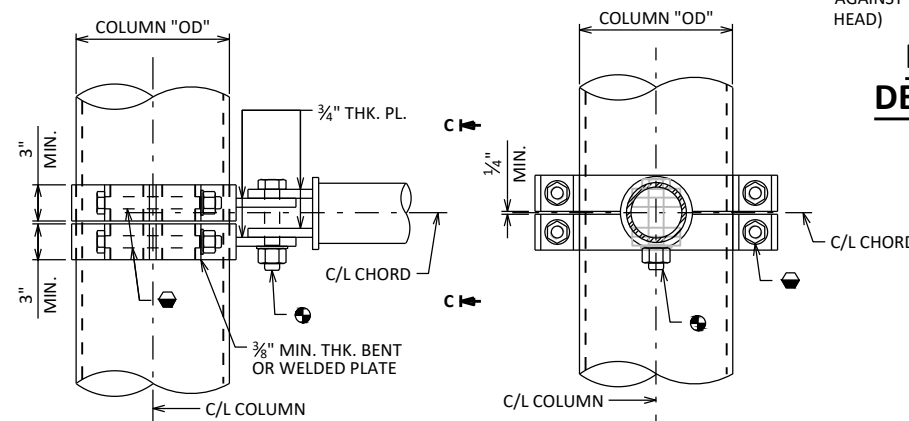


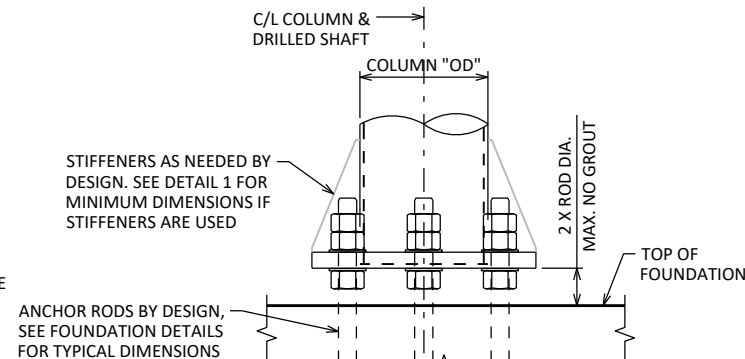
NUT IS TURNED ELEMENT



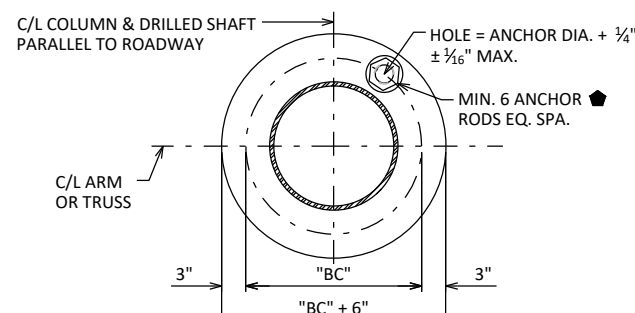
SECTION A-A

"PS" = CHORD "OD" + $\frac{1}{16}$ "

MIN. (2) 1/2" MIN. GALVANIZED OR STAINLESS U-BOLT, LOCK NUT AND WASHER

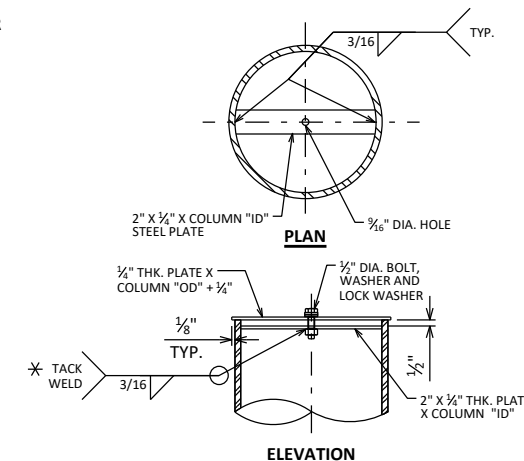


LOOKING AT F.F. OF STRUCTURE.
ALTERNATE BASE PLATE DESIGNS ALLOWED.



"BC" = COLUMN "OD" + 6'

ANCHOR SIZE AND ORIENTATION TO BE VERIFIED WITH SHOP DRAWINGS.



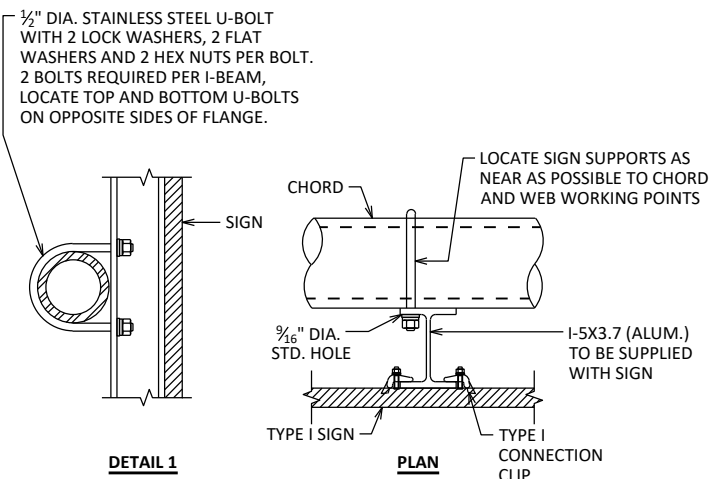
✱ PLACE TACK WELD EVERY OTHER FLAT TO SECURE NUT.
ALTERNATE: USE 1/2" THK. PL. AND DRILL AND TAP HOLE FOR BOLT.

MINIMUM VALUES SHOWN. ALL CONNECTIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURAL LOADS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED:		JAN. 2023	
DRAWN BY		BOS	PLANS CK'D BOS
MONOTUBE & 2-CHORD TRUSS CONNECTIONS 1		SHEET 1	

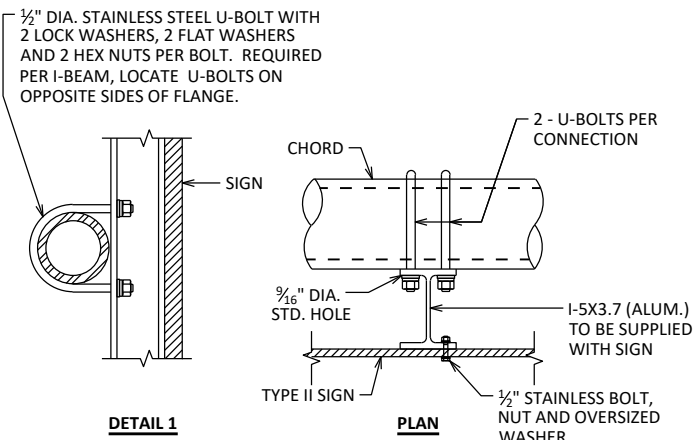
SCALE - 30

▲ MIN. (6) 1" GALVANIZED A325 HEAVY HEX BOLT, NUT, DTI WASHER AND WASHER
★ MIN. DIMENSIONS MEASURED FROM EXT. FACE OF VERTICAL PLATE.



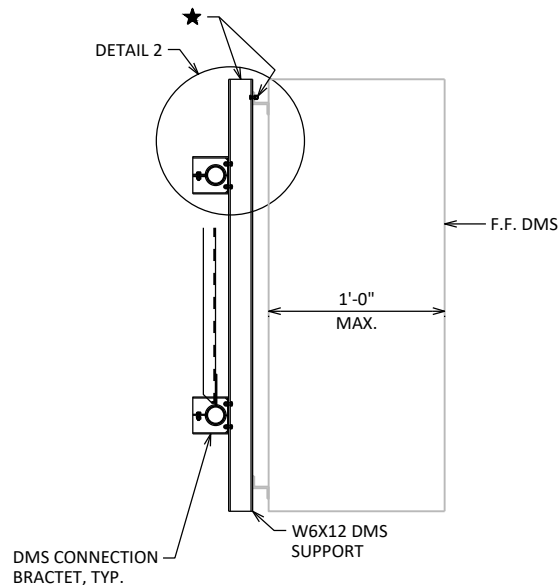
2-CHORD TRUSS SIGN CONNECTION

TYPE I SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH SIGN PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



MONOTUBE SIGN CONNECTION

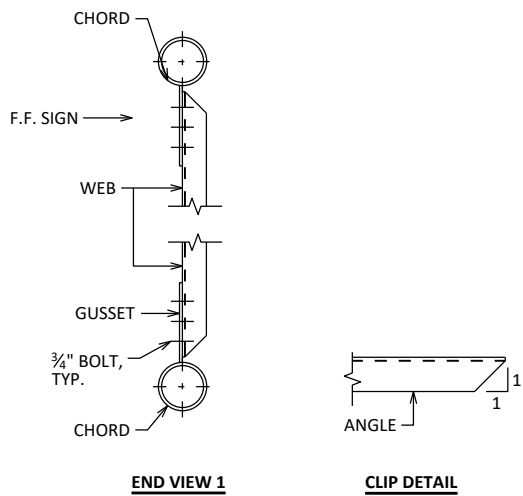
TYPE II SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH SIGN PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



SECTION THRU TRUSS - DMS

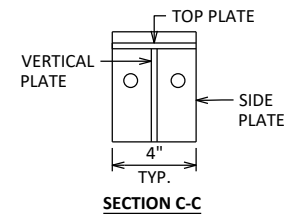
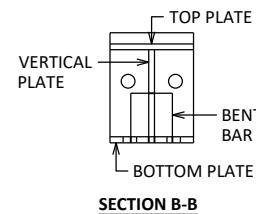
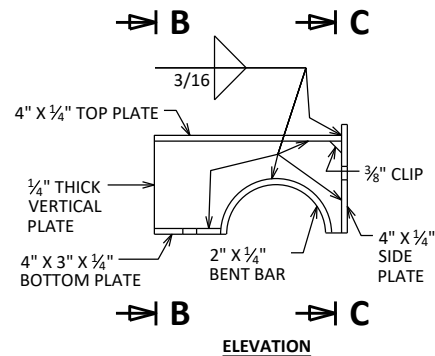
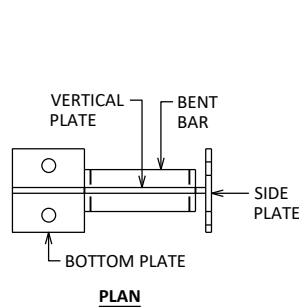
FOR DMS/CATWALK CONNECTIONS

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. 1/2" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12



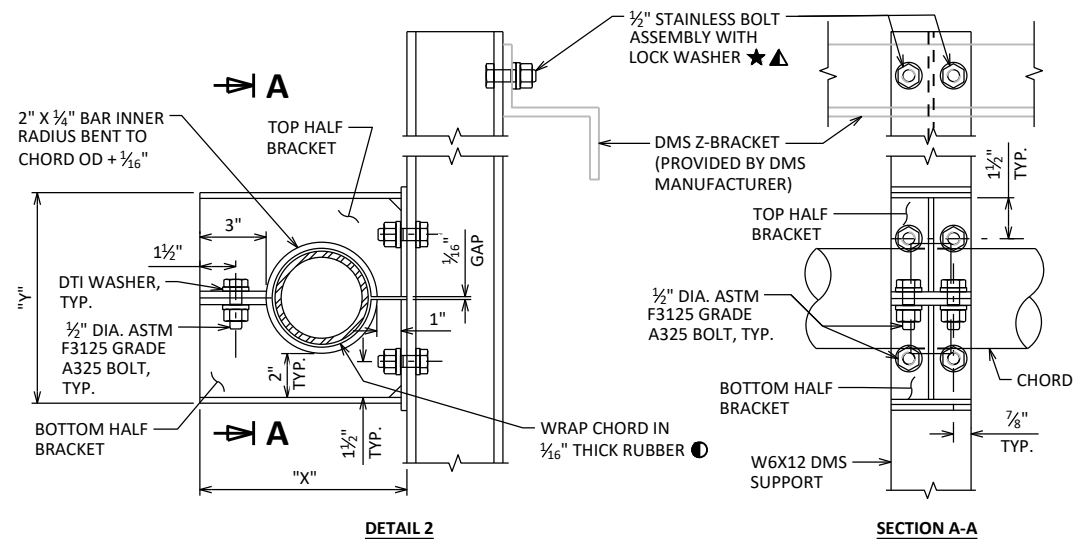
TRUSS CONNECTION DETAILS

MEMBER ORIENTATION FOR BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR.
ANGLES PREFERRED, OTHER WEB DESIGNS ALLOWED.



DMS WELDED PLATE CONNECTION DETAILS

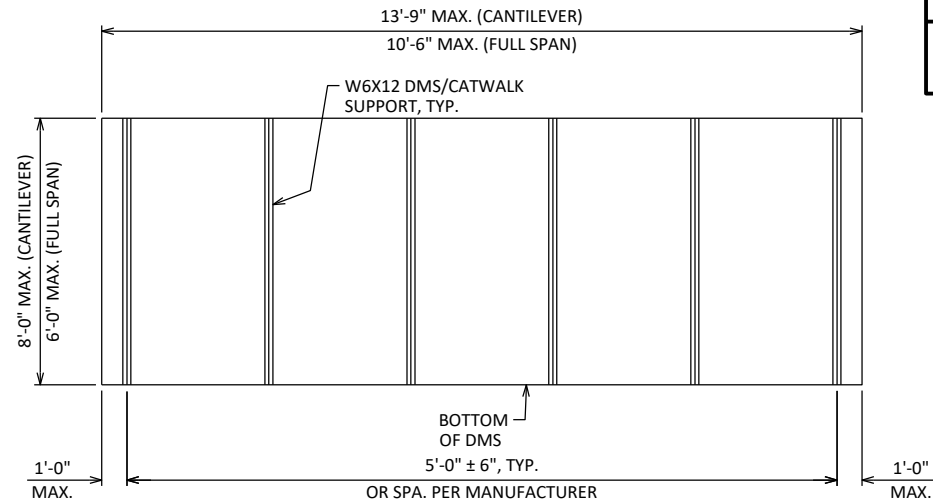
TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.



CHORD "OD"	"X"	"Y"
"OD"	"OD" + 4 3/16"	"OD" + 5 1/16"

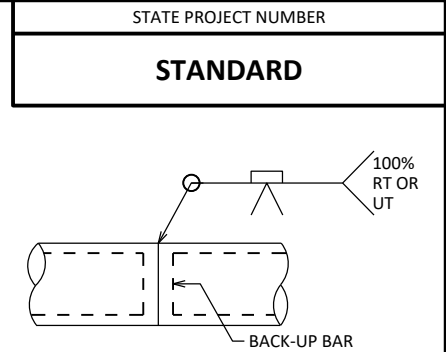
TYPICAL DMS CONNECTION

- NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD. SPEC. 506.2.6.1
- ▲ IF DMS CONNECTION BRACKET IS USED WITH A TYPE II SIGN PANEL, THE BOLT HOLE MUST BE GALVANIZED AND A STAINLESS WASHER USED BETWEEN THE I-BEAM AND SIGN PANEL.



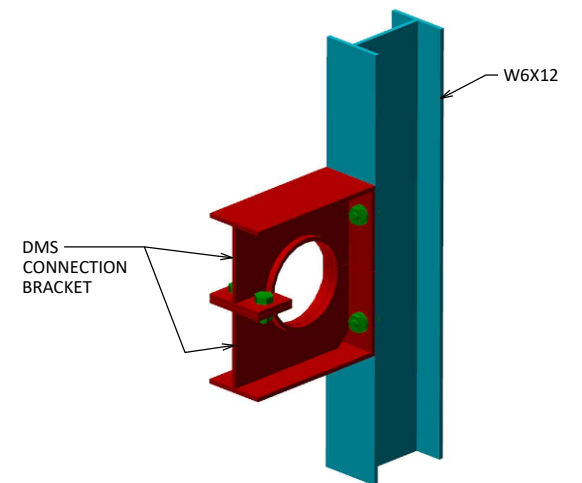
DMS MOUNTING POST DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



CHORD SPLICE

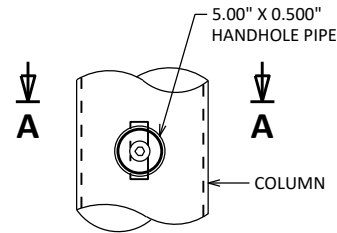
SEPARATE OPTIONAL SPLICE FROM GUSSET PLATES BY 6" MIN.



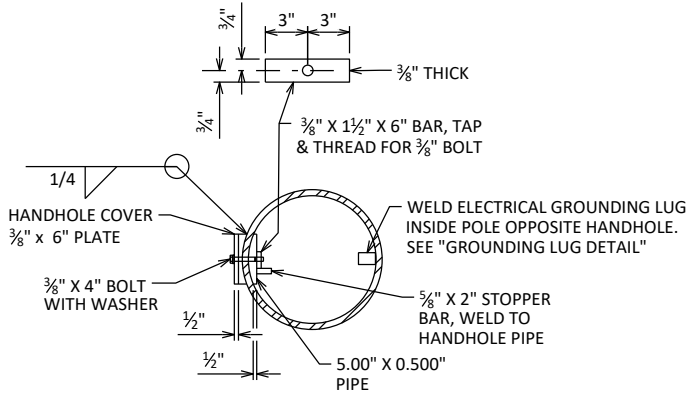
3-D VIEW OF DMS CONNECTION

CHORD NOT SHOW FOR CLARITY

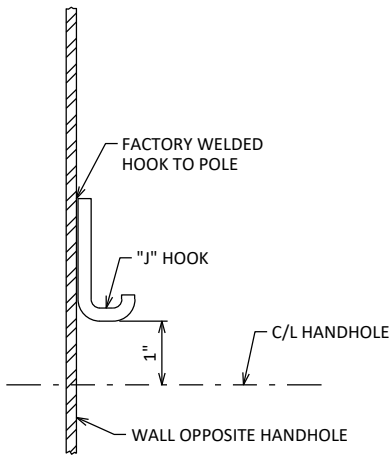
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: OCT. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
MONOTUBE & 2-CHORD TRUSS CONNECTIONS 2		SHEET II	



ELEVATION

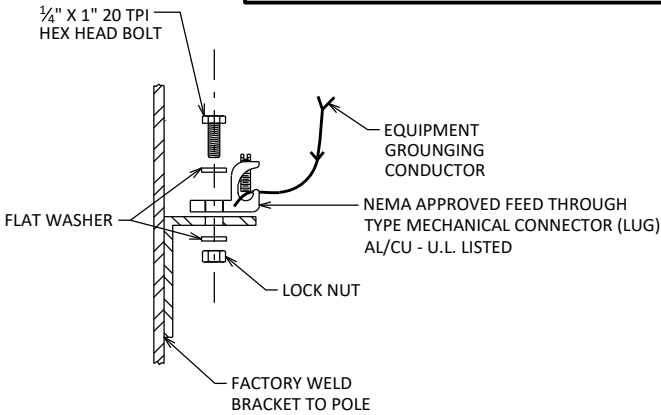


SECTION A-A



TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF THE COLUMN 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.

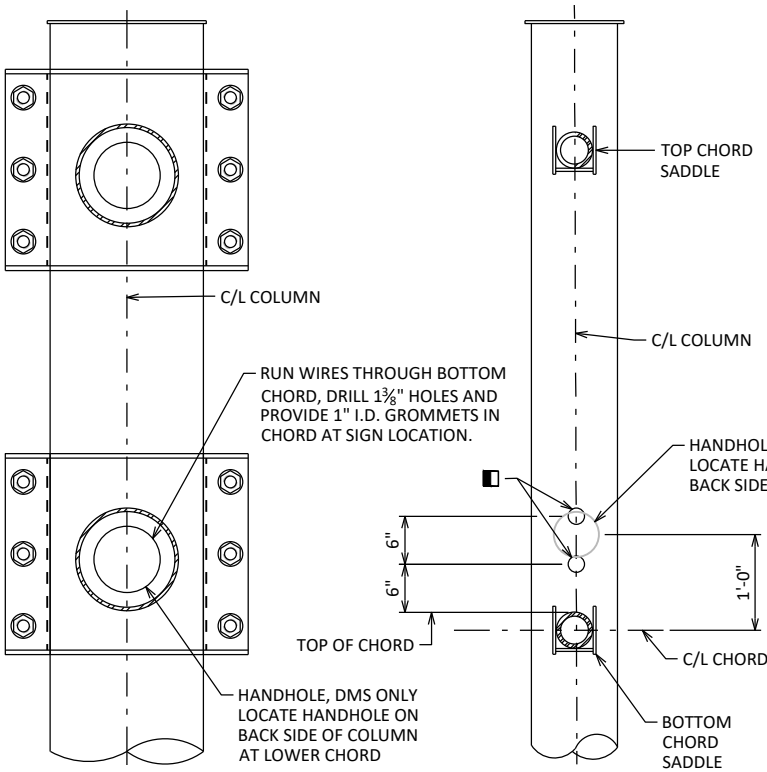


GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

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.

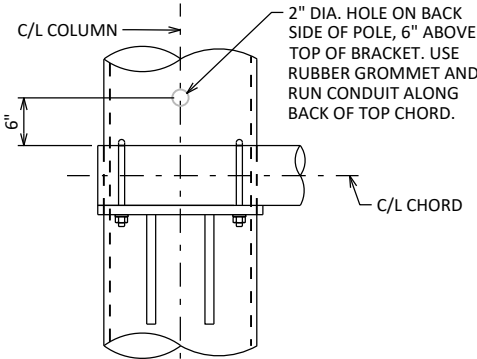
UNLESS OTHERWISE NOTED, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



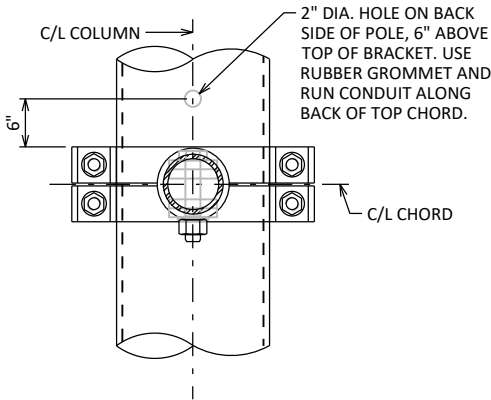
2-CHORD CANTILEVER

2-CHORD FULL SPAN

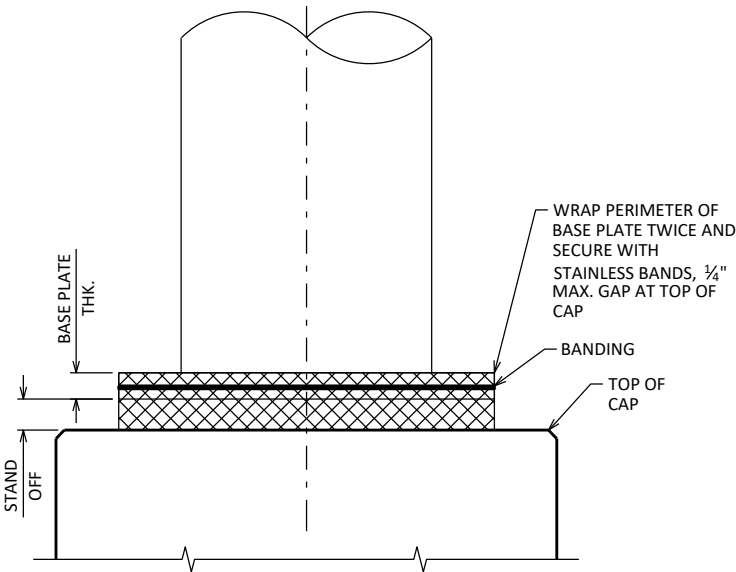
SADDLE CONNECTION SHOWN, OTHERS SIMILAR



FULL SPAN STIFFENED BEARING CONNECTION

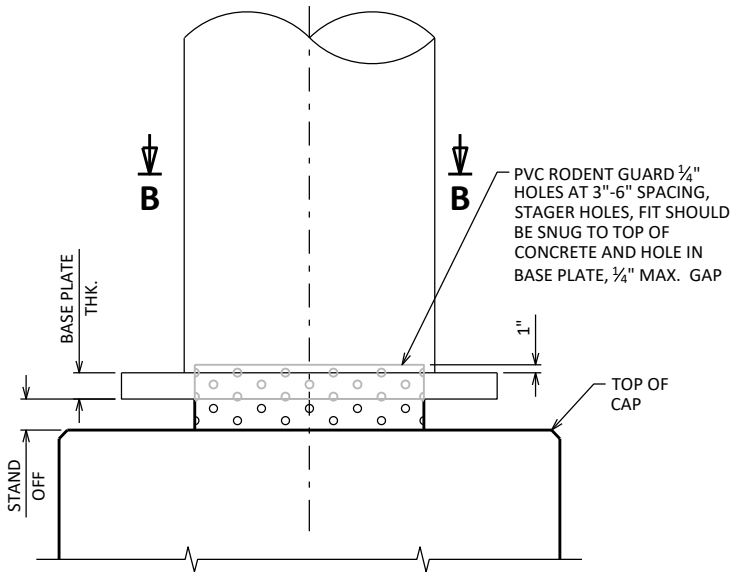


FULL SPAN CLAMP CONNECTION



RODENT SCREEN

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

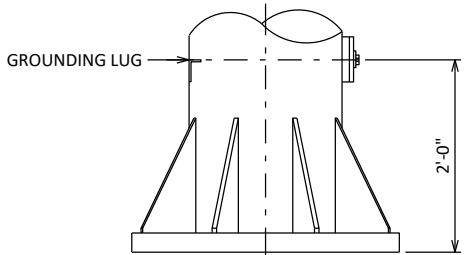


RODENT SCREEN - ALTERNATE

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

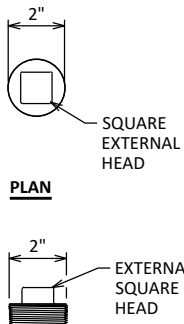
CONDUIT HOLE LOCATIONS

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



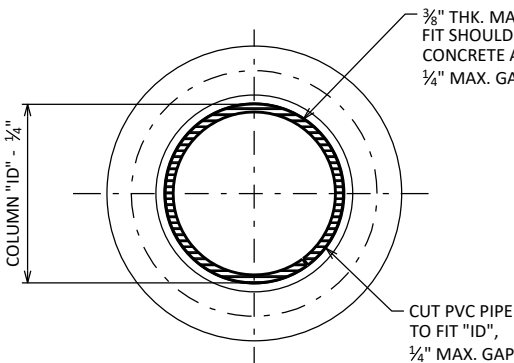
GROUNDING LUG LOCATION

LOOKING AT THE F.F. OF STRUCTURE



ELEVATION

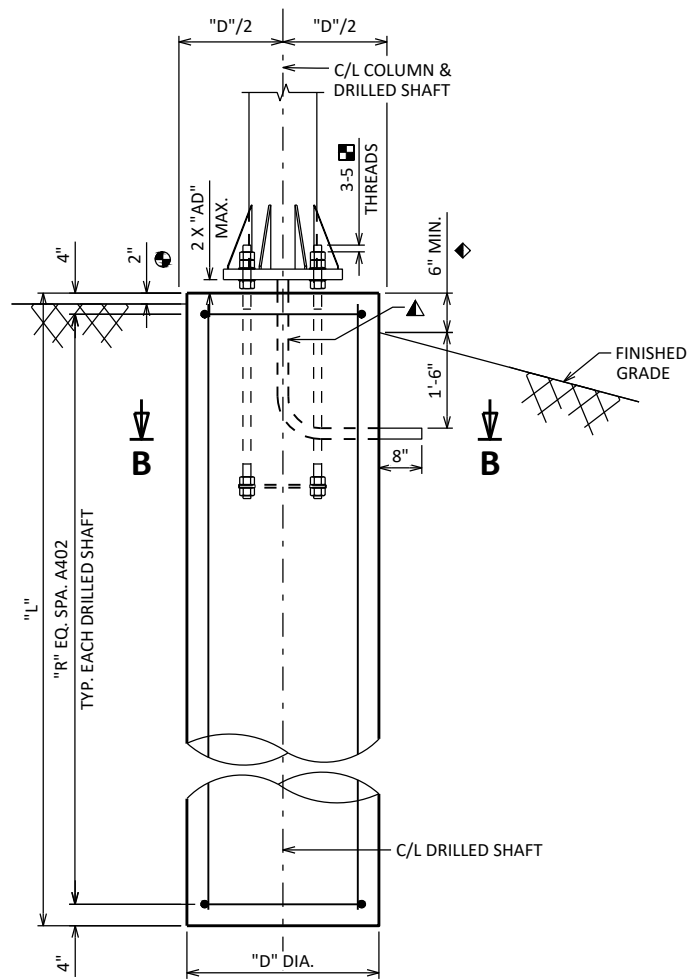
CONDUIT PLUG DETAILS



SECTION B-B

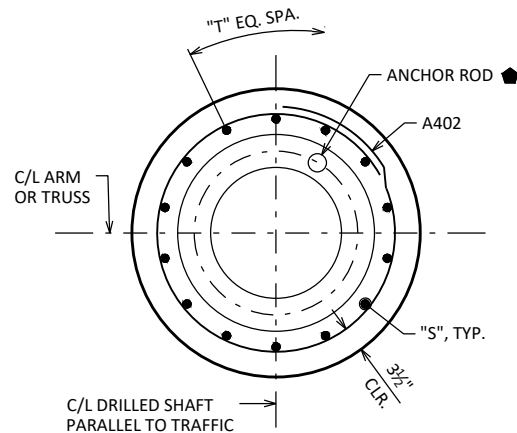
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: OCT. 2024			
DRAWN BY		BOS	PLANS CK'D BOS
MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS		SHEET III	

SCALE = 2:0



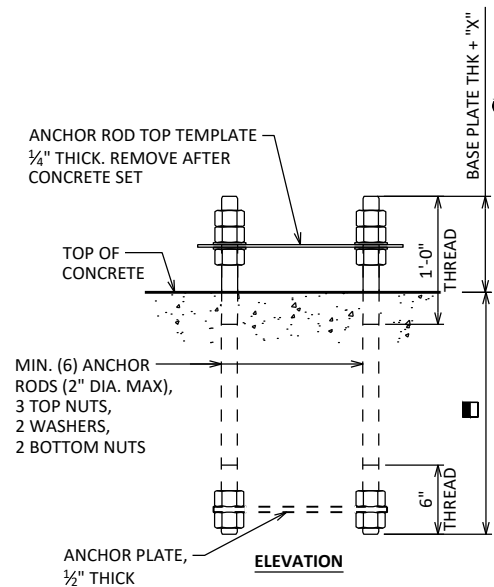
ELEVATION

- TYPICAL FOR DRILLED SHAFT FOOTINGS INSTALLED ADJACENT TO SIDEWALKS OR BEHIND CURB AND GUTTER ON LOW SPEED ROADS. TOP OF SHAFT SHALL BE FLUSH IF SURROUNDED BY CONCRETE AND 2" ABOVE FINISHED GRADE FOR ALL OTHER SURFACES.
- ◆ TYPICAL FOR EACH DRILLED SHAFT FOOTING INSTALLED ADJACENT TO ROADWAY FACILITIES OR ON SIDE SLOPES WITHIN CLEAR ZONE. BARRIER OR BEAMGUARD MAY BE REQUIRED.



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING



ANCHOR ROD ASSEMBLY DETAILS

- ANCHOR RODS PER ASSEMBLY TO BE DESIGNED BY CONTRACTOR AND SHOWN ON SHOP DRAWINGS. SHOW DIAMETER, NUMBER, ORIENTATION AND EMBEDMENT OF ANCHOR RODS.

CENTER ANCHOR ROD ASSEMBLY AND ENSURE ASSEMBLY 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.


FOUNDATION DIMENSION DATA

STANDARD DESIGN TYPE	FOUNDATION DIMENSIONS						
	"A"	"D"	"L"	"R"	"S"	"T"	"BC" MAX.
MFI	1'-11"	2'-6"	12'-0"	12	A801	10	1'-5"
MCI/MCII/TFI	1'-11"	2'-6"	17'-0"	17	A801	10	1'-5"
MFII	2'-5"	3'-0"	13'-0"	13	A801	14	1'-10"
TCI	2'-5"	3'-0"	18'-0"	18	A801	14	1'-10"
TFII	2'-5"	3'-0"	20'-0"	20	A801	14	1'-10"
MCII/TCII/TFIII	2'-11"	3'-6"	18'-0"	18	A901	14	2'-4"
MCIV/TFIV	2'-11"	3'-6"	23'-0"	23	A901	14	2'-4"
TCIII	3'-5"	4'-0"	23'-0"	23	A1001	14	2'-10"
TCIV	3'-5"	4'-0"	28'-0"	28	A1001	14	2'-10"

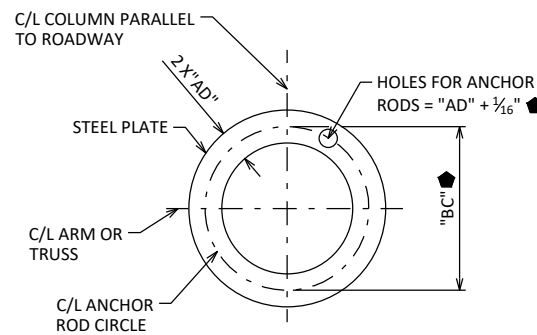
ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY	STEEL REINFORCEMENT H5	FOUNDATION DRILLING (DIA.) (LF)			
	(CY)	(LBS)	30"	36"	42"	48"
MFI	2.2	380	12	---	---	---
MCI/MCII/TFI	3.1	540	17	---	---	---
MFII	3.4	560	---	13	---	---
TCI	4.7	780	---	18	---	---
TFII	5.2	870	---	20	---	---
MCII/TCII/TFIII	6.4	980	---	---	18	---
MCIV/TFIV	8.2	1,250	---	---	23	---
TCIII	10.7	1,570	---	---	---	23
TCIV	13.0	1,910	---	---	---	28

✱✱ QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON A SINGLE ✱✱
DRILLED SHAFT. MULTIPLY BY 2 FOR FULL SPAN STRUCTURES.

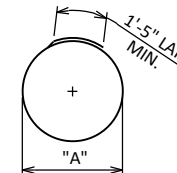
ANCHOR DIAMETER "AD"	MAX. STICK OUT 
	"X"
1"	5"
1¼"	6"
1½"	7"
1¾"	8"
2"	9"

- ADD BASE PLATE THICKNESS TO VALUE SHOWN FOR MAX. STICK OUT DIMENSION. CONTRACTOR TO COORDINATE WITH FABRICATOR FOR PROPER ANCHOR PLACEMENT.



ANCHOR PLATE & TOP TEMPLATE

- ANCHOR SIZE, BOLT CIRCLE, AND POSITION
TO BE VERIFIED WITH SHOP DRAWINGS.



A402

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.**

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

STATE PROJECT NUMBER

STANDARD

BILL OF BARS

STANDARD TYPE MFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	11'-8"			DRILLED SHAFT - VERTICAL
A402		13	7'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCI/MCII/TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	16'-8"			DRILLED SHAFT - VERTICAL
A402		18	7'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE MF1

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	12'-8"			DRILLED SHAFT - VERTICAL
A402		14	9'-1"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	17'-8"			DRILLED SHAFT - VERTICAL
A402		19	9'-1"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	19'-8"			DRILLED SHAFT - VERTICAL
A402		21	9'-1"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCIII/TCII/TFIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-8"			DRILLED SHAFT - VERTICAL
A402		19	10'-7"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPES MCIV/TFIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	22'-8"			DRILLED SHAFT - VERTICAL
A402		24	10'-7"	X		DRILLED SHAFT - HORIZONTAL

STANDARD TYPE TCII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-8"			DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X		DRILLED SHAFT - HORIZONTAL

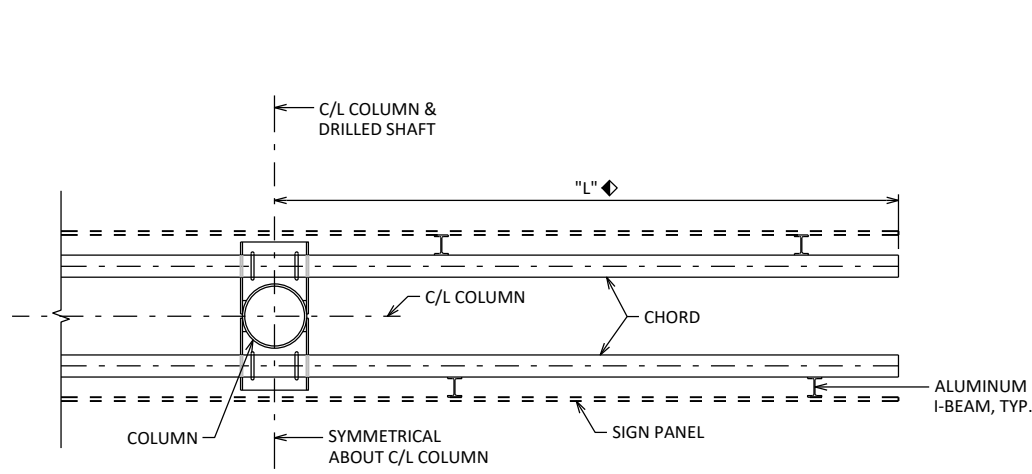
STANDARD TYPE TCIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-8"			DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X		DRILLED SHAFT - HORIZONTAL

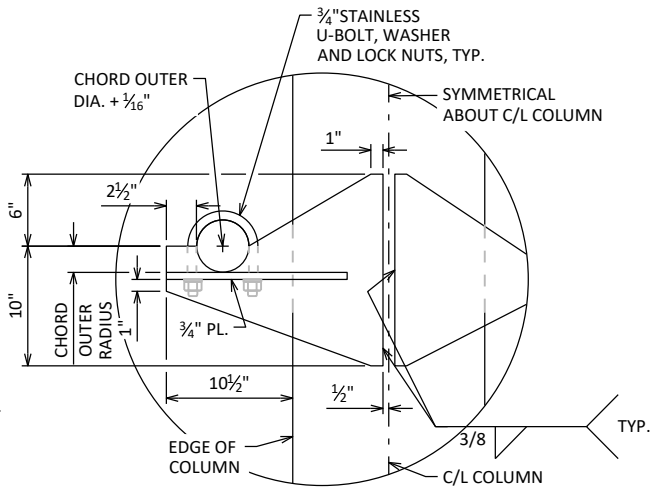
✱ ✱ VALUES IN BAR TABLES ARE FOR A SINGLE FOUNDATION ONLY. MULTIPLY BY 2 FOR FULL ✱ ✱
SPAN STRUCTURES.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: OCT. 2024			
		DRAWN BY	PLANS CK'D
		BOS	BOS
MONOTUBE & 2-CHORD TRUSS FOUNDATIONS		SHEET IV	

SCALE = 3.0

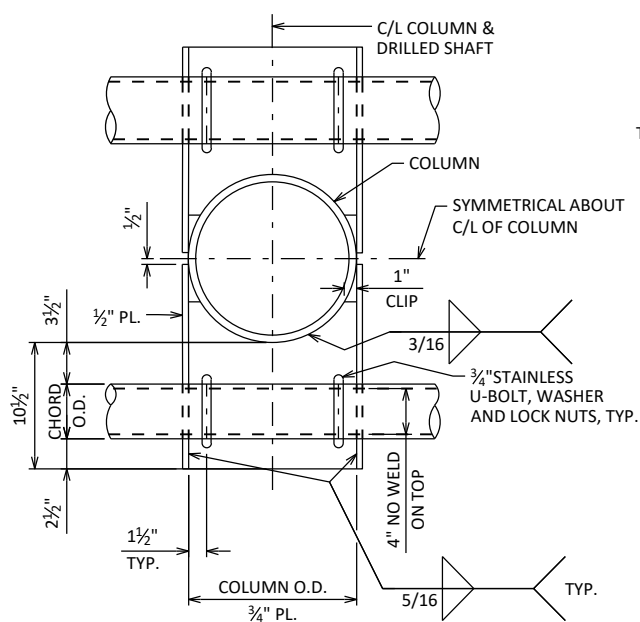


PLAN



DETAIL A

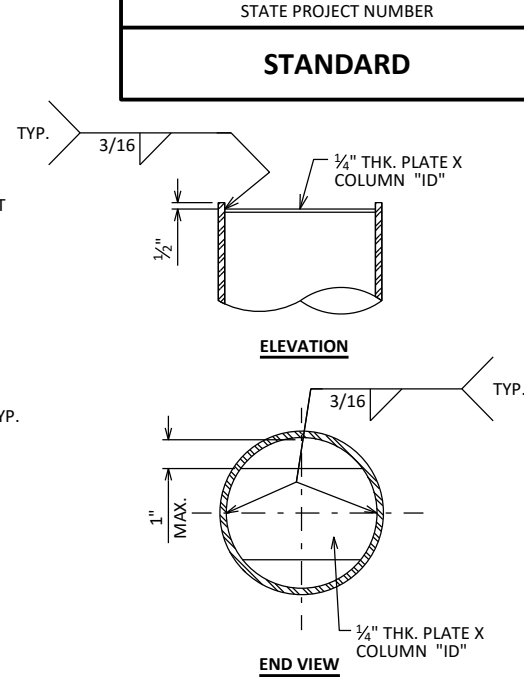
FRONT BRACKET CONNECTION SHOWN
BACK BRACKET SIMILAR



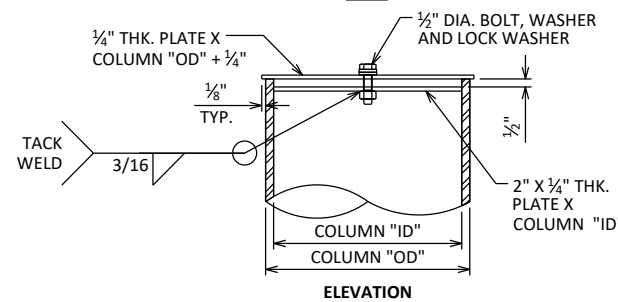
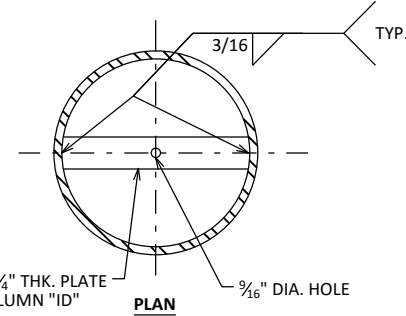
SECTION A-A

FRONT BRACKET CONNECTION SHOWN
BACK BRACKET SIMILAR

BRACKET FOR TOP CHORDS SIMILAR



CHORD CAP DETAIL



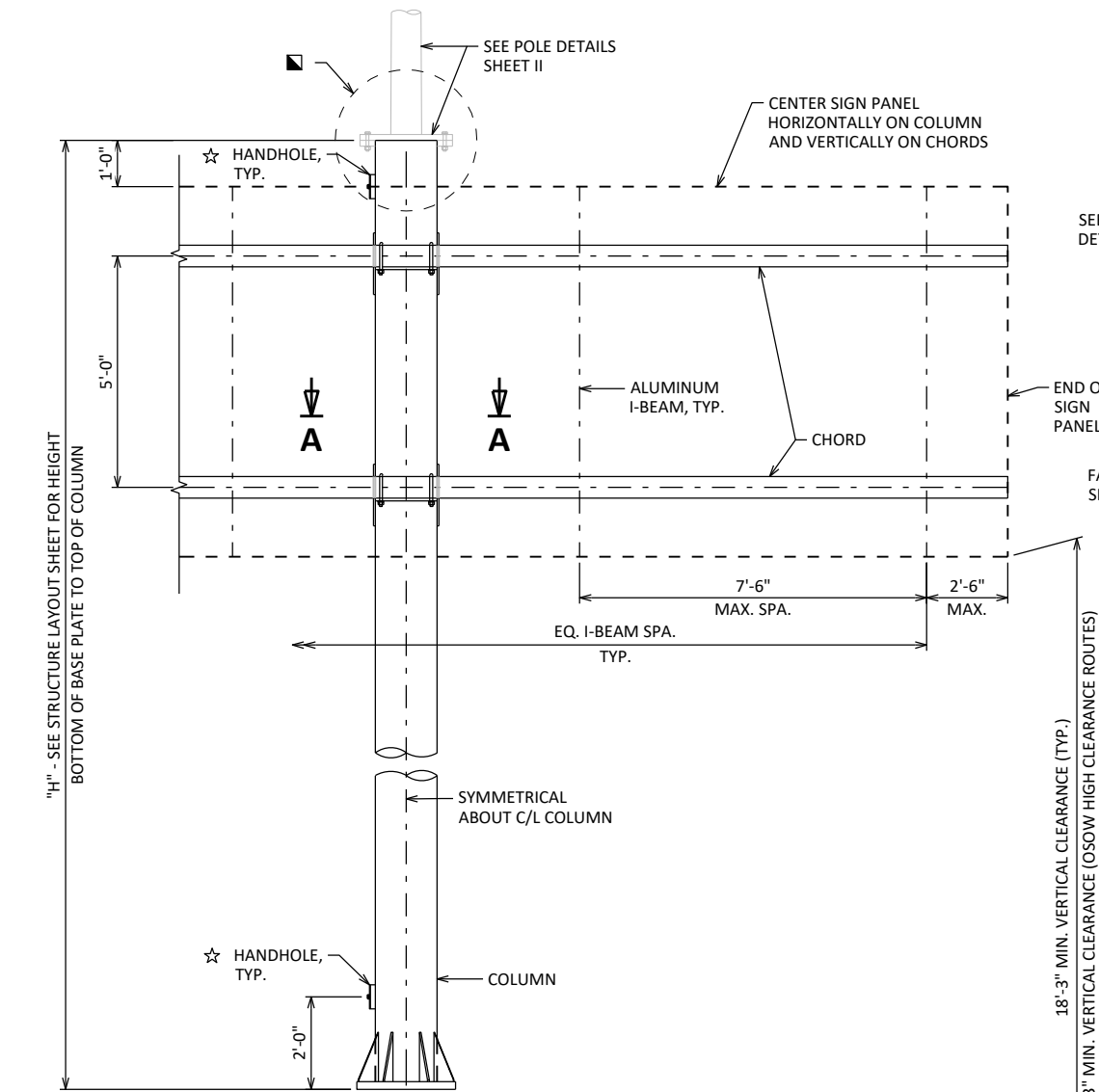
TOWER CAP DETAIL

■ USE ON STRUCTURES WITHOUT LIGHT POLE ATTACHMENTS

LEGEND

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
2-CHORD BUTTERFLY DETAILS		SHEET I	



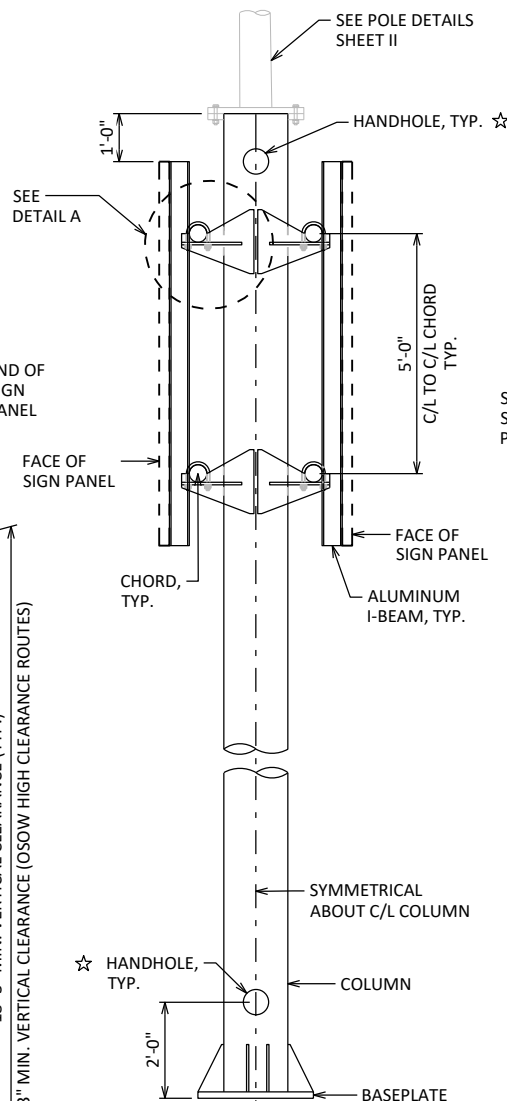
ELEVATION

LOOKING AT F.F. OF BUTTERFLY

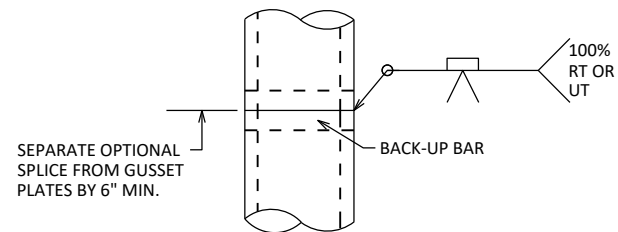
BUTTERFLY MEMBER TABLE

STANDARD DESIGN TYPE	TYPE I SIGN AREA (SQ. FT)	MAXIMUM SPAN "L" (ft)	MAXIMUM COLUMN HEIGHT "H"	COLUMN "OD" X THK.	CHORD "OD" X THK	ANCHOR ROD DIA.	BASE PLATE "THK"	"BC"	"PC"	"HOLE"
I	200	12'-6"	26'-0"	16" X 0.375"	4.500" X 0.375"	1 3/4"	1 1/2"	1'-10"	2'-4"	1 13/16"

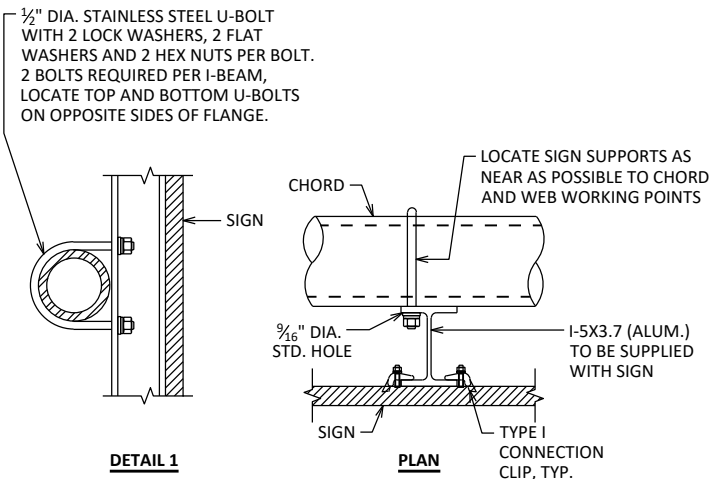
HIGH POINT OF PAVEMENT BELOW SIGN



END VIEW

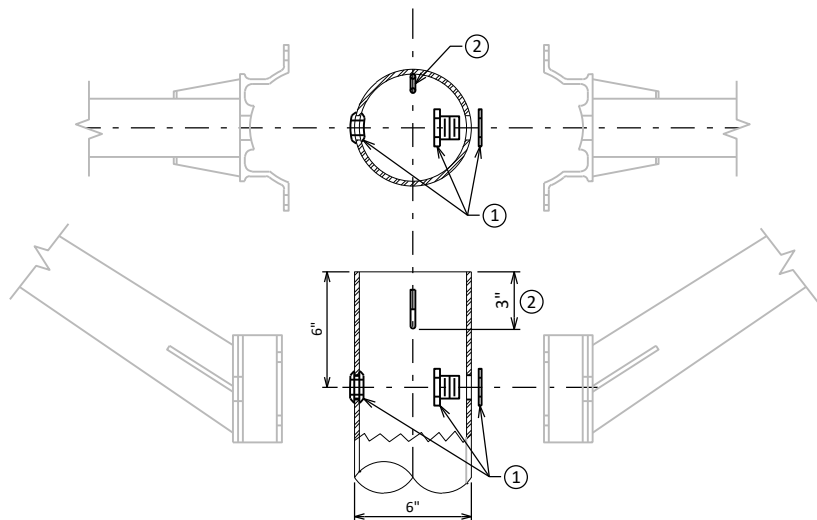


OPTIONAL COLUMN OR CHORD SPLICE



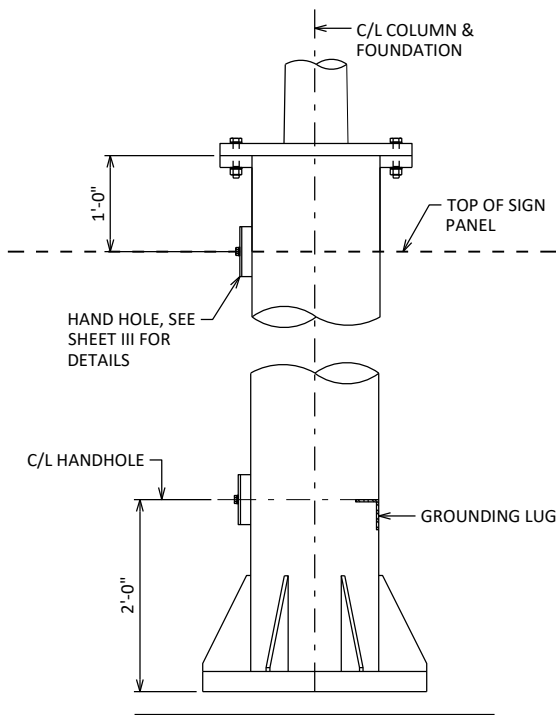
TYPICAL SIGN CONNECTION

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



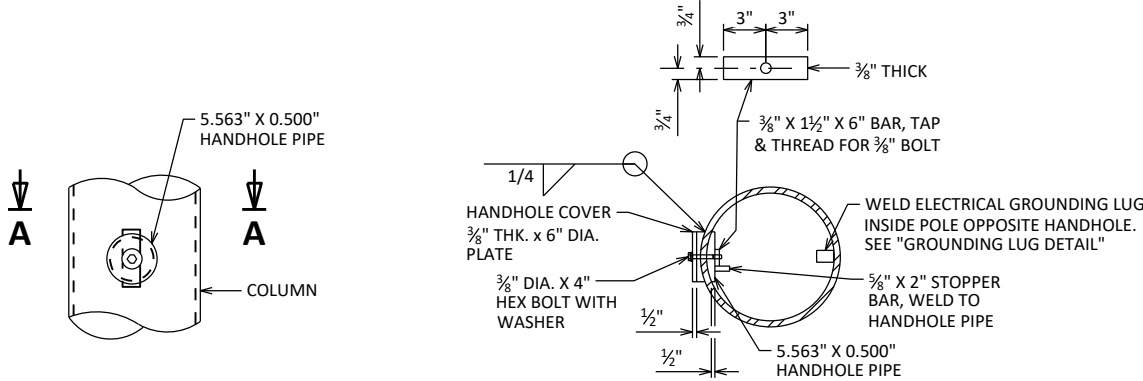
LIGHT POLE DETAILS

- ① 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.
- ② FACTORY WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.



GROUNDING LUG LOCATION

LOOKING ATF.F. OF STRUCTURE



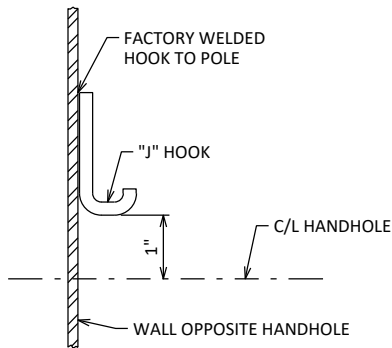
ELEVATION

SECTION A-A

HANDHOLE DETAILS

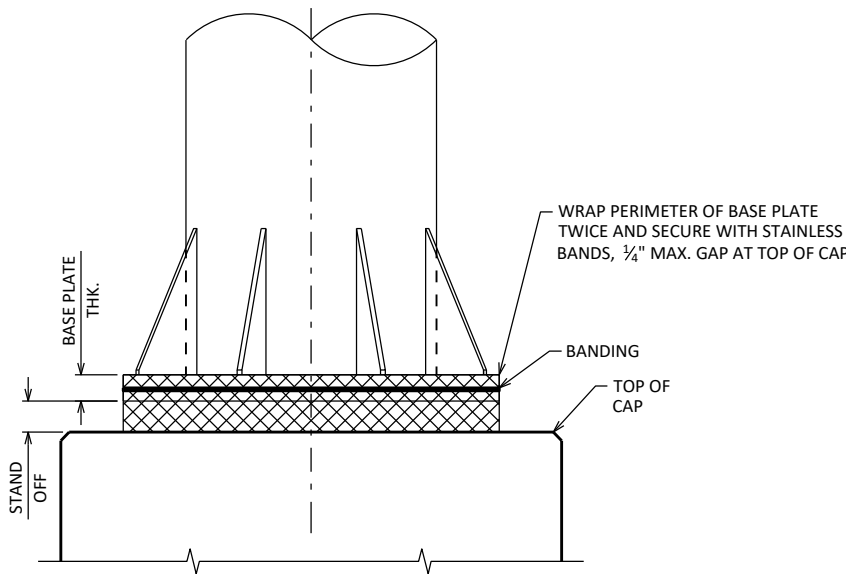
HAND HOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HAND HOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC 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 HAND HOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



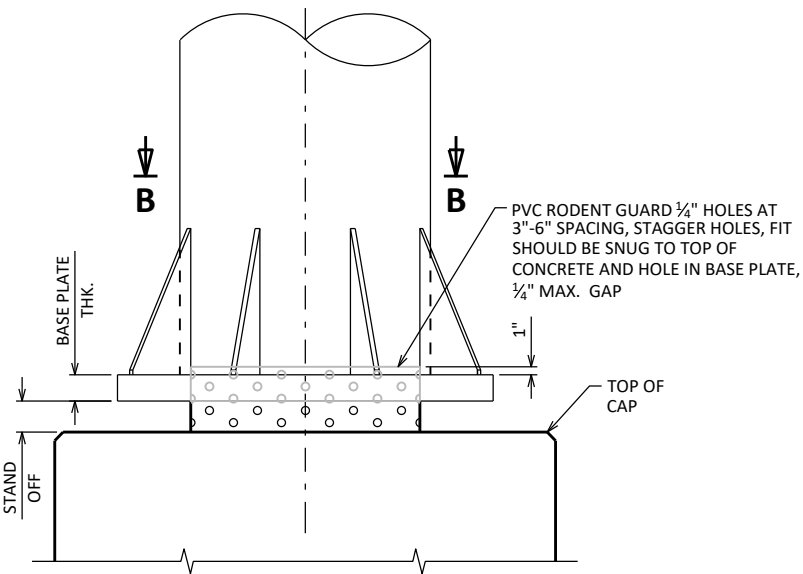
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF THE COLUMN 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.



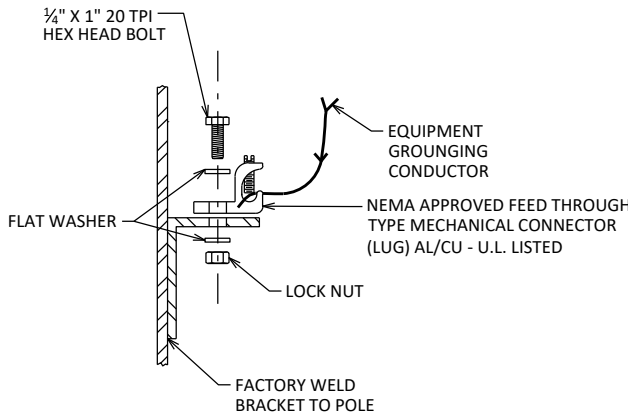
RODENT SCREEN

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



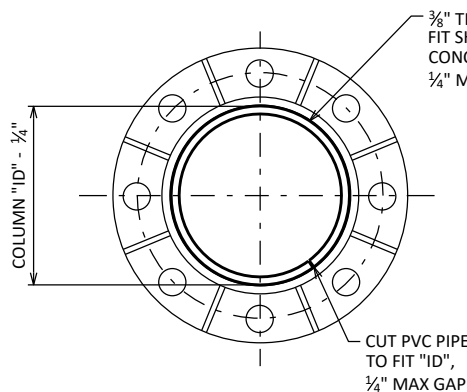
RODENT SCREEN - ALTERNATE

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



GROUNDING LUG DETAIL

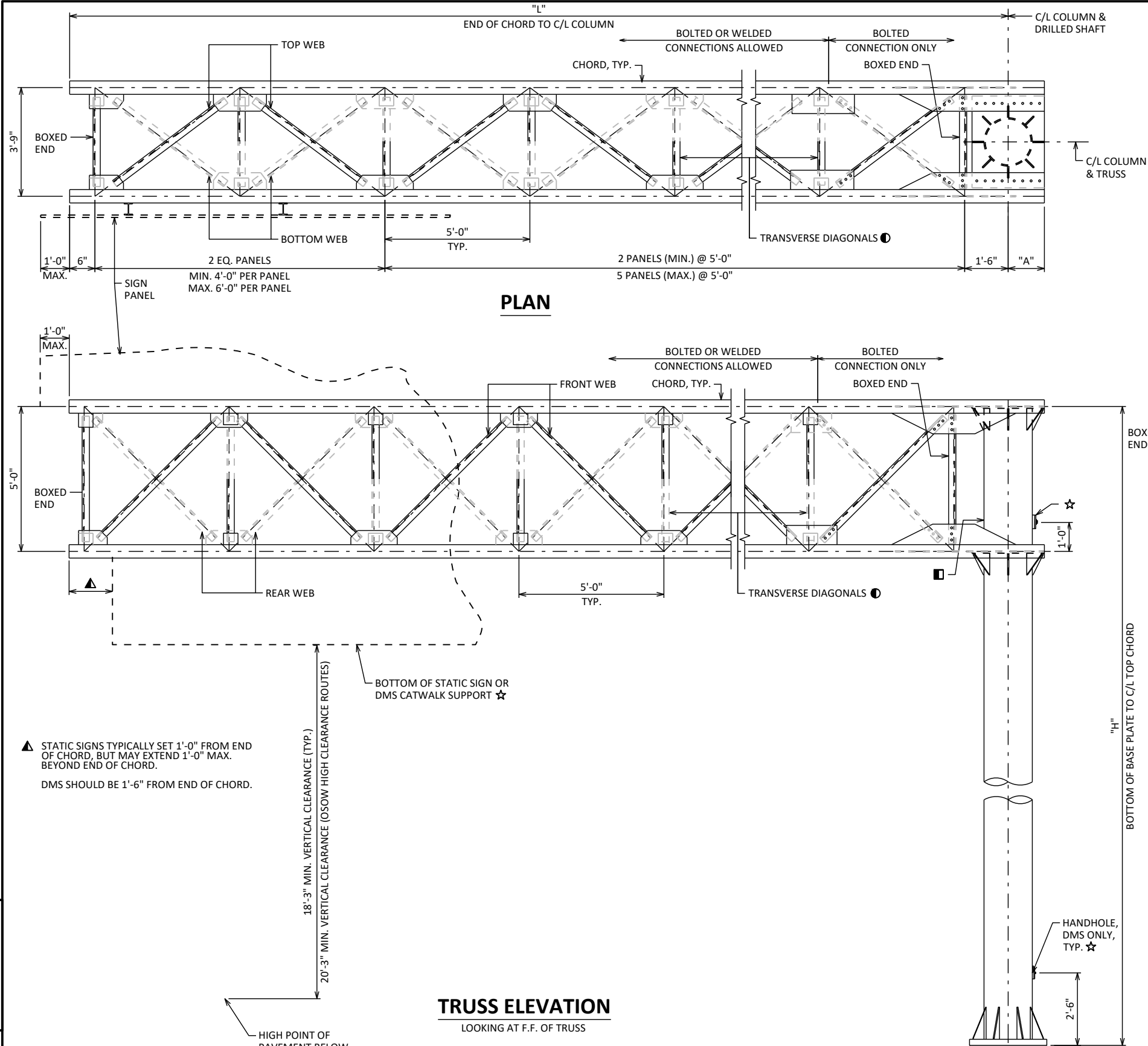
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



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
2-CHORD BUTTERFLY ELECTRICAL DETAILS		SHEET III	

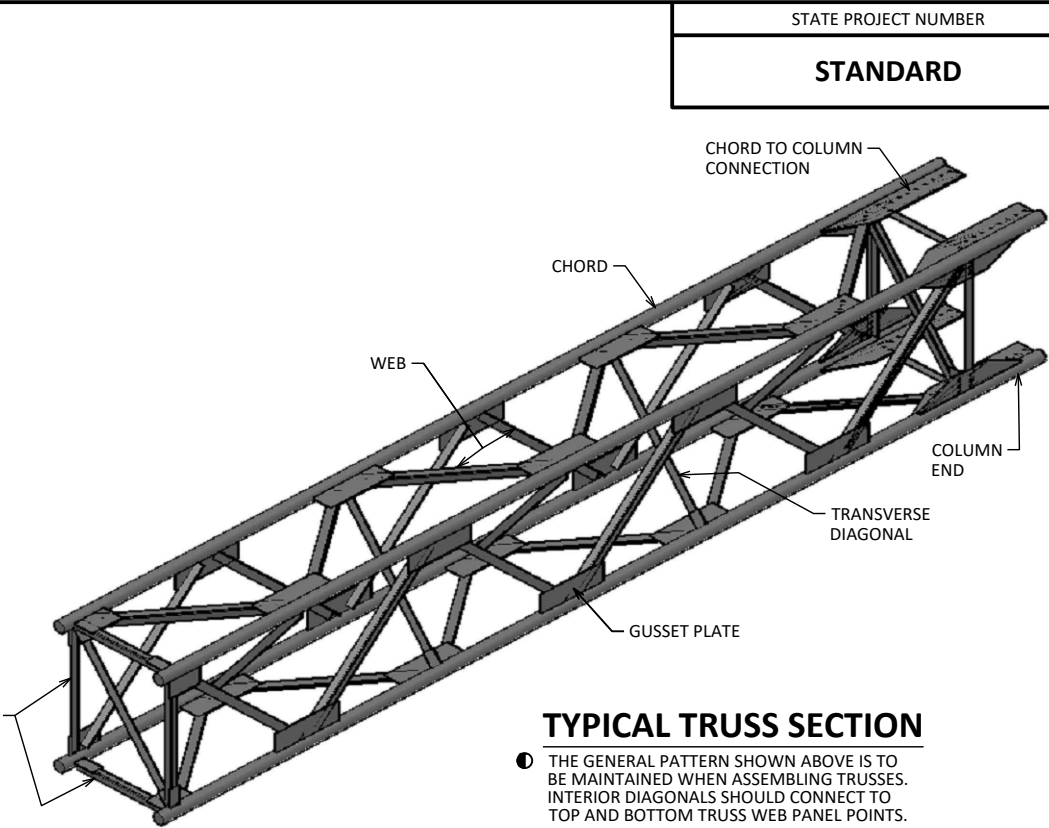
SCALE = 2:0



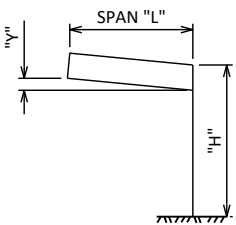
CANTILEVER 4-CHORD TRUSS MEMBER TABLE

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	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



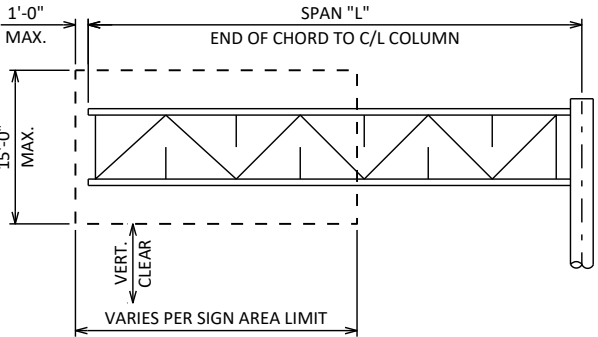
CAMBER DIAGRAM

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

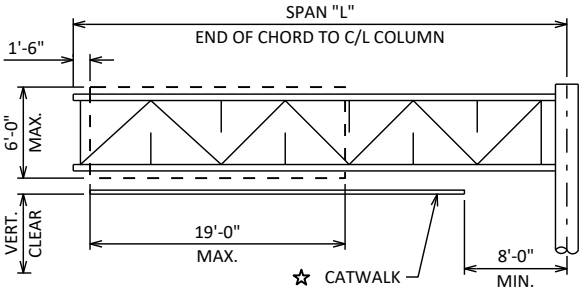
CAMBER VALUES

SPAN "L"	"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

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

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

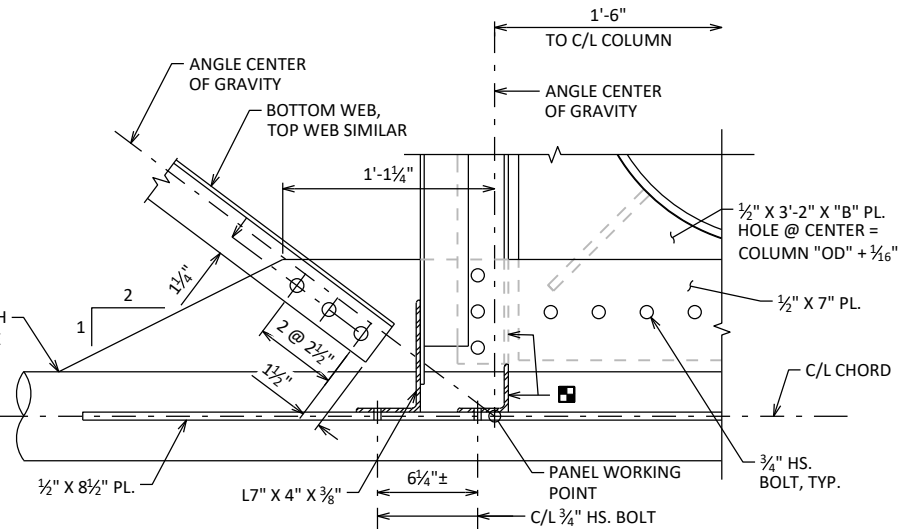
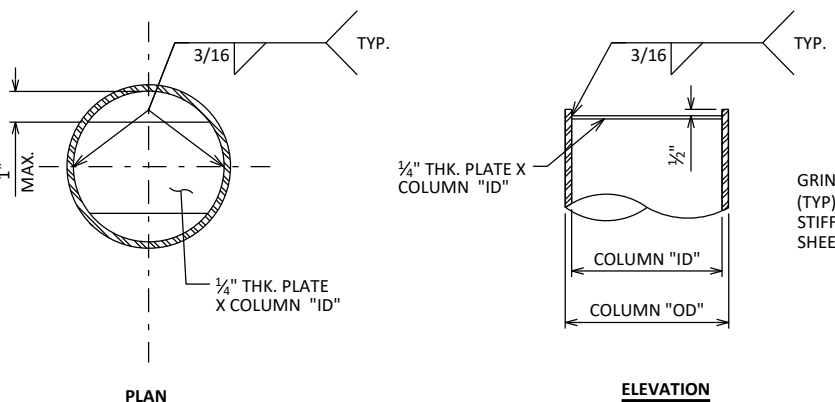
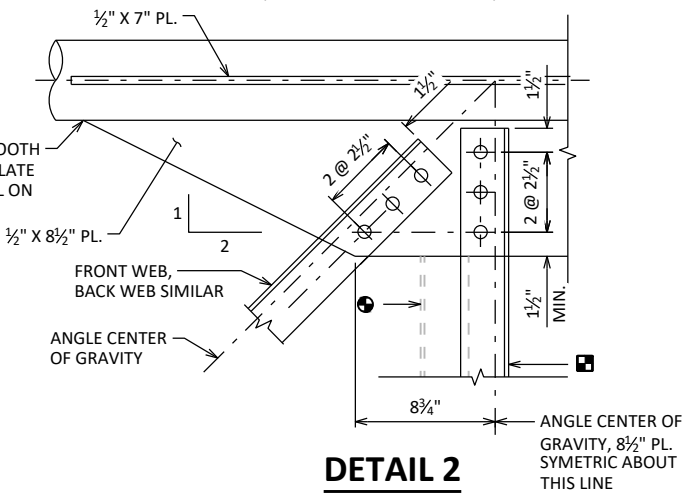
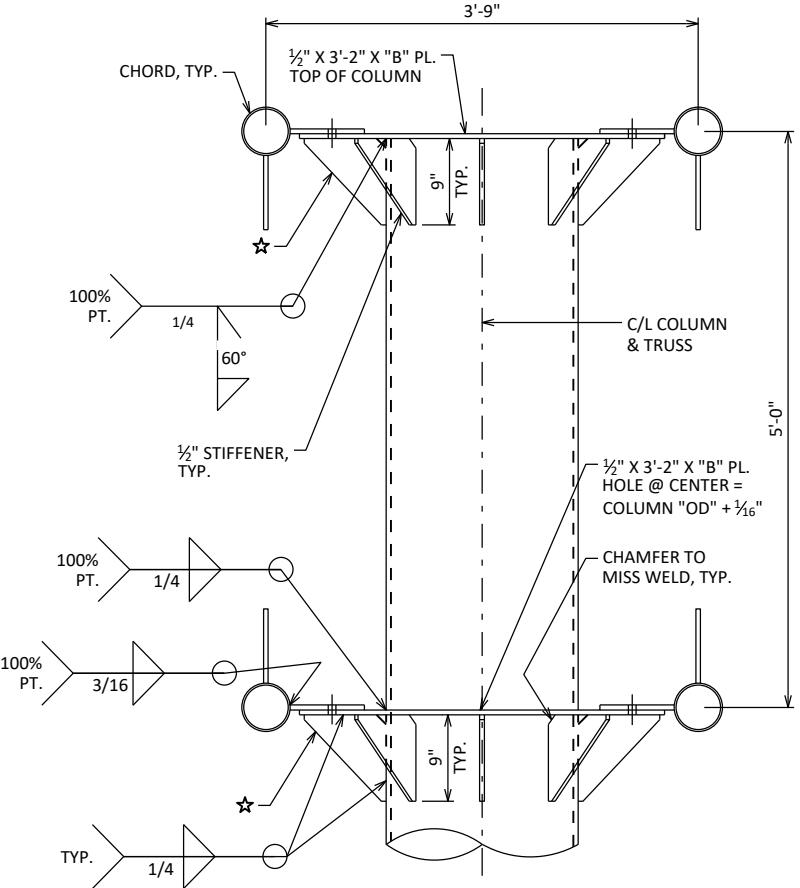
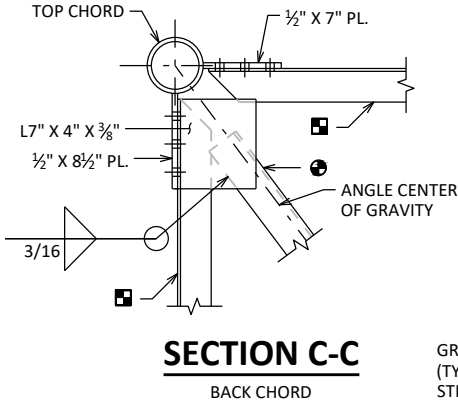
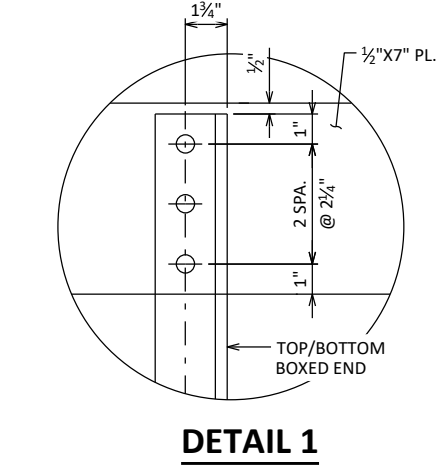
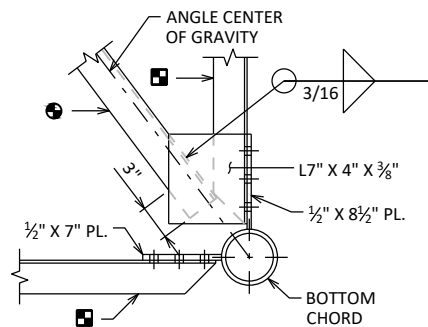
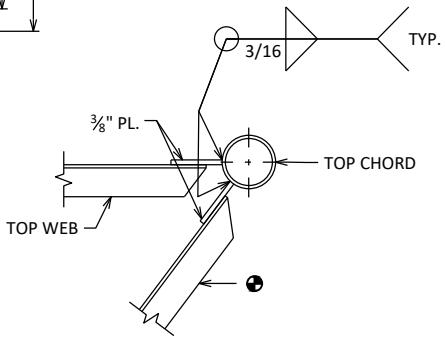
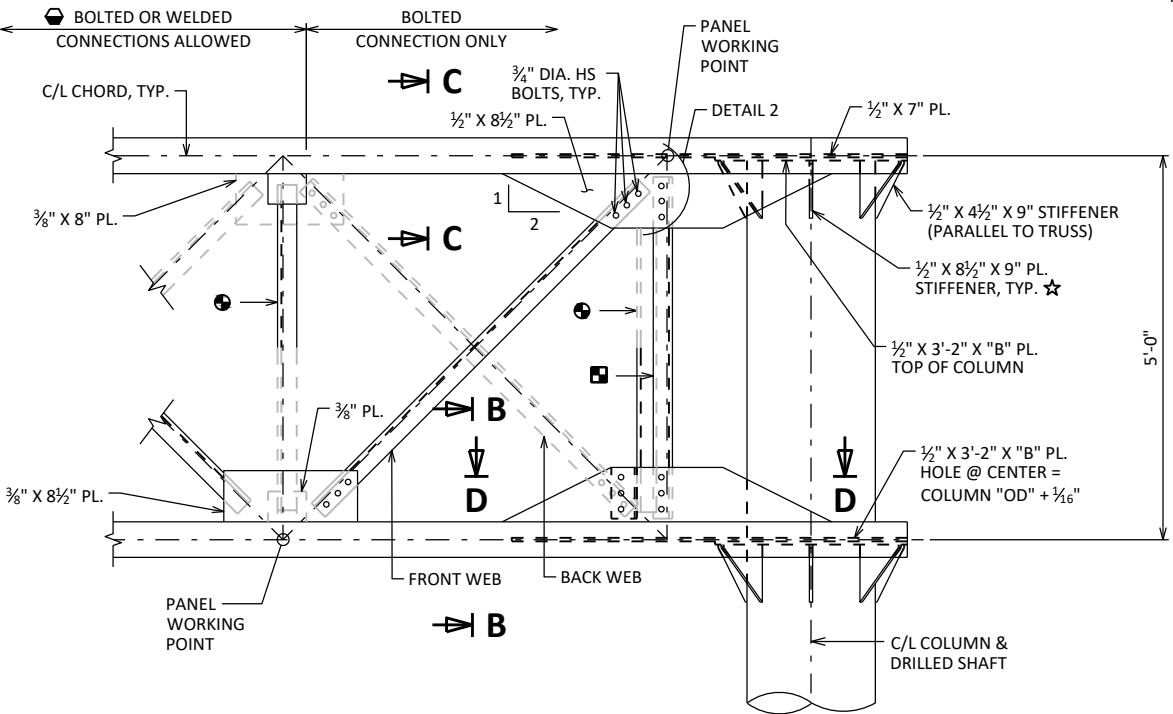
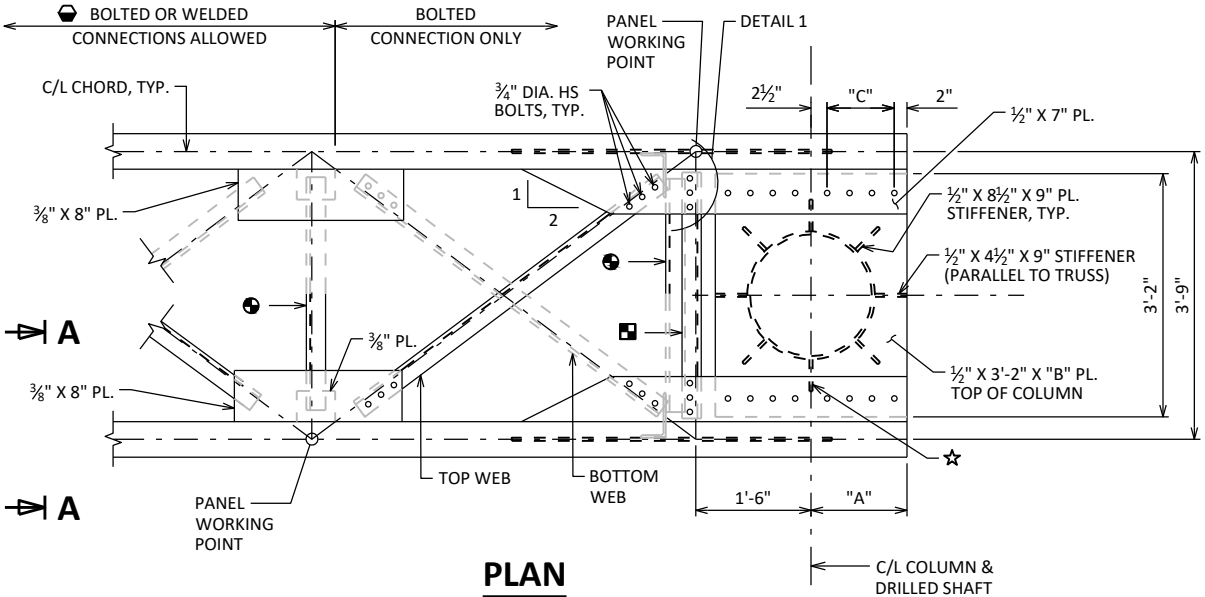
4-CHORD TRUSS CANTILEVER DETAILS

SHEET I

SCALE = 4:0

TRUSS TO COLUMN CONNECTION DATA

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

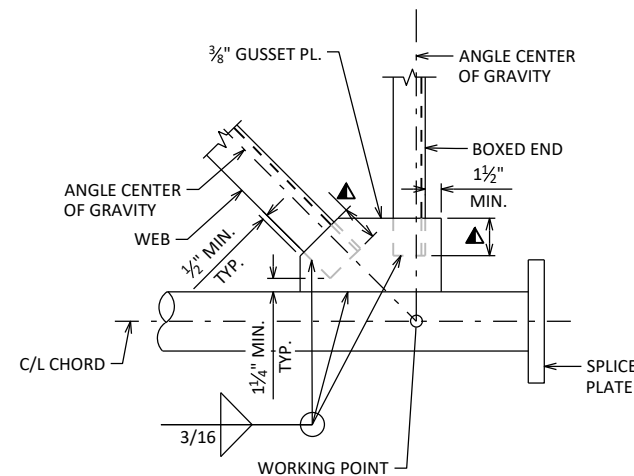


LEGEND

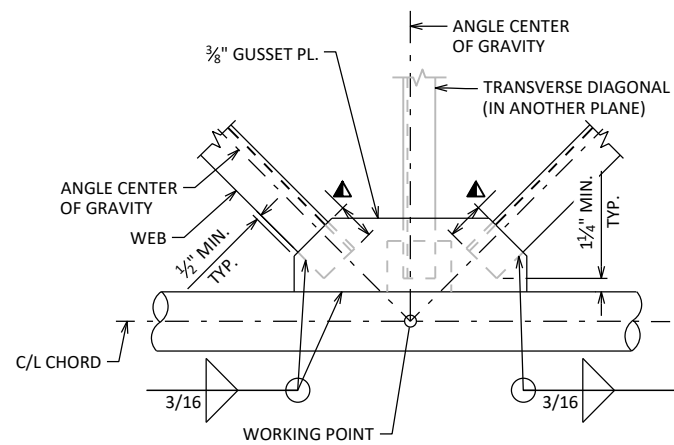
- TRANSVERSE DIAGONAL
- BOXED END AT SUPPORT
- WELDED CONNECTIONS MAY BE USED IF UNIT CAN BE GALVANIZED IN ONE PIECE. FIRST BAY MUST BE BOLTED.
- 1/2" X 7" X 9" STIFFENER TYPE II STANDARD DESIGN ONLY. TYP. OPPOSITE SIDE.

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	

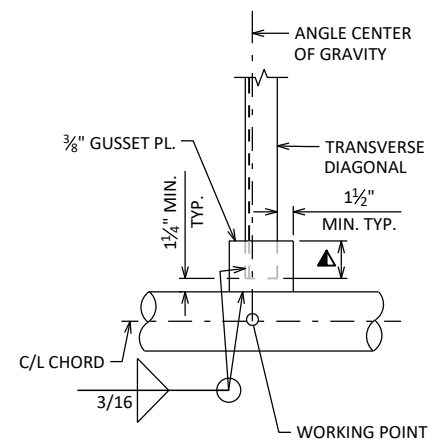
SCALE = 2.5



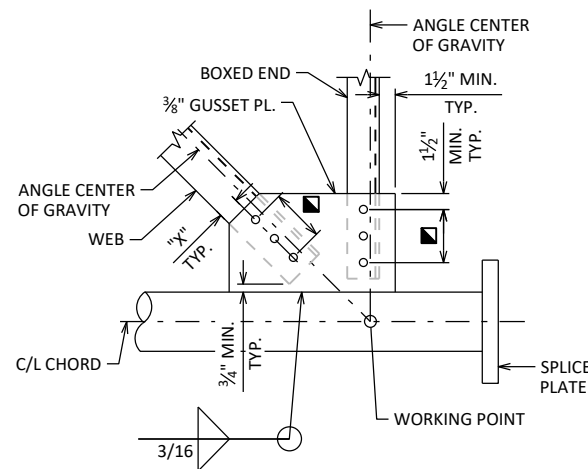
WELDED BOXED END CONNECTION
CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR



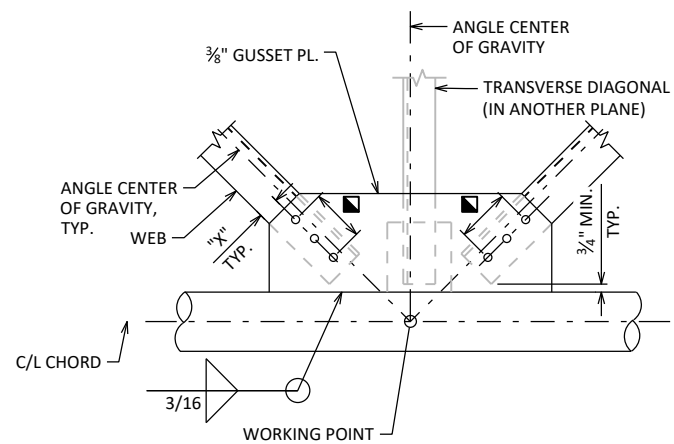
WELDED PANEL CONNECTION



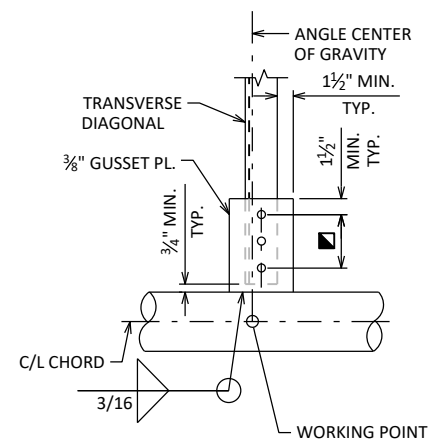
WELDED TRANSVERSE DIAGONAL CONNECTION
WEB MEMBERS NOT SHOWN FOR CLARITY



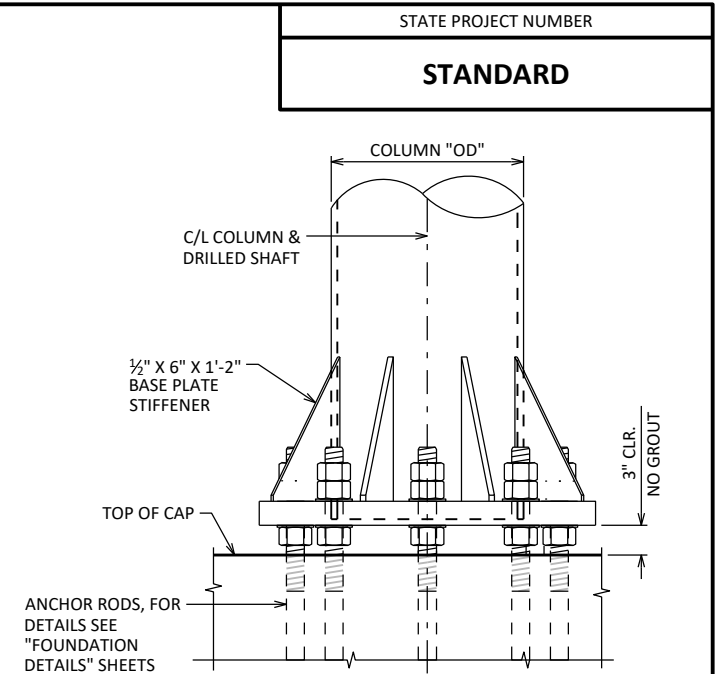
BOLTED BOXED END CONNECTION
CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR



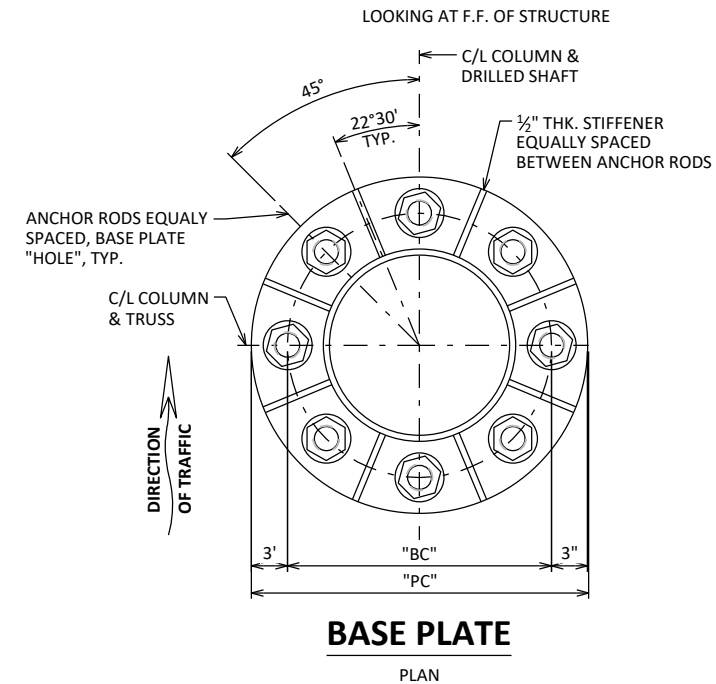
BOLTED PANEL CONNECTION



BOLTED TRANSVERSE DIAGONAL CONNECTION
WEB MEMBERS NOT SHOWN FOR CLARITY



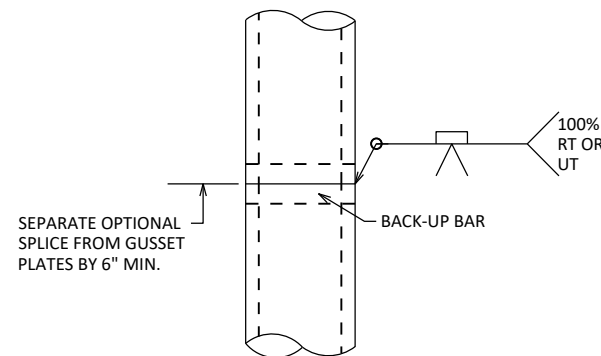
BASE PLATE & COLUMN DETAIL



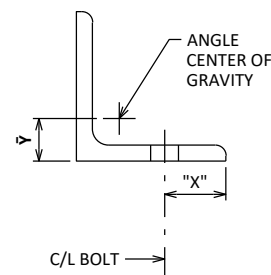
BASE PLATE

CANTILEVER 4-CHORD COLUMN DATA

STANDARD DESIGN TYPE	COLUMN "OD" X THK	BASE PLATE				
		"THK"	"T _{w1} "	"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"

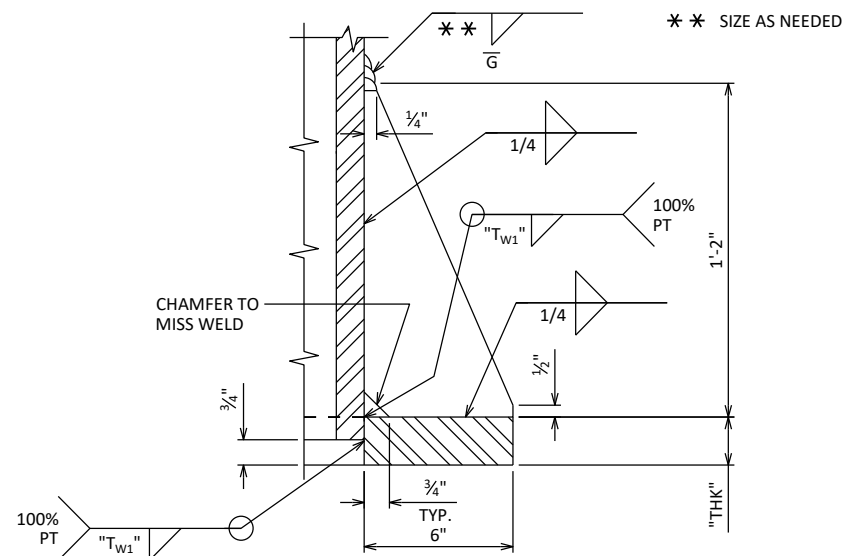


OPTIONAL COLUMN OR CHORD SPLICE DETAIL



ANGLE DATA

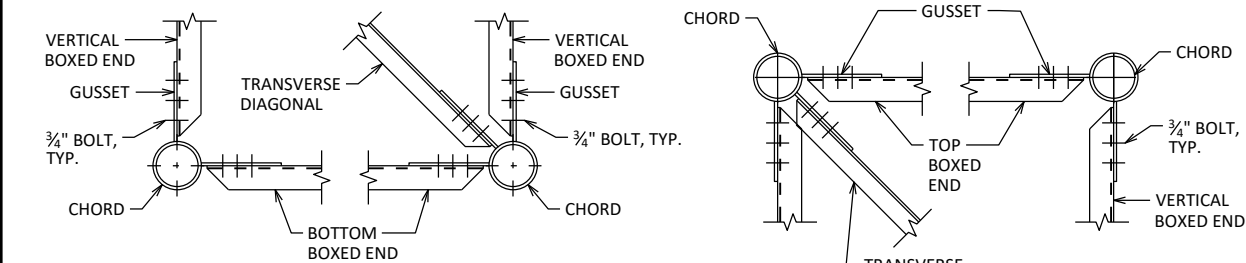
ANGLE SIZE	Y	"X"
L3 X 3 X 3/4	0.84"	1 1/4"
L3 X 3 X 5/16	0.86"	1 1/4"



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.

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	

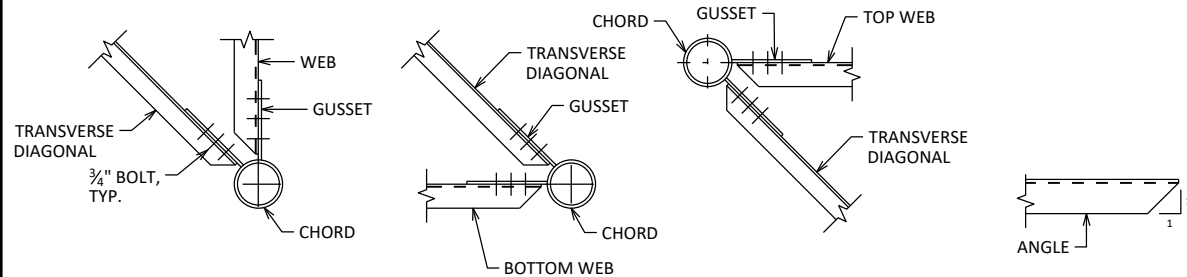


END VIEW 1

END VIEW 2

END VIEW 3

END VIEW 4



END VIEW 5

END VIEW 6

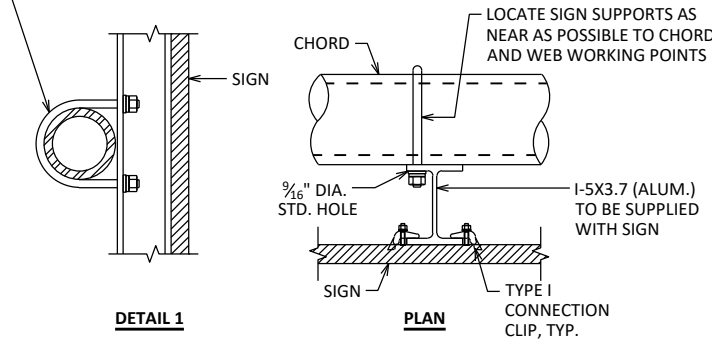
END VIEW 7

CLIP DETAIL

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

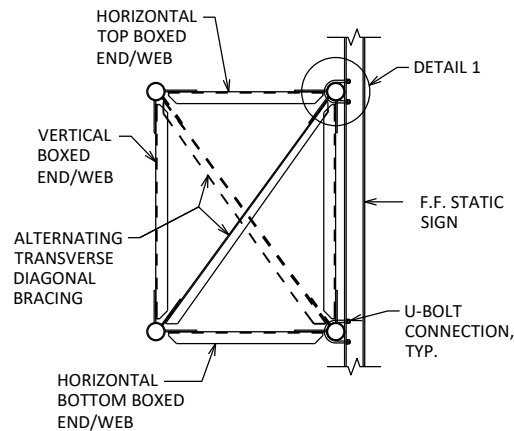


DETAIL 1

PLAN

TYPICAL SIGN CONNECTION

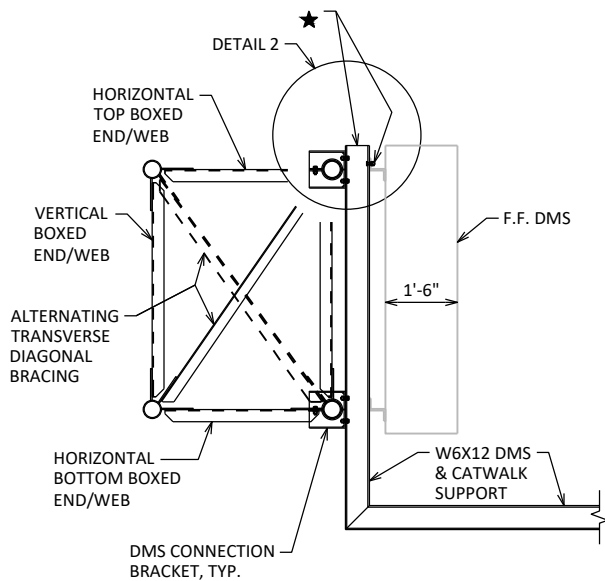
USE FOR TYPE I AND II SIGNS, TYPE I SIGN SHOWN. SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.



SECTION THRU TRUSS - STATIC SIGN

FOR SIGN CONNECTION

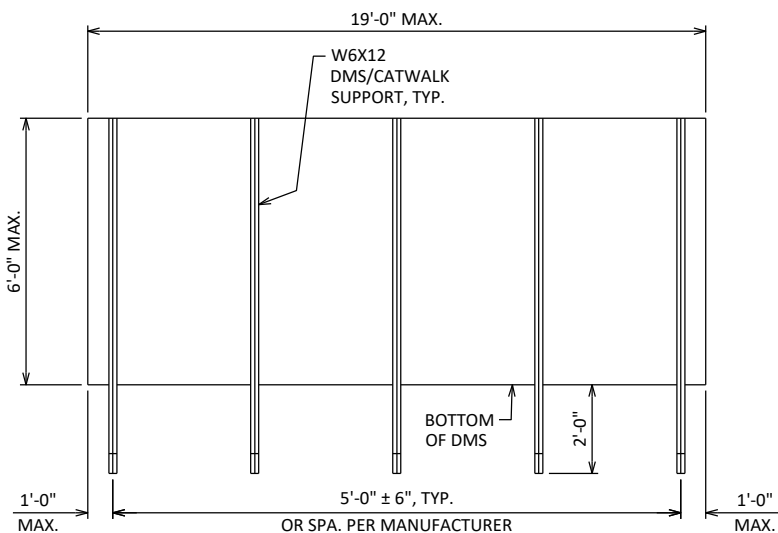
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL. HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



SECTION THRU TRUSS - DMS

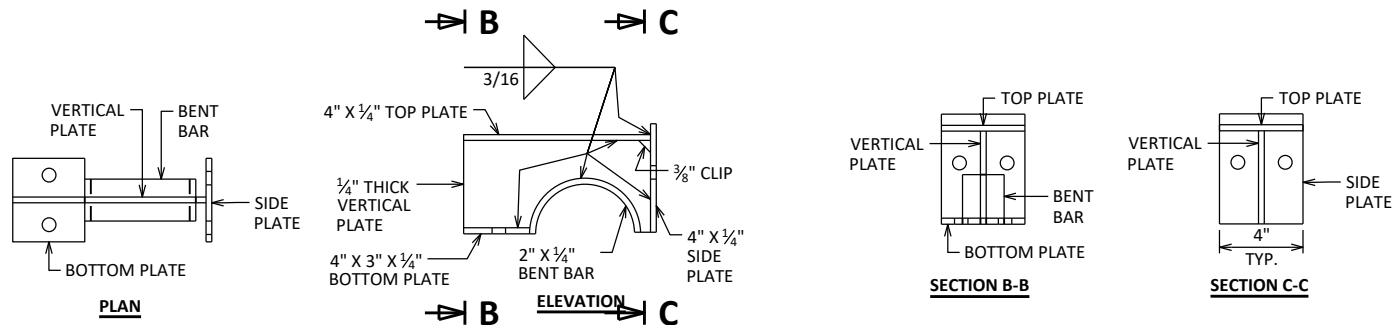
FOR DMS/CATWALK CONNECTIONS

★ 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



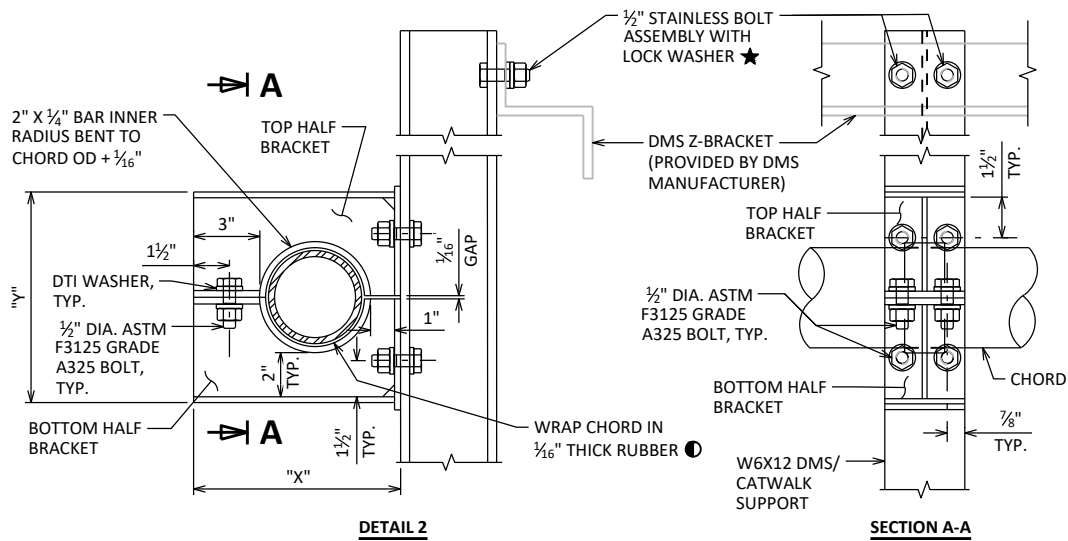
DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



DMS WELDED PLATE CONNECTION DETAILS

TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.



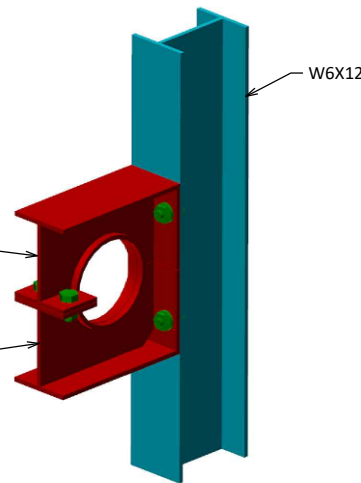
DETAIL 2

SECTION A-A

TYPICAL DMS CONNECTION

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

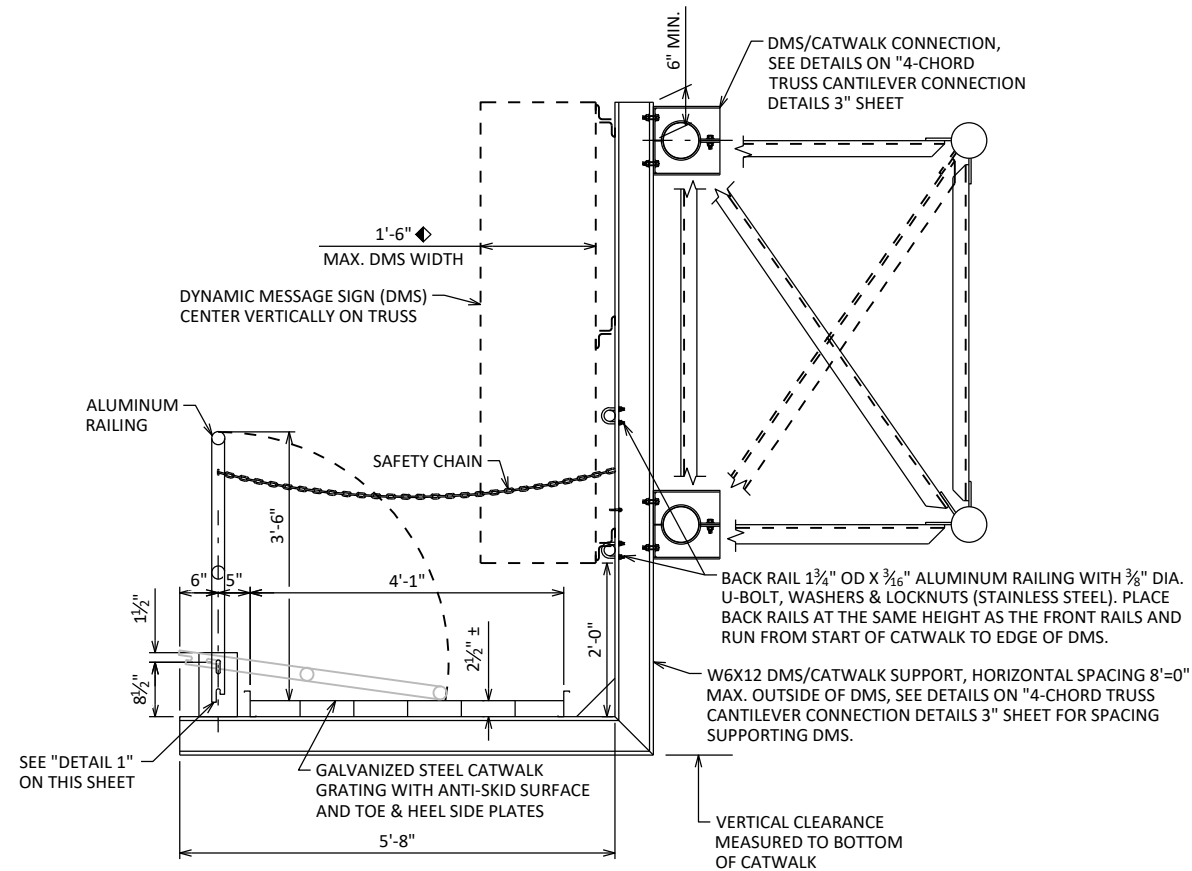
CHORD "OD"	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10 3/8"	10 3/8"



3-D VIEW OF DMS CONNECTION

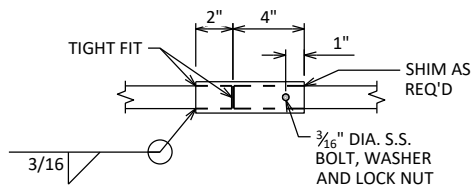
CHORD NOT SHOW FOR CLARITY

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	



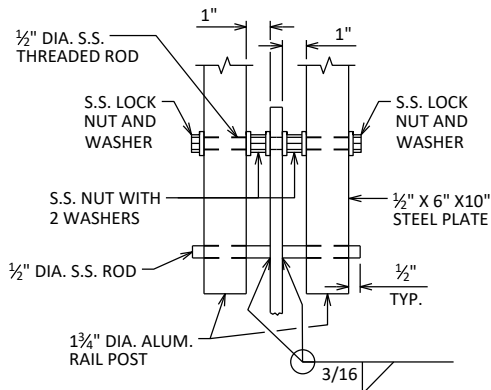
SECTION THRU WALKWAY

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

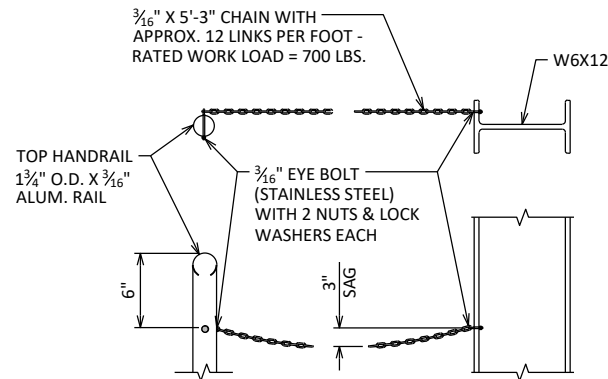
S.S. - STAINLESS STEEL

CATWALK TERMINATION
DETAIL

CATWALK SPLICE
LOCATION DETAIL

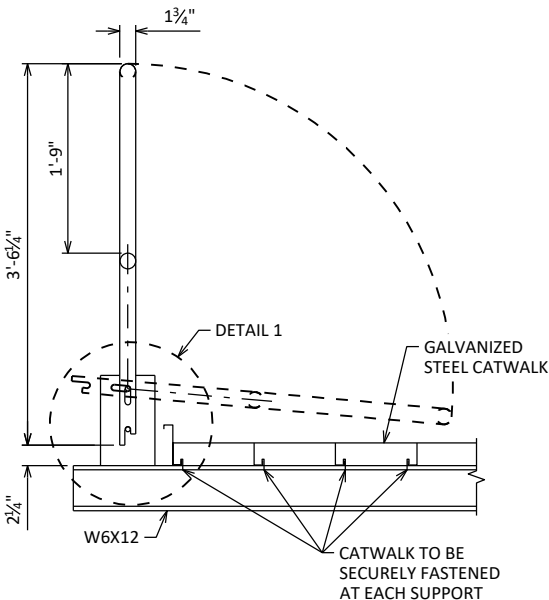
CATWALK BRACKET DETAIL

SECTION A-A

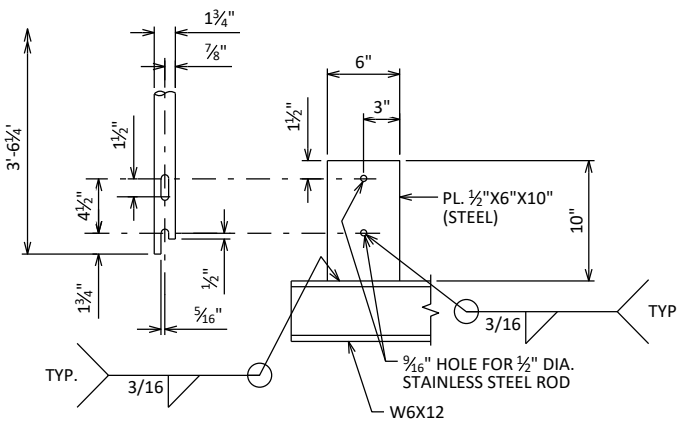


SAFETY CHAIN DETAIL

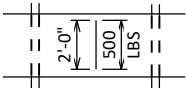
PROVIDE SAFETY CHAIN AT EACH END OF CATWALK



RAIL POST DETAIL



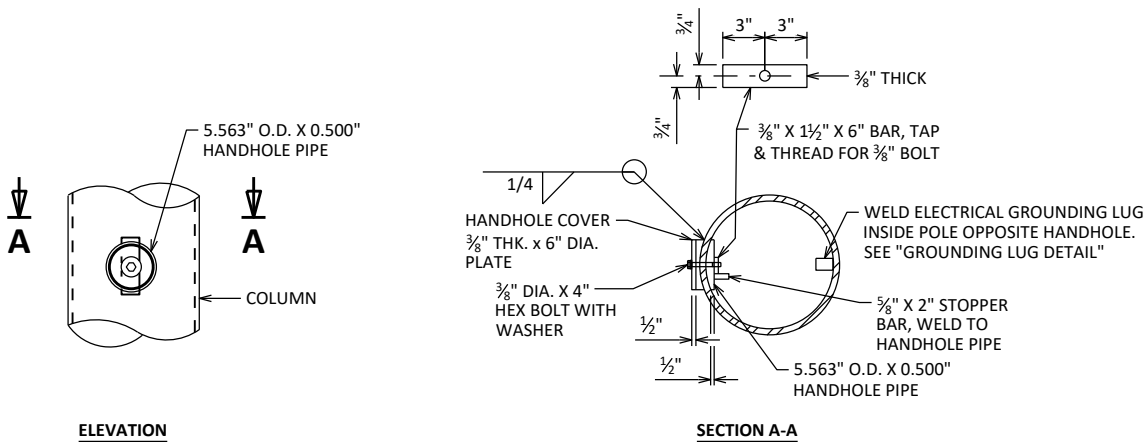
DETAIL 1



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.

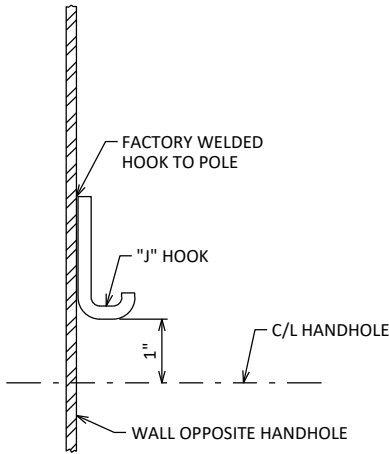
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
4-CHORD TRUSS CANTILEVER CATWALK DETAILS		SHEET V	



HANDHOLE DETAILS

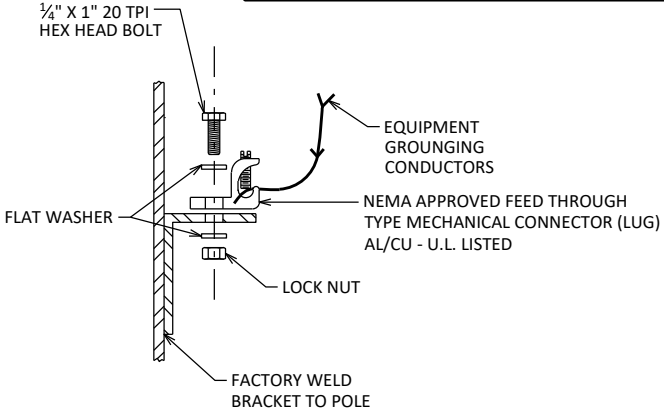
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION 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.



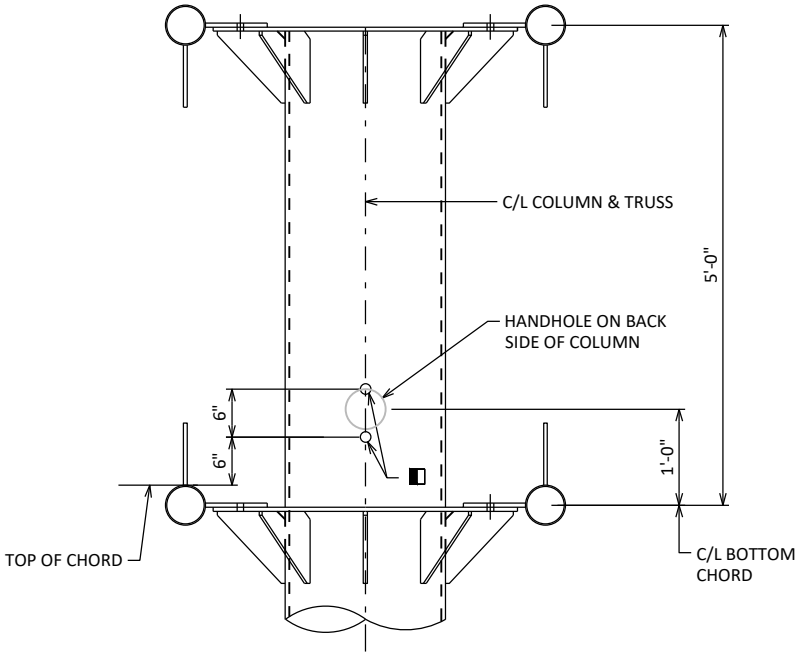
TYPICAL "J" HOOK LOCATION

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

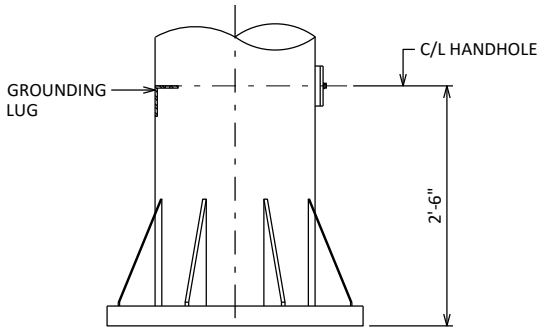
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



CONDUIT HOLE LOCATIONS

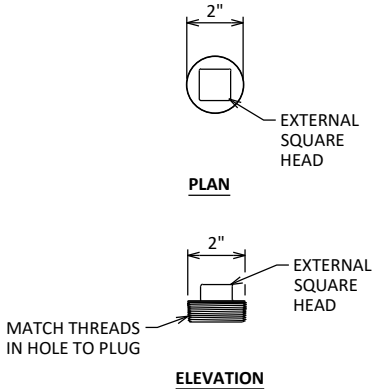
LOOKING AT INSIDE FACE OF COLUMN

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

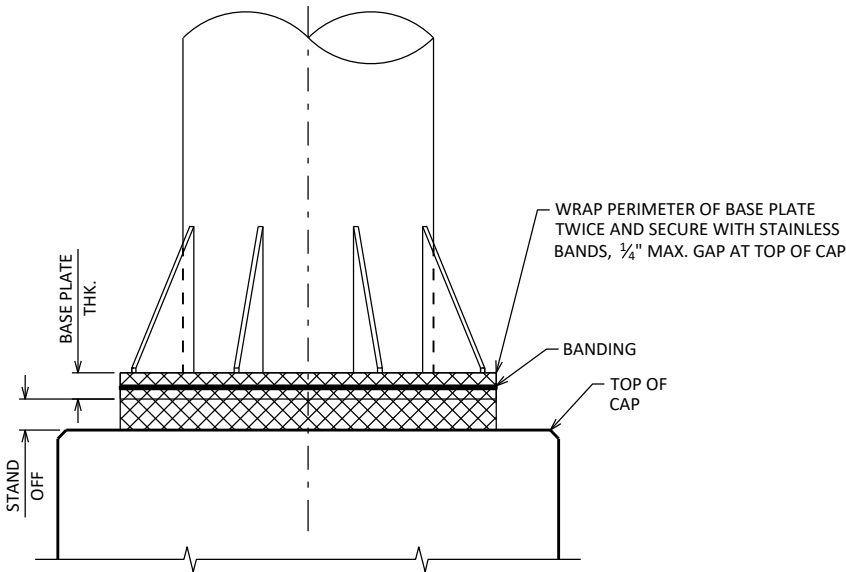


GROUNDING LUG LOCATION

LOOKING AT INSIDE F.F. OF STRUCTURE

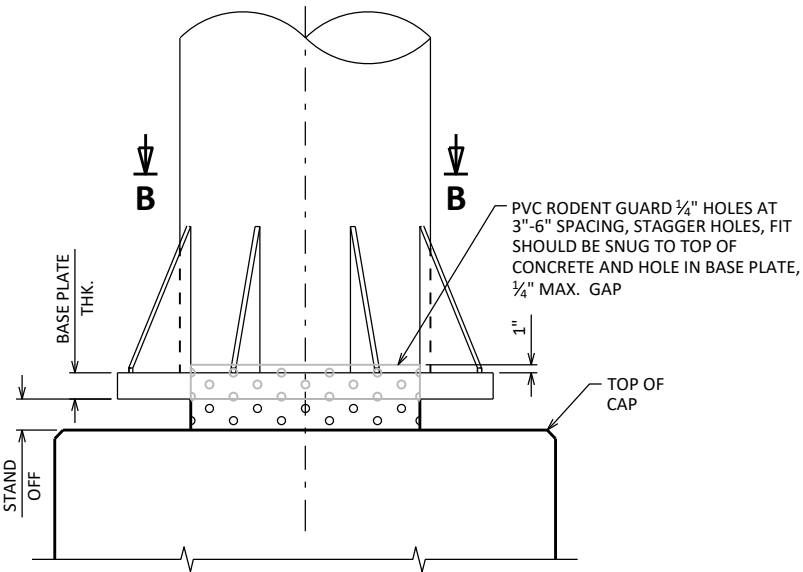


CONDUIT PLUG DETAILS



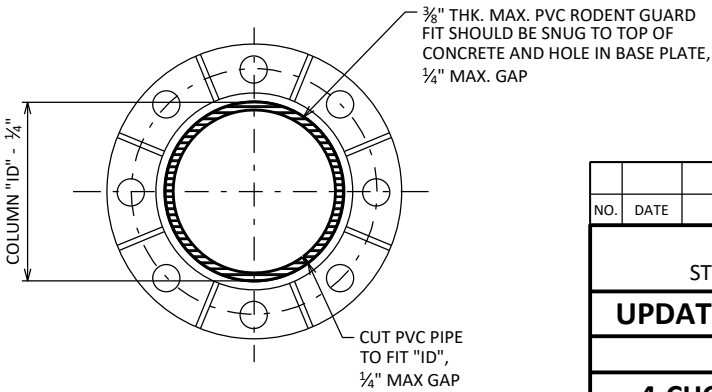
RODENT SCREEN

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



RODENT SCREEN - ALTERNATE

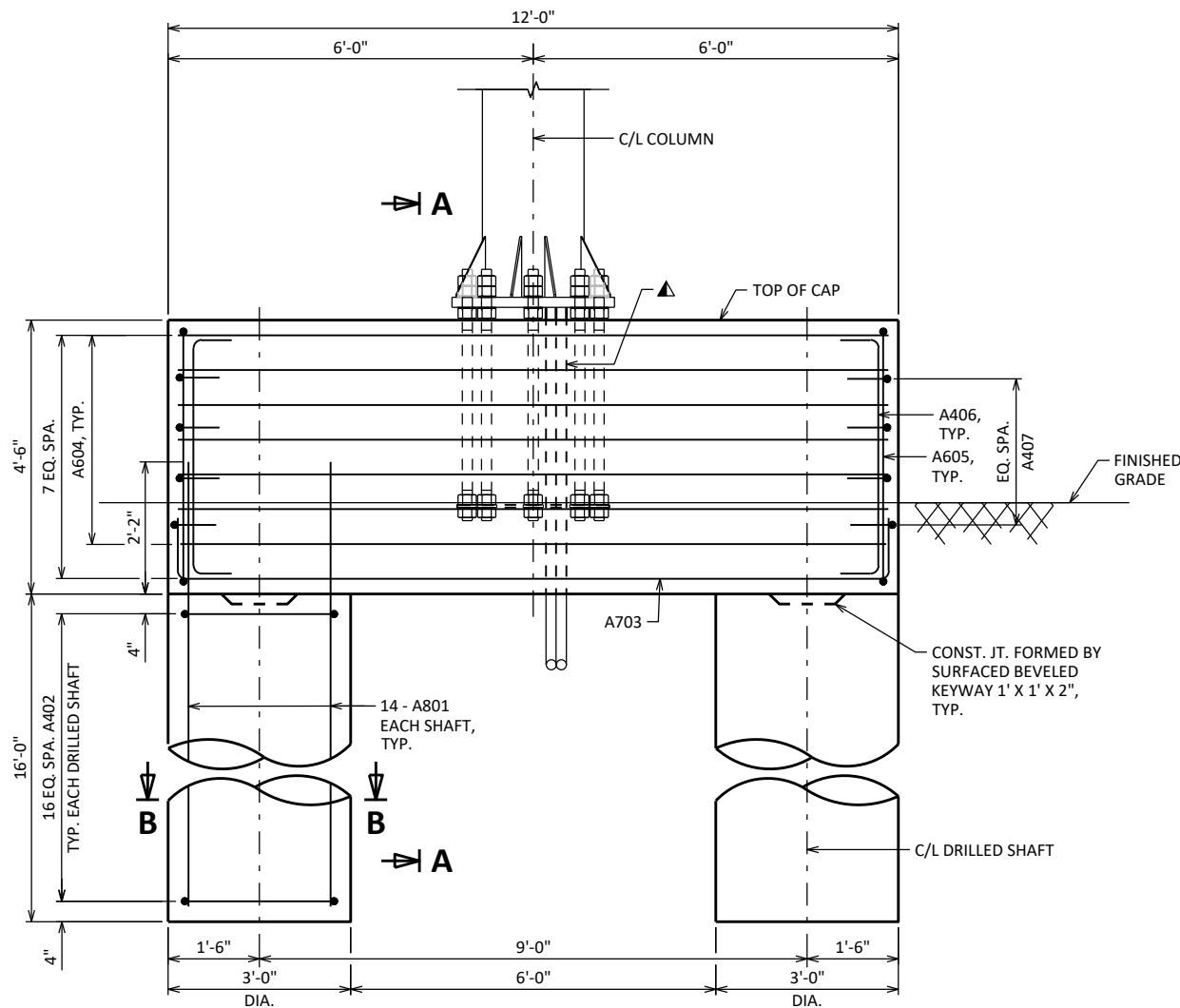
ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



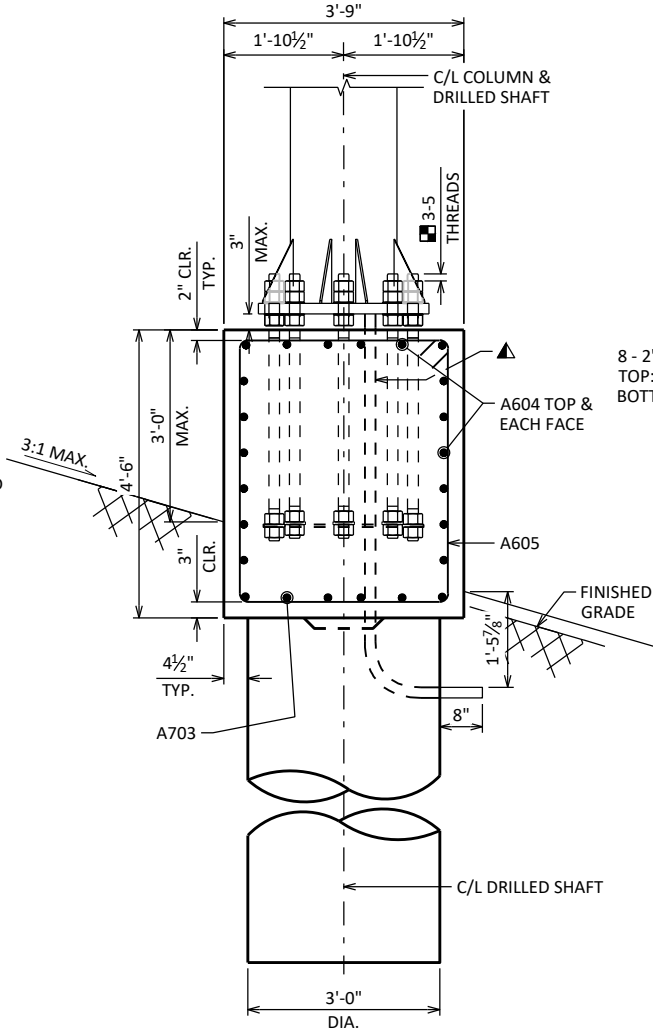
SECTION B-B

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 ELECTRICAL DETAILS		SHEET VI	

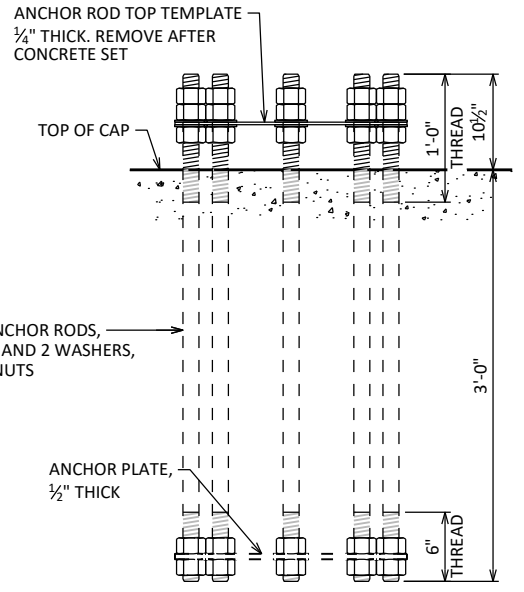
SCALE = 2:0



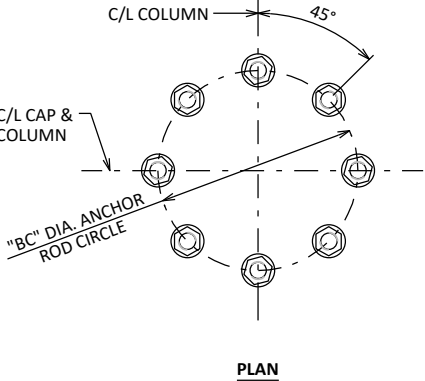
ELEVATION



SECTION A-A



ELEVATION

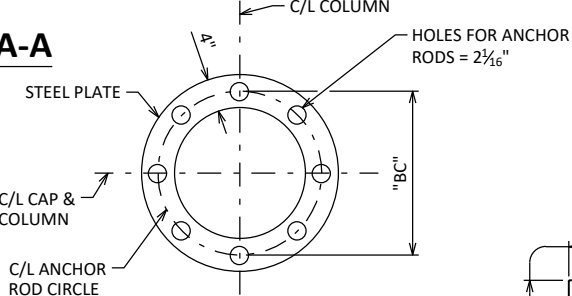


PLAN

ANCHOR ROD ASSEMBLY DETAILS

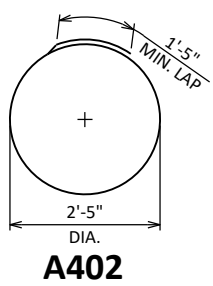
SINGLE ANCHOR ASSEMBLY SHOWN, 8 ANCHOR RODS PER ASSEMBLY

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.

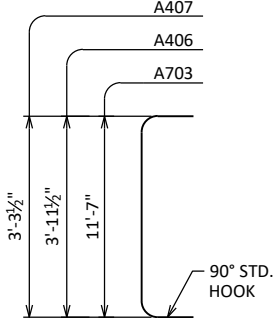


ANCHOR PLATE/ TOP TEMPLATE

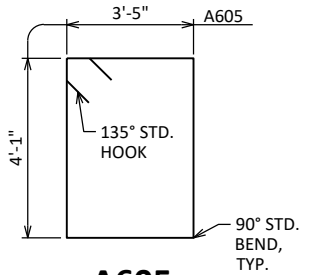
STANDARD DESIGN TYPE	"BC"
I	2'-2"
II	2'-6"



A402



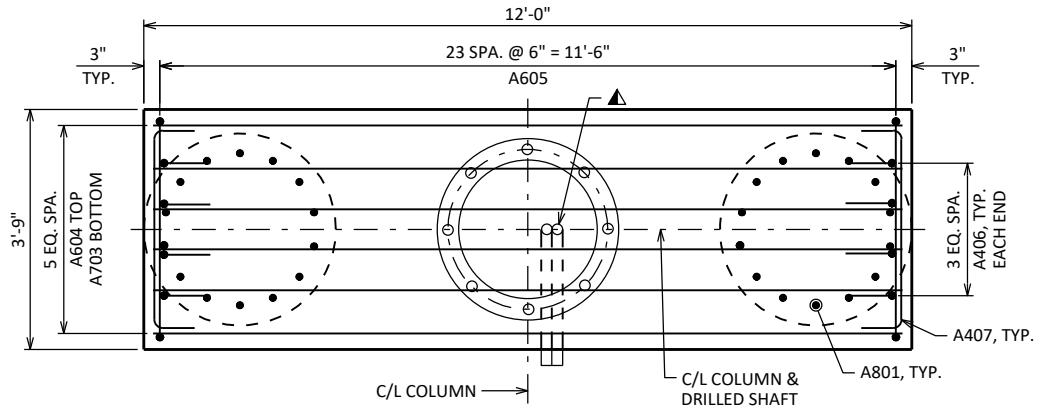
A703, A406, A407



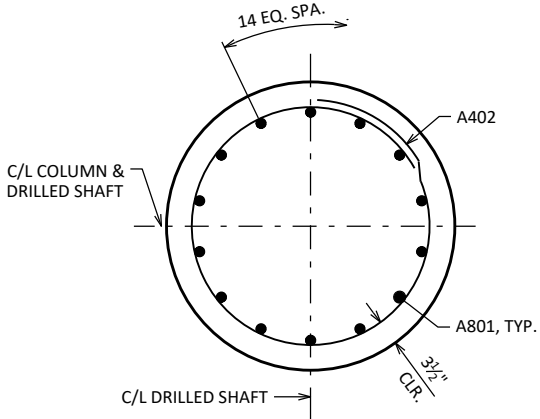
A605

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.



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.

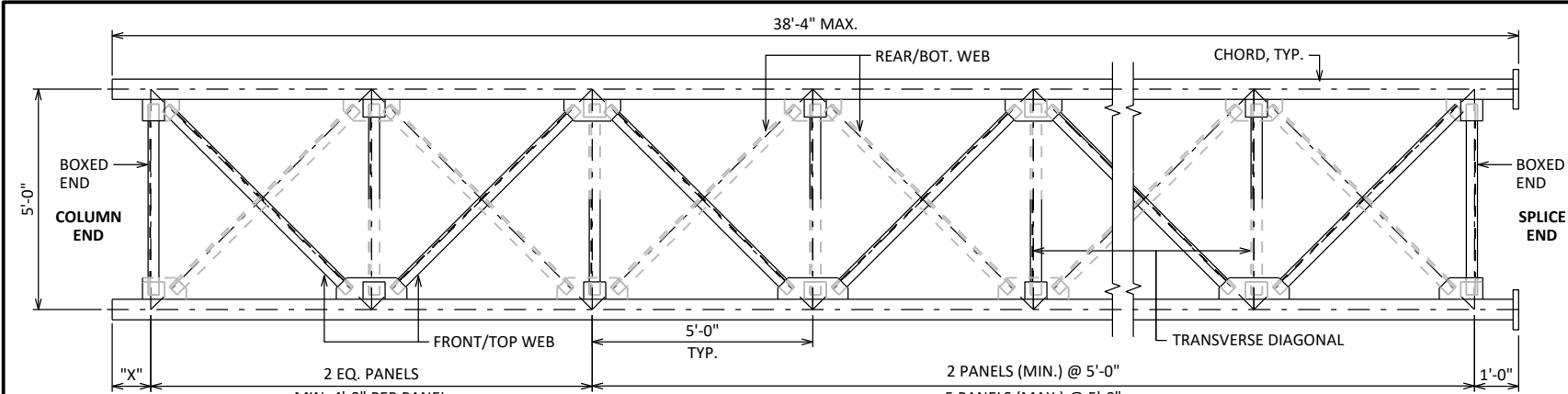
BILL OF BARS - STANDARD DESIGN TYPE I OR II

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	

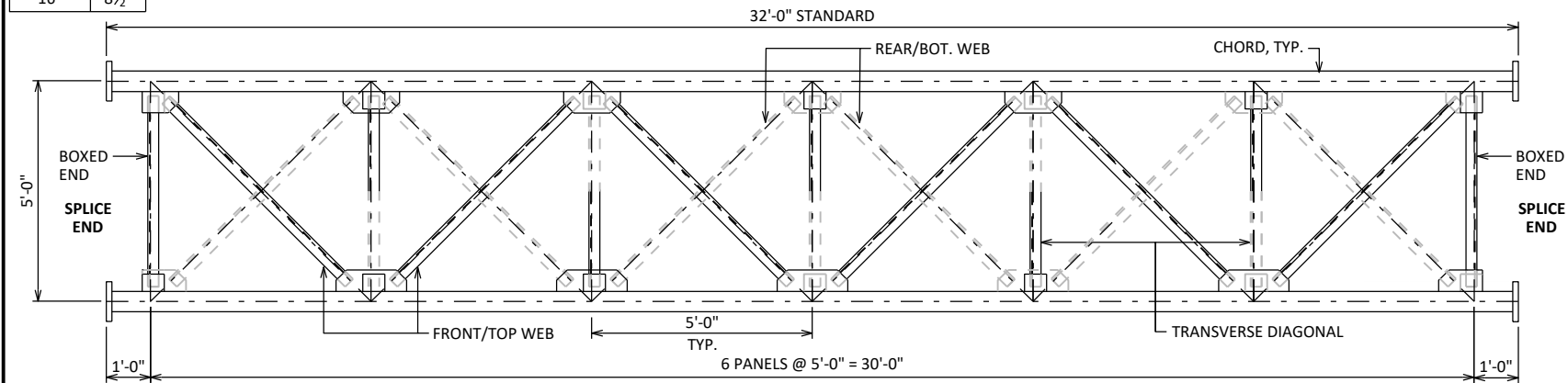
SCALE = 3/8"



COLUMN "OD"	"X"
12¾"	10⅞"
14"	9½"
16"	8½"

END TRUSS SECTION

1 LOOKING AT F.F., TOP SIMILAR

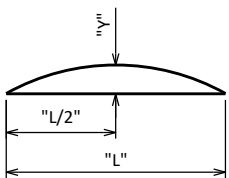


CENTER TRUSS SECTION

8 LOOKING AT F.F., TOP SIMILAR.

CAMBER VALUES

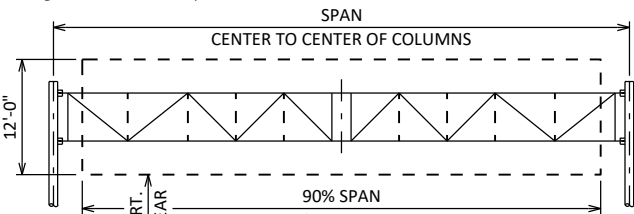
SPAN "L"	"Y"	
	TYPE I	DMS
60'-0"	1"	1¼"
82'-0"	1½"	1⅞"
102'-0"	2½"	2⅝"
114'-0"	2⅝"	3¼"
130'-0"	3¼"	4"



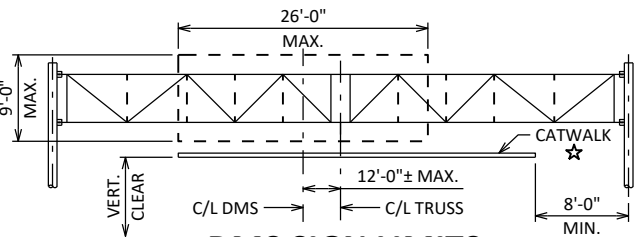
INTERPOLATE FOR VALUES NOT SHOWN.
DMS VALUES INCLUDE DL OF CATWALK.

CAMBER DIAGRAM

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



TYPE I SIGN LIMITS

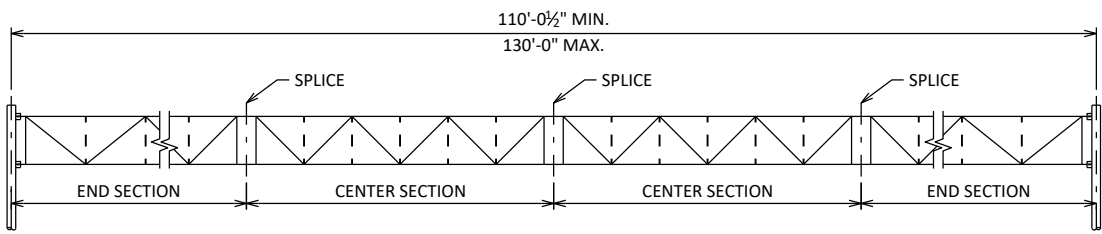
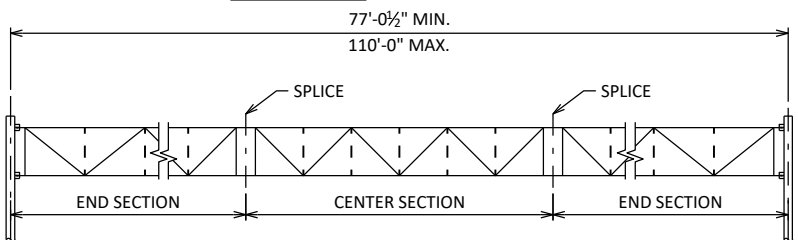
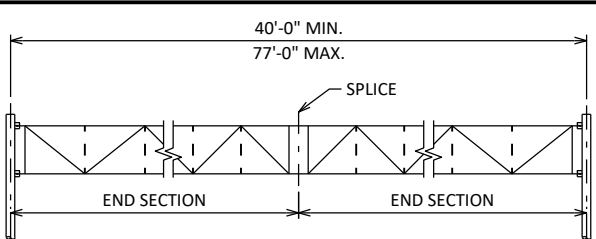


DMS SIGN LIMITS

4,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

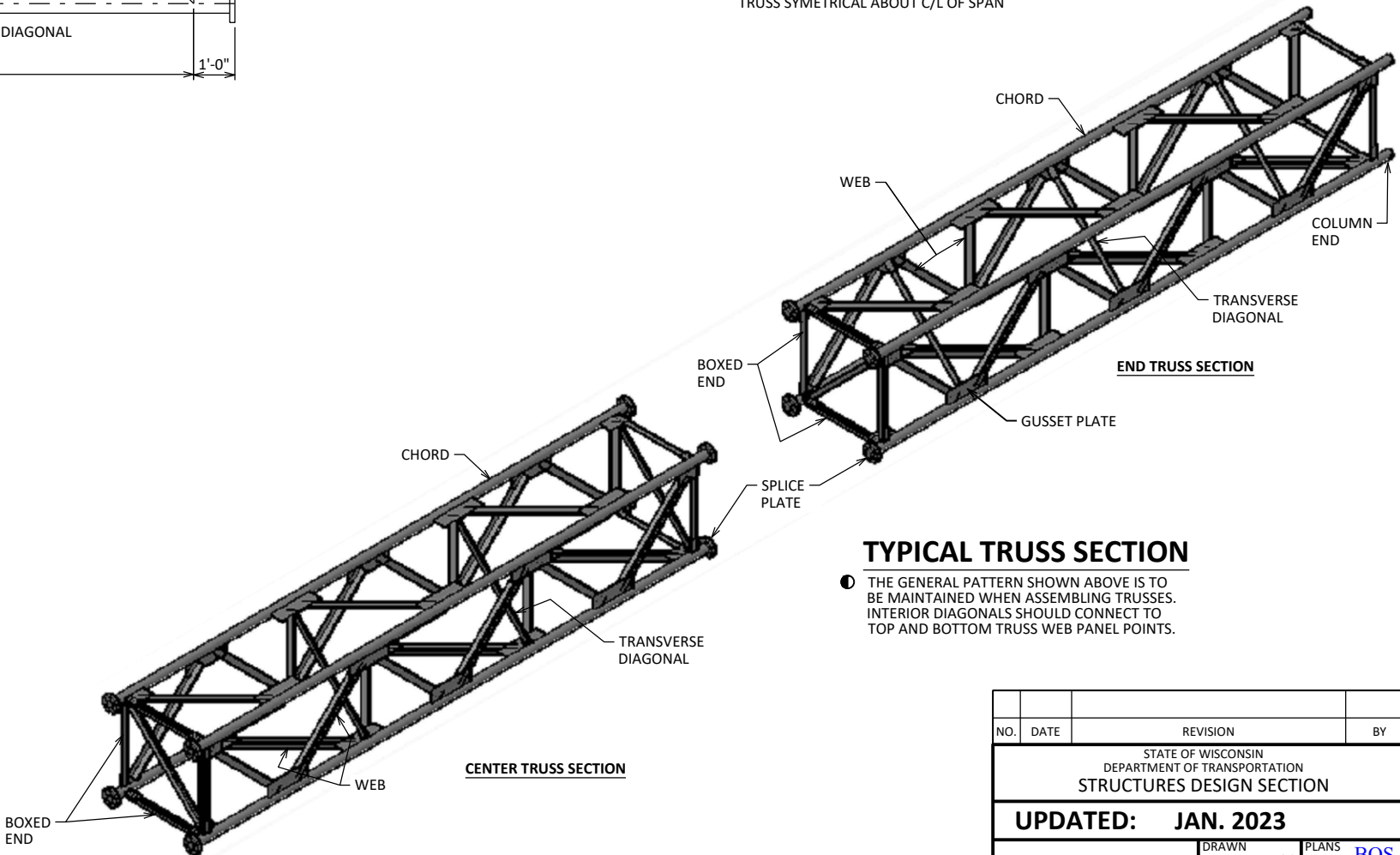
FULL SPAN 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (SQ. FT)	DMS AREA (SQ. FT.)	MAXIMUM SPAN	CHORD "OD" X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK	SPLICE PLATE "OD" X THK	CHORD SPLICE NO. ¾" BOLTS
I	648	234	60'-0"	5.563" X 0.258"	L3½ X 3½ X ⅜	L3 X 3 X ¼	L3 X 3 X ¼	11⅝" X 1½"	8
II	885	234	82'-0"	5.563" X 0.375"	L3½ X 3½ X ⅜	L3 X 3 X ¼	L3 X 3 X ¼	11⅝" X 1½"	8
III	1102	234	102'-0"	5.563" X 0.500"	L4 X 4 X ⅜	L3 X 3 X ¼	L3 X 3 X ¼	11⅝" X 1½"	8
IV	1232	234	114'-0"	6.625" X 0.375"	L4 X 4 X ⅜	L3 X 3 X ¼	L3 X 3 X ¼	1'-0⅝" X 1½"	8
V	1404	234	130'-0"	6.625" X 0.500"	L4 X 4 X ½	L3 X 3 X ¼	L3 X 3 X ¼	1'-0⅝" X 1½"	8



TRUSS CONFIGURATIONS

TRUSS SYMMETRICAL ABOUT C/L OF SPAN



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.

LEGEND

★ FOR OSS WITH DMS ONLY, SEE "CATWALK DETAILS" SHEET.

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 FULL SPAN DETAILS		SHEET I	

SCALE = 4:0

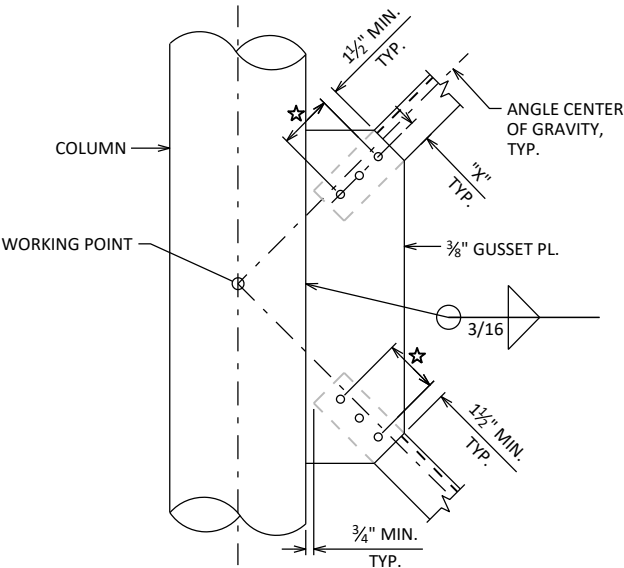
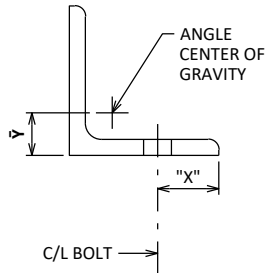
MEMBER CONNECTION DATA

STANDARD DESIGN TYPE	WELD LEG MIN. LENGTH		NO. OF BOLTS	
	▲	●	■	☆
I	3"	4"	3	3
II	3½"	6"	3	3
III	3½"	6"	5	3
IV	4"	6¾"	5	4
V	4½"	7¾"	5	4

FOR ALL ANGLE TO GUSSET CONNECTIONS,
BOLT SPACING = 2½"

ANGLE DATA

ANGLE SIZE	ȳ	"X"
L3 X 3 X ¼	0.84"	1¼"
L3½ X 3½ X ⅝	0.98"	1½"
L3½ X 3½ X ¾	1.00"	1½"
L4 X 4 X ¾	1.13"	1½"
L4 X 4 X ⅞	1.15"	1½"
L4 X 4 X 1	1.18"	1½"
L5 X 5 X ⅞	1.40"	2"
L5 X 5 X 1	1.42"	2"



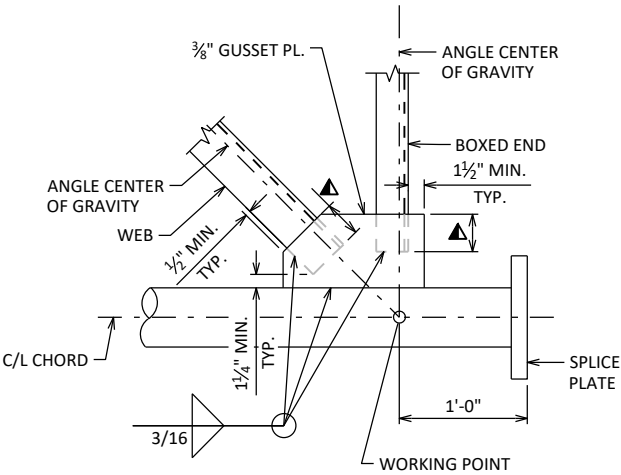
BOLTED COLUMN WEB CONNECTION

NOTE:

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

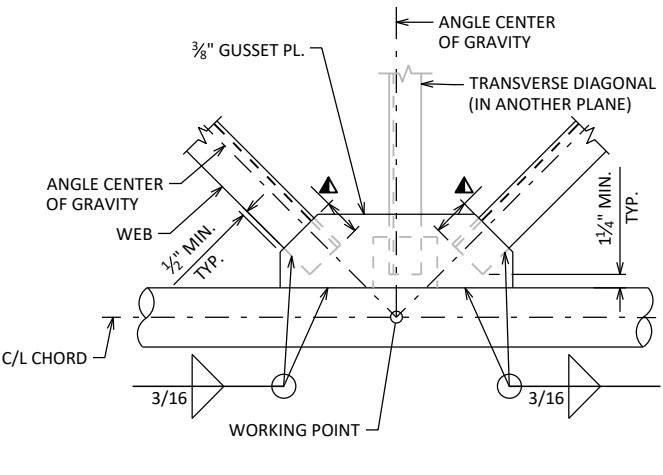
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D
4-CHORD TRUSS FULL SPAN CONNECTIONS 1		SHEET III	

SCALE = 3/8"

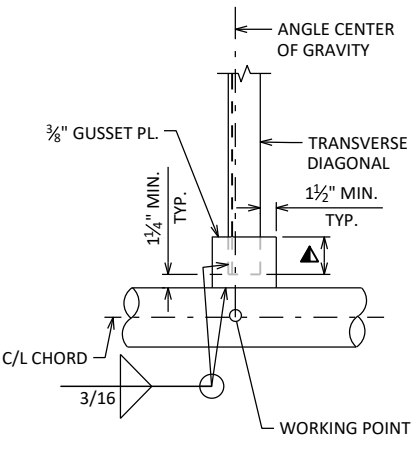


WELDED BOXED END CONNECTION

CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR

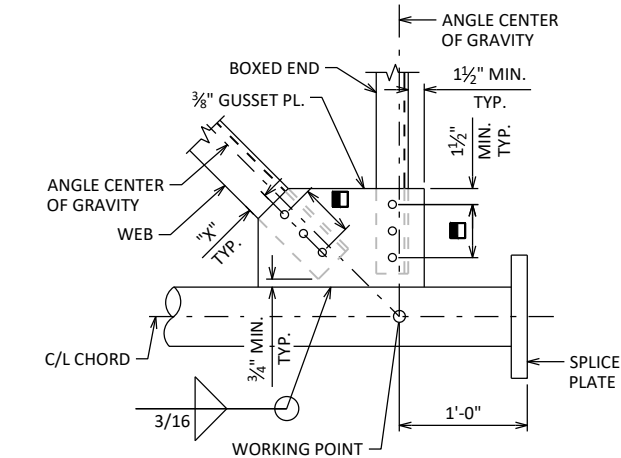


WELDED PANEL CONNECTION



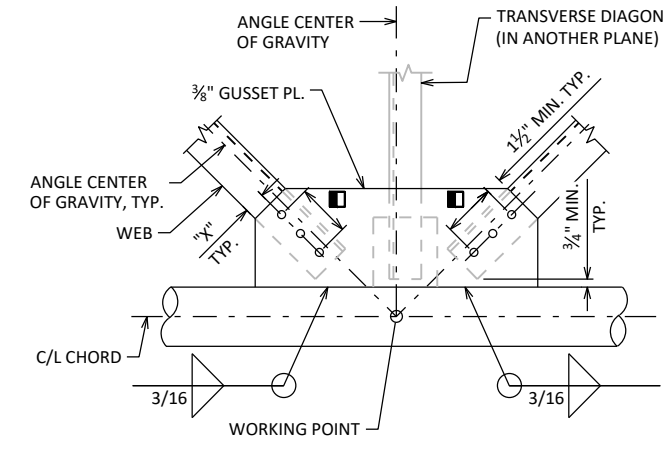
WELDED TRANSVERSE DIAGONAL CONNECTION

WEB MEMBERS NOT SHOWN FOR CLARITY

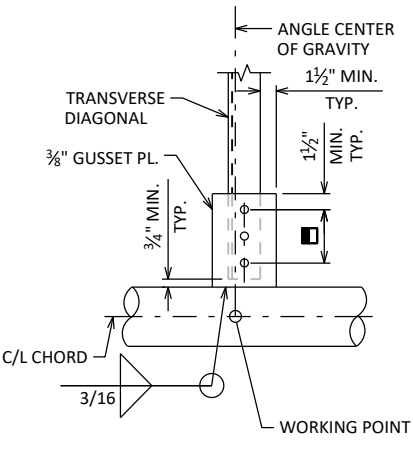


BOLTED BOXED END CONNECTION

CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR

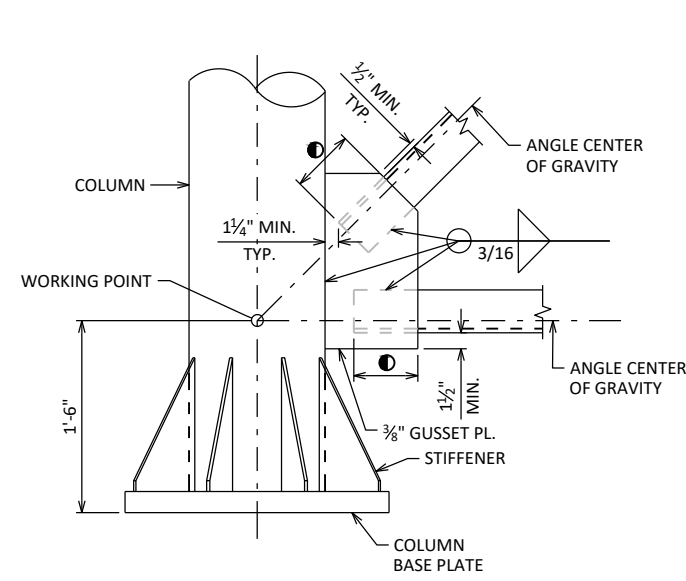


BOLTED PANEL CONNECTION



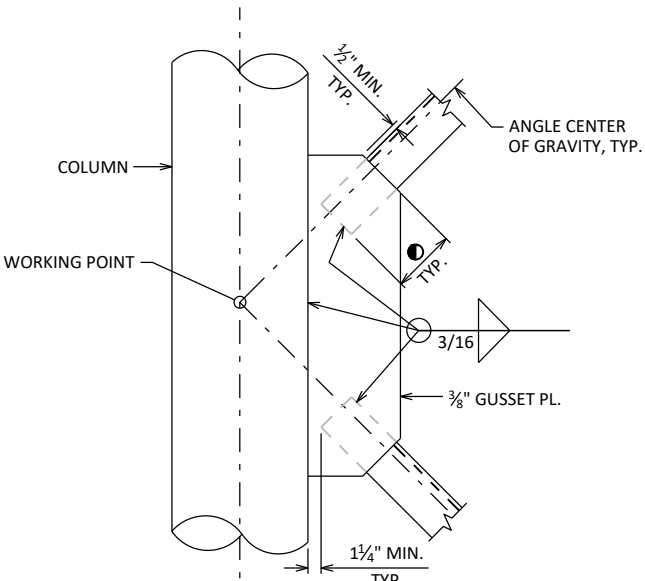
BOLTED TRANSVERSE DIAGONAL CONNECTION

WEB MEMBERS NOT SHOWN FOR CLARITY

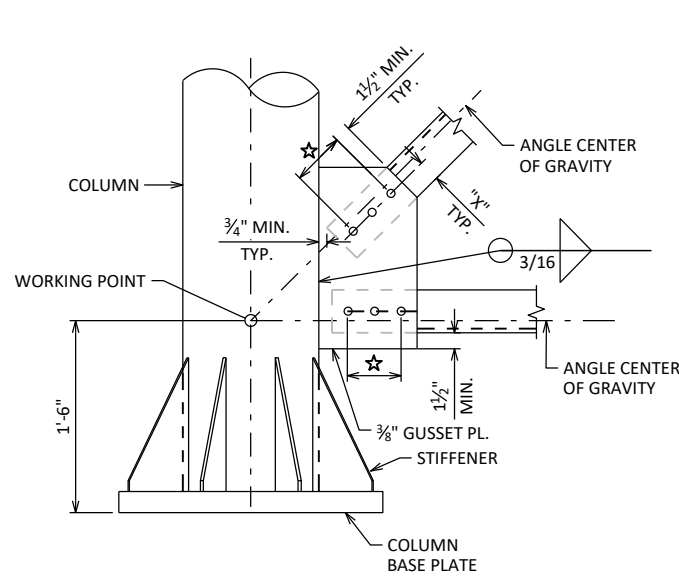


WELDED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR

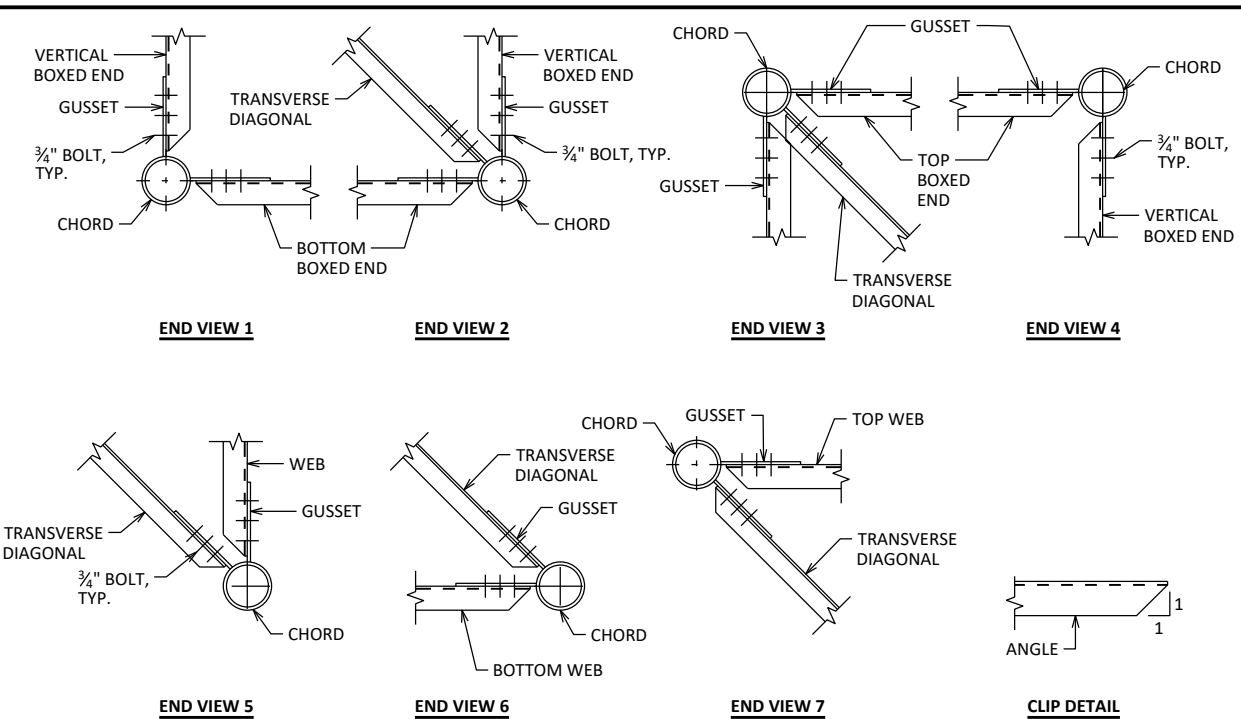


WELDED COLUMN WEB CONNECTION

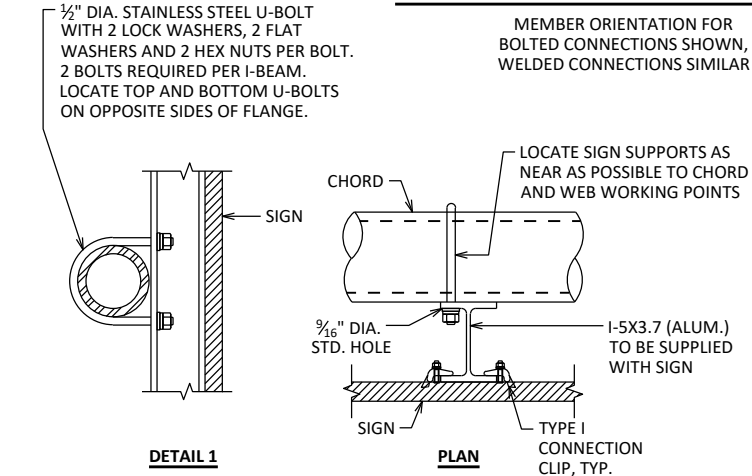


BOLTED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR

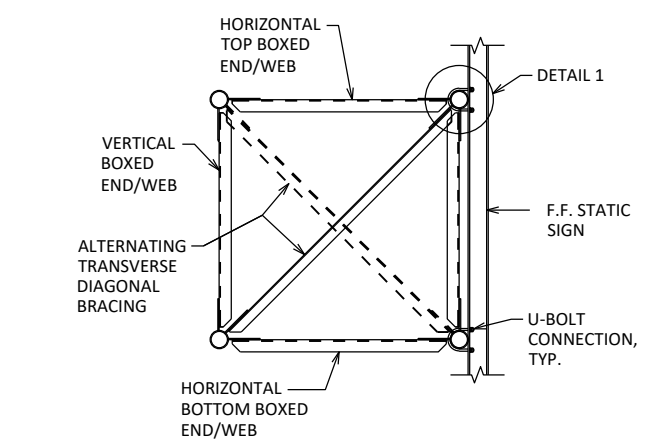


TRUSS CONNECTION DETAILS



TYPICAL SIGN CONNECTION

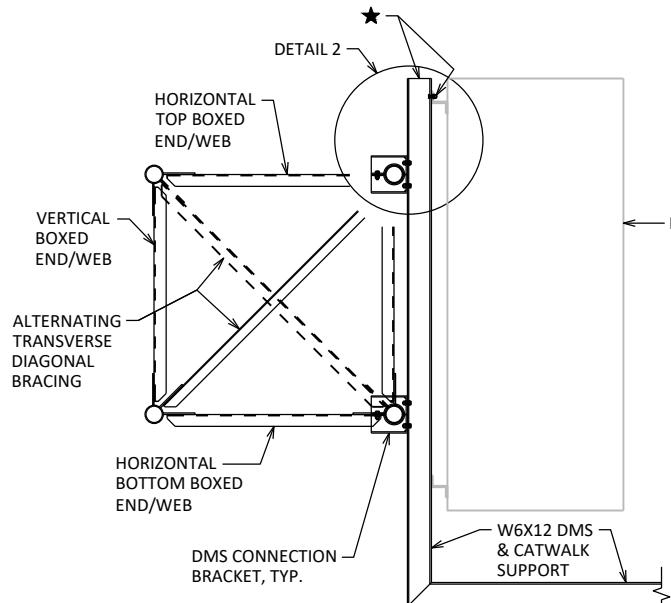
USE FOR TYPE I AND II SIGNS, TYPE I SIGN SHOWN. SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.



SECTION THRU TRUSS - STATIC SIGN

FOR SIGN CONNECTION

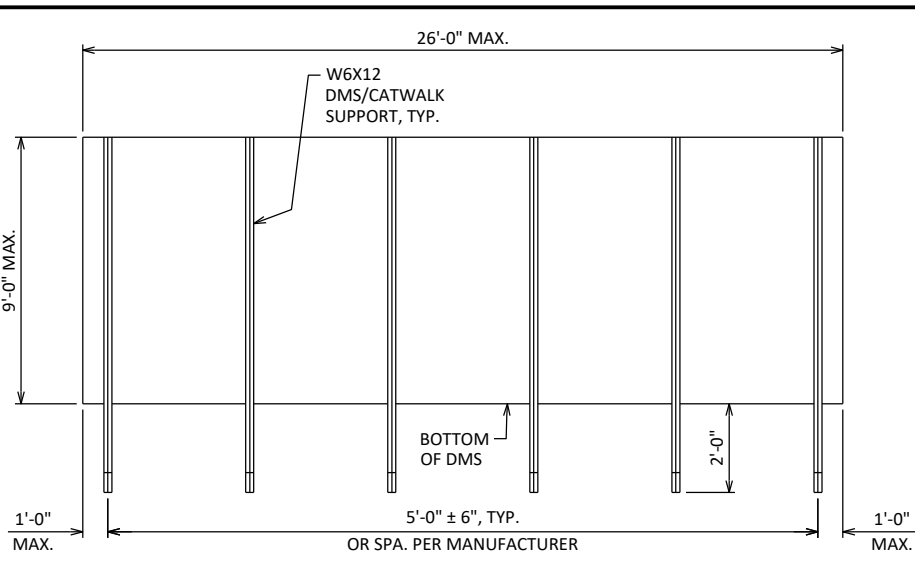
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL. HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



SECTION THRU TRUSS - DMS

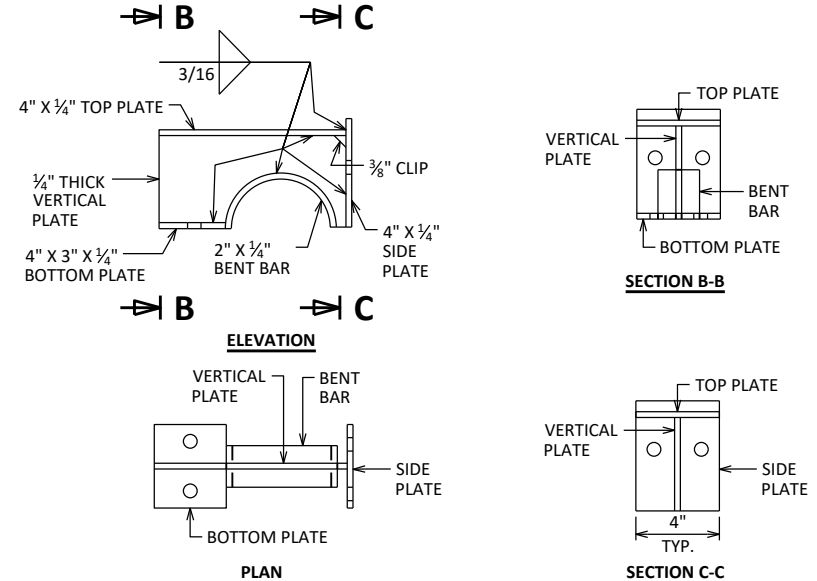
FOR DMS/CATWALK CONNECTIONS

★ 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.



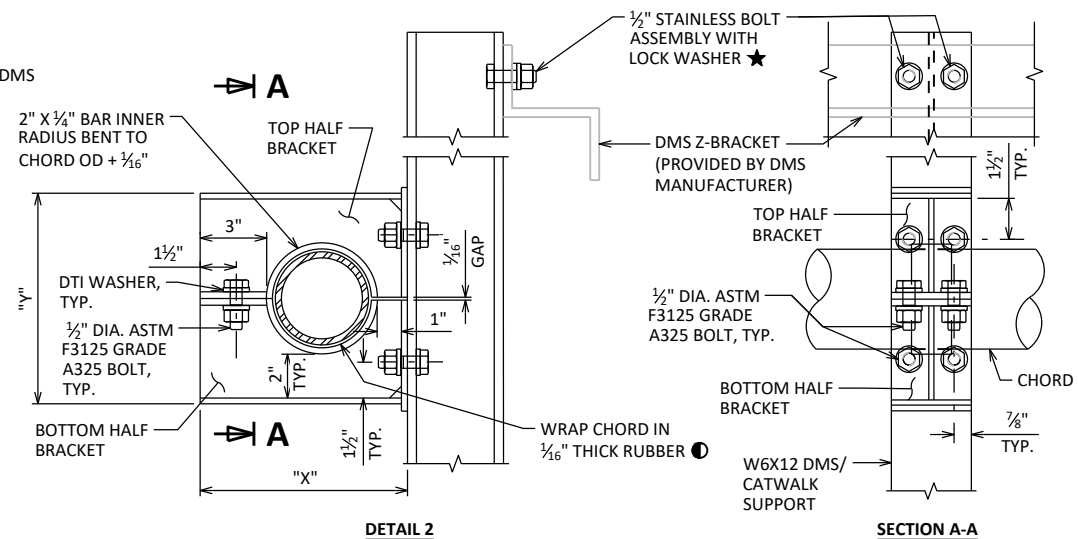
DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



DMS WELDED PLATE CONNECTION DETAILS

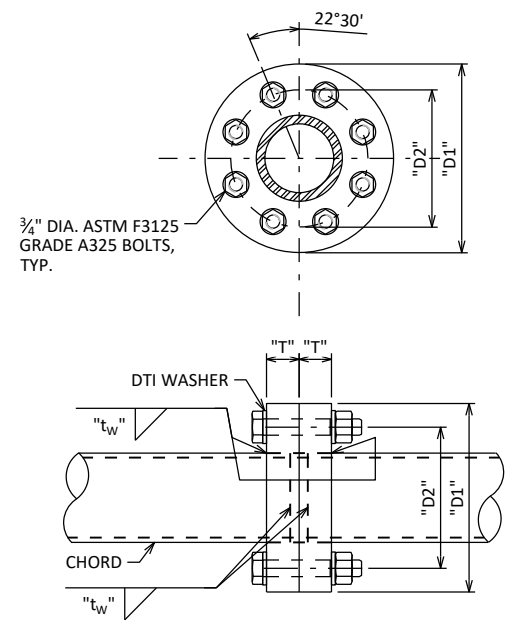
TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.



TYPICAL DMS CONNECTION

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

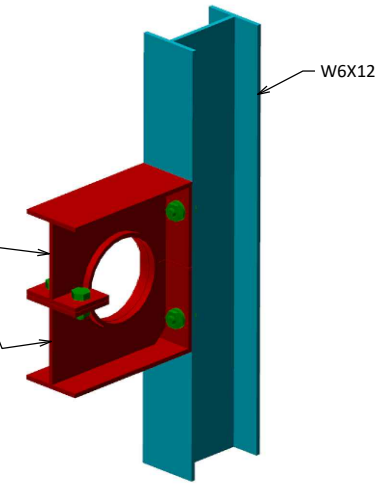
CHORD "OD"	"X"	"Y"
5.563"	10 3/8"	10 5/8"
6.625"	11 1/16"	11 1 1/16"



CHORD SPLICE PLATE DETAIL

CHORD SPLICE CONNECTION DATA

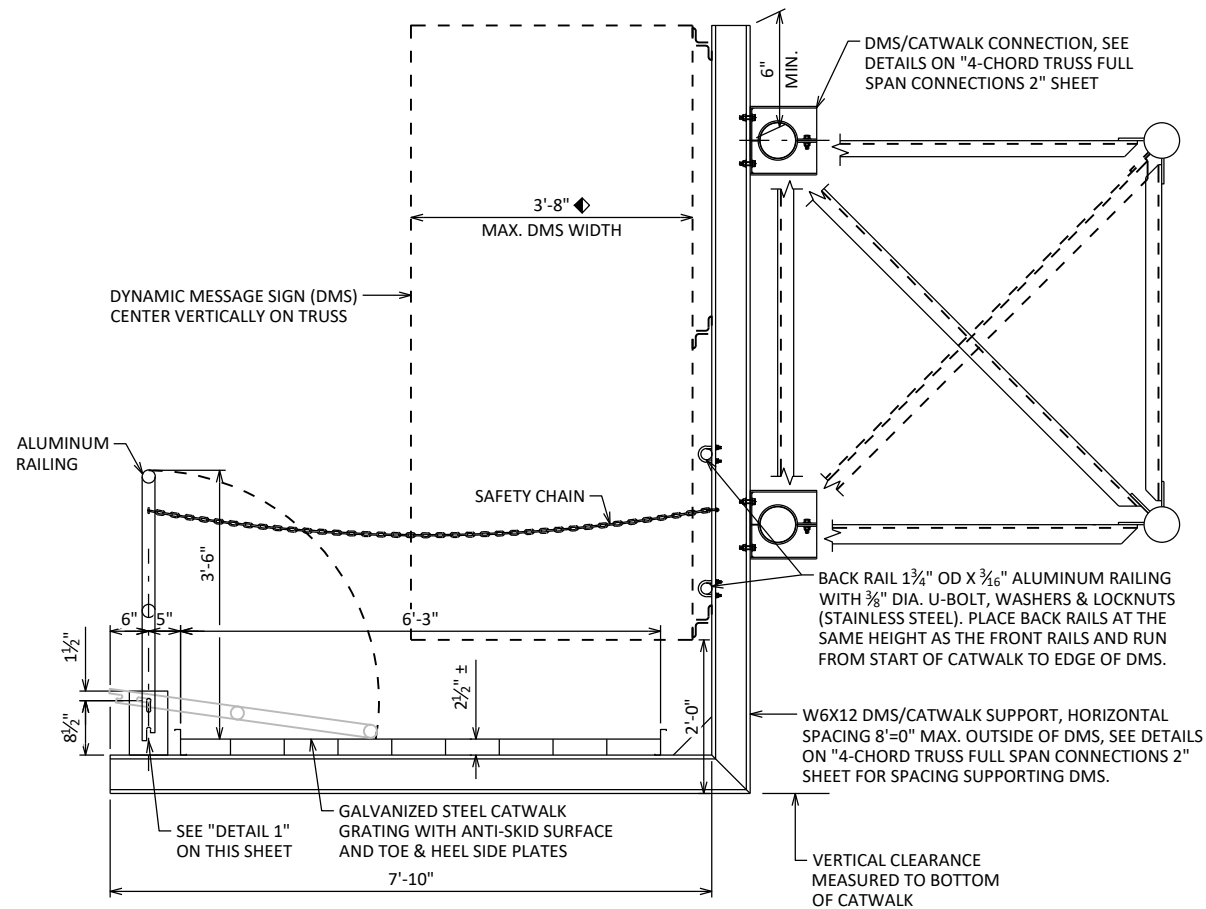
STANDARD DESIGN TYPE	"D1"	"D2"	"T"	"tw"	NO. OF BOLTS
I	11 5/8"	8 5/8"	1 1/2"	5/16"	8
II	11 5/8"	8 5/8"	1 1/2"	5/16"	8
III	11 5/8"	8 5/8"	1 1/2"	3/8"	8
IV	1'-0 5/8"	9 5/8"	1 1/2"	3/8"	8
V	1'-0 5/8"	9 5/8"	1 1/2"	3/8"	8



3-D VIEW OF DMS CONNECTION

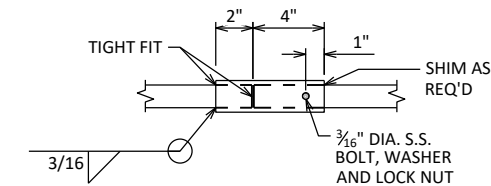
CHORD NOT SHOW FOR CLARITY

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



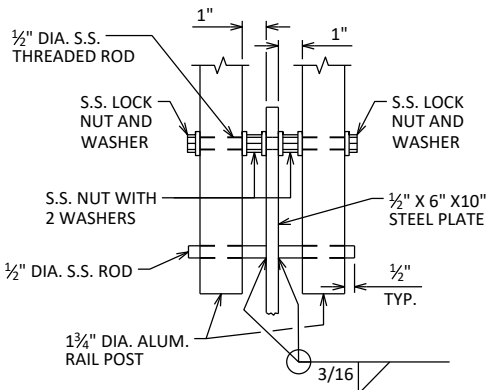
SECTION THRU WALKWAY

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"

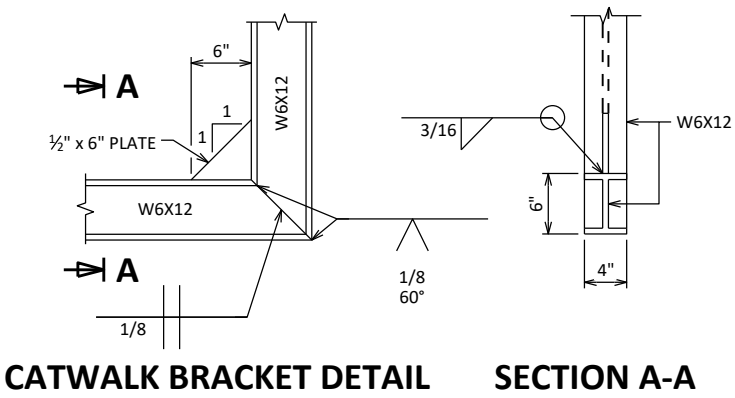


TYPICAL FRONT RAILING DETAILS

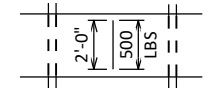
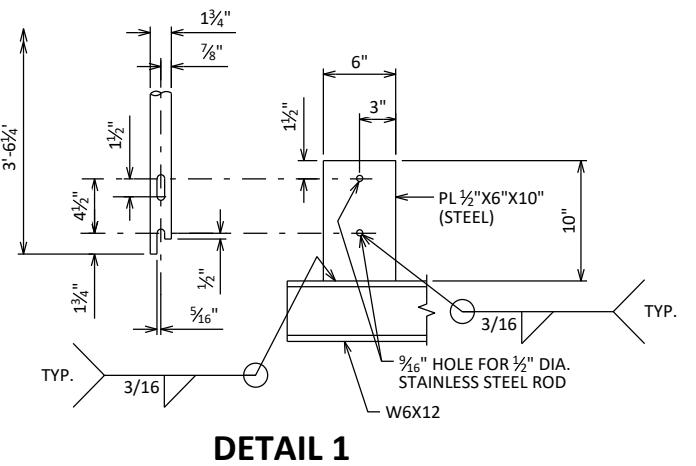
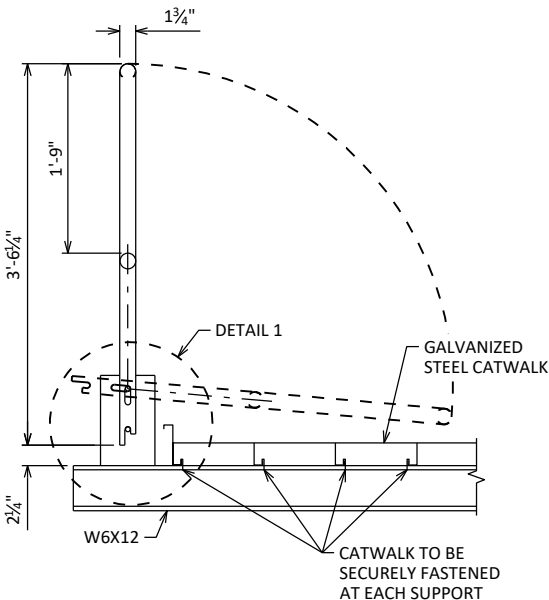
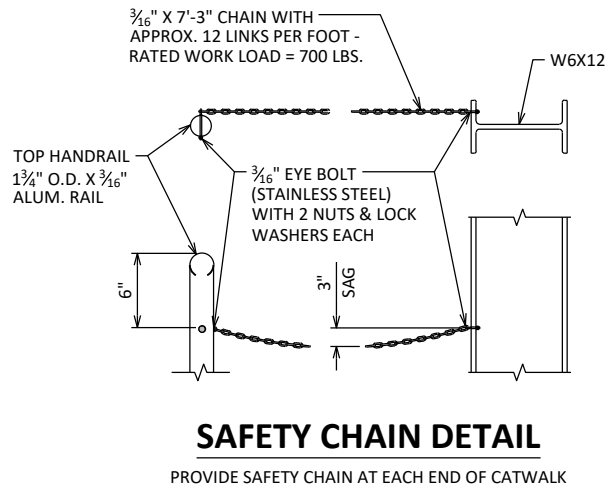
S.S. - STAINLESS STEEL

CATWALK TERMINATION DETAIL

CATWALK SPLICE LOCATION DETAIL



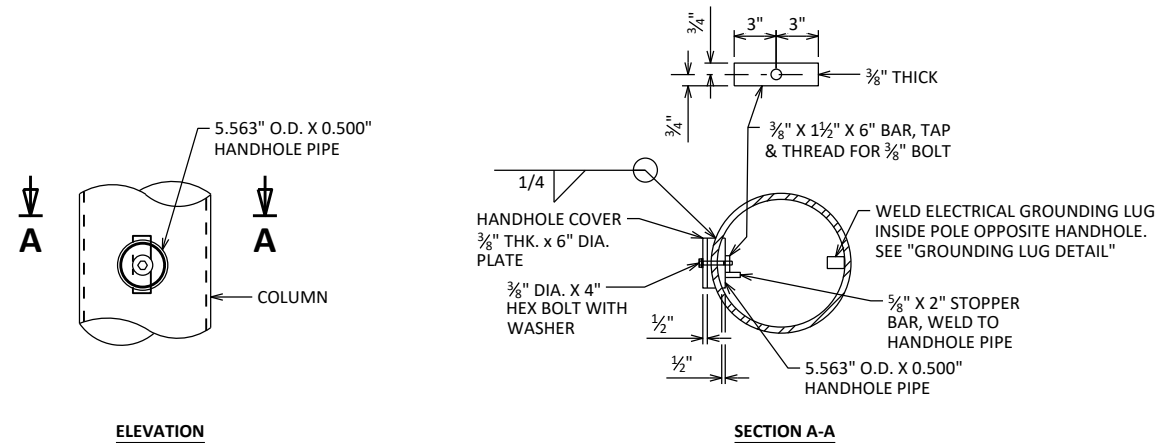
CATWALK BRACKET DETAIL SECTION A-A



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.

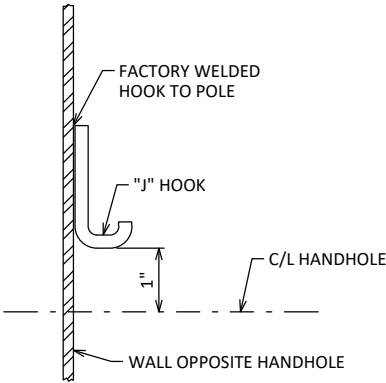
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
4-CHORD TRUSS FULL SPAN CATWALK DETAILS		SHEET V	



HANDHOLE DETAILS

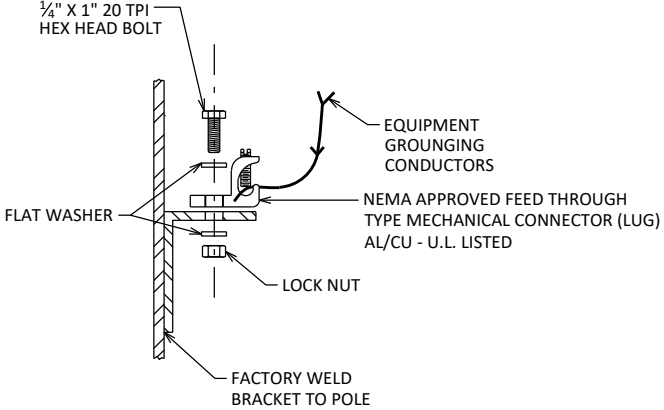
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION 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.



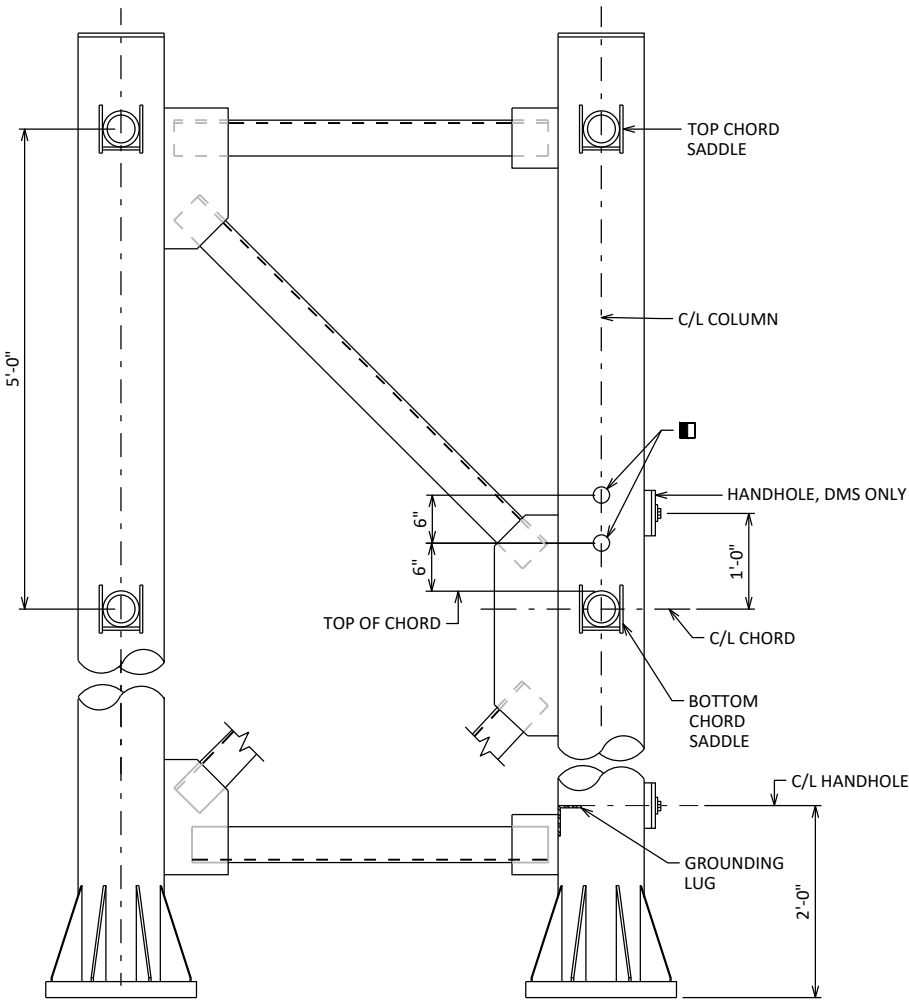
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF THE 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

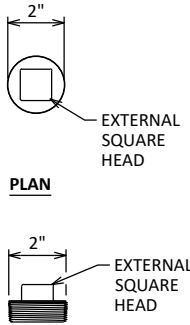
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



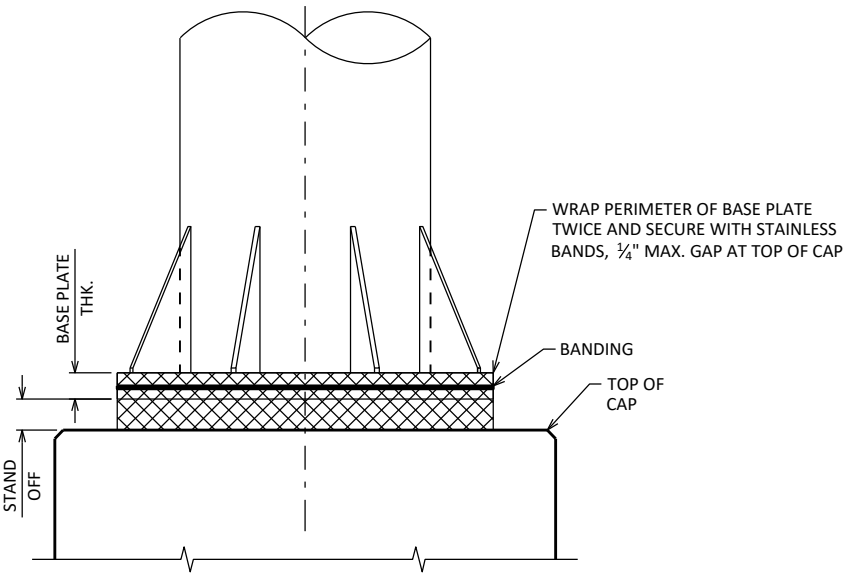
CONDUIT HOLE LOCATIONS

LOOKING AT INSIDE FACE OF COLUMN

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

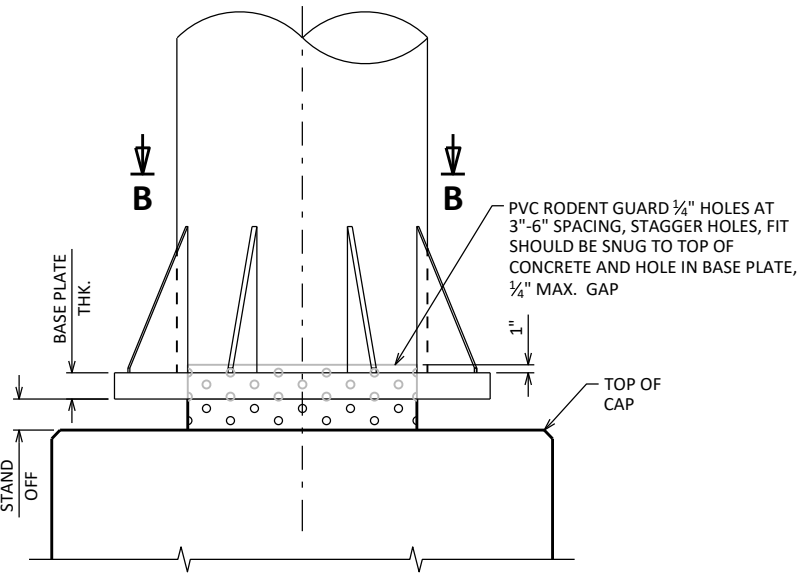


CONDUIT PLUG DETAILS



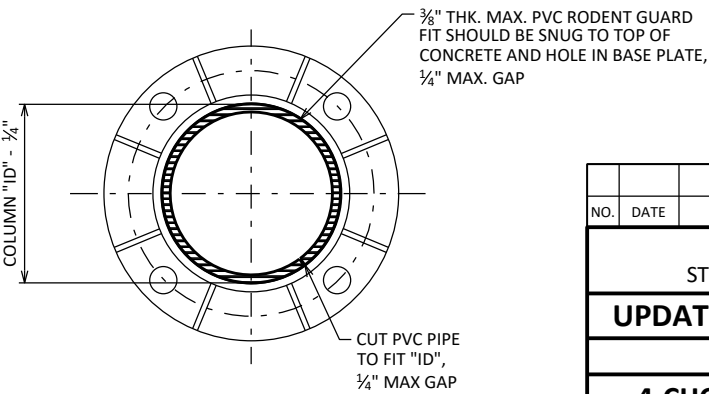
RODENT SCREEN

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



RODENT SCREEN - ALTERNATE

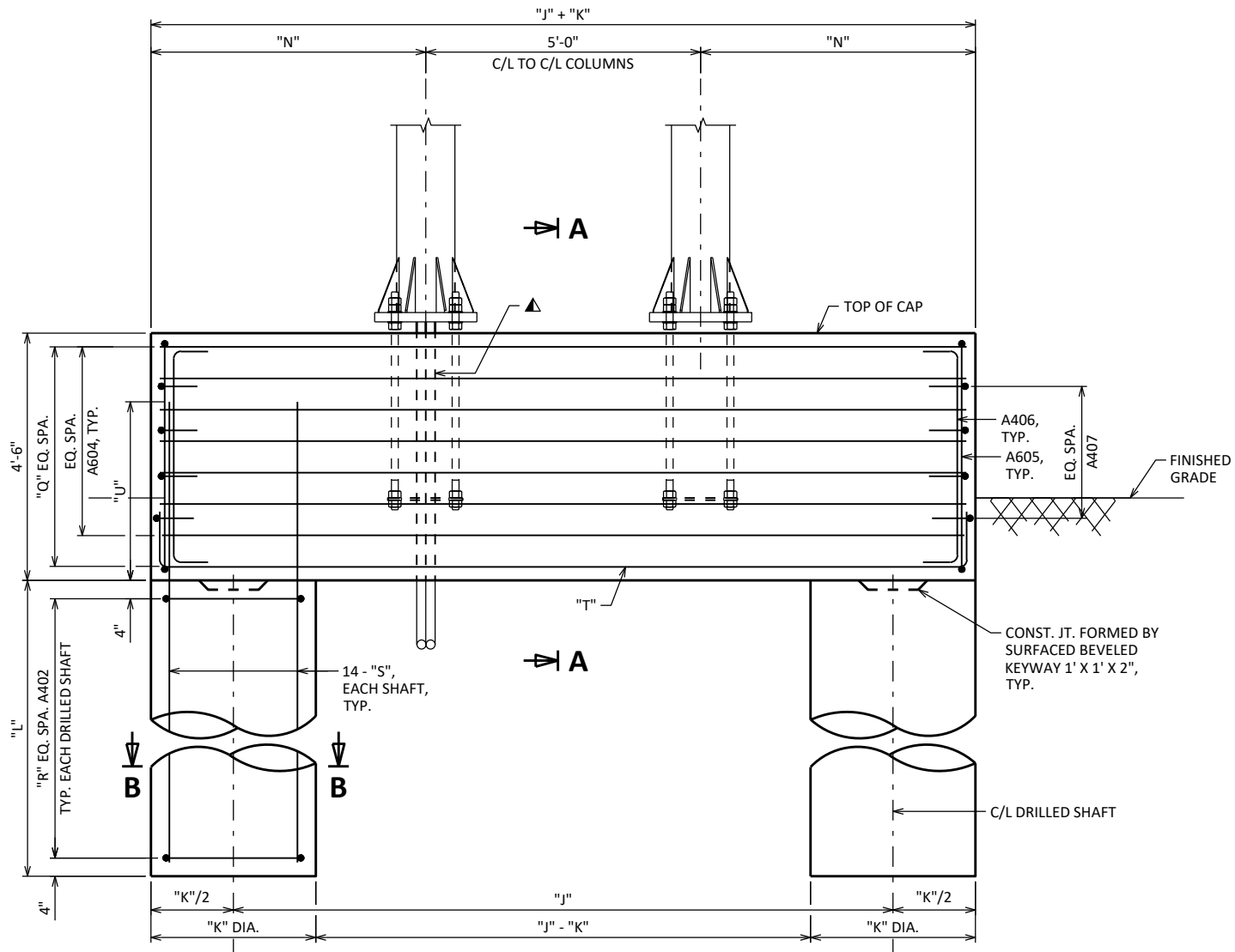
ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



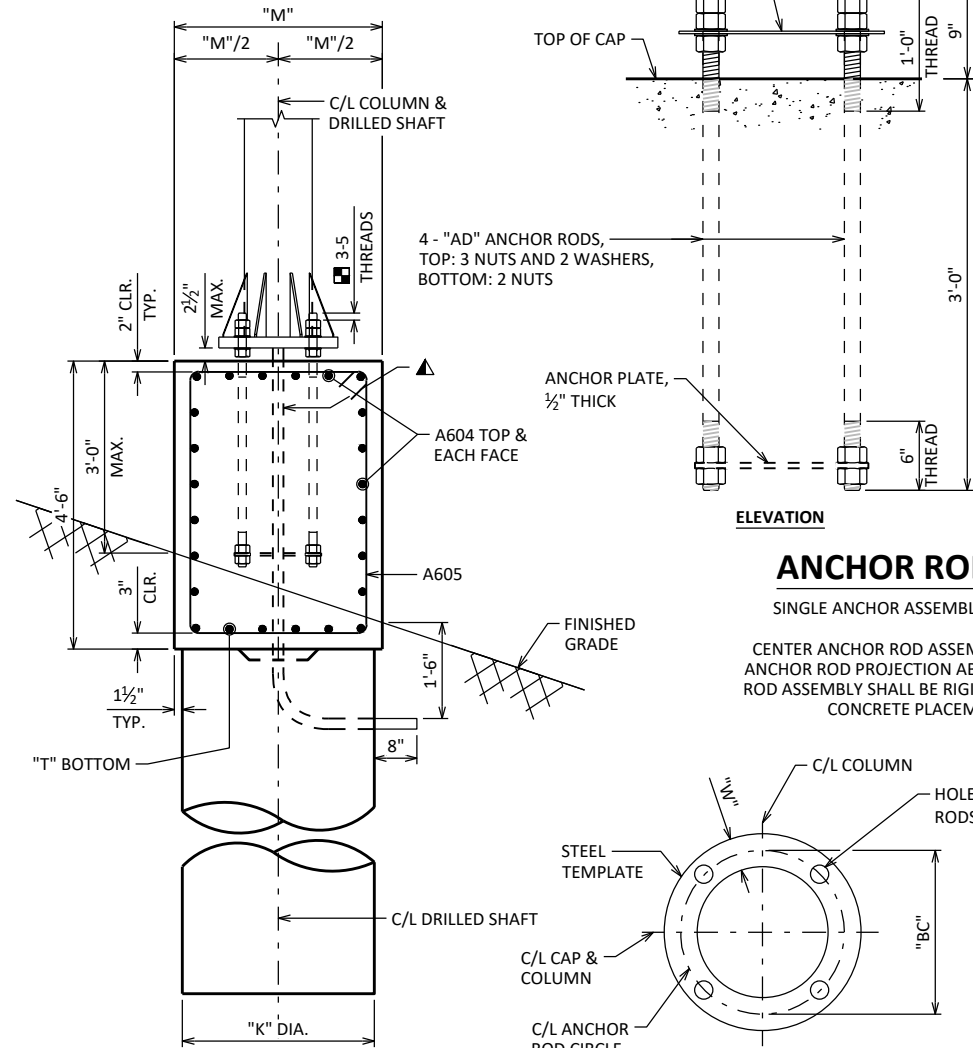
SECTION B-B

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 FULL SPAN ELECTRICAL DETAILS			SHEET VI

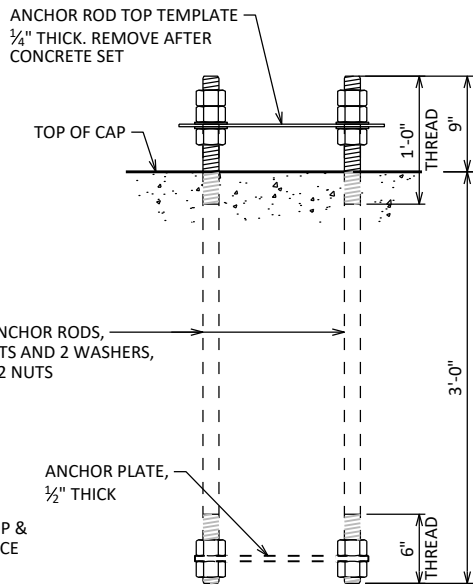
SCALE = 2:0



ELEVATION



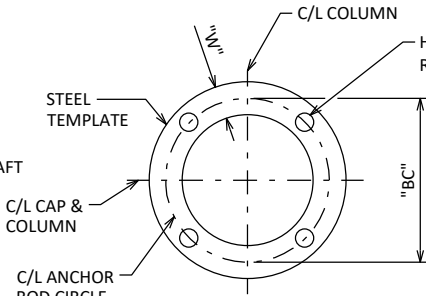
SECTION A-A



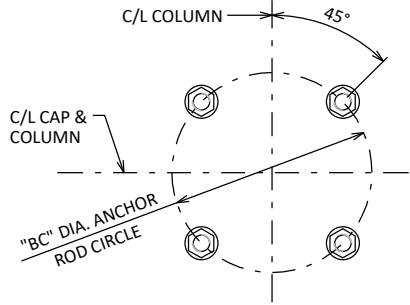
ANCHOR ROD ASSEMBLY DETAILS

SINGLE ANCHOR ASSEMBLY SHOWN, 4 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



ALTERNATE ANCHOR PLATE & TOP TEMPLATE

FOUNDATION, REINFORCING & ANCHOR PLATE DATA

STANDARD DESIGN TYPE	FOUNDATION DIMENSIONS											ANCHOR PLATE DIMENSIONS			
	"J"	"K"	"L"	"M"	"N"	"Q"	"R"	"S"	"T"	"U"	"V"	"AD"	"BC"	"BD"	"W"
I	9'-0"	3'-0"	19'-0"	3'-3"	3'-6"	7	19	A801	A603	2'-2"	23	1 1/2"	1'-6 3/4"	1'-1 1/4"	3"
II	12'-0"	3'-0"	22'-0"	3'-3"	5'-0"	7	22	A801	A603	2'-2"	29	1 1/2"	1'-6 3/4"	1'-1 1/4"	3"
III	12'-0"	3'-6"	23'-0"	3'-9"	5'-3"	7	23	A901	A703	2'-9"	30	1 3/4"	1'-6 3/4"	1'-1 1/4"	3 1/2"
IV	15'-0"	3'-6"	23'-0"	3'-9"	6'-9"	7	23	A901	A703	2'-9"	36	1 3/4"	1'-8"	1'-2 1/8"	3 1/2"
V	15'-0"	4'-0"	23'-0"	4'-3"	7'-0"	8	23	A1001	A703	3'-5"	37	1 3/4"	1'-10"	1'-3 5/8"	3 1/2"

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.

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 FULL SPAN FOUNDATIONS 1		SHEET VII	

SCALE = 3/0

BILL OF BARS

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

STANDARD DESIGN TYPE I

BAR MARK	COAT	NO.*REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	21'-3"			DRILLED SHAFT - VERTICAL
A402		80	9'-1"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	13'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	48	14'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

STANDARD DESIGN TYPE II

BAR MARK	COAT	NO.*REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	24'-3"			DRILLED SHAFT - VERTICAL
A402		92	9'-1"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	16'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	14'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	60	14'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

STANDARD DESIGN TYPE III

BAR MARK	COAT	NO.*REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		96	10'-7"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	17'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	15'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	62	15'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

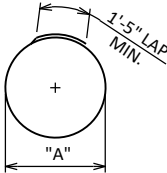
STANDARD DESIGN TYPE IV

BAR MARK	COAT	NO.*REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		96	10'-7"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	74	15'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

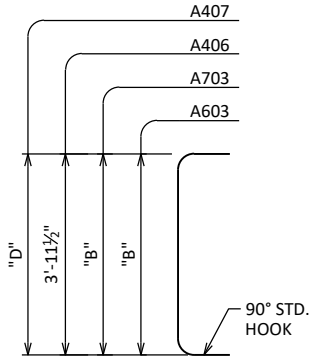
STANDARD DESIGN TYPE V

BAR MARK	COAT	NO.*REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		56	26'-6"			DRILLED SHAFT - VERTICAL
A402		96	12'-2"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	76	16'-10"	X		CAP - STIRRUP
A406	X	16	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	16	4'-5"	X		CAP - HORIZONTAL - EACH END

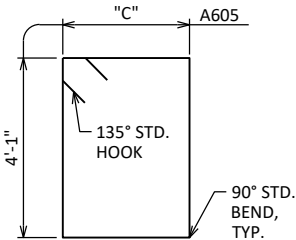
* VALUES SHOWN ARE FOR BOTH FOUNDATIONS, DIVIDE VALUES BY 2 IF A STANDARD FOUNDATION IS USED WITH A NON-STANDARD FOUNDATION.



A402



A603, A703, A406, A407



A605

STATE PROJECT NUMBER

STANDARD

STANDARD DESIGN TYPE	"A"	"B"	"C"	"D"
I	2'-5"	11'-7"	2'-11"	2'-9½"
II	2'-5"	14'-7"	2'-11"	2'-9½"
III	2'-11"	15'-1"	3'-5"	3'-3½"
IV	2'-11"	18'-1"	3'-5"	3'-3½"
V	3'-5"	18'-7"	3'-11"	3'-9½"

ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY	STEEL REINFORCEMENT HS	STEEL REINFORCEMENT HS COATED	ANCHOR ASSEMBLY 1.50-INCH	ANCHOR ASSEMBLY 1.75-INCH	FOUNDATION DRILLING (DIA.) (LF)		
	(CY)	(LBS)	(LBS)	(EACH)	(EACH)	36"	42"	48"
I	32.9	3,670	2,030	4	---	76	---	---
II	39.3	4,190	2,510	4	---	88	---	---
III	52.2	5,590	2,810	---	4	---	92	---
IV	55.9	5,590	3,330	---	4	---	92	---
V	69.7	7,170	3,540	---	4	---	---	92

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS. **
VALUES SHOWN ARE FOR BOTH FOUNDATIONS, DIVIDE VALUES BY 2 IF A STANDARD FOUNDATION IS USED WITH A NON-STANDARD FOUNDATION.

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 FULL SPAN FOUNDATIONS 2			SHEET VIII