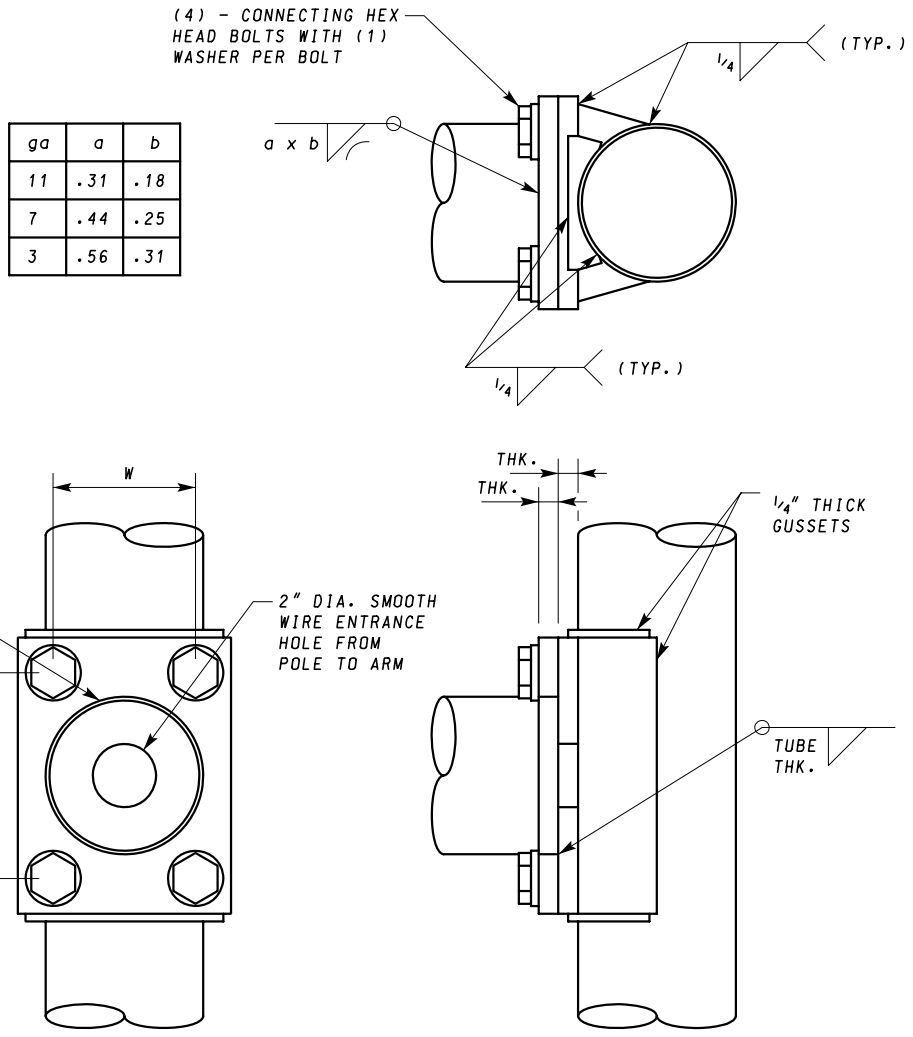
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	4-16-19	REVISED	4-1-19
REVISED		REVISED	

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LIGHTING STRUCTURE WITH BRACKET ARM

STANDARD NO. MD 808.01



ga	a	b
11	.31	.18
7	.44	.25
3	.56	.31

ARM SPREAD	DIMENSIONS				CONNECTING BOLT (A325)
	L	W	PLATE THK.		
			POLE	ARM	
12′-0″	6 1/2″	4 1/2″	5/8″	5/8″	5/8″ x 1 3/4″
15′-0″	6 1/2″	4 1/2″	5/8″	5/8″	5/8″ x 1 3/4″
20′-0″	7 3/4″	5 3/4″	5/8″	5/8″	5/8″ x 1 3/4″
25′-0″	7 3/4″	5 3/4″	3/4″	3/4″	3/4″ x 2″
30′-0″	7 3/4″	5 3/4″	3/4″	3/4″	3/4″ x 2″
35′-0″	7 3/4″	5 3/4″	3/4″	3/4″	3/4″ x 2″

SPECIFICATION	CATEGORY CODE ITEMS
808	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-17-07	APPROVAL 5-2-07
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

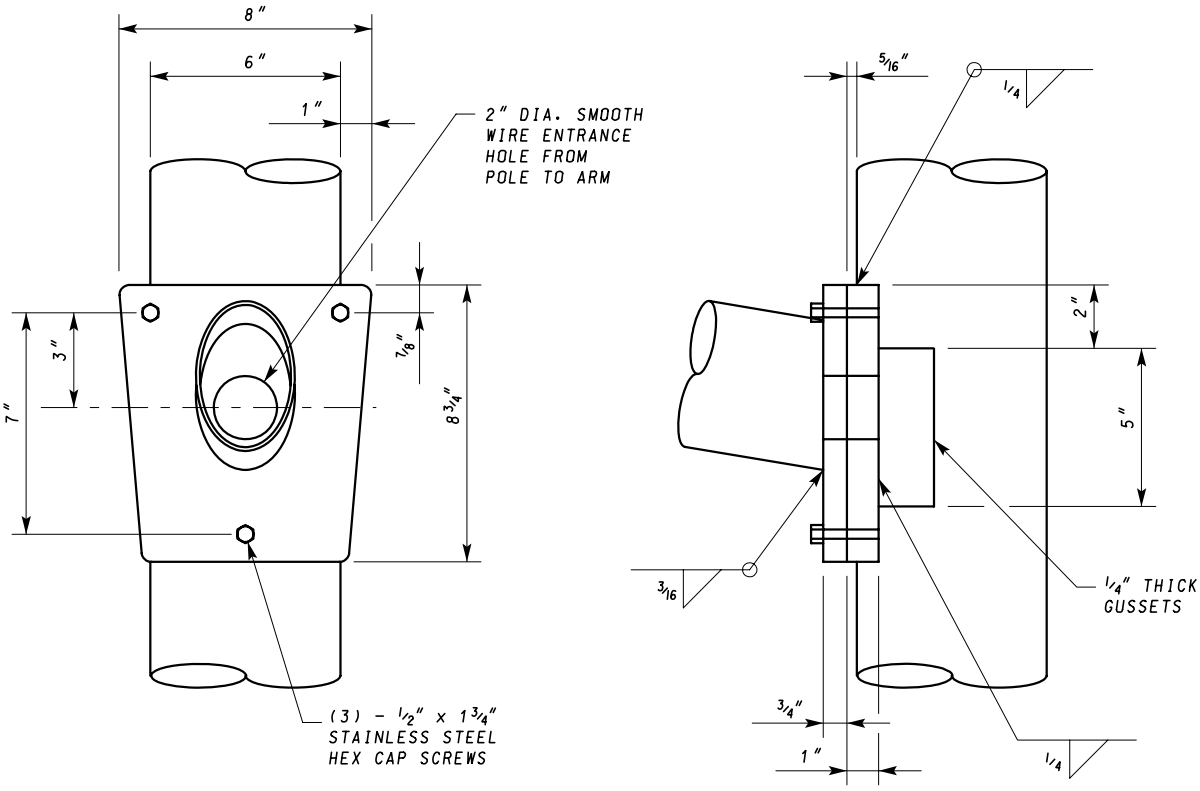
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

12′ – 35′ BRACKET ARM CONNECTION DETAIL

STANDARD NO. MD 808.01-01



SPECIFICATION 808	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 5-17-07	APPROVAL 5-2-07
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

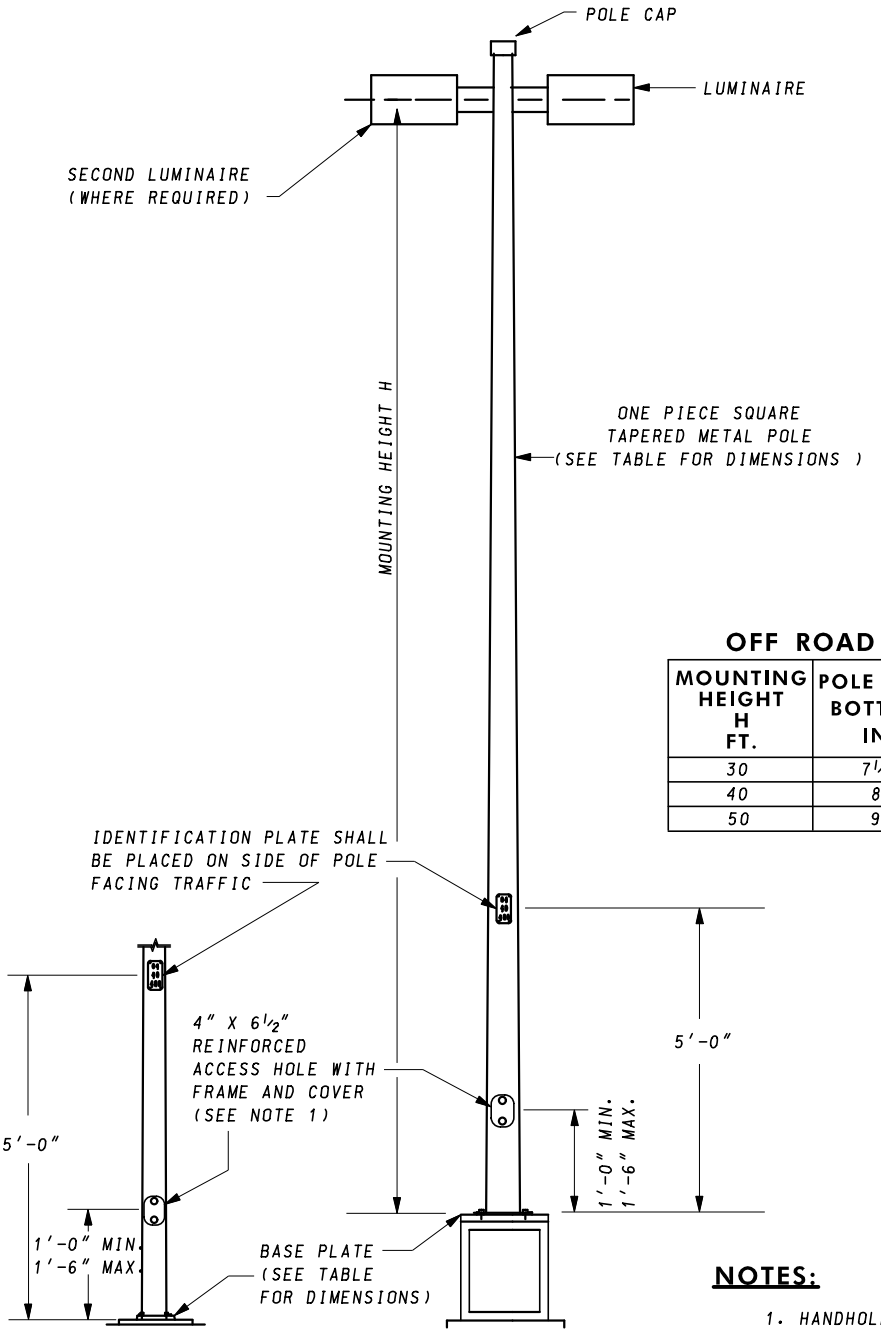
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

4′ – 10′ BRACKET ARM CONNECTION DETAIL

STANDARD NO. MD 808.01–02



NON-BREAKAWAY BASE

BREAKAWAY TRANSFORMER BASE (WHERE REQUIRED)

OFF ROAD LUMINAIRE MOUNTING

MOUNTING HEIGHT H FT.	POLE SIDE BOTTOM IN.	BASE PLATE		BOLT CIRCLE IN.
		THICKNESS IN.	SIDE IN.	
30	7½	1½	13½	13½
40	8	1½	13½	13½
50	9	2	16	15

NOTES:

1. HANDHOLES AND TRANSFORMER BASE OPENINGS SHALL BE INSTALLED ON THE SIDE OF THE POLE FACING AWAY FROM TRAFFIC.
2. MOUNTING HEIGHT SHALL BE MEASURED FROM THE CENTER OF THE LUMINAIRE TO THE TOP OF THE POLE BASE PLATE.
3. POLE TAPER: 0.1" TO 0.14" PER FOOT OF LENGTH
4. REFER TO LIGHTING STRUCTURE FOUNDATION STANDARD PLATE FOR ANCHOR BOLT AND FOUNDATION DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
808	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

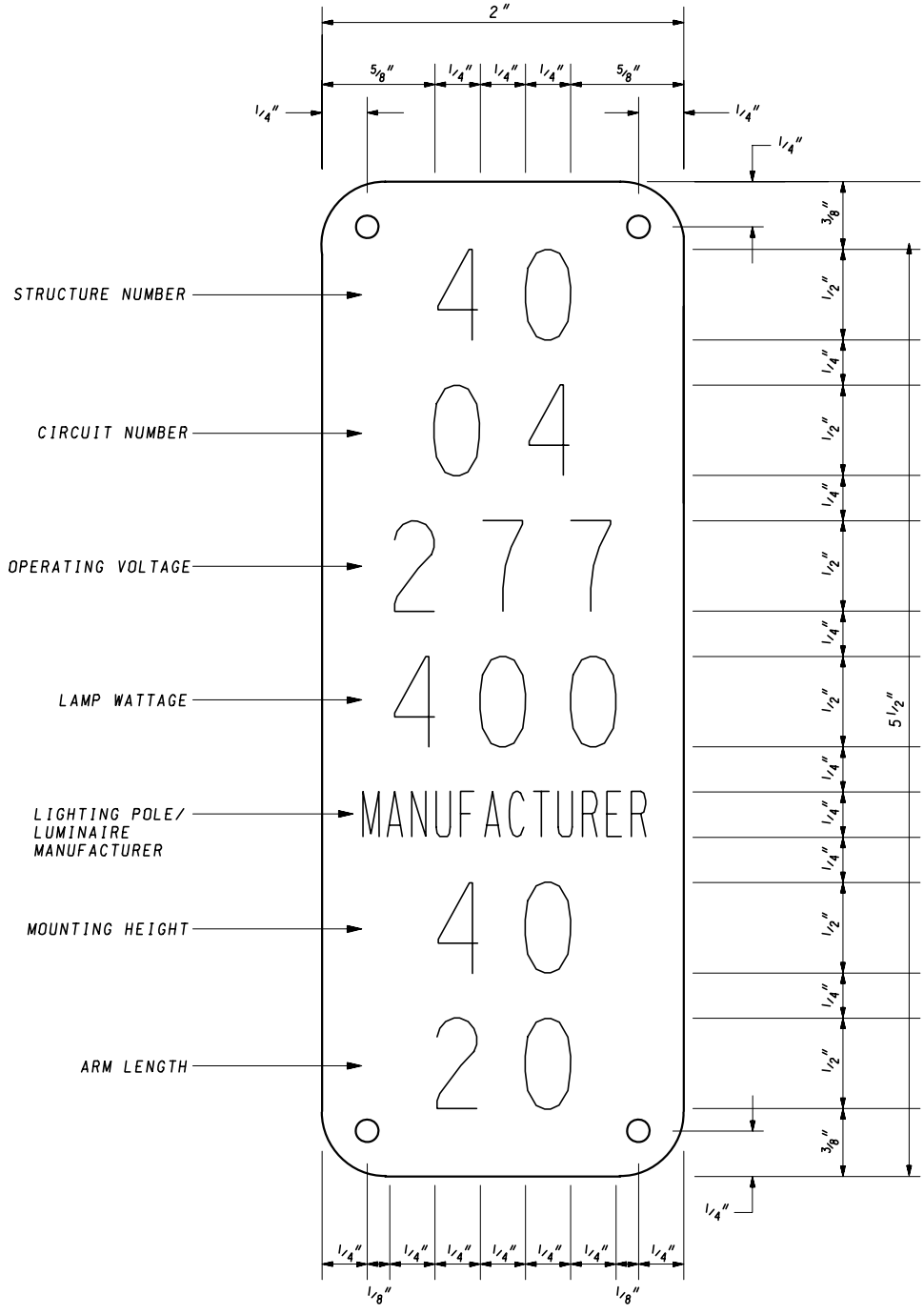
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	4-16-19	REVISED	4-1-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SQUARE LIGHTING STRUCTURE

STANDARD NO. MD 808.02



NOTE:

IDENTIFICATION PLATE SHALL BE LOCATED ON THE SIDE OF THE POLE THAT IS FACING ONCOMING TRAFFIC.

SPECIFICATION	CATEGORY CODE ITEMS
808	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

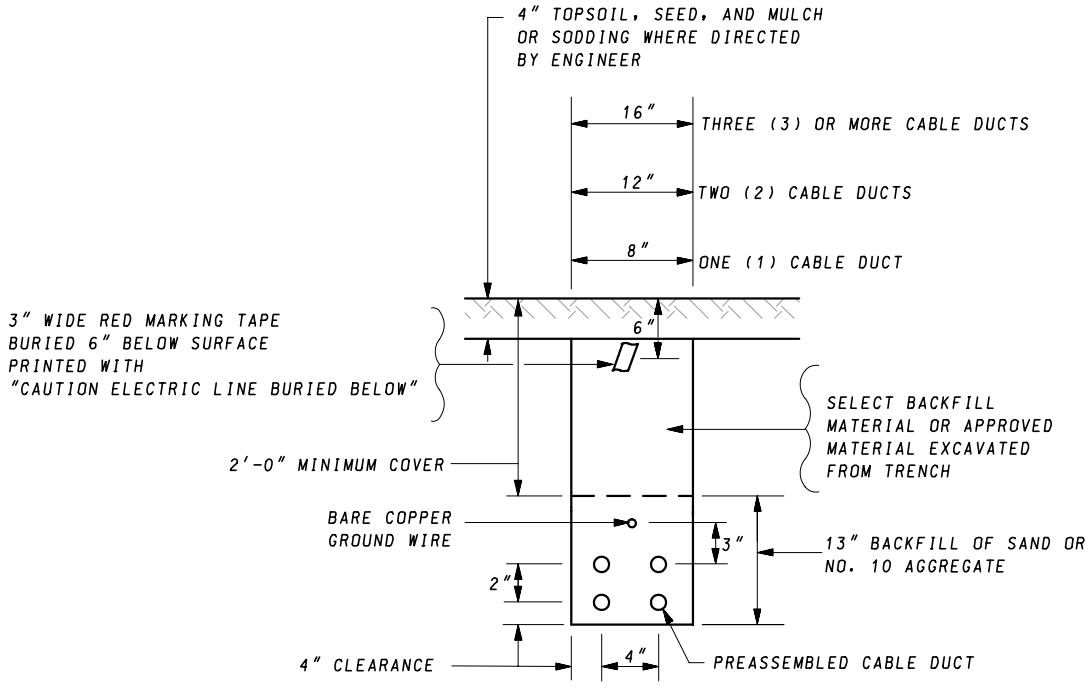
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LIGHTING STRUCTURE IDENTIFICATION PLATE

STANDARD NO. MD 808.03



SECTION VIEW

SPECIFICATION 809	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

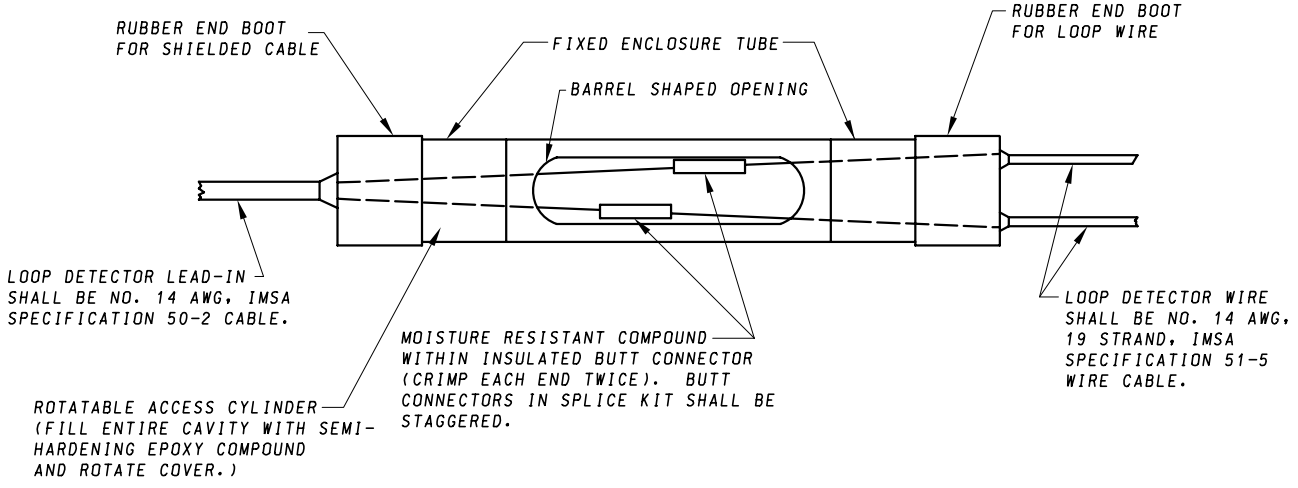
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LIGHTING TRENCHING DETAILS

STANDARD NO. MD 809.01



NOTE:

BARREL SIZE SHALL BE 1" TO 1½" DIAMETER AND 4" TO 6" LENGTH.
ALL SPLICE KIT CONNECTIONS SHALL BE DONE IN HANDHOLES ONLY.

SPECIFICATION 810	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

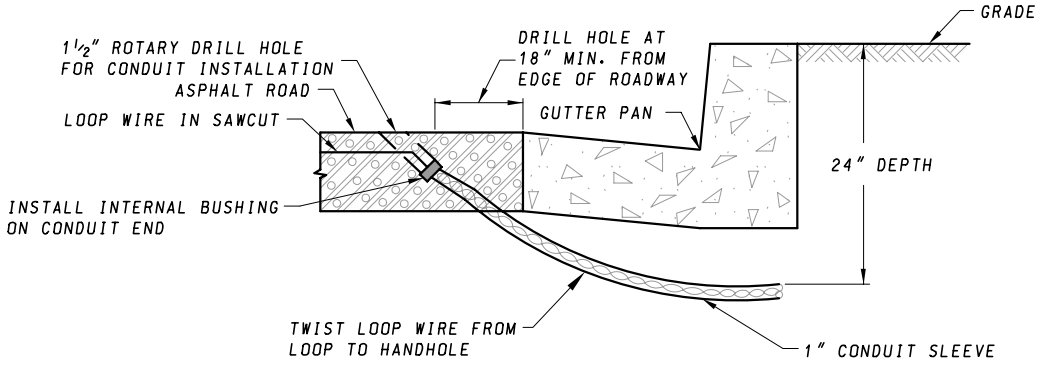
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

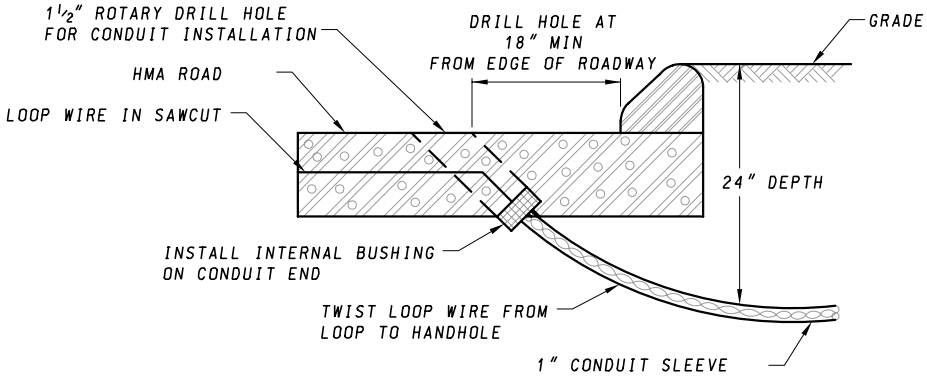
SPLICE KIT FOR LOOP DETECTOR WIRE AND LOOP DETECTOR LEAD IN

STANDARD NO. MD 810.01



SECTION FOR
HMA OR CONCRETE ROAD WITH COMBINATION CONCRETE CURB AND GUTTER

REFER TO LOOP DETECTOR INSTALLATION DETAILS FOR FURTHER INFORMATION.



SECTION FOR
HMA ROAD WITH HMA CURB

REFER TO LOOP DETECTOR INSTALLATION DETAILS FOR FURTHER INFORMATION.

NOTES:

1. *LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT SHALL BE USED WHERE THE DISTANCE BETWEEN THE DRILLED HOLE FOR CONDUIT SLEEVE AND HANDHOLE IS ≤ 6'. ALL OTHER CONDUIT SLEEVES SHALL BE 1" RIGID GALVANIZED STEEL UNLESS OTHERWISE SPECIFIED.*
2. *INSTALL DUCT SEAL IN BOTH CONDUIT SLEEVE ENDS.*
3. *SLEEVE AND SAWCUT SHALL NOT DAMAGE OR CONTACT CURB AND GUTTER.*
4. *SEPARATE 1" ELECTRICAL CONDUIT SLEEVES SHALL BE REQUIRED FOR EACH LOOP SPACED 1'-0" MINIMUM APART IN ROADWAY.*

SPECIFICATION	CATEGORY CODE ITEMS
810, 815	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

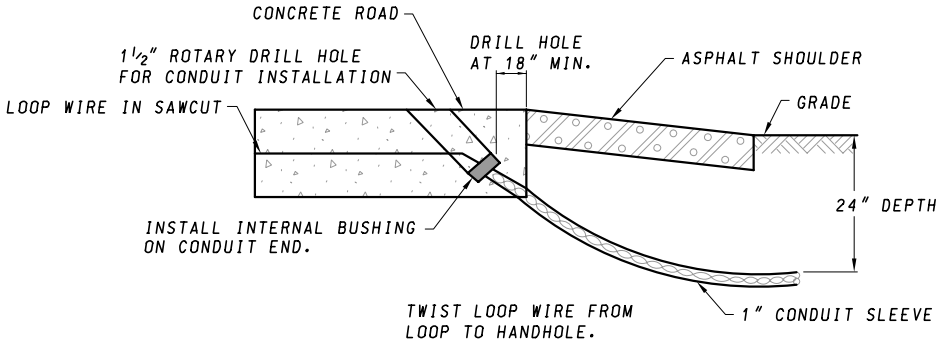
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LOOP DETECTOR LEAD IN INSTALLATION

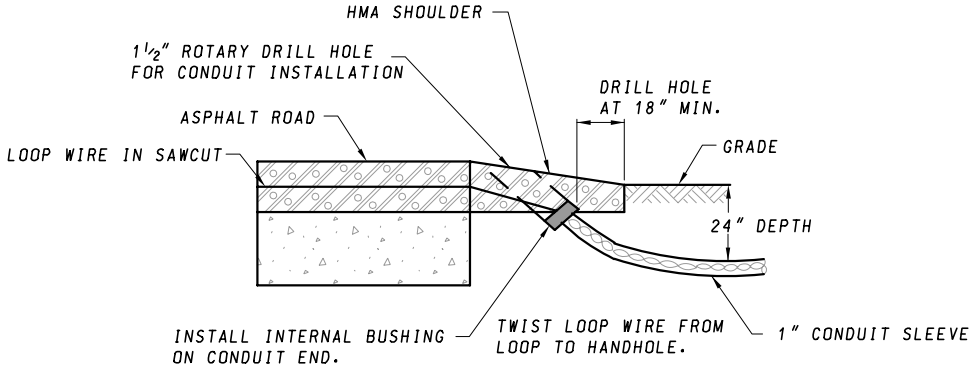
STANDARD NO. MD 810.02

REFERENCED ON: MD 815.01



SECTION FOR
CONCRETE ROAD WITH HMA SHOULDER

REFER TO LOOP DETECTOR INSTALLATION DETAILS FOR FURTHER INFORMATION.



SECTION FOR
HMA ROAD AND SHOULDER

REFER TO LOOP DETECTOR INSTALLATION DETAILS FOR FURTHER INFORMATION.

NOTES:

1. *LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT SHALL BE USED WHERE THE DISTANCE BETWEEN THE DRILLED HOLE FOR CONDUIT SLEEVE AND HANDHOLE IS ≤ 6'. ALL OTHER CONDUIT SLEEVES SHALL BE 1" GALVANIZED UNLESS OTHERWISE SPECIFIED.*
2. *INSTALL DUCT SEAL IN BOTH CONDUIT SLEEVE ENDS.*
3. *SEPARATE 1" ELECTRICAL CONDUIT SLEEVES SHALL BE REQUIRED FOR EACH LOOP SPACED 1'-0" MINIMUM APART IN ROADWAY.*

SPECIFICATION	CATEGORY CODE ITEMS
810, 815	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

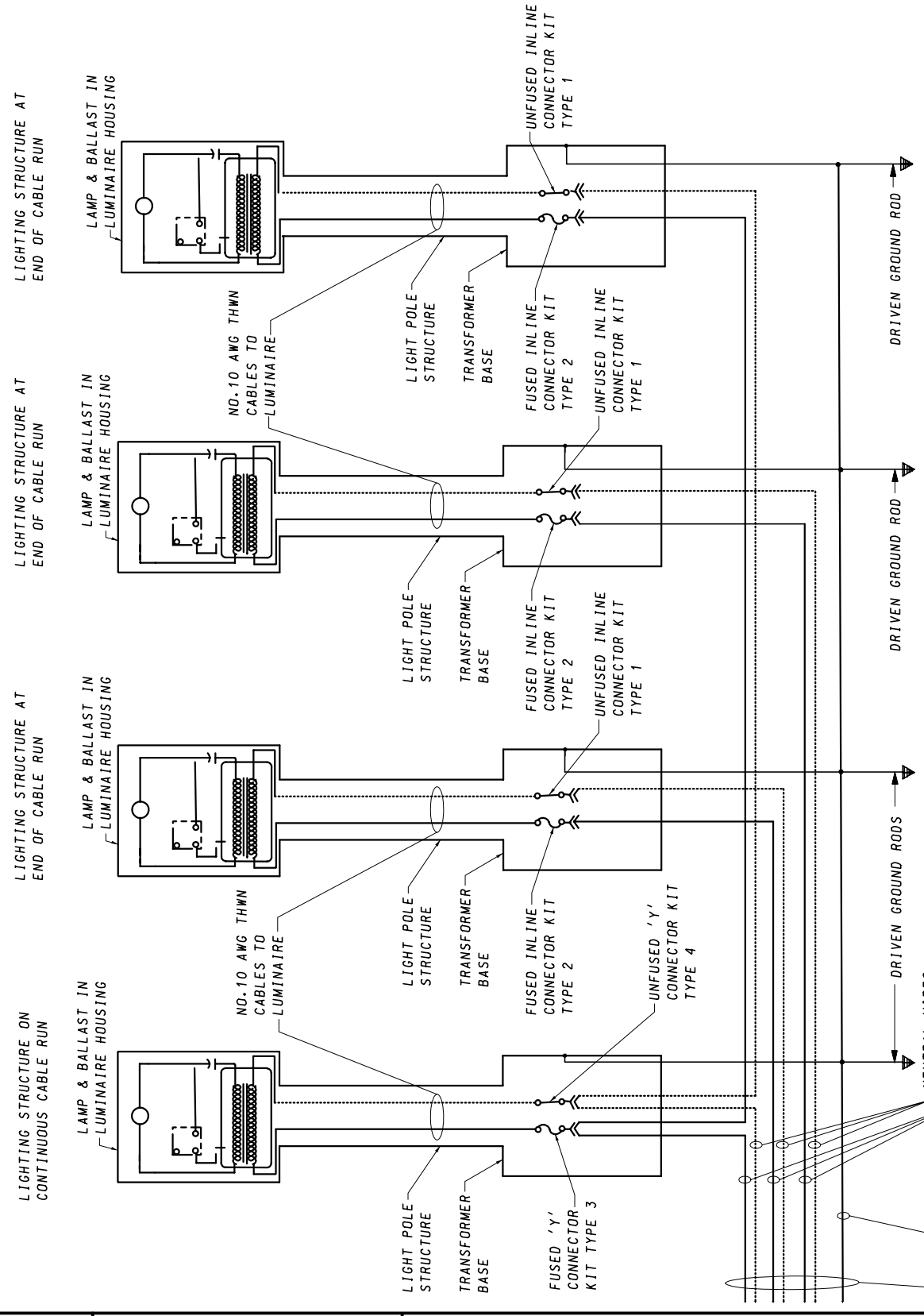
SHA Maryland's Way to Excel State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LOOP DETECTOR LEAD IN INSTALLATION

STANDARD NO. MD 810.03

REFERENCED ON: MD 815.01



SPECIFICATION 810	CATEGORY CODE ITEMS

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

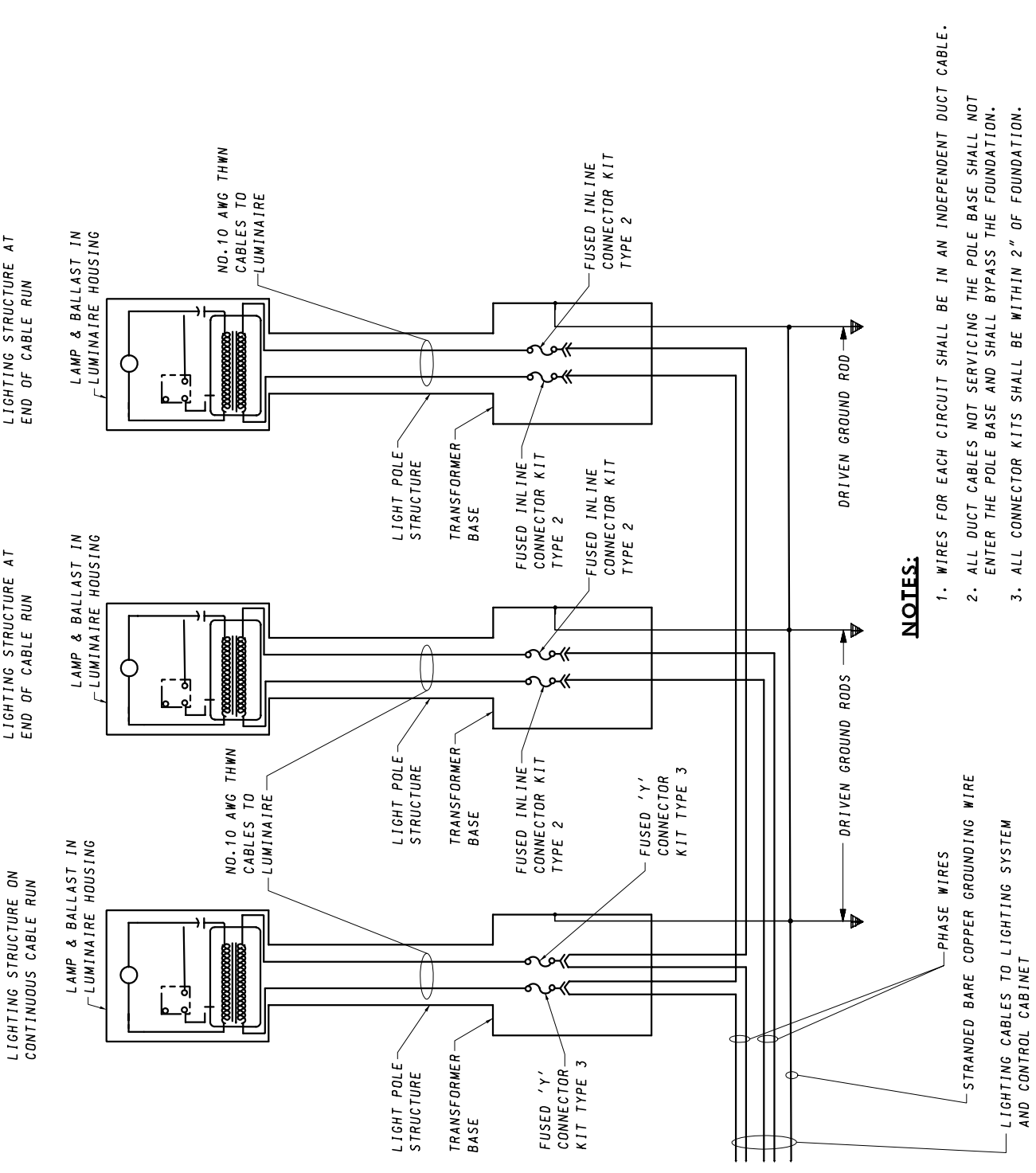
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ROADWAY LIGHTING
277/480 VOLT SYSTEM
277 VOLT POLE CONNECTIONS

STANDARD NO. MD 810.04



SPECIFICATION 810	CATEGORY CODE ITEMS

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

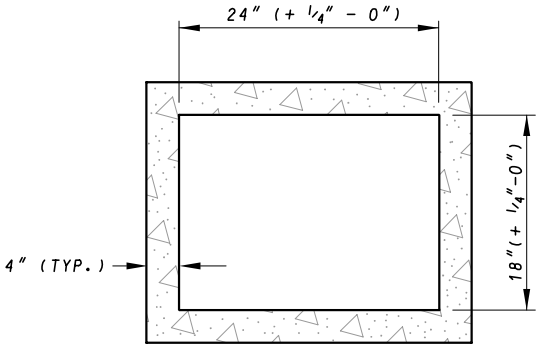
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

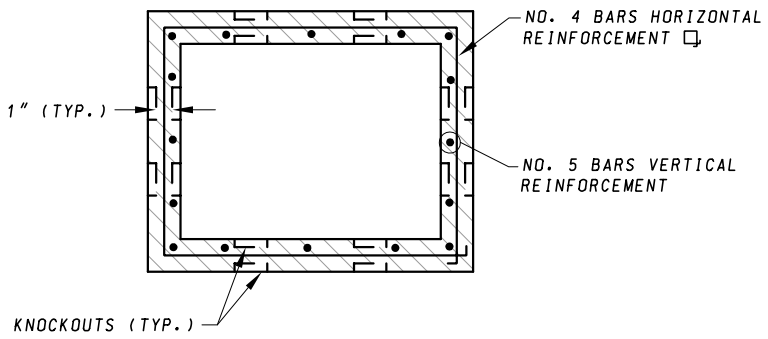
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ROADWAY LIGHTING
120/240 VOLT SYSTEM
240 VOLT POLE CONNECTIONS

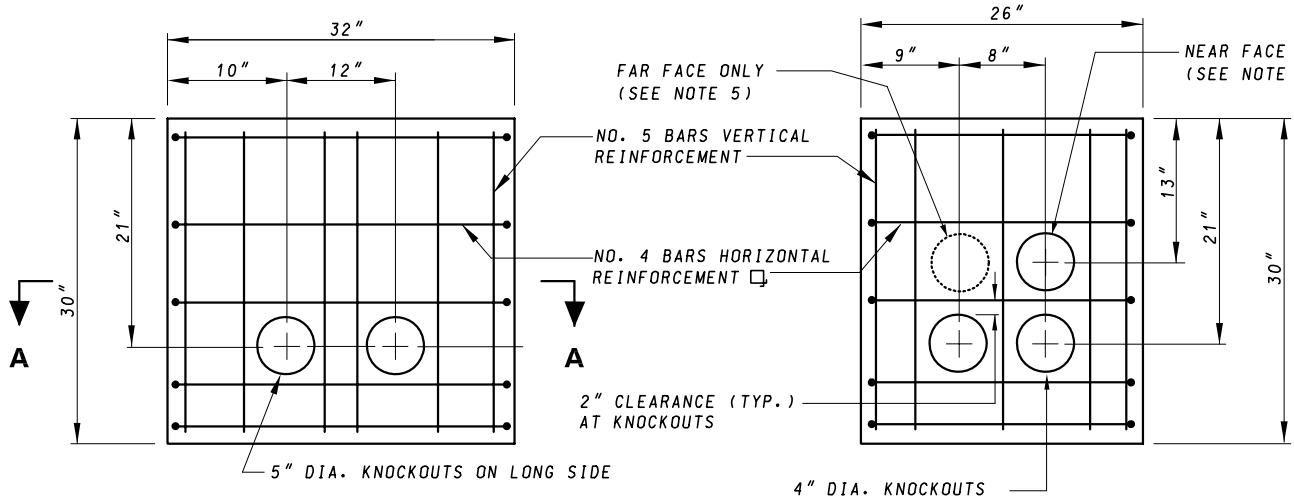
STANDARD NO. MD 810.05



TOP VIEW



SECTION A – A



FRONT VIEW

SIDE VIEW

NOTES:

1. HANDHOLE CONCRETE SHALL BE MIX NO. 6.
2. ALL SPALLS AND VOIDS SHALL BE PATCHED.
3. ALL REINFORCEMENT SHALL BE CENTERED IN THE FORM WALLS PRIOR TO THE CONCRETE PLACEMENT.
4. CLEARANCE 1" MIN. FROM SIDE WALLS TO REINFORCEMENT.
5. TO BE USED FOR NON-INVASIVE PROBE INSTALLATION ONLY.

SPECIFICATION 811	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

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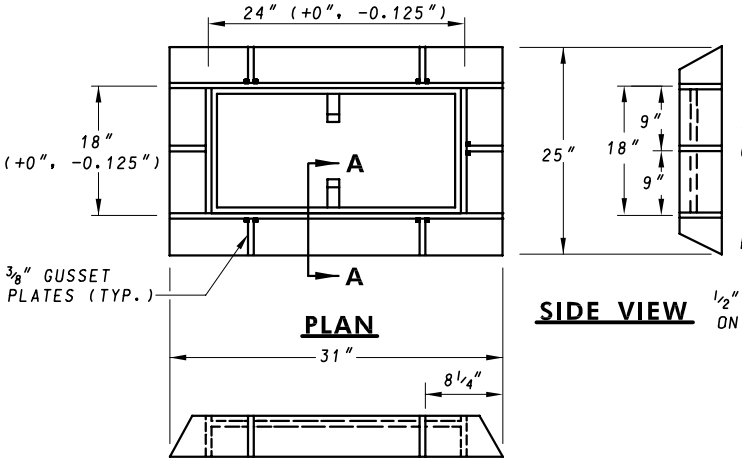
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

HANDHOLE (MATERIALS DETAIL)

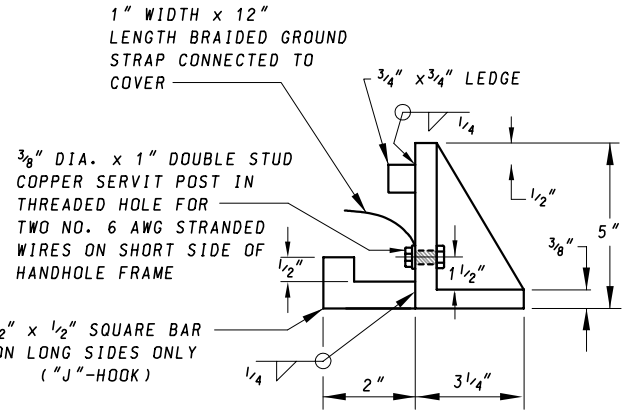
STANDARD NO. MD 811.01



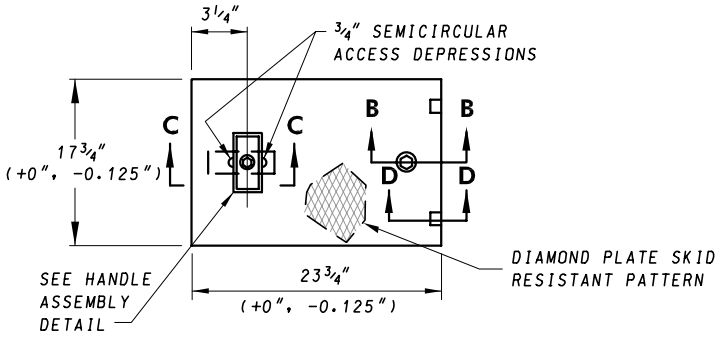
PLAN

SIDE VIEW

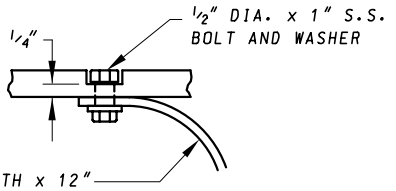
ELEVATION
HANDHOLE FRAME



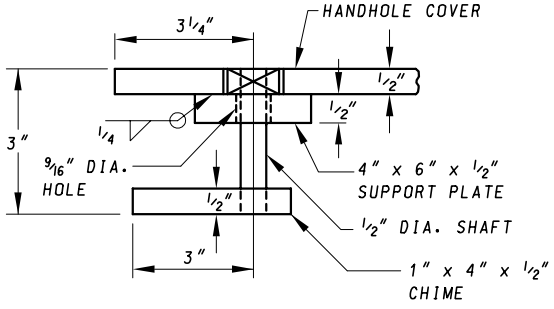
SECTION A-A (FRAME)



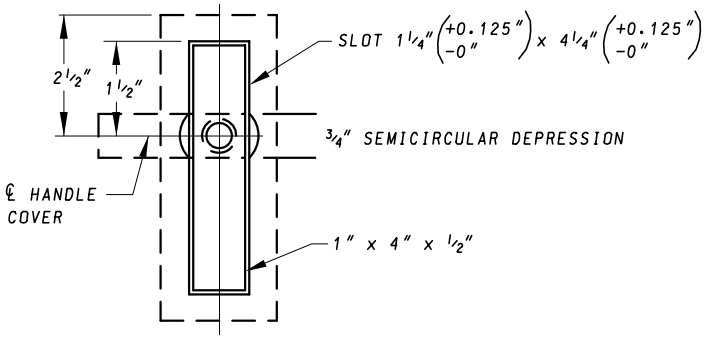
HANDHOLE COVER TOP VIEW



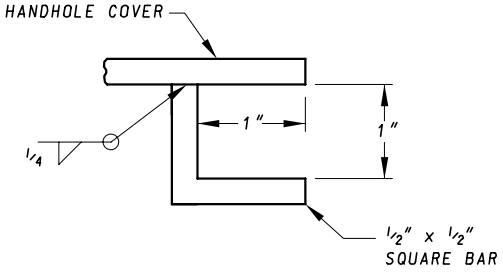
SECTION B-B (COVER)



SECTION C-C (HANDLE)



HANDLE ASSEMBLY DETAIL



SECTION D-D (FRAME) (TYP.)

NOTES:

1. ALL METALLIC CONDUIT ENDS, FRAME, AND COVER SHALL BE BONDED WITH OTHER CONDUIT ENDS USING BONDING BUSHINGS AND NO. 6 AWG STRANDED COPPER WIRE.
2. HANDHOLE FRAME AND COVER SHALL BE GALVANIZED PER A123 AND A153, RESPECTIVELY.

SPECIFICATION	CATEGORY CODE ITEMS
811	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

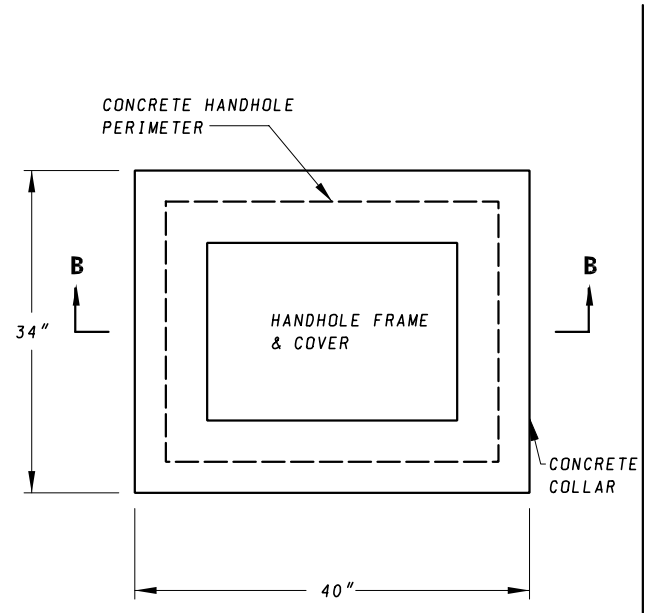
SHA State Highway Administration

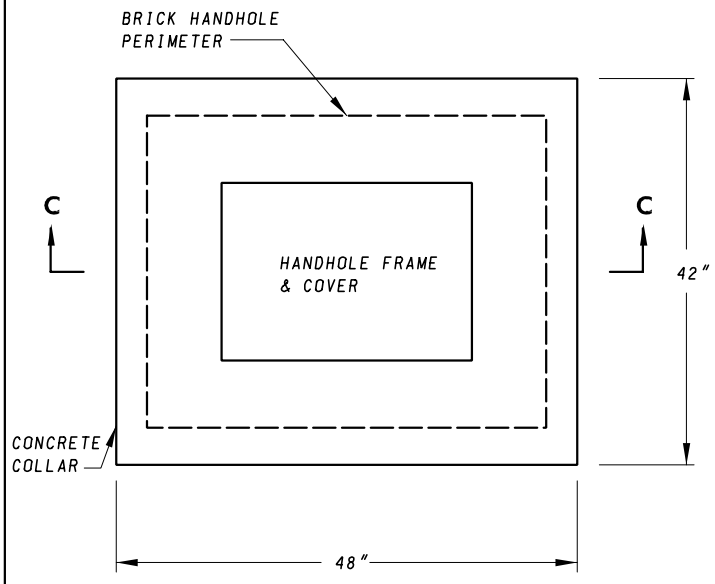
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

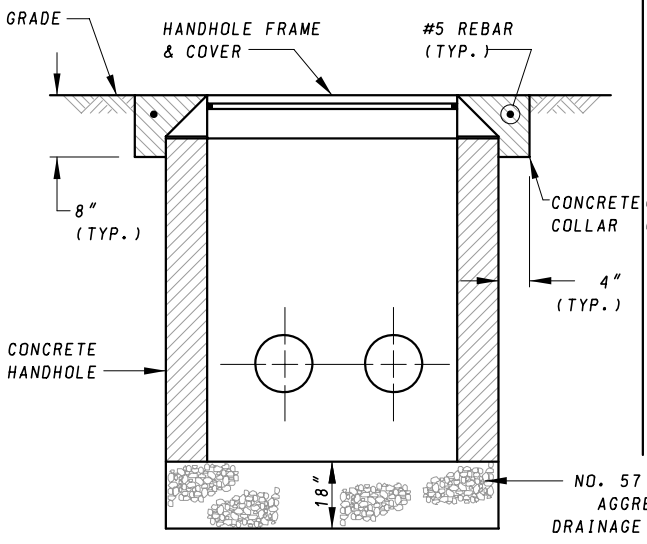
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

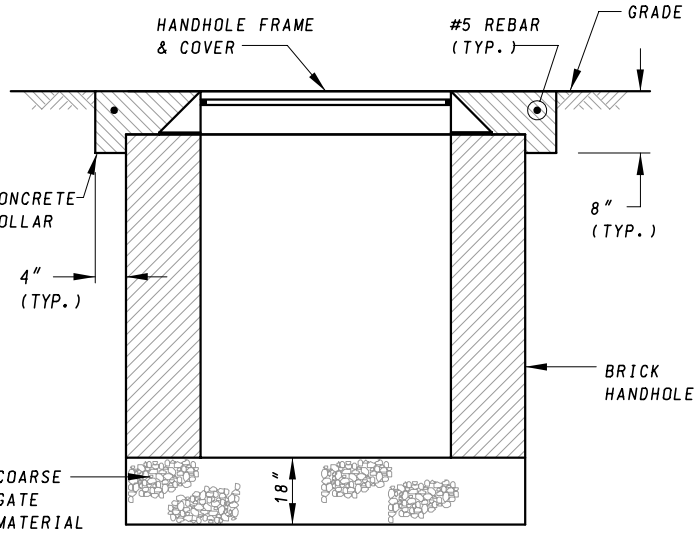
HANDHOLE FRAME AND COVER

STANDARD NO. MD 811.02









TRAFFIC SIGNAL HANDHOLE INSTALLATION DETAIL SECTION B–B

ALTERNATE TRAFFIC SIGNAL HANDHOLE INSTALLATION DETAIL SECTION C–C

NOTE:

CONCRETE COLLAR SHALL NOT BE INSTALLED IN SIDEWALK AREA.

SPECIFICATION 811	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

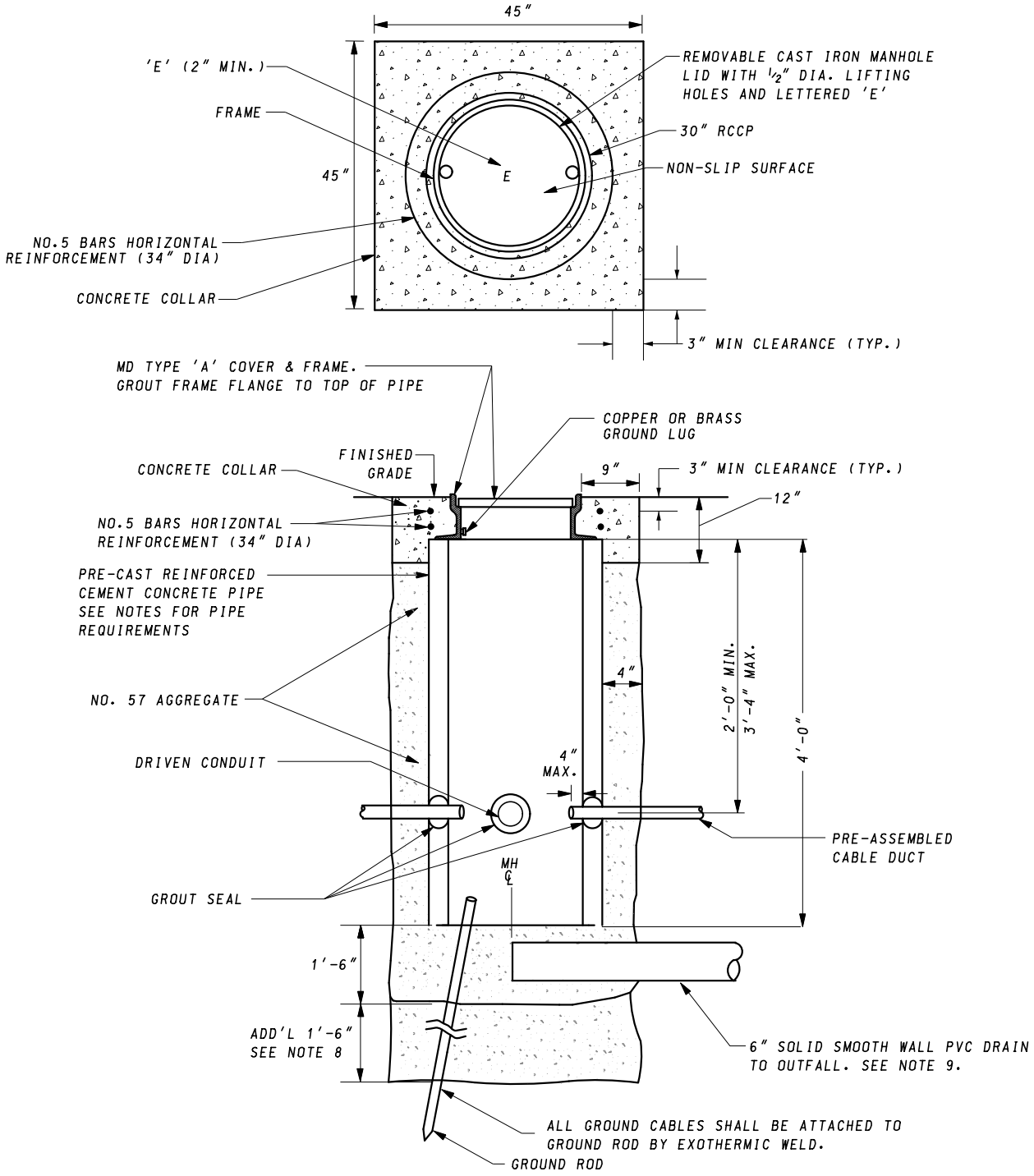
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

HANDHOLE INSTALLATION

STANDARD NO. MD 811.03



NOTES

1. REFER TO MD 811.04-01 FOR ELECTRICAL MANHOLE NOTES.

SPECIFICATION	CATEGORY CODE ITEMS
811	

APPROVED Cedric Ward
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	8-19-11	REVISED	8-10-11
REVISED	5-15-17	REVISED	3-24-17
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ELECTRICAL MANHOLE

STANDARD NO. MD 811.04

NOTES

1. OPENINGS SHALL BE CORE DRILLED INTO THE PIPE TO SUIT CABLE OR CONDUIT ROUTING.

2. OPENING SHALL BE SEALED WITH GROUT.

3. CABLE DUCT SHEATHING, OR CONDUIT, MAY EXTEND INTO THE MANHOLE A MAXIMUM OF 4".

4. COVER FRAME SHALL BE CONNECTED TO GROUND ROD BY 5' OF CABLE FROM GROUNDING LUG TO GROUND ROD.

5. CONCRETE COLLAR WITH REBAR SHALL BE INCIDENTAL TO THE ELECTRICAL MANHOLE BID ITEM.

6. CONCRETE COLLAR IS NOT REQUIRED IN SIDEWALK AREA.

7. FOR LOAD BEARING INSTALLATIONS IN ROADWAY, A 24" DIAMETER PIPE SHALL BE USED.

8. IF THE MANHOLE CANNOT BE DRAINED TO AN OUTFALL WITHIN 25' OF THE MANHOLE, THEN AN ADDITIONAL 18" OF #57 STONE SHALL BE INSTALLED AT THE BOTTOM OF THE MANHOLE AND COMPACTED. ANY ADDITIONAL STONE SHALL BE INCIDENTAL TO THE CONTRACT BID ITEM FOR THE MANHOLE.

9. IF THE MANHOLE CAN BE DRAINED TO AN OUTFALL WITHIN 25' OF THE MANHOLE, A 6" SOLID SMOOTH WALL PVC DRAIN SHALL BE INSTALLED BETWEEN THE GRAVEL BELOW THE MANHOLE AND THE OUTFALL. DRAINS OUTFALLED IN EXISTNG DRAINAGE STRUCTURES SHALL BE AS SPECIFIED IN SECTION 811. PIPE DRAINS ARE THE FIRST CHOICE AND EVERY ATTEMPT SHALL BE MADE DURING THE STAKEOUT TO LOCATE MANHOLES WITHIN 25' OF AN ACCEPTABLE OUTFALL AS DIRECTED BY THE ENGINEER.

	REQUIRED APPLICATION			
	30" DIA. NON-LOAD BEARING		24" DIA. LOAD BEARING	
	WALL B	WALL C	WALL B	WALL C
WALL THICKNESS CLASS IV PIPE	3 1/2"	4 1/4"	3"	3 3/4"
WALL THICKNESS CLASS V PIPE	3 1/2"	4 1/4"	3"	3 3/4"

EITHER A CLASS IV OR V PIPE MAY BE USED WITH EITHER A "B" OR "C" WALL THICKNESS

SPECIFICATION 811	CATEGORY CODE ITEMS

APPROVED Cedric Ward
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

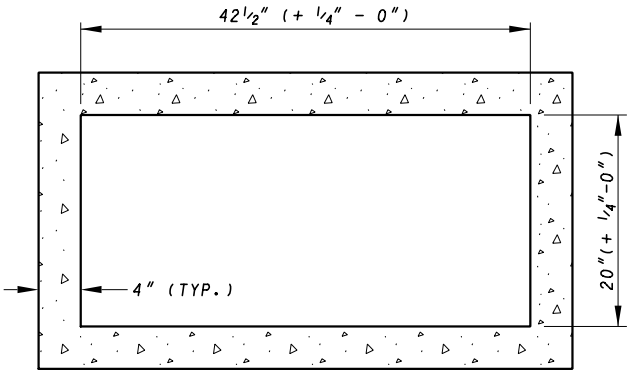
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-15-17	APPROVAL 3-24-17
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

SHA Drive to Excel State Highway Administration

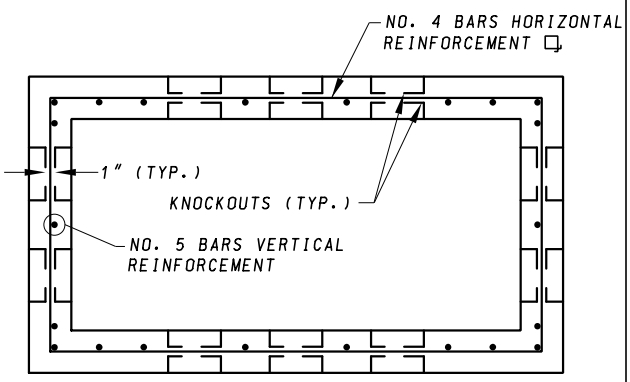
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ELECTRICAL MANHOLE NOTES

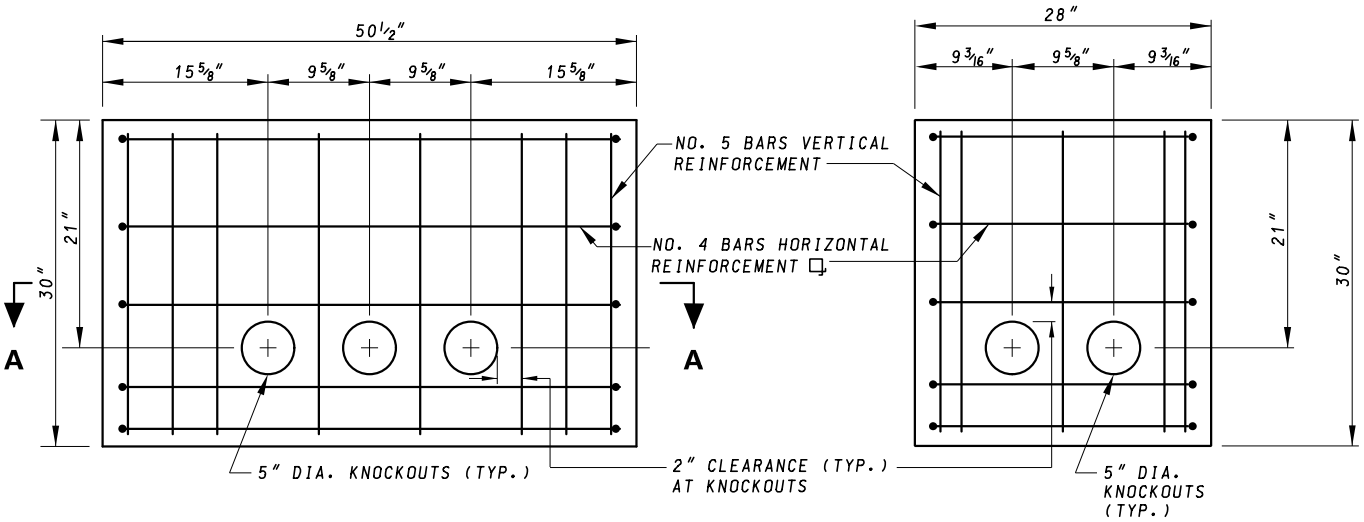
STANDARD NO. MD 811.04-01



TOP VIEW



SECTION A – A



FRONT VIEW **SIDE VIEW**

NOTES:

1. HANDHOLE CONCRETE SHALL BE MIX NO. 6.
2. ALL SPALLS AND VOIDS SHALL BE PATCHED.
3. ALL REINFORCEMENT SHALL BE CENTERED IN THE FORM WALLS PRIOR TO THE CONCRETE PLACEMENT.
4. CLEARANCE 1" MIN. FROM SIDE WALLS TO REINFORCEMENT.

SPECIFICATION	CATEGORY CODE ITEMS
811	

APPROVED Cedric Ward
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 5-15-17	APPROVAL 3-24-17
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

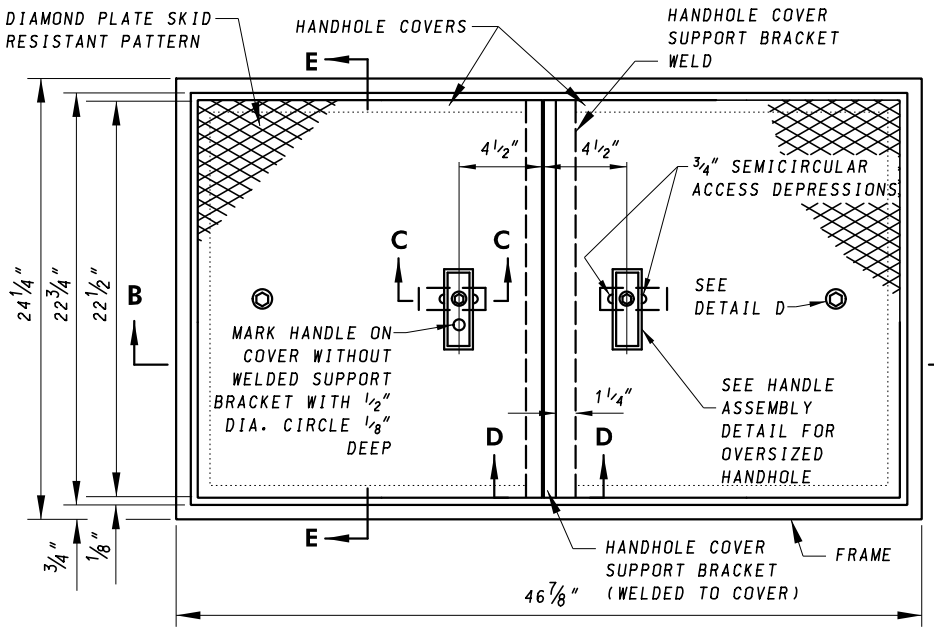
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

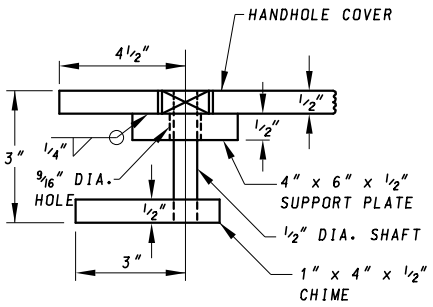
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERSIZED ELECTRICAL HANDHOLE MATERIAL DETAILS

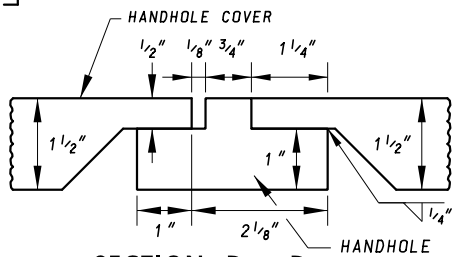
STANDARD NO. MD 811.05



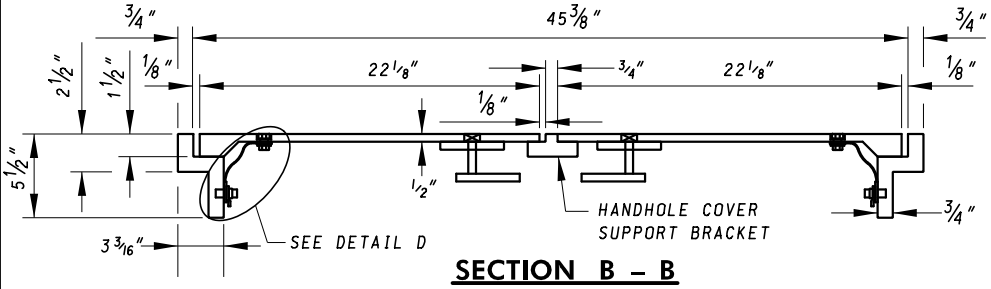
TOP VIEW



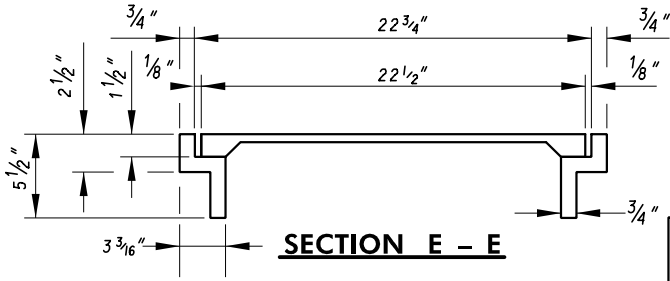
SECTION C – C (HANDLE)



SECTION D – D



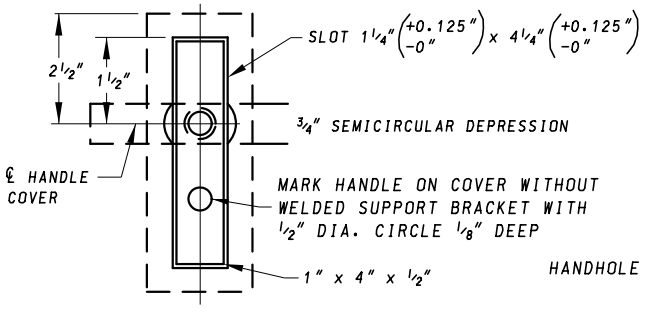
SECTION B – B



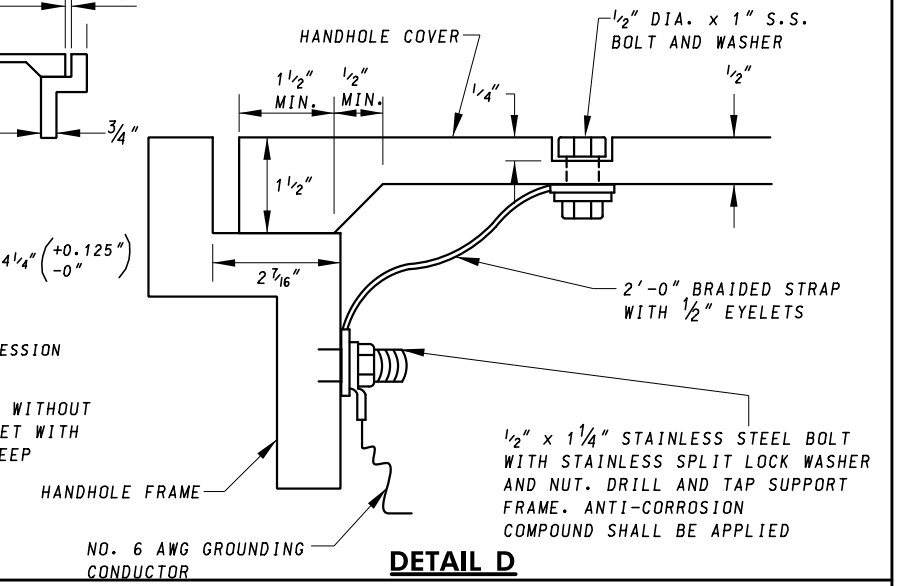
SECTION E – E

NOTES:

1. ALL METALLIC CONDUIT ENDS, FRAME, AND COVER SHALL BE BONDED WITH OTHER CONDUIT ENDS USING BONDING BUSHINGS AND NO. 6 AWG STRANDED COPPER WIRE.
2. HANDHOLE FRAME AND COVER SHALL BE GALVANIZED PER A123 AND A153, RESPECTIVELY.
3. FRAME AND COVER SHALL MEET ANSI/SCTE77 TIER 22 LOADING.



HANDLE ASSEMBLY DETAIL



DETAIL D

SPECIFICATION	CATEGORY CODE ITEMS
811	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

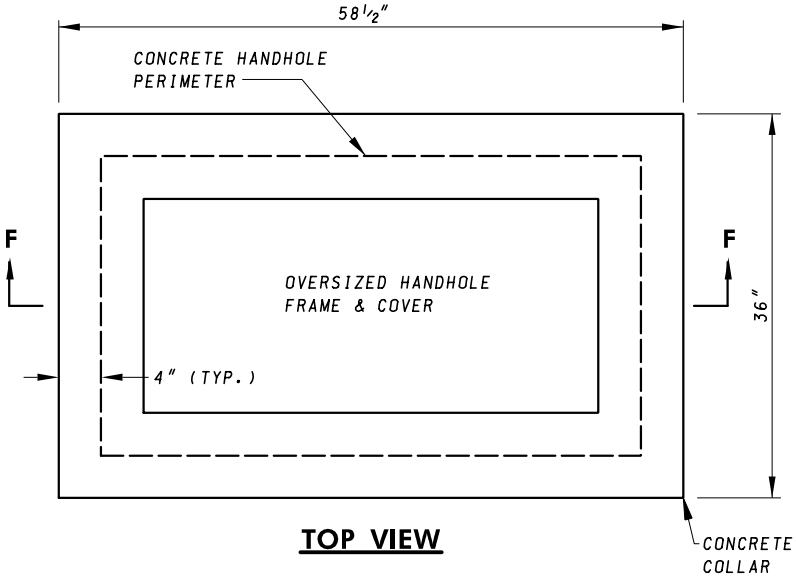
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-15-17	APPROVAL	3-24-17
REVISED	4-16-19	REVISED	3-25-19
REVISED		REVISED	
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

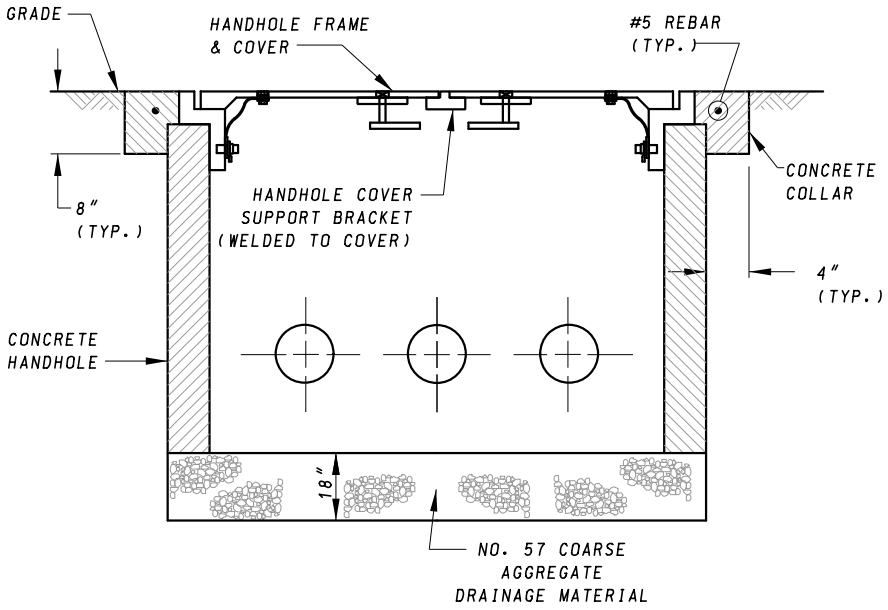
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERSIZED ELECTRICAL HANDHOLE FRAME AND COVER

STANDARD NO. MD 811.06



TOP VIEW



OVERSIZED HANDHOLE INSTALLATION DETAIL SECTION F – F

NOTE:

CONCRETE COLLAR SHALL NOT BE INSTALLED IN SIDEWALK AREA.

SPECIFICATION	CATEGORY CODE ITEMS
811	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

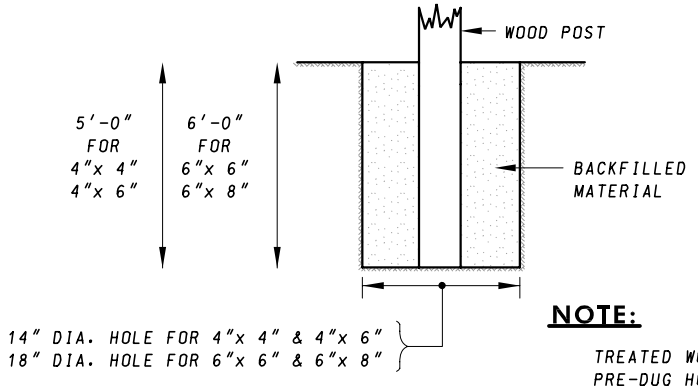
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-15-17	APPROVAL	3-24-17
REVISED	4-16-19	REVISED	3-25-19
REVISED		REVISED	
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

OVERSIZED ELECTRICAL HANDHOLE INSTALLATION DETAILS

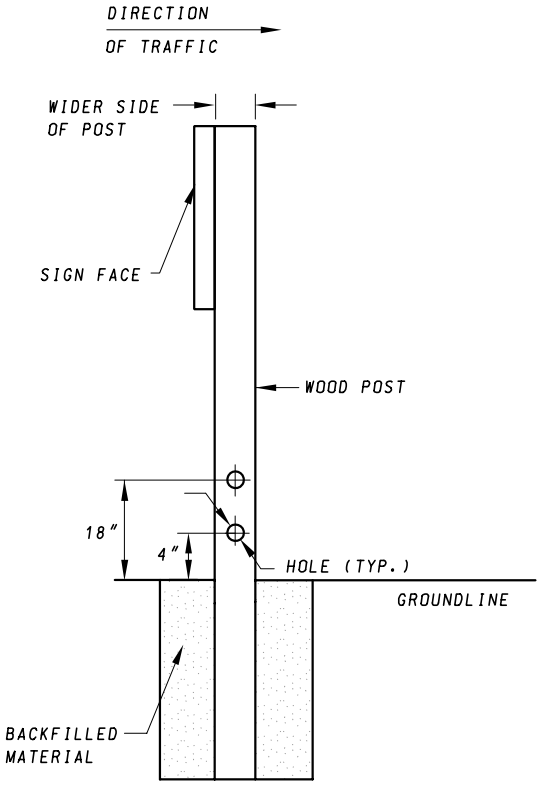
STANDARD NO. MD 811.07



NOTE:

TREATED WOODEN POST SHALL BE PLACED IN PRE-DUG HOLE IN GROUND, BACKFILLED USING SUITABLE MATERIAL, AND TAMPED THOROUGHLY TO PROVIDE A RIGID SUB-SURFACE CONDITION AROUND THE POST.

TYPICAL FOUNDATION FOR WOOD SUPPORTS



WOOD POST MODIFICATIONS FOR BREAKAWAY FEATURE

POST SIZE	HOLE DIA. (IN.)
4"x 4"	--
4"x 6"	1 1/2
6"x 6"	2
6"x 8"	3

NOTES:

1. ALL WOOD POSTS LARGER THAN 4"x 4" SHALL BE MADE BREAKAWAY BY DRILLING TWO HOLES CENTERED AT 4" AND 18" ABOVE THE GROUNDLINE AND PERPENDICULAR TO THE ROADWAY.
2. ALL SUPPORTS WITHIN THE CLEAR ZONE SHALL BE BREAKAWAY UNLESS PROTECTED.

WOOD POST MODIFICATIONS FOR BREAKAWAY FEATURE

SPECIFICATION	CATEGORY CODE ITEMS
812	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	10-10-00	APPROVAL	2-1-01
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

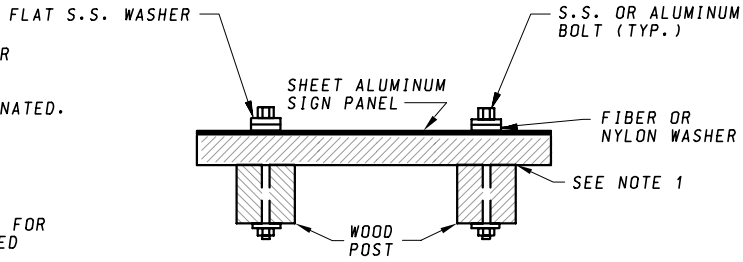
WOOD SIGN SUPPORT FOUNDATIONS AND BREAKAWAY FEATURES

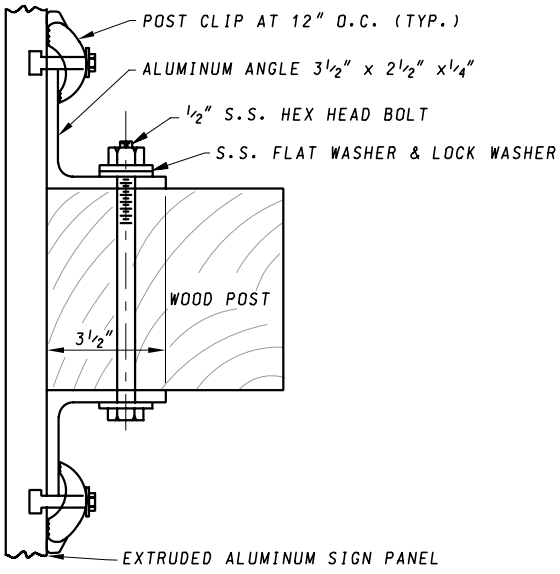
STANDARD NO. MD 812.01

REFERENCED ON: MD 812.04, MD 813.01

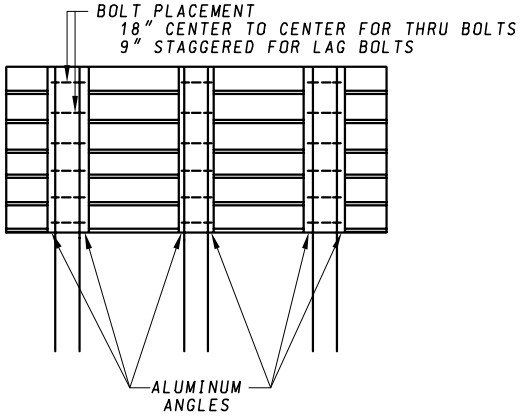
NOTES:

1. ALL SHEET ALUMINUM SIGNS 5' WIDE AND LARGER SHALL BE BRACED WITH TWO HORIZONTAL 2"X4" TREATED WOOD OR EQUAL, ATTACHED TO THE SUPPORTS. THE BOLT LENGTHS SHALL BE COORDINATED.
2. ALL BOLTS SHALL BE 3/8" F593 (18-8 TYPE 303-304) STAINLESS STEEL OR ANODIZED ALUMINUM HEX HEAD BOLT WITH WASHERS AND NUTS SPACED AT 12" MAXIMUM.
3. S.S. 3 1/2" MIN. LAG BOLTS MAY BE SUBSTITUTED FOR HEX HEAD BOLTS. LAG BOLTS MUST BE STAGGERED AT 9" INTERVALS.

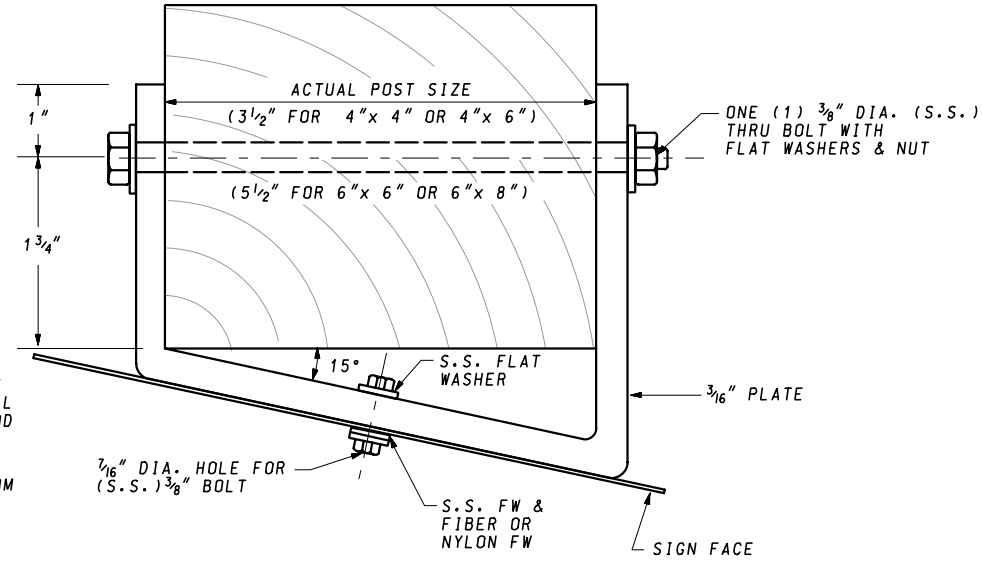




SHEET ALUMINUM SIGN PANEL



EXTRUDED ALUMINUM SIGN PANEL



NOTES:

1. INSTALL SIGN ON CLAMPS FIRST, AND THEN INSTALL ENTIRE ASSEMBLY ON WOOD POST.
2. TWO CLAMPS PER WOOD SUPPORT LOCATED 3" FROM TOP & BOTTOM OF SIGN.

CLAMP FOR SIGN MOUNTED AT 15 DEGREE ANGLE

SPECIFICATION	CATEGORY CODE ITEMS
812, 813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 2-21-95	APPROVAL 2-21-95
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

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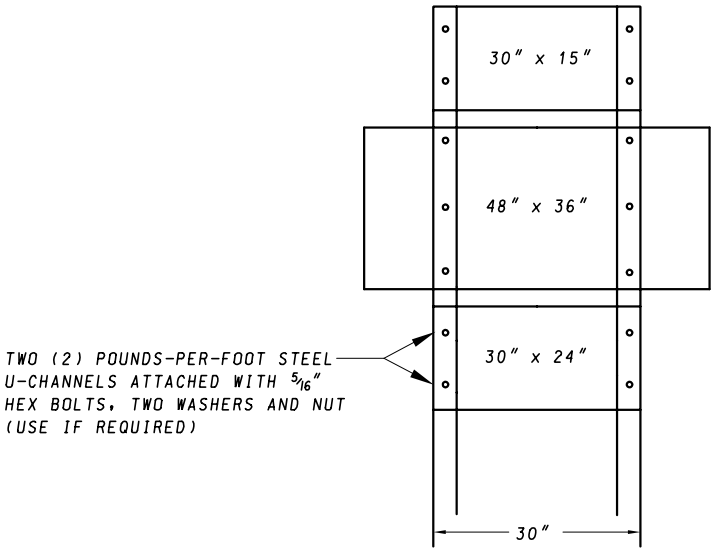
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

WOOD SIGN SUPPORTS
SIGN MOUNTING

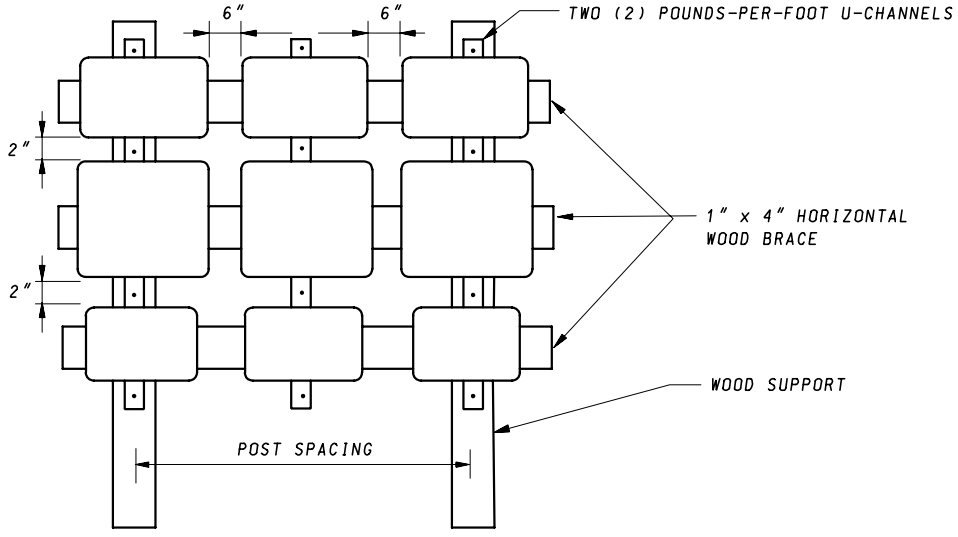
STANDARD NO. MD 812.02



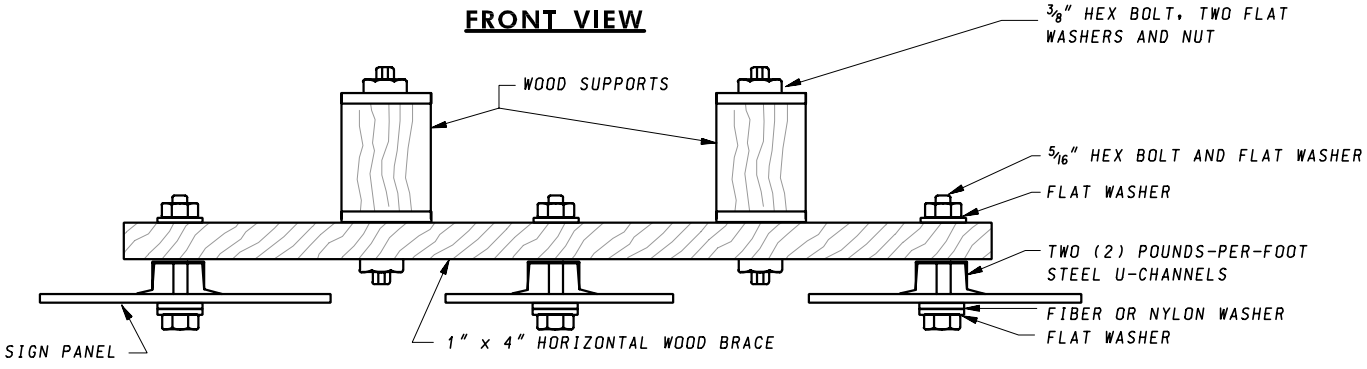
NOTES:

1. ROUTE MARKER ASSEMBLIES THAT REQUIRE SUPPORTS LARGER THAN TWO 4" x 4" OR TWO 4" x 6" DRILLED WOOD POSTS AND THAT ARE NOT PROTECTED BY PHYSICAL TRAFFIC BARRIERS SHALL BE INSTALLED ON BREAKAWAY TYPE STEEL SUPPORTS.
2. REFER TO WOOD SIGN SUPPORTS POSTS SIZES & SPACING STANDARD PLATE FOR DETAILS.

TYPICAL ROUTE MARKER ASSEMBLY INSTALLATION (48" x 36" SHIELD)



FRONT VIEW



MULTI ROUTE MARKER INSTALLATION

SPECIFICATION	CATEGORY CODE ITEMS
812, 813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

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STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

WOOD SIGN SUPPORTS
ROUTE MARKER ASSEMBLIES

STANDARD NO. MD 812.03

REFERENCED ON: MD 812.04

WOOD SUPPORTS

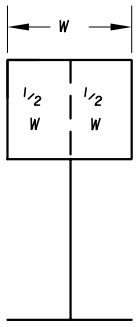
NUMBER & SIZE FOR STANDARD BLANK

SHAPE	SIZE (W x H)	POSTS
	24"	ONE (1)- 4" x 4"
	30"	ONE (1)- 4" x 4"
	36"	ONE (1)- 4" x 6"
	48"	TWO (2)- 4" x 6"
	30"	ONE (1)- 4" x 4"
	36"	ONE (1)- 4" x 4"
	48"	TWO (2)- 4" x 4"
	60"	TWO (2)- 4" x 4"
	12" x 18"	ONE (1)- 4" x 4"
	18" x 24"	ONE (1)- 4" x 4"
	24" x 30"	ONE (1)- 4" x 4"
	30" x 36"	ONE (1)- 4" x 6"
	36" x 48"	TWO (2)- 4" x 4"
	48" x 60"	TWO (2)- 4" x 6"
	21" x 15"	ONE (1)- 4" x 4"
	24" x 12"	ONE (1)- 4" x 4"
	24" x 18"	ONE (1)- 4" x 4"
	30" x 15"	ONE (1)- 4" x 4"
	30" x 24"	ONE (1)- 4" x 4"
	36" x 12"	ONE (1)- 4" x 4"
	36" x 24"	TWO (2)- 4" x 4"
	48" x 24"	TWO (2)- 4" x 4"
	48" x 36"	TWO (2)- 4" x 4"
	60" x 24"	TWO (2)- 4" x 4"
	60" x 36"	TWO (2)- 4" x 4"
	18"	ONE (1)- 4" x 4"
	24"	ONE (1)- 4" x 4"
	30"	ONE (1)- 4" x 4"
	36"	TWO (2)- 4" x 4"
	48"	TWO (2)- 4" x 6"
	24"	ONE (1)- 4" x 4"
	30"	ONE (1)- 4" x 4"
	36"	ONE (1)- 4" x 6"
	48"	TWO (2)- 4" x 6"
	* 60"	TWO (2)- 4" x 6"
ROUTE MARKER DIMENSIONS (SEE NOTE 3) * *	24" x 24"	ONE (1)- 4" x 4"
	30" x 24"	ONE (1)- 4" x 4"
	36" x 36"	ONE (1)- 4" x 6"
	45" x 36"	TWO (2)- 4" x 4"
	72" x 48"	TWO (2)- 4' x 6"
	● 84" x 72"	TWO (2)- 6" x 6"

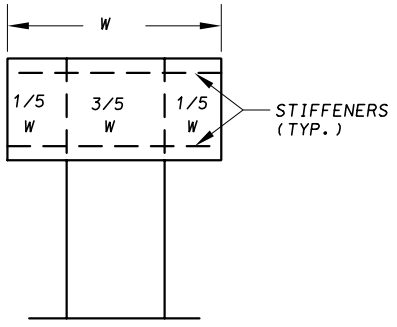
*HOLE SPACINGS VARY FROM FEDERAL BLANK STANDARDS

** SEE WOOD SIGN SUPPORTS ROUTE MARKER ASSEMBLIES STANDARD PLATE FOR DETAILS.

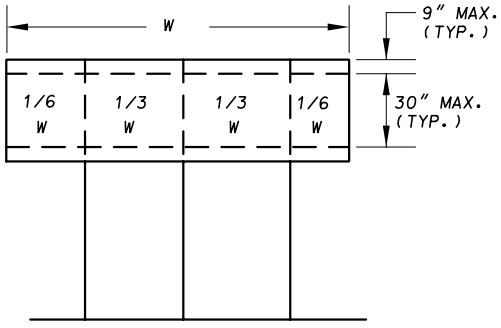
● SIGN BEHIND TRAFFIC BARRIER



1 POST



2 POSTS



3 POSTS

GUIDE SIGN SUPPORT SPACING

NOTES:

1. SPACING MAY BE VARIED TO MEET FHWA BREAKAWAY REQUIREMENTS. (NO MORE THAN TWO 4" x 4" OR TWO DRILLED 4" x 6" POSTS WITHIN A 7'-0" DISTANCE. A MINIMUM 7'-0" SPACING BETWEEN ALL 6" x 6" OR 6" x 8" POSTS.)
2. REFER TO WOOD SIGN SUPPORT FOUNDATIONS AND BREAKAWAY FEATURES FOR BREAKAWAY WOOD POST MODIFICATIONS.
3. ROUTE MARKER DIMENSIONS REPRESENT THE DIMENSIONS OF THE ROUTE SHIELD ONLY. ROUTE SHIELD MAY BE SUPPLEMENTED WITH CARDINAL DIRECTION AND DIRECTIONAL ARROW SIGN PANELS. POST SIZES REPRESENT REQUIRED SUPPORT FOR COMPLETE ASSEMBLY, INCLUSIVE OF ROUTE SHIELD, CARDINAL DIRECTION AND DIRECTIONAL ARROW SIGN PANELS.
4. PROVIDE 2"X4" WOOD HORIZONTAL STIFFENERS WHEN SHEET ALUMINUM SIGN WIDTH EXCEEDS 48".

SPECIFICATION	CATEGORY CODE ITEMS
812, 813	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 2-21-95	APPROVAL 2-21-95
REVISED 5-17-07	REVISED 5-2-07
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

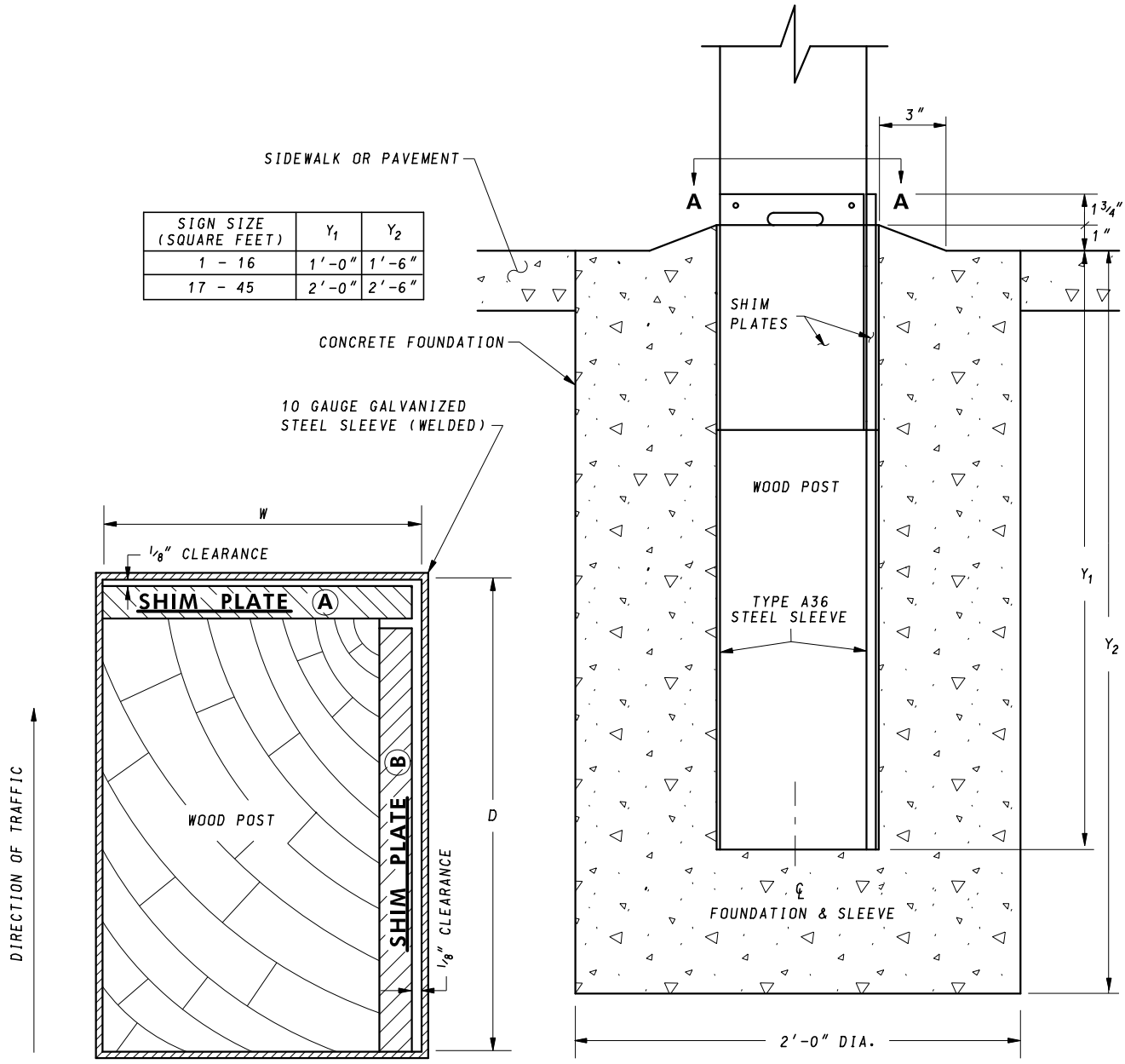
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

WOOD SIGN SUPPORTS POSTS SIZES & SPACING

STANDARD NO. MD 812.04

REFERENCED ON: MD 812.03, MD 813.01

SIGN SIZE (SQUARE FEET)	Y_1	Y_2
1 - 16	1′-0″	1′-6″
17 - 45	2′-0″	2′-6″



SECTION A-A

WOOD SIGN SUPPORT SIZE	W	D
4″ x 4″	4 1/2″	4 1/2″
4″ x 6″	4 1/2″	6 1/2″
6″ x 6″	6 1/2″	6 1/2″
6″ x 8″	6 1/2″	8 1/4″

NOTE:

REFER TO OTHER WOOD SIGN SUPPORT SLEEVED FOUNDATION STANDARD PLATE FOR SHIM PLATE DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
801, 812	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

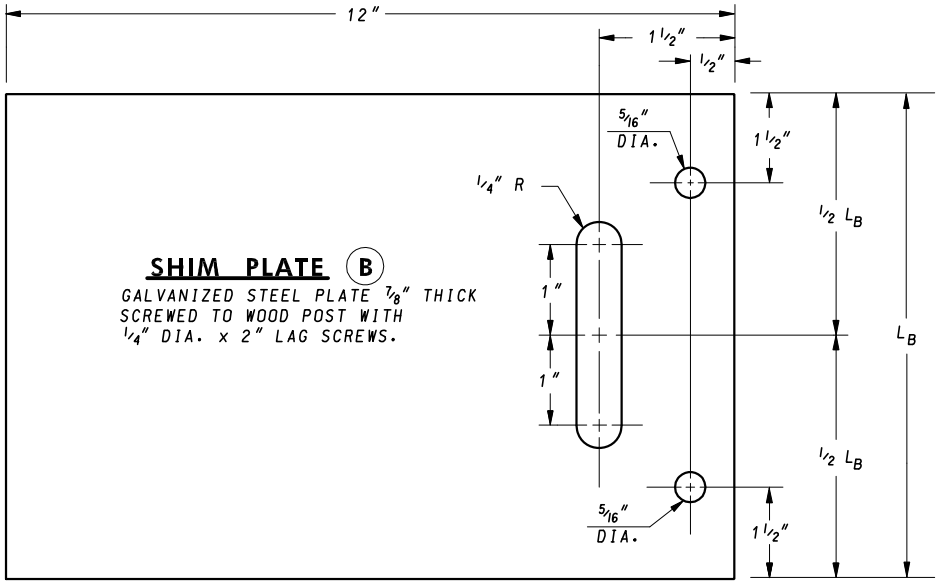
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	8-5-10	REVISED	12-22-09
REVISED	11-10-18	REVISED	10-26-18
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

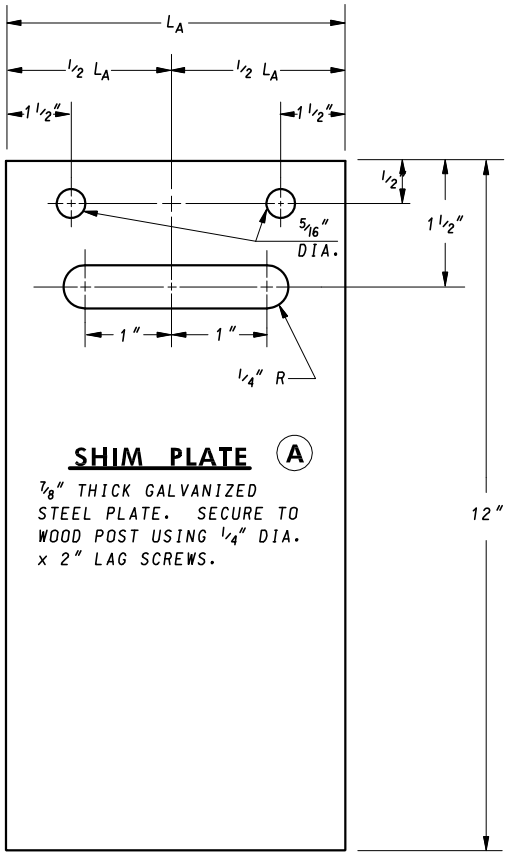
WOOD SIGN SUPPORTS SLEEVED FOUNDATION

STANDARD NO. MD 812.05-01



SHIM PLATE (B)

GALVANIZED STEEL PLATE 7/8″ THICK SCREWED TO WOOD POST WITH 1/4″ DIA. x 2″ LAG SCREWS.



SHIM PLATE (A)

7/8″ THICK GALVANIZED STEEL PLATE. SECURE TO WOOD POST USING 1/4″ DIA. x 2″ LAG SCREWS.

WOOD SIGN SUPPORT SIZE	L_A	L_B
4″X4″	4 3/8″	3 3/8″
4″X6″	4 3/8″	5 3/8″
6″X6″	6 3/8″	5 3/8″
6″X8″	6 3/8″	7 1/8″

SPECIFICATION	CATEGORY CODE ITEMS
801, 812	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	8-5-10	REVISED	12-22-09
REVISED		REVISED	
REVISED		REVISED	

SHA Uniform to Excel State Highway Administration

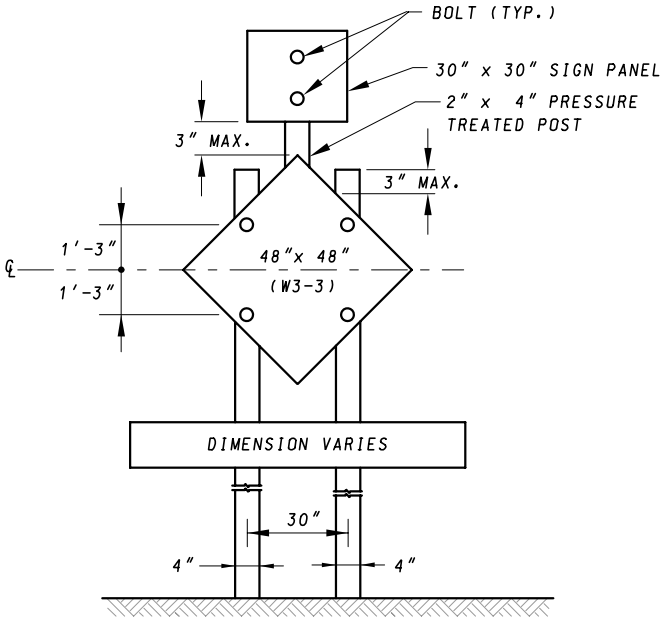
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

WOOD SIGN SUPPORTS SLEEVED FOUNDATION

STANDARD NO. MD 812.05-02

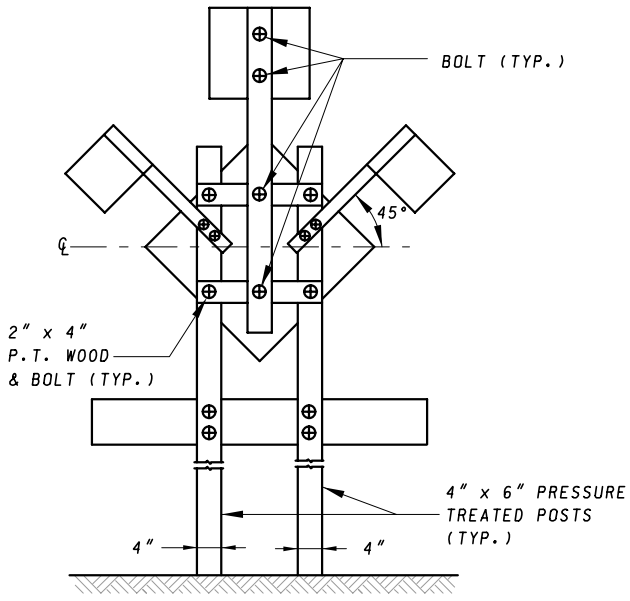
REFERENCED ON: MD 812.05-01



NOTE:

30"= STD. POLE SPACING FOR 48" SIGN BLANKS.

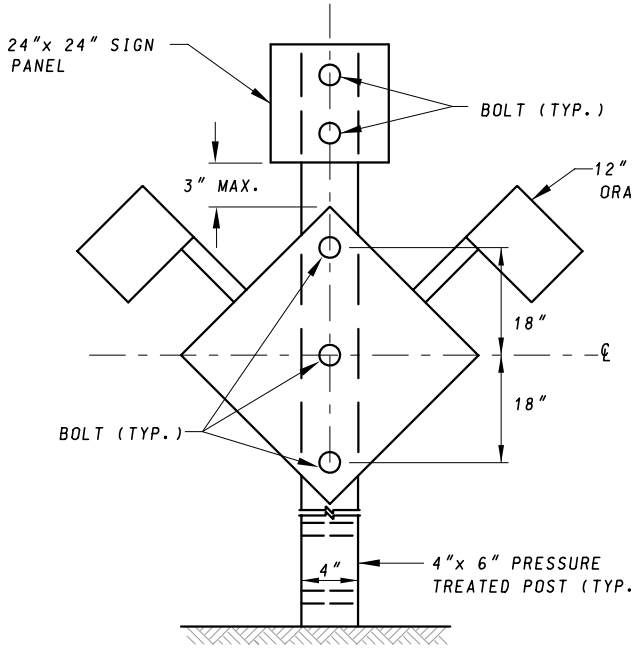
FRONT VIEW WITHOUT FLAGS

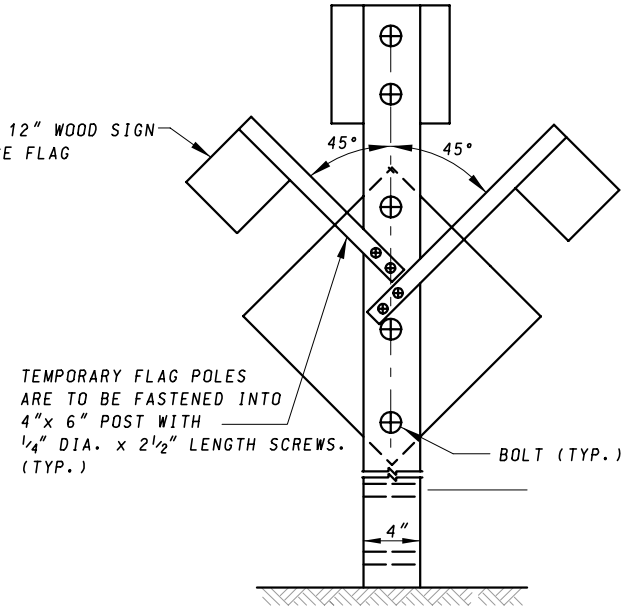


REFER TO WOOD SIGN SUPPORT FOUNDATIONS AND BREAKAWAY FEATURES STANDARD PLATES FOR WOOD SIGN SUPPORT MODIFICATIONS.

BACK VIEW WITH FLAGS

SUPPORT PLACEMENT AND MOUNTING FOR 48" SIGN





FRONT VIEW

BACK VIEW

REFER TO WOOD SIGN POSTS VERTICAL AND LATERAL CLEARANCE STANDARD PLATE FOR SIGN CLEARANCES.

SUPPORT PLACEMENT AND MOUNTING FOR 36" SIGN

SPECIFICATION	CATEGORY CODE ITEMS
812, 813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

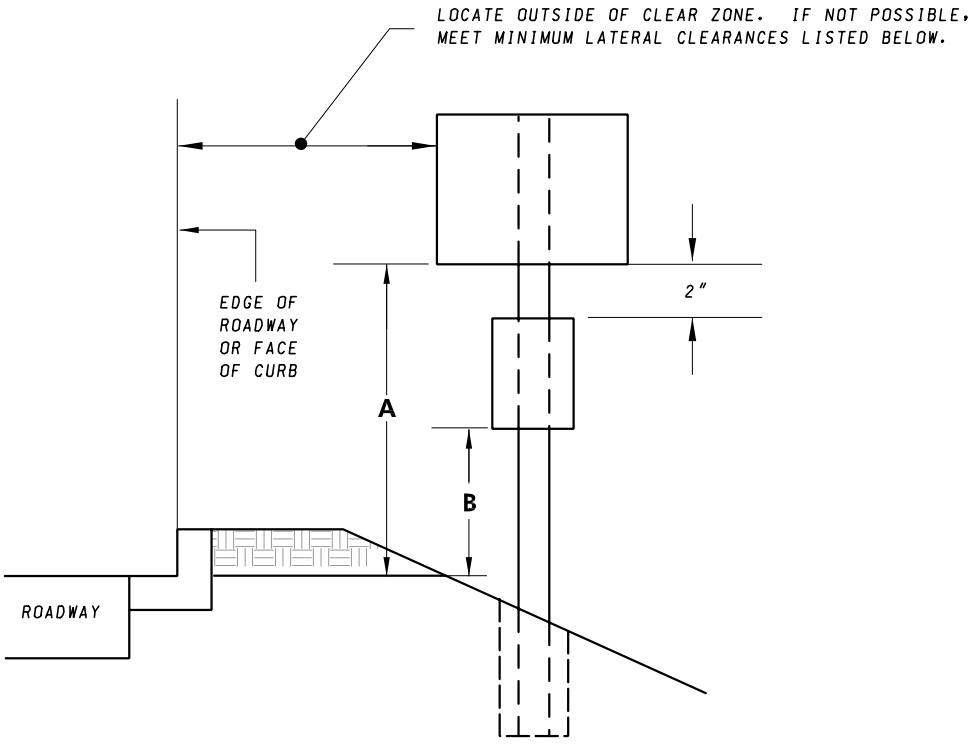
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GROUND MOUNTED SIGN DETAILS (W3-3 NEW)

STANDARD NO. MD 813.01



MINIMUM VERTICAL CLEARANCE OF SIGNS

A. 7'-0" (5'-0" FOR RURAL LOCATIONS)

B. 7'-0" (5'-0" FOR RURAL LOCATIONS)

PREFERRED SIGN LOCATION IS OUTSIDE OF THE CLEAR ZONE. IF THIS CONDITION CANNOT BE MET, THE SIGN SHOULD BE PLACED AS FAR FROM THE ROADWAY AS POSSIBLE.

MINIMUM LATERAL CLEARANCES OF SIGNS

1 = EDGE OF SIGN 6' FROM FACE OF W-BEAM TRAFFIC BARRIER
2 = EDGE OF SIGN 6' PREFERABLE MIN. (2' ABSOLUTE MIN.) FROM FACE OF CURB
3 = EDGE OF SIGN 6' FROM EDGE OF SHOULDER
4 = EDGE OF SIGN 6' PREFERABLE MIN. (2' ABSOLUTE MIN.) FROM EACH EDGE OF SHOULDER IN MEDIAN

NOTE:

ALL SUPPORTS WITHIN THE CLEAR ZONE SHALL BE BREAKAWAY UNLESS PROTECTED.

SPECIFICATION	CATEGORY CODE ITEMS
813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-17-07	APPROVAL 5-2-07
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

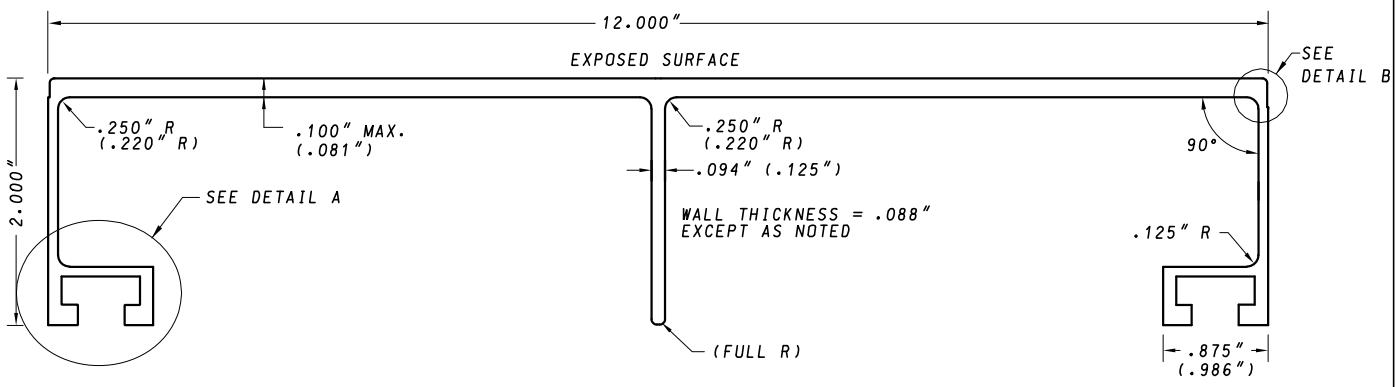
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

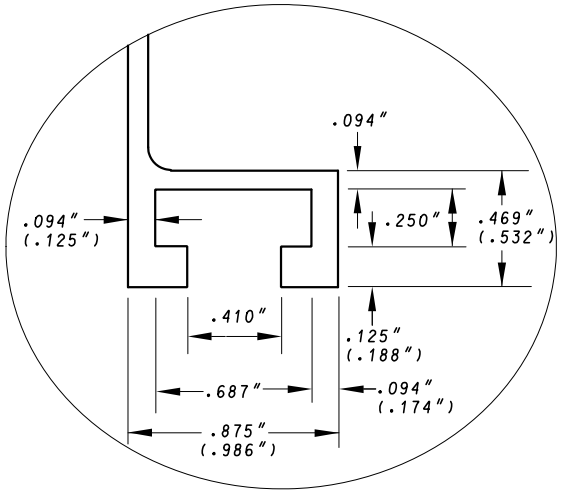
WOOD SIGN POSTS
VERTICAL AND LATERAL CLEARANCE

STANDARD NO. MD 813.02

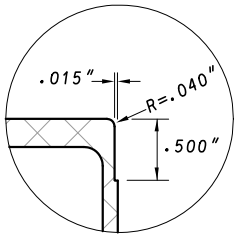
REFERENCED ON: MD 813.01



ALUMINUM PANEL – NOTCHED CORNERS (SEE NOTE 1)



DETAIL A



DETAIL B

NOTES:

1. ALUMINUM PANELS SHALL HAVE NOTCHED CORNERS AS SHOWN. NO OTHER TYPE CORNERS ARE ACCEPTABLE.
2. ALTERNATE DIMENSIONS INDICATED IN PARENTHESES ARE ACCEPTABLE.
3. THE REFLECTIVE SHEETING APPLIED TO EXTRUDED PANELS SHALL EXTEND APPROX. $\frac{3}{8}$" OVER EACH SIDE IN THE NARROW DIRECTION AND SHALL BE ADHERED TO THE PANEL.

SPECIFICATION 813	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	12-7-09	REVISED	7-27-09
REVISED		REVISED	
REVISED		REVISED	

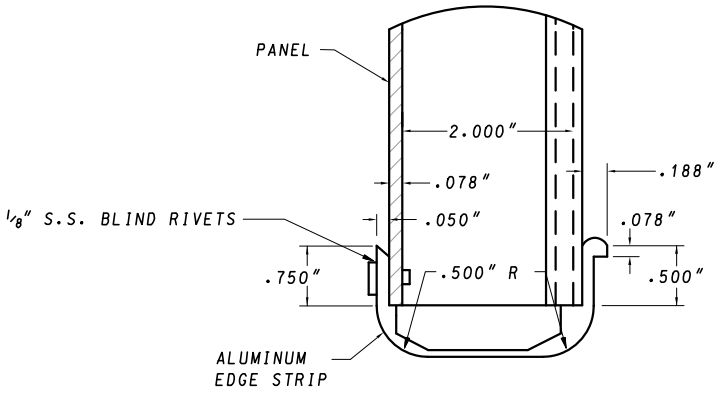
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

EXTRUDED ALUMINUM DETAILS
SIGN PANEL DIMENSIONS

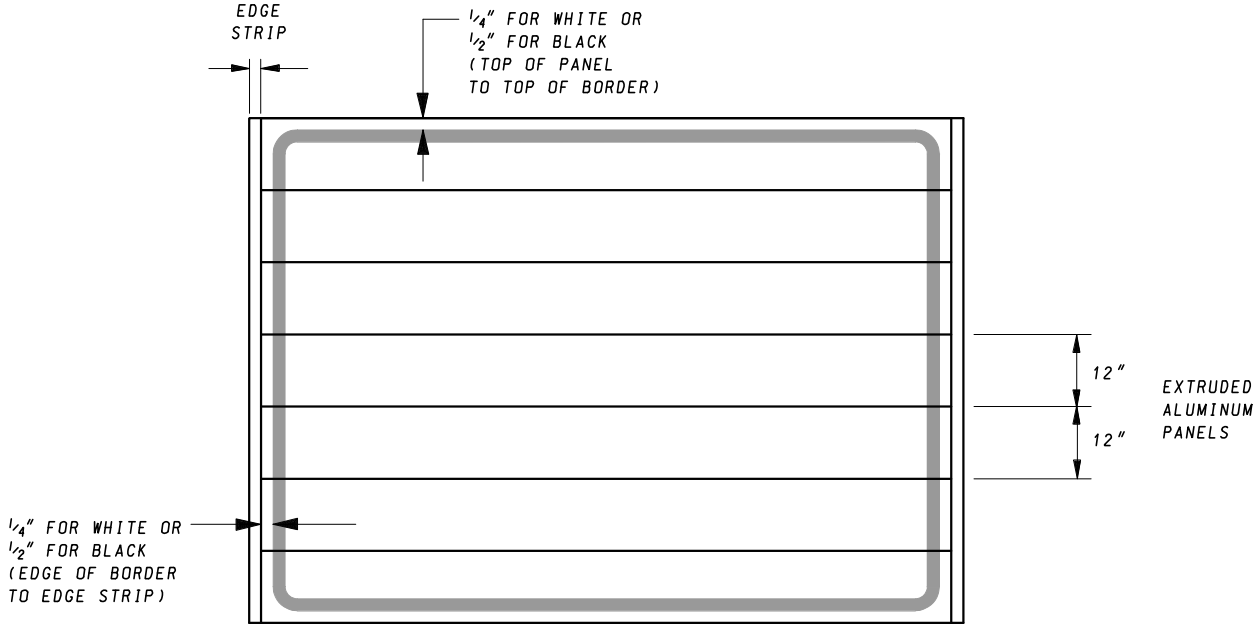
STANDARD NO. MD 813.03



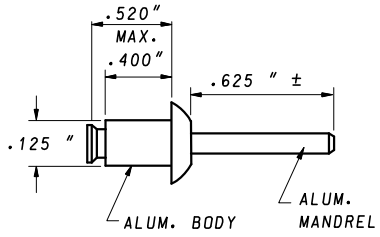
DETAIL OF EDGE STRIP

NOTE:

EDGE STRIP SHALL BE PLACED ON BOTH SIDES OF ALL EXTRUDED PANEL SIGNS.



BORDER DETAIL



DETAIL OF A BLIND RIVET FOR CUTOUT LETTER (TYP.)

SPECIFICATION 813	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	12-7-09	REVISED	7-27-09
REVISED		REVISED	
REVISED		REVISED	

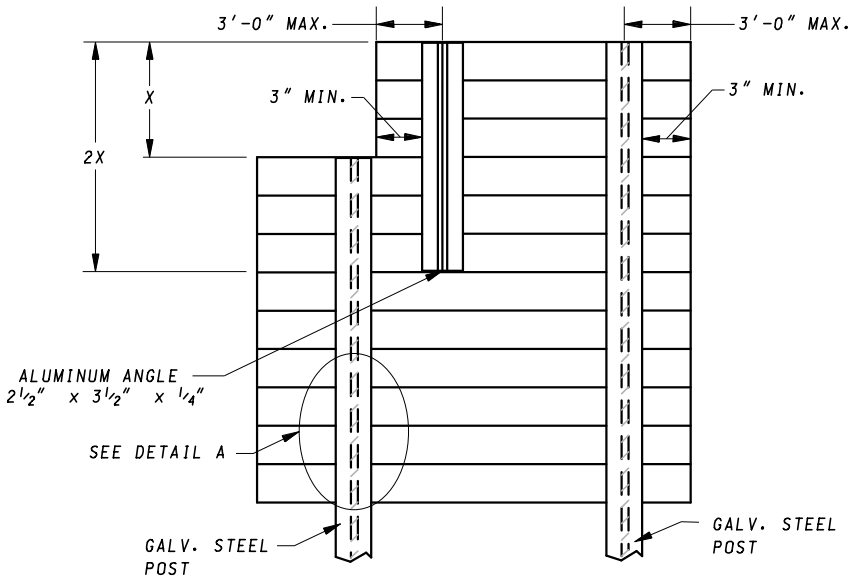
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

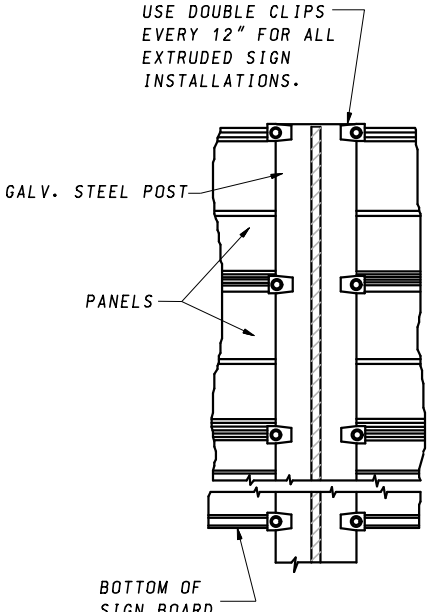
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

EXTRUDED ALUMINUM DETAILS

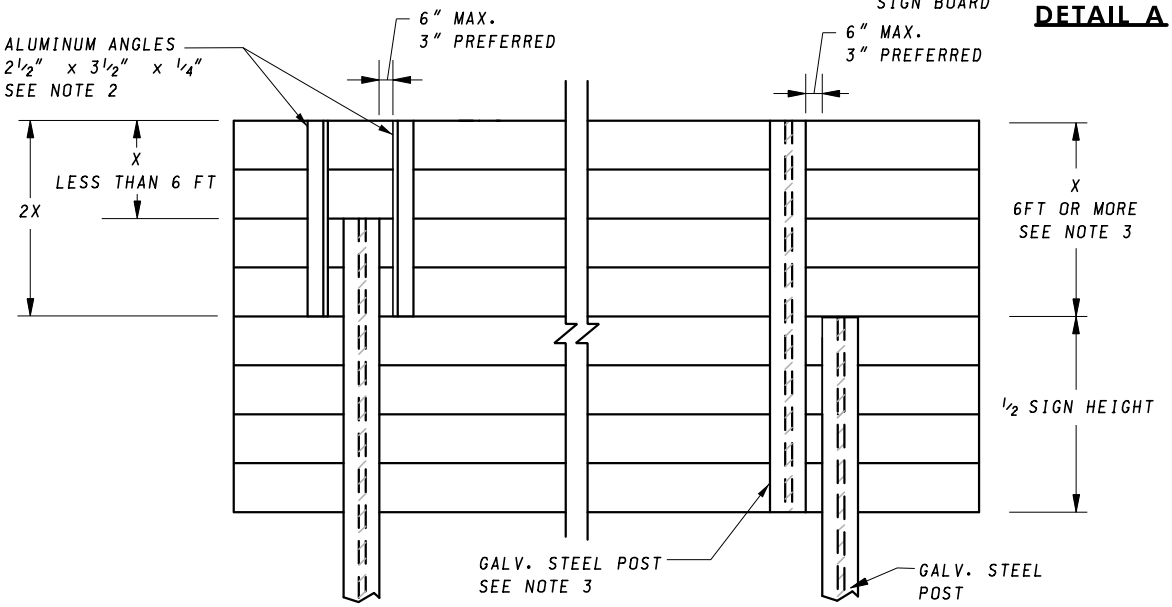
STANDARD NO. MD 813.04



INSTALLATION OF EXIT PANEL TO EXTRUDED SIGN



DETAIL A



INSTALLATION OF ADDITIONAL EXTRUDED PANELS TO EXTRUDED SIGN

NOTES:

1. VERTICAL SUPPORTS ARE TO BE CONTINUOUS TO ENTIRE HEIGHT OF SIGN, INCLUDING EXIT PANEL WHERE APPLICABLE.

2. ON MODIFICATIONS WHERE X IS LESS THAN 6 FT, NON-CONTINUOUS SUPPORTS WITH DOUBLE ALUMINUM ANGLES WILL BE PERMITTED. TOTAL LENGTH OF DOUBLE ANGLES SHALL BE 2X AS NOTED ABOVE. USE 3 1/2 x 3 1/2" x 3/8" ALUMINUM ANGLE FOR SIGN WIDTH ABOVE 18 FT.

3. THIS METHOD SHOULD ONLY APPLY FOR NON-BREAKAWAY SIGN SUPPORTS WHERE THE BOTTOM BEAM SUPPORTS HALF THE SIGN HEIGHT. ON MODIFICATIONS WHERE X IS 6 FT OR MORE, NON-CONTINUOUS SUPPORTS WITH A BEAM INSTALLED FOR THE FULL HEIGHT OF SIGN WILL BE PERMITTED. SPLICED SECTIONS SHALL HAVE A W6 x 9 OR EQUAL SECTION ATTACHED TO FULL HEIGHT OF SIGN.
   FOR BREAKAWAY SIGN SUPPORTS, THE EXISTING SIGN SUPPORT SHALL BE REMOVED ABOVE THE BREAKAWAY HINGE AND REPLACED, WITH A SIGN SUPPORT OF THE SAME SIZE, ATTACHED TO FULL HEIGHT OF SIGN.

4. ALL SUPPORTS (INCLUDING ANGLES) SHALL BE POST CLIPPED AT 12" INTERVALS.

5. ALL OVERHEAD SIGN MODIFICATION USING THESE METHODS SHALL BE APPROVED BY MDOT SHA OOTS.

SPECIFICATION	CATEGORY CODE ITEMS
813	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

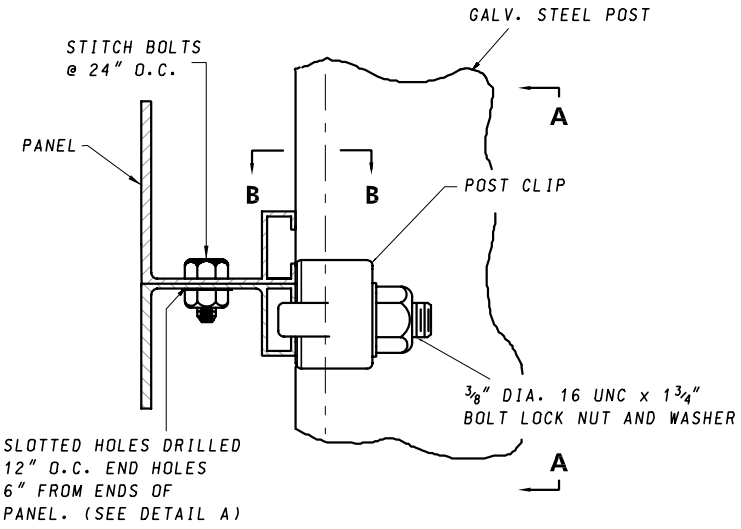
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	12-7-09	REVISED	7-27-09
REVISED	11-10-18	REVISED	10-26-18
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

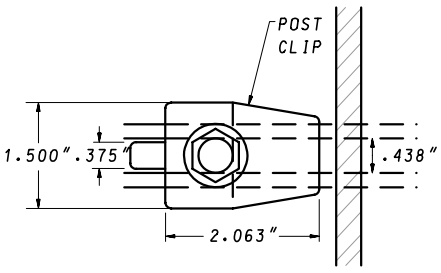
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

EXTRUDED ALUMINUM DETAILS AND VERTICAL SUPPORT ATTACHMENT

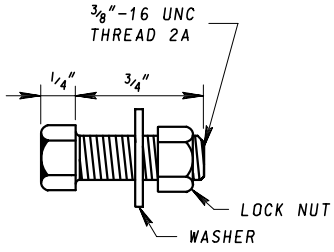
STANDARD NO. MD 813.05



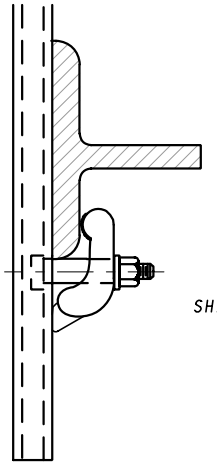
SIGN PANEL ASSEMBLY



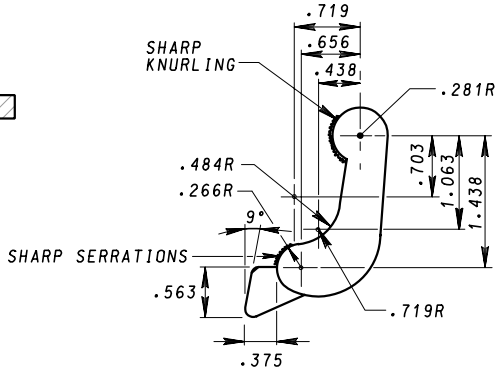
SECTION A-A



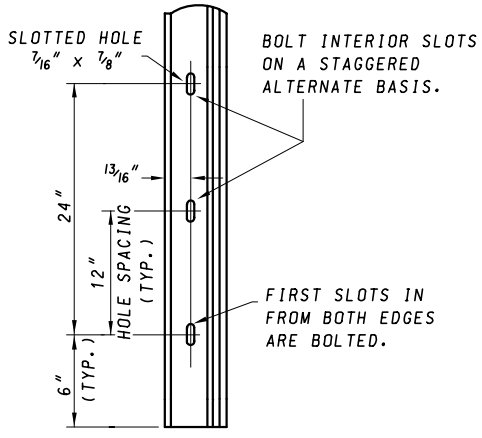
STITCH BOLT (TYP.)



SECTION B-B

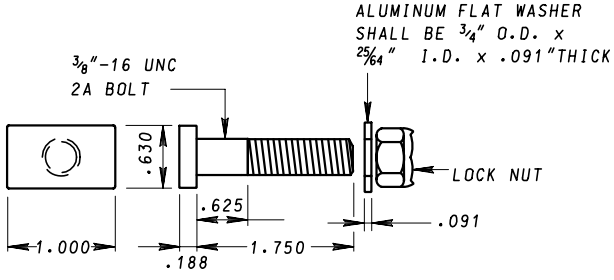


POST CLIP (TYP.)



DETAIL A

BOLTS	B211, ALLOY 2024-T4, 6262-T9 OR 6061-T6
FLAT WASHERS	B209, ALLOY 2024-T4
RIVETS	ALLOY 5052
NUTS	B211, ALLOY 2017-T4
POST CLIPS	B108, ALLOY 356-T6



POST CLIP BOLT (TYP.)

SPECIFICATION	CATEGORY CODE ITEMS
813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

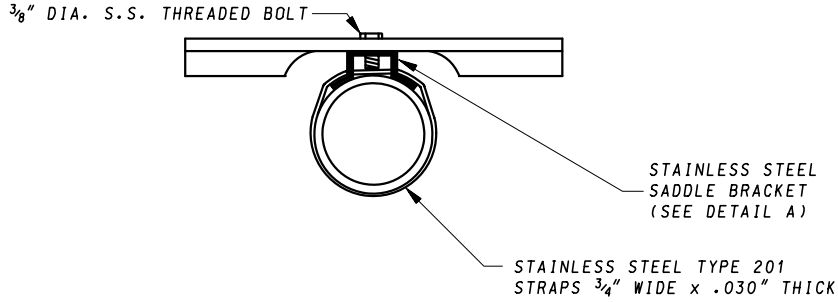
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

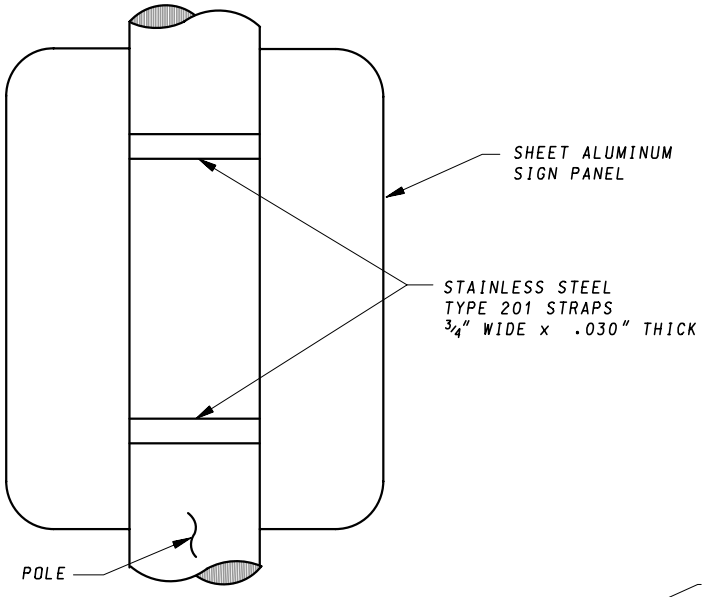
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

EXTRUDED ALUMINUM DETAILS
SIGN PANEL ASSEMBLY

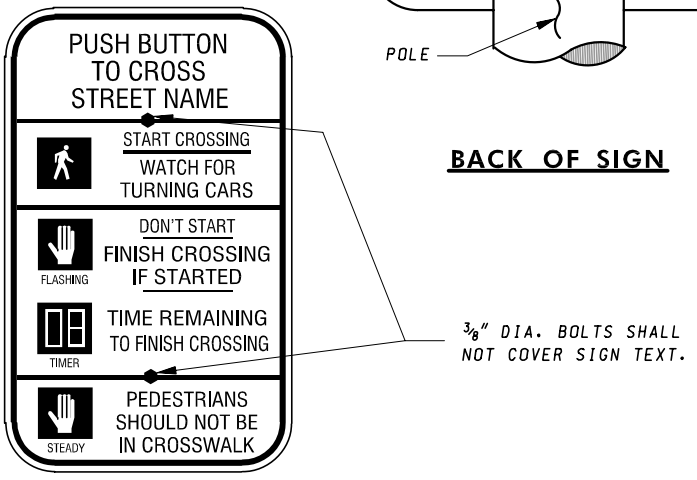
STANDARD NO. MD 813.06



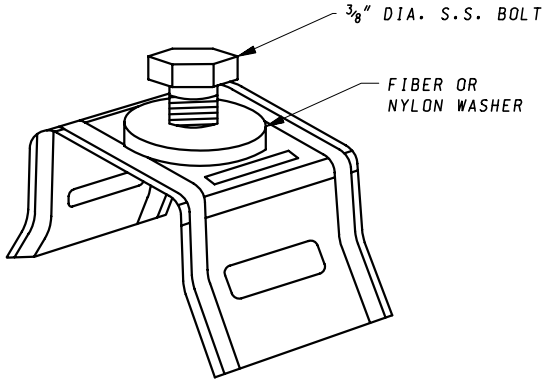
SIGN ATTACHMENT DETAIL
VERTICAL POLE INSTALLATION ONLY
FOR PUSHBUTTON SIGN
(PLAN VIEW)



BACK OF SIGN



FRONT OF SIGN



DETAIL A
STAINLESS STEEL SADDLE BRACKET

SPECIFICATION 813	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 2-21-95	APPROVAL 2-21-95
	REVISED 5-17-07	REVISED 5-2-07
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

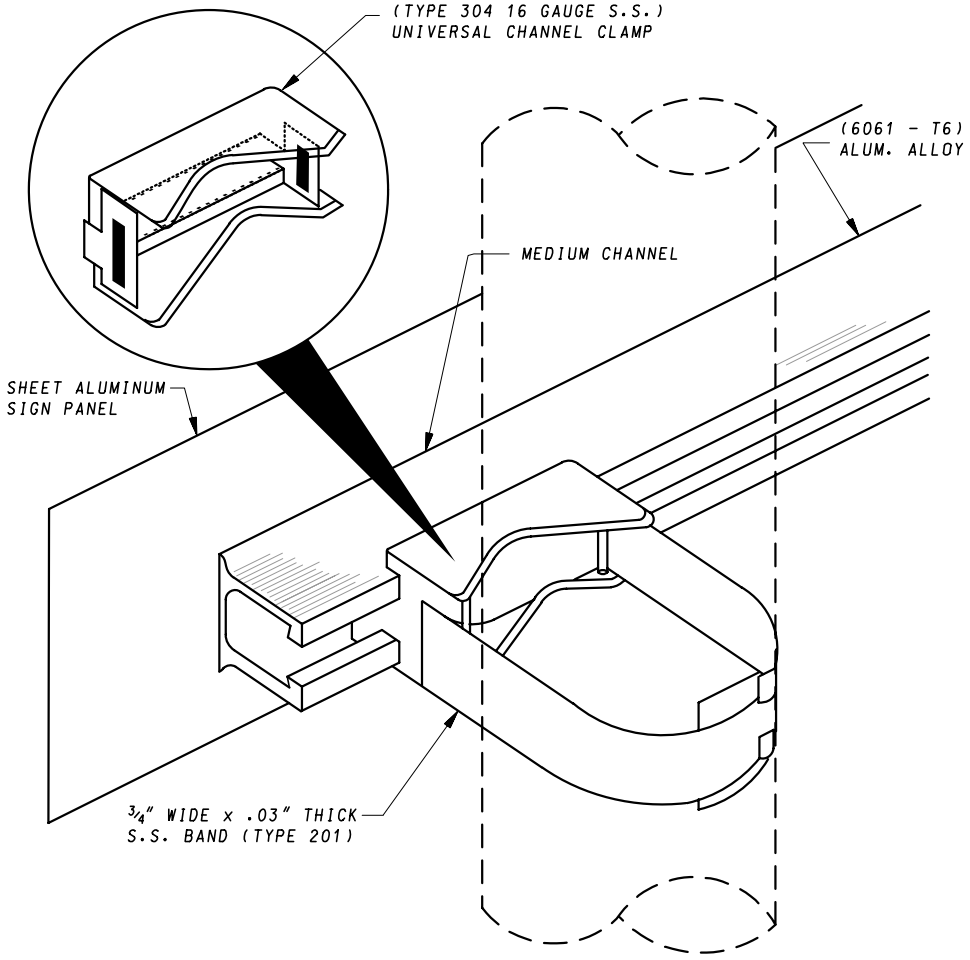
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

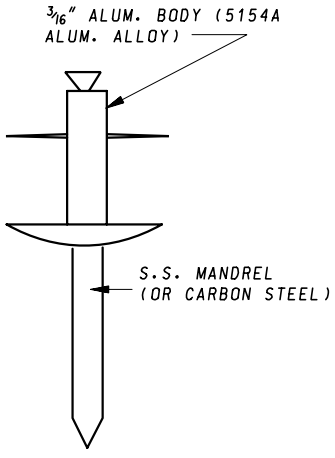
PUSHBUTTON SIGN BANDING DETAIL

STANDARD NO. MD 813.07

SIGN ATTACHMENT DETAIL
VERTICAL POLE INSTALLATION ONLY
MAX. SIGN WIDTH = 5'-0"

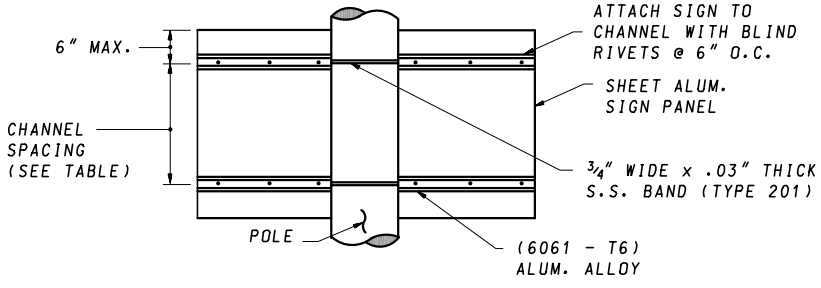
UNIVERSAL CHANNEL CLAMP





BLIND RIVET - 6" MAX. SPACING

SIGN WIDTH (IN.)	CHANNEL SPACING (IN.)
36	24
48	14
60	9



BACK OF SIGN

SPECIFICATION	CATEGORY CODE ITEMS
813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

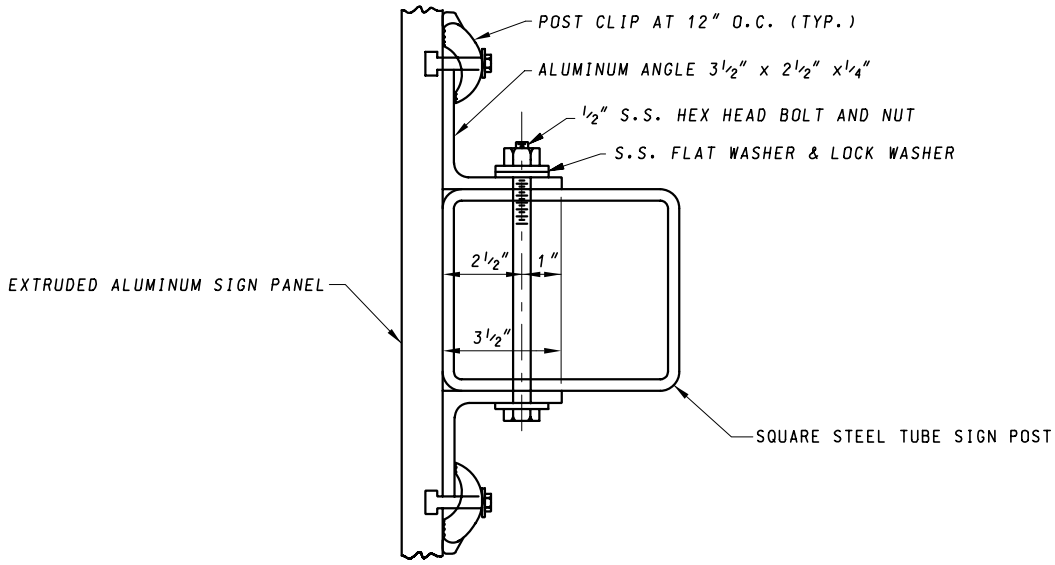
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

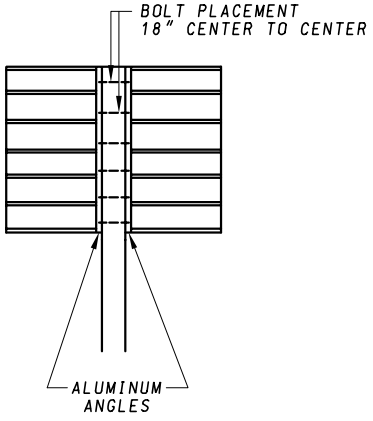
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGN BANDING DETAIL

STANDARD NO. MD 813.08





EXTRUDED ALUMINUM SIGN PANEL

NOTES:

1. ALL BOLTS SHALL BE F593 (18-8 TYPE 303 OR 304) STAINLESS STEEL WITH WASHERS AND NUTS SPACED AT 18" MAXIMUM.
2. DO NOT PROVIDE HINGE PLATES FOR SINGLE POST INSTALLATIONS.

SPECIFICATION 813	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 5-17-07	APPROVAL 5-2-07
	REVISED	REVISED
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

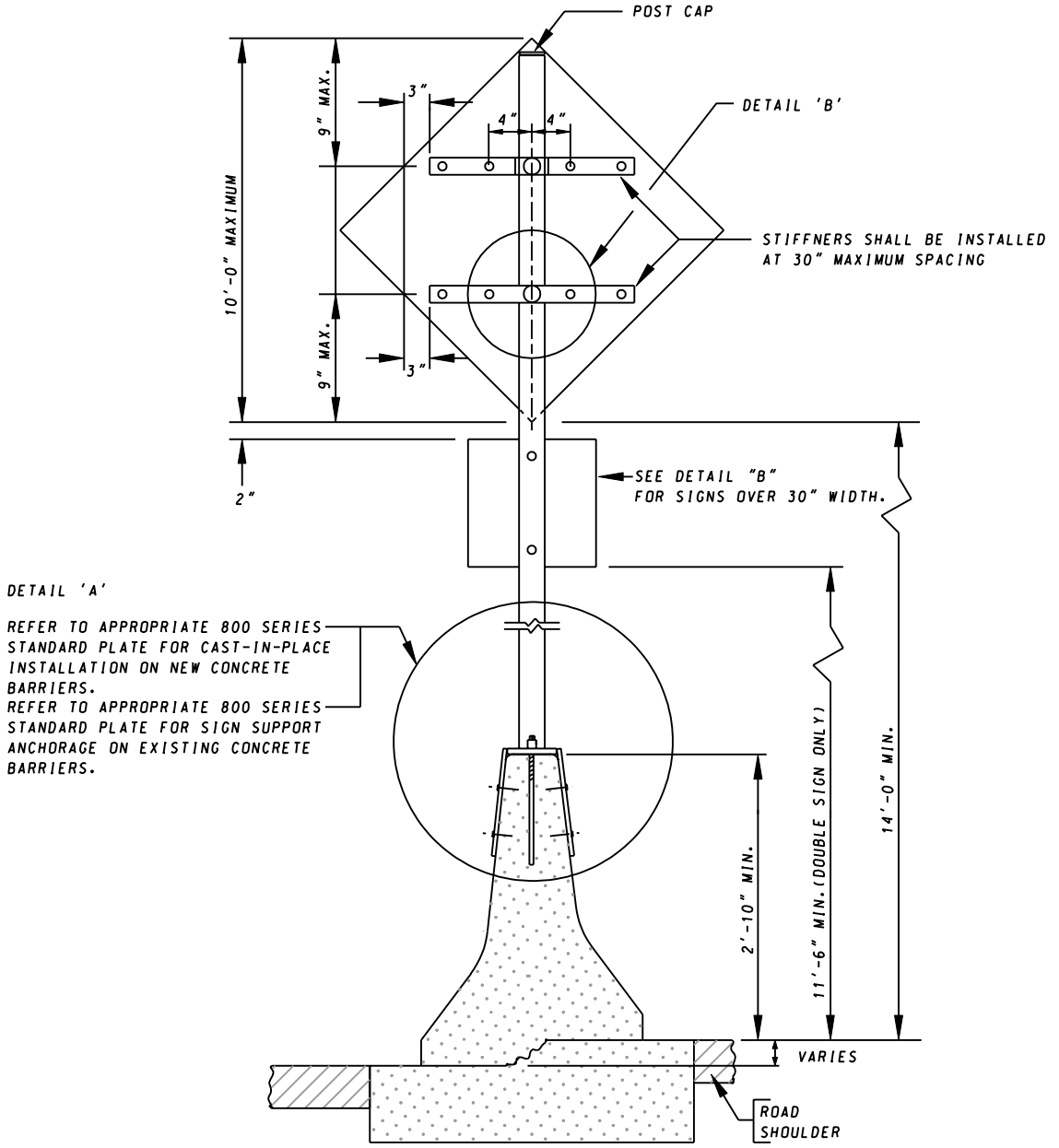
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

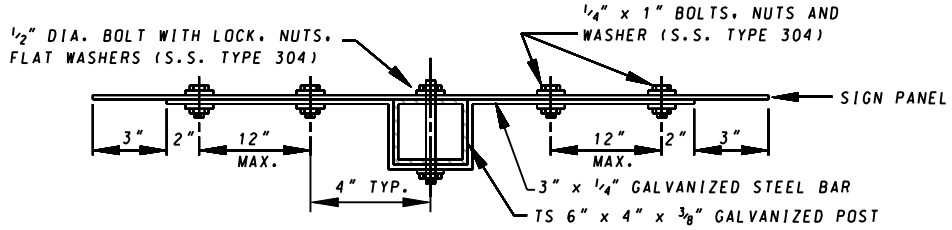
SQUARE STEEL TUBE SIGN POST SIGN MOUNTING

STANDARD NO. MD 813.08-01

CONCRETE BARRIER MOUNTED SIGN
(MAXIMUM SIGN AREA – 40 SQ. FT.)



DETAIL 'B' – TOP VIEW
(TUBULAR STEEL POST)



SPECIFICATION 813	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

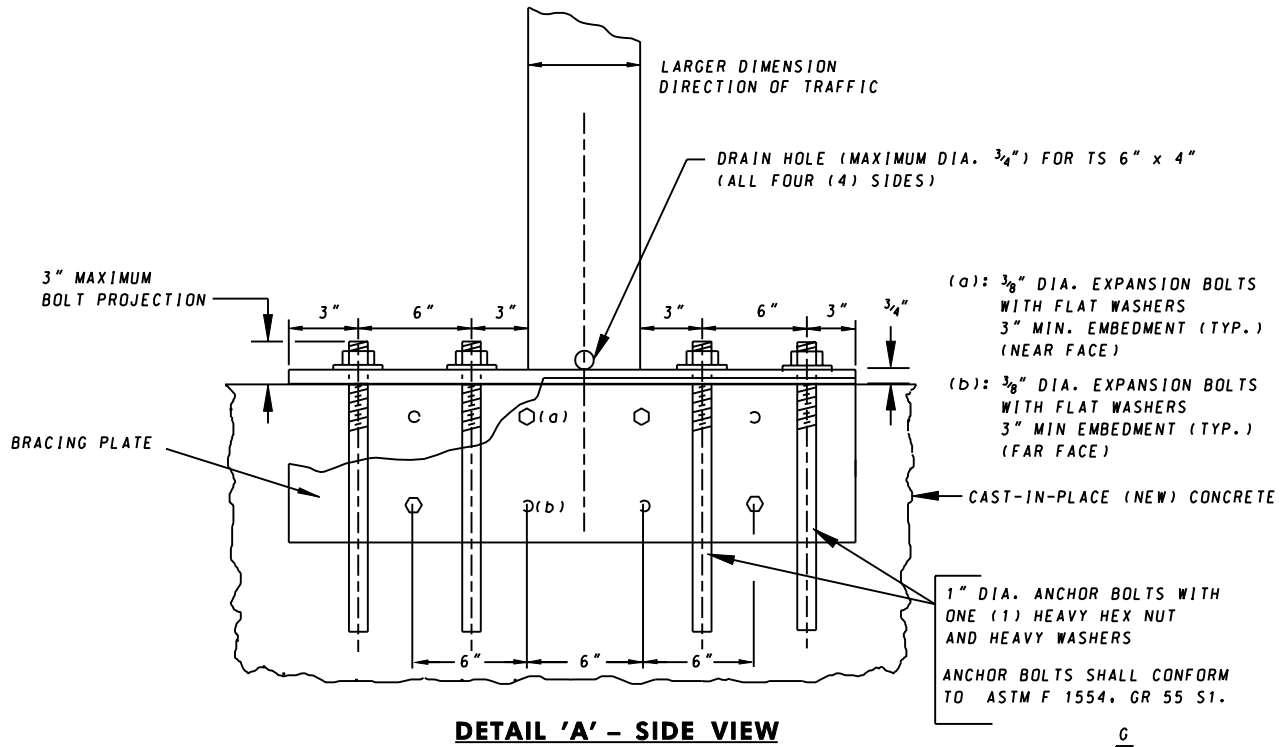
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	10-1-01	REVISED	2-1-01
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

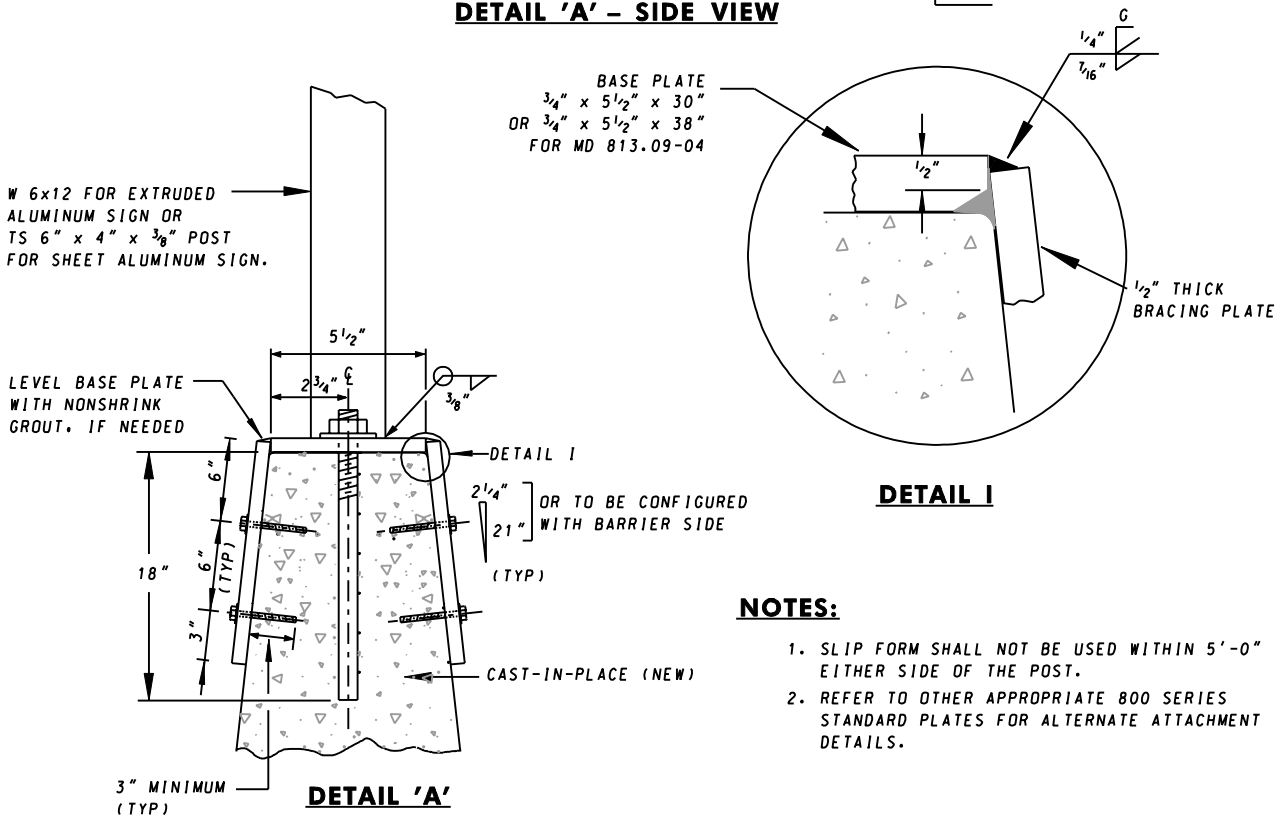
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SPECIAL SIGN SUPPORTS
CONCRETE BARRIER MOUNTED SIGN

STANDARD NO. MD 813.09-01



DETAIL 'A' – SIDE VIEW



DETAIL 'A'

DETAIL I

NOTES:

1. SLIP FORM SHALL NOT BE USED WITHIN 5'-0" EITHER SIDE OF THE POST.
2. REFER TO OTHER APPROPRIATE 800 SERIES STANDARD PLATES FOR ALTERNATE ATTACHMENT DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
813	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	10-1-01	REVISED	2-1-01
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

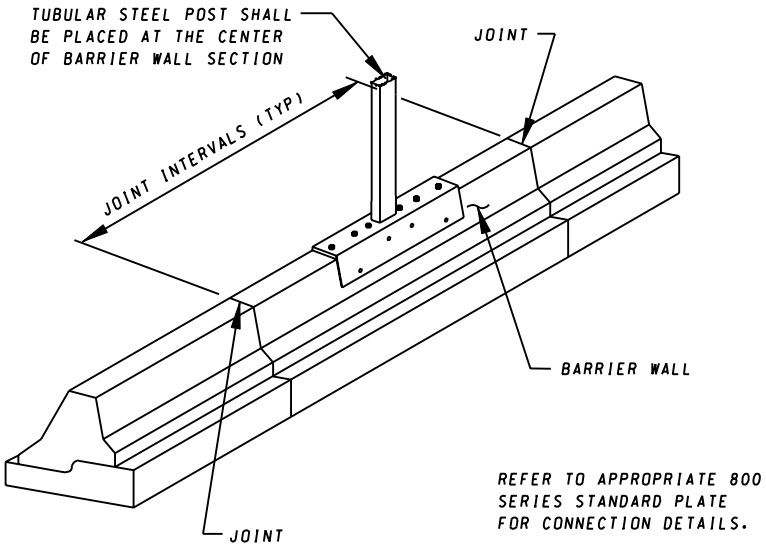
SPECIAL SIGN SUPPORTS FOR CAST-IN-PLACE CONCRETE BARRIER

STANDARD NO. MD 813.09-02

CONCRETE BARRIER MOUNTED SIGN
(MAXIMUM SIGN AREA – 40 SQ. FT.)

NOTES:

1. ANCHOR BOLTS SHALL BE ASTM F 1554, GR 55 S1 GALVANIZED. NUTS SHALL BE ASTM A194 GRADE 2 OR 2H.
2. TUBULAR STEEL POST TS 6" x 4" x $\frac{3}{8}$" SHALL BE A501 UNLESS OTHERWISE NOTED.
3. REFER TO APPROPRIATE 800 SERIES STANDARD PLATES FOR ALTERNATIVE SIGN ATTACHMENT TO STEEL TUBE POSTS OR W6x12 POSTS.
4. ALL STRUCTURAL STEEL AND HARDWARE SHALL BE GALVANIZED IN CONFORMANCE WITH A123 AND A153, RESPECTIVELY.
5. ALL PLATES AND W6x12 POST SHALL CONFORM TO A709, GRADE 36.



REFER TO APPROPRIATE 800 SERIES STANDARD PLATE FOR CONNECTION DETAILS.

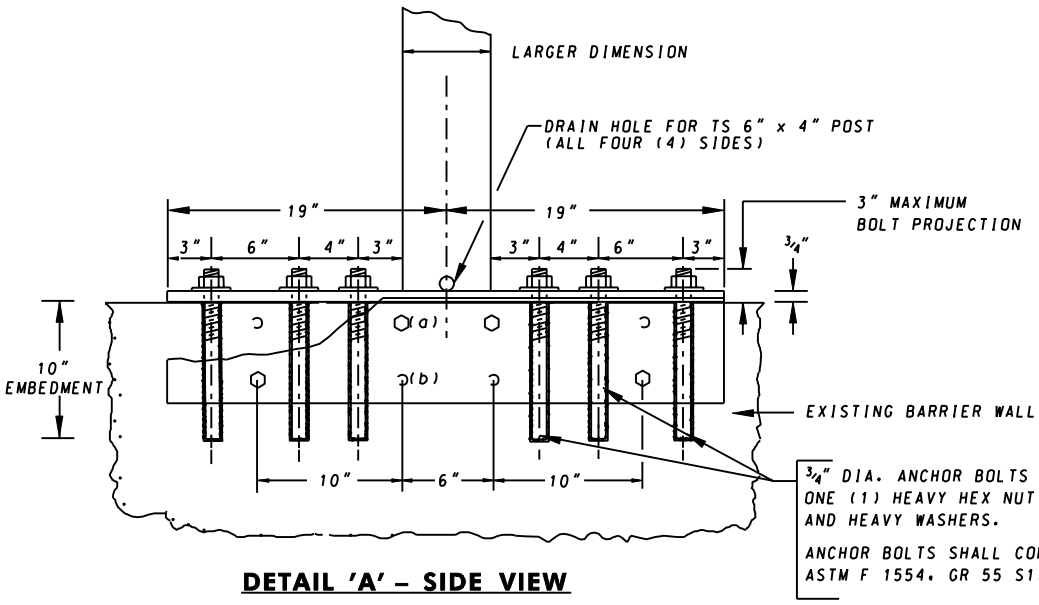
SPECIFICATION 813	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-21-95	APPROVAL	2-21-95
REVISED	10-1-01	REVISED	2-1-01
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SPECIAL SIGN SUPPORTS
CONCRETE BARRIER MOUNTED SIGN

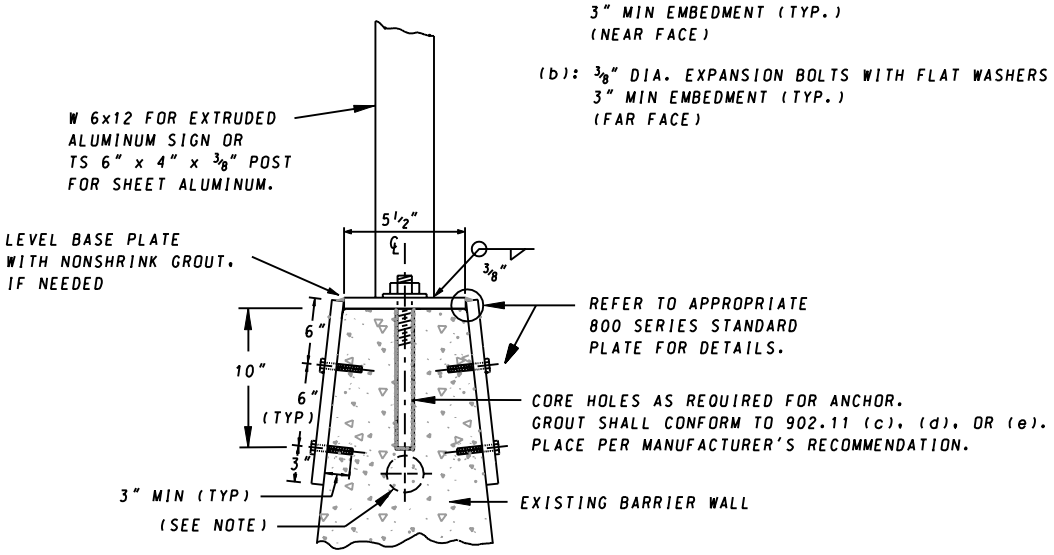
STANDARD NO. MD 813.09-03



DETAIL 'A' – SIDE VIEW

(a): 3/8" DIA. EXPANSION BOLTS WITH FLAT WASHERS 3" MIN EMBEDMENT (TYP.) (NEAR FACE)

(b): 3/8" DIA. EXPANSION BOLTS WITH FLAT WASHERS 3" MIN EMBEDMENT (TYP.) (FAR FACE)



DETAIL 'A'

NOTE:

THE CONTRACTOR SHALL VERIFY ANY EXISTING CONDUIT BEFORE DRILLING HOLES. IF THE CONDUIT IS WITHIN 10" FROM THE TOP OF THE BARRIER, THE ENGINEER SHALL BE CONTACTED FOR ALTERNATE DESIGNS.

SPECIFICATION	CATEGORY CODE ITEMS
813	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 10-10-00	APPROVAL 2-1-01
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

SHA State Highway Administration

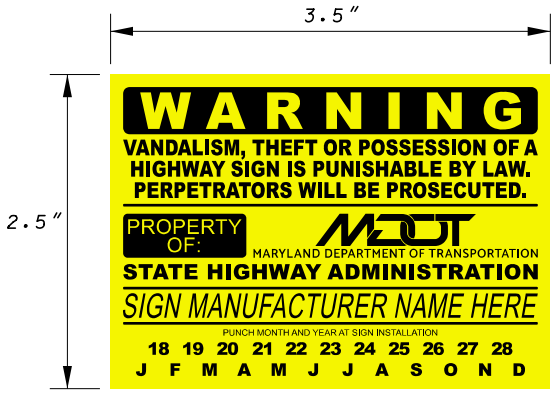
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SPECIAL SIGN SUPPORTS FOR EXISTING CONCRETE BARRIER

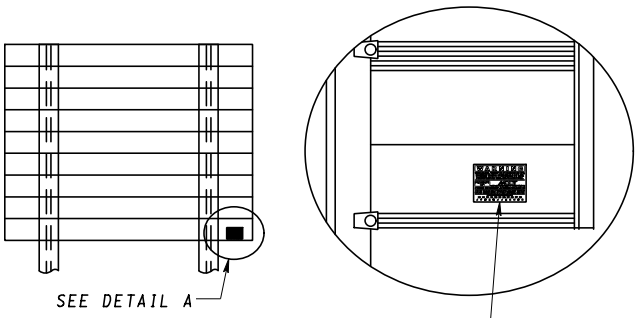
STANDARD NO. MD 813.09-04

SIGN VANDALISM & INSTALLATION DATE STICKER (VID) DETAIL



VID STICKER INSTALLATION ON EXTRUDED SIGNS

INSTALL STICKER IN BOTTOM RIGHT CORNER OF SIGN AS SHOWN BELOW

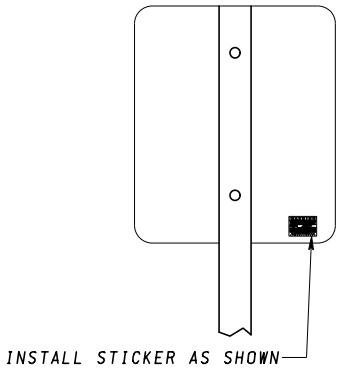


EXTRUDED SIGN REAR VIEW

DETAIL A

VID STICKER INSTALLATION ON FLAT SHEET SIGNS

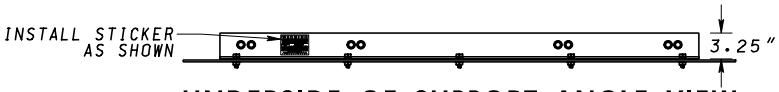
INSTALL STICKER IN BOTTOM RIGHT CONRNER OF SIGN AS SHOWN BELOW



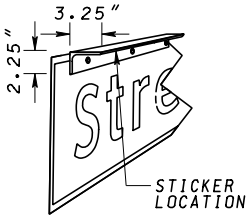
FLAT SHEET SIGN REAR VIEW

VID STICKER INSTALLATION ON OVERHEAD STREET NAME SIGNS – MAST ARM MOUNTED

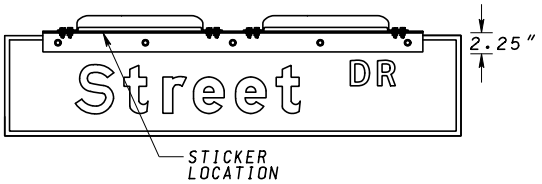
INSTALL STICKER TO UNDERSIDE OF SUPPORT ANGLE



UNDERSIDE OF SUPPORT ANGLE VIEW



ELEVATION VIEW



FRONT VIEW

NOTES

1. ALL VID STICKERS SHALL BE MANUFACTURED USING THE OFFSET SILK SCREEN METHOD. NO INKJET, PHOTO-PRINT, OR LARGE FORMAT PRINTING FORMATS WILL BE ACCEPTED IN ANY KIND.
2. ALL BACKGROUND SHEETING SHALL BE YELLOW – TYPE I, II OR IV RETRO-REFLECTIVE SIGN SHEETING APPROVED FOR THE USE ON SHA HIGHWAY SIGNING.
3. THE PROPER HANDLING AND MANUFACTURING OF THESE MATERIALS SHALL MEET THE SHEETING MANUFACTURER'S SPECIFICATIONS.
4. ALL SILK SCREENING PROCESSES AND INKS SHALL MEET SHEETING MANUFACTURE'S APPROVAL AND BE APPLIED TO THE SHEETING FOLLOWING ALL SHEETING MANUFACTURE'S PROCEDURES.
5. VID STICKERS, PRIOR TO INSTALLATION ON SIGNS, SHALL BE PROTECTED FROM EXPOSURE TO WEATHER, EXTREMES IN TEMPERATURE, AND ANY CONDITIONS THAT COULD DAMAGE THEM.
6. ALL VID STICKERS SHALL BE INSTALLED ON A SIGN AS SHOWN IN THE ABOVE DETAILS.
7. AT THE TIME OF INSTALLATION THE AREA FOR WHICH THE STICKER IS TO BE APPLIED SHALL BE CLEAN AND FREE OF GREASE, DIRT, CONTAMINATES, ETC. ONLY ORDINARY WINDOW CLEANER, RUBBING ALCOHOL, DENATURED ALCOHOL, OR MILD SOAP AND WATER SHOULD BE USED TO CLEAN THE BACK OF THE SIGN. NO ACETONE, ZYLENE OR OTHER HARSH CHEMICALS SHALL BE USED TO CLEAN ANY PORTION OF ANY MARYLAND STATE HIGHWAY ADMINISTRATION SIGN.
8. BE SURE THAT THE AREA IS COMPLETELY DRY PRIOR TO APPLICATION OF THE VID STICKER.
9. TO OBTAIN AN ELECTRONIC COPY OF THE VID STICKER FOR MANUFACTURING PURPOSES CONTACT:
   MARYLAND STATE HIGHWAY ADMINISTRATION – OFFICE OF TRAFFIC AND SAFETY – TRAFFIC ENGINEERING DESIGN DIVISION
   7491 CONNELLEY DR. HANOVER, MARYLAND 21076
   AVAILABLE IN THE FOLLOWING FORMATS: .PDF, .JPG, .BMP AND .FS (FLEXISIGN).

SPECIFICATION	CATEGORY CODE ITEMS
813	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

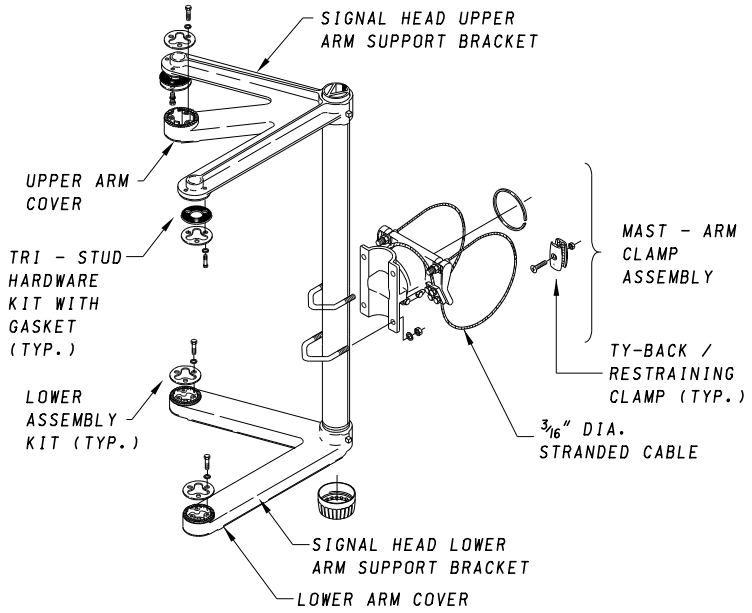
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	4-16-19	APPROVAL	3-25-19
REVISED		REVISED	
REVISED		REVISED	
REVISED		REVISED	

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGN VANDALISM AND INSTALLATION DATE (VID) STICKER

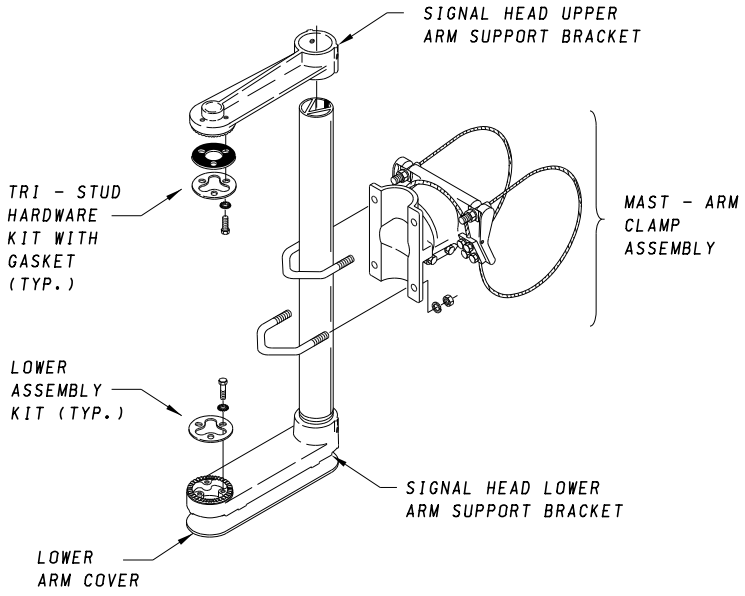
STANDARD NO. MD 813.10



ONE-WAY, FIVE - SECTION 12" SIGNAL HEADS

NOTES:

1. ALL CAST MOUNTING HARDWARE SHALL BE ALUMINUM WITH TRIVALENT CHROMATE FINISH.
2. ALL BOLTS SHALL BE STAINLESS STEEL.
3. BRACKET SHALL ADJUST IN FOUR DIRECTIONS.
4. UPPER AND LOWER ARMS SHALL BE CAST FROM 319 ALUMINUM ALLOY.
5. VERTICAL SUPPORT TUBE SHALL BE DOUBLE GUSSETED "C" SHAPED AND EXTRUDED FROM 6062 - T6 ALUMINUM ALLOY.
6. MAST ARM CLAMP ASSEMBLY SHALL BE CAST FROM 713 ALUMINUM.
7. STRANDED CABLE SHALL BE 3/16 " DIA. STAINLESS STEEL,FABRICATED IN ONE PIECE.
8. CUT VERTICAL SUPPORT TUBE TO PROJECT 1" ± 1/2" ABOVE SIGNAL HEAD TOP SUPPORT BRACKET.
9. CABLE ENTRY HOLE SHALL BE ENLARGED TO ACCOMMODATE THE SIZE AND TYPE OF CABLE(S).
10. WHEN ASSEMBLED, THE RECEIVING AND INDENTED PORTION OF THE CLAMP ASSEMBLY SHALL CONSIST OF TWO MIRRORED HALVES. THE CLAMP ASSEMBLY SHALL BE INVERSELY TIGHTENED AROUND THE MAST ARM OR POLE.
11. THE PROTRUDING PORTION OF THE CLAMP ASSEMBLY, WHICH FITS IN THE RECEIVING AND INDENTED PORTION, SHALL HAVE AN INTEGRALLY CAST FLANGE TO PREVENT SEPARATION FROM THE RECEIVING AND INDENTED SECTION.



ONE-WAY, THREE OR FOUR - SECTION 12" SIGNAL HEADS
THREE - SECTION - 12"/8" COMBINATIONS

SPECIFICATION	CATEGORY CODE ITEMS
814	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

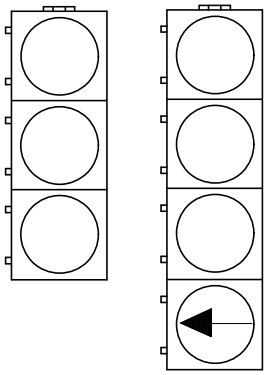
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	4-16-19	REVISED	3-25-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

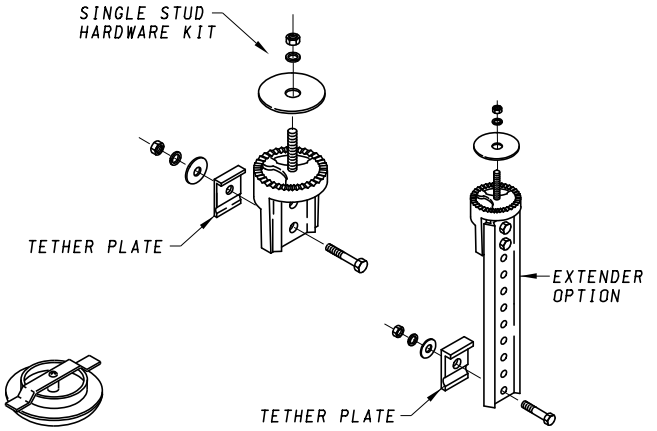
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIGNAL HEAD MOUNTING DETAILS RIGID MOUNT

STANDARD NO. MD 814.01

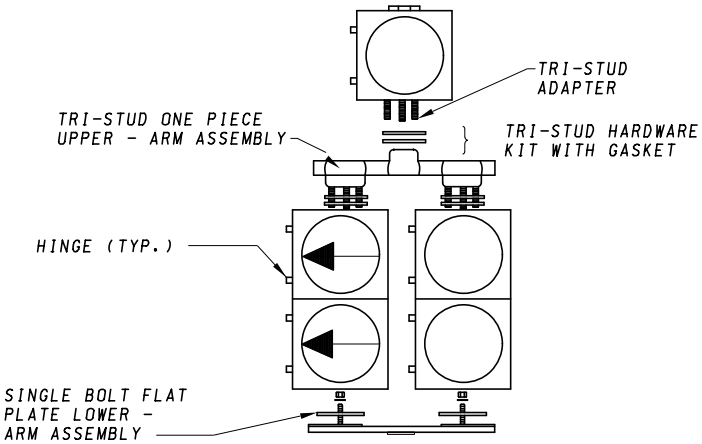


ONE-WAY THREE OR FOUR – SECTION 12" SIGNAL HEADS
THREE – SECTION 12"/8" COMBINATIONS



CAP CLOSURE KIT

TETHER ASSEMBLY



ONE-WAY, FIVE-SECTION 12" SIGNAL HEADS

NOTES:

1. ALL CAST MOUNTING HARDWARE SHALL BE ALODINE FINISHED ALUMINUM.
2. ALL BOLTS SHALL BE STAINLESS STEEL.

MATERIALS

TYPE OF INDICATION	RIGID MOUNTED	SPAN WIRE MOUNTED
THREE SECTION 8"/12" COMBINATION	POLYCARBONATE	POLYCARBONATE
PEDESTRIAN SIGNAL INDICATION	ALUMINUM	N/A
FIVE SECTION 12" SIGNAL HEAD	POLYCARBONATE	TOP SIGNAL INDICATION SHALL BE ALUMINUM, BOTTOM 4 SECTION SHALL BE POLYCARBONATE
OPTICALLY PROGRAMMED SIGNAL HEAD INDICATION	N/A	N/A
ONE, TWO, THREE, OR FOUR SECTION 12" SIGNAL HEAD	POLYCARBONATE	POLYCARBONATE

SPECIFICATION	CATEGORY CODE ITEMS
814	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

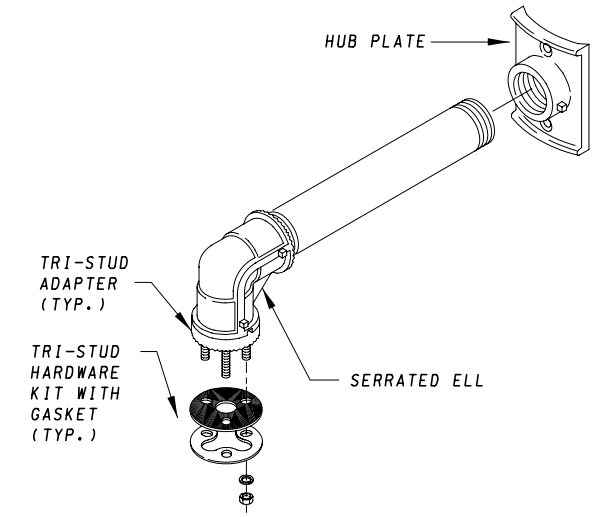
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	4-16-19	REVISED	3-25-19
REVISED		REVISED	

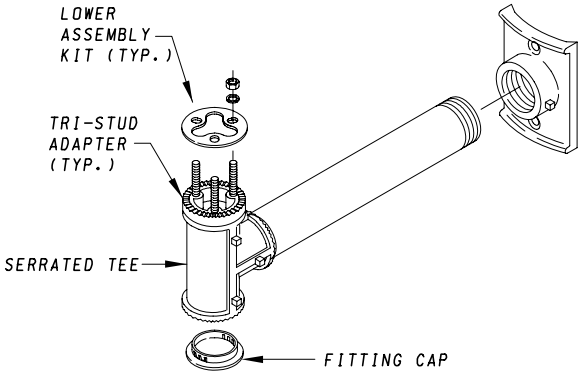
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

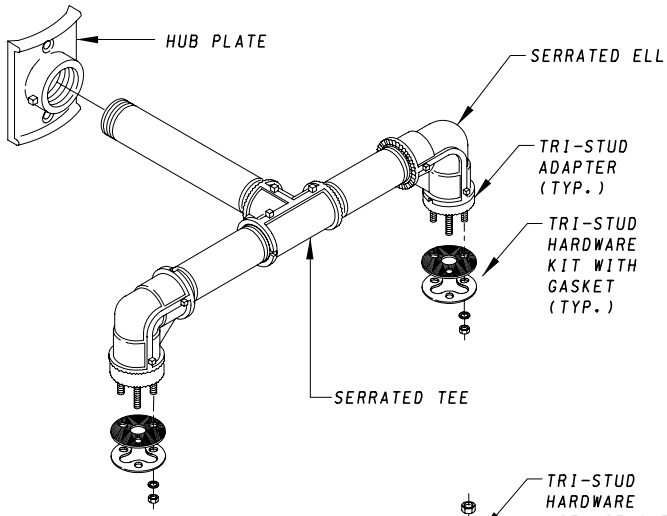
SIGNAL HEAD MOUNTING DETAILS

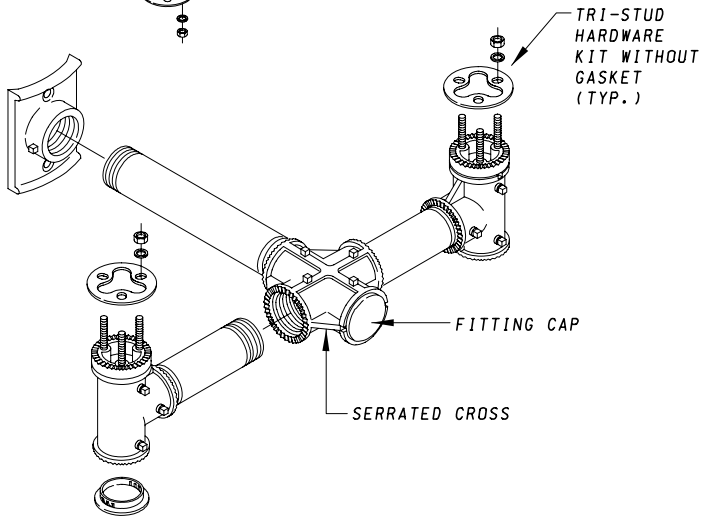
STANDARD NO. MD 814.02





ONE-WAY SIDE POLE MOUNTING





TWO-WAY SIDE POLE MOUNTING

NOTES:

1. THE TOP HUB PLATE SHALL BE ROTATED UPWARD WHEN THE SIGNAL HEAD IS MOUNTED ON A WOOD POLE.
2. A 1" DIA. HOLE SHALL BE DRILLED IN THE METAL POLE FOR WIRING AT BOTTOM PLATE.
3. THE UPPER ARM SHALL CONSIST OF A SERRATED ELL, 12" NIPPLE, GASKET AND CAST NIPPLE.
   - THE SERRATED ELL SHALL HAVE A SERRATED 72 TOOTH BOSS ON ONE END. THE OUTSIDE DIAMETER OF THE SERRATION SHALL NOT EXCEED $2\frac{3}{8}$". THE NON-SERRATED END OF THE ELL SHALL BE NOTCHED TO ACCEPT A SEPARATE SERRATED LOCKRING. THE ELL SHALL BE THREADED $1\frac{1}{2}$" NPS ON BOTH ENDS. THE ELL SHALL HAVE A MINIMUM $\frac{3}{8}$" WIDTH BOSS THAT EXTENDS THE ENTIRE LENGTH OF BOTH SIDES, ON ONE SIDE OF THE BOSS AT EACH END OF THE ELL SHALL BE A $\frac{1}{4}$" - 20 THREADED OPENING FOR A SETSCREW.
   - A DIE CAST NIPPLE SHALL BE ASSEMBLED INTO THE ELL. THE CAST NIPPLE SHALL BE $1\frac{1}{2}$" NPS WITH THREAD LENGTH OF $1\frac{1}{2}$". THE HEAD OF THE CAST NIPPLE SHALL BE HEX AND $2\frac{1}{2}$" ACROSS THE FLATS. AN INDENTION SHALL BE ON EACH CORNER TO ACCOMMODATE A SPANNER WRENCH FOR TIGHTENING.
   - A $1\frac{1}{2}$" X 12" EXTRUDED NIPPLE SHALL HAVE $1\frac{1}{2}$" NPS THREADS ON BOTH ENDS. THE NIPPLE SHALL HAVE A "BRUSHED" FINISH.
4. THE LOWER ARM SHALL CONSIST OF A SERRATED TEE, 12" NIPPLE AND CAST NIPPLE.
   - THE SERRATED TEE SHALL BE FABRICATED LIKE THE ELL EXCEPT THE TEE IS TO HAVE SERRATIONS ON TWO (2) THREADED OPENINGS 90° APART. THE NON-SERRATED END SHALL COME STANDARD WITH A PLASTIC KNOCKOUT PIN.
   - THE DIE CAST NIPPLE SHALL BE THE SAME AS ABOVE.
   - THE $1\frac{1}{2}$" X 12" NIPPLE SHALL BE THE SAME AS ABOVE.
5. FOR WOOD POLE MOUNTING:
   - ATTACHMENT STRAPS FOR WOOD POLE SHALL BE $\frac{3}{4}$" WIDTH, TYPE 201, STAINLESS STEEL.
   - ATTACHMENT BOLTS FOR WOOD POLE SHALL BE STAINLESS STEEL $\frac{3}{8}$" DIA. x $2\frac{1}{2}$" LENGTH.

SPECIFICATION	CATEGORY CODE ITEMS
814	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA Maryland's Way to Excel State Highway Administration

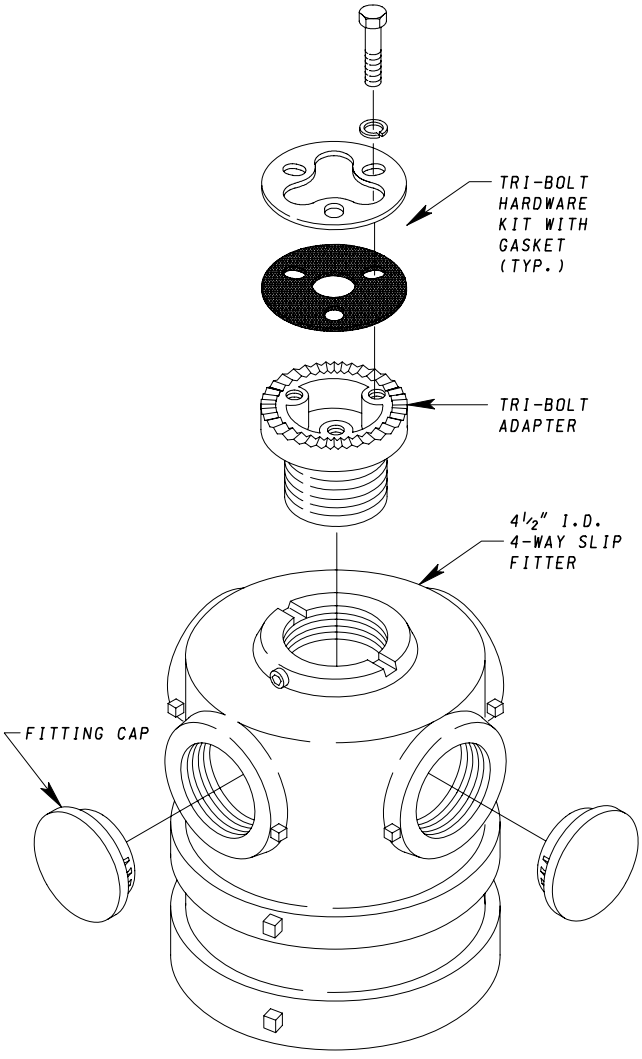
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

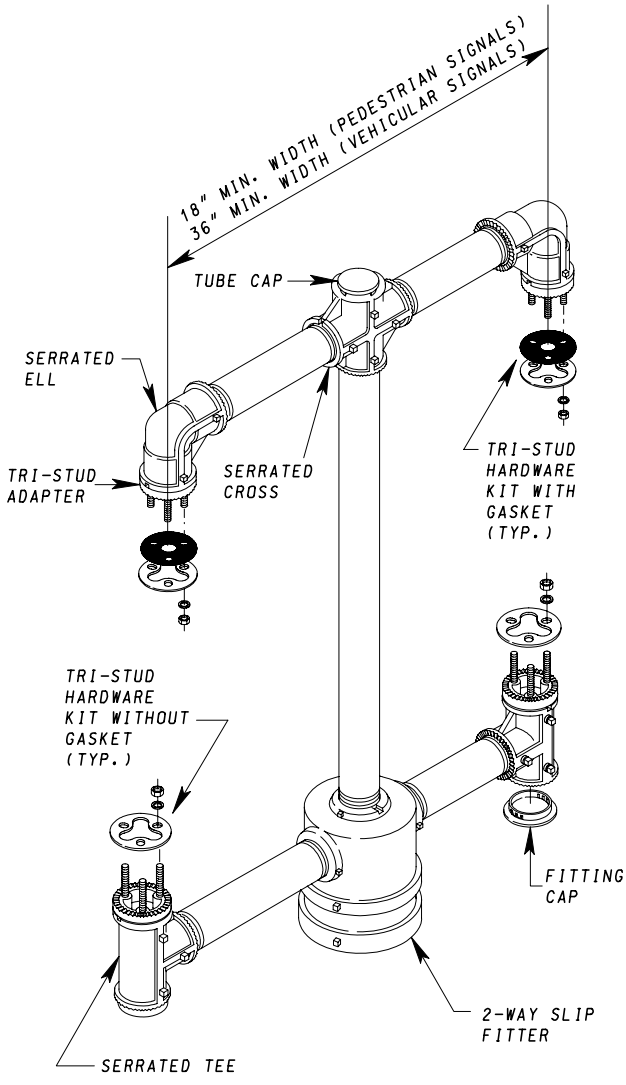
SIDE POLE MOUNTING FOR VEHICULAR AND PEDESTRIAN SIGNAL HEADS

STANDARD NO. MD 814.03

REFERENCED ON: MD 817.01



TOP POLE MOUNTING FOR THREE & FOUR-WAY SIGNAL



TOP POLE MOUNTING FOR TWO-WAY SIGNAL

NOTES:

1. ALL CAST MOUNTING HARDWARE SHALL BE ALODINE FINISHED ALUMINUM.
2. ALL BOLTS SHALL BE STAINLESS STEEL.

SPECIFICATION 814	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	10-10-00	APPROVAL	2-1-01
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA StateHighway Administration

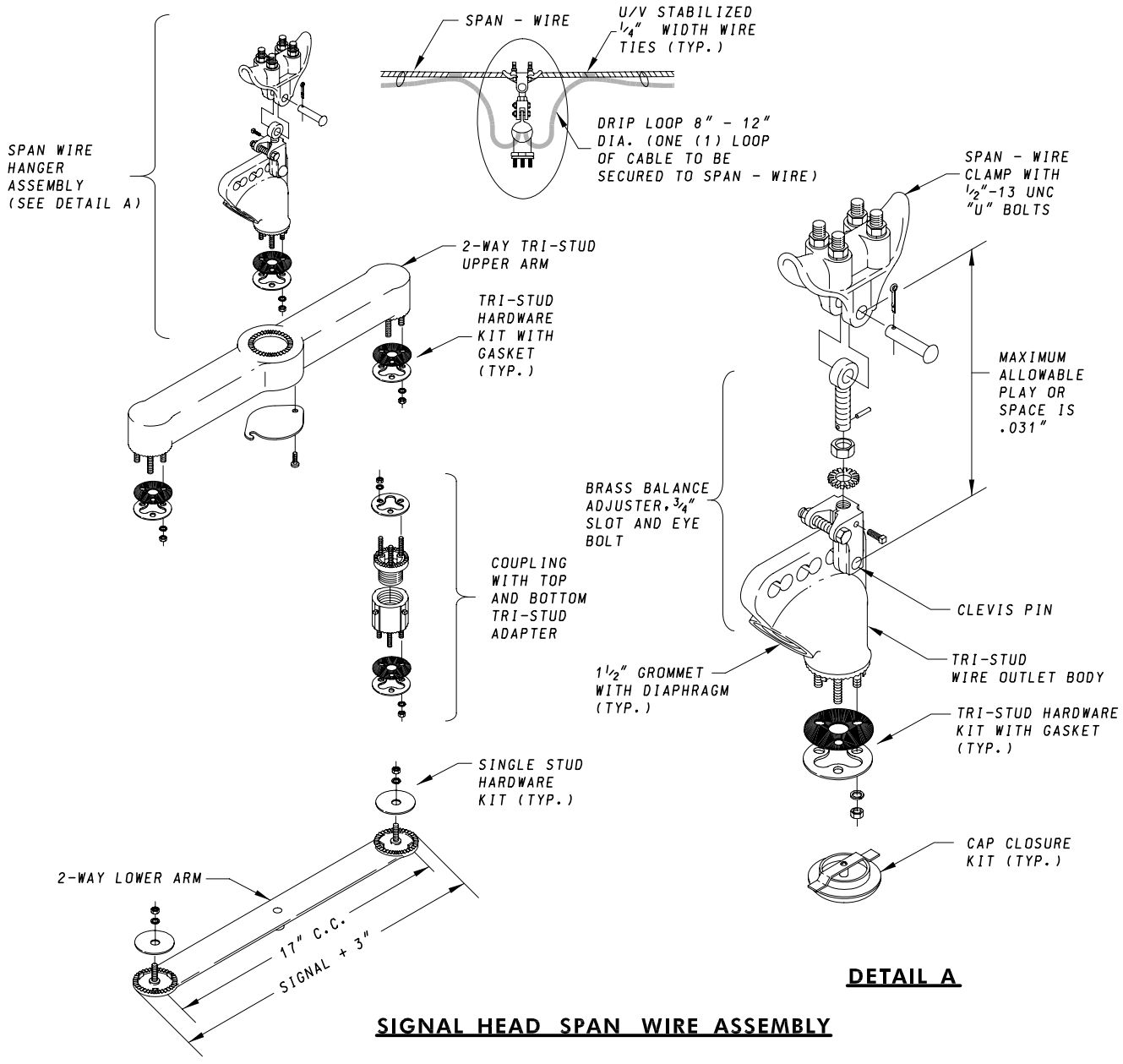
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TOP POLE MOUNTING FOR VEHICULAR AND PEDESTRIAN SIGNAL HEADS

STANDARD NO. MD 814.04

REFERENCED ON: MD 817.01



DETAIL A

SIGNAL HEAD SPAN WIRE ASSEMBLY

NOTES:

1. UPPER AND LOWER - ARM SHALL HAVE 17" CENTER-TO-CENTER SIGNAL MOUNTING DIMENSION.
2. UPPER - ARM SHALL HAVE A MINIMUM 1 1/2" OPENING THROUGHOUT FOR EASE OF WIRING AND INSTALLATION.
3. UPPER - ARM ATTACHMENT END SHALL BE SERRATED AND HAVE THREE (3) SIGNAL CENTERING BOSSES EXTENDING 3/16" FROM SERRATIONS.
4. UPPER ARM SHALL HAVE SERRATIONS AT SIGNAL ATTACHMENT END, AND TOP CENTER OPENING SHALL HAVE 72 TOOTH DESIGN (TO WATCH SIGNAL HEAD).
5. UPPER - ARM SHALL HAVE THREE (3) STAINLESS STEEL STUDS WHICH SHALL BE CAST INTO EACH SIGNAL ATTACHMENT END. THE STUDS SHALL BE 5/16" - 18 AND EXTEND 1 1/2" BEYOND THE SERRATION (± 1/8") .
6. UPPER - ARM SHALL HAVE 3 1/2" CENTER OPENING TO ALLOW FOR WIRE ACCESS.
7. UPPER - ARM CENTER OPENING SHALL HAVE AN INSPECTION COVER THAT IS CAPABLE OF BEING OPENED WITHOUT THE REMOVAL OF ANY SCREWS. THE COVER SHALL ROTATE ABOUT THE AXIS OF ONE END AND BE SECURED AT THE OTHER END.
8. LOWER - ARM SHALL HAVE HALF CIRCLE SERRATIONS ON BOTTOM FOR TETHER HARDWARE.
9. ORIENT WIRE OUTLET BODY IN SAME DIRECTION AS SIGNAL FACES.

SPECIFICATION 814	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	10-10-00	APPROVAL	2-1-01
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

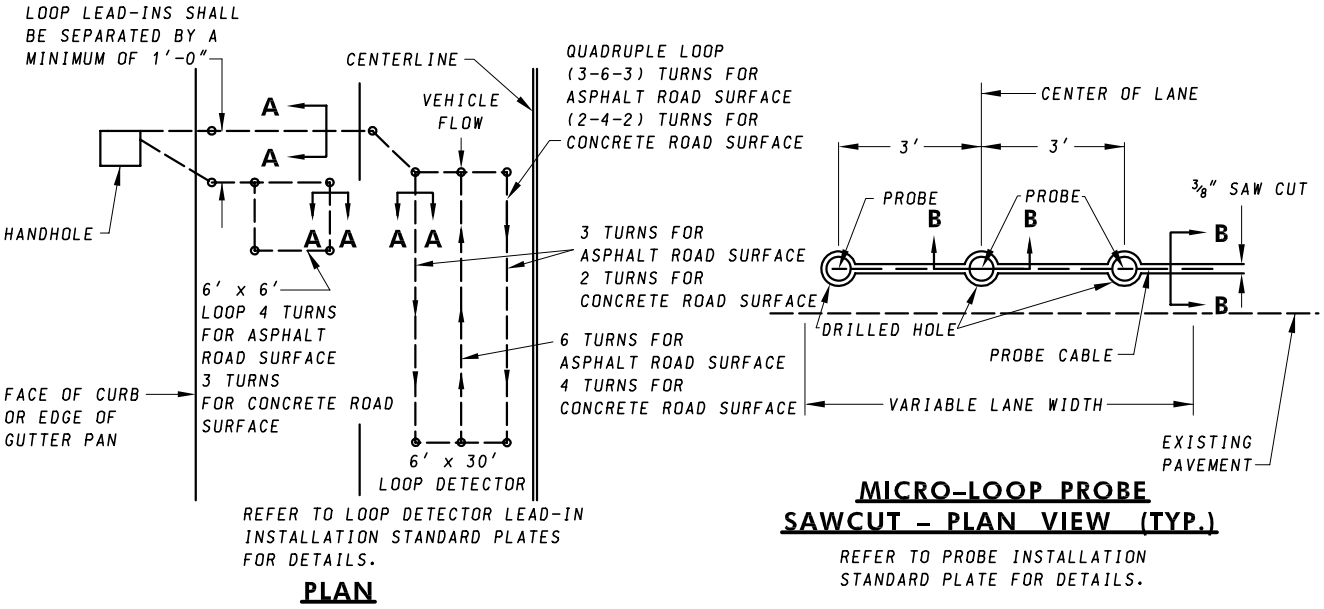
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

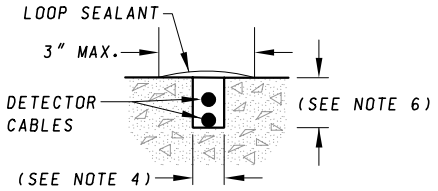
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SPAN WIRE MOUNTING FOR VEHICULAR SIGNAL HEADS

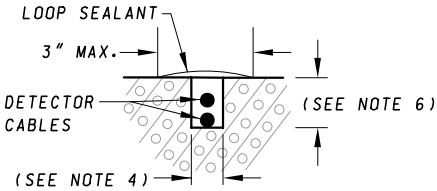
STANDARD NO. MD 814.05



LOOP DETECTOR SAWCUT TYPICAL



SECTION A-A
CONCRETE SURFACE



SECTION A-A
ASPHALT SURFACE

NOTES:

1. WHEN A PROPOSED LOOP DETECTOR SAWCUT CROSSES A LATERAL ROADWAY JOINT OR VALVE COVER (ie. MANHOLE, HANDHOLE, ETC.), LOOP DETECTOR INSTALLATION SHALL BE MODIFIED INTO TWO SEPARATE LOOP DETECTORS WHICH SHALL NOT TRAVERSE JOINTS OR VALVE COVERS.
2. THE LOOPS SHALL BE PLACED IN THE CENTER OF THE LANE UNLESS OTHERWISE NOTED ON PLANS.
3. PRESENCE LOOP DETECTORS ARE TO BE PLACED 12" BEHIND THE EXISTING OR PROPOSED STOP LINE.
4. LOOP DETECTOR AND LEAD-IN SAWCUTS SHALL BE 5/8". PROBE SAWCUTS SHALL BE 3/8".
5. 1 1/2" DRILL HOLES SHALL BE USED AT ALL CHANGES IN SAWCUT DIRECTIONS.
6. 2" DEPTH FOR CONCRETE ROAD SURFACE OR 4 1/2 " DEPTH FOR ASPHALT ROAD SURFACE.
7. MIDDLE PROBE SHALL BE CENTERED IN LANE.
8. LOOP DETECTORS AND PROBES INSTALLED AS PART OF A RESURFACING PROJECT SHALL BE PLACED IN THE PAVING COURSE PRIOR TO LAYING THE FINAL SURFACE COURSE.
9. WHEN INDICATED ON THE PLANS FOR A LOOP DETECTOR TO BE INSTALLED IN A HOT ASPHALT PATCH, THE ROADWAY SHALL BE PATCHED TO CONFORM TO SECTION 505 PRIOR TO THE INSTALLATION OF THE LOOP DETECTOR. THE PATCH SIZE SHALL BE AS SHOWN ON THE PLANS.
10. DETECTOR TO BE INSTALLED IN PORTLAND CEMENT. CONCRETE PAVEMENT REPAIRS SHALL CONFORM TO SECTION 522 PRIOR TO THE INSTALLATION OF THE LOOP DETECTOR. MINIMUM LONGITUDINAL ROADWAY REPAIR SHALL BE 8' FOR 6' x 6' LOOP DETECTORS AND 32' FOR 6' x 30' LOOP DETECTORS.

SPECIFICATION	CATEGORY CODE ITEMS
505, 522, 810, 815	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	9-23-09	REVISED	7-27-09
REVISED		REVISED	
REVISED		REVISED	

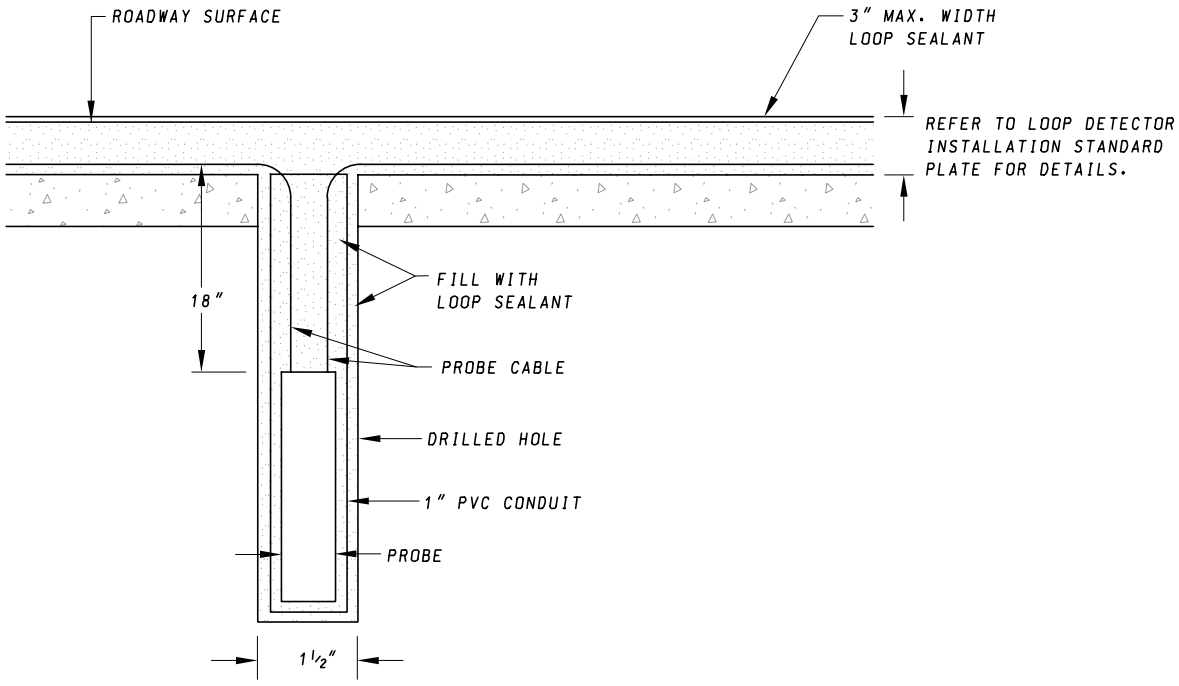
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LOOP DETECTOR INSTALLATION

STANDARD NO. MD 815.01



NOTES:

1. PROBE TO BE INSTALLED PLUMB.
2. REFER TO LOOP DETECTOR INSTALLATION STANDARD PLATE FOR DETAILS.

SECTION B – B (See Std. MD 815.01)

SPECIFICATION	CATEGORY CODE ITEMS
810, 815	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

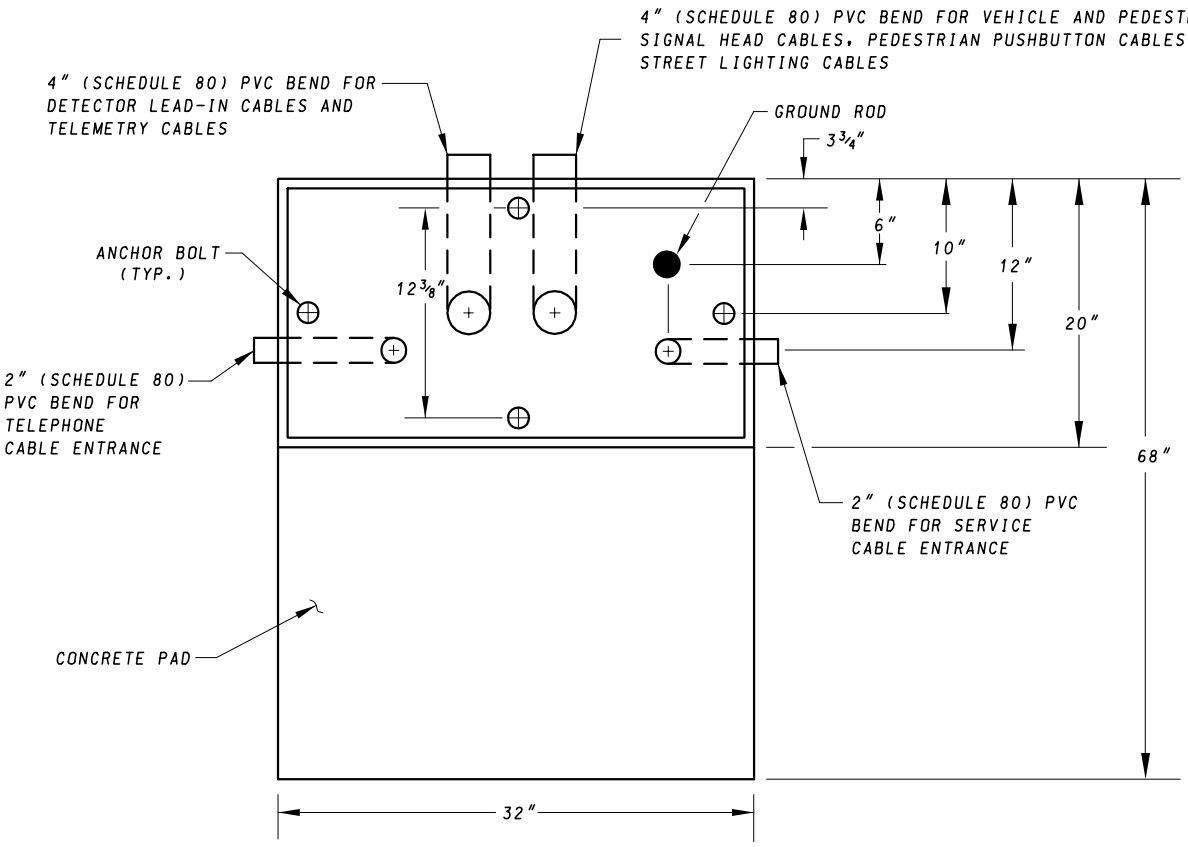
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

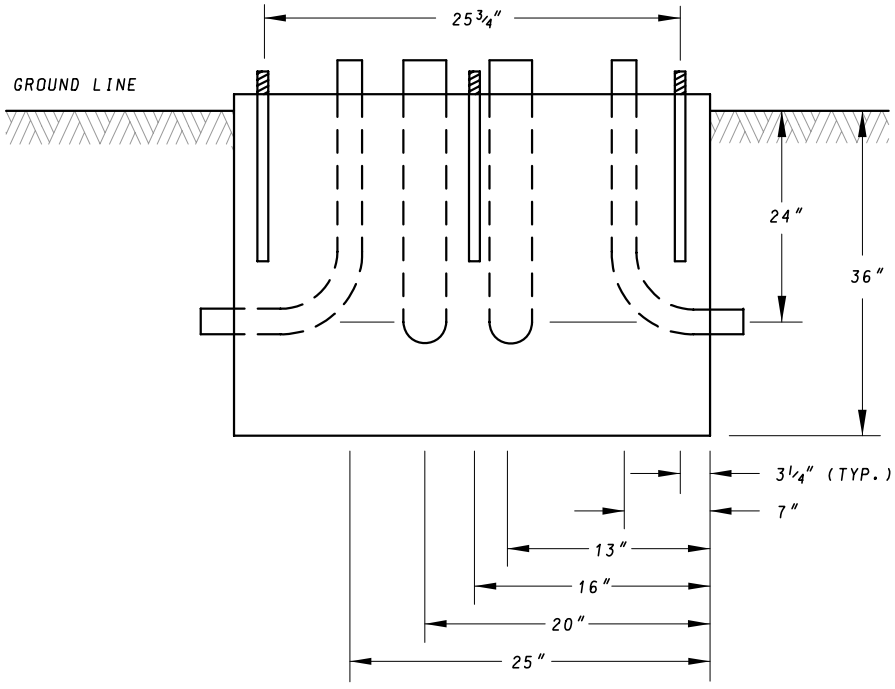
PROBE INSTALLATION

STANDARD NO. MD 815.02

REFERENCED ON: MD 815.01



PLAN VIEW



NOTES:

1. BENDS, GROUND ROD, AND ANCHOR BOLTS TO PROJECT ABOVE BASE 2 1/2" ± 1/2".
2. ALL CONDUIT AND GROUND ROD LOCATIONS ± 1/2".
3. ALL ANCHOR BOLT LOCATIONS ± 1/4".
4. REFER TO FOUNDATION DETAILS FOR BASE MOUNTED CABINET STANDARD PLATE FOR CONCRETE PAD DETAILS.

SPECIFICATION 816	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

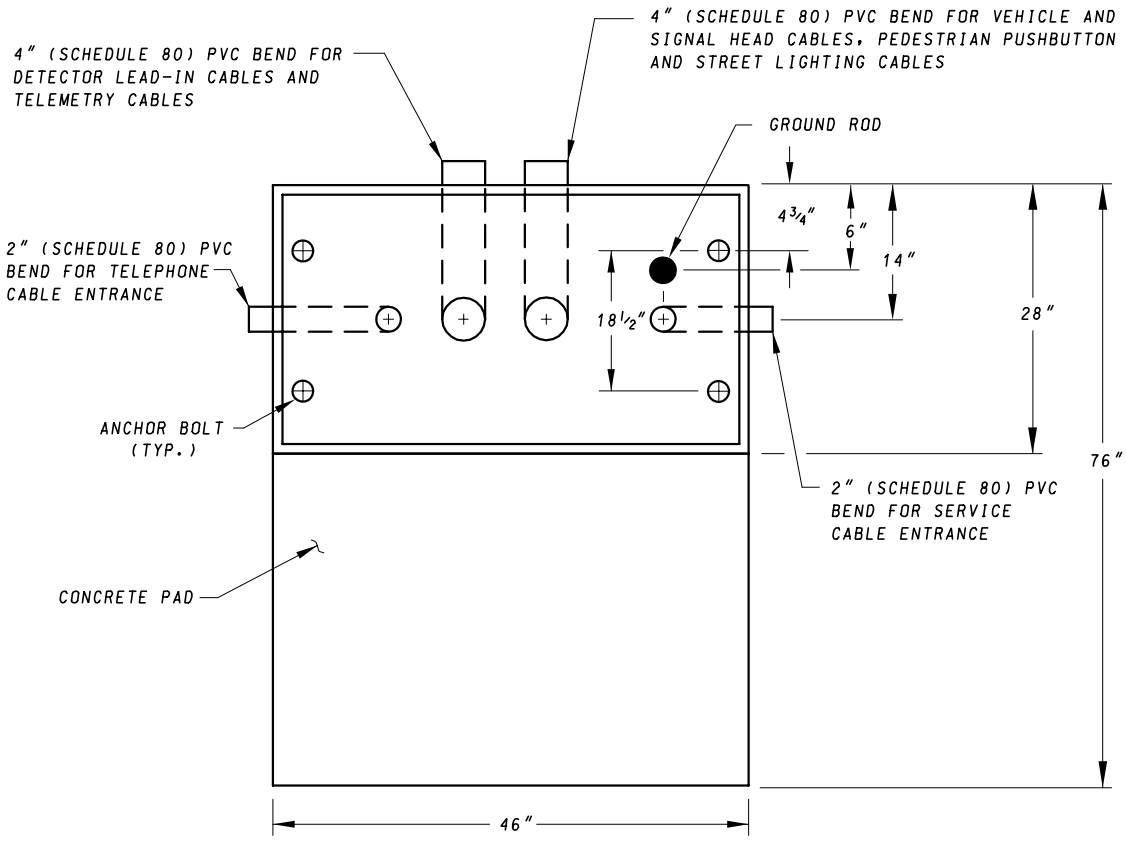
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

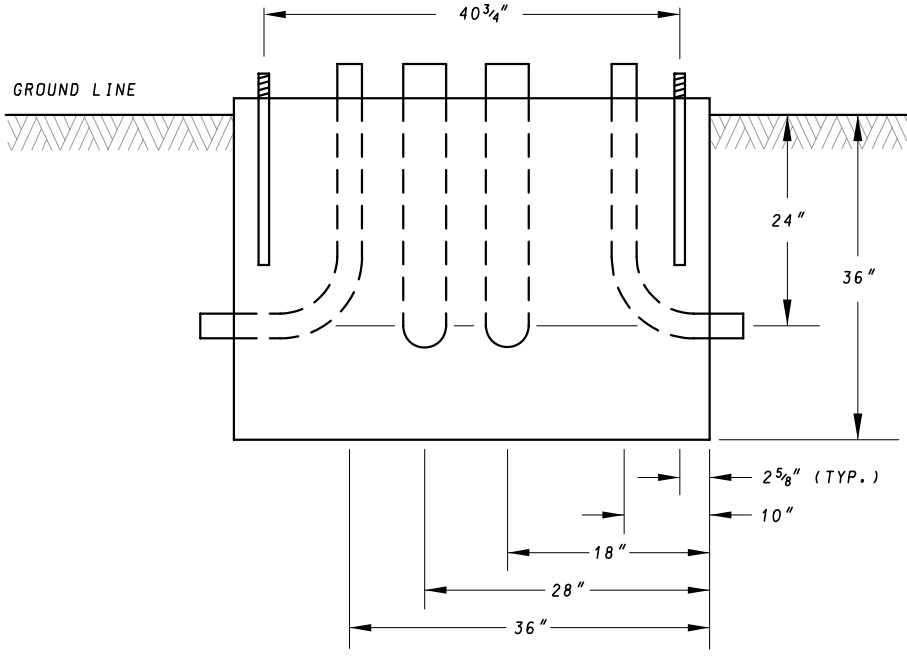
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

NEMA SIZE 5 BASE MOUNTED CABINET LAYOUT

STANDARD NO. MD 816.01



PLAN VIEW



NOTES:

1. BENDS, GROUND ROD, AND ANCHOR BOLTS TO PROJECT ABOVE BASE 2 1/2" ± 1/2".
2. ALL CONDUIT AND GROUND ROD LOCATIONS ± 1/2".
3. ALL ANCHOR BOLT LOCATIONS ± 1/4".
4. REFER TO FOUNDATION DETAILS FOR BASE MOUNTED CABINET STANDARD PLATE FOR CONCRETE PAD DETAILS.

SPECIFICATION 816	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

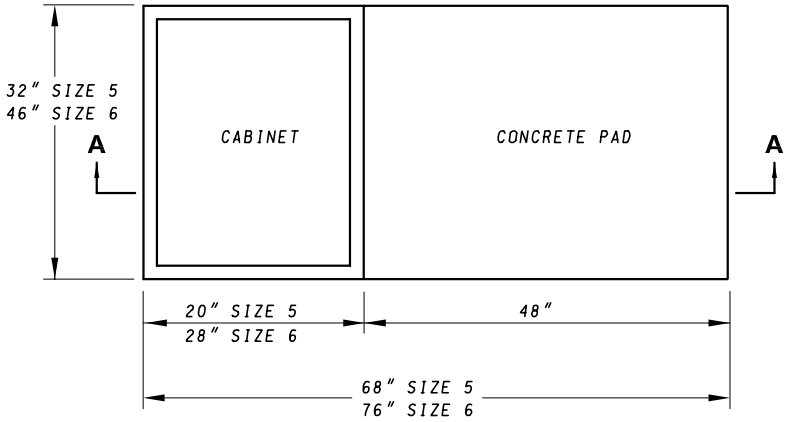
SHA StateHighway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

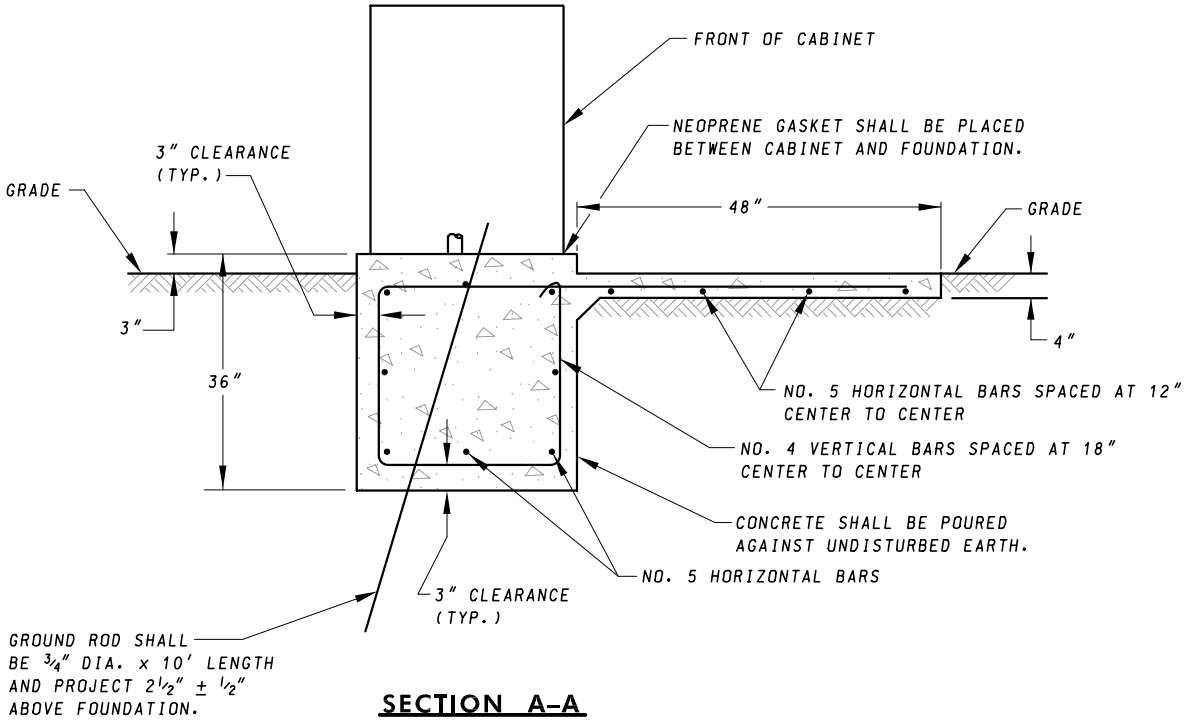
NEMA SIZE 6 BASE MOUNTED CABINET LAYOUT

STANDARD NO. MD 816.02



CABINET SIZE	CONCRETE (C.Y.)
NEMA SIZE 5	0.7
NEMA SIZE 6	1.2

PLAN VIEW



SECTION A-A

NOTE:

IF CABINET DOOR FACES EXISTING OR PROPOSED SIDEWALK AREA, DELETE STANDING PAD PORTION OF FOUNDATION.

SPECIFICATION 816	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

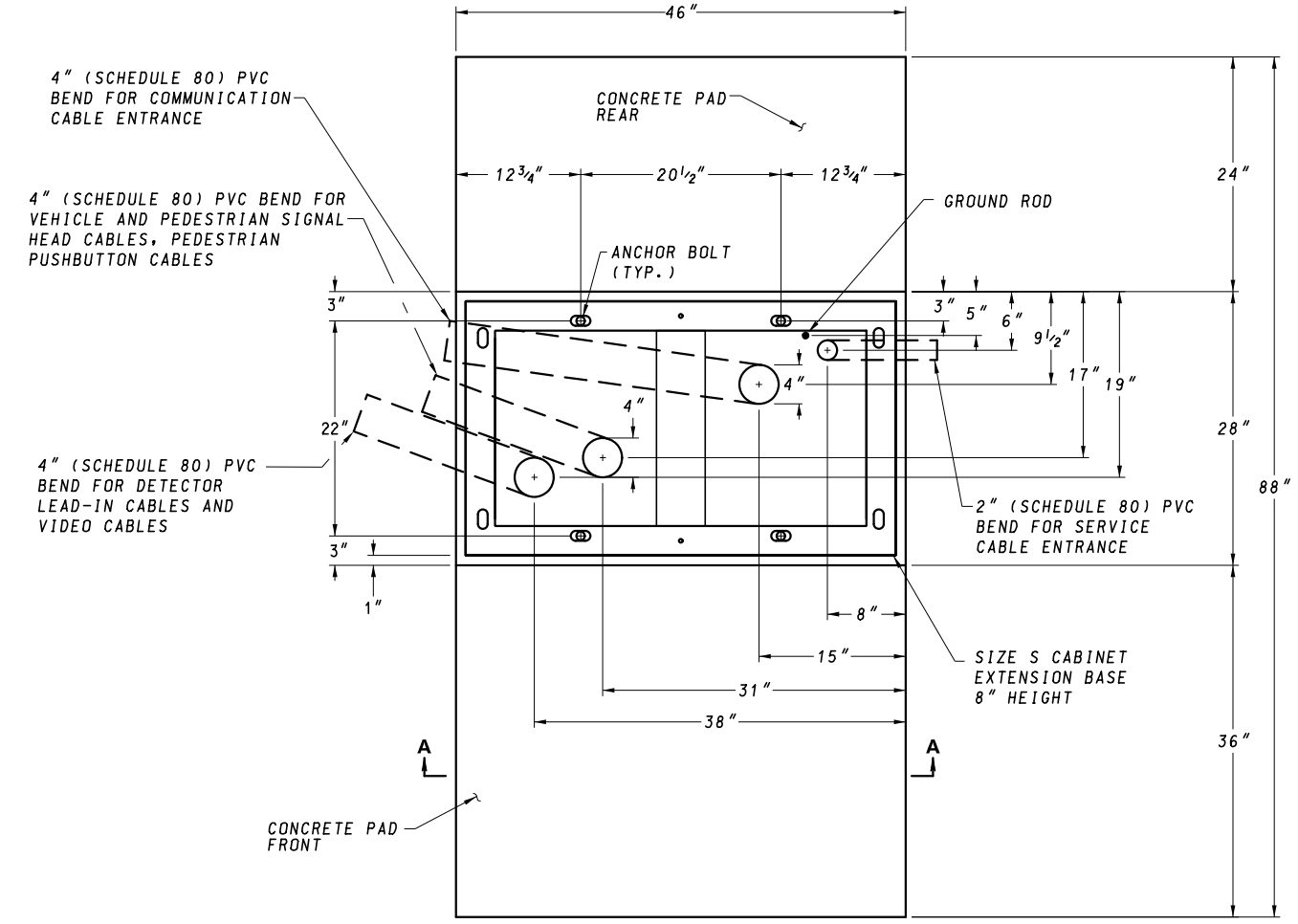
SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

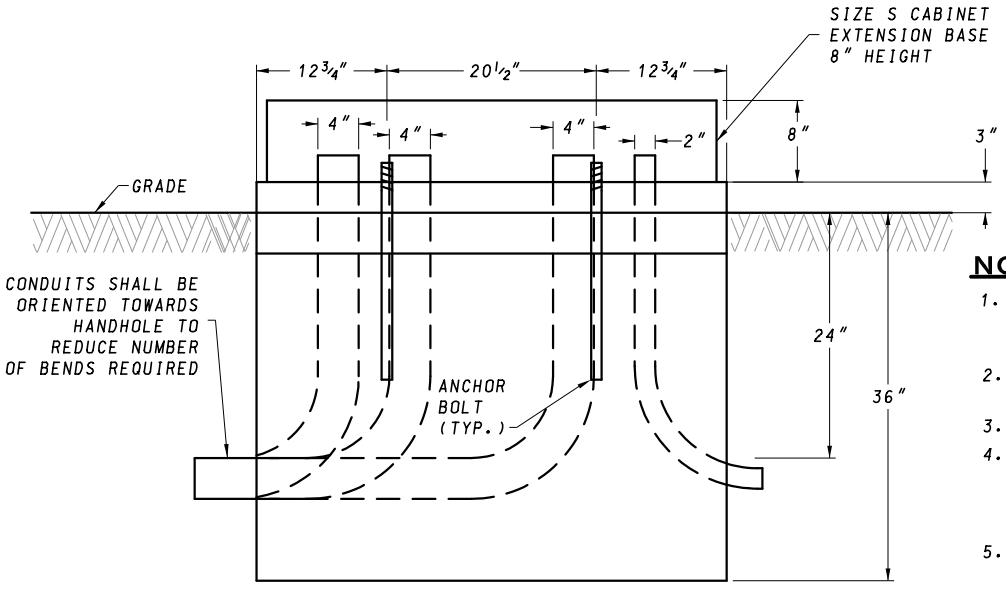
FOUNDATION DETAILS FOR BASE MOUNTED SIGNAL CABINETS

STANDARD NO. MD 816.03

REFERENCED ON: MD 816.01, MD 816.02



PLAN VIEW



SECTION A–A

NOTES:

1. BENDS, GROUND ROD, AND ANCHOR BOLTS TO PROJECT ABOVE BASE 2½″ ± ½″.
2. ALL CONDUIT AND GROUND ROD LOCATIONS ± ½″.
3. ALL ANCHOR BOLT LOCATIONS ± ¼″.
4. REFER TO FOUNDATION DETAILS FOR SIZE S BASE MOUNTED CABINET STANDARD PLATE FOR CONCRETE PAD DETAILS.
5. PRIOR TO INSTALLATION OF WIRING, INSTALL BELL END FITTINGS ON ALL PVC CONDUITS.

SPECIFICATION 816	CATEGORY CODE ITEMS

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

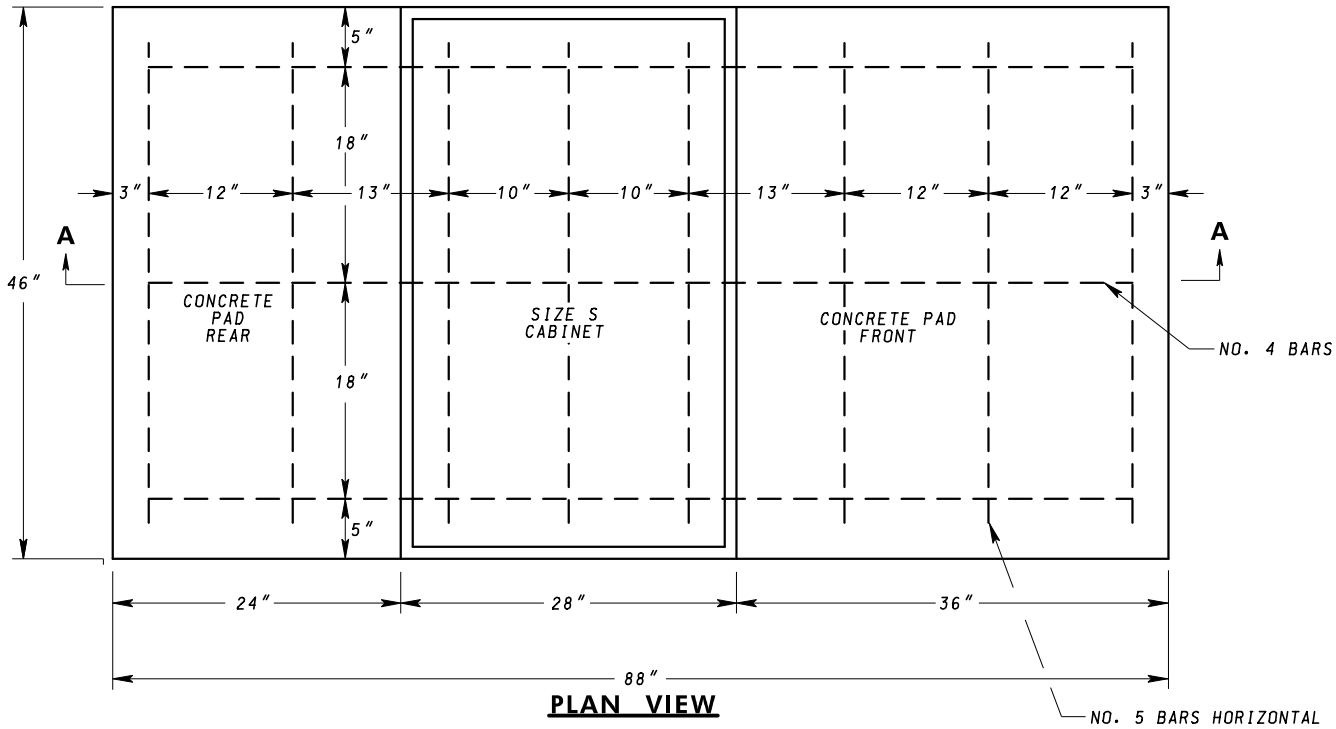
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	11-10-18	APPROVAL	10-26-18
REVISED		REVISED	
REVISED		REVISED	
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

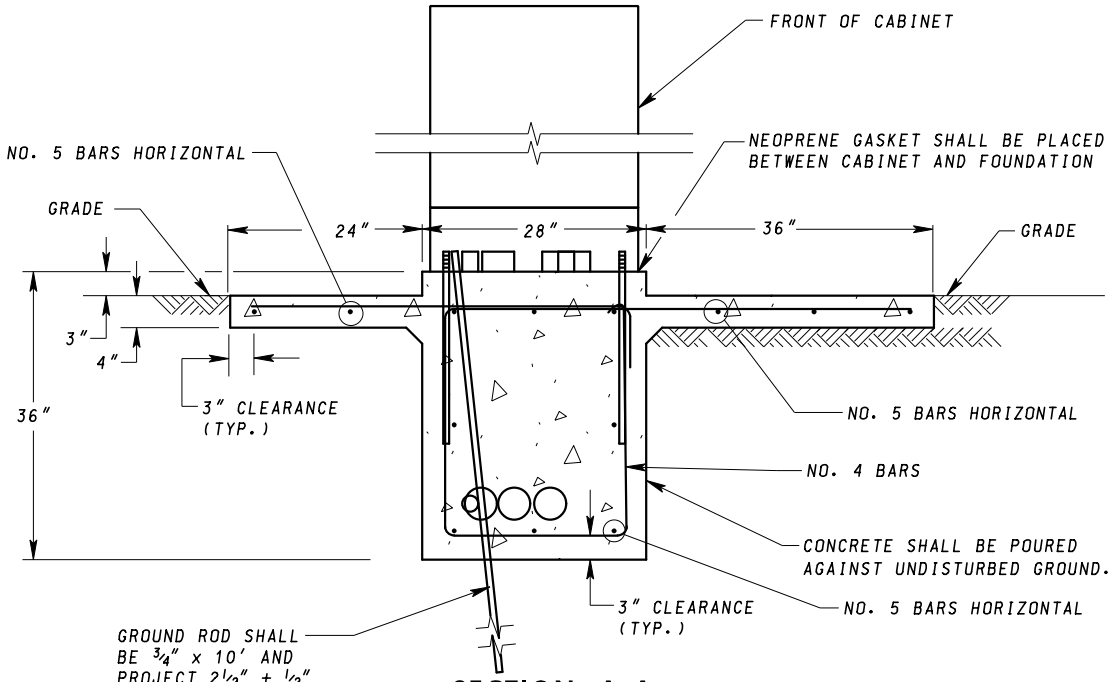
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SIZE S
BASE MOUNTED CABINET LAYOUT

STANDARD NO. MD 816.06



PLAN VIEW



SECTION A-A

NOTES:

1. ONE OR BOTH OF THE STANDING PADS MAY BY DELETED AT THE DISCRETION OF THE ENGINEER.
2. ANCHOR BOLTS WILL BE FURNISHED BY, OR AS APPROVED BY THE OFFICE OF TRAFFIC AND SAFETY.
3. REFER TO SIZE S BASE MOUNTED CABINET LAYOUT STANDARD PLATE FOR CONDUIT AND ANCHOR BOLT LAYOUT.
4. PRIOR TO INSTALLATION OF WIRING, INSTALL BELL END FITTINGS ON ALL PVC CONDUITS.

SPECIFICATION 816	CATEGORY CODE ITEMS
APPROVED Cedric Ward — DIRECTOR - OFFICE OF TRAFFIC AND SAFETY	

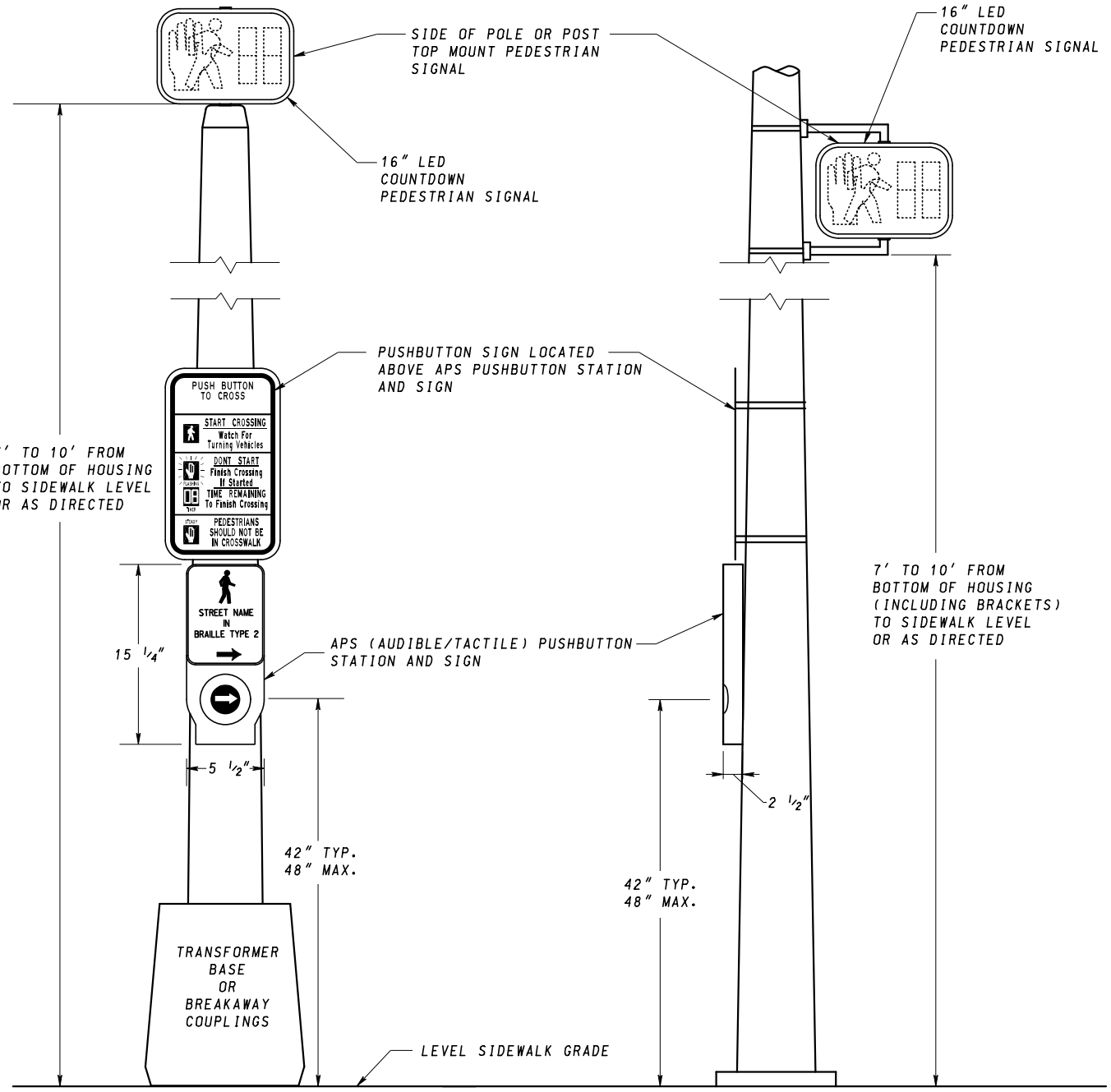
APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 01-15-19	APPROVAL 10-26-18
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

FOUNDATION DETAILS FOR SIZE S BASE MOUNTED CABINET

STANDARD NO. MD 816.07



PEDESTAL POLE **SIGNAL POLE**

NOTES:

1. PUSHBUTTON SIGN SHALL BE MOUNTED DIRECTLY ABOVE APS UNIT.
2. WHEN CUTTING IS REQUIRED, CONTRACTOR SHALL CONFIRM PROPER HEIGHT OF PEDESTAL IS MAINTAINED PRIOR TO CUTTING POLE.
3. REFER TO POLE MOUNTING FOR PEDESTRIAN SIGNAL HEADS STANDARD PLATES FOR DETAILS.
4. APS PUSHBUTTON STATION AND SIGN DIMENSIONS ARE APPROXIMATE.

SPECIFICATION	CATEGORY CODE ITEMS
817	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

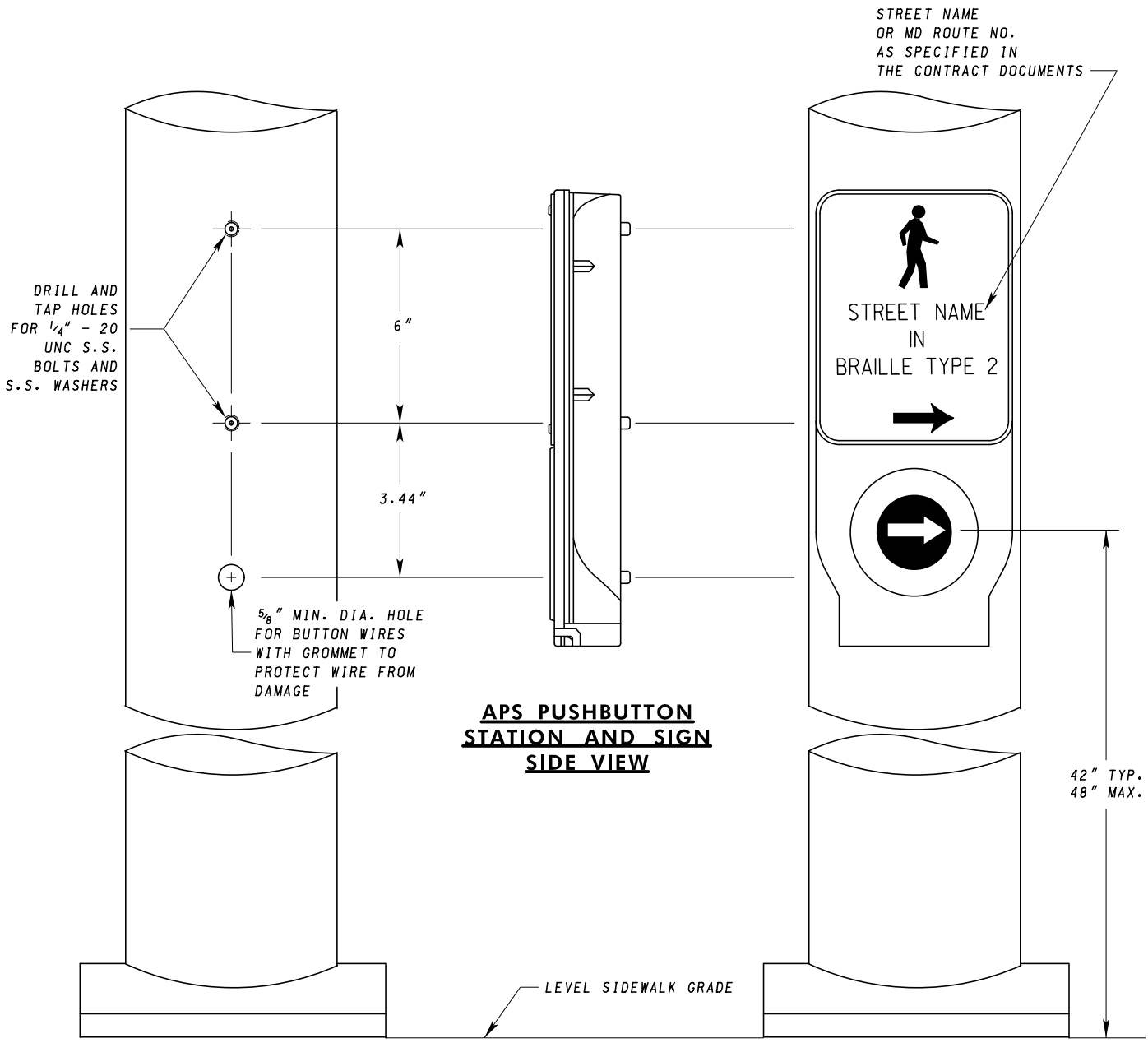
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	9-25-07	APPROVAL	9-18-07
REVISED	4-16-19	REVISED	3-25-19
REVISED		REVISED	
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTON LOCATION ON POLE

STANDARD NO. MD 817.01



APS PUSHBUTTON STATION AND SIGN SIDE VIEW

APS PUSHBUTTON STATION AND SIGN TEMPLATE

APS PUSHBUTTON STATION AND SIGN ASSEMBLY

NOTES:

1. PUSH BUTTON ASSEMBLY SHALL BE SECURED TO WOOD POLES WITH 2 1/2" LAG BOLTS.
2. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MDMUTCD AND THE LATEST NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: A GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
3. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 IN. FROM A 60 IN. BY 60 IN. LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
4. THE 10 FT. SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON. NOT CENTER OF POLE TO CENTER OF POLE.
5. PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.

SPECIFICATION	CATEGORY CODE ITEMS
817	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

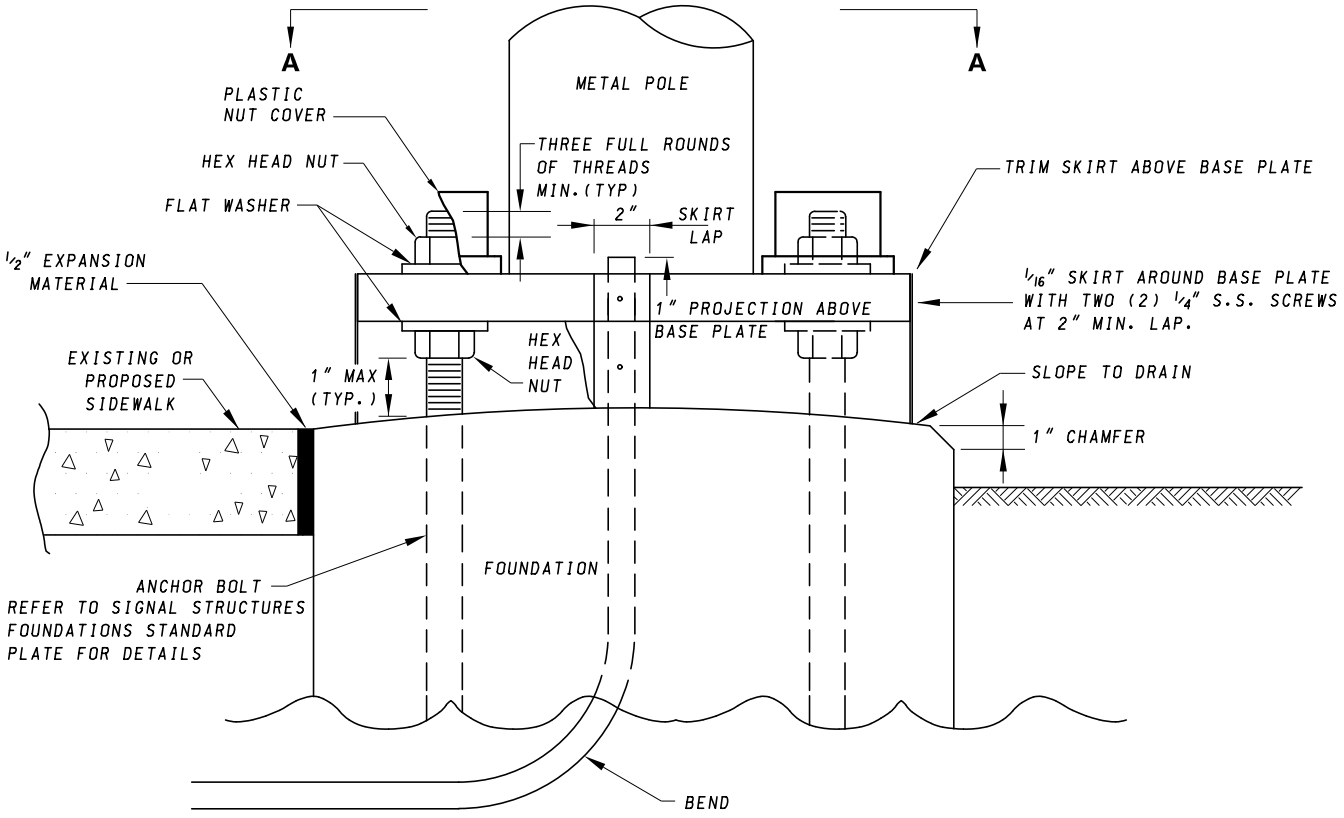
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	10-10-00	APPROVAL	2-1-01
REVISED	5-17-07	REVISED	5-2-07
REVISED	4-16-19	REVISED	3-25-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

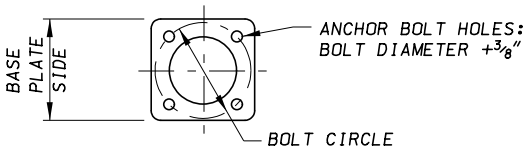
PEDESTRIAN PUSH BUTTON ASSEMBLY

STANDARD NO. MD 817.02

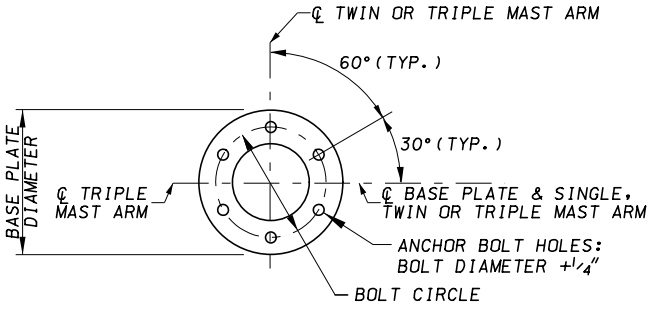


NOTES:

1. NUT INSTALLATION AND TIGHTENING REQUIREMENTS:
   ALL THREADED AREAS ON THE NUTS AND BOLTS SHALL BE CLEAN AND FREE OF OILS, DIRT, CONCRETE, AND BURRS. LEVELING NUTS AND WASHERS SHALL BE THREADED ONTO THE ANCHOR BOLTS TO THE SPECIFIED HEIGHT. A THIN COATING OF WAX SHALL BE APPLIED TO THE TOP NUT AND/OR BOLT. AFTER INSTALLING THE POLE ALL NUTS SHALL BE BROUGHT INTO CONTACT WITH THE BASE. THE TOP NUTS SHALL BE TIGHTENED TO A SNUG CONDITION. SNUG IS DEFINED AS "THE FULL FORCE OF AN ORDINARY PERSON USING AN ORDINARY SPUD WRENCH". THE NUTS SHALL THEN BE TURNED AN ADDITIONAL 60°.
   NOTE: LOCKING (SPLIT) WASHERS SHALL NOT BE USED.
2. NO GROUT SHALL BE INSTALLED.
3. SKIRT: THE ALUMINUM SKIRT SHALL CONFORM TO 3003, H-14 SPECIFICATIONS. THE SKIRT SHALL FIT TIGHT WITH BASE PLATE AFTER INSTALLATION. CORNERS SHALL HAVE SAME RADIUS AS BASE PLATE CORNERS. THERE SHALL NOT BE ANY GAP BETWEEN TOP OF FOUNDATION AND BASE PLATE.



SECTION A–A – STRAIN POLE



SECTION A–A – MAST ARM POLE

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

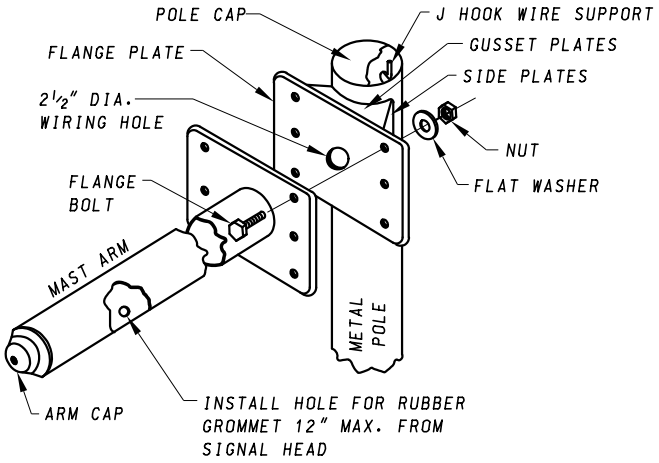
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	10-1-01	REVISED	2-1-01
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

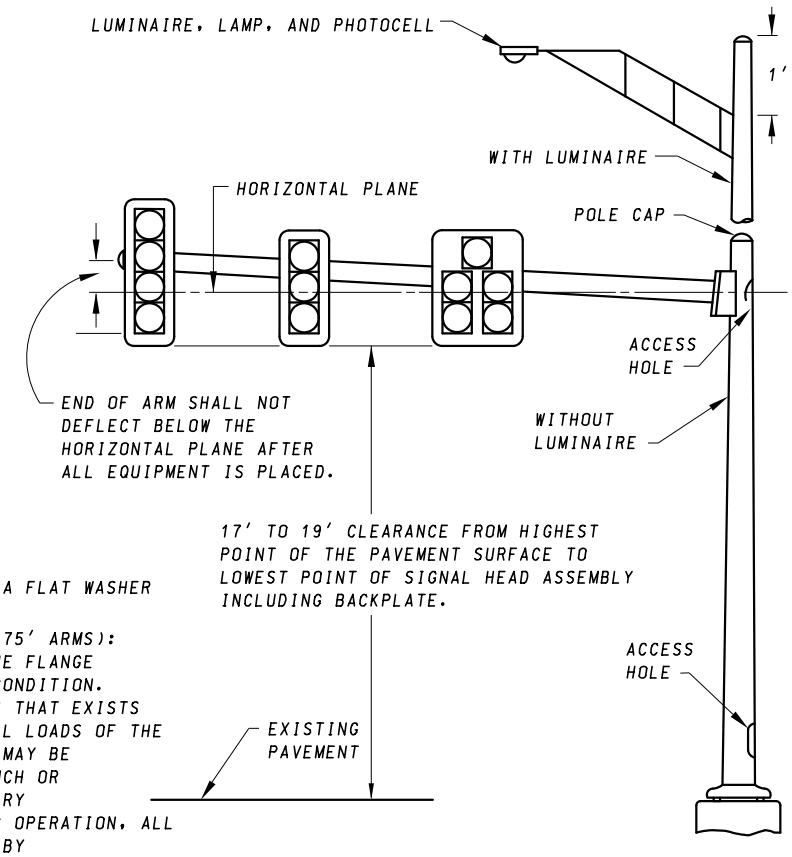
METAL POLE (STRAIN AND MAST ARM) MOUNTING DETAIL

STANDARD NO. MD 818.01



50' – 75' MAST ARMS

ARM AND SIGNAL ATTACHMENT



NOTES:

1. ALL HIGH STRENGTH (A 325) BOLTS SHALL HAVE A FLAT WASHER UNDER THE ELEMENT TO BE TURNED.
2. FLANGE BOLT TORQUE REQUIREMENTS (FOR 50' – 75' ARMS): BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE FLANGE CONNECTION AND BROUGHT UP TO A SNUG TIGHT CONDITION. SNUG TIGHTENING IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN THE PLIES ARE IN FIRM CONTACT WHILE ALL LOADS OF THE ARM ARE BEING RELEASED. ADEQUATE TIGHTNESS MAY BE OBTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A PERSON USING AN ORDINARY SPUD WRENCH. FOLLOWING THIS SNUG TIGHTENING OPERATION, ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED BY HALF (1/2) TURN (± 30°).

MAST ARM AND COMBINATION LUMINAIRE MAST ARM POLE

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

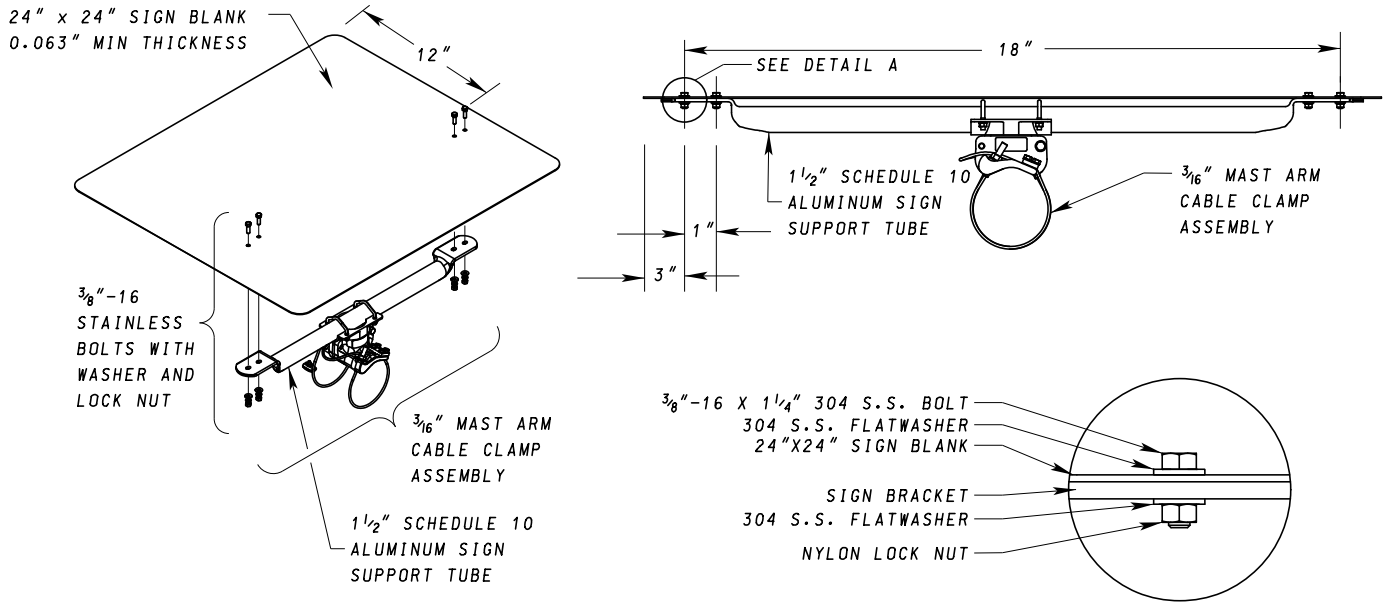
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	10-1-01	REVISED	2-1-01
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

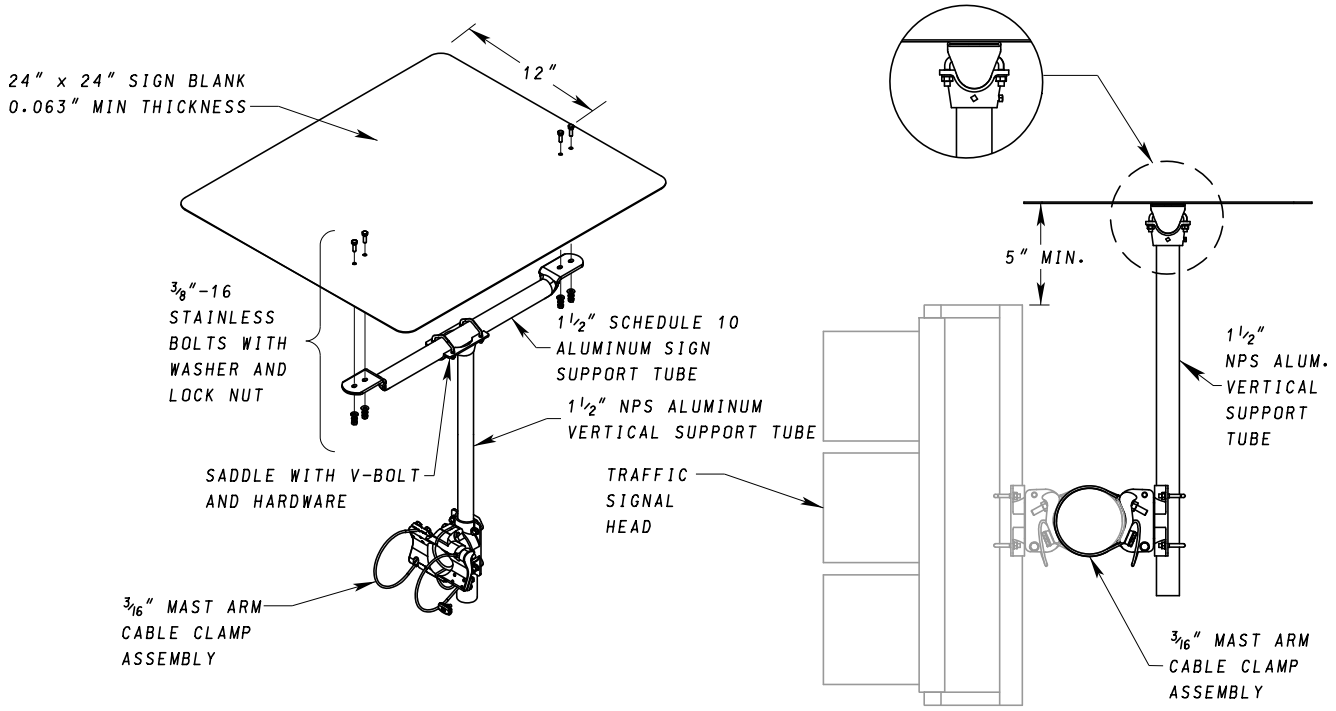
MAST ARM POLE DETAILS

STANDARD NO. MD 818.02



DETAIL A – HARDWARE

MAST ARM VIBRATION MITIGATION DEVICE DETAIL – OPTION A



MAST ARM VIBRATION MITIGATION DEVICE DETAIL – OPTION B

NOTES:

1. INSTALL VIBRATION MITIGATION DEVICE WITHIN 5 FT. OF MAST ARM TIP.
2. MITIGATION DEVICE SHALL BE INSTALLED ON ALL 75 FT. MAST ARMS.
3. MITIGATION DEVICE FOR ALL OTHER MAST ARMS SHALL BE INSTALLED IF EXCESSIVE GALLOPING IS OBSERVED.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

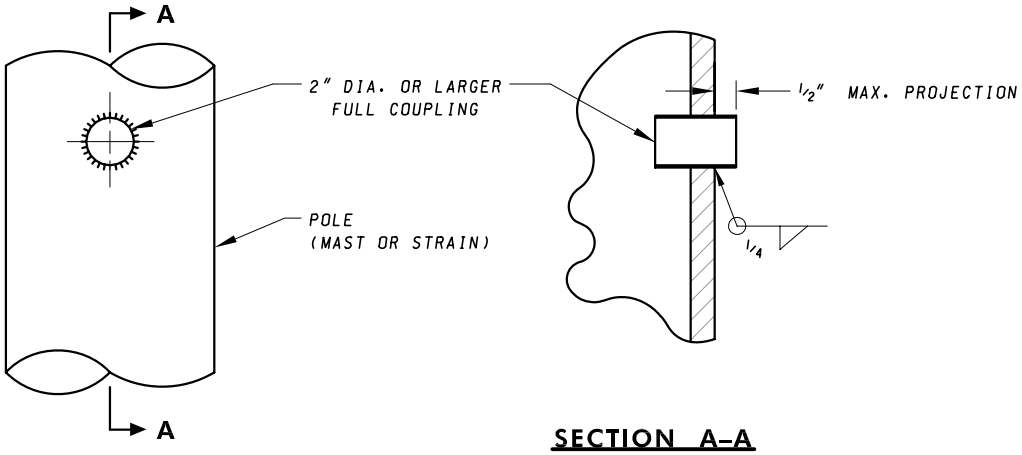
APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 11-20-19	APPROVAL 9-4-19
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

MAST ARM VIBRATION MITIGATION DEVICE

STANDARD NO. MD 818.02-01



SECTION A–A

FIELD–DRILLED POLE /ARM DETAIL

NOTES:

1. A HOLE MAY BE DRILLED WITHOUT WELDING A COUPLING FOR HOLES LESS THAN 2" PROVIDED THERE IS NO OTHER HOLE WITHIN 12". AFTER DRILLING THE HOLE FOLLOW NOTE 6.
2. COUPLINGS SHALL BE REQUIRED FOR 2" DIA. OR LARGER HOLES AND WHEN ANY SIZE OPENING IS WITHIN 12" OF EXISTING OPENING.
3. DRILL HOLE IN THE POLE TO FIT STANDARD UL 6 COUPLING. COUPLING SHALL BE WELDED TO THE POLE TO MEET AWS WELDING SPECIFICATIONS.
4. WELDER SHALL BE CERTIFIED BY THE ADMINISTRATION.
5. CONTRACTOR SHALL CONTACT SHA OFFICE OF MATERIALS AND TECHNOLOGY FOR INSPECTION AND APPROVAL OF ALL WELDING.
6. THE AFFECTED AREA SHALL BE CLEANED WITH METAL WIRE BRUSH AND PAINTED WITH INORGANIC ZINC.
7. 3" FULL COUPLING SHALL HAVE INSIDE CHASE NIPPLE.

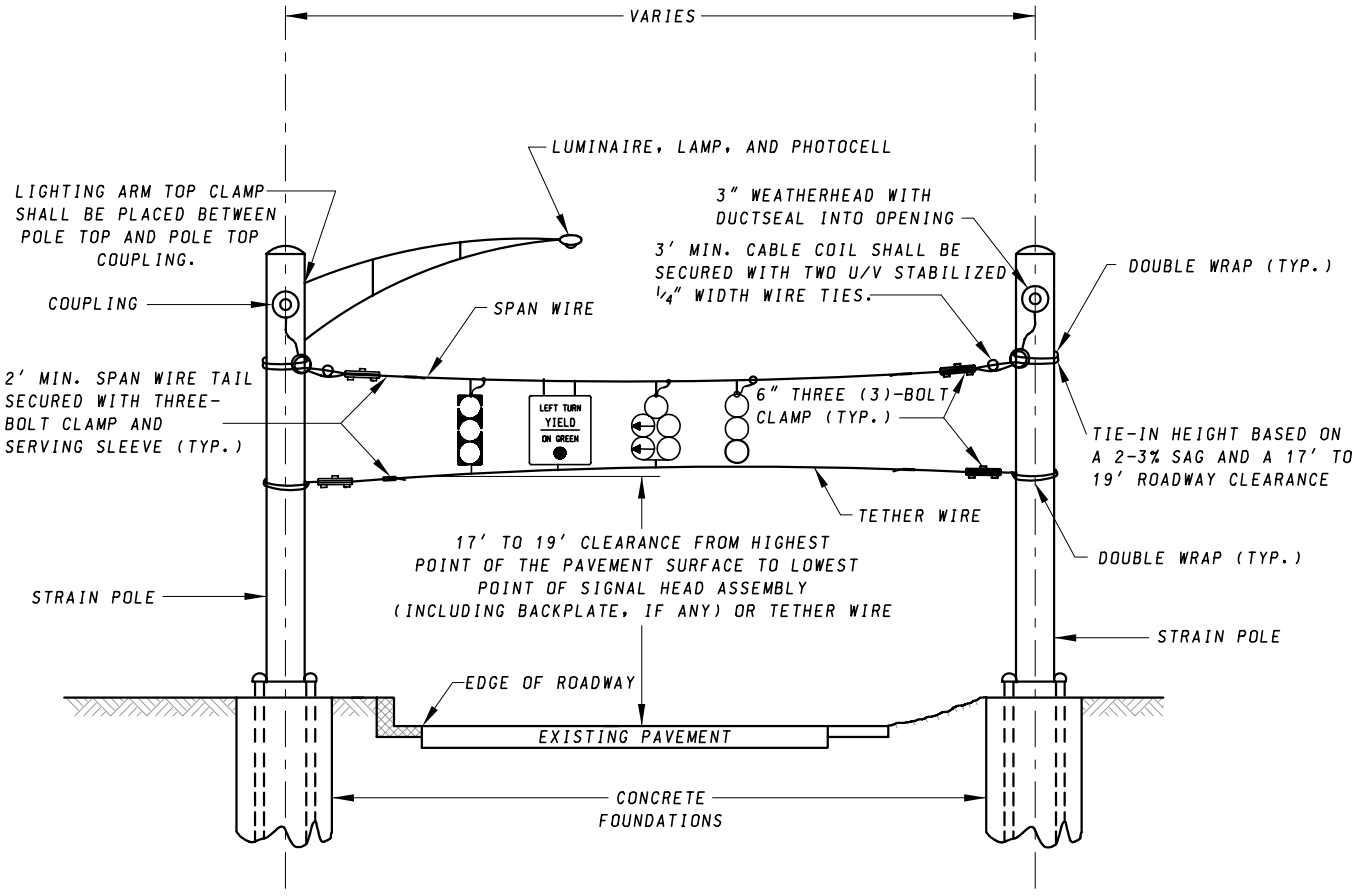
SPECIFICATION 818	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

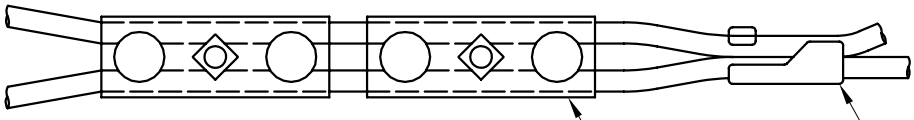
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ORIENTATION OF STRAIN POLE & FIELD DRILLED POLE /ARM DETAIL

STANDARD NO. MD 818.03

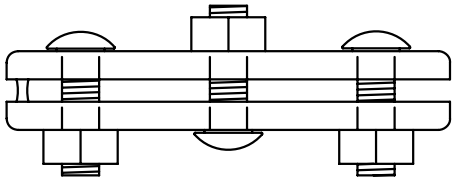




SPAN WIRE ASSEMBLY

NOTES:

1. SPAN WIRE RINGS SHALL BE 3" MIN. DIA. OR MAX. 50% FILL (WHICHEVER IS LARGER) AND HAVE 8" MAX. SPACING.
2. SPAN WIRE MOUNTED, OPTICALLY PROGRAMMED SIGNAL HEADS, FIVE (5) SECTION SIGNAL HEADS, ALL POLYCARBONATE SIGNAL HEADS, AND SIGNS GREATER THAN 36" x 42" SHALL BE BOTTOM TETHERED WITH 1/4" SPAN WIRE.
3. POLES SHALL BE RAKED AS SPECIFIED BY THE PROJECT ENGINEER.
4. POLE PLACEMENT FOR:
   A. CLOSED SECTION - MIN. OF 2' FROM THE FACE OF THE POLE TO THE FACE OF THE CURB.
   B. OPEN SECTION - MIN. OF 6' FROM THE FACE OF THE POLE TO THE ROAD EDGE PAVEMENT MARKING.
5. SPAN WIRE SHALL BE PLACED UNDER ALL RISERS.
6. SPAN WIRE SHALL BE 3/8" SEVEN (7)-WIRE GAL. STEEL STRAND. (STRENGTH SHALL BE SIEMENS-MARTIN 6.950 LBS.)
7. TETHER WIRE SHALL BE 1/4" SEVEN (7)-WIRE GAL. STEEL STRAND. (STRENGTH SHALL BE SIEMENS-MARTIN 3.150 LBS.)
8. TWO (2) THREE-BOLT CLAMPS SHALL BE USED FOR SPANS GREATER THAN 150 FEET.



3-BOLT CLAMP

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

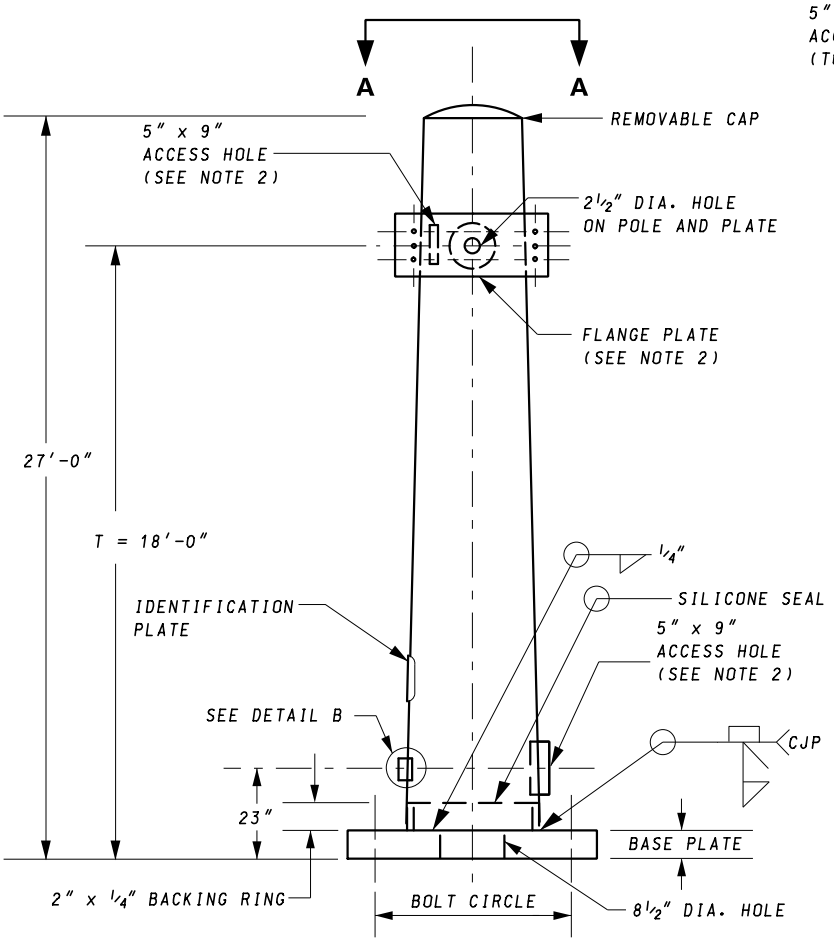
SHA State Highway Administration

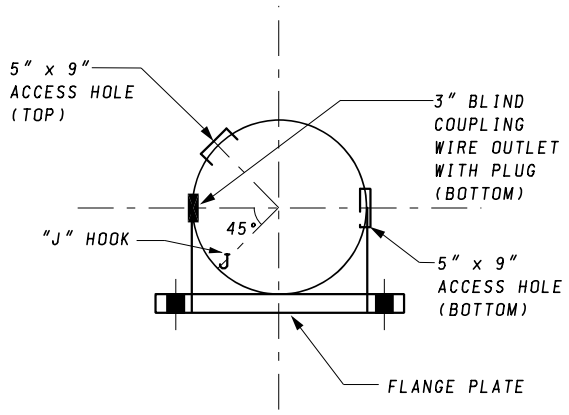
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

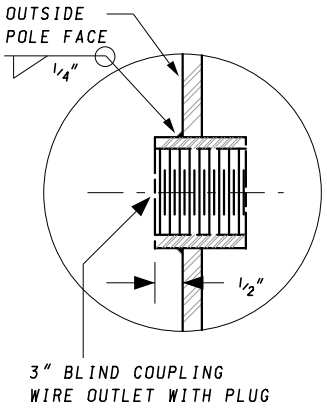
PLACEMENT OF STRAIN POLE AND INCIDENTAL HARDWARE

STANDARD NO. MD 818.04





VIEW A-A



DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 16″ x 12.22″ x 27′	50′ & 60′	SIX (6)- 2″ DIA. x 72″ LENGTH 4½ THREADS PER IN.	28½″ x 2½″	22″
0 GAUGE x 18.5″ x 14.72″ x 27′	70′ & 75′	SIX (6)- 2″ DIA. x 72″ LENGTH 4½ THREADS PER IN.	31½″ x 2½″	23½″

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE ¼″ LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

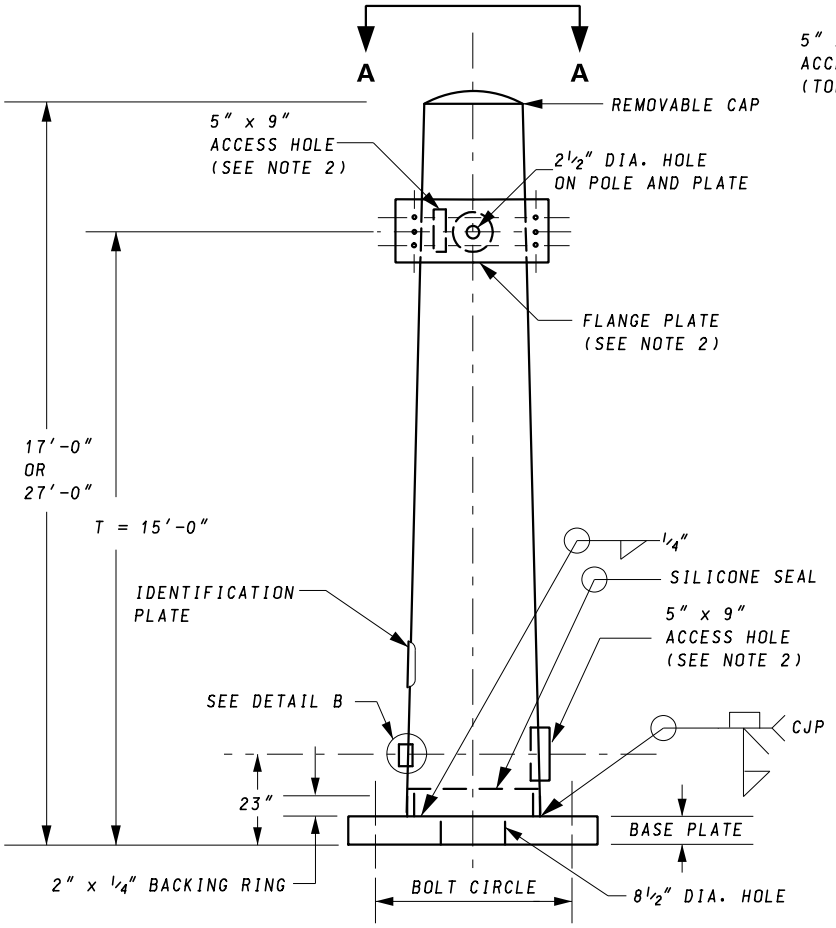
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

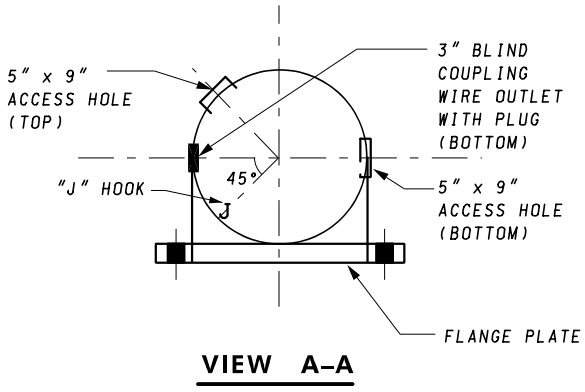
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

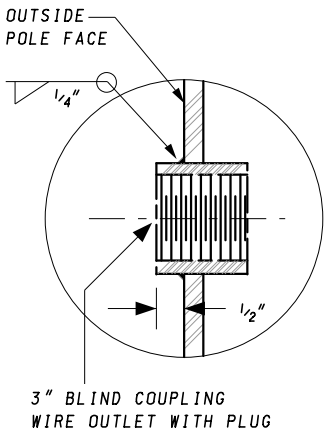
SINGLE MAST ARM POLE

STANDARD NO. MD 818.06





VIEW A–A



DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 16″ x 13.62″ x 17′	50′ & 60′	SIX (6)– 2″ DIA. x 72″ LENGTH 4½ THREADS PER IN.	28½″ x 2½″	22″
0 GAUGE x 18.5″ x 16.12″ x 17′	70′ & 75′	SIX (6)– 2″ DIA. x 72″ LENGTH 4½ THREADS PER IN.	31½″ x 2½″	23½″
0 GAUGE x 16″ x 12.22″ x 27′	50′ & 60′	SIX (6)– 2″ DIA. x 72″ LENGTH 4½ THREADS PER IN.	28½″ x 2½″	22″
0 GAUGE x 18.5″ x 14.72″ x 27′	70′ & 75′	SIX (6)– 2″ DIA. x 72″ LENGTH 4½ THREADS PER IN.	31½″ x 2½″	23½″

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE ¼″ LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION 818	CATEGORY CODE ITEMS
APPROVED Cedric Ward DIRECTOR - OFFICE OF TRAFFIC AND SAFETY	

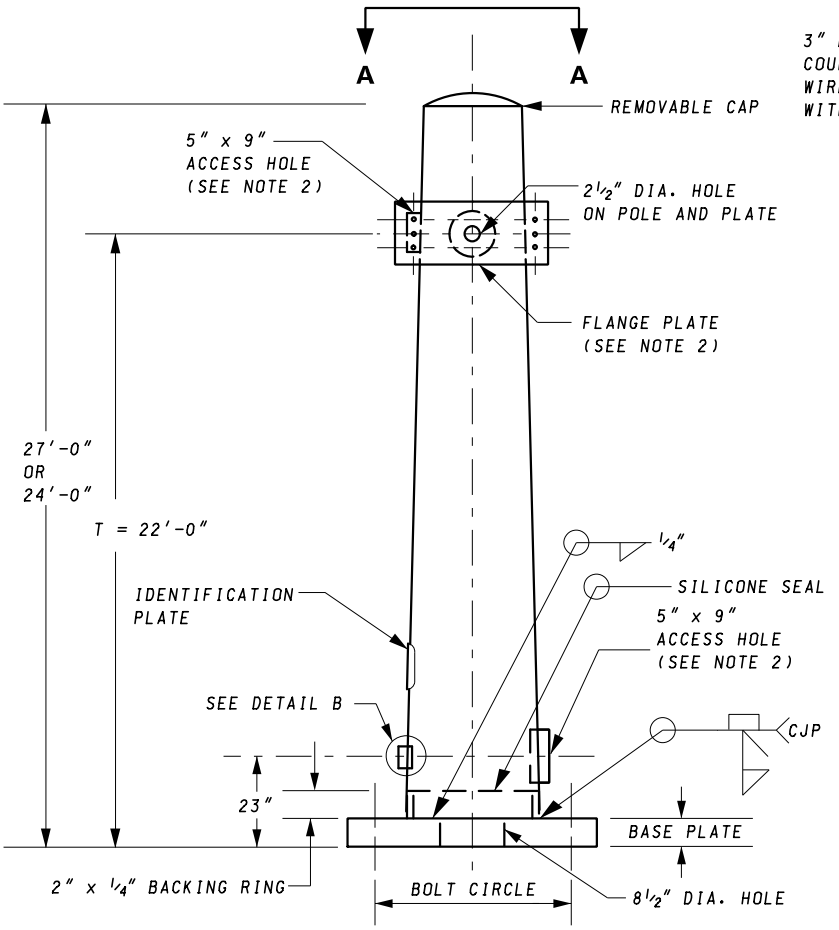
APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 11-20-19	APPROVAL 9-4-19
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

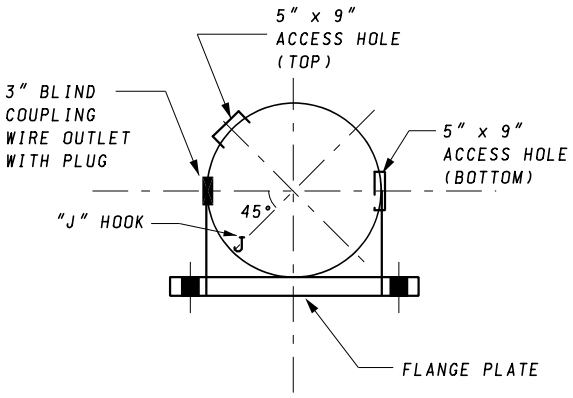
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CURVED SINGLE MAST ARM POLE

STANDARD NO. MD 818.06–01





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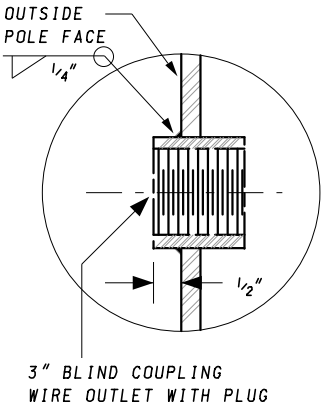


DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 18.5" x 14.72" x 27'	70' & 75'	SIX (6)- 2" DIA. x 72" LENGTH 4 1/2 THREADS PER IN.	31 1/2" x 2 1/2"	23 1/2"
0 GAUGE x 18.5" x 15.14" x 24'	70' & 75'	SIX (6)- 2" DIA. x 72" LENGTH 4 1/2 THREADS PER IN.	31 1/2" x 2 1/2"	23 1/2"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE 1/4" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

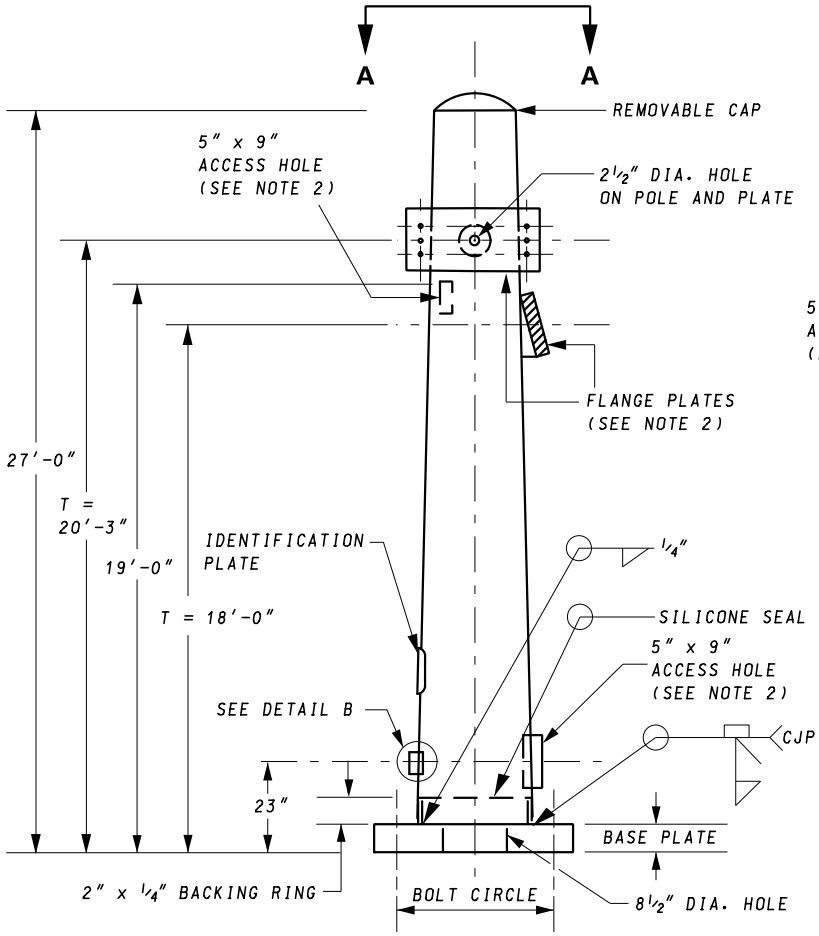
APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 11-20-19	APPROVAL 9-4-19
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

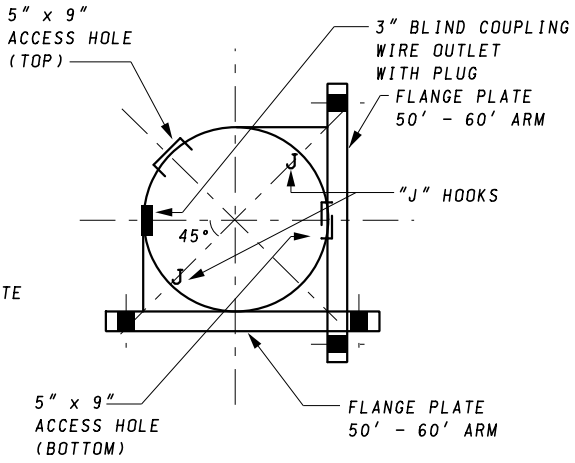
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SINGLE MAST ARM POLE WITH 22'-0" "T" DIMENSION

STANDARD NO. MD 818.06-02





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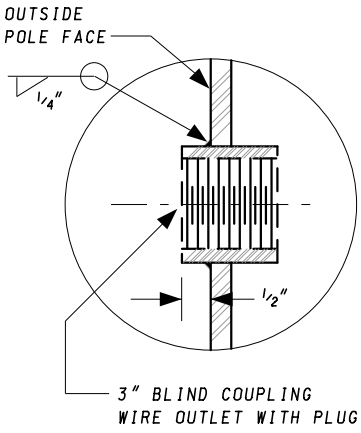


DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 16" x 12.22" x 27'	50' - 60' FLANGE: 50' - 60' 50' - 60' FLANGE: 50' - 60'	SIX (6) 2" DIA. x 72" LENGTH 4 1/2 THREADS PER IN.	28 1/2" x 2 1/2"	22"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE 1/4" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

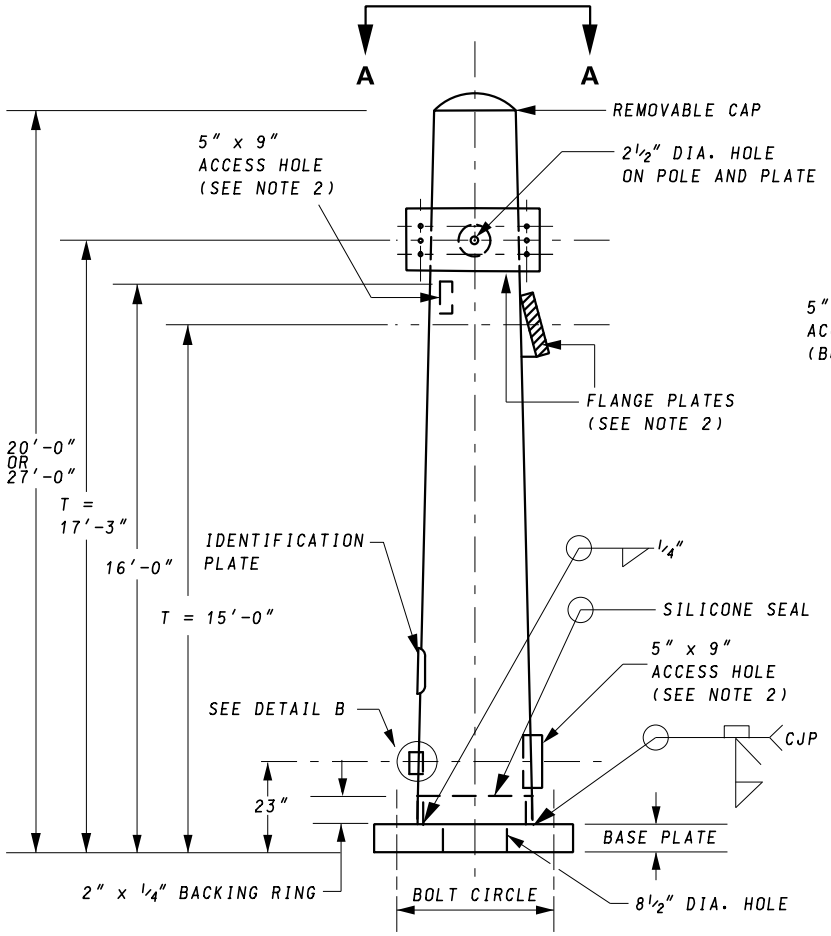
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

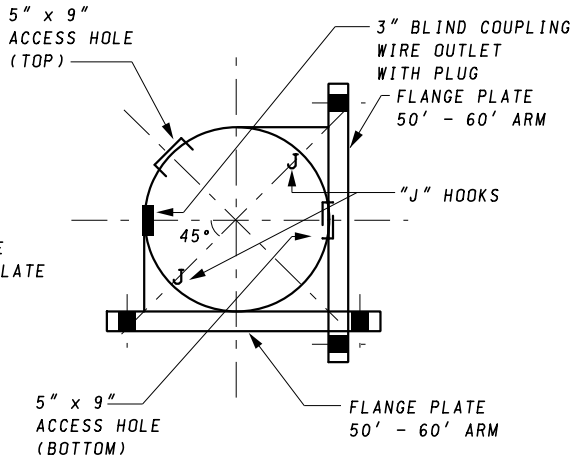
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

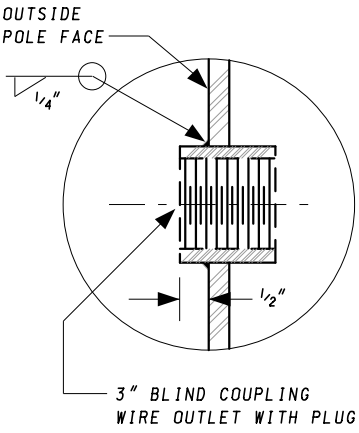
TWIN MAST ARM POLE WITH IDENTICAL FLANGE PLATES

STANDARD NO. MD 818.07





VIEW A-A



DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 16" x 13.20" x 20'	50' - 60' FLANGE: 50' - 60' 50' - 60' FLANGE: 50' - 60'	SIX (6) 2" DIA. x 72" LENGTH 4 1/2 THREADS PER IN.	28 1/2" x 2 1/2"	22"
0 GAUGE x 16" x 12.22" x 27'	50' - 60' FLANGE: 50' - 60' 50' - 60' FLANGE: 50' - 60'	SIX (6) 2" DIA. x 72" LENGTH 4 1/2 THREADS PER IN.	28 1/2" x 2 1/2"	22"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE 1/4" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

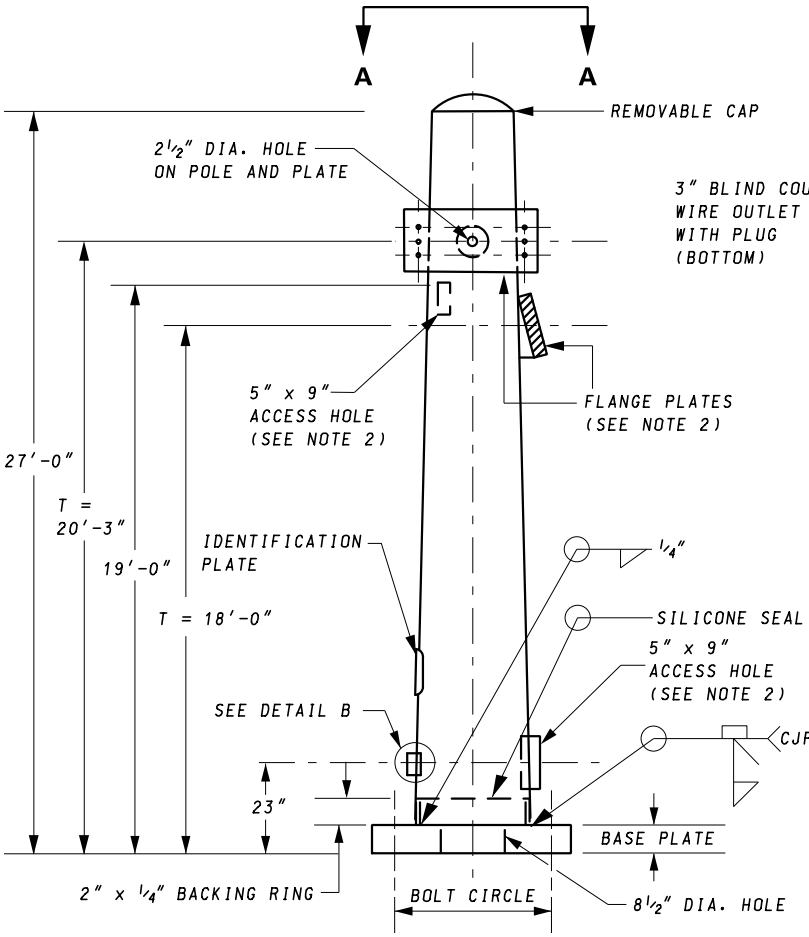
APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 11-20-19	APPROVAL 9-4-19
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

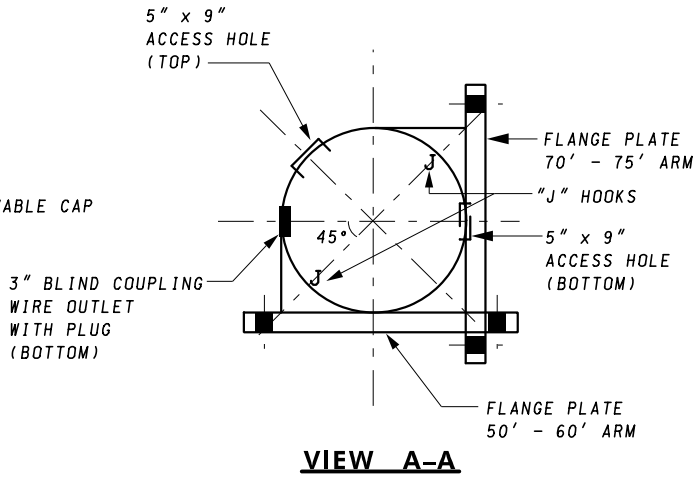
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CURVED TWIN MAST ARM POLE WITH IDENTICAL FLANGE PLATES

STANDARD NO. MD 818.07-01





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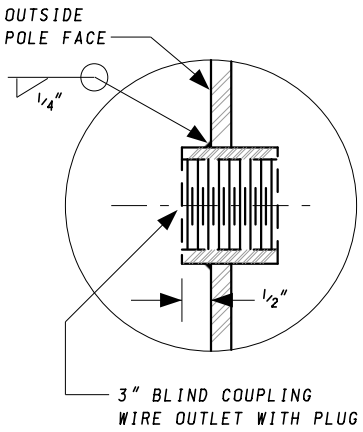


DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 18.5" x 14.72" x 27'	50' - 60' FLANGE: 50' - 60' 70' - 75' FLANGE: 70' - 75'	SIX (6) 2" DIA. x 72" LENGTH 4½ THREADS PER IN.	31½" x 2½"	23½"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE ¼" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED _____
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

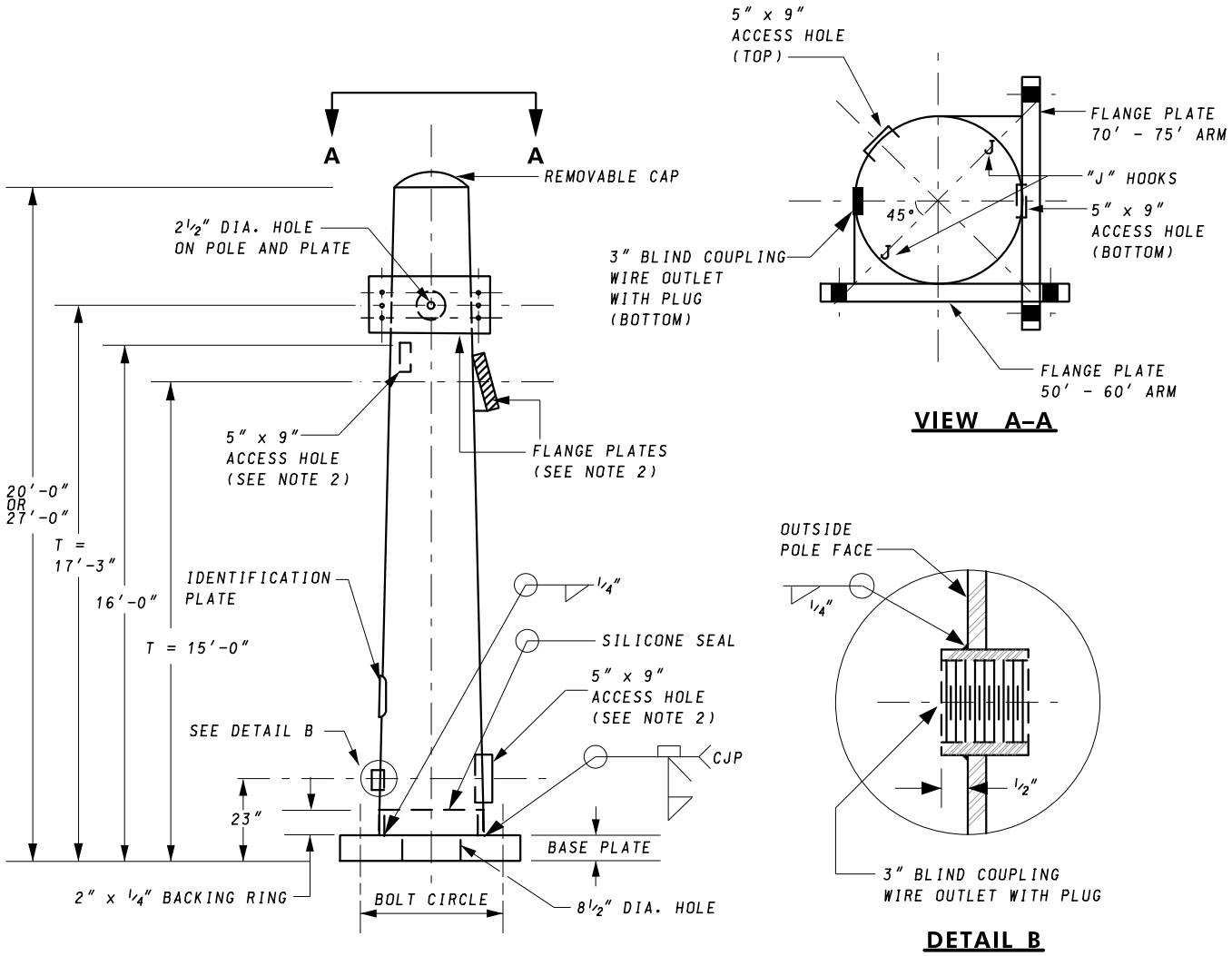
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES

STANDARD NO. MD 818.08



POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 18.5" x 15.70" x 20'	50' - 60' FLANGE: 50' - 60' 70' - 75' FLANGE: 70' - 75'	SIX (6) 2" DIA. x 72" LENGTH 4½ THREADS PER IN.	31½" x 2½"	23½"
0 GAUGE x 18.5" x 14.72" x 27'	50' - 60' FLANGE: 50' - 60' 70' - 75' FLANGE: 70' - 75'	SIX (6) 2" DIA. x 72" LENGTH 4½ THREADS PER IN.	31½" x 2½"	23½"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE ¼" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

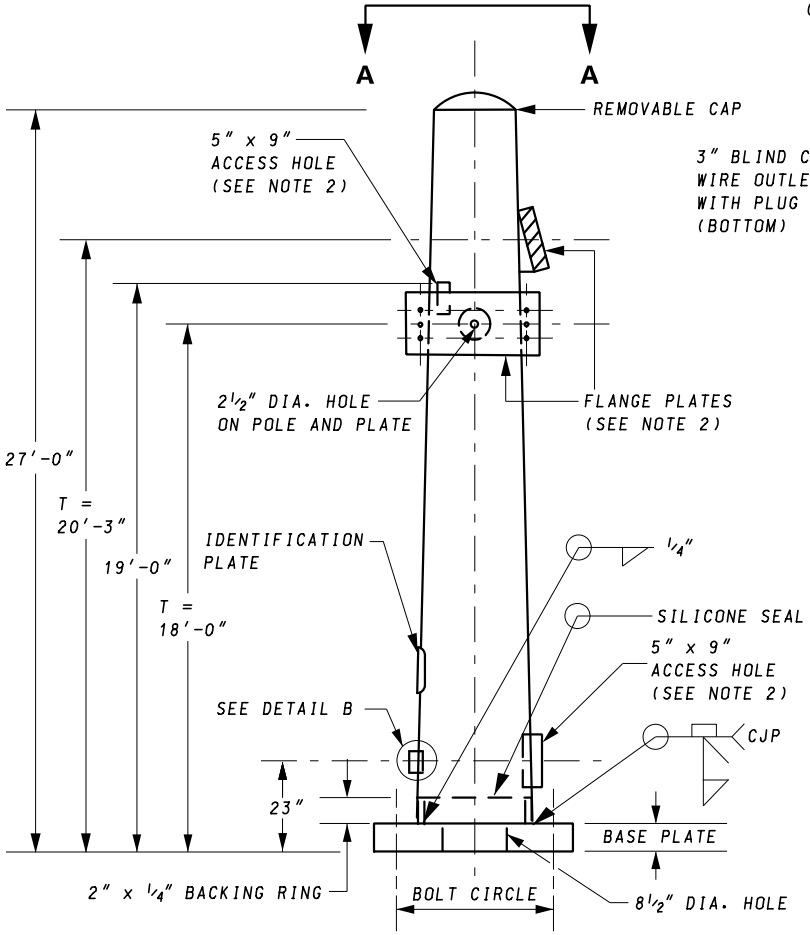
APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 11-20-19	APPROVAL 9-4-19
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

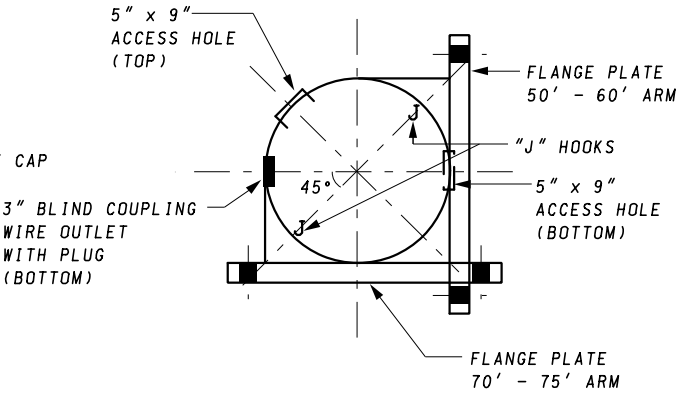
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

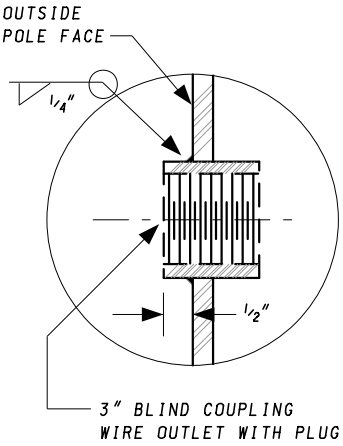
CURVED TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES

STANDARD NO. MD 818.08-01





VIEW A-A



DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 18.5" x 14.72" x 27'	50' - 60' FLANGE: 50' - 60' 70' - 75' FLANGE: 70' - 75'	SIX (6) 2" DIA. X 72" LENGTH 4½ THREADS PER IN.	31½" X 2½"	23½"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE ¼" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATE AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

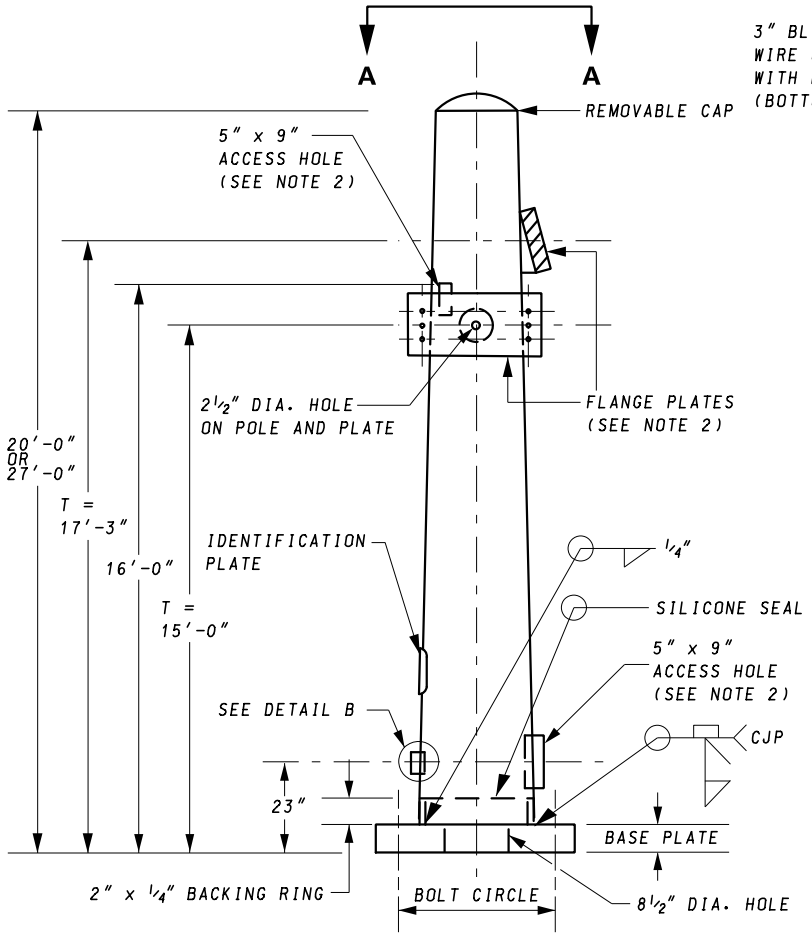
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

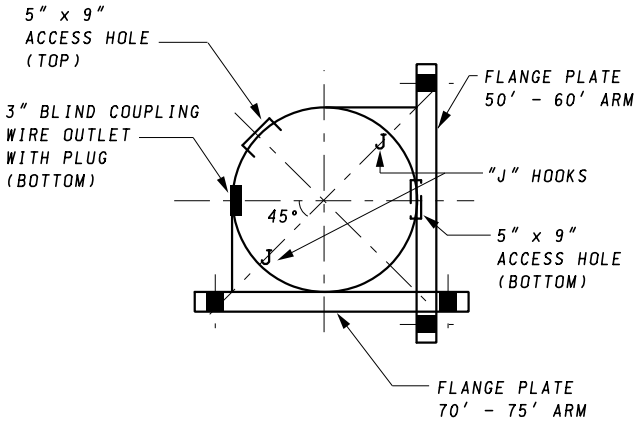
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

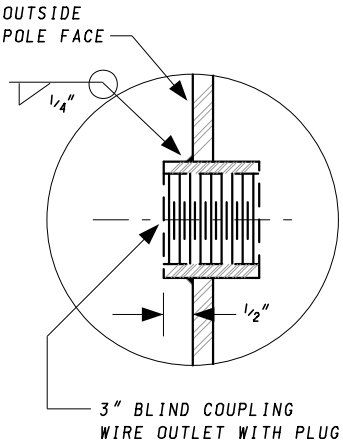
REVERSE TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES

STANDARD NO. MD 818.09





VIEW A-A



DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 18.5" x 15.70" x 20'	50' - 60' FLANGE: 50' - 60' 70' - 75' FLANGE: 70' - 75'	SIX (6) 2" DIA. X 72" LENGTH 4½ THREADS PER IN.	31½" X 2½"	23½"
0 GAUGE x 18.5" x 14.72" x 27'	50' - 60' FLANGE: 50' - 60' 70' - 75' FLANGE: 70' - 75'	SIX (6) 2" DIA. X 72" LENGTH 4½ THREADS PER IN.	31½" X 2½"	23½"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE ¼" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATE AND ACCESS HOLE STANDARD PLATES FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

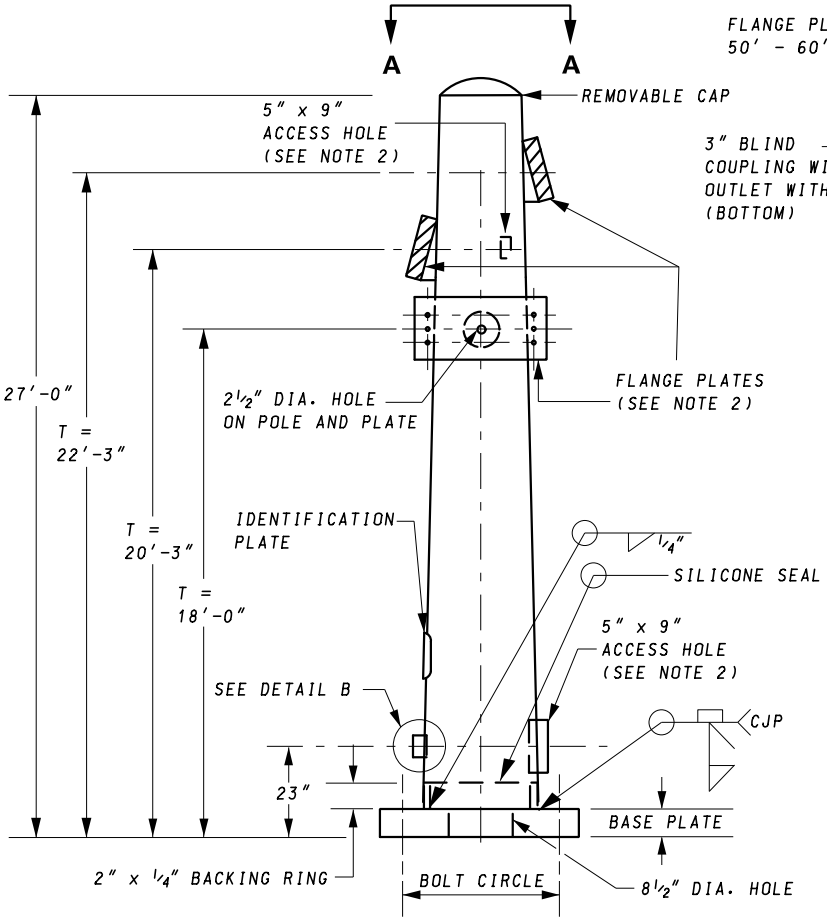
APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 11-20-19	APPROVAL 9-4-19
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

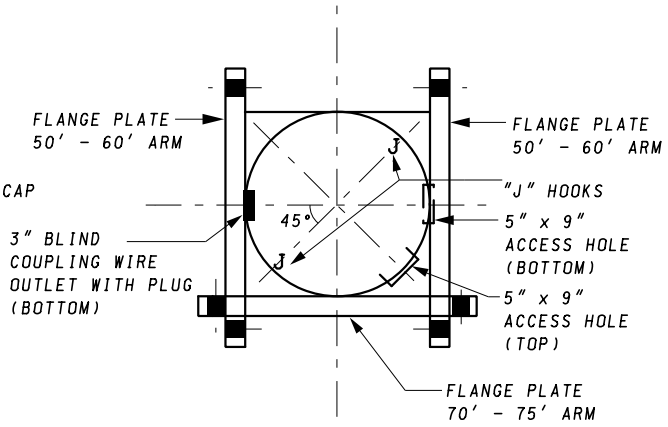
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

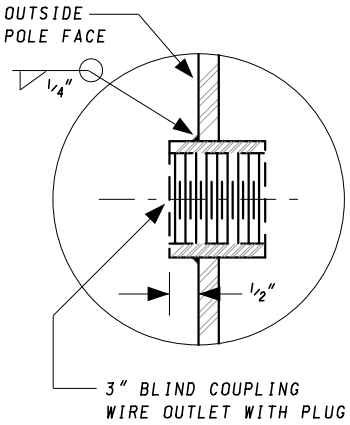
REVERSE CURVED TWIN MAST ARM POLE WITH DIFFERENT FLANGE PLATES

STANDARD NO. MD 818.09-01





VIEW A-A



DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE OF PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ARM SIZE (FLANGE PLATE SHALL ACCEPT ANY MAST ARM LISTED WITH THE FOLLOWING INCLUSIVE LENGTHS.) (SEE NOTE 2)	ANCHOR BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)	BASE PLATE (DIA. x PLATE THICKNESS)	BOLT CIRCLE (DIA.)
0 GAUGE x 18.5" x 14.72" x 27'	50' - 60' FLANGE: 50' - 60' 50' - 60' FLANGE: 50' - 60' 70' - 75' FLANGE: 70' - 75'	SIX (6) 2" DIA. x 72" LENGTH 4½ THREADS PER IN.	31½" x 2½"	23½"

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE ¼" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO MAST ARM FLANGE PLATES AND ACCESS HOLE STANDARD PLATES FOR DETAILS.
3. ORIENTATION AND LENGTH OF ALL ARMS SHALL BE AS SHOWN ON PLANS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

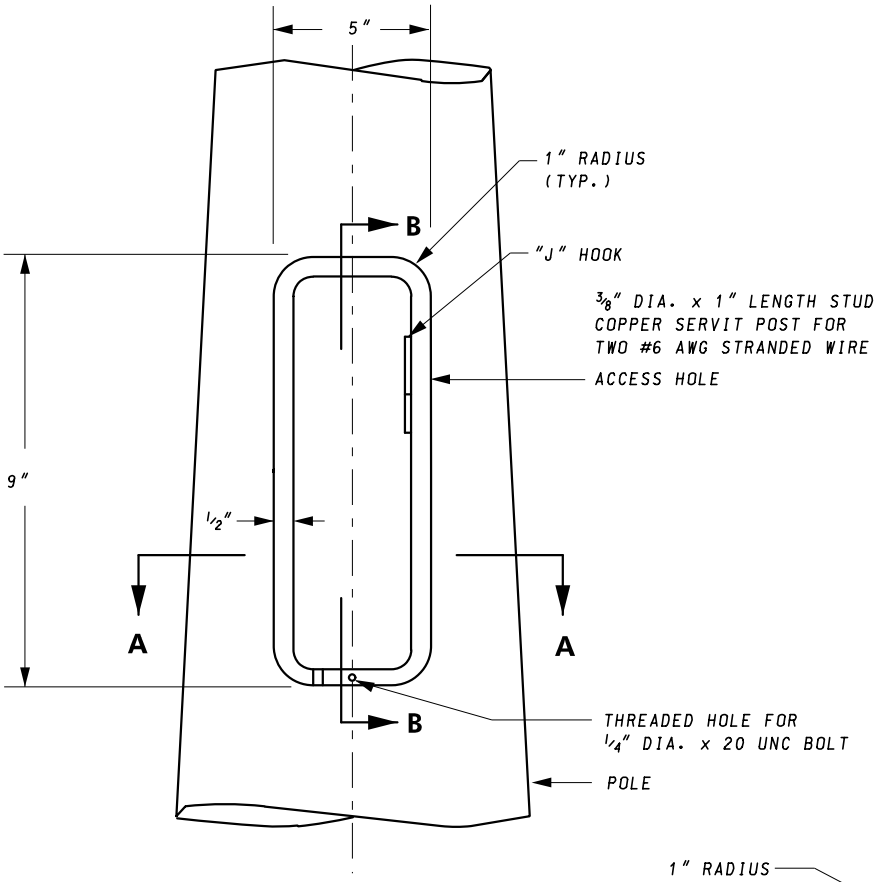
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

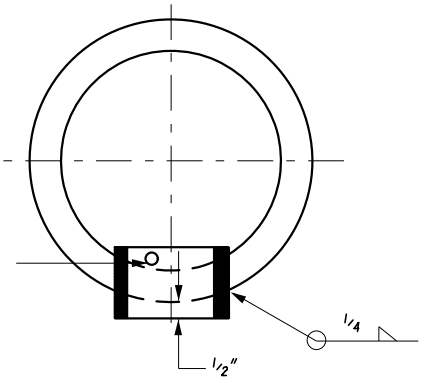
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

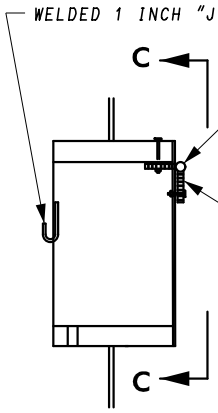
TRIPLE MAST ARM POLE WITH DIFFERENT FLANGE PLATES

STANDARD NO. MD 818.10





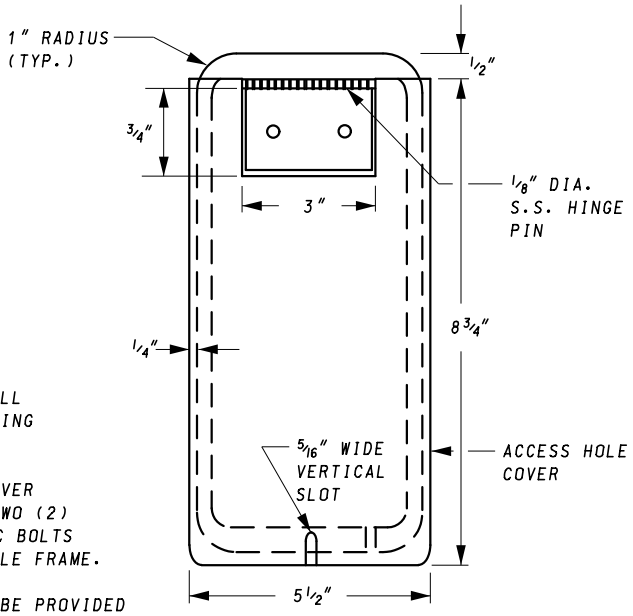
VIEW A–A



VIEW B–B

NOTES:

1. ACCESS HOLE COVER SHALL PROTRUDE OVERALL OPENING BY 1/4″ ± ON EACH SIDE.
2. ATTACH ACCESS HOLE COVER HINGE TO FRAME WITH TWO (2) S.S. 1/4″ DIA. x 20 UNC BOLTS TAPPED INTO ACCESS HOLE FRAME.
3. STEEL ″J″ HOOK SHALL BE PROVIDED AT UPPER ACCESS HOLES ONLY.



VIEW C–C

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED _____
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

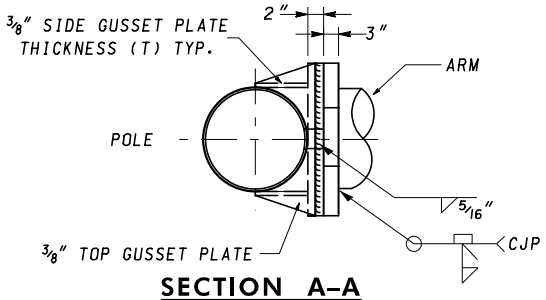
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

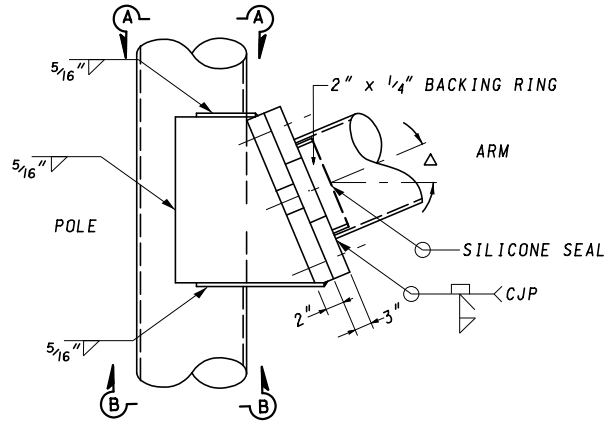
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

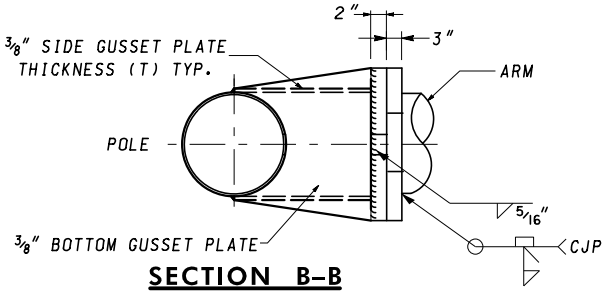
ACCESS HOLE FOR TRAFFIC SIGNAL AND SIGN STRUCTURES

STANDARD NO. MD 818.11

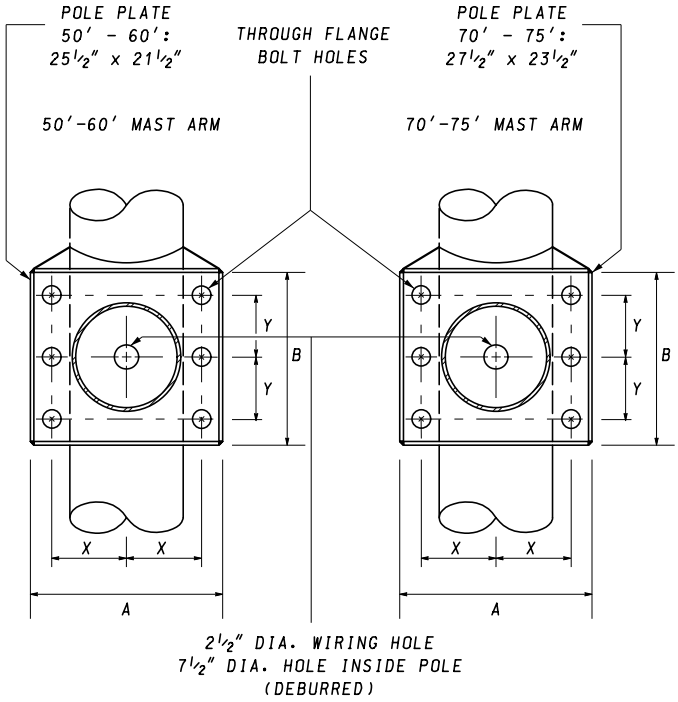


SECTION A–A





SECTION B–B



NOTES:

1. MAST ARMS SHALL HAVE A △ = 4° RISE.
2. CURVED MAST ARMS SHALL HAVE A △ = 15° RISE.
3. ARM PLATE AND POLE PLATE MATING SURFACES SHALL BE IN THE SAME PLANE TO WITHIN 1/16".
4. ALL BOLTS WITH DIAMETER GREATER OR EQUAL TO 1 3/4" SHOULD BE ASTM A490
5. FOR TRIPLE MAST ARMS, BOTTOM MAST ARM SHALL HAVE A △ = 4° RISE AND UPPER MAST ARMS SHALL HAVE A △ = 3° RISE.

ARM SIZE (THICKNESS x BUTT DIAMETER)	X	Y	A	B	FLANGE BOLTS (ALL BOLTS SHALL HAVE A CLASS OF FIT RATING OF 2A/2B UNC.)
ZERO (0) GAUGE - 14.5" DIA.	10"	8"	25 1/2"	21 1/2"	1 3/4" DIA. x 7 1/2" LENGTH 6 THREADS / IN. WITH HEX NUT AND FLAT WASHER
ZERO (0) GAUGE - 16" DIA.	11"	9"	27 1/2"	23 1/2"	2" DIA. x 8" LENGTH 4 1/2 THREADS / IN. WITH HEX NUT AND FLAT WASHER

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

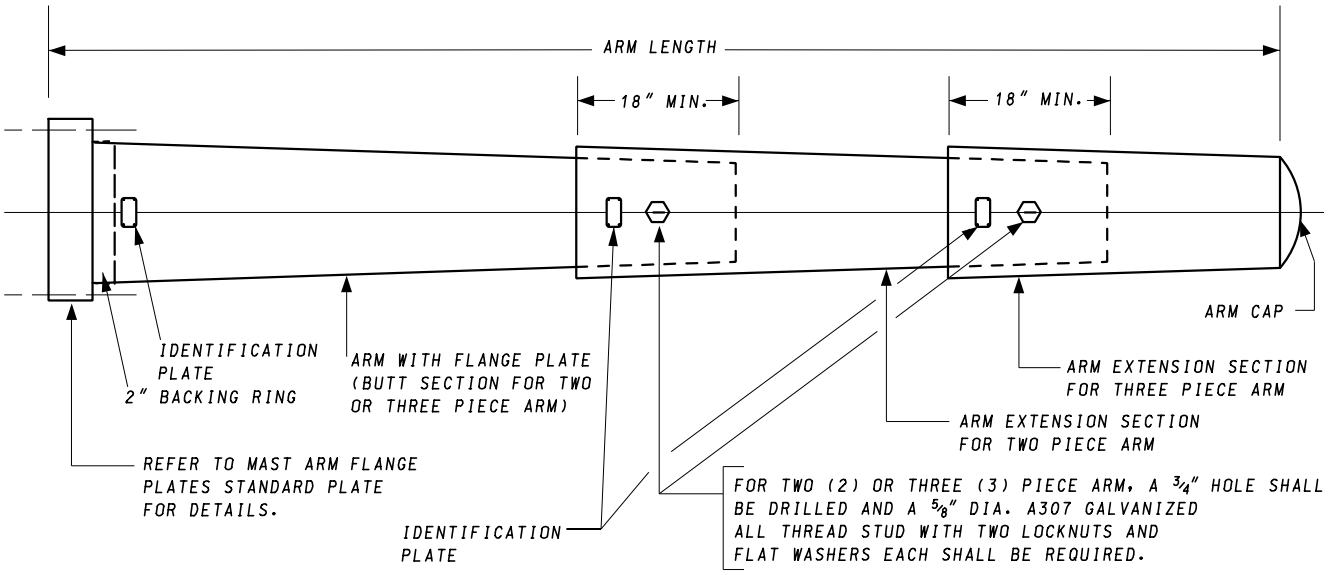
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

MAST ARM FLANGE PLATES

STANDARD NO. MD 818.12



NOTES:

1. FOR A SINGLE PIECE ARM, DELETE ALL INFORMATION PERTAINING TO A TWO OR THREE PIECE ARM.
2. ARM LENGTHS 50' OR LONGER SHALL BE OF BUTT SECTION AND EXTENSION SECTION DESIGN.
3. ALL HOLES LOCATED IN THE EXTENSION SECTION(S) AND THE FLANGE PLATE MUST BE DRILLED BEFORE GALVANIZING.
4. NO HOLES SHALL BE DRILLED IN THE BUTT SECTION OF TWO OR THREE PIECE ARMS AT THE TIME OF FABRICATION.
5. SPLICE STUDS SHALL NOT BE CUT IN THE FIELD.

ARM LENGTH	ARM LENGTH (WALL THICKNESS x O.D. AT FLANGE x O.D. AT ARM END x SECTION LENGTH)
50'-0"	(BUTT) ZERO (0) x 14.50" x 8.90" x 40'-0" (EXT. 1) THREE (3) GAUGE x 9.51" x 7.90" x 11'-6"
60'-0"	(BUTT) ZERO (0) x 14.50" x 8.90" x 40'-0" (EXT. 1) THREE (3) GAUGE x 9.51" x 7.90" x 11'-6" (EXT. 2) SEVEN (7) GAUGE x 8.51" x 6.90" x 11'-6"
70'-0"	(BUTT) ZERO (0) x 16" x 11.10" x 35'-0" (EXT. 1) THREE (3) GAUGE x 11.71" x 8.00" x 26'-6" (EXT. 2) SEVEN (7) GAUGE x 8.61" x 7.00" x 11'-6"
75'-0"	(BUTT) ZERO (0) x 16" x 11.10" x 35'-0" (EXT. 1) THREE (3) GAUGE x 11.71" x 8.00" x 26'-6" (EXT. 2) SEVEN (7) GAUGE x 8.61" x 6.30" x 16'-6"

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

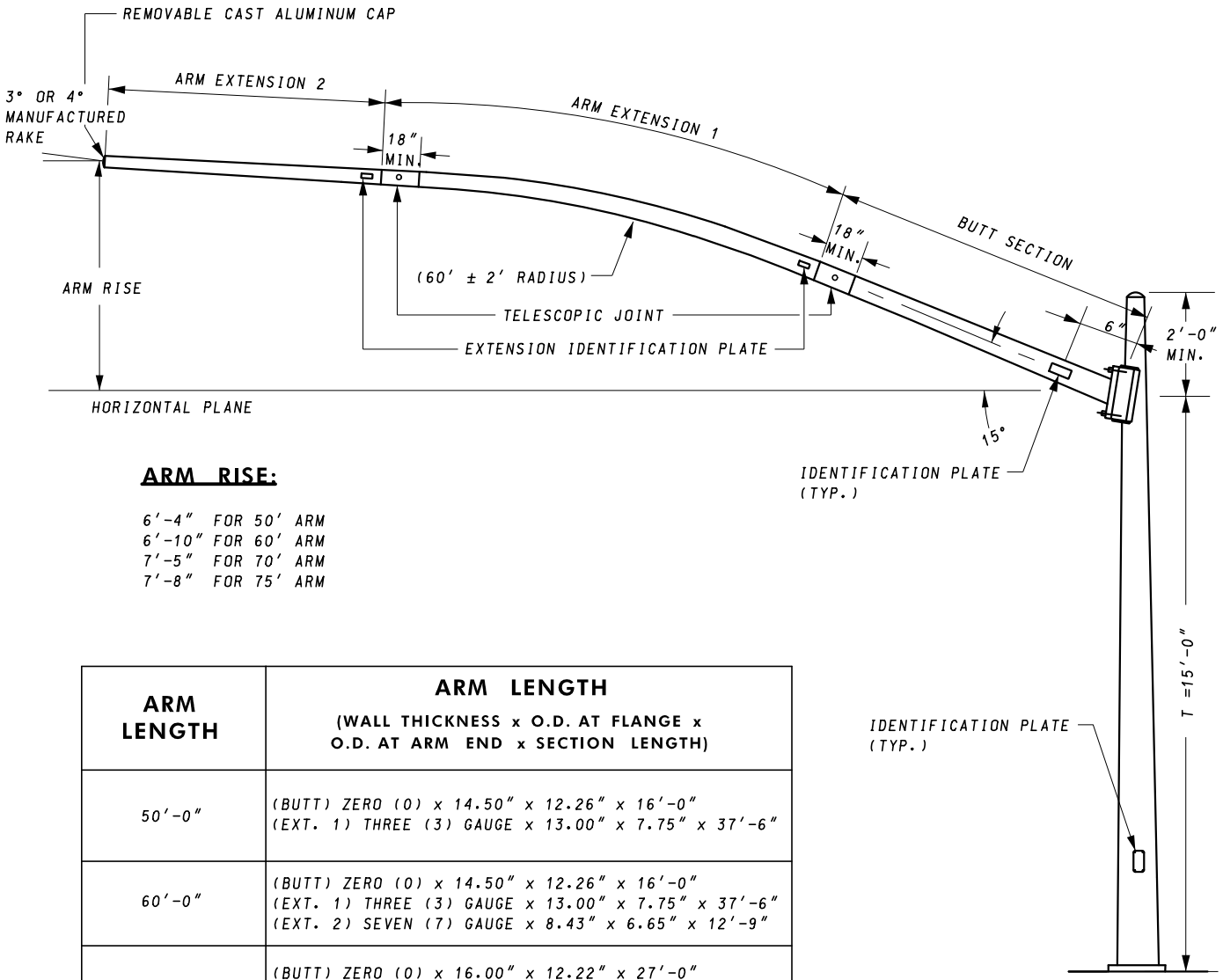
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

MAST ARMS

STANDARD NO. MD 818.13



ARM RISE:

6'-4" FOR 50' ARM
6'-10" FOR 60' ARM
7'-5" FOR 70' ARM
7'-8" FOR 75' ARM

ARM LENGTH	ARM LENGTH (WALL THICKNESS x O.D. AT FLANGE x O.D. AT ARM END x SECTION LENGTH)
50'-0"	(BUTT) ZERO (0) x 14.50" x 12.26" x 16'-0" (EXT. 1) THREE (3) GAUGE x 13.00" x 7.75" x 37'-6"
60'-0"	(BUTT) ZERO (0) x 14.50" x 12.26" x 16'-0" (EXT. 1) THREE (3) GAUGE x 13.00" x 7.75" x 37'-6" (EXT. 2) SEVEN (7) GAUGE x 8.43" x 6.65" x 12'-9"
70'-0"	(BUTT) ZERO (0) x 16.00" x 12.22" x 27'-0" (EXT. 1) THREE (3) GAUGE x 13.00" x 7.54" x 39'-0" (EXT. 2) SEVEN (7) GAUGE x 8.19" x 6.72" x 10'-6"
75'-0"	(BUTT) ZERO (0) x 16.00" x 12.22" x 27'-0" (EXT. 1) THREE (3) GAUGE x 13.00" x 7.54" x 39'-0" (EXT. 2) SEVEN (7) GAUGE x 8.19" x 6.02" x 15'-6"

NOTES:

1. REFER TO MAST ARM FLANGE PLATES STANDARD PLATE FOR DETAILS.
2. REFER TO MAST ARM POLE DETAILS STANDARD PLATE FOR DETAILS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

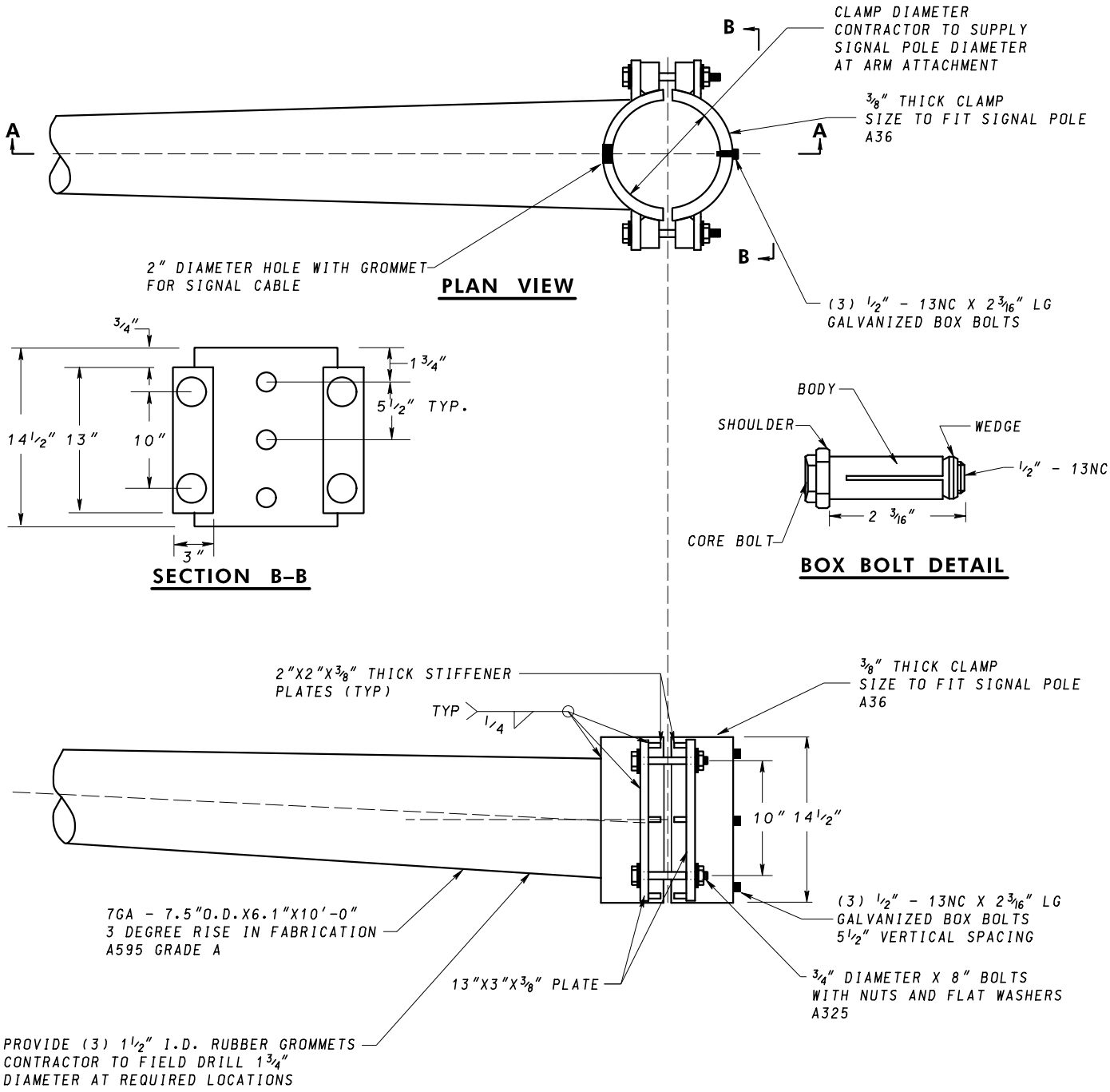
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	10-10-00	APPROVAL	2-1-01
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

CURVED MAST ARMS FOR STRUCTURES WITH 15'-0" "T" DIMENSION

STANDARD NO. MD 818.13-01



NOTE

1. ALL STEEL SHALL BE HOT DIPPED GALVANIZED.
2. MAXIMUM LOAD SHALL NOT EXCEED TWO SIGNAL HEADS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL SHA REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 11-20-19	APPROVAL 9-4-19
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

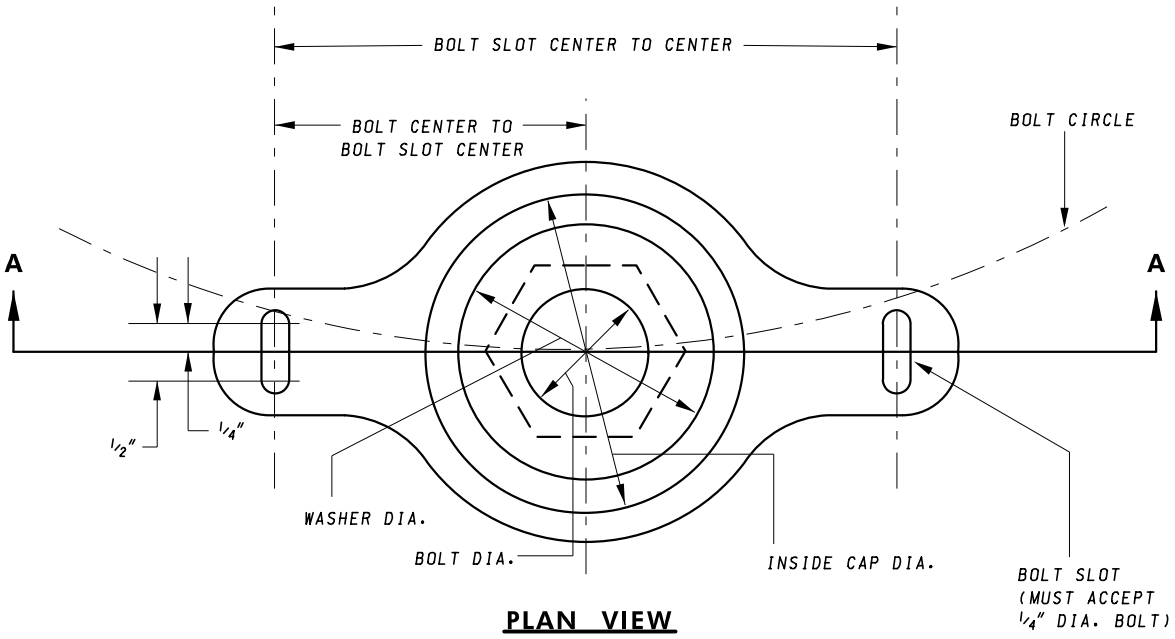
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

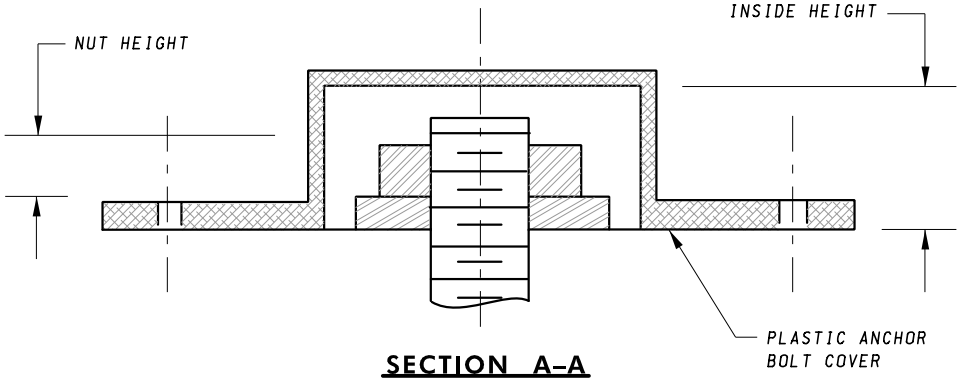
10 FOOT CLAMP ON MINI-MAST ARM FOR SIGNAL ATTACHMENT

STANDARD NO. MD 818.13-02

NOT TO SCALE



PLAN VIEW



SECTION A–A

BOLT DIAMETER	WASHER DIAMETER	INSIDE CAP DIAMETER	NUT HEIGHT	INSIDE HEIGHT	BOLT CENTER TO BOLT SLOT	BOLT SLOT TO BOLT SLOT
1 3/4"	4"	4 1/2"	1 3/4"	3"	3 1/4"	6 1/2"
2"	4 1/2"	5"	2"	3 1/2"	3 1/2"	7"
2 1/4"	4 3/4"	5 1/4"	2 1/4"	3 1/2"	3 5/8"	7 1/4"

NOTE:

SIDE OF COVER NEAREST POLE SHALL BE REMOVED TO CLEAR POLE DIAMETER.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

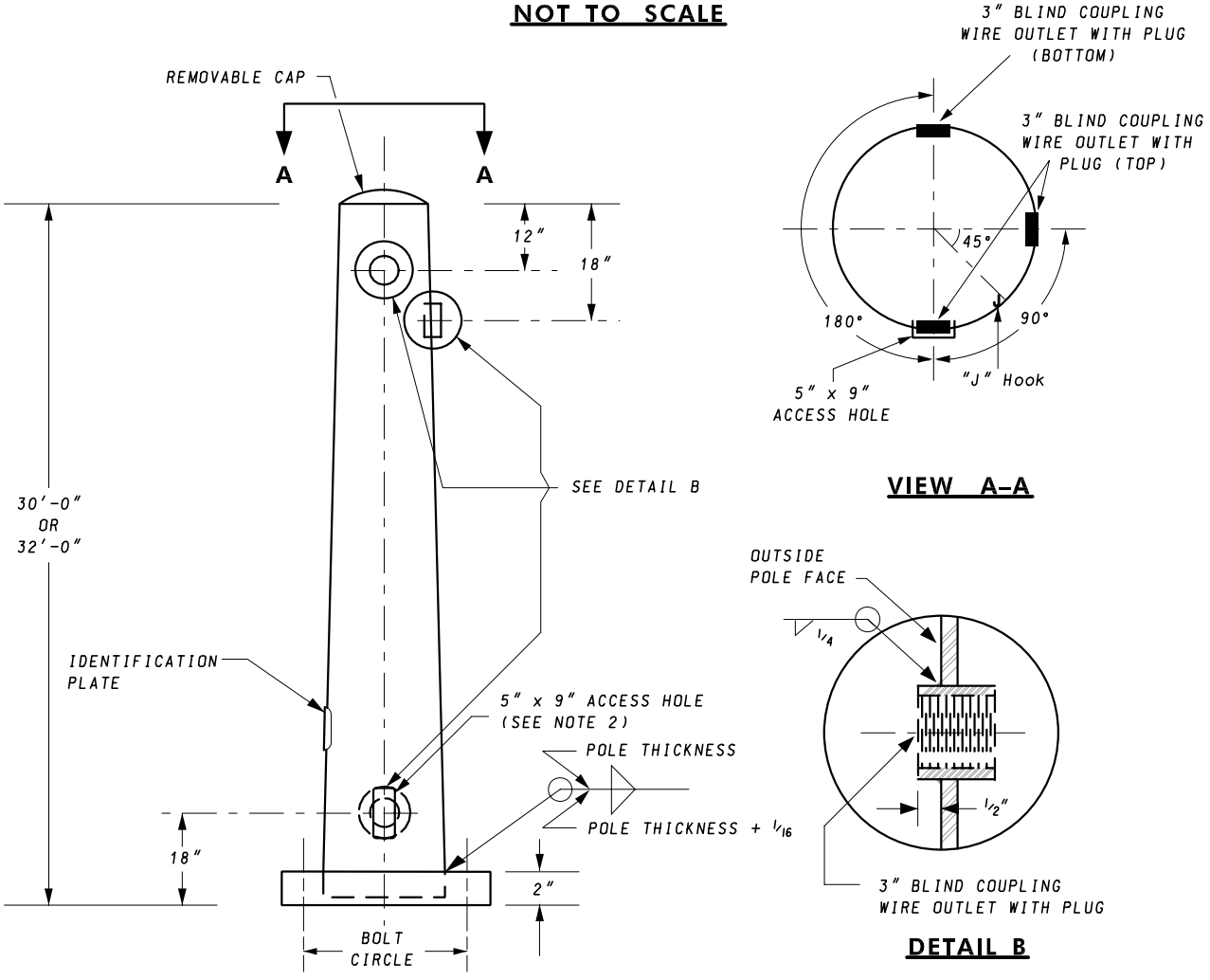
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ANCHOR BOLT COVER

STANDARD NO. MD 818.14

NOT TO SCALE



VIEW A-A

DETAIL B

POLE SIZE (WALL THICKNESS x O.D. AT BASE PLATE x O.D. AT POLE TOP x POLE HEIGHT)	ANCHOR BOLT (COARSE PITCH)	BASE PLATE (LENGTH OF SIDE x LENGTH OF SIDE x PLATE THICKNESS)	BOLT CIRCLE
(0.312" THICK) 0 GAUGE x 12" x 7.800" x 30'	FOUR (4) 1 3/4" DIA. x 66" LENGTH FIVE (5) THREADS PER IN.	17" x 17" x 2"	16" DIAMETER
(0.625" THICK) 0+0 GAUGE x 12" x 7.520" x 32'	FOUR (4) 2 1/4" DIA. X 72" LENGTH 4 1/2 THREADS PER IN.	23" x 23" x 2"	20" - 22" DIA. (SHALL HAVE ELONGATED BOLT HOLES)
(0.625" THICK) 0+0 GAUGE x 14" x 9.520" x 32'	FOUR (4) 2 1/4" DIA. x 72" LENGTH 4 1/2 THREADS PER IN.	23" x 23" x 2"	20" - 22" DIA. (SHALL HAVE ELONGATED BOLT HOLES)

NOTES:

1. ALL ANCHOR BOLT HOLE DIAMETERS SHALL BE 3/8" LARGER THAN THE ANCHOR BOLT DIAMETER LISTED.
2. REFER TO ACCESS HOLE STANDARD PLATE FOR DETAILS.

SPECIFICATION 818	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

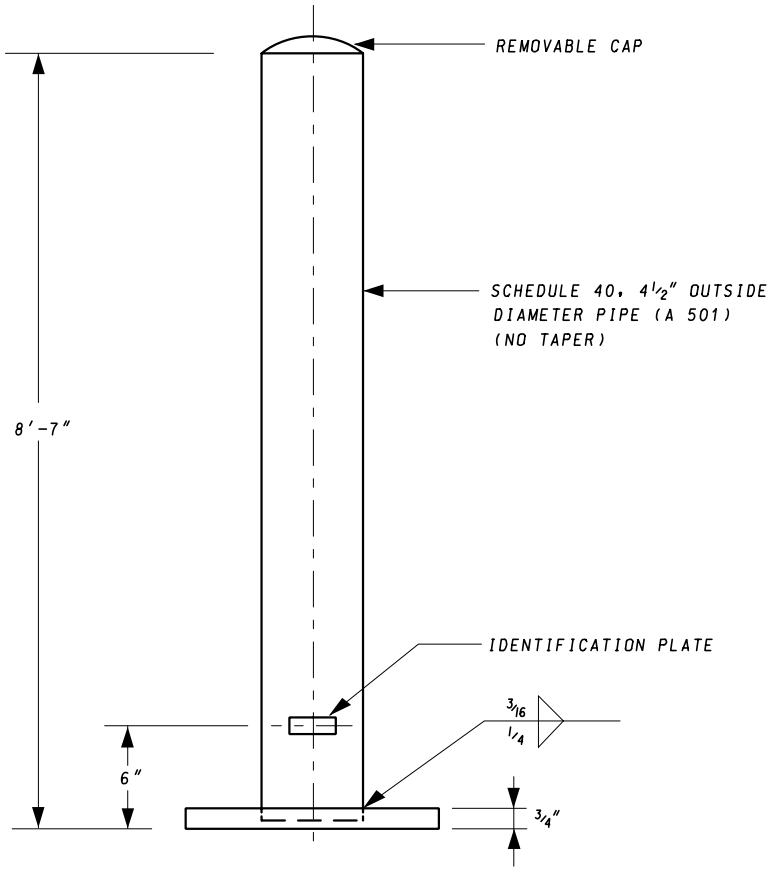
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

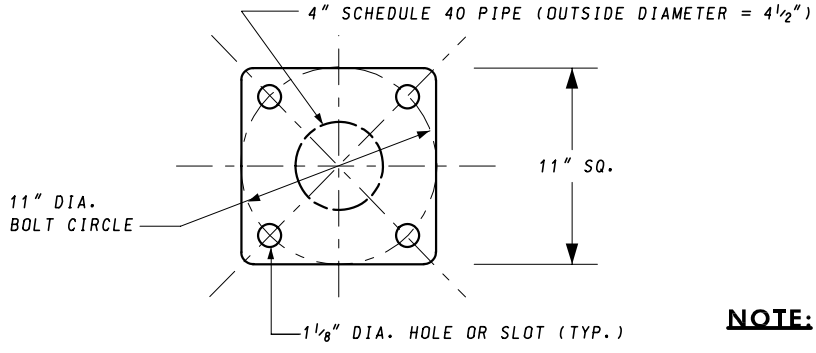
STRAIN POLE DETAIL

STANDARD NO. MD 818.15

REFERENCED ON: MD 801.01

NOT TO SCALE





NOTE:

TOTAL 10' DIMENSION INCLUDES POLE HEIGHT AND TRANSFORMER BASE.

SPECIFICATION 818	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 7-1-94	APPROVAL 7-1-94
	REVISED 5-17-07	REVISED 5-2-07
	REVISED	REVISED
	REVISED	REVISED

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

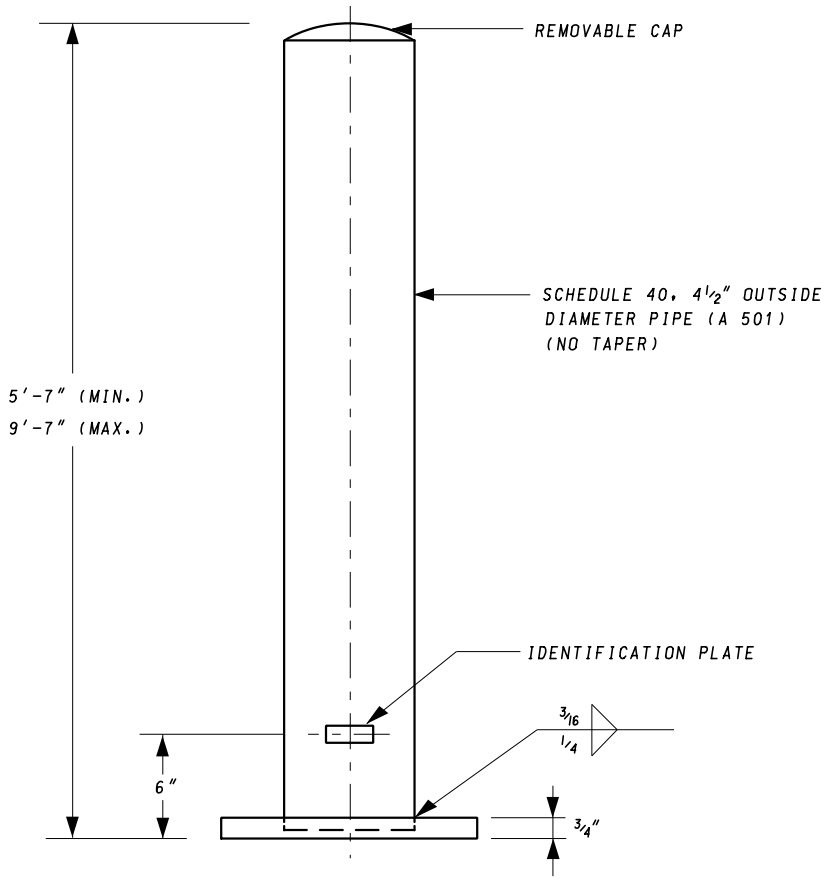
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

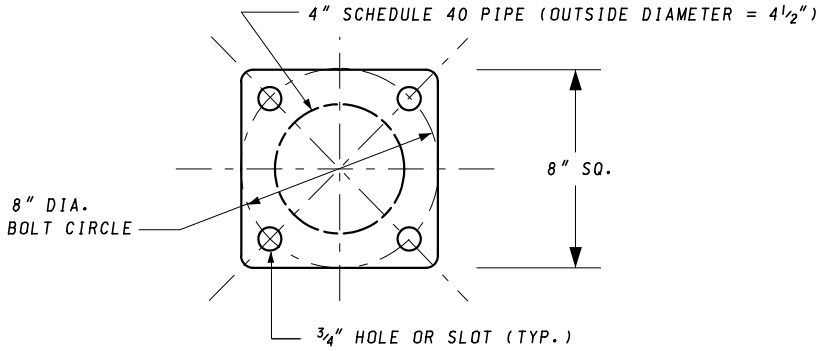
10' PEDESTAL POLE

STANDARD NO. MD 818.16

REFERENCED ON: MD 801.01

NOT TO SCALE





NOTES:

1. THIS STRUCTURE SHALL BE USED IN CONJUNCTION WITH THE SIGNAL STRUCTURE FOUNDATION FOR PUSHBUTTON AND PEDESTRIAN SIGNAL POLES. SEE STANDARD PLATE FOR DETAILS.
2. SIGNAL EQUIPMENT MOUNTED ON THIS POLE SHALL BE LIMITED TO TWO PEDESTRIAN SIGNAL HEADS AND TWO APS PUSHBUTTON STATIONS.
3. TOTAL 10' DIMENSION INCLUDES POLE HEIGHT AND BREAKAWAY COUPLINGS.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	10-1-01	REVISED	2-1-01
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

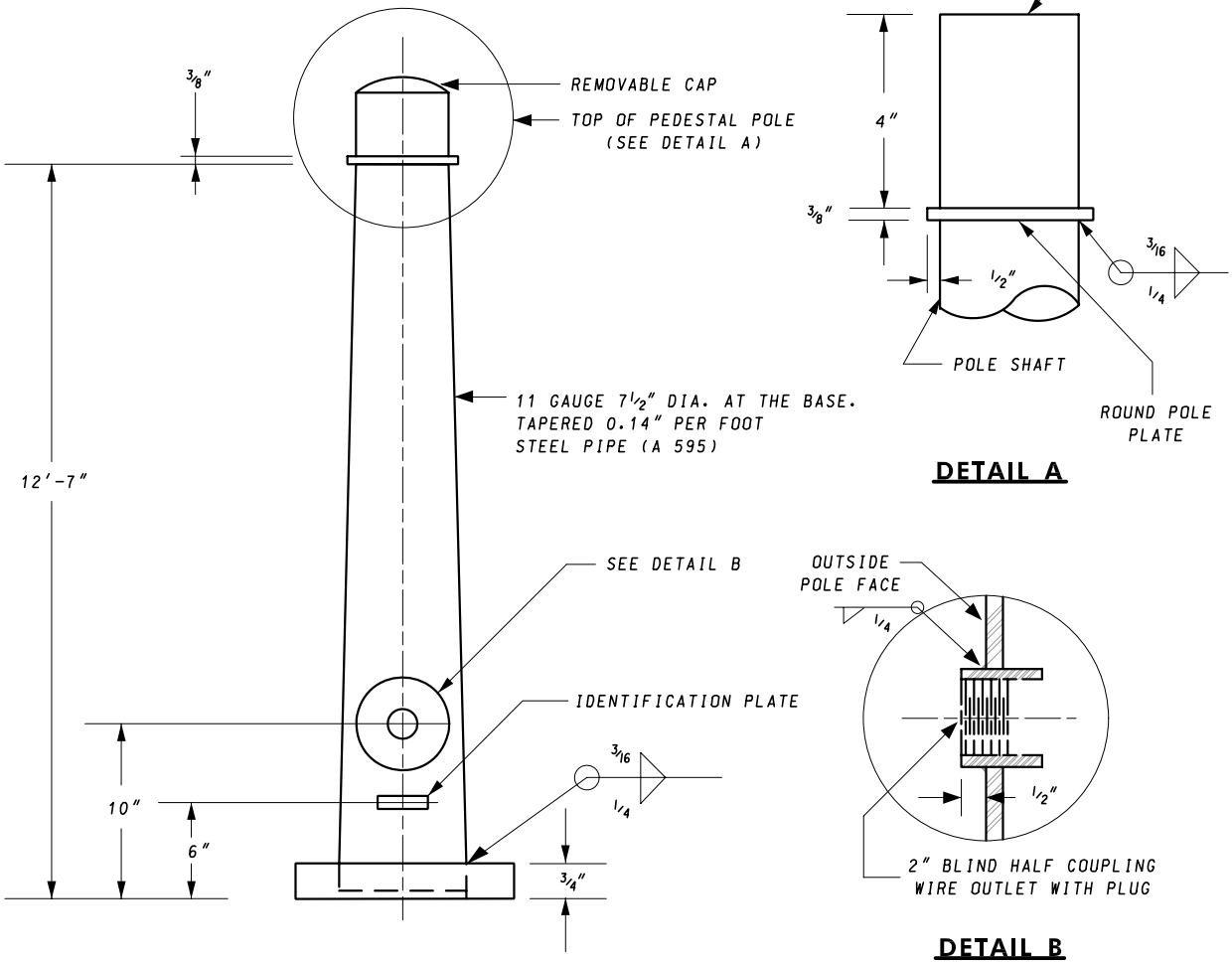
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

6' TO 10' PEDESTAL POLE FOR USE WITH BREAKAWAY COUPLINGS

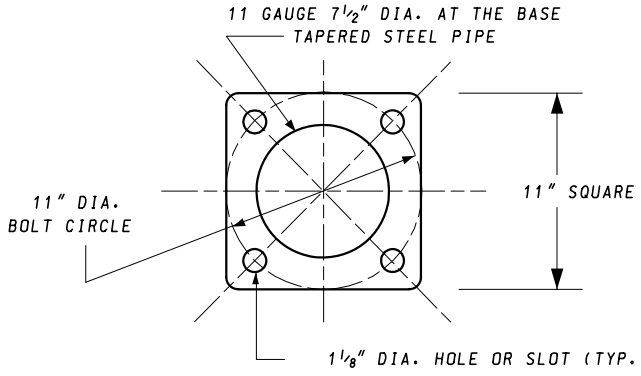
STANDARD NO. MD 818.16-01

NOT TO SCALE



DETAIL A

DETAIL B



NOTE:

TOTAL 14' DIMENSION INCLUDES
POLE HEIGHT AND TRANSFORMER BASE.

SPECIFICATION 818	CATEGORY CODE ITEMS

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

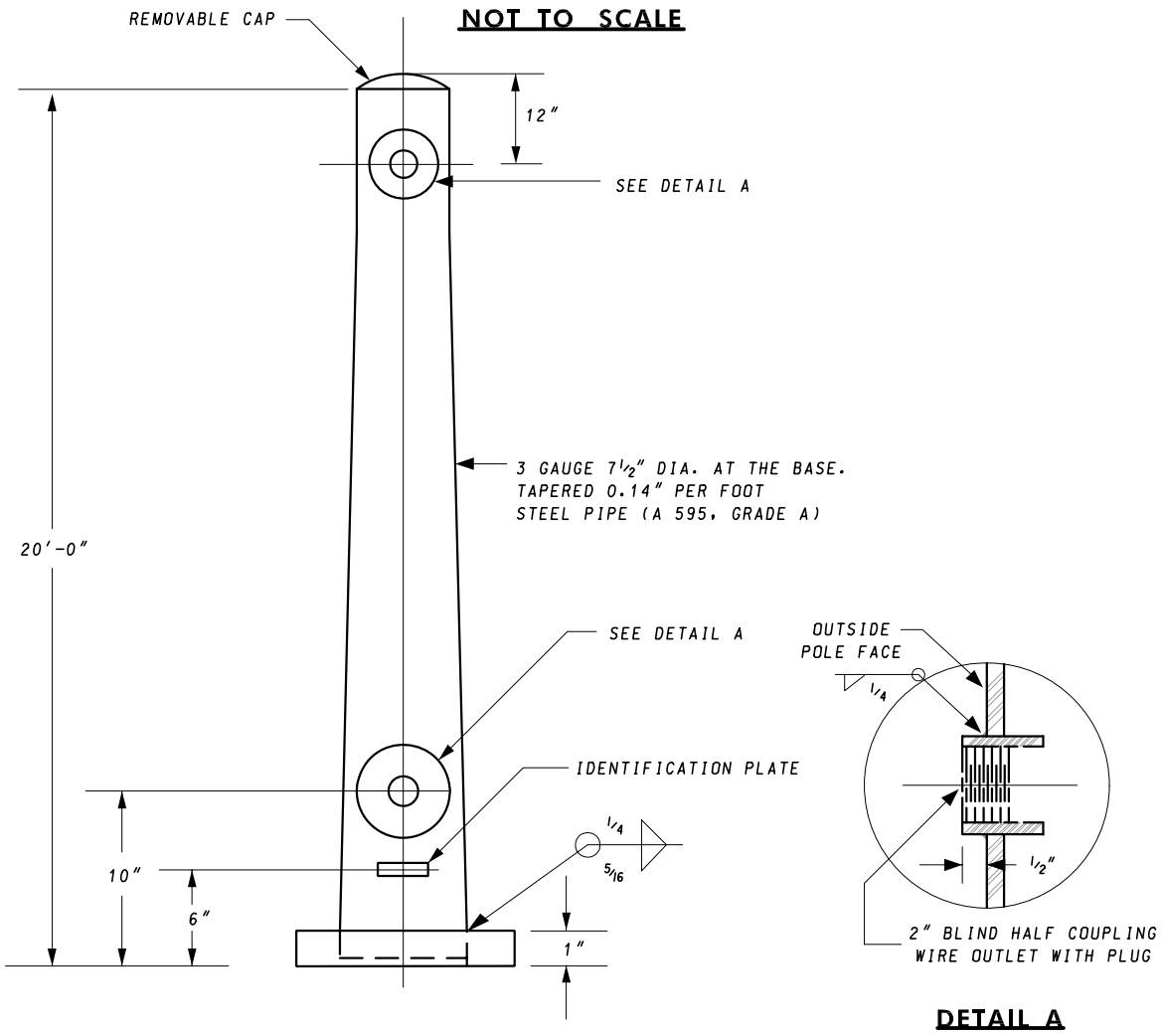
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

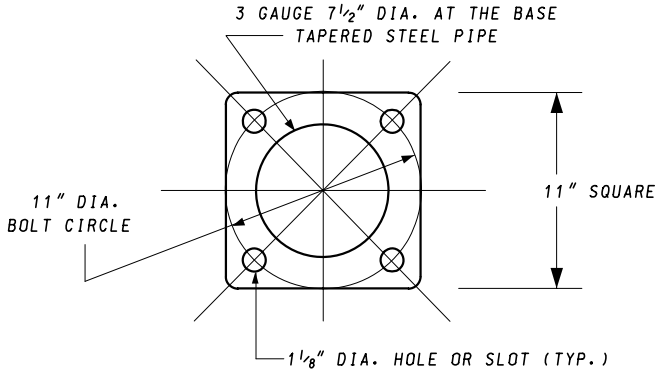
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

14' PEDESTAL POLE DETAIL

STANDARD NO. MD 818.17

REFERENCED ON: MD 801.01





SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

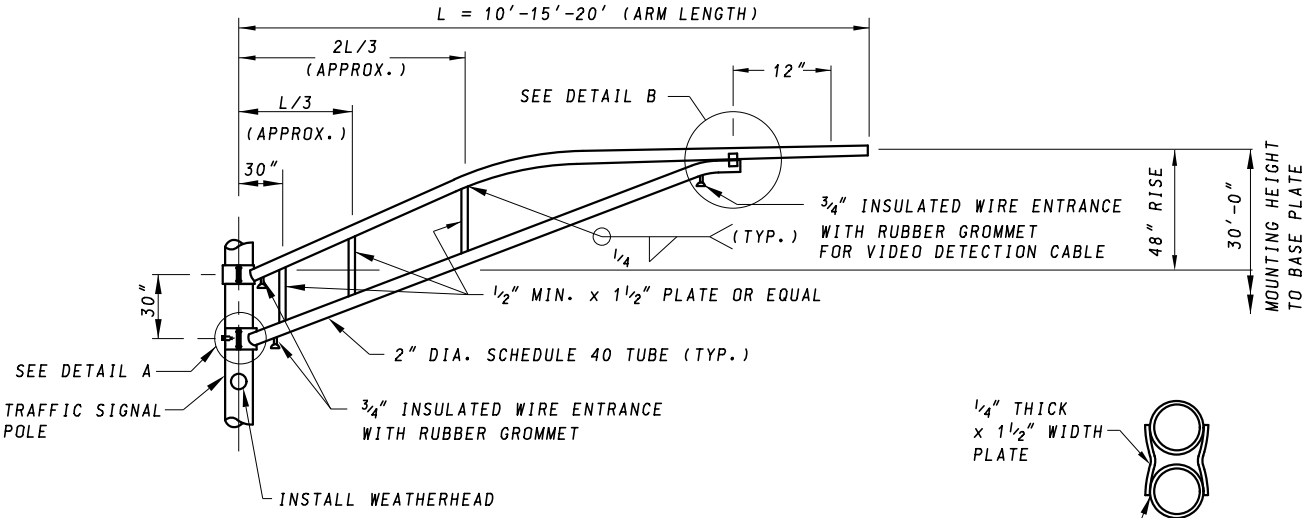
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

20′ PEDESTAL /DETECTOR POLE DETAIL

STANDARD NO. MD 818.17-01

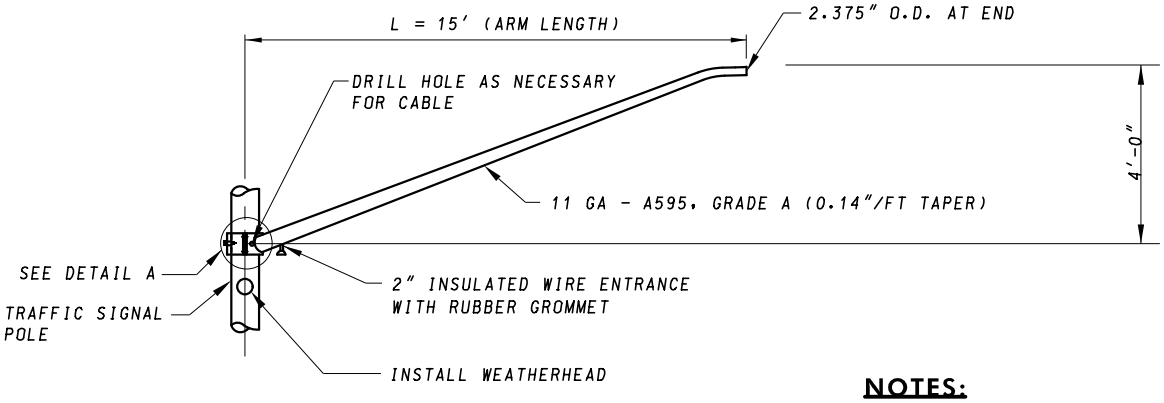
REFERENCED ON: MD 801.01



LIGHTING ARM

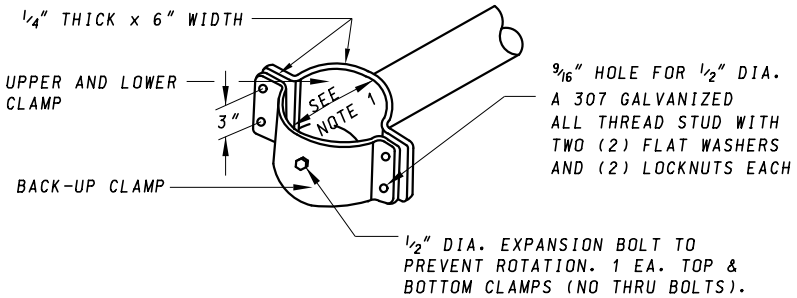
LIGHTING ARM SHALL BE USED FOR LUMINAIRE INSTALLATION OR COMBINATION LUMINAIRE/VIDEO DETECTION INSTALLATION.

DETAIL B



VIDEO DETECTION CAMERA ARM

VIDEO DETECTION ARM SHALL BE USED FOR VIDEO DETECTION INSTALLATION ONLY.



DETAIL A

NOTES:

1. CONTRACTOR SHALL VERIFY CLAMP DIAMETER TO CORRESPOND TO EXISTING OR PROPOSED STRUCTURE DIAMETER.
2. ALL CLAMPS AND BARS SHALL CONFORM TO A 709, GR36.
3. ALL TUBES SHALL CONFORM TO A 53 GR.B OR A 501 UNLESS NOTED OTHERWISE.
4. ARM ASSEMBLY SHALL BE GALVANIZED PER A 123 AFTER FABRICATION.
5. ANY ALTERNATE DESIGN SHALL BE STRUCTURALLY EQUIVALENT.
6. STUDS SHALL NOT BE CUT IN THE FIELD.
7. SINGLE TUBE ARM SHALL BE USED FOR VIDEO DETECTION CAMERA INSTALLATION ONLY.
8. TRUSS ARM SHALL BE USED FOR LUMINAIRE INSTALLATION ONLY.

SPECIFICATION	CATEGORY CODE ITEMS
806, 808	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

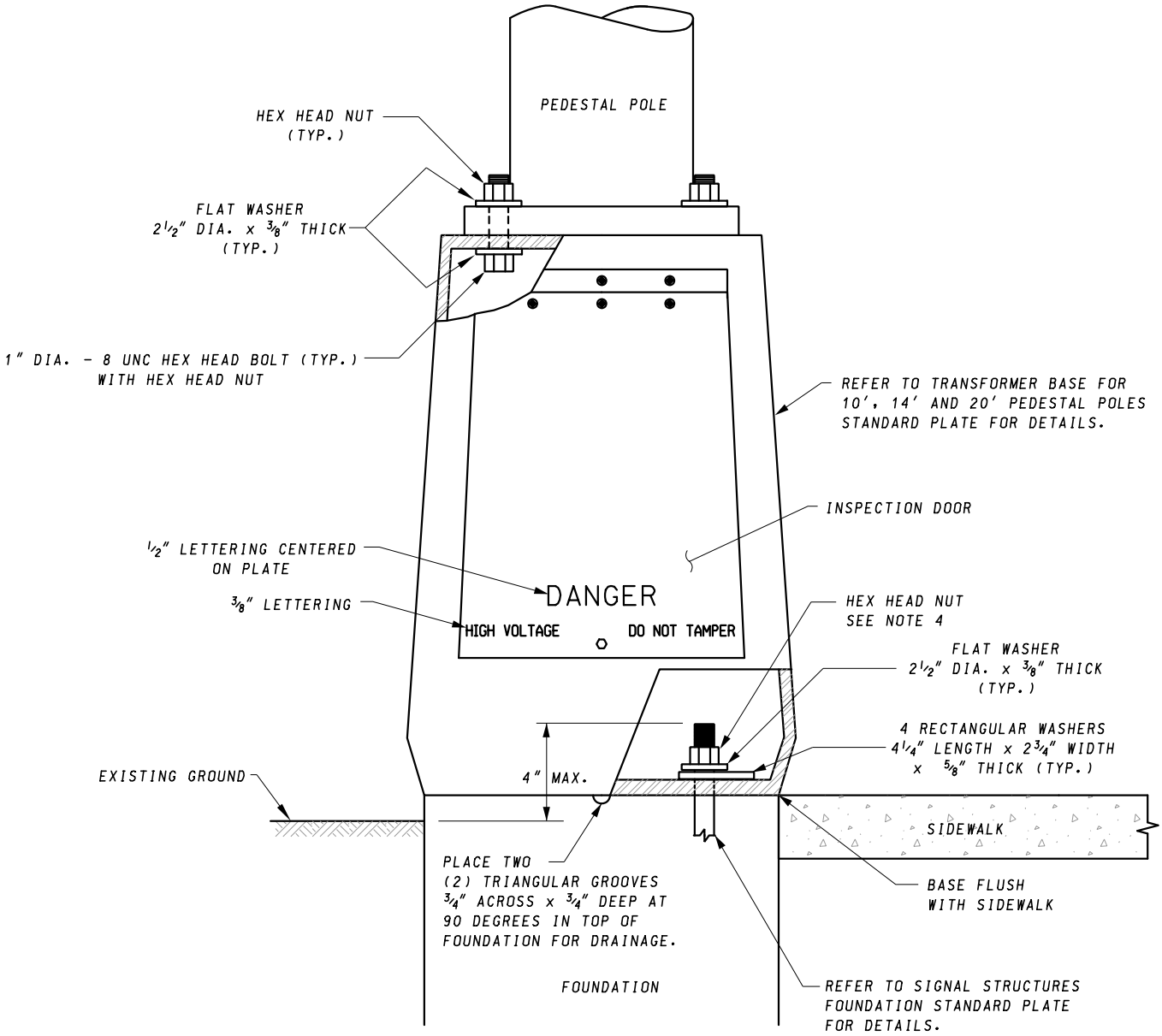
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	3-22-10	REVISED	12-22-09
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

LIGHTING ARM AND VIDEO DETECTION CAMERA ARM PLACED ON TRAFFIC SIGNAL POLES

STANDARD NO. MD 818.20



NOTES:

1. REFER TO BREAKAWAY POLES ADJUSTMENT FOR GROUND SLOPES STANDARD PLATE FOR DETAILS FOR VARIOUS GROUND SLOPES.
2. THE TOP OF THE FOUNDATION SHALL NOT BE PAINTED.
3. TRANSFORMER BASE SHALL BE SHIMMED AND LEVEL PRIOR TO TIGHTENING NUTS.
4. TORQUE HEX NUT TO 150 FT-LBS.

SPECIFICATION	CATEGORY CODE ITEMS
818, 821	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	11-20-19	REVISED	9-4-19
REVISED		REVISED	

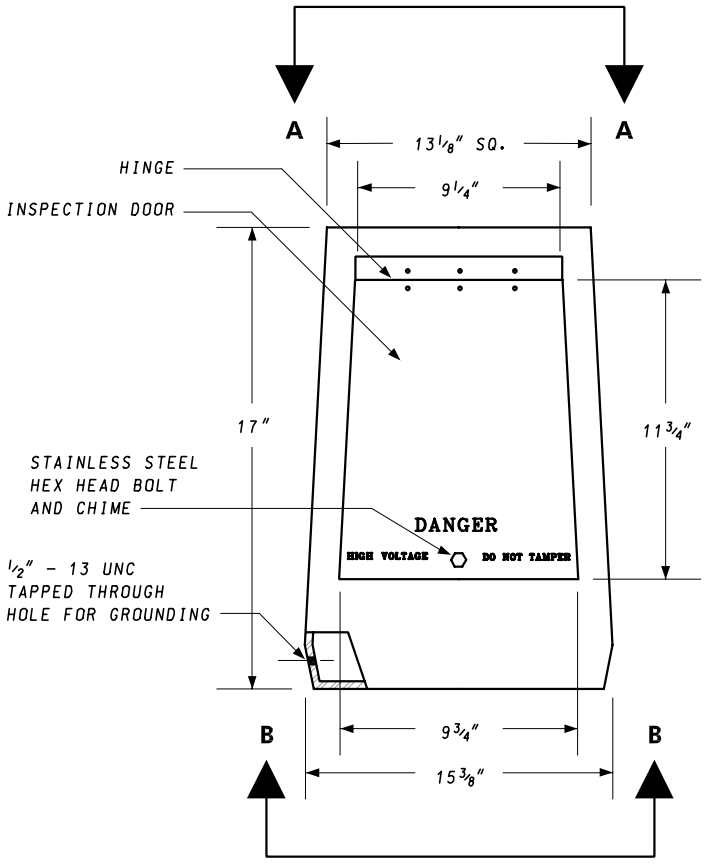
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

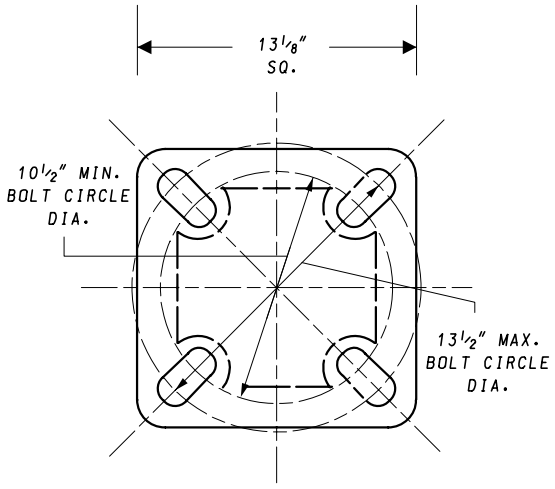
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY TRANSFORMER BASE FOR SIGNAL STRUCTURE

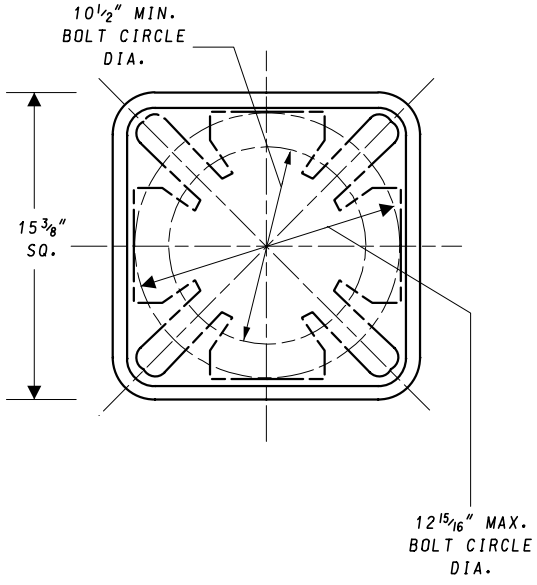
STANDARD NO. MD 821.01

NOT TO SCALE





VIEW A–A



VIEW B–B

NOTES:

1. ALL BREAKAWAY TRANSFORMER BASES SHALL BE CERTIFIED BY FHWA AS MEETING THE CRASHWORTHINESS CRITERIA OF NCHRP REPORT 350.
2. TOP AND BOTTOM BOLT HOLES WILL ACCOMMODATE A MAXIMUM 1" DIAMETER BOLT.
3. THE CONTACT AREA OF THE TRANSFORMER BASE AGAINST THE CONCRETE FOUNDATION SHALL BE SHOP COATED WITH COAL TAR EPOXY BITUMASTIC 300M OR EQUAL MEETING SSPC - PAINT 16 SPECIFICATIONS. THE THICKNESS OF THE COATING SHALL BE BETWEEN 6 AND 8 MILS. THE COATING SHALL BE COMPLETELY DRY BEFORE SHIPMENT.

SPECIFICATION	CATEGORY CODE ITEMS
818	

APPROVED

DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED		REVISED	
REVISED		REVISED	

SHA Where to Next State Highway Administration

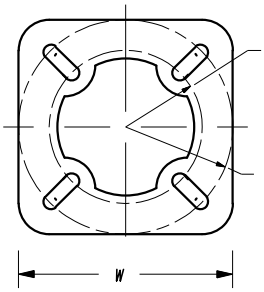
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

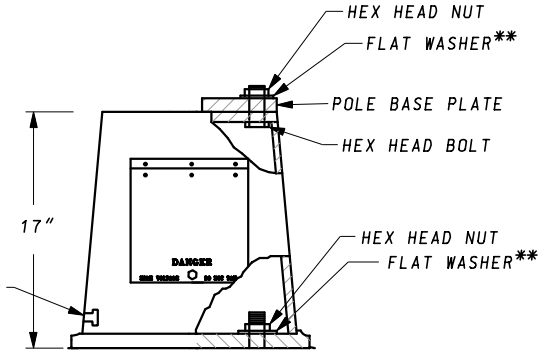
BREAKAWAY TRANSFORMER BASE FOR 10', 14' AND 20' PEDESTAL POLES

STANDARD NO. MD 821.01-01

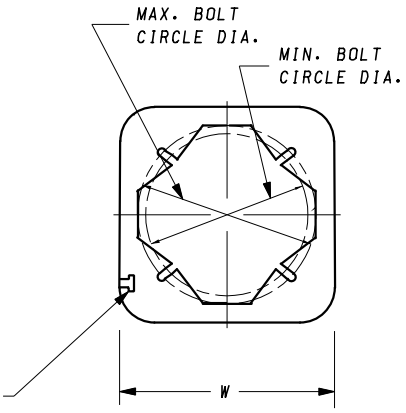
REFERENCED ON: MD 821.01



TOP PLAN VIEW



ELEVATION VIEW



BOTTOM PLAN VIEW

MOUNTING HEIGHT	ARM LENGTH	MIN. WIDTH 'W'	BOLT DIA.	BOLT CIRCLE TOP	BOLT CIRCLE BOTTOM
LESS THAN 40'	LESS THAN 30'	13"	1"	10 1/2" TO 13 1/2"	13" TO 15"
	30'	15"	1 1/4"	13" TO 15 1/8"	15" TO 17 1/4"
40'	4' TO 20'	13"	1"	10 1/2" TO 13 1/2"	13" TO 15"
	25'	15"	1 1/4"	13" TO 15 1/8"	15" TO 17 1/4"
50'	4'	13"	1"	10 1/2" TO 13 1/2"	13" TO 15"
	6' TO 15'	15"	1 1/4"	13" TO 15 1/8"	15" TO 17 1/4"

BREAKAWAY TRANSFORMER BASE SHALL BE USED WHEN LIGHTING STRUCTURE IS NOT PROTECTED FROM TRAFFIC AND SHALL BE CERTIFIED BY FHWA AS MEETING THE CRASHWORTHINESS CRITERIA OF NCHRP REPORT 350

** TOP BOLT CIRCLE & WASHERS
10 1/2" TO 13 1/2" : 2 1/2" O.D. X 3/8" THK.
13" TO 15 1/8" : 2 3/4" O.D. X 1/2" THK.

BOTTOM BOLT CIRCLE & WASHERS
13" TO 15" : 2 3/4" O.D. X 1/2" THK.
15" TO 17 1/4" : 2 3/4" O.D. X 1/2" THK.

NOTES:

1. THE CONTACT AREA BETWEEN THE TRANSFORMER BASE AND CONCRETE FOUNDATION SHALL BE SHOP COATED WITH COAL TAR EPOXY BITUMASTIC 300 M, OR EQUAL, MEETING SSPC-PAINT 16 SPECIFICATIONS. THE THICKNESS OF THE COATING SHALL BE BETWEEN 6 AND 8 MILS. THE COATING SHALL BE COMPLETELY DRY BEFORE INSTALLATION. THE TOP OF THE FOUNDATION SHALL NOT BE PAINTED.
2. TORQUE BOTTOM NUTS TO 150 FT-LB.

SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

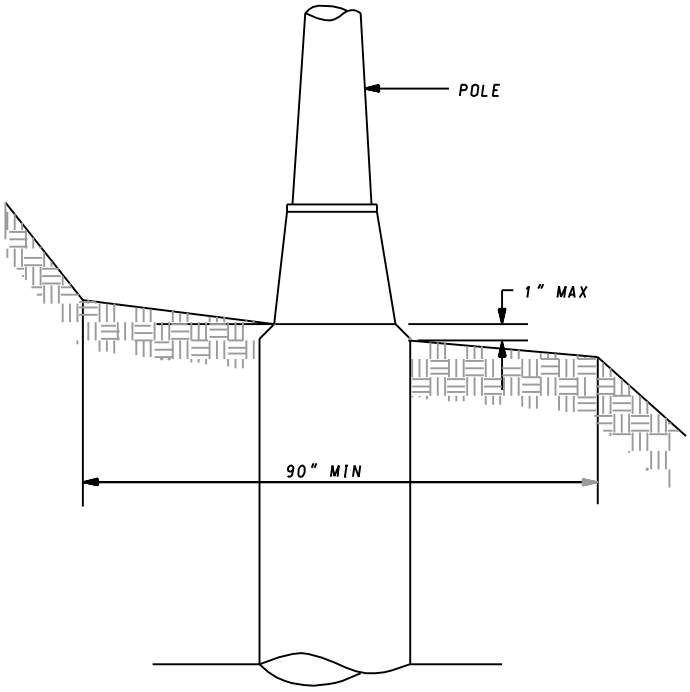
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	5-17-07	REVISED	5-2-07
REVISED	4-16-19	REVISED	4-1-19
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY TRANSFORMER BASE FOR LIGHTING STRUCTURE

STANDARD NO. MD 821.02



NOTE:

LIGHTING STRUCTURES SHALL BE INSTALLED ON LEVEL GROUND WHERE POSSIBLE. MOUNTING HEIGHTS AND LOCATION OF LUMINAIRE WITH RESPECT TO PAVEMENT EDGE ARE APPROXIMATE AND CAN BE VARIED BY OBTAINING APPROVAL OF THE ENGINEER. ANY VARIATION EXCEDDING 1' SHALL BE APPROVED BY THE TRAFFIC ENGINEERING DESIGN DIVISION. WHERE THE LIGHTING STANDARD MUST BE PLACED ON A SLOPE. REGRADING WILL BE REQUIRED AS SHOWN.

SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

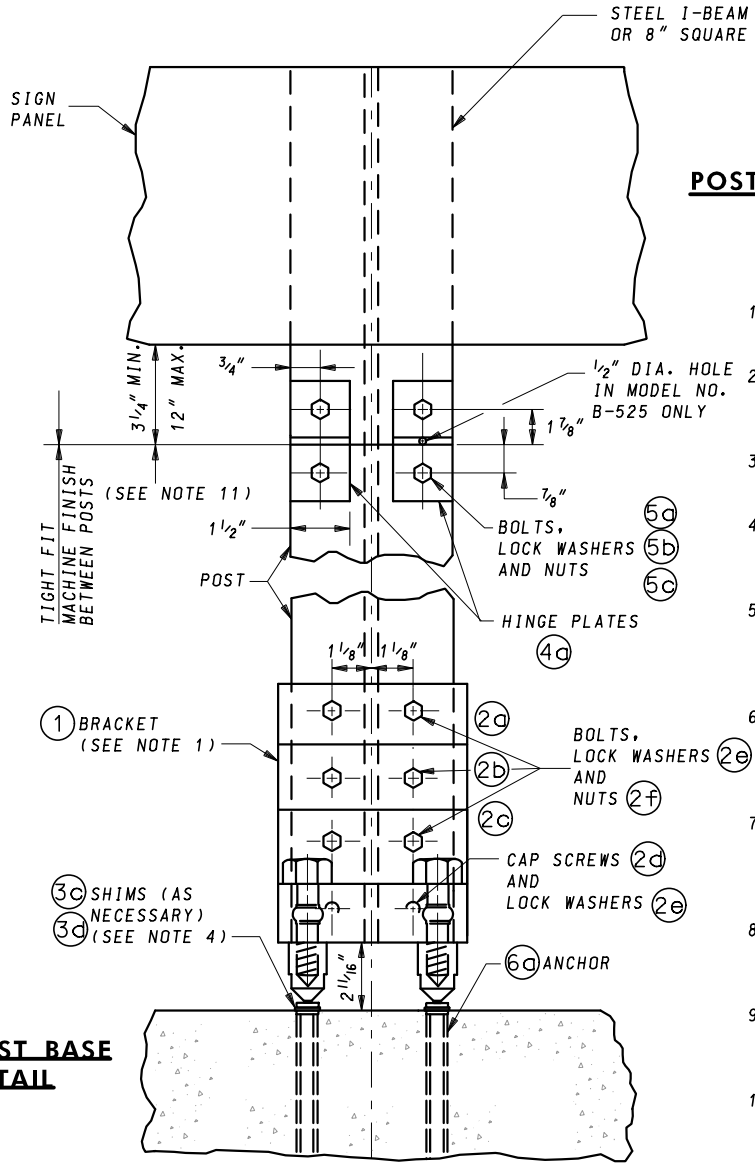
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	7-1-94	APPROVAL	7-1-94
REVISED	10-1-01	REVISED	2-1-01
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TYPICAL LIGHTING STRUCTURE FOUNDATION ON SLOPE

STANDARD NO. MD 821.02-01



POST BASE DETAIL

FRONT VIEW

POST HINGE DETAIL

NOTES:

1. THE BRACKET NUMBER IS STAMPED ON THE BRACKET.
2. BOLT THE BRACKETS TO POST, THEN PLACE POST AND CONNECTED BRACKET TO BREAKAWAY COUPLING.
3. ALL BOLTS TO BE TIGHTENED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
4. REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR HINGE PLATE, SHIM AND BRACKET DETAILS.
5. REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR ANCHOR, BREAKAWAY COUPLING AND COUPLING BOLT DETAILS.
6. W6X9 SIGN POSTS SHALL NOT BE USED WITH BREAKAWAY BASE SUPPORT SYSTEM 'B'. FOR W6X9 SIGN POSTS, SEE BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS.
7. REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR ADJUSTMENTS TO CONCRETE FOUNDATIONS TO SUIT VARIOUS GROUND SLOPES.
8. DESIGNATION B-525 IS FOR 6" (LARGER THAN W6X9) AND 8" BEAM SIZES OR 5" AND 6" SQUARE TUBE SIGN POST.
9. DESIGNATION B-650 IS FOR 10", 12", 14", 16", 18" AND 21" BEAM SIZES OR 7" AND 8" SQUARE TUBE SIGN POST.
10. (N) REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR MATERIAL PARTS.
11. HINGE PLATES SHALL NOT BE USED WITH SINGLE STEEL SUPPORT INSTALLATIONS FOR SIGNS.
12. FOR SUPPORTS W8x21 AND LARGER A 7'-0" MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN I-BEAMS UTILIZING BREAKAWAY SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS. THE 7'-0" MINIMUM CLEAR DISTANCE SHALL BE MEASURED FROM INSIDE FLANGE EDGE TO INSIDE FLANGE EDGE. NOT BETWEEN CENTER OF I-BEAMS.

BREAKAWAY ASSEMBLIES

SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

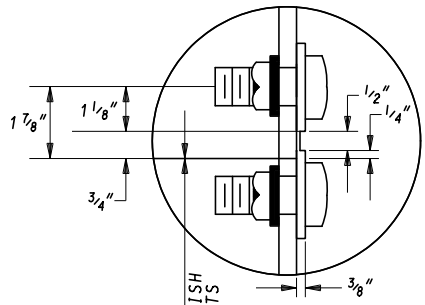
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	3-22-10	REVISED	3-10-10
REVISED	11-10-18	REVISED	10-26-18
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

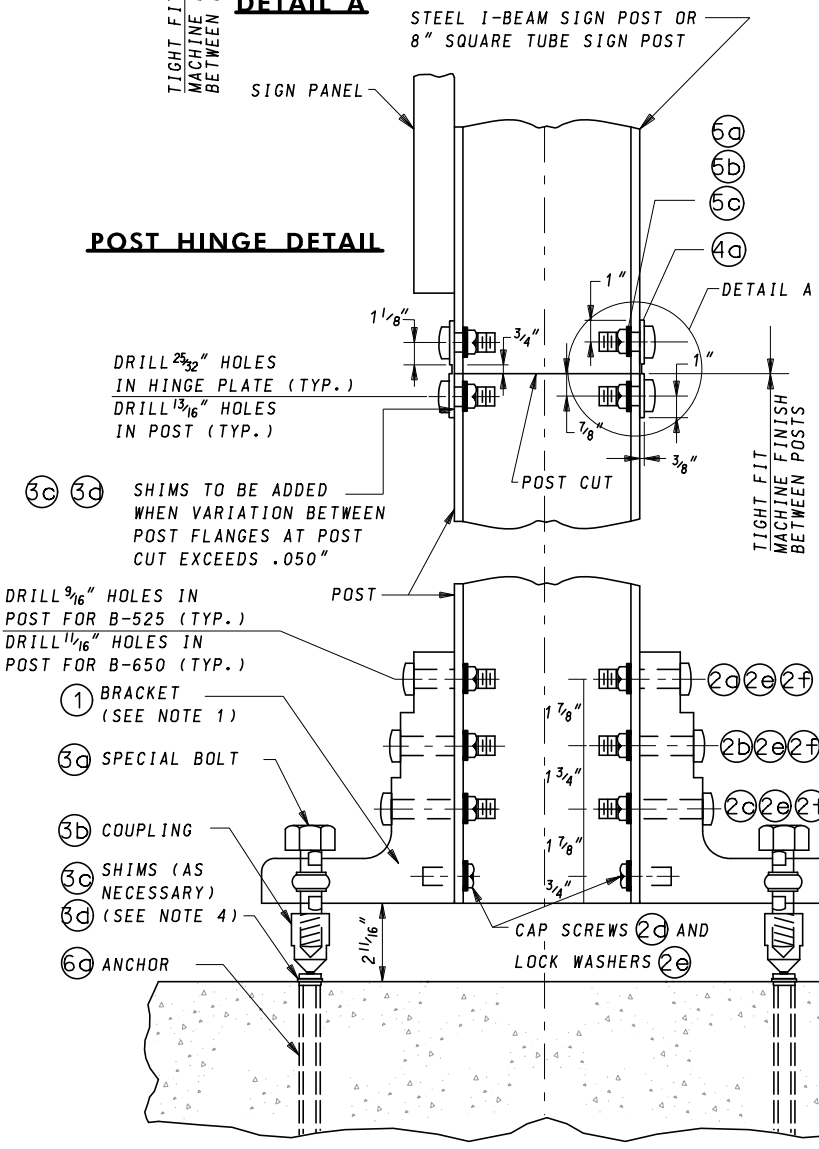
BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS

STANDARD NO. MD 821.03



DETAIL A

TIGHT FIT MACHINE FINISH BETWEEN POSTS



SIDE VIEW

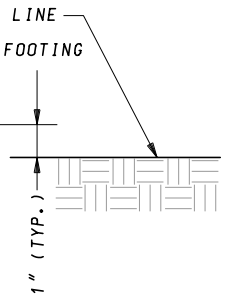
BREAKAWAY ASSEMBLIES

NOTES:

1. THE BRACKET NUMBER IS STAMPED ON THE BRACKET.
2. BOLT THE BRACKETS TO POST, THEN PLACE POST AND CONNECTED BRACKET TO BREAKAWAY COUPLING.
3. ALL BOLTS TO BE TIGHTENED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
4. REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR HINGE PLATE, SHIM AND BRACKET DETAILS.
5. REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR ANCHOR, BREAKAWAY COUPLING AND COUPLING BOLT DETAILS.
6. W6X9 SIGN POSTS SHALL NOT BE USED WITH BREAKAWAY BASE SUPPORT SYSTEM 'B'. FOR W6X9 SIGN POSTS, SEE BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS.
7. REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR ADJUSTMENTS TO CONCRETE FOUNDATIONS TO SUIT VARIOUS GROUND SLOPES.
8. DESIGNATION B-525 IS FOR 6" (LARGER THAN W6X9) AND 8" BEAM SIZES OR 5" AND 6" SQUARE TUBE SIGN POST.
9. DESIGNATION B-650 IS FOR 10", 12", 14", 16", 18" AND 21" BEAM SIZES OR 7" AND 8" SQUARE TUBE SIGN POST.
10. (N) REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR MATERIAL PARTS.
11. HINGE PLATES SHALL NOT BE USED WITH SINGLE STEEL SUPPORT INSTALLATIONS FOR SIGNS.
12. FOR SUPPORTS W8x21 AND LARGER A 7'-0" MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN I-BEAMS UTILIZING BREAKAWAY SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS. THE 7'-0" MINIMUM CLEAR DISTANCE SHALL BE MEASURED FROM INSIDE FLANGE EDGE TO INSIDE FLANGE EDGE. NOT BETWEEN CENTER OF I-BEAMS.

POST HINGE DETAIL

POST BASE DETAIL



SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED Cedric Ward
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

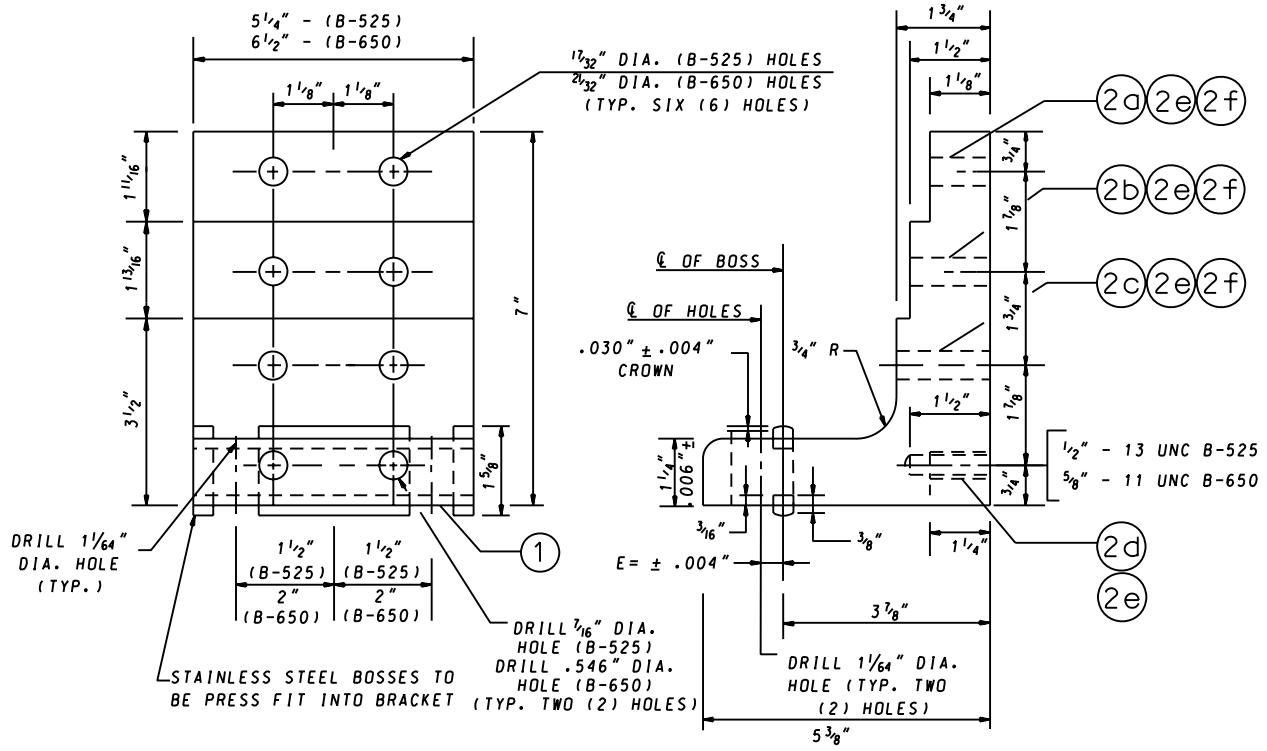
APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	3-22-10	REVISED	3-10-10
REVISED	11-10-18	REVISED	10-26-18
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

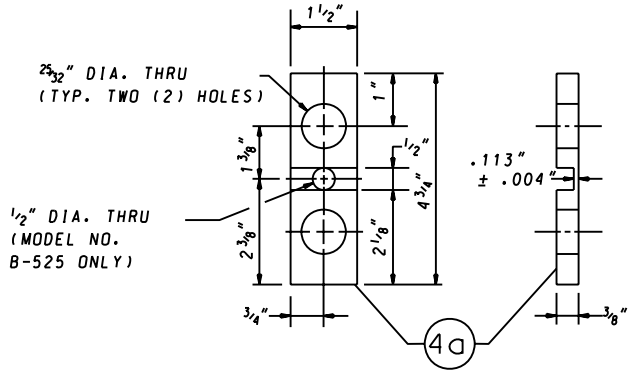
BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS

STANDARD NO. MD 821.03-01

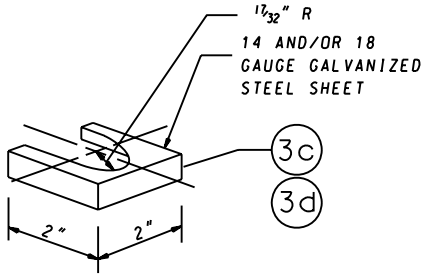


FRONT VIEW **SIDE VIEW**

BRACKET DETAIL



HINGE PLATE DETAIL



SHIM DETAIL

NOTES:

1. W6X9 SIGN POSTS SHALL NOT BE USED WITH BREAKAWAY BASE SUPPORT SYSTEM 'B'. FOR W6X9 SIGN POSTS, SEE BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS.
2. DESIGNATION B-525 IS FOR 6" (LARGER THAN W6X9) AND 8" BEAM SIZES OR 5" AND 6" SQUARE TUBE SIGN POST.
3. DESIGNATION B-650 IS FOR 10", 12", 14", 16", 18" AND 21" BEAM SIZES OR 7" AND 8" SQUARE TUBE SIGN POST.
4. (N) REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR MATERIAL PARTS.
5. HINGE PLATES SHALL NOT BE USED WITH SINGLE STEEL SUPPORT INSTALLATIONS FOR SIGNS.

SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	3-22-10	REVISED	3-10-10
REVISED		REVISED	
REVISED		REVISED	

SHA State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

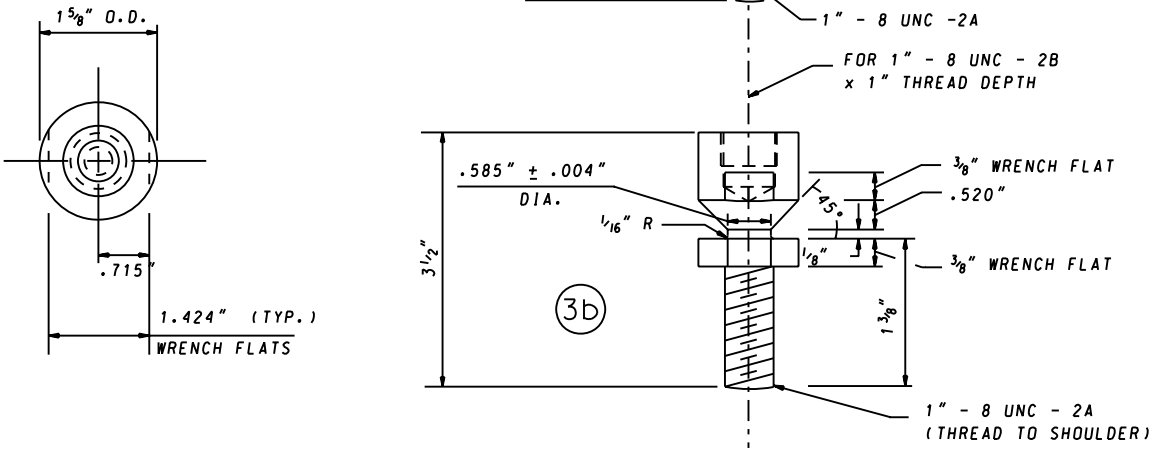
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS

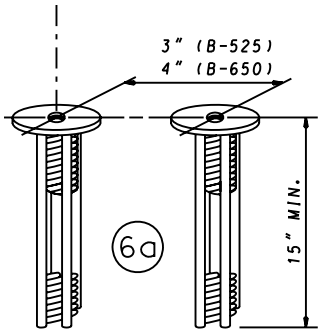
STANDARD NO. MD 821.03-02

REFERENCED ON: MD 801.04, MD 801.04-01, MD 801.04-02

COUPLING BOLT DETAIL



BREAKAWAY COUPLING DETAIL



FOR 1" - 8 UNC (0.020" OVERSIZE)
1 1/8" MIN. THREAD DEPTH

ANCHOR

NOTES:

1. W6X9 SIGN POSTS SHALL NOT BE USED WITH BREAKAWAY BASE SUPPORT SYSTEM 'B'. FOR W6X9 SIGN POSTS, SEE BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS.
2. DESIGNATION B-525 IS FOR 6" (LARGER THAN W6X9) AND 8" BEAM SIZES OR 5" AND 6" SQUARE TUBE SIGN POST.
3. DESIGNATION B-650 IS FOR 10", 12", 14", 16", 18" AND 21" BEAM SIZES OR 7" AND 8" SQUARE TUBE SIGN POST.
4. (N) REFER TO OTHER BREAKAWAY BASE SUPPORT SYSTEM FOR HIGHWAY SIGNS STANDARD PLATES FOR MATERIAL PARTS.
5. DO NOT PLACE TORQUE WRENCH ACROSS NECK OF COUPLING.
6. HINGE PLATES SHALL NOT BE USED WITH SINGLE STEEL SUPPORT INSTALLATIONS FOR SIGNS.

SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	3-22-10	REVISED	3-10-10
REVISED		REVISED	
REVISED		REVISED	

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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS

STANDARD NO. MD 821.03-03

REFERENCED ON: MD 801.04, MD 801.04-01, MD 801.04-02

MATERIAL LIST FOR 6" AND 8" STEEL I-BEAM SIGN POSTS OR 5" AND 6" SQUARE TUBE SIGN POSTS (B-525)

ITEM	DESCRIPTION	SIZE /SPECIFICATIONS	QTY./POST	PART NO.
①	BRACKET, TYPE B525 6061-T6 ALUMINUM (SEE BRACKET SELECTION TABLE FOR -NUMBER)		2	SBBK525-1A,-2A,-3A
②	BRACKET HARDWARE ASSEMBLY, TYPE B525, INCLUDES:		1	SB-B525LPH
②a	BOLT	1/2" - 13 UNC x 2 1/2" HEX HD., ASTM A325, GALV. ASTM A153	4	
②b	BOLT	1/2" - 13 UNC x 2 3/4" HEX HD., ASTM A325, GALV. ASTM A153	4	
②c	BOLT	1/2" - 13 UNC x 3" HEX HD., ASTM A325, GALV. ASTM A153	4	
②d	CAP SCREW	1/2" - 13 UNC x 1 1/4" HEX HD., ASTM A307, GALV. ASTM A153	4	
②e	LOCKWASHER	1/2", ANSI B18-21-1, GALV. ASTM A153	16	
②f	NUT	1/2" - 13 UNC, HEAVY HEX, ASTM A563 GR. DH, GALV. ASTM A153	12	
③	COUPLING & SPECIAL BOLT ASSEMBLY, TYPE B, INCLUDES:		1	SB-CBLP
③a	SPECIAL BOLT	1" - 8 UNC, ASTM A449, GALV. ASTM A153/B695	4	
③b	COUPLING	1" - 8 UNC, LP., AMS 6378D * , GALV. ASTM A153, POLYESTER COAT	4	
③c	SHIM	1" HORSESHOE, 14 GAUGE, GALV. STEEL SHEET	2	
③d	SHIM	1" HORSESHOE, 18 GAUGE, GALV. STEEL SHEET	2	
④	HINGE ASSEMBLY, TYPE B525, INCLUDES:		1	SB-HB1
④a	HINGE PLATE	TYPE B525, AISI 4130 STEEL, GALV. ASTM A123	4	
⑤	HINGE HARDWARE ASSEMBLY, TYPE B, INCLUDES:		1	SB-HHB
⑤a	BOLT	HINGE, 3/4" - 10 UNC x 2 1/4" HEX HD., ASTM A325, GALV. ASTM A153	8	
⑤b	LOCKWASHER	3/4" , ANSI B18-21-1, GALV. ASTM A153	8	
⑤c	NUT	3/4" - 10 UNC, HEAVY HEX, ASTM A563, GR, DH, GALV. ASTM A153	8	
⑥	ANCHOR ASSEMBLY, TYPE B, INCLUDES:		1	SBABPK
⑥a	ANCHOR	1"-8 UNC,304 STAINLESS STEEL FERRULE,AISI 1045 ROD,AISI 1008 COIL	4	

MATERIAL LIST FOR 10", 12", 14", 16", 18" AND 21" STEEL I-BEAM SIGN POSTS OR 7"AND 8" SQUARE TUBE SIGN POSTS (B-650)

ITEM	DESCRIPTION	SIZE /SPECIFICATIONS	QTY./POST	PART NO.
①	BRACKET, TYPE B650 6061-T6 ALUMINUM (SEE BRACKET SELECTION TABLE FOR -NUMBER)		2	SBBK650-1A,-2A,-3A
②	BRACKET HARDWARE ASSEMBLY, TYPE B650, INCLUDES:		1	SB-B650LPH
②a	BOLT	5/8" - 11 UNC x 2 3/4" HEX HD., ASTM A325, GALV. ASTM A153	4	
②b	BOLT	5/8" - 11 UNC x 3" HEX HD., ASTM A325, GALV. ASTM A153	4	
②c	BOLT	5/8" - 11 UNC x 3 1/4" HEX HD., ASTM A325, GALV. ASTM A153	4	
②d	CAP SCREW	5/8" - 11 UNC x 1 1/4" HEX HD., ASTM A307, GALV. ASTM A153	4	
②e	LOCKWASHER	5/8", ANSI B18-21-1, GALV. ASTM A153	16	
②f	NUT	5/8" - 11 UNC, HEAVY HEX, ASTM A563 GR. DH, GALV. ASTM A153	12	
③	COUPLING & SPECIAL BOLT ASSEMBLY, TYPE B, INCLUDES:		1	SB-CBLP
③a	SPECIAL BOLT	1" - 8 UNC, ASTM A449, GALV. ASTM A153/B695	4	
③b	COUPLING	1" - 8 UNC, LP., AMS 6378D * , GALV. ASTM A153, POLYESTER COAT	4	
③c	SHIM	1" HORSESHOE, 14 GAUGE, GALV. STEEL SHEET	2	
③d	SHIM	1" HORSESHOE, 18 GAUGE, GALV. STEEL SHEET	2	
④	HINGE ASSEMBLY, TYPE B650, INCLUDES:		1	SB-HB2
④a	HINGE PLATE	TYPE B650, AISI 4130 STEEL, GALV. ASTM A123	4	
⑤	HINGE HARDWARE ASSEMBLY, TYPE B, INCLUDES:		1	SB-HHB
⑤a	BOLT	HINGE, 3/4" - 10 UNC x 2 1/4" HEX HD., ASTM A325, GALV. ASTM A153	8	
⑤b	LOCKWASHER	3/4" , ANSI B18-21-1, GALV. ASTM A153	8	
⑤c	NUT	3/4" - 10 UNC, HEAVY HEX, ASTM A563, GR, DH, GALV. ASTM A153	8	
⑥	ANCHOR ASSEMBLY, TYPE B, INCLUDES:		1	SBABPK
⑥a	ANCHOR	1"-8 UNC,304 STAINLESS STEEL FERRULE,AISI 1045 ROD,AISI 1008 COIL	4	

* WITH EXCEPTIONS TO DECARBURIZATION AND MACROSTRUCTURE CLAUSES.

SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED

DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	3-22-10	REVISED	3-10-10
REVISED		REVISED	
REVISED		REVISED	

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STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS

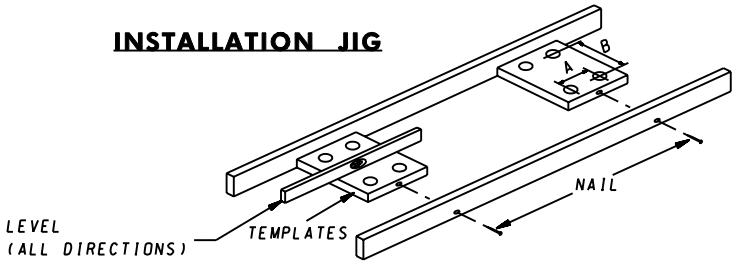
STANDARD NO. MD 821.03-04

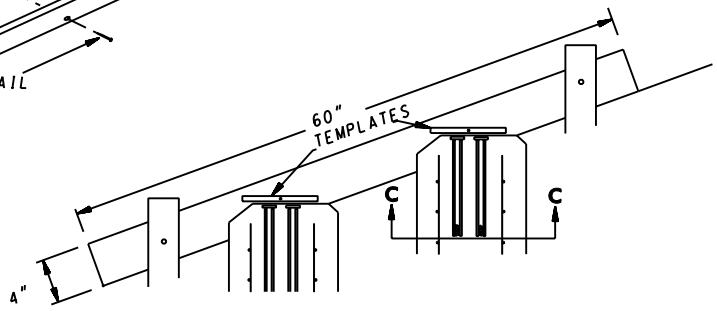
REFERENCED ON: MD 821.03, MD 821.03-01, MD 821.03-02, MD 821.03-03

CONSTRUCTION NOTES

WRENCH SIZES REQUIRED: $^{9}/_{16}$", $^{7}/_{8}$", $1\,^{1}/_{16}$", $1\,^{1}/_{4}$", $1\,^{7}/_{16}$", $1\,^{5}/_{8}$"

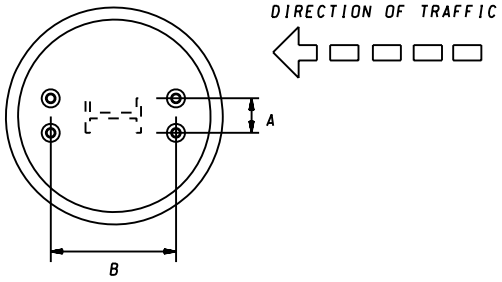
INSTALLATION JIG





ANCHOR AND COUPLING ASSEMBLY

PLAN VIEW OF FOOTING
SECTION C-C



A = LATERAL SPACING FOR ANCHORS

3" FOR B-525 USED ON 6" (LARGER THAN W6X9) AND 8" WIDE FLANGE POSTS OR 5" AND 6" SQUARE TUBE POST.

4" FOR B-650 USED ON 10", 12", 14", 16", 18" AND 21" WIDE FLANGE POSTS OR 7" AND 8" SQUARE TUBE SIGN POST.

B = LONGITUDINAL SPACING FOR ANCHORS

BRACKET 1 - DEPTH OF POST SECTION PLUS $7\,^{15}/_{16}$ INCHES

BRACKET 2 - DEPTH OF POST SECTION PLUS $8\,^{1}/_{16}$ INCHES

BRACKET 3 - DEPTH OF POST SECTION PLUS $8\,^{1}/_{8}$ INCHES

BRACKET ASSEMBLY

ATTACH BRACKETS TO POST WITH BOLTS PROVIDED. SQUARE AND TIGHTEN. (ITEMS ①②a ②b ②c ②d ②e AND ②f)

NOTES:

1. REFER TO GALVANIZED STEEL BEAM SIGN POSTS FOUNDATION DETAILS STANDARD PLATE FOR ADJUSTMENTS TO CONCRETE FOUNDATIONS NECESSITATED BY VARIOUS GROUND SLOPES.
2. FIXED, NON-BREAKAWAY FOOTING SHALL NOT BREAK THE 4" x 60" PLANE.
3. ANCHOR AND COUPLING ASSEMBLY TO BE ASSEMBLED PER (OR IN ACCORDANCE WITH) MANUFACTURER'S RECOMMENDATIONS.

SPECIFICATION	CATEGORY CODE ITEMS
821	

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DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
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STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS

STANDARD NO. MD 821.03-05

REFERENCED ON: MD 801.04, MD 801.04-01, MD 801.04-02

HINGE ASSEMBLY

1. BUTT UPPER AND LOWER POSTS TOGETHER ON FLAT SURFACE.
2. PLACE HINGE PLATES (4a) ON OUTER FLANGES AND SNUGLY SECURE WITH 3/4"- UNC BOLTS (5a) (5b) AND (5c). DO NOT TIGHTEN.
3. MAKE SURE UPPER AND LOWER POSTS ARE IN ALIGNMENT. THEN TIGHTEN ALL NUTS (5c) TO PROOF LOAD - ONE HALF OF A TURN BEYOND SNUG.

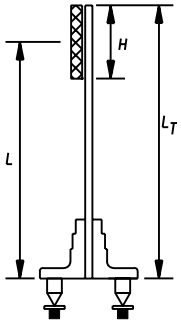
GENERAL NOTES

1. INSTALLATION MUST MEET AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".
2. ALL HARDWARE SHALL BE HOT DIP GALVANIZED PER A153.
3. FASTENERS, EXCEPT FOR SPECIAL BOLT AND COUPLING, SHALL BE INSTALLED WITH LOCKWASHERS OR LOCKNUTS AND DO NOT HAVE SPECIFIC TORQUE REQUIREMENTS. FASTENERS SHOULD BE MADE AS TIGHT AS POSSIBLE WITH CONVENTIONAL WRENCHES.
4. SQUARE AND LEVEL INDIVIDUAL COMPONENTS TO MINIMIZE NEED FOR SHIMMING.
5. NO MORE THAN TWO SHIMS SHALL BE USED UNDERNEATH ANY ONE COUPLING. NO MORE THAN THREE SHIMS SHALL BE USED UNDERNEATH ANY TWO COUPLINGS.
6. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER A123 FABRICATION.
7. ALL BRACKETS SHALL BE PERMANENTLY LABELED WITH THE APPROPRIATE BRACKET TYPE AND BRACKET SELECTION NUMBER.
8. SELECT CORRECT BRACKET NUMBER FROM BRACKET SELECTION TABLE USING THE PROPER 'L' VALUE AS SHOWN IN THE FIGURE BELOW.

I-BEAM BRACKET SELECTION TABLE

POST WIDTH (IN.)	BRACKET 1		BRACKET 2		BRACKET 3	
	MIN. L (FT.)	MAX. L (FT.)	MIN. L (FT.)	MAX. L (FT.)	MIN. L (FT.)	MAX. L (FT.)
6	12	29	9	12	0	9
8	14	29	10	14	0	10
10	16	29	11	16	0	11
12	18	29	13	18	0	13
14	19	29	14	19	0	14
16	21	29	15	21	0	15
18	23	29	16	23	0	16
21	25	29	18	25	0	18

$L = L_T - H/2$



SQUARE TUBE BRACKET SELECTION TABLE

BEAM SIZE (IN.)	BRACKET 1	BRACKET 2	BRACKET 3
5 x 5 x 1/4	L >= 11	8 < L < 11	L <= 8
6 x 6 x 1/4	L >= 12	9 < L < 12	L <= 9
7 x 7 x 1/4	L >= 13	9.5 < L < 13	L <= 9.5
8 x 8 x 5/16	L >= 14	10 < L < 14	L <= 10

SPECIFICATION	CATEGORY CODE ITEMS
821	

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APPROVAL	5-17-07	APPROVAL	5-2-07
REVISED	3-22-10	REVISED	3-10-10
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REVISED		REVISED	

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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

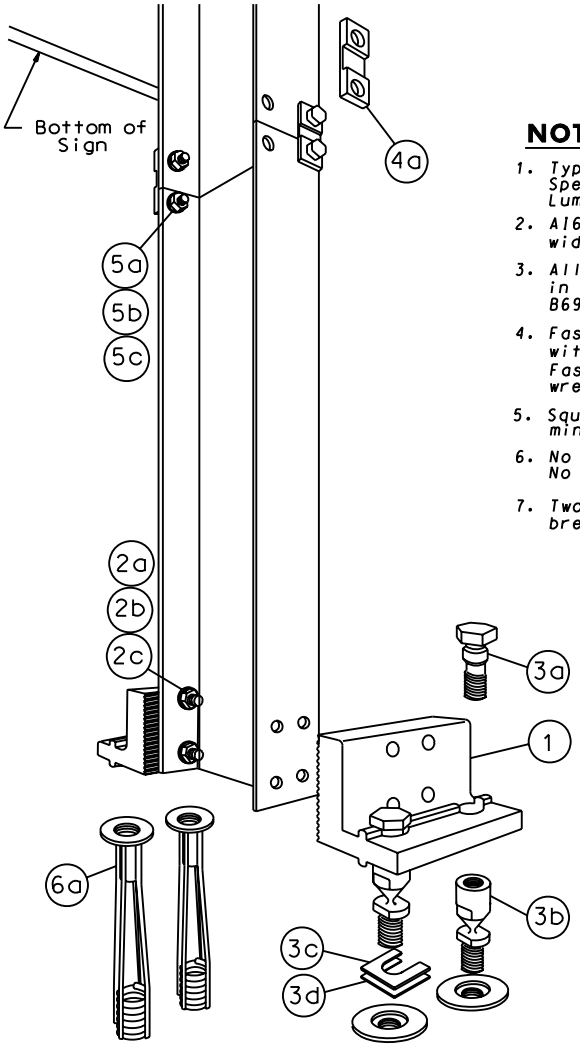
BREAKAWAY BASE SUPPORT SYSTEM 'B' FOR HIGHWAY SIGNS

STANDARD NO. MD 821.03-06

REFERENCED ON: MD 801.04, MD 801.04-01, MD 801.04-02

MATERIAL LIST FOR 6X9 STEEL W-BEAM SIGN POSTS (AI6)

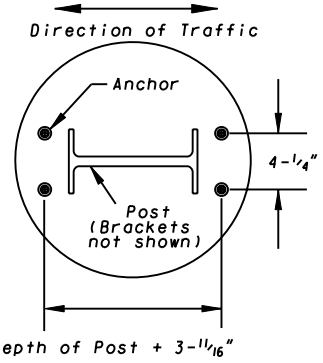
ITEM	DESCRIPTION	SIZE/SPECIFICATIONS	QTY/ POST	PART NUMBER
1	Bracket, Type AI6 6061-T6 Aluminum		2	SBAK6117
2	Bracket Hardware Assembly, Type AI6, includes:		1	SB-AI6H
2a	Bolt	1/2"-13UNCx2-1/4", Hex Head, ASTM A325, Galv. ASTM A153	8	
2b	LockWasher	1/2", ANSI B18-21-1, Galv. ASTM A153	8	
2c	Nut	1/2" -13UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	8	
3	Coupling & Special Bolt Assembly, Type A, includes:		1	SB-CALP
3a	Special Bolt	5/8" -11UNC, ASTM A449, Galv. ASTM A153/B695	4	
3b	Coupling	5/8" -11UNC, LP, AMS 6378D, Galv. ASTM A153, Polyester Coat	4	
3c	Shim	5/8" Horseshoe, 14 Gauge, Galv. Steel Sheet	2	
3d	Shim	5/8" Horseshoe, 18 Gauge, Galv. Steel Sheet	2	
4	Hinge Assembly, Type A, includes:		1	SB-HB3
4a	Hinge Plate	Type A, AISI 4130 Steel, Galv. ASTM A123	4	
5	Hinge Hardware Assembly, Type A, includes:		1	SB-HHA
5a	Bolt	1/2"-13UNCx 1-1/2", Hex Head, ASTM A325, Galv. ASTM A153	8	
5b	LockWasher	1/2", ANSI B18-21-1, Galv. ASTM A153	8	
5c	Nut	1/2" -13UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A153	8	
6	Anchor Assembly, Type A, includes:		1	SBAAPK
6a	Anchor	5/8" -11UNC, 304 S.S. Ferrule, AISI 1045 Rod, AISI 1008 Coil	4	



NOTES:

1. Type AI6 system shall meet all requirements of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals."
2. AI6 is designed to fit W6x9 wide-flange steel W-Beam signposts.
3. All hardware items are American Standard sizes, galvanized in accordance with ASTM A153 (hot dipped) or ASTM B695 (mechanically applied).
4. Fasteners, except for special bolt and coupling, are installed with lockwashers, and do not have specific torque requirements. Fasteners should be secured as tight as possible with conventional wrenches, unless noted otherwise.
5. Square-up and level individual components, particularly Anchors to minimize the need for shimming between the Couplings and Anchors.
6. No more than two shims shall be placed under any one coupling. No more than three shims underneath any pair of couplings.
7. Two W6X9 sign posts may be placed within 7' when utilizing breakaway support system 'A'.

PLAN VIEW OF TYPICAL FOUNDATION



SPECIFICATION	CATEGORY CODE ITEMS
821	

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DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
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REVISED		REVISED	
REVISED		REVISED	

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STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS

STANDARD NO. MD 821.03-07

REFERENCED ON: MD 801.04, MD 801.04-01, MD 801.04-02

INSTALLATION INSTRUCTIONS

ANCHOR ASSEMBLY:

Note: Precise positioning of the anchors is critical to proper assembly of the system. It is recommended that actual posts be used to locate the correct postion of the anchors.

1. *Fabricate a flat, rigid template with four 5/8" diameter holes located to match the specified anchor pattern of the Brackets attached to the signpost.*

2. *Attach four (4) Type A Female Anchors to the template using four (4) 5/8" diameter bolts. Ensure that each Anchor Washer is snug against the bottom of the template.*

3. *Lower Anchor Assembly into fresh concrete foundation, and vibrate into position such that the tops of the Anchor Washers are flush with the finished top surface of the foundation. Support the template such that all Anchors are level and in their proper locations.*

4. *Allow concrete to cure, and then remove the bolts and template from the top of the foundation.*

HINGE ASSEMBLY:

1. *Butt upper and lower post sections together on a flat surface.*

2. *Drill eight (8) 9/16" holes in the flanges of the post sections as shown.*

3. *Place Hinge Plates on outer surface of the post flanges and secure with bolts, lock washers, and nuts. Ensure that upper and lower post sections are in alignment, and then tighten all nuts 1/2 turn beyond snug.*

BRACKET ASSEMBLY:

1. *Drill eight (8) 9/16" diameter holes in the flanges of the lower post section as shown.*

2. *Place Brackets squarely on outer surface of the post flanges, and secure with bolts, lock washers, and nuts. Then, tighten all 1/2 turn beyond snug.*

COUPLING ASSEMBLY:

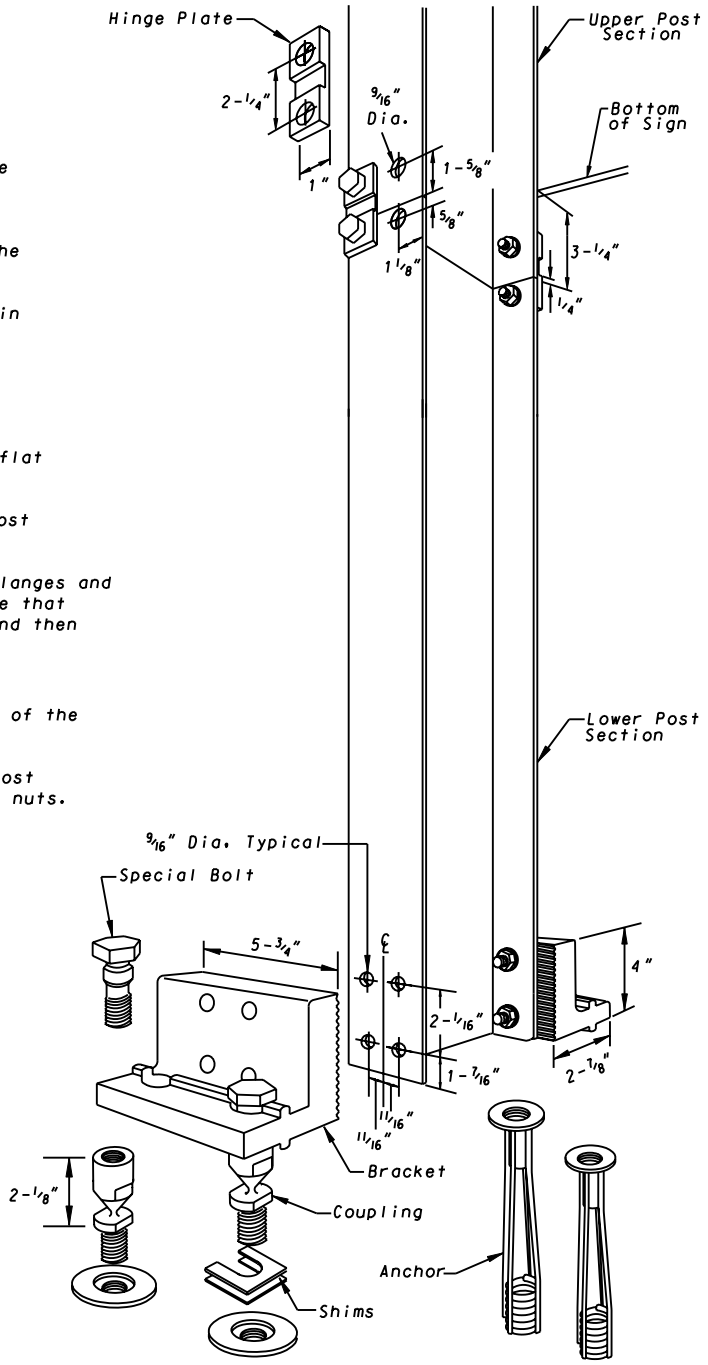
1. *If post is not plumb, insert Shims (14g and/or 18g) between the Couplings and Anchors, where needed.*

2. *Use lower wrench flats to tighten Couplings into Anchors as tight as possible using a conventional wrench. Do not use a pipe wrench. Couplings must be seated squarely.*

3. *Tighten Special Bolts while holding Couplings by the upper wrench flats with an additional wrench to prevent an induced torque stress across the necked portion of the Coupling. All Special Bolts shall also be tightened as tight as possible using conventional wrenches.*

4. *Thread four (4) Couplings into Anchors. Do not tighten.*

5. *Suspend post assembly over foundation, insert Special Bolts through holes in the Brackets, and thread them snug into the Couplings.*



SPECIFICATION	CATEGORY CODE ITEMS
821	

APPROVED _____
DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	5-17-07	APPROVAL	5-2-07
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REVISED		REVISED	

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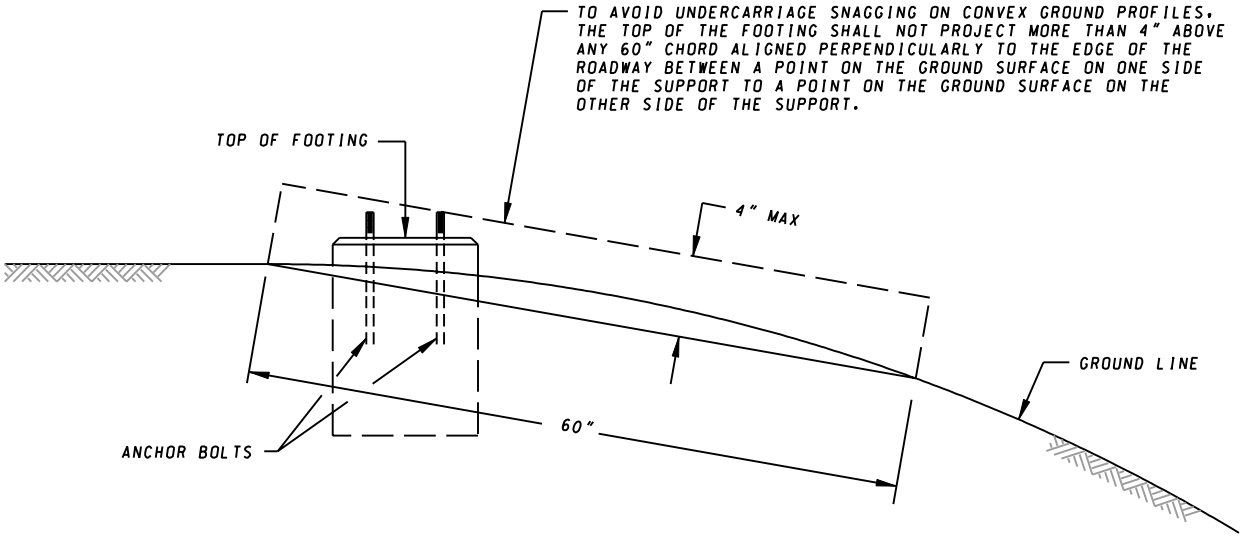
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

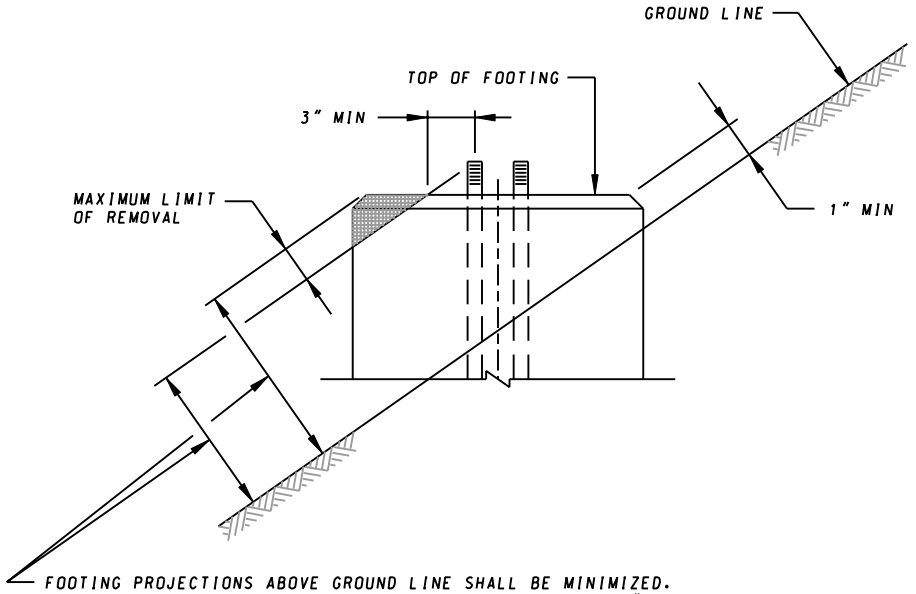
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY BASE SUPPORT SYSTEM 'A' FOR HIGHWAY SIGNS

STANDARD NO. MD 821.03-08

REFERENCED ON: MD 801.04, MD 801.04-01, MD 801.04-02





FOOTING PROJECTIONS ABOVE GROUND LINE SHALL BE MINIMIZED. THE MAXIMUM PERMISSIBLE FOOTING PROJECTION SHALL BE 4" ON THE LOWER SLOPE SIDE. WHERE NECESSARY, THE SHADED AREA OF THE FOOTING SHALL BE REMOVED AND REINFORCEMENT SHALL BE BENT TO FIT.

SPECIFICATION	CATEGORY CODE ITEMS
818, 821	

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APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	12-8-94	APPROVAL	12-8-94
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REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

BREAKAWAY POLES
ADJUSTMENT FOR GROUND SLOPES

STANDARD NO. MD 821.08-01