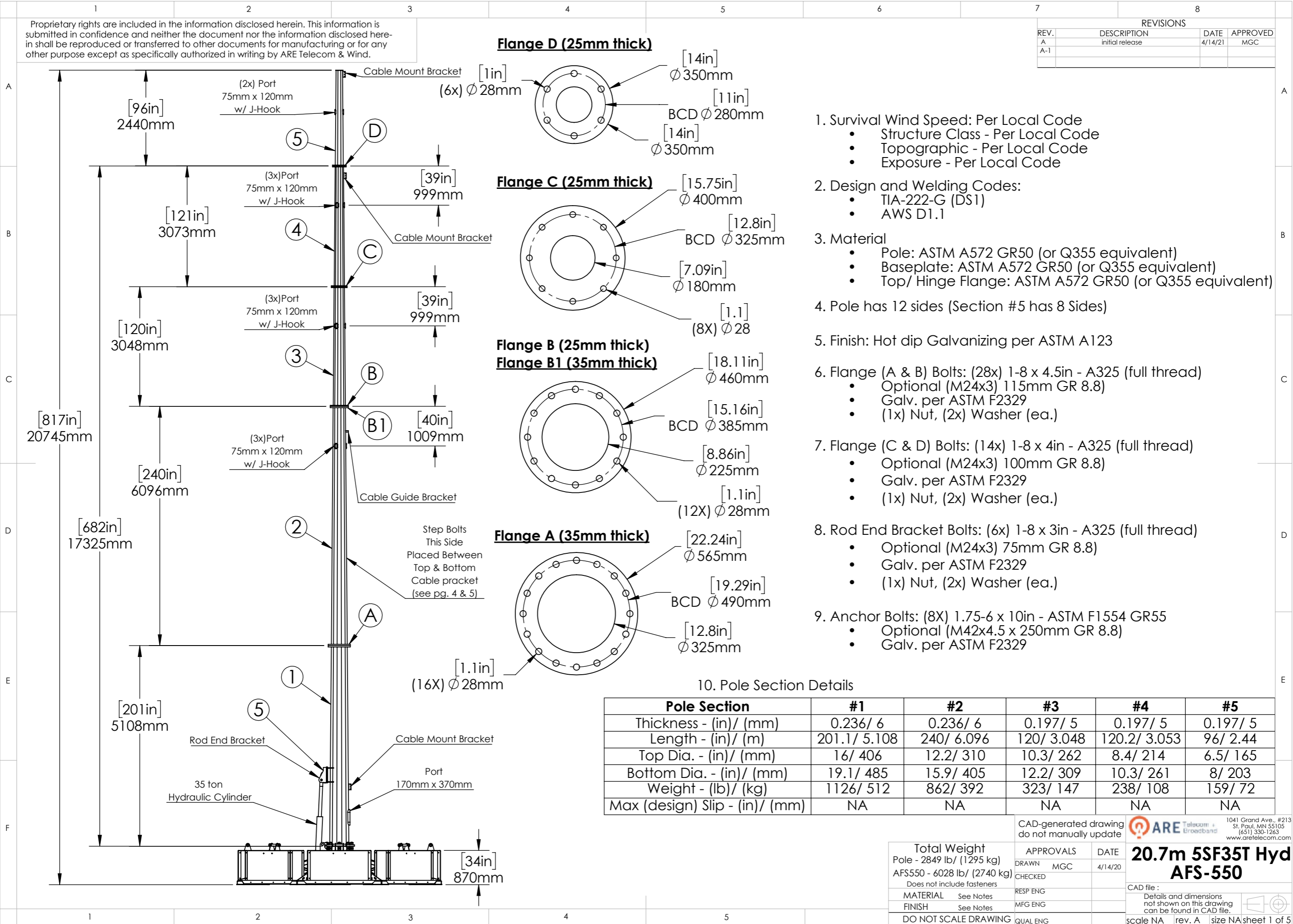
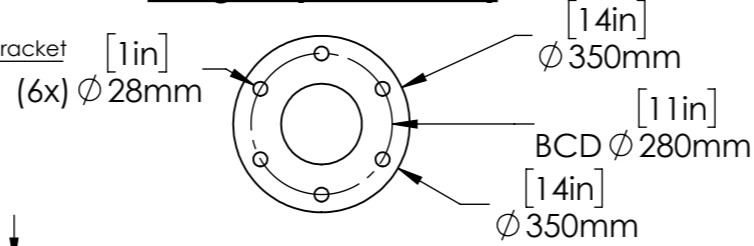


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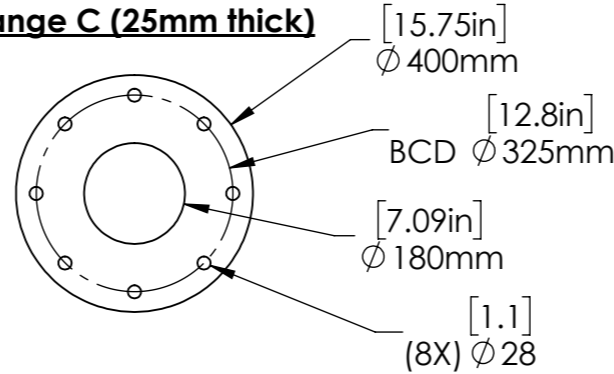
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	initial release	4/14/21	MGC
A-1			



**Flange D (25mm thick)**

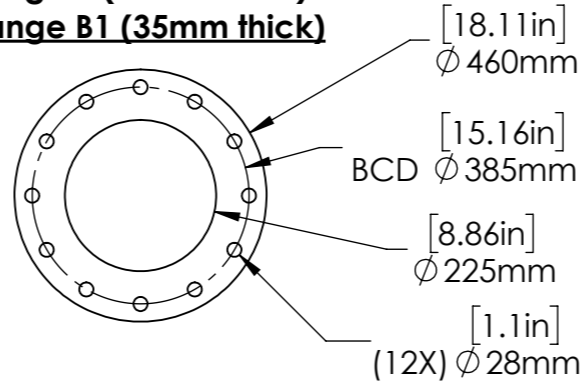


**Flange C (25mm thick)**

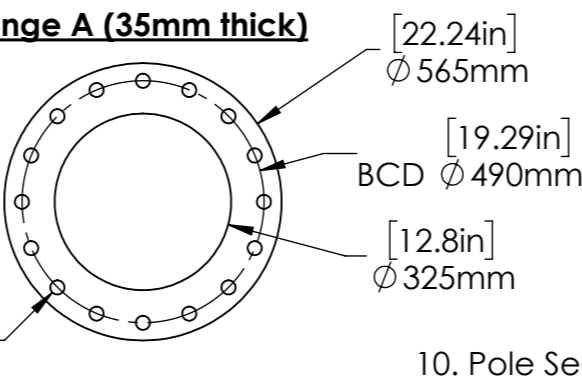


**Flange B (25mm thick)**

**Flange B1 (35mm thick)**



**Flange A (35mm thick)**



- Survival Wind Speed: Per Local Code
  - Structure Class - Per Local Code
  - Topographic - Per Local Code
  - Exposure - Per Local Code
- Design and Welding Codes:
  - TIA-222-G (DS1)
  - AWS D1.1
- Material
  - Pole: ASTM A572 GR50 (or Q355 equivalent)
  - Baseplate: ASTM A572 GR50 (or Q355 equivalent)
  - Top/ Hinge Flange: ASTM A572 GR50 (or Q355 equivalent)
- Pole has 12 sides (Section #5 has 8 Sides)
- Finish: Hot dip Galvanizing per ASTM A123
- Flange (A & B) Bolts: (28x) 1-8 x 4.5in - A325 (full thread)
  - Optional (M24x3) 115mm GR 8.8)
  - Galv. per ASTM F2329
  - (1x) Nut, (2x) Washer (ea.)
- Flange (C & D) Bolts: (14x) 1-8 x 4in - A325 (full thread)
  - Optional (M24x3) 100mm GR 8.8)
  - Galv. per ASTM F2329
  - (1x) Nut, (2x) Washer (ea.)
- Rod End Bracket Bolts: (6x) 1-8 x 3in - A325 (full thread)
  - Optional (M24x3) 75mm GR 8.8)
  - Galv. per ASTM F2329
  - (1x) Nut, (2x) Washer (ea.)
- Anchor Bolts: (8X) 1.75-6 x 10in - ASTM F1554 GR55
  - Optional (M42x4.5 x 250mm GR 8.8)
  - Galv. per ASTM F2329

10. Pole Section Details

Pole Section	#1	#2	#3	#4	#5
Thickness - (in)/ (mm)	0.236/ 6	0.236/ 6	0.197/ 5	0.197/ 5	0.197/ 5
Length - (in)/ (m)	201.1/ 5.108	240/ 6.096	120/ 3.048	120.2/ 3.053	96/ 2.44
Top Dia. - (in)/ (mm)	16/ 406	12.2/ 310	10.3/ 262	8.4/ 214	6.5/ 165
Bottom Dia. - (in)/ (mm)	19.1/ 485	15.9/ 405	12.2/ 309	10.3/ 261	8/ 203
Weight - (lb)/ (kg)	1126/ 512	862/ 392	323/ 147	238/ 108	159/ 72
Max (design) Slip - (in)/ (mm)	NA	NA	NA	NA	NA

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Total Weight Pole - 2849 lb/ (1295 kg) AFS550 - 6028 lb/ (2740 kg) Does not include fasteners	APPROVALS DRAWN MGC CHECKED RESP ENG MFG ENG QUAL ENG	DATE 4/14/20
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**20.7m 5SF35T Hyd AFS-550**

CAD file:  
 Details and dimensions not shown on this drawing can be found in CAD file.

scale NA rev. A size NAsheet 1 of 5

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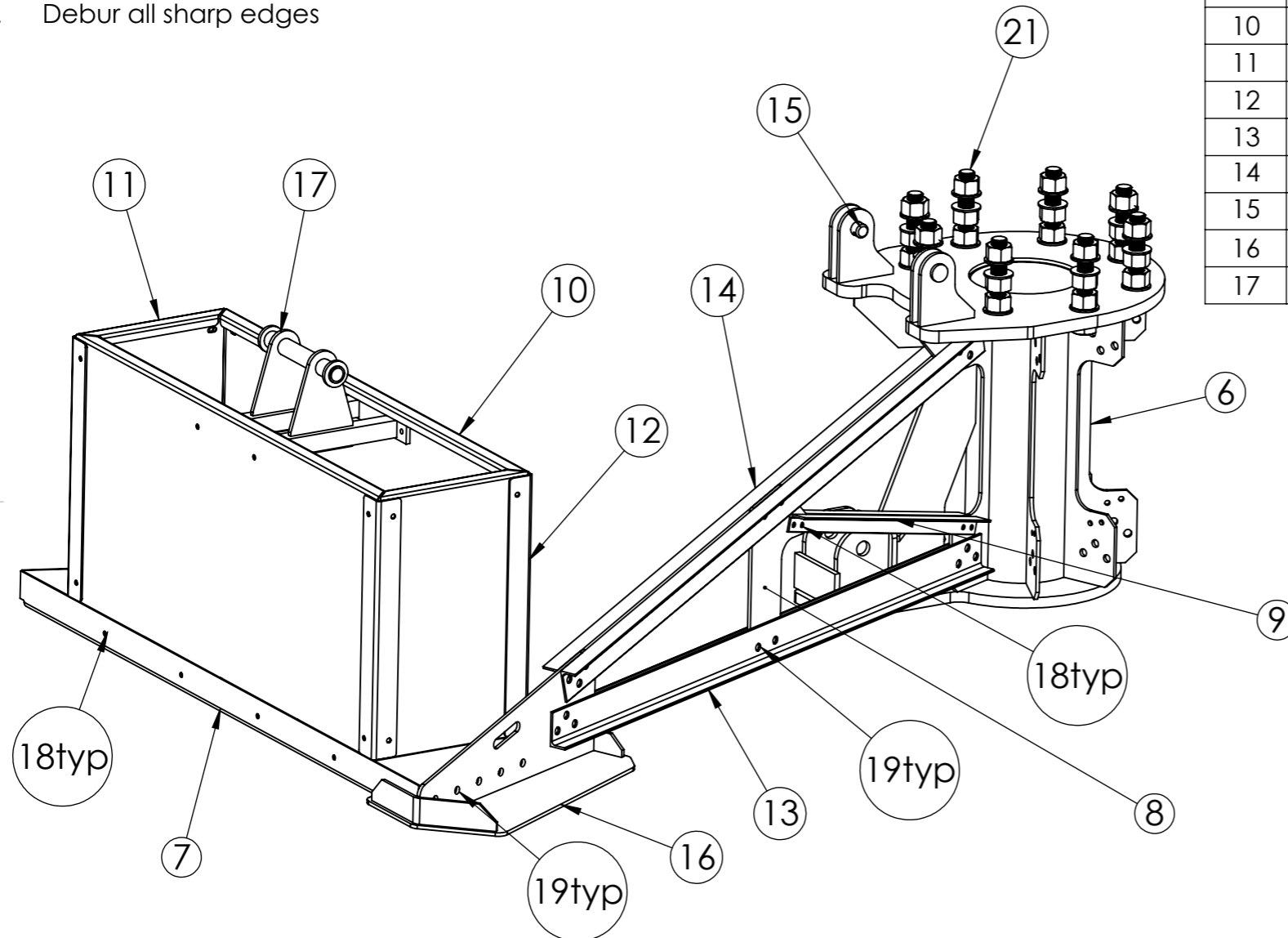
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	initial release	4/14/21	MGC

**Notes 3:**

- All plate and right angle 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 E80XX, low hydrogen electrodes
- All components shall Hot Dip Galvanized in accordance with ASTM A123
- Debur all sharp edges

AFS-550 Bill of Materials			
#	DESCRIPTION	QTY.	Weight (kg/ lbs)
5*	Rod End Bracket	1	29/ 64
6	Kingpost	1	323/ 710
7	Ballast Tray	8	64/ 141
8	Vertical Web	8	6/ 13
9	Diagonal Web	16	3.5/ 7.7
10	Sidewall front/ back	16	35/ 77
11	Sidewall Sides	16	10/ 22.5
12	Corner bracket	32	4.2/ 9.3
13	Horizontal Brace	16	14/ 31
14	Diagonal Brace	16	14/ 31
15	Hinge Pin 39mm	2	1/ 2.2
16	Truss Heel	8	42/ 92
17	Lift Mount/ Rest	8	21/ 46.2

\* Reference Pole Drawing



**AFS-550 Bolts, Nuts & Washers (other equivalent grades acceptable)**

#	Unit	Bolt Size	Length	Width Across Flats	Thread Length	Grade	Coating	Nut Qty.	Washer Qty.	Bolt Qty.
18	Metric	M12x1.75	40mm	18mm	Full Thread	8.8	Hot Dip Galv.	272	544	272
18	Imperial	1/2-13	1-5/8"	7/8"	Full Thread	A325	Hot Dip Galv.	272	544	272
19	Metric	M20x2.5	50mm	30mm	Full Thread	8.8	Hot Dip Galv.	168	336	168
19	Imperial	3/4-10	2"	1-1/4"	Full Thread	A325	Hot Dip Galv.	168	336	168
20	Metric	M42x4.5	250mm	65mm	225mm	8.8	Hot Dip Galv.	24	32	8
20	Imperial	1-1/2-6	10"	2-3/8"	9"	A325	Hot Dip Galv.	24	32	8

Does not include anchor bolts, templates or flange bolts

APPROVALS	DATE
DRAWN MGC	4/14/21
CHECKED	
RESP ENG	
MFG ENG	
QUAL ENG	

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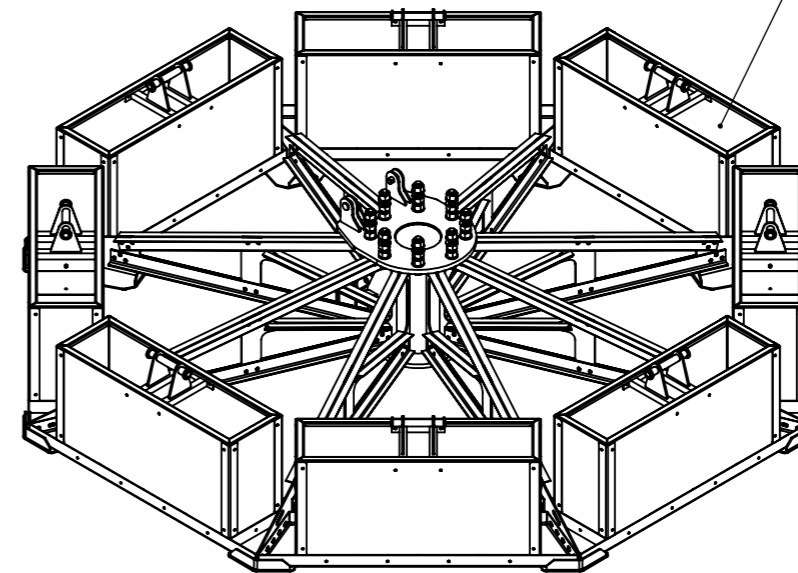
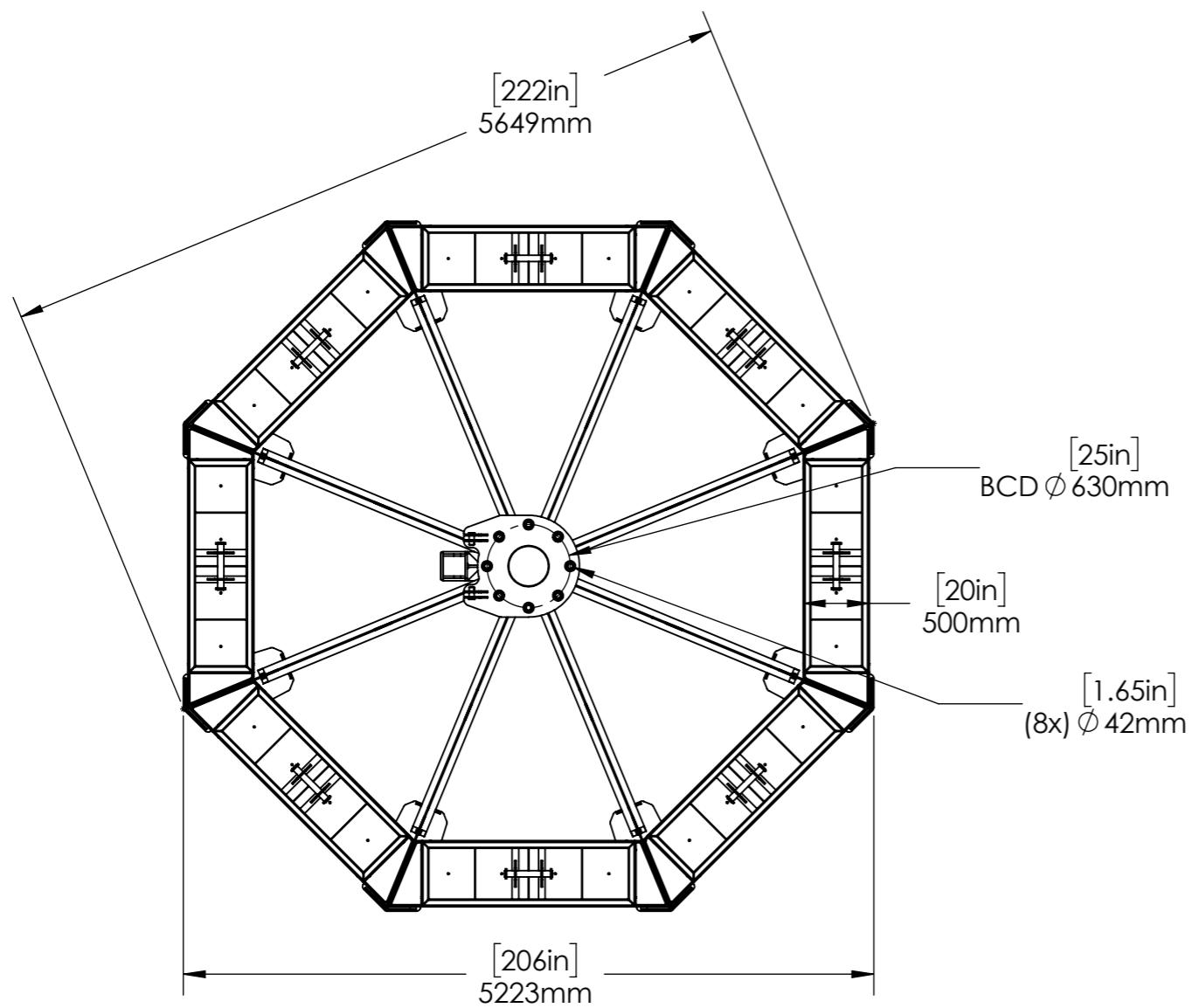
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**AFS-550 BOM**

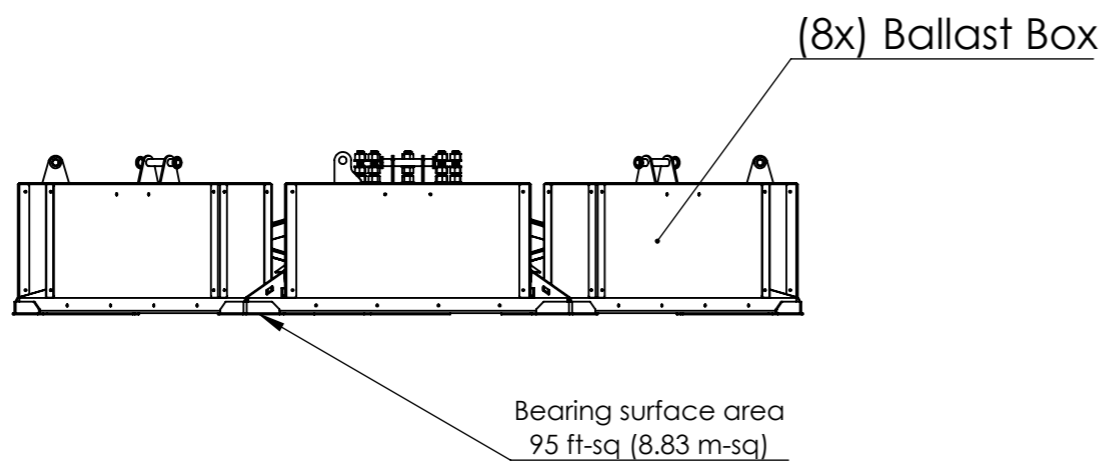
CAD file : Details and dimensions not shown on this drawing can be found in CAD file

scale NA rev. A size NA 2 of 5

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Ballast Box Volume  
 24 cu-ft (0.68 cu-m)  
 Total Ballast  
 7.1 cu-yd (5.44 cu-m)  
 Minimum Ballast Weight  
 110 lbs per cu-ft

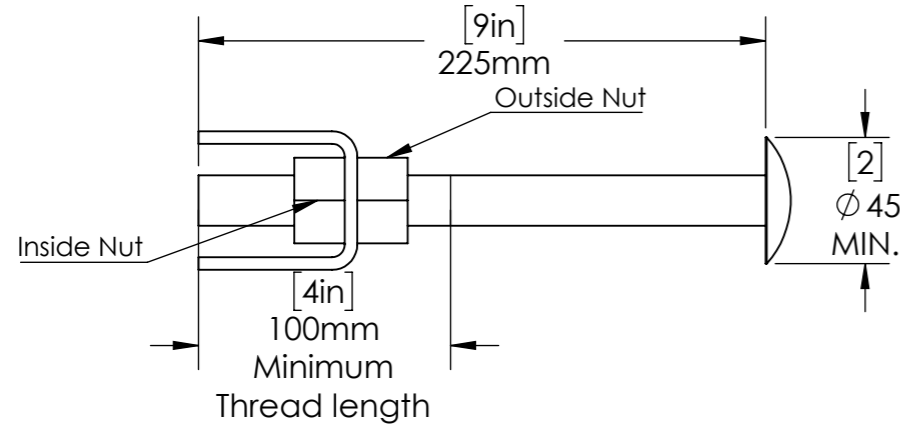


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#	DESCRIPTION (Optional Grade)	QTY	Weight (lb/ kg)
1	Clip - ASTM A572 GR 50 (Q345 or Q355)	*1	1.2/ 0.54
2	Step Bolt - M20x2.5 x 225mm - A449 (GR 8.8) HDG	*1	0.88/ 0.64
3	Heavy Hex Nut, M20x2.5 - A563 GR DH (GR 8.8) HDG	*2	0.224/ 0.11

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

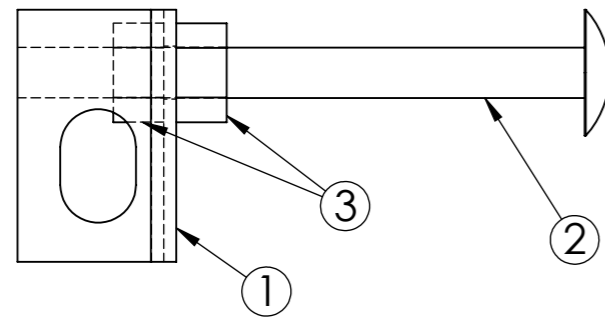


### Fabrication Notes:

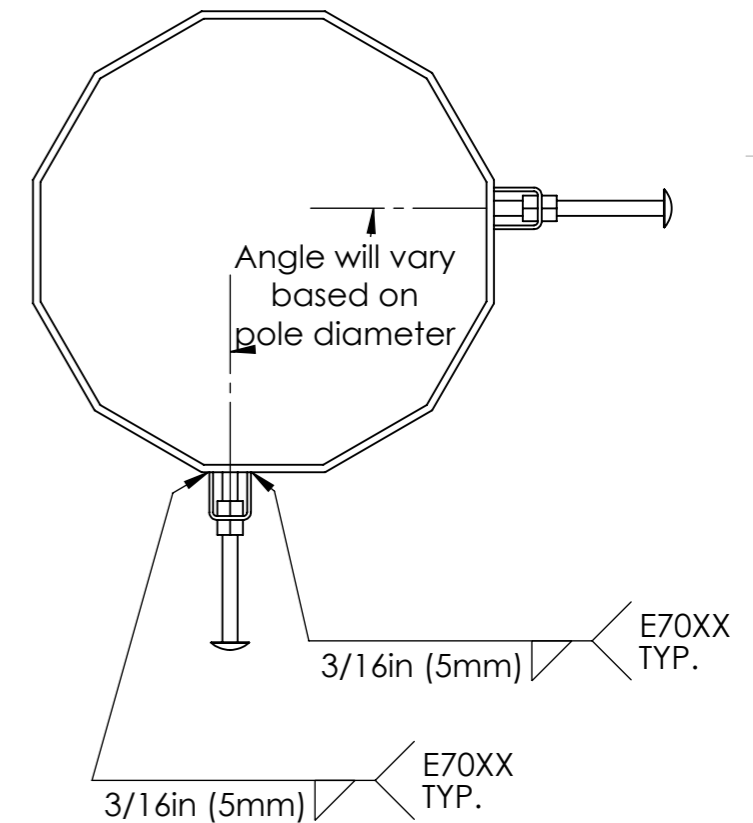
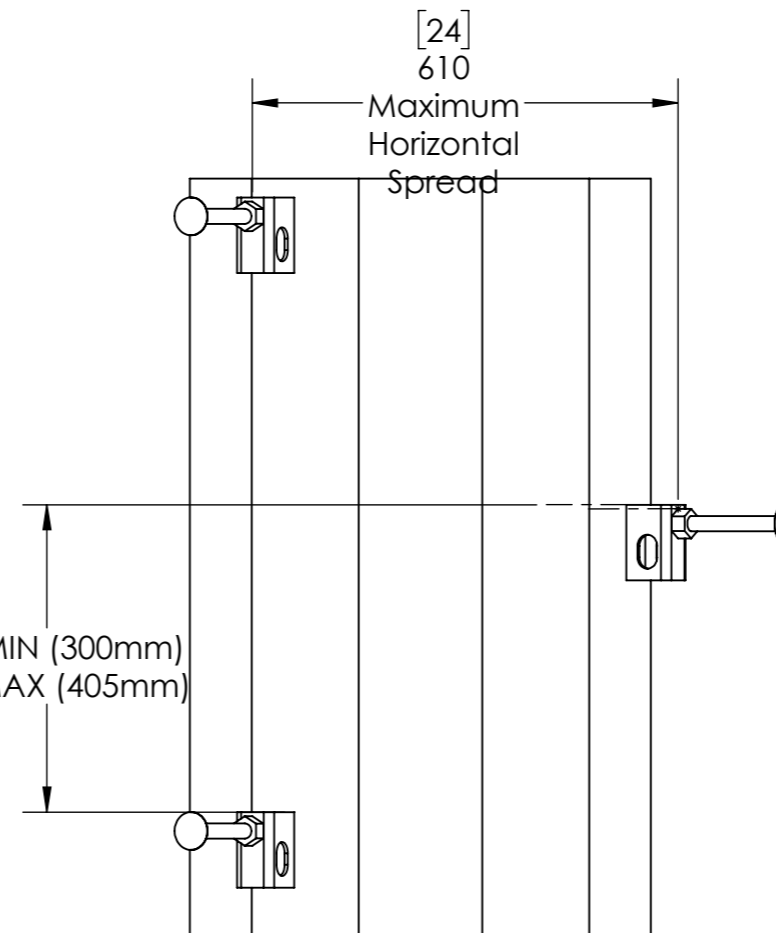
- \*The number of Clips/ Step Bolts will vary based on height of pole and shall be equally spaced between the upper and lower cable mount brackets (see pg. 2).
- All plate material shall have a minimum yield strength of 345 MPa (50 ksi)
- All welding shall conform to the minimum requirements of AWS D1.1
- 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:

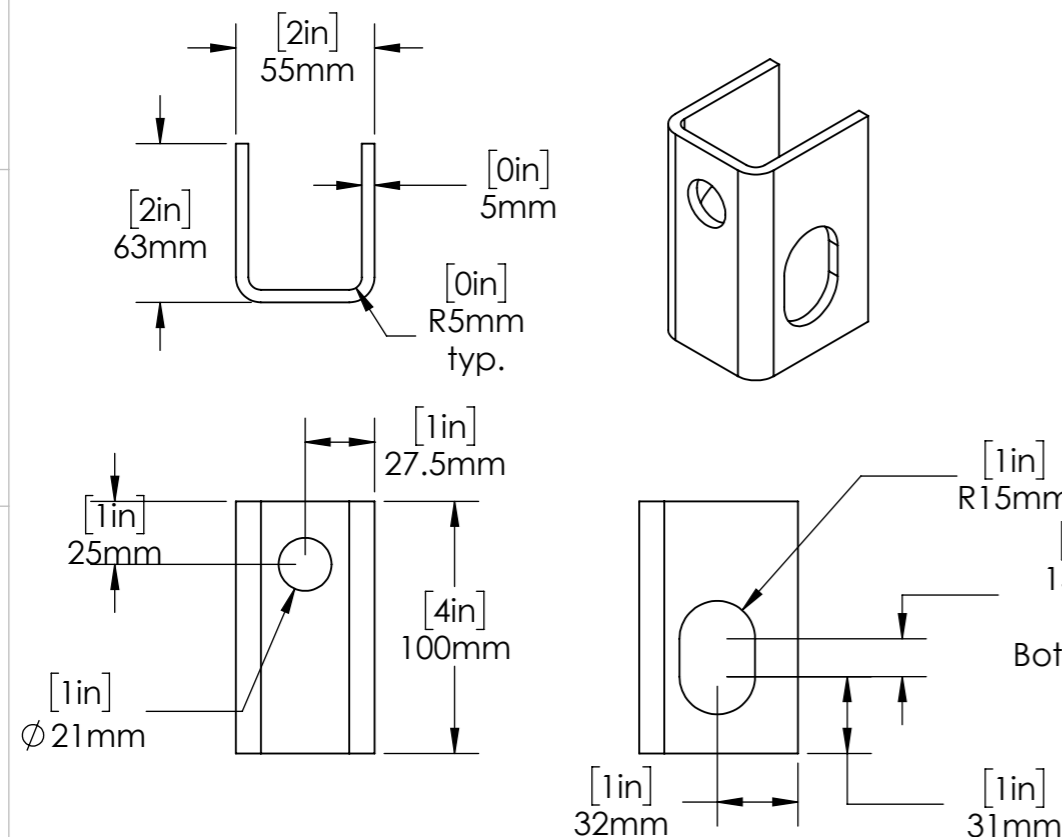
- Outside nut shall be turned to end of step bolt threads prior to installation.
- Step bolt shall be turned through inside nut until bolt makes snug contact with pole.
- Outside nut shall be snugged against clip then tightened 1/4 to 1/2 turn to achieve proper step bolt preload.



## CLIP-STEP BOLT SPACING



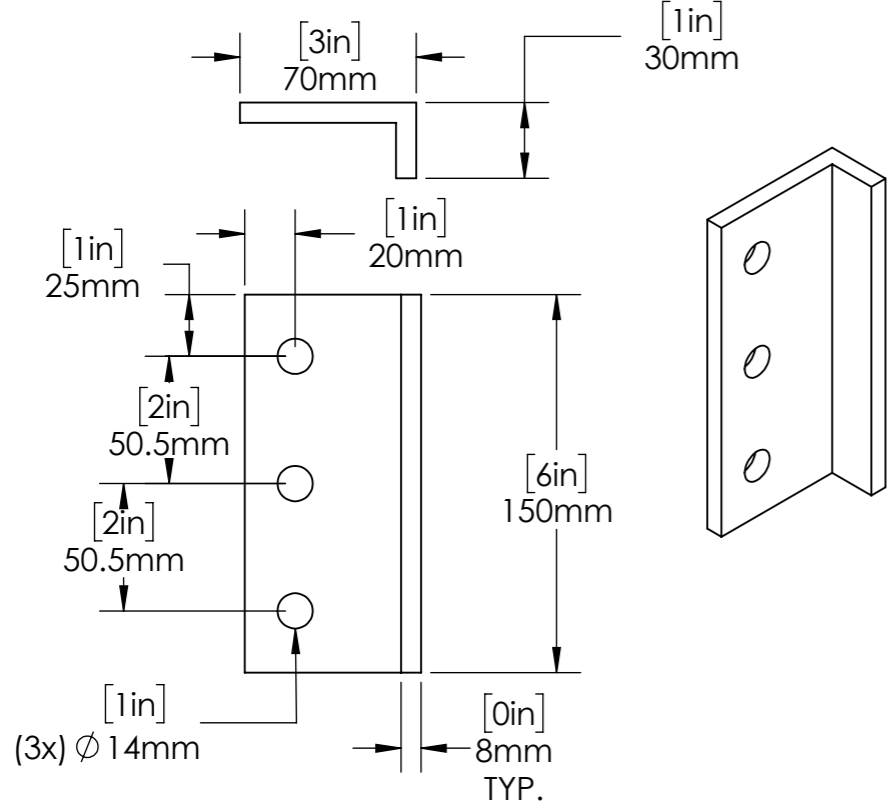
## CLIP



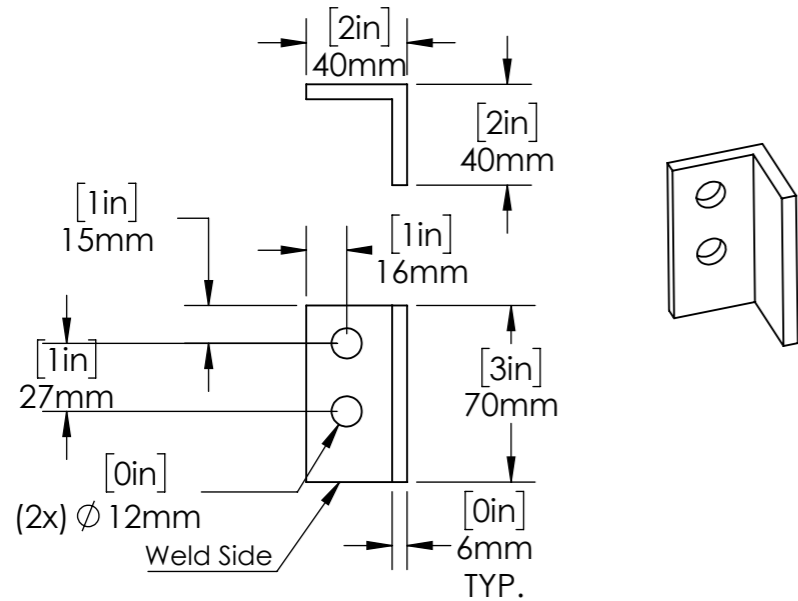
CAD-generated drawing do not manually update				1041 Grand Ave., #213 St. Paul, MN 55105 (651) 330-1263 www.aretelcom.com	
Total Weight 3.1 lbs (1.41 kg)		APPROVALS DRAWN MGC CHECKED RESP ENG MFG ENG QUAL ENG		DATE 10/12/20	
MATERIAL See Notes		Step Bolt/ Clip		CAD file : Details and dimensions not shown on this drawing can be found in CAD file.	
FINISH See Notes		scale NA rev. B size NA sheet 4 of 5			
DO NOT SCALE DRAWING					

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### Cable Mount Bracket

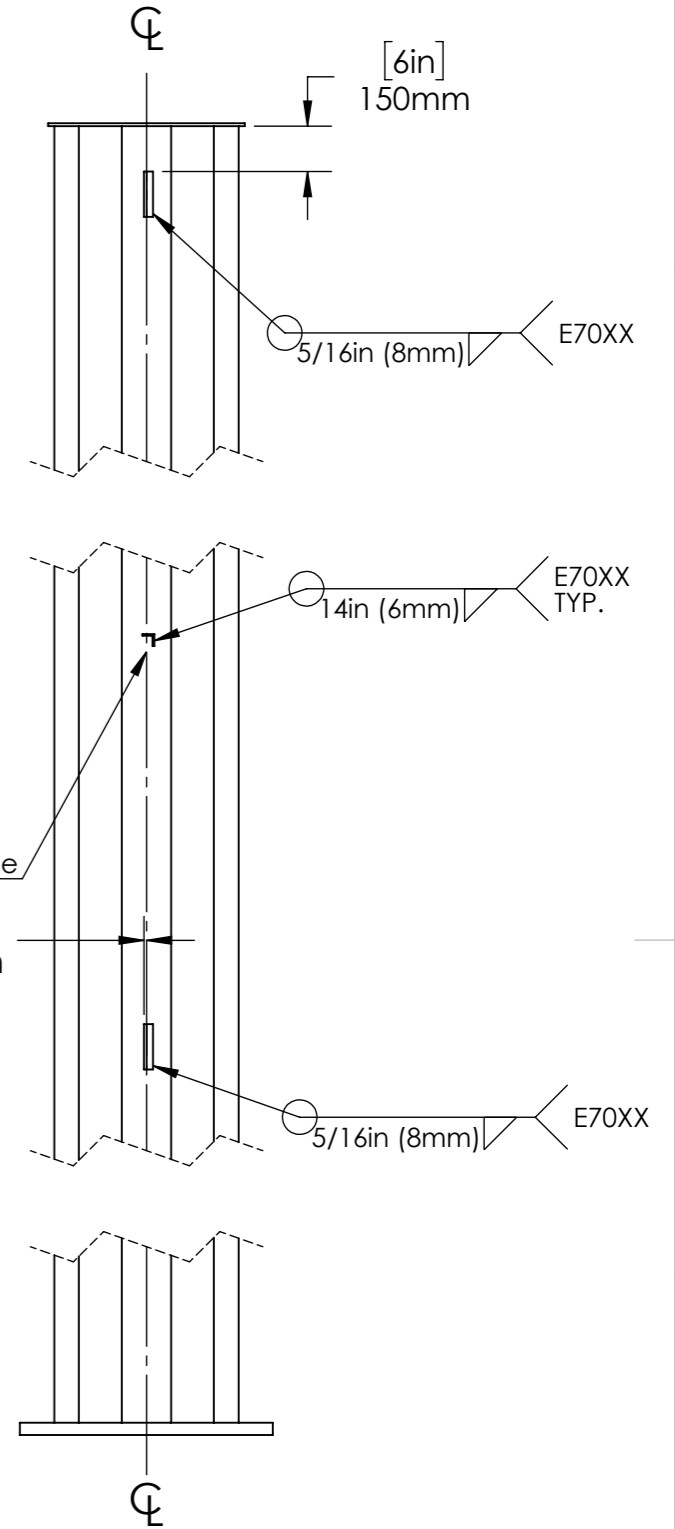
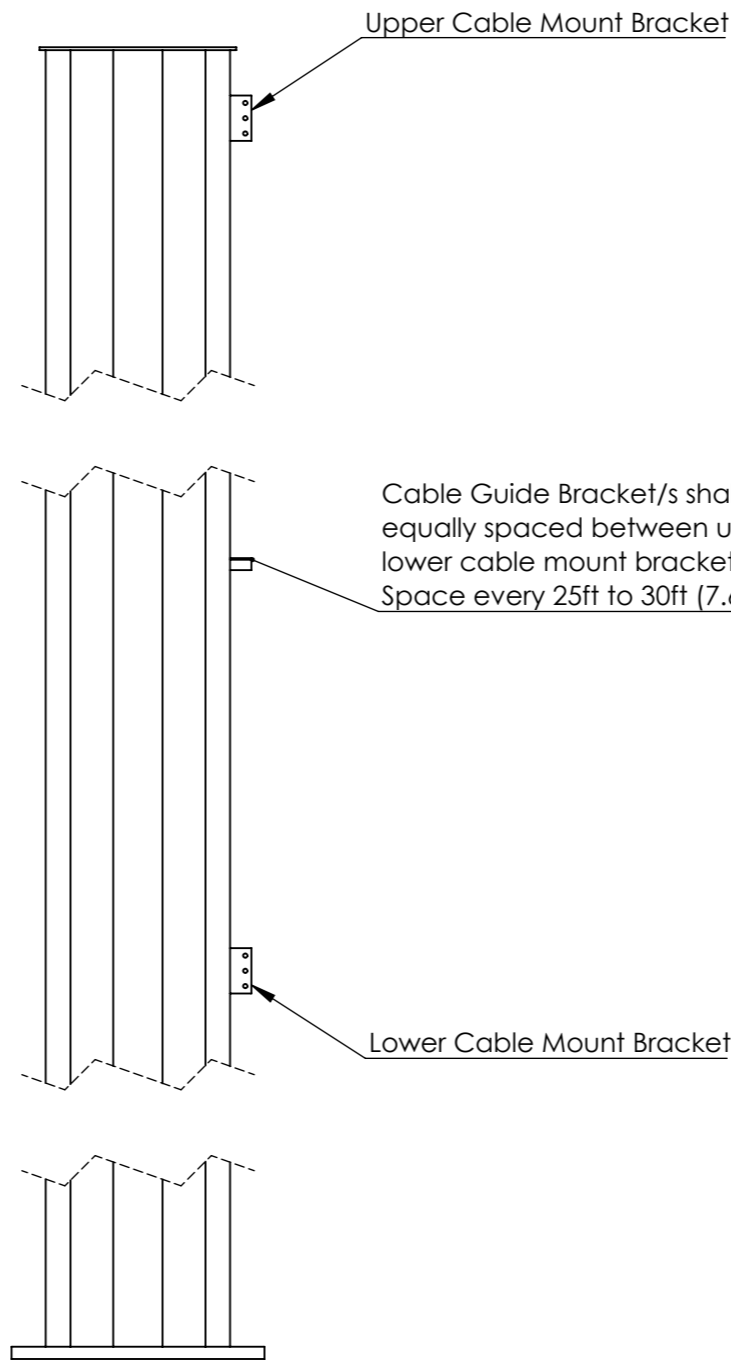


### Cable Guide Bracket



**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 5