



Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

October, 17, 2018

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

RE: Request of T-Mobile Northeast LLC for an Order to Approve the Shared Use of an Existing Tower at 1116 Johnson Road a/k/a 1027 Racebrook Road Woodbridge, CT 06525

Dear Ms. Bachman:

Pursuant to Connecticut General Statutes (“C.G.S.”) §16-50aa, as amended, T-Mobile Northeast LLC (“T-Mobile”) hereby requests an order from the Connecticut Siting Council (“Council”) to approve the shared use by T-Mobile of an existing telecommunication tower at 1116 Johnson Road in Woodbridge Connecticut (the “Property”).¹ The existing 150-foot tower is owned by Crown Castle International Corp. (“Crown Castle”). The underlying property is owned by the Tradition Golf Club at Oak Lane LLC. (Easement with Power of Attorney language attached.) T-Mobile requests that the Council find that the proposed shared use of the Crown Castle tower satisfies the criteria of C.G.S. §16-50aa and issue an order approving the proposed shared use. A copy of this filing is being sent to First Selectman for the Town of Woodbridge Beth Heller, to the Zoning Enforcement Officer Terry Gilbertson and to the owner of the property the Tradition Golf Club at Oak Lane, LLC.

Background

The existing Crown Castle facility consists of a 150-foot monopole tower on 94.63-acre parcel along the southwest side of Johnson Road. The Town of Woodbridge maintains antennas at the 150-foot level, AT&T currently maintains antennas at the 102-foot level, Verizon antennas are located at the 124-foot level and Sprint antennas are located at the 86-foot level. Metro PCS antennas previously at the 138 level are abandoned and will be removed. AT&T’s equipment shelter is located to the northeast of the tower, Verizon’s equipment shelter is located to the northwest of the tower, and there is an existing abandoned shelter formerly of Cell One to the southeast as well as an abandoned Nextel Shelter north of the tower.

T-Mobile is licensed by the Federal Communications Commission (“FCC”) to provide wireless services throughout the State of Connecticut. T-Mobile and Crown Castle have agreed to the proposed shared use of the 1116 Johnson Road tower pursuant to mutually acceptable terms and conditions.

¹ Please note the Town of Woodbridge did not have the original approval for this tower available at the time of this filing and indicated they may not still have a record of it.

Likewise, T-Mobile and Crown Castle have agreed to the proposed installation of equipment cabinets on the ground on the northwest side of the tower. Crown Castle has authorized T-Mobile to apply for all necessary permits and approvals that may be required to share the existing tower.

T-Mobile proposes to twelve (12) antennas, thirteen (13) lines of coax, one (1) hybrid cables, four (4) TMA's, four (4) RRUs, one (1) MW Dish with an associated Line and one (1) GPS. In addition, T-Mobile will install a diesel fueled 220 gallon 25 KW DC back-up generator within a 10'x 20' concrete pad. Included in the Construction Drawings are T-Mobile's project specifications for locations of all proposed site improvements. The Construction Drawings also contain specifications for T-Mobile's proposed antennas and backup generator.

C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, "if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such a shared use." T-Mobile respectfully submits that the shared use of the tower satisfies these criteria.

A. Technical Feasibility. The existing Crown Castle tower is structurally capable of supporting T-Mobile's proposed improvements. The proposed shared use of this tower is, therefore, technically feasible. A Feasibility Structural Analysis Report ("Structural Report") prepared for this project confirms that this tower can support T-Mobile's proposed loading. A copy of the Structural Report has been included in this application.

B. Legal Feasibility. Under C.G.S. § 16-50aa, the Council has been authorized to issue order approving the shared use of an existing tower such as the Crown Castle tower. This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. In addition, § 16-50x(a) directs the Council to "give such consideration to the other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities. Under the statutory authority vested in the Council, an order by the Council approving the requested shared use would permit the Applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use of the Crown Castle tower would have a minimal environmental effect for the following reasons:

1. The proposed installation of twelve (12) antennas, thirteen (13) lines of coax, one (1) hybrid cables, four (4) TMA's, four (4) RRUs, one (1) MW Dish with an associated Line and one (1) GPS will have no visual impact on the area of the tower. T-Mobile's cabinet and generator would be installed within an expanded facility compound. T-Mobile's shared use of this tower therefore will not cause any significant change or alteration in the physical or environmental characteristics of the existing site.

2. Operation of T-Mobile's antennas at this site would not exceed the RF emissions standard adopted by the Federal Communications Commission ("FCC"). Included in the EME report of this filing are the approximation tables that demonstrate that T-Mobile's proposed facility will operate well within the FCC RF emissions safety standards.
3. Under ordinary operating conditions, the proposed installation would not require the use of any water or sanitary facilities and would not generate air emissions or discharges to water bodies or sanitary facilities. After construction is complete the proposed installations would not generate any increased traffic to the Crown Castle facility other than periodic maintenance. The proposed shared use of the Crown Castle tower, would, therefore, have a minimal environmental effect, and is environmentally feasible.

D. Economic Feasibility. As previously mentioned, T-Mobile has entered into an agreement with Crown Castle for the shared use of the existing facility subject to mutually agreeable terms. The proposed tower sharing is, therefore, economically feasible. (Please see included authorization.)

E. Public Safety Concerns. As discussed above, the tower is structurally capable of supporting T-Mobile's full array of twelve (12) antennas and all related equipment. T-Mobile is not aware of any public safety concerns relative to the proposed sharing of the existing Crown Castle tower.

Conclusion

For the reasons discussed above, the proposed shared use of the existing Crown Castle tower at 1116 Johnson Road satisfies the criteria state in C.G.S. §16-50aa and advances the General Assembly's and the Council's goal of preventing the unnecessary proliferation of towers in Connecticut. The Applicant, therefore, respectfully requests that the Council issue an order approving the proposed shared use.

Sincerely,

William Stone
Real Estate Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
518-373-3543
William.stone@crowncastle.com

Attachments: Tab 1: Exhibit-1: Compound plan and elevation depicting the planned changes Tab 2: Exhibit-2: Structural Modification Report Tab 3: Exhibit-3: General Power Density Table report (RF Emissions Analysis Report)

Melanie A. Bachman

October 17, 2018

Page 4

CC: Beth Heller, First Selectman (Municipality)
11 Meetinghouse Lane
Woodbridge, CT 06525

Terry Gilbertson Zoning Enforcement Officer (Municipal Planning & Zoning Officer)
Town of Woodbridge
11 Meetinghouse Lane
Woodbridge, CT 06525

Tradition Golf Club at Oak Lane LLC (Landowner)
1027 Racebrook Road
Woodbridge, CT 06525

ORIGIN ID: GFLA (518) 373-3523
ANNE MARIE ZSAMBA
CROWN CASTLE
3 CORPORATE PARK DRIVE
SUITE 101
CLIFTON PARK, NY 12065
UNITED STATES US

SHIP DATE: 26OCT18
ACTWGT: 2.00 LB
CAD: 104924194/NET4040

BILL SENDER

TO TRADITION GOLF CLUB AT OAK LANE LLC

1027 RACEBROOK ROAD

WOODBIDGE CT 06525

REF: 1734.7890

DEPT.
PO:



552J1/88FB/DCA5

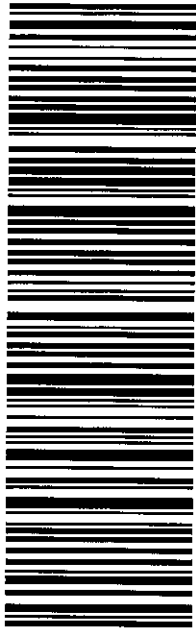
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PRIORITY OVERNIGHT

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06525
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CROWN CASTLE
3 CORPORATE PARK DRIVE
SUITE 10
CLIFTON PARK NY 12065
UNITED STATES US

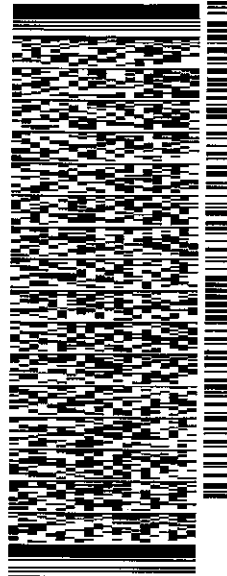
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ACTWGST: 2.00 LB
CAD: 104924194/NET4040

BILL SENDER

TO TERRY GILBERT - ZEO
TOWN OF WOODBRIDGE
11 MEETINGHOUSE LANE

WOODBRIDGE CT 06525
(203) 389-3418
REF: 17347890
INVT
PO DEPT

552J188FB/DCA5



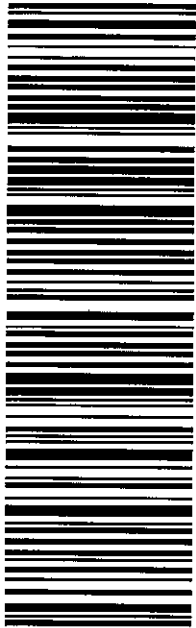
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3 CORPORATE PARK DRIVE
SUITE 101
CLIFTON PARK, NY 12065
UNITED STATES US

SHIP DATE: 28OCT18
ACTWGT: 2.00 LB
CAD: 104924194INNET4040
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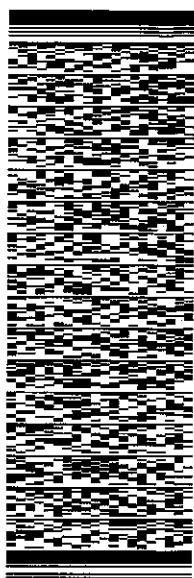
TO BETH HELLER - FIRST SELECTMAN
TOWN OF WOODBRIDGE
11 MEETINGHOUSE LANE

WOODBRIDGE CT 06525

REF: 1734.7680

PO:

DEPT:



J182118061501uz

TRK# 7735 8032 1436
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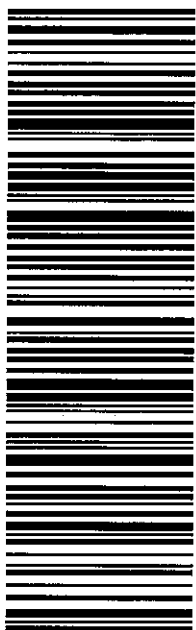
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SUITE 101
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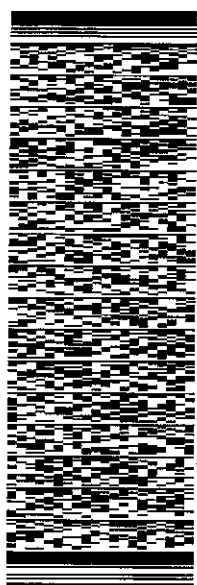
TO **MELANIE BACHMAN**
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQUARE

NEW BRITAIN CT 06051

REF: 17658690

(860) 827-2951
INV#

DEPT



31821188FB/DCA5

552J188FB/DCA5

TRK# 7735 8050 1852
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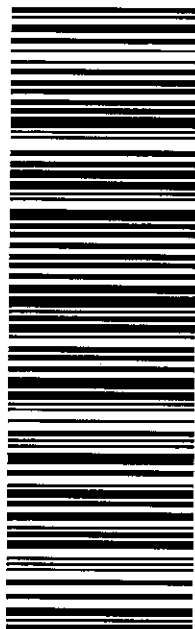
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1027 RACEBROOK RD

Location 1027 RACEBROOK RD

Mblu 2903/ 1520/ 1027/ /

Owner THE TRADITIONS GOLF CLUB
AT OAK LANE LLC

Assessment \$1,861,690

Appraisal \$3,125,200

PID 633

Building Count 4

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2014	\$2,109,600	\$1,015,600	\$3,125,200

Assessment			
Valuation Year	Improvements	Land	Total
2014	\$1,476,720	\$384,970	\$1,861,690

Owner of Record

Owner THE TRADITIONS GOLF CLUB AT OAK LANE LLC
Co-Owner
Address 1027 RACEBROOK RD
WOODBIDGE, CT 06525

Sale Price \$1,600,000
Certificate
Book & Page 773/ 182
Sale Date 06/15/2016
Instrument 06

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
THE TRADITIONS GOLF CLUB AT OAK LANE LLC	\$1,600,000		773/ 182	06	06/15/2016
BALDWIN WONNELL RACEBROOK LLC	\$0		677/ 270	04	11/08/2011
BALDWIN MALCOLM W JR ETAL	\$0		156/ 19	04	09/25/1989
BALDWIN CLARENCE F	\$0		75/ 293	04	10/04/1963

Building Information

Building 1 : Section 1

Year Built: 1960
Living Area: 20,786

Building Attributes	
Field	Description

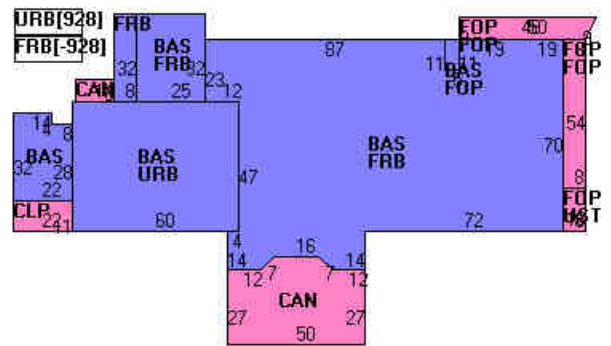
STYLE	Country Club
MODEL	Commercial
Stories:	1
Occupancy	1
Exterior Wall 1	Stucco/Masonry
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Inlaid Sht Gds
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	Central
Bldg Use	Golf Course
Total Rooms	
Total Bedrms	00
Total Baths	0
Dormer	
1st Floor Use:	3800
Heat/AC	HEAT/AC SPLIT
Frame Type	STEEL
Baths/Plumbing	AVERAGE
Ceiling/Wall	SUS-CEIL & WL
Rooms/Prtns	AVERAGE
Wall Height	12
% Comn Wall	0

Building Photo



(http://images.vgsi.com/photos/WoodbridgeCTPhotos//\00\00\45

Building Layout



Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	13,423	13,423
FRB	Finished Raised Basement	9,204	7,363
CAN	Canopy	1,567	0
CLP	Loading Platform, Covered	242	0
FOP	Open Porch	1,815	0
URB	Unfinished Raised Basement	3,748	0
UST	Utility, Storage, Unfinished	128	0
		30,127	20,786

Building 2 : Section 1

Year Built: 1975
Living Area: 480

Building Attributes : Bldg 2 of 4	
Field	Description
STYLE	Clubs/Lodges

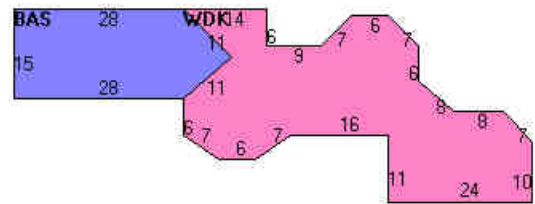
MODEL	Commercial
Stories:	1
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Bldg Use	SFR OPEN MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
Dormer	
1st Floor Use:	2011
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	NONE
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	LIGHT
Wall Height	9
% Comn Wall	0

Building Photo



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Building Layout



Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	480	480
WDK	Wood Deck	1,054	0
		1,534	480

Building 3 : Section 1

Year Built: 1960
Living Area: 3,528

Building Attributes : Bldg 3 of 4	
Field	Description
STYLE	Warehouse
MODEL	Commercial
Stories:	1
Occupancy	1
Exterior Wall 1	Reinforc Concr
Exterior Wall 2	

Roof Structure	Flat
Roof Cover	Enam Mtl Shing
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Bldg Use	Golf Course
Total Rooms	
Total Bedrms	00
Total Baths	0
Dormer	
1st Floor Use:	380I
Heat/AC	NONE
Frame Type	REINF. CONCR
Baths/Plumbing	NONE
Ceiling/Wall	CEILING ONLY
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	0

Building Photo



(<http://images.vgsi.com/photos/WoodbridgeCTPhotos//default.jp>)

Building Layout



Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	3,528	3,528
		3,528	3,528

Building 4 : Section 1

Year Built: 1985

Living Area: 320

Building Attributes : Bldg 4 of 4	
Field	Description
STYLE	Restaurant
MODEL	Commercial
Stories:	1
Occupancy	1
Exterior Wall 1	Below Average
Exterior Wall 2	
Roof Structure	Gable/Hip

Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Bldg Use	Golf Course
Total Rooms	
Total Bedrms	00
Total Baths	0
Dormer	
1st Floor Use:	3800
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	LIGHT
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	0

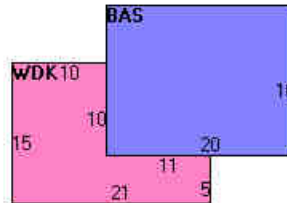
Building Photo



(<http://images.vgsi.com/photos/WoodbridgeCTPhotos//\00\00\6f>)

Building Layout

HALFWAY HOUSE



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	320	320
WDK	Wood Deck	205	0
		525	320

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	3800
Description	Golf Course
Zone	A

Land Line Valuation

Size (Acres)	94.63
Frontage	0
Depth	0

Neighborhood
Alt Land Appr No
Category

Assessed Value \$384,970
Appraised Value \$1,015,600

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
SHD1	Shed			864 S.F.	\$2,800	3
TEN	Tennis Court			8 UNIT	\$120,000	2
PAT1	Patio Average			1230 S.F.	\$1,200	1
PAT1	Patio Average			9500 S.F.	\$9,500	1
SHD1	Shed			80 S.F.	\$300	2
SHD1	Shed			80 S.F.	\$300	2
SHD1	Shed			80 S.F.	\$500	2
SHD1	Shed			200 S.F.	\$2,000	2
SHD2	Shed Good			3456 S.F.	\$20,700	1
PAV1	Paving Asphalt			20000 S.F.	\$2,400	2
GAZ	Gazebo			176 S.F.	\$2,100	1
LT1	Lights Single			7 UNITS	\$1,500	1
LT1	Lights Single			2 UNITS	\$900	1
LT2	Lights Double			2 UNITS	\$1,100	1
PAV1	Paving Asphalt			115200 S.F.	\$41,500	1
	GREENS			8	\$672,000	1
GAZ	Gazebo			162 S.F.	\$3,900	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$2,109,600	\$1,015,600	\$3,125,200
2015	\$2,105,700	\$643,100	\$2,748,800
2013	\$2,392,600	\$1,581,900	\$3,974,500

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$1,476,720	\$384,970	\$1,861,690
2015	\$1,473,990	\$384,970	\$1,858,960
2013	\$1,674,820	\$455,390	\$2,130,210

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1027 Racebrook Rd



Imagery ©2018 Google, Map data ©2018 Google 200 ft



3530 Toringdon Way
Charlotte, NC 28277

Phone: (980) 209-8221
Fax: (724) 416-4688
www.crowncastle.com

October 17, 2018

GLOBAL SIGNAL ACQUISITIONS IV LLC
PO BOX 277455
ATLANTA, GA 30384-7455

**RE: BU# 876315 – OAK LANE CC, INC. TOWER (SSUSA
Site Address: 1027 Racebrook Road, Woodbridge, CT 06525**

Dear GLOBAL SIGNAL ACQUISITIONS IV LLC:

In order to better serve the public and minimize the amount of towers in an area where a Lease is located, T-Mobile plans to modify the equipment at the telecommunication facility. The modification will not alter the character or use of the site nor will it change the nature of Crown Castle's occupancy of the site.

The CT - CONNECTICUT SITING COUNCIL requires Landowners Authorization for applications related to Land Use, zoning and/or building permits. I have enclosed a Landowners Authorization form which requires your signature (or designee) and date to obtain the necessary city approvals to proceed with an installation of new equipment at this site.

Thank you for your continued cooperation with Crown Castle. If you have any questions concerning this request, please feel free contact me at (980) 209-8221 or via email at Bianca.Reyes@crowncastle.com

Yours truly,

A handwritten signature in black ink that reads 'Bianca Reyes' in a cursive script.

Bianca Reyes
Real Estate Project Coordinator
(980) 209-8221
Bianca.Reyes@crowncastle.com

Property Owner Letter of Authorization

CT - CONNECTICUT SITING COUNCIL,

Re: Zoning/ Permitting – Plan / Design Review Process

I hereby represent that I am the legal owner of the property referenced below, and I hereby give my authorization to T-MOBILE and/or its Agent(s), to act as our Agent(s) in processing and obtaining approval for Building and/or Zoning permits through the CT - CONNECTICUT SITING COUNCIL for the modification of the facility located at the existing wireless communications site described as:

Crown Site ID:	876315/OAK LANE CC, INC. TOWER (SSUSA
T-MOBILE Site ID:	CTNH085A/CTNH085A
Site Address:	1027 Racebrook Road, Woodbridge, CT 06525

Property Owner: GLOBAL SIGNAL ACQUISITIONS IV LLC

Signature: Oak Lane Country Club Inc. by Global Signal Acquisitions IV LLC,

Print Name: Bianca Reyes

Date: 10/17/18

*its Attorney-in-Fact,
by Bianca Reyes,
Project Coordinator*

By (initials) LMK Date 2/20/13 Doc type B
BU#: 876315 Lease/Lic 146082

This Instrument was prepared out of state by:

Serena A. Kramer
Singleton Cooksey PLLC
6363 Woodway, Suite 600
Houston, Texas 77057
713-532-6200

After recording return by mail to:

Old Republic National Title Insurance Company
Commercial Department
530 S. Main St. – Suite #1031
Akron, OH 44311-4423
330-436-6140 OI-1110519-02E0 JE

ASSIGNMENT AND ASSUMPTION OF EASEMENT AND LEASE

THIS ASSIGNMENT AND ASSUMPTION OF EASEMENT AND LEASE (this "**Assignment**") is entered into as of the 27th day of February, 2012, by and between **CELL TOWER LEASE ACQUISITION LLC**, a Delaware limited liability company ("**Assignor**") with a mailing address of 750 Park of Commerce Blvd., Suite 300, Boca Raton, Florida 33487, and **GLOBAL SIGNAL ACQUISITIONS IV LLC**, a Delaware limited liability company ("**Assignee**") with a mailing address of 2000 Corporate Drive, Canonsburg, Washington County, Pennsylvania 15317-8564.

WITNESSETH

WHEREAS, Assignor acquired the grantee's interest in that certain Easement and Assignment Agreement described on **Exhibit A** (the "**Easement**"), encumbering the property described on **Exhibit B** (the "**Parent Parcel**") for the use of the property defined in the Easement as the Communication Easement and generally described on Exhibit B-1 to the Easement (referred to herein as the "**Original Easement Area**") and the Access and Utility Easements generally described on Exhibit B-2 to the Easement (referred to herein collectively as the "**Access and Utility Easements**"); the Easement also assigned to Assignor, or its predecessor in interest, landlord's beneficial interest in any lease agreements affecting the Original Easement Area.

WHEREAS, for purposes only of describing the intent of the parties hereto and in no way limiting or modifying the grants and purposes set forth in the Easement, the Easement relates to the maintenance and operation of two (2) separate wireless communication areas—one being a communications tower

Assignment and Assumption – New Haven County, Connecticut
Oaklane CC, Inc. Tower (SSUSA) - BU#: 876315

STATE \$ _____ Conveyance Tax Received

TOWN
\$ 4573.⁰³ Conveyance Tax Received

\$ 22,865.15 Stephanie Carleghis
Town Clerk of Woodbridge

Stephanie Carleghis
Town Clerk of Woodbridge

and the other being a communications antenna collocated on a utility power tower; it is the intent of this Assignment to provide notice of Assignor's assignment of all interests relating to the communications tower while retaining Assignor's interests relating to the communications antenna collocated on the utility power tower.

WHEREAS, in furtherance thereof, this Assignment shall ratify, confirm and provide notice in the public record of the assignment pursuant to the Global Assignment by Assignor to Assignee of the portion of the Easement related to and encumbered by one of the two (2) lease agreements defined in the Easement as "Existing Agreements" and described as the first item on Exhibit C to the Easement (the "Crown Lease") and certain additional areas, subject to and in accordance with the terms hereof. The term "Global Assignment" means that certain Assignment and Assumption Agreement dated as of September 16, 2011 (the "Transfer Date"), by and between Assignee and GLP LLC, a Delaware limited liability company, acting on behalf of and binding GLP LLC and its Subsidiaries and Affiliates, including, Assignor (collectively, "GLP").

WHEREAS, that portion of the Original Easement Area related to and encumbered by the Crown Lease is referred to herein as the "GSA Easement Area" and is more specifically described by metes and bounds on Exhibit C, and, together with the portions of the Access and Utility Easements described by metes and bounds on Exhibit D (the "GSA Access and Utility Easements"), is generally depicted on Exhibit E to this Assignment. The portion of the Original Easement Area less and except the GSA Easement Area and the GSA Access and Utility Easements shall be referred to herein as the "GLP Easement Area" and the lease agreement described as the second item on Exhibit C to the Easement encumbering the GLP Easement Area shall be referred to herein as the "GLP Lease."

NOW, THEREFORE, in consideration of the mutual covenants contained in this Assignment, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, Assignor and Assignee hereby agree as follows:

1. Capitalized Terms; Incorporation of Recitals. Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Global Assignment. The recitals set forth above are incorporated herein for all purposes.

2. Assignment of Easements and the Crown Lease. Effective as of the Transfer Date, Assignor hereby ratifies and confirms (a) Assignor's full assignment and conveyance of Assignor's exclusive easement in and over the portion of the Original Easement Area defined above as the GSA Easement Area; (b) Assignor's full assignment and conveyance of Assignor's rights to utilize, jointly with others, Assignor's non-exclusive easement in and over the GSA Access and Utility Easements; and (c) Assignor's full assignment of the landlord's interest in the Crown Lease, in each case to Assignee and its successors and assigns, and in each case excluding any CCI Sites Excluded Liabilities (as defined in the Global Assignment) and incorporating the terms of the Global Assignment in its entirety for all purposes, as if set forth herein in its entirety.

3. Acceptance and Assumption of Easements and the Crown Lease. Assignee, as of the Transfer Date, hereby ratifies, confirms and restates its acceptance of the assignments described in Section 2 of this Assignment and Assignee assumes the applicable CCI Sites Assumed Liabilities (excluding any CCI Sites Excluded Liabilities) as to each assignment.

4. Retention of the GLP Easements and the GLP Lease. Assignee acknowledges and agrees that nothing herein shall act to convey (a) Assignor's exclusive easement over the GLP Easement Area or (b) Assignor's interest in the GLP Lease.

5. Taxes. Subject to and in accordance with the terms of the Easement, Assignor shall be solely responsible for any and all Taxes (as defined in the Easement) arising from or related to the GLP Easement Area, and to take commercially reasonable steps, in coordination with Assignee, to enforce the

obligations of the Site Owner (as defined in the Easement) in connection with its payment of Taxes owed against the Parent Parcel. Likewise, subject to and in accordance with the terms of the Easement, Assignee shall be solely responsible for any and all Taxes arising from or related to the GSA Easement Area, and to take commercially reasonable steps, in coordination with Assignor, to enforce the obligations of the Site Owner in connection with its payment of Taxes owed against the Parent Parcel.

6. Maintenance of Shared Easements. [Intentionally deleted.]

7. Cooperation. Assignor and Assignee agree to use all commercially reasonable efforts to cooperate with each other and consent to commercially reasonable accommodations to each other in connection with the installation, repair, maintenance, replacement, upgrade or removal of utility wires, poles, cables, conduits and pipes, equipment, or any other Facilities (as defined in the Easement) related to each party's full use and enjoyment of its rights and benefits under the Easement. In furtherance thereof, in no event shall either party block or materially interfere with access or utilities to the other party's exclusive easement area, unless the party whose access or utilities are to be blocked or materially interfered with has first received no less than thirty (30) days prior written notice thereof (except in the case of an emergency [meaning there is a significant risk of imminent injury or material damage to persons or property], in which case, as much notice as possible under the circumstances, must be given), and all commercially reasonable efforts are made by the party blocking or interfering with such access and utilities to minimize such blockage or interference and to limit the duration thereof.

8. Notice and Ability to Cure. To the extent either of the parties hereto fails to satisfy or perform any of its obligations set forth in this Assignment, and such failure continues for thirty (30) days following written notice, or, to the extent such failure is not able to be corrected within such thirty (30) day period, the party receiving such notice has either not commenced to cure such failure within such thirty (30) day period or has not thereafter diligently pursued the cure of such failure (a "default"), the non-defaulting party may seek the recovery of actual damages, seek specific performance and/or take any and all self-help actions reasonably necessary to cure such default, in which event the non-defaulting party shall be reimbursed (within thirty (30) days of request therefor) any and all costs actually incurred in taking such actions plus twelve percent (12%) annual interest on any amounts expended accruing from the date such amounts are expended until the date paid.

9. No Consequential Damages; No Joint Venture. In no event shall either Assignor or Assignee be liable to the other party hereto, or to any other party claiming by, through or under either Assignor or Assignee for punitive, consequential or any other "special" damages arising under or related to this Assignment. Despite the agreements set forth above regarding cooperation, nothing set forth in this Assignment shall be construed to constitute Assignor and Assignee as joint venturers or co-partners or to make either party hereto the agent of the other or to make either party hereto liable for the debts of the other.

10. Global Assignment Controls. Nothing in this Assignment shall be deemed to expand or diminish the scope of the rights of any party as set forth in the Global Assignment. If there is conflict or an apparent conflict between the provisions of the Global Assignment and the provisions of this Assignment, the provisions of the Global Assignment shall control.

11. Counterparts; Recitals; Exhibits. This Assignment may be executed in counterparts, each of which shall be deemed to be an original, but which together shall constitute one and the same instrument. The recitals set forth above, including all exhibits referenced herein, are a part of this Assignment and are attached hereto and incorporated herein for all purposes.

12. Successors and Assigns; Runs with the Land. This Assignment shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

VL: 710 PG: 318
INST: 00000129

13. Further Assurances. Assignor and Assignee agree that, from time to time, each of them will execute and deliver such further instruments of conveyance and transfer and take such other actions as may be reasonably necessary to carry out the purposes and intents of this Assignment and the transactions contemplated hereby.

[Signature pages follow]

[Signature page to Assignment and Assumption of Easements and Leases]

IN WITNESS WHEREOF, the parties hereto have executed and delivered this Assignment to be effective as of the date first above written.

Assignor:

CELL TOWER LEASE ACQUISITION LLC,
a Delaware limited liability company



By: _____
Name: Shawn Ruben
Title: Secretary

Signed sealed and delivered in the presence of:

Witness: Milagros D. Shearer
Printed name: Milagros D. Shearer

Witness: NATHAN PALACEO
Printed name: NATHAN PALACEO

STATE OF FLORIDA

COUNTY OF PALM BEACH

I, Renee Ann Winslow, a Notary Public of Palm Beach County and State of Florida, do hereby certify that Shawn Ruben, as Secretary of CELL TOWER LEASE ACQUISITION LLC, a Delaware limited liability company, personally came before me and acknowledged that he serves in such capacity and in such capacity has been authorized to execute the foregoing Assignment and Assumption of Easement and Lease on behalf of said entity.

Witness my hand and official stamp or seal this 27th day of February, 2012.

Renee Ann Winslow
Notary Public
Print Name: Renee Ann Winslow
My Commission Expires: 8/23/12



Assignment and Assumption - New Haven County, Connecticut
Oaklane CC, Inc. Tower (SSUSA) - BU#: 876315

[Signature page to Assignment and Assumption of Easement and Lease]

Assignee:

GLOBAL SIGNAL ACQUISITIONS IV LLC,
a Delaware limited liability company

By: [Signature]
Name: Blake Hawk
Title: EVP
4 APRIL 2012

Signed sealed and delivered in the presence of:

Witness: [Signature]
Printed name: TARA GORDA

Witness: [Signature]
Printed name: Sarah E. Scapel

STATE OF Texas; COUNTY OF Harris

I, Sarah Scapel, a Notary Public of Harris County and State of Texas, do hereby certify that Blake Hawk as EVP of Global Signal Acquisitions IV LLC, a Delaware limited liability company, personally came before me and acknowledged that he serves in such capacity and in such capacity has been authorized to execute the foregoing Assignment and Assumption of Easement and Lease.

Witness my hand and official stamp or seal this 4 day of April, 2011.

[Signature]
Notary Public
Print Name: Sarah E. Scapel
My Commission Expires: 8-8-15

[NOTARY SEAL]



Exhibit A

The Easement Agreement recorded in the office of the Woodbridge, Connecticut Town Clerk as described below:

<u>Site Name and BU#</u>	<u>Tax ID Numbers</u>	<u>Date of Document</u>	<u>Date of Recording</u>	<u>Instrument No. or Book/Page (as applicable)</u>
Oaklane CC, Inc. Tower (SSUSA) BU#876315	102287; 108101	May 19, 2006	November 2, 2006	Volume 0560; Page 272

Assigned to Assignor by that assignment document recorded in the office of the Woodbridge, Connecticut Town Clerk as described below:

<u>Site Name and BU#</u>	<u>Date of Document</u>	<u>Date of Recording</u>	<u>Instrument No. or Book/Page (as applicable)</u>
Oaklane CC, Inc. Tower (SSUSA) BU#876315	May 19, 2006	November 2, 2006	Volume 0560; Page 308

Parent Parcel

SITUATE IN THE TOWN OF WOODBRIDGE, COUNTY OF NEW HAVEN, STATE OF CONNECTICUT:

TRACT ONE

CONTAINING 5 ACRES, MORE OR LESS AS SHOWN ON MAP OF LAND OR ARTHUR W. SORENSEN, WOODBRIDGE, CONNECTICUT, DATED MARCH 17, 1961, AND MADE BY GEORGE E. THOMPSON, CIVIL ENGINEER, DERBY, CONNECTICUT, ON FILE IN THE WOODBRIDGE TOWN CLERK'S OFFICE, IS BOUNDED: NORTHEAST BY JOHNSON ROAD BY A CURVED LINE, 119 FEET, MORE OR LESS; NORTHWEST BY LAND NOW OR FORMERLY OF HAROLD H. GIMBEL, 43.73 FEET, MORE OR LESS; NORTHEAST AGAIN BY LAND NOW OR FORMERLY OF HAROLD H. GIMBEL, IN PART ALONG A WIRE FENCE, 279 FEET, MORE OR LESS; NORTHWEST AGAIN ALONG A WIRE FENCE AND NOW OR FORMERLY OF HAROLD H. GIMBEL, 582 FEET, MORE OR LESS; SOUTH BY LAND NOW OR FORMERLY OF ARTHUR W. SORENSEN, 530 FEET, MORE OR LESS; SOUTHEAST BY LAND NOW OR FORMERLY OF ROBERT C. SORENSEN, 210 FEET, MORE OR LESS; NORTHEAST AGAIN BY LAND NOW OR FORMERLY OF ELMER SORENSEN, 120.55 FEET; EAST BY LAND NOW OR FORMERLY OF ELMER SORENSEN, 178.31 FEET, MORE OR LESS.

TRACT TWO

CONTAINING 79.5 ACRES, MORE OR LESS, AS SHOWN ON SAID MAP, DESCRIBED IN SAID SECOND PIECE, IS BOUNDED: NORTH IN PART BY LAND NOW OR FORMERLY OF ARTHUR W. SORENSEN, IN PART BY LAND NOW OR FORMERLY OF HAROLD H. GIMBEL, IN PART ALONG A STONE WALL, AND IN PART ALONG A WIRE FENCE, IN ALL, 1604 FEET, MORE OR LESS; EAST BY LAND NOW OR FORMERLY OF HAROLD H. GIMBEL, ALONG A WIRE FENCE, 58 FEET, MORE OR LESS; NORTH AGAIN BY LAND NOW OR FORMERLY OF HAROLD H. GIMBEL, ALONG A STONE WALL, 49 FEET, MORE OR LESS; WEST BY LAND NOW OR FORMERLY OF HAROLD H. GIMBEL, ALONG A WIRE FENCE, 50 FEET, MORE OR LESS; NORTH AGAIN BY LAND NOW OR FORMERLY OF HAROLD H. GIMBEL, ALONG A STONE WALL AND ALONG A WIRE FENCE COMBINATION, 297 FEET, MORE OR LESS; NORTHWEST BY LAND OF CLARENCE F. BALDWIN AND MARGARET W. BALDWIN, ALONG A WIRE FENCE, BEING AN IRREGULAR LINE, 531 FEET, MORE OR LESS, AND BEING A PORTION OF SAID SECOND PIECE; NORTH AGAIN BY LAND OF CLARENCE F. BALDWIN AND MARGARET W. BALDWIN IN PART, IN PART ALONG A STONE WALL, AND IN PART ALONG A WIRE FENCE, IN ALL, 1118 FEET, MORE OR LESS; WEST AGAIN IN PART BY LAND OF CLARENCE F. BALDWIN AND MARGARET W. BALDWIN, IN PART BY LAND NOW OR FORMERLY OF THEODORE R. CLARK AND EVELYN S. CLARK, IN PART ALONG A STONE WALL, AND IN PART ALONG A WIRE FENCE, IN ALL, 792 FEET, MORE OR LESS; SOUTH BY WILBUR CROSS PARKWAY, BY AN IRREGULAR LINE, 3062.06 FEET, MORE OR LESS; EAST AGAIN IN PART BY LAND NOW OR FORMERLY OF GEORGE L. MILLER AND ELIZABETH N. MILLER, IN PART BY LAND NOW OR FORMERLY OF DONALD J. MILLER AND HAZEL T. MILLER, IN PART BY LAND NOW OR FORMERLY OF ZYGMUNT SYMOLON AND ANN SYMOLON, IN PART BY LAND NOW OR FORMERLY OF ROBERT C. SORENSEN, IN PART ALONG A WIRE FENCE, AND IN PART ALONG A STONE WALL, BY AN IRREGULAR LINE, IN ALL, 1400 FEET, MORE OR LESS.

TAX ID NUMBER: 102287

TRACT THREE

VL: 710 PG: 323
INST: 00000129

BEING KNOWN AND DESIGNATED AS OTHER LAND NOW OR FORMERLY ASSOCIATED BUILDERS CORP. (NOT A BUILDING LOT)" AS DELINEATED ON THAT CERTAIN MAP ENTITLED "COUNTRY CLUB HILLS SECTION 2 OWNED & DEVELOPED BY ASSOCIATED BUILDERS CORP. WOODBRIDGE, CONN.", PREPARED BY CAHN ENGINEERS NEW HAVEN, CORM SCALE; 1".- 50', DATED MAY 1968, WHICH MAP IS ON FILE IN THE OFFICE OF THE WOODBRIDGE TOWN CLERK, MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

NORTHWESTERLY:BY LOT NO. 9, AS SHOWN ON SAID MAP, 172 FEET, MORE OR LESS;

EASTERLY:BY THE CENTER LINE OF A BROOK KNOWN AS RACE BROOK, AS SHOWN ON SAID MAP, 692 FEET, MORE OR LESS;

SOUTHERLY:BY LAND NOW OR FORMERLY OF FRANK BALDWIN, 40 FEET, MORE OR LESS;

SOUTHEASTERLY:BY LAND NOW OR FORMERLY OF FRANK BALDWIN, AS SHOWN ON SAID MAP, 42.81 FEET, MORE OR LESS;

SOUTHEASTERLY AGAIN:BY LAND NOW OR FORMERLY OF FRANK BALDWIN, 103.26 FEET, AS SHOWN ON SAID MAP;

WESTERLY:BY LAND NOW OR FORMERLY OF FRANK BALDWIN, AS SHOWN ON SAID MAP, 424.71 FEET, MORE OR LESS;

WESTERLY AGAIN:BY LOT NO.10, AS SHOWN ON SAID MAP, 90 FEET.

TAX ID NUMBER: 108101

Exhibit C

GSA Easement Area

Situate in the Town of Woodbridge, County of New Haven, State of Connecticut:

Beginning at the southwest corner of the herein described easement being North 26° 25' 45" West 52.54 feet from a 6" x 8' concrete bound found on the northerly line the Wilbur Cross Parkway, thence along the land of Oak Lane Country Club, Inc. North 22° 18' 59" East 100.00 feet, thence along the land of Oak Lane Country Club, Inc. South 67° 41' 01" East 100.00 feet, thence along the land of Oak Lane Country Club, Inc. South 22° 18' 59" West 100.00 feet, thence along the land of Oak Lane Country Club, Inc. North 67° 41' 01" West 100.00 feet to the point of beginning.

Containing 10,000 square feet or 0.230 acres.

OWNER #1: Oak Lane Country Club, Inc.

TAX ID #: 102287 & 108101

ADDRESS: 1116 Johnson Road, Woodbridge, CT 06525, New Haven County

GSA Access and Utility Easements

Situate in the Town of Woodbridge, County of New Haven, State of Connecticut:

Those Access and Utility Easements described in Exhibit B-2 to the Easement and as shown on Drawing B-1-B attached to the Easement, including the following:

Access Easement

All rights of ingress and egress across the Parent Parcel more fully described on Exhibit B hereto, to and from the GSA Easement Area described in Exhibit C hereto, providing access to a publicly dedicated roadway, including but not limited to Johnson Road, and all rights of ingress and egress across the property adjacent to the Parent Parcel, providing access to a publicly dedicated roadway, including, but not limited to, Racebrook Road as described in Exhibit B-2 of the Easement Agreement referenced in Exhibit A hereto and as shown on Exhibit E hereto (collectively, the "Access Easement"), together with the right to use said Access Easement for the development, repair, maintenance and removal of utilities providing service to the GSA Easement Area and the Facilities (as defined in the Easement), and any related activities and uses.

Utility Easement

All rights for the development, repair, maintenance and removal of utilities providing service to the GSA Easement Area and the Facilities (as defined in the Easement), and any related activities and uses in, along, under or over the Access Easement and the GSA Easement Area.

Prepared by:
Robert W. Mouton
Locke Liddell & Sapp LLP
601 Poydras Street, Suite 2880
New Orleans, LA 70130
File: #90924.00760

Record and Return to:
Kathy Markatinski
First American Title Insurance Company
National Commercial Services
7370 College Parkway, Suite 104
Fort Myers, FL 33907
Phone: 1.800.585.2906
Fax: 1.239.938.9988
FATICO: #NCS-191765-FTM
Unison Site: #285611

ASSIGNMENT OF EASEMENT

KNOW ALL MEN BY THESE PRESENTS,

THIS ASSIGNMENT OF EASEMENT (this "Assignment") is made and entered into to be effective as of the 19th day of May, 2006, by UNISON SITE MANAGEMENT, L.L.C., a Delaware limited liability company, whose address is 92 Thomas Johnson Drive, Suite #130, Frederick, Maryland 21702 (the "Assignor"), to CELL TOWER LEASE ACQUISITION LLC a Delaware limited liability company, whose address is 92 Thomas Johnson Drive, Suite #130, Frederick, Maryland 21702 (the "Assignee").

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor, being the current owner and holder of all of the grantee's interest under the Easement (as hereinafter defined) with full power and authority to execute and deliver this Assignment without joinder, further action or consent by any party, does by these presents hereby grant, bargain, convey, sell, assign, transfer, set over and deliver unto the said Assignee, its successors, transferees, and assigns forever, and Assignee does, by its acceptance hereof, assume and accept, with respect to all periods of time after the date hereof, all of the rights, title and interest of said Assignor under, in and to the separate easement agreements described on Exhibit A attached hereto and made a part hereof, together with any and all ingress/egress, utilities or other rights related thereto (collectively, the "Easement"), said Easement pertaining to the respective parcels of land described on said Exhibit A, but reserving in Assignor any and all obligations, duties and liabilities of Assignor under paragraphs 9 and 10 of the Easement.

Assignor hereby indemnifies and agrees to hold harmless Assignee from and against any and all liabilities, claims, demands, obligations, assessments, losses, costs, damages and expenses of any nature whatsoever (including, without limiting the generality of the foregoing, reasonable attorneys' fees and court costs) which Assignee may incur, sustain, suffer or which may be asserted or assessed against Assignee on or after the date hereof, arising out of, pertaining to or in any way

connected with the obligations, duties or liabilities under the Easement, which arose on or before the date hereof and with respect to the obligations, duties or liabilities under paragraphs 9 and 10 of the Easement, which arose on or before the date hereof or at any time after the date hereof.

Assignee hereby indemnifies and agrees to hold harmless Assignor from and against any and all liabilities, claims, demands, obligations, assessments, losses, costs, damages and expenses of any nature whatsoever (including, without limiting the generality of the foregoing, reasonable attorneys' fees and court costs) which Assignor may incur, sustain, suffer or which may be asserted or assessed against Assignor on or after the date hereof, arising out of, pertaining to or in any way connected with the obligations, duties or liabilities under the Easement (other than those set forth in paragraphs 9 and 10 of the Easement), arising from and after the date hereof.

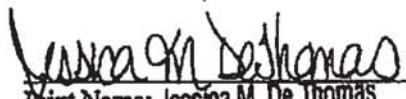
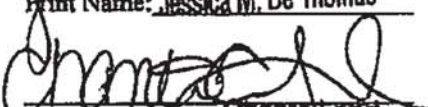
The burden of the indemnities set forth above shall not be assigned. Except as aforesaid, this Assignment shall bind and inure to the benefit of the parties hereto and their respective successors, legal representatives and assigns.

Any provision of this Assignment which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

[INTENTIONALLY LEFT BLANK]


IN WITNESS WHEREOF, Assignor has executed this Assignment to be effective as of the date first set forth above

WITNESSES:


Print Name: Jessica M. De Thomas

Print Name: Chante Land

ASSIGNOR:

UNISON SITE MANAGEMENT, L.L.C.,
a Delaware limited liability company

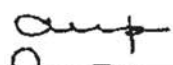
By: 
Name: James R. Holmes
Title: Vice President/Secretary

Address: 92 Thomas Johnson Drive, Suite #130
City: Frederick
State: Maryland
Zip: 21702
Tel: (646) 452-5455
Fax: (301) 360-0635

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On the 19th day of May in the year of 2006, before me, the undersigned, a Notary Public in and for said state, personally appeared James R. Holmes, Vice President/Secretary of Unison Site Management, L.L.C., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the individual or the entity upon behalf of which the individual acted, executed the instrument.

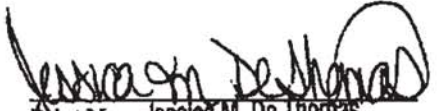
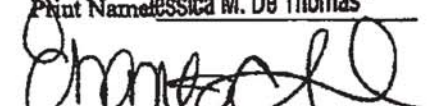
WITNESS my hand and official seal.

Signature: 
My Commission Expires: _____
Commission Number: _____

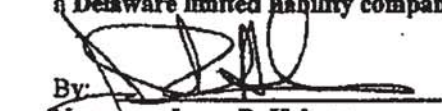
ALEXS IHNATOLYA
Notary Public, State of New York
No. 0114824185
Qualified in Kings County
Commission Expires May 8, 2010

IN WITNESS WHEREOF, Assignee has executed this Assignment to be effective as of the date first set forth above.

WITNESSES:


Print Name: Jessica M. De Thomas

Print Name: Chante Land

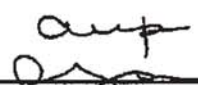
ASSIGNEE:
CELL TOWER LEASE ACQUISITION LLC,
a Delaware limited liability company


By: _____
Name: James R. Holmes
Title: Vice President/Secretary
Address: 92 Thomas Johnson Drive, Suite #130
City: Fredrick
State: Maryland
Zip: 21702
Tel: (646) 452-5455
Fax: (301) 360-0635

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On the 19th day of May in the year of 2006, before me, the undersigned, a Notary Public in and for said state, personally appeared James R. Holmes, Vice President/Secretary of Cell Tower Lease Acquisition LLC, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the individual or the entity upon behalf of which the individual acted, executed the instrument.

WITNESS my hand and official seal.

Signature: 
My Commission Expires: _____
Commission Number: _____

ALEXS HNATOLYA
Notary Public, State of New York
No. 01H4824185
Qualified in Kings County
Commission Expires May 8, 2010

EXHIBIT A
Description of Easement
(Location, Town of Woodbridge, Connecticut)

That certain Easement Agreement dated as of May 19, 2006, by and Oak Lane Country Club, Incorporated a/k/a Oak Lane Country Club, Inc., as site owner, and Unison Site Management, L.L.C., as Grantee, recorded at _____ at the records of Town of Woodbridge, State of Connecticut, encumbering all or part of the following described real property:

Those certain pieces or parcels of land situated in the Town of Woodbridge, County of New Haven and State of Connecticut, bounded and described as follows:

THE FIRST PIECE, being known and designated as "OTHER LAND NOW OR FORMERLY ASSOCIATED BUILDERS CORP. (NOT A BUILDING LOT)" as delineated on that certain map entitled "COUNTRY CLUB HILLS SECTION 2 OWNED & DEVELOPED BY ASSOCIATED BUILDERS CORP. WOODBRIDGE, CONN.", prepared by Cahn Engineers New Haven, Conn. Scale: 1"=50', dated May 1968, which map is on file in the office of the Woodbridge Town Clerk, more particularly bounded and described as follows:

NORTHWESTERLY: by Lot No. 9, as shown on said map, 172 feet, more or less;

EASTERLY: by the center line of a brook known as Race Brook, as shown on said map, 692 feet, more or less;

SOUTHERLY: by land now or formerly of Frank Baldwin, 40 feet, more or less;

WESTERLY AND NORTHWESTERLY AGAIN: by land now or formerly of Frank Baldwin, as shown on said map, 42.81 feet, more or less;

SOUTHWESTERLY: by land now or formerly of Frank Baldwin, 103.26 feet, as shown on said map;

WESTERLY AGAIN: by land now or formerly of Frank Baldwin, as shown on said map, 424.71 feet, more or less; and

WESTERLY AGAIN: by Lot No. 10, as shown on said map, 90 feet.

EXHIBIT A

Description of Easement

THE SECOND PIECE, containing 5 acres, more or less as shown on Map of Land of Arthur W. Sorensen, Woodbridge, Connecticut, dated March 17, 1941, and made by George E. Thompson, Civil Engineer, Barty, Connecticut, on file in the Woodbridge Town Clerk's office, is bounded: Northeast by Johnson Road by a curved line, 117 feet, more or less; Northwest by land now or formerly of Harold H. Gimbel, 41.73 feet, more or less; Northeast again by land now or formerly of Harold H. Gimbel, in part along a wire fence, 179 feet, more or less; Northwest again along a wire fence and now or formerly of Harold H. Gimbel, 163 feet, more or less; South by land now or formerly of Arthur W. Sorensen, 430 feet, more or less; Southeast by land now or formerly of Robert C. Sorensen, 216 feet, more or less; Northeast again by land now or formerly of Elmer Sorensen, 120.33 feet; East by land now or formerly of Elmer Sorensen, 178.41 feet, more or less.

THE THIRD PIECE, containing 79.5 acres, more or less, as shown on said map, described in said SECOND piece, is bounded: North in part by land now or formerly of Arthur W. Sorensen, in part by land now or formerly of Harold H. Gimbel, in part along a stone wall, and in part along a wire fence, in all, 1824 feet, more or less; East by land now or formerly of Harold H. Gimbel, along a wire fence, 88 feet, more or less; North again by land now or formerly of Harold H. Gimbel, along a stone wall, 49 feet, more or less; West by land now or formerly of Harold H. Gimbel, along a wire fence, 50 feet, more or less; North again by land now or formerly of Harold H. Gimbel, along a stone wall and along a wire fence combination, 297 feet, more or less; Northwest by land of Clarence F. Baldwin and Margaret W. Baldwin, along a wire fence, being an irregular line, 331 feet, more or less, and being a portion of said SECOND piece; North again by land of Clarence F. Baldwin and Margaret W. Baldwin in part, in part along a stone wall, and in part along a wire fence, in all, 1113 feet, more or less; West again in part by land of Clarence F. Baldwin and Margaret W. Baldwin, in part by land now or formerly of Theodore A. Clark and Evelyn G. Clark, in part along a stone wall, and in part along a wire fence, in all, 723 feet, more or less; South by Wilbur Cross Parkway, by an irregular line, 301.07 feet, more or less; East again in part by land now or formerly of George E. Miller and Elizabeth W. Miller, in part by land now or formerly of Donald J. Miller and Hazel T. Miller, in part by land now or formerly of Symeon and Ann Symeon, in part by land now or formerly of Robert C. Sorensen, in part along a wire fence, and in part along a stone wall, by an irregular line, in all, 1400 feet, more or less.

Prepared by:
Robert W. Mouton
Locke Liddell & Sapp LLP
801 Poydras Street, Suite 2880
New Orleans, LA 70130
File: #80924.00760

Record and Return to:
Kathy Markalnsid
First American Title Insurance Company
National Commercial Services
7370 College Parkway, Suite 104
Fort Myers, FL 33907
Phone: 1.800.685.2906
Fax: 1.239.938.8885
FATICO: #NCS-191765-FTM
Unison Site: #285611

EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT ("Agreement") is made as of the 19 day of May, 2006 ("Effective Date"), by and between Oak Lane Country Club, Incorporated a/k/a Oak Lane Country Club, Inc., whose address is 1027 Racebrook Road, Woodbridge, Connecticut 06525 ("Site Owner") and Unison Site Management, L.L.C., a Delaware limited liability company, 92 Thomas Johnson Drive, Suite 130, Frederick, Maryland 21702 ("Unison"). All references hereafter to "Unison" and "Site Owner" shall include their respective heirs, successors, personal representatives, lessees, licensees and assigns (Unison and Site Owner, collectively, "Parties").

RECITALS

WHEREAS, Site Owner is the owner of that certain property ("Property") located in the Town of Woodbridge, County of New Haven, State of Connecticut, having a street address of 1116 Johnson Road and 1027 Racebrook Road, Woodbridge, Connecticut 06525 and which Property is more particularly described on Exhibit A attached hereto.

NOW, THEREFORE, for and in consideration of the sum of _____ and other good and valuable consideration, the receipt and sufficiency of which Site Owner does hereby acknowledge and grant Unison full discharge and acquittance therefor, Site Owner agrees to the following:

1. Grant of Easement.

(a) Site Owner grants, bargains, sells, transfers and conveys to Unison:

- (1) an exclusive easement in, to, under and over the portion of the Property substantially as shown and described on Exhibit B-1 ("Communication Easement") for the transmission and reception of any and all wireless communication signals and the construction, maintenance, repair, replacement, improvement, operation and removal of towers, antennas, buildings, fences, gates and related facilities (collectively, "Facilities") and any related activities and uses including those necessary for Unison to comply with its obligations under the agreements listed on Exhibit C ("Existing Agreements") together with the right to enter the Property and reasonably access the easements described below at any time, day or night, consistent with the Existing Agreements, as may be required in connection with the foregoing activities and uses, and
- (2) a non-exclusive easement in, to, under and over portions of the Property substantially as shown and described on Exhibit B-2 ("Access and Utility Easements;" Communication Easement and Access and Utility Easements, collectively "Easements") for ingress and egress to and from the Communication Easement and a publicly dedicated roadway, the installation, repair, replacement, improvement, maintenance and removal of

utilities providing service to the Communication Easement and the Facilities, and any related activities and uses.

- (b) The Parties agree that the Communication Easement includes, without limitation, (i) the portion of the Property leased by Site Owner under the Existing Agreements, and (ii) the portion of the Property upon which any Facilities are located on the Effective Date.

2. Assignment of Existing Agreements. Site Owner transfers and assigns to Unison, as of the Effective Date, all of its right, title and interest in, to and under the Existing Agreements, including without limitation, all rents and other monies due the Site Owner specified therein. The Parties intend that this Agreement serve as an absolute assignment and transfer to Unison of all rents and other monies due the Site Owner pursuant to the Existing Agreements. Unison assumes only the obligations and liabilities of Site Owner under the Existing Agreements accruing on or after the Effective Date. Notwithstanding the foregoing assumption by Unison, Site Owner covenants and agrees that Site Owner shall continue to comply with all obligations of the lessor under the Existing Leases which relate to the ownership, operation and use of the Property.

3. Use of Easements. Unison shall have the unrestricted right to lease, license, transfer or assign, in whole or in part, or permit the use of the Easements and/or its rights under this Agreement, to any third parties including any communication service provider or tower owner or operator, and any lessee or licensee under the Existing Agreements and the affiliates, agents, contractors, invitees and employees of Unison and/or Unison's present or future lessees or licensees (collectively, "Customers").

4. Term. This Agreement and the Easements shall be for a thirty (30) year term commencing on the Effective Date.

5. Termination. In the event Unison and Customers voluntarily cease to use the Easements (as defined in Section 1) for a period of more than three years (for reasons other than casualty, condemnation or Act of God), the Easements shall be deemed abandoned. Unison may abandon the Easements for any reason or at any time by giving thirty (30) days notice to Site Owner. Unless otherwise provided in this paragraph, other limited use of the Easements by Unison or Customers shall not be deemed a surrender or abandonment of the Easements nor prevent Unison from benefiting from the full use and enjoyment of the Easements. This Agreement may not be terminated by Site Owner. Upon abandonment, this Agreement shall be terminated, and Unison and Site Owner shall execute and record such documents reasonably required to terminate the Easements.

6. Improvements; Utilities. Unison and its Customers, may, at their discretion and expense, construct such improvements in, to, under and over the Easements, consistent with the uses specified in Section 1 and consistent with the Existing Agreements, all of which shall be deemed part of the Facilities. The Facilities shall remain the Property of Unison and its Customers, as applicable, and Site Owner shall possess no right, title or interest therein. In the event that utilities necessary to serve the Facilities cannot be installed within the Easements, Site Owner agrees to cooperate with Unison and to act reasonably and in good faith in granting Unison the right to locate such utilities on the Property without requiring the payment of additional fees. If necessary, Site Owner shall, upon Unison's request, execute and record a separate written easement with Unison or with the utility company providing the utility service to reflect such right. Site Owner agrees to cooperate with Unison in obtaining, at Unison's expense, all licenses and permits required for Unison's use of the Easements. Site Owner hereby irrevocably constitutes and appoints Unison as its true and lawful attorney-in-fact, with full power of substitution and resubstitution, to apply for and obtain any and all licenses, permits, consents or approvals which may be required in connection with the use of the Easements by Unison, in the name of Site Owner or Unison, as necessary to comply with applicable laws, statutes or regulations.

7. Taxes. Site Owner acknowledges that a portion of the purchase price delivered by Unison to Site Owner is for and in consideration of the continuing obligation of Site Owner to pay, on or before the due date, all present and future real property taxes, transfer taxes, penalties, interest, roll-back or additional taxes, sales and use taxes and all other fees and assessments (the "Taxes") attributable to the Property, this Agreement, and the Easements regardless of the party to whom such Taxes are billed. Within ten (10) days of receiving a request from Unison, Site Owner shall furnish to Unison a copy of each bill for any such Taxes and evidence of Site Owner's payment of such bill. In the event that Site Owner fails to pay any Taxes when due, Unison shall have the right, but not the obligation, to pay such Taxes on behalf of Site Owner. Site Owner shall reimburse Unison for the full amount of such Taxes paid by Unison on Site Owner's behalf within five (5) business days of Site Owner's receipt of an invoice from Unison.

8. Representations of Site Owner. Site Owner represents, warrants and agrees that: (i) it is the legal owner of indefeasible and marketable title to the Property with the right, power and authority to enter into this Agreement and to grant the Easements to Unison, and any consents and authorizations required by lender(s) and Site Owner in connection with the execution and delivery of this Agreement have been obtained; (ii) except for the Existing Agreements and as disclosed on Exhibit D, no leases, mortgages, deeds of trust or other encumbrances affect the Property as of the Effective Date, (iii) Site Owner will comply with all governmental laws, rules and regulations applicable to the Property; (iv) Site Owner has delivered to Unison true, correct and complete copies of the Existing Agreements, and, to Site Owner's best knowledge, no party is in default of any of their respective obligations under the Existing Agreements; and (v) Site Owner shall comply with all obligations of the lessor under the Existing Leases which relate to the use, ownership and operation of the Property, and Site Owner shall not use nor permit its affiliates, licensees, invitees or agents to use any portion of the Property or any other property owned or controlled by Site Owner, either directly, indirectly or by action or inaction, in a manner which in any way could result in default of the Existing Agreements or otherwise interfere with the operations of Unison and/or any Customers.

9. Environmental Covenants and Indemnity. Site Owner represents that it has not permitted or engaged in the use of, and has no knowledge of, any substance, chemical or waste (collectively "Substance") located on, under or about the Property that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. Neither Site Owner nor Unison will introduce or use any such Substance on, under or about the Property in violation of any applicable law or regulation. No underground storage tanks for petroleum or any other Substance, or underground piping or conduits, are or have previously been located on the Property, and no asbestos-containing insulation or products containing PCB or other Substances have been placed anywhere on the Property by Site Owner or, to Site Owner's knowledge, by any prior owner or user of the Property. Site Owner and Unison shall each defend, indemnify, protect and hold the other party harmless from and against all claims, costs, fines, judgments and liabilities, including attorney's fees and costs, arising out of or in connection with the presence, storage, use or disposal of any Substance on, under or about the Property caused by the acts, omissions or negligence of the indemnifying party and their respective agents, contractors and employees. The foregoing indemnity shall survive any termination of this Agreement.

10. General Indemnity In addition to the Environmental Indemnity set forth above, Site Owner and Unison shall each indemnify, defend and hold the other harmless against any and all costs (including reasonable attorney's fees) and claims of liability or loss arising (i) due to the breach of any representation, warranty or covenant of such indemnifying party set forth herein; and (ii) out of the use and/or occupancy of the Property and Easements by the indemnifying party. This indemnity shall not apply to any claims to the extent arising from the gross negligence or intentional misconduct of the indemnified party. Notwithstanding the foregoing, or any provision to the contrary set forth herein, Unison shall have no liability or obligation whatsoever to maintain or repair the areas upon which the Communication Easement is located.

11. Assignment; Secured Parties. Unison has the unrestricted right to assign, mortgage or grant a security interest in all of Unison's interest in and to this Agreement and the Easements, and may assign this Agreement and the Easements to any such assignees, mortgagees or holders of security interests, including their successors and assigns ("Secured Party" or, collectively, "Secured Parties"). Site Owner agrees to notify Unison and Secured Parties simultaneously of any default by Unison and give Secured Parties the same right to cure any default. If a termination, disaffirmation or rejection of this Agreement by Unison shall occur, pursuant to any laws (including any bankruptcy or insolvency laws), or if Site Owner shall terminate this Agreement for any reason, Site Owner will notify Secured Parties promptly and Site Owner shall enter into a new easement agreement with any such Secured Party upon the same terms of this Agreement, without requiring the payment of any additional fees. If any Secured Party shall succeed to Unison's interest under this Agreement, such Secured Party shall have no liability for any defaults of Unison accruing prior to the date that such Secured Party succeeds to such interest. Site Owner will enter into modifications of this Agreement reasonably requested by any Secured Party. Site Owner hereby waives any and all lien rights it may have, statutory or otherwise, in and to the Easements and/or the Facilities or any portion thereof.

12. Estoppel Certificate. Each party shall, within ten (10) days after request by the other party, execute and deliver to the requesting party, or the party designated by requesting party, a statement certifying (i) that this Agreement is unmodified and in full force and effect (or, if there have been modifications, stating the modifications and that the modified Agreement is in full force and effect); (ii) whether or not, to the best knowledge of the responding party, the

requesting party is in default in performance of any of its obligations under this Agreement, and, if so, specifying each such default; (iii) that there are no amounts due to Site Owner by Unison, and (iv) any other information reasonably requested concerning this Agreement.

14. Condemnation. In the event of any condemnation of the Easements in whole or in part, Unison shall be entitled to file claims against the condemning authority for, and to receive, the value of the portion of the Property so taken on which the Easements are located, business dislocation expenses and any other award or compensation to which Unison may be legally entitled. Site Owner hereby assigns to Unison any such claims and agrees that any claims made by Site Owner will not reduce the claims made by Unison.

15. Covenant Running with the Land. The provisions of and covenants contained in this Agreement shall run with the land and shall bind and inure to the benefit of the Parties, their respective successors, heirs and/or assigns as their interests may appear.

16. Dispute Resolution.

(a) If Unison fails to perform any of its obligations under this Agreement, Site Owner agrees to notify Unison and any Secured Parties in writing of any default by Unison, and to give Unison and/or any Secured Parties the right to cure any default within a period of not less than sixty (60) days from Unison's receipt of the written default notice. If Unison or any Secured Parties shall fail to cure any default in accordance with this Section, Site Owner agrees that its sole remedy for such default shall be to utilize the process set forth herein, and that any and all damages for which Site Owner may be compensated is limited to the actual damages of Site Owner, and shall in no event exceed the amount of consideration paid by Unison for this Agreement. In the event that any dispute or claim arises that could impair the use or possession of the Facilities by Unison or its Customers, Unison shall have the right to seek injunctive relief, without the necessity of posting a bond. In no event will a Secured Party have any obligation to cure a default by Unison.

(b) Except as set forth in Section 16(a), in the event of any dispute arising out of this Agreement, the following dispute resolution process shall be followed: (1) upon a party's written notice of dispute to the other party, an authorized representative of the Site Owner and Unison shall, through a good faith negotiation, attempt to settle a written resolution within thirty (30) days and (2) if such negotiation attempts fail, the dispute shall be submitted by the parties to a mutually agreed upon arbitrator for a binding and final arbitration decision in accordance with the rules of the American Arbitration Association ("AAA") and using the Federal Rules of Evidence and Civil Procedure. In the event the parties are unable to mutually agree to an arbitrator, each party shall select their own arbitrator, and each such arbitrator shall thereafter mutually agree on a third arbitrator, and the majority decision by all such arbitrators shall be final and binding on the parties. The prevailing party shall be entitled to recover all

costs incurred in connection with the arbitration, including legal fees, and each party shall pay one-half of all arbitrator professional fees.

17. Notices. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed given one (1) day after posting with a nationally recognized overnight courier service, or the earlier of receipt or ten (10) days after posting by registered or certified mail, return receipt requested, to the addresses of Site Owner and Unison set forth on the signature page. Either party may change its notice address by providing a new recipient name and address by notice as set forth in this paragraph.

18. Miscellaneous. (a) This Agreement and all Exhibits attached hereto constitute the entire agreement and understanding of Site Owner and Unison with respect to the subject matter of this Agreement, and supersedes all offers, negotiations and any other written or verbal agreements; (b) any amendments to this Agreement must be in writing and executed by both parties; (c) this Agreement is governed by the laws of the State in which the Property is located; (d) if any term of this Agreement is found to be void or invalid, such provision shall be fully severable herefrom and such invalidity shall not affect the remaining terms of this Agreement, which shall continue in full force and effect, and this Agreement shall be reformed and construed as if such invalid provision had never been contained herein, provided that if possible, such provisions shall be reformed to the maximum extent permitted under applicable law to render same valid, operative and enforceable to reflect the intent of the Parties as expressed herein; (e) upon the request of Unison, Site Owner shall execute a Memorandum of this Agreement and such plats or surveys as deemed reasonably necessary by Unison for recordation in the public records of the County in which the Property is located; (f) the paragraph headings of this Agreement have been inserted for convenience of reference only, and shall in no way modify or restrict the terms of this Agreement; (g) Site Owner acknowledges that Unison has not provided any legal or tax advice to Site Owner in connection with the execution of this instrument; (h) this Agreement may be executed in any number of counterparts, each of which shall, when executed, be deemed to be an original and all of which shall be deemed to be one and the same instrument.

19. Maintenance and Access. Site Owner agrees to be solely responsible for maintenance of the Property, including, without limitation, its roof or any other portion of the Property. Site Owner agrees to provide Unison and its Customers access to and from the Communication Easement and all other space in the building consistent with the grant of the Easements set forth in Section I above, twenty-four (24) hours a day seven (7) days a week.

[SIGNATURE PAGES TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

WITNESSES:

"SITE OWNER":

OAK LANE COUNTRY CLUB INCORPORATED

James A Lyons
Print Name: Daniel A. Lyons

By: [Signature]
Name: Alan J. Lyons
Title: President

[Signature]
Print Name: Lawrence J. Greenberg

Address: 1027 Racebrook Road
City: Woodbridge
State: Connecticut
Zip: 06525
Tel: (203) 389-2135
Fax: (263) 389-2470

STATE OF CONNECTICUT

COUNTY OF New Haven

) ss: Woodbridge, May 10, 2006

On this 10th day of May, 2006, before me, the undersigned, a Notary Public in and for said State, personally appeared Alan J. Lyons, to me personally known, who, being by me duly sworn, did say that he/she is the President of said corporation; that no seal has been procured by the said corporation; that said instrument was signed and sealed on behalf of said corporation by authority of its Board of Directors; and that the said Alan J. Lyons, as such officer, acknowledged the execution of said instrument to be the free act and deed of said corporation, by it and by him/her voluntarily executed.

[Signature]
Notary Public in and for the State of Connecticut
Lawrence J. Greenberg
Commissioner of the Superior Court

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

Legal Description of Parent Tract

Those certain pieces or parcels of land situated in the Town of Woodbridge, County of New Haven and State of Connecticut, bounded and described as follows:

THE FIRST PIECE, being known and designated as "OTHER LAND NOW OR FORMERLY ASSOCIATED BUILDERS CORP. (NOT A BUILDING LOT)" as delineated on that certain map entitled "COUNTRY CLUB HILLS SECTION 2 OWNED & DEVELOPED BY ASSOCIATED BUILDERS CORP. WOODBRIDGE, CONN.", prepared by Cahn Engineers New Haven, Conn. Scale: 1"=50', dated May 1968, which map is on file in the office of the Woodbridge Town Clerk, more particularly bounded and described as follows:

NORTHWESTERLY: by Lot No. 9, as shown on said map, 172 feet, more or less;

EASTERLY: by the center line of a brook known as Race Brook, as shown on said map, 692 feet, more or less;

SOUTHERLY: by land now or formerly of Frank Baldwin, 40 feet, more or less;

**WESTERLY AND
NORTHWESTERLY
AGAIN:** by land now or formerly of Frank Baldwin, as shown on said map, 42.81 feet, more or less;

SOUTHWESTERLY: by land now or formerly of Frank Baldwin, 103.26 feet, as shown on said map;

WESTERLY AGAIN: by land now or formerly of Frank Baldwin, as shown on said map, 424.71 feet, more or less; and

WESTERLY AGAIN: by Lot No. 10, as shown on said map, 90 feet.

THE SECOND PIECE, containing 3 acres, more or less as shown on map of Land of Arthur W. Sorenson, Woodbridge, Connecticut, dated March 17, 1961, and made by George E. Thompson, Civil Engineer, Derby, Connecticut, on file in the Woodbridge Town Clerk's office, is bounded: Northeast by Johnson Road by a curved line, 119 feet, more or less; Northwest by land now or formerly of Harold M. Gimbel, 43.73 feet, more or less; Northeast again by land now or formerly of Harold M. Gimbel, in part along a wire fence, 271 feet, more or less; Northwest again along a wire fence and now or formerly of Harold M. Gimbel, 52 feet, more or less; South by land now or formerly of Arthur W. Sorenson, 210 feet, more or less; Southeast by land now or formerly of Robert C. Sorenson, 110 feet, more or less; Northeast again by land now or formerly of Elmer Sorenson, 120.85 feet; East by land now or formerly of Elmer Sorenson, 178.31 feet, more or less.

THE THIRD PIECE, containing 79.8 acres, more or less, as shown on said map, described in said SECOND piece, is bounded: North in part by land now or formerly of Arthur W. Sorenson, in part by land now or formerly of Harold M. Gimbel, in part along a stone wall, and in part along a wire fence, in all, 1524 feet, more or less; East by land now or formerly of Harold M. Gimbel, along a wire fence, 38 feet, more or less; North again by land now or formerly of Harold M. Gimbel, along a stone wall, 45 feet, more or less; West by land now or formerly of Harold M. Gimbel, along a wire fence, 50 feet, more or less; North again by land now or formerly of Harold M. Gimbel, along a stone wall and along a wire fence combination, 297 feet, more or less; Northwest by land of Clarence F. Baldwin and Margaret W. Baldwin, along a wire fence, being an irregular line, 511 feet, more or less, and being a portion of said SECOND piece; North again by land of Clarence F. Baldwin and Margaret W. Baldwin in part, in part along a stone wall, and in part along a wire fence, in all, 1116 feet, more or less; West again in part by land of Clarence F. Baldwin and Margaret W. Baldwin, in part by land now or formerly of Theodore M. Clark and Evelyn S. Clark, in part along a stone wall, and in part along a wire fence, in all, 792 feet, more or less; South by Milbur Cross Parkway, by an irregular line, 3022.04 feet, more or less; East again in part by land now or formerly of George L. Miller and Elizabeth W. Miller, in part by land now or formerly of Donald J. Miles and Hazel T. Miller, in part by land now or formerly of Sigmund Synanon and Ann Synanon, in part by land now or formerly of Robert C. Sorenson, in part along a wire fence, and in part along a stone wall, by an irregular line, in all, 1400 feet, more or less.

EXHIBIT B-1

COMMUNICATION EASEMENT

That portion of the Property on which any Facilities exist on the date of this Agreement together with the portion of the Property leased by Site Owner under the Existing Agreements, and the portions of the Property substantially as shown on the attached drawing labeled Drawing B-1-A, including the following:

All that certain parcel of land situated easterly of Racebrook Road, southerly of Johnson Road and Northerly of the Wilbur Cross Highway being shown as the Permanent Easement Area" on a map entitled "Plan of Easement prepared for Unison Site Management at Oak Lane Country Club, Racebrook Road and Johnson Road, Woodbridge, Conn. Scale 1"-100' Date: April 26, 2006, Project No. 06-075" by Meehan & Goodin, Engineers - Surveyors, P.C. reference to which map is hereby made.

Said Easement Area is more particularly bounded and described as follows:

Beginning at a point which point is located N-53°-06'-38"-W and 50.90 feet from a Connecticut Highway Department monument set in the northerly line of the Wilbur Cross Highway and which point marks the southwesterly corner of the herein described Parcel, the line runs;


Thence N-06°-07'-38"-W a distance of 100.00 feet to a point;
Thence N-83°-52'-26"-E a distance of 67.27 feet to the point that marks the southerly end of the centerline of the herein described second strip;
Thence continuing N-83°-52'-26"-E a distance of 32.73 feet to a point;
Thence S-06°-07'-38"-E, a distance of 100.00 feet to a point;
Thence S-83°-52'-26"-W a distance of 100.00 feet to the point and place of beginning.

And space on the Property necessary to house an electric interface cabinet as described on Drawing B-1-A.

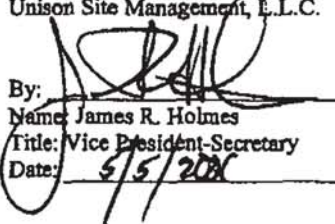
Site Owner herein agrees that this legal description may be substituted at a later date upon presentation of a survey of the property more clearly defining the location thereof.

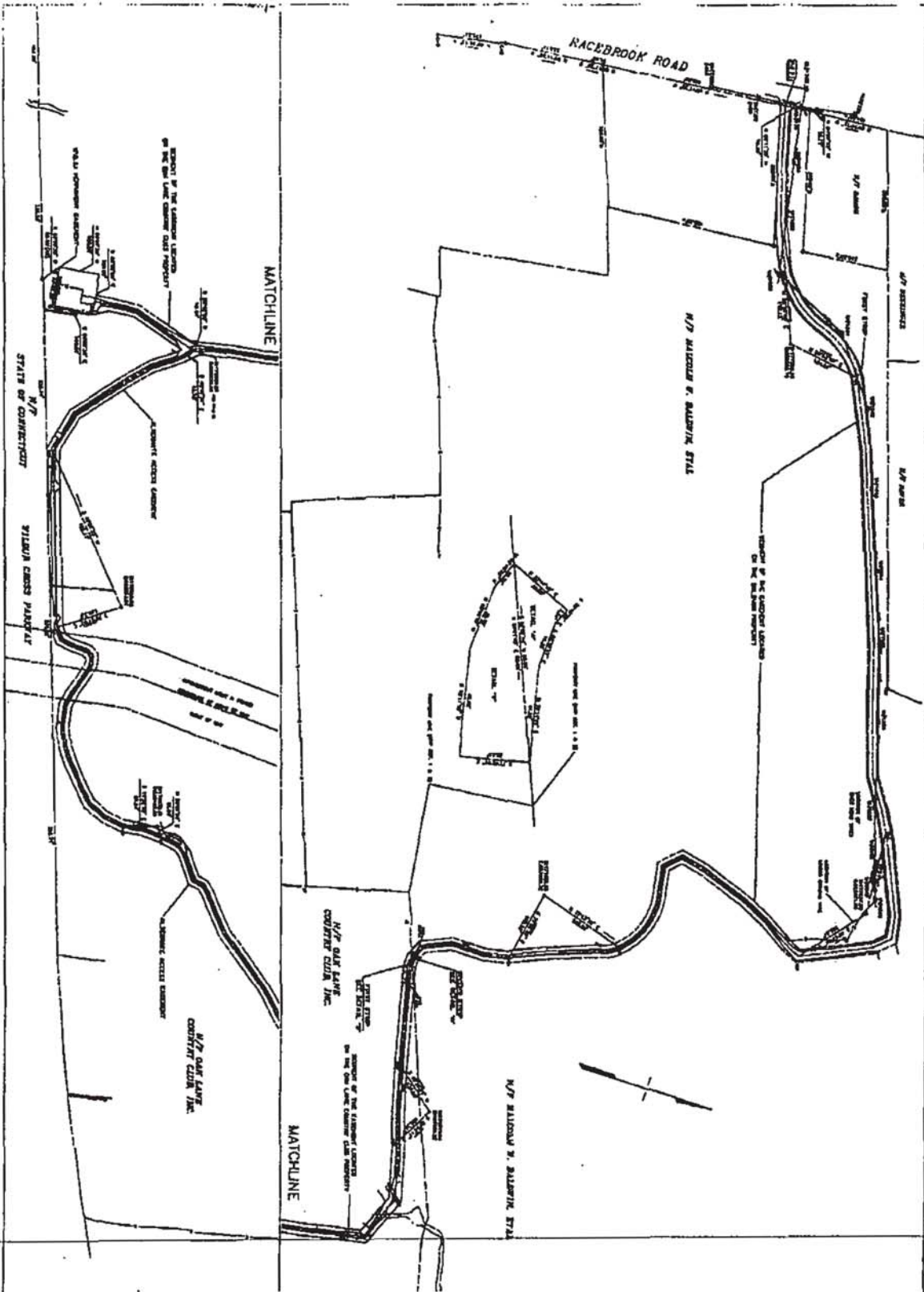
Agreed and Approved:

Oak Lane Country Club Incorporated

By: 
Name: Robert J. York
Title: President
Date: 5/10/06

Unison Site Management, L.L.C.

By: 
Name: James R. Holmes
Title: Vice President-Secretary
Date: 5/5/2006



<p>EASEMENT SURVEY</p>	<p>Map of parcel with reference to <u>Map of the Connecticut State</u> <u>Old Lane County Club, Racebrook Road,</u> <u>and Johnson Road, Woodfield, Conn.</u></p>	<table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>													<p>Meehan & Goodin Engineers - Surveyors, P.C. 207 North High Street, Middletown, CT 06457 (860) 442-1200 Fax (860) 442-1202</p>	<p>Scale: 1" = 100'</p> <p>North Arrow</p>

EXHIBIT B-2

ACCESS AND UTILITY EASEMENTS

That portion of the Property on which any Facilities exist on the date of this Agreement or provided by Site Owner under the Existing Agreements for access and utility providers, and the portion of the Property substantially as shown on the attached drawing labeled Drawing B-1-B, including the following:

Access Easement:

All rights of ingress and egress across the Property, more fully described on Exhibit "A" hereof, to and from the Communication Easement described in Exhibit B-1 hereof, providing access to a publicly dedicated roadway, including but not limited to Johnson Road and Racebrook Road (hereinafter the "Access Easement"), along with the right to use said Access Easement for the development, repair, maintenance and removal of utilities providing service to the Communication Easement and the Facilities, as defined herein, and any related activities and uses.


Utility Easement:

All rights for the development, repair, maintenance and removal of utilities providing service to the Communication Easement and the Facilities, as defined herein, and any related activities and uses in, along, under or over the Access Easement and the property substantially described in Exhibit B-1 ("Utility Easement").

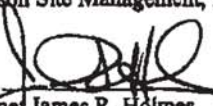
Site Owner and Unison herein agree that this legal description may be substituted at a later date upon presentation of a survey of the property more clearly defining the location thereof.

Agreed and Approved:

Oak Lane Country Club Incorporated

By: 
Name: Amy
Title: President
Date: 5/10/06

Unison Site Management, L.L.C.

By: 
Name: James R. Holmes
Title: Vice President-Secretary
Date: 5/5/2006

Portion of the access easement located on the Oak Lane Country Club property.

Schedule

An Permanent Easement Area and two strips of land 30 feet in width located on the easterly side of Racebrook Road in the Town of Woodbridge, County of New Haven and State of Connecticut being shown as the "segment of the easement located on the Oak Lane Country Club Property" on a map entitled "Plan of Easement prepared for Unison Site Management at Oak Lane Country Club, Racebrook Road and Johnson Road, Woodbridge, Conn. Scale 1"-100' Date: April 26, 2006, Project No. 06-075" by Meehan & Goodin, Engineers - Surveyors, P.C. reference to which map is hereby made. The centerline of said strips of land generally follow the center of cart paths as shown on said map and are more particularly described as follows:

First Strip: Beginning at point # 1136 as shown on said map, which point marks the centerline of the westerly end of the Second Strip hereinafter described, the line runs;

Thence S-11°-48'-41"-E a distance of 15.00 feet to a point;
 Thence S-78°-11'-19"-E a distance of 45.92 feet to a point;
 Thence S-86°-10'-47"-E a distance of 28.68 feet to a point;
 Thence N-66°-15'-20"-W a distance of 12.51 feet to a point located along the southerly line of land now or formerly of the Baldwins,
 Thence S-68°-01'-45"-W along land of said Baldwin, a distance of 85.05 feet to a point;
 Thence s-11°-48'-41"-E, a distance of 15.00 feet to the point and place of beginning.

Second Strip

Beginning at point # 1136, which point marks the centerline of the easterly end of the First Strip as shown on said map, the line runs;

Thence N-78°-11'-19"-E a distance of 70.15 feet to point #1038;
 Thence N-76°-19'-57"-E a distance of 136.04 feet to point #1039;
 Thence N-75°-24'-27"-E a distance of 105.34 feet to point #1040;
 Thence N-73°-12'-57"-E a distance of 85.53 feet to point #1041;
 Thence N-75°-07'-38"-E a distance of 148.03 feet to point #1042;
 Thence S-66°-34'-48"-E a distance of 118.62 feet to point #1043;
 Thence S-11°-07'-12"-E a distance of 56.96 feet to point #1044;
 Thence S-11°-01'-31"-E a distance of 57.93 feet to point #1045;
 Thence S-12°-00'-59"-E a distance of 42.27 feet to point #1046;
 Thence S-08°-03'-39"-E a distance of 114.46 feet to point #1047;
 Thence S-12°-12'-23"-E a distance of 50.88 feet to point #1048;
 Thence S-25°-42'-06"-E a distance of 18.84 feet to an Iron pin shown as control point 10 on said map;
 Thence S-16°-29'-44"-W a distance of 164.85 feet to point #1140;
 Thence S-05°-22'-47"-E a distance of 108.70 feet to a point located at the intersection of the centerline of said second strip and the northerly line of the Permanent Easement as shown on said map.

Alternate Easement

Schedule

A strip of land 30 feet in width located on a certain parcel of land situated easterly of Racebrook Road, southerly of Johnson Road and Northerly of the Wilbur Cross Highway being shown as the "Alternate Access Easement" on a map entitled "Plan of Easement prepared for Unison Site Management at Oak Lane Country Club, Racebrook Road and Johnson Road, Woodbridge, Conn. Scale 1"-100' Date: April 26, 2006, Project No. 06-075" by Meehan & Goodin, Engineers - Surveyors, P.C. reference to which map is hereby made.

The centerline of said strip of land generally follows the center of a vehicular access drive and paved cart paths as shown on said map and is more particularly described as follows:

Beginning at a point located on the apparent southerly line of said Johnson Road which point is located S-75°-40'-51"-E and 26.77 feet from an iron pin that marks the apparent southeasterly corner of land now or formerly of Stanton Honig as measured along the apparent southerly line of said highway, the line runs;

Thence	S-47°-01'-14"-W a distance of 20.8 feet, more or less to point #1100
Thence	S-28°-02'-14"-W a distance of 50.25 feet to point #1099
Thence	S-13°-33'-29"-W a distance of 61.20 feet to point #1088
Thence	S-05°-50'-15"-E a distance of 89.29 feet to point #1097
Thence	S-10°-15'-36"-W a distance of 83.64 feet to point #1096
Thence	S-53°-55'-04"-W a distance of 84.62 feet to point #1095
Thence	S-56°-44'-51"-W a distance of 29.98 feet to point #1094
Thence	S-59°-08'-37"-W a distance of 117.32 feet to point #1093
Thence	S-56°-35'-31"-W a distance of 25.99 feet to point #1092
Thence	S-17°-12'-14"-W a distance of 58.28 feet to point #1091
Thence	S-19°-28'-08"-W a distance of 44.92 feet to point #1090
Thence	S-05°-51'-10"-E a distance of 92.62 feet to point #1089
Thence	S-05°-31'-18"-W a distance of 119.69 feet to point #1088
Thence	S-07°-23'-19"-E a distance of 123.26 feet to point #1087
Thence	S-08°-58'-28"-W a distance of 51.75 feet to point #1086
Thence	S-13°-27'-52"-W a distance of 73.95 feet to point #1085
Thence	S-02°-20'-15"-W a distance of 46.91 feet to point #1084
Thence	S-01°-57'-42"-E a distance of 120.95 feet to point #1083
Thence	S-72°-29'-30"-W a distance of 93.31 feet to point #1082
Thence	S-02°-34'-14"-W a distance of 81.71 feet to point #1081
Thence	S-32°-57'-33"-W a distance of 105.62 feet to point #1080
Thence	S-35°-42'-46"-W a distance of 62.09 feet to point #1079
Thence	S-44°-39'-00"-W a distance of 88.90 feet to point #1078
Thence	S-37°-50'-56"-W a distance of 109.20 feet to point #1077
Thence	S-37°-12'-29"-W a distance of 59.41 feet to point #1076
Thence	S-48°-16'-16"-W a distance of 52.35 feet to point #1075
Thence	S-50°-43'-54"-W a distance of 61.94 feet to point #1074

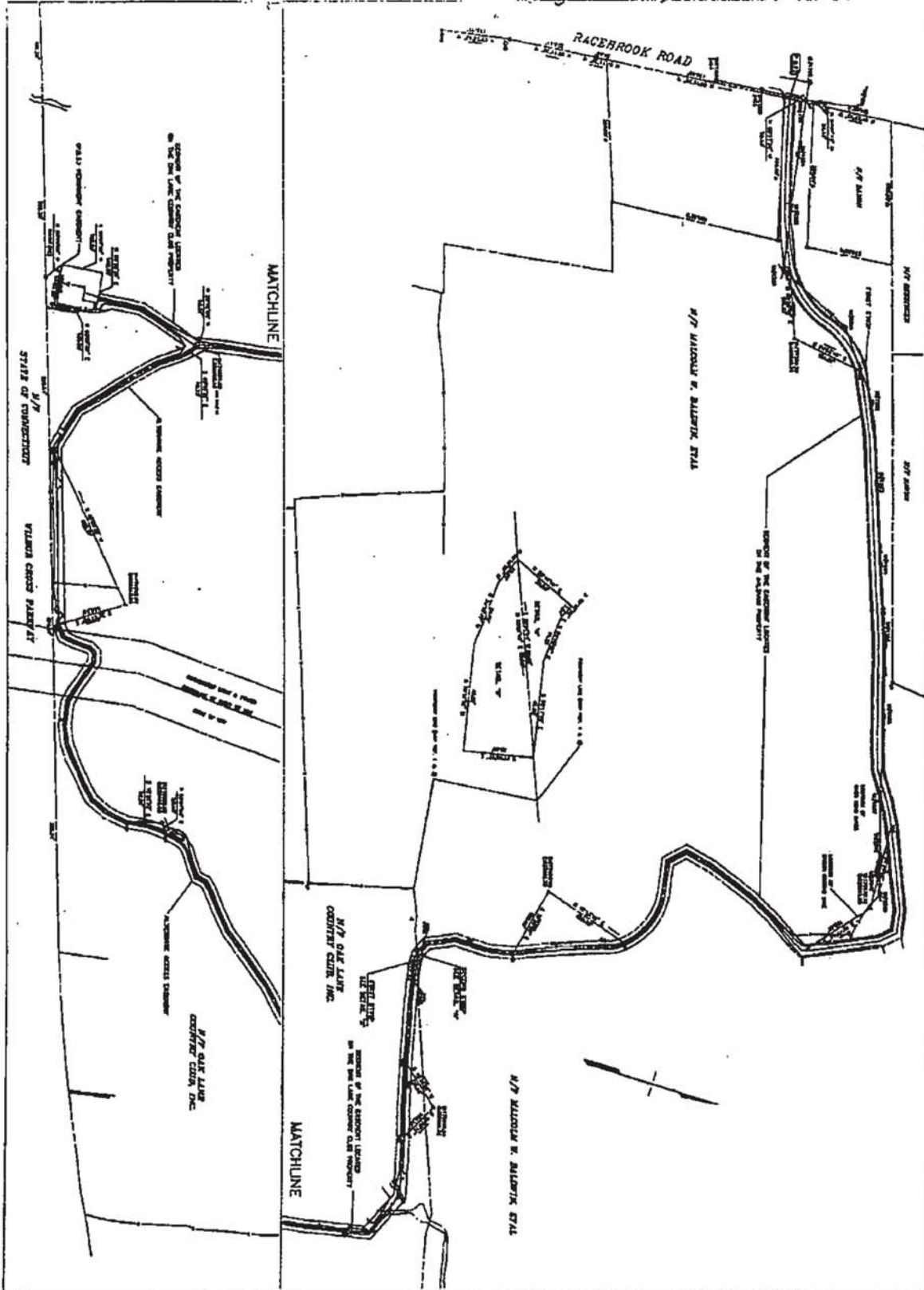
Thence	S-42°-19'-42"-W a distance of 21.22 feet to point #1073
Thence	S-08°-32'-34"-W a distance of 26.53 feet to point #1072
Thence	S-52°-47'-01"-W a distance of 39.03 feet to point #1071
Thence	S-54°-25'-32"-W a distance of 33.01 feet to point #1070
Thence	S-36°-10'-42"-W a distance of 23.04 feet to point #1069
Thence	S-12°-35'-25"-W a distance of 48.80 feet to point #1068
Thence	S-03°-56'-12"-W a distance of 45.68 feet to point #1067
Thence	S-06°-57'-22"-E a distance of 55.20 feet to point #1066
Thence	S-09°-22'-21"-W a distance of 53.25 feet to point #1065
Thence	S-24°-20'-59"-W a distance of 49.16 feet to point #1064
Thence	S-47°-39'-06"-W a distance of 116.02 feet to point #1063
Thence	S-54°-44'-26"-W a distance of 38.21 feet to point #1062
Thence	S-65°-58'-26"-W a distance of 47.10 feet to point #1061
Thence	S-79°-16'-58"-W a distance of 57.15 feet to point #1060
Thence	N-80°-02'-07"-W a distance of 34.95 feet to point #1059
Thence	N-73°-32'-53"-W a distance of 84.65 feet to point #1058
Thence	S-76°-26'-27"-W a distance of 23.64 feet to point #1057
Thence	S-32°-34'-42"-W a distance of 18.85 feet to point #1056
Thence	S-02°-28'-57"-W a distance of 40.34 feet to point #1055
Thence	S-11°-33'-31"-W a distance of 28.61 feet to point #1054
Thence	S-53°-19'-24"-W a distance of 33.21 feet to point #1053
Thence	S-71°-25'-40"-W a distance of 438.94 feet to point #1052
Thence	N-78°-47'-27"-W a distance of 110.08 feet to point #1051
Thence	N-48°-32'-58"-W a distance of 226.20 feet to point #1050
Thence	N-35°-20'-42"-W a distance of 65.16 feet to point #1049
Thence	N-48°-41'-31"-W a distance of 43.73 feet to an iron pin shown as control point 10 on said map;
Thence	S-16°-29'-44"-W a distance of 164.85 feet to point #1140;
Thence	S-05°-22'-47"-E a distance of 108.70 feet to a point located at the intersection of the centerline of Alternate Easement Area and said second strip and the northerly line of the Permanent Easement as shown on said map.

Existing Utility Easement

Schedule

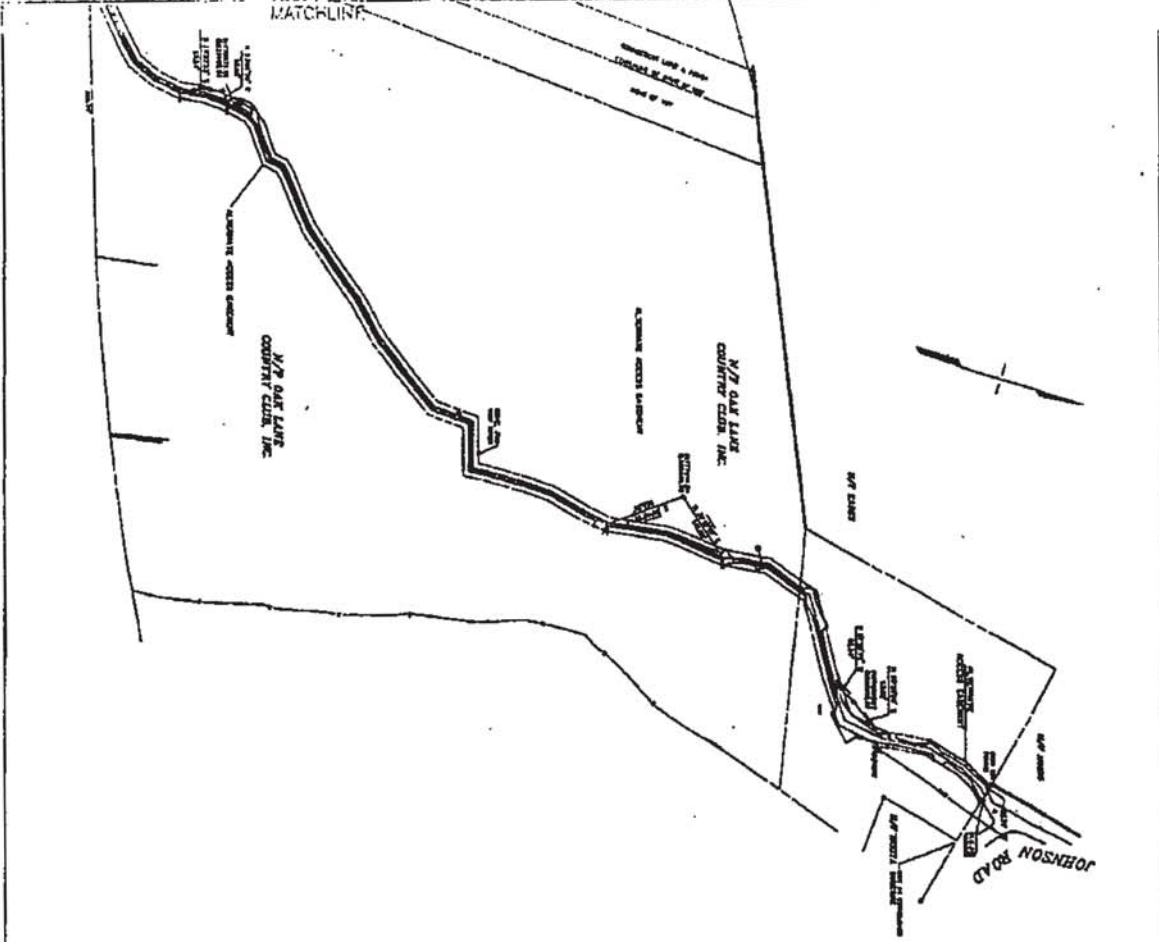
An overhead line running in an easterly direction from United Illuminating (U.I) pole 176 located on the easterly side of Racebrook Road to pole #1568, from which point the line runs underground in a southeasterly direction until it intersects with the Segment of the Easement on the Baldwin Property" as shown on a map entitled: " Plan of Easement prepared for Unison Site Management at Oak Lane Country Club, Racebrook Road and Johnson Road, Woodbridge, Conn. Scale 1"-100' Date: April 26, 2006, Project No. 06-075" by Meehan & Goodin, Engineers - Surveyors, P.C. reference to which map is hereby made.

W. 200000, 0.000000, 0.000000



<p>EXISTING SURVEY</p>	<p>Plan of Survey prepared for Union SpA Management of Oak Lake Country Club, Racebrook Road and Johnson Road, Westbridge, Conn.</p>	<table border="1"> <tr> <td>DATE</td> <td>NO.</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	DATE	NO.							<p>Meehan & Goodin Engineers - Surveyors, P.C. 227 North Main Street, Middletown, CT 06450 (860) 342-2222 Fax (860) 342-2222</p>	<p>Scale: 1" = 100'</p>
DATE	NO.											

DEPARTMENT OF THE INTERIOR



SECTION 1

THIS SURVEY WAS MADE BY THE MECHAN & GOODIN SURVEYING COMPANY, INC., OF GREENSBORO, NORTH CAROLINA, ON BEHALF OF THE N/W 1/4 LANE COUNTY CLUB, INC., AND THE JOHNSON ROAD DEVELOPMENT, INC., AND IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH IN THE INSTRUMENTS REFERRED TO IN THE ATTACHED INSTRUMENTS.

SECTION 2

THE SURVEY WAS MADE IN ACCORDANCE WITH THE SURVEYING PRACTICES AND STANDARDS CURRENTLY IN USE IN THE STATE OF NORTH CAROLINA, AND THE RESULTS THEREOF ARE HEREBY CERTIFIED TO BE TRUE AND CORRECT.

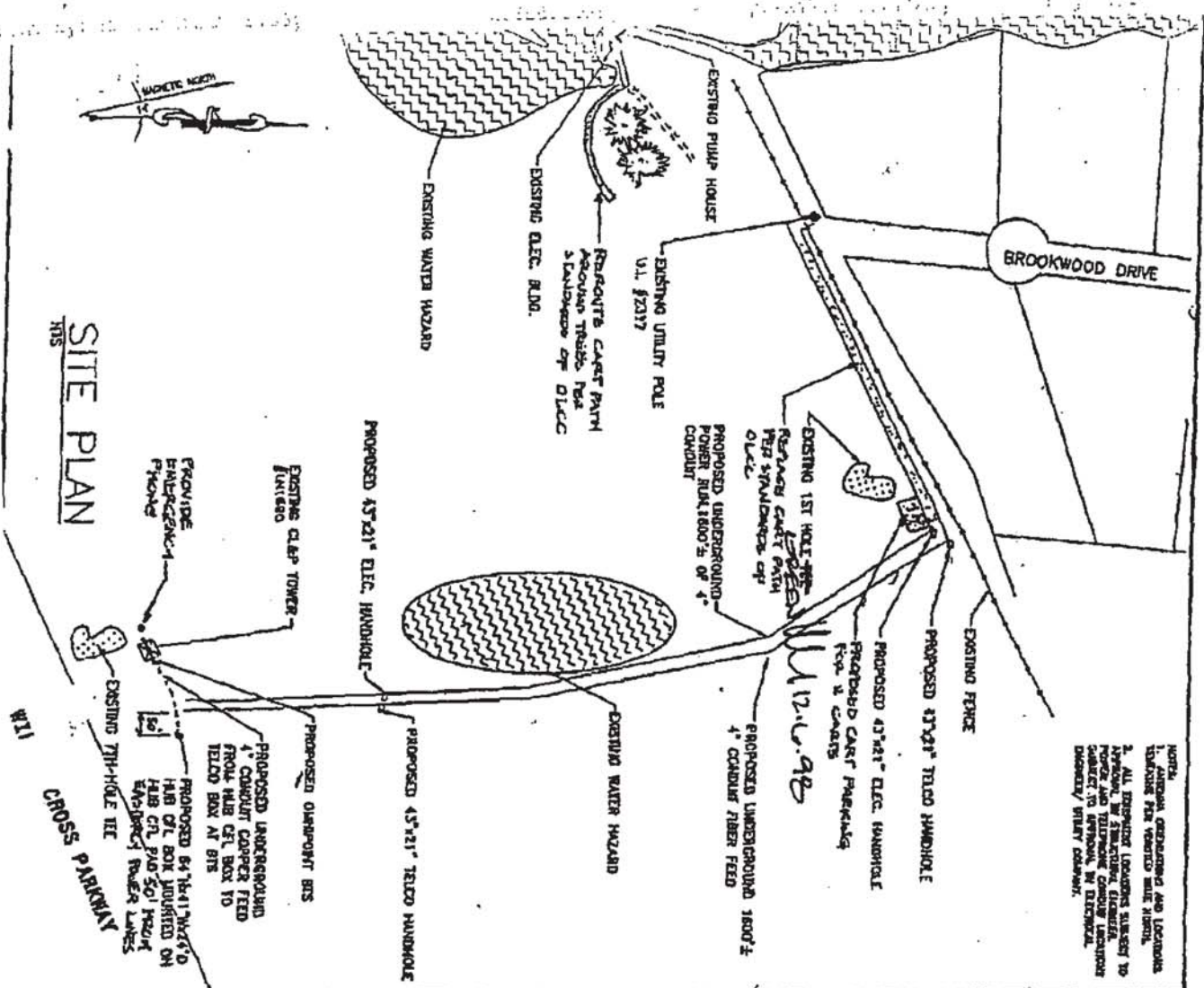
SECTION 3

THE SURVEY WAS MADE ON THE BASIS OF THE RECORDS AND PLANS ON FILE IN THE OFFICE OF THE REGISTERED PROFESSIONAL SURVEYOR, AND THE RESULTS THEREOF ARE HEREBY CERTIFIED TO BE TRUE AND CORRECT.

SECTION 4

THE SURVEY WAS MADE ON THE BASIS OF THE RECORDS AND PLANS ON FILE IN THE OFFICE OF THE REGISTERED PROFESSIONAL SURVEYOR, AND THE RESULTS THEREOF ARE HEREBY CERTIFIED TO BE TRUE AND CORRECT.

<p>EASEMENT SURVEY</p>	<p>Part of Subdivided Property for Utility Easement Management at Oak Lane Country Club, Bushwick Road, and Johnson Road, Westprize, North Carolina</p>	<table border="1"> <tr> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	DATE	DESCRIPTION							<p>Meehan & Goodin Surveyors - Greensboro, N.C. 267 1010 VINE STREET, GREENSBORO, NC 27403 336-333-1111 and 336-333-1112</p>	<p>THIS SURVEY WAS MADE BY THE MECHAN & GOODIN SURVEYING COMPANY, INC., OF GREENSBORO, NORTH CAROLINA, ON BEHALF OF THE N/W 1/4 LANE COUNTY CLUB, INC., AND THE JOHNSON ROAD DEVELOPMENT, INC., AND IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH IN THE INSTRUMENTS REFERRED TO IN THE ATTACHED INSTRUMENTS.</p>
DATE	DESCRIPTION											



NOTE:
 1. ALL PROPERTY LOCATIONS SUBJECT TO APPROVAL BY STATE AND FEDERAL AGENCIES. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
 2. ALL PROPERTY LOCATIONS SUBJECT TO APPROVAL BY STATE AND FEDERAL AGENCIES. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

SITE PLAN

SITE INFORMATION

SITE NO. CT-11-085C
 ADDRESS: 1116 JOHNSON RD., WOODBRIDGE, CT
 APN:
 TOWNSHIP:
 LATITUDE: 41° 19' 57" N
 LONGITUDE: 073° 00' 57" W
 PROPERTY OWNER: OAK LANE G.C. ASSOC., 1116 JOHNSON RD., WOODBRIDGE, CT

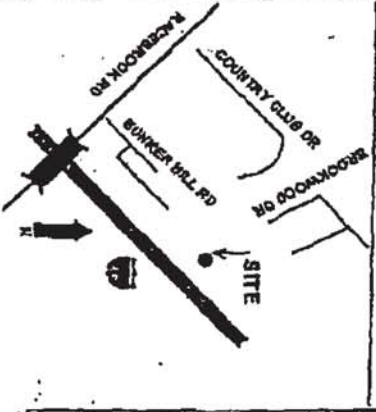
APPROVALS

OTHER _____
 IF ENGINEER _____
 SITE ACQUISITION _____
 ZONING _____
 CONSTRUCTION _____
 A/E _____

PROPRIETARY NOTE:

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO OMNIPONT COMMUNICATIONS INC. IS STRICTLY PROHIBITED.

VICINITY MAP



B-1

CT-11-085C
OAK LANE GOLF COURSE
 1116 JOHNSON RD., WOODBRIDGE, CT.

OMNIPONT COMMUNICATIONS INC.
 15 W. MAIN STREET, SUITE 200, WOODBRIDGE, CT 06897
 TEL: 860-399-8400 FAX: 860-399-8401

Drawn by: **LEON VIGIA**
 PROJECT ENGINEER
 ISSUED FOR REVIEW:
 09-17-08

DATE	BY	REVISION

EXHIBIT C

EXISTING AGREEMENTS


Site Owner assigns and transfers to Unison, as of the effective date herein, all of its right, title and interest in, to and under any existing lease agreements, and any amendments, transfers, modifications and/or assignments thereof, affecting any portion of the Property leased by Site Owner under any Existing Agreements, including, without limitation, the following:

That certain PCS Site Agreement by and between Oak Lane Country Club Incorporated, as Owner, and Sprint Spectrum L.P., a Delaware limited partnership, as Tenant, dated September 17, 1996, as evidenced by that certain Memorandum of PCS Site Agreement dated September 17, 1996 and recorded October 8, 1996, Official Records of the Town of Woodbridge, Connecticut, at Vol. 2556, page 306.

Standard Lease Agreement by and between Oak Lane Country Club Incorporated, as Lessor, and Omnipoint Communications Inc., a Delaware corporation, as Lessee, dated approx. January 7, 1999.

Read, Agreed and Approved:

Oak Lane Country Club Incorporated

By: 
Name: PASTOR
Title: PASTOR
Date: 5/10/06

Unison Site Management, L.L.C.

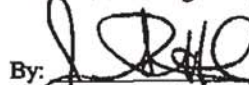
By: 
Name: James R. Holmes
Title: Vice President-Secretary
Date: 5/6/2006

EXHIBIT D

TITLE ENCUMBRANCES

That certain Mortgage Deed by and between Oak Lane Country Club Incorporated a/k/a Oak Lane Country Club, Inc., a Connecticut corporation, in favor of People's Bank, a Connecticut banking corporation, to secure indebtedness in the sum of _____ dated March 27, 2002 and recorded March 27, 2002, Official Records of the Town of Woodbridge, Connecticut, at Vol. 381, page 188, together with that certain Collateral Assignment of Leases and Rentals, dated March 27, 2002 and recorded March 27, 2002 at Vol. 381, page 214, for which a Non-Disturbance Agreement has been executed in favor of Unison and recorded in the Official Records of the Town of Woodbridge, under Instrument No. _____.

SITE NAME: CTNH085A

1027 RACEBROOK ROAD
WOODBRIDGE, CT 06525
NEW HAVEN COUNTY

T-MOBILE SITE NUMBER: CTNH085A

CROWN BU NUMBER: 876315

RF DESIGN GUIDELINE: 4SEC-67D92DB OUTDOOR

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS
SECTOR A: ANTENNA/TMA/RRH	ACCESS NOT PERMITTED
SECTOR B: ANTENNA/TMA/RRH	ACCESS NOT PERMITTED
SECTOR C: ANTENNA/TMA/RRH	ACCESS NOT PERMITTED
GPS/LMU:	ACCESS NOT PERMITTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

T-MOBILE NORTHEAST LLC

103 MONARCH DRIVE
LIVERPOOL, NY 13088
(315) 265-1882



CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBRUN, MA 01801



45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

GENERAL NOTES

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

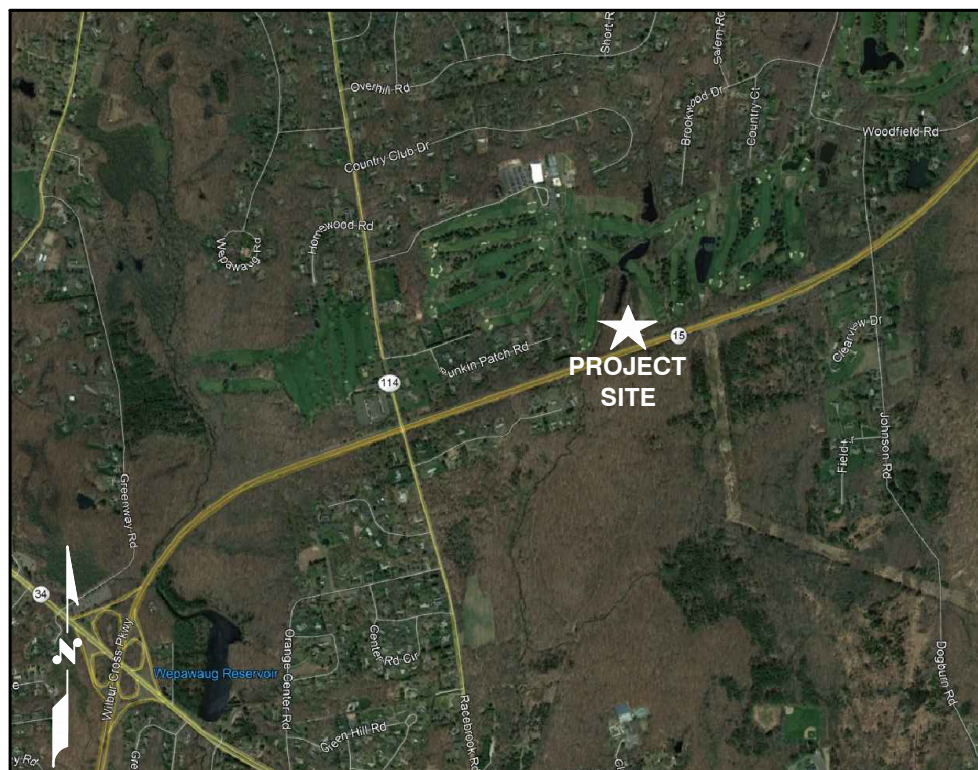
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T-MOBILE NORTHEAST, LLC REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SPECIAL STRUCTURAL NOTES

CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE-BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.

STRUCTURAL DESIGNS AND DETAILS FOR ANTENNA MOUNTS AND GLOBAL STRUCTURAL STABILITY ANALYSIS COMPLETED ON BEHALF OF T-MOBILE ARE INCLUSIVE OF THE ENTIRE SUPPORT STRUCTURE, EXISTING ANTENNA MOUNTS AND ALL OTHER ASPECTS OF THE STRUCTURE THAT WILL SUPPORT THE T-MOBILE G700/L600 EQUIPMENT DEPLOYMENT AS DEPICTED HEREIN.

HUDSON DESIGN ASSUMES THAT THE EQUIPMENT IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTION ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NO DETERIORATION TO ITS MEMBER CAPACITIES



PROJECT SUMMARY

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY T-MOBILE EQUIPMENT MODERNIZATION

ZONING JURISDICTION: TOWN OF WOODBRIDGE
BASED ON INFORMATION PROVIDED BY T-MOBILE, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS AN ELIGIBLE FACILITY UNDER THE TAX RELIEF ACT OF 2012, 47 USC 1455(A), AND IS SUBJECT TO AN EXPEDITED ELIGIBLE FACILITIES REQUEST/REVIEW AND ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW).

SITE ADDRESS: 1027 RACEBROOK ROAD
WOODBRIDGE, CT 06525

LATITUDE: 41° 19' 0.30"

LONGITUDE: -73° 0' 41.80"

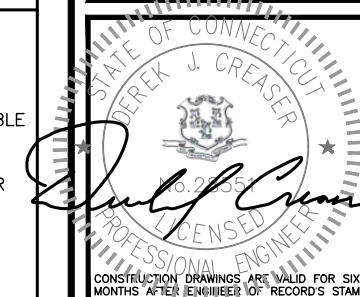
JURISDICTION: TOWN OF WOODBRIDGE

CURRENT USE: TELECOMMUNICATIONS FACILITY

PROPOSED USE: TELECOMMUNICATIONS FACILITY

CROWN CASTLE
SITE NAME: OAK LANE CC, INC. TOWER (SSUSA)

CROWN CASTLE
SITE ID: 876315



CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER EQUIPMENT OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN

CHECKED BY: BB

APPROVED BY: DJC

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
9	10/18/18	CONSTRUCTION FINAL	DJM
8	09/26/18	CONSTRUCTION FINAL	DJM
7	09/17/18	CONSTRUCTION FINAL	BB
6	09/07/18	CONSTRUCTION FINAL	DJM
5	08/06/18	CONSTRUCTION FINAL	DJM
4	07/31/18	CONSTRUCTION FINAL-REVISED	DJM
3	06/19/18	CONSTRUCTION FINAL	DJM
2	05/08/18	CONSTRUCTION REVISED	RP/DJM

APPROVALS

	DATE
PROJECT MANAGER	
CONSTRUCTION	
RF ENGINEERING	
ZONING / SITE ACQ.	
OPERATIONS	
TOWER OWNER	

72 HOURS



CALL
BEFORE YOU DIG
CALL TOLL FREE 1-888-DIG-SAFE
OR CALL 811



UNDERGROUND SERVICE ALERT

DRAWING INDEX

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A-2	ANTENNA LAYOUT & ELEVATION	9
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A-5	AUXILIARY POWER DETAILS	9
A-6	COMPOUND EXPANSION DETAILS	9
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E-1	ELECTRICAL DETAILS AND NOTES	9
G-1	GROUNDING SCHEMATIC AND RISER DIAGRAM	9
G-2	GROUNDING DETAILS AND NOTES	9

SITE NUMBER:
CTNH085A
CROWN BU NUMBER:
876315

SITE NAME:
CTNH085A
SITE ADDRESS:
1027 RACEBROOK ROAD
WOODBRIDGE, CT 06525
NEW HAVEN COUNTY

SHEET TITLE

TITLE SHEET

(NSD / L600)

SHEET NUMBER

T-1

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – CROWN CASTLE
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – T-MOBILE
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH NSD/L600 SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
 BUILDING CODE: IBC 2012 WITH 2016 CT STATE BUILDING CODE AMENDMENTS
 ELECTRICAL CODE: 2014 NATIONAL ELECTRIC CODE

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION TIA-222-H, STRUCTURAL STANDARDS FOR STEEL

EQUIPMENT AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS					
AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		

**T-MOBILE
NORTHEAST LLC**

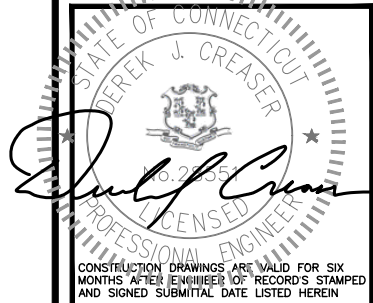
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CHECKED BY: BB

APPROVED BY: DJC

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SITE NUMBER:
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CROWN BU NUMBER:
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SITE NAME:
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SITE ADDRESS:
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WOODBIDGE, CT 06525
NEW HAVEN COUNTY

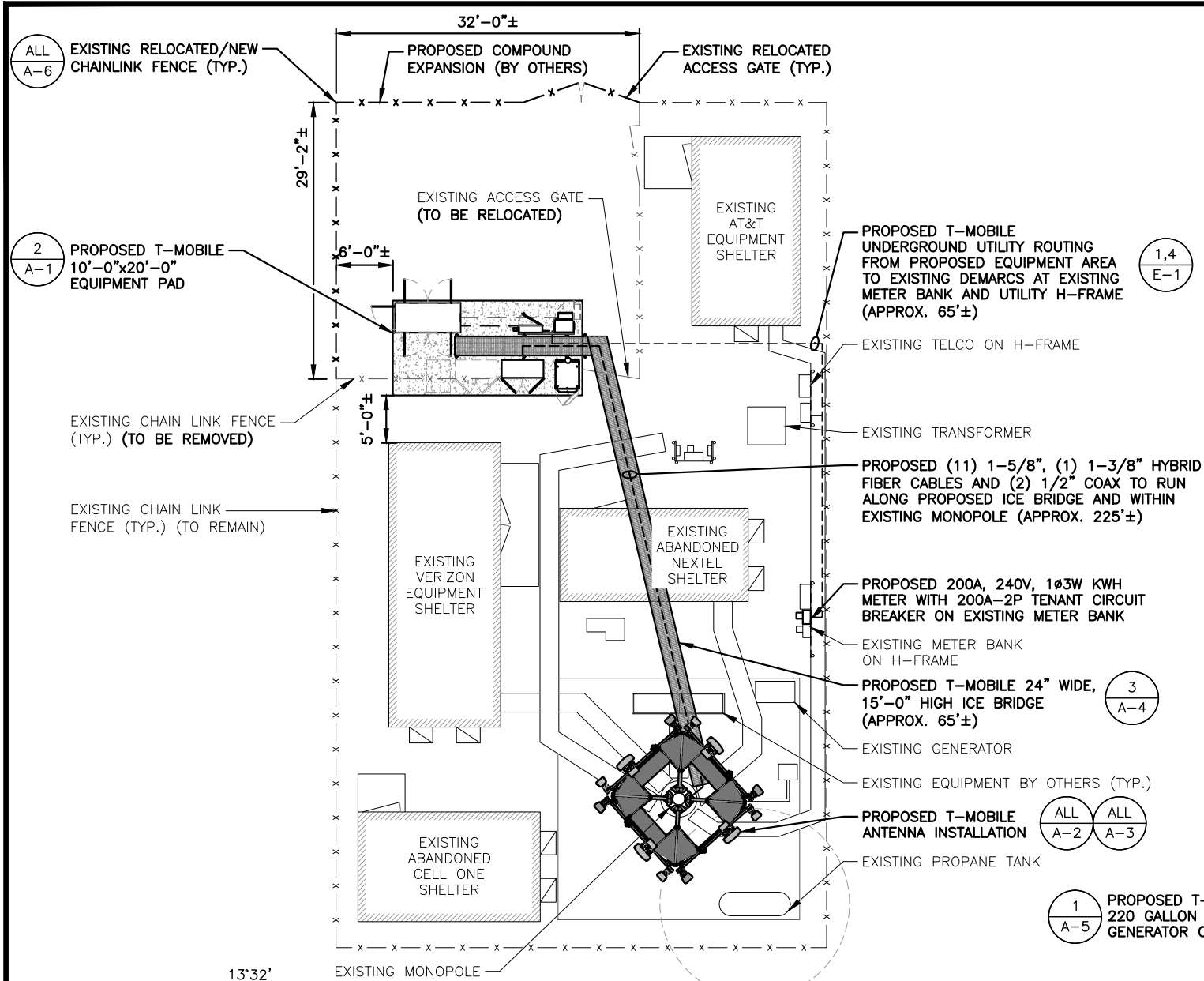
SHEET TITLE

GENERAL NOTES

(NSD / L600)

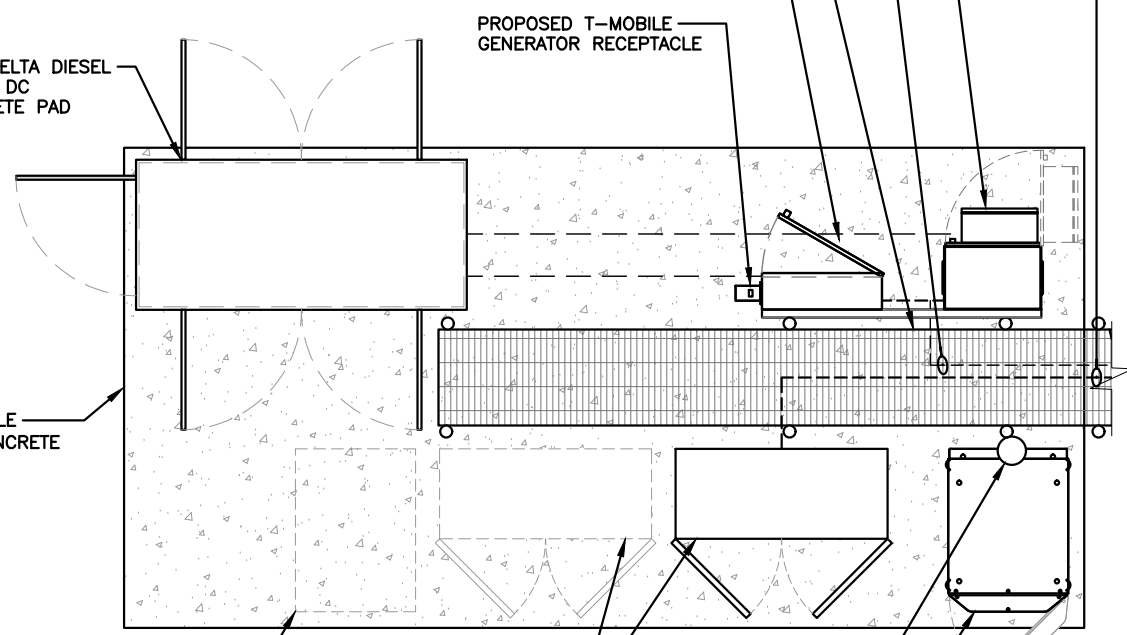
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GN-1



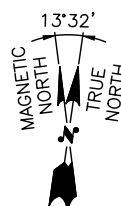
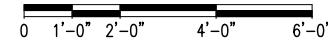
COMPOUND PLAN

22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"



PROPOSED EQUIPMENT PLAN

22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"



NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

STRUCTURAL NOTES:
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STATE OF CONNECTICUT
Derek J. Creaser
Professional Engineer
No. 2355
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SITE ADDRESS:
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WOODBIDGE, CT 06525
NEW HAVEN COUNTY

SHEET TITLE
COMPOUND & EQUIPMENT PLAN
(NSD / L600)

SHEET NUMBER
A-1

NOTE:
SEE CONDUIT PLAN 1/E-1

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NOTE:
 REFER TO FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS

- TOP OF EXISTING LIGHTNING ROD
ELEV. = 162'± A.G.L.
- TOP OF EXISTING MONOPOLE
ELEV. = 150'-6"± A.G.L.
- TOP OF PROPOSED T-MOBILE APXVAA24_43-U-A20 ANTENNAS
ELEV. = 142'-0"± A.G.L.
- TOP OF PROPOSED T-MOBILE B2A_B66Aa ANTENNAS
ELEV. = 140'-4"± A.G.L.
- TOP OF PROPOSED T-MOBILE AIR21 B2A B4P ANTENNAS
ELEV. = 140'-4"± A.G.L.
- TOP OF PROPOSED T-MOBILE SC2-W100AC MW DISH ANTENNAS (BEHIND)
ELEV. = 139'-8"± A.G.L.
- CL OF PROPOSED T-MOBILE ANTENNAS
ELEV. = 138'-0"± A.G.L.

- PROPOSED T-MOBILE ANTENNA (AIR 32 B2a B66Aa) MOUNTED TO PROPOSED MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 4) (2,4 / A-3)
- PROPOSED T-MOBILE QUAD-PLATFORM MOUNT (SITEPRO1 PART #F4P-10W) TO REPLACE EXISTING ANTENNAS AND CHAIN MOUNT (7 / A-3)
- EXISTING ANTENNAS AND MOUNTING HARDWARE BY OTHERS (TO BE REMOVED)

PROPOSED T-MOBILE ANTENNA (APXVAA24_43-U-A20) MOUNTED TO PROPOSED MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 4) (3,4 / A-3)

PROPOSED T-MOBILE TMA (ATMA4P4DBP-1A20) MOUNTED TO PROPOSED MOUNTING PIPE BEHIND ANTENNA (TYP. OF 1 PER SECTOR, TOTAL OF 4) (BEHIND ANTENNA) (5 / A-3)

PROPOSED T-MOBILE ANTENNA (AIR 21 B2A B4P) MOUNTED TO PROPOSED MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 4) (BEHIND ANTENNA) (1,4 / A-3)

PROPOSED T-MOBILE RRU (4449 B71+B12) STACK MOUNTED TO PROPOSED MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 4) (BEHIND ANTENNA) (6 / A-3)

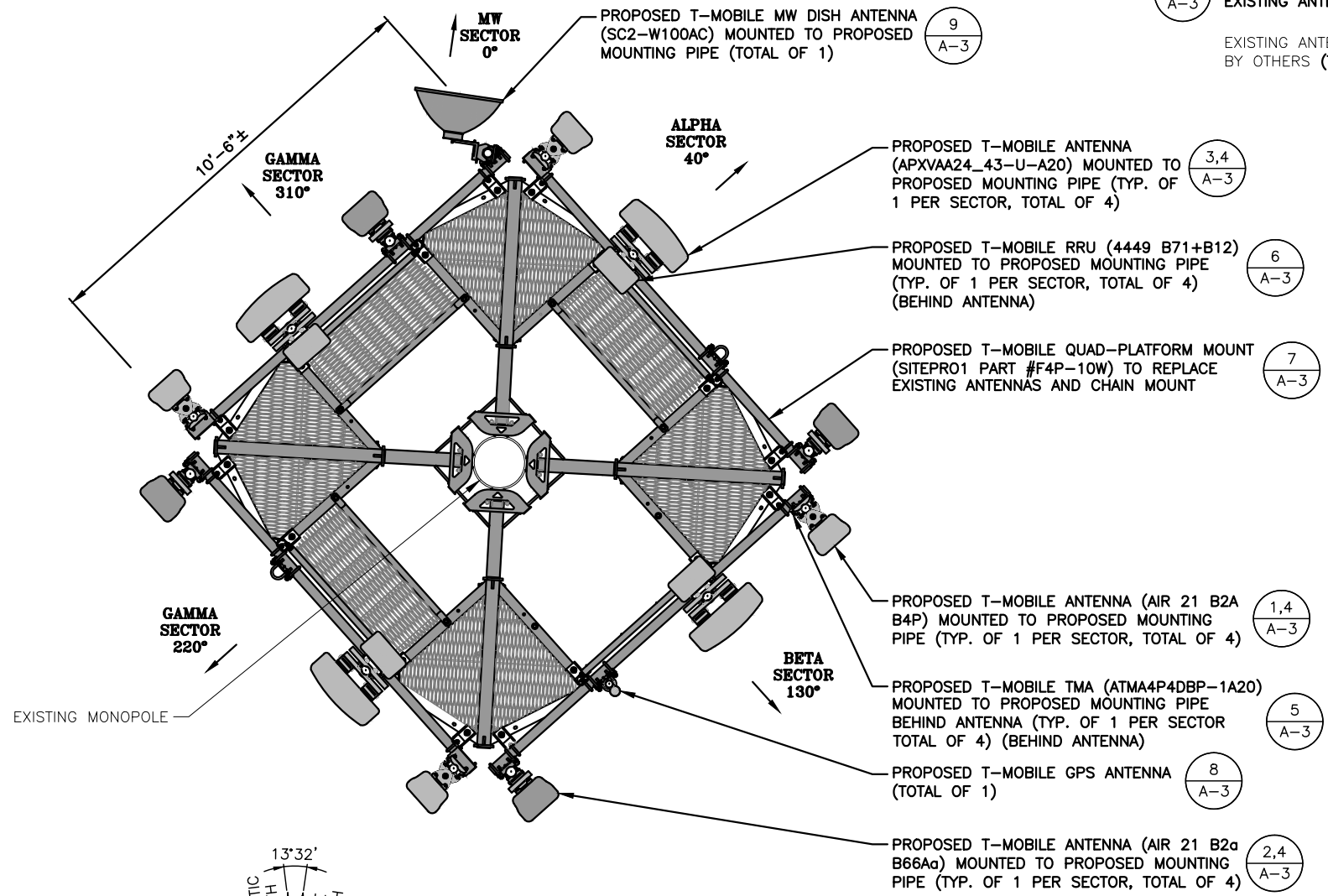
PROPOSED (11) 1-5/8", (1) 1-3/8" HYBRID FIBER CABLES AND (2) 1/2" COAX TO RUN ALONG PROPOSED ICE BRIDGE AND WITHIN EXISTING MONOPOLE (APPROX. 225'±)

EXISTING MONOPOLE

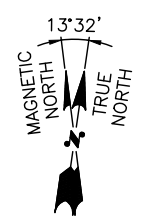
NOTE:
 GROUND EQUIPMENT NOT SHOWN FOR CLARITY

GROUND LEVEL
 ELEV. = 0.0'± A.G.L.
 AVERAGE GROUND ELEV. = 240'± A.M.S.L.

TOWER ELEVATION (2 / A-2)
 22x34 SCALE: 1/8"=1'-0"
 11x17 SCALE: 1/16"=1'-0"
 0 4'-0" 8'-0" 16'-0" 24'-0"



PROPOSED ANTENNA LAYOUT (1 / A-2)
 SCALE: N.T.S.



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STATE OF CONNECTICUT
 DEREK J. CREASER
 16,235
 LICENSED PROFESSIONAL ENGINEER
Derek J. Creaser
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SHEET TITLE
ANTENNA LAYOUT & ELEVATION
 (NSD / L600)

SHEET NUMBER
A-2

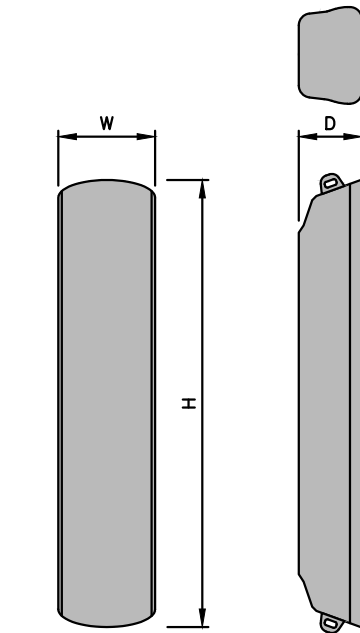
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NOTE:
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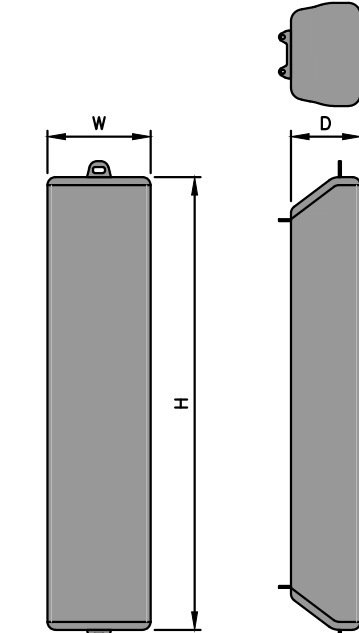
AIR21 ANTENNA DIMENSIONS	
MODEL #	AIR21 B2A B4P (QUAD)
MANUF.	ERICSSON
HEIGHT	56"
WIDTH	12.1"
DEPTH	7.9"
WEIGHT	96 LBS

AIR32 ANTENNA DIMENSIONS	
MODEL #	AIR32DB B2a B66Aa (OCTA)
MANUF.	ERICSSON
HEIGHT	56.6"
WIDTH	12.9"
DEPTH	8.7"
WEIGHT	132.2 LBS

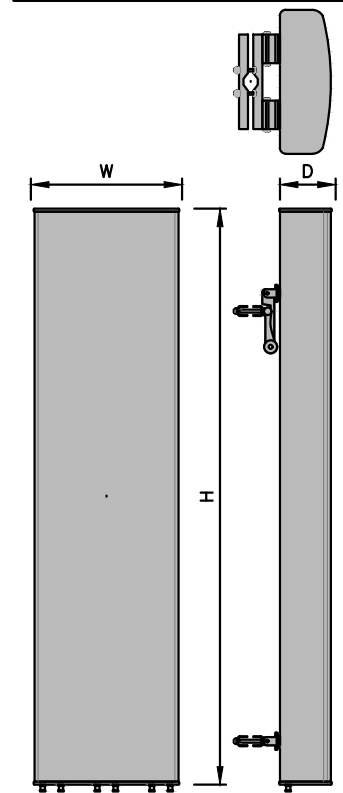
L700/L600 ANTENNA DIMENSIONS	
MODEL #	APXVAA24_43-U-A20 (QUAD)
MANUF.	RFS
HEIGHT	96"
WIDTH	24"
DEPTH	8.5"
WEIGHT	124.4 LBS



AIR21 ANTENNA DETAIL 1
SCALE: N.T.S. A-3

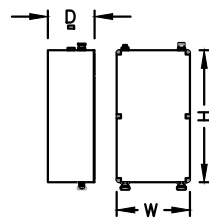


AIR32 ANTENNA DETAIL 2
SCALE: N.T.S. A-3



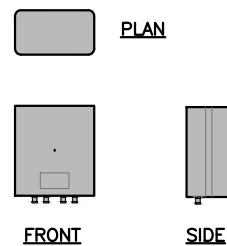
L700/L600 ANTENNA DETAIL 3
SCALE: N.T.S. A-3

TMA DIMENSIONS	
MODEL #	ATMA4P4DBP-1A20
MANUF.	RFS/CELWAVE
HEIGHT	12"
WIDTH	10"
DEPTH	4"
WEIGHT	13 LBS

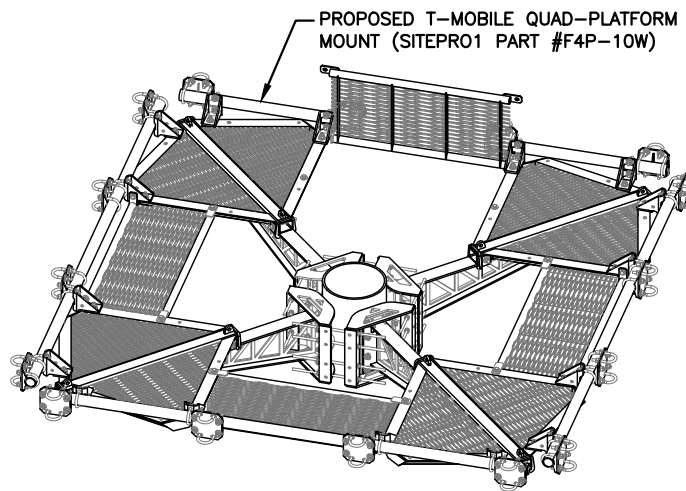


TMA 5
SCALE: N.T.S. A-3

RRUS DIMENSIONS	
MODEL #	RRUS 4449 B71+B12
MANUF.	ERICSSON
HEIGHT	18"
WIDTH	13.2"
DEPTH	9.4"
WEIGHT	70 LBS



RRUS DETAIL 6
SCALE: N.T.S. A-3



QUAD-PLATFORM MOUNT 7
SCALE: N.T.S. A-3

1
A-2

1,2,3
A-3

PROPOSED T-MOBILE ANTENNA MOUNTED TO PROPOSED MOUNTING PIPE (TYP. OF 4 PER SECTOR, TOTAL OF 16)

PROPOSED 2.5"STD (2-7/8"O.D.)x96" MOUNTING PIPES (TYP. OF 4 PER SECTOR, TOTAL OF 16) (NOT INCLUDED WITH PLATFORM KIT)

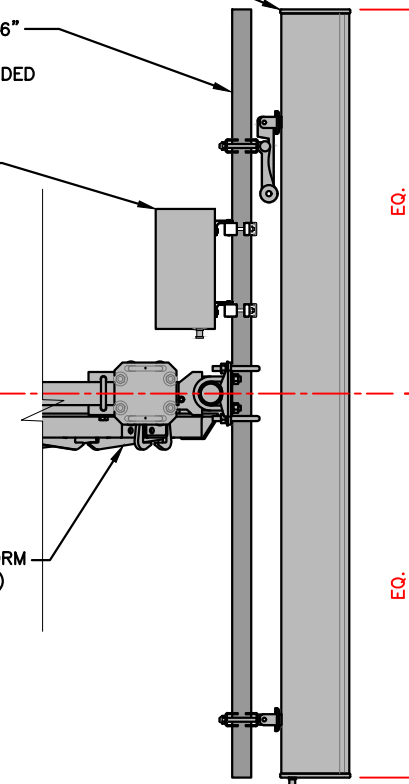
5,6
A-3

PROPOSED T-MOBILE RRUS / TMA5 MOUNTED TO PROPOSED MOUNTING PIPE BEHIND ANTENNA

ANTENNA INSTALLATION SPECIAL WORK NOTE:
ANTENNA INSTALLATION WORKING POINT IS THE VERTICAL CENTERLINE OF THE EXISTING FACE FRAME HORIZONTAL MEMBER. UNLESS NOTED OTHERWISE, VERTICALLY CENTER ALL PIPE MASTS AND ALL ANTENNAS ON THIS WORKING POINT.

7
A-3

PROPOSED T-MOBILE QUAD-PLATFORM MOUNT (SITEPRO1 PART #F4P-10W)

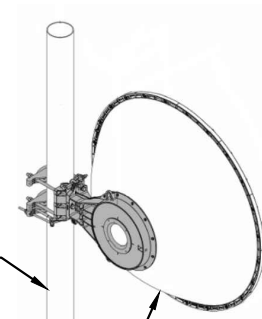


CL OF PROPOSED T-MOBILE ANTENNAS
ELEV. = 138'-0"± A.G.L.

PROPOSED ANTENNA AND RRU MOUNTING DETAIL 4
SCALE: N.T.S. A-3

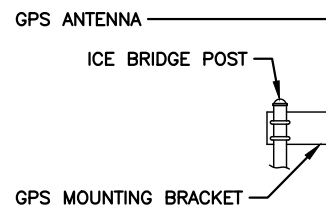
MW ANTENNA DIMENSIONS	
MODEL #	SC2-W100AC
MANUF.	RFS
DIAMETER	26.4"φ
DEPTH	11.5"
WEIGHT	22 LBS

PROPOSED 4-1/2"x60" MOUNTING PIPE (TOTAL OF 1) (NOT INCLUDED WITH KIT)



PROPOSED T-MOBILE SC2-W100AC DISH ANTENNA MOUNTED TO PROPOSED MOUNTING PIPE

MW DISH ANTENNA DETAIL 9
SCALE: N.T.S. A-3



GPS DIMENSIONS	
MODEL #	58532A
MANUF.	NAIS
HEIGHT	3.9"
WIDTH	3.5"

GPS ANTENNA MOUNTING DETAIL 8
SCALE: N.T.S. A-3

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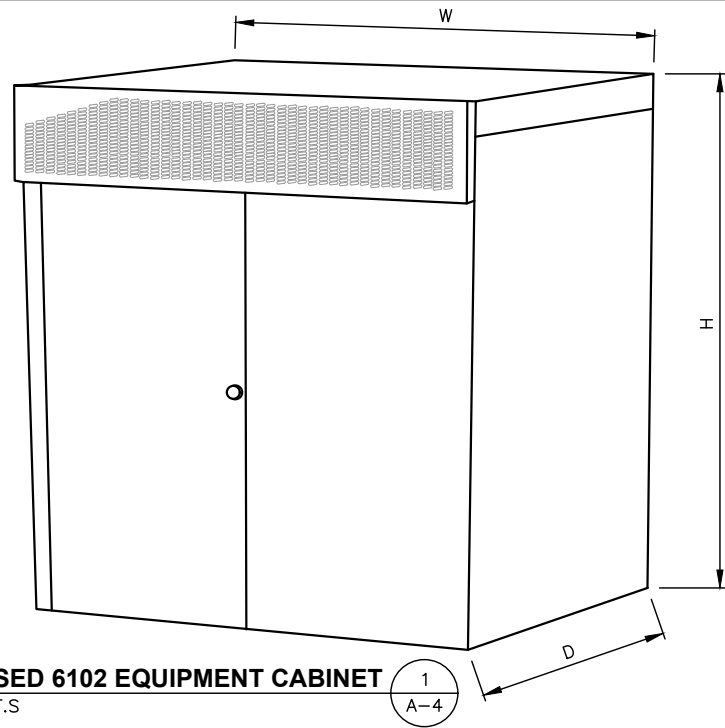
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SITE NUMBER:
CTNH085A
CROWN BU NUMBER:
876315
SITE NAME:
CTNH085A
SITE ADDRESS:
1027 RACEBROOK ROAD
WOODBIDGE, CT 06525
NEW HAVEN COUNTY

SHEET TITLE
TOWER EQUIPMENT
DETAILS
(NSD / L600)

SHEET NUMBER
A-3

CABINET DIMENSIONS	
MODEL #	MUAC 6102
MANUF.	ERICSSON
WIDTH	51.2"
DEPTH	27.6"
HEIGHT	57.1"
WEIGHT (W/O BACKUP BATTERIES)	728 LBS
CABINET CAN BE MOUNTED DIRECTLY TO SITE GROUND (INSTALL PER MANUFACTURER'S INSTALLATION GUIDELINES)	

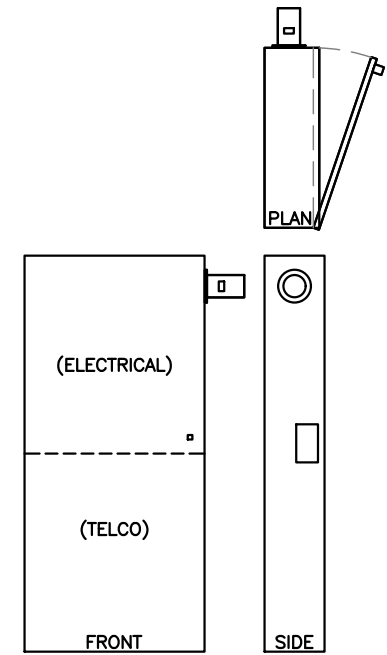


PROPOSED 6102 EQUIPMENT CABINET
SCALE: N.T.S.

1
A-4

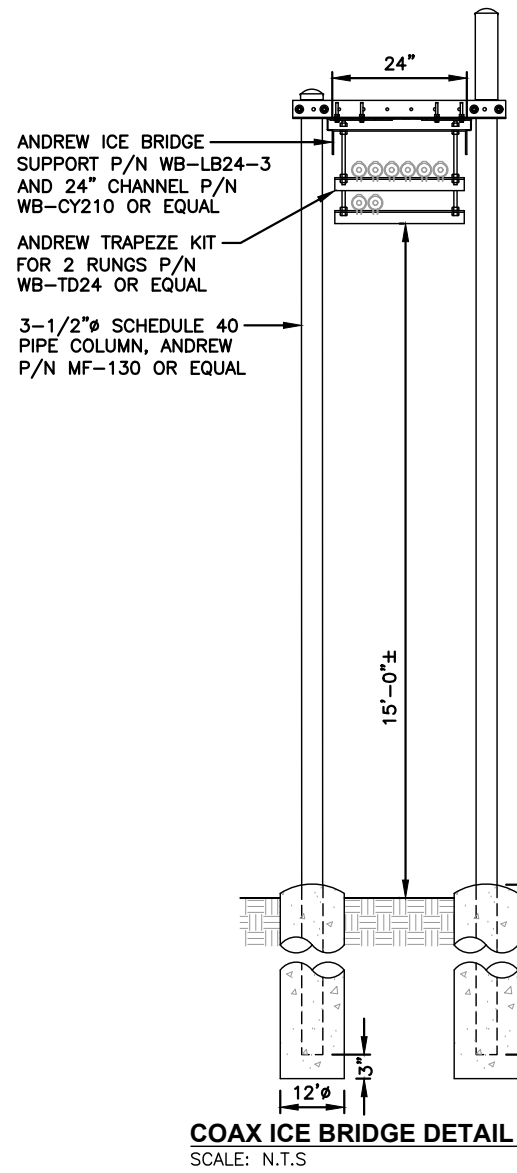
- ELECTRICAL NOTES:**
- METER SOCKET BY THIS CONTRACT. METER TO BE SUPPLIED BY LOCAL UTILITY COMPANY.
 - AC POWER ENCLOSURE.
 - ALL EQUIPMENT SHALL BE GROUNDED PER LATEST EDITION OF NEC AND AS INDICATED.
 - ELECTRICAL EQUIPMENT SHALL BE MIN. 3'-0" FROM ANY STRUCTURE AND AS REQUIRED BY LOCAL UTILITY COMPANIES AND AHJ.
 - CONTRACTOR MUST LABEL ALIKE BREAKERS IN POWER CABINET.
 - REFER TO ACTUAL EQUIPMENT DRAWINGS.

PPC DIMENSIONS	
MODEL #	CS2S2-W736
MANUF.	EMERSON
WIDTH	30"
DEPTH	10"
HEIGHT	66"
WEIGHT	150 LBS
NOTE: INSTALL CABINET ANCHORS PER MANUFACTURER'S INSTALLATION GUIDELINES	

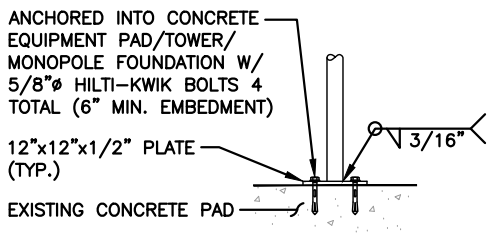


POWER PROTECTION CABINET (PPC)
SCALE: N.T.S.

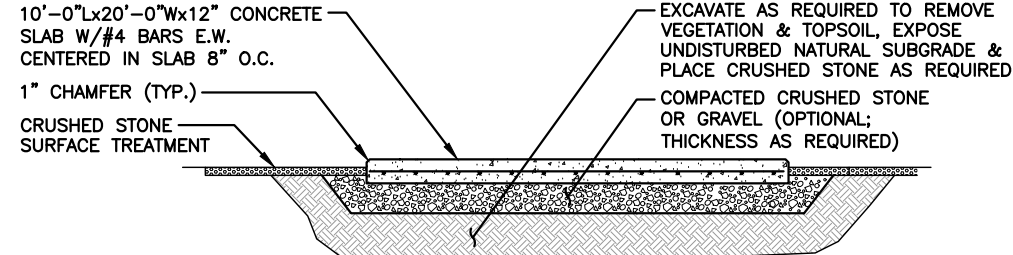
2
A-4



COAX ICE BRIDGE DETAIL
SCALE: N.T.S.



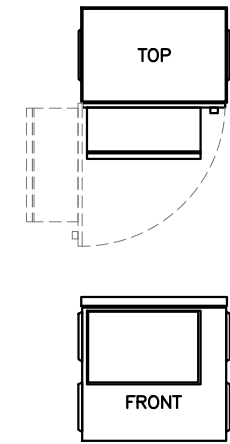
NOTE:
ALL STEEL IS GALVANIZED. ALL BOLTS TO BE FURNISHED W/ WASHERS AND NUTS.



- NEW CONC. PAD NOTES:**
- REINF. W/ #4's @ 8" O.C. EA. WAY (MID-DEPTH).
 - REINF. SHALL BE ASTM A615-GRADE 60. SECURE IN PLACE.
 - REINFORCEMENT IN EQUIPMENT SLAB TO BE WELDED AND BONDED TO GROUND RING

CONCRETE PAD DETAIL
SCALE: N.T.S.

4
A-4



AAV CABINET DIMENSIONS	
MODEL #	NETXTEND 2416
MANUF.	EMERSSON
WIDTH	25.25"
DEPTH	25.24"
HEIGHT	24"
NOTE: INSTALL CABINET ANCHORS PER MANUFACTURER'S INSTALLATION GUIDELINES	

AAV CABINET
SCALE: N.T.S.

5
A-4

T-MOBILE NORTHEAST LLC
103 MONARCH DRIVE
LIVERPOOL, NY 13088
(315) 265-1882

CROWN CASTLE
CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

HG HUDSON Design Group LLC
45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5886

STATE OF CONNECTICUT
DEREK J. CREASER
16,235
LICENSED PROFESSIONAL ENGINEER
CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER EQUIPMENT OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN

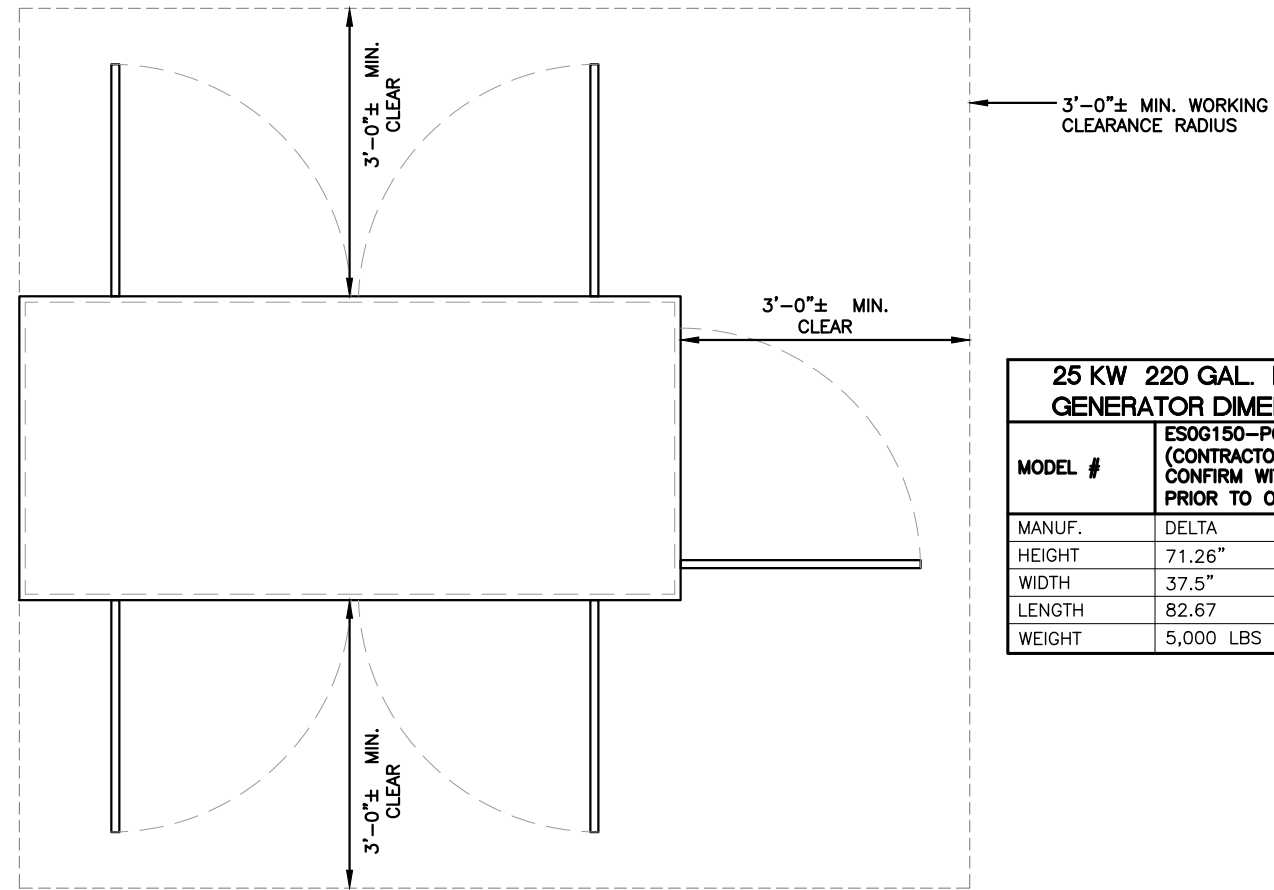
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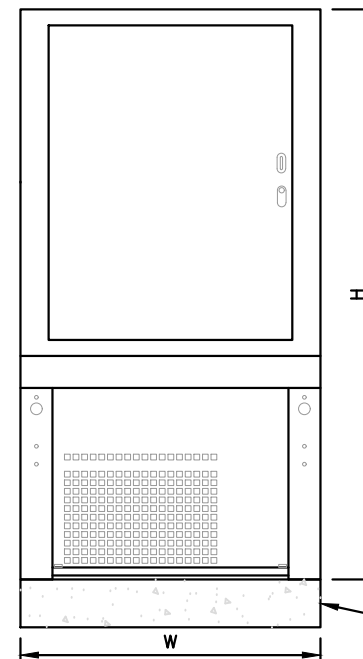
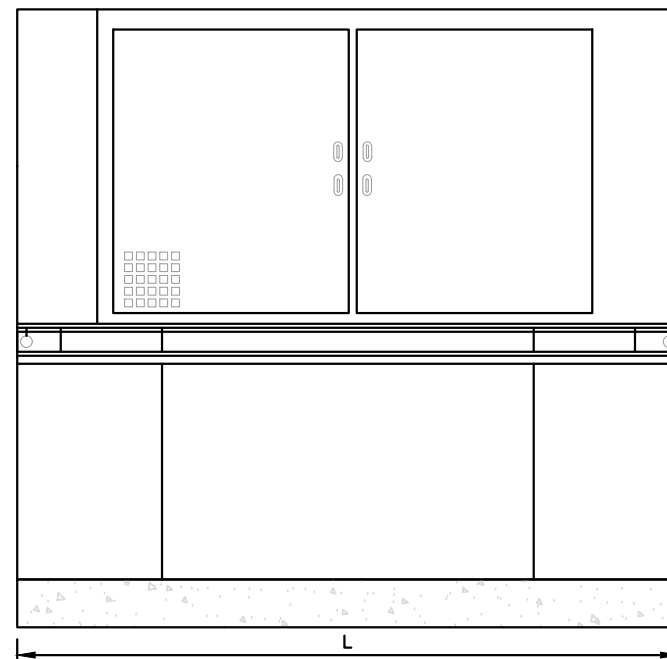
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NEW HAVEN COUNTY

SHEET TITLE
GROUND EQUIPMENT DETAILS
(NSD / L600)

SHEET NUMBER
A-4



25 KW 220 GAL. DIESEL GENERATOR DIMENSIONS	
MODEL #	ESOG150-PCA01 (CONTRACTOR TO CONFIRM WITH T-MOBILE PRIOR TO ORDERING)
MANUF.	DELTA
HEIGHT	71.26"
WIDTH	37.5"
LENGTH	82.67
WEIGHT	5,000 LBS (MAX)



GENERATOR DETAIL
SCALE: N.T.S.

1
A-5

PROPOSED CONCRETE PAD

4
A-4

**T-MOBILE
NORTHEAST LLC**

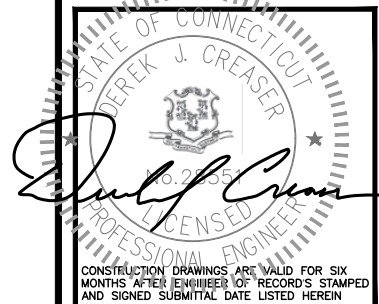
103 MONARCH DRIVE
LIVERPOOL, NY 13088
(315) 265-1882



CROWN CASTLE
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WOBURN, MA 01801



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5986



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NEW HAVEN COUNTY

SHEET TITLE

AUXILIARY POWER
DETAILS

(NSD / L600)

SHEET NUMBER

A-5

**T-MOBILE
NORTHEAST LLC**

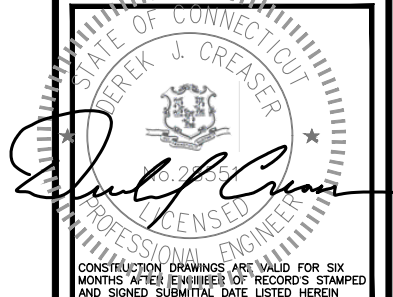
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SHEET TITLE

**COMPOUND
EXPANSION DETAILS**

(NSD / L600)

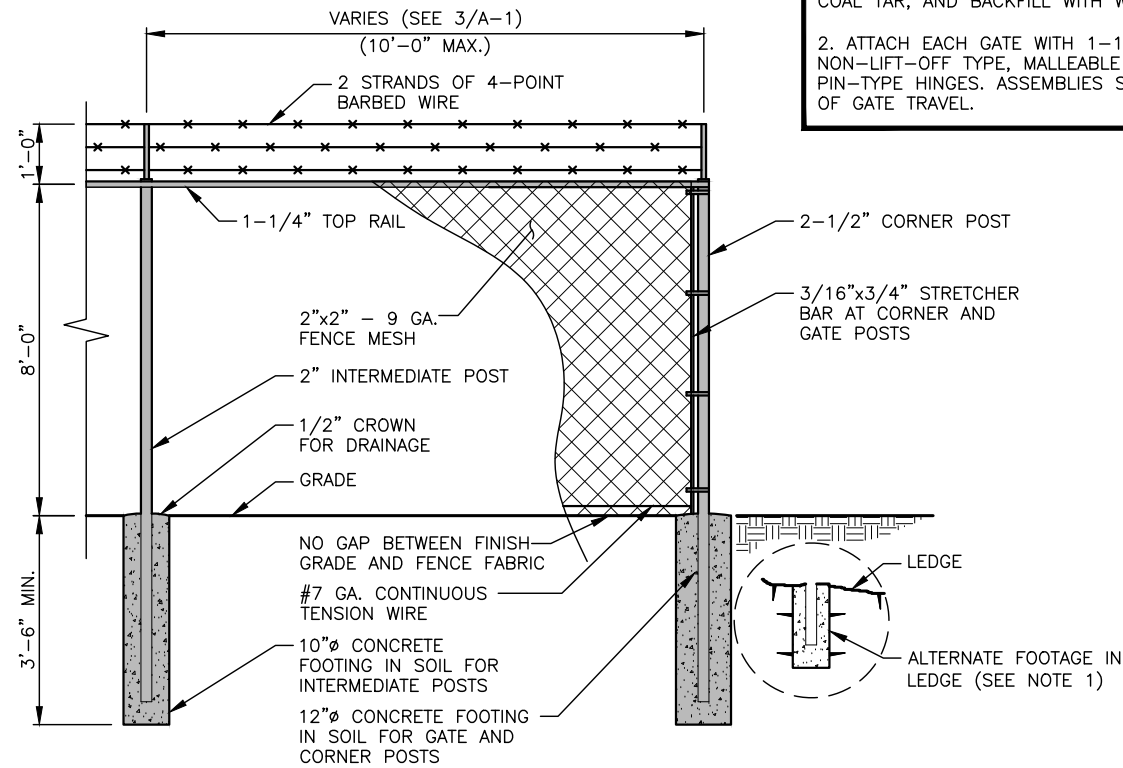
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A-6

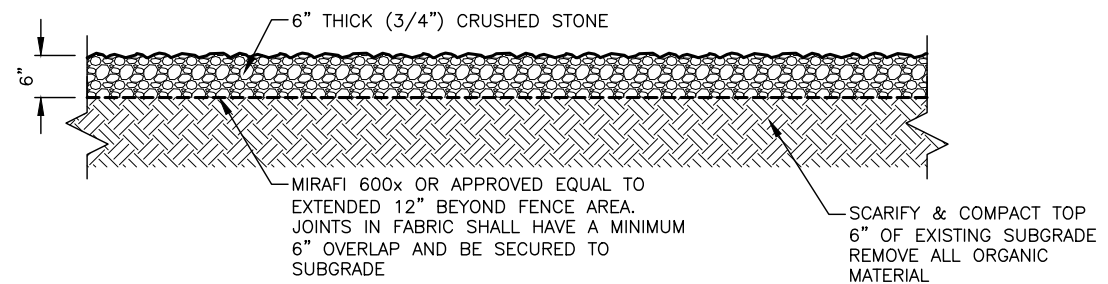
FENCE NOTES

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.

2. ATTACH EACH GATE WITH 1-1/2" PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.



CHAINLINK FENCE DETAIL 1
SCALE: N.T.S. A-6



GRAVEL COMPOUND DETAIL 2
SCALE: N.T.S. A-6

**T-MOBILE
NORTHEAST LLC**

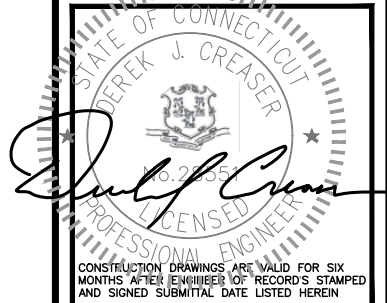
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N. ANDOVER, MA 01845 FAX: (978) 336-5986



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WOODBIDGE, CT 06525

NEW HAVEN COUNTY

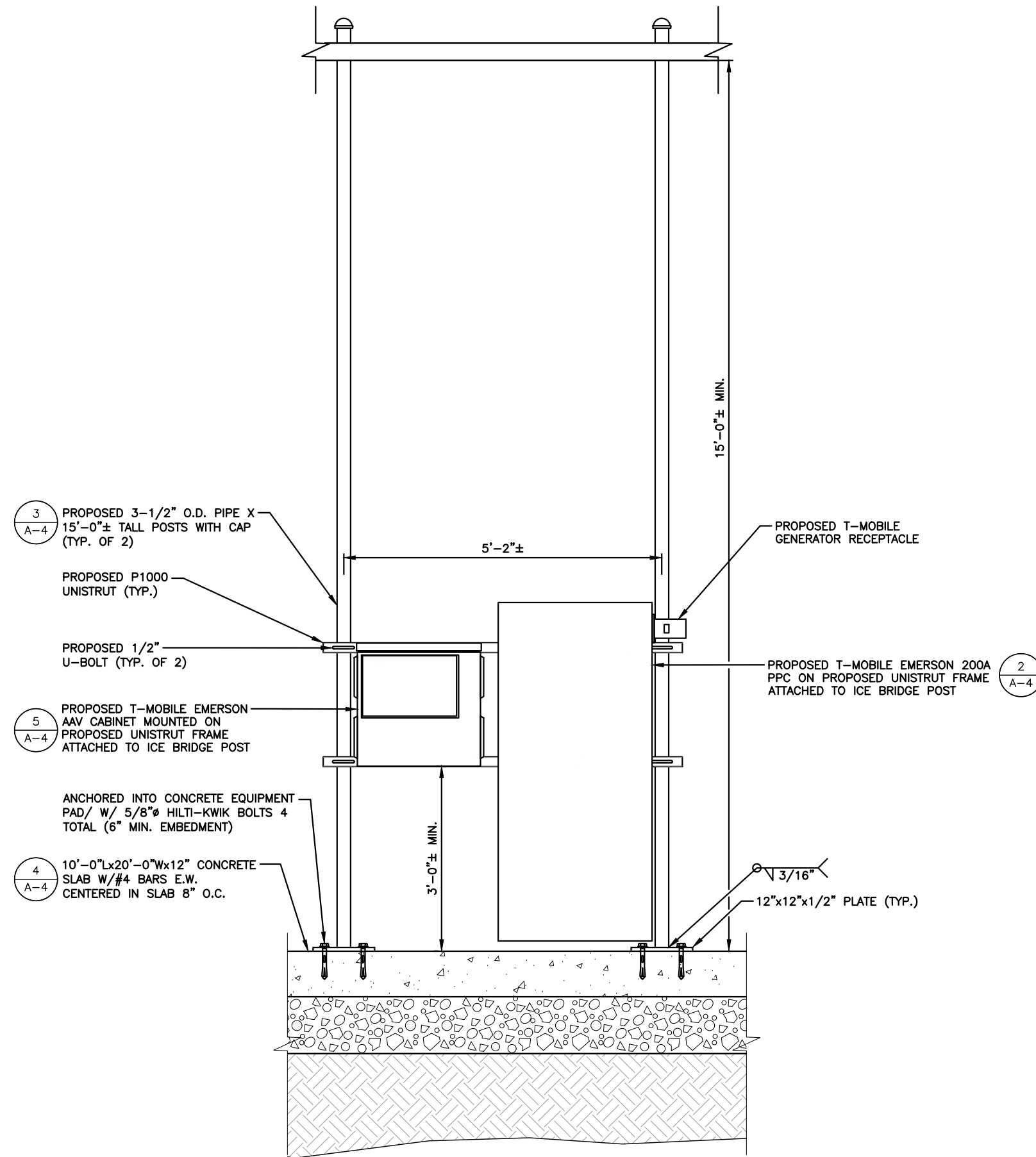
SHEET TITLE

**EQUIPMENT
MOUNTING ELEVATION**

(NSD / L600)

SHEET NUMBER

S-1



EQUIPMENT MOUNTING ELEVATION

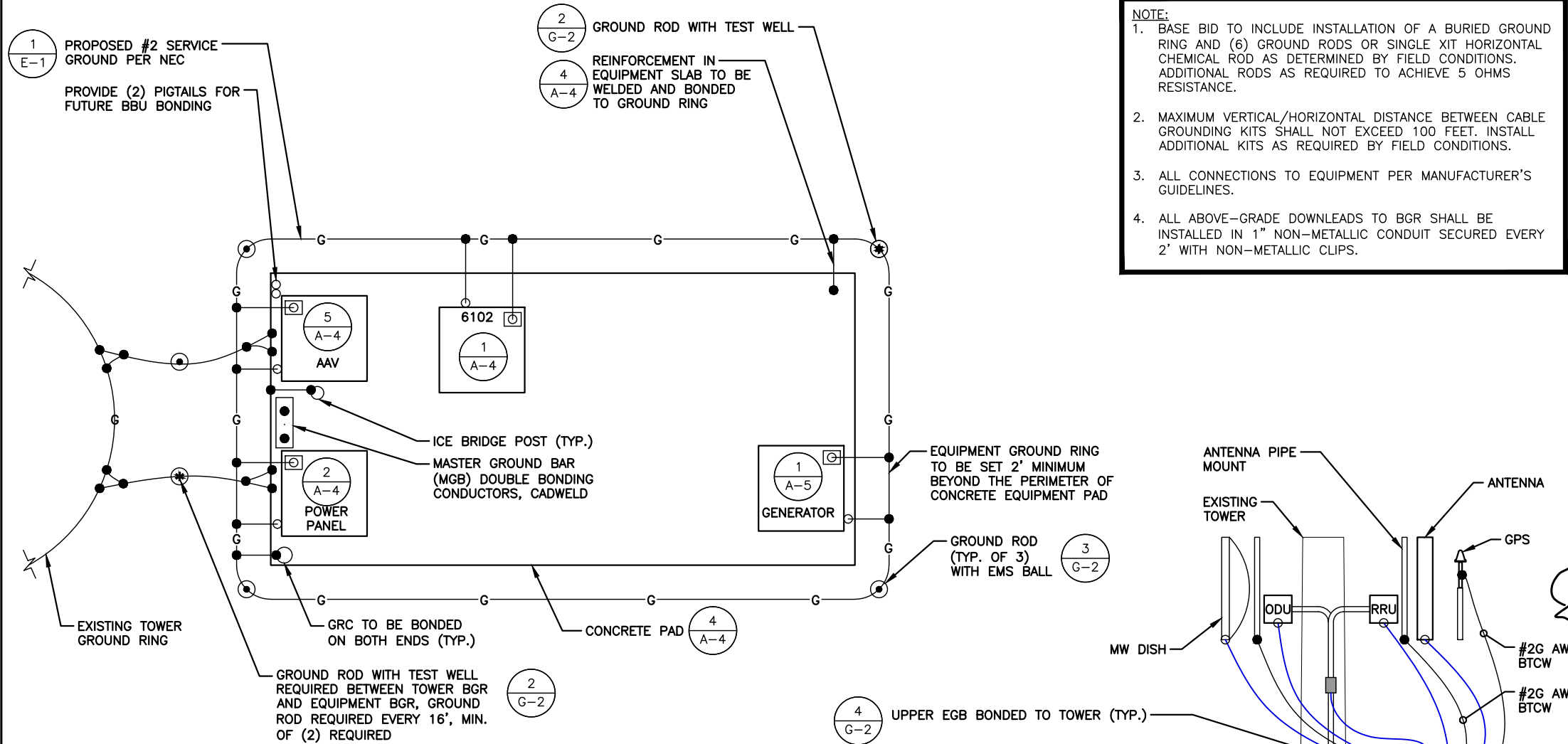
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"

1
S-1



ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS. RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHN INSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL METER BANK AND PROPOSED CELL SITE POWER PEDESTAL AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROPOSED CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON DRAWING A-3. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.

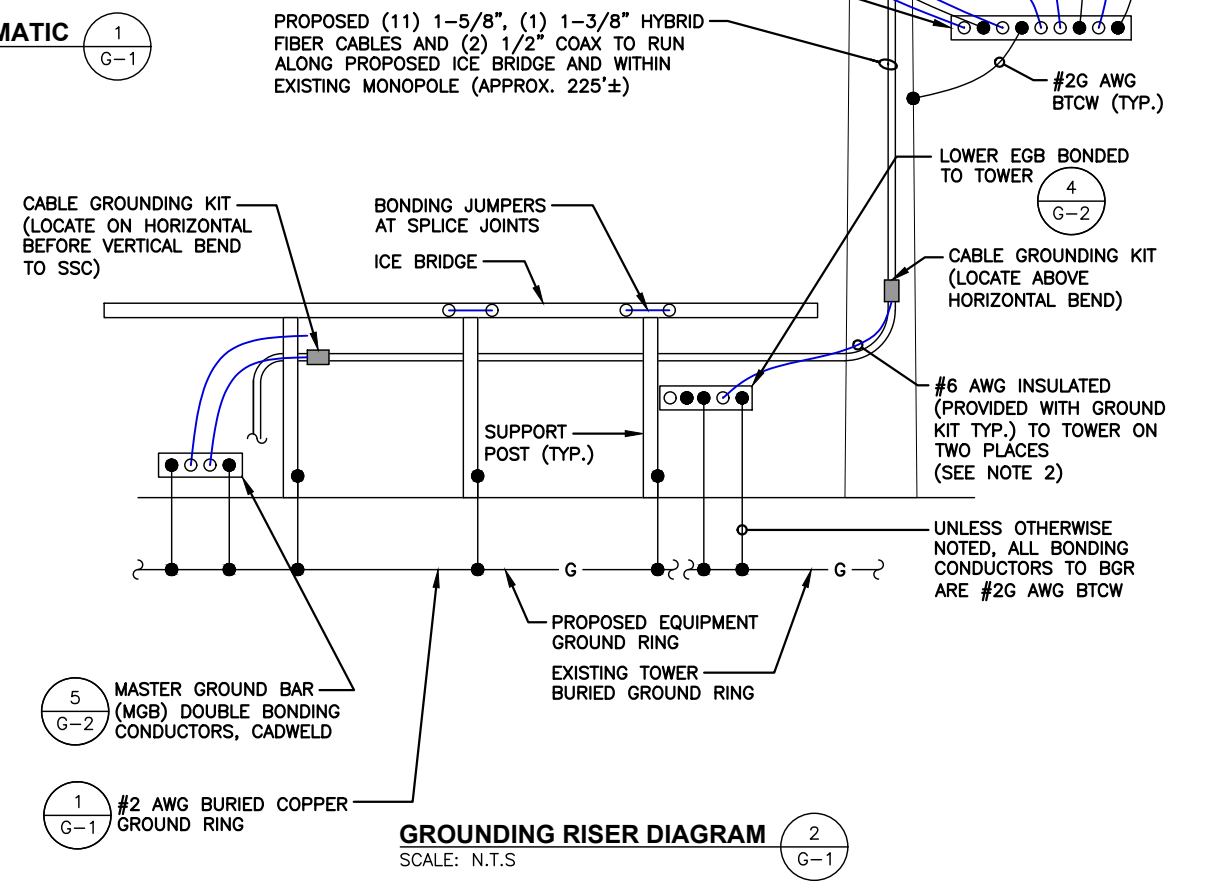


EQUIPMENT PLAN GROUNDING RING SCHEMATIC
SCALE: N.T.S.

- NOTE:**
- BASE BID TO INCLUDE INSTALLATION OF A BURIED GROUND RING AND (6) GROUND RODS OR SINGLE XIT HORIZONTAL CHEMICAL ROD AS DETERMINED BY FIELD CONDITIONS. ADDITIONAL RODS AS REQUIRED TO ACHIEVE 5 OHMS RESISTANCE.
 - MAXIMUM VERTICAL/HORIZONTAL DISTANCE BETWEEN CABLE GROUNDING KITS SHALL NOT EXCEED 100 FEET. INSTALL ADDITIONAL KITS AS REQUIRED BY FIELD CONDITIONS.
 - ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S GUIDELINES.
 - ALL ABOVE-GRADE DOWNLEADS TO BGR SHALL BE INSTALLED IN 1" NON-METALLIC CONDUIT SECURED EVERY 2' WITH NON-METALLIC CLIPS.

LEGEND

A	AMPERE
V	VOLT
KWH	KILOWATT - HOUR
C	CONDUIT
GRC	GALVANIZED RIGID CONDUIT
BGR	BURIED GROUND RING
BTCW	BARE TINNED SOLID COPPER WIRE
G	GROUND
⊕	GROUND
MGB	MASTER GROUND BAR
○	MECHANICAL CONNECTION
●	CADWELD CONNECTION
EGB	EQUIPMENT GROUND BAR
—G—	GROUND COPPER WIRE, SIZE AS NOTED
—	EXPOSED WIRING
—	#6G AWG INSULATED STRANDED
—	COAXIAL CABLE/HYBRID CABLE
⊙	5/8"x8' COPPER CLAD STAINLESS STEEL GROUND ROD
⊛	GROUND ROD WITH TEST WELL
⊕	EXOTHERMIC (CAD WELD) OR MECHANICAL (COMPRESSION TYPE) CONNECTION
PPC	POWER PROTECTION CABINET
⊗	OMNI-DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALL



GROUNDING RISER DIAGRAM
SCALE: N.T.S.

**T-MOBILE
NORTHEAST LLC**

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(315) 265-1882

**CROWN
CASTLE**

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12 GILL STREET, SUITE 5800
WOBURN, MA 01801

**HG
HUDSON
Design Group LLC**

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STATE OF CONNECTICUT
BEREK J. CREASER
16,235
LICENSED PROFESSIONAL ENGINEER

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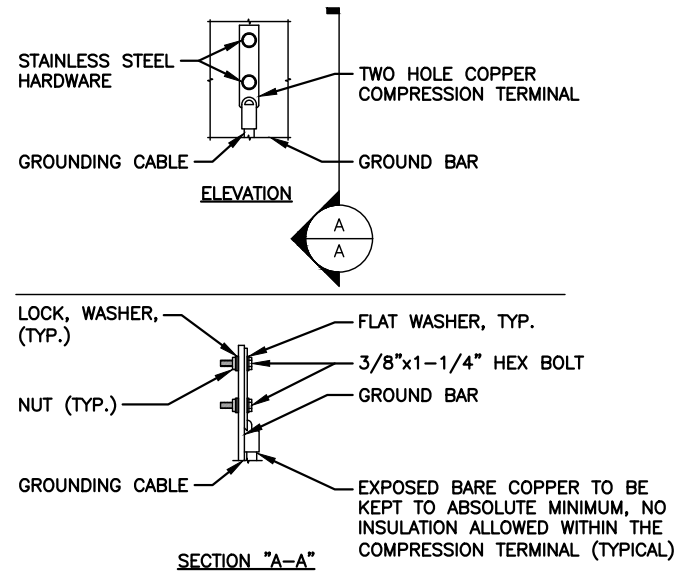
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SHEET TITLE
**GROUNDING
SCHEMATIC AND
RISER DIAGRAM**
(NSD / L600)

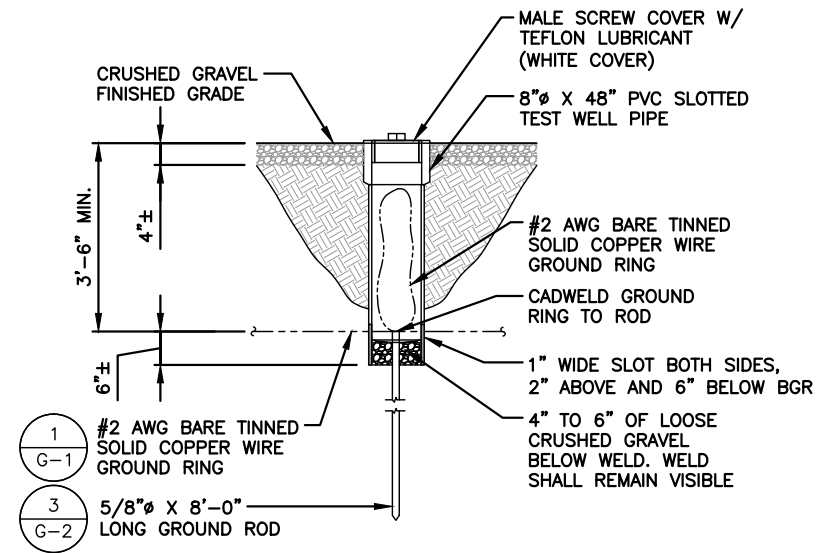
SHEET NUMBER
G-1

ELECTRICAL NOTES

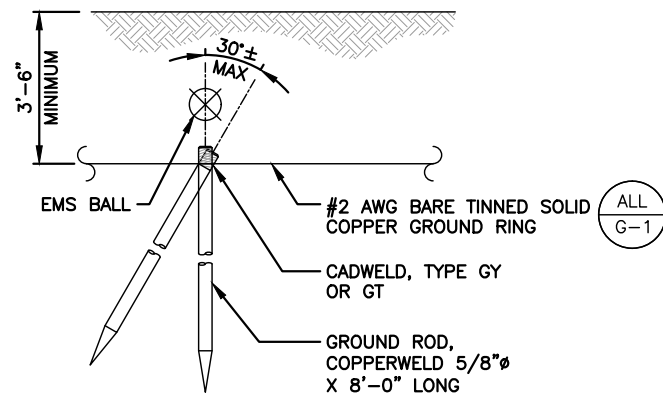
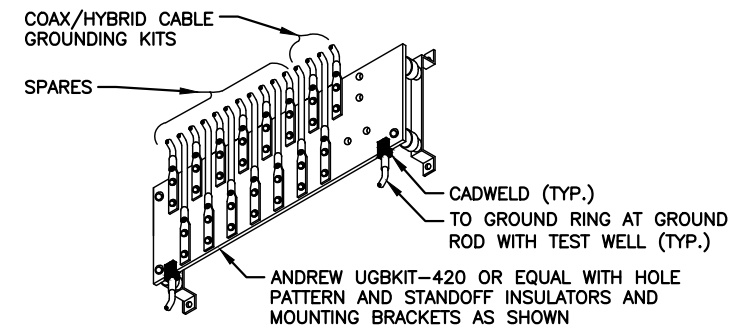
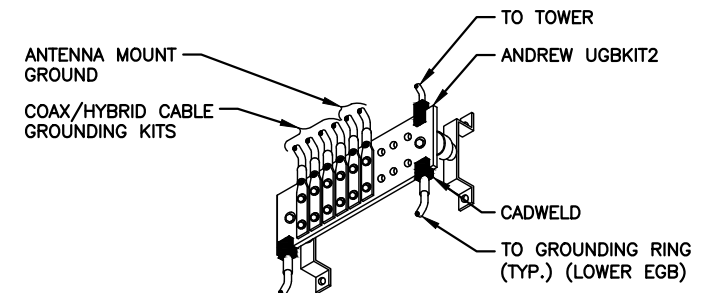
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10. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.



- NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
 3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB.



- NOTE:
1. PROPOSED BGR TO BE INSTALLED 3'-6" MIN. BELOW GRADE OR BELOW LOCAL FROST DEPTH, WHICHEVER IS GREATER.
 2. ONE TEST WELL SHALL BE PROVIDED BETWEEN THE TOWER GROUND LOOP AND TWO ON THE EQUIPMENT GROUND LOOP



- NOTE:
1. PROPOSED BGR TO BE INSTALLED 3'-6" MIN. BELOW GRADE OR BELOW LOCAL FROST DEPTH, WHICHEVER IS GREATER.
 2. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 30 DEGREES FROM THE VERTICAL.

LEGEND

A	AMPERE
V	VOLT
KWH	KILOWATT - HOUR
C	CONDUIT
GRC	GALVANIZED RIGID CONDUIT
BGR	BURIED GROUND RING
BTCW	BARE TINNED SOLID COPPER WIRE
G	GROUND
⏚	GROUND
MGB	MASTER GROUND BAR
○	MECHANICAL CONNECTION
●	CADWELD CONNECTION
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PPC	POWER PROTECTION CABINET
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STATE OF CONNECTICUT
Derek J. Creaser
LICENSED PROFESSIONAL ENGINEER
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1027 RACEBROOK ROAD
WOODBIDGE, CT 06525
NEW HAVEN COUNTY

SHEET TITLE
GROUNDING DETAILS AND NOTES
(NSD / L600)

SHEET NUMBER
G-2



B+T Group
 1717 S. Boulder, Suite 300
 Tulsa, OK 74119
 (918) 587-4630

Date: **October 1, 2018**

Holly Haas
 Crown Castle
 3530 Toringdon Way Suite 300
 Charlotte, NC 28277

Subject: **Structural Analysis Report**

Carrier Designation: **T-Mobile Co-Locate**

Carrier Site Number: CTNH085A
Carrier Site Name: CTNH085A

Crown Castle Designation: **Crown Castle BU Number:** 876315
Crown Castle Site Name: Oak Lane CC, Inc. Tower (SSUSA)
Crown Castle JDE Job Number: 522301
Crown Castle Work Order Number: 1636198
Crown Castle Order Number: 452958 Rev. 0

Engineering Firm Designation: **B+T Group Project Number:** 81150.006.01

Site Data: **1027 Racebrook Road, Woodbridge, New Haven County, CT**
Latitude 41° 19' 0.3", Longitude -73° 0' 41.8"
150 Foot - Monopole Tower

Dear Holly Haas,

B+T Group is pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above-mentioned tower.

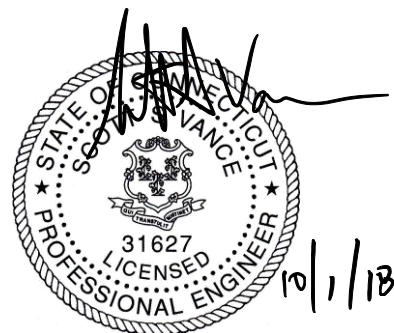
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity**

The analysis has been performed in accordance with the TIA-222-H Standard. This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2016 Connecticut State Building Code. Exposure Category B and Risk Category II were used in this analysis.

Structural analysis prepared by: Jacob Johnson, E.I.T.

Respectfully submitted by: B&T Engineering, Inc.
 COA: PEC.0001564 Expires: 2/10/2019



Scott S. Vance, P.E.

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1) INTRODUCTION

This tower is a 150 ft. Monopole designed by SUMMIT in February of 1998. The tower was originally designed for a wind speed of 90 mph per TIA/EIA-222-F. Additional anchor rods designed by PJF in August of 2012 are considered in this analysis.

2) ANALYSIS CRITERIA

Building Code:	2016 Connecticut State Building Code
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.275 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
138.0	138.0	4	Ericsson	AIR 32 B2A/B66AA	11 1 2	1-5/8 1-3/8 1/2
		4	Ericsson	ERICSSON AIR 21 B2A B4P		
		4	Ericsson	RADIO 4449 B12/B71		
		1	Gps	GPS_A		
		4	Rfs Celwave	APXVAA24_43-U-A20		
		4	Rfs Celwave	ATMA4P4DBP-1A20		
		1	Rfs Celwave	SC2-W100AC		
		1	--	Platform Mount [LP 701-1]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
150.0	160.0	1	Dbspectra	DS4C06F36D-D	3 1	1-1/4 7/8
	153.0	3	Alcatel Lucent	1900MHz RRH (65MHz)		
		3	Alcatel Lucent	800MHZ RRH		
		3	Rfs Celwave	APXVSPP18-C-A20		
		3	Rfs Celwave	APXVTM14-C-120		
	150.0	3	Alcatel Lucent	800 External Notch Filter		
		9	Rfs Celwave	ACU-A20-N		
		1	--	Miscellaneous [NA 507-1]		
		1	--	Platform Mount [LP 1201-1]		
	147.0	3	Alcatel Lucent	TD-RRH8x20-25		
147.0	1	--	Side Arm Mount [SO 102-3]			
126.0	129.0	1	Rfs Celwave	TMA-DB-T1-6Z-8AB-0Z	--	--
124.0	130.0	1	Gps	GPS_A	13 1	1-1/4 1/2
	127.0	1	Antel	BXA-70080/4CF		
		2	Antel	BXA-80063/4CF		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
124.0	126.0	3	Alcatel Lucent	RRH2X40-AWS	--	--
		1	Alcatel Lucent	RRH4X45-19		
		3	Powerwave Tech	P65.16.XL.2		
		3	Rymosa Wireless	MG D3-800TV		
		3	Rymosa Wireless	MG D3-800Tx		
	124.0	1	--	Platform Mount [LP 1201-1]		
102.0	107.0	1	Gps	GPS_A	12 1 2 1	1-5/8 1/2 5/8 3/8
	102.0	3	Ericsson	RRUS-11 BAND 12		
		3	Powerwave Tech	7770.00		
		6	Powerwave Tech	P65-16-XLH-RR		
		6	Powerwave Tech	TS07-AWDB111-001		
		1	Raycap	DC6-48-60-18-8F		
1	--	Platform Mount [LP 1201-1]				
82.0	83.0	1	Lucent	KS24019-L112A	1	1/2
	82.0	1	--	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3- Documents Provided

Document	Remarks	Reference	Source
Online Order Information	T-Mobile Co-Locate, Revision #0	452958	CCI Sites
Tower Manufacturing Drawings	Summit Manufacturing LLC., Job No. 2249	2134236	CCI Sites
Tower Modification Drawings	PJF, Date: 10/22/2001	2134235	CCI Sites
Tower Modification Drawings	B&T Engineering, Date: 11/25/2008	2414123	CCI Sites
Post Modification Inspection	B&T Engineering, Date: 04/03/2009	2414121	CCI Sites
Tower Modification Drawings	PJF, Date: 06/24/2012	3313096	CCI Sites
Post Modification Inspection	TEP, Date: 11/21/2013	4137621	CCI Sites
Foundation Drawings	Summit Manufacturing LLC., Job No. 2249	2112237	CCI Sites
Geotech Report	Clough, Harbour & Associates, Project No. 5835.07.15	2134233	CCI Sites
Antenna Configuration	Crown CAD Package	Date: 09/19/2018	CCI Sites

3.1) Analysis Method

tnxTower (version 8.0.4.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

- 1) Tower and structures were built in accordance with the manufacturer's specifications.
- 2) The tower and structures have been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 4) Mount areas and weights are assumed based on photographs provided.

5) The existing base plate grout was not considered in this analysis.

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	150 - 102.5	Pole	TP30.314x22x0.25	1	-15.808	1503.421	72.0	Pass
L2	102.5 - 62	Pole	TP36.903x29.158x0.313	2	-27.609	2463.111	93.3	Pass
L3	62 - 32.25	Pole	TP41.485x35.447x0.375	3	-37.422	3419.293	90.6	Pass
L4	32.25 - 0	Pole	TP46.38x39.816x0.438	4	-52.345	4598.737	86.7	Pass
							Summary	
						Pole (L2)	93.3	Pass
						Rating =	93.3	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation	% Capacity	Pass / Fail	
1	Anchor Rods	Base	67.2	Pass	
1	Base Plate	Base	56.8	Pass	
1	Base Foundation	Structure	Base	22.8	Pass
		Soil	Base	78.9	Pass

Structure Rating (max from all components) =	93.3%
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Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
- 2) Rating per TIA-222-H Section 15.5.

4.1) Recommendations

The tower and its base foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

Table 6 – Proposed Loading Tilt-Sway Results for 60 mph Service Wind – LC7

Elevation (ft)	Dish Model	Diameter (ft)	Tilt (°)	Twist (°)
138.0	SC2-W100AC	2.200	1.649	0.005

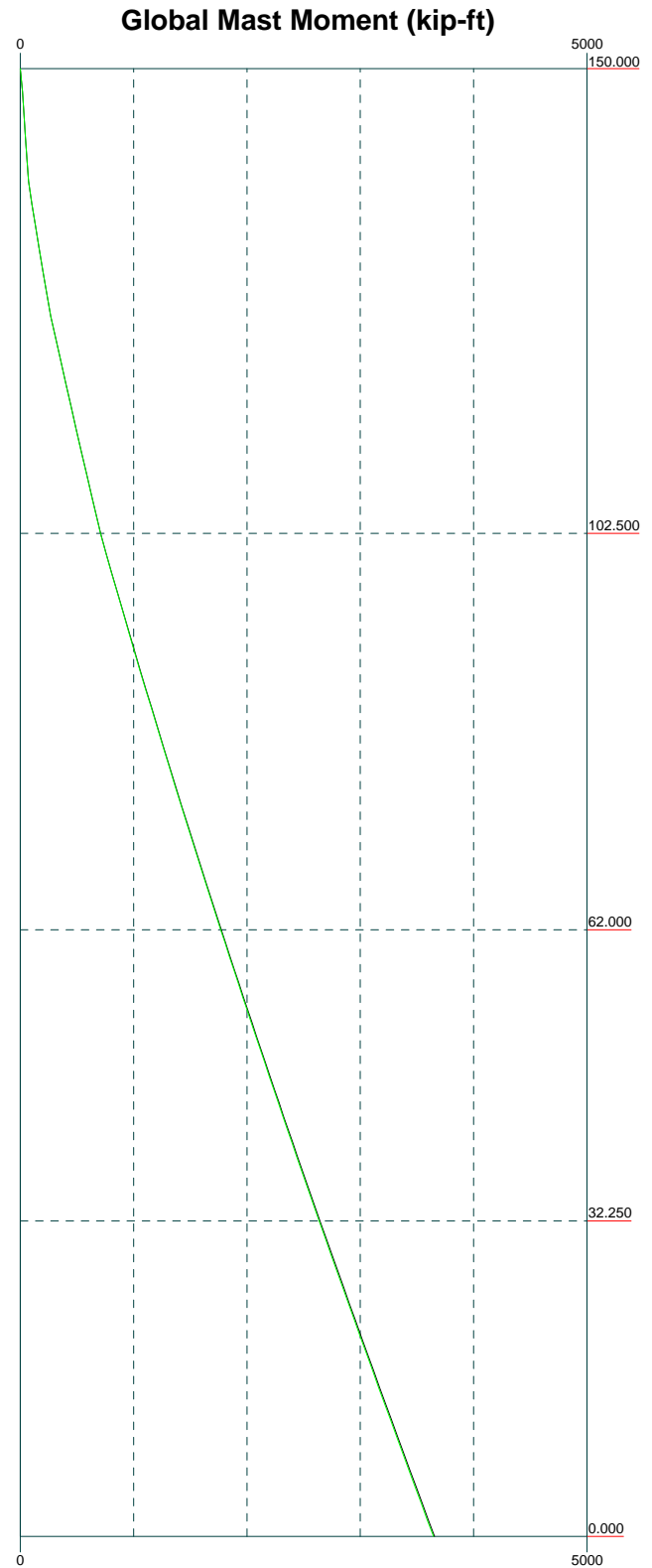
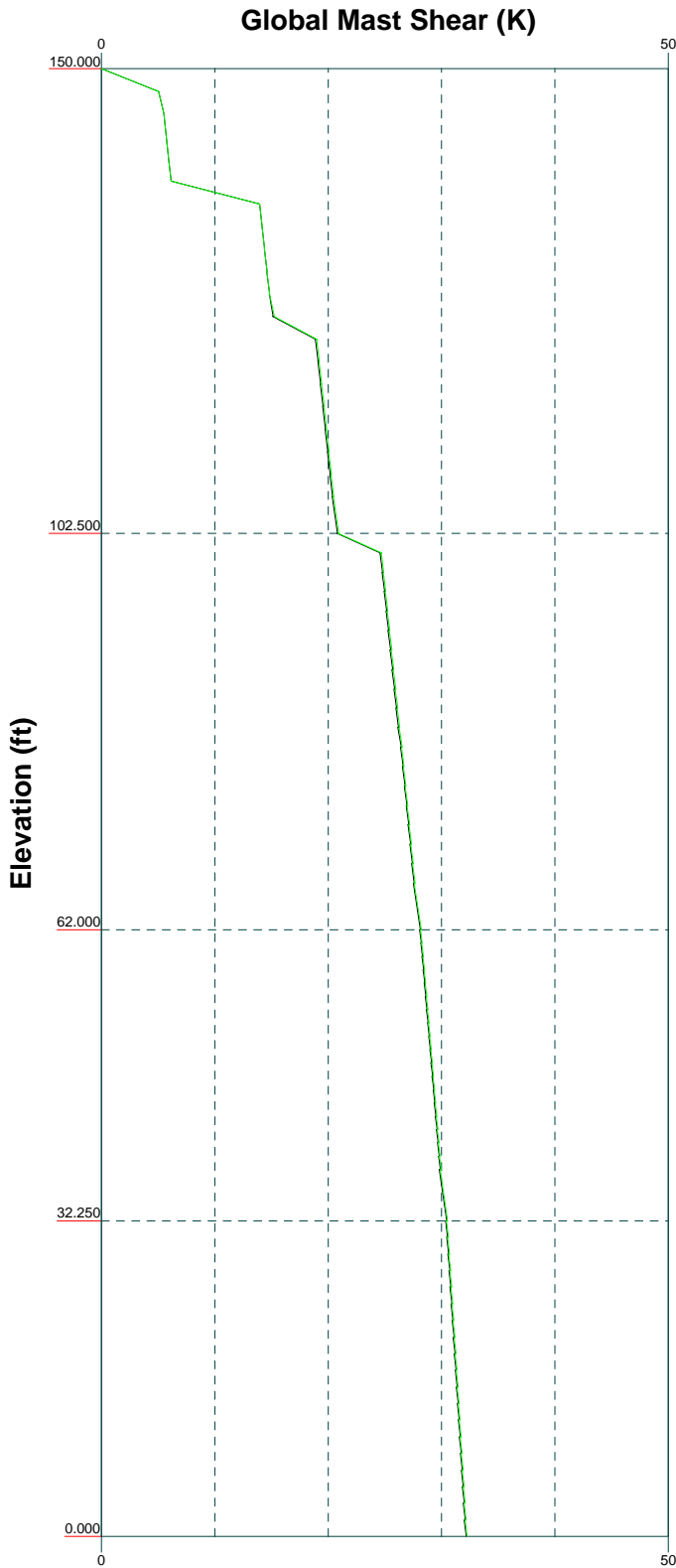
APPENDIX A
TNXTOWER OUTPUT

Vx

Vz

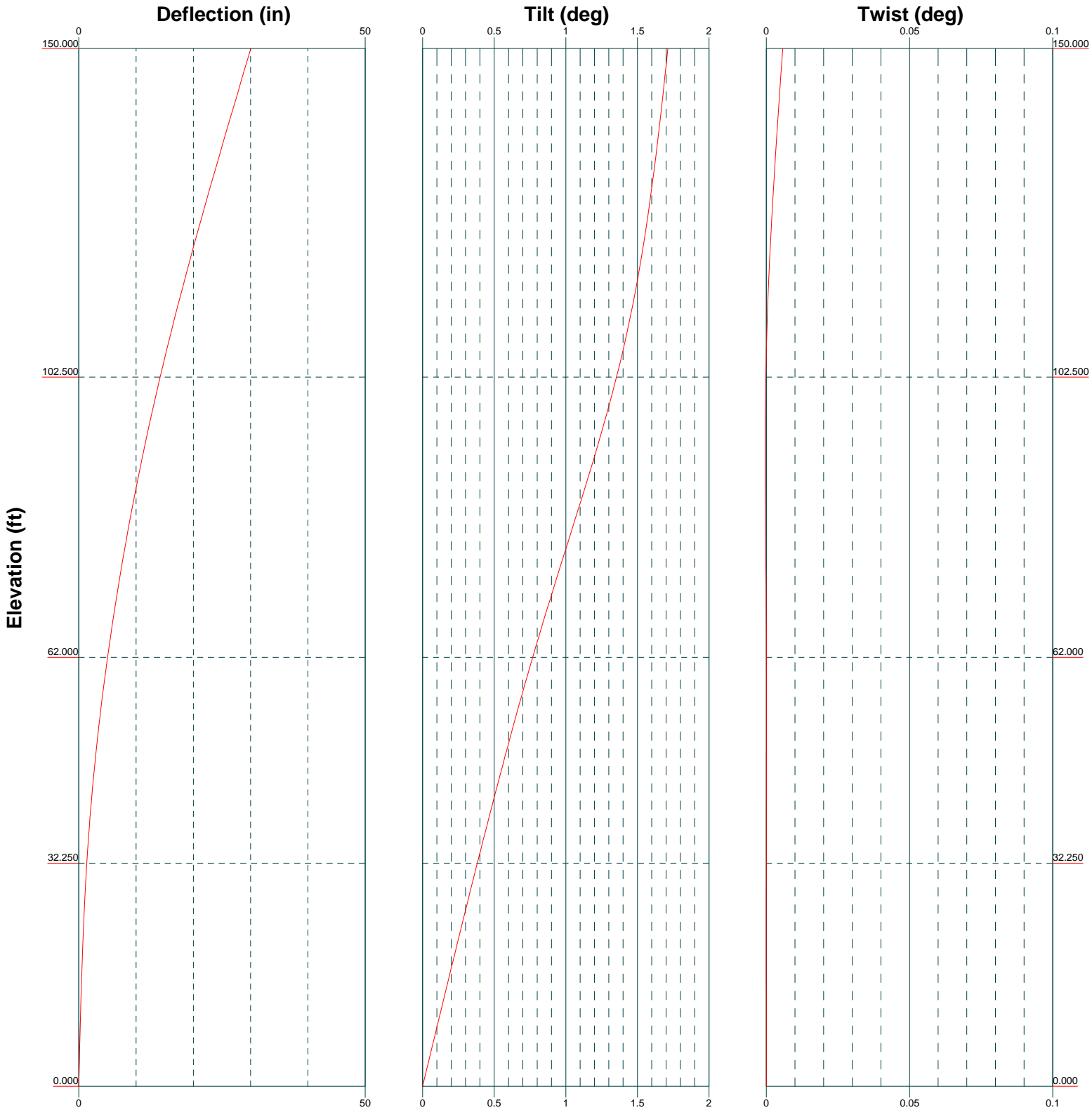
Mx

Mz



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Job: 81150.006.01 - OAK LANE CC, INC. TOWER (SSUSA, CT (BU# 87631		
Project:		
Client: Crown Castle	Drawn by: Divakar	App'd:
Code: TIA-222-H	Date: 09/29/18	Scale: NTS
Path:	Dwg No. E-4	

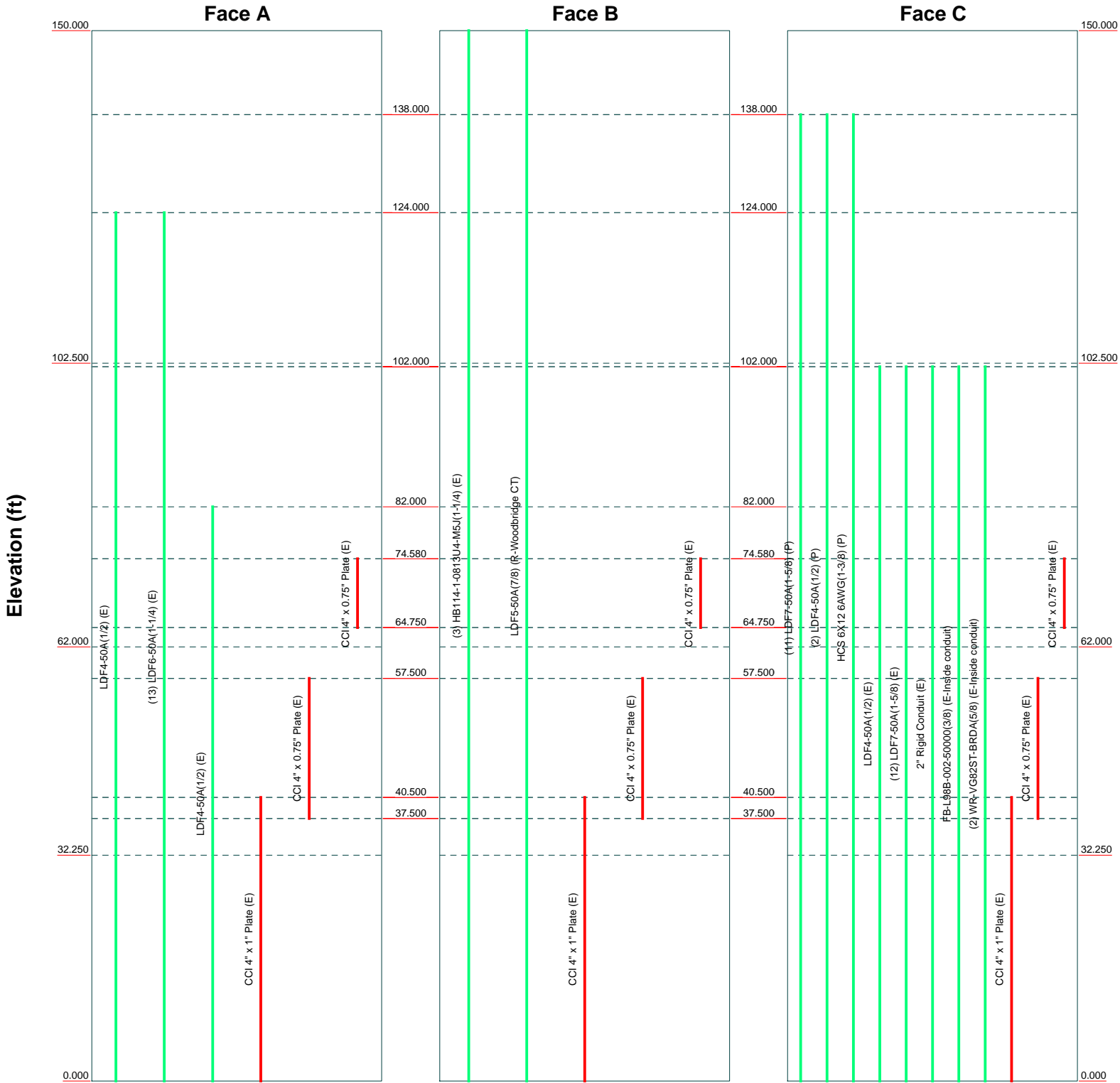


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Project:		
Client: Crown Castle	Drawn by: Divakar	App'd:
Code: TIA-222-H	Date: 09/29/18	Scale: NTS
Path:	Dwg No. E-5	

Feed Line Distribution Chart 0' - 150'

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



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Project:		
Client: Crown Castle	Drawn by: Divakar	App'd:
Code: TIA-222-H	Date: 09/29/18	Scale: NTS
Path:	Dwg No. E-7	

tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 81150.006.01 - OAK LANE CC, INC. TOWER (SSUSA, CT (BU# 876315)	Page 1 of 30
	Project	Date 14:58:52 09/29/18
	Client Crown Castle	Designed by Divakar

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in New Haven County, Connecticut.

Tower base elevation above sea level: 238.000 ft.

Basic wind speed of 125 mph.

Risk Category II.

Exposure Category B.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height 0.000 ft.

Nominal ice thickness of 1.275 in.

Ice thickness is considered to increase with height.

Ice density of 56.000 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50.000 °F.

Deflections calculated using a wind speed of 60 mph.

TIA-222-H Annex S.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

<ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric 	<ul style="list-style-type: none"> Distribute Leg Loads As Uniform Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs 	<ul style="list-style-type: none"> Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <li style="text-align: center;">Poles √ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
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Tapered Pole Section Geometry

tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 81150.006.01 - OAK LANE CC, INC. TOWER (SSUSA, CT (BU# 876315)	Page 2 of 30
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	Client Crown Castle	Designed by Divakar

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	150.000-102.500	47.500	3.750	12	22.000	30.314	0.250	1.000	A607-60 (60 ksi)
L2	102.500-62.000	44.250	4.750	12	29.158	36.903	0.313	1.250	A607-65 (65 ksi)
L3	62.000-32.250	34.500	5.250	12	35.447	41.485	0.375	1.500	A607-65 (65 ksi)
L4	32.250-0.000	37.500		12	39.816	46.380	0.438	1.750	A607-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	22.688	17.509	1057.206	7.786	11.396	92.770	2142.186	8.617	5.226	20.904
	31.295	24.202	2792.043	10.763	15.703	177.807	5657.436	11.911	7.454	29.817
L2	30.756	29.025	3082.545	10.327	15.104	204.093	6246.072	14.285	6.977	22.326
	38.095	36.819	6292.118	13.099	19.116	329.159	12749.537	18.121	9.053	28.968
L3	37.425	42.349	6648.734	12.556	18.361	362.105	13472.137	20.843	8.495	22.652
	42.816	49.640	10708.176	14.717	21.489	498.304	21697.669	24.431	10.113	26.968
L4	42.018	55.475	10979.966	14.098	20.625	532.369	22248.388	27.303	9.498	21.71
	47.862	64.721	17436.678	16.447	24.025	725.777	35331.437	31.854	11.257	25.731

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 150.000-102.500				1	1	1			
L2 102.500-62.000				1	1	1			
L3 62.000-32.250				1	1	1			
L4 32.250-0.000				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
d										
CCI 4" x 1" Plate (E)	A	No	Surface Af (CaAa)	40.500 - 0.000	1	1	0.000 0.000	4.000	10.000	0.014
CCI 4" x 1" Plate (E)	B	No	Surface Af (CaAa)	40.500 - 0.000	1	1	0.000 0.000	4.000	10.000	0.014
CCI 4" x 1" Plate (E)	C	No	Surface Af (CaAa)	40.500 - 0.000	1	1	0.000 0.000	4.000	10.000	0.014
CCI 4" x 0.75" Plate	A	No	Surface Af	57.500 -	1	1	0.000	4.000	9.500	0.020

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	Project	Date 14:58:52 09/29/18
	Client Crown Castle	Designed by Divakar

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
(E)			(CaAa)	37.500			0.000			
CCI 4" x 0.75" Plate	B	No	Surface Af	57.500 -	1	1	0.000	4.000	9.500	0.020
(E)			(CaAa)	37.500			0.000			
CCI 4" x 0.75" Plate	C	No	Surface Af	57.500 -	1	1	0.000	4.000	9.500	0.020
(E)			(CaAa)	37.500			0.000			
CCI 4" x 0.75" Plate	A	No	Surface Af	74.580 -	1	1	0.000	4.000	9.500	0.010
(E)			(CaAa)	64.750			0.000			
CCI 4" x 0.75" Plate	B	No	Surface Af	74.580 -	1	1	0.000	4.000	9.500	0.010
(E)			(CaAa)	64.750			0.000			
CCI 4" x 0.75" Plate	C	No	Surface Af	74.580 -	1	1	0.000	4.000	9.500	0.010
(E)			(CaAa)	64.750			0.000			
d										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight klf
HB114-1-0813U4-M 5J(1-1/4) (E)	B	No	No	Inside Pole	150.000 - 0.000	3	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.001 0.001 0.001 0.001
LDF5-50A(7/8) (R-Woodbridge CT)	B	No	No	Inside Pole	150.000 - 0.000	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
d									
LDF7-50A(1-5/8) (P)	C	No	No	Inside Pole	138.000 - 0.000	11	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.001 0.001 0.001 0.001
LDF4-50A(1/2) (P)	C	No	No	Inside Pole	138.000 - 0.000	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
HCS 6X12 6AWG(1-3/8) (P)	C	No	No	Inside Pole	138.000 - 0.000	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.002 0.002 0.002 0.002
d									
LDF4-50A(1/2) (E)	A	No	No	Inside Pole	124.000 - 0.000	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
LDF6-50A(1-1/4) (E)	A	No	No	Inside Pole	124.000 - 0.000	13	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.001 0.001 0.001 0.001
d									
LDF4-50A(1/2) (E)	C	No	No	Inside Pole	102.000 - 0.000	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
LDF7-50A(1-5/8) (E)	C	No	No	Inside Pole	102.000 - 0.000	12	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001

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	Project	Date 14:58:52 09/29/18
	Client Crown Castle	Designed by Divakar

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight klf
2" Rigid Conduit (E)	C	No	No	Inside Pole	102.000 - 0.000	1	2" Ice	0.000	0.001
							No Ice	0.000	0.003
							1/2" Ice	0.000	0.003
							1" Ice	0.000	0.003
							2" Ice	0.000	0.003
FB-L98B-002-50000 (3/8) (E-Inside conduit)	C	No	No	Inside Pole	102.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
WR-VG82ST-BRD A(5/8) (E-Inside conduit)	C	No	No	Inside Pole	102.000 - 0.000	2	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
d LDF4-50A(1/2) (E)	A	No	No	Inside Pole	82.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
d									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	150.000-102.500	A	0.000	0.000	0.000	0.000	0.171
		B	0.000	0.000	0.000	0.000	0.187
		C	0.000	0.000	0.000	0.000	0.391
L2	102.500-62.000	A	0.000	0.000	6.553	0.000	0.425
		B	0.000	0.000	6.553	0.000	0.259
		C	0.000	0.000	6.553	0.000	1.085
L3	62.000-32.250	A	0.000	0.000	18.833	0.000	0.761
		B	0.000	0.000	18.833	0.000	0.637
		C	0.000	0.000	18.833	0.000	1.249
L4	32.250-0.000	A	0.000	0.000	21.500	0.000	0.700
		B	0.000	0.000	21.500	0.000	0.565
		C	0.000	0.000	21.500	0.000	1.228

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	150.000-102.500	A	1.457	0.000	0.000	0.000	0.000	0.171
		B		0.000	0.000	0.000	0.000	0.187
		C		0.000	0.000	0.000	0.000	0.391
L2	102.500-62.000	A	1.396	0.000	0.000	8.501	0.000	0.509
		B		0.000	0.000	8.501	0.000	0.343
		C		0.000	0.000	8.501	0.000	1.169
L3	62.000-32.250	A	1.320	0.000	0.000	26.722	0.000	0.990
		B		0.000	0.000	26.722	0.000	0.866

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L4	32.250-0.000	C		0.000	0.000	26.722	0.000	1.478
		A	1.184	0.000	0.000	30.016	0.000	0.948
		B		0.000	0.000	30.016	0.000	0.814
		C		0.000	0.000	30.016	0.000	1.477

Feed Line Center of Pressure

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
L1	150.000-102.500	0.000	0.000	0.000	0.000
L2	102.500-62.000	0.000	0.000	0.000	0.000
L3	62.000-32.250	0.000	0.000	0.000	0.000
L4	32.250-0.000	0.000	0.000	0.000	0.000

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	29	CCI 4" x 0.75" Plate	102.50 - 74.58	1.0000	1.0000
L1	30	CCI 4" x 0.75" Plate	102.50 - 74.58	1.0000	1.0000
L1	31	CCI 4" x 0.75" Plate	102.50 - 74.58	1.0000	1.0000
L2	23	CCI 4" x 1" Plate	62.00 - 40.50	1.0000	1.0000
L2	24	CCI 4" x 1" Plate	62.00 - 40.50	1.0000	1.0000
L2	25	CCI 4" x 1" Plate	62.00 - 40.50	1.0000	1.0000
L2	26	CCI 4" x 0.75" Plate	62.00 - 57.50	1.0000	1.0000
L2	27	CCI 4" x 0.75" Plate	62.00 - 57.50	1.0000	1.0000
L2	28	CCI 4" x 0.75" Plate	62.00 - 57.50	1.0000	1.0000
L3	23	CCI 4" x 1" Plate	32.25 - 40.50	1.0000	1.0000
L3	24	CCI 4" x 1" Plate	32.25 - 40.50	1.0000	1.0000
L3	25	CCI 4" x 1" Plate	32.25 - 40.50	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _{AA}		Weight K	
			Horz Lateral ft	Vert ft			Front ft ²	Side ft ²		
Lightning Rod 5/8" x 6' (E)	B	From Leg	4.000	0.000	0.000	153.000	No Ice	0.375	0.375	0.033
			0.000	0.000			1/2" Ice	0.989	0.989	0.037
			0.000	0.000			1" Ice	1.619	1.619	0.045
							2" Ice	2.464	2.464	0.074
d										
APXVTM14-C-120 w/ Mount Pipe (E)	A	From Leg	4.000	0.000	0.000	150.000	No Ice	6.580	4.959	0.077
			0.000	0.000			1/2" Ice	7.031	5.754	0.131
			3.000	0.000			1" Ice	7.473	6.472	0.193
							2" Ice	8.385	7.941	0.338
APXVTM14-C-120 w/ Mount Pipe (E)	B	From Leg	4.000	0.000	0.000	150.000	No Ice	6.580	4.959	0.077
			0.000	0.000			1/2" Ice	7.031	5.754	0.131
			3.000	0.000			1" Ice	7.473	6.472	0.193
							2" Ice	8.385	7.941	0.338
APXVTM14-C-120 w/ Mount Pipe (E)	C	From Leg	4.000	0.000	0.000	150.000	No Ice	6.580	4.959	0.077
			0.000	0.000			1/2" Ice	7.031	5.754	0.131
			3.000	0.000			1" Ice	7.473	6.472	0.193
							2" Ice	8.385	7.941	0.338
APXVSP18-C-A20 w/ Mount Pipe (E)	A	From Leg	4.000	0.000	0.000	150.000	No Ice	8.262	6.946	0.083
			0.000	0.000			1/2" Ice	8.822	8.127	0.151
			3.000	0.000			1" Ice	9.346	9.021	0.227
							2" Ice	10.418	10.844	0.406
APXVSP18-C-A20 w/ Mount Pipe (E)	B	From Leg	4.000	0.000	0.000	150.000	No Ice	8.262	6.946	0.083
			0.000	0.000			1/2" Ice	8.822	8.127	0.151
			3.000	0.000			1" Ice	9.346	9.021	0.227
							2" Ice	10.418	10.844	0.406
APXVSP18-C-A20 w/ Mount Pipe (E)	C	From Leg	4.000	0.000	0.000	150.000	No Ice	8.262	6.946	0.083
			0.000	0.000			1/2" Ice	8.822	8.127	0.151
			3.000	0.000			1" Ice	9.346	9.021	0.227
							2" Ice	10.418	10.844	0.406
TD-RRH8x20-25 (E)	A	From Leg	1.000	0.000	0.000	150.000	No Ice	4.045	1.535	0.070
			0.000	0.000			1/2" Ice	4.298	1.714	0.097
			-3.000	0.000			1" Ice	4.557	1.901	0.128
							2" Ice	5.098	2.295	0.201
TD-RRH8x20-25 (E)	B	From Leg	1.000	0.000	0.000	150.000	No Ice	4.045	1.535	0.070
			0.000	0.000			1/2" Ice	4.298	1.714	0.097
			-3.000	0.000			1" Ice	4.557	1.901	0.128
							2" Ice	5.098	2.295	0.201
TD-RRH8x20-25 (E)	C	From Leg	1.000	0.000	0.000	150.000	No Ice	4.045	1.535	0.070
			0.000	0.000			1/2" Ice	4.298	1.714	0.097
			-3.000	0.000			1" Ice	4.557	1.901	0.128
							2" Ice	5.098	2.295	0.201
800MHZ RRH (E)	A	From Leg	1.000	0.000	0.000	150.000	No Ice	2.134	1.773	0.053
			0.000	0.000			1/2" Ice	2.320	1.946	0.074
			3.000	0.000			1" Ice	2.512	2.127	0.098
							2" Ice	2.920	2.510	0.157
800MHZ RRH (E)	B	From Leg	1.000	0.000	0.000	150.000	No Ice	2.134	1.773	0.053
			0.000	0.000			1/2" Ice	2.320	1.946	0.074
			3.000	0.000			1" Ice	2.512	2.127	0.098
							2" Ice	2.920	2.510	0.157
800MHZ RRH (E)	C	From Leg	1.000	0.000	0.000	150.000	No Ice	2.134	1.773	0.053
			0.000	0.000			1/2" Ice	2.320	1.946	0.074
			3.000	0.000			1" Ice	2.512	2.127	0.098
							2" Ice	2.920	2.510	0.157
800 EXTERNAL NOTCH FILTER (E)	A	From Leg	3.000	0.000	0.000	150.000	No Ice	0.660	0.321	0.011
			0.000	0.000			1/2" Ice	0.763	0.398	0.017
			0.000	0.000			1" Ice	0.873	0.483	0.024
							2" Ice	1.115	0.674	0.045

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			Horz Lateral ft	Vert ft						
800 EXTERNAL NOTCH FILTER (E)	B	From Leg	3.000	0.000	0.000	150.000	No Ice	0.660	0.321	0.011
			0.000	0.000			1/2" Ice	0.763	0.398	0.017
			0.000	0.000			1" Ice	0.873	0.483	0.024
							2" Ice	1.115	0.674	0.045
							No Ice	0.660	0.321	0.011
800 EXTERNAL NOTCH FILTER (E)	C	From Leg	3.000	0.000	0.000	150.000	No Ice	0.660	0.321	0.011
			0.000	0.000			1/2" Ice	0.763	0.398	0.017
			0.000	0.000			1" Ice	0.873	0.483	0.024
							2" Ice	1.115	0.674	0.045
							No Ice	0.660	0.321	0.011
(3) ACU-A20-N (E)	A	From Leg	4.000	0.000	0.000	150.000	No Ice	0.067	0.117	0.001
			0.000	0.000			1/2" Ice	0.104	0.162	0.002
			0.000	0.000			1" Ice	0.148	0.215	0.004
							2" Ice	0.259	0.343	0.012
							No Ice	0.067	0.117	0.001
(3) ACU-A20-N (E)	B	From Leg	4.000	0.000	0.000	150.000	No Ice	0.067	0.117	0.001
			0.000	0.000			1/2" Ice	0.104	0.162	0.002
			0.000	0.000			1" Ice	0.148	0.215	0.004
							2" Ice	0.259	0.343	0.012
							No Ice	0.067	0.117	0.001
(3) ACU-A20-N (E)	C	From Leg	4.000	0.000	0.000	150.000	No Ice	0.067	0.117	0.001
			0.000	0.000			1/2" Ice	0.104	0.162	0.002
			0.000	0.000			1" Ice	0.148	0.215	0.004
							2" Ice	0.259	0.343	0.012
							No Ice	0.067	0.117	0.001
1900MHz RRH (65MHz) (E)	A	From Leg	1.000	0.000	0.000	150.000	No Ice	2.313	2.375	0.060
			0.000	0.000			1/2" Ice	2.517	2.581	0.084
			3.000	0.000			1" Ice	2.728	2.794	0.111
							2" Ice	3.174	3.243	0.176
							No Ice	2.313	2.375	0.060
1900MHz RRH (65MHz) (E)	B	From Leg	1.000	0.000	0.000	150.000	No Ice	2.313	2.375	0.060
			0.000	0.000			1/2" Ice	2.517	2.581	0.084
			3.000	0.000			1" Ice	2.728	2.794	0.111
							2" Ice	3.174	3.243	0.176
							No Ice	2.313	2.375	0.060
1900MHz RRH (65MHz) (E)	C	From Leg	1.000	0.000	0.000	150.000	No Ice	2.313	2.375	0.060
			0.000	0.000			1/2" Ice	2.517	2.581	0.084
			3.000	0.000			1" Ice	2.728	2.794	0.111
							2" Ice	3.174	3.243	0.176
							No Ice	2.313	2.375	0.060
5' x 2" Pipe Mount (E-per photo)	A	From Face	0.000	0.000	0.000	150.000	No Ice	1.000	1.000	0.029
			0.000	0.000			1/2" Ice	1.393	1.393	0.037
			0.000	0.000			1" Ice	1.703	1.703	0.048
							2" Ice	2.351	2.351	0.082
							No Ice	1.000	1.000	0.029
5' x 2" Pipe Mount (E-per photo)	B	From Face	0.000	0.000	0.000	150.000	No Ice	1.000	1.000	0.029
			0.000	0.000			1/2" Ice	1.393	1.393	0.037
			0.000	0.000			1" Ice	1.703	1.703	0.048
							2" Ice	2.351	2.351	0.082
							No Ice	1.000	1.000	0.029
5' x 2" Pipe Mount (E-per photo)	C	From Face	0.000	0.000	0.000	150.000	No Ice	1.000	1.000	0.029
			0.000	0.000			1/2" Ice	1.393	1.393	0.037
			0.000	0.000			1" Ice	1.703	1.703	0.048
							2" Ice	2.351	2.351	0.082
							No Ice	1.000	1.000	0.029
Miscellaneous [NA 507-1] (E-12.5')	C	None			0.000	150.000	No Ice	4.800	4.800	0.245
							1/2" Ice	6.700	6.700	0.294
							1" Ice	8.600	8.600	0.343
							2" Ice	12.400	12.400	0.441
							No Ice	23.100	23.100	2.100
Platform Mount [LP 1201-1] (E-12')	C	None			0.000	150.000	1/2" Ice	26.800	26.800	2.500
							1" Ice	30.500	30.500	2.900
							2" Ice	37.900	37.900	3.700
							No Ice	0.785	0.785	0.029
							1/2" Ice	1.028	1.028	0.035
4' x 2" Pipe Mount (E-per photo)	A	From Leg	1.000	0.000	0.000	147.000	1" Ice	1.281	1.281	0.044
			0.000	0.000			2" Ice	1.814	1.814	0.072
			0.000	0.000			No Ice	0.785	0.785	0.029
							1/2" Ice	1.028	1.028	0.035
							1" Ice	1.281	1.281	0.044
4' x 2" Pipe Mount	B	From Leg	1.000	0.000	0.000	147.000	2" Ice	1.814	1.814	0.072
							No Ice	0.785	0.785	0.029

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _{AA}		Weight K
			Horz Lateral ft	Vert ft			Front ft ²	Side ft ²	
(E-per photo)			0.000			1/2" Ice	1.028	1.028	0.035
			0.000			1" Ice	1.281	1.281	0.044
						2" Ice	1.814	1.814	0.072
4' x 2" Pipe Mount (E-per photo)	C	From Leg	1.000	0.000	147.000	No Ice	0.785	0.785	0.029
			0.000			1/2" Ice	1.028	1.028	0.035
			0.000			1" Ice	1.281	1.281	0.044
						2" Ice	1.814	1.814	0.072
Side Arm Mount [SO 102-3] (E-per photo)	C	None		0.000	147.000	No Ice	3.000	3.000	0.081
						1/2" Ice	3.480	3.480	0.111
						1" Ice	3.960	3.960	0.141
						2" Ice	4.920	4.920	0.201
d									
DS4C06F36D-D (R-Woodbridge CT Town)	A	From Leg	4.000	0.000	150.000	No Ice	5.820	5.820	0.050
			0.000			1/2" Ice	7.793	7.793	0.092
			10.000			1" Ice	9.783	9.783	0.146
						2" Ice	13.813	13.813	0.292
d									
(2) ERICSSON AIR 21 B2A B4P w/ Mount Pipe (P)	A	From Leg	4.000	0.000	138.000	No Ice	6.329	5.642	0.112
			0.000			1/2" Ice	6.775	6.426	0.169
			0.000			1" Ice	7.214	7.131	0.233
						2" Ice	8.117	8.591	0.383
(2) ERICSSON AIR 21 B2A B4P w/ Mount Pipe (P)	C	From Leg	4.000	0.000	138.000	No Ice	6.329	5.642	0.112
			0.000			1/2" Ice	6.775	6.426	0.169
			0.000			1" Ice	7.214	7.131	0.233
						2" Ice	8.117	8.591	0.383
AIR 32 B2A/B66AA w/ Mount Pipe (P)	A	From Leg	4.000	0.000	138.000	No Ice	6.747	6.070	0.153
			0.000			1/2" Ice	7.202	6.867	0.214
			0.000			1" Ice	7.648	7.583	0.282
						2" Ice	8.565	9.063	0.441
(2) AIR 32 B2A/B66AA w/ Mount Pipe (P)	B	From Leg	4.000	0.000	138.000	No Ice	6.747	6.070	0.153
			0.000			1/2" Ice	7.202	6.867	0.214
			0.000			1" Ice	7.648	7.583	0.282
						2" Ice	8.565	9.063	0.441
AIR 32 B2A/B66AA w/ Mount Pipe (P)	C	From Leg	4.000	0.000	138.000	No Ice	6.747	6.070	0.153
			0.000			1/2" Ice	7.202	6.867	0.214
			0.000			1" Ice	7.648	7.583	0.282
						2" Ice	8.565	9.063	0.441
APXVAA24_43-U-A20 w/ Mount Pipe (P)	A	From Leg	4.000	0.000	138.000	No Ice	20.504	10.882	0.134
			0.000			1/2" Ice	21.255	12.408	0.270
			0.000			1" Ice	22.015	13.958	0.416
						2" Ice	23.471	16.311	0.746
(2) APXVAA24_43-U-A20 w/ Mount Pipe (P)	B	From Leg	4.000	0.000	138.000	No Ice	20.504	10.882	0.134
			0.000			1/2" Ice	21.255	12.408	0.270
			0.000			1" Ice	22.015	13.958	0.416
						2" Ice	23.471	16.311	0.746
APXVAA24_43-U-A20 w/ Mount Pipe (P)	C	From Leg	4.000	0.000	138.000	No Ice	20.504	10.882	0.134
			0.000			1/2" Ice	21.255	12.408	0.270
			0.000			1" Ice	22.015	13.958	0.416
						2" Ice	23.471	16.311	0.746
(4) ATMA4P4DBP-1A20 (P)	A	From Leg	4.000	0.000	138.000	No Ice	0.747	0.457	0.017
			0.000			1/2" Ice	0.857	0.550	0.024
			0.000			1" Ice	0.975	0.651	0.032
						2" Ice	1.233	0.874	0.055
(2) RADIO 4449 B12/B71 (P)	A	From Leg	4.000	0.000	138.000	No Ice	1.650	1.300	0.075
			0.000			1/2" Ice	1.810	1.445	0.092
			0.000			1" Ice	1.978	1.597	0.112
						2" Ice	2.336	1.924	0.161

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
(2) RADIO 4449 B12/B71 (P)	B	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1.650 1/2" Ice 1.810 1" Ice 1.978 2" Ice 2.336	1.300 1.445 1.597 1.924	0.075 0.092 0.112 0.161
GPS_A (P)	A	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 0.255 1/2" Ice 0.320 1" Ice 0.393 2" Ice 0.561	0.255 0.320 0.393 0.561	0.001 0.005 0.010 0.025
5' x 2" Pipe Mount (P-for dish)	A	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1.000 1/2" Ice 1.393 1" Ice 1.703 2" Ice 2.351	1.000 1.393 1.703 2.351	0.029 0.037 0.048 0.082
Platform Mount [LP 701-1] (P-F4P-10W)	C	None		0.000	138.000	No Ice 59.150 1/2" Ice 71.120 1" Ice 83.090 2" Ice 107.030	59.150 71.120 83.090 107.030	2.750 3.424 4.099 5.448
d TMA-DB-T1-6Z-8AB-0Z (E-mounted to tower)	A	From Leg	1.000 0.000 3.000	0.000	126.000	No Ice 4.800 1/2" Ice 5.070 1" Ice 5.348 2" Ice 5.926	2.000 2.193 2.393 2.815	0.044 0.080 0.120 0.213
d MG D3-800Tx w/ Mount Pipe (E)	A	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 3.570 1/2" Ice 3.979 1" Ice 4.387 2" Ice 5.199	3.418 4.119 4.784 6.164	0.035 0.068 0.108 0.208
MG D3-800Tx w/ Mount Pipe (E)	B	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 3.570 1/2" Ice 3.979 1" Ice 4.387 2" Ice 5.199	3.418 4.119 4.784 6.164	0.035 0.068 0.108 0.208
MG D3-800Tx w/ Mount Pipe (E)	C	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 3.570 1/2" Ice 3.979 1" Ice 4.387 2" Ice 5.199	3.418 4.119 4.784 6.164	0.035 0.068 0.108 0.208
MG D3-800TV w/ Mount Pipe (E)	A	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 3.570 1/2" Ice 3.979 1" Ice 4.387 2" Ice 5.199	3.418 4.119 4.784 6.164	0.037 0.071 0.111 0.210
MG D3-800TV w/ Mount Pipe (E)	B	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 3.570 1/2" Ice 3.979 1" Ice 4.387 2" Ice 5.199	3.418 4.119 4.784 6.164	0.037 0.071 0.111 0.210
MG D3-800TV w/ Mount Pipe (E)	C	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 3.570 1/2" Ice 3.979 1" Ice 4.387 2" Ice 5.199	3.418 4.119 4.784 6.164	0.037 0.071 0.111 0.210
P65.16.XL.2 w/ Mount Pipe (E)	A	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 8.371 1/2" Ice 8.931 1" Ice 9.457 2" Ice 10.531	5.779 6.949 7.833 9.634	0.059 0.122 0.192 0.361
P65.16.XL.2 w/ Mount Pipe (E)	B	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 8.371 1/2" Ice 8.931 1" Ice 9.457 2" Ice 10.531	5.779 6.949 7.833 9.634	0.059 0.122 0.192 0.361
P65.16.XL.2 w/ Mount Pipe (E)	C	From Leg	4.000 0.000 2.000	0.000	124.000	No Ice 8.371 1/2" Ice 8.931 1" Ice 9.457	5.779 6.949 7.833	0.059 0.122 0.192

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			Horz Lateral ft	Vert ft						
BXA-70080/4CF w/ Mount Pipe (E)	A	From Leg	4.000	0.000	0.000	124.000	2" Ice	10.531	9.634	0.361
			0.000	No Ice			4.991	3.997	0.031	
			3.000	1/2" Ice			5.373	4.611	0.075	
				1" Ice			5.763	5.232	0.125	
BXA-80063/4CF w/ Mount Pipe (E)	B	From Leg	4.000	0.000	0.000	124.000	2" Ice	6.569	6.504	0.245
			0.000	No Ice			4.945	3.424	0.028	
			3.000	1/2" Ice			5.324	4.022	0.069	
				1" Ice			5.712	4.637	0.116	
BXA-80063/4CF w/ Mount Pipe (E)	C	From Leg	4.000	0.000	0.000	124.000	2" Ice	6.514	5.916	0.229
			0.000	No Ice			4.945	3.424	0.028	
			3.000	1/2" Ice			5.324	4.022	0.069	
				1" Ice			5.712	4.637	0.116	
GPS_A (E)	C	From Leg	4.000	0.000	0.000	124.000	2" Ice	6.514	5.916	0.229
			0.000	No Ice			0.255	0.255	0.001	
			6.000	1/2" Ice			0.320	0.320	0.005	
				1" Ice			0.393	0.393	0.010	
RRH2X40-AWS (E)	A	From Leg	4.000	0.000	0.000	124.000	2" Ice	0.561	0.561	0.025
			0.000	No Ice			2.161	1.420	0.044	
			2.000	1/2" Ice			2.360	1.590	0.061	
				1" Ice			2.565	1.768	0.082	
RRH2X40-AWS (E)	B	From Leg	4.000	0.000	0.000	124.000	2" Ice	2.999	2.143	0.132
			0.000	No Ice			2.161	1.420	0.044	
			2.000	1/2" Ice			2.360	1.590	0.061	
				1" Ice			2.565	1.768	0.082	
RRH2X40-AWS (E)	C	From Leg	4.000	0.000	0.000	124.000	2" Ice	2.999	2.143	0.132
			0.000	No Ice			2.161	1.420	0.044	
			2.000	1/2" Ice			2.360	1.590	0.061	
				1" Ice			2.565	1.768	0.082	
RRH4X45-19 (E)	C	From Leg	4.000	0.000	0.000	124.000	2" Ice	2.999	2.143	0.132
			0.000	No Ice			2.313	2.375	0.060	
			2.000	1/2" Ice			2.517	2.581	0.083	
				1" Ice			2.728	2.794	0.111	
4' x 2" Pipe Mount (E-per photo)	B	From Leg	4.000	0.000	0.000	124.000	2" Ice	3.174	3.243	0.176
			0.000	No Ice			0.785	0.785	0.029	
			2.000	1/2" Ice			1.028	1.028	0.035	
				1" Ice			1.281	1.281	0.044	
4' x 2" Pipe Mount (E-per photo for GPS)	C	From Leg	4.000	0.000	0.000	124.000	2" Ice	1.814	1.814	0.072
			0.000	No Ice			0.785	0.785	0.029	
			2.000	1/2" Ice			1.028	1.028	0.035	
				1" Ice			1.281	1.281	0.044	
Platform Mount [LP 1201-1] (E)	C	None			0.000	124.000	2" Ice	1.814	1.814	0.072
				No Ice			23.100	23.100	2.100	
				1/2" Ice			26.800	26.800	2.500	
				1" Ice			30.500	30.500	2.900	
						2" Ice	37.900	37.900	3.700	
d 7770.00 w/ Mount Pipe (E)	A	From Leg	4.000	0.000	0.000	102.000	No Ice	5.746	4.254	0.055
			0.000	1/2" Ice			6.179	5.014	0.103	
			0.000	1" Ice			6.607	5.711	0.157	
				2" Ice			7.488	7.155	0.287	
7770.00 w/ Mount Pipe (E)	B	From Leg	4.000	0.000	0.000	102.000	No Ice	5.746	4.254	0.055
			0.000	1/2" Ice			6.179	5.014	0.103	
			0.000	1" Ice			6.607	5.711	0.157	
				2" Ice			7.488	7.155	0.287	
7770.00 w/ Mount Pipe (E)	C	From Leg	4.000	0.000	0.000	102.000	No Ice	5.746	4.254	0.055
			0.000	1/2" Ice			6.179	5.014	0.103	
			0.000	1" Ice			6.607	5.711	0.157	
				2" Ice			7.488	7.155	0.287	

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
			Horz Lateral ft	Vert ft					
(2) P65-16-XLH-RR w/ Mount Pipe (E)	A	From Leg	4.000	0.000	0.000	102.000	2" Ice	7.488	0.287
							No Ice	8.371	0.079
							1/2" Ice	8.931	0.144
							1" Ice	9.457	0.218
(2) P65-16-XLH-RR w/ Mount Pipe (E)	B	From Leg	4.000	0.000	0.000	102.000	2" Ice	10.531	0.393
							No Ice	8.371	0.079
							1/2" Ice	8.931	0.144
							1" Ice	9.457	0.218
(2) P65-16-XLH-RR w/ Mount Pipe (E)	C	From Leg	4.000	0.000	0.000	102.000	2" Ice	10.531	0.393
							No Ice	8.371	0.079
							1/2" Ice	8.931	0.144
							1" Ice	9.457	0.218
GPS_A (E)	C	From Leg	4.000	0.000	0.000	102.000	2" Ice	10.531	0.393
							No Ice	0.255	0.001
							1/2" Ice	0.320	0.005
							1" Ice	0.393	0.010
(2) TS07-AWDB111-001 (E)	A	From Leg	4.000	0.000	0.000	102.000	2" Ice	0.561	0.025
							No Ice	1.200	0.028
							1/2" Ice	1.337	0.037
							1" Ice	1.481	0.049
(2) TS07-AWDB111-001 (E)	B	From Leg	4.000	0.000	0.000	102.000	2" Ice	1.793	0.079
							No Ice	1.200	0.028
							1/2" Ice	1.337	0.037
							1" Ice	1.481	0.049
(2) TS07-AWDB111-001 (E)	C	From Leg	4.000	0.000	0.000	102.000	2" Ice	1.793	0.079
							No Ice	1.200	0.028
							1/2" Ice	1.337	0.037
							1" Ice	1.481	0.049
RRUS-11 BAND 12 (E)	A	From Leg	4.000	0.000	0.000	102.000	2" Ice	1.793	0.079
							No Ice	2.566	0.050
							1/2" Ice	2.765	0.070
							1" Ice	2.971	0.092
RRUS-11 BAND 12 (E)	B	From Leg	4.000	0.000	0.000	102.000	2" Ice	3.405	0.147
							No Ice	2.566	0.050
							1/2" Ice	2.765	0.070
							1" Ice	2.971	0.092
RRUS-11 BAND 12 (E)	C	From Leg	4.000	0.000	0.000	102.000	2" Ice	3.405	0.147
							No Ice	2.566	0.050
							1/2" Ice	2.765	0.070
							1" Ice	2.971	0.092
DC6-48-60-18-8F (E)	C	From Leg	4.000	0.000	0.000	102.000	2" Ice	3.405	0.147
							No Ice	1.212	0.033
							1/2" Ice	1.892	0.055
							1" Ice	2.105	0.080
3' x 2" Pipe Mount (E-for TME)	A	From Leg	4.000	0.000	0.000	102.000	2" Ice	2.570	0.138
							No Ice	0.583	0.011
							1/2" Ice	0.770	0.017
							1" Ice	0.967	0.024
3' x 2" Pipe Mount (E-for TME)	B	From Leg	4.000	0.000	0.000	102.000	2" Ice	1.388	0.047
							No Ice	0.583	0.011
							1/2" Ice	0.770	0.017
							1" Ice	0.967	0.024
3' x 2" Pipe Mount (E-for TME)	C	From Leg	4.000	0.000	0.000	102.000	2" Ice	1.388	0.047
							No Ice	0.583	0.011
							1/2" Ice	0.770	0.017
							1" Ice	0.967	0.024
							2" Ice	1.388	0.047
							No Ice	0.583	0.011
							1/2" Ice	0.770	0.017
							1" Ice	0.967	0.024

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz Lateral	Vert					
Platform Mount [LP 1201-1] (E)	C	None			0.000	102.000	No Ice 23.100 1/2" Ice 26.800 1" Ice 30.500 2" Ice 37.900	23.100 26.800 30.500 37.900	2.100 2.500 2.900 3.700
d									
KS24019-L112A (E)	A	From Leg	4.000 0.000 1.000		0.000	82.000	No Ice 0.141 1/2" Ice 0.198 1" Ice 0.262 2" Ice 0.415	0.141 0.198 0.262 0.415	0.005 0.007 0.009 0.018
Side Arm Mount [SO 701-1] (E)	A	From Leg	2.000 0.000 0.000		0.000	82.000	No Ice 0.850 1/2" Ice 1.140 1" Ice 1.430 2" Ice 2.010	1.670 2.340 3.010 4.350	0.065 0.079 0.093 0.121
d									
d									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets:		Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight
				Horz Lateral	Vert						
SC2-W100AC (P)	A	Paraboloid w/Shroud (HP)	From Leg	4.000 0.000 0.000		0.000		138.000	2.200	No Ice 3.801 1/2" Ice 4.095 1" Ice 4.388 2" Ice 4.975	0.022 0.043 0.064 0.106
d											

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice

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Comb. No.	Description
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	150 - 102.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-33.489	-2.538	2.659
			Max. Mx	8	-15.853	-630.814	-3.506
			Max. My	2	-15.841	4.057	632.045
			Max. Vy	8	20.390	-630.814	-3.506
			Max. Vx	14	20.497	-5.909	-631.434
			Max. Torque	22			-2.470
L2	102.5 - 62	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.184	-2.139	3.046
			Max. Mx	8	-27.639	-1636.141	-8.659
			Max. My	14	-27.628	-12.064	-1640.575
			Max. Vy	8	27.594	-1636.141	-8.659
			Max. Vx	14	27.672	-12.064	-1640.575
			Max. Torque	8			2.068
L3	62 - 32.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-63.010	-2.154	3.067
			Max. Mx	8	-37.438	-2478.482	-12.574
			Max. My	14	-37.432	-16.609	-2485.183

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L4	32.25 - 0	Pole	Max. Vy	8	29.892	-2478.482	-12.574
			Max. Vx	14	29.969	-16.609	-2485.183
			Max. Torque	8			2.060
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-80.521	-2.153	3.066
			Max. Mx	8	-52.345	-3645.626	-17.438
			Max. My	14	-52.345	-22.177	-3655.142
			Max. Vy	8	32.181	-3645.626	-17.438
			Max. Vx	14	32.254	-22.177	-3655.142
			Max. Torque	8			2.053

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	80.521	0.020	7.160
	Max. H _x	20	52.373	32.135	0.161
	Max. H _z	2	52.373	0.143	32.168
	Max. M _x	2	3651.781	0.143	32.168
	Max. M _z	8	3645.626	-32.135	-0.125
	Max. Torsion	8	2.050	-32.135	-0.125
	Min. Vert	11	39.280	-27.873	-16.279
	Min. H _x	8	52.373	-32.135	-0.125
	Min. H _z	14	52.373	-0.143	-32.208
	Min. M _x	14	-3655.142	-0.143	-32.208
	Min. M _z	20	-3643.883	32.135	0.161
	Min. Torsion	22	-2.035	27.884	16.241

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	43.645	0.000	0.000	-0.979	-0.670	-0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	52.373	-0.143	-32.168	-3651.781	20.447	0.721
0.9 Dead+1.0 Wind 0 deg - No Ice	39.280	-0.143	-32.168	-3583.825	20.249	0.712
1.2 Dead+1.0 Wind 30 deg - No Ice	52.373	15.921	-27.799	-3154.061	-1801.557	-0.286
0.9 Dead+1.0 Wind 30 deg - No Ice	39.280	15.921	-27.799	-3095.324	-1768.007	-0.292
1.2 Dead+1.0 Wind 60 deg - No Ice	52.373	27.741	-15.993	-1813.046	-3144.294	-1.331
0.9 Dead+1.0 Wind 60 deg - No Ice	39.280	27.741	-15.993	-1779.166	-3085.855	-1.332
1.2 Dead+1.0 Wind 90 deg - No Ice	52.373	32.135	0.125	17.438	-3645.626	-2.050
0.9 Dead+1.0 Wind 90 deg - No Ice	39.280	32.135	0.125	17.393	-3577.896	-2.046
1.2 Dead+1.0 Wind 120 deg - No Ice	52.373	27.873	16.279	1852.982	-3163.619	-1.973

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Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
0.9 Dead+1.0 Wind 120 deg - No Ice	39.280	27.873	16.279	1818.924	-3104.808	-1.964
1.2 Dead+1.0 Wind 150 deg - No Ice	52.373	16.179	27.983	3178.692	-1839.691	-1.549
0.9 Dead+1.0 Wind 150 deg - No Ice	39.280	16.179	27.983	3120.110	-1805.375	-1.539
1.2 Dead+1.0 Wind 180 deg - No Ice	52.373	0.143	32.208	3655.142	-22.177	-0.705
0.9 Dead+1.0 Wind 180 deg - No Ice	39.280	0.143	32.208	3587.764	-21.499	-0.696
1.2 Dead+1.0 Wind 210 deg - No Ice	52.373	-15.931	27.840	3157.626	1801.189	0.322
0.9 Dead+1.0 Wind 210 deg - No Ice	39.280	-15.931	27.840	3099.461	1768.100	0.327
1.2 Dead+1.0 Wind 240 deg - No Ice	52.373	-27.730	16.031	1816.208	3140.818	1.252
0.9 Dead+1.0 Wind 240 deg - No Ice	39.280	-27.730	16.031	1782.897	3082.906	1.252
1.2 Dead+1.0 Wind 270 deg - No Ice	52.373	-32.135	-0.161	-25.186	3643.883	2.034
0.9 Dead+1.0 Wind 270 deg - No Ice	39.280	-32.135	-0.161	-24.356	3576.637	2.030
1.2 Dead+1.0 Wind 300 deg - No Ice	52.373	-27.884	-16.241	-1849.809	3163.617	2.035
0.9 Dead+1.0 Wind 300 deg - No Ice	39.280	-27.884	-16.241	-1815.185	3105.245	2.027
1.2 Dead+1.0 Wind 330 deg - No Ice	52.373	-16.169	-27.942	-3175.116	1836.593	1.528
0.9 Dead+1.0 Wind 330 deg - No Ice	39.280	-16.169	-27.942	-3115.966	1802.779	1.519
1.2 Dead+1.0 Ice+1.0 Temp	80.521	0.000	-0.000	-3.066	-2.153	-0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	80.521	-0.020	-7.160	-878.971	1.021	0.199
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	80.521	3.555	-6.193	-760.399	-435.731	-0.114
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	80.521	6.181	-3.569	-439.288	-757.012	-0.418
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	80.521	7.153	0.017	-0.489	-876.272	-0.616
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	80.521	6.200	3.612	439.740	-759.922	-0.599
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	80.521	3.592	6.222	758.547	-441.697	-0.461
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	80.521	0.020	7.168	873.803	-5.529	-0.199
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	80.521	-3.556	6.201	755.274	431.518	0.117
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	80.521	-6.179	3.576	434.068	752.140	0.400
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	80.521	-7.153	-0.024	-7.040	871.763	0.615
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	80.521	-6.202	-3.604	-444.960	755.776	0.616
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	80.521	-3.590	-6.214	-763.672	436.894	0.459
Dead+Wind 0 deg - Service	43.645	-0.030	-6.631	-746.570	3.624	0.150
Dead+Wind 30 deg - Service	43.645	3.282	-5.731	-644.914	-368.460	-0.063
Dead+Wind 60 deg - Service	43.645	5.719	-3.297	-371.056	-642.665	-0.282
Dead+Wind 90 deg - Service	43.645	6.625	0.026	2.756	-745.056	-0.431
Dead+Wind 120 deg - Service	43.645	5.746	3.356	377.635	-646.665	-0.413
Dead+Wind 150 deg - Service	43.645	3.335	5.769	648.402	-376.279	-0.325

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Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead+Wind 180 deg - Service	43.645	0.030	6.640	745.673	-5.074	-0.149
Dead+Wind 210 deg - Service	43.645	-3.284	5.739	644.055	367.298	0.066
Dead+Wind 240 deg - Service	43.645	-5.716	3.305	370.103	640.868	0.263
Dead+Wind 270 deg - Service	43.645	-6.625	-0.033	-5.942	743.606	0.430
Dead+Wind 300 deg - Service	43.645	-5.748	-3.348	-378.588	645.563	0.431
Dead+Wind 330 deg - Service	43.645	-3.333	-5.760	-649.261	374.542	0.323

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.000	-43.645	0.000	0.000	43.645	0.000	0.000%
2	-0.143	-52.373	-32.168	0.143	52.373	32.168	0.000%
3	-0.143	-39.280	-32.168	0.143	39.280	32.168	0.000%
4	15.921	-52.373	-27.799	-15.921	52.373	27.799	0.000%
5	15.921	-39.280	-27.799	-15.921	39.280	27.799	0.000%
6	27.741	-52.373	-15.993	-27.741	52.373	15.993	0.000%
7	27.741	-39.280	-15.993	-27.741	39.280	15.993	0.000%
8	32.135	-52.373	0.125	-32.135	52.373	-0.125	0.000%
9	32.135	-39.280	0.125	-32.135	39.280	-0.125	0.000%
10	27.873	-52.373	16.279	-27.873	52.373	-16.279	0.000%
11	27.873	-39.280	16.279	-27.873	39.280	-16.279	0.000%
12	16.179	-52.373	27.983	-16.179	52.373	-27.983	0.000%
13	16.179	-39.280	27.983	-16.179	39.280	-27.983	0.000%
14	0.143	-52.373	32.208	-0.143	52.373	-32.208	0.000%
15	0.143	-39.280	32.208	-0.143	39.280	-32.208	0.000%
16	-15.931	-52.373	27.840	15.931	52.373	-27.840	0.000%
17	-15.931	-39.280	27.840	15.931	39.280	-27.840	0.000%
18	-27.730	-52.373	16.031	27.730	52.373	-16.031	0.000%
19	-27.730	-39.280	16.031	27.730	39.280	-16.031	0.000%
20	-32.135	-52.373	-0.161	32.135	52.373	0.161	0.000%
21	-32.135	-39.280	-0.161	32.135	39.280	0.161	0.000%
22	-27.884	-52.373	-16.241	27.884	52.373	16.241	0.000%
23	-27.884	-39.280	-16.241	27.884	39.280	16.241	0.000%
24	-16.169	-52.373	-27.942	16.169	52.373	27.942	0.000%
25	-16.169	-39.280	-27.942	16.169	39.280	27.942	0.000%
26	0.000	-80.521	0.000	-0.000	80.521	0.000	0.000%
27	-0.020	-80.521	-7.160	0.020	80.521	7.160	0.000%
28	3.555	-80.521	-6.193	-3.555	80.521	6.193	0.000%
29	6.181	-80.521	-3.569	-6.181	80.521	3.569	0.000%
30	7.153	-80.521	0.017	-7.153	80.521	-0.017	0.000%
31	6.199	-80.521	3.612	-6.200	80.521	-3.612	0.000%
32	3.592	-80.521	6.222	-3.592	80.521	-6.222	0.000%
33	0.020	-80.521	7.168	-0.020	80.521	-7.168	0.000%
34	-3.556	-80.521	6.201	3.556	80.521	-6.201	0.000%
35	-6.179	-80.521	3.576	6.179	80.521	-3.576	0.000%
36	-7.153	-80.521	-0.024	7.153	80.521	0.024	0.000%
37	-6.202	-80.521	-3.604	6.202	80.521	3.604	0.000%
38	-3.590	-80.521	-6.214	3.590	80.521	6.214	0.000%
39	-0.030	-43.645	-6.631	0.030	43.645	6.631	0.000%
40	3.282	-43.645	-5.731	-3.282	43.645	5.731	0.000%
41	5.719	-43.645	-3.297	-5.719	43.645	3.297	0.000%
42	6.624	-43.645	0.026	-6.625	43.645	-0.026	0.000%
43	5.746	-43.645	3.356	-5.746	43.645	-3.356	0.000%
44	3.335	-43.645	5.769	-3.335	43.645	-5.769	0.000%
45	0.030	-43.645	6.640	-0.030	43.645	-6.640	0.000%
46	-3.284	-43.645	5.739	3.284	43.645	-5.739	0.000%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
47	-5.716	-43.645	3.305	5.716	43.645	-3.305	0.000%
48	-6.624	-43.645	-0.033	6.625	43.645	0.033	0.000%
49	-5.748	-43.645	-3.348	5.748	43.645	3.348	0.000%
50	-3.333	-43.645	-5.760	3.333	43.645	5.760	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00008652
3	Yes	5	0.00000001	0.00003220
4	Yes	6	0.00000001	0.00069768
5	Yes	6	0.00000001	0.00021547
6	Yes	6	0.00000001	0.00071178
7	Yes	6	0.00000001	0.00022048
8	Yes	5	0.00000001	0.00024755
9	Yes	5	0.00000001	0.00011482
10	Yes	6	0.00000001	0.00070108
11	Yes	6	0.00000001	0.00021428
12	Yes	6	0.00000001	0.00072911
13	Yes	6	0.00000001	0.00022452
14	Yes	5	0.00000001	0.00029355
15	Yes	5	0.00000001	0.00013083
16	Yes	6	0.00000001	0.00070158
17	Yes	6	0.00000001	0.00021707
18	Yes	6	0.00000001	0.00069042
19	Yes	6	0.00000001	0.00021291
20	Yes	5	0.00000001	0.00052082
21	Yes	5	0.00000001	0.00023851
22	Yes	6	0.00000001	0.00073265
23	Yes	6	0.00000001	0.00022589
24	Yes	6	0.00000001	0.00070177
25	Yes	6	0.00000001	0.00021484
26	Yes	4	0.00000001	0.00006797
27	Yes	6	0.00000001	0.00026879
28	Yes	6	0.00000001	0.00035519
29	Yes	6	0.00000001	0.00035842
30	Yes	6	0.00000001	0.00026844
31	Yes	6	0.00000001	0.00035236
32	Yes	6	0.00000001	0.00035839
33	Yes	6	0.00000001	0.00026539
34	Yes	6	0.00000001	0.00034710
35	Yes	6	0.00000001	0.00034452
36	Yes	6	0.00000001	0.00026559
37	Yes	6	0.00000001	0.00036003
38	Yes	6	0.00000001	0.00035346
39	Yes	4	0.00000001	0.00027044
40	Yes	5	0.00000001	0.00009904
41	Yes	5	0.00000001	0.00010532
42	Yes	4	0.00000001	0.00033026
43	Yes	5	0.00000001	0.00009709
44	Yes	5	0.00000001	0.00010945
45	Yes	4	0.00000001	0.00027946
46	Yes	5	0.00000001	0.00009927
47	Yes	5	0.00000001	0.00009444

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48	Yes	4	0.00000001	0.00035020
49	Yes	5	0.00000001	0.00011149
50	Yes	5	0.00000001	0.00009770

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 102.5	30.032	50	1.715	0.006
L2	106.25 - 62	15.288	50	1.396	0.002
L3	66.75 - 32.25	5.851	50	0.838	0.001
L4	37.5 - 0	1.837	44	0.445	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
153.000	Lightning Rod 5/8" x 6'	50	30.032	1.715	0.006	36950
150.000	APXVTM14-C-120 w/ Mount Pipe	50	30.032	1.715	0.006	36950
147.000	4' x 2" Pipe Mount	50	28.959	1.699	0.005	36950
138.000	SC2-W100AC	50	25.757	1.649	0.005	15395
126.000	TMA-DB-T1-6Z-8AB-0Z	50	21.595	1.573	0.004	7697
124.000	MG D3-800Tx w/ Mount Pipe	50	20.921	1.558	0.003	7105
102.000	7770.00 w/ Mount Pipe	50	14.057	1.346	0.002	4211
82.000	KS24019-L112A	50	8.962	1.067	0.001	4162

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 102.5	146.827	12	8.410	0.027
L2	106.25 - 62	74.871	12	6.851	0.010
L3	66.75 - 32.25	28.685	12	4.113	0.004
L4	37.5 - 0	9.005	12	2.185	0.002

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
153.000	Lightning Rod 5/8" x 6'	12	146.827	8.410	0.027	7867
150.000	APXVTM14-C-120 w/ Mount Pipe	12	146.827	8.410	0.027	7867
147.000	4' x 2" Pipe Mount	12	141.594	8.332	0.026	7867
138.000	SC2-W100AC	12	125.978	8.090	0.022	3276

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Elevation	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
126.000	TMA-DB-T1-6Z-8AB-0Z	12	105.671	7.717	0.017	1634
124.000	MG D3-800Tx w/ Mount Pipe	12	102.378	7.646	0.016	1508
102.000	7770.00 w/ Mount Pipe	12	68.858	6.606	0.010	886
82.000	KS24019-L112A	12	43.925	5.236	0.006	865

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L1	150 - 147.697	TP30.314x22x0.25	47.500	0.000	0.0	17.833	-3.823	1199.350	0.003
	147.697 - 145.395					18.158	-4.178	1214.340	0.003
	145.395 - 143.092					18.482	-4.366	1229.080	0.004
	143.092 - 140.789					18.806	-4.558	1243.590	0.004
	140.789 - 138.487					19.131	-4.754	1257.840	0.004
	138.487 - 136.184					19.455	-9.659	1271.860	0.008
	136.184 - 133.882					19.780	-9.839	1285.630	0.008
	133.882 - 131.579					20.104	-10.024	1299.150	0.008
	131.579 - 129.276					20.429	-10.245	1312.440	0.008
	129.276 - 126.974					20.753	-10.472	1325.470	0.008
	126.974 - 124.671					21.078	-10.741	1338.270	0.008
	124.671 - 122.368					21.402	-13.921	1350.820	0.010
	122.368 - 120.066					21.726	-14.172	1363.120	0.010
	120.066 - 117.763					22.051	-14.418	1375.190	0.010
	117.763 - 115.461					22.375	-14.683	1387.000	0.011
	115.461 - 113.158					22.700	-14.955	1398.580	0.011
	113.158 - 110.855					23.024	-15.233	1409.910	0.011
110.855 - 108.553	23.349	-15.517	1420.990	0.011					
108.553 - 106.25	23.673	-15.808	1431.830	0.011					
106.25 - 102.5	24.201	-7.506	1448.970	0.005					
L2	106.25 - 102.5	TP36.903x29.158x0.313	44.250	0.000	0.0	29.686	-9.189	2091.700	0.004
	102.5 - 100.514					30.036	-20.416	2107.560	0.010
	100.514 -					30.386	-20.796	2123.210	0.010

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L4	44.3056 - 42.9444	TP46.38x39.816x0.438	37.500	0.000	0.0	47.380	-35.597	3210.940	0.011
	47.668					-36.050	3222.460	0.011	
	47.955					-36.505	3233.900	0.011	
	48.243					-36.963	3245.230	0.011	
	48.531					-37.422	3256.470	0.011	
	49.640					-18.940	3298.930	0.006	
	56.769					-21.347	4034.300	0.005	
	57.188					-40.911	4053.830	0.010	
	57.606					-41.519	4073.210	0.010	
	58.025					-42.130	4092.440	0.010	
	58.443					-42.745	4111.510	0.010	
	58.862					-43.363	4130.440	0.010	
	59.280					-43.984	4149.220	0.011	
	59.699					-44.608	4167.850	0.011	
	60.118					-45.235	4186.330	0.011	
	60.536					-45.866	4204.660	0.011	
	60.955					-46.500	4222.850	0.011	
	61.373					-47.136	4240.880	0.011	
	61.792					-47.777	4258.760	0.011	
	62.210					-48.420	4276.490	0.011	
	62.629					-49.066	4294.080	0.011	
	63.047					-49.715	4311.510	0.012	
	63.466					-50.368	4328.790	0.012	
	63.884					-51.024	4345.930	0.012	
	64.303					-51.683	4362.910	0.012	
	64.721					-52.345	4379.750	0.012	

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{ux} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	M _{uy} kip-ft	φM _{uy} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L1	150 - 147.697 147.697 -	TP30.314x22x0.25	20.221 32.478	539.485 556.276	0.037 0.058	0.000 0.000	539.485 556.276	0.000 0.000

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Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{ux} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	M_{uy} kip-ft	ϕM_{uy} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
	145.395							
	145.395 - 143.092		45.390	573.202	0.079	0.000	573.202	0.000
	143.092 - 140.789		58.794	590.256	0.100	0.000	590.256	0.000
	140.789 - 138.487		72.697	607.433	0.120	0.000	607.433	0.000
	138.487 - 136.184		102.051	624.724	0.163	0.000	624.724	0.000
	136.184 - 133.882		134.287	642.127	0.209	0.000	642.127	0.000
	133.882 - 131.579		167.298	659.633	0.254	0.000	659.633	0.000
	131.579 - 129.276		200.974	677.237	0.297	0.000	677.237	0.000
	129.276 - 126.974		235.153	694.934	0.338	0.000	694.934	0.000
	126.974 - 124.671		270.272	712.716	0.379	0.000	712.716	0.000
	124.671 - 122.368		316.123	730.578	0.433	0.000	730.578	0.000
	122.368 - 120.066		360.233	748.514	0.481	0.000	748.514	0.000
	120.066 - 117.763		404.989	766.517	0.528	0.000	766.517	0.000
	117.763 - 115.461		450.222	784.582	0.574	0.000	784.582	0.000
	115.461 - 113.158		495.942	802.702	0.618	0.000	802.702	0.000
	113.158 - 110.855		542.148	820.872	0.660	0.000	820.872	0.000
	110.855 - 108.553		588.840	839.083	0.702	0.000	839.083	0.000
	108.553 - 106.25		636.018	857.333	0.742	0.000	857.333	0.000
	106.25 - 102.5		327.552	887.125	0.369	0.000	887.125	0.000
L2	106.25 - 102.5	TP36.903x29.158x0.313	386.511	1253.842	0.308	0.000	1253.842	0.000
	102.5 - 100.514		761.462	1278.392	0.596	0.000	1278.392	0.000
	100.514 - 98.5278		810.934	1303.042	0.622	0.000	1303.042	0.000
	98.5278 - 96.5417		860.767	1327.783	0.648	0.000	1327.783	0.000
	96.5417 - 94.5556		910.958	1352.625	0.673	0.000	1352.625	0.000
	94.5556 - 92.5694		961.500	1377.550	0.698	0.000	1377.550	0.000
	92.5694 - 90.5833		1012.392	1402.558	0.722	0.000	1402.558	0.000
	90.5833 - 88.5972		1063.633	1427.650	0.745	0.000	1427.650	0.000
	88.5972 - 86.6111		1115.217	1452.808	0.768	0.000	1452.808	0.000
	86.6111 - 84.625		1167.150	1478.042	0.790	0.000	1478.042	0.000
	84.625 - 82.6389		1219.417	1503.342	0.811	0.000	1503.342	0.000
	82.6389 - 80.6528		1271.833	1528.700	0.832	0.000	1528.700	0.000
	80.6528 -		1324.875	1554.117	0.852	0.000	1554.117	0.000

<p>tnxTower</p> <p>B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job 81150.006.01 - OAK LANE CC, INC. TOWER (SSUSA, CT (BU# 876315)</p>	<p>Page 23 of 30</p>
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	<p>Client Crown Castle</p>	<p>Designed by Divakar</p>

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{rx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{rx}}$	M_{uy} kip-ft	ϕM_{ry} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ry}}$
	78.6667							
	78.6667 - 76.6806		1378.242	1579.583	0.873	0.000	1579.583	0.000
	76.6806 - 74.6944		1431.942	1605.100	0.892	0.000	1605.100	0.000
	74.6944 - 72.7083		1485.958	1630.667	0.911	0.000	1630.667	0.000
	72.7083 - 70.7222		1540.300	1656.267	0.930	0.000	1656.267	0.000
	70.7222 - 68.7361		1594.967	1681.900	0.948	0.000	1681.900	0.000
	68.7361 - 66.75		1649.942	1707.567	0.966	0.000	1707.567	0.000
L3	66.75 - 62	TP41.485x35.447x0.375	836.092	1769.050	0.473	0.000	1769.050	0.000
	66.75 - 62		946.975	2217.617	0.427	0.000	2217.617	0.000
	62 - 60.6389		1821.650	2241.942	0.813	0.000	2241.942	0.000
	60.6389 - 59.2778		1860.367	2266.317	0.821	0.000	2266.317	0.000
	59.2778 - 57.9167		1899.225	2290.750	0.829	0.000	2290.750	0.000
	57.9167 - 56.5556		1938.217	2315.233	0.837	0.000	2315.233	0.000
	56.5556 - 55.1944		1977.342	2339.767	0.845	0.000	2339.767	0.000
	55.1944 - 53.8333		2016.608	2364.350	0.853	0.000	2364.350	0.000
	53.8333 - 52.4722		2056.017	2388.983	0.861	0.000	2388.983	0.000
	52.4722 - 51.1111		2095.550	2413.658	0.868	0.000	2413.658	0.000
	51.1111 - 49.75		2135.225	2438.383	0.876	0.000	2438.383	0.000
	49.75 - 48.3889		2175.033	2463.150	0.883	0.000	2463.150	0.000
	48.3889 - 47.0278		2214.967	2487.958	0.890	0.000	2487.958	0.000
	47.0278 - 45.6667		2255.042	2512.808	0.897	0.000	2512.808	0.000
	45.6667 - 44.3056		2295.242	2537.692	0.904	0.000	2537.692	0.000
	44.3056 - 42.9444		2335.575	2562.625	0.911	0.000	2562.625	0.000
	42.9444 - 41.5833		2376.042	2587.583	0.918	0.000	2587.583	0.000
	41.5833 - 40.2222		2416.633	2612.583	0.925	0.000	2612.583	0.000
	40.2222 - 38.8611		2457.358	2637.617	0.932	0.000	2637.617	0.000
	38.8611 - 37.5		2498.208	2662.683	0.938	0.000	2662.683	0.000
	37.5 - 32.25		1266.700	2759.633	0.459	0.000	2759.633	0.000
L4	37.5 - 32.25	TP46.38x39.816x0.438	1390.725	3302.417	0.421	0.000	3302.417	0.000
	32.25 - 30.5526		2709.442	3343.133	0.810	0.000	3343.133	0.000
	30.5526 - 28.8553		2761.617	3383.958	0.816	0.000	3383.958	0.000
	28.8553 - 27.1579		2813.958	3424.900	0.822	0.000	3424.900	0.000
	27.1579 - 25.4605		2866.458	3465.950	0.827	0.000	3465.950	0.000
	25.4605 -		2919.125	3507.100	0.832	0.000	3507.100	0.000

<p>tnxTower</p> <p>B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job 81150.006.01 - OAK LANE CC, INC. TOWER (SSUSA, CT (BU# 876315)</p>	<p>Page 24 of 30</p>
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Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	23.7632							
	23.7632 - 22.0658		2971.950	3548.358	0.838	0.000	3548.358	0.000
	22.0658 - 20.3684		3024.933	3589.717	0.843	0.000	3589.717	0.000
	20.3684 - 18.6711		3078.075	3631.167	0.848	0.000	3631.167	0.000
	18.6711 - 16.9737		3131.375	3672.717	0.853	0.000	3672.717	0.000
	16.9737 - 15.2763		3184.825	3714.358	0.857	0.000	3714.358	0.000
	15.2763 - 13.5789		3238.433	3756.083	0.862	0.000	3756.083	0.000
	13.5789 - 11.8816		3292.192	3797.908	0.867	0.000	3797.908	0.000
	11.8816 - 10.1842		3346.100	3839.808	0.871	0.000	3839.808	0.000
	10.1842 - 8.48684		3400.158	3881.792	0.876	0.000	3881.792	0.000
	8.48684 - 6.78947		3454.367	3923.850	0.880	0.000	3923.850	0.000
	6.78947 - 5.09211		3508.725	3965.983	0.885	0.000	3965.983	0.000
	5.09211 - 3.39474		3563.233	4008.192	0.889	0.000	4008.192	0.000
	3.39474 - 1.69737		3617.883	4050.475	0.893	0.000	4050.475	0.000
	1.69737 - 0		3672.675	4092.825	0.897	0.000	4092.825	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	150 - 147.697	TP30.314x22x0.25	5.053	288.898	0.017	1.035	550.325	0.002
	147.697 - 145.395		5.503	294.154	0.019	1.035	570.764	0.002
	145.395 - 143.092		5.717	299.410	0.019	1.035	591.576	0.002
	143.092 - 140.789		5.932	304.666	0.019	1.035	612.761	0.002
	140.789 - 138.487		6.150	309.922	0.020	1.035	634.318	0.002
	138.487 - 136.184		13.820	315.178	0.044	1.046	656.247	0.002
	136.184 - 133.882		14.172	320.433	0.044	2.056	678.550	0.003
	133.882 - 131.579		14.525	325.689	0.045	2.262	701.225	0.003
	131.579 - 129.276		14.744	330.945	0.045	2.262	724.273	0.003
	129.276 - 126.974		14.963	336.201	0.045	2.262	747.693	0.003
	126.974 - 124.671		15.302	341.457	0.045	2.415	771.487	0.003
	124.671 - 0		19.065	346.713	0.055	2.415	795.653	0.003

tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 81150.006.01 - OAK LANE CC, INC. TOWER (SSUSA, CT (BU# 876315)	Page 25 of 30
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Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	122.368							
	122.368 - 120.066		19.279	351.969	0.055	2.013	820.191	0.002
	120.066 - 117.763		19.556	357.225	0.055	1.695	845.100	0.002
	117.763 - 115.461		19.769	362.481	0.055	1.695	870.383	0.002
	115.461 - 113.158		19.982	367.737	0.054	1.694	896.042	0.002
	113.158 - 110.855		20.194	372.993	0.054	1.694	922.075	0.002
	110.855 - 108.553		20.406	378.249	0.054	1.693	948.475	0.002
	108.553 - 106.25		20.618	383.505	0.054	1.692	975.250	0.002
	106.25 - 102.5		9.755	392.065	0.025	0.776	1019.650	0.001
L2	106.25 - 102.5	TP36.903x29.158x0.313	11.294	520.988	0.022	0.916	1323.492	0.001
	102.5 - 100.514		24.844	527.127	0.047	1.691	1355.208	0.001
	100.514 - 98.5278		25.027	533.266	0.047	1.454	1387.300	0.001
	98.5278 - 96.5417		25.208	539.405	0.047	1.454	1419.758	0.001
	96.5417 - 94.5556		25.388	545.545	0.047	1.453	1452.600	0.001
	94.5556 - 92.5694		25.566	551.684	0.046	1.452	1485.817	0.001
	92.5694 - 90.5833		25.743	557.823	0.046	1.452	1519.408	0.001
	90.5833 - 88.5972		25.918	563.962	0.046	1.451	1553.375	0.001
	88.5972 - 86.6111		26.092	570.102	0.046	1.451	1587.717	0.001
	86.6111 - 84.625		26.264	576.241	0.046	1.450	1622.433	0.001
	84.625 - 82.6389		26.435	582.380	0.045	1.449	1657.525	0.001
	82.6389 - 80.6528		26.656	588.519	0.045	1.562	1692.992	0.001
	80.6528 - 78.6667		26.824	594.659	0.045	1.561	1728.833	0.001
	78.6667 - 76.6806		26.990	600.798	0.045	1.561	1765.058	0.001
	76.6806 - 74.6944		27.155	606.937	0.045	1.560	1801.650	0.001
	74.6944 - 72.7083		27.318	613.076	0.045	1.559	1838.617	0.001
	72.7083 - 70.7222		27.480	619.216	0.044	1.559	1875.967	0.001
	70.7222 - 68.7361		27.641	625.355	0.044	1.558	1913.683	0.001
	68.7361 - 66.75		27.800	631.494	0.044	1.558	1951.783	0.001
	66.75 - 62		13.423	646.177	0.021	0.730	2044.417	0.000
L3	66.75 - 62	TP41.485x35.447x0.375	14.916	760.842	0.020	0.827	2352.908	0.000
	62 - 60.6389		28.423	765.890	0.037	1.556	2384.567	0.001
	60.6389 - 59.2778		28.525	770.939	0.037	1.556	2416.442	0.001
	59.2778 - 57.9167		28.627	775.987	0.037	1.556	2448.525	0.001

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Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	57.9167 - 56.5556		28.728	781.036	0.037	1.555	2480.817	0.001
	56.5556 - 55.1944		28.828	786.084	0.037	1.555	2513.325	0.001
	55.1944 - 53.8333		28.929	791.133	0.037	1.555	2546.042	0.001
	53.8333 - 52.4722		29.028	796.181	0.036	1.555	2578.975	0.001
	52.4722 - 51.1111		29.128	801.230	0.036	1.554	2612.117	0.001
	51.1111 - 49.75		29.226	806.278	0.036	1.554	2645.467	0.001
	49.75 - 48.3889		29.324	811.327	0.036	1.554	2679.033	0.001
	48.3889 - 47.0278		29.422	816.375	0.036	1.553	2712.808	0.001
	47.0278 - 45.6667		29.519	821.424	0.036	1.553	2746.792	0.001
	45.6667 - 44.3056		29.616	826.472	0.036	1.553	2780.992	0.001
	44.3056 - 42.9444		29.712	831.521	0.036	1.553	2815.408	0.001
	42.9444 - 41.5833		29.808	836.569	0.036	1.552	2850.025	0.001
	41.5833 - 40.2222		29.903	841.618	0.036	1.552	2884.858	0.001
	40.2222 - 38.8611		29.998	846.666	0.035	1.552	2919.908	0.001
	38.8611 - 37.5		30.092	851.715	0.035	1.552	2955.167	0.001
	37.5 - 32.25		14.761	871.188	0.017	0.739	3093.142	0.000
L4	37.5 - 32.25	TP46.38x39.816x0.438	15.895	996.299	0.016	0.812	3455.308	0.000
	32.25 - 30.5526		30.730	1003.640	0.031	1.551	3507.008	0.000
	30.5526 - 28.8553		30.828	1010.990	0.030	1.551	3559.092	0.000
	28.8553 - 27.1579		30.924	1018.340	0.030	1.551	3611.558	0.000
	27.1579 - 25.4605		31.020	1025.680	0.030	1.550	3664.417	0.000
	25.4605 - 23.7632		31.115	1033.030	0.030	1.550	3717.650	0.000
	23.7632 - 22.0658		31.210	1040.370	0.030	1.550	3771.275	0.000
	22.0658 - 20.3684		31.303	1047.720	0.030	1.550	3825.275	0.000
	20.3684 - 18.6711		31.396	1055.060	0.030	1.550	3879.667	0.000
	18.6711 - 16.9737		31.488	1062.410	0.030	1.550	3934.442	0.000
	16.9737 - 15.2763		31.580	1069.750	0.030	1.549	3989.600	0.000
	15.2763 - 13.5789		31.670	1077.100	0.029	1.549	4045.133	0.000
	13.5789 - 11.8816		31.760	1084.440	0.029	1.549	4101.058	0.000
	11.8816 - 10.1842		31.850	1091.790	0.029	1.549	4157.367	0.000
	10.1842 - 8.48684		31.938	1099.140	0.029	1.549	4214.058	0.000
	8.48684 -		32.026	1106.480	0.029	1.549	4271.142	0.000

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Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	6.78947							
	6.78947 - 5.09211		32.113	1113.830	0.029	1.549	4328.600	0.000
	5.09211 - 3.39474		32.200	1121.170	0.029	1.549	4386.442	0.000
	3.39474 - 1.69737		32.285	1128.520	0.029	1.549	4444.667	0.000
	1.69737 - 0		32.370	1135.860	0.028	1.549	4503.283	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	150 - 147.697	0.003	0.037	0.000	0.017	0.002	0.041	1.050	4.8.2 ✓
	147.697 - 145.395	0.003	0.058	0.000	0.019	0.002	0.062	1.050	4.8.2 ✓
	145.395 - 143.092	0.004	0.079	0.000	0.019	0.002	0.083	1.050	4.8.2 ✓
	143.092 - 140.789	0.004	0.100	0.000	0.019	0.002	0.104	1.050	4.8.2 ✓
	140.789 - 138.487	0.004	0.120	0.000	0.020	0.002	0.124	1.050	4.8.2 ✓
	138.487 - 136.184	0.008	0.163	0.000	0.044	0.002	0.173	1.050	4.8.2 ✓
	136.184 - 133.882	0.008	0.209	0.000	0.044	0.003	0.219	1.050	4.8.2 ✓
	133.882 - 131.579	0.008	0.254	0.000	0.045	0.003	0.264	1.050	4.8.2 ✓
	131.579 - 129.276	0.008	0.297	0.000	0.045	0.003	0.307	1.050	4.8.2 ✓
	129.276 - 126.974	0.008	0.338	0.000	0.045	0.003	0.349	1.050	4.8.2 ✓
	126.974 - 124.671	0.008	0.379	0.000	0.045	0.003	0.390	1.050	4.8.2 ✓
	124.671 - 122.368	0.010	0.433	0.000	0.055	0.003	0.446	1.050	4.8.2 ✓
	122.368 - 120.066	0.010	0.481	0.000	0.055	0.002	0.495	1.050	4.8.2 ✓
	120.066 - 117.763	0.010	0.528	0.000	0.055	0.002	0.542	1.050	4.8.2 ✓
	117.763 - 115.461	0.011	0.574	0.000	0.055	0.002	0.588	1.050	4.8.2 ✓
	115.461 - 113.158	0.011	0.618	0.000	0.054	0.002	0.632	1.050	4.8.2 ✓
	113.158 - 110.855	0.011	0.660	0.000	0.054	0.002	0.674	1.050	4.8.2 ✓
	110.855 - 108.553	0.011	0.702	0.000	0.054	0.002	0.716	1.050	4.8.2 ✓

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u	M_{ux}	M_{uy}	V_u	T_u			
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
	108.553 - 106.25	0.011	0.742	0.000	0.054	0.002	0.756	1.050	4.8.2 ✓
	106.25 - 102.5	0.005	0.369	0.000	0.025	0.001	0.375	1.050	4.8.2 ✓
L2	106.25 - 102.5	0.004	0.308	0.000	0.022	0.001	0.313	1.050	4.8.2 ✓
	102.5 - 100.514	0.010	0.596	0.000	0.047	0.001	0.608	1.050	4.8.2 ✓
	100.514 - 98.5278	0.010	0.622	0.000	0.047	0.001	0.634	1.050	4.8.2 ✓
	98.5278 - 96.5417	0.010	0.648	0.000	0.047	0.001	0.660	1.050	4.8.2 ✓
	96.5417 - 94.5556	0.010	0.673	0.000	0.047	0.001	0.686	1.050	4.8.2 ✓
	94.5556 - 92.5694	0.010	0.698	0.000	0.046	0.001	0.710	1.050	4.8.2 ✓
	92.5694 - 90.5833	0.010	0.722	0.000	0.046	0.001	0.734	1.050	4.8.2 ✓
	90.5833 - 88.5972	0.010	0.745	0.000	0.046	0.001	0.758	1.050	4.8.2 ✓
	88.5972 - 86.6111	0.010	0.768	0.000	0.046	0.001	0.780	1.050	4.8.2 ✓
	86.6111 - 84.625	0.011	0.790	0.000	0.046	0.001	0.802	1.050	4.8.2 ✓
	84.625 - 82.6389	0.011	0.811	0.000	0.045	0.001	0.824	1.050	4.8.2 ✓
	82.6389 - 80.6528	0.011	0.832	0.000	0.045	0.001	0.845	1.050	4.8.2 ✓
	80.6528 - 78.6667	0.011	0.852	0.000	0.045	0.001	0.866	1.050	4.8.2 ✓
	78.6667 - 76.6806	0.011	0.873	0.000	0.045	0.001	0.886	1.050	4.8.2 ✓
	76.6806 - 74.6944	0.011	0.892	0.000	0.045	0.001	0.905	1.050	4.8.2 ✓
	74.6944 - 72.7083	0.011	0.911	0.000	0.045	0.001	0.925	1.050	4.8.2 ✓
	72.7083 - 70.7222	0.012	0.930	0.000	0.044	0.001	0.944	1.050	4.8.2 ✓
	70.7222 - 68.7361	0.012	0.948	0.000	0.044	0.001	0.962	1.050	4.8.2 ✓
	68.7361 - 66.75	0.012	0.966	0.000	0.044	0.001	0.980	1.050	4.8.2 ✓
	66.75 - 62	0.006	0.473	0.000	0.021	0.000	0.479	1.050	4.8.2 ✓
L3	66.75 - 62	0.005	0.427	0.000	0.020	0.000	0.433	1.050	4.8.2 ✓
	62 - 60.6389	0.010	0.813	0.000	0.037	0.001	0.824	1.050	4.8.2 ✓
	60.6389 - 59.2778	0.010	0.821	0.000	0.037	0.001	0.832	1.050	4.8.2 ✓
	59.2778 -	0.010	0.829	0.000	0.037	0.001	0.840	1.050	4.8.2 ✓

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u ϕP_n	M_{ux} ϕM_{nx}	M_{uy} ϕM_{ny}	V_u ϕV_n	T_u ϕT_n			
	57.9167						✓		
	57.9167 - 56.5556	0.010	0.837	0.000	0.037	0.001	0.849	1.050	4.8.2 ✓
	56.5556 - 55.1944	0.010	0.845	0.000	0.037	0.001	0.857	1.050	4.8.2 ✓
	55.1944 - 53.8333	0.010	0.853	0.000	0.037	0.001	0.865	1.050	4.8.2 ✓
	53.8333 - 52.4722	0.010	0.861	0.000	0.036	0.001	0.872	1.050	4.8.2 ✓
	52.4722 - 51.1111	0.010	0.868	0.000	0.036	0.001	0.880	1.050	4.8.2 ✓
	51.1111 - 49.75	0.011	0.876	0.000	0.036	0.001	0.888	1.050	4.8.2 ✓
	49.75 - 48.3889	0.011	0.883	0.000	0.036	0.001	0.895	1.050	4.8.2 ✓
	48.3889 - 47.0278	0.011	0.890	0.000	0.036	0.001	0.902	1.050	4.8.2 ✓
	47.0278 - 45.6667	0.011	0.897	0.000	0.036	0.001	0.910	1.050	4.8.2 ✓
	45.6667 - 44.3056	0.011	0.904	0.000	0.036	0.001	0.917	1.050	4.8.2 ✓
	44.3056 - 42.9444	0.011	0.911	0.000	0.036	0.001	0.924	1.050	4.8.2 ✓
	42.9444 - 41.5833	0.011	0.918	0.000	0.036	0.001	0.931	1.050	4.8.2 ✓
	41.5833 - 40.2222	0.011	0.925	0.000	0.036	0.001	0.938	1.050	4.8.2 ✓
	40.2222 - 38.8611	0.011	0.932	0.000	0.035	0.001	0.944	1.050	4.8.2 ✓
	38.8611 - 37.5	0.011	0.938	0.000	0.035	0.001	0.951	1.050	4.8.2 ✓
	37.5 - 32.25	0.006	0.459	0.000	0.017	0.000	0.465	1.050	4.8.2 ✓
L4	37.5 - 32.25	0.005	0.421	0.000	0.016	0.000	0.427	1.050	4.8.2 ✓
	32.25 - 30.5526	0.010	0.810	0.000	0.031	0.000	0.822	1.050	4.8.2 ✓
	30.5526 - 28.8553	0.010	0.816	0.000	0.030	0.000	0.827	1.050	4.8.2 ✓
	28.8553 - 27.1579	0.010	0.822	0.000	0.030	0.000	0.833	1.050	4.8.2 ✓
	27.1579 - 25.4605	0.010	0.827	0.000	0.030	0.000	0.838	1.050	4.8.2 ✓
	25.4605 - 23.7632	0.010	0.832	0.000	0.030	0.000	0.844	1.050	4.8.2 ✓
	23.7632 - 22.0658	0.011	0.838	0.000	0.030	0.000	0.849	1.050	4.8.2 ✓
	22.0658 - 20.3684	0.011	0.843	0.000	0.030	0.000	0.854	1.050	4.8.2 ✓
	20.3684 - 18.6711	0.011	0.848	0.000	0.030	0.000	0.859	1.050	4.8.2 ✓
	18.6711 -	0.011	0.853	0.000	0.030	0.000	0.864	1.050	4.8.2 ✓

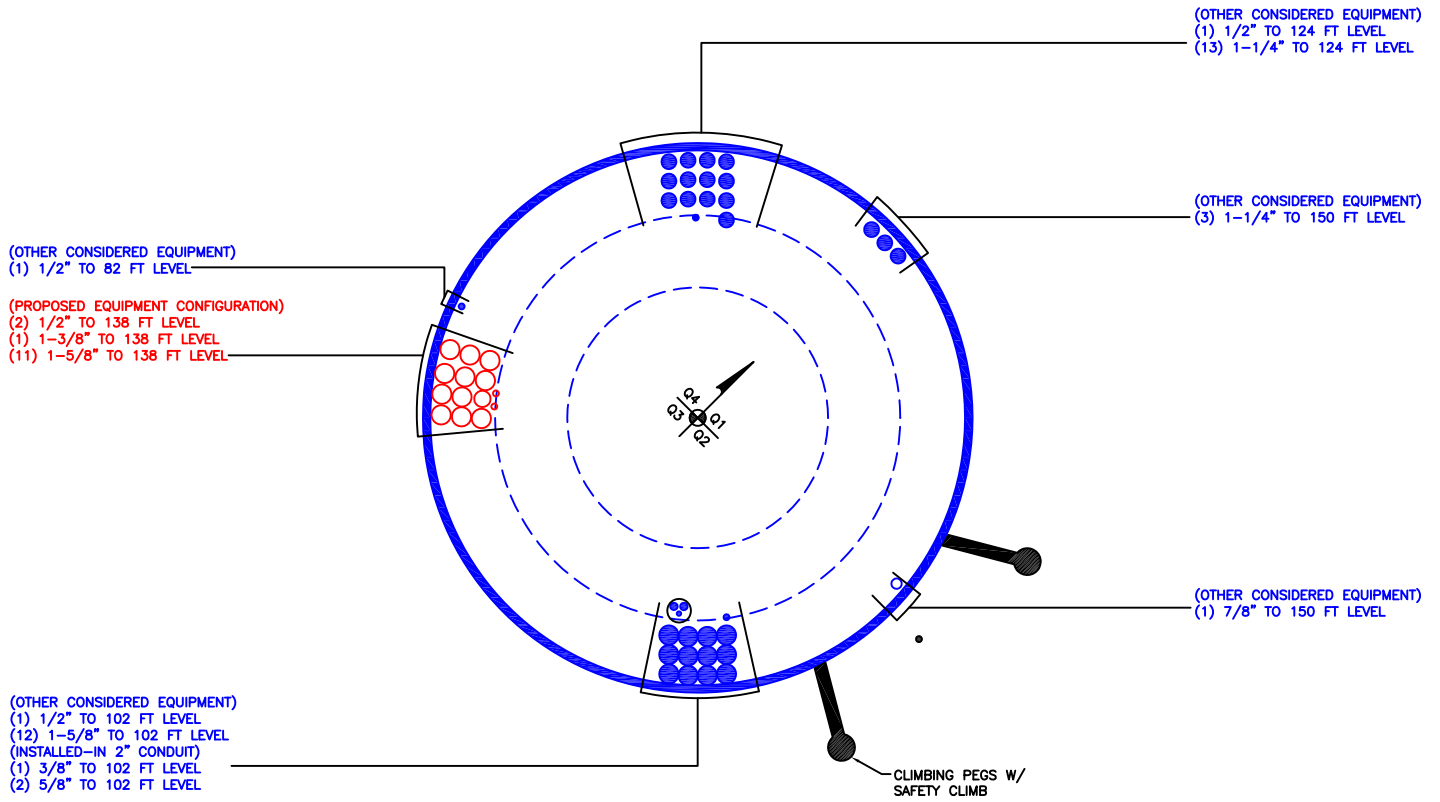
tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 81150.006.01 - OAK LANE CC, INC. TOWER (SSUSA, CT (BU# 876315)	Page 30 of 30
	Project	Date 14:58:52 09/29/18
	Client Crown Castle	Designed by Divakar

Section No.	Elevation ft	Ratio P_u ϕP_n	Ratio M_{ux} ϕM_{nx}	Ratio M_{uy} ϕM_{ny}	Ratio V_u ϕV_n	Ratio T_u ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	16.9737						✓		
	16.9737 - 15.2763	0.011	0.857	0.000	0.030	0.000	0.869	1.050	4.8.2 ✓
	15.2763 - 13.5789	0.011	0.862	0.000	0.029	0.000	0.874	1.050	4.8.2 ✓
	13.5789 - 11.8816	0.011	0.867	0.000	0.029	0.000	0.879	1.050	4.8.2 ✓
	11.8816 - 10.1842	0.011	0.871	0.000	0.029	0.000	0.884	1.050	4.8.2 ✓
	10.1842 - 8.48684	0.011	0.876	0.000	0.029	0.000	0.888	1.050	4.8.2 ✓
	8.48684 - 6.78947	0.012	0.880	0.000	0.029	0.000	0.893	1.050	4.8.2 ✓
	6.78947 - 5.09211	0.012	0.885	0.000	0.029	0.000	0.897	1.050	4.8.2 ✓
	5.09211 - 3.39474	0.012	0.889	0.000	0.029	0.000	0.902	1.050	4.8.2 ✓
	3.39474 - 1.69737	0.012	0.893	0.000	0.029	0.000	0.906	1.050	4.8.2 ✓
	1.69737 - 0	0.012	0.897	0.000	0.028	0.000	0.910	1.050	4.8.2 ✓

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail	
L1	150 - 102.5	Pole	TP30.314x22x0.25	1	-15.808	1503.421	72.0	Pass	
L2	102.5 - 62	Pole	TP36.903x29.158x0.313	2	-27.609	2463.111	93.3	Pass	
L3	62 - 32.25	Pole	TP41.485x35.447x0.375	3	-37.422	3419.293	90.6	Pass	
L4	32.25 - 0	Pole	TP46.38x39.816x0.438	4	-52.345	4598.737	86.7	Pass	
							Summary		
							Pole (L2)	93.3	Pass
							RATING =	93.3	Pass

APPENDIX B
BASE LEVEL DRAWING



BUSINESS UNIT:876315

APPENDIX C
ADDITIONAL CALCULATIONS

Monopole Base Plate Connection

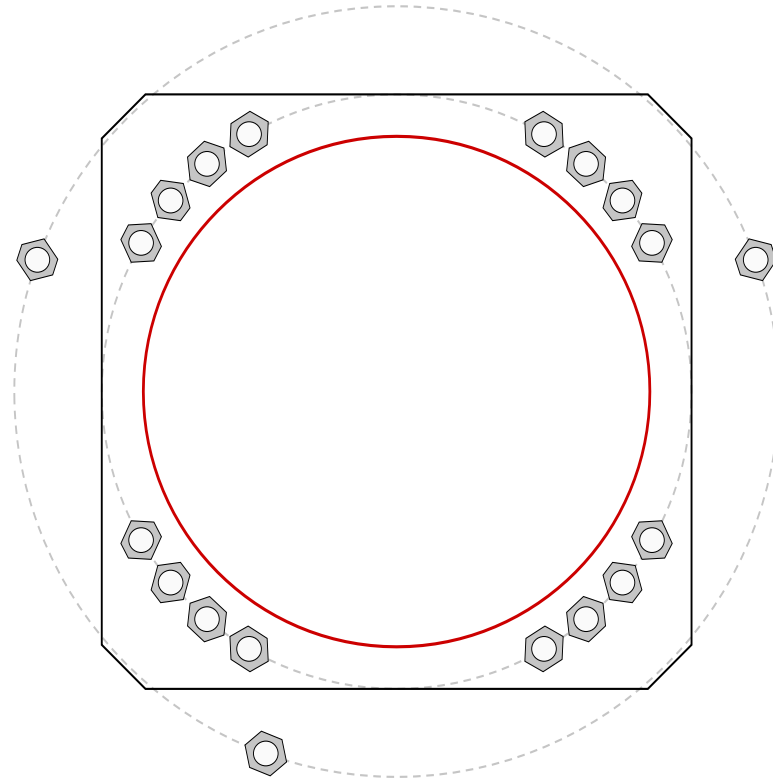


Site Info	
BU #	876315
Site Name	NE CC, INC. TOWER(SSU
Order #	452958 Rev.# 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	0

Applied Loads	
Moment (kip-ft)	3672.68
Axial Force (kips)	52.34
Shear Force (kips)	32.37

*TIA-222-H Section 15.5 Applied



Connection Properties		Analysis Results	
Anchor Rod Data		Anchor Rod Summary <i>(units of kips, kip-in)</i>	
GROUP 1: (16) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 54" BC		GROUP 1:	
GROUP 2: (3) 2-1/4" ϕ bolts (A193 Gr. B7 N; $F_y=105$ ksi, $F_u=125$ ksi) on 70" BC		$P_{u,c} = 171.92$	$\phi P_{n,c} = 243.75$
<i>pos. (deg): 20, 160, 250</i>		$V_u = 2.02$	$\phi V_n = 73.13$
		$M_u = n/a$	$\phi M_n = n/a$
			Stress Rating
			67.2%
			Pass
Base Plate Data		GROUP 2:	
54" OD x 3" Plate (A572-60; $F_y=60$ ksi, $F_u=75$ ksi)		$P_{u,c} = 202.91$	$\phi P_{n,c} = 341.25$
		$V_u = 0$	$\phi V_n = 102.38$
		$M_u = n/a$	$\phi M_n = n/a$
			Stress Rating
			56.6%
			Pass
Stiffener Data		Base Plate Summary	
N/A		Max Stress (ksi):	32.19 (Flexural)
		Allowable Stress (ksi):	54
		Stress Rating:	56.8%
			Pass
Pole Data			
46.38" x 0.4375" 12-sided pole (A607-65; $F_y=65$ ksi, $F_u=80$ ksi)			

Pier and Pad Foundation



BU # : 876315
Site Name: OAK LANE CC,
App. Number: 452958 Rev.# 0

TIA-222 Revision: H
Tower Type: Monopole

Block Foundation?:

Superstructure Analysis Reactions		
Compression, P_{comp} :	52	kips
Base Shear, V_{u_comp} :	32	kips
Moment, M_u :	3673	ft-kips
Tower Height, H :	150	ft
BP Dist. Above Fdn, bp_{dist} :	3	in
Bolt Circle / Bearing Plate Width, BC :	54	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	133.39	32.00	22.8%	Pass
<i>Bearing Pressure (ksf)</i>	18.00	4.44	24.7%	Pass
<i>Overtuning (kip*ft)</i>	4868.45	3841.00	78.9%	Pass
<i>Pad Flexure (kip*ft)</i>	8967.19	2146.66	22.8%	Pass
<i>Pad Shear - 1-way (kips)</i>	1363.20	262.29	18.3%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.164	0.002	1.2%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	5362.79	0.00	0.0%	Pass

*Rating per TIA-222-H Section 15.5

Soil Rating*:	78.9%
Structural Rating*:	22.8%

Pad Properties		
Depth, D :	4.5	ft
Pad Width, W :	25	ft
Pad Thickness, T :	5	ft
Pad Rebar Size, Sp :	9	
Pad Rebar Quantity, mp :	37	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60000	psi
Concrete Compressive Strength, F'_c :	3000	psi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	100	pcf
Ultimate Gross Bearing, Q_{ult} :	24.000	ksf
Cohesion, C_u :	0.000	ksf
Friction Angle, ϕ :	30	degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :		
Neglected Depth, N :	3.33	ft
Foundation Bearing on Rock?	Yes	
Groundwater Depth, gw :	3	ft

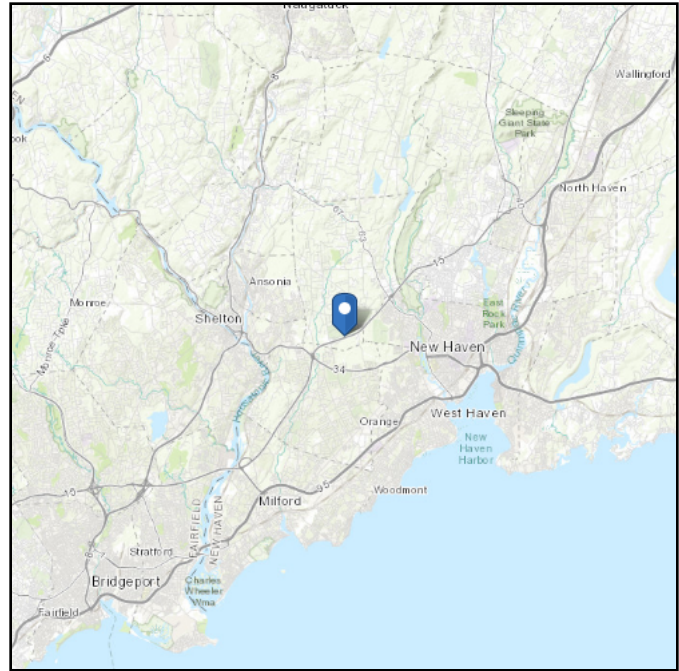
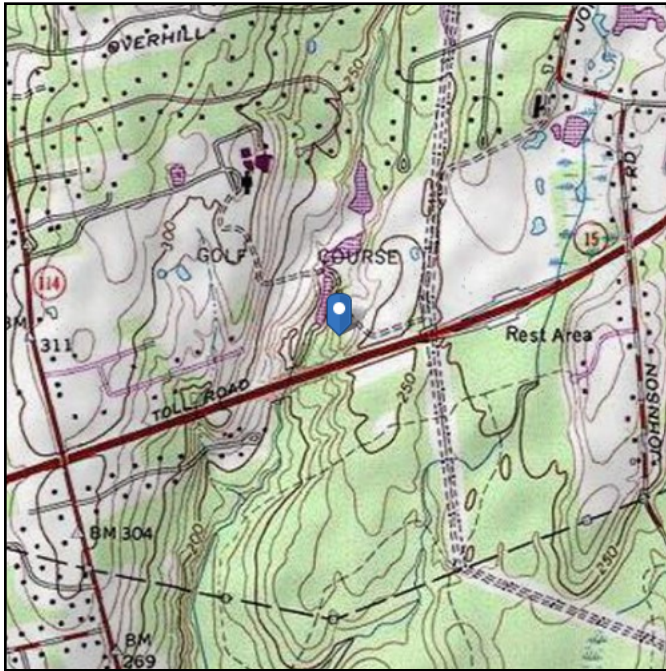
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ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 238.45 ft (NAVD 88)
Latitude: 41.316833
Longitude: -73.011583



Wind

Results:

Wind Speed:	124 Vmph
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	93 Vmph
100-year MRI	100 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014

Date Accessed: Fri Sep 28 2018

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

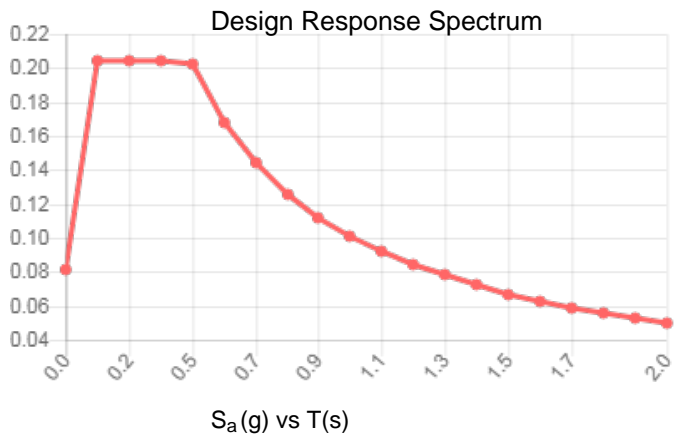
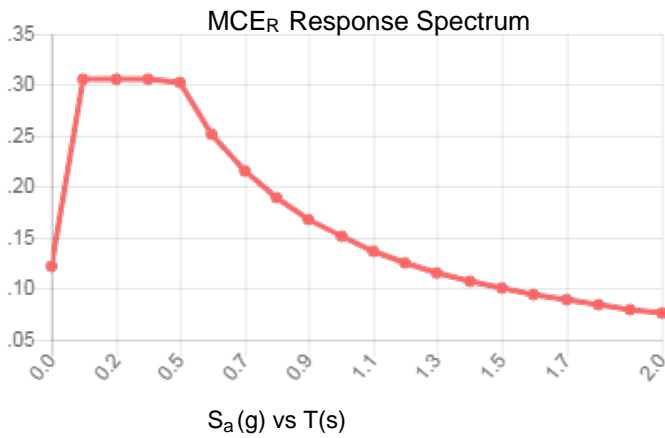
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Stiff Soil

Results:

S_S :	0.191	S_{DS} :	0.204
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.600	T_L :	6.000
F_v :	2.400	PGA :	0.100
S_{MS} :	0.305	PGA _M :	0.161
S_{M1} :	0.151	F _{PGA} :	1.599
		I_e :	1

Seismic Design Category B



Data Accessed:

Fri Sep 28 2018

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 0.75 in.
Concurrent Temperature: 15 F
Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Fri Sep 28 2018

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTNH085A

Crown Castle Oak Lane CC_Woodbridge
1027 Racebrook Road
Woodbridge, CT 06525

May 7, 2018

EBI Project Number: 6218003634

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	11.58%



May 7, 2018

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Emissions Analysis for Site: **CTNH085A – Crown Castle Oak Lane CC_Woodbridge**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **1027 Racebrook Road, Woodbridge, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located 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 population 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 population 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 limits for the 600 MHz and 700 MHz Band are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz Microwave 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 T-Mobile Wireless antenna facility located at **1027 Racebrook Road, Woodbridge, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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 equipment was calculated using the following assumptions:

- 1) 2 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel
- 3) 2 UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 4) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 5) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel
- 6) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts.



- 7) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts.
- 8) 1 microwave backhaul channel (11 GHz) was considered for the proposed facility. This channel has a transmit power of 1 Watt.
- 9) 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.
- 10) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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.
- 11) The antennas used in this modeling are the **Ericsson AIR32 B66A/B2A & Ericsson AIR21 B2A/B4P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the **RFS APXVAA24-43-U-A20** for 600 MHz and 700 MHz channels and the **RFS SC2-W100AC** for the proposed 11 GHz microwave backhaul. This is based on feedback from the carrier with regard to anticipated antenna selection. The **Ericsson AIR32 B66A/B2A** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Ericsson AIR21 B2A/B4P** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **RFS APXVAA24-43-U-A20** has a maximum gain of **13.15/ 13.55 dBd** at its main lobe at 600 MHz and 700 MHz respectively. The **RFS SC2-W100AC** has a maximum gain of **32.35 dBd** at its main lobe at 11 GHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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.
- 12) The antenna mounting height centerline of the proposed antennas (both panel antennas and microwave dish) is **138 feet** above ground level (AGL).



EBI Consulting

environmental | engineering | due diligence

13) 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.

14) All calculations were done with respect to uncontrolled / general population threshold limits.



T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C	Sector:	D
Antenna #:	1	Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	138	Height (AGL):	138	Height (AGL):	138	Height (AGL):	138
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08
Antenna A1 MPE%	1.93	Antenna B1 MPE%	1.93	Antenna C1 MPE%	1.93	Antenna D1 MPE%	1.93
Antenna #:	2	Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	138	Height (AGL):	138	Height (AGL):	138	Height (AGL):	138
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	6	Channel Count	6	Channel Count	6	Channel Count	6
Total TX Power(W):	122	Total TX Power(W):	180	Total TX Power(W):	180	Total TX Power(W):	180
ERP (W):	7,397.71	ERP (W):	7,002.81	ERP (W):	7,002.81	ERP (W):	7,002.81
Antenna A2 MPE%	1.44	Antenna B2 MPE%	1.44	Antenna C2 MPE%	1.44	Antenna D2 MPE%	1.44
Antenna #:	3	Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	RFS APXVAA24-43-U-A20	Make / Model:	RFS APXVAA24-43-U-A20	Make / Model:	RFS APXVAA24-43-U-A20	Make / Model:	RFS APXVAA24-43-U-A20
Gain:	13.15/ 13.55 dBd	Gain:	13.15/ 13.55 dBd	Gain:	13.15/ 13.55 dBd	Gain:	13.15/ 13.55 dBd
Height (AGL):	138	Height (AGL):	138	Height (AGL):	138	Height (AGL):	138
Frequency Bands	700 / 600 MHz	Frequency Bands	700 / 600 MHz	Frequency Bands	700 / 600 MHz	Frequency Bands	700 / 600 MHz
Channel Count	2	Channel Count	2	Channel Count	2	Channel Count	2
Total TX Power(W):	60	Total TX Power(W):	60	Total TX Power(W):	60	Total TX Power(W):	60
ERP (W):	1,358.79	ERP (W):	1,358.79	ERP (W):	1,358.79	ERP (W):	1,358.79
Antenna A3 MPE%	1.24	Antenna B3 MPE%	1.24	Antenna C3 MPE%	1.24	Antenna D3 MPE%	1.24

Microwave Backhaul Data

Make / Model:	Gain	Height (AGL):	Frequency Bands	Channel Count	Total TX Power(W)	ERP (W)	MPE %	Sector
Commscope SC2-W100AC	32.35 dBd	138	11 GHz	1	1	1,364.58	0.03	A

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	4.64 %
Verizon Wireless	2.41 %
Nextel	0.46 %
Sprint	0.58 %
MetroPCS	0.39 %
AT&T	3.10 %
Site Total MPE %:	11.58 %

T-Mobile Sector A Total:	4.64 %
T-Mobile Sector B Total:	4.61 %
T-Mobile Sector C Total:	4.61 %
T-Mobile Sector D Total:	4.61 %
Site Total:	11.58 %



T-Mobile Max Power Values (Sector A)

T-Mobile _Max Power Values (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	138	9.63	AWS - 2100 MHz	1000	0.96%
T-Mobile PCS - 1900 MHz LTE	2	2,334.27	138	9.63	PCS - 1900 MHz	1000	0.96%
T-Mobile AWS - 2100 MHz UMTS	2	1,167.14	138	4.82	AWS - 2100 MHz	1000	0.48%
T-Mobile PCS - 1900 MHz UMTS	2	1,167.14	138	4.82	PCS - 1900 MHz	1000	0.48%
T-Mobile PCS - 1900 MHz GSM	2	1,167.14	138	4.82	PCS - 1900 MHz	1000	0.48%
T-Mobile 600 MHz LTE	2	619.61	138	2.56	600 MHz	400	0.64%
T-Mobile 700 MHz LTE	2	679.39	138	2.80	700 MHz	467	0.61%
T-Mobile 11 GHz Microwave	1	1,364.58	138	0.28	11 GHz	1000	0.03%
						Total:	4.64%

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	4.64%
Sector B:	4.61 %
Sector C:	4.61 %
Sector C:	4.61 %
T-Mobile Per Sector Maximum (Sector A):	4.64%
Site Total:	11.58 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **11.58%** of the allowable FCC established general population limit sampled at the ground level. This is based upon 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.