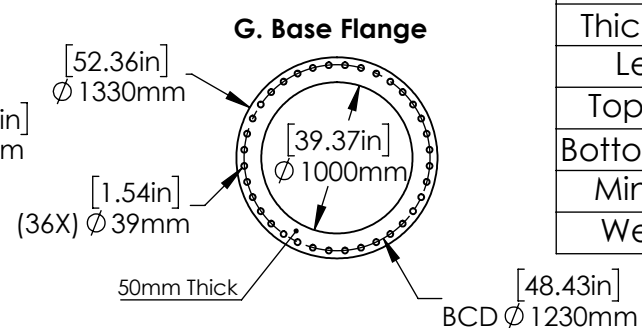
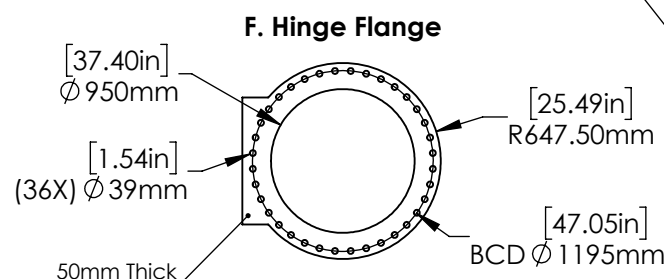
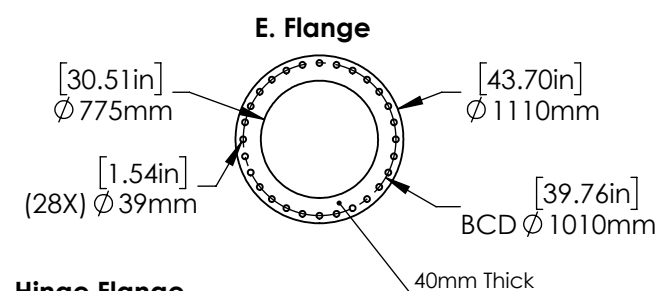
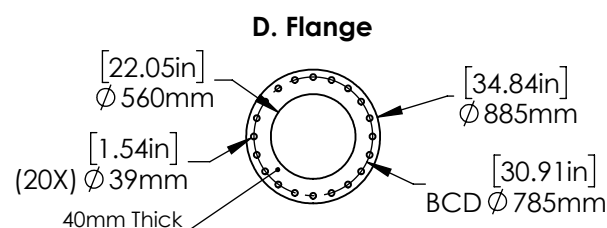
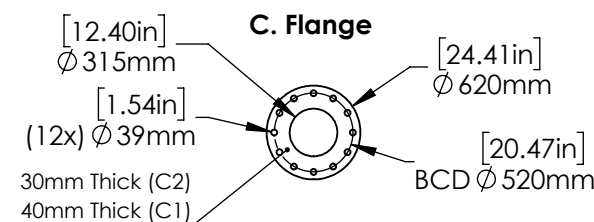
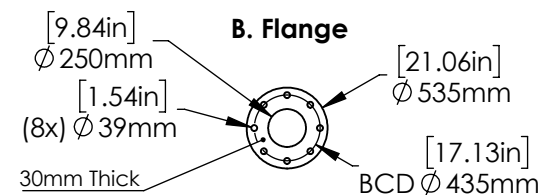
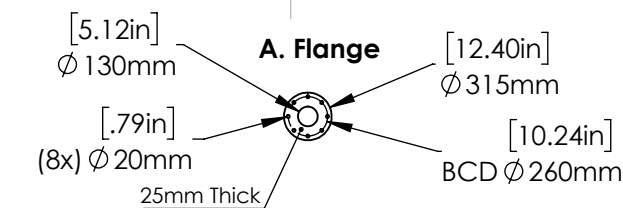
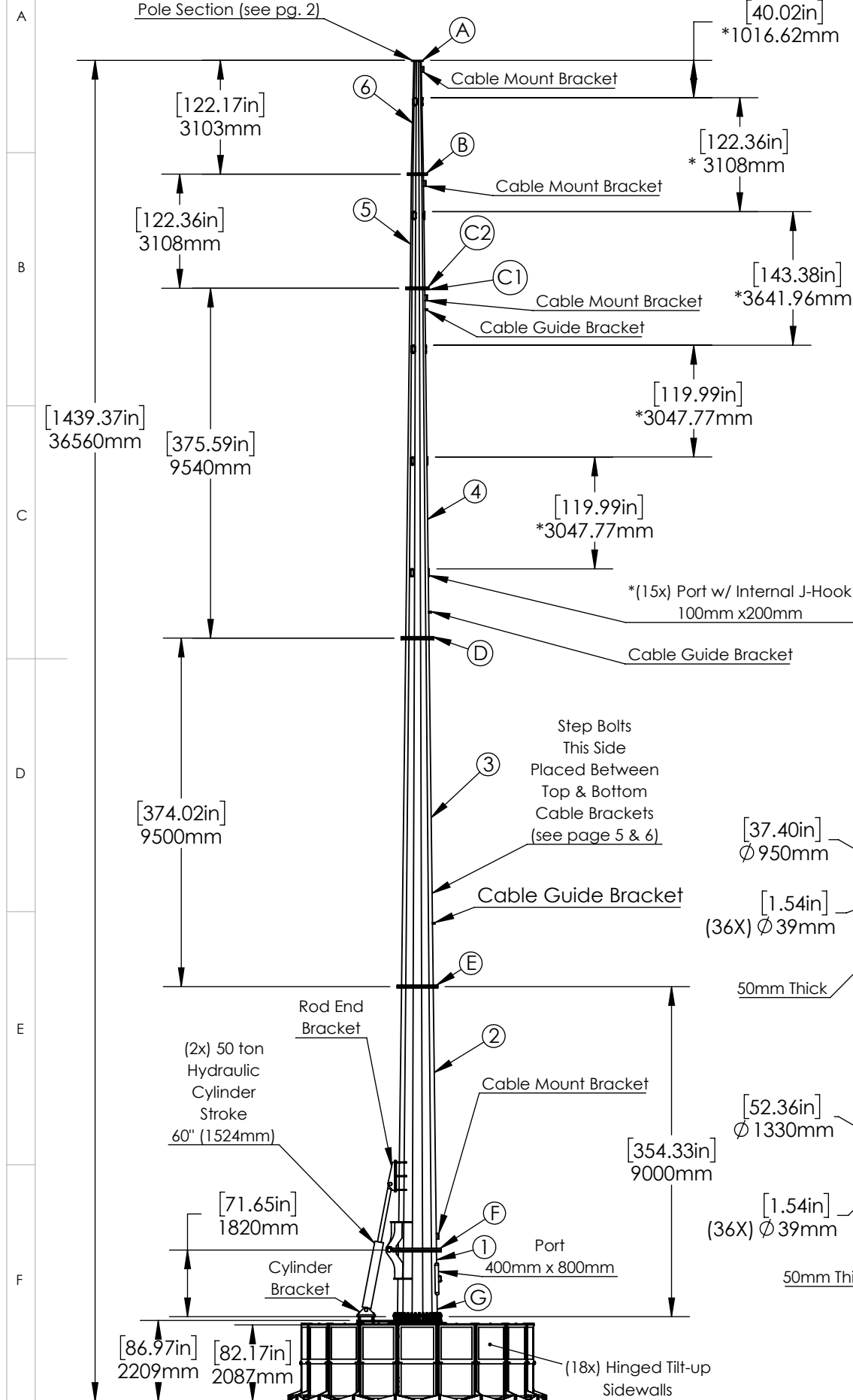


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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	initial release	2/3/21	MGC
B			



1. Survival Wind Speed: Per Local Code
  - Structure Class - Per Local Code
  - Exposure Category - Per Local Code
  - Topographic Category - Per Local Code
2. Design and Welding Codes:
  - TIA-222-G
  - AWS D1.1
3. Material (or equivalent)
  - Pole: ASTM A572 GR60 (Q420)
  - Baseplate: ASTM A572 GR50 (Q355)
  - Flange/ Plate: ASTM A572 GR50 (Q355)
4. Pole has 12 sides
5. Finish: Hot dip Galvanizing per ASTM A123
6. Flange (B, C, D, E): (68x) M33x3.5 x 125mm Full Thread, Grade 8.8
  - (Optional) 1 1/4-7 x 5" Full Thread, ASTM F1554 GR55 or A325
  - Galv. per ASTM F2329
  - (1X) Nut, (2X) Washer ea.
7. Hinge Flange (F): (36x) M33x3.5 x 150mm Full Thread, Grade 8.8
  - (Optional) 1 1/4-7 x 6" Full Thread, ASTM F1554 GR55 or A325
  - Galv. per ASTM F2329
  - (1X) Nut, (2X) Washer ea.
8. Rod End Bracket Bolts: (12x) M24x3 x 90mm Full Thread GR 8.8
  - (Optional) 1-8 x 3.5" Full Thread, ASTM F1554 GR55 or A325
  - Galv. per ASTM F2329
  - (1x) Nut, (2x) Washer (ea.)
9. Anchor Bolts: (44x) M33x3.5 x 300mm Full Thread, Grade 8.8
  - (Optional) 1 1/4-7 x 12" Full Thread, ASTM F1554 GR55 or A325
  - Galv. per ASTM F2329
  - (3X) Nut, (4X) Washer ea.


Pole Section	#1	#2	#3	#4	#5	#6
Thickness (mm)/ (in)	10/ 0.375	10/ 0.375	8/ 0.314	6/ 0.25	5/ 0.197	5/ 0.197
Length (m)/ (ft)	1.820/ 5.97	7.18/ 23.56	9.5/ 31.17	9.54/ 31.3	3.11/ 10.2	3.1/ 10.1
Top Dia. (mm)/ (in)	1041/ 41	866/ 34.1	633/ 24.9	401/ 15.79	325.5/ 12.8	202/ 7.95
Bottom Dia. (mm)/ (in)	1084/ 42.7	1041/ 41	866/ 34.1	631/ 24.84	400/ 15.75	324/ 12.76
Min Slip (mm)/ (in)		NA	NA	NA	NA	NA
Weight (kg)/ (lbs)	1127/ 2480	2454/ 5399	1674/ 3683	922/ 2028.4	232/ 510	155/ 341

US Patent # 9428877  
China Patent # ZL201490000869.X

CAD-generated drawing  
do not manually update

 **ARE**  
TELECOM & BROADBAND

**36.56m 6SF Hyd Pole  
AFS1700**

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

**Notes 1:**

1. See manual for instruction on operating and maintaining the hydraulic raising/ lowering system.

Steel Weight  
Pole 6957kg (15306lbs)  
AFS1700 9533kg (20973lbs)  
Does not include fasteners

MATERIAL	See Notes
FINISH	See Notes

FINISH See Notes

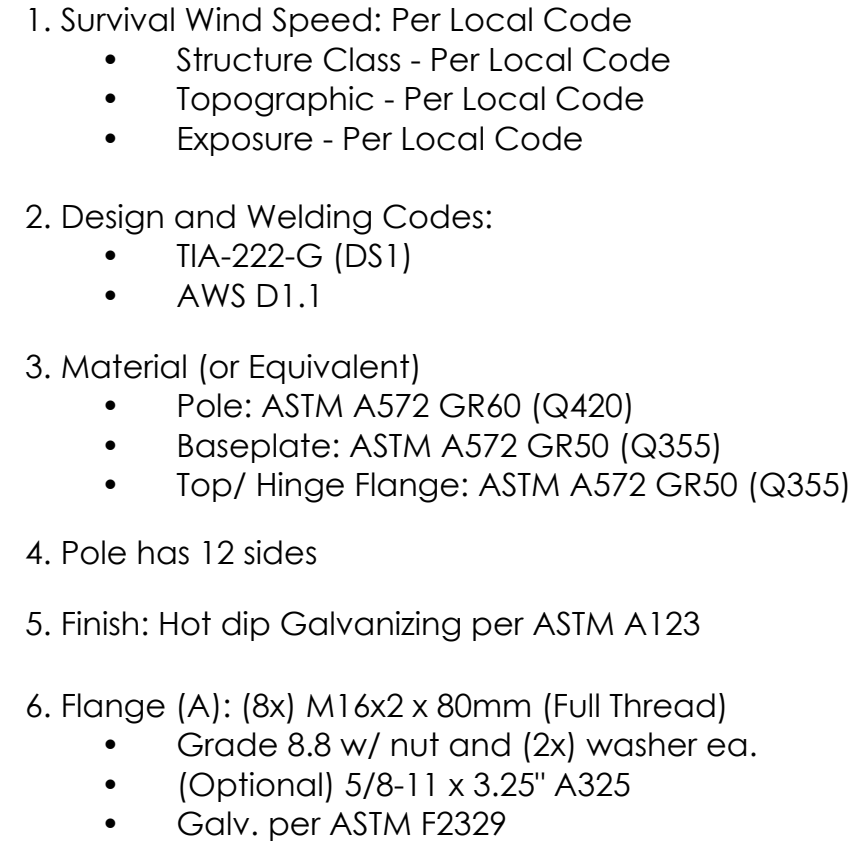
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APPROVAL	
DRAWN	MGC



S)	CHECKED
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MEG ENG

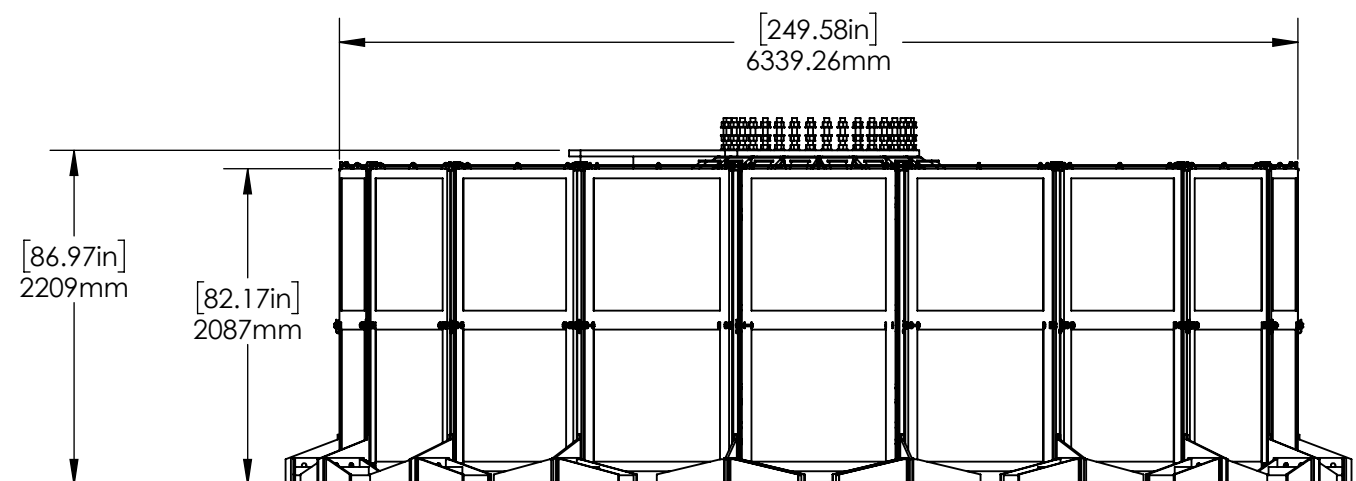
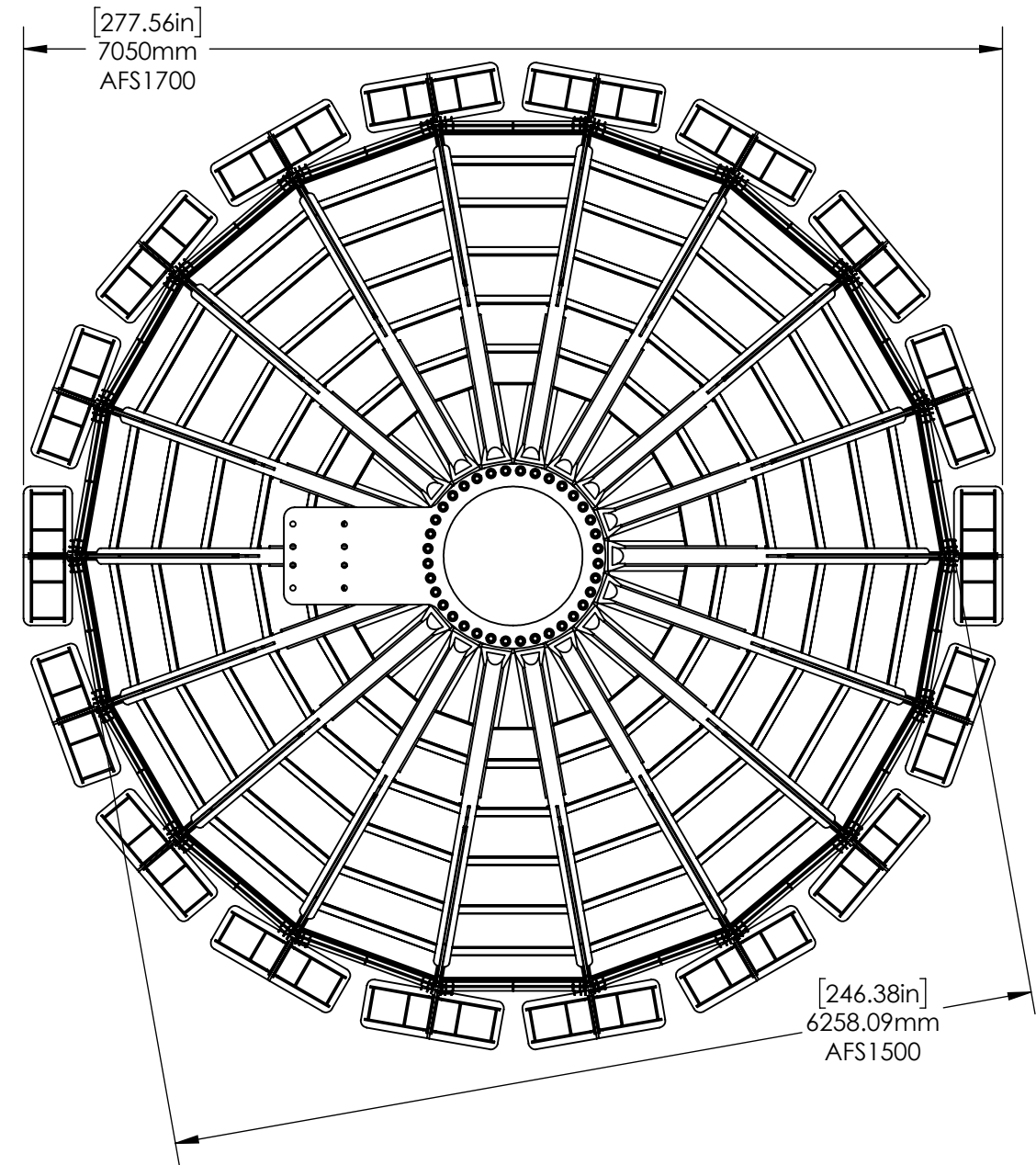
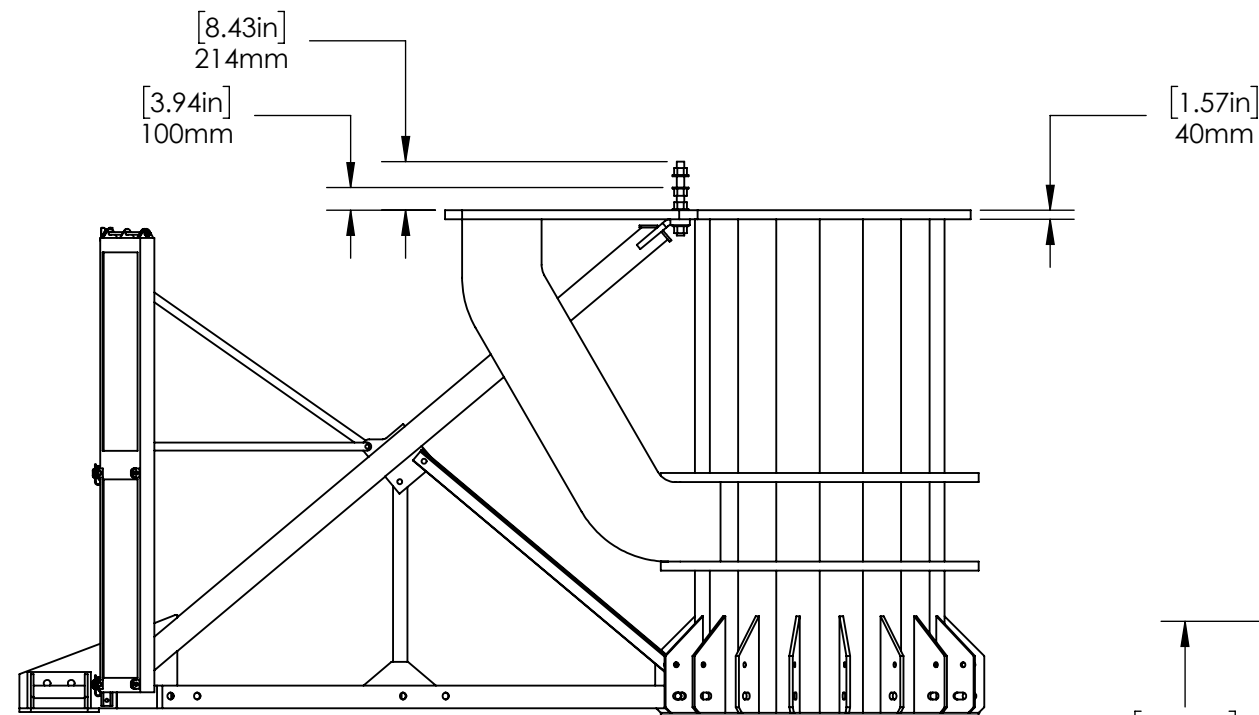
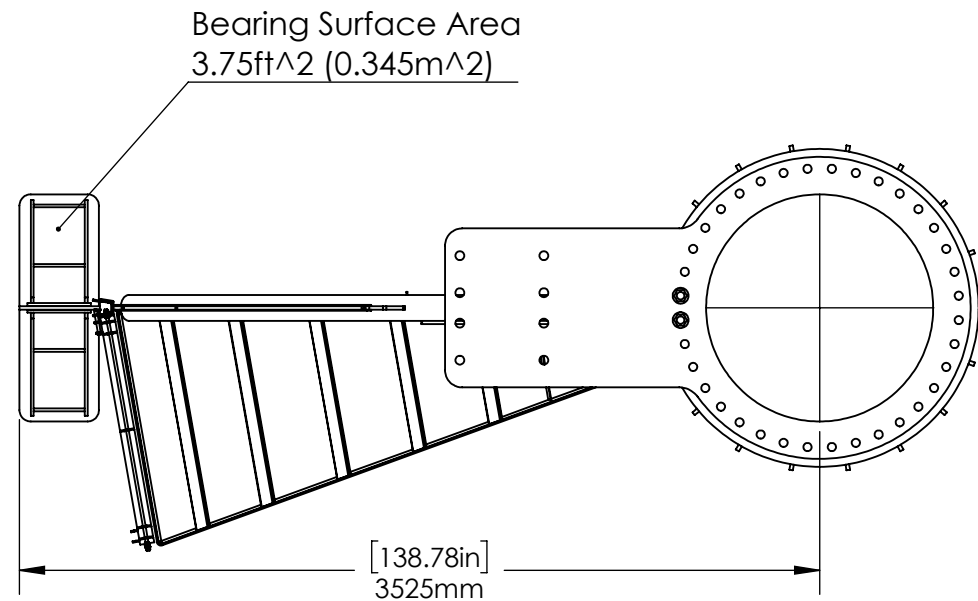
	TRIS ENG
G	QUAI ENG



<b>Pole Section</b>	<b>#7</b>
Thickness - (mm)/ (in)	5/ 0.197
Length - (m)/ (ft)	3.07/ 10
Top Dia. - (mm)/ (in)	153/ 5.98
Bottom Dia. - (mm)/ (in)	202/ 7.95
Min Slip - (mm)/ (in)	NA
Max (design) Slip - (mm)/ (in)	NA
Weight (kg)/ (lbs)	83.1/ 183

Total Weight		CAD-generated drawing do not manually update		 1041 Grand Ave., #213 St. Paul, MN 55105 (651) 330-1263 <a href="http://www.aretelcom.com">www.aretelcom.com</a>
Does not include fasteners		APPROVALS	DATE	
		DRAWN MGC	1/20/21	<b>Optional 3.07m - 10ft Pole Section AFS1700</b>
		CHECKED		
MATERIAL	See Notes	RESP ENG		CAD file :
FINISH	See Notes	MFG ENG		Details and dimensions not shown on this drawing can be found in CAD file.
DO NOT SCALE DRAWING		QUAL ENG		scale NA rev. B size NA sheet 2 of 6 

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#### Notes 2:

- Maximum Ballast Volume = 60 cu-m (78.5 cu-yds, 2120 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)
- Steel Structure Self Weight
  - Foundation - 9533kg (20973lb)

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**AFS1700**

Part #

scale NA rev. B size NA sheet 3 of 6



1

2

3

4

5

6

7

8

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REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	Initial release	8/13/19	MGC
B			

Notes 3:

1.

All plate material shall have a minimum yield strength of 355 MPa (50 ksi)

2.

Tube shall be 114mm x 6mm GR. Q355 (4.5" x 0.25" ASTM A500 Gr B)

3.

All right angles shall be Q355 (ASTM A572 Gr 50) or equivalent

4.

All welding shall conform to the minimum requirements of AWS D1.1

5.

All welding shall be done by welders qualified under AWS specifications, using E70XX, low hydrogen electrodes

6.

All components shall Hot Dip Galvanized in accordance with ASTM A123

7.

Debur all sharp edges

AFS1700 Bill of Materials

#	DESCRIPTION	QTY.	Weight (kg/ lbs)
1	Kingpost	1	2014/ 4431
2	Upper Chord round 114mm x 6mm (4.5" x 0.25")	18	81/ 178
3	Ballast Tray	18	121/ 266
4	Vertical Web w/ Gusset Plate Assembly	18	15.5/ 34
5	Diagonal Web	36	7.5/ 16.5
6	M12 (1/2-13) Hinge Rod w/ (4x) Nuts and Washers	18	1.3/ 3
7	Sidewall (hinged)	18	80/ 176
8	Vertical Hinge Post	18	15/ 33
9	Horizontal Brace	18	3.5/ 8
10	Diagonal Brace	18	3.9/ 9
11	Clevis & Cotter 12mm x 75mm (1/2" x 3")	18	0.1/ 0.22
12	Clevis & Cotter 12mm x 115mm (1/2" x 4.5")	72	0.14/ 0.31
13	Cylinder Bracket	1	193/ 345
*14	Chord Bearing Plate (AFS1700 Only)	18	76/ 167

AFS1700 Bolts, Nuts & Washers (other equivalent grades acceptable)

#	Unit	Bolt Size	Length	Width Across Flats	Thread Length	Grade	Coating	Nut Qty.	Washer Qty.	Bolt Qty.
15	Metric	M20x2.5	65mm	30mm	Full Thread	8.8	Hot Dip Galv.	108	216	108
15	Imperial	3/4-10	2.5"	1 1/8"	Full Thread	A325	Hot Dip Galv.	108	216	108
16	Metric	M24x3	75mm	36mm	Full Thread	8.8	Hot Dip Galv.	126	252	126
16	Imperial	1-8	3"	1-1/2"	Full Thread	A325	Hot Dip Galv.	126	252	126
17	Metric	M33x3.5	300mm	50mm	300mm	8.8	Hot Dip Galv.	132	176	44
17	Imperial	1 1/4-7	12"	2"	12"	A325	Hot Dip Galv.	132	176	44

US Patent # 9428877  
China Patent # ZL201490000869.X

CAD-generated drawing  
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Does not include anchor bolts,  
templates or flange bolts

APPROVALS

DRAWN MGC

CHECKED

RESP ENG

MFG ENG

QUAL ENG

DATE

8/13/19

CAD file :

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

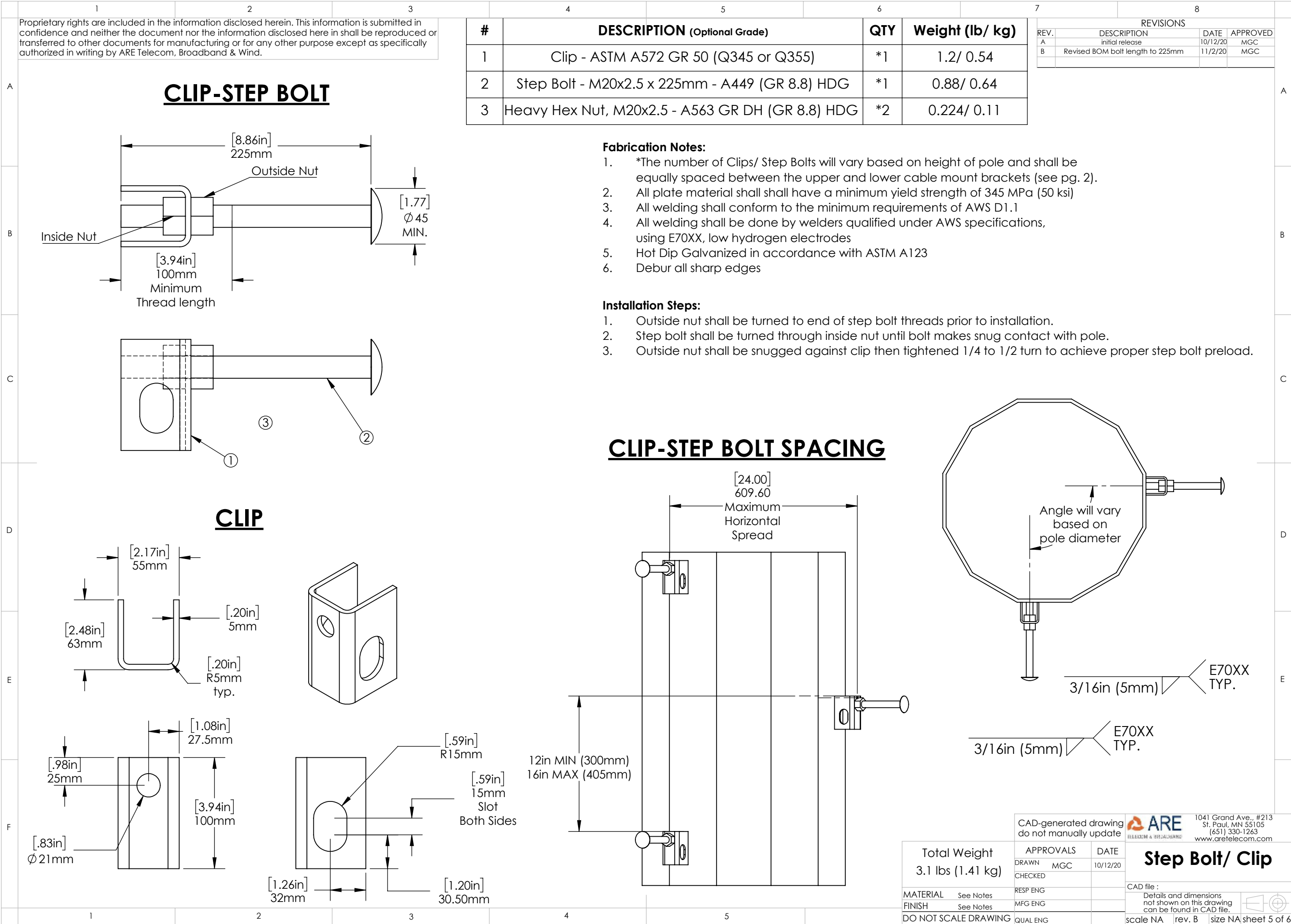
AFS1700  
BOM

scale NA

rev. B

size NA

4 of 6

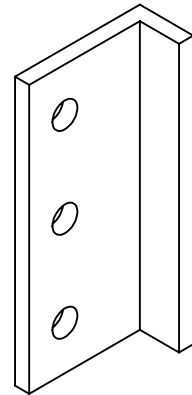


F

Technical drawing of a rectangular plate with three circular holes. The plate has a width of 20mm and a height of 150mm. The holes are spaced 50.5mm apart vertically. The top hole is 24.50mm from the top edge. The bottom hole is 50.5mm from the bottom edge. The holes have a diameter of 14mm. The plate is shown with dimensions in inches and millimeters.

Dimensions:

- Top hole offset from top edge:  $[.96\text{in}]$  24.50mm
- Distance between holes:  $[2\text{in}]$  50.5mm
- Bottom hole offset from bottom edge:  $[2\text{in}]$  50.5mm
- Plate width: 20mm
- Plate height:  $[5.91\text{in}]$  150mm
- Hole diameter:  $(3x) \varnothing 14\text{mm}$
- Bottom hole offset from bottom edge:  $[.55\text{in}]$
- Bottom hole offset from right edge:  $[.31\text{in}]$  8mm TYP.



Technical drawing showing dimensions in inches and millimeters:

- Top horizontal dimension:  $[1.57\text{in}]$  40mm
- Right vertical dimension:  $[1.57\text{in}]$  40mm
- Left vertical dimension:  $[.59\text{in}]$  15mm
- Horizontal dimension between vertical plates:  $[.63\text{in}]$  16mm
- Left vertical dimension:  $[1.06\text{in}]$  27mm
- Right vertical dimension:  $[2.76\text{in}]$  70mm
- Bottom vertical dimension:  $[.47\text{in}]$
- Bottom horizontal dimension:  $[.24\text{in}]$  6mm TYP.
- Bottom horizontal dimension: (2x)  $\varnothing 12\text{mm}$
- Label: Weld Side

1. \*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.
2. All plate material shall have a minimum yield strength of 345 MPa (50 ksi)
3. All welding shall conform to the minimum requirements of AWS D1.1
4. All welding shall be done by welders qualified under AWS specifications, using E70XX, low hydrogen electrodes
5. Hot Dip Galvanized in accordance with ASTM A123
6. Debur all sharp edges


Lower Cable Mount Bracket

[.31in]  
7.83mm

E70XX

#	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



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