



August 8, 2022

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

Re: Exempt Modification Application – AT&T Site 13682687  
AT&T Mobility Telecommunications Facility @ 1069 Connecticut Avenue, Bridgeport, CT

Dear Ms. Bachman,

New Cingular Wireless (“AT&T”) desires to modify an existing wireless telecommunications facility at the above referenced address. Enclosed please find a check in the amount of Six Hundred and Twenty Five Dollars (\$625.00); an original and two (2) copies of the following documents: the CSC Exempt Modification letter; a Letter of Authorization from the tower owner; the GIS property map; a set of Construction Drawings; a Structural Analysis Report; an Antenna Mount Analysis Report; an EME Study Report; and four (4) Notice Confirmations.

If you have any questions, please feel free to contact me; I can be reached at 443-677-0144 or via email at [jmandrews@clinellc.com](mailto:jmandrews@clinellc.com). Thank you for your kind cooperation in this matter

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'Jack Andrews', is written over a circular blue stamp or watermark.

Jack Andrews  
Zoning Manager, Centerline Communications  
10130 Donleigh Drive  
Columbia, MD 21046  
443-677-0144



August 4, 2022

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

Re: Exempt Modification Application – AT&T Site 13682687  
AT&T Mobility Telecommunications Facility @ 1069 Connecticut Avenue, Bridgeport, CT

Dear Ms. Bachman,

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove three (3) antennas, one (1) squid, and decommission six (6) antennas;
- Install nine (9) antennas, six (6) "Y" cables and one (1) squid.
- Ground work includes the removal of UMTS RBS3106, and the installation of three (3) Fronthaul Gateways.

Please accept this letter as notification pursuant to R.C.S.A §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2). In accordance with R.C.S.A §16-50j-73, a copy of this letter is being sent to the following individuals: American Tower Corporation as Tower Operator/Owner; WR CT AVENUE LLC as Property Owner; the Honorable Joseph P. Ganim, the Mayor of Bridgeport, and Thomas F. Gill, Director of the Bridgeport OPED.

The applicant's proposal falls squarely within those activities explicitly provided for in R.C.S.A. §16-50j-89. Specifically:

1. The proposed modifications will NOT result in an increase in the height of the existing structure.
2. The proposed modifications will NOT require an extension of the site boundary.
3. The proposed modifications will NOT increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will NOT increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.
5. The proposed modifications will NOT cause an ineligible change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading. Please see the structural analysis enclosed herewith.



For the foregoing reasons, AT&T respectfully requests that the Council approve this Exempt Modification request for this tower located at 1069 Connecticut Avenue, Bridgeport, CT. If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jack Andrews", is written over the printed name.

Jack Andrews  
Zoning Manager, Centerline Communications  
443-677-0144

Enclosures: Exhibit 1 – Letter of Authorization from tower owner  
Exhibit 2 – Property Card and GIS  
Exhibit 3 – Construction Drawings  
Exhibit 4 – Structural Analysis Report  
Exhibit 5 – Antenna Mount Analysis Report  
Exhibit 6 – EME Study Report  
Exhibit 7 – Four (4) Notice Confirmations

Cc: American Tower Corporation - Tower Operator/Owner  
WR CT AVENUE LLC - Property Owner  
The Honorable Joseph P. Ganim – Mayor, City of Bridgeport  
Thomas F. Gill – Director, Bridgeport Office of Planning and Economic Development



## LETTER OF AUTHORIZATION

**SITE NO:** See Site List Below

**SITE NAME:** See Site List Below

**ADDRESS:** See Site List Below

I, Margaret Robinson, Senior Counsel, US Tower Division on behalf of American Tower\*, owner and/or operator of the tower facilities located at the addresses identified below (the "Tower Facilities"), do hereby authorize Centerline Communications, LLC ("Centerline"), its agents, successors and assigns, to act as American Tower's non-exclusive agent for the purpose of filing and securing any zoning, land-use, building permit and/or electrical permit application(s) and approvals of the applicable jurisdiction for and to conduct the construction of the installation of antennas and related telecommunications equipment owned and operated by AT&T on the Tower Facilities located at the addresses identified below. This installation shall not affect adjoining lands and will occur only within the areas leased or owned by American Tower.

American Tower understands that the applications may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by American Tower of conditions related to American Tower's installations. Any such conditions of approval or modifications will not be effective unless approved in writing by American Tower.

The above authorization does not permit Centerline to modify or alter any existing permit(s) and/or zoning or land-use conditions or impose any additional conditions unrelated to American Tower's installations of telecommunications equipment without the prior written approval of American Tower.

Site Authorized:

ATC Project #	ATC Asset #	Address
13682691	302483	286 Beckley Road, Berlin, CT 06037
13682687	302469	1069 Connecticut Ave. Bridgeport, CT 06607
13682699	383598	1000 Truumball Ave. Bridgeport, CT 06606
13682693	302468	99 Meadow St. Harftford, CT 06114
13682696	370627	605 Willard Ave. Newington, CT 06111
13682689	370629	125 Washington Ave. North Haven, CT 06473
13683386	283418	50 Devine St. North Haven, CT 06473
13683396	88018	168 Catoona Lane, Stamford, CT 06902
13682841	243036	668 Jones Hill Rd. West Haven, CT 06516
13958523	283422	171 Short Beach Rd. Brandford, CT 06405
13958547	302516	438 Bridgeport Ave. Milford, CT 06460
13683394	302479	699 West St. Rocky Hill, CT 06067
13958510	302511	20 Post Office Lane. Westport, CT 06880





**AMERICAN TOWER®**  
CORPORATION

Signature: \_\_\_\_\_

Margaret Robinson, Senior Counsel  
US Tower Division

**NOTARY BLOCK**

COMMONWEALTH OF MASSACHUSETTS  
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel of American Tower (owner and/or operator of the above referenced Tower Facilities), personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same.

WITNESS my hand and official seal, this 22nd day of April, 2022.

NOTARY SEAL



**GERARD T. HEFFRON**  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
August 9, 2024

Notary Public

My Commission Expires: August 9th, 2024

\* American Tower as used herein is defined as American Tower Corporation and any of its affiliates or subsidiaries.



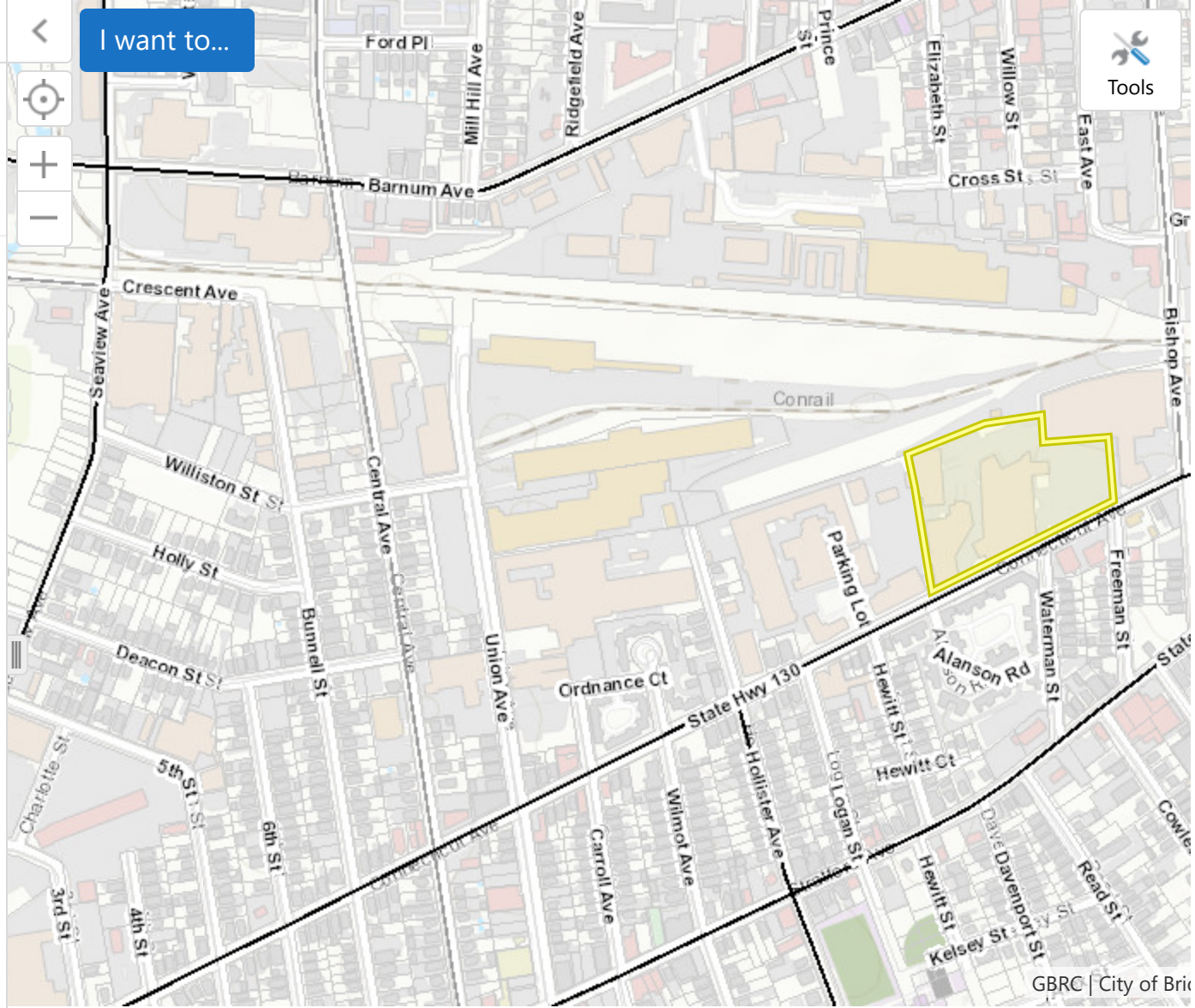
☆ Site Address: 1069 CONNECTICUT AV

WR CT AVENUE LLC

[Field Card](#)

[Zoom to Feature](#)

[Buffer Feature](#)



Displaying 1 - 1 (Total: 1)





# Radio Frequency Emissions Analysis Report

February 25, 2022

Centerline Communications on behalf of AT&T

Site Name: BRIDGEPORT CT. CONN AVE

Site Address: 1069 CONNECTICUT AVENUE, BRIDGEPORT, CT 06607

FA#: 10084453

USID: 79478

## Site Compliance Summary

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<b>Compliance Status:</b>	Compliant
<b>Carrier MPE%</b>	6.51329300%
<b>of FCC General Population Allowable Limit:</b>	
<b>Composite MPE%</b>	6.51381500%
<b>of FCC General Population Allowable Limit:</b>	



February 25, 2022

AT&T New England  
Attn: John Benedetto, RF Manager  
5050 Cochituate Road Suite 550 - 13&14  
Framingham, MA 01701

Emissions Analysis for Site: **BRIDGEPORT CT. CONN AVE**

Centerline Communications, LLC ("Centerline") was directed to analyze the proposed AT&T facility to be located a monopole near **1069 CONNECTICUT AVENUE, BRIDGEPORT CT 06607** for the purpose of determining whether the emissions from the proposed facility 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.

Population 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 700 MHz (LTE) band is  $467 \mu\text{W}/\text{cm}^2$ , 850 (5G) band is  $567 \mu\text{W}/\text{cm}^2$ , 1900 MHz (PCS), 2100 (AWS), 2300 (WCS) and 5 GHz (B46) bands is  $1000 \mu\text{W}/\text{cm}^2$ .

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, 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 performed for the proposed facility using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing focused omnidirectional 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, was focused at the base of the tower. This is a very conservative estimate since the gain reduction in actual applications is typically greater than 10 dB in the direction of ground immediately surrounding the facility. Real world emissions values from this facility are expected to be lower than values listed in this report at ground level. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

RRH #	Frequency Band	Technology	Channel Count	Transmit Power per Channel (W)
1	700	LTE	4	40
2	1900	PCS	4	40
3	2100	AWS	4	40
4	700	LTE	2	40
5	3700	C-Band	1	108.4
6	3450	DoD	1	54.2
6	3450	DoD	1	54.2
7	700	LTE	4	40
7	850	5G	4	40
8	2300	WCS	4	25

*Table 1: Channel Data Table*





The following antennas listed in Table 2 were used in the modeling for transmission in the 700 MHz (LTE), 850 MHz (5G), 1900 MHz (PCS), 2100 MHz (AWS), 2300 MHz (WCS) and 5 GHz (Band 46) frequency bands. This is based on information from the carrier with regard to anticipated antenna selection.

Sector	Antenna Number	Make / Model	Centerline (ft)
A	1	QUINTEL QD4616-7 V1	106.4
A	1	QUINTEL QD4616-7 V1	106.4
A	1	QUINTEL QD4616-7 V1	106.4
A	1	QUINTEL QD4616-7 V1	106.4
A	2	ERICSSON AIR6449	104.4
A	3	ERICSSON AIR6419	108.3
A	3	ERICSSON AIR6419	108.3
A	4	CCI DMP65R-BU4D	106.4
A	4	CCI DMP65R-BU4D	106.4
A	4	CCI DMP65R-BU4D	106.4
B	5	QUINTEL QD4616-7 V1	106.4
B	5	QUINTEL QD4616-7 V1	106.4
B	5	QUINTEL QD4616-7 V1	106.4
B	5	QUINTEL QD4616-7 V1	106.4
B	6	ERICSSON AIR6449	104.4
B	7	ERICSSON AIR6419	108.3
B	7	ERICSSON AIR6419	108.3
B	8	CCI DMP65R-BU4D	106.4
B	8	CCI DMP65R-BU4D	106.4
B	8	CCI DMP65R-BU4D	106.4
G	9	QUINTEL QD4616-7 V1	106.4
G	9	QUINTEL QD4616-7 V1	106.4
G	9	QUINTEL QD4616-7 V1	106.4
G	9	QUINTEL QD4616-7 V1	106.4
G	10	ERICSSON AIR6449	104.4
G	11	ERICSSON AIR6419	108.3
G	11	ERICSSON AIR6419	108.3
G	12	CCI DMP65R-BU4D	106.4
G	12	CCI DMP65R-BU4D	106.4
G	12	CCI DMP65R-BU4D	106.4

Table 2: Antenna Data

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



## Results

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

ID	Make / Model	Frequency Band	Gain (dBd)	Centerline (ft)	Channel Count	TX Power (W)	ERP (W)	MPE %
AT&T A 1	QUINTEL QD4616-7 V1	700	10.7732	106.4	4	40	1911.7891	0.000220000
AT&T A 1	QUINTEL QD4616-7 V1	1900	14.549	106.4	4	40	4560.5790	0.000091000
AT&T A 1	QUINTEL QD4616-7 V1	2100	14.7811	106.4	4	40	4810.9405	0.000095000
AT&T A 1	QUINTEL QD4616-7 V1	700	10.7732	106.4	2	40	955.8946	0.000110000
AT&T A 2	ERICSSON AIR6449	3700	23.55	104.4	1	108.4	24548.7443	0.000306000
AT&T A 3	ERICSSON AIR6419	3450	22.85	108.3	1	54.2	10447.1850	1.084950000
AT&T A 3	ERICSSON AIR6419	3450	22.85	108.3	1	54.2	10447.1850	1.084950000
AT&T A 4	CCI DMP65R-BU4D	700	9.55	106.4	4	40	1442.5138	0.000205000
AT&T A 4	CCI DMP65R-BU4D	850	10.25	106.4	4	40	1694.8060	0.000161000
AT&T A 4	CCI DMP65R-BU4D	2300	14.65	106.4	4	25	2917.4270	0.000031000
AT&T B 5	QUINTEL QD4616-7 V1	700	10.7732	106.4	4	40	1911.7891	0.000212000
AT&T B 5	QUINTEL QD4616-7 V1	1900	14.549	106.4	4	40	4560.5790	0.000088000
AT&T B 5	QUINTEL QD4616-7 V1	2100	14.7811	106.4	4	40	4810.9405	0.000084000
AT&T B 5	QUINTEL QD4616-7 V1	700	10.7732	106.4	2	40	955.8946	0.000106000
AT&T B 6	ERICSSON AIR6449	3700	23.55	104.4	1	108.4	24548.7443	0.000299000
AT&T B 7	ERICSSON AIR6419	3450	22.85	108.3	1	54.2	10447.1850	1.084949000
AT&T B 7	ERICSSON AIR6419	3450	22.85	108.3	1	54.2	10447.1850	1.084949000
AT&T B 8	CCI DMP65R-BU4D	700	9.55	106.4	4	40	1442.5138	0.000208000
AT&T B 8	CCI DMP65R-BU4D	850	10.25	106.4	4	40	1694.8060	0.000169000
AT&T B 8	CCI DMP65R-BU4D	2300	14.65	106.4	4	25	2917.4270	0.000033000
AT&T G 9	QUINTEL QD4616-7 V1	700	10.7732	106.4	4	40	1911.7891	0.000212000
AT&T G 9	QUINTEL QD4616-7 V1	1900	14.549	106.4	4	40	4560.5790	0.000088000
AT&T G 9	QUINTEL QD4616-7 V1	2100	14.7811	106.4	4	40	4810.9405	0.000084000
AT&T G 9	QUINTEL QD4616-7 V1	700	10.7732	106.4	2	40	955.8946	0.000106000
AT&T G 10	ERICSSON AIR6449	3700	23.55	104.4	1	108.4	24548.7443	0.000299000
AT&T G 11	ERICSSON AIR6419	3450	22.85	108.3	1	54.2	10447.1850	1.084939000
AT&T G 11	ERICSSON AIR6419	3450	22.85	108.3	1	54.2	10447.1850	1.084939000



AT&T G 12	CCI DMP65R-BU4D	700	9.55	106.4	4	40	1442.5138	0.000208000
AT&T G 12	CCI DMP65R-BU4D	850	10.25	106.4	4	40	1694.8060	0.000169000
AT&T G 12	CCI DMP65R-BU4D	2300	14.65	106.4	4	25	2917.4270	0.000033000
<b>AT&amp;T MPE%</b>								<b>6.51329300 %</b>

*Table 3: AT&T Antenna Inventory & Power Level*



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 4* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s).

Frequency Band	Technology	Centerline (ft.)	# of Channels	ERP W (Per Channel)	Total Power Density ( $\mu\text{W}/\text{cm}^2$ )	Allowable MPE ( $\mu\text{W}/\text{cm}^2$ )	MPE %
700	LTE	106.4	4	477.9472766	0.0010270	467	0.00022000
1900	PCS	106.4	4	1140.144749	0.0009090	1000	0.00009100
2100	AWS	106.4	4	1202.735116	0.0009460	1000	0.00009500
700	LTE	106.4	2	477.9472766	0.0005140	467	0.00011000
3700	C-Band	104.4	1	24548.74429	0.0030600	1000	0.00030600
3450	DoD	108.3	1	10447.18503	10.8495030	1000	1.08495000
3450	DoD	108.3	1	10447.18503	10.8495030	1000	1.08495000
700	LTE	106.4	4	360.628455	0.0009590	467	0.00020500
850	5G	106.4	4	423.7014901	0.0009130	567	0.00016100
2300	WCS	106.4	4	729.3567535	0.0003100	1000	0.00003100
<b>Alpha MPE%</b>							<b>2.17111900</b>
700	LTE	106.4	4	477.9472766	0.0009900	467	0.00021200
1900	PCS	106.4	4	1140.144749	0.0008780	1000	0.00008800
2100	AWS	106.4	4	1202.735116	0.0008410	1000	0.00008400
700	LTE	106.4	2	477.9472766	0.0004950	467	0.00010600
3700	C-Band	104.4	1	24548.74429	0.0029900	1000	0.00029900
3450	DoD	108.3	1	10447.18503	10.8494930	1000	1.08494900
3450	DoD	108.3	1	10447.18503	10.8494930	1000	1.08494900
700	LTE	106.4	4	360.628455	0.0009700	467	0.00020800
850	5G	106.4	4	423.7014901	0.0009580	567	0.00016900
2300	WCS	106.4	4	729.3567535	0.0003300	1000	0.00003300
<b>Beta MPE%</b>							<b>2.17109700</b>
700	LTE	106.4	4	477.9472766	0.0009900	467	0.00021200
1900	PCS	106.4	4	1140.144749	0.0008780	1000	0.00008800
2100	AWS	106.4	4	1202.735116	0.0008410	1000	0.00008400
700	LTE	106.4	2	477.9472766	0.0004950	467	0.00010600
3700	C-Band	104.4	1	24548.74429	0.0029910	1000	0.00029900
3450	DoD	108.3	1	10447.18503	10.8493860	1000	1.08493900
3450	DoD	108.3	1	10447.18503	10.8493860	1000	1.08493900
700	LTE	106.4	4	360.628455	0.0009700	467	0.00020800
850	5G	106.4	4	423.7014901	0.0009590	567	0.00016900



2300	WCS	106.4	4	729.3567535	0.0003300	1000	0.00003300	
							<b>Gamma MPE%</b>	<b>2.17107700</b>
							<b>AT&amp;T MPE%</b>	<b>6.51329300 %</b>

Table 4: AT&T Maximum Sector MPE Power Values





## 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 AT&T 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:

Carrier	Predicted MPE %
AT&T	6.51329300%
T-Mobile	0.00028500%
Sprint	0.00011800%
Unknown	0.00011900%
<b>Composite</b>	<b>6.51381500%</b>

*Table 5: Total Predicted MPE(%) by Carrier*

## Compliance Status:

The anticipated composite MPE value for this site assuming all carriers present is **6.51381500%** of the allowable FCC established general population limit sampled at the ground level.

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.

Katrina Styx  
RF Compliance Consultant  
**Centerline Communications, LLC**  
750 West Center St. Suite 301  
West Bridgewater, MA 02379

A handwritten signature in black ink, appearing to read 'Katrina Styx', is positioned below the contact information.



**AMERICAN TOWER®**  
CORPORATION

This report was prepared for American Tower Corporation by



**TOWER  
ENGINEERING  
PROFESSIONALS**

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## Structural Analysis Report

**Structure** : 126 ft Monopole  
**ATC Site Name** : Bridgeport CT 2,CT  
**ATC Site Number** : 302469  
**Engineering Number** : 13682687\_C3\_03  
**Proposed Carrier** : AT&T MOBILITY  
**Carrier Site Name** : MRCTB050769  
**Carrier Site Number** : N/A  
**Site Location** : 1069 Connecticut Avenue  
Bridgeport, CT 06607-1226  
41.1836, -73.1584  
**County** : Fairfield  
**Date** : November 16, 2021  
**Max Usage** : 70%  
**Result** : Pass

Prepared By:

Greg Trotta  
TEP

Reviewed By:



11/16/2021

**COA : PEC.0001553**



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## **Introduction**

The purpose of this report is to summarize results of a structural analysis performed on the 126 ft Monopole to reflect the change in loading by AT&T MOBILITY.

## **Supporting Documents**

<b>Tower Drawings</b>	EEl Project #5543, dated October 18, 1999
<b>Foundation Drawing</b>	EEl Project #5543, dated October 18, 1999
<b>Geotechnical Report</b>	Applied Earth Technologies Project #9903A, dated November 23, 1999
<b>Modifications</b>	ATC Job #41045932, dated November 2, 2007
<b>Mount Analysis</b>	ATC Job #13682687_C8_01, dated November 4, 2021

## **Analysis**

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

<b>Basic Wind Speed:</b>	119 mph (3-second gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-second gust) w/ 1.00" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
<b>Exposure Category:</b>	B
<b>Risk Category:</b>	II
<b>Topographic Factor Procedure:</b>	Method 1
<b>Topographic Category:</b>	1
<b>Spectral Response:</b>	$S_s = 0.21$ , $S_i = 0.05$
<b>Site Class:</b>	D - Stiff Soil - Default

## **Conclusion**

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

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



**Existing and Reserved Equipment**

Elev. <sup>1</sup> (ft)	Qty	Equipment	Mount Type	Lines	Carrier
131.0	1	DragonWave A-ANT-18G-2-C	T-Arms	(3) 1 1/4" Hybriflex Cable (1) 1.7" (43.2mm) Hybrid (3) 1/2" Coax (2) 2" conduit	CLEARWIRE CORPORATION
	2	DragonWave Horizon Compact			
	3	Alcatel-Lucent TD-RRH8x20			
	3	Alcatel-Lucent 1900 MHz 4X45 RRH			
	6	Alcatel-Lucent RRH2x50-08			
	1	DragonWave A-ANT-23G-1-C			
	3	Nokia 2.5G MAA - AAHC(64T64R)			
	3	Commscope NNVV-65B-R4			
127.0	3	Argus LLPX310R			
116.0	3	Ericsson Radio 4449 B71 B85A	Platform with Handrails	(2) 1 5/8" (1.63"-41.3mm) Fiber (1) 1 1/4" (1.25"-31.8mm) Fiber (2) 1 5/8" Hybriflex	T-MOBILE
	3	Ericsson RRUS 4415 B25			
	3	Ericsson AIR 6449 B41			
	3	Ericsson AIR32 B66Aa/B2a			
	3	RFS APXVAARR24_43-U-NA20			
106.0	3	CCI DMP65R-BU4D	Platform with Handrails	-	AT&T MOBILITY
	6	CCI OPA-65R-LCUU-H4			
	3	Ericsson RRUS E2 B29			
	3	Ericsson RRUS 32 B30 (53 lbs)			
	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson RRUS 4478 B14			
	3	Raycap DC6-48-60-18-8F ("Squid")			
	3	Ericsson Radio 8843 - B2 + B66A			
98.0	3	Kathrein Scala 800 10504	Flush	(6) 1 5/8" Coax (1) 3/8" Coax	METRO PCS INC
	3	Generic RCU (Remote Control Unit)			
88.0	1	Generic 5" x 3" x 2" Cavity Filter	Side Arm	(1) 1/2" Coax	SIGFOX S.A.
	1	Procom CXL 900-3LW			
	1	Generic Low Noise Amplifier			
78.0	3	JMA Wireless MX08FRO665-21	Platform with Handrails	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604			
	3	Fujitsu TA08025-B605			
	1	Commscope RDIDC-9181-PF-48			

**Equipment to be Removed**

Elev. <sup>1</sup> (ft)	Qty	Equipment	Mount Type	Lines	Carrier
106.0	3	CCI OPA65R-BU4DA-K	-	(4) 0.39" (9.8mm) Cable (8) 0.78" (19.7mm) 8 AWG 6 (6) 1 5/8" Coax (2) 3" conduit	AT&T MOBILITY
	1	Raycap DC6-48-60-18-8F ("Squid")			





**Proposed Equipment**

Elev. <sup>1</sup> (ft)	Qty	Equipment	Mount Type	Lines	Carrier
108.0	3	Ericsson AIR 6449 n77D	Platform with Handrails	(3) 0.40" (10.3mm) Fiber (4) 0.82" (20.8mm) 8 AWG 6 (4) 0.92" (23.4mm) Cable (2) 2" conduit	AT&T MOBILITY
106.0	1	Raycap DC6-48-60-0-8F			
	3	Quintel QD4616-7			
105.0	3	Ericsson AIR 6419 N77G			

<sup>1</sup> Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines on the outside of the pole shaft, double stacking not allowed.

**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	63%	Pass
Shaft	58%	Pass
Base Plate	25%	Pass

**Foundations**

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	2049.1	2766.3	1858.7	67%
Shear (Kips)	20.7	27.9	19.4	70%

\* The design reactions are factored by 1.35 per ANSI/TIA-222-H, Sec. 15.6.2

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

**Deflection, Twist and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
131.0	DragonWave A-ANT-23G-1-C	CLEARWIRE CORPORATION	0.000	0.000
	DragonWave A-ANT-18G-2-C			
108.0	Ericsson AIR 6449 n77D	AT&T MOBILITY	1.020	1.100
106.0	Raycap DC6-48-60-0-8F	AT&T MOBILITY	0.982	1.090
	Quintel QD4616-7			
105.0	Ericsson AIR 6419 N77G	AT&T MOBILITY	0.963	1.080

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



## **Standard Conditions**

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively “American Tower”) are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

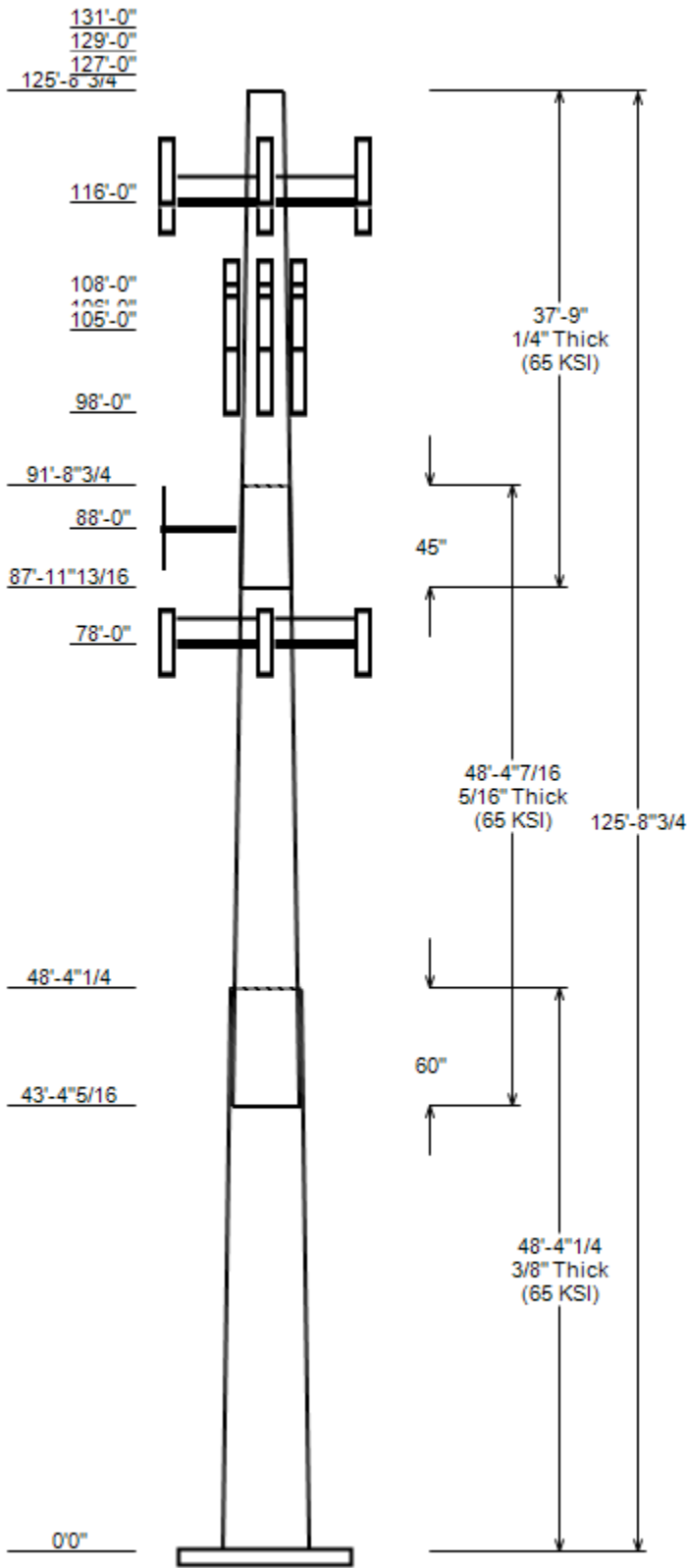
Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

JOB INFORMATION

Asset : 302469, Bridgeport CT 2  
 Client : AT&T MOBILITY  
 Code : ANSI/TIA-222-H

Height : 125.73 ft  
 Base Width : 45.5  
 Shape : 18 Sides



SITE PARAMETERS

Base Elev (ft): 0.00 Structure Class: II  
 Taper : 0.23600 (In/ft) Exposure : B  
 Topographic Category : 1 Topographic Feature:  
 Topo Method : Method 1

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Overlap Length (in)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom			
1	48.352	34.11	45.50	0.375	0.000	65
2	48.370	24.51	35.91	0.312	59.910	65
3	37.748	17.00	25.89	0.250	44.970	65

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
131.0	131.0	2	DragonWave Horizon Compact
131.0	131.0	1	DragonWave A-ANT-23G-1-C
131.0	131.0	6	Alcatel-Lucent RRH2x50-08
131.0	131.0	3	Alcatel-Lucent 1900 MHz 4X45 R
131.0	131.0	3	Alcatel-Lucent TD-RRH8x20
131.0	131.0	3	Nokia 2.5G MAA - AAHC(64T64R)
131.0	131.0	1	DragonWave A-ANT-18G-2-C
131.0	131.0	3	Commscope NNVV-65B-R4
129.0	129.0	3	Generic Round T-Arm
127.0	127.0	3	Argus LLPX310R
116.0	116.0	3	Ericsson Radio 4449 B71 B85A
116.0	116.0	3	Ericsson RRUS 4415 B25
116.0	116.0	3	Ericsson AIR 6449 B41
116.0	116.0	3	Ericsson AIR32 B66Aa/B2a
116.0	120.0	3	RFS APXVAARR24_43-U-NA20
116.0	116.0	1	Generic Round Platform with Ha
108.0	108.0	3	Ericsson AIR 6449 n77D
106.0	106.0	1	Raycap DC6-48-60-0-8F
106.0	106.0	3	Raycap DC6-48-60-18-8F ("Squid
106.0	106.0	3	Ericsson Radio 8843 - B2 + B66
106.0	106.0	3	Ericsson RRUS 4478 B14
106.0	106.0	3	Ericsson RRUS 4449 B5, B12
106.0	106.0	3	Ericsson RRUS 32 B30 (53 lbs)
106.0	106.0	3	Ericsson RRUS E2 B29
106.0	106.0	6	CCI OPA-65R-LCUU-H4
106.0	106.0	3	CCI DMP65R-BU4D
106.0	106.0	3	Quintel QD4616-7
106.0	106.0	1	Site Pro 1 RMQLP-4120-H10 Plat
105.0	105.0	3	Ericsson AIR 6419 N77G
98.0	101.0	3	Generic RCU (Remote Control Un
98.0	101.0	3	Kathrein Scala 800 10504
88.0	88.0	1	Procom CXL 900-3LW
88.0	88.0	1	Generic 5" x 3" x 2" Cavity Fi
88.0	88.0	1	Generic Low Noise Amplifier
88.0	88.0	1	Flat Side Arm
78.0	78.0	1	Commscope RDIDC-9181-PF-48
78.0	78.0	3	Fujitsu TA08025-B604
78.0	78.0	3	Fujitsu TA08025-B605
78.0	78.0	3	JMA Wireless MX08FRO665-21
78.0	78.0	1	Generic Round Platform with Ha

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
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**JOB INFORMATION**

Asset : 302469, Bridgeport CT 2  
 Client : AT&T MOBILITY  
 Code : ANSI/TIA-222-H

Height : 125.73 ft  
 Base Width : 45.5  
 Shape : 18 Sides

**LINEAR APPURTENANCE**

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	131.0	2" conduit	No
0.0	131.0	1/2" Coax	No
0.0	131.0	1.7" (43.2mm) Hybrid	No
0.0	131.0	1 1/4" Hybriflex Cable	No
0.0	120.0	1 5/8" (1.63"-41.3mm) Fiber	No
0.0	116.0	1 5/8" Hybriflex	No
0.0	116.0	1 1/4" (1.25"- 31.8mm) Fiber	No
0.0	106.0	2" conduit	Yes
0.0	106.0	0.92" (23.4mm) Cable	Yes
0.0	106.0	0.82" (20.8mm) 8 AWG 6	Yes
0.0	106.0	0.40" (10.3mm) Fiber	Yes
0.0	98.0	3/8" Coax	Yes
0.0	98.0	1 5/8" Coax	Yes
0.0	88.0	1/2" Coax	No
0.0	78.0	1.75" (44.5mm) Hybrid	Yes

**LOAD CASES**

1.2D + 1.0W Normal	119 mph wind with no ice
0.9D + 1.0W Normal	119 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

**REACTIONS**

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	1858.67	19.41	40.56
0.9D + 1.0W Normal	1829.67	19.39	30.41
1.2D + 1.0Di + 1.0Wi Normal	479.58	5.06	57.44
1.2D + 1.0Ev + 1.0Eh Normal	110.22	1.02	40.71
0.9D - 1.0Ev + 1.0Eh Normal	108.02	1.02	27.99
1.0D + 1.0W Service Normal	418.73	4.41	33.82

**DISH DEFLECTIONS**

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W Service Normal	125.73	16.244	1.161
1.0D + 1.0W Service Normal	125.73	16.244	1.161

ASSET: 302469, Bridgeport CT 2  
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
ENG NO: 13682687\_C3\_03

#### ANALYSIS PARAMETERS

Location:	Fairfield County,CT	Height:	125.73 ft
Type and Shape:	Taper, 18 Sides	Base Diameter:	45.50 in
Manufacturer:	EEI	Top Diameter:	17.00 in
K <sub>d</sub> (non-service):	0.95	Taper:	0.2360 in/ft
K <sub>e</sub> :	1.00	Rotation:	0.000°

#### ICE & WIND PARAMETERS

Exposure Category:	B	Design Wind Speed w/o Ice:	119 mph
Risk Category:	II	Design Wind Speed w/Ice:	50 mph
Topo Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	32.00 ft

#### SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	2.50		
T <sub>L</sub> (sec):	6	P:	1	C <sub>s</sub> :	0.030
S <sub>s</sub> :	0.208	S <sub>1</sub> :	0.054	C <sub>s</sub> Max:	0.030
F <sub>a</sub> :	1.600	F <sub>v</sub> :	2.400	C <sub>s</sub> Min:	0.030
S <sub>ds</sub> :	0.222	S <sub>d1</sub> :	0.086		

#### LOAD CASES

1.2D + 1.0W Normal	119 mph wind with no ice
0.9D + 1.0W Normal	119 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice



ASSET: 302469, Bridgeport CT 2  
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
 ENG NO: 13682687\_C3\_03

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Bottom							Top						
						Weight (lb)	Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Dia (in)	Elev (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	48.35	0.3750	65		0.00	7,721	45.50	-0.002	53.71	13,817.4	19.98	121.33	34.11	48.35	40.15	5,771.8	14.63	90.95	0.2356
2-18	48.37	0.3125	65	Slip	59.91	4,881	35.91	43.360	35.31	5,651.9	18.85	114.91	24.51	91.73	24.00	1,775.7	12.42	78.44	0.2356
3-18	37.75	0.2500	65	Slip	44.97	2,160	25.89	87.982	20.35	1,690.7	16.85	103.58	17.00	125.73	13.29	471.1	10.58	68.00	0.2356

Shaft Weight 14,762

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAa (sf)	Orientation Factor	Weight (lb)	EPAa (sf)	Orientation Factor
131.00	Commscope NNVV-65B-R4	3	0.80	0.000	77.40	12.271	0.64	242.27	14.111	0.64
131.00	DragonWave A-ANT-18G-2-C	1	1.00	0.000	27.10	4.688	1.00	91.13	5.524	1.00
131.00	Nokia 2.5G MAA - AAHC(64T64R)	3	0.80	0.000	103.60	4.203	0.64	177.57	5.083	0.64
131.00	Alcatel-Lucent 1900 MHz 4X45 R	3	0.80	0.000	60.00	2.322	0.67	112.88	3.031	0.67
131.00	Alcatel-Lucent TD-RRH8x20	3	0.80	0.000	66.10	3.690	0.60	120.85	4.523	0.60
131.00	DragonWave Horizon Compact	2	0.80	0.000	10.60	0.721	0.50	25.35	1.094	0.50
131.00	DragonWave A-ANT-23G-1-C	1	1.00	0.000	15.00	1.610	1.00	38.18	2.107	1.00
131.00	Alcatel-Lucent RRH2x50-08	6	0.80	0.000	52.90	1.701	0.50	91.78	2.267	0.50
129.00	Generic Round T-Arm	3	0.75	0.000	312.50	9.700	0.67	483.92	15.110	0.67
127.00	Argus LLPX310R	3	0.80	0.000	28.60	4.292	0.63	87.73	5.377	0.63
116.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3554.12	43.108	1.00
116.00	Ericsson AIR 6449 B41	3	0.75	0.000	101.60	5.500	0.63	187.79	6.520	0.63
116.00	Ericsson AIR32 B66Aa/B2a	3	0.75	0.000	132.20	6.510	0.71	236.07	7.936	0.71
116.00	RFS APXVAARR24_43-U-NA20	3	0.75	4.000	127.90	20.243	0.63	383.39	22.657	0.63
116.00	Ericsson RRUS 4415 B25	3	0.75	0.000	46.00	1.842	0.50	77.91	2.426	0.50
116.00	Ericsson Radio 4449 B71 B85A	3	0.75	0.000	75.00	1.650	0.50	114.14	2.203	0.50
108.00	Ericsson AIR 6449 n77D	3	0.75	0.000	81.60	4.028	0.65	148.24	4.914	0.65
106.00	Raycap DC6-48-60-0-8F	1	0.75	0.000	32.80	1.360	1.00	70.29	1.788	1.00
106.00	CCI DMP65R-BU4D	3	0.75	0.000	67.90	8.280	0.62	184.38	9.586	0.62
106.00	CCI OPA-65R-LCUU-H4	6	0.75	0.000	57.00	6.083	0.66	147.74	7.310	0.66
106.00	Ericsson RRUS E2 B29	3	0.75	0.000	60.00	3.145	0.62	112.16	3.892	0.62
106.00	Ericsson RRUS 32 B30 (53 lbs)	3	0.75	0.000	53.00	2.743	0.67	100.44	3.497	0.67
106.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	112.57	2.571	0.50
106.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.90	1.842	0.50	95.56	2.420	0.50
106.00	Site Pro 1 RMQLP-4120-H10 Plat	1	1.00	0.000	2500.00	27.200	1.00	3623.24	39.421	1.00
106.00	Quintel QD4616-7	3	0.75	0.000	109.00	9.442	0.64	248.97	10.838	0.64
106.00	Raycap DC6-48-60-18-8F ("Squid	3	0.75	0.000	31.80	1.470	1.00	71.59	1.920	1.00
106.00	Ericsson Radio 8843 - B2 + B66	3	0.75	0.000	71.90	1.650	0.50	111.63	2.196	0.50
105.00	Ericsson AIR 6419 N77G	3	0.75	0.000	70.00	3.925	0.57	130.31	4.797	0.57
98.00	Kathrein Scala 800 10504	3	1.00	3.000	17.60	3.344	0.66	57.74	4.503	0.66
98.00	Generic RCU (Remote Control Un	3	1.00	3.000	1.00	0.141	1.00	4.54	0.357	1.00
88.00	Flat Side Arm	1	1.00	0.000	150.00	6.300	1.00	196.33	7.857	1.00
88.00	Generic Low Noise Amplifier	1	1.00	0.000	2.00	0.167	1.00	5.57	0.351	1.00
88.00	Generic 5" x 3" x 2" Cavity Fi	1	1.00	0.000	1.50	0.141	1.00	4.60	0.315	1.00
88.00	Procom CXL 900-3LW	1	1.00	0.000	1.50	0.130	1.00	4.89	0.579	1.00
78.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	114.13	2.536	0.50
78.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	100.32	2.536	0.50
78.00	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	57.44	2.429	1.00
78.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	225.02	14.244	0.64
78.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3511.57	42.466	1.00

Totals Num Loadings: 40 103 14,519.40 24,771.54

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : 0.00\_

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	131.00	3	1 1/4" Hybriflex Cabl	1.54	1	N	0	0	0	0	N	CLEARWIRE COR
0.00	131.00	3	1/2" Coax	0.63	0.15	N	0	0	0	0	N	CLEARWIRE COR
0.00	131.00	2	2" conduit	2.38	3.65	N	0	0	0	0	N	CLEARWIRE COR
0.00	131.00	1	1.7" (43.2mm) Hybrid	1.7	1.78	N	0	0	0	0	N	CLEARWIRE COR
0.00	120.00	2	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0	0	0	N	T-MOBILE
0.00	116.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	N	T-MOBILE
0.00	116.00	1	1 1/4" (1.25"- 31.8mm	1.25	1.05	N	0	0	0	0	N	T-MOBILE

ASSET: 302469, Bridgeport CT 2  
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
 ENG NO: 13682687\_C3\_03

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	106.00	4	0.92" (23.4mm) Cable	0.92	0.89	N	4	1	1	150	1	Y	AT&T MOBILITY
0.00	106.00	4	0.82" (20.8mm) 8 AWG	0.82	0.62	N	4	1	1	150	1	Y	AT&T MOBILITY
0.00	106.00	3	0.40" (10.3mm) Fiber	0.4	0.09	N	3	1	1	150	1	Y	AT&T MOBILITY
0.00	106.00	2	2" conduit	2.38	3.65	N	2	1	1	150	1	Y	AT&T MOBILITY
0.00	98.00	6	1 5/8" Coax	1.98	0.82	N	6	1	1	300	1	Y	METRO PCS INC
0.00	98.00	1	3/8" Coax	0.44	0.08	N	1	1	1	340	1	Y	METRO PCS INC
0.00	88.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	SIGFOX S.A.
0.00	78.00	1	1.75" (44.5mm) Hybrid	1.75	2.72	N	1	0	0	270	0	Y	DISH WIRELESS

SEGMENT PROPERTIES

(Max Len: 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	F'y (ksi)	S (in <sup>3</sup> )	Z (in <sup>3</sup> )	Weight (lb)
0.00		0.3750	45.500	53.708	13,817.40	19.98	121.33	77.9	598.1	0.0	0.0
5.00		0.3750	44.322	52.306	12,763.20	19.43	118.19	78.5	567.2	0.0	901.9
10.00		0.3750	43.144	50.904	11,764.00	18.88	115.05	79.2	537.1	0.0	878.0
15.00		0.3750	41.966	49.501	10,818.40	18.32	111.91	79.9	507.8	0.0	854.1
20.00		0.3750	40.788	48.099	9,924.80	17.77	108.77	80.5	479.3	0.0	830.3
25.00		0.3750	39.609	46.697	9,081.90	17.21	105.63	81.2	451.6	0.0	806.4
30.00		0.3750	38.431	45.295	8,288.10	16.66	102.48	81.8	424.8	0.0	782.6
35.00		0.3750	37.253	43.893	7,541.90	16.11	99.34	82.5	398.8	0.0	758.7
40.00		0.3750	36.075	42.490	6,842.00	15.55	96.20	82.6	373.6	0.0	734.9
43.36	Bot - Section 2	0.3750	35.283	41.548	6,396.90	15.18	94.09	82.6	357.1	0.0	480.3
45.00		0.3750	34.897	41.088	6,186.70	15.00	93.06	82.6	349.2	0.0	426.7
48.35	Top - Section 1	0.3125	34.732	34.139	5,109.90	18.19	111.14	80	289.8	0.0	857.1
50.00		0.3125	34.344	33.754	4,938.90	17.97	109.90	80.3	283.2	0.0	190.4
55.00		0.3125	33.166	32.585	4,443.50	17.30	106.13	81	263.9	0.0	564.3
60.00		0.3125	31.988	31.417	3,982.40	16.64	102.36	81.8	245.2	0.0	544.5
65.00		0.3125	30.809	30.248	3,554.40	15.97	98.59	82.6	227.2	0.0	524.6
70.00		0.3125	29.631	29.080	3,158.20	15.31	94.82	82.6	209.9	0.0	504.7
75.00		0.3125	28.453	27.911	2,792.50	14.64	91.05	82.6	193.3	0.0	484.8
78.00		0.3125	27.746	27.210	2,587.30	14.25	88.79	82.6	183.7	0.0	281.3
80.00		0.3125	27.275	26.743	2,456.30	13.98	87.28	82.6	177.4	0.0	183.6
85.00		0.3125	26.097	25.574	2,148.20	13.31	83.51	82.6	162.1	0.0	445.1
87.98	Bot - Section 3	0.3125	25.394	24.877	1,977.30	12.92	81.26	82.6	153.4	0.0	255.9
88.00		0.3125	25.390	24.873	1,976.30	12.92	81.25	82.6	153.3	0.0	2.8
90.00		0.3125	24.919	24.406	1,867.00	12.65	79.74	82.6	147.6	0.0	304.9
91.73	Top - Section 2	0.2500	25.011	19.647	1,522.00	16.23	100.05	82.3	119.9	0.0	259.0
95.00		0.2500	24.241	19.036	1,384.20	15.69	96.96	82.6	112.5	0.0	215.3
98.00		0.2500	23.534	18.475	1,265.50	15.19	94.14	82.6	105.9	0.0	191.5
100.00		0.2500	23.063	18.101	1,190.20	14.86	92.25	82.6	101.6	0.0	124.5
105.00		0.2500	21.884	17.166	1,015.10	14.02	87.54	82.6	91.4	0.0	300.0
106.00		0.2500	21.649	16.979	982.30	13.86	86.60	82.6	89.4	0.0	58.1
108.00		0.2500	21.178	16.605	918.80	13.53	84.71	82.6	85.5	0.0	114.3
110.00		0.2500	20.706	16.232	858.20	13.19	82.83	82.6	81.6	0.0	111.7
115.00		0.2500	19.528	15.297	718.30	12.36	78.11	82.6	72.4	0.0	268.2
116.00		0.2500	19.293	15.110	692.30	12.20	77.17	82.6	70.7	0.0	51.7
120.00		0.2500	18.350	14.362	594.50	11.53	73.40	82.6	63.8	0.0	200.6
125.00		0.2500	17.172	13.427	485.80	10.70	68.69	82.6	55.7	0.0	236.4
125.73		0.2500	17.000	13.291	471.10	10.58	68.00	82.6	54.6	0.0	33.2

Totals: 14,762.4

Load Case: 1.2D + 1.0W Normal	119 mph wind with no ice	25 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.20		
Wind Load Factor: 1.00		

**CALCULATED FORCES**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-40.56	-19.41	0.00	-1,858.7	0.00	1,858.67	3,765.29	942.58	3,841.82	3,494.42	0	0	0.543
5.00	-39.17	-19.17	0.00	-1,761.6	0.00	1,761.64	3,697.66	917.97	3,643.86	3,341.32	0.1	-0.19	0.538
10.00	-37.81	-18.94	0.00	-1,665.8	0.00	1,665.78	3,628.38	893.36	3,451.13	3,190.08	0.4	-0.38	0.533
15.00	-36.48	-18.71	0.00	-1,571.1	0.00	1,571.09	3,557.46	868.75	3,263.64	3,040.82	0.9	-0.57	0.527
20.00	-35.17	-18.49	0.00	-1,477.5	0.00	1,477.54	3,484.89	844.14	3,081.39	2,893.66	1.61	-0.77	0.521
25.00	-33.90	-18.27	0.00	-1,385.1	0.00	1,385.10	3,410.68	819.53	2,904.37	2,748.72	2.53	-0.98	0.514
30.00	-32.65	-18.05	0.00	-1,293.8	0.00	1,293.76	3,334.83	794.92	2,732.59	2,606.12	3.66	-1.19	0.507
35.00	-31.44	-17.82	0.00	-1,203.5	0.00	1,203.52	3,257.33	770.32	2,566.05	2,465.98	5.02	-1.4	0.498
40.00	-30.26	-17.62	0.00	-1,114.4	0.00	1,114.40	3,156.83	745.71	2,404.74	2,312.78	6.61	-1.62	0.492
43.36	-29.49	-17.50	0.00	-1,055.2	0.00	1,055.20	3,086.83	729.17	2,299.30	2,210.84	7.8	-1.77	0.487
45.00	-28.87	-17.37	0.00	-1,026.5	0.00	1,026.50	3,052.65	721.10	2,248.67	2,161.89	8.43	-1.85	0.485
48.35	-27.65	-17.23	0.00	-968.3	0.00	968.26	2,458.29	599.14	1,862.71	1,738.87	9.78	-2	0.569
50.00	-27.30	-17.08	0.00	-939.9	0.00	939.87	2,438.38	592.38	1,820.91	1,705.15	10.49	-2.08	0.563
55.00	-26.31	-16.84	0.00	-854.5	0.00	854.46	2,376.89	571.87	1,697.04	1,604.09	12.8	-2.34	0.545
60.00	-25.35	-16.60	0.00	-770.2	0.00	770.25	2,313.76	551.36	1,577.53	1,504.96	15.39	-2.6	0.524
65.00	-24.42	-16.36	0.00	-687.2	0.00	687.25	2,247.28	530.85	1,462.38	1,406.82	18.25	-2.86	0.500
70.00	-23.51	-16.11	0.00	-605.5	0.00	605.47	2,160.47	510.35	1,351.59	1,299.70	21.39	-3.12	0.478
75.00	-22.65	-15.90	0.00	-524.9	0.00	524.93	2,073.65	489.84	1,245.17	1,196.82	24.79	-3.37	0.451
78.00	-18.50	-13.76	0.00	-477.2	0.00	477.24	2,021.56	477.53	1,183.41	1,137.12	26.95	-3.53	0.430
80.00	-18.16	-13.58	0.00	-449.7	0.00	449.73	1,986.84	469.33	1,143.11	1,098.18	28.45	-3.63	0.420
85.00	-17.37	-13.34	0.00	-381.8	0.00	381.85	1,900.02	448.82	1,045.41	1,003.78	32.38	-3.87	0.390
87.98	-16.91	-13.24	0.00	-342.1	0.00	342.08	1,848.25	436.59	989.23	949.50	34.84	-4.01	0.370
88.00	-16.74	-12.93	0.00	-341.8	0.00	341.84	1,847.94	436.52	988.89	949.18	34.86	-4.01	0.370
90.00	-16.27	-12.81	0.00	-316.0	0.00	315.98	1,813.21	428.32	952.08	913.62	36.56	-4.11	0.356
91.73	-15.87	-12.65	0.00	-293.8	0.00	293.84	1,455.48	344.81	771.23	739.90	38.06	-4.19	0.409
95.00	-15.44	-12.47	0.00	-252.4	0.00	252.45	1,414.28	334.08	723.98	696.35	40.97	-4.33	0.375
98.00	-15.02	-12.05	0.00	-214.3	0.00	214.26	1,372.61	324.24	681.95	655.72	43.74	-4.47	0.339
100.00	-14.77	-11.89	0.00	-190.2	0.00	190.15	1,344.82	317.68	654.63	629.30	45.63	-4.57	0.315
105.00	-13.97	-11.50	0.00	-130.7	0.00	130.71	1,275.37	301.27	588.77	565.65	50.52	-4.76	0.243
106.00	-8.83	-7.59	0.00	-119.2	0.00	119.20	1,261.48	297.99	576.02	553.33	51.52	-4.79	0.223
108.00	-8.37	-7.24	0.00	-104.0	0.00	104.02	1,233.70	291.43	550.93	529.09	53.54	-4.86	0.204
110.00	-8.19	-7.07	0.00	-89.5	0.00	89.54	1,205.92	284.86	526.40	505.39	55.58	-4.92	0.185
115.00	-7.76	-6.90	0.00	-54.2	0.00	54.19	1,136.47	268.46	467.53	448.52	60.79	-5.04	0.128
116.00	-3.23	-3.32	0.00	-42.8	0.00	42.78	1,122.58	265.18	456.17	437.56	61.85	-5.06	0.101
120.00	-2.93	-3.09	0.00	-29.5	0.00	29.51	1,067.02	252.05	412.14	395.05	66.1	-5.12	0.078
125.00	-2.59	-2.94	0.00	-14.0	0.00	14.04	997.57	235.65	360.25	344.97	71.48	-5.17	0.043
125.73	0.00	-2.69	0.00	-11.9	0.00	11.90	987.43	233.25	352.96	337.94	72.27	-5.17	0.035

Load Case: 0.9D + 1.0W Normal	119 mph wind with no ice	24 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 0.90		
Wind Load Factor: 1.00		

**CALCULATED FORCES**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-30.41	-19.39	0.00	-1,829.7	0.00	1,829.67	3,765.29	942.58	3,841.82	3,494.42	0	0	0.532
5.00	-29.35	-19.12	0.00	-1,732.7	0.00	1,732.73	3,697.66	917.97	3,643.86	3,341.32	0.1	-0.18	0.527
10.00	-28.32	-18.86	0.00	-1,637.1	0.00	1,637.13	3,628.38	893.36	3,451.13	3,190.08	0.39	-0.37	0.521
15.00	-27.31	-18.60	0.00	-1,542.9	0.00	1,542.86	3,557.46	868.75	3,263.64	3,040.82	0.88	-0.56	0.516
20.00	-26.32	-18.34	0.00	-1,449.9	0.00	1,449.87	3,484.89	844.14	3,081.39	2,893.66	1.58	-0.76	0.509
25.00	-25.35	-18.10	0.00	-1,358.2	0.00	1,358.16	3,410.68	819.53	2,904.37	2,748.72	2.48	-0.96	0.502
30.00	-24.40	-17.85	0.00	-1,267.7	0.00	1,267.67	3,334.83	794.92	2,732.59	2,606.12	3.6	-1.17	0.494
35.00	-23.48	-17.60	0.00	-1,178.4	0.00	1,178.42	3,257.33	770.32	2,566.05	2,465.98	4.93	-1.38	0.486
40.00	-22.58	-17.38	0.00	-1,090.4	0.00	1,090.42	3,156.83	745.71	2,404.74	2,312.78	6.49	-1.59	0.479
43.36	-22.00	-17.25	0.00	-1,032.0	0.00	1,032.03	3,086.83	729.17	2,299.30	2,210.84	7.66	-1.74	0.474
45.00	-21.53	-17.11	0.00	-1,003.7	0.00	1,003.74	3,052.65	721.10	2,248.67	2,161.89	8.28	-1.81	0.472
48.35	-20.60	-16.96	0.00	-946.4	0.00	946.38	2,458.29	599.14	1,862.71	1,738.87	9.6	-1.96	0.553
50.00	-20.33	-16.80	0.00	-918.4	0.00	918.43	2,438.38	592.38	1,820.91	1,705.15	10.29	-2.04	0.548
55.00	-19.58	-16.53	0.00	-834.4	0.00	834.45	2,376.89	571.87	1,697.04	1,604.09	12.57	-2.29	0.529
60.00	-18.85	-16.27	0.00	-751.8	0.00	751.78	2,313.76	551.36	1,577.53	1,504.96	15.1	-2.55	0.509
65.00	-18.14	-16.01	0.00	-670.4	0.00	670.43	2,247.28	530.85	1,462.38	1,406.82	17.91	-2.8	0.486
70.00	-17.44	-15.74	0.00	-590.4	0.00	590.40	2,160.47	510.35	1,351.59	1,299.70	20.97	-3.05	0.463
75.00	-16.79	-15.52	0.00	-511.7	0.00	511.70	2,073.65	489.84	1,245.17	1,196.82	24.3	-3.3	0.437
78.00	-13.69	-13.44	0.00	-465.1	0.00	465.14	2,021.56	477.53	1,183.41	1,137.12	26.42	-3.45	0.417
80.00	-13.43	-13.25	0.00	-438.3	0.00	438.27	1,986.84	469.33	1,143.11	1,098.18	27.89	-3.55	0.407
85.00	-12.84	-13.00	0.00	-372.0	0.00	372.04	1,900.02	448.82	1,045.41	1,003.78	31.73	-3.78	0.378
87.98	-12.50	-12.90	0.00	-333.3	0.00	333.27	1,848.25	436.59	989.23	949.50	34.14	-3.92	0.359
88.00	-12.36	-12.60	0.00	-333.0	0.00	333.03	1,847.94	436.52	988.89	949.18	34.15	-3.92	0.358
90.00	-12.01	-12.48	0.00	-307.8	0.00	307.83	1,813.21	428.32	952.08	913.62	35.82	-4.02	0.344
91.73	-11.71	-12.32	0.00	-286.3	0.00	286.26	1,455.48	344.81	771.23	739.90	37.28	-4.09	0.396
95.00	-11.39	-12.13	0.00	-246.0	0.00	245.96	1,414.28	334.08	723.98	696.35	40.14	-4.23	0.363
98.00	-11.07	-11.72	0.00	-208.8	0.00	208.77	1,372.61	324.24	681.95	655.72	42.84	-4.37	0.328
100.00	-10.89	-11.55	0.00	-185.3	0.00	185.33	1,344.82	317.68	654.63	629.30	44.69	-4.46	0.304
105.00	-10.29	-11.17	0.00	-127.6	0.00	127.58	1,275.37	301.27	588.77	565.65	49.47	-4.65	0.235
106.00	-6.49	-7.38	0.00	-116.4	0.00	116.41	1,261.48	297.99	576.02	553.33	50.44	-4.68	0.216
108.00	-6.15	-7.04	0.00	-101.6	0.00	101.64	1,233.70	291.43	550.93	529.09	52.42	-4.75	0.198
110.00	-6.02	-6.87	0.00	-87.6	0.00	87.57	1,205.92	284.86	526.40	505.39	54.42	-4.81	0.179
115.00	-5.70	-6.70	0.00	-53.2	0.00	53.24	1,136.47	268.46	467.53	448.52	59.51	-4.92	0.124
116.00	-2.37	-3.23	0.00	-42.0	0.00	42.02	1,122.58	265.18	456.17	437.56	60.54	-4.94	0.098
120.00	-2.14	-3.02	0.00	-29.1	0.00	29.08	1,067.02	252.05	412.14	395.05	64.7	-5	0.076
125.00	-1.89	-2.87	0.00	-14.0	0.00	13.99	997.57	235.65	360.25	344.97	69.97	-5.05	0.043
125.73	0.00	-2.69	0.00	-11.9	0.00	11.90	987.43	233.25	352.96	337.94	70.74	-5.06	0.035

Load Case: 1.2D + 1.0Di + 1.0Wi Normal		50 mph wind with 1" radial ice		24 Iterations
Gust Response Factor:	1.10	Ice Dead Load Factor	1.00	
Dead load Factor:	1.20			Ice Importance Factor 1.00
Wind Load Factor:	1.00			

**CALCULATED FORCES**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-57.44	-5.06	0.00	-479.6	0.00	479.58	3,765.29	942.58	3,841.82	3,494.42	0	0	0.153
5.00	-55.74	-5.00	0.00	-454.3	0.00	454.28	3,697.66	917.97	3,643.86	3,341.32	0.03	-0.05	0.151
10.00	-54.03	-4.94	0.00	-429.3	0.00	429.29	3,628.38	893.36	3,451.13	3,190.08	0.1	-0.1	0.149
15.00	-52.35	-4.88	0.00	-404.6	0.00	404.61	3,557.46	868.75	3,263.64	3,040.82	0.23	-0.15	0.148
20.00	-50.68	-4.82	0.00	-380.2	0.00	380.23	3,484.89	844.14	3,081.39	2,893.66	0.41	-0.2	0.146
25.00	-49.04	-4.76	0.00	-356.2	0.00	356.16	3,410.68	819.53	2,904.37	2,748.72	0.65	-0.25	0.144
30.00	-47.43	-4.70	0.00	-332.4	0.00	332.38	3,334.83	794.92	2,732.59	2,606.12	0.94	-0.31	0.142
35.00	-45.85	-4.63	0.00	-308.9	0.00	308.90	3,257.33	770.32	2,566.05	2,465.98	1.29	-0.36	0.139
40.00	-44.30	-4.58	0.00	-285.7	0.00	285.73	3,156.83	745.71	2,404.74	2,312.78	1.7	-0.42	0.138
43.36	-43.28	-4.54	0.00	-270.4	0.00	270.35	3,086.83	729.17	2,299.30	2,210.84	2.01	-0.46	0.136
45.00	-42.54	-4.51	0.00	-262.9	0.00	262.90	3,052.65	721.10	2,248.67	2,161.89	2.17	-0.48	0.136
48.35	-41.07	-4.47	0.00	-247.8	0.00	247.79	2,458.29	599.14	1,862.71	1,738.87	2.52	-0.51	0.159
50.00	-40.62	-4.43	0.00	-240.4	0.00	240.43	2,438.38	592.38	1,820.91	1,705.15	2.7	-0.53	0.158
55.00	-39.28	-4.36	0.00	-218.3	0.00	218.29	2,376.89	571.87	1,697.04	1,604.09	3.29	-0.6	0.153
60.00	-37.96	-4.29	0.00	-196.5	0.00	196.49	2,313.76	551.36	1,577.53	1,504.96	3.96	-0.67	0.147
65.00	-36.68	-4.22	0.00	-175.0	0.00	175.04	2,247.28	530.85	1,462.38	1,406.82	4.69	-0.73	0.141
70.00	-35.42	-4.15	0.00	-153.9	0.00	153.94	2,160.47	510.35	1,351.59	1,299.70	5.5	-0.8	0.135
75.00	-34.20	-4.08	0.00	-133.2	0.00	133.21	2,073.65	489.84	1,245.17	1,196.82	6.37	-0.86	0.128
78.00	-28.37	-3.53	0.00	-121.0	0.00	120.95	2,021.56	477.53	1,183.41	1,137.12	6.93	-0.9	0.120
80.00	-27.91	-3.48	0.00	-113.9	0.00	113.89	1,986.84	469.33	1,143.11	1,098.18	7.31	-0.93	0.118
85.00	-26.77	-3.41	0.00	-96.5	0.00	96.50	1,900.02	448.82	1,045.41	1,003.78	8.32	-0.99	0.110
87.98	-26.10	-3.38	0.00	-86.3	0.00	86.33	1,848.25	436.59	989.23	949.50	8.94	-1.03	0.105
88.00	-25.86	-3.31	0.00	-86.3	0.00	86.26	1,847.94	436.52	988.89	949.18	8.95	-1.03	0.105
90.00	-25.26	-3.27	0.00	-79.6	0.00	79.65	1,813.21	428.32	952.08	913.62	9.38	-1.05	0.101
91.73	-24.74	-3.23	0.00	-74.0	0.00	74.00	1,455.48	344.81	771.23	739.90	9.77	-1.07	0.117
95.00	-24.09	-3.18	0.00	-63.4	0.00	63.44	1,414.28	334.08	723.98	696.35	10.51	-1.11	0.108
98.00	-23.34	-3.07	0.00	-53.7	0.00	53.71	1,372.61	324.24	681.95	655.72	11.22	-1.14	0.099
100.00	-22.99	-3.01	0.00	-47.6	0.00	47.58	1,344.82	317.68	654.63	629.30	11.7	-1.16	0.093
105.00	-21.77	-2.91	0.00	-32.5	0.00	32.51	1,275.37	301.27	588.77	565.65	12.95	-1.21	0.075
106.00	-13.77	-1.94	0.00	-29.6	0.00	29.60	1,261.48	297.99	576.02	553.33	13.21	-1.22	0.064
108.00	-13.07	-1.85	0.00	-25.7	0.00	25.71	1,233.70	291.43	550.93	529.09	13.72	-1.24	0.059
110.00	-12.83	-1.80	0.00	-22.0	0.00	22.01	1,205.92	284.86	526.40	505.39	14.24	-1.25	0.054
115.00	-12.25	-1.74	0.00	-13.0	0.00	13.03	1,136.47	268.46	467.53	448.52	15.57	-1.28	0.040
116.00	-5.39	-0.84	0.00	-10.4	0.00	10.40	1,122.58	265.18	456.17	437.56	15.84	-1.29	0.029
120.00	-4.96	-0.77	0.00	-7.0	0.00	7.03	1,067.02	252.05	412.14	395.05	16.92	-1.3	0.022
125.00	-4.47	-0.72	0.00	-3.2	0.00	3.19	997.57	235.65	360.25	344.97	18.29	-1.31	0.014
125.73	0.00	-0.62	0.00	-2.7	0.00	2.66	987.43	233.25	352.96	337.94	18.49	-1.31	0.008

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	23 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.00		
Wind Load Factor: 1.00		

**CALCULATED FORCES**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-33.82	-4.41	0.00	-418.7	0.00	418.73	3,765.29	942.58	3,841.82	3,494.42	0	0	0.129
5.00	-32.71	-4.35	0.00	-396.7	0.00	396.67	3,697.66	917.97	3,643.86	3,341.32	0.02	-0.04	0.128
10.00	-31.63	-4.29	0.00	-374.9	0.00	374.91	3,628.38	893.36	3,451.13	3,190.08	0.09	-0.08	0.126
15.00	-30.57	-4.24	0.00	-353.4	0.00	353.44	3,557.46	868.75	3,263.64	3,040.82	0.2	-0.13	0.125
20.00	-29.53	-4.18	0.00	-332.2	0.00	332.25	3,484.89	844.14	3,081.39	2,893.66	0.36	-0.17	0.123
25.00	-28.51	-4.13	0.00	-311.3	0.00	311.33	3,410.68	819.53	2,904.37	2,748.72	0.57	-0.22	0.122
30.00	-27.52	-4.08	0.00	-290.7	0.00	290.68	3,334.83	794.92	2,732.59	2,606.12	0.82	-0.27	0.120
35.00	-26.56	-4.02	0.00	-270.3	0.00	270.31	3,257.33	770.32	2,566.05	2,465.98	1.13	-0.32	0.118
40.00	-25.62	-3.97	0.00	-250.2	0.00	250.20	3,156.83	745.71	2,404.74	2,312.78	1.49	-0.36	0.116
43.36	-25.00	-3.94	0.00	-236.9	0.00	236.86	3,086.83	729.17	2,299.30	2,210.84	1.76	-0.4	0.115
45.00	-24.50	-3.91	0.00	-230.4	0.00	230.39	3,052.65	721.10	2,248.67	2,161.89	1.9	-0.42	0.115
48.35	-23.51	-3.88	0.00	-217.3	0.00	217.27	2,458.29	599.14	1,862.71	1,738.87	2.2	-0.45	0.135
50.00	-23.25	-3.84	0.00	-210.9	0.00	210.88	2,438.38	592.38	1,820.91	1,705.15	2.36	-0.47	0.133
55.00	-22.48	-3.79	0.00	-191.7	0.00	191.66	2,376.89	571.87	1,697.04	1,604.09	2.88	-0.53	0.129
60.00	-21.72	-3.73	0.00	-172.7	0.00	172.72	2,313.76	551.36	1,577.53	1,504.96	3.46	-0.58	0.124
65.00	-20.99	-3.67	0.00	-154.1	0.00	154.08	2,247.28	530.85	1,462.38	1,406.82	4.1	-0.64	0.119
70.00	-20.28	-3.61	0.00	-135.7	0.00	135.72	2,160.47	510.35	1,351.59	1,299.70	4.81	-0.7	0.114
75.00	-19.59	-3.56	0.00	-117.7	0.00	117.66	2,073.65	489.84	1,245.17	1,196.82	5.57	-0.76	0.108
78.00	-16.06	-3.09	0.00	-107.0	0.00	106.97	2,021.56	477.53	1,183.41	1,137.12	6.06	-0.79	0.102
80.00	-15.80	-3.04	0.00	-100.8	0.00	100.80	1,986.84	469.33	1,143.11	1,098.18	6.4	-0.81	0.100
85.00	-15.16	-2.99	0.00	-85.6	0.00	85.58	1,900.02	448.82	1,045.41	1,003.78	7.28	-0.87	0.093
87.98	-14.79	-2.97	0.00	-76.7	0.00	76.67	1,848.25	436.59	989.23	949.50	7.83	-0.9	0.089
88.00	-14.63	-2.90	0.00	-76.6	0.00	76.62	1,847.94	436.52	988.89	949.18	7.83	-0.9	0.089
90.00	-14.25	-2.87	0.00	-70.8	0.00	70.82	1,813.21	428.32	952.08	913.62	8.22	-0.92	0.085
91.73	-13.92	-2.83	0.00	-65.9	0.00	65.86	1,455.48	344.81	771.23	739.90	8.55	-0.94	0.099
95.00	-13.58	-2.79	0.00	-56.6	0.00	56.59	1,414.28	334.08	723.98	696.35	9.21	-0.97	0.091
98.00	-13.22	-2.70	0.00	-48.0	0.00	48.04	1,372.61	324.24	681.95	655.72	9.83	-1	0.083
100.00	-13.03	-2.66	0.00	-42.6	0.00	42.64	1,344.82	317.68	654.63	629.30	10.26	-1.02	0.078
105.00	-12.36	-2.57	0.00	-29.3	0.00	29.34	1,275.37	301.27	588.77	565.65	11.35	-1.07	0.062
106.00	-7.83	-1.70	0.00	-26.8	0.00	26.76	1,261.48	297.99	576.02	553.33	11.58	-1.08	0.055
108.00	-7.44	-1.62	0.00	-23.4	0.00	23.36	1,233.70	291.43	550.93	529.09	12.03	-1.09	0.050
110.00	-7.29	-1.58	0.00	-20.1	0.00	20.12	1,205.92	284.86	526.40	505.39	12.49	-1.1	0.046
115.00	-6.92	-1.54	0.00	-12.2	0.00	12.21	1,136.47	268.46	467.53	448.52	13.66	-1.13	0.033
116.00	-2.92	-0.74	0.00	-9.6	0.00	9.64	1,122.58	265.18	456.17	437.56	13.9	-1.13	0.025
120.00	-2.65	-0.69	0.00	-6.7	0.00	6.66	1,067.02	252.05	412.14	395.05	14.86	-1.15	0.019
125.00	-2.35	-0.66	0.00	-3.2	0.00	3.19	997.57	235.65	360.25	344.97	16.07	-1.16	0.012
125.73	0.00	-0.61	0.00	-2.7	0.00	2.71	987.43	233.25	352.96	337.94	16.24	-1.16	0.008

**EQUIVALENT LATERAL FORCES METHOD ANALYSIS**  
 (Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period ( $S_S$ ):	0.208
Spectral Response Acceleration at 1.0 Second Period ( $S_1$ ):	0.054
Long-Period Transition Period ( $T_L$ – Seconds):	6
Importance Factor ( $I_a$ ):	1.000
Site Coefficient $F_a$ :	1.600
Site Coefficient $F_v$ :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.222
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.086
Seismic Response Coefficient ( $C_s$ ):	0.030
Upper Limit $C_s$ :	0.030
Lower Limit $C_s$ :	0.030
Period based on Rayleigh Method (sec):	2.500
Redundancy Factor ( $\rho$ ):	1.000
Seismic Force Distribution Exponent ( $k$ ):	2.000
Total Unfactored Dead Load:	33.820 k
Seismic Base Shear (E):	1.010 k

**1.2D + 1.0Ev + 1.0Eh Normal Seismic**

Segment	Height Above Base (ft)	Weight (lb)	$W_z$ (lb-ft)	$C_{vx}$	Horizontal Force (lb)	Vertical Force (lb)
36	125.365	42	659	0.003	3	53
35	122.5	299	4,444	0.019	19	372
34	118	264	3,635	0.016	16	328
33	115.5	71	940	0.004	4	89
32	112.5	365	4,578	0.020	20	454
31	109	151	1,772	0.008	8	187
30	107	153	1,736	0.007	7	190
29	105.5	91	1,005	0.004	4	113
28	102.5	465	4,841	0.021	21	579
27	99	190	1,850	0.008	8	237
26	96.5	305	2,819	0.012	12	380
25	93.3646	340	2,933	0.012	13	423
24	90.8646	325	2,657	0.011	11	404
23	89	381	2,990	0.013	13	474
22	87.9909	3	27	0.000	0	4
21	86.4909	370	2,741	0.012	12	460
20	82.5	636	4,289	0.018	19	791
19	79	260	1,608	0.007	7	323
18	76.5	404	2,344	0.010	10	503
17	72.5	689	3,592	0.015	15	858
16	67.5	709	3,204	0.014	14	882
15	62.5	729	2,824	0.012	12	907
14	57.5	749	2,456	0.010	11	932
13	52.5	769	2,102	0.009	9	957
12	49.1758	258	619	0.003	3	321
11	46.6758	994	2,149	0.009	9	1,237
10	44.1797	494	956	0.004	4	614
9	41.6797	618	1,065	0.004	5	769
8	37.5	939	1,311	0.006	6	1,169
7	32.5	963	1,010	0.004	4	1,198
6	27.5	987	741	0.003	3	1,228
5	22.5	1,011	509	0.002	2	1,258
4	17.5	1,035	315	0.001	1	1,288
3	12.5	1,059	165	0.001	1	1,317



Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
2	7.5	1,082	61	0.000	0	1,347
1	2.5	1,106	7	0.000	0	1,377
DragonWave Horizon Compact	125.73	21	332	0.001	1	26
DragonWave A-ANT-23G-1-C	125.73	15	235	0.001	1	19
Alcatel-Lucent RRH2x50-08	125.73	317	4,969	0.021	21	395
Alcatel-Lucent 1900 MHz 4X45 RRH	125.73	180	2,818	0.012	12	224
Alcatel-Lucent TD-RRH8x20	125.73	198	3,104	0.013	13	247
Nokia 2.5G MAA - AAHC(64T64R)	125.73	311	4,866	0.021	21	387
DragonWave A-ANT-18G-2-C	125.73	27	424	0.002	2	34
Commscope NNVV-65B-R4	125.73	232	3,635	0.016	16	289
Generic Round T-Arm	125.73	938	14,676	0.062	63	1,167
Argus LLPX310R	125.73	86	1,343	0.006	6	107
Ericsson Radio 4449 B71 B85A	116	225	2,999	0.013	13	280
Ericsson RRUS 4415 B25	116	138	1,839	0.008	8	172
Ericsson AIR 6449 B41	116	305	4,062	0.017	18	379
Ericsson AIR32 B66Aa/B2a	116	397	5,286	0.022	23	494
RFS APXVAARR24_43-U-NA20	116	384	5,114	0.022	22	477
Generic Round Platform with Handrails	116	2,500	33,320	0.142	144	3,111
Generic Round Platform with Handrails	78	2,500	15,077	0.064	65	3,111
Ericsson AIR 6449 n77D	108	245	2,829	0.012	12	305
Raycap DC6-48-60-0-8F	106	33	365	0.002	2	41
Raycap DC6-48-60-18-8F ("Squid")	106	95	1,062	0.004	5	119
Ericsson Radio 8843 - B2 + B66A	106	216	2,401	0.010	10	268
Ericsson RRUS 4478 B14	106	180	2,000	0.008	9	224
Ericsson RRUS 4449 B5, B12	106	213	2,371	0.010	10	265
Ericsson RRUS 32 B30 (53 lbs)	106	159	1,770	0.008	8	198
Ericsson RRUS E2 B29	106	180	2,004	0.008	9	224
CCI OPA-65R-LCUU-H4	106	342	3,807	0.016	16	426
CCI DMP65R-BU4D	106	204	2,267	0.010	10	253
Quintel QD4616-7	106	327	3,640	0.016	16	407
Site Pro 1 RMQLP-4120-H10 Platform with Handrails	106	2,500	27,827	0.118	120	3,111
Ericsson AIR 6419 N77G	105	210	2,294	0.010	10	261
Generic RCU (Remote Control Unit)	98	3	29	0.000	0	4
Kathrein Scala 800 10504	98	53	502	0.002	2	66
Procom CXL 900-3LW	88	2	12	0.000	0	2
Generic 5" x 3" x 2" Cavity Filter	88	2	12	0.000	0	2
Generic Low Noise Amplifier	88	2	15	0.000	0	2
Flat Side Arm	88	150	1,151	0.005	5	187
Commscope RDIDC-9181-PF-48	78	22	132	0.001	1	27
Fujitsu TA08025-B605	78	225	1,357	0.006	6	280
Fujitsu TA08025-B604	78	192	1,156	0.005	5	239
JMA Wireless MX08FRO665-21	78	194	1,167	0.005	5	241
		33,825	235,219	1.000	1,015	42,091

**0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)**

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
36	125.365	42	659	0.003	3	36
35	122.5	299	4,444	0.019	19	256
34	118	264	3,635	0.016	16	226
33	115.5	71	940	0.004	4	61
32	112.5	365	4,578	0.020	20	312
31	109	151	1,772	0.008	8	129
30	107	153	1,736	0.007	7	131
29	105.5	91	1,005	0.004	4	78
28	102.5	465	4,841	0.021	21	398
27	99	190	1,850	0.008	8	163
26	96.5	305	2,819	0.012	12	261
25	93.3646	340	2,933	0.012	13	291
24	90.8646	325	2,657	0.011	11	278
23	89	381	2,990	0.013	13	326

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
22	87.9909	3	27	0.000	0	3
21	86.4909	370	2,741	0.012	12	316
20	82.5	636	4,289	0.018	19	544
19	79	260	1,608	0.007	7	222
18	76.5	404	2,344	0.010	10	346
17	72.5	689	3,592	0.015	15	590
16	67.5	709	3,204	0.014	14	607
15	62.5	729	2,824	0.012	12	624
14	57.5	749	2,456	0.010	11	641
13	52.5	769	2,102	0.009	9	658
12	49.1758	258	619	0.003	3	221
11	46.6758	994	2,149	0.009	9	851
10	44.1797	494	956	0.004	4	422
9	41.6797	618	1,065	0.004	5	528
8	37.5	939	1,311	0.006	6	804
7	32.5	963	1,010	0.004	4	824
6	27.5	987	741	0.003	3	844
5	22.5	1,011	509	0.002	2	865
4	17.5	1,035	315	0.001	1	885
3	12.5	1,059	165	0.001	1	906
2	7.5	1,082	61	0.000	0	926
1	2.5	1,106	7	0.000	0	947
DragonWave Horizon Compact	125.73	21	332	0.001	1	18
DragonWave A-ANT-23G-1-C	125.73	15	235	0.001	1	13
Alcatel-Lucent RRH2x50-08	125.73	317	4,969	0.021	21	272
Alcatel-Lucent 1900 MHz 4X45 RRH	125.73	180	2,818	0.012	12	154
Alcatel-Lucent TD-RRH8x20	125.73	198	3,104	0.013	13	170
Nokia 2.5G MAA - AAHC(64T64R)	125.73	311	4,866	0.021	21	266
DragonWave A-ANT-18G-2-C	125.73	27	424	0.002	2	23
Commscope NNVV-65B-R4	125.73	232	3,635	0.016	16	199
Generic Round T-Arm	125.73	938	14,676	0.062	63	802
Argus LLPX310R	125.73	86	1,343	0.006	6	73
Ericsson Radio 4449 B71 B85A	116	225	2,999	0.013	13	193
Ericsson RRUS 4415 B25	116	138	1,839	0.008	8	118
Ericsson AIR 6449 B41	116	305	4,062	0.017	18	261
Ericsson AIR32 B66Aa/B2a	116	397	5,286	0.022	23	339
RFS APXVAARR24_43-U-NA20	116	384	5,114	0.022	22	328
Generic Round Platform with Handrails	116	2,500	33,320	0.142	144	2,139
Generic Round Platform with Handrails	78	2,500	15,077	0.064	65	2,139
Ericsson AIR 6449 n77D	108	245	2,829	0.012	12	209
Raycap DC6-48-60-0-8F	106	33	365	0.002	2	28
Raycap DC6-48-60-18-8F ("Squid")	106	95	1,062	0.004	5	82
Ericsson Radio 8843 - B2 + B66A	106	216	2,401	0.010	10	185
Ericsson RRUS 4478 B14	106	180	2,000	0.008	9	154
Ericsson RRUS 4449 B5, B12	106	213	2,371	0.010	10	182
Ericsson RRUS 32 B30 (53 lbs)	106	159	1,770	0.008	8	136
Ericsson RRUS E2 B29	106	180	2,004	0.008	9	154
CCI OPA-65R-LCUU-H4	106	342	3,807	0.016	16	293
CCI DMP65R-BU4D	106	204	2,267	0.010	10	174
Quintel QD4616-7	106	327	3,640	0.016	16	280
Site Pro 1 RMQLP-4120-H10 Platform with Handrails	106	2,500	27,827	0.118	120	2,139
Ericsson AIR 6419 N77G	105	210	2,294	0.010	10	180
Generic RCU (Remote Control Unit)	98	3	29	0.000	0	3
Kathrein Scala 800 10504	98	53	502	0.002	2	45
Procom CXL 900-3LW	88	2	12	0.000	0	1
Generic 5" x 3" x 2" Cavity Filter	88	2	12	0.000	0	1
Generic Low Noise Amplifier	88	2	15	0.000	0	2
Flat Side Arm	88	150	1,151	0.005	5	128
Commscope RDIDC-9181-PF-48	78	22	132	0.001	1	19
Fujitsu TA08025-B605	78	225	1,357	0.006	6	193
Fujitsu TA08025-B604	78	192	1,156	0.005	5	164
JMA Wireless MX08FRO665-21	78	194	1,167	0.005	5	166
		33,825	235,219	1.000	1,015	28,941

1.2D + 1.0Ev + 1.0Eh Normal Seismic

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-40.71	-1.02	0.00	-110.22	0.00	110.22	3,765.29	942.58	3,842	3,494.42	0.00	0.00	0.04
5.00	-39.37	-1.03	0.00	-105.13	0.00	105.13	3,697.66	917.97	3,644	3,341.32	0.01	-0.01	0.04
10.00	-38.05	-1.03	0.00	-100.00	0.00	100.00	3,628.38	893.36	3,451	3,190.08	0.02	-0.02	0.04
15.00	-36.76	-1.04	0.00	-94.84	0.00	94.84	3,557.46	868.75	3,264	3,040.82	0.05	-0.03	0.04
20.00	-35.50	-1.04	0.00	-89.66	0.00	89.66	3,484.89	844.14	3,081	2,893.66	0.10	-0.05	0.04
25.00	-34.28	-1.05	0.00	-84.44	0.00	84.44	3,410.68	819.53	2,904	2,748.72	0.15	-0.06	0.04
30.00	-33.08	-1.05	0.00	-79.22	0.00	79.22	3,334.83	794.92	2,733	2,606.12	0.22	-0.07	0.04
35.00	-31.91	-1.05	0.00	-73.98	0.00	73.98	3,257.33	770.32	2,566	2,465.98	0.30	-0.08	0.04
40.00	-31.14	-1.05	0.00	-68.74	0.00	68.74	3,156.83	745.71	2,405	2,312.78	0.40	-0.10	0.04
43.36	-30.52	-1.05	0.00	-65.22	0.00	65.22	3,086.83	729.17	2,299	2,210.84	0.47	-0.11	0.04
45.00	-29.29	-1.04	0.00	-63.51	0.00	63.51	3,052.65	721.10	2,249	2,161.89	0.51	-0.11	0.04
48.35	-28.97	-1.04	0.00	-60.03	0.00	60.03	2,458.29	599.14	1,863	1,738.87	0.59	-0.12	0.05
50.00	-28.01	-1.03	0.00	-58.32	0.00	58.32	2,438.38	592.38	1,821	1,705.15	0.63	-0.13	0.05
55.00	-27.08	-1.03	0.00	-53.15	0.00	53.15	2,376.89	571.87	1,697	1,604.09	0.78	-0.14	0.05
60.00	-26.17	-1.02	0.00	-48.02	0.00	48.02	2,313.76	551.36	1,578	1,504.96	0.93	-0.16	0.04
65.00	-25.29	-1.01	0.00	-42.92	0.00	42.92	2,247.28	530.85	1,462	1,406.82	1.11	-0.18	0.04
70.00	-24.43	-1.00	0.00	-37.86	0.00	37.86	2,160.47	510.35	1,352	1,299.70	1.30	-0.19	0.04
75.00	-23.93	-0.99	0.00	-32.86	0.00	32.86	2,073.65	489.84	1,245	1,196.82	1.51	-0.21	0.04
78.00	-19.71	-0.89	0.00	-29.88	0.00	29.88	2,021.56	477.53	1,183	1,137.12	1.64	-0.22	0.04
80.00	-18.91	-0.87	0.00	-28.10	0.00	28.10	1,986.84	469.33	1,143	1,098.18	1.74	-0.22	0.04
85.00	-18.45	-0.86	0.00	-23.73	0.00	23.73	1,900.02	448.82	1,045	1,003.78	1.98	-0.24	0.03
87.98	-18.45	-0.87	0.00	-21.15	0.00	21.15	1,848.25	436.59	989	949.50	2.13	-0.25	0.03
88.00	-17.78	-0.85	0.00	-21.14	0.00	21.14	1,847.94	436.52	989	949.18	2.13	-0.25	0.03
90.00	-17.38	-0.83	0.00	-19.45	0.00	19.45	1,813.21	428.32	952	913.62	2.24	-0.25	0.03
91.73	-16.96	-0.82	0.00	-18.01	0.00	18.01	1,455.48	344.81	771	739.90	2.33	-0.26	0.04
95.00	-16.58	-0.81	0.00	-15.32	0.00	15.32	1,414.28	334.08	724	696.35	2.51	-0.27	0.03
98.00	-16.27	-0.80	0.00	-12.89	0.00	12.89	1,372.61	324.24	682	655.72	2.68	-0.28	0.03
100.00	-15.69	-0.78	0.00	-11.29	0.00	11.29	1,344.82	317.68	655	629.30	2.79	-0.28	0.03
105.00	-15.32	-0.76	0.00	-7.40	0.00	7.40	1,275.37	301.27	589	565.65	3.10	-0.29	0.03
106.00	-9.59	-0.51	0.00	-6.63	0.00	6.63	1,261.48	297.99	576	553.33	3.16	-0.29	0.02
108.00	-9.10	-0.49	0.00	-5.60	0.00	5.60	1,233.70	291.43	551	529.09	3.28	-0.30	0.02
110.00	-8.65	-0.47	0.00	-4.62	0.00	4.62	1,205.92	284.86	526	505.39	3.41	-0.30	0.02
115.00	-8.56	-0.47	0.00	-2.26	0.00	2.26	1,136.47	268.46	468	448.52	3.72	-0.31	0.01
116.00	-3.32	-0.20	0.00	-1.79	0.00	1.79	1,122.58	265.18	456	437.56	3.79	-0.31	0.01
120.00	-2.95	-0.18	0.00	-1.00	0.00	1.00	1,067.02	252.05	412	395.05	4.05	-0.31	0.01
125.00	-2.89	-0.17	0.00	-0.13	0.00	0.13	997.57	235.65	360	344.97	4.37	-0.31	0.00
125.73	0.00	-0.16	0.00	0.00	0.00	0.00	987.43	233.25	353	337.94	4.42	-0.31	0.00

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-27.99	-1.02	0.00	-108.02	0.00	108.02	3,765.29	942.58	3,842	3,494.42	0.00	0.00	0.04
5.00	-27.07	-1.02	0.00	-102.93	0.00	102.93	3,697.66	917.97	3,644	3,341.32	0.01	-0.01	0.04
10.00	-26.16	-1.03	0.00	-97.82	0.00	97.82	3,628.38	893.36	3,451	3,190.08	0.02	-0.02	0.04
15.00	-25.28	-1.03	0.00	-92.69	0.00	92.69	3,557.46	868.75	3,264	3,040.82	0.05	-0.03	0.04
20.00	-24.41	-1.03	0.00	-87.55	0.00	87.55	3,484.89	844.14	3,081	2,893.66	0.09	-0.05	0.04
25.00	-23.57	-1.03	0.00	-82.39	0.00	82.39	3,410.68	819.53	2,904	2,748.72	0.15	-0.06	0.04
30.00	-22.74	-1.03	0.00	-77.23	0.00	77.23	3,334.83	794.92	2,733	2,606.12	0.22	-0.07	0.04
35.00	-21.94	-1.03	0.00	-72.06	0.00	72.06	3,257.33	770.32	2,566	2,465.98	0.30	-0.08	0.04
40.00	-21.41	-1.03	0.00	-66.91	0.00	66.91	3,156.83	745.71	2,405	2,312.78	0.39	-0.10	0.04
43.36	-20.99	-1.03	0.00	-63.45	0.00	63.45	3,086.83	729.17	2,299	2,210.84	0.46	-0.11	0.04
45.00	-20.14	-1.02	0.00	-61.77	0.00	61.77	3,052.65	721.10	2,249	2,161.89	0.50	-0.11	0.04
48.35	-19.92	-1.02	0.00	-58.35	0.00	58.35	2,458.29	599.14	1,863	1,738.87	0.58	-0.12	0.04
50.00	-19.26	-1.01	0.00	-56.68	0.00	56.68	2,438.38	592.38	1,821	1,705.15	0.62	-0.12	0.04
55.00	-18.62	-1.00	0.00	-51.62	0.00	51.62	2,376.89	571.87	1,697	1,604.09	0.76	-0.14	0.04
60.00	-17.99	-1.00	0.00	-46.60	0.00	46.60	2,313.76	551.36	1,578	1,504.96	0.91	-0.15	0.04
65.00	-17.39	-0.98	0.00	-41.63	0.00	41.63	2,247.28	530.85	1,462	1,406.82	1.08	-0.17	0.04
70.00	-16.80	-0.97	0.00	-36.70	0.00	36.70	2,160.47	510.35	1,352	1,299.70	1.27	-0.19	0.04
75.00	-16.45	-0.96	0.00	-31.85	0.00	31.85	2,073.65	489.84	1,245	1,196.82	1.47	-0.20	0.04
78.00	-13.55	-0.87	0.00	-28.96	0.00	28.96	2,021.56	477.53	1,183	1,137.12	1.60	-0.21	0.03
80.00	-13.00	-0.85	0.00	-27.22	0.00	27.22	1,986.84	469.33	1,143	1,098.18	1.69	-0.22	0.03
85.00	-12.69	-0.84	0.00	-22.98	0.00	22.98	1,900.02	448.82	1,045	1,003.78	1.93	-0.23	0.03
87.98	-12.69	-0.84	0.00	-20.48	0.00	20.48	1,848.25	436.59	989	949.50	2.08	-0.24	0.03

ASSET: 302469, Bridgeport CT 2  
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H  
 ENG NO: 13682687\_C3\_03

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
88.00	-12.23	-0.82	0.00	-20.46	0.00	20.46	1,847.94	436.52	989	949.18	2.08	-0.24	0.03
90.00	-11.95	-0.81	0.00	-18.82	0.00	18.82	1,813.21	428.32	952	913.62	2.18	-0.25	0.03
91.73	-11.66	-0.80	0.00	-17.43	0.00	17.43	1,455.48	344.81	771	739.90	2.27	-0.25	0.03
95.00	-11.40	-0.78	0.00	-14.83	0.00	14.83	1,414.28	334.08	724	696.35	2.44	-0.26	0.03
98.00	-11.19	-0.77	0.00	-12.47	0.00	12.47	1,372.61	324.24	682	655.72	2.61	-0.27	0.03
100.00	-10.79	-0.75	0.00	-10.93	0.00	10.93	1,344.82	317.68	655	629.30	2.72	-0.27	0.03
105.00	-10.53	-0.74	0.00	-7.16	0.00	7.16	1,275.37	301.27	589	565.65	3.01	-0.28	0.02
106.00	-6.59	-0.50	0.00	-6.42	0.00	6.42	1,261.48	297.99	576	553.33	3.07	-0.29	0.02
108.00	-6.26	-0.48	0.00	-5.43	0.00	5.43	1,233.70	291.43	551	529.09	3.19	-0.29	0.02
110.00	-5.94	-0.46	0.00	-4.47	0.00	4.47	1,205.92	284.86	526	505.39	3.32	-0.29	0.01
115.00	-5.88	-0.45	0.00	-2.19	0.00	2.19	1,136.47	268.46	468	448.52	3.63	-0.30	0.01
116.00	-2.28	-0.19	0.00	-1.74	0.00	1.74	1,122.58	265.18	456	437.56	3.69	-0.30	0.01
120.00	-2.02	-0.17	0.00	-0.97	0.00	0.97	1,067.02	252.05	412	395.05	3.94	-0.30	0.00
125.00	-1.99	-0.17	0.00	-0.12	0.00	0.12	997.57	235.65	360	344.97	4.26	-0.30	0.00
125.73	0.00	-0.16	0.00	0.00	0.00	0.00	987.43	233.25	353	337.94	4.30	-0.30	0.00

ANALYSIS SUMMARY

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W Normal	19.41	0.00	40.56	0.00	0.00	1858.67	48.35	0.57
0.9D + 1.0W Normal	19.39	0.00	30.41	0.00	0.00	1829.67	48.35	0.55
1.2D + 1.0Di + 1.0Wi Normal	5.06	0.00	57.44	0.00	0.00	479.58	48.35	0.16
1.2D + 1.0Ev + 1.0Eh Normal	1.05	0.00	40.71	0.00	0.00	110.22	48.35	0.05
0.9D - 1.0Ev + 1.0Eh Normal	1.03	0.00	27.99	0.00	0.00	108.02	48.35	0.04
1.0D + 1.0W Service Normal	4.41	0.00	33.82	0.00	0.00	418.73	48.35	0.13

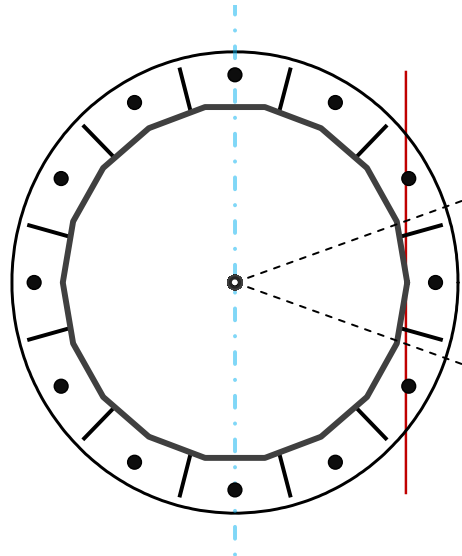
## Base Plate & Anchor Rod Analysis

Pole Dimensions		
Number of Sides	18	-
Diameter	45.5	in
Thickness	3/8	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	1,858.7	k-ft
Axial, Pu	40.6	k
Shear, Vu	19.4	k
Neutral Axis	270	°

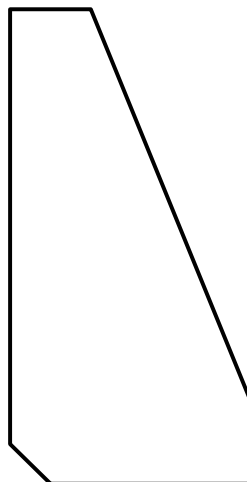
Report Capacities		
Component	Capacity	Result
Base Plate	25%	Pass
Anchor Rods	62%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, $\phi$	60	in
Thickness	1 3/4	in
Grade	A871-60	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Clip	N/A	in
Orientation Offset	0	°
Anchor Rod Detail	d	$\eta=0.5$
Clear Distance	3	in
Applied Moment, Mu	441.9	k
Bending Stress, $\phi Mn$	1796.5	k



Original Anchor Rods		
Arrangement	Radial	-
Quantity	12	-
Diameter, $\phi$	2 1/4	in
Bolt Circle	54	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	14.1	in
Orientation Offset	0	°
Applied Force, Pu	147.3	k
Anchor Rods, $\phi Pn$	243.6	k

Stiffeners		
Arrangement	Radial	-
Quantity	12	-
Height	12	in
Width	6	in
Effective Width	6.000	in
Thickness	1/2	in
Effective Thickness	0.500	in
Notch	1	in
Flat Edge	2	in
Grade	A572-50	-
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Horizontal Weld		Fillet
Horizontal Fillet Size	1/2	in
Bevel Depth		in
Vertical Weld		Fillet
Vertical Fillet Size	3/8	in
Weld Strength	70	ksi
Electrode Coefficient	1	-
Orientation Offset		°
Vertical Weld, $\phi Rn$	198.2	k
Horz. Weld, $\phi Rn$	111.2	k
Ten. Capacity, $\phi Tn$	109.7	k
Comp. Capacity, $\phi Pn$	227.0	k



# Calculations for Monopole Base Plate & Anchor Rod Analysis

## Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	19.4	1858.7	1.00
Anchor Rod Forces	19.4	1858.7	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	7.8	744.9	0.40

## Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in <sup>2</sup>	in <sup>2</sup>	in <sup>4</sup>	#	in <sup>4</sup>
Pole	52.8921	2.9385	0.1383		13465.30
Bolt	3.9761	3.2477	0.8393	4.5	12993.40
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	2.5000	2.2500	36.0000		9005.72

Base Plate		
Shape	Round	-
Diameter, D	60	in
Thickness, t	1.75	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Base Plate Chord	39.112	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	3	-

Anchor Rods		
Anchor Rod Quantity, N	12	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	54	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	147.3	k
Applied Shear, Vu	1.3	k
Compressive Capacity, φPn	243.6	k
Tensile Capacity, φRnt	0.605	OK
Interaction Capacity	0.615	OK

Base Plate Stiffeners		
Applied Axial Force, Pu	56.9	k
Applied Horizontal Force, Vu	0.32	k

Vertical Weld		
Vert.-to-Stiffener a=e <sub>x</sub> /l	0.167	-
Spacing Ratio, k	0.042	-
Weld Coefficient, C	3.670	-
Compressive Capacity, φPn	198.2	k
Vert.-to-Plate a=e <sub>x</sub> /l	0.333	-
Spacing Ratio, k	0.042	-
Weld Coefficient, C	2.940	-
Shear Capacity, φVn	158.8	k
P <sub>u</sub> /φ <sub>p</sub> P <sub>n</sub> + V <sub>u</sub> /φ <sub>v</sub> V <sub>n</sub>	0.289	OK

External Base Plate		
Chord Length AA	33.326	in
Additional AA	10.128	in
Section Modulus, Z	33.269	in <sup>3</sup>
Applied Moment, Mu	441.9	k-ft
Bending Capacity, φMn	1796.5	k-ft
Capacity, Mu/φMn	0.246	OK

Chord Length AB	32.340	in
Additional AB	9.167	in
Section Modulus, Z	31.779	in <sup>3</sup>
Applied Moment, Mu	390.0	k-ft
Bending Capacity, φMn	1716.0	k-ft
Capacity, Mu/φMn	0.227	OK

Bend Line Length	21.434	in
Additional Bend Line	55.175	in
Section Modulus, Z	58.653	in <sup>3</sup>
Applied Moment, Mu	441.9	k-ft
Bending Capacity, φMn	3167.3	k-ft
Capacity, Mu/φMn	0.140	OK

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in <sup>3</sup>
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	0.0	k-ft
Capacity, Mu/φMn		

Horizontal Weld		
Horz.-to-Stiffener a=e <sub>x</sub> /l	0.167	-
Spacing Ratio, k	0.083	-
Weld Coefficient, C	2.940	-
Effective Fillet	0.500	in
Compressive Capacity, φPn	105.8	k
Horz.-to-Pole a=e <sub>x</sub> /l	0.333	-
Spacing Ratio, k	0.083	-
Weld Coefficient, C	3.090	-
Shear Capacity, φVn	111.2	k
P <sub>u</sub> /φ <sub>p</sub> P <sub>n</sub> + V <sub>u</sub> /φ <sub>v</sub> V <sub>n</sub>	0.541	OK

Plate Tension		
Gross Cross Section	2.500	in <sup>2</sup>
Net Cross Section	2.250	in <sup>2</sup>
Tensile Capacity, φTn	109.7	k
Capacity, Tu/φTn	0.259	OK

Plate Compression		
Radius of Gyration	0.144	in <sup>3</sup>
kl/r	49.88	-
4.71 √(E/Fy)	113.43	-
Buckling Stress(F <sub>e</sub> )	115.0	-
Crit. Buckling Stress(F <sub>cr</sub> )	100.9	ksi
Compressive Capacity, φPn	227.0	k
Capacity, Pu/φPn	0.125	OK



**AMERICAN TOWER®**  
CORPORATION

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## Mount Analysis Report

**ATC Site Name** : Bridgeport CT 2, CT  
**ATC Site Number** : 302469  
**Engineering Number** : 13682687\_C8\_01  
**Mount Elevation** : 107 ft  
**Carrier** : AT&T Mobility  
**Carrier Site Name** : MRCTB050769  
**Carrier Site Number** : N/A  
**Site Location** : 1069 Connecticut Avenue  
Bridgeport, CT 06607-1226  
41.18361667 , -73.15838333  
**County** : Fairfield  
**Date** : November 4, 2021  
**Max Usage** : 76%  
**Result** : Contingent Pass

Prepared By:  
Garrett Williams  
Structural Engineer

*Garrett Williams*

Reviewed By:



**COA: PEC.0001553**





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Calculations ..... Attached



## Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 107 ft.

## Supporting Documents

<b>Specifications Sheet</b>	Site Pro 1 RMQLP-4120-H10, dated October 18, 2019
<b>Radio Frequency Data Sheet</b>	RFDS ID #10084453, dated September 23, 2021

## Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

<b>Basic Wind Speed:</b>	119 mph (3-Second Gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-Second Gust) w/ 1" radial ice concurrent
<b>Codes:</b>	ANSI/TIA-222-H
<b>Exposure Category:</b>	B
<b>Risk Category:</b>	II
<b>Topographic Factor Procedure:</b>	Method 2
<b>Feature:</b>	Flat
<b>Crest Height (H):</b>	0 ft
<b>Crest Length (L):</b>	0 ft
<b>Spectral Response:</b>	Ss = 0.208, S1 = 0.054
<b>Site Class:</b>	D - Stiff Soil
<b>Live Loads:</b>	Lm = 500 lbs

\* Based on experience, it has been determined that the Lv load cases will not control over Lm load cases in platform mount analyses. Therefore, these load cases have been excluded from this analysis.

## Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Install P2 (2.375" x 120") antenna mounting pipe (Mount Pipe D, I, & N) with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.
- Install P2 (2.375" x 60") antenna mounting pipe (Mount Pipe P, Q, & R) with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.
- Analysis is based on new Site Pro 1 RMQLP-4120-H10 (ANT.44987) platform mount.

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



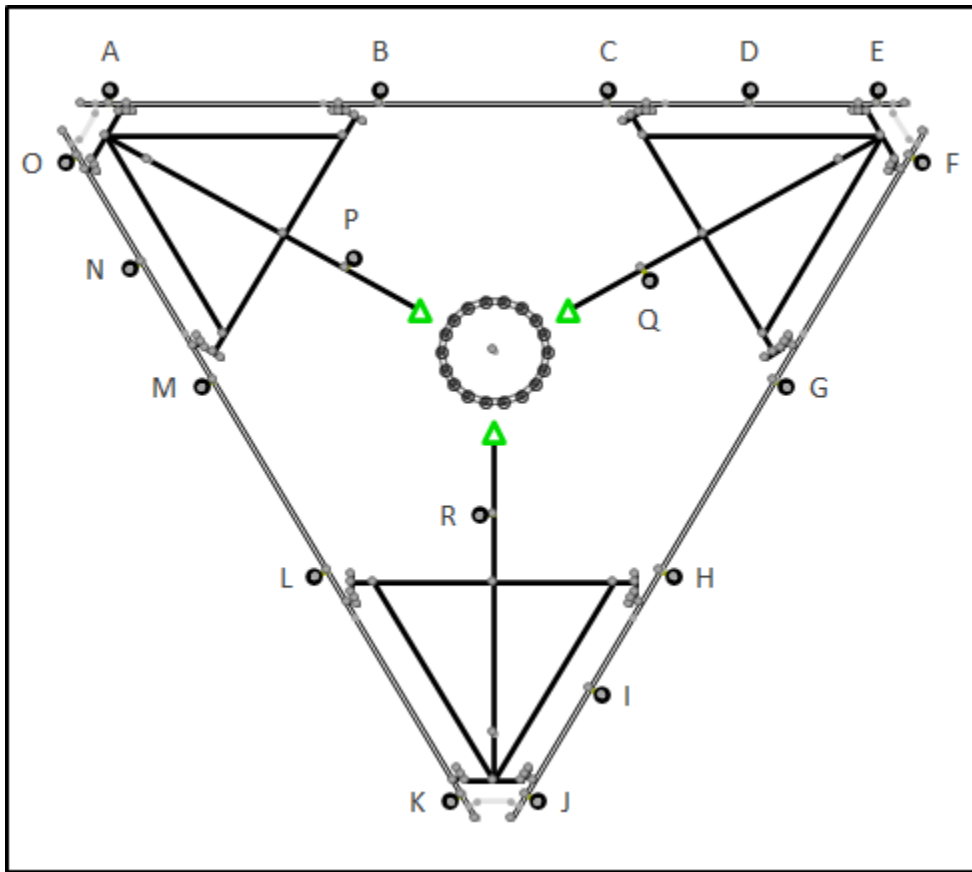
**Application Loading**

Mount Centerline (ft)	Equipment Centerline (ft)	Qty	Equipment Manufacturer & Model
107.0	108.0	3	Ericsson AIR 6449 n77D
	106.0	3	Quintel QD4616-7
		3	CCI DMP65R-BU4D
		6	CCI OPA-65R-LCUU-H4
		1	Raycap DC6-48-60-0-8F
		3	Raycap DC6-48-60-18-8F ("Squid")
		3	Ericsson RRUS 32 B30 (53 lbs)
		3	Ericsson RRUS E2 B29
		3	Ericsson RRUS 4449 B5, B12
		3	Ericsson RRUS 4478 B14
		3	Ericsson Radio 8843 - B2 + B66A
	105.0	3	Ericsson AIR 6419 N77G

**Structure Usages**

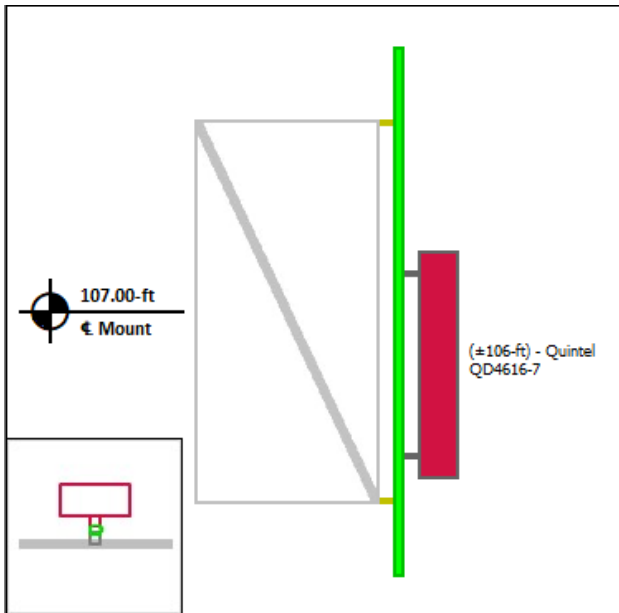
Structural Component	Controlling Usage	Pass/Fail
Horizontals	76%	Pass
Tie-Backs	15%	Pass
Mount Pipes	26%	Pass

**Mount Layout**

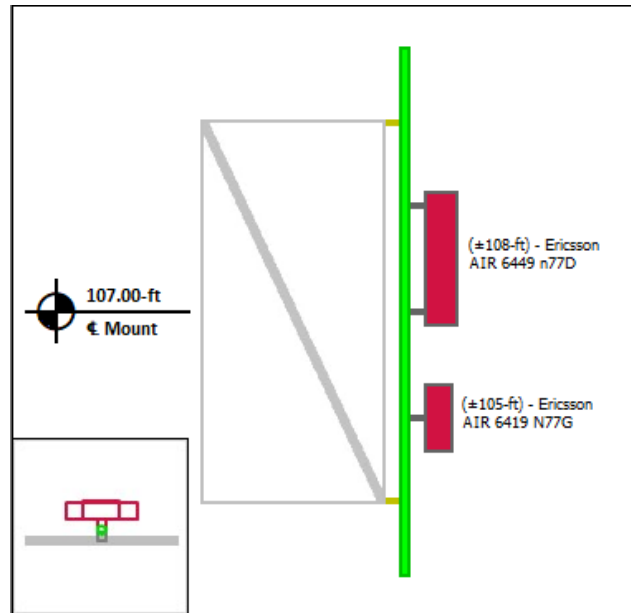


**Equipment Layout**

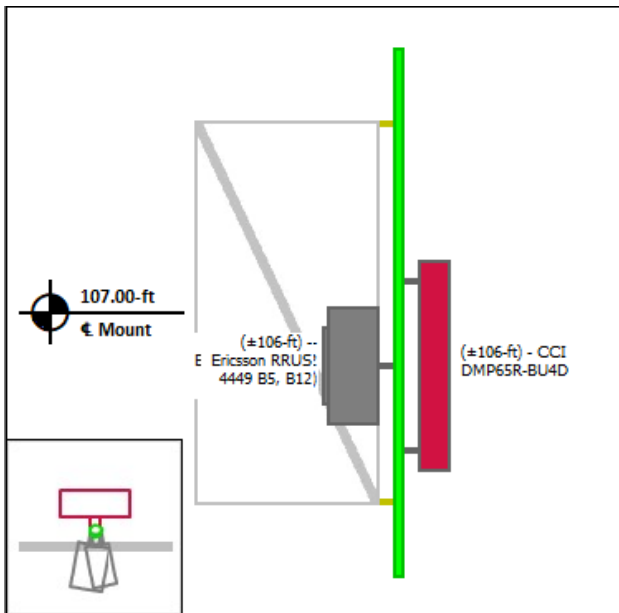
**Mount Pipe A**



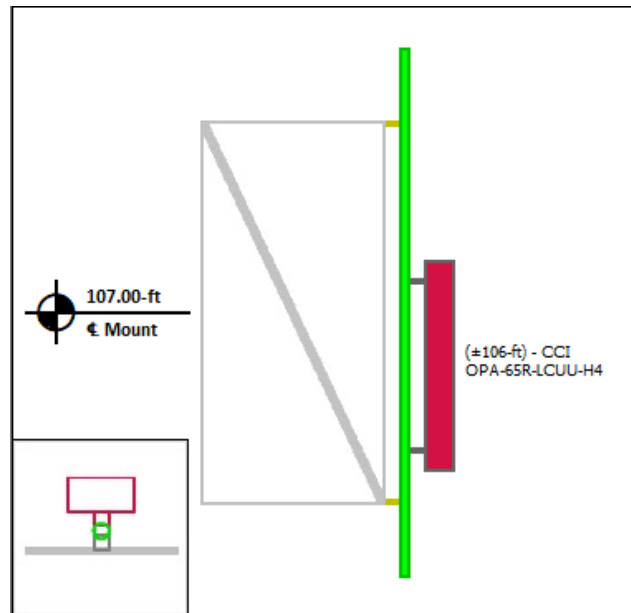
**Mount Pipe B**



**Mount Pipe C**

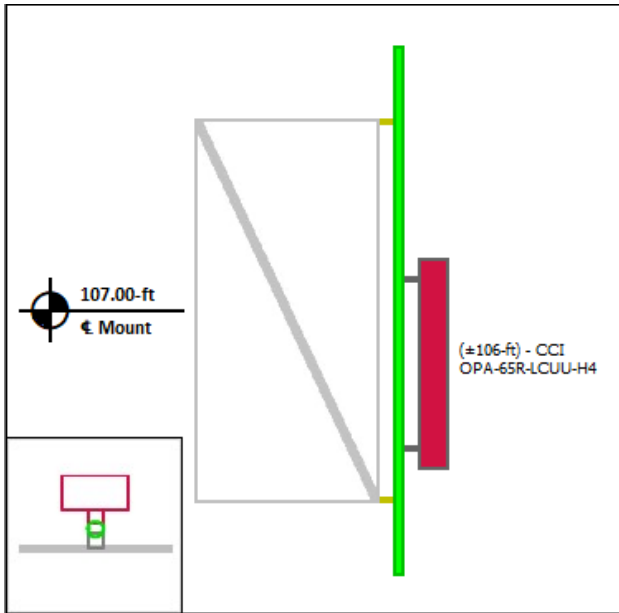


**Mount Pipe D**

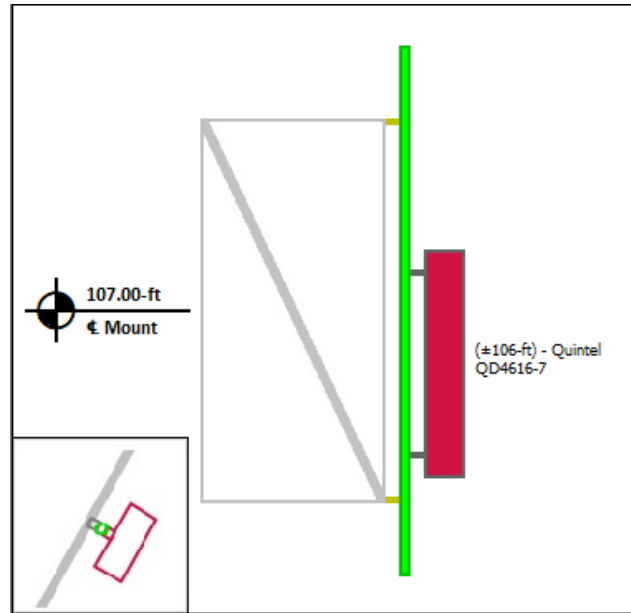


**Equipment Layout Cont'd.**

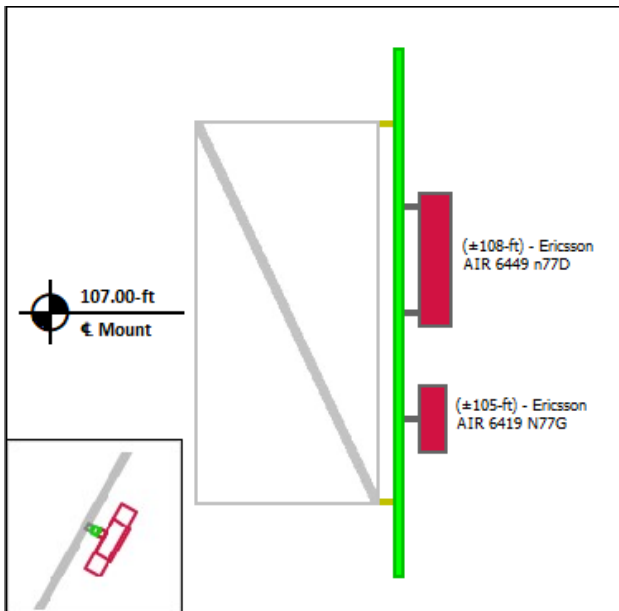
**Mount Pipe E**



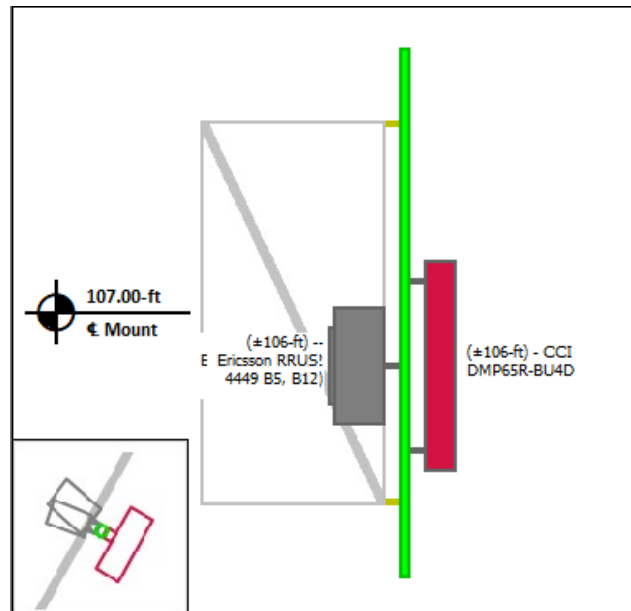
**Mount Pipe F**



**Mount Pipe G**

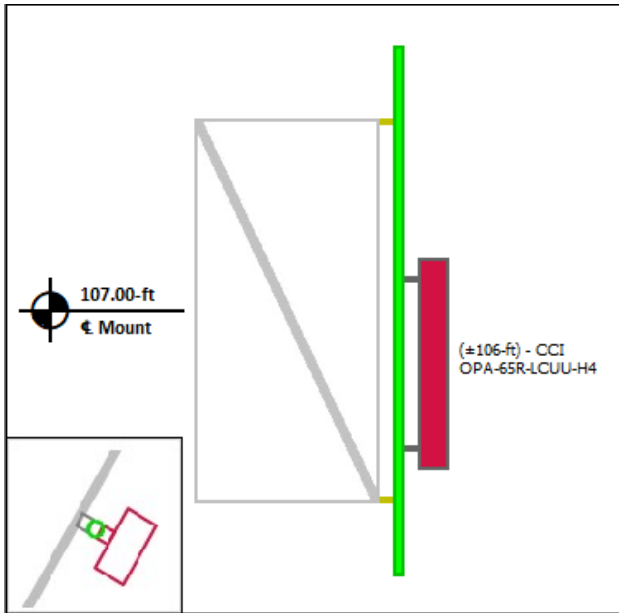


**Mount Pipe H**

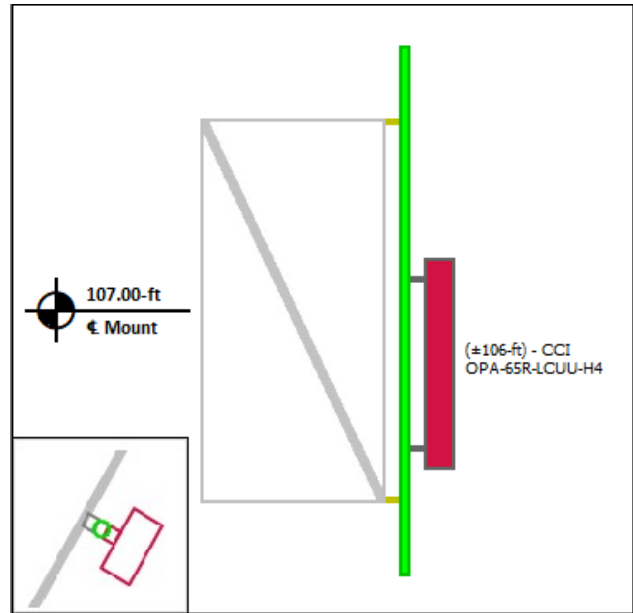


**Equipment Layout Cont'd.**

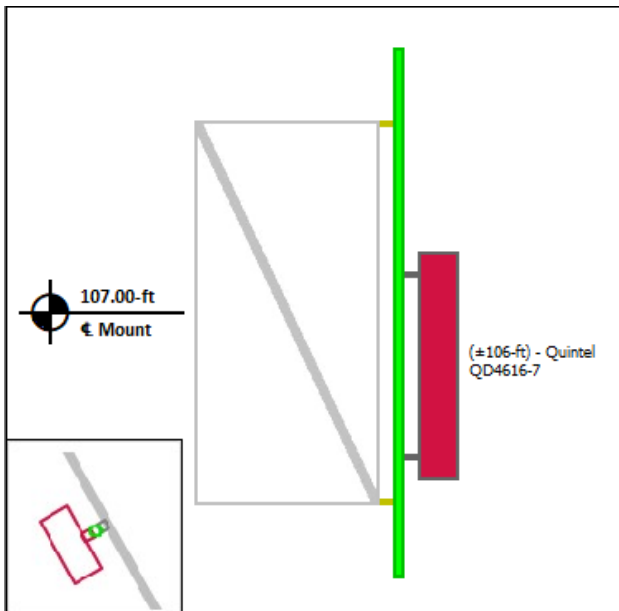
**Mount Pipe I**



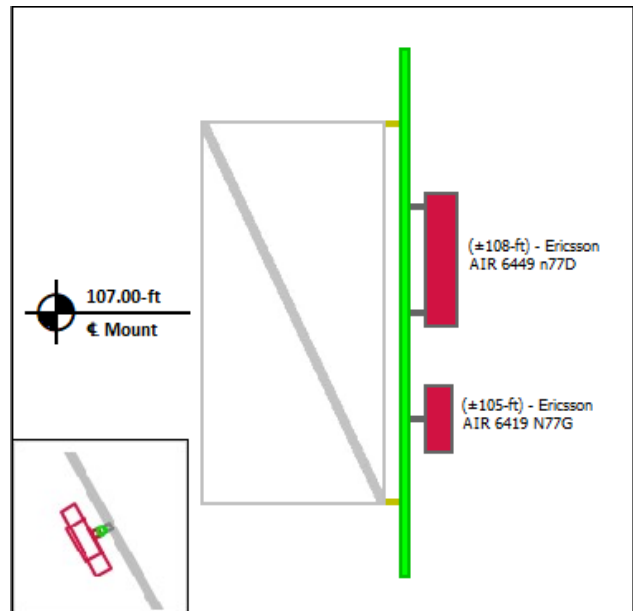
**Mount Pipe J**



**Mount Pipe K**

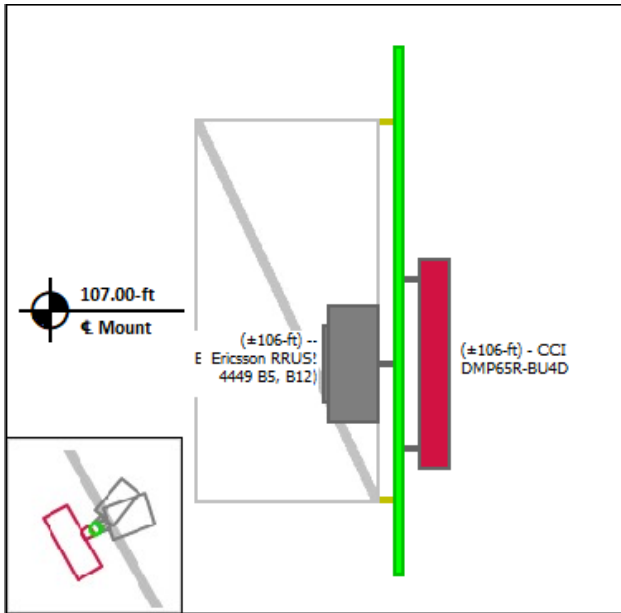


**Mount Pipe L**

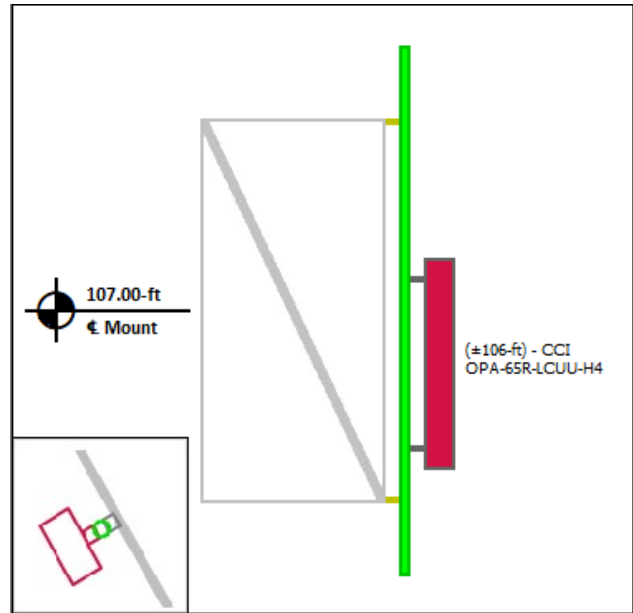


**Equipment Layout Cont'd.**

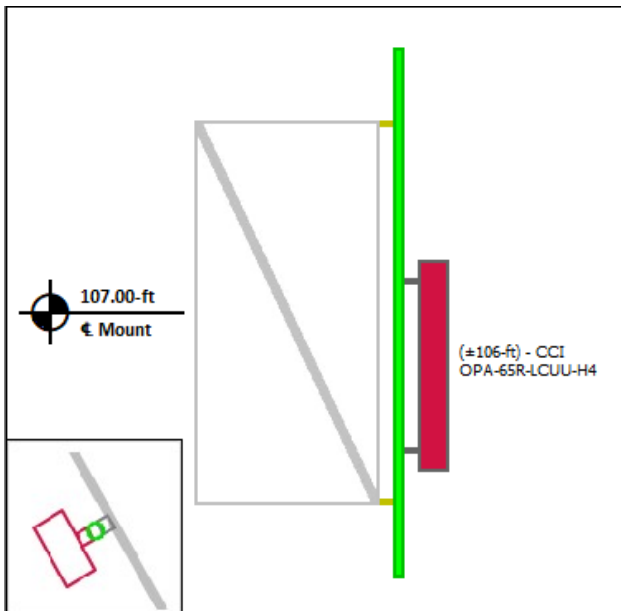
**Mount Pipe M**



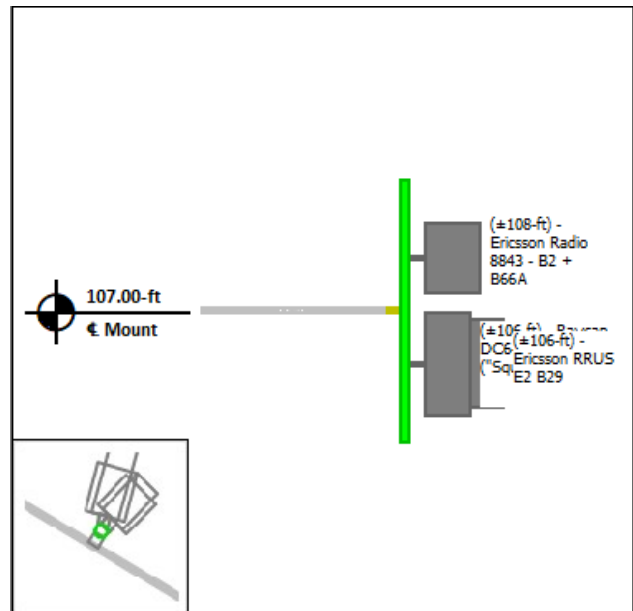
**Mount Pipe N**



**Mount Pipe O**



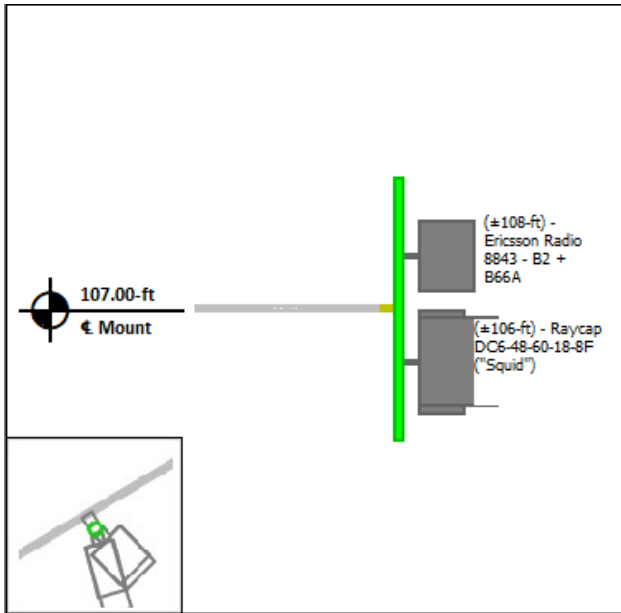
**Mount Pipe P**



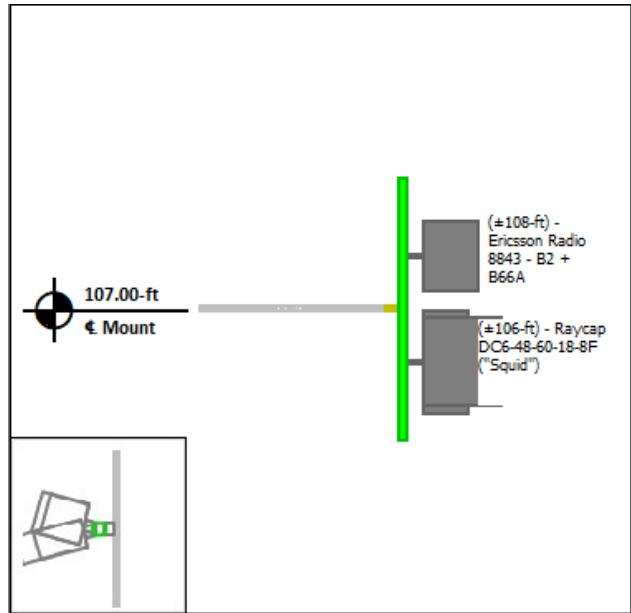


**Equipment Layout Cont'd.**

**Mount Pipe Q**



**Mount Pipe R**





### **Standard Conditions**

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding equipment, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.



**Site Number:** 302469  
**Project Number:** 13682687\_C8\_01  
**Carrier:** AT&T Mobility  
**Mount Elevation:** 107 ft  
**Date:** 11/4/2021

## Mount Analysis Force Calculations

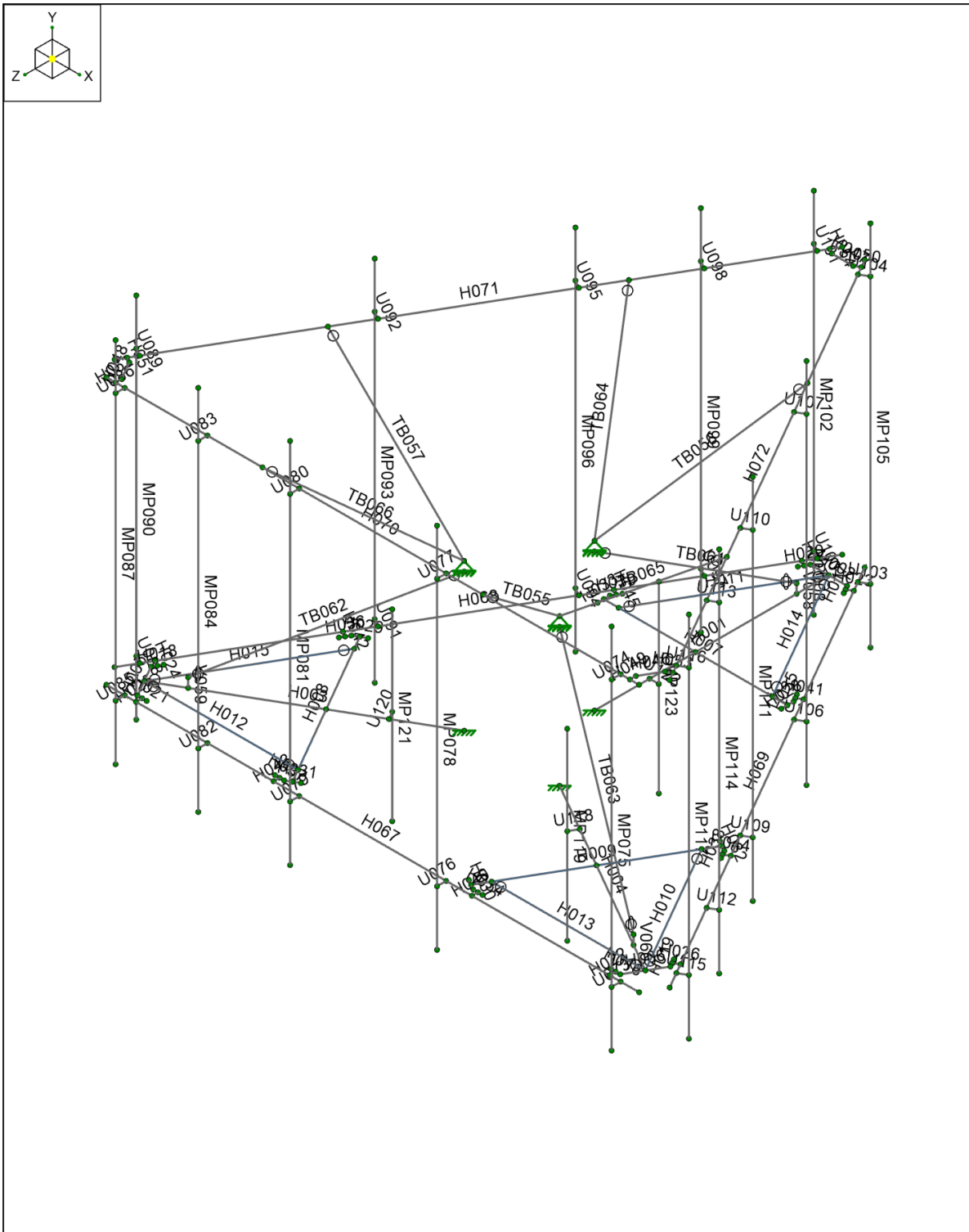
Wind & Ice Load Calculations			
Velocity Pressure Coefficient	$K_z$	1.01	
Topographic Factor	$K_{zt}$	1.00	
Rooftop Wind Speed-up Factor	$K_s$	1.00	
Shielding Factor	$K_a$	0.90	
Ground Elevation Factor	$K_e$	1.00	
Wind Direction Probability Factor	$K_d$	0.95	
Basic Wind Speed	$V$	119	mph
Velocity Pressure	$q_z$	34.7	psf
Height Escalation Factor	$K_{iz}$	1.12	
Thickness of Radial Glaze Ice	$T_{iz}$	1.12	in

Seismic Load Calculations			
Short Period DSRAP	$S_{Ds}$	0.222	
1 Second DSRAP	$S_{D1}$	0.086	
Importance Factor	$I$	1.0	
Response Modification Coefficient	$R$	2.0	
Seismic Response Coefficient	$C_s$	0.111	
Amplification Factor	$A$	1.0	
Total Weight	$W$	4287.6	lbs
Total Shear Force	$V_s$	475.6	lbs
Horizontal Seismic Load	$E_h$	475.6	lbs
Vertical Seismic Load	$E_v$	190.3	lbs

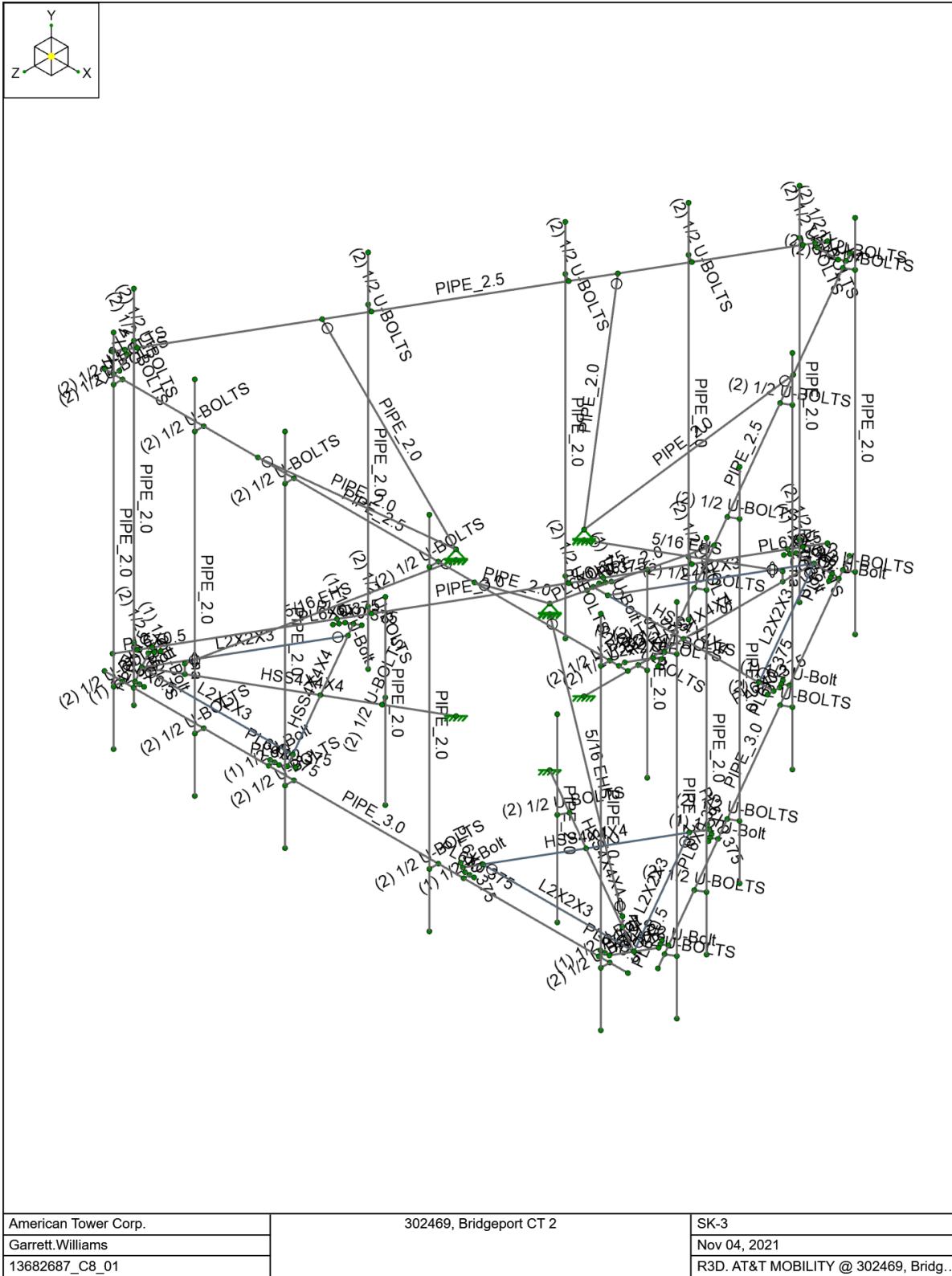
Antenna Calculations (Elevations per Application/RFDS)*								
Equipment	Height	Width	Depth	Weight	$EPA_N$	$EPA_T$	$EPA_{Ni}$	$EPA_{Ti}$
Model #	in	in	in	lbs	sqft	sqft	sqft	sqft
Ericsson AIR 6449 n77D	30.4	15.9	8.1	81.6	4.03	1.34	4.94	1.84
Quintel QD4616-7	51.5	22.0	9.6	109.0	9.44	3.06	10.86	3.94
CCI DMP65R-BU4D	48.0	20.7	7.7	67.9	8.28	1.51	9.61	2.04
CCI OPA-65R-LCUU-H4	48.0	14.8	7.4	57.0	6.08	1.49	7.34	2.03
Raycap DC6-48-60-0-8F	22.3	11.0	11.0	32.8	N/A	N/A	N/A	N/A
Raycap DC6-48-60-18-8F ("Squid")	24.0	11.0	11.0	31.8	2.20	2.20	2.90	2.90
Ericsson RRUS 32 B30 (53 lbs)	27.2	12.1	7.0	53.0	2.74	1.67	3.52	2.39
Ericsson RRUS E2 B29	20.4	18.5	7.5	60.0	3.15	1.29	3.92	1.86
Ericsson RRUS 4449 B5, B12	17.9	13.2	9.4	71.0	1.97	1.40	2.59	1.96
Ericsson RRUS 4478 B14	16.5	13.4	7.7	59.9	1.84	1.06	2.45	1.55
Ericsson Radio 8843 - B2 + B66A	15.0	13.2	10.9	71.9	1.65	1.36	2.22	1.89
Ericsson AIR 6419 N77G	15.7	30.0	6.7	70.0	3.93	0.40	4.82	0.60

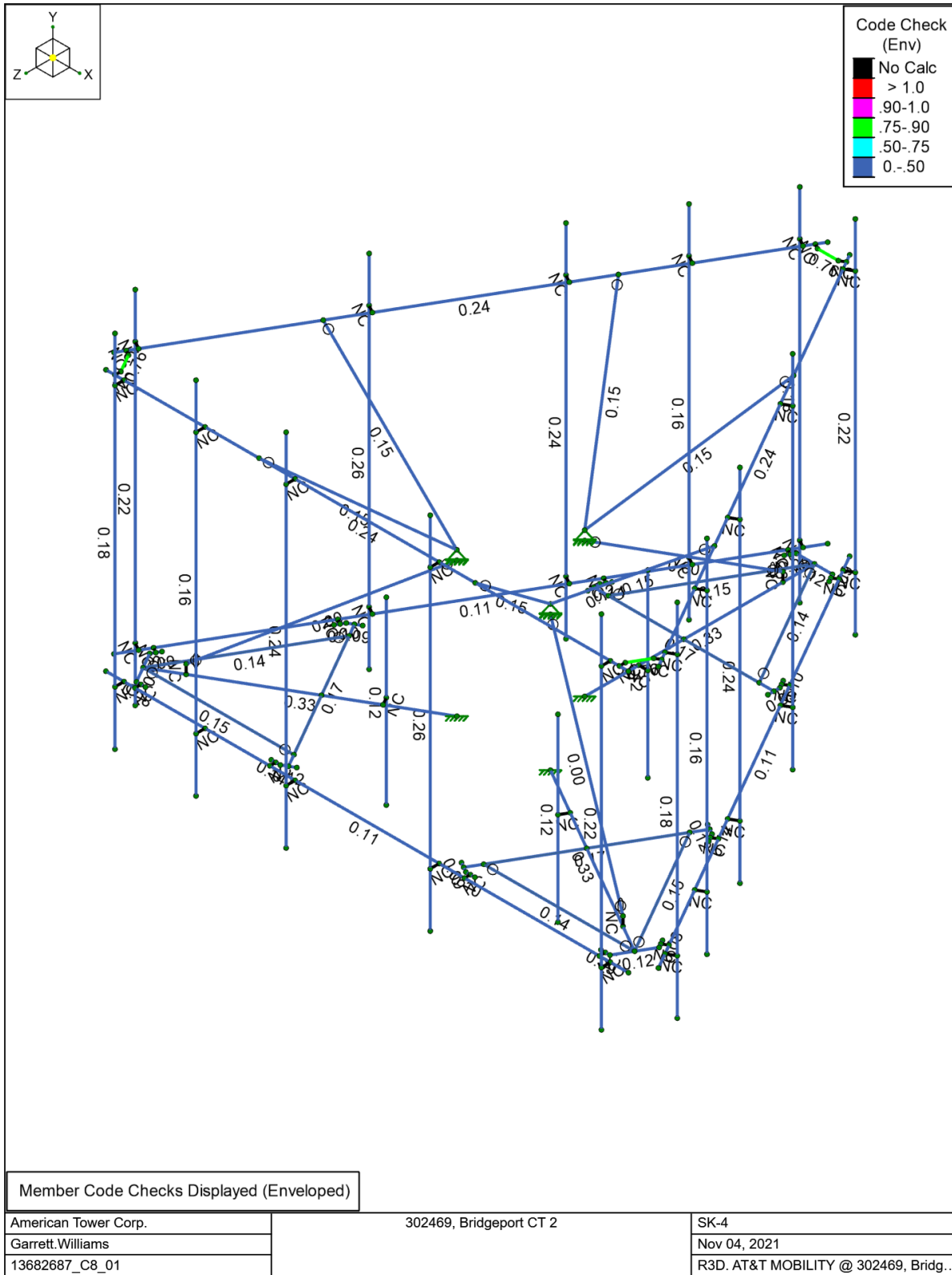
\* Equipment with EPA values N/A were not considered in the mount analysis

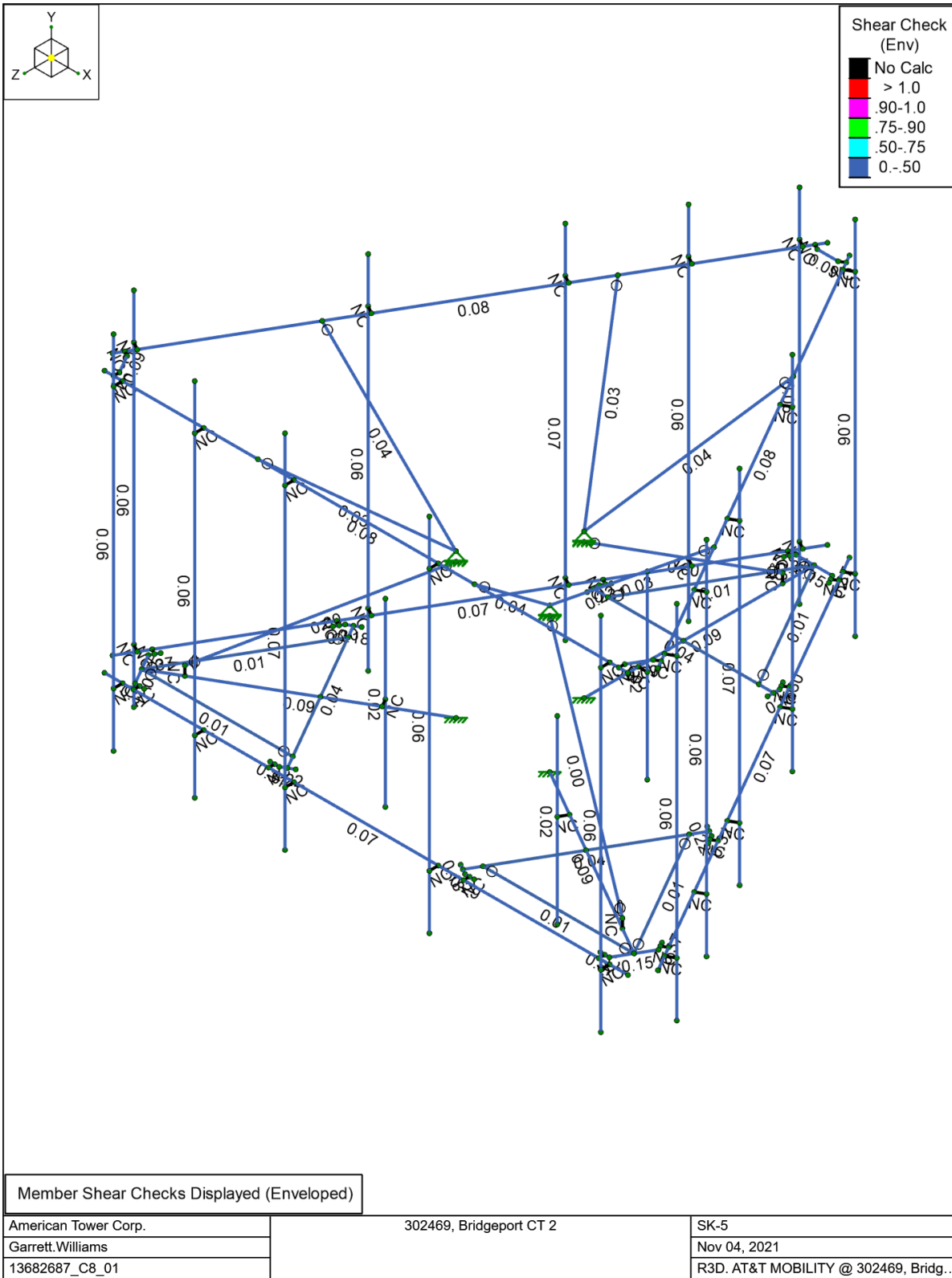




American Tower Corp.	302469, Bridgeport CT 2	SK-2
Garrett.Williams		Nov 04, 2021
13682687_C8_01		R3D. AT&T MOBILITY @ 302469, Bridg...











Company : American Tower Corp.  
 Designer : Garrett.Williams  
 Job Number : 13682687\_C8\_01  
 Model Name : 302469, Bridgeport CT 2

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**Node Boundary Conditions**

Node Label	X [lb/in]	Y [lb/in]	Z [lb/in]	X Rot [k-in/rad]	Y Rot [k-in/rad]	Z Rot [k-in/rad]
1 N002	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2 N006	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3 N007	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4 N107	Reaction	Reaction	Reaction			
5 N108	Reaction	Reaction	Reaction			
6 N109	Reaction	Reaction	Reaction			
7 N116	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
8 N117	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
9 N118	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

**Member Primary Data**

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1 H001	N002	N003		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
2 H002	N004	N005		PL6X0.5	Beam	None	A36	Typical
3 H003	N006	N012		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
4 H004	N007	N013		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
5 H005	N008	N010		PL6X0.5	Beam	None	A36	Typical
6 H006	N009	N011		PL6X0.5	Beam	None	A36	Typical
7 H007	N015	N016		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
8 H008	N021	N023		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
9 H009	N022	N024		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
10 H010	N029	N013		L2X2X3	Beam	None	A36	Typical
11 H011	N030	N003		L2X2X3	Beam	None	A36	Typical
12 H012	N025	N012		L2X2X3	Beam	None	A36	Typical
13 H013	N026	N013	270	L2X2X3	Beam	None	A36	Typical
14 H014	N027	N003	270	L2X2X3	Beam	None	A36	Typical
15 H015	N028	N012	270	L2X2X3	Beam	None	A36	Typical
16 H016	N009	N032		PL6X0.5	Beam	None	A36	Typical
17 H017	N004	N038		PL6X0.5	Beam	None	A36	Typical
18 H018	N008	N039		PL6X0.5	Beam	None	A36	Typical
19 H019	N011	N044		PL6X0.5	Beam	None	A36	Typical
20 H020	N005	N045		PL6X0.5	Beam	None	A36	Typical
21 H021	N010	N033		PL6X0.5	Beam	None	A36	Typical
22 H022	N034	N036		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
23 H023	N040	N046		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
24 H024	N041	N047		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
25 H025	N035	N037		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
26 H026	N042	N048		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
27 H027	N043	N049		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
28 H028	N050	N051		PL6X0.375	Beam	None	A36	Typical
29 H029	N052	N054		PL6X0.375	Beam	None	A36	Typical
30 H030	N053	N055		PL6X0.375	Beam	None	A36	Typical
31 H031	N056	N058		PL6X0.375	Beam	None	A36	Typical
32 H032	N057	N059		PL6X0.375	Beam	None	A36	Typical
33 H033	N060	N031		PL6X0.375	Beam	None	A36	Typical
34 H034	N055	N061		PL6X0.375	Beam	None	A36	Typical
35 H035	N051	N067		PL6X0.375	Beam	None	A36	Typical
36 H036	N054	N068		PL6X0.375	Beam	None	A36	Typical
37 H037	N058	N062		PL6X0.375	Beam	None	A36	Typical
38 H038	N059	N069		PL6X0.375	Beam	None	A36	Typical
39 H039	N031	N070		PL6X0.375	Beam	None	A36	Typical
40 H040	N063	N065		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
41 H041	N071	N075		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
42 H042	N072	N076		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
43 H043	N064	N066		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
44 H044	N073	N077		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
45 H045	N074	N078		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
46 H046	N095	N099	90	L2X2X4	Beam	None	A36	Typical
47 H047	N096	N100	90	L2X2X4	Beam	None	A36	Typical
48 H048	N097	N098	90	L2X2X4	Beam	None	A36	Typical
49 H049	N089	N095		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
50 H050	N091	N096		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
51 H051	N092	N097		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
52 H052	N090	N098		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
53 H053	N093	N099		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
54 H054	N094	N100		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
55 TB055	N102	N109		PIPE_2.0	Column	None	A53 Gr. B	Typical



Company : American Tower Corp.  
 Designer : Garrett.Williams  
 Job Number : 13682687\_C8\_01  
 Model Name : 302469, Bridgeport CT 2

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 Checked By : -

**Member Primary Data (Continued)**

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
56	TB056	N103	N107	PIPE 2.0	Column	None	A53 Gr. B	Typical
57	TB057	N104	N108	PIPE 2.0	Column	None	A53 Gr. B	Typical
58	V058	N113	N110	RIGID	None	None	RIGID	Typical
59	V059	N114	N111	RIGID	None	None	RIGID	Typical
60	V060	N115	N112	RIGID	None	None	RIGID	Typical
61	TB061	N113	N116	5/16 EHS	Column	None	A475	Typical
62	TB062	N114	N117	5/16 EHS	Column	None	A475	Typical
63	TB063	N115	N118	5/16 EHS	Column	None	A475	Typical
64	TB064	N106	N107	PIPE 2.0	Column	None	A53 Gr. B	Typical
65	TB065	N105	N109	PIPE 2.0	Column	None	A53 Gr. B	Typical
66	TB066	N101	N108	PIPE 2.0	Column	None	A53 Gr. B	Typical
67	H067	N017	N018	PIPE 3.0	Beam	None	A53 Gr. B	Typical
68	H068	N082	N084	PIPE 3.0	Beam	None	A53 Gr. B	Typical
69	H069	N081	N083	PIPE 3.0	Beam	None	A53 Gr. B	Typical
70	H070	N079	N080	PIPE 2.5	Beam	None	A53 Gr. B	Typical
71	H071	N086	N088	PIPE 2.5	Beam	None	A53 Gr. B	Typical
72	H072	N085	N087	PIPE 2.5	Beam	None	A53 Gr. B	Typical
73	U073	N126	N131	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
74	U074	N132	N133	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
75	MP075	N134	N135	PIPE 2.0	Column	None	A53 Gr. B	Typical
76	U076	N127	N136	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
77	U077	N137	N138	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
78	MP078	N139	N140	PIPE 2.0	Column	None	A53 Gr. B	Typical
79	U079	N128	N141	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
80	U080	N142	N143	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
81	MP081	N144	N145	PIPE 2.0	Column	None	A53 Gr. B	Typical
82	U082	N130	N146	(2) 1/2 U-BOLTS	Beam	None	A36	Typical
83	U083	N147	N148	(2) 1/2 U-BOLTS	Beam	None	A36	Typical
84	MP084	N149	N150	PIPE 2.0	Column	None	A53 Gr. B	Typical
85	U085	N129	N151	(2) 1/2 U-BOLTS	Beam	None	A36	Typical
86	U086	N152	N153	(2) 1/2 U-BOLTS	Beam	None	A36	Typical
87	MP087	N154	N155	PIPE 2.0	Column	None	A53 Gr. B	Typical
88	U088	N157	N169	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
89	U089	N170	N171	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
90	MP090	N172	N173	PIPE 2.0	Column	None	A53 Gr. B	Typical
91	U091	N159	N174	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
92	U092	N175	N176	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
93	MP093	N177	N178	PIPE 2.0	Column	None	A53 Gr. B	Typical
94	U094	N161	N179	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
95	U095	N180	N181	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
96	MP096	N182	N183	PIPE 2.0	Column	None	A53 Gr. B	Typical
97	U097	N163	N184	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
98	U098	N185	N186	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
99	MP099	N187	N188	PIPE 2.0	Column	None	A53 Gr. B	Typical
100	U100	N165	N189	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
101	U101	N190	N191	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
102	MP102	N192	N193	PIPE 2.0	Column	None	A53 Gr. B	Typical
103	U103	N156	N194	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
104	U104	N195	N196	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
105	MP105	N197	N198	PIPE 2.0	Column	None	A53 Gr. B	Typical
106	U106	N158	N199	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
107	U107	N200	N201	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
108	MP108	N202	N203	PIPE 2.0	Column	None	A53 Gr. B	Typical
109	U109	N160	N204	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
110	U110	N205	N206	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
111	MP111	N207	N208	PIPE 2.0	Column	None	A53 Gr. B	Typical
112	U112	N162	N209	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
113	U113	N210	N211	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
114	MP114	N212	N213	PIPE 2.0	Column	None	A53 Gr. B	Typical
115	U115	N164	N214	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
116	U116	N215	N216	(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
117	MP117	N217	N218	PIPE 2.0	Column	None	A53 Gr. B	Typical
118	U118	N168	N219	(2) 1/2 U-BOLTS	Beam	None	A36	Typical
119	MP119	N220	N221	PIPE 2.0	Column	None	A53 Gr. B	Typical
120	U120	N167	N222	(2) 1/2 U-BOLTS	Beam	None	A36	Typical
121	MP121	N223	N224	PIPE 2.0	Column	None	A53 Gr. B	Typical
122	U122	N166	N225	(2) 1/2 U-BOLTS	Beam	None	A36	Typical
123	MP123	N226	N227	PIPE 2.0	Column	None	A53 Gr. B	Typical



Company : American Tower Corp.  
Designer : Garrett.Williams  
Job Number : 13682687\_C8\_01  
Model Name : 302469, Bridgeport CT 2

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**Member Primary Data (Continued)**

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Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
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**Member Advanced Data**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Activation	Seismic DR
1	H001				Yes	N/A		None
2	H002				Yes	N/A		None
3	H003				Yes	N/A		None
4	H004				Yes	N/A		None
5	H005				Yes	N/A		None
6	H006				Yes	N/A		None
7	H007				Yes	N/A		None
8	H008				Yes	N/A		None
9	H009				Yes	N/A		None
10	H010	BenPIN	BenPIN		Yes	N/A		None
11	H011	BenPIN	BenPIN		Yes	N/A		None
12	H012	BenPIN	BenPIN		Yes	N/A		None
13	H013	BenPIN	BenPIN		Yes	N/A		None
14	H014	BenPIN	BenPIN		Yes	N/A		None
15	H015	BenPIN	BenPIN		Yes	N/A		None
16	H016				Yes	N/A		None
17	H017				Yes	N/A		None
18	H018				Yes	N/A		None
19	H019				Yes	N/A		None
20	H020				Yes	N/A		None
21	H021				Yes	N/A		None
22	H022				Yes	Default	Exclude	None
23	H023				Yes	Default	Exclude	None
24	H024				Yes	Default	Exclude	None
25	H025				Yes	Default	Exclude	None
26	H026				Yes	Default	Exclude	None
27	H027				Yes	Default	Exclude	None
28	H028				Yes	N/A		None
29	H029				Yes	N/A		None
30	H030				Yes	N/A		None
31	H031				Yes	N/A		None
32	H032				Yes	N/A		None
33	H033				Yes	N/A		None
34	H034				Yes	N/A		None
35	H035				Yes	N/A		None
36	H036				Yes	N/A		None
37	H037				Yes	N/A		None
38	H038				Yes	N/A		None
39	H039				Yes	N/A		None
40	H040				Yes	Default	Exclude	None
41	H041				Yes	Default	Exclude	None
42	H042				Yes	Default	Exclude	None
43	H043				Yes	Default	Exclude	None
44	H044				Yes	Default	Exclude	None
45	H045				Yes	Default	Exclude	None
46	H046				Yes	N/A		None
47	H047				Yes	N/A		None
48	H048				Yes	N/A		None
49	H049				Yes	N/A	Exclude	None
50	H050				Yes	N/A	Exclude	None
51	H051				Yes	N/A	Exclude	None
52	H052				Yes	N/A	Exclude	None
53	H053				Yes	N/A	Exclude	None
54	H054				Yes	N/A	Exclude	None
55	TB055	BenPIN			Yes	** NA **		None
56	TB056	BenPIN			Yes	** NA **		None
57	TB057	BenPIN			Yes	** NA **		None
58	V058				Yes	** NA **		None
59	V059				Yes	** NA **		None
60	V060				Yes	** NA **		None
61	TB061	AIIPIN	BenPIN	Tension Only	Yes	** NA **		None
62	TB062	AIIPIN	BenPIN	Tension Only	Yes	** NA **		None
63	TB063	AIIPIN	BenPIN	Tension Only	Yes	** NA **		None
64	TB064	BenPIN			Yes	** NA **		None
65	TB065	BenPIN			Yes	** NA **		None
66	TB066	BenPIN			Yes	** NA **		None
67	H067				Yes	N/A		None
68	H068				Yes	N/A		None



**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Activation	Seismic DR
69	H069				Yes	N/A		None
70	H070				Yes	N/A		None
71	H071				Yes	N/A		None
72	H072				Yes	N/A		None
73	U073				Yes	N/A	Exclude	None
74	U074				Yes	N/A	Exclude	None
75	MP075				Yes	** NA **		None
76	U076				Yes	N/A	Exclude	None
77	U077				Yes	N/A	Exclude	None
78	MP078				Yes	** NA **		None
79	U079				Yes	N/A	Exclude	None
80	U080				Yes	N/A	Exclude	None
81	MP081				Yes	** NA **		None
82	U082				Yes	N/A	Exclude	None
83	U083				Yes	N/A	Exclude	None
84	MP084				Yes	** NA **		None
85	U085				Yes	N/A	Exclude	None
86	U086				Yes	N/A	Exclude	None
87	MP087				Yes	** NA **		None
88	U088				Yes	N/A	Exclude	None
89	U089				Yes	N/A	Exclude	None
90	MP090				Yes	** NA **		None
91	U091				Yes	N/A	Exclude	None
92	U092				Yes	N/A	Exclude	None
93	MP093				Yes	** NA **		None
94	U094				Yes	N/A	Exclude	None
95	U095				Yes	N/A	Exclude	None
96	MP096				Yes	** NA **		None
97	U097				Yes	N/A	Exclude	None
98	U098				Yes	N/A	Exclude	None
99	MP099				Yes	** NA **		None
100	U100				Yes	N/A	Exclude	None
101	U101				Yes	N/A	Exclude	None
102	MP102				Yes	** NA **		None
103	U103				Yes	N/A	Exclude	None
104	U104				Yes	N/A	Exclude	None
105	MP105				Yes	** NA **		None
106	U106				Yes	N/A	Exclude	None
107	U107				Yes	N/A	Exclude	None
108	MP108				Yes	** NA **		None
109	U109				Yes	N/A	Exclude	None
110	U110				Yes	N/A	Exclude	None
111	MP111				Yes	** NA **		None
112	U112				Yes	N/A	Exclude	None
113	U113				Yes	N/A	Exclude	None
114	MP114				Yes	** NA **		None
115	U115				Yes	N/A	Exclude	None
116	U116				Yes	N/A	Exclude	None
117	MP117				Yes	** NA **		None
118	U118				Yes	N/A	Exclude	None
119	MP119				Yes	** NA **		None
120	U120				Yes	N/A	Exclude	None
121	MP121				Yes	** NA **		None
122	U122				Yes	N/A	Exclude	None
123	MP123				Yes	** NA **		None

**Hot Rolled Steel Design Parameters**

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
1	H001	HSS4X4X4	76.5			Lbyy		1	1	Lateral
2	H002	PL6X0.5	12			Lbyy		0.65	0.65	Lateral
3	H003	HSS4X4X4	76.5			Lbyy		1	1	Lateral
4	H004	HSS4X4X4	76.5			Lbyy		1	1	Lateral
5	H005	PL6X0.5	12			Lbyy		0.65	0.65	Lateral
6	H006	PL6X0.5	12			Lbyy		0.65	0.65	Lateral
7	H007	HSS4X4X4	60			Lbyy		0.65	0.65	Lateral
8	H008	HSS4X4X4	60			Lbyy		0.65	0.65	Lateral
9	H009	HSS4X4X4	60			Lbyy		0.65	0.65	Lateral
10	H010	L2X2X3	50.229			Lbyy		1	1	Lateral



Company : American Tower Corp.  
 Designer : Garrett.Williams  
 Job Number : 13682687\_C8\_01  
 Model Name : 302469, Bridgeport CT 2

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**Hot Rolled Steel Design Parameters (Continued)**

Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
11	H011	L2X2X3	50.229			Lbyy	1	1	Lateral
12	H012	L2X2X3	50.229			Lbyy	1	1	Lateral
13	H013	L2X2X3	50.229			Lbyy	1	1	Lateral
14	H014	L2X2X3	50.229			Lbyy	1	1	Lateral
15	H015	L2X2X3	50.229			Lbyy	1	1	Lateral
16	H016	PL6X0.5	3			Lbyy	1	1	Lateral
17	H017	PL6X0.5	3			Lbyy	1	1	Lateral
18	H018	PL6X0.5	3			Lbyy	1	1	Lateral
19	H019	PL6X0.5	3			Lbyy	1	1	Lateral
20	H020	PL6X0.5	3			Lbyy	1	1	Lateral
21	H021	PL6X0.5	3			Lbyy	1	1	Lateral
22	H022	(1) 1/2 U-Bolt	2			Lbyy	0.65	0.65	Lateral
23	H023	(1) 1/2 U-Bolt	2			Lbyy	0.65	0.65	Lateral
24	H024	(1) 1/2 U-Bolt	2			Lbyy	0.65	0.65	Lateral
25	H025	(1) 1/2 U-Bolt	2			Lbyy	0.65	0.65	Lateral
26	H026	(1) 1/2 U-Bolt	2			Lbyy	0.65	0.65	Lateral
27	H027	(1) 1/2 U-Bolt	2			Lbyy	0.65	0.65	Lateral
28	H028	PL6X0.375	4			Lbyy	0.65	0.65	Lateral
29	H029	PL6X0.375	4			Lbyy	0.65	0.65	Lateral
30	H030	PL6X0.375	4			Lbyy	0.65	0.65	Lateral
31	H031	PL6X0.375	4			Lbyy	0.65	0.65	Lateral
32	H032	PL6X0.375	4			Lbyy	0.65	0.65	Lateral
33	H033	PL6X0.375	4			Lbyy	0.65	0.65	Lateral
34	H034	PL6X0.375	3			Lbyy	1	1	Lateral
35	H035	PL6X0.375	3			Lbyy	1	1	Lateral
36	H036	PL6X0.375	3			Lbyy	1	1	Lateral
37	H037	PL6X0.375	3			Lbyy	1	1	Lateral
38	H038	PL6X0.375	3			Lbyy	1	1	Lateral
39	H039	PL6X0.375	3			Lbyy	1	1	Lateral
40	H040	(1) 1/2 U-Bolt	1.965			Lbyy	0.65	0.65	Lateral
41	H041	(1) 1/2 U-Bolt	1.965			Lbyy	0.65	0.65	Lateral
42	H042	(1) 1/2 U-Bolt	1.965			Lbyy	0.65	0.65	Lateral
43	H043	(1) 1/2 U-Bolt	1.965			Lbyy	0.65	0.65	Lateral
44	H044	(1) 1/2 U-Bolt	1.965			Lbyy	0.65	0.65	Lateral
45	H045	(1) 1/2 U-Bolt	1.965			Lbyy	0.65	0.65	Lateral
46	H046	L2X2X4	6.933			Lbyy	0.65	0.65	Lateral
47	H047	L2X2X4	6.933			Lbyy	0.65	0.65	Lateral
48	H048	L2X2X4	6.933			Lbyy	0.65	0.65	Lateral
49	H049	(2) 1/2 U-BOLTS	1.95			Lbyy	0.65	0.65	Lateral
50	H050	(2) 1/2 U-BOLTS	1.95			Lbyy	0.65	0.65	Lateral
51	H051	(2) 1/2 U-BOLTS	1.95			Lbyy	0.65	0.65	Lateral
52	H052	(2) 1/2 U-BOLTS	1.95			Lbyy	0.65	0.65	Lateral
53	H053	(2) 1/2 U-BOLTS	1.95			Lbyy	0.65	0.65	Lateral
54	H054	(2) 1/2 U-BOLTS	1.95			Lbyy	0.65	0.65	Lateral
55	TB055	PIPE 2.0	63.272			Lbyy	1	1	Lateral
56	TB056	PIPE 2.0	63.272			Lbyy	1	1	Lateral
57	TB057	PIPE 2.0	63.272			Lbyy	1	1	Lateral
58	TB061	5/16 EHS	78.23			Lbyy	1	1	Lateral
59	TB062	5/16 EHS	78.23			Lbyy	1	1	Lateral
60	TB063	5/16 EHS	78.23			Lbyy	1	1	Lateral
61	TB064	PIPE 2.0	63.272			Lbyy	1	1	Lateral
62	TB065	PIPE 2.0	63.272			Lbyy	1	1	Lateral
63	TB066	PIPE 2.0	63.272			Lbyy	1	1	Lateral
64	H067	PIPE 3.0	174			Lbyy	0.65	0.65	Lateral
65	H068	PIPE 3.0	174			Lbyy	0.65	0.65	Lateral
66	H069	PIPE 3.0	174			Lbyy	0.65	0.65	Lateral
67	H070	PIPE 2.5	174			Lbyy	0.65	0.65	Lateral
68	H071	PIPE 2.5	174			Lbyy	0.65	0.65	Lateral
69	H072	PIPE 2.5	174			Lbyy	0.65	0.65	Lateral
70	U073	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral
71	U074	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral
72	MP075	PIPE 2.0	120	Segment	Segment	Lbyy	2.1	2.1	Lateral
73	U076	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral
74	U077	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral
75	MP078	PIPE 2.0	120	Segment	Segment	Lbyy	2.1	2.1	Lateral
76	U079	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral
77	U080	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral
78	MP081	PIPE 2.0	120	Segment	Segment	Lbyy	2.1	2.1	Lateral



**Hot Rolled Steel Design Parameters (Continued)**

Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function	
79	U082	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
80	U083	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
81	MP084	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
82	U085	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
83	U086	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
84	MP087	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
85	U088	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
86	U089	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
87	MP090	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
88	U091	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
89	U092	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
90	MP093	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
91	U094	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
92	U095	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
93	MP096	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
94	U097	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
95	U098	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
96	MP099	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
97	U100	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
98	U101	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
99	MP102	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
100	U103	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
101	U104	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
102	MP105	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
103	U106	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
104	U107	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
105	MP108	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
106	U109	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
107	U110	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
108	MP111	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
109	U112	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
110	U113	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
111	MP114	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
112	U115	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
113	U116	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
114	MP117	PIPE 2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
115	U118	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
116	MP119	PIPE 2.0	60	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
117	U120	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
118	MP121	PIPE 2.0	60	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
119	U122	(2) 1/2 U-BOLTS	3			Lbyy	0.5	0.5	Lateral	
120	MP123	PIPE 2.0	60	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral

**Hot Rolled Steel Properties**

Label	E [psi]	G [psi]	Nu	Therm. Coeff. [1e <sup>-6</sup> F <sup>-1</sup> ]	Density [lb/ft <sup>3</sup> ]	Yield [psi]	Ry	Fu [psi]	Rt
1 A500 Gr. B [SQR]	2.9e+07	1.115e+07	0.3	0.65	527	46000	1.4	58000	1.3
2 A36	2.9e+07	1.115e+07	0.3	0.65	490	36000	1.5	58000	1.2
3 SAE J429 Gr. 2	2.9e+07	1.115e+07	0.3	0.65	490	57000	1.1	74000	1.1
4 A53 Gr. B	2.9e+07	1.115e+07	0.3	0.65	490	35000	1.6	60000	1.2
5 A475	2.1e+07	1.115e+07	0.3	0.65	490	1.83e+08	1.5	2.03e+08	1.2

**Envelope Node Reactions**

Node Label	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC	
1 N002	max	1378.02	5	2247.916	26	1233.594	14	5143.619	26	2488.246	23	648.7	23
2 N002	min	-1374.232	23	-5.025	20	-2206.216	8	-486.764	20	-2498.325	5	-672.828	17
3 N006	max	1039.517	18	2247.99	30	1528.467	2	238.699	24	2481.277	15	428.364	24
4 N006	min	-1883.876	12	-6.169	24	-1040.807	20	-2641.415	31	-2491.354	9	-4421.173	30
5 N007	max	1942.664	4	2247.616	34	1426.83	13	247.537	16	2474.475	19	4487.306	34
6 N007	min	-1102.392	22	-3.424	16	-937.318	19	-2520.881	33	-2484.6	13	-413.848	16
7 N107	max	294.125	17	1194.551	8	955.961	14	0	277	0	277	0	277
8 N107	min	-303.363	11	-872.35	14	-1222.028	8	0	1	0	1	0	1
9 N108	max	814.49	18	1195.477	12	646.014	12	0	277	0	277	0	277
10 N108	min	-1039.186	12	-873.267	18	-503.114	18	0	1	0	1	0	1
11 N109	max	1077.558	4	1193.798	4	576.13	4	0	277	0	277	0	277
12 N109	min	-841.434	22	-871.608	22	-452.935	22	0	1	0	1	0	1
13 N116	max	5.076	29	963.381	26	1496.061	26	0	277	0	277	0	277





Company : American Tower Corp.  
 Designer : Garrett Williams  
 Job Number : 13682687\_C8\_01  
 Model Name : 302469, Bridgeport CT 2

11/4/2021  
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 Checked By : -

**Envelope Node Reactions (Continued)**

Node Label	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
14	min	-4.994	35	0.549	20	-1.706	20	0	1	0	1	0
15	N117	max	1296.032	30	963.455	30	1.706	24	0	277	0	277
16		min	-1.706	24	0.549	24	-749.362	30	0	1	0	1
17	N118	max	1.706	16	963.257	34	1.706	16	0	277	0	277
18		min	-1295.813	34	0.549	16	-749.128	34	0	1	0	1
19	Totals:	max	6650.394	17	9827.948	36	6952.348	2				
20		min	-6650.394	23	3822.471	18	-6952.348	20				

**Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks**

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn	
1	H001	HSS4X4X4	0.328	0	29	0.09	0	y	149	117696.426	139518	16180.5	16180.5	3	H1-1b
2	H002	PL6X0.5	0.117	6	2	0.152	6	y	12	83348.625	97200	1012.5	12150	1.105	H1-1b
3	H003	HSS4X4X4	0.328	0	33	0.09	0	y	93	117696.426	139518	16180.5	16180.5	3	H1-1b
4	H004	HSS4X4X4	0.328	0	37	0.09	0	y	217	117696.426	139518	16180.5	16180.5	3	H1-1b
5	H005	PL6X0.5	0.117	6	6	0.151	6	y	4	83348.625	97200	1012.5	12150	1.105	H1-1b
6	H006	PL6X0.5	0.117	6	10	0.151	6	y	8	83348.625	97200	1012.5	12150	1.106	H1-1b
7	H007	HSS4X4X4	0.166	30	3	0.045	30	y	27	133484.923	139518	16180.5	16180.5	1.362	H1-1b
8	H008	HSS4X4X4	0.166	30	7	0.045	30	y	31	133484.923	139518	16180.5	16180.5	1.362	H1-1b
9	H009	HSS4X4X4	0.166	30	11	0.045	30	y	35	133484.923	139518	16180.5	16180.5	1.362	H1-1b
10	H010	L2X2X3	0.152	25.638	11	0.007	50.229	z	12	9724.796	23392.8	557.717	1072.365	1.136	H2-1
11	H011	L2X2X3	0.152	25.638	3	0.007	50.229	z	4	9724.796	23392.8	557.717	1072.365	1.136	H2-1
12	H012	L2X2X3	0.152	25.638	7	0.007	50.229	z	8	9724.796	23392.8	557.717	1072.365	1.136	H2-1
13	H013	L2X2X3	0.142	25.638	9	0.007	50.229	y	9	9724.796	23392.8	557.717	1072.365	1.136	H2-1
14	H014	L2X2X3	0.141	25.638	13	0.007	50.229	y	13	9724.796	23392.8	557.717	1072.365	1.136	H2-1
15	H015	L2X2X3	0.142	25.638	5	0.007	50.229	y	5	9724.796	23392.8	557.717	1072.365	1.136	H2-1
16	H016	PL6X0.5	0.091	1.5	2	0.371	1.5	y	8	95014.386	97200	1012.5	12150	1.538	H1-1b
17	H017	PL6X0.5	0.091	1.5	6	0.372	1.5	y	12	95014.386	97200	1012.5	12150	1.538	H1-1b
18	H018	PL6X0.5	0.091	1.5	10	0.371	1.5	y	4	95014.386	97200	1012.5	12150	1.538	H1-1b
19	H019	PL6X0.5	0.079	1.5	6	0.369	1.5	y	12	95014.386	97200	1012.5	12150	1.516	H1-1b
20	H020	PL6X0.5	0.079	1.5	10	0.366	1.5	y	4	95014.386	97200	1012.5	12150	1.517	H1-1b
21	H021	PL6X0.5	0.079	1.5	2	0.366	1.5	y	8	95014.386	97200	1012.5	12150	1.517	H1-1b
22	H028	PL6X0.375	0.089	2	13	0.184	2	y	12	70719.442	72900	569.531	9112.5	1.441	H1-1b
23	H029	PL6X0.375	0.09	2	5	0.182	2	y	4	70719.442	72900	569.531	9112.5	1.441	H1-1b
24	H030	PL6X0.375	0.089	2	9	0.182	2	y	8	70719.442	72900	569.531	9112.5	1.441	H1-1b
25	H031	PL6X0.375	0.119	2	9	0.224	2	y	3	70719.442	72900	569.531	9112.5	1.415	H1-1b
26	H032	PL6X0.375	0.117	2	13	0.221	2	y	7	70719.442	72900	569.531	9112.5	1.415	H1-1b
27	H033	PL6X0.375	0.119	2	5	0.224	2	y	11	70719.442	72900	569.531	9112.5	1.415	H1-1b
28	H034	PL6X0.375	0.104	1.5	13	0.295	0	y	8	70011.374	72900	569.531	9112.5	1.559	H1-1b
29	H035	PL6X0.375	0.105	1.5	5	0.297	0	y	12	70011.374	72900	569.531	9112.5	1.558	H1-1b
30	H036	PL6X0.375	0.104	1.5	9	0.295	0	y	4	70011.374	72900	569.531	9112.5	1.559	H1-1b
31	H037	PL6X0.375	0.137	1.5	3	0.309	0	y	8	70011.374	72900	569.531	9112.5	1.583	H1-1b
32	H038	PL6X0.375	0.135	1.5	7	0.313	0	y	12	70011.374	72900	569.531	9112.5	1.585	H1-1b
33	H039	PL6X0.375	0.137	1.5	11	0.309	0	y	4	70011.374	72900	569.531	9112.5	1.583	H1-1b
34	H046	L2X2X4	0.76	0	4	0.087	0	z	13	30368.067	30585.6	690.934	1576.849	1.012	H2-1
35	H047	L2X2X4	0.76	0	8	0.087	0	z	5	30368.067	30585.6	690.934	1576.849	1.012	H2-1
36	H048	L2X2X4	0.76	0	12	0.087	0	z	9	30368.067	30585.6	690.934	1576.849	1.012	H2-1
37	TB055	PIPE 2.0	0.151	63.272	4	0.035	63.272		27	23022.263	32130	1871.625	1871.625	1.736	H1-1b
38	TB056	PIPE 2.0	0.151	63.272	8	0.035	63.272		31	23022.263	32130	1871.625	1871.625	1.736	H1-1b
39	TB057	PIPE 2.0	0.151	63.272	12	0.035	63.272		35	23022.263	32130	1871.625	1871.625	1.736	H1-1b
40	TB061	5/16 EHS	0	78.23	26	0	78.23		34	12.514	9.0585e+6	65793.395	65793.395	1.136	H1-1b*
41	TB062	5/16 EHS	0	78.23	30	0	78.23		36	12.514	9.0585e+6	65793.395	65793.395	1.136	H1-1b*
42	TB063	5/16 EHS	0	78.23	34	0	78.23		28	12.514	9.0585e+6	65793.395	65793.395	1.136	H1-1b*
43	TB064	PIPE 2.0	0.153	63.272	8	0.032	63.272		33	23022.263	32130	1871.625	1871.625	1.728	H1-1b
44	TB065	PIPE 2.0	0.153	63.272	4	0.032	63.272		29	23022.263	32130	1871.625	1871.625	1.728	H1-1b
45	TB066	PIPE 2.0	0.154	63.272	12	0.032	63.272		37	23022.263	32130	1871.625	1871.625	1.728	H1-1b
46	H067	PIPE 3.0	0.106	54.375	35	0.074	56.187		9	40528.938	65205	5748.75	5748.75	1.938	H1-1b
47	H068	PIPE 3.0	0.106	54.375	31	0.074	56.187		5	40528.938	65205	5748.75	5748.75	1.938	H1-1b
48	H069	PIPE 3.0	0.106	54.375	27	0.074	56.188		13	40528.938	65205	5748.75	5748.75	1.938	H1-1b
49	H070	PIPE 2.5	0.241	123.25	12	0.082	3.625		7	24514.812	50715	3596.25	3596.25	2.412	H1-1b
50	H071	PIPE 2.5	0.241	123.25	8	0.082	3.625		3	24514.812	50715	3596.25	3596.25	2.412	H1-1b
51	H072	PIPE 2.5	0.241	123.25	4	0.082	3.625		11	24514.812	50715	3596.25	3596.25	2.417	H1-1b
52	MP075	PIPE 2.0	0.217	101.25	13	0.062	101.25		2	4243.559	32130	1871.625	1871.625	1.743	H1-1b
53	MP078	PIPE 2.0	0.26	101.25	82	0.056	101.25		13	4243.559	32130	1871.625	1871.625	2.602	H1-1a
54	MP081	PIPE 2.0	0.236	72.5	7	0.066	101.25		3	4243.559	32130	1871.625	1871.625	2.001	H1-1b
55	MP084	PIPE 2.0	0.158	52.5	8	0.064	101.25		2	4243.559	32130	1871.625	1871.625	1.85	H1-1b
56	MP087	PIPE 2.0	0.181	101.25	110	0.057	101.25		12	4243.559	32130	1871.625	1871.625	1.83	H1-1b
57	MP090	PIPE 2.0	0.218	101.25	9	0.062	101.25		10	4243.559	32130	1871.625	1871.625	2.023	H1-1b
58	MP093	PIPE 2.0	0.26	101.25	138	0.056	101.25		9	4243.559	32130	1871.625	1871.625	1.581	H1-1a



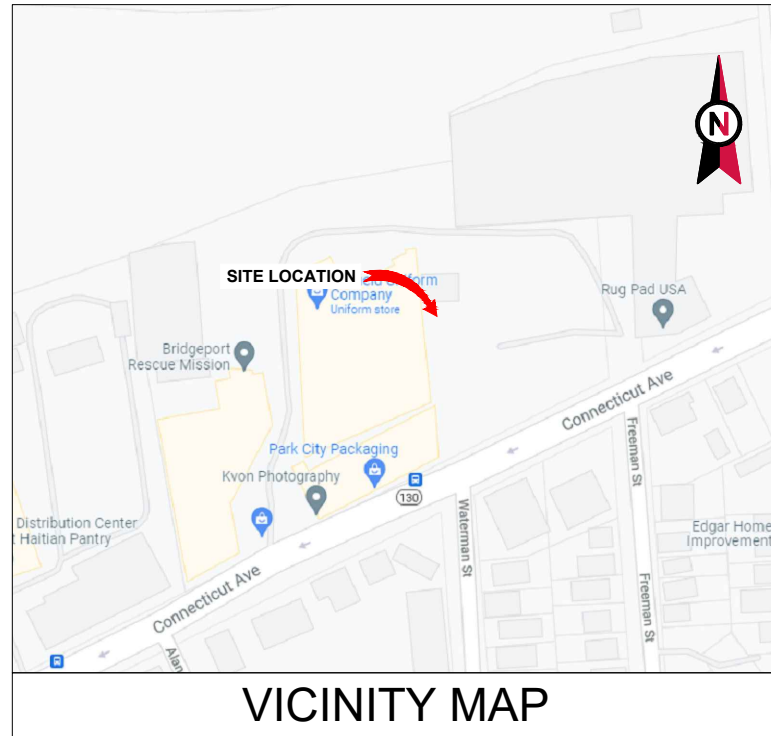


Company : American Tower Corp.  
 Designer : Garrett.Williams  
 Job Number : 13682687\_C8\_01  
 Model Name : 302469, Bridgeport CT 2

11/4/2021  
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 Checked By : -

**Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks (Continued)**

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
59	MP096	PIPE 2.0	0.236	72.5	3	0.066	101.25	11	4243.559	32130	1871.625	1871.625	1.491	H1-1b
60	MP099	PIPE 2.0	0.158	52.5	4	0.063	101.25	10	4243.559	32130	1871.625	1871.625	1.413	H1-1b
61	MP102	PIPE 2.0	0.181	101.25	178	0.057	101.25	8	4243.559	32130	1871.625	1871.625	1.974	H1-1b
62	MP105	PIPE 2.0	0.218	101.25	5	0.062	101.25	6	4243.559	32130	1871.625	1871.625	2.01	H1-1b
63	MP108	PIPE 2.0	0.26	101.25	194	0.056	101.25	5	4243.559	32130	1871.625	1871.625	1.776	H1-1a
64	MP111	PIPE 2.0	0.238	72.5	11	0.066	101.25	7	4243.559	32130	1871.625	1871.625	1.278	H1-1b
65	MP114	PIPE 2.0	0.159	52.5	12	0.063	101.25	6	4243.559	32130	1871.625	1871.625	1.221	H1-1b
66	MP117	PIPE 2.0	0.181	101.25	234	0.057	101.25	4	4243.559	32130	1871.625	1871.625	2.381	H1-1b
67	MP119	PIPE 2.0	0.121	29.375	11	0.023	29.375	11	22576.779	32130	1871.625	1871.625	1.937	H1-1b
68	MP121	PIPE 2.0	0.121	29.375	5	0.023	29.375	5	22576.779	32130	1871.625	1871.625	3	H1-1b
69	MP123	PIPE 2.0	0.121	29.375	3	0.023	29.375	3	22576.779	32130	1871.625	1871.625	3	H1-1b



VICINITY MAP

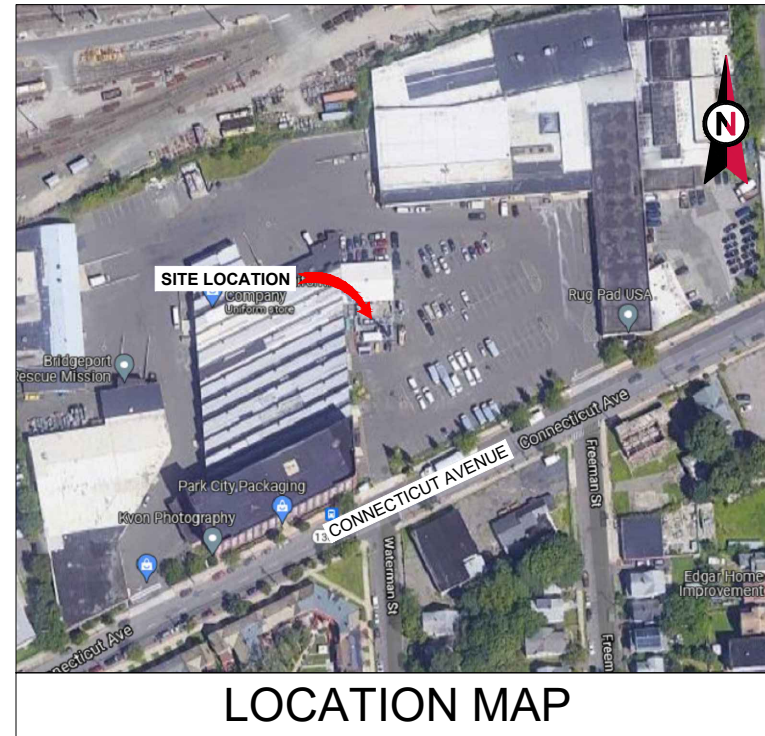


**AMERICAN TOWER®**

ATC SITE NAME: BRIDGEPORT CT 2  
 ATC SITE NUMBER: 302469  
 AT&T PACE NUMBERS: MRCTB052614, MRCTB051526,  
 MRCTB050769

AT&T SITE ID: CTL02252  
 AT&T FA CODE: 10084453  
 AT&T SITE NAME: BRIDGEPORT CT. CONN DR  
 SITE ADDRESS: 1069 CONNECTICUT AVE  
 BRIDGEPORT, CT 06607

**AT&T MOBILITY C-BAND  
 ANTENNA AMENDMENT PLAN**



LOCATION MAP



**Dewberry®**  
 Dewberry Engineers Inc.  
 99 SUMMER STREET  
 SUITE 700  
 BOSTON, MA 02110  
 PHONE: 617.695.3400  
 FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	10/27/21
0	FINAL	VL	07/08/22

ATC SITE NUMBER:  
302469

ATC SITE NAME:  
BRIDGEPORT CT 2

AT&T MOBILITY C-BAND SITE NAME:  
BRIDGEPORT CT. CONN DR

SITE ADDRESS:  
1069 CONNECTICUT AVE  
BRIDGEPORT, CT 06607



DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

TITLE SHEET

SHEET NUMBER:  
**G-001**

REVISION:  
**0**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.  1. 2018 CONNECTICUT STATE BUILDING CODE-AMENDMENTS TO IBC 2015 2. INTERNATIONAL BUILDING CODE 2015, INTERNATIONAL CODE COUNCIL 3. TIA-222-G-4, STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS 4. ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, AMERICAN SOCIETY OF CIVIL ENGINEERS 5. STEEL CONSTRUCTION MANUAL 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION 6. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 1069 CONNECTICUT AVE BRIDGEPORT, CT 06607 COUNTY: FAIRFIELD  <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.18361667 LONGITUDE: -73.15838333 GROUND ELEVATION: 32' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE (3) ANTENNA(S), (1) SQUID(S) AND DECOMMISSION (6) ANTENNA(S)  INSTALL (9) ANTENNA(S), (6) Y-CABLE(S) AND (1) SQUID(S)  EXISTING (3) ANTENNA(S) TO BE RELOCATED, (15) RRU(S), (3) SQUID(S), (3) FIBER TRUNK(S) AND (8) DC TRUNK(S) TO REMAIN  <u>GROUND WORK:</u> REMOVE/DECOMMISSION (1) UMTS RBS3106  INSTALL (3) 6673 FRONTHAUL GATEWAY	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u>  <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801  <u>ENGINEER:</u> DEWBERRY ENGINEERS INC. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310  <u>PROPERTY OWNER:</u> WR CT AVENUE LLC 1069 CONNECTICUT AVENUE BRIDGEPORT, CT 06607	<u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED. 6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).	G-001 TITLE SHEET G-002 GENERAL NOTES C-101 DETAILED SITE PLAN C-201 TOWER ELEVATION C-401 ANTENNA LAYOUT C-501 MOUNTING DETAILS E-501 GROUNDING DETAILS  R-601 SUPPLEMENTAL R-602 SUPPLEMENTAL R-603 SUPPLEMENTAL R-604 SUPPLEMENTAL				
	<u>UTILITY COMPANIES</u>  POWER COMPANY: UNITED ILLUMINATING PHONE: (800) 722-5584  TELEPHONE COMPANY: FRONTIER PHONE: (800) 376-6843	<u>PROJECT LOCATION DIRECTIONS</u>  FROM HARTFORD, CT TAKE I-91 SOUTH TO I-95 SOUTH TO EXIT 29. TURN LEFT OFF EXIT AND AT LIGHT TAKE A LEFT U-TURN ONTO STRATFORD AVENUE. FOLLOW STRATFORD TO FREEMAN STREET AND TURN LEFT. GO TO STOP SIGN AND CROSS OVER CONNECTICUT AVENUE INTO PARKING LOT. TOWER IS AT THE LEFT HAND END OF THE PARKING LOT.					



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**GENERAL CONSTRUCTION NOTES:**

1. OWNER FURNISHED MATERIALS, AT&T MOBILITY C-BAND "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
  - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
  - B. AC/TELCO INTERFACE BOX (PPC)
  - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
  - D. TOWERS, MONOPOLES
  - E. TOWER LIGHTING
  - F. GENERATORS & LIQUID PROPANE TANK
  - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
  - H. ANTENNAS (INSTALLED BY OTHERS)
  - I. TRANSMISSION LINE
  - J. TRANSMISSION LINE JUMPERS
  - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
  - L. TRANSMISSION LINE GROUND KITS
  - M. HANGERS
  - N. HOISTING GRIPS
  - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T MOBILITY C-BAND TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T MOBILITY C-BAND REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T MOBILITY C-BAND REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T MOBILITY C-BAND REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T MOBILITY C-BAND CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T MOBILITY C-BAND REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T MOBILITY C-BAND AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY C-BAND REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR

WILL INSTALL ALL ITEMS PROVIDED.

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY C-BAND REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MOBILITY C-BAND MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T MOBILITY C-BAND SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T MOBILITY C-BAND FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T MOBILITY C-BAND SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T MOBILITY C-BAND REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T MOBILITY C-BAND REP. ANY WORK FOUND BY THE AT&T MOBILITY C-BAND REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T MOBILITY C-BAND FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T MOBILITY C-BAND WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T MOBILITY C-BAND OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T MOBILITY C-BAND OR THEIR ARCHITECT/ENGINEER.

**STRUCTURAL STEEL NOTES:**

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
  - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
  - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
  - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
  - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
  - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:

- A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
- B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
- C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
- E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
- F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
- G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
- H. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
- I. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND T- MOBILE PROJECT MANAGER IN WRITING

**SPECIAL CONSTRUCTION**

**ANTENNA INSTALLATION NOTES:**

1. WORK INCLUDED:
  - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T MOBILITY C-BAND UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
  - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND AT&T MOBILITY C-BAND SPECIFICATIONS.
  - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
  - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE AND PROVIDE PRINTOUT OF THAT TEST.
  - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
  - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
  - G. ANTENNA AND COAXIAL CABLE GROUNDING:
    1. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
    2. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	10/27/21
0	FINAL	VL	07/08/22

ATC SITE NUMBER:  
**302469**

ATC SITE NAME:  
**BRIDGEPORT CT 2**

AT&T MOBILITY C-BAND SITE NAME:  
**BRIDGEPORT CT. CONN DR**

SITE ADDRESS:  
 1069 CONNECTICUT AVE  
 BRIDGEPORT, CT 06607



DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

**GENERAL NOTES**

SHEET NUMBER: <b>G-002</b>	REVISION: <b>0</b>
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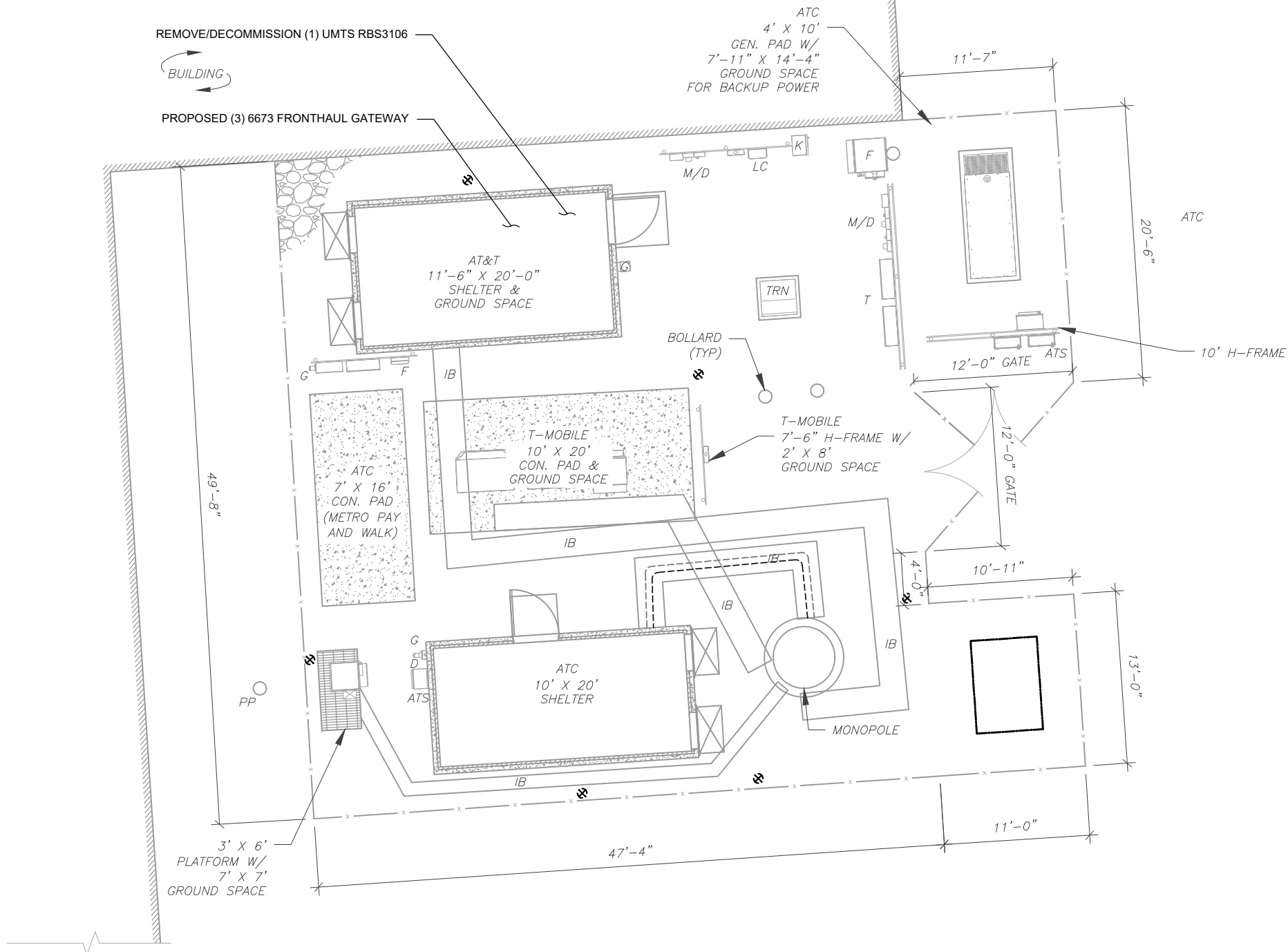
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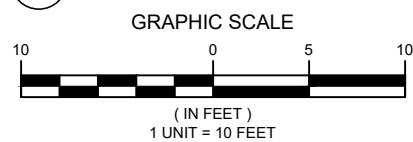
**SITE PLAN NOTES:**

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND	
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
x	CHAINLINK FENCE



**1 DETAILED SITE PLAN**




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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	10/27/21
0	FINAL	VL	07/08/22

ATC SITE NUMBER:  
**302469**

ATC SITE NAME:  
**BRIDGEPORT CT 2**

AT&T MOBILITY C-BAND SITE NAME:  
**BRIDGEPORT CT. CONN DR**

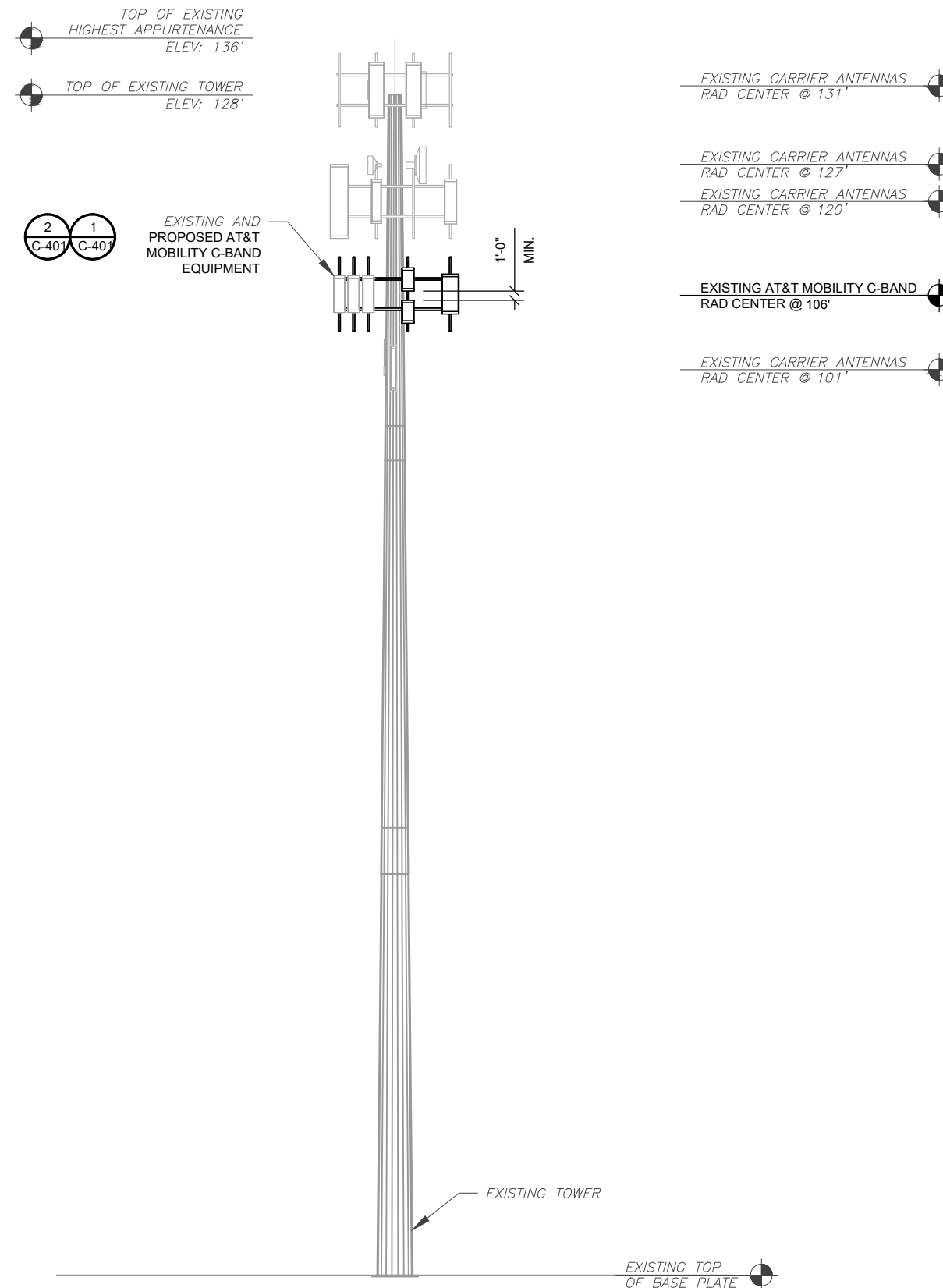
SITE ADDRESS:  
 1069 CONNECTICUT AVE  
 BRIDGEPORT, CT 06607



DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

DETAILED SITE PLAN	
SHEET NUMBER:	REVISION:
<b>C-101</b>	<b>0</b>

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PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED 07/06/22, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT REPLACEMENT PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



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 FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	10/27/21
0	FINAL	VL	07/08/22

ATC SITE NUMBER:  
 302469

ATC SITE NAME:  
 BRIDGEPORT CT 2

AT&T MOBILITY C-BAND SITE NAME:  
 BRIDGEPORT CT. CONN DR

SITE ADDRESS:  
 1069 CONNECTICUT AVE  
 BRIDGEPORT, CT 06607



DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

TOWER ELEVATION

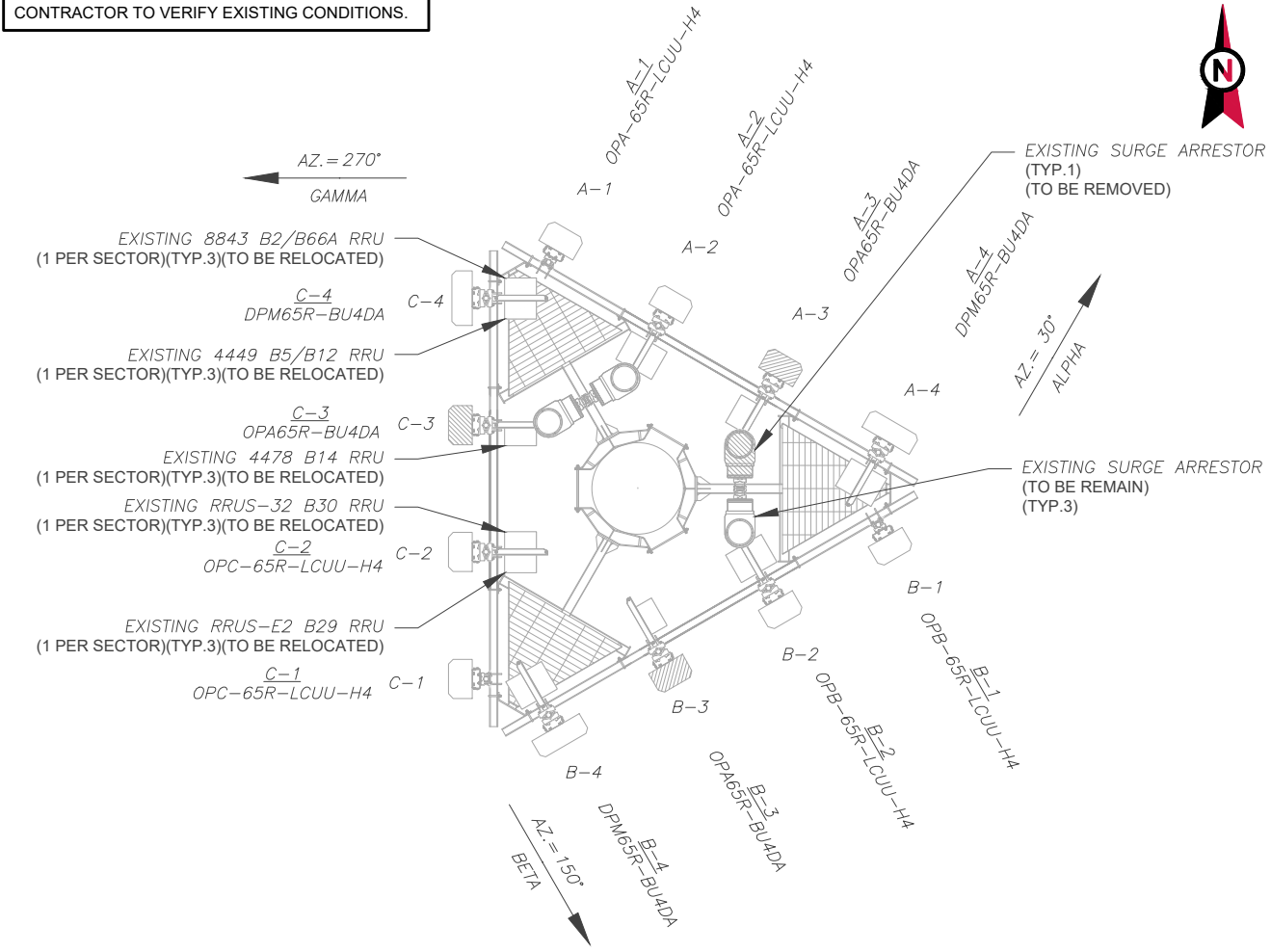
SHEET NUMBER:	REVISION:
C-201	0

- TOWER NOTE:**
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
  - WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
  - TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

1 TOWER ELEVATION  
 SCALE: N.T.S.

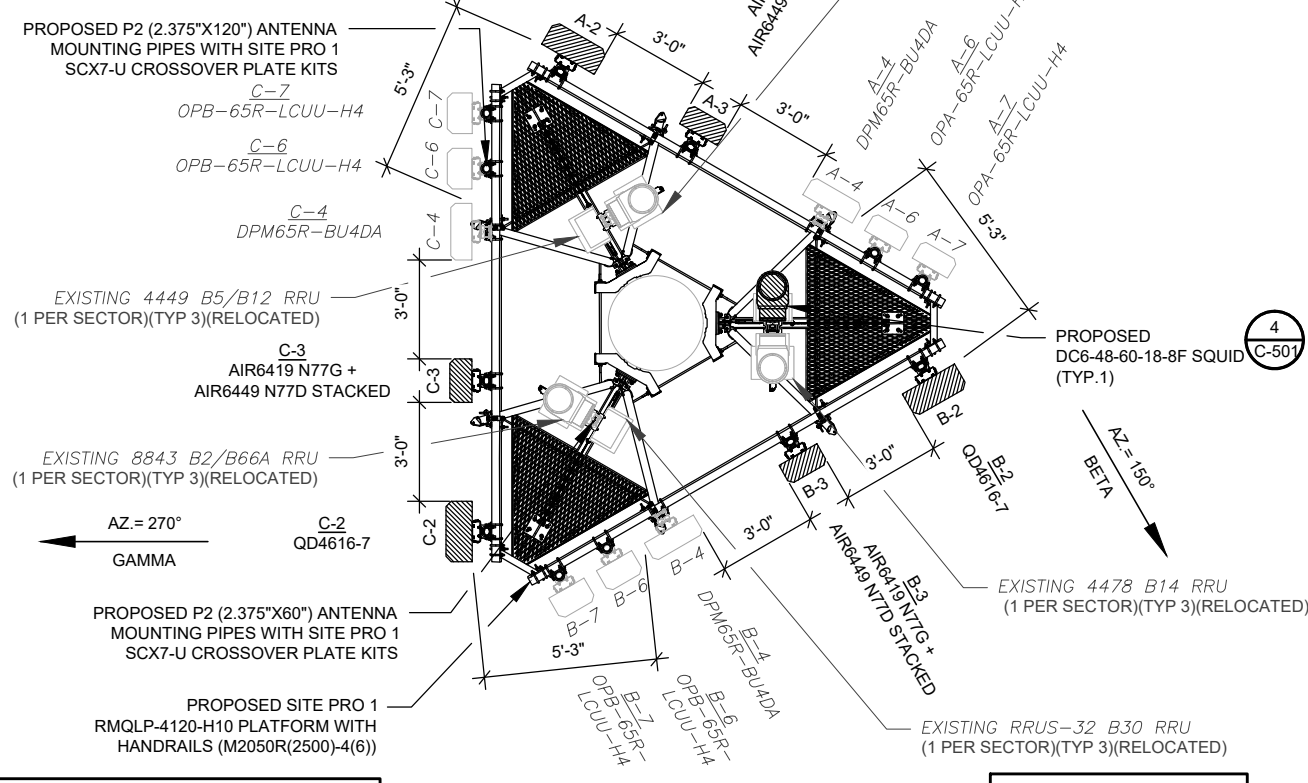
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EXISTING CONFIGURATIONS ARE BASED ON RFDS. CONTRACTOR TO VERIFY EXISTING CONDITIONS.



1 CURRENT ANTENNA PLAN  
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED 07/06/22, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT REPLACEMENT PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



2 FINAL ANTENNA PLAN  
SCALE: N.T.S.

PROPOSED RRUS MUST BE INSTALLED A MINIMUM OF 8\"/>

CONTRACTOR TO RELOCATE EXISTING PIPE MAST AS NEEDED TO PROVIDE NECESSARY ANTENNA CLEARANCES

EXISTING ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	106'	30°	A1	OPA-65R-LCUU-H4	UMTS850	REL	-	-
			A2	OPA-65R-LCUU-H4	LTE700, LTEWCS	REL	RRUS-E2 B29 RRUS-32 B30	REL REL
			A3	OPA65R-BU4DA	LTE700, LTEAWS	RMV	4478 B14	REL
			A4	DPM65R-BU4DA	LTE700, LTE850, LTE1900, 5G850	REL	4449 B5/B12 8843 B2/B66A	REL REL
BETA	106'	150°	B1	OPA-65R-LCUU-H4	UMTS850	REL	-	-
			B2	OPA-65R-LCUU-H4	LTE700, LTEWCS	REL	RRUS-E2 B29 RRUS-32 B30	REL REL
			B3	OPA65R-BU4DA	LTE700, LTEAWS	RMV	4478 B14	REL
			B4	DPM65R-BU4DA	LTE700, LTE850, LTE1900, 5G850	REL	4449 B5/B12 8843 B2/B66A	REL REL
GAMMA	106'	270°	C1	OPA-65R-LCUU-H4	UMTS850	REL	-	-
			C2	OPA-65R-LCUU-H4	LTE700, LTEWCS	REL	RRUS-E2 B29 RRUS-32 B30	REL REL
			C3	OPA65R-BU4DA	LTE700, LTEAWS	RMV	4478 B14	REL
			C4	DPM65R-BU4DA	LTE700, LTE850, LTE1900, 5G850	REL	4449 B5/B12 8843 B2/B66A	REL REL

**STATUS ABBREVIATIONS**  
 RMV: TO BE REMOVED  
 RMN: TO REMAIN  
 REL: TO BE RELOCATED  
 ADD: TO BE ADDED

**NOTES**

- CONFIRM WITH AT&T MOBILITY C-BAND REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
- CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
- THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)
- CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)

**CABLE LENGTHS FOR JUMPERS**  
 JUNCTION BOX TO RRU: 15'  
 RRU TO COMBINER: 10'  
 COMBINER TO ANTENNA: 10'

EXISTING FIBER DISTRIBUTION/SQUID			EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS	
(3) DC6-48-60-18-F	RMN	-	(8)	(3)	RMN	
(1) DC6-48-60-08F	RMV	-	-	-	-	

3 EQUIPMENT SCHEDULES

FINAL ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	106'	30°	A2	QD4616-7	LTE700	ADD	4478 B14 8843 B2/B66A RRUS-E2 B29	REL REL REL
			A3	AIR6419 N77G + AIR6449 N77D STACKED	5GCBAND, 5G DOD	ADD	-	-
			A4	DPM65R-BU4DA	LTE700, LTEWCS, 5G850	REL	4449 B5/B12 RRUS-32 B30	REL REL
			A6	OPA-65R-LCUU-H4	SPARE	REL	-	-
			A7	OPA-65R-LCUU-H4	SPARE	REL	-	-
			B2	QD4616-7	LTE700	ADD	4478 B14 8843 B2/B66A RRUS-E2 B29	REL REL REL
			B3	AIR6419 N77G + AIR6449 N77D STACKED	5GCBAND, 5G DOD	ADD	-	-
BETA	106'	150°	B2	QD4616-7	LTE700	ADD	4478 B14 8843 B2/B66A RRUS-E2 B29	REL REL REL
			B3	AIR6419 N77G + AIR6449 N77D STACKED	5GCBAND, 5G DOD	ADD	-	-
			B4	DPM65R-BU4DA	LTE700, LTEWCS, 5G850	REL	4449 B5/B12 RRUS-32 B30	REL REL
			B6	OPA-65R-LCUU-H4	SPARE	REL	-	-
			B7	OPA-65R-LCUU-H4	SPARE	REL	-	-
			C2	QD4616-7	LTE700	ADD	4478 B14 8843 B2/B66A RRUS-E2 B29	REL REL REL
			C3	AIR6419 N77G + AIR6449 N77D STACKED	5GCBAND, 5G DOD	ADD	-	-
GAMMA	106'	270°	C2	QD4616-7	LTE700	ADD	4478 B14 8843 B2/B66A RRUS-E2 B29	REL REL REL
			C3	AIR6419 N77G + AIR6449 N77D STACKED	5GCBAND, 5G DOD	ADD	-	-
			C4	DPM65R-BU4DA	LTE700, LTEWCS, 5G850	REL	4449 B5/B12 RRUS-32 B30	REL REL
			C6	OPA-65R-LCUU-H4	SPARE	REL	-	-
			C7	OPA-65R-LCUU-H4	SPARE	REL	-	-
			C2	QD4616-7	LTE700	ADD	4478 B14 8843 B2/B66A RRUS-E2 B29	REL REL REL
			C3	AIR6419 N77G + AIR6449 N77D STACKED	5GCBAND, 5G DOD	ADD	-	-

FINAL FIBER DISTRIBUTION/SQUID			FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS	
(3) DC6-48-60-18-8F	RMN	-	(8)	(3)	RMN	
(1) DC6-48-60-18-8F	ADD	-	-	-	-	



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 FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	10/27/21
O	FINAL	VL	07/08/22

ATC SITE NUMBER:  
302469

ATC SITE NAME:  
BRIDGEPORT CT 2

AT&T MOBILITY C-BAND SITE NAME:  
BRIDGEPORT CT. CONN DR

SITE ADDRESS:  
1069 CONNECTICUT AVE  
BRIDGEPORT, CT 06607

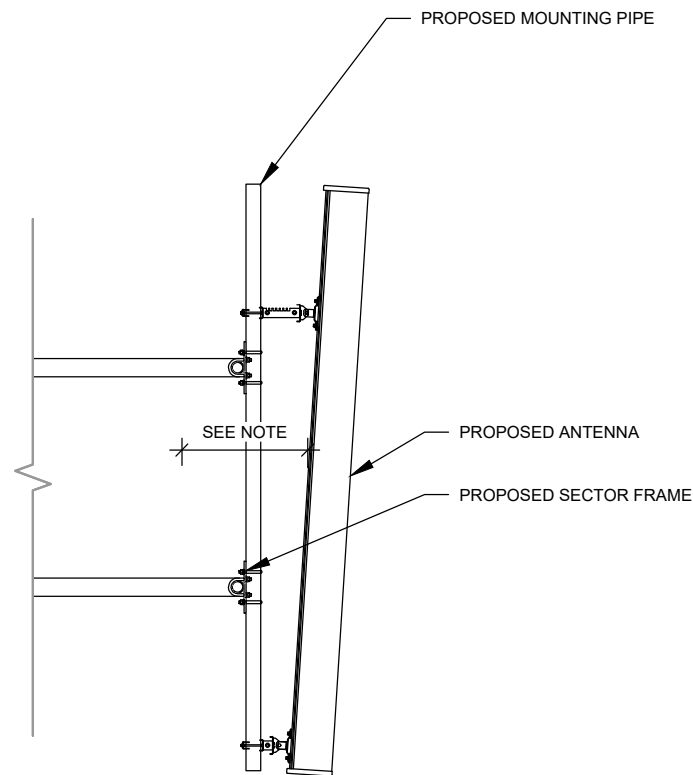


DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

RF SCHEDULE AND ANTENNA INSTALLATION

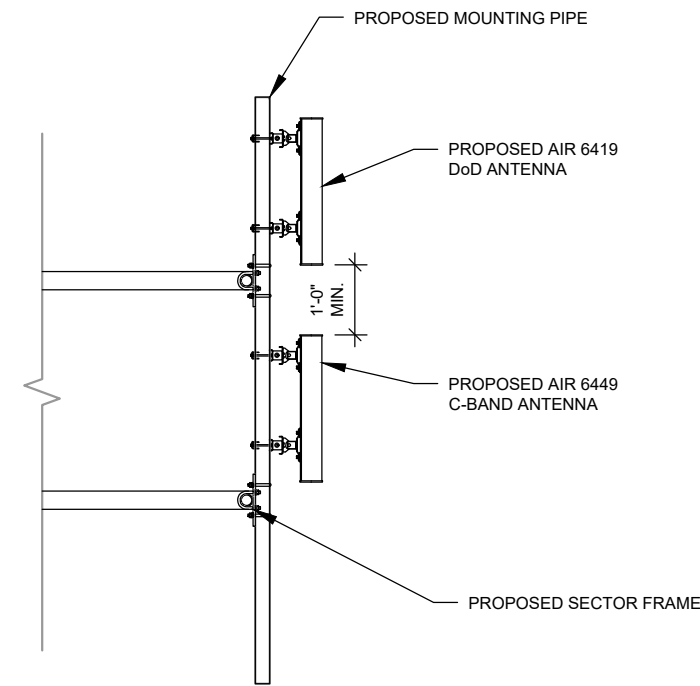
SHEET NUMBER:	C-401	REVISION:	0
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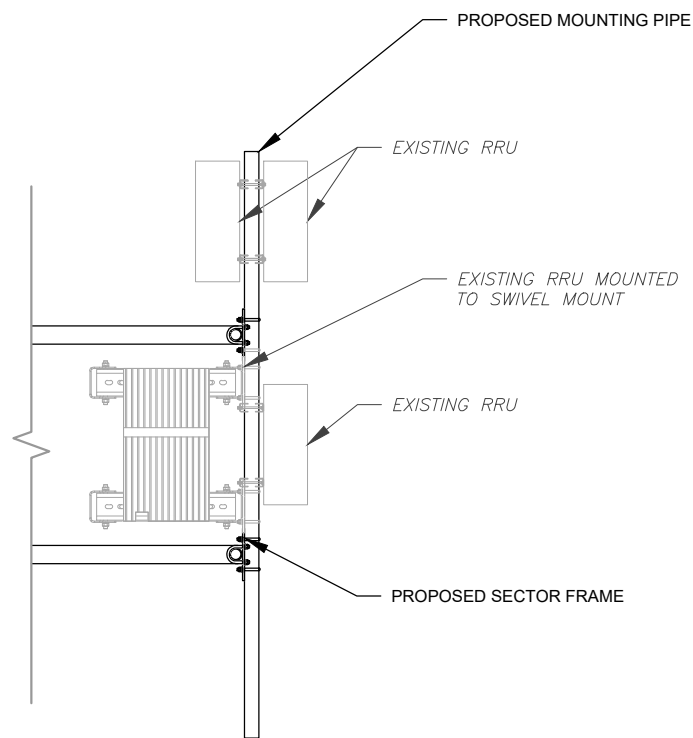


NOTE: 8" MINIMUM SEPARATION FROM BACK OF ANTENNA TO RRU

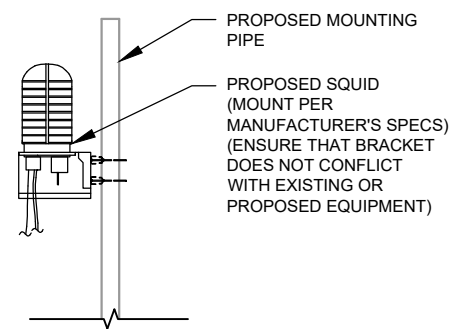
1 ANTENNA DETAIL  
SCALE: N.T.S.



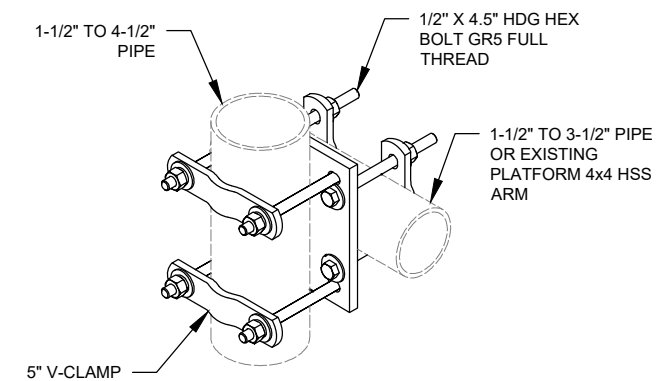
2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL  
SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL  
SCALE: N.T.S.



4 PROPOSED SQUID MOUNTING  
SCALE: N.T.S.



5 SITE PRO SCX7-U DETAIL  
SCALE: N.T.S.



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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	10/27/21
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ATC SITE NUMBER:  
302469

ATC SITE NAME:  
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AT&T MOBILITY C-BAND SITE NAME:  
BRIDGEPORT CT. CONN DR

SITE ADDRESS:  
1069 CONNECTICUT AVE  
BRIDGEPORT, CT 06607

SEAL:

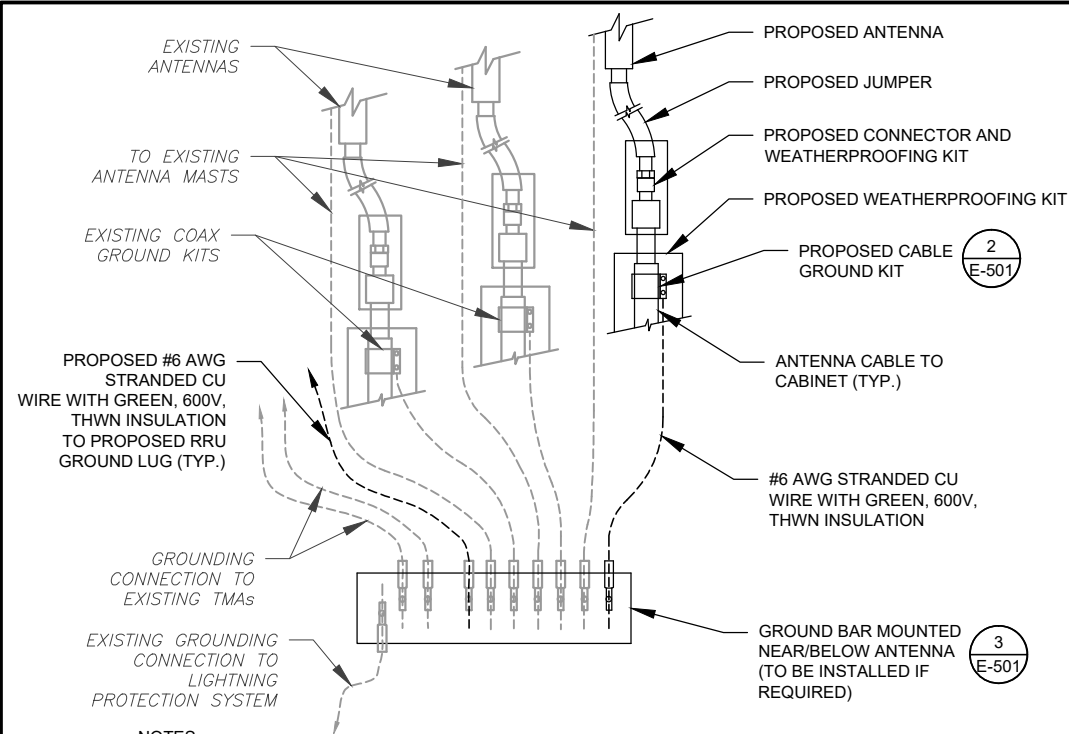


DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

CONSTRUCTION  
DETAILS

SHEET NUMBER:	REVISION:
C-501	0

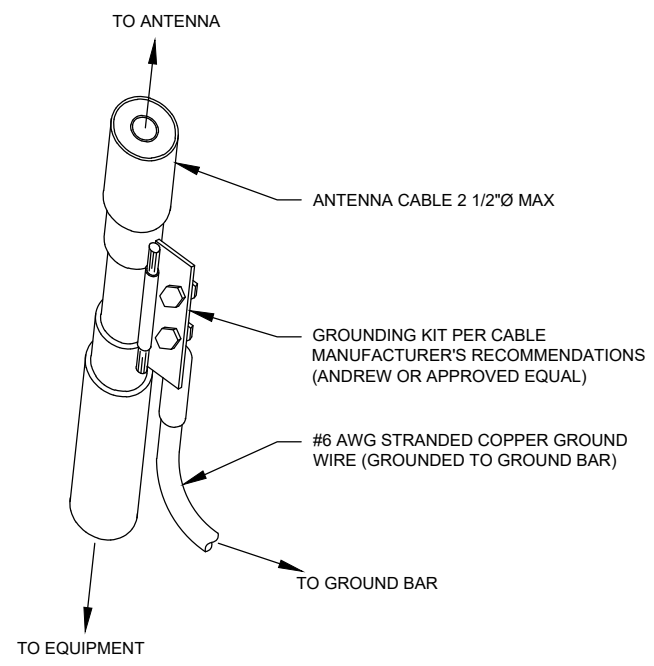




**NOTES:**

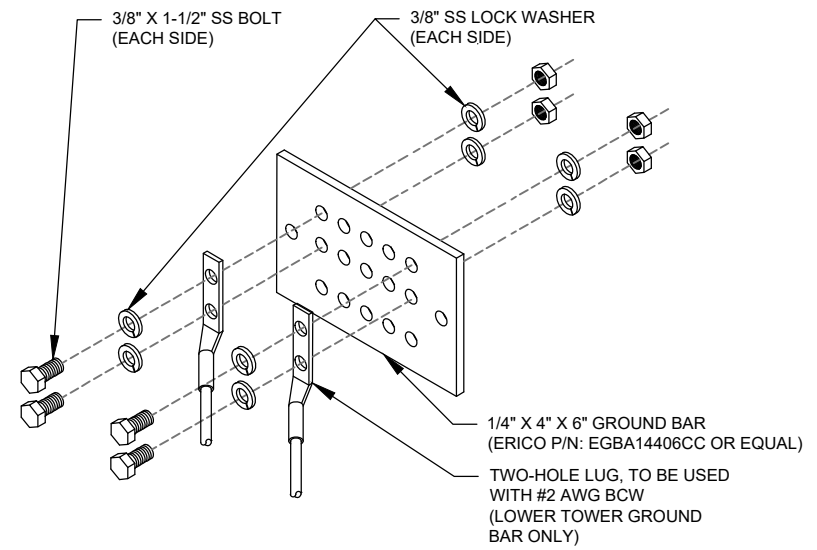
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH AT&T MOBILITY C-BAND GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T MOBILITY C-BAND GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

**1 TYPICAL ANTENNA GROUNDING DIAGRAM**  
SCALE: N.T.S.



- GROUND KIT NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
  2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

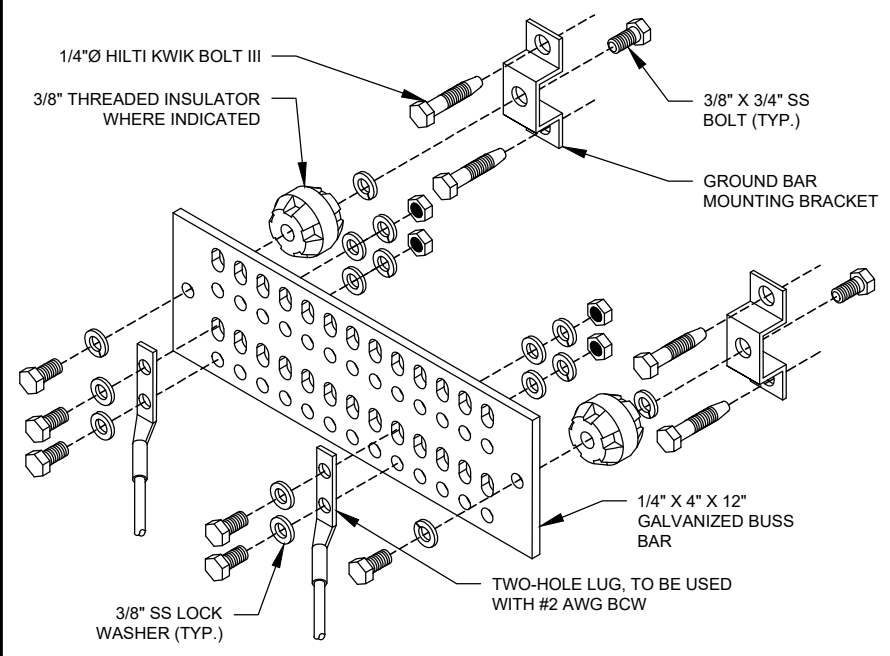
**2 CABLE GROUND KIT CONNECTION DETAIL**  
SCALE: N.T.S.



**GROUND BAR NOTES:**

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

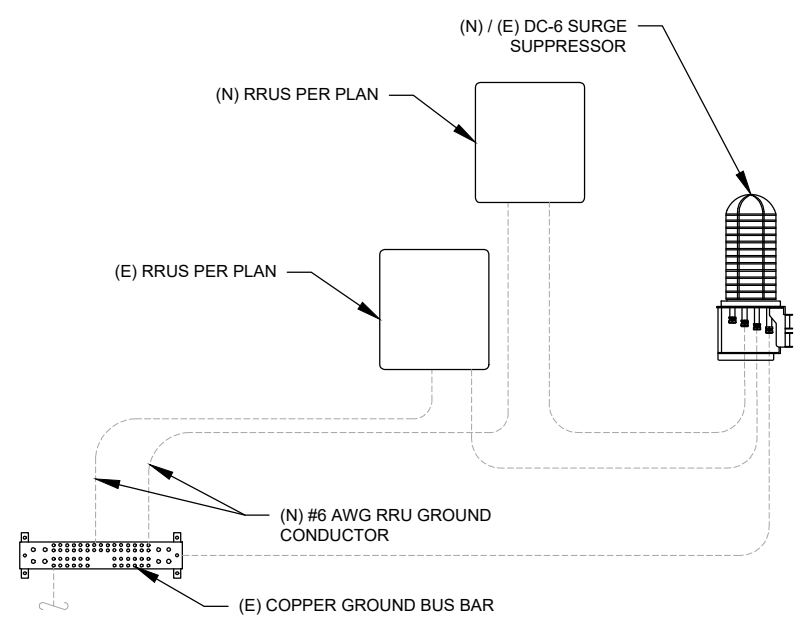
**3 TOWER GROUND BAR DETAIL**  
SCALE: N.T.S.



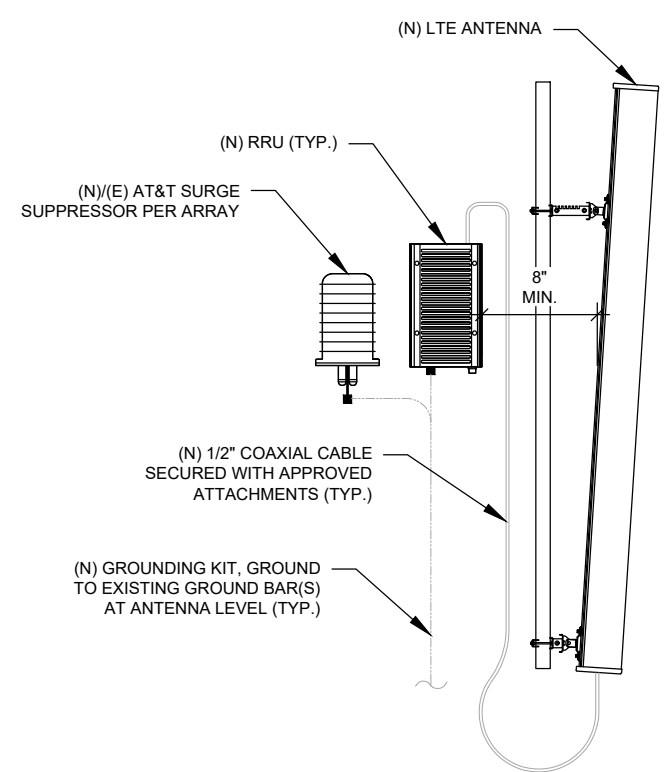
**GROUND BAR NOTES**

1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

**4 MAIN GROUND BAR DETAIL**  
SCALE: N.T.S.



**5 RRU GROUNDING**  
SCALE: N.T.S.



**6 ANTENNA/RRU GROUNDING**  
SCALE: N.T.S.



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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	10/27/21
0	FINAL	VL	07/08/22

ATC SITE NUMBER:  
**302469**

ATC SITE NAME:  
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**BRIDGEPORT CT. CONN DR**

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BRIDGEPORT, CT 06607



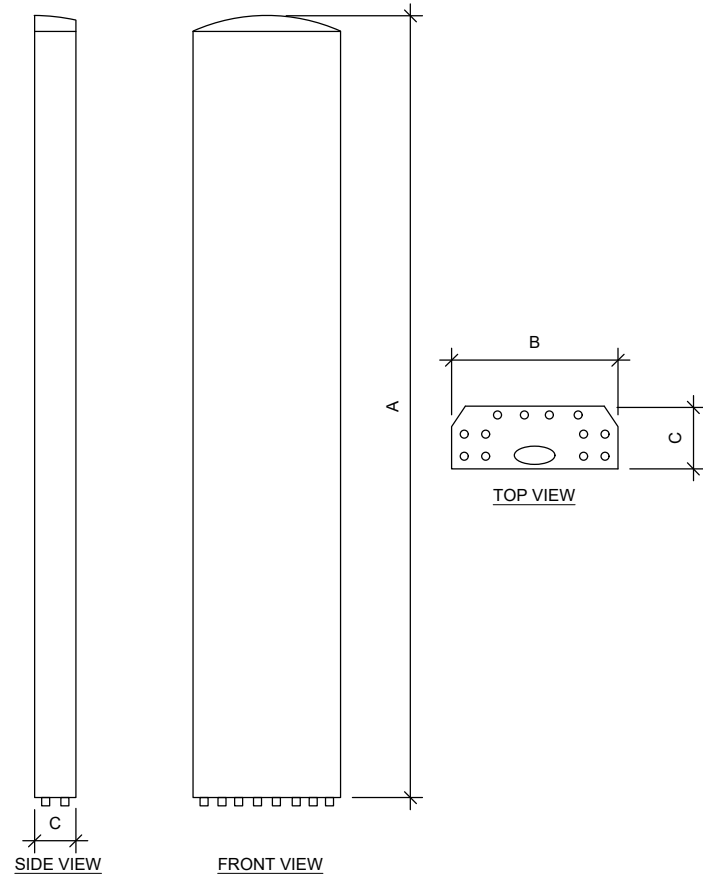
DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

**GROUNDING DETAILS**

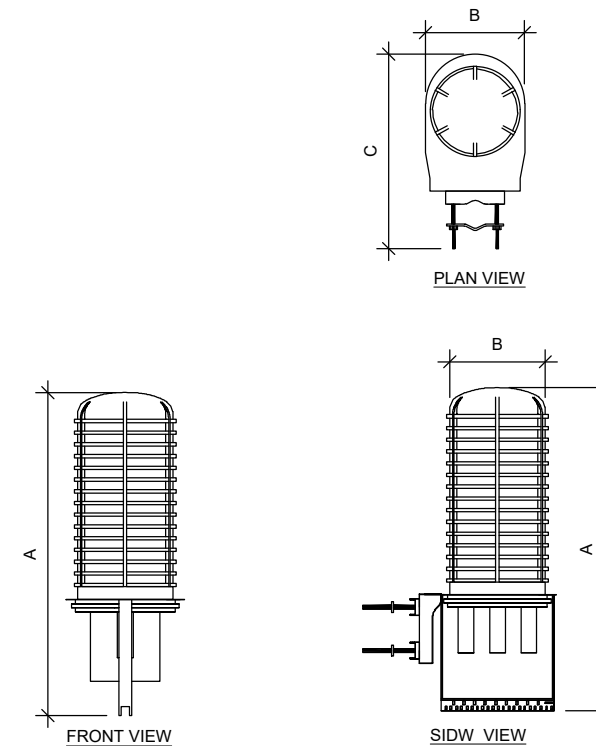
SHEET NUMBER:	REVISION:
<b>E-501</b>	<b>0</b>

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ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
QUINTEL QD4616-7	51.5"	22.0"	9.6"	109.0
ERICSSON AIR6449 N77D+ AIR6419 N77G STACKED	30.4"	15.9"	8.1"	81.6



RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC6-48-60-18-8F	24.0"	11.0"	11.0"	31.8

1 EQUIPMENT SPECIFICATIONS  
SCALE: N.T.S.



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ATC SITE NAME:  
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AT&T MOBILITY C-BAND SITE NAME:  
BRIDGEPORT CT. CONN DR

SITE ADDRESS:  
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BRIDGEPORT, CT 06607



DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

SUPPLEMENTAL

SHEET NUMBER:  
R-601

# RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- Horizontal separation (side to side of antenna):  $\geq 3'$
- Vertical separation (between the tips of the antennas):  $> 3'$
- Inter-sector separation:  $> 4'$  between the center of the antenna backplanes.



- Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- Typical 3' horizontal separation can tolerate skew angle up to  $6^\circ$ .



NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.



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CUSTOMER #:	10084453

SUPPLEMENTAL

SHEET NUMBER:  
**R-602**

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Eng. Number 13682687\_C8\_04  
July 6, 2022  
Page 1

## Mount Analysis Report

ATC Site Name : Bridgeport CT 2, CT  
 ATC Site Number : 302469  
 Engineering Number : 13682687\_C8\_04  
 Mount Elevation : 107 ft  
 Carrier : AT&T Mobility  
 Carrier Site Name : MRCTB050769  
 Carrier Site Number : N/A  
 Site Location : 1069 Connecticut Avenue  
 Bridgeport, CT 06607-1226  
 41.18361667, -73.15838333  
 County : Fairfield  
 Date : July 6, 2022  
 Max Usage : 38%  
 Result : Contingent Pass

Prepared By:  
Garrett Williams  
Structural Engineer I

*Garrett Williams*

Reviewed By:



Authorized by "EOR"  
06 Jul 2022 04:36:59 cosign

COA: PEC.0001553

### Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 107 ft.

### Supporting Documents

Specifications Sheet	Site Pro 1 RMQLP-4120-H10, dated October 18, 2019
Radio Frequency Data Sheet	RFDS ID #10084453, dated September 23, 2021
Reference Photos	Site photos from 2020

### Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	119 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.208, S1 = 0.054
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs

\* Based on experience, it has been determined that the Lv load cases will not control over Lm load cases in platform mount analyses. Therefore, these load cases have been excluded from this analysis.

### Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Analysis based on new installation of Site Pro 1 RMQLP-4120-H10 Platform w/ Handrails(s) (M2050R(2500)-4[6]).
- Install P2 (2.375" x 120") antenna mounting pipe (Mount Pipe D, I, & N) with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.
- Install P2 (2.375" x 60") antenna mounting pipe (Mount Pipe P, Q, & R) with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.
- No structural failures were addressed with the noted contingencies. Contingencies address Carrier's antenna spacing requirements.
- The rough cost estimate, pre-MOD design, is estimated to be ≤\$10k.



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ATC SITE NUMBER:  
302469

ATC SITE NAME:  
BRIDGEPORT CT 2

AT&T MOBILITY C-BAND SITE NAME:  
BRIDGEPORT CT. CONN DR

SITE ADDRESS:  
1069 CONNECTICUT AVE  
BRIDGEPORT, CT 06607



DATE DRAWN:	10/27/21
ATC JOB NO:	13682687_D1
CUSTOMER ID:	BRIDGEPORT CT. CONN DR
CUSTOMER #:	10084453

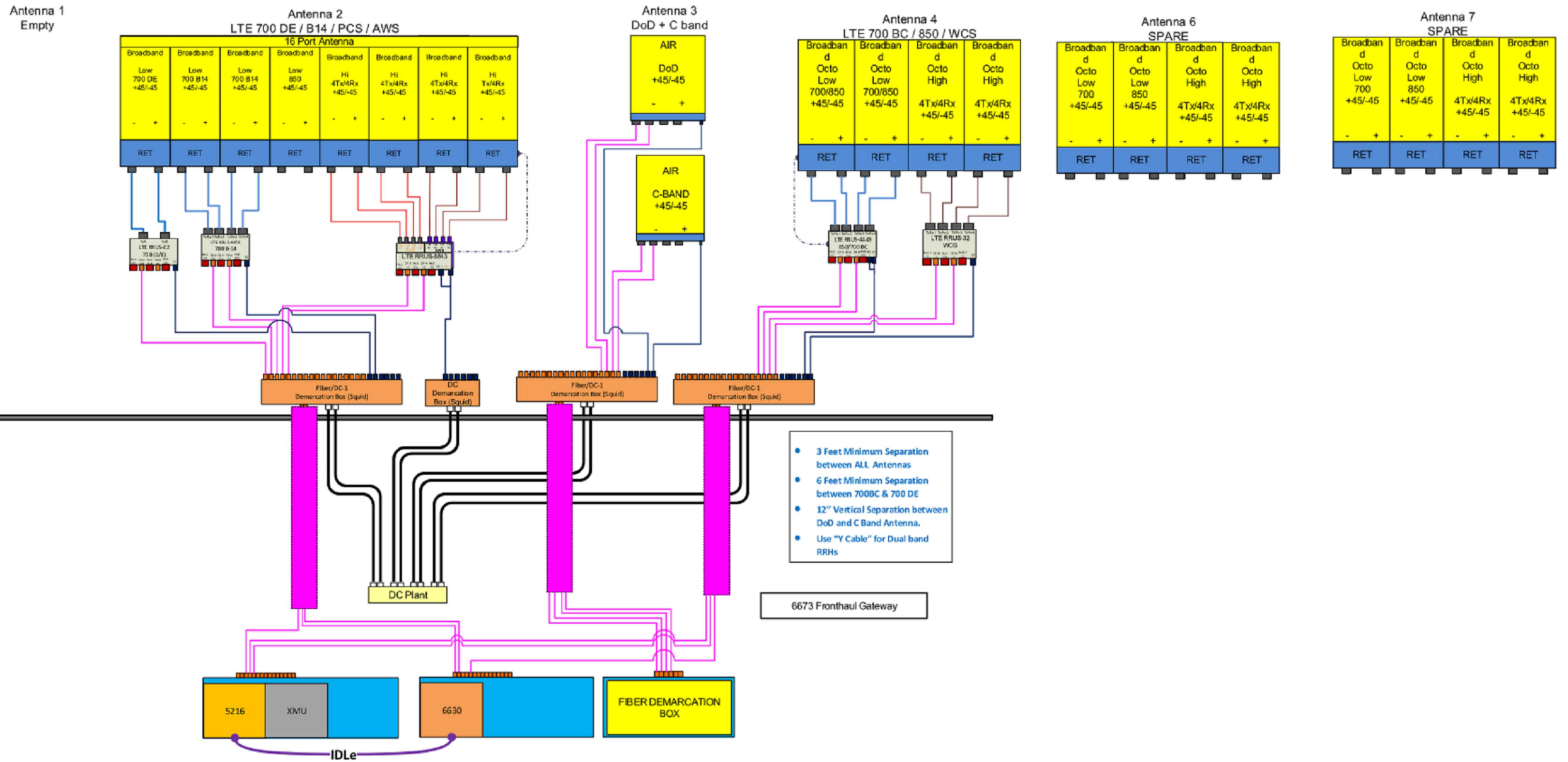
SUPPLEMENTAL

SHEET NUMBER:  
**R-603**



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 PHONE: 617.695.3400  
 FAX: 617.695.3310

Diagram - Sector: A  
 Diagram File Name - CT2252\_ABC\_C-BAND DOD\_ATC.vsd  
 Atoll Site Name - CTL02252  
 Location Name - BRIDGEPORT CT. CONN AVE  
 Market - CONNECTICUT  
 Market Cluster - NEW ENGLAND  
 Comments: Important Note: For detailed radio to antenna wiring refer to the latest 4T4R Antenna/ radio Port connections Field Notice (RF-HW-2016-265)



NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T MOBILITY C-BAND CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.



DATE DRAWN: 10/27/21  
 ATC JOB NO: 13682687\_D1  
 CUSTOMER ID: BRIDGEPORT CT. CONN DR  
 CUSTOMER #: 10084453

SUPPLEMENTAL

SHEET NUMBER:  
**R-604**

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Bridgeport, CT



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## USPS: Welcome





August 4, 2022

Thomas F. Gill, Director  
Office of Planning and Economic Development  
999 Broad Street  
Bridgeport, CT 06604

Re: Exempt Modification Application – AT&T Site 13682687  
AT&T Mobility Telecommunications Facility @ 1069 Connecticut Avenue, Bridgeport, CT

Dear Mr. Gill:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove three (3) antennas, one (1) squid, and decommission six (6) antennas;
- Install nine (9) antennas, six (6) "Y" cables and one (1) squid.
- Ground work includes the removal of UMTS RBS3106, and the installation of three (3) Fronthaul Gateways.

This letter is intended to serve as the required notice to the municipal planning agency. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "JA", is written over a circular blue stamp or watermark.

Jack Andrews  
Zoning Manager, Centerline Communications  
443-677-0144

Enclosures



August 4, 2022

WR CT AVENUE LLC  
C/O Westrock Development LLC  
440 Mamaroneck Ave., Suite N-503  
Harrison, NY 10528

Re: Exempt Modification Application – AT&T Site 13682687  
AT&T Mobility Telecommunications Facility @ 1069 Connecticut Avenue, Bridgeport, CT

Dear Property Owner:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove three (3) antennas, one (1) squid, and decommission six (6) antennas;
- Install nine (9) antennas, six (6) "Y" cables and one (1) squid.
- Ground work includes the removal of UMTS RBS3106, and the installation of three (3) Fronthaul Gateways.

This letter is intended to serve as the required notice to the property owner. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Jack Andrews", is written over a circular blue stamp or seal.

Jack Andrews  
Zoning Manager, Centerline Communications  
10130 Donleigh Drive  
Columbia, MD 21046  
443-677-0144

Enclosures



August 4, 2022

The Honorable Joseph P. Ganim  
City of Bridgeport  
Margaret E. Morton Government Center  
999 Broad Street  
Bridgeport, CT 06604

Re: Exempt Modification Application – AT&T Site 13682687  
AT&T Mobility Telecommunications Facility @ 1069 Connecticut Avenue, Bridgeport, CT

Dear Mayor Ganim:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove three (3) antennas, one (1) squid, and decommission six (6) antennas;
- Install nine (9) antennas, six (6) "Y" cables and one (1) squid.
- Ground work includes the removal of UMTS RBS3106, and the installation of three (3) Fronthaul Gateways.

This letter is intended to serve as the required notice to the chief elected official of the municipality. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Jack Andrews", is written over the printed name.

Jack Andrews  
Zoning Manager, Centerline Communications  
10130 Donleigh Drive  
Columbia, MD 21046  
443-677-0144

Enclosures



August 4, 2022

Jacqueline Hall  
Project Manager, Site Development  
American Tower Corporation  
10 Presidential Way  
Woburn, MA 01801

Re: Exempt Modification Application – AT&T Site 13682687  
AT&T Mobility Telecommunications Facility @ 1069 Connecticut Avenue, Bridgeport, CT

Dear Ms. Hall:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove three (3) antennas, one (1) squid, and decommission six (6) antennas;
- Install nine (9) antennas, six (6) “Y” cables and one (1) squid.
- Ground work includes the removal of UMTS RBS3106, and the installation of three (3) Fronthaul Gateways.

This letter is intended to serve as the required notice to the tower owner. As required by Regulations of Connecticut State Agencies (“RCSA”) 16-50j-73 the Connecticut Siting Council (“CSC”) has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RCSA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T’s proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'Jack Andrews', is written over a circular blue stamp or seal.

Jack Andrews  
Zoning Manager, Centerline Communications  
10130 Donleigh Drive  
Columbia, MD 21046  
443-677-0144

Enclosures