

Self-Supporting Tower - 65N Section Data

Section Number	Bottom Elevation (ft)	Top Elevation (ft)	Model	Face Width (in)	Number of Panels	Section PN	Leg Type	Leg OD (in)	Leg Wall Thickness (in)	Diagonal Type	Diagonal Size (in)	Approx. Weight (lb)	Leg Bolts
4	60	80	65N	24.25	11	103373	Pipe	1.900	0.145	Solid Round	5/8	370	(12) 5/8" x 2-1/2"
3	40	60	65N	24.25	11	103373	Pipe	1.900	0.145	Solid Round	5/8	370	(12) 5/8" x 2-1/2"
2	20	40	65N	24.25	11	104416	Pipe	1.900	0.200	Solid Round	5/8	430	(12) 5/8" x 2-1/2"

Self-Supporting Tower - NSX Section Data

Section Number	Bottom Elevation (ft)	Top Elevation (ft)	Model	Bottom Face Width (ft)	Top Face Width (ft)	Number of Panels	Leg Type	Leg OD (in)	Leg Wall Thickness (in)	Climbing Leg PN	Non Climbing Leg PN	Diagonal Type	Diagonal Size (in)	Panel 1 Diagonal PN	Panel 2 Diagonal PN	Panel 3 Diagonal PN	Panel 4 Diagonal PN	Approx. Weight (lb)
1	0	20	NSX	3.5	2.021	4	Pipe	2.375	0.218	102797	102795	Single Angle	1-1/2 x 1-1/2 x 1/8	107293	107294	107295	107296	660

Self-Supporting Tower - NSX Section Bolts

Section Number	Leg Bolts	Side Plate Bolts	Stitch Bolts
1		(48) 1/2" x 1-1/2"	(12) 1/2" x 1-1/2"

Section Notes:

1. Panel 1 is the bottom panel of an NSX section.
2. Install leg adapter assembly, PN 105894, at the top of the NSX sections before installing 65N sections.

Tower Reactions

No Ice
 Shear: 2.4 kips
 Moment: 110.1 ft-kips
 Weight: 2.2 kips

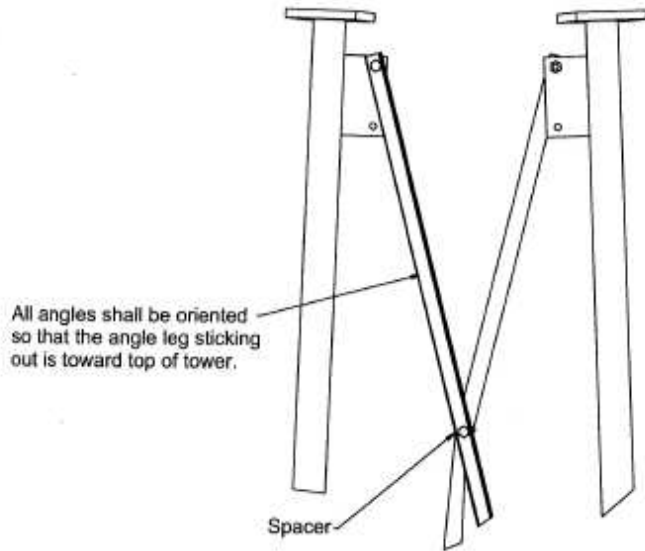
With Ice
 Shear: 1.0 kips
 Moment: 58.8 ft-kips
 Weight: 18.9 kips

Leg Reactions
 Compression: 37.0 kips
 Uplift: -35.4 kips
 Shear: 1.7 kips

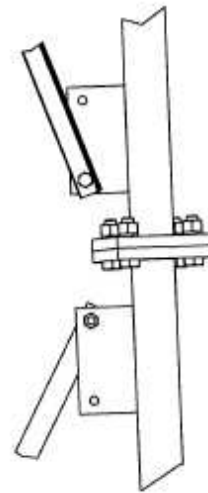


NSX 3.5 x 80'
 Skystream 3.7, MI

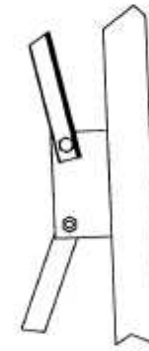
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NSX Section Detail



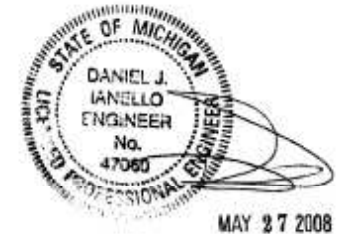
One plain nut and one lockwasher per bolt.
NSX Leg Connection Detail



One plain nut and one lockwasher per bolt.
NSX Bracing Connection Detail

Assembly Notes:

1. A spacer shall be installed at the intersection of each pair of diagonals.
2. A part number is stamped on the bottom footpad of each leg.
3. A part number is stamped and/or labeled on the bottom end of each diagonal bracing angle.
4. Be sure to place diagonal bracing angles in the correct positions. Depending on the section width and taper, the angle in the top panel may be longer than they are in a middle panel because the vertical spacing between side plate connections is greater in the top panel.
5. The bolt head must bear against the diagonal bracing, and the lockwasher and nut must bear against the side plate to ensure the bolt threads are not in the shear plane of the connection.

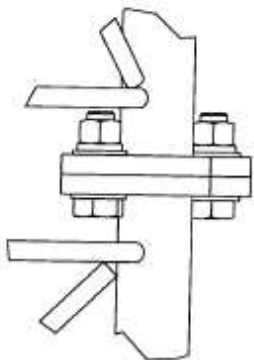


NSX 3.5 x 80'
Skystream 3.7, MI

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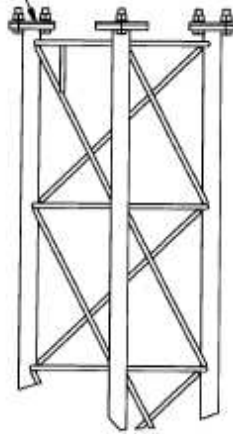
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One plain nut, two flatwashers, and one lockwasher per bolt.
Four 5/8" bolts per leg.

65N Leg Connection Detail

65N Cover Plate
Part Number 103749
Assembly Part Number 105182



One plain nut and one lockwasher per bolt.
Two 5/8" bolts per leg.

65N Termination Detail



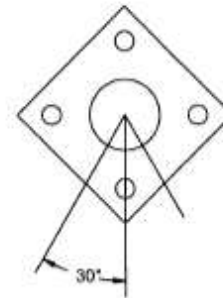
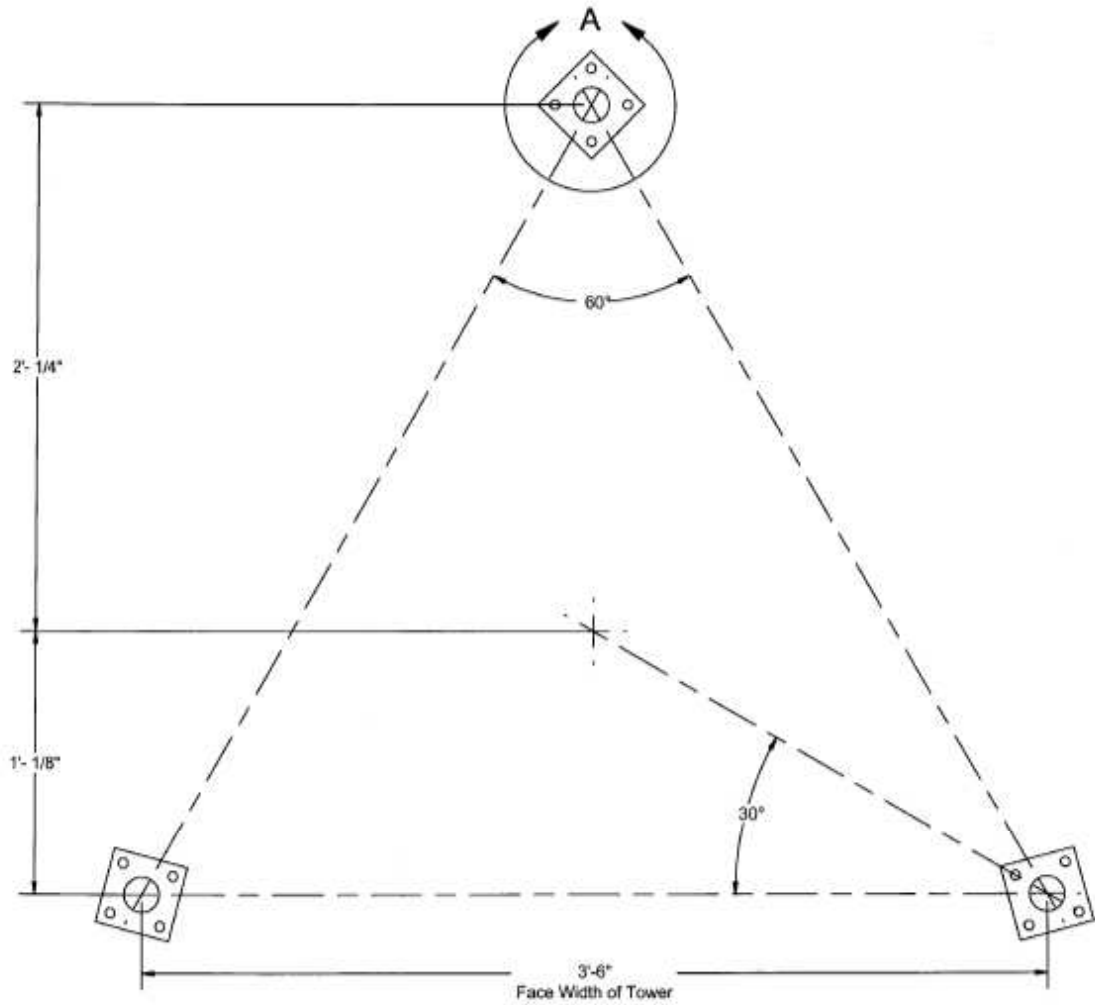
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NSX 3.5 x 80'
Skystream 3.7, MI

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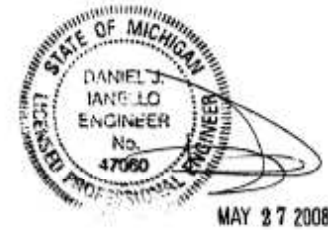
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DETAIL A
Bolt hole must be aligned with center of tower.

Notes:
1. All Dimensions are from Center of Bolt Circles.

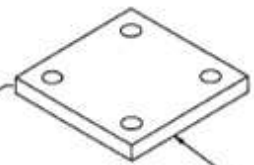
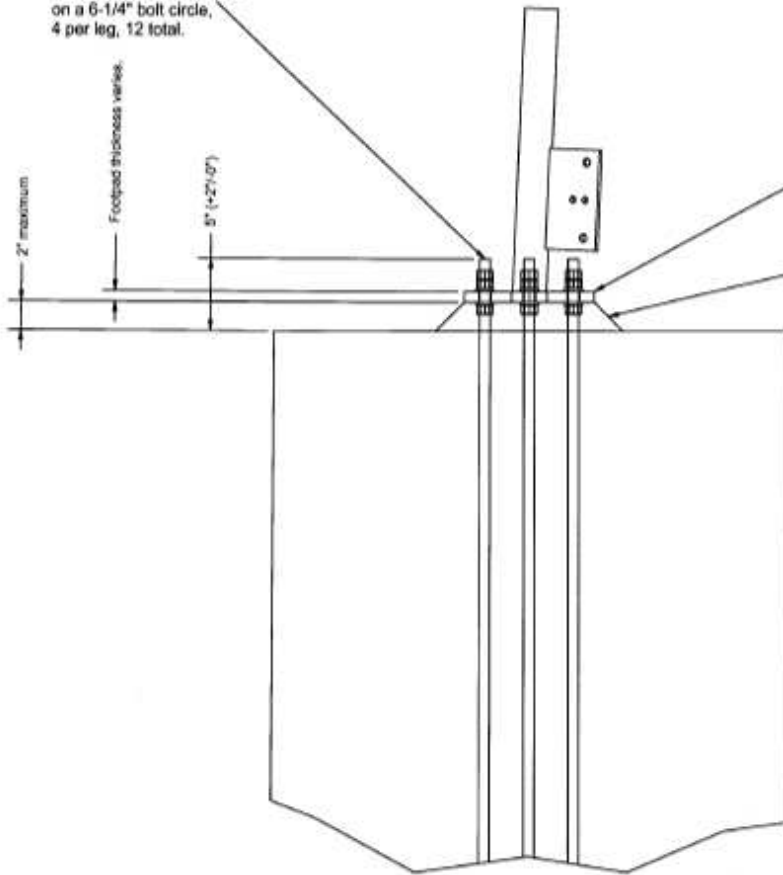


NSX 3.5 x 80'
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3/4" Diameter x 48" ASTM F1554 Grade 105 anchor bolts, P/N 103342 on a 6-1/4" bolt circle, 4 per leg, 12 total.



Drainage hole must be installed in grout for drainage.

Template used to align anchor bolts in concrete must be removed before tower is installed.

Note:
Use non-shrink, cement grout with a minimum compressive strength of 5000 psi. Mix and install according to manufacturer's recommendations.

STATE OF MICHIGAN
DANIEL J. IANSELLO
ENGINEER
No. 47060
LICENSED PROFESSIONAL ENGINEER
MAY 27 2008

NSX 3.5 x 80'
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Antenna Loading

Height	Qty.	Description
80'	1	4' Lightning Rod
80'	1	Skystream 3.7



NSX 3.5 x 80'
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