

SEE PAGE 2 FOR APPURTENANCES

TOWER DESIGN CRITERIA

TIA-222-G\* **Design Standard:** 

Design Wind Speeds: 124 mph (no ice) Vult per ASCE 7-16 30 mph (0.75" ice)

Service Wind Speed: Structure Class Exposure Category:

**Topographic Category:** Crest Height: Site Elevation: 0 ft. (NAVD 88) MATERIAL STRENGTHS

(rod dia <3/4") Solid Rod A36 A572 Gr.50 (3/4" thru 1" dia.)

A572 Gr.58 (>1" dia. T10 - T18) A500 Gr.B (antenna pipes) (tower legs min. Fy 50 ksi) A572 Gr.B/C

A572 Gr.50 A572 Gr.50

A-325/A-449 (leg & angle)

AnchorBolt F1554 Grade 105 or A687

Finish: Tower & Hardware are hot dip galvanized

- 1. ALL STRUCTURAL HARDWARE IS GALVANIZED IN ACCORDANCE WITH ASTM A-153 (HDG). TOWER SECTIONS & ASSOCIATED STRUCTURAL COMPONENTS ARE GALVANIZED IN ACCORDANCE WITH ASTM A-123 (HDG).
- 2. ALL BOLTS & NUTS MUST BE IN PLACE BEFORE ADJOINING SECTION(S) ARE INSTALLED.
- 3. ALL STRUCTURAL BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC & RCSC SPECIFICATION FOR STRUCTURAL JOINTS UNLESS NOTED OTHERWISE.
- 4. ALL WELDING TO CONFORM TO AWS D1.1 SPECIFICATION. 5/16" MINIMUM WELD SIZE UNLESS NOTED OTHERWISE.
- 5. MATERIAL LABELED AS ASTM A-572 GR. 58 OR 58 KSI YIELD STRENGTH ALSO CONFORMS TO
- 6. ANALYSIS PERFORMED USING STEEL GRADES LISTED UNDER MATERIALS STRENGTHS SHOWN ON THIS PAGE.
- 7. THIS DRAWING DOES NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, SEQUENCES AND PROCEDURES.

## AXIAL **Maximum Base Reactions** 82.6 K SHEAR MOMENT 11603.8 kip-ft

MAX. LEG REACTIONS:

DOWN: 410.4 K UPLIFT: -341.9 K SHEAR: 44.1 K

TORQUE 69.1 kip-ft REACTIONS 124.0 mph WIND (no ice)

\*Factored Reactions provided per ANSI/TIA-222 Design Criteria & Load Combinations

						TOWER CO	LUMN			
SECTION	ELEVATION	FACE WIDTH	PANELS	LEG SIZE	LEG STYLE	LEG BOLT QTY & DIA	DIAGONAL BRACING SIZE	HORIZONAL BRACING SIZE	BRACING BOLT QTY & DIA	SECTION WEIGHT
T1	340' - 350'	5.0'	2	2.50"	v	4 x 3/4"	1/8" x 2" x 2"	1/4" x 3" x 3"	1 x 3/4 "	577.35
T2	320' - 340'	5.0'	4	2.50"	v	4 x 3/4"	1/8" x 2" x 2"		1 x 3/4 "	948.78
Т3	300' - 320'	5.0'	3	4.00"	v	6 x 3/4"	1/8" x 2" x 2"		1 x 3/4 "	1241.73
T4	280' - 300'	7.0'	3	5.00"	v	8 x 3/4"	1/8" x 2" x 2"		1 x 3/4 "	1526.40
T5	260' - 280'	9.0'	3	5.00"	v	8 x 3/4"	3/16" x 2" x 2"		1 x 3/4 "	1729.44
Т6	240' - 260'	11.0'	3	5.00"	v	8 x 3/4"	3/16" x 2" x 2"		1 x 3/4 "	1804.26
Т7	220' - 240'	13.0'	3	5.00"	v	8 x 3/4"	3/16" x 2-1/2" x 2-1/2"		1 x 3/4 "	2040.48
Т8	200' - 220'	15.0'	3	5.00"	v	8 x 3/4"	3/16" x 2-1/2" x 2-1/2"		1 x 3/4 "	2146.20
Т9	180' - 200'	17.0'	3	6.00"	v	6 x 1"	3/16" x 3" x 3"		1 x 3/4 "	2893.47
T10	160' - 180'	19.0'	2	1.50"	12BDFH	6 x 1"	1/4" x 3-1/2" x 3-1/2"		1x1"	3266.97
T11	140' - 160'	21.0'	2	1.75"	12BDFH	6 x 1 1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1 "	4191.87
T12	120' - 140'	23.0'	2	1.75"	12BDFH	6 x 1 1/4"	1/4" x 4" x 4"		1x1"	4228.83
T13	100' - 120'	25.0'	1	2.00"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8 "	5007.84
T14	80' - 100'	27.0'	1	2.00"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8 "	5180.49
T15	60' - 80'	29.0'	1	2.25"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8 "	5817.39
T16	40' - 60'	31.0'	1	2.25"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8 "	5937.12
T17	20' - 40'	33.0'	1	2.25"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8 "	6061.65
T18	0' - 20'	35.0'	1	2.50"	12BDH2	12 x 1 1/4"	1/4" x 4" x 4"		1 x 7/8 "	7192.77



May 6, 2020

SITE

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MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

**Tower View Page 1** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

415765

**FOUNDATION APPROVAL** 

DWG. NO.

ENG. FILE NO.

**DESCRIPTION OF REVISIONS** REV CPD BY DATE REVISION HISTORY

PROPRIETARY NOTE:

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STRUCTURE APPROVAL **I MVC** 

DESCRIPTION

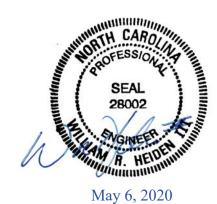
5/5/2020

289195T

9

DESIGNED APPURTENANCE LOADING	
ТҮРЕ	ELEVATION
(1) 20' ADJUSTABLE BEACON EXTENDER	350.0000'
(1) 21' LRE WITH 7'-6" LIGHTNING ROD (ARM=11.5')	350.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	350.0000'
(1) BEACON	350.0000'
(1) CC807-11	350.0000'
(1) TTA (12"X12"X8")	345.0000'
(2) 6' PIVOT SIDE ARM (50" PIPE)	330.0000'
(2) CC807-11	330.0000'
(2) 2-1/2" X 6' SCH. 40	295.0000'
(1) PAD6-59BC W/ RADOME ()(0 DEG AZIMUTH)	295.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	270.0000'
(1) COL53-160	270.0000'
(2) 2-1/2" X 9' SCH. 40	265.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	265.0000'
(1) CC807-11	265.0000'
(1) PAD6-59BC W/ RADOME ()(0 DEG AZIMUTH)	265.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	260.0000'
(1) COL53-160	260.0000'
(12) 2" X 96" SCH. 40	200.0000'
(2) BEACON	200.0000'
(12) PANEL (8' X 1' X 4")	200.0000'
(3) SP1 VFA12-SD-S	200.0000'
(2) 2-1/2" X 17' SCH. 40	185.0000'
(1) PAD6-59BC W/ RADOME ()(0 DEG AZIMUTH)	185.0000'
(2) 2-1/2" X 19' SCH. 40	165.0000'
(1) PAD6-59BC W/ RADOME ()(0 DEG AZIMUTH)	165.0000'

REV



MONCURE, NC MOTOROLA SOLUTIONS U 35 X 350'

SITE

DESCRIPTION

**Tower View Page 2** 

valmont **₹** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

ENG. FILE NO.

STRUCTURES

PAGE 2 **OF** 20

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DESCRIPTION OF REVISIONS
REVISION HISTORY

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STRUCTURE APPROVAL MVC 5/5/2020

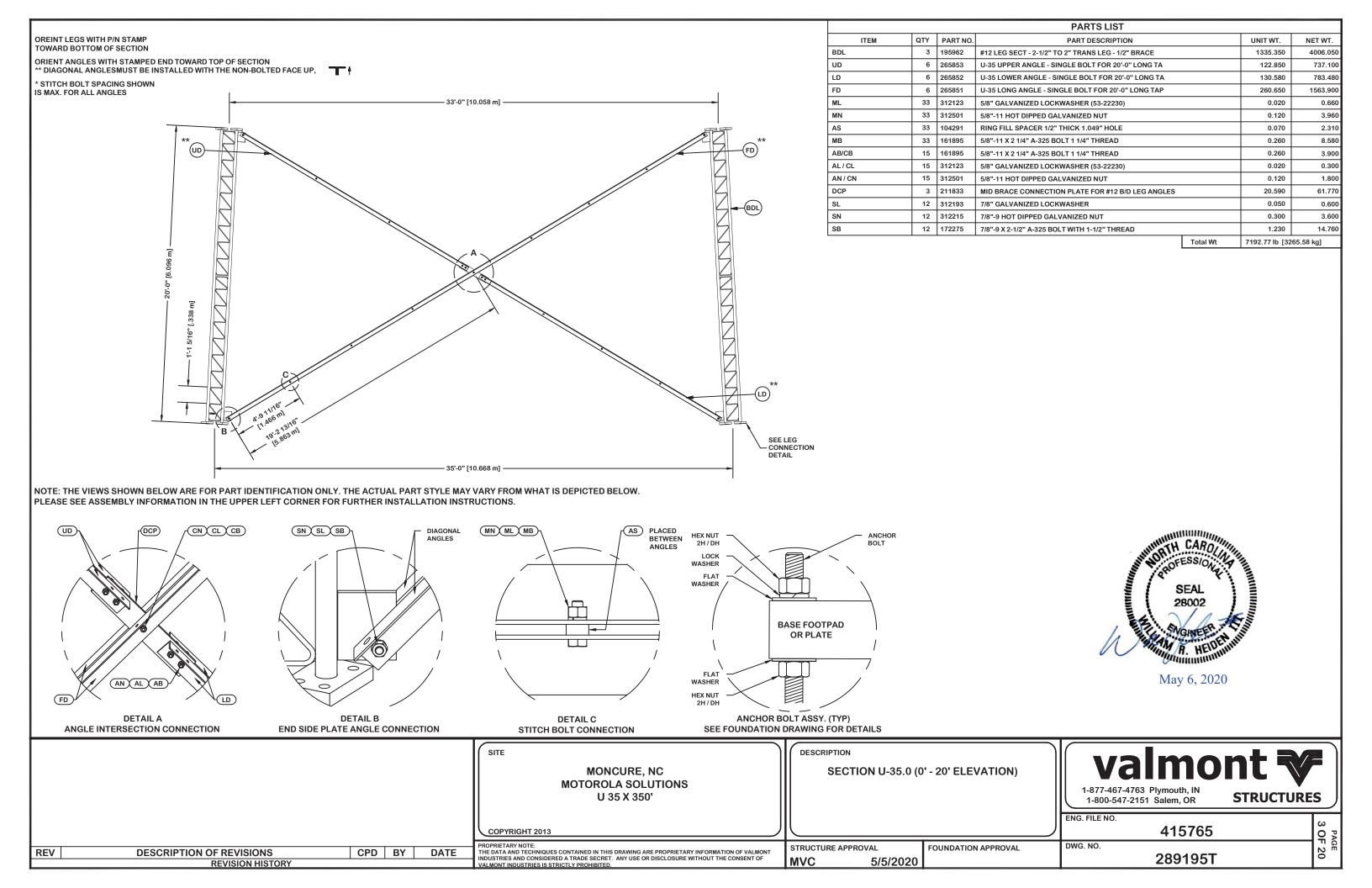
FOUNDATION APPROVAL MVC 5/5/2020

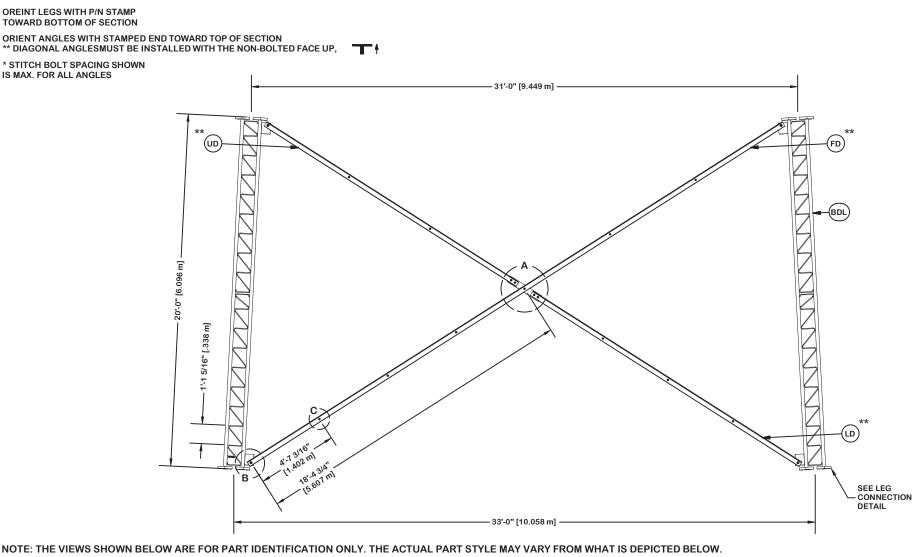
MVC 5/5/2020

MVC 5/5/2020

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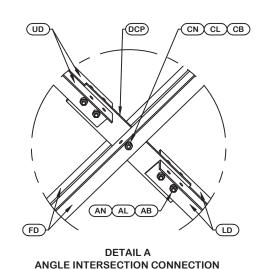
DWG. NO.
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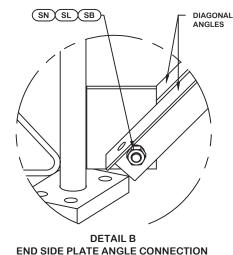


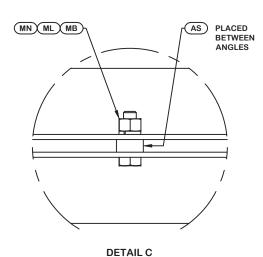
**PARTS LIST** QTY PART NO. UNIT WT. ITEM PART DESCRIPTION NET WT. 3 195960 1100.520 3301.560 BDL #12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" B UD 6 265841 U-33 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 102.710 616.26 LD 109.630 265840 U-33 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 657.78 6 265839 FD U-33 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP 218.690 1312.14 ML 30 312123 5/8" GALVANIZED LOCKWASHER (53-22230) 0.020 0.60 MN 30 312501 5/8"-11 HOT DIPPED GALVANIZED NUT 0.120 3.600 AS 30 104291 RING FILL SPACER 1/2" THICK 1.049" HOLE 0.070 2.100 мв 30 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 7.800 AB/CB 15 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 3.90 AL/CL 15 312123 0.020 0.300 5/8" GALVANIZED LOCKWASHER (53-22230) AN / CN 15 312501 0.120 1.800 5/8"-11 HOT DIPPED GALVANIZED NUT DCP 3 211833 20 590 61.770 MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES SL 12 312193 7/8" GALVANIZED LOCKWASHER 0.050 0.600 SN 12 312215 0.300 3.600 7/8"-9 HOT DIPPED GALVANIZED NUT SB 12 172275 7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD 1.230 14.760 LCB 36 222016 1 380 49.68 1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD LCF 36 312222 1" GALVANIZED FLAT WASHER (F436) 0.140 5.04 LCL 36 312223 0.080 1" GALVANIZED LOCKWASHER 2.880 LCN 36 312504 1"-8 HOT DIPPED GALVANIZED NUT 0.430 15.480 6061.65 lb [2752.04 kg] Total Wt

PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



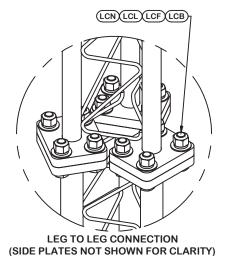
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STITCH BOLT CONNECTION

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May 6, 2020

SITE MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

**SECTION U-33.0 (20' - 40' ELEVATION)** 

1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.
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DWG. NO.

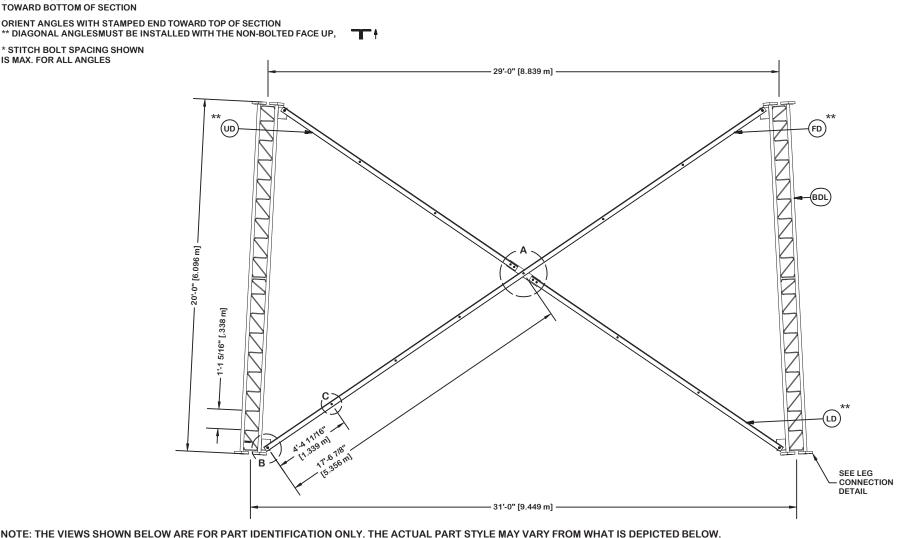
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**DESCRIPTION OF REVISIONS** CPD BY DATE REVISION HISTORY

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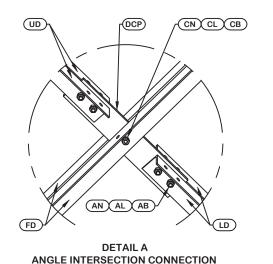
STRUCTURE APPROVAL **FOUNDATION APPROVAL** MVC 5/5/2020



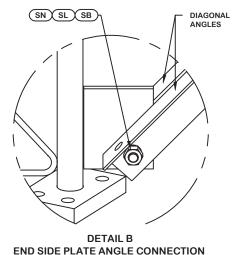
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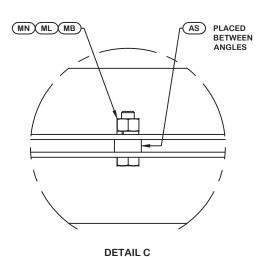
5937.12 lb [2695.51 kg] Total Wt

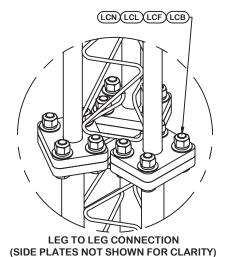
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW. PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



OREINT LEGS WITH P/N STAMP









May 6, 2020

SITE MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

STITCH BOLT CONNECTION

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**SECTION U-31.0 (40' - 60' ELEVATION)** 

1-800-547-2151 Salem, OR

**STRUCTURES** 

NG. FILE NO.

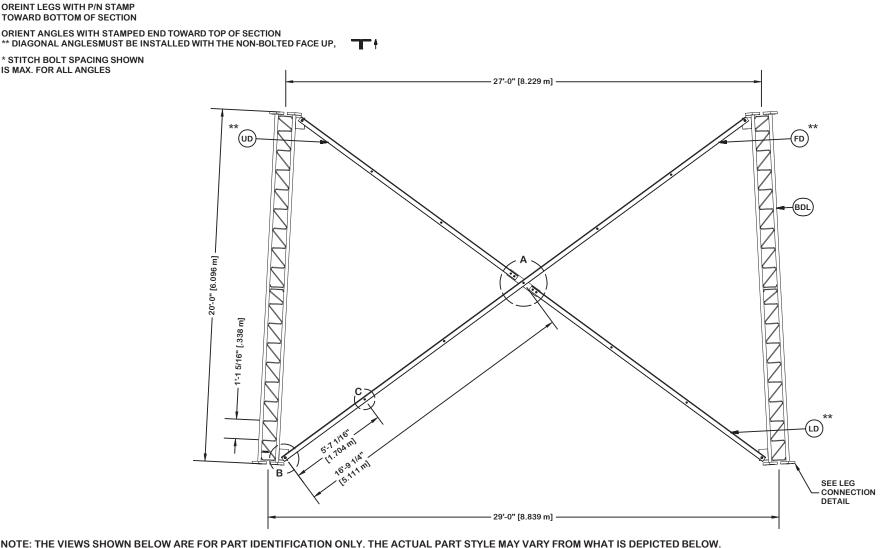
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REV **DESCRIPTION OF REVISIONS** CPD BY DATE REVISION HISTORY

PROPRIETARY NOTE:

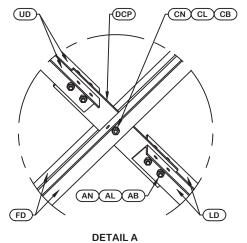
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STRUCTURE APPROVAL **FOUNDATION APPROVAL I MVC** 5/5/2020

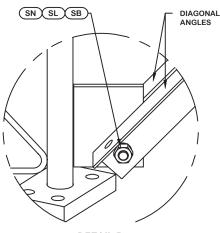


**PARTS LIST** QTY PART NO. UNIT WT. ITEM PART DESCRIPTION NET WT. 3 195960 1100.520 3301.560 BDL #12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" B UD 6 265799 U-29 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 92.490 554.94 LD 265798 U-29 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 99.730 598.38 6 265797 FD U-29 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP 198.570 1191.42 ML 24 | 312123 5/8" GALVANIZED LOCKWASHER (53-22230) 0.020 0.48 MN 24 312501 5/8"-11 HOT DIPPED GALVANIZED NUT 0.120 2.880 AS 104291 RING FILL SPACER 1/2" THICK 1.049" HOLE 0.070 1.680 мв 24 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 6.240 AB/CB 15 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 3.900 AL/CL 15 312123 0.020 0.300 5/8" GALVANIZED LOCKWASHER (53-22230) AN / CN 15 312501 0.120 1.800 5/8"-11 HOT DIPPED GALVANIZED NUT DCP 3 211833 20 590 61.770 MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES SL 12 312193 7/8" GALVANIZED LOCKWASHER 0.050 0.600 SN 12 312215 0.300 3.600 7/8"-9 HOT DIPPED GALVANIZED NUT SB 12 172275 1.230 14.760 7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD LCB 36 222016 1 380 49.68 1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD LCF 36 312222 1" GALVANIZED FLAT WASHER (F436) 0.140 5.04 LCL 36 312223 0.080 1" GALVANIZED LOCKWASHER 2.880 LCN 36 312504 1"-8 HOT DIPPED GALVANIZED NUT 0.430 15.480 5817.39 lb [2641.15 kg] Total Wt

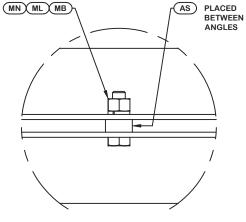
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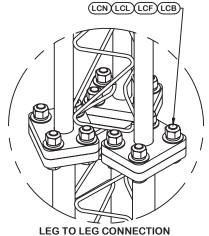
**DETAIL B END SIDE PLATE ANGLE CONNECTION** 



DETAIL C STITCH BOLT CONNECTION

SITE

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(SIDE PLATES NOT SHOWN FOR CLARITY)



May 6, 2020

MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

**SECTION U-29.0 (60' - 80' ELEVATION)** 

1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.

415765

REV **DESCRIPTION OF REVISIONS** CPD BY DATE REVISION HISTORY

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STRUCTURE APPROVAL **FOUNDATION APPROVAL** MVC 5/5/2020

TOWARD BOTTOM OF SECTION

COMENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

COMENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

COMENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

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COMENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

STORY BOTTOM SOLD TOWARD TO TOWARD TOP OF SECTION

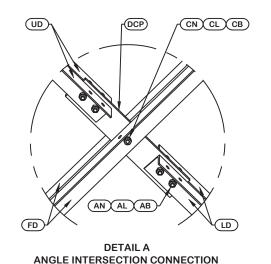
STORY BOTTOM SOLD TOWARD TOWARD TOP OF SECTION

STORY BOTTOM SOLD TOWARD TOWAR

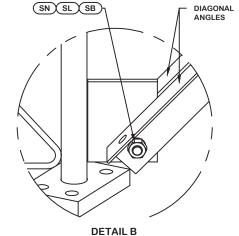
**PARTS LIST** QTY PART NO. UNIT WT. ITEM PART DESCRIPTION NET WT. 3 195639 926.920 BDL #12 LEG SECTION - 2" LEG - 1/2" BRACE - 7/8" BOLT 2780.76 UD 6 265778 U-27 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 87.550 525.30 LD 265777 95.000 U-27 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 570.00 6 265776 FD U-27 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP 188.890 1133.34 ML 24 | 312123 5/8" GALVANIZED LOCKWASHER (53-22230) 0.020 0.48 5/8"-11 HOT DIPPED GALVANIZED NUT MN 24 312501 0.120 2.880 AS 104291 RING FILL SPACER 1/2" THICK 1.049" HOLE 0.070 1.680 мв 24 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 6.240 AB/CB 15 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 3.900 AL/CL 15 312123 0.020 0.300 5/8" GALVANIZED LOCKWASHER (53-22230) AN / CN 15 312501 0.120 1.800 5/8"-11 HOT DIPPED GALVANIZED NUT DCP 3 211833 20 590 61.770 MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES SL 12 312193 7/8" GALVANIZED LOCKWASHER 0.050 0.600 SN 12 312215 0.300 3.600 7/8"-9 HOT DIPPED GALVANIZED NUT SB 12 172275 1.230 14.760 7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD LCB 36 222016 1 380 49.68 1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD LCF 36 312222 1" GALVANIZED FLAT WASHER (F436) 0.140 5.04 LCL 36 312223 0.080 1" GALVANIZED LOCKWASHER 2.880 LCN 36 312504 1"-8 HOT DIPPED GALVANIZED NUT 0.430 15.480

Total Wt 5180.49 lb [2351.99 kg]

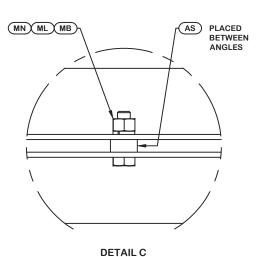
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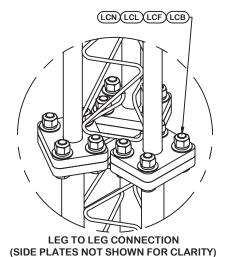


OREINT LEGS WITH P/N STAMP



**END SIDE PLATE ANGLE CONNECTION** 





SEAL 28002

May 6, 2020

MONCURE, NC
MOTOROLA SOLUTIONS
U 35 X 350'

STITCH BOLT CONNECTION

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SECTION U-27.0 (80' - 100' ELEVATION)

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

STRUCTURES

ENG. FILE NO.
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415765

REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY

PROPRIETARY NOTE:
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STRUCTURE APPROVAL FOUNDATION APPROVAL MVC 5/5/2020

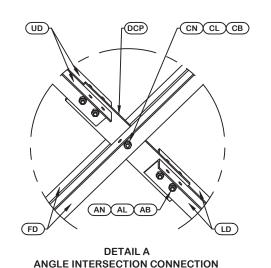
DWG. NO. **289195T** 

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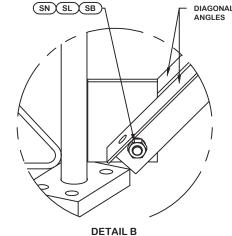
TOWARD BOTTOM OF SECTION ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION \* DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP, \* STITCH BOLT SPACING SHOWN IS MAX. FOR ALL ANGLES - 23'-0" [7.01 m] -SEE LEG CONNECTION DETAIL - 25'-0" [7.62 m] -

**PARTS LIST** QTY PART NO. UNIT WT. ITEM PART DESCRIPTION NET WT. 3 195637 906.870 BDL #12 LEG SECT - 2" TO 1-3/4" TRANS LEG - 1/2" BRACE 2720.61 UD 6 265754 U-25 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 82.720 496.32 LD 265753 U-25 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA 90.450 542.70 6 265752 FD U-25 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP 179.520 1077.120 ML 24 | 312123 5/8" GALVANIZED LOCKWASHER (53-22230) 0.020 0.48 MN 24 312501 5/8"-11 HOT DIPPED GALVANIZED NUT 0.120 2.880 AS 104291 RING FILL SPACER 1/2" THICK 1.049" HOLE 0.070 1.680 мв 24 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 6.240 AB/CB 15 161895 5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD 0.260 3.900 AL/CL 15 312123 0.020 0.300 5/8" GALVANIZED LOCKWASHER (53-22230) AN / CN 15 312501 0.120 1.800 5/8"-11 HOT DIPPED GALVANIZED NUT DCP 3 211833 20 590 61.770 MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES SL 12 312193 7/8" GALVANIZED LOCKWASHER 0.050 0.600 SN 12 312215 0.300 3.600 7/8"-9 HOT DIPPED GALVANIZED NUT SB 12 172275 1.230 14.760 7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD LCB 36 222016 1 380 49.68 1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD LCF 36 312222 1" GALVANIZED FLAT WASHER (F436) 0.140 5.04 LCL 36 312223 0.080 1" GALVANIZED LOCKWASHER 2.880 LCN 36 312504 1"-8 HOT DIPPED GALVANIZED NUT 0.430 15.480 5007.84 lb [2273.60 kg] Total Wt

NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW. PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.

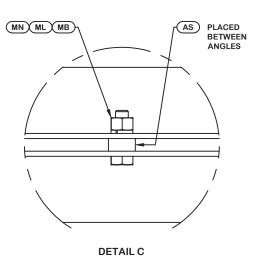


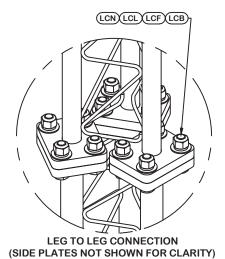
OREINT LEGS WITH P/N STAMP



**END SIDE PLATE ANGLE CONNECTION** 

DIAGONAL







May 6, 2020

SITE MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

STITCH BOLT CONNECTION

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**SECTION U-25.0 (100' - 120' ELEVATION)** 

1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.

415765

REV **DESCRIPTION OF REVISIONS** CPD BY DATE REVISION HISTORY

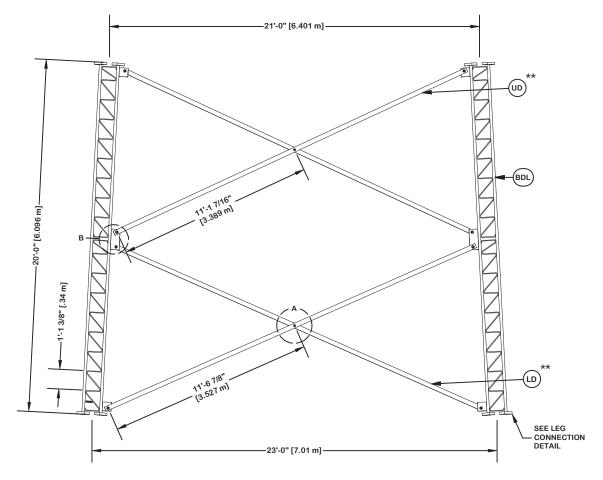
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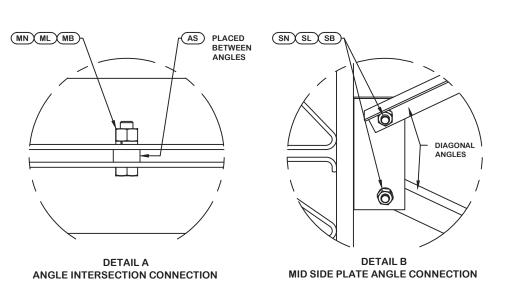
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

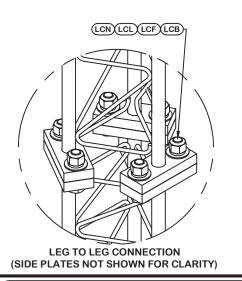
STRUCTURE APPROVAL **FOUNDATION APPROVAL I MVC** 5/5/2020

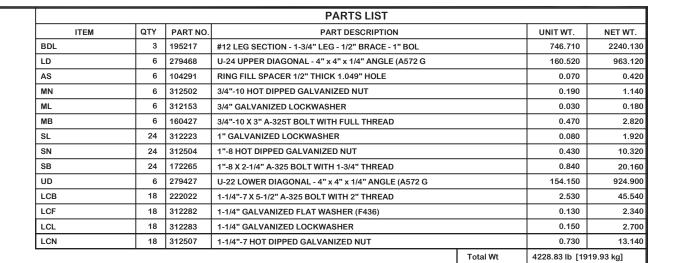
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.









SEAL

May 6, 2020

MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

SITE

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**SECTION U-23.0 (120' - 140' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.
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415765

OF 20

**DESCRIPTION OF REVISIONS** CPD BY REV DATE REVISION HISTORY

PROPRIETARY NOTE:

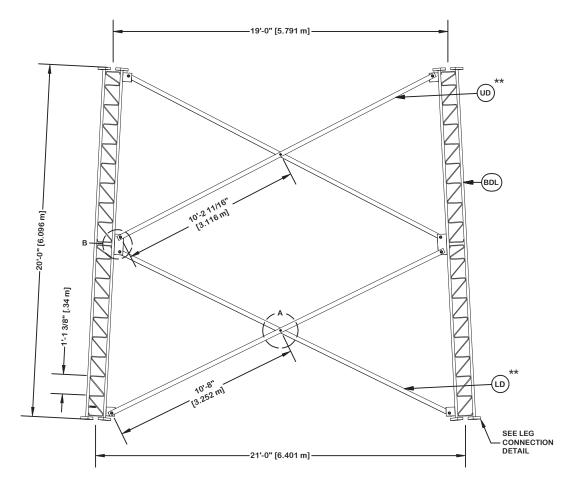
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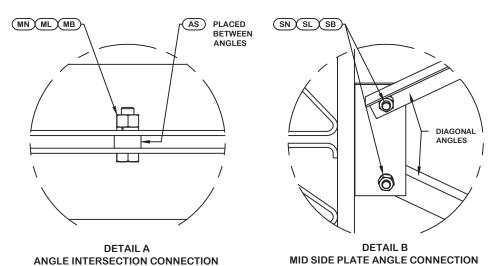
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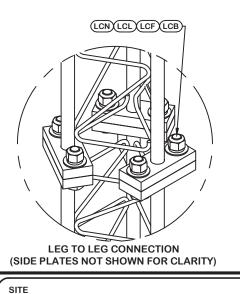
DWG. NO.

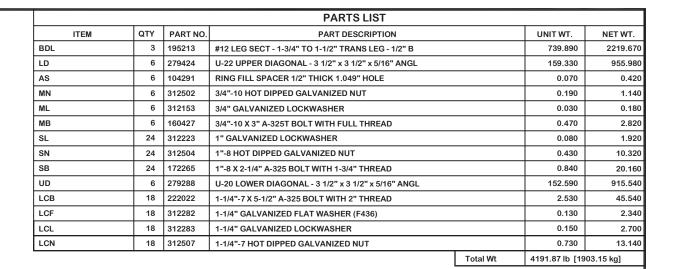
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

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May 6, 2020

MONCURE, NC

**MOTOROLA SOLUTIONS** U 35 X 350'

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**SECTION U-21.0 (140' - 160' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

NG. FILE NO.
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415765

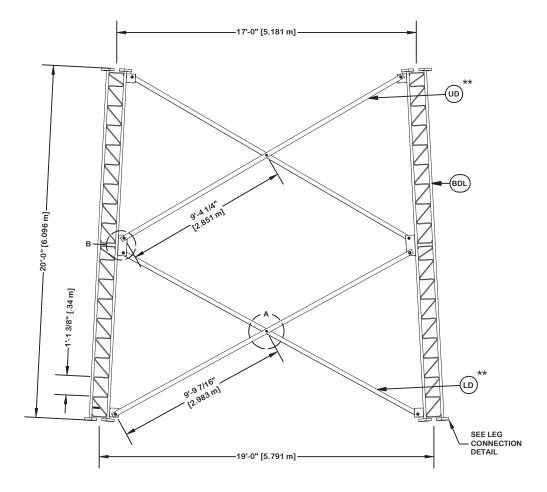
**DESCRIPTION OF REVISIONS** REV CPD BY DATE REVISION HISTORY

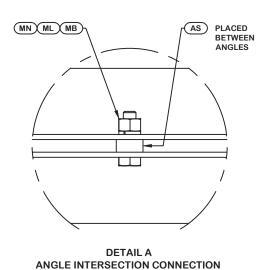
STRUCTURE APPROVAL **FOUNDATION APPROVAL** MVC 5/5/2020

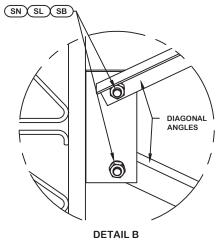
DWG. NO. 289195T OF S

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

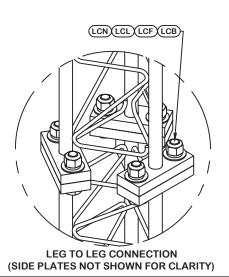
\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.







MID SIDE PLATE ANGLE CONNECTION



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3266.97 lb [1483.23 kg] Total Wt



May 6, 2020

MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

**SECTION U-19.0 (160' - 180' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.

DWG. NO.

415765

**DESCRIPTION OF REVISIONS** CPD BY REV DATE REVISION HISTORY

PROPRIETARY NOTE:

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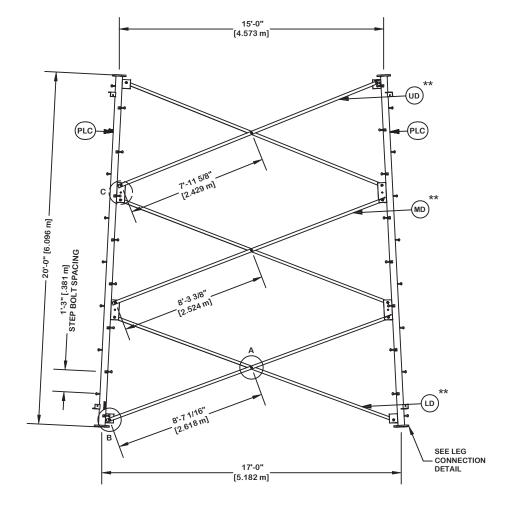
STRUCTURE APPROVAL **FOUNDATION APPROVAL** 5/5/2020 MVC

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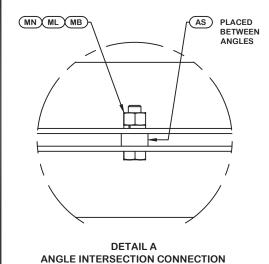
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

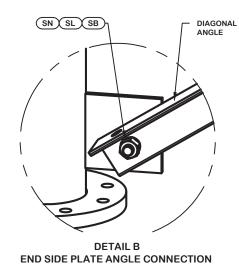
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

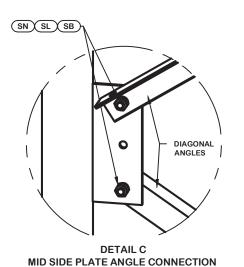


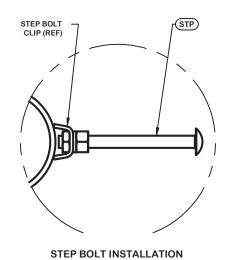
PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	229377	PIPE LEG SECTION 20'-0" (CLIMBING) 6" SCH. 40 V-SE		537.940	1613.820
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	52.800
LD	6	284844	V-17 LOWER CLIPPED ANGLE - 3" x 3" x 3/16" ANGLE (		66.540	399.240
МВ	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK		0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	5/8"-11 HOT DIPPED GALVANIZED NUT		1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER		0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	15.120
MD	6	284843	V-17 MID ANGLE - 3" x 3" x 3/16" ANGLE (A572 GR. 5		64.300	385.800
UD	6	284842	V-17 UPPER ANGLE - 3" x 3" x 3/16" ANGLE (A572 GR.		61.860	371.160
LCB	18	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD		1.380	24.840
LCF	18	312222	1" GALVANIZED FLAT WASHER (F436)		0.140	2.520
LCL	18	312223	1" GALVANIZED LOCKWASHER		0.080	1.440
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT		0.430	7.740
					0000 47 11 540	10.001.3

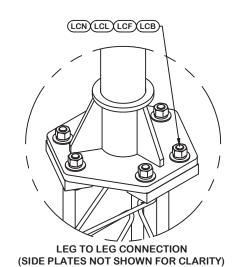
2893.47 lb [1313.66 kg]













May 6, 2020

MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

SITE

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**SECTION V-17.0 (180' - 200' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

OF S

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DWG. NO.

415765

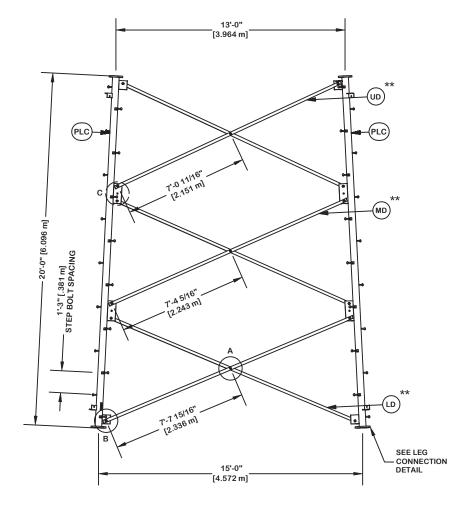
REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY

PROPRIETARY NOTE:
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FOUNDATION APPROVAL STRUCTURE APPROVAL MVC 5/5/2020

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

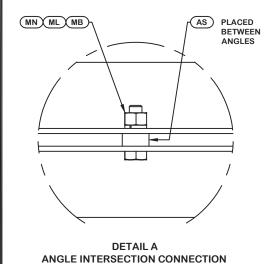


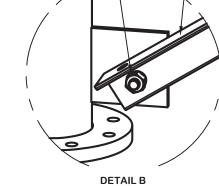
DIAGONAL

ANGLE

ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE		396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	52.800
LD	6	284820	V-15 LOWER CLIPPED ANGLE - 2 1/2" x 2 1/2" x 3/16"		49.150	294.900
МВ	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK		0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT		0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER		0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	15.120
MD	6	284819	V-15 MID ANGLE - 2 1/2" x 2 1/2" x 3/16" ANGLE (A5		47.310	283.860
UD	6	284818	V-15 UPPER ANGLE - 2 1/2" x 2 1/2" x 3/16" ANGLE (		45.330	271.980
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD		0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)		0.080	1.920
LCL	24	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.720
LCN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	4.560
				T-4-1 \\\\	2446 20 lb [07	4.00.1

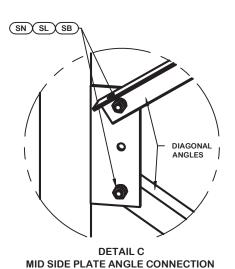
Total Wt 2146.20 lb [974.39 kg]

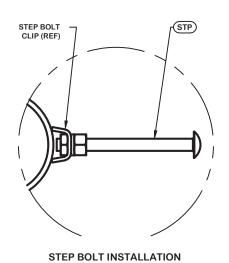


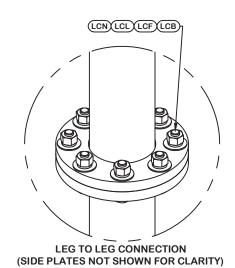


**END SIDE PLATE ANGLE CONNECTION** 

SN SL SB









May 6, 2020

SITE MONCURE, NC

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**MOTOROLA SOLUTIONS** U 35 X 350'

**SECTION V-15.0 (200' - 220' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.

DWG. NO.

415765

REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY

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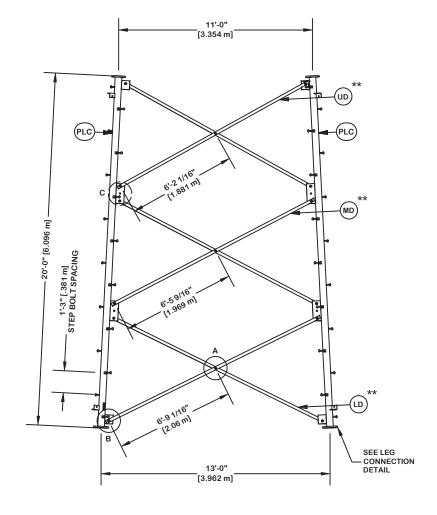
FOUNDATION APPROVAL STRUCTURE APPROVAL MVC 5/5/2020

289195T

OF OF

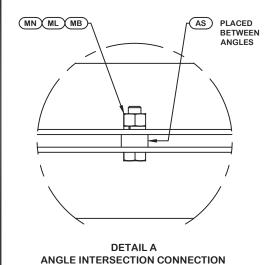
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

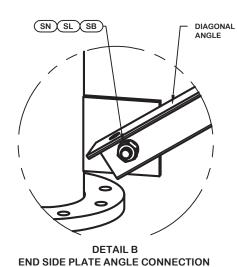
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

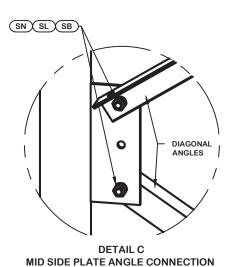


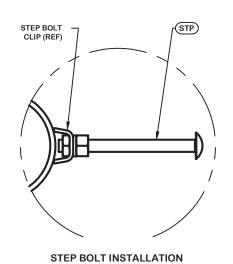
			PARTS LIST			
ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE		396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	52.800
LD	6	284799	V-13 LOWER CLIPPED ANGLE - 2 1/2" x 2 1/2" x 3/16"		43.220	259.320
МВ	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK		0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT		0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER		0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	15.120
MD	6	284798	V-13 MID ANGLE - 2 1/2" x 2 1/2" x 3/16" ANGLE (A5		41.430	248.580
UD	6	284797	V-13 UPPER ANGLE - 2 1/2" x 2 1/2" x 3/16" ANGLE (		39.520	237.120
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD		0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)		0.080	1.920
LCL	24	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.720
LCN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	4.560
				T-4-1 \A/4	2040 40 lb 102	0.401

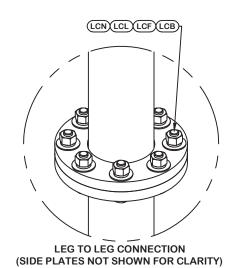
Total Wt 2040.48 lb [926.40 kg]













May 6, 2020

MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

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**SECTION V-13.0 (220' - 240' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.

DWG. NO.

415765

OF S

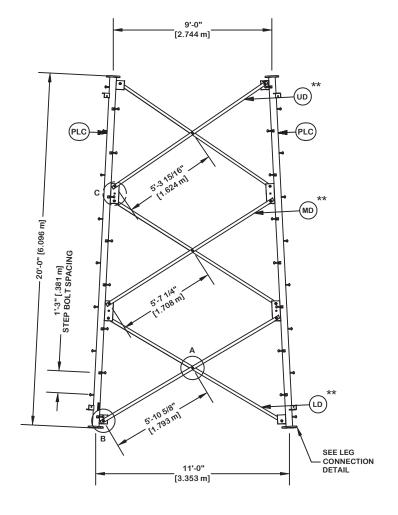
REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY

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FOUNDATION APPROVAL STRUCTURE APPROVAL MVC 5/5/2020

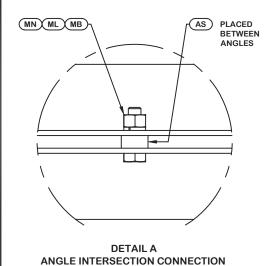
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

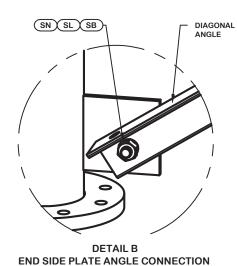
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

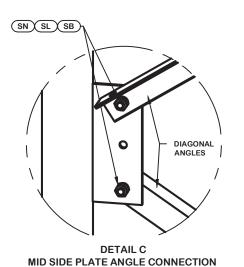


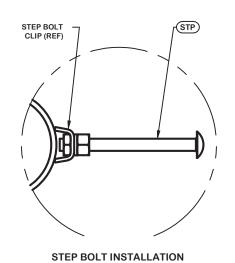
ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE		396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	52.800
LD	6	284775	V-11 LOWER CLIPPED ANGLE - 2" x 2" x 3/16" ANGLE (		29.650	177.900
МВ	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK		0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT		0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER		0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	15.120
MD	6	284774	V-11 MID ANGLE - 2" x 2" x 3/16" ANGLE (A572 GR. 5		28.290	169.740
UD	6	284773	V-11 UPPER ANGLE - 2" x 2" x 3/16" ANGLE (A572 GR.		26.860	161.160
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD		0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)		0.080	1.920
LCL	24	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.720
LCN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	4.560
				Total W#	1804 26 lb [81	0.45 kgl

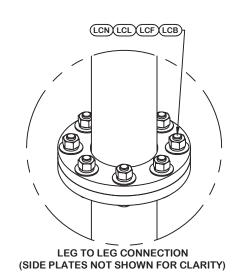
Total Wt 1804.26 lb [819.15 kg]













May 6, 2020

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**MOTOROLA SOLUTIONS** U 35 X 350'

**SECTION V-11.0 (240' - 260' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.

415765

REV **DESCRIPTION OF REVISIONS** CPD BY DATE REVISION HISTORY

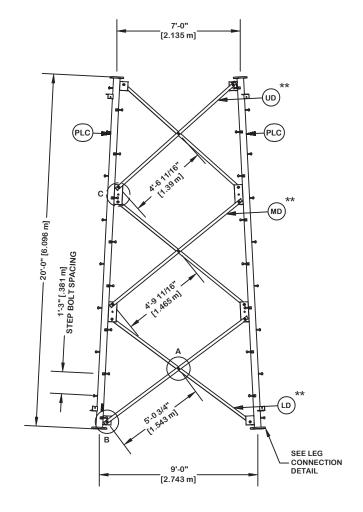
PROPRIETARY NOTE:
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FOUNDATION APPROVAL STRUCTURE APPROVAL MVC 5/5/2020

DWG. NO. 289195T OF S

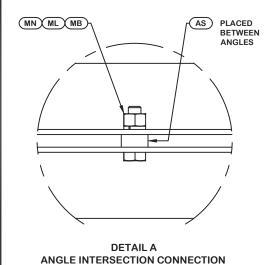
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

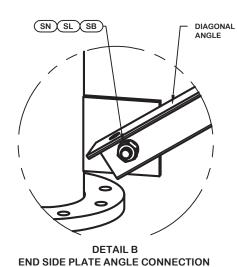
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

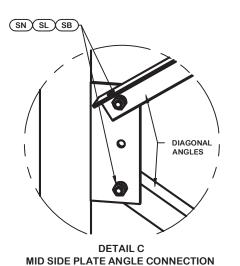


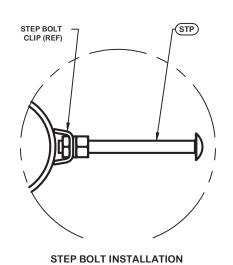
			PARTS LIST			
ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE		396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	52.800
LD	6	284754	V-9 LOWER CLIPPED ANGLE - 2" x 2" x 3/16" ANGLE (A		25.380	152.280
МВ	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK		0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT		0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER		0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	15.120
MD	6	284753	V-9 MID ANGLE - 2" x 2" x 3/16" ANGLE (A572 GR. 50		24.120	144.720
UD	6	284752	V-9 UPPER ANGLE - 2" x 2" x 3/16" ANGLE (A572 GR.		22.830	136.980
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD		0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)		0.080	1.920
LCL	24	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.720
LCN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	4.560
				Total Wt	1720 // lb [78	5 10 kal

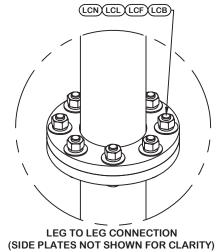
Total Wt 1729.44 lb [785.18 kg]













May 6, 2020

SITE MONCURE, NC **MOTOROLA SOLUTIONS** 

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U 35 X 350'

SECTION V-9.0 (260' - 280' ELEVATION)

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

|--|

415765

REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY

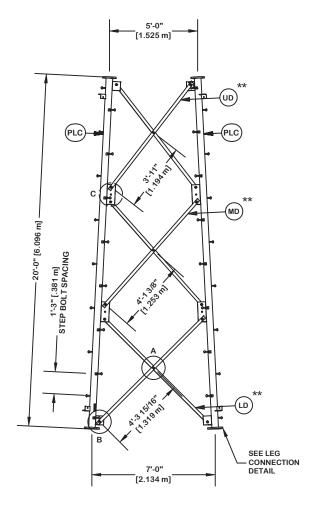
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FOUNDATION APPROVAL STRUCTURE APPROVAL MVC 5/5/2020

DWG. NO. 289195T OF

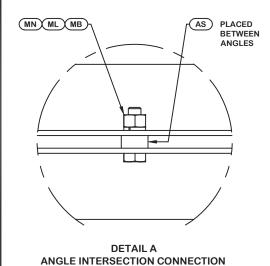
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

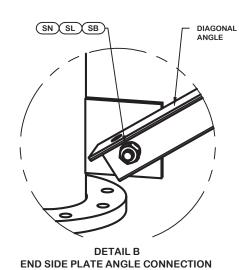
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

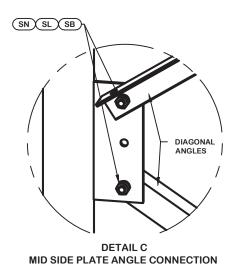


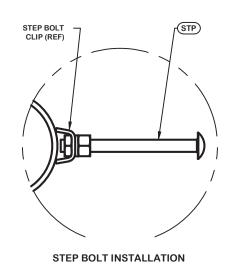
			PARTS LIST			
ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	226200	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE		389.610	1168.830
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	52.800
LD	6	284730	V-7 LOWER CLIPPED ANGLE - 2" x 2" x 1/8" ANGLE (A5		14.640	87.840
MB	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK		0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT		0.120	1.080
ML	9 312123 5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.180		
SL	36	312153	3/4" GALVANIZED LOCKWASHER		0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	15.120
MD	6	284729	V-7 MID ANGLE - 2" x 2" x 1/8" ANGLE (A572 GR. 50)		13.920	83.520
UD	6	284728	V-7 UPPER ANGLE - 2" x 2" x 1/8" ANGLE (A572 GR. 5		13.190	79.140
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD		0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)		0.080	1.920
LCL	24	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.720
LCN	24	312502 3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	4.560	
					4500 40 11, 500	0.001.3

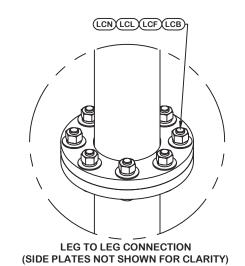
1526.40 lb [693.00 kg]













May 6, 2020

MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

**SECTION V-7.0 (280' - 300' ELEVATION)** 

1-877-467-4763 Plymouth, IN **STRUCTURES** 

1-800-547-2151 Salem, OR

ENG. FILE NO. 415765 OF

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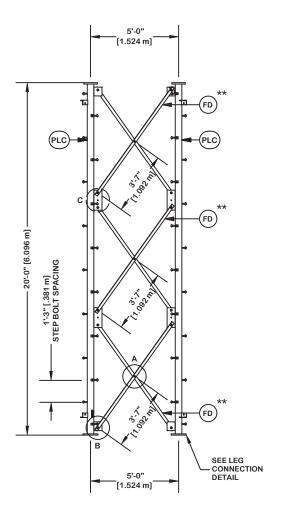
FOUNDATION APPROVAL STRUCTURE APPROVAL MVC

REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY

5/5/2020

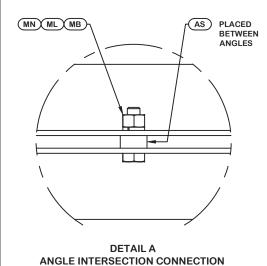
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

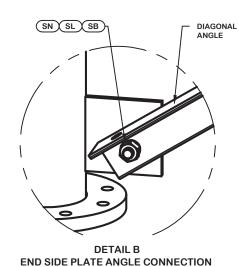
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

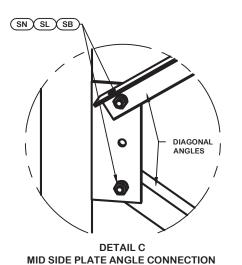


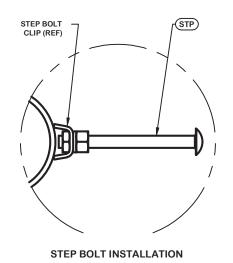
			PARTS LIST		
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226184	PIPE LEG SECTION 20'-0" (CLIMBING) 4" SCH. 40 V-SE	302.080	906.240
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
FD	18	285010	V-5 DIAGONAL ANGLE - 2" x 2" x 1/8" ANGLE (A572 GR	13.070	235.260
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.180
AS	9	116467	RING FILL SPACER 1/4" THICK 1.049" DIA HOLE	0.250	2.250
МВ	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	5.760
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.080
SL	36	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	15.120
LCB	18	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	9.720
LCF	18	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	1.440
LCL	18	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.540
LCN	18	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	3.420

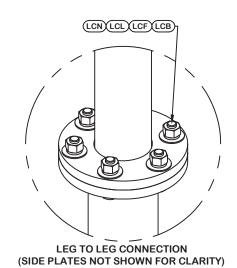
1241.73 lb [563.76 kg] Total Wt













May 6, 2020

MONCURE, NC **MOTOROLA SOLUTIONS** 

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U 35 X 350'

**SECTION V-5.0 (300' - 320' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

OF OF

NG.	FILE	NO.	

415765

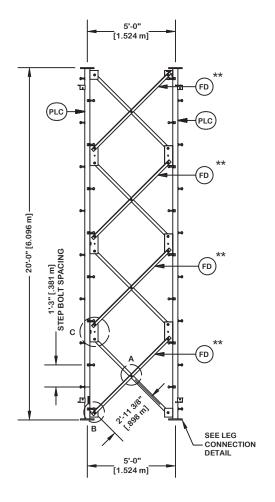
REV **DESCRIPTION OF REVISIONS** CPD BY DATE REVISION HISTORY

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FOUNDATION APPROVAL STRUCTURE APPROVAL MVC 5/5/2020

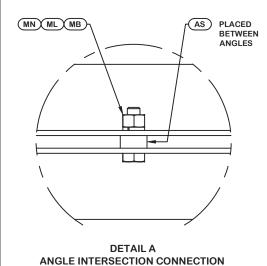
INSTALL ANGLES WITH STAMPED END TOWARD TOP OF SECTION

\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

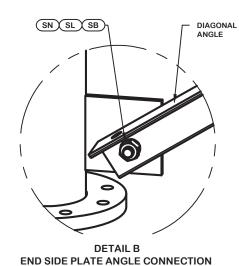


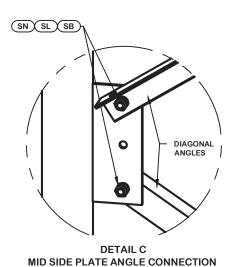
			PARTS LIST			
ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	226160	PIPE LEG SECTION 20'-0" (CLIMBING) 2 1/2" SCH. 40		194.380	583.140
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	52.800
FD	24	284980	V-5 DIAGONAL ANGLE - 2" x 2" x 1/8" ANGLE (A572 GR		10.820	259.680
ML	12	312123	5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.240
AS	12	116467	RING FILL SPACER 1/4" THICK 1.049" DIA HOLE		0.250	3.000
МВ	12	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	7.680
MN	12	312501	5/8"-11 HOT DIPPED GALVANIZED NUT		0.120	1.440
SL	48	312153	3/4" GALVANIZED LOCKWASHER		0.030	1.440
SN	48	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	9.120
SB	48	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	20.160
LCB	12	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD		0.540	6.480
LCF	12	312152	3/4" GALVANIZED FLAT WASHER (F436)		0.080	0.960
LCL	12	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.360
LCN	12	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	·	0.190	2.280
				Total Wt	948 78 lb [430	75 kgl

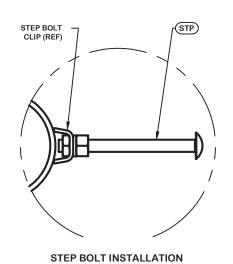
948.78 lb [430.75 kg]

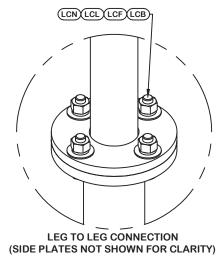


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May 6, 2020

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**MOTOROLA SOLUTIONS** U 35 X 350'

**SECTION V-5.0 (320' - 340' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

NG.	FILE	NO.	

415765

OF PAGE

DATE

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FOUNDATION APPROVAL STRUCTURE APPROVAL MVC

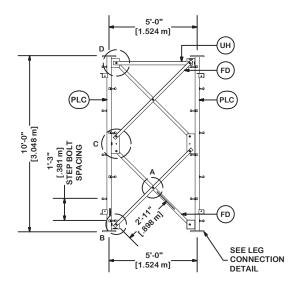
289195T

**DESCRIPTION OF REVISIONS** CPD BY REVISION HISTORY

DWG. NO. 5/5/2020

INSTALL ANGLES WITH STAMPED END TOWARD TOP OF SECTION

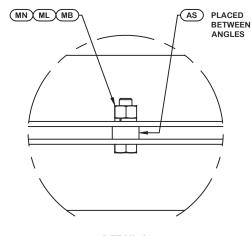
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, THIS MAY BE ON THE OPPOSITE SIDE OF THE SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



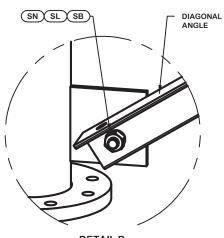
			PARTS LIST	·		
ITEM	QTY	PART NO.	PART DESCRIPTION		UNIT WT.	NET WT.
PLC	3	226172	PIPE LEG SECTION 10'-0" (CLIMBING) 2 1/2" SCH. 40		108.330	324.990
STP	24	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY		1.100	26.400
FD	12	284980	V-5 DIAGONAL ANGLE - 2" x 2" x 1/8" ANGLE (A572 GR		10.820	129.840
ML	6	312123	5/8" GALVANIZED LOCKWASHER (53-22230)		0.020	0.120
AS	6	116467	RING FILL SPACER 1/4" THICK 1.049" DIA HOLE		0.250	1.500
МВ	6	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL		0.640	3.840
MN	6	312501	5/8"-11 HOT DIPPED GALVANIZED NUT		0.120	0.720
SL	24	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.720
SN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	4.560
SB	24	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD		0.420	10.080
UH	3	285974	V-5 HORIZONTAL ANGLE (TYPE 1) - 3" x 3" x 1/4" ANG		21.500	64.500
LCB	12	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD		0.540	6.480
LCF	12	312152	3/4" GALVANIZED FLAT WASHER (F436)		0.080	0.960
LCL	12	312153	3/4" GALVANIZED LOCKWASHER		0.030	0.360
LCN	12	312502	3/4"-10 HOT DIPPED GALVANIZED NUT		0.190	2.280
	•			Total Wt	577.35 lb [262	.12 kg]



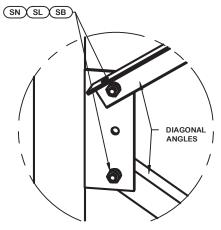
May 6, 2020



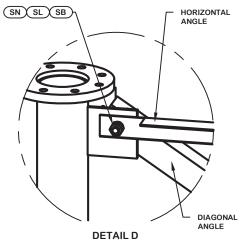




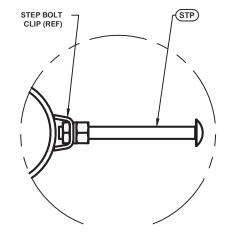
**DETAIL B END SIDE PLATE ANGLE CONNECTION** 



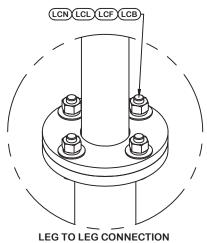
DETAIL C MID SIDE PLATE ANGLE CONNECTION



UPPER HORIZONTAL ANGLE CONNECTION



STEP BOLT INSTALLATION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

MONCURE, NC **MOTOROLA SOLUTIONS** U 35 X 350'

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SITE

PROPRIETARY NOTE:
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**SECTION V-5.0 (340' - 350' ELEVATION)** 

1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR

**STRUCTURES** 

ENG. FILE NO.

415765

REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY

FOUNDATION APPROVAL STRUCTURE APPROVAL MVC 5/5/2020

DWG. NO.

OF S 289195T

