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REPLY TO:
Tarrytown Office

August 14, 2025

Hon. Mayor Michael J. Newhard and
Members of the Village Board of Trustees
Village of Warwick
77 Main Street Warwick, NY

RE: T-Mobile Northeast LLC
Eligible Facilities Request Application
17 Maple Avenue, Warwick, NY 10990

Hon. Mayor Michael J. Newhard and
Members of the Village Board of Trustees:

We represent T-Mobile Northeast LLC ("T-Mobile") in connection with its applications to renew the special permit for the existing facility ("Existing Facility") located on the rooftop of the existing building ("Existing Building") at the above referenced property ("Property"). The application also includes a modification request that qualifies as an eligible facilities request in accordance with section 6409 (codified as 47 U.S.C. 1455(a)) of the Middle Class Tax Relief and Job Creation Act of 2012 ("Tax Relief Act"), and its implementing regulations 47 C.F.R. §1.6100, (a copy of which is attached hereto).

The legislative history for the Tax Relief Act clearly establishes the intent of Congress. "Section 6409. This section streamlines the process for siting of wireless facilities by preempting the ability of State and local authorities to delay collocation of, removal of, and replacement of wireless equipment." 158 Cong. Rec. E237-39 (daily ed. February 24, 2012) (statement of Rep. Fred Upton). On October 17, 2014, the Federal Communications Commission adopted the Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies order ("FCC Order") further implementing Section 6409 of the Tax Relief Act. Pursuant to the FCC Order's implementing regulation, 47 C.F.R. § 1.6100, "[w]ithin 60 days of receiving the application or the request will be deemed granted of the date on which an applicant submits a request seeking approval under this section, the State or local government shall approve the application unless it determines that the application is not covered by this section."

As set forth in the materials submitted herewith, T-Mobile's proposed modification involves the replacement and addition of transmission equipment that does not substantially change the physical dimensions of the Existing Facility.

Specifically, T-Mobile's proposed upgrade includes replacing antennas and installing related transmission equipment at the Existing Facility. There will be no "substantial change" to the physical dimensions of the Existing Facility for the following reasons. First, the proposed antennas will not increase the height of the Existing Facility by more than 10 feet. In fact, there is no proposed increase in height to Existing Facility. Second, the proposed antennas will not protrude further from the edge of the Existing Facility by more than 6 feet. Third, the number of equipment cabinets will not be increased by more than 4. Fourth, there will be no excavation or deployment outside the current site. Fifth, the proposed modification will not defeat the concealment elements of the existing base station. Sixth, the proposed modification will not defeat any prior conditions of approval.

It is noted that T-Mobile's Existing Facility is existing but the Village has stated that a new special permit must be issued for T-Mobile's Existing Facility as the prior special permit expired. Please note that T-Mobile's application for a new special permit is also an eligible facilities request as it is a collocation at an existing wireless facility and the Town is required by federal law to approve the new special permit. See 47 C.F.R § 1.6100

In furtherance of the foregoing enclosed please find a check in the amount of $7,500.00 representing the special permit fee together with the following:

1) Application Form;
2) Statement of Compliance;
3) EAF;
4) RF Justification Report;
5) FCC Compliance Report;
6) T-Mobile Insurance;
7) Structural Reports; and
8) Plans.

Thank you for your prompt consideration. Please contact my office when this application has been scheduled for a Village Board meeting or if you have any questions regarding this application.

Sincerely yours,
Snyder & Snyder, LLP

By: _____
David J. Kenny

Enclosures
cc: T-Mobile
Z:\SSDATA\WPDATA\SS3\RDG\T-Mobile\Warwick, Village\Filing Letter NY10253 8.14.25.rtf

Code of Federal Regulations
Title 47. Telecommunication
Chapter I. Federal Communications Commission (Refs & Annos)
Subchapter A. General
Part 1. Practice and Procedure (Refs & Annos)
Subpart U. State and Local Government Regulation of the Placement, Construction, and Modification of Personal Wireless Service Facilities (Refs & Annos)

47 C.F.R. § 1.6100

§ 1.6100 Wireless Facility Modifications.

Effective: January 4, 2021
Currentness

(a) [Reserved by 83 FR 51886]

(b) Definitions. Terms used in this section have the following meanings.

(1) Base station. A structure or equipment at a fixed location that enables Commission-licensed or authorized wireless communications between user equipment and a communications network. The term does not encompass a tower as defined in this subpart or any equipment associated with a tower.

(i) The term includes, but is not limited to, equipment associated with wireless communications services such as private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul.

(ii) The term includes, but is not limited to, radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration (including Distributed Antenna Systems and small-cell networks).

(iii) The term includes any structure other than a tower that, at the time the relevant application is filed with the State or local government under this section, supports or houses equipment described in paragraphs (b)(1)(i) through (ii) of this section that has been reviewed and approved under the applicable zoning or siting process, or under another State or local regulatory review process, even if the structure was not built for the sole or primary purpose of providing such support.

(iv) The term does not include any structure that, at the time the relevant application is filed with the State or local government under this section, does not support or house equipment described in paragraphs (b)(1)(i)-(ii) of this section.

(2) Collocation. The mounting or installation of transmission equipment on an eligible support structure for the purpose of transmitting and/or receiving radio frequency signals for communications purposes.

(3) Eligible facilities request. Any request for modification of an existing tower or base station that does not substantially change the physical dimensions of such tower or base station, involving:

(i) Collocation of new transmission equipment;

(ii) Removal of transmission equipment; or

(iii) Replacement of transmission equipment.

(4) Eligible support structure. Any tower or base station as defined in this section, provided that it is existing at the time the relevant application is filed with the State or local government under this section.

(5) Existing. A constructed tower or base station is existing for purposes of this section if it has been reviewed and approved under the applicable zoning or siting process, or under another State or local regulatory review process, provided that a tower that has not been reviewed and approved because it was not in a zoned area when it was built, but was lawfully constructed, is existing for purposes of this definition.

(6) Site. For towers other than towers in the public rights-of-way, the current boundaries of the leased or owned property surrounding the tower and any access or utility easements currently related to the site, and, for other eligible support structures, further restricted to that area in proximity to the structure and to other transmission equipment already deployed on the ground. The current boundaries of a site are the boundaries that existed as of the date that the original support structure or a modification to that structure was last reviewed and approved by a State or local government, if the approval of the modification occurred prior to the Spectrum Act or otherwise outside of the section 6409(a) process.

(7) Substantial change. A modification substantially changes the physical dimensions of an eligible support structure if it meets any of the following criteria:

(i) For towers other than towers in the public rights-of-way, it increases the height of the tower by more than 10% or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater; for other eligible support structures, it increases the height of the structure by more than 10% or more than ten feet, whichever is greater;

(A) Changes in height should be measured from the original support structure in cases where deployments are or will be separated horizontally, such as on buildings' rooftops; in other circumstances, changes in height should be measured from the dimensions of the tower or base station, inclusive of originally approved appurtenances and any modifications that were approved prior to the passage of the Spectrum Act.

(ii) For towers other than towers in the public rights-of-way, it involves adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than twenty feet, or more than the width of the tower structure at the level of the appurtenance, whichever is greater; for other eligible support structures, it involves adding an appurtenance to the body of the structure that would protrude from the edge of the structure by more than six feet;

(iii) For any eligible support structure, it involves installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four cabinets; or, for towers in the public rights-of-way and base stations, it involves installation of any new equipment cabinets on the ground if there are no pre-existing ground cabinets associated with the structure, or else involves installation of ground cabinets that are more than 10% larger in height or overall volume than any other ground cabinets associated with the structure;

(iv) It entails any excavation or deployment outside of the current site, except that, for towers other than towers in the public rights-of-way, it entails any excavation or deployment of transmission equipment outside of the current site by more than 30 feet in any direction. The site boundary from which the 30 feet is measured excludes any access or utility easements currently related to the site;

(v) It would defeat the concealment elements of the eligible support structure; or

(vi) It does not comply with conditions associated with the siting approval of the construction or modification of the eligible support structure or base station equipment, provided however that this limitation does not apply to any modification that is non-compliant only in a manner that would not exceed the thresholds identified in § 1.40001(b)(7)(i) through (iv).

(8) Transmission equipment. Equipment that facilitates transmission for any Commission-licensed or authorized wireless communication service, including, but not limited to, radio transceivers, antennas, coaxial or fiber-optic cable, and regular and backup power supply. The term includes equipment associated with wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul.

(9) Tower. Any structure built for the sole or primary purpose of supporting any Commission-licensed or authorized antennas and their associated facilities, including structures that are constructed for wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul, and the associated site.

(c) Review of applications. A State or local government may not deny and shall approve any eligible facilities request for modification of an eligible support structure that does not substantially change the physical dimensions of such structure.

(1) Documentation requirement for review. When an applicant asserts in writing that a request for modification is covered by this section, a State or local government may require the applicant to provide documentation or information only to the extent reasonably related to determining whether the request meets the requirements of this section. A State or local government may not require an applicant to submit any other documentation, including but not limited to documentation intended to illustrate the need for such wireless facilities or to justify the business decision to modify such wireless facilities.

(2) Timeframe for review. Within 60 days of the date on which an applicant submits a request seeking approval under this section, the State or local government shall approve the application unless it determines that the application is not covered by this section.

(3) Tolling of the timeframe for review. The 60–day period begins to run when the application is filed, and may be tolled only by mutual agreement or in cases where the reviewing State or local government determines that the application is incomplete. The timeframe for review is not tolled by a moratorium on the review of applications.

(i) To toll the timeframe for incompleteness, the reviewing State or local government must provide written notice to the applicant within 30 days of receipt of the application, clearly and specifically delineating all missing documents or information. Such delineated information is limited to documents or information meeting the standard under paragraph (c)(1) of this section.

(ii) The timeframe for review begins running again when the applicant makes a supplemental submission in response to the State or local government's notice of incompleteness.

(iii) Following a supplemental submission, the State or local government will have 10 days to notify the applicant that the supplemental submission did not provide the information identified in the original notice delineating missing information. The timeframe is tolled in the case of second or subsequent notices pursuant to the procedures identified in this paragraph (c)(3). Second or subsequent notices of incompleteness may not specify missing documents or information that were not delineated in the original notice of incompleteness.

(4) Failure to act. In the event the reviewing State or local government fails to approve or deny a request seeking approval under this section within the timeframe for review (accounting for any tolling), the request shall be deemed granted. The deemed grant does not become effective until the applicant notifies the applicable reviewing authority in writing after the review period has expired (accounting for any tolling) that the application has been deemed granted.

(5) Remedies. Applicants and reviewing authorities may bring claims related to Section 6409(a) to any court of competent jurisdiction.

Credits

[80 FR 28203, May 18, 2015; 83 FR 51886, Oct. 15, 2018; 85 FR 78018, Dec. 3, 2020]

SOURCE: 56 FR 57598, Nov. 13, 1991; 57 FR 187, Jan. 3, 1992; 58 FR 27473, May 10, 1993; 59 FR 22985, May 4, 1994; 61 FR 45618, Aug. 29, 1996; 61 FR 46561, Sept. 4, 1996; 61 FR 52899, Oct. 9, 1996; 62 FR 37422, July 11, 1997; 63 FR 67429, Dec. 7, 1998; 63 FR 71036, Dec. 23, 1998; 64 FR 63251, Nov. 19, 1999; 65 FR 10720, Feb. 29, 2000; 65 FR 19684, April 12, 2000; 65 FR 31281, May 17, 2000; 69 FR 77938, Dec. 29, 2004; 71 FR 26251, May 4, 2006; 74 FR 39227, Aug. 6, 2009; 75 FR 9797, March 4, 2010; 76 FR 43203, July 20, 2011; 77 FR 71137, Nov. 29, 2012; 78 FR 10100, Feb. 13, 2013; 78 FR 15622, March 12, 2013; 78 FR 41321, July 10, 2013; 78 FR 50254, Aug. 16, 2013; 79 FR 48528, Aug. 15, 2014; 80 FR 1268, Jan. 8, 2015; 81 FR 40821, June 23, 2016; 81 FR 52362, Aug. 8, 2016; 81 FR 79930, Nov. 14, 2016; 81 FR 86601, Dec. 1, 2016; 82 FR 8171, Jan. 24, 2017; 82 FR 18581, April 20, 2017; 82 FR 20839, May 4, 2017; 82 FR 24561, May 30, 2017; 82 FR 41103, Aug. 29, 2017; 82 FR 41544, Sept. 1, 2017; 82 FR 55331, Nov. 21, 2017; 82 FR 58758, Dec. 14, 2017; 83 FR 2556, Jan. 18, 2018; 83 FR 4600, Feb. 1, 2018; 83 FR 7401, Feb. 21, 2018; 83 FR 46836, Sept. 14, 2018; 83 FR 47095, Sept. 18, 2018; 83 FR 48963, Sept. 28, 2018; 83 FR 51884, Oct. 15, 2018; 83 FR 61089, Nov. 27, 2018; 83 FR 63095, Dec. 7, 2018; 84 FR 8618, March 11, 2019; 84 FR 50999, Sept. 26, 2019; 84 FR 57363, Oct. 25, 2019; 86 FR 12547, March 4, 2021; 86 FR 15797, March 25, 2021, unless otherwise noted.

AUTHORITY: 47 U.S.C. chs. 2, 5, 9, 13; 28 U.S.C. 2461 note, unless otherwise noted.

Notes of Decisions (5)

Current through March 25, 2021; 86 FR 15799.

End of Document

Village of Warwick
Special Use Permit Application for New Wireless Communication Facilities

This application is required for the installation of new wireless communication facilities within the Village of Warwick, NY and for modifications of such facilities. All applicants must complete the form in its entirety and read and provide all required supporting documentation as outlined in the **Village of Warwick Zoning Code Section 145-120.1 Wireless Communications** which can be found here: https://villageofwarwick.org/village-comprehensive-plan-code-and-zoning/

Submit this completed application form along with all supporting documentation to the Village of Warwick Clerk's Office. Incomplete applications may be rejected. A non-refundable application fee of $7,500.00 must be submitted with this application.

Applicant Information

Name of Applicant: T-Mobile Northeast LLC ("T-Mobile")

Mailing Address: c/o Snyder & Snyder LLP 94 White Plains Road Tarrytown, NY 10591

Contact Person: David Kenny Phone Number: (914) 333-0700

Email Address: Dkenny@snyderlaw.net

Property Owner Information

Name of Property Owner: St. Anthony Community Hospital

Mailing Address: 15 Maple Avenue, Warwick, NY 10990

Phone Number: (845) 987-5675

Email Address: scott.watson@wmchealth.org

Property Information

Property Address: 15 Maple Avenue, Warwick, NY 10990

Tax Map Parcel Number: _____

Zoning District: CCRC

Size of Property (square feet and lot line dimensions): _____

Project Information

Description of Proposed Wireless Communication Facility:
This application is for the continued existence of T-Mobile's Existing Facility on the rooftop. The existing special permit expired and now T-Mobile seeks a new special permit. Application qualifies as an eligible facilities request, see 47 C.F.R. Sec. 1.6100

Height of Proposed Facility: 85' (Top of stealth wall (No Change))

Type and Number of Antennas: 8 Panel Antennas

Proposed Start Date: 8/31/25

Estimated Completion Date: 9/15/25

Application Fee

☐ A non-refundable application fee of $7,500.00 must be submitted with this application. Checks payable to the Village of Warwick.

Required Signatures

Printed Name of Applicant: Jon Fazio

Signature of Applicant: _____

Date: 6/5/25

Printed Name of Owner (if different from Applicant): _____

Signature of Property Owner (if different from Applicant): _____

Date: _____

Special Use Application Submission Requirements

The applicant shall demonstrate that:

1. The applicant's proposed wireless telecommunications facility can be maintained in a safe manner and in compliance with all conditions of the Special Use.
2. The applicant is authorized to do business in New York State.

All applications for the construction or installation of a new wireless telecommunications facilities shall be prepared by a New York licensed professional engineer and land surveyor and shall address either on the Site Plan or in a narrative report which may accompany the Site Plan submission, the following:

(1) The need for the wireless telecommunications facility to provide service primarily within the Village.

(2) Name and address of person preparing the report.

(3) Name and address of the property owner, operator and applicant, to include the legal form of the applicant

(4) Postal address and Tax Map parcel number of the property.

(5) Zoning district or designation in which the property is situated.

(6) Size of the property stated both in square feet and lot line dimensions and a diagram showing the location of all lot lines.

(7) Location of all residential structures within 750 feet.

(8) Location and uses of all occupied structures within 750 feet.

(9) Location and uses of all structures on the property which is the subject of the application.

(10) Location, size and height of all proposed and existing antennas and all appurtenant structures.

(11) Type, size and location of all proposed and existing landscaping.

(12) The number, type and design of the wireless telecommunications facility(s) antenna(s) proposed and the basis for the calculations of the wireless telecommunications facility's capacity to accommodate multiple users.

(13) The make, model and manufacturer of the wireless facility and antenna(s).

(14) A description of the proposed wireless facility and antenna(s) and all related fixtures, structures, appurtenances and apparatus, including height above pre-existing grade, materials, color and lighting.

(15) The frequency, modulation and class of service of radio or other transmitting equipment.

(16) Transmission and maximum effective radiated power of the antenna(s).

(17) Direction of maximum lobes and associated radiation of the antenna(s).

(18) Applicant's proposed wireless facility maintenance and inspection procedures and related system of record.

(19) Certification that NEIR levels at the proposed site are within the threshold levels adopted by the FCC.

(20) Certification that the proposed antenna(s) will not cause interference with existing telecommunications devices. The certifying engineer need not be approved by the Village.

(21) A copy of the FCC license applicable for the use of the wireless telecommunications facility.

(22) Certification that topographic and geologic conditions which are to be confirmed by field tests are sufficient to assure the stability of the proposed wireless telecommunications tower.

(23) Propagation studies of the proposed site and all adjoining proposed or in-service or existing sites.

(24) Applicant shall disclose, in writing, any agreement in existence prior to submission of the application that would limit or preclude the ability of the applicant to share any new wireless telecommunications facility that it constructs.

- In the case of a new wireless telecommunications facility, the applicant shall be required to submit a report demonstrating its efforts to secure shared use of existing wireless telecommunications facility(s). Copies of written requests and responses for shared use shall be provided to the Village Board.
- Certification that the wireless telecommunications facility and attachments both are designed and constructed ('as built') to meet all county, state and federal structural requirements for loads, including wind and ice.
- The applicant shall submit a completed Long Form EAF and a completed Visual EAF addendum.
- The Visual EAF addendum shall be in the form of a visual impact assessment which shall include:

(1) A Zone of Visibility Map, indicating the full range and line of sight within which the proposed facility will be visible.

(2) Pictorial representations of before and after views from key viewpoints to be determined by the Village Board including but not limited to state highways and other major roads; state and local parks; other public lands; historic districts; preserves and historic sites normally open to the public; and from any other location where the site is visible.

(3)An assessment of the visual impact of the facility base, wires and accessory buildings from abutting and adjacent properties and streets.

(4)A discussion of the feasibility of disguising the proposed utilizing stealth technology to blend with surrounding vista.

- The applicant shall provide a plan for mitigation of the visual impacts which shall include a screening plan and such other methods as the applicant may employ to diminish any adverse visual impact attributable to the proposal.

Shared Use of Towers

1. Location of antennas on pre-existing structures shall be considered and preferred. Shared use of existing telecommunications towers or other existing structures within four miles of any proposed new tower site; and
    a. Where such shared use is unavailable, the applicant shall submit a comprehensive report inventorying existing towers and other appropriate structures within four miles of any proposed new tower site; and
    b. The applicant shall provide analysis of the feasibility of shared use of any facility so identified.
2. An applicant intending to share use of an existing telecommunications tower or other tall structure shall be required to document the feasibility of same.

Height of Wireless Telecommunications Facilities.

- The applicant shall submit documentation justifying to the Village Board the total height of any wireless telecommunications facility and/or antenna and the basis therefore.

VILLAGE OF WARWICK
COUNTY OF ORANGE
----------X

In the matter of the Application for

Statement of Compliance

T-Mobile Northeast LLC ("T-Mobile")

Property: 15 Maple Avenue
----------X

State of New York)
)ss.:
County of Westchester)

Jon Forzio , on behalf of T-Mobile Northeast LLC, being duly sworn, does depose and say:

1. I am the Agent of T-Mobile Northeast LLC ("T-Mobile"), the Applicant for a special use permit to operate a wireless communications facility at 15 Maple Avenue (St. Anthony's Hospital), in the Village of Warwick ("Property").

2. I hereby state, in accordance with Section 145-120.1(D)(1)(c) of the Village of Warwick Zoning Code that the existing wireless telecommunications facility ("Facility") located at the Property has been maintained in a safe manner, and in compliance with all conditions of the special permit, without exception, unless specifically granted relief by the Village in writing, as well as all applicable and permissible local codes, ordinances, and regulations, including any and all applicable Village, state and federal laws, rules, and regulations.

4. T-Mobile is authorized to do business in New York State.

T-Mobile Northeast LLC

By: _____

Name: Jon Forzio

Title: Project manager

Sworn to before me this
4th day of August, ~~2024~~ 2025

_____
Notary Public

JOAN NUNEZ
Notary Public, State of New Jersey
My Commission Expires Mar 26, 2029

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: NY10253B - T-Mobile Co-location and Modification of a Wireless Communications Facility		
Project Location (describe, and attach a general location map): 17 Maple Avenue, Warwick, NY 10990		
Brief Description of Proposed Action (include purpose or need): T-Mobile Northeast, LLC proposes to modify an existing telecommunications facility located at 17 Maple Avenue, Warwick, Orange County, New York. More specifically, the actions include the removal of four (4) AIR32 B66A B2A and three (3) GENERIC TWIN STYLE 1B-AWS from the building and addition of one (1) RADIO 4449 B71/B12, four (4) AIR6419 B41, four (4) RADIO 4460 B25+B66, and one (1) APXVAALL18_43-U-NA20 and will be routed into existing equipment + proposed equipment cabinets at ground level. Ground work proposed includes one (1) ENCLOSURE 6160AC, one (1) ERICSON B160 AC V1 CABINET, and one (1) ERICSON RP 6651 (N500). The Village has informed T-Mobile that the special permit has expired and therefore this application includes a request for a new special permit. This project will include no ground disturbance and will require no tree removal.		
Name of Applicant/Sponsor: Snyder & Snyder LLP	Telephone: (914) 333-0700 E-Mail: dkenny@snyderlaw.net	
Address: 94 White Plains Road		
City/PO: Tarrytown	State: NY	Zip Code: 10591
Project Contact (if not same as sponsor; give name and title/role): Jonathan Fazio	Telephone: (973) 934-9354 E-Mail: jfazio@inrange-llc.com	
Address: 90 East Halsey Road, Suit 382		
City/PO: Parsippany	State: NJ	Zip Code: 07054
Property Owner (if not same as sponsor): St. Anthony Community Hospital	Telephone: E-Mail:	
Address: 17 Maple Avenue		
City/PO: Warwick	State: NY	Zip Code: 10990

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Special Permit	Projected 2025-08-01
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☐Yes☑No		
f. Regional agencies ☐Yes☑No		
g. State agencies ☐Yes☑No		
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☑Yes☐No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐Yes☑No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes☐No

If Yes, identify the plan(s):

The site is located wtihin the Warwick Village Historic District

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
The Village o f Warwick Zoning Map depicts that the site is located in zone 'CCRC', a Continuing Care Retirement Community. The site is also on the NY SHPO's CRIS GIS Map as being within the Warwick Village Historic District

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Warwick Valley Central School District

b. What police or other public protection forces serve the project site?
Warwick Town Police Department

c. Which fire protection and emergency medical services serve the project site?
Orange County Emergency Services, Warwick Fire Department

d. What parks serve the project site?
None, the closest park to the Project Site is Stanley Deming Park (approximately 0.62 miles away)

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? The planned activity includes the modification to an existing rooftop telecommunications facility. No ground disturbance is proposed.

b. a. Total acreage of the site of the proposed action? _____ acres
b. Total acreage to be physically disturbed? _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
_____
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: <1 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐Yes ☑No
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑Yes ☐No
If Yes,
i. Total number of structures N/A
ii. Dimensions (in feet) of largest proposed structure: N/A height; N/A width; and N/A length
iii. Approximate extent of building space to be heated or cooled: N/A square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No
If Yes,
i. Purpose of the impoundment:
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify:
iii. If other than water, identify the type of impounded/contained liquids and their source.
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☑No
If Yes:
i. What is the purpose of the excavation or dredging?
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.
iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☑No
If yes, describe.
v. What is the total area to be dredged or excavated? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting? ☐Yes ☑No
ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☑No
If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☑No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☑No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes ☑No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No
- Do existing lines serve the project site? ☐Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐Yes ☑No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes ☑No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No

- Do existing sewer lines serve the project? ☐Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☐Yes ☑No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☐No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Temporary construction/fleet vehicles

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

N/A

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

N/A

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: Normal buisness hours
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: Unmanned operation 24 hours/day
- Saturday: Unmanned operation 24 hours/day
- Sunday: Unmanned operation 24 hours/day
- Holidays: Unmanned operation 24 hours/day

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If yes:

i. Provide details including sources, time of day and duration:

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe:

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

A maintenance light is not detailed, but is noted in the electrical schematics of the construction drawings. This light is off, with the exception of when night maintenance operations are required.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction:
- Operation:

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction:
- Operation:

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☑ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☐ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Telecommunications Facility

ii. If mix of uses, generally describe:

Hospital complex with a telecommunications facility on the building rooftop.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	<0.01	<0.01	0
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: N/A	0	0	0

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

St. Anthony Community Hospital, Warwick Day Care Center, and Schervier Pavilion

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑ Yes ☐ No

If yes, provide DEC ID number(s): 336003, 336061

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

Georgia Pacific Corp. (336003) - Classification A - Assigned to a non-registry site in any remedial project where work is underway/not completed.
New Grange Properties (336061) - Classification C - Remediation has been satisfactorily completed under a remedial program.

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☑ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 6+ feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: NOTE: Rooftop facility. As such, the project will include no ground disturbing activities. _____% _____% _____%

d. What is the average depth to the water table on the project site? Average: 6+ feet

e. Drainage status of project site soils:
☐ Well Drained: _____% of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☐ 0-10%: _____% of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: NOTE: Rooftop facility. As such, the project will include no ground disturbing activities.

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name N/A for rooftop installation - over 300' away from building Classification _____
- Lakes or Ponds: Name N/A for rooftop installation - over 300' away from building Classification _____
- Wetlands: Name N/A for rooftop installation - over 300' away from building Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Principal Aquifer, Sole Source Aquifer Names:Northwest NJ 15 Basin SSA

m. Identify the predominant wildlife species that occupy or use the project site:
Normal suburban wildlife.

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation):
NOTE: Rooftop facility. As such, the project will include no ground disturbing activities. Further, in response to o.i., below, no tree removal proposed.

ii. Source(s) of description or evaluation:

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:

i. Species and listing (endangered or threatened):
Indiana Bat

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing:
No ground disturbance is proposed for the maintenance of the existing rooftop facility.

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use:
No ground disturbance is proposed for the maintenance of the existing rooftop facility.

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site?

ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name:

ii. Basis for designation: No ground disturbance is proposed for the maintenance of the existing rooftop facility.

iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Warwick Village Historic District

iii. Brief description of attributes on which listing is based:

The property is located within the NRHP-listed Warwick Village Historic District. The property also houses the NRHP-listed Grinnel Burt House.

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☑ Yes ☐ No

If Yes:

i. Describe possible resource(s): The property also houses the NRHP-listed Grinnel Burt House.

ii. Basis for identification: Depicted on the SHPO's CRIS GIS Map.

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Wawayanda Sate Park, Appalachian Trail, Black Bear RV Park, Stanley Deming Park, Warwick Skate Park,

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): State or local parks, state historic trail No ground disturbance is proposed for the maintenance of the existing rooftop facility.

iii. Distance between project and resource: Between 0.62 and 4.7 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation:

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

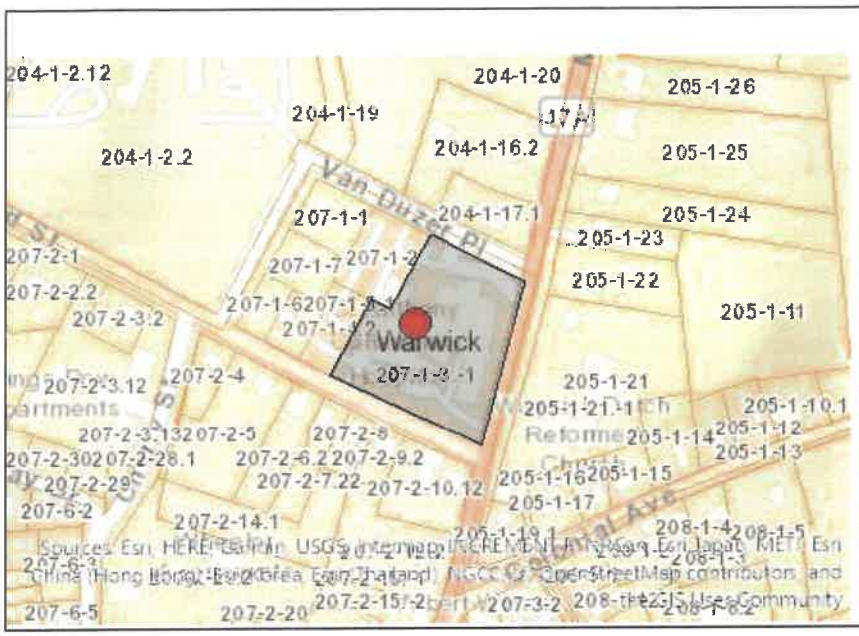
Applicant/Sponsor Name Andrew J. Rice Date 2025-07-21

Signature  Title Project Manager

PRINT FORM

EAF Mapper Summary Report

Tuesday, July 15, 2025 10:47 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources to confirm data provided by the Mapper or to obtain data not provided by the Mapper.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	336003, 336061
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.h.ii [Surface Water Features]	Yes - Digital mapping information on local, New York State, and federal wetlands and waterbodies is known to be incomplete. Refer to the EAF Workbook.
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local, New York State, and federal wetlands and waterbodies is known to be incomplete. Refer to the EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No

E.2.I. [Aquifers]	Yes
E.2.I. [Aquifer Names]	Principal Aquifer, Sole Source Aquifer Names:Northwest NJ 15 Basin SSA
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Indiana Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Warwick Village Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

April 15, 2025

Re: NY10253B T-Mobile Special Permit Renewal
17 Maple Avenue
Warwick, NY 10990

To: Village of Warwick Planning Board,

PierCon Solutions LLC, an engineering firm specializing in wireless communications, performed an independent analysis regarding the radiofrequency engineering aspects of the proposal by T-Mobile Northeast, LLC to continue operating a wireless telecommunications facility at 17 Maple Avenue, Warwick, New York. T-Mobile is licensed by the FCC to provide 5G and LTE data and voice services in the 600 MHz, 700 MHz, 1900 MHz, 2100 MHz, and 2500 MHz frequency bands.

Currently, T-Mobile provides reliable service to the Village of Warwick with the wireless communications site NY10253B, located at 17 Maple Avenue, Warwick, New York. This facility supports the installation on a 79' rooftop with other telecommunications carriers. This site provides reliable in-building coverage in the mid-band to an area of 2.14 square miles, providing service to 3,570 people. Additionally, this site provides reliable in-building coverage in the low band to an area of 7.65 square miles, providing service to 6,797 people. Most of this coverage is within the boundaries of the Village of Warwick for both the low band and the mid-band. This coverage offers service to St. Anthony Community Hospital, the Village of Warwick's Central Business area, and surrounding residential areas.

Six exhibits are attached in support of this application:

Exhibit A: T-Mobile Existing 2100 MHz LTE Coverage - Exhibit A illustrates T-Mobile's existing sites' mid-band service provided to the area.

Exhibit B: T-Mobile Existing 2100 MHz LTE Coverage without NY10253B - Exhibit B illustrates the gap in T-Mobile's existing mid-band service without the subject site.

Exhibit C: T-Mobile Existing 2100 MHz LTE Coverage NY10253B Only - Exhibit C illustrates T-Mobile's existing mid-band service provided by the subject site to the area.

Exhibit D: T-Mobile Existing 700 MHz LTE Coverage - Exhibit D illustrates T-Mobile's existing site's low band service provided to the area.

Exhibit E: T-Mobile Existing 700 MHz LTE Coverage without NY10253B - Exhibit E illustrates the gap in T-Mobile's existing low band service without the subject site.

Exhibit F: T-Mobile Existing 700 MHz LTE Coverage NY10253B Only - Exhibit F illustrates T-Mobile's existing low band service provided by the subject site to the area.

Exhibit G: T-Mobile FCC Licenses - Exhibit G contains T-Mobile's FCC licenses for the 600 MHz, 700 MHz, 1900 MHz, 2100 MHz, and 2500 MHz bands.

If you have any questions regarding the report, please feel free to contact me. Thank you for your time in reviewing the application.

Regards,

Ryan Martin
Associate RF Engineer
PierCon Solutions LLC
Date: April 15, 2025

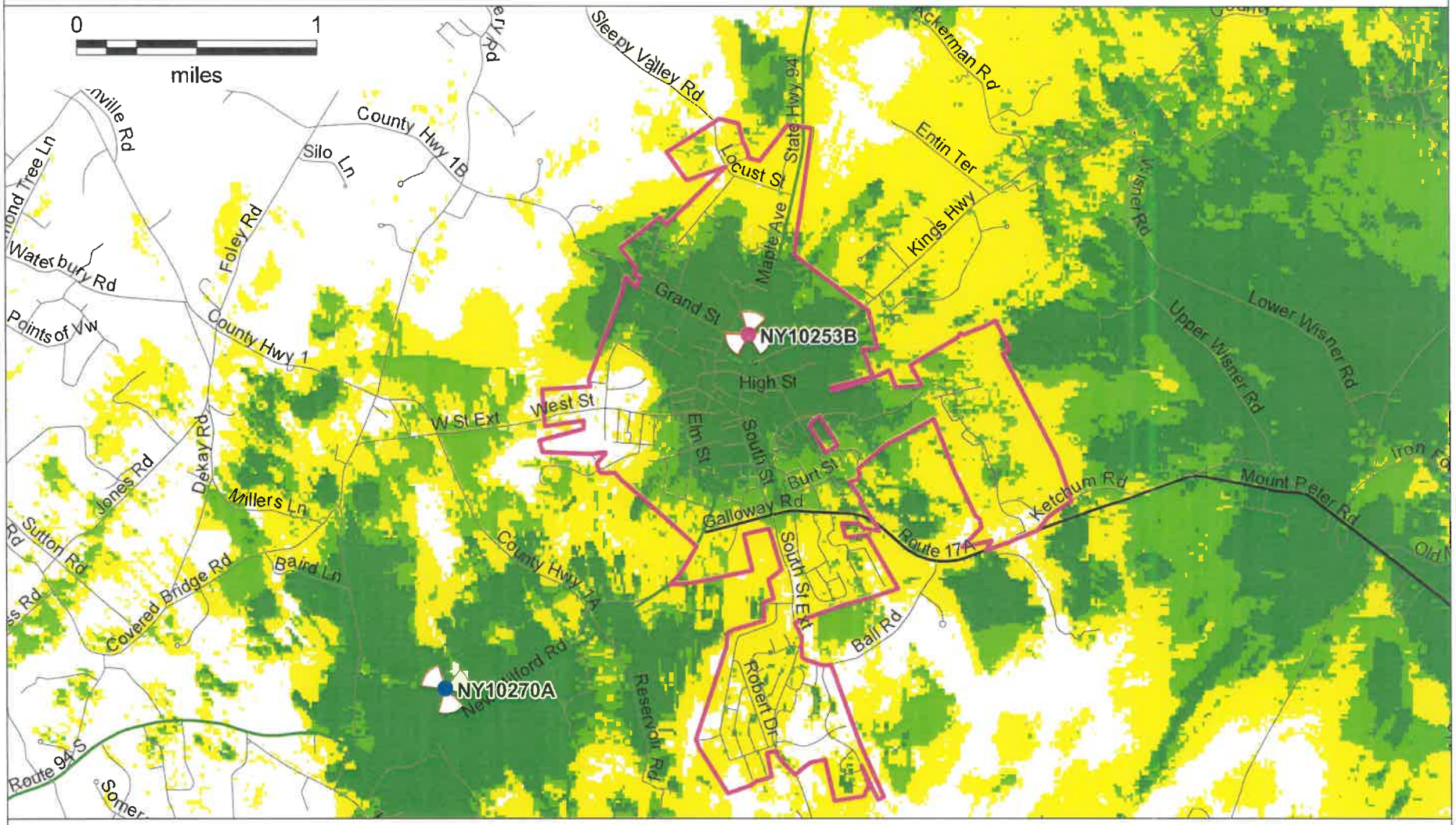
Report Reviewed By:

Daniel Czech
RF Engineer
PierCon Solutions LLC
Date: April 15, 2025

Registered Professional Engineer
New York License Number 79144

Exhibit A

T-MOBILE
EXISTING 2100 MHz LTE COVERAGE



- Existing Macro On Air Site
- Subject Site
- Village of Warwick Boundary

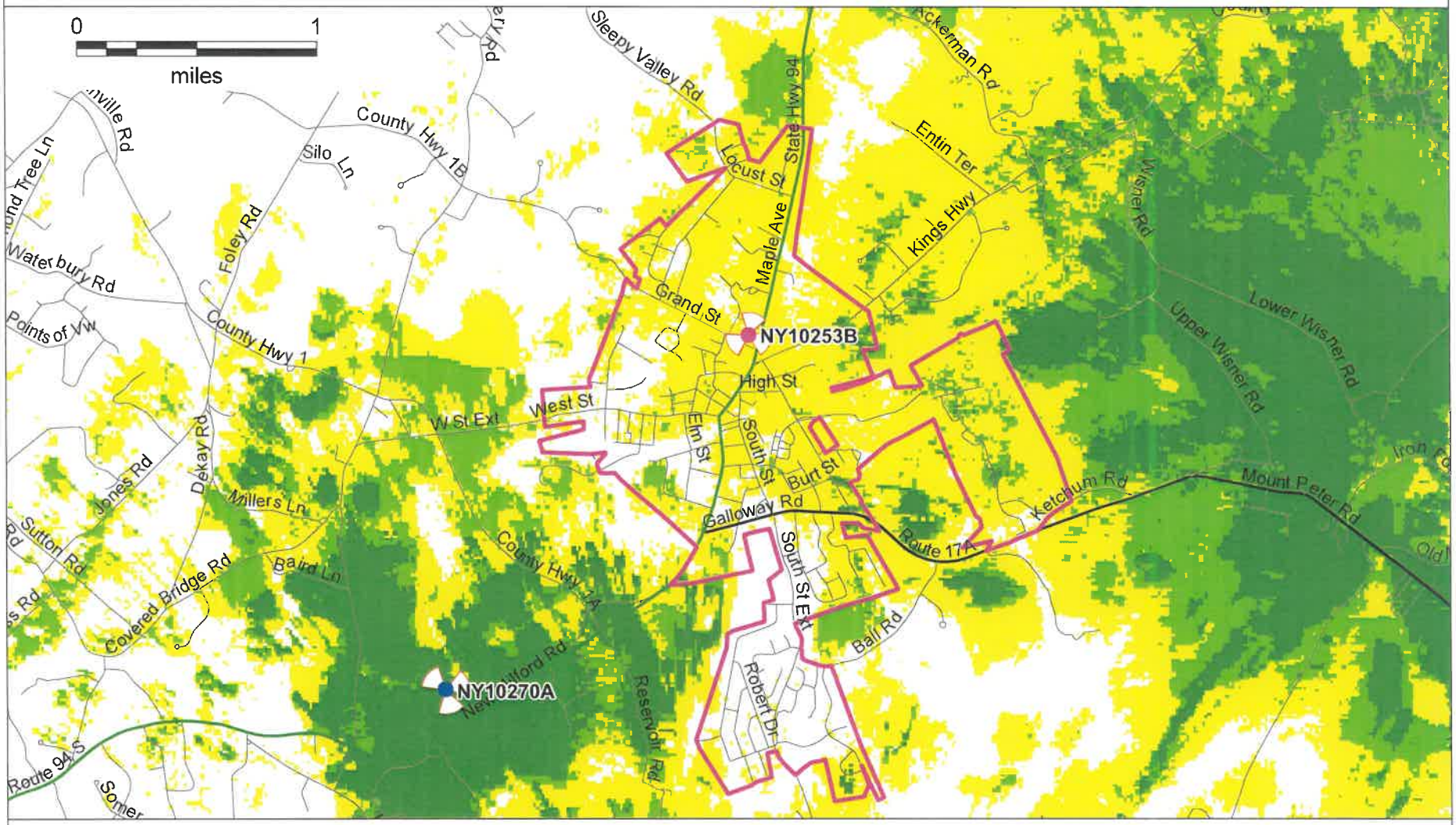
- >= -95 dBm RSRP Inbuilding Commercial Service
- >= -100 dBm RSRP Inbuilding Residential Service
- >= -108 dBm RSRP In-vehicle Service

N

Prepared by PierCon Solutions LLC

Exhibit B

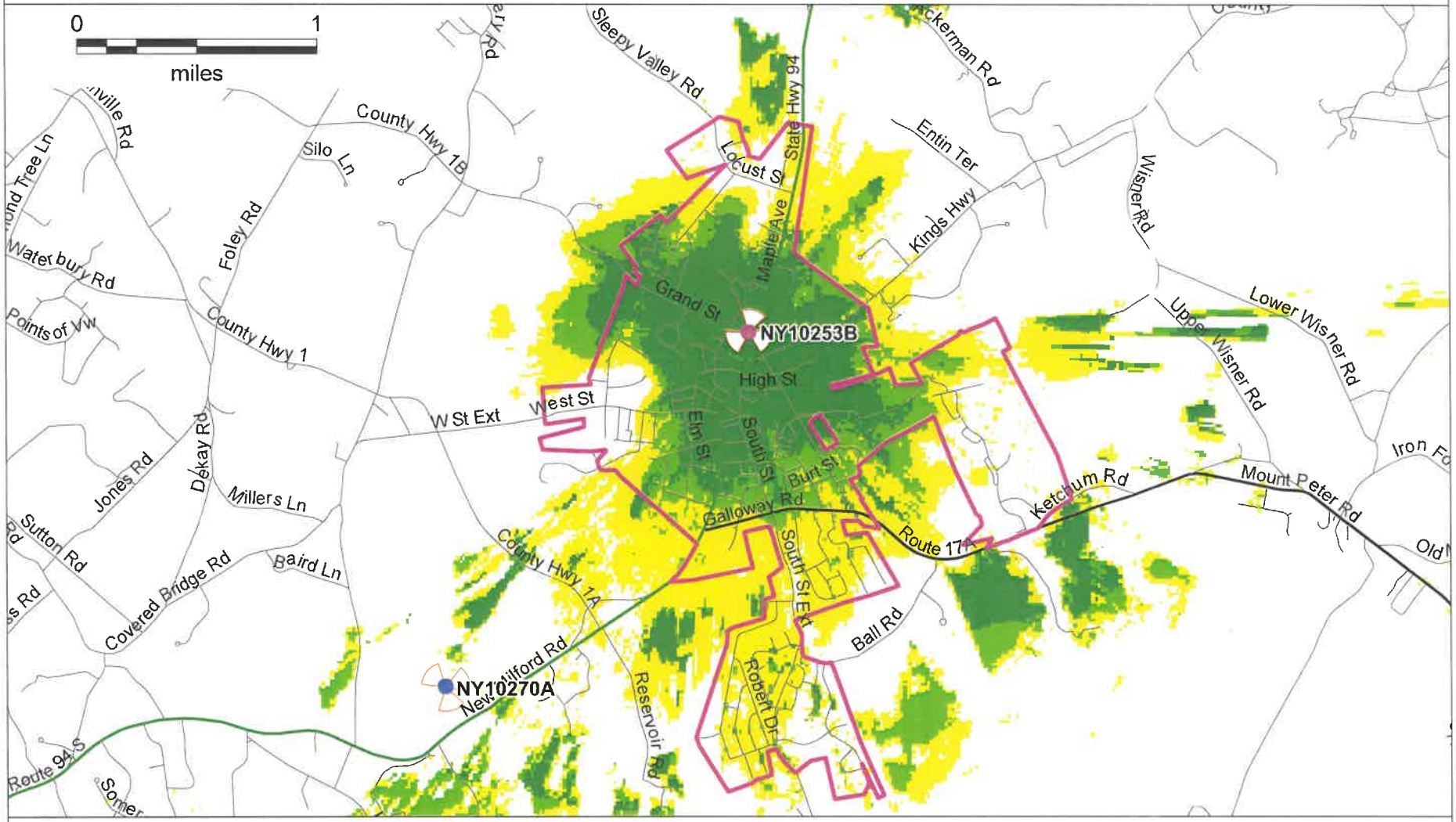
T-MOBILE
EXISTING 2100 MHz LTE COVERAGE WITHOUT NY10253B



Prepared by PierCon Solutions LLC

Exhibit C

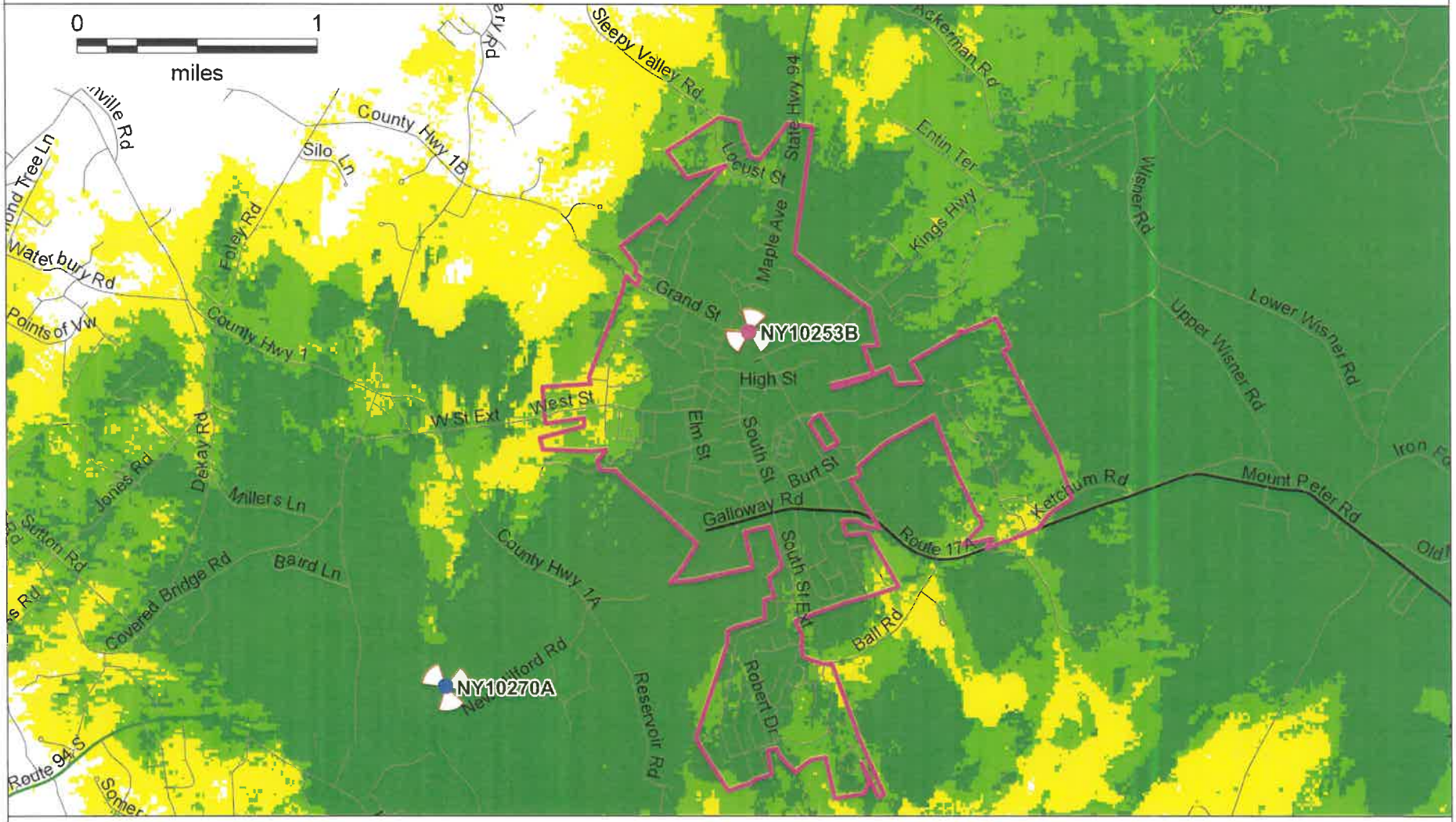
T-MOBILE
EXISTING 2100 MHz LTE COVERAGE NY10253B ONLY



Prepared by PierCon Solutions LLC

Exhibit D

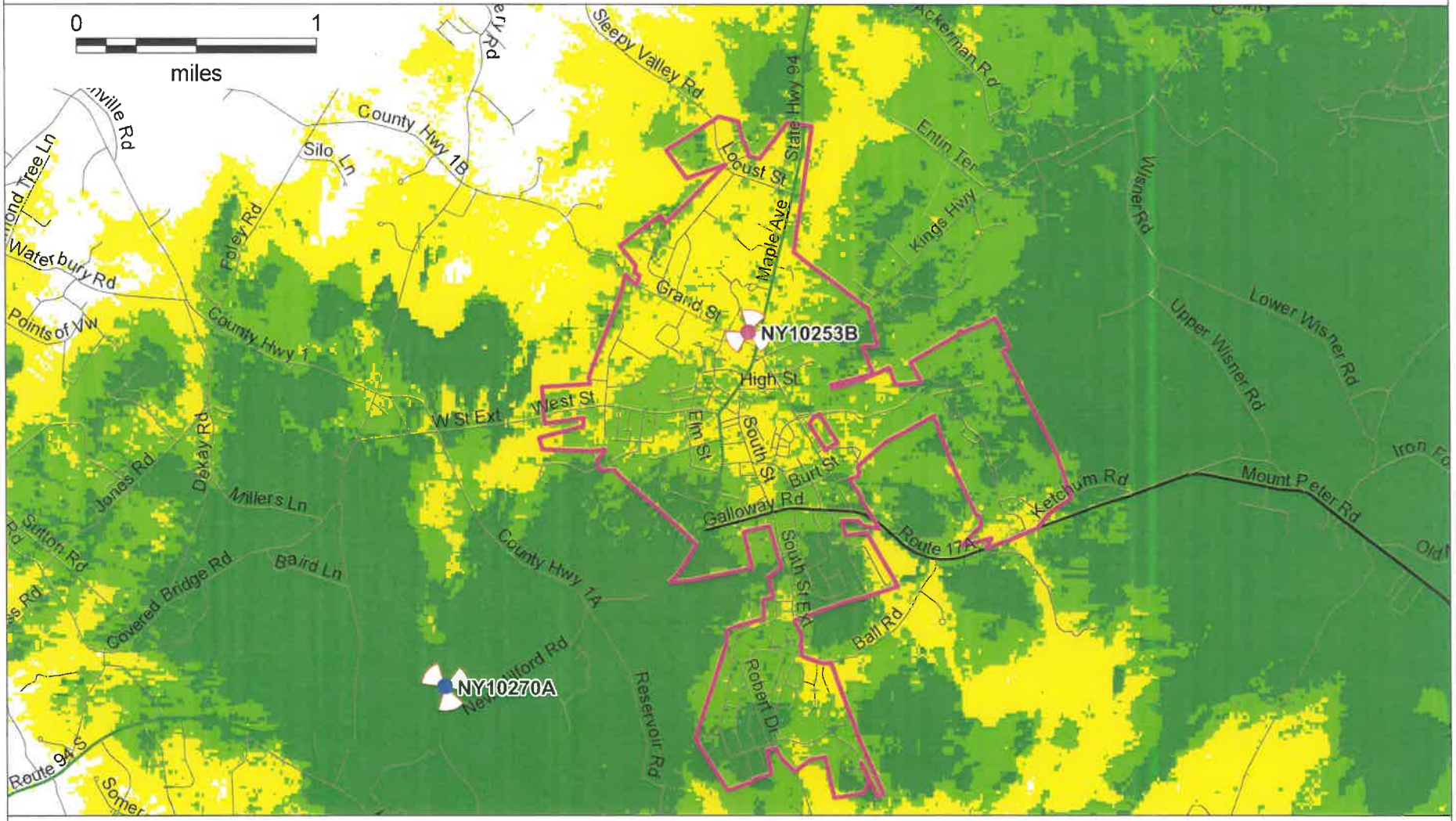
T-MOBILE
EXISTING 700 MHz LTE COVERAGE



Prepared by PierCon Solutions LLC

Exhibit E

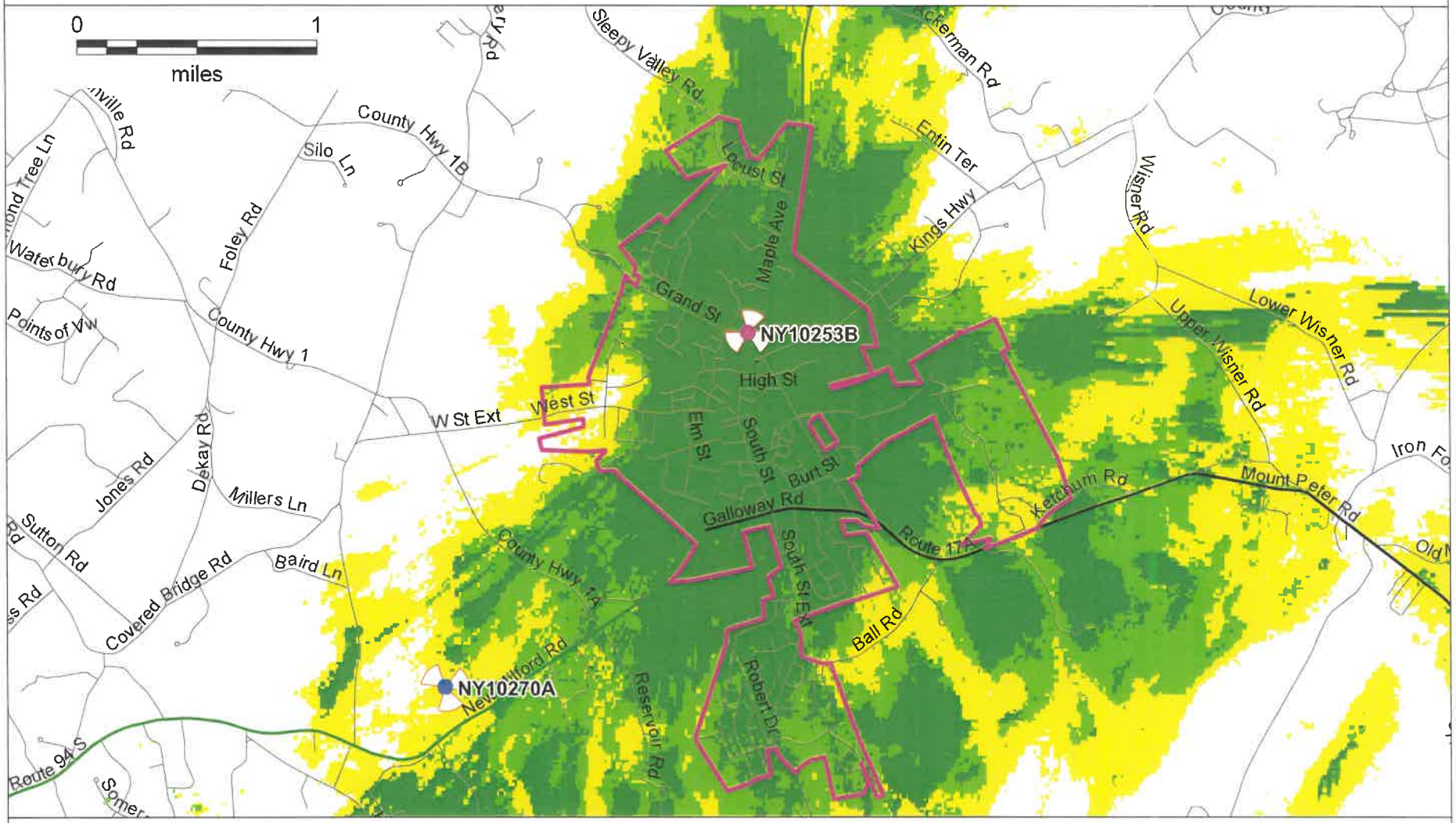
T-MOBILE
EXISTING 700 MHz LTE COVERAGE WITHOUT NY10253B



Prepared by PierCon Solutions LLC

Exhibit F

T-MOBILE
EXISTING 700 MHz LTE COVERAGE NY10253B ONLY



Prepared by PierCon Solutions LLC

Exhibit G

ULS License

600 MHz Band License - WQZL490 - Nextel West Corp.

Call Sign	WQZL490	Radio Service	WT - 600 MHz Band
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?	No

Reserved Spectrum

Reserved Spectrum	Yes

Market

Market	PEA001 - New York, NY	Channel Block	C
Submarket	0	Associated Frequencies (MHz)	000627.00000000-000632.00000000 000673.00000000-000678.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	06/14/2017	Expiration	06/14/2029
Effective	10/18/2022	Cancellation	

Buildout Deadlines

1st	06/14/2023	2nd	06/14/2029

Discontinuance Dates

1st		2nd	

Notification Dates

1st	04/27/2023	2nd	04/27/2023

ECIP Information

ECIP Flag			
Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0001608363	Type	Corporation

Licensee

Nextel West Corp.
12920 SE 38th Street
Bellevue, WA 98006
ATTN FCC Regulatory Compliance

P:(425)383-8401
F:(425)383-4840
E:FCCRegulatoryComplianceContact@T-Mobile.com

Contact

Nextel West Corp.

12920 SE 38th Street
Bellevue, WA 98006
ATTN FCC Regulatory Compliance

P:(425)383-8401
F:(425)383-4840
E:FCCRegulatoryComplianceContact@T-Mobile.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	**Yes**
The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized.	✓

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

700 MHz Lower Band (Blocks A, B & E) License - WQJQ696 - Nextel West Corp.

Call Sign	WQJQ696	Radio Service	WY - 700 MHz Lower Band (Blocks A, B & E)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	BEA010 - New York-North New Jersey-Long Island, NY-NJ-CT-PA-MA-VT	Channel Block	A
Submarket	0	Associated Frequencies (MHz)	000698.00000000-000704.00000000 000728.00000000-000734.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	07/03/2019	Expiration	06/13/2029
Effective	10/18/2022	Cancellation	

Buildout Deadlines

1st		2nd	06/13/2019

Discontinuance Dates

1st		2nd	

Notification Dates

1st		2nd	05/03/2019

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN 0001608363 Type Corporation

Licensee

Nextel West Corp.
12920 SE 38th Street
Bellevue, WA 98006
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P:(425)383-8401
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Bellevue, WA 98006
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P:(425)383-8401
F:(425)383-4840
E:FCCRegulatoryComplianceContact@T-Mobile.com

Ownership and Qualifications

Radio Service Type Mobile

Regulatory Status Common Carrier Interconnected Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	**Yes**
The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized.	✓

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity Gender

ULS License

PCS Broadband License - KNLF202 - Nextel West Corp.

This license has pending applications: 0011452302

Call Sign	KNLF202	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	MTA001 - New York	Channel Block	A
Submarket	57	Associated Frequencies (MHz)	001850.00000000-001865.00000000 001930.00000000-001945.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	12/11/2024	Expiration	12/14/2034
Effective	12/11/2024	Cancellation	

Buildout Deadlines

1st	12/14/1999	2nd	12/14/2004

Discontinuance Dates

1st		2nd	

Notification Dates

1st	04/01/1999	2nd	04/01/1999

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0001608363	Type	Corporation

Licensee

Nextel West Corp.
12920 SE 38th Street
Bellevue, WA 98006

P:(425)383-8401
F:(425)383-4840
E:FCCRegulatoryComplianceContact@T-Mobile.com

Contact

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Bellevue, WA 98006
ATTN FCC Regulatory Compliance

P:(425)383-8401
F:(425)383-4840
E:FCCRegulatoryComplianceContact@T-Mobile.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	**Yes**
The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized.	✓

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGA725 - Nextel West Corp.

Call Sign	WQGA725	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	BEA010 - New York-North New Jersey-Long Island, NY-NJ-CT-PA-MA-VT	Channel Block	C
Submarket	17	Associated Frequencies (MHz)	001730.00000000-001735.00000000 002130.00000000-002135.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	02/02/2022	Expiration	11/29/2036
Effective	10/18/2022	Cancellation	

Buildout Deadlines

1st	2nd

Discontinuance Dates

1st	2nd

Notification Dates

1st	2nd	11/17/2021

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction	Rural-Focused Transaction

ECIP Dates

5-Year Holding Period Begins	5-Year Holding Period Ends

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN 0001608363 Type Corporation

Licensee

Nextel West Corp.
12920 SE 38th Street
Bellevue, WA 98006
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P:(425)383-8401
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Contact

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P:(425)383-8401
F:(425)383-4840
E:FCCRegulatoryComplianceContact@T-Mobile.com

Ownership and Qualifications

Radio Service Type Mobile

Regulatory Status Common Carrier Interconnected Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	**Yes**
The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized.	✓

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity Gender

ULS License

Broadband Radio Service License - B321 - Nextel West Corp

Call Sign	B321	Radio Service	BR - Broadband Radio Service
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Dates

Grant	03/02/2016	Expiration	03/28/2026
Effective	11/10/2022	Cancellation	

Buildout Deadlines

1st	05/01/2011	2nd	

Discontinuance Dates

1st		2nd	

Notification Dates

1st	03/15/2011	2nd	

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0001608363	Type	Corporation

Licensee

Nextel West Corp
12920 SE 38th Street
Bellevue, WA 98006
ATTN FCC Regulatory Compliance

P:(425)383-8401
F:(425)383-4840
E:FCCRegulatoryComplianceContact@T-Mobile.com

Contact

T-Mobile USA, Inc.

P:(425)383-8401
F:(425)383-4840

12920 SE 38th Street
Bellevue, WA 98006
ATTN FCC Regulatory Compliance

E:FCCRegulatoryComplianceContact@T-Mobile.com

Broadband Radio Service and Educational Broadband Service Information

Will the requested facilities be used to provide multichannel video programming service?	No
If the answer to the above question is yes, does the Applicant operate, control or have an attributable interest (as defined in 47 CFR § 27.1202) in a cable television system whose franchise area is located within the geographic service area of the requested facilities?	
Does the Applicant comply with the programming requirements contained in 47 CFR § 27.1203?	

Geographic Service Area

Authorization Type	BTA	Market	BTA321 New York, NY

Channel Plan/Channel Number Information

Channel Plan	Channel Number	
New	BRS1	002496.00000-002502.00000 MHz
New	BRS2	002618.00000-002624.00000 MHz
New	E1	002624.00000-002629.50000 MHz
New	E2	002629.50000-002635.00000 MHz
New	E3	002635.00000-002640.50000 MHz
New	E4	002608.00000-002614.00000 MHz
New	F1	002640.50000-002646.00000 MHz
New	F2	002646.00000-002651.50000 MHz
New	F3	002651.50000-002657.00000 MHz
New	F4	002602.00000-002608.00000 MHz
New	H1	002657.00000-002662.50000 MHz
New	H2	002662.50000-002668.00000 MHz
New	H3	002668.00000-002673.50000 MHz

Ownership and Qualifications

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	**Yes**

The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized. ✓

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

PierCon Solutions L.L.C.
Specialists in Wireless Systems

Evaluation of the Radiofrequency Environment in the Vicinity of the Proposed **NY10253B** Wireless Facility

17 Maple Avenue

Warwick NY 10990

Located in the County of Orange

Prepared for

T-Mobile Northeast LLC, a Delaware Limited Liability Company

by

PierCon Solutions, LLC
May 14, 2025

PierCon Solutions LLC
Specialists in Wireless Systems

TABLE OF CONTENTS

1.0 SUMMARY AND COMPLIANCE STATUS

T-Mobile Northeast LLC, a Delaware Limited Liability Company, proposes to continue operating a wireless communications installation on a 79 foot tall rooftop at **17 Maple Avenue, Warwick, NY 10990.**

PierCon Solutions, LLC, an engineering firm specializing in wireless communications, was contracted to perform an independent assessment of this facility and its environs on behalf of T-Mobile Northeast LLC. The primary purpose of this assessment was to predict whether the radiofrequency (RF) environment at the wireless communications site location and in its immediate surroundings will be in compliance with guidelines for applicable limits for human exposure to radiofrequency fields, as adopted by the Federal Communications Commission (FCC). To perform this assessment, PierCon Solutions personnel obtained applicable engineering data and drawings from the applicant and obtained antenna specifications from the manufacturer.

RF information was collected and analyzed using methodology recommended by the Federal Communication Commission's Office of Engineering and Technology in Bulletin 65 *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields,* 97-01 (OET Bulletin 65) and of Richard Tell in his *CTIA's EME Design and Operation Considerations for Wireless Antenna Sites November 15, 1996.*

The completed assessment includes consideration of contributions to the radiofrequency environment from the proposed T-Mobile installation and existing AT&T and Verizon wireless technologies. The T-Mobile installation includes 2 panel antenna in 4 sectors (8 total antennas). The installation provides LTE service at 700 MHz, 1900 MHz, and 2100 MHz and 5G service at 600 MHz, 1900 MHz, 2100 MHz, and 2500 MHz. The centerlines of the antennas for this service are 81' above ground level (AGL) for all sectors. Associated transmitters and ancillary equipment are located with the antennas rooftop and on a lower rooftop. GPS antennas are also required. They are utilized to receive only and are not capable of contributing to RF energy at the site.

PierCon Solutions predicted the radiofrequency environment by adding the worst-case RF contribution, in terms of percentage of applicable FCC limits, from the proposed and existing installations. The FCC's general public exposure limits were applied which are the strictest criteria.

After reviewing and analyzing the information gathered and considering relevant factors, PierCon Solutions, LLC has made the following determination regarding the site's compliance with applicable guidelines for Maximum Permissible Exposure (MPE) limits, as defined by the FCC. The potential RF exposures will be well below general public limits for all publicly accessible areas in this location and nearby properties.

This site will be in compliance with applicable FCC radiofrequency exposure limits.

2.0 PREDICTIVE ANALYSIS

2.1 TECHNICAL DATA USED IN THIS PREDICTIVE ANALYSIS

Technical input parameters used or considered in the predictive modeling performed in this study are identified in the following tables. These parameters were assumed for AT&T and Verizon based on previous studies and their current offerings. T-Mobile has deployed different technology in its delta sector from the other sectors at this site. As such an extra study was run with those values for the calculations and they are included below.

T-Mobile Radio Parameters							
Service Type	5G NR	LTE	5G NR	LTE	5G NR	LTE	5G NR
Transmission Frequency Band	T-MOBILE 5G NR 600 MHz	T-Mobile LTE 700 MHz	T-MOBILE 5G NR 2500 MHz	T-Mobile LTE 2100 MHz	T-MOBILE 5G NR 1900 MHz	T-Mobile LTE 1900 MHz	T-Mobile 5G NR 2100 MHz
Antenna Height above ground level (centerline)	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL
Person Height above ground level	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL
Antenna type	Panel	Panel	Panel	Panel	Panel	Panel	Panel
Antenna Manufacturer	RFS	RFS	Ericsson	RFS	RFS	RFS	RFS
Antenna Model	RFS APXVAARR 18_43-U-NA20-1-9-617+	RFS APXVAARR 18_43-U-NA20-1-9-707+	Ericsson Air6419NR	RFS APXVAARR 18_43-U-NA20-5-2-2110+	RFS APXVAARR 18_43-U-NA20-5-2-1910+	RFS APXVAARR 18_43-U-NA20-5-2-1910+	RFS APXVAARR 18_43-U-NA20-5-2-2110+
Antenna Length	72 inches	72 inches	39 inches	72 inches	72 inches	72 inches	72 inches

Table 1 – T-Mobile Radio Parameters for Alpha, Beta, and Gamma sectors

T-Mobile Radio Parameters							
Service Type	5G NR	LTE	5G NR	LTE	5G NR	LTE	5G NR
Transmission Frequency Band	T-MOBILE 5G NR 600 MHz	T-Mobile LTE 700 MHz	T-MOBILE 5G NR 2500 MHz	T-Mobile LTE 2100 MHz	T-MOBILE 5G NR 1900 MHz	T-Mobile LTE 1900 MHz	T-Mobile 5G NR 2100 MHz
Antenna Height above ground level (centerline)	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL
Person Height above ground level	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL
Antenna type	Panel	Panel	Panel	Panel	Panel	Panel	Panel
Antenna Manufacturer	COMMSCOPE	COMMSCOPE	Ericsson	COMMSCOPE	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Model	COMMSCOPE FFVV-65B-R2_02DT_0617	COMMSCOPE FFVV-65B-R2_03DT_0700	Ericsson Air6419NR	COMMSCOPE FFVV-65B-R2_04DT_2100	COMMSCOPE FFVV-65B-R2_04DT_1900	COMMSCOPE FFVV-65B-R2_04DT_1900	COMMSCOPE FFVV-65B-R2_04DT_2100

Antenna Length	72 inches	72 inches	39 inches	72 inches	72 inches	72 inches	72 inches

Table 2 – T-Mobile Radio Parameters for Delta sector

AT&T Wireless Radio Parameters					
Service Type	LTE 2100 MHz	LTE 850 MHz	LTE 1900 MHz	LTE 700 MHz	3700 MHz
Transmission Frequency Band	2100 MHz Band	850 MHz Band	1900 MHz Band	700 MHz Band	3700 MHz Band
Antenna Height above ground level (centerline)	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL
Person Height above ground level	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL
Antenna type	Panel	Panel	Panel	96	Panel
Antenna Manufacturer	COMMSCOPE	COMMSCOPE	COMMSCOPE	COMMSCOPE	NOKIA
Antenna Model	COMMSCOPE NNHH-65C-R4_Port 6 - 45_02DT_2130	COMMSCOPE NNHH-65C-R4_Port 1 +45_04DT_0851	COMMSCOPE NNHH-65C-R4_Port 5 +45_02DT_1990	COMMSCOPE NNHH-65C-R4_Port 1 +45_04DT_0710	Nokia _AEQK_3700_10 dt
Antenna Length	96 inches	96 inches	96 inches	96 inches	48 inches

Table 3 – AT&T Radio Parameters

Verizon Wireless Radio Parameters							
Service Type	5G LSUB6	LTE 1900	LTE 700	LTE 2100	CBRS 3.7 GHZ	LTE 850	5G NR 850 MHz
Transmission Frequency Band	3700 MHz Band	1900 MHz Band	700 MHz Band	2100 MHz Band	3700 MHz Band	850 MHz Band	850 MHz Band
Antenna Height above ground level (centerline)	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL	81 feet AGL
Person Height above ground level	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL	6 feet AGL
Antenna type	Panel	Panel	Panel	Panel	Panel	Panel	Panel
Antenna Manufacturer	Ericsson	COMMSCOPE	COMMSCOPE	COMMSCOPE	NOKIA	COMMSCOPE	RFS
Antenna Model	Ericsson Air6449NR	COMMSCOPE NHH-65C-R2B_Port 3 +45_02DT_1900	COMMSCOPE NHH-65C-R2B_Port 1 +45_02DT_0704	COMMSCOPE NHH-65C-R2B_Port 3 +45_02DT_2100	Nokia _AEQK_3700_10dt	COMMSCOPE NHH-65C-R2B_Port 1 +45_02DT_0850	RFS APXVAALL 24_43-U-NA20-1-2-835+
Antenna Length	39 inches	96 inches	96 inches	96 inches	48 inches	96 inches	96 inches

Table 4 – Verizon Radio Parameters

2.2 FCC AND STATE GUIDELINES

The FCC has established two sets of Maximum Permissible Exposure (MPE) limits. Occupational/controlled limits apply to RF exposures to workers who are in an area as a consequence of their occupations, as long as they have been made fully aware of their potential for exposure to RF fields and are able to exercise control over their exposure.

For everyone else, general population/uncontrolled limits apply. These limits are extremely protective, in consideration of the most vulnerable members of the public. For sites where the surrounding area is generally accessible by members of the general population, the FCC general population/uncontrolled MPE limits are generally applied.

The analysis in this report uses the FCC General Public standards (the strictest).

2.3 MPE ANALYSIS FROM HORIZONTAL AND VERTICAL PERSPECTIVE

The Power Density Calculations in the analysis must take into account the distance between the location of the general public versus the location of the transmitting antennas (from both a horizontal and vertical perspective). From a horizontal perspective, the standard Power Density Calculations are performed from 0 to 2000 feet from the wireless communication site (in 5 foot increments).

From a vertical perspective, a factor must be included in order to account for differences between the general public's height above ground level versus the wireless communication site's ground elevation. These differences are typically caused by fluctuations in local ground elevation or multi-story buildings with outdoor areas where the general public may occupy. The analysis was performed to determine the appropriate height factor for the general public to include in the worst-case power density calculation. The height factor is 6' feet for the general public which represents a 6' tall person standing at ground level.

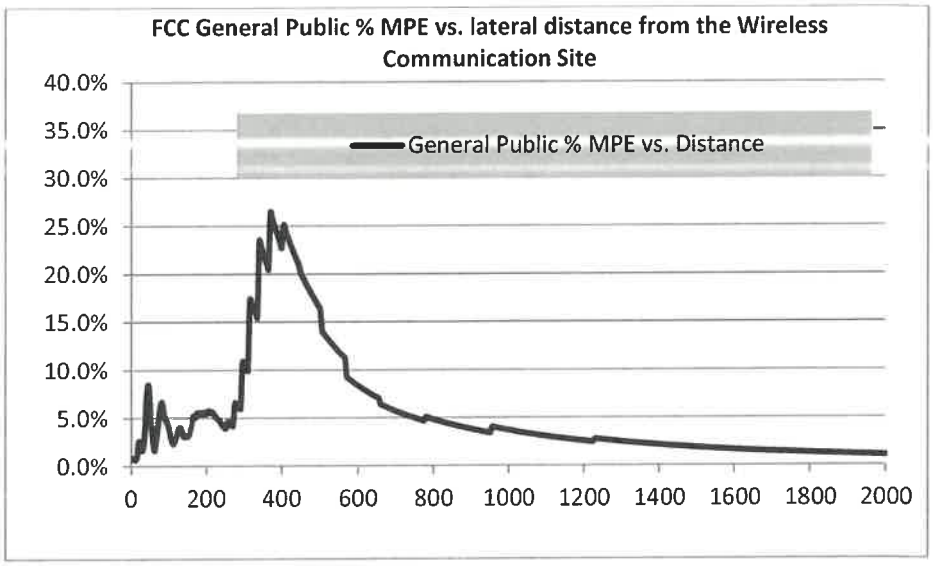
For roof view analysis, the RF near-field levels are computed from selected antennas by applying a cylindrical model that takes into account the antenna's aperture height, mounting height above the roof, azimuthal beam width for directional antennas and the location of the antennas on the roof (see Figure 2 and Figure 3). Resulting spatially averaged power densities are expressed as a percentage of the exposure limit depending on frequency. The entire roof is composed of one-square-foot pixels and RF fields are computed for each of these pixels for each antenna in the Technical Data 2 in Section 2.1

3.0 RESULTS OF THE ANALYSIS

The analysis was performed using the technical input parameters shown in Section 2.1 in order to calculate the wireless communications site's worst-case % MPE from the proposed transmitters.

Figure 1 shows a graph of the wireless communication site's % MPE versus its distance from the general public (within the first 2000 feet) at 6' above ground. For each location, the % MPE is calculated by summing each Service Type by the existing and proposed providers' % MPE values.

Figure 1 – FCC General Public % MPE vs lateral distance from the Wireless Communications Site from the proposed Transmitters at grade level.



The worst-case combined RF exposures to transmissions from the T-Mobile installation at a general public height of 6' will be:

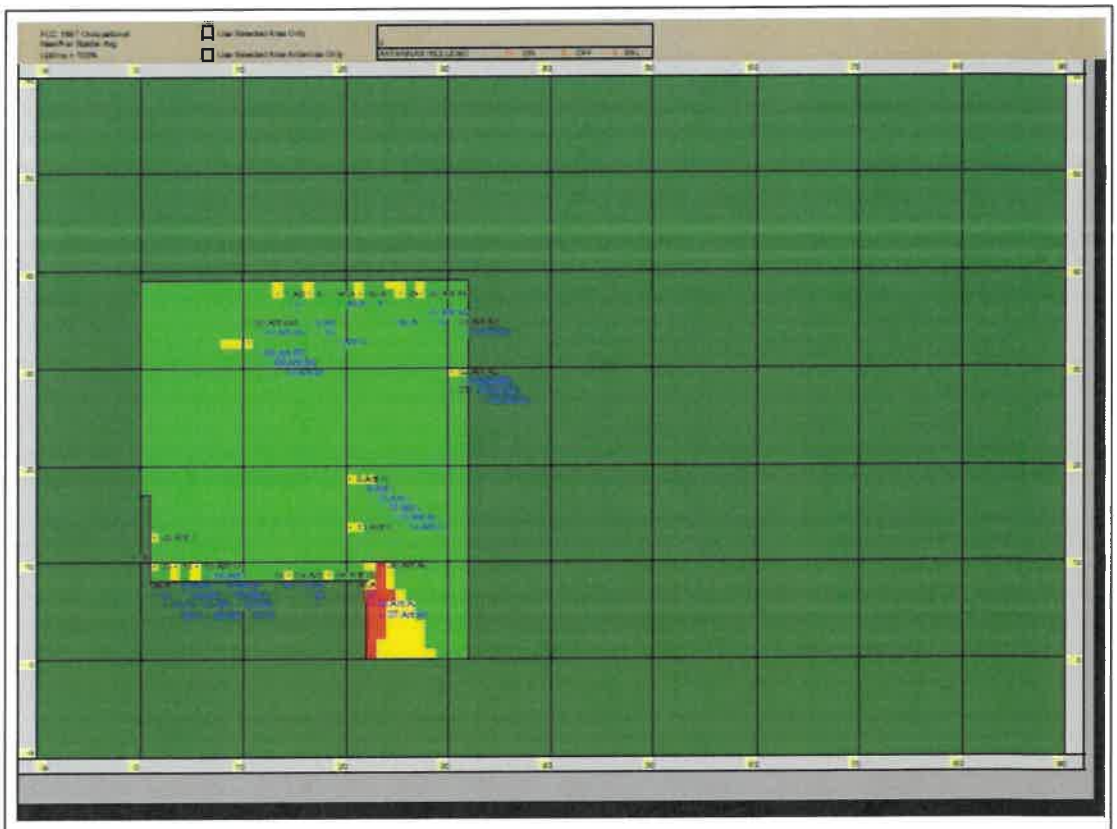
- **26.48%** of (or 3.78 times below) the **FCC Maximum Permissible Exposure** limit for General Public. This maximum value was calculated to occur at a distance of **370 feet** from the proposed site location.

The worst-case combined RF exposures to transmissions from the delta sector of the T-Mobile installation at a general public height of 6' will be:

- **25.28%** of (or 3.96 times below) the **FCC Maximum Permissible Exposure** limit for General Public. This maximum value was calculated to occur at a distance of **370 feet** from the proposed site location.

Figure 2 shows a roof view of the RF environment on the lower part of the rooftop, near where non-T-Mobile antennas are mounted. Figure 3 shows a roof view of the RF environment on the upper part of the roof top, where the T-Mobile antennas are mounted. Each color pixel indicates the cumulative % Occupational FCC MPE. The map is color coded with light green representing a %MPE less than or equal to 20, yellow representing a %MPE between 21 and 100 and red representing a % MPE above 100.

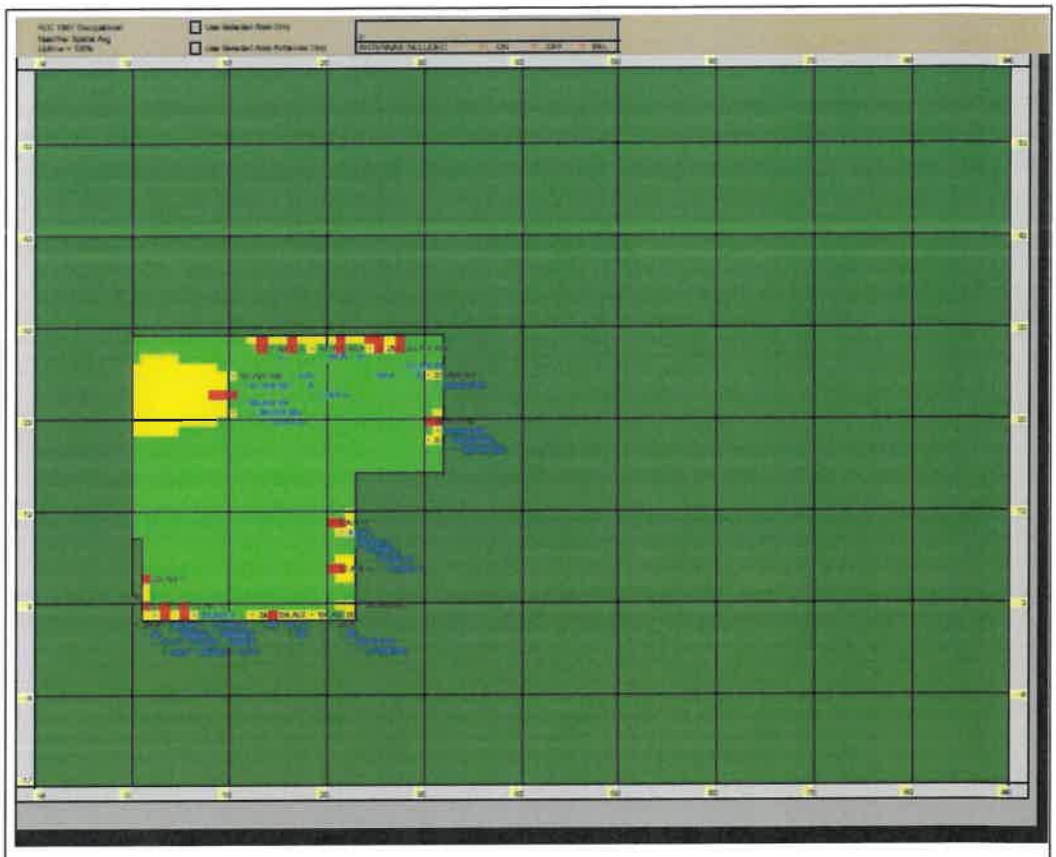
Proper FCC signage and placement can be referenced in Figure 4. The Blue sign indicates that an individual is entering an environment where RF field levels may exceed the FCC MPE limits for General Population/Uncontrolled exposure, these signs are to be placed at all roof access points as well as on the back of the antennas. The Yellow sign indicates that the RF field levels are greater than the FCC occupational limit, these signs are to be placed at all roof access points as well as on the back of the antennas. The Red sign indicates that RF field levels are greater than 10x of the FCC occupational limit.



Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
	1063	100.00 % of total ROOF Area
0 -20	987	92.85 % of Selected Area
21 - 100	60	5.64 % of Selected Area
101 - 100	0	0.00 % of Selected Area
> 100	16	1.51 % of Selected Area

Roof Area 1063 sq. ft.
Max %MPE 428.4 %
Min %MPE 0.1 %
Using Near/Far Spatial Avg Model
With FCC 1997 Occupational Standard

Figure 2 – Roof View of the RF environment on the lower building roof top for Occupational FCC MPE limits



Statistical Summary			
%MPE	SQ. FT.	%SQ. FT.	
	839	100.00 %	of total ROOF Area
0 -20	691	82.36 %	of Selected Area
21 - 100	121	14.42 %	of Selected Area
101 - 100	0	0.00 %	of Selected Area
> 100	27	3.22 %	of Selected Area

Roof Area 839 sq. ft.
Max %MPE 398.1 %
Min %MPE 0.6 %
Using Near/Far Spatial Avg Model
With FCC 1997 Occupational Standard

Figure 3 – Roof View of the RF environment on the upper building roof top for Occupational FCC MPE limits

FCC Signage and Placement Requirements

Figure 4 – FCC Signage and Placement Requirements

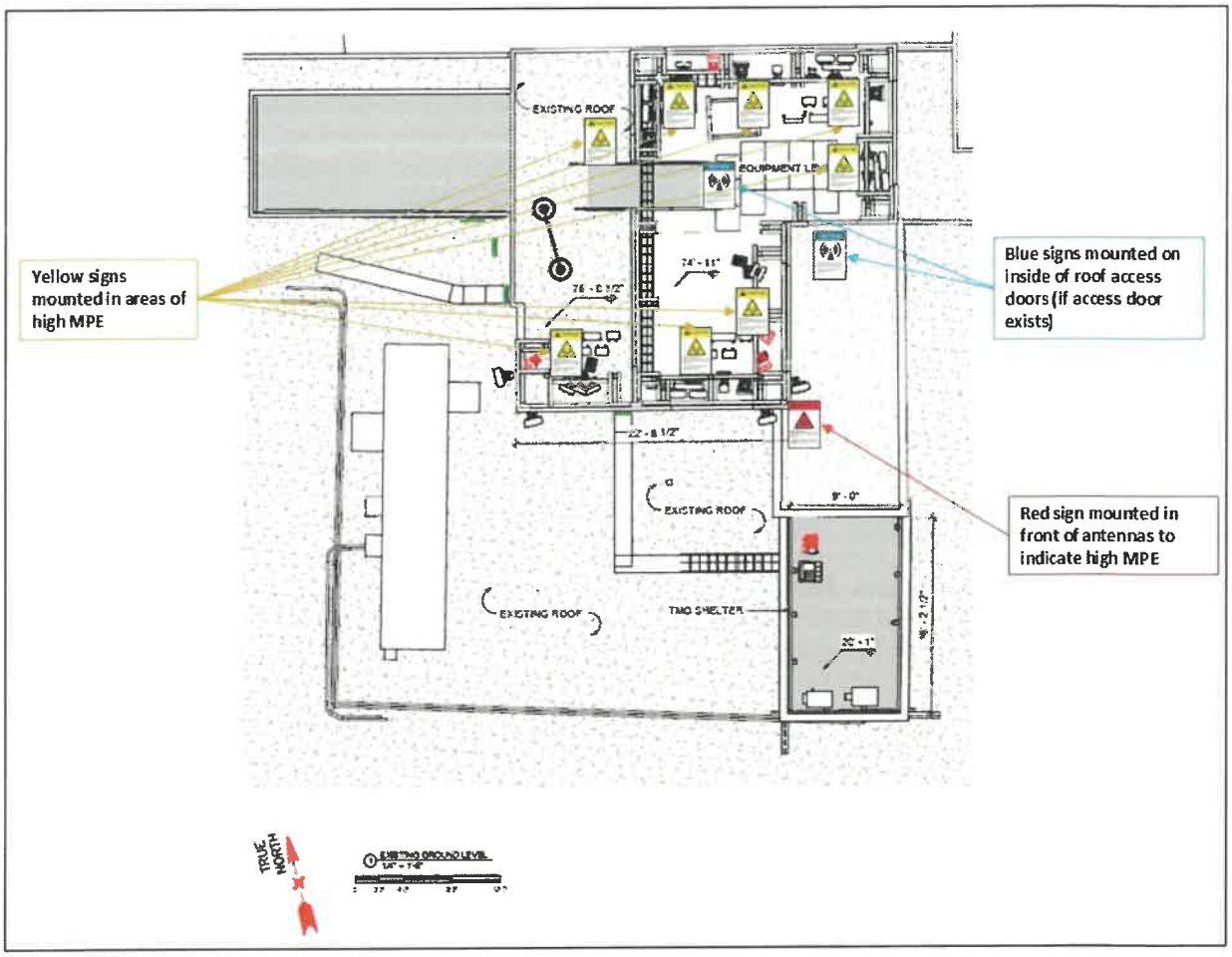


Figure 5 – FCC Signage and Placement Requirements (cont'd)

4.0 CONCLUSION

This conclusion represents the analysis and compliance assessment by PierCon Solutions, LLC of the RF environment surrounding the wireless communications installation at **17 Maple Avenue, Warwick, NY 10990**.

The assessment is based on careful consideration of the information supplied by T-Mobile and assumptions were made for Verizon Wireless and AT&T based on typical installations for these carriers.

Using conservative predictive calculations, PierCon has considered the effect on the existing RF environment which will result from operation of the installation, and compared this total combined effect to the applicable limits set by the FCC.

Simultaneous operation, at maximum power, of the proposed installation and existing installations, will result in total exposure levels below the Maximum Permissible Exposure limit set by the FCC for public areas. Maximum worst-case combined potential RF exposures will be at least **3.78 times below** the applicable limit (**26.48% of the FCC limit**). Inside buildings, total combined potential RF exposures from the existing and proposed sources on this wireless communication site will be substantially lower.

The rooftop is determined to be not accessible to the general public as it is locked. Entrances should be alarmed and proper signage should be placed where advised. Therefore, occupational limits would apply to the rooftop. Simultaneous operation, at maximum power, of proposed installations and transmitters on the roof result in the worst-case exposure area being in front of antennas. Figure 2 and Figure 3 demonstrates the areas which may exceed the occupational exposure limits and where proper signage is required. Blue Notice signs at the entrance to the roof top, Yellow Caution signs in the areas that may exceed the limit, and Red Warning signs in areas which exceed the limit must be placed in clearly visible and applicable locations in accordance with Figure 4 and Figure 5.

PierCon Solutions LLC has determined that all publicly accessible areas in this location and nearby properties will remain in full compliance with all applicable FCC radiofrequency exposure limits, as well as all applicable ANSI, IEEE, and NCRP limits. The roof area that has the potential to expose individuals at above the limits set for occupational should be accessible only to those who will be exposed as a consequence of their employment. At this site, appropriate signage must be installed establishing occupational "awareness" of the potential for RF exposure and reminds workers of procedures available to them to exercise control over their exposure and is therefore in compliance.

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5.0 MATHEMATICAL PREDICTIVE ANALYSIS – METHODS, ASSUMPTIONS USED

5.1 PREDICTIVE METHODS AND ASSUMPTIONS

When using mathematical methods to predict RF energy fields from wireless communications sources, PierCon Solutions follows the methodology recommended in Section 2 of the FCC's Office of Engineering and Technology's Bulletin 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields,* 97-01 (OET Bulletin 65). In the case of certain near-field exposures, PierCon Solutions also uses modifying methods described in Richard Tell's 1966 publication, *EME Design and Operation Considerations for Wireless Antenna Sites,* a technical report prepared for the Cellular Telecommunications Industry Association, Washington, D.C.

Occasionally, some site specific radio parameters and antenna information are not available. In these cases, the situation is noted and more general information is substituted, based on experience and knowledge of similar operations.

In OET Bulletin 65, a number of formulas are recommended for calculating power density emission levels. The first step in selecting the most appropriate equations to use is to determine whether areas of interest are in the "near-field" or "far-field" regions. Once this determination is made, the appropriate formula is applied.

Areas of interest at this site are found both in the far field and near-field regions of the antennas.

Far-field calculations: The preferred method described in OET Bulletin 65 for predictive far-field calculations assumes perfect (100%) reflection of incoming signal. This factor, resulting in a four-fold increase in predicted power density, was used in this study, to ensure that the conclusions of this report represent a worst-case. Additionally, PierCon uses the following additional highly conservative assumptions:

- Transmitters are assumed to operate continuously and at maximum power, although they customarily operate intermittently and at varying power levels.
- When the RF signal is sent through a coaxial cable from the transmitters to the antennas, significant power losses are expected. Typically, about half the nominal transmitter power (3 dB) is lost. PierCon assumes that there are no power losses.
- Whenever PierCon is aware that a carrier is using more than one antenna model at a given frequency, we perform a worst-case calculation for each model, and then choose the parameters representing the "worst-case" antenna – the one capable of producing the highest predicted RF fields in the areas of interest.
- PierCon assumes that all power available for transmission from all the antennas any one sector is directed through the worst-case antenna mounted closest to ground level. This antenna is assumed to be mounted on the edge of the structure and directly above the point from which the RF field strengths are calculated. Thus, the calculations assume the shortest potential distance between the center of the strongest beams from the antenna and a hypothetical person standing at the level of interest.
- The FCC's MPE exposure limits are defined in terms of "spatial exposure" – the average of a series of partial exposures, head-to-toe, of a six-foot tall human standing in the described field. These partial exposures to RF fields vary in intensity from the person's foot level to head level. The energy fields closer to the ground are further from the antennas and are almost always less intense. In PierCon's far-field calculations, the field strength at head height is assumed to be the average exposure of the person. PierCon's predicted exposure values will always be greater than the actual measured exposure.

In the far-field, the following formula [formula (6) on page 19 of OET Bulletin 65] incorporates a 100% reflection factor is used for calculating power density levels:

Far field: $S_{ff} = EIRP / \pi R^2$

Where: S_{ff} = far-field power density in mW/cm^2
EIRP = effective isotropic radiated power (factoring "G" the gain in direction of interest)
R = distance to the center of the antenna, in appropriate units

PierCon applies this equation incrementally, at five-foot intervals, for distances horizontally from the base of the structure to as far as 2,000 feet from the antenna. The RF fields vary directly as a function of gain and inversely as the square of the distance from the center of the antenna. Additional variations are caused by vertical intensity patterns inherent in the design of the various antennas. These variations are taken into account as described on page 22-23 of OET Bulletin 65.

Gain is affected by antenna design. Directional panel antennas (those commonly used by wireless carriers) are designed to focus the majority of emitted energy into a relatively narrow beam, transmitted from the front, center of the antenna. This main beam is typically directed almost horizontally towards the horizon or just below. Relatively little emitted energy is emitted below or above the main beam. Almost no energy escapes behind the antenna. PierCon Solutions incorporates the most specific information available regarding the RF pattern of the antennas being modeled.

Down-tilt (mechanical or electrical) also affects the vertical RF pattern. Greater downtilt typically causes higher intensity portions of the antenna beams to illuminate far field locations at distances closer to the antenna and causes RF fields to be higher. Mechanical down-tilt is set physically, on location. Electrical down-tilt is a design parameter of the antennas. Electrical down-tilt of some modern sector antennas is designed to be variable, either on site or remotely. Typical down-tilts are 0-2 degrees below horizontal. Antennas on tall structures or at high relative elevations may be set with more down-tilt.

When multiple wireless services or providers are on a structure, each service's antennas will produce exposure maxima at different distances from the structure and oriented in different directions. Each carrier's maximum usage load is likely to occur at different times. However, in this situation, PierCon again presents conservative results. Our model assumes that antennas representing each carrier and service at the site all point in the same direction, that all the RF maxima occur at the same distance from the antenna and they are all running at full power, with no power losses. Thus, the combined theoretical maximum RF field strengths which we report will always be more intense than those we would obtain via actual measurements at the site.

Near-field calculations: For modeling near-field situations, the following formula [formula (20) on page 32 of OET Bulletin 65], which models the field as a portion of a cylindrical surface, was developed by Richard Tell and modified by him in a publication referenced in OET Bulletin 65 to include a mounting factor, M.

Near Field: $S_{nf} = (360/\theta_{bw})\ MPnet/2\pi Rh$

Where: S_{nf} = near field power density
P_{net} = net power input to the antenna
θ_{bw} = beam width[1] of the antenna, in degrees
R = distance from the antenna
M = Mounting factor
H = height of the antenna

[1] Azimuth (horizontal) beam width at half-power (3 dB)

Mounting factors, which were also developed by Richard Tell, are explained in his study *EME design and Operation Considerations for Wireless Antenna Sites*[2]. This document is referenced in OET 65, although mounting factors are not included in the simplified equation included in the OET 65 guidelines. This document is also referenced on page 31 of OET 65.

Mounting factors are used to account for the mitigating effect of antenna mounting distance above a roof or similar surface on the RF environment experienced by personnel on the described surface. These mounting factors conservatively emulate spatially averaged exposures of a six-foot-tall person standing as much as ten feet below the bottom of an antenna and on a perfectly reflective surface. When predicting similar exposures due to RF emissions in the near-field from antennas mounted higher than ten feet above the surface of interest, PierCon Solutions uses the ten-foot mounting factor.

6.0 FEDERAL LAWS, FCC RULES AND GUIDELINES

6.1 FEDERAL LAWS

The National Environmental Policy Act of 1969 (NEPA)[3] is a federal law directed at federal agencies. It requires the agencies (including the Federal Communications Commission) to evaluate the effects of their actions on the quality of the human environment. To meet these responsibilities, the FCC adopted a number of requirements to evaluate and limit the environmental impact of its actions.

One of these environmental factors addressed by the FCC is human exposure to RF energy emitted by FCC-regulated transmitters and facilities.[4] The FCC decided that, whenever they must approve construction or operation of a facility, they will require the applicant to determine whether there is a potential impact due to the facility. If applicants are able to attest that the operation meets FCC RF exposure guidelines, the operation is considered not to have an adverse effect on the human environment and is more likely to be approved by FCC.

The Telecommunications Act of 1996[5] (a major revision of the Telecommunications act of 1932) is the applicable federal law regarding controls of the effects of RF emissions from wireless communications facilities on the human environment. With respect to controls on the environmental effects of radiofrequency emissions, the Act states the following:

> *Section 704(a) (7) (B) (i) (II) (iv):*
>
> *"No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."*

[2] Tell, Richard A. (1996) *EME Design and Operation Considerations for Wireless Antenna Sites*. Technical report prepared for the Cellular Telecommunications Industry Association, Washington, D.C. 20036.

[3] National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321 *et seq.* (1976)

[4] This limits FCC responsibilities to effects from manufactured sources and to the range of non-ionizing electromagnetic frequencies which are useful for wireless communications.

[5] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat 56 (1996)

> *Section 704(b): RADIO FREQUENCY EMISSIONS - Within 180 days after the enactment of this Act, the Commission shall complete action in ET Docket 93-62 to prescribe and make effective rules regarding the environmental effects of radio frequency emissions.*

6.2 FCC RULES AND GUIDELINES

In 1985, pursuant to the National Environmental Policy Act of 1969 (NEPA)[6], the FCC established guidelines for human exposure to Radio Frequency (RF) energy emitted by FCC-regulated transmitters. The latest revision of these guidelines fulfilled the requirements of Section 704(b) of the Telecommunications Act of 1996.

The FCC requires their licensees intending to construct or operate wireless communications facilities to ensure that the proposed facilities are designed and maintained to keep human exposures to RF energy produced by the wireless communications facilities within very conservative limits. These limits are intended to protect humans from harm due to known hazards of RF energy.

The FCC guidelines are intended to limit the amount of RF energy to which humans may be exposed due to emissions from FCC–regulated transmitters and facilities. Electromagnetic energy from natural sources (for example, from the Sun or lightning) is beyond the scope of the FCC's mandate, as is electromagnetic energy at higher or lower frequencies than are used for wireless communications (For instance, FCC does not have authority with respect to power-line electromagnetic fields.)

The FCC consistently explains that they are not experts in the field of RF health and safety. In setting limits and recommending methods for evaluating the environmental effects of RF fields, FCC relies on recommendations and advice of federal agencies and other organizations with expertise in evaluating health-related issues and in standards-setting. Such sources include the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), National Council on Radiation Protection and Measurements (NRCP), the Institute of Electrical and Electronics Engineers (IEEE), the American National Standards Institute (ANSI).

The FCC lists certain situations in which there is little expectation of non-compliance with RF exposure levels. For these listed situations, FCC does not require routine evaluations. However, compliance with the limits described in their guidelines is always required.

In meeting the requirements of the Telecommunications Act of 1996, FCC adopted and released their current RF exposure guidelines on August 1, 1996 FCC 96-326 "Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (ET Docket No. 93-62). The guidelines are incorporated into FCC regulations and codified at 47 CFR 1.1307 and 1.310. These guidelines specify two sets of maximum permissible exposure levels – one for general population/uncontrolled exposures – the other for occupational/controlled situations - indicate criteria for deciding which limits are applicable.

When considering these guidelines, it is important to remember that they:

- Describe exposure limits, not emission limits.
- Apply only in reasonably accessible locations.
- Apply to power densities or the squares of the electric and magnetic field strengths that are spatially averaged over the body dimensions. "Spatially averaged RF fields most accurately relate to estimating the whole body averaged SAR [*Specific Absorption Rate*] that will result from the exposure."

[6] 42 U.S.C. §§ 4321 et seq. (1976)

*"**General population/uncontrolled** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure."*

Limits set by FCC for general population/uncontrolled (or "uncontrolled") situations are applicable to:

- Everyone whose exposure is not a consequence of their employment and
- Everyone who is not made fully aware of the potential for RF exposure and
- Anyone not able to exercise control over their exposure.

FCC permits workers in occupational/controlled situations to be exposed to areas where higher levels of RF energy are present as long as the following criteria are satisfied:

*"**Occupational/controlled** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure."*

For occupational/controlled limits to apply, controlling access to the area is a necessary component, but not sufficient. These limits only apply to people whose exposure is as a consequence of their employment.

- If the area has a potential to expose people at above the limits set for general population/uncontrolled situations, it must be accessible only to those who will be exposed as a consequence of their employment.
- Workers must have been made fully aware of the potential for RF exposure and
- Workers must be able to exercise control over their exposure.

Please refer to the newly published IEEE standard, C95.7-2005 IEEE Recommended Practice for Radio Frequency Safety Programs, 3 kHz to 300 GHz, for recommendations about signage and setting up a safety program and providing training to cover workers and areas at the site where the potential RF environment can be above the FCC limits for general population/ uncontrolled areas. This is the standard prospectively referenced by FCC:

For purposes of developing training programs for employees, we [FCC] note that several resources are becoming available to provide guidance on appropriate RF safety programs. These resources include services provide by commercial vendors as well as information available through governmental and other Internet Web sites. Furthermore a committee of the IEEE, Subcommittee 2 of Standards Coordination Committee 28, is now in the process of drafting an IEEE recommended practice for the development of an RF safety program.[7]

... awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of an RF safety program. Warning signs and labels can also be used to establish such awareness, as long as they provide information, in a prominent manner, on risk of potential exposure and instructions on methods to minimize such exposure risk.[8]

To make it easier for our licensees and grantees to interpret their responsibilities, we propose to explain in a note to Section 1.310 of our rules that "fully aware" means that an exposed individual has received written and verbal information concerning the potential for RF exposure and has received training regarding appropriate work practices relating to controlling or mitigating his or her exposure.[9]

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[7] FCC Notice of Proposed Rulemaking ET Docket 03-137, FCC 03-132, adopted June 12, 2003, – footnote to paragraph 38.

[8] See OET Bulletin 65, p10. Also see FCC Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1996, paragraph 45.

[9] FCC Notice of Proposed Rulemaking ET Docket 03-137, FCC 03-132, adopted June 12, 2003, paragraph 38.

Incidental or "transient" workers: FCC recognizes that the exposure of many workers to RF energy from communications transmission equipment is incidental to their employment. For example, per OET 65, p55: *"Persons who are only 'transient' visitors to the rooftop, such as air conditioning technicians, etc. could also be considered to fall within the occupational/controlled criteria as long as they are also 'made aware' of their exposure and exercise control over their exposure."*

FCC recognizes that these individuals do not require in depth training regarding RF exposures. They state: *"As specified in the rules, transient individuals must simply be made aware of their exposure. This could be achieved by means of written and/or verbal information, including, for instance, appropriate signage."*[10]

At this site, appropriate signage should be posted to establish occupational "awareness" of the potential for RF exposure and remind workers of procedures available to them to exercise control over their exposure.

> ***F.37.*** *the occupational/controlled limits in our [FCC] rules apply "in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure."*

Limits for occupational/controlled exposure also apply *"in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure."*[11] Posting awareness signage is particularly useful to satisfy the FCC[12] intentions to ensure the awareness of "transient" workers – those who may come near a transmitting antenna in the course of other duties.

General population/uncontrolled exposure limits apply *"in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.*[13]

6.3 BACKGROUND ON FCC RF EXPOSURE LIMITS (GUIDELINES)

In 1985, the FCC first adopted guidelines to be used for evaluating human exposure to RF emissions.[14] The FCC revised and updated these guidelines on August 1, 1996, as a result of a rule-making proceeding initiated in 1993[15] and to satisfy the requirements of Section 704 (b) of the Telecommunications Act of 1996. Because its licensees must meet the FCC's guidelines or answer to the FCC, these guidelines effectively set the current exposure limits for FCC licensees.

These guidelines incorporate two tiers of exposure limits and two sets of time-averaging provisions, based on whether the RF exposures occur to informed workers in an occupational/controlled situation or to members of general public, in an "uncontrolled" situation. The guidelines incorporate limits for Maximum Permissible Exposure (MPE) in terms of electric and magnetic field strength and power density for transmitters operating at frequencies between 300 kHz (0.3 MHz) and 100 GHz (100,000 MHz). The guidelines are based on exposure

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[10] Ibid: paragraph 38.

[11] 47 CFR § 1.1310 Table 1, Note 1.

[12] FCC ET Docket No. 03-137 NPRM, released June 26, 2003

[13] 47 CFR § 1.1310 Table 1 Note 2.

[14] *Report and Order*, GEN Docket No. 79-144, 100 FCC 2d 543 (1985); and *Memorandum Opinion and Order*, 58 RR 2d 1128 (1985). The guidelines originally adopted by the FCC were the 1982 RF protection guides issued by the American National Standards Institute (ANSI).

[15] *Report and Order*, ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 61 Federal Register 41,006 (1996), 11 FCC Record 15,123 (1997). The FCC initiated this rule-making proceeding in 1993 in response to the 1992 revision by ANSI of its earlier guidelines for human exposure. The Commission responded to seventeen petitions for reconsideration filed in this docket in two separate Orders: *First Memorandum Opinion and Order*, FCC 96-487, adopted December 23, 1996, 62 Federal Register 3232 (1997), 11 FCC Record 17,512 (1997); and *Second Memorandum Opinion and Order and Notice of Proposed Rulemaking*, FCC 97-303, adopted August 25, 1997.

limits recommended by the NCRP[16] in 1986 and, over a wide range of frequencies, on exposure limits developed by IEEE and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines.[17]

The FCC states that, in reaching its decision on adopting these guidelines, it carefully considered the large number of comments submitted during its rule-making proceeding and gave particular weight to comments submitted by the EPA, FDA and other federal health and safety agencies. The current guidelines are based substantially on the recommendations of those agencies. The FCC states that it believes the guidelines represent a consensus view of the federal agencies responsible for matters relating to public safety and health.

The basis (reference level) of the FCC's RF exposure limits, and the NCRP and ANSI/IEEE limits upon which the FCC limits are scientifically based is a whole-body averaged Specific Absorption Rate (SAR)[18] threshold level of 4 watts per kilogram (4 W/kg), as averaged over the entire mass of the body. Expert organizations have determined that adverse biological effects may occur above this SAR.

FCC exposure limits are also frequency dependent, in response to data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. As listed OET 65, Table 1 of Appendix A and 47 CFR 1.1310 Table 1, the most restrictive limits occur in the frequency range of 30-300 MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies whole-body absorption is less efficient and the corresponding MPE limits are less restrictive.

Current MPE limits are derived by incorporating safety factors that lead, in some cases, to limits that are more conservative than the limits originally adopted by the FCC in 1985. Where more conservative limits exist they do not arise from a fundamental change in the RF safety criteria for whole-body averaged SAR, but from a precautionary desire to protect subgroups of the general population who, potentially, may be more at risk. The object of the various limits, including those in the FCC rules, is to limit SAR due to occupational/controlled exposures to 0.4W/kg or less (time averaged over any six minute period). This incorporates a safety factor of 10. Regarding exposures to the general public and anyone who may not be aware of the potential for RF exposure, the limit is set at 0.08 W/kg (time averaged over any 30 minute period. This incorporates a safety factor of 50.

The FCC makes it clear that the MPE limits are exposure limits, not emission limits and therefore apply only in accessible areas. Fundamentally, in areas that are considered normally inaccessible, the exposure limits do not apply.

7.0 TABLE OF FCC RF EXPOSURE LIMITS (47 CFR 1.1310 TABLE 1)

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency	Electric Field	Magnetic Field	Power Density	Averaging Time

[16] "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86 (1986), National Council on Radiation Protection and Measurements (NCRP), Bethesda, MD. The NCRP is a non-profit corporation chartered by the U.S. Congress to develop information and recommendations concerning radiation protection.

[17] ANSI/IEEE C95.1-1992, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz." Copyright 1992, The Institute of Electrical and Electronics Engineers, Inc., New York, NY. The 1992 ANSI/IEEE exposure guidelines for field strength and power density are similar to those of NCRP Report No. 86 for most frequencies except those above 1.5 GHz.

[18] Specific absorption rate is a measure of the rate of energy absorption by the body. SAR limits are specified for both whole-body exposure and for partial-body or localized exposure (generally specified in terms of spatial peak values).

Range (MHz)	Strength (E) (V/m)	Strength (H) (A/m)	(S) (mW/cm²)	|E|², |H|² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time |E|², |H|² or S (minutes)	
0.3-1.34	614	1.63	(100)*	30	
1.34-30	824/f	2.19/f	(180/f²)*	30	30-
300	27.5	0.073	0.2	30	
300-1500	--	--	f/1500	30	
1500-100,000	--	--	1.0	30	

f = frequency in MHz *Plane-wave equivalent power density

NOTE 1: ***Occupational/controlled*** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: ***General population/uncontrolled*** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

8.0 DEFINITIONS AND GLOSSARY OF TERMS (FROM OET BULLETIN 65)

The following is directly from OET Bulletin 65, edition 97-01 and are standard terminology used in studies of human exposure to RF electromagnetic fields, including in this report.

These definitions are adapted from those included in the American National Standards Institute (ANSI) 1992 RF exposure standard [Reference 1], from NCRP Report No. 67 [Reference 19] and from the FCC's Rules (47 CFR § 2.1 and § 1.1310).

Average (temporal) power. The time-averaged rate of energy transfer.

Averaging time. The appropriate time period over which exposure is averaged for purposes of determining compliance with RF exposure limits (discussed in more detail in Section 1 of OET 65).

Continuous exposure. Exposure for durations exceeding the corresponding averaging time.

Decibel (dB). Ten times the logarithm to the base ten of the ratio of two power levels.

Duty factor. The ratio of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmissions. A duty factor of 1.0 corresponds to continuous operation.

Effective radiated power (ERP) (in a given direction). The product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction.

Equivalent Isotropically Radiated Power (EIRP). The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Electric field strength (E). A field vector quantity that represents the force (**F**) on an infinitesimal unit positive test charge (**q**) at a point divided by that charge. Electric field strength is expressed in units of volts per meter (V/m).

Energy density (electromagnetic field). The electromagnetic energy contained in an infinitesimal volume divided by that volume.

Exposure. Exposure occurs whenever and wherever a person is subjected to electric, magnetic or electromagnetic fields other than those originating from physiological processes in the body and other natural phenomena.

Exposure, partial-body. Partial-body exposure results when RF fields are substantially nonuniform over the body. Fields that are nonuniform over volumes comparable to the human body may occur due to highly directional sources, standing-waves, re-radiating sources or in the near field. See **RF "hot spot".**

Far-field region. That region of the field of an antenna where the angular field distribution is essentially independent of the distance from the antenna. In this region (also called the free space region), the field has a predominantly plane-wave character, i.e., locally uniform distribution of electric field strength and magnetic field strength in planes transverse to the direction of propagation.

Gain (of an antenna). The ratio, usually expressed in decibels, of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power density at the same distance. When not specified otherwise, the gain refers to the direction of maximum radiation. Gain may be considered for a specified polarization. Gain may be referenced to an isotropic antenna (dBi) or a half-wave dipole (dBd).

General population/uncontrolled exposure. For FCC purposes, applies to human exposure to RF fields when the general public is exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

Hertz (Hz). The unit for expressing frequency, ***(f)***. One hertz equals one cycle per second.

Magnetic field strength (H). A field vector that is equal to the magnetic flux density divided by the permeability of the medium. Magnetic field strength is expressed in units of amperes per meter (A/m).

Maximum permissible exposure (MPE). The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with an acceptable safety factor.

Near-field region. A region generally in proximity to an antenna or other radiating structure, in which the electric and magnetic fields do not have a substantially plane-wave character, but vary considerably from point to point. The near-field region is further subdivided into the reactive near-field region, which is closest to the radiating structure and that contains most or nearly all of the stored energy, and the radiating near-field region where the radiation field predominates over the reactive field, but lacks substantial plane-wave character and is complicated in structure. For most antennas, the outer boundary of the reactive near field region is commonly taken to exist at a distance of one-half wavelength from the antenna surface.

Occupational/controlled exposure. For FCC purposes, applies to human exposure to RF fields when persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see definition above), 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.

Peak Envelope Power (PEP). The average power supplied to the antenna transmission line by a radio transmitter during one radiofrequency cycle at the crest of the modulation envelope taken under normal operating conditions.

Power density, average (temporal). The instantaneous power density integrated over a source repetition period.

Power density (S). Power per unit area normal to the direction of propagation, usually expressed in units of watts per square meter (W/m^2) or, for convenience, units such as milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). For plane waves, power density, electric field strength (E) and magnetic field strength (H) are related by the impedance of free space, i.e., 377 ohms, as discussed in Section 1 of this bulletin. Although many survey instruments indicate power density units ("far-field equivalent" power density), the actual quantities measured are E or E^2 or H or H^2.

Power density, peak. The maximum instantaneous power density occurring when power is transmitted.

Power density, plane-wave equivalent or far-field equivalent. A commonly-used terms associated with any electromagnetic wave, equal in magnitude to the power density of a plane wave having the same electric (E) or magnetic (H) field strength.

Radiofrequency (RF) spectrum. Although the RF spectrum is formally defined in terms of frequency as extending from 0 to 3000 GHz, for purposes of the FCC's exposure guidelines, the frequency range of interest in 300 kHz to 100 GHz.

Re-radiated field. An electromagnetic field resulting from currents induced in a secondary, predominantly conducting object by electromagnetic waves incident on that object from one or more primary radiating structures or antennas. Re-radiated fields are sometimes called "reflected" or more correctly "scattered fields." The scattering object is sometimes called a "re-radiator" or "secondary radiator".

RF "hot spot." A highly localized area of relatively more intense radio-frequency radiation that manifests itself in two principal ways:

(1) The presence of intense electric or magnetic fields immediately adjacent to conductive objects that are immersed in lower intensity ambient fields (often referred to as re-radiation), and

(2) Localized areas, not necessarily immediately close to conductive objects, in which there exists a concentration of RF fields caused by reflections and/or narrow beams produced by high-gain radiating antennas or other highly directional sources. In both cases, the fields are characterized by very rapid changes in field strength with distance. RF hot spots are normally associated with very nonuniform exposure of the body (partial body exposure). This is not to be confused with an actual thermal hot spot within the absorbing body.

Root-mean-square (rms). The effective value, or the value associated with joule heating, of a periodic electromagnetic wave. The rms value is obtained by taking the square root of the mean of the squared value of a function.

Scattered radiation. An electromagnetic field resulting from currents induced in a secondary, conducting or dielectric object by electromagnetic waves incident on that object from one or more primary sources.

Short-term exposure. Exposure for durations less than the corresponding averaging time.

Specific absorption rate (SAR). A measure of the rate of energy absorbed by (dissipated in) an incremental mass contained in a volume element of dielectric materials such as biological tissues. SAR is usually expressed in terms of watts per kilogram (W/kg) or milliwatts per gram (mW/g). Guidelines for human exposure to RF fields are based on SAR thresholds where adverse biological effects may occur. When the human body is exposed to an RF field, the SAR experienced is proportional to the squared value of the electric field strength induced in the body.

Wavelength (λ). The wavelength (λ) of an electromagnetic wave is related to the frequency (***f***) and velocity (***v***) by the expression $v = f\lambda$. In free space the velocity of an electromagnetic wave is equal to the speed of light, i.e., approximately 3 x 10^8 m/s.

9.0 REFERENCES

[1] FCC OET Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, August 1997.

[2] FCC 47 CFR 1.1307 Parts 1, 2, 15, 24 and 97.

[3] FCC OET Bulletin 56, "Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields", Fourth Edition, August 1999.

[4] FCC 47 CFR 1.1310 "Practice and procedure, Radiofrequency radiation exposure limits"

[5] NARDA "Non-Ionizing Radiation Handbook"

[6] Rutgers University, "Management of Electromagnetic Energy Hazards", October 1993.

[7] Telecommunications Act of 1996

[8] *Report and Order*, ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 61 Federal Register 41,006 (1996), 11 FCC Record 15,123 (1997).

[9] "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86 (1986), National Council on Radiation Protection and Measurements (NCRP), Bethesda, MD.

[10] ANSI/IEEE C95.1-1992, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz." Copyright 1992, The Institute of Electrical and Electronics Engineers, Inc., New York, NY.

[11] Tell, R.A., "CTIA's EME design and operations considerations for wireless antenna sites," Technical Report for the Cellular Telecommunications Industry Association, Washington, DC, prepared by Richard A. Tell Associates, Inc., Las Vegas, NY 1996

[12] IEEE C95.3-2002 "Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields with Respect to Human Exposure to Such Fields, 100 kHz-300 GHz" ANSI/IEEE, The Institute of Electrical and Electronic Engineers Inc., (IEEE), New York, NY 10017

[13] IEEE C95.7-2005 "IEEE Recommended Practice for Radio Frequency Safety Programs, 3 kHz to 300 GHz" ANSI/IEEE. The Institute of Electrical and Electronic Engineers Inc., (IEEE), New York, NY 10017

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INSURER B : The Continental Insurance Company	35289
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A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [ ] OCCUR [X] GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [ ] PRO-JECT [ ] LOC [X] OTHER:	Y	N	7012343900	5/1/2025	5/1/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 10,000,000 $ 10,000,000 $ 25,000 $ 10,000,000 $ 20,000,000 $ 20,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY	N	N	7012343878	5/1/2025	5/1/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 5,000,000 $ XXXXXXX $ XXXXXXX $ XXXXXXX
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000	N	N	7014886953 SIR applies per policy terms & conditions	5/1/2025	5/1/2026	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N] N/A If yes, describe under DESCRIPTION OF OPERATIONS below		N	7012343895 (AOS)	5/1/2025	5/1/2026	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 2,000,000 $ 2,000,000 $ 2,000,000
B				7012343881 (CA)	5/1/2025	5/1/2026		
C				7012447142 (AZ,MA,OR,WI)	5/1/2025	5/1/2026		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
NY10253B - 17 Maple Ave, Warwick, NY

CERTIFICATE HOLDER

22034166
Village of Warwick
77 Main Street
Warwick NY 10990

CANCELLATION See Attachment

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Village of Warwick
77 Main Street
Warwick NY 10990

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Date: **March 15, 2024**

Ericsson

Sinnott Gering and Schmitt Towers, Inc.
14708 Custer Rd Suite 102
Omaha, NE 68138
(844) 886-9377
Engineering@sgstowers.com

Subject:	**Equipment Platform Analysis Report**	
Carrier Designation:	**T-Mobile Equipment Change-Out**	
	Carrier Site Number:	NY10253B
	Carrier Site Name:	St. Anthony Community Hospital
Engineering Firm Designation:	**SGS Towers Report Designation:**	2403525
Site Data:	**17 Maple Ave, Warwick, NY 10990 (Orange County)** **Latitude 41.2614, Longitude -74.3578**	
Structure Information:	**Structure Type:**	**Equipment Platform**

Sinnott Gering and Schmitt Towers, Inc. is pleased to submit this **"Equipment Platform Analysis Report"** to determine the structural integrity of T-Mobile's equipment mounting system with the proposed equipment addition.

The purpose of the analysis is to determine acceptability of the equipment platform stress level. Based on our analysis we have determined the equipment platform stress level to be:

Equipment Platform	**95.7%**	**Sufficient**

The analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 126 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

We at *SGS Towers* appreciate the opportunity of providing our continuing professional services to Ericsson. If you have any questions or need further assistance on this or any other projects, please give us a call.

Mount analysis prepared by: Tim Wordekemper, EI
Respectfully Submitted by:

DS

STATE OF NEW YORK
NICHOLAS SCHMITT
LICENSED PROFESSIONAL ENGINEER

3/15/24

TABLE OF CONTENTS

1) INTRODUCTION

This is a 16.5 ft x 9.5 ft equipment platform mounted to the exterior wall and lower rooftop of the hospital building. Concealment paneling is installed on the equipment platform, shielding all the cabinet equipment from wind.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
Risk Category:	IV
Ultimate Wind Speed:	126 mph
Exposure Category:	B
Topographic Factor (K_{zt}):	1.0
Design Ice Thickness:	1.0 in
Wind Speed with Ice:	40 mph
Rooftop Wind Speed-up Factor (K_S):	1.0
Seismic Parameters:	S_S: 0.245 / S_1 0.057
Live Loading:	40 psf
Ground Snow Loading:	35 psf

Table 1 – Final Equipment Configuration

Equipment Quantity	Equipment Model	Feed Lines (Quantity) Size
2	GPS	(3) Hybrid 6x24 4AWG (3) Hybrid 6x12 HCS
1	PPC Cabinet	
1	Telco Cabinet	
1	Ericsson B160 BATTERY CABINET	
1	Ericsson RBS 6131 CABINET	
1	Ericsson 6160 SITE SUPPORT CABINET	
1	CSR IXRE V2 (GEN2) (Inside)	
1	Ericsson RP 6651 (N2500) (Inside)	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Source
RF Data Sheet	NY10253B_Anchor_12_draft_2024-02-12	Ericsson
Preliminary Construction Drawing	Ericsson / NY10253B Construction Drawings Rev 1 dated 02/13/2024	Ericsson
Previous Structural Analysis	Infinigy / Job No. 499-052, dated 09/23/2018	Ericsson
Mapping Photos	SGS Towers / Project No. 2312073, dated 01/11/2024	SGS

3.1) Analysis Method

RISA-3D (Version 21.0.1), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

3.2) Assumptions

1) The equipment platform was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
2) The configuration of equipment, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
4) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325
U-Bolts	ASTM A307
Platform Beam W-Shape	ASTM A36 (GR 36)
Roof Beam W-Shape	ASTM A992

This analysis may be affected if any assumptions are not valid or have been made in error. SGS Towers should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 – Equipment Platform Component Stresses vs. Capacity

Component	% Capacity	Pass / Fail
Platform Post	95.7	Pass
Panel Horizontal	74.3	Pass
Panel Post	51.4	Pass
Kicker Brace	41.1	Pass
Platform Beam (Long)	37.0	Pass
Platform Outer Beam	20.3	Pass
Roof Check	60.8	Pass
Wall Connection Check	35.8	Pass

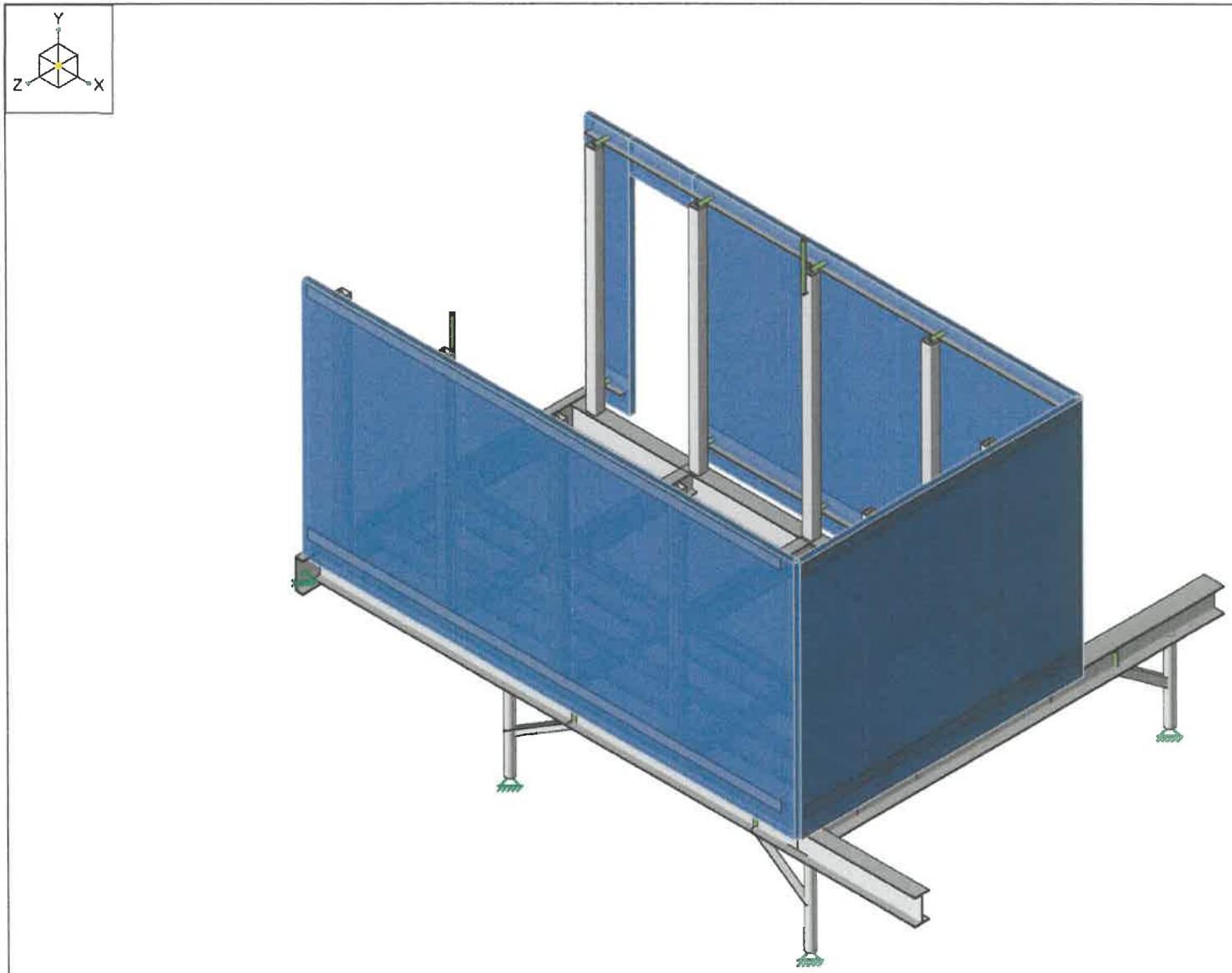
Structure Rating (max from all components) =	**95.7%**

4.1) Recommendations

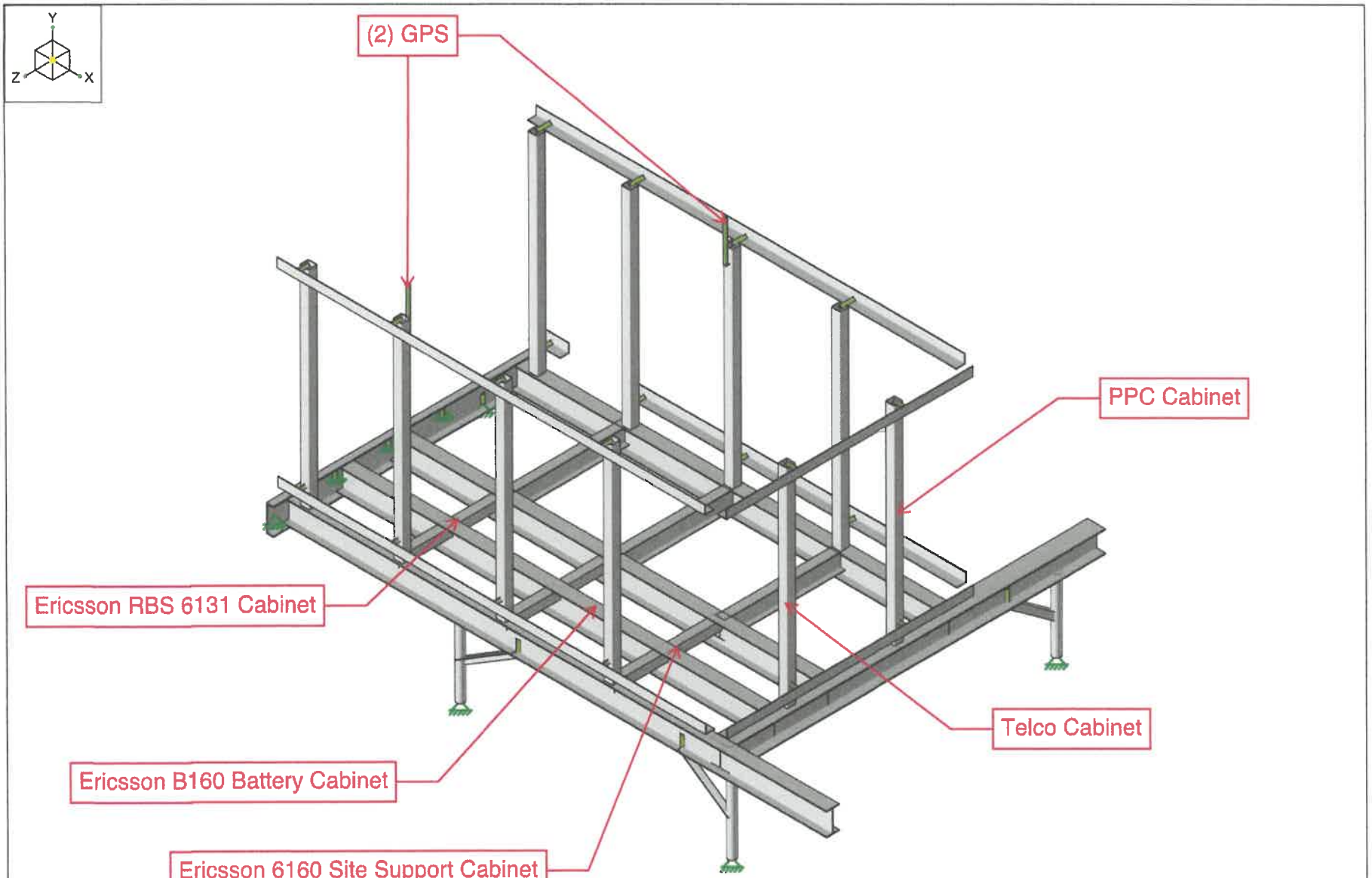
The equipment platform has sufficient capacity to carry the proposed loading configuration. No modifications required at this time.

APPENDIX A

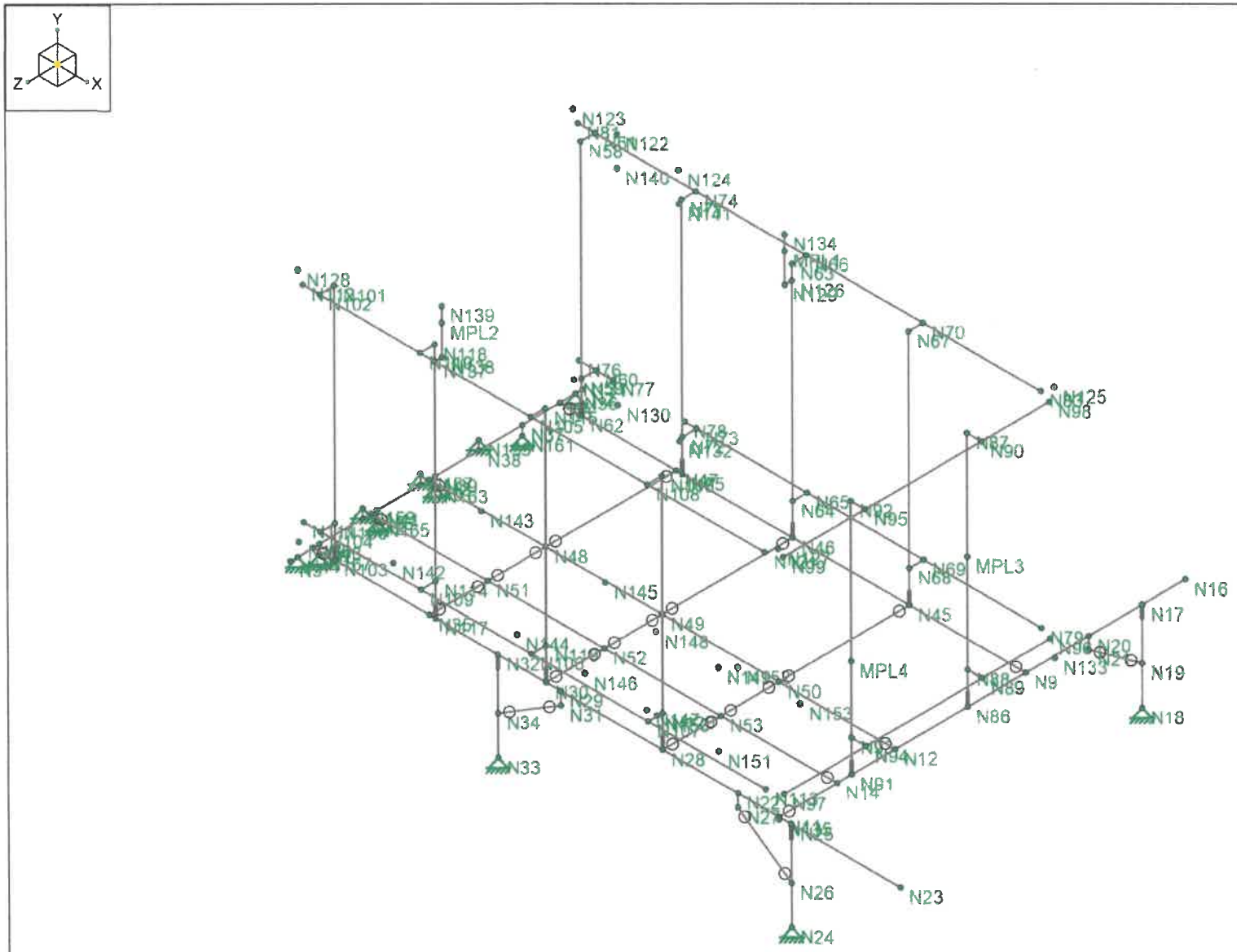
CALCULATIONS & ANALYSIS SUMMARY



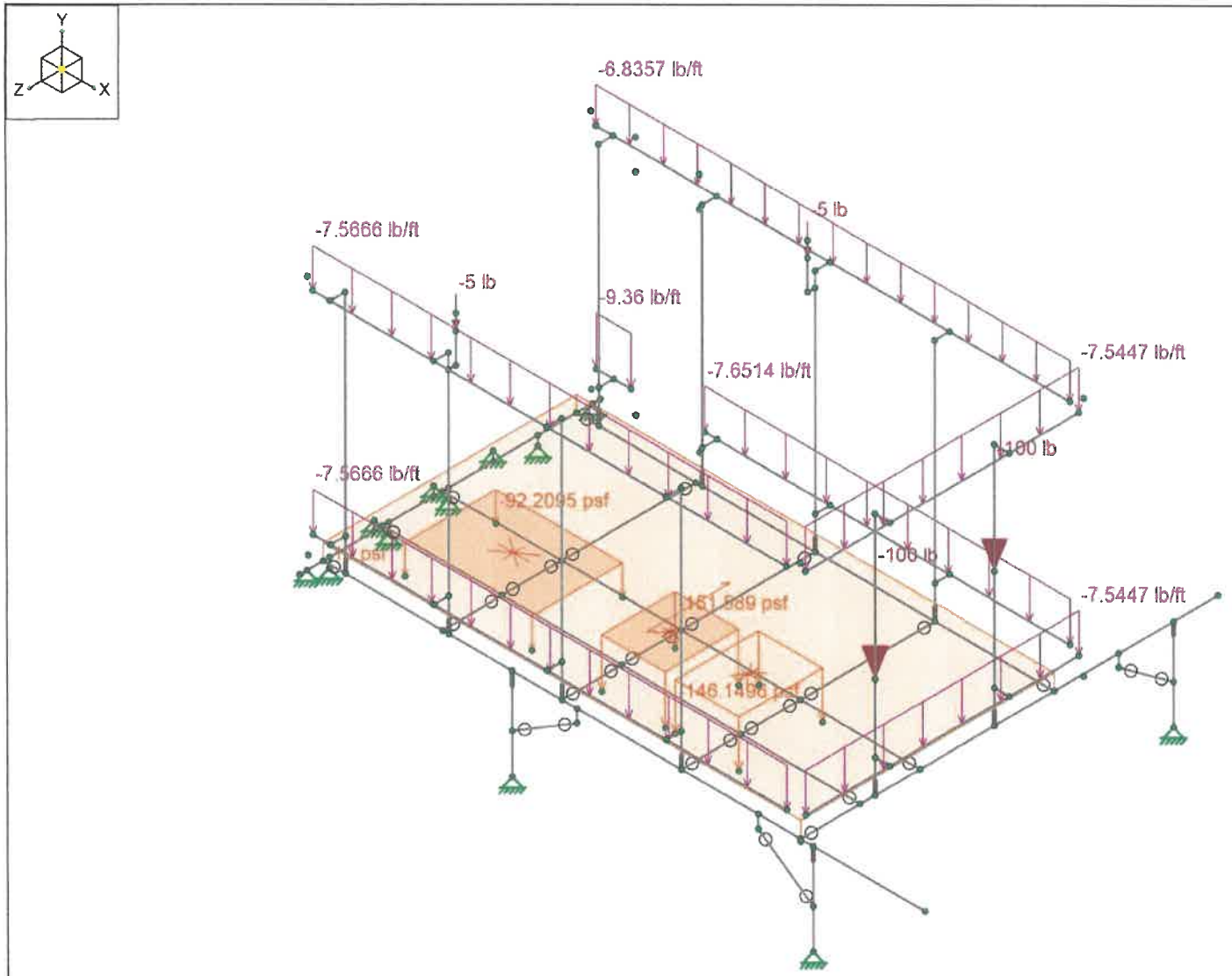
SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-1
	Tim Wordekemper		Mar 13, 2024 at 03:25 PM
	2403525	Platform Rendering	2403525 - Mount Rushmore 2023-03-14.r3d



SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-2
	Tim Wordekemper		Mar 13, 2024 at 03:26 PM
	2403525	Equipment Configuration	2403525 - Mount Rushmore 2023-03-14.r3d

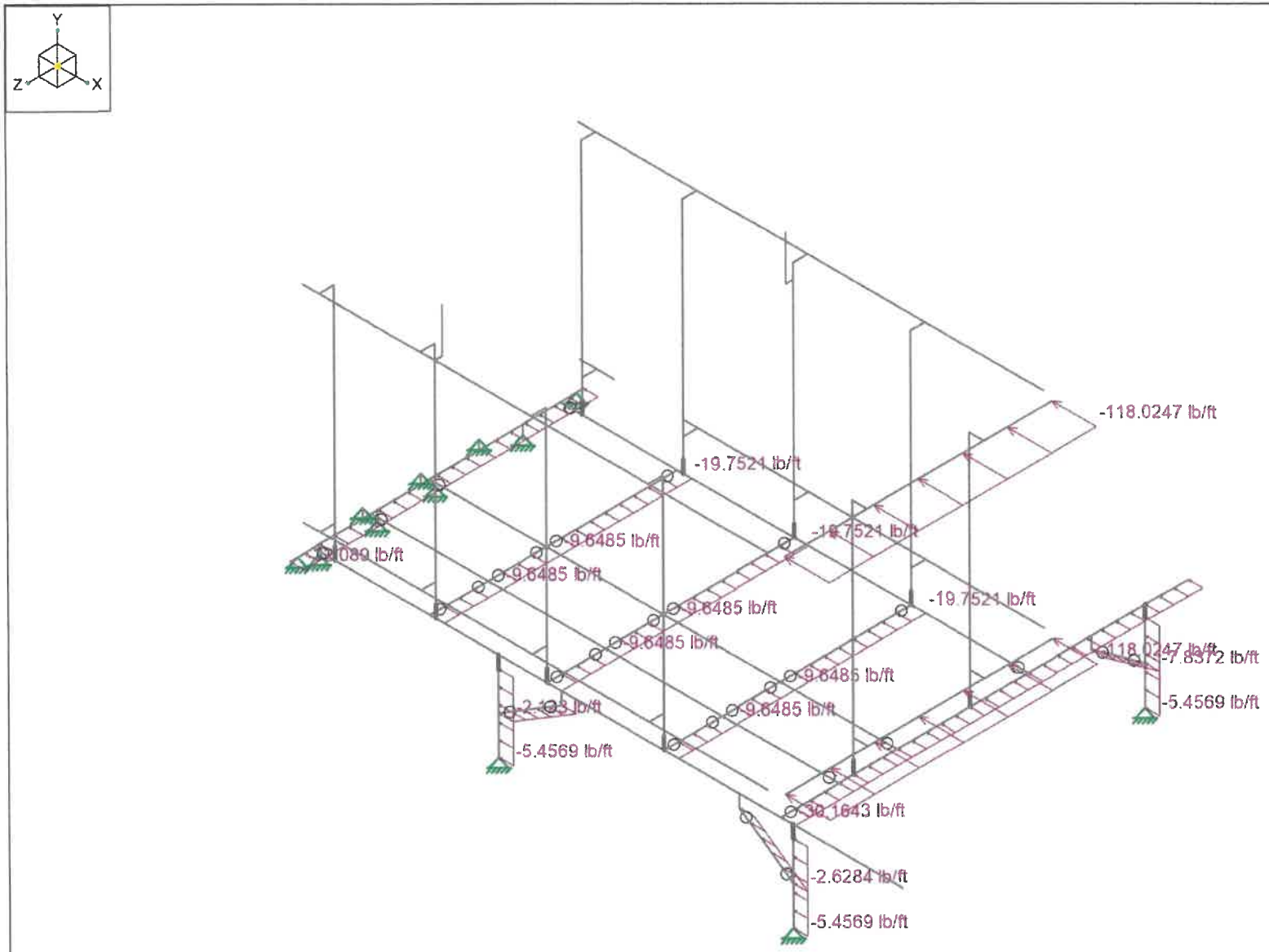


SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-3
	Tim Wordekemper		Mar 13, 2024 at 03:26 PM
	2403525	Nodal Labels	2403525 - Mount Rushmore 2023-03-14.r3d



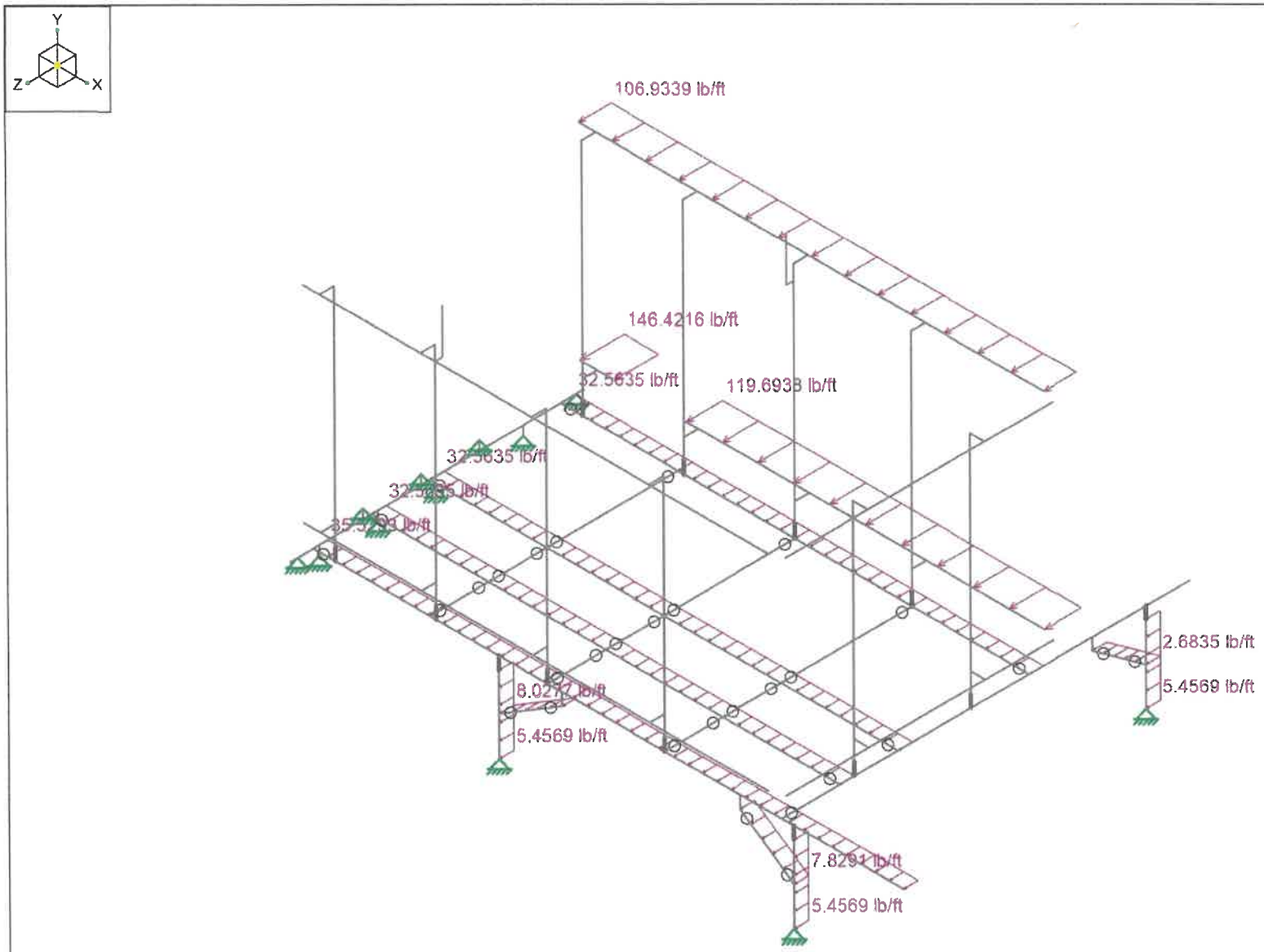
Loads: BLC 1, Bare Weight

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-4
	Tim Wordekemper		Mar 13, 2024 at 04:43 PM
	2403525	Loading - Dead	2403525 - Roof Check.r3d



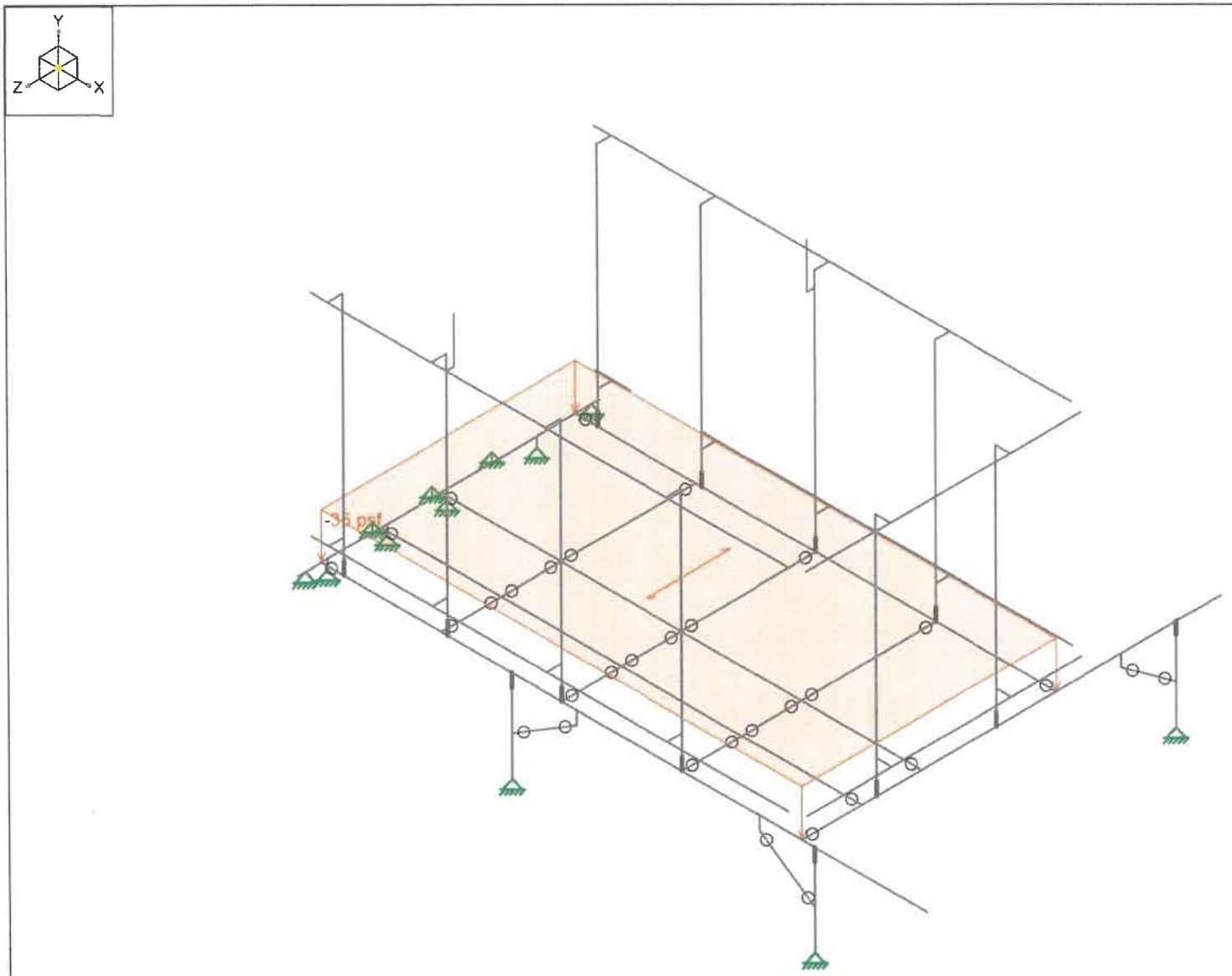
Loads: BLC 3, Wind (bare) 0

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-5
	Tim Wordekemper		Mar 13, 2024 at 03:28 PM
	2403525	Loading - Wind 0°	2403525 - Mount Rushmore 2023-03-14.r3d



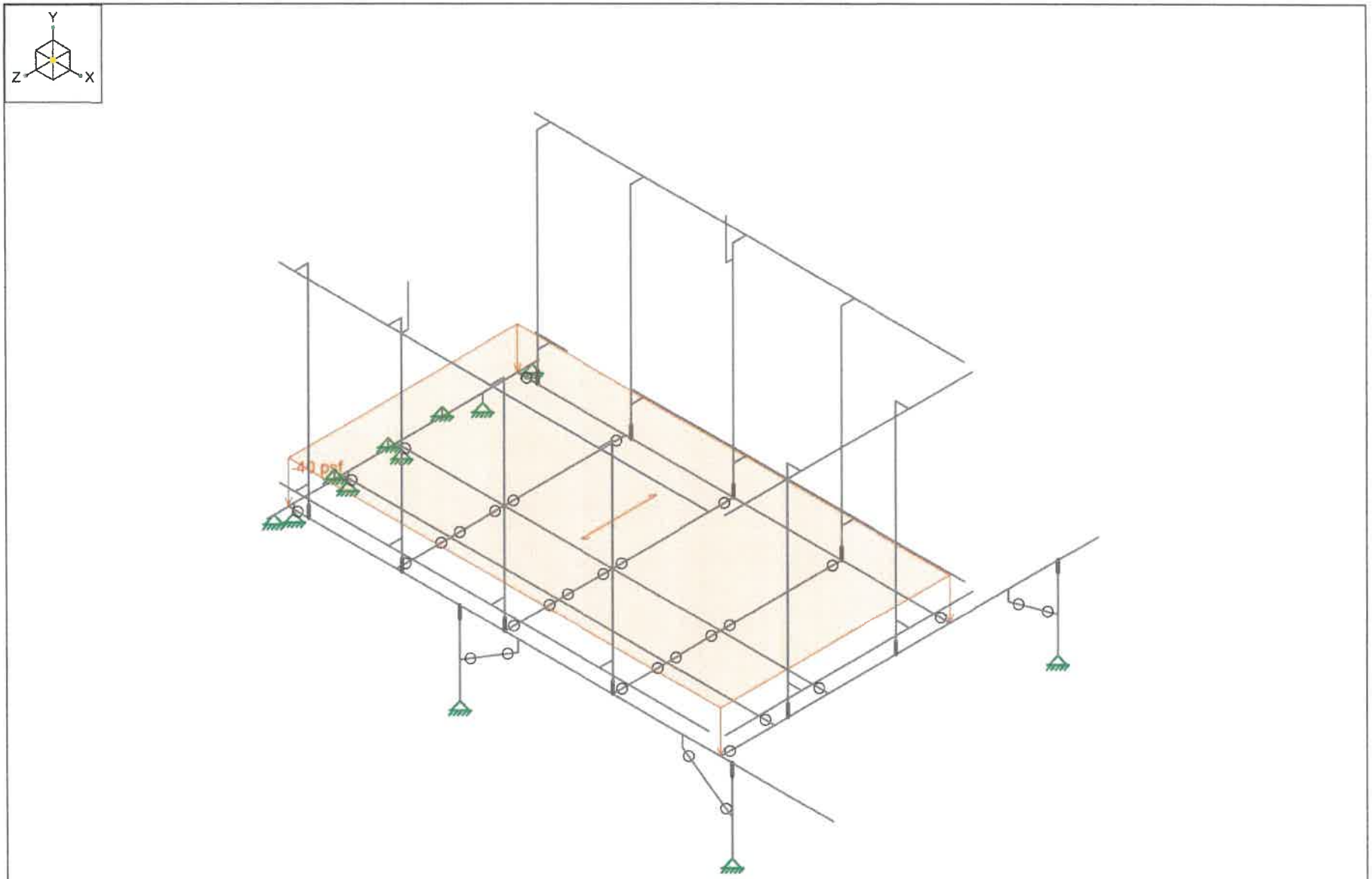
Loads: BLC 6, Wind (bare) 90

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-6
	Tim Wordekemper		Mar 13, 2024 at 03:28 PM
	2403525	Loading - Wind 90°	2403525 - Mount Rushmore 2023-03-14.r3d



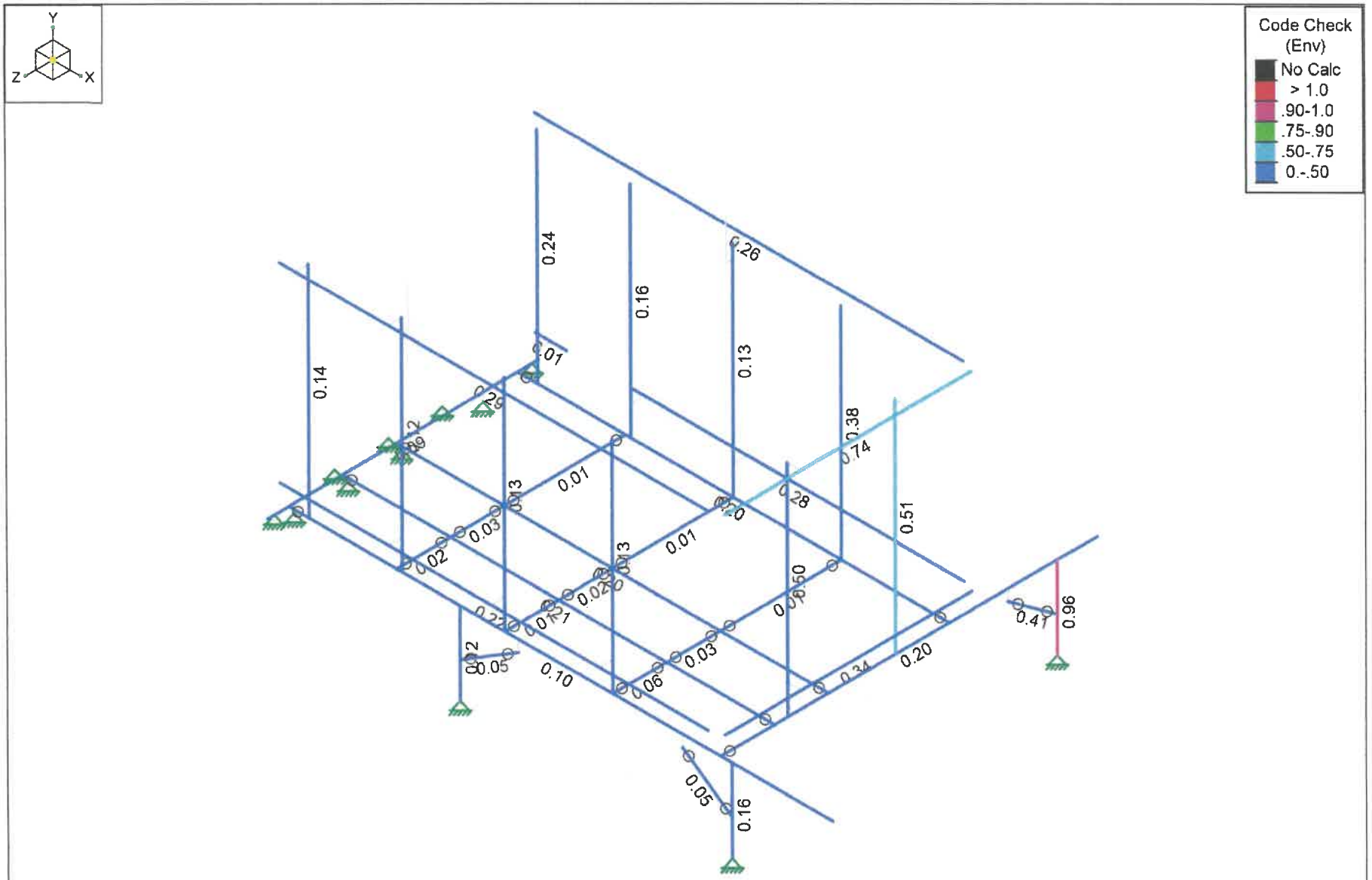
Loads: BLC 42, Snow

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-7
	Tim Wordekemper		Mar 13, 2024 at 03:28 PM
	2403525	Loading - Snow	2403525 - Mount Rushmore 2023-03-14.r3d



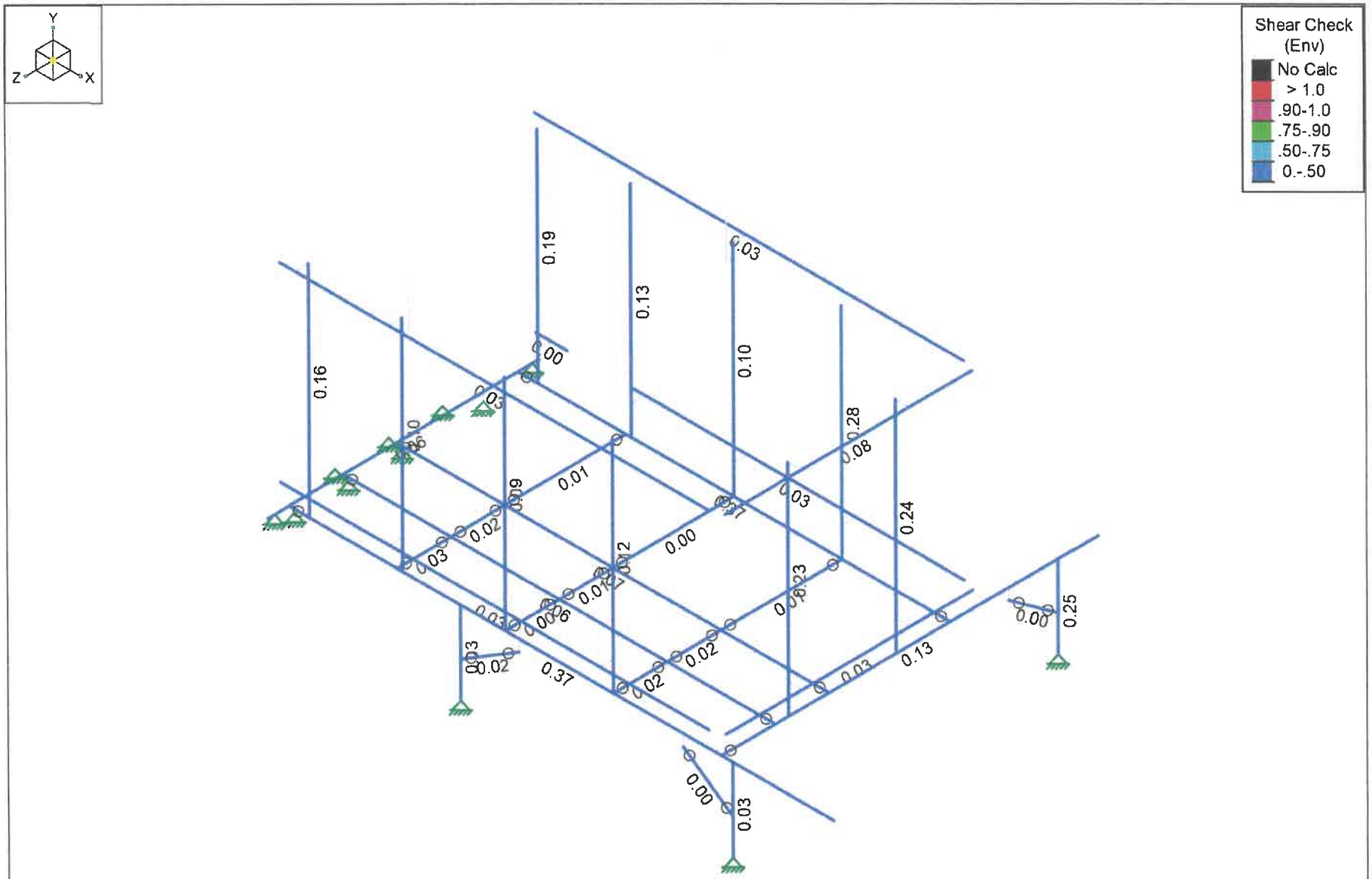
Loads: BLC 43, Live

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-8
	Tim Wordekemper		Mar 13, 2024 at 03:29 PM
	2403525	Loading - Snow	2403525 - Mount Rushmore 2023-03-14.r3d



Member Code Checks Displayed (Enveloped)

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-9
	Tim Wordekemper		Mar 13, 2024 at 03:30 PM
	2403525	Unity Bending Check	2403525 - Mount Rushmore 2023-03-14.r3d



Member Shear Checks Displayed (Enveloped)

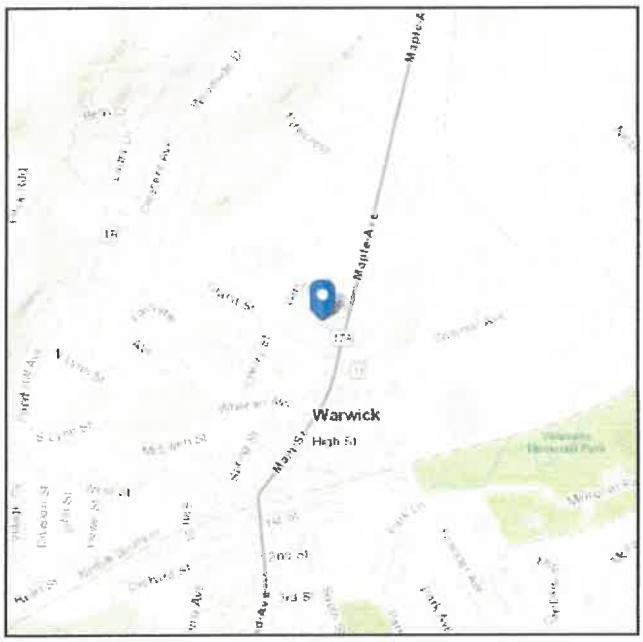
SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-10
	Tim Wordekemper		Mar 13, 2024 at 03:31 PM
	2403525	Shear Check	2403525 - Mount Rushmore 2023-03-14.r3d

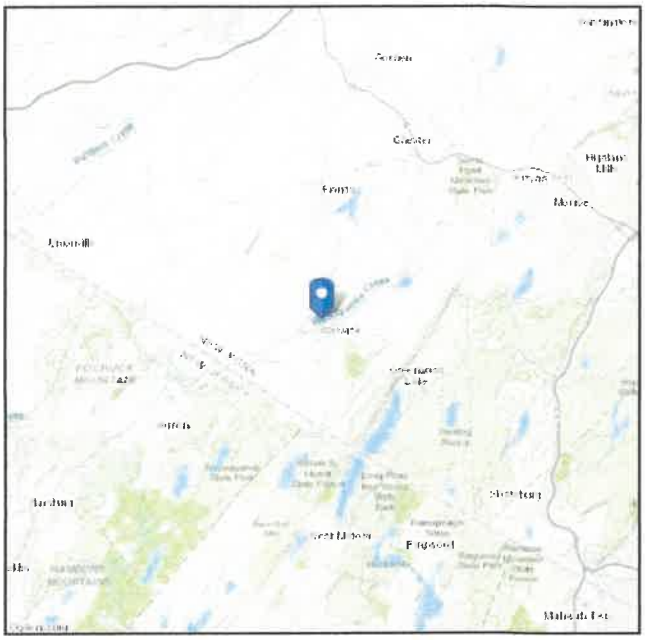
ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: IV
Soil Class: D - Default (see Section 11.4.3)

Latitude: 41.2614
Longitude: -74.3578
Elevation: 549.9239218954651 ft (NAVD 88)





Wind

Results:

Wind Speed	126 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	89 Vmph
100-year MRI	95 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1D and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Mar 05 2024

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 1.6% probability of exceedance in 50 years (annual exceedance probability = 0.00033, MRI = 3,000 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

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Seismic

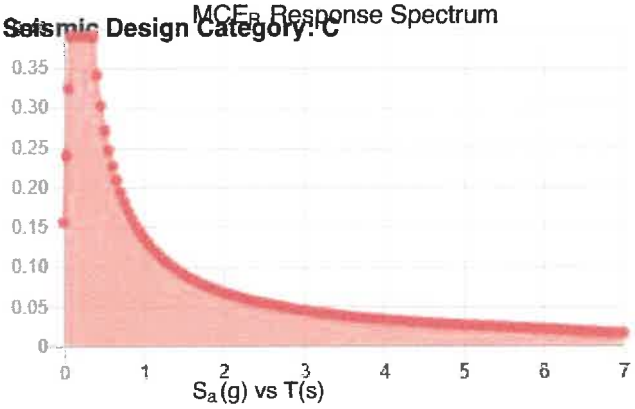
Site Soil Class: D - Default (see Section 11.4.3)

Results:

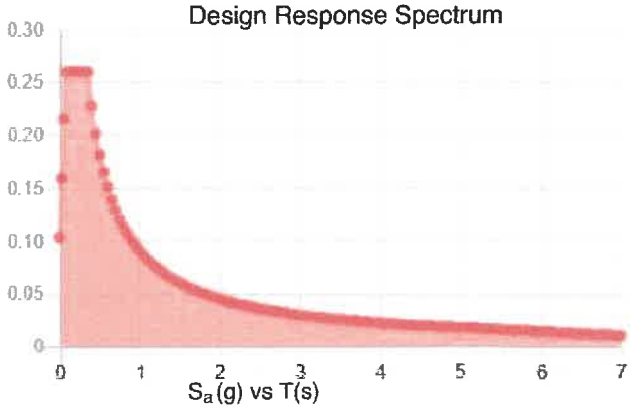
S_S :	0.245	S_{D1} :	0.091
S_1 :	0.057	T_L :	6
F_a :	1.6	PGA :	0.145
F_v :	2.4	PGA_M :	0.219
S_{MS} :	0.391	F_{PGA} :	1.51
S_{M1} :	0.137	I_e :	1.5
S_{DS} :	0.261	C_v :	0.789

Seismic Design Category: C

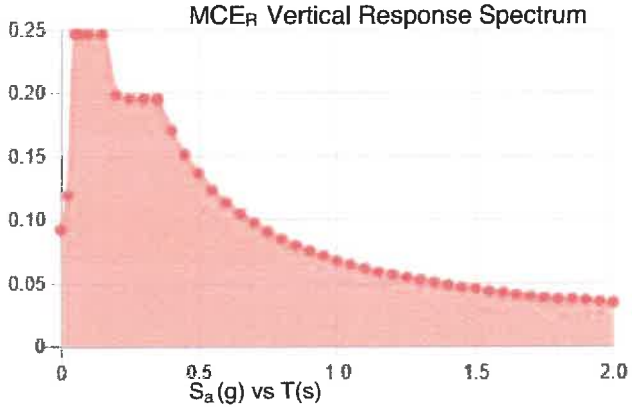
MCE_R Response Spectrum



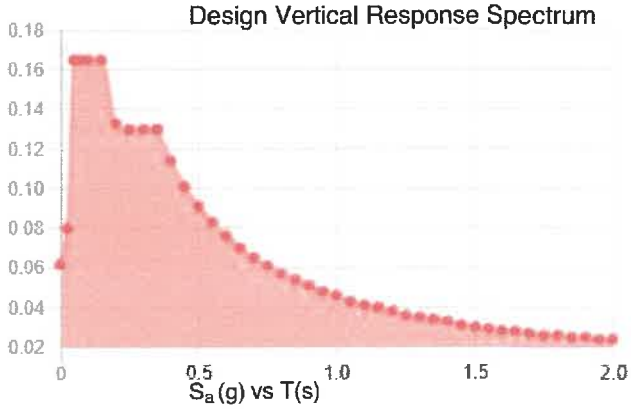
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Tue Mar 05 2024

Date Source:
USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed	40 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Tue Mar 05 2024

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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Snow

Results:

Mapped Elevation:	549.9 ft
Data Source:	ASCE/SEI 7-16, Table 7.2-8
Date Accessed:	Tue Mar 05 2024

In "Case Study" areas, site-specific case studies are required to establish ground snow loads. Extreme local variations in ground snow loads in these areas preclude mapping at this scale.

Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2 percent annual probability of being exceeded (50-year mean recurrence interval).

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow loads at elevations not covered.

Snow load values are mapped to a 0.5 mile resolution. This resolution can create a mismatch between the mapped elevation and the site-specific elevation in topographically complex areas. Engineers should consult the local authority having jurisdiction in locations where the reported 'elevation' and 'mapped elevation' differ significantly from each other.

Mount Analysis per TIA-222-H-2017 - Add. 1 (Nov. 2019) and the 2018 IBC.

Basic Wind Speeds and Site Parameters				
Load Cases	Wind Speed V (mph)	Wind Pressure q_z (lb/ft^2)		
No Ice (Bare)	126	23.726		
Ice	40	2.391		
Maintenance	30	1.502		
Design Ice Thickness	t_i	1	in	
Risk Category		IV		TIA-222-H - Table 2-1
Exposure Category		B		TIA-222-H - 2.6.5.1.2
Topographic factor	K_{zt}	1.000		TIA-222-H - 2.6.6.2.2
Ground Elevation	z_s	549.9	ft	
Mount Elevation CL	z	23.6	ft	

Design Parameters Summary				
Velocity pressure coefficient	K_z	0.700		TIA-222-H - 2.6.5.2
Rooftop wind speed-up factor	K_s	(N/A)		TIA-222-H - 2.6.7
Ground elevation factor	K_e	0.980		TIA-222-H - 2.6.8
Wind direction probability factor	K_d	0.950		TIA-222-H - 16.6
Gust effect factor	G_h	1.000		TIA-222-H - 16.6
Shielding factor	K_a	0.900		TIA-222-H - 16.6
Radial ice thickness	t_{iz}	1.209	in	TIA-222-H - 2.6.10

Seismic Parameters Summary				
Seismic site class		D (Default)		
Spectral response, short	S_s	0.245		
Spectral response, 1 s	S_1	0.057		
Design spectral response, 1 s	S_{D1}	0.091		TIA-222-H - 2.7.5
Design spectral response, short	S_{DS}	0.261		TIA-222-H - 2.7.5
Response modification coeff.	R	2		TIA-222-H - 16.7
Seismic response coefficient	C_S	0.163		TIA-222-H - 16.7
Earthquake amplification factor	A_S	3		TIA-222-H - 16.7
Weight of mount + appurtenances	D, W	7,062	lb	
Vertical seismic load effects	E_v	369	lb	TIA-222-H - 2.7.6
Horizontal seismic load effects	E_h	3,460	lb	TIA-222-H - 2.7.7

Maintenance Parameters Summary			
Vertical, at mount pipes	L_M	0	lb
Vertical, on horizontal members	L_V	0	lb

Appurtenance Loading Summary

Appurtenance: Make, Model	Qty	Height (in)	Width (in)	Depth (in)	Weight (lb)	Shape	Wind Force	
							Front (lb)	Side (lb)
--- | GPS	2	6.00	3.00	3.00	5.00	Round	2	2
--- | PPC Cabinet	1	60.00	25.00	10.00	100.00	Flat	267	121
--- | Telco Cabinet	1	26.00	23.00	17.50	100.00	Flat	106	81
--- | B160 BATTERY CABINET	1	63.00	25.60	29.50	795.00	Flat	287	331
--- | 6160 SITE SUPPORT CABINET	1	63.00	25.60	33.60	873.00	Flat	287	377
--- | RBS 6131 CABINET	1	64.00	51.00	36.50	1192.00	Flat	581	416

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Distributed	Area(Member)
1	Bare Weight	None	-1	12	7	4
2	Ice Weight	None		12	72	4
3	Wind (bare) 0°	None		15	58	
4	Wind (bare) 30°	None		15	56	
5	Wind (bare) 60°	None		15	56	
6	Wind (bare) 90°	None		15	59	
7	Wind (bare) 120°	None		15	56	
8	Wind (bare) 150°	None		15	56	
9	Wind (bare) 180°	None		15	56	
10	Wind (bare) 210°	None		15	56	
11	Wind (bare) 240°	None		15	56	
12	Wind (bare) 270°	None		15	58	
13	Wind (bare) 300°	None		15	56	
14	Wind (bare) 330°	None		15	56	
15	Wind (ice) 0°	None		15	58	
16	Wind (ice) 30°	None		15	56	
17	Wind (ice) 60°	None		15	56	
18	Wind (ice) 90°	None		15	59	
19	Wind (ice) 120°	None		15	56	
20	Wind (ice) 150°	None		15	56	
21	Wind (ice) 180°	None		15	56	
22	Wind (ice) 210°	None		15	56	
23	Wind (ice) 240°	None		15	56	
24	Wind (ice) 270°	None		15	58	
25	Wind (ice) 300°	None		15	56	
26	Wind (ice) 330°	None		15	56	
27	Wind (maint.) 0°	None		15	130	
28	Wind (maint.) 30°	None		15	130	
29	Wind (maint.) 60°	None		15	130	
30	Wind (maint.) 90°	None		15	130	
31	Wind (maint.) 120°	None		15	130	
32	Wind (maint.) 150°	None		15	130	
33	Wind (maint.) 180°	None		15	130	
34	Wind (maint.) 210°	None		15	130	
35	Wind (maint.) 240°	None		15	130	
36	Wind (maint.) 270°	None		15	130	
37	Wind (maint.) 300°	None		15	130	
38	Wind (maint.) 330°	None		15	130	
39	Seismic - Ev (Y)	None			38	
40	Seismic - Eh (X)	None			38	
41	Seismic - Eh (Z)	None			38	
42	Snow	None				1
43	Live	None				1
44	BLC 1 Transient Area Loads	None			24	
45	BLC 2 Transient Area Loads	None			24	
46	BLC 42 Transient Area Loads	None			4	
47	BLC 43 Transient Area Loads	None			4	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4D	Yes	Y	1	1.4								
2	1.2D + 1.6L + 0.5S	Yes	Y	1	1.2	43	1.6	42	0.5				
3	1.2D + 1.6L + 0.2Di + 0.5S	Yes	Y	1	1.2	43	1.6	2	0.2	42	0.5		
4	1.2D + 1.6S + 1.0L	Yes	Y	1	1.2	42	1.6	43	1				
5	1.2D + 1.6S + 0.5W (0°)	Yes	Y	1	1.2	42	1.6	3	0.5				
6	1.2D + 1.6S + 0.5W (90°)	Yes	Y	1	1.2	42	1.6	6	0.5				
7	1.2D + 1.6S + 0.5W (180°)		Y	1	1.2	42	1.6	9	0.5				
8	1.2D + 1.6S + 0.5W (270°)	Yes	Y	1	1.2	42	1.6	12	0.5				
9	1.2D +1.0W + 1.0L + 0.5S (0°)	Yes	Y	1	1.2	3	1	43	1	42	0.5		
10	1.2D +1.0W + 1.0L + 0.5S (90°)	Yes	Y	1	1.2	6	1	43	1	42	0.5		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
11	1.2D +1.0W + 1.0L + 0.5S (180°)		Y	1	1.2	9	1	43	1	42	0.5		
12	1.2D +1.0W + 1.0L + 0.5S (270°)	Yes	Y	1	1.2	12	1	43	1	42	0.5		
13	1.2D +1.0L + 1.0Di + 1.0Wi + 0.5S (0°)	Yes	Y	1	1.2	43	1	2	1	15	1	42	0.5
14	1.2D +1.0L + 1.0Di + 1.0Wi + 0.5S (90°)	Yes	Y	1	1.2	43	1	2	1	18	1	42	0.5
15	1.2D +1.0L + 1.0Di + 1.0Wi + 0.5S (180°)		Y	1	1.2	43	1	2	1	21	1	42	0.5
16	1.2D +1.0L + 1.0Di + 1.0Wi + 0.5S (270°)	Yes	Y	1	1.2	43	1	2	1	24	1	42	0.5
17	1.2D + 1.0Di	Yes	Y	1	1.2	2	1						
18	0.9D + 1.0W (0°)	Yes	Y	1	0.9	3	1						
19	0.9D + 1.0W (90°)	Yes	Y	1	0.9	6	1						
20	0.9D + 1.0W (180°)		Y	1	0.9	9	1						
21	0.9D + 1.0W (270°)	Yes	Y	1	0.9	12	1						
22	0.9D + 1.0Di + 1.0Wi (0°)	Yes	Y	1	0.9	2	1	15	1				
23	0.9D + 1.0Di + 1.0Wi (90°)	Yes	Y	1	0.9	2	1	18	1				
24	0.9D + 1.0Di + 1.0Wi (180°)		Y	1	0.9	2	1	21	1				
25	0.9D + 1.0Di + 1.0Wi (270°)	Yes	Y	1	0.9	2	1	24	1				
26	1.2D + 1.0Ev + 1.0Eh + 1.0L + 0.2S (X)	Yes	Y	1	1.2	39	1	40	1	43	1	42	0.2
27	1.2D + 1.0Ev + 1.0Eh + 1.0L + 0.2S (Z)	Yes	Y	1	1.2	39	1	41	1	43	1	42	0.2
28	0.9D - 1.0Ev + 1.0Eh (X)	Yes	Y	1	0.9	39	-1	40	1				
29	0.9D - 1.0Ev + 1.0Eh (Z)	Yes	Y	1	0.9	39	-1	41	1				

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [lb/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	490	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	490	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	490	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	490	50	1.25	65	1.15
8	A913 Gr.65	29000	11154	0.3	0.65	490	65	1.1	80	1.1
9	Q235	29000	11154	0.3	0.65	490	35	1.5	58	1.2
10	A529 Gr.50	29000	11154	0.3	0.65	490	50	1.1	65	1.1
11	A500 Gr.C	29000	11154	0.3	0.65	490	46	1.6	60	1.2

General Materials Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [lb/ft^{3}]	Plate Methodology
1	gen_Conc3NW	3155	1372	0.15	0.6	145	Isotropic
2	gen_Conc4NW	3644	1584	0.15	0.6	145	Isotropic
3	gen_Conc3LW	2085	906	0.15	0.6	110	Isotropic
4	gen_Conc4LW	2408	1047	0.15	0.6	110	Isotropic
5	gen_Alum	10100	4077	0.3	1.29	173	Isotropic
6	gen_Steel	29000	11154	0.3	0.65	490	Isotropic
7	gen_Plywood	1800	38	0	0.3	35	Isotropic
8	RIGID	1e+6		0.3	0	0	Isotropic

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	Channel Ledger	C12X25	Beam	None	A36 Gr.36	Typical	7.34	4.45	144	0.538
2	Platform Beam (Long)	W10X22	Beam	None	A36 Gr.36	Typical	6.49	11.4	118	0.239
3	Platform Beam (Short)	W8X13	Beam	None	A36 Gr.36	Typical	3.84	2.73	39.6	0.0871
4	Angle Beam	L4X4X4	Beam	None	A36 Gr.36	Typical	1.93	3	3	0.0438
5	Platform Post	PIPE_3.0	Beam	None	A36 Gr.36	Typical	2.07	2.85	2.85	5.69
6	Platform Outer Beam	W10X33	Beam	None	A36 Gr.36	Typical	9.71	36.6	171	0.583
7	Kicker Brace	L3X3X3	Beam	None	A36 Gr.36	Typical	1.09	0.948	0.948	0.0136
8	Panel Post	HSS4X4X3	Beam	None	A500 Gr.B Rect	Typical	2.58	6.21	6.21	10
9	Panel Horizontal	L4X4X4	Beam	None	A36 Gr.36	Typical	1.93	3	3	0.0438

General Section Sets

	Label	Type	Material	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	RIGID	None	RIGID	1e+6	1e+6	1e+6	1e+6

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	Lcomp bot [in]	Channel Conn.	a [in]	Function
1	AB1	Angle Beam	24			Lbyy		N/A	N/A	Lateral
2	AB2	Angle Beam	24			Lbyy		N/A	N/A	Lateral
3	AB3	Angle Beam	24			Lbyy		N/A	N/A	Lateral
4	AB4	Angle Beam	24			Lbyy		N/A	N/A	Lateral
5	AB5	Angle Beam	24			Lbyy		N/A	N/A	Lateral
6	AB6	Angle Beam	24			Lbyy		N/A	N/A	Lateral
7	CL1	Channel Ledger	121			Lbyy		N/A	N/A	Lateral
8	KB1	Kicker Brace	26.9928			Lbyy		N/A	N/A	Lateral
9	KB2	Kicker Brace	30.3415			Lbyy		N/A	N/A	Lateral
10	KB3	Kicker Brace	27.1296			Lbyy		N/A	N/A	Lateral
11	PANEL1.H1	Panel Horizontal	110	Segment	Segment	Lbyy		N/A	N/A	Lateral
12	PANEL1.H2	Panel Horizontal	110	Segment	Segment	Lbyy		N/A	N/A	Lateral
13	PANEL2.H1	Panel Horizontal	190.5	Segment	Segment	Lbyy		N/A	N/A	Lateral
14	PANEL2.H2	Panel Horizontal	190.5	Segment	Segment	Lbyy		N/A	N/A	Lateral
15	PANEL3.H2	Panel Horizontal	14			Lbyy		N/A	N/A	Lateral
16	PANEL4.H1	Panel Horizontal	147			Lbyy		N/A	N/A	Lateral
17	PANEL4.H2	Panel Horizontal	190.5	Segment	Segment	Lbyy		N/A	N/A	Lateral
18	PLB.L1	Platform Beam (Long)	192	48		Lbyy		N/A	N/A	Lateral
19	PLB.L2	Platform Beam (Long)	192	48		Lbyy		N/A	N/A	Lateral
20	PLB.L3	Platform Beam (Long)	242	48	121	48	48	N/A	N/A	Lateral
21	PLB.L4	Platform Beam (Long)	192	48		48	48	N/A	N/A	Lateral
22	PLB.S1	Platform Beam (Short)	54			Lbyy		N/A	N/A	Lateral
23	PLB.S2	Platform Beam (Short)	54			Lbyy		N/A	N/A	Lateral
24	PLB.S3	Platform Beam (Short)	54			Lbyy		N/A	N/A	Lateral
25	PLOB1	Platform Outer Beam	168	54	150	54	54	N/A	N/A	Lateral
26	PLP1	Platform Post	36.5			Lbyy		N/A	N/A	Lateral
27	PLP2	Platform Post	36.5			Lbyy		N/A	N/A	Lateral
28	PLP3	Platform Post	36.5			Lbyy		N/A	N/A	Lateral
29	PP1	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
30	PP2	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
31	PP3	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
32	PP4	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
33	PP5	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
34	PP6	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
35	PP7	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
36	PP8	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
37	PP9	Panel Post	97.1			Lbyy		N/A	N/A	Lateral
38	PP10	Panel Post	97.1			Lbyy		N/A	N/A	Lateral

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
0	N36	max	942.677	18	2127.22	13	780.863	21	0	29	0	29	0	29
1		min	-1188.62	12	280.146	21	-779.242	10	0	1	0	1	0	1
2	N44	max	1343.36	26	208.578	9	750.522	21	0	29	0	29	0	29
3		min	-33.395	19	-19.384	21	-884.332	10	0	1	0	1	0	1
4	N33	max	397.336	14	4272.795	14	39.342	19	0	29	0	29	0	29
5		min	32.05	21	296.754	21	-52.472	12	0	1	0	1	0	1
6	N24	max	68.924	21	8631.254	14	31.319	10	0	29	0	29	0	29
7		min	-423.075	14	224.081	21	-15.2	29	0	1	0	1	0	1
8	N18	max	26.466	26	5838.047	12	4097.646	12	0	29	0	29	0	29
9		min	0.104	29	-980.475	19	-3130.888	19	0	1	0	1	0	1
10	N155	max	251.746	18	11.096	29	161.609	13	0	29	0	29	0	29
11		min	-272.596	12	-73.102	4	-1.092	29	0	1	0	1	0	1
12	N157	max	19.456	28	1509.751	4	56.866	12	0	29	0	29	0	29

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
13		min	-66.531	4	341.154	29	-56.286	19	0	1	0	1	0	1
14	N159	max	628.336	26	1402.617	16	225.92	21	0	29	0	29	0	29
15		min	54.757	19	434.292	19	-207.28	10	0	1	0	1	0	1
16	N161	max	216.275	18	1376.158	14	189.575	21	0	29	0	29	0	29
17		min	-233.697	12	-128.022	21	-611.33	10	0	1	0	1	0	1
18	N163	max	23.927	28	2148.935	4	92.528	12	0	29	0	29	0	29
19		min	-108.049	4	483.775	29	-47.401	19	0	1	0	1	0	1
20	N165	max	376.213	26	1936.452	14	108.566	21	0	29	0	29	0	29
21		min	54.323	19	728.784	21	-106.646	10	0	1	0	1	0	1
22	N167	max	276.614	26	1129.486	12	136.642	21	0	29	0	29	0	29
23		min	6.376	19	-819.337	19	-336.703	10	0	1	0	1	0	1
24	Totals:	max	3395.989	28	28113.506	16	6126.096	21						
25		min	-0.788	12	7578.994	29	-5702.835	10						

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
0	PLP2	PIPE_3.0	0.957	15.576	12	0.246	31.815		12	64521.873	67068	5913	5913	1	H1-1b
1	PANEL1.H2	L4X4X4	0.743	75.625	21	0.08	28.646	y	21	45888.539	62532	3137.597	5579.146	1.5	H2-1
2	PP3	HSS4X4X3	0.514	0	12	0.245	7.667	y	16	84312.193	106812	12661.5	12661.5	2.868	H1-1b
3	PP2	HSS4X4X3	0.5	0	10	0.232	7.667	y	14	84312.193	106812	12661.5	12661.5	2.842	H1-1b
4	KB3	L3X3X3	0.411	12.152	12	0.002	27.13	y	26	27130.399	35316	1320.097	2819.724	1.136	H2-1
5	PP1	HSS4X4X3	0.382	0	16	0.277	7.667	y	12	84312.193	106812	12661.5	12661.5	3	H1-1b
6	PANEL1.H1	L4X4X4	0.34	75.625	21	0.034	28.646	y	12	45888.539	62532	3137.597	5579.146	1.5	H2-1
7	PANEL2.H1	L4X4X4	0.287	140.891	10	0.026	47.625	z	10	45888.539	62532	3137.597	4552.488	1.5	H2-1
8	PANEL4.H1	L4X4X4	0.277	98	12	0.031	98	y	12	12370.465	62532	3137.597	5072.253	1.5	H2-1
9	PANEL4.H2	L4X4X4	0.261	47.625	10	0.028	7.938	y	10	47071.914	62532	3137.597	4552.488	1.5	H2-1
10	PP6	HSS4X4X3	0.238	0	14	0.188	7.667	y	10	84312.193	106812	12661.5	12661.5	3	H1-1b
11	PANEL2.H2	L4X4X4	0.223	47.625	10	0.031	47.625	z	10	47071.914	62532	3137.597	4552.488	1.5	H2-1
12	PLB.L2	W10X22	0.214	106	14	0.064	192	y	14	140091.889	210276	16470	70200	1	H1-1b
13	PLB.L1	W10X22	0.204	96	4	0.068	0	y	4	140091.889	210276	16470	70200	1	H1-1b
14	PLOB1	W10X33	0.203	78.75	16	0.133	0	y	14	253647.594	314604	37800	104760	1	H1-1b
15	PLB.L4	W10X22	0.197	144	12	0.369	0	z	21	140091.889	210276	16470	70200	1	H1-1b
16	PLP3	PIPE_3.0	0.161	15.7	14	0.025	16.354		14	64586.628	67068	5913	5913	1	H1-1b
17	PP4	HSS4X4X3	0.161	0	14	0.133	7.667	y	12	84312.193	106812	12661.5	12661.5	3	H1-1b
18	PP7	HSS4X4X3	0.141	8.625	10	0.161	7.667	z	10	84312.193	106812	12661.5	12661.5	1.998	H1-1b
19	PP5	HSS4X4X3	0.132	8.625	21	0.096	7.667	y	12	84312.193	106812	12661.5	12661.5	2.007	H1-1b
20	PP9	HSS4X4X3	0.131	8.625	10	0.094	7.667	y	10	84312.193	106812	12661.5	12661.5	2.005	H1-1b
21	PP8	HSS4X4X3	0.127	8.625	10	0.116	7.667	z	21	84312.193	106812	12661.5	12661.5	1.995	H1-1b
22	PLP1	PIPE_3.0	0.121	15.7	14	0.033	16.681		14	64586.628	67068	5913	5913	1	H1-1b
23	PP10	HSS4X4X3	0.116	8.625	10	0.096	7.667	y	10	84312.193	106812	12661.5	12661.5	2.006	H1-1b
24	PLB.L3	W10X22	0.103	146.208	10	0.37	0	z	21	129304.415	210276	16470	70200	1	H1-1b
25	CL1	C12X25	0.093	12.604	26	0.062	35.292	y	26	68664.003	237816	8090.909	79380	3	H1-1b
26	AB5	L4X4X4	0.062	9.5	12	0.023	0	z	14	49378.576	62532	3137.597	6714.886	1.066	H2-1
27	KB2	L3X3X3	0.053	14.855	14	0.023	30.342	y	12	26751.059	35316	1320.097	2767.998	1.136	H2-1
28	KB1	L3X3X3	0.047	13.215	14	0.004	26.993	y	16	27145.586	35316	1320.097	2821.994	1.136	H2-1
29	AB2	L4X4X4	0.029	12.25	14	0.019	24	z	17	49378.576	62532	3137.597	6714.886	1.251	H2-1
30	AB1	L4X4X4	0.028	12	17	0.016	24	z	17	49378.576	62532	3137.597	6714.886	1.238	H2-1
31	AB6	L4X4X4	0.022	12	10	0.006	24	z	16	49378.576	62532	3137.597	6714.886	1.137	H2-1
32	AB3	L4X4X4	0.019	9.75	14	0.026	0	z	14	49378.576	62532	3137.597	6714.886	1.36	H2-1
33	PLB.S2	W8X13	0.01	27	9	0.006	54	y	4	100253.601	124416	5805	30780	1.2	H1-1b
34	AB4	L4X4X4	0.01	11	12	0.004	0	z	16	49378.576	62532	3137.597	6714.886	1.13	H2-1
35	PLB.S1	W8X13	0.01	27	9	0.002	54	y	16	100253.601	124416	5805	30780	1.131	H1-1b
36	PLB.S3	W8X13	0.01	27	9	0.006	54	y	4	100253.601	124416	5805	30780	1.156	H1-1b
37	PANEL3.H2	L4X4X4	0.008	7	19	0.004	7	z	19	50133.679	62532	3137.597	6714.886	1.5	H2-1

SGS Project No.	2403525
Site Name:	St. Anthony Community Hospital
Site Number:	NY10253B
Analysis Date:	TJW 03/14/2024

Wall Connection Check

Wall Connection Information		
Bolt Diameter =	5/8	in
Bolt Grade =	A36	(assumed)
Threads in Shear =	Yes	(assumed)

Reactions from RISA		
Node	Max Shear (lb)	Max Tension (lb)
N36	1063.8	594.3
N44	448.7	16.7
N155	172.2	272.6
N157	1509.8	66.5
N159	1402.7	0.0
N161	1484.7	233.7
N163	2149.5	108.0
N165	1936.5	0.0
N167	1131.3	0.0

Bolt Checks		
Max Tensile Force =	0.59	kips
Design Tensile Strength =	10.01	kips
Bolt Tensile Capacity =	**5.9%**	Pass
Max Shear Force =	2.15	kips
Design Shear Strength =	6.01	kips
Bolt Shear Capacity =	**35.8%**	Pass

SGS Project No.:	2403525
Site Name:	St. Anthony Community Hospital
Site Number:	NY10253B
Analysis Date:	TJW 03/14/2024

Roof Loading

Existing Roof Loading

Dead:	20	psf (assumed)
Roof Live:	20	psf
Flat Roof Snow:	26.46	psf

Roof Snow Load

Design Snow Load pg:	35	psf
Exposure Factor Ce:	0.9	Table 7.3-1 ASCE 7-16
Thermal Factor Ct:	1	Table 7.3-2 ASCE 7-16
Importance Factor Is:	1.2	Table 1.5-2 ASCE 7-16
Flat Roof Snow Load pf:	26.46	psf

BEAM1 Information

Member:	BEAM1	
Size:	W16x26	
Length:	442	in
Spacing:	73	in

BEAM2 Information

Member:	BEAM2	
Size:	W16x26	
Length:	422	in
Spacing:	73	in

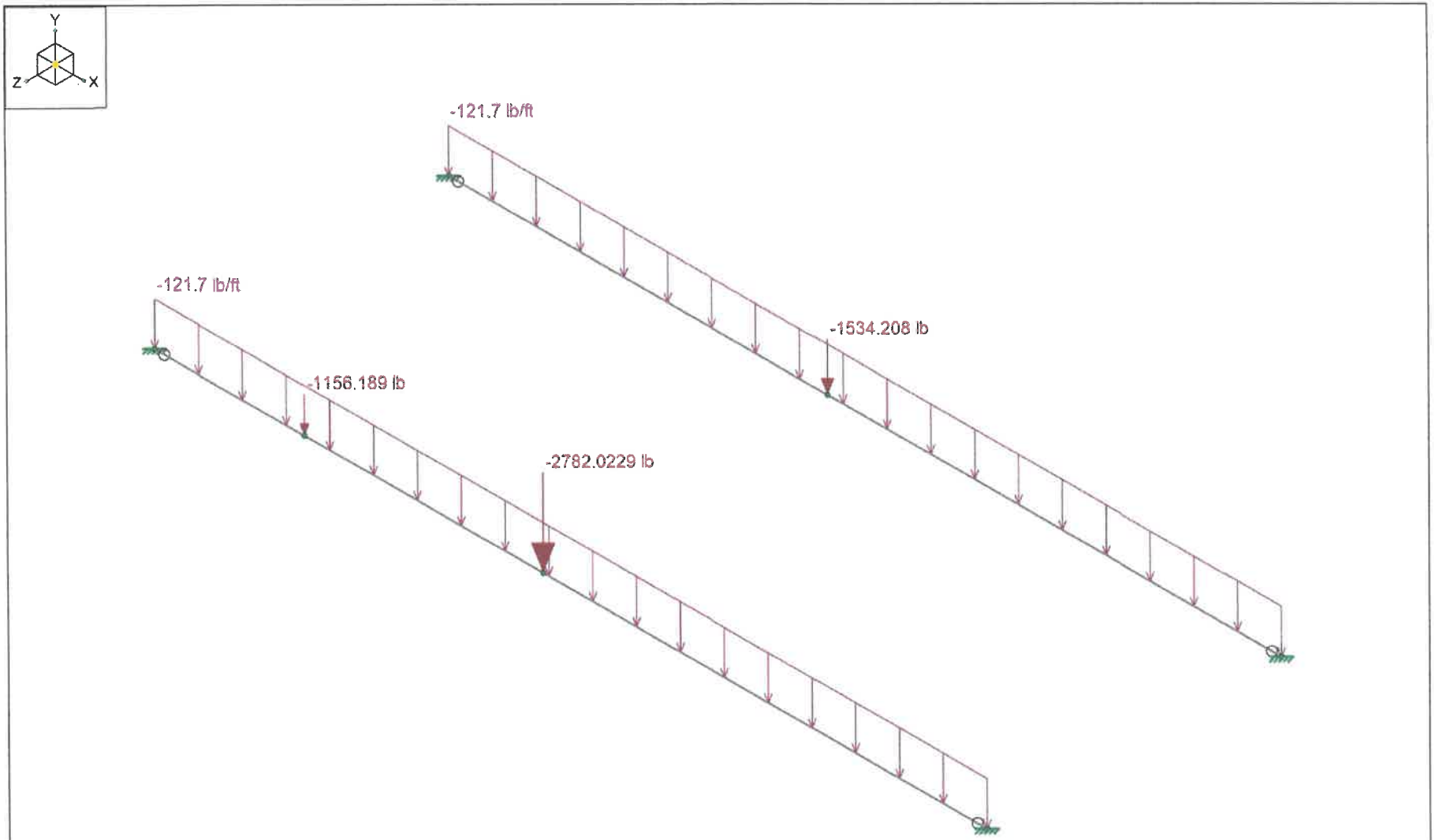
BEAM1 Loading Summary

Dead:	121.7	lb/ft
Live:	121.7	lb/ft
Snow:	161.0	lb/ft

BEAM2 Loading Summary

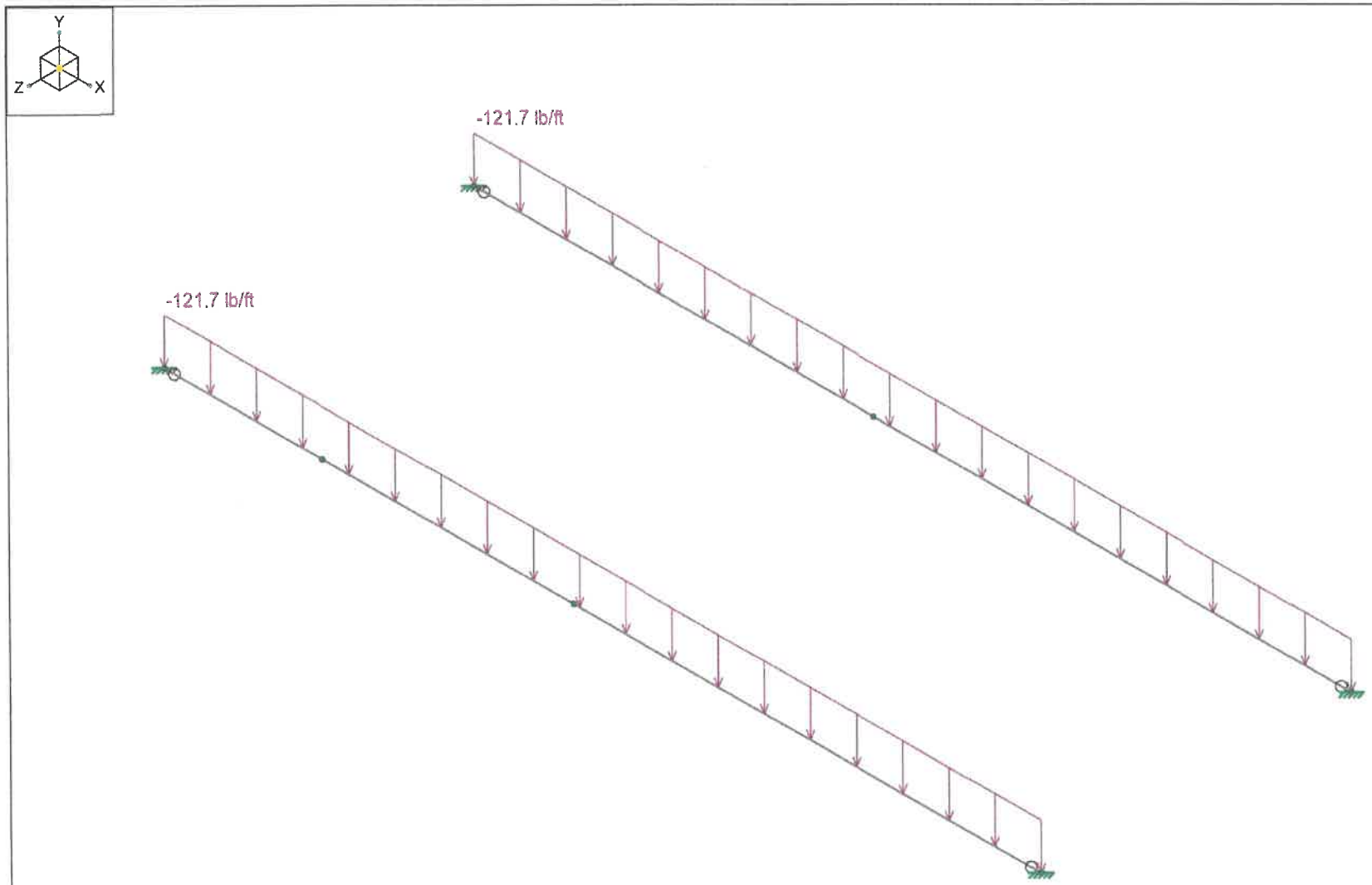
Dead:	121.7	lb/ft
Live:	121.7	lb/ft
Snow:	161.0	lb/ft

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-1
	Tim Wordekemper		Mar 14, 2024 at 02:40 PM
	2403525	Beam Rendering	2403525 - Roof Check.r3d



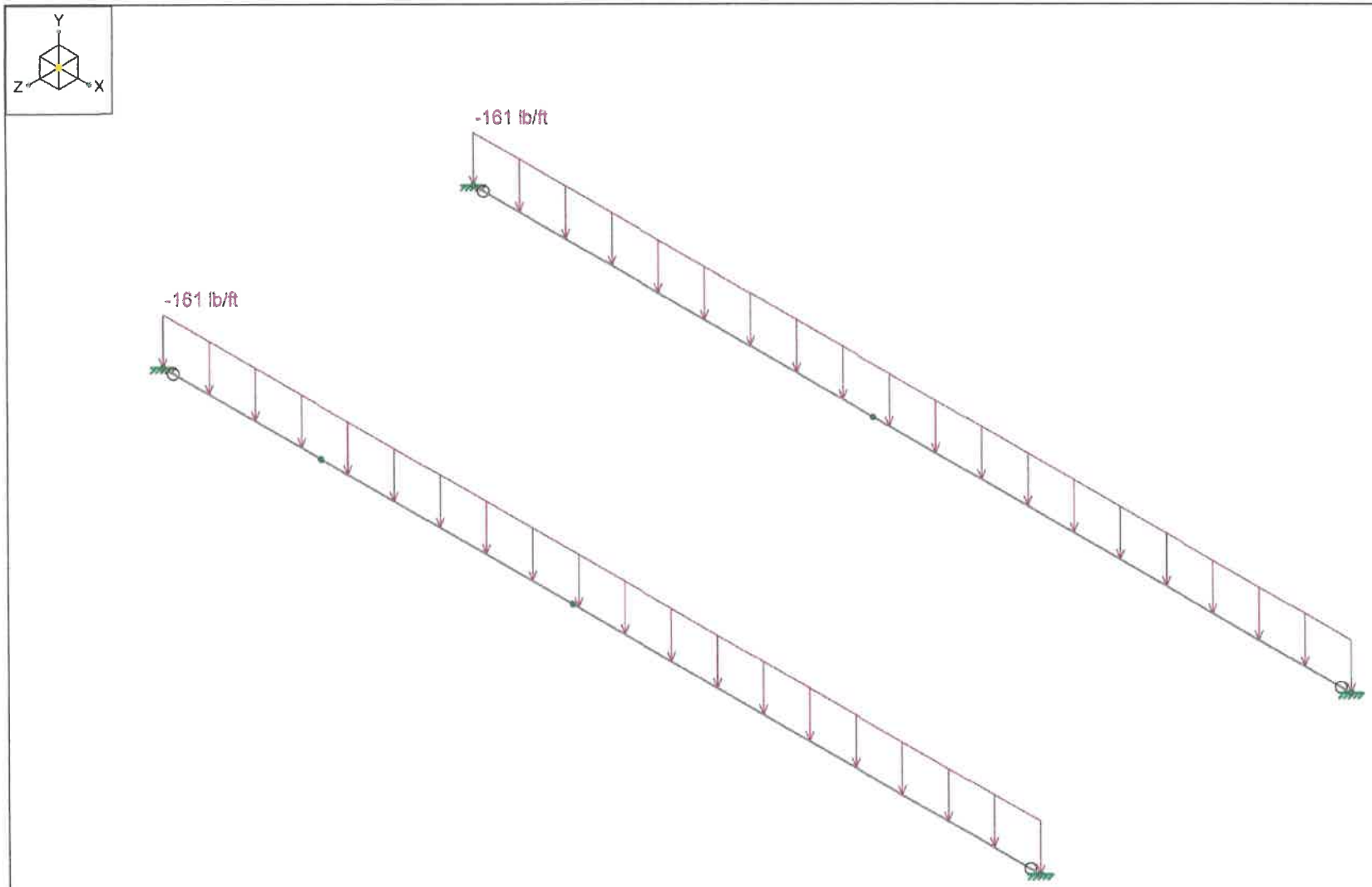
Loads: BLC 1, Dead

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-2
	Tim Wordekemper		Mar 14, 2024 at 02:41 PM
	2403525	Loading - Dead	2403525 - Roof Check.r3d



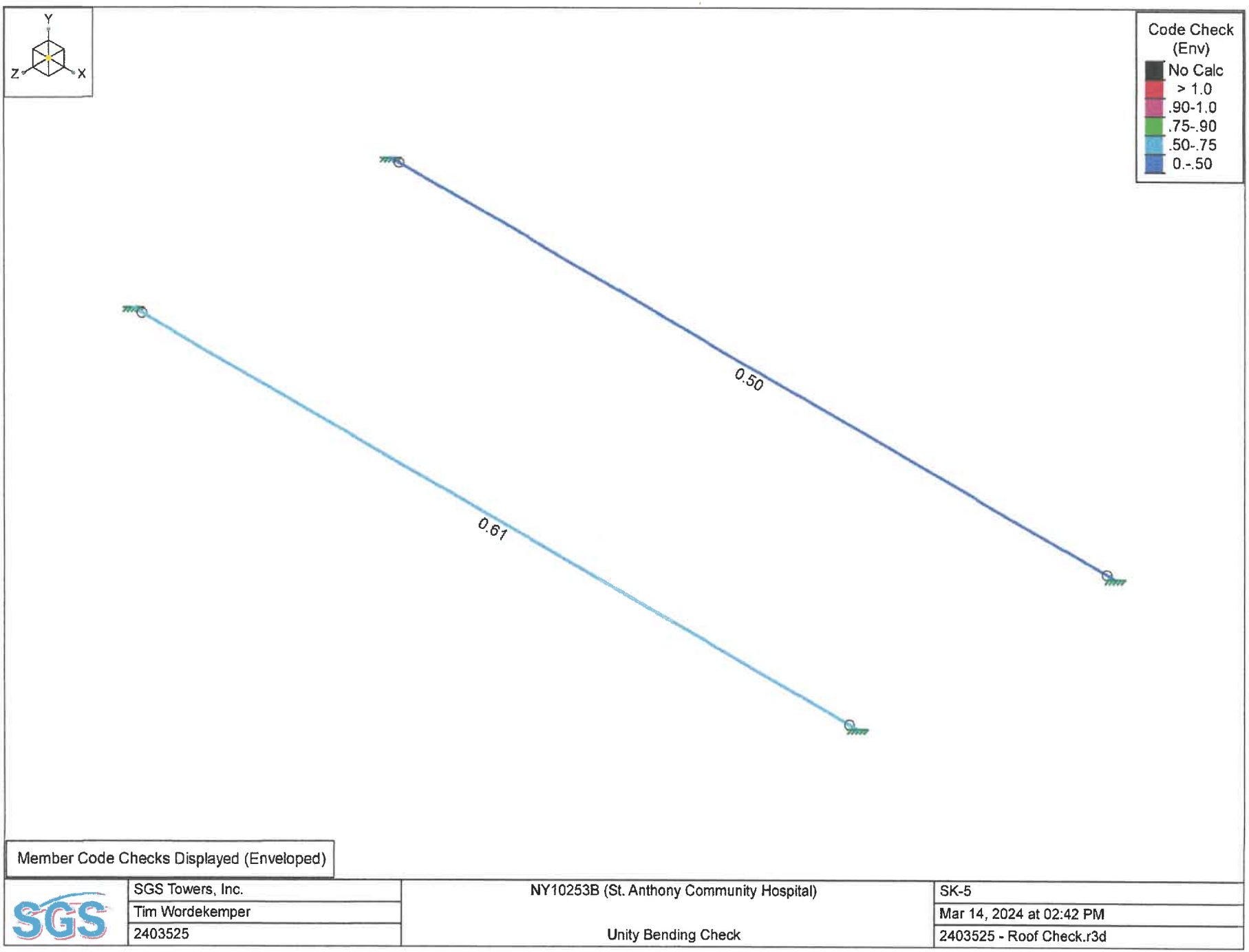
Loads: BLC 2, Roof Live

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-3
	Tim Wordekemper		Mar 14, 2024 at 02:41 PM
	2403525	Loading - Roof Live	2403525 - Roof Check.r3d



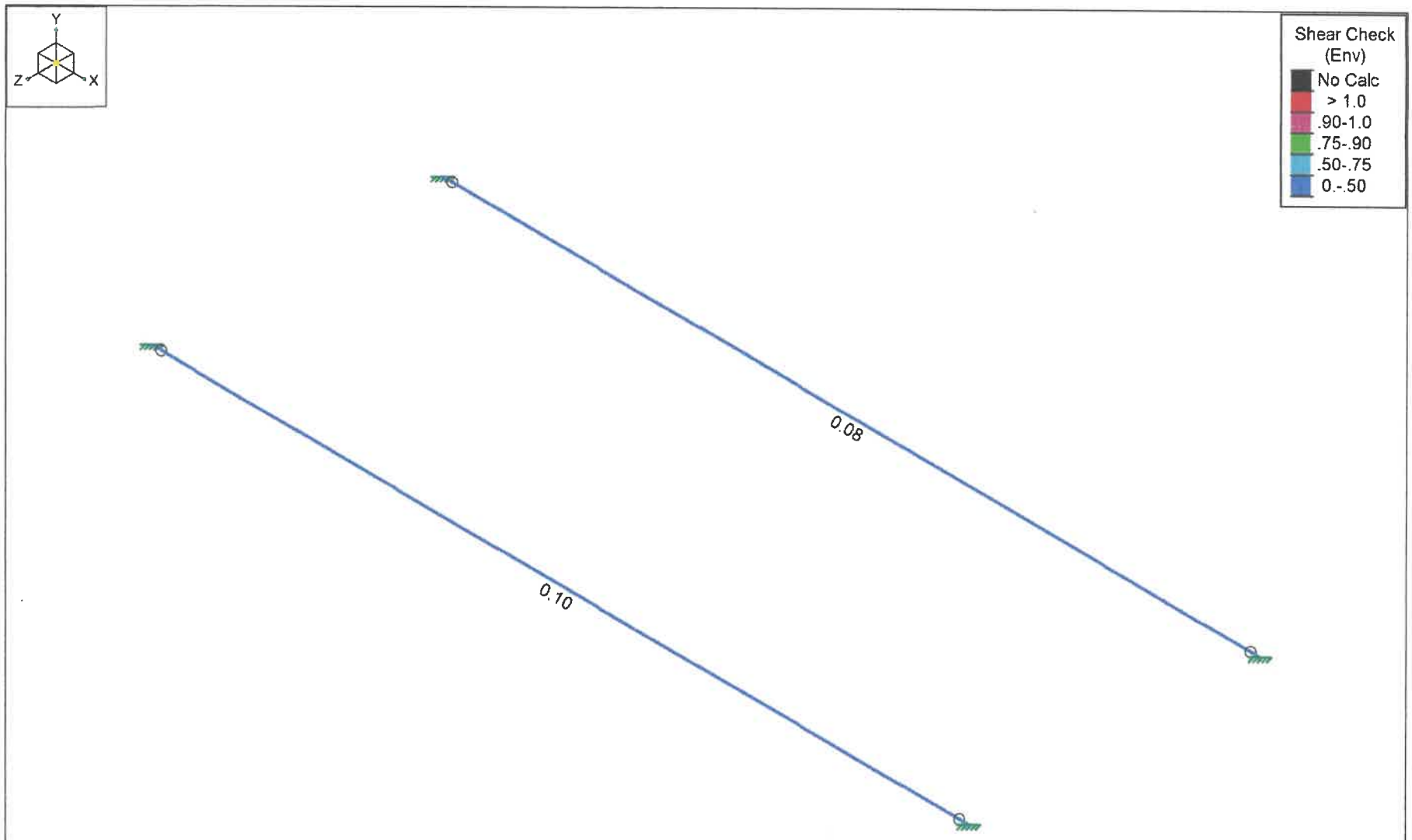
Loads: BLC 3, Flat Roof Snow

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-4
	Tim Wordekemper		Mar 14, 2024 at 02:42 PM
	2403525	Loading - Snow	2403525 - Roof Check.r3d



Member Code Checks Displayed (Enveloped)

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-5
	Tim Wordekemper		Mar 14, 2024 at 02:42 PM
	2403525	Unity Bending Check	2403525 - Roof Check.r3d



Member Shear Checks Displayed (Enveloped)

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-6
	Tim Wordekemper		Mar 14, 2024 at 02:42 PM
	2403525	Shear Check	2403525 - Roof Check.r3d

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Distributed
1	Dead	None	-1	3	2
2	Roof Live	None			2
3	Flat Roof Snow	None			2

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor
1	1.4D	Yes	Y	1	1.4		
2	1.2D + 0.5Lr	Yes	Y	1	1.2	2	0.5
3	1.2D + 0.5S	Yes	Y	1	1.2	3	0.5
4	1.2D + 1.6Lr	Yes	Y	1	1.2	2	1.6
5	1.2D + 1.6S	Yes	Y	1	1.2	3	1.6

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [lb/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	490	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	490	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	490	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	490	50	1.25	65	1.15
8	A913 Gr.65	29000	11154	0.3	0.65	490	65	1.1	80	1.1
9	Q235	29000	11154	0.3	0.65	490	35	1.5	58	1.2
10	A529 Gr.50	29000	11154	0.3	0.65	490	50	1.1	65	1.1
11	A500 Gr.C	29000	11154	0.3	0.65	490	46	1.6	60	1.2

General Materials Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [lb/ft^{3}]	Plate Methodology
1	gen_Conc3NW	3155	1372	0.15	0.6	145	Isotropic
2	gen_Conc4NW	3644	1584	0.15	0.6	145	Isotropic
3	gen_Conc3LW	2085	906	0.15	0.6	110	Isotropic
4	gen_Conc4LW	2408	1047	0.15	0.6	110	Isotropic
5	gen_Alum	10100	4077	0.3	1.29	173	Isotropic
6	gen_Steel	29000	11154	0.3	0.65	490	Isotropic
7	gen_Plywood	1800	38	0	0.3	35	Isotropic
8	RIGID	1e+6		0.3	0	0	Isotropic

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	Channel Ledger	C12X25	Beam	None	A36 Gr.36	Typical	7.34	4.45	144	0.538
2	Platform Beam (Long)	W10X22	Beam	None	A36 Gr.36	Typical	6.49	11.4	118	0.239
3	Platform Beam (Short)	W8X13	Beam	None	A36 Gr.36	Typical	3.84	2.73	39.6	0.0871
4	Angle Beam	L4X4X4	Beam	None	A36 Gr.36	Typical	1.93	3	3	0.0438
5	Platform Post	PIPE_3.0	Beam	None	A36 Gr.36	Typical	2.07	2.85	2.85	5.69
6	Platform Outer Beam	W10X33	Beam	None	A36 Gr.36	Typical	9.71	36.6	171	0.583
7	Kicker Brace	L3X3X3	Beam	None	A36 Gr.36	Typical	1.09	0.948	0.948	0.0136
8	Panel Post	HSS4X4X3	Beam	None	A500 Gr.B Rect	Typical	2.58	6.21	6.21	10
9	Panel Horizontal	L4X4X4	Beam	None	A36 Gr.36	Typical	1.93	3	3	0.0438
10	Roof Beam	W16X26	Beam	None	A992	Typical	7.68	9.59	301	0.262

General Section Sets

	Label	Type	Material	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	RIGID	None	RIGID	1e+6	1e+6	1e+6	1e+6

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
1	BEAM1	Roof Beam	422	1	N/A	N/A	Lateral
2	BEAM2	Roof Beam	422	1	N/A	N/A	Lateral

Node Loads and Enforced Displacements (BLC 1 : Dead)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N33	L	Y	-1156.189
2	N24	L	Y	-2782.023
3	N18	L	Y	-1534.208

Member Distributed Loads (BLC 1 : Dead)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	BEAM1	Y	-121.7	-121.7	0	%100
2	BEAM2	Y	-121.7	-121.7	0	%100

Member Distributed Loads (BLC 2 : Roof Live)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	BEAM1	Y	-121.7	-121.7	0	%100
2	BEAM2	Y	-121.7	-121.7	0	%100

Member Distributed Loads (BLC 3 : Flat Roof Snow)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	BEAM1	Y	-161	-161	0	%100
2	BEAM2	Y	-161	-161	0	%100

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
0	N176	max	0	5	8486.384	5	0	5	0	5	0	5	0	5
1		min	0	1	4616.403	1	0	1	0	1	0	1	0	1
2	N189	max	0	5	8652.166	5	0	5	0	5	0	5	0	5
3		min	0	1	4809.815	1	0	1	0	1	0	1	0	1
4	N184	max	0	5	9457.079	5	0	5	0	5	0	5	0	5
5		min	0	1	5748.881	1	0	1	0	1	0	1	0	1
6	N183	max	0	5	10566.276	5	0	5	0	5	0	5	0	5
7		min	0	1	7042.944	1	0	1	0	1	0	1	0	1
8	Totals:	max	0	5	37161.904	5	0	5						
9		min	0	1	22218.044	1	0	1						

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
0	BEAM2	W16X26	0.608	197.813	5	0.1	0	y	5	12165.601	345600	20550	165750	1	H1-1b
1	BEAM1	W16X26	0.499	193.417	5	0.082	0	y	5	12165.601	345600	20550	165750	1	H1-1b

Date: **March 14, 2024**

Ericsson

Sinnott Gering and Schmitt Towers, Inc.
14708 Custer Rd Suite 102
Omaha, NE 68138
(844) 886-9377
Engineering@sgstowers.com

Subject:	**Rooftop Structural Analysis Report**	
Carrier Designation:	**T-Mobile Equipment Change-Out**	
	Carrier Site Number:	NY10253B
	Carrier Site Name:	St. Anthony Community Hospital
Engineering Firm Designation:	**SGS Towers Report Designation:**	2403524
Site Data:	**17 Maple Ave, Warwick, NY 10990 (Orange County)** **Latitude 41.2614, Longitude -74.3578**	
Structure Information:	**Structure Height & Type:**	**Rooftop**
	Mount Type:	**Concealment Shelter**

Sinnott Gering and Schmitt Towers, Inc. is pleased to submit this **"Rooftop Structural Analysis Report"** to determine the structural integrity of T-Mobile's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting structure. Analysis of the existing supporting structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Concealment Shelter	**75.9%**	**Conditionally Sufficient***

***Sufficient upon completion of the changes listed in the 'Recommendations' section of this report.**

The analysis has been performed in accordance with the TIA-222-H Standard based upon an ultimate 3-second gust wind speed of 126 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

We at *SGS Towers* appreciate the opportunity of providing our continuing professional services to Ericsson. If you have any questions or need further assistance on this or any other projects, please give us a call.

Mount analysis prepared by: Tim Wordekemper, EI
Respectfully Submitted by:

DS

TABLE OF CONTENTS

1) INTRODUCTION

This is an existing multi-sector Concealment Shelter located on the rooftop of a hospital building and mapped by SGS Towers in January of 2024. The concealment shelter supports multiple carriers and consists of FRP structural members and concealment paneling. The original concealment shelter design calculations were not available at the time of this analysis.

2) ANALYSIS CRITERIA

Applicable Codes:	TIA-222-H
Risk Category:	IV
Ultimate Wind Speed:	126 mph
Exposure Category:	B
Topographic Factor (K_{zt}):	1.0
Design Ice Thickness:	1.0 in
Wind Speed with Ice:	40 mph
Rooftop Wind Speed-up Factor (K_S):	1.1
Seismic Parameters:	S_S: 0.245 / S_1 0.057

NOTE: Due to the mount configuration, Lm and Lv maintenance loading was not considered in this analysis.

Table 1 – Final Equipment Configuration

Elevations (ft)		Equipment Quantity	Equipment Manufacturer	Equipment Model	Notes
Mount	Equipment				
74.92	81	3	RFS	APXVAARR18_43-U-NA20	-
		1	RFS	APXVAALL18_43-U-NA20	
		4	Ericsson	AIR6419 B41	
		4	Ericsson	4449	
		4	Ericsson	4460	

Notes:
1) For additional loading information considered, refer to Appendix A.

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Source
RF Data Sheet	NY10253B_Anchor_12_draft_2024-02-12	Ericsson
Preliminary Construction Drawing	Ericsson / NY10253B Construction Drawings Rev 1 dated 02/13/2024	Ericsson
Previous Structural Analysis	Infinigy / Job No. 499-052, dated 09/23/2018	Ericsson
Mapping Photos	SGS Towers / Project No. 2312073, dated 01/11/2024	SGS

3.1) Analysis Method

RISA-3D (Version 21.0.1), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
4) Due to the shape of the concealment shelter, wind loading was only considered in 90° increments for this analysis.
5) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325
U-Bolts	ASTM A307

This analysis may be affected if any assumptions are not valid or have been made in error. SGS Towers should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity

Component	% Capacity	Pass / Fail
Angle Horizontal 1	67.3	Pass
Angle Horizontal 2	58.0	Pass
Antenna Mount Pipe (TMO)	16.4	Pass
FRP L4X4X0.375	44.3	Pass
FRP Square Tube 4X0.25	75.9	Pass
FRP Plate 4 x 0.375	10.9	Pass
Roof Check	Acceptable[1]	

Notes:
1) Due to lack of original concealment framing drawings, we have analyzed the framing and found it to be adequate. Per mapping photos, there are no observed damages on the shelter or framing. The concealment shelter is positively connected to the roof steel beams. Since there is no overall increase in the wind area as well as the weight increase in less than 5%, it is our opinion that the roof framing shall be adequate to support the final configuration.

Structure Rating (max from all components) =	**75.9%**

4.1) Recommendations

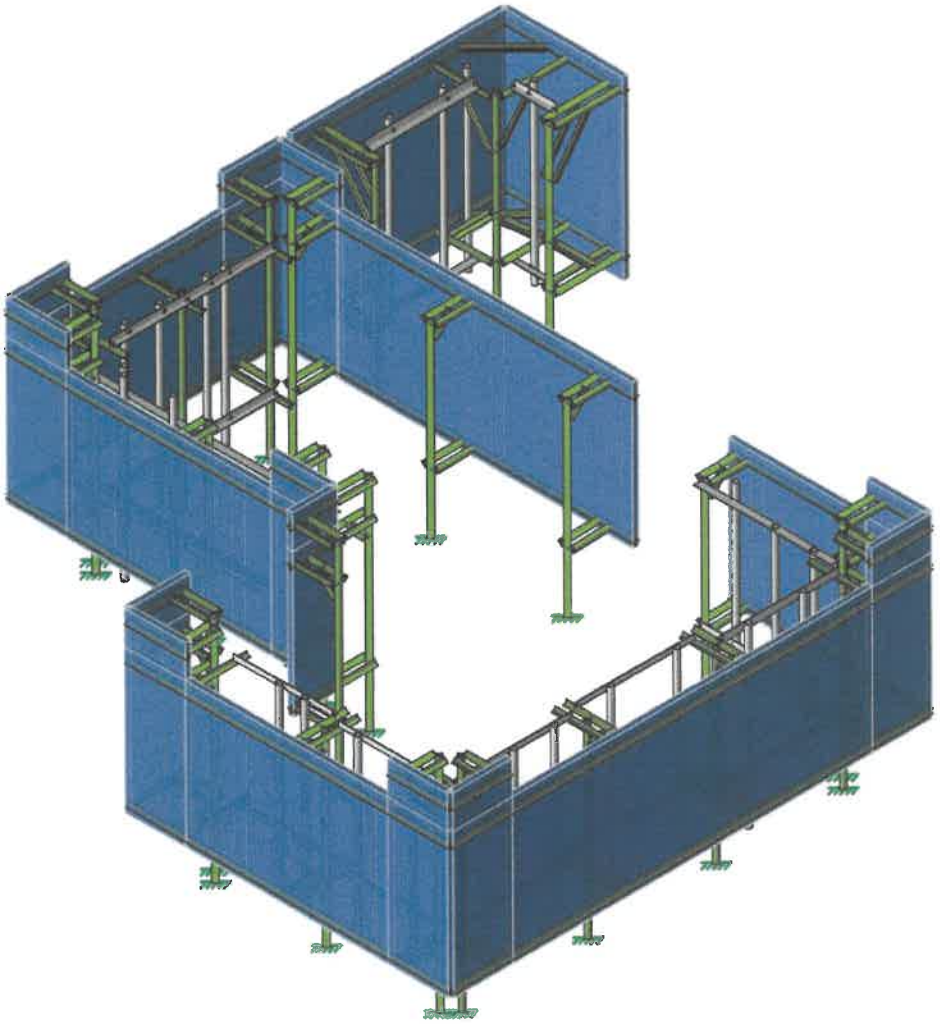
The supporting structure has conditionally sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the modification(s) listed below must be completed.

1. The threaded rod standoff located at the Beta Sector location are to be removed and the existing Angle Horizontals supporting antenna mounting pipes are to be attached flush with the FRP HSS members. Refer to Appendix B for additional information.

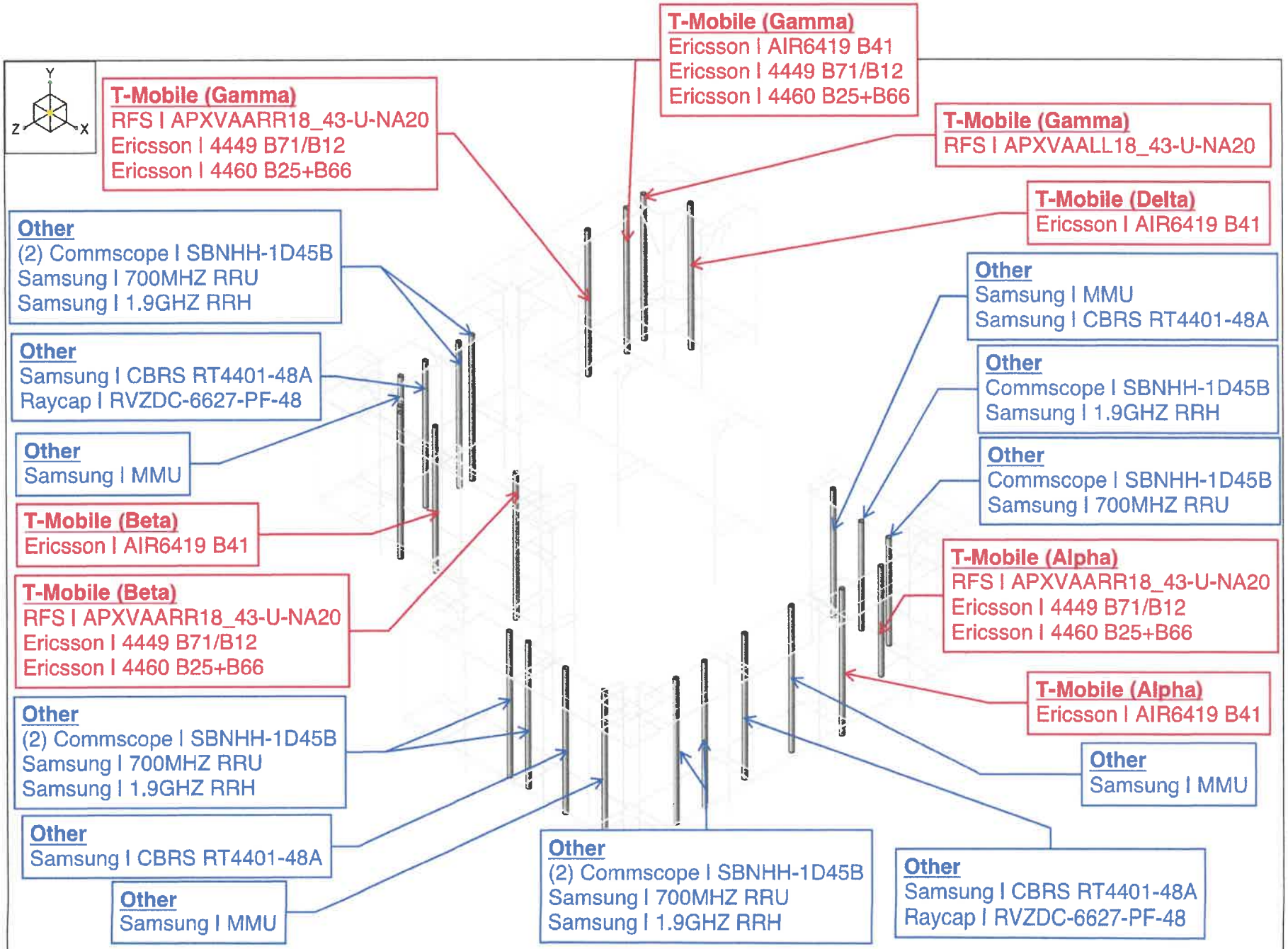
Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis. Contractor PMI Requirements included at the end of this Mount Analysis report or mount modification drawings (if applicable) for reference.

APPENDIX A

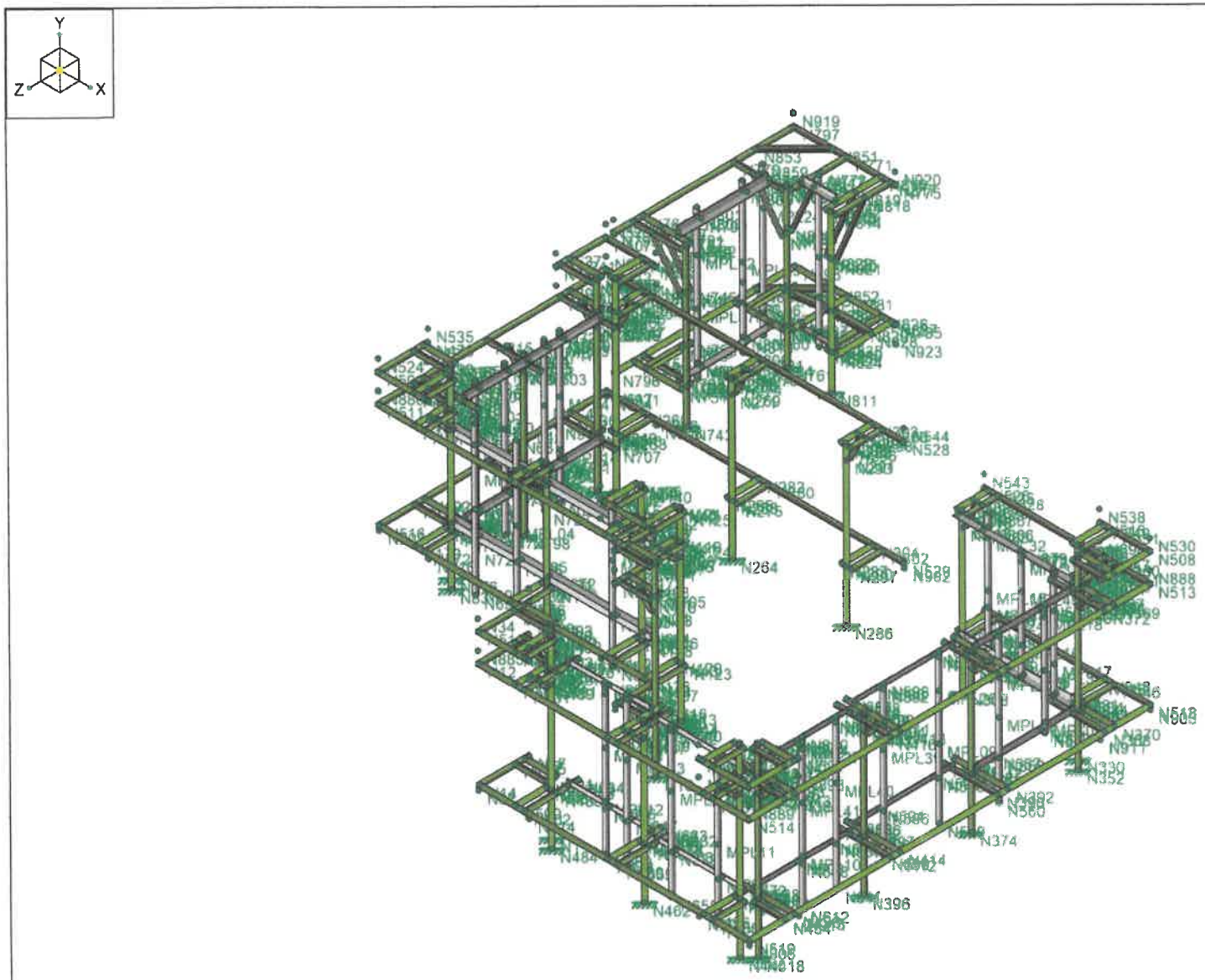
CALCULATIONS & ANALYSIS SUMMARY



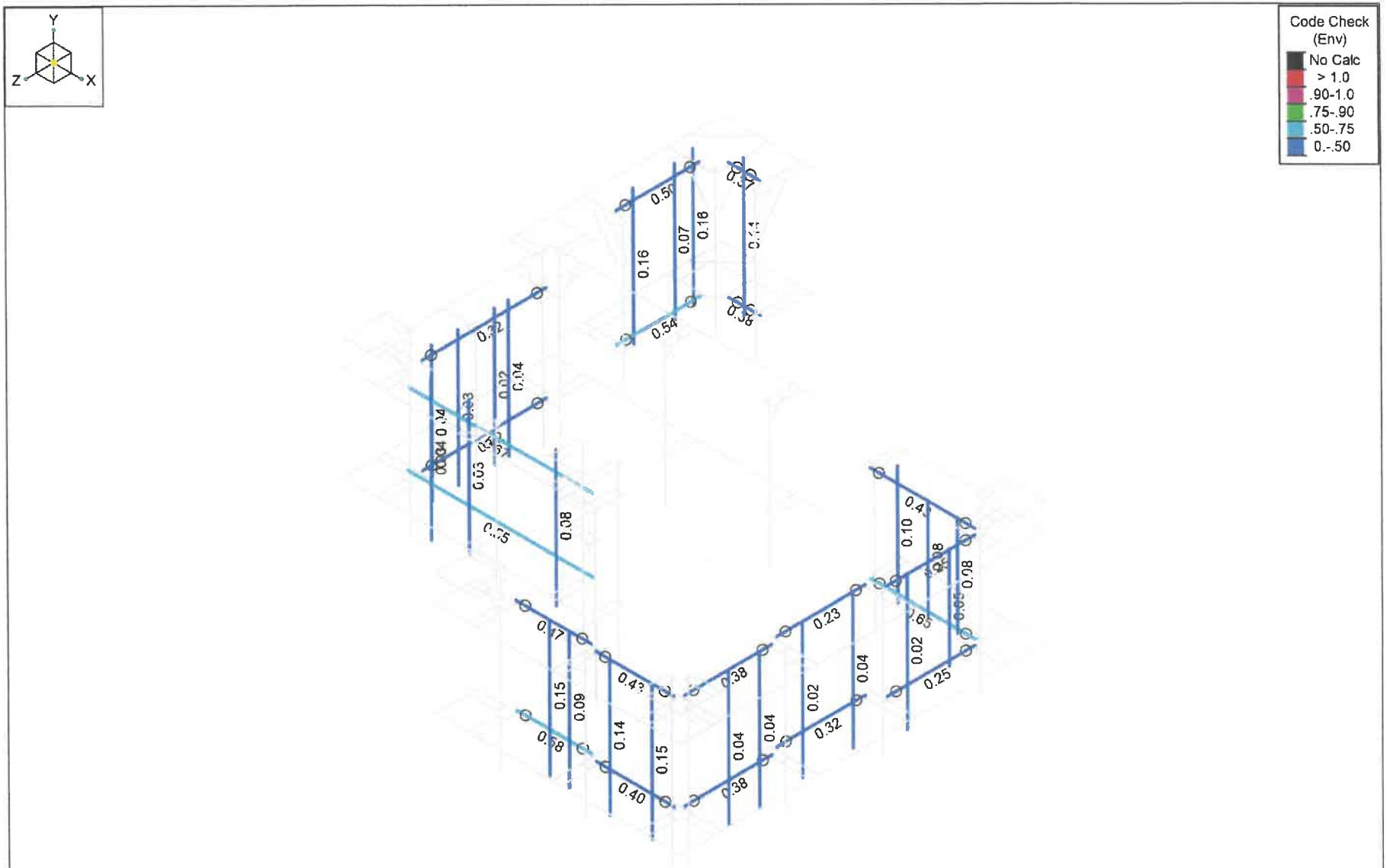
SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-1
	Tim Wordekemper		Mar 08, 2024 at 03:48 PM
	2403524	Mount Rendering	2403524 B - Mount Rushmore 2023-03-14.r3d



SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-2
	Tim Wordekemper		Mar 08, 2024 at 03:49 PM
	2403524	Antenna Configuration	2403524 B - Mount Rushmore 2023-03-14.r3d

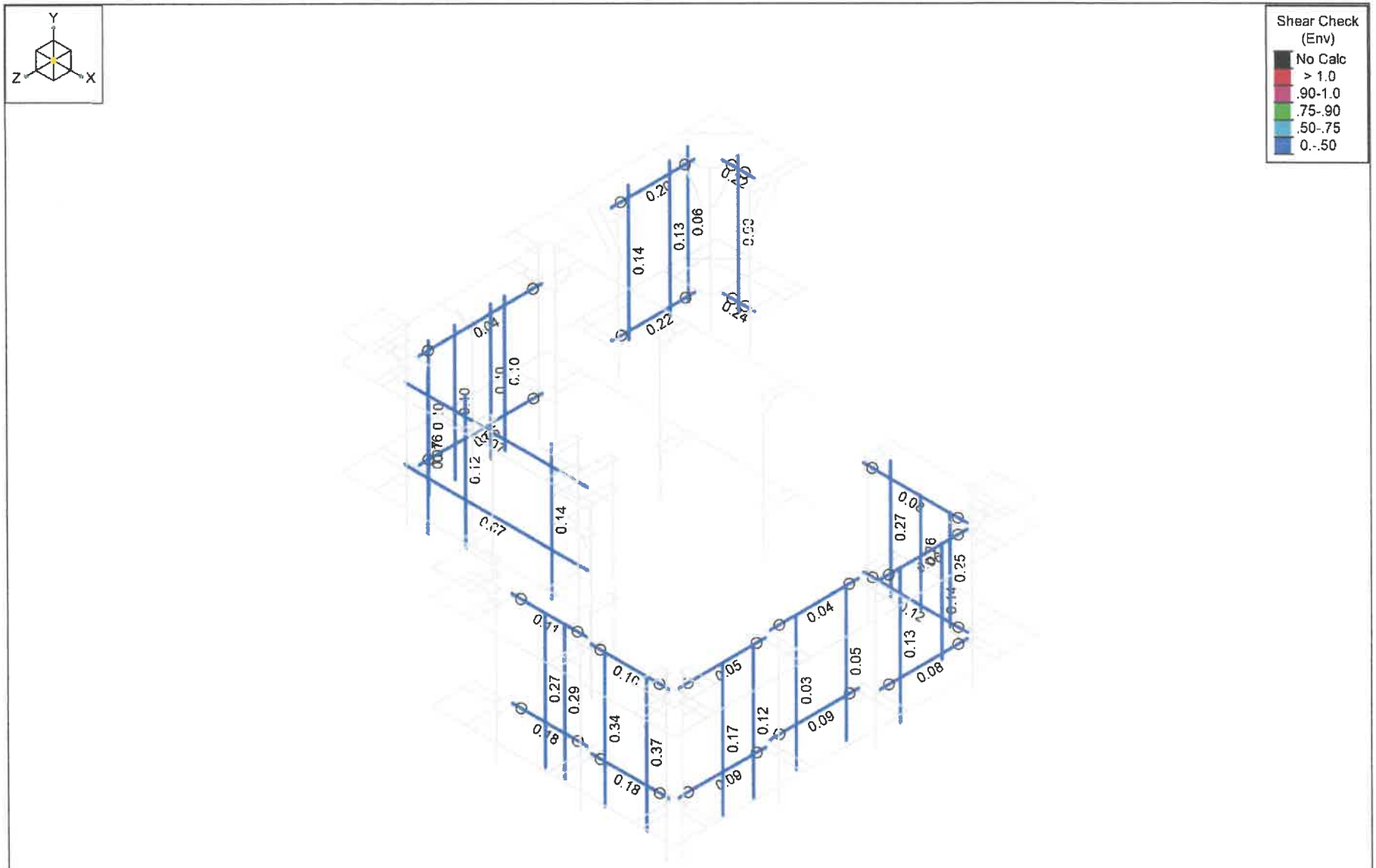


SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-3
	Tim Wordekemper		Mar 08, 2024 at 03:50 PM
	2403524	Nodal Labels	2403524 B - Mount Rushmore 2023-03-14.r3d



Member Code Checks Displayed (Enveloped)

SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-9
	Tim Wordekemper		Mar 08, 2024 at 03:53 PM
	2403524	Unity Bending Check	2403524 B - Mount Rushmore 2023-03-14.r3d



Member Shear Checks Displayed (Enveloped)

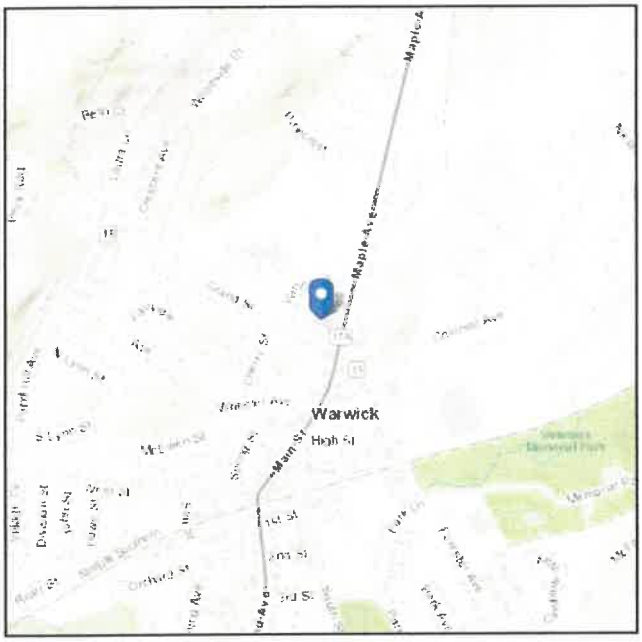
SGS	SGS Towers, Inc.	NY10253B (St. Anthony Community Hospital)	SK-10
	Tim Wordekemper		Mar 08, 2024 at 03:54 PM
	2403524	Shear Check	2403524 B - Mount Rushmore 2023-03-14.r3d

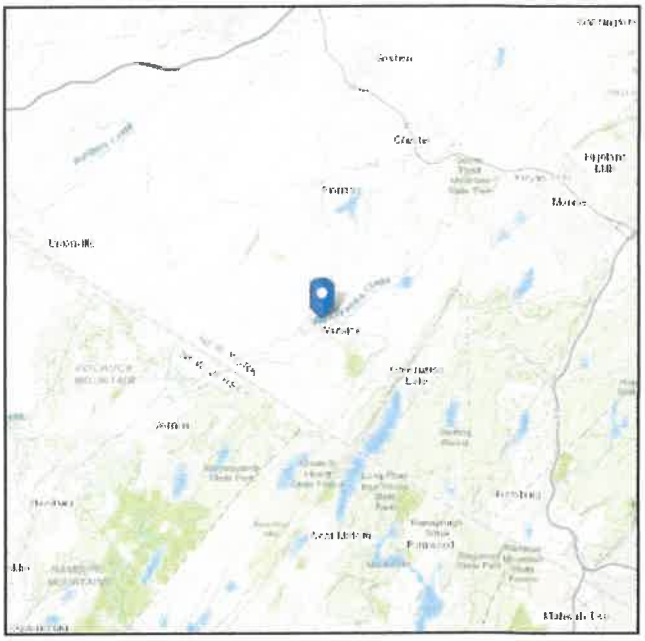
ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: IV
Soil Class: D - Default (see Section 11.4.3)

Latitude: 41.2614
Longitude: -74.3578
Elevation: 549.9239218954651 ft (NAVD 88)





Wind

Results:

Wind Speed	126 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	89 Vmph
100-year MRI	95 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1D and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Mar 05 2024

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 1.6% probability of exceedance in 50 years (annual exceedance probability = 0.00033, MRI = 3,000 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Seismic

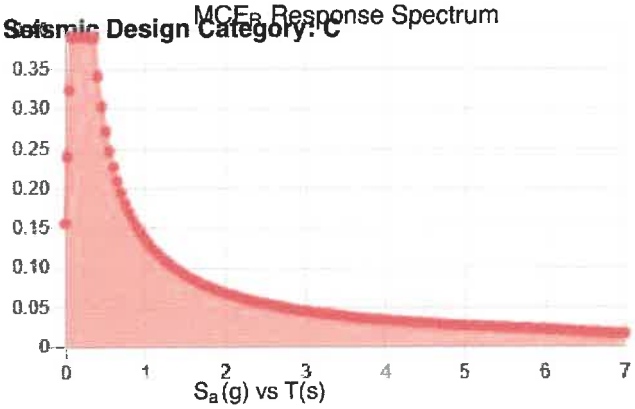
Site Soil Class: D - Default (see Section 11.4.3)

Results:

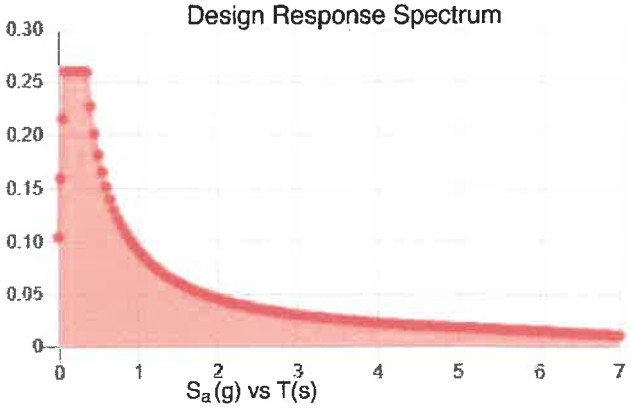
S_S :	0.245	S_{D1} :	0.091
S_1 :	0.057	T_L :	6
F_a :	1.6	PGA :	0.145
F_v :	2.4	PGA_M :	0.219
S_{MS} :	0.391	F_{PGA} :	1.51
S_{M1} :	0.137	I_e :	1.5
S_{DS} :	0.261	C_v :	0.789

Seismic Design Category: C

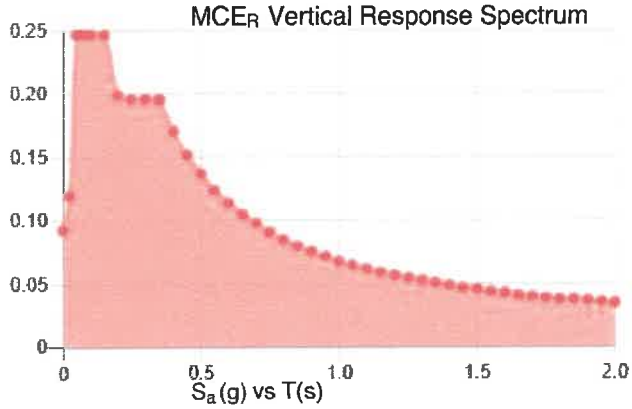
MCE_R Response Spectrum



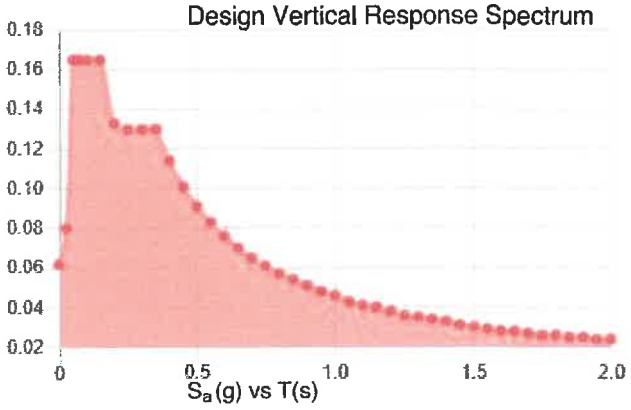
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: **Tue Mar 05 2024**

Date Source:
USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed	40 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Tue Mar 05 2024

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Snow

Results:

Mapped Elevation:	549.9 ft
Data Source:	ASCE/SEI 7-16, Table 7.2-8
Date Accessed:	Tue Mar 05 2024

In "Case Study" areas, site-specific case studies are required to establish ground snow loads. Extreme local variations in ground snow loads in these areas preclude mapping at this scale.

Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2 percent annual probability of being exceeded (50-year mean recurrence interval).

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow loads at elevations not covered.

Snow load values are mapped to a 0.5 mile resolution. This resolution can create a mismatch between the mapped elevation and the site-specific elevation in topographically complex areas. Engineers should consult the local authority having jurisdiction in locations where the reported 'elevation' and 'mapped elevation' differ significantly from each other.

Mount Analysis per TIA-222-H-2017 - Add. 1 (Nov. 2019) and the 2018 IBC.

Basic Wind Speeds and Site Parameters				
Load Cases	Wind Speed V (mph)	Wind Pressure q_z (lb/ft^2)		
No Ice (Bare)	126	37.886		
Ice	40	3.818		
Maintenance	30	2.148		
Design Ice Thickness	t_i	1	in	
Risk Category		IV		TIA-222-H - Table 2-1
Exposure Category		B		TIA-222-H - 2.6.5.1.2
Topographic factor	K_{zt}	1.000		TIA-222-H - 2.6.6.2.2
Ground Elevation	z_s	549.9	ft	
Mount Elevation CL	z	74.92	ft	

Design Parameters Summary				
Velocity pressure coefficient	K_z	0.910		TIA-222-H - 2.6.5.2
Rooftop wind speed-up factor	K_s	1.100		TIA-222-H - 2.6.7
Ground elevation factor	K_e	0.980		TIA-222-H - 2.6.8
Wind direction probability factor	K_d	0.950		TIA-222-H - 16.6
Gust effect factor	G_h	1.000		TIA-222-H - 16.6
Shielding factor	K_a	0.900		TIA-222-H - 16.6
Radial ice thickness	t_{iz}	1.357	in	TIA-222-H - 2.6.10

Seismic Parameters Summary				
Seismic site class		D (Default)		
Spectral response, short	S_s	0.245		
Spectral response, 1 s	S_1	0.057		
Design spectral response, 1 s	S_{D1}	0.091		TIA-222-H - 2.7.5
Design spectral response, short	S_{DS}	0.261		TIA-222-H - 2.7.5
Response modification coeff.	R	2		TIA-222-H - 16.7
Seismic response coefficient	C_S	0.163		TIA-222-H - 16.7
Earthquake amplification factor	A_S	3		TIA-222-H - 16.7
Weight of mount + appurtenances	D, W	6,571	lb	
Vertical seismic load effects	E_v	343	lb	TIA-222-H - 2.7.6
Horizontal seismic load effects	E_h	3,220	lb	TIA-222-H - 2.7.7

Maintenance Parameters Summary			
Vertical, at mount pipes	L_M	0	lb
Vertical, on horizontal members	L_V	0	lb

SGS Project No.: 2403524
Project: NY10253B (St. Anthony Community Hospital)
March 08, 2024

Appurtenance Loading Summary

	Appurtenance: Make, Model	Qty	Height (in)	Width (in)	Depth (in)	Weight (lb)	Shape	Wind Force Front (lb)	Wind Force Side (lb)
T-Mobile	RFS | APXVAARR18_43-U-NA20	3	72.00	24.50	9.50	93.19	Flat	509	230
	Ericsson | 4449 B71/B12	4	17.90	13.10	10.60	73.19	Flat	67	54
	Ericsson | 4460 B25+B66	4	19.70	15.78	12.20	109.12	Flat	88	68
	Ericsson | AIR6419 B41	4	34.50	19.90	8.00	65.00	Flat	195	84
	RFS | APXVAALL18_43-U-NA20	1	72.00	24.00	8.50	93.00	Flat	500	210
Other	Samsung | MMU	4	41.34	19.70	5.50	143.30	Flat	231	76
	Samsung | CBRS RT4401-48A	4	13.91	8.55	4.15	18.64	Flat	34	17
	Raycap | RVZDC-6627-PF-48	2	28.93	15.73	10.31	32.00	Flat	129	86
	Samsung | 1.9GHZ RRH	4	23.80	13.80	9.00	60.00	Flat	93	61
	Commscope | SBNHH-1D45B	8	72.00	18.00	7.00	64.40	Flat	389	180
	Samsung | 700MHZ RRU	4	12.60	12.60	6.00	37.50	Flat	45	21

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Distributed
1	Bare Weight	None	-1	186	32
2	Ice Weight	None		186	498
3	Wind (bare) 0°	None			6
4	Wind (bare) 30°	None			
5	Wind (bare) 60°	None			
6	Wind (bare) 90°	None			8
7	Wind (bare) 120°	None			
8	Wind (bare) 150°	None			
9	Wind (bare) 180°	None			12
10	Wind (bare) 210°	None			
11	Wind (bare) 240°	None			
12	Wind (bare) 270°	None			8
13	Wind (bare) 300°	None			
14	Wind (bare) 330°	None			
15	Wind (ice) 0°	None			6
16	Wind (ice) 30°	None			
17	Wind (ice) 60°	None			
18	Wind (ice) 90°	None			8
19	Wind (ice) 120°	None			
20	Wind (ice) 150°	None			
21	Wind (ice) 180°	None			12
22	Wind (ice) 210°	None			
23	Wind (ice) 240°	None			
24	Wind (ice) 270°	None			8
25	Wind (ice) 300°	None			
26	Wind (ice) 330°	None			
27	Wind (maint.) 0°	None			
28	Wind (maint.) 30°	None			
29	Wind (maint.) 60°	None			
30	Wind (maint.) 90°	None			
31	Wind (maint.) 120°	None			
32	Wind (maint.) 150°	None			
33	Wind (maint.) 180°	None			
34	Wind (maint.) 210°	None			
35	Wind (maint.) 240°	None			
36	Wind (maint.) 270°	None			
37	Wind (maint.) 300°	None			
38	Wind (maint.) 330°	None			
39	Seismic - Ev (Y)	None			262
40	Seismic - Eh (X)	None			262
41	Seismic - Eh (Z)	None			262

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor
1	Wind - (1.2D + 1.0Wo) - 0°	Yes	Y	1	1.2	3	1		
2	Wind - (1.2D + 1.0Wo) - 30°		Y	1	1.2	4	1		
3	Wind - (1.2D + 1.0Wo) - 60°		Y	1	1.2	5	1		
4	Wind - (1.2D + 1.0Wo) - 90°	Yes	Y	1	1.2	6	1		
5	Wind - (1.2D + 1.0Wo) - 120°		Y	1	1.2	7	1		
6	Wind - (1.2D + 1.0Wo) - 150°		Y	1	1.2	8	1		
7	Wind - (1.2D + 1.0Wo) - 180°	Yes	Y	1	1.2	9	1		
8	Wind - (1.2D + 1.0Wo) - 210°		Y	1	1.2	10	1		
9	Wind - (1.2D + 1.0Wo) - 240°		Y	1	1.2	11	1		
10	Wind - (1.2D + 1.0Wo) - 270°	Yes	Y	1	1.2	12	1		
11	Wind - (1.2D + 1.0Wo) - 300°		Y	1	1.2	13	1		
12	Wind - (1.2D + 1.0Wo) - 330°		Y	1	1.2	14	1		
13	Ice - (1.2D + 1.0Di + 10 Wi) - 0°	Yes	Y	1	1.2	2	1	15	1
14	Ice - (1.2D + 1.0Di + 10 Wi) - 30°		Y	1	1.2	2	1	16	1
15	Ice - (1.2D + 1.0Di + 10 Wi) - 60°		Y	1	1.2	2	1	17	1
16	Ice - (1.2D + 1.0Di + 10 Wi) - 90°	Yes	Y	1	1.2	2	1	18	1

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor
17	Ice - (1.2D + 1.0Di + 10 Wi) - 120°		Y	1	1.2	2	1	19	1
18	Ice - (1.2D + 1.0Di + 10 Wi) - 150°		Y	1	1.2	2	1	20	1
19	Ice - (1.2D + 1.0Di + 10 Wi) - 180°	Yes	Y	1	1.2	2	1	21	1
20	Ice - (1.2D + 1.0Di + 10 Wi) - 210°		Y	1	1.2	2	1	22	1
21	Ice - (1.2D + 1.0Di + 10 Wi) - 240°		Y	1	1.2	2	1	23	1
22	Ice - (1.2D + 1.0Di + 10 Wi) - 270°	Yes	Y	1	1.2	2	1	24	1
23	Ice - (1.2D + 1.0Di + 10 Wi) - 300°		Y	1	1.2	2	1	25	1
24	Ice - (1.2D + 1.0Di + 10 Wi) - 330°		Y	1	1.2	2	1	26	1
25	Maint. - (1.4D)	Yes	Y	1	1.4				
26	Seismic - (1.2D + 1.0Ev + 1.0Eh) (X-dir.)	Yes	Y	1	1.2	39	1	40	1
27	Seismic - (1.2D + 1.0Ev + 1.0Eh) (Z-dir.)	Yes	Y	1	1.2	39	1	41	1

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N44	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N61	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N286	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N72	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N462	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N198	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
8	N264	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
9	N308	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
10	N352	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
11	N220	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
12	N374	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
13	N396	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
14	N418	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
15	N484	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
16	N440	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
17	N176	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
18	N18	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
19	N83	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
20	N330	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
21	N242	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
22	N743	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
23	N761	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
24	N811	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	AH1.1	N793	N794	90	Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
2	AH1.2	N665	N667	90	Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
3	AH1.3	N862	N864		Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
4	AH1.4	N861	N863	90	Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
5	AH1.5	N545	N548		Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
6	AH1.6	N546	N547		Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
7	AH1.7	N791	N792		Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
8	AH1.8	N666	N668	90	Angle Horizontal 1	Beam	None	A36 Gr.36	Typical
9	AH2.1	N713	N716		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
10	AH2.2	N839	N840	90	Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
11	AH2.3	N648	N649		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
12	AH2.4	N624	N626		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
13	AH2.5	N623	N627		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
14	AH2.6	N843	N844		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
15	AH2.7	N587	N588		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
16	AH2.8	N585	N586		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
17	AH2.9	N579	N580		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
18	AH2.10	N577	N578		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
19	AH2.11	N732	N734		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
20	AH2.12	N615	N619		Angle Horizontal 2	Beam	None	A36 Gr.36	Typical
21	FRP.AH1	N854	N852		FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
22	FRP.AH2	N853	N851	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
23	FRP.ASO1	N341	N346	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
24	FRP.ASO2	N634	N502	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
25	FRP.ASO3	N366	N371	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
26	FRP.ASO4	N561	N372	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
27	FRP.ASO5	N361	N373	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
28	FRP.ASO6	N109	N115	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
29	FRP.ASO7	N274	N284	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
30	FRP.ASO8	N569	N414	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
31	FRP.ASO9	N563	N391	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
32	FRP.ASO10	N427	N439	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
33	FRP.ASO11	N265	N282	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
34	FRP.ASO12	N570	N412	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
35	FRP.ASO13	N275	N280	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
36	FRP.ASO14	N453	N457	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
37	FRP.ASO15	N428	N438	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
38	FRP.ASO16	N432	N437	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
39	FRP.ASO17	N571	N368	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
40	FRP.ASO18	N564	N394	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
41	FRP.ASO19	N567	N435	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
42	FRP.ASO20	N429	N434	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
43	FRP.ASO21	N562	N392	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
44	FRP.ASO22	N253	N258	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
45	FRP.ASO23	N565	N413	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
46	FRP.ASO24	N568	N390	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
47	FRP.ASO25	N277	N281	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
48	FRP.ASO26	N353	N370	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
49	FRP.ASO27	N441	N458	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
50	FRP.ASO28	N365	N369	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
51	FRP.ASO29	N632	N480	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
52	FRP.ASO30	N613	N479	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
53	FRP.ASO31	N633	N478	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
54	FRP.ASO32	N331	N348	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
55	FRP.ASO33	N318	N328	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
56	FRP.ASO34	N616	N482	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
57	FRP.ASO35	N344	N349	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
58	FRP.ASO36	N321	N325	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
59	FRP.ASO37	N319	N324	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
60	FRP.ASO38	N495	N500	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
61	FRP.ASO39	N617	N501	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
62	FRP.ASO40	N340	N350	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
63	FRP.ASO41	N339	N351	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
64	FRP.ASO42	N631	N456	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
65	FRP.ASO43	N296	N306	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
66	FRP.ASO44	N449	N461	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
67	FRP.ASO45	N614	N460	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
68	FRP.ASO46	N454	N459	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
69	FRP.ASO47	N498	N503	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
70	FRP.ASO48	N494	N504	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
71	FRP.ASO49	N287	N304	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
72	FRP.ASO50	N493	N505	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
73	FRP.ASO51	N299	N303	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
74	FRP.ASO52	N297	N302	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
75	FRP.ASO53	N572	N436	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
76	FRP.ASO54	N343	N347	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
77	FRP.ASO55	N309	N326	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
78	FRP.ASO56	N140	N145	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
79	FRP.ASO57	N252	N262	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
80	FRP.ASO58	N123	N54	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
81	FRP.ASO59	N757	N762	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
82	FRP.ASO60	N751	N753	270	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
83	FRP.ASO61	N125	N53	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
84	FRP.ASO62	N119	N132	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
85	FRP.ASO63	N121	N133	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
86	FRP.ASO64	N750	N754		FRP Angle Standoff	Beam	None	FRP 500/525	Typical
87	FRP.ASO65	N152	N158	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
88	FRP.ASO66	N815	N816	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
89	FRP.ASO67	N148	N160	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
90	FRP.ASO68	N163	N170	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
91	FRP.ASO69	N256	N261	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
92	FRP.ASO70	N138	N144	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
93	FRP.ASO71	N166	N172	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
94	FRP.ASO72	N814	N817	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
95	FRP.ASO73	N752	N764	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
96	FRP.ASO74	N825	N826	270	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
97	FRP.ASO75	N124	N52	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
98	FRP.ASO76	N107	N118	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
99	FRP.ASO77	N134	N146	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
100	FRP.ASO78	N139	N143	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
101	FRP.ASO79	N135	N142	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
102	FRP.ASO80	N98	N104	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
103	FRP.ASO81	N100	N103	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
104	FRP.ASO82	N99	N102	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
105	FRP.ASO83	N91	N97	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
106	FRP.ASO84	N93	N96	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
107	FRP.ASO85	N92	N95	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
108	FRP.ASO86	N778	N781		FRP Angle Standoff	Beam	None	FRP 500/525	Typical
109	FRP.ASO87	N779	N780	270	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
110	FRP.ASO88	N766	N771	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
111	FRP.ASO89	N769	N770	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
112	FRP.ASO90	N111	N116	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
113	FRP.ASO91	N105	N117	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
114	FRP.ASO92	N120	N128	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
115	FRP.ASO93	N168	N173	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
116	FRP.ASO94	N167	N171	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
117	FRP.ASO95	N702	N216	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
118	FRP.ASO96	N566	N416	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
119	FRP.ASO97	N231	N236	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
120	FRP.ASO98	N703	N215	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
121	FRP.ASO99	N705	N237	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
122	FRP.ASO100	N110	N114	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
123	FRP.ASO101	N708	N192	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
124	FRP.ASO102	N149	N156	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
125	FRP.ASO103	N153	N157	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
126	FRP.ASO104	N234	N239	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
127	FRP.ASO105	N230	N240	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
128	FRP.ASO106	N185	N197	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
129	FRP.ASO107	N701	N196	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
130	FRP.ASO108	N190	N195	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
131	FRP.ASO109	N106	N113	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
132	FRP.ASO110	N136	N147	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
133	FRP.ASO111	N251	N263	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
134	FRP.ASO112	N177	N194	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
135	FRP.ASO113	N189	N193	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
136	FRP.ASO114	N707	N238	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
137	FRP.ASO115	N243	N260	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
138	FRP.ASO116	N255	N259	180	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
139	FRP.ASO117	N824	N827		FRP Angle Standoff	Beam	None	FRP 500/525	Typical
140	FRP.ASO118	N164	N175	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
141	FRP.ASO119	N162	N174	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
142	FRP.ASO120	N229	N241	90	FRP Angle Standoff	Beam	None	FRP 500/525	Typical
143	FRP.B1	N84	N87		FRP Brace	Beam	None	FRP 500/525	Typical
144	FRP.B2	N269	N272		FRP Brace	Beam	None	FRP 500/525	Typical
145	FRP.B3	N401	N404		FRP Brace	Beam	None	FRP 500/525	Typical
146	FRP.B4	N423	N426		FRP Brace	Beam	None	FRP 500/525	Typical
147	FRP.B5	N73	N76		FRP Brace	Beam	None	FRP 500/525	Typical
148	FRP.B6	N379	N382		FRP Brace	Beam	None	FRP 500/525	Typical
149	FRP.B7	N247	N250		FRP Brace	Beam	None	FRP 500/525	Typical
150	FRP.B8	N467	N470		FRP Brace	Beam	None	FRP 500/525	Typical
151	FRP.B9	N225	N228		FRP Brace	Beam	None	FRP 500/525	Typical
152	FRP.B10	N24	N25		FRP Brace	Beam	None	FRP 500/525	Typical
153	FRP.B11	N489	N492		FRP Brace	Beam	None	FRP 500/525	Typical
154	FRP.B12	N291	N294		FRP Brace	Beam	None	FRP 500/525	Typical
155	FRP.B13	N9	N10		FRP Brace	Beam	None	FRP 500/525	Typical
156	FRP.B14	N203	N206		FRP Brace	Beam	None	FRP 500/525	Typical
157	FRP.B15	N45	N48		FRP Brace	Beam	None	FRP 500/525	Typical
158	FRP.B16	N357	N360		FRP Brace	Beam	None	FRP 500/525	Typical
159	FRP.B17	N445	N448		FRP Brace	Beam	None	FRP 500/525	Typical
160	FRP.B18	N62	N65		FRP Brace	Beam	None	FRP 500/525	Typical
161	FRP.B19	N181	N184		FRP Brace	Beam	None	FRP 500/525	Typical
162	FRP.B20	N313	N316		FRP Brace	Beam	None	FRP 500/525	Typical
163	FRP.B21	N335	N338		FRP Brace	Beam	None	FRP 500/525	Typical
164	FRP.C1	N418	N424		FRP Column	Beam	None	FRP 500/525	Typical
165	FRP.C2	N440	N446	270	FRP Column	Beam	None	FRP 500/525	Typical
166	FRP.C3	N743	N749	180	FRP Column	Beam	None	FRP 500/525	Typical
167	FRP.C4	N462	N468	270	FRP Column	Beam	None	FRP 500/525	Typical
168	FRP.C5	N761	N765	180	FRP Column	Beam	None	FRP 500/525	Typical
169	FRP.C6	N811	N813	90	FRP Column	Beam	None	FRP 500/525	Typical
170	FRP.C7	N484	N490	270	FRP Column	Beam	None	FRP 500/525	Typical
171	FRP.C8	N1	N2	180	FRP Column	Beam	None	FRP 500/525	Typical
172	FRP.C9	N176	N182	180	FRP Column	Beam	None	FRP 500/525	Typical
173	FRP.C10	N352	N358		FRP Column	Beam	None	FRP 500/525	Typical
174	FRP.C11	N61	N63	270	FRP Column	Beam	None	FRP 500/525	Typical
175	FRP.C12	N308	N314	90	FRP Column	Beam	None	FRP 500/525	Typical
176	FRP.C13	N72	N74	270	FRP Column	Beam	None	FRP 500/525	Typical
177	FRP.C14	N286	N292	90	FRP Column	Beam	None	FRP 500/525	Typical
178	FRP.C15	N374	N380		FRP Column	Beam	None	FRP 500/525	Typical
179	FRP.C16	N18	N19	180	FRP Column	Beam	None	FRP 500/525	Typical
180	FRP.C17	N220	N226	180	FRP Column	Beam	None	FRP 500/525	Typical
181	FRP.C18	N44	N46	270	FRP Column	Beam	None	FRP 500/525	Typical
182	FRP.C19	N198	N204	180	FRP Column	Beam	None	FRP 500/525	Typical
183	FRP.C20	N83	N85	270	FRP Column	Beam	None	FRP 500/525	Typical
184	FRP.C21	N396	N402		FRP Column	Beam	None	FRP 500/525	Typical
185	FRP.C22	N264	N270	90	FRP Column	Beam	None	FRP 500/525	Typical
186	FRP.C23	N242	N248	90	FRP Column	Beam	None	FRP 500/525	Typical
187	FRP.C24	N330	N336	90	FRP Column	Beam	None	FRP 500/525	Typical
188	FRP.PANEL1.L1	N513	N514	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
189	FRP.PANEL1.L2	N518	N519	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
190	FRP.PANEL1.S1	N521	N509	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
191	FRP.PANEL1.S2	N508	N481	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
192	FRP.PANEL2.L1	N514	N12	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
193	FRP.PANEL2.L2	N519	N14	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
194	FRP.PANEL2.S1	N520	N510	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
195	FRP.PANEL2.S2	N509	N471	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
196	FRP.PANEL3.S1	N14	N17	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
197	FRP.PANEL3.S2	N510	N16	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
198	FRP.PANEL3.S3	N31	N40	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
199	FRP.PANEL3.S4	N29	N38	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
200	FRP.PANEL3.S5	N12	N15	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
201	FRP.PANEL3.S6	N30	N39	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
202	FRP.PANEL4.L1	N132	N511	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
203	FRP.PANEL4.L2	N128	N516	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
204	FRP.PANEL4.S1	N522	N506	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
205	FRP.PANEL4.S2	N133	N523	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
206	FRP.PANEL5.L1	N516	N517	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
207	FRP.PANEL5.L2	N511	N512	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
208	FRP.PANEL5.S1	N506	N476	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
209	FRP.PANEL5.S2	N483	N507	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
210	FRP.PANEL6.L1	N512	N528	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
211	FRP.PANEL6.L2	N517	N529	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
212	FRP.PANEL6.S1	N507	N465	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
213	FRP.PANEL7.L1	N527	N518	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
214	FRP.PANEL7.L2	N526	N513	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
215	FRP.PANEL7.S1	N515	N508	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
216	FRP.PANEL8.L1	N796	N798		FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
217	FRP.PANEL8.L2	N795	N797	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
218	FRP.PANEL9.L1	N798	N785		FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
219	FRP.PANEL9.L2	N797	N775	90	FRP Angle Horizontal	Beam	None	FRP 500/525	Typical
220	FRP.PL1	N835	N772		FRP Plate	Beam	None	FRP 500/525	Typical
221	FRP.PL2	N760	N756		FRP Plate	Beam	None	FRP 500/525	Typical
222	FRP.PL3	N745	N767		FRP Plate	Beam	None	FRP 500/525	Typical
223	FRP.PL4	N747	N768		FRP Plate	Beam	None	FRP 500/525	Typical
224	FRP.PL5	N831	N828		FRP Plate	Beam	None	FRP 500/525	Typical
225	FRP.PL6	N832	N829		FRP Plate	Beam	None	FRP 500/525	Typical
226	FRP.PL7	N759	N755		FRP Plate	Beam	None	FRP 500/525	Typical
227	FRP.PL8	N776	N773		FRP Plate	Beam	None	FRP 500/525	Typical
228	FRP.PL9	N822	N819		FRP Plate	Beam	None	FRP 500/525	Typical
229	FRP.PL10	N821	N818		FRP Plate	Beam	None	FRP 500/525	Typical
230	FRP.PL11	N833	N782		FRP Plate	Beam	None	FRP 500/525	Typical
231	FRP.PL12	N786	N783		FRP Plate	Beam	None	FRP 500/525	Typical
232	OTHER.A1	N599	N597		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
233	OTHER.A2	N600	N598		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
234	OTHER.A3	N611	N609		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
235	OTHER.A4	N612	N610		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
236	OTHER.B1	N657	N653		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
237	OTHER.B2	N658	N654		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
238	OTHER.B3	N659	N655		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
239	OTHER.B4	N660	N656		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
240	OTHER.C1	N725	N721		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
241	OTHER.C2	N726	N722		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
242	OTHER.C3	N727	N723		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
243	OTHER.C4	N728	N724		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
244	OTHER.D1	N868	N867		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
245	OTHER.D2	N881	N879		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
246	OTHER.D3	N882	N880		Antenna Mount Pipe (Other)	Beam	None	A53 Gr.B	Typical
247	RIGID1	N745	N747		RIGID	None	None	RIGID	Typical
248	RIGID2	N120	N123		RIGID	None	None	RIGID	Typical
249	RIGID3	N121	N125		RIGID	None	None	RIGID	Typical
250	RIGID4	N108	N112		RIGID	None	None	RIGID	Typical
251	RIGID5	N759	N760		RIGID	None	None	RIGID	Typical
252	RIGID6	N93	N100		RIGID	None	None	RIGID	Typical
253	RIGID7	N94	N101		RIGID	None	None	RIGID	Typical
254	RIGID8	N778	N777		RIGID	None	None	RIGID	Typical
255	RIGID9	N92	N99		RIGID	None	None	RIGID	Typical
256	RIGID10	N91	N98		RIGID	None	None	RIGID	Typical
257	RIGID11	N136	N140		RIGID	None	None	RIGID	Typical
258	RIGID12	N119	N124		RIGID	None	None	RIGID	Typical
259	RIGID13	N766	N763		RIGID	None	None	RIGID	Typical
260	RIGID14	N752	N757		RIGID	None	None	RIGID	Typical
261	RIGID15	N148	N153		RIGID	None	None	RIGID	Typical
262	RIGID16	N689	N690		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
263	RIGID17	N691	N692		RIGID	None	None	RIGID	Typical
264	RIGID18	N185	N190		RIGID	None	None	RIGID	Typical
265	RIGID19	N183	N181		RIGID	None	None	RIGID	Typical
266	RIGID20	N695	N696		RIGID	None	None	RIGID	Typical
267	RIGID21	N699	N700		RIGID	None	None	RIGID	Typical
268	RIGID22	N709	N713		RIGID	None	None	RIGID	Typical
269	RIGID23	N711	N715		RIGID	None	None	RIGID	Typical
270	RIGID24	N712	N716		RIGID	None	None	RIGID	Typical
271	RIGID25	N717	N718		RIGID	None	None	RIGID	Typical
272	RIGID26	N719	N720		RIGID	None	None	RIGID	Typical
273	RIGID27	N165	N169		RIGID	None	None	RIGID	Typical
274	RIGID28	N163	N166		RIGID	None	None	RIGID	Typical
275	RIGID29	N162	N167		RIGID	None	None	RIGID	Typical
276	RIGID30	N164	N168		RIGID	None	None	RIGID	Typical
277	RIGID31	N729	N732		RIGID	None	None	RIGID	Typical
278	RIGID32	N730	N733		RIGID	None	None	RIGID	Typical
279	RIGID33	N731	N734		RIGID	None	None	RIGID	Typical
280	RIGID34	N151	N155		RIGID	None	None	RIGID	Typical
281	RIGID35	N735	N736		RIGID	None	None	RIGID	Typical
282	RIGID36	N737	N738		RIGID	None	None	RIGID	Typical
283	RIGID37	N739	N740		RIGID	None	None	RIGID	Typical
284	RIGID38	N741	N742		RIGID	None	None	RIGID	Typical
285	RIGID39	N149	N152		RIGID	None	None	RIGID	Typical
286	RIGID40	N750	N751		RIGID	None	None	RIGID	Typical
287	RIGID41	N122	N126		RIGID	None	None	RIGID	Typical
288	RIGID42	N407	N397		RIGID	None	None	RIGID	Typical
289	RIGID43	N86	N84		RIGID	None	None	RIGID	Typical
290	RIGID44	N789	N792		RIGID	None	None	RIGID	Typical
291	RIGID45	N842	N844		RIGID	None	None	RIGID	Typical
292	RIGID46	N40	N54		RIGID	None	None	RIGID	Typical
293	RIGID47	N845	N846		RIGID	None	None	RIGID	Typical
294	RIGID48	N47	N45		RIGID	None	None	RIGID	Typical
295	RIGID49	N850	N849		RIGID	None	None	RIGID	Typical
296	RIGID50	N107	N111		RIGID	None	None	RIGID	Typical
297	RIGID51	N23	N24		RIGID	None	None	RIGID	Typical
298	RIGID52	N855	N856		RIGID	None	None	RIGID	Typical
299	RIGID53	N858	N857		RIGID	None	None	RIGID	Typical
300	RIGID54	N310	N861		RIGID	None	None	RIGID	Typical
301	RIGID55	N841	N843		RIGID	None	None	RIGID	Typical
302	RIGID56	N312	N862		RIGID	None	None	RIGID	Typical
303	RIGID57	N334	N864		RIGID	None	None	RIGID	Typical
304	RIGID58	N105	N110		RIGID	None	None	RIGID	Typical
305	RIGID59	N6	N9		RIGID	None	None	RIGID	Typical
306	RIGID60	N865	N866		RIGID	None	None	RIGID	Typical
307	RIGID61	N869	N870		RIGID	None	None	RIGID	Typical
308	RIGID62	N106	N109		RIGID	None	None	RIGID	Typical
309	RIGID63	N871	N872		RIGID	None	None	RIGID	Typical
310	RIGID64	N873	N874		RIGID	None	None	RIGID	Typical
311	RIGID65	N875	N876		RIGID	None	None	RIGID	Typical
312	RIGID66	N877	N878		RIGID	None	None	RIGID	Typical
313	RIGID67	N332	N863		RIGID	None	None	RIGID	Typical
314	RIGID68	N838	N840		RIGID	None	None	RIGID	Typical
315	RIGID69	N837	N839		RIGID	None	None	RIGID	Typical
316	RIGID70	N38	N52		RIGID	None	None	RIGID	Typical
317	RIGID71	N788	N793		RIGID	None	None	RIGID	Typical
318	RIGID72	N790	N794		RIGID	None	None	RIGID	Typical
319	RIGID73	N683	N684		RIGID	None	None	RIGID	Typical
320	RIGID74	N799	N800		RIGID	None	None	RIGID	Typical
321	RIGID75	N137	N141		RIGID	None	None	RIGID	Typical
322	RIGID76	N804	N803		RIGID	None	None	RIGID	Typical
323	RIGID77	N810	N809		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
324	RIGID78	N805	N806		RIGID	None	None	RIGID	Typical
325	RIGID79	N75	N73		RIGID	None	None	RIGID	Typical
326	RIGID80	N814	N815		RIGID	None	None	RIGID	Typical
327	RIGID81	N134	N139		RIGID	None	None	RIGID	Typical
328	RIGID82	N135	N138		RIGID	None	None	RIGID	Typical
329	RIGID83	N821	N822		RIGID	None	None	RIGID	Typical
330	RIGID84	N824	N825		RIGID	None	None	RIGID	Typical
331	RIGID85	N64	N62		RIGID	None	None	RIGID	Typical
332	RIGID86	N831	N832		RIGID	None	None	RIGID	Typical
333	RIGID87	N763	N769		RIGID	None	None	RIGID	Typical
334	RIGID88	N777	N779		RIGID	None	None	RIGID	Typical
335	RIGID89	N774	N776		RIGID	None	None	RIGID	Typical
336	RIGID90	N784	N786		RIGID	None	None	RIGID	Typical
337	RIGID91	N833	N834		RIGID	None	None	RIGID	Typical
338	RIGID92	N835	N836		RIGID	None	None	RIGID	Typical
339	RIGID93	N39	N53		RIGID	None	None	RIGID	Typical
340	RIGID94	N787	N791		RIGID	None	None	RIGID	Typical
341	RIGID95	N685	N686		RIGID	None	None	RIGID	Typical
342	RIGID96	N425	N423		RIGID	None	None	RIGID	Typical
343	RIGID97	N187	N177		RIGID	None	None	RIGID	Typical
344	RIGID98	N337	N335		RIGID	None	None	RIGID	Typical
345	RIGID99	N472	N475		RIGID	None	None	RIGID	Typical
346	RIGID100	N473	N463		RIGID	None	None	RIGID	Typical
347	RIGID101	N474	N477		RIGID	None	None	RIGID	Typical
348	RIGID102	N387	N548		RIGID	None	None	RIGID	Typical
349	RIGID103	N375	N547		RIGID	None	None	RIGID	Typical
350	RIGID104	N320	N323		RIGID	None	None	RIGID	Typical
351	RIGID105	N319	N309		RIGID	None	None	RIGID	Typical
352	RIGID106	N318	N321		RIGID	None	None	RIGID	Typical
353	RIGID107	N491	N489		RIGID	None	None	RIGID	Typical
354	RIGID108	N493	N498		RIGID	None	None	RIGID	Typical
355	RIGID109	N339	N344		RIGID	None	None	RIGID	Typical
356	RIGID110	N315	N313		RIGID	None	None	RIGID	Typical
357	RIGID111	N549	N550		RIGID	None	None	RIGID	Typical
358	RIGID112	N495	N485		RIGID	None	None	RIGID	Typical
359	RIGID113	N496	N499		RIGID	None	None	RIGID	Typical
360	RIGID114	N298	N301		RIGID	None	None	RIGID	Typical
361	RIGID115	N297	N287		RIGID	None	None	RIGID	Typical
362	RIGID116	N296	N299		RIGID	None	None	RIGID	Typical
363	RIGID117	N551	N552		RIGID	None	None	RIGID	Typical
364	RIGID118	N293	N291		RIGID	None	None	RIGID	Typical
365	RIGID119	N557	N558		RIGID	None	None	RIGID	Typical
366	RIGID120	N276	N279		RIGID	None	None	RIGID	Typical
367	RIGID121	N275	N265		RIGID	None	None	RIGID	Typical
368	RIGID122	N494	N497		RIGID	None	None	RIGID	Typical
369	RIGID123	N340	N343		RIGID	None	None	RIGID	Typical
370	RIGID124	N469	N467		RIGID	None	None	RIGID	Typical
371	RIGID125	N341	N331		RIGID	None	None	RIGID	Typical
372	RIGID126	N573	N577		RIGID	None	None	RIGID	Typical
373	RIGID127	N406	N409		RIGID	None	None	RIGID	Typical
374	RIGID128	N574	N578		RIGID	None	None	RIGID	Typical
375	RIGID129	N403	N401		RIGID	None	None	RIGID	Typical
376	RIGID130	N427	N432		RIGID	None	None	RIGID	Typical
377	RIGID131	N576	N580		RIGID	None	None	RIGID	Typical
378	RIGID132	N428	N431		RIGID	None	None	RIGID	Typical
379	RIGID133	N575	N579		RIGID	None	None	RIGID	Typical
380	RIGID134	N429	N419		RIGID	None	None	RIGID	Typical
381	RIGID135	N430	N433		RIGID	None	None	RIGID	Typical
382	RIGID136	N386	N389		RIGID	None	None	RIGID	Typical
383	RIGID137	N385	N375		RIGID	None	None	RIGID	Typical
384	RIGID138	N384	N387		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
385	RIGID139	N381	N379		RIGID	None	None	RIGID	Typical
386	RIGID140	N447	N445		RIGID	None	None	RIGID	Typical
387	RIGID141	N449	N454		RIGID	None	None	RIGID	Typical
388	RIGID142	N364	N367		RIGID	None	None	RIGID	Typical
389	RIGID143	N363	N353		RIGID	None	None	RIGID	Typical
390	RIGID144	N450	N453		RIGID	None	None	RIGID	Typical
391	RIGID145	N362	N365		RIGID	None	None	RIGID	Typical
392	RIGID146	N451	N441		RIGID	None	None	RIGID	Typical
393	RIGID147	N452	N455		RIGID	None	None	RIGID	Typical
394	RIGID148	N361	N366		RIGID	None	None	RIGID	Typical
395	RIGID149	N359	N357		RIGID	None	None	RIGID	Typical
396	RIGID150	N342	N345		RIGID	None	None	RIGID	Typical
397	RIGID151	N274	N277		RIGID	None	None	RIGID	Typical
398	RIGID152	N555	N556		RIGID	None	None	RIGID	Typical
399	RIGID153	N271	N269		RIGID	None	None	RIGID	Typical
400	RIGID154	N252	N255		RIGID	None	None	RIGID	Typical
401	RIGID155	N186	N189		RIGID	None	None	RIGID	Typical
402	RIGID156	N639	N641		RIGID	None	None	RIGID	Typical
403	RIGID157	N704	N706		RIGID	None	None	RIGID	Typical
404	RIGID158	N620	N627		RIGID	None	None	RIGID	Typical
405	RIGID159	N640	N642		RIGID	None	None	RIGID	Typical
406	RIGID160	N630	N623		RIGID	None	None	RIGID	Typical
407	RIGID161	N618	N619		RIGID	None	None	RIGID	Typical
408	RIGID162	N644	N615		RIGID	None	None	RIGID	Typical
409	RIGID163	N625	N626		RIGID	None	None	RIGID	Typical
410	RIGID164	N206	N213		RIGID	None	None	RIGID	Typical
411	RIGID165	N621	N629		RIGID	None	None	RIGID	Typical
412	RIGID166	N652	N648		RIGID	None	None	RIGID	Typical
413	RIGID167	N647	N650		RIGID	None	None	RIGID	Typical
414	RIGID168	N646	N651		RIGID	None	None	RIGID	Typical
415	RIGID169	N710	N714		RIGID	None	None	RIGID	Typical
416	RIGID170	N200	N211		RIGID	None	None	RIGID	Typical
417	RIGID171	N362	N545		RIGID	None	None	RIGID	Typical
418	RIGID172	N205	N203		RIGID	None	None	RIGID	Typical
419	RIGID173	N188	N191		RIGID	None	None	RIGID	Typical
420	RIGID174	N408	N411		RIGID	None	None	RIGID	Typical
421	RIGID175	N677	N678		RIGID	None	None	RIGID	Typical
422	RIGID176	N679	N680		RIGID	None	None	RIGID	Typical
423	RIGID177	N202	N199		RIGID	None	None	RIGID	Typical
424	RIGID178	N636	N638		RIGID	None	None	RIGID	Typical
425	RIGID179	N643	N624		RIGID	None	None	RIGID	Typical
426	RIGID180	N645	N649		RIGID	None	None	RIGID	Typical
427	RIGID181	N249	N247		RIGID	None	None	RIGID	Typical
428	RIGID182	N251	N256		RIGID	None	None	RIGID	Typical
429	RIGID183	N253	N243		RIGID	None	None	RIGID	Typical
430	RIGID184	N254	N257		RIGID	None	None	RIGID	Typical
431	RIGID185	N581	N585		RIGID	None	None	RIGID	Typical
432	RIGID186	N582	N586		RIGID	None	None	RIGID	Typical
433	RIGID187	N583	N587		RIGID	None	None	RIGID	Typical
434	RIGID188	N232	N235		RIGID	None	None	RIGID	Typical
435	RIGID189	N622	N628		RIGID	None	None	RIGID	Typical
436	RIGID190	N584	N588		RIGID	None	None	RIGID	Typical
437	RIGID191	N589	N591		RIGID	None	None	RIGID	Typical
438	RIGID192	N231	N221		RIGID	None	None	RIGID	Typical
439	RIGID193	N593	N595		RIGID	None	None	RIGID	Typical
440	RIGID194	N594	N596		RIGID	None	None	RIGID	Typical
441	RIGID195	N230	N233		RIGID	None	None	RIGID	Typical
442	RIGID196	N229	N234		RIGID	None	None	RIGID	Typical
443	RIGID197	N601	N603		RIGID	None	None	RIGID	Typical
444	RIGID198	N602	N604		RIGID	None	None	RIGID	Typical
445	RIGID199	N605	N607		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
446	RIGID200	N363	N546		RIGID	None	None	RIGID	Typical
447	RIGID201	N590	N592		RIGID	None	None	RIGID	Typical
448	RIGID202	N606	N608		RIGID	None	None	RIGID	Typical
449	RIGID203	N635	N637		RIGID	None	None	RIGID	Typical
450	RIGID204	N227	N225		RIGID	None	None	RIGID	Typical
451	TMO.A1	N554	N553		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
452	TMO.A2	N560	N559		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
453	TMO.B1	N682	N681		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
454	TMO.B2	N688	N687		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
455	TMO.B3.1	N694	N693		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
456	TMO.B3.2	N697	N698	45	Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
457	TMO.C1	N802	N801		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
458	TMO.C2	N808	N807		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
459	TMO.D1	N860	N859		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
460	TMO.D2	N848	N847		Antenna Mount Pipe (TMO)	Beam	None	A53 Gr.B	Typical
461	TR1	N673	N674		RIGID	None	None	RIGID	Typical
462	TR2	N661	N663		RIGID	None	None	RIGID	Typical
463	TR3	N671	N672		RIGID	None	None	RIGID	Typical
464	TR4	N662	N664		RIGID	None	None	RIGID	Typical
465	TR5	N669	N670		RIGID	None	None	RIGID	Typical
466	TR6	N675	N676		RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
1	AH1.1	OOOOOX	OOOOOX		Yes	Default	None
2	AH1.2				Yes	Default	None
3	AH1.3	OOOOOX	OOOOOX		Yes	Default	None
4	AH1.4	OOOOXO	OOOOXO		Yes	Default	None
5	AH1.5	OOOOXO	OOOOXO		Yes	Default	None
6	AH1.6	OOOOXO	OOOOXO		Yes	Default	None
7	AH1.7	OOOOXO	OOOOXO		Yes	Default	None
8	AH1.8				Yes	Default	None
9	AH2.1	OOOOXO	OOOOXO		Yes	Default	None
10	AH2.2	OOOOOX	OOOOOX		Yes	Default	None
11	AH2.3	OOOOXO	OOOOXO		Yes	Default	None
12	AH2.4	OOOOXO	OOOOXO		Yes	Default	None
13	AH2.5	OOOOXO	OOOOXO		Yes	Default	None
14	AH2.6	OOOOXO	OOOOXO		Yes	Default	None
15	AH2.7	OOOOXO	OOOOXO		Yes	Default	None
16	AH2.8	OOOOXO	OOOOXO		Yes	Default	None
17	AH2.9	OOOOXO	OOOOXO		Yes	Default	None
18	AH2.10	OOOOXO	OOOOXO		Yes	Default	None
19	AH2.11	OOOOXO	OOOOXO		Yes	Default	None
20	AH2.12	OOOOXO	OOOOXO		Yes	Default	None
21	FRP.AH1				Yes	Default	None
22	FRP.AH2				Yes	Default	None
23	FRP.ASO1				Yes	Default	None
24	FRP.ASO2				Yes	Default	None
25	FRP.ASO3				Yes	Default	None
26	FRP.ASO4				Yes	Default	None
27	FRP.ASO5				Yes	Default	None
28	FRP.ASO6				Yes	Default	None
29	FRP.ASO7				Yes	Default	None
30	FRP.ASO8				Yes	Default	None
31	FRP.ASO9				Yes	Default	None
32	FRP.ASO10				Yes	Default	None
33	FRP.ASO11				Yes	Default	None
34	FRP.ASO12				Yes	Default	None
35	FRP.ASO13				Yes	Default	None
36	FRP.ASO14				Yes	Default	None
37	FRP.ASO15				Yes	Default	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
38	FRP.ASO16				Yes	Default	None
39	FRP.ASO17				Yes	Default	None
40	FRP.ASO18				Yes	Default	None
41	FRP.ASO19				Yes	Default	None
42	FRP.ASO20				Yes	Default	None
43	FRP.ASO21				Yes	Default	None
44	FRP.ASO22				Yes	Default	None
45	FRP.ASO23				Yes	Default	None
46	FRP.ASO24				Yes	Default	None
47	FRP.ASO25				Yes	Default	None
48	FRP.ASO26				Yes	Default	None
49	FRP.ASO27				Yes	Default	None
50	FRP.ASO28				Yes	Default	None
51	FRP.ASO29				Yes	Default	None
52	FRP.ASO30				Yes	Default	None
53	FRP.ASO31				Yes	Default	None
54	FRP.ASO32				Yes	Default	None
55	FRP.ASO33				Yes	Default	None
56	FRP.ASO34				Yes	Default	None
57	FRP.ASO35				Yes	Default	None
58	FRP.ASO36				Yes	Default	None
59	FRP.ASO37				Yes	Default	None
60	FRP.ASO38				Yes	Default	None
61	FRP.ASO39				Yes	Default	None
62	FRP.ASO40				Yes	Default	None
63	FRP.ASO41				Yes	Default	None
64	FRP.ASO42				Yes	Default	None
65	FRP.ASO43				Yes	Default	None
66	FRP.ASO44				Yes	Default	None
67	FRP.ASO45				Yes	Default	None
68	FRP.ASO46				Yes	Default	None
69	FRP.ASO47				Yes	Default	None
70	FRP.ASO48				Yes	Default	None
71	FRP.ASO49				Yes	Default	None
72	FRP.ASO50				Yes	Default	None
73	FRP.ASO51				Yes	Default	None
74	FRP.ASO52				Yes	Default	None
75	FRP.ASO53				Yes	Default	None
76	FRP.ASO54				Yes	Default	None
77	FRP.ASO55				Yes	Default	None
78	FRP.ASO56				Yes	Default	None
79	FRP.ASO57				Yes	Default	None
80	FRP.ASO58				Yes	Default	None
81	FRP.ASO59				Yes	Default	None
82	FRP.ASO60				Yes	Default	None
83	FRP.ASO61				Yes	Default	None
84	FRP.ASO62				Yes	Default	None
85	FRP.ASO63				Yes	Default	None
86	FRP.ASO64				Yes	Default	None
87	FRP.ASO65				Yes	Default	None
88	FRP.ASO66				Yes	Default	None
89	FRP.ASO67				Yes	Default	None
90	FRP.ASO68				Yes	Default	None
91	FRP.ASO69				Yes	Default	None
92	FRP.ASO70				Yes	Default	None
93	FRP.ASO71				Yes	Default	None
94	FRP.ASO72				Yes	Default	None
95	FRP.ASO73				Yes	Default	None
96	FRP.ASO74				Yes	Default	None
97	FRP.ASO75				Yes	Default	None
98	FRP.ASO76				Yes	Default	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
99	FRP.ASO77				Yes	Default	None
100	FRP.ASO78				Yes	Default	None
101	FRP.ASO79				Yes	Default	None
102	FRP.ASO80				Yes	Default	None
103	FRP.ASO81				Yes	Default	None
104	FRP.ASO82				Yes	Default	None
105	FRP.ASO83				Yes	Default	None
106	FRP.ASO84				Yes	Default	None
107	FRP.ASO85				Yes	Default	None
108	FRP.ASO86				Yes	Default	None
109	FRP.ASO87				Yes	Default	None
110	FRP.ASO88				Yes	Default	None
111	FRP.ASO89				Yes	Default	None
112	FRP.ASO90				Yes	Default	None
113	FRP.ASO91				Yes	Default	None
114	FRP.ASO92				Yes	Default	None
115	FRP.ASO93				Yes	Default	None
116	FRP.ASO94				Yes	Default	None
117	FRP.ASO95				Yes	Default	None
118	FRP.ASO96				Yes	Default	None
119	FRP.ASO97				Yes	Default	None
120	FRP.ASO98				Yes	Default	None
121	FRP.ASO99				Yes	Default	None
122	FRP.ASO100				Yes	Default	None
123	FRP.ASO101				Yes	Default	None
124	FRP.ASO102				Yes	Default	None
125	FRP.ASO103				Yes	Default	None
126	FRP.ASO104				Yes	Default	None
127	FRP.ASO105				Yes	Default	None
128	FRP.ASO106				Yes	Default	None
129	FRP.ASO107				Yes	Default	None
130	FRP.ASO108				Yes	Default	None
131	FRP.ASO109				Yes	Default	None
132	FRP.ASO110				Yes	Default	None
133	FRP.ASO111				Yes	Default	None
134	FRP.ASO112				Yes	Default	None
135	FRP.ASO113				Yes	Default	None
136	FRP.ASO114				Yes	Default	None
137	FRP.ASO115				Yes	Default	None
138	FRP.ASO116				Yes	Default	None
139	FRP.ASO117				Yes	Default	None
140	FRP.ASO118				Yes	Default	None
141	FRP.ASO119				Yes	Default	None
142	FRP.ASO120				Yes	Default	None
143	FRP.B1				Yes	Default	None
144	FRP.B2				Yes	Default	None
145	FRP.B3				Yes	Default	None
146	FRP.B4				Yes	Default	None
147	FRP.B5				Yes	Default	None
148	FRP.B6				Yes	Default	None
149	FRP.B7				Yes	Default	None
150	FRP.B8				Yes	Default	None
151	FRP.B9				Yes	Default	None
152	FRP.B10				Yes	Default	None
153	FRP.B11				Yes	Default	None
154	FRP.B12				Yes	Default	None
155	FRP.B13				Yes	Default	None
156	FRP.B14		BenPIN		Yes	Default	None
157	FRP.B15				Yes	Default	None
158	FRP.B16				Yes	Default	None
159	FRP.B17				Yes	Default	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
160	FRP.B18				Yes	Default	None
161	FRP.B19				Yes	Default	None
162	FRP.B20				Yes	Default	None
163	FRP.B21				Yes	Default	None
164	FRP.C1				Yes	Default	None
165	FRP.C2				Yes	Default	None
166	FRP.C3				Yes	Default	None
167	FRP.C4				Yes	Default	None
168	FRP.C5				Yes	Default	None
169	FRP.C6				Yes	Default	None
170	FRP.C7				Yes	Default	None
171	FRP.C8				Yes	Default	None
172	FRP.C9				Yes	Default	None
173	FRP.C10				Yes	Default	None
174	FRP.C11				Yes	Default	None
175	FRP.C12				Yes	Default	None
176	FRP.C13				Yes	Default	None
177	FRP.C14				Yes	Default	None
178	FRP.C15				Yes	Default	None
179	FRP.C16				Yes	Default	None
180	FRP.C17				Yes	Default	None
181	FRP.C18				Yes	Default	None
182	FRP.C19				Yes	Default	None
183	FRP.C20				Yes	Default	None
184	FRP.C21				Yes	Default	None
185	FRP.C22				Yes	Default	None
186	FRP.C23				Yes	Default	None
187	FRP.C24				Yes	Default	None
188	FRP.PANEL1.L1				Yes	Default	None
189	FRP.PANEL1.L2				Yes	Default	None
190	FRP.PANEL1.S1				Yes	Default	None
191	FRP.PANEL1.S2				Yes	Default	None
192	FRP.PANEL2.L1				Yes	Default	None
193	FRP.PANEL2.L2				Yes	Default	None
194	FRP.PANEL2.S1				Yes	Default	None
195	FRP.PANEL2.S2				Yes	Default	None
196	FRP.PANEL3.S1				Yes	Default	None
197	FRP.PANEL3.S2				Yes	Default	None
198	FRP.PANEL3.S3				Yes	Default	None
199	FRP.PANEL3.S4				Yes	Default	None
200	FRP.PANEL3.S5				Yes	Default	None
201	FRP.PANEL3.S6				Yes	Default	None
202	FRP.PANEL4.L1				Yes	Default	None
203	FRP.PANEL4.L2				Yes	Default	None
204	FRP.PANEL4.S1				Yes	Default	None
205	FRP.PANEL4.S2				Yes	Default	None
206	FRP.PANEL5.L1				Yes	Default	None
207	FRP.PANEL5.L2				Yes	Default	None
208	FRP.PANEL5.S1				Yes	Default	None
209	FRP.PANEL5.S2				Yes	Default	None
210	FRP.PANEL6.L1				Yes	Default	None
211	FRP.PANEL6.L2				Yes	Default	None
212	FRP.PANEL6.S1				Yes	Default	None
213	FRP.PANEL7.L1				Yes	Default	None
214	FRP.PANEL7.L2				Yes	Default	None
215	FRP.PANEL7.S1				Yes	Default	None
216	FRP.PANEL8.L1				Yes	Default	None
217	FRP.PANEL8.L2				Yes	Default	None
218	FRP.PANEL9.L1				Yes	Default	None
219	FRP.PANEL9.L2				Yes	Default	None
220	FRP.PL1	OOOOOX	OOOOOX		Yes	Default	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
221	FRP.PL2	OOOOOX	OOOOOX		Yes	Default	None
222	FRP.PL3	OOOOOX	OOOOOX		Yes	Default	None
223	FRP.PL4	OOOOOX	OOOOOX		Yes	Default	None
224	FRP.PL5	OOOOOX	OOOOOX		Yes	Default	None
225	FRP.PL6	OOOOOX	OOOOOX		Yes	Default	None
226	FRP.PL7	OOOOOX	OOOOOX		Yes	Default	None
227	FRP.PL8	OOOOOX	OOOOOX		Yes	Default	None
228	FRP.PL9	OOOOOX	OOOOOX		Yes	Default	None
229	FRP.PL10	OOOOOX	OOOOOX		Yes	Default	None
230	FRP.PL11	OOOOOX	OOOOOX		Yes	Default	None
231	FRP.PL12	OOOOOX	OOOOOX		Yes	Default	None
232	OTHER.A1				Yes	Default	None
233	OTHER.A2				Yes	Default	None
234	OTHER.A3				Yes	Default	None
235	OTHER.A4				Yes	Default	None
236	OTHER.B1				Yes	Default	None
237	OTHER.B2				Yes	Default	None
238	OTHER.B3				Yes	Default	None
239	OTHER.B4				Yes	Default	None
240	OTHER.C1				Yes	Default	None
241	OTHER.C2				Yes	Default	None
242	OTHER.C3				Yes	Default	None
243	OTHER.C4				Yes	Default	None
244	OTHER.D1				Yes	Default	None
245	OTHER.D2				Yes	Default	None
246	OTHER.D3				Yes	Default	None
247	RIGID1				Yes	** NA **	None
248	RIGID2				Yes	** NA **	None
249	RIGID3				Yes	** NA **	None
250	RIGID4				Yes	** NA **	None
251	RIGID5				Yes	** NA **	None
252	RIGID6				Yes	** NA **	None
253	RIGID7				Yes	** NA **	None
254	RIGID8				Yes	** NA **	None
255	RIGID9				Yes	** NA **	None
256	RIGID10				Yes	** NA **	None
257	RIGID11				Yes	** NA **	None
258	RIGID12				Yes	** NA **	None
259	RIGID13				Yes	** NA **	None
260	RIGID14				Yes	** NA **	None
261	RIGID15				Yes	** NA **	None
262	RIGID16		OOOXOO		Yes	** NA **	None
263	RIGID17		OOOXOO		Yes	** NA **	None
264	RIGID18				Yes	** NA **	None
265	RIGID19				Yes	** NA **	None
266	RIGID20				Yes	** NA **	None
267	RIGID21				Yes	** NA **	None
268	RIGID22				Yes	** NA **	None
269	RIGID23	BenPIN	AllPIN	Compression Only	Yes	** NA **	None
270	RIGID24				Yes	** NA **	None
271	RIGID25		OOOXOO		Yes	** NA **	None
272	RIGID26		OOOXOO		Yes	** NA **	None
273	RIGID27				Yes	** NA **	None
274	RIGID28				Yes	** NA **	None
275	RIGID29				Yes	** NA **	None
276	RIGID30				Yes	** NA **	None
277	RIGID31				Yes	** NA **	None
278	RIGID32	BenPIN	AllPIN	Compression Only	Yes	** NA **	None
279	RIGID33				Yes	** NA **	None
280	RIGID34				Yes	** NA **	None
281	RIGID35		OOOXOO		Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
282	RIGID36		OOOXOO		Yes	** NA **	None
283	RIGID37		OOOXOO		Yes	** NA **	None
284	RIGID38		OOOXOO		Yes	** NA **	None
285	RIGID39				Yes	** NA **	None
286	RIGID40				Yes	** NA **	None
287	RIGID41				Yes	** NA **	None
288	RIGID42				Yes	** NA **	None
289	RIGID43				Yes	** NA **	None
290	RIGID44				Yes	** NA **	None
291	RIGID45				Yes	** NA **	None
292	RIGID46				Yes	** NA **	None
293	RIGID47		OOOXOO		Yes	** NA **	None
294	RIGID48				Yes	** NA **	None
295	RIGID49		OOOXOO		Yes	** NA **	None
296	RIGID50				Yes	** NA **	None
297	RIGID51				Yes	** NA **	None
298	RIGID52		OOOXOO		Yes	** NA **	None
299	RIGID53		OOOXOO		Yes	** NA **	None
300	RIGID54				Yes	** NA **	None
301	RIGID55				Yes	** NA **	None
302	RIGID56				Yes	** NA **	None
303	RIGID57				Yes	** NA **	None
304	RIGID58				Yes	** NA **	None
305	RIGID59				Yes	** NA **	None
306	RIGID60		OOOXOO		Yes	** NA **	None
307	RIGID61		OOOXOO		Yes	** NA **	None
308	RIGID62				Yes	** NA **	None
309	RIGID63		OOOXOO		Yes	** NA **	None
310	RIGID64		OOOXOO		Yes	** NA **	None
311	RIGID65		OOOXOO		Yes	** NA **	None
312	RIGID66		OOOXOO		Yes	** NA **	None
313	RIGID67				Yes	** NA **	None
314	RIGID68				Yes	** NA **	None
315	RIGID69				Yes	** NA **	None
316	RIGID70				Yes	** NA **	None
317	RIGID71				Yes	** NA **	None
318	RIGID72				Yes	** NA **	None
319	RIGID73		OOOXOO		Yes	** NA **	None
320	RIGID74		OOOXOO		Yes	** NA **	None
321	RIGID75				Yes	** NA **	None
322	RIGID76		OOOXOO		Yes	** NA **	None
323	RIGID77		OOOXOO		Yes	** NA **	None
324	RIGID78		OOOXOO		Yes	** NA **	None
325	RIGID79				Yes	** NA **	None
326	RIGID80				Yes	** NA **	None
327	RIGID81				Yes	** NA **	None
328	RIGID82				Yes	** NA **	None
329	RIGID83				Yes	** NA **	None
330	RIGID84				Yes	** NA **	None
331	RIGID85				Yes	** NA **	None
332	RIGID86				Yes	** NA **	None
333	RIGID87				Yes	** NA **	None
334	RIGID88				Yes	** NA **	None
335	RIGID89				Yes	** NA **	None
336	RIGID90				Yes	** NA **	None
337	RIGID91				Yes	** NA **	None
338	RIGID92				Yes	** NA **	None
339	RIGID93				Yes	** NA **	None
340	RIGID94				Yes	** NA **	None
341	RIGID95		OOOXOO		Yes	** NA **	None
342	RIGID96				Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
343	RIGID97				Yes	** NA **	None
344	RIGID98				Yes	** NA **	None
345	RIGID99				Yes	** NA **	None
346	RIGID100				Yes	** NA **	None
347	RIGID101				Yes	** NA **	None
348	RIGID102				Yes	** NA **	None
349	RIGID103				Yes	** NA **	None
350	RIGID104				Yes	** NA **	None
351	RIGID105				Yes	** NA **	None
352	RIGID106				Yes	** NA **	None
353	RIGID107				Yes	** NA **	None
354	RIGID108				Yes	** NA **	None
355	RIGID109				Yes	** NA **	None
356	RIGID110				Yes	** NA **	None
357	RIGID111		OOOXOO		Yes	** NA **	None
358	RIGID112				Yes	** NA **	None
359	RIGID113				Yes	** NA **	None
360	RIGID114				Yes	** NA **	None
361	RIGID115				Yes	** NA **	None
362	RIGID116				Yes	** NA **	None
363	RIGID117		OOOXOO		Yes	** NA **	None
364	RIGID118				Yes	** NA **	None
365	RIGID119		OOOXOO		Yes	** NA **	None
366	RIGID120				Yes	** NA **	None
367	RIGID121				Yes	** NA **	None
368	RIGID122				Yes	** NA **	None
369	RIGID123				Yes	** NA **	None
370	RIGID124				Yes	** NA **	None
371	RIGID125				Yes	** NA **	None
372	RIGID126				Yes	** NA **	None
373	RIGID127				Yes	** NA **	None
374	RIGID128				Yes	** NA **	None
375	RIGID129				Yes	** NA **	None
376	RIGID130				Yes	** NA **	None
377	RIGID131				Yes	** NA **	None
378	RIGID132				Yes	** NA **	None
379	RIGID133				Yes	** NA **	None
380	RIGID134				Yes	** NA **	None
381	RIGID135				Yes	** NA **	None
382	RIGID136				Yes	** NA **	None
383	RIGID137				Yes	** NA **	None
384	RIGID138				Yes	** NA **	None
385	RIGID139				Yes	** NA **	None
386	RIGID140				Yes	** NA **	None
387	RIGID141				Yes	** NA **	None
388	RIGID142				Yes	** NA **	None
389	RIGID143				Yes	** NA **	None
390	RIGID144				Yes	** NA **	None
391	RIGID145				Yes	** NA **	None
392	RIGID146				Yes	** NA **	None
393	RIGID147				Yes	** NA **	None
394	RIGID148				Yes	** NA **	None
395	RIGID149				Yes	** NA **	None
396	RIGID150				Yes	** NA **	None
397	RIGID151				Yes	** NA **	None
398	RIGID152		OOOXOO		Yes	** NA **	None
399	RIGID153				Yes	** NA **	None
400	RIGID154				Yes	** NA **	None
401	RIGID155				Yes	** NA **	None
402	RIGID156		OOOXOO		Yes	** NA **	None
403	RIGID157		OOOXOO		Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
404	RIGID158				Yes	** NA **	None
405	RIGID159		OOOXOO		Yes	** NA **	None
406	RIGID160				Yes	** NA **	None
407	RIGID161				Yes	** NA **	None
408	RIGID162				Yes	** NA **	None
409	RIGID163				Yes	** NA **	None
410	RIGID164				Yes	** NA **	None
411	RIGID165		OOOXOO		Yes	** NA **	None
412	RIGID166				Yes	** NA **	None
413	RIGID167		OOOXOO		Yes	** NA **	None
414	RIGID168		OOOXOO		Yes	** NA **	None
415	RIGID169		OOOXOO		Yes	** NA **	None
416	RIGID170				Yes	** NA **	None
417	RIGID171				Yes	** NA **	None
418	RIGID172				Yes	** NA **	None
419	RIGID173				Yes	** NA **	None
420	RIGID174				Yes	** NA **	None
421	RIGID175		OOOXOO		Yes	** NA **	None
422	RIGID176		OOOXOO		Yes	** NA **	None
423	RIGID177				Yes	** NA **	None
424	RIGID178		OOOXOO		Yes	** NA **	None
425	RIGID179				Yes	** NA **	None
426	RIGID180				Yes	** NA **	None
427	RIGID181				Yes	** NA **	None
428	RIGID182				Yes	** NA **	None
429	RIGID183				Yes	** NA **	None
430	RIGID184				Yes	** NA **	None
431	RIGID185				Yes	** NA **	None
432	RIGID186				Yes	** NA **	None
433	RIGID187				Yes	** NA **	None
434	RIGID188				Yes	** NA **	None
435	RIGID189		OOOXOO		Yes	** NA **	None
436	RIGID190				Yes	** NA **	None
437	RIGID191		OOOXOO		Yes	** NA **	None
438	RIGID192				Yes	** NA **	None
439	RIGID193		OOOXOO		Yes	** NA **	None
440	RIGID194		OOOXOO		Yes	** NA **	None
441	RIGID195				Yes	** NA **	None
442	RIGID196				Yes	** NA **	None
443	RIGID197		OOOXOO		Yes	** NA **	None
444	RIGID198		OOOXOO		Yes	** NA **	None
445	RIGID199		OOOXOO		Yes	** NA **	None
446	RIGID200				Yes	** NA **	None
447	RIGID201		OOOXOO		Yes	** NA **	None
448	RIGID202		OOOXOO		Yes	** NA **	None
449	RIGID203		OOOXOO		Yes	** NA **	None
450	RIGID204				Yes	** NA **	None
451	TMO.A1				Yes	Default	None
452	TMO.A2				Yes	Default	None
453	TMO.B1				Yes	Default	None
454	TMO.B2				Yes	Default	None
455	TMO.B3.1				Yes	Default	None
456	TMO.B3.2				Yes	Default	None
457	TMO.C1				Yes	Default	None
458	TMO.C2				Yes	Default	None
459	TMO.D1				Yes	Default	None
460	TMO.D2				Yes	Default	None
461	TR1				Yes	** NA **	None
462	TR2				Yes	** NA **	None
463	TR3				Yes	** NA **	None
464	TR4				Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
465	TR5				Yes	** NA **	None
466	TR6				Yes	** NA **	None

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [lb/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	490	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	490	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	490	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	490	50	1.25	65	1.15
8	A913 Gr.65	29000	11154	0.3	0.65	490	65	1.1	80	1.1
9	Q235	29000	11154	0.3	0.65	490	35	1.5	58	1.2
10	A529 Gr.50	29000	11154	0.3	0.65	490	50	1.1	65	1.1
11	A500 Gr.C	29000	11154	0.3	0.65	490	46	1.6	60	1.2
12	HR FRP 500/525	2600	425	0.33	0.7	107.1	46	1.6	60	1.2
13	HR FRP 625	2800	425	0.33	0.7	107.1	46	1.6	60	1.2

General Materials Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [lb/ft^{3}]	Plate Methodology
1	gen_Conc3NW	3155	1372	0.15	0.6	145	Isotropic
2	gen_Conc4NW	3644	1584	0.15	0.6	145	Isotropic
3	gen_Conc3LW	2085	906	0.15	0.6	110	Isotropic
4	gen_Conc4LW	2408	1047	0.15	0.6	110	Isotropic
5	gen_Alum	10100	4077	0.3	1.29	173	Isotropic
6	gen_Steel	29000	11154	0.3	0.65	490	Isotropic
7	gen_Plywood	1800	38	0	0.3	35	Isotropic
8	RIGID	1e+6		0.3	0	0	Isotropic
9	FRP 500/525	2600	425	0.33	0.7	107.1	Isotropic

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	FRP Column HR	HSS4X4X4	Beam	None	HR FRP 500/525	Typical	3.37	7.8	7.8	12.8
2	FRP Brace HR	HSS4X4X4	Beam	None	HR FRP 500/525	Typical	3.37	7.8	7.8	12.8
3	FRP Angle Horizontal HR	L4X4X6	Beam	None	HR FRP 500/525	Typical	2.86	4.32	4.32	0.141
4	FRP Angle Standoff HR	L4X4X6	Beam	None	HR FRP 500/525	Typical	2.86	4.32	4.32	0.141
5	FRP Plate HR	0.375"X4"WIDEPLATE	Beam	None	HR FRP 500/525	Typical	1.5	0.0176	2	0.0662
6	Angle Horizontal 1	L4X4X4	Beam	None	A36 Gr.36	Typical	1.93	3	3	0.0438
7	Angle Horizontal 2	L3X3X4	Beam	None	A36 Gr.36	Typical	1.44	1.23	1.23	0.0313
8	Antenna Mount Pipe (Other)	PIPE_2.5	Beam	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
9	Antenna Mount Pipe (TMO)	PIPE_2.5	Beam	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
10	Threaded Rod	0.625"TR	Beam	None	A36 Gr.36	Typical	0.226	0.0041	0.0041	0.0081

General Section Sets

	Label	Shape	Type	Material	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	RIGID		None	RIGID	1e+6	1e+6	1e+6	1e+6
2	FRP Column	FRP Square Tube 4X0.25	Beam	FRP 500/525	3.7424	8.7865	8.7865	13.7591
3	FRP Brace	FRP Square Tube 4X0.25	Beam	FRP 500/525	3.7424	8.7865	8.7865	13.7591
4	FRP Angle Standoff	FRP L4X4X0.375	Beam	FRP 500/525	2.7774	4.1659	4.1659	0.1266
5	FRP Angle Horizonta	FRP L4X4X0.375	Beam	FRP 500/525	2.7774	4.1659	4.1659	0.1266
6	FRP Plate	FRP Plate 4 x 0.375	Beam	FRP 500/525	1.5	0.0176	2	0.0662

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
1	AH1.1	Angle Horizontal 1	59.74	Lbyy	N/A	N/A	Lateral
2	AH1.2	Angle Horizontal 1	132	Lbyy	N/A	N/A	Lateral
3	AH1.3	Angle Horizontal 1	75	Lbyy	N/A	N/A	Lateral
4	AH1.4	Angle Horizontal 1	75	Lbyy	N/A	N/A	Lateral
5	AH1.5	Angle Horizontal 1	63.24	Lbyy	N/A	N/A	Lateral
6	AH1.6	Angle Horizontal 1	63.24	Lbyy	N/A	N/A	Lateral
7	AH1.7	Angle Horizontal 1	59.74	Lbyy	N/A	N/A	Lateral
8	AH1.8	Angle Horizontal 1	132	Lbyy	N/A	N/A	Lateral
9	AH2.1	Angle Horizontal 2	89.24	Lbyy	N/A	N/A	Lateral
10	AH2.2	Angle Horizontal 2	22.24	Lbyy	N/A	N/A	Lateral
11	AH2.3	Angle Horizontal 2	53.865	Lbyy	N/A	N/A	Lateral
12	AH2.4	Angle Horizontal 2	55.74	Lbyy	N/A	N/A	Lateral
13	AH2.5	Angle Horizontal 2	53.865	Lbyy	N/A	N/A	Lateral
14	AH2.6	Angle Horizontal 2	22.24	Lbyy	N/A	N/A	Lateral
15	AH2.7	Angle Horizontal 2	62.74	Lbyy	N/A	N/A	Lateral
16	AH2.8	Angle Horizontal 2	63.74	Lbyy	N/A	N/A	Lateral
17	AH2.9	Angle Horizontal 2	62.74	Lbyy	N/A	N/A	Lateral
18	AH2.10	Angle Horizontal 2	63.74	Lbyy	N/A	N/A	Lateral
19	AH2.11	Angle Horizontal 2	89.24	Lbyy	N/A	N/A	Lateral
20	AH2.12	Angle Horizontal 2	55.74	Lbyy	N/A	N/A	Lateral
21	OTHER.A1	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
22	OTHER.A2	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
23	OTHER.A3	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
24	OTHER.A4	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
25	OTHER.B1	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
26	OTHER.B2	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
27	OTHER.B3	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
28	OTHER.B4	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
29	OTHER.C1	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
30	OTHER.C2	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
31	OTHER.C3	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
32	OTHER.C4	Antenna Mount Pipe (Other)	96	Lbyy	N/A	N/A	Lateral
33	OTHER.D1	Antenna Mount Pipe (Other)	84	Lbyy	N/A	N/A	Lateral
34	OTHER.D2	Antenna Mount Pipe (Other)	71	Lbyy	N/A	N/A	Lateral
35	OTHER.D3	Antenna Mount Pipe (Other)	71	Lbyy	N/A	N/A	Lateral
36	TMO.A1	Antenna Mount Pipe (TMO)	72	Lbyy	N/A	N/A	Lateral
37	TMO.A2	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
38	TMO.B1	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
39	TMO.B2	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
40	TMO.B3.1	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
41	TMO.B3.2	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
42	TMO.C1	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
43	TMO.C2	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
44	TMO.D1	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral
45	TMO.D2	Antenna Mount Pipe (TMO)	96	Lbyy	N/A	N/A	Lateral

Plate Primary Data

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
1	P1	N906	N889	N898	N915	RIGID	3
2	P2	N915	N898	N894	N911	RIGID	3
3	P3	N911	N894	N888	N905	RIGID	3
4	P4	N889	N531	N540	N898	RIGID	3
5	P5	N894	N536	N530	N888	RIGID	3
6	P6	N37	N885	N897	N914	RIGID	3
7	P7	N914	N897	N892	N909	RIGID	3
8	P8	N909	N892	N889	N906	RIGID	3
9	P9	N885	N34	N539	N897	RIGID	3
10	P10	N892	N534	N531	N889	RIGID	3
11	P11	N907	N890	N884	N36	RIGID	3
12	P12	N35	N883	N885	N37	RIGID	3

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
13	P13	N890	N532	N33	N884	RIGID	3
14	P14	N883	N32	N34	N885	RIGID	3
15	P15	N903	N886	N899	N916	RIGID	3
16	P16	N916	N899	N900	N917	RIGID	3
17	P17	N917	N900	N890	N907	RIGID	3
18	P18	N886	N524	N541	N899	RIGID	3
19	P19	N900	N542	N532	N890	RIGID	3
20	P20	N904	N887	N895	N912	RIGID	3
21	P21	N912	N895	N893	N910	RIGID	3
22	P22	N910	N893	N886	N903	RIGID	3
23	P23	N893	N535	N524	N886	RIGID	3
24	P24	N887	N525	N537	N895	RIGID	3
25	P25	N905	N888	N896	N913	RIGID	3
26	P26	N913	N896	N543	N901	RIGID	3
27	P27	N902	N544	N891	N908	RIGID	3
28	P28	N908	N891	N887	N904	RIGID	3
29	P29	N888	N530	N538	N896	RIGID	3
30	P30	N891	N533	N525	N887	RIGID	3
31	P31	N922	N919	N918	N921	RIGID	3
32	P32	N923	N920	N919	N922	RIGID	3

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
0	N44	max	56.088	26	1571.547	10	841.532	10	2540.239	10	62.916	10	567.535	7
1		min	-165.312	7	-263.826	27	-172.243	27	-550.826	16	-54.85	7	-210.944	26
2	N61	max	160.072	26	1344.23	19	729.66	10	2669.193	10	12.291	22	1012.721	7
3		min	-512.252	7	187.54	4	-67.122	27	-458.863	27	-28.74	4	-336.98	26
4	N1	max	240.616	1	665.511	22	683.998	10	4276.267	10	225.737	10	1173.897	7
5		min	-307.485	7	-14.692	1	-119.923	27	-808.777	16	-35.044	16	-1694.735	1
6	N286	max	90.902	26	739.085	19	37.139	13	1284.675	13	47.079	7	1496.485	7
7		min	-289.469	7	90.258	26	-1442.902	4	-8340.715	4	-25.673	13	-422.941	26
8	N72	max	247.433	26	1705.065	19	781.57	10	2826.642	10	6.67	13	1150.26	7
9		min	-658.725	7	278.363	10	-66.835	27	-741.718	4	-32.014	4	-419.142	26
10	N462	max	361.293	1	1782.481	22	987.573	10	4236.462	10	105.301	10	838.584	7
11		min	-153.553	7	533.9	7	-112.357	27	-691.349	27	-17.779	19	-2195.6	1
12	N198	max	81.95	26	1891.763	22	295.858	10	1819.098	10	31.339	10	1929.687	7
13		min	-511.471	7	280.442	4	-184.929	4	-1457.517	4	-35.959	4	-339.445	26
14	N264	max	102.905	26	1023.772	16	34.128	10	731.643	22	165.873	4	1735.585	7
15		min	-360.689	7	156.379	27	-1450.259	4	-7106.923	4	-36.767	13	-453.259	26
16	N308	max	697.396	1	1716.586	1	38.538	1	546.929	10	42.082	19	341.534	16
17		min	-24.127	16	349.221	4	-1132.781	4	-3885.529	4	-190.707	1	-2507.293	1
18	N352	max	958.433	1	1728.092	22	537.303	10	1391.24	10	85.362	10	412.493	16
19		min	-195.529	4	-446.794	4	-459.357	4	-1172.173	4	-67.198	4	-3459.075	1
20	N220	max	125.63	26	1326.78	22	347.734	10	1932.924	10	22.178	4	2233.923	7
21		min	-687.638	7	57.506	4	-386.476	4	-1862.707	4	-12.282	13	-465.593	26
22	N374	max	1090.009	1	2274.891	16	504.834	10	1348.828	10	76.467	10	772.328	10
23		min	-310.878	10	-152.025	10	-472.361	4	-1195.166	4	-63.883	4	-4260.896	1
24	N396	max	1134.16	1	2021.958	22	139.211	10	1027.108	10	48.317	10	390.541	7
25		min	-25.29	7	472.891	4	-153.745	4	-902.268	4	-38.679	4	-4404.127	1
26	N418	max	732.208	1	1606.138	13	219.232	10	1055.107	10	41.756	10	749.691	7
27		min	-164.936	7	128.97	10	-167.176	4	-904.957	4	-35.019	4	-2899.241	1
28	N484	max	413.676	1	1681.197	13	1209.918	10	5300.088	10	91.627	10	849.702	7
29		min	-186.288	7	110.878	10	-144.3	27	-839.046	27	-21.053	19	-2232.495	1
30	N440	max	469.253	1	1571.537	19	284.018	10	1695.117	10	117.366	10	857.231	7
31		min	-172.098	7	-269.412	1	-112.764	1	-654.111	4	-15.872	19	-2260.294	1
32	N176	max	138.23	10	1385.87	16	383.053	10	1962.327	10	24.914	7	1307.45	7
33		min	-411.521	7	-405.826	10	-236.245	4	-1769.449	4	-6.743	13	-277.939	26
34	N18	max	364.8	10	1006.779	16	352.147	10	1621.79	10	90.693	10	1092	7
35		min	-335.288	7	-1510.354	10	-84.168	27	-485.838	13	-26.844	7	-690.682	10
36	N83	max	191.754	26	1624.997	22	712.25	10	2605.518	10	6.846	13	959.259	7
37		min	-463.721	7	-843.222	7	-324.617	4	-1558.32	4	-31.376	4	-367.228	26

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
38	N330	max	710.677	1	2355.367	16	110.479	10	835.37	10	48.681	19	454.884	16
39		min	-149.926	16	-914.33	1	-335.021	4	-1549.526	4	-180.942	1	-2475.871	1
40	N242	max	200.918	4	1242.506	13	281.68	10	1548.894	10	237.88	4	1730.01	7
41		min	-373.269	7	-171.156	7	-861.711	4	-3427.402	4	-41.714	13	-673.651	4
42	N743	max	1304.224	1	1645.128	16	326.689	13	1578.835	13	7.624	7	5846.08	7
43		min	-1330.921	7	329.177	7	-642.154	4	-2476.204	4	-49.891	4	-6194.116	1
44	N761	max	748.061	1	4205.448	13	331.171	7	918.153	22	91.895	1	5316.06	7
45		min	-937.031	7	311.328	7	-882.412	4	-3020.774	4	-117.905	7	-5551.703	1
46	N811	max	1523.611	1	1055.695	7	208.797	1	1162.011	13	48.042	7	4802.231	7
47		min	-1307.976	7	-885.906	1	-460.3	4	-2584.095	4	-49.277	1	-5312.934	1
48	Totals:	max	10383.633	1	35424.969	22	9421.714	10						
49		min	-9345.195	7	9417.871	1	-9751.817	4						

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
0	AH1.2	L4X4X4	0.673	127.875	7	0.07	127.875	z	4	15341.676	62532	3137.597	5269.039	1.5	H2-1
1	AH1.3	L4X4X4	0.646	0	1	0.12	75	y	4	38577.67	62532	3137.597	6145.384	1.5	H2-1
2	AH2.3	L3X3X4	0.58	26.932	10	0.178	0	y	10	29858.621	46656	1688.138	3583.679	1.5	H2-1
3	AH1.8	L4X4X4	0.554	5.5	7	0.07	112.75	z	10	15341.676	62532	3137.597	5269.039	1.5	H2-1
4	AH1.1	L4X4X4	0.539	15.557	1	0.222	0	z	1	43297.852	62532	3137.597	6350.122	1.4	H2-1
5	AH1.7	L4X4X4	0.5	14.935	7	0.199	0	y	7	43297.852	62532	3137.597	6433.822	1.5	H2-1
6	AH2.5	L3X3X4	0.467	26.932	13	0.106	53.865	z	10	29858.621	46656	1688.138	3540.651	1.4	H2-1
7	AH1.4	L4X4X4	0.429	63.281	1	0.076	16.406	y	4	38577.67	62532	3137.597	6145.384	1.5	H2-1
8	AH2.4	L3X3X4	0.426	42.966	10	0.104	55.74	z	10	28929.451	46656	1688.138	3562.564	1.5	H2-1
9	AH2.12	L3X3X4	0.402	42.966	10	0.178	12.774	z	10	28929.451	46656	1688.138	3562.564	1.5	H2-1
10	AH2.2	L3X3X4	0.385	8.108	13	0.243	7.877	z	4	43237.776	46656	1688.138	3755.745	1.5	H2-1
11	AH2.9	L3X3X4	0.382	34.638	19	0.046	33.984	z	1	25464.358	46656	1688.138	3356.711	1.243	H2-1
12	AH2.7	L3X3X4	0.379	33.984	22	0.09	62.74	z	1	25464.358	46656	1688.138	3466.162	1.454	H2-1
13	AH2.6	L3X3X4	0.371	8.108	4	0.223	7.877	y	13	43237.776	46656	1688.138	3755.745	1.5	H2-1
14	AH2.8	L3X3X4	0.318	11.951	1	0.093	0	y	1	24973.702	46656	1688.138	3282.689	1.143	H2-1
15	AH2.1	L3X3X4	0.315	40.902	10	0.041	9.296	z	7	13979.607	46656	1688.138	3232.311	1.5	H2-1
16	AH1.6	L4X4X4	0.25	0	10	0.084	0	y	1	42413.22	62532	3137.597	6364.68	1.5	H2-1
17	AH1.5	L4X4X4	0.249	51.383	1	0.058	63.24	z	1	42413.22	62532	3137.597	6364.68	1.5	H2-1
18	AH2.10	L3X3X4	0.234	11.951	19	0.036	0	y	16	24973.702	46656	1688.138	3192.554	1.019	H2-1
19	AH2.11	L3X3X4	0.223	64.141	7	0.049	9.296	z	7	13979.607	46656	1688.138	3232.311	1.5	H2-1
20	TMO.C1	PIPE_2.5	0.162	38	1	0.138	68		7	30038.461	50715	3596.25	3596.25	1	H1-1b
21	TMO.D1	PIPE_2.5	0.159	71	1	0.056	91		7	30038.461	50715	3596.25	3596.25	1	H1-1b
22	OTHER.B1	PIPE_2.5	0.151	26	10	0.375	44		10	30038.461	50715	3596.25	3596.25	1	H3-6
23	OTHER.B4	PIPE_2.5	0.146	26	10	0.27	29		10	30038.461	50715	3596.25	3596.25	1	H3-6
24	TMO.D2	PIPE_2.5	0.14	50	13	0.094	50		7	30038.461	50715	3596.25	3596.25	1	H1-1b
25	OTHER.B2	PIPE_2.5	0.137	26	10	0.341	59		10	30038.461	50715	3596.25	3596.25	1	H3-6
26	OTHER.D1	PIPE_2.5	0.104	8.75	4	0.271	30.625		4	33961.614	50715	3596.25	3596.25	1	H3-6
27	OTHER.B3	PIPE_2.5	0.093	26	10	0.289	59		10	30038.461	50715	3596.25	3596.25	1	H3-6
28	OTHER.D3	PIPE_2.5	0.084	17.75	4	0.251	17.75		4	38082.043	50715	3596.25	3596.25	1	H3-6
29	TMO.B1	PIPE_2.5	0.082	59	22	0.139	29		4	30038.461	50715	3596.25	3596.25	1	H1-1b
30	OTHER.D2	PIPE_2.5	0.077	65.083	4	0.261	17.75		4	38082.043	50715	3596.25	3596.25	1	H3-6
31	TMO.C2	PIPE_2.5	0.068	39	13	0.129	38		1	30038.461	50715	3596.25	3596.25	1	H1-1b
32	TMO.A1	PIPE_2.5	0.054	35.25	22	0.14	64.5		1	37773.818	50715	3596.25	3596.25	1	H1-1b
33	OTHER.A3	PIPE_2.5	0.045	26	1	0.121	93		1	30038.461	50715	3596.25	3596.25	1	H1-1b
34	OTHER.A1	PIPE_2.5	0.045	26	1	0.053	44		1	30038.461	50715	3596.25	3596.25	1	H1-1b
35	OTHER.C1	PIPE_2.5	0.042	26	10	0.098	44		7	30038.461	50715	3596.25	3596.25	1	H1-1b
36	TMO.B3.1	PIPE_2.5	0.036	48	4	0.164	48		4	30038.461	50715	3596.25	3596.25	1	H1-1b
37	OTHER.A4	PIPE_2.5	0.036	26	22	0.173	29		1	30038.461	50715	3596.25	3596.25	1	H1-1b
38	OTHER.C4	PIPE_2.5	0.036	93	22	0.102	29		7	30038.461	50715	3596.25	3596.25	1	H1-1b
39	TMO.B2	PIPE_2.5	0.034	28	10	0.122	79		4	30038.461	50715	3596.25	3596.25	1	H1-1b
40	TMO.B3.2	PIPE_2.5	0.034	84	4	0.068	84		4	30038.461	50715	3596.25	3596.25	1	H1-1b
41	OTHER.C2	PIPE_2.5	0.031	93	10	0.098	59		7	30038.461	50715	3596.25	3596.25	1	H1-1b
42	OTHER.C3	PIPE_2.5	0.023	59	16	0.101	93		7	30038.461	50715	3596.25	3596.25	1	H1-1b
43	OTHER.A2	PIPE_2.5	0.021	26	1	0.031	93		7	30038.461	50715	3596.25	3596.25	1	H1-1b
44	TMO.A2	PIPE_2.5	0.019	70	16	0.126	47		1	30038.461	50715	3596.25	3596.25	1	H1-1b

SGS Project No.:	2403524
Site Name:	St. Anthony Community Hospital
Site Number:	NY10253B
Analysis Date:	TJW 03/08/2024

Fiberglass Member Capacities

Ultimate Bending Stress (Fb):	**30.00**	ksi (assumed)
Ultimate Shear Stress (Fv):	**4.50**	ksi (assumed)
Ultimate Bearing Stress (Fa):	**30.00**	ksi (assumed)

Max Stress from RISA-3D

FRP Shape	Axial-Comp [ksi]	Axial-Ten [ksi]	y Shear [ksi]	z Shear [ksi]	y-Top [ksi]	y-Bot [ksi]	z-Top [ksi]	z-Bot [ksi]
FRP L4X4X0.375	1.04	-1.16	0.95	0.78	13.28	4.59	6.52	6.17
FRP Square Tube 4X0.25	1.12	-0.46	0.29	0.40	22.78	16.92	11.68	14.51
FRP Plate 4 x 0.375	1.51	-1.41	-0.01	0.01	0.08	-0.06	3.26	1.90

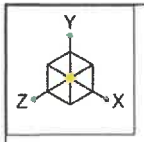
Max Forces from RISA-3D

FRP Shape	Axial-Comp [lb]	Axial-Ten [lb]	y Shear [lb]	z Shear [lb]	Torque [lb-ft]	y-y Moment [lb-ft]	z-z Moment [lb-ft]
FRP L4X4X0.375	2884.71	-3212.56	2643.51	2159.18	-79.63	-1867.13	-1820.07
FRP Square Tube 4X0.25	4205.45	-1720.42	-1463.75	1499.58	423.84	-5312.93	-8340.72
FRP Plate 4 x 0.375	2256.88	-2108.75	-9.82	14.89	-3.47	25.48	-6.66

	L-Shape 4x4x0.375	**HSS 4x4x0.25**	**Plate 4x0.375**
Max Compressive Stress (ksi):	1.157	1.124	1.505
Max Shear Stress (ksi):	0.952	0.401	0.01
Max Bending Stress (ksi):	13.279	22.782	3.262
Compressive Capacity:	**3.9%**	**3.7%**	**5.0%**
Shear Capacity:	**21.2%**	**8.9%**	**0.2%**
Flexural Capacity:	**44.3%**	**75.9%**	**10.9%**

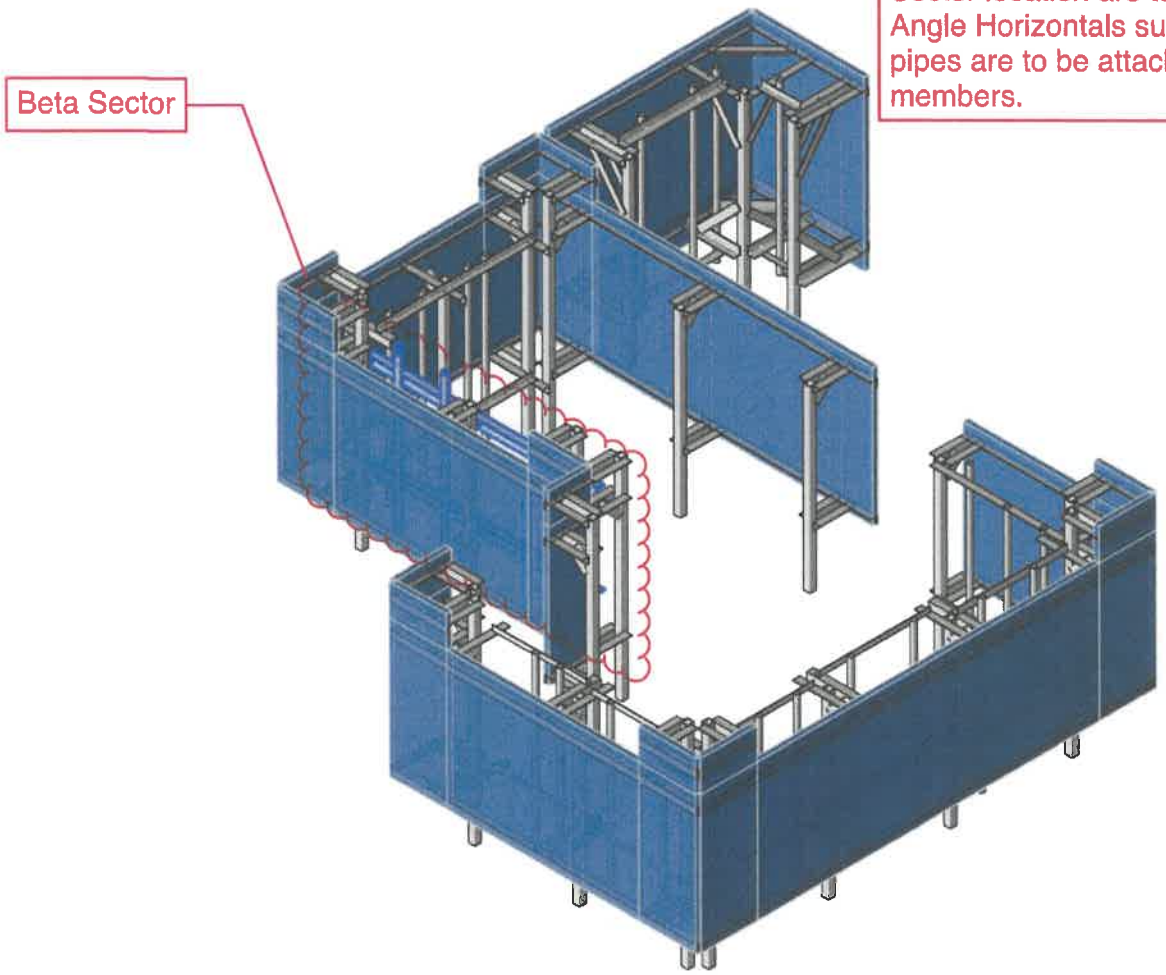
APPENDIX B

RECOMMENDATIONS

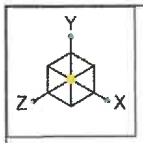


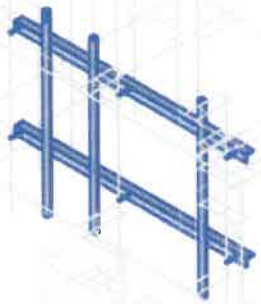
Scope of Work

1). The threaded rod standoff located at the Beta Sector location are to be removed and the existing Angle Horizontals supporting antenna mounting pipes are to be attached flush with the FRP HSS members.

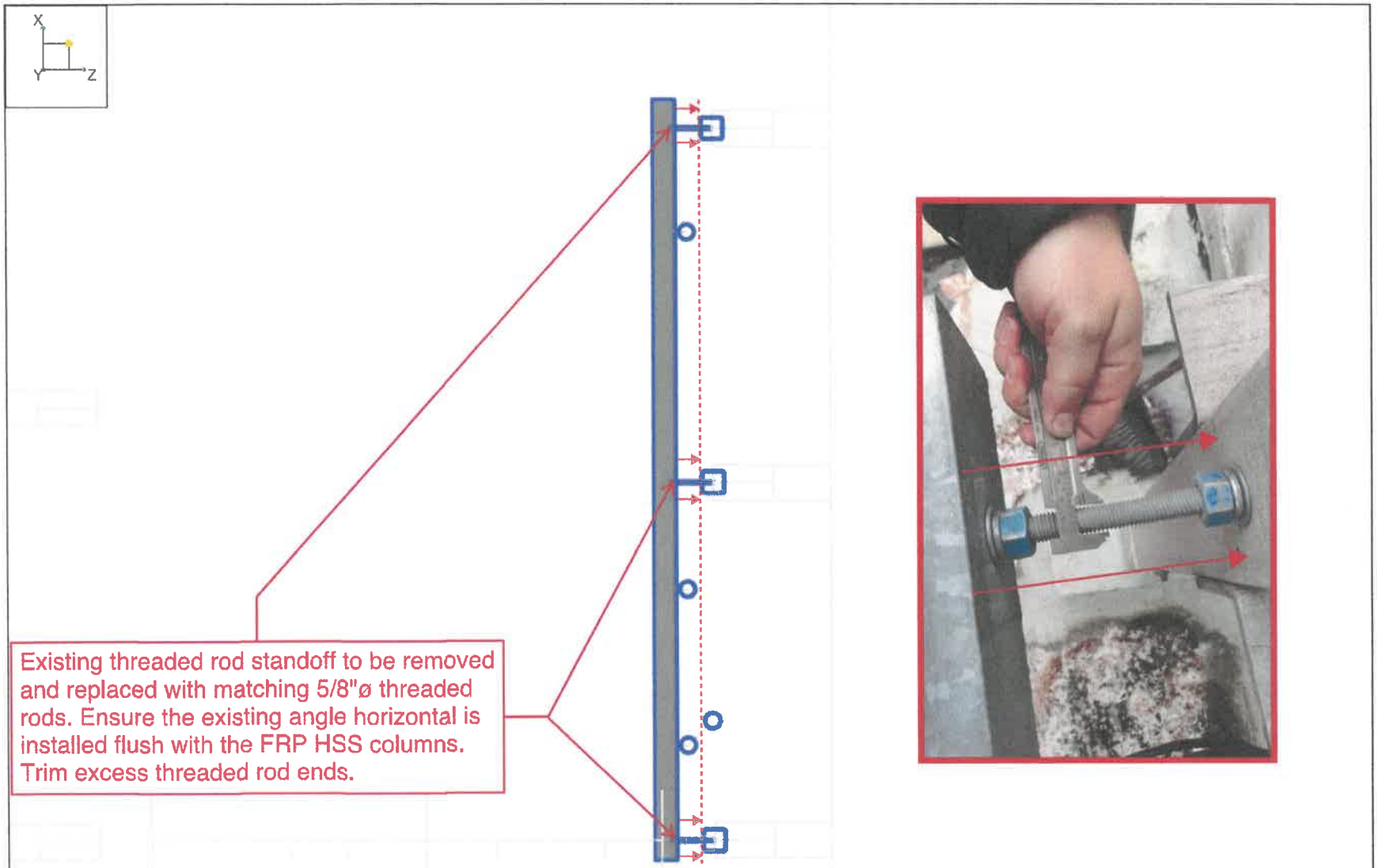


SGS	SGS Towers	NY10253B (St. Anthony Community Hospital)	REC-1
	TJW		Mar 11, 2024 at 11:34 AM
	2403524	Recommendations	2403524 - NY10253B - Concealment She...





SGS	SGS Towers	NY10253B (St. Anthony Community Hospital)	REC-2
	TJW		Mar 11, 2024 at 11:35 AM
	2403524	Recommendations	2403524 - NY10253B - Concealment She...



SGS	SGS Towers	NY10253B (St. Anthony Community Hospital)	REC-3
	TJW		Mar 11, 2024 at 11:36 AM
	2403524	Recommendations	2403524 - NY10253B - Concealment She...

APPENDIX C

POST MODIFICATION INSPECTION REPORT REQUIEMENTS

Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor

(For additional questions and support, please reach out to engineering@sgstowers.com)

Purpose:

To provide SGS Towers the proper documentation necessary to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for ensuring the photos provided as noted below provide confirmation that the modification was completed in accordance with the analysis report or modification drawings. *(Passing Mount Analysis requires a PMI due to a modification in loading.)*
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawing (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the analysis report or modification drawings. **NOTE** if loading is different than what is conveyed in the analysis report or modification drawing, contact SGS Towers immediately.
- Each photo should be time and date stamped.
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Any special photos outside of the standard requirements will be indicated on the drawings.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the installation of the modification components. This may involve the installation of wire rope guides, or other items to protect the wire rope.

Photo Requirements:

- *Base and "During Installation Photos"*
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number.
    - Photo of carrier shelter showing the carrier site name and number if available.
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name.
  - "During Installation" Photos if provided – must be placed only in this folder
- *Photos taken at ground level*
  - Overall tower structure before and after installation of the modifications
  - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different RAD elevations, pictures must be provided for all elevations that the modifications were installed.
- *Photos taken at Mount Elevation*
  - Photos showing each individual sector before and after installation of modifications. Each entire sector must be in one photo to show in the inter-connection of members.

- Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses).
- Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevations needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change.
- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the safety climb wire rope above and below the mount post modification.

Antenna and equipment placement and Geometry Certification:

- The contractor must certify that the antenna and equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.

☐ The contractor certifies per photos that the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.

☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by SGS Towers.
    - Submission of specifications / invoices certifying / SGS Towers approval of an "equivalent" must be submitted to the noted email box by the PMI contractor.
- The contractor must certify that the materials meet these specifications by one of the methods below.

☐ The Material utilized was as specified on the SGS Towers Mount Modification Drawings

☐ The Material utilized was an "equivalent" and included as part of the PMI are the SGS Towers certification, invoices, or specifications validating accepted status

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Certifying Individual: Company _____

Name _____

Signature _____

Schedule A – Photo & Document File Structure

- Carrier Site Number / Name
  - Base & "During Installation" Photos
  - Pre-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Delta (If Applicable)
    - Ground Level
    - Tape Drop
  - Post-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Delta (If Applicable)
    - Ground Level
    - Tape Drop
  - Material Certification – Submission of this document including executed certification on Page 2
  - Specific Required Additional Photos
  - Required Additional Photos

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue: _____

_____

_____

Response: _____

_____

_____

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TOWARD
'O BREUNIG RD,
'IONAL BLVD, TAKE
N, AT EXIT 19A,
124, HEAD RIGHT
NTO NY-17A /
JR DESTINATION

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	CH	REV
Replacement	03/20/24			1
Zoning Addition	05/22/25			2

SITE NAME:

ST. ANTHONY COMMUNITY HOSPITAL

SITE NUMBER:

NY10253B

SITE ADDRESS:

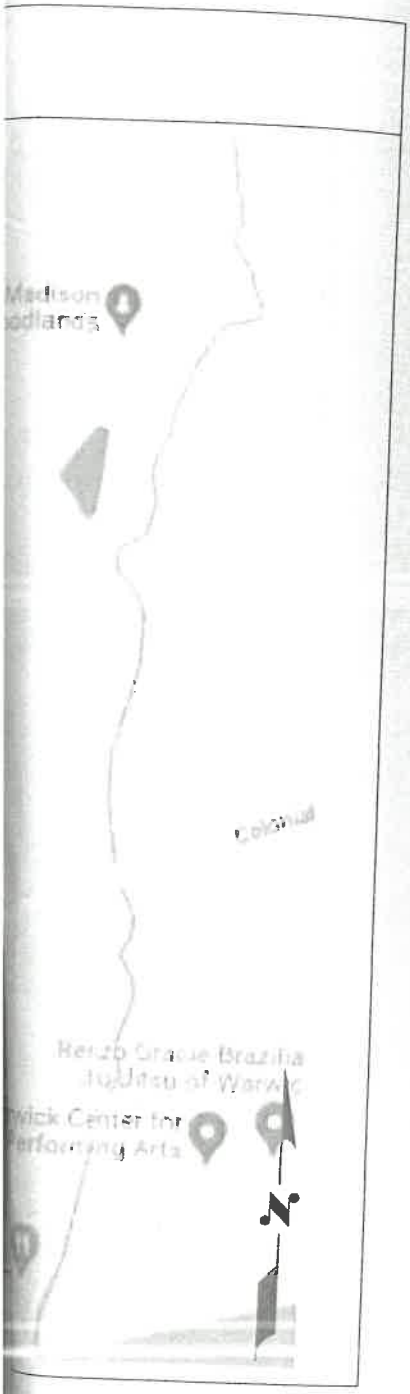
17 MAPLE AVENUE WARWICK, NY 10990

SHEET DESCRIPTION:

TITLE SHEET

SHEET NUMBER:

T-01



PLANS PREPARED FOR:

T-Mobile™

4100 GUARDIAN STREET, CUITE 101
SIMI VALLEY, CALIFORNIA 93063

OEM & PLANS PREPARED BY:

ERICSSON

6300 LEGACY DRIVE
PLANO, TX, 75024

MLA PARTNER:

ENGINEERING SEAL:

	REV.
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