



10 Industrial Avenue, Suite 3
Mahwah NJ, 07430
Phone: (201)-951-3869
Tom Kincaid
Real Estate Consultant

August 1, 2014

Hand Delivered

Ms. Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

CC to Property Owner:
R L R Investments LLC
600 Gillan Rd Wilmington, OH 45177-9089

RE: Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 90 N. Plains Industrial Road, Wallingford, CT 06492. Known to Sprint Spectrum L.P. as site CT43XC839.

Dear Ms. Bachman:

In order to accommodate technological changes, implement Code Division Multiple Access (“CDMA”) and/or Long Term Evolution (“LTE”) capabilities, and enhance system performance in the state of Connecticut, Sprint Spectrum L.P. plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and its attachments is being sent to the chief elected official of the municipality in which affected cell site is located.

CDMA employs Spread-Spectrum technology and special coding scheme to allow multiple users to be multiplexed over the same physical channel.

LTE is a new high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Sprint’s operations at the site. Also included is

documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modification as defined Connecticut General Statues (“C.G.S.”) Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for the R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will not be affected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound.
3. The proposed changes will not increase the noise level at the existing facility by 6 decibels or more.
4. Radio Frequency power density may increase due to the use of one or more CDMA transmissions. Moreover, LTE will utilize additional radio frequencies newly licensed by the FCC for cellular mobile communications. However, the changes will not increase the calculated “worst case” power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons Sprint Spectrum L.P. respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (845) 499-4712 or email
JNotaro@Transcendwireless.com with questions concerning this matter.
Thank you for your consideration.

Sincerely,

Jennifer Notaro
Real Estate Consultant



RADIO FREQUENCY FCC REGULATORY COMPLIANCE MAXIMUM PERMISSIBLE EXPOSURE (MPE) ASSESSMENT

Sprint Existing Facility

Site ID: CT43XC839

Bilkay's Express

90 N. Plains Industrial Road
Wallingford, CT 06492

July 27, 2014

EBI Project Number: 62144044



July 27, 2014

Sprint
Attn: RF Engineering Manager
1 International Boulevard, Suite 800
Mahwah, NJ 07495

Re: Radio Frequency Maximum Permissible Exposure (MPE) Assessment for Site:
CT43XC839 - Bilkay's Express

Site Total: 53.76% - MPE% in full compliance

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 90 N. Plains Industrial Road, Wallingford, CT, for the purpose of determining whether the radio frequency (RF) exposure levels from the proposed Sprint equipment upgrades on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band (850 MHz Band) is approximately $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the 1900 MHz and 2500 MHz bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed upgrades to the existing Sprint Wireless antenna facility located at 90 N. Plains Industrial Road, Wallingford, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

For all calculations, all emissions were calculated using the following assumptions:

- 1) 3 channels in the 1900 MHz Band were considered for each sector of the proposed installation.
- 2) 1 channel in the 800 MHz Band was considered for each sector of the proposed installation
- 3) 2 channels in the 2500 MHz Band were considered for each sector of the proposed installation.
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 6) The antennas used in this modeling are the RFS APXVSPP18-C-A20 and the RFS APXVTM14-C-I20. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APXVSPP18-C-A20 has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. The RFS APXVTM14-C-I20 has a 15.9 dBd gain value at its main lobe at 2500 MHz. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antenna mounting height centerline for the proposed antennas is **118 feet** above ground level (AGL).
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculations were done with respect to uncontrolled / general public threshold limits

Site ID	CT43XC839 - Bilkay's Express															
Site Addresss	90 N. Plains Industrial Road, Wallingford, CT, 06492															
Site Type	Monopole															
Sector 1																
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
1a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	5.9	118	112	1/2 "	0.5	0	208.04	0.60%
1a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	118	112	1/2 "	0.5	0	39.00	0.20%
1B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	118	112	1/2 "	0.5	0	138.69	0.70%
Sector total Power Density Value: 1.49%																
Sector 2																
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
2a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	5.9	118	112	1/2 "	0.5	0	208.04	0.60%
2a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	118	112	1/2 "	0.5	0	39.00	0.20%
2B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	118	112	1/2 "	0.5	0	138.69	0.70%
Sector total Power Density Value: 1.49%																
Sector 3																
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
3a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	5.9	118	112	1/2 "	0.5	0	208.04	0.60%
3a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	118	112	1/2 "	0.5	0	39.00	0.20%
3B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	118	112	1/2 "	0.5	0	138.69	0.70%
Sector total Power Density Value: 1.49%																

Site Composite MPE %	
Carrier	MPE %
Sprint	4.48%
Clearwire	0.67%
MetroPCS	7.42%
T-Mobile	0.16%
XM Satellite Radio	1.10%
AT&T	6.01%
Verizon Wireless	33.92%
Total Site MPE %	53.76%



Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public Maximum Permissible Exposure (MPE) to radio frequency energy.

The anticipated Maximum Composite contributions from the Sprint facility are **4.48% (1.49% from sector 1, 1.49% from sector 2 and 1.49% from sector 3)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **53.76%** of the allowable FCC established general public limit sampled at 6 feet above ground level. This total composite site value is based upon MPE values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803



Structural Analysis Report

Structure : 178.5 ft Monopole
ATC Site Name : Bilkays Express, CT
ATC Site Number : 302467
Engineering Number : 58996421
Proposed Carrier : Sprint Nextel
Carrier Site Name : Bilkays Express
Carrier Site Number : CT43XC839
Site Location : 90 North Plains Industrial Rd.
Wallingford, CT 06492-2334
41.480761,-72.817700
County : New Haven
Date : June 13, 2014
Max Usage : 81%
Result : Pass

Daniel Motter

A handwritten signature in black ink that reads "Daniel Motter".



Jun 13 2014 5:30 PM



Eng. Number 58996421

June 9, 2014

Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	2
Proposed Equipment	3
Structure Usages	4
Foundations	4
Deflection, Twist, and Sway.....	4
Standard Conditions	5
Calculations	Attached



Eng. Number 58996421

June 9, 2014

Page 1

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 178.5 ft monopole to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	FWT Job #18357, dated March 19, 1999
Foundation Drawing	FWT Job #18357, dated March 19, 1999
Geotechnical Report	Tectonic Work Order #1170.C947C, dated March 11, 1999

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	110 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
Structure Class:	II
Exposure Category:	B
Topographic Category:	1

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Eng. Number 58996421

June 9, 2014

Page 2

Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
178.5	181.0	9	48" x 12" Panel	Low Profile Platform	(12) 1 5/8" Coax	Sprint Nextel
		3	72" x 12" Panel			
171.0	171.0	2	DragonWave Horizon Compact	Side Arms	(6) 5/16" Coax (2) 2" Conduit (2) 1/2" Coax	Clearwire
		3	NextNet BTS-2500			
		3	Argus LPX310R			
		1	DragonWave A-ANT-11G-2-C			
		1	DragonWave A-ANT-18G-2-C			
160.0	160.0	3	Powerwave 7020	Platform w/ Handrails	(12) 1 5/8" Coax (1) 3" Conduit (6) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk	AT&T Mobility
		6	14" x 9" TTA			
		3	Raycap DC6-48-60-18-8F			
		3	CCI DTMABP7819VG12A			
		6	Ericsson RRUS A2 Module			
		6	Ericsson RRUS 11 (Band 7)			
		3	Ericsson RRUS E2 B29			
		6	Ericsson RRUS-12 B2			
		3	Ericsson RRUS-32			
		3	Powerwave 7770.00			
148.0	148.0	9	CCI HPA-65R-BUU-H6	T-Arm w/ Platforms	(12) 1 5/8" Coax (1) 1 1/4" Hybriflex Cable	T-Mobile
		3	Ericsson KRY 112 144/1			
		3	Ericsson AIR 21, 1.3 M, B2A B4			
		3	Ericsson AIR 21, 1.3M, B4A B2P			
135.0	138.0	6	RFS FD9R6004/2C-3L	Low Profile Platform	(18) 1 5/8" Coax (1) 1 5/8" Hybriflex	Verizon Wireless
		3	Alcatel-Lucent RRH2x40 (700)			
		3	Alcatel-Lucent RRH2x40-AWS			
		3	Antel BXA-171063-8BF-EDIN-X			
		3	Antel BXA-171063-12BF-EDIN			
		1	RFS DB-T1-6Z-8AB-0Z			
		3	Antel BXA-80063-6BF-EDIN-X			
		3	Antel BXA-70063-6CF-EDIN-X			
128.0	128.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax	Metro PCS
116.0	118.0	3	RFS APXVSPP18-C-A20	Low Profile Platform	(3) 1 1/4" Hybriflex Cable	Sprint Nextel
	116.0	3	Alcatel-Lucent 800MHz RRH			
		3	Alcatel-Lucent 1900MHz 4x45 R			
20.0	20.0	1	PCTEL GPS-TMG-HR-26N	Standoff	(1) 1/2" Coax	

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
116.0	118.0	6	Andrew DB980H90R-KL	-	(6) 1 1/4" Coax	Sprint Nextel



Eng. Number 58996421

June 9, 2014

Page 3

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
116.0	118.0	3	RFS APXV9TM14-ALU-I20	Low Profile Platform	(1) 1 1/4" Hybriflex	Sprint Nextel
116.0	3		Alcatel-Lucent TD-RRH8x20-25 w/ S.S.			

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax outside the pole shaft. Stacking coax is not allowed.



Eng. Number 58996421

June 9, 2014

Page 4

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	81%	Pass
Shaft	73%	Pass
Base Plate	61%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	5,025.0	6,783.8	6,514.5	96%
Shear (Kips)	39.9	53.9	53.5	99%

* The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
116.0	0.651	0.668

*Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessarily limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Job Information

Pole : 302467 Code: ANSI/TIA-222 Rev G

Description : 178.5' FWT Monopole

Client : Sprint Nextel

Struct Class : II

Location : Bilkays Express, CT

Shape : 18 Sides

Exposure : B

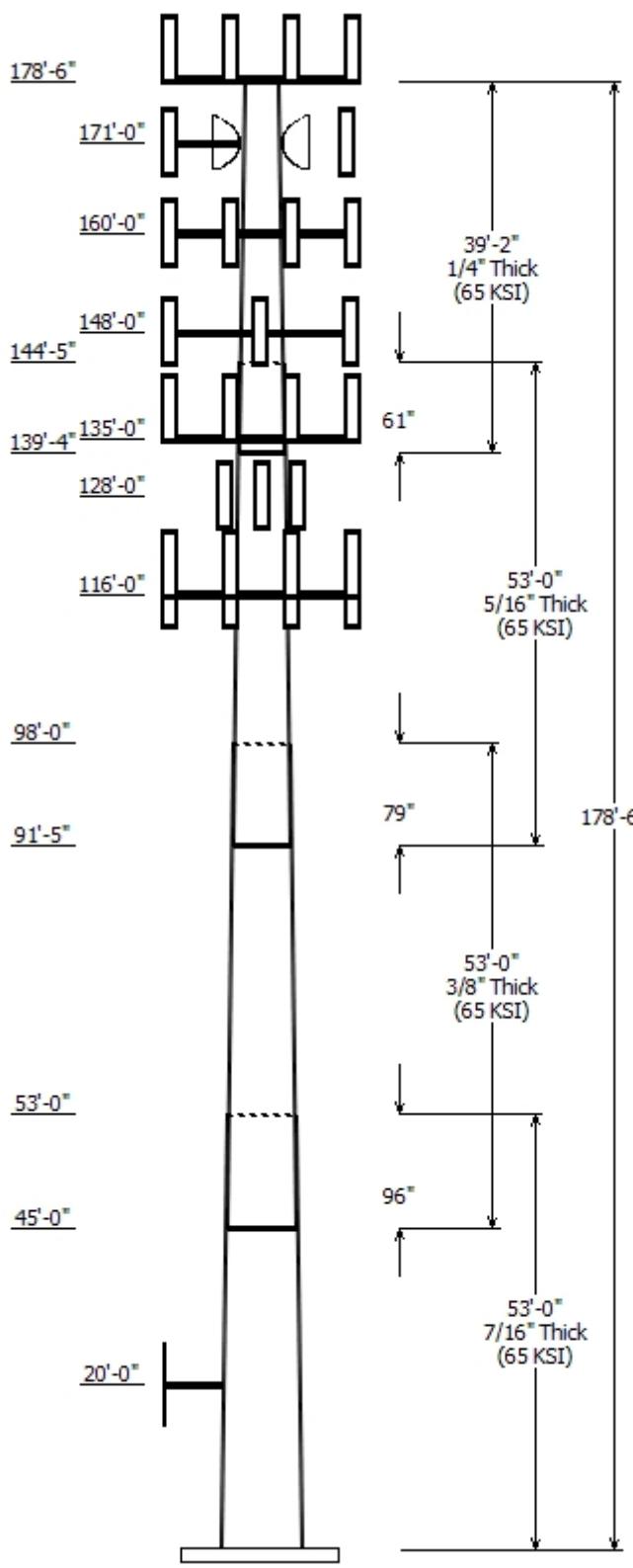
Height : 178.50 (ft)

Topo : 1

Base Elev (ft): 0.00

Taper: 0.25140'(in/ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

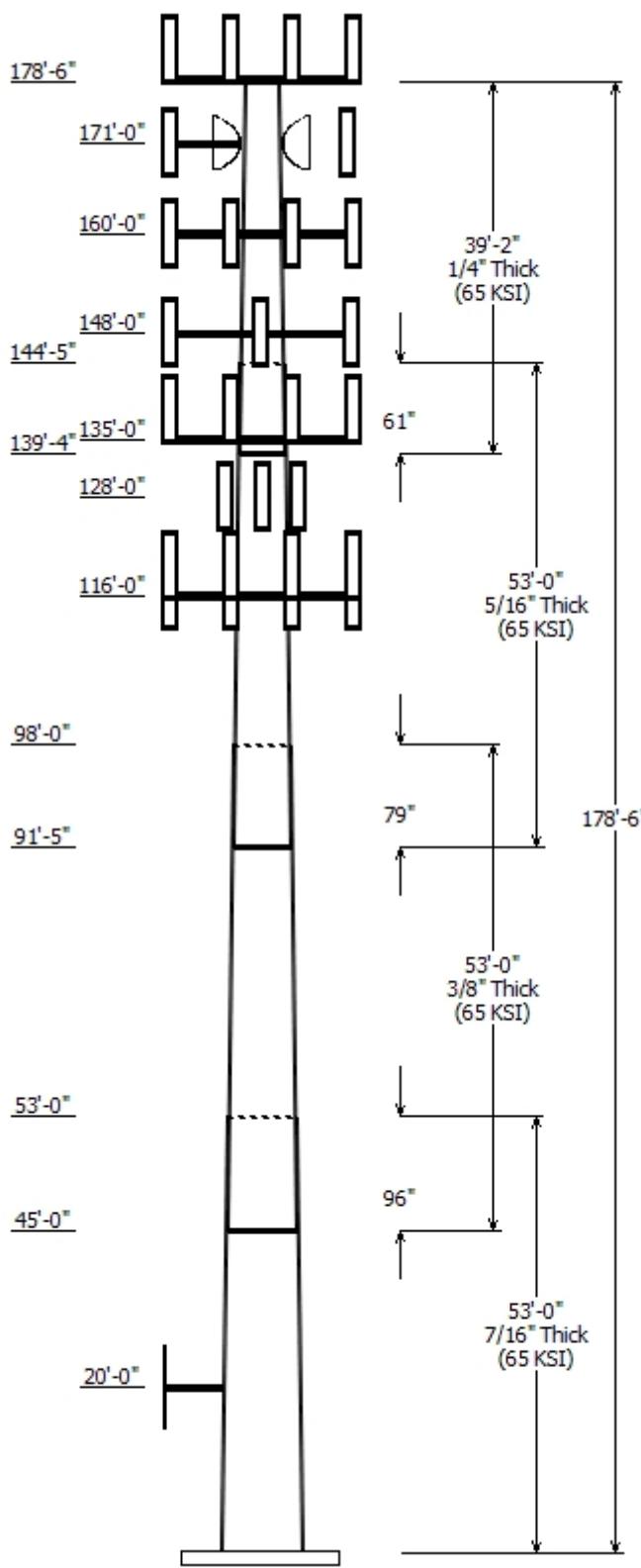


Sections Properties

Shaft Section	Length (ft)	Diameter (in)			Overlap Length (in)	Steel Taper (in/ft)	Steel Grade
		Accross Flats Top	Thick Bottom	Joint Type			
1	53.000	58.67	72.00	0.438	0.000	0.251401	65
2	53.000	48.11	61.43	0.375	96.000	0.251401	65
3	53.000	37.06	50.39	0.313	79.000	0.251401	65
4	39.167	29.00	38.84	0.250	61.000	0.251401	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
178.500	178.500	1	Flat Low Profile Platform
178.500	181.000	9	48" x 12" Panel
178.500	181.000	3	72" x 12" Panel
171.000	171.000	1	DragonWave A-ANT-11G-2-C
171.000	171.000	2	DragonWave Horizon Compact
171.000	171.000	3	Argus LLPX310R
171.000	171.000	3	NextNet BTS-2500
171.000	171.000	1	DragonWave A-ANT-18G-2-C
171.000	171.000	1	Side Arms
160.000	160.000	1	Flat Platform w/ Handrails
160.000	160.000	9	CCI HPA-65R-BUU-H6
160.000	160.000	3	Powerwave 7770.00
160.000	160.000	3	Ericsson RRUS-32
160.000	160.000	3	Ericsson RRUS E2 B29
160.000	160.000	6	Ericsson RRUS-12 B2
160.000	160.000	6	Ericsson RRUS 11 (Band 7)
160.000	160.000	6	Ericsson RRUS A2 Module
160.000	160.000	3	CCI DTM ABP7819VG12A
160.000	160.000	3	Raycap DC6-48-60-18-8F
160.000	160.000	6	14" x 9" TTA
160.000	160.000	3	Powerwave 7020
148.000	148.000	3	Ericsson AIR 21, 1.3M, B4A B2P
148.000	148.000	3	Ericsson AIR 21, 1.3 M, B2A B4
148.000	148.000	3	Ericsson KRY 112 144/1
148.000	148.000	3	T-Arm w/ Working Platform
135.000	138.000	3	Alcatel-Lucent RRH2x40 (700)
135.000	138.000	1	RFS DB-T1-6Z-8AB-0Z
135.000	138.000	3	Alcatel-Lucent RRH2x40-AWS
135.000	138.000	3	Antel BXA-171063-8BF-EDIN-X
135.000	138.000	3	Antel BXA-80063-6BF-EDIN-X
135.000	138.000	6	RFS FD9R6004/2C-3L
135.000	138.000	3	Antel BXA-70063-6CF-EDIN-X
135.000	138.000	3	Antel BXA-171063-12BF-EDIN
135.000	135.000	1	Round Low Profile Platform
128.000	128.000	3	RFS APXV18-206517S-C
116.000	118.000	3	RFS APXV9TM14-ALU-I20
116.000	116.000	3	Alcatel-Lucent TD-RRH8x20-25
116.000	118.000	3	RFS APXVSPP18-C-A20
116.000	116.000	1	Flat Low Profile Platform
116.000	116.000	3	Alcatel-Lucent 1900 MHz 4x45
116.000	116.000	3	Alcatel-Lucent 800 MHz RRH
20.000	20.000	1	Standoff
20.000	20.000	1	PCTEL GPS-TMG-HR-26N

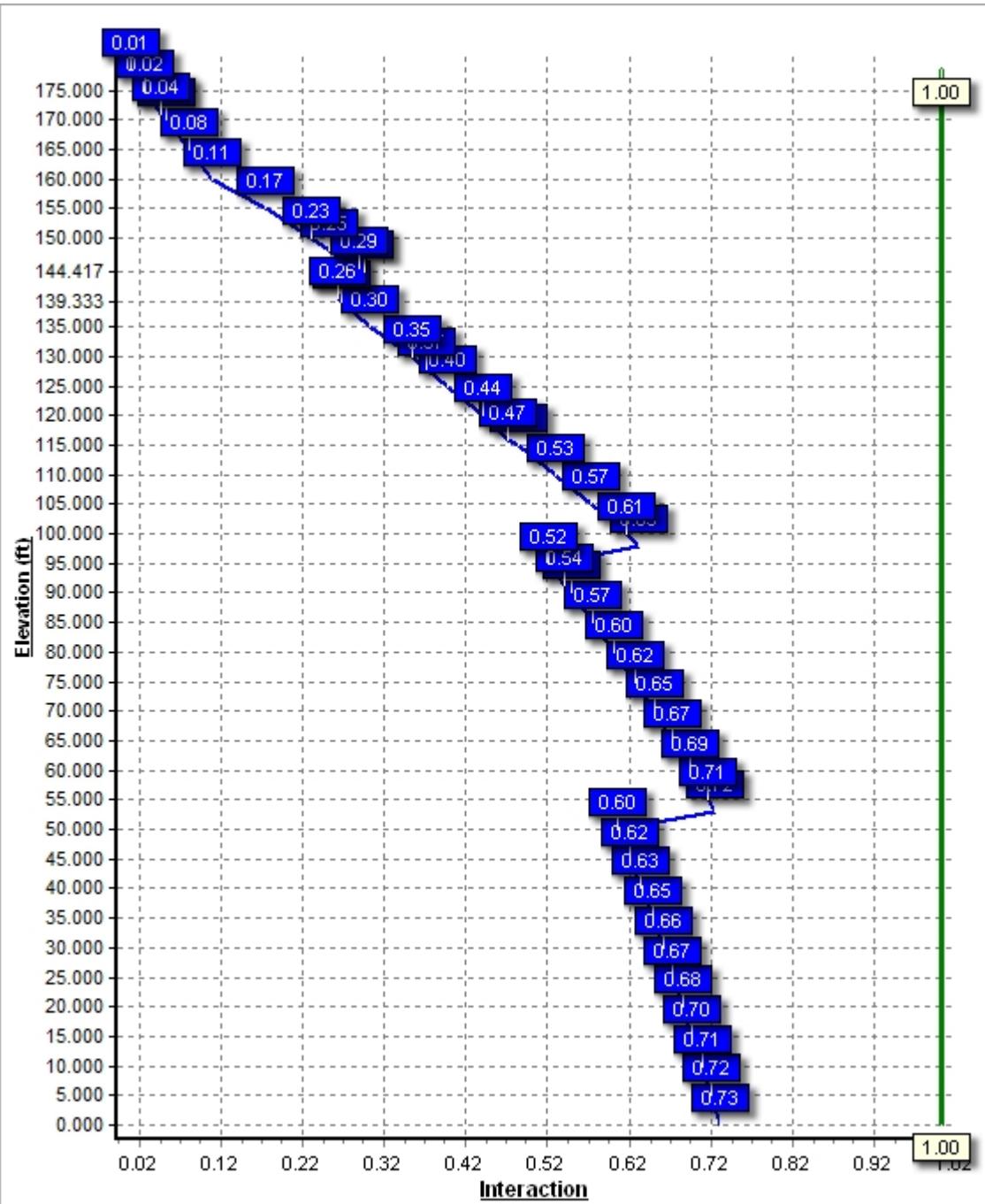


Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
0.000	20.000	1/2" Coax	Yes
0.000	116.0	1 1/4" Hybriflex	Yes
0.000	116.0	1 1/4" Hybriflex	Yes
0.000	128.0	1 5/8" Coax	Yes
0.000	135.0	1 5/8" Coax	No
0.000	135.0	1 5/8" Coax	Yes
0.000	135.0	1 5/8" Hybriflex	No
0.000	148.0	1 1/4" Hybriflex	No
0.000	148.0	1 5/8" Coax	No
0.000	148.0	1 5/8" Coax	Yes
0.000	160.0	0.39" Fiber Trunk	No
0.000	160.0	0.78" 8 AWG 6	No
0.000	160.0	1 5/8" Coax	No
0.000	160.0	3" Conduit	No
0.000	171.0	1/2" Coax	Yes
0.000	171.0	2" Conduit	Yes
0.000	171.0	5/16" Coax	No
0.000	178.5	1 5/8" Coax	No

Load Cases	
1.2D + 1.6W	110.00 mph with No Ice
0.9D + 1.6W	110.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice
1.2D + 1.0E	Dead Load with Seismic
0.9D + 1.0E	Dead Load with Seismic (Reduced DL)
1.0D + 1.0W	60.00 mph Serviceability

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	6514.47	53.48	75.62
0.9D + 1.6W	6251.94	50.58	56.71
1.2D + 1.0Di + 1.0Wi	1306.37	10.66	121.57
1.2D + 1.0E	440.34	3.42	75.69
0.9D + 1.0E	436.30	3.41	56.77
1.0D + 1.0W	1166.70	9.41	63.07

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	171.00	16.900	0.862
1.0D + 1.0W	171.00	16.900	0.862

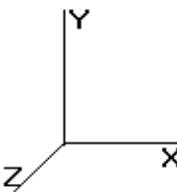


Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:45 AM
 Page: 1

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip Joint		Weight (lb)	Bottom						Top						Taper (in/ft)	
				Type	Joint Len (in)		Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio		
1-18	53.000	0.4375	65		0.00	16,253	72.00	0.00	99.37	64295.3	27.61	164.57	58.67	53.00	80.87	34653.6	22.24	134.12	0.251401	
2-18	53.000	0.3750	65	Slip	96.00	11,677	61.43	45.00	72.68	34236.3	27.48	163.83	48.11	98.00	56.82	16359.1	21.21	128.30	0.251401	
3-18	53.000	0.3125	65	Slip	79.00	7,766	50.39	91.42	49.67	15739.6	27.02	161.26	37.06	144.42	36.46	6222.7	19.51	118.62	0.251401	
4-18	39.167	0.2500	65	Slip	61.00	3,561	38.84	139.33	30.63	5764.1	25.99	155.39	29.00	178.50	22.81	2382.3	19.04	116.00	0.251401	
				Shaft Weight		39,257														

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	Vert Ecc (ft)
			Weight (lb)	EPAa (sf)	Orientation Factor	Weight (lb)	EPAa (sf)	Orientation Factor		
178.50	48" x 12" Panel	9	30.00	5.070	0.78	166.17	6.070	0.78	0.000	2.500
178.50	72" x 12" Panel	3	45.00	8.130	0.79	240.70	9.454	0.79	0.000	2.500
178.50	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,160.61	45.567	1.00	0.000	0.000
171.00	Argus LLPX310R	3	28.60	4.290	0.73	138.21	5.202	0.73	0.000	0.000
171.00	DragonWave A-ANT-11G-2-C	1	27.10	4.690	1.00	126.41	5.984	1.00	0.000	0.000
171.00	DragonWave A-ANT-18G-2-C	1	27.00	4.690	1.00	125.71	5.984	1.00	0.000	0.000
171.00	DragonWave Horizon	2	10.60	0.430	0.33	41.42	0.666	0.33	0.000	0.000
171.00	NextNet BTS-2500	3	35.00	1.820	0.50	93.10	2.371	0.50	0.000	0.000
171.00	Side Arms	1	560.00	8.500	1.00	1,035.30	15.714	1.00	0.000	0.000
160.00	14" x 9" TTA	6	10.00	1.050	0.33	47.02	1.503	0.33	0.000	0.000
160.00	CCI DTMABP7819VG12A	3	19.20	1.370	0.50	63.62	1.869	0.50	0.000	0.000
160.00	CCI HPA-65R-BUJ-H6	9	51.00	9.660	0.83	300.98	11.036	0.83	0.000	0.000
160.00	Ericsson RRUS 11 (Band 7)	6	50.70	2.790	0.67	137.81	3.474	0.67	0.000	0.000
160.00	Ericsson RRUS A2 Module	6	22.00	2.060	0.67	77.40	2.665	0.67	0.000	0.000
160.00	Ericsson RRUS E2 B29	3	60.00	3.150	0.67	156.14	3.869	0.67	0.000	0.000
160.00	Ericsson RRUS-12 B2	6	58.00	3.150	0.67	154.14	3.869	0.67	0.000	0.000
160.00	Ericsson RRUS-32	3	77.00	3.310	0.67	191.42	4.109	0.67	0.000	0.000
160.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,433.30	63.551	1.00	0.000	0.000
160.00	Powerwave 7020	3	2.20	0.400	0.33	18.07	0.624	0.33	0.000	0.000
160.00	Powerwave 7770.00	3	35.00	5.510	0.77	171.16	6.567	0.77	0.000	0.000
160.00	Raycap DC6-48-60-18-8F	3	20.00	1.110	1.00	101.17	2.526	1.00	0.000	0.000
148.00	Ericsson AIR 21, 1.3 M, B2A	3	83.00	6.050	0.86	251.77	7.147	0.86	0.000	0.000
148.00	Ericsson AIR 21, 1.3M, B4A	3	81.50	6.090	0.85	250.22	7.191	0.85	0.000	0.000
148.00	Ericsson KRY 112 144/1	3	11.00	0.410	0.50	27.36	0.634	0.50	0.000	0.000
148.00	T-Arm w/ Working Platform	3	250.00	12.900	0.67	459.14	21.084	0.67	0.000	0.000
135.00	Alcatel-Lucent RRH2x40 (700)	3	50.00	2.120	0.67	135.98	2.736	0.67	0.000	3.000
135.00	Alcatel-Lucent RRH2x40-AWS	3	44.00	2.160	0.67	116.56	2.797	0.67	0.000	3.000
135.00	Antel BXA-171063-12BF-EDIN	3	15.00	4.730	0.88	132.75	5.942	0.88	0.000	3.000
135.00	Antel BXA-171063-8BF-EDIN-X	3	10.50	2.940	0.87	92.67	3.797	0.87	0.000	3.000
135.00	Antel BXA-70063-6CF-EDIN-X	3	17.00	7.570	0.77	188.79	8.805	0.77	0.000	3.000
135.00	Antel BXA-80063-6BF-EDIN-X	3	19.20	7.260	0.78	162.17	9.898	0.78	0.000	3.000
135.00	RFS DB-T1-6Z-8AB-0Z	1	44.00	4.800	1.00	185.96	5.664	1.00	0.000	3.000
135.00	RFS FD9R6004/2C-3L	6	2.60	0.370	0.50	15.50	0.576	0.50	0.000	3.000
135.00	Round Low Profile Platform	1	1500.00	21.700	1.00	2,142.42	40.737	1.00	0.000	0.000
128.00	RFS APXV18-206517S-C	3	26.40	5.170	0.80	141.66	6.388	0.80	0.000	0.000
116.00	Alcatel-Lucent 1900 MHz	3	60.00	2.320	0.67	152.23	2.974	0.67	0.000	0.000
116.00	Alcatel-Lucent 800 MHz RRH	3	53.00	2.130	0.67	137.70	2.729	0.67	0.000	0.000
116.00	Alcatel-Lucent TD-RRH8x20-	3	70.00	4.050	0.67	160.16	5.709	0.67	0.000	0.000
116.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,132.74	44.746	1.00	0.000	0.000
116.00	RFS APXV9TM14-ALU-I20	3	55.10	6.340	0.78	195.16	8.467	0.78	0.000	2.000
116.00	RFS APXVSPP18-C-A20	3	57.00	8.020	0.83	250.66	9.280	0.83	0.000	2.000
20.00	PCTEL GPS-TMG-HR-26N	1	0.60	0.090	1.00	8.27	0.231	1.00	0.000	0.000
20.00	Standoff	1	40.00	1.630	1.00	78.65	2.559	1.00	0.000	0.000

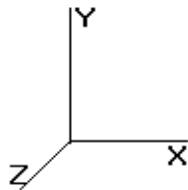
Pole : 302467
Location : Bilkays Express, CT
Height : 178.5 (ft)
Base Dia : 72.00 (in)
Top Dia : 29.00 (in)
Shape : 18 Sides
Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
Struct Class : II
Exposure Category : B
Topographic Category : 1
Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:45 AM

Page: 2



Totals 135 12482.80

30,393.52

Number of Loadings : 43

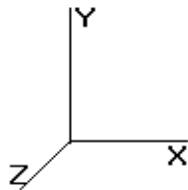
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
0.00	178.50	(12) 1 5/8" Coax	0.00	N
0.00	171.00	(2) 1/2" Coax	0.00	Y
0.00	171.00	(2) 2" Conduit	2.38	Y
0.00	171.00	(6) 5/16" Coax	0.00	N
0.00	160.00	(1) 0.39" Fiber Trunk	0.00	N
0.00	160.00	(6) 0.78" 8 AWG 6	0.00	N
0.00	160.00	(12) 1 5/8" Coax	0.00	N
0.00	160.00	(1) 3" Conduit	0.00	N
0.00	148.00	(1) 1 1/4" Hybriflex Cab	0.00	N
0.00	148.00	(6) 1 5/8" Coax	0.00	N
0.00	148.00	(6) 1 5/8" Coax	1.98	Y
0.00	135.00	(15) 1 5/8" Coax	0.00	N
0.00	135.00	(3) 1 5/8" Coax	0.00	Y
0.00	135.00	(1) 1 5/8" Hybriflex	0.00	N
0.00	128.00	(6) 1 5/8" Coax	1.98	Y
0.00	116.00	(1) 1 1/4" Hybriflex	1.54	Y
0.00	116.00	(3) 1 1/4" Hybriflex	1.55	Y
0.00	20.00	(1) 1/2" Coax	0.00	Y

Pole : 302467
Location : Bilkays Express, CT
Height : 178.5 (ft)
Base Dia : 72.00 (in)
Top Dia : 29.00 (in)
Shape : 18 Sides
Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
Struct Class : II
Exposure Category : B
Topographic Category : 1
Base Elev: 0.000 (ft)

6/13/2014 11:15:45 AM
Page: 3



© 2007 - 2014 by ATC IP LLC. All rights reserved.

Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Flat Dia (in)	Thick (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in ³)	Weight (lb)
0.00		0.4375	72.000	99.370	64,295.3	27.61	164.57	68.9	1758.
5.00		0.4375	70.743	97.624	60,966.4	27.10	161.70	69.5	1,675.8
10.00		0.4375	69.486	95.879	57,754.4	26.59	158.83	70.1	1,646.1
15.00		0.4375	68.229	94.134	54,657.3	26.09	155.95	70.7	1,616.4
20.00		0.4375	66.972	92.388	51,672.9	25.58	153.08	71.3	1,586.7
25.00		0.4375	65.715	90.643	48,799.2	25.07	150.21	71.9	1,557.0
30.00		0.4375	64.458	88.897	46,034.0	24.57	147.33	72.5	1,527.3
35.00		0.4375	63.201	87.152	43,375.4	24.06	144.46	73.1	1,497.6
40.00		0.4375	61.944	85.406	40,821.1	23.55	141.59	73.7	1,467.9
45.00	Bot - Section 2	0.4375	60.687	83.661	38,369.1	23.05	138.71	74.3	1,438.2
50.00		0.4375	59.430	81.915	36,017.4	22.54	135.84	74.9	1,362.3
53.00	Top - Section 1	0.3750	59.426	70.283	30,963.7	26.53	158.47	70.2	1,552.9
55.00		0.3750	58.923	69.684	30,179.4	26.30	157.13	70.5	1,008.
60.00		0.3750	57.666	68.188	28,277.0	25.70	153.78	71.2	965.8
65.00		0.3750	56.409	66.692	26,456.3	25.11	150.42	71.9	923.8
70.00		0.3750	55.152	65.196	24,715.5	24.52	147.07	72.6	882.7
75.00		0.3750	53.895	63.700	23,052.8	23.93	143.72	73.3	842.5
80.00		0.3750	52.638	62.204	21,466.3	23.34	140.37	73.9	803.2
85.00		0.3750	51.381	60.708	19,954.4	22.75	137.02	74.6	764.9
90.00		0.3750	50.124	59.212	18,515.1	22.16	133.66	75.3	727.6
91.42	Bot - Section 3	0.3750	49.768	58.788	18,120.3	21.99	132.71	75.5	717.1
95.00		0.3750	48.867	57.715	17,146.8	21.57	130.31	76.0	691.1
98.00	Top - Section 2	0.3125	48.738	48.030	14,230.2	26.09	155.96	70.7	575.1
100.0		0.3125	48.235	47.531	13,791.5	25.81	154.35	71.0	563.2
105.0		0.3125	46.978	46.285	12,734.5	25.10	150.33	71.9	533.9
110.0		0.3125	45.721	45.038	11,732.9	24.39	146.31	72.7	505.4
115.0		0.3125	44.464	43.791	10,785.2	23.68	142.28	73.6	477.8
116.0		0.3125	44.213	43.542	10,602.0	23.54	141.48	73.7	472.3
120.0		0.3125	43.207	42.544	9,890.0	22.97	138.26	74.4	450.8
125.0		0.3125	41.950	41.298	9,045.8	22.26	134.24	75.2	424.7
128.0		0.3125	41.196	40.550	8,563.1	21.83	131.83	75.7	409.4
130.0		0.3125	40.693	40.051	8,251.0	21.55	130.22	76.1	399.4
135.0		0.3125	39.436	38.804	7,504.2	20.84	126.19	76.9	374.8
139.3	Bot - Section 4	0.3125	38.347	37.724	6,894.6	20.23	122.71	77.6	354.1
140.0		0.3125	38.179	37.557	6,803.9	20.13	122.17	77.7	351.0
144.4	Top - Section 3	0.2500	37.569	29.611	5,210.3	25.09	150.27	71.9	273.2
145.0		0.2500	37.422	29.495	5,149.1	24.98	149.69	72.0	271.0
148.0		0.2500	36.668	28.896	4,842.0	24.45	146.67	72.6	260.1
150.0		0.2500	36.165	28.497	4,644.2	24.10	144.66	73.1	252.9
155.0		0.2500	34.908	27.500	4,173.4	23.21	139.63	74.1	235.5
160.0		0.2500	33.651	26.503	3,735.6	22.32	134.60	75.1	218.6
165.0		0.2500	32.394	25.505	3,329.5	21.44	129.58	76.2	202.4
170.0		0.2500	31.137	24.508	2,954.0	20.55	124.55	77.2	186.9
171.0		0.2500	30.885	24.308	2,882.4	20.37	123.54	77.4	183.8
175.0		0.2500	29.880	23.510	2,607.8	19.66	119.52	78.3	171.9
178.5		0.2500	29.000	22.812	2,382.3	19.04	116.00	79.0	161.8

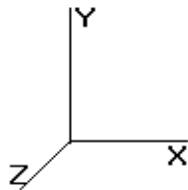
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:45 AM

Page: 4



Load Case: 1.2D + 1.6W

110.00 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	20.599	22.65	560.71	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	20.599	22.65	550.92	0.709	*	0.000	5.00	30.197	21.40	775.9	0.0
10.00		1.00	0.70	20.599	22.65	541.13	0.713	*	0.000	5.00	29.665	21.16	767.1	0.0
15.00		1.00	0.70	20.599	22.65	531.34	0.718	*	0.000	5.00	29.133	20.92	758.3	0.0
20.00	Appertunance(s)	1.00	0.70	20.599	22.65	521.55	0.723	*	0.000	5.00	28.601	20.68	749.6	0.0
25.00		1.00	0.70	20.599	22.65	511.76	0.728	*	0.000	5.00	28.070	20.43	740.8	0.0
30.00		1.00	0.70	20.616	22.67	502.19	0.733	*	0.000	5.00	27.538	20.19	732.6	0.0
35.00		1.00	0.73	21.545	23.69	503.36	0.739	*	0.000	5.00	27.006	19.95	756.5	0.0
40.00		1.00	0.76	22.383	24.62	502.85	0.744	*	0.000	5.00	26.474	19.71	776.3	0.0
45.00	Bot - Section 2	1.00	0.78	23.149	25.46	501.00	0.750	*	0.000	5.00	25.942	19.47	793.1	0.0
50.00		1.00	0.81	23.856	26.24	498.07	0.757	*	0.000	5.00	25.728	19.46	817.2	0.0
53.00	Top - Section 1	1.00	0.82	24.257	26.68	495.86	0.762	*	0.000	3.00	15.181	11.56	493.6	0.0
55.00		1.00	0.83	24.515	26.96	500.59	0.761	*	0.000	2.00	10.015	7.62	328.8	0.0
60.00		1.00	0.85	25.132	27.64	496.03	0.766	*	0.000	5.00	24.664	18.88	835.3	0.0
65.00		1.00	0.87	25.713	28.28	490.80	0.772	*	0.000	5.00	24.132	18.64	843.6	0.0
70.00		1.00	0.89	26.263	28.89	484.97	0.780	*	0.000	5.00	23.600	18.40	850.5	0.0
75.00		1.00	0.91	26.786	29.46	478.61	0.787	*	0.000	5.00	23.069	18.16	856.0	0.0
80.00		1.00	0.92	27.285	30.01	471.78	0.795	*	0.000	5.00	22.537	17.92	860.3	0.0
85.00		1.00	0.94	27.761	30.53	464.52	0.803	*	0.000	5.00	22.005	17.67	863.6	0.0
90.00		1.00	0.95	28.219	31.04	456.87	0.812	*	0.000	5.00	21.473	17.43	865.8	0.0
91.42	Bot - Section 3	1.00	0.96	28.345	31.17	454.64	0.818	*	0.000	1.42	5.987	4.90	244.2	0.0
95.00		1.00	0.97	28.658	31.52	448.87	0.822	*	0.000	3.58	15.143	12.45	628.0	0.0
98.00	Top - Section 2	1.00	0.98	28.913	31.80	443.91	0.828	*	0.000	3.00	12.468	10.33	525.6	0.0
100.0		1.00	0.98	29.081	31.98	446.32	0.828	*	0.000	2.00	8.206	6.80	348.0	0.0
105.0		1.00	1.00	29.489	32.43	437.73	0.835	*	0.000	5.00	20.142	16.83	873.3	0.0
110.0		1.00	1.01	29.884	32.87	428.86	1.200	*	0.000	5.00	19.610	23.53	1,237.7	0.0
115.0		1.00	1.02	30.266	33.29	419.72	1.200	*	0.000	5.00	19.078	22.89	1,219.5	0.0
116.0	Appertunance(s)	1.00	1.03	30.341	33.37	417.87	1.200	*	0.000	1.00	3.752	4.50	240.4	0.0
120.0		1.00	1.04	30.636	33.69	410.35	0.734	*	0.000	4.00	14.795	10.85	585.2	0.0
125.0		1.00	1.05	30.995	34.09	400.74	0.741	*	0.000	5.00	18.015	13.35	728.2	0.0
128.0	Appertunance(s)	1.00	1.06	31.206	34.32	394.87	0.748	*	0.000	3.00	10.554	7.89	433.5	0.0
130.0		1.00	1.06	31.345	34.47	390.91	0.659	*	0.000	2.00	6.929	4.57	252.1	0.0
135.0	Appertunance(s)	1.00	1.07	31.684	34.85	380.89	0.664	*	0.000	5.00	16.951	11.26	627.6	0.0
139.3	Bot - Section 4	1.00	1.08	31.972	35.16	372.04	0.670	*	0.000	4.33	14.261	9.56	537.9	0.0
140.0		1.00	1.08	32.015	35.21	370.67	0.674	*	0.000	0.67	2.187	1.47	83.0	0.0
144.4	Top - Section 3	1.00	1.09	32.301	35.53	361.49	0.678	*	0.000	4.42	14.248	9.65	548.8	0.0
145.0		1.00	1.09	32.338	35.57	365.14	0.678	*	0.000	0.58	1.851	1.26	71.5	0.0
148.0	Appertunance(s)	1.00	1.10	32.528	35.78	358.83	0.681	*	0.000	3.00	9.404	6.40	366.6	0.0
150.0		1.00	1.11	32.653	35.91	354.59	0.650	0.000	2.00	6.163	4.01	230.2	0.0	
155.0		1.00	1.12	32.960	36.25	343.87	0.650	0.000	5.00	15.035	9.77	566.9	0.0	
160.0	Appertunance(s)	1.00	1.13	33.260	36.58	333.00	0.650	0.000	5.00	14.503	9.43	551.9	0.0	
165.0		1.00	1.14	33.554	36.91	321.97	0.650	0.000	5.00	13.972	9.08	536.3	0.0	
170.0		1.00	1.15	33.842	37.22	310.80	0.650	0.000	5.00	13.440	8.74	520.3	0.0	
171.0	Appertunance(s)	1.00	1.15	33.898	37.28	308.55	0.650	0.000	1.00	2.624	1.71	101.8	0.0	
175.0		1.00	1.16	34.123	37.53	299.49	0.650	0.000	4.00	10.284	6.68	401.4	0.0	
178.5	Appertunance(s)	1.00	1.16	34.317	37.74	291.49	0.650	0.000	3.50	8.719	5.67	342.3	0.0	

* = Cf Adjusted By Linear Load Ra Effect

Totals: 178.50

27,267.3

0.0 47,108.5

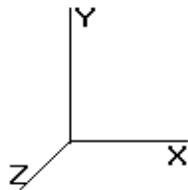
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:45 AM

Page: 5



Load Case: 1.2D + 1.6W

110.00 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
20.00	PCTEL GPS-TMG-HR-	1	20.599	22.659	1.00	1.00	0.09	0.000	0.000	3.26	0.00	0.00	0.72
20.00	Standoff	1	20.599	22.659	1.00	1.00	1.63	0.000	0.000	59.09	0.00	0.00	48.00
116.0	Alcatel-Lucent 800 M	3	30.341	33.375	0.67	0.80	3.43	0.000	0.000	182.90	0.00	0.00	190.80
116.0	Alcatel-Lucent 1900	3	30.341	33.375	0.67	0.80	3.73	0.000	0.000	199.21	0.00	0.00	216.00
116.0	Flat Low Profile Pla	1	30.341	33.375	1.00	1.00	26.10	0.000	0.000	1,393.73	0.00	0.00	1,800.00
116.0	RFS APXVSPP18-C-	3	30.489	33.538	0.83	0.80	15.98	0.000	2.000	857.28	0.00	1,714.56	205.20
116.0	Alcatel-Lucent TD-RR	3	30.341	33.375	0.67	0.80	6.51	0.000	0.000	347.76	0.00	0.00	252.00
116.0	RFS APXV9TM14-ALU-	3	30.489	33.538	0.78	0.80	11.87	0.000	2.000	636.87	0.00	1,273.75	198.36
128.0	RFS APXV18-206517S-	3	31.206	34.327	0.80	1.00	12.41	0.000	0.000	681.48	0.00	0.00	95.04
135.0	Round Low Profile PI	1	31.684	34.853	1.00	1.00	21.70	0.000	0.000	1,210.09	0.00	0.00	1,800.00
135.0	Antel BXA-171063-12B	3	31.884	35.072	0.88	0.80	9.99	0.000	3.000	560.58	0.00	1,681.75	54.00
135.0	Antel BXA-70063-6CF-	3	31.884	35.072	0.77	0.80	13.99	0.000	3.000	785.03	0.00	2,355.08	61.20
135.0	RFS FD9R6004/2C-3L	6	31.884	35.072	0.50	0.80	0.89	0.000	3.000	49.83	0.00	149.49	18.72
135.0	Antel BXA-80063-6BF-	3	31.884	35.072	0.78	0.80	13.59	0.000	3.000	762.66	0.00	2,287.97	69.12
135.0	Antel BXA-171063-8BF	3	31.884	35.072	0.87	0.80	6.14	0.000	3.000	344.48	0.00	1,033.44	37.80
135.0	Alcatel-Lucent RRH2x	3	31.884	35.072	0.67	0.80	3.49	0.000	3.000	196.07	0.00	588.21	158.40
135.0	RFS DB-T1-6Z-8AB-0Z	1	31.884	35.072	1.00	0.80	3.84	0.000	3.000	215.48	0.00	646.45	52.80
135.0	Alcatel-Lucent RRH2x	3	31.884	35.072	0.67	0.80	3.41	0.000	3.000	191.30	0.00	573.89	180.00
148.0	T-Arm w/ Working Pla	3	32.528	35.780	0.67	0.75	19.45	0.000	0.000	1,113.30	0.00	0.00	900.00
148.0	Ericsson KRY 112 144	3	32.528	35.780	0.50	0.80	0.49	0.000	0.000	28.17	0.00	0.00	39.60
148.0	Ericsson AIR 21, 1.3	3	32.528	35.780	0.86	0.80	12.49	0.000	0.000	714.88	0.00	0.00	298.80
148.0	Ericsson AIR 21, 1.3	3	32.528	35.780	0.85	0.80	12.42	0.000	0.000	711.24	0.00	0.00	293.40
160.0	Powerwave 7020	3	33.260	36.586	0.33	0.75	0.30	0.000	0.000	17.39	0.00	0.00	7.92
160.0	14" x 9" TTA	6	33.260	36.586	0.33	0.75	1.56	0.000	0.000	91.28	0.00	0.00	72.00
160.0	Raycap DC6-48-60-18-	3	33.260	36.586	1.00	0.75	2.50	0.000	0.000	146.20	0.00	0.00	72.00
160.0	CCI	3	33.260	36.586	0.50	0.75	1.54	0.000	0.000	90.22	0.00	0.00	69.12
160.0	Ericsson RRUS A2	6	33.260	36.586	0.67	0.75	6.21	0.000	0.000	363.58	0.00	0.00	158.40
160.0	Ericsson RRUS 11 (Ba	6	33.260	36.586	0.67	0.75	8.41	0.000	0.000	492.42	0.00	0.00	365.04
160.0	Ericsson RRUS-12 B2	6	33.260	36.586	0.67	0.75	9.50	0.000	0.000	555.95	0.00	0.00	417.60
160.0	Ericsson RRUS E2 B29	3	33.260	36.586	0.67	0.75	4.75	0.000	0.000	277.98	0.00	0.00	216.00
160.0	Ericsson RRUS-32	3	33.260	36.586	0.67	0.75	4.99	0.000	0.000	292.10	0.00	0.00	277.20
160.0	Powerwave 7770.00	3	33.260	36.586	0.77	0.75	9.55	0.000	0.000	558.81	0.00	0.00	126.00
160.0	CCI HPA-65R-BUU-H6	9	33.260	36.586	0.83	0.75	54.12	0.000	0.000	3,168.10	0.00	0.00	550.80
160.0	Flat Platform w/ Han	1	33.260	36.586	1.00	1.00	42.40	0.000	0.000	2,482.02	0.00	0.00	2,400.00
171.0	Side Arms	1	33.898	37.288	1.00	1.00	8.50	0.000	0.000	507.12	0.00	0.00	672.00
171.0	DragonWave A-ANT-	1	33.898	37.288	1.00	0.80	3.75	0.000	0.000	223.85	0.00	0.00	32.40
171.0	NextNet BTS-2500	3	33.898	37.288	0.50	0.80	2.18	0.000	0.000	130.30	0.00	0.00	126.00
171.0	Argus LLPX310R	3	33.898	37.288	0.73	0.80	7.52	0.000	0.000	448.42	0.00	0.00	102.96
171.0	DragonWave Horizon	2	33.898	37.288	0.33	0.80	0.23	0.000	0.000	13.55	0.00	0.00	25.44
171.0	DragonWave A-ANT-	1	33.898	37.288	1.00	0.80	3.75	0.000	0.000	223.85	0.00	0.00	32.52
178.5	72" x 12" Panel	3	34.453	37.899	0.79	0.80	15.41	0.000	2.500	934.70	0.00	2,336.75	162.00
178.5	48" x 12" Panel	9	34.453	37.899	0.78	0.80	28.47	0.000	2.500	1,726.54	0.00	4,316.36	324.00
178.5	Flat Low Profile Pla	1	34.317	37.748	1.00	1.00	26.10	0.000	0.000	1,576.37	0.00	0.00	1,800.00

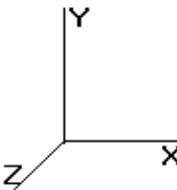
25,565.39

14,979.36

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.



6/13/2014 11:15:45 AM

Page: 6

Load Case: 1.2D + 1.6W **110.00 mph with No Ice**

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.130	1.090	0.00	1.80
5.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.130	1.090	0.00	43.80
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.130	1.090	0.00	29.52
5.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.130	1.090	0.00	14.76
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.130	1.090	0.00	29.52
5.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.130	1.090	0.00	6.00
5.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.130	1.090	0.00	18.00
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.130	1.090	0.00	0.90
10.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.132	1.097	0.00	1.80
10.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.132	1.097	0.00	43.80
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.132	1.097	0.00	29.52
10.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.132	1.097	0.00	14.76
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.132	1.097	0.00	29.52
10.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.132	1.097	0.00	6.00
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.132	1.097	0.00	18.00
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.132	1.097	0.00	0.90
15.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.135	1.105	0.00	1.80
15.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.135	1.105	0.00	43.80
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.135	1.105	0.00	29.52
15.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.135	1.105	0.00	14.76
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.135	1.105	0.00	29.52
15.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.135	1.105	0.00	6.00
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.135	1.105	0.00	18.00
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.135	1.105	0.00	0.90
20.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.137	1.112	0.00	1.80
20.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.137	1.112	0.00	43.80
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.137	1.112	0.00	29.52
20.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.137	1.112	0.00	14.76
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.137	1.112	0.00	29.52
20.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.137	1.112	0.00	6.00
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.137	1.112	0.00	18.00
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.137	1.112	0.00	0.90
25.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.140	1.120	0.00	1.80
25.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.140	1.120	0.00	43.80
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.140	1.120	0.00	29.52
25.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.140	1.120	0.00	14.76
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.140	1.120	0.00	29.52
25.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.140	1.120	0.00	6.00
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.140	1.120	0.00	18.00
25.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.140	1.120	0.00	0.90
30.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.616	0.143	1.128	0.00	1.80
30.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.616	0.143	1.128	0.00	43.80
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.616	0.143	1.128	0.00	29.52
30.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.616	0.143	1.128	0.00	14.76
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.616	0.143	1.128	0.00	29.52
30.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.616	0.143	1.128	0.00	6.00
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.616	0.143	1.128	0.00	18.00
35.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.545	0.145	1.136	0.00	1.80
35.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	21.545	0.145	1.136	0.00	43.80
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	21.545	0.145	1.136	0.00	29.52
35.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.545	0.145	1.136	0.00	14.76
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	21.545	0.145	1.136	0.00	29.52

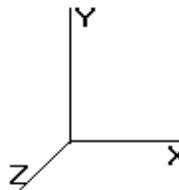
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:45 AM

Page: 7

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 1.2D + 1.6W

110.00 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

35.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	21.545	0.145	1.136	0.00	6.00
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	21.545	0.145	1.136	0.00	18.00
40.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.383	0.148	1.145	0.00	1.80
40.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	22.383	0.148	1.145	0.00	43.80
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	22.383	0.148	1.145	0.00	29.52
40.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.383	0.148	1.145	0.00	14.76
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	22.383	0.148	1.145	0.00	29.52
40.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	22.383	0.148	1.145	0.00	6.00
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	22.383	0.148	1.145	0.00	18.00
45.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.149	0.151	1.154	0.00	1.80
45.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	23.149	0.151	1.154	0.00	43.80
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.149	0.151	1.154	0.00	29.52
45.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.149	0.151	1.154	0.00	14.76
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.149	0.151	1.154	0.00	29.52
45.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	23.149	0.151	1.154	0.00	6.00
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	23.149	0.151	1.154	0.00	18.00
50.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.856	0.155	1.164	0.00	1.80
50.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	23.856	0.155	1.164	0.00	43.80
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.856	0.155	1.164	0.00	29.52
50.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.856	0.155	1.164	0.00	14.76
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.856	0.155	1.164	0.00	29.52
50.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	23.856	0.155	1.164	0.00	6.00
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	23.856	0.155	1.164	0.00	18.00
53.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	24.257	0.157	1.172	0.00	1.08
53.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	24.257	0.157	1.172	0.00	26.28
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	24.257	0.157	1.172	0.00	17.71
53.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	24.257	0.157	1.172	0.00	8.85
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	24.257	0.157	1.172	0.00	17.71
53.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	0.38	0.00	24.257	0.157	1.172	0.00	3.60
53.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	0.39	0.00	24.257	0.157	1.172	0.00	10.80
55.00	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	24.515	0.157	1.171	0.00	0.72
55.00	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	24.515	0.157	1.171	0.00	17.52
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	24.515	0.157	1.171	0.00	11.81
55.00	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	24.515	0.157	1.171	0.00	5.90
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	24.515	0.157	1.171	0.00	11.81
55.00	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.26	0.00	24.515	0.157	1.171	0.00	2.40
55.00	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.26	0.00	24.515	0.157	1.171	0.00	7.20
60.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.132	0.159	1.178	0.00	1.80
60.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	25.132	0.159	1.178	0.00	43.80
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.132	0.159	1.178	0.00	29.52
60.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.132	0.159	1.178	0.00	14.76
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.132	0.159	1.178	0.00	29.52
60.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	25.132	0.159	1.178	0.00	6.00
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	25.132	0.159	1.178	0.00	18.00
65.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.713	0.163	1.188	0.00	1.80
65.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	25.713	0.163	1.188	0.00	43.80
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.713	0.163	1.188	0.00	29.52
65.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.713	0.163	1.188	0.00	14.76
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.713	0.163	1.188	0.00	29.52
65.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	25.713	0.163	1.188	0.00	6.00
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	25.713	0.163	1.188	0.00	18.00
70.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.263	0.166	1.199	0.00	1.80
70.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	26.263	0.166	1.199	0.00	43.80
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.263	0.166	1.199	0.00	29.52
70.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.263	0.166	1.199	0.00	14.76
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.263	0.166	1.199	0.00	29.52
70.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	26.263	0.166	1.199	0.00	6.00

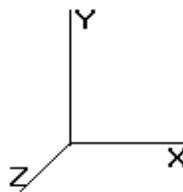
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:45 AM

Page: 8

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 1.2D + 1.6W

110.00 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

70.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	26.263	0.166	1.199	0.00	18.00
75.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.786	0.170	1.211	0.00	1.80
75.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	26.786	0.170	1.211	0.00	43.80
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.786	0.170	1.211	0.00	29.52
75.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.786	0.170	1.211	0.00	14.76
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.786	0.170	1.211	0.00	29.52
75.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	26.786	0.170	1.211	0.00	6.00
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	26.786	0.170	1.211	0.00	18.00
80.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.285	0.174	1.223	0.00	1.80
80.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	27.285	0.174	1.223	0.00	43.80
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.285	0.174	1.223	0.00	29.52
80.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.285	0.174	1.223	0.00	14.76
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.285	0.174	1.223	0.00	29.52
80.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	27.285	0.174	1.223	0.00	6.00
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	27.285	0.174	1.223	0.00	18.00
85.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.761	0.179	1.236	0.00	1.80
85.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	27.761	0.179	1.236	0.00	43.80
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.761	0.179	1.236	0.00	29.52
85.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.761	0.179	1.236	0.00	14.76
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.761	0.179	1.236	0.00	29.52
85.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	27.761	0.179	1.236	0.00	6.00
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	27.761	0.179	1.236	0.00	18.00
90.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	28.219	0.183	1.249	0.00	1.80
90.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	28.219	0.183	1.249	0.00	43.80
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	28.219	0.183	1.249	0.00	29.52
90.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	28.219	0.183	1.249	0.00	14.76
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	28.219	0.183	1.249	0.00	29.52
90.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	28.219	0.183	1.249	0.00	6.00
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	28.219	0.183	1.249	0.00	18.00
91.42	(2) 1/2" Coax	Yes	1.42	0.000	0.00	0.00	0.00	28.345	0.186	1.258	0.00	0.51
91.42	(2) 2" Conduit	Yes	1.42	0.000	2.38	0.28	0.00	28.345	0.186	1.258	0.00	12.41
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.23	0.00	28.345	0.186	1.258	0.00	8.36
91.42	(3) 1 5/8" Coax	Yes	1.42	0.000	0.00	0.00	0.00	28.345	0.186	1.258	0.00	4.18
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.23	0.00	28.345	0.186	1.258	0.00	8.36
91.42	(1) 1 1/4" Hybriflex	Yes	1.42	0.000	1.54	0.18	0.00	28.345	0.186	1.258	0.00	1.70
91.42	(3) 1 1/4" Hybriflex	Yes	1.42	0.000	1.55	0.18	0.00	28.345	0.186	1.258	0.00	5.10
95.00	(2) 1/2" Coax	Yes	3.58	0.000	0.00	0.00	0.00	28.658	0.188	1.265	0.00	1.29
95.00	(2) 2" Conduit	Yes	3.58	0.000	2.38	0.71	0.00	28.658	0.188	1.265	0.00	31.39
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	0.59	0.00	28.658	0.188	1.265	0.00	21.15
95.00	(3) 1 5/8" Coax	Yes	3.58	0.000	0.00	0.00	0.00	28.658	0.188	1.265	0.00	10.58
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	0.59	0.00	28.658	0.188	1.265	0.00	21.15
95.00	(1) 1 1/4" Hybriflex	Yes	3.58	0.000	1.54	0.46	0.00	28.658	0.188	1.265	0.00	4.30
95.00	(3) 1 1/4" Hybriflex	Yes	3.58	0.000	1.55	0.46	0.00	28.658	0.188	1.265	0.00	12.90
98.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	28.913	0.192	1.275	0.00	1.08
98.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	28.913	0.192	1.275	0.00	26.28
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	28.913	0.192	1.275	0.00	17.71
98.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	28.913	0.192	1.275	0.00	8.85
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	28.913	0.192	1.275	0.00	17.71
98.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	0.38	0.00	28.913	0.192	1.275	0.00	3.60
98.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	0.39	0.00	28.913	0.192	1.275	0.00	10.80
100.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	29.081	0.192	1.275	0.00	0.72
100.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	29.081	0.192	1.275	0.00	17.52
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	29.081	0.192	1.275	0.00	11.81
100.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	29.081	0.192	1.275	0.00	5.90
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	29.081	0.192	1.275	0.00	11.81
100.0	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.26	0.00	29.081	0.192	1.275	0.00	2.40
100.0	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.26	0.00	29.081	0.192	1.275	0.00	7.20

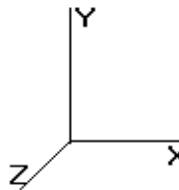
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:45 AM

Page: 9



Load Case: 1.2D + 1.6W

110.00 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

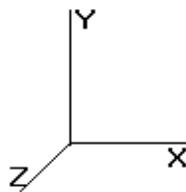
Wind Load Factor : 1.60

105.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	29.489	0.195	1.285	0.00	1.80
105.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	29.489	0.195	1.285	0.00
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	29.489	0.195	1.285	0.00
105.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	29.489	0.195	1.285	0.00
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	29.489	0.195	1.285	0.00
105.0	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	29.489	0.195	1.285	0.00
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	29.489	0.195	1.285	0.00
110.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	29.884	0.200	0.000	0.00
110.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	0.99	1.19	29.884	0.200	0.000	62.59
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	29.884	0.200	0.000	52.07
110.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	29.884	0.200	0.000	0.00
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	29.884	0.200	0.000	52.07
110.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	0.64	0.77	29.884	0.200	0.000	40.50
110.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	0.65	0.77	29.884	0.200	0.000	40.76
115.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.266	0.206	0.000	0.00
115.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	0.99	1.19	30.266	0.206	0.000	63.39
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	30.266	0.206	0.000	52.73
115.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.266	0.206	0.000	0.00
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	30.266	0.206	0.000	52.73
115.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	0.64	0.77	30.266	0.206	0.000	41.02
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	0.65	0.77	30.266	0.206	0.000	41.28
116.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	30.341	0.209	0.000	0.00
116.0	(2) 2" Conduit	Yes	1.00	1.200	2.38	0.20	0.24	30.341	0.209	0.000	12.71
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.17	0.20	30.341	0.209	0.000	10.57
116.0	(3) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	30.341	0.209	0.000	0.00
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.17	0.20	30.341	0.209	0.000	10.57
116.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.200	1.54	0.13	0.15	30.341	0.209	0.000	8.22
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.200	1.55	0.13	0.16	30.341	0.209	0.000	8.28
120.0	(2) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	30.636	0.143	1.129	0.00
120.0	(2) 2" Conduit	Yes	4.00	0.000	2.38	0.79	0.00	30.636	0.143	1.129	0.00
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	0.66	0.00	30.636	0.143	1.129	0.00
120.0	(3) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	30.636	0.143	1.129	0.00
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	0.66	0.00	30.636	0.143	1.129	0.00
125.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.995	0.147	1.140	0.00
125.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	30.995	0.147	1.140	0.00
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	30.995	0.147	1.140	0.00
125.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.995	0.147	1.140	0.00
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	30.995	0.147	1.140	0.00
128.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	31.206	0.150	1.151	0.00
128.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	31.206	0.150	1.151	0.00
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	31.206	0.150	1.151	0.00
128.0	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	31.206	0.150	1.151	0.00
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	31.206	0.150	1.151	0.00
130.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	31.345	0.105	1.015	0.00
130.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	31.345	0.105	1.015	0.00
130.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	31.345	0.105	1.015	0.00
130.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	31.345	0.105	1.015	0.00
135.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	31.684	0.107	1.022	0.00
135.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	31.684	0.107	1.022	0.00
135.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	31.684	0.107	1.022	0.00
135.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	31.684	0.107	1.022	0.00
139.3	(2) 1/2" Coax	Yes	4.33	0.000	0.00	0.00	0.00	31.972	0.110	1.031	0.00
139.3	(2) 2" Conduit	Yes	4.33	0.000	2.38	0.86	0.00	31.972	0.110	1.031	0.00
139.3	(6) 1 5/8" Coax	Yes	4.33	0.000	1.98	0.72	0.00	31.972	0.110	1.031	0.00
140.0	(2) 1/2" Coax	Yes	0.67	0.000	0.00	0.00	0.00	32.015	0.112	1.037	0.00
140.0	(2) 2" Conduit	Yes	0.67	0.000	2.38	0.13	0.00	32.015	0.112	1.037	0.00
140.0	(6) 1 5/8" Coax	Yes	0.67	0.000	1.98	0.11	0.00	32.015	0.112	1.037	0.00

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.



6/13/2014 11:15:45 AM

Page: 10

Load Case: 1.2D + 1.6W **110.00 mph with No Ice** **23 Iterations**

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

144.4	(2) 1/2" Coax	Yes	4.42	0.000	0.00	0.00	32.301	0.114	1.042	0.00	1.59	
144.4	(2) 2" Conduit	Yes	4.42	0.000	2.38	0.88	0.00	32.301	0.114	1.042	0.00	38.69
144.4	(6) 1 5/8" Coax	Yes	4.42	0.000	1.98	0.73	0.00	32.301	0.114	1.042	0.00	26.07
145.0	(2) 1/2" Coax	Yes	0.58	0.000	0.00	0.00	0.00	32.338	0.115	1.044	0.00	0.21
145.0	(2) 2" Conduit	Yes	0.58	0.000	2.38	0.12	0.00	32.338	0.115	1.044	0.00	5.11
145.0	(6) 1 5/8" Coax	Yes	0.58	0.000	1.98	0.10	0.00	32.338	0.115	1.044	0.00	3.44
148.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	32.528	0.116	1.048	0.00	1.08
148.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	32.528	0.116	1.048	0.00	26.28
148.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	32.528	0.116	1.048	0.00	17.71
150.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	32.653	0.064	0.000	0.00	0.72
150.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	32.653	0.064	0.000	0.00	17.52
155.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	32.960	0.066	0.000	0.00	1.80
155.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	32.960	0.066	0.000	0.00	43.80
160.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	33.260	0.068	0.000	0.00	1.80
160.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	33.260	0.068	0.000	0.00	43.80
165.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	33.554	0.071	0.000	0.00	1.80
165.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	33.554	0.071	0.000	0.00	43.80
170.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	33.842	0.074	0.000	0.00	1.80
170.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	33.842	0.074	0.000	0.00	43.80
171.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	33.898	0.076	0.000	0.00	0.36
171.0	(2) 2" Conduit	Yes	1.00	0.000	2.38	0.20	0.00	33.898	0.076	0.000	0.00	8.76

Totals: 549.50 4,147.70

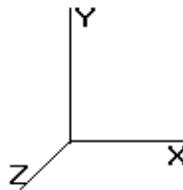
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM

Page: 11



Load Case: 1.2D + 1.6W

110.00 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	775.89	2,459.22	0.00	0.00
10.00	767.12	2,423.59	0.00	0.00
15.00	758.35	2,387.95	0.00	0.00
20.00	811.93	2,401.03	0.00	0.00
25.00	740.80	2,315.78	0.00	0.00
30.00	732.65	2,280.14	0.00	0.00
35.00	756.46	2,244.51	0.00	0.00
40.00	776.35	2,208.87	0.00	0.00
45.00	793.06	2,173.23	0.00	0.00
50.00	817.22	3,606.13	0.00	0.00
53.00	493.64	2,131.91	0.00	0.00
55.00	328.83	750.47	0.00	0.00
60.00	835.27	1,854.79	0.00	0.00
65.00	843.65	1,824.24	0.00	0.00
70.00	850.51	1,793.69	0.00	0.00
75.00	856.04	1,763.15	0.00	0.00
80.00	860.35	1,732.60	0.00	0.00
85.00	863.56	1,702.06	0.00	0.00
90.00	865.76	1,671.51	0.00	0.00
91.42	244.20	468.04	0.00	0.00
95.00	627.99	1,893.18	0.00	0.00
98.00	525.64	1,562.87	0.00	0.00
100.0	347.96	569.14	0.00	0.00
105.0	873.31	1,405.04	0.00	0.00
110.0	1,485.67	1,379.59	0.00	0.00
115.0	1,470.66	1,354.13	0.00	0.00
116.0	3,908.51	3,130.13	0.00	2,988.30
120.0	585.16	1,041.71	0.00	0.00
125.0	728.15	1,279.23	0.00	0.00
128.0	1,114.96	850.36	0.00	0.00
130.0	252.10	486.65	0.00	0.00
135.0	4,943.15	3,630.84	0.00	9,316.28
139.3	537.88	934.87	0.00	0.00
140.0	83.02	225.31	0.00	0.00
144.4	548.81	1,472.15	0.00	0.00
145.0	71.45	105.10	0.00	0.00
148.0	2,934.22	2,067.93	0.00	0.00
150.0	230.22	327.33	0.00	0.00
155.0	566.92	804.08	0.00	0.00
160.0	9,087.88	5,515.80	0.00	0.00
165.0	536.31	637.17	0.00	0.00
170.0	520.32	616.81	0.00	0.00
171.0	1,648.84	1,112.24	0.00	0.00
175.0	401.45	437.75	0.00	0.00
178.5	4,579.91	2,658.34	0.00	6,653.11
Totals:	53,382.15	75,690.69	0.00	18,957.69

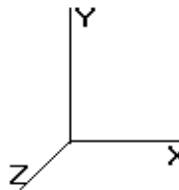
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM

Page: 12



Load Case: 1.2D + 1.6W

110.00 mph with No Ice

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-75.62	-53.48	0.00	-6,514.47	0.00	6,514.47	6,164.54	3,082.27	18,158.3	9,092.69	0.00	0.00	0.729
5.00	-73.03	-52.88	0.00	-6,247.09	0.00	6,247.09	6,108.61	3,054.31	17,675.6	8,850.97	0.08	-0.14	0.718
10.00	-70.48	-52.28	0.00	-5,982.69	0.00	5,982.69	6,050.81	3,025.41	17,193.4	8,609.50	0.30	-0.28	0.707
15.00	-67.97	-51.68	0.00	-5,721.30	0.00	5,721.30	5,991.14	2,995.57	16,712.0	8,368.43	0.68	-0.43	0.695
20.00	-65.44	-51.01	0.00	-5,462.91	0.00	5,462.91	5,929.59	2,964.80	16,231.6	8,127.91	1.20	-0.57	0.683
25.00	-63.01	-50.41	0.00	-5,207.84	0.00	5,207.84	5,866.18	2,933.09	15,752.7	7,888.07	1.89	-0.72	0.671
30.00	-60.61	-49.80	0.00	-4,955.81	0.00	4,955.81	5,800.89	2,900.44	15,275.4	7,649.08	2.72	-0.87	0.659
35.00	-58.25	-49.16	0.00	-4,706.80	0.00	4,706.80	5,733.73	2,866.86	14,800.1	7,411.07	3.71	-1.02	0.646
40.00	-55.93	-48.49	0.00	-4,461.00	0.00	4,461.00	5,664.70	2,832.35	14,327.0	7,174.19	4.86	-1.17	0.632
45.00	-53.65	-47.79	0.00	-4,218.55	0.00	4,218.55	5,593.79	2,796.90	13,856.5	6,938.58	6.16	-1.32	0.618
50.00	-49.96	-46.99	0.00	-3,979.60	0.00	3,979.60	5,521.02	2,760.51	13,388.9	6,704.40	7.63	-1.47	0.603
53.00	-47.78	-46.51	0.00	-3,838.62	0.00	3,838.62	4,440.13	2,220.06	10,789.7	5,402.88	8.58	-1.56	0.722
55.00	-46.94	-46.26	0.00	-3,745.60	0.00	3,745.60	4,419.76	2,209.88	10,648.2	5,332.01	9.25	-1.63	0.714
60.00	-44.98	-45.50	0.00	-3,514.33	0.00	3,514.33	4,367.53	2,183.77	10,295.0	5,155.16	11.05	-1.80	0.692
65.00	-43.05	-44.72	0.00	-3,286.84	0.00	3,286.84	4,313.43	2,156.72	9,942.96	4,978.87	13.02	-1.97	0.671
70.00	-41.16	-43.93	0.00	-3,063.22	0.00	3,063.22	4,257.46	2,128.73	9,592.32	4,803.29	15.18	-2.14	0.648
75.00	-39.30	-43.13	0.00	-2,843.56	0.00	2,843.56	4,199.61	2,099.81	9,243.38	4,628.56	17.51	-2.31	0.624
80.00	-37.48	-42.30	0.00	-2,627.94	0.00	2,627.94	4,139.90	2,069.95	8,896.44	4,454.83	20.02	-2.48	0.599
85.00	-35.70	-41.47	0.00	-2,416.43	0.00	2,416.43	4,078.31	2,039.15	8,551.80	4,282.26	22.70	-2.65	0.573
90.00	-34.00	-40.59	0.00	-2,209.09	0.00	2,209.09	4,014.84	2,007.42	8,209.74	4,110.97	25.56	-2.81	0.546
91.42	-33.49	-40.37	0.00	-2,151.59	0.00	2,151.59	3,996.52	1,998.26	8,113.33	4,062.70	26.41	-2.86	0.538
95.00	-31.55	-39.70	0.00	-2,006.95	0.00	2,006.95	3,949.51	1,974.76	7,870.56	3,941.13	28.60	-2.97	0.518
98.00	-29.96	-39.14	0.00	-1,887.84	0.00	1,887.84	3,056.80	1,528.40	6,090.92	3,049.99	30.50	-3.07	0.629
100.00	-29.33	-38.82	0.00	-1,809.57	0.00	1,809.57	3,039.33	1,519.67	5,992.84	3,000.87	31.80	-3.14	0.613
105.00	-27.86	-37.96	0.00	-1,615.46	0.00	1,615.46	2,994.36	1,497.18	5,748.30	2,878.42	35.18	-3.31	0.571
110.00	-26.47	-36.47	0.00	-1,425.69	0.00	1,425.69	2,947.52	1,473.76	5,504.94	2,756.56	38.74	-3.48	0.527
115.00	-25.15	-34.96	0.00	-1,243.35	0.00	1,243.35	2,898.80	1,449.40	5,263.06	2,635.44	42.47	-3.64	0.481
116.00	-22.24	-30.89	0.00	-1,205.41	0.00	1,205.41	2,888.83	1,444.42	5,214.89	2,611.32	43.24	-3.68	0.470
120.00	-21.16	-30.28	0.00	-1,081.86	0.00	1,081.86	2,848.21	1,424.11	5,022.95	2,515.21	46.37	-3.80	0.438
125.00	-19.88	-29.51	0.00	-930.44	0.00	930.44	2,795.75	1,397.88	4,784.90	2,396.01	50.42	-3.94	0.396
128.00	-19.07	-28.36	0.00	-841.91	0.00	841.91	2,763.38	1,381.69	4,643.19	2,325.05	52.93	-4.03	0.369
130.00	-18.56	-28.11	0.00	-785.18	0.00	785.18	2,741.42	1,370.71	4,549.21	2,277.99	54.63	-4.08	0.352
135.00	-15.25	-22.94	0.00	-635.34	0.00	635.34	2,685.21	1,342.61	4,316.17	2,161.29	58.97	-4.20	0.300
139.33	-14.34	-22.35	0.00	-535.92	0.00	535.92	2,634.99	1,317.49	4,116.57	2,061.34	62.83	-4.30	0.266
140.00	-14.10	-22.26	0.00	-521.02	0.00	521.02	2,627.14	1,313.57	4,086.07	2,046.07	63.43	-4.32	0.260
144.42	-12.66	-21.61	0.00	-422.69	0.00	422.69	1,915.99	957.99	2,941.41	1,472.89	67.46	-4.40	0.294
145.00	-12.54	-21.54	0.00	-410.09	0.00	410.09	1,911.69	955.84	2,923.20	1,463.77	68.00	-4.41	0.287
148.00	-10.69	-18.47	0.00	-345.45	0.00	345.45	1,889.17	944.59	2,829.77	1,416.99	70.79	-4.48	0.250
150.00	-10.37	-18.22	0.00	-308.52	0.00	308.52	1,873.79	936.89	2,767.71	1,385.91	72.67	-4.51	0.229
155.00	-9.59	-17.61	0.00	-217.41	0.00	217.41	1,834.01	917.01	2,613.49	1,308.69	77.44	-4.60	0.172
160.00	-4.82	-8.11	0.00	-129.38	0.00	129.38	1,792.37	896.18	2,460.85	1,232.25	82.29	-4.65	0.108
165.00	-4.22	-7.52	0.00	-88.85	0.00	88.85	1,748.85	874.42	2,310.07	1,156.75	87.18	-4.70	0.079
170.00	-3.65	-6.95	0.00	-51.23	0.00	51.23	1,703.46	851.73	2,161.44	1,082.33	92.11	-4.73	0.050
171.00	-2.67	-5.22	0.00	-44.28	0.00	44.28	1,694.16	847.08	2,132.00	1,067.58	93.10	-4.73	0.043
175.00	-2.27	-4.78	0.00	-23.40	0.00	23.40	1,656.20	828.10	2,015.26	1,009.13	97.06	-4.74	0.025
178.50	0.00	-4.58	0.00	-6.65	0.00	6.65	1,622.00	811.00	1,914.55	958.70	100.54	-4.75	0.007

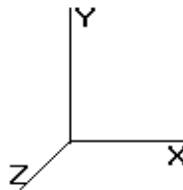
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM

Page: 13



Load Case: 0.9D + 1.6W

110.00 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	20.599	22.65	560.71	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	20.599	22.65	550.92	0.650	*	0.000	5.00	30.197	19.63	711.6	0.0
10.00		1.00	0.70	20.599	22.65	541.13	0.650	*	0.000	5.00	29.665	19.28	699.1	0.0
15.00		1.00	0.70	20.599	22.65	531.34	0.650	*	0.000	5.00	29.133	18.94	686.5	0.0
20.00	Appertunance(s)	1.00	0.70	20.599	22.65	521.55	0.650	*	0.000	5.00	28.601	18.59	674.0	0.0
25.00		1.00	0.70	20.599	22.65	511.76	0.650	*	0.000	5.00	28.070	18.25	661.5	0.0
30.00		1.00	0.70	20.616	22.67	502.19	0.650	*	0.000	5.00	27.538	17.90	649.5	0.0
35.00		1.00	0.73	21.545	23.69	503.36	0.650	*	0.000	5.00	27.006	17.55	665.6	0.0
40.00		1.00	0.76	22.383	24.62	502.85	0.650	*	0.000	5.00	26.474	17.21	677.9	0.0
45.00	Bot - Section 2	1.00	0.78	23.149	25.46	501.00	0.650	*	0.000	5.00	25.942	16.86	687.0	0.0
50.00		1.00	0.81	23.856	26.24	498.07	0.650	*	0.000	5.00	25.728	16.72	702.1	0.0
53.00	Top - Section 1	1.00	0.82	24.257	26.68	495.86	0.650	*	0.000	3.00	15.181	9.87	421.3	0.0
55.00		1.00	0.83	24.515	26.96	500.59	0.650	*	0.000	2.00	10.015	6.51	280.9	0.0
60.00		1.00	0.85	25.132	27.64	496.03	0.650	*	0.000	5.00	24.664	16.03	709.1	0.0
65.00		1.00	0.87	25.713	28.28	490.80	0.650	*	0.000	5.00	24.132	15.69	709.9	0.0
70.00		1.00	0.89	26.263	28.89	484.97	0.650	*	0.000	5.00	23.600	15.34	709.1	0.0
75.00		1.00	0.91	26.786	29.46	478.61	0.650	*	0.000	5.00	23.069	14.99	706.9	0.0
80.00		1.00	0.92	27.285	30.01	471.78	0.650	*	0.000	5.00	22.537	14.65	703.5	0.0
85.00		1.00	0.94	27.761	30.53	464.52	0.650	*	0.000	5.00	22.005	14.30	698.9	0.0
90.00		1.00	0.95	28.219	31.04	456.87	0.650	*	0.000	5.00	21.473	13.96	693.2	0.0
91.42	Bot - Section 3	1.00	0.96	28.345	31.17	454.64	0.650	*	0.000	1.42	5.987	3.89	194.1	0.0
95.00		1.00	0.97	28.658	31.52	448.87	0.650	*	0.000	3.58	15.143	9.84	496.5	0.0
98.00	Top - Section 2	1.00	0.98	28.913	31.80	443.91	0.650	*	0.000	3.00	12.468	8.10	412.4	0.0
100.0		1.00	0.98	29.081	31.98	446.32	0.650	*	0.000	2.00	8.206	5.33	273.0	0.0
105.0		1.00	1.00	29.489	32.43	437.73	0.650	*	0.000	5.00	20.142	13.09	679.5	0.0
110.0		1.00	1.01	29.884	32.87	428.86	1.200	*	0.000	5.00	19.610	23.53	1,237.7	0.0
115.0		1.00	1.02	30.266	33.29	419.72	1.200	*	0.000	5.00	19.078	22.89	1,219.5	0.0
116.0	Appertunance(s)	1.00	1.03	30.341	33.37	417.87	1.200	*	0.000	1.00	3.752	4.50	240.4	0.0
120.0		1.00	1.04	30.636	33.69	410.35	0.650	*	0.000	4.00	14.795	9.62	518.5	0.0
125.0		1.00	1.05	30.995	34.09	400.74	0.650	*	0.000	5.00	18.015	11.71	638.8	0.0
128.0	Appertunance(s)	1.00	1.06	31.206	34.32	394.87	0.650	*	0.000	3.00	10.554	6.86	376.8	0.0
130.0		1.00	1.06	31.345	34.47	390.91	0.650	*	0.000	2.00	6.929	4.50	248.5	0.0
135.0	Appertunance(s)	1.00	1.07	31.684	34.85	380.89	0.650	*	0.000	5.00	16.951	11.02	614.4	0.0
139.3	Bot - Section 4	1.00	1.08	31.972	35.16	372.04	0.650	*	0.000	4.33	14.261	9.27	521.6	0.0
140.0		1.00	1.08	32.015	35.21	370.67	0.650	*	0.000	0.67	2.187	1.42	80.1	0.0
144.4	Top - Section 3	1.00	1.09	32.301	35.53	361.49	0.650	*	0.000	4.42	14.248	9.26	526.5	0.0
145.0		1.00	1.09	32.338	35.57	365.14	0.650	*	0.000	0.58	1.851	1.20	68.5	0.0
148.0	Appertunance(s)	1.00	1.10	32.528	35.78	358.83	0.650	*	0.000	3.00	9.404	6.11	349.9	0.0
150.0		1.00	1.11	32.653	35.91	354.59	0.650	*	0.000	2.00	6.163	4.01	230.2	0.0
155.0		1.00	1.12	32.960	36.25	343.87	0.650	*	0.000	5.00	15.035	9.77	566.9	0.0
160.0	Appertunance(s)	1.00	1.13	33.260	36.58	333.00	0.650	*	0.000	5.00	14.503	9.43	551.9	0.0
165.0		1.00	1.14	33.554	36.91	321.97	0.650	*	0.000	5.00	13.972	9.08	536.3	0.0
170.0		1.00	1.15	33.842	37.22	310.80	0.650	*	0.000	5.00	13.440	8.74	520.3	0.0
171.0	Appertunance(s)	1.00	1.15	33.898	37.28	308.55	0.650	*	0.000	1.00	2.624	1.71	101.8	0.0
175.0		1.00	1.16	34.123	37.53	299.49	0.650	*	0.000	4.00	10.284	6.68	401.4	0.0
178.5	Appertunance(s)	1.00	1.16	34.317	37.74	291.49	0.650	*	0.000	3.50	8.719	5.67	342.3	0.0

* = Cf Adjusted By Linear Load Ra Effect

Totals: 178.50

24,395.2

0.0 35,331.4

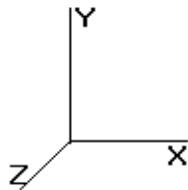
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:46 AM

Page: 14

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 0.9D + 1.6W

110.00 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
20.00	PCTEL GPS-TMG-HR-	1	20.599	22.659	1.00	1.00	0.09	0.000	0.000	3.26	0.00	0.00	0.54
20.00	Standoff	1	20.599	22.659	1.00	1.00	1.63	0.000	0.000	59.09	0.00	0.00	36.00
116.0	Alcatel-Lucent 800 M	3	30.341	33.375	0.67	0.80	3.43	0.000	0.000	182.90	0.00	0.00	143.10
116.0	Alcatel-Lucent 1900	3	30.341	33.375	0.67	0.80	3.73	0.000	0.000	199.21	0.00	0.00	162.00
116.0	Flat Low Profile Pla	1	30.341	33.375	1.00	1.00	26.10	0.000	0.000	1,393.73	0.00	0.00	1,350.00
116.0	RFS APXVSP18-C-	3	30.489	33.538	0.83	0.80	15.98	0.000	2.000	857.28	0.00	1,714.56	153.90
116.0	Alcatel-Lucent TD-RR	3	30.341	33.375	0.67	0.80	6.51	0.000	0.000	347.76	0.00	0.00	189.00
116.0	RFS APXV9TM14-ALU-	3	30.489	33.538	0.78	0.80	11.87	0.000	2.000	636.87	0.00	1,273.75	148.77
128.0	RFS APXV18-206517S-	3	31.206	34.327	0.80	1.00	12.41	0.000	0.000	681.48	0.00	0.00	71.28
135.0	Round Low Profile PI	1	31.684	34.853	1.00	1.00	21.70	0.000	0.000	1,210.09	0.00	0.00	1,350.00
135.0	Antel BXA-171063-12B	3	31.884	35.072	0.88	0.80	9.99	0.000	3.000	560.58	0.00	1,681.75	40.50
135.0	Antel BXA-70063-6CF-	3	31.884	35.072	0.77	0.80	13.99	0.000	3.000	785.03	0.00	2,355.08	45.90
135.0	RFS FD9R6004/2C-3L	6	31.884	35.072	0.50	0.80	0.89	0.000	3.000	49.83	0.00	149.49	14.04
135.0	Antel BXA-80063-6BF-	3	31.884	35.072	0.78	0.80	13.59	0.000	3.000	762.66	0.00	2,287.97	51.84
135.0	Antel BXA-171063-8BF	3	31.884	35.072	0.87	0.80	6.14	0.000	3.000	344.48	0.00	1,033.44	28.35
135.0	Alcatel-Lucent RRH2x	3	31.884	35.072	0.67	0.80	3.49	0.000	3.000	196.07	0.00	588.21	118.80
135.0	RFS DB-T1-6Z-8AB-0Z	1	31.884	35.072	1.00	0.80	3.84	0.000	3.000	215.48	0.00	646.45	39.60
135.0	Alcatel-Lucent RRH2x	3	31.884	35.072	0.67	0.80	3.41	0.000	3.000	191.30	0.00	573.89	135.00
148.0	T-Arm w/ Working Pla	3	32.528	35.780	0.67	0.75	19.45	0.000	0.000	1,113.30	0.00	0.00	675.00
148.0	Ericsson KRY 112 144	3	32.528	35.780	0.50	0.80	0.49	0.000	0.000	28.17	0.00	0.00	29.70
148.0	Ericsson AIR 21, 1.3	3	32.528	35.780	0.86	0.80	12.49	0.000	0.000	714.88	0.00	0.00	224.10
148.0	Ericsson AIR 21, 1.3	3	32.528	35.780	0.85	0.80	12.42	0.000	0.000	711.24	0.00	0.00	220.05
160.0	Powerwave 7020	3	33.260	36.586	0.33	0.75	0.30	0.000	0.000	17.39	0.00	0.00	5.94
160.0	14" x 9" TTA	6	33.260	36.586	0.33	0.75	1.56	0.000	0.000	91.28	0.00	0.00	54.00
160.0	Raycap DC6-48-60-18-	3	33.260	36.586	1.00	0.75	2.50	0.000	0.000	146.20	0.00	0.00	54.00
160.0	CCI	3	33.260	36.586	0.50	0.75	1.54	0.000	0.000	90.22	0.00	0.00	51.84
160.0	Ericsson RRUS A2	6	33.260	36.586	0.67	0.75	6.21	0.000	0.000	363.58	0.00	0.00	118.80
160.0	Ericsson RRUS 11 (Ba	6	33.260	36.586	0.67	0.75	8.41	0.000	0.000	492.42	0.00	0.00	273.78
160.0	Ericsson RRUS-12 B2	6	33.260	36.586	0.67	0.75	9.50	0.000	0.000	555.95	0.00	0.00	313.20
160.0	Ericsson RRUS E2 B29	3	33.260	36.586	0.67	0.75	4.75	0.000	0.000	277.98	0.00	0.00	162.00
160.0	Ericsson RRUS-32	3	33.260	36.586	0.67	0.75	4.99	0.000	0.000	292.10	0.00	0.00	207.90
160.0	Powerwave 7770.00	3	33.260	36.586	0.77	0.75	9.55	0.000	0.000	558.81	0.00	0.00	94.50
160.0	CCI HPA-65R-BUU-H6	9	33.260	36.586	0.83	0.75	54.12	0.000	0.000	3,168.10	0.00	0.00	413.10
160.0	Flat Platform w/ Han	1	33.260	36.586	1.00	1.00	42.40	0.000	0.000	2,482.02	0.00	0.00	1,800.00
171.0	Side Arms	1	33.898	37.288	1.00	1.00	8.50	0.000	0.000	507.12	0.00	0.00	504.00
171.0	DragonWave A-ANT-	1	33.898	37.288	1.00	0.80	3.75	0.000	0.000	223.85	0.00	0.00	24.30
171.0	NextNet BTS-2500	3	33.898	37.288	0.50	0.80	2.18	0.000	0.000	130.30	0.00	0.00	94.50
171.0	Argus LLPX310R	3	33.898	37.288	0.73	0.80	7.52	0.000	0.000	448.42	0.00	0.00	77.22
171.0	DragonWave Horizon	2	33.898	37.288	0.33	0.80	0.23	0.000	0.000	13.55	0.00	0.00	19.08
171.0	DragonWave A-ANT-	1	33.898	37.288	1.00	0.80	3.75	0.000	0.000	223.85	0.00	0.00	24.39
178.5	72" x 12" Panel	3	34.453	37.899	0.79	0.80	15.41	0.000	2.500	934.70	0.00	2,336.75	121.50
178.5	48" x 12" Panel	9	34.453	37.899	0.78	0.80	28.47	0.000	2.500	1,726.54	0.00	4,316.36	243.00
178.5	Flat Low Profile Pla	1	34.317	37.748	1.00	1.00	26.10	0.000	0.000	1,576.37	0.00	0.00	1,350.00

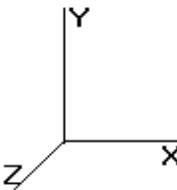
25,565.39

11,234.52

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.



6/13/2014 11:15:46 AM

Page: 15

Load Case: 0.9D + 1.6W **110.00 mph with No Ice (Reduced DL)**

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Linear Appurtenance Segment Forces (Factored)

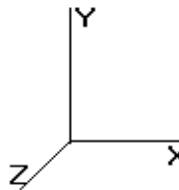
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.130	1.090	0.00	1.35
5.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.130	1.090	0.00	32.85
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.130	1.090	0.00	22.14
5.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.130	1.090	0.00	11.07
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.130	1.090	0.00	22.14
5.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.130	1.090	0.00	4.50
5.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.130	1.090	0.00	13.50
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.130	1.090	0.00	0.68
10.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.132	1.097	0.00	1.35
10.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.132	1.097	0.00	32.85
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.132	1.097	0.00	22.14
10.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.132	1.097	0.00	11.07
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.132	1.097	0.00	22.14
10.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.132	1.097	0.00	4.50
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.132	1.097	0.00	13.50
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.132	1.097	0.00	0.68
15.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.135	1.105	0.00	1.35
15.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.135	1.105	0.00	32.85
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.135	1.105	0.00	22.14
15.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.135	1.105	0.00	11.07
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.135	1.105	0.00	22.14
15.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.135	1.105	0.00	4.50
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.135	1.105	0.00	13.50
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.135	1.105	0.00	0.68
20.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.137	1.112	0.00	1.35
20.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.137	1.112	0.00	32.85
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.137	1.112	0.00	22.14
20.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.137	1.112	0.00	11.07
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.137	1.112	0.00	22.14
20.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.137	1.112	0.00	4.50
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.137	1.112	0.00	13.50
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.137	1.112	0.00	0.68
25.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.140	1.120	0.00	1.35
25.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.599	0.140	1.120	0.00	32.85
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.140	1.120	0.00	22.14
25.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.140	1.120	0.00	11.07
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.599	0.140	1.120	0.00	22.14
25.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.599	0.140	1.120	0.00	4.50
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.599	0.140	1.120	0.00	13.50
25.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.599	0.140	1.120	0.00	0.68
30.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.616	0.143	1.128	0.00	1.35
30.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	20.616	0.143	1.128	0.00	32.85
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.616	0.143	1.128	0.00	22.14
30.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.616	0.143	1.128	0.00	11.07
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	20.616	0.143	1.128	0.00	22.14
30.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	20.616	0.143	1.128	0.00	4.50
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	20.616	0.143	1.128	0.00	13.50
35.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.545	0.145	1.136	0.00	1.35
35.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	21.545	0.145	1.136	0.00	32.85
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	21.545	0.145	1.136	0.00	22.14
35.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.545	0.145	1.136	0.00	11.07
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	21.545	0.145	1.136	0.00	22.14

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:46 AM
 Page: 16

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 0.9D + 1.6W

110.00 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

35.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	21.545	0.145	1.136	0.00	4.50
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	21.545	0.145	1.136	0.00	13.50
40.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.383	0.148	1.145	0.00	1.35
40.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	22.383	0.148	1.145	0.00	32.85
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	22.383	0.148	1.145	0.00	22.14
40.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.383	0.148	1.145	0.00	11.07
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	22.383	0.148	1.145	0.00	22.14
40.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	22.383	0.148	1.145	0.00	4.50
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	22.383	0.148	1.145	0.00	13.50
45.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.149	0.151	1.154	0.00	1.35
45.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	23.149	0.151	1.154	0.00	32.85
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.149	0.151	1.154	0.00	22.14
45.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.149	0.151	1.154	0.00	11.07
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.149	0.151	1.154	0.00	22.14
45.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	23.149	0.151	1.154	0.00	4.50
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	23.149	0.151	1.154	0.00	13.50
50.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.856	0.155	1.164	0.00	1.35
50.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	23.856	0.155	1.164	0.00	32.85
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.856	0.155	1.164	0.00	22.14
50.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.856	0.155	1.164	0.00	11.07
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	23.856	0.155	1.164	0.00	22.14
50.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	23.856	0.155	1.164	0.00	4.50
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	23.856	0.155	1.164	0.00	13.50
53.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	24.257	0.157	1.172	0.00	0.81
53.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	24.257	0.157	1.172	0.00	19.71
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	24.257	0.157	1.172	0.00	13.28
53.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	24.257	0.157	1.172	0.00	6.64
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	24.257	0.157	1.172	0.00	13.28
53.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	0.38	0.00	24.257	0.157	1.172	0.00	2.70
53.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	0.39	0.00	24.257	0.157	1.172	0.00	8.10
55.00	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	24.515	0.157	1.171	0.00	0.54
55.00	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	24.515	0.157	1.171	0.00	13.14
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	24.515	0.157	1.171	0.00	8.85
55.00	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	24.515	0.157	1.171	0.00	4.43
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	24.515	0.157	1.171	0.00	8.85
55.00	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.26	0.00	24.515	0.157	1.171	0.00	1.80
55.00	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.26	0.00	24.515	0.157	1.171	0.00	5.40
60.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.132	0.159	1.178	0.00	1.35
60.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	25.132	0.159	1.178	0.00	32.85
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.132	0.159	1.178	0.00	22.14
60.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.132	0.159	1.178	0.00	11.07
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.132	0.159	1.178	0.00	22.14
60.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	25.132	0.159	1.178	0.00	4.50
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	25.132	0.159	1.178	0.00	13.50
65.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.713	0.163	1.188	0.00	1.35
65.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	25.713	0.163	1.188	0.00	32.85
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.713	0.163	1.188	0.00	22.14
65.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.713	0.163	1.188	0.00	11.07
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.713	0.163	1.188	0.00	22.14
65.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	25.713	0.163	1.188	0.00	4.50
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	25.713	0.163	1.188	0.00	13.50
70.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.263	0.166	1.199	0.00	1.35
70.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	26.263	0.166	1.199	0.00	32.85
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.263	0.166	1.199	0.00	22.14
70.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.263	0.166	1.199	0.00	11.07
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.263	0.166	1.199	0.00	22.14
70.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	26.263	0.166	1.199	0.00	4.50

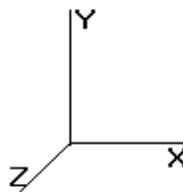
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:46 AM

Page: 17

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 0.9D + 1.6W 110.00 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

70.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	26.263	0.166	1.199	0.00	13.50
75.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.786	0.170	1.211	0.00	1.35
75.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	26.786	0.170	1.211	0.00	32.85
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.786	0.170	1.211	0.00	22.14
75.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	26.786	0.170	1.211	0.00	11.07
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	26.786	0.170	1.211	0.00	22.14
75.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	26.786	0.170	1.211	0.00	4.50
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	26.786	0.170	1.211	0.00	13.50
80.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.285	0.174	1.223	0.00	1.35
80.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	27.285	0.174	1.223	0.00	32.85
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.285	0.174	1.223	0.00	22.14
80.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.285	0.174	1.223	0.00	11.07
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.285	0.174	1.223	0.00	22.14
80.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	27.285	0.174	1.223	0.00	4.50
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	27.285	0.174	1.223	0.00	13.50
85.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.761	0.179	1.236	0.00	1.35
85.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	27.761	0.179	1.236	0.00	32.85
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.761	0.179	1.236	0.00	22.14
85.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	27.761	0.179	1.236	0.00	11.07
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	27.761	0.179	1.236	0.00	22.14
85.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	27.761	0.179	1.236	0.00	4.50
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	27.761	0.179	1.236	0.00	13.50
90.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	28.219	0.183	1.249	0.00	1.35
90.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	28.219	0.183	1.249	0.00	32.85
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	28.219	0.183	1.249	0.00	22.14
90.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	28.219	0.183	1.249	0.00	11.07
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	28.219	0.183	1.249	0.00	22.14
90.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	28.219	0.183	1.249	0.00	4.50
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	28.219	0.183	1.249	0.00	13.50
91.42	(2) 1/2" Coax	Yes	1.42	0.000	0.00	0.00	0.00	28.345	0.186	1.258	0.00	0.38
91.42	(2) 2" Conduit	Yes	1.42	0.000	2.38	0.28	0.00	28.345	0.186	1.258	0.00	9.31
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.23	0.00	28.345	0.186	1.258	0.00	6.27
91.42	(3) 1 5/8" Coax	Yes	1.42	0.000	0.00	0.00	0.00	28.345	0.186	1.258	0.00	3.14
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.23	0.00	28.345	0.186	1.258	0.00	6.27
91.42	(1) 1 1/4" Hybriflex	Yes	1.42	0.000	1.54	0.18	0.00	28.345	0.186	1.258	0.00	1.28
91.42	(3) 1 1/4" Hybriflex	Yes	1.42	0.000	1.55	0.18	0.00	28.345	0.186	1.258	0.00	3.83
95.00	(2) 1/2" Coax	Yes	3.58	0.000	0.00	0.00	0.00	28.658	0.188	1.265	0.00	0.97
95.00	(2) 2" Conduit	Yes	3.58	0.000	2.38	0.71	0.00	28.658	0.188	1.265	0.00	23.54
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	0.59	0.00	28.658	0.188	1.265	0.00	15.87
95.00	(3) 1 5/8" Coax	Yes	3.58	0.000	0.00	0.00	0.00	28.658	0.188	1.265	0.00	7.93
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	0.59	0.00	28.658	0.188	1.265	0.00	15.87
95.00	(1) 1 1/4" Hybriflex	Yes	3.58	0.000	1.54	0.46	0.00	28.658	0.188	1.265	0.00	3.22
95.00	(3) 1 1/4" Hybriflex	Yes	3.58	0.000	1.55	0.46	0.00	28.658	0.188	1.265	0.00	9.67
98.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	28.913	0.192	1.275	0.00	0.81
98.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	28.913	0.192	1.275	0.00	19.71
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	28.913	0.192	1.275	0.00	13.28
98.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	28.913	0.192	1.275	0.00	6.64
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	28.913	0.192	1.275	0.00	13.28
98.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	0.38	0.00	28.913	0.192	1.275	0.00	2.70
98.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	0.39	0.00	28.913	0.192	1.275	0.00	8.10
100.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	29.081	0.192	1.275	0.00	0.54
100.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	29.081	0.192	1.275	0.00	13.14
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	29.081	0.192	1.275	0.00	8.85
100.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	29.081	0.192	1.275	0.00	4.43
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	29.081	0.192	1.275	0.00	8.85
100.0	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.26	0.00	29.081	0.192	1.275	0.00	1.80
100.0	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.26	0.00	29.081	0.192	1.275	0.00	5.40

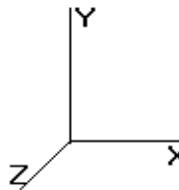
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM

Page: 18



Load Case: 0.9D + 1.6W 110.00 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

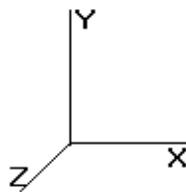
Wind Load Factor : 1.60

105.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	29.489	0.195	1.285	0.00	1.35	
105.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	29.489	0.195	1.285	0.00	32.85
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	29.489	0.195	1.285	0.00	22.14
105.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	29.489	0.195	1.285	0.00	11.07
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	29.489	0.195	1.285	0.00	22.14
105.0	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	29.489	0.195	1.285	0.00	4.50
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	29.489	0.195	1.285	0.00	13.50
110.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	29.884	0.200	0.000	0.00	1.35
110.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	0.99	1.19	29.884	0.200	0.000	62.59	32.85
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	29.884	0.200	0.000	52.07	22.14
110.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	29.884	0.200	0.000	0.00	11.07
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	29.884	0.200	0.000	52.07	22.14
110.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	0.64	0.77	29.884	0.200	0.000	40.50	4.50
110.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	0.65	0.77	29.884	0.200	0.000	40.76	13.50
115.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.266	0.206	0.000	0.00	1.35
115.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	0.99	1.19	30.266	0.206	0.000	63.39	32.85
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	30.266	0.206	0.000	52.73	22.14
115.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.266	0.206	0.000	0.00	11.07
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	30.266	0.206	0.000	52.73	22.14
115.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	0.64	0.77	30.266	0.206	0.000	41.02	4.50
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	0.65	0.77	30.266	0.206	0.000	41.28	13.50
116.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	30.341	0.209	0.000	0.00	0.27
116.0	(2) 2" Conduit	Yes	1.00	1.200	2.38	0.20	0.24	30.341	0.209	0.000	12.71	6.57
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.17	0.20	30.341	0.209	0.000	10.57	4.43
116.0	(3) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	30.341	0.209	0.000	0.00	2.21
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.17	0.20	30.341	0.209	0.000	10.57	4.43
116.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.200	1.54	0.13	0.15	30.341	0.209	0.000	8.22	0.90
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.200	1.55	0.13	0.16	30.341	0.209	0.000	8.28	2.70
120.0	(2) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	30.636	0.143	1.129	0.00	1.08
120.0	(2) 2" Conduit	Yes	4.00	0.000	2.38	0.79	0.00	30.636	0.143	1.129	0.00	26.28
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	0.66	0.00	30.636	0.143	1.129	0.00	17.71
120.0	(3) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	30.636	0.143	1.129	0.00	8.85
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	0.66	0.00	30.636	0.143	1.129	0.00	17.71
125.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.995	0.147	1.140	0.00	1.35
125.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	30.995	0.147	1.140	0.00	32.85
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	30.995	0.147	1.140	0.00	22.14
125.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	30.995	0.147	1.140	0.00	11.07
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	30.995	0.147	1.140	0.00	22.14
128.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	31.206	0.150	1.151	0.00	0.81
128.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	31.206	0.150	1.151	0.00	19.71
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	31.206	0.150	1.151	0.00	13.28
128.0	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	31.206	0.150	1.151	0.00	6.64
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	31.206	0.150	1.151	0.00	13.28
130.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	31.345	0.105	1.015	0.00	0.54
130.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	31.345	0.105	1.015	0.00	13.14
130.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	31.345	0.105	1.015	0.00	8.85
130.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	31.345	0.105	1.015	0.00	4.43
135.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	31.684	0.107	1.022	0.00	1.35
135.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	31.684	0.107	1.022	0.00	32.85
135.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	31.684	0.107	1.022	0.00	22.14
135.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	31.684	0.107	1.022	0.00	11.07
139.3	(2) 1/2" Coax	Yes	4.33	0.000	0.00	0.00	0.00	31.972	0.110	1.031	0.00	1.17
139.3	(2) 2" Conduit	Yes	4.33	0.000	2.38	0.86	0.00	31.972	0.110	1.031	0.00	28.47
139.3	(6) 1 5/8" Coax	Yes	4.33	0.000	1.98	0.72	0.00	31.972	0.110	1.031	0.00	19.19
140.0	(2) 1/2" Coax	Yes	0.67	0.000	0.00	0.00	0.00	32.015	0.112	1.037	0.00	0.18
140.0	(2) 2" Conduit	Yes	0.67	0.000	2.38	0.13	0.00	32.015	0.112	1.037	0.00	4.38
140.0	(6) 1 5/8" Coax	Yes	0.67	0.000	1.98	0.11	0.00	32.015	0.112	1.037	0.00	2.95

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.



6/13/2014 11:15:46 AM

Page: 19

Load Case: 0.9D + 1.6W 110.00 mph with No Ice (Reduced DL) 23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

144.4	(2) 1/2" Coax	Yes	4.42	0.000	0.00	0.00	32.301	0.114	1.042	0.00	1.19	
144.4	(2) 2" Conduit	Yes	4.42	0.000	2.38	0.88	0.00	32.301	0.114	1.042	0.00	29.02
144.4	(6) 1 5/8" Coax	Yes	4.42	0.000	1.98	0.73	0.00	32.301	0.114	1.042	0.00	19.55
145.0	(2) 1/2" Coax	Yes	0.58	0.000	0.00	0.00	0.00	32.338	0.115	1.044	0.00	0.16
145.0	(2) 2" Conduit	Yes	0.58	0.000	2.38	0.12	0.00	32.338	0.115	1.044	0.00	3.83
145.0	(6) 1 5/8" Coax	Yes	0.58	0.000	1.98	0.10	0.00	32.338	0.115	1.044	0.00	2.58
148.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	32.528	0.116	1.048	0.00	0.81
148.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	32.528	0.116	1.048	0.00	19.71
148.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	32.528	0.116	1.048	0.00	13.28
150.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	32.653	0.064	0.000	0.00	0.54
150.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	32.653	0.064	0.000	0.00	13.14
155.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	32.960	0.066	0.000	0.00	1.35
155.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	32.960	0.066	0.000	0.00	32.85
160.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	33.260	0.068	0.000	0.00	1.35
160.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	33.260	0.068	0.000	0.00	32.85
165.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	33.554	0.071	0.000	0.00	1.35
165.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	33.554	0.071	0.000	0.00	32.85
170.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	33.842	0.074	0.000	0.00	1.35
170.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	33.842	0.074	0.000	0.00	32.85
171.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	33.898	0.076	0.000	0.00	0.27
171.0	(2) 2" Conduit	Yes	1.00	0.000	2.38	0.20	0.00	33.898	0.076	0.000	0.00	6.57

Totals: 549.50 3,110.77

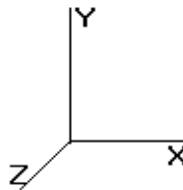
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM

Page: 20



Load Case: 0.9D + 1.6W

110.00 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	711.60	1,844.42	0.00	0.00
10.00	699.07	1,817.69	0.00	0.00
15.00	686.53	1,790.96	0.00	0.00
20.00	736.36	1,800.78	0.00	0.00
25.00	661.47	1,736.83	0.00	0.00
30.00	649.48	1,710.11	0.00	0.00
35.00	665.62	1,683.38	0.00	0.00
40.00	677.89	1,656.65	0.00	0.00
45.00	687.00	1,629.93	0.00	0.00
50.00	702.14	2,704.60	0.00	0.00
53.00	421.28	1,598.93	0.00	0.00
55.00	280.86	562.85	0.00	0.00
60.00	709.11	1,391.09	0.00	0.00
65.00	709.87	1,368.18	0.00	0.00
70.00	709.08	1,345.27	0.00	0.00
75.00	706.90	1,322.36	0.00	0.00
80.00	703.45	1,299.45	0.00	0.00
85.00	698.85	1,276.54	0.00	0.00
90.00	693.19	1,253.64	0.00	0.00
91.42	194.15	351.03	0.00	0.00
95.00	496.47	1,419.88	0.00	0.00
98.00	412.41	1,172.15	0.00	0.00
100.0	272.99	426.86	0.00	0.00
105.0	679.50	1,053.78	0.00	0.00
110.0	1,485.67	1,034.69	0.00	0.00
115.0	1,470.66	1,015.60	0.00	0.00
116.0	3,908.51	2,347.60	0.00	2,988.30
120.0	518.52	781.28	0.00	0.00
125.0	638.78	959.42	0.00	0.00
128.0	1,058.24	637.77	0.00	0.00
130.0	248.47	364.99	0.00	0.00
135.0	4,929.94	2,723.13	0.00	9,316.28
139.3	521.60	701.15	0.00	0.00
140.0	80.09	168.98	0.00	0.00
144.4	526.50	1,104.11	0.00	0.00
145.0	68.47	78.82	0.00	0.00
148.0	2,917.52	1,550.95	0.00	0.00
150.0	230.22	245.50	0.00	0.00
155.0	566.92	603.06	0.00	0.00
160.0	9,087.88	4,136.85	0.00	0.00
165.0	536.31	477.88	0.00	0.00
170.0	520.32	462.61	0.00	0.00
171.0	1,648.84	834.18	0.00	0.00
175.0	401.45	328.31	0.00	0.00
178.5	4,579.91	1,993.76	0.00	6,653.11
Totals:	50,510.07	56,768.01	0.00	18,957.69

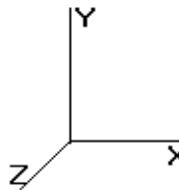
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM

Page: 21



Load Case: 0.9D + 1.6W

110.00 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-56.71	-50.58	0.00	-6,251.94	0.00	6,251.94	6,164.54	3,082.27	18,158.3	9,092.69	0.00	0.00	0.697
5.00	-54.74	-50.00	0.00	-5,999.05	0.00	5,999.05	6,108.61	3,054.31	17,675.6	8,850.97	0.07	-0.14	0.687
10.00	-52.81	-49.42	0.00	-5,749.08	0.00	5,749.08	6,050.81	3,025.41	17,193.4	8,609.50	0.29	-0.27	0.677
15.00	-50.90	-48.84	0.00	-5,502.00	0.00	5,502.00	5,991.14	2,995.57	16,712.0	8,368.43	0.65	-0.41	0.666
20.00	-48.99	-48.21	0.00	-5,257.78	0.00	5,257.78	5,929.59	2,964.80	16,231.6	8,127.91	1.16	-0.55	0.655
25.00	-47.14	-47.65	0.00	-5,016.72	0.00	5,016.72	5,866.18	2,933.09	15,752.7	7,888.07	1.81	-0.69	0.644
30.00	-45.32	-47.09	0.00	-4,778.48	0.00	4,778.48	5,800.89	2,900.44	15,275.4	7,649.08	2.61	-0.84	0.633
35.00	-43.54	-46.51	0.00	-4,543.03	0.00	4,543.03	5,733.73	2,866.86	14,800.1	7,411.07	3.57	-0.98	0.621
40.00	-41.77	-45.91	0.00	-4,310.49	0.00	4,310.49	5,664.70	2,832.35	14,327.0	7,174.19	4.67	-1.12	0.608
45.00	-40.04	-45.29	0.00	-4,080.96	0.00	4,080.96	5,593.79	2,796.90	13,856.5	6,938.58	5.93	-1.27	0.596
50.00	-37.26	-44.60	0.00	-3,854.52	0.00	3,854.52	5,521.02	2,760.51	13,388.9	6,704.40	7.34	-1.42	0.582
53.00	-35.62	-44.18	0.00	-3,720.72	0.00	3,720.72	4,440.13	2,220.06	10,789.7	5,402.88	8.26	-1.51	0.697
55.00	-34.98	-43.96	0.00	-3,632.36	0.00	3,632.36	4,419.76	2,209.88	10,648.2	5,332.01	8.90	-1.57	0.690
60.00	-33.48	-43.31	0.00	-3,412.57	0.00	3,412.57	4,367.53	2,183.77	10,295.0	5,155.16	10.64	-1.73	0.670
65.00	-32.01	-42.65	0.00	-3,196.04	0.00	3,196.04	4,313.43	2,156.72	9,942.96	4,978.87	12.54	-1.90	0.650
70.00	-30.57	-41.98	0.00	-2,982.81	0.00	2,982.81	4,257.46	2,128.73	9,592.32	4,803.29	14.62	-2.07	0.629
75.00	-29.16	-41.31	0.00	-2,772.91	0.00	2,772.91	4,199.61	2,099.81	9,243.38	4,628.56	16.88	-2.23	0.606
80.00	-27.77	-40.63	0.00	-2,566.37	0.00	2,566.37	4,139.90	2,069.95	8,896.44	4,454.83	19.30	-2.40	0.583
85.00	-26.41	-39.95	0.00	-2,363.21	0.00	2,363.21	4,078.31	2,039.15	8,551.80	4,282.26	21.90	-2.56	0.559
90.00	-25.12	-39.25	0.00	-2,163.45	0.00	2,163.45	4,014.84	2,007.42	8,209.74	4,110.97	24.67	-2.72	0.533
91.42	-24.73	-39.07	0.00	-2,107.84	0.00	2,107.84	3,996.52	1,998.26	8,113.33	4,062.70	25.48	-2.77	0.525
95.00	-23.26	-38.55	0.00	-1,967.83	0.00	1,967.83	3,949.51	1,974.76	7,870.56	3,941.13	27.61	-2.88	0.506
98.00	-22.06	-38.11	0.00	-1,852.18	0.00	1,852.18	3,056.80	1,528.40	6,090.92	3,049.99	29.45	-2.98	0.615
100.00	-21.57	-37.86	0.00	-1,775.97	0.00	1,775.97	3,039.33	1,519.67	5,992.84	3,000.87	30.71	-3.04	0.600
105.00	-20.44	-37.18	0.00	-1,586.68	0.00	1,586.68	2,994.36	1,497.18	5,748.30	2,878.42	33.99	-3.21	0.559
110.00	-19.39	-35.70	0.00	-1,400.76	0.00	1,400.76	2,947.52	1,473.76	5,504.94	2,756.56	37.44	-3.38	0.515
115.00	-18.41	-34.20	0.00	-1,222.28	0.00	1,222.28	2,898.80	1,449.40	5,263.06	2,635.44	41.07	-3.54	0.471
116.00	-16.27	-30.17	0.00	-1,185.10	0.00	1,185.10	2,888.83	1,444.42	5,214.89	2,611.32	41.82	-3.57	0.460
120.00	-15.46	-29.64	0.00	-1,064.41	0.00	1,064.41	2,848.21	1,424.11	5,022.95	2,515.21	44.86	-3.69	0.429
125.00	-14.49	-28.97	0.00	-916.21	0.00	916.21	2,795.75	1,397.88	4,784.90	2,396.01	48.80	-3.83	0.388
128.00	-13.89	-27.89	0.00	-829.30	0.00	829.30	2,763.38	1,381.69	4,643.19	2,325.05	51.24	-3.92	0.362
130.00	-13.50	-27.63	0.00	-773.53	0.00	773.53	2,741.42	1,370.71	4,549.21	2,277.99	52.89	-3.97	0.345
135.00	-11.09	-22.55	0.00	-626.05	0.00	626.05	2,685.21	1,342.61	4,316.17	2,161.29	57.11	-4.09	0.294
139.33	-10.40	-21.98	0.00	-528.35	0.00	528.35	2,634.99	1,317.49	4,116.57	2,061.34	60.87	-4.19	0.261
140.00	-10.22	-21.90	0.00	-513.69	0.00	513.69	2,627.14	1,313.57	4,086.07	2,046.07	61.46	-4.20	0.255
144.42	-9.14	-21.30	0.00	-416.96	0.00	416.96	1,915.99	957.99	2,941.41	1,472.89	65.38	-4.29	0.288
145.00	-9.05	-21.23	0.00	-404.54	0.00	404.54	1,911.69	955.84	2,923.20	1,463.77	65.91	-4.30	0.282
148.00	-7.71	-18.21	0.00	-340.84	0.00	340.84	1,889.17	944.59	2,829.77	1,416.99	68.63	-4.36	0.245
150.00	-7.47	-17.97	0.00	-304.41	0.00	304.41	1,873.79	936.89	2,767.71	1,385.91	70.46	-4.40	0.224
155.00	-6.89	-17.37	0.00	-214.54	0.00	214.54	1,834.01	917.01	2,613.49	1,308.69	75.11	-4.48	0.168
160.00	-3.47	-7.99	0.00	-127.69	0.00	127.69	1,792.37	896.18	2,460.85	1,232.25	79.83	-4.54	0.106
165.00	-3.03	-7.42	0.00	-87.75	0.00	87.75	1,748.85	874.42	2,310.07	1,156.75	84.60	-4.58	0.078
170.00	-2.61	-6.86	0.00	-50.66	0.00	50.66	1,703.46	851.73	2,161.44	1,082.33	89.40	-4.61	0.048
171.00	-1.91	-5.15	0.00	-43.80	0.00	43.80	1,694.16	847.08	2,132.00	1,067.58	90.36	-4.61	0.042
175.00	-1.62	-4.73	0.00	-23.19	0.00	23.19	1,656.20	828.10	2,015.26	1,009.13	94.23	-4.62	0.024
178.50	0.00	-4.58	0.00	-6.65	0.00	6.65	1,622.00	811.00	1,914.55	958.70	97.62	-4.63	0.007

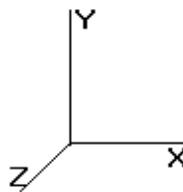
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM

Page: 22



Load Case: 1.2D + 1.0Di + 1.0Wi		50.00 mph with 0.75 in Radial Ice	22 Iterations		
Gust Response Factor	1.10	Ice Dead Load Factor	1.00	Wind Importance Factor	1.00
Dead Load Factor	1.20			Ice Importance Factor	1.00
Wind Load Factor	1.00				

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	4.256	4.682	0.000	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.242	5.00	31.232	37.48	175.5	560.1	2,571.1
10.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.331	5.00	30.774	36.93	172.9	590.6	2,565.9
15.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.386	5.00	30.288	36.35	170.2	604.6	2,544.3
20.00	Appertunance(s)	1.00	0.70	4.256	4.682	0.000	1.200	* 1.427	5.00	29.790	35.75	167.4	611.3	2,515.4
25.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.459	5.00	29.285	35.14	164.5	613.9	2,482.4
30.00		1.00	0.70	4.260	4.686	0.000	1.200	* 1.486	5.00	28.776	34.53	161.8	613.8	2,446.6
35.00		1.00	0.73	4.451	4.897	0.000	1.200	* 1.509	5.00	28.263	33.92	166.1	611.6	2,408.8
40.00		1.00	0.76	4.625	5.087	0.000	1.200	* 1.529	5.00	27.748	33.30	169.4	608.0	2,369.5
45.00	Bot - Section 2	1.00	0.78	4.783	5.261	0.000	1.200	* 1.547	5.00	27.232	32.68	171.9	603.2	2,329.1
50.00		1.00	0.81	4.929	5.422	0.000	1.200	* 1.564	5.00	27.031	32.44	175.9	604.8	3,763.6
53.00	Top - Section 1	1.00	0.82	5.012	5.513	0.000	1.200	* 1.573	3.00	15.968	19.16	105.6	360.6	2,224.1
55.00		1.00	0.83	5.065	5.572	0.000	1.200	* 1.579	2.00	10.541	12.65	70.5	239.3	810.8
60.00		1.00	0.85	5.193	5.712	0.000	1.200	* 1.592	5.00	25.991	31.19	178.1	591.1	1,998.5
65.00		1.00	0.87	5.313	5.844	0.000	1.200	* 1.605	5.00	25.470	30.56	178.6	583.3	1,960.2
70.00		1.00	0.89	5.426	5.969	0.000	1.200	* 1.617	5.00	24.948	29.94	178.7	575.1	1,921.4
75.00		1.00	0.91	5.534	6.088	0.000	1.200	* 1.628	5.00	24.426	29.31	178.4	566.3	1,882.1
80.00		1.00	0.92	5.637	6.201	0.000	1.200	* 1.639	5.00	23.902	28.68	177.9	557.2	1,842.5
85.00		1.00	0.94	5.736	6.309	0.000	1.200	* 1.649	5.00	23.379	28.05	177.0	547.7	1,802.4
90.00		1.00	0.95	5.830	6.413	0.000	1.200	* 1.658	5.00	22.855	27.43	175.9	537.9	1,762.0
91.42	Bot - Section 3	1.00	0.96	5.856	6.442	0.000	1.200	* 1.661	1.42	6.380	7.66	49.3	151.6	492.9
95.00		1.00	0.97	5.921	6.513	0.000	1.200	* 1.667	3.58	16.139	19.37	126.1	382.9	1,955.5
98.00	Top - Section 2	1.00	0.98	5.974	6.571	0.000	1.200	* 1.672	3.00	13.304	15.97	104.9	316.8	1,611.3
100.0		1.00	0.98	6.008	6.609	0.000	1.200	* 1.676	2.00	8.764	10.52	69.5	209.6	599.8
105.0		1.00	1.00	6.093	6.702	0.000	1.200	* 1.684	5.00	21.545	25.85	173.3	513.3	1,471.0
110.0		1.00	1.01	6.174	6.792	0.000	1.200	* 1.692	5.00	21.020	25.22	171.3	502.4	1,434.7
115.0		1.00	1.02	6.253	6.879	0.000	1.200	* 1.699	5.00	20.495	24.59	169.2	491.4	1,398.2
116.0	Appertunance(s)	1.00	1.03	6.269	6.896	0.000	1.200	* 1.701	1.00	4.035	4.84	33.4	97.8	276.1
120.0		1.00	1.04	6.330	6.963	0.000	1.200	* 1.707	4.00	15.932	19.12	133.1	384.1	1,087.1
125.0		1.00	1.05	6.404	7.044	0.000	1.200	* 1.714	5.00	19.443	23.33	164.4	468.6	1,324.5
128.0	Appertunance(s)	1.00	1.06	6.448	7.092	0.000	1.200	* 1.718	3.00	11.412	13.69	97.1	277.0	778.3
130.0		1.00	1.06	6.476	7.124	0.000	1.200	* 1.720	2.00	7.503	9.00	64.1	182.8	511.9
135.0	Appertunance(s)	1.00	1.07	6.546	7.201	0.000	1.200	* 1.727	5.00	18.390	22.07	158.9	445.2	1,250.2
139.3	Bot - Section 4	1.00	1.08	6.606	7.266	0.000	1.200	* 1.732	4.33	15.512	18.61	135.3	376.8	1,053.9
140.0		1.00	1.08	6.615	7.276	0.000	1.200	* 1.733	0.67	2.379	2.86	20.8	58.5	244.1
144.4	Top - Section 3	1.00	1.09	6.674	7.341	0.000	1.200	* 1.739	4.42	15.528	18.63	136.8	378.0	1,587.4
145.0		1.00	1.09	6.681	7.350	0.000	1.200	* 1.739	0.58	2.020	2.42	17.8	49.8	120.2
148.0	Appertunance(s)	1.00	1.10	6.721	7.393	0.000	1.200	* 1.743	3.00	10.276	12.33	91.2	251.5	609.2
150.0		1.00	1.11	6.746	7.421	0.000	1.200	* 1.745	2.00	6.745	8.09	60.1	165.7	400.1
155.0		1.00	1.12	6.810	7.491	0.000	1.200	* 1.751	5.00	16.494	19.79	148.3	401.9	973.6
160.0	Appertunance(s)	1.00	1.13	6.872	7.559	0.000	1.200	* 1.757	5.00	15.967	19.16	144.8	389.5	940.7
165.0		1.00	1.14	6.933	7.626	0.000	1.200	* 1.762	5.00	15.440	18.53	141.3	376.8	907.7
170.0		1.00	1.15	6.992	7.691	0.000	1.200	* 1.767	5.00	14.912	17.89	137.6	364.1	874.6
171.0	Appertunance(s)	1.00	1.15	7.004	7.704	0.000	1.200	* 1.768	1.00	2.919	3.50	27.0	72.3	172.0
175.0		1.00	1.16	7.050	7.755	0.000	1.200	* 1.772	4.00	11.465	13.76	106.7	281.0	671.5
178.5	Appertunance(s)	1.00	1.16	7.090	7.799	0.000	1.200	* 1.776	3.50	9.755	11.71	91.3	239.5	570.5

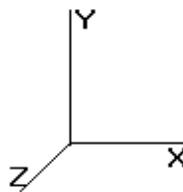
* = Cf Adjusted By Linear Load Ra Effect

Totals: 178.50 5,889.7 18,409.5 65,518.0

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.



6/13/2014 11:15:46 AM

Page: 23

Load Case: 1.2D + 1.0Di + 1.0Wi		50.00 mph with 0.75 in Radial Ice	22 Iterations
Gust Response Factor : 1.10		Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20			Ice Importance Factor : 1.00
Wind Load Factor : 1.00			

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
20.00	PCTEL GPS-TMG-HR-	1	4.256	4.682	1.00	1.00	0.23	0.000	0.000	1.08	0.00	0.00	8.39
20.00	Standoff	1	4.256	4.682	1.00	1.00	2.56	0.000	0.000	11.98	0.00	0.00	73.10
116.0	Alcatel-Lucent 800 M	3	6.269	6.896	0.67	0.80	4.39	0.000	0.000	30.26	0.00	0.00	444.89
116.0	Alcatel-Lucent 1900	3	6.269	6.896	0.67	0.80	4.78	0.000	0.000	32.98	0.00	0.00	492.68
116.0	Flat Low Profile Pla	1	6.269	6.896	1.00	1.00	44.75	0.000	0.000	308.55	0.00	0.00	2,232.75
116.0	RFS APXVSP18-C-	3	6.299	6.929	0.83	0.80	18.49	0.000	2.000	128.09	0.00	256.18	786.19
116.0	Alcatel-Lucent TD-RR	3	6.269	6.896	0.67	0.80	9.18	0.000	0.000	63.30	0.00	0.00	484.37
116.0	RFS APXV9TM14-ALU-	3	6.299	6.929	0.78	0.80	15.85	0.000	2.000	109.83	0.00	219.65	506.63
128.0	RFS APXV18-206517S-	3	6.448	7.092	0.80	1.00	15.33	0.000	0.000	108.73	0.00	0.00	440.83
135.0	Round Low Profile PI	1	6.546	7.201	1.00	1.00	40.74	0.000	0.000	293.34	0.00	0.00	2,242.42
135.0	Antel BXA-171063-12B	3	6.588	7.246	0.88	0.80	12.55	0.000	3.000	90.94	0.00	272.83	407.24
135.0	Antel BXA-70063-6CF-	3	6.588	7.246	0.77	0.80	16.27	0.000	3.000	117.91	0.00	353.72	576.58
135.0	RFS FD9R6004/2C-3L	6	6.588	7.246	0.50	0.80	1.38	0.000	3.000	10.01	0.00	30.04	96.14
135.0	Antel BXA-80063-6BF-	3	6.588	7.246	0.78	0.80	18.53	0.000	3.000	134.27	0.00	402.80	389.26
135.0	Antel BXA-171063-8BF	3	6.588	7.246	0.87	0.80	7.93	0.000	3.000	57.46	0.00	172.38	284.31
135.0	Alcatel-Lucent RRH2x	3	6.588	7.246	0.67	0.80	4.52	0.000	3.000	32.78	0.00	98.35	376.08
135.0	RFS DB-T1-6Z-8AB-0Z	1	6.588	7.246	1.00	0.80	4.53	0.000	3.000	32.83	0.00	98.50	194.76
135.0	Alcatel-Lucent RRH2x	3	6.588	7.246	0.67	0.80	4.40	0.000	3.000	31.88	0.00	95.65	437.95
148.0	T-Arm w/ Working Pla	3	6.721	7.393	0.67	0.75	31.78	0.000	0.000	234.97	0.00	0.00	1,335.43
148.0	Ericsson KRY 112 144	3	6.721	7.393	0.50	0.80	0.76	0.000	0.000	5.63	0.00	0.00	88.67
148.0	Ericsson AIR 21, 1.3	3	6.721	7.393	0.86	0.80	14.75	0.000	0.000	109.05	0.00	0.00	805.11
148.0	Ericsson AIR 21, 1.3	3	6.721	7.393	0.85	0.80	14.67	0.000	0.000	108.45	0.00	0.00	799.57
160.0	Powerwave 7020	3	6.872	7.559	0.33	0.75	0.46	0.000	0.000	3.50	0.00	0.00	55.54
160.0	14" x 9" TTA	6	6.872	7.559	0.33	0.75	2.23	0.000	0.000	16.87	0.00	0.00	294.13
160.0	Raycap DC6-48-60-18-	3	6.872	7.559	1.00	0.75	5.68	0.000	0.000	42.96	0.00	0.00	315.50
160.0	CCI	3	6.872	7.559	0.50	0.75	2.10	0.000	0.000	15.89	0.00	0.00	202.38
160.0	Ericsson RRUS A2	6	6.872	7.559	0.67	0.75	8.03	0.000	0.000	60.73	0.00	0.00	490.82
160.0	Ericsson RRUS 11 (Ba	6	6.872	7.559	0.67	0.75	10.48	0.000	0.000	79.18	0.00	0.00	887.71
160.0	Ericsson RRUS-12 B2	6	6.872	7.559	0.67	0.75	11.67	0.000	0.000	88.18	0.00	0.00	994.47
160.0	Ericsson RRUS E2 B29	3	6.872	7.559	0.67	0.75	5.83	0.000	0.000	44.09	0.00	0.00	504.43
160.0	Ericsson RRUS-32	3	6.872	7.559	0.67	0.75	6.19	0.000	0.000	46.82	0.00	0.00	620.46
160.0	Powerwave 7770.00	3	6.872	7.559	0.77	0.75	11.38	0.000	0.000	86.01	0.00	0.00	534.48
160.0	CCI HPA-65R-BUU-H6	9	6.872	7.559	0.83	0.75	61.83	0.000	0.000	467.37	0.00	0.00	2,800.58
160.0	Flat Platform w/ Han	1	6.872	7.559	1.00	1.00	63.55	0.000	0.000	480.39	0.00	0.00	3,383.30
171.0	Side Arms	1	7.004	7.704	1.00	1.00	15.71	0.000	0.000	121.07	0.00	0.00	1,027.30
171.0	DragonWave A-ANT-	1	7.004	7.704	1.00	0.80	4.79	0.000	0.000	36.88	0.00	0.00	103.01
171.0	NextNet BTS-2500	3	7.004	7.704	0.50	0.80	2.84	0.000	0.000	21.92	0.00	0.00	300.29
171.0	Argus LLPX310R	3	7.004	7.704	0.73	0.80	9.11	0.000	0.000	70.22	0.00	0.00	431.79
171.0	DragonWave Horizon	2	7.004	7.704	0.33	0.80	0.35	0.000	0.000	2.71	0.00	0.00	87.08
171.0	DragonWave A-ANT-	1	7.004	7.704	1.00	0.80	4.79	0.000	0.000	36.88	0.00	0.00	103.83
178.5	72" x 12" Panel	3	7.118	7.830	0.79	0.80	17.92	0.000	2.500	140.35	0.00	350.87	749.11
178.5	48" x 12" Panel	9	7.118	7.830	0.78	0.80	34.09	0.000	2.500	266.95	0.00	667.37	1,549.50
178.5	Flat Low Profile Pla	1	7.090	7.799	1.00	1.00	45.57	0.000	0.000	355.39	0.00	0.00	2,260.61

4,538.68

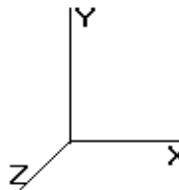
31,199.66

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:46 AM
 Page: 24



Load Case: 1.2D + 1.0Di + 1.0Wi		50.00 mph with 0.75 in Radial Ice	22 Iterations
Gust Response Factor : 1.10		Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20			Ice Importance Factor : 1.00
Wind Load Factor : 1.00			

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.130	1.090	0.00	17.64
5.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.03	0.00	4.256	0.130	1.090	0.00	80.94
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	1.86	0.00	4.256	0.130	1.090	0.00	106.14
5.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.130	1.090	0.00	57.78
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	1.86	0.00	4.256	0.130	1.090	0.00	106.14
5.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.68	0.00	4.256	0.130	1.090	0.00	23.85
5.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.68	0.00	4.256	0.130	1.090	0.00	52.71
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.130	1.090	0.00	13.53
10.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.132	1.097	0.00	19.48
10.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.10	0.00	4.256	0.132	1.097	0.00	83.99
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	1.93	0.00	4.256	0.132	1.097	0.00	111.66
10.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.132	1.097	0.00	61.24
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	1.93	0.00	4.256	0.132	1.097	0.00	111.66
10.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.75	0.00	4.256	0.132	1.097	0.00	25.79
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.76	0.00	4.256	0.132	1.097	0.00	55.71
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.132	1.097	0.00	15.15
15.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.135	1.105	0.00	20.66
15.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.15	0.00	4.256	0.135	1.105	0.00	85.93
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	1.98	0.00	4.256	0.135	1.105	0.00	115.12
15.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.135	1.105	0.00	63.43
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	1.98	0.00	4.256	0.135	1.105	0.00	115.12
15.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.80	0.00	4.256	0.135	1.105	0.00	27.03
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.80	0.00	4.256	0.135	1.105	0.00	57.61
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.135	1.105	0.00	16.20
20.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.137	1.112	0.00	21.56
20.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.18	0.00	4.256	0.137	1.112	0.00	87.37
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.01	0.00	4.256	0.137	1.112	0.00	117.68
20.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.137	1.112	0.00	65.06
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.01	0.00	4.256	0.137	1.112	0.00	117.68
20.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.83	0.00	4.256	0.137	1.112	0.00	27.97
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.83	0.00	4.256	0.137	1.112	0.00	59.04
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.137	1.112	0.00	17.00
25.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.140	1.120	0.00	22.28
25.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.21	0.00	4.256	0.140	1.120	0.00	88.54
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.04	0.00	4.256	0.140	1.120	0.00	119.74
25.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.140	1.120	0.00	66.37
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.04	0.00	4.256	0.140	1.120	0.00	119.74
25.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.86	0.00	4.256	0.140	1.120	0.00	28.73
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.86	0.00	4.256	0.140	1.120	0.00	60.18
30.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.260	0.143	1.128	0.00	22.90
30.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.23	0.00	4.260	0.143	1.128	0.00	89.52
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.06	0.00	4.260	0.143	1.128	0.00	121.46
30.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.260	0.143	1.128	0.00	67.47
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.06	0.00	4.260	0.143	1.128	0.00	121.46
30.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.88	0.00	4.260	0.143	1.128	0.00	29.37
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.88	0.00	4.260	0.143	1.128	0.00	61.15
35.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.451	0.145	1.136	0.00	23.43
35.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.25	0.00	4.451	0.145	1.136	0.00	90.36
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.08	0.00	4.451	0.145	1.136	0.00	122.95
35.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.451	0.145	1.136	0.00	68.43
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.08	0.00	4.451	0.145	1.136	0.00	122.95

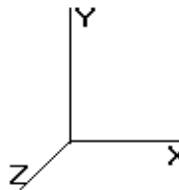
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:46 AM

Page: 25

© 2007 - 2014 by ATC IP LLC. All rights reserved.



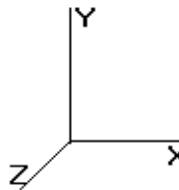
Load Case: 1.2D + 1.0Di + 1.0Wi		50.00 mph with 0.75 in Radial Ice										22 Iterations	
Gust Response Factor : 1.10		Ice Dead Load Factor : 1.00										Wind Importance Factor : 1.00	
Dead Load Factor : 1.20												Ice Importance Factor : 1.00	
35.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.90	0.00	4.451	0.145	1.136	0.00	29.93	
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.90	0.00	4.451	0.145	1.136	0.00	61.99	
40.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.625	0.148	1.145	0.00	23.91	
40.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.27	0.00	4.625	0.148	1.145	0.00	91.12	
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.10	0.00	4.625	0.148	1.145	0.00	124.26	
40.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.625	0.148	1.145	0.00	69.27	
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.10	0.00	4.625	0.148	1.145	0.00	124.26	
40.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.92	0.00	4.625	0.148	1.145	0.00	30.43	
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.92	0.00	4.625	0.148	1.145	0.00	62.73	
45.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.783	0.151	1.154	0.00	24.34	
45.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.28	0.00	4.783	0.151	1.154	0.00	91.79	
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.11	0.00	4.783	0.151	1.154	0.00	125.44	
45.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.783	0.151	1.154	0.00	70.03	
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.11	0.00	4.783	0.151	1.154	0.00	125.44	
45.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.93	0.00	4.783	0.151	1.154	0.00	30.88	
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.94	0.00	4.783	0.151	1.154	0.00	63.39	
50.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.929	0.155	1.164	0.00	24.73	
50.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.29	0.00	4.929	0.155	1.164	0.00	92.41	
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.13	0.00	4.929	0.155	1.164	0.00	126.51	
50.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.929	0.155	1.164	0.00	70.72	
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.13	0.00	4.929	0.155	1.164	0.00	126.51	
50.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.94	0.00	4.929	0.155	1.164	0.00	31.29	
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.95	0.00	4.929	0.155	1.164	0.00	64.00	
53.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	5.012	0.157	1.172	0.00	14.97	
53.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	1.38	0.00	5.012	0.157	1.172	0.00	55.65	
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	1.28	0.00	5.012	0.157	1.172	0.00	76.26	
53.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	5.012	0.157	1.172	0.00	42.66	
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	1.28	0.00	5.012	0.157	1.172	0.00	76.26	
53.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	1.17	0.00	5.012	0.157	1.172	0.00	18.91	
53.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	1.17	0.00	5.012	0.157	1.172	0.00	38.60	
55.00	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	5.065	0.157	1.171	0.00	10.04	
55.00	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.92	0.00	5.065	0.157	1.171	0.00	37.19	
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.86	0.00	5.065	0.157	1.171	0.00	50.99	
55.00	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	5.065	0.157	1.171	0.00	28.54	
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.86	0.00	5.065	0.157	1.171	0.00	50.99	
55.00	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.78	0.00	5.065	0.157	1.171	0.00	12.67	
55.00	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.78	0.00	5.065	0.157	1.171	0.00	25.82	
60.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.193	0.159	1.178	0.00	25.42	
60.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.32	0.00	5.193	0.159	1.178	0.00	93.49	
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.15	0.00	5.193	0.159	1.178	0.00	128.39	
60.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.193	0.159	1.178	0.00	71.94	
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.15	0.00	5.193	0.159	1.178	0.00	128.39	
60.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.97	0.00	5.193	0.159	1.178	0.00	32.02	
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.97	0.00	5.193	0.159	1.178	0.00	65.07	
65.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.313	0.163	1.188	0.00	25.74	
65.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.33	0.00	5.313	0.163	1.188	0.00	93.98	
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.16	0.00	5.313	0.163	1.188	0.00	129.23	
65.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.313	0.163	1.188	0.00	72.49	
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.16	0.00	5.313	0.163	1.188	0.00	129.23	
65.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.98	0.00	5.313	0.163	1.188	0.00	32.34	
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.98	0.00	5.313	0.163	1.188	0.00	65.55	
70.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.426	0.166	1.199	0.00	26.03	
70.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.34	0.00	5.426	0.166	1.199	0.00	94.44	
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.17	0.00	5.426	0.166	1.199	0.00	130.02	
70.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.426	0.166	1.199	0.00	73.00	
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.17	0.00	5.426	0.166	1.199	0.00	130.02	
70.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	1.99	0.00	5.426	0.166	1.199	0.00	32.65	

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:47 AM
 Page: 26

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 1.2D + 1.0Di + 1.0Wi		50.00 mph with 0.75 in Radial Ice										22 Iterations	
Gust Response Factor : 1.10		Ice Dead Load Factor : 1.00										Wind Importance Factor : 1.00	
Dead Load Factor : 1.20												Ice Importance Factor : 1.00	
70.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	1.99	0.00	5.426	0.166	1.199	0.00	66.00	
75.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.534	0.170	1.211	0.00	26.31	
75.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.35	0.00	5.534	0.170	1.211	0.00	94.87	
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.18	0.00	5.534	0.170	1.211	0.00	130.76	
75.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.534	0.170	1.211	0.00	73.48	
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.18	0.00	5.534	0.170	1.211	0.00	130.76	
75.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	2.00	0.00	5.534	0.170	1.211	0.00	32.94	
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	2.00	0.00	5.534	0.170	1.211	0.00	66.42	
80.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.637	0.174	1.223	0.00	26.57	
80.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.36	0.00	5.637	0.174	1.223	0.00	95.27	
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.19	0.00	5.637	0.174	1.223	0.00	131.46	
80.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.637	0.174	1.223	0.00	73.93	
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.19	0.00	5.637	0.174	1.223	0.00	131.46	
80.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	2.01	0.00	5.637	0.174	1.223	0.00	33.21	
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	2.01	0.00	5.637	0.174	1.223	0.00	66.82	
85.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.736	0.179	1.236	0.00	26.82	
85.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.37	0.00	5.736	0.179	1.236	0.00	95.66	
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.20	0.00	5.736	0.179	1.236	0.00	132.12	
85.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.736	0.179	1.236	0.00	74.36	
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.20	0.00	5.736	0.179	1.236	0.00	132.12	
85.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	2.02	0.00	5.736	0.179	1.236	0.00	33.47	
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	2.02	0.00	5.736	0.179	1.236	0.00	67.20	
90.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.830	0.183	1.249	0.00	27.05	
90.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.37	0.00	5.830	0.183	1.249	0.00	96.02	
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.21	0.00	5.830	0.183	1.249	0.00	132.74	
90.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.830	0.183	1.249	0.00	74.77	
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.21	0.00	5.830	0.183	1.249	0.00	132.74	
90.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	2.02	0.00	5.830	0.183	1.249	0.00	33.72	
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	2.03	0.00	5.830	0.183	1.249	0.00	67.56	
91.42	(2) 1/2" Coax	Yes	1.42	0.000	0.00	0.00	0.00	5.856	0.186	1.258	0.00	7.68	
91.42	(2) 2" Conduit	Yes	1.42	0.000	2.38	0.67	0.00	5.856	0.186	1.258	0.00	27.24	
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.63	0.00	5.856	0.186	1.258	0.00	37.66	
91.42	(3) 1 5/8" Coax	Yes	1.42	0.000	0.00	0.00	0.00	5.856	0.186	1.258	0.00	21.22	
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.63	0.00	5.856	0.186	1.258	0.00	37.66	
91.42	(1) 1 1/4" Hybriflex	Yes	1.42	0.000	1.54	0.57	0.00	5.856	0.186	1.258	0.00	9.57	
91.42	(3) 1 1/4" Hybriflex	Yes	1.42	0.000	1.55	0.58	0.00	5.856	0.186	1.258	0.00	19.17	
95.00	(2) 1/2" Coax	Yes	3.58	0.000	0.00	0.00	0.00	5.921	0.188	1.265	0.00	19.55	
95.00	(2) 2" Conduit	Yes	3.58	0.000	2.38	1.71	0.00	5.921	0.188	1.265	0.00	69.07	
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	1.59	0.00	5.921	0.188	1.265	0.00	95.56	
95.00	(3) 1 5/8" Coax	Yes	3.58	0.000	0.00	0.00	0.00	5.921	0.188	1.265	0.00	53.87	
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	1.59	0.00	5.921	0.188	1.265	0.00	95.56	
95.00	(1) 1 1/4" Hybriflex	Yes	3.58	0.000	1.54	1.46	0.00	5.921	0.188	1.265	0.00	24.34	
95.00	(3) 1 1/4" Hybriflex	Yes	3.58	0.000	1.55	1.46	0.00	5.921	0.188	1.265	0.00	48.67	
98.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	5.974	0.192	1.275	0.00	16.45	
98.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	1.43	0.00	5.974	0.192	1.275	0.00	57.94	
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	1.33	0.00	5.974	0.192	1.275	0.00	80.21	
98.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	5.974	0.192	1.275	0.00	45.23	
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	1.33	0.00	5.974	0.192	1.275	0.00	80.21	
98.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	1.22	0.00	5.974	0.192	1.275	0.00	20.46	
98.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	1.22	0.00	5.974	0.192	1.275	0.00	40.86	
100.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.008	0.192	1.275	0.00	11.00	
100.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.96	0.00	6.008	0.192	1.275	0.00	38.68	
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.89	0.00	6.008	0.192	1.275	0.00	53.57	
100.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.008	0.192	1.275	0.00	30.21	
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.89	0.00	6.008	0.192	1.275	0.00	53.57	
100.0	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.82	0.00	6.008	0.192	1.275	0.00	13.67	
100.0	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.82	0.00	6.008	0.192	1.275	0.00	27.29	

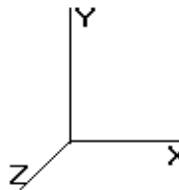
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM

Page: 27



Load Case: 1.2D + 1.0Di + 1.0Wi 50.00 mph with 0.75 in Radial Ice											22 Iterations	
Gust Response Factor : 1.10			Ice Dead Load Factor : 1.00			Wind Importance Factor : 1.00						
Dead Load Factor : 1.20						Ice Importance Factor : 1.00						
105.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	6.093	0.195	1.285	0.00	27.71	
105.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.40	0.00	6.093	0.195	1.285	0.00	97.03
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.23	0.00	6.093	0.195	1.285	0.00	134.46
105.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.093	0.195	1.285	0.00	75.89
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.23	0.00	6.093	0.195	1.285	0.00	134.46
105.0	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	2.05	0.00	6.093	0.195	1.285	0.00	34.40
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	2.05	0.00	6.093	0.195	1.285	0.00	68.55
110.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.174	0.200	0.000	0.00	27.91
110.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	2.40	2.88	6.174	0.200	0.000	19.57	97.33
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	2.23	2.68	6.174	0.200	0.000	18.21	134.98
110.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.174	0.200	0.000	0.00	76.24
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	2.23	2.68	6.174	0.200	0.000	18.21	134.98
110.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	2.05	2.46	6.174	0.200	0.000	16.72	34.61
110.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	2.06	2.47	6.174	0.200	0.000	16.75	68.85
115.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.253	0.206	0.000	0.00	28.10
115.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	2.41	2.89	6.253	0.206	0.000	19.88	97.63
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	2.24	2.69	6.253	0.206	0.000	18.50	135.49
115.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.253	0.206	0.000	0.00	76.57
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	2.24	2.69	6.253	0.206	0.000	18.50	135.49
115.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	2.06	2.47	6.253	0.206	0.000	16.99	34.81
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	2.06	2.47	6.253	0.206	0.000	17.02	69.15
116.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	6.269	0.209	0.000	0.00	5.63
116.0	(2) 2" Conduit	Yes	1.00	1.200	2.38	0.48	0.58	6.269	0.209	0.000	3.99	19.54
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.45	0.54	6.269	0.209	0.000	3.71	27.12
116.0	(3) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	6.269	0.209	0.000	0.00	15.33
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.45	0.54	6.269	0.209	0.000	3.71	27.12
116.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.200	1.54	0.41	0.49	6.269	0.209	0.000	3.41	6.97
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.200	1.55	0.41	0.50	6.269	0.209	0.000	3.41	13.84
120.0	(2) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	6.330	0.143	1.129	0.00	22.63
120.0	(2) 2" Conduit	Yes	4.00	0.000	2.38	1.93	0.00	6.330	0.143	1.129	0.00	78.33
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	1.80	0.00	6.330	0.143	1.129	0.00	108.78
120.0	(3) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	6.330	0.143	1.129	0.00	61.51
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	1.80	0.00	6.330	0.143	1.129	0.00	108.78
125.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.404	0.147	1.140	0.00	28.47
125.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.42	0.00	6.404	0.147	1.140	0.00	98.19
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.25	0.00	6.404	0.147	1.140	0.00	136.44
125.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.404	0.147	1.140	0.00	77.19
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.25	0.00	6.404	0.147	1.140	0.00	136.44
128.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	6.448	0.150	1.151	0.00	17.14
128.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	1.45	0.00	6.448	0.150	1.151	0.00	59.01
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	1.35	0.00	6.448	0.150	1.151	0.00	82.03
128.0	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	6.448	0.150	1.151	0.00	46.42
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	1.35	0.00	6.448	0.150	1.151	0.00	82.03
130.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.476	0.105	1.015	0.00	11.46
130.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.97	0.00	6.476	0.105	1.015	0.00	39.38
130.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.90	0.00	6.476	0.105	1.015	0.00	54.76
130.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.476	0.105	1.015	0.00	31.00
135.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.546	0.107	1.022	0.00	28.81
135.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.43	0.00	6.546	0.107	1.022	0.00	98.71
135.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.26	0.00	6.546	0.107	1.022	0.00	137.33
135.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.546	0.107	1.022	0.00	77.78
139.3	(2) 1/2" Coax	Yes	4.33	0.000	0.00	0.00	0.00	6.606	0.110	1.031	0.00	25.09
139.3	(2) 2" Conduit	Yes	4.33	0.000	2.38	2.11	0.00	6.606	0.110	1.031	0.00	85.74
139.3	(6) 1 5/8" Coax	Yes	4.33	0.000	1.98	1.97	0.00	6.606	0.110	1.031	0.00	119.34
140.0	(2) 1/2" Coax	Yes	0.67	0.000	0.00	0.00	0.00	6.615	0.112	1.037	0.00	3.86
140.0	(2) 2" Conduit	Yes	0.67	0.000	2.38	0.32	0.00	6.615	0.112	1.037	0.00	13.19
140.0	(6) 1 5/8" Coax	Yes	0.67	0.000	1.98	0.30	0.00	6.615	0.112	1.037	0.00	18.37

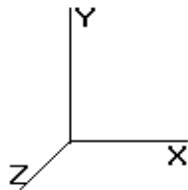
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM

Page: 28



Load Case: 1.2D + 1.0Di + 1.0Wi **50.00 mph with 0.75 in Radial Ice** **22 Iterations**

Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

144.4	(2) 1/2" Coax	Yes	4.42	0.000	0.00	0.00	6.674	0.114	1.042	0.00	25.72	
144.4	(2) 2" Conduit	Yes	4.42	0.000	2.38	2.16	0.00	6.674	0.114	1.042	0.00	87.61
144.4	(6) 1 5/8" Coax	Yes	4.42	0.000	1.98	2.01	0.00	6.674	0.114	1.042	0.00	122.01
145.0	(2) 1/2" Coax	Yes	0.58	0.000	0.00	0.00	0.00	6.681	0.115	1.044	0.00	3.40
145.0	(2) 2" Conduit	Yes	0.58	0.000	2.38	0.28	0.00	6.681	0.115	1.044	0.00	11.57
145.0	(6) 1 5/8" Coax	Yes	0.58	0.000	1.98	0.27	0.00	6.681	0.115	1.044	0.00	16.12
148.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	6.721	0.116	1.048	0.00	17.54
148.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	1.47	0.00	6.721	0.116	1.048	0.00	59.61
148.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	1.37	0.00	6.721	0.116	1.048	0.00	83.05
150.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.746	0.064	0.000	0.00	11.71
150.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.98	0.00	6.746	0.064	0.000	0.00	39.78
155.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.810	0.066	0.000	0.00	29.44
155.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.45	0.00	6.810	0.066	0.000	0.00	99.67
160.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.872	0.068	0.000	0.00	29.58
160.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.46	0.00	6.872	0.068	0.000	0.00	99.89
165.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.933	0.071	0.000	0.00	29.73
165.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.46	0.00	6.933	0.071	0.000	0.00	100.11
170.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.992	0.074	0.000	0.00	29.87
170.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	2.46	0.00	6.992	0.074	0.000	0.00	100.32
171.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	7.004	0.076	0.000	0.00	5.98
171.0	(2) 2" Conduit	Yes	1.00	0.000	2.38	0.49	0.00	7.004	0.076	0.000	0.00	20.07

Totals: 198.59 15,403.14

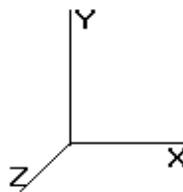
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM

Page: 29



Load Case: 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	22 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	175.46	3,333.81	0.00	0.00
10.00	172.89	3,354.57	0.00	0.00
15.00	170.16	3,349.34	0.00	0.00
20.00	180.42	3,414.21	0.00	0.00
25.00	164.52	3,291.90	0.00	0.00
30.00	161.80	3,263.85	0.00	0.00
35.00	166.07	3,232.80	0.00	0.00
40.00	169.39	3,199.47	0.00	0.00
45.00	171.92	3,164.35	0.00	0.00
50.00	175.87	4,603.68	0.00	0.00
53.00	105.63	2,729.78	0.00	0.00
55.00	70.47	1,148.67	0.00	0.00
60.00	178.15	2,847.22	0.00	0.00
65.00	178.61	2,812.74	0.00	0.00
70.00	178.70	2,777.51	0.00	0.00
75.00	178.44	2,741.61	0.00	0.00
80.00	177.86	2,705.12	0.00	0.00
85.00	177.01	2,668.10	0.00	0.00
90.00	175.89	2,630.60	0.00	0.00
91.42	49.32	739.21	0.00	0.00
95.00	126.14	2,579.91	0.00	0.00
98.00	104.91	2,135.05	0.00	0.00
100.0	69.51	949.34	0.00	0.00
105.0	173.28	2,347.43	0.00	0.00
110.0	260.79	2,313.54	0.00	0.00
115.0	260.05	2,279.33	0.00	0.00
116.0	724.62	5,399.97	0.00	475.83
120.0	133.12	1,710.29	0.00	0.00
125.0	164.35	2,105.19	0.00	0.00
128.0	205.85	1,688.14	0.00	0.00
130.0	64.14	770.08	0.00	0.00
135.0	960.34	6,901.48	0.00	1,524.26
139.3	135.26	1,476.79	0.00	0.00
140.0	20.77	309.21	0.00	0.00
144.4	136.79	2,019.17	0.00	0.00
145.0	17.81	177.19	0.00	0.00
148.0	549.25	3,931.57	0.00	0.00
150.0	60.06	526.31	0.00	0.00
155.0	148.27	1,289.54	0.00	0.00
160.0	1,576.85	12,340.84	0.00	0.00
165.0	141.29	1,098.24	0.00	0.00
170.0	137.63	1,065.49	0.00	0.00
171.0	316.65	2,263.45	0.00	0.00
175.0	106.70	718.75	0.00	0.00
178.5	853.98	5,171.10	0.00	1,018.25
Totals:	10,627.02	121,575.9	0.00	3,018.34

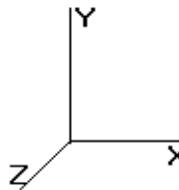
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM

Page: 30



Load Case: 1.2D + 1.0Di + 1.0Wi		50.00 mph with 0.75 in Radial Ice		22 Iterations	
Gust Response Factor : 1.10		Ice Dead Load Factor : 1.00		Wind Importance Factor : 1.00	
Dead Load Factor : 1.20				Ice Importance Factor : 1.00	
Calculated Forces					

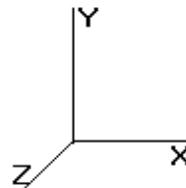
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-121.57	-10.66	0.00	-1,306.37	0.00	1,306.37	6,164.54	3,082.27	18,158.3	9,092.69	0.00	0.00	0.163
5.00	-118.23	-10.54	0.00	-1,253.08	0.00	1,253.08	6,108.61	3,054.31	17,675.6	8,850.97	0.02	-0.03	0.161
10.00	-114.87	-10.42	0.00	-1,200.39	0.00	1,200.39	6,050.81	3,025.41	17,193.4	8,609.50	0.06	-0.06	0.158
15.00	-111.52	-10.30	0.00	-1,148.28	0.00	1,148.28	5,991.14	2,995.57	16,712.0	8,368.43	0.14	-0.09	0.156
20.00	-108.10	-10.17	0.00	-1,096.76	0.00	1,096.76	5,929.59	2,964.80	16,231.6	8,127.91	0.24	-0.12	0.153
25.00	-104.80	-10.06	0.00	-1,045.89	0.00	1,045.89	5,866.18	2,933.09	15,752.7	7,888.07	0.38	-0.14	0.150
30.00	-101.54	-9.94	0.00	-995.62	0.00	995.62	5,800.89	2,900.44	15,275.4	7,649.08	0.55	-0.17	0.148
35.00	-98.30	-9.81	0.00	-945.93	0.00	945.93	5,733.73	2,866.86	14,800.1	7,411.07	0.74	-0.20	0.145
40.00	-95.09	-9.68	0.00	-896.87	0.00	896.87	5,664.70	2,832.35	14,327.0	7,174.19	0.97	-0.23	0.142
45.00	-91.93	-9.54	0.00	-848.46	0.00	848.46	5,593.79	2,796.90	13,856.5	6,938.58	1.24	-0.26	0.139
50.00	-87.32	-9.38	0.00	-800.74	0.00	800.74	5,521.02	2,760.51	13,388.9	6,704.40	1.53	-0.30	0.135
53.00	-84.59	-9.29	0.00	-772.59	0.00	772.59	4,440.13	2,220.06	10,789.7	5,402.88	1.72	-0.31	0.162
55.00	-83.44	-9.24	0.00	-754.02	0.00	754.02	4,419.76	2,209.88	10,648.2	5,332.01	1.86	-0.33	0.160
60.00	-80.58	-9.10	0.00	-707.81	0.00	707.81	4,367.53	2,183.77	10,295.0	5,155.16	2.22	-0.36	0.156
65.00	-77.77	-8.95	0.00	-662.32	0.00	662.32	4,313.43	2,156.72	9,942.96	4,978.87	2.62	-0.40	0.151
70.00	-74.99	-8.79	0.00	-617.59	0.00	617.59	4,257.46	2,128.73	9,592.32	4,803.29	3.05	-0.43	0.146
75.00	-72.24	-8.64	0.00	-573.63	0.00	573.63	4,199.61	2,099.81	9,243.38	4,628.56	3.52	-0.46	0.141
80.00	-69.53	-8.48	0.00	-530.45	0.00	530.45	4,139.90	2,069.95	8,896.44	4,454.83	4.02	-0.50	0.136
85.00	-66.86	-8.31	0.00	-488.07	0.00	488.07	4,078.31	2,039.15	8,551.80	4,282.26	4.56	-0.53	0.130
90.00	-64.23	-8.14	0.00	-446.50	0.00	446.50	4,014.84	2,007.42	8,209.74	4,110.97	5.14	-0.57	0.125
91.42	-63.49	-8.10	0.00	-434.97	0.00	434.97	3,996.52	1,998.26	8,113.33	4,062.70	5.31	-0.58	0.123
95.00	-60.91	-7.97	0.00	-405.95	0.00	405.95	3,949.51	1,974.76	7,870.56	3,941.13	5.75	-0.60	0.118
98.00	-58.77	-7.86	0.00	-382.04	0.00	382.04	3,056.80	1,528.40	6,090.92	3,049.99	6.13	-0.62	0.145
100.00	-57.82	-7.80	0.00	-366.32	0.00	366.32	3,039.33	1,519.67	5,992.84	3,000.87	6.39	-0.63	0.141
105.00	-55.47	-7.64	0.00	-327.31	0.00	327.31	2,994.36	1,497.18	5,748.30	2,878.42	7.07	-0.67	0.132
110.00	-53.15	-7.38	0.00	-289.12	0.00	289.12	2,947.52	1,473.76	5,504.94	2,756.56	7.79	-0.70	0.123
115.00	-50.88	-7.11	0.00	-252.21	0.00	252.21	2,898.80	1,449.40	5,263.06	2,635.44	8.54	-0.73	0.113
116.00	-45.48	-6.33	0.00	-244.63	0.00	244.63	2,888.83	1,444.42	5,214.89	2,611.32	8.70	-0.74	0.109
120.00	-43.77	-6.19	0.00	-219.32	0.00	219.32	2,848.21	1,424.11	5,022.95	2,515.21	9.33	-0.77	0.103
125.00	-41.67	-6.02	0.00	-188.35	0.00	188.35	2,795.75	1,397.88	4,784.90	2,396.01	10.15	-0.80	0.094
128.00	-39.98	-5.80	0.00	-170.31	0.00	170.31	2,763.38	1,381.69	4,643.19	2,325.05	10.65	-0.81	0.088
130.00	-39.21	-5.73	0.00	-158.71	0.00	158.71	2,741.42	1,370.71	4,549.21	2,277.99	11.00	-0.82	0.084
135.00	-32.32	-4.69	0.00	-128.52	0.00	128.52	2,685.21	1,342.61	4,316.17	2,161.29	11.87	-0.85	0.072
139.33	-30.85	-4.53	0.00	-108.21	0.00	108.21	2,634.99	1,317.49	4,116.57	2,061.34	12.65	-0.87	0.064
140.00	-30.54	-4.51	0.00	-105.19	0.00	105.19	2,627.14	1,313.57	4,086.07	2,046.07	12.77	-0.87	0.063
144.42	-28.52	-4.35	0.00	-85.25	0.00	85.25	1,915.99	957.99	2,941.41	1,472.89	13.59	-0.89	0.073
145.00	-28.34	-4.33	0.00	-82.72	0.00	82.72	1,911.69	955.84	2,923.20	1,463.77	13.70	-0.89	0.071
148.00	-24.42	-3.73	0.00	-69.71	0.00	69.71	1,889.17	944.59	2,829.77	1,416.99	14.26	-0.90	0.062
150.00	-23.89	-3.67	0.00	-62.26	0.00	62.26	1,873.79	936.89	2,767.71	1,385.91	14.64	-0.91	0.058
155.00	-22.60	-3.50	0.00	-43.93	0.00	43.93	1,834.01	917.01	2,613.49	1,308.69	15.60	-0.93	0.046
160.00	-10.29	-1.73	0.00	-26.42	0.00	26.42	1,792.37	896.18	2,460.85	1,232.25	16.58	-0.94	0.027
165.00	-9.19	-1.57	0.00	-17.79	0.00	17.79	1,748.85	874.42	2,310.07	1,156.75	17.57	-0.95	0.021
170.00	-8.13	-1.41	0.00	-9.96	0.00	9.96	1,703.46	851.73	2,161.44	1,082.33	18.56	-0.95	0.014
171.00	-5.87	-1.06	0.00	-8.54	0.00	8.54	1,694.16	847.08	2,132.00	1,067.58	18.76	-0.95	0.011
175.00	-5.16	-0.94	0.00	-4.31	0.00	4.31	1,656.20	828.10	2,015.26	1,009.13	19.56	-0.96	0.007
178.50	0.00	-0.85	0.00	-1.02	0.00	1.02	1,622.00	811.00	1,914.55	958.70	20.26	-0.96	0.001

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM
Page: 31



Load Case: 1.2D + 1.0E	Dead Load with Seismic	21 Iterations
Gust Response Factor : 1.10	Sds : 0.26	Ss : 0.24
Dead Load Factor : 1.20	Sd1 : 0.10	S1 : 0.06
Wind Load Factor : 0.00	Structure Frequency : 0.3559	SA : 0.04
		Seismic Importance Factor : 1.00

Total Segment Forces (Factored) R : 1.50

Seg Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00	0.00
5.00		1675.82	0.00	0.03	0.02	43.95
10.00		1646.12	0.01	0.05	0.03	62.38
15.00		1616.43	0.01	0.06	0.03	71.04
20.00	Appertunance(s)	1991.73	0.02	0.07	0.04	94.10
25.00		1557.03	0.04	0.07	0.04	76.51
30.00		1527.34	0.05	0.07	0.04	76.97
35.00		1497.64	0.07	0.07	0.04	77.05
40.00		1467.94	0.09	0.07	0.04	77.08
45.00	Bot - Section 2	1438.25	0.12	0.07	0.03	77.14
50.00		2632.33	0.15	0.07	0.03	144.02
53.00	Top - Section 1	1552.93	0.17	0.07	0.03	85.77
55.00		476.28	0.18	0.07	0.03	26.42
60.00		1172.87	0.21	0.06	0.02	65.11
65.00		1147.42	0.25	0.06	0.02	62.17
70.00		1121.96	0.29	0.05	0.01	56.87
75.00		1096.51	0.33	0.04	0.01	48.31
80.00		1071.05	0.38	0.02	0.01	35.79
85.00		1045.60	0.43	0.01	0.01	19.26
90.00		1020.15	0.48	-0.01	0.01	-0.03
91.42	Bot - Section 3	284.41	0.50	-0.01	0.01	-1.59
95.00		1310.49	0.54	-0.03	0.01	-25.65
98.00	Top - Section 2	1078.72	0.57	-0.04	0.01	-32.98
100.0		325.17	0.59	-0.05	0.01	-12.11
105.0		798.09	0.65	-0.07	0.02	-40.48
110.0		776.88	0.72	-0.09	0.03	-45.77
115.0		755.66	0.78	-0.11	0.05	-46.60
116.0	Appertunance(s)	2745.59	0.80	-0.11	0.05	-169.08
120.0		585.86	0.85	-0.12	0.07	-34.69
125.0		713.24	0.93	-0.12	0.10	-36.99
128.0	Appertunance(s)	552.76	0.97	-0.12	0.12	-24.97
130.0		274.27	1.00	-0.11	0.13	-10.92
135.0	Appertunance(s)	3401.92	1.08	-0.08	0.18	-78.79
139.3	Bot - Section 4	564.22	1.15	-0.04	0.22	-2.85
140.0		154.71	1.16	-0.03	0.23	-0.30
144.4	Top - Section 3	1007.82	1.24	0.04	0.28	20.71
145.0		58.66	1.25	0.05	0.29	1.40
148.0	Appertunance(s)	2763.04	1.30	0.12	0.34	114.59
150.0		195.30	1.33	0.17	0.37	10.58
155.0		476.37	1.43	0.33	0.46	42.55
160.0	Appertunance(s)	3317.10	1.52	0.55	0.57	428.80
165.0		442.43	1.61	0.83	0.69	77.05
170.0		425.46	1.71	1.18	0.84	95.34
171.0	Appertunance(s)	2680.06	1.73	1.26	0.87	629.00
175.0		325.43	1.82	1.62	1.01	90.86
178.5	Appertunance(s)	2180.85	1.89	1.98	1.14	699.81

Totals: 54,949.88 2,846.81

Total Wind : 53,382.2

Seismic Base Shear Not Tested Due To User Override - Analysis Required

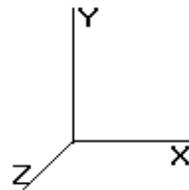
Pole : 302467
Location : Bilkays Express, CT
Height : 178.5 (ft)
Base Dia : 72.00 (in)
Top Dia : 29.00 (in)
Shape : 18 Sides
Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
Struct Class : II
Exposure Category : B
Topographic Category : 1
Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM

Page: 32



Load Case: 1.2D + 1.0E

Dead Load with Seismic

21 Iterations

Gust Response Factor : 1.10

Sds : 0.26

Ss : 0.24

Dead Load Factor : 1.20

Seismic Load Factor : 1.00

Sd1 : 0.10

S1 : 0.06

Wind Load Factor : 0.00

Structure Frequency : 0.3559

SA : 0.04

Seismic Importance Factor : 1.00

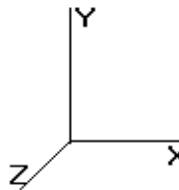
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM

Page: 33



Load Case: 1.2D + 1.0E

Dead Load with Seismic

21 Iterations

Gust Response Factor : 1.10

Sds : 0.26

Ss : 0.24

Dead Load Factor : 1.20

Sd1 : 0.10

S1 : 0.06

Wind Load Factor : 0.00

Structure Frequency : 0.3559

SA : 0.04

Seismic Importance Factor : 1.00

Calculated Forces

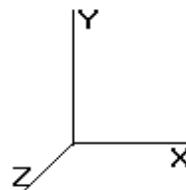
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-75.69	-3.42	0.00	-440.34	0.00	440.34	6,164.54	3,082.27	18,158.3	9,092.69	0.00	0.00	0.061
5.00	-73.23	-3.38	0.00	-423.26	0.00	423.26	6,108.61	3,054.31	17,675.6	8,850.97	0.01	-0.01	0.060
10.00	-70.81	-3.33	0.00	-406.34	0.00	406.34	6,050.81	3,025.41	17,193.4	8,609.50	0.02	-0.02	0.059
15.00	-68.42	-3.27	0.00	-389.67	0.00	389.67	5,991.14	2,995.57	16,712.0	8,368.43	0.05	-0.03	0.058
20.00	-66.02	-3.19	0.00	-373.30	0.00	373.30	5,929.59	2,964.80	16,231.6	8,127.91	0.08	-0.04	0.057
25.00	-63.70	-3.12	0.00	-357.36	0.00	357.36	5,866.18	2,933.09	15,752.7	7,888.07	0.13	-0.05	0.056
30.00	-61.42	-3.05	0.00	-341.75	0.00	341.75	5,800.89	2,900.44	15,275.4	7,649.08	0.18	-0.06	0.055
35.00	-59.17	-2.99	0.00	-326.48	0.00	326.48	5,733.73	2,866.86	14,800.1	7,411.07	0.25	-0.07	0.054
40.00	-56.97	-2.92	0.00	-311.55	0.00	311.55	5,664.70	2,832.35	14,327.0	7,174.19	0.33	-0.08	0.053
45.00	-54.79	-2.85	0.00	-296.97	0.00	296.97	5,593.79	2,796.90	13,856.5	6,938.58	0.42	-0.09	0.053
50.00	-51.19	-2.70	0.00	-282.74	0.00	282.74	5,521.02	2,760.51	13,388.9	6,704.40	0.52	-0.10	0.051
53.00	-49.05	-2.62	0.00	-274.63	0.00	274.63	4,440.13	2,220.06	10,789.7	5,402.88	0.59	-0.11	0.062
55.00	-48.30	-2.60	0.00	-269.40	0.00	269.40	4,419.76	2,209.88	10,648.2	5,332.01	0.63	-0.11	0.061
60.00	-46.45	-2.54	0.00	-256.41	0.00	256.41	4,367.53	2,183.77	10,295.0	5,155.16	0.76	-0.12	0.060
65.00	-44.62	-2.48	0.00	-243.71	0.00	243.71	4,313.43	2,156.72	9,942.96	4,978.87	0.89	-0.14	0.059
70.00	-42.83	-2.43	0.00	-231.30	0.00	231.30	4,257.46	2,128.73	9,592.32	4,803.29	1.05	-0.15	0.058
75.00	-41.07	-2.39	0.00	-219.15	0.00	219.15	4,199.61	2,099.81	9,243.38	4,628.56	1.21	-0.16	0.057
80.00	-39.33	-2.36	0.00	-207.22	0.00	207.22	4,139.90	2,069.95	8,896.44	4,454.83	1.39	-0.18	0.056
85.00	-37.63	-2.34	0.00	-195.44	0.00	195.44	4,078.31	2,039.15	8,551.80	4,282.26	1.58	-0.19	0.055
90.00	-35.96	-2.34	0.00	-183.74	0.00	183.74	4,014.84	2,007.42	8,209.74	4,110.97	1.79	-0.20	0.054
91.42	-35.49	-2.34	0.00	-180.43	0.00	180.43	3,996.52	1,998.26	8,113.33	4,062.70	1.85	-0.21	0.053
95.00	-33.60	-2.34	0.00	-172.04	0.00	172.04	3,949.51	1,974.76	7,870.56	3,941.13	2.01	-0.22	0.052
98.00	-32.03	-2.34	0.00	-165.02	0.00	165.02	3,056.80	1,528.40	6,090.92	3,049.99	2.14	-0.23	0.065
100.00	-31.46	-2.34	0.00	-160.35	0.00	160.35	3,039.33	1,519.67	5,992.84	3,000.87	2.24	-0.23	0.064
105.00	-30.06	-2.34	0.00	-148.64	0.00	148.64	2,994.36	1,497.18	5,748.30	2,878.42	2.49	-0.25	0.062
110.00	-28.68	-2.35	0.00	-136.92	0.00	136.92	2,947.52	1,473.76	5,504.94	2,756.56	2.76	-0.26	0.059
115.00	-27.32	-2.34	0.00	-125.19	0.00	125.19	2,898.80	1,449.40	5,263.06	2,635.44	3.04	-0.28	0.057
116.00	-24.19	-2.33	0.00	-122.85	0.00	122.85	2,888.83	1,444.42	5,214.89	2,611.32	3.10	-0.28	0.055
120.00	-23.15	-2.33	0.00	-113.52	0.00	113.52	2,848.21	1,424.11	5,022.95	2,515.21	3.34	-0.29	0.053
125.00	-21.87	-2.33	0.00	-101.85	0.00	101.85	2,795.75	1,397.88	4,784.90	2,396.01	3.66	-0.31	0.050
128.00	-21.02	-2.33	0.00	-94.86	0.00	94.86	2,763.38	1,381.69	4,643.19	2,325.05	3.86	-0.32	0.048
130.00	-20.53	-2.33	0.00	-90.21	0.00	90.21	2,741.42	1,370.71	4,549.21	2,277.99	3.99	-0.33	0.047
135.00	-16.90	-2.31	0.00	-78.56	0.00	78.56	2,685.21	1,342.61	4,316.17	2,161.29	4.34	-0.34	0.043
139.33	-15.97	-2.31	0.00	-68.54	0.00	68.54	2,634.99	1,317.49	4,116.57	2,061.34	4.66	-0.35	0.039
140.00	-15.74	-2.31	0.00	-67.00	0.00	67.00	2,627.14	1,313.57	4,086.07	2,046.07	4.71	-0.35	0.039
144.42	-14.27	-2.28	0.00	-56.80	0.00	56.80	1,915.99	957.99	2,941.41	1,472.89	5.04	-0.37	0.046
145.00	-14.16	-2.28	0.00	-55.47	0.00	55.47	1,911.69	955.84	2,923.20	1,463.77	5.08	-0.37	0.045
148.00	-12.10	-2.15	0.00	-48.63	0.00	48.63	1,889.17	944.59	2,829.77	1,416.99	5.32	-0.38	0.041
150.00	-11.77	-2.14	0.00	-44.32	0.00	44.32	1,873.79	936.89	2,767.71	1,385.91	5.48	-0.38	0.038
155.00	-10.96	-2.10	0.00	-33.60	0.00	33.60	1,834.01	917.01	2,613.49	1,308.69	5.88	-0.39	0.032
160.00	-5.45	-1.63	0.00	-23.12	0.00	23.12	1,792.37	896.18	2,460.85	1,232.25	6.30	-0.40	0.022
165.00	-4.81	-1.55	0.00	-14.97	0.00	14.97	1,748.85	874.42	2,310.07	1,156.75	6.73	-0.41	0.016
170.00	-4.20	-1.45	0.00	-7.22	0.00	7.22	1,703.46	851.73	2,161.44	1,082.33	7.16	-0.41	0.009
171.00	-3.09	-0.81	0.00	-5.77	0.00	5.77	1,694.16	847.08	2,132.00	1,067.58	7.25	-0.42	0.007
175.00	-2.65	-0.72	0.00	-2.52	0.00	2.52	1,656.20	828.10	2,015.26	1,009.13	7.60	-0.42	0.004
178.50	0.00	-0.70	0.00	0.00	0.00	0.00	1,622.00	811.00	1,914.55	958.70	7.90	-0.42	0.000

Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:47 AM
Page: 34



Load Case: 0.9D + 1.0E Dead Load with Seismic (Reduced DL)

21 Iterations

Gust Response Factor : 1.10	Sds : 0.26	Ss : 0.24
Dead Load Factor : 0.90	Seismic Load Factor : 1.00	Sd1 : 0.10
Wind Load Factor : 0.00	Structure Frequency : 0.3559	SA : 0.04
		Seismic Importance Factor : 1.00

Total Segment Forces (Factored)

R : 1.50

Seg Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00	0.00
5.00		1675.82	0.00	0.03	0.02	43.95
10.00		1646.12	0.01	0.05	0.03	62.38
15.00		1616.43	0.01	0.06	0.03	71.04
20.00	Appertunance(s)	1991.73	0.02	0.07	0.04	94.10
25.00		1557.03	0.04	0.07	0.04	76.51
30.00		1527.34	0.05	0.07	0.04	76.97
35.00		1497.64	0.07	0.07	0.04	77.05
40.00		1467.94	0.09	0.07	0.04	77.08
45.00	Bot - Section 2	1438.25	0.12	0.07	0.03	77.14
50.00		2632.33	0.15	0.07	0.03	144.02
53.00	Top - Section 1	1552.93	0.17	0.07	0.03	85.77
55.00		476.28	0.18	0.07	0.03	26.42
60.00		1172.87	0.21	0.06	0.02	65.11
65.00		1147.42	0.25	0.06	0.02	62.17
70.00		1121.96	0.29	0.05	0.01	56.87
75.00		1096.51	0.33	0.04	0.01	48.31
80.00		1071.05	0.38	0.02	0.01	35.79
85.00		1045.60	0.43	0.01	0.01	19.26
90.00		1020.15	0.48	-0.01	0.01	-0.03
91.42	Bot - Section 3	284.41	0.50	-0.01	0.01	-1.59
95.00		1310.49	0.54	-0.03	0.01	-25.65
98.00	Top - Section 2	1078.72	0.57	-0.04	0.01	-32.98
100.0		325.17	0.59	-0.05	0.01	-12.11
105.0		798.09	0.65	-0.07	0.02	-40.48
110.0		776.88	0.72	-0.09	0.03	-45.77
115.0		755.66	0.78	-0.11	0.05	-46.60
116.0	Appertunance(s)	2745.59	0.80	-0.11	0.05	-169.08
120.0		585.86	0.85	-0.12	0.07	-34.69
125.0		713.24	0.93	-0.12	0.10	-36.99
128.0	Appertunance(s)	552.76	0.97	-0.12	0.12	-24.97
130.0		274.27	1.00	-0.11	0.13	-10.92
135.0	Appertunance(s)	3401.92	1.08	-0.08	0.18	-78.79
139.3	Bot - Section 4	564.22	1.15	-0.04	0.22	-2.85
140.0		154.71	1.16	-0.03	0.23	-0.30
144.4	Top - Section 3	1007.82	1.24	0.04	0.28	20.71
145.0		58.66	1.25	0.05	0.29	1.40
148.0	Appertunance(s)	2763.04	1.30	0.12	0.34	114.59
150.0		195.30	1.33	0.17	0.37	10.58
155.0		476.37	1.43	0.33	0.46	42.55
160.0	Appertunance(s)	3317.10	1.52	0.55	0.57	428.80
165.0		442.43	1.61	0.83	0.69	77.05
170.0		425.46	1.71	1.18	0.84	95.34
171.0	Appertunance(s)	2680.06	1.73	1.26	0.87	629.00
175.0		325.43	1.82	1.62	1.01	90.86
178.5	Appertunance(s)	2180.85	1.89	1.98	1.14	699.81

Totals: 54,949.88 2,846.81

Total Wind : 53,382.2

Seismic Base Shear Not Tested Due To User Override - Analysis Required

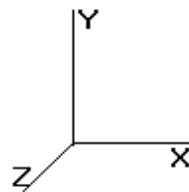
Pole : 302467
Location : Bilkays Express, CT
Height : 178.5 (ft)
Base Dia : 72.00 (in)
Top Dia : 29.00 (in)
Shape : 18 Sides
Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
Struct Class : II
Exposure Category : B
Topographic Category : 1
Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:48 AM

Page: 35



Load Case: 0.9D + 1.0E

Dead Load with Seismic (Reduced DL)

21 Iterations

Gust Response Factor : 1.10

Sds : 0.26

Ss : 0.24

Dead Load Factor : 0.90

Seismic Load Factor : 1.00

Sd1 : 0.10

S1 : 0.06

Wind Load Factor : 0.00

Structure Frequency : 0.3559

SA : 0.04

Seismic Importance Factor : 1.00

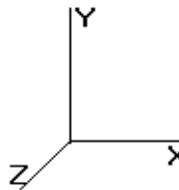
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:48 AM

Page: 36



Load Case: 0.9D + 1.0E

Dead Load with Seismic (Reduced DL)

21 Iterations

Gust Response Factor : 1.10

Sds : 0.26

Ss : 0.24

Dead Load Factor : 0.90

Seismic Load Factor : 1.00

Sd1 : 0.10

S1 : 0.06

Wind Load Factor : 0.00

Structure Frequency : 0.3559

SA : 0.04

Seismic Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-56.77	-3.41	0.00	-436.30	0.00	436.30	6,164.54	3,082.27	18,158.3	9,092.69	0.00	0.00	0.057
5.00	-54.92	-3.38	0.00	-419.22	0.00	419.22	6,108.61	3,054.31	17,675.6	8,850.97	0.01	-0.01	0.056
10.00	-53.10	-3.33	0.00	-402.32	0.00	402.32	6,050.81	3,025.41	17,193.4	8,609.50	0.02	-0.02	0.056
15.00	-51.31	-3.26	0.00	-385.69	0.00	385.69	5,991.14	2,995.57	16,712.0	8,368.43	0.05	-0.03	0.055
20.00	-49.51	-3.18	0.00	-369.38	0.00	369.38	5,929.59	2,964.80	16,231.6	8,127.91	0.08	-0.04	0.054
25.00	-47.77	-3.11	0.00	-353.50	0.00	353.50	5,866.18	2,933.09	15,752.7	7,888.07	0.13	-0.05	0.053
30.00	-46.06	-3.04	0.00	-337.97	0.00	337.97	5,800.89	2,900.44	15,275.4	7,649.08	0.18	-0.06	0.052
35.00	-44.38	-2.97	0.00	-322.78	0.00	322.78	5,733.73	2,866.86	14,800.1	7,411.07	0.25	-0.07	0.051
40.00	-42.72	-2.89	0.00	-307.96	0.00	307.96	5,664.70	2,832.35	14,327.0	7,174.19	0.33	-0.08	0.050
45.00	-41.09	-2.82	0.00	-293.49	0.00	293.49	5,593.79	2,796.90	13,856.5	6,938.58	0.42	-0.09	0.050
50.00	-38.39	-2.68	0.00	-279.38	0.00	279.38	5,521.02	2,760.51	13,388.9	6,704.40	0.52	-0.10	0.049
53.00	-36.79	-2.59	0.00	-271.34	0.00	271.34	4,440.13	2,220.06	10,789.7	5,402.88	0.58	-0.11	0.059
55.00	-36.23	-2.57	0.00	-266.15	0.00	266.15	4,419.76	2,209.88	10,648.2	5,332.01	0.63	-0.11	0.058
60.00	-34.83	-2.51	0.00	-253.29	0.00	253.29	4,367.53	2,183.77	10,295.0	5,155.16	0.75	-0.12	0.057
65.00	-33.47	-2.45	0.00	-240.74	0.00	240.74	4,313.43	2,156.72	9,942.96	4,978.87	0.89	-0.14	0.056
70.00	-32.12	-2.40	0.00	-228.47	0.00	228.47	4,257.46	2,128.73	9,592.32	4,803.29	1.03	-0.15	0.055
75.00	-30.80	-2.36	0.00	-216.47	0.00	216.47	4,199.61	2,099.81	9,243.38	4,628.56	1.20	-0.16	0.054
80.00	-29.50	-2.32	0.00	-204.69	0.00	204.69	4,139.90	2,069.95	8,896.44	4,454.83	1.37	-0.17	0.053
85.00	-28.22	-2.31	0.00	-193.08	0.00	193.08	4,078.31	2,039.15	8,551.80	4,282.26	1.56	-0.19	0.052
90.00	-26.97	-2.31	0.00	-181.55	0.00	181.55	4,014.84	2,007.42	8,209.74	4,110.97	1.77	-0.20	0.051
91.42	-26.62	-2.31	0.00	-178.28	0.00	178.28	3,996.52	1,998.26	8,113.33	4,062.70	1.83	-0.20	0.051
95.00	-25.19	-2.31	0.00	-170.01	0.00	170.01	3,949.51	1,974.76	7,870.56	3,941.13	1.98	-0.21	0.050
98.00	-24.02	-2.30	0.00	-163.10	0.00	163.10	3,056.80	1,528.40	6,090.92	3,049.99	2.12	-0.22	0.061
100.00	-23.60	-2.31	0.00	-158.49	0.00	158.49	3,039.33	1,519.67	5,992.84	3,000.87	2.22	-0.23	0.061
105.00	-22.54	-2.31	0.00	-146.95	0.00	146.95	2,994.36	1,497.18	5,748.30	2,878.42	2.46	-0.24	0.059
110.00	-21.51	-2.31	0.00	-135.40	0.00	135.40	2,947.52	1,473.76	5,504.94	2,756.56	2.73	-0.26	0.056
115.00	-20.49	-2.31	0.00	-123.85	0.00	123.85	2,898.80	1,449.40	5,263.06	2,635.44	3.01	-0.28	0.054
116.00	-18.14	-2.30	0.00	-121.54	0.00	121.54	2,888.83	1,444.42	5,214.89	2,611.32	3.07	-0.28	0.053
120.00	-17.36	-2.30	0.00	-112.34	0.00	112.34	2,848.21	1,424.11	5,022.95	2,515.21	3.31	-0.29	0.051
125.00	-16.40	-2.30	0.00	-100.83	0.00	100.83	2,795.75	1,397.88	4,784.90	2,396.01	3.62	-0.31	0.048
128.00	-15.76	-2.30	0.00	-93.93	0.00	93.93	2,763.38	1,381.69	4,643.19	2,325.05	3.82	-0.32	0.046
130.00	-15.40	-2.30	0.00	-89.34	0.00	89.34	2,741.42	1,370.71	4,549.21	2,277.99	3.95	-0.32	0.045
135.00	-12.67	-2.29	0.00	-77.84	0.00	77.84	2,685.21	1,342.61	4,316.17	2,161.29	4.29	-0.34	0.041
139.33	-11.97	-2.28	0.00	-67.94	0.00	67.94	2,634.99	1,317.49	4,116.57	2,061.34	4.61	-0.35	0.038
140.00	-11.80	-2.28	0.00	-66.41	0.00	66.41	2,627.14	1,313.57	4,086.07	2,046.07	4.65	-0.35	0.037
144.42	-10.70	-2.26	0.00	-56.33	0.00	56.33	1,915.99	957.99	2,941.41	1,472.89	4.98	-0.36	0.044
145.00	-10.62	-2.26	0.00	-55.01	0.00	55.01	1,911.69	955.84	2,923.20	1,463.77	5.03	-0.36	0.043
148.00	-9.07	-2.13	0.00	-48.24	0.00	48.24	1,889.17	944.59	2,829.77	1,416.99	5.26	-0.37	0.039
150.00	-8.82	-2.12	0.00	-43.97	0.00	43.97	1,873.79	936.89	2,767.71	1,385.91	5.42	-0.38	0.036
155.00	-8.22	-2.08	0.00	-33.36	0.00	33.36	1,834.01	917.01	2,613.49	1,308.69	5.82	-0.39	0.030
160.00	-4.09	-1.62	0.00	-22.98	0.00	22.98	1,792.37	896.18	2,460.85	1,232.25	6.23	-0.40	0.021
165.00	-3.61	-1.54	0.00	-14.87	0.00	14.87	1,748.85	874.42	2,310.07	1,156.75	6.65	-0.41	0.015
170.00	-3.15	-1.44	0.00	-7.17	0.00	7.17	1,703.46	851.73	2,161.44	1,082.33	7.08	-0.41	0.008
171.00	-2.32	-0.81	0.00	-5.73	0.00	5.73	1,694.16	847.08	2,132.00	1,067.58	7.17	-0.41	0.007
175.00	-1.99	-0.71	0.00	-2.50	0.00	2.50	1,656.20	828.10	2,015.26	1,009.13	7.51	-0.41	0.004
178.50	0.00	-0.70	0.00	0.00	0.00	0.00	1,622.00	811.00	1,914.55	958.70	7.81	-0.41	0.000

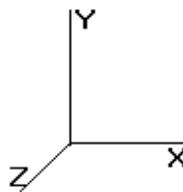
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:48 AM

Page: 37



Load Case: 1.0D + 1.0W

60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.742	305.84	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.742	300.50	0.650	*	0.000	5.00	30.197	19.63	132.3	0.0
10.00		1.00	0.70	6.129	6.742	295.16	0.650	*	0.000	5.00	29.665	19.28	130.0	0.0
15.00		1.00	0.70	6.129	6.742	289.82	0.650	*	0.000	5.00	29.133	18.94	127.7	0.0
20.00	Appertunance(s)	1.00	0.70	6.129	6.742	284.48	0.650	*	0.000	5.00	28.601	18.59	125.3	0.0
25.00		1.00	0.70	6.129	6.742	279.14	0.650	*	0.000	5.00	28.070	18.25	123.0	0.0
30.00		1.00	0.70	6.134	6.747	273.92	0.650	*	0.000	5.00	27.538	17.90	120.8	0.0
35.00		1.00	0.73	6.410	7.051	274.56	0.650	*	0.000	5.00	27.006	17.55	123.8	0.0
40.00		1.00	0.76	6.659	7.325	274.28	0.650	*	0.000	5.00	26.474	17.21	126.1	0.0
45.00	Bot - Section 2	1.00	0.78	6.887	7.576	273.27	0.650	*	0.000	5.00	25.942	16.86	127.7	0.0
50.00		1.00	0.81	7.098	7.807	271.67	0.650	*	0.000	5.00	25.728	16.72	130.6	0.0
53.00	Top - Section 1	1.00	0.82	7.217	7.939	270.46	0.650	*	0.000	3.00	15.181	9.87	78.3	0.0
55.00		1.00	0.83	7.294	8.023	273.04	0.650	*	0.000	2.00	10.015	6.51	52.2	0.0
60.00		1.00	0.85	7.477	8.225	270.56	0.650	*	0.000	5.00	24.664	16.03	131.9	0.0
65.00		1.00	0.87	7.650	8.415	267.71	0.650	*	0.000	5.00	24.132	15.69	132.0	0.0
70.00		1.00	0.89	7.814	8.595	264.53	0.650	*	0.000	5.00	23.600	15.34	131.9	0.0
75.00		1.00	0.91	7.969	8.766	261.06	0.650	*	0.000	5.00	23.069	14.99	131.4	0.0
80.00		1.00	0.92	8.118	8.930	257.33	0.650	*	0.000	5.00	22.537	14.65	130.8	0.0
85.00		1.00	0.94	8.260	9.086	253.37	0.650	*	0.000	5.00	22.005	14.30	130.0	0.0
90.00		1.00	0.95	8.396	9.235	249.20	0.650	*	0.000	5.00	21.473	13.96	128.9	0.0
91.42	Bot - Section 3	1.00	0.96	8.433	9.276	247.98	0.650	*	0.000	1.42	5.987	3.89	36.1	0.0
95.00		1.00	0.97	8.526	9.379	244.83	0.650	*	0.000	3.58	15.143	9.84	92.3	0.0
98.00	Top - Section 2	1.00	0.98	8.602	9.463	242.13	0.650	*	0.000	3.00	12.468	8.10	76.7	0.0
100.0		1.00	0.98	8.652	9.517	243.45	0.650	*	0.000	2.00	8.206	5.33	50.8	0.0
105.0		1.00	1.00	8.774	9.651	238.76	0.650	*	0.000	5.00	20.142	13.09	126.4	0.0
110.0		1.00	1.01	8.891	9.780	233.92	1.200	*	0.000	5.00	19.610	23.53	230.1	0.0
115.0		1.00	1.02	9.005	9.905	228.94	1.200	*	0.000	5.00	19.078	22.89	226.8	0.0
116.0	Appertunance(s)	1.00	1.03	9.027	9.930	227.93	1.200	*	0.000	1.00	3.752	4.50	44.7	0.0
120.0		1.00	1.04	9.115	10.02	223.82	0.650	*	0.000	4.00	14.795	9.62	96.4	0.0
125.0		1.00	1.05	9.222	10.14	218.58	0.650	*	0.000	5.00	18.015	11.71	118.8	0.0
128.0	Appertunance(s)	1.00	1.06	9.284	10.21	215.38	0.650	*	0.000	3.00	10.554	6.86	70.1	0.0
130.0		1.00	1.06	9.326	10.25	213.22	0.650	*	0.000	2.00	6.929	4.50	46.2	0.0
135.0	Appertunance(s)	1.00	1.07	9.427	10.36	207.75	0.650	*	0.000	5.00	16.951	11.02	114.3	0.0
139.3	Bot - Section 4	1.00	1.08	9.512	10.46	202.93	0.650	*	0.000	4.33	14.261	9.27	97.0	0.0
140.0		1.00	1.08	9.525	10.47	202.18	0.650	*	0.000	0.67	2.187	1.42	14.9	0.0
144.4	Top - Section 3	1.00	1.09	9.610	10.57	197.17	0.650	*	0.000	4.42	14.248	9.26	97.9	0.0
145.0		1.00	1.09	9.621	10.58	199.17	0.650	*	0.000	0.58	1.851	1.20	12.7	0.0
148.0	Appertunance(s)	1.00	1.10	9.678	10.64	195.72	0.650	*	0.000	3.00	9.404	6.11	65.1	0.0
150.0		1.00	1.11	9.715	10.68	193.41	0.650	0.000	2.00	6.163	4.01	42.8	0.0	
155.0		1.00	1.12	9.806	10.78	187.56	0.650	0.000	5.00	15.035	9.77	105.4	0.0	
160.0	Appertunance(s)	1.00	1.13	9.896	10.88	181.63	0.650	0.000	5.00	14.503	9.43	102.6	0.0	
165.0		1.00	1.14	9.983	10.98	175.62	0.650	0.000	5.00	13.972	9.08	99.7	0.0	
170.0		1.00	1.15	10.069	11.07	169.52	0.650	0.000	5.00	13.440	8.74	96.8	0.0	
171.0	Appertunance(s)	1.00	1.15	10.085	11.09	168.30	0.650	0.000	1.00	2.624	1.71	18.9	0.0	
175.0		1.00	1.16	10.152	11.16	163.36	0.650	0.000	4.00	10.284	6.68	74.6	0.0	
178.5	Appertunance(s)	1.00	1.16	10.210	11.23	158.99	0.650	0.000	3.50	8.719	5.67	63.7	0.0	

* = Cf Adjusted By Linear Load Ra Effect

Totals:

535.50

111,300.6

0.0 121,696.9

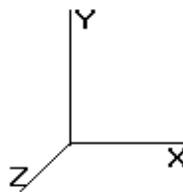
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:48 AM

Page: 38



Load Case: 1.0D + 1.0W

60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
20.00	PCTEL GPS-TMG-HR-	1	6.129	6.742	1.00	1.00	0.09	0.000	0.000	0.61	0.00	0.00	0.60
20.00	Standoff	1	6.129	6.742	1.00	1.00	1.63	0.000	0.000	10.99	0.00	0.00	40.00
116.0	Alcatel-Lucent 800 M	3	9.027	9.930	0.67	0.80	3.43	0.000	0.000	34.01	0.00	0.00	159.00
116.0	Alcatel-Lucent 1900	3	9.027	9.930	0.67	0.80	3.73	0.000	0.000	37.04	0.00	0.00	180.00
116.0	Flat Low Profile Pla	1	9.027	9.930	1.00	1.00	26.10	0.000	0.000	259.16	0.00	0.00	1,500.00
116.0	RFS APXVSP18-C-	3	9.071	9.978	0.83	0.80	15.98	0.000	2.000	159.41	0.00	318.82	171.00
116.0	Alcatel-Lucent TD-RR	3	9.027	9.930	0.67	0.80	6.51	0.000	0.000	64.67	0.00	0.00	210.00
116.0	RFS APXV9TM14-ALU-	3	9.071	9.978	0.78	0.80	11.87	0.000	2.000	118.43	0.00	236.85	165.30
128.0	RFS APXV18-206517S-	3	9.284	10.213	0.80	1.00	12.41	0.000	0.000	126.72	0.00	0.00	79.20
135.0	Round Low Profile PI	1	9.427	10.369	1.00	1.00	21.70	0.000	0.000	225.02	0.00	0.00	1,500.00
135.0	Antel BXA-171063-12B	3	9.486	10.435	0.88	0.80	9.99	0.000	3.000	104.24	0.00	312.72	45.00
135.0	Antel BXA-70063-6CF-	3	9.486	10.435	0.77	0.80	13.99	0.000	3.000	145.98	0.00	437.93	51.00
135.0	RFS FD9R6004/2C-3L	6	9.486	10.435	0.50	0.80	0.89	0.000	3.000	9.27	0.00	27.80	15.60
135.0	Antel BXA-80063-6BF-	3	9.486	10.435	0.78	0.80	13.59	0.000	3.000	141.82	0.00	425.45	57.60
135.0	Antel BXA-171063-8BF	3	9.486	10.435	0.87	0.80	6.14	0.000	3.000	64.06	0.00	192.17	31.50
135.0	Alcatel-Lucent RRH2x	3	9.486	10.435	0.67	0.80	3.49	0.000	3.000	36.46	0.00	109.38	132.00
135.0	RFS DB-T1-6Z-8AB-0Z	1	9.486	10.435	1.00	0.80	3.84	0.000	3.000	40.07	0.00	120.21	44.00
135.0	Alcatel-Lucent RRH2x	3	9.486	10.435	0.67	0.80	3.41	0.000	3.000	35.57	0.00	106.72	150.00
148.0	T-Arm w/ Working Pla	3	9.678	10.645	0.67	0.75	19.45	0.000	0.000	207.02	0.00	0.00	750.00
148.0	Ericsson KRY 112 144	3	9.678	10.645	0.50	0.80	0.49	0.000	0.000	5.24	0.00	0.00	33.00
148.0	Ericsson AIR 21, 1.3	3	9.678	10.645	0.86	0.80	12.49	0.000	0.000	132.93	0.00	0.00	249.00
148.0	Ericsson AIR 21, 1.3	3	9.678	10.645	0.85	0.80	12.42	0.000	0.000	132.25	0.00	0.00	244.50
160.0	Powerwave 7020	3	9.896	10.885	0.33	0.75	0.30	0.000	0.000	3.23	0.00	0.00	6.60
160.0	14" x 9" TTA	6	9.896	10.885	0.33	0.75	1.56	0.000	0.000	16.97	0.00	0.00	60.00
160.0	Raycap DC6-48-60-18-	3	9.896	10.885	1.00	0.75	2.50	0.000	0.000	27.19	0.00	0.00	60.00
160.0	CCI	3	9.896	10.885	0.50	0.75	1.54	0.000	0.000	16.78	0.00	0.00	57.60
160.0	Ericsson RRUS A2	6	9.896	10.885	0.67	0.75	6.21	0.000	0.000	67.61	0.00	0.00	132.00
160.0	Ericsson RRUS 11 (Ba	6	9.896	10.885	0.67	0.75	8.41	0.000	0.000	91.56	0.00	0.00	304.20
160.0	Ericsson RRUS-12 B2	6	9.896	10.885	0.67	0.75	9.50	0.000	0.000	103.38	0.00	0.00	348.00
160.0	Ericsson RRUS E2 B29	3	9.896	10.885	0.67	0.75	4.75	0.000	0.000	51.69	0.00	0.00	180.00
160.0	Ericsson RRUS-32	3	9.896	10.885	0.67	0.75	4.99	0.000	0.000	54.32	0.00	0.00	231.00
160.0	Powerwave 7770.00	3	9.896	10.885	0.77	0.75	9.55	0.000	0.000	103.91	0.00	0.00	105.00
160.0	CCI HPA-65R-BUU-H6	9	9.896	10.885	0.83	0.75	54.12	0.000	0.000	589.11	0.00	0.00	459.00
160.0	Flat Platform w/ Han	1	9.896	10.885	1.00	1.00	42.40	0.000	0.000	461.53	0.00	0.00	2,000.00
171.0	Side Arms	1	10.085	11.094	1.00	1.00	8.50	0.000	0.000	94.30	0.00	0.00	560.00
171.0	DragonWave A-ANT-	1	10.085	11.094	1.00	0.80	3.75	0.000	0.000	41.62	0.00	0.00	27.00
171.0	NextNet BTS-2500	3	10.085	11.094	0.50	0.80	2.18	0.000	0.000	24.23	0.00	0.00	105.00
171.0	Argus LLPX310R	3	10.085	11.094	0.73	0.80	7.52	0.000	0.000	83.38	0.00	0.00	85.80
171.0	DragonWave Horizon	2	10.085	11.094	0.33	0.80	0.23	0.000	0.000	2.52	0.00	0.00	21.20
171.0	DragonWave A-ANT-	1	10.085	11.094	1.00	0.80	3.75	0.000	0.000	41.62	0.00	0.00	27.10
178.5	72" x 12" Panel	3	10.251	11.276	0.79	0.80	15.41	0.000	2.500	173.81	0.00	434.52	135.00
178.5	48" x 12" Panel	9	10.251	11.276	0.78	0.80	28.47	0.000	2.500	321.05	0.00	802.63	270.00
178.5	Flat Low Profile Pla	1	10.210	11.231	1.00	1.00	26.10	0.000	0.000	293.13	0.00	0.00	1,500.00

4,753.89

38,696.68

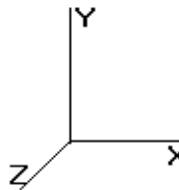
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:48 AM

Page: 39



Load Case: 1.0D + 1.0W

60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.130	1.090	0.00	1.50
5.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.129	0.130	1.090	0.00	36.50
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.130	1.090	0.00	24.60
5.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.130	1.090	0.00	12.30
5.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.130	1.090	0.00	24.60
5.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.129	0.130	1.090	0.00	5.00
5.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.129	0.130	1.090	0.00	15.00
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.130	1.090	0.00	0.75
10.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.132	1.097	0.00	1.50
10.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.129	0.132	1.097	0.00	36.50
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.132	1.097	0.00	24.60
10.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.132	1.097	0.00	12.30
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.132	1.097	0.00	24.60
10.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.129	0.132	1.097	0.00	5.00
10.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.129	0.132	1.097	0.00	15.00
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.132	1.097	0.00	0.75
15.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.135	1.105	0.00	1.50
15.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.129	0.135	1.105	0.00	36.50
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.135	1.105	0.00	24.60
15.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.135	1.105	0.00	12.30
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.135	1.105	0.00	24.60
15.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.129	0.135	1.105	0.00	5.00
15.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.129	0.135	1.105	0.00	15.00
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.135	1.105	0.00	0.75
20.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.137	1.112	0.00	1.50
20.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.129	0.137	1.112	0.00	36.50
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.137	1.112	0.00	24.60
20.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.137	1.112	0.00	12.30
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.137	1.112	0.00	24.60
20.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.129	0.137	1.112	0.00	5.00
20.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.129	0.137	1.112	0.00	15.00
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.137	1.112	0.00	0.75
25.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.140	1.120	0.00	1.50
25.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.129	0.140	1.120	0.00	36.50
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.140	1.120	0.00	24.60
25.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.140	1.120	0.00	12.30
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.129	0.140	1.120	0.00	24.60
25.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.129	0.140	1.120	0.00	5.00
25.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.129	0.140	1.120	0.00	15.00
25.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.140	1.120	0.00	0.75
30.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.134	0.143	1.128	0.00	1.50
30.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.134	0.143	1.128	0.00	36.50
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.134	0.143	1.128	0.00	24.60
30.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.134	0.143	1.128	0.00	12.30
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.134	0.143	1.128	0.00	24.60
30.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.134	0.143	1.128	0.00	5.00
30.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.134	0.143	1.128	0.00	15.00
35.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.410	0.145	1.136	0.00	1.50
35.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.410	0.145	1.136	0.00	36.50
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.410	0.145	1.136	0.00	24.60
35.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.410	0.145	1.136	0.00	12.30
35.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.410	0.145	1.136	0.00	24.60

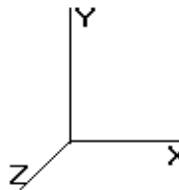
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:48 AM

Page: 40

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 1.0D + 1.0W 60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

35.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.410	0.145	1.136	0.00	5.00
35.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.410	0.145	1.136	0.00	15.00
40.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.659	0.148	1.145	0.00	1.50
40.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.659	0.148	1.145	0.00	36.50
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.659	0.148	1.145	0.00	24.60
40.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.659	0.148	1.145	0.00	12.30
40.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.659	0.148	1.145	0.00	24.60
40.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.659	0.148	1.145	0.00	5.00
40.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.659	0.148	1.145	0.00	15.00
45.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.887	0.151	1.154	0.00	1.50
45.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	6.887	0.151	1.154	0.00	36.50
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.887	0.151	1.154	0.00	24.60
45.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.887	0.151	1.154	0.00	12.30
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	6.887	0.151	1.154	0.00	24.60
45.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	6.887	0.151	1.154	0.00	5.00
45.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	6.887	0.151	1.154	0.00	15.00
50.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.098	0.155	1.164	0.00	1.50
50.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	7.098	0.155	1.164	0.00	36.50
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.098	0.155	1.164	0.00	24.60
50.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.098	0.155	1.164	0.00	12.30
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.098	0.155	1.164	0.00	24.60
50.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	7.098	0.155	1.164	0.00	5.00
50.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	7.098	0.155	1.164	0.00	15.00
53.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	7.217	0.157	1.172	0.00	0.90
53.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	7.217	0.157	1.172	0.00	21.90
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	7.217	0.157	1.172	0.00	14.76
53.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	7.217	0.157	1.172	0.00	7.38
53.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	7.217	0.157	1.172	0.00	14.76
53.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	0.38	0.00	7.217	0.157	1.172	0.00	3.00
53.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	0.39	0.00	7.217	0.157	1.172	0.00	9.00
55.00	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	7.294	0.157	1.171	0.00	0.60
55.00	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	7.294	0.157	1.171	0.00	14.60
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	7.294	0.157	1.171	0.00	9.84
55.00	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	7.294	0.157	1.171	0.00	4.92
55.00	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	7.294	0.157	1.171	0.00	9.84
55.00	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.26	0.00	7.294	0.157	1.171	0.00	2.00
55.00	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.26	0.00	7.294	0.157	1.171	0.00	6.00
60.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.477	0.159	1.178	0.00	1.50
60.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	7.477	0.159	1.178	0.00	36.50
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.477	0.159	1.178	0.00	24.60
60.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.477	0.159	1.178	0.00	12.30
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.477	0.159	1.178	0.00	24.60
60.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	7.477	0.159	1.178	0.00	5.00
60.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	7.477	0.159	1.178	0.00	15.00
65.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.650	0.163	1.188	0.00	1.50
65.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	7.650	0.163	1.188	0.00	36.50
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.650	0.163	1.188	0.00	24.60
65.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.650	0.163	1.188	0.00	12.30
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.650	0.163	1.188	0.00	24.60
65.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	7.650	0.163	1.188	0.00	5.00
65.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	7.650	0.163	1.188	0.00	15.00
70.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.814	0.166	1.199	0.00	1.50
70.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	7.814	0.166	1.199	0.00	36.50
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.814	0.166	1.199	0.00	24.60
70.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.814	0.166	1.199	0.00	12.30
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.814	0.166	1.199	0.00	24.60
70.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	7.814	0.166	1.199	0.00	5.00

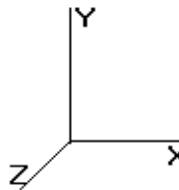
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

6/13/2014 11:15:48 AM

Page: 41

© 2007 - 2014 by ATC IP LLC. All rights reserved.



Load Case: 1.0D + 1.0W 60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

70.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	7.814	0.166	1.199	0.00	15.00
75.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.969	0.170	1.211	0.00	1.50
75.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	7.969	0.170	1.211	0.00	36.50
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.969	0.170	1.211	0.00	24.60
75.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.969	0.170	1.211	0.00	12.30
75.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	7.969	0.170	1.211	0.00	24.60
75.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	7.969	0.170	1.211	0.00	5.00
75.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	7.969	0.170	1.211	0.00	15.00
80.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.118	0.174	1.223	0.00	1.50
80.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	8.118	0.174	1.223	0.00	36.50
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.118	0.174	1.223	0.00	24.60
80.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.118	0.174	1.223	0.00	12.30
80.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.118	0.174	1.223	0.00	24.60
80.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	8.118	0.174	1.223	0.00	5.00
80.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	8.118	0.174	1.223	0.00	15.00
85.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.260	0.179	1.236	0.00	1.50
85.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	8.260	0.179	1.236	0.00	36.50
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.260	0.179	1.236	0.00	24.60
85.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.260	0.179	1.236	0.00	12.30
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.260	0.179	1.236	0.00	24.60
85.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	8.260	0.179	1.236	0.00	5.00
85.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	8.260	0.179	1.236	0.00	15.00
90.00	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.396	0.183	1.249	0.00	1.50
90.00	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	8.396	0.183	1.249	0.00	36.50
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.396	0.183	1.249	0.00	24.60
90.00	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.396	0.183	1.249	0.00	12.30
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.396	0.183	1.249	0.00	24.60
90.00	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	8.396	0.183	1.249	0.00	5.00
90.00	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	8.396	0.183	1.249	0.00	15.00
91.42	(2) 1/2" Coax	Yes	1.42	0.000	0.00	0.00	0.00	8.433	0.186	1.258	0.00	0.43
91.42	(2) 2" Conduit	Yes	1.42	0.000	2.38	0.28	0.00	8.433	0.186	1.258	0.00	10.34
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.23	0.00	8.433	0.186	1.258	0.00	6.97
91.42	(3) 1 5/8" Coax	Yes	1.42	0.000	0.00	0.00	0.00	8.433	0.186	1.258	0.00	3.48
91.42	(6) 1 5/8" Coax	Yes	1.42	0.000	1.98	0.23	0.00	8.433	0.186	1.258	0.00	6.97
91.42	(1) 1 1/4" Hybriflex	Yes	1.42	0.000	1.54	0.18	0.00	8.433	0.186	1.258	0.00	1.42
91.42	(3) 1 1/4" Hybriflex	Yes	1.42	0.000	1.55	0.18	0.00	8.433	0.186	1.258	0.00	4.25
95.00	(2) 1/2" Coax	Yes	3.58	0.000	0.00	0.00	0.00	8.526	0.188	1.265	0.00	1.07
95.00	(2) 2" Conduit	Yes	3.58	0.000	2.38	0.71	0.00	8.526	0.188	1.265	0.00	26.16
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	0.59	0.00	8.526	0.188	1.265	0.00	17.63
95.00	(3) 1 5/8" Coax	Yes	3.58	0.000	0.00	0.00	0.00	8.526	0.188	1.265	0.00	8.81
95.00	(6) 1 5/8" Coax	Yes	3.58	0.000	1.98	0.59	0.00	8.526	0.188	1.265	0.00	17.63
95.00	(1) 1 1/4" Hybriflex	Yes	3.58	0.000	1.54	0.46	0.00	8.526	0.188	1.265	0.00	3.58
95.00	(3) 1 1/4" Hybriflex	Yes	3.58	0.000	1.55	0.46	0.00	8.526	0.188	1.265	0.00	10.75
98.00	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	8.602	0.192	1.275	0.00	0.90
98.00	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	8.602	0.192	1.275	0.00	21.90
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	8.602	0.192	1.275	0.00	14.76
98.00	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	8.602	0.192	1.275	0.00	7.38
98.00	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	8.602	0.192	1.275	0.00	14.76
98.00	(1) 1 1/4" Hybriflex	Yes	3.00	0.000	1.54	0.38	0.00	8.602	0.192	1.275	0.00	3.00
98.00	(3) 1 1/4" Hybriflex	Yes	3.00	0.000	1.55	0.39	0.00	8.602	0.192	1.275	0.00	9.00
100.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	8.652	0.192	1.275	0.00	0.60
100.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	8.652	0.192	1.275	0.00	14.60
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	8.652	0.192	1.275	0.00	9.84
100.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	8.652	0.192	1.275	0.00	4.92
100.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	8.652	0.192	1.275	0.00	9.84
100.0	(1) 1 1/4" Hybriflex	Yes	2.00	0.000	1.54	0.26	0.00	8.652	0.192	1.275	0.00	2.00
100.0	(3) 1 1/4" Hybriflex	Yes	2.00	0.000	1.55	0.26	0.00	8.652	0.192	1.275	0.00	6.00

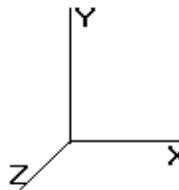
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:48 AM

Page: 42



Load Case: 1.0D + 1.0W 60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

105.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.774	0.195	1.285	0.00	1.50
105.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	8.774	0.195	1.285	0.00	36.50
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.774	0.195	1.285	0.00	24.60
105.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.774	0.195	1.285	0.00	12.30
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	8.774	0.195	1.285	0.00	24.60
105.0	(1) 1 1/4" Hybriflex	Yes	5.00	0.000	1.54	0.64	0.00	8.774	0.195	1.285	0.00	5.00
105.0	(3) 1 1/4" Hybriflex	Yes	5.00	0.000	1.55	0.65	0.00	8.774	0.195	1.285	0.00	15.00
110.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.891	0.200	0.000	0.00	1.50
110.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	0.99	1.19	8.891	0.200	0.000	11.64	36.50
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	8.891	0.200	0.000	9.68	24.60
110.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.891	0.200	0.000	0.00	12.30
110.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	8.891	0.200	0.000	9.68	24.60
110.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	0.64	0.77	8.891	0.200	0.000	7.53	5.00
110.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	0.65	0.77	8.891	0.200	0.000	7.58	15.00
115.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.005	0.206	0.000	0.00	1.50
115.0	(2) 2" Conduit	Yes	5.00	1.200	2.38	0.99	1.19	9.005	0.206	0.000	11.79	36.50
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	9.005	0.206	0.000	9.81	24.60
115.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.005	0.206	0.000	0.00	12.30
115.0	(6) 1 5/8" Coax	Yes	5.00	1.200	1.98	0.82	0.99	9.005	0.206	0.000	9.81	24.60
115.0	(1) 1 1/4" Hybriflex	Yes	5.00	1.200	1.54	0.64	0.77	9.005	0.206	0.000	7.63	5.00
115.0	(3) 1 1/4" Hybriflex	Yes	5.00	1.200	1.55	0.65	0.77	9.005	0.206	0.000	7.68	15.00
116.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	9.027	0.209	0.000	0.00	0.30
116.0	(2) 2" Conduit	Yes	1.00	1.200	2.38	0.20	0.24	9.027	0.209	0.000	2.36	7.30
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.17	0.20	9.027	0.209	0.000	1.97	4.92
116.0	(3) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	9.027	0.209	0.000	0.00	2.46
116.0	(6) 1 5/8" Coax	Yes	1.00	1.200	1.98	0.17	0.20	9.027	0.209	0.000	1.97	4.92
116.0	(1) 1 1/4" Hybriflex	Yes	1.00	1.200	1.54	0.13	0.15	9.027	0.209	0.000	1.53	1.00
116.0	(3) 1 1/4" Hybriflex	Yes	1.00	1.200	1.55	0.13	0.16	9.027	0.209	0.000	1.54	3.00
120.0	(2) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	9.115	0.143	1.129	0.00	1.20
120.0	(2) 2" Conduit	Yes	4.00	0.000	2.38	0.79	0.00	9.115	0.143	1.129	0.00	29.20
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	0.66	0.00	9.115	0.143	1.129	0.00	19.68
120.0	(3) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	9.115	0.143	1.129	0.00	9.84
120.0	(6) 1 5/8" Coax	Yes	4.00	0.000	1.98	0.66	0.00	9.115	0.143	1.129	0.00	19.68
125.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.222	0.147	1.140	0.00	1.50
125.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	9.222	0.147	1.140	0.00	36.50
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	9.222	0.147	1.140	0.00	24.60
125.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.222	0.147	1.140	0.00	12.30
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	9.222	0.147	1.140	0.00	24.60
128.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	9.284	0.150	1.151	0.00	0.90
128.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	9.284	0.150	1.151	0.00	21.90
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	9.284	0.150	1.151	0.00	14.76
128.0	(3) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	9.284	0.150	1.151	0.00	7.38
128.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	9.284	0.150	1.151	0.00	14.76
130.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	9.326	0.105	1.015	0.00	0.60
130.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	9.326	0.105	1.015	0.00	14.60
130.0	(6) 1 5/8" Coax	Yes	2.00	0.000	1.98	0.33	0.00	9.326	0.105	1.015	0.00	9.84
130.0	(3) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	9.326	0.105	1.015	0.00	4.92
135.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.427	0.107	1.022	0.00	1.50
135.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	9.427	0.107	1.022	0.00	36.50
135.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	9.427	0.107	1.022	0.00	24.60
135.0	(3) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.427	0.107	1.022	0.00	12.30
139.3	(2) 1/2" Coax	Yes	4.33	0.000	0.00	0.00	0.00	9.512	0.110	1.031	0.00	1.30
139.3	(2) 2" Conduit	Yes	4.33	0.000	2.38	0.86	0.00	9.512	0.110	1.031	0.00	31.63
139.3	(6) 1 5/8" Coax	Yes	4.33	0.000	1.98	0.72	0.00	9.512	0.110	1.031	0.00	21.32
140.0	(2) 1/2" Coax	Yes	0.67	0.000	0.00	0.00	0.00	9.525	0.112	1.037	0.00	0.20
140.0	(2) 2" Conduit	Yes	0.67	0.000	2.38	0.13	0.00	9.525	0.112	1.037	0.00	4.87
140.0	(6) 1 5/8" Coax	Yes	0.67	0.000	1.98	0.11	0.00	9.525	0.112	1.037	0.00	3.28

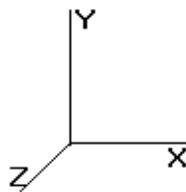
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:49 AM

Page: 43



Load Case: 1.0D + 1.0W

60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

144.4	(2) 1/2" Coax	Yes	4.42	0.000	0.00	0.00	9.610	0.114	1.042	0.00	1.33
144.4	(2) 2" Conduit	Yes	4.42	0.000	2.38	0.88	0.00	9.610	0.114	1.042	0.00
144.4	(6) 1 5/8" Coax	Yes	4.42	0.000	1.98	0.73	0.00	9.610	0.114	1.042	0.00
145.0	(2) 1/2" Coax	Yes	0.58	0.000	0.00	0.00	0.00	9.621	0.115	1.044	0.00
145.0	(2) 2" Conduit	Yes	0.58	0.000	2.38	0.12	0.00	9.621	0.115	1.044	0.00
145.0	(6) 1 5/8" Coax	Yes	0.58	0.000	1.98	0.10	0.00	9.621	0.115	1.044	0.00
148.0	(2) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	9.678	0.116	1.048	0.00
148.0	(2) 2" Conduit	Yes	3.00	0.000	2.38	0.60	0.00	9.678	0.116	1.048	0.00
148.0	(6) 1 5/8" Coax	Yes	3.00	0.000	1.98	0.50	0.00	9.678	0.116	1.048	0.00
150.0	(2) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	9.715	0.064	0.000	0.00
150.0	(2) 2" Conduit	Yes	2.00	0.000	2.38	0.40	0.00	9.715	0.064	0.000	0.00
155.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.806	0.066	0.000	0.00
155.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	9.806	0.066	0.000	0.00
160.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.896	0.068	0.000	0.00
160.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	9.896	0.068	0.000	0.00
165.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.983	0.071	0.000	0.00
165.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	9.983	0.071	0.000	0.00
170.0	(2) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	10.069	0.074	0.000	0.00
170.0	(2) 2" Conduit	Yes	5.00	0.000	2.38	0.99	0.00	10.069	0.074	0.000	0.00
171.0	(2) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	10.085	0.076	0.000	0.00
171.0	(2) 2" Conduit	Yes	1.00	0.000	2.38	0.20	0.00	10.085	0.076	0.000	0.00

Totals: 102.18 10,714.88

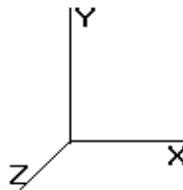
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:49 AM

Page: 44



Load Case: 1.0D + 1.0W

60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	132.32	2,049.35	0.00	0.00
10.00	129.99	2,019.66	0.00	0.00
15.00	127.66	1,989.96	0.00	0.00
20.00	136.93	2,000.86	0.00	0.00
25.00	123.00	1,929.81	0.00	0.00
30.00	120.77	1,900.12	0.00	0.00
35.00	123.77	1,870.42	0.00	0.00
40.00	126.05	1,840.72	0.00	0.00
45.00	127.75	1,811.03	0.00	0.00
50.00	130.56	3,005.11	0.00	0.00
53.00	78.34	1,776.59	0.00	0.00
55.00	52.23	625.39	0.00	0.00
60.00	131.86	1,545.65	0.00	0.00
65.00	132.00	1,520.20	0.00	0.00
70.00	131.85	1,494.75	0.00	0.00
75.00	131.45	1,469.29	0.00	0.00
80.00	130.81	1,443.84	0.00	0.00
85.00	129.95	1,418.38	0.00	0.00
90.00	128.90	1,392.93	0.00	0.00
91.42	36.10	390.04	0.00	0.00
95.00	92.32	1,577.65	0.00	0.00
98.00	76.69	1,302.39	0.00	0.00
100.0	50.76	474.29	0.00	0.00
105.0	126.35	1,170.87	0.00	0.00
110.0	276.26	1,149.66	0.00	0.00
115.0	273.47	1,128.45	0.00	0.00
116.0	726.79	2,608.44	0.00	555.68
120.0	96.42	868.09	0.00	0.00
125.0	118.78	1,066.02	0.00	0.00
128.0	196.78	708.63	0.00	0.00
130.0	46.20	405.54	0.00	0.00
135.0	916.72	3,025.70	0.00	1,732.37
139.3	96.99	779.06	0.00	0.00
140.0	14.89	187.76	0.00	0.00
144.4	97.90	1,226.79	0.00	0.00
145.0	12.73	87.58	0.00	0.00
148.0	542.51	1,723.28	0.00	0.00
150.0	42.81	272.78	0.00	0.00
155.0	105.42	670.07	0.00	0.00
160.0	1,689.90	4,596.50	0.00	0.00
165.0	99.73	530.98	0.00	0.00
170.0	96.75	514.01	0.00	0.00
171.0	306.60	926.87	0.00	0.00
175.0	74.65	364.79	0.00	0.00
178.5	851.64	2,215.29	0.00	1,237.15
Totals:	15,086.00	195,534.2	0.00	3,525.19

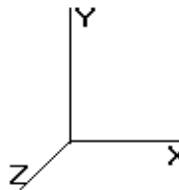
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:49 AM

Page: 45



Load Case: 1.0D + 1.0W

60.00 mph Serviceability

21 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-63.07	-9.41	0.00	-1,166.70	0.00	1,166.70	6,164.54	3,082.27	18,158.3	9,092.69	0.00	0.00	0.139
5.00	-61.02	-9.30	0.00	-1,119.67	0.00	1,119.67	6,108.61	3,054.31	17,675.6	8,850.97	0.01	-0.03	0.137
10.00	-59.00	-9.19	0.00	-1,073.18	0.00	1,073.18	6,050.81	3,025.41	17,193.4	8,609.50	0.05	-0.05	0.134
15.00	-57.00	-9.09	0.00	-1,027.20	0.00	1,027.20	5,991.14	2,995.57	16,712.0	8,368.43	0.12	-0.08	0.132
20.00	-55.00	-8.98	0.00	-981.75	0.00	981.75	5,929.59	2,964.80	16,231.6	8,127.91	0.22	-0.10	0.130
25.00	-53.06	-8.87	0.00	-936.87	0.00	936.87	5,866.18	2,933.09	15,752.7	7,888.07	0.34	-0.13	0.128
30.00	-51.16	-8.77	0.00	-892.51	0.00	892.51	5,800.89	2,900.44	15,275.4	7,649.08	0.49	-0.16	0.126
35.00	-49.29	-8.67	0.00	-848.65	0.00	848.65	5,733.73	2,866.86	14,800.1	7,411.07	0.67	-0.18	0.123
40.00	-47.44	-8.56	0.00	-805.32	0.00	805.32	5,664.70	2,832.35	14,327.0	7,174.19	0.87	-0.21	0.121
45.00	-45.63	-8.44	0.00	-762.54	0.00	762.54	5,593.79	2,796.90	13,856.5	6,938.58	1.11	-0.24	0.118
50.00	-42.62	-8.32	0.00	-720.33	0.00	720.33	5,521.02	2,760.51	13,388.9	6,704.40	1.37	-0.26	0.115
53.00	-40.84	-8.24	0.00	-695.38	0.00	695.38	4,440.13	2,220.06	10,789.7	5,402.88	1.54	-0.28	0.138
55.00	-40.21	-8.20	0.00	-678.91	0.00	678.91	4,419.76	2,209.88	10,648.2	5,332.01	1.66	-0.29	0.136
60.00	-38.66	-8.08	0.00	-637.92	0.00	637.92	4,367.53	2,183.77	10,295.0	5,155.16	1.99	-0.32	0.133
65.00	-37.14	-7.96	0.00	-597.52	0.00	597.52	4,313.43	2,156.72	9,942.96	4,978.87	2.34	-0.35	0.129
70.00	-35.64	-7.84	0.00	-557.73	0.00	557.73	4,257.46	2,128.73	9,592.32	4,803.29	2.73	-0.39	0.124
75.00	-34.17	-7.71	0.00	-518.55	0.00	518.55	4,199.61	2,099.81	9,243.38	4,628.56	3.15	-0.42	0.120
80.00	-32.72	-7.59	0.00	-479.99	0.00	479.99	4,139.90	2,069.95	8,896.44	4,454.83	3.61	-0.45	0.116
85.00	-31.30	-7.46	0.00	-442.04	0.00	442.04	4,078.31	2,039.15	8,551.80	4,282.26	4.09	-0.48	0.111
90.00	-29.91	-7.33	0.00	-404.73	0.00	404.73	4,014.84	2,007.42	8,209.74	4,110.97	4.61	-0.51	0.106
91.42	-29.52	-7.30	0.00	-394.34	0.00	394.34	3,996.52	1,998.26	8,113.33	4,062.70	4.76	-0.52	0.104
95.00	-27.94	-7.20	0.00	-368.18	0.00	368.18	3,949.51	1,974.76	7,870.56	3,941.13	5.16	-0.54	0.101
98.00	-26.63	-7.12	0.00	-346.57	0.00	346.57	3,056.80	1,528.40	6,090.92	3,049.99	5.50	-0.56	0.122
100.00	-26.16	-7.08	0.00	-332.32	0.00	332.32	3,039.33	1,519.67	5,992.84	3,000.87	5.74	-0.57	0.119
105.00	-24.98	-6.95	0.00	-296.94	0.00	296.94	2,994.36	1,497.18	5,748.30	2,878.42	6.35	-0.60	0.112
110.00	-23.83	-6.68	0.00	-262.18	0.00	262.18	2,947.52	1,473.76	5,504.94	2,756.56	7.00	-0.63	0.103
115.00	-22.71	-6.40	0.00	-228.80	0.00	228.80	2,898.80	1,449.40	5,263.06	2,635.44	7.68	-0.66	0.095
116.00	-20.10	-5.65	0.00	-221.85	0.00	221.85	2,888.83	1,444.42	5,214.89	2,611.32	7.81	-0.67	0.092
120.00	-19.23	-5.55	0.00	-199.27	0.00	199.27	2,848.21	1,424.11	5,022.95	2,515.21	8.38	-0.69	0.086
125.00	-18.17	-5.42	0.00	-171.53	0.00	171.53	2,795.75	1,397.88	4,784.90	2,396.01	9.12	-0.72	0.078
128.00	-17.46	-5.22	0.00	-155.27	0.00	155.27	2,763.38	1,381.69	4,643.19	2,325.05	9.58	-0.73	0.073
130.00	-17.05	-5.17	0.00	-144.83	0.00	144.83	2,741.42	1,370.71	4,549.21	2,277.99	9.89	-0.74	0.070
135.00	-14.04	-4.22	0.00	-117.23	0.00	117.23	2,685.21	1,342.61	4,316.17	2,161.29	10.68	-0.77	0.059
139.33	-13.26	-4.12	0.00	-98.94	0.00	98.94	2,634.99	1,317.49	4,116.57	2,061.34	11.38	-0.78	0.053
140.00	-13.07	-4.10	0.00	-96.19	0.00	96.19	2,627.14	1,313.57	4,086.07	2,046.07	11.49	-0.79	0.052
144.42	-11.85	-3.99	0.00	-78.08	0.00	78.08	1,915.99	957.99	2,941.41	1,472.89	12.22	-0.80	0.059
145.00	-11.76	-3.98	0.00	-75.75	0.00	75.75	1,911.69	955.84	2,923.20	1,463.77	12.32	-0.80	0.058
148.00	-10.04	-3.41	0.00	-63.83	0.00	63.83	1,889.17	944.59	2,829.77	1,416.99	12.83	-0.82	0.050
150.00	-9.77	-3.37	0.00	-57.00	0.00	57.00	1,873.79	936.89	2,767.71	1,385.91	13.17	-0.82	0.046
155.00	-9.10	-3.25	0.00	-40.17	0.00	40.17	1,834.01	917.01	2,613.49	1,308.69	14.04	-0.84	0.036
160.00	-4.53	-1.50	0.00	-23.91	0.00	23.91	1,792.37	896.18	2,460.85	1,232.25	14.93	-0.85	0.022
165.00	-4.00	-1.39	0.00	-16.43	0.00	16.43	1,748.85	874.42	2,310.07	1,156.75	15.82	-0.86	0.016
170.00	-3.49	-1.29	0.00	-9.48	0.00	9.48	1,703.46	851.73	2,161.44	1,082.33	16.72	-0.86	0.011
171.00	-2.57	-0.96	0.00	-8.19	0.00	8.19	1,694.16	847.08	2,132.00	1,067.58	16.90	-0.86	0.009
175.00	-2.20	-0.88	0.00	-4.33	0.00	4.33	1,656.20	828.10	2,015.26	1,009.13	17.62	-0.86	0.006
178.50	0.00	-0.85	0.00	-1.24	0.00	1.24	1,622.00	811.00	1,914.55	958.70	18.26	-0.87	0.001

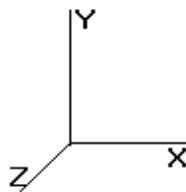
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:49 AM

Page: 46



Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	53.48	0.00	75.62	0.00	0.00	6514.47	0.00	0.73
0.9D + 1.6W	50.58	0.00	56.71	0.00	0.00	6251.94	53.00	0.70
1.2D + 1.0Di + 1.0Wi	10.66	0.00	121.57	0.00	0.00	1306.37	0.00	0.16
1.2D + 1.0E	3.42	0.00	75.69	0.00	0.00	440.34	98.00	0.06
0.9D + 1.0E	3.41	0.00	56.77	0.00	0.00	436.30	98.00	0.06
1.0D + 1.0W	9.41	0.00	63.07	0.00	0.00	1166.70	0.00	0.14

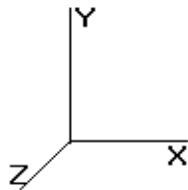
Pole : 302467
 Location : Bilkays Express, CT
 Height : 178.5 (ft)
 Base Dia : 72.00 (in)
 Top Dia : 29.00 (in)
 Shape : 18 Sides
 Taper : 0.251401 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

© 2007 - 2014 by ATC IP LLC. All rights reserved.

6/13/2014 11:15:49 AM

Page: 47



Base Summary

Reactions

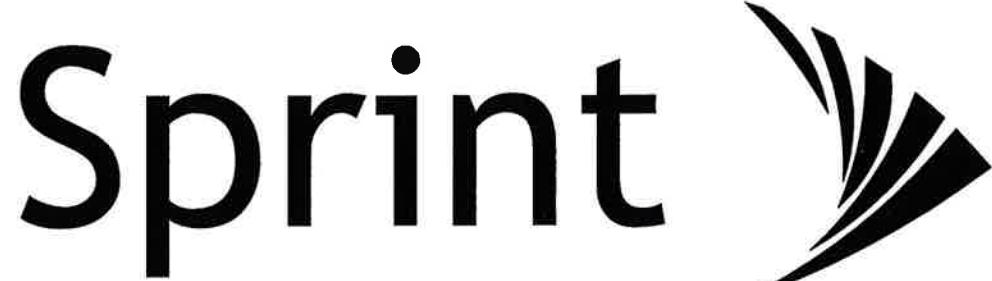
Original Design			Analysis			
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment Design %
5,025.00	56.80	39.90	6,514.47	121.57	53.48	96.03

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
60.0	2.750	85.000	Round	0	0.00	11.426	713.95	1166.52	0.61

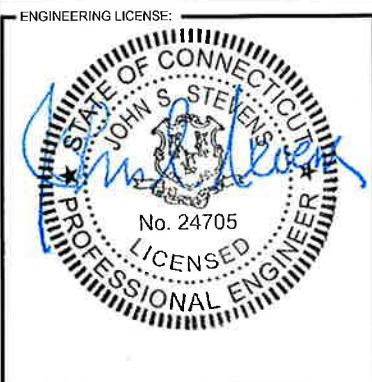
Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
79.00	20	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	203.99	260.00	0.81	191.83	260.00	0.76



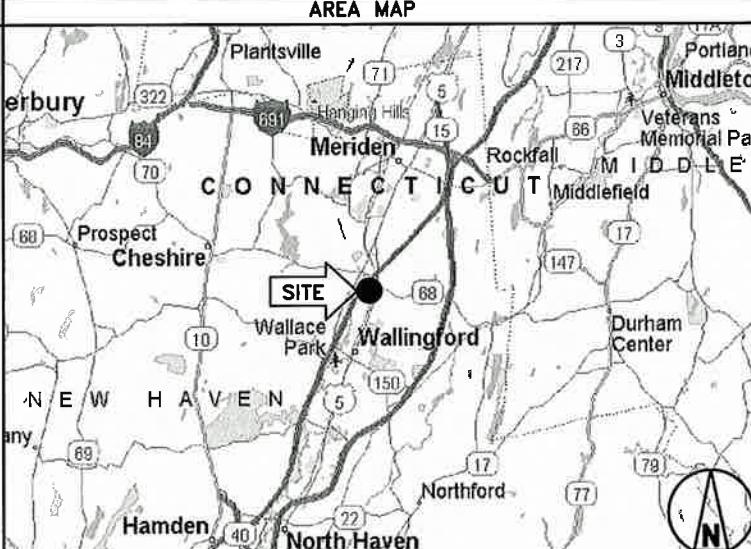
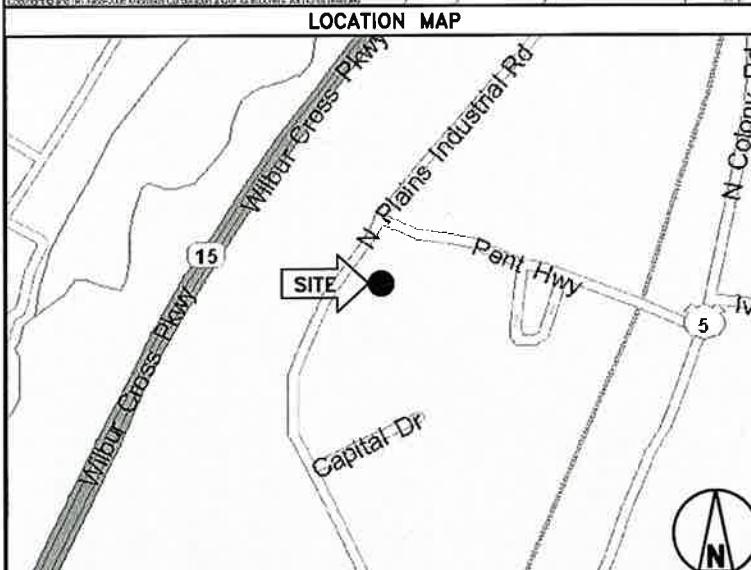
**AMERICAN
TOWER**
CORPORATION

PROJECT: 2.5 EQUIPMENT DEPLOYMENT
 SITE NAME: BILKAYS EXPRESS
 SITE CASCADE: CT43XC839
 SITE NUMBER: 302467
 SITE ADDRESS: 90 N. PLAINS INDUSTRIAL RD.
 WALLINGFORD, CT 06492
 SITE TYPE: MONOPOLE TOWER
 MARKET: SOUTHERN CONNECTICUT



DRAWING NOTICE:			
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUITED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.			
REVISIONS:			
DESCRIPTION DATE BY REV			
ISSUED FOR CONSTRUCTION 07/15/14 DJC 2			
REVISED PER COMMENTS 07/10/14 JLM 1			
ISSUED FOR PERMIT 06/10/14 DJC 0			
ISSUED FOR REVIEW 05/27/14 JLM A			

SITE NAME:	BILKAYS EXPRESS		
SITE CASCADE:	CT43XC839		
SITE ADDRESS:	90 N. PLAINS INDUSTRIAL RD. WALLINGFORD, CT 06492		
SHEET DESCRIPTION:	TITLE SHEET & PROJECT DATA		
SHEET NUMBER:	T-1		

SITE INFORMATION		AREA MAP	PROJECT DESCRIPTION	DRAWING INDEX																																													
TOWER OWNER:	AMERICAN TOWER CORPORATION 10 PRESIDENTIAL WAY WOBURN, MA 01801		SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY. <ul style="list-style-type: none">• INSTALL 2.5 EQUIPMENT IN EXISTING NV MMB5 CABINET• INSTALL (3) PANEL ANTENNAS• INSTALL (3) RRU'S TO TOWER• INSTALL (27) JUMPER CABLES• INSTALL (1) FIBER CABLE• INSTALL (4) BATTERIES IN EXISTING BATTERY CABINET	<table border="1"><thead><tr><th>SHEET NO.</th><th>SHEET TITLE</th><th>REV.</th></tr></thead><tbody><tr><td>T-1</td><td>TITLE SHEET & PROJECT DATA</td><td>2</td></tr><tr><td>SP-1</td><td>SPRINT SPECIFICATIONS</td><td>2</td></tr><tr><td>SP-2</td><td>SPRINT SPECIFICATIONS</td><td>2</td></tr><tr><td>SP-3</td><td>SPRINT SPECIFICATIONS</td><td>2</td></tr><tr><td>A-1</td><td>SITE PLAN</td><td>2</td></tr><tr><td>A-1A</td><td>EXISTING EQUIPMENT DETAILS</td><td>2</td></tr><tr><td>A-2</td><td>TOWER ELEVATION & CABLE PLAN</td><td>2</td></tr><tr><td>A-3</td><td>ANTENNA LAYOUT & MOUNTING DETAILS</td><td>2</td></tr><tr><td>A-4</td><td>COLOR CODING & NOTES</td><td>2</td></tr><tr><td>A-5</td><td>EQUIPMENT & MOUNTING DETAILS</td><td>2</td></tr><tr><td>A-6</td><td>CIVIL DETAILS</td><td>2</td></tr><tr><td>A-7</td><td>PLUMBING DIAGRAM</td><td>2</td></tr><tr><td>E-1</td><td>ELECTRICAL & GROUNDING PLAN</td><td>2</td></tr><tr><td>E-2</td><td>ELECTRICAL & GROUNDING DETAILS</td><td>2</td></tr></tbody></table>	SHEET NO.	SHEET TITLE	REV.	T-1	TITLE SHEET & PROJECT DATA	2	SP-1	SPRINT SPECIFICATIONS	2	SP-2	SPRINT SPECIFICATIONS	2	SP-3	SPRINT SPECIFICATIONS	2	A-1	SITE PLAN	2	A-1A	EXISTING EQUIPMENT DETAILS	2	A-2	TOWER ELEVATION & CABLE PLAN	2	A-3	ANTENNA LAYOUT & MOUNTING DETAILS	2	A-4	COLOR CODING & NOTES	2	A-5	EQUIPMENT & MOUNTING DETAILS	2	A-6	CIVIL DETAILS	2	A-7	PLUMBING DIAGRAM	2	E-1	ELECTRICAL & GROUNDING PLAN	2	E-2	ELECTRICAL & GROUNDING DETAILS	2
SHEET NO.	SHEET TITLE	REV.																																															
T-1	TITLE SHEET & PROJECT DATA	2																																															
SP-1	SPRINT SPECIFICATIONS	2																																															
SP-2	SPRINT SPECIFICATIONS	2																																															
SP-3	SPRINT SPECIFICATIONS	2																																															
A-1	SITE PLAN	2																																															
A-1A	EXISTING EQUIPMENT DETAILS	2																																															
A-2	TOWER ELEVATION & CABLE PLAN	2																																															
A-3	ANTENNA LAYOUT & MOUNTING DETAILS	2																																															
A-4	COLOR CODING & NOTES	2																																															
A-5	EQUIPMENT & MOUNTING DETAILS	2																																															
A-6	CIVIL DETAILS	2																																															
A-7	PLUMBING DIAGRAM	2																																															
E-1	ELECTRICAL & GROUNDING PLAN	2																																															
E-2	ELECTRICAL & GROUNDING DETAILS	2																																															
LATITUDE (NAD83):	41° 28' 50.72" N 41.480756"																																																
LONGITUDE (NAD83):	72° 49' 03.79" W -72.817719"																																																
COUNTY:	NEW HAVEN																																																
ZONING JURISDICTION:	CONNECTICUT SITING COUNCIL																																																
ZONING DISTRICT:	I-40																																																
POWER COMPANY:	CL&P (800) 286-2000																																																
AAV PROVIDER:	AT&T (800) 246-2020																																																
SPRINT CM:	GARY WOOD (860) 940-9168 GARY.WOOD@SPRINT.COM																																																
LOCATION MAP		APPLICABLE CODES																																															
		ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. <ol style="list-style-type: none">1. INTERNATIONAL BUILDING CODE (2012 IBC)2. TIA-EIA-222-G OR LATEST EDITION3. NFPA 780 - LIGHTNING PROTECTION CODE4. 2011 NATIONAL ELECTRIC CODE OR LATEST EDITION5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS6. CT BUILDING CODE7. LOCAL BUILDING CODE8. CITY/COUNTY ORDINANCES																																															



THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT CONSTRUCTION STANDARDS FOR WIRELESS SITES, CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

- A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
- B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITHE.

1.3 PRECEDENCE: SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE. NOTIFY SPRINT CONSTRUCTION MANAGER IF THIS OCCURS.

1.4 NATIONALLY RECOGNIZED CODES AND STANDARDS:

- A. THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL AND LOCAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
 - 1. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
 - 2. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
 - 3. GR-1089 CORE, ELECTROMAGNETIC COMPATIBILITY AND ELECTRICAL SAFETY –GENERIC CRITERIA FOR NETWORK TELECOMMUNICATIONS EQUIPMENT.
 - 4. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE - 'NEC') AND NFPA 101 (LIFE SAFETY CODE).
 - 5. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM)
 - 6. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE)
 - 7. AMERICAN CONCRETE INSTITUTE (ACI)
 - 8. AMERICAN WIRE PRODUCERS ASSOCIATION (AWPA)
 - 9. CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
 - 10. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
 - 11. PORTLAND CEMENT ASSOCIATION (PCA)
 - 12. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
 - 13. BRICK INDUSTRY ASSOCIATION (BIA)
 - 14. AMERICAN WELDING SOCIETY (AWS)
 - 15. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
 - 16. SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
 - 17. DOOR AND HARDWARE INSTITUTE (DHI)
 - 18. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
 - 19. APPLICABLE BUILDING CODES INCLUDING UNIFORM BUILDING CODE, SOUTHERN BUILDING CODE, BOCA, AND THE INTERNATIONAL BUILDING CODE.

1.5 DEFINITIONS:

- A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
- B. COMPANY: SPRINT CORPORATION
- C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
- D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
- E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.
- F. OFCI: OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT.
- G. CONSTRUCTION MANAGER – ALL PROJECTS RELATED COMMUNICATION TO FLOW THROUGH SPRINT REPRESENTATIVE IN CHARGE OF PROJECT...

1.6 SITE FAMILIARITY: CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE SPRINT CONSTRUCTION MANAGER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OR FIELD CONDITIONS.

1.7 POINT OF CONTACT: COMMUNICATION BETWEEN SPRINT AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE SPRINT CONSTRUCTION MANAGER APPOINTED TO MANAGE THE PROJECT FOR SPRINT.

1.8 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.

1.9 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN RED PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.

B. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.

C. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. SPACING BETWEEN EQUIPMENT IS THE REQUIRED CLEARANCE. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE SPRINT CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THE WORK.

1.10 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.

1.11 UTILITIES SERVICES: WHERE NECESSARY TO CUT EXISTING PIPES, ELECTRICAL WIRES, CONDUITS, CABLES, ETC., OF UTILITY SERVICES, OR OF FIRE PROTECTION OR COMMUNICATIONS SYSTEMS, THEY SHALL BE CUT AND CAPPED AT SUITABLE PLACES OR WHERE SHOWN. ALL SUCH ACTIONS SHALL BE COORDINATED WITH THE UTILITY COMPANY INVOLVED:

1.12 PERMITS / FEES: WHEN REQUIRED THAT A PERMIT OR CONNECTION FEE BE PAID TO A PUBLIC UTILITY PROVIDER FOR NEW SERVICE TO THE CONSTRUCTION PROJECT, PAYMENT OF SUCH FEE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.13 CONTRACTOR SHALL TAKE ALL MEASURES AND PROVIDE ALL MATERIAL NECESSARY FOR PROTECTING EXISTING EQUIPMENT AND PROPERTY.

1.14 METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION: CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN THE FOLLOWING INSTALLATION AND COMMISSIONING MOPS.

NOTE: IN SHORT-FORM SPECIFICATIONS ON THE DRAWINGS, A/E TO INSERT LIST OF APPLICABLE MOPS INCLUDING EN-2012-001, EN-2013-002, EL-0568, AND TS-0193

1.15 USE OF ELECTRONIC PROJECT MANAGEMENT SYSTEMS:

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSOR'S OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.

3.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.

3.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITHE, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

3.4 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

3.5 EXISTING CONDITIONS: NOTIFY THE SPRINT CONSTRUCTION MANAGER OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

- A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
- B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITHE.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 RECEIPT OF MATERIAL AND EQUIPMENT:

- A. A COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DOCUMENTS.
- B. THE CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:

1. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
2. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
3. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
4. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO SPRINT OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
5. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
6. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

3.2 DELIVERABLES:

- A. COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.
- B. IF APPLICABLE, COMPLETE LOST/STOLEN/DAMAGED DOCUMENTATION REPORT AS NECESSARY IN ACCORDANCE WITH COMPANY PRACTICE, AND AS DIRECTED BY COMPANY.
- C. UPLOAD DOCUMENTATION INTO SPRINT SITE MANAGEMENT SYSTEM (SMS) AND/OR PROVIDE HARD COPY DOCUMENTATION AS REQUESTED.

SECTION 01 300 – CELL SITE CONSTRUCTION CO.

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

- A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
- B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITHE.

1.3 NOTICE TO PROCEED

- A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF THE WORK ORDER.
- B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE SPRINT WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 FUNCTIONAL REQUIREMENTS:

- A. THE ACTIVITIES DESCRIBED IN THIS PARAGRAPH REPRESENT MINIMUM ACTIONS AND PROCESSES REQUIRED TO SUCCESSFULLY COMPLETE THE WORK. THE ACTIVITIES DESCRIBED ARE NOT EXHAUSTIVE, AND CONTRACTOR SHALL TAKE ANY AND ALL ACTIONS AS NECESSARY TO SUCCESSFULLY COMPLETE THE CONSTRUCTION OF A FULLY FUNCTIONING WIRELESS FACILITY AT THE SITE IN ACCORDANCE WITH COMPANY PROCESSES.
- B. SUBMIT SPECIFIC DOCUMENTATION AS INDICATED HEREIN, AND OBTAIN REQUIRED APPROVALS WHILE THE WORK IS BEING PERFORMED.
- C. MANAGE AND CONDUCT ALL FIELD CONSTRUCTION SERVICE RELATED ACTIVITIES
- D. PROVIDE CONSTRUCTION ACTIVITIES TO THE EXTENT REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

PLANS PREPARED FOR:



6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:



1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:



10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

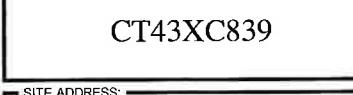
REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR CONSTRUCTION	07/15/14	JLG	2
REVISED PER COMMENTS	07/10/14	JLM	1
ISSUED FOR PERMIT	06/10/14	JLG	0
ISSUED FOR REVIEW	05/27/14	JLM	A

SITE NAME:



SITE CASCADE:



SITE ADDRESS:

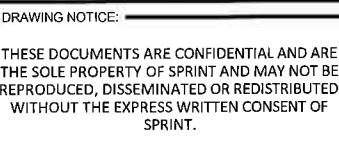
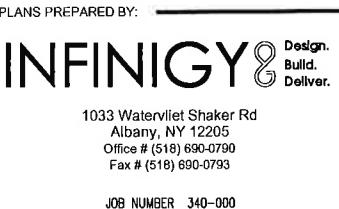
90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SHEET DESCRIPTION:

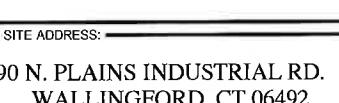


SHEET NUMBER:





REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR CONSTRUCTION	07/15/14	DJG	2	
REVISED PER COMMENTS	07/10/14	JLM	1	
ISSUED FOR PERMIT	06/10/14	DJG	0	
ISSUED FOR REVIEW	05/27/14	JLM	A	



CONTINUE FROM SP-1

1. PERFORM ANY REQUIRED SITE ENVIRONMENTAL MITIGATION.
2. PREPARE GROUND SITES; PROVIDE DE-GRUBBING; AND ROUGH AND FINAL GRADING, AND COMPOUND SURFACE TREATMENTS.
3. MANAGE AND CONDUCT ALL ACTIVITIES FOR INSTALLATION OF UTILITIES INCLUDING ELECTRICAL AND TELCO BACKHAUL.
4. INSTALL UNDERGROUND FACILITIES INCLUDING UNDERGROUND POWER AND COMMUNICATIONS CONDUITS, AND UNDERGROUND GROUNDING SYSTEM.
5. INSTALL ABOVE GROUND GROUNDING SYSTEMS.
6. PROVIDE NEW HVAC INSTALLATIONS AND MODIFICATIONS.
7. INSTALL "H-FRAMES", CABINETS AND SHELTERS AS INDICATED.
8. INSTALL ROADS, ACCESS WAYS, CURBS AND DRAINS AS INDICATED.
9. ACCOMPLISH REQUIRED MODIFICATION OF EXISTING FACILITIES.
10. PROVIDE ANTENNA SUPPORT STRUCTURE FOUNDATIONS.
11. PROVIDE SLABS AND EQUIPMENT PLATFORMS.
12. INSTALL COMPOUND FENCING, SIGHT SHIELDING, LANDSCAPING AND ACCESS BARRIERS.
13. PERFORM INSPECTION AND MATERIAL TESTING AS REQUIRED HEREINAFTER.
14. CONDUCT SITE RESISTANCE TO EARTH TESTING AS REQUIRED HEREINAFTER.
15. INSTALL FIXED GENERATOR SETS AND OTHER STANDBY POWER SOLUTIONS.
16. INSTALL TOWERS, ANTENNA SUPPORT STRUCTURES AND PLATFORMS ON EXISTING TOWERS AS REQUIRED.
17. INSTALL CELL SITE RADIOS, MICROWAVE, GPS, COAXIAL MAINLINE, ANTENNAS, CROSS BAND COUPLERS, TOWER TOP AMPLIFIERS, LOW NOISE AMPLIFIERS AND RELATED EQUIPMENT.
18. PERFORM, DOCUMENT, AND CLOSE OUT ANY CONSTRUCTION CONTROL DOCUMENTS THAT MAY BE REQUIRED BY GOVERNMENT AGENCIES AND LANDLORDS.
19. PERFORM ANTENNA AND COAX SWEEP TESTING AND MAKE ANY AND ALL NECESSARY CORRECTIONS.
20. REMAIN ON SITE MOBILIZED THROUGHOUT HAND-OFF AND INTEGRATION TO ASSIST AS NEEDED UNTIL SITE IS DEEMED SUBSTANTIALLY COMPLETE AND PLACED "ON AIR."

3.2 GENERAL REQUIREMENTS FOR CIVIL CONSTRUCTION:

- A. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.
- B. EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.
- C. CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
 1. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
 2. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.
- D. CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION
- E. CONDUCT TESTING AS REQUIRED HEREIN.

3.3 DELIVERABLES:

- A. CONTRACTOR SHALL REVIEW, APPROVE, AND SUBMIT TO SPRINT SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND SIMILAR SUBMITTALS AS REQUIRED HEREINAFTER
- B. PROVIDE DOCUMENTATION INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING. DOCUMENTATION SHALL BE FORWARDED IN ORIGINAL FORMAT AND/OR UPLOADED INTO SMS.
 1. ALL CORRESPONDENCE AND PRELIMINARY CONSTRUCTION REPORTS.
 2. PROJECT PROGRESS REPORTS.
 3. CIVIL CONSTRUCTION START DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
 4. ELECTRICAL SERVICE COMPLETION DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).

5. LINES AND ANTENNA INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
6. POWER INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
7. TELCO READY DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
8. PPC (OR SHELTER) INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
9. TOWER CONSTRUCTION START DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
10. TOWER CONSTRUCTION COMPLETE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
11. BTS AND RADIO EQUIPMENT DELIVERED AT SITE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
12. NETWORK OPERATIONS HANDOFF CHECKLIST (HOC WALK) COMPLETE (UPLOAD FORM IN SMS)
13. CIVIL CONSTRUCTION COMPLETE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
14. SITE CONSTRUCTION PROGRESS PHOTOS UNLOADED INTO SMS.

SECTION 01 400 - SUBMITTALS & TESTS

PART 1 - GENERAL

- 1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.
- 1.2 RELATED DOCUMENTS:
 - A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
 - B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITHE.
- 1.3 SUBMITTALS:
 - A. THE WORK IN ALL ASPECTS SHALL COMPLY WITH THE CONSTRUCTION DRAWINGS AND THESE SPECIFICATIONS.
 - B. SUBMIT THE FOLLOWING TO COMPANY REPRESENTATIVE FOR APPROVAL
 1. CONCRETE MIX-DESIGNS FOR TOWER FOUNDATIONS, ANCHORS PIERS, AND CONCRETE PAVING.
 2. CONCRETE BREAK TESTS AS SPECIFIED HEREIN.
 3. SPECIAL FINISHES FOR INTERIOR SPACES, IF ANY.
 4. ALL EQUIPMENT AND MATERIALS SO IDENTIFIED ON THE CONSTRUCTION DRAWINGS.
 5. CHEMICAL GROUNDING DESIGN
 - D. ALTERNATES: AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINT'S CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO BEING SHIPPED TO SITE. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED. SUBMITTAL FOR APPROVAL SHALL INCLUDE A STATEMENT OF COST REDUCTION PROPOSED FOR USE OF ALTERNATE PRODUCT.

1.4 TESTS AND INSPECTIONS:

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
- B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 1. COAX SWEEPS AND FIBER TESTS PER TS-0200 REV 4 ANTENNA LINE ACCEPTANCE STANDARDS.
 2. AGL, AZIMUTH AND DOWNTILT USING ELECTRONIC COMMERCIAL MADE-FOR-THE-PURPOSE ANTENNA ALIGNMENT TOOL
 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
- C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
 1. AZIMUTH, DOWNTILT, AGL - UPLOAD REPORT FROM ANTENNA ALIGNMENT TOOL TO SITERRA TASK 465. INSTALLED AZIMUTH, DOWNTILT, AND AGL MUST CONFORM TO THE RF DATA SHEETS. SWEEP AND FIBER TESTS
 2. SCANABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
 3. ALL AVAILABLE JURISDICTIONAL INFORMATION
 4. PDF SCAN OF REDLINES PRODUCED IN FIELD

5. ELECTRONIC AS-BUILT DRAWINGS IN AUTOCAD AND PDF FORMATS. ANY FIELD CHANGE MUST BE REFLECTED BY MODIFYING THE PLANS, ELEVATIONS, AND DETAILS IN THE DRAWING SETS. GENERAL NOTES INDICATING MODIFICATIONS WILL NOT BE ACCEPTED. CHANGES SHALL BE HIGHLIGHTED AS "LOUDS" IDENTIFIED AS THE "AS-BUILT" CONDITION.
6. LIEN WAIVERS
7. FINAL PAYMENT APPLICATION
8. REQUIRED FINAL CONSTRUCTION PHOTOS
9. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
10. ALL POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINT'S DOCUMENT REPOSITORY OF RECORD).
- 1.5 COMMISSIONING: PERFORM ALL COMMISSIONING AS REQUIRED BY APPLICABLE MOPS
- 1.6 INTEGRATION: PERFORM ALL INTEGRATION ACTIVITIES AS REQUIRED BY APPLICABLE MOPS

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 REQUIREMENTS FOR TESTING:

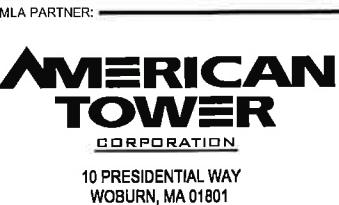
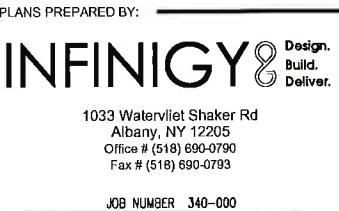
- A. THIRD PARTY TESTING AGENCY:
 1. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
 2. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
 3. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASHTO, AND OTHER METHODS IS NEEDED.
 4. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASHTO, AND OTHER METHODS IS NEEDED.

3.2 REQUIRED TESTS:

- A. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 1. CONCRETE CYLINDER BREAK TESTS FOR THE TOWER AND ANCHOR FOUNDATIONS AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
 2. ASPHALT ROADWAY COMPACTED THICKNESS, SURFACE SMOOTHNESS, AND COMPACTED DENSITY TESTING AS SPECIFIED IN SECTION: HOT MIX ASPHALT PAVING.
 3. FIELD QUALITY CONTROL TESTING AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
 4. TESTING REQUIRED UNDER SECTION: AGGREGATE BASE FOR ACCESS ROADS, PADS AND ANCHOR LOCATIONS
 5. STRUCTURAL BACKFILL COMPACTION TESTS FOR THE TOWER FOUNDATION.
 6. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.
 7. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
 8. GROUNDING AT ANTENNA MASTS FOR GPS AND ANTENNAS
 9. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

3.3 REQUIRED INSPECTIONS

- A. SCHEDULE INSPECTIONS WITH COMPANY REPRESENTATIVE.
- B. CONDUCT INSPECTIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 1. GROUNDING SYSTEM INSTALLATION PRIOR TO EARTH CONCEALMENT DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
 2. FORMING FOR CONCRETE AND REBAR PLACEMENT PRIOR TO POUR DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
 3. COMPACTION OF BACKFILL MATERIALS; AGGREGATE BASE FOR ROADS, PADS, AND ANCHORS; ASPHALT PAVING; AND SHAFT BACKFILL FOR CONCRETE AND WOOD POLES, BY INDEPENDENT THIRD PARTY AGENCY.
 4. PRE- AND POST-CONSTRUCTION ROOFTOP AND STRUCTURAL INSPECTIONS ON EXISTING FACILITIES.
 5. TOWER ERECTION SECTION STACKING AND PLATFORM ATTACHMENT DOCUMENTED BY DIGITAL PHOTOGRAPHS BY THIRD PARTY AGENCY.
 6. ANTENNA AZIMUTH, DOWN TILT AND PER SUNLIGHT TOOL SUNSIGHT INSTRUMENTS - ANTENNA ALIGNMENT TOOL (AAT)



DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:	DESCRIPTION	DATE	BY	REV
	ISSUED FOR CONSTRUCTION	07/15/14	DIG	2
	REVISED PER COMMENTS	07/10/14	JLM	1
	ISSUED FOR PERMIT	05/10/14	DIG	0
	ISSUED FOR REVIEW	05/27/14	JLM	A

SITE NAME: BILKAYS EXPRESS

SITE CASCADE: CT43XC839

SITE ADDRESS: 90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SHEET DESCRIPTION: SPRINT SPECIFICATIONS

SHEET NUMBER: SP-3

PLANS PREPARED FOR:

CONTINUE FROM SP-2

7. VERIFICATION DOCUMENTED WITH THE ANTENNA CHECKLIST REPORT, BY A&E, SITE DEVELOPMENT REP, OR RF REP.
8. FINAL INSPECTION CHECKLIST AND HANDOFF WALK (HOC). SIGNED FORM SHOWING ACCEPTANCE BY FIELD OPS IS TO BE uploaded INTO SMS.
9. COAX SWEEP AND FIBER TESTING DOCUMENTS SUBMITTED VIA SMS FOR RF APPROVAL.
10. SCAN-ABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
11. ALL AVAILABLE JURISDICTIONAL INFORMATION
12. PDF SCAN OF REDLINES PRODUCED IN FIELD
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
- D. CONSTRUCTION INSPECTIONS AND CORRECTIVE MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR WITH WRITTEN REPORTS AND PHOTOGRAPHS. PHOTOGRAPHS MUST BE DIGITAL AND OF SUFFICIENT QUALITY TO CLEARLY SHOW THE SITE CONSTRUCTION. PHOTOGRAPHS MUST CLEARLY IDENTIFY THE PHOTOGRAPHED ITEM AND BE LABELED WITH THE SITE CASCADE NUMBER, SITE NAME, DESCRIPTION, AND DATE.
- 3.4 DELIVERABLES: TEST AND INSPECTION REPORTS AND CLOSEOUT DOCUMENTATION SHALL BE uploaded TO THE SMS AND/OR FORWARDED TO SPRINT FOR INCLUSION INTO THE PERMANENT SITE FILES.
- A. THE FOLLOWING TEST AND INSPECTION REPORTS SHALL BE PROVIDED AS APPLICABLE.
 1. CONCRETE MIX AND CYLINDER BREAK REPORTS.
 2. STRUCTURAL BACKFILL COMPACTION REPORTS.
 3. SITE RESISTANCE TO EARTH TEST.
 4. ANTENNA AZIMUTH AND DOWN TILT VERIFICATION
 5. TOWER ERECTION INSPECTIONS AND MEASUREMENTS DOCUMENTING TOWER INSTALLED PER SUPPLIER'S REQUIREMENTS AND THE APPLICABLE SECTIONS HEREIN.
 6. COAX CABLE SWEEP TESTS PER COMPANY'S "ANTENNA LINE ACCEPTANCE STANDARDS".
- B. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES THE FOLLOWING;
 1. TEST WELLS AND TRENCHES: PHOTOGRAPHS OF ALL TEST WELLS; PHOTOGRAPHS SHOWING ALL OPEN EXCAVATIONS AND TRENCHING PRIOR TO BACKFILLING SHOWING A TAPE MEASURE VISIBLE IN THE EXCAVATIONS INDICATING DEPTH.
 2. CONDUITS, CONDUCTORS AND GROUNDING: PHOTOGRAPHS SHOWING TYPICAL INSTALLATION OF CONDUCTORS AND CONNECTORS; PHOTOGRAPHS SHOWING TYPICAL BEND RADIUS OF INSTALLED GROUND WIRES AND GROUND ROD SPACING;
 3. CONCRETE FORMS AND REINFORCING: CONCRETE FORMING AT TOWER AND EQUIPMENT/SHELTER PAD/FOUNDATIONS - PHOTOGRAPHS SHOWING ALL REINFORCING STEEL, UTILITY AND CONDUIT STUB OUTS; PHOTOGRAPHS SHOWING CONCRETE POUR OF SHELTER SLAB/FOUNDATION, TOWER FOUNDATION AND GUY ANCHORS WITH VIBRATOR IN USE; PHOTOGRAPHS SHOWING EACH ANCHOR ON GUYED TOWERS, BEFORE CONCRETE POUR.
 4. TOWER, ANTENNAS AND MAINLINE: INSPECTION AND PHOTOGRAPHS OF SECTION STACKING; INSPECTION AND PHOTOGRAPHS OF PLATFORM COMPONENT ATTACHMENT POINTS; PHOTOGRAPHS OF TOWER TOP GROUNDING; PHOTOS OF TOWER COAX LINE COLOR CODING AT THE TOP AND AT GROUND LEVEL; INSPECTION AND PHOTOGRAPHS OF OPERATIONAL OF TOWER LIGHTING, AND PLACEMENT OF FAA REGISTRATION SIGN; PHOTOGRAPHS SHOWING ADDITIONAL GROUNDING POINTS FOR TOWERS GREATER THAN 200 FEET.; PHOTOS OF ANTENNA GROUND BAR, EQUIPMENT GROUND BAR, AND MASTER GROUND BAR; PHOTOS OF GPS ANTENNA(S); PHOTOS OF EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA; PHOTOS OF COAX WEATHERPROOFING - TOP AND BOTTOM; PHOTOS OF COAX GROUNDING--TOP AND BOTTOM; PHOTOS OF ANTENNA AND MAST GROUNDING; PHOTOS OF COAX CABLE ENTRY INTO SHELTER; PHOTOS OF PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.
 5. ROOF TOPS: PRE-CONSTRUCTION AND POST-CONSTRUCTION VISUAL INSPECTION AND PHOTOGRAPHS OF THE ROOF AND INTERIOR TO DETERMINE AND DOCUMENT CONDITIONS; ROOF TOP CONSTRUCTION INSPECTIONS AS REQUIRED BY THE JURISDICTION; PHOTOGRAPHS OF CABLE TRAY AND/OR ICE BRIDGE; PHOTOGRAPHS OF DOGHOUSE/CABLE EXIT FROM ROOF;
 6. SITE LAYOUT - PHOTOGRAPHS OF THE OVERALL COMPOUND, INCLUDING EQUIPMENT PLATFORM FROM ALL FOUR CORNERS.
 7. FINISHED UTILITIES: CLOSE-UP PHOTOGRAPHS OF THE PPC BREAKER PANEL; CLOSE-UP PHOTOGRAPH OF THE INSIDE OF THE TELCO PANEL AND NIU; CLOSE-UP PHOTOGRAPH OF THE POWER METER AND DISCONNECT; PHOTOS OF POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE; PHOTOGRAPHS AT METER BOX AND/OR FACILITY DISTRIBUTION PANEL
 8. REQUIRED MATERIALS CERTIFICATIONS: CONCRETE MIX DESIGNS; MILL CERTIFICATION FOR ALL REINFORCING AND STRUCTURAL STEEL; AND ASPHALT PAVING MIX DESIGN.
 9. ANY AND ALL SUBMITTALS BY THE JURISDICTION OR COMPANY.

SECTION 01 400 - SUBMITTALS & TESTS

PART 1 - GENERAL

- 1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.
- 1.2 RELATED DOCUMENTS:
 - A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
 - B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITHE.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 WEEKLY REPORTS:

- A. CONTRACTOR SHALL PROVIDE SPRINT WITH WEEKLY REPORTS SHOWING PROJECT STATUS. THIS STATUS REPORT FORMAT WILL BE PROVIDED TO THE CONTRACTOR BY SPRINT. THE REPORT WILL CONTAIN SITE ID NUMBER, THE MILESTONES FOR EACH SITE, INCLUDING THE BASELINE DATE, ESTIMATED COMPLETION DATE AND ACTUAL COMPLETION DATE.
- B. REPORT INFORMATION WILL BE TRANSMITTED TO SPRINT VIA ELECTRONIC MEANS AS REQUIRED. THIS INFORMATION WILL PROVIDE A BASIS FOR PROGRESS MONITORING AND PAYMENT.

3.2 PROJECT CONFERENCE CALLS:

- A. SPRINT MAY HOLD WEEKLY PROJECT CONFERENCE CALLS. CONTRACTOR WILL BE REQUIRED TO COMMUNICATE SITE STATUS, MILESTONE COMPLETIONS AND UPCOMING MILESTONE PROJECTIONS, AND ANSWER ANY OTHER SITE STATUS QUESTIONS AS NECESSARY.

3.3 PROJECT TRACKING IN SMS:

- A. CONTRACTOR SHALL PROVIDE SCHEDULE UPDATES AND PROJECTIONS IN THE SMS SYSTEM ON A WEEKLY BASIS.

3.4 ADDITIONAL REPORTING:

- A. ADDITIONAL OR ALTERNATE REPORTING REQUIREMENTS MAY BE ADDED TO THE REPORT AS DETERMINED TO BE REASONABLY NECESSARY BY COMPANY.

3.5 PROJECT PHOTOGRAPHS:

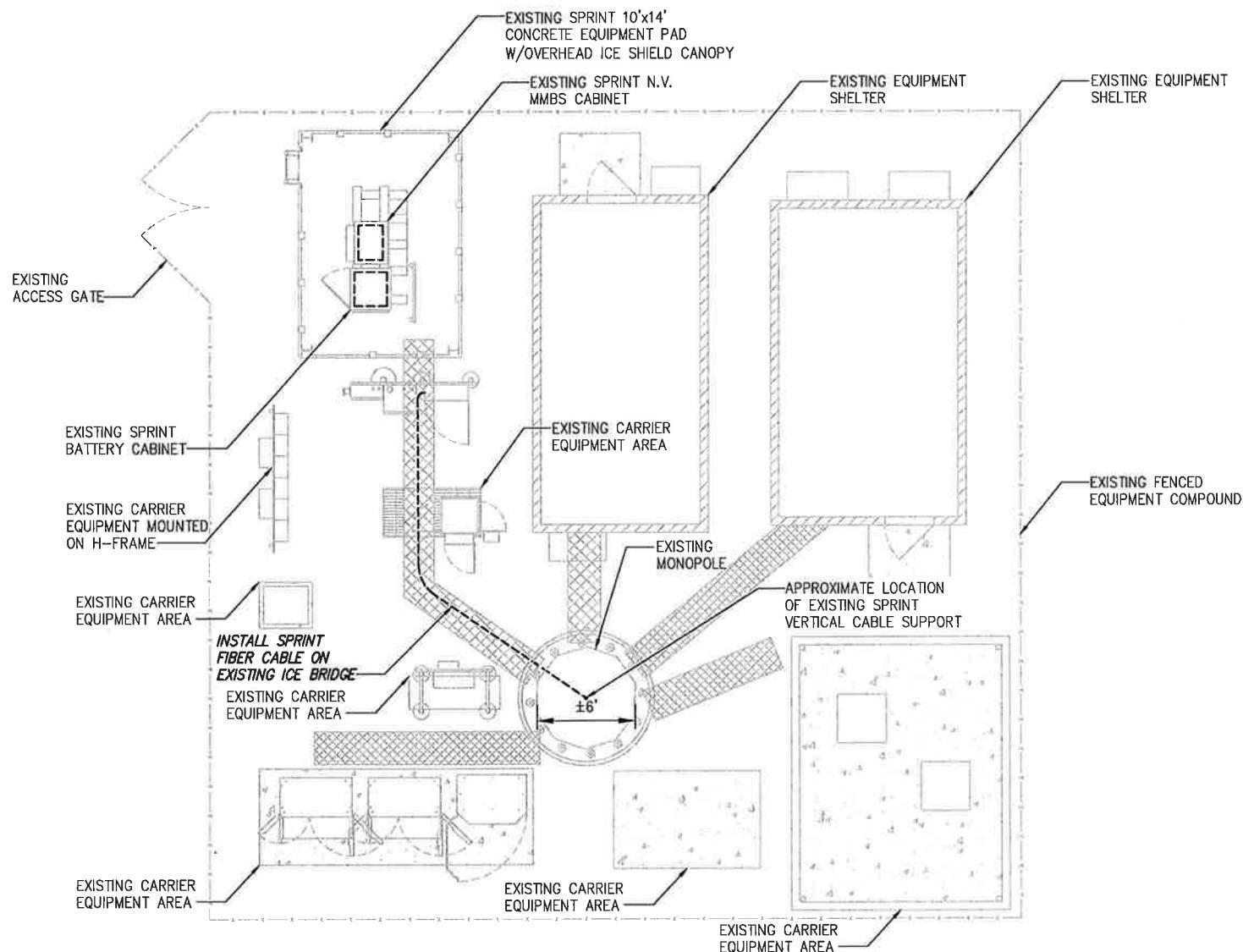
- A. FILE DIGITAL PHOTOGRAPHS OF COMPLETED SITE IN JPEG FORMAT IN THE SMS PHOTO LIBRARY FOR THE RESPECTIVE SITE. PHOTOGRAPHS SHALL BE CLEARLY LABELED WITH SITE NUMBER, NAME AND DESCRIPTION, AND SHALL INCLUDE AT A MINIMUM THE FOLLOWING AS APPLICABLE:

1. 1SHELTER AND TOWER OVERVIEW.
2. TOWER FOUNDATION(S) - FORMS AND STEEL BEFORE POUR (EACH ANCHOR ON GUYED TOWERS).
3. TOWER FOUNDATION(S) POUR WITH VIBRATOR IN USE (EACH ANCHOR ON GUYED TOWERS).
4. TOWER STEEL AS BEING INSTALLED INTO HOLE (SHOW ANCHOR STEEL ON GUYED TOWERS).
5. PHOTOS OF TOWER SECTION STACKING.
6. CONCRETE TESTING / SAMPLES.
7. PLACING OF ANCHOR BOLTS IN TOWER FOUNDATION.
8. BUILDING/WATER TANK FROM ROAD FOR TENANT IMPROVEMENTS OR COMMENTS.
9. SHELTER FOUNDATION--FORMS AND STEEL BEFORE POURING.
10. SHELTER FOUNDATION POUR WITH VIBRATOR IN USE.
11. COAX CABLE ENTRY INTO SHELTER.
12. PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.
13. ROOFTOP PRE AND POST CONSTRUCTION PHOTOS TO INCLUDE PENETRATIONS AND INTERIOR CEILING.
14. PHOTOS OF TOWER TOP COAX LINE COLOR CODING AND COLOR CODING AT GROUND LEVEL.
15. PHOTOS OF ALL APPROPRIATE COMPANY OR REGULATORY SIGNAGE.
16. PHOTOS OF EQUIPMENT BOLT DOWN INSIDE SHELTER.
17. POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE AND POWER AND TELCO SUPPLY LOCATIONS INCLUDING METER/DISCONNECT.
18. ELECTRICAL TRENCH(S) WITH ELECTRICAL / CONDUIT BEFORE BACKFILL.
19. ELECTRICAL TRENCH(S) WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.
20. TELCO TRENCH WITH TELEPHONE / CONDUIT BEFORE BACKFILL.
21. TELCO TRENCH WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.
22. SHELTER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).
23. TOWER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

24. FENCE GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).
25. ALL BTS GROUND CONNECTIONS.
26. ALL GROUND TEST WELLS.
27. ANTENNA GROUND BAR AND EQUIPMENT GROUND BAR.
28. ADDITIONAL GROUNDING POINTS ON TOWERS ABOVE 200'.
29. HVAC UNITS INCLUDING CONDENSERS ON SPLIT SYSTEMS.
30. GPS ANTENNAS.
31. CABLE TRAY AND/OR WAVEGUIDE BRIDGE.
32. DOGHOUSE/CABLE EXIT FROM ROOF.
33. EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA.
34. MASTER BUS BAR.
35. TELCO BOARD AND NIU.
36. ELECTRICAL DISTRIBUTION WALL.
37. CABLE ENTRY WITH SURGE SUPPRESSION.
38. ENTRANCE TO EQUIPMENT ROOM.
39. COAX WEATHERPROOFING-TOP AND BOTTOM OF TOWER.
40. COAX GROUNDING -TOP AND BOTTOM OF TOWER.
41. ANTENNA AND MAST GROUNDING.
42. LANDSCAPING - WHERE APPLICABLE.

- 3.6 FINAL PROJECT ACCEPTANCE: COMPLETE ALL REQUIRED REPORTING TASKS PER CONTRACT, CONTRACT DOCUMENTS OR THE SPRINT INTEGRATED CONSTRUCTION STANDARDS FOR WIRELESS SITES AND UPLOAD INTO SITERRA.

INFORMATION CONTAINED WITHIN DRAWINGS
ARE BASED ON PROVIDED INFORMATION AND
ARE NOT THE RESULT OF A FIELD SURVEY.



2.5' 0 2.5' 5' 10'
(IN FEET)
SCALE: 24"x36" SHEET 1" = 5'-0"
SCALE: 11"x17" SHEET 1" = 10'-0"

OVERALL SITE PLAN

SCALE: AS NOTED

1

SPRINT EQUIPMENT PLAN

SCALE: AS NOTED

2

A-1

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design.
Build.
Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER
CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE
THE SOLE PROPERTY OF SPRINT AND MAY NOT BE
REPRODUCED, DISSEMINATED OR REDISTRIBUTED
WITHOUT THE EXPRESS WRITTEN CONSENT OF
SPRINT.

REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR CONSTRUCTION	07/15/14	DJC	2	
REVISED PER COMMENTS	07/10/14	JLM	1	
ISSUED FOR PERMIT	06/10/14	DJC	0	
ISSUED FOR REVIEW	05/27/14	JLM	A	

SITE NAME:

BILKAYS EXPRESS

SITE CASCADE:

CT43XC839

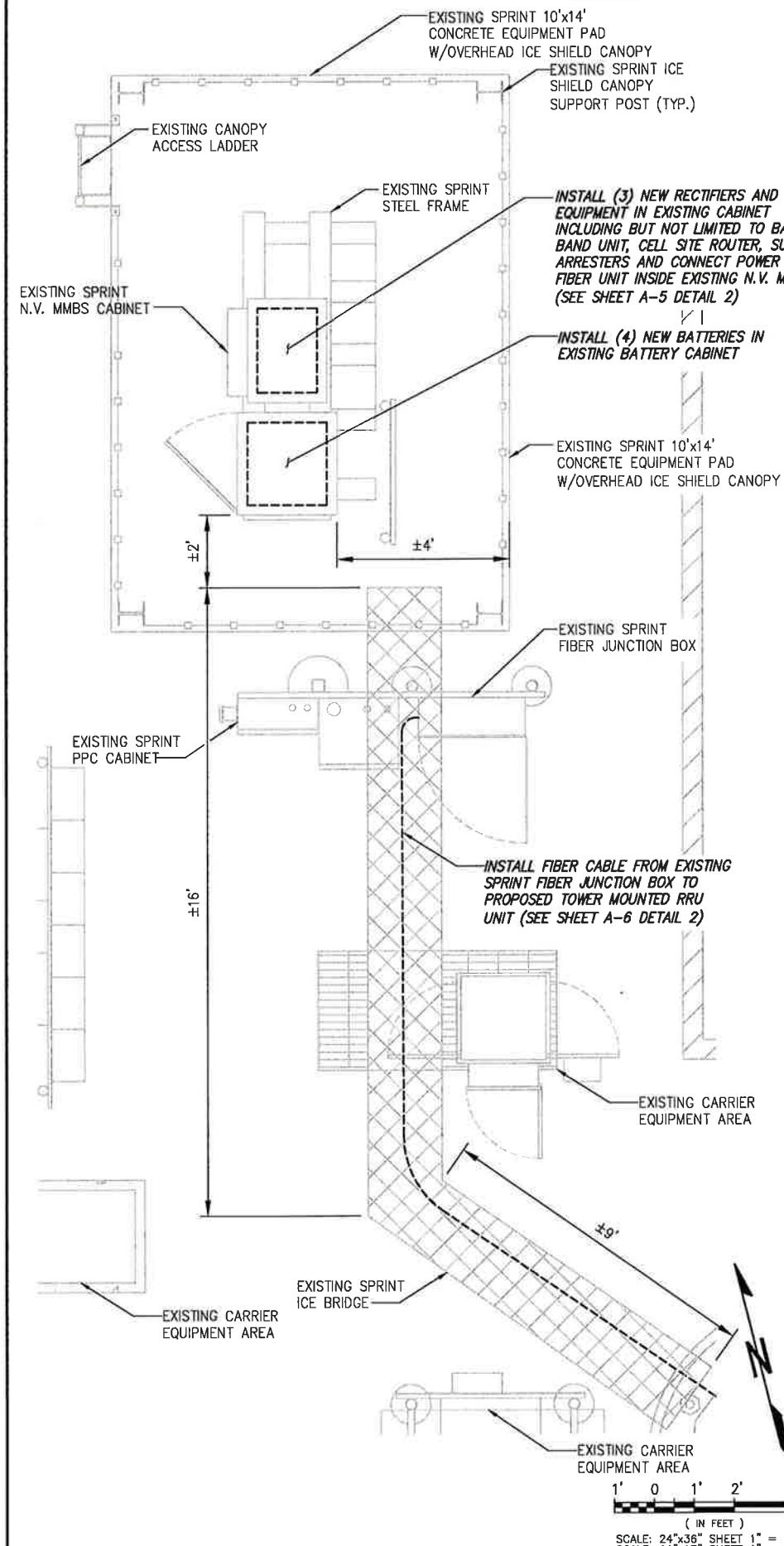
SITE ADDRESS:

90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SHEET DESCRIPTION:

SITE PLAN

SHEET NUMBER:



1' 0 1' 2' 4'
(IN FEET)
SCALE: 24"x36" SHEET 1" = 2'-0"
SCALE: 11"x17" SHEET 1" = 4'-0"

SPRINT EQUIPMENT PLAN

SCALE: AS NOTED

2

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

INFINIGY Design.
Build.
Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:

AMERICAN TOWER
CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801



DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR CONSTRUCTION	07/15/14	DJG	2	
REVISED PER COMMENTS	07/10/14	JLM	1	
ISSUED FOR PERMIT	06/10/14	DJG	0	
ISSUED FOR REVIEW	05/27/14	JLM	A	

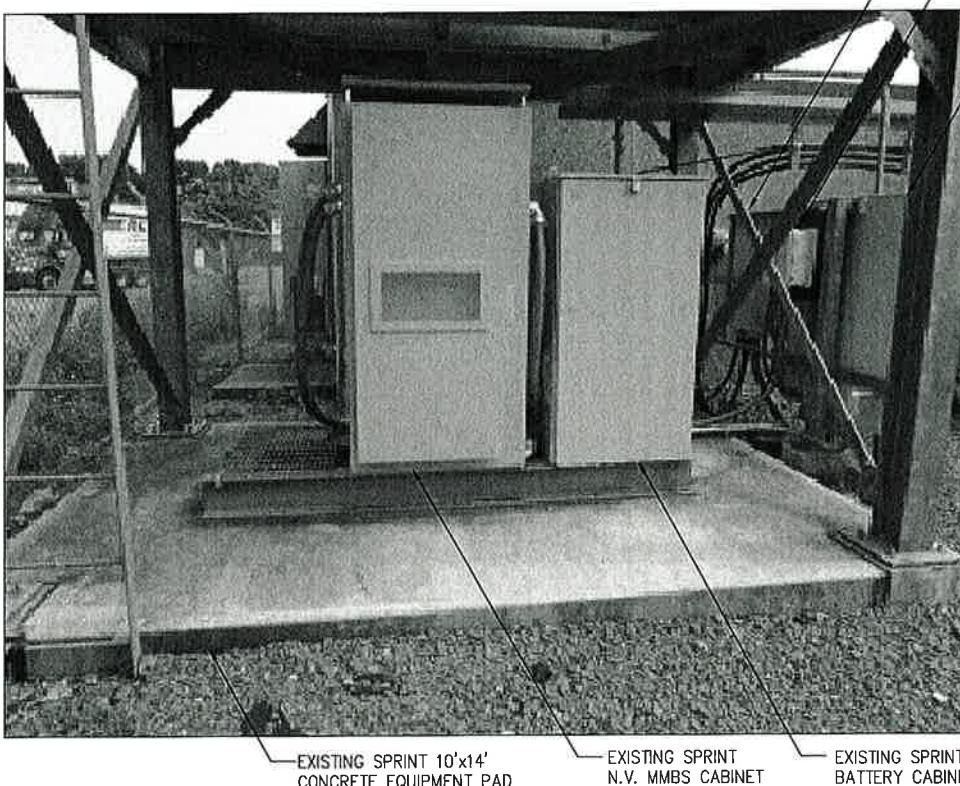
SITE NAME:
BILKAYS EXPRESS

SITE CASCADE:
CT43XC839

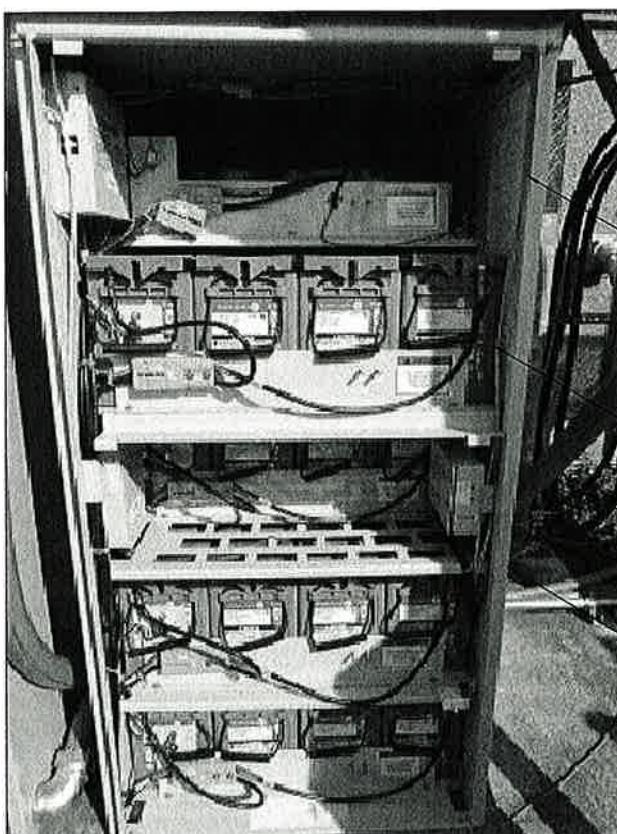
SITE ADDRESS:
90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SHEET DESCRIPTION:
EXISTING EQUIPMENT DETAILS

SHEET NUMBER:
A-1A



SCALE: AS NOTED 1



SCALE: AS NOTED 2

INFORMATION SHOWN ABOVE BASED ON INFORMATION
CONTAINED WITHIN SPRINT N.V. DRAWING. CONTRACTOR
TO VERIFY IN FIELD EXACT MAKE AND MODEL.

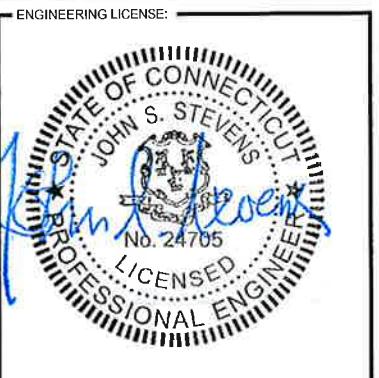
EXISTING CABINET DETAILS

SCALE: AS NOTED 3



PLANS PREPARED BY:
INFINIGY Design.
 Build.
 Deliver.
 1033 Watervliet Shaker Rd
 Albany, NY 12205
 Office # (518) 690-0790
 Fax # (518) 690-0793
 JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
 10 PRESIDENTIAL WAY
 WOBURN, MA 01801



DRAWING NOTICE:
 THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:	DESCRIPTION	DATE	BY	REV
	ISSUED FOR CONSTRUCTION	07/15/14	DJC	2
	REVISED PER COMMENTS	07/10/14	JLM	1
	ISSUED FOR PERMIT	06/10/14	DJC	0
	ISSUED FOR REVIEW	05/27/14	JLM	A

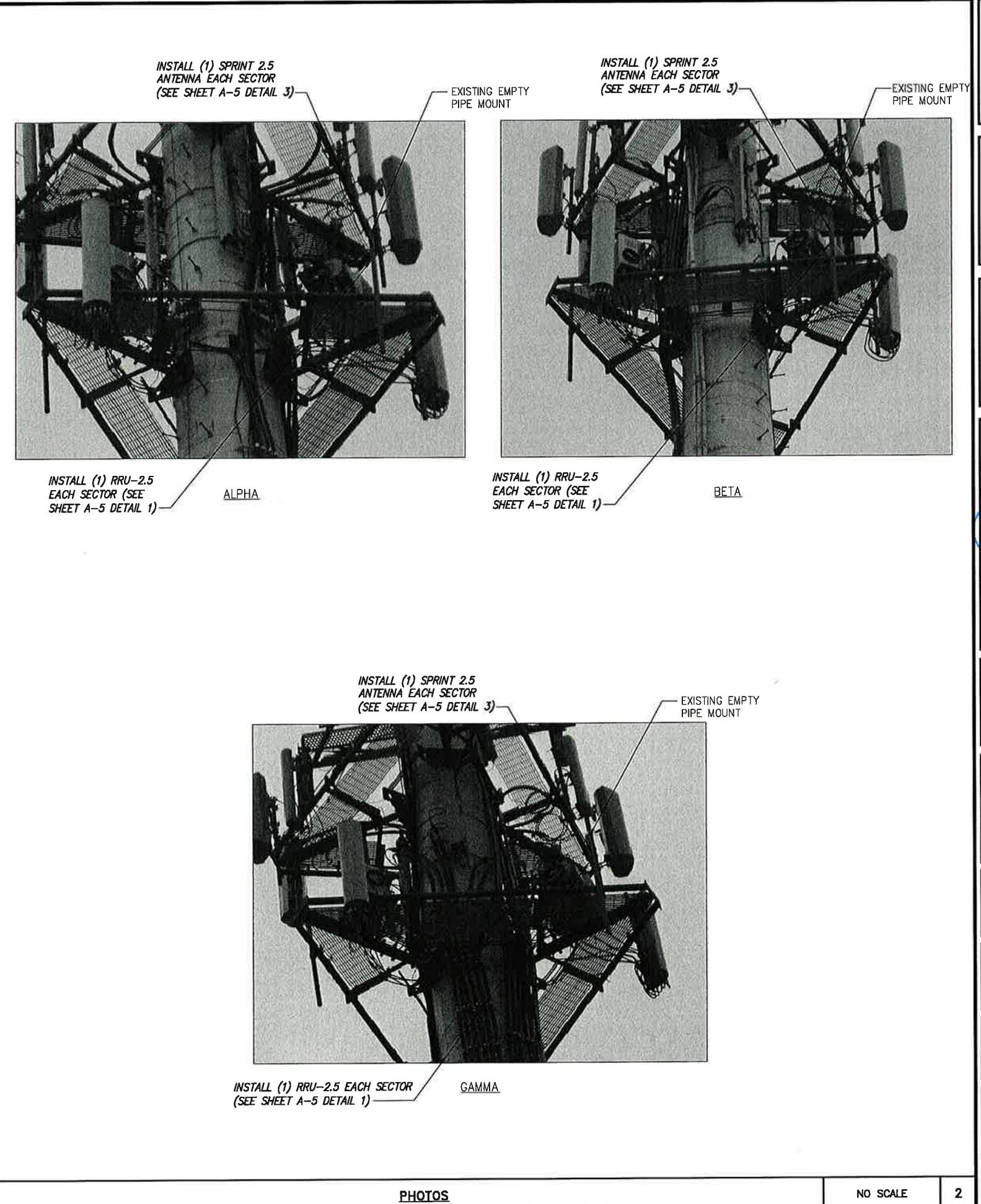
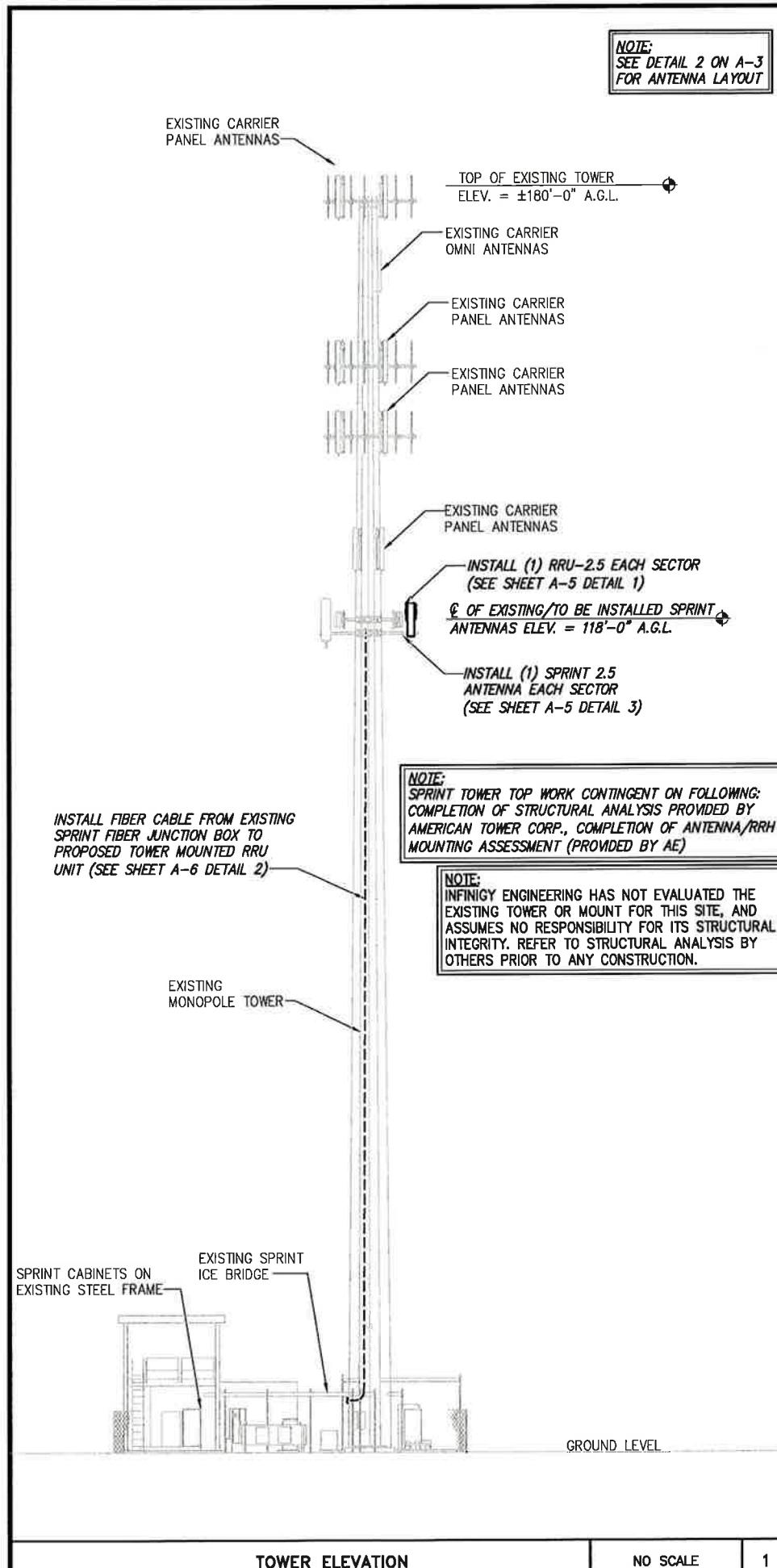
SITE NAME:
BILKAYS EXPRESS

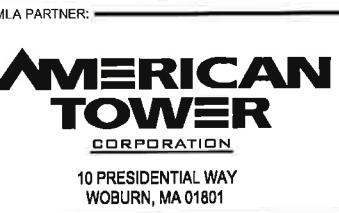
SITE CASCADE:
CT43XC839

SITE ADDRESS:
**90 N. PLAINS INDUSTRIAL RD.
 WALLINGFORD, CT 06492**

SHEET DESCRIPTION:
TOWER ELEVATION & CABLE PLAN

SHEET NUMBER:
A-2





DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:	DESCRIPTION	DATE	BY	REV
	ISSUED FOR CONSTRUCTION	07/15/14	DJG	2
	REVISED PER COMMENTS	07/10/14	JLM	1
	ISSUED FOR PERMIT	06/10/14	DJG	0
	ISSUED FOR REVIEW	05/27/14	JLM	A

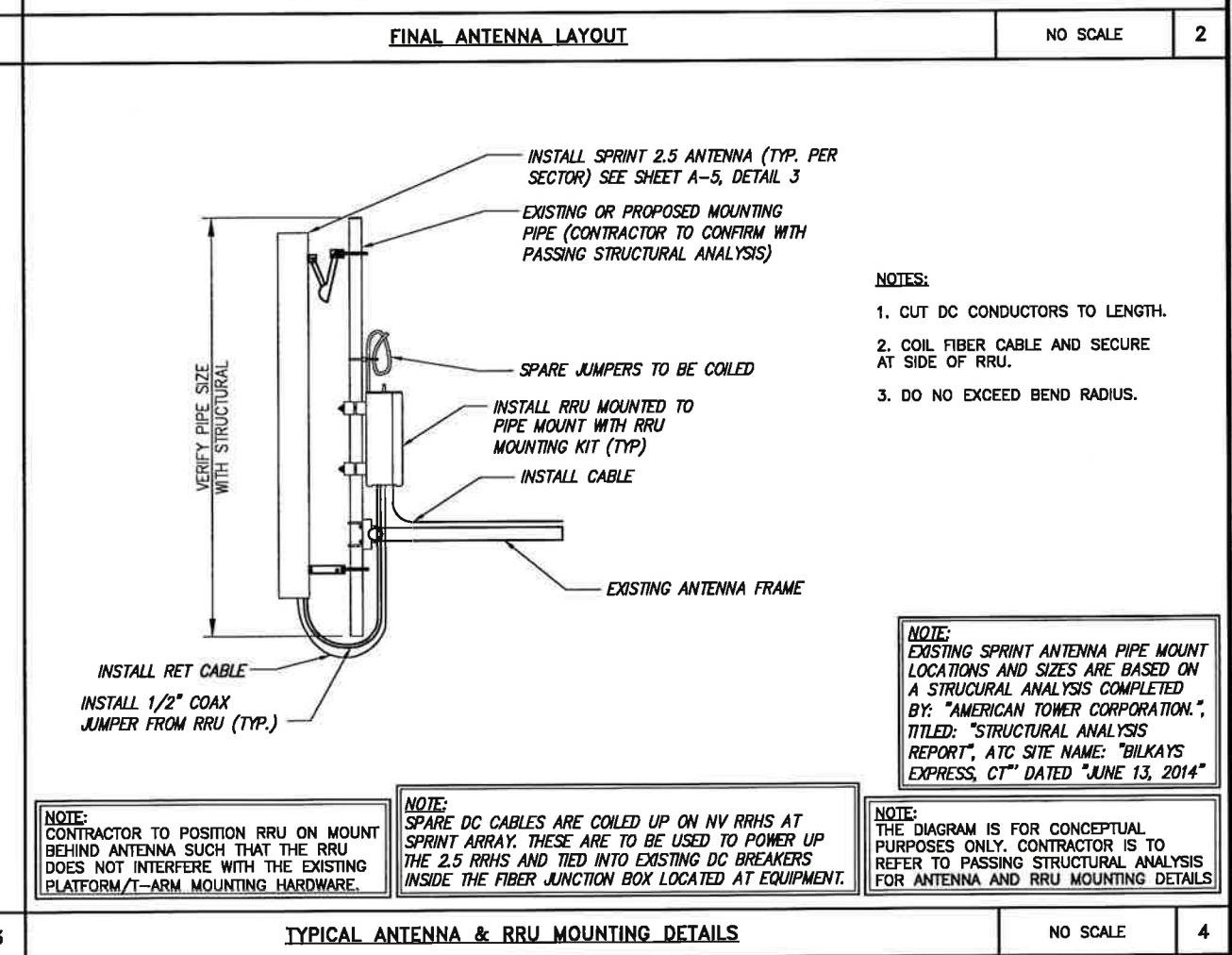
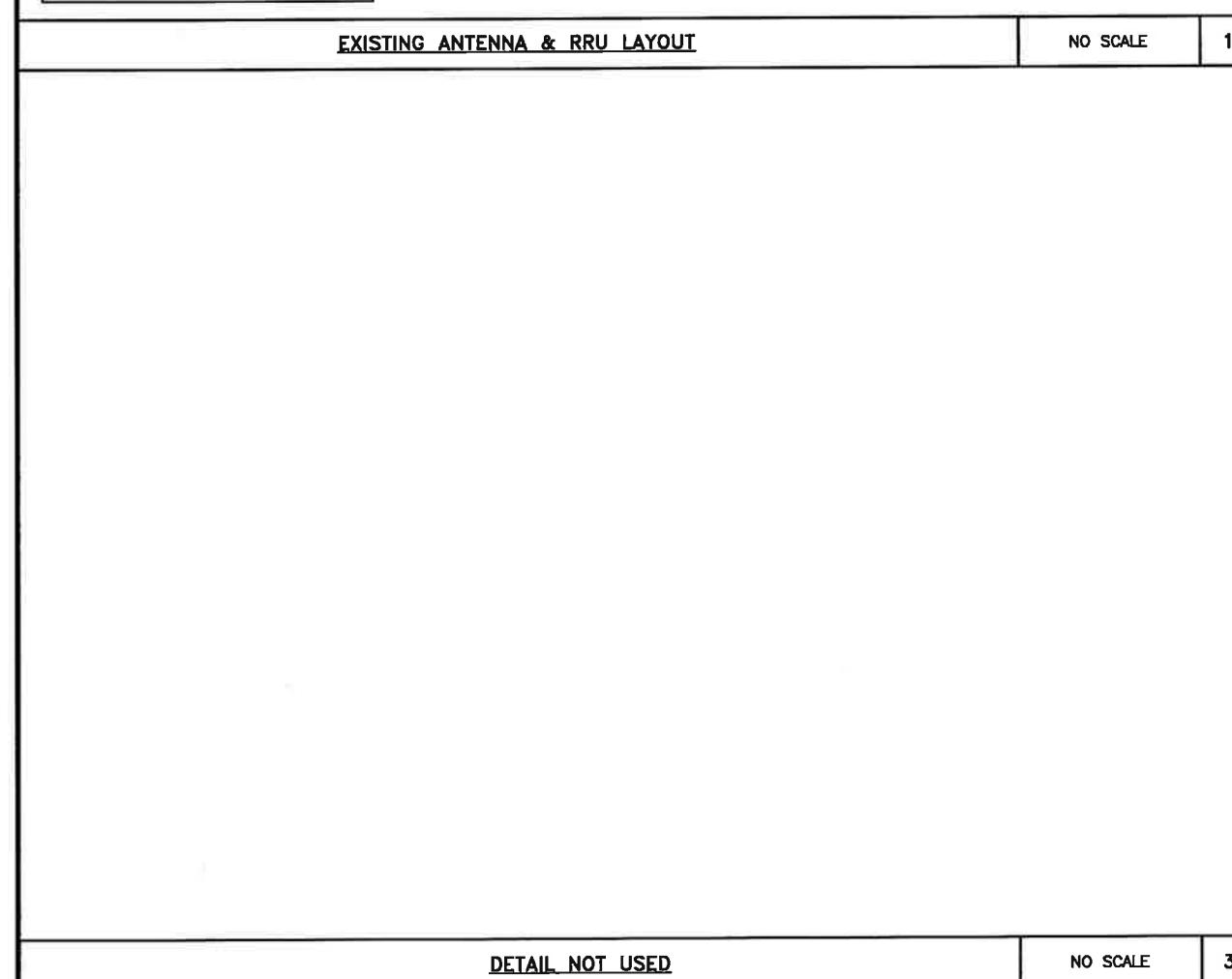
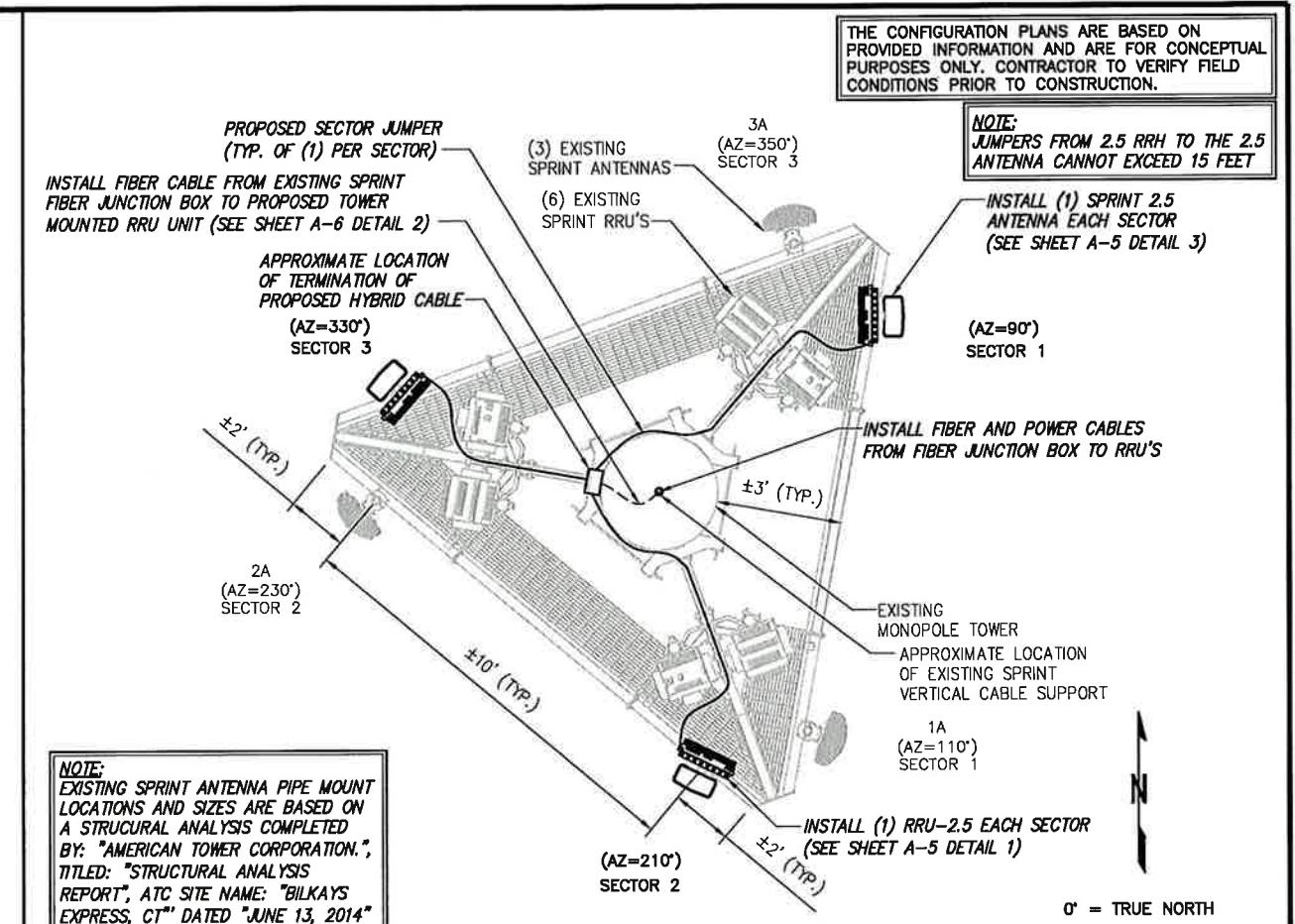
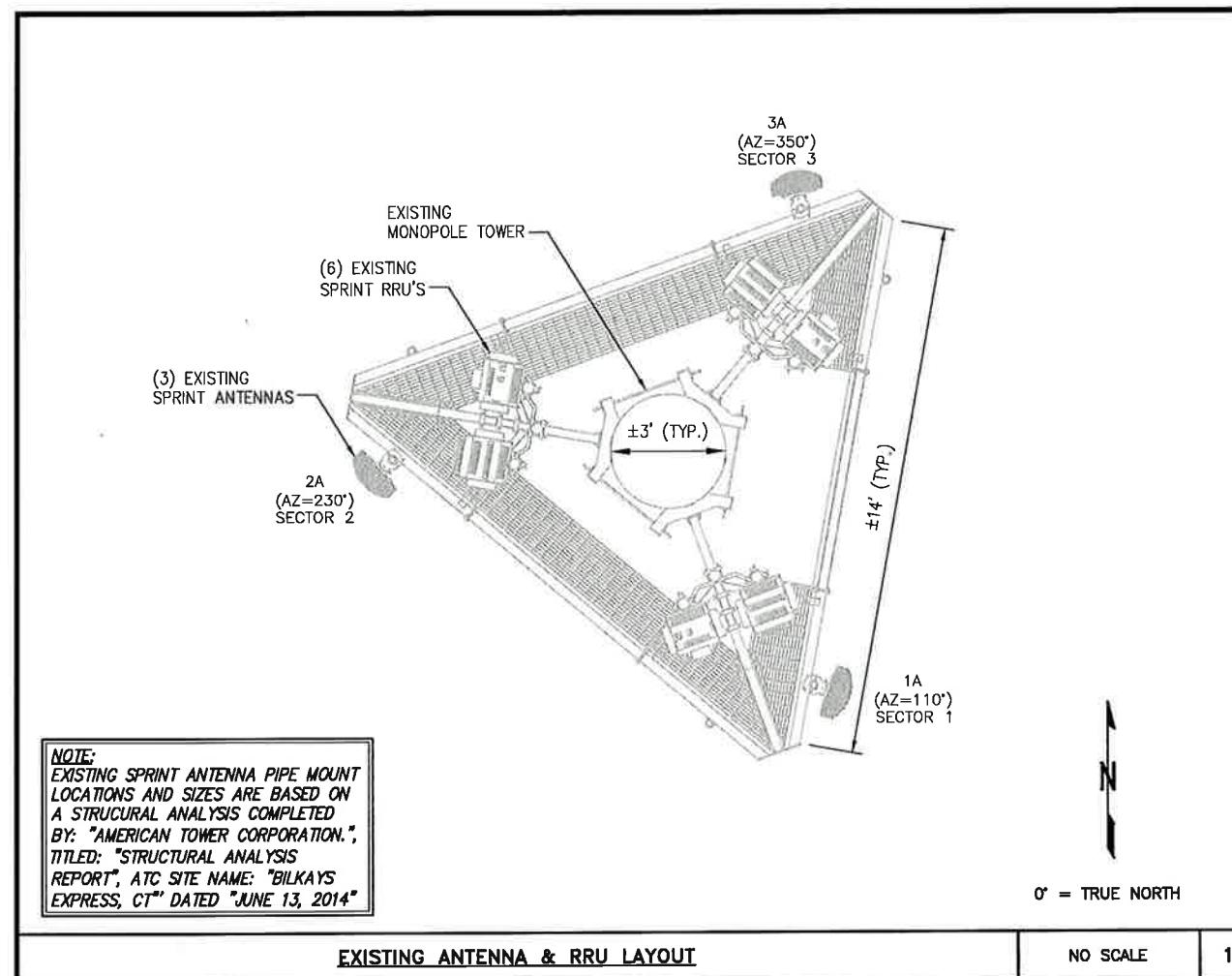
SITE NAME:
BILKAYS EXPRESS

SITE CASCADE:
CT43XC839

SITE ADDRESS:
90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

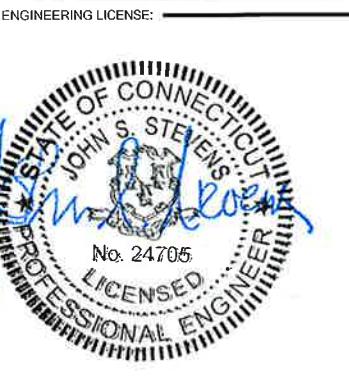
SHEET DESCRIPTION:
ANTENNA LAYOUT & MOUNTING DETAILS

SHEET NUMBER:
A-3



DETAIL NOT USED	NO SCALE	3
-----------------	----------	---

TYPICAL ANTENNA & RRU MOUNTING DETAILS	NO SCALE	4
--	----------	---



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:

DESCRIPTION	DATE	BY	REV
*			
ISSUED FOR CONSTRUCTION	07/15/14	JLG	2
REVISED PER COMMENTS	07/10/14	JLM	1
ISSUED FOR PERMIT	06/10/14	DVG	0
ISSUED FOR REVIEW	05/27/14	JLM	A

SITE NAME:
BILKAYS EXPRESS

SITE CASCADE:
CT43XC839

SITE ADDRESS:
**90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492**

SHEET DESCRIPTION:
**COLOR CODING
AND NOTES**

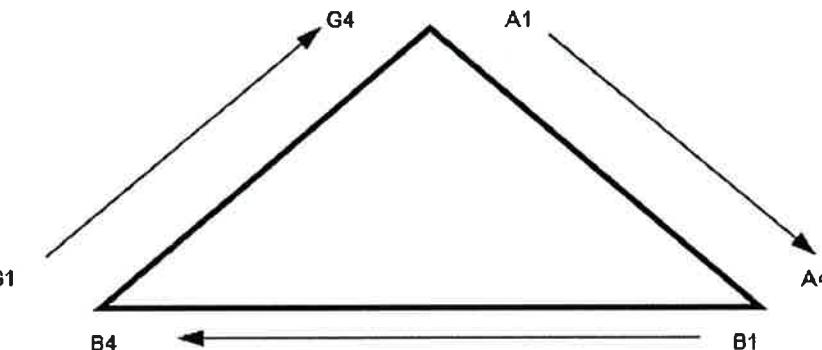
SHEET NUMBER:
A-4

NV CABLES			
BAND	INDICATOR	PORT	COLOR
800-1	YEL GRN	NV-1	GRN
1900-1	YEL RED	NV-2	BLU
1900-2	YEL BRN	NV-3	BRN
1900-3	YEL BLU	NV-4	WHT
1900-4	YEL SLT	NV-5	RED
800-2	YEL ORG	NV-6	SLT
SPARE	YEL WHT	NV-7	PPL
2500	YEL PPL	NV-8	ORG

HYBRID	
HYBRID	COLOR
1	GRN
2	BLU
3	BRN
4	WHT
5	RED
6	SLT
7	PPL
8	ORG

2.5 Band	
2500 Radio 1	COLOR
YEL WHT	GRN
YEL WHT	BLU
YEL WHT	BRN
YEL WHT	WHT
YEL WHT	RED
YEL WHT	SLT
YEL WHT	PPL
YEL WHT	ORG

Figure 1: Antenna Orientation



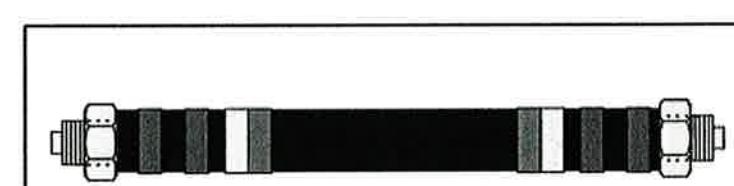
NOTES:

1. ALL CABLES SHALL BE MARKED WITH 2" WIDE, UV STABILIZED, UL APPROVED TAPE.
2. THE FIRST RING SHALL BE CLOSEST TO THE END OF THE CABLE AND SPACED APPROXIMATELY 2" FROM THE END CONNECTOR, WEATHERPROOFING, OR BREAK-OUT CYLINDER. THERE SHALL BE A 1" SPACE BETWEEN EACH RING FOR THE CABLE IDENTIFIER, AND NO SPACES BETWEEN THE FREQUENCY BANDS.
3. A 2" GAP SHALL SEPARATE THE CABLE COLOR CODE FROM THE FREQUENCY COLOR CODE. THE 2" COLOR RINGS FOR THE FREQUENCY CODE SHALL BE PLACED NEXT TO EACH OTHER WITH NO SPACES.
4. THE 2" COLORED TAPE(S) SHALL EACH BE WRAPPED A MINIMUM OF 3 TIMES AROUND THE INDIVIDUAL CABLES, AND THE TAPE SHALL BE KEPT IN THE SAME LOCATION AS MUCH AS POSSIBLE.
5. SITES WITH MORE THAN FOUR (4) SECTORS WILL REQUIRE ADDITIONAL RINGS FOR EACH SECTOR, FOLLOWING THE PATTERN. HIGH CAPACITY SITES WILL USE THE NEXT COLOR IN THE SEQUENCE FOR ADDITIONAL CABLES IN EACH SECTOR.
6. HYBRID FIBER CABLE SHALL BE SECTOR IDENTIFIED INSIDE THE CABINET ON FREQUENCY BUNDLES, ON THE SEALTITE, ON THE MAIN LINE UPON EXIT OF SEALTITE, AND BEFORE AND AFTER THE BREAKOUT UNIT (MEDUSA), AS WELL AS BEFORE AND AFTER ANY ENTRANCE OR EXIT.
7. HFC "MAIN TRUNK" WILL NOT BE MARKED WITH THE FREQUENCY CODES, AS IT CONTAINS ALL FREQUENCIES.
8. INDIVIDUAL POWER PAIRS AND FIBER BUNDLES SHALL BE LABELED WITH BOTH THE CABLE AND FREQUENCY.

Sector	Cable	First Ring	Second Ring	Third Ring
1 Alpha	1	Green	No Tape	No Tape
	1	2	No Tape	No Tape
	1	3	Brown	No Tape
	1	4	White	No Tape
	1	5	Red	No Tape
	1	6	Grey	No Tape
	1	7	Purple	No Tape
	1	8	Orange	No Tape
2 Beta	1	Green	Green	No Tape
	2	2		No Tape
	2	3	Brown	Brown
	2	4	White	White
	2	5	Red	Red
	2	6	Grey	Grey
	2	7	Purple	Purple
	2	8	Orange	Orange
3 Gamma	1	Green	Green	Green
	3	2		
	3	3	Brown	Brown
	3	4	White	White
	3	5	Red	Red
	3	6	Grey	Grey
	3	7	Purple	Purple
	3	8	Orange	Orange

NV FREQUENCY	INDICATOR	ID
800-1	YEL GRN	
1900-1	YEL RED	
1900-2	YEL BRN	
1900-3	YEL BLU	
1900-4	YEL SLT	
800-1	YEL ORG	
RESERVED	YEL WHT	
RESERVED	YEL PPL	

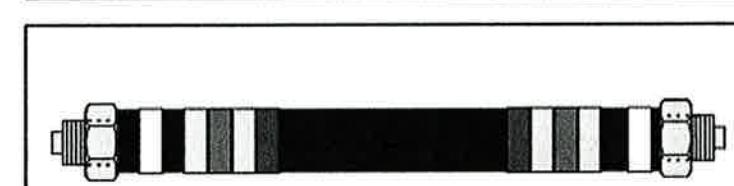
2.5 FREQUENCY	INDICATOR	ID
2500 -1	YEL WHT	GRN
2500 -2	YEL WHT	RED
2500 -3	YEL WHT	BRN
2500 -4	YEL WHT	BLU
2500 -5	YEL WHT	SLT
2500 -6	YEL WHT	ORG
2500 -7	YEL WHT	WHT
2500 -8	YEL WHT	PPL



Example – Sector 2, Cable 2, 800mhz Radio #1



Example – Sector 3, Cable 1, 1900mhz Radio #1



Example – Sector 1, Cable 4, 800 mhz Radio #1
and 1900mhz Radio #1



DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

DESCRIPTION	DATE	BY	REV
ISSUED FOR CONSTRUCTION	07/15/14	DVG	2
REVISED PER COMMENTS	07/10/14	JLM	1
ISSUED FOR PERMIT	06/10/14	DVG	0
ISSUED FOR REVIEW	05/27/14	JLM	A

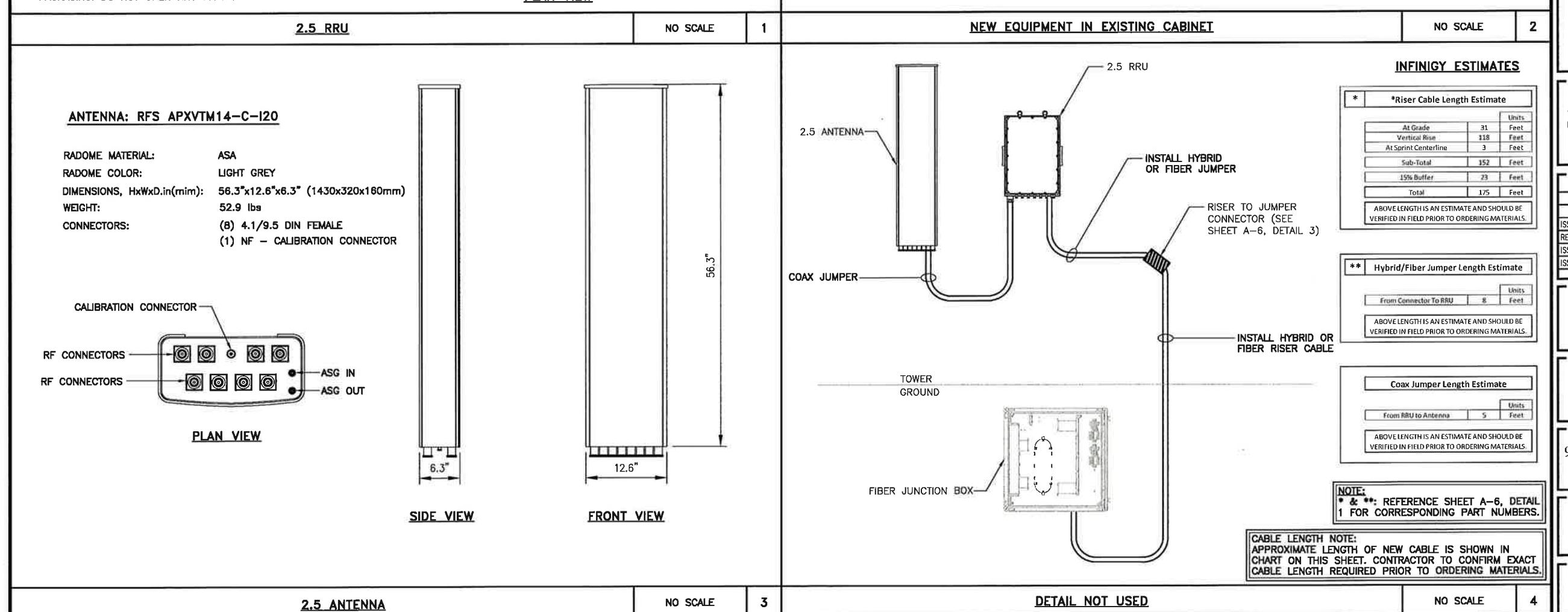
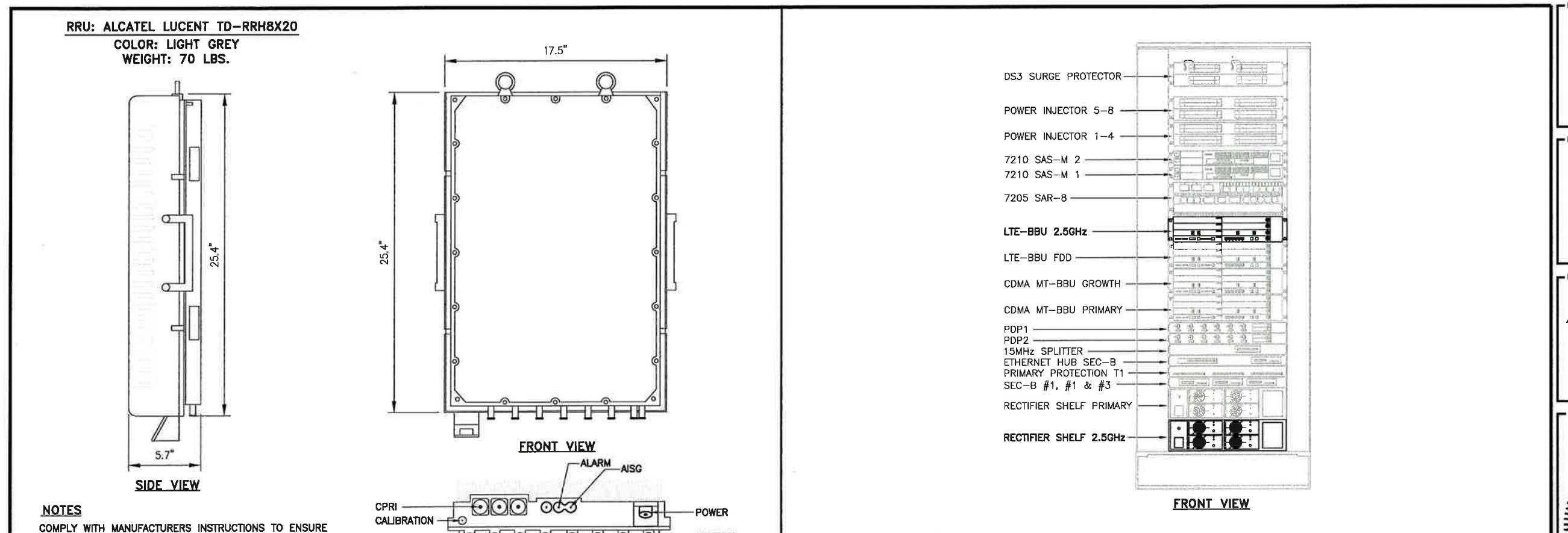
SITE NAME: BILKAYS EXPRESS

SITE CASCADE: CT43XC839

SITE ADDRESS: 90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SHEET DESCRIPTION: EQUIPMENT &
MOUNTING DETAILS

SHEET NUMBER: A-5



Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

INFINIGY Design.
Build.
Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

AMERICAN TOWER
CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801



THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

DESCRIPTION	DATE	BY	REV
ISSUED FOR CONSTRUCTION	07/15/14	DJG	2
REVISED PER COMMENTS	07/10/14	JLM	1
ISSUED FOR PERMIT	06/10/14	DJG	0
ISSUED FOR REVIEW	05/27/14	JLM	A

BILKAYS EXPRESS

CT43XC839

90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

CIVIL DETAILS

A-6

RFS HYBRIFLEX RISER CABLE SCHEDULE

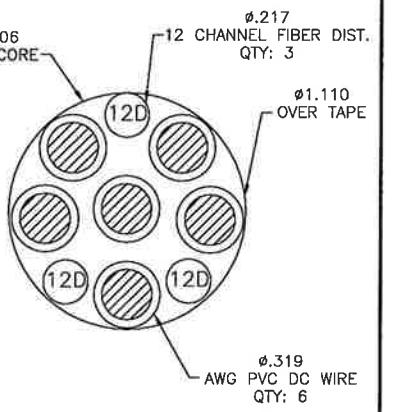
Fiber Only (Existing DC Power)	Hybrid cable MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft MN: HB058-M12-075F 75 ft MN: HB058-M12-100F 100 ft MN: HB058-M12-125F 125 ft MN: HB058-M12-150F 150 ft MN: HB058-M12-175F 175 ft MN: HB058-M12-200F 200 ft	50 ft
8 AWG Power	Hybrid cable MN: HB114-08U3M12-050F 3x 8 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 50 ft MN: HB114-08U3M12-075F 75 ft MN: HB114-08U3M12-100F 100 ft MN: HB114-08U3M12-125F 125 ft MN: HB114-08U3M12-150F 150 ft MN: HB114-08U3M12-175F 175 ft MN: HB114-08U3M12-200F 200 ft	50 ft
6 AWG Power	Hybrid cable MN: HB114-13U3M12-225F 3x 6 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 225 ft MN: HB114-13U3M12-250F 250 ft MN: HB114-13U3M12-275F 275 ft MN: HB114-13U3M12-300F 300 ft	225 ft
4 AWG Power	Hybrid cable MN: HB114-21U3M12-325F 3x 4 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 325 ft MN: HB114-21U3M12-350F 350 ft MN: HB114-21U3M12-375F 375 ft	325 ft

RFS HYBRIFLEX JUMPER CABLE SCHEDULE

Fiber Only	Hybrid Jumper cable MN: HBF012-M3-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable MN: HBF012-M3-10F1 10 ft MN: HBF012-M3-15F1 15 ft MN: HBF012-M3-20F1 20 ft MN: HBF012-M3-25F1 25 ft MN: HBF012-M3-30F1 30 ft	5 ft
8 AWG Power	Hybrid Jumper cable MN: HBF058-08U1M3-5F1 5 ft, 1x 8 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable MN: HBF058-08U1M3-10F1 10 ft MN: HBF058-08U1M3-15F1 15 ft MN: HBF058-08U1M3-20F1 20 ft MN: HBF058-08U1M3-25F1 25 ft MN: HBF058-08U1M3-30F1 30 ft	5 ft
6 AWG Power	Hybrid Jumper cable MN: HBF058-13U1M3-5F1 5 ft, 1x 6 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable MN: HBF058-13U1M3-10F1 10 ft MN: HBF058-13U1M3-15F1 15 ft MN: HBF058-13U1M3-20F1 20 ft MN: HBF058-13U1M3-25F1 25 ft MN: HBF058-13U1M3-30F1 30 ft	5 ft
4 AWG Power	Hybrid Jumper cable MN: HBF078-21U1M3-5F1 5 ft, 1x 4 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 7/8 cable MN: HBF078-21U1M3-10F1 10 ft MN: HBF078-21U1M3-15F1 15 ft MN: HBF078-21U1M3-20F1 20 ft MN: HBF078-21U1M3-25F1 25 ft MN: HBF078-21U1M3-30F1 30 ft	5 ft

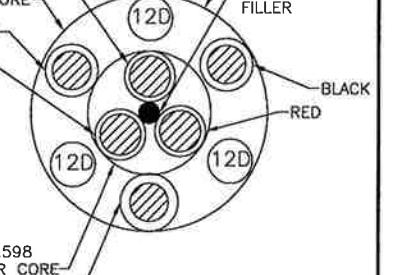
NOTE:
SPRINT CM TO CONFIRM HYBRID OR FIBER RISER CABLE
AND HYBRID OR FIBER JUMPER CABLE MODEL NUMBERS IF
HYBRID CABLES ARE REQUIRED BEFORE PREPARING BOM.

12 CHANNEL FIBER DIST.
QTY: 3



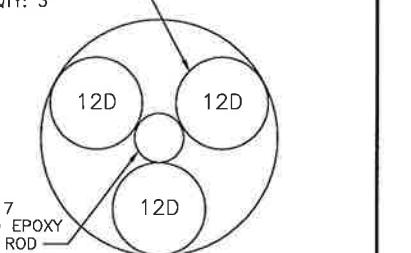
4 AWG

12 CHANNEL FIBER DIST.
QTY: 3

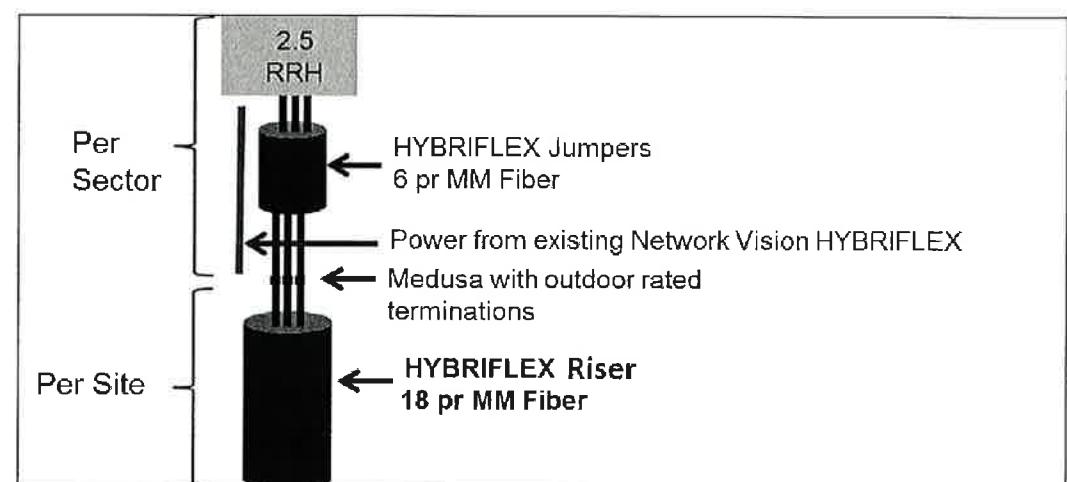
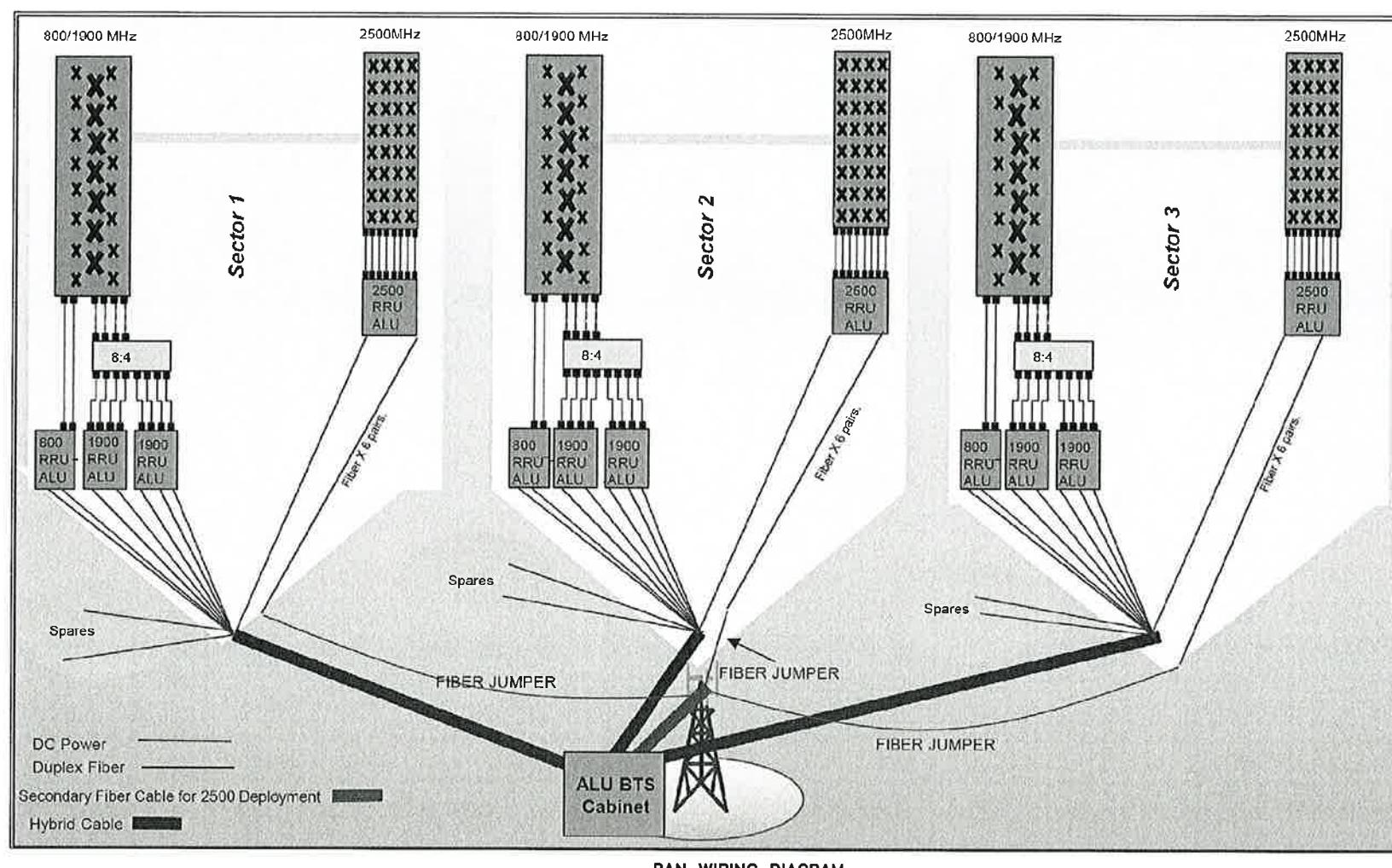
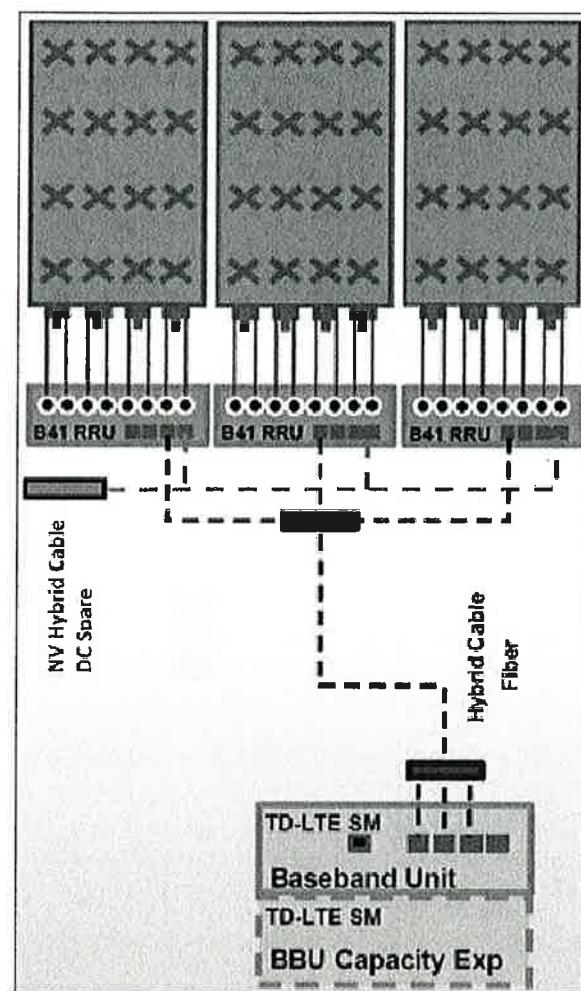


8 & 6 AWG

12 CHANNEL FIBER DIST.
QTY: 3



FIBER ONLY



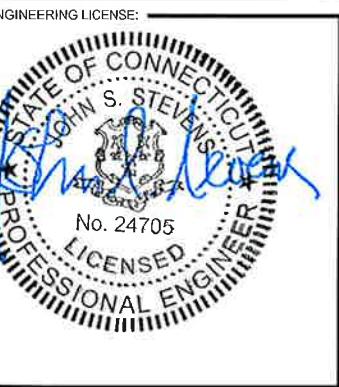
PLUMBING DIAGRAM

NO SCALE 1

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design.
Build.
Deliver.
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793
JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801



DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:		DESCRIPTION	DATE	BY	REV
ISSUED FOT CONSTRUCTION			07/15/14	D.G	2
REVISED PER COMMENTS			07/10/14	J.M	1
ISSUED FOR PERMIT			06/10/14	D.G	0
ISSUED FOR REVIEW			05/27/14	J.M	A

SITE NAME:
BILKAYS EXPRESS

SITE CASCADE:
CT43XC839

SITE ADDRESS:
90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SHEET DESCRIPTION:
PLUMBING DIAGRAM

SHEET NUMBER:
A-7

PLANS PREPARED FOR:
Sprint
 6580 Sprint Parkway
 Overland Park, Kansas 66251

PLANS PREPARED BY:
INFINIGY Design.
 Build.
 Deliver.
 1033 Watervliet Shaker Rd
 Albany, NY 12205
 Office # (518) 690-0790
 Fax # (518) 690-0793
 JOB NUMBER 340-000

MLA PARTNER:
AMERICAN TOWER CORPORATION
 10 PRESIDENTIAL WAY
 WOBURN, MA 01801



DRAWING NOTICE:
 THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:	DESCRIPTION	DATE	BY	REV

ISSUED FOR CONSTRUCTION 07/15/14 D.G. 2
 REVISED PER COMMENTS 07/10/14 J.M. 1
 ISSUED FOR PERMIT 06/10/14 D.G. 0
 ISSUED FOR REVIEW 05/27/14 J.M. A

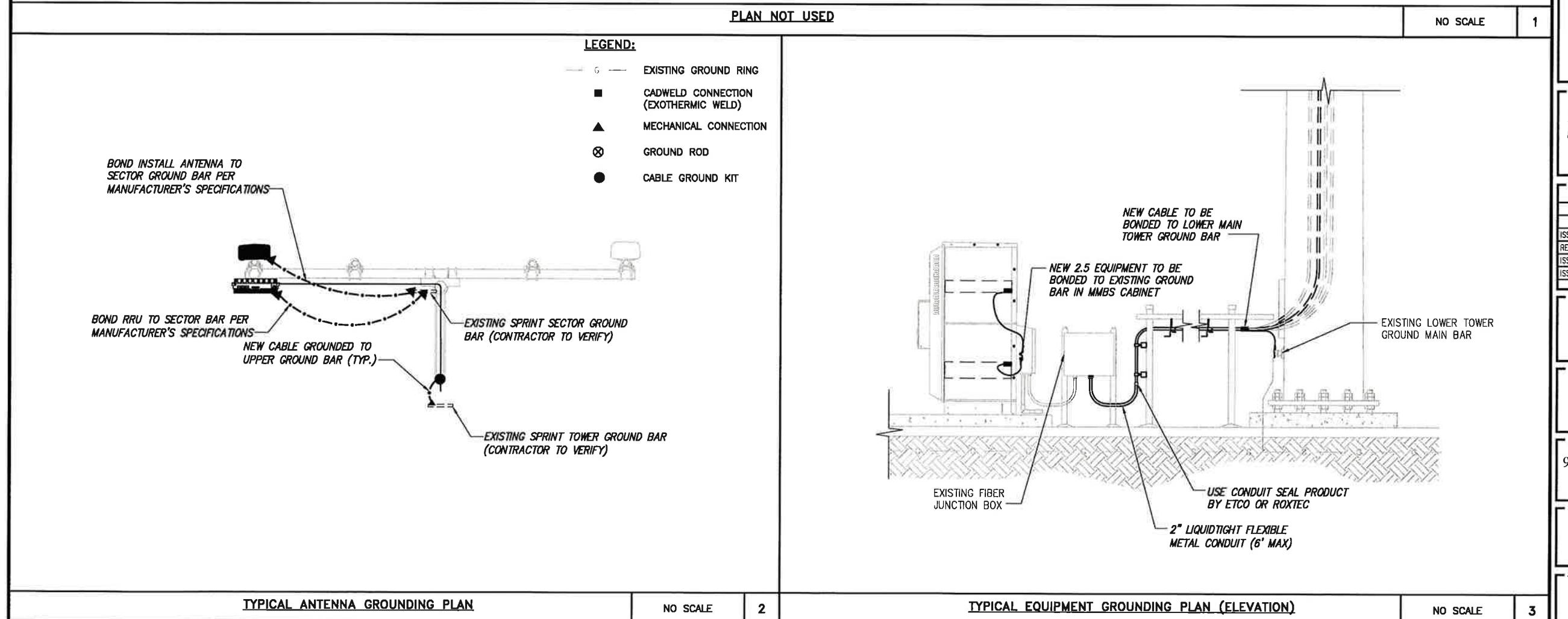
SITE NAME:
BILKAYS EXPRESS

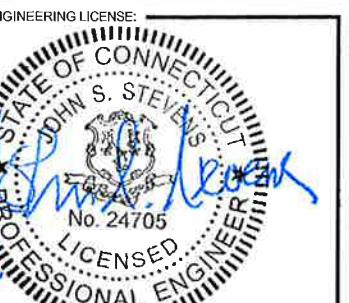
SITE CASCADE:
CT43XC839

SITE ADDRESS:
 90 N. PLAINS INDUSTRIAL RD.
 WALLINGFORD, CT 06492

SHEET DESCRIPTION:
ELECTRICAL & GROUNDING PLAN

SHEET NUMBER:
E-1





DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:	DESCRIPTION	DATE	BY	REV
ISSUED FOR CONSTRUCTION	07/15/14	DJG	2	
REVISED PER COMMENTS	07/10/14	JJM	1	
ISSUED FOR PERMIT	06/10/14	DJG	0	
ISSUED FOR REVIEW	05/27/14	JJM	A	

SITE NAME:
BILKAYS EXPRESS

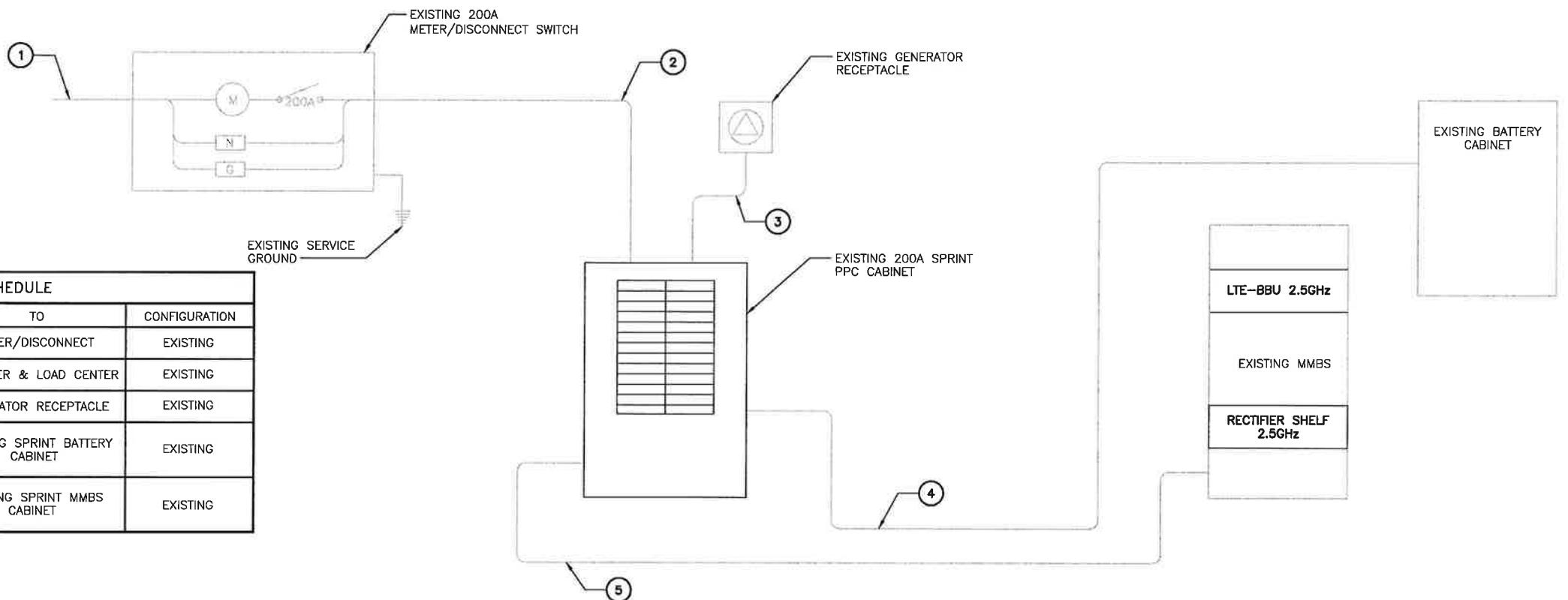
SITE CASCADE:
CT43XC839

SITE ADDRESS:
90 N. PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SHEET DESCRIPTION:
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:
E-2

NOTES
CG SHALL REFERENCE ALL SPECS FOR "CONNECTING THE POWER SUPPLY" OF THE NEW INSTALLATION DOCUMENTS, FOR ALL CONNECTION SPECIFICATIONS.

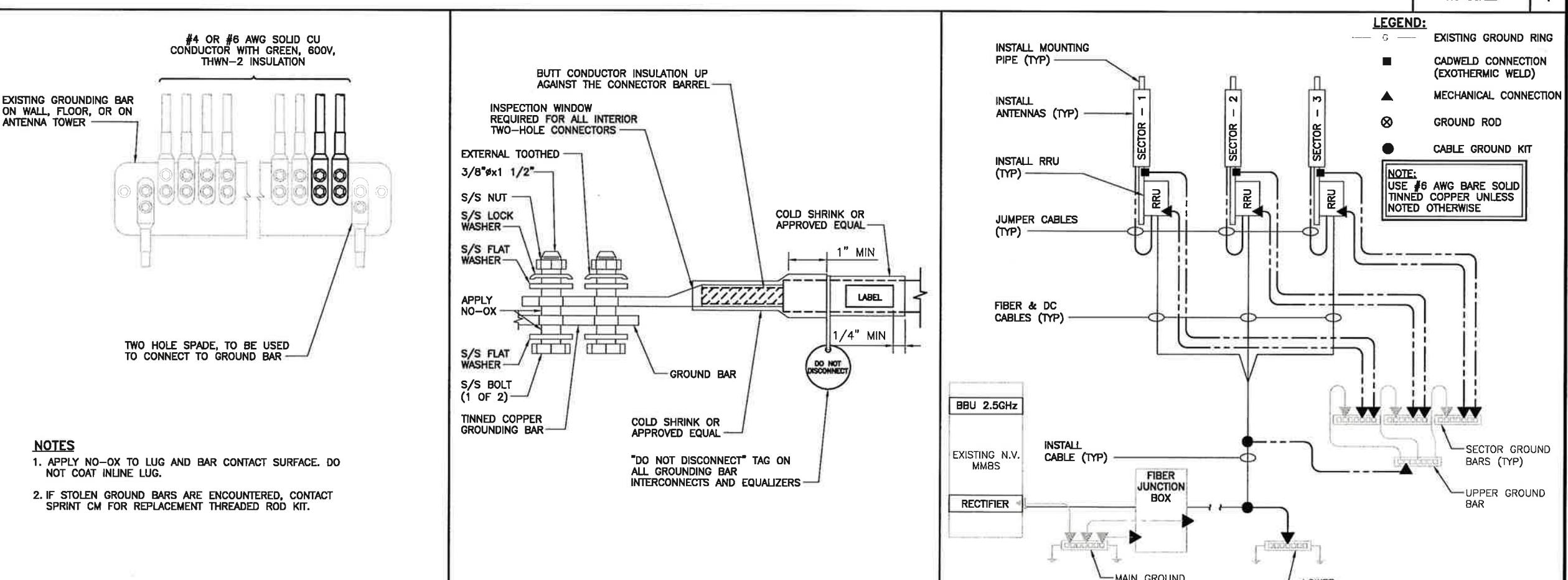


CIRCUIT SCHEDULE

NO	FROM	TO	CONFIGURATION
①	UTILITY SOURCE	METER/DISCONNECT	EXISTING
②	METER/DISCONNECT	TRANSFER & LOAD CENTER	EXISTING
③	TRANSFER & LOAD CENTER	GENERATOR RECEPTACLE	EXISTING
④	TRANSFER & LOAD CENTER	EXISTING SPRINT BATTERY CABINET	EXISTING
⑤	TRANSFER & LOAD CENTER	EXISTING SPRINT MMBs CABINET	EXISTING

ELECTRICAL ONE-LINE DIAGRAM

NO SCALE 1



- NOTES**
1. APPLY NO-OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
 2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

INSTALLATION OF GROUNDING CONDUCTOR TO GROUNDING BAR

NO SCALE

2

TWO HOLE LUG

NO SCALE

3

GROUNDING RISER DIAGRAM

NO SCALE

4