

KENNETH C. BALDWIN

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Also admitted in Massachusetts  
and New York

July 25, 2023

*Via Electronic Mail*

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

Re: **Notice of Exempt Modification – Facility Modification  
Dicks Sporting Goods  
2985 Berlin Turnpike, Newington, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains an existing wireless telecommunications facility at the above-referenced property address (the “Property”). The facility consists of an antenna mast supporting a canister antenna and remote radio head (“RRH”) on the roof of the building. The facility was approved by the Siting Council in September of 2016 (Petition No. 1244). A copy of the Council’s Petition No. 1244 Staff Report is included in [Attachment 1](#).

Cellco now intends to remove the existing canister antenna and installing a new model canister antenna on the antenna mast. Cellco also intends to replace the existing RRH with two (2) new RRHs. A set of project plans showing Cellco’s proposed facility modifications and the new antenna and RRH specifications are included in [Attachment 2](#).

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Newington’s Chief Elected Official and Land Use Officer.

Melanie A. Bachman, Esq.  
July 25, 2023  
Page 2

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

1. The proposed modifications will not result in an increase in the height of the existing antenna. Cellco's new canister antenna will be installed on the existing antenna mast at the same centerline height of 31'-6" and will extend 7'6" above the building's parapet wall, six inches lower than the existing facility. The RRHs will be installed below the new antenna.

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

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

4. The installation of Cellco's new antenna will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Cellco's Far Field calculations are included in Attachment 3. The modified facility will not be capable of providing Cellco's 5G wireless service.

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

6. According to the attached Structural Analysis ("SA") and Mounts Analysis ("MA"), the existing building and pipe mounting structure have adequate capacity to support Cellco's proposed facility modifications. A copy of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 6.

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

Melanie A. Bachman, Esq.  
July 25, 2023  
Page 3

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Enclosures

Copy to:

Thomas Hutka, Newington Town Manager  
Paul Dickinson, Town Planner  
Brixmore GA Turnpike Plaza LLC, Property Owner  
Elizabeth Glidden  
Nicole O'Brien

# **ATTACHMENT 1**



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

### CERTIFIED MAIL RETURN RECEIPT REQUESTED

September 6, 2016

Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103-3597

RE: **PETITION NO. 1244** - Cellco Partnership d/b/a Verizon Wireless petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation of a small cell wireless telecommunications facility on the roof of an existing commercial building located at 2985-3017 Berlin Turnpike, Newington, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on September 1, 2016, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need with the following conditions:

1. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel;
2. Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes;
3. Approval of any minor project changes be delegated to Council staff;
4. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
5. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of Newington;
6. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

7. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by the Petitioner shall be removed within 60 days of the date the antenna ceased to function;
8. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;
9. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
10. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated July 1, 2016.

Enclosed for your information is a copy of the staff report on this project.

Very truly yours,



Robert Stein  
Chairman

RS/RDM/lm

Enclosure: Staff Report dated September 1, 2016

c: The Honorable Roy Zartarian, Mayor, Town of Newington  
Tanya Lane, Town Manager, Town of Newington  
Craig Minor, Town Planner, Town of Newington  
Brixmore GA Turnpike Plaza LLC



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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[www.ct.gov/csc](http://www.ct.gov/csc)

### Petition No. 1244

### Cellco Partnership d/b/a Verizon Wireless

2985-3017 Berlin Turnpike, Newington

Small Cell Facility

Staff Report

September 1, 2016

On July 1, 2016, the Connecticut Siting Council (Council) received a petition from Cellco Partnership d/b/a Verizon Wireless (Cellco) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation of a small cell telecommunications facility at 2985-3017 Berlin Turnpike, Newington, Connecticut. The small cell would provide 2100 MHz LTE wireless service to surrounding commercial and residential areas.

The proposed small cell facility would consist of a canister antenna mounted on a ballast sled placed on the rear portion of the roof of a 25-foot tall commercial building. The ballast sled contains a mounting pole and support arms attached to weighted ballasts. A remote radio head would be installed on the mounting pole below the canister antenna. The mounting pole and canister antenna would extend approximately 8.75 feet above the roof of the building. The commercial building is located on a 16.3-acre parcel, zoned Planned Development, and currently houses Dick's Sporting Goods and Price Chopper Supermarket.

Cellco's associated radio cabinet would be installed on a six-foot by six-foot concrete pad on the west side of the building, at the rear of the Dick's Sporting Goods store. A cable tray would be installed on the exterior wall of the building to connect the antenna to the radio cabinet. An eight-foot tall chain link fence would enclose the ground equipment. Electrical and telephone service would extend to the radio equipment from an existing pole on the subject property.

The maximum worst-case power density would be 3.3 percent of the applicable Federal Communications Commission limit using a -10 dB off beam adjustment. Notice is not required to the Federal Aviation Administration.

The visual effect of the proposed installation is minimal due to the site's location in a heavily developed commercial area and the small size of the proposed facility.

Notice was provided to the Town of Newington, the property owner, and abutting property owners on or about July 1, 2016. The Council has not received any comments regarding the proposed installation to date.

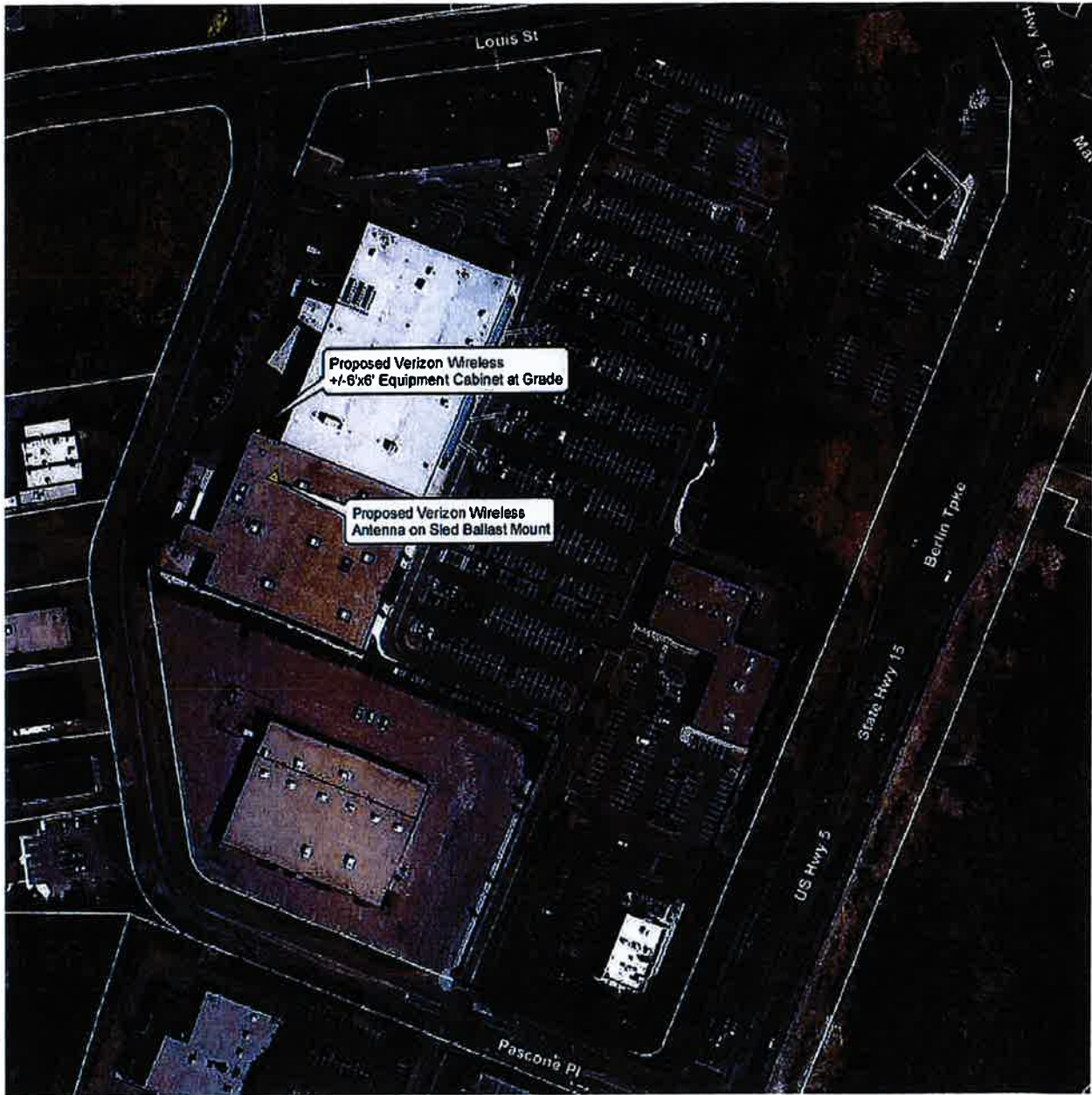
Cellco contends that this proposed project would not have a substantial adverse environmental impact.

Staff recommends the following conditions:

1. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel;
2. Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes; and
3. Approval of any minor project changes be delegated to Council staff.



Site Location - 2985-3017 Berlin Turnpike, Newington





# **ATTACHMENT 2**

SITE NAME:  
NEWINGTON\_SC\_4\_CT

LOCATION CODE:  
467293

SITE ADDRESS:  
2985 BERLIN TURNPIKE  
NEWINGTON, CT 06111



APPROX. NORTH

① KEY PLAN  
SCALE: 1" = 50'



	LATITUDE (NAD83)	LONGITUDE (NAD83)
POLE COORDINATES	N 41.6686527° ±	W 72.721855° ±
	N 41° 40' 07.15"	W 72° 43' 18.68"
GROUND ELEVATION	116' ± A.M.S.L. (NAVD88)	

SHEET INDEX	
SHEET NO.	SHEET DESCRIPTION
LE-1	KEY PLAN
LE-2	ROOFTOP PLAN
LE-3	BUILDING ELEVATION
LE-4	ANTENNA PLAN, MOUNTING DETAILS & EQUIPMENT SPECS
LE-5	ANTENNA & ANCILLARY EQUIPMENT SPECIFICATION

LEASE EXHIBIT  
(NOT FOR CONSTRUCTION)

PREPARED BY:



PRESIDING POWER COMPANY:



PROFESSIONAL STAMP:



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SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	01/25/23	FOR REVIEW	AA
1	03/30/23	REVISED PER COMMENTS	AA
2	07/19/23	REVISED PER COMMENTS	AA

SITE INFO:

SITE NAME:  
NEWINGTON\_SC\_4\_CT

SITE ADDRESS:

2985 BERLIN TURNPIKE  
NEWINGTON, CT 06111

CHECKED BY:

KB

DATE:

07/19/23

PROJECT NUMBER:

20232411823

SHEET NUMBER:

LE-1

BUILDING STRUCTURAL ANALYSIS REPORT PREPARED BY MASTEC  
 BUILDING STRUCTURAL ANALYSIS REPORT, PREPARED BY MASTEC, ENTITLED  
 STRUCTURAL ANALYSIS REPORT, DATED JULY 19, 2023, STATES THAT THE  
 EXISTING BUILDING IS ADEQUATE FOR THE EXISTING AND PROPOSED LOADING.

MOUNT STRUCTURAL ANALYSIS PREPARED BY MASTEC  
 STRUCTURAL ANALYSIS PREPARED BY MASTEC, ENTITLED MOUNT STRUCTURAL  
 ANALYSIS REPORT, DATED JULY 19, 2023, STATES THAT THE EXISTING MOUNTS  
 ARE ADEQUATE FOR THE EXISTING AND PROPOSED LOADING.

THE MOUNT SHALL BE PLACED  
 (CENTERED) DIRECTLY ABOVE THE  
 MAIN ROOF JOIST OR BEAM ON  
 THE ROOF. CONTRACTOR TO  
 VERIFY THE LOCATION OF THE  
 MOUNT. RELOCATE AS NEEDED

EXISTING ROOF  
 HATCH (TYP.)  
 EXISTING VERIZON WIRELESS  
 POWER, TELCO, AND  
 GROUNDING CONDUITS  
 ROUTED ON PVC SLEEPERS

EXISTING HVAC  
 UNIT (TYP.)

PROPOSED POWER & TELCO  
 CONDUITS ADJACENT TO EXISTING



1 ROOFTOP PLAN  
 SCALE: 1/32" = 1'-0"

GRAPHIC SCALE: 1/32" = 1'-0"

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REV	DATE	DESCRIPTION	BY
0	01/28/23	FOR REVIEW	AA
1	03/20/23	REVISED PER COMMENTS	AA
2	07/18/23	REVISED PER COMMENTS	AA

SITE INFO:

SITE NAME:  
 NEWINGTON\_SC\_4\_CT

SITE ADDRESS:  
 2985 BERLIN TURNPIKE  
 NEWINGTON, CT 06111

CHECKED BY: **KB** DATE: **07/19/23**

PROJECT NUMBER:  
 20232411823

SHEET NUMBER:  
**LE-2**

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SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	01/25/23	FOR REVIEW	AA
1	03/20/23	REVISED PER COMMENTS	AA
2	07/18/23	REVISED PER COMMENTS	AA

SITE INFO:

SITE NAME:  
NEWINGTON\_SC\_4\_CT

SITE ADDRESS:

2985 BERLIN TURNPIKE  
NEWINGTON, CT 06111

CHECKED BY:

KB

DATE:

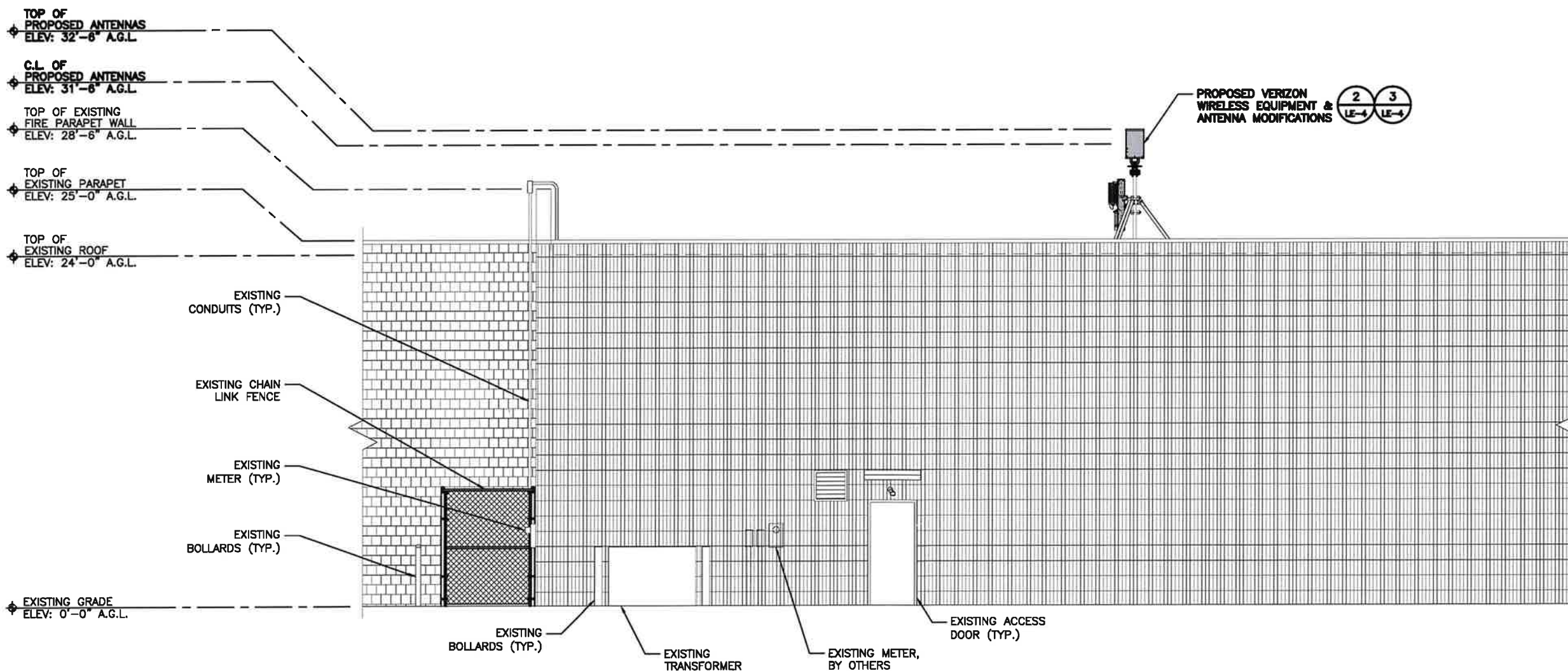
07/19/23

PROJECT NUMBER:

20232411823

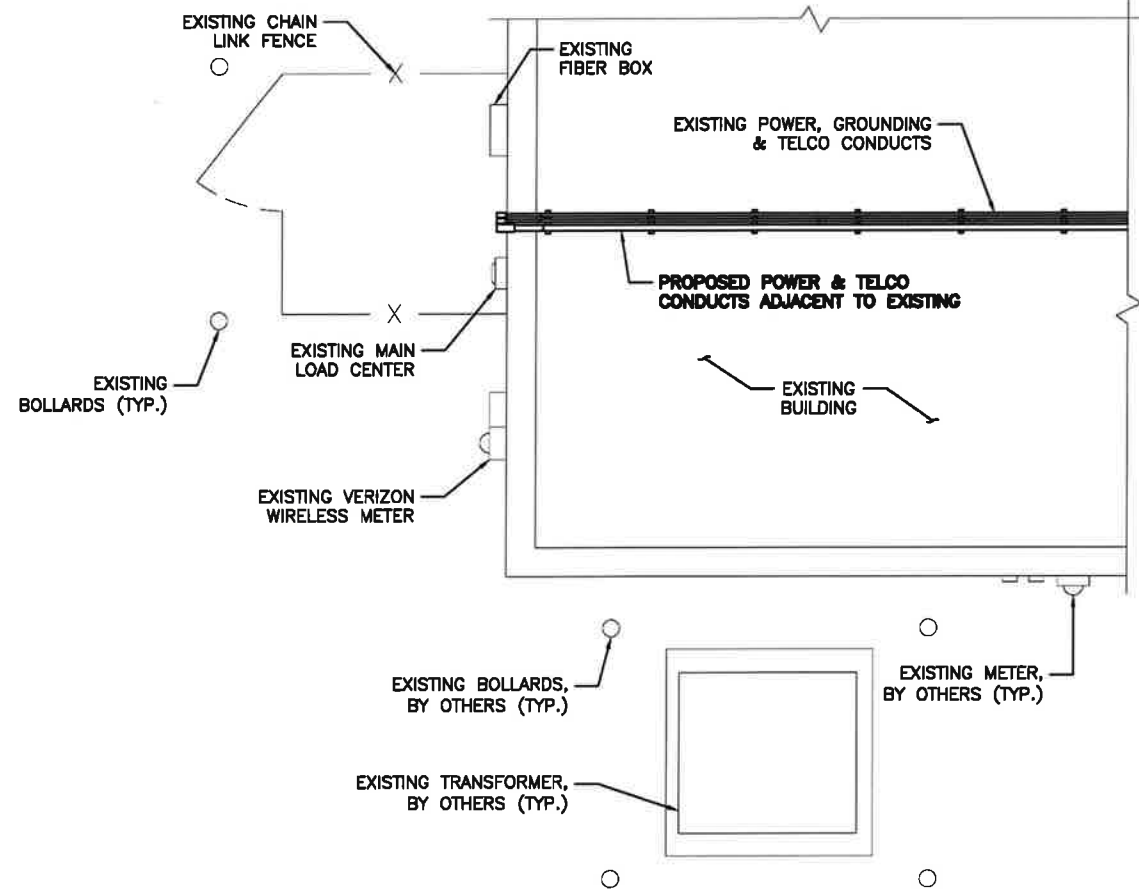
SHEET NUMBER:

LE-3

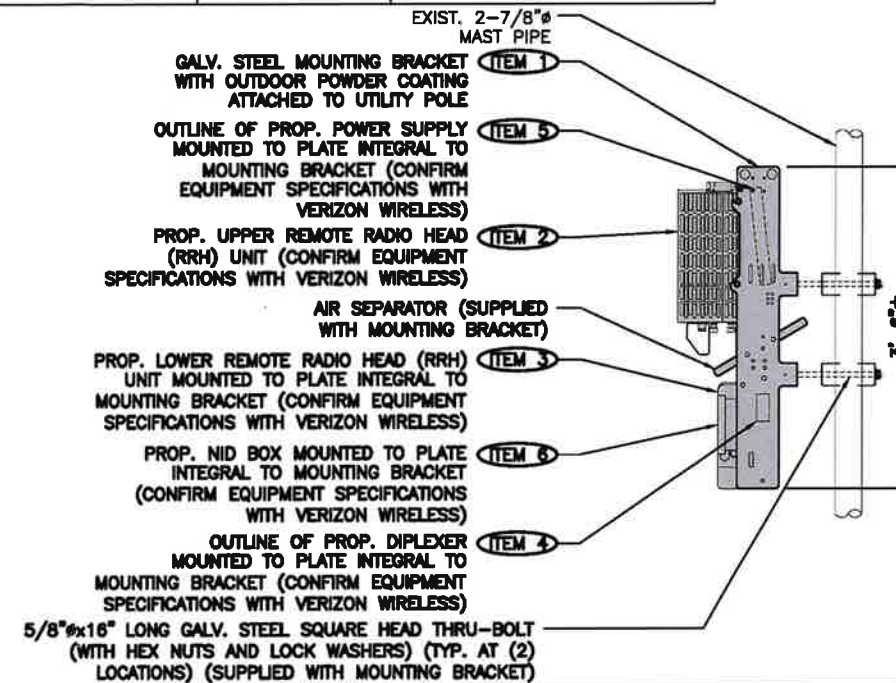


① BUILDING ELEVATION  
SCALE: 1/8" = 1'-0"



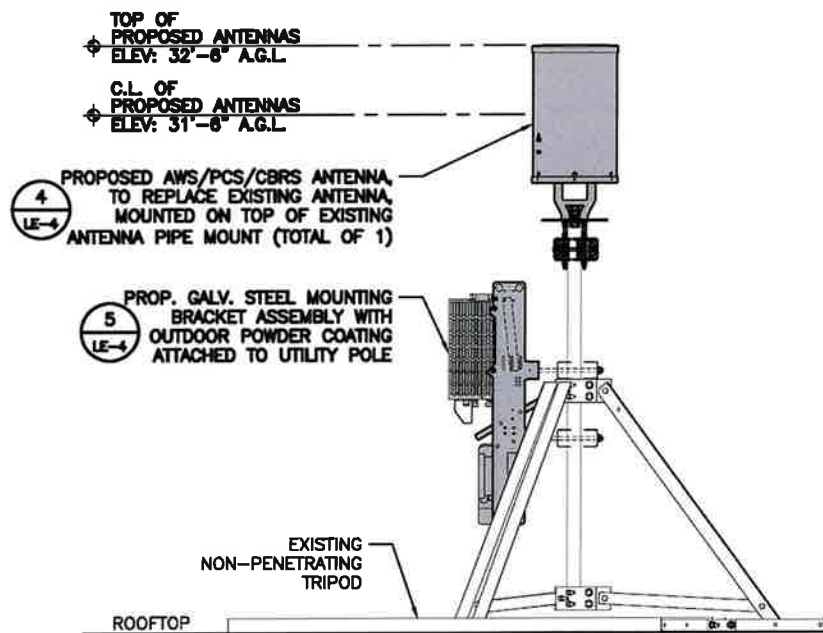


ITEM ID (SEE DETAIL)	DESCRIPTION	WEIGHT (lbs)
1	MOUNTING BRACKET	32.2±
2	UPPER RRH UNIT	102.5±
3	LOWER RRH UNIT	21.4±
4	DIPLEXER	7.6±
5	POWER SUPPLY	25.6±
6	NID BOX	-
TOTAL		189.3± (lbs) (SAY 190 lbs)

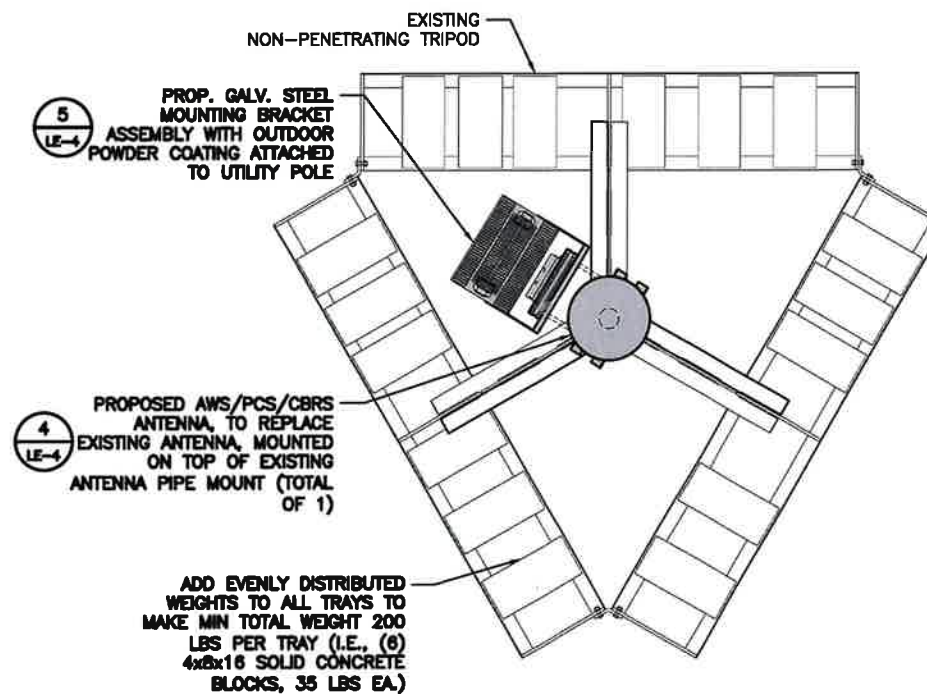


① **EQUIPMENT PLAN**  
SCALE: N.T.S.  
APPROX. NORTH

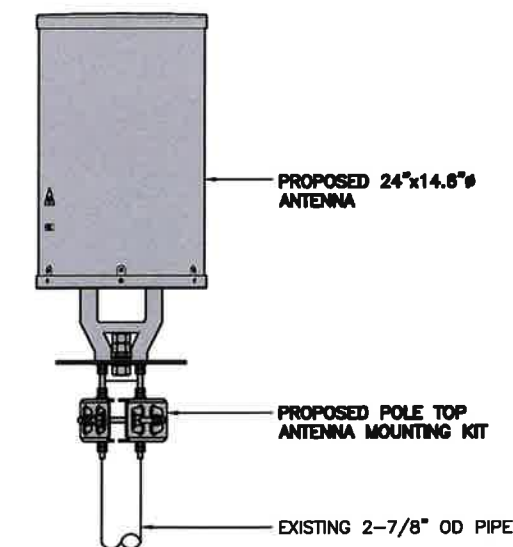
⑤ **ANCILLARY EQUIPMENT MOUNTING BRACKET MOUNT DETAIL**  
SCALE: N.T.S.



② **ANTENNA MOUNT ELEVATION**  
SCALE: N.T.S.



③ **ANTENNA PLAN**  
SCALE: N.T.S.



④ **ANTENNA DETAIL**  
SCALE: N.T.S.

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(NOT FOR CONSTRUCTION)

PREPARED BY:

**MasTec**  
Network Solutions

PRESIDING POWER COMPANY:

**EVERSOURCE**

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SITE INFO:

SITE NAME:  
**NEWINGTON\_SC\_4\_CT**

SITE ADDRESS:

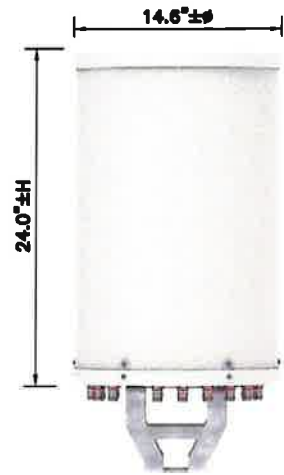
**2985 BERLIN TURNPIKE  
NEWINGTON, CT 06111**

CHECKED BY: **KB** DATE: **07/19/23**

PROJECT NUMBER:  
**20232411823**

SHEET NUMBER:

**LE-4**



SMALL CELL "ANTENNA"	
DIMENSIONS	24"±H x 14.6"±H
WEIGHT	31.9± LBS
QUANTITY	TOTAL OF 1

1 TYPICAL "ANTENNA" SPECIFICATIONS  
SCALE: N.T.S.



RRH SPECIFICATIONS	
DIMENSIONS	17.3"±H x 17.3"±W X 11.5"±D
WEIGHT	102.5± LBS
QUANTITY	TOTAL OF 1



RRH SPECIFICATIONS	
DIMENSIONS	13.9"±H x 9.8"±W X 4.8"±D
WEIGHT	21.4± LBS
QUANTITY	TOTAL OF 1

2 TYPICAL REMOTE RADIO HEAD (RRH) UNIT DIMENSIONS  
SCALE: N.T.S.



DIPLEXER	
DIMENSIONS	4.8"±H x 7.9"±W X 3.3"±D
WEIGHT	7.6± LBS
QUANTITY	TOTAL OF 1



NID BOX	
DIMENSIONS	7.7"±H x 7.7"±W X 4.2"±D
WEIGHT	N/A
QUANTITY	TOTAL OF 1

3 TYPICAL DIPLEXER DIMENSIONS  
SCALE: N.T.S.

4 TYPICAL NID BOX DIMENSIONS  
SCALE: N.T.S.

LEASE EXHIBIT  
(NOT FOR CONSTRUCTION)

PREPARED BY:  
**MasTec**  
Network Solutions

PRESIDING POWER COMPANY:  
**EVERSOURCE**

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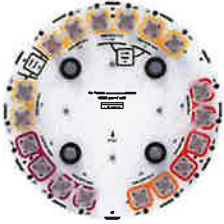
SITE INFO:  
SITE NAME:  
**NEWINGTON\_SC\_4\_CT**  
SITE ADDRESS:  
**2985 BERLIN TURNPIKE  
NEWINGTON, CT 06111**

CHECKED BY: **KB** DATE: **07/19/23**

PROJECT NUMBER:  
**20232411823**

SHEET NUMBER:  
**LE-5**

# NNV4SSP-360S-F2



18-port small cell antenna, 4x 698-896, 8x 1695-2690, 4x 3300- 4200 and 2x 5150-5925 MHz, 360° Horizontal Beamwidth, fixed tilt.

## General Specifications

<b>Antenna Type</b>	Omni
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	ASA
<b>Radiator Material</b>	Aluminum   Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	6
<b>RF Connector Quantity, mid band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	18

## Dimensions

<b>Length</b>	610 mm   24.016 in
<b>Net Weight, without mounting kit</b>	14.5 kg   31.967 lb
<b>Outer Diameter</b>	370 mm   14.567 in

## 5 GHz Port Power Table

# NNV4SSP-360S-F2

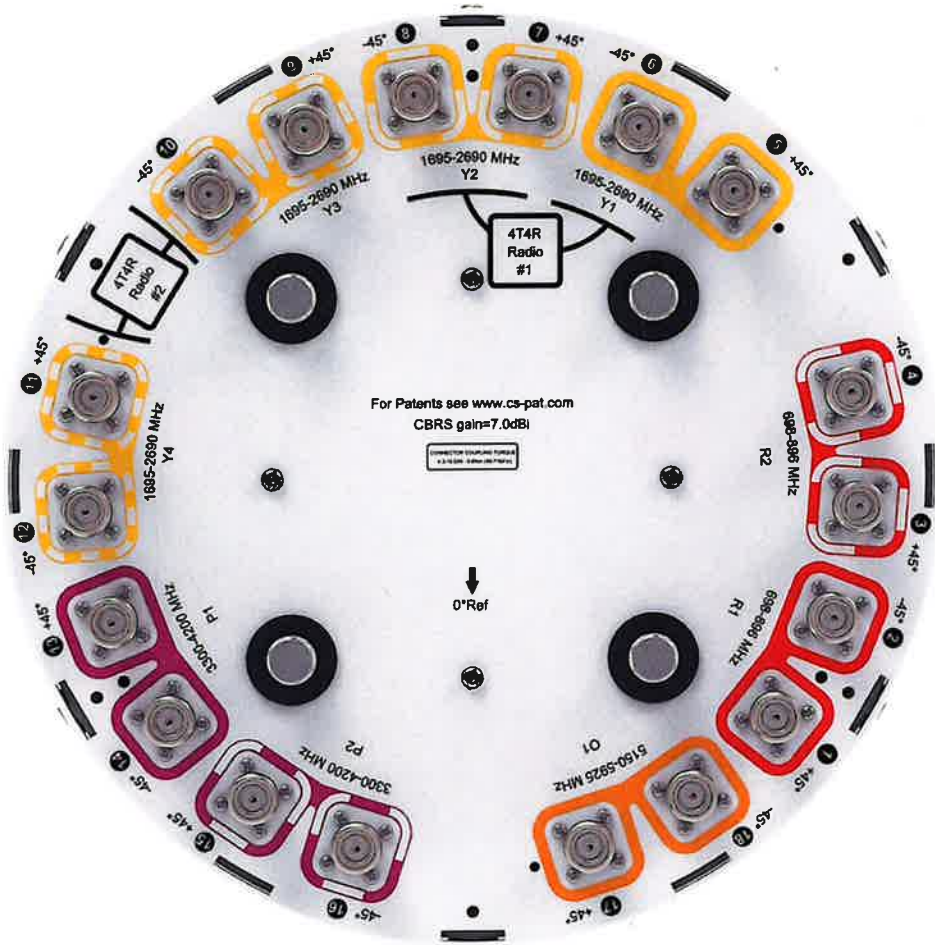
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5 GHz FCC Power Requirements				
U-NII Band	U-NII 1	U-NII 2A	U-NII 2C	U-NII 3
Frequency (MHz)	5150 - 5250	5250 - 5350	5470 - 5725	5725 - 5850
Max Input power per port to align with FCC Title 47 Part 15 (Watts)	0.5	0.125	0.125	0.5

## Port Configuration



# NNV4SSP-360S-F2



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   3300 – 4200 MHz   5150 – 5925 MHz   698 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1920	1920–2180	2300–2360	2360–2690	3300–3550	3550–3700	3700–4200	5150–5925
<b>Gain, dBi</b>	5	5.2	7.7	8	8.7	9	6.7	6.7	6.7	3.9
<b>Beamwidth, Horizontal, degrees</b>	360	360	360	360	360	360	360	360	360	360

# NNV4SSP-360S-F2

<b>Beamwidth, Vertical, degrees</b>	45.9	48.8	23.1	19.2	17.3	15.5	34.5	33.8	28.6	23.3
<b>Beam Tilt, degrees</b>	2	2	2	2	2	2	0	0	0	0
<b>USLS (First Lobe), dB</b>	12	12	10	11	11	11	10	10	10	
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	25	25	25	25
<b>VSWR   Return loss, dB</b>	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153	-145	-145	-145	
<b>Input Power per Port, maximum, watts</b>	150	150	150	150	150	150	125	125	125	10
<b>Input Power per Port at 50°C, maximum, watts</b>	100	100	100	100	100	100	75	75	75	5

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>698–806 806–896 1695–1920 1920–2180 2300–2360 2360–2690 3300–3550 3550–3700 3700–4200 5150–5925</b>									
<b>Gain by all Beam Tilts, average, dBi</b>	4.6	4.6	7.1	7.6	8.1	8.4	6.4	6.5	6.3	3.4
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.6	±0.4	±1	±0.7	±1.2	±0.5	±0.4	±0.4	±1	±1
<b>Beamwidth, Vertical Tolerance, degrees</b>	±4.3	±6	±3.3	±2.4	±1.7	±0.9	±5.3	±3.2	±8.4	±3.6

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	129.0 N @ 150 km/h (29.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	129.0 N @ 150 km/h (29.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	129.0 N @ 150 km/h (29.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	129.0 N @ 150 km/h (29.0 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241.402 km/h   150 mph

# NNV4SSP-360S-F2

---

## Packaging and Weights

<b>Width, packed</b>	478 mm   18.819 in
<b>Depth, packed</b>	464 mm   18.268 in
<b>Length, packed</b>	894 mm   35.197 in
<b>Weight, gross</b>	19.2 kg   42.329 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
-------------------------	---

# SAMSUNG

## AWS/PCS MACRO RADIO

### DUAL-BAND AND HIGH POWER FOR MACRO COVERAGE

Samsung's future proof dual-band radio is designed to help effectively increase the coverage areas in wireless networks. This AWS/PCS 4T4R dual-band radio has 4Tx/4Rx to 2Tx/2Rx RF chains options and a total output power of 320W, making it ideal for macro sites.

**Model Code**    RF4439d-25A



Homepage  
[samsungnetworks.com](http://samsungnetworks.com)

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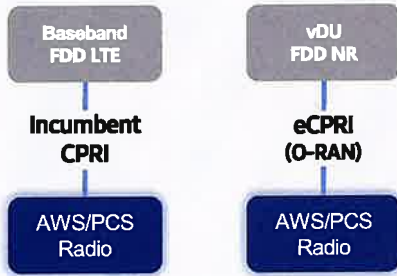


Youtube  
[www.youtube.com/samsung5g](http://www.youtube.com/samsung5g)

# Points of Differentiation

## Continuous Migration

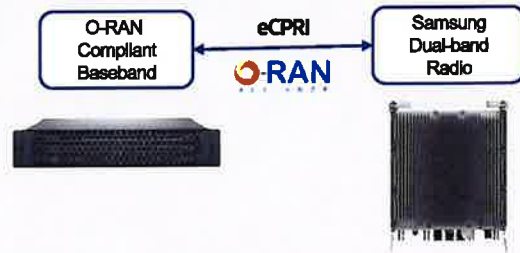
Samsung's AWS/PCS macro radio can support each incumbent CPRI interface as well as advanced eCPRI interfaces. This feature provides installable options for both legacy LTE networks and added NR networks.



## O-RAN Compliant

A standardized O-RAN radio can help in implementing cost-effective networks, which are capable of sending more data without compromising additional investments.

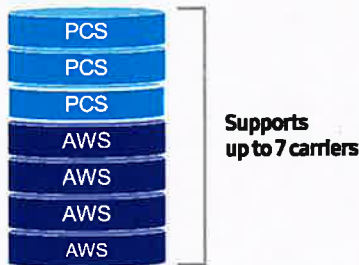
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



## Optimum Spectrum Utilization

The number of required carriers varies according to site (region). Supporting many carriers is essential for using all frequencies that the operator has available.

The new AWS/PCS dual-band radio can support up to 3 carriers in the PCS (1.9GHz) band and 4 carriers in the AWS (2.1GHz) band, respectively.



## Brand New Features in a Compact Size

Samsung's AWS/PCS macro radio offers several features, such as dual connectivity for baseband for both CDU and vDU, O-RAN capability, more carriers and an enlarged PCS spectrum, combined into an incumbent radio volume of 36.8L.



# Technical Specifications

Item	Specification
Tech	LTE/NR
Brand	B25(PCS), B66(AWS)
Frequency Band	DL: 1930 – 1995MHz, UL: 1850 – 1915MHz DL: 2110 – 2200MHz, UL: 1710 – 1780MHz
RF Power	(B25) 4 × 40W or 2 × 60W (B66) 4 × 60W or 2 × 80W
IBW/OBW	(B25) 65MHz / 30MHz (B66) DL 90MHz, UL 70MHz / 60MHz
Installation	Pole, Wall
Size/Weight	14.96 x 14.96 x 10.04inch (36.8L) / 74.7lb

# Specifications

The table below outlines the main specifications of the RRH.

**Table 1. Specifications**

Item	RT4401-48A
Air Technology	LTE
Band	Band 48 (3.5 GHz)
Operating Frequency (MHz)	3550 to 3700
RF Chain	4TX/4RX
Input Power	-48 V DC (-38 to -57 V DC, 1 SKU), with clip-on AC-DC converter (Option)
Dimension (W × D × H) (mm)	8.55 in. (217.4) × 4.15 in. (105.5) × 13.91 in. (353.5) * RRH only 11.39 in. (289.4) × 5.45 in. (138.5) × 16.16 in. (410.5) * with Clip-on antenna, AC-DC power unit
Cooling	Natural convection
Unwanted Emission	3GPP 36.104 Category A [B48]: FCC 47 CFR 96.41 e)
Spectrum Analyzer	TX/RX Support
Antenna Type	Integrated (Clip-on) antenna (Option), External antenna (Option)
Operating Humidity	5 to 100 [%] (RH), condensing, not to exceed 30 g/m <sup>3</sup> absolute humidity
Altitude	-60 to 1,800 m
Earthquake	Telcordia Earthquake Risk Zone4 (Telcordia GR-63-CORE)
Vibration in Use Transportation Vibration	Office Vibration Transportation Vibration
Noise	Fanless (natural convection cooling)
Wind Resistance	Telcordia GR-487-CORE, Section 3.34
EMC	FCC Title 47, CFR Part 96
Safety	UL 60950-1 2nd ED

---

Item	RT4401-48A
	UL 62368-1 UL 60950-22
RF	FCC Title 47, CFR Part 96

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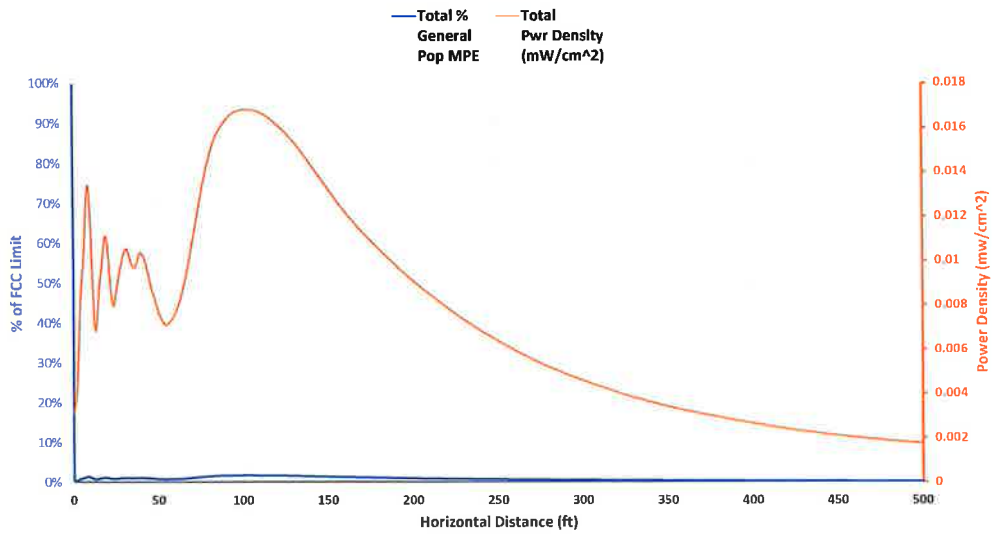
The table below outlines the AC/DC power unit specifications of the RRH system.

# **ATTACHMENT 3**



NEWINGTON SC 4 CT			
Location	NEWINGTON SC 4 CT		
Date	7/3/2023		
Band	CBRS	AWS	PCS
Operating Frequency (MHz)	3,550	2,145	1,970
General Population MPE (mW/cm <sup>2</sup> )	1	1	1
ERP Per Transmitter (Watts)	50	238	183
Number of Transmitters	4	4	4
Antenna Centerline (feet)	31.5	31.5	31.5
Total ERP (Watts)	200	952	732
Total ERP (dBm)	53	60	59
Maximum % of General Population Limit	1.7%		

### RF Exposure 6ft Above Ground Level Far Field Formula (per FCC OET65)



Angle Below Horizon	Power Density (mW/cm <sup>2</sup> )			Percent of General Population MPE									Distance	Total Pwr Density (mW/cm <sup>2</sup> )	Total % General Pop MPE
	CBRS	AWS	PCS	19GHz	28GHz	C-Band	CBRS	AWS	PCS	Cellular	CDMA	700 MHz			
90	0.00011061	0.001703729	0.00125105	0.00%	0.00%	0.00%	0.01%	0.17%	0.13%	0.00%	0.00%	0.00%	0	0.003065388	0.31%
89	8.19712E-05	0.001911033	0.001250669	0.00%	0.00%	0.00%	0.01%	0.19%	0.13%	0.00%	0.00%	0.00%	0.445104156	0.003243673	0.32%
88	0.000152498	0.002093491	0.001221083	0.00%	0.00%	0.00%	0.02%	0.21%	0.12%	0.00%	0.00%	0.00%	0.890479622	0.003467072	0.35%
87	0.000187328	0.0022398	0.001276684	0.00%	0.00%	0.00%	0.02%	0.22%	0.13%	0.00%	0.00%	0.00%	1.336398372	0.003703812	0.37%
86	0.000135418	0.002340356	0.001567314	0.00%	0.00%	0.00%	0.01%	0.23%	0.16%	0.00%	0.00%	0.00%	1.783133705	0.004043088	0.40%
85	6.46371E-05	0.0023883	0.002108449	0.00%	0.00%	0.00%	0.01%	0.24%	0.21%	0.00%	0.00%	0.00%	2.23096092	0.004561386	0.46%
84	4.3534E-05	0.00243573	0.002900703	0.00%	0.00%	0.00%	0.00%	0.24%	0.29%	0.00%	0.00%	0.00%	2.680157999	0.005379986	0.54%
83	7.53867E-05	0.002540398	0.003721997	0.00%	0.00%	0.00%	0.01%	0.25%	0.37%	0.00%	0.00%	0.00%	3.131006303	0.006337782	0.63%
82	0.000121702	0.002647927	0.004454307	0.00%	0.00%	0.00%	0.01%	0.26%	0.45%	0.00%	0.00%	0.00%	3.583791285	0.007223936	0.72%
81	0.000171015	0.002888287	0.005087617	0.00%	0.00%	0.00%	0.02%	0.29%	0.51%	0.00%	0.00%	0.00%	4.038803228	0.008146918	0.81%
80	0.000240158	0.003148497	0.00529636	0.00%	0.00%	0.00%	0.02%	0.31%	0.53%	0.00%	0.00%	0.00%	4.496338008	0.008685015	0.87%
79	0.000329372	0.003509891	0.005384777	0.00%	0.00%	0.00%	0.03%	0.35%	0.54%	0.00%	0.00%	0.00%	4.956697883	0.009224039	0.92%
78	0.000461958	0.003821283	0.00534667	0.00%	0.00%	0.00%	0.05%	0.38%	0.53%	0.00%	0.00%	0.00%	5.420192323	0.00962991	0.96%
77	0.00061836	0.004157653	0.005305452	0.00%	0.00%	0.00%	0.06%	0.42%	0.53%	0.00%	0.00%	0.00%	5.887138874	0.010081466	1.01%
76	0.000846451	0.004417827	0.005383724	0.00%	0.00%	0.00%	0.08%	0.44%	0.54%	0.00%	0.00%	0.00%	6.357864073	0.010648001	1.06%
75	0.001131569	0.004691244	0.005586787	0.00%	0.00%	0.00%	0.11%	0.47%	0.56%	0.00%	0.00%	0.00%	6.832704407	0.0114096	1.14%
74	0.001477327	0.004754268	0.005928678	0.00%	0.00%	0.00%	0.15%	0.48%	0.59%	0.00%	0.00%	0.00%	7.312007337	0.012160273	1.22%
73	0.001798813	0.004598255	0.006433795	0.00%	0.00%	0.00%	0.18%	0.46%	0.64%	0.00%	0.00%	0.00%	7.796132377	0.012830863	1.28%



# **ATTACHMENT 4**



# Structural Analysis Report

**Property Owner** NA  
**Structural Type** 24 ft Building  
**Site Address** 2985 Berlin Turnpike, Newington  
CT 06111  
**Latitude** 41.669022  
**Longitude** -72.721272

**Client** Verizon Wireless  
*118 Flanders Road, 3rd Floor  
Westborough, MA 01581*  
**Site Type** Macro  
**Site ID** 324802  
**Site Name** NEWINGTON SC 4 CT Rev.1  
**Location Code** 467293

**Prepared by** MasTec Network Solutions  
1151 SE Cary Pkwy Suite 101  
Cary, NC 27518  
**Job/Task Number** VZW467190A01-NX062  
**Email** MNS.Engineering@mastec.com  
**Phone** (919) 674-5895  
**Rev** 1  
**Date** 07/19/2023  
**Rooftop Capacity** 45.6%  
**Result** Adequate

**Dear Sir / Madam:**

MasTec Network Solutions is pleased to submit this **Report** to determine the structural integrity of the referred structure.

Referenced documents used for this analysis are listed in the section DOCUMENTS & REFERENCES. This analysis has been performed in compliance with the:

- *2022 Building Code of the State of Connecticut (2021 IBC w/ State Amendment)*
- *ANSI/TIA-222-H w/ Addendums, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.*

Detailed design parameters are listed in Table 1. Analysis loading is detailed in Table 2.

Based on our analysis we have determined the following result:

**Existing Building**

45.6%

**Adequate**

MasTec Network Solutions appreciates the opportunity of providing continued engineering services. Should you have any questions, comments or require additional information, please do not hesitate to contact us.

Sincerely,

Analysis Prepared by:

Fernando Palacios

Analysis Reviewed by:

Raphael Mohamed, PE,  
Peng Senior Director of  
Engineering  
CT PE License No. 25112

Digitally signed by Raphael Mohamed, PE, PENG  
DN, C=US,  
E=raphael.mohamed@masotec.com,  
O=MasTec Network Solutions,  
OU=MasTec Engineering,  
CN=Raphael Mohamed, PE,  
PENG\*  
Date: 2023.07.19 14:28:50 -0400



## DOCUMENTS & REFERENCES

- Construction Drawings, Location Code: 467293, Verizon Site Name: NEWINGTON SC 4 CT Rev.1, by Nexius, dated 01/25/2023.
- RFDS, Location Code: 467293, Verizon Site Name: NEWINGTON SC 4 CT Rev.1, by Verizon, dated 12/08/2022.
- Mount Analysis, Location Code: 467293, Verizon Site Name: NEWINGTON SC 4 CT Rev.1, by Mastec, dated 07/19/2023.
- Site Visit Photos and Notes, Location Code: 467293, Verizon Site Name: NEWINGTON SC 4 CT Rev.1, by Nexius, dated 01/23/2023.

## DESIGN STANDARDS & PARAMETERS

**TABLE 1 – STANDARDS & DESIGN PARAMETERS**

Codes and Standards	
Building Code	2022 State Building Code of Connecticut (2021 IBC w/ State Amendment)
TIA Standard	ANSI/TIA-222-H w/ Addendums
Wind Parameters	
Ultimate Wind Speed (3-Sec)	118 mph
Basic Wind Speed with Ice	50 mph
Radial Ice Thickness	1.5 in
Exposure Category	C
Structure Class	II
Topographic Category	1
Seismic Design Parameters *	
$S_s$	0.197
$S_1$	0.055

## RESULTS & RECOMMENDATIONS

The change in vertical and lateral loading due to proposed installation is minimal when compared to existing structure's overall capacity. It is assumed that tripod mount is installed on the existing structure properly and causes no damage deteriorating the structural condition. It is assumed that the existing building and its roof are originally designed and maintained properly according to codes and standards and there are no damages and deflects. Based on our analysis, the **existing building** is determined to be **ADEQUATE** to support the proposed and existing loading.

It is required that all structural components and connections should be checked for tightness and good condition prior to installing the proposed structure and equipment. If the site conditions are different or do not meet requirements, the analysis result would not be valid and Mastec should be notified for re-evaluation.

LOADING

TABLE 2 – LOADING

Mount Elev. ft	Ant. Ctr. Elev. ft	Qty	Description	Carrier	Mount Type	Status
24	31.5	1	COMMSCOPE NNV 4SSP-360S-F2	Verizon Wireless	Existing Rooftop Tripod TRPD-HD	<b>Proposed</b>
		1	COMMSCOPE SDX1926Q-43			
		1	SAMSUNG B2/B66A RRH ORAN (RF4439d-25A)			
		1	SAMSUNG CBRS RRH-RT4401-48A			
		1	Delta Rectifier			Existing
		1	ANDREW NH36QS-DG-F0M			Existing to be Removed
		1	NOKIA UHIC B4 RRH 2x60-4R			

## Standard Conditions for Providing Structural Consulting Services on Existing Structures

1. Mounting hardware is analyzed to the best of our ability using all information that is provided or can be obtained during fieldwork (if authorized by client). If the existing conditions are not as we have represented in this analysis, we should be contacted to evaluate the significance of the deviation and revise the assessment accordingly.
2. The structural analysis has been performed assuming that the hardware is in “like new” condition. No allowance was made for excessive corrosion, damaged or missing structural members, loose bolts, misaligned parts, or any reduction in strength due to the age or fatigue of the product.
3. The structural analysis provided is an assessment of the primary load carrying capacity of the hardware. We provided a limited scope of service. In some cases, we cannot verify the capacity of every weld, plate, connection detail, etc. In some cases, structural fabrication details are unknown at the time of our analysis, and the detailed field measurement of some of the required details may not be possible. In instances where we cannot perform connection capacity calculations, it is assumed that the existing manufactured connections develop the full capacity of the primary members being connected.
4. We cannot be held responsible for mounting hardware that is installed improperly or hardware that is loose or has a tendency of working loose over the lifetime of the mounting hardware. Our analysis has been performed assuming fully tightened connections, and proper installation and symmetry of the mounting hardware per manufacturer’s instructions.
5. The structural analysis has been performed using information currently provided by the client and potentially field verified. We have been provided with a mounting arrangement for all telecommunications equipment, including antennas RRH’s, TMA’s, RRU’s, diplexers, surge protection devices, etc. Our analysis has been based upon a particular mounting arrangement. We are not responsible for deviations in the mounting arrangements that may occur over time. If deviations in equipment type or mounting arrangements are proposed, then we should be contacted to revise the recommendations of this structural report.
6. We cannot be held responsible for temporary and unbalanced loads on mounting hardware. Our analysis is based on a particular mounting arrangement or as-built field condition. We are not responsible for the methods and means of how the mounting arrangement is accomplished by the contractor. These methods and means may include rigging of equipment or hardware to lift and locate, temporary hanging of equipment in locations other than the final arrangement, movement and tie off of tower riggers, personnel, and their equipment, etc.
7. Steel grade and strength is unknown and cannot be field tested. We cannot be held responsible for equipment manufactured from inferior steel or bolts. Our analysis assumes that standard structural grade steel has been used by the equipment manufacturer for all assembled parts of the mounting apparatus. Acceptable steels and connection components are specified by the American Institute of Steel Construction. It is assumed all welded connections are performed in the shop under the latest American Welding Society Code. No field welds are permitted or assumed for the existing pre-manufactured equipment. In case no accurate info available, following material assumptions were used:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
HSS (Round)	ASTM 500 (GR B-42)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325
U-Bolts	SAE 429 Gr.2



## **Appendix #1: Loading Parameters and Calculations**

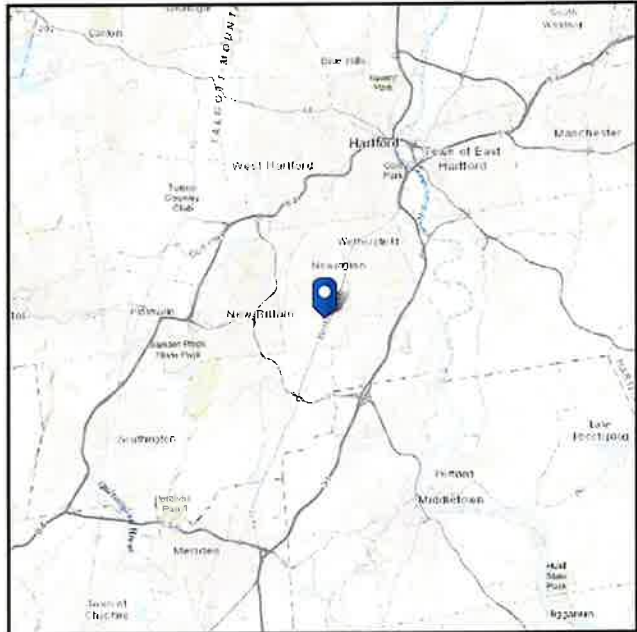
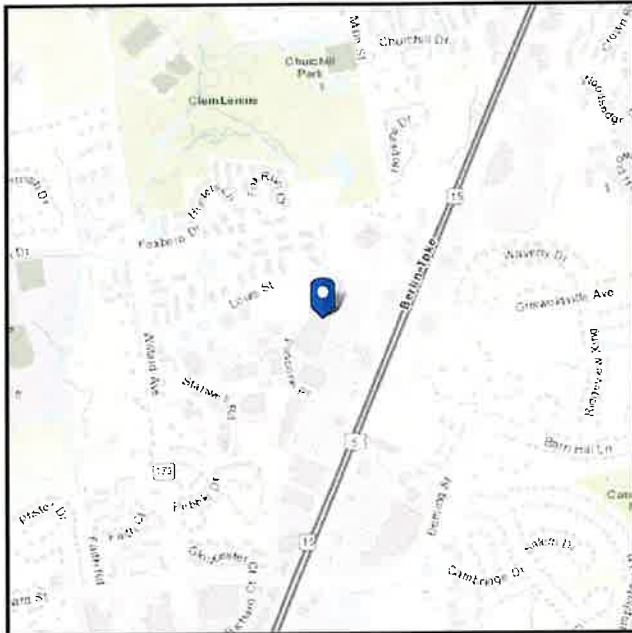


# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Stiff Soil

**Latitude:** 41.669022  
**Longitude:** -72.721272  
**Elevation:** 113.62 ft (NAVD 88)



## Wind

### Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2  
Date Accessed: Wed Jan 25 2023

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 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

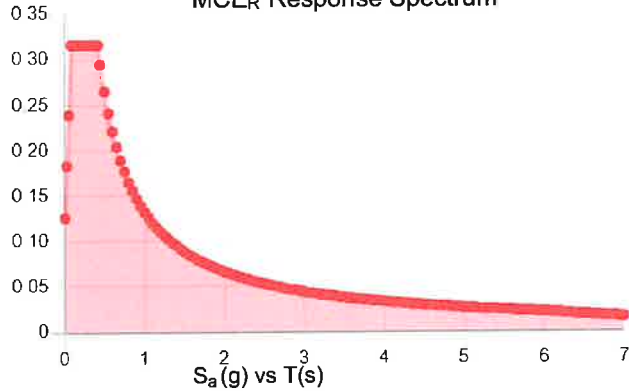
**Site Soil Class:**

**Results:**

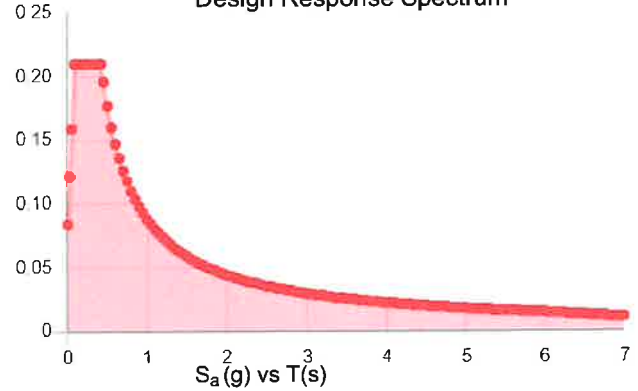
$S_S$ :	0.197	$S_{D1}$ :	0.088
$S_1$ :	0.055	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.108
$F_v$ :	2.4	PGA <sub>M</sub> :	0.171
$S_{MS}$ :	0.316	$F_{PGA}$ :	1.584
$S_{M1}$ :	0.132	$I_e$ :	1
$S_{DS}$ :	0.21	$C_v$ :	0.7

**Seismic Design Category: B**

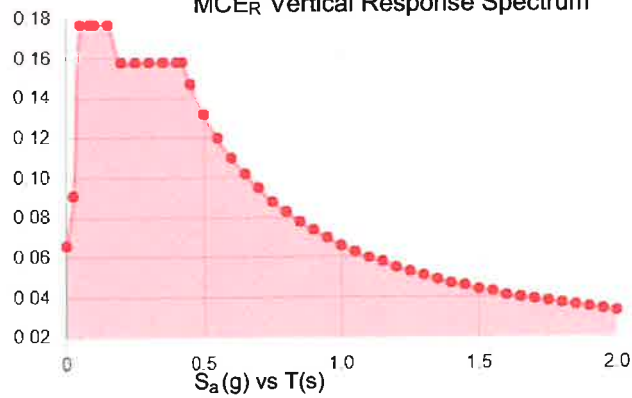
**MCE<sub>R</sub> Response Spectrum**



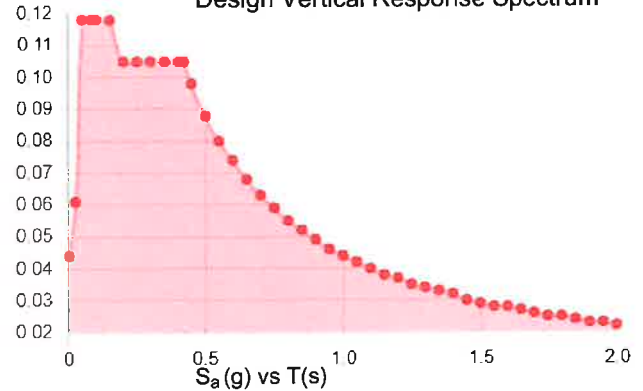
**Design Response Spectrum**



**MCE<sub>R</sub> Vertical Response Spectrum**



**Design Vertical Response Spectrum**



**Data Accessed:**

**Wed Jan 25 2023**

**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: 1.50 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Wed Jan 25 2023

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.

---

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

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Structural Analysis Loading Comparison

Status	Carrier	Qty.	Model Name	Height (in)	Width (in)	Depth (in)	Weight (lbs.)	Front Area (sqft)	Side Area (sqft)	Total Weight (lbs.)
Existing	AT&T	1	NH36QS-DG-F0M	28.661	12	12	26.676	2.4	0.0	26.7
Existing	AT&T	1	NOKIA UHIC B4 RRH2x60-4R	36.61	11	5.9	70	2.8	0.0	70.0
<b>Final</b>	<b>VZW</b>	<b>1</b>	<b>NNV4SSP-360S-F2</b>	<b>24</b>	<b>14</b>	<b>14</b>	<b>31</b>	<b>2.3</b>	<b>0.0</b>	<b>31.0</b>
<b>Final</b>	<b>VZW</b>	<b>1</b>	<b>CBRS RRH - RT4401-48A</b>	<b>14</b>	<b>8</b>	<b>4</b>	<b>25</b>	<b>0.8</b>	<b>0.0</b>	<b>25.0</b>
<b>Final</b>	<b>VZW</b>	<b>1</b>	<b>SDX1926Q-43</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>7</b>	<b>0.2</b>	<b>0.0</b>	<b>7.0</b>
<b>Final</b>	<b>VZW</b>	<b>1</b>	<b>SAMSUNG RF4439d-25A</b>	<b>14.96</b>	<b>14.96</b>	<b>10.04</b>	<b>74.7</b>	<b>1.6</b>	<b>0.0</b>	<b>74.7</b>

Change in Loading

Loading Scenario	EPA (Sqft)	EPA Change	Wt (lbs.)	Wt Change
Existing Loading	5.2	-7%	96.7	42%
<b>Final Loading</b>	<b>4.8</b>		<b>137.7</b>	

Change in vertical and lateral loading due to proposed installations is minimal when compared to existing structure's overall capacity

Site ID = NEWINGTON SC 4 CT / 17022404



Ks = 1 Speed Up Factor  
 S.F. = 1.5 Safety Factor

AL = 181 lbs.  
 WA = 146 lbs.

H1 = 5 ft.  
 All Equipment at WA

Leg Spread = 4.82 ft.  
 Wt-Base = 164 lbs.

Tri-Pod Leg Spread  
 Wt. of Tray Base only

Wf = 29.97 lbs. - per tray (Front Wind)  
 Wb = -6.08 lbs. - per tray (Back Wind)  
 Ws = -9.39 lbs. - per tray (Side Wind)

Min. Total Ballast = 90 lbs. (Total Ballast Required)

WT = 200 lbs. (Total Ballast provided)

Sled Footprint  
 Width = 9.476 ft.  
 Depth = 8.088 ft.

Area = 76.64 ft<sup>2</sup>  
 Tributary Area = 76.64 ft<sup>2</sup>

Delta = 0 ft. (Tributary Increase / per side)  
 Total Tri-Pod Weight = 352 lbs. (Steel Only) - from Manufacturer (or Risa 3D)  
 Equip.+Ant. Weight = 146 lbs. (Total Dead Load)

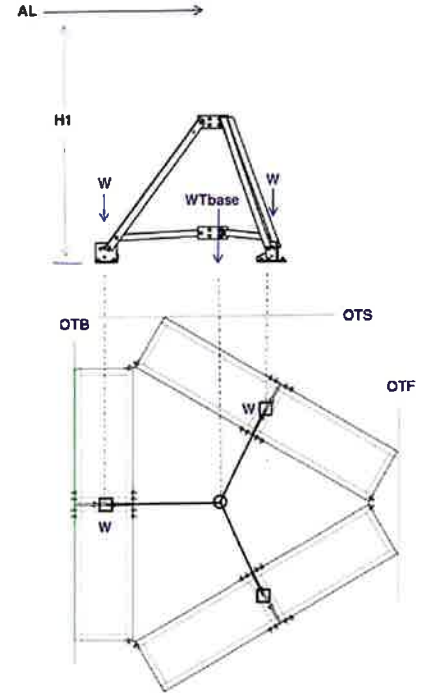
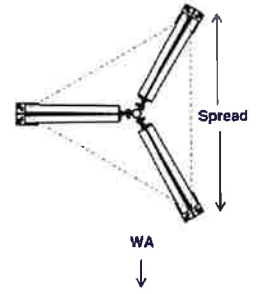
Roof Pressure = 9.11 psf < 20 psf Assessment 45.6%

Sliding Check  
 $\mu = 0.45$  Coefficient of Friction  
 Total Mount Weight = 510 lbs. (Sled+ Appurtenances+Ballast)

Resistance = 229.50 lbs > 181 lbs Wind Shear

S.F. = 1.27 > 1.25 SATISFACTORY  
 Sliding S.F.

Mount Sliding Capacity = 99%





# Mount Analysis Report

**Property Owner** NA  
**Structural Type** 24 ft Building  
**Site Address** 2985 Berlin Turnpike,  
Newington, CT 06111  
**Latitude** 41.669022  
**Longitude** -72.721272

**Client** Verizon Wireless  
*118 Flanders Road, 3rd Floor  
Westborough, MA 01581*  
**Site Type** Small-Cell  
**Site ID** 2785782  
**Site Name** NEWINGTON\_SC\_4\_CT Rev.1  
**Location Code** 467293  
Rooftop Tripod  
**Structural Type** TRPD-HD

**Prepared by** MasTec Network Solutions  
1151 SE Cary Pkwy Suite 101  
Cary, NC 27518  
**Job/Task Number** VZW467190A01-NX064  
**Email** MNS.Engineering@mastec.com  
**Phone** (919) 674-5895  
**Rev** 1  
**Date** 07/19/2023  
**Capacity** 99%  
**Result** Adequate



**Dear Sir / Madam:**

MasTec Network Solutions is pleased to submit this **Report** to determine the structural integrity of the referred structure.

Referenced documents used for this analysis are listed in the section DOCUMENTS & REFERENCES. This analysis has been performed in compliance with the:

- *2022 State Building Code of Connecticut (2021 IBC w/ State Amendment)*
- *ANSI/TIA-222-H w/ Addendums, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.*

Detailed design parameters are listed in Table 1. Analysis loading is detailed in Table 2.

Based on our analysis we have determined the following result:

<b>Existing Roof Top Tripod</b>	<b>99.9%</b>	<b>Adequate</b>
---------------------------------	--------------	-----------------

MasTec Network Solutions appreciates the opportunity of providing continued engineering services. Should you have any questions, comments or require additional information, please do not hesitate to contact us.

Sincerely,

Analysis Prepared by:

Fernando Palacios

Analysis Reviewed by:

Raphael Mohamed, PE, Peng  
Senior Director of Engineering  
CT PE License No. 25112

Digitally signed by Raphael Mohamed, PE, P.ENG  
DN: C=US,  
E=raphael.mohamed@masitec.com,  
O=Mas Tec Network Solutions,  
OU=Mas Tec Engineering  
CN=Raphael Mohamed, PE, P.ENG  
Date: 2023.07.19 14:26:34-0400



**DOCUMENTS & REFERENCES**

- Construction Drawings, Location Code: 467293, Verizon Site Name: NEWINGTON\_SC\_4\_CT Rev.1, by Nexius, dated 01/25/2023.
- RFDS, Location Code: 467293, Verizon Site Name: NEWINGTON\_SC\_4\_CT Rev.1, by Verizon, dated 12/08/2022.
- Structural Analysis, Location Code: 467293, Verizon Site Name: NEWINGTON\_SC\_4\_CT Rev.1, by Mastec, dated 07/19/2023.
- Site Visit Photos and Notes, Location Code: 467293, Verizon Site Name: NEWINGTON\_SC\_4\_CT Rev.1, by Nexius, dated 01/23/2023.

**DESIGN STANDARDS & PARAMETERS**

**TABLE 1 – STANDARDS & DESIGN PARAMETERS**

Codes and Standards	
Building Code	2022 State Building Code of Connecticut (2021 IBC w/ State Amendment)
TIA Standard	ANSI/TIA-222-H w/ Addendums
Wind Parameters	
Ultimate Wind Speed (3-Sec)	118 mph
Basic Wind Speed with Ice	50 mph
Radial Ice Thickness	1.50 in
Exposure Category	C
Structure Class	II
Topographic Category	1
Seismic Design Parameters	
S <sub>s</sub>	0.197
S <sub>1</sub>	0.055

**RECOMMENDATIONS**

It is assumed that the existing building and its roof are originally designed and maintained properly according to codes and standards and there is no damage and defects. Based on our analysis, the **existing rooftop Tripod structures** is determined to be **ADEQUATE** to support the proposed and existing loading, with min 200 lbs ballast weight evenly distributed at the mount base trays.

**\*See construction drawings for proposed modification sketch.**

It is required that all structural components and connections should be checked for tightness and good condition prior to installing the proposed structure and equipment. If the site conditions are different or do not meet requirements, the analysis result would not be valid and Nexius should be notified for re-evaluation.

TABLE 2 – LOADING

Mount Elev. ft	Ant. Ctr. Elev. ft	Qty	Description	Carrier	Mount Type	Status		
24	31.5	1	COMMSCOPE NNV 4SSP-360S-F2	Verizon Wireless	Existing Rooftop Tripod TRPD-HD	Proposed		
		1	COMMSCOPE SDX1926Q-43					
		1	SAMSUNG B2/B66A RRH ORAN (RF4439d-25A)					
		1	SAMSUNG CBRS RRH-RT4401-48A					Existing
		1	Delta Rectifier					Existing to be Removed
		1	ANDREW NH36QS-DG-F0M					
		1	NOKIA UHIC B4 RRH 2x60-4R					

### ANALYSIS

Risa 3D (Version 17), a commercially available finite element method-based software package for structural analysis, was used to create a three-dimensional model of the structure and calculate member stresses for required loading cases. Selected output from the analysis is included in APPENDICES.

Capacity percentages below 105% are considered acceptable for structure components.

### ANALYSIS RESULTS

Structural Component	Capacity Percentage	Result	Notes
Frame Horizontal Bracings	7%	Pass	1
Tripod Double Angles	7%	Pass	1
Tripod Pipe	20%	Pass	1
Horizontal Bracings	3%	Pass	1

1. Please see APPENDIX 2 for calculation details

Sliding Component	Capacity Percentage	Result	Notes
Mount Resistance	99%	Pass	1

1. Please see APPENDIX 2 for calculation details

## Standard Conditions for Providing Structural Consulting Services on Existing Structures

1. Mounting hardware is analyzed to the best of our ability using all information that is provided or can be obtained during fieldwork (if authorized by client). If the existing conditions are not as we have represented in this analysis, we should be contacted to evaluate the significance of the deviation and revise the assessment accordingly.
2. The structural analysis has been performed assuming that the hardware is in “like new” condition. No allowance was made for excessive corrosion, damaged or missing structural members, loose bolts, misaligned parts, or any reduction in strength due to the age or fatigue of the product.
3. The structural analysis provided is an assessment of the primary load carrying capacity of the hardware. We provided a limited scope of service. In some cases, we cannot verify the capacity of every weld, plate, connection detail, etc. In some cases, structural fabrication details are unknown at the time of our analysis, and the detailed field measurement of some of the required details may not be possible. In instances where we cannot perform connection capacity calculations, it is assumed that the existing manufactured connections develop the full capacity of the primary members being connected.
4. We cannot be held responsible for mounting hardware that is installed improperly or hardware that is loose or has a tendency of working loose over the lifetime of the mounting hardware. Our analysis has been performed assuming fully tightened connections, and proper installation and symmetry of the mounting hardware per manufacturer’s instructions.
5. The structural analysis has been performed using information currently provided by the client and potentially field verified. We have been provided with a mounting arrangement for all telecommunications equipment, including antennas RRH’s, TMA’s, RRU’s, diplexers, surge protection devices, etc. Our analysis has been based upon a particular mounting arrangement. We are not responsible for deviations in the mounting arrangements that may occur over time. If deviations in equipment type or mounting arrangements are proposed, then we should be contacted to revise the recommendations of this structural report.
6. We cannot be held responsible for temporary and unbalanced loads on mounting hardware. Our analysis is based on a particular mounting arrangement or as-build field condition. We are not responsible for the methods and means of how the mounting arrangement is accomplished by the contractor. These methods and means may include rigging of equipment or hardware to lift and locate, temporary hanging of equipment in locations other than the final arrangement, movement and tie off of tower riggers, personnel, and their equipment, etc.
7. Steel grade and strength is unknown and cannot be field tested. We cannot be held responsible for equipment manufactured from inferior steel or bolts. Our analysis assumes that standard structural grade steel has been used by the equipment manufacturer for all assembled parts of the mounting apparatus. Acceptable steels and connection components are specified by the American Institute of Steel Construction. It is assumed all welded connections are performed in the shop under the latest American Welding Society Code. No field welds are permitted or assumed for the existing pre-manufactured equipment. In case no accurate info available, following material assumptions were used:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
HSS (Round)	ASTM 500 (GR B-42)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325
U-Bolts	SAE 429 Gr.2

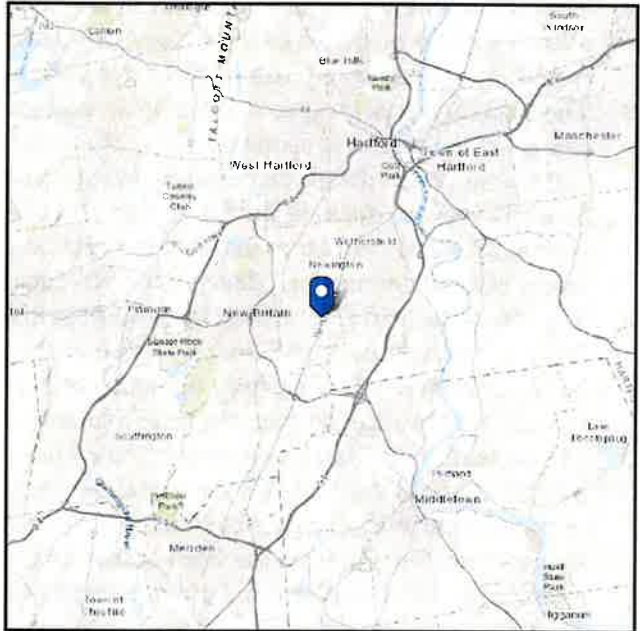
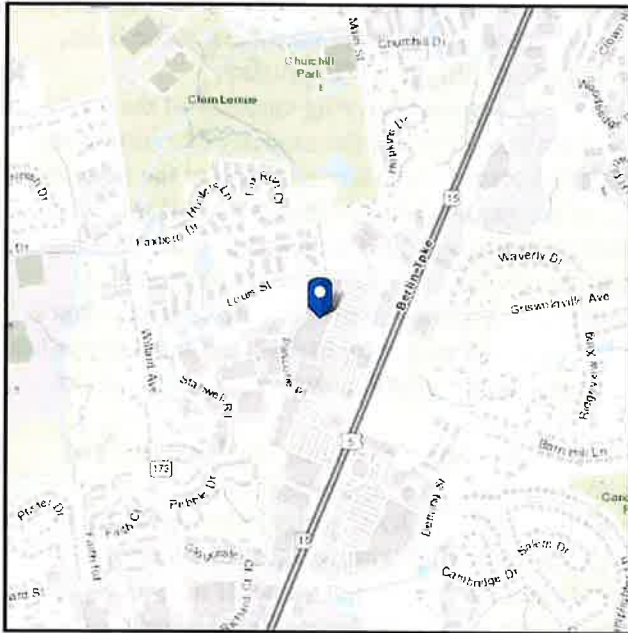


# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Stiff Soil

**Latitude:** 41.669022  
**Longitude:** -72.721272  
**Elevation:** 113.62 ft (NAVD 88)



## Wind

### Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Wed Jan 25 2023

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 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

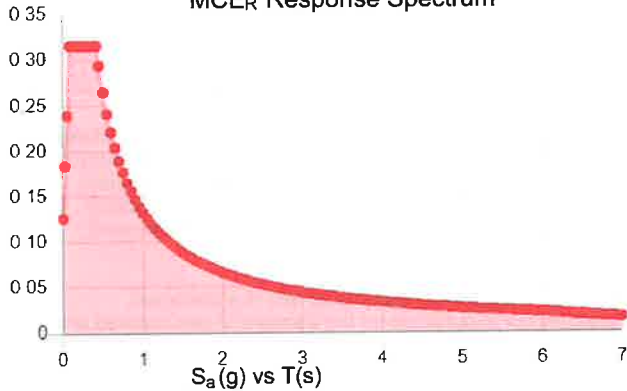
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

**Site Soil Class:**

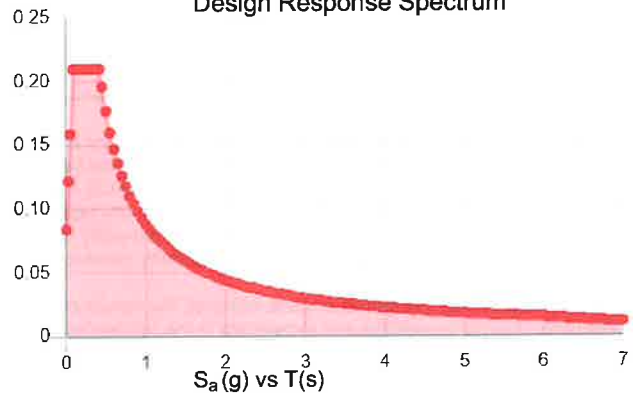
**Results:**

$S_S$ :	0.197	$S_{D1}$ :	0.088
$S_1$ :	0.055	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.108
$F_v$ :	2.4	PGA <sub>M</sub> :	0.171
$S_{MS}$ :	0.316	$F_{PGA}$ :	1.584
$S_{M1}$ :	0.132	$I_e$ :	1
$S_{DS}$ :	0.21	$C_v$ :	0.7

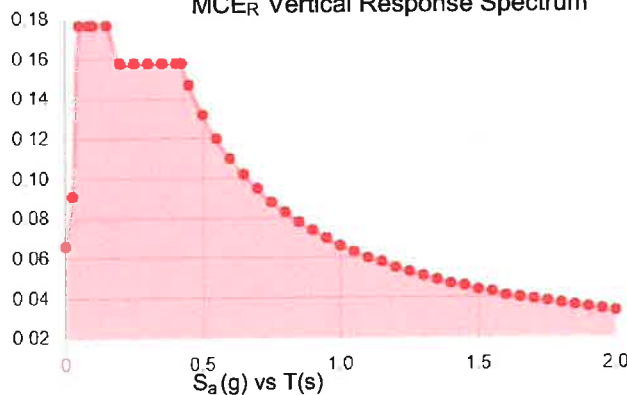
**Seismic Design Category: B**  
MCE<sub>R</sub> Response Spectrum



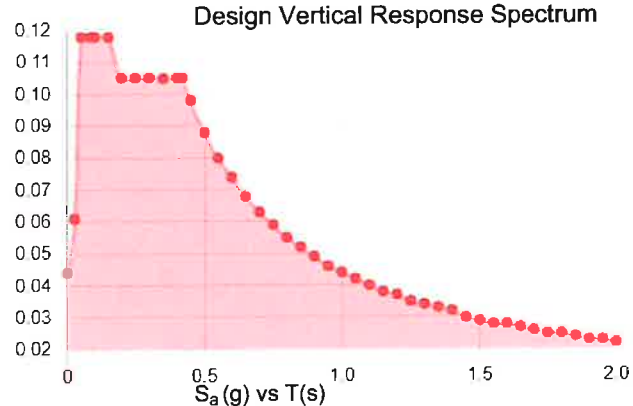
Design Response Spectrum



MCE<sub>R</sub> Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed:

Wed Jan 25 2023

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

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**Results:**

Ice Thickness: 1.50 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Wed Jan 25 2023

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

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



Mount Analysis Loading Calculations

Site Name	NEWINGTON SC 4 CT		
Site ID	17022404		
Location Code	467293	Mount Existing?	Existing
TIA-222 Code Rev.	H	Risk Category	II

Legend	
Input	
Calculated	
Notes	

Basic Parameters		
Mount Height	31.5	ft
Exposure Category	C	(B,C, or D)
Ultimate Wind Speed	118.00	mph
Ice Wind Speed	50	mph
Design Ice Thickness, $t_i$	1.5	in
Maintenance Wind Speed	30	mph
Run Earthquake Analysis?	Yes	
Ground Elevation	113.62	$f_1$ , ASCE Hazard Tool
$S_1$	0.055	USGS
$S_{DS}$	0.21	2.7.5
Vertical Seismic Loads, $E_v$	0.042	2.7.6
Seismic Response Coefficient, $C_s$	0.105	2.7.7.1.1
$C_s$ Min	0.030	2.7.7.1.1

Wind Parameters					
Gust Effect Factor, $G_b$	1.000	2.6.9	$K_d$	1.000	2.6.7
$K_1$	0.992	2.6.5.2	$K_e$	0.996	2.6.8
$K_{ZF}$	1.000	2.6.6	$K_{zt}$	0.900	16.5
$K_d$	0.950	Table 2-2	*Note for Rooftop Structures greater than 50' unobstructed for 90 deg and protruding 50' above surrounding buildings $K_s$ must be calculated.		
$q_1$	30.215	psf, 2.6.11.5			
C/D	117.550	Table 2-9			
$h_z$	1.493	in, 2.6.10			
$q_{1z}$	5.425	psf, 2.6.9.6	$I_s$ Ice	1.000	Table 2-3
C/D $h_z$	49.809	Table 2-9	$I_s$ EQ	1.000	Table 2-3
$Q_{Maintenance}$	1.955	psf, 2.6.9.6			
C/D Maintenance	29.886	Table 2-9			
Ice Dead, Grating	0.013935023	ksf			

Mounting Pipes (Orientation Drawn Top-Down)			
Risa 3D Label	Elevation (ft)	Length (In)	Diameter (in)
M64	31.5	72	2.38
M66	31.5	12.828	1.629
M65	31.5	23.1	1.625

Appurtenances					
Model	Type	Height (in)	Width (in)	Depth (in)	Weight (lbs)
NNV45SP-360S-F2	Antenna	24	14	14	31
CBRS RRH - RT4401-48A	RRU, TMA, Etc.	14	8	4	25
SDX1926Q-43	RRU, TMA, Etc.	4	6	3	7
SAMSUNG RF4439d-25A	RRU, TMA, Etc.	14.96	14.96	10.04	74.7
EXISTING DELTA RECTIFIER	RRU, TMA, Etc.	6	6	6	8



Pipe Mount	Antenna	Quantity	Orientation (deg)	Front Exposed (%)	Side Exposed (%)	Type	Height (in)	Width (in)	Depth (in)	Weight (lbs)	Front CAAs (ft <sup>2</sup> )	Side CAAs (ft <sup>2</sup> )	Front F <sub>x</sub> (kips)	Side F <sub>x</sub> (kips)	Top %	Bottom %
M64	NNV4SSP-3605-F2	1	0	100.0%	100.0%	Antenna	24.000	14.000	14.000	31.000	2.800	2.800	0.085	0.085	5.0%	5.0%
M64	CBRS RRH - RT4401-48A	1	0	100.0%	100.0%	RRU, TMA, Etc.	14.000	8.000	4.000	25.000	0.933	0.484	0.028	0.015	35.0%	35.0%
M64	SDX1926Q-43	1	90	100.0%	100.0%	RRU, TMA, Etc.	4.000	6.000	3.000	7.000	0.200	0.100	0.003	0.006	70.0%	70.0%
M64	SAMSUNG RF4439d-25A	1	0	100.0%	100.0%	RRU, TMA, Etc.	14.960	14.960	10.040	74.700	1.865	1.252	0.056	0.038	35.0%	35.0%
M64																
M66	EXISTING DELTA RECTIFIER	0.5	0	100.0%	100.0%	RRU, TMA, Etc.	6.000	6.000	6.000	4.000	0.300	0.300	0.005	0.005	50.0%	50.0%
M66																
M66																
M66																
M66																
M66																
M65	EXISTING DELTA RECTIFIER	0.5	0	100.0%	100.0%	RRU, TMA, Etc.	6.000	6.000	6.000	4.000	0.300	0.300	0.005	0.005	50.0%	50.0%
M65																
M65																
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Site ID = NEWINGTON SC 4 CT / 17022404



Ks = 1 Speed Up Factor  
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Leg Spread = 4.82 ft.  
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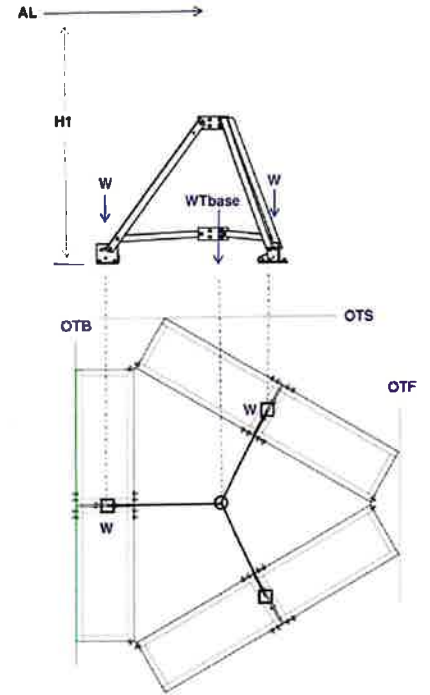
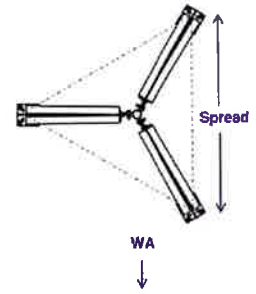
Roof Pressure = 9.11 psf < 20 psf Assessment 45.6%

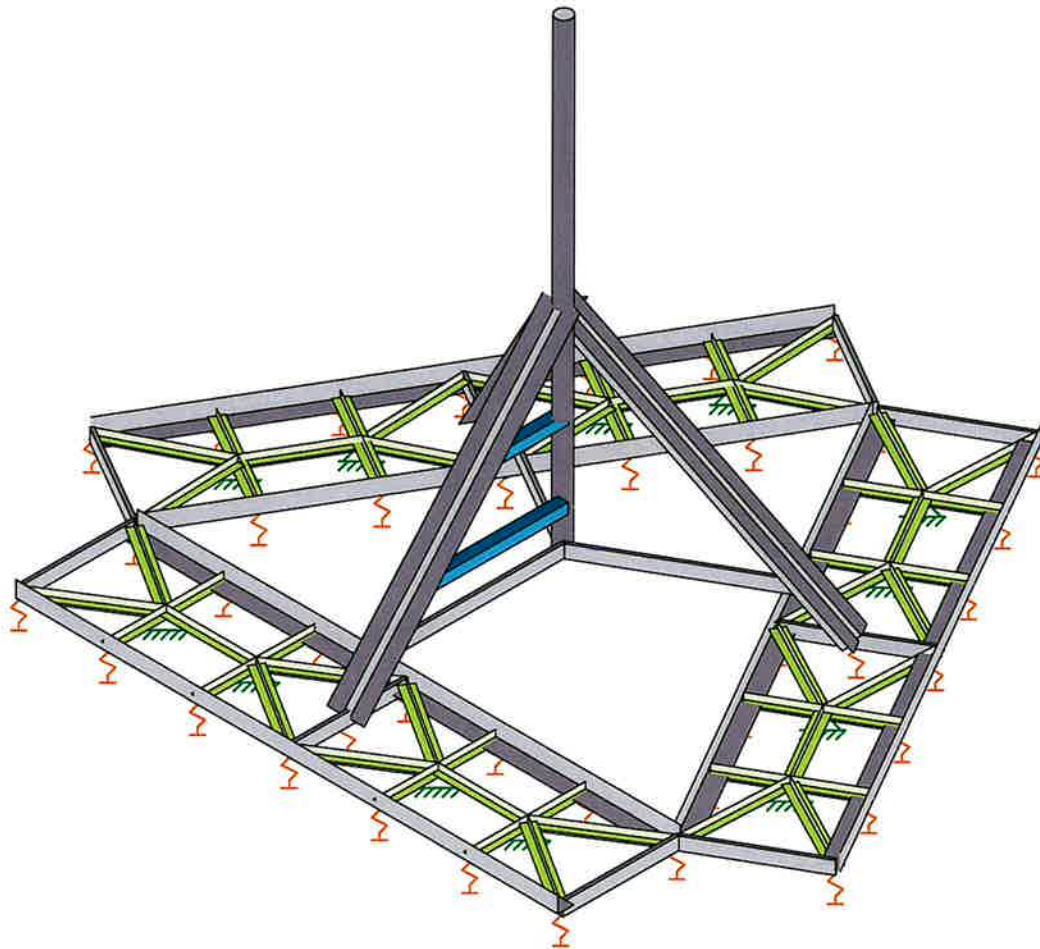
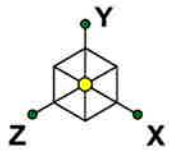
Sliding Check  
 $\mu = 0.45$  Coefficient of Friction  
 Total Mount Weight = 510 lbs. (Sled+ Appurtenances+Ballast)

Resistance = 229.50 lbs > 181 lbs Wind Shear

S.F. = 1.27 > 1.25 SATISFACTORY  
 Sliding S.F.

Mount Sliding Capacity = 99%





Loads: BLC 47, Man 6 (250 lbs)  
Envelope Only Solution

Mastec

SJ

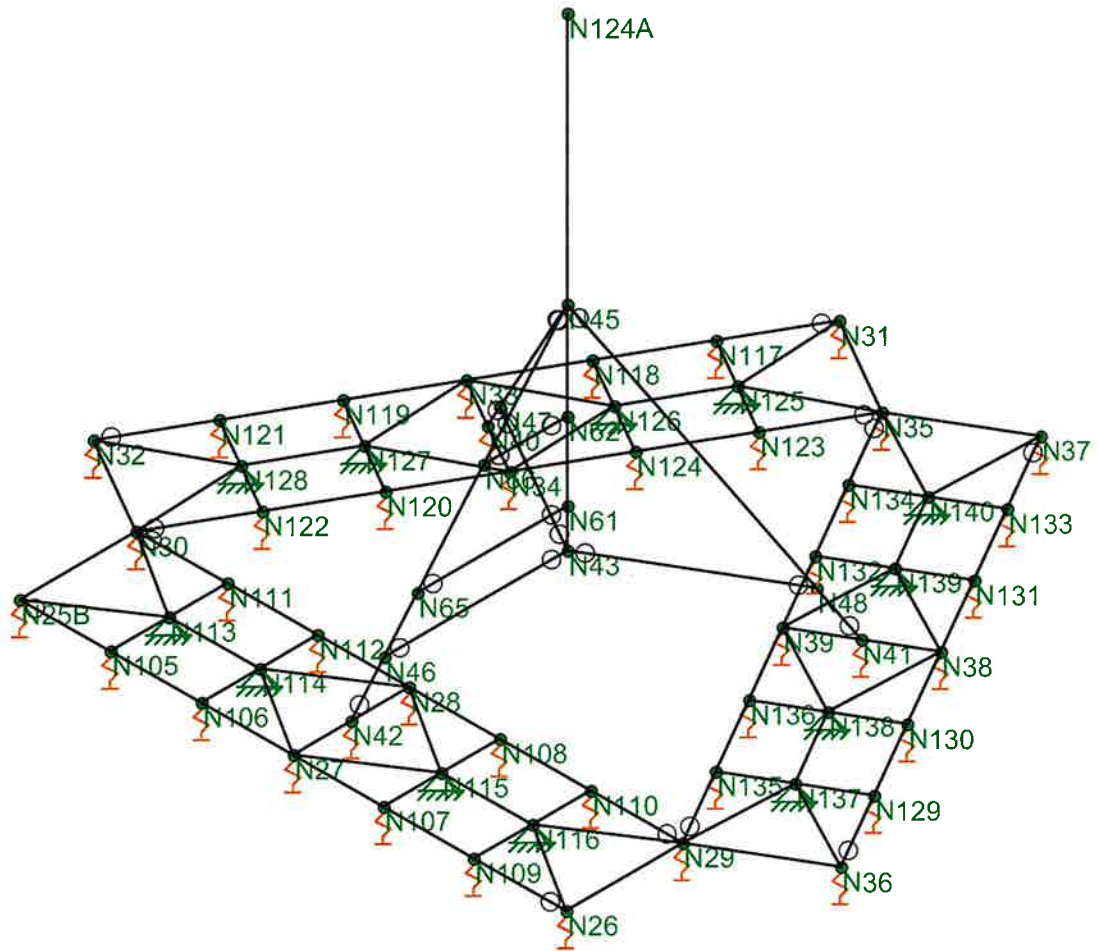
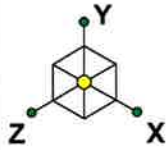
17022404

NEWINGTON SC 4 CT

RENDERING

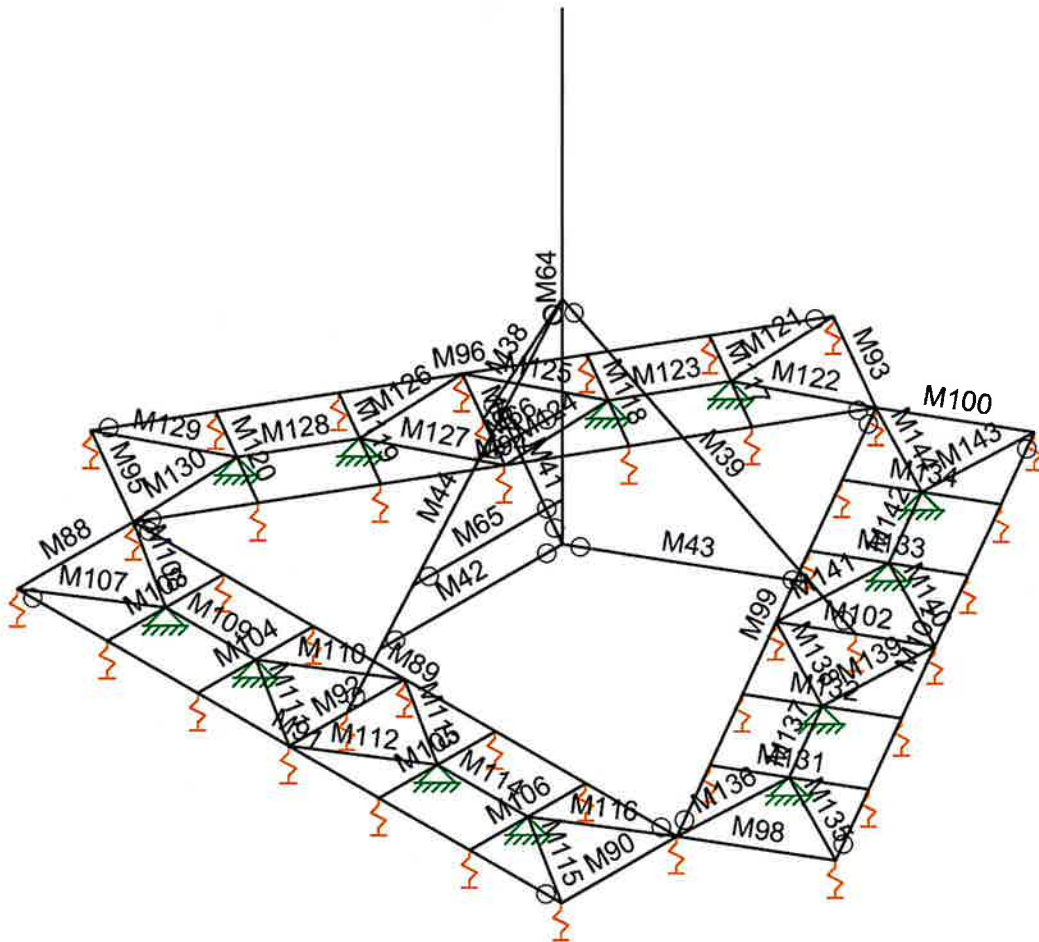
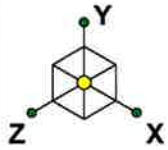
Jan 25, 2023 at 9:28 PM

NEWINGTON SC 4 CT.r3d



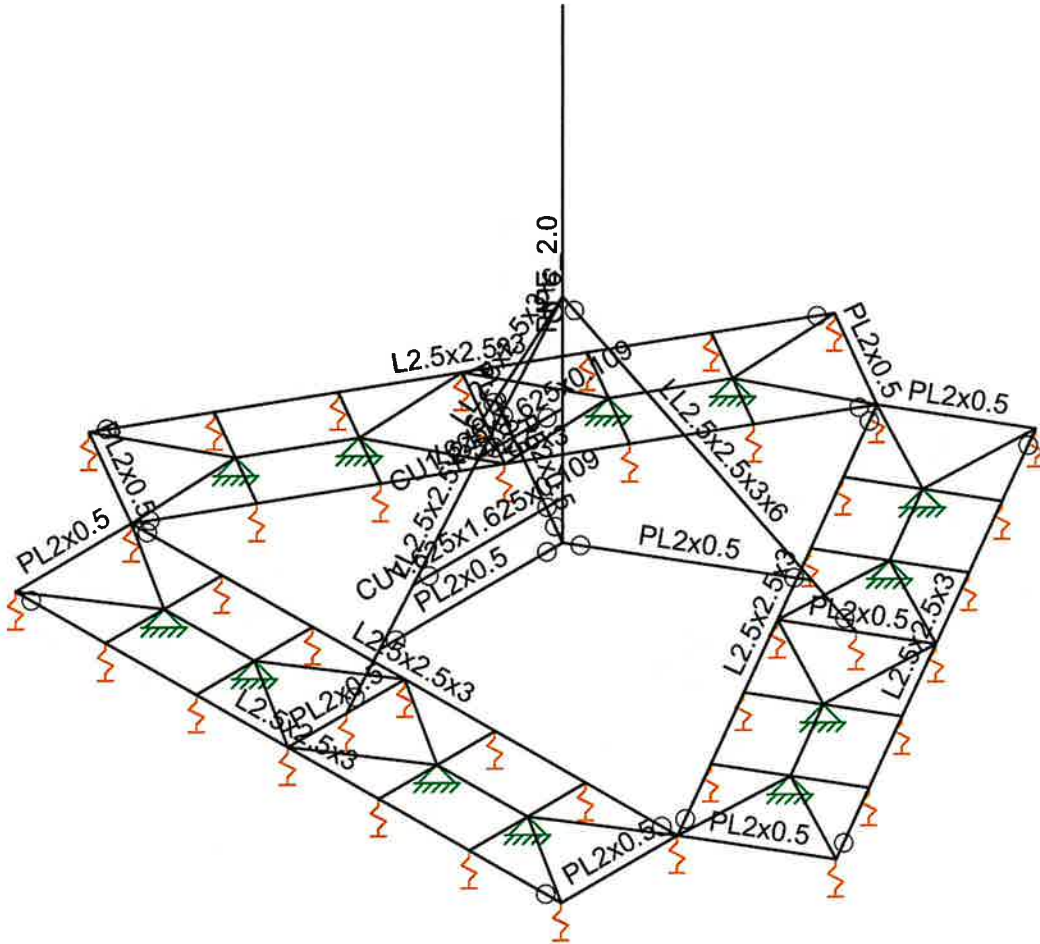
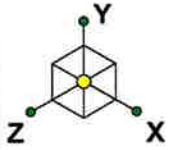
Loads: BLC 47, Man 6 (250 lbs)  
Envelope Only Solution

Mastec	NEWINGTON SC 4 CT	NODES
SJ		Jan 25, 2023 at 9:28 PM
17022404		NEWINGTON SC 4 CT.r3d



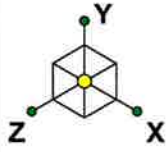
Loads: BLC 47, Man 6 (250 lbs)  
Envelope Only Solution

Mastec	NEWINGTON SC 4 CT	LABELS
SJ		Jan 25, 2023 at 9:28 PM
17022404		NEWINGTON SC 4 CT.r3d

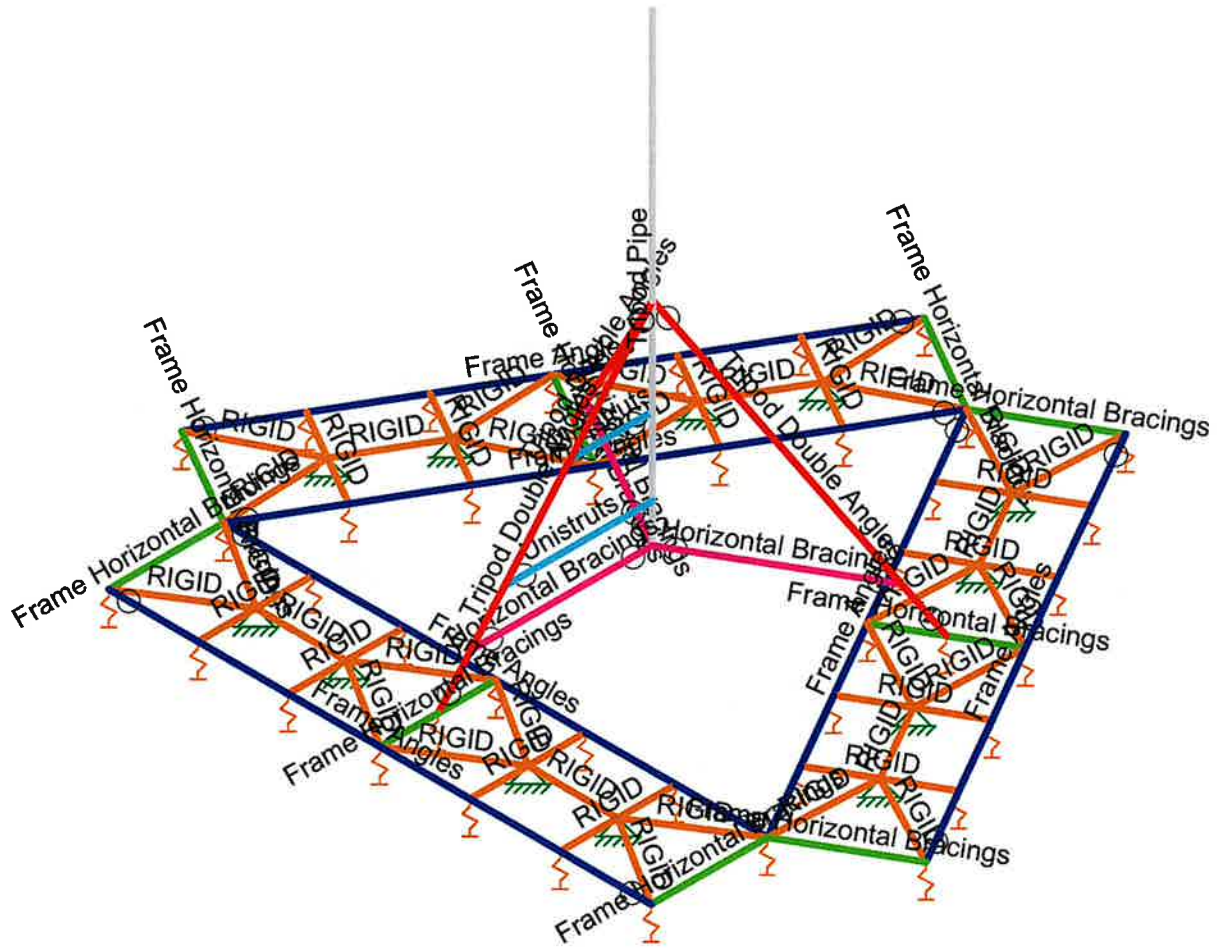


Loads: BLC 47, Man 6 (250 lbs)  
Envelope Only Solution

Mastec	NEWINGTON SC 4 CT	SHAPES
SJ		Jan 25, 2023 at 9:28 PM
17022404		NEWINGTON SC 4 CT.r3d

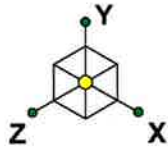


Section Sets	
<span style="color: blue;">█</span>	Frame Angles
<span style="color: green;">█</span>	Frame Horizontal Bracings
<span style="color: red;">█</span>	Tripod Double Angles
<span style="color: grey;">█</span>	Tripod Pipe
<span style="color: magenta;">█</span>	Horizontal Bracings
<span style="color: cyan;">█</span>	Unistruts
<span style="color: orange;">█</span>	RIGID

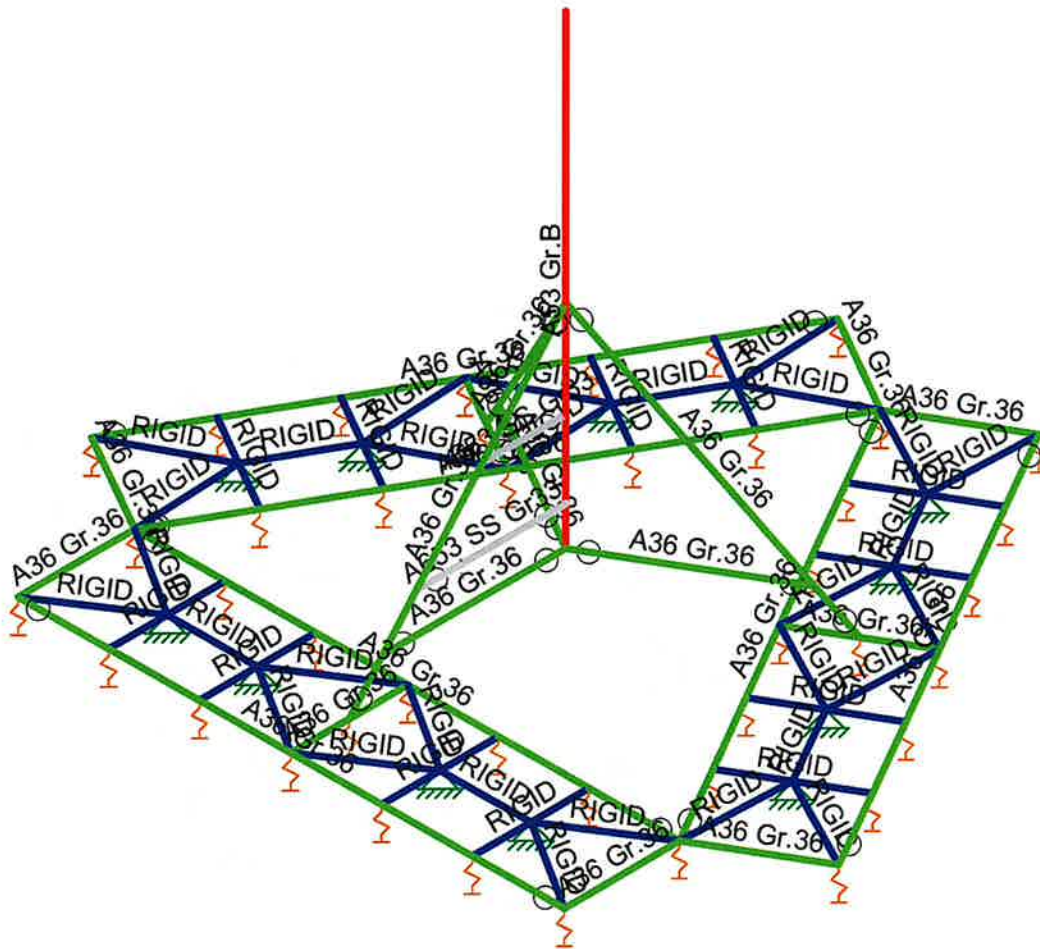


Loads: BLC 47, Man 6 (250 lbs)  
Envelope Only Solution

Mastec	NEWINGTON SC 4 CT	SECTION SETS
SJ		Jan 25, 2023 at 9:28 PM
17022404		NEWINGTON SC 4 CT.r3d



Material Sets	
<span style="color: blue;">■</span>	RIGID
<span style="color: green;">■</span>	A36 Gr.36
<span style="color: red;">■</span>	A53 Gr.B
<span style="color: gray;">■</span>	A653 SS Gr33



Loads: BLC 47, Man 6 (250 lbs)  
Envelope Only Solution

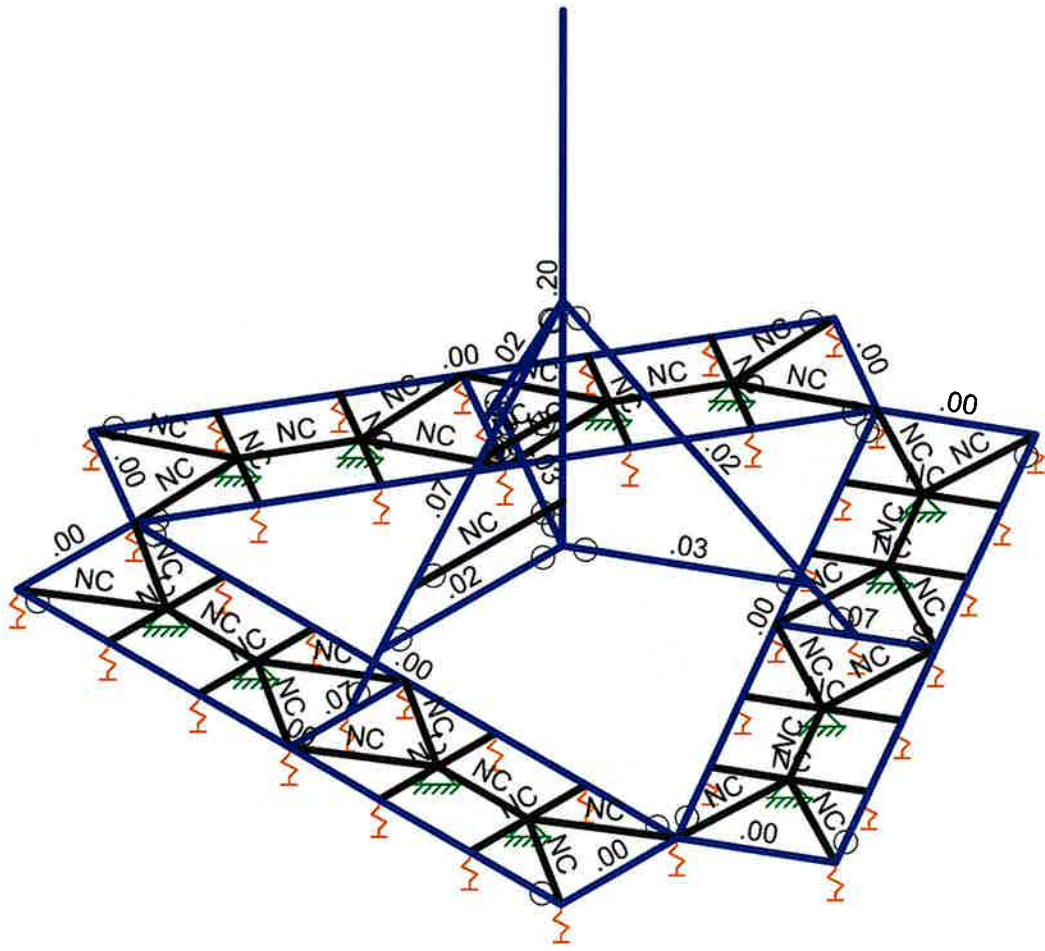
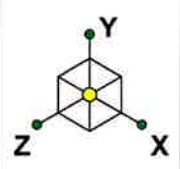
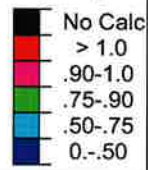
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NEWINGTON SC 4 CT
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MATERIAL SETS
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NEWINGTON SC 4 CT.r3d

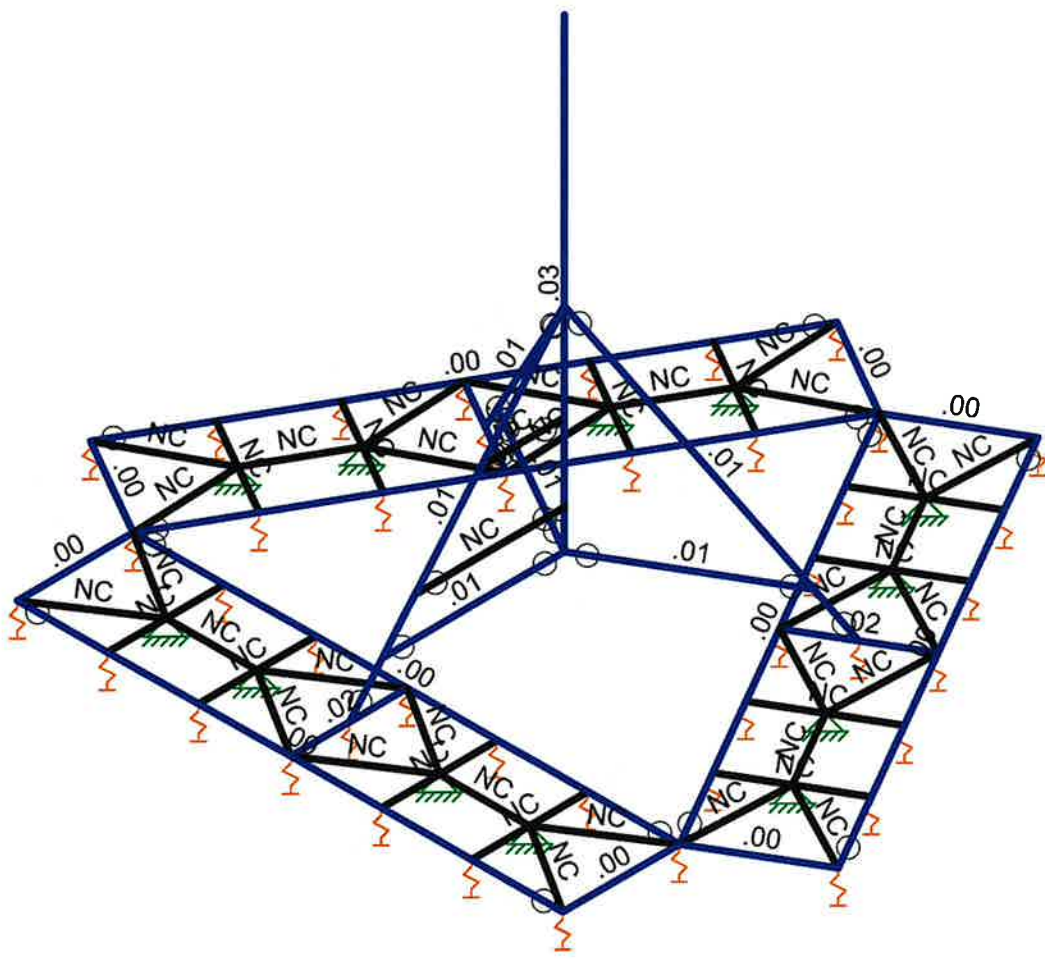
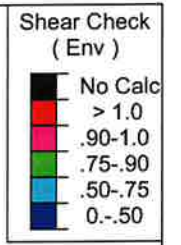
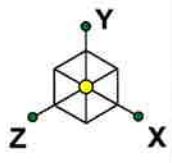


Code Check  
( Env )



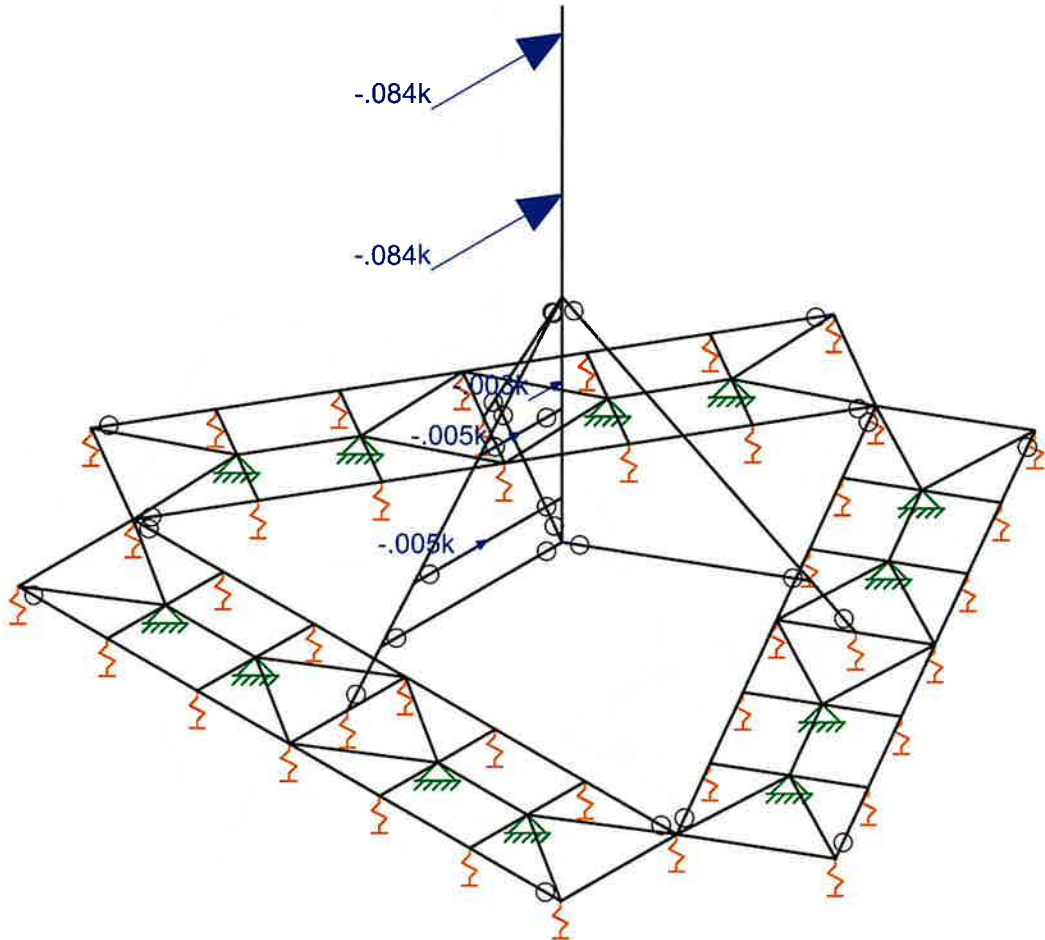
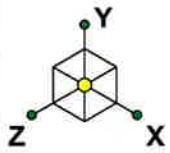
Member Code Checks Displayed (Enveloped)  
 Loads: BLC 47, Man 6 (250 lbs)  
 Envelope Only Solution

NEXIUS	NEWINGTON SC 4 CT	BENDING
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Member Shear Checks Displayed (Enveloped)  
 Loads: BLC 47, Man 6 (250 lbs)  
 Envelope Only Solution

Mastec	NEWINGTON SC 4 CT	SHEAR CHECK
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Loads: BLC 3, Full Wind Antenna (0 Deg)  
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Mastec

SJ

17022404

NEWINGTON SC 4 CT

FRONT WIND

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Company : NEXIUS  
 Designer : SJ  
 Job Number : 17022404  
 Model Name : NEWINGTON SC 4 CT

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### Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
8	A529	29000	11154	.3	.65	.49	50	1.5	65	1.2
9	A500 Gr.C	29000	11154	.3	.65	.49	46	1.4	62	1.2

### Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Frame Angles	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.011
2	Frame Horizontal Braci...	PL2x0.5	Beam	RECT	A36 Gr.36	Typical	1	.021	.333	.07
3	Tripod Double Angles	LL2.5x2.5x3x6	Column	Double Angle (3/8 ...	A36 Gr.36	Typical	1.8	3.09	1.07	.023
4	Tripod Pipe	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
5	Horizontal Bracings	PL2x0.5	Beam	RECT	A36 Gr.36	Typical	1	.021	.333	.07

### Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N25B		CS6				
2	N26		CS6				
3	N27		CS6				
4	N28		CS6				
5	N29		CS12				
6	N30		CS9				
7	N31		CS9				
8	N32		CS9				
9	N33		CS9				
10	N34		CS9				
11	N35		CS12				
12	N36		CS9				
13	N37		CS6				
14	N38		CS9				
15	N39		CS9				
16	N40		CS3				
17	N41		CS3				
18	N42		CS3				
19	N105		CS3				
20	N106		CS3				
21	N107		CS3				
22	N108		CS3				
23	N109		CS3				
24	N110		CS3				
25	N111		CS3				
26	N112		CS3				
27	N113	Reaction	Reaction	Reaction			
28	N114	Reaction	Reaction	Reaction			
29	N115	Reaction	Reaction	Reaction			
30	N116	Reaction	Reaction	Reaction			
31	N117		CS3				
32	N118		CS3				
33	N119		CS3				

**Joint Boundary Conditions (Continued)**

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
34	N120		CS3				
35	N121		CS3				
36	N122		CS3				
37	N123		CS3				
38	N124		CS3				
39	N125	Reaction	Reaction	Reaction			
40	N126	Reaction	Reaction	Reaction			
41	N127	Reaction	Reaction	Reaction			
42	N128	Reaction	Reaction	Reaction			
43	N129		CS3				
44	N130		CS3				
45	N131		CS3				
46	N132		CS3				
47	N133		CS3				
48	N134		CS3				
49	N135		CS3				
50	N136		CS3				
51	N137	Reaction	Reaction	Reaction			
52	N138	Reaction	Reaction	Reaction			
53	N139	Reaction	Reaction	Reaction			
54	N140	Reaction	Reaction	Reaction			

**Hot Rolled Steel Design Parameters**

	Label	Shape	Length...	Lbyy(ft)	Lbzz(ft)	Lcomp to...	Lcomp bo...	L-torque...	Kyy	Kzz	Cb	Funct...
1	M38	Tripod Double Angles	4.277	3.62	3.62	3.62	3.62	3.62				Lateral
2	M39	Tripod Double Angles	4.277	3.62	3.62	3.62	3.62	3.62				Lateral
3	M41	Horizontal Bracings	2.354			Lbyy						Lateral
4	M42	Horizontal Bracings	2.354			Lbyy						Lateral
5	M43	Horizontal Bracings	2.354			Lbyy						Lateral
6	M44	Tripod Double Angles	4.277	3.62	3.62	3.62	3.62	3.62				Lateral
7	M88	Frame Horizontal Bracings	1.5			Lbyy						Lateral
8	M89	Frame Angles	7.031	3.515	3.515	3.515	3.515	3.515				Lateral
9	M90	Frame Horizontal Bracings	1.5			Lbyy						Lateral
10	M91	Frame Angles	7.031	3.515	3.515	3.515	3.515	3.515				Lateral
11	M92	Frame Horizontal Bracings	1.5			Lbyy						Lateral
12	M93	Frame Horizontal Bracings	1.5			Lbyy						Lateral
13	M94	Frame Angles	7.032	3.515	3.515	3.515	3.515	3.515				Lateral
14	M95	Frame Horizontal Bracings	1.501			Lbyy						Lateral
15	M96	Frame Angles	7.031	3.515	3.515	3.515	3.515	3.515				Lateral
16	M97	Frame Horizontal Bracings	1.501			Lbyy						Lateral
17	M98	Frame Horizontal Bracings	1.501			Lbyy						Lateral
18	M99	Frame Angles	7.033	3.515	3.515	3.515	3.515	3.515				Lateral
19	M100	Frame Horizontal Bracings	1.501			Lbyy						Lateral
20	M101	Frame Angles	7.031	3.515	3.515	3.515	3.515	3.515				Lateral
21	M102	Frame Horizontal Bracings	1.501			Lbyy						Lateral
22	M64	Tripod Pipe	6	9.75	9.75	9.75	9.75	9.75				Lateral

**Joint Loads and Enforced Displacements (BLC 42 : Man 1 (500 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft...
1				0

**Joint Loads and Enforced Displacements (BLC 43 : Man 2 (500 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft...
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**Joint Loads and Enforced Displacements (BLC 43 : Man 2 (500 lbs)) (Continued)**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/ft...]
1				0

**Joint Loads and Enforced Displacements (BLC 44 : Man 3 (500 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/ft...]
1				0

**Joint Loads and Enforced Displacements (BLC 45 : Man 4 (250 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/ft...]
1				0

**Joint Loads and Enforced Displacements (BLC 46 : Man 5 (250 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/ft...]
1				0

**Joint Loads and Enforced Displacements (BLC 47 : Man 6 (250 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/ft...]
1				0

**Member Point Loads (BLC 1 : Dead)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Y	-.016	%5
2	M64	Y	-.025	%35
3	M64	Y	-.007	%70
4	M64	Y	-.075	%35
5	M66	Y	-.004	%50
6	M65	Y	-.004	%50
7	M64	Y	-.016	%5

**Member Point Loads (BLC 2 : Ice Dead)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Y	-.039	%5
2	M64	Y	-.022	%35
3	M64	Y	-.005	%70
4	M64	Y	-.044	%35
5	M66	Y	-.005	%50
6	M65	Y	-.005	%50
7	M64	Y	-.039	%5

**Member Point Loads (BLC 3 : Full Wind Antenna (0 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Z	-.042	%5
2	M64	Z	-.028	%35
3	M64	Z	-.003	%70
4	M64	Z	-.056	%35
5	M66	Z	-.005	%50
6	M65	Z	-.005	%50
7	M64	Z	-.042	%5

**Member Point Loads (BLC 4 : Full Wind Antenna (30 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Z	-.037	%5
2	M64	Z	-.021	%35



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**Member Point Loads (BLC 4 : Full Wind Antenna (30 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
3	M64	Z	-.003	%70
4	M64	Z	-.045	%35
5	M66	Z	-.004	%50
6	M65	Z	-.004	%50
7	M64	Z	-.037	%5
8	M64	X	.021	%5
9	M64	X	.012	%35
10	M64	X	.002	%70
11	M64	X	.026	%35
12	M66	X	.002	%50
13	M65	X	.002	%50
14	M64	X	.021	%5

**Member Point Loads (BLC 5 : Full Wind Antenna (60 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M64	Z	-.021	%5
2	M64	Z	-.009	%35
3	M64	Z	-.003	%70
4	M64	Z	-.021	%35
5	M66	Z	-.002	%50
6	M65	Z	-.002	%50
7	M64	Z	-.021	%5
8	M64	X	.037	%5
9	M64	X	.016	%35
10	M64	X	.005	%70
11	M64	X	.037	%35
12	M66	X	.004	%50
13	M65	X	.004	%50
14	M64	X	.037	%5

**Member Point Loads (BLC 6 : Full Wind Antenna (90 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M64	Z	0	%5
2	M64	Z	0	%35
3	M64	Z	0	%70
4	M64	Z	0	%35
5	M66	Z	0	%50
6	M65	Z	0	%50
7	M64	Z	0	%5
8	M64	X	.042	%5
9	M64	X	.015	%35
10	M64	X	.006	%70
11	M64	X	.038	%35
12	M66	X	.005	%50
13	M65	X	.005	%50
14	M64	X	.042	%5

**Member Point Loads (BLC 7 : Full Wind Antenna (120 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M64	Z	.021	%5
2	M64	Z	.009	%35
3	M64	Z	.003	%70
4	M64	Z	.021	%35
5	M66	Z	.002	%50
6	M65	Z	.002	%50



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 Model Name : NEWINGTON SC 4 CT

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**Member Point Loads (BLC 7 : Full Wind Antenna (120 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
7	M64	Z	.021	%5
8	M64	X	.037	%5
9	M64	X	.016	%35
10	M64	X	.005	%70
11	M64	X	.037	%35
12	M66	X	.004	%50
13	M65	X	.004	%50
14	M64	X	.037	%5

**Member Point Loads (BLC 8 : Full Wind Antenna (150 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M64	Z	.037	%5
2	M64	Z	.021	%35
3	M64	Z	.003	%70
4	M64	Z	.045	%35
5	M66	Z	.004	%50
6	M65	Z	.004	%50
7	M64	Z	.037	%5
8	M64	X	.021	%5
9	M64	X	.012	%35
10	M64	X	.002	%70
11	M64	X	.026	%35
12	M66	X	.002	%50
13	M65	X	.002	%50
14	M64	X	.021	%5

**Member Point Loads (BLC 15 : Ice Wind Antenna (0 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M64	Z	-.01	%5
2	M64	Z	-.008	%35
3	M64	Z	-.002	%70
4	M64	Z	-.015	%35
5	M66	Z	-.002	%50
6	M65	Z	-.002	%50
7	M64	Z	-.01	%5

**Member Point Loads (BLC 16 : Ice Wind Antenna (30 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M64	Z	-.009	%5
2	M64	Z	-.007	%35
3	M64	Z	-.002	%70
4	M64	Z	-.012	%35
5	M66	Z	-.002	%50
6	M65	Z	-.002	%50
7	M64	Z	-.009	%5
8	M64	X	.005	%5
9	M64	X	.004	%35
10	M64	X	.001	%70
11	M64	X	.007	%35
12	M66	X	.001	%50
13	M65	X	.001	%50
14	M64	X	.005	%5

**Member Point Loads (BLC 17 : Ice Wind Antenna (60 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
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**Member Point Loads (BLC 17 : Ice Wind Antenna (60 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Z	-.005	%5
2	M64	Z	-.003	%35
3	M64	Z	-.001	%70
4	M64	Z	-.006	%35
5	M66	Z	-.001	%50
6	M65	Z	-.001	%50
7	M64	Z	-.005	%5
8	M64	X	.009	%5
9	M64	X	.005	%35
10	M64	X	.002	%70
11	M64	X	.01	%35
12	M66	X	.002	%50
13	M65	X	.002	%50
14	M64	X	.009	%5

**Member Point Loads (BLC 18 : Ice Wind Antenna (90 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Z	0	%5
2	M64	Z	0	%35
3	M64	Z	0	%70
4	M64	Z	0	%35
5	M66	Z	0	%50
6	M65	Z	0	%50
7	M64	Z	0	%5
8	M64	X	.01	%5
9	M64	X	.005	%35
10	M64	X	.003	%70
11	M64	X	.011	%35
12	M66	X	.002	%50
13	M65	X	.002	%50
14	M64	X	.01	%5

**Member Point Loads (BLC 19 : Ice Wind Antenna (120 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Z	.005	%5
2	M64	Z	.003	%35
3	M64	Z	.001	%70
4	M64	Z	.006	%35
5	M66	Z	.001	%50
6	M65	Z	.001	%50
7	M64	Z	.005	%5
8	M64	X	.009	%5
9	M64	X	.005	%35
10	M64	X	.002	%70
11	M64	X	.01	%35
12	M66	X	.002	%50
13	M65	X	.002	%50
14	M64	X	.009	%5

**Member Point Loads (BLC 20 : Ice Wind Antenna (150 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Z	.009	%5
2	M64	Z	.003	%35
3	M64	Z	.001	%70
4	M64	Z	.006	%35



**Member Point Loads (BLC 20 : Ice Wind Antenna (150 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
5	M66	Z	.001	%50
6	M65	Z	.001	%50
7	M64	Z	.009	%5
8	M64	X	.005	%5
9	M64	X	.005	%35
10	M64	X	.002	%70
11	M64	X	.01	%35
12	M66	X	.002	%50
13	M65	X	.002	%50
14	M64	X	.005	%5

**Member Point Loads (BLC 27 : Seismic Antenna (0 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Z	-.003	%5
2	M64	Z	-.003	%35
3	M64	Z	-.001	%70
4	M64	Z	-.008	%35
5	M66	Z	0	%50
6	M65	Z	0	%50

**Member Point Loads (BLC 28 : Seismic Antenna (90 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	X	.003	%5
2	M64	X	.003	%35
3	M64	X	.001	%70
4	M64	X	.008	%35
5	M66	X	0	%50
6	M65	X	0	%50

**Member Point Loads (BLC 41 : Seismic Vertical Antennas)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M64	Y	-.006	%5
2	M64	Y	-.005	%35
3	M64	Y	-.001	%70
4	M64	Y	-.015	%35
5	M66	Y	-.001	%50
6	M65	Y	-.001	%50

**Member Area Loads**

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[kstf]
No Data to Print ...						

**Basic Load Cases**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut.	Area(Memb...	Surface...
1	Dead	None		-1			7			
2	Ice Dead	None					7	66		
3	Full Wind Antenna (0 Deg)	None					7			
4	Full Wind Antenna (30 Deg)	None					14			
5	Full Wind Antenna (60 Deg)	None					14			
6	Full Wind Antenna (90 Deg)	None					14			
7	Full Wind Antenna (120 Deg)	None					14			
8	Full Wind Antenna (150 Deg)	None					14			



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**Basic Load Cases (Continued)**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut.	Area(Memb.	Surface...
9	Full Wind Members (0 Deg)	None						51		
10	Full Wind Members (30 Deg)	None						51		
11	Full Wind Members (60 Deg)	None						51		
12	Full Wind Members (90 Deg)	None						51		
13	Full Wind Members (120 Deg)	None						51		
14	Full Wind Members (150 Deg)	None						51		
15	Ice Wind Antenna (0 Deg)	None					7			
16	Ice Wind Antenna (30 Deg)	None					14			
17	Ice Wind Antenna (60 Deg)	None					14			
18	Ice Wind Antenna (90 Deg)	None					14			
19	Ice Wind Antenna (120 Deg)	None					14			
20	Ice Wind Antenna (150 Deg)	None					14			
21	Ice Wind Members (0 Deg)	None						135		
22	Ice Wind Members (30 Deg)	None						135		
23	Ice Wind Members (60 Deg)	None						135		
24	Ice Wind Members (90 Deg)	None						135		
25	Ice Wind Members (120 Deg)	None						135		
26	Ice Wind Members (150 Deg)	None						135		
27	Seismic Antenna (0 Deg)	None					6			
28	Seismic Antenna (90 Deg)	None					6			
29	Seismic Members (0 Deg)	None		-0.042	-0.105					
30	Seismic Members (30 Deg)	None	0.052	-0.042	-0.091					
31	Seismic Members (60 Deg)	None	0.091	-0.042	-0.052					
32	Seismic Members (90 Deg)	None	0.105	-0.042	-6.432e...					
33	Seismic Members (120 Deg)	None	0.091	-0.042	0.052					
34	Seismic Members (150 Deg)	None	0.052	-0.042	0.091					
35	Seismic Members (180 Deg)	None	1.286e...	-0.042	0.105					
36	Seismic Members (210 Deg)	None	-0.052	-0.042	0.091					
37	Seismic Members (240 Deg)	None	-0.091	-0.042	0.052					
38	Seismic Members (270 Deg)	None	-0.105	-0.042	1.93e-17					
39	Seismic Members (300 Deg)	None	-0.091	-0.042	-0.052					
40	Seismic Members (330 Deg)	None	-0.052	-0.042	-0.091					
41	Seismic Vertical Antennas	None					6			
42	Man 1 (500 lbs)	None				1				
43	Man 2 (500 lbs)	None				1				
44	Man 3 (500 lbs)	None				1				
45	Man 4 (250 lbs)	None				1				
46	Man 5 (250 lbs)	None				1				
47	Man 6 (250 lbs)	None				1				

**Load Combinations**

	Description	S...	P...	S...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...				
1	1.4D	Yes	Y			1 1.4																																	
2	1.2D + 1.0W 0°	Yes	Y			1 1.2	3	1	9	1																													
3	1.2D + 1.0W 30°	Yes	Y			1 1.2	4	1	10	1																													
4	1.2D + 1.0W 60°	Yes	Y			1 1.2	5	1	11	1																													
5	1.2D + 1.0W 90°	Yes	Y			1 1.2	6	1	12	1																													
6	1.2D + 1.0W 120°	Yes	Y			1 1.2	7	1	13	1																													
7	1.2D + 1.0W 150°	Yes	Y			1 1.2	8	1	14	1																													
8	1.2D + 1.0W 180°	Yes	Y			1 1.2	3	-1	9	-1																													
9	1.2D + 1.0W 210°	Yes	Y			1 1.2	4	-1	10	-1																													
10	1.2D + 1.0W 240°	Yes	Y			1 1.2	5	-1	11	-1																													
11	1.2D + 1.0W 270°	Yes	Y			1 1.2	6	-1	12	-1																													
12	1.2D + 1.0W 300°	Yes	Y			1 1.2	7	-1	13	-1																													
13	1.2D + 1.0W 330°	Yes	Y			1 1.2	8	-1	14	-1																													





**Load Combinations (Continued)**

	Description	S	P	S	B	Fa	BLC	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	
71	1.2D + 1.5Lv 1 270°	Yes	Y		1	1.2	45	1.5																				
72	1.2D + 1.5Lv 1 300°	Yes	Y		1	1.2	45	1.5																				
73	1.2D + 1.5Lv 1 330°	Yes	Y		1	1.2	45	1.5																				
74	1.2D + 1.5Lv 2 0°	Yes	Y		1	1.2	46	1.5																				
75	1.2D + 1.5Lv 2 30°	Yes	Y		1	1.2	46	1.5																				
76	1.2D + 1.5Lv 2 60°	Yes	Y		1	1.2	46	1.5																				
77	1.2D + 1.5Lv 2 90°	Yes	Y		1	1.2	46	1.5																				
78	1.2D + 1.5Lv 2 120°	Yes	Y		1	1.2	46	1.5																				
79	1.2D + 1.5Lv 2 150°	Yes	Y		1	1.2	46	1.5																				
80	1.2D + 1.5Lv 2 180°	Yes	Y		1	1.2	46	1.5																				
81	1.2D + 1.5Lv 2 210°	Yes	Y		1	1.2	46	1.5																				
82	1.2D + 1.5Lv 2 240°	Yes	Y		1	1.2	46	1.5																				
83	1.2D + 1.5Lv 2 270°	Yes	Y		1	1.2	46	1.5																				
84	1.2D + 1.5Lv 2 300°	Yes	Y		1	1.2	46	1.5																				
85	1.2D + 1.5Lv 2 330°	Yes	Y		1	1.2	46	1.5																				
86	1.2D + 1.5Lv 3 0°	Yes	Y		1	1.2	47	1.5																				
87	1.2D + 1.5Lv 3 30°	Yes	Y		1	1.2	47	1.5																				
88	1.2D + 1.5Lv 3 60°	Yes	Y		1	1.2	47	1.5																				
89	1.2D + 1.5Lv 3 90°	Yes	Y		1	1.2	47	1.5																				
90	1.2D + 1.5Lv 3 120°	Yes	Y		1	1.2	47	1.5																				
91	1.2D + 1.5Lv 3 150°	Yes	Y		1	1.2	47	1.5																				
92	1.2D + 1.5Lv 3 180°	Yes	Y		1	1.2	47	1.5																				
93	1.2D + 1.5Lv 3 210°	Yes	Y		1	1.2	47	1.5																				
94	1.2D + 1.5Lv 3 240°	Yes	Y		1	1.2	47	1.5																				
95	1.2D + 1.5Lv 3 270°	Yes	Y		1	1.2	47	1.5																				
96	1.2D + 1.5Lv 3 300°	Yes	Y		1	1.2	47	1.5																				
97	1.2D + 1.5Lv 3 330°	Yes	Y		1	1.2	47	1.5																				
98	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	1	28		29	1	41	1														
99	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	.866	28	.5	30	1	41	1														
100	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	.5	28	.866	31	1	41	1														
101	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27		28	1	32	1	41	1														
102	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	-.5	28	.866	33	1	41	1														
103	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	-.866	28	.5	34	1	41	1														
104	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	-.1	28		35	1	41	1														
105	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	-.866	28	-.5	36	1	41	1														
106	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	-.5	28	-.866	37	1	41	1														
107	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27		28	-.1	38	1	41	1														
108	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	.5	28	-.866	39	1	41	1														
109	1.2D + 1.0EV + 1.0 E...	Yes	Y		1	1.2	27	.866	28	-.5	40	1	41	1														

**Envelope Joint Reactions**

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N25B	max	0	109	0	109	0	109	0	109	0	109	0	109
2		min	0	1	0	1	0	1	0	1	0	1	0	1
3	N26	max	0	109	0	109	0	109	0	109	0	109	0	109
4		min	0	1	0	1	0	1	0	1	0	1	0	1
5	N27	max	0	109	0	109	0	109	0	109	0	109	0	109
6		min	0	1	0	1	0	1	0	1	0	1	0	1
7	N28	max	0	109	0	109	0	109	0	109	0	109	0	109
8		min	0	1	0	1	0	1	0	1	0	1	0	1
9	N29	max	0	109	0	109	0	109	0	109	0	109	0	109
10		min	0	1	0	1	0	1	0	1	0	1	0	1
11	N30	max	0	109	0	109	0	109	0	109	0	109	0	109
12		min	0	1	0	1	0	1	0	1	0	1	0	1
13	N31	max	0	109	0	109	0	109	0	109	0	109	0	109



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**Envelope Joint Reactions (Continued)**

Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
14		min	0	1	0	1	0	1	0	1	0	1	0	1
15	N32	max	0	109	0	109	0	109	0	109	0	109	0	109
16		min	0	1	0	1	0	1	0	1	0	1	0	1
17	N33	max	0	109	0	109	0	109	0	109	0	109	0	109
18		min	0	1	0	1	0	1	0	1	0	1	0	1
19	N34	max	0	109	0	109	0	109	0	109	0	109	0	109
20		min	0	1	0	1	0	1	0	1	0	1	0	1
21	N35	max	0	109	0	109	0	109	0	109	0	109	0	109
22		min	0	1	0	1	0	1	0	1	0	1	0	1
23	N36	max	0	109	0	109	0	109	0	109	0	109	0	109
24		min	0	1	0	1	0	1	0	1	0	1	0	1
25	N37	max	0	109	0	109	0	109	0	109	0	109	0	109
26		min	0	1	0	1	0	1	0	1	0	1	0	1
27	N38	max	0	109	0	109	0	109	0	109	0	109	0	109
28		min	0	1	0	1	0	1	0	1	0	1	0	1
29	N39	max	0	109	0	109	0	109	0	109	0	109	0	109
30		min	0	1	0	1	0	1	0	1	0	1	0	1
31	N40	max	0	109	.006	12	0	109	0	109	0	109	0	109
32		min	0	1	0	4	0	1	0	1	0	1	0	1
33	N41	max	0	109	.006	4	0	109	0	109	0	109	0	109
34		min	0	1	0	8	0	1	0	1	0	1	0	1
35	N42	max	0	109	.006	8	0	109	0	109	0	109	0	109
36		min	0	1	0	2	0	1	0	1	0	1	0	1
37	N105	max	0	109	0	109	0	109	0	109	0	109	0	109
38		min	0	1	0	1	0	1	0	1	0	1	0	1
39	N106	max	0	109	0	109	0	109	0	109	0	109	0	109
40		min	0	1	0	1	0	1	0	1	0	1	0	1
41	N107	max	0	109	0	109	0	109	0	109	0	109	0	109
42		min	0	1	0	1	0	1	0	1	0	1	0	1
43	N108	max	0	109	0	109	0	109	0	109	0	109	0	109
44		min	0	1	0	1	0	1	0	1	0	1	0	1
45	N109	max	0	109	0	109	0	109	0	109	0	109	0	109
46		min	0	1	0	1	0	1	0	1	0	1	0	1
47	N110	max	0	109	0	109	0	109	0	109	0	109	0	109
48		min	0	1	0	1	0	1	0	1	0	1	0	1
49	N111	max	0	109	0	109	0	109	0	109	0	109	0	109
50		min	0	1	0	1	0	1	0	1	0	1	0	1
51	N112	max	0	109	0	109	0	109	0	109	0	109	0	109
52		min	0	1	0	1	0	1	0	1	0	1	0	1
53	N113	max	.011	11	.072	2	.038	2	0	109	0	109	0	109
54		min	-.01	5	-.058	8	-.034	8	0	1	0	1	0	1
55	N114	max	.036	11	.306	8	.148	2	0	109	0	109	0	109
56		min	-.036	5	-.141	2	-.252	8	0	1	0	1	0	1
57	N115	max	.036	11	.311	8	.149	2	0	109	0	109	0	109
58		min	-.036	5	-.143	2	-.254	8	0	1	0	1	0	1
59	N116	max	.01	11	.072	2	.038	2	0	109	0	109	0	109
60		min	-.011	5	-.059	8	-.035	8	0	1	0	1	0	1
61	N117	max	0	109	0	109	0	109	0	109	0	109	0	109
62		min	0	1	0	1	0	1	0	1	0	1	0	1
63	N118	max	0	109	0	109	0	109	0	109	0	109	0	109
64		min	0	1	0	1	0	1	0	1	0	1	0	1
65	N119	max	0	109	0	109	0	109	0	109	0	109	0	109
66		min	0	1	0	1	0	1	0	1	0	1	0	1
67	N120	max	0	109	0	109	0	109	0	109	0	109	0	109
68		min	0	1	0	1	0	1	0	1	0	1	0	1
69	N121	max	0	109	0	109	0	109	0	109	0	109	0	109
70		min	0	1	0	1	0	1	0	1	0	1	0	1



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**Envelope Joint Reactions (Continued)**

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
71	N122	max	0	109	0	109	0	109	0	109	0	109	0	109
72		min	0	1	0	1	0	1	0	1	0	1	0	1
73	N123	max	0	109	0	109	0	109	0	109	0	109	0	109
74		min	0	1	0	1	0	1	0	1	0	1	0	1
75	N124	max	0	109	0	109	0	109	0	109	0	109	0	109
76		min	0	1	0	1	0	1	0	1	0	1	0	1
77	N125	max	.027	11	.073	6	.012	13	0	109	0	109	0	109
78		min	-.031	5	-.058	12	-.014	7	0	1	0	1	0	1
79	N126	max	.178	12	.305	12	.095	13	0	109	0	109	0	109
80		min	-.088	6	-.145	6	-.043	7	0	1	0	1	0	1
81	N127	max	.181	12	.309	12	.097	12	0	109	0	109	0	109
82		min	-.09	6	-.147	6	-.044	6	0	1	0	1	0	1
83	N128	max	.025	12	.073	6	.018	13	0	109	0	109	0	109
84		min	-.028	6	-.058	12	-.021	7	0	1	0	1	0	1
85	N129	max	0	109	0	109	0	109	0	109	0	109	0	109
86		min	0	1	0	1	0	1	0	1	0	1	0	1
87	N130	max	0	109	0	109	0	109	0	109	0	109	0	109
88		min	0	1	0	1	0	1	0	1	0	1	0	1
89	N131	max	0	109	0	109	0	109	0	109	0	109	0	109
90		min	0	1	0	1	0	1	0	1	0	1	0	1
91	N132	max	0	109	0	109	0	109	0	109	0	109	0	109
92		min	0	1	0	1	0	1	0	1	0	1	0	1
93	N133	max	0	109	0	109	0	109	0	109	0	109	0	109
94		min	0	1	0	1	0	1	0	1	0	1	0	1
95	N134	max	0	109	0	109	0	109	0	109	0	109	0	109
96		min	0	1	0	1	0	1	0	1	0	1	0	1
97	N135	max	0	109	0	109	0	109	0	109	0	109	0	109
98		min	0	1	0	1	0	1	0	1	0	1	0	1
99	N136	max	0	109	0	109	0	109	0	109	0	109	0	109
100		min	0	1	0	1	0	1	0	1	0	1	0	1
101	N137	max	.028	10	.073	10	.018	3	0	109	0	109	0	109
102		min	-.025	4	-.057	4	-.021	9	0	1	0	1	0	1
103	N138	max	.089	10	.304	4	.096	4	0	109	0	109	0	109
104		min	-.179	4	-.145	10	-.044	10	0	1	0	1	0	1
105	N139	max	.088	10	.309	4	.096	3	0	109	0	109	0	109
106		min	-.18	4	-.148	10	-.044	9	0	1	0	1	0	1
107	N140	max	.031	11	.074	10	.012	3	0	109	0	109	0	109
108		min	-.027	5	-.058	4	-.014	9	0	1	0	1	0	1
109	Totals:	max	.721	11	1.464	14	.7	2						
110		min	-.721	5	.541	8	-.7	8						

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

Member	Shape	Code C...	Loc(ft)	LC	Shear...	Loc(ft)	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y...	phi*Mn z...	Cb	Egn	
1	M38	LL2.5x2.5x3x6	.025	3.609	7	.006	0	z	9	43.525	58.32	4.643	2.21	1	H1-1b
2	M39	LL2.5x2.5x3x6	.025	3.609	9	.006	0	z	7	43.525	58.32	4.643	2.21	1	H1-1b
3	M41	PL2x0.5	.026	2.354	7	.008	0	v	10	5.9	32.4	.338	1.35	1...	H1-1b*
4	M42	PL2x0.5	.016	0	8	.013	0	y	11	5.9	32.4	.338	1.35	1...	H1-1b*
5	M43	PL2x0.5	.026	2.354	9	.008	0	v	6	5.9	32.4	.338	1.35	1...	H1-1b*
6	M44	LL2.5x2.5x3x6	.069	1.604	8	.008	0	z	5	43.525	58.32	4.643	2.21	1	H1-1b
7	M88	PL2x0.5	.002	0	11	.000	0	v	25	14.288	32.4	.338	1.35	2...	H1-1b
8	M89	L2.5x2.5x3	.003	5.859	2	.001	5.859	z	8	19.507	29.192	.873	1.714	1	H2-1
9	M90	PL2x0.5	.002	0	11	.000	1.5	v	25	14.288	32.4	.338	1.35	2...	H1-1b
10	M91	L2.5x2.5x3	.003	1.172	8	.001	1.172	z	8	19.507	29.192	.873	1.714	1	H2-1
11	M92	PL2x0.5	.074	.75	9	.017	0	v	8	14.288	32.4	.338	1.35	1...	H1-1b
12	M93	PL2x0.5	.002	1.5	21	.000	1.5	y	25	14.288	32.4	.338	1.35	2...	H1-1b



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

	Member	Shape	Code C...	Loc[ft]	LC Shear...	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y...	phi*Mn z...	Cb	Eqn	
13	M94	L2.5x2.5x3	.003	5.86	18	.001	5.86	v	25	19.507	29.192	.873	1.714	1	H2-1
14	M95	PL2x0.5	.002	0	21	.000	0	v	25	14.269	32.4	.338	1.35	2...	H1-1b
15	M96	L2.5x2.5x3	.003	1.172	24	.001	1.172	v	25	19.507	29.192	.873	1.714	1	H2-1
16	M97	PL2x0.5	.074	1.501	13	.017	1.501	v	12	14.278	32.4	.338	1.35	1...	H1-1b
17	M98	PL2x0.5	.002	0	25	.000	1.501	v	25	14.269	32.4	.338	1.35	2...	H1-1b
18	M99	L2.5x2.5x3	.003	5.861	22	.001	5.861	v	25	19.507	29.192	.873	1.714	1	H2-1
19	M100	PL2x0.5	.002	1.501	25	.000	1.501	v	25	14.269	32.4	.338	1.35	2...	H1-1b
20	M101	L2.5x2.5x3	.003	1.172	16	.001	1.172	v	25	19.507	29.192	.873	1.714	1	H2-1
21	M102	PL2x0.5	.074	1.501	3	.017	1.501	v	4	14.269	32.4	.338	1.35	1...	H1-1b
22	M64	PIPE 2.0	.198	3.25	9	.028	3.25		2	10.348	32.13	1.872	1.872	1	H1-1b



# **ATTACHMENT 5**



Result\_Query result

Displayed features: 1/1

**Search Result:** Newington

Property Address 2985-3017 BERLIN TPK

Owner Name BRIXMOR GA TURNPIKE PLAZA LLC

Property Record [More info](#)  
Card

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2020.



Information on the Property Records for the Municipality of Newington was last updated on 7/18/2023.

### Property Summary Information

Parcel Data And Values **Building** ▾ Outbuildings Sales Permits

#### Parcel Information

Location:	2985-3017 BERLIN TPK	Property Use:	Retail	Primary Use:	Community Shopping Center
Unique ID:	G1137100	Map Block Lot:	27/149/000	Acres:	16.2900
490 Acres:	0.00	Zone:	PD	Volume / Page:	2175/0252
Developers Map / Lot:	S/E 1797 & 1731	Census:	494100		

#### Value Information

	Appraised Value	Assessed Value
Land	5,322,500	3,725,750
Buildings	22,727,760	15,909,430
Detached Outbuildings	736,000	515,200
<b>Total</b>	<b>28,786,260</b>	<b>20,150,380</b>

#### Owner's Information

**Owner's Data**  
 BRIMMOR GA TURNPIKE PLAZA LLC  
 RYAN LLC  
 500 EAST BROWARD BLVD SUITE 1130  
 FORT LAUDERDALE, FL 33394

# **ATTACHMENT 6**



**Certificate of Mailing — Firm**

Name and Address of Sender  Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender  <div style="text-align: center; font-size: 2em;">3</div>	TOTAL NO. of Pieces Received at Post Office™  <div style="text-align: center; font-size: 2em;">3</div>	Affix Stamp Here <i>Postmark with Date of Receipt.</i>  <div style="text-align: center;"> </div>
Postmaster, per (name of receiving employee)  <div style="text-align: center; font-size: 2em;">AS</div>			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Thomas Hutka, Town Manager Town of Newington 200 Garfield Street Newington, CT 06111				
2.	Paul Dickinson, Town Planner Town of Newington 200 Garfield Street Newington, CT 06111				
3.	Brixmore GA Turnpike Plaza LLC Ryan LLC 500 East Broward Blvd, Suite 1130 Fort Lauderdale, CT 33394				
4.					
5.					
6.					

