

Review Only  
 Checkmate Engineering, Inc.  
 08/19/2020 8:32:41 AM

SEE PAGE 2 FOR APPURTENANCES

**TOWER DESIGN CRITERIA**

Design Standard: TIA-222-G\*  
 Design Wind Speeds: 121 mph (no ice) Vult per ASCE 7-16  
 30 mph (0.75" ice)  
 Service Wind Speed: 60 mph (deflection only)  
 Structure Class: III  
 Exposure Category: C  
 Topographic Category: 1  
 Crest Height: 0 ft.  
 Site Elevation: 0 ft. (NAVD 88)

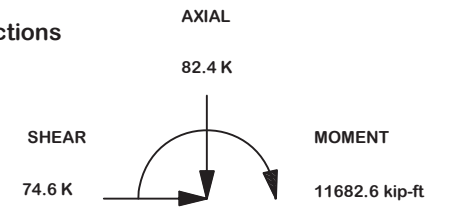
**MATERIAL STRENGTHS**

Solid Rod A36 (rod dia. <3/4")  
 A572 Gr.50 (3/4" thru 1" dia.)  
 A572 Gr.58 (>1" dia. T9 - T17)  
 A500 Gr.B (antenna pipes)  
 A572 Gr.B/C (tower legs min. Fy 50 ksi)  
 Pipe  
 Angle A572 Gr.50  
 Plate A572 Gr.50  
 Bolts A-325/A-449 (leg & angle)  
 Anchor Bolt F1554 Grade 105 or A687

Finish: Tower & Hardware are hot dip galvanized

- 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).
- ALL BOLTS & NUTS MUST BE IN PLACE BEFORE ADJOINING SECTION(S) ARE INSTALLED.
- ALL STRUCTURAL BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC & RCSC SPECIFICATION FOR STRUCTURAL JOINTS UNLESS NOTED OTHERWISE.
- ALL WELDING TO CONFORM TO AWS D1.1 SPECIFICATION. 5/16" MINIMUM WELD SIZE UNLESS NOTED OTHERWISE.
- MATERIAL LABELED AS ASTM A-572 GR. 58 OR 58 KSI YIELD STRENGTH ALSO CONFORMS TO ASTM A-572 GR. 50.
- ANALYSIS PERFORMED USING STEEL GRADES LISTED UNDER MATERIALS STRENGTHS SHOWN ON THIS PAGE.
- 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.

**Maximum Base Reactions**



MAX. LEG REACTIONS:  
 DOWN: 436.2 K  
 UPLIFT: -370.0 K  
 SHEAR: 47.6 K

TORQUE 80.4 kip-ft  
 REACTIONS 121.0 mph WIND (no ice)

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

TOWER COLUMN										
SECTION	ELEVATION	FACE WIDTH	PANELS	LEG SIZE	LEG STYLE	LEG BOLT QTY & DIA	DIAGONAL BRACING SIZE	HORIZONTAL BRACING SIZE	BRACING BOLT QTY & DIA	SECTION WEIGHT
T1	320' - 325'	5.0'	1	2.50"	V	4 x 3/4"	1/8" x 2" x 2"	1/4" x 3" x 3"	1 x 3/4"	362.13
T2	300' - 320'	5.0'	4	2.50"	V	4 x 3/4"	1/8" x 2" x 2"		1 x 3/4"	948.78
T3	280' - 300'	5.0'	3	4.00"	V	6 x 3/4"	1/8" x 2" x 2"		1 x 3/4"	1241.73
T4	260' - 280'	7.0'	3	5.00"	V	8 x 3/4"	1/8" x 2" x 2"		1 x 3/4"	1526.40
T5	240' - 260'	9.0'	3	5.00"	V	8 x 3/4"	3/16" x 2" x 2"		1 x 3/4"	1729.44
T6	220' - 240'	11.0'	3	5.00"	V	8 x 3/4"	3/16" x 2" x 2"		1 x 3/4"	1804.26
T7	200' - 220'	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
T8	180' - 200'	15.0'	3	6.00"	V	6 x 1"	3/16" x 3" x 3"		1 x 3/4"	2762.67
T9	160' - 180'	17.0'	2	1.75"	12BDFH	6 x 1 1/4"	5/16" x 3" x 3"		1 x 1"	3641.43
T10	140' - 160'	19.0'	2	1.75"	12BDFH	6 x 1 1/4"	1/4" x 3-1/2" x 3-1/2"		1 x 1"	3725.79
T11	120' - 140'	21.0'	1	2.00"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8"	4795.50
T12	100' - 120'	23.0'	1	2.00"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8"	4959.81
T13	80' - 100'	25.0'	1	2.25"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		1 x 7/8"	5588.79
T14	60' - 80'	27.0'	1	2.25"	12BDH2D	12 x 1"	1/4" x 3-1/2" x 3-1/2"		2 x 7/8"	5798.67
T15	40' - 60'	29.0'	1	2.50"	12BDH2D	12 x 1 1/4"	1/4" x 3-1/2" x 3-1/2"		2 x 7/8"	6608.88
T16	20' - 40'	31.0'	1	2.50"	12BDH2D	12 x 1 1/4"	1/4" x 3-1/2" x 3-1/2"		2 x 7/8"	6787.20
T17	0' - 20'	33.0'	1	2.50"	12BDH2D	12 x 1 1/4"	1/4" x 4" x 4"		2 x 7/8"	7138.50



May 6, 2020

<b>valmont</b> <b>STRUCTURES</b> 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR		SITE <b>SILK HOPE, NC</b> <b>MOTOROLA SOLUTIONS</b> <b>U 33 X 325'</b> COPYRIGHT 2013	DESCRIPTION <b>Tower View Page 1</b>	ENG. FILE NO. <b>415766</b>	PAGE <b>1 OF 19</b>
REV <b>REVISION HISTORY</b>	STRUCTURE APPROVAL <b>MVC 5/4/2020</b>	FOUNDATION APPROVAL	DWG. NO. <b>289194T</b>		

DESIGNED APPURTENANCE LOADING	
TYPE	ELEVATION
(1) 20' ADJUSTABLE BEACON EXTENDER	325.0000'
(1) 21' LRE WITH 7'-6" LIGHTNING ROD (ARM=11.5')	325.0000'
(3) 6' BOGNER MOUNT STANDARD DUTY	325.0000'
(1) BEACON	325.0000'
(2) CC807-11	325.0000'
(1) COL53-160	325.0000'
(1) TTA (12"X12"X8")	310.0000'
(2) 6' BOGNER MOUNT STANDARD DUTY	300.0000'
(2) CC807-11	300.0000'
(1) PAD6-65BC W/ RADOME (0 DEG AZIMUTH)	285.0000'
(1) 6' BOGNER MOUNT STANDARD DUTY	230.0000'
(1) COL53-160	230.0000'
(2) 2-1/2" X 12' SCH. 40	215.0000'
(1) PAD6-65BC W/ RADOME (0 DEG AZIMUTH)	215.0000'
(12) 2" X 96" SCH. 40	200.0000'
(12) PANEL (8' X 1' X 4")	200.0000'
(3) SP1 VFA12-SD-S	200.0000'
(2) 2-1/2" X 15' SCH. 40	185.0000'
(1) PAD6-65BC W/ RADOME (0 DEG AZIMUTH)	185.0000'
(2) 2-1/2" X 17' SCH. 40	165.0000'
(1) PAD6-65BC W/ RADOME (0 DEG AZIMUTH)	165.0000'



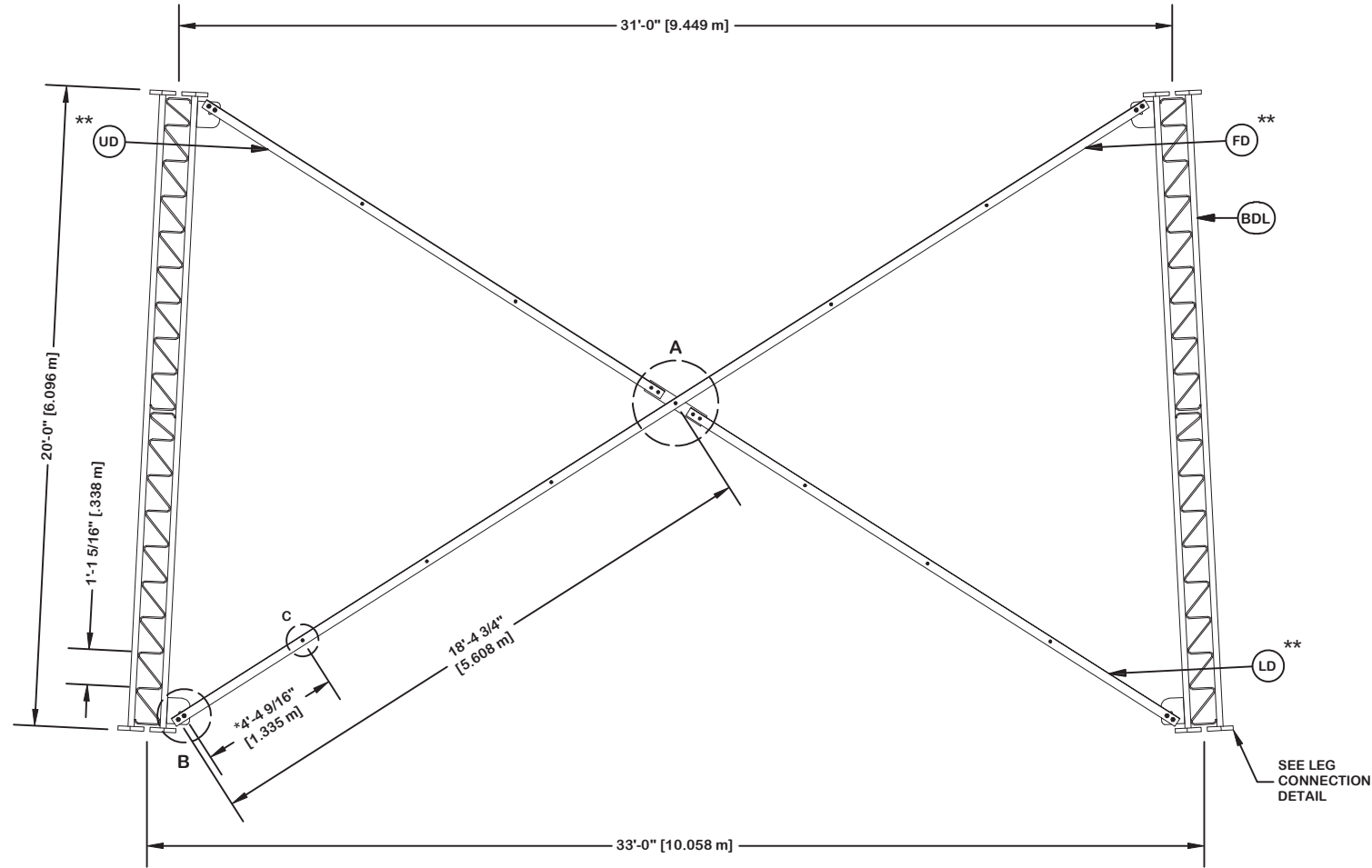
May 6, 2020

				SITE <b>SILK HOPE, NC          MOTOROLA SOLUTIONS          U 33 X 325'</b>		DESCRIPTION Tower View Page 2		 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
				COPYRIGHT 2013				ENG. FILE NO. <b>415766</b>	
				PROPRIETARY NOTE: 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 <b>MVC 5/4/2020</b>		FOUNDATION APPROVAL	
REV   DESCRIPTION OF REVISIONS   CPD   BY   DATE REVISION HISTORY								DWG. NO. <b>289194T</b>	

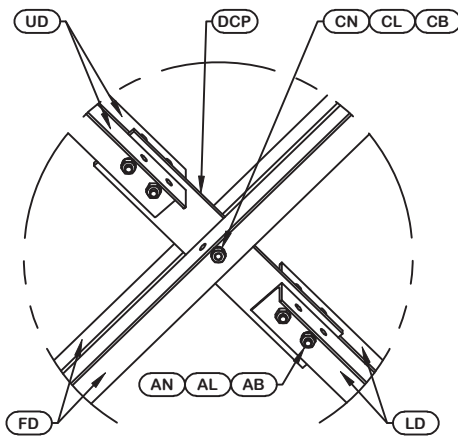
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION  
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

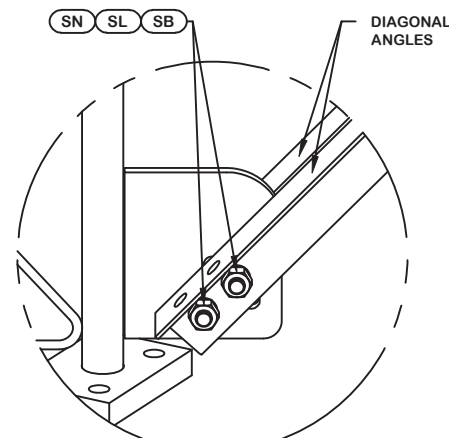
\* STITCH BOLT SPACING SHOWN  
IS MAX. FOR ALL ANGLES



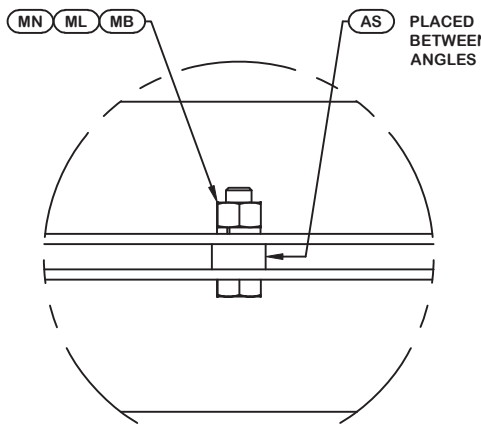
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196950	#12 LEG SECTION - 2-1/2" LEG - 1/2" BRACE - 7/8" D	1359.080	4077.240
UD	6	266326	U-33 UPPER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	116.880	701.280
LD	6	266325	U-33 LOWER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	124.750	748.500
FD	6	266324	U-33 LONG ANGLE - DOUBLE BOLT FOR 20'-0" LONG TAP	248.850	1493.100
ML	27	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.540
MN	27	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	3.240
AS	27	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	1.890
MB	27	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	7.020
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	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	24	312193	7/8" GALVANIZED LOCKWASHER	0.050	1.200
SN	24	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	7.200
SB	24	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	29.520
Total Wt				7138.50 lb [3240.94 kg]	



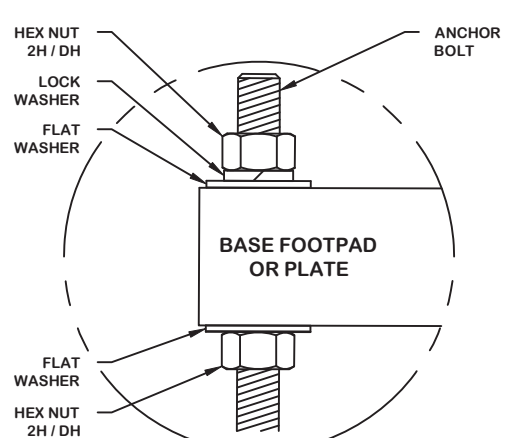
DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
STITCH BOLT CONNECTION



ANCHOR BOLT ASSY. (TYP)  
SEE FOUNDATION DRAWING FOR DETAILS




May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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PROPRIETARY NOTE:	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.

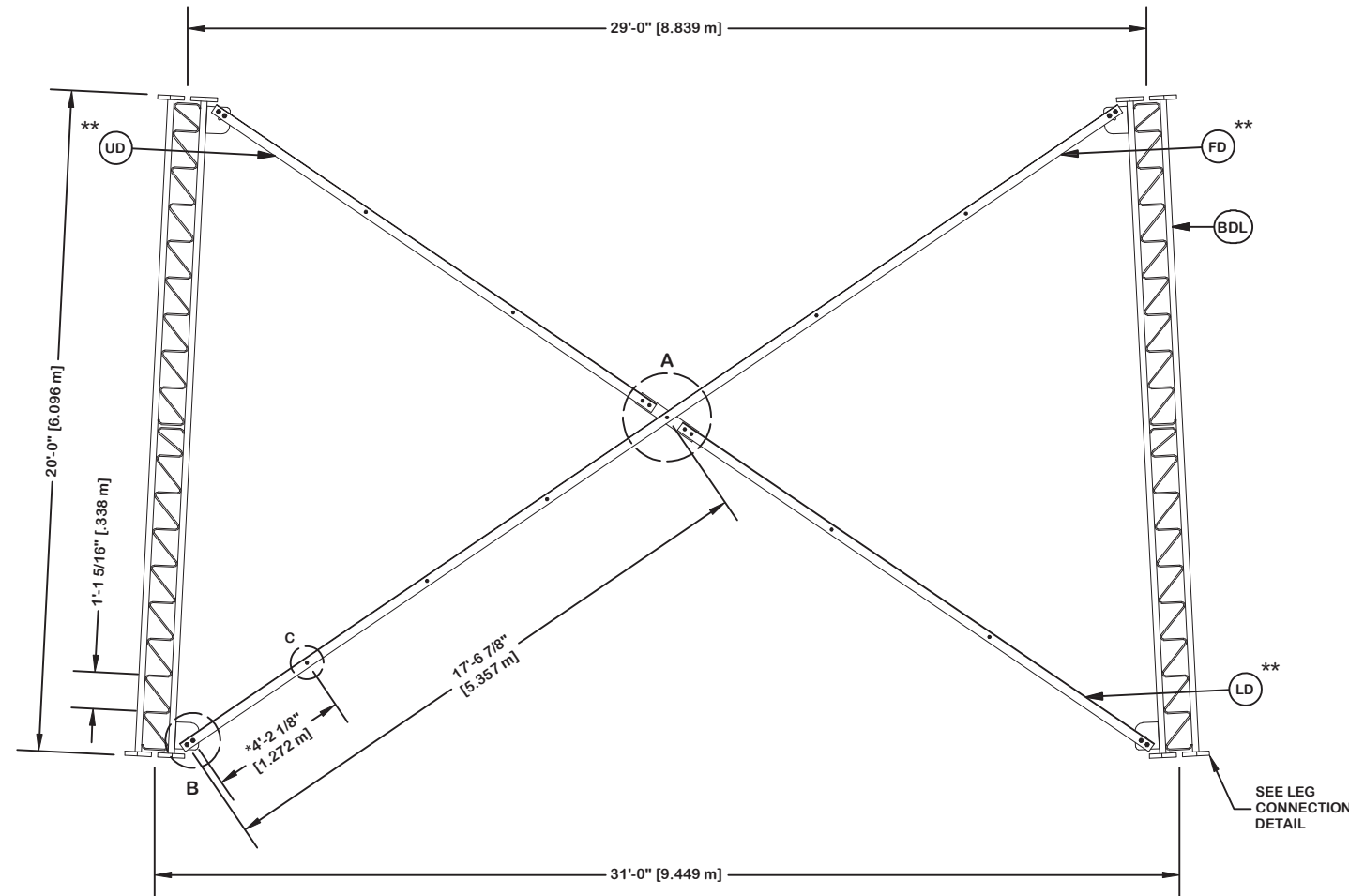
DESCRIPTION	SECTION U-33.0 (0' - 20' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

<b>valmont</b> 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
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PAGE 3 OF 19	

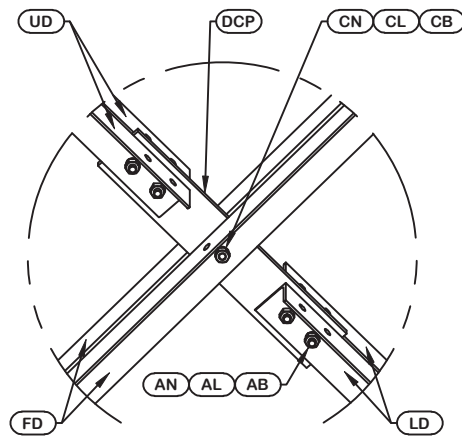
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION  
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

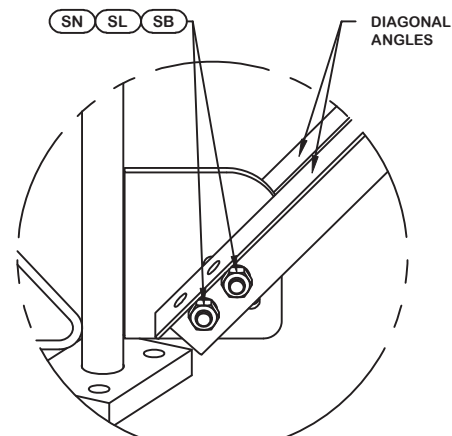
\* STITCH BOLT SPACING SHOWN  
IS MAX. FOR ALL ANGLES



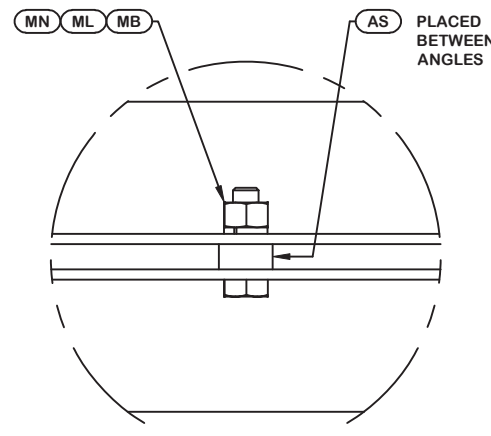
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196950	#12 LEG SECTION - 2-1/2" LEG - 1/2" BRACE - 7/8" D	1359.080	4077.240
UD	6	266305	U-31 UPPER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	97.550	585.300
LD	6	266304	U-31 LOWER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	104.620	627.720
FD	6	266303	U-31 LONG ANGLE - DOUBLE BOLT FOR 20'-0" LONG TAP	208.520	1251.120
ML	27	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.540
MN	27	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	3.240
AS	27	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	1.890
MB	27	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	7.020
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	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	24	312193	7/8" GALVANIZED LOCKWASHER	0.050	1.200
SN	24	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	7.200
SB	24	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	29.520
LCB	36	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
LCL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	5.400
LCN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	26.280
Total Wt				6787.20 lb	[3081.45 kg]



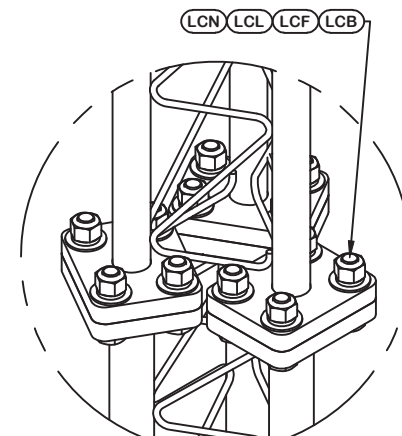
DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
STITCH BOLT CONNECTION



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




May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE  <b>SILK HOPE, NC</b> <b>MOTOROLA SOLUTIONS</b> <b>U 33 X 325'</b>  COPYRIGHT 2013
PROPRIETARY NOTE: 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.

DESCRIPTION  <b>SECTION U-31.0 (20' - 40' ELEVATION)</b>
STRUCTURE APPROVAL <b>MVC</b> <b>5/4/2020</b>
FOUNDATION APPROVAL

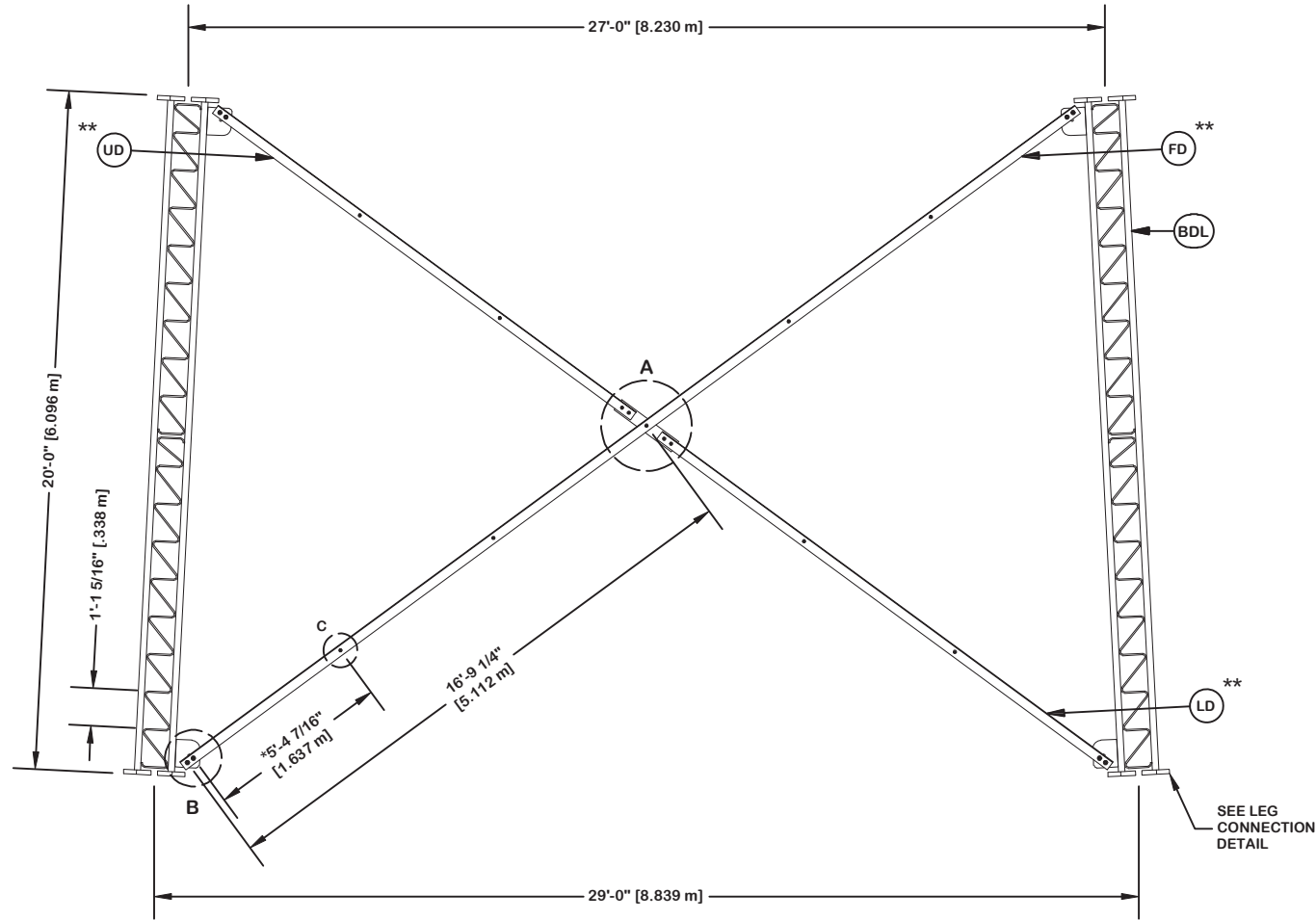
 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR
ENG. FILE NO. <b>415766</b>
DWG. NO. <b>289194T</b>



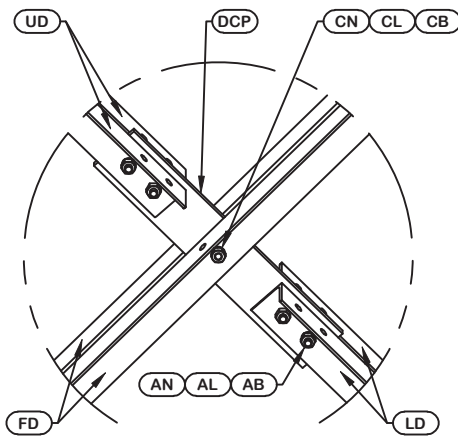
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION  
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

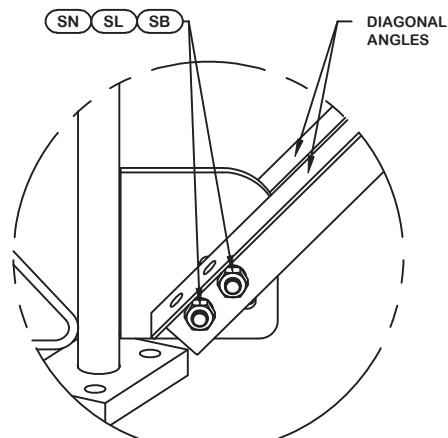
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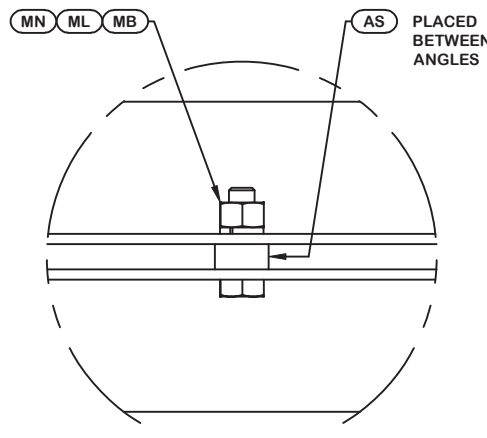
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196948	#12 LEG SECT - 2-1/2" TO 2" TRANS LEG - 1/2" BRACE	1339.910	4019.730
UD	6	266287	U-29 UPPER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	92.490	554.940
LD	6	266286	U-29 LOWER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	99.730	598.380
FD	6	266285	U-29 LONG ANGLE - DOUBLE BOLT FOR 20'-0" LONG TAP	198.570	1191.420
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	1.680
MB	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	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	24	312193	7/8" GALVANIZED LOCKWASHER	0.050	1.200
SN	24	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	7.200
SB	24	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	29.520
LCB	36	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
LCL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	5.400
LCN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	26.280
Total Wt				6608.88 lb [3000.49 kg]	



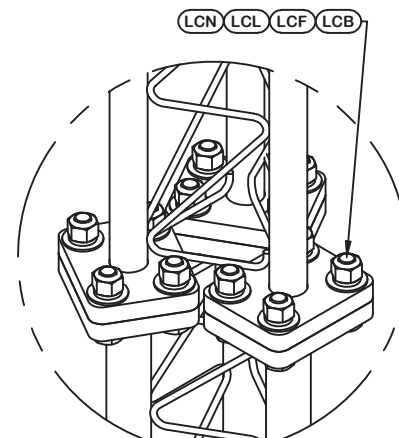
DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
STITCH BOLT CONNECTION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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PROPRIETARY NOTE:	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.

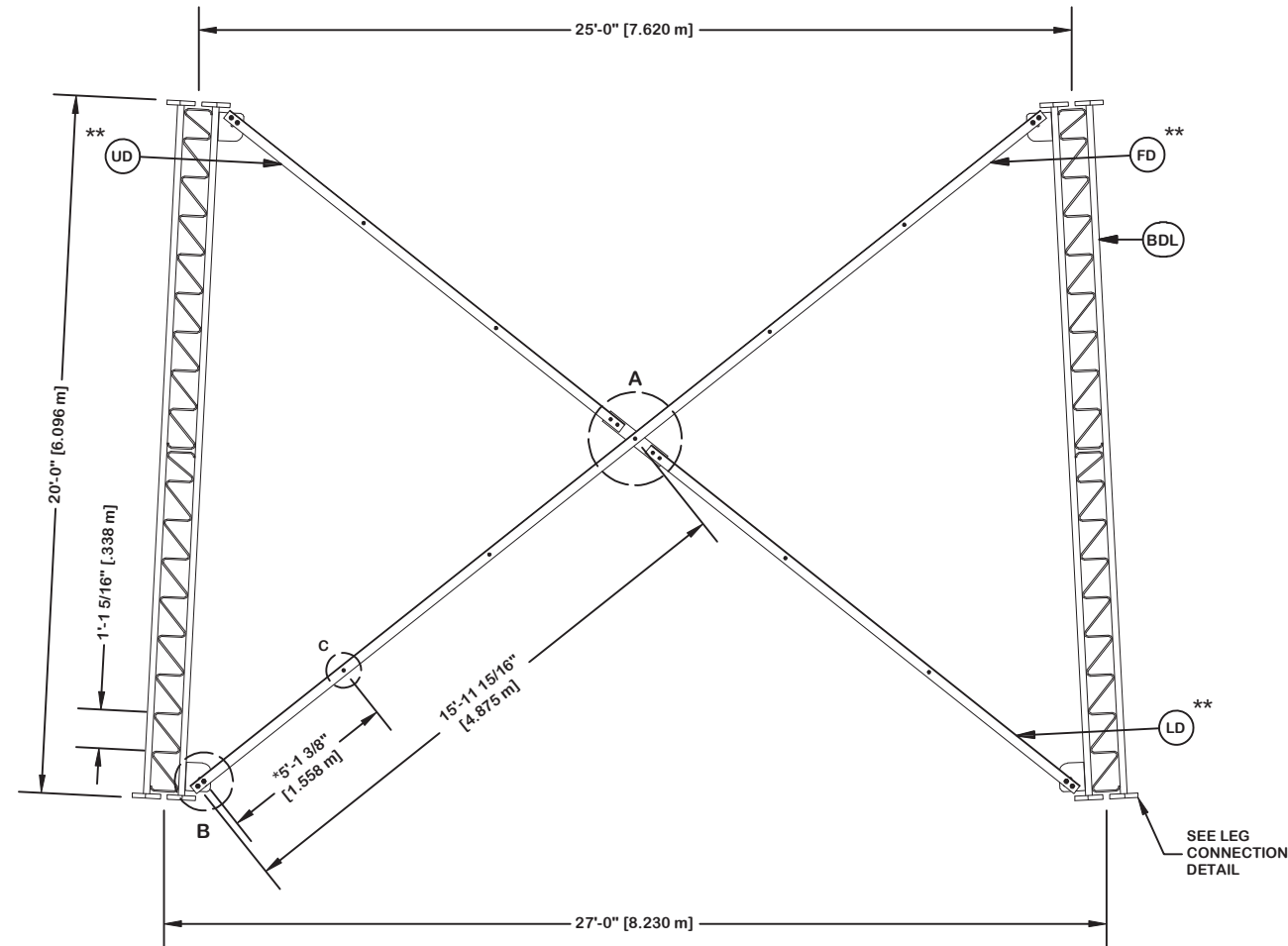
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FOUNDATION APPROVAL	

<b>valmont</b> 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
<b>STRUCTURES</b>	
ENG. FILE NO.	415766
DWG. NO.	289194T

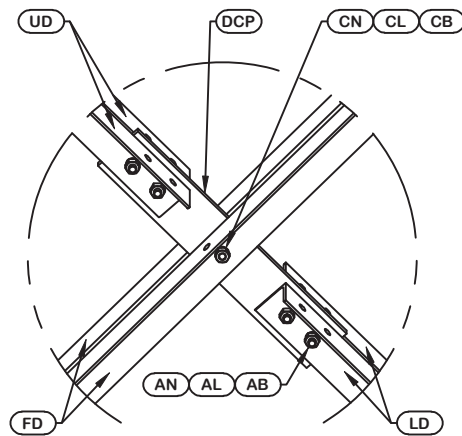
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION  
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

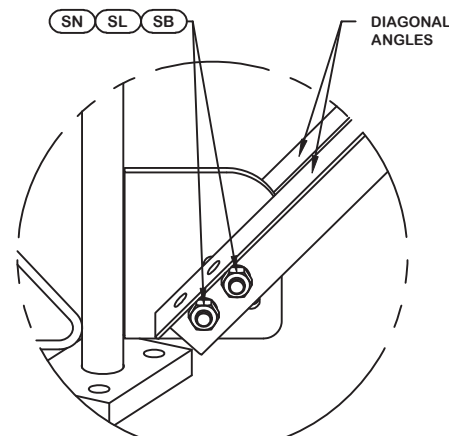
\* STITCH BOLT SPACING SHOWN  
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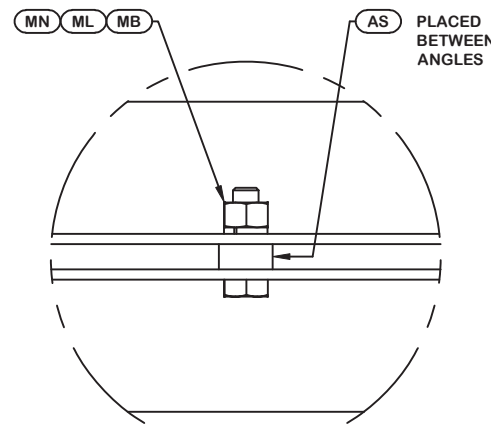
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196946	#12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" D	1126.660	3379.980
UD	6	266266	U-27 UPPER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	87.550	525.300
LD	6	266265	U-27 LOWER ANGLE - DOUBLE BOLT FOR 20'-0" LONG TA	95.000	570.000
FD	6	266264	U-27 LONG ANGLE - DOUBLE BOLT FOR 20'-0" LONG TAP	188.890	1133.340
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	1.680
MB	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	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	24	312193	7/8" GALVANIZED LOCKWASHER	0.050	1.200
SN	24	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	7.200
SB	24	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	29.520
LCB	36	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	49.680
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
Total Wt				5798.67 lb [2632.65 kg]	



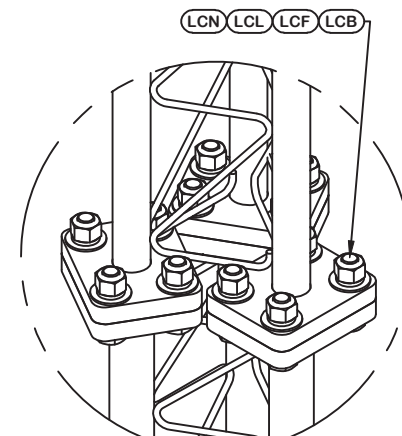
DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
STITCH BOLT CONNECTION



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




May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE  <b>SILK HOPE, NC</b> <b>MOTOROLA SOLUTIONS</b> <b>U 33 X 325'</b>  COPYRIGHT 2013
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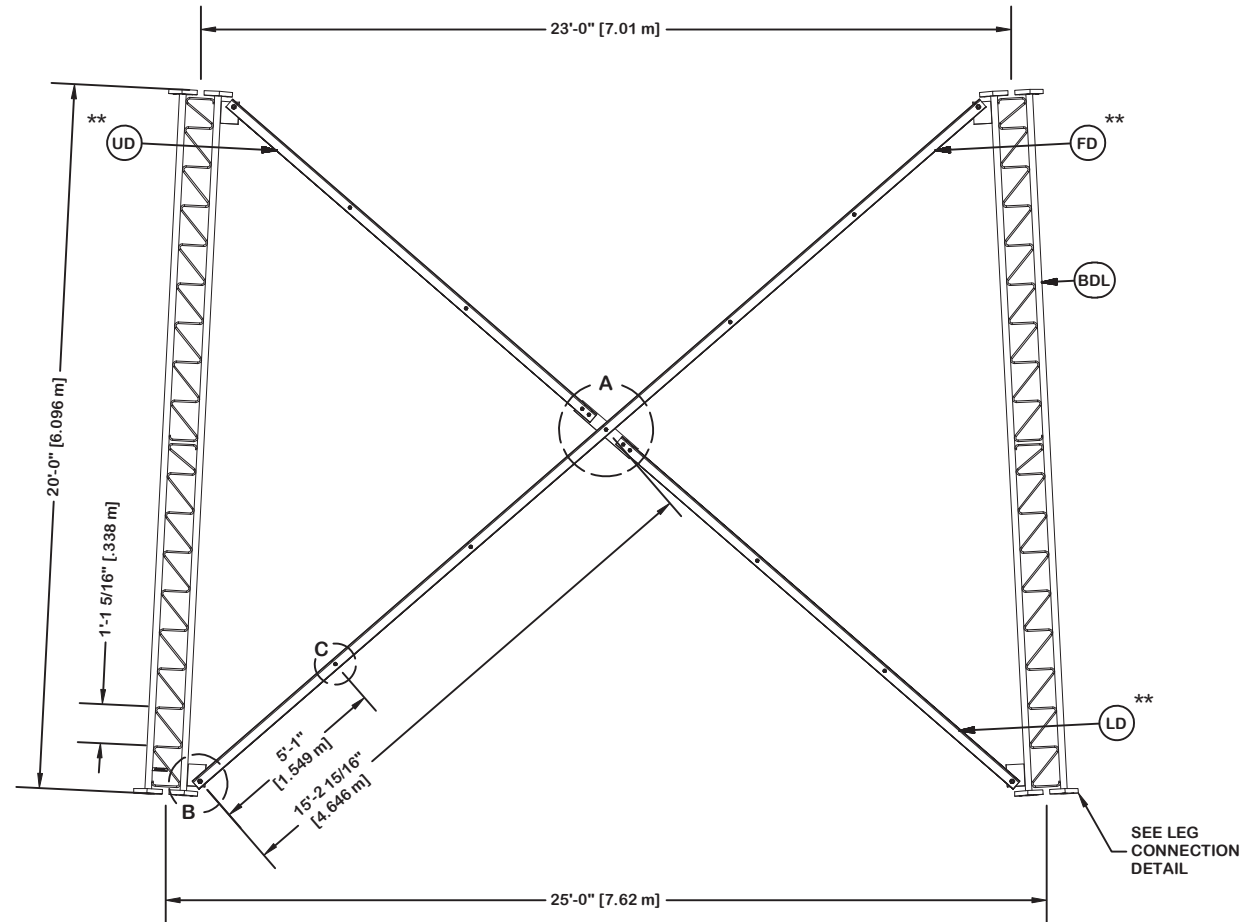
DESCRIPTION  <b>SECTION U-27.0 (60' - 80' ELEVATION)</b>
STRUCTURE APPROVAL <b>MVC</b> 5/4/2020

 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR
ENG. FILE NO. <b>415766</b>
DWG. NO. <b>289194T</b>

ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

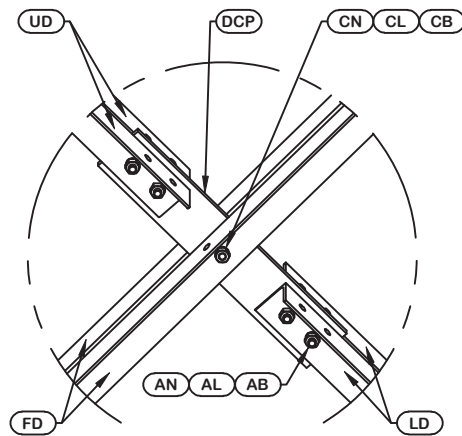
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION  
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

\* STITCH BOLT SPACING SHOWN  
IS MAX. FOR ALL ANGLES

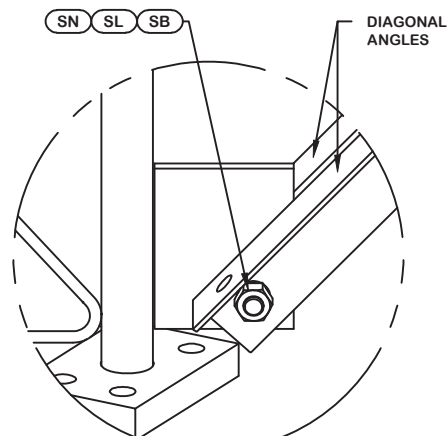


PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195960	#12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" B	1100.520	3301.560
UD	6	265754	U-25 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	82.720	496.320
LD	6	265753	U-25 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	90.450	542.700
FD	6	265752	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	0.480
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	1.680
MB	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	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
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"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	49.680
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
Total Wt				5588.79 lb	[2537.36 kg]

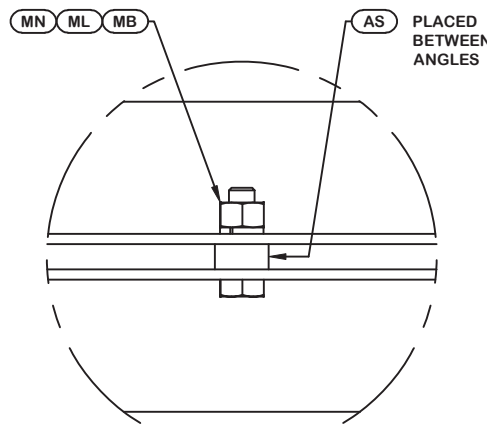
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW. PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



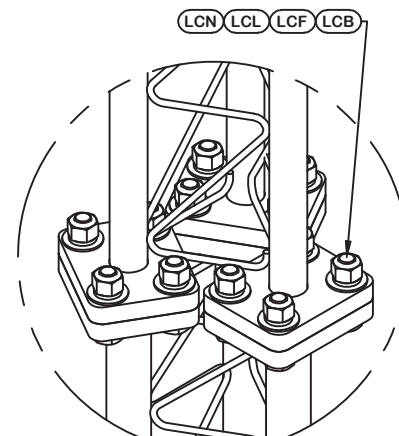
DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
STITCH BOLT CONNECTION



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




May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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DESCRIPTION	SECTION U-25.0 (80' - 100' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

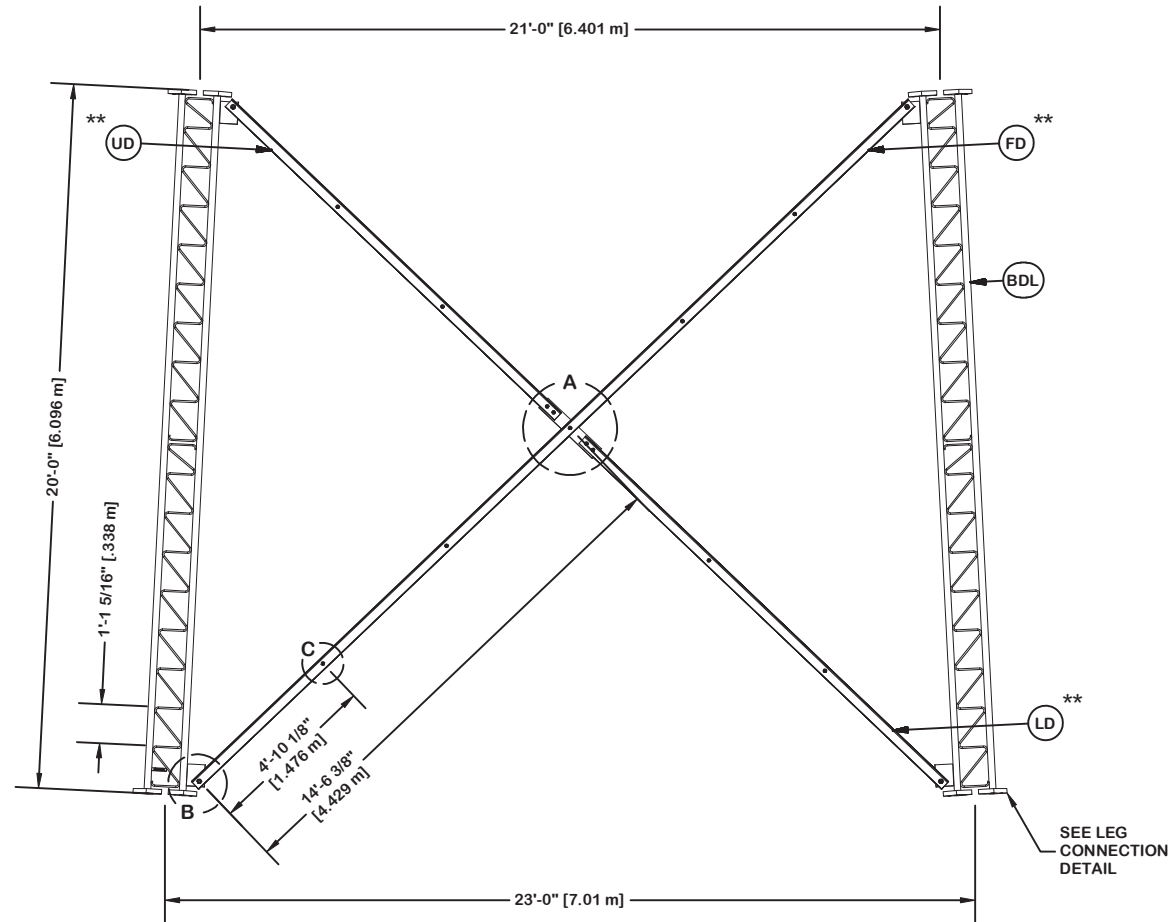
<b>valmont</b> 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
DWG. NO.	289194T



ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

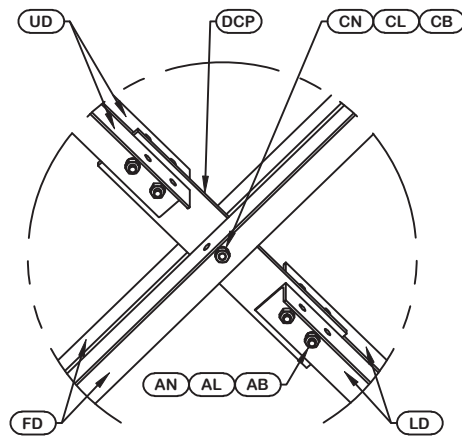
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION  
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, **T**↑

\* STITCH BOLT SPACING SHOWN  
IS MAX. FOR ALL ANGLES

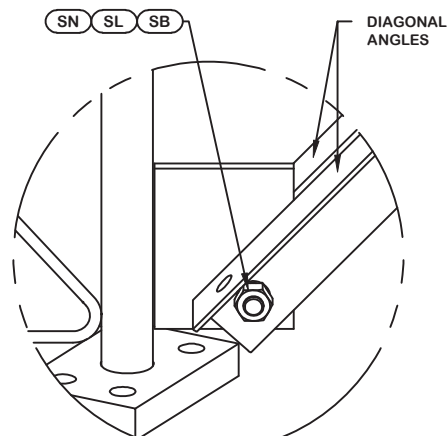


PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195639	#12 LEG SECTION - 2" LEG - 1/2" BRACE - 7/8" BOLT	926.920	2780.760
UD	6	265730	U-23 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	78.050	468.300
LD	6	265729	U-23 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	86.110	516.660
FD	6	265728	U-23 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	170.500	1023.000
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	1.680
MB	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	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
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"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	49.680
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
Total Wt				4959.81 lb [2251.80 kg]	

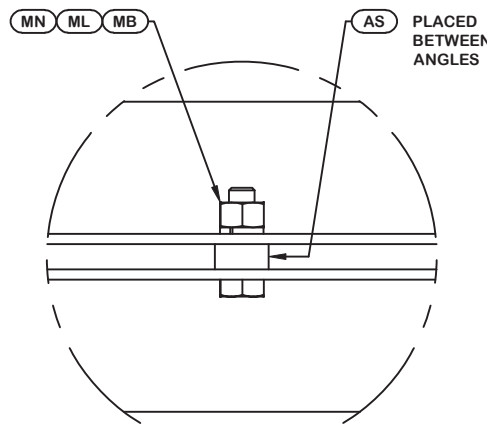
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW. PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



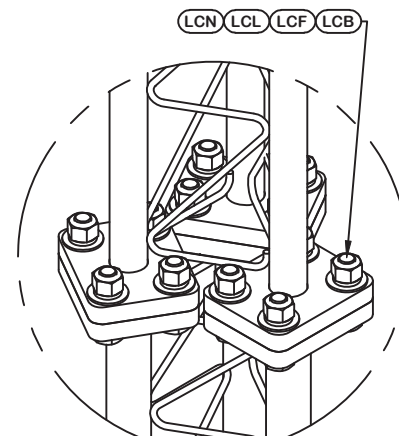
DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
STITCH BOLT CONNECTION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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DESCRIPTION	SECTION U-23.0 (100' - 120' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

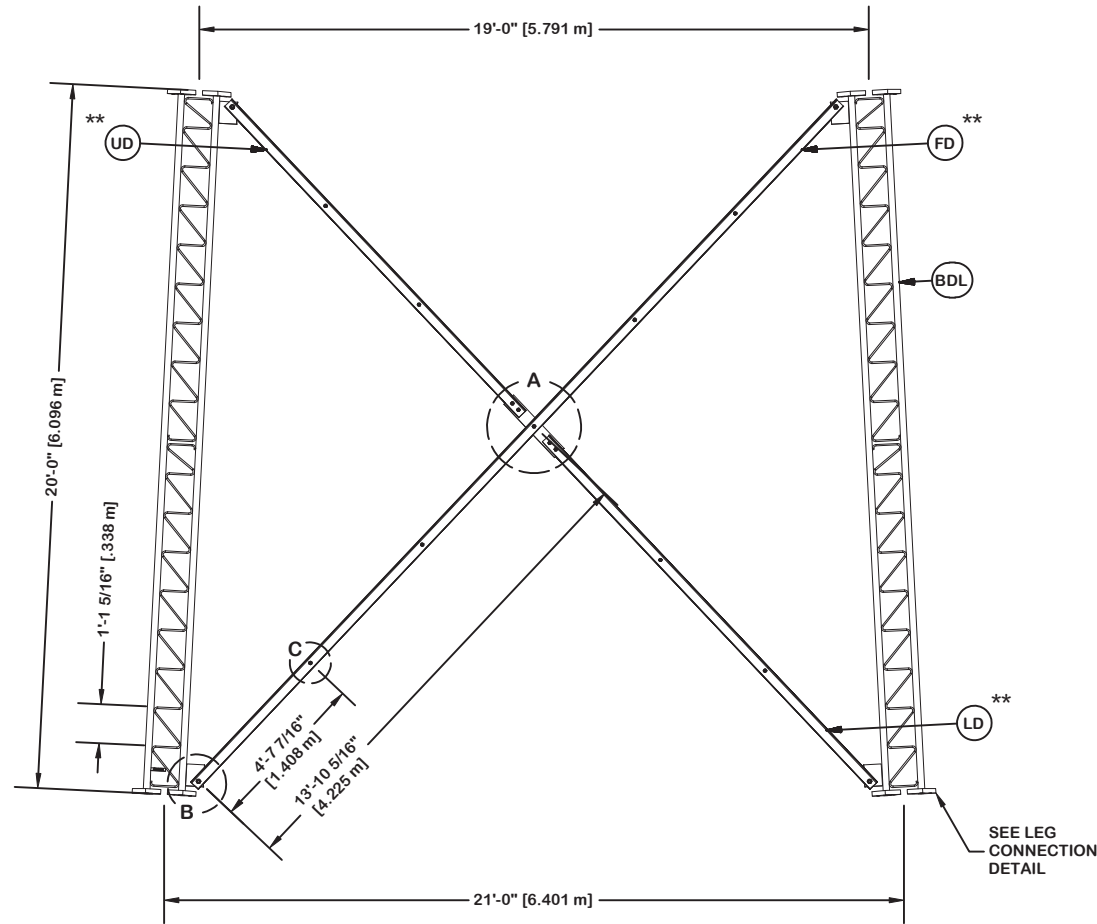
<b>valmont</b>	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
DWG. NO.	289194T



ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

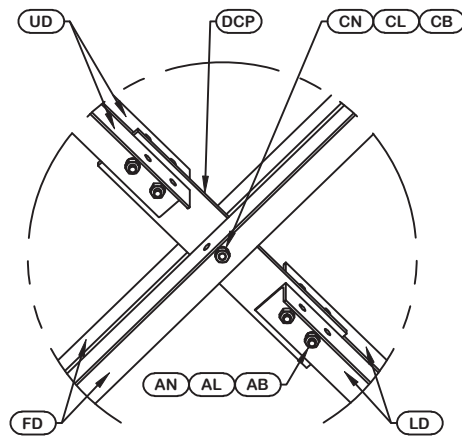
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION  
\*\* DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

\* STITCH BOLT SPACING SHOWN  
IS MAX. FOR ALL ANGLES

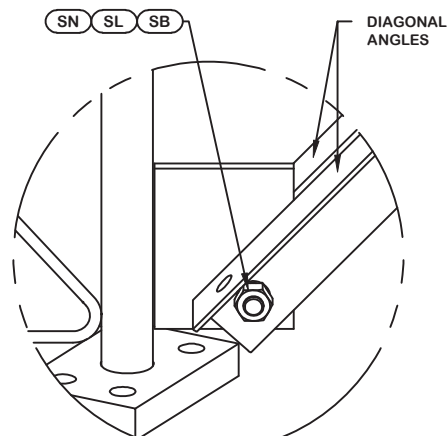


PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195637	#12 LEG SECT - 2" TO 1-3/4" TRANS LEG - 1/2" BRACE	906.870	2720.610
UD	6	265706	U-21 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	73.370	440.220
LD	6	265705	U-21 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	82.030	492.180
FD	6	265704	U-21 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	161.900	971.400
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	1.680
MB	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	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
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"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	49.680
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
Total Wt				4795.50 lb [2177.20 kg]	

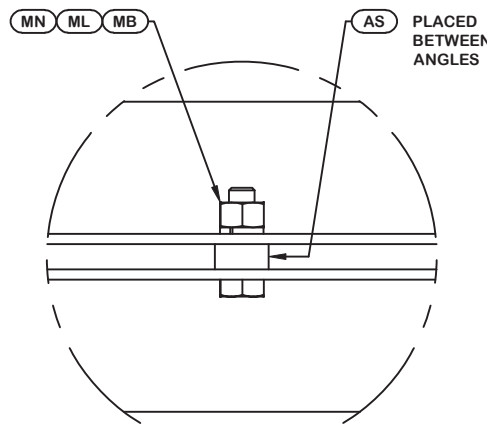
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.  
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



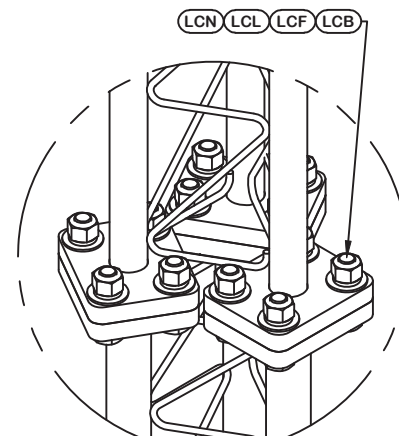
DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
STITCH BOLT CONNECTION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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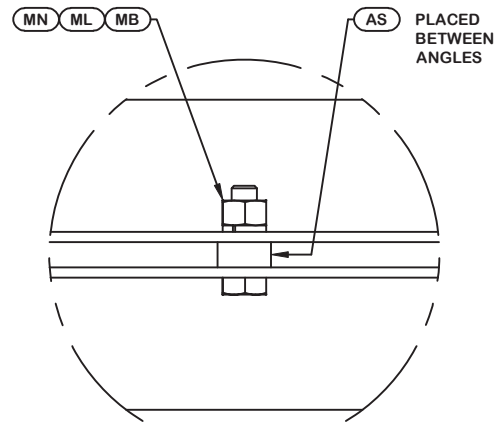
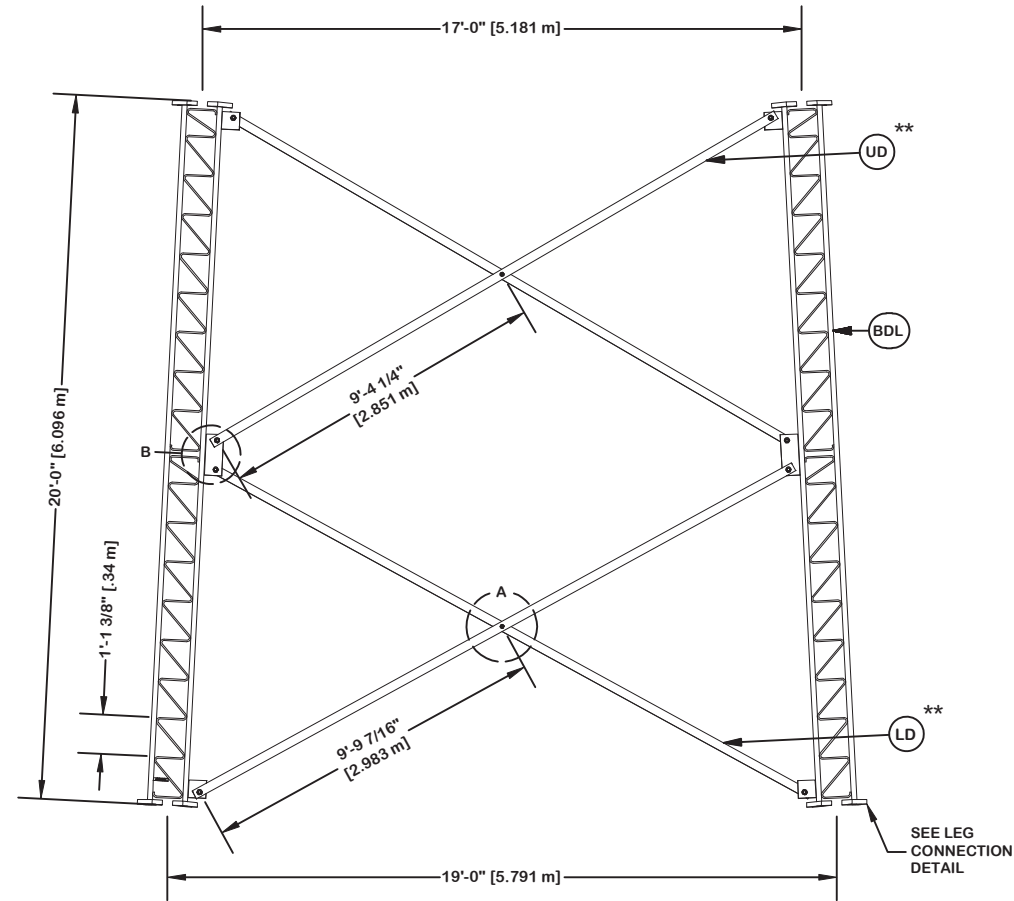
DESCRIPTION	SECTION U-21.0 (120' - 140' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

<b>valmont</b> 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
DWG. NO.	289194T

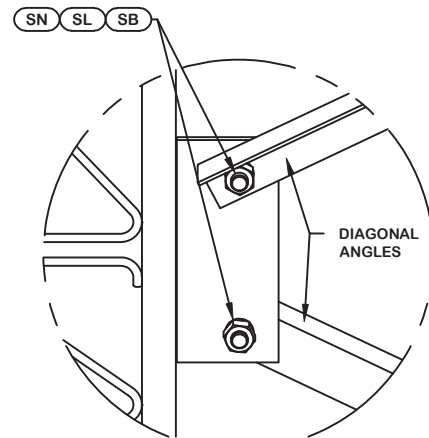
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

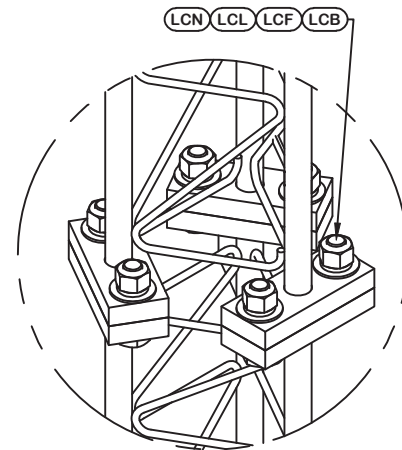
\*\* DIAGONAL ANGLES MUST BE INSTALLED  
WITH THE NON-BOLTED FACE UP,  
THIS MAY BE ON THE OPPOSITE SIDE OF THE  
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
MID SIDE PLATE ANGLE CONNECTION



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

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195217	#12 LEG SECTION - 1-3/4" LEG - 1/2" BRACE - 1" BOL	746.710	2240.130
LD	6	279285	U-20 UPPER DIAGONAL - 3 1/2" x 3 1/2" x 1/4" ANGLE	118.070	708.420
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	312223	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	20.160
UD	6	279271	U-18 LOWER DIAGONAL - 3 1/2" x 3 1/2" x 1/4" ANGLE	112.760	676.560
LCB	18	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	45.540
LCF	18	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	2.340
LCL	18	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	2.700
LCN	18	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	13.140

Total Wt 3725.79 lb [1691.54 kg]



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE  
**SILK HOPE, NC  
MOTOROLA SOLUTIONS  
U 33 X 325'**

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DESCRIPTION  
**SECTION U-19.0 (140' - 160' ELEVATION)**

STRUCTURE APPROVAL  
**MVC 5/4/2020**

FOUNDATION APPROVAL

**valmont** **STRUCTURES**

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

ENG. FILE NO. **415766**

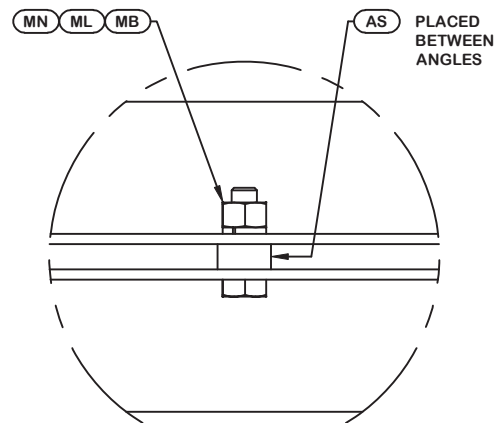
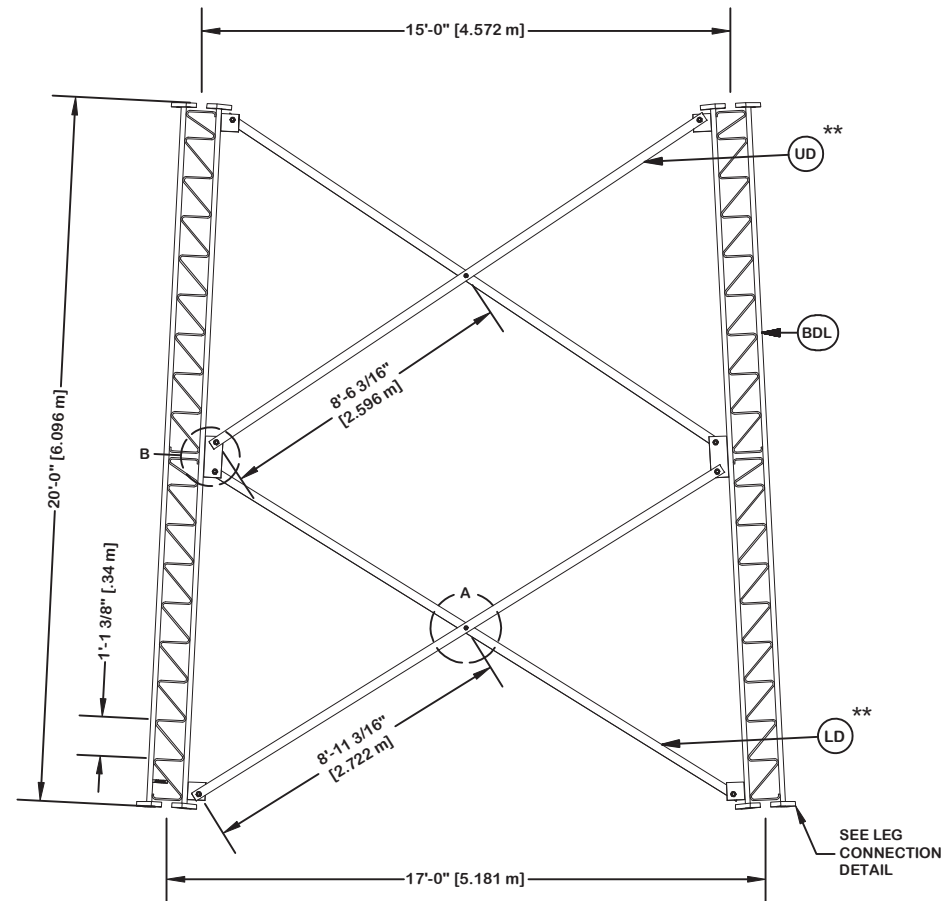
DWG. NO. **289194T**

PAGE 10 OF 19

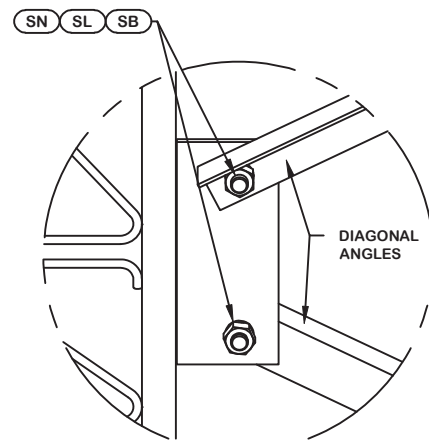
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

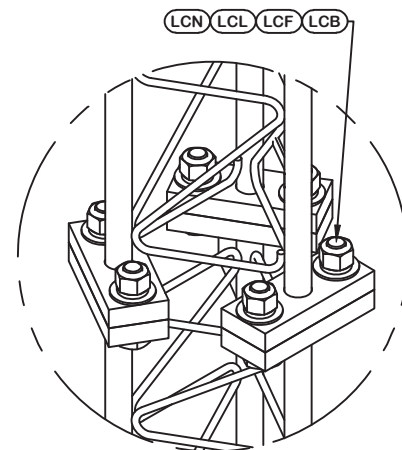
\*\* DIAGONAL ANGLES MUST BE INSTALLED  
WITH THE NON-BOLTED FACE UP,  
THIS MAY BE ON THE OPPOSITE SIDE OF THE  
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



DETAIL A  
ANGLE INTERSECTION CONNECTION



DETAIL B  
MID SIDE PLATE ANGLE CONNECTION



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

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195213	#12 LEG SECT - 1-3/4" TO 1-1/2" TRANS LEG - 1/2" B	739.890	2219.670
LD	6	132904	U-18 UPPER DIAGONAL - 3" x 3" x 5/16" ANGLE (A572)	112.780	676.680
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	312223	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	20.160
UD	6	126821	U-16 LOWER DIAGONAL - 3" x 3" x 5/16" ANGLE (A572)	107.400	644.400
LCB	18	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	45.540
LCF	18	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	2.340
LCL	18	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	2.700
LCN	18	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	13.140

Total Wt 3641.43 lb [1653.24 kg]



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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PROPRIETARY NOTE:	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.

DESCRIPTION	SECTION U-17.0 (160' - 180' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

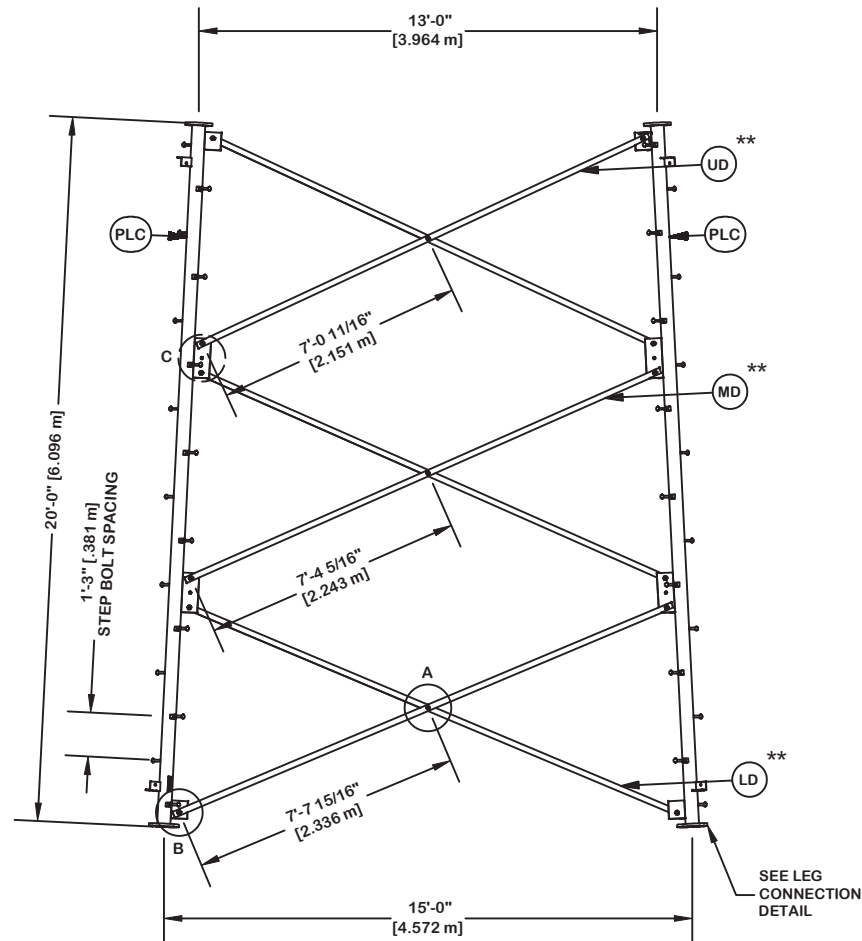
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
DWG. NO.	289194T



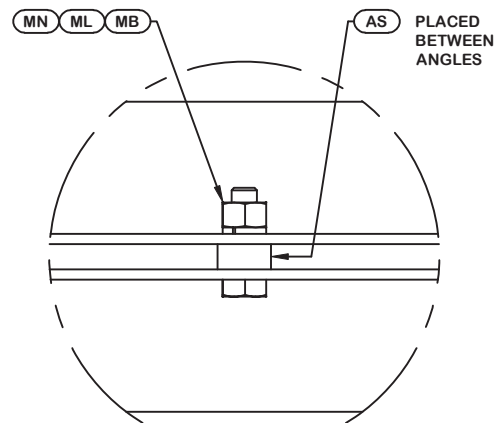
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

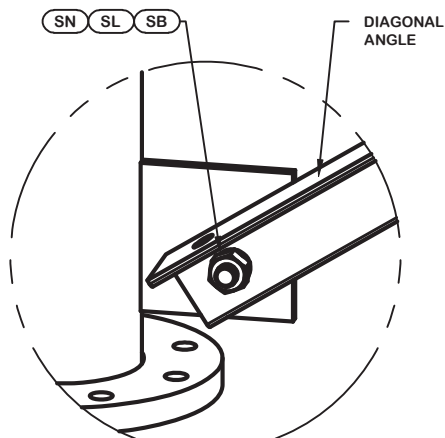
\*\* DIAGONAL ANGLES MUST BE INSTALLED  
WITH THE NON-BOLTED FACE UP, ↑  
THIS MAY BE ON THE OPPOSITE SIDE OF THE  
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



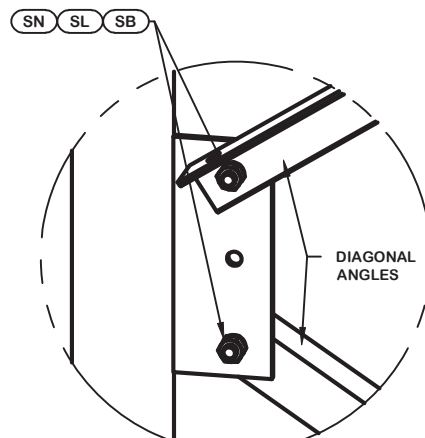
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	229377	PIPE LEG SECTION 20'-0" (CLIMBING) 6" SCH. 40 V-SE	537.940	1613.820
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	284823	V-15 LOWER CLIPPED ANGLE - 3" x 3" x 3/16" ANGLE (	59.220	355.320
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 1 1/16" 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	284822	V-15 MID ANGLE - 3" x 3" x 3/16" ANGLE (A572 GR. 5	57.030	342.180
UD	6	284821	V-15 UPPER ANGLE - 3" x 3" x 3/16" ANGLE (A572 GR.	54.650	327.900
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
Total Wt				2762.67 lb [1254.28 kg]	



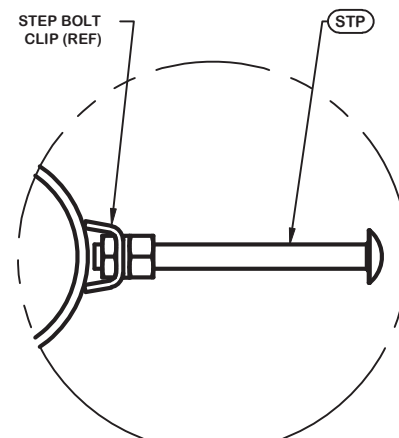
DETAIL A  
ANGLE INTERSECTION CONNECTION



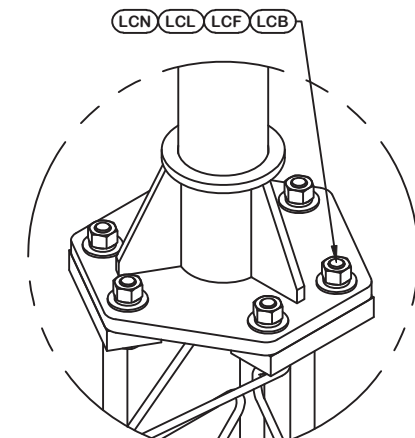
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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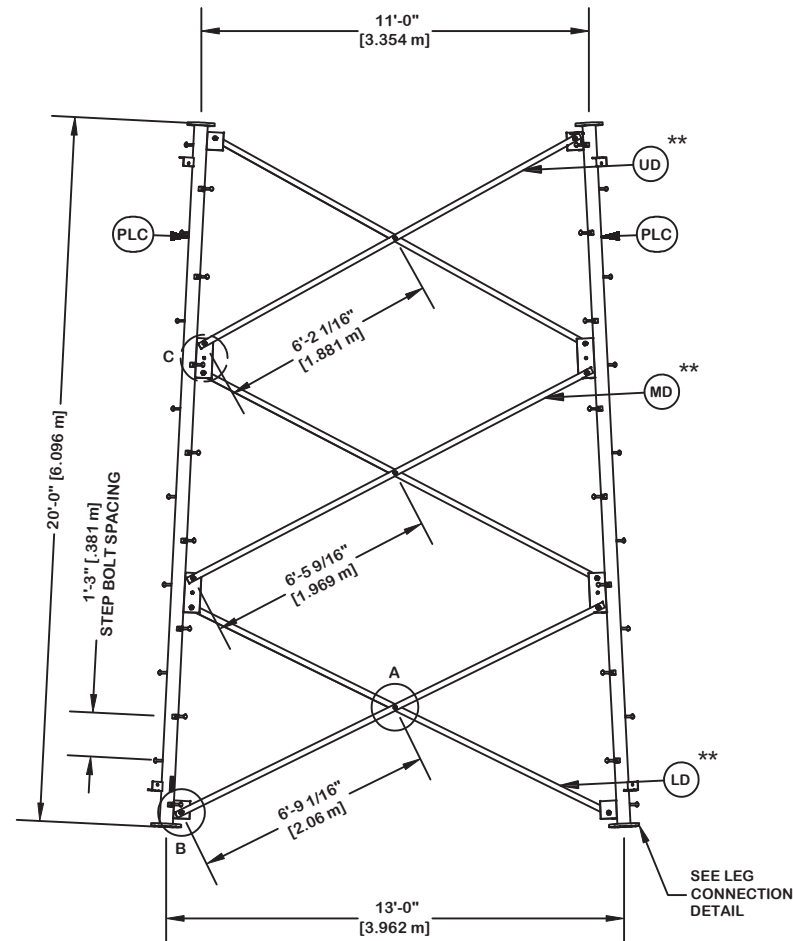
DESCRIPTION	SECTION V-15.0 (180' - 200' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

<b>valmont</b>	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
DWG. NO.	289194T

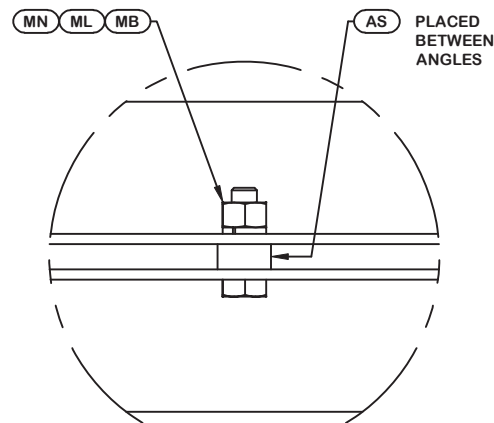
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

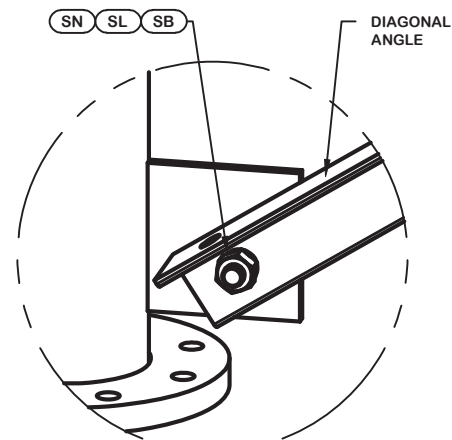
\*\* DIAGONAL ANGLES MUST BE INSTALLED  
WITH THE NON-BOLTED FACE UP, ↑  
THIS MAY BE ON THE OPPOSITE SIDE OF THE  
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



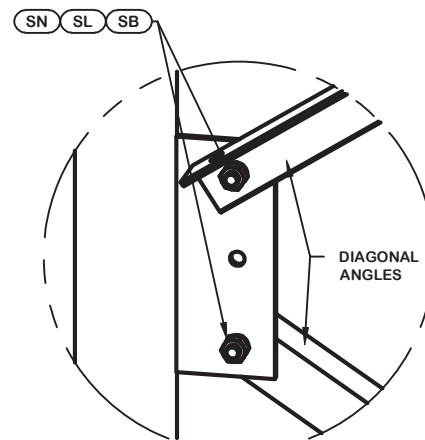
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	284799	V-13 LOWER CLIPPED ANGLE - 2 1/2" x 2 1/2" x 3/16"	43.220	259.320
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 1 1/16" 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
Total Wt				2040.48 lb [926.40 kg]	



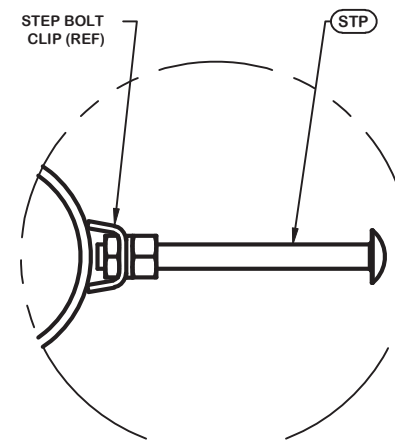
DETAIL A  
ANGLE INTERSECTION CONNECTION



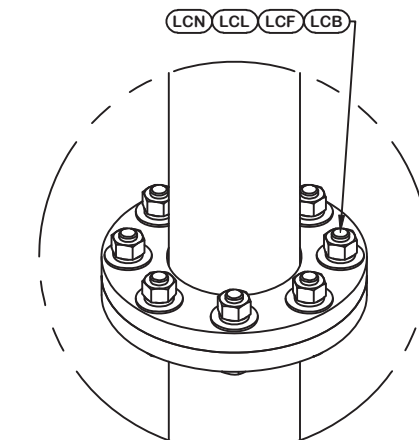
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE  
**SILK HOPE, NC**  
**MOTOROLA SOLUTIONS**  
**U 33 X 325'**

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DESCRIPTION  
**SECTION V-13.0 (200' - 220' ELEVATION)**

STRUCTURE APPROVAL  
**MVC**      **5/4/2020**

FOUNDATION APPROVAL

**valmont** **STRUCTURES**

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

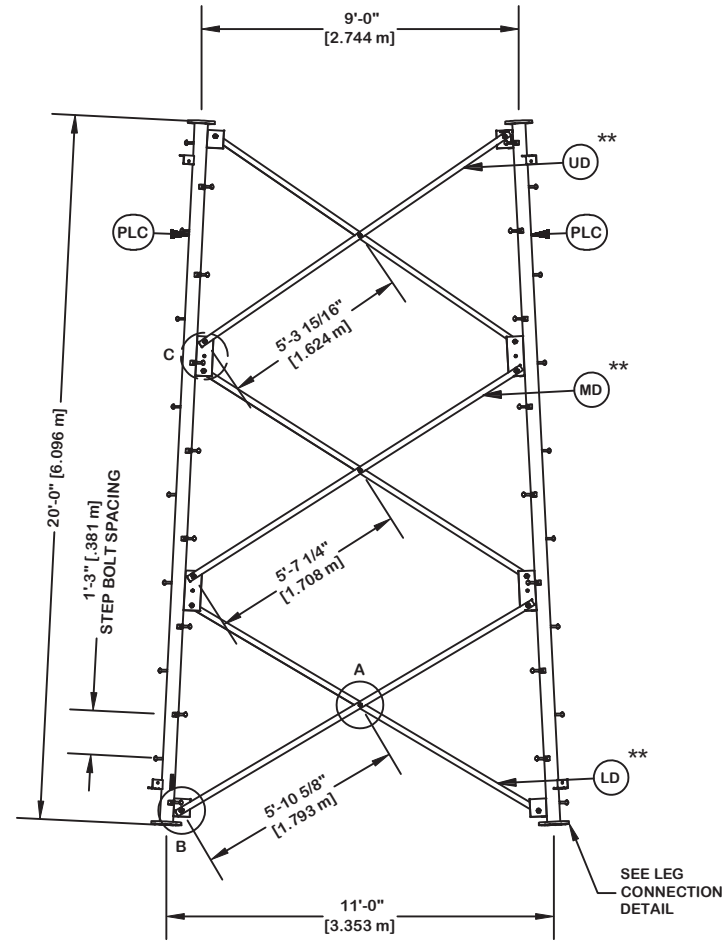
ENG. FILE NO.      **415766**

DWG. NO.      **289194T**

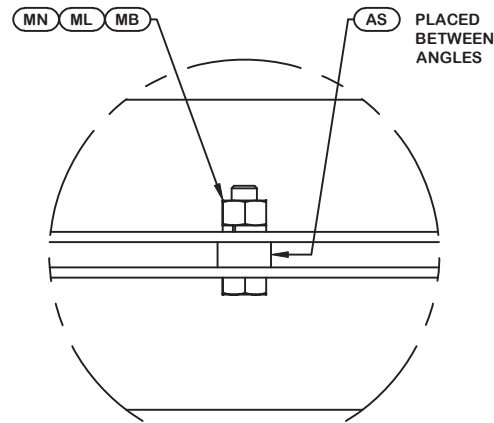
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

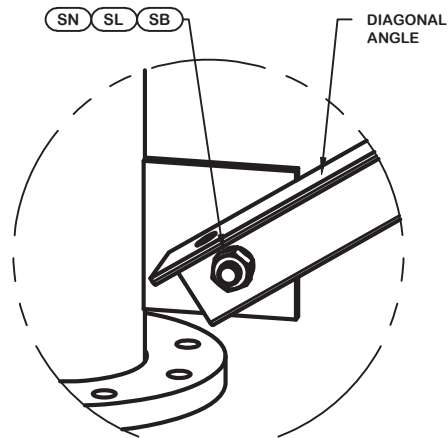
\*\* DIAGONAL ANGLES MUST BE INSTALLED  
WITH THE NON-BOLTED FACE UP, ↑  
THIS MAY BE ON THE OPPOSITE SIDE OF THE  
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



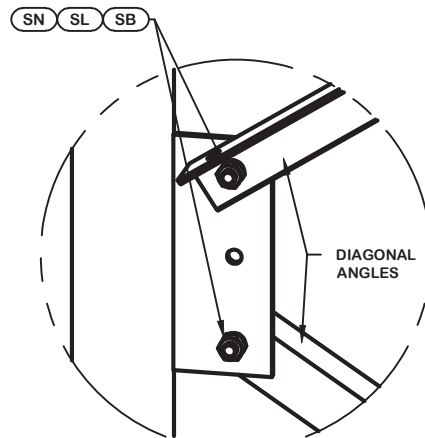
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	284775	V-11 LOWER CLIPPED ANGLE - 2" x 2" x 3/16" ANGLE (	29.650	177.900
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	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 Wt				1804.26 lb [819.15 kg]	



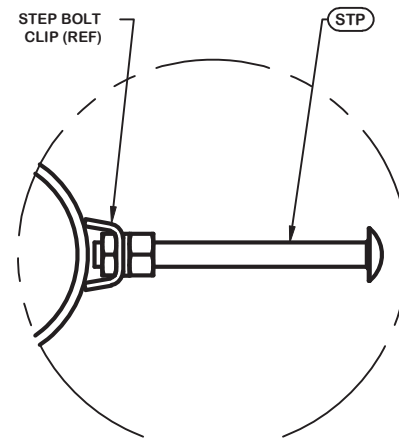
DETAIL A  
ANGLE INTERSECTION CONNECTION



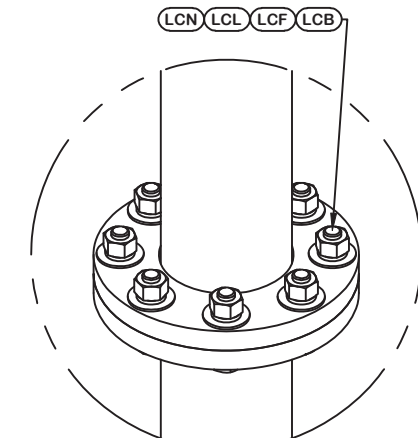
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

SITE

SILK HOPE, NC  
MOTOROLA SOLUTIONS  
U 33 X 325'

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DESCRIPTION

SECTION V-11.0 (220' - 240' ELEVATION)

STRUCTURE APPROVAL

MVC 5/4/2020

FOUNDATION APPROVAL

**valmont** STRUCTURES

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

ENG. FILE NO.

415766

DWG. NO.

289194T

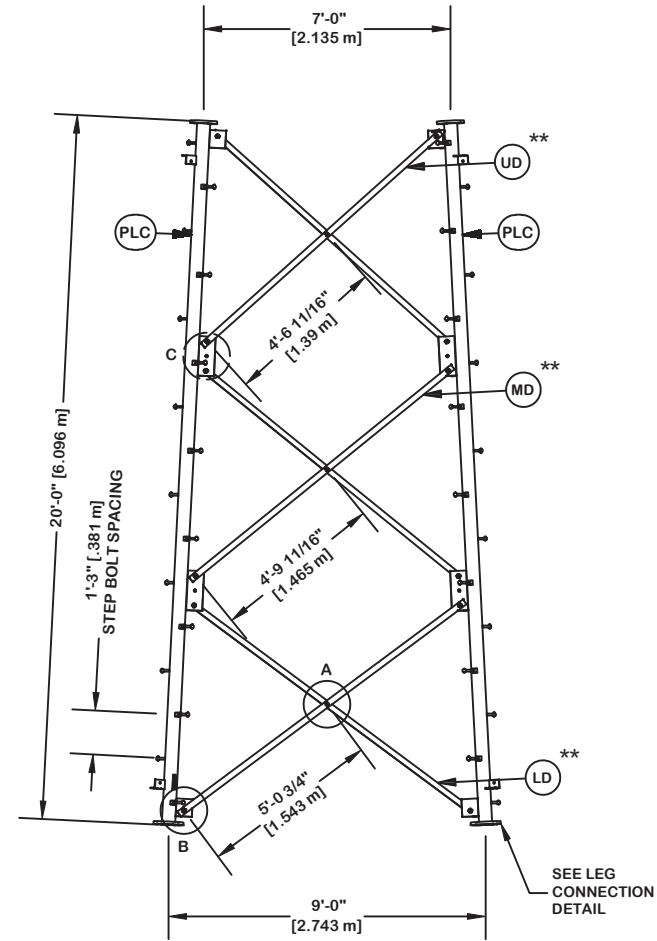
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				



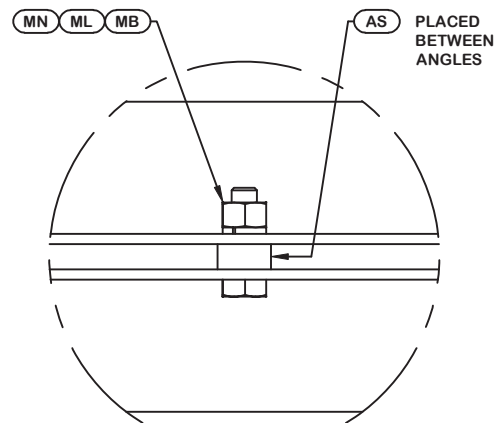
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

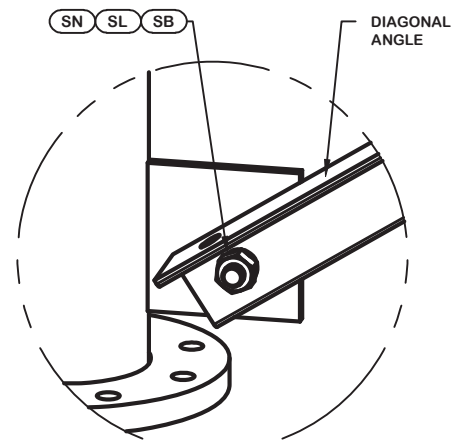
\*\* DIAGONAL ANGLES MUST BE INSTALLED  
WITH THE NON-BOLTED FACE UP, ↑  
THIS MAY BE ON THE OPPOSITE SIDE OF THE  
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



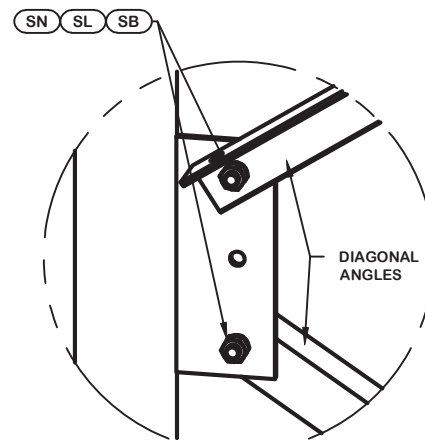
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	284754	V-9 LOWER CLIPPED ANGLE - 2" X 2" X 3/16" ANGLE (A)	25.380	152.280
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	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				1729.44 lb [785.18 kg]	



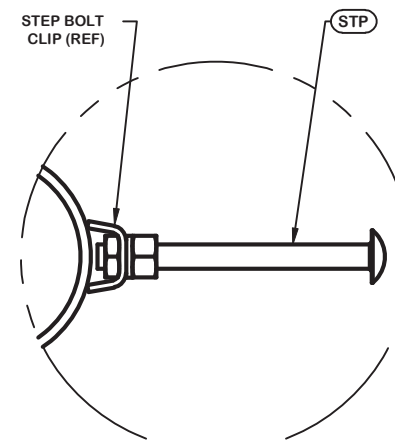
DETAIL A  
ANGLE INTERSECTION CONNECTION



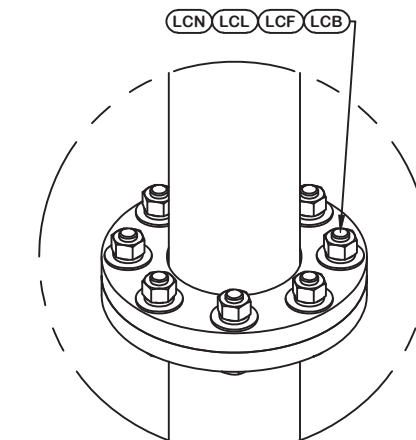
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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PROPRIETARY NOTE:	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.

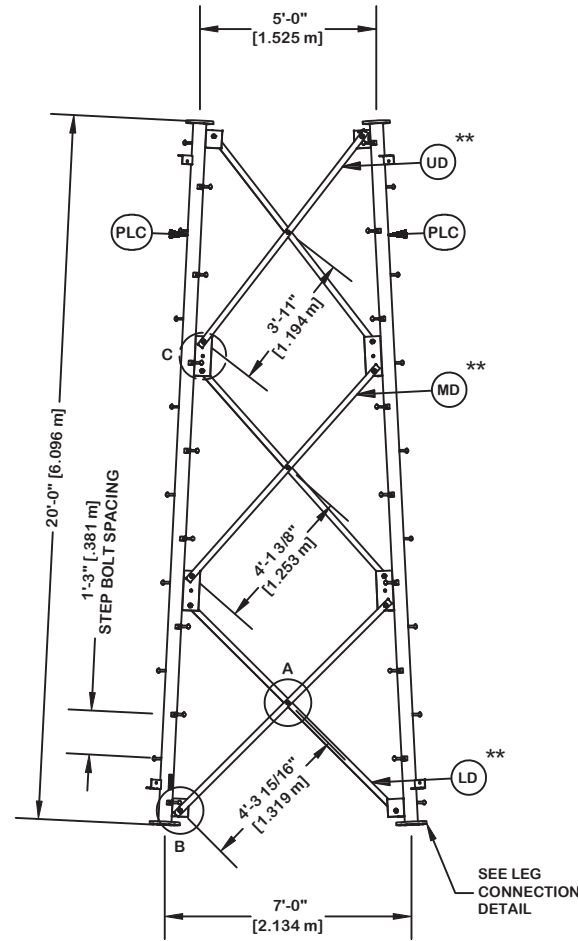
DESCRIPTION	SECTION V-9.0 (240' - 260' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

<b>valmont</b>	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
DWG. NO.	289194T

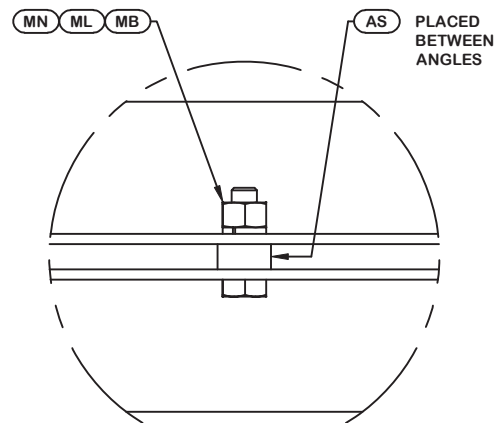
ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

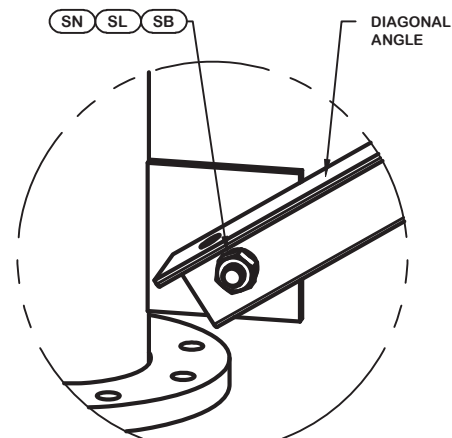
\*\* DIAGONAL ANGLES MUST BE INSTALLED  
WITH THE NON-BOLTED FACE UP, ↑↑  
THIS MAY BE ON THE OPPOSITE SIDE OF THE  
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



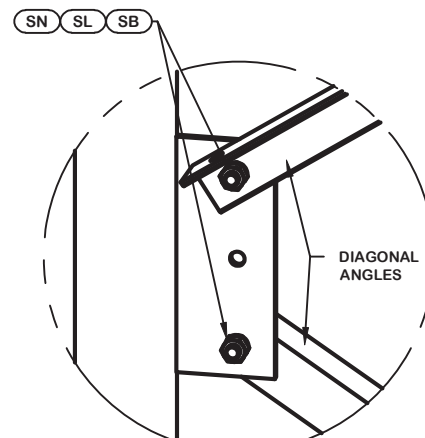
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226200	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	389.610	1168.830
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	284730	V-7 LOWER CLIPPED ANGLE - 2" X 2" X 1/8" ANGLE (A5)	14.640	87.840
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
Total Wt				1526.40 lb [693.00 kg]	



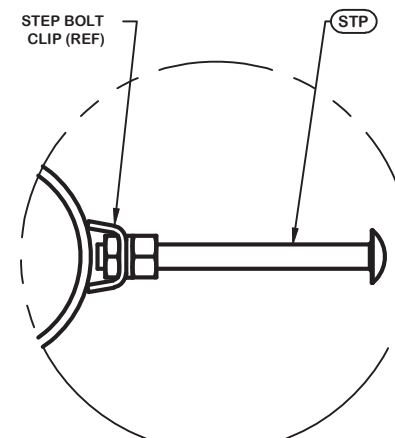
DETAIL A  
ANGLE INTERSECTION CONNECTION



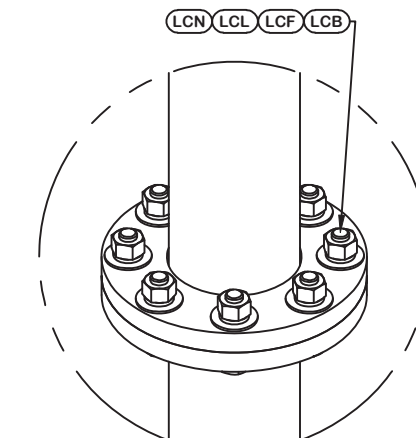
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				


SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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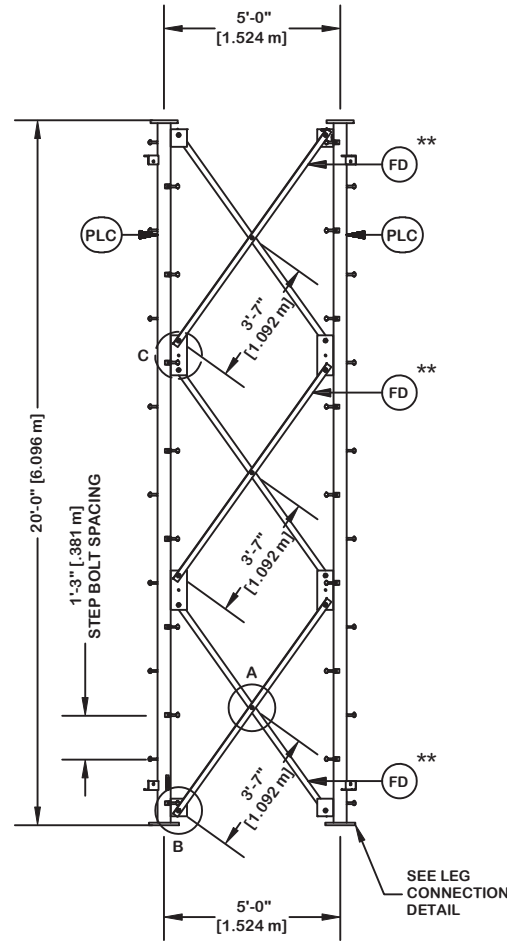
DESCRIPTION	SECTION V-7.0 (260' - 280' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

<b>valmont</b>	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	415766
DWG. NO.	289194T
PAGE 16 OF 19	

ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

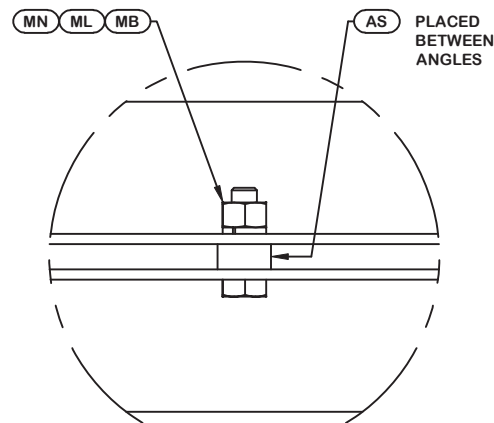
ORIENT ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

\*\* 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.

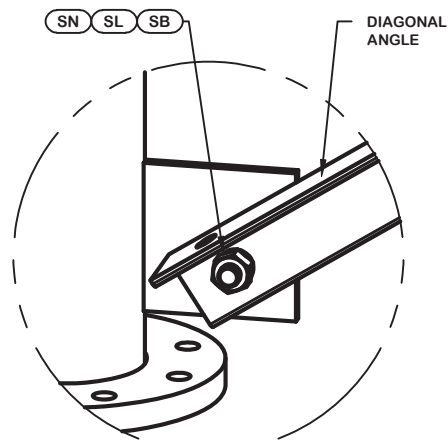


PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226184	PIPE LEG SECTION 20'-0" (CLIMBING) 4" SCH. 40 V-SE	302.080	906.240
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
FD	18	285010	V-5 DIAGONAL ANGLE - 2" X 2" X 1/8" ANGLE (A572 GR)	13.070	235.260
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
MB	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

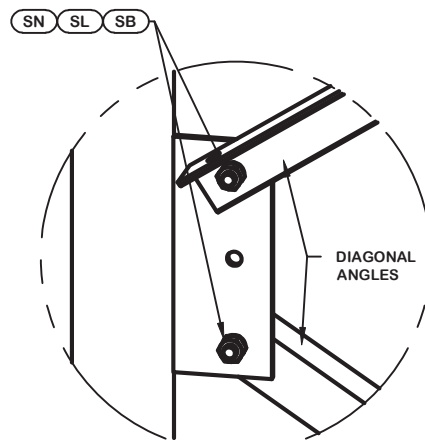
Total Wt 1241.73 lb [563.76 kg]



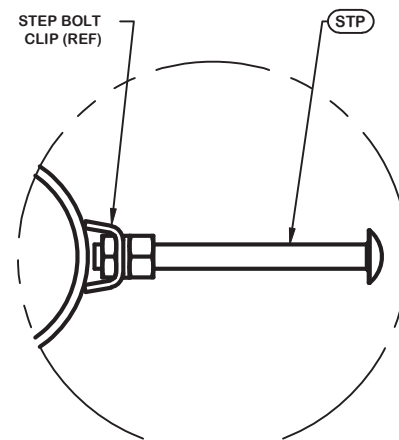
DETAIL A  
ANGLE INTERSECTION CONNECTION



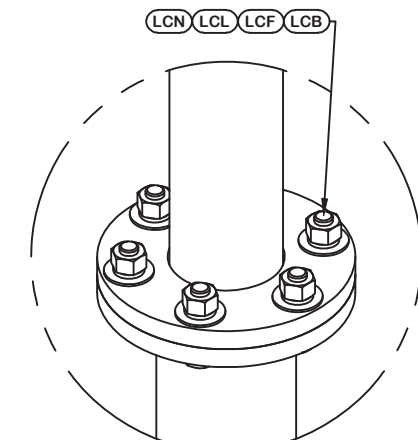
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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DESCRIPTION	SECTION V-5.0 (280' - 300' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

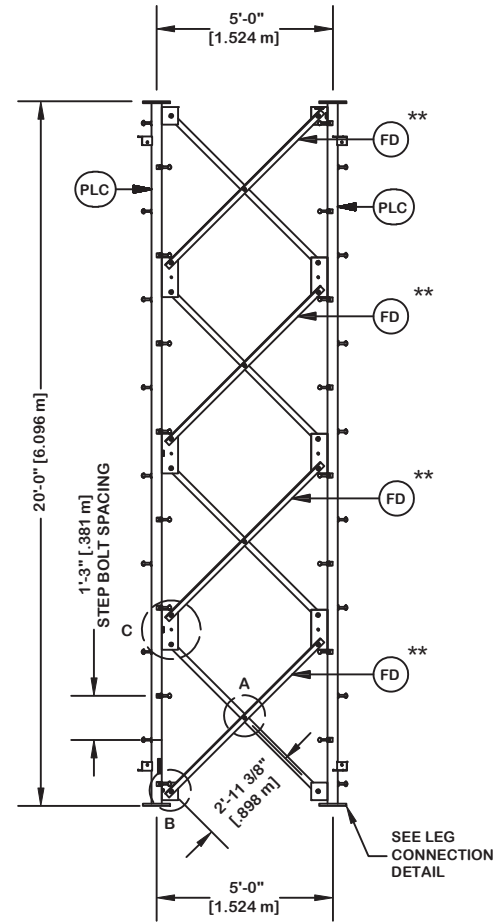
	
ENG. FILE NO.	415766
DWG. NO.	289194T



ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

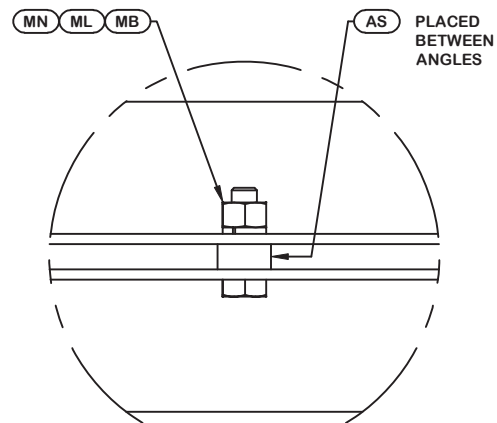
INSTALL ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

\*\* 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.

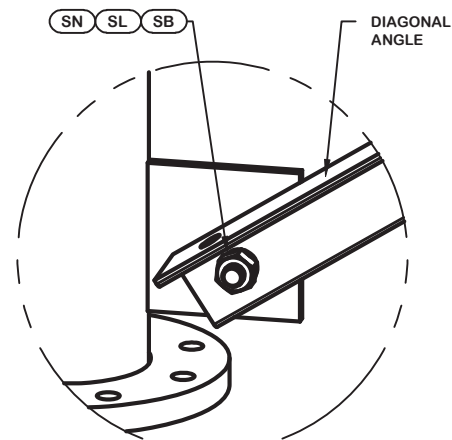


PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226160	PIPE LEG SECTION 20'-0" (CLIMBING) 2 1/2" SCH. 40	194.380	583.140
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
FD	24	284980	V-5 DIAGONAL ANGLE - 2" X 2" X 1/8" ANGLE (A572 GR	10.820	259.680
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
MB	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

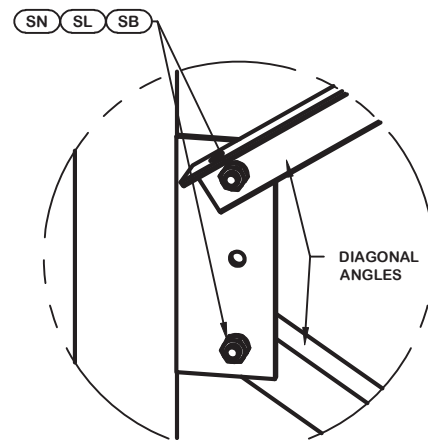
Total Wt 948.78 lb [430.75 kg]



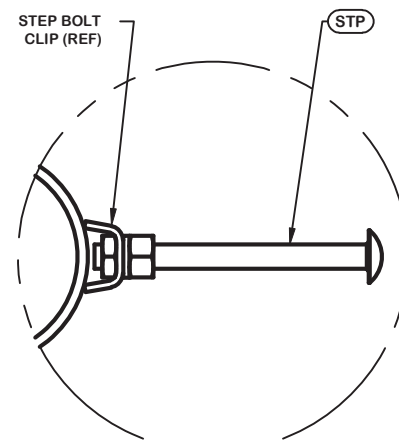
DETAIL A  
ANGLE INTERSECTION CONNECTION



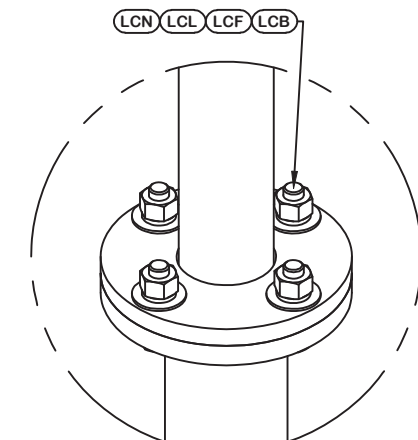
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE  
**SILK HOPE, NC  
MOTOROLA SOLUTIONS  
U 33 X 325'**


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

STRUCTURE APPROVAL  
**MVC 5/4/2020**

FOUNDATION APPROVAL


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

ENG. FILE NO. **415766**

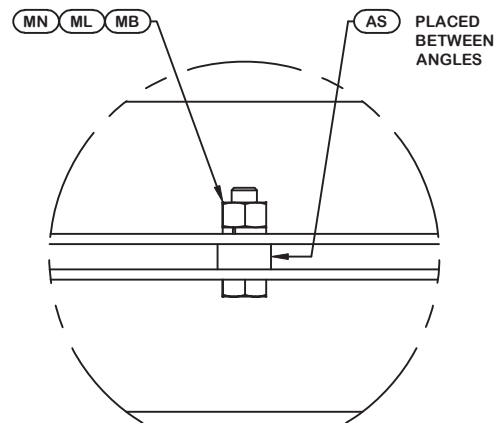
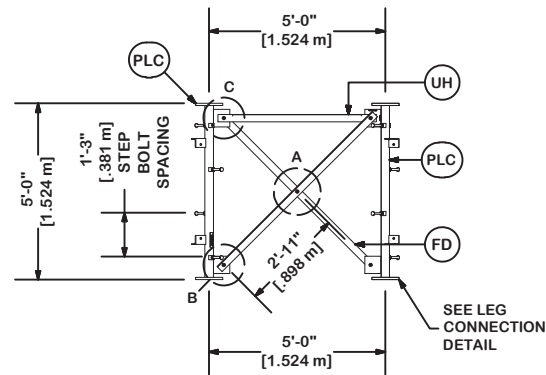
DWG. NO. **289194T**

ORIENT LEGS WITH P/N STAMP  
TOWARD BOTTOM OF SECTION

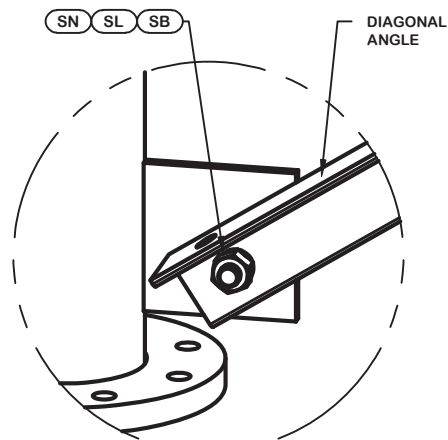
INSTALL ANGLES WITH STAMPED  
END TOWARD TOP OF SECTION

\*\* 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.

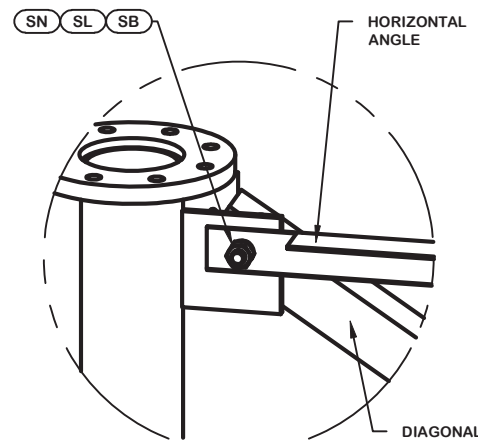
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226175	PIPE LEG SECTION 5'-0" LENGTH (CLIMBING) 2 1/2 SCH	66.220	198.660
STP	12	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	13.200
FD	6	284980	V-5 DIAGONAL ANGLE - 2" x 2" x 1/8" ANGLE (A572 GR	10.820	64.920
ML	3	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.060
AS	3	116467	RING FILL SPACER 1/4" THICK 1.049" DIA HOLE	0.250	0.750
MB	3	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	1.920
MN	3	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	0.360
SL	12	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.360
SN	12	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	2.280
SB	12	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	5.040
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				362.13 lb	[164.41 kg]



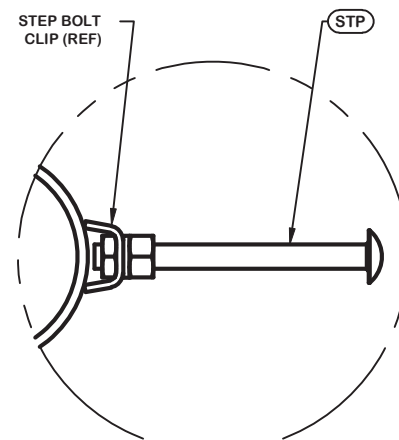
DETAIL A  
ANGLE INTERSECTION CONNECTION



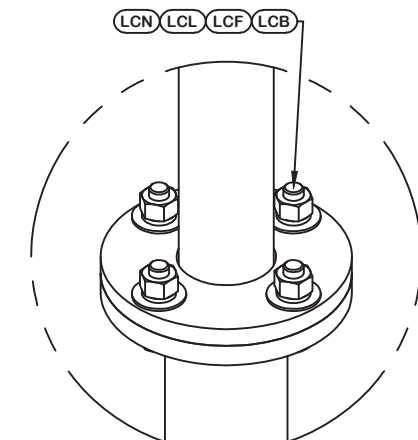
DETAIL B  
END SIDE PLATE ANGLE CONNECTION



DETAIL C  
UPPER HORIZONTAL ANGLE CONNECTION



STEP BOLT INSTALLATION



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



May 6, 2020

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE	SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'
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PROPRIETARY NOTE:	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.

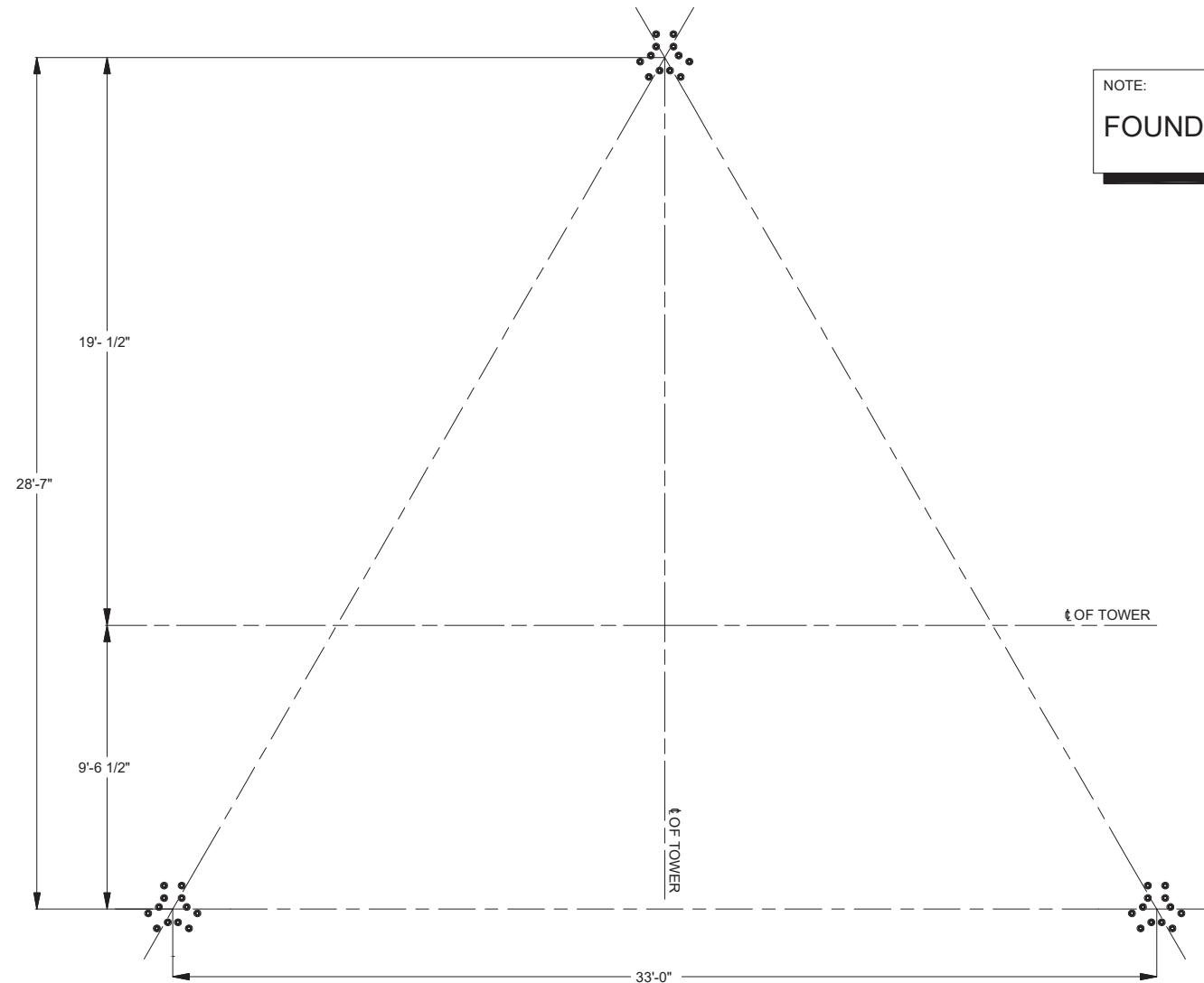
DESCRIPTION	SECTION V-5.0 (320' - 325' ELEVATION)
STRUCTURE APPROVAL	MVC 5/4/2020
FOUNDATION APPROVAL	

<b>valmont</b> 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
<b>STRUCTURES</b>	
ENG. FILE NO.	415766
DWG. NO.	289194T

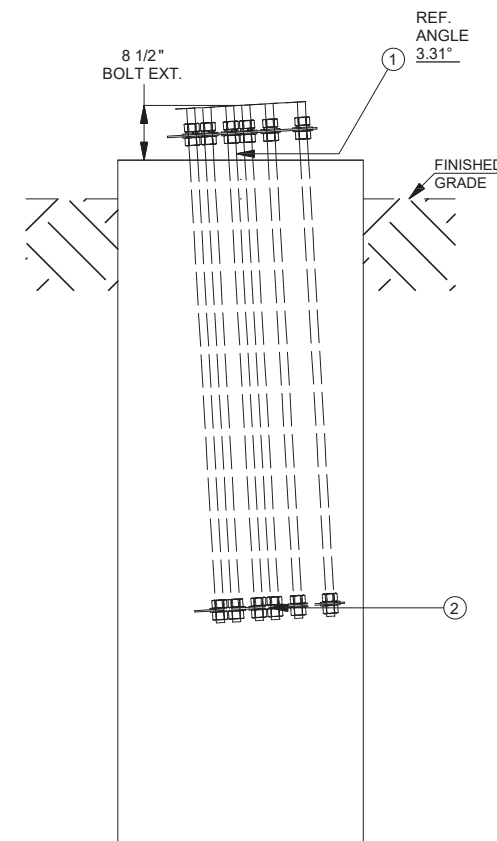
REBAR/ANCHOR STEEL TABLE				
ITEM	QTY	PART DESCRIPTION	UNIT WT.	NET WT.
1	36	1 1/4" DIA. x 80" LONG ANCHOR BOLT - 109881	27.88	1003.60
2	3	EMBEDMENT PLATE - 217971	30.11	90.33
APPROX TOTAL WT #				1093.93

NOTE:  
**FOUNDATION DESIGN BY OTHERS**

FOUNDATION NOTES:



PACK NON-SHRINK STRUCTURAL GROUT UNDER FLANGE AFTER LEVELING TOWER  
NON-SHRINK GROUT TO HAVE COMPRESSIVE STRENGTH OF 5000 PSI @28 DAYS



ATTENTION CONTRACTOR INSTALLING ANCHOR BOLT!  
1 1/4" DIA. ANCHOR BOLTS REQUIRED.  
INSTALL ALL ANCHOR BOLTS WITH LONGER THREADED ENDS EXPOSED  
VERIFY THE PART NUMBER AND SIZES FOR ALL COMPONENTS ON THIS PAGE.  
IF THERE ARE ANY DISCREPANCIES, PLEASE NOTIFY VALMONT/PIROD, INC  
PRIOR TO INSTALLATION!

- TEMPLATE INSTALLATION NOTES:
1. THE PROVIDED TEMPLATE ASSEMBLY MUST BE USED TO ENSURE ACCURATE ANCHOR BOLT LOCATION & INSTALLATION ANGLE (BASE LEG REFERENCE ANGLE 3.31°.)
  2. USING THE TEMPLATE ASSEMBLY, EACH ANCHOR BOLT GROUP MUST BE LOCATED IN FOUNDATION AS SHOWN IN THE PLAN VIEW (+/- 3"). FAILURE TO USE THE FULLY ASSEMBLED ANCHOR BOLT TEMPLATE WILL CAUSE MISS-LOCATION OF ANCHOR BOLT GROUPS. INCORRECTLY LOCATED ANCHOR BOLT GROUPS WILL CAUSE DIFFICULTY DURING TOWER CONSTRUCTION. IN MORE SEVERE CASES, THIS CAN MAKE IT IMPOSSIBLE TO ERECT TOWER.
  3. TEMPLATE ASSEMBLY MUST BE LEVEL +/- 1".
  4. INSTALLED TEMPLATE CLEARANCE: 2" MIN - 4" MAX
  5. MUST USE TEMPLATE ASSEMBLY# 213377



May 6, 2020

<table border="1"> <thead> <tr> <th>REV</th> <th>DESCRIPTION OF REVISIONS</th> <th>CPD</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td colspan="5">REVISION HISTORY</td> </tr> </tbody> </table>					REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE	REVISION HISTORY					SITE  SILK HOPE, NC MOTOROLA SOLUTIONS U 33 X 325'  COPYRIGHT 2013		DESCRIPTION  Additional Foundation Information		 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
					REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE											
REVISION HISTORY																				
STRUCTURE APPROVAL MVC 5/4/2020		FOUNDATION APPROVAL M_S 5/5/2020		ENG. FILE NO. 415766		PAGE 1 OF 1														
DWG. NO. 289194F																				