STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

September 9, 2020

Elizabeth Jamieson
Transcend Wireless
10 Industrial Ave., Suite 3
Mahwah, New Jersey 07430

RE: **EM-T-MOBILE-015-200728** – T-Mobile notice of intent to modify an existing telecommunications facility located at 623 Pine Street, Bridgeport, Connecticut.

Dear Ms. Jamieson:

The Connecticut Siting Council (Council) received a notice of intent to modify the above-referenced facility on July 28, 2020. On August 6, 2020, the Council issued a letter stating that the request for exempt modification was incomplete because of the following deficiencies:

1. The Structural analysis (SA) provided with the report does not account for Verizon's and Sprint's most current and approved equipment loading;
2. The mount analysis dated June 8, 2020 and prepared by Centek Engineering, Inc. cites the 2016 Connecticut State Building Code (CSBC); however, the State of Connecticut has adopted the 2018 CSBC effective October 1, 2018;
3. The exempt modification request lacks documentation of the original facility approval and any conditions of such approval or correspondence with the City of Bridgeport stating that the City no longer retains records of its decision; and
4. Page T-1 of the construction drawings (CD) references the removal of two cabinets at ground level, while pages S-1 and S-2 reference the removal of three cabinets. Please clarify.

The Council recommended that Transcend Wireless provide the following:

a) An updated SA for the facility that includes proposed and approved equipment by Verizon, Sprint and other entities that are located at this facility;
b) A mount analysis that comports with the current 2018 CSBC;
c) Documentation showing the original facility approval with conditions, if any, or correspondence with the City stating that there are no records of the original facility approval; and
d) Clarification on the number of cabinets to be replaced and a revised CD, if applicable.

On September 2, 2020, the Council received an electronic mail with a mount analysis dated August 31, 2020 (Rev.1), revised construction drawings and municipal approval documents. Council staff reviewed the response to the incomplete request and identified the following deficiency:

a) An updated SA was not provided.

Therefore, the exempt modification request is incomplete at this time. The Council recommends that Transcend Wireless provide an updated SA for the facility that includes proposed and approved equipment by Verizon, Sprint and other entities that are located at this facility, on or before October 9, 2020. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to October 9, 2020. **Please provide an electronic version of the requested**

information for the incomplete exempt modification to be rendered complete and processed. Please include the Council's exempt modification identification number referenced above with the submittal

This notice of incompletion shall have the effect of tolling the Federal Communications Commission (FCC) 60-day timeframe in accordance with Paragraph 217 of the FCC Wireless Infrastructure Report and Order issued on October 21, 2014 (FCC 14-153).

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,

s/ Melanie A. Bachman

Melanie Bachman
Executive Director

MAB/IN/emr

This facility was approved by the City of Bridgeport Zoning Board of Appeals in 1998, with no record of conditions that would restrict exempt modifications. Therefore this modification complies with the aforementioned approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. 16-50j-72(b)(2). In accordance with R.C.S.A. 16-50j-73, a copy of this letter is being sent to Joseph P. Ganim, Mayor of the City of Bridgeport, as well as the tower and property owner.

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

1. The proposed modification will not result in an increase in the height of the existing structure

2. The proposed modifications will not require the extension of the site boundary.

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

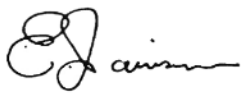
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

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

6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,



Elizabeth Jamieson
Transcend Wireless
10 Industrial Ave., Suite 3
Mahwah, New Jersey 07430
860-605-7808
EJamieson@TranscendWireless.com

cc:
Mayor Joseph P. Ganim- as elected official
RCC Communications Corp/Bob Knapp - as tower and property owner
Thomas F. Gill- Director of Office of Planning and Economic Development

CENTEK engineering

Centered on Solutions℠

Structural Analysis Report

Antenna Mount Analysis

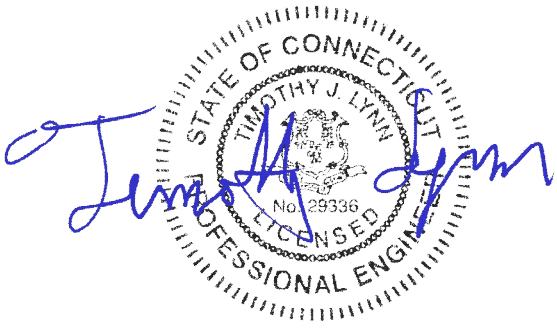
T-Mobile Site #: CT11014B

623 Pine Street
Bridgeport, CT 06605

Centek Project No. 20074.32

~~Date: June 8, 2020~~

Rev 1: August 31, 2020



Max Stress Ratio = 65.0%

Prepared for:

T-Mobile USA
35 Griffin Road
Bloomfield, CT 06002

Table of Contents

CENTEK engineering

Centered on Solutions℠

August 31, 2020

Mr. Dan Reid
Transcend Wireless
10 Industrial Ave
Mahwah, NJ 07430

Re: Structural Letter ~ Antenna Mount
T-Mobile – Site Ref: CT11014B
623 Pine Street
Bridgeport, CT 06605

Centek Project No. 20074.32

Dear Mr. Reid,

Centek Engineering, Inc. has reviewed the T-Mobile antenna installation at the above referenced site. The purpose of the review is to determine the structural adequacy of the existing mount, consisting of three (3) 14.5-ft sector frames to support the equipment configuration. The review considered the effects of wind load, dead load and ice load in accordance with the 2015 International Building Code as modified by the 2018 Connecticut State Building Code (CTBC) including ASCE 7-10 and ANSI/TIA-222-G *Structural Standards for Steel Antenna Towers and Supporting Structures*.

The loads considered in this analysis consist of the following:

- T-Mobile:
  Sector Frame: Three (3) Ericsson AIR6449 panel antennas, three (3) Ericsson AIR3246 B66 panel antennas, three (3) RFS APXVAARR24-43-NA20 panel antennas, three (3) KRY111-144/2 TMAs, three (3) Ericsson 4424 remote radio units, three (3) Ericsson 4449 B71_B12 remote radio units and three (3) Commscope SDX1926Q-43 diplexers mounted on three (3) sector frames with a RAD center elevation of 180-ft +/- AGL.
  (NOTE: APXVAARR24-43 antenna must be mounted on the same side of the sector frame as the stabilizer arm)

The antenna mount was analyzed per the requirements of the 2015 International Building Code as modified by the 2018 Connecticut State Building Code considering a nominal design wind speed of 97 mph for Bridgeport as required in Appendix N of the 2018 Connecticut State Building Code.

A structural analysis of tower and foundation needs to be completed prior to any work.

Based on our review of the installation, it is our opinion that the subject antenna mount has sufficient capacity to support the aforementioned antenna configuration. If there are any questions regarding this matter, please feel free to call.

Respectfully Submitted by:

Timothy J. Lynn, PE
Structural Engineer

STATE OF CONNECTICUT
TIMOTHY J. LYNN
No. 29336
LICENSED
PROFESSIONAL ENGINEER

Section 2 - Calculations

CENTEK engineering
Centered on Solutions℠ www.centekeng.com
63-2 North Branford Road P: (203) 488-0580
Branford, CT 06405 F: (203) 488-8587

Subject: TIA-222-G Loads

Location: Bridgeport, CT

Rev. 0: 6/6/20

Prepared by: T.J.L. Checked by: C.F.C.
Job No. 20074.32

Development of Design Heights, Exposure Coefficients, and Velocity Pressures Per TIA-222-G

Wind Speeds

Basic Wind Speed $V := 97$ mph (User Input - 2016 CSBC Appendix N)

Basic Wind Speed with Ice $V_i := 50$ mph (User Input per Annex B of TIA-222-G)

Input

Structure Type = Structure_Type := Pole (User Input)

Structure Category = $SC := II$ (User Input)

Exposure Category = $Exp := D$ (User Input)

Structure Height = $h := 250$ ft (User Input)

Height to Center of Antennas = $z_{AT\&T} := 180$ ft (User Input)

Radial Ice Thickness = $t_i := 0.75$ in (User Input per Annex B of TIA-222-G)

Radial Ice Density = $Id := 56.00$ pcf (User Input)

Topograpic Factor = $K_{zt} := 1.0$ (User Input)

$K_a := 1.0$ (User Input)

Gust Response Factor = $G_H = 1.1$ (User Input)

Output

Wind Direction Probability Factor =

$$K_d := \begin{cases} 0.95 & \text{if Structure\_Type = Pole} \\ 0.85 & \text{if Structure\_Type = Lattice} \end{cases} = 0.95$$

(Per Table 2-2 of TIA-222-G)

Importance Factors =

$$I_{Wind} := \begin{cases} 0.87 & \text{if } SC = 1 \\ 1.00 & \text{if } SC = 2 \\ 1.15 & \text{if } SC = 3 \end{cases} = 1$$

(Per Table 2-3 of TIA-222-G)

$$I_{Wind\_w\_Ice} := \begin{cases} 0 & \text{if } SC = 1 \\ 1.00 & \text{if } SC = 2 \\ 1.00 & \text{if } SC = 3 \end{cases} = 1$$

$$I_{ice} := \begin{cases} 0 & \text{if } SC = 1 \\ 1.00 & \text{if } SC = 2 \\ 1.25 & \text{if } SC = 3 \end{cases} = 1$$

$$K_{iz} := \left(\frac{z_{AT\&T}}{33}\right)^{0.1} = 1.185$$

$$t_{iz} := 2.0 \cdot t_i \cdot I_{ice} \cdot K_{iz} \cdot K_{zt}^{0.35} = 1.777$$

Velocity Pressure Coefficient Antennas =

$$Kz_{AT\&T} := 2.01\left(\left(\frac{z_{AT\&T}}{zg}\right)\right)^{\frac{2}{\alpha}} = 1.587$$

Velocity Pressure w/o Ice Antennas =

$$qz_{AT\&T} := 0.00256 \cdot K_d \cdot Kz_{AT\&T} \cdot V^2 \cdot I_{Wind} = 36.318$$

Velocity Pressure with Ice Antennas =

$$qz_{ice.AT\&T} := 0.00256 \cdot K_d \cdot Kz_{AT\&T} \cdot V_i^2 \cdot I_{Wind} = 9.65$$

CENTEK engineering
Centered on Solutions™ www.centekeng.com
63-2 North Branford Road P: (203) 488-0580
Branford, CT 06405 F: (203) 488-8587

Subject:	TIA-222-G Loads
Location:	Bridgeport, CT
Rev. 0: 6/6/20	Prepared by: T.J.L. Checked by: C.F.C. Job No. 20074.32

Development of Wind & Ice Load on Antennas

Antenna Data:

Antenna Model =	Ericsson AIR6449		
Antenna Shape =	Flat		(User Input)
Antenna Height =	$L_{ant} := 33.1$	in	(User Input)
Antenna Width =	$W_{ant} := 20.5$	in	(User Input)
Antenna Thickness =	$T_{ant} := 8.3$	in	(User Input)
Antenna Weight =	$WT_{ant} := 103$	lbs	(User Input)
Number of Antennas =	$N_{ant} := 1$		(User Input)
Antenna Aspect Ratio =	$Ar_{ant} := \frac{L_{ant}}{W_{ant}} = 1.6$		
Antenna Force Coefficient =	$Ca_{ant} = 1.2$		

Wind Load (without ice)

Surface Area for One Antenna =	$SA_{antF} := \frac{L_{ant} \cdot W_{ant}}{144} = 4.7$	sf
Total Antenna Wind Force =	$F_{ant} := qz_{AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antF} = 226$	lbs
Surface Area for One Antenna =	$SA_{antS} := \frac{L_{ant} \cdot T_{ant}}{144} = 1.9$	sf
Total Antenna Wind Force =	$F_{ant} := qz_{AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antS} = 91$	lbs

Wind Load (with ice)

Surface Area for One Antenna w/ Ice =	$SA_{ICEantF} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz})}{144} = 6.1$	sf
Total Antenna Wind Force w/ Ice =	$Fi_{ant} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantF} = 78$	lbs
Surface Area for One Antenna w/ Ice =	$SA_{ICEantS} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz})}{144} = 3$	sf
Total Antenna Wind Force w/ Ice =	$Fi_{ant} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantS} = 38$	lbs

Gravity Load (without ice)

Weight of All Antennas =	$WT_{ant} \cdot N_{ant} = 103$	lbs

Gravity Loads (ice only)

Volume of Each Antenna =	$V_{ant} := L_{ant} \cdot W_{ant} \cdot T_{ant} = 5632$	cu in
Volume of Ice on Each Antenna =	$V_{ice} := (L_{ant} + 2 \cdot t_{iz})(W_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz}) - V_{ant} = 4820$	cu in
Weight of Ice on Each Antenna =	$W_{ICEant} := \frac{V_{ice}}{1728} \cdot Id = 156$	lbs
Weight of Ice on All Antennas =	$W_{ICEant} \cdot N_{ant} = 156$	lbs

Development of Wind & Ice Load on Antennas

Antenna Data:

Antenna Model =	Ericsson AIR3246-B66		
Antenna Shape =	Flat		(User Input)
Antenna Height =	$L_{ant} := 58.1$	in	(User Input)
Antenna Width =	$W_{ant} := 15.7$	in	(User Input)
Antenna Thickness =	$T_{ant} := 9.4$	in	(User Input)
Antenna Weight =	$WT_{ant} := 180$	lbs	(User Input)
Number of Antennas =	$N_{ant} := 1$		(User Input)
Antenna Aspect Ratio =	$Ar_{ant} := \frac{L_{ant}}{W_{ant}} = 3.7$		
Antenna Force Coefficient =	$Ca_{ant} = 1.25$		

Wind Load (without ice)

Surface Area for One Antenna =	$SA_{antF} := \frac{L_{ant} \cdot W_{ant}}{144} = 6.3$	sf
Total Antenna Wind Force =	$F_{ant} := qz_{AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antF} = 317$	lbs
Surface Area for One Antenna =	$SA_{antS} := \frac{L_{ant} \cdot T_{ant}}{144} = 3.8$	sf
Total Antenna Wind Force =	$F_{ant} := qz_{AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antS} = 190$	lbs

Wind Load (with ice)

Surface Area for One Antenna w/ Ice =	$SA_{ICEantF} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz})}{144} = 8.2$	sf
Total Antenna Wind Force w/ Ice =	$Fi_{ant} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantF} = 110$	lbs
Surface Area for One Antenna w/ Ice =	$SA_{ICEantS} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz})}{144} = 5.5$	sf
Total Antenna Wind Force w/ Ice =	$Fi_{ant} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantS} = 74$	lbs

Gravity Load (without ice)

Weight of All Antennas =	$WT_{ant} \cdot N_{ant} = 180$	lbs

Gravity Loads (ice only)

Volume of Each Antenna =	$V_{ant} := L_{ant} \cdot W_{ant} \cdot T_{ant} = 8574$	cu in
Volume of Ice on Each Antenna =	$V_{ice} := (L_{ant} + 2 \cdot t_{iz})(W_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz}) - V_{ant} = 6805$	cu in
Weight of Ice on Each Antenna =	$W_{ICEant} := \frac{V_{ice}}{1728} \cdot Id = 221$	lbs
Weight of Ice on All Antennas =	$W_{ICEant} \cdot N_{ant} = 221$	lbs

Development of Wind & Ice Load on Antennas

Antenna Data:

Antenna Model =	RFSAPXVAARR24-43		
Antenna Shape =	Flat		(User Input)
Antenna Height =	$L_{ant} := 95.9$	in	(User Input)
Antenna Width =	$W_{ant} := 24$	in	(User Input)
Antenna Thickness =	$T_{ant} := 8.7$	in	(User Input)
Antenna Weight =	$WT_{ant} := 153$	lbs	(User Input)
Number of Antennas =	$N_{ant} := 1$		(User Input)
Antenna Aspect Ratio =	$Ar_{ant} := \frac{L_{ant}}{W_{ant}} = 4.0$		
Antenna Force Coefficient =	$Ca_{ant} = 1.27$		

Wind Load (without ice)

Surface Area for One Antenna =	$SA_{antF} := \frac{L_{ant} \cdot W_{ant}}{144} = 16$	sf
Total Antenna Wind Force =	$F_{ant} := qz_{AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antF} = 809$	lbs
Surface Area for One Antenna =	$SA_{antS} := \frac{L_{ant} \cdot T_{ant}}{144} = 5.8$	sf
Total Antenna Wind Force =	$F_{ant} := qz_{AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antS} = 293$	lbs

Wind Load (with ice)

Surface Area for One Antenna w/ Ice =	$SA_{ICEantF} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz})}{144} = 19$	sf
Total Antenna Wind Force w/ Ice =	$Fi_{ant} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantF} = 256$	lbs
Surface Area for One Antenna w/ Ice =	$SA_{ICEantS} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz})}{144} = 8.5$	sf
Total Antenna Wind Force w/ Ice =	$Fi_{ant} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantS} = 114$	lbs

Gravity Load (without ice)

Weight of All Antennas =	$WT_{ant} \cdot N_{ant} = 153$	lbs

Gravity Loads (ice only)

Volume of Each Antenna =	$V_{ant} := L_{ant} \cdot W_{ant} \cdot T_{ant} = 2 \times 10^4$	cu in
Volume of Ice on Each Antenna =	$V_{ice} := (L_{ant} + 2 \cdot t_{iz})(W_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz}) - V_{ant} = 1 \times 10^4$	cu in
Weight of Ice on Each Antenna =	$W_{ICEant} := \frac{V_{ice}}{1728} \cdot Id = 439$	lbs
Weight of Ice on All Antennas =	$W_{ICEant} \cdot N_{ant} = 439$	lbs

Development of Wind & Ice Load on TMA's

TMA Data:

TMA Model =	Ericsson KRY112 144/1 TMA		
TMA Shape =	Flat		(User Input)
TMA Height =	$L_{TMA} := 7.7$	in	(User Input)
TMA Width =	$W_{TMA} := 7.5$	in	(User Input)
TMA Thickness =	$T_{TMA} := 3.4$	in	(User Input)
TMA Weight =	$WT_{TMA} := 11$	lbs	(User Input)
Number of TMA's =	$N_{TMA} := 1$		(User Input)
TMA Aspect Ratio =	$Ar_{TMA} := \frac{L_{TMA}}{W_{TMA}} = 1$		
TMA Force Coefficient =	$Ca_{TMA} = 1.2$		

Wind Load (without ice)

Surface Area for One TMA =	$SA_{TMAF} := \frac{L_{TMA} \cdot W_{TMA}}{144} = 0.4$	sf
Total TMA Wind Force =	$F_{TMA} := qz_{AT\&T} \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{TMAF} = 19$	lbs
Surface Area for One TMA =	$SA_{TMAS} := \frac{L_{TMA} \cdot T_{TMA}}{144} = 0.2$	sf
Total TMA Wind Force =	$F_{TMA} := qz_{AT\&T} \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{TMAS} = 9$	lbs

Wind Load (with ice)

Surface Area for One TMA w/ Ice =	$SA_{ICETMAF} := \frac{(L_{TMA} + 2 \cdot t_{iz}) \cdot (W_{TMA} + 2 \cdot t_{iz})}{144} = 0.9$	sf
Total TMA Wind Force w/ Ice =	$Fi_{TMA} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{ICETMAF} = 11$	lbs
Surface Area for One TMA w/ Ice =	$SA_{ICETMAS} := \frac{(L_{TMA} + 2 \cdot t_{iz}) \cdot (T_{TMA} + 2 \cdot t_{iz})}{144} = 0.5$	sf
Total TMA Wind Force w/ Ice =	$Fi_{TMA} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{ICETMAS} = 7$	lbs

Gravity Load (without ice)

Weight of All TMAs =	$WT_{TMA} \cdot N_{TMA} = 11$	lbs

Gravity Loads (ice only)

Volume of Each TMA =	$V_{TMA} := L_{TMA} \cdot W_{TMA} \cdot T_{TMA} = 196$	cu in
Volume of Ice on Each TMA =	$V_{ice} := (L_{TMA} + 2 \cdot t_{iz})(W_{TMA} + 2 \cdot t_{iz}) \cdot (T_{TMA} + 2 \cdot t_{iz}) - V_{TMA} = 669$	cu in
Weight of Ice on Each TMA =	$W_{ICETMA} := \frac{V_{ice}}{1728} \cdot Id = 22$	lbs
Weight of Ice on All TMAs =	$W_{ICETMA} \cdot N_{TMA} = 22$	lbs

Development of Wind & Ice Load on RRUS's

RRUS Data:

RRUS Model =	Ericsson 4449 B71B12		
RRUS Shape =	Flat		(User Input)
RRUS Height =	$L_{RRUS} := 14.9$	in	(User Input)
RRUS Width =	$W_{RRUS} := 13.2$	in	(User Input)
RRUS Thickness =	$T_{RRUS} := 10.4$	in	(User Input)
RRUS Weight =	$WT_{RRUS} := 74$	lbs	(User Input)
Number of RRUS's =	$N_{RRUS} := 1$		(User Input)
RRUS Aspect Ratio =	$Ar_{RRUS} := \frac{L_{RRUS}}{W_{RRUS}} = 1.1$		
RRUS Force Coefficient =	$Ca_{RRUS} = 1.2$		

Wind Load (without ice)

Surface Area for One RRUS =	$SA_{RRUSF} := \frac{L_{RRUS} \cdot W_{RRUS}}{144} = 1.4$	sf
Total RRUS Wind Force =	$F_{RRUS} := qz_{AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSF} = 65$	lbs
Surface Area for One RRUS =	$SA_{RRUSS} := \frac{L_{RRUS} \cdot T_{RRUS}}{144} = 1.1$	sf
Total RRUS Wind Force =	$F_{RRUS} := qz_{AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSS} = 52$	lbs

Wind Load (with ice)

Surface Area for One RRUS w/ Ice =	$SA_{ICERRUSF} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (W_{RRUS} + 2 \cdot t_{iz})}{144} = 2.1$	sf
Total RRUS Wind Force w/ Ice =	$Fi_{RRUS} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSF} = 27$	lbs
Surface Area for One RRUS w/ Ice =	$SA_{ICERRUSS} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz})}{144} = 1.8$	sf
Total RRUS Wind Force w/ Ice =	$Fi_{RRUS} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSS} = 23$	lbs

Gravity Load (without ice)

Weight of All RRUSs =	$WT_{RRUS} \cdot N_{RRUS} = 74$	lbs

Gravity Loads (ice only)

Volume of Each RRUS =	$V_{RRUS} := L_{RRUS} \cdot W_{RRUS} \cdot T_{RRUS} = 2045$	cu in
Volume of Ice on Each RRUS =	$V_{ice} := (L_{RRUS} + 2 \cdot t_{iz})(W_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz}) - V_{RRUS} = 2469$	cu in
Weight of Ice on Each RRUS =	$W_{ICERRUS} := \frac{V_{ice}}{1728} \cdot Id = 74$	lbs
Weight of Ice on All RRUSs =	$W_{ICERRUS} \cdot N_{RRUS} = 74$	lbs

Development of Wind & Ice Load on RRUS's

RRUS Data:

RRUS Model = 4424

RRUS Shape = Flat (User Input)

RRUS Height = $L_{RRUS} := 17.1$ in (User Input)

RRUS Width = $W_{RRUS} := 14.4$ in (User Input)

RRUS Thickness = $T_{RRUS} := 11.3$ in (User Input)

RRUS Weight = $WT_{RRUS} := 86$ lbs (User Input)

Number of RRUS's = $N_{RRUS} := 1$ (User Input)

RRUS Aspect Ratio = $Ar_{RRUS} := \frac{L_{RRUS}}{W_{RRUS}} = 1.2$

RRUS Force Coefficient = $Ca_{RRUS} = 1.2$

Wind Load (without ice)

Surface Area for One RRUS = $SA_{RRUSF} := \frac{L_{RRUS} \cdot W_{RRUS}}{144} = 1.7$ sf

Total RRUS Wind Force = $F_{RRUS} := qz_{AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSF} = 82$ lbs

Surface Area for One RRUS = $SA_{RRUSS} := \frac{L_{RRUS} \cdot T_{RRUS}}{144} = 1.3$ sf

Total RRUS Wind Force = $F_{RRUS} := qz_{AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSS} = 64$ lbs

Wind Load (with ice)

Surface Area for One RRUS w/ Ice = $SA_{ICERRUSF} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (W_{RRUS} + 2 \cdot t_{iz})}{144} = 2.6$ sf

Total RRUS Wind Force w/ Ice = $Fi_{RRUS} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSF} = 33$ lbs

Surface Area for One RRUS w/ Ice = $SA_{ICERRUSS} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz})}{144} = 2.1$ sf

Total RRUS Wind Force w/ Ice = $Fi_{RRUS} := qz_{ice.AT\&T} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSS} = 27$ lbs

Gravity Load (without ice)

Weight of All RRUSs = $WT_{RRUS} \cdot N_{RRUS} = 86$ lbs

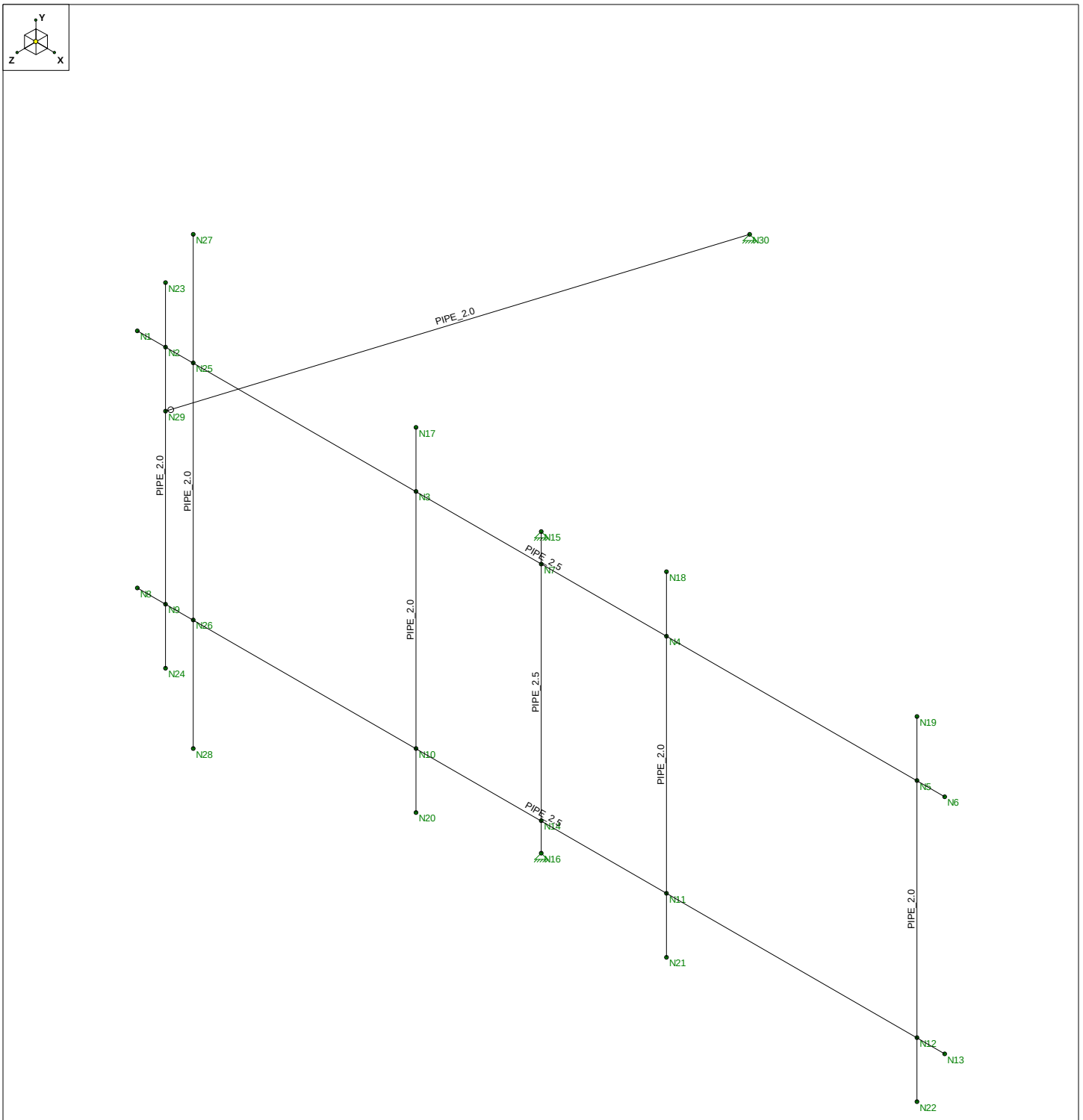
Gravity Loads (ice only)

Volume of Each RRUS = $V_{RRUS} := L_{RRUS} \cdot W_{RRUS} \cdot T_{RRUS} = 2783$ cu in

Volume of Ice on Each RRUS = $V_{ice} := (L_{RRUS} + 2 \cdot t_{iz})(W_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz}) - V_{RRUS} = 2726$ cu in

Weight of Ice on Each RRUS = $W_{ICERRUS} := \frac{V_{ice}}{1728} \cdot Id = 88$ lbs

Weight of Ice on All RRUSs = $W_{ICERRUS} \cdot N_{RRUS} = 88$ lbs



Envelope Only Solution

Centek		
TJL	CT11014B - Mount	June 8, 2020 at 11:46 AM
20074.32	Member Framing	Mount.r3d

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 14th(360-10): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): ASD
Cold Formed Steel Code	AISI S100-10: ASD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1
Footing Overturning Safety Factor	1
Optimize for OTM/Sliding	No
Check Concrete Bearing	No
Footing Concrete Weight (k/ft^3)	150.001
Footing Concrete f'c (ksi)	4
Footing Concrete Ec (ksi)	3644
Lambda	1
Footing Steel fy (ksi)	60
Minimum Steel	0.0018
Maximum Steel	0.0075
Footing Top Bar	#3
Footing Top Bar Cover (in)	2
Footing Bottom Bar	#3
Footing Bottom Bar Cover (in)	3.5
Pedestal Bar	#3
Pedestal Bar Cover (in)	1.5
Pedestal Ties	#3

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	58	1.2
3	A992	29000	11154	.3	.65	.49	50	1.1	58	1.2
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.2	58	1.1
6	A53 Grade B	29000	11154	.3	.65	.49	35	1.5	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rul...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Horz	PIPE_2.5	Beam	Pipe	A53 Grade B	Typical	1.61	1.45	1.45	2.89
2	Antenna Mast	PIPE_2.0	Column	Wide Flange	A53 Grade B	Typical	1.02	.627	.627	1.25
3	Vert	PIPE_2.5	Column	Wide Flange	A53 Grade B	Typical	1.61	1.45	1.45	2.89
4	Stablizer Arm	PIPE_2.0	Beam	Pipe	A53 Grade B	Typical	1.02	.627	.627	1.25

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[...	Lcomp bot[...	L-torq...	Kyy	Kzz	Cb	Functi...
1	M1	Horz	14.5			Lbyy						Lateral
2	M2	Horz	14.5			Lbyy						Lateral
3	M3	Antenna Mast	6			Lbyy						Lateral
4	M4	Antenna Mast	6			Lbyy						Lateral
5	M5	Antenna Mast	6			Lbyy						Lateral
6	M6	Antenna Mast	6			Lbyy						Lateral
7	M7	Vert	5			Lbyy						Lateral
8	M8	Antenna Mast	8			Lbyy						Lateral
9	M9	Stablizer Arm	8.382			Lbyy						Lateral

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
1	M1	N1	N6			Horz	Beam	Pipe	A53 Gra...	Typical
2	M2	N8	N13			Horz	Beam	Pipe	A53 Gra...	Typical
3	M3	N23	N24			Antenna Mast	Column	Wide Flange	A53 Gra...	Typical
4	M4	N17	N20			Antenna Mast	Column	Wide Flange	A53 Gra...	Typical
5	M5	N18	N21			Antenna Mast	Column	Wide Flange	A53 Gra...	Typical
6	M6	N19	N22			Antenna Mast	Column	Wide Flange	A53 Gra...	Typical
7	M7	N15	N16			Vert	Column	Wide Flange	A53 Gra...	Typical
8	M8	N27	N28			Antenna Mast	Column	Wide Flange	A53 Gra...	Typical
9	M9	N29	N30			Stablizer Arm	Beam	Pipe	A53 Gra...	Typical

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Dia...
1	N1	0	0	0	0	
2	N2	.5	0	0	0	
3	N3	5	0	0	0	
4	N4	9.5	0	0	0	
5	N5	14	0	0	0	
6	N6	14.5	0	0	0	
7	N7	7.25	0	0	0	
8	N8	0	-4	0	0	
9	N9	.5	-4	0	0	
10	N10	5	-4	0	0	
11	N11	9.5	-4	0	0	
12	N12	14	-4	0	0	
13	N13	14.5	-4	0	0	
14	N14	7.25	-4	0	0	
15	N15	7.25	.5	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Dia...
16	N16	7.25	-4.5	0	0	
17	N17	5	1	0	0	
18	N18	9.5	1	0	0	
19	N19	14	1	0	0	
20	N20	5	-5	0	0	
21	N21	9.5	-5	0	0	
22	N22	14	-5	0	0	
23	N23	.5	1	0	0	
24	N24	.5	-5	0	0	
25	N25	1	0	0	0	
26	N26	1	-4	0	0	
27	N27	1	2	0	0	
28	N28	1	-6	0	0	
29	N29	.5	-1	0	0	
30	N30	3	-1	-8	0	

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N15	Reaction	Reaction	Reaction			
2	N16	Reaction	Reaction	Reaction			
3	N30	Reaction	Reaction	Reaction			

Member Point Loads (BLC 2 : Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M8	Y	-.077	.5
2	M8	Y	-.077	7.5
3	M4	Y	-.09	.5
4	M4	Y	-.09	5.5
5	M5	Y	-.052	.5
6	M5	Y	-.052	3.5
7	M8	Y	-.074	1.5
8	M8	Y	-.086	%50

Member Point Loads (BLC 3 : Ice Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M8	Y	-.22	.5
2	M8	Y	-.22	7.5
3	M4	Y	-.111	.5
4	M4	Y	-.111	5.5
5	M5	Y	-.078	.5
6	M5	Y	-.078	3.5
7	M8	Y	-.074	1.5
8	M8	Y	-.088	%50

Member Point Loads (BLC 4 : Wind with Ice X)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M8	X	.057	.5
2	M8	X	.057	7.5

Member Point Loads (BLC 4 : Wind with Ice X) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
3	M4	X	.037	.5
4	M4	X	.037	5.5
5	M5	X	.019	.5
6	M5	X	.019	3.5
7	M8	X	.023	1.5
8	M8	X	.027	%50

Member Point Loads (BLC 5 : Wind X)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M8	X	.147	.5
2	M8	X	.147	7.5
3	M4	X	.095	.5
4	M4	X	.095	5.5
5	M5	X	.046	.5
6	M5	X	.046	3.5
7	M8	X	.052	1.5
8	M8	X	.064	%50

Member Point Loads (BLC 6 : Wind with Ice Z)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M8	Z	.128	.5
2	M8	Z	.128	7.5
3	M4	Z	.055	.5
4	M4	Z	.055	5.5
5	M5	Z	.039	.5
6	M5	Z	.039	3.5

Member Point Loads (BLC 7 : Wind Z)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M8	Z	.405	.5
2	M8	Z	.405	7.5
3	M4	Z	.159	.5
4	M4	Z	.159	5.5
5	M5	Z	.113	.5
6	M5	Z	.113	3.5

Member Distributed Loads (BLC 4 : Wind with Ice X)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M9	X	.003	.003	0	0
2	M3	X	.003	.003	0	0
3	M8	X	.003	.003	0	0
4	M4	X	.003	.003	0	0
5	M7	X	.003	.003	0	0
6	M5	X	.003	.003	0	0
7	M6	X	.003	.003	0	0

Member Distributed Loads (BLC 5 : Wind X)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]

Member Distributed Loads (BLC 5 : Wind X) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M9	X	.009	.009	0	0
2	M3	X	.009	.009	0	0
3	M8	X	.009	.009	0	0
4	M4	X	.009	.009	0	0
5	M7	X	.009	.009	0	0
6	M5	X	.009	.009	0	0
7	M6	X	.009	.009	0	0

Member Distributed Loads (BLC 6 : Wind with Ice Z)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M9	Z	.003	.003	0	0
2	M1	Z	.003	.003	0	0
3	M2	Z	.003	.003	0	0
4	M7	Z	.003	.003	0	0
5	M8	Z	.003	.003	0	0
6	M3	Z	.003	.003	0	0

Member Distributed Loads (BLC 7 : Wind Z)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M9	Z	.009	.009	0	0
2	M1	Z	.009	.009	0	0
3	M2	Z	.009	.009	0	0
4	M7	Z	.009	.009	0	0
5	M8	Z	.009	.009	0	0
6	M3	Z	.009	.009	0	0

Basic Load Cases

	BLC Description	Category	X Gra...	Y Gra...	Z Gra...	Joint	Point	Distrib..	Area(...	Surfa...
1	Self Weight	DL		-1						
2	Dead Load	None					8			
3	Ice Load	None					8			
4	Wind with Ice X	None					8	7		
5	Wind X	None					8	7		
6	Wind with Ice Z	None					6	6		
7	Wind Z	None					6	6		

Load Combinations

	Description	Solve	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
1	1.2D + 1.6W (X-direc...	Yes	Y		1	1.2	2	1.2	5	1.6																
2	0.9D + 1.6W (X-direc...	Yes	Y		1	.9	2	.9	5	1.6																
3	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	2	1.2	3	1	4	1														
4	1.2D + 1.6W (Z-direc...	Yes	Y		1	1.2	2	1.2	7	1.6																
5	0.9D + 1.6W (Z-direc...	Yes	Y		1	.9	2	.9	7	1.6																
6	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	2	1.2	3	1	6	1														

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N15	max	1.292	6	1.045	3	0	1	0	6	0	6	0	6
2		min	-.497	2	.41	5	-.489	5	0	1	0	1	0	1
3	N16	max	-.571	5	1.029	6	0	1	0	6	0	6	0	6
4		min	-1.54	3	.396	2	-.923	5	0	1	0	1	0	1
5	N30	max	.47	4	.022	4	0	3	0	6	0	6	0	6
6		min	-.06	2	.013	2	-1.567	4	0	1	0	1	0	1
7	Totals:	max	0	6	2.089	6	0	3						
8		min	-1.761	1	.832	2	-2.978	4						

Envelope Joint Displacements

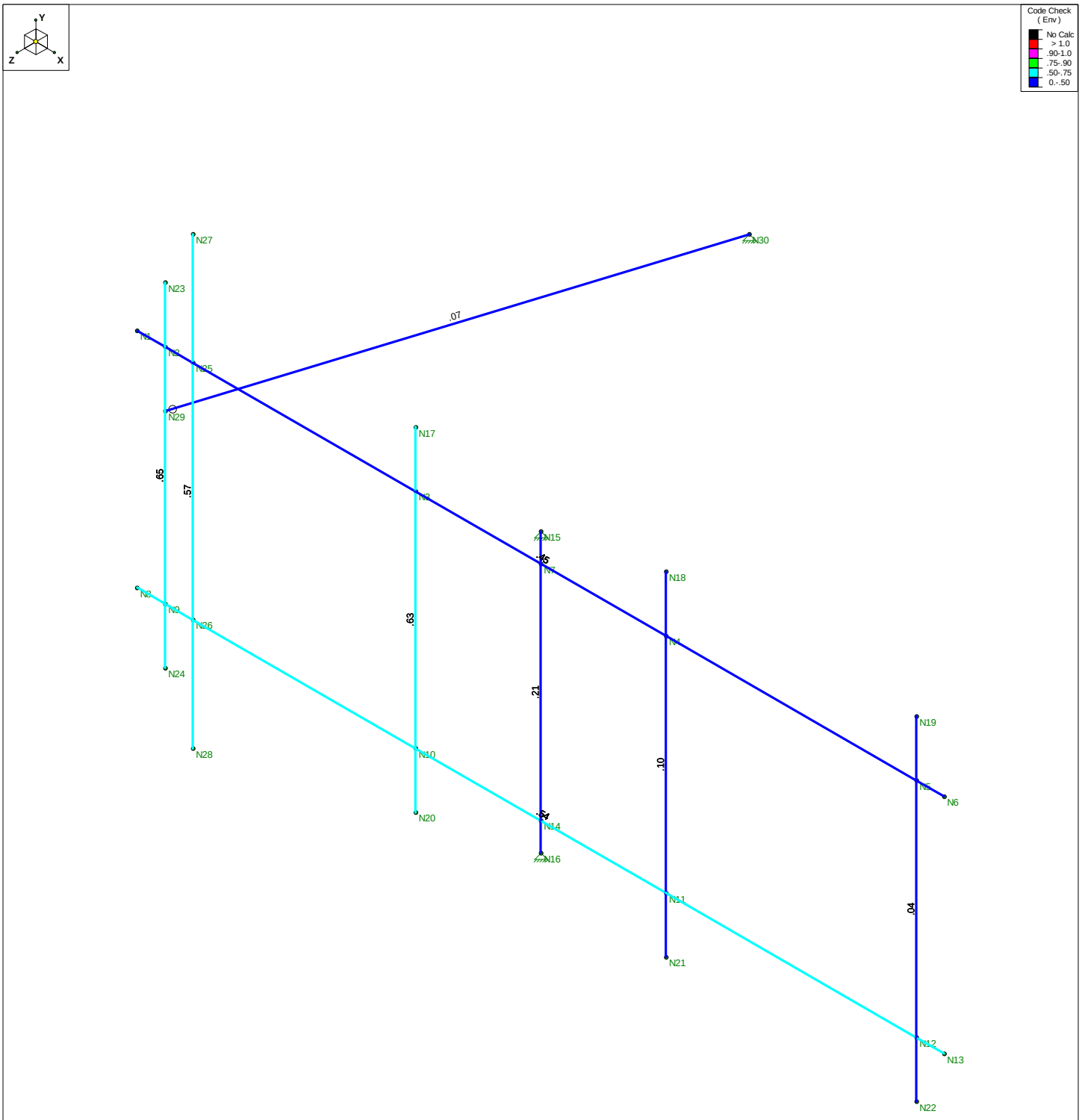
	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotatio...	LC	Z Rotatio...	LC
1	N1	max	.008	1	-.226	2	.006	3	-6.765e-07	2	7.276e-05	3	3.683e-03	6
2		min	.002	6	-.659	6	-.055	5	-2.121e-03	4	-2.531e-03	5	1.154e-03	2
3	N2	max	.008	1	-.219	2	.006	3	-6.765e-07	2	7.276e-05	3	3.683e-03	6
4		min	.002	6	-.637	6	-.04	5	-2.121e-03	4	-2.532e-03	5	1.154e-03	2
5	N3	max	.008	1	-.057	2	.027	4	-2.354e-07	2	1.093e-03	4	7.636e-03	6
6		min	.003	6	-.161	3	.001	2	-9.625e-04	4	5.471e-05	2	2.48e-03	2
7	N4	max	.008	1	-.005	6	.068	5	1.143e-03	4	7.301e-05	3	-5.397e-04	5
8		min	.003	5	-.009	1	-.002	3	1.375e-07	2	-3.433e-03	5	-8.887e-04	1
9	N5	max	.008	1	-.039	5	.269	5	2.187e-03	4	7.312e-05	3	-3.247e-04	2
10		min	.003	5	-.057	1	-.006	3	2.18e-07	2	-3.76e-03	5	-5.964e-04	6
11	N6	max	.008	1	-.041	5	.291	5	2.187e-03	4	7.312e-05	3	-3.251e-04	2
12		min	.003	5	-.059	1	-.006	3	2.18e-07	2	-3.762e-03	5	-5.97e-04	6
13	N7	max	.008	1	0	5	.004	5	4.423e-08	2	7.275e-05	3	1.324e-03	3
14		min	.003	5	0	3	0	1	-4.879e-04	5	-2.252e-04	5	6.064e-04	5
15	N8	max	.006	2	-.227	2	.753	4	-9.706e-07	2	5.84e-03	4	3.61e-03	3
16		min	-.001	6	-.658	6	.005	2	-2.383e-02	4	5.513e-05	2	1.243e-03	5
17	N9	max	.006	2	-.219	2	.718	4	-9.706e-07	2	5.839e-03	4	3.609e-03	3
18		min	-.001	6	-.636	6	.004	2	-2.383e-02	4	5.513e-05	2	1.242e-03	5
19	N10	max	.005	2	-.057	2	.226	4	-3.711e-07	2	1.013e-02	4	7.694e-03	3
20		min	-.002	6	-.161	3	.001	2	-7.946e-03	4	5.531e-05	2	2.744e-03	5
21	N11	max	.004	2	-.005	6	-.001	2	1.793e-03	4	7.334e-05	3	-4.469e-04	5
22		min	-.003	6	-.009	1	-.025	4	5.785e-08	2	-1.513e-03	5	-7.703e-04	3
23	N12	max	.004	2	-.039	5	.142	5	2.509e-03	4	7.316e-05	3	-4.211e-04	5
24		min	-.003	6	-.057	1	-.006	3	1.785e-07	2	-3.751e-03	5	-6.467e-04	1
25	N13	max	.004	2	-.041	5	.165	5	2.509e-03	4	7.316e-05	3	-4.215e-04	5
26		min	-.003	6	-.061	1	-.006	3	1.785e-07	2	-3.752e-03	5	-6.473e-04	1
27	N14	max	.004	2	0	2	.002	5	-9.59e-08	2	4.475e-03	4	1.168e-03	6
28		min	-.003	6	0	6	0	1	-1.387e-04	4	5.504e-05	2	-1.282e-04	2
29	N15	max	0	6	0	6	0	6	6.132e-08	2	7.275e-05	3	1.3e-03	1
30		min	0	1	0	1	0	1	-7.482e-04	5	-2.252e-04	5	5.331e-04	6
31	N16	max	0	6	0	6	0	6	3.557e-04	5	4.475e-03	4	4.27e-04	6
32		min	0	1	0	1	0	1	-1.257e-07	1	5.504e-05	2	-7.711e-04	2
33	N17	max	-.02	2	-.057	2	.019	4	-2.354e-07	2	1.093e-03	4	7.64e-03	6
34		min	-.089	6	-.161	3	.001	2	-6.479e-04	4	5.471e-05	2	2.269e-03	2
35	N18	max	.02	1	-.005	6	.084	5	1.367e-03	4	7.301e-05	3	-5.398e-04	5
36		min	.01	5	-.009	1	-.002	3	1.375e-07	2	-3.433e-03	5	-1.004e-03	1
37	N19	max	.014	1	-.039	5	.295	5	2.187e-03	4	7.312e-05	3	-3.485e-04	2
38		min	.008	5	-.057	1	-.006	3	2.18e-07	2	-3.76e-03	5	-5.964e-04	6

Envelope Joint Displacements (Continued)

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotatio...	LC	Z Rotatio...	LC
39	N20	max	.092	3	-.057	2	.325	4	-3.711e-07	2	1.013e-02	4	7.741e-03	3
40		min	.033	5	-.161	3	.001	2	-8.258e-03	4	5.531e-05	2	2.743e-03	5
41	N21	max	-.001	2	-.005	6	-.001	2	1.793e-03	4	7.334e-05	3	-4.341e-04	2
42		min	-.012	6	-.009	1	-.046	4	5.785e-08	2	-1.513e-03	5	-7.676e-04	6
43	N22	max	-.002	2	-.039	5	.112	5	2.509e-03	4	7.316e-05	3	-4.211e-04	5
44		min	-.011	6	-.057	1	-.006	3	1.785e-07	2	-3.751e-03	5	-6.254e-04	3
45	N23	max	-.006	2	-.219	2	.006	3	-6.765e-07	2	7.276e-05	3	3.683e-03	6
46		min	-.042	6	-.637	6	-.065	5	-2.097e-03	4	-2.532e-03	5	1.13e-03	2
47	N24	max	.043	3	-.219	2	1.005	4	-9.706e-07	2	5.839e-03	4	3.614e-03	3
48		min	.015	5	-.636	6	.004	2	-2.386e-02	4	5.513e-05	2	1.242e-03	5
49	N25	max	.008	1	-.211	2	.005	3	-6.718e-07	2	7.272e-05	3	4.786e-03	6
50		min	.002	6	-.611	6	-.024	5	-1.745e-03	4	-2.455e-03	5	1.247e-03	2
51	N26	max	.006	2	-.21	2	.682	4	-9.228e-07	2	6.471e-03	4	4.822e-03	3
52		min	-.001	6	-.611	6	.004	2	-2.353e-02	4	5.516e-05	2	1.731e-03	5
53	N27	max	.032	2	-.211	2	.07	5	5.685e-03	5	7.272e-05	3	4.809e-03	6
54		min	-.113	6	-.612	6	.004	2	-2.061e-06	3	-2.455e-03	5	-1.667e-03	2
55	N28	max	.128	3	-.21	2	1.382	4	-9.221e-07	2	6.471e-03	4	5.48e-03	3
56		min	.042	5	-.611	6	.004	2	-3.091e-02	4	5.516e-05	2	1.73e-03	5
57	N29	max	.022	4	-.219	2	.014	4	-8.373e-07	2	7.299e-05	3	5.38e-04	5
58		min	.014	2	-.637	6	.004	2	-8.749e-03	4	-4.427e-04	5	-4.598e-04	3
59	N30	max	0	6	0	6	0	6	7.133e-03	3	3.509e-03	1	4.121e-03	4
60		min	0	1	0	1	0	1	1.942e-03	5	4.29e-04	6	8.22e-04	2

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Lo...	LC	She...	Lo...	...	phi*P...	phi*P...	phi*...	phi*...	Cb	Eqn
1	M1	PIPE_2.5	.447	7.25	6	.119	.604	5	10.82	50.715	3.596	3.596	1.8...	H1-...
2	M2	PIPE_2.5	.536	7.25	4	.298	4....	4	10.82	50.715	3.596	3.596	1.8...	H3-6
3	M3	PIPE_2.0	.650	2	4	.229	2	5	20.867	32.13	1.872	1.872	1.8...	H1-...
4	M4	PIPE_2.0	.627	5	3	.160	1	4	20.867	32.13	1.872	1.872	1.7...	H1-...
5	M5	PIPE_2.0	.096	5	4	.047	1	4	20.867	32.13	1.872	1.872	1.7...	H1-...
6	M6	PIPE_2.0	.045	1	1	.007	1	1	20.867	32.13	1.872	1.872	1.8...	H1-...
7	M7	PIPE_2.5	.213	4....	3	.101	5	3	41.332	50.715	3.596	3.596	2.5...	H1-...
8	M8	PIPE_2.0	.574	2	4	.200	2	4	14.916	32.13	1.872	1.872	1.4...	H1-...
9	M9	PIPE_2.0	.067	4....	1	.006	8....	1	13.839	32.13	1.872	1.872	1.1...	H1-...



Centek		
TJL	CT11014B - Mount	June 8, 2020 at 11:45 AM
20074.32	Unity Check	Mount.r3d

T-Mobile®

BRIDGEPORT

623 PINE STREET
BRIDGEPORT, CT 06605
SITE ID: CT11014B

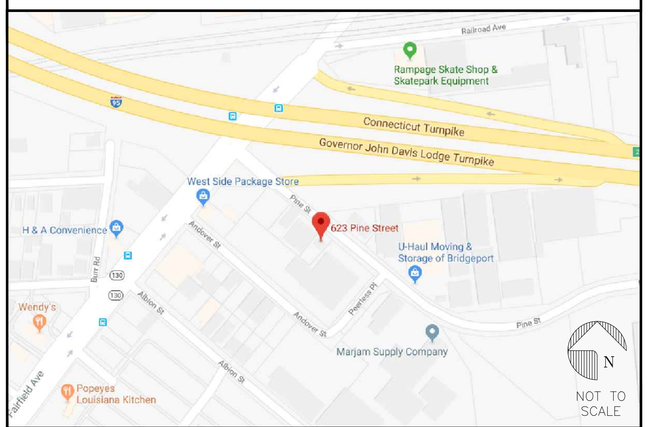
PROJECT DESCRIPTION

T-MOBILE IS PROPOSING TO REMOVE (1) EXISTING AIR 21 PANEL ANTENNA AND REPLACE WITH (1) PROPOSED AIR6449 PANEL ANTENNA FOR POSITION 1 AT EACH SECTOR. (1) EXISTING RRUS 32 B2 TO BE REMOVED AND REPLACED WITH (1) RADIO 4424 B25 AT POSITION 4 FOR EACH SECTOR. (1) PROPOSED SDX1926Q-43 DIPLEXER TO BE INSTALLED AT POSITION 4 FOR EACH SECTOR. (1) EXISTING TWIN STYLE 1B AWS TMA TO BE RELOCATED TO POSITION 4 FOR EACH SECTOR.

(12) EXISTING T-MOBILE 1-5/8" COAX LINES TO BE REMAIN, (6) EXISTING 1-5/8" COAX LINES TO BE REMOVED. (4) EXISTING 6X12 HYBRIDS LINES TO REMAIN, (3) PROPOSED 6X12 HYBRID CABLES TO BE INSTALLED.

(3) EXISTING T-MOBILE NORTEL S12000 EQUIPMENT CABINETS TO BE REMOVED AND REPLACED WITH (1) B160 CABINET AND (1) 6160 CABINET.

A TOTAL OF (3) ANTENNAS REPLACED, (3) RRUs REPLACED, (3) DIPLEXERS INSTALLED, AND (3) TMAs RELOCATED.



LOCATION MAP

DRAWING INDEX

SHEET	SHEET TITLE
T-1	TITLE SHEET
S-1	EXISTING SITE PLAN
S-2	PROPOSED SITE PLAN
S-3	TOWER ELEVATION
A-1	ANTENNA PLAN AND DETAILS
A-2	ANTENNA AND EQUIPMENT DETAILS
G-1	GROUNDING DETAILS
GN-1	GENERAL NOTES

SITE INFORMATION

PROPERTY OWNER:	RADIO COMMUNICATIONS SERVICES 24 ROCKDALE ROAD WEST HAVEN, CT 06516	LATITUDE:	41° 9' 56.7" N
APPLICANT:	T-MOBILE NORTHEAST LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002	LONGITUDE:	73° 13' 0.0" W
ARCHITECT/ ENGINEER:	KM CONSULTING ENGINEERS 262 UPPER FERRY ROAD EWING, NJ 08628	POWER COMPANY:	TBD
SITE ADDRESS:	623 PINE STREET BRIDGEPORT, CT 06605	T-MOBILE CONTACT:	TBD
COUNTY:	FAIRFIELD	EXISTING/PROPOSED USE:	UNMANNED TELECOMMUNICATIONS FACILITY
GROUND ELEVATION:	11'		

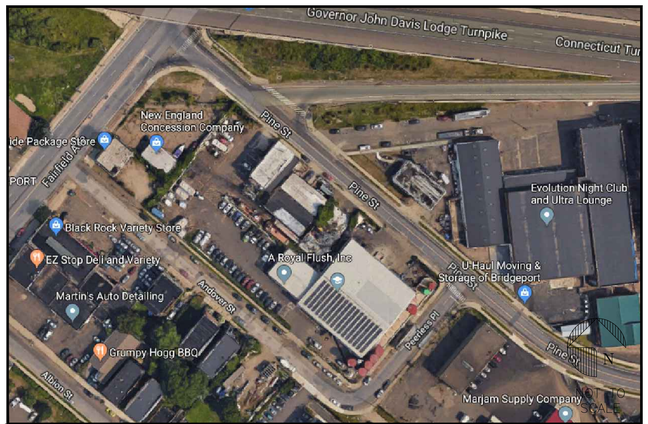
APPROVALS

LANDLORD:

CHAIRPERSON:

BOARD SECRETARY:

BOARD ENGINEER:



AERIAL MAP

CLIENT:

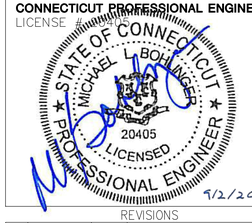
Transcend Wireless

10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066

KM Consulting Engineers, Inc.
Wireless Engineering and Project Management

262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #



9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION:
SIGN OFF INITL. DATE:
RF ENGINEER.:
SIGN OFF INITL. DATE:
CONSTR. SUPV.:
SIGN OFF INITL. DATE:
A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

DRAWING TITLE:
TITLE SHEET

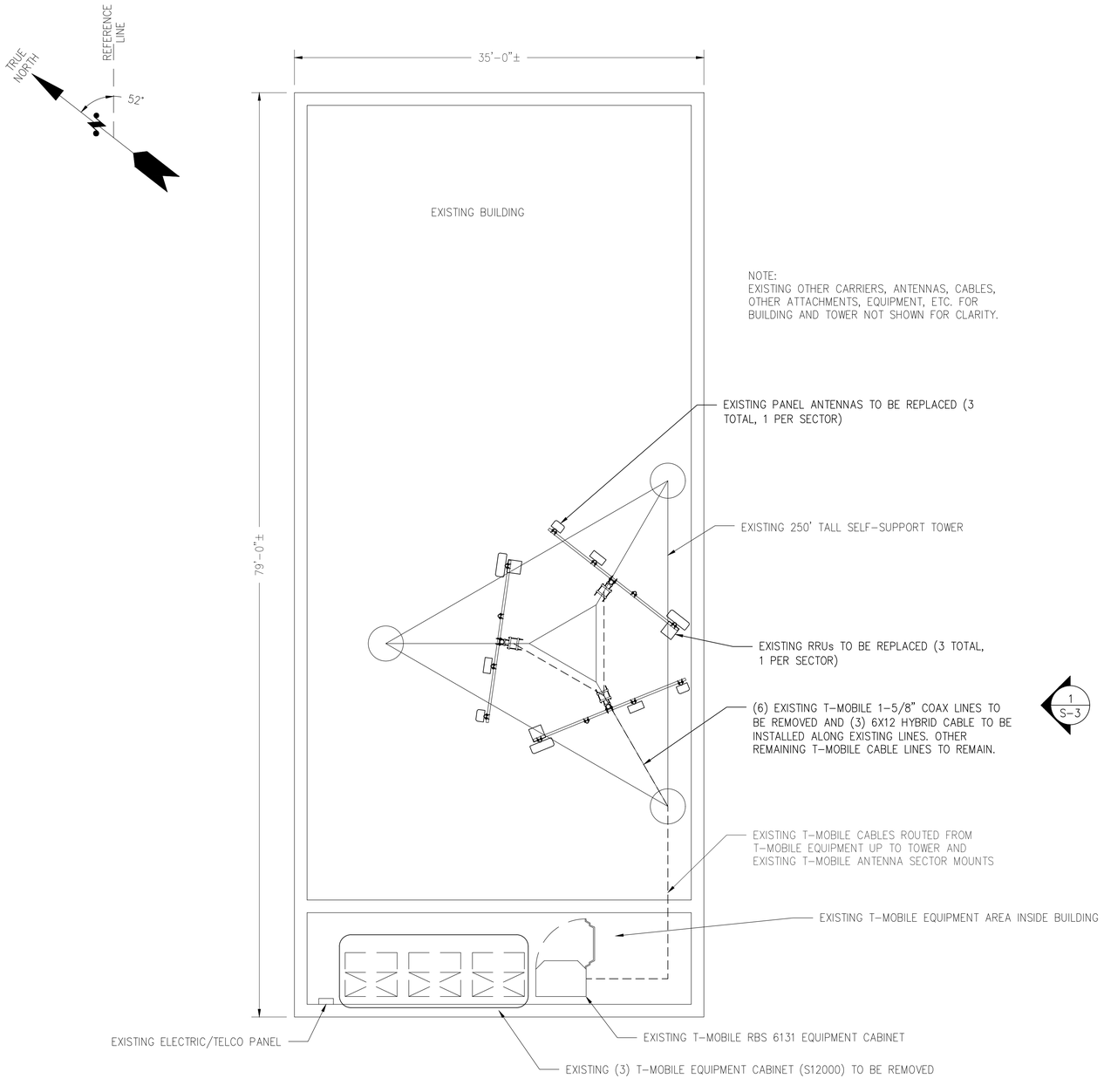
SITE ID #:	DRAWING #:	REV. #:
CT11014B	T-1	1

PROJECT #: 180416.00

FILE NAME: Bridgeport (CT11014B) CDs.dwg

LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090120 Drawings

PINE STREET



1 S-1 EXISTING SITE PLAN
SCALE: 3/16" = 1'-0"

NOTE:

GENERAL CONTRACTOR TO REFER TO THE STRUCTURAL ANALYSIS BY KM CONSULTING ENGINEERS, INC. DATED 9/2/20 AND EQUIPMENT INSTALLATION RECOMMENDATIONS PRIOR TO COMMENCING CONSTRUCTION.

GENERAL NOTES:

LIGHTING: EXISTING FACILITY WILL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.

GRADE: EXISTING GRADE WILL BE MAINTAINED FOR PROPOSED CONSTRUCTION.

SIGNAGE: EXTERIOR SIGNS ARE NOT PROPOSED EXCEPT AS REQUIRED BY THE FCC.

STORM WATER CONTROL: THE PROPOSED FACILITY WILL RESULT IN AN INSIGNIFICANT INCREASE IN STORM WATER RUNOFF. CONSEQUENTLY, NO WATER QUALITY CONTROL DEVICES ARE PROPOSED.

UTLITIES: SANITARY SEWER SERVICES AND POTABLE WATER ARE NOT APPLICABLE PER THE USE. IF APPLICABLE, SUBCONTRACTOR SHALL LOCATE ALL UTLITIES PRIOR TO EXCAVATING.

DRIVEWAY: A DRIVEWAY PERMIT IS NOT REQUIRED FOR THIS PROJECT. THE PROJECT WILL NOT REQUIRE RIGHT OF WAY OR PROPERTY TO BE DEDICATED FOR PUBLIC USE.

MISC: NO NOISE, SMOKE, DUST, VAPORS OR ODOR WILL RESULT FROM THIS PROJECT.

CLIENT:

Transcend Wireless

10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066

KM Consulting Engineers, Inc.
Wireless Engineering and Project Management

262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #

STATE OF CONNECTICUT * MICHAEL L. BOHLINGER * 20405 LICENSED PROFESSIONAL ENGINEER

9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION: _____
SIGN OFF INITL. _____ DATE: _____
RF ENGINEER.: _____
SIGN OFF INITL. _____ DATE: _____
CONSTR. SUPV.: _____
SIGN OFF INITL. _____ DATE: _____
A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

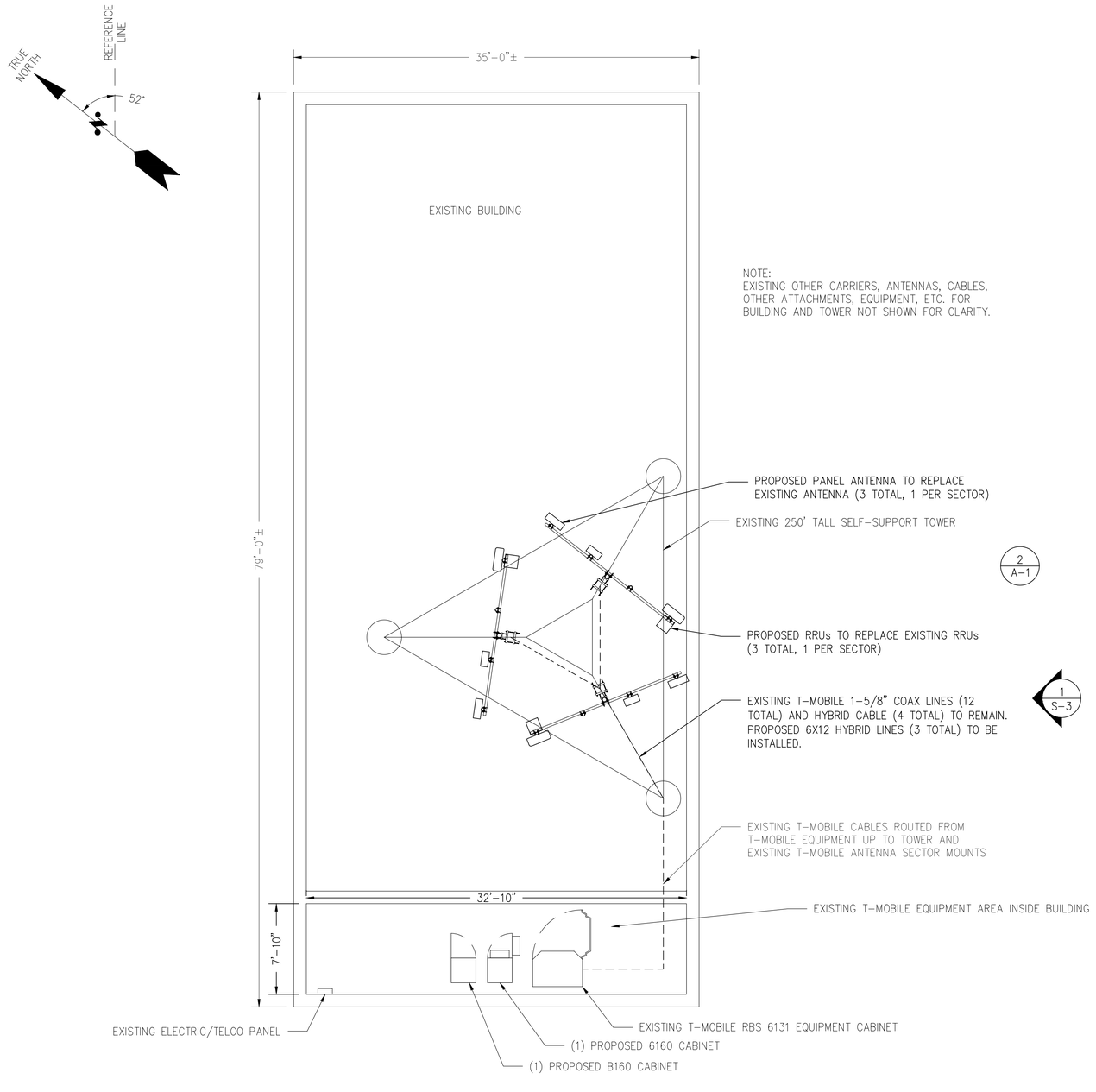
DRAWING TITLE:
SITE PLAN

SITE ID #:	DRAWING #:	REV. #:
CT11014B	S-1	1
PROJECT #.: 180416.00		

FILE NAME: Bridgeport (CT11014B) CDs.dwg

LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090720 Drawings

PINE STREET



NOTE:
EXISTING OTHER CARRIERS, ANTENNAS, CABLES, OTHER ATTACHMENTS, EQUIPMENT, ETC. FOR BUILDING AND TOWER NOT SHOWN FOR CLARITY.

1 / S-2 PROPOSED SITE PLAN
SCALE: 3/16" = 1'-0"

NOTE:

GENERAL CONTRACTOR TO REFER TO THE STRUCTURAL ANALYSIS BY KM CONSULTING ENGINEERS, INC. DATED 9/2/20 AND EQUIPMENT INSTALLATION RECOMMENDATIONS PRIOR TO COMMENCING CONSTRUCTION.

GENERAL NOTES:

LIGHTING: EXISTING FACILITY WILL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.

GRADE: EXISTING GRADE WILL BE MAINTAINED FOR PROPOSED CONSTRUCTION.

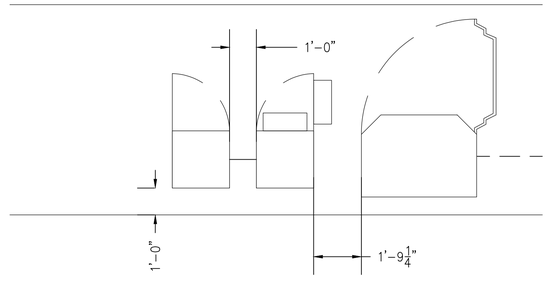
SIGNAGE: EXTERIOR SIGNS ARE NOT PROPOSED EXCEPT AS REQUIRED BY THE FCC.

STORM WATER CONTROL: THE PROPOSED FACILITY WILL RESULT IN AN INSIGNIFICANT INCREASE IN STORM WATER RUNOFF. CONSEQUENTLY, NO WATER QUALITY CONTROL DEVICES ARE PROPOSED.

UTLITIES: SANITARY SEWER SERVICES AND POTABLE WATER ARE NOT APPLICABLE PER THE USE. IF APPLICABLE, SUBCONTRACTOR SHALL LOCATE ALL UTLITIES PRIOR TO EXCAVATING.

DRIVEWAY: A DRIVEWAY PERMIT IS NOT REQUIRED FOR THIS PROJECT. THE PROJECT WILL NOT REQUIRE RIGHT OF WAY OR PROPERTY TO BE DEDICATED FOR PUBLIC USE.

MISC: NO NOISE, SMOKE, DUST, VAPORS OR ODOR WILL RESULT FROM THIS PROJECT.



2 / S-2 ENLARGED EQUIPMENT PLAN
SCALE: 3/16" = 1'-0"

CLIENT:
Transcend Wireless
10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066

KM Consulting Engineers, Inc.
Wireless Engineering and Project Management
262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #
STATE OF CONNECTICUT * MICHAEL L. BOHLINGER * 20405 LICENSED PROFESSIONAL ENGINEER
9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION: _____
SIGN OFF INITL. _____ DATE: _____
RF ENGINEER.: _____
SIGN OFF INITL. _____ DATE: _____
CONSTR. SUPV.: _____
SIGN OFF INITL. _____ DATE: _____
A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

DRAWING TITLE:
PROPOSED SITE PLAN

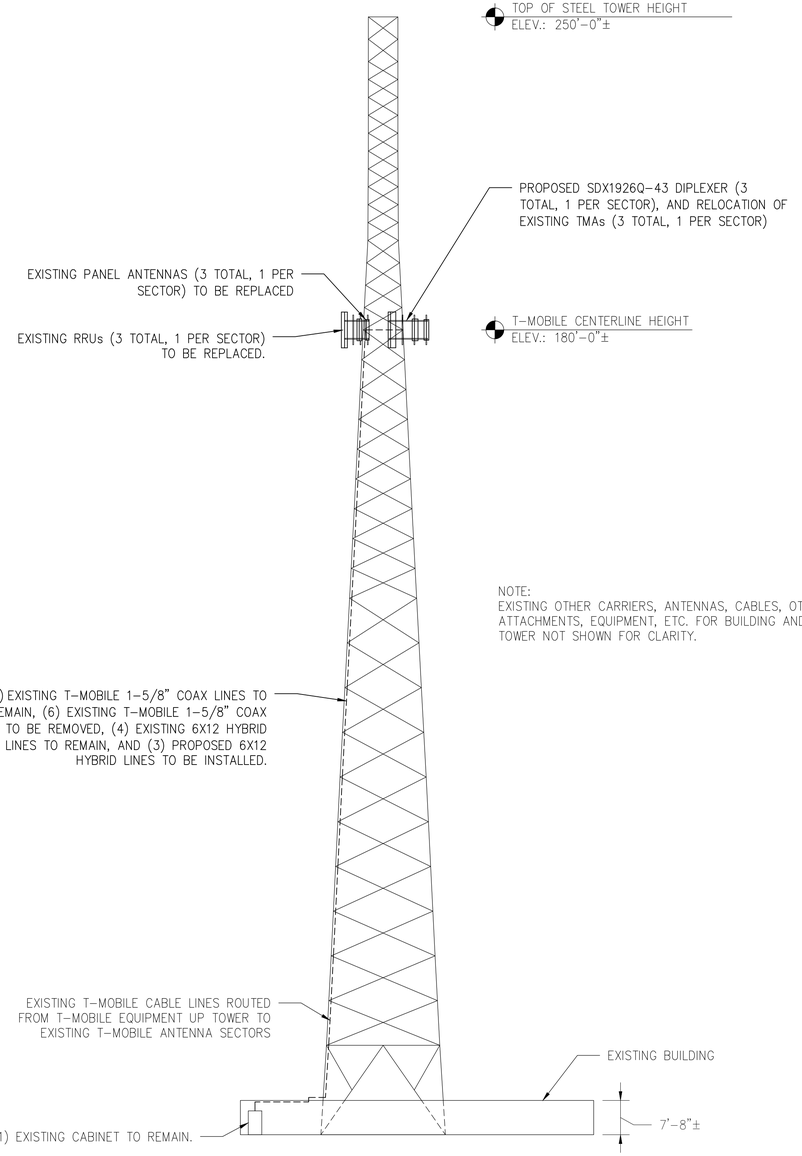
SITE ID #:	DRAWING #:	REV. #:
CT11014B	S-2	1
PROJECT #.: 180416.00		

FILE NAME: Bridgeport (CT11014B) CDs.dwg

LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090120 Drawings

NOTE:

GENERAL CONTRACTOR TO REFER TO THE STRUCTURAL ANALYSIS BY KM CONSULTING ENGINEERS, INC. DATED 9/2/20 AND EQUIPMENT INSTALLATION RECOMMENDATIONS PRIOR TO COMMENCING CONSTRUCTION.



1 / S-3 TOWER ELEVATION

SCALE: 1/16" = 1'-0"

LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090120 Drawings

CLIENT:

Transcend Wireless

10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066

KM Consulting Engineers, Inc.
Wireless Engineering and Project Management

262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #

9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION: _____

SIGN OFF INITL. _____ DATE: _____

RF ENGINEER.: _____

SIGN OFF INITL. _____ DATE: _____

CONSTR. SUPV.: _____

SIGN OFF INITL. _____ DATE: _____

A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

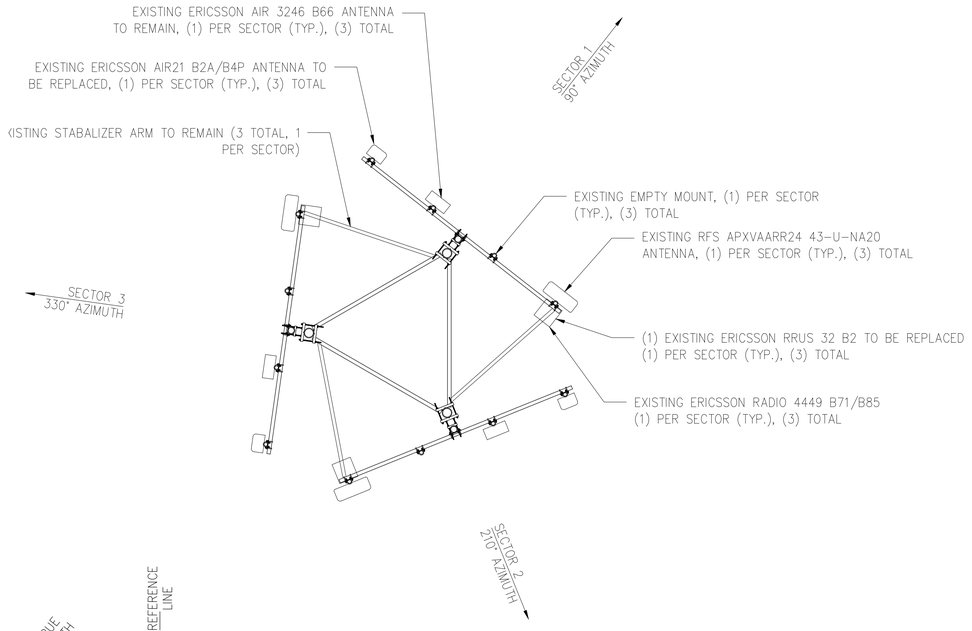
SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

DRAWING TITLE:
TOWER ELEVATION

SITE ID #:	DRAWING #:	REV. #:
CT11014B	S-3	1

PROJECT #.: 180416.00

FILE NAME: Bridgeport (CT11014B) CDs.dwg

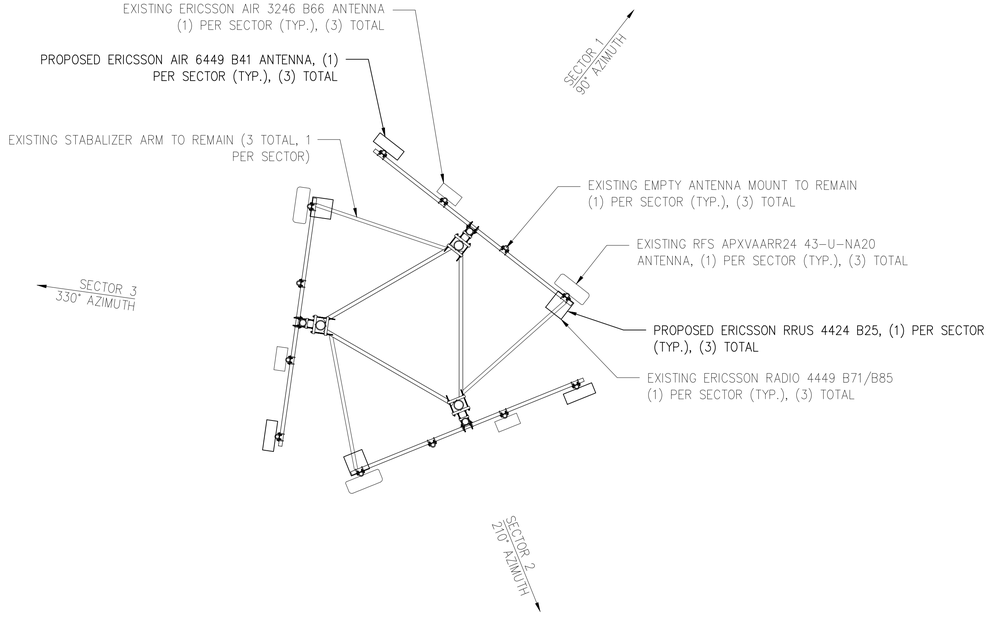


1 A-1 EXISTING ANTENNA PLAN

SCALE: 1/4" = 1'-0"

NOTE:

REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA CONFIGURATION



2 A-1 PROPOSED ANTENNA PLAN

SCALE: 1/4" = 1'-0"

NOTE:

GENERAL CONTRACTOR TO REFER TO THE STRUCTURAL ANALYSIS BY KM CONSULTING ENGINEERS, INC. DATED 9/2/20 AND EQUIPMENT INSTALLATION RECOMMENDATIONS PRIOR TO COMMENCING CONSTRUCTION.

EXISTING ANTENNA SCHEDULE

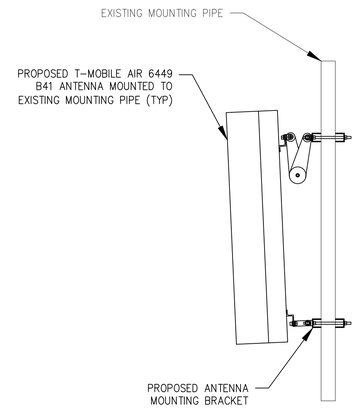
SECTOR	POSITION	MANUFACTURER	MODEL	TMA/RRH	SIZE (HxWxD)
1	1	ERICSSON	AIR 21 B2A/B4P	TWIN STYLE 1B AWS TMA	55"x12"x7.9"
	2	ERICSSON	AIR 3246 B66		58.1"x15.75"x9.4"
	3	EMPTY MOUNT			
	4	RFS	APXVAARR24 43-U-NA20	RRUS 32 B2 RADIO 4449 B71/B85	95.9"X24"X8.7"
2	1	ERICSSON	AIR 21 B2A/B4P	TWIN STYLE 1B AWS TMA	55"x12"x7.9"
	2	ERICSSON	AIR 3246 B66		58.1"x15.75"x9.4"
	3	EMPTY MOUNT			
	4	RFS	APXVAARR24 43-U-NA20	RRUS 32 B2 RADIO 4449 B71/B85	95.9"X24"X8.7"
3	1	ERICSSON	AIR 21 B2A/B4P	TWIN STYLE 1B AWS TMA	55"x12"x7.9"
	2	ERICSSON	AIR 3246 B66		58.1"x15.75"x9.4"
	3	EMPTY MOUNT			
	4	RFS	APXVAARR24 43-U-NA20	RRUS 32 B2 RADIO 4449 B71/B85	95.9"X24"X8.7"

PROPOSED ANTENNA SCHEDULE

SECTOR	POSITION	MANUFACTURER	MODEL	TMA/RRH	SIZE (HxWxD)
1	1	ERICSSON	AIR 6449 B41		33.1"x20.6"x8.6"
	2	ERICSSON	AIR 3246 B66		58.1"x15.75"x9.4"
	3	EMPTY MOUNT			
	4	RFS	APXVAARR24 43-U-NA20	RADIO 4424 B25 RADIO 4449 B71/B85 TWIN STYLE 1BX TMA SDX1926Q-43 DIXPLEXER	95.9"x24"x8.7"
2	1	ERICSSON	AIR 6449 B41		33.1"x20.6"x8.6"
	2	ERICSSON	AIR 3246 B66		58.1"x15.75"x9.4"
	3	EMPTY MOUNT			
	4	RFS	APXVAARR24 43-U-NA20	RADIO 4424 B25 RADIO 4449 B71/B85 TWIN STYLE 1BX TMA SDX1926Q-43 DIXPLEXER	95.9"x24"x8.7"
3	1	ERICSSON	AIR 6449 B41		33.1"x20.6"x8.6"
	2	ERICSSON	AIR 3246 B66		58.1"x15.75"x9.4"
	3	EMPTY MOUNT			
	4	RFS	APXVAARR24 43-U-NA20	RADIO 4424 B25 RADIO 4449 B71/B85 TWIN STYLE 1BX TMA SDX1926Q-43 DIXPLEXER	95.9"x24"x8.7"

3 A-1 ANTENNA SPECIFICATION TABLE

SCALE:



4 A-1 ANTENNA MOUNTING DETAIL

SCALE: N.T.S.

CLIENT:

Transcend Wireless

10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066

KM Consulting Engineers, Inc.
Wireless Engineering and Project Management

262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #

9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION: _____

SIGN OFF INITL. _____ DATE: _____

RF ENGINEER.: _____

SIGN OFF INITL. _____ DATE: _____

CONSTR. SUPV.: _____

SIGN OFF INITL. _____ DATE: _____

A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

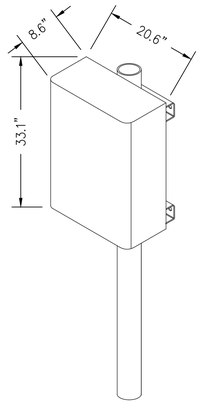
DRAWING TITLE:
ANTENNA PLAN & DETAILS

SITE ID #:	DRAWING #:	REV. #:
CT11014B	A-1	1

PROJECT #.: 180416.00

FILE NAME: Bridgeport (CT11014B) CDs.dwg

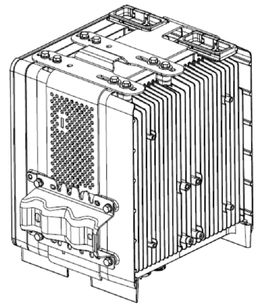
LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090120 Drawings



ANTENNA WEIGHT = 104 LBS.

1 A-2 ERICSSON AIR 6449 B41

NOT TO SCALE



ERICSSON 4424 B25 RRU

COLOR: LIGHT GREY
DIMENSIONS (HxWxD): 17.1" X 14.4" X 11.3"
WEIGHT: 86 lbs WITHOUT MOUNTING HARDWARE
CONNECTOR: 4.3-10 FEMALE CONNECTORS
RF OUTPUT POWER: UP TO 4x80W

2 A-2 ERICSSON 4424 B25 RRU DETAIL

NOT TO SCALE

SDX1926Q-43 DIPLEXER

COLOR: GREY
DIMENSIONS (HxWxD): 4.173" X 6.929" X 2.913"
WEIGHT: 6.173 lbs WITHOUT MOUNTING HARDWARE
CONNECTOR: 4.3-10 FEMALE CONNECTORS

3 A-2 SDX1926Q-43 DIPLEXER DETAIL

NOT TO SCALE

Specification		
Numbers of power pairs / fiber pairs		6/12
Material		plastic PPE black
Pulling force	radio end	2000 N (short-term during installation)
Temperature range	operation installtion	–40 °C to +75 °C –25 °C to +65°C
Cable retention force at enclosure	fiber break-out cable power break-out cable hybrid cable	500 N 500 N 2000 N
Ingress protection	radio end base station	IP 68 IP 65 (with protection tube)
IK class		IK 10
Flammability		UL94-V0
UV resistant		ISO 4892-2
Salt mist, IEC 61300-2-26		96 h
Vibration, IEC 61300-2-1		10 – 500 Hz / 10 g
Shock, IEC 61300-2-9		100 g

Hybrid cable specifications (standard cable)	
Hybrid cable specification	
Jacket material	Heat, moisture, and sunlight resistant polyvinyl chloride (PVC) jacket
Temperature range	-40°F to + 158°F (-40°C to + 75°C)
Operating voltage	48VDC
Rated voltage	0,6kV/1kV (1.2kV)
Cable shielding	copper foil > 100% coverage
Fiber optic	4.8 mm loose-tube cable with up to 24 fibers single mode
Flame retardant	IEC 60332-1-2:2004
UV resistant	Yes, according IEC 68-2-5
UL approved	Yes

4 A-2 ERICSSON 6x12 HYBRID CABLE SPECS

NOT TO SCALE

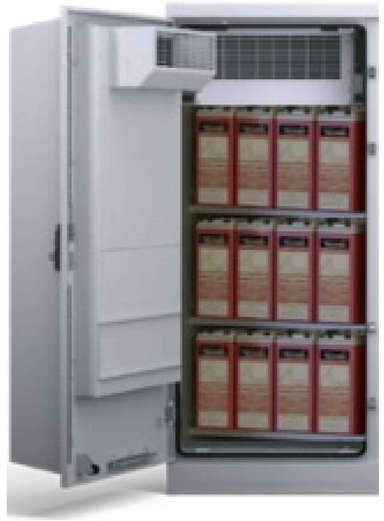
NOTE: THE IMAGES ARE NOT REPRESENTATIVE OF THE DOORS THAT WILL BE INSTALLED ON SITE.

ERICSSON RBS6160 EQUIPMENT CABINET

ENCLOSURE: ALUMINUM
DIMENSIONS (HxWxD): 63" X 25.6" X 25.6"
WEIGHT: 188 lbs (EXCLUDES EQUIPMENT)
WEATHER TIGHTNESS: NEMA TYPE 3R

5 A-2 ERICSSON RBS6160 EQUIPMENT CABINET

NOT TO SCALE



ERICSSON B160 EQUIPMENT CABINET

ENCLOSURE: ALUMINUM
DIMENSIONS (HxWxD): 63" X 25.6" X 25.6"
WEIGHT: 188 lbs (EXCLUDES EQUIPMENT)
WEATHER TIGHTNESS: NEMA TYPE 3R

6 A-2 ERICSSON B160 EQUIPMENT CABINET

NOT TO SCALE

CLIENT:

Transcend Wireless

10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066

KM Consulting Engineers, Inc.
Wireless Engineering and Project Management

262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #

STATE OF CONNECTICUT ★ MICHAEL BOHLINGER ★ 20405 LICENSED PROFESSIONAL ENGINEER

9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION: _____
SIGN OFF INITL. _____ DATE: _____
RF ENGINEER.: _____
SIGN OFF INITL. _____ DATE: _____
CONSTR. SUPV.: _____
SIGN OFF INITL. _____ DATE: _____
A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

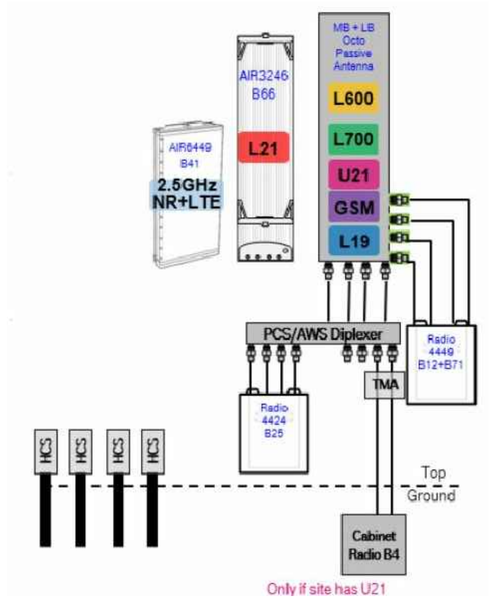
DRAWING TITLE:
ANTENNA AND EQUIPMENT DETAILS

SITE ID #:	DRAWING #:	REV. #:
CT11014B	A-2	1

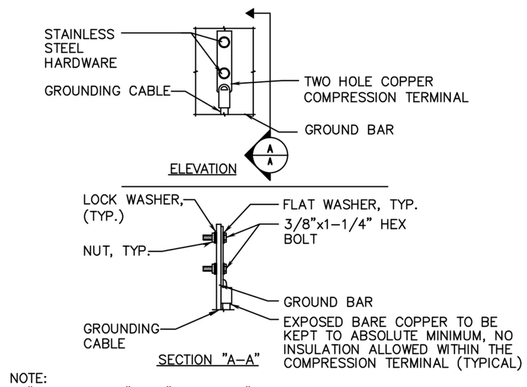
PROJECT #.: 180416.00

FILE NAME: Bridgeport (CT11014B) CDs.dwg

LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090120 Drawings

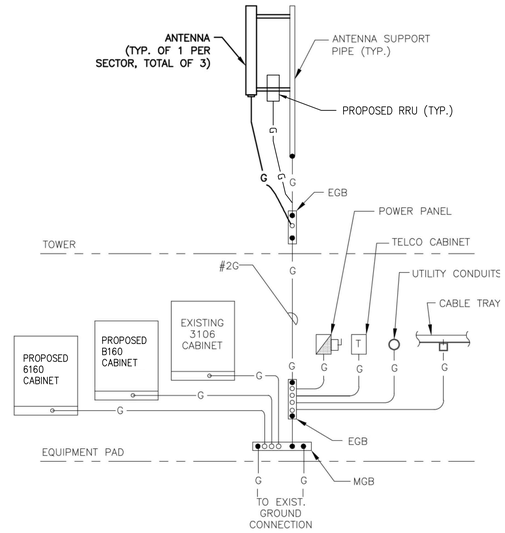


1 G-1 PLUMBING DIAGRAM
SCALE: N.T.S.



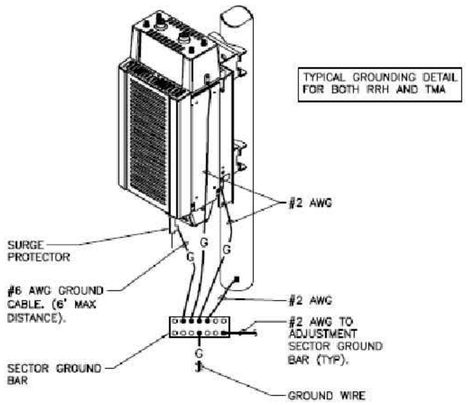
NOTE:
1. "DOUBLING UP" OR "STACKING " OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB.

2 G-1 GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.

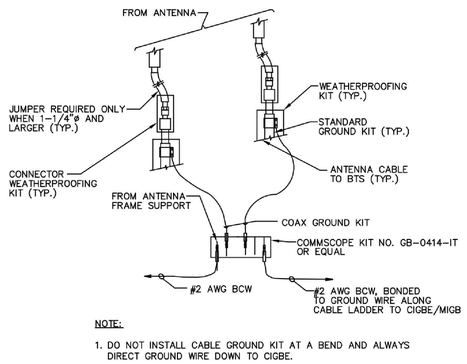


3 G-1 GROUND RISER DIAGRAM
SCALE: N.T.S.

EACH RRH CABINET SHALL BE GROUNDED IN THE FOLLOWING MANNER:
1. AT TOP OF THE CABINET.
2. AT RIGHT SIDE OF THE CABINET.

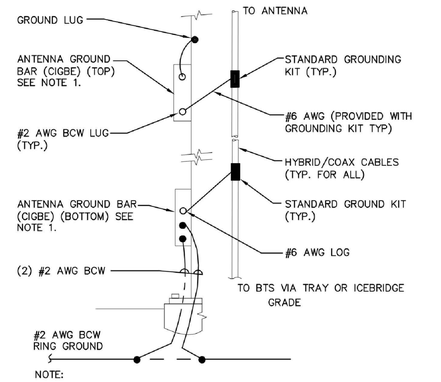


4 G-1 RRU GROUNDING DETAIL
SCALE: N.T.S.



NOTE:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

5 G-1 GROUND WIRE TO GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.



NOTE:
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

6 G-1 ANTENNA CABLE GROUNDING
SCALE: N.T.S.

CLIENT:
Transcend Wireless
10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066
KM Consulting Engineers, Inc.
Wireless Engineering and Project Management
262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #
STATE OF CONNECTICUT * MICHAEL BOHLINGER * 20405 LICENSED PROFESSIONAL ENGINEER
9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION: _____
SIGN OFF INITL. _____ DATE: _____
RF ENGINEER.: _____
SIGN OFF INITL. _____ DATE: _____
CONSTR. SUPV.: _____
SIGN OFF INITL. _____ DATE: _____
A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

DRAWING TITLE:
GROUNDING DETAILS

SITE ID #:	DRAWING #:	REV. #:
CT11014B	G-1	1

PROJECT #: 180416.00

FILE NAME: Bridgeport (CT11014B) CDs.dwg

LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090120 Drawings

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) LIGHTING 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 GROUNDING ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATIONS, RADIO, LIGHTNING PROTECTION, AND AC POWER GEC"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 THE BRIDGE AND THE TOWER 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 RUNG, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTING OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

ELECTRICAL AND GROUNDING NOTES

1. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUNDS); GROUNDING ELECTRODE OR BUILDING STEEL; NON-SURGING OBJECTS (EGB GROUND IN BTS UNIT).
2. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
3. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
4. BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
5. BOND ANTENNA EGB'S AND MGB TO WATER MAIN
6. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.
7. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
8. VERIFY PROPOSED SERVICE UPGRADE WITH LOCATION UTILITY COMPANY PRIOR TO CONSTRUCTION.

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY.

   CONTRACTOR – TRANSCEND WIRELESS
   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 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 THE 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 PROPOSED 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 DRAWINGS. 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. SUBCONTRACTORS 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 PREMISED 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 4000PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE 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) UNLES OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE 3 (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 UMTS 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 WITH ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATIONS. ANY CONSTRUCTIN 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 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 THE CONTRACT AWARD SHALL GOVERN THE DESIGN.

    BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE.
    ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
    LIGHTNING CODE: REFER TO ELECTRICAL DRAWINGS

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, 14TH EDITION

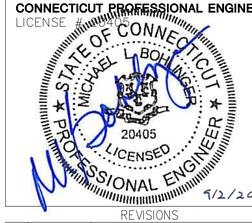
ANSI/TIA-222-G, STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES

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

CLIENT:
Transcend Wireless
10 INDUSTRIAL AVE
MAHWAH, NJ 07430
TEL: (201) 684-0055
FAX: (201) 684-0066

KM Consulting Engineers, Inc.
Wireless Engineering and Project Management
262 UPPER FERRY RD.
EWING, NEW JERSEY 08628
PHONE: (609) 538-0400
WEB PAGE: http://www.kmengr.com
CERTIFICATION OF AUTHORIZATION: 24GA27989600

MICHAEL L. BOHLINGER, PE
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE #



9/2/20

REVISIONS

NO.	DATE:	DRN.:	DESCRIPTION:
3	9/2/20	JTH	REVISED AS PER COMMENT
2	7/20/20	JTH	REVISED AS PER COMMENT
1	7/14/20	JTH	REVISED AS PER COMMENT

PROJECT PARTICIPANTS

SITE ACQUISITION: _____
SIGN OFF INITL. _____ DATE: _____
RF ENGINEER.: _____
SIGN OFF INITL. _____ DATE: _____
CONSTR. SUPV.: _____
SIGN OFF INITL. _____ DATE: _____
A & E: KM CONSULTING ENGR.'S INC.

P.C.:	CHKD.:	DRN.:	DATE:
	MLB	JTH	6/11/20

PROJECT NAME:
BRIDGEPORT

SITE ADDRESS:
623 PINE STREET
BRIDGEPORT, CT 06605

DRAWING TITLE:
GENERAL NOTES

SITE ID #:	DRAWING #:	REV. #:
CT11014B	GN-1	1

PROJECT #.: 180416.00

FILE NAME: Bridgeport (CT11014B) CDs.dwg

LAST PLOTTED: Wednesday, 2-September-2020, 09:21
K:\Transcend Wireless\Bridgeport\CAD\Rev_1 090120 Drawings

623 Pine St. South side 312' East of Fairfield Avenue lot: 50' x 100'

Robert C. Knapp, Lillian & Andrew, Knapp, owners (Paging Assoc., Inc. operator) Austin K. Wolf, Attorney

3

Petition of Robert C. Knapp, Lillian & Andrew Knapp d/b/a Paging Associates, Inc. for a variance of the maximum height requirements of Sec. 7-3-3 to permit the construction of a 250' high self-supporting communications tower to replace the existing 115' high tower in an Industrial Light Zone.

PUBLIC HEARING: Tuesday, August 11, 1998 to permit the construction of a 250' high self-supporting communications tower to replace the existing 115' high tower in an I-LI Zone.

over

GRANTED CONDITIONALLY, Subject to the following condition(s):
The development of the subject property shall be in accord with the plans submitted and held on file in the Zoning Department.

The "Board" assigned the following reason(s) for its action:

1. Hardship exists based on the fact that prior to the adoption of the new Zoning Regulations, the applicant's proposed development was permitted.
2. The granting of this petition will not cause any adverse impacts.

NOTICE SIGNED - 8/20/98