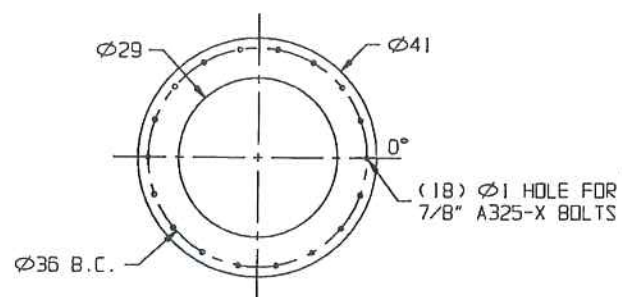


JAF-6 TOP FLANGE
3/4" A572-65 PLATE
FULL PENETRATION WELD



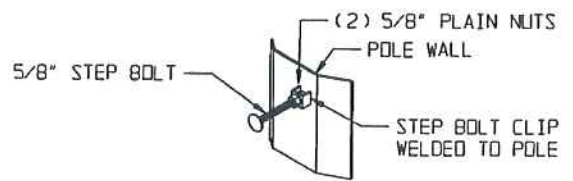
(2) 208-13077-7 WEAK LINK FLANGES
1 3/4" A572-50 PLATE
FULL PENETRATION WELD

CABLE BOTTOM ENTRY PORT LOCATIONS

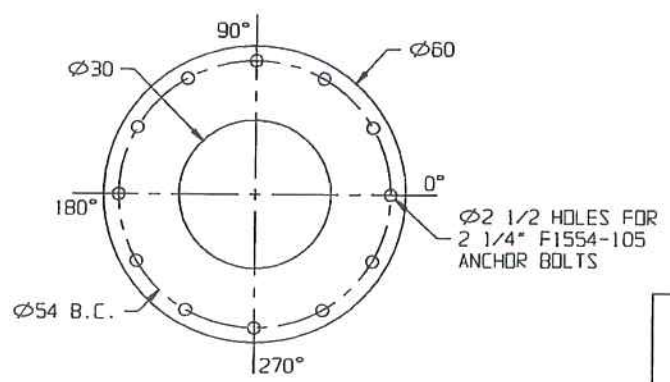
HEIGHT	AZIMUTH	SIZE
4'	0°, 180°	1 1/2 x 23 1/4
6'	90°, 270°	1 1/2 x 23 1/4

CLIMBING FACE: 130°

ANTENNA (TOP) PORTS
SIZE: 6 x 22
ORIENTATION: 0°, 120°, 240°



STEP BOLT INSTALLATION



208-13077-6 BASE FLANGE
2 1/2" A572-50 PLATE
FULL PENETRATION WELD

TOWER DESIGN CONDITIONS
This tower was designed to resist 85 mph wind speed and 85 mph wind speed with 1/2" radial ice and the wind/ice reduction per ANSI/EIA/TIA 222-F recommended standard. Allowable steel stresses per AISC ASD 9th Edition

MATERIAL SPECIFICATIONS
Monopole Plate: ASTM A572, Fy > 65 ksi
Flange Plate: ASTM A572, Fy > 50 ksi
Hardware: A325 Hot Dipped Galvanized Bolts with Anco Nuts
Galvanizing: ASTM A123
Anchor Bolts: ASTM F1554-105 Fu > 125 ksi

Tower Loading Conditions

QTY	Antenna	Elevation
1	4' Lightning Rod	130'
12	6' x 1' Panel Antenna	130'
1	14' Low-Profile Platform	130'
12	6' x 1' Panel Antenna	120'
1	14' Low-Profile Platform	120'
12	6' x 1' Panel Antenna	110'
1	14' Low-Profile Platform	110'
12	6' x 1' Panel Antenna	100'
1	14' Low-Profile Platform	100'

All transmission lines (1-5/8") to be supported on the inside of the pole, adding no additional wind load.

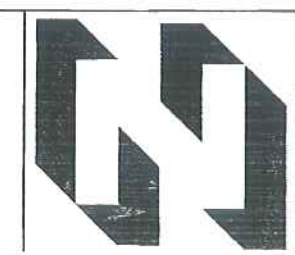
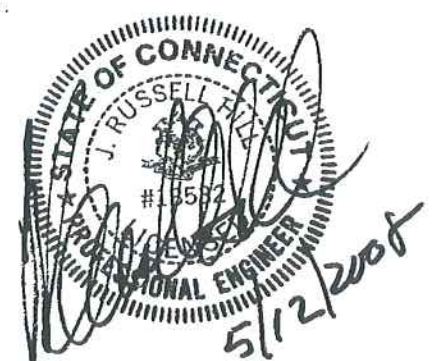
NOTE: Any deviation from the proposed design antenna loading will require a tower analysis for verification of structural integrity.

INSTALLATION GENERAL NOTES

1. Installation of tower must be performed by a qualified tower erector.
2. Install sections such that climbing device is aligned.
3. Install safety climb per manufacturer's recommendations.
4. Slip-joint jacking force: Minimum 6000 lb.
5. Tighten all structural and anchor bolts per AISC specifications.
6. Sections are numbered at the bottom, near the climbing face.
7. Installer must grind outside/top and inside/bottom of each section and at the weld locations of the squaring bracing to facilitate slip joint fit. Cover grind area with spray galvanizing.
8. When setting pole on foundation anchor bolts, remove template prior to setting pole.

Pole section weights:

Section 208-13077-5:	3,250 +/- lbs.
Section 208-13077-4:	6,210 +/- lbs.
Section 208-13077-3:	10,800 +/- lbs.

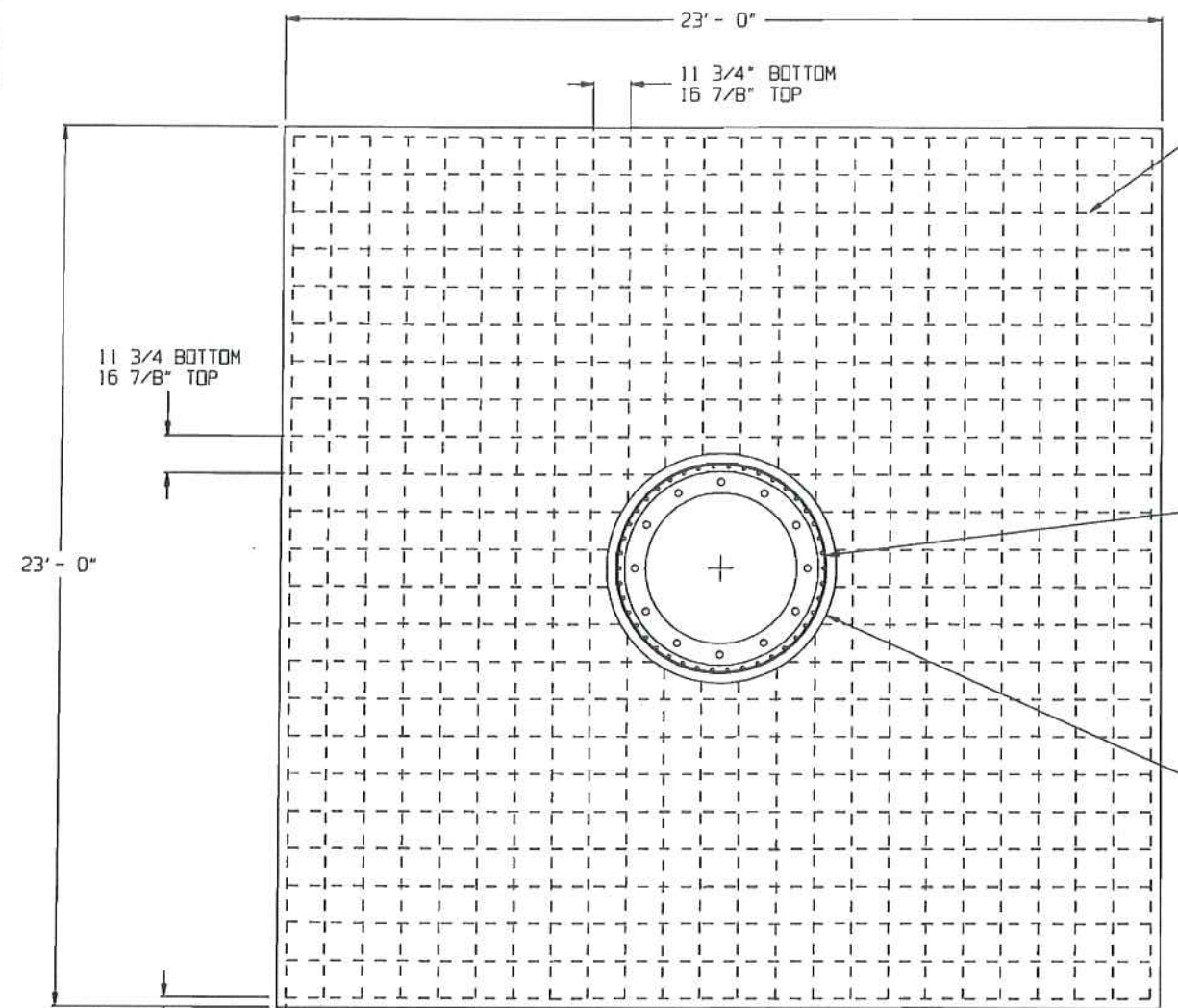


FRED A. NUDD CORPORATION
Route 104*Ontario, New York 14519*315/524-2531

SCALE: N/S
DATE: 05/09/08
DRAWN BY: TSW

130' MJS-140 MONOPOLE

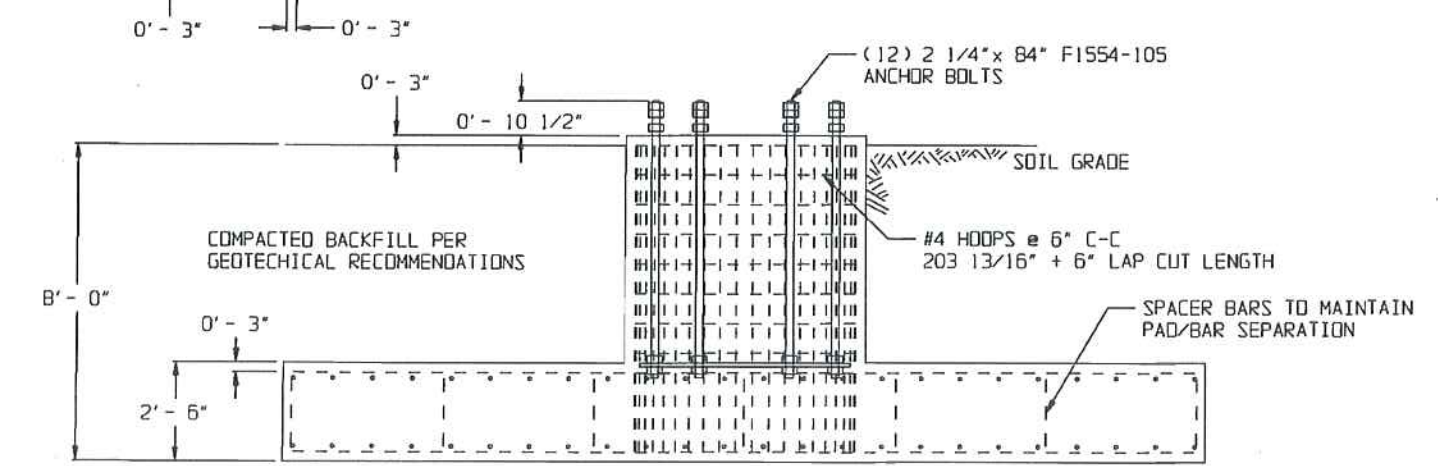
MCF COMMUNICATIONS GROTON, CT
DRAWING NUMBER: 208-13077-1



PAD BARS:
 (24) #9 BARS BOTH WAYS ON BOTTOM
 (16) #9 BARS BOTH WAYS ON TOP
 CONTINUOUS THRU CENTER

(42) #9 PIER BARS
 4 11/16" C-C SPACING
 W/ 16" HOOKS
 (SEE DETAIL)

Ø6'-0" PIER
 Ø5'-5" CAGE



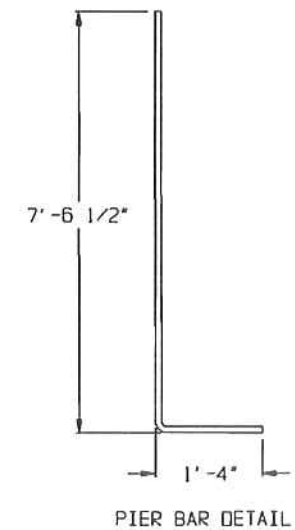
NOTE: ANCHOR BOLT CLUSTER MUST BE CENTERED IN PIER REBAR
 TOP CLUSTER PLATE MUST BE REMOVED PRIOR TO SETTING POLE

- CONCRETE SPECIFICATIONS**
- Concrete shall have a minimum compressive strength of at least 3000 psi at 28 days. It is our recommendation that 4000 psi concrete be installed to account for any unknown installation variables that could degrade the concrete.
 - Concrete installation shall meet ACI 318-89 installation requirements for reinforced concrete.
 - Concrete shall be placed against undisturbed soil free of water and all foreign objects and materials.
 - Minimum concrete cover shall be 3" over all reinforcing bars.
 - Reinforcing bars shall be ASTM A-615 Grade 60 deformed bars.
 - Assemble bars with tie wires or weld. Welded bars must conform to ANSI/AWS D1.1-94 specifications.
 - Chamfer all sharp corners of exposed concrete.

- SOIL SPECIFICATIONS**
- Foundation is based on ANSI TIA-222-G Presumptive Soil values. A boring log was provided by John Halaburda dated 4/15/08. Based on the boring log soil is coarse sand, little fine to medium gravel, and trace of silt. Auger Refusal was at 24'-6". Rock was undetermined. Ground water was not encountered.
 - All foundations shall be free of free standing water as far as possible prior to pouring concrete and shall be kept thus until backfill is in place. If not possible, special pouring procedures must be followed.
 - Backfill shall be compacted to 100 pcf in 6" lifts with suitable material.
 - Backfill shall be placed so as to prevent accumulation of water around foundations or anchors.

TOWER REACTIONS:
 Overturning Moment: 2188.8 kip*ft
 Shear: 22.7 kip
 Deadload: 27.8 kip

Concrete Volume: 55 +/- cuyd
 Approx. Steel Weight: 8,700 lbs.



REV	ECN	BY	DATE	DESCRIPTION	CHECKED BY & DATE
A	08015	TSW	05/12/08	Revised Cage Dio. / Added Reactions	

FRED A. NUDD CORPORATION
 Route 104 • Ontario, New York 14519-315/524-2531

SCALE: N/S
 DATE: 05/09/08
 DRAWN BY: TSW

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FOUNDATION DETAILS

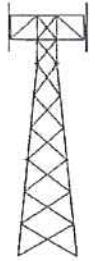
MCF COMMUNICATIONS
 GORTON CT

DRAWING NUMBER:
 208-13077-2



FRED A. NUDD CORPORATION

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Design of:
130' Monopole Tower
MODEL #: MJS-140
PROJECT #: 208-13077
LOCATION: Groton, CT

MCF COMMUNICATIONS
733 Turnpike Street, Suite 105
North Andover, MA 01845
May, 2008

