ROBINSON & COLE LLP

KENNETH C. BALDWIN

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kbaldwin@rc.com
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Also admitted in Massachusetts

March 21, 2014

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

Re: **Notice of Exempt Modification – Antenna Swap**
24 Dinglebrook Road, Newtown, Connecticut

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) wireless telecommunications antennas at the 140-foot level of the existing 150-foot tower at 24 Dinglebrook Road in Newtown, Connecticut (the "Property"). The tower is owned by AT&T. Cellco's shared use of this tower was approved in 2009 (Docket No. 376). Cellco now intends to replace three (3) of its existing antennas with three (3) model BXA-70063-6CF, 700 MHz antennas, at the same 140-foot level. Cellco also intends to install six (6) coaxial cable diplexers on its antenna platform. Included in Attachment 1 are specifications for Cellco's replacement antennas and cable diplexers.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to E. Patricia Llodra, First Selectwoman for the Town of Newtown. A copy of this letter is also being sent to Paul Lundgren, the owner of the Property.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing tower. The replacement antennas and cable diplexers will be located on Cellco's existing platform at the 140-foot level on the tower.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative power density table for Cellco's modified facility is included behind Attachment 2.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The tower and its foundation, with certain modifications, can support Cellco's proposed modifications. (*See* Structural Analysis Report with Modification Design included in Attachment 3).

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
E. Patricia Llodra, Newtown First Selectwoman
Paul Lundgren
Sandy M. Carter

ATTACHMENT 1

BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

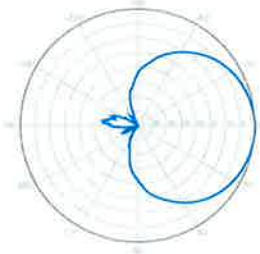
Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.

Electrical Characteristics	696-900 MHz	
Frequency bands	696-806 MHz	806-900 MHz
Polarization	±45°	
Horizontal beamwidth	65°	63°
Vertical beamwidth	13°	11°
Gain	14.0 dBd (16.1 dBi)	14.5 dBd (16.6 dBi)
Electrical downtilt (X)	0, 2, 3, 4, 5, 6, 8, 10	
Impedance	50Ω	
VSWR	≤1.35:1	
Upper sidelobe suppression (0°)	-18.3 dB	-18.2 dB
Front-to-back ratio (+/-30°)	-33.4 dB	-36.3 dB
Null fill	5% (-26.02 dB)	
Isolation between ports	< -25 dB	
Input power with EDIN connectors	500 W	
Input power with NE connectors	300 W	
IM3 (2x20W carriers)	<-153 dBc	
Lightning protection	Direct Ground	
Connector(s)	2 Ports / EDIN or NE / Female / Center (Back)	
Mechanical Characteristics		
Dimensions Length x Width x Depth	1804 x 285 x 132 mm	71.0 x 11.2 x 5.2 in
Depth with z-brackets	172 mm	6.8 in
Weight without mounting brackets	7.9 kg	17 lbs
Survival wind speed	> 201 km/hr	> 125 mph
Wind area	Front: 0.51 m^2 Side: 0.24 m^2	Front: 5.5 ft^2 Side: 2.6 ft^2
Wind load @ 161 km/hr (100 mph)	Front: 759 N Side: 391 N	Front: 169 lbf Side: 89 lbf

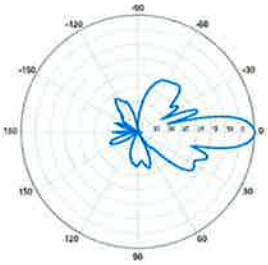
Mounting Options	Part Number	Fits Pipe Diameter	Weight
3-Point Mounting & Downtilt Bracket Kit	36210008	40-115 mm 1.57-4.5 in	6.9 kg 15.2 lbs
Concealment Configurations	For concealment configurations, order BXA-70063-6CF-EDIN-X-FP		

BXA-70063-6CF-EDIN-X



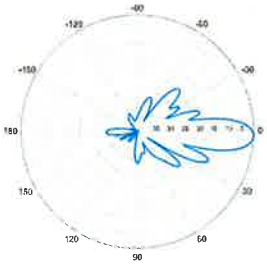
Horizontal | 750 MHz

BXA-70063-6CF-EDIN-0

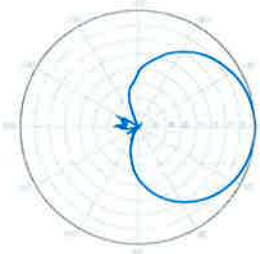


0° | Vertical | 750 MHz

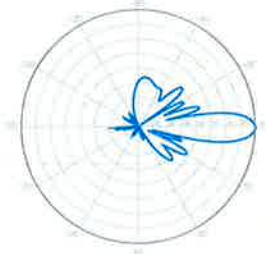
BXA-70063-6CF-EDIN-2



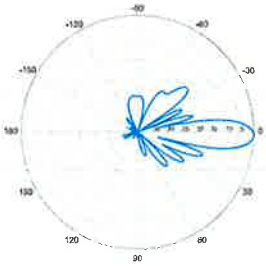
2° | Vertical | 750 MHz



Horizontal | 850 MHz



0° | Vertical | 850 MHz



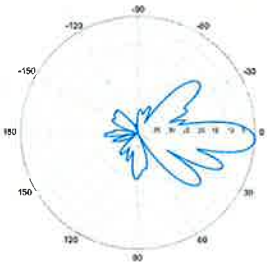
2° | Vertical | 850 MHz

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

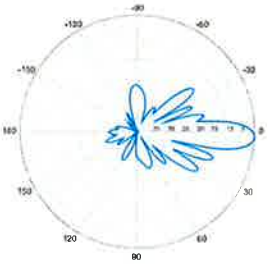
BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

BXA-70063-6CF-EDIN-3

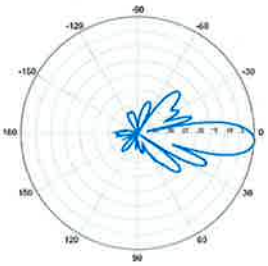


3° | Vertical | 750 MHz

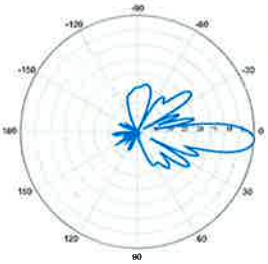


3° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-4

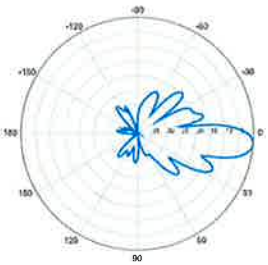


4° | Vertical | 750 MHz

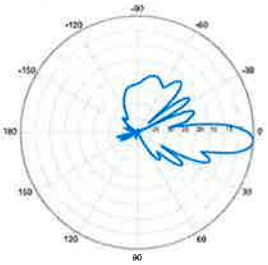


4° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-5

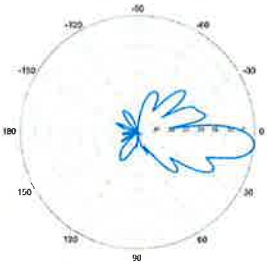


5° | Vertical | 750 MHz

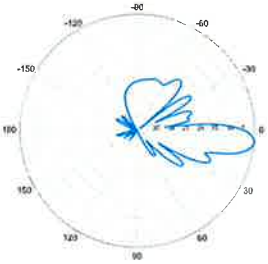


5° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-6

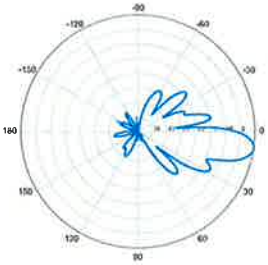


6° | Vertical | 750 MHz

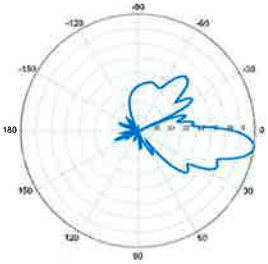


6° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-8

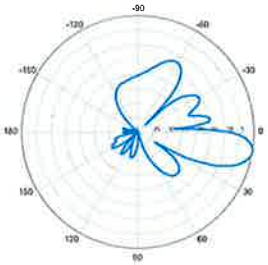


8° | Vertical | 750 MHz

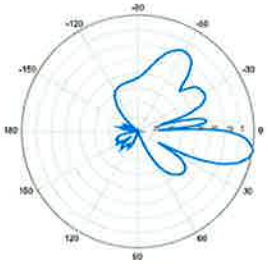


8° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-10



10° | Vertical | 750 MHz



10° | Vertical | 850 MHz

Product Data Sheet FD9R6004/2C-3L

ShareLite Wideband Diplexer – In-line 698-960 MHz/1710-2200 MHz, DC pass in high frequency path

Product Description

The ShareLite FD9R6004 Series of diplexers are designed to enable feeder sharing between systems in the 698-960 MHz range and in the 1710-2200 MHz range. The diplexer is equipped with in-line connector placement so it can be installed in the BTS cabinet or at the tower top. This is especially valuable in crowded sites or when the feeders are not easily accessible. Due to its wideband design, the FD9R6004 Series can accommodate many combining solutions between 698-960 MHz and 1710-2200 MHz systems such as LTE 700 MHz, Cellular 800 MHz with PCS, GSM900 with GSM1800, or GSM900 with UMTS. This diplexer features a highly selective filter. It provides a high level of isolation between ports, while keeping the insertion loss on both paths at an extremely low level. The FD9R6004 diplexers are available with various DC pass options, helpful in configurations with or without the Tower Mount Amplifiers installed.

Features/Benefits

- **LTE ready design**
- **Extremely Low Insertion Loss**
- **High level of Rejection between bands – Protection against interferences**
- **Extremely High Power Handling Capability**
- **Integrated DC block/bypass versions available**
- **Very compact & small size design – Easy installation and reduced tower load**
- **In-line long-neck connectors for easy connection & waterproofing**
- **Exceptional reliability & environmental protection (IP 67)**
- **Equipped with 1 * Breathable Vent – Prevent any humidity inside the product**
- **Mounting hardware for Wall and Pole mount provided (P/N SEM2-1A)**
- **Grounding already provided through the mounting bracket**
- **Kit available for easy dual mount**

Technical Specifications

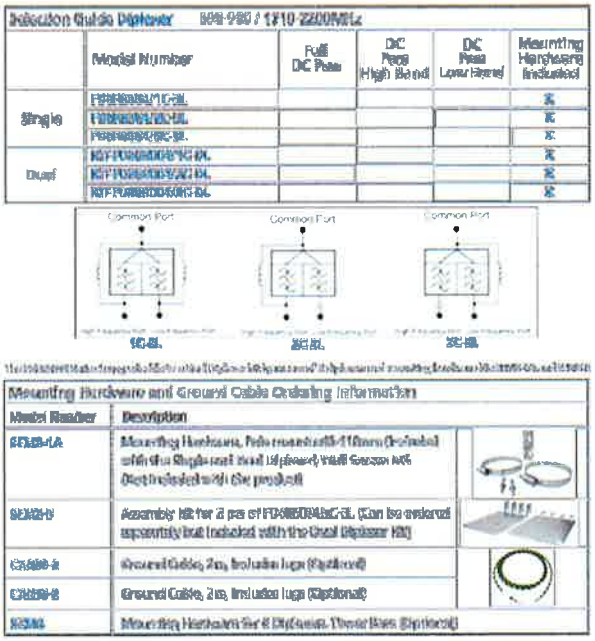
Product Type	Diplexer/Cross Band Coupler
Application	LTE700, GSM900, UMTS, GSM1800, Cellular 800, PCS
Frequency Range 1, MHz	698-960
Frequency Range 2, MHz	1710-2200
Configuration	Sharelite Single diplexer, outdoor, DC pass in the 1710-2170MHz path, with mounting hardware SEM2-1A
Mounting	Wall Mounting: With 4 screws (maximum 6mm diameter); Pole Mounting: With included clamp set 40-110mm (1.57-4.33)
Return Loss All Ports Min/Typ, dB	19/23
Power Handling Continuous, Max, W	1250 at common port; 750 in low frequency path & 500 in high frequency path
Power Handling Peak, Max, W	15000 in low frequency path & 8000 in high frequency path
Impedance, Ohms	50
Insertion Loss, Path 1, dB	0.07 typ.
Insertion Loss, Path 2, dB	0.13 typ.
Rejection Between Bands Min/Typ, dB	58/64@698-960MHz; 57/70@1710-2200MHz
IMP Level at the COM Port, Typ, dBm	-112 @ 2x43
DC Pass in Low Frequency Path	No
DC Pass in High Frequency Path	Yes
Temperature Range, °C (°F)	-40 to +60 (-40 to +140)
Environmental	ETSI 300-019-2-4 Class 4.1E
Ingress Protection	IP 67
Lightning Protection	EN/IEC61000-4-5 Level 4
Connectors	In-line long-neck 7-16-Female
Weight, kg (lb)	1.2 (2.6)
Shipping Weight, kg (lb)	3.2 (7) for 2 * single units in 1 * box, 9.8 (21.6) for 6 * units = 3 * Boxes in 1 * overwrap
Dimensions, H x W x D, mm (in)	147 x 164 x 37 (5.8 x 6.5 x 1.5)
Shipping Dimensions, H x W x D, mm (in)	254 x 406 x 82 (10 x 16 x 3.2) for 2 * Single Units in 1 * box, 280 x 406 x 241 (11 x 16 x 9.5) for 6 * units = 3 * Boxes in 1 * overwrap
Volume, L	0.43
Housing	Aluminum

Notes

ShareLite Wideband Diplexer – In-line 698-960 MHz/1710-2200 MHz, DC pass in high frequency path

Other Documentation

FD9R6004/2C-3L Installation Instructions: Wideband_Diplexer_Installation_Rev5.pdf



Inline Cable Diplexer 698-960 / 1710-2200MHz					
	Model Number	Full DC Pass	DC Pass High Band	DC Pass Low Band	Mounting Hardware Included
Single	[illegible]				X
	[illegible]				X
	[illegible]				X
Dual	[illegible]				X
	[illegible]				X
	[illegible]				X

Mounting Hardware and Ground Cable Ordering Information		
Model Number	Description	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	

ATTACHMENT 2

	General	Power	Density					
Site Name: Newtown N								
Tower Height: 150Ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*AT&T UMTS	2	578	150	0.0185	880	0.5867	3.15%	
*AT&T UMTS	2	855	150	0.0273	1900	1.0000	2.73%	
*AT&T GSM	1	298	150	0.0048	880	0.5867	0.81%	
*AT&T GSM	4	513	150	0.0328	1900	1.0000	3.28%	
*AT&T LTE	1	1313	150	0.0210	734	0.4893	4.29%	
Verizon	**15**	**328**	**140**	**0.0903**	**1970**	**1.0000**	**9.03%**	
Verizon	**9**	**392**	**140**	**0.0647**	**869**	**0.5793**	**11.17%**	
Verizon	**1**	**1750**	**140**	**0.0321**	**2145**	**1.0000**	**3.21%**	
Verizon	**1**	**814**	**140**	**0.0149**	**698**	**0.4653**	**3.21%**	
								40.88%
* Source: Siting Council								

ATTACHMENT 3

AT&T Towers
2300 Northlake Center Dr, Suite 405
Tucker, GA 30084-4032
(404) 532-5859

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
Kevin Clements
520 South Main Street, Suite 2531
Akron, OH 44311
(330) 572-3546
kclements@gpdgroup.com

GPD# 2013723.01.99800.03
January 22, 2014

STRUCTURAL ANALYSIS REPORT WITH MODIFICATION DESIGN

AT&T DESIGNATION:	**Site USID:**	**99800**
	Site FA:	**10128053**
	Client #:	**Newtown North, CT**
	Site Name:	**NEWTOWN DINGLEBROOK**
	AT&T Project:	**2_Verizon Modification 9-17-13**
ANALYSIS CRITERIA:	**Codes:**	**TIA/EIA-222-F, 2006 IBC, ASCE 7-05 & 2005 CT BC**
		85-mph fastest mile with 0" ice
		28-mph fastest mile with 3/4" ice
SITE DATA:		**24 Dinglebrook Lane, Newtown, CT 06470, Fairfield County**
		Latitude 41° 28' 0.998" N, Longitude 73° 20' 1.899" W
		Market: New England
		150' Modified Sabre Monopole

Mr. Martin Jelleme,

GPD is pleased to submit this Structural Analysis Report With Modification Design to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

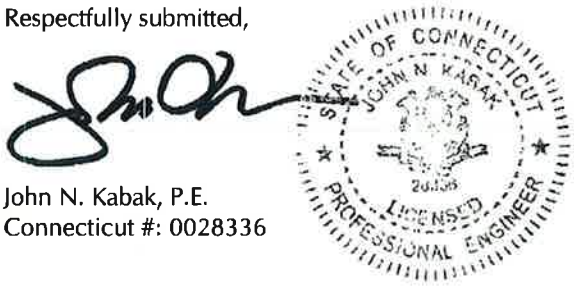
Analysis Results

Tower Stress Level with Proposed Equipment:	91.7%	Pass
Foundation Ratio with Proposed Equipment:	29.7%	Pass

Note: In order for this analysis results to be valid for the proposed, existing, and reserved loading in Appendix A the modifications referenced in the design drawings by GPD (Project #: 2013723.01.99800.03, dated 1/22/2014) must be installed.

We at GPD appreciate the opportunity of providing our continuing professional services to you and AT&T Towers. If you have any questions or need further assistance on this or any other projects please do not hesitate to call.

Respectfully submitted,



John N. Kabak, P.E.
Connecticut #: 0028336

SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing modified structure is capable of carrying the proposed loading configuration as specified by Verizon Wireless to AT&T Towers. This report was commissioned by Mr. Martin Jelleme of AT&T Towers.

Modifications designed by GPD Group (Project #: 2013723.99800.01, dated 3/11/13), which consists of installing flat plate reinforcing from 6" to 120' and (4) additional anchor rods w/ brackets, were considered in this analysis.

Modifications designed by GPD (Project #: 2013723.01.99800.03, dated 1/22/2014), have been considered in this analysis.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	91.7%	Pass
Guy Wires	88.4%	Pass
Anchor Rods	12.2%	Pass
Base Plate	16.6%	Pass
Foundation	29.7%	Pass

ANALYSIS METHOD

TNX Tower (Version 6.1.3.1), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information and is being completed without the benefit of a detailed site visit.

DOCUMENTS PROVIDED

Document	Remarks	Source
Notice of Co-Location Form	Verizon co-location document, uploaded 10/17/2013	Siterra
Site Lease Application	Verizon lease application, uploaded 9/17/2013	Siterra
Tower Design	Sabre Job #: 11-05139, dated 6/1/2010	Siterra
Foundation Design	Sabre Job #: 11-05139, dated 6/1/2010	Siterra
Geotechnical Report	Clarence Welti Site #: 1860, dated 7/28/2009	Siterra
Previous Structural Analysis	GPD Job #: 2013723.01.99800.02, dated 11/7/2013	Siterra
Modification Drawings	GPD Job #: 2013723.01.99800.03, dated 1/22/2014	GPD
Modification Drawings	GPD Job #: 2013723.99800.01, dated 3/11/2013	Siterra

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower shaft sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations.
6. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
7. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
8. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
9. All prior structural modifications are assumed to be as per data supplied/available and to have been properly installed.
10. Loading interpreted from photos is accurate to $\pm 5'$ AGL, antenna size accurate to ± 3.3 sf, and coax equal to the number of existing antennas without reserve.
11. All existing loading was obtained from the previous structural analysis by GPD (Job#: 2013723.99800.01, dated 3/11/13), the Notice of Co-Location Form, the Site Lease Application, and site photos and is assumed to be accurate.
12. The future AT&T loading was modeled based on the Notice of Co-Location Form and the generic future AT&T loading.
13. The existing AT&T and Verizon loading and azimuths were modeled based on the site photos and the Notice of Co-Location Form.
14. Modifications designed by GPD Group (Project #: 2013723.99800.01, dated 3/11/13), which consists of installing flat plate reinforcing from 6" to 120' and (4) additonal anchor rods w/ brackets, were considered in this analysis.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Group should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD GROUP has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD GROUP in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD GROUP does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD GROUP provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the specified code recommended amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD GROUP, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD GROUP makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD GROUP will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD GROUP pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

Tower Analysis Summary Form

General Info

Site Name	NEWTON DINGLEBROOK
Site Number	99800
FA Number	10128053
Date of Analysis	1/22/2014
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (G, SST, MP)	MP	
Tower Height (top of steel AGL)	150'	
Tower Manufacturer	Sabre	
Tower Model	n/a	
Tower Design	Sabre Job #: 11-05139	6/1/2010
Foundation Design	Sabre Job #: 11-05139	6/1/2010
Geotech Report	Clarence Welti Site #: 1860	7/28/2009
Modification Drawings	GPD Job #: 2013723.99800.01	3/11/2013
Previous Structural Analysis	GPD Job #: 2013723.01.99800.02	11/7/2013

Design Parameters

Design Code Used	TIA-222-F, 2006 IBC, ASCE 7-05 & 2005 CT BC
Location of Tower (County, State)	Fairfield, CT
Basic Wind Speed (mph)	85-Fastest
Ice Thickness (in)	0.75
Structure Classification (I, II, III)	
Exposure Category (B, C, D)	
Topographic Category (1 to 5)	

Analysis Results (% Maximum Usage)

Existing/Reserved + Future + Proposed Condition (Modified)	
Tower (%)	91.7%
Tower Base (%)	16.6%
Foundation (%)	29.7%
Foundation Adequate?	Yes

Steel Yield Strength (ksi)

Pole	65
Base Plate	50
Anchor Rods	75

Modifications designed by GPD (Project #: 2013723.01.99800.03, dated 1/22/2014), have been considered in this analysis.

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
AT&T Mobility	148	150	6	Panel	Powerwave	P90-14-XLH-RR	30/150/270	1	Unknown	12' LP Platform w/ rails	12	Unknown	1-5/8"	Internal
AT&T Mobility	148	150	3	Panel	KMW	AM-X-CD-16-65-00T-RET	30/150/270			On the same mount	2	Power Cable	3/4"	Internal
AT&T Mobility	148	150	6	TMA	Powerwave	TT19-08BP111-001				On the same mount	1	Fiber Cable	1/2"	Internal
AT&T Mobility	148	150	3	RRU	Ericsson	RRUS-11				On the same mount				
AT&T Mobility	148	150	1	Squid	Raycap	DC6-48-60-18-8F				On the same mount				
Verizon Wireless	140	140	3	Panel	RFS	APX18-206516L-CTO	155/250/330	3	Unknown	12' T-Arm	12	Unknown	1-5/8"	Internal
Verizon Wireless	140	140	6	Panel	Andrew	DB846F65ZAXY	155/250/330			On the same mounts				
Verizon Wireless	140	140	3	Panel	Powerwave	P65-16-XL-2	155/250/330			On the same mounts				

Note: The (3) P65-16-XL-2 antennas shall be removed prior to the installation of the proposed loading. All other existing loading shall remain.

Proposed Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
Verizon Wireless	140	140	3	Panel	Antel	BXA-70063-6CF	155/250/330			On the existing mounts				
Verizon Wireless	140	140	6	Diplexer	RFS	FD9R6004/2C-3L				On the existing mounts				

Note: The proposed loading shall be in addition to the remaining existing loading.

Future Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
AT&T Mobility	148	150	3	Panel	KMW	AM-X-CD-16-65-00T-RET	30/150/270			On the existing mounts	6	Unknown	1-5/8"	Internal
AT&T Mobility	148	150	3	RRU	Ericsson	RRUS-11				On the existing mounts				

APPENDIX B

tnxTower Output File

Tower Input Data

There is a pole section.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in Fairfield County, Connecticut.
Basic wind speed of 85 mph.
Nominal ice thickness of 0.7500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 28 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 50 mph.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.333.
Safety factor used in guy design is 2.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Feed Line/Linear Appurtenances - Entered As Area

Description	*Face or Leg*	*Allow Shield*	*Component Type*	*Placement* *ft*	*Total Number*		C_AA_A *ft²/ft*	*Weight* *plf*
5.5x1.25 Mod Plate (F)	A	No	CaAa (Out Of Face)	31.00 - 1.00	2	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
						1" Ice	0.00	0.00
						2" Ice	0.00	0.00
						4" Ice	0.00	0.00
5.5x1.25 Mod Plate (F)	B	No	CaAa (Out Of Face)	31.00 - 1.00	1	No Ice	0.21	0.00
						1/2" Ice	0.32	0.00
						1" Ice	0.43	0.00
						2" Ice	0.65	0.00
						4" Ice	1.10	0.00
5.5x1.25 Mod Plate (F)	C	No	CaAa (Out Of Face)	31.00 - 1.00	1	No Ice	0.21	0.00
						1/2" Ice	0.32	0.00
						1" Ice	0.43	0.00
						2" Ice	0.65	0.00
						4" Ice	1.10	0.00
5.5x1.25 Mod Plate (F)	A	No	CaAa (Out Of Face)	91.00 - 31.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
						1" Ice	0.00	0.00
						2" Ice	0.00	0.00
						4" Ice	0.00	0.00
5.5x1.25 Mod Plate (F)	B	No	CaAa (Out Of Face)	91.00 - 31.00	1	No Ice	0.21	0.00
						1/2" Ice	0.32	0.00
						1" Ice	0.43	0.00
						2" Ice	0.65	0.00
						4" Ice	1.10	0.00
5.5x1.25 Mod Plate (F)	C	No	CaAa (Out Of Face)	91.00 - 31.00	1	No Ice	0.21	0.00
						1/2" Ice	0.32	0.00
						1" Ice	0.43	0.00
						2" Ice	0.65	0.00
						4" Ice	1.10	0.00
4x1.25 Mod Plate (F)	A	No	CaAa (Out Of Face)	121.00 - 91.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
						1" Ice	0.00	0.00

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
						2" Ice	0.00	0.00
						4" Ice	0.00	0.00
4x1.25 Mod Plate (F)	B	No	CaAa (Out Of Face)	121.00 - 91.00	1	No Ice	0.21	0.00
						1/2" Ice	0.32	0.00
						1" Ice	0.43	0.00
						2" Ice	0.65	0.00
						4" Ice	1.10	0.00
4x1.25 Mod Plate (F)	C	No	CaAa (Out Of Face)	121.00 - 91.00	1	No Ice	0.21	0.00
						1/2" Ice	0.32	0.00
						1" Ice	0.43	0.00
						2" Ice	0.65	0.00
						4" Ice	1.10	0.00
Safety Line (3/8")	C	No	CaAa (Out Of Face)	150.00 - 8.00	1	No Ice	0.04	0.22
						1/2" Ice	0.14	0.75
						1" Ice	0.24	1.28
						2" Ice	0.44	2.34
						4" Ice	0.84	4.46
Climbing Pegs	C	No	CaAa (Out Of Face)	150.00 - 8.00	1	No Ice	0.01	0.31
						1/2" Ice	0.12	0.71
						1" Ice	0.22	1.71
						2" Ice	0.41	5.56
						4" Ice	0.82	20.59
3/4" DC Power Line	C	No	Inside Pole	150.00 - 8.00	2	No Ice	0.00	0.33
						1/2" Ice	0.00	0.33
						1" Ice	0.00	0.33
						2" Ice	0.00	0.33
						4" Ice	0.00	0.33
1/2" Fiber Cable	C	No	Inside Pole	150.00 - 8.00	1	No Ice	0.00	0.15
						1/2" Ice	0.00	0.15
						1" Ice	0.00	0.15
						2" Ice	0.00	0.15
						4" Ice	0.00	0.15
LDF7-50A (1-5/8 FOAM)	C	No	Inside Pole	140.00 - 8.00	12	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82
						1" Ice	0.00	0.82
						2" Ice	0.00	0.82
						4" Ice	0.00	0.82
LDF7-50A (1-5/8 FOAM)	C	No	Inside Pole	150.00 - 8.00	18	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82
						1" Ice	0.00	0.82
						2" Ice	0.00	0.82
						4" Ice	0.00	0.82

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Sabre 12' LP Platform w/Rails	C	None			0.0000	148.00	No Ice	32.03	32.03	1.34
							1/2" Ice	38.71	38.71	1.80
							1" Ice	45.39	45.39	2.26
							2" Ice	58.75	58.75	3.17
							4" Ice	85.47	85.47	5.00
(2) P90-14-XLH-RR w/ Mount Pipe	A	From Centroid-Le	3.46	0.00	0.0000	148.00	No Ice	6.31	4.53	0.06
							1/2" Ice	7.02	5.57	0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		g	2.00			1" Ice	7.61	6.34	0.17
						2" Ice	8.81	7.97	0.30
						4" Ice	11.38	11.45	0.70
(2) P90-14-XLH-RR w/ Mount Pipe	B	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	6.31 7.02 7.61 8.81 11.38	4.53 5.57 6.34 7.97 11.45	0.06 0.11 0.17 0.30 0.70
(2) P90-14-XLH-RR w/ Mount Pipe	C	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	6.31 7.02 7.61 8.81 11.38	4.53 5.57 6.34 7.97 11.45	0.06 0.11 0.17 0.30 0.70
(2) AM-X-CD-16-65-00T-RET w/ mountpipe	A	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.33 7.98 8.57 9.80 12.41	6.14 7.13 7.97 9.71 13.40	0.07 0.14 0.21 0.37 0.83
(2) AM-X-CD-16-65-00T-RET w/ mountpipe	B	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.33 7.98 8.57 9.80 12.41	6.14 7.13 7.97 9.71 13.40	0.07 0.14 0.21 0.37 0.83
(2) AM-X-CD-16-65-00T-RET w/ mountpipe	C	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.33 7.98 8.57 9.80 12.41	6.14 7.13 7.97 9.71 13.40	0.07 0.14 0.21 0.37 0.83
(2) TT19-08BP111-001	A	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	0.00 0.00 0.00 0.00 0.00	0.52 0.62 0.74 0.99 1.59	0.02 0.02 0.03 0.05 0.12
(2) TT19-08BP111-001	B	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	0.00 0.00 0.00 0.00 0.00	0.52 0.62 0.74 0.99 1.59	0.02 0.02 0.03 0.05 0.12
(2) TT19-08BP111-001	C	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	0.00 0.00 0.00 0.00 0.00	0.52 0.62 0.74 0.99 1.59	0.02 0.02 0.03 0.05 0.12
(2) RRUS 11	A	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.25 3.49 3.74 4.27 5.43	1.37 1.55 1.74 2.14 3.04	0.05 0.07 0.10 0.15 0.31
(2) RRUS 11	B	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.25 3.49 3.74 4.27 5.43	1.37 1.55 1.74 2.14 3.04	0.05 0.07 0.10 0.15 0.31
(2) RRUS 11	C	From Centroid-Le g	3.46 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.25 3.49 3.74 4.27	1.37 1.55 1.74 2.14	0.05 0.07 0.10 0.15

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						4" Ice	5.43	3.04	0.31
DC6-48-60-18-8F Surge Suppression Unit	C	From Centroid-Leg	1.73 0.00 2.00	0.0000	148.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	1.47 1.67 1.88 2.33 3.38	1.47 1.67 1.88 2.33 3.38	0.02 0.04 0.06 0.11 0.24
Sabre 12' T-Arm C10-113-021	A	From Leg	1.93 -0.52 0.00	-15.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.28 9.52 11.76 16.24 25.20	3.02 4.20 5.38 7.74 12.46	0.26 0.33 0.40 0.55 0.83
Sabre 12' T-Arm C10-113-021	B	From Leg	1.93 -0.52 0.00	-15.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.28 9.52 11.76 16.24 25.20	3.02 4.20 5.38 7.74 12.46	0.26 0.33 0.40 0.55 0.83
Sabre 12' T-Arm C10-113-021	C	From Leg	1.93 -0.52 0.00	-15.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.28 9.52 11.76 16.24 25.20	3.02 4.20 5.38 7.74 12.46	0.26 0.33 0.40 0.55 0.83
APX18-206516L-CT0 w/ Mount Pipe	A	From Leg	3.86 -1.04 0.00	-60.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	4.12 4.73 5.26 6.41 8.85	3.67 4.72 5.48 7.05 10.39	0.04 0.08 0.13 0.24 0.58
APX18-206516L-CT0 w/ Mount Pipe	B	From Leg	3.86 -1.04 0.00	5.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	4.12 4.73 5.26 6.41 8.85	3.67 4.72 5.48 7.05 10.39	0.04 0.08 0.13 0.24 0.58
APX18-206516L-CT0 w/ Mount Pipe	C	From Leg	3.86 -1.04 0.00	-20.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	4.12 4.73 5.26 6.41 8.85	3.67 4.72 5.48 7.05 10.39	0.04 0.08 0.13 0.24 0.58
(2) DB846F65ZAXY w/ Mount Pipe	A	From Leg	3.86 -1.04 0.00	-60.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.27 7.88 8.48 9.72 12.33	7.82 9.01 9.91 11.81 15.98	0.05 0.11 0.19 0.37 0.87
(2) DB846F65ZAXY w/ Mount Pipe	B	From Leg	3.86 -1.04 0.00	5.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.27 7.88 8.48 9.72 12.33	7.82 9.01 9.91 11.81 15.98	0.05 0.11 0.19 0.37 0.87
(2) DB846F65ZAXY w/ Mount Pipe	C	From Leg	3.86 -1.04 0.00	-20.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.27 7.88 8.48 9.72 12.33	7.82 9.01 9.91 11.81 15.98	0.05 0.11 0.19 0.37 0.87
BXA-70063-6CF w/ Mount Pipe	A	From Leg	3.86 -1.04 0.00	-60.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	7.73 8.27 8.81 9.93 12.27	5.49 6.23 6.99 8.55 11.97	0.05 0.10 0.17 0.33 0.76
BXA-70063-6CF w/ Mount	B	From Leg	3.86	5.0000	140.00	No Ice	7.73	5.49	0.05

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Pipe			-1.04			1/2" Ice	8.27	6.23	0.10
			0.00			1" Ice	8.81	6.99	0.17
						2" Ice	9.93	8.55	0.33
						4" Ice	12.27	11.97	0.76
BXA-70063-6CF w/ Mount Pipe	C	From Leg	3.86	-20.0000	140.00	No Ice	7.73	5.49	0.05
			-1.04			1/2" Ice	8.27	6.23	0.10
			0.00			1" Ice	8.81	6.99	0.17
						2" Ice	9.93	8.55	0.33
						4" Ice	12.27	11.97	0.76
(2) FD9R6004/2C-3L	A	From Leg	3.86	-60.0000	140.00	No Ice	0.00	0.08	0.00
			-1.04			1/2" Ice	0.00	0.14	0.01
			0.00			1" Ice	0.00	0.20	0.01
						2" Ice	0.00	0.34	0.02
						4" Ice	0.00	0.74	0.06
(2) FD9R6004/2C-3L	B	From Leg	3.86	5.0000	140.00	No Ice	0.00	0.08	0.00
			-1.04			1/2" Ice	0.00	0.14	0.01
			0.00			1" Ice	0.00	0.20	0.01
						2" Ice	0.00	0.34	0.02
						4" Ice	0.00	0.74	0.06
(2) FD9R6004/2C-3L	C	From Leg	3.86	-20.0000	140.00	No Ice	0.00	0.08	0.00
			-1.04			1/2" Ice	0.00	0.14	0.01
			0.00			1" Ice	0.00	0.20	0.01
						2" Ice	0.00	0.34	0.02
						4" Ice	0.00	0.74	0.06

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
148.00	Sabre 12' LP Platform w/Rails	31	8.125	1.0701	0.0015	10549
140.00	Sabre 12' T-Arm C10-113-021	31	6.396	0.8820	0.0012	5274
125.40	Guy	31	3.699	0.5690	0.0007	2143
106.05	Guy	31	1.846	0.2801	0.0004	6250

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
L1	150 - 119.25	Pole	TP21.3188x16x0.1875	1	-52.20	653.78	91.7	Pass
		Guy A@125.4	3/4	11	30.02	34.00	88.3	Pass
		Guy B@125.4	3/4	10	30.06	34.00	88.4	Pass
		Guy C@125.4	3/4	9	30.04	34.00	88.3	Pass
L2	119.25 - 99.5	Pole	TP24.735x21.3188x0.4209	2	-92.90	1067.15	65.9	Pass
		Guy A@106.047	3/4	14	24.18	34.00	71.1	Pass
		Guy B@106.047	3/4	13	24.19	34.00	71.1	Pass
		Guy C@106.047	3/4	12	24.19	34.00	71.1	Pass
L3	99.5 - 91	Pole	TP25.8311x23.7546x0.468	3	-94.11	1226.90	53.9	Pass
L4	91 - 63.75	Pole	TP30.5466x25.8311x0.498	4	-95.33	1573.45	38.5	Pass
L5	63.75 - 49.5	Pole	TP33.0125x30.5466x0.4829	5	-99.72	1814.31	27.3	Pass
L6	49.5 - 46.5	Pole	TP33.0272x31.6905x0.5411	6	-103.12	2163.49	22.4	Pass
L7	46.5 - 28.75	Pole	TP36.0887x33.0272x0.5183	7	-103.73	2113.86	22.9	Pass
L8	28.75 - 1	Pole	TP40.875x36.0887x0.5439	8	-107.44	2469.74	20.0	Pass

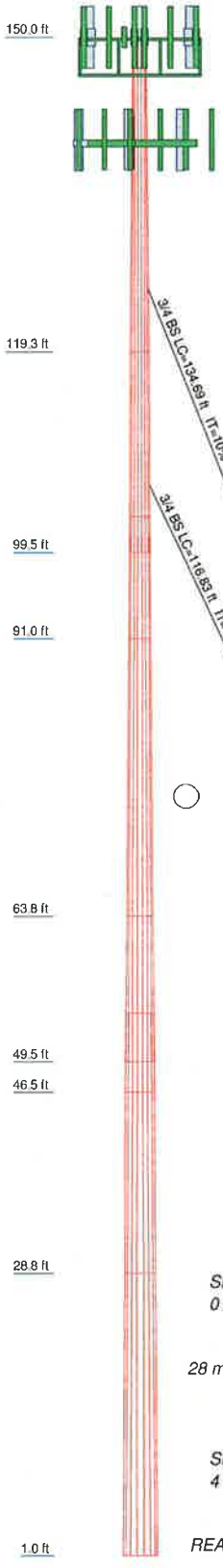
tnxTower	Job	Page
	99800 - NEWTOWN DINGLEBROOK	6 of 6
GPD Group 520 South Main Street, Suite 2531 Akron, OH Phone: (330) 572.2100 FAX: (330) 572.2101	Project 2013723.01.99800.03	Date 16:38:24 01/22/14
	Client AT&T Towers	Designed by mmoeller

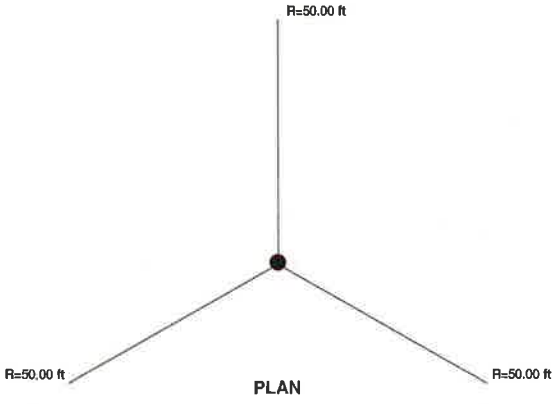
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
							Summary	
						Pole (L1)	91.7	Pass
						Guy A (L1)	88.3	Pass
						Guy B (L1)	88.4	Pass
						Guy C (L1)	88.3	Pass
						RATING =	**91.7**	**Pass**

APPENDIX C

Tower Elevation Drawing

Section	8	7	6	5	4	3	2	1
Length (ft)	27.75	17.75	7.75	14.25	27.25	12.00	19.75	30.75
Number of Sides	18	18	18	18	18	18	18	18
Thickness (in)	0.5439	0.5183	0.5411	0.4829	0.4980	0.4680	0.4209	0.1875
Socket Length (ft)				4.75			3.50	
Top Dia (in)	36.0887	33.0272	31.6905	30.5466	25.8311	23.7546	21.3188	16.0000
Bot Dia (in)	40.8750	36.0887	33.0272	33.0125	30.5466	25.8311	24.7350	21.3188
Grade	50.325896ksi	49.424456ksi	49.271556ksi	49.224898ksi	49.126072ksi	43.220985ksi	43.080762ksi	A572-65
Weight (K)	21.1	6.0	3.2	1.4	2.2	3.8	1.4	1.9	1.2





DESIGNED APPURTENANCE LOADING

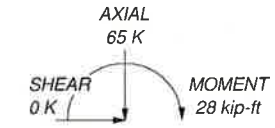
TYPE	ELEVATION	TYPE	ELEVATION
Sabre 12' LP Platform w/Rails	148	Sabre 12' T-Arm C10-113-021	140
(2) P90-14-XLH-RR w/ Mount Pipe	148	Sabre 12' T-Arm C10-113-021	140
(2) P90-14-XLH-RR w/ Mount Pipe	148	Sabre 12' T-Arm C10-113-021	140
(2) P90-14-XLH-RR w/ Mount Pipe	148	APX18-206516L-CT0 w/ Mount Pipe	140
(2) AM-X-CD-16-65-00T-RET w/ mountpipe	148	APX18-206516L-CT0 w/ Mount Pipe	140
(2) AM-X-CD-16-65-00T-RET w/ mountpipe	148	APX18-206516L-CT0 w/ Mount Pipe	140
(2) AM-X-CD-16-65-00T-RET w/ mountpipe	148	(2) DB846F65ZAXY w/ Mount Pipe	140
(2) TT19-08BP111-001	148	(2) DB846F65ZAXY w/ Mount Pipe	140
(2) TT19-08BP111-001	148	(2) DB846F65ZAXY w/ Mount Pipe	140
(2) TT19-08BP111-001	148	BXA-70063-6CF w/ Mount Pipe	140
(2) RRUS 11	148	BXA-70063-6CF w/ Mount Pipe	140
(2) RRUS 11	148	BXA-70063-6CF w/ Mount Pipe	140
(2) RRUS 11	148	(2) FD9R6004/2C-3L	140
DC6-48-60-18-8F Surge Suppression Unit	148	(2) FD9R6004/2C-3L	140
		(2) FD9R6004/2C-3L	140

MATERIAL STRENGTH

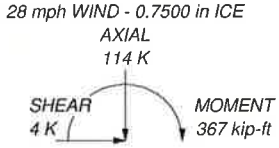
GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi	49.224898ksi	49 ksi	64 ksi
43.080762ksi	43 ksi	58 ksi	49.271556ksi	49 ksi	64 ksi
43.220985ksi	43 ksi	58 ksi	49.424456ksi	49 ksi	64 ksi
49.126072ksi	49 ksi	64 ksi	50.325896ksi	50 ksi	65 ksi

TOWER DESIGN NOTES

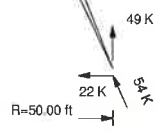
1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 28 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 91.7%



TORQUE 0 kip-ft
28 mph WIND - 0.7500 in ICE



TORQUE 0 kip-ft
REACTIONS - 85 mph WIND

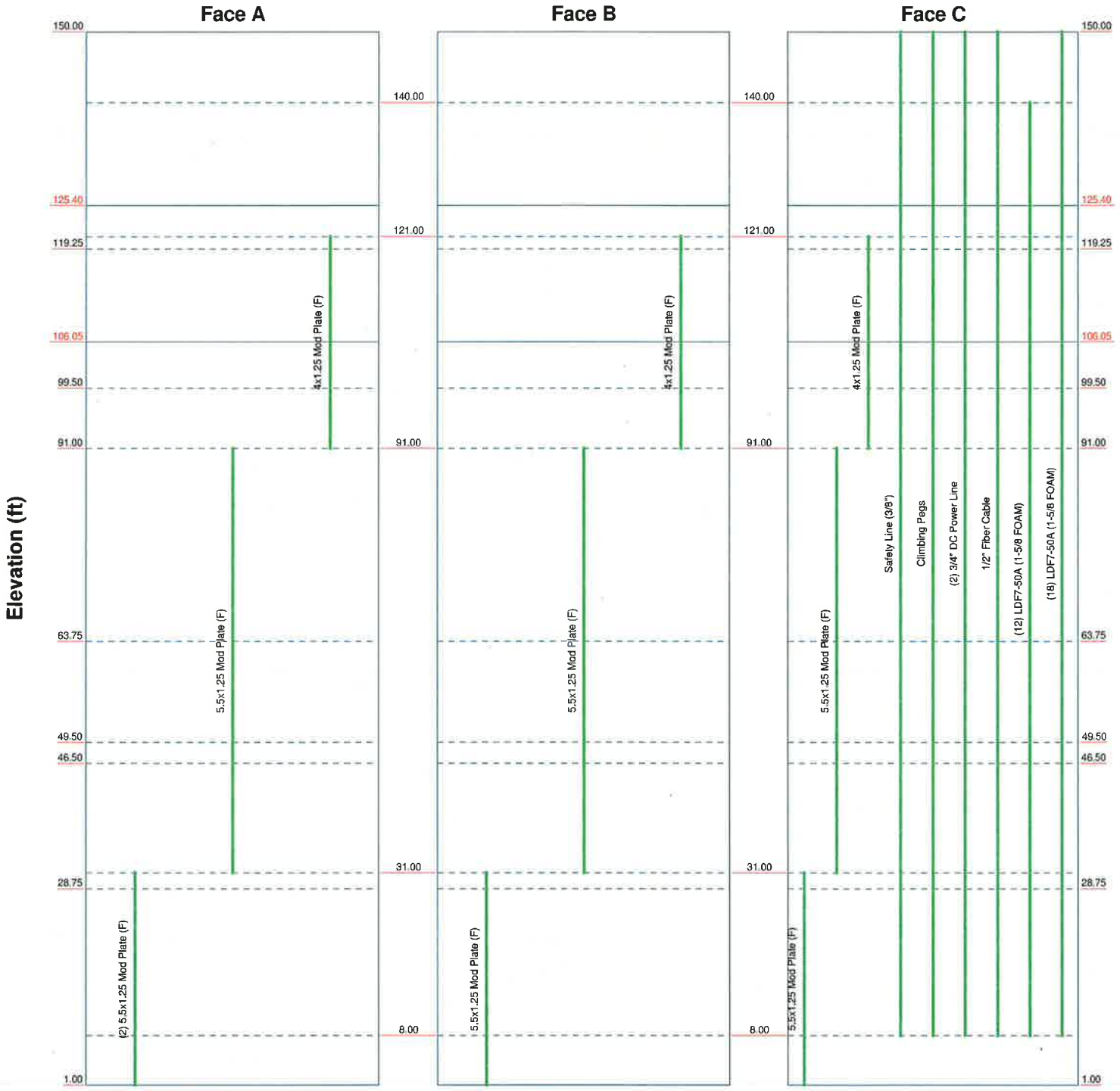


GPD Group
520 South Main Street, Suite 2531
Akron, OH
Phone: (330) 572.2100
FAX: (330) 572.2101
Consulting Engineers

Job: 99800 - NEWTOWN DINGLEBROOK			
Project: 2013723.01.99800.03			
Client: AT&T Towers	Drawn by: mmoeller		App'd:
Code: TIA/EIA-222-F	Date: 01/22/14		Scale: NTS
Path:			Dwg No. E-1

Feed Line Distribution Chart
1' - 150'

Round | Flat | App In Face | App Out Face | Truss Leg



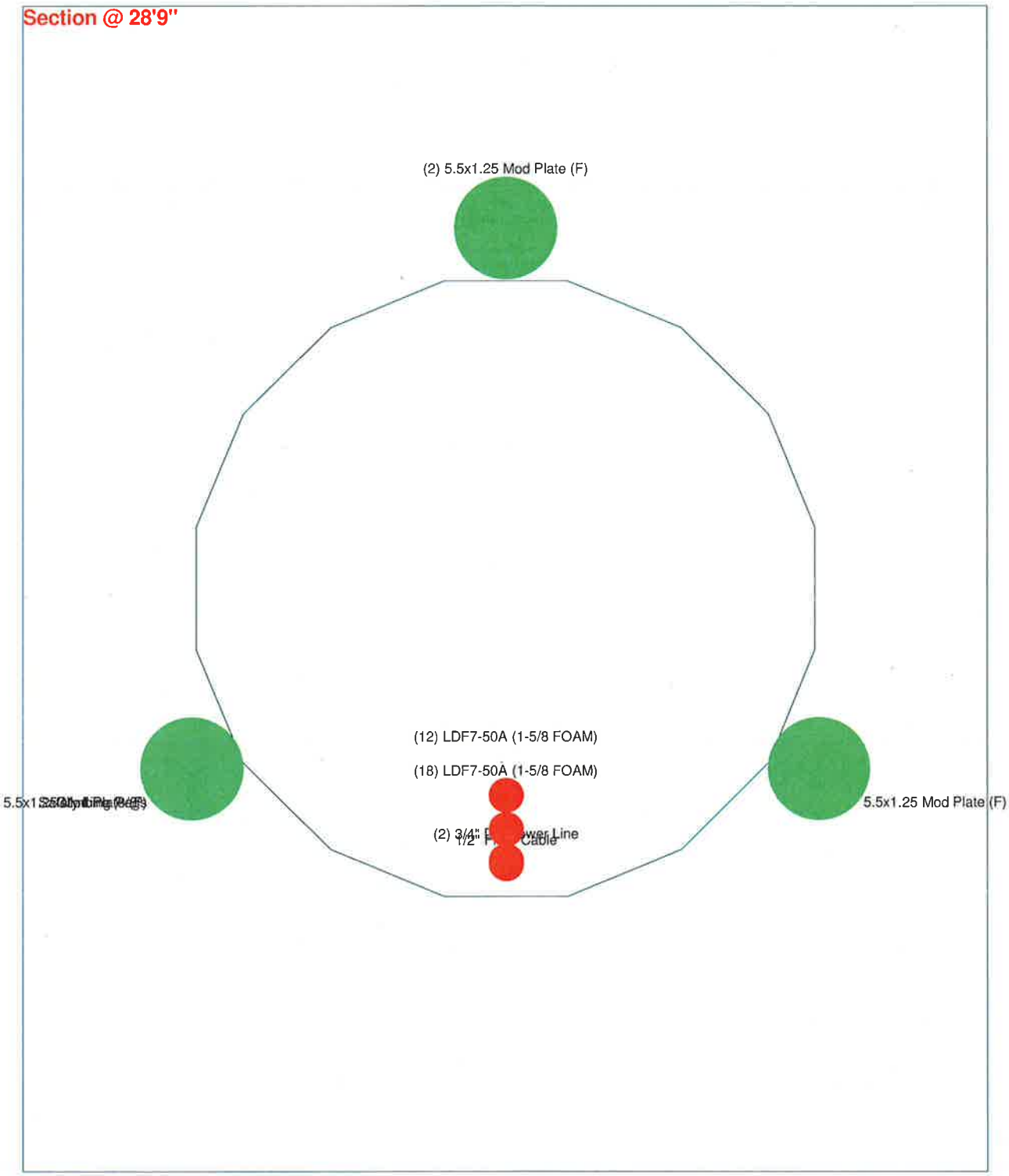
Consulting Engineers

GPD Group
520 South Main Street, Suite 2531
Akron, OH
Phone: (330) 572.2100
FAX: (330) 572.2101

Job: ***99800 - NEWTOWN DINGLEBROOK***			
Project: ***2013723.01.99800.03***			
Client: AT&T Towers	Drawn by: mmoeller	App'd:	
Code: TIA/EIA-222-F	Date: 01/22/14	Scale: NTS	
Path:		Dwg No. E-7	

Feed Line Plan
28'9"

Round Flat App In Face App Out Face



GPD Group
520 South Main Street, Suite 2531
Akron, OH
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FAX: (330) 572.2101
Consulting Engineers

Job: 99800 - NEWTOWN DINGLEBROOK			
Project: 2013723.01.99800.03			
Client: AT&T Towers	Drawn by: mmoeller	App'd:	
Code: TIA/EIA-222-F	Date: 01/22/14	Scale: NTS	
Path:		Dwg No. E-7	

APPENDIX D

Anchor Rod and Base Plate Analysis

520 South Main Street • Suite 2531 • Akron, Ohio 44311• PHONE 330-572-2100 • FAX 330-572-2101

GPD GROUP
Engineers • Architects • Planners

Job 2012775.00
Sheet No 1 Of 1

Calculated By: JN2 Date: 1/22/2014
Checked By: Date: 1/22/2014

TIA-222-G

Base Plate Detail d

η = 0.5

*This analysis assumes the clear distance from the top of the concrete to the bottom of the leveling nut is less than the diameter of the anchor rod. Notify GPD Group immediately if the existing field conditions do not meet this assumption.

ANCHOR ROD CALCULATIONS

Moment from TNX (M) =	367	kip-ft			
Axial from TNX (A) =	114	kip			
Shear from TNX (V)=	4	kip			
			Grade	A615-J	
Existing Bolt Diameter	2.250	in.	Bolt Circle (BC_{ex}) =	46.875	in.
Net Tensile Area (A_{ex}) =	3.250	$in.^2$	Fy	75	ksi
Number Existing Bolts (E)	12		Fu	100	ksi
			Grade	Other	
Modified Bolt Diameter	2.000	in.	Bolt Circle (BC_{mod}) =	51.875	in.
Net Tensile Area (A_m)‡	2.500	$in.^2$	Fy	105	ksi
Number Modiefied Bolts (M)	4		Fu	125	ksi

I_{ex} =	13104.75	$in.^4$
I_{mod} =	4227.04	$in.^4$
I_{total} =	17331.79	$in.^4$

f_{ex} =	23.68	kips	$(M*(BC_{ex}/2)*A_{ex})/I_{total)}$
f_{mod} =	20.71	kips	$(M*(BC_{mod}/2)*A_{mod})/I_{total)}$
V_{uex}=	0.27	kips	$V*(A_{ex})/(A_{ex}*E+A_{mod}*M)$
V_{umod}=	0.20	kips	$V*(A_{mod})/(A_{ex}*E+A_{mod}*M)$
Ax_{ex}=	7.56	kips	$A*(A_{ex})/(A_{ex}*E+A_{mod}*M)$
Ax_{mod}=	5.82	kips	$A*(A_{mod})/(A_{ex}*E+A_{mod}*M)$

Allowable Tension Existing Rods (f_{tex})= 260.00 kips

Allowable Tension Modification Rods (f_{tmod})= 250.00 kips

Existing Rod Rating=	12.2%	OK
Modification Rod Rating=	10.8%	OK

GPD GROUP

Anchor Rod and Base Plate Stresses
99800 NEWTOWN DINGLEBROOK
2013723.01.99800.03

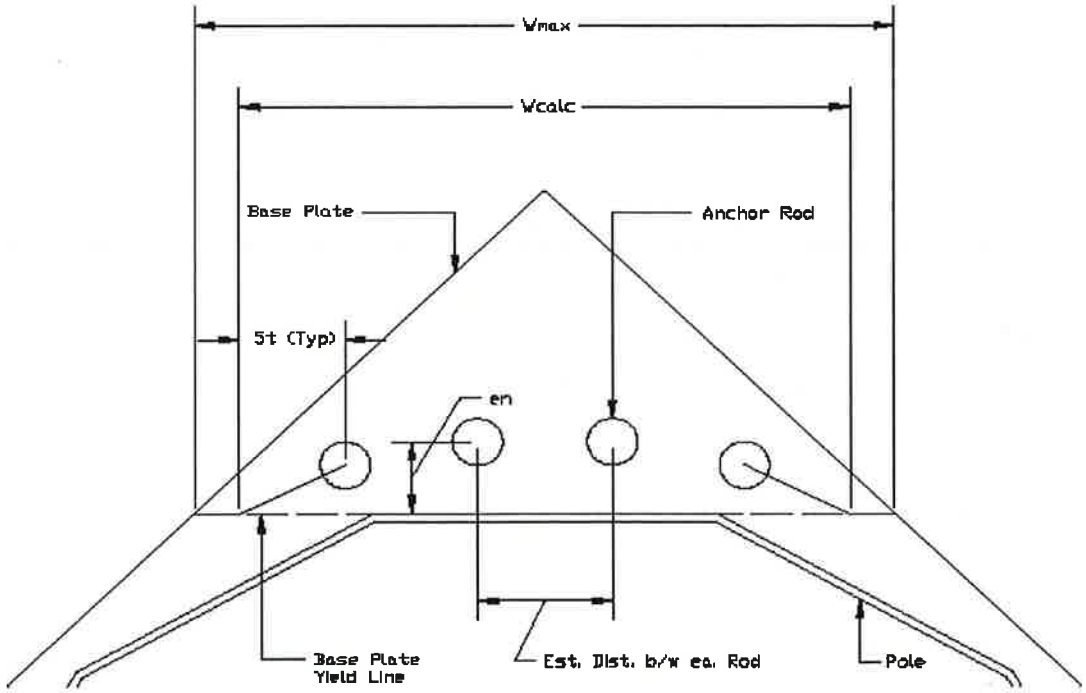
*Overturning Moment =	166.36	k*ft
Axial Force =	114.00	k
Shear Force =	4.00	k

Acceptable Stress Ratio =	100.0%

*Above reactions have been adjusted due to consideration of modifications. See attached hand calculations for determination of anchor rod forces in the analysis.

Anchor Rods		
Pole Diameter =	40.9	in
Number of Rods =	12	
Type =	Upset Rod	
Rod Yield Strength (Fy) =	75	ksi
ASIF =	1.333	
Rod Circle =	46.875	in
Rod Diameter =	2.25	in
Net Tensile Area =	3.25	in^2
Max Tension on Rod =	4.68	kips
Max Compression on Rod =	23.68	kips
Allow. Rod Force =	195.00	kips
Anchor Rod Capacity =	**2.4%**	**OK**

Base Plate		
Plate Strength (Fy) =	50	ksi
Plate Thickness =	2.25	in
Plate Width =	46.5	in
Est. Dist. b/w ea. Rod =	6	in
w_{calc} =	34.401	in
w_{max} =	24.861	in
w =	24.86	in
S =	20.98	in^3
fb =	8.29	ksi
Fb =	50	ksi
Base Plate Capacity =	**16.6%**	**OK**



APPENDIX E

Foundation Analysis

GPD GROUP
Gleus, Pyle, Schomer, Burns & DeHaven, Inc.

Job 99800
Sheet No. _____ of _____
Calculated by 1 Date 1
Checked by _____ Date _____

Guy Anchors

- Each block anchored to bedrock w/ (2) CTS 40/16 rock anchors
- Rock anchor ultimate strength = 70k (design)

6mx guy rxn = 54k

$$\text{capacity} = \frac{54^k}{2(70^k/2)} \cdot 100\% = 77.1\% \quad \text{ok}$$

GPD GROUP

Mat Foundation Analysis
99800 - NEWTOWN DINGLEBROOK
2013723.01.99800.03

General Info	
Code	TIA/EIA-222-F (ASD)
Bearing On	Rock
Foundation Type	Mono Pad
Pier Type	Square
Reinforcing Known	Yes
Max Capacity	1

Tower Reactions		
Moment, M	367	k-ft
Axial, P	114	k
Shear, V	4	k

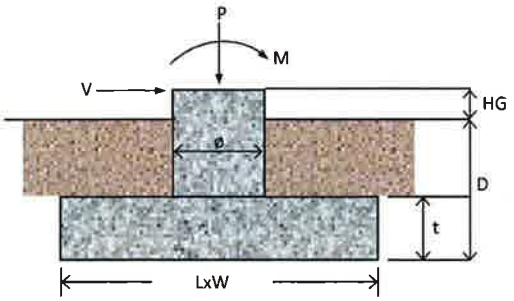
Pad & Pier Geometry		
Pier Width, ø	5.5	ft
Pad Length, L	22	ft
Pad Width, W	22	ft
Pad Thickness, t	1.5	ft
Depth, D	5.5	ft
Height Above Grade, HG	1	ft

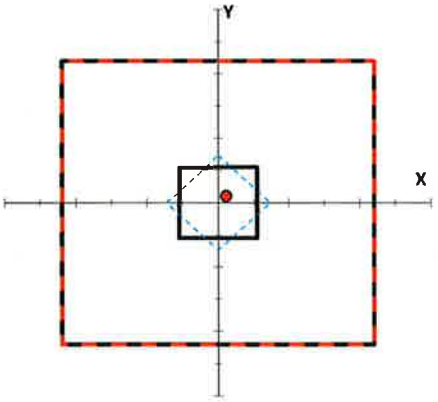
Pad & Pier Reinforcing		
Rebar Fy	60	ksi
Concrete Fc'	4	ksi
Clear Cover	3	in
Reinforced Top & Bottom?	Yes	
Pad Reinforcing Size	# 8	
Pad Quantity Per Layer	24	
Pier Rebar Size	# 7	
Pier Quantity of Rebar	30	

Soil Properties		
Soil Type	Granular	
Soil Unit Weight	110	pcf
Angle of Friction, ø	30	°
Bearing Type	Gross	
Ultimate Bearing	8	ksf
Water Table Depth	99	ft
Frost Depth	3.5	ft

Bearing Summary			Load Case
Qxmax	1.04	ksf	1D+1W
Qymax	1.04	ksf	1D+1W
Qmax @ 45°	1.19	ksf	1D+1W
$Q_{(all)\ Gross}$	4.00	ksf	
Controlling Capacity	**29.7%**	**Pass**	

Overturning Summary (Required FS=1.5)			Load Case
FS(ot)x	23.41	≥1.5	1D+1W
FS(ot)y	23.41	≥1.5	1D+1W
Controlling Capacity	**6.4%**	**Pass**	





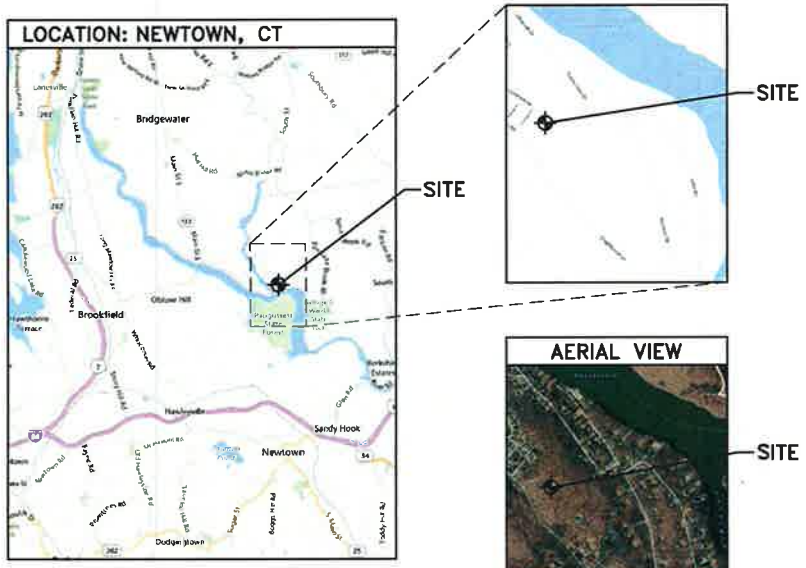
APPENDIX F

Modification Drawings

NEWTOWN DINGLEBROOK

USID #: 99800

149' MODIFIED SABRE MONOPOLE



AERIAL VIEW

PROJECT SUMMARY	
TOWER OWNER:	AT&T TOWERS
TOWER TYPE:	MONOPOLE
GOVERNING CODE:	TIA/EIA-222-F, 2006 IBC, ASCE 7-05, & 2005 CTBC
LATITUDE:	41° 28' 0.998" N
LONGITUDE:	73° 20' 1.899" W
OWNER CONTACT:	MR. MARTY JELLEME 2300 NORTHLAKE CENTER DRIVE, SUITE 405 TUCKER, GA 30084 (404) 532-5855 (OFFICE) (678) 735-8038 (CELL)
ENGINEER CONTACT:	MR. JIBRIL SHEHU 520 SOUTH MAIN STREET, SUITE 2531 AKRON, OH 44311 (330) 572-2216

PROJECT OVERVIEW:
THE LISTED DRAWINGS REPRESENT MODIFICATIONS TO THE EXISTING TOWER BY INSTALLING NEW GUY ANCHORS AS WELL AS GUY WIRES AND GUY PULL-OFFS TO THE TOWER.

DRAWING INDEX

CO-LOCATOR:
verizon wireless

GPD GROUP

at&t

REV	DATE	DESCRIPTION

99800-NEWTOWN DINGLEBROOK
24 DINGLEBROOK LANE
NEWTOWN, CT 06470

TITLE SHEET

ISSUED FOR:	
PERMIT	01/22/15
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JS	MM

JOB NO
2014723.01.99800.03

T-01

GENERAL NOTES

1. THE MODIFICATIONS REPRESENTED WITHIN THESE DRAWINGS ARE BASED ON A STRUCTURAL ANALYSIS REPORT BY GPD GROUP (PROJECT #:2013423.01.99800.02, DATED NOVEMBER 7, 2013). ALL MODIFICATIONS MUST BE INSTALLED TO BRING THE TOWER INTO CONFORMANCE WITH TIA/EIA-222-F, 2006 IBC, ASCE 7-05, AND 2005 CTBC.
2. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF TIA/EIA-222-F, 2006 IBC, ASCE 7-05, 2005 CTBC, AND AISC. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.
3. ALL ORIGINAL TOWER INFORMATION WAS OBTAINED IN THE FORM OF TOWER DRAWINGS BY SABRE (JOB #: 11-05139, DATED JUNE 1, 2010) AND MODIFICATION DRAWINGS BY GPD GROUP (JOB #: 2013723.99800.01, DATED MARCH 11, 2013). CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH THE REFERENCED TOWER DOCUMENTS.
4. THIS DESIGN ASSUMES THE TOWER AND FOUNDATIONS HAVE BEEN WELL MAINTAINED, IN GOOD CONDITION, AND ARE WITHOUT DEFECT. BENT MEMBERS, CORRODED MEMBERS, LOOSE BOLTS, CRACKED WELDS AND OTHER MEMBER DEFECTS HAVE NOT BEEN CONSIDERED. THE TOWER IS ASSUMED TO BE PLUMB AND THE SITE IS ASSUMED TO BE LEVEL. THIS DESIGN IS BEING PROVIDED WITHOUT THE BENEFIT OF A CONDITION ASSESSMENT BY GPD GROUP. **CONTRACTOR SHALL COMMISSION A COMPLETE CONDITION ASSESSMENT PRIOR TO ORDERING ANY REINFORCING MATERIALS. CONTRACTOR SHALL SUPPLY CONDITION ASSESSMENT TO ENGINEER FOR REVIEW, SEE CONTRACTOR NOTES.**
5. MANUFACTURER TOLERANCES, FIELD ADJUSTMENTS, INCORRECT STACKING, AND TEMPERATURE CAN CAUSE DIMENSION DISCREPANCIES. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS. ALL FIELD MEASUREMENTS MUST BE REPORTED TO ENGINEER.
6. ALL NEW STEEL SHALL BE HOT DIPPED CALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
7. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD CALVANIZING BRUSH APPLIED PAINT (ZRC OR EQUAL), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
8. LOADINGS:

WIND LOADS:

FASTEST MILE WIND SPEED (PER: TIA/EIA-222-F, 2006 IBC, ASCE 7-05, & 2005 CT BC) (FAIRFIELD COUNTY, CONNECTICUT)	85 MPH

ICE LOADS:

3/4" RADIAL BASE ICE FASTEST MILE WIND SPEED (CONCURRENT W/ ICE)	28 MPH

9. STRUCTURAL STEEL:

SPECIFICATIONS (LATEST EDITION OF AISC)

MATERIALS

PLATES	ASTM A572 (GR 50)
BOLTS	A325 (ALL BOLT HOLES STANDARD SIZE U.N.O.)
NUTS	LOCKING (STRUCTURAL GRADE) OR ASTM A194 (GR 2H)
WASHERS	ASTM F436
GUY WIRES	BRIDGE STRAND (BS) GUY STRANDS
WELDS	E70XX
HOT DIPPED GALVANIZING	ASTM A123
PAINT	NEW STEEL TO BE PAINTED TO MATCH EXISTING TOWER

10. ALL MATERIAL (INCLUDING GUY WIRES) UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZES AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
11. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA/EIA-222-F SECTION 1.1.3 REQUIREMENTS.
12. ALL SUBSTITUTES PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR DETERMINING IF SUBSTITUTE IS SUITABLE FOR USE AND MEETS THE ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
13. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
14. UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORK LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.
15. THE ENGINEER (GPD GROUP) SHALL MAKE POST INSTALLATION OBSERVATION FOR TOWER AND FOUNDATION. CONTRACTOR SHALL COORDINATE THE ON-SITE INSTALLATION OBSERVATION W/ ENGINEER (GPD GROUP) AT LEAST 5 BUSINESS DAYS PRIOR TO THE CONCRETE POUR FOR EACH FOUNDATION MODIFICATION. CONTRACTOR SHALL COORDINATE W/ENGINEER (GPD GROUP) WITHIN 72 HOURS AFTER 100% COMPLETION OF THE TOWER MODIFICATION INSTALLATION. INSTALLATION OF PROPOSED LOADING WITHOUT ENGINEER APPROVAL IS PROHIBITED. INSTALLATION OF THE PROPOSED LOADING IS BY OTHERS, AND IS BEYOND THE SCOPE OF THESE DRAWINGS.

ROCK ANCHOR NOTES

1. CONTRACTOR SHALL INSTALL WILLIAMS ANCHORS PER CTS CON-TECH ANCHOR INSTALLATION PROCEDURES AND GUIDELINES.
2. CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH CTS CON-TECH ANCHORS INSTALLATION AND PULL TESTING PROCEDURES AND RECOMMENDATIONS.
3. CTS CON-TECH ANCHORS ARE TO BE GALVANIZED.
4. ANCHORS ARE TO BE PRE-STRESSED TO AN ULTIMATE LOAD OF 48 K. PRE-STRESSING RESULTS SHALL BE SUPPLIED TO THE TOWER OWNER AND ENGINEER OF RECORD (GPD GROUP) FOR REFERENCE IN THE POST INSTALLATION OBSERVATION REPORT. CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY IF PRE-STRESSING RESULTS DO NOT REACH ULTIMATE VALUE OR MIN. DEPTH REQUIRED.
5. **SHOP DRAWINGS MUST BE SENT TO DESIGN ENGINEER FOR FINAL APPROVAL PRIOR TO FABRICATOIN.**
6. CONTRACTOR SHALL VERIFY THAT TOWER IS PLUMB PRIOR TO THE INSTALLATION OF ANY TOWER MODIFICATIONS.
7. A CTS CON-TECH REPRESENTATIVE SHALL BE ON-SITE FOR THE DURATION OF THE ROCK ANCHOR INSTALLATION.

CONTRACTOR NOTES

1. ALL CONTRACTORS AND LOWER TIER CONTRACTORS MUST ACKNOWLEDGE IN WRITING TO TOWER OWNER AND GPD GROUP THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW TOWER OWNER STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL SITE AND TOWER SAFETY PROCEDURES, ALL PRODUCT LIMITATIONS AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. RECEIPT OF ACKNOWLEDGMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION OR CLIMBING. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE THIS DOCUMENTATION FOR TOWER OWNER AND GPD GROUP ON COMPANY LETTERHEAD AND THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM LOWER TIER SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD) AND DELIVER IT TO TOWER OWNER AND GPD GROUP.
2. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, GPD GROUP SHALL BE CONTACTED IMMEDIATELY TO EVALUATE THE SIGNIFICANCE OF THE DEVIATION.
3. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE. THIS INCLUDES PROVIDING THE NECESSARY CERTIFICATIONS TO THE TOWER OWNER AND ENGINEER.
4. THESE DRAWINGS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS AND PRECAUTIONS IN CONNECTION WITH THIS WORK.
6. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING; ANY PROBLEMS WITH ACCESS, INTERFERENCE, ETC. SHALL BE RESOLVED PRIOR TO MOBILIZATION. THE CONTRACTOR MUST VISIT THE SITE PRIOR TO ORDERING ANY MATERIAL AND MUST RESOLVE ALL ISSUES WITH THE OWNER PREVENTING A CONTINUOUS INSTALLATION. CONTRACTOR SHALL NOTE ALL ANTENNAS, MOUNTS, COAX, LIGHTING, CLIMBING SUPPORTS, STEP BOLTS, PORT HOLES, AND ANY OTHER TOWER APPURTENANCES IN THE REGION OF THE MODIFICATIONS. SEE GENERAL NOTES #4 AND #5 THIS SHEET.
7. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING ALL COAX, T-BRACKETS, ANTENNA MOUNTS, AND ANY OTHER TOWER APPURTENANCE THAT MAY INTERFERE WITH THE TOWER MODIFICATIONS. ALL TOWER APPURTENANCES MUST BE REPLACED AND/OR RESTORED TO ITS ORIGINAL LOCATION. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE TOWER OWNER IN WRITING.
8. SOME ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATIONS TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOMIZATIONS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE ENGINEER PRIOR TO REMOVING SUCH ATTACHMENTS. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE TOWER OWNER IN WRITING.
9. CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF THE TOWER OWNER'S PROPERTY OR LEASE AREA AND APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR.
10. **WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 10-MPH). CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY LOCAL TOWER SHORING, TEMPORARY GLOBAL TOWER SHORING, AND ALL SHORING OF SURROUNDING BUILDINGS, PADS, AND OTHER OUTDOOR SITE CONSTRUCTIONS. ALL SHORING, TEMPORARY BRACING, AND TEMPORARY SUPPORTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.**
11. MODIFICATIONS SHOWN SHALL BE INSTALLED ON ALL THREE (3) TOWER LEGS/FACES.
12. ALL MODIFICATIONS PERFORMED ON THIS TOWER SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF TIA-1019-A CONSTRUCTION STANDARDS.
13. AFTER ANY AND ALL GUYED TOWER MODIFICATIONS, CONTRACTOR SHALL VERIFY THAT THE TOWER IS PLUMB AND ALL GUY WIRES ARE TENSIONED TO 10% BREAKING STRENGTH.
14. CONTRACTOR SHALL SUPPLY NEW SHACKLES, TURNBUCKLES, JAWS, EYES, ANCHOR RODS, AND ALL OTHER MISCELLANEOUS GUY ANCHOR HARDWARE FOR EACH NEW WIRE. NEW GUY ANCHOR HARDWARE MUST EXCEED THE ULTIMATE BREAKING STRENGTH OF EACH NEW GUY WIRE.
15. CONTRACTOR SHALL PROVIDE PROPERLY SIZED PREFORMS, END SLEEVES, THIMBLES, AND ALL OTHER SIZE DEPENDANT HARDWARE FOR EACH NEW GUY WIRE.
16. CONTRACTOR SHALL PROVIDE PROPER SAFETY LOOPS/ FIGURE 8'S AT ALL NEW GUY ANCHOR POINTS. ALL EXISTING AND NEW COTTER PINS SHALL BE STAINLESS STEEL.
17. NEW GUY WIRES SHALL HAVE NEW GROUNDING INSTALLED AT ANCHOR ROD IN LIKE AND KIND.
18. CONTRACTOR SHALL PROVIDE AND INSTALL PROPOSED FENCING, GUY ANCHOR SECURITY, GUY WIRE VISIBILITY WHERE THE WIRE IS WITHIN 20' OF GRADE, AND GUY WIRE SAFETY. THE CONTRACTOR SHALL PROVIDE THE NECESSARY MATERIALS AND INSTALL ALL SUCH ITEMS TO THE OWNER'S STANDARDS.
19. THE GENERAL CONTRACTOR SHALL TENSION THE GUY WIRE TO WITHIN A RANGE FROM THE TARGET TENSION LISTED WITHIN THE GUY WIRE SCHEDULE TO + OR - 10% OF THE TARGET TENSION LISTED FOR GUY WIRES <= 1" AND WITHIN + OR - 5% FOR GUY WIRES >1" IN DIAMETER. THE GENERAL CONTRACTOR SHOULD TENSION TO THE UPPER 75TH PERCENTILE OF THE LIMITS.
20. ALL MANUFACTURERS HARDWARE AND ASSEMBLY INSTRUCTIONS SHALL BE FOLLOWED EXACTLY. DEVIATION FROM THE INSTRUCTIONS IS UNACCEPTABLE AND REQUIRES WRITTEN APPROVAL FROM ENGINEER.

WELD NOTES

1. **CONTRACTOR IS RESPONSIBLE FOR COMMISSIONING A THIRD PARTY CERTIFIED WELD INSPECTOR (CWI) THROUGHOUT THE ENTIRETY OF THE PROJECT. A PASSING CWI REPORT SHALL BE PROVIDED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.**
2. WELDING CERTIFICATES MUST BE PROVIDED TO CWI AND GPD GROUP PRIOR TO WELDING CONTRACTOR BEGINNING WORK ON SITE. CERTIFICATE WILL BE ASKED FOR AS PART OF INSPECTION PROCESS. ALL WELDING SHOULD BE PERFORMED BY AN AWS QUALIFIED WELDER WHO HAS EXPERIENCE WITH GALVANIZED SURFACES AND IN ACCORDANCE WITH ANSI/AWS D1.1 AND ANSI Z 49.1 OR LATEST EDITIONS.
3. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.
4. INSTALL 3000' (NFPA 701) FIRE BLANKET AROUND ALL COAX.
5. MORE SPLATTER AND SPARKS SHALL BE ANTICIPATED GIVEN THE PREVIOUSLY GALV. SURFACE.
6. COAX IS FLAMMABLE AND CAN CATCH FIRE IF PROPER PRECAUTIONS ARE NOT MADE TO SHIELD COAX FROM ALL WELDING PROCEDURES. ALL COAX SHALL BE SHIELDED AT AND BELOW EACH WELDING PROCEDURE AND ELEVATION. IN ADDITION, COAX SHALL BE PUSHED AWAY FROM TOWER FACE WHERE WELDING IS BEING PERFORMED.
7. CONTRACTOR SHALL EXERCISE CAUTION WHEN WELDING ON A GALVANIZED SURFACE. IF THE WELD MATERIAL IS CONTAMINATED WITH ZINC IT DOES NOT PROVIDE A STRUCTURAL WELD.
8. FUMES CREATED FROM WELDING ON A PREVIOUSLY GALV. SURFACE CAN BE HAZARDOUS.
9. PRIOR TO WELDING, ALL SURFACES SHALL BE PROPERLY GROUND TO REMOVE GALVANIZING.
10. ALL FIELD WELDS SHALL BE TOUCHED UP WITH A GALVANIZING PAINT REPAIR (ZRC OR APPROVED EQUIVALENT).
11. WATER SHALL BE ON SITE, OF ADEQUATE AMOUNT, AND AVAILABLE AT SHORT NOTICE AT ALL TIMES DURING WELDING ACTIVITY. A MINIMUM OF 500 GAL. OF WATER SHALL BE PROVIDED. WATER SHALL BE CAPABLE OF REACHING HEIGHT WHERE WELDING IS BEING PERFORMED. IN ADDITION, A MINIMUM OF SIX (6) 10 LB. CLASS ABC MULTIPURPOSE FIRE EXTINGUISHERS FULLY CHARGED AND CAPABLE OF DISCHARGE WITHIN 30 SECONDS OF DETECTING A FIRE SHALL BE PROVIDED. FIRE EXTINGUISHERS SHALL BE STRATEGICALLY LOCATED AROUND COMPOUND AND IN THE AIR (I.E. ON THE MAN LIFT WHERE WELDING IS BEING PERFORMED).
12. CLEAN OUT ALL DEBRIS THROUGHOUT MONOPOLE AND MONOPOLE BASE PRIOR TO WELDING.
13. WHERE ACCESS PERMITS, THE INTERIOR OF THE MP SHAFTS, IN ANY AREA AFFECTED BY ANY WELDING, SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF COLD GALVANIZED PAINT. PHOTO DOCUMENTATION IS REQUIRED TO BE SUBMITTED TO THE PMI INSPECTOR.

FOUNDATION NOTES

1. **CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS 5 BUSINESS DAYS PRIOR TO FOUNDATION CONSTRUCTION IN ORDER TO COORDINATE THE VISUAL INSPECTION BY GPD:**

   -MART JELLEME (AT&T TOWERS) 404-532-5855 OFFICE, 678-735-8038 CELL
   -BRIAN SMITH (GPD GROUP) 216-927-8648
   -MATT MOELLER (GPD GROUP) 330-572-2232
   -NATE HENDRICKS (GPD GROUP) 330-572-2208
2. EXISTING FOUNDATION INFORMATION BASED UPON FOUNDATION DRAWINGS BY SABRE (JOB #: 11-05139, DATED JUNE 1, 2010). CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH THE REFERENCED FOUNDATION DOCUMENT. IF EXISTING FOUNDATION CONDITIONS DIFFER FROM THE REFERENCED DOCUMENT, CONTACT ENGINEER AND TOWER OWNER IMMEDIATELY.
3. CONCRETE WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
4. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.
5. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
6. CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS.
7. ALL FOUNDATIONS SHALL REST ON AND AGAINST FIRM UNDISTURBED SOIL FREE FROM WATER, ORGANIC MATTER, AND FORM WORK. CONTRACTOR SHALL COMPACT SUBGRADE AS REQUIRED.
8. REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.
9. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH MINIMUM COVER OF REINFORCEMENT. ALL REINFORCING SHALL BE EQUALLY SPACED UNLESS NOTED OTHERWISE.
10. SOIL INFORMATION IS BASED ON A GEOTECHNICAL REPORT BY CLARENCE WELTI (SITE #: 1860, DATED JULY 28, 2009). CONTRACTOR SHALL OBTAIN AND IMPLEMENT ALL RECOMMENDATIONS CONTAINED IN THE REFERENCED GEOTECHNICAL REPORT. IF SOIL CONDITIONS ENCOUNTERED ARE DIFFERENT FROM REFERENCED GEOTECHNICAL REPORT, NOTIFY ENGINEER IMMEDIATELY.

    A. ULTIMATE BEARING = 12 KSF @ 2' BELOW GRADE
    B. UNIT WEIGHT OF SOIL = 165 PCF (ROCK)
    C. GROUNDWATER = NOT ENCOUNTERED

12. BACKFILL SHALL BE CLEAN, FREE OF DEBRIS, AND ORGANIC FREE. CONTRACTOR SHALL UTILIZE CLEAN FILL AS REQUIRED. (MIN. UNIT WEIGHT = 120 PCF).
13. ALL BACKFILL SHALL BE CONTROLLED-COMPACTED, PLACED IN A MAXIMUM OF 8" LIFTS, MOISTURE CONDITIONED TO WITHIN THREE PERCENT OF OPTIMUM MOISTURE, AND COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY PER ASTM D698.
14. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
15. ALL GROUNDING SHALL ACHIEVE 5Ω OR LESS RESISTANCE UPON COMPLETION. ALL GROUNDING ENCOUNTERED SHALL BE RELOCATED 3'-0" BEYOND FOUNDATION. ALL GROUNDING SHALL BE CONTINUOUS AND COORDINATED WITH OWNER. GROUNDING DESIGN AND ENGINEERING IS BEYOND THE SCOPE OF THESE DESIGN DRAWINGS AND IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMMISSION.
16. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO EXCAVATION. IF NECESSARY UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION MODIFICATION. CONSENT FROM THE TOWER OWNER AND EOR MUST BE OBTAINED TO ENCASE UTILITIES IN CONCRETE.
17. EQUIPMENT PAD, SHELTER, AND ICE BRIDGE SUPPORT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMMISSION. CONTRACTOR SHALL TAKE GREAT CARE AND ALL NECESSARY PROVISIONS WHEN SHORING IS REQUIRED.
18. ALL FOUNDATION UPGRADES REQUIRE A PRETEST ON THE EXISTING GROUNDING SYSTEM. IF THE RESULTS OF THE TESTING IS ABOVE 5Ω A CALL TO THE TOWER OWNER IS REQUIRED BEFORE FURTHER CONSTRUCTION CAN BE DONE.
19. A POST OHMS TEST OF THE GROUNDING SHALL BE CONDUCTED. THE RESULTS OF THE TESTING SHALL BE AT OR BELOW THE PRE-CONSTRUCTION TEST RESULTS.

GPD GROUP.

at&t

REV	DATE	DESCRIPTION

99800-NEWTOWN DINGLEBROOK
24 DINGLEBROOK LANE
NEWTOWN, CT 06470

PROJECT NOTES

ISSUED FOR:	
PERMIT	01/22/15
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JS	MM

JOB NO
2014723.01.99800.03

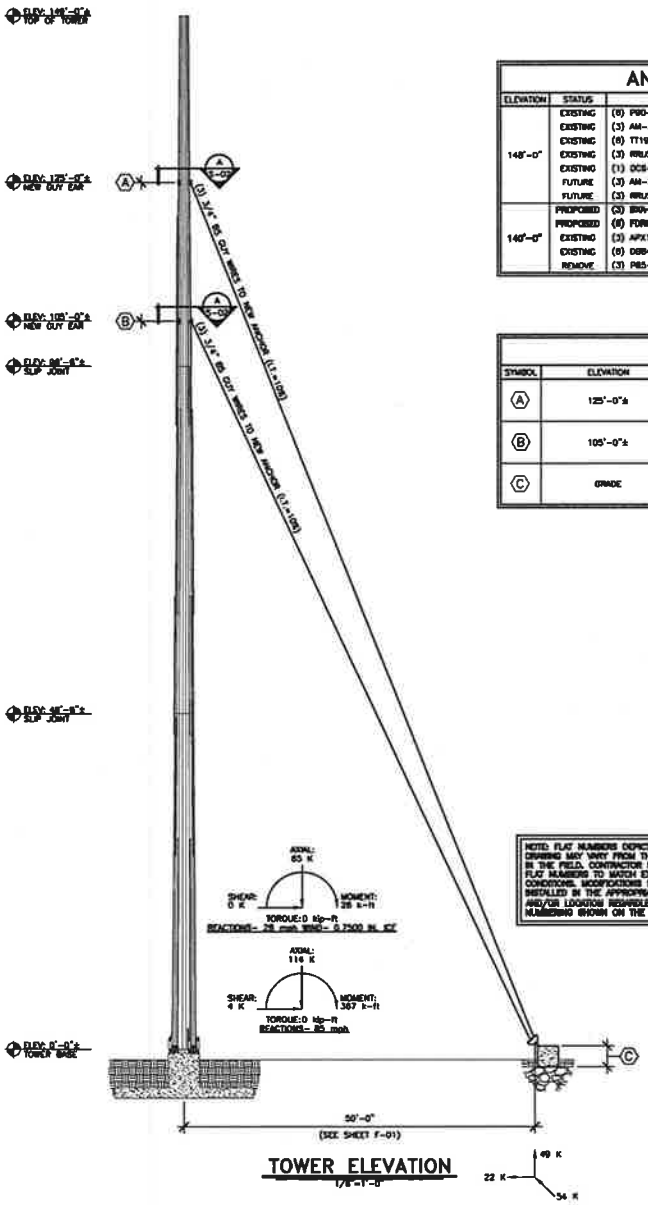
N-01

ANTENNA SCHEDULE

ELEVATION	STATUS	ANTENNA	MOUNT	COAX
148'-0"	EXISTING	(6) P90-14-XLH-RR	(1) 12' CF PLATFORM W/ RAILS	(12) 1-5/8"
	EXISTING	(3) AM-X-CD-18-65-00T-RET		(2) 3/4"
	EXISTING	(6) TT19-08BP111-001		(1) 1/2"
	EXISTING	(3) RRUS-11		
	EXISTING	(1) DC6-48-60-18-8F		
	FUTURE	(3) AM-X-CD-18-65-00T-RET		(6) 1-5/8"
	FUTURE	(3) RRUS-11		
140'-0"	PROPOSED	(3) B90-70065-00F		
	PROPOSED	(6) FDR8004/2C-3L		
	EXISTING	(3) APX16-206516L-C-TO	(3) 12' T-ARM	(12) 1-5/8"
	EXISTING	(6) DB848F85ZAXY		
	REMOVE	(3) P85-18-XL-2		

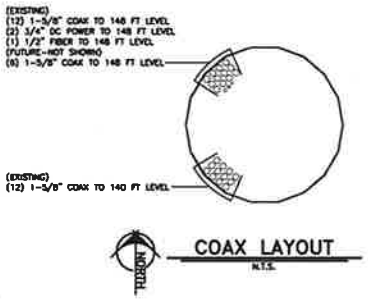
MODIFICATION SCHEDULE

SYMBOL	ELEVATION	MEMBER TYPE	EXISTING MEMBER	NEW MEMBER	NOTES
Ⓐ	125'-0"±	GUY EAR & GUY WIRES	18-SIDED MONOPOLE	(3) 1" THICK GUY EARS W/ 3/4" BS WIRES	INSTALL NEW GUY EARS AND GUY WIRES TO THE EXISTING TOWER. SEE SHEET S-02 FOR MORE INFORMATION.
Ⓑ	105'-0"±	GUY EAR & GUY WIRES	18-SIDED MONOPOLE	(3) 1" THICK GUY EARS W/ 3/4" BS WIRES	INSTALL NEW GUY EARS AND GUY WIRES TO THE EXISTING TOWER. SEE SHEET S-02 FOR MORE INFORMATION.
Ⓒ	GRADE	GUY ANCHOR BLOCK	-	(3) CONCRETE ANCHOR BLOCKS W/ (2) ROCK ANCHORS EACH	INSTALL NEW GUY ANCHOR BLOCKS AND ROCK ANCHORS TO THE EXISTING TOWER. SEE SHEET F-01 FOR MORE INFORMATION.



TOWER ELEVATION
1/8"=1'-0"

NOTE: FLAT NUMBERS DEPICTED IN THIS DRAWING MAY VARY FROM THE NUMBERING IN THE FIELD. CONTRACTOR MAY ADJUST FLAT NUMBERS TO MATCH EXISTING FIELD CONDITIONS. MODIFICATIONS SHALL BE INSTALLED IN THE APPROPRIATE ORIENTATION AND/OR LOCATION REGARDLESS OF THE NUMBERING SHOWN ON THE DRAWINGS.



COAX LAYOUT
N.T.S.

GPD GROUP

at&t

REV	DATE	DESCRIPTION

99800-NEWTOWN DINGLEBROOK
24 DINGLEBROOK LANE
NEWTOWN, CT 06470

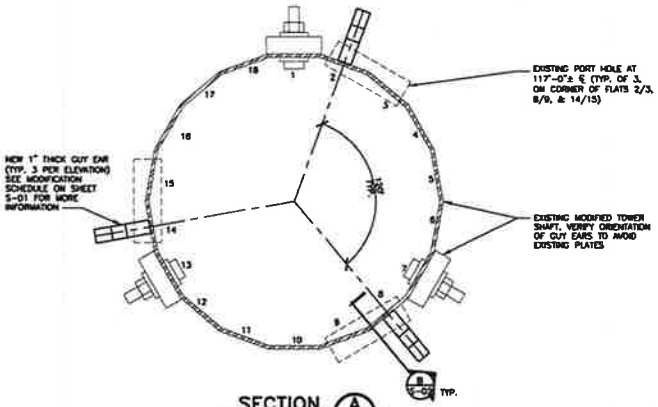
TOWER ELEVATION & MODIFICATION SCHEDULE

ISSUED FOR:	
PERMIT	01/23/15
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DRAWN BY
JS	MM

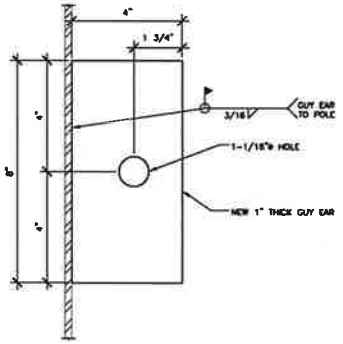
JOB NO
2014723.01.99800.03

S-01



SECTION A (S-02)
1-1/2"=1'-0"

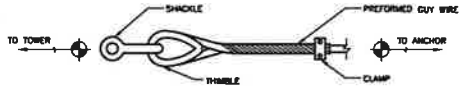
NOTE: GUY WIRES NOT SHOWN FOR DETAIL CLARITY. SECTION IS TYPICAL FOR TWO ELEVATIONS SEE MODIFICATION SCHEDULE ON SHEET S-01.



SECTION B (S-02)
3"=1'-0"

NOTE: GUY WIRES NOT SHOWN FOR DETAIL CLARITY. SECTION IS TYPICAL FOR TWO ELEVATIONS SEE MODIFICATION SCHEDULE ON SHEET S-01.

TYP. ANCHOR CONNECTION DETAIL
1-1/2" = 1'-0"



TYP. TOWER CONNECTION DETAIL
3" = 1'-0"

GUY WIRE SCHEDULE

GUY ELEVATION (FT.)	GUY WIRE SIZE (in.)	GUY ANCHOR RADIUS (FT.)	TOWER LEG	WIRE QTY PER LEG	% INITIAL TENSION	TARGET TENSION (LBS) 0°	20°	40°	60°	80°	100°	120°
125'-0"±	3/4	80'-0"±	A	1	10	7238.4	7090.8	6845.5	6800.0	6804.5	6809.1	6363.8
	3/4	80'-0"±	B	1	10	7238.4	7090.8	6845.5	6800.0	6804.5	6809.1	6363.8
	3/4	80'-0"±	C	1	10	7238.4	7090.8	6845.5	6800.0	6804.5	6809.1	6363.8
105'-0"±	3/4	80'-0"±	A	1	10	7384.8	7188.8	6894.9	6800.0	6805.1	6410.1	6215.2
	3/4	80'-0"±	B	1	10	7384.8	7188.8	6894.9	6800.0	6805.1	6410.1	6215.2
	3/4	80'-0"±	C	1	10	7384.8	7188.8	6894.9	6800.0	6805.1	6410.1	6215.2

NOTE: IF GUY ANCHOR ELEVATIONS VARY BY MORE THAN 10'± NOTIFY ENGINEER IMMEDIATELY. SEE CONTRACTOR NOTES ON SHEET N-01.

GPD GROUP

at&t

REV	DATE	DESCRIPTION

99800-NEWTOWN DINGLEBROOK
24 DINGLEBROOK LANE
NEWTOWN, CT 06470

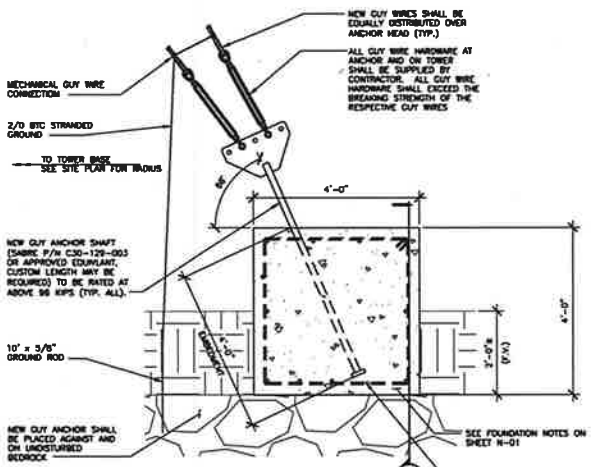
MODIFICATION DETAILS & SECTIONS

ISSUED FOR:	
PERMIT	01/22/15
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JS	MM

JOB NO.
2014723.01.99800.03

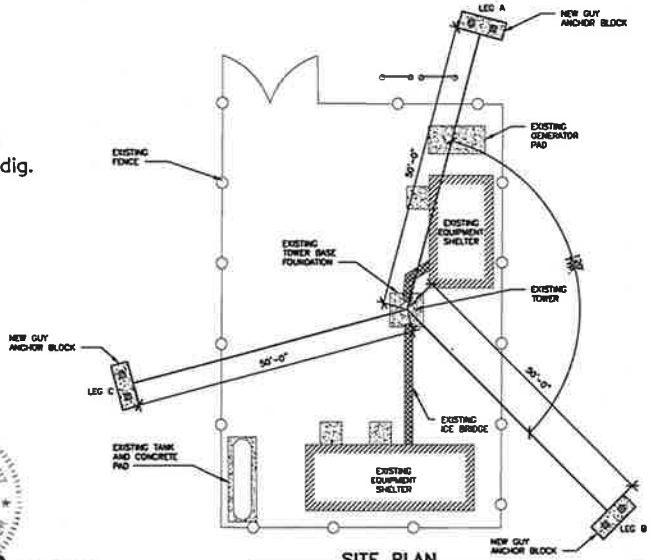
S-02



DETAIL 1 3/4"=1'-0" F-01

NOTE: EMBEDDED ROCK ANCHOR NOT SHOWN FOR DETAIL CLARITY. SEE DETAIL 2/F-01.

811 Know what's below Call before you dig.

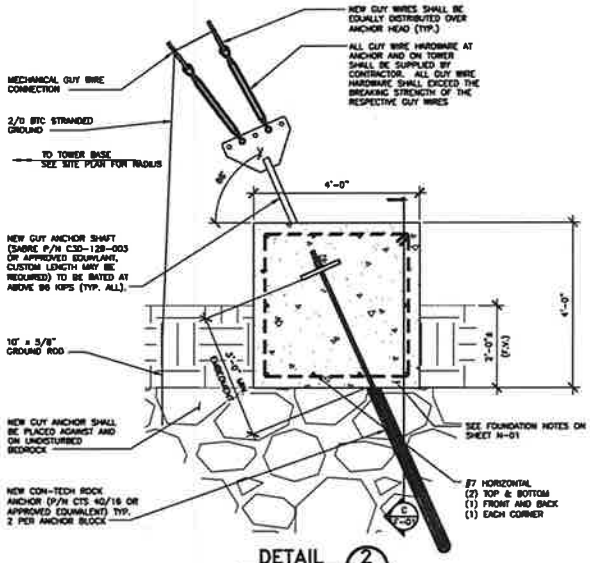


SITE PLAN N.T.S.

NORTH

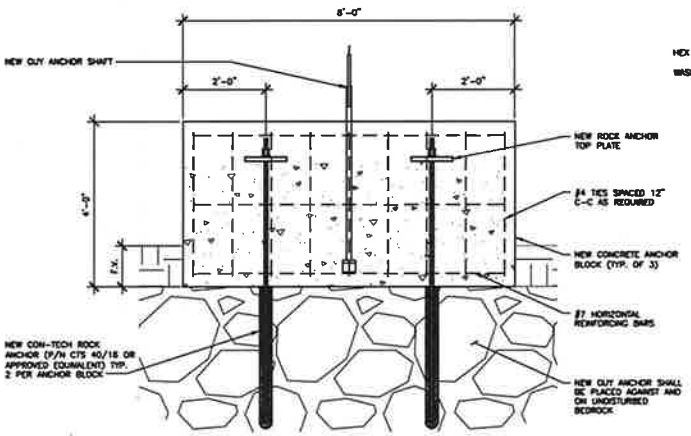
ALL SITE LAYOUT AND ORIENTATION INFORMATION IS PER TOWER OWNER INFORMATION AND IS CONSIDERED APPROXIMATE. THIS MODIFICATION WAS DESIGN WITHOUT THE BENEFIT OF A SITE VISIT. CONTRACTOR SHALL VERIFY ALL SITE DIMENSIONS AND UTILITY LOCATIONS PRIOR TO MOBILIZING (SEE NOTES ON SHEET N-01).

CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO EXCAVATION. IF NECESSARY UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION MODIFICATION. UTILITIES SHALL NOT BE ENCASED IN CONCRETE.

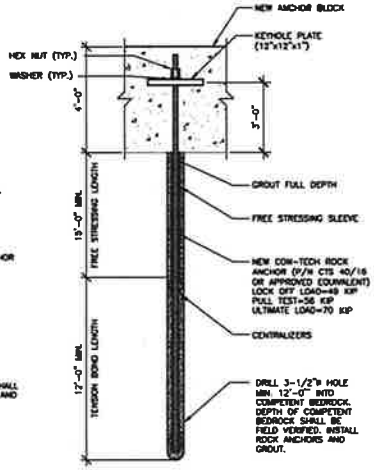


DETAIL 2 3/4"=1'-0" F-01

NOTE: EMBEDDED PORTION OF GUY ANCHOR SHAFT NOT SHOWN FOR DETAIL CLARITY. SEE DETAIL 1/F-01.



SECTION C 3/4"=1'-0" F-01



DETAIL 2 N.T.S. F-01

GPD GROUP

at&t

REV	DATE	DESCRIPTION

99900-NEWTOWN DINGLEBROOK
24 DINGLEBROOK LANE
NEWTOWN, CT 06470

FOUNDATION DETAILS & PARTIAL SITE PLAN

ISSUED FOR:	
PERMIT	01/22/15
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JS	MH

JOB NO. 2014723.01.99800

F-01

MODIFICATION INSPECTION CHECKLIST

BEFORE CONSTRUCTION		DURING CONSTRUCTION		AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM	CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM	CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
X	MODIFICATION INSPECTION CHECKLIST DRAWING	X	CONSTRUCTION INSPECTIONS	X	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWING(S)
X	ENGINEER OF RECORD APPROVED SHOP DRAWINGS	X	FOUNDATION INSPECTIONS	–	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	FABRICATION INSPECTION	X	CONCRETE COMP. STRENGTH AND SLUMP TESTS	X	PHOTOGRAPHS
–	FABRICATOR CERTIFIED WELD INSPECTION	–	POST INSTALLED ANCHOR ROD VERIFICATION	ADDITIONAL TESTING AND INSPECTIONS: POST INSTALLED ROCK ANCHOR PULL-OUT TESTING	
X	MATERIAL TEST REPORT	–	BASE PLATE GROUT VERIFICATION		
–	FABRICATOR NDE INSPECTION	X	THIRD PARTY CERTIFIED WELD INSPECTION		
–	NDE REPORT OF MONOPOLE BASE PLATE (AS REQUIRED)	X	EARTHWORK: LIFT AND DENSITY (REPORT REQUIRED)		
X	PACKING SLIPS	X	ON SITE COLD GALVANIZING VERIFICATION		
ADDITIONAL TESTING AND INSPECTIONS:		X	GUY WIRE TENSION REPORT		
		X	GC AS-BUILT DOCUMENTS		
		ADDITIONAL TESTING AND INSPECTIONS: POST INSTALLED ROCK ANCHOR TESTING			

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE MODIFICATION INSPECTION REPORT
– DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MODIFICATION INSPECTION REPORT

MODIFICATION INSPECTION NOTES:

GENERAL

1. THE MODIFICATION INSPECTION IS A VISUAL INSPECTION OF TOWER MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD.
2. THE MODIFICATION INSPECTION IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MODIFICATION INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTENT RESIDES WITH THE ENGINEER OF RECORD AT ALL TIMES.
3. **TO ENSURE THAT THE REQUIREMENTS OF THE MODIFICATION INSPECTION ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MODIFICATION INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO OR PAYMENT IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. CONTACT LISTED ON THE TITLE SHEET SHALL BE CONTACTED IF SPECIFIC INSPECTOR CONTACT INFORMATION IS NOT KNOWN.**

MODIFICATION INSPECTOR

1. THE MODIFICATION INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO OR PAYMENT FOR THE MODIFICATION INSPECTION TO:
   - REVIEW THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST
   - WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
   - DISCUSS ANY SITE SPECIFIC INSPECTIONS OR CONCERNS
2. THE MODIFICATION INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR (GC) INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MODIFICATION INSPECTION REPORT.

GENERAL CONTRACTOR

1. THE GC IS REQUIRED TO CONTACT THE MODIFICATION INSPECTOR AS SOON AS RECEIVING A PO OR PAYMENT FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO:
   - REVIEW THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST
   - WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MODIFICATION INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
   - BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS
2. THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST.

RECOMMENDATIONS

1. THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING A MODIFICATION INSPECTION REPORT:
   - IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MODIFICATION INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MODIFICATION INSPECTION TO BE CONDUCTED.
   - THE GC AND MODIFICATION INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
   - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MODIFICATION INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
   - IT MAY BE BENEFICIAL TO INSTALL ALL TOWER MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW FOUNDATION AND MODIFICATION INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
   - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MODIFICATION INSPECTOR ON-SITE DURING THE MODIFICATION INSPECTION TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MODIFICATION INSPECTION. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MODIFICATION INSPECTION CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CANCELLATION OR DELAYS IN SCHEDULED MODIFICATION INSPECTION

1. IF THE GC AND MODIFICATION INSPECTOR AGREE TO A DATE ON WHICH THE MODIFICATION INSPECTION WILL BE CONDUCTED, AND EITHER PARTY CANCELS OR DELAYS, THE TOWER OWNER SHALL NOT BE RESPONSIBLE FOR ANY COSTS, FEES, LOSS OF DEPOSITS AND/OR OTHER PENALTIES RELATED TO THE CANCELLATION OR DELAY INCURRED BY EITHER PARTY FOR ANY TIME (E.G. TRAVEL AND LODGING, COSTS OF KEEPING EQUIPMENT ON-SITE, ETC.). EXCEPTIONS MAY BE MADE IN THE EVENT THAT THE DELAY/CANCELLATION IS CAUSED BY WEATHER OR OTHER CONDITIONS THAT MAY COMPROMISE THE SAFETY OF THE PARTIES INVOLVED.

CORRECTION OF FAILING MODIFICATION INSPECTION

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE MODIFICATION INSPECTION ("FAILED MODIFICATION INSPECTION"), THE GC SHALL WORK WITH MODIFICATION INSPECTOR TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
   - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MODIFICATION INSPECTION.
   - OR, WITH TOWER OWNER'S APPROVAL, THE GC MAY WORK WITH THE ENGINEER OF RECORD TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

VERIFICATION INSPECTIONS

1. TOWER OWNER RESERVES THE RIGHT TO CONDUCT A VERIFICATION INSPECTION TO VERIFY THE ACCURACY AND COMPLETENESS OF PREVIOUSLY COMPLETED MODIFICATION INSPECTION(S) ON TOWER MODIFICATION PROJECTS.
2. VERIFICATION INSPECTION MAY BE CONDUCTED BY AN INDEPENDENT FIRM AFTER A MODIFICATION PROJECT IS COMPLETED, AS MARKED BY THE DATE OF AN ACCEPTED "PASSING MODIFICATION INSPECTION" OR "PASS AS NOTED MODIFICATION INSPECTION" REPORT FOR THE ORIGINAL PROJECT.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS ARE TO BE TAKEN AND INCLUDED IN THE MODIFICATION INSPECTION REPORT:
   - PRE-CONSTRUCTION GENERAL SITE CONDITION
   - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
     - RAW MATERIALS
     - PHOTOS OF ALL CRITICAL DETAILS
     - FOUNDATION MODIFICATIONS
     - WELD PREPARATION
     - BOLT INSTALLATION AND TORQUE
     - FINAL INSTALLED CONDITION
     - SURFACE COATING REPAIR
   - POST CONSTRUCTION PHOTOGRAPHS
   - FINAL INFIELD CONDITION
   - ANY OTHER PHOTOS DEEMED RELEVANT TO SHOW COMPLETE DETAILS OF MODIFICATIONS
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

GPD GROUP

at&t

REV	DATE	DESCRIPTION

99800-NEWTOWN DINGLEBROOK
24 DINGLEBROOK LANE
NEWTOWN, CT 06470

MODIFICATION INSPECTION CHECKLIST

ISSUED FOR:	
PERMIT	01/22/15
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JS	MM

JOB NO. 2014723.01.998000

MT