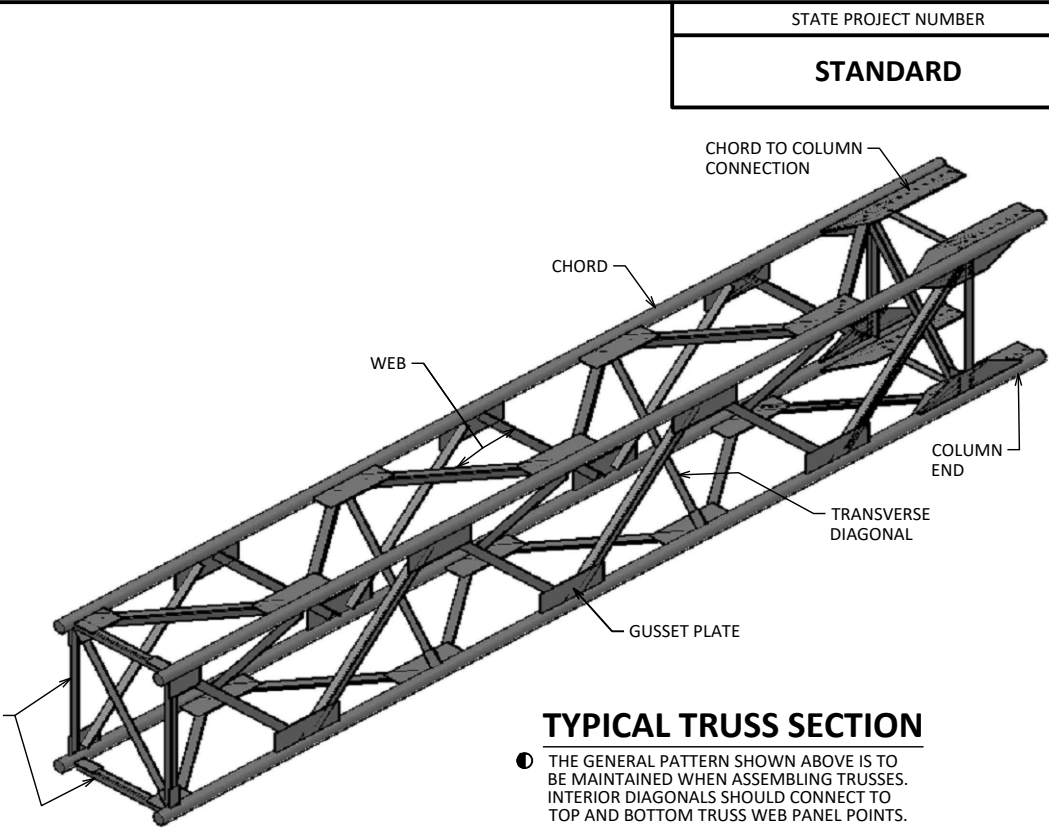


CANTILEVER 4-CHORD TRUSS MEMBER TABLE

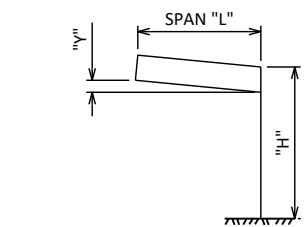
STANDARD DESIGN TYPE	TYPE I SIGN AREA (SQ. FT.)	DMS AREA (SQ. FT.)	MAXIMUM SPAN "L"	MAXIMUM COLUMN HEIGHT "H"	DIM. "A"	COLUMN "OD" X THK.	CHORD "OD" X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK
I	264	114	30'-0"	30'-0"	1'-3"	20.00" X 0.500"	5.000" X 0.375" ▽	L3 X 3 X ¼	L3 X 3 X ¼	L3 X 3 X ¼
II	240	114	38'-0"	30'-0"	1'-4½"	24.00" X 0.500"	5.563" X 0.375"	L3 X 3 X ⅜ ₁₆	L3 X 3 X ¼	L3 X 3 X ¼

▽ 5.563" X 0.375" MAY BE SUBSTITUTED FOR 5.000" X 0.375"



TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. INTERIOR DIAGONALS SHOULD CONNECT TO TOP AND BOTTOM TRUSS WEB PANEL POINTS.



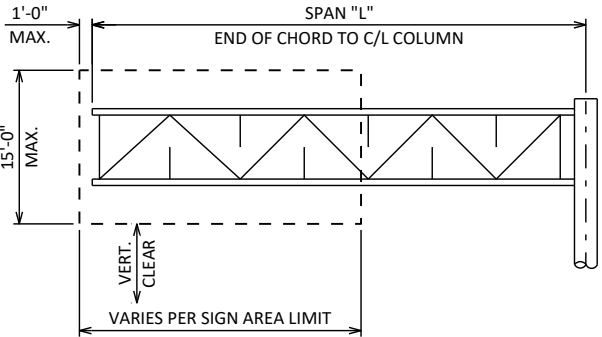
CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS TO CREATE CAMBER SHALL NOT BE ALLOWED.

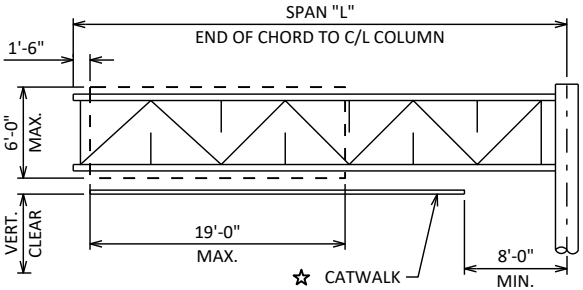
CAMBER VALUES

SPAN "L"	"Y"			
	30'-0"		38'-0"	
"H"	TYPE I	DMS	TYPE I	DMS
22'-0"	2¼"	3½"	2⅝"	4⅞"
24'-0"	2⅜"	3⅞"	2⅞"	4½"
26'-0"	2½"	4⅞"	3⅞"	4⅞"
28'-0"	2¾"	4½"	3¼"	5¼"
30'-0"	2⅞"	4¾"	3½"	5⅞"

INTERPOLATE FOR VALUES NOT SHOWN. DMS VALUES INCLUDE DL OF CATWALK.



TYPE I SIGN LIMITS



DMS SIGN LIMITS

2,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AS SHOWN. SEE "CATWALK DETAILS" AND "ELECTRICAL DETAILS" SHEETS.

▣ FOR OSS WITH DMS ONLY, DRILL AND TAP FOR 2 - 2" STD. PIPE THREADS. LOCATE CENTER OF BOTTOM HOLE 6" FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS. SEE "ELECTRICAL DETAILS" SHEET.

STATE PROJECT NUMBER

STANDARD

CHORD TO COLUMN CONNECTION

CHORD

WEB

COLUMN END

TRANSVERSE DIAGONAL

GUSSET PLATE

TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. INTERIOR DIAGONALS SHOULD CONNECT TO TOP AND BOTTOM TRUSS WEB PANEL POINTS.

SPAN "L"

END OF CHORD TO C/L COLUMN

1'-0" MAX.

15'-0" MAX.

VERT. CLEAR

VARIES PER SIGN AREA LIMIT

TYPE I SIGN LIMITS

SPAN "L"

END OF CHORD TO C/L COLUMN

1'-6"

6'-0" MAX.

VERT. CLEAR

19'-0" MAX.

8'-0" MIN.

CATWALK ☆

DMS SIGN LIMITS

2,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

NO.

DATE

REVISION

BY

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

UPDATED: JULY 2025

DRAWN BY

BOS

PLANS CK'D

BOS

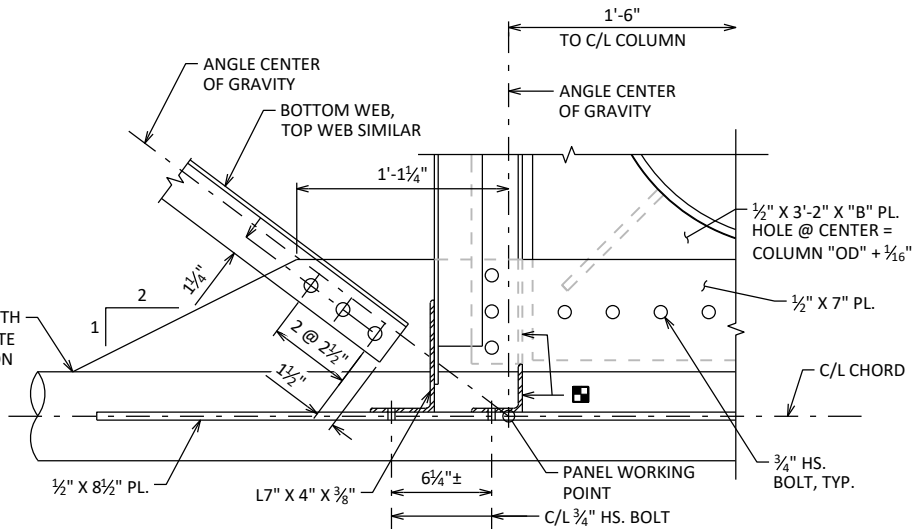
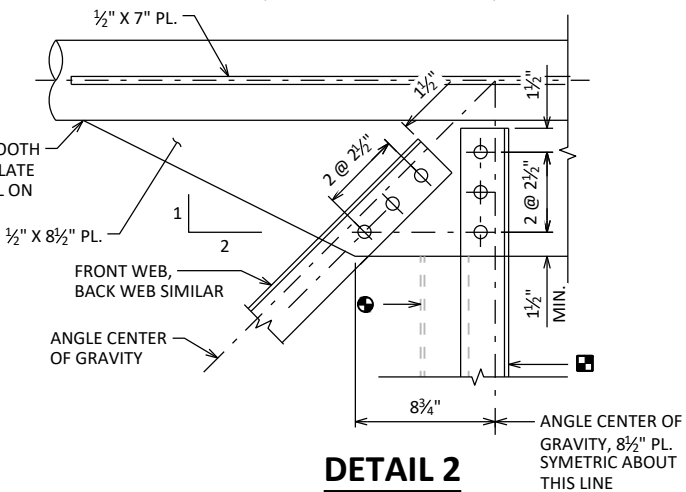
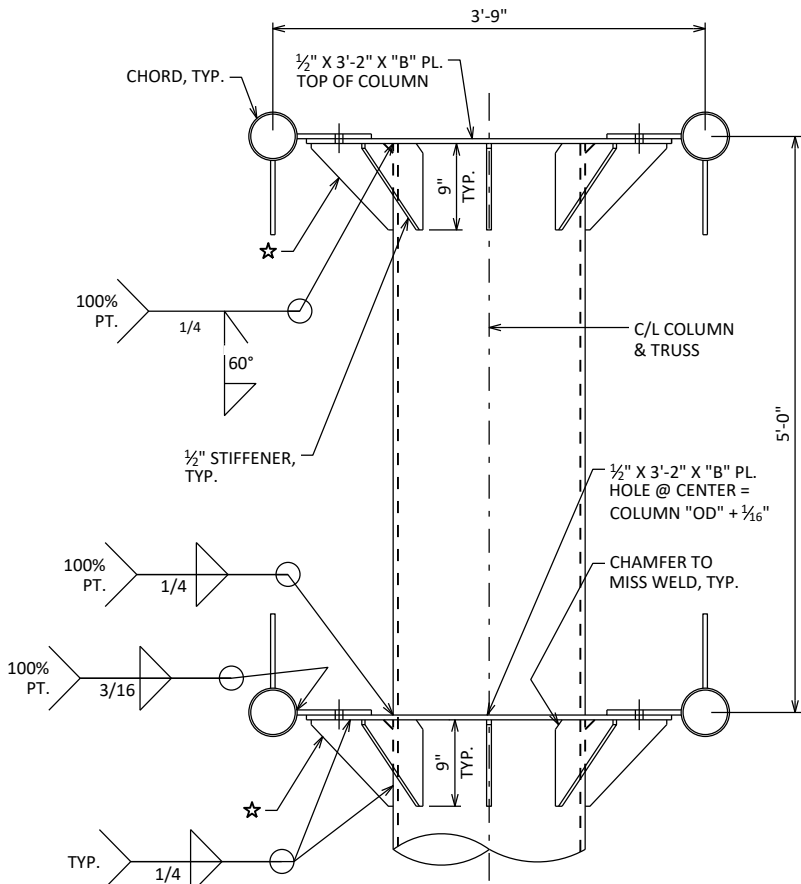
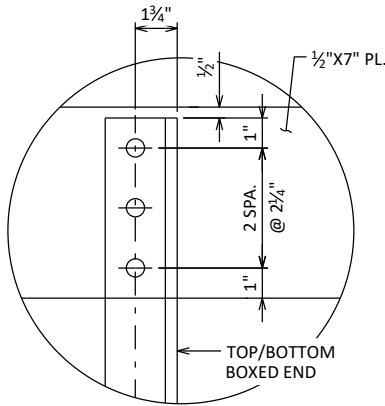
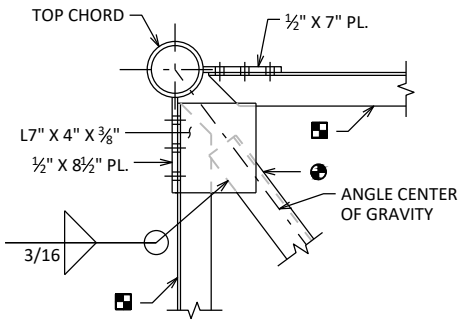
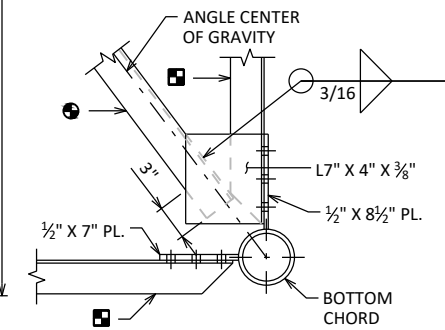
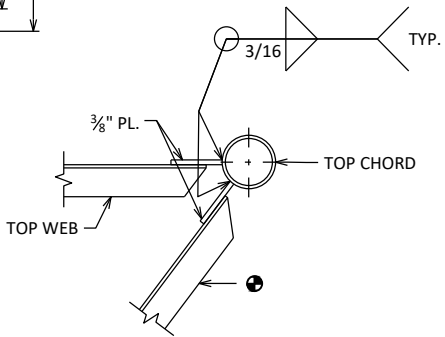
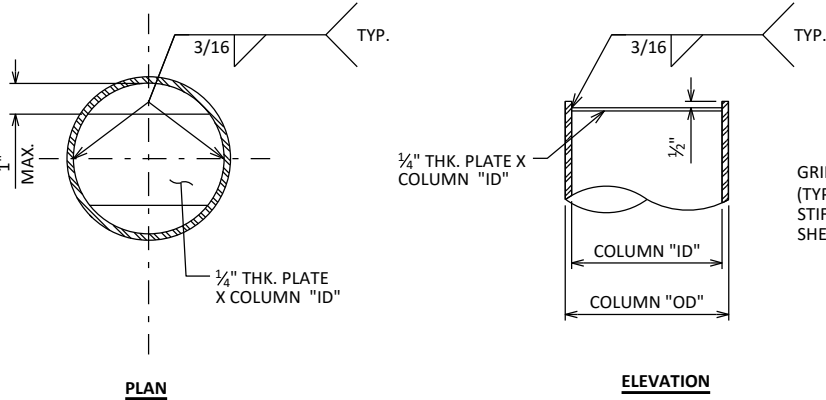
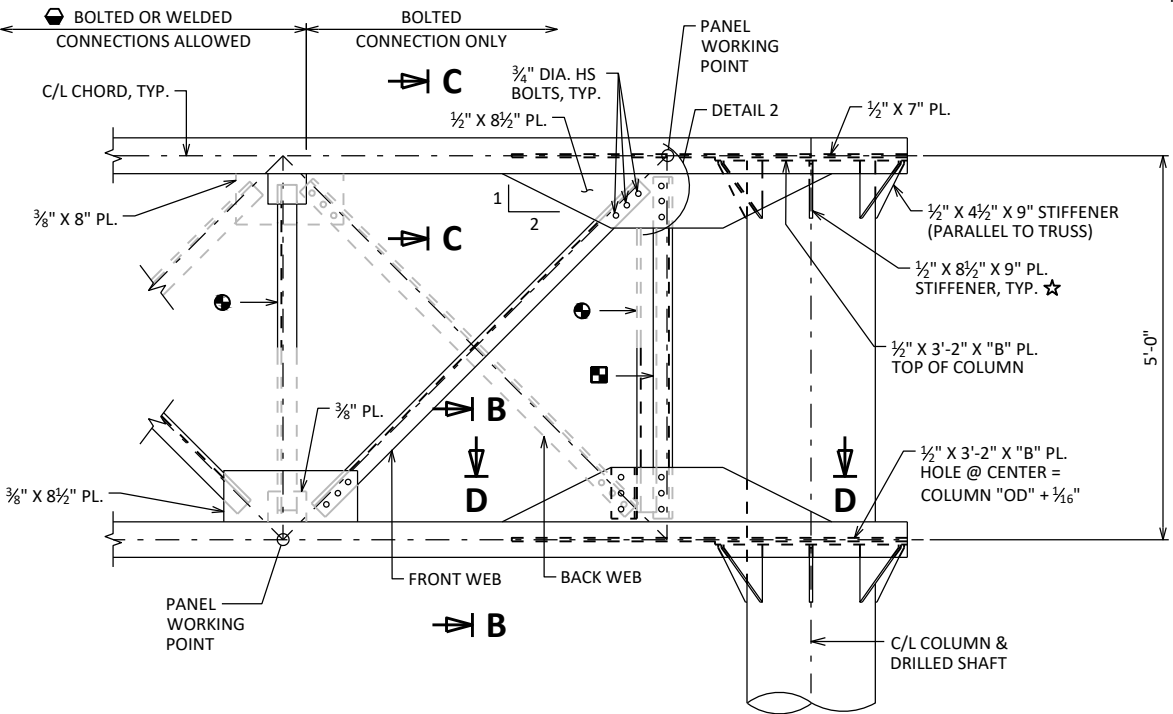
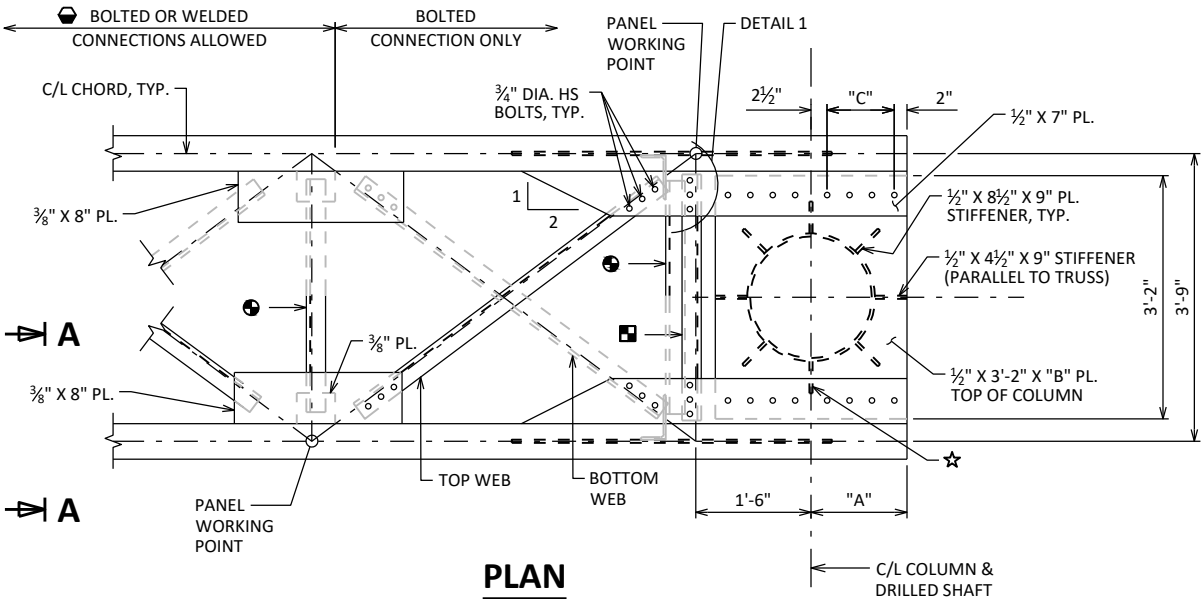
4-CHORD TRUSS CANTILEVER DETAILS

SHEET I

SCALE = 4:0

TRUSS TO COLUMN CONNECTION DATA

STANDARD DESIGN TYPE	"A"	"B"	"C"
I	1'-3"	2'-6"	3 SPA. @ 3½"
II	1'-4½"	2'-9"	4 SPA. @ 3"



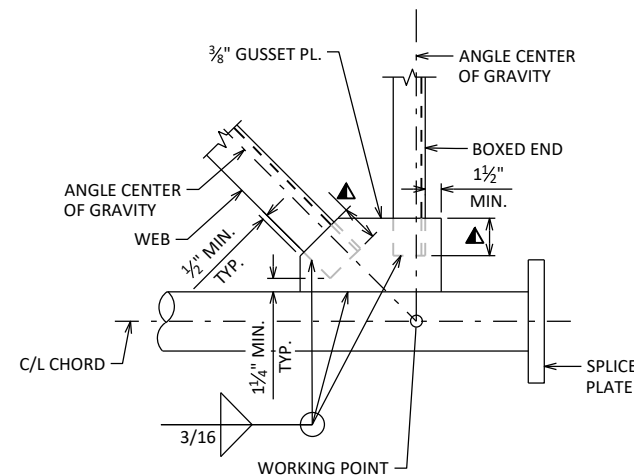
- LEGEND**
- TRANSVERSE DIAGONAL
 - BOXED END AT SUPPORT
 - WELDED CONNECTIONS MAY BE USED IF UNIT CAN BE GALVANIZED IN ONE PIECE. FIRST BAY MUST BE BOLTED.
 - ☆ 1/2" X 7" X 9" STIFFENER TYPE II STANDARD DESIGN ONLY. TYP. OPPOSITE SIDE.

STATE PROJECT NUMBER

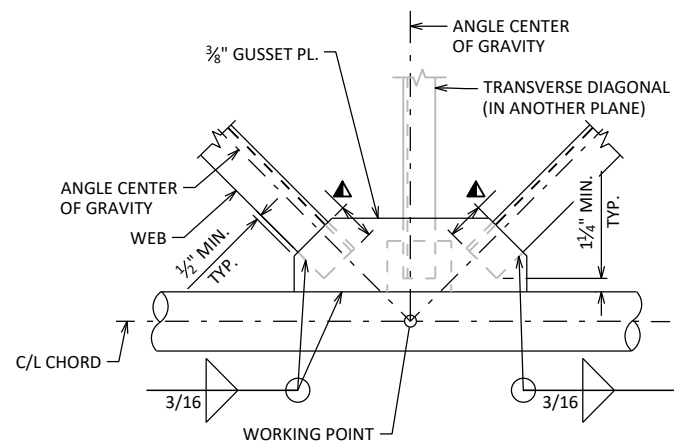
STANDARD

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CONNECTIONS 1		SHEET II	

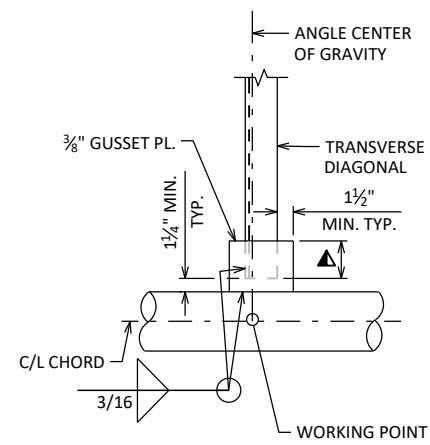
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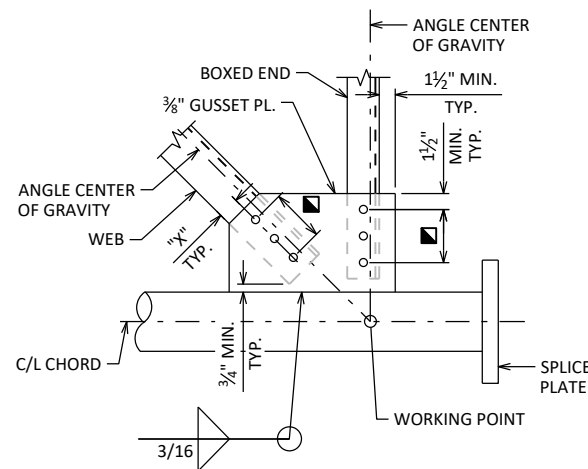
WELDED BOXED END CONNECTION
CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR



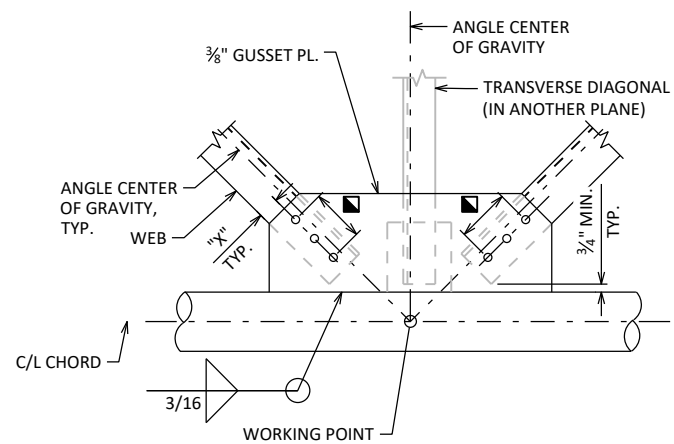
WELDED PANEL CONNECTION



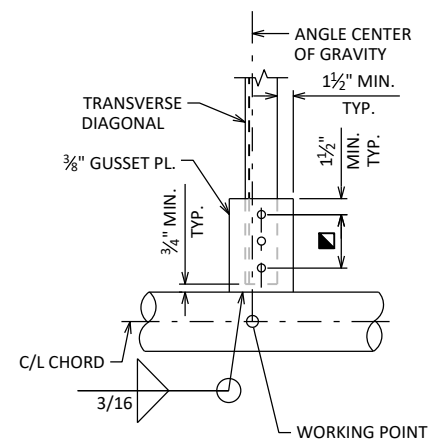
WELDED TRANSVERSE DIAGONAL CONNECTION
WEB MEMBERS NOT SHOWN FOR CLARITY



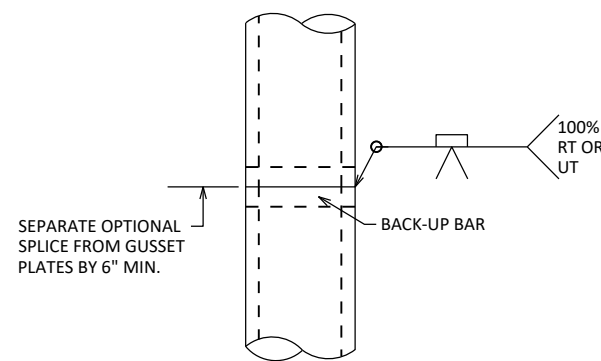
BOLTED BOXED END CONNECTION
CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR



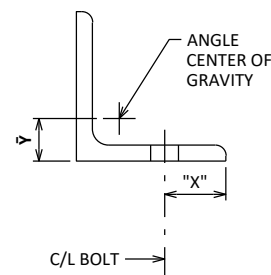
BOLTED PANEL CONNECTION



BOLTED TRANSVERSE DIAGONAL CONNECTION
WEB MEMBERS NOT SHOWN FOR CLARITY



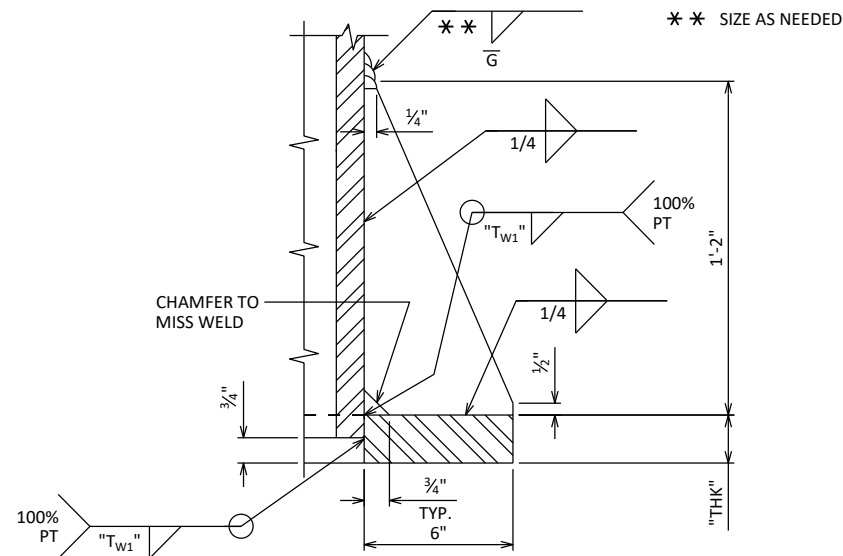
**OPTIONAL COLUMN
OR CHORD SPLICE
DETAIL**



ANGLE DATA			
ANGLE SIZE	Y	"X"	
L3 X 3 X 3/4	0.84"	1 1/4"	
L3 X 3 X 5/16	0.86"	1 1/4"	

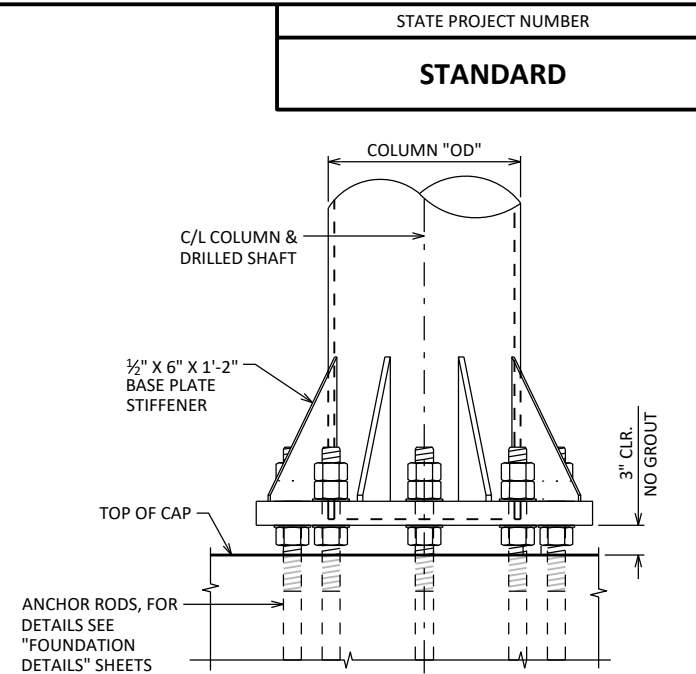
MEMBER CONNECTION DATA		
STANDARD DESIGN TYPE	WELD LEG MIN. LENGTH	NO. OF BOLTS
I	3"	3
II	3"	3

FOR ALL ANGLE TO GUSSET CONNECTIONS,
BOLT SPACING = 2 1/2"

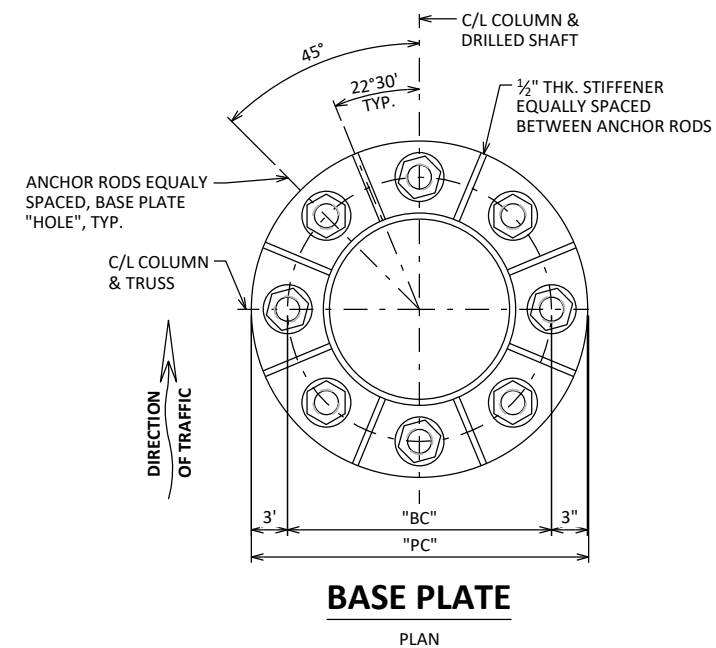


BASE PLATE STIFFENER DETAIL

NOTE:
FABRICATOR HAS THE OPTION TO USE NON-MITERED RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN IN THESE DETAILS.



BASE PLATE & COLUMN DETAIL
LOOKING AT F.F. OF STRUCTURE

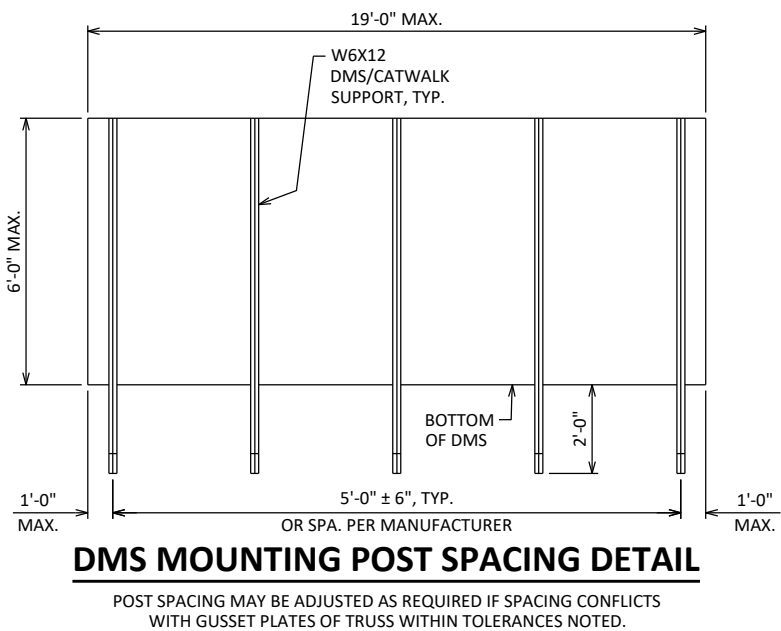
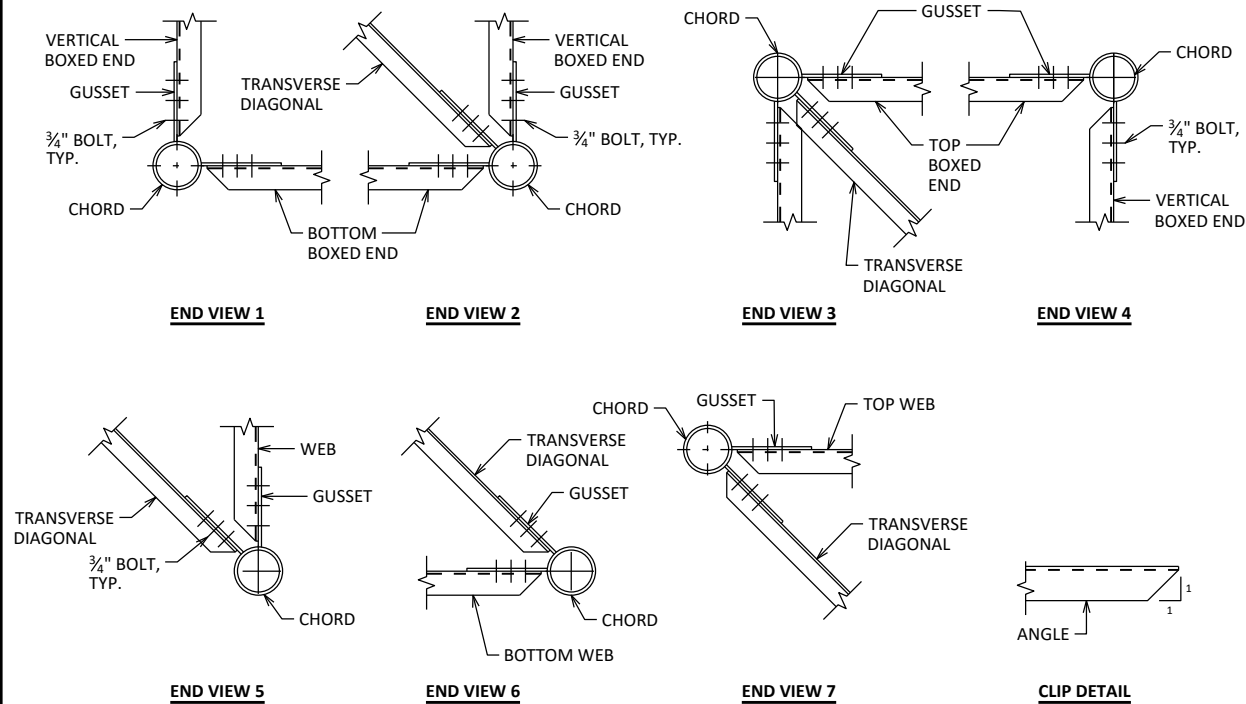


BASE PLATE
PLAN

CANTILEVER 4-CHORD COLUMN DATA

STANDARD DESIGN TYPE	COLUMN \"OD\" X THK	BASE PLATE				
		\"THK\"	\"TW1\"	\"HOLE\"	\"BC\"	\"PC\"
I	20.00\" X 0.500\"	2"	5/16"	2 3/4"	2'-2"	2'-8"
II	24.00\" X 0.500\"	2 1/2"	5/16"	2 3/4"	2'-6"	3'-0"

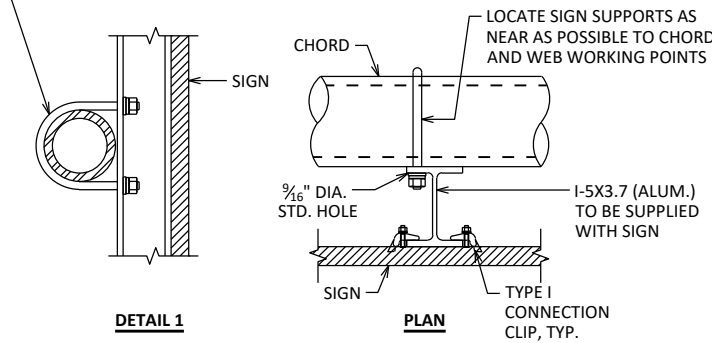
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CONNECTIONS 2		SHEET III	



TRUSS CONNECTION DETAILS

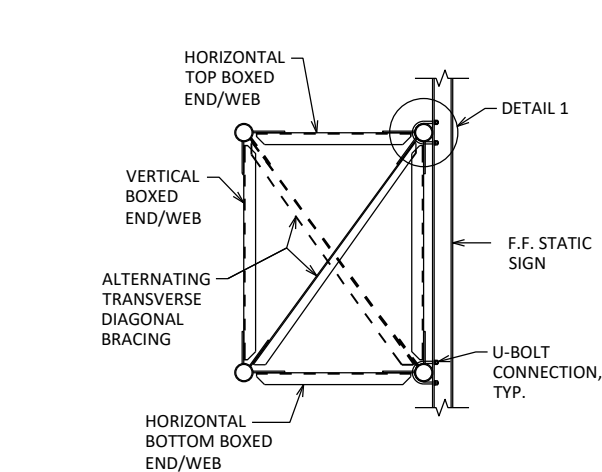
1/2" DIA. STAINLESS STEEL U-BOLT WITH 2 LOCK WASHERS, 2 FLAT WASHERS AND 2 HEX NUTS PER BOLT. 2 BOLTS REQUIRED PER I-BEAM. LOCATE TOP AND BOTTOM U-BOLTS ON OPPOSITE SIDES OF FLANGE.

MEMBER ORIENTATION FOR BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR



TYPICAL SIGN CONNECTION

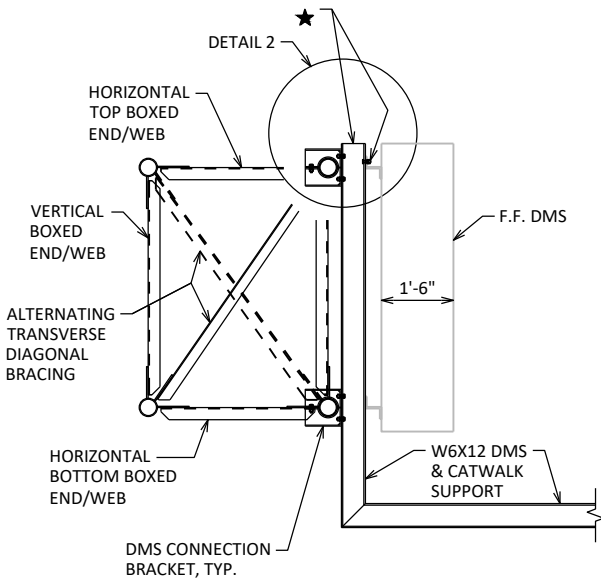
USE FOR TYPE I AND II SIGNS, TYPE I SIGN SHOWN. SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.



SECTION THRU TRUSS - STATIC SIGN

FOR SIGN CONNECTION

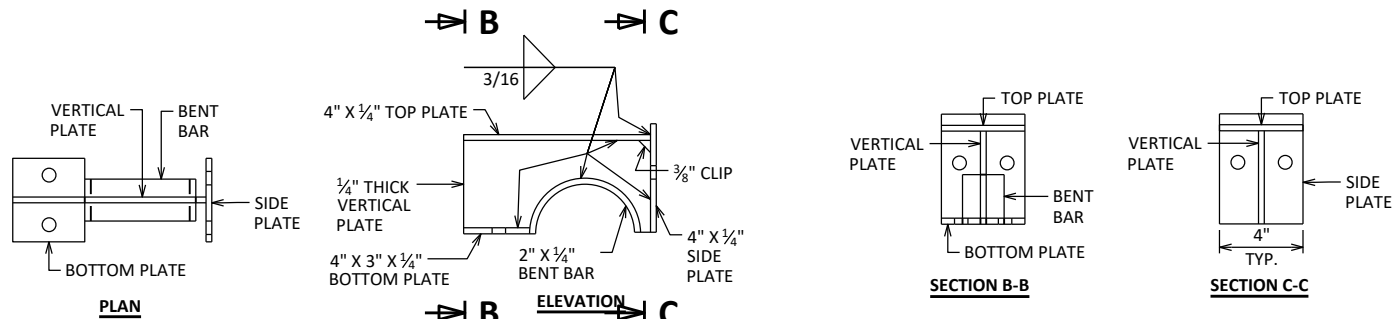
ALUMINUM 1-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL. HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



SECTION THRU TRUSS - DMS

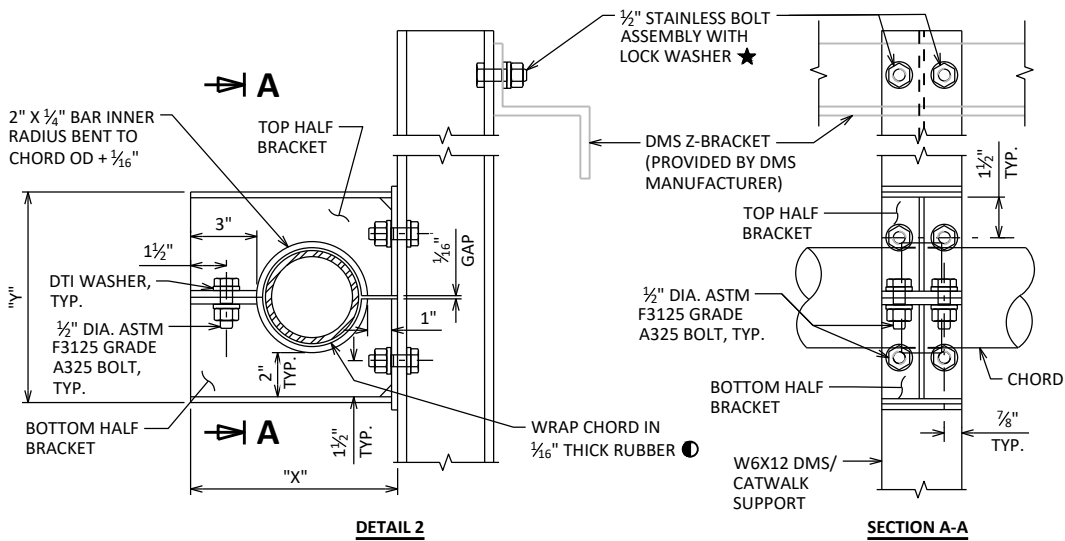
FOR DMS/CATWALK CONNECTIONS

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. 1/2" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12. FIELD DRILLED HOLES IN STEEL SUPPORTS MUST BE COLD GALVANIZED



DMS WELDED PLATE CONNECTION DETAILS

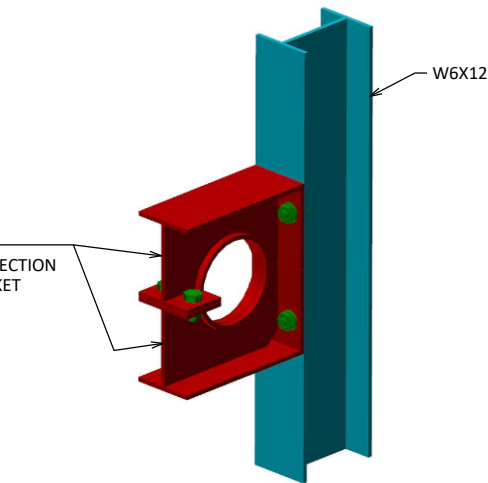
TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.



TYPICAL DMS CONNECTION

● NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD. SPEC. 506.2.6.1

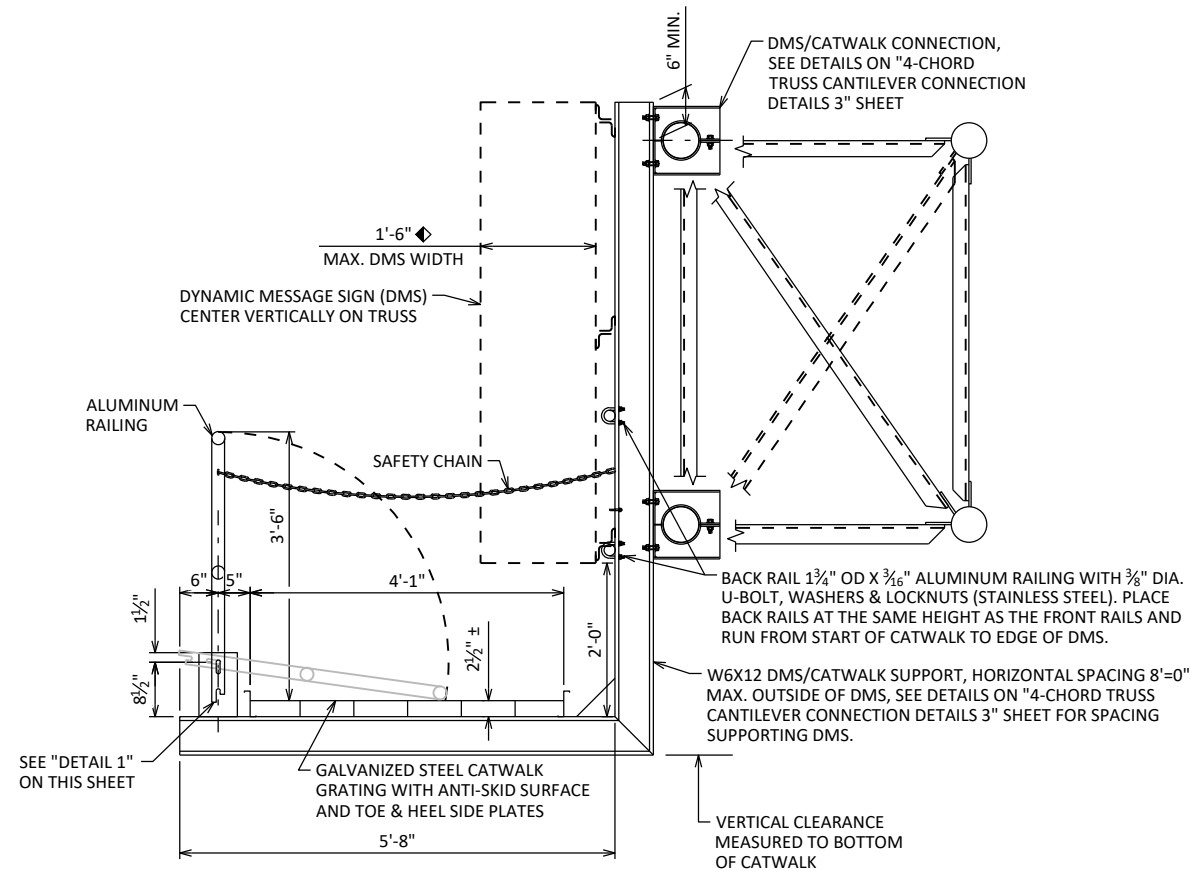
CHORD "OD"	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10 3/8"	10 3/8"



3-D VIEW OF DMS CONNECTION

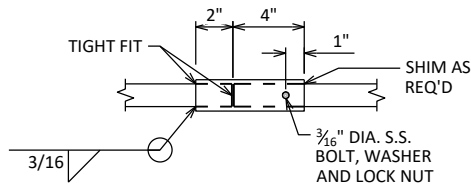
CHORD NOT SHOW FOR CLARITY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CONNECTIONS 3		SHEET IV	



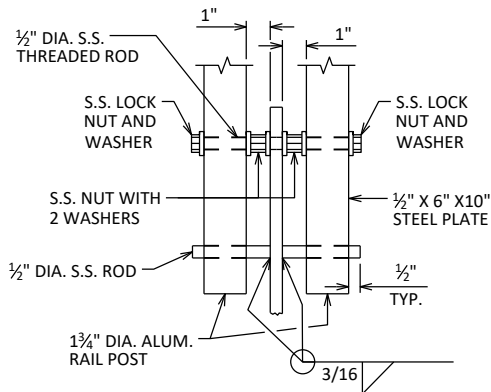
SECTION THRU WALKWAY

DMS MAY BE RECTANGULAR OR TRAPEZOIDAL. IF DMS HAS A TRAPEZOIDAL SHAPE, THIS DIMENSION REPRESENTS THE AVERAGE WIDTH.



BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



TYPICAL FRONT RAILING DETAILS

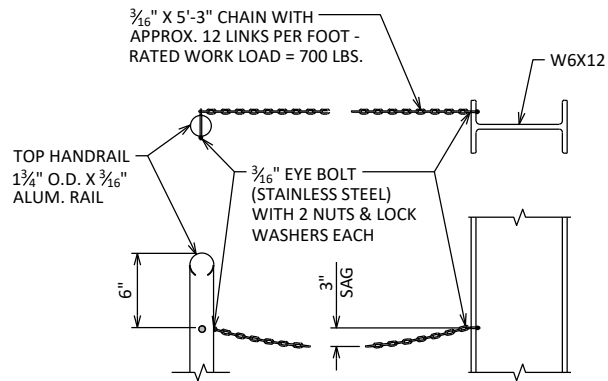
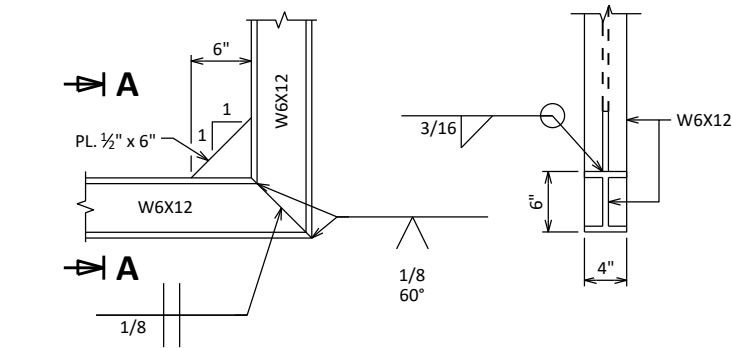
S.S. - STAINLESS STEEL

CATWALK TERMINATION
DETAIL

CATWALK SPLICE
LOCATION DETAIL

CATWALK BRACKET DETAIL

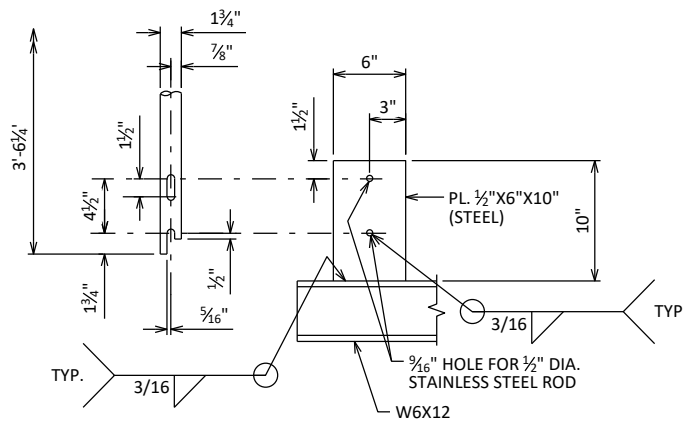
SECTION A-A



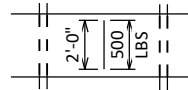
SAFETY CHAIN DETAIL

PROVIDE SAFETY CHAIN AT EACH END OF CATWALK

RAIL POST DETAIL



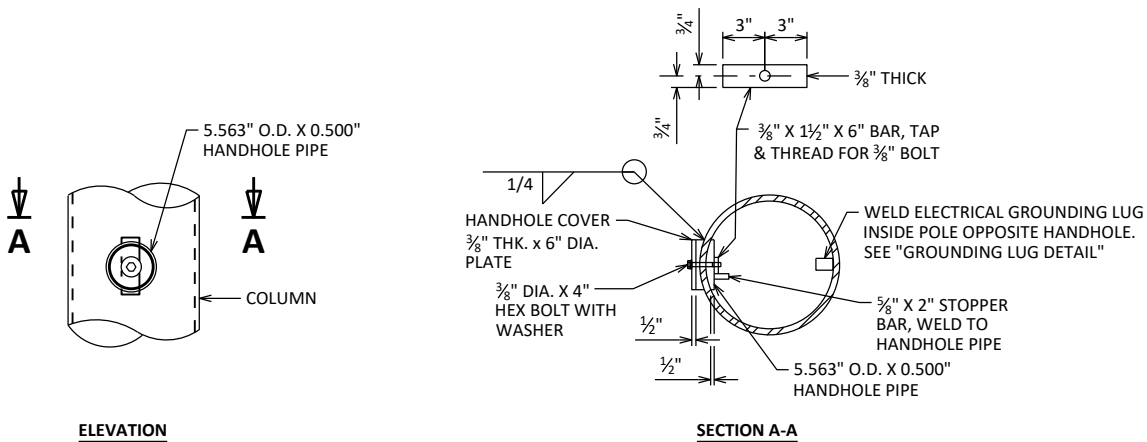
DETAIL 1



CATWALK LOADING DIAGRAM

NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" WITH 500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX. SPAN IS 8'-0". CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

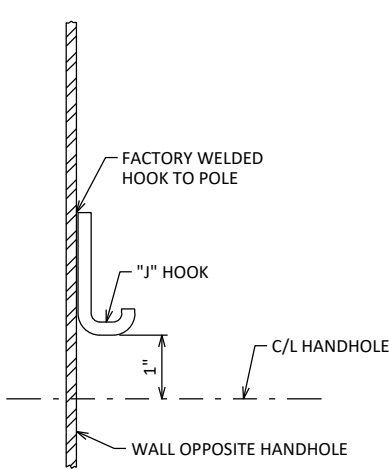
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
4-CHORD TRUSS CANTILEVER CATWALK DETAILS		SHEET V	



HANDHOLE DETAILS

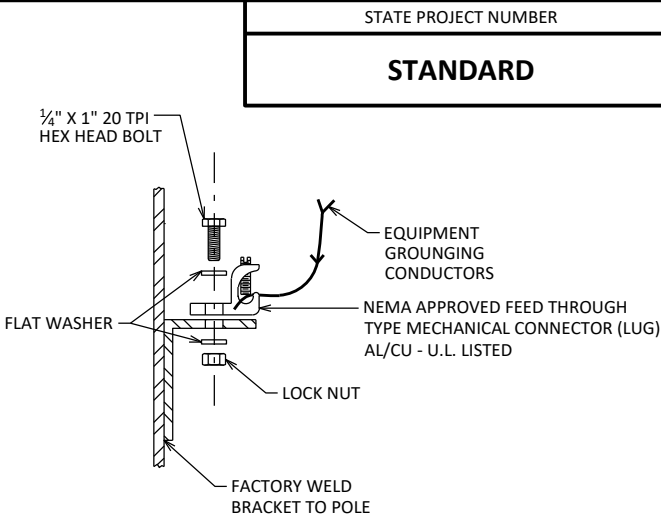
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS OTHERWISE NOTED, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



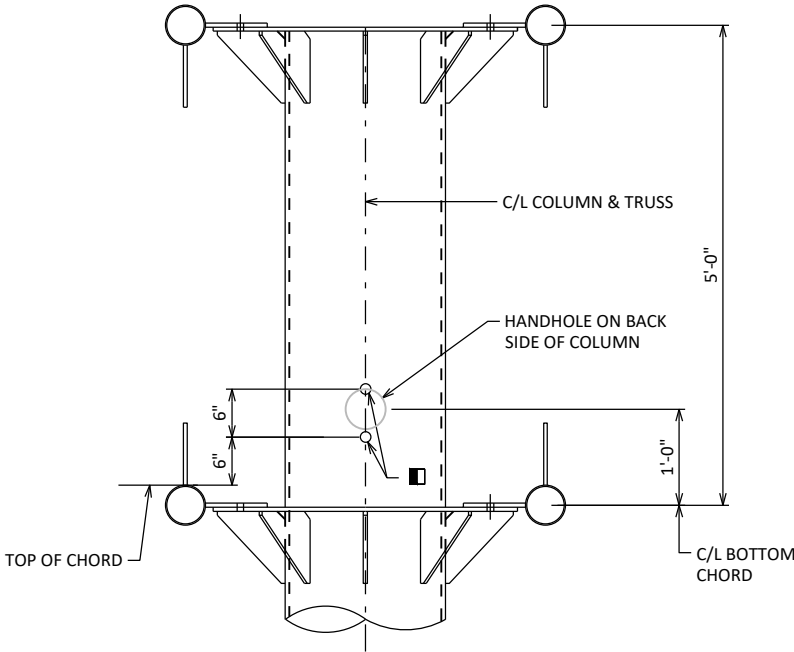
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

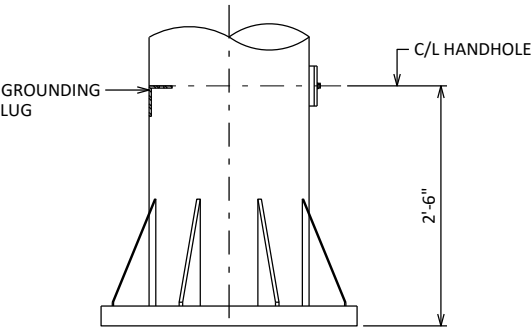
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



CONDUIT HOLE LOCATIONS

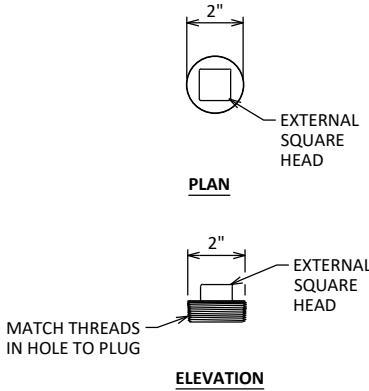
LOOKING AT INSIDE FACE OF COLUMN

2" HOLE WITH STANDARD PIPE THREADS, USE THREADED CONDUIT PLUG FOR UNUSED HOLES

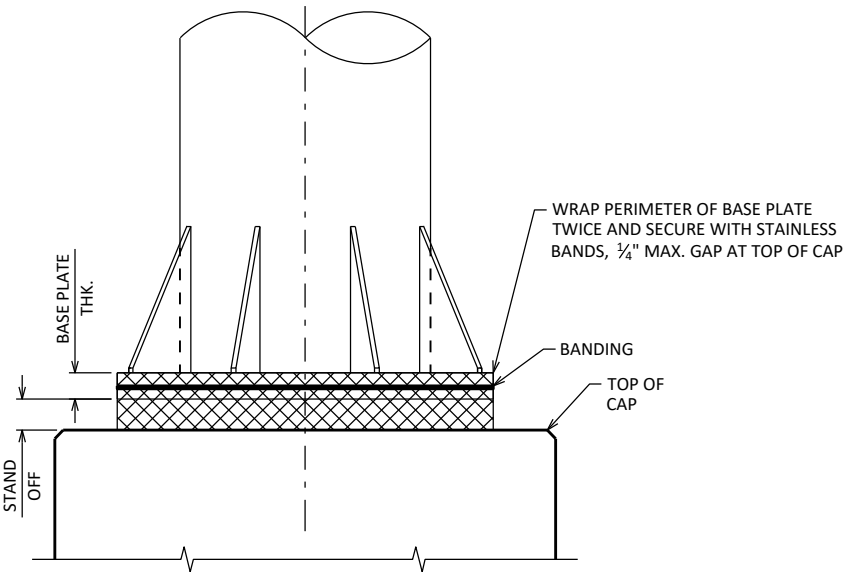


GROUNDING LUG LOCATION

LOOKING AT INSIDE F.F. OF STRUCTURE

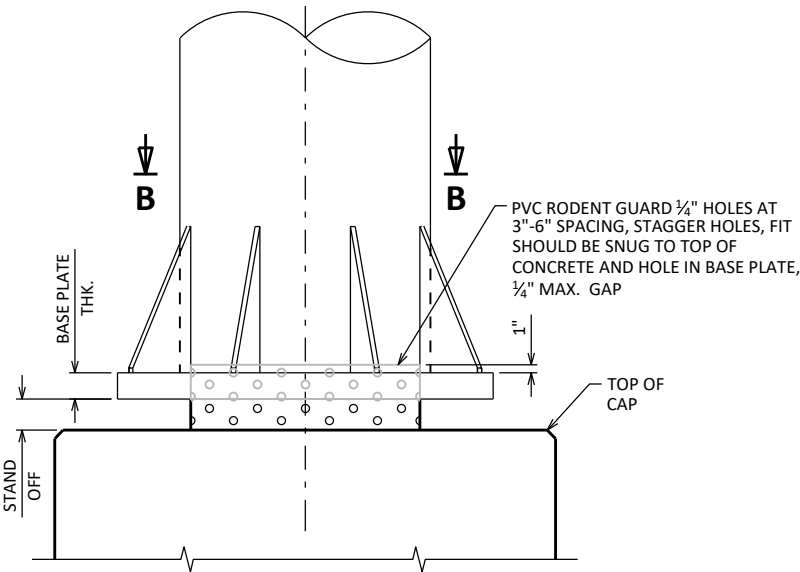


CONDUIT PLUG DETAILS



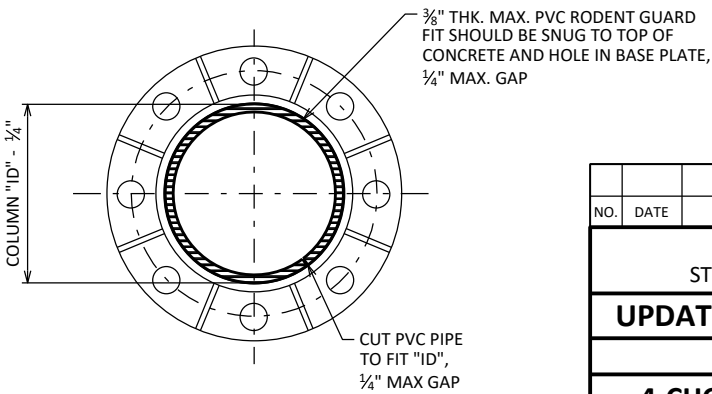
RODENT SCREEN

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



RODENT SCREEN - ALTERNATE

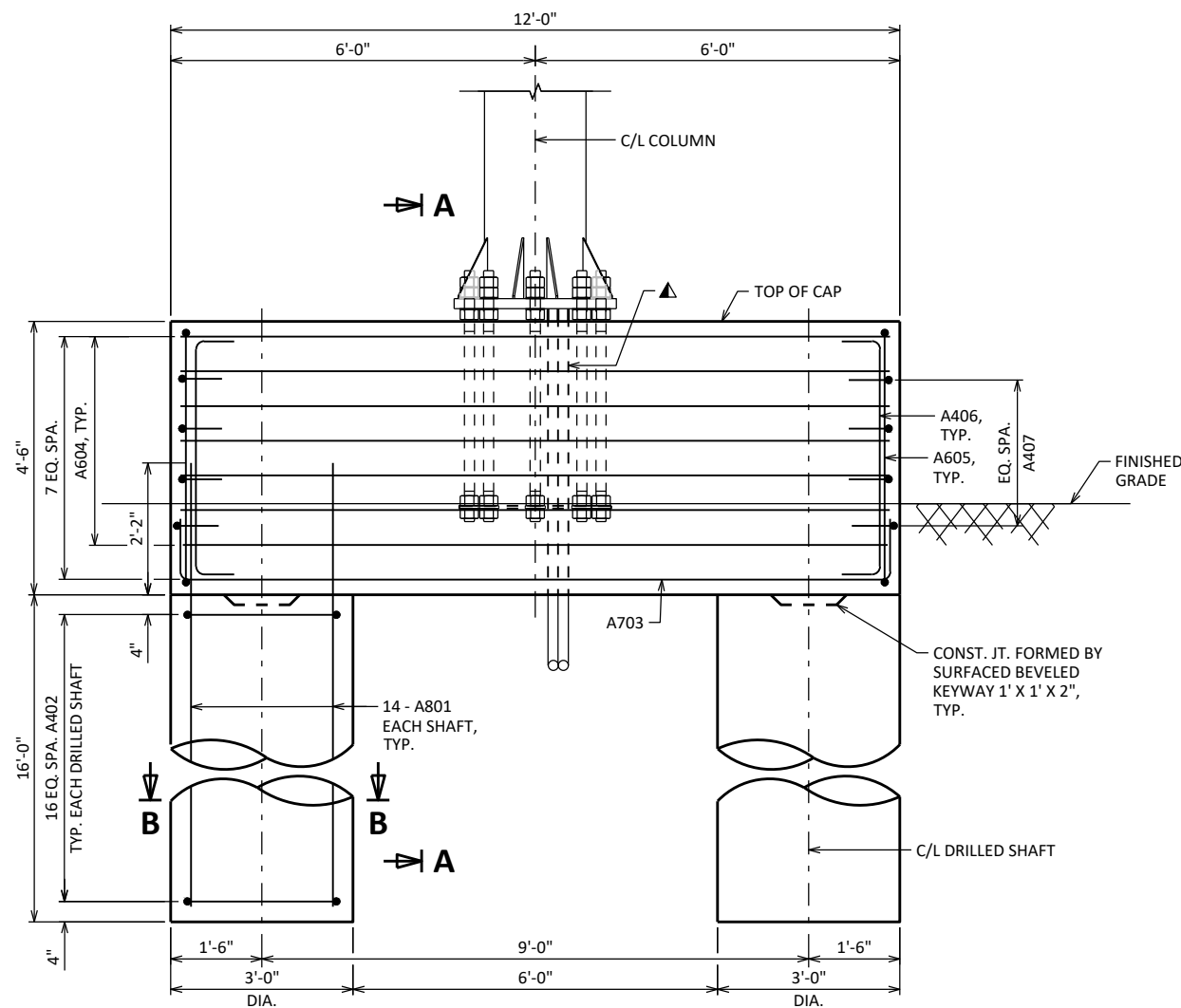
ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



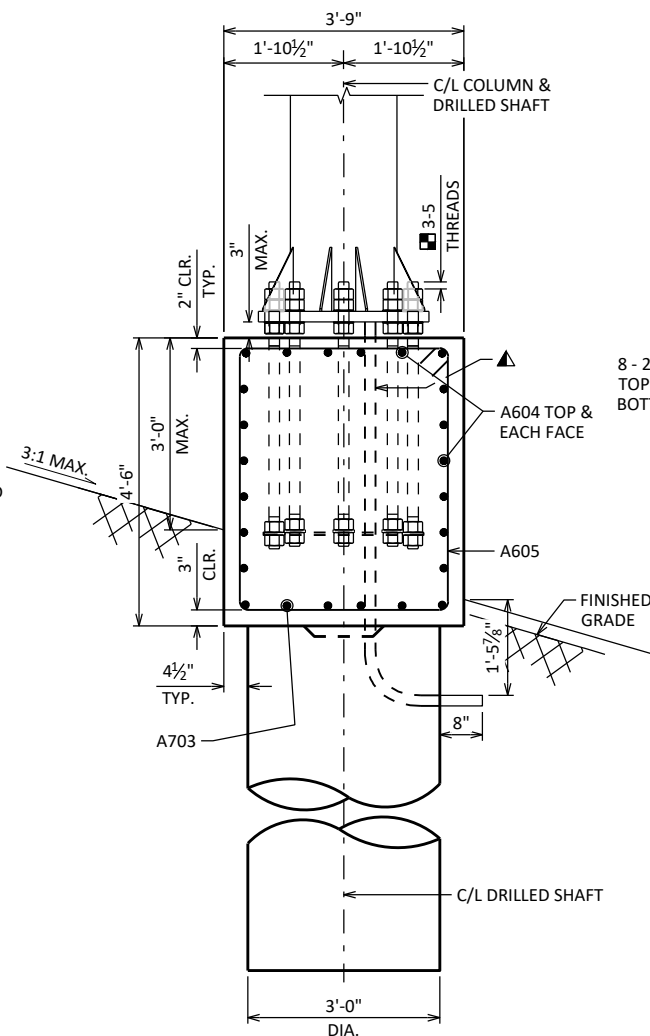
SECTION B-B

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
4-CHORD TRUSS CANTILEVER ELECTRICAL DETAILS		SHEET VI	

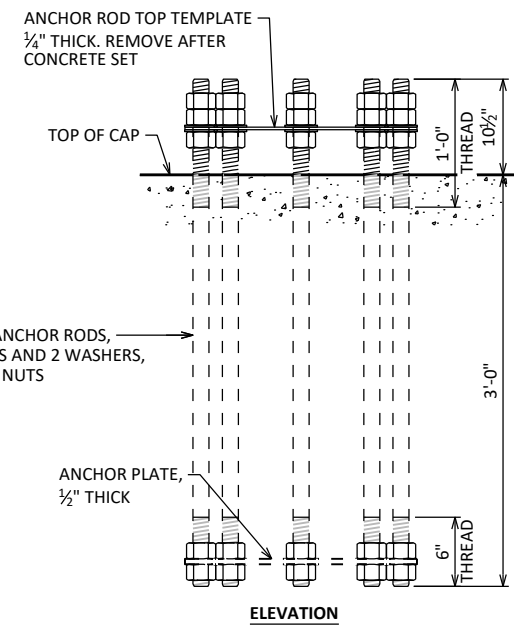
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ELEVATION



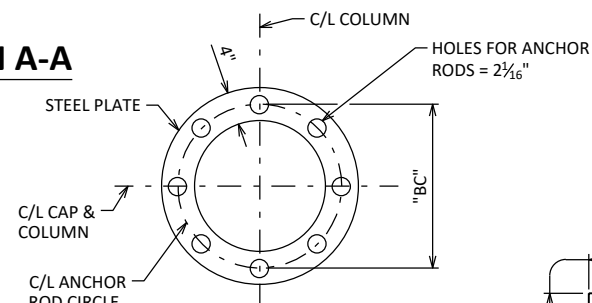
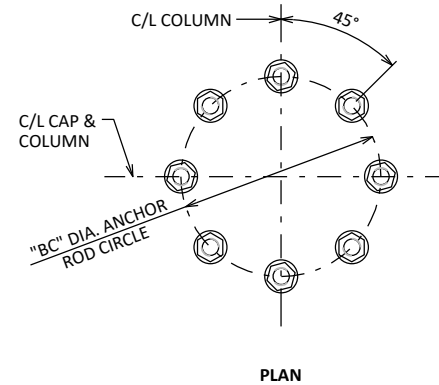
SECTION A-A



ANCHOR ROD ASSEMBLY DETAILS

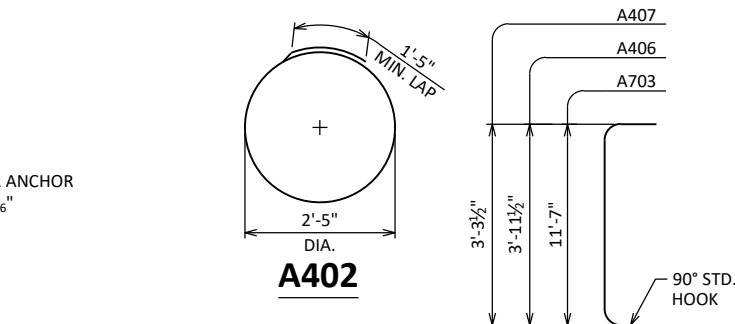
SINGLE ANCHOR ASSEMBLY SHOWN, 8 ANCHOR RODS PER ASSEMBLY

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHORS.

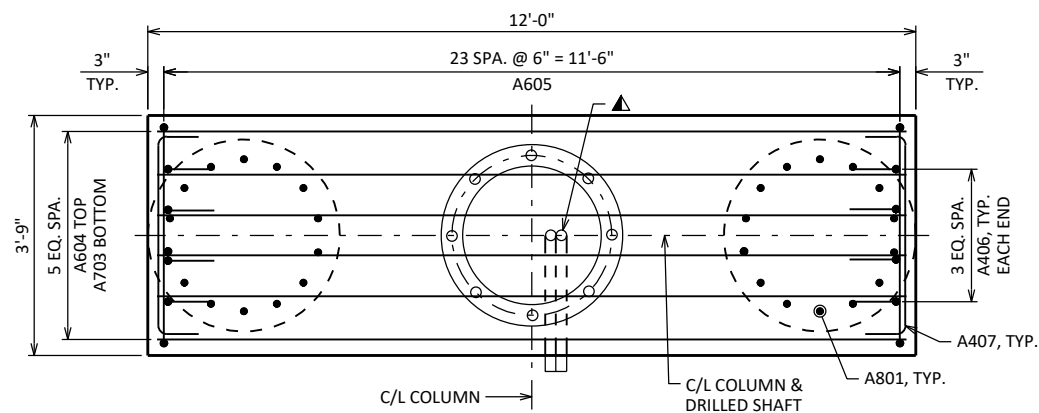


ANCHOR PLATE/ TOP TEMPLATE

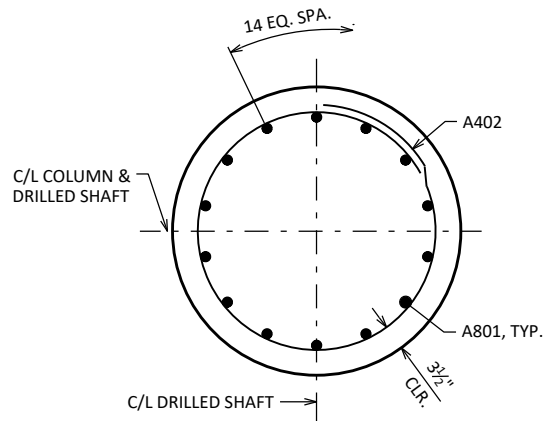
STANDARD DESIGN TYPE	"BC"
I	2'-2"
II	2'-6"



A703, A406, A407



PLAN



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 2-INCH (EACH)	FOUNDATION DRILLING 36" DIA. (LF)
I/II	15.9	1,550	1,100	1	32

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS.

LEGEND

- ANCHOR ROD STICK OUT IN FINAL CONDITION. EXCESSIVE STICK OUT BEYOND DIMENSION SHOWN TO BE CUT OFF AFTER PLACING STRUCTURE. ANCHORS TO BE ULTRASONIC TESTED TO DETERMINE EMBEDDED LENGTH MEETS REQUIREMENTS PRIOR TO CUTTING. NOTE REMAINING LENGTH ON AS-BUILT.
- 2 - 2" DIA. NON-METALLIC CONDUITS. INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

BILL OF BARS - STANDARD DESIGN TYPE I OR II

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		28	18'-0"			DRILLED SHAFT - VERTICAL
A402		34	9'-1"	X		DRILLED SHAFT - HORIZONTAL
A703	X	6	13'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	18	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	24	15'-10"	X		CAP - STIRRUP
A406	X	8	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	8	3'-11"	X		CAP - HORIZONTAL - EACH END

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: OCT. 2024			
DRAWN BY		BOS	PLANS CK'D BOS
4-CHORD TRUSS CANTILEVER FOUNDATIONS		SHEET VII	