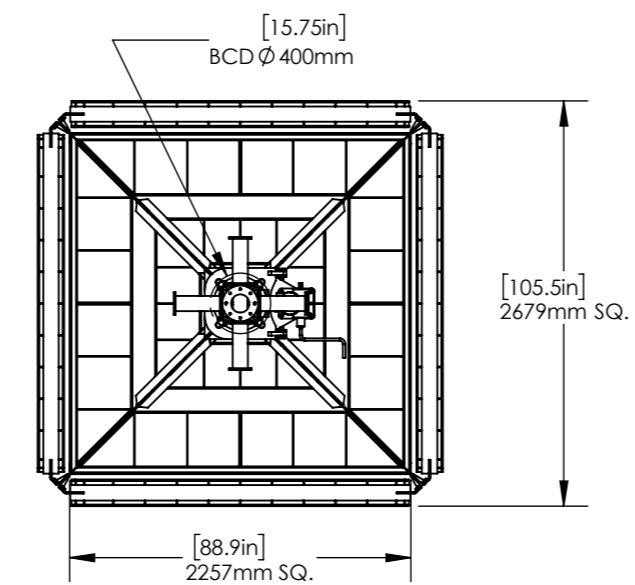
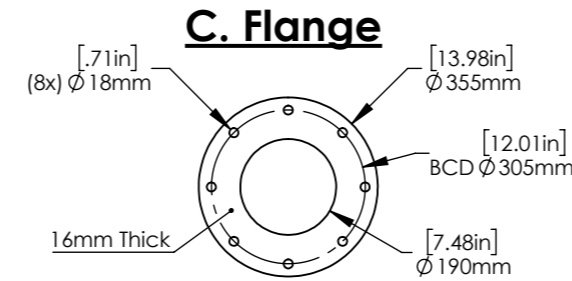
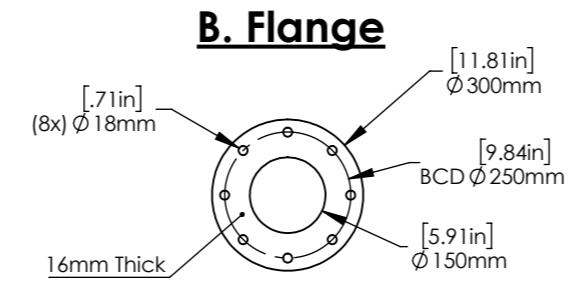
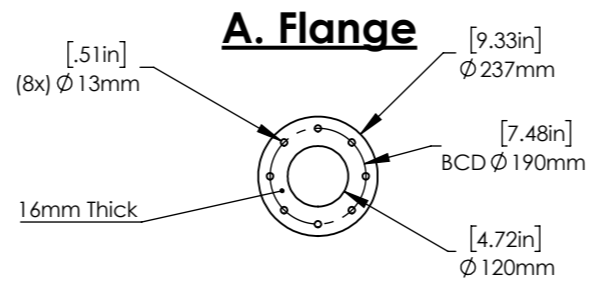
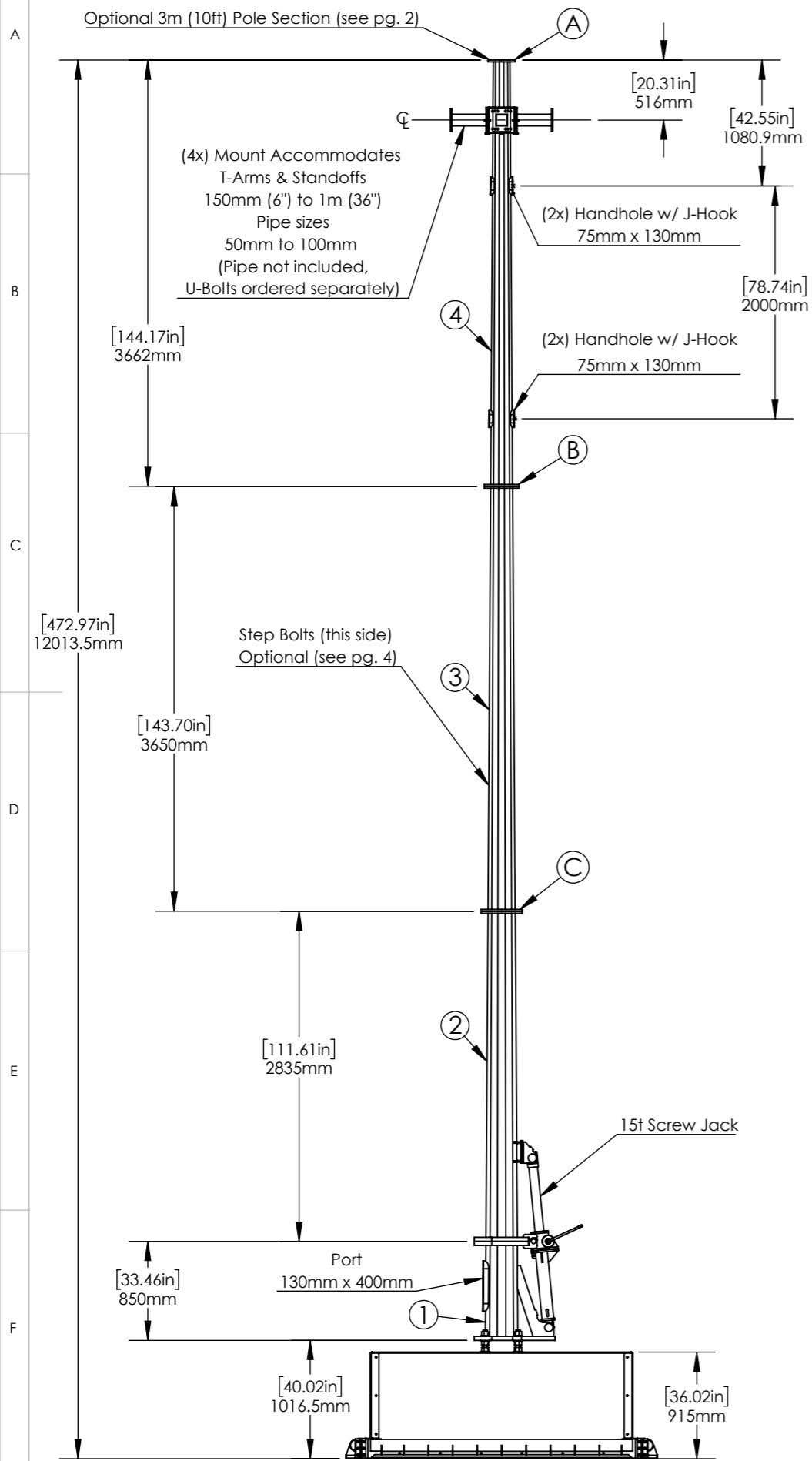


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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	initial release	3/11/21	MGC
B			



- Survival Wind Speed: Per Code
 - Structure Class - Per Code
 - Topographic - Per Code
 - Exposure - Per Code
- Design and Welding Codes:
 - TIA-222-G
 - AWS D1.1
- Material (or equivalent)
 - Pole: Q355 (ASTM A572 GR50)
 - Baseplate: Q355 (ASTM A572 GR50)
 - Splice Plates/ Flanges: Q355 (ASTM A572 GR50)
- Anchor Bolts: (4X) M36x4 x 1000mm - GR 8.8
 - (3x) Nut (4x) Washer
 - Optional (1 1/2-6 x 39in Grade ASTM F1554 G55)
 - Hot Dip Galv. per ASTM F2329
- Flange Bolts: (32X) M16x2 x 60mm - GR 8.8
 - (1X) Nut (2X) Washer
 - Optional (5/8-11 x 2.5in GR A325)
 - Hot Dip Galv. per ASTM F2329
- Pole has 12 sides
- Finish: Hot dip Galvanizing per ASTM A123
- Pole Section Details

Pole Section	#1	#2	#3	#4
Thickness - (mm)/ (in)	0.197/ 5	0.197/ 5	0.197/ 5	0.197/ 5
Length - (m)/ (ft)	0.85/ 2.79	2.835/ 9.3	3.65/ 11.98	3.66/ 12
Top Dia. - (mm)/ (in)	270/ 10.63	234/ 9.2	188/ 7.4	142/ 5.6
Bottom Dia. - (mm)/ (in)	280/ 11	269/ 10.6	234/ 9.2	188/ 7.4
Min Slip - (mm)/ (in)		NA	NA	NA
Section Weight (kg)/ (lb)	153.5/ 338	149.5/ 329	110/ 242	107/ 235.4

CAD-generated drawing do not manually update

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12m 4SF AFS350 15t SJ

APPROVALS: DRAWN MGC, CHECKED RESP ENG, MFG ENG, QUAL ENG. DATE: 3/11/21

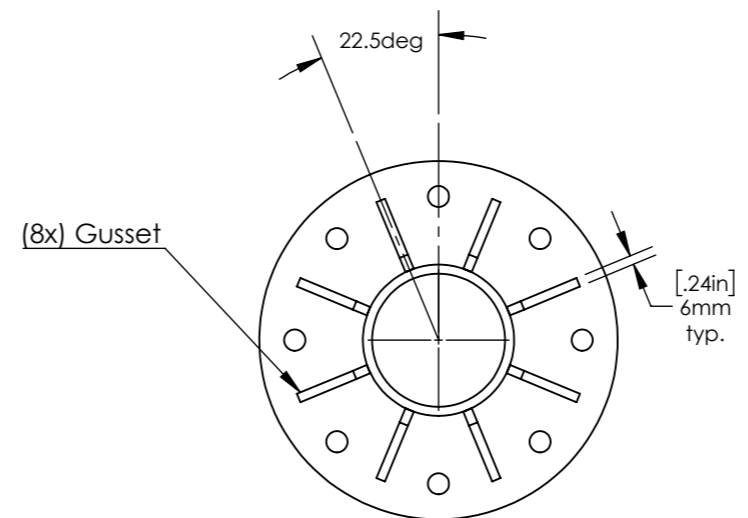
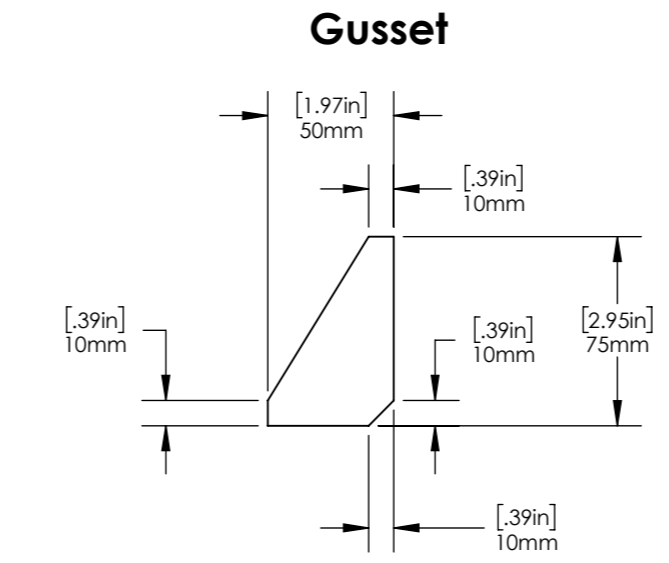
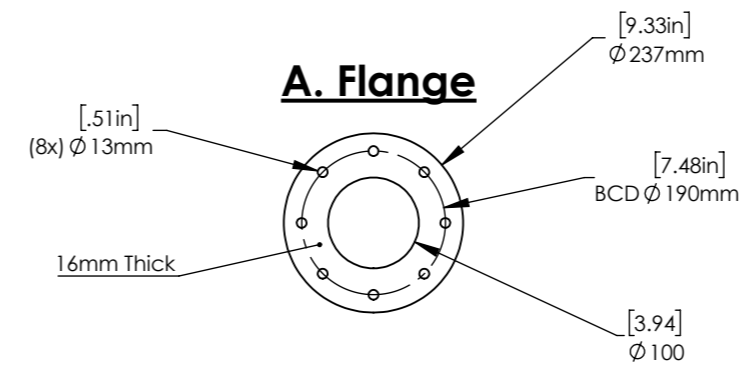
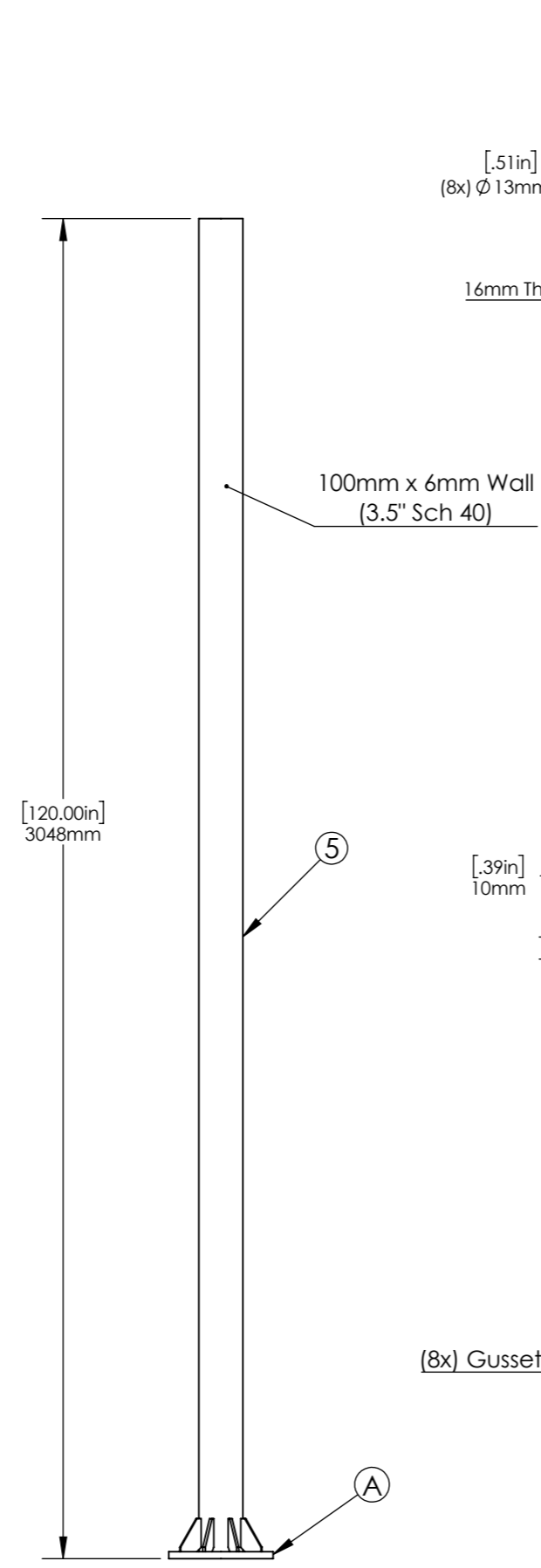
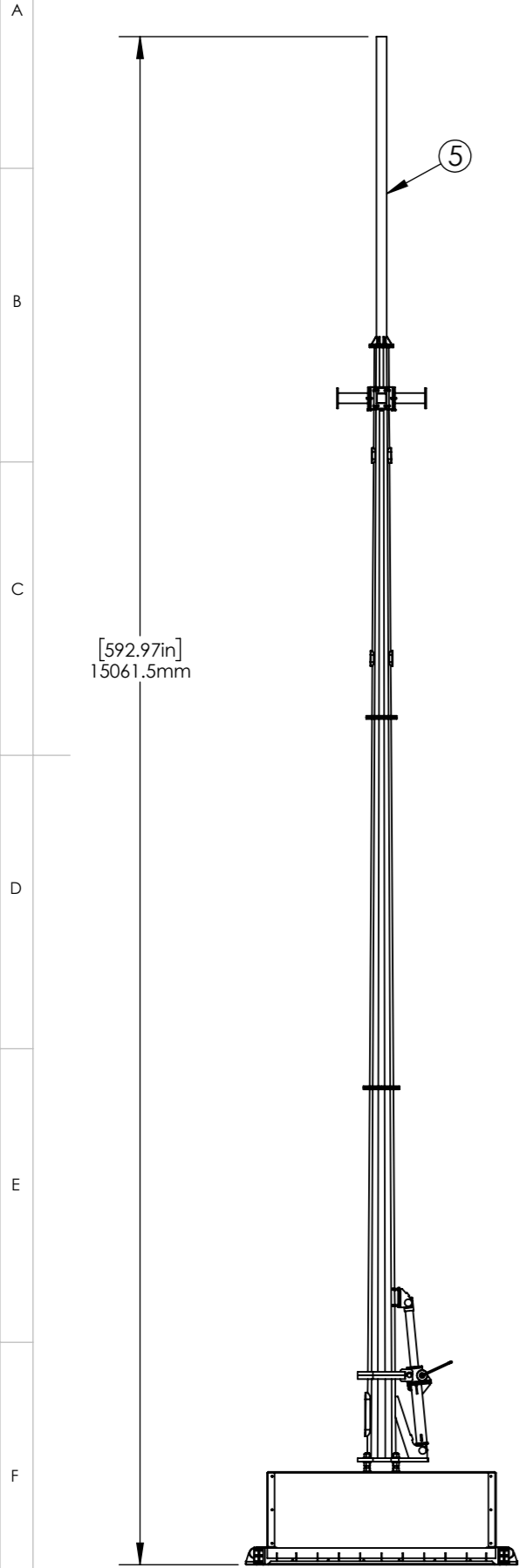
Total Weight Pole-572 kg (1258.5 lb) AFS350-2568 lbs (1167 kg) Does not include fasteners

MATERIAL See Notes, FINISH See Notes, DO NOT SCALE DRAWING

Details and dimensions not shown on this drawing can be found in CAD file. scale NA rev. A size NA sheet 1 of 6

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	initial release	3/11/21	MGC
B			



- Survival Wind Speed: Per Code
 - Structure Class - Per Code
 - Topographic - Per Code
 - Exposure - Per Code
- Design and Welding Codes:
 - TIA-222-G
 - AWS D1.1
- Material (or equivalent)
 - Tube: Q355 (ASTM A572 GR65)
 - Baseplate: Q355 (ASTM A572 GR50)
 - Gusset Plates: Q355 (ASTM A572 GR50)
- Flange Bolts: (8X) M12x1.75 x 60mm - GR 8.8
 - (1X) Nut (2X) Washer
 - Optional (1/2-13 x 2.5in GR A325)
 - Hot Dip Galv. per ASTM F2329
- Pole is Round
- Finish: Hot dip Galvanizing per ASTM A123
- Pole Section Details

Pole Section	#5
Thickness - (mm)/ (in)	0.197/ 6
Length - (m)/ (ft)	3/ 10
Top Dia. - (mm)/ (in)	100/ 4
Bottom Dia. - (mm)/ (in)	100/ 4
Min Slip - (mm)/ (in)	NA
Section Weight (kg)/ (lb)	48/ 106

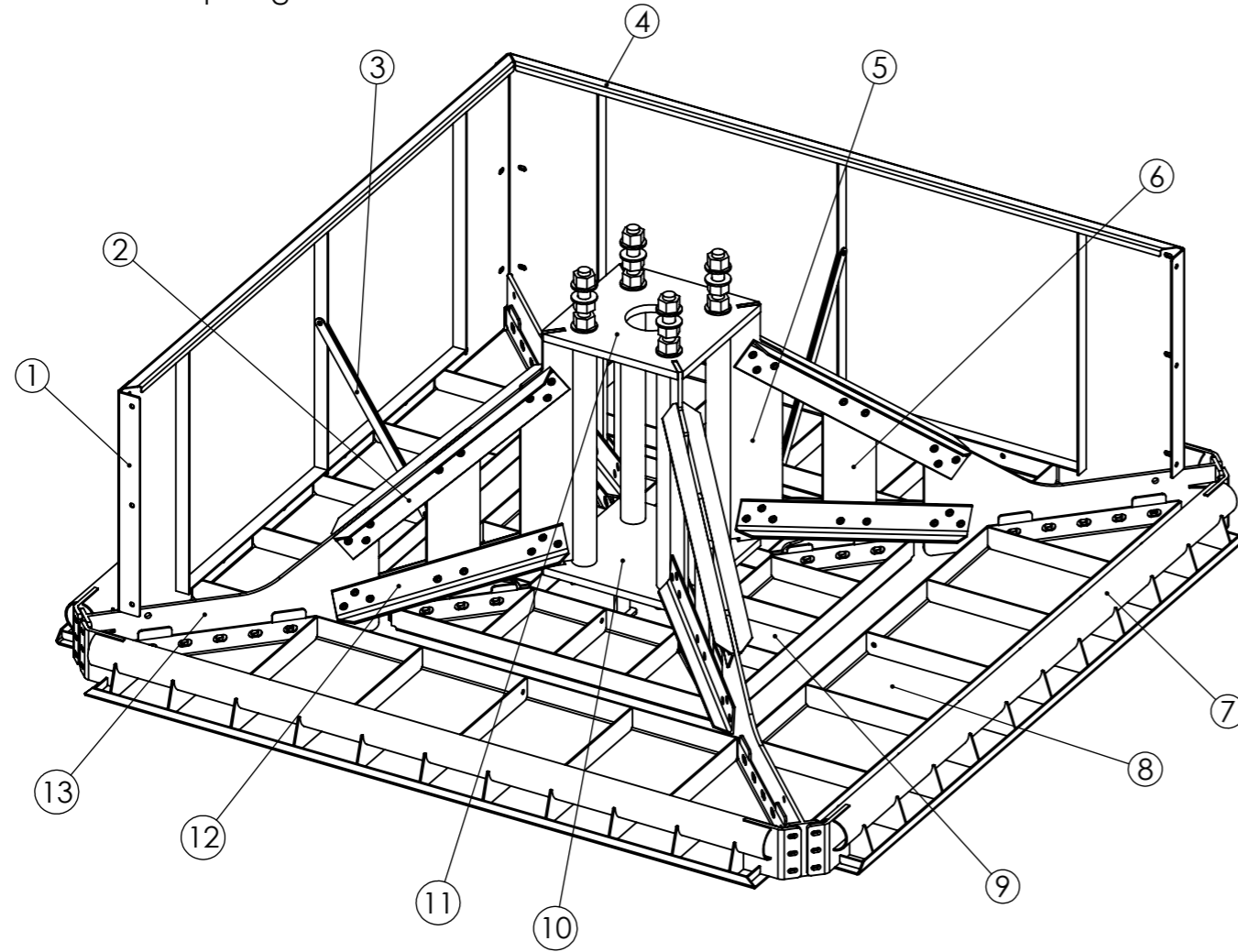
CAD-generated drawing do not manually update				1041 Grand Ave., #213 St. Paul, MN 55105 (651) 330-1263 www.aretelcom.com
Total Weight	APPROVALS	DATE	3m (10ft) Optional Pole Section AFS350 CAD file : Details and dimensions not shown on this drawing can be found in CAD file.	
Pole-48 kg (106 lb)	DRAWN MGC	3/11/21		
Does not include fasteners	CHECKED			
MATERIAL See Notes	RESP ENG		scale NA rev. A size NA sheet 2 of 6	
FINISH See Notes	MFG ENG			
DO NOT SCALE DRAWING	QUAL ENG			

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	initial release	3/11/21	MGC
B			

Notes:

- All plate material shall have a minimum yield strength of 355 MPa (50 ksi)
- Tube shall be 102mm x 5mm GR. Q355 (4.5" x 0.25" ASTM A500 Gr B)
- All right angles shall be Q355 (ASTM A572 Gr 50) or equivalent
- All welding shall conform to the minimum requirements of AWS D1.1
- All welding shall be done by welders qualified under AWS specifications, using E70XX, low hydrogen electrodes
- All components shall Hot Dip Galvanized in accordance with ASTM A123
- Debur all sharp edges



AFS350 Bill of Materials			
#	DESCRIPTION	QTY.	Weight (kg/ lbs)
1	Corner Bracket	4	2.5/ 5.5
2	Upper Chord	8	5.4/ 11.9
3	Brace	8	0.78/ 1.72
4	Sidewall	4	50.5/ 111.1
5	Anchor Spoke	4	27.3/ 60.1
6	Center Web	4	10.8/ 23.8
7	Outer Bearing Plate	4	58/ 127.6
8	Outer Ballast Tray	4	47/ 103.4
9	Inner Ballast Tray	4	18.3/ 40.3
10	Lower Splice Plate	1	47.11/ 103.6
11	Upper Splice Plate	1	37.7/ 83
12	Lower Chord	8	4.7/ 10.34
13	Truss Heel Plate	4	20.6/ 45.32

Ballast Requirements:

- Ballast Volume = 4.7 cu-m (6.1 cu-yds, 165 cu-ft)
- Unit Weight
 - cu-ft = 45.45 kg (100 lbs)
 - cu-yd = 1227.3 kg (2700 lbs)
 - cu-m = 1605.5 kg (3532 lbs)

AFS350 Bolts, Nuts & Washers (other equivalent grades acceptable)

#	Unit	Bolt Size	Length	Width Across Flats	Thread Length	Grade	Coating	Nut Qty.	Washer Qty.	Bolt Qty.
14	Metric	M12x1.75	30mm	18mm	Full Thread	8.8	Hot Dip Galv.	56	112	56
14	Imperial	1/2-13	1 3/16"	7/8"	Full Thread	A325	Hot Dip Galv.	56	112	56
15	Metric	M12x1.75	60mm	18mm	Full Thread	8.8	Hot Dip Galv.	24	48	24
15	Imperial	1/2-13	2 3/8"	7/8"	Full Thread	A325	Hot Dip Galv.	24	48	24
16	Metric	M20x2.5	55mm	30mm	Full Thread	8.8	Hot Dip Galv.	72	144	72
16	Imperial	3/4-10	2 3/16"	1 1/8"	Full Thread	A325	Hot Dip Galv.	72	144	72
17	Metric	M36x2.5	1000mm	55mm	300mm	8.8	Hot Dip Galv.	12	16	4
17	Imperial	1 1/2-6	39"	2 3/16"	12"	A325	Hot Dip Galv.	12	16	4

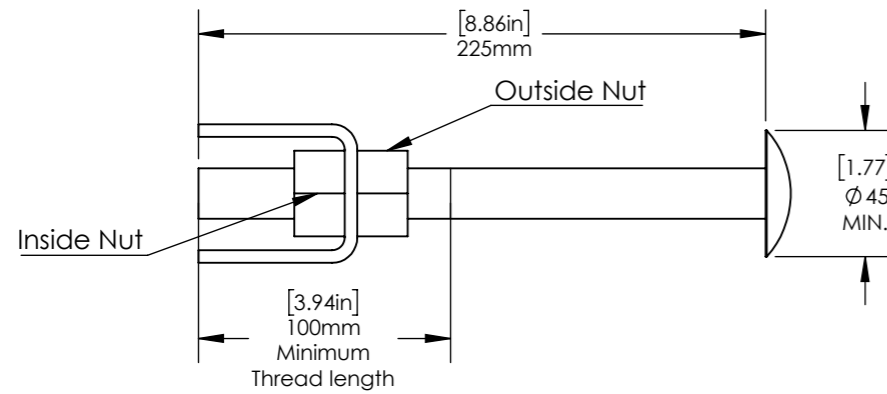
CAD-generated drawing do not manually update				1041 Grand Ave., #213 St. Paul, MN 55105 (651) 330-1263 www.aretelcom.com	
Does not include anchor bolts, templates or flange bolts		APPROVALS DRAWN MGC CHECKED RESP ENG MFG ENG QUAL ENG	DATE 3/11/21	AFS350 BOM Details and dimensions not shown on this drawing can be found in CAD file	
MATERIAL See Notes FINISH See Notes DO NOT SCALE DRAWING		CAD file : scale NA rev. A size NA 3 of 6			

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#	DESCRIPTION (Optional Grade)	QTY	Weight (lb/ kg)
1	Clip - ASTM A572 GR 50 (Q345 or Q355)	*1	1.2/ 0.54
2	Step Bolt - M20x2.5 x 225mm - A449 (GR 8.8) HDG	*1	0.88/ 0.64
3	Heavy Hex Nut, M20x2.5 - A563 GR DH (GR 8.8) HDG	*2	0.224/ 0.11

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	initial release	10/12/20	MGC
B	Revised BOM bolt length to 225mm	11/2/20	MGC

CLIP-STEP BOLT

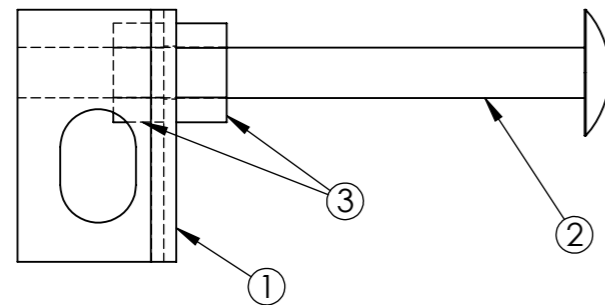


Fabrication Notes:

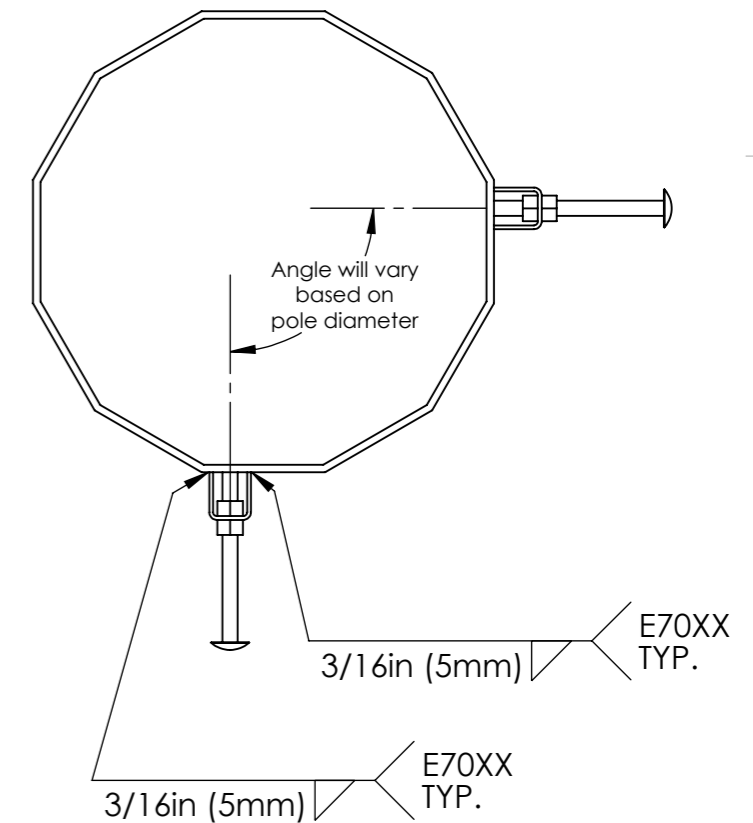
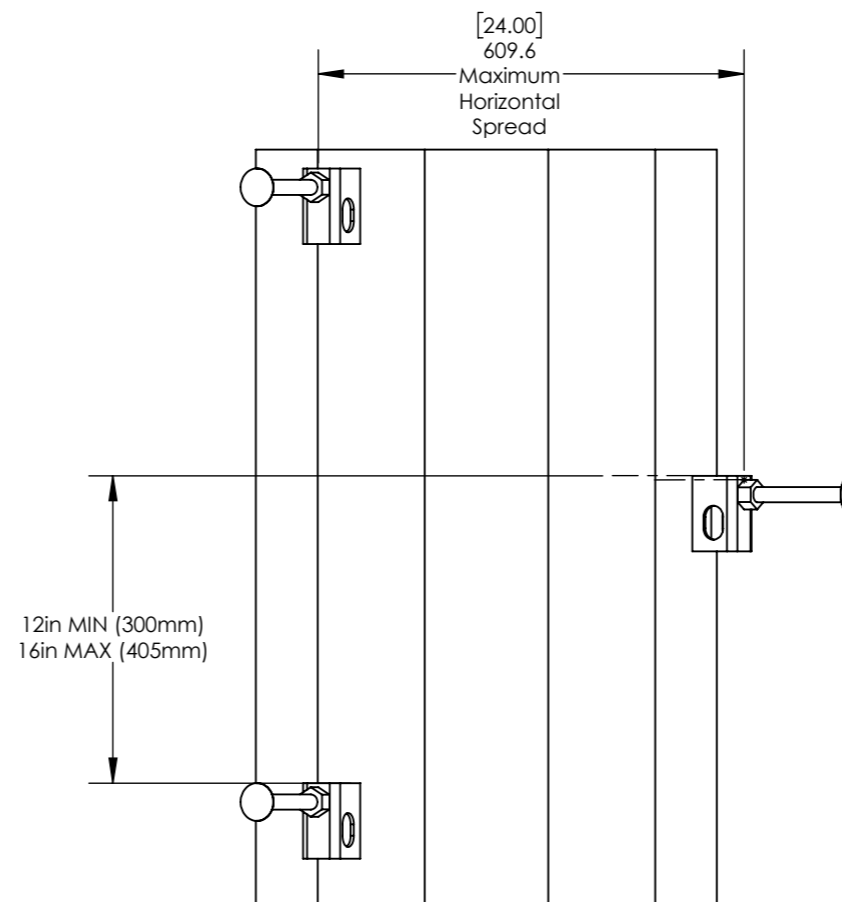
- *The number of Clips/ Step Bolts will vary based on height of pole and shall be equally spaced between the upper and lower cable mount brackets (see pg. 2).
- All plate material shall have a minimum yield strength of 345 MPa (50 ksi)
- All welding shall conform to the minimum requirements of AWS D1.1
- All welding shall be done by welders qualified under AWS specifications, using E70XX, low hydrogen electrodes
- Hot Dip Galvanized in accordance with ASTM A123
- Debur all sharp edges

Installation Steps:

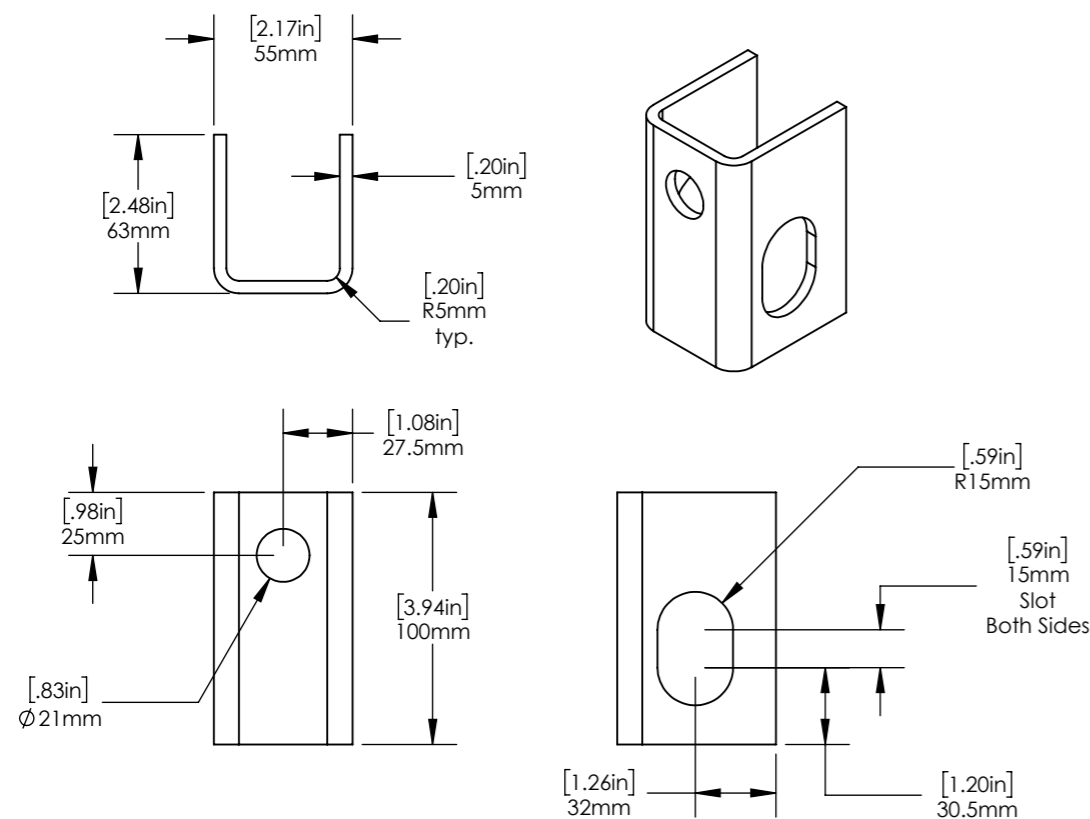
- Outside nut shall be turned to end of step bolt threads prior to installation.
- Step bolt shall be turned through inside nut until bolt makes snug contact with pole.
- Outside nut shall be snugged against clip then tightened 1/4 to 1/2 turn to achieve proper step bolt preload.



CLIP-STEP BOLT SPACING



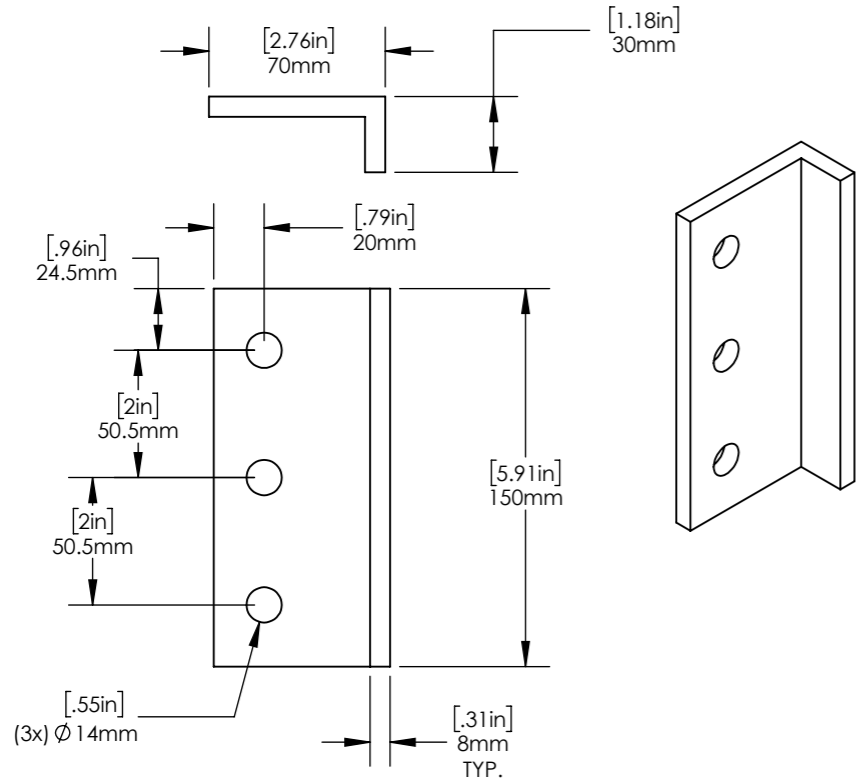
CLIP



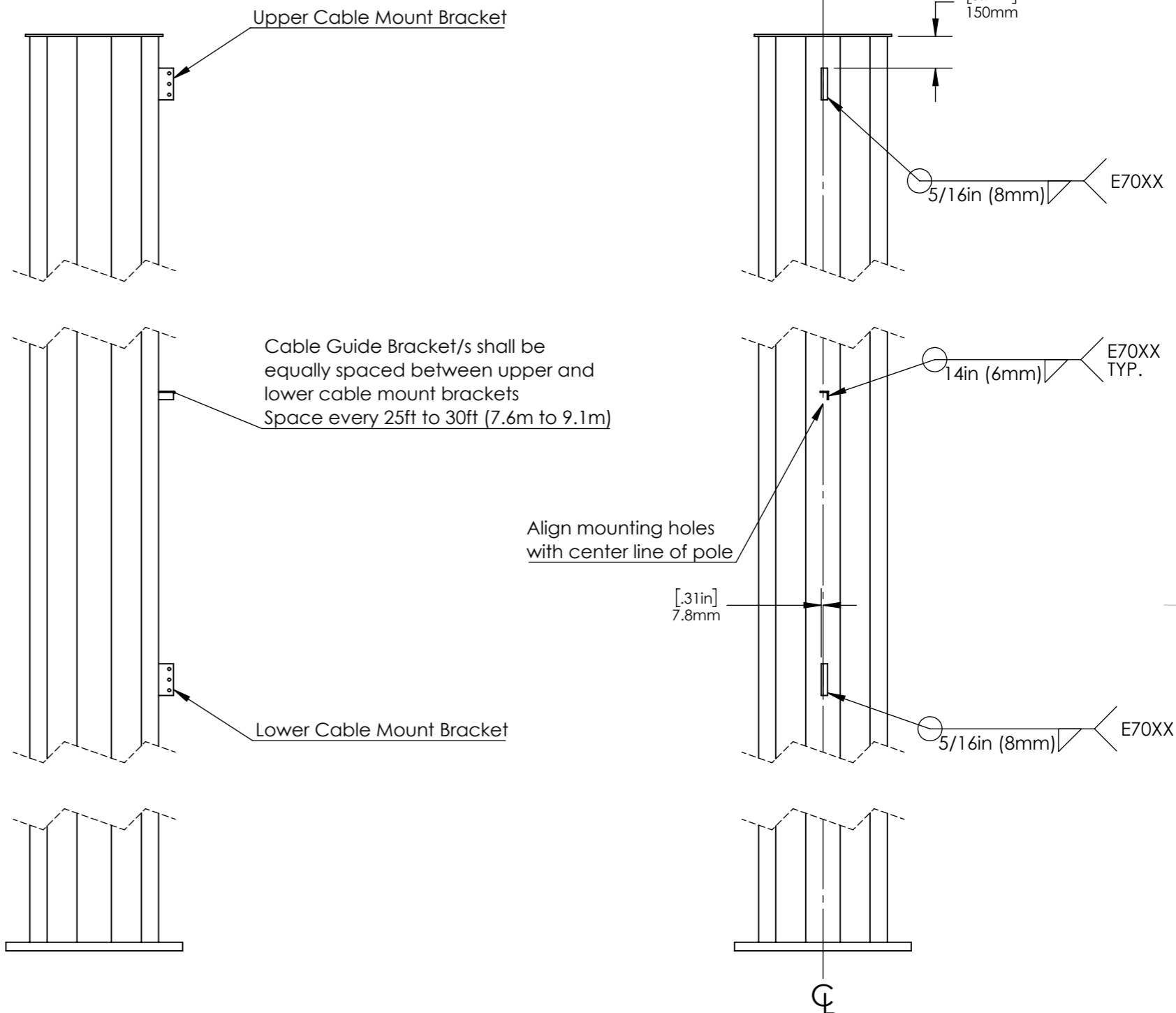
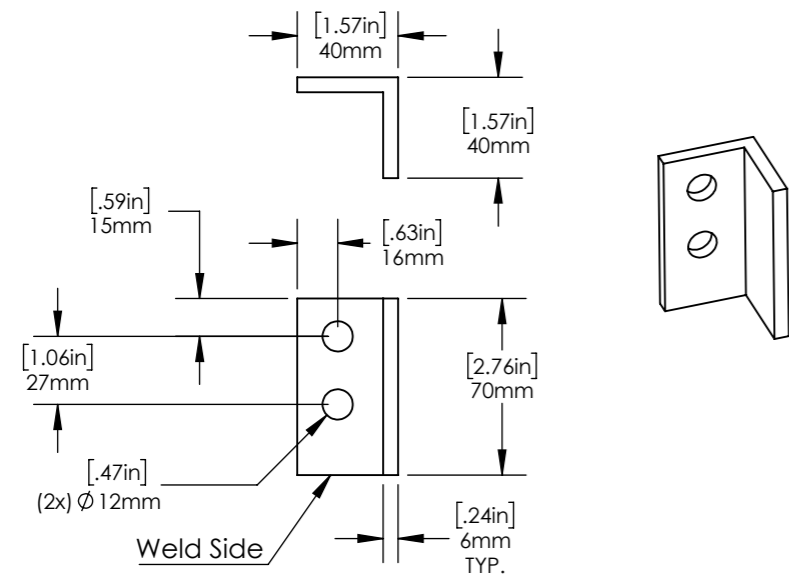
CAD-generated drawing do not manually update				1041 Grand Ave., #213 St. Paul, MN 55105 (651) 330-1263 www.aretelcom.com	
Total Weight 3.1 lbs (1.41 kg)		APPROVALS DRAWN MGC CHECKED RESP ENG MFG ENG QUAL ENG		DATE 10/12/20	
MATERIAL See Notes		Step Bolt/ Clip		CAD file : Details and dimensions not shown on this drawing can be found in CAD file.	
FINISH See Notes		scale NA rev. B size NA sheet 4 of 6			
DO NOT SCALE DRAWING					

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Cable Mount Bracket



Cable Guide Bracket



Fabrication Notes:

- *The number of cable guides will vary based on height of pole and shall be equally spaced between the upper and lower cable mount brackets.
- All plate material shall have a minimum yield strength of 345 MPa (50 ksi)
- All welding shall conform to the minimum requirements of AWS D1.1
- All welding shall be done by welders qualified under AWS specifications, using E70XX, low hydrogen electrodes
- Hot Dip Galvanized in accordance with ASTM A123
- Debur all sharp edges

#	DESCRIPTION (Optional Grade)	QTY	Weight lb/ kg
1	Cable Mount Bracket-ASTM A572 GR 50 (Q345 or Q355)	2	1.85/ 0.84
2	Cable Guide Bracket-ASTM A572 GR 50 (Q345 or Q355)	*1 or more	0.51/ 0.23

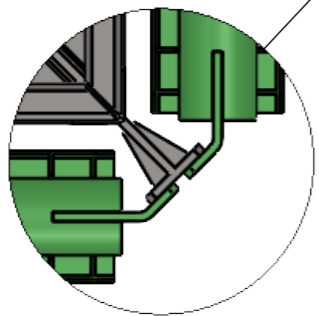
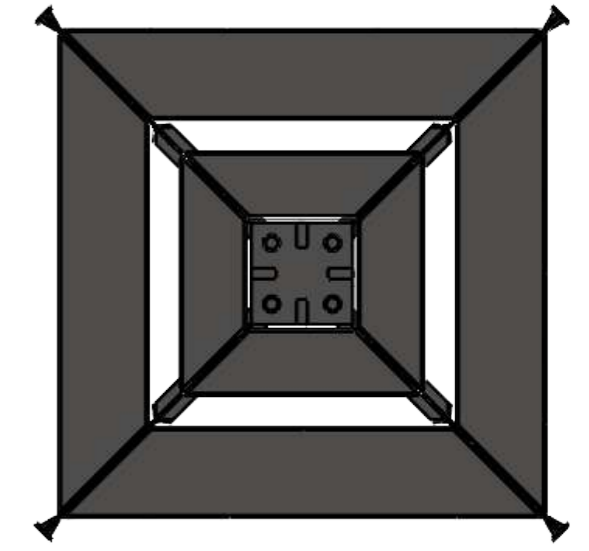
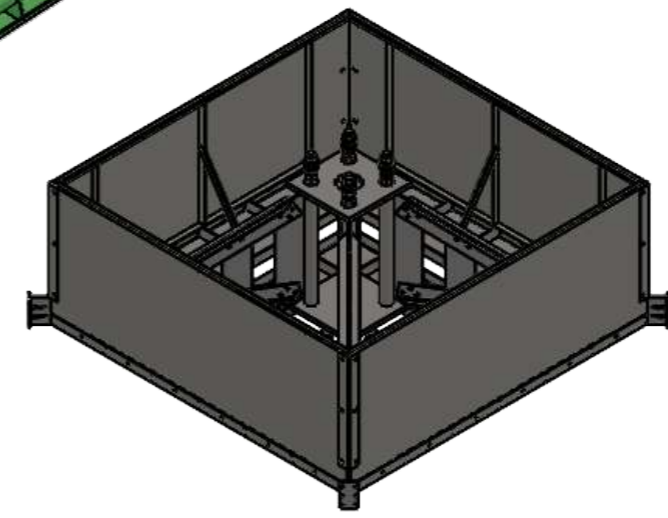
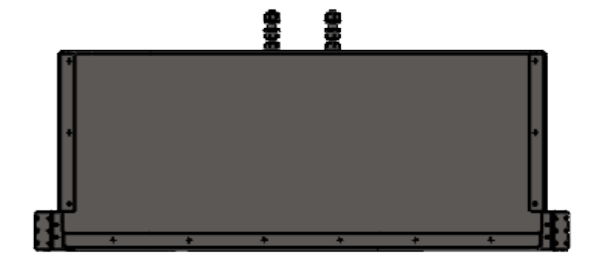
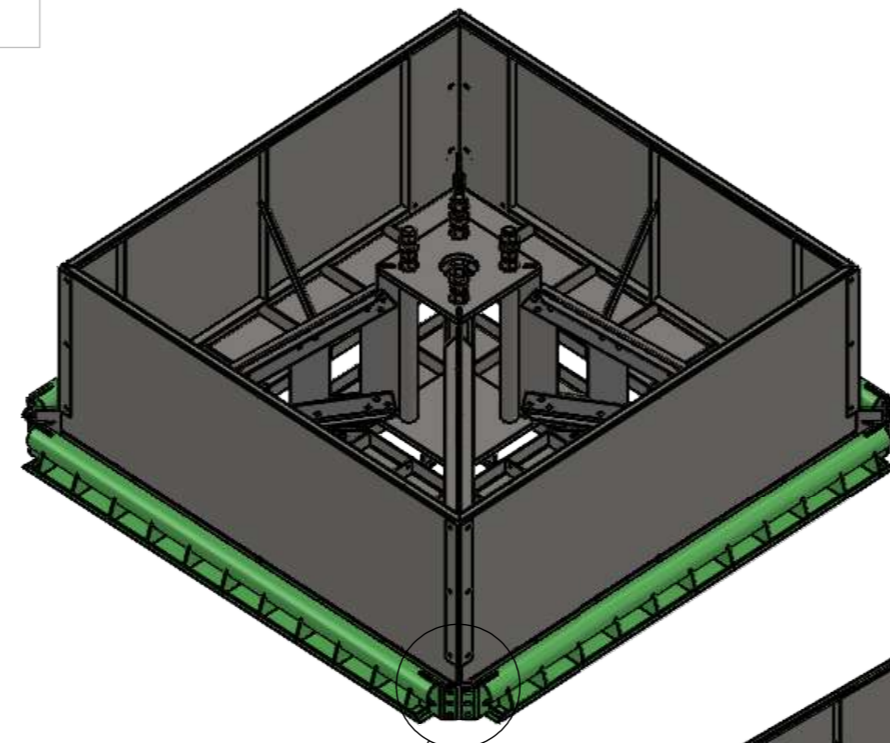
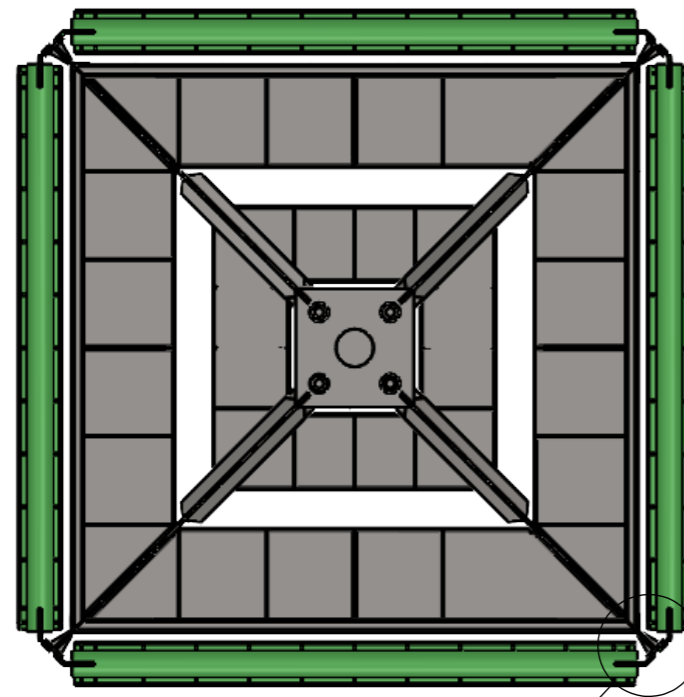
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Cable Mount/ Guide Brackets

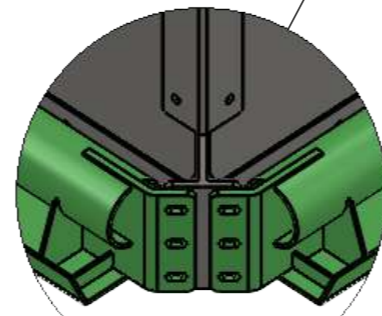
Part #

scale NA rev. B size NA sheet 5 of 6

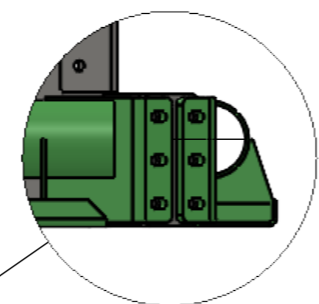
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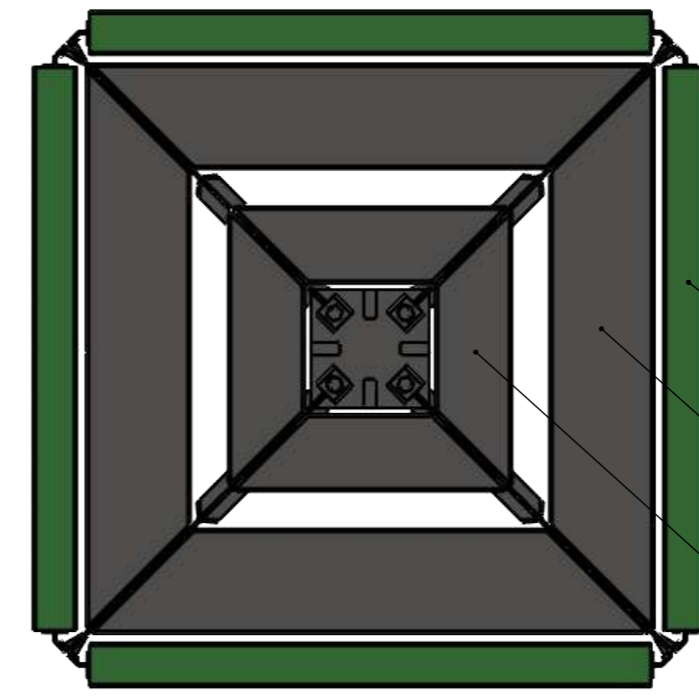
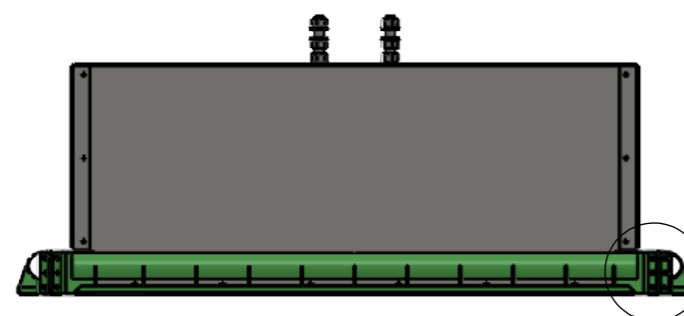
DETAIL A



DETAIL B



DETAIL C



0.346 m²
3.72 ft²

0.710 m²
7.639 ft²

0.221 m²
2.38 ft²

Total Surface Area
 • 5.108 m²
 • 54.96 ft²

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AFS350

Part #
 scale NA rev. A size NA sheet 6 of 6