

- 1.0 GENERAL NOTES
 - 1.1 ALL METRIC DIMENSIONS ARE IN BRACKETS [X.X]
 - 1.2 FOR PATENT INFO: <https://www.cs-pat.com>

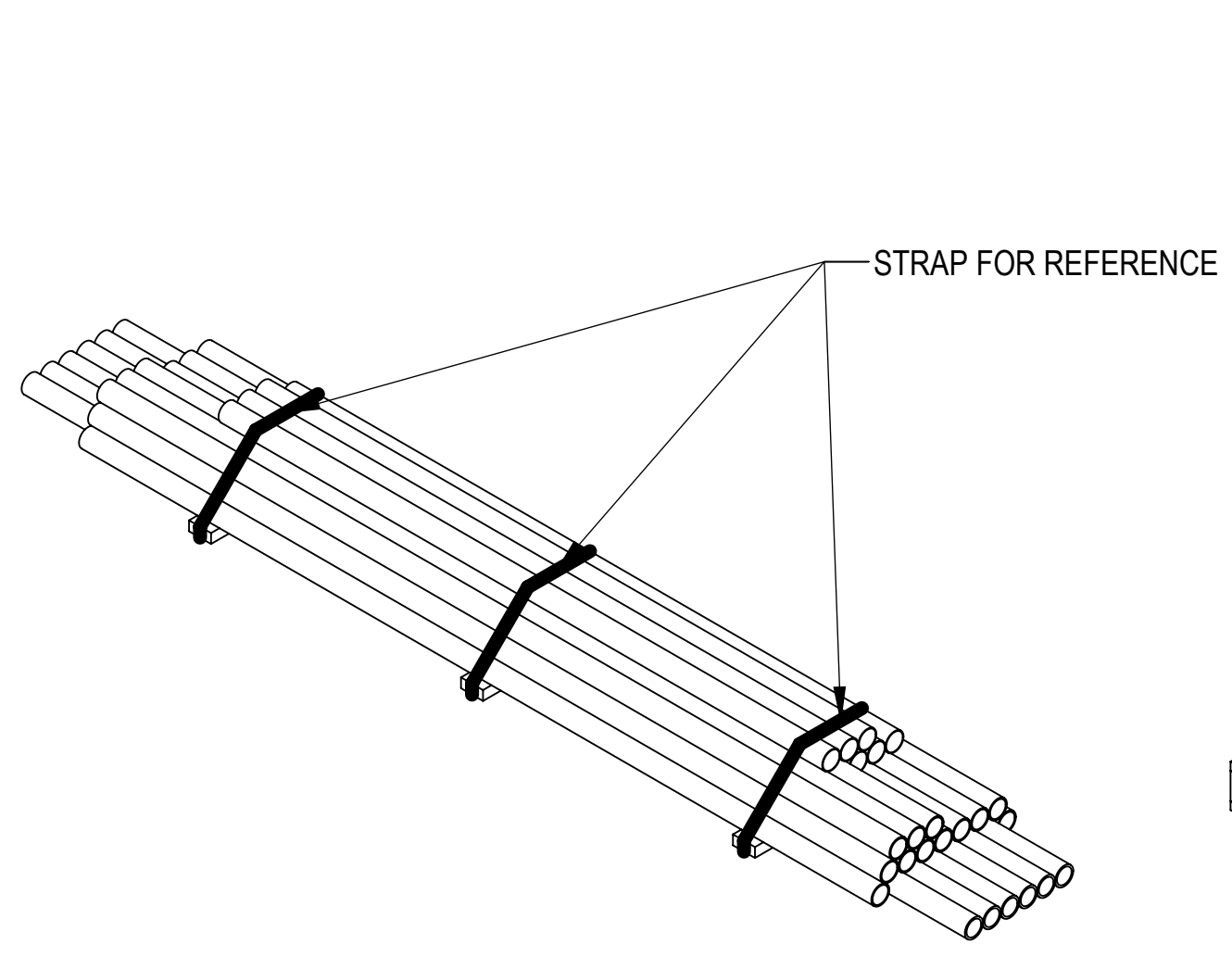
- 2.0 DESIGN NOTES
 - 2.1 ANY HAZARDS OR OBSTRUCTIONS TO THE CLIMBING FACILITY AND SAFETY CLIMB MUST BE IDENTIFIED PRIOR TO INSTALLING THE APPURTENANCE. ADDITIONAL PRODUCTS MAY BE REQUIRED TO MAINTAIN THE INTEGRITY OF THE SAFETY CLIMB. DURING INSTALLATION, TEMPORARY AND/OR PERMANENT PRECAUTIONARY MEASURES SHOULD BE TAKEN TO PRESERVE THE CLIMBING FACILITY AND/OR SAFETY CLIMB.

- 2.2 FITS MONOPOLES 15" TO 50" OD.
- 2.3 MIN RECOMMENDED POLE THICKNESS 3/16"

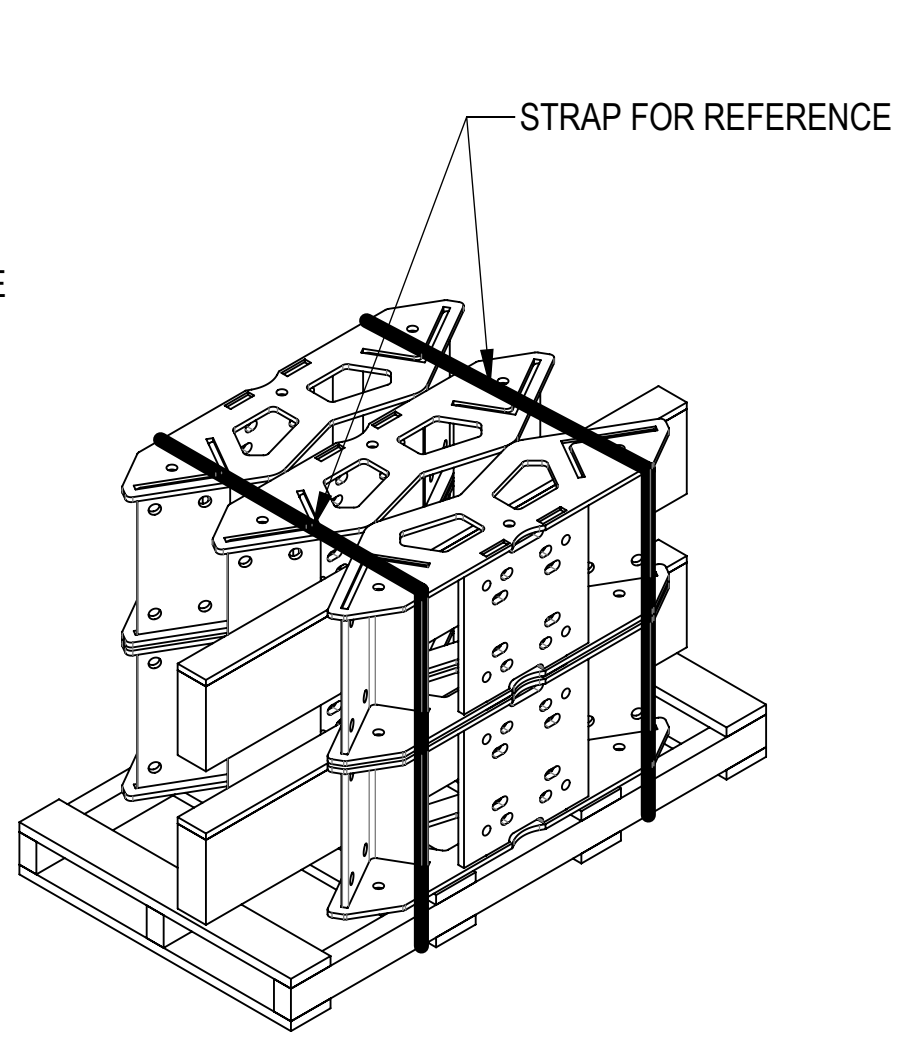
- 3.0 MANUFACTURING/SPECIAL REQUIREMENTS
 - 3.1 TIGHTEN ALL BOLTS SECURING FLAT PLATES BY THE TURN-OF-NUT METHOD. TIGHTEN ALL U-BOLTS USING TURN-OF-NUT METHOD WITH ATTENTION TO LEAVE EQUAL DISTANCE AND EQUAL FORCE ON EACH LEG OF THE U-BOLT.

- 4.0 TEST
- 5.0 PACKAGING
 - 5.1 PACKAGING SHALL MEET COMMSCOPE REQUIREMENTS PER DOCUMENT IS-PL-3005.
 - 5.2 PRINTED DOCUMENT TO BE PLACED INSIDE POLYBAG AND THEN IN SHIPPING CONTAINER.
 - 5.3 EXTRA HARDWARE MAY BE SUPPLIED, BAGGED AND SHIPPED.

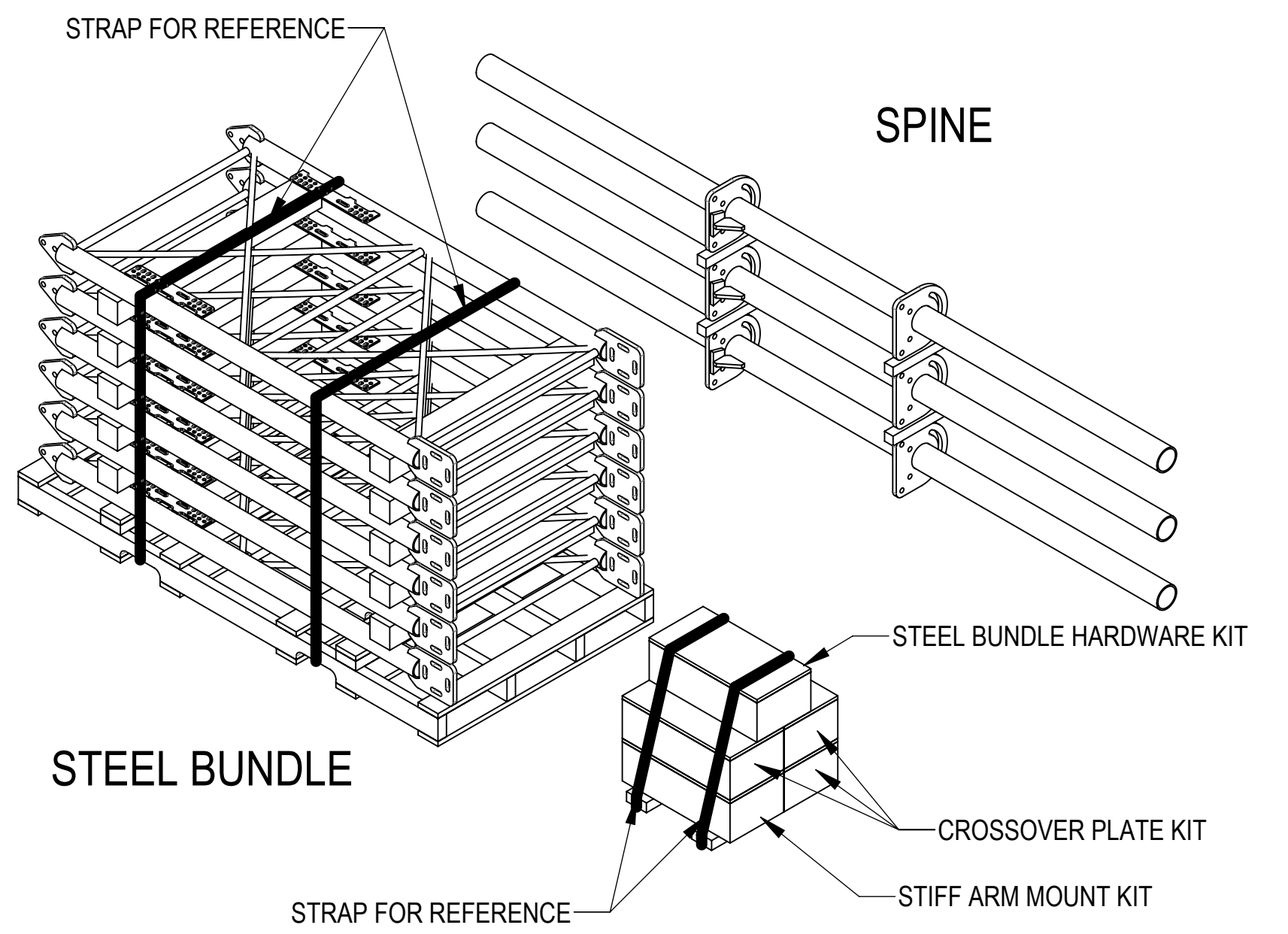
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	RY1002 21NOV23	YC1015 40183018CMO
B	ADDED MCG23RHDXL-11MB, MCG23RHDXL-11M996, MCG23RHDXL-11M9126, MCG23RHDXL-13MB, MCG23RHDXL-13M1296, MCG23RHDXL13M12126, MCG23RHDXL-15MB, MCG23RHDXL-15M1596, MCG23RHDXL15M15126, MCG23RHDXL-15M1296 AND MCG23RHDXL15M12126 TO SERIES	RY1002 11DEC23	YC1015 40182550CMO
C	UPDATED EPA DATA	RY1002 18JAN24	YC1015 40187155CMO
D	CHG PALLET FROM QVPALLET TO 74X38PALLET; UPDATED SFG23180-00 TO ADD UNIVERSAL INTERFACE PLATES	RY1002 25JUL24	XK1001 40200655CMO



PIPE BUNDLE



RING MOUNT



STEEL BUNDLE

SPINE

STRAP FOR REFERENCE

STEEL BUNDLE HARDWARE KIT

CROSSOVER PLATE KIT

STIFF ARM MOUNT KIT

COMMSCOPE, INC. OF NORTH CAROLINA											
TOLERANCES						SAP MATERIAL MASTER					
1 PLACE .X[X] ± 0.2[6.3]			3 PLACE .XXX[X] ± 0.060[1.5]			SEE TABLE 1					
2 PLACE .XX[X] ± 0.12[3.0]			ANGLES ± 2°								
FINISH						MATERIAL					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES INTERPRET PER ANSI Y 14.5M-1994		NAME		DATE		TITLE					
		CE RY1002		06NOV23		MCG23RHDXL SECTOR FRAME SERIES					
		RW RY1002		07/30/2024							
		AD XK1001		08/01/2024		SCALE		DOCUMENT NO.			
		RE RY1002		08/14/2024		1:18		MCG23RHDXL			
ECN 40200655CMO											
DENSITY		lbs/in³				SIZE		Auth Group		INSL	
MASS		lbs				C		⊕		△	
VOLUME		in³				VERSION		STATUS		REVISION	
SURFACE AREA		in²				02		RE		C	
HEIGHT						MODEL		DRAWING		SHEET	
LENGTH						VERSION		STATUS		REVISION	
WIDTH						03		RE		D	
										1 OF 10	

PART NUMBERS, WEIGHTS, & EPA

TABLE 1: CONFIGURATIONS

PART NUMBER	DESCRIPTION	WEIGHT (LBS)	(EPA)A (FT ²)*	(EPA)A 1/2" ICE THICKNESS (FT ²)*	ANTENNA PIPES	INCLUDED PARTS																												
						MC-RM1550-3D	MCG23HDX-HK02	MCG23RHDXL-SB01	MCG23RHDXL-HK01	PB0608B0611P	PB0608B0908K0611P	PB0608B0910K0611P	PB0608B0612P	PB0608B1208K0612P	PB0608B1210K0612P	PB0608B0613P	PB0608B1208K0613P	PB0608B1210K0613P	PB0608B0614P	PB0608B1208K0614P	PB0608B1210K0614P	PB0608B0615P	PB0608B1208K0615P	PB0608B1210K0615P	PB0608B1508K0615P	PB0608B1510K0615P	XP-2525-4	XP-2525-6	XP-2525-8	SFG2204	SFG23100			
MCG23RHDXL-11MB	MONO 3 SCTR FR 11' FACE,NO AP	2284.76	28.25	42.12	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3		
MCG23RHDXL-11M996	MONO 3 SCTR FR 11' FACE,(9) 96" ANT	2849.08			9	1	1	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3
MCG23RHDXL-11M9126	MONO 3 SCTR FR 11' FACE,(9) 126" ANT	2984.85			9	1	1	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	
MCG23RHDXL-12MB	MONO 3 SCTR FR 12' FACE,NO AP	2353.96	29.21	43.39	-	1	1	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3		
MCG23RHDXL-12M1296	MONO 3 SCTR FR 12' FACE,(12) 96" ANT	3106.39			12	1	1	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3
MCG23RHDXL12M12126	MONO 3 SCTR FR 12' FACE,(12) 126" ANT	3287.41			12	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	
MCG23RHDXL-13MB	MONO 3 SCTR FR 13' FACE,NO AP	2377.02	29.53	43.82	-	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3		
MCG23RHDXL-13M1296	MONO 3 SCTR FR 13' FACE,(12) 96" ANT	3129.46			12	1	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3
MCG23RHDXL13M12126	MONO 3 SCTR FR 13' FACE,(12) 126" ANT	3310.48			12	1	1	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3
MCG23RHDXL-14MB	MONO 3 SCTR FR 14' FACE,NO AP	2446.22	30.48	45.09	-	1	1	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	3	3		
MCG23RHDXL-14M1296	MONO 3 SCTR FR 14' FACE,(12) 96" ANT	3198.65			12	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	3	3	3
MCG23RHDXL14M12126	MONO 3 SCTR FR 14' FACE,(12) 126" ANT	3379.68			12	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	3	3	3
MCG23RHDXL-15MB	MONO 3 SCTR FR 15' FACE,NO AP	2469.29	30.80	45.51	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	3	3	
MCG23RHDXL-15M1296	MONO 3 SCTR FR 15' FACE,(12) 96" ANT	3221.72			12	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	3	3	3
MCG23RHDXL15M12126	MONO 3 SCTR FR 15' FACE,(12) 126" ANT	3402.74			12	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3	3	3
MCG23RHDXL-15M1596	MONO 3 SCTR FR 15' FACE,(15) 96" ANT	3409.83			15	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	3	-	3	3	
MCG23RHDXL15M15126	MONO 3 SCTR FR 15' FACE,(15) 126" ANT	3636.11			15	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	3	-	3	3		

* (EPA)A DOES NOT INCLUDE ANTENNA PIPES AND MOUNTING HARDWARE. IF DESIRED, ADD ANTENNA PIPE PER TABLE 2

TABLE 2: EPA OF EACH ANTENNA PIPE

ANTENNA PIPE	(EPA)A (FT ²)	(EPA)A W/ 1/2" ICE THICKNESS (FT ²)
2-7/8" X 96"	1.84	2.48
2-7/8" X126"	2.42	3.26

NOTE:

- ANTENNA PIPES ARE CONSIDERED SEPARATELY.
- KA FACTOR OF 3-SECTOR EPA INCLUDED.
- COMBINE THE ASSOCIATED EPA VALUES IN THE TABLES ABOVE TO DETERMINE THE EPA OF A MOUNT MODEL WITH A LISTED MOUNT PIPE CONFIGURATION. FOR EXAMPLE: MCG23RHDXL-12M1296 HAS A 3-SECTOR EPA OF 29.21 FT² WITH NO ICE PLUS 12 ANTENNA PIPES WITH A 3-SECTOR EPA OF 12X1.84=22.08 FT² WITH NO ICE. SO, THE TOTAL EPA OF 51.29 FT² FOR THE MCG23RHDXL-12M1296.

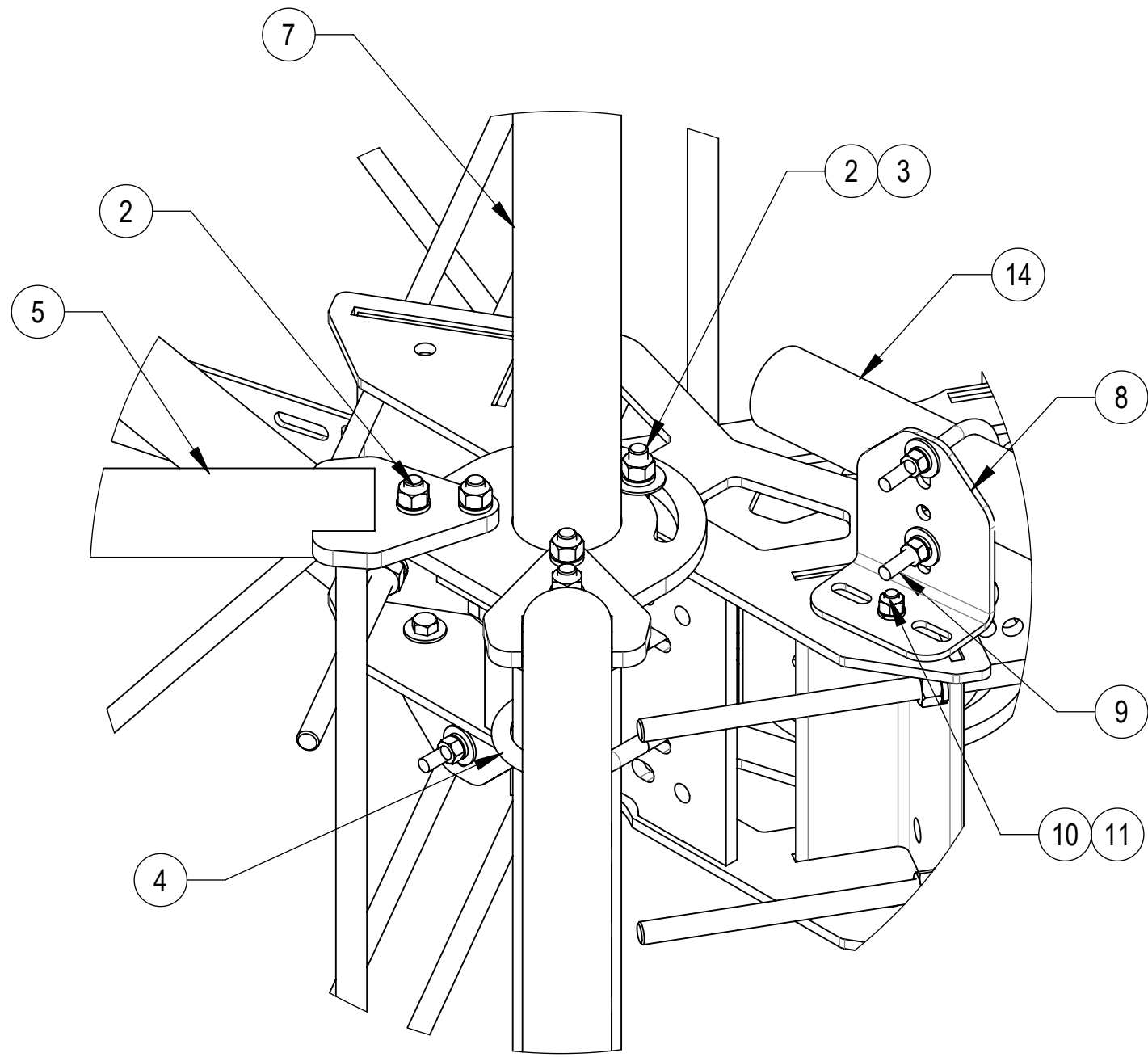
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TITLE MCG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:30	DOCUMENT NO. MCG23RHDXL		
DRAWING				SHEET
VERSION 03	STATUS RE	REVISION D	2 OF 10	

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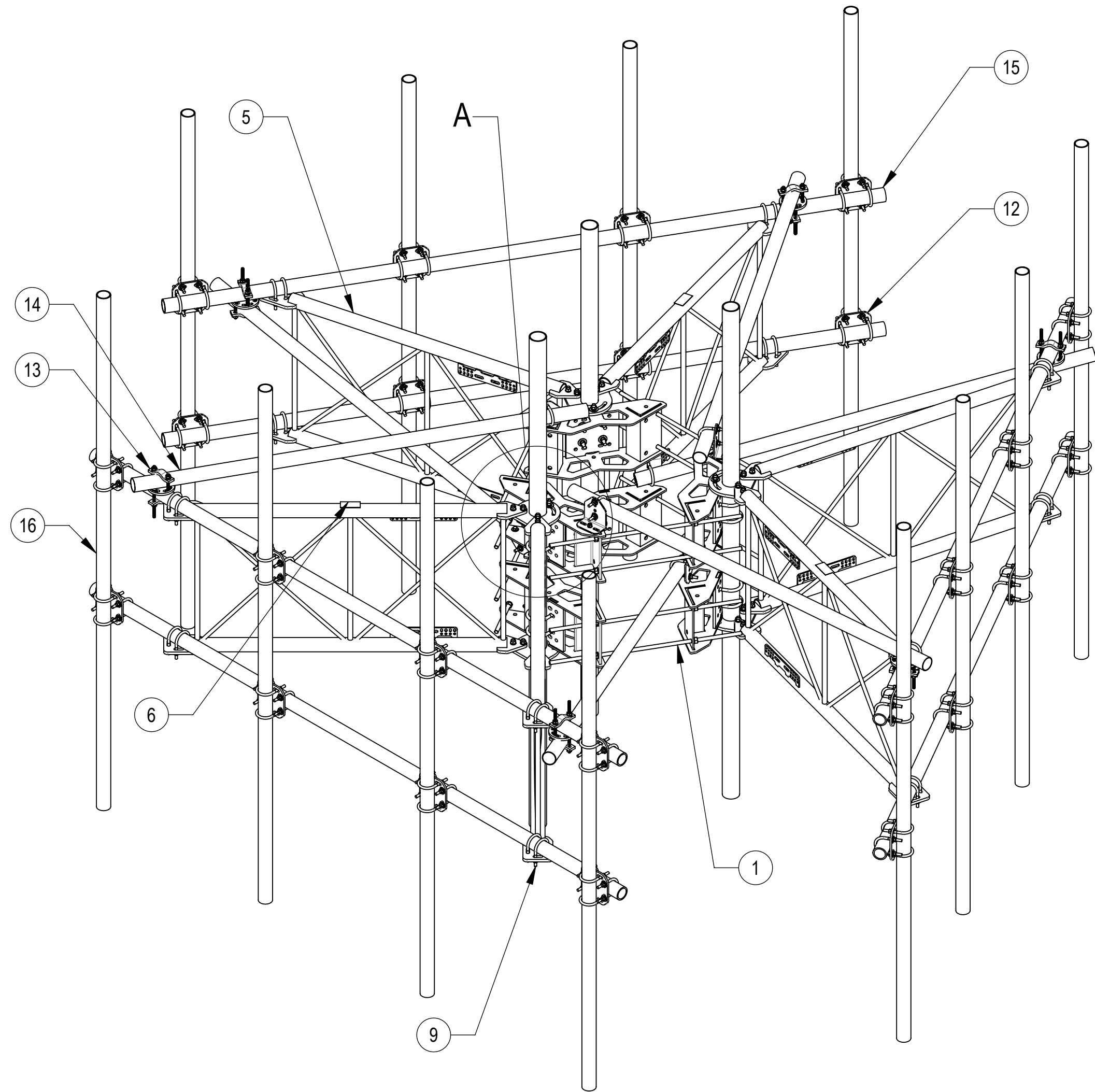
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1



DETAIL A
SCALE 1 : 5



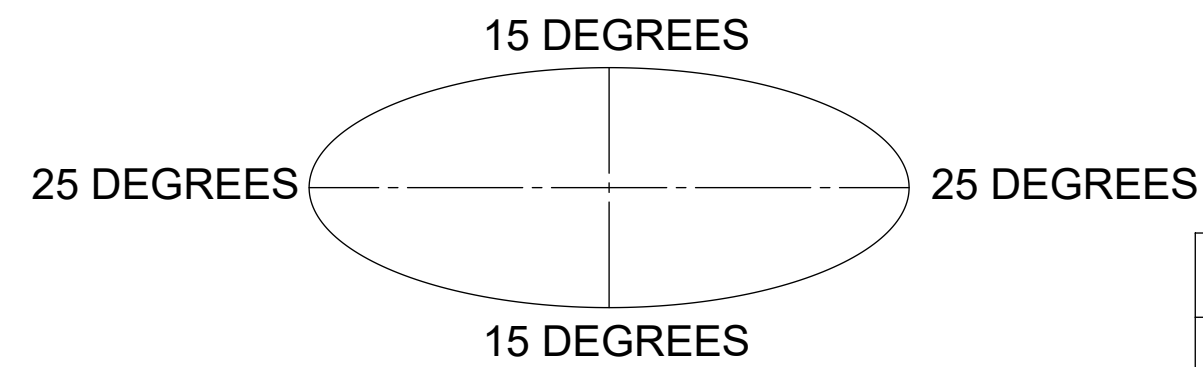
TOP
↓
BOTTOM

MCG23RHDXL12M12126 SHOWN FOR REFERENCE
(NOT ALL CONFIGURATIONS INCLUDE ALL ITEMS SEE NOTES IN TABLE)

COMPONENT PART NUMBERS PROVIDED FOR ASSEMBLY PURPOSES;
INDIVIDUAL COMPONENTS MAY BE SHIPPED AS PARTS WITHIN AN INCLUDED KIT.

ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT	NOTE NO.
1	MC-RM1550-3	15" - 50" OD RINGMOUNT	2	229.90 LBS	
2	GB-05225	5/8" X 2-1/4" GALV BOLT KIT	30	0.28 LBS	
3	GWF-05	5/8" GALV FLAT WASHER, 1.7OD	6	0.06 LBS	
4	GUB-53560	5/8" X 3-5/8" X 6" GALV U-BOLT	12	1.30 LBS	
5	SFG23180-00	ARM, STANDOFF, SFG23	6	123.43 LBS	
6	SFG23100	LABEL, SFG23RHDXL	3	0.04 LBS	
7	SFG2204	WELDMENT, BACK VERTICAL ARM MOUNT	3	97.29 LBS	
8	XAU01	ANGLE, CROSSOVER, 1.9-3.5" X 1.9-3.5" OD	6	2.98 LBS	
9	GUB-4352	1/2" X 3" X 5-1/4" GALV U-BOLT	30	0.71 LBS	
10	GB-04145	1/2" X 1-1/2" GALV BOLT KIT	6	0.13 LBS	
11	GWF-04	1/2" GALV FLAT WASHER	6	0.04 LBS	
12	XP-2525	CROSSOVER PLATE KIT, 2-7/8 OD X 2-7/8 OD	24	8.37 LBS	QTY SEE INDIVIDUAL DRAWING
13	XP-R	CROSSOVER PLATE, ROUND, UP TO 3.5" OD	6	6.20 LBS	
14	MT54696120	PIPE, 2.875"OD X 96"	6	28.35 LBS	
15	MT546150276	PIPE, 2.875"OD X 150"	6	96.11 LBS	PART NO. SEE INDIVIDUAL DRAWING
16	MT-546-126	PIPE, 2.875"OD X 126"	12	61.05 LBS	PART NO. AND QTY SEE INDIVIDUAL DRAWING

ALLOWABLE TIEBACK ANGLE
+15 DEGREES VERTICAL
±25 DEGREES HORIZONTAL



COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE MCG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:20	DOCUMENT NO. MCG23RHDXL		
DRAWING		VERSION	STATUS	REVISION
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				SHEET 3 OF 10

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4

3

2

1

4

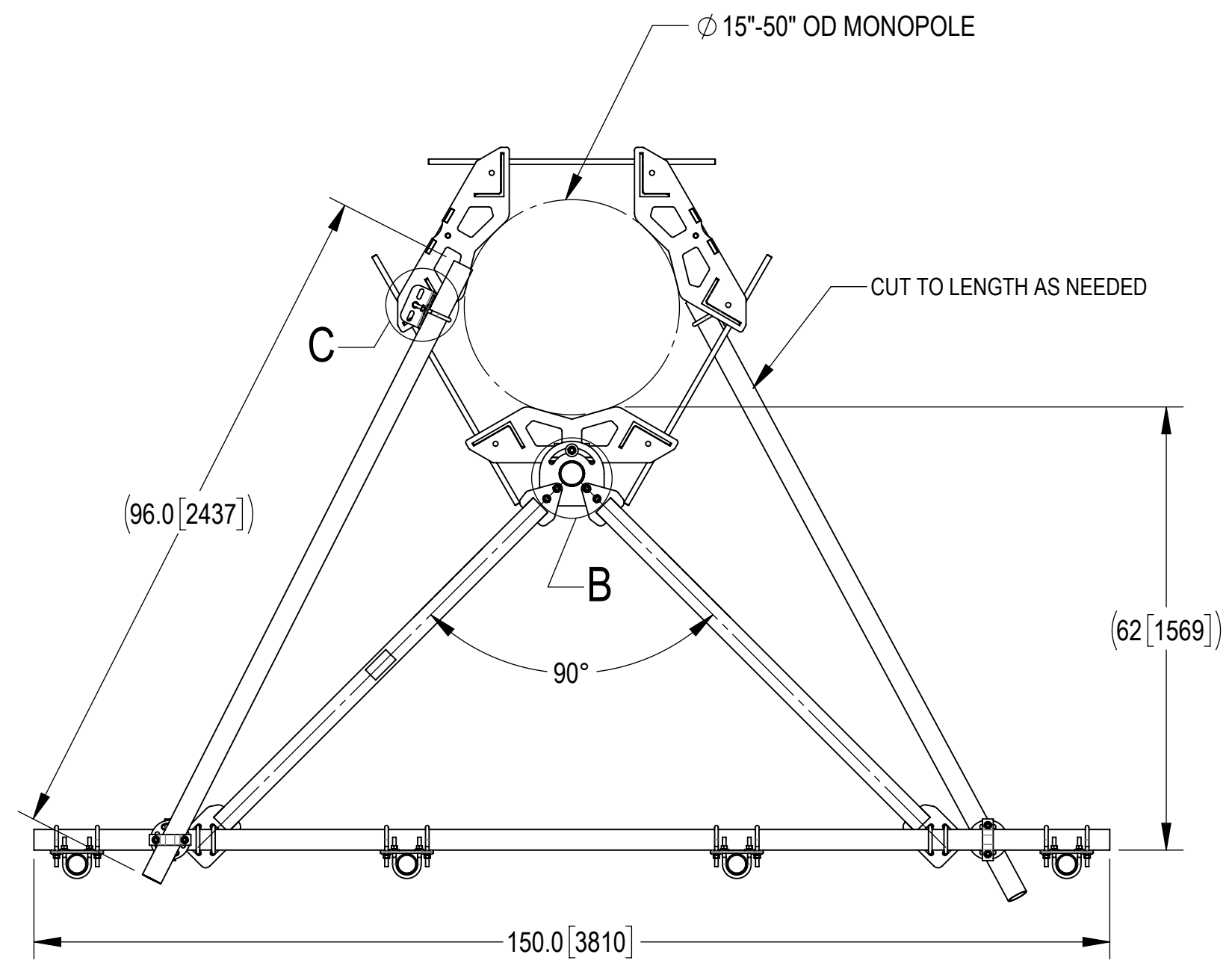
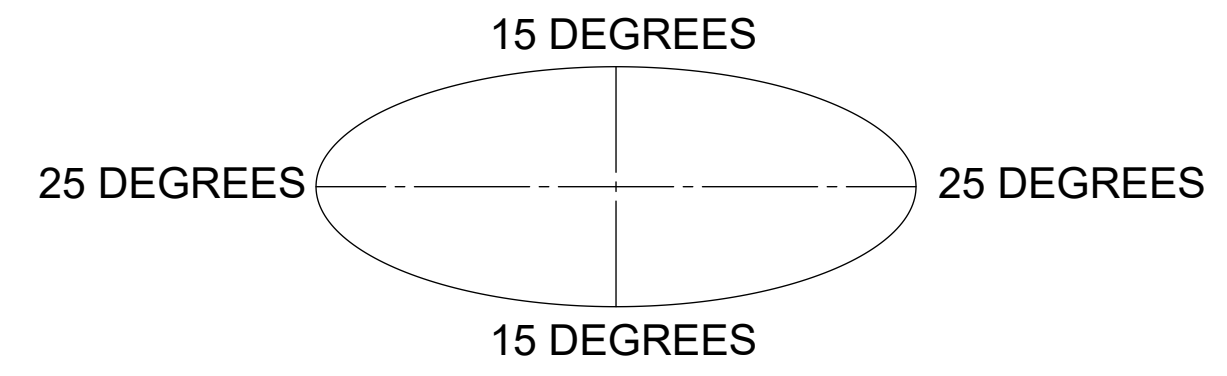
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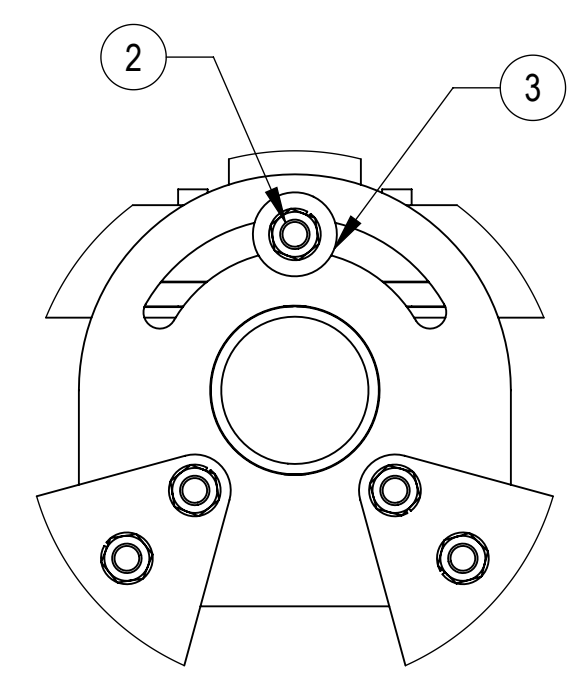
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ALLOWABLE TIEBACK ANGLE

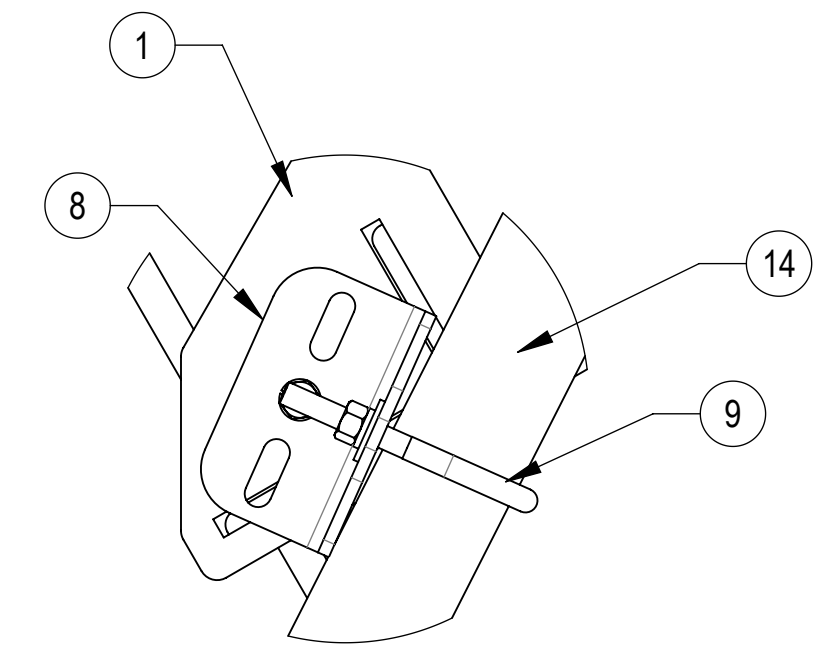
± 15 DEGREES VERTICAL
± 25 DEGREES HORIZONTAL



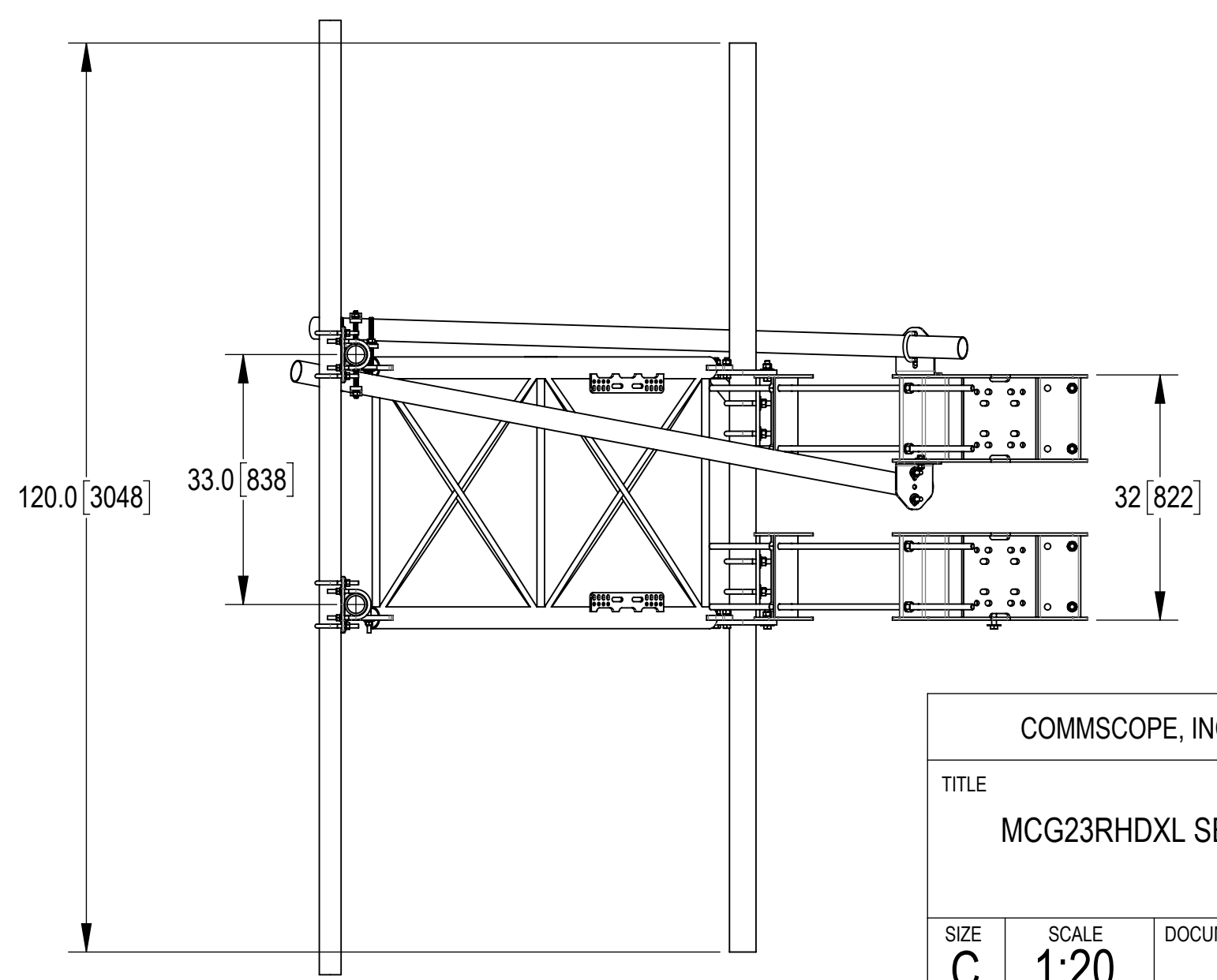
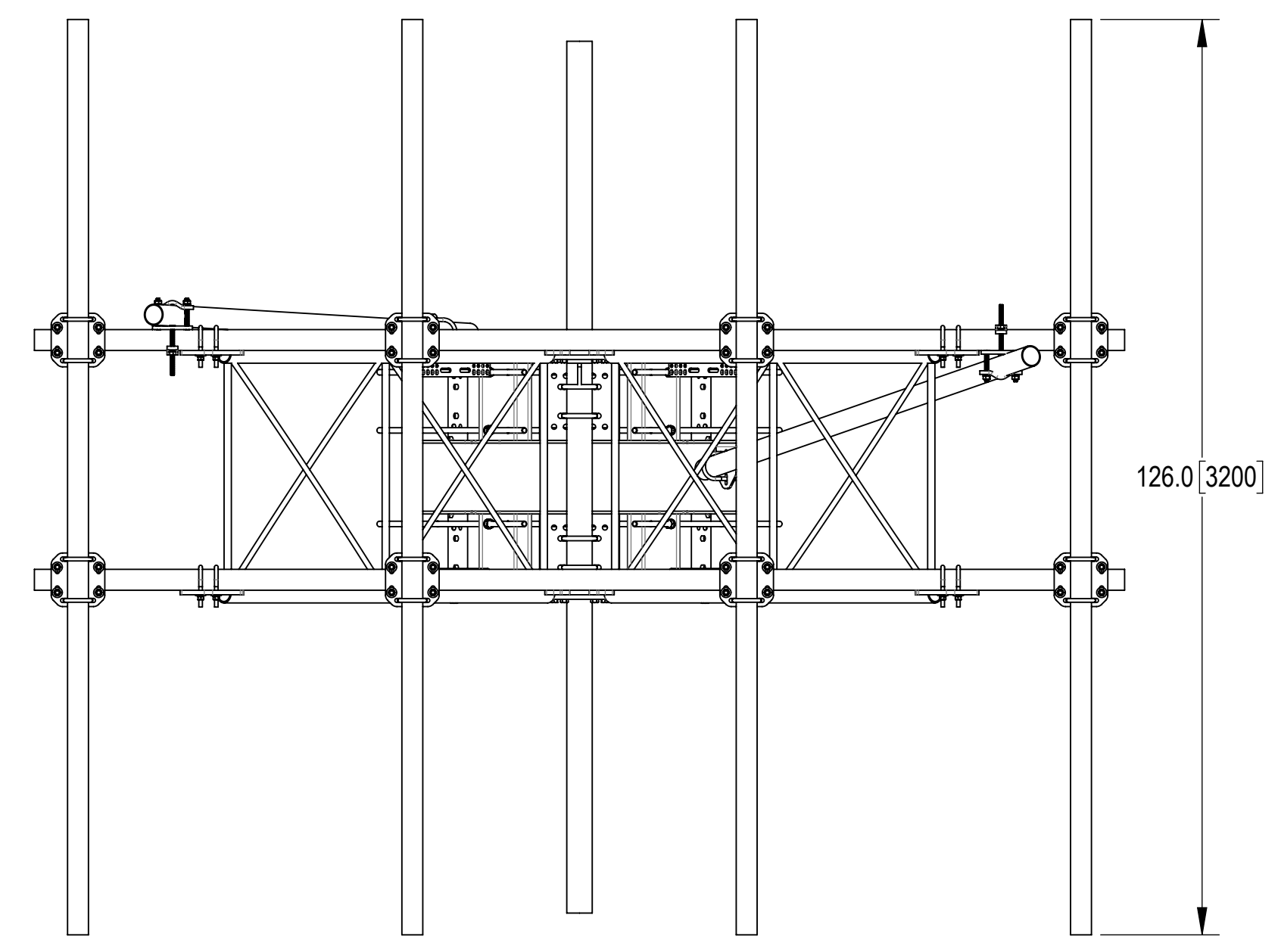
MCG23RHDXL12M12126 SHOWN FOR REFERENCE
(NOT ALL CONFIGURATIONS INCLUDE ALL ITEMS SEE NOTES IN TABLE ON SHEET 3)



DETAIL B
SCALE 1 : 4



DETAIL C
SCALE 1 : 4



TOP
BOTTOM

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE MCG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:20	DOCUMENT NO. MCG23RHDXL		
		DRAWING		SHEET
		VERSION	STATUS	REVISION
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				4 OF 10

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D

D

C

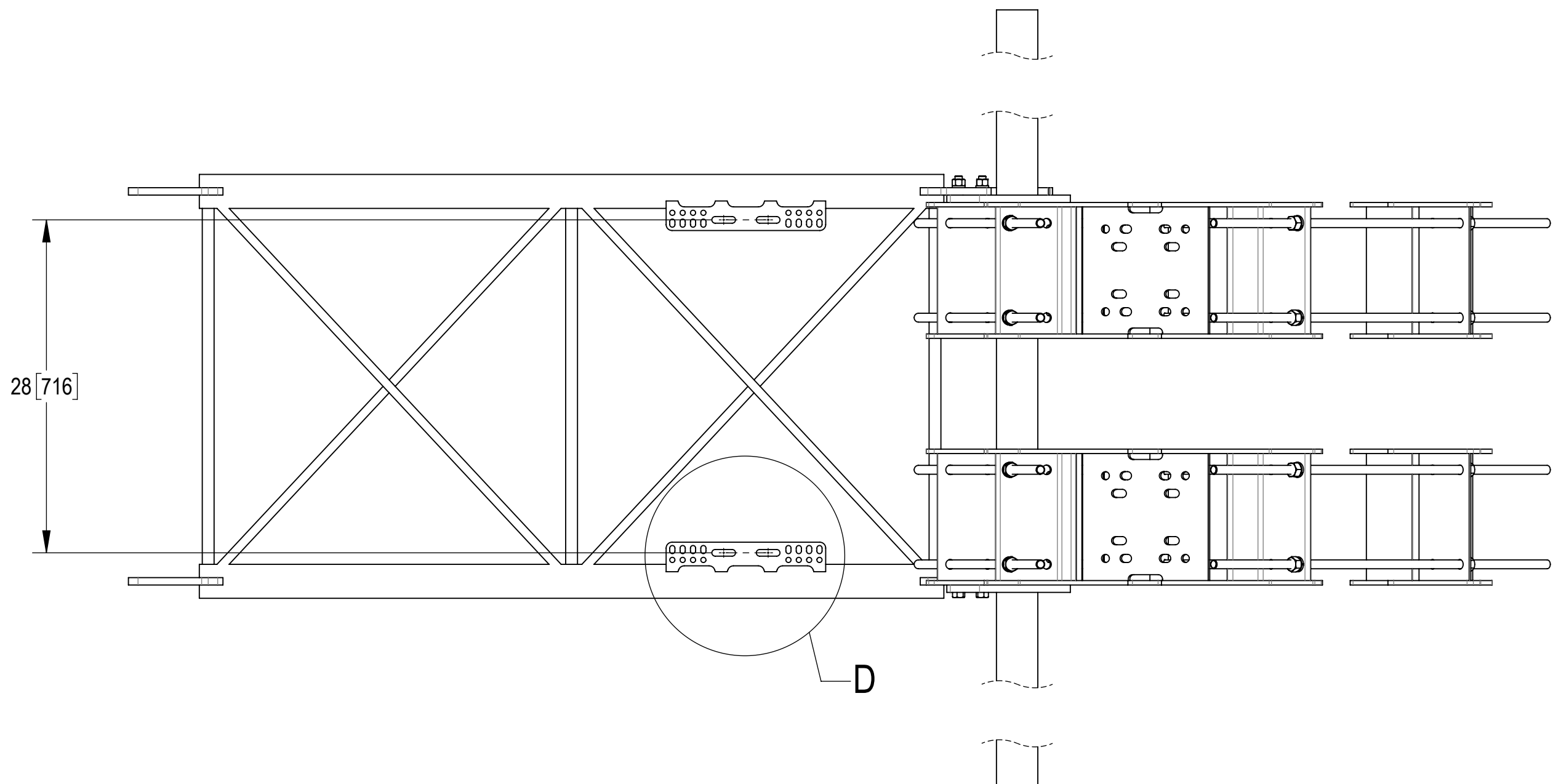
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B

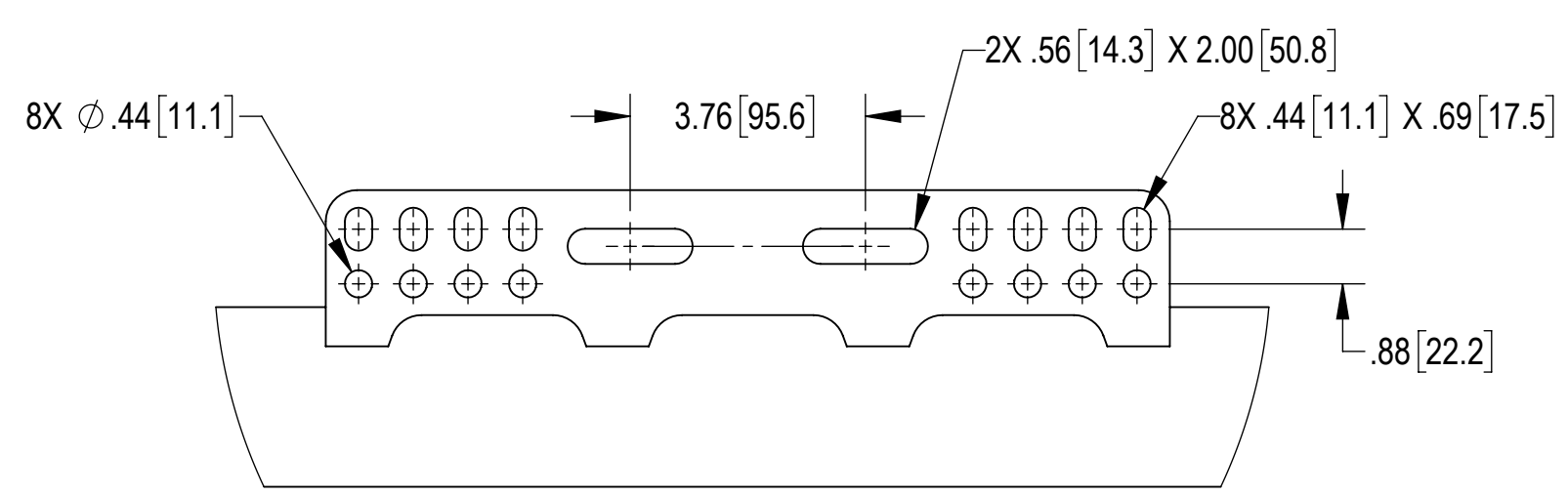
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
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SIDE VIEW



DETAIL D
SCALE 1 : 3

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE MCG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:10	DOCUMENT NO. MCG23RHDXL		
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		VERSION 03	STATUS RE	

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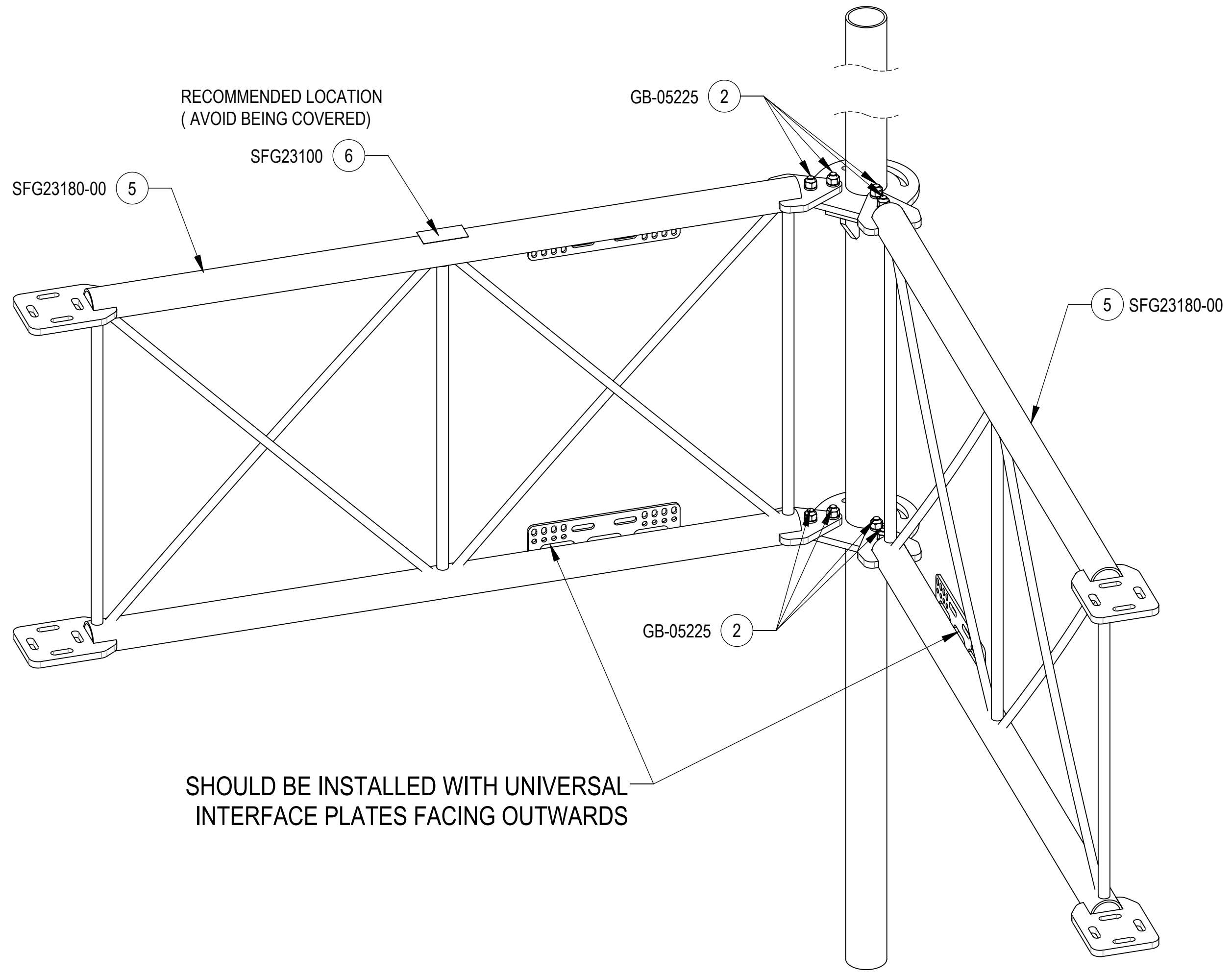
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2

1

INSTALLATION SEQUENCE - REFERENCE ONLY

STEP 1: ATTACH STANDOFF ARMS (SFG23180-00) TO BACK VERTICAL ARM MOUNT (SFG2204) USING (GB-05225) BOLT KITS
ATTACH LABEL (SFG23100) ON TOP OF STANDOFF ARMS(SFG23180-00) . (WIPE GALVANIZED SURFACE WITH ALCOHOL CLEANER BEFORE APPLYING LABEL.)



RECOMMENDED LOCATION
(AVOID BEING COVERED)

SFG23180-00 (5)

SFG23100 (6)

GB-05225 (2)

(5) SFG23180-00

GB-05225 (2)

SHOULD BE INSTALLED WITH UNIVERSAL
INTERFACE PLATES FACING OUTWARDS

TOP
↓
BOTTOM

ISO VIEW

COMMSCOPE, INC. OF NORTH CAROLINA					
TITLE MCG23RHDXL SECTOR FRAME SERIES					
SIZE C	SCALE 1:10	DOCUMENT NO. MCG23RHDXL			
		DRAWING			SHEET
		VERSION	STATUS	REVISION	6 OF 10
		03	RE	D	

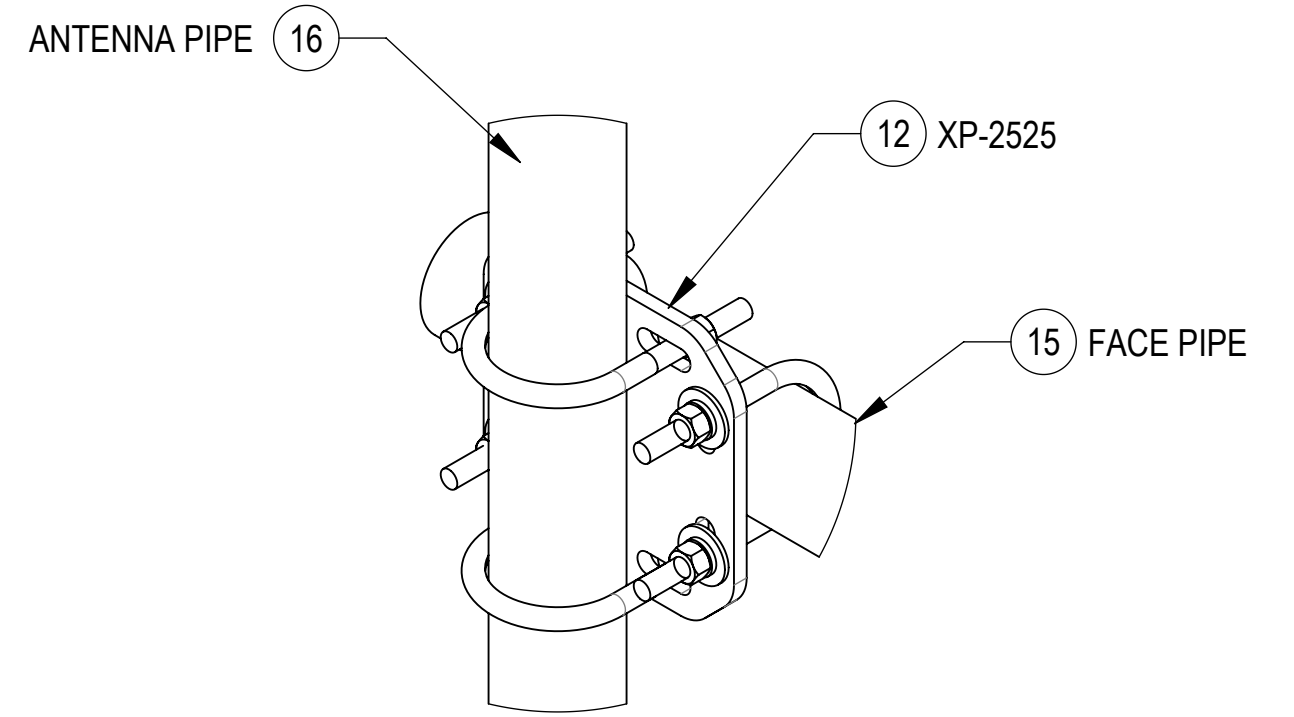
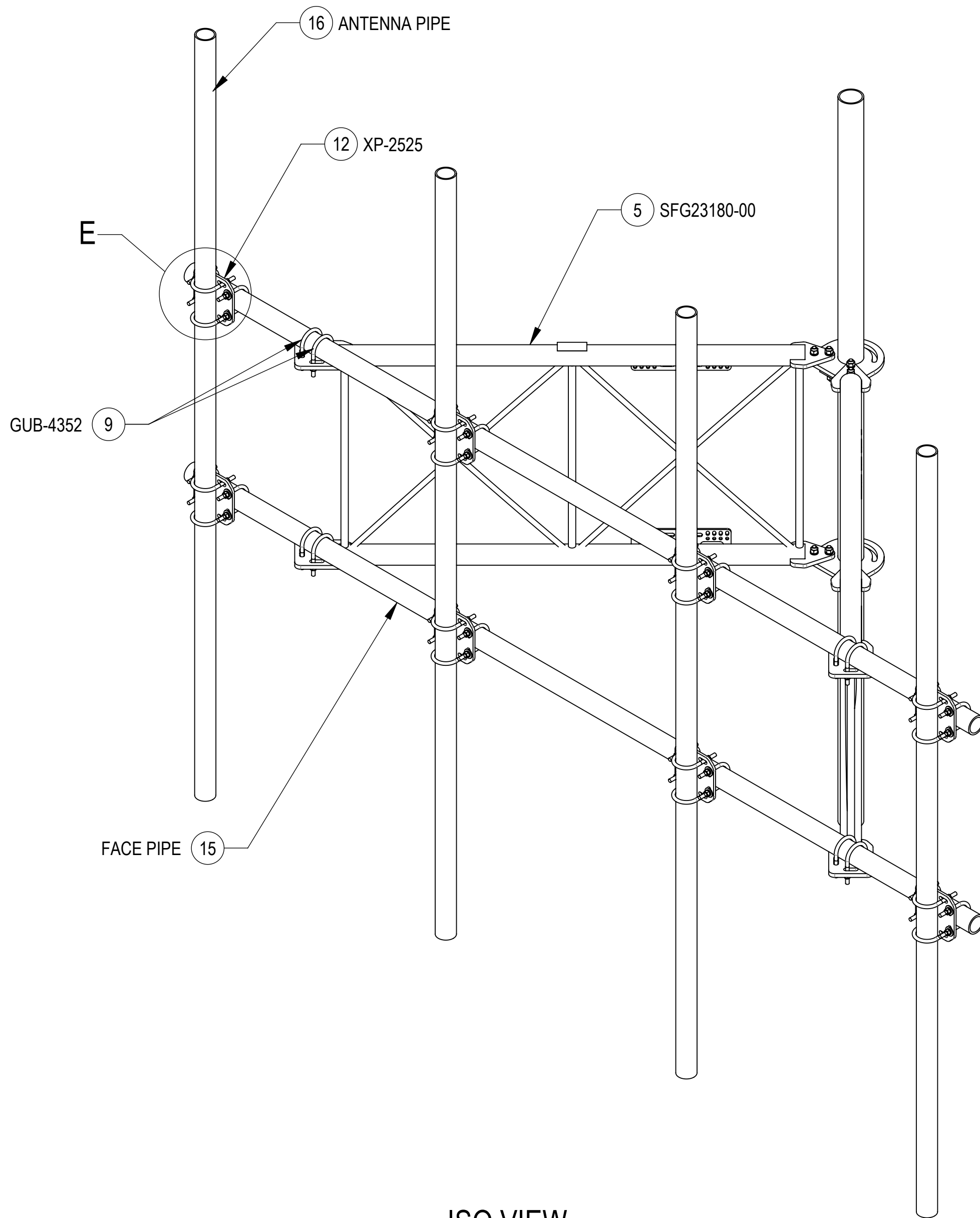
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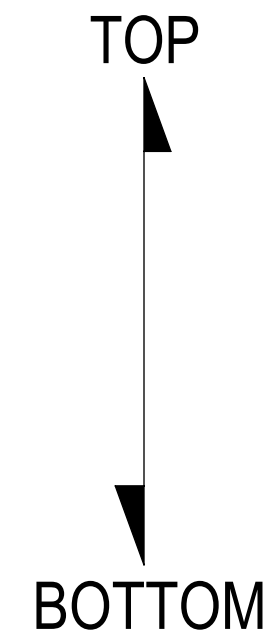
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STEP 2: ATTACH FACE PIPES TO STANDOFF ARMS (SFG23180-00) USING U-BOLTS (GUB-4352)
AND THEN ATTACH ANTENNA PIPES TO FACE PIPES USING CROSSOVER PLATE KITS (XP-2525).



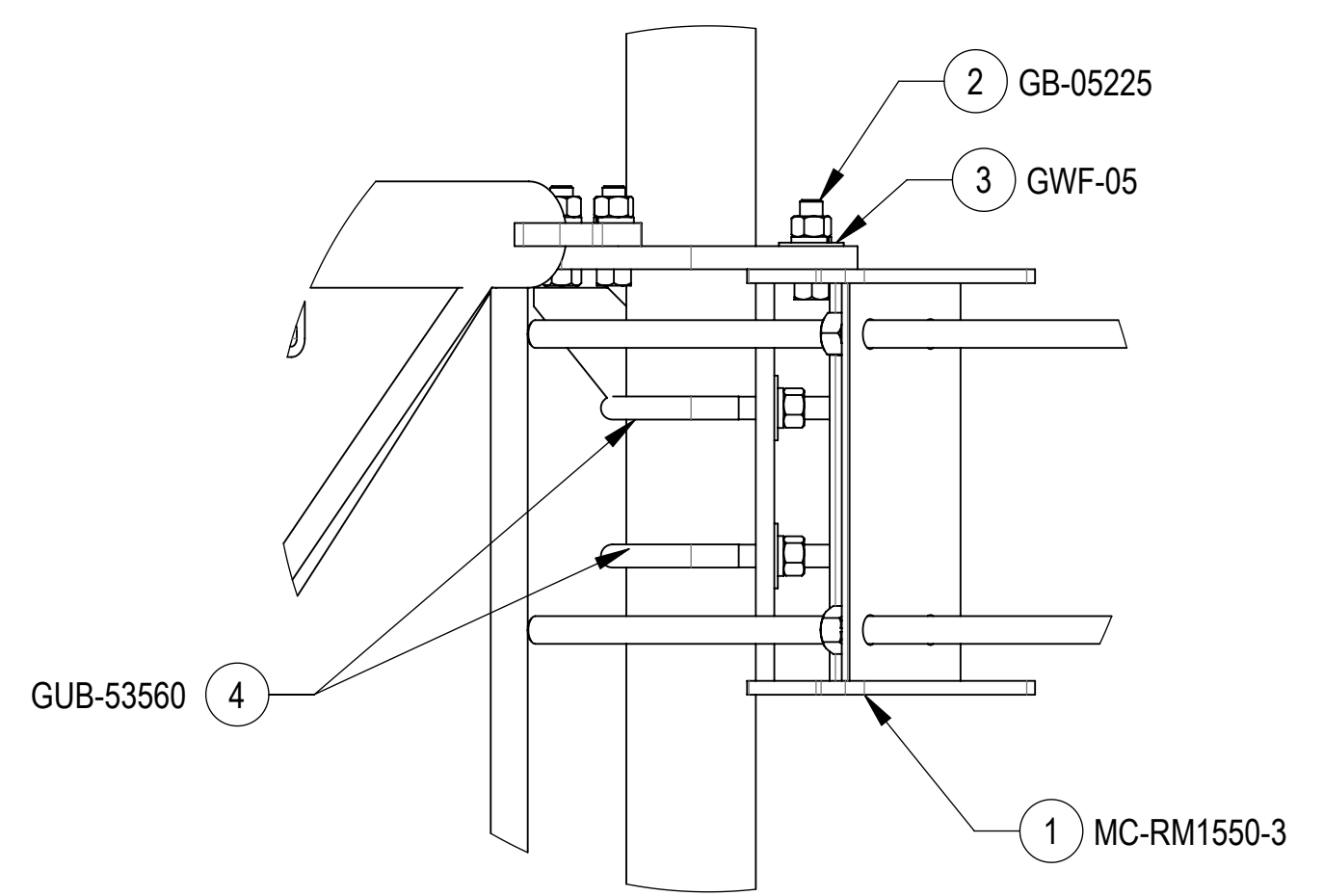
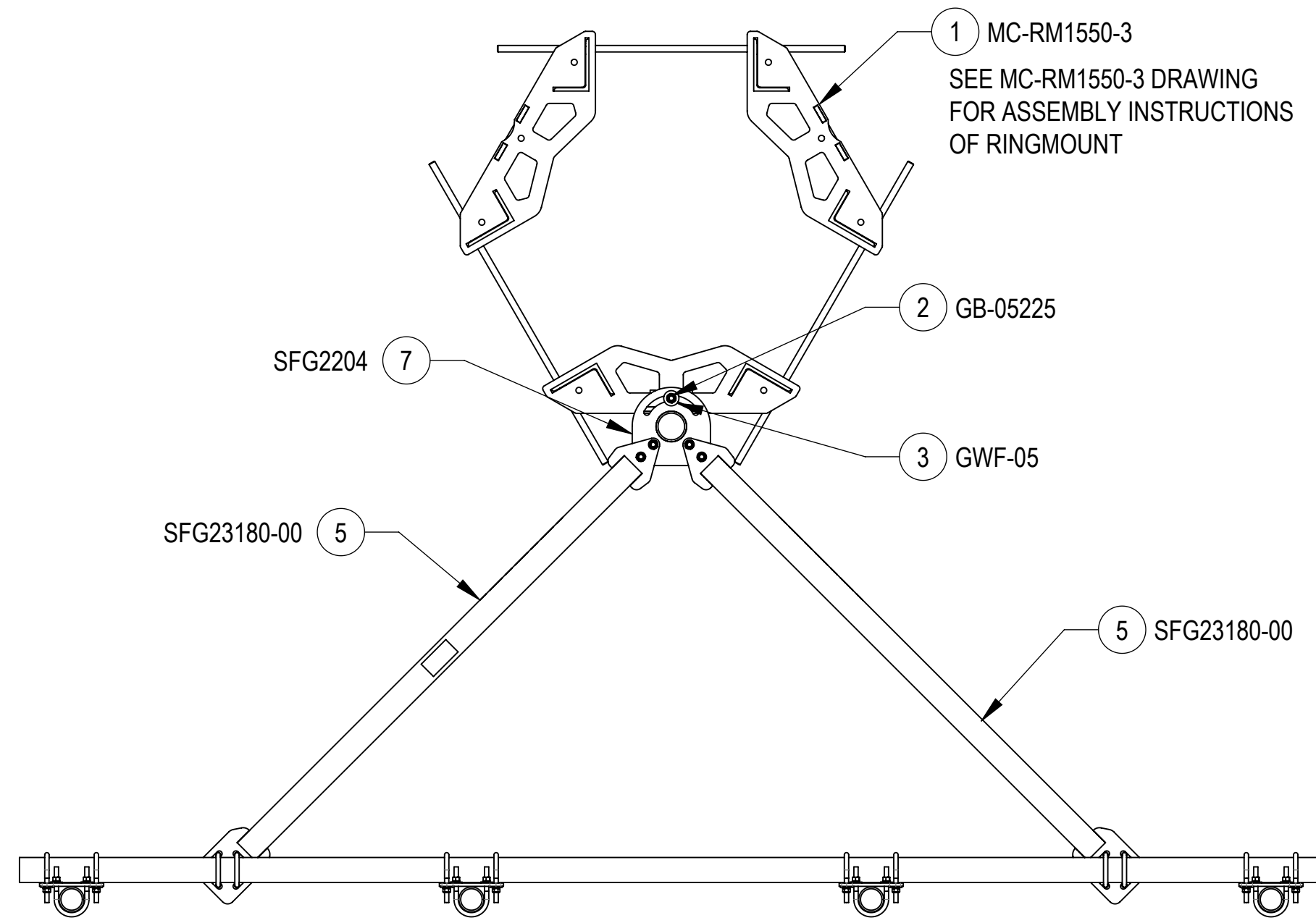
DETAIL E
SCALE 1 : 4



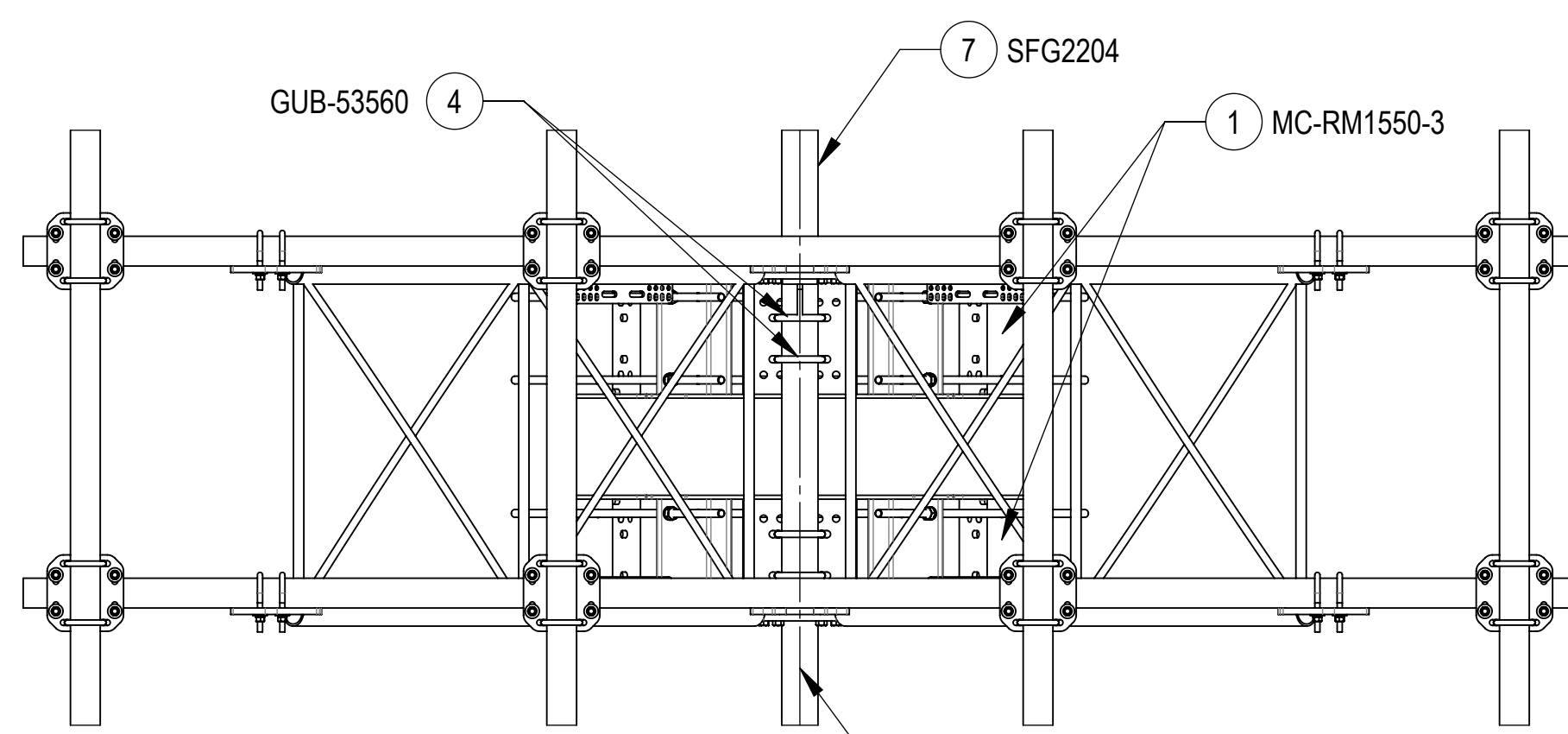
ISO VIEW

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TITLE MCG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:13	DOCUMENT NO. MCG23RHDXL		
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		VERSION 03	STATUS RE	

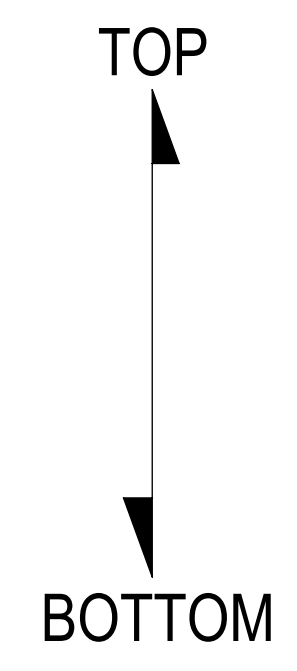
STEP 3: ATTACH BACK VERTICAL ARM MOUNT (SFG2204) TO RINGMOUNT (MC-RM1550-3) USING BOLT KITS (GB-05225), FLAT WASHERS (GWF-05) AND U-BOLTS (GUB-53560)



SIDE CROP VIEW



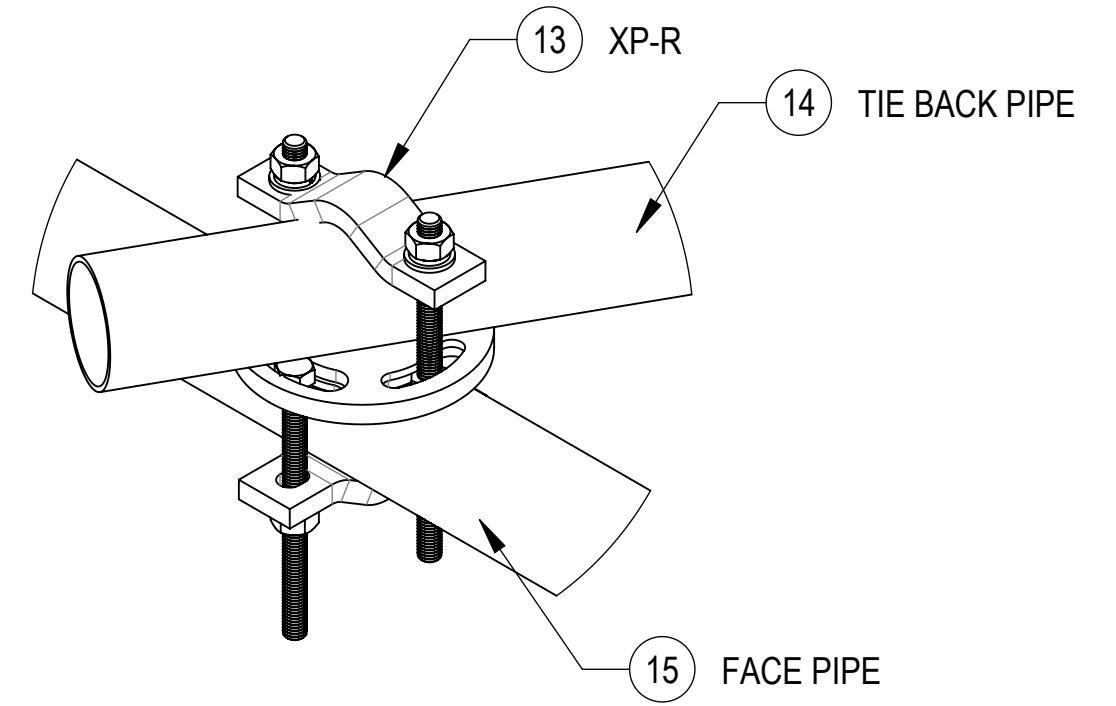
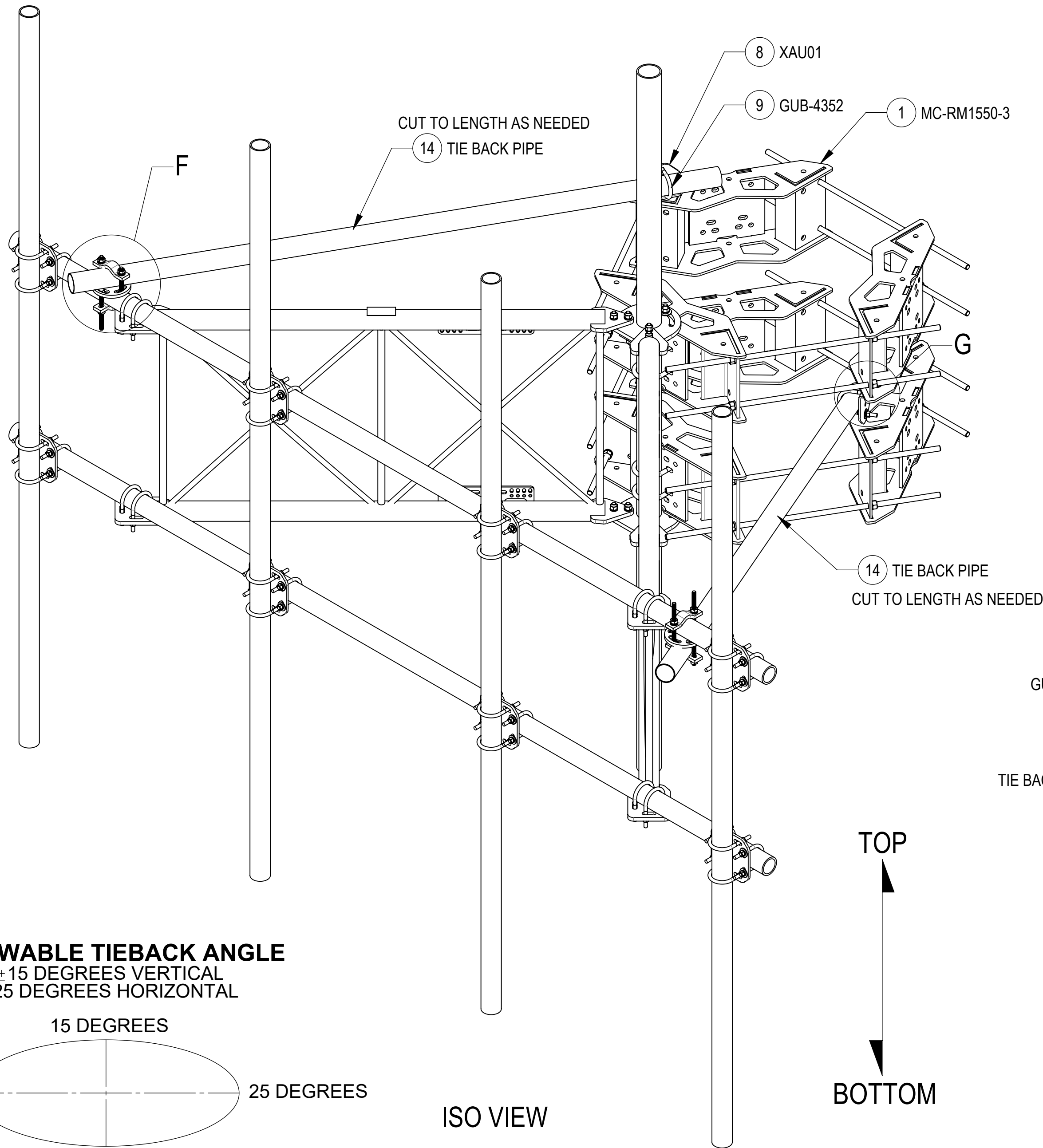
RINGMOUNT SECTOR CENTERLINES MUST VERTICALLY ALIGN TO ALLOW SECTOR FRAME SPINE PROPER MOUNTING



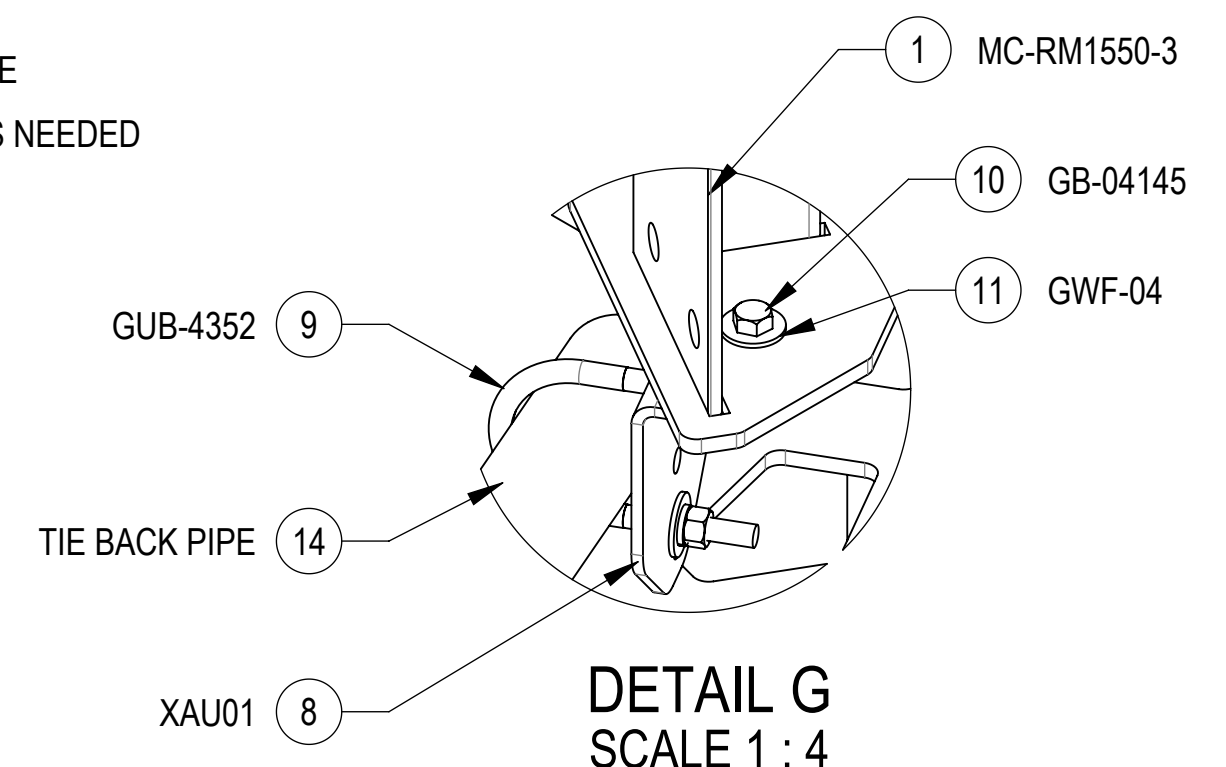
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SIZE C	SCALE 1:10	DOCUMENT NO. MCG23RHDXL		
		DRAWING		SHEET
		VERSION	STATUS	REVISION
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				8 OF 10

STEP 4: ATTACH TIE BACK PIPES TO FACE PIPES USING XP-R

STEP 5: ATTACH TIE BACK PIPES TO RINGMOUNT (MC-RM1550-3) USING CROSSOVER ANGLES (XAU01), BOLT KITS (GB-04145), FLAT WASHERS (GWF-04) AND U-BOLTS (GUB-4352)

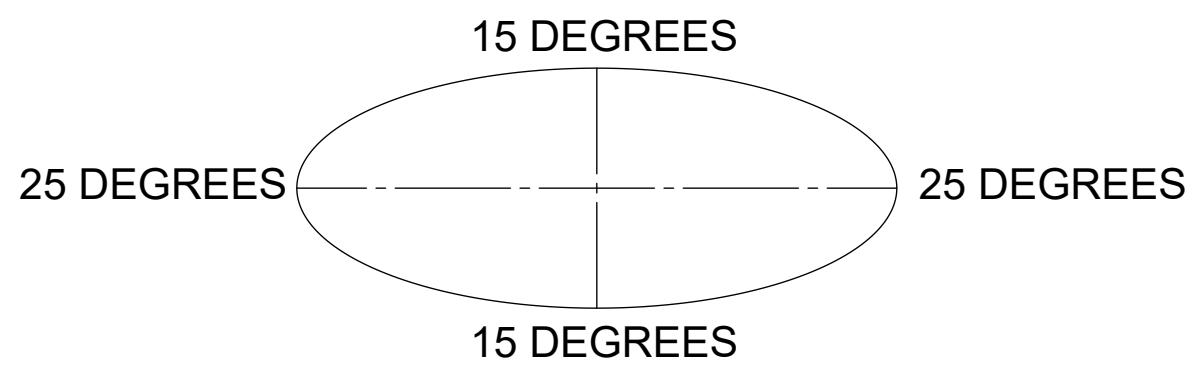


DETAIL F
SCALE 1 : 4



DETAIL G
SCALE 1 : 4

ALLOWABLE TIEBACK ANGLE
±15 DEGREES VERTICAL
±25 DEGREES HORIZONTAL

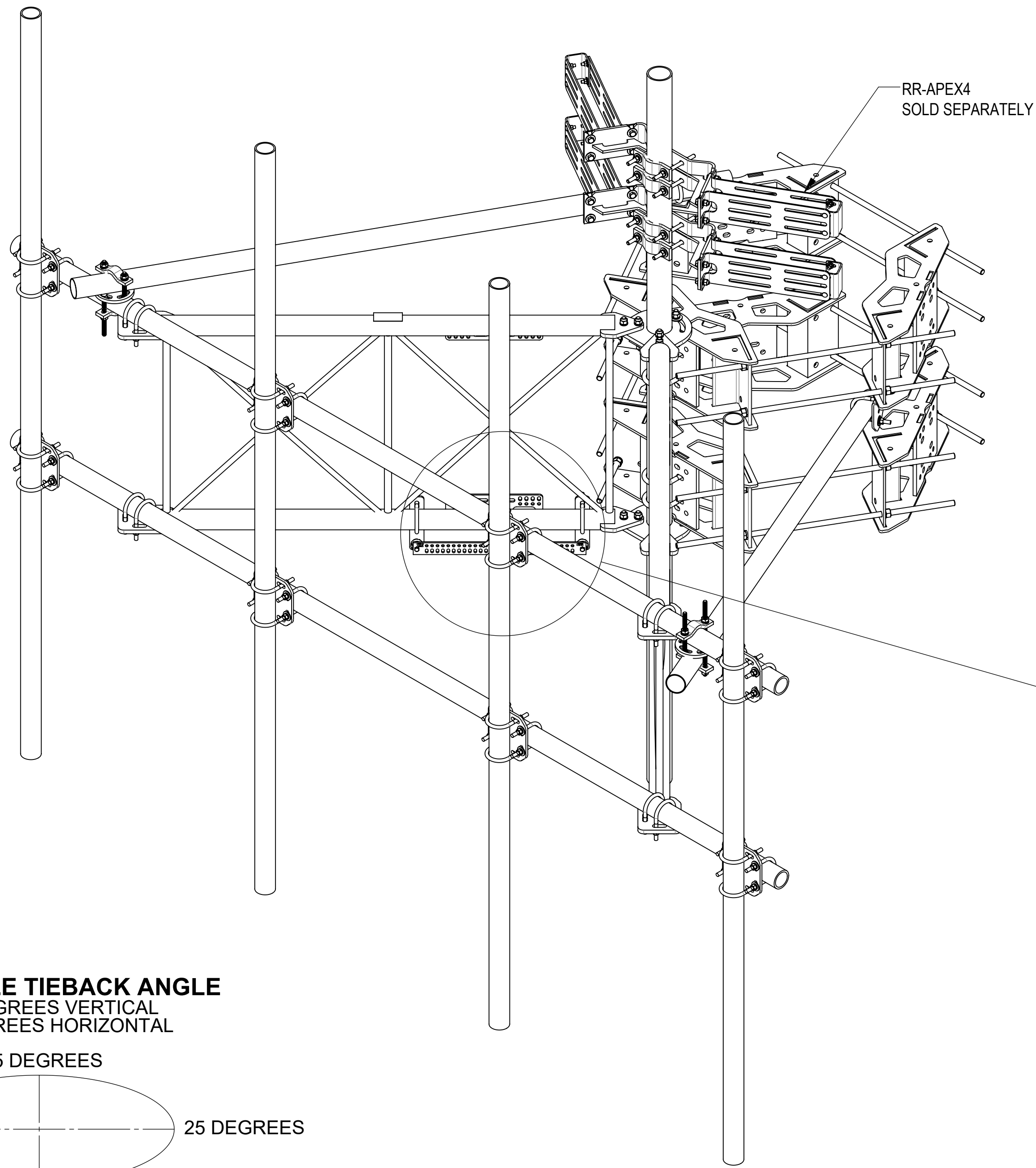


ISO VIEW

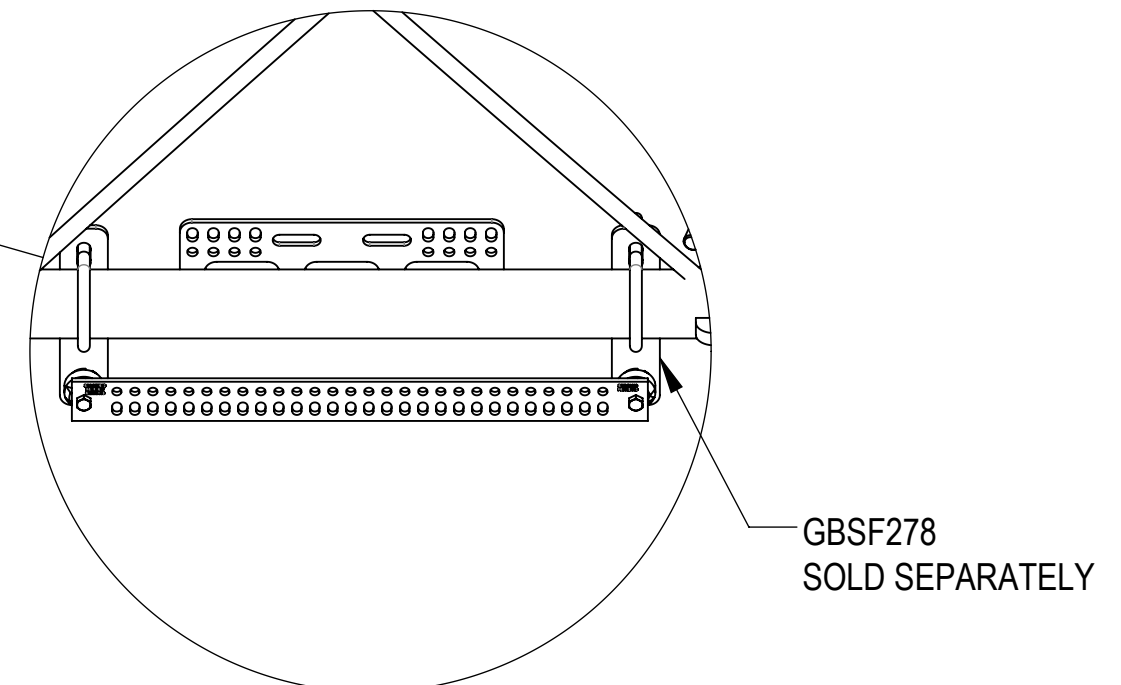
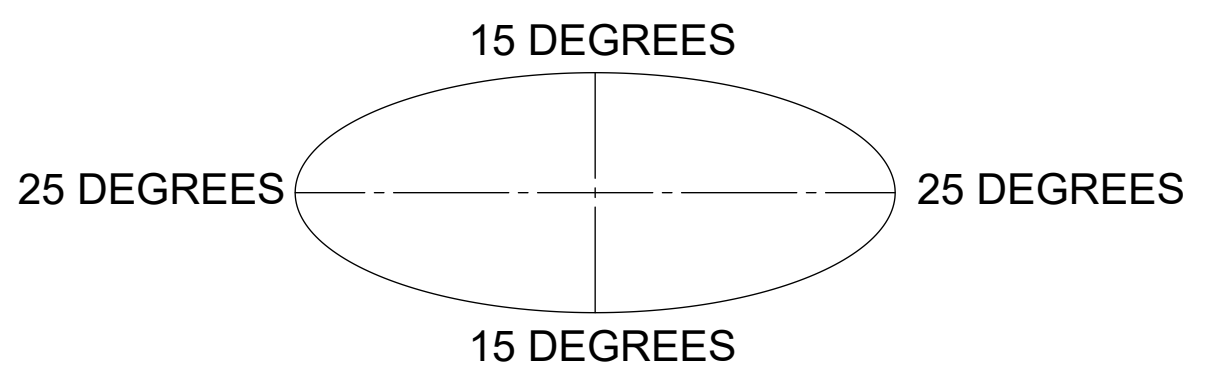
TOP
↓
BOTTOM

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE MCG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:15	DOCUMENT NO. MCG23RHDXL		
DRAWING		VERSION	STATUS	REVISION
DRAWING		03	RE	D
				SHEET 9 OF 10


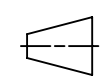
OPTIONAL ACCESSORIES:



ALLOWABLE TIEBACK ANGLE
 ±15 DEGREES VERTICAL
 ±25 DEGREES HORIZONTAL



DETAIL H
 SCALE 1 : 8

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE MCG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:12	DOCUMENT NO. MCG23RHDXL		
 		DRAWING		SHEET
		VERSION 03	STATUS RE	REVISION D