CENTERLINE COMMUNICATIONS

750 West Center Street, Suite 3
West Bridgewater, MA 02379
781.713.4725

September 17, 2020

VIA UPS Tracking No. 1Z9Y45030306132771

Town of Wellesley
Design Review Board
525 Washington Street
Wellesley, MA 02482
Attn: Don McCauley, Planning Director

RE: New Cingular Wireless PCS, LLC d/b/a AT&T Mobility ("AT&T") — Eligible Facilities Request for Administrative Design Review to Modify Transmission Equipment on a Building (the "Building") located at 372 Washington Street, Wellesley, MA (AT&T Site Number MA2265) (Assessor's ID 75-43) (the "Site")

Dear Honorable Members of the Wellesley Design Review Board:

On behalf of AT&T, we are submitting an Application for Design Review for proposed modifications which include the collocation, removal and replacement of Transmission Equipment on a facade of the penthouse (the "Penthouse") and on the roof of the building (the "Building") located at the Site.

AT&T's proposed modifications meet the By-Right requirements as set forth in Section 22 C.D.2 of the Zoning By- Laws and the previously approved height and square footage requirements as set forth in the prior ZBA 2006-18 decision and 2007-01 decision. AT&T's proposed modifications will be concealed behind an existing screen wall and enclosure that is aesthetically consistent with the exterior of the Building as shown in the enclosed Photo Simulations. Enclosed please also find copies of the prior ZBA Decisions as well as a Letter of Authorization from the Site owner.

Additionally, as you may be aware, Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, mandates that state and local governments "may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." Under Section 6409(a)(2)(A)-(C), an Eligible Facilities Request is any request to modify a Tower or Base Station that involves "collocations of new Transmission Equipment," "removal," or "replacement" of Transmission Equipment.

Under this Eligible Facilities Request, as depicted and described on the enclosed Plans and Structural Analysis, AT&T is proposing to collocate, remove and replace Transmission Equipment located on the facade of the Penthouse and on the roof of the Building at the Site. Six (6) existing antennas are mounted to a frame on the roof of the Building at the 43' above ground level ("AGL") antenna centerline height, concealed behind an existing screen wall. The three (3) remaining existing antennas are mounted to the façade of the existing Penthouse at the 43' AGI, antenna centerline height, concealed by an existing enclosure. The antennas mounted on the façade of the Penthouse do not exceed the height of the Penthouse. The existing Building is used by AT&T as a Base Station and the modifications proposed by AT&T in this request are consistent with AT&T's operations at the Site and do not substantially change the physical dimensions of the Base Station.

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Under this Eligible Facilities Request, AT&T proposes the modification of its previously approved Base Station by replacing three (3) existing panel antennas (1 per sector) with an equal number of new panel antennas and mounting them at the same centerline heights as the existing antennas in each sector on the facade of the Penthouse and roof of the Building. The modifications will also include the relocation of existing panel antennas as necessary to achieve required separation to avoid signal interference and the replacement of appurtenant equipment (including remote radio units), cabling and wiring of these antennas. The replacement antennas will be concealed by the existing enclosure and existing screen wall around AT&T's equipment. After the proposed modifications, AT&T's Base Station will consist of a total of nine (9) panel antennas, three (3) per sector, mounted on the facade of the Penthouse and roof of the Building, along with appurtenant equipment. There will be no increase in the number of panel antennas installed.

AT&T's proposed modifications do not substantially change the physical dimensions of the Base Station at the Site as enumerated in the FCC Regulations and therefore qualifies as an Eligible Facilities Request and we therefore respectfully request the issuance of an administrative approval to allow AT&T to apply for a building permit for the proposed modifications.

Thank you for your attention to this matter. Please do not hesitate to contact me should there be any questions or concerns.

Sincerely,

Centerline Communications
Patricia Nowak
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Email: pnowak@clinellc.com
Phone: (508)265-5599

Enclosures:
Exhibit 1 – Photo Simulations
Exhibit 2 – ZBA Decisions
Exhibit 3 - Letter of Authorization
Exhibit 4 – Plans
Exhibit 5 – Structural Analysis

TOWN OF WELLESLEY
DESIGN REVIEW BOARD
APPLICATION FOR DESIGN REVIEW

WELLESLEY DESIGN REVIEW BOARD
525 Washington Street • Wellesley, MA 02482
781-431-1019 ext. 2232 • Fax 781-237-6495

application submission date:_____

Part A.
1. Address of Project 372 Washington Street, Wellesley, MA 02481

2. Type of Project: ☐PSI ☐Major ☐Minor ☒Antenna: By Right ☐Antenna: Special Permit

Part B. I hereby certify that the information on this application is correct and understand that all applications are subject to conformance with the Town of Wellesley Zoning Bylaw and review by the Wellesley Design Review Board.

Name of Property Owner/Applicant 372 Washington Street, LLC / At+t
Address c/o The Akvizos Group 2 Lake Drive, Wellesley MA 02482 Phone..... Email.....
Signature Please see attached Letter of Authorization
Name of Agent for Applicant Patricia Navak - Centerline Communications
Address 750 West Center St, West Bridgewater MA 02379 Phone 508-245-5599 Email pnovak@clinelk.com
Signature [signature]

Part C. The following materials are required on file to make the application complete and before a review date is set.

For all projects (9 sets):
Written description of proposed change.
Written description of materials exposed to view.
Color photographs of the existing building and adjacent buildings.
Scaled elevation drawings (see details below).
Landscape and grading plan showing all improvements
Plan showing outdoor lighting & signage.

Major Construction & PSI should also include:
Scaled site plan.
A three-dimensional model of the project.

Scaled site plans should show the following:
Existing and proposed boundary lines including lot dimensions and area.
Location of all existing and proposed structures.
Location of existing and proposed driveways, parking areas, handicapped ramps & all site improvements.
Location of zone lines and existing zoning district.
Layout of all parking spaces, including dimensions, total number (standard, compact, & handicapped).
Location of all open space including existing and proposed landscaped areas (show all major trees including street trees).
Details of landscaping indicating the types and size of trees and shrubs to be planted.

Scaled elevation drawings should show the following:
Details of major architectural elements.
Samples of materials to be used.
Dimensions of building/addition (height, width, and length).
Any mechanical equipment on roof.

Required application fee is $150 for minor construction and by-right antenna projects and $300 for major construction, PSI, and special permit antenna projects. All checks made payable to "Town of Wellesley."

Part D. To be completed by Design Review Board staff.

Comments.....
DRB ___ -- ___ Hearing Date _____

EXHIBIT 1

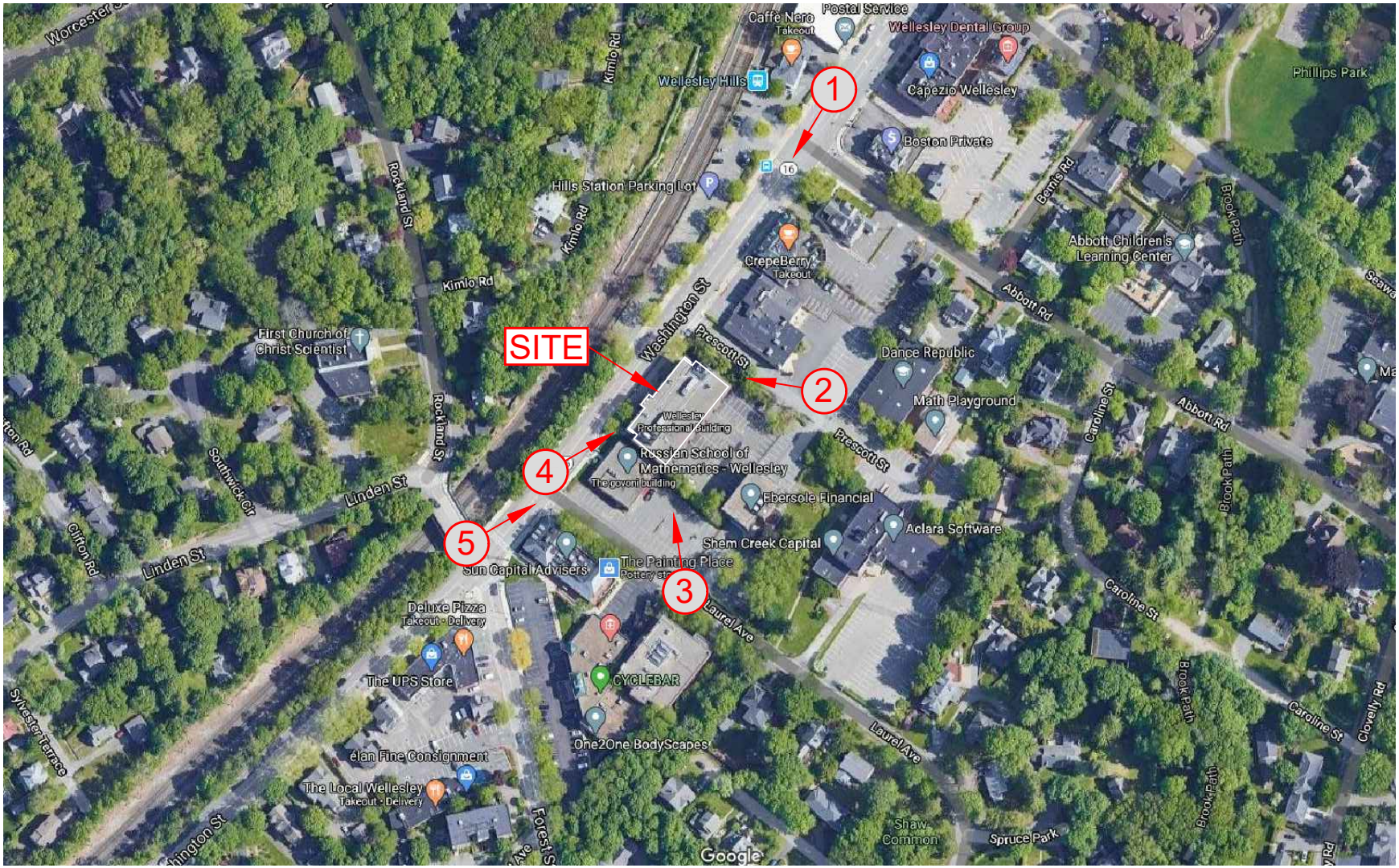
Prepared For:
CENTERLINE-AT&T
Site Number:
MA2265
Site Name:
WELLESLEY
WASHINGTON STREET

372 WASHINGTON STREET
WELLESLEY, MA 02481

SITE NO: MA2265 **SITE NAME:** WELLESLEY WASHINGTON STREET **ADDRESS:** 372 WASHINGTON STREET WELLESLEY, MA 02481	at&t 550 COCHITUATE ROAD FRAMINGHAM, MA 01701	CENTERLINE COMMUNICATIONS 750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379	HDG HUDSON Design Group LLC 45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586	SITE TYPE: ROOFTOP DATE: 08/07/2020 REV: 0 DRAWN BY: VP SCALE: N.T.S.	THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

LOCUS MAP

TAKEN FROM GOOGLE.COM ON 08/07/2020



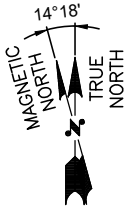


PHOTO LOCATION

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EXISTING CONDITIONS

LOCATION # 1

DATE OF PHOTO: 08/06/2020

DETAIL OF EQUIPMENT

VIEW SOUTHWEST FROM WASHINGTON STREET

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PROPOSED CONDITIONS

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EXISTING CONDITIONS

LOCATION # 2

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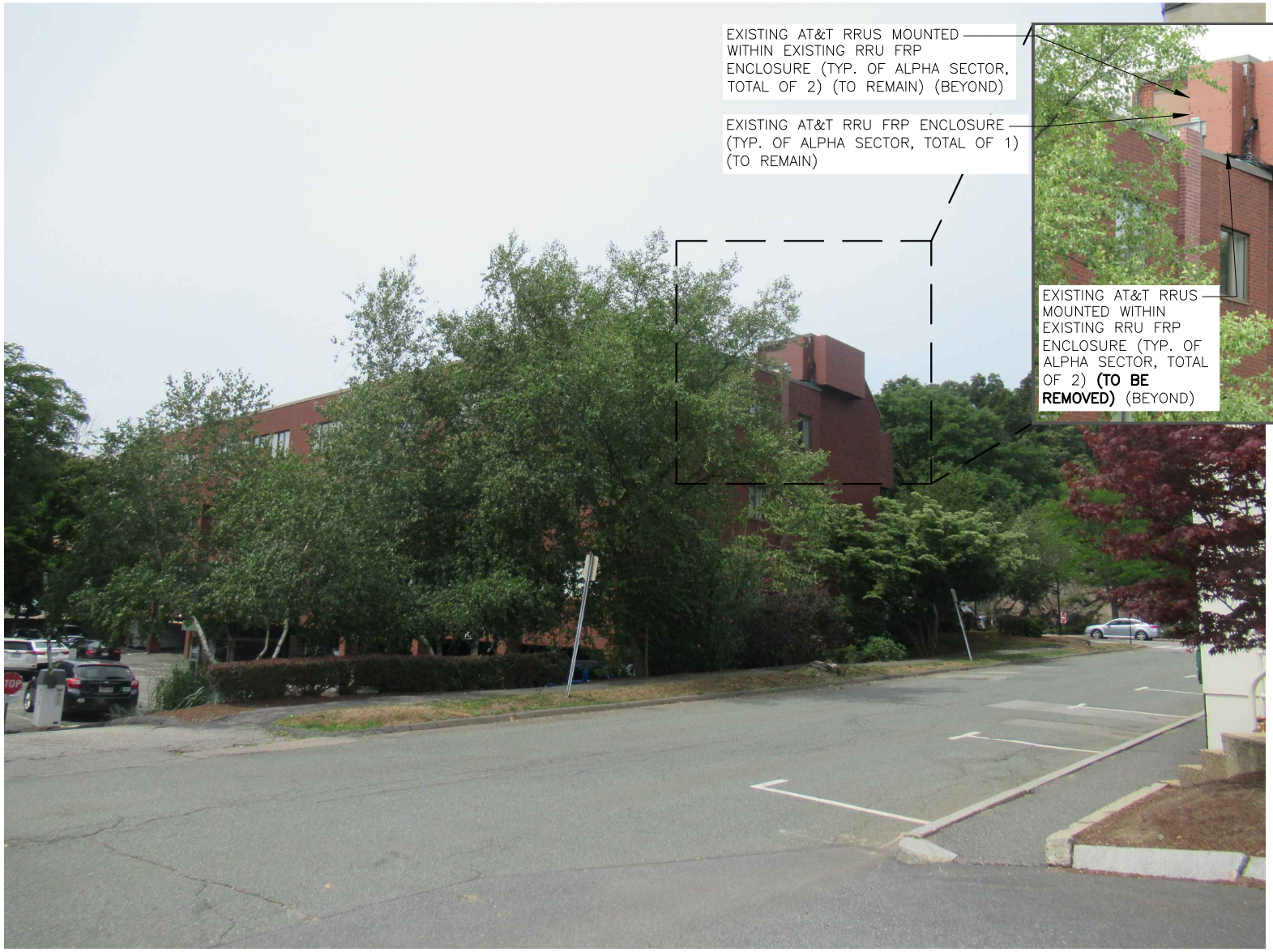

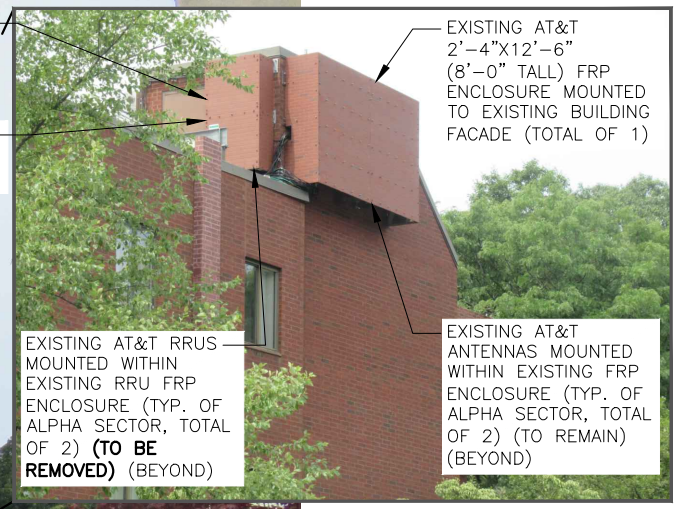

DETAIL OF EQUIPMENT

VIEW WEST FROM PRESCOTT STREET

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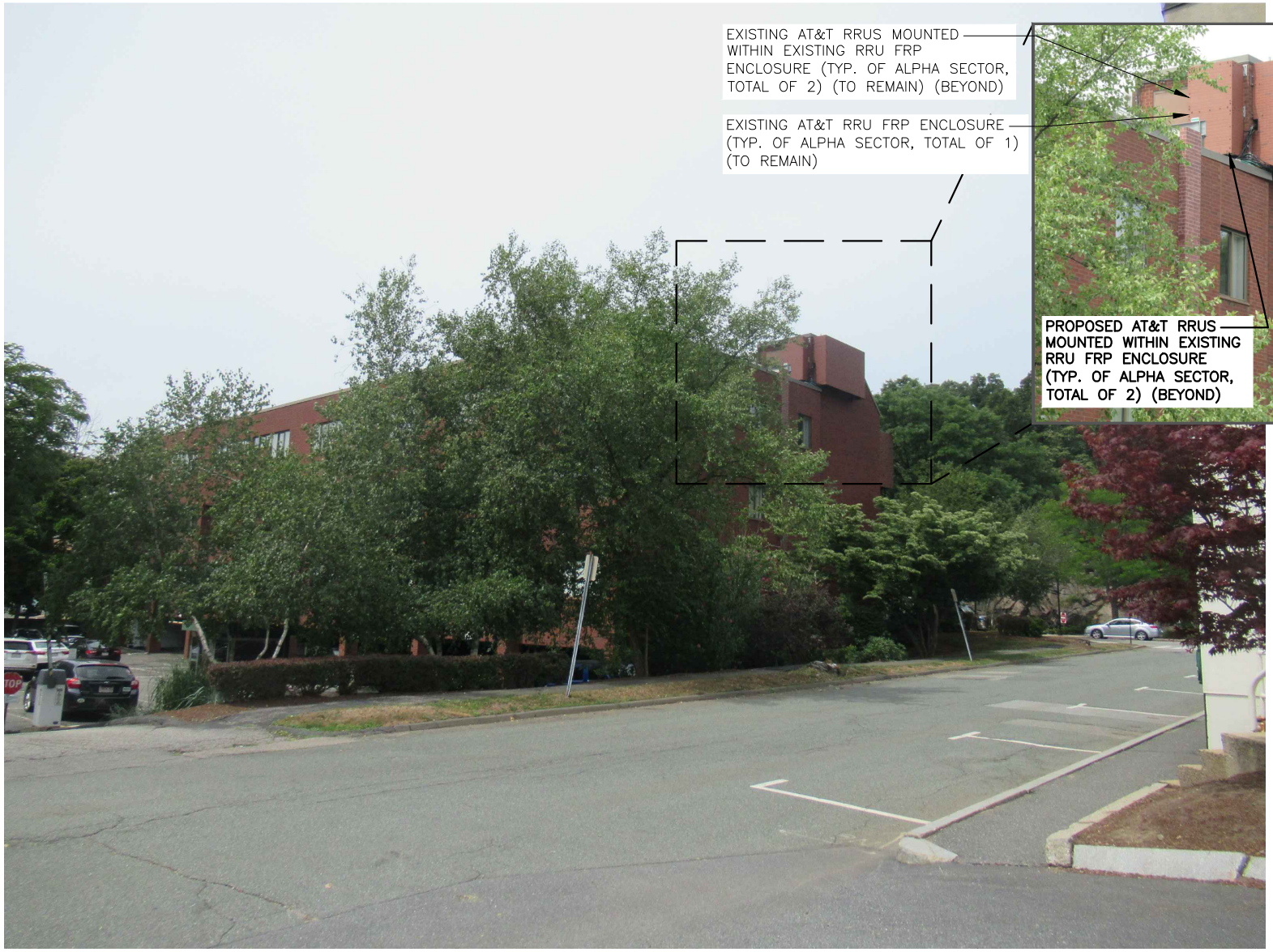

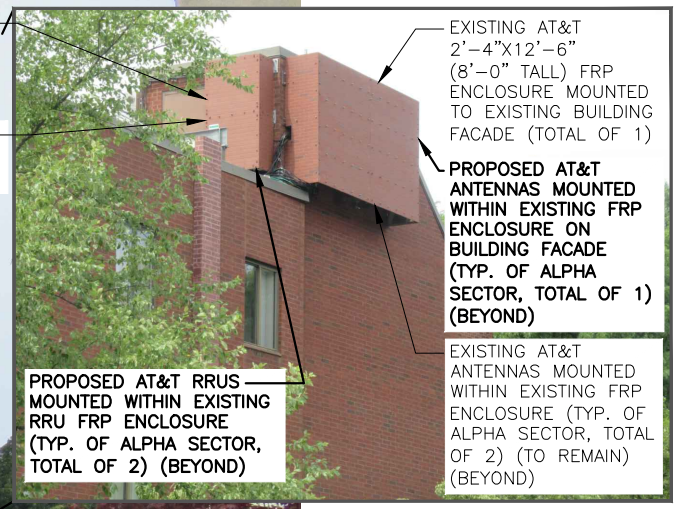

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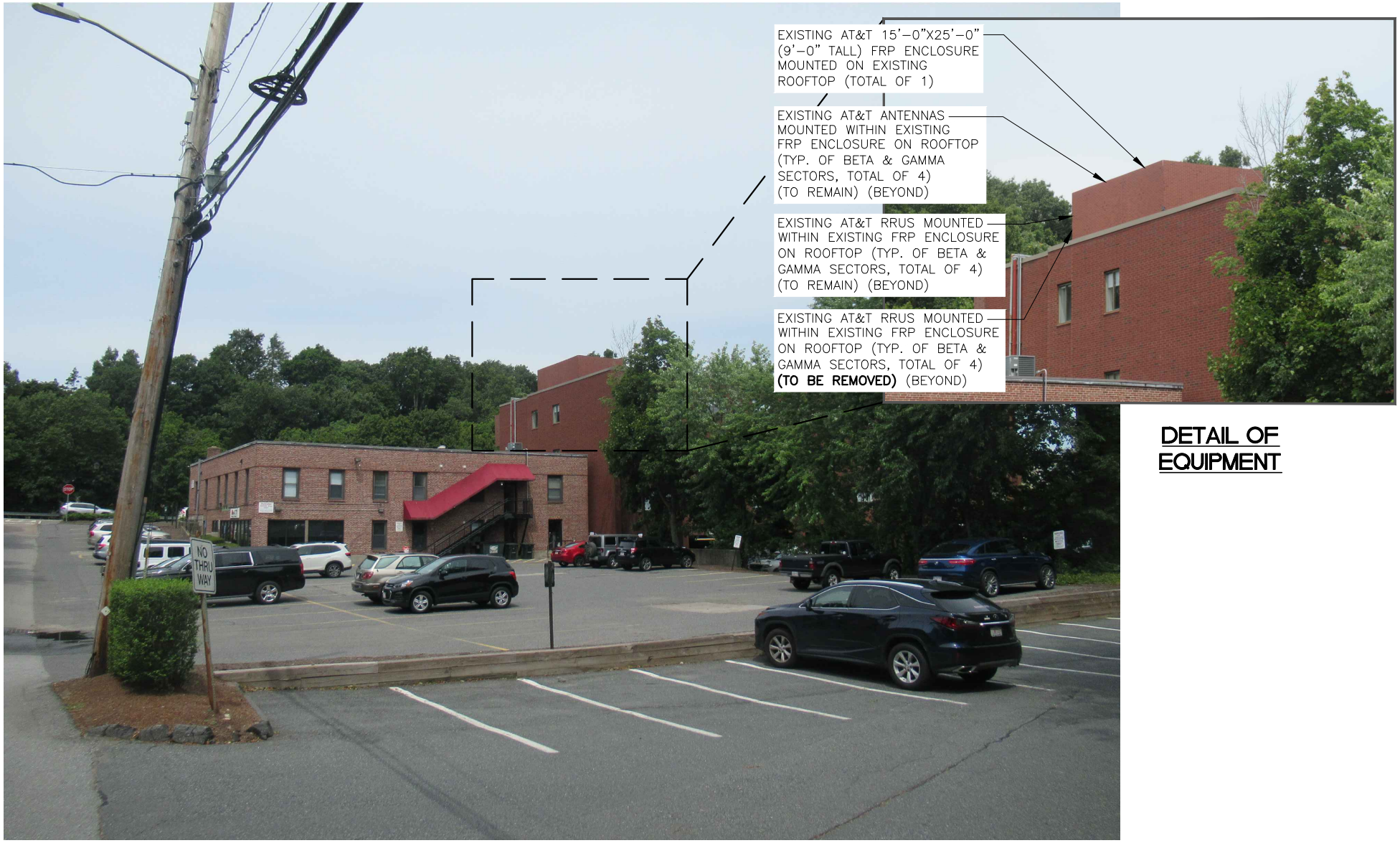

DETAIL OF EQUIPMENT

VIEW NORTHWEST FROM LAUREL AVE

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PROPOSED CONDITIONS

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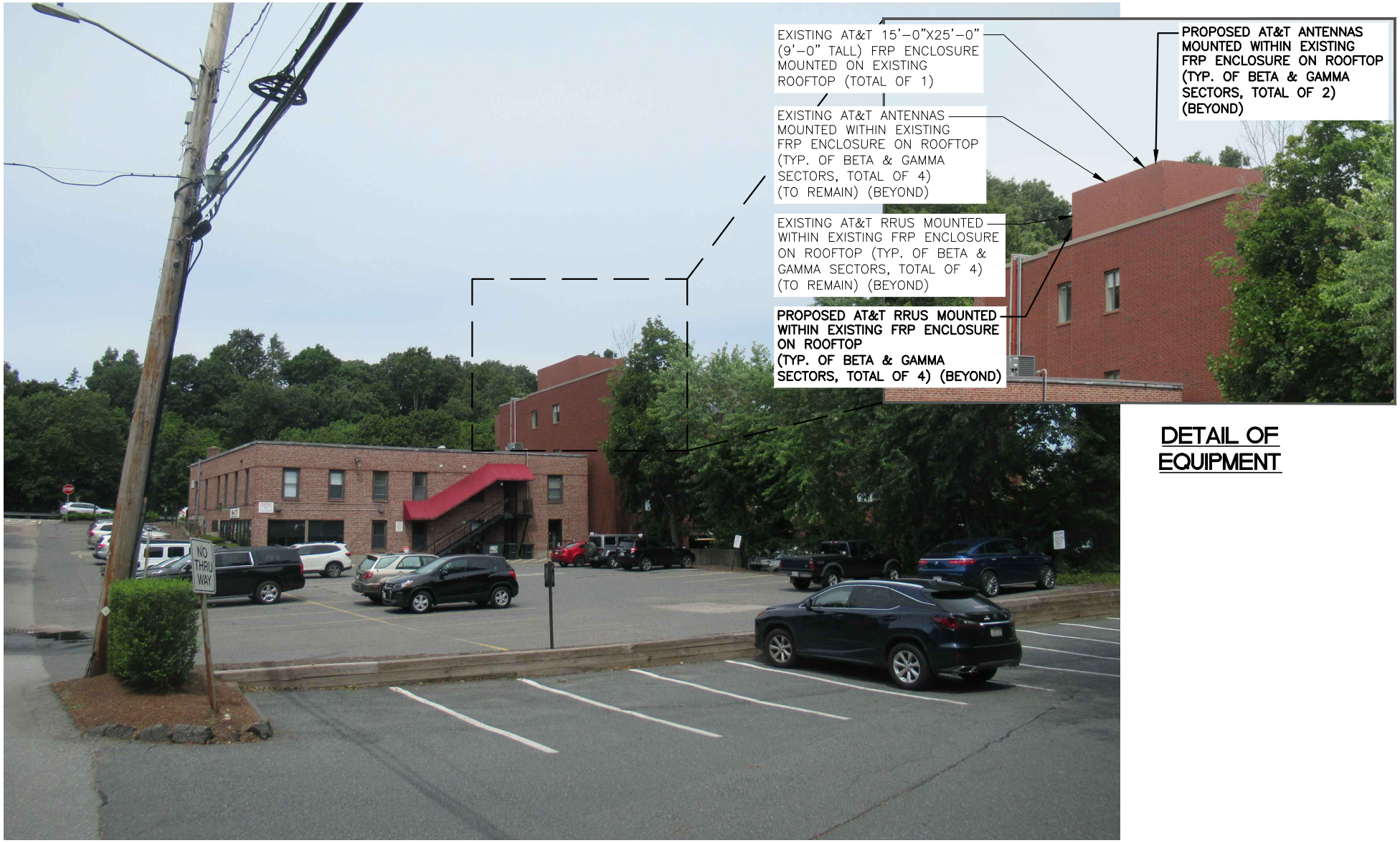

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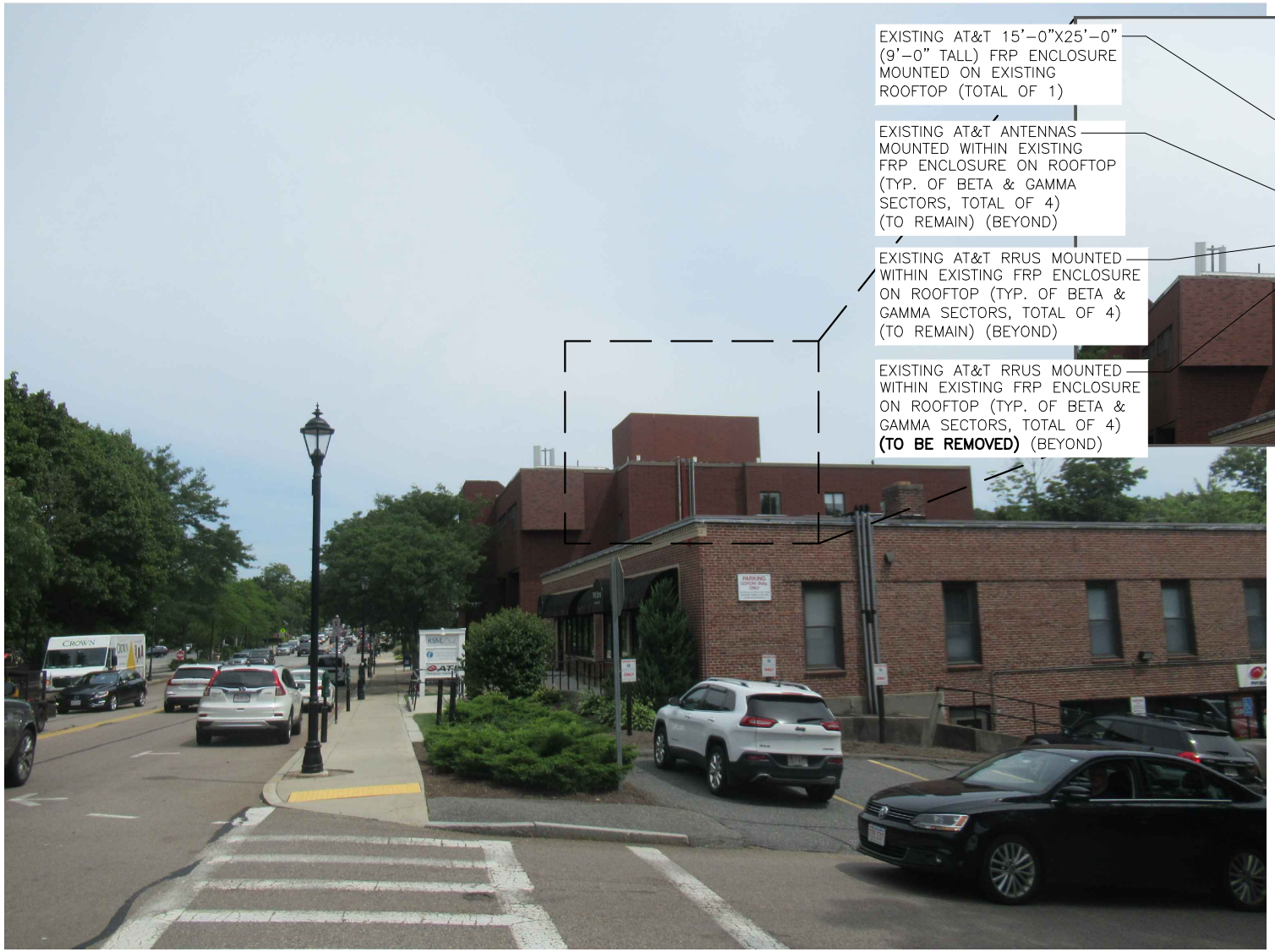
EXISTING CONDITIONS LOCATION # 4 DATE OF PHOTO: 08/06/2020



DETAIL OF EQUIPMENT

VIEW NORTHEAST FROM THE INTERSECTION OF LAUREL AVE AND WASHINGTON STREET

SITE NO: MA2265 SITE NAME: WELLESLEY WASHINGTON STREET ADDRESS: 372 WASHINGTON STREET WELLESLEY, MA 02481	at&t 550 COCHITUATE ROAD FRAMINGHAM, MA 01701	CENTERLINE COMMUNICATIONS 750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379	HUDSON Design Group LLC 45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586	SITE TYPE: ROOFTOP DATE: 08/07/2020 REV: 0 DRAWN BY: VP SCALE: N.T.S.	THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PROPOSED CONDITIONS

LOCATION # 4

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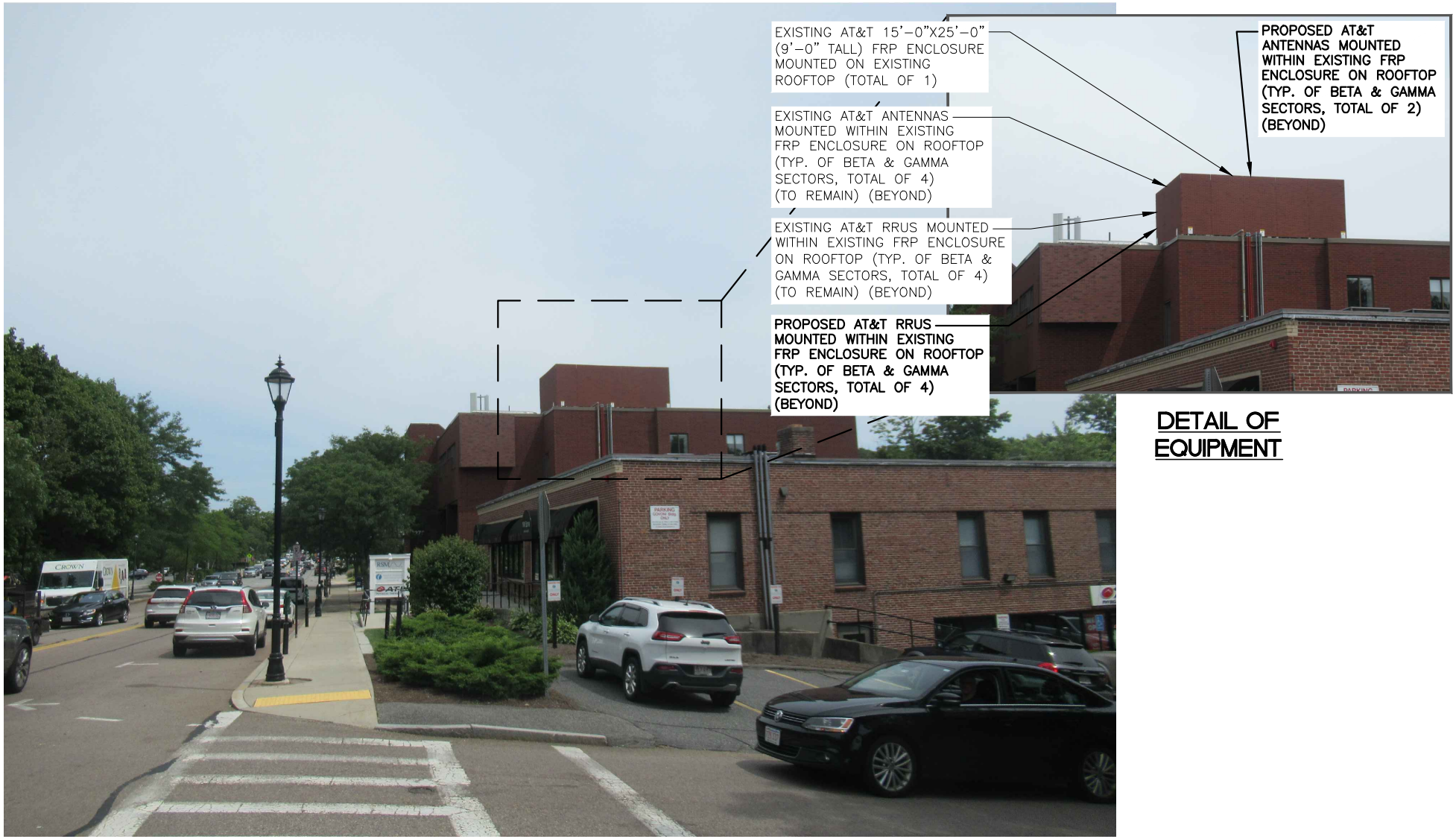

DETAIL OF EQUIPMENT

VIEW NORTHEAST FROM THE INTERSECTION OF LAUREL AVE AND WASHINGTON STREET

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EXISTING CONDITIONS

LOCATION # 5

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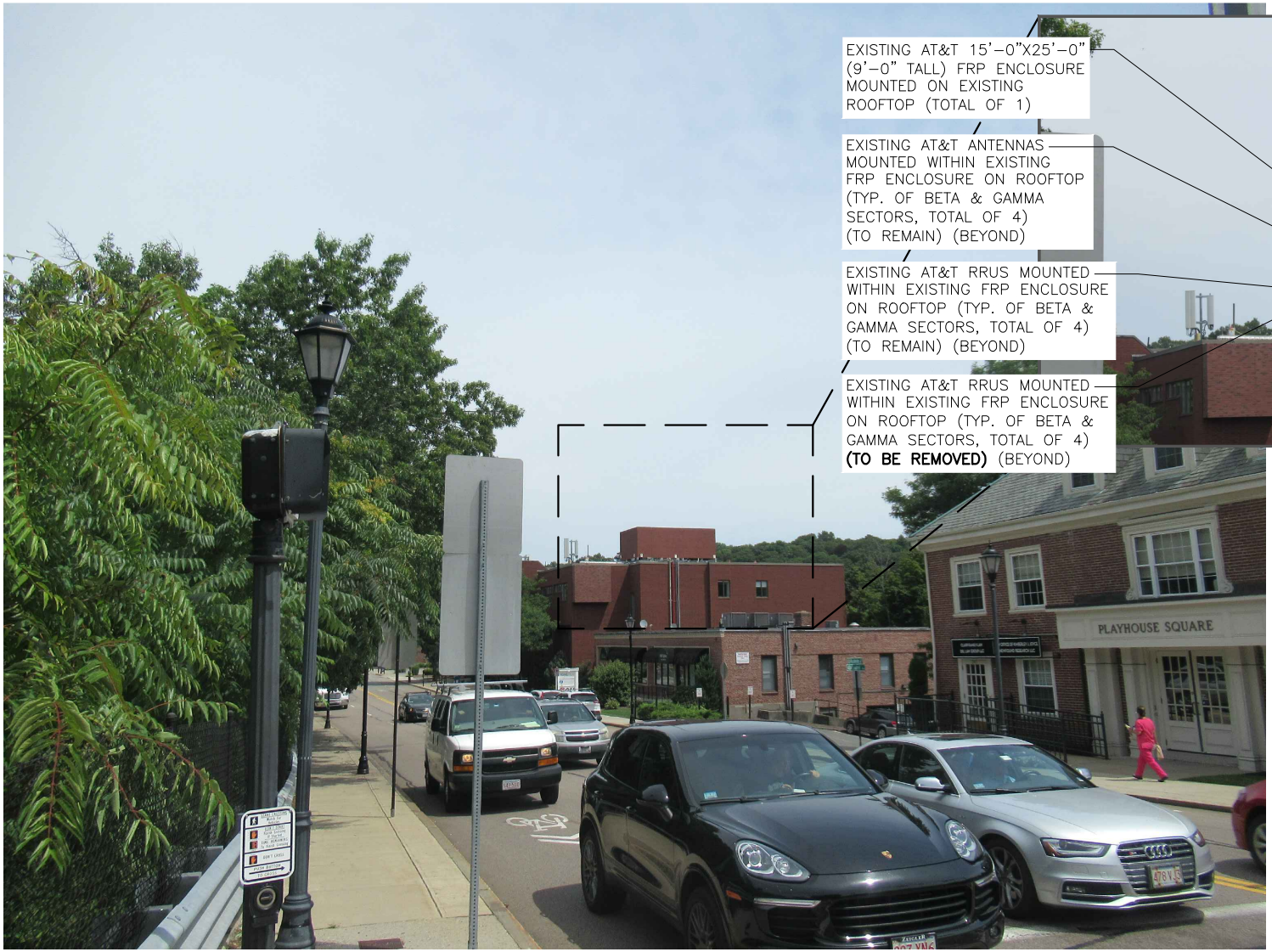

DETAIL OF EQUIPMENT

VIEW NORTHEAST FROM THE INTERSECTION OF WASHINGTON STREET AND ROCKLAND STREET

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PROPOSED CONDITIONS

LOCATION # 5

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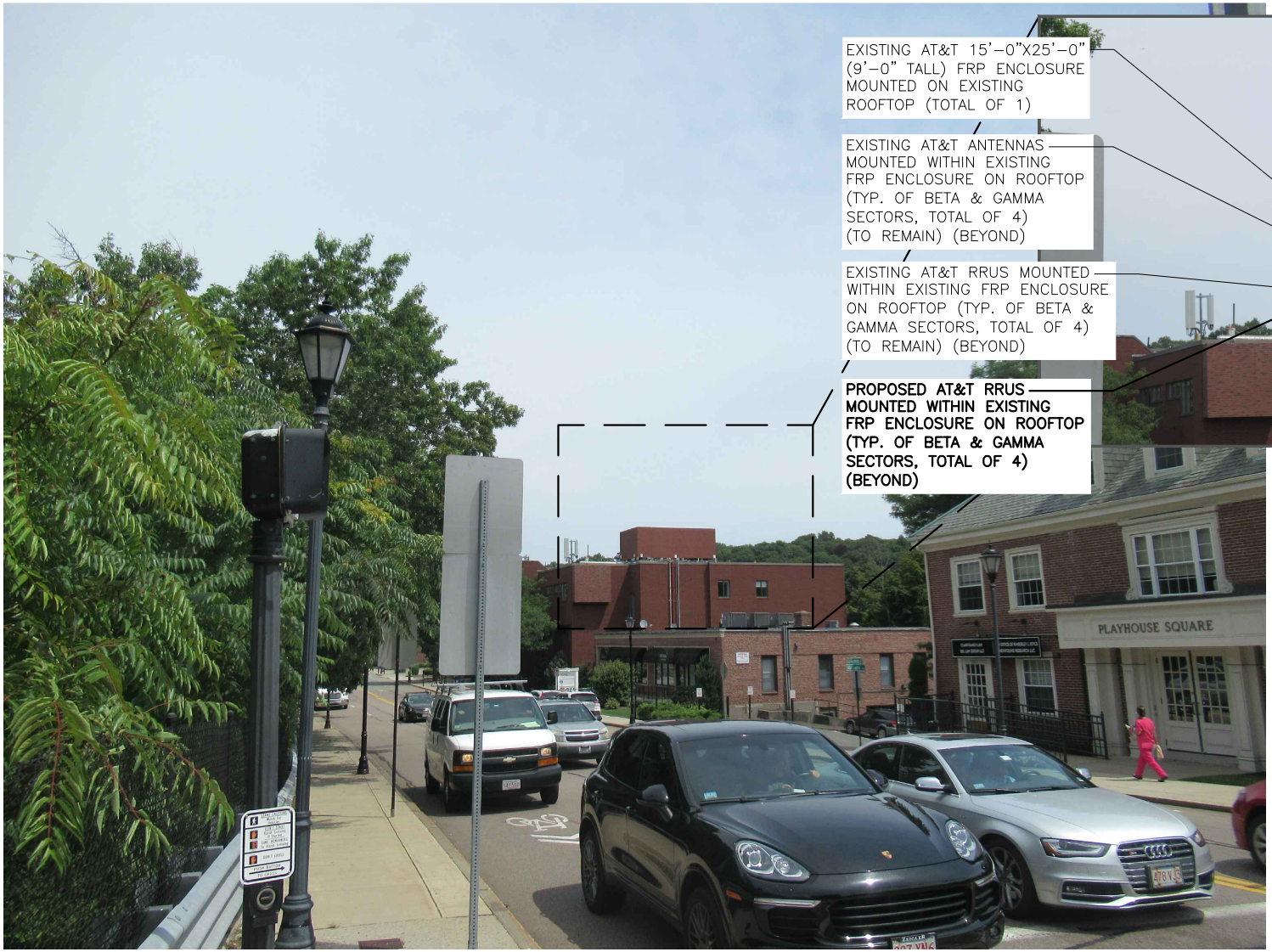

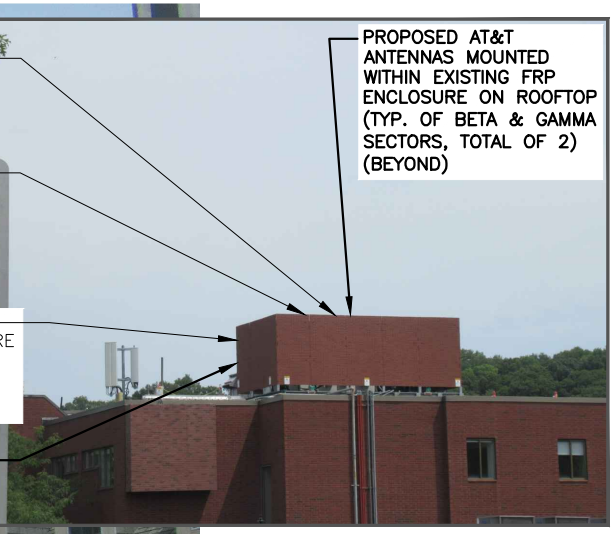

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EXHIBIT 2

TOWN OF WELLESLEY MASSACHUSETTS

ZONING BOARD OF APPEALS
TOWN HALL • 525 WASHINGTON STREET • WELLESLEY, MA 02482-5992

RICHARD L. SEEGEL, CHAIRMAN
CYNTHIA S. HIBBARD
DAVID G. SHEFFIELD

LENORE R. MAHONEY
EXECUTIVE SECRETARY
TELEPHONE
(781) 431-1019 EXT. 208

ROBERT A BASTILLE
J. RANDOLPH BECKER, VICE CHAIRMAN
ROBERT W. LEVY

ZBA 2006-18
Petition of New Cingular Wireless PCS LLC
372 Washington Street

Petition of NEW CINGULAR WIRELESS PCS LLC requesting a Special Permit pursuant to the provisions of Section XXIIC.D.3 and Section XXV of the Zoning Bylaw for construction, use, maintenance, and operation of a wireless communications facility, at 372 WASHINGTON STREET, in a Business District.

On February 24, 2006, the petitioner filed a request for a hearing before this Authority, and thereafter, due notice of the hearing was given by mailing and publication.

Presenting case the at the hearing was Doug Wilkins, who said that he is from the law firm of Anderson & Kreiger and he represents Cingular Wireless.

Mr. Wilkins said that the petitioners are proposing to install three sectors of antennas with four antennas in each sector. He said that they will be on the rooftop and façade of the commercial building at 372 Washington Street.

Mr. Wilkins displayed the plans, sector by sector. He said that, as shown on Plan (Z1), they do not plan to put antennas on Washington Street. He said that they had originally proposed a penthouse on the Laurel Avenue side but the Design Review Board (DRB) had wanted to see something simpler. He said that they moved the antennas behind the existing HVAC unit because that seems to be the best way to camouflage the antennas from the public on Washington Street. He said that the setback will be 20 feet off of the roofline.

Mr. Wilkins said that on the Prescott Street side, there is an existing penthouse that is just over 45' above ground level. He said that they plan to put their antennas on the façade there, below the 45' level to meet the Zoning height restriction. He said that the antennas will be painted to blend in with the building.

Mr. Wilkins said that the third sector is at the rear of the building. He said that they will be putting the equipment shelter to house the radio and switching equipment there. He said that the landlord does not want them to use anything that could potentially be used as office space. He said that the equipment shelter is the only thing that keeps the proposal from being a by-right project. The Board said that the Special Permit is required because the surface area on the shelter on the roof will exceed 50 square feet.

Mr. Wilkins said that the equipment shelter is set back quite a way and will painted a dull grey in response to DRB recommendations.

Mr. Wilkins displayed photosimulations of views of the three sectors. He said that there will be low impact from a visual perspective. He said that the facilities are unmanned and only require occasional servicing, once or twice a month.

The Board asked if there will be an emergency generator in the equipment shelter.

Sal Ahlawat said that he is an engineer for Cingular Wireless. He said that there will be battery backup in the equipment shelter.

Mr. Wilkins said that if the batteries run down in an emergency situation, they may have to bring in an emergency generator. He said that they are not proposing to have generators for routine backup.

The Board said that generators present a noise issue. The residences across the railroad have direct line of sight and the Board would not want a new noise source created there.

Mr. Ahlawat displayed a map showing coverage and gaps. He said that they need to have -74dBm in order to have both indoor and in-vehicle coverage.

The Board asked if there was a lesser dBm than 74 to achieve coverage. Mr. Ahlawat said that 74 is the standard set by Cingular Wireless for optimum indoor coverage.

Mr. Ahlawat said that Route 9 & 16 are considered high traffic areas. He said that the gap there is covered by the proposed site.

The Board asked about the siting analysis. The Board asked if the petitioners had considered co-locating with other antennas in the area. Mr. Wilkins said that they had considered installation on another building close by. He said that the landlord was opposed to the proposal.

Mr. Wilkins said that the petitioners consider this proposal to be a co-location. He said that they are dealing with an existing structure. The Board said that is preferable to building a pole.

The Board asked about lighting and security. Mr. Wilkins said there is no lighting proposed. He said that access will be through the building. He said that they will not need any other security.

The Board asked if Cingular has other sites in Town. Mr. Wilkins said that they have facilities at the Village Church, on Route 9, and one on Central Street at Wellesley College on the water tank.

The Board said that Attachment 7 has the radio station authorizations. There is no reference to Wellesley specifically. Mr. Wilkins said that it covers the Boston-Providence area.

The Board asked about build out dates. Mr. Wilkins said that it is a condition of the license that they have to build out so much of the population and geography by evaluation dates. He said those are generated in Washington by the FCC. The Board asked if they are in compliance. Mr. Wilkins said that he believes that they are.

The Board asked about antenna power. Mr. Ahlawat said that it will be 100 watts for all 12 antennas. The Board said that will be well below the threshold for having to do a radio frequency analysis.

No other person present had any comment on the petition.

The Board noted that the Planning Board had no objection to granting the petition.

Statement of Facts

The subject property is located at 372 Washington Street, in a Business District.

The petitioner is requesting a Special Permit for construction, use, maintenance, and operation of a wireless communications facility, pursuant to the provisions of Section 22C. part D.3. of the Zoning Bylaw, that in the aggregate exceeds 50 square feet, which is not allowed by right in a Business District.

The following materials were submitted:

December 23, 2005

- Completed Design Review Application Form
- Completed Zoning Board of Appeals Application form and Antenna Survey
- Plans showing all existing and proposed equipment
- Letter of authorization from the landowner
- Photographs of the existing building and photosimulations of the proposed facility from a variety of angles and vantage points
- A Radio Frequency Report from Sal Ahlawat, Radio Frequency Engineer
- Cingular Wireless FCC Licenses
- Corporate Certificates for Cingular Wireless
- Landowner's deed

- Massachusetts Department of Public Health Policy regarding RF Approval
- FCC RF Exposure Regulations
- FAA Advisory Circular No. 70-7460.2K

January 27, 2006

- Revised Plans showing all existing and proposed equipment, as redesigned to conform to input by the Design Review Board
- Photographs of the existing building and photosimulations of the proposed facility from a variety of angles and vantage points, reflecting the revised design

On January 25, 2006 the Design Review Board voted to

> Recommend the Zoning Board of Appeals approve the proposed antennas to be located on the rooftop, equipment enclosure, and elevator penthouse at 372 Washington Street as presented in the modified plan dated 1/17/06 subject to the equipment shelter being painted to match the existing rooftop mechanical equipment.

On February 28, 2006, the Planning Board reviewed the petition and had no objection to granting the request.

Decision

This Authority has made a careful study of the materials submitted and the information presented at the hearing. The subject structure does not conform to the current Zoning Bylaw, as noted in the foregoing Statement of Facts.

It is the finding of this Authority that construction, use, maintenance and operation of a wireless communication facility that in the aggregate exceeds 50 square feet will not adversely impact adjacent properties.

Therefore, a Special Permit is hereby granted, as voted unanimously by this Authority at the Public Hearing, for construction, use, maintenance and operation of a wireless communication facility consisting of 12 antennas mounted less than 8 feet from the top of the building structure, and an 11 foot 6 inch by 20 foot equipment shelter on a raised platform and painted dull gray, in accordance with the submitted plans subject to the following condition:

1. There shall be no stationary engine generators at the facility

The Inspector of Buildings is hereby authorized to issue a permit for the installation upon receipt and approval of a building application and detailed constructions plans.

ZBA 2006-18
Petition of New Cingular Wireless PCS LLC
372 Washington Street

APPEALS FROM THIS DECISION, IF ANY, SHALL BE MADE PURSUANT TO GENERAL LAWS, CHAPTER 40A, SECTION 17, AND SHALL BE FILED WITHIN 20 DAYS AFTER THE DATE OF FILING OF THIS DECISION IN THE OFFICE OF THE TOWN CLERK.

Cynthia S. Hibbard, Acting Chairman

David G. Sheffield

Robert W. Levy

cc: Planning Board
Inspector of Buildings
lrm

TOWN OF WELLESLEY MASSACHUSETTS

ZONING BOARD OF APPEALS
TOWN HALL • 525 WASHINGTON STREET • WELLESLEY, MA 02482-5992

RICHARD L. SEEGEL, CHAIRMAN
CYNTHIA S. HIBBARD
DAVID G. SHEFFIELD

LENORE R. MAHONEY
EXECUTIVE SECRETARY
TELEPHONE
(781) 431-1019 EXT. 2208

J. RANDOLPH BECKER, VICE CHAIRMAN
ROBERT W. LEVY
ROBERT C. SECHREST

ZBA 2007-01
Petition of Cingular PCS LLC
372 Washington Street

Petition of CINGULAR PCS LLC requesting amendment of Special Permit, ZBA 2006-18, pursuant to the provisions of Section XXIIC.D.3 and Section XXV of the Zoning Bylaw to eliminate the proposed equipment shelter and relocate antennas to a single location on the western side, at 372 WASHINGTON STREET, in a Business A District. Equipment will consist of outdoor cabinets located adjacent to the antennas on a 2 foot high 15 foot by 25 foot steel platform, set back 11.5 feet from the edge of the roof to the west.

On December 18, 2006, the Petitioner filed a request for a hearing before this Authority, and thereafter, due notice of the hearing was given by mailing and publication.

Presenting the case was Douglas Wilkins, who said that Cingular PCS LLC, the Petitioner, is requesting approval to modify Special Permit ZBA 2006-18, that was granted on March 17, 2006. Mr. Wilkins said that it was discovered after approval of the Special Permit that the plans do not meet structural requirements. He said that the existing building structure would not bear the weight of the equipment shelter at the location that was originally proposed.

Under the Special Permit, the Petitioner was providing three sectors of cell phone coverage, comprising four antennas each. The first sector was mounted on the roof access stair tower at the Prescott Street side of the building. For the second sector, an equipment shelter with south-facing antennas mounted on it was originally proposed at the rear of the building. The third sector of antennas was proposed facing west.

Mr. Wilkins said that a new set of plans has been submitted to the Board with the application to amend the Special Permit. Mr. Wilkins said that the proposed plan is to leave the first sector at the Prescott Street side of the building unchanged, but to consolidate the second and third sectors to one location on the western side of the roof. Instead of the equipment shelter, the Petitioners are proposing to construct a two foot raised steel platform. Outdoor equipment cabinets will be installed on the platform. Antennas will be mounted on the south and west sides of the platform. Mr. Wilkins said that the Petitioner has tried to move the equipment as far back from Washington Street as possible to minimize visibility.

Mr. Wilkins said that there is an existing air conditioner condenser close to the proposed location for the platform.

Mr. Wilkins said that the proposed modifications are fairly low impact and that this proposal is not significantly different from what was previously approved by the Board.

The Board said that the Structural Engineer referred to weight issues in his Report, but failed to specify the weight levels that caused the issues to arise. The Board said that the data upon which the Structural Engineer based his findings should be submitted, including a statement of the dead load and live load included in the design, and upon which the Structural Engineer's conclusions were based. The Structural Engineer's Report should specifically address the effect of adding the weight of the two proposed future cabinets.

Mr. Wilkins said that the two cabinets shown on Plan Z-2 in half-tone are likely not to be built initially but are part of the current proposal. The Petitioner is requesting to have approval for the two cabinets granted as part of the overall project rather than having to come back before the Board again. The Board confirmed that installation of the two cabinets at a later date will not involve installation of additional antennas.

Mr. Wilkins said that the Petitioner is committed to the size of the cabinets that is on the submitted plans, should their installation be deemed necessary in the future.

The Board asked if a railing along the platform would make the area safer. Mr. Wilkins said that the project will be constructed in compliance with all OSHA Regulations. The Board said that installation of a railing along the platform shall be at the discretion of the Building Inspector.

There was no other person present at the Public Hearing who wished to speak to the petition, though the Board had received a letter of opposition from the owner of the building at 380 Washington Street.

Statement of Facts

The subject property is located at 372 Washington Street, in a Business A District.

The Petitioner is requesting amendment of Special Permit, ZBA 2006-18, to allow them to eliminate the previously proposed equipment shelter and to relocate antennas to a single location on the western side of the building. Equipment will consist of outdoor cabinets located adjacent to the antennas on a 2 foot high 15 foot by 25 foot steel platform, set back 11.5 feet from the edge of the roof to the west.

On March 17, 2006 the Zoning Board of Appeals, as Special Permit Granting Authority, found that construction, use, maintenance and operation of a wireless communications facility that in the aggregate exceeds 50 square feet will not adversely impact adjacent properties.

The following materials were submitted by the Petitioner:

- Completed Design Review Application Form [copy from original application]
- Complete Zoning Board of Appeals Application form and Antenna Survey [copy from original application]
- Revised Site Plans and Elevation Drawings, dated 10/31/06, stamped by Eamon T. Kernan, Registered Professional Engineer
- Letter of Authorization from the landowner [copy from original application]

- Revised Structural Plans, dated 11/13/06, stamped by Vincent Pulselli, Registered Professional Structural Engineer.
- Revised photosimulations of the proposed facility from a variety of angles and vantage points.
- Report from Sal Ahlawat, Radio Frequency Specialist, dated December 23, 2005. [copy from original application]
- Cingular Wireless' FCC Licenses [copy from original application]
- Corporate Certificates for Cingular Wireless [copy from original application]
- Landowner's deed [copy from original application]
- Massachusetts Department of Public Health Policy regarding RF Approval
- FCC RF Exposure Regulations
- FAA Advisory Circular No. 70-7460.2K
- Copy of ZBA 2006-18, granted by the Zoning Board of Appeals, Wellesley, MA on March 17, 2006
- Cabinet Specifications, TYCO Electronics, Drawing I.D. H569471G2 Cabinet, Sheets 1, 2 and 3.
- Structural Engineering Summary, dated 11/20/06, stamped by Vincent Pulselli, Registered Professional Structural Engineer

On December 13, 2006, the Design Review Board reviewed the modified plans and recommended that the Zoning Board of Appeals approve the proposed modifications to the proposed antennas as presented.

Decision

This Authority has made a careful study of the materials submitted and the information presented at the hearing. The subject structure does not conform to the current Zoning Bylaw, as noted in the foregoing Statement of Facts.

Therefore, Special Permit ZBA 2006-18, is hereby amended to allow the Petitioner to eliminate the previously proposed equipment shelter and to relocate antennas to a single location on the western side of the building. Equipment will consist of outdoor cabinets located adjacent to the antennas on a 2 foot high 15 foot by 25 foot steel platform, set back 11.5 feet from the edge of the roof to the west, subject to the following conditions:

- The Petitioner shall submit a letter from the Structural Engineer defining the design dead load and the design live load and concluding that the weight of the future cabinets has been included in the design. Said report shall be submitted to the Board prior to the issuance of a Building Permit.

- A railing shall be installed along the platform if deemed necessary by the Building Inspector.

The Inspector of Buildings is hereby authorized to issue a permit for the installation upon receipt and approval of a building application and detailed construction plans.

APPEALS FROM THIS DECISION, IF ANY, SHALL BE MADE PURSUANT TO GENERAL LAWS, CHAPTER 40A, SECTION 17, AND SHALL BE FILED WITHIN 20 DAYS AFTER THE DATE OF FILING OF THIS DECISION IN THE OFFICE OF THE TOWN CLERK.

Richard L. Seegel, Chairman

J. Randolph Becker

Robert C. Sechrest

cc: Planning Board
Inspector of Buildings
lrm

EXHIBIT 3

CENTERLINE COMMUNICATIONS

750 West Center Street, Suite 301
West Bridgewater, MA 02379
781.713.4725

June 16, 2020

Town of Wellesley
Building Department
525 Washington Street
Wellesley, MA 02482

And

Town of Wellesley
Design Review Board
525 Washington Street
Wellesley, MA 02482

RE: Modifications to AT&T's existing Rooftop Telecommunications Facility
Property Address: 372 Washington Street, Wellesley Hills, MA
AT&T Site No: MA2265

To Whom It May Concern:

Please allow this letter to serve as authorization for New Cingular Wireless PCS, LLC ("AT&T") to file all necessary permit applications with the Town of Wellesley and any other applicable permitting and regulatory agencies which may require approvals for the proposed modifications to the existing telecommunications facility at the above referenced property.

372 Washington Street, LLC, as the property owner, is in receipt of the plans for the above referenced proposed modifications and hereby authorizes AT&T and/or their agent, Centerline Communications LLC, to file for the permits required for such modifications. We understand that this application may be denied, modified or approved with conditions, and that any such conditions of approval or modifications will be the sole responsibility of AT&T and will be complied with prior to the issuance of any applicable building permit or required approval.

Thank you for your attention to this matter.

Sincerely,

By: Robert Alevizos

Print Name: Robert Alevizos

Title: Pres. 372 Washington Street LLC
Authorized Officer / Alevizos Realty Trust

EXHIBIT 4

PROJECT INFORMATION

SITE NAME:	WELLESLEY WASHINGTON STREET
SITE ADDRESS:	372 WASHINGTON STREET WELLESLY HILLS, MA 02481
LATITUDE:	42° 18' 32.08"
LONGITUDE:	−71° 16' 38.92"
OVERALL HEIGHT:	48'−6"± AGL
RAD CENTER:	43'−0"± AGL
ZONING JURISDICTION:	TOWN OF WELLESLEY HILLS
COUNTY:	NORFOLK

DESCRIPTION OF WORK:

TELECOMMUNICATIONS FACILITY UPGRADE (LTE 4TX4RX, 5G NR & 4TXRX);

ROOF TOP:

INSTALL:
(1) 2−1/2" SCH. 40 PIPE AND MOUNTING BRACKETS
(3) DMP65R−BU4DA ANTENNAS (ONE PER SECTOR)
(3) 4449 B5/B12 RRUS (ONE PER SECTOR)
(3) RRUS−32 B2 (ONE PER SECTOR)
MOVE RET BIAS T TO UMTS LINES TO RETAIN UMTS RET CONNECTION.

REMOVE:
(3) OPA−65R−LCUU−H4 ANTENNAS (ONE PER SECTOR)
(3) RRUS−11 B2 (ONE PER SECTOR)
(3) RRUS−12 B2 + A2 B25 (ONE PER SECTOR)
(6) COAX
(6) LGP 21401 TMA (TWO PER SECTOR)

EXISTING TO REMAIN:
(3) EPBQ−654L8H6−L2 ANTENNAS (ONE PER SECTOR)
(3) 800−10121 ANTENNA (ONE PER SECTOR)
(3) 4478 B14 RRUS (ONE PER SECTOR)
(3) 4426 B66 RRUS (ONE PER SECTOR)
(3) RRUS−32 B30
(3) DC6−48−60−18−8C SURGE ARRESTOR
(3) FIBER
(6) DC POWER
(6) LINES OF 7/8" COAX

EQUIPMENT AREA/GROUND:

INSTALL:
(1)6630
(1) IDLe

REMOVE:
(1) XMU
UNUSED COAX & LINE ELEMENTS

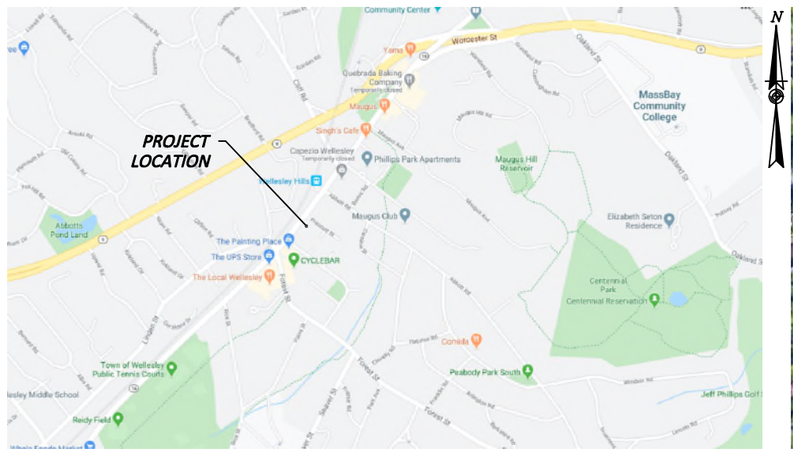
PROJECT DIRECTORY

A&E / PROJECT MANAGER:
CENTERLINE COMMUNICATIONS
750 WEST CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
CONTACT: SUSAN MASSE
PHONE 844.748.8878

APPLICANT:
at&t MOBILITY CORP.
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

at&t

SITE NUMBER: MA2265
FA# 10087511
SITE NAME: WELLESLEY WASHINGTON STREET
PACE ID: 4TX4RX-MRCTB045709, 5G NR-MRCTB045825, 4TXRX-MRCTB046161
PROJECT: LTE 4TX4RX, 5G NR & 4TXRX
ABC_d1.vsd



VICINITY MAP
NOT TO SCALE

LOCATION MAP
NOT TO SCALE

DIRECTIONS:

START OUT GOING WEST ON COCHITUATE RD/MA−30 TOWARD BURR ST. 0.23 MI. // TURN LEFT ONTO SHOPPERS WORLD DR. 0.36 MI. // TURN LEFT ONTO WORCESTER ST/MA−9. 5.85 MI. // TURN RIGHT ONTO ROCKLAND ST. 0.17 MI. // TURN LEFT ONTO LINDEN ST. 0.1 MI. // TAKE THE FIRST LEFT ONTO WASHINGTON ST/MA−16. 0.1 MI. // ARRIVE AT 372 WASHINGTON ST. WELLESLEY HILLS, MA. SITE IS ON THE RIGHT.

GENERAL NOTES:

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

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

3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DRAWING INDEX

NO.	DESCRIPTION	REV.	DATE
T−1	TITLE SHEET	3	08/12/20
GN−1	GENERAL NOTES	3	08/12/20
A−1	ROOF & EQUIPMENT PLAN	3	08/12/20
A−2	BUILDING ELEVATION	3	08/12/20
A−3	ANTENNA LAYOUTS	3	08/12/20
A−4	DETAILS	3	08/12/20
SN−1	STRUCTURAL NOTES	3	08/12/20
S−1	STRUCTURAL DETAILS	3	08/12/20
RF−1	RF PLUMBING DIAGRAM	3	08/12/20
G−1	GROUNDING DETAILS	3	08/12/20

at&t MOBILITY CORP.
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

CENTERLINE COMMUNICATIONS
750 WEST CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS

NO.	DATE	DESCRIPTION
3	08/12/20	CONSTRUCTION REVISED
2	08/07/20	CONSTRUCTION REVISED
1	07/15/20	ISSUED FOR CONSTRUCTION
0	04/23/20	ISSUED FOR REVIEW

DESIGNED BY:	APPROVED BY:
KT	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J. CREASER
CIVIL
No. 49195
REGISTERED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THIS DOCUMENT, UNLESS EXPLICITLY AGREED TO BY THE ENGINEER IN WRITING. THE ENGINEER DISCLAIMS ALL LIABILITY ASSOCIATED WITH THE REUSE, ALTERATION OR MODIFICATION OF THE CONTENTS HEREIN.

811 DigSafe MA·ME·NH·RI·VT

SITE NAME:
WELLESLEY WASHINGTON STREET

SITE NUMBER:
MA2265

SITE ADDRESS:
372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE:
LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE:
TITLE SHEET

DRAWING #: T−1
REVISION: 3

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – CENTERLINE COMMUNICATIONS
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – AT&T MOBILITY

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR–ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."

17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

20. APPLICABLE BUILDING CODES:
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
   BUILDING CODE: IBC 2015 & MA STATE BUILDING 780 CMR 9TH EDITION
   ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE
   LIGHTNING CODE: NFPA 70–2017

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

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

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222–G, STRUCTURAL STANDARDS FOR STEEL

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

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

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE	TYP	TYPICAL
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED		

RF NOTES

1. ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY SUBCONTRACTOR
2. THE DESIGN IS BASED ON RF DATA SHEETS, SIGNED AND APPROVED.
3. RADIO SIGNAL CABLE AND RACEWAY SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC, NFPA 70), CHAPTER 8.
4. ALL SPECIFIED MATERIAL FOR EACH LOCATION (E.G. OUT DOORS–OCCUPIED, INDOORS–UNOCCUPIED, PLENUMS, RISER SHAFTS, ETC.) SHALL BE APPROVED, LISTED, OR LABELED AS REQUIRED BY THE NEC.
5. RADIO SIGNAL CABLE SHALL BE SUPPORTED AT MINIMUM OF EVERY THREE (3) FEET EXCEPT INSIDE MONOPOLES OR MONOPOLES WHERE CABLE AND CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE FOLLOWED. MANUFACTURER RECOMMENDATION CABLES SUPPORT ACCESSORIES SHALL BE USED.
6. THE OUTDOOR CABLE SUPPORT SYSTEM SHALL BE PROVIDED WITH AN ICE SHIELD TO SUPPORT AND PROTECT ANTENNA CABLE RUNS.
7. DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM BUILDING OR OUTDOOR BTS CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE COAXIAL CABLE PORT.
8. ALL FEEDER LINE AND JUMPER CONNECTORS SHALL BE 7/16 DIN CABLE CONNECTORS THAT MEET IP68 STANDARDS.
9. 7/16 DIN CONNECTORS REQUIRE NO ADDITIONAL WEATHER PROOFING IN INDOOR APPLICATIONS IF INSTALLED AND TORQUED PROPERLY. IN OUTDOOR APPLICATIONS WEATHER PROOFING IS REQUIRED AND THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED.
10. USING WEATHERPROOFING KIT APPROVED BY CABLE MANUFACTURER AND CONTRACTOR START TAPE APPROXIMATELY 5 INCHES FROM THE CONNECTOR, AND WRAP 2 INCHES TOWARD THE CONNECTOR, THEN REVERSE THE TAPE SO THAT THE STICKY SIDE IS UP. TAPE OVER THE CONNECTOR OR SURGE ARRESTOR UNTIL THREE (3) TO FOUR (4) INCHES BEYOND THE CONNECTOR AND REVERSE AGAIN WITH THE STICKY SIDE DOWN FOR ANOTHER INCH OR TWO. PASS THE BUTYL RUBBER AND FINISH WITH A FINAL LAYER OF TAPE.
11. ANTENNAS SHALL BE PAINTED,WHEN REQUIRED, BY THE LANDLORD OR AUTHORITY OF HAVING JURISDICTION IN ACCORDANCE WITH ANTENNA MANUFACTURERS' SURFACES PREPARATION AND PAINTING REQUIREMENTS.
12. CABLE SHIELDS AND TOWER CONDUITS SHALL BE GROUNDED AT THE TOP OF THE TOWER WITHIN 10 FEET OF THEIR CONNECTORS, AND AT THE BOTTOM OF THE TOWER ABOUT 6 INCHES BEFORE THEY TURN TOWARD THE FACILITY. THEY SHALL BE GROUNDED AT THE MIDPOINT OF THE TOWERS THAT ARE BETWEEN 60 FEET AND 200 FEET HIGH, AND AT INTERVALS OF 60 FEET OR LESS ON TOWERS THAT ARE HIGHER THAN 200 FEET.

ANTENNA CABLE AND SCHEDULING NOTES

1. SUBCONTRACTOR SHALL VERIFY THE ACTUAL LENGTH IN THE FIELD BEFORE INSTALLATION.
2. TAG AND COLOR CODE ALL MAIN CABLES AT LOCATIONS PER AT&T ANTENNA CABLE MARKING STANDARD:
   - TOP OF TOWER END OF MAIN COAX
   - BOTTOM OF TOWER END OF MAIN COAX
   - DIRECTLY BEFORE AND AFTER RF EQUIPMENT
   - END OF JUMPERS AT BTS EQUIPMENT
3. ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWN TILT MOUNTING BRACKETS SUPPLIED BY ANTENNA MANUFACTURER.
4. PRIOR APPROVAL IS REQUIRED BEFORE PERFORMING ANY WORK ON EXISTING CELL SITE EQUIPMENT.

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PHONE: 781.713.4725

REVISIONS		
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NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
KT	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J. CREASER
CIVIL
No. 49195
REGISTERED PROFESSIONAL ENGINEER

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SITE NAME: WELLESLEY WASHINGTON STREET

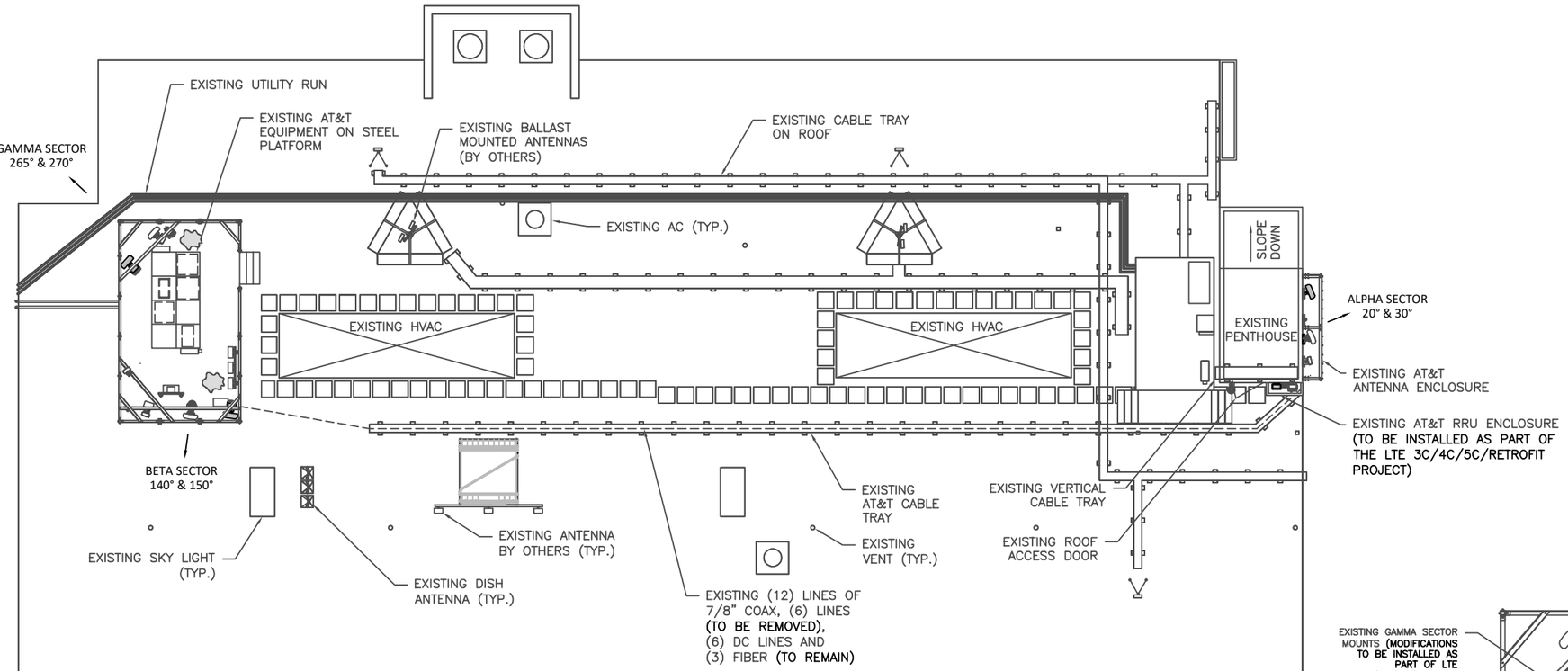
SITE NUMBER: MA2265

SITE ADDRESS: 372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE: GENERAL NOTES

DRAWING #: GN–1 REVISION: 3



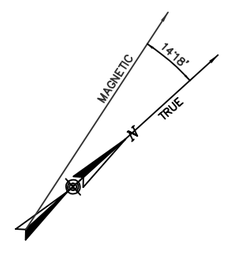
ROOF PLAN

SCALE: 1/8" = 1'–0" (22"X34")
1/16" = 1'–0" (11"X17")

GRAPHIC SCALE

8 0 4 8 16 32

(IN FEET)



NOTES:

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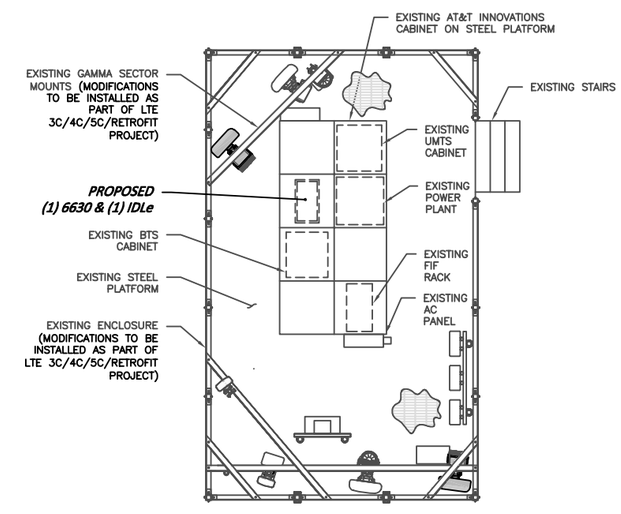
2. ITEMS NOTED AS "TO BE INSTALLED AS PART OF LTE 3C/4C/5C/RETROFIT PROJECT" ARE DESIGNED AND PERMITTED UNDER A SEPARATE APPLICATION AND ASSUMED TO BE INSTALLED PRIOR TO THE START OF THIS PROJECT.
3. CONTRACTOR TO VERIFY ANTENNA SPACING TO MEET THE FOLLOWING REQUIREMENTS:
   3'-0" SEPARATION MINIMUM BETWEEN LTE ANTENNAS.
   6'-0" MINIMUM SEPARATION BETWEEN 700BC & 700DE ANTENNAS.
4. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



EQUIPMENT PLAN

SCALE: 1/4" = 1'–0" (22"X34")
1/8" = 1'–0" (11"X17")

GRAPHIC SCALE

4 0 2 4 8 16

(IN FEET)

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SITE NUMBER: MA2265

SITE ADDRESS: 372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE: ROOF & EQUIPMENT PLAN

DRAWING #:	REVISION:
A–1	3

NOTES:

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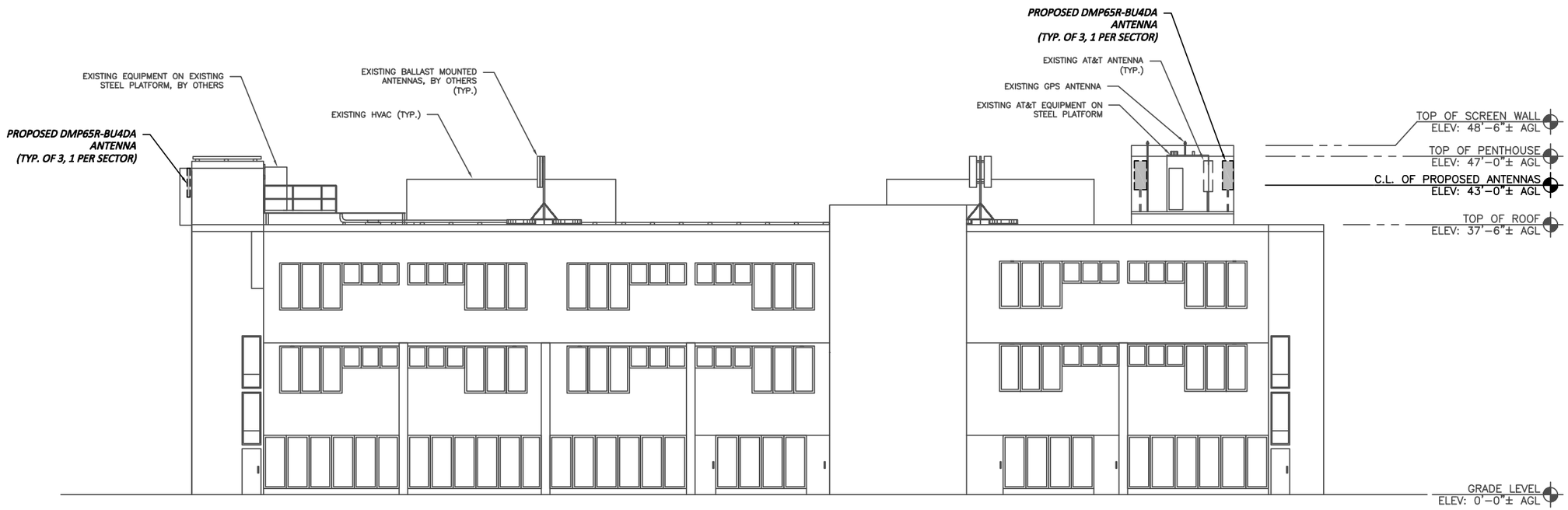

BUILDING ELEVATION

SCALE: 1/8" = 1'-0" (22"X34")
1/16" =1'-0" (11"X17")

GRAPHIC SCALE

8 0 4 8 16 32

(IN FEET)

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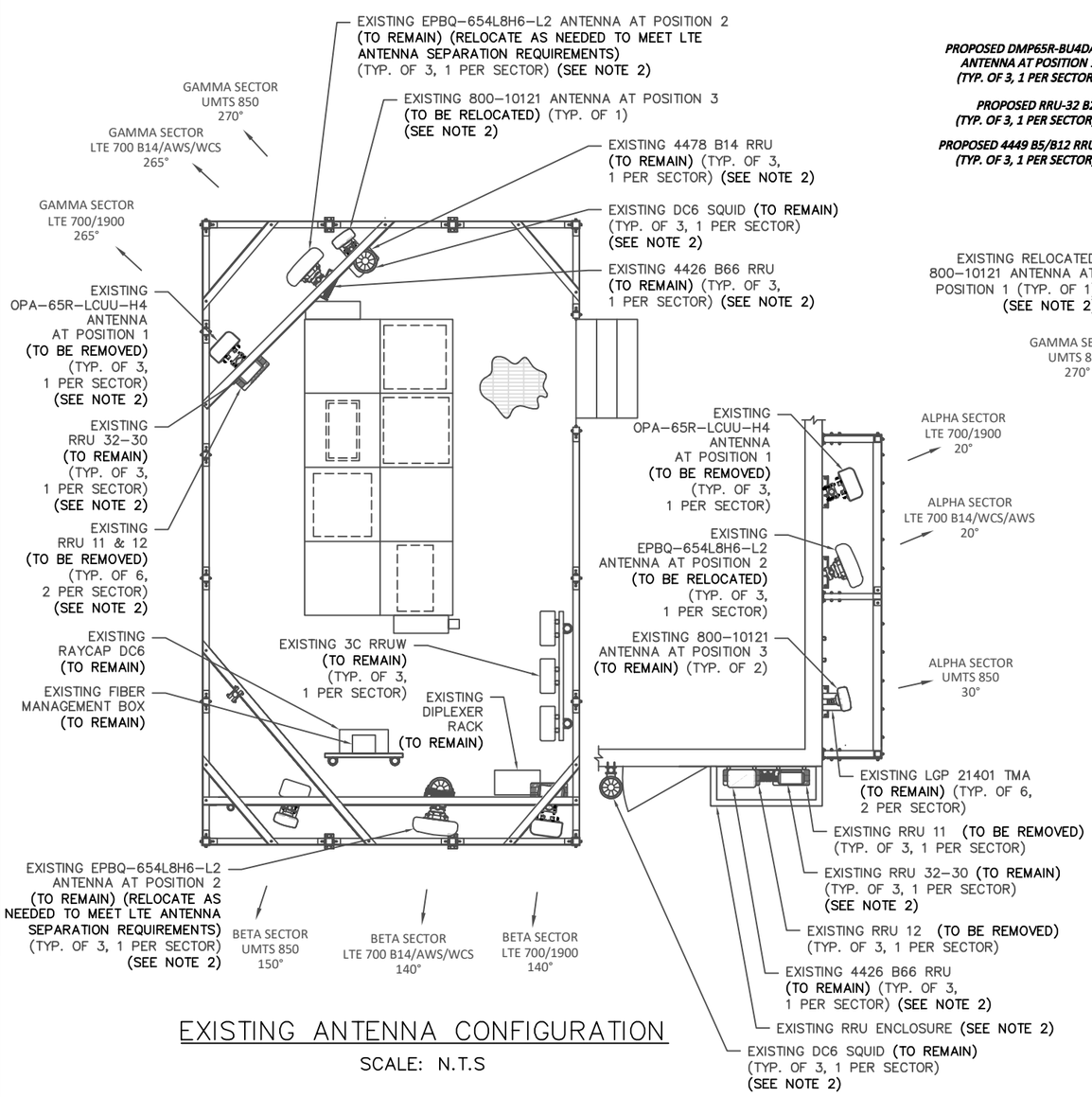
WELLESLY HILLS, MA 02481

PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

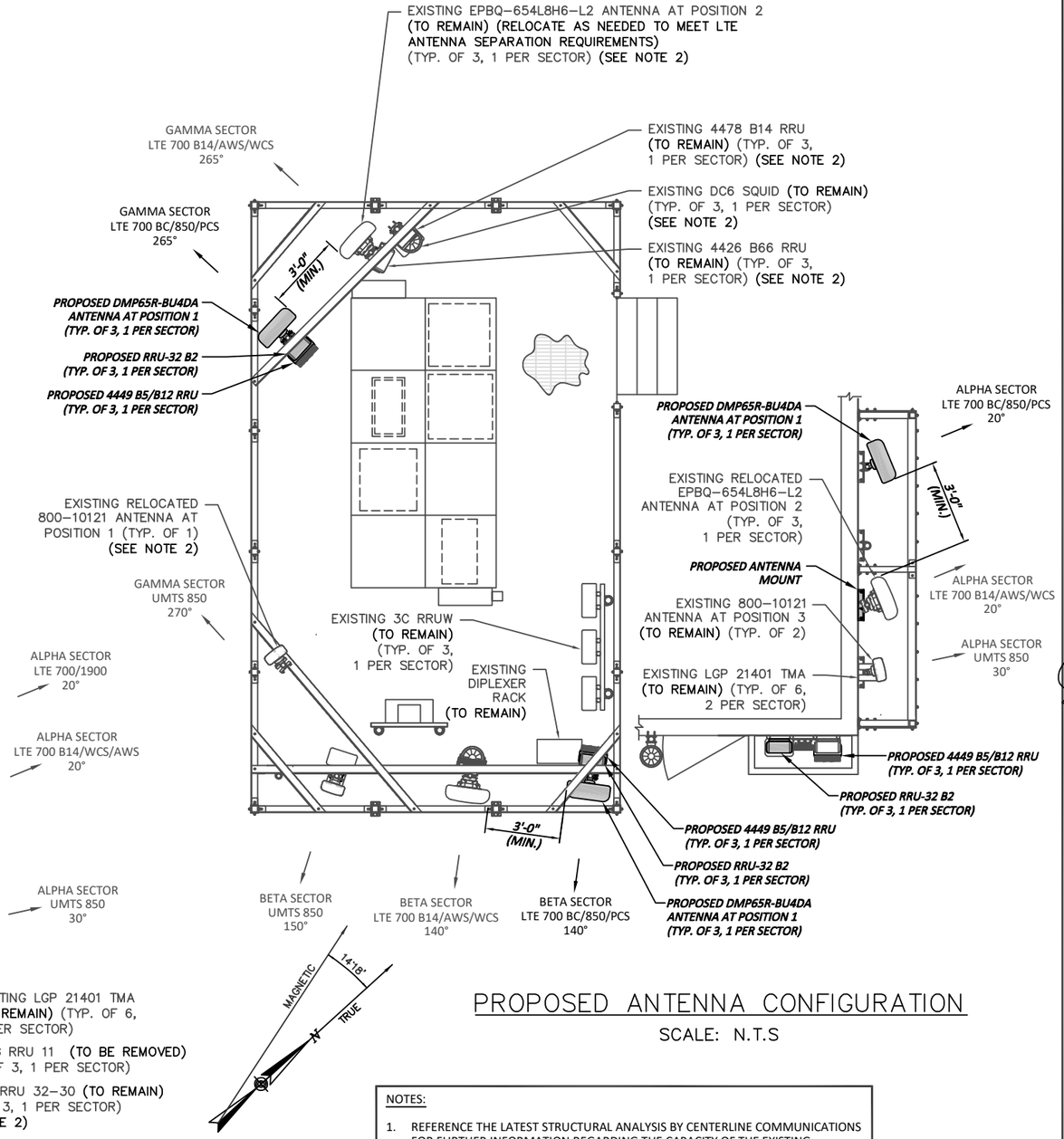
SHEET TITLE: BUILDING ELEVATION

DRAWING #: A-2 REVISION: 3



EXISTING ANTENNA CONFIGURATION

SCALE: N.T.S



PROPOSED ANTENNA CONFIGURATION

SCALE: N.T.S

NOTES:

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4. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

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SITE NUMBER: MA2265

SITE ADDRESS: 372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE: ANTENNA LAYOUTS

DRAWING #: A-3 | REVISION: 3

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ℄ HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	**PROPOSED**	**LTE 700 BC /850/PCS**	**DMP65R-BU4DA**	**48.0X20.7X7.7**	**±43'**	**20°**	–	**(P) (1) 4449 B5/B12 RRUS (P) (1) RRUS-32 B2**	**14.9x13.2x10.4 27.2x12.1x7.0**	(E) (2) DC POWER & (1) FIBER	(E) (1) RAYCAP DC6-48-60-18-8C-EV
A2	EXISTING	LTE 700 B14 /AWS/WCS	EPBQ-654L8H6-L2	73.0X21X6.3	±43'	20'	–	(E) (1) 4478 B14 RRUS (E) (1) 4426 B66 RRUS (E) (1) RRUS-32 B30	18.1x13.4x8.3 15x13.2x5.8 28.2X12.7X7.0	–	
A3	–	–	–	–	–	–	–	–	–	–	
A4	EXISTING	UMTS 850	800-10121	54.5X10.3X5.9	±43'	30'	–	–	–	(2) 7/8 COAX (120± LENGTH)	--
B1	**PROPOSED**	**LTE 700 BC /850/PCS**	**DMP65R-BU4DA**	**48.0X20.7X7.7**	**±43'**	**140°**	–	**(P) (1) 4449 B5/B12 RRUS (P) (1) RRUS-32 B2**	**14.9x13.2x10.4 27.2x12.1x7.0**	(E) (2) DC POWER & (1) FIBER	(E) (1) RAYCAP DC6-48-60-18-8C-EV
B2	EXISTING	LTE 700 B14 /AWS/WCS	EPBQ-654L8H6-L2	73.0X21X6.3	±43'	140'	–	(E) (1) 4478 B5 RRUS (E) (1) 4426 B66 RRUS (E) (1) RRUS-32 B30	18.1x13.4x8.3 15x13.2x5.8 28.2X12.7X7.0	–	
B3	–	–	–	–	–	–	–	–	–	–	
B4	EXISTING	UMTS 850	800-10121	54.5X10.3X5.9	±43'	150'	–	–	–	(2) 7/8 COAX (120± LENGTH)	--
C1	EXISTING	UMTS 850	800-10121	54.5X10.3X5.9	±43'	270'	–	–	–	(2) 7/8 COAX (120± LENGTH)	(E) (1) RAYCAP DC6-48-60-18-8C-EV
C2	**PROPOSED**	**LTE 700 BC /850/PCS**	**DMP65R-BU4DA**	**48.0X20.7X7.7**	**±43'**	**265°**	–	**(P) (1) 4449 B5/B12 RRUS (P) (1) RRUS-32 B2**	**14.9x13.2x10.4 27.2x12.1x7.0**	(E) (2) DC POWER & (1) FIBER	
C3	–	–	–	–	–	–	–	–	–	–	
C4	EXISTING	LTE 700 B14 /AWS/WCS	EPBQ-654L8H6-L2	73.0X21X6.3	±43'	265'	–	(E) (1) 4478 B5 RRUS (E) (1) 4426 B66 RRUS (E) (1) RRUS-32 B30	18.1x13.4x8.3 15x13.2x5.8 28.2X12.7X7.0	–	--

RRU CHART

QUANTITY	MODEL	L	W	D
3(P)	4449 B5/B12	14.9"	13.2"	10.4"
3(P)	RRUS-32 B2	27.2"	12.1"	7.0"
3(E)	4478 B14	18.1"	13.4"	8.3"
3(E)	4426 B66	15.0"	13.2"	5.8"
3(E)	RRUS-32 B30	28.2"	12.7"	7.0"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

REFER TO THE FINAL RFDS AND TABLE FOR THE PROPOSED RRUS MODEL, QUANTITY, AND DIMENSIONS

RRUS DETAIL

N.T.S.

NOTES:

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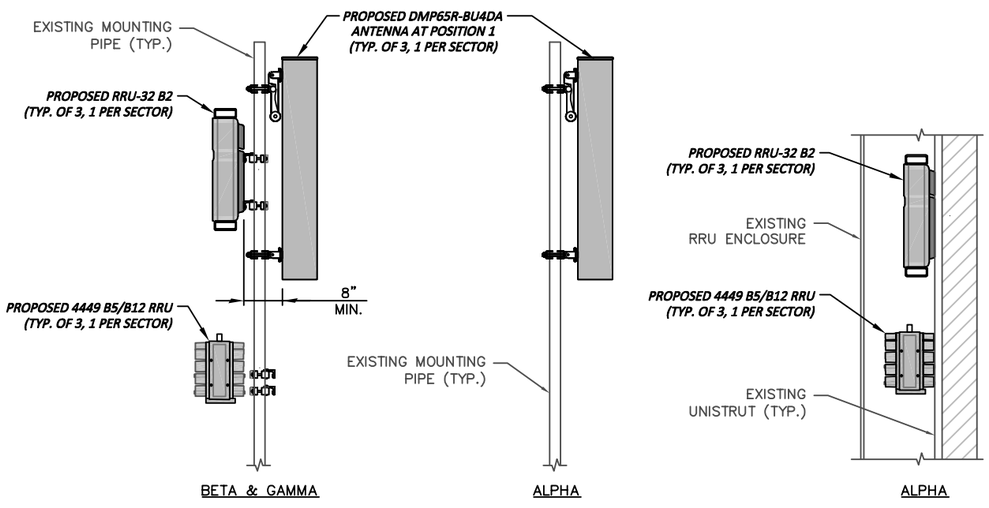
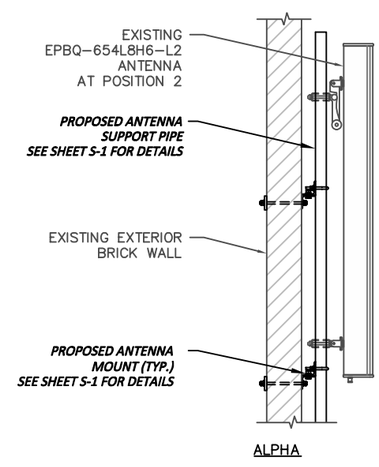


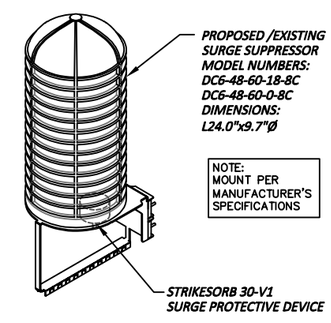
PROPOSED ANTENNA & RRUS MOUNTING DETAIL

N.T.S.



EXISTING ANTENNA MOUNTING DETAIL

N.T.S.



NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

DC SURGE SUPPRESSOR DETAILS

N.T.S.

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SITE NAME:
WELLESLEY WASHINGTON STREET

SITE NUMBER:
MA2265

SITE ADDRESS:
372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE:
LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE:
DETAILS

DRAWING #:	REVISION:
A-4	3

STRUCTURAL NOTES:

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
3. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
4. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
5. STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
6. STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
7. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
8. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
9. FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND DI.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
11. INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
12. UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
13. EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
14. EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
15. LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
16. WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
17. ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
18. NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
19. SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTION CHECKLIST

BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS [1]
N/A	MATERIAL SPECIFICATIONS REPORT [2]
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS [3]
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS [4]
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION [5]
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS [6]
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTES:

1. REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
2. PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
3. PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
4. HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
5. ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
6. AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

NOTES:

1. ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
2. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
3. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
4. VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
5. CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
6. EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

REQUIRED INSPECTIONS AND SITE REVIEW DOCUMENT AS A CONDITION OF THE BUILDING PERMIT THE FOLLOWING INSPECTIONS AND SITE REVIEWS IDENTIFIED BY THE BUILDING OFFICIAL ARE REQUIRED FOR WORK PER THE 9TH EDITION OF THE MASSACHUSETTS STATE BUILDING CODE, 780 CMR, SECTION110 AND CHAPTER 17

REQUIRED SITE REVIEW AND DOCUMENTATION FOR PORTIONS OR PHASES CONSTRUCTION [1&7]
(TO BE PERFORMED BY THE APPROPRIATE REGISTERED DESIGN PROFESSIONAL OF HIS/HER DESIGNEE OR M.G.L.C 112 §81R CONTRACTOR)

SITE REVIEW AND DOCUMENTATION	X	SITE REVIEW AND DOCUMENTATION	X
SOIL CONDITION/ANAYLSIS/REPORT		ENERGY EFFICIENCY REQUIREMENTS	
FOOTING AND FOUNDATION (INCLUDING REINFORCEMENT AND FOUNDATION ATTACHMENT)		FIRE ALARM INSTALLATION [2]	
CONCRETE FLOOR AND UNDER FLOOR		FIRE SUPPRESSION AND INSTALLATION [3]	
LOWEST FLOOR FLOOD ELEVATION		FIELD REPORTS [5]	
STRUCTURAL FRAME-WALL/FLOOR/ROOF		CARBON MONOXIDE DETECTION SYSTEM [4]	
LATH AND PLASTER/GYPSUM		SEISMIC REINFORCEMENT	
FIRE RESISTANT WALL/PARTITIONS FINISH ATTACHMENTS		SMOKE CONTROL SYSTEMS	
FIRE RESISTANT WALL/PARTITIONS FINISH ATTACHMENTS		SMOKE AND HEAT VENTS	
ABOVE CEILING INSPECTION		ACCESSIBILITY (521 CMR)	
FIRE BLOCKING/STOPPING SYSTEM		OTHER	
EMERGENCY LIGHTING/EXIT SIGNAGE			
MEANS OF EGRESS COMPONENTS		SPECIAL INSPECTIONS (SECTION 1704):	X
ROOFING, COPING/SYSTEM			
VENTING SYSTEMS (KITCHEN, CHEMICAL, FUME)			
MECHANICAL SYSTEMS			

1. IT IS THE RESPONSIBILITY OF THE PERMIT APPLICANT TO NOTIFY THE BUILDING OFFICIAL OF REQUIRED INSPECTIONS (X). INSPECTION OF 780 CMR FIRE PROTECTION SYSTEMS MAY BE WITNESSED BY TEH FIRE OFFICIAL AND INSTALLATION PERMITS ARE REQUIRED FROM THE FIRE DEPARTMENT PER 527 CMR.
2. INCLUDE NFPA 72 TEST AND ACCEPTANCE DOCUMENTATION.
3. INCLUDE APPLICABLE NFPA 13, 13R, 13D, 14,15, 17, 20, 241, ETC. – TEST AND ACCEPTANCE DOCUMENTTION.
4. INCLUDE NFPA RECORD OF COMPLETION AND INSPECTION AND TEST FORM.
5. INCLUDE FIELD REPORTS AND INSTALLATION DOCUMENTATION.
6. WORK SHALL NOT PROCEED, OR BE CONCEALED, UNTIL THE REQUIRED INSPECTION HAS BEEN APPROVED BY THE BUILDING OFFICIAL, AND NOTHING WITHIN CONSTRUCTION CONTROL SHALL HAVE EFFECT OF WAIVING OR LIMITING THE BUILDING OFFICIAL'S AUTHORITY TO ENFORCE THE CODE WITH RESPECT TO EXAMINATION OF THE CONTRACT DOCUMENTS, INCLUDING PLANS, COMPUTATIONS AND SPECIFICATIONS, AND FIELD INSPECTIONS.
7. ROUGH AND/OR FINISH INSPECTIONS OF ELECTRICAL, PLUMBING, OR SHEET METAL SHALL BE INSPECTED PRIOR TO ROUGH AND FINISH INSPECTIONS BY THE BUILDING OFFICIAL.

MASSACHUSETTS AMENDMENTS TO THE IBC (REFERENCE 780 CMR):

107.6 CONSTURCTION CONTROL.
107.6.1 GENERAL. THIS SECTION SHALL APPLY TO THE CONSTRUCTION CONTROLS, PROFESSIONAL SERVICES AND CONTRACTOR SERVICES REQUIRED FOR BUILDINGS AND STRUCTURES NEEDING REGISTERED DESIGN PROFESSIONAL SERVICES.

107.6.1.1 SPECIALIZED STRUCTURES. TELECOMMUNICATION TOWERS, WIND TURBINE TOWERS, AND SIMILAR STRUCTURES ARE ENGINEERED STRUCTURES AND SHALL BE SUBJECT TO THE REQUIREMENTS OF SECTION 107.6.

107.6.2.2 CONSTRUCTION. THE REGISTERED DESIGN PROFESSIONALS WHO ARE RESPONSIBLE FOR THE DESIGN, PLAN, CALCULATIONS, AND SPECIFICATIONS, THEIR DESIGNEE OR THE REGISTERED DESIGN PROFESSIONALS WHO HAVE BEEN RETAINED FOR CONSTRUCTION PHASE SERVICES, SHALL PERFORM THE FOLLOWING TASKS:

1. REVIEW, FOR CONFORMANCE TO 780 CMR AND THE DESIGN CONCEPT, SHOP DRAWINGS, SAMPLES AND OTHER SUBMITTALS BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS.
2. PERFORM THE DUTIES FOR REGISTERED DESIGN PROFESSIONALS IN 780 CMR 17.00 SPECIAL INSPECTIONS AND TESTS.
3. BE PRESENT AT INTERVALS APPROPRIATE TO THE STAGE OF CONSTRUCTION TO BECOME GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK AND TO DETERMINE IF THE WORK IS BEING PERFORMED IN A MANNER CONSISTENT WITH THE CONSTRUCTION DOCUMENTS AND 780 CMR.

THE PERMIT APPLICATION SHALL NOT BE DEEMED COMPLETED UNTIL ALL OF THE CONSTRUCTION DOCUMENTS REQUIRED BY 780 CMR HAVE BEEN SUBMITTED. DOCUMENTATION INDICATING THAT WORK COMPLIES WITH TEH PLANS AND SPECIFICATIONS SHALL BE PROVIDED AT THE COMPLETION OF EACH PAHSE WHEN REQUIRED BY THE BUILDING OFFICIAL. UPON COMPLETION OF THE WORK, TEH REGISTERED DESIGN PROFESSIONAL SHALL FILE A FINAL DOCUMENT TO TEH BUILDING OFFICIAL INDICATING THAT, TO THE BEST IF HIS OR HER KNOWLEDGE AND BELIEF, THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND 780 CMR. FORMS FOR CONSTRUCTION CONTROL WHEN REQUIRED BY THE BUILDING OFFICIAL SHALL BE THOSE FOUND AT http://www. ma.gov/government/oca-agencies/dpl-lp/opsi/.

107.6.2.3 SPECIAL INSPECTIONS AND TESTS. SPECIAL INSPECTIONS AND TESTS. SHALL BE PROVIDED IN ACCORDANCE WITH 780 CMR 17.00 SPECIAL INSPECTIONS AND TESTS.

107.6.2.3 NON STRUCTURAL SYSTEM TEST AND INSPECTIONS. TESTS AND INSPECTIONS OF NON-STRUCTURAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE ENGINEERING PRACTICE STANDARDS, REFERENCED STANDARDS LISTED IN 780 CMR 35.00: REFERENCED STANDARDS, OR AS OTHERWISE SPECIFIED IN 780 CMR.

107.6.3 CONSTRUCTION CONTRACTOR SERVICES. THE ACTUAL CONSTRUCTION OF THE WORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AS IDENTIFIED ON THE APPROVAL PERMIT AND INVOLVE THE FOLLOWING:

1. EXECUTION OF ALL WORK IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
2. EXECUTION AND CONTROL OF ALL METHODS OF CONSTRUCTION IN A SAFE AND SATISFACTORY MANNER IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL STATUTES AND REGULATIONS.
3. UPON COMPLETION OF THE CONSTRUCTION, CERTIFICATION IN WRITING TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE THAT, TO THE BEST OF THE CONTRACTORS'S KNOWLEDGE AND BELIEF, CONSTRUCTION HAS BEEN DONE IN SUBSTANTIAL ACCORD WITH SECTION 107.6 AND WITH ALL PERTINENT DEVIATIONS SPECIFICALLY NOTED. THE BUILDING OFFICIAL MAY REQUIRE A COPY OF THIS CERTIFICATION.

107.6.4 PROJECT REPRESENTATION. A PROJECT REPRESENTATIVE MAY BE REQUIRED BY THE BUILDING OFFICIAL. THIS REPRESENTATIVE SHALL KEEP DAILY RECORDS AND SUBMIT REPORTS AS MAY BE REQUIRED BY THE BUILDING OFFICIAL. THIS PROJECT REPRESENTATION REQUIREMENT SHALL BE DETERMINED PRIOR TO THE ISSUANCE OF THE PERMIT AND MAY BE A PREREQUISITE FOR PERMIT ISSUANCE. REFUSAL BY THE APPLICANT TO PROVIDE SUCH SERVICE IF REQUIRED BY THE BUILDING OFFICIAL SHALL RESULT IN THE DENIAL OF THE PERMIT. ALL FEES AND COSTS RELATED TO THE PERFORMANCE OF PROJECT REPRESENTATION SHALL BE BORNE BY THE OWNER. WHEN APPLICATIONS FOR UNUSUAL DESIGNS OR MAGNITUDE OF CONSTRUCTION ARE FILED, OR WHERE REFERENCE STANDARDS REQUIRE SPECIAL ARCHITECTURAL OR ENGINEERING INSPECTIONS, THE BUILDING OFFICIAL MAY REQUIRE THAT THE PROJECT REPRESENTATIVE BE A REGISTERED DESIGN PROFESSIONAL IN ADDITION TO THOSE REGISTERED DESIGN PROFESSIONALS REQUIRED ELSEWHERE IN ACCORDANCE WITH SECTION 107.6.

107.6.5 BUILDING OFFICIAL RESPONSIBILITY. NOTHING CONTAINED IN SECTION 107.6 SHALL HAVE THE EFFECT OF WAIVING OR LIMITING THE BUILDING OFFICIAL'S AUTHORITY TO ENFORCE 780 CMR WITH RESPECT TO EXAMINATION OF THE CONTRACT DOCUMENTS, INCLUDING PLANS, COMPUTATIONS AND SPECIFICATIONS, AND FIELD INSPECTIONS.

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REVISIONS		
3	08/12/20	CONSTRUCTION REVISED
2	08/07/20	CONSTRUCTION REVISED
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0	04/23/20	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
KT	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J. CREASER
CIVIL
No. 49195
REGISTERED PROFESSIONAL ENGINEER

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SITE NAME: WELLESLEY WASHINGTON STREET

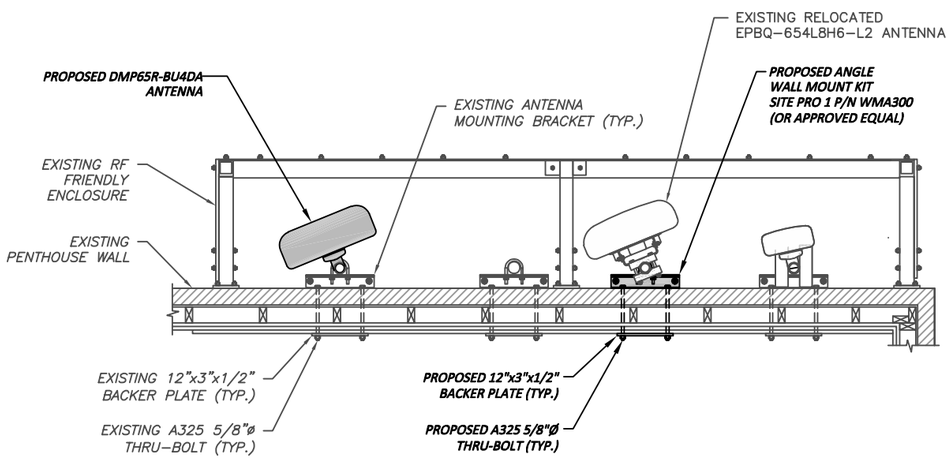
SITE NUMBER: MA2265

SITE ADDRESS: 372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE: STRUCTURAL NOTES

DRAWING #: SN-1 REVISION: 3



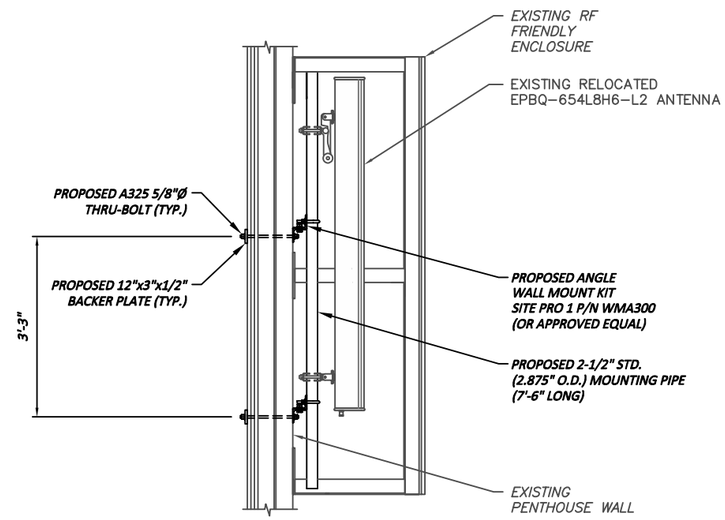
ANTENNA MOUNTING PLAN (1 / S-1)

SCALE: 3/4" = 1'-0" (22"X34")
3/8" = 1'-0" (11"X17")

GRAPHIC SCALE

1'-4" 0 8" 1'-4" 2'-8" 5'-4"

(IN FEET)



ANTENNA MOUNT SIDE ELEVATION (2 / S-1)

SCALE: 3/4" = 1'-0" (22"X34")
3/8" = 1'-0" (11"X17")

GRAPHIC SCALE

1'-4" 0 8" 1'-4" 2'-8" 5'-4"

(IN FEET)

NOTES:

1. STRUCTURAL STEEL AND HARDWARE TO BE GALVANIZED.
2. IF FIELD CONDITION DIFFER FROM WHAT IS SHOWN IN THESE DRAWINGS, CONTRACTOR TO CONTACT ENGINEER OF RECORD.
3. REFERENCE LATEST STRUCTURAL ANALYSIS AND MOUNT ANALYSIS BY CENTERLINE COMMUNICATIONS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.

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CENTERLINE COMMUNICATIONS

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WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS

NO.	DATE	DESCRIPTION
3	08/12/20	CONSTRUCTION REVISED
2	08/07/20	CONSTRUCTION REVISED
1	07/15/20	ISSUED FOR CONSTRUCTION
0	04/23/20	ISSUED FOR REVIEW

DESIGNED BY:	APPROVED BY:
KT	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J. CREASER
CIVIL
No. 49195
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SITE NUMBER: MA2265

SITE ADDRESS: 372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE: STRUCTURAL DETAILS

DRAWING #: S-1

REVISION: 3

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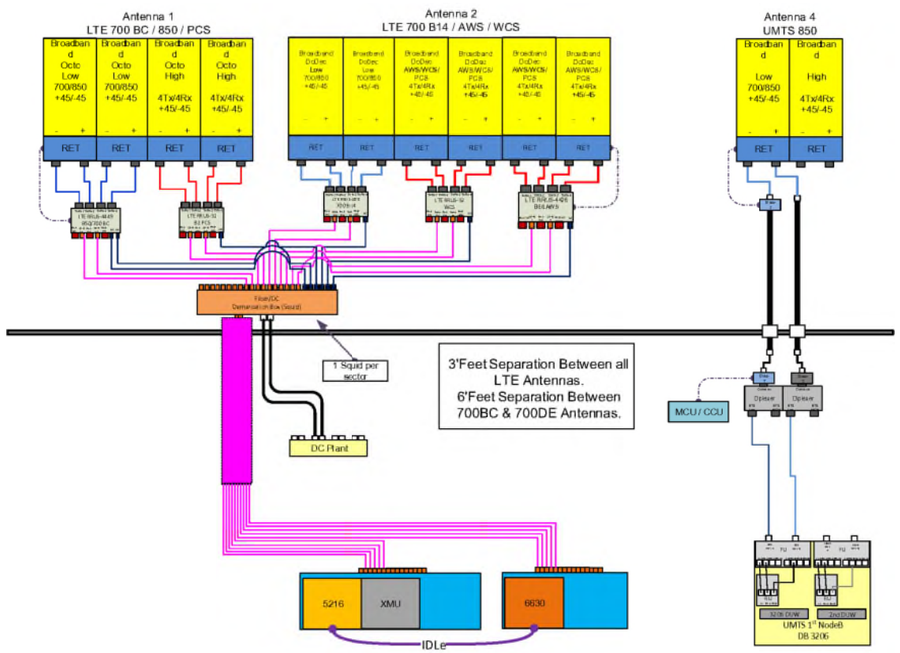
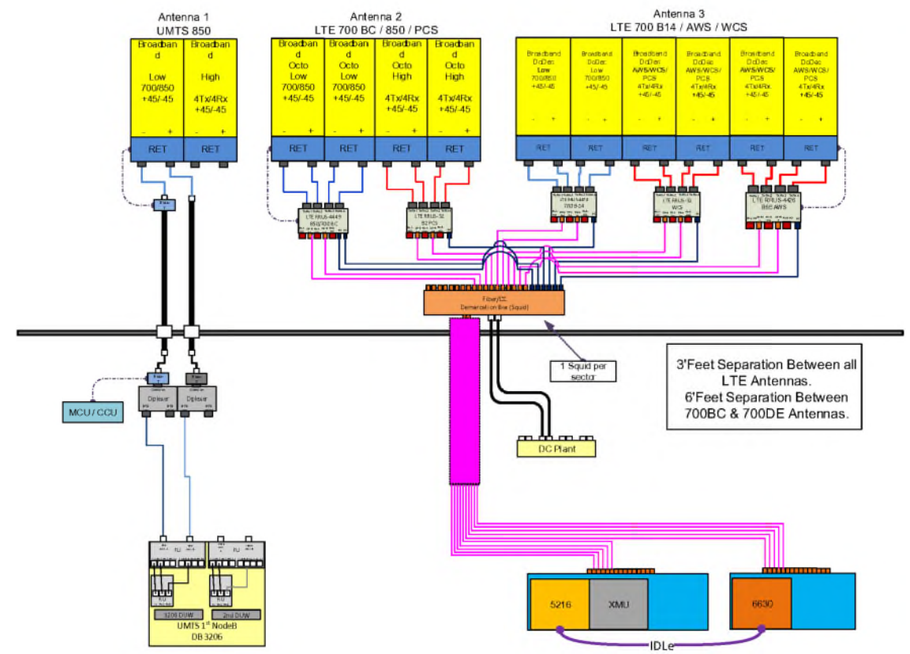


PLUMBING DIAGRAM (ALPHA/BETA)
N.T.S.



PLUMBING DIAGRAM (GAMMA)
N.T.S.

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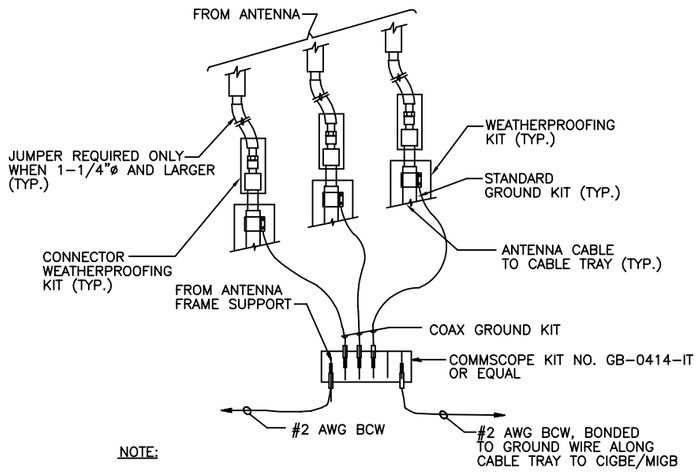
SITE ADDRESS: 372 WASHINGTON STREET
WELLESLY HILLS, MA 02481

PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE: RF PLUMBING DIAGRAM

DRAWING #: RF–1

REVISION: 3



NOTE:

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

GROUNDING RISER DIAGRAM

N.T.S.

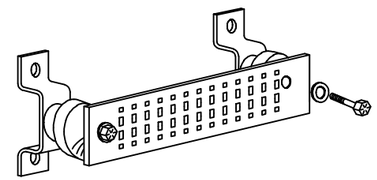
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" – SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES) (#2)
GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
TELCO GROUND BAR
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
+24V POWER SUPPLY RETURN BAR (#2)
−48V POWER SUPPLY RETURN BAR (#2)
RECTIFIER FRAMES.

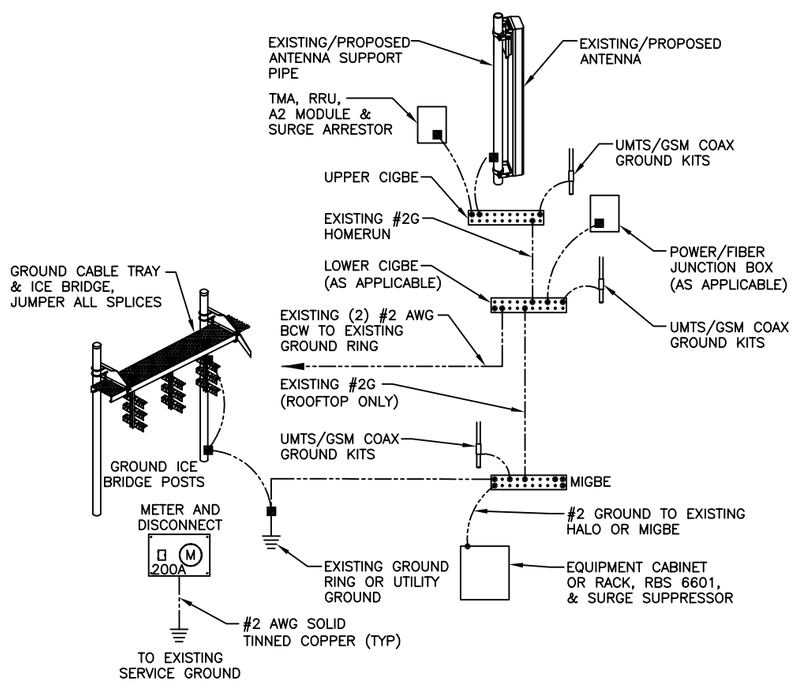
SECTION "A" – SURGE ABSORBERS

INTERIOR GROUND RING (#2)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
BUILDING STEEL (IF AVAILABLE) (#2)



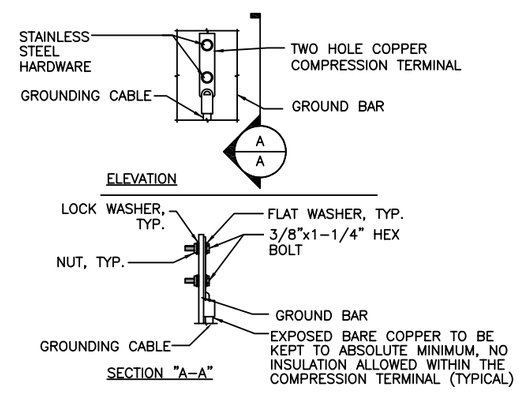
GROUND BAR DETAIL

N.T.S.



GROUNDING RISER DIAGRAM

N.T.S.



NOTE:

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

GROUND BAR CONNECTION DETAIL

N.T.S.

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SITE NUMBER: MA2265

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PROJECT TYPE: LTE 4TX4RX, 5G NR & 4TXRX

SHEET TITLE: GROUNDING DETAILS

DRAWING #: G-1

REVISION: 3

EXHIBIT 5

CENTERLINE COMMUNICATIONS

750 West Center Street, Suite 301
West Bridgewater, MA 02379
781.713.4725

Structural Analysis Report

Site Number: MA2265
FA Number: 10087511
Site Name: Wellesley Washington Street
Address: 372 Washington Street
Wellesley Hills, MA 02481
Pace ID: MRCTB045709, MRCTB045825 & MRCTB046161
Project: LTE 4TX4RX, 5G NR & 4TXRX
Scope: ST02

Client:

at&t Mobility Corp.
550 Cochituate Road
Framingham, MA 01701

at&t

COMMONWEALTH OF MASSACHUSETTS
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No. 49195
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Date: 4/24/2020

Scope of Work:

Centerline Communications was authorized by AT&T to perform a structural analysis of the existing equipment platform. This analysis is for the proposed and existing AT&T equipment listed in this report.

Proposed Appurtenances on Platform:

(2) DMP65R-BU4DA (48.0" H, 20.7" W, 7.7" D) (Weight= 67.9 lbs.)
(2) 4449 B5/B12 RRU (15.0" H, 13.2" W, 10.4" D) (Weight= 73 lbs.)
(2) RRUS-32 B2 (27.2" H, 12.1" W, 7.0" D) (Weight= 53 lbs.)

Existing Appurtenances on Platform:

(2) 800-10121 Antenna (54.5" H, 10.3" W, 5.9" D) (Weight= 44.1 lbs.)
(2) EPBQ-654L8H6-L2 (73.0" H, 21.0" W, 6.3" D) (Weight= 72.8 lbs.)
(2) 4478 B14 RRU (18.1" H, 13.4" W, 8.3" D) (Weight= 59.4 lbs.)
(2) RRUS-32 B30 (26.7" H, 12.1" W, 6.7" D) (Weight= 60 lbs.)
(2) 4426 B66 RRU (15.0" H, 13.2" W, 5.8" D) (Weight= 48.4 lbs.)
(2) DC6-48-60-18-8C Surge Arrestor (24" H, 9.7" ϕ) (Weight= 33 lbs.)
(4) LGP21401 TMA (14.4" H, 9.0" W, 2.7" D) (Weight= 19 lbs.)
(6) 782-10250 Diplexer (11" H, 4.9" W, 2.5" D) (Weight= 6.2 lbs.)
(1) DC6-48-60-0-1B-01 (16.75" H, 14.3" W, 6.37" D) (Weight= 40 lbs.)
(1) Fiber Management Box (Approx. Weight= 50 lbs.)

Existing Equipment Cabinets on Platform:

(1) Innovation Cabinet UBS4000 (Approx. Weight= 6300 lbs.)

Design Criteria:

Design Codes	International Building Code 2015 Massachusetts State Building Code 9th Edition ASCE 7-10
Ultimate Wind Speed (V_{ult})	127 mph (ASCE 7 Hazards Tool)
Wind Speed with Ice	50 mph (Figure 10.4-2)
Ice Thickness	0.75 in. (Figure 10.4-2)
Exposure Category	B (ASCE 7-10 Chapter 26)
Topographic Category	1
Risk Category	II (ASCE 7-10 Table 1.5-1)

****See calculations for additional design criteria.***

Conclusion:

The result of the analysis concluded that the equipment platform *is capable* of supporting the existing and proposed AT&T equipment loads.

	Stress Ratio	Overall Result
Existing Equipment Platform (Steel Members)	**40%**	**PASS**

Reference Documents:

- Post Mod Structural Analysis Report by Infinigy dated 12/7/18.
- Post Mod Mount Structural Analysis Report by Infinigy dated 12/7/18.
- Construction Drawings by Infinigy dated 12/4/18, 2018.
- Construction Drawings by Hudson Design Group dated 11/24/14.

Assumptions and Limitations:

- The existing equipment platform and screen walls are assumed to have been correctly designed and installed.
- Screen wall modifications are assumed to be installed by in accordance to the above referenced documents.
- The calculations performed by Centerline Communications are limited to the structural members in these calculations only.
- The equipment platform is assumed to be located directly over building columns or load bearing walls.
- The analysis is only for the AT&T equipment loading listed in the report.

Site Photos: Existing AT&T Equipment Platform

Site Photos: (Cont.):

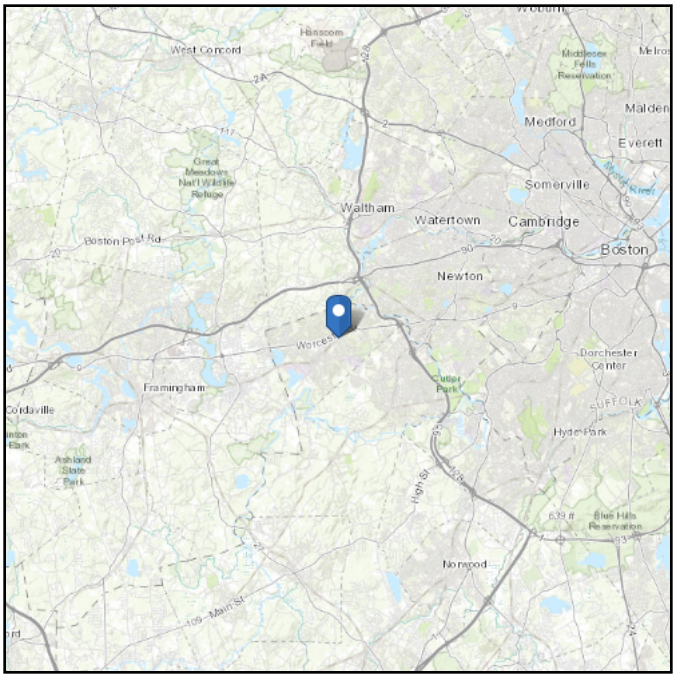
Design Calculations

ASCE 7 Hazards Report

Address:
372 Washington St
Wellesley Hills, Massachusetts
02481

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

Elevation: 146.55 ft (NAVD 88)
Latitude: 42.309073
Longitude: -71.277648



Wind

Results:

Wind Speed:	127 Vmph
10-year MRI	78 Vmph
25-year MRI	88 Vmph
50-year MRI	96 Vmph
100-year MRI	104 Vmph
Data Source:	ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014
Date Accessed:	Thu Apr 23 2020

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

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

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

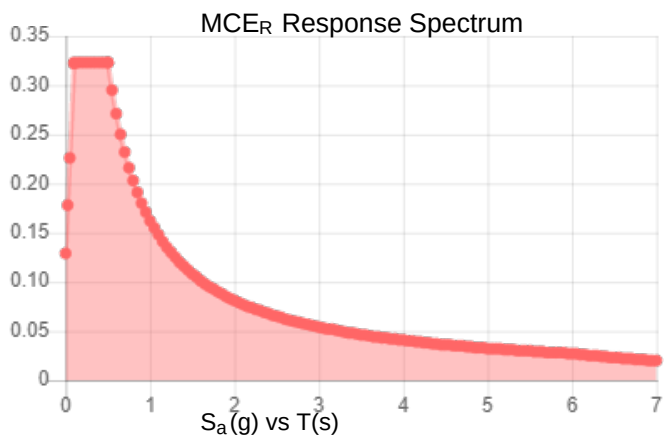
Seismic

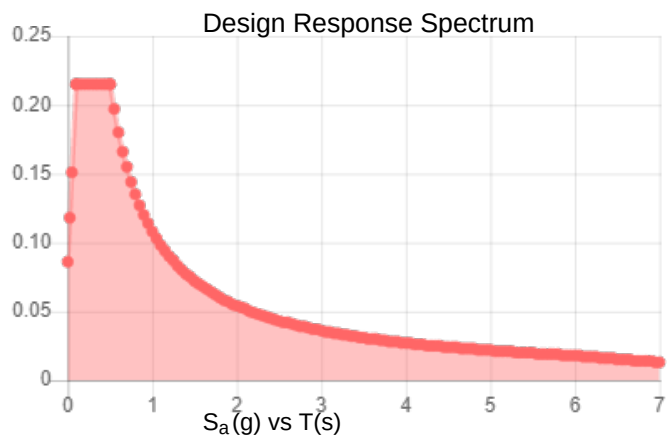
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.202	S_{DS} :	0.215
S_1 :	0.068	S_{D1} :	0.108
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.106
S_{MS} :	0.323	PGA_M :	0.168
S_{M1} :	0.162	F_{PGA} :	1.589
		I_e :	1

Seismic Design Category B





Data Accessed: Thu Apr 23 2020

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

Snow

Results:

Ground Snow Load, p_g:	40 lb/ft^2
Elevation:	146.6 ft
Data Source:	ASCE/SEI 7-10, Fig. 7-1.
Date Accessed:	Thu Apr 23 2020

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

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.

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SITE NUMBER: MA2265
FA NUMBER: 10087511
DATE: 4/23/2020
BY: AA **CHECKED BY:** DC

ASCE 7-10 WIND CALCULATIONS:

Design Criteria:

Basic Wind Speed, V (mph) =	127	(780 CMR 9th Edition))
Nominal Ice Thickness, t (in.)=	0.75	(Figure 10-2)
Exposure Category =	B	(Section 26.7.3)
Topographic Category =	1	(Section 26.8.2)
Structure Class	II	(Table 1.5-1)
Wind Direction Prob. Factor, K_d =	0.85	(Table 26.6-1)
Importance Factor, I =	1	(Table 1.5-2)
Height above ground level at the base of the structure, z (ft) =	43	
Height of structure, h (ft) =	47	
Gust Effect Factor G_h = (Structures Supported on other Structures)	0.85	(Section 26.9.1)
Velocity Pressure Coefficient, K_z =	0.78	(Table 29.3-1)
Topographic Factor, K_{zt} =	1	(Section 26.8.2)
Design Ice Thickness, t_d (in) =	1.54	(Section 10.4.6)
Net Force Coeficient C_f =	1.3	(Section 26.9.1)

Calculate Velocity Pressure:

$q_z = 0.00256\ K_z\ K_{zt}\ K_d\ V^2\ (lb/ft^2)$ (Eq. 29.3-1)

$q_z =$ **27.25**

Calculate Wind Force:

$F = q_z\ G_h\ C_f\ (lb/ft^2)$ (Eq. 29.4-1)

$F =$ **30.11**

SITE NAME: Wellesley Washington St.
SITE NUMBER: MA2265
DATE: 4/23/2020
BY: AA **CHECKED BY:** DC

Load Summary

Live Loads:

Technitian Access	25	psf

Wind Loads:

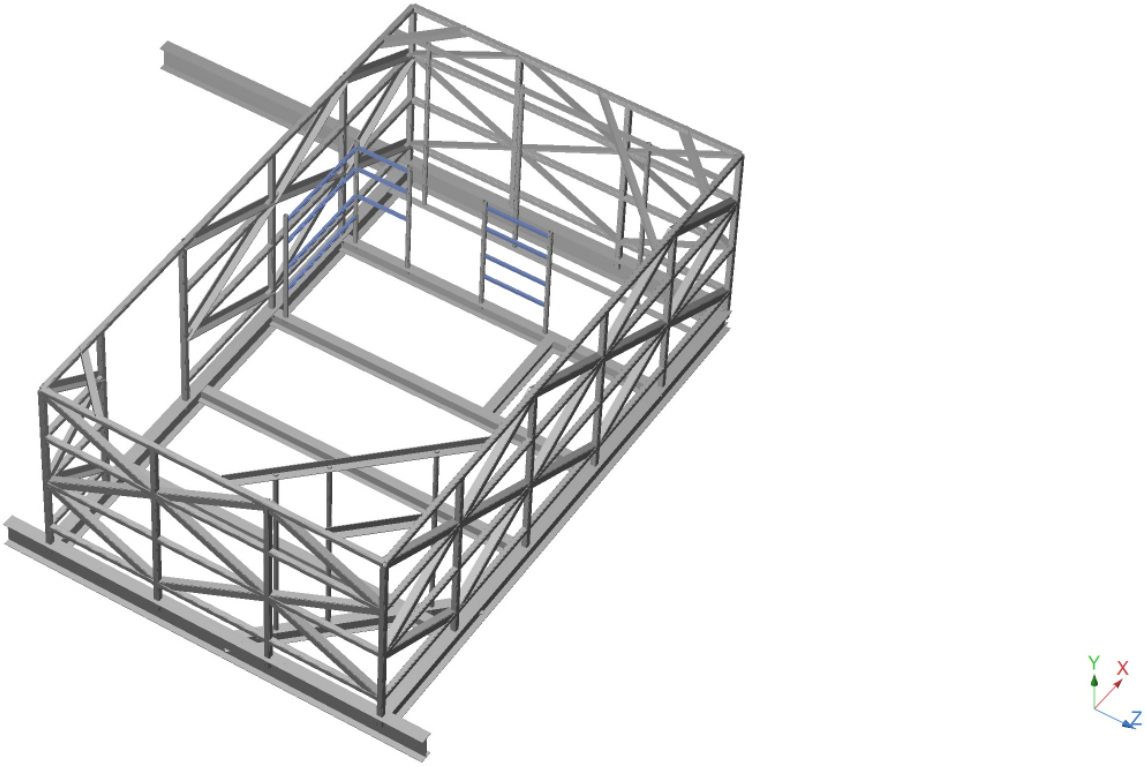
Wind Load:	30.5	psf

Dead Loads:

Grating	12	psf
Wall Panels	1.5	psf

Centerline Communications

Current Date: 4/24/2020 9:40 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was



Centerline Communications

Current Date: 4/24/2020 12:01 PM
Units system: English
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Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [in]	Y [in]	Z [in]	Rigid Floor
1	0.00	0.00	0.00	0
2	300.00	0.00	0.00	0
3	0.00	0.00	-180.00	0
4	300.00	0.00	-180.00	0
5	60.00	0.00	0.00	0
6	120.00	0.00	0.00	0
7	180.00	0.00	0.00	0
8	240.00	0.00	0.00	0
9	60.00	0.00	-180.00	0
10	120.00	0.00	-180.00	0
11	180.00	0.00	-180.00	0
12	240.00	0.00	-180.00	0
13	300.00	0.00	-327.00	0
14	180.00	0.00	-60.00	0
15	240.00	0.00	-60.00	0
16	0.00	0.00	24.00	0
17	0.00	0.00	-204.00	0
18	0.00	18.00	-180.00	0
19	0.00	108.00	-180.00	0
20	0.00	78.00	-180.00	0
21	0.00	48.00	-180.00	0
22	0.00	18.00	-120.00	0
23	0.00	18.00	-60.00	0
24	0.00	18.00	0.00	0
25	0.00	108.00	-120.00	0
26	0.00	108.00	-60.00	0
27	0.00	108.00	0.00	0

28	0.00	78.00	-120.00	0
29	0.00	78.00	-60.00	0
30	0.00	78.00	0.00	0
31	0.00	48.00	-120.00	0
32	0.00	48.00	-60.00	0
33	0.00	48.00	0.00	0
34	0.00	0.00	-120.00	0
35	0.00	0.00	-60.00	0
36	60.00	18.00	0.00	0
37	120.00	18.00	0.00	0
38	180.00	18.00	0.00	0
39	240.00	18.00	0.00	0
40	300.00	18.00	0.00	0
41	60.00	108.00	0.00	0
42	120.00	108.00	0.00	0
43	180.00	108.00	0.00	0
44	240.00	108.00	0.00	0
45	300.00	108.00	0.00	0
46	60.00	78.00	0.00	0
47	120.00	78.00	0.00	0
48	180.00	78.00	0.00	0
49	240.00	78.00	0.00	0
50	300.00	78.00	0.00	0
51	60.00	48.00	0.00	0
52	120.00	48.00	0.00	0
53	180.00	48.00	0.00	0
54	240.00	48.00	0.00	0
55	300.00	48.00	0.00	0
56	300.00	108.00	-180.00	0
57	300.00	108.00	-120.00	0
58	300.00	108.00	-60.00	0
59	300.00	78.00	-60.00	0
60	300.00	78.00	-120.00	0
61	300.00	78.00	-180.00	0
62	300.00	0.00	-120.00	0
63	300.00	0.00	-60.00	0
64	300.00	48.00	-60.00	0
65	300.00	48.00	-120.00	0
66	300.00	48.00	-180.00	0
67	300.00	18.00	-180.00	0
68	300.00	18.00	-120.00	0
69	300.00	18.00	-60.00	0
70	240.00	108.00	-180.00	0
71	180.00	108.00	-180.00	0
72	180.00	18.00	-180.00	0
73	240.00	18.00	-180.00	0
74	240.00	48.00	-180.00	0
75	240.00	78.00	-180.00	0
76	180.00	78.00	-180.00	0
77	44.00	18.00	-180.00	0
78	44.00	108.00	-180.00	0
79	44.00	78.00	-180.00	0
80	44.00	48.00	-180.00	0
81	44.00	0.00	-180.00	0
82	180.00	48.00	-180.00	0
83	108.00	108.00	-180.00	0
84	108.00	18.00	-180.00	0
85	108.00	78.00	-180.00	0
86	108.00	48.00	-180.00	0
87	108.00	0.00	-180.00	0
88	30.00	108.00	-180.00	0
89	30.00	108.00	0.00	0
90	270.00	108.00	-180.00	0
91	270.00	108.00	0.00	0
92	0.00	108.00	-150.00	0
93	300.00	108.00	-150.00	0

94	0.00	108.00	-30.00	0
95	300.00	108.00	-30.00	0
96	60.00	0.00	-44.00	0
97	120.00	0.00	-44.00	0
98	180.00	0.00	-44.00	0
99	60.00	0.00	-74.00	0
100	60.00	0.00	-104.00	0
101	120.00	0.00	-74.00	0
102	120.00	0.00	-104.00	0
103	180.00	0.00	-74.00	0
104	180.00	0.00	-104.00	0
105	84.00	108.00	0.00	0
106	0.00	108.00	-84.00	0
107	84.00	0.00	0.00	0
108	0.00	0.00	-84.00	0
109	60.00	0.00	-24.00	0
110	283.00	108.00	-180.00	0
111	283.00	108.00	0.00	0
112	283.00	0.00	-180.00	0
113	283.00	0.00	0.00	0
114	300.00	108.00	-76.00	0
115	224.00	108.00	0.00	0
116	67.20	108.00	-16.80	0
118	33.60	108.00	-50.40	0
119	16.80	108.00	-67.20	0
120	67.20	0.00	-16.80	0
121	33.60	0.00	-50.40	0
122	16.80	0.00	-67.20	0
123	283.00	0.00	-39.00	0
124	283.00	108.00	-39.00	0
125	283.00	0.00	-108.00	0
126	283.00	108.00	-108.00	0
127	283.00	0.00	-160.00	0
128	283.00	108.00	-160.00	0
129	240.00	0.00	-64.00	0
130	240.00	72.00	-64.00	0
131	240.00	0.00	-100.00	0
132	240.00	72.00	-100.00	0
133	240.00	68.00	-100.00	0
134	240.00	68.00	-64.00	0
135	240.00	54.00	-100.00	0
136	240.00	36.00	-100.00	0
137	240.00	22.00	-100.00	0
138	240.00	54.00	-64.00	0
139	240.00	36.00	-64.00	0
140	240.00	22.00	-64.00	0
141	180.00	0.00	-172.00	0
142	240.00	0.00	-172.00	0
143	180.00	72.00	-172.00	0
144	240.00	72.00	-172.00	0
145	180.00	68.00	-172.00	0
146	240.00	68.00	-172.00	0
147	180.00	54.00	-172.00	0
148	240.00	54.00	-172.00	0
149	180.00	36.00	-172.00	0
150	240.00	36.00	-172.00	0
151	180.00	22.00	-172.00	0
152	240.00	22.00	-172.00	0
153	240.00	36.00	-142.00	0
154	240.00	54.00	-142.00	0
155	240.00	68.00	-142.00	0
156	240.00	72.00	-142.00	0
157	240.00	0.00	-142.00	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
2	1	1	1	0	0	0
13	1	1	1	0	0	0
16	1	1	1	0	0	0
17	1	1	1	0	0	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
1	1	2	Beam 1	W 12X26	A992 Gr50	0.00	0.00	0.00
2	3	4	Beam 1	W 12X26	A992 Gr50	0.00	0.00	0.00
4	13	2	Beam 3	W 14X38	A992 Gr50	0.00	0.00	0.00
5	5	9	Beam 4	W 8X18	A992 Gr50	0.00	0.00	0.00
6	6	10	Beam 4	W 8X18	A992 Gr50	0.00	0.00	0.00
7	7	11	Beam 4	W 8X18	A992 Gr50	0.00	0.00	0.00
8	8	12	Beam 4	W 8X18	A992 Gr50	0.00	0.00	0.00
9	14	15	Beam 4	W 8X18	A992 Gr50	0.00	0.00	0.00
10	17	16	Beam 2	W 14X30	A992 Gr50	0.00	0.00	0.00
11	3	19	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
12	34	25	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
13	35	26	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
14	1	27	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
15	19	25	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
16	25	26	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
17	26	27	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
18	20	28	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
19	28	29	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
20	29	30	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
21	21	31	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
22	31	32	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
23	32	33	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
24	18	22	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
25	22	23	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
26	23	24	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
27	5	41	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
28	6	42	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
29	7	43	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
30	8	44	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
31	2	45	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
32	27	41	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
33	30	46	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
34	33	51	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
35	24	36	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
36	36	37	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
37	51	52	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
38	46	47	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
39	41	42	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
40	37	38	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
41	52	53	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
42	47	48	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
43	42	43	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
44	38	39	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
45	53	54	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
46	48	49	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
47	43	44	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
48	39	40	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
49	54	55	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
50	49	50	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
51	44	45	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
52	56	57	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
53	57	58	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
54	58	45	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00

55	59	50	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
56	60	59	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
57	61	60	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
58	4	56	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
59	62	57	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
60	63	58	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
61	64	55	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
62	65	64	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
63	66	65	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
64	67	68	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
65	68	69	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
66	69	40	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
67	12	70	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
68	11	71	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
69	72	73	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
70	73	67	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
71	74	66	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
72	75	61	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
73	70	56	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
74	76	75	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
75	71	70	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
76	81	78	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
77	82	74	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
78	87	83	FRP Vertical	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
79	71	83	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
80	78	83	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
81	19	78	FRP Horizontal (top)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
82	76	85	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
83	82	86	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
84	72	84	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
85	20	79	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
86	21	80	FRP Horizontal (mid)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
87	18	77	FRP Horizontal (bot)	HSS_SQR 3X3X1_4	A36 (weightless)	0.00	0.00	0.00
88	92	88	FRP Brace	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
89	90	93	FRP Brace	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
90	94	89	FRP Brace	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
91	91	95	FRP Brace	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
92	106	105	FRP antenna support angle	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
93	108	109	Support Beam	W 8X18	A992 Gr50	0.00	0.00	0.00
94	109	107	Support Beam	W 8X18	A992 Gr50	0.00	0.00	0.00
95	110	111	FRP antenna support angle	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
96	112	113	FRP antenna support angle	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
97	115	114	FRP antenna support angle	L 4X4X3_8	A36 (weightless)	0.00	0.00	0.00
98	116	120	antenna pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
99	118	121	antenna pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
100	119	122	antenna pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
101	123	124	antenna pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
102	125	126	antenna pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
103	127	128	antenna pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
104	129	130	support pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
105	131	132	support pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
106	133	134	unistrut	P 1000	A36	0.00	0.00	0.00
107	135	138	unistrut	P 1000	A36	0.00	0.00	0.00
108	136	139	unistrut	P 1000	A36	0.00	0.00	0.00
109	137	140	unistrut	P 1000	A36	0.00	0.00	0.00
110	143	141	support pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
111	144	142	support pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
112	145	146	unistrut	P 1000	A36	0.00	0.00	0.00
113	147	148	unistrut	P 1000	A36	0.00	0.00	0.00
114	149	150	unistrut	P 1000	A36	0.00	0.00	0.00
115	151	152	unistrut	P 1000	A36	0.00	0.00	0.00
116	156	157	support pipe	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
117	146	155	unistrut	P 1000	A36	0.00	0.00	0.00
118	148	154	unistrut	P 1000	A36	0.00	0.00	0.00
119	150	153	unistrut	P 1000	A36	0.00	0.00	0.00
120	19	28	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00

121	28	32	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
122	32	24	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
123	21	28	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
124	28	26	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
125	26	30	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
126	32	30	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
127	22	32	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
128	21	22	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
141	19	79	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
142	79	21	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
143	21	77	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
144	45	59	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
145	59	65	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
146	65	67	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
147	55	59	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
148	59	57	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
149	57	61	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
150	65	61	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
151	65	69	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
152	69	55	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
153	83	76	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
154	76	74	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
155	74	67	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
156	86	76	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
157	76	70	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
158	70	61	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
159	74	61	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
160	74	72	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
161	86	72	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
162	27	46	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
163	46	52	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
164	52	38	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
165	38	54	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
166	54	50	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
167	44	50	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
168	54	40	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
169	48	54	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
170	42	48	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
171	46	42	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
172	33	46	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
173	33	36	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
174	36	52	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
175	52	48	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00
176	48	44	Reinforcement Diagonals	L 4X4X1_2	A36 (weightless)	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
91	270.00	0	0.00	0.00	0.00
95	90.00	0	0.00	0.00	0.00
96	90.00	0	0.00	0.00	0.00
106	180.00	0	0.00	0.00	0.00
107	180.00	0	0.00	0.00	0.00
108	180.00	0	0.00	0.00	0.00
109	180.00	0	0.00	0.00	0.00
120	180.00	0	0.00	0.00	0.00
121	180.00	0	0.00	0.00	0.00
122	180.00	0	0.00	0.00	0.00
123	180.00	0	0.00	0.00	0.00
124	180.00	0	0.00	0.00	0.00
125	180.00	0	0.00	0.00	0.00

126	180.00	0	0.00	0.00	0.00
127	180.00	0	0.00	0.00	0.00
128	180.00	0	0.00	0.00	0.00
144	180.00	0	0.00	0.00	0.00
145	180.00	0	0.00	0.00	0.00
146	180.00	0	0.00	0.00	0.00
147	180.00	0	0.00	0.00	0.00
148	180.00	0	0.00	0.00	0.00
149	180.00	0	0.00	0.00	0.00
150	180.00	0	0.00	0.00	0.00
151	90.00	0	0.00	0.00	0.00
152	90.00	0	0.00	0.00	0.00
162	180.00	0	0.00	0.00	0.00
163	180.00	0	0.00	0.00	0.00
164	180.00	0	0.00	0.00	0.00
165	180.00	0	0.00	0.00	0.00
166	180.00	0	0.00	0.00	0.00
167	180.00	0	0.00	0.00	0.00
168	180.00	0	0.00	0.00	0.00
169	180.00	0	0.00	0.00	0.00
170	180.00	0	0.00	0.00	0.00
171	180.00	0	0.00	0.00	0.00
172	180.00	0	0.00	0.00	0.00
173	180.00	0	0.00	0.00	0.00
174	180.00	0	0.00	0.00	0.00
175	180.00	0	0.00	0.00	0.00
176	180.00	0	0.00	0.00	0.00

Rigid end offsets

Member	DJX [in]	DJY [in]	DJZ [in]	DKX [in]	DKY [in]	DKZ [in]
95	0.00	-2.00	0.00	0.00	-2.00	0.00

Hinges

	Node-J				Node-K						
Member	**M33**	**M22**	**V3**	**V2**	**M33**	**M22**	**V3**	**V2**	**TOR**	**AXL**	**Axial rigidity**
88	0	1	0	0	0	1	0	0	0	0	Full
89	0	1	0	0	0	1	0	0	0	0	Full
90	0	1	0	0	0	1	0	0	0	0	Full
91	1	0	0	0	1	0	0	0	0	0	Full

Centerline Communications

Current Date: 4/24/2020 12:02 PM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Washington Street, 372 Wasnington St - RT\LTE 5G NR\Structural\Working Files\ST02\RAM\MA2265-Platform.retx

Load data

GLOSSARY

Comb : Indicates if load condition is a load combination

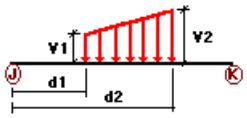
Load Conditions

Condition	Description	Comb.	Category
DL	Dead Load	No	DL
LL	Live Load (Technician)	No	LL
WL1	Wind Load 1	No	WIND
WL2	Wind Load 2	No	WIND
WL3	Wind Load 3	No	WIND
WL4	Wind Load 4	No	WIND
D1	1.4DL	Yes	
D2	1.2DL+1.6LL	Yes	
D3	1.2DL+0.5WL1	Yes	
D4	1.2DL+0.5WL2	Yes	
D5	1.2DL+0.5WL3	Yes	
D6	1.2DL+WL1	Yes	
D7	1.2DL+WL2	Yes	
D8	1.2DL+WL3	Yes	
D9	1.2DL+LL+WL1	Yes	
D10	1.2DL+LL+WL2	Yes	
D11	1.2DL+LL+WL3	Yes	
D12	0.9DL+WL1	Yes	
D13	0.9DL+WL2	Yes	
D14	0.9DL+WL3	Yes	

Load on nodes

Condition	Node	FX [Kip]	FY [Kip]	FZ [Kip]	MX [Kip*ft]	MY [Kip*ft]	MZ [Kip*ft]
DL	96	0.00	-0.70	0.00	0.00	0.00	0.00
	97	0.00	-0.70	0.00	0.00	0.00	0.00
	98	0.00	-0.70	0.00	0.00	0.00	0.00
	99	0.00	-0.70	0.00	0.00	0.00	0.00
	100	0.00	-0.70	0.00	0.00	0.00	0.00
	101	0.00	-0.70	0.00	0.00	0.00	0.00
	102	0.00	-0.70	0.00	0.00	0.00	0.00
	103	0.00	-0.70	0.00	0.00	0.00	0.00
	104	0.00	-0.70	0.00	0.00	0.00	0.00

Distributed force on members



Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [in]	%	Dist2 [in]	%
DL	4	Y	-0.018	-0.018	147.00	No	100.00	Yes
	5	Y	-0.036	-0.036	0.00	Yes	100.00	Yes
	6	Y	-0.036	-0.036	0.00	Yes	100.00	Yes
	7	Y	-0.036	-0.036	0.00	Yes	100.00	Yes
	8	Y	-0.036	-0.036	0.00	Yes	100.00	Yes
	10	Y	-0.018	-0.018	24.00	No	204.00	No
	11	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	12	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	13	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	14	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	15	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
	16	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
	17	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
	18	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	19	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	20	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	21	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	22	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	23	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	24	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	25	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	26	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	27	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	28	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	29	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	30	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	31	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	32	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
	33	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	34	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	35	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	36	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	37	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	38	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	39	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
	40	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	41	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	42	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	43	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
	44	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	45	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes

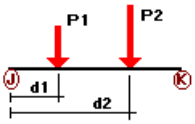
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
46	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
47	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
48	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.003	-0.003	0.00	Yes	100.00	Yes
49	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
50	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
51	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
52	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
53	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
54	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
55	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
56	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
57	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
58	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
59	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
60	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
61	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
62	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
63	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
64	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.003	-0.003	0.00	Yes	100.00	Yes
65	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.003	-0.003	0.00	Yes	100.00	Yes
66	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.003	-0.003	0.00	Yes	100.00	Yes
67	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
68	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
69	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.003	-0.003	0.00	Yes	100.00	Yes
70	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.003	-0.003	0.00	Yes	100.00	Yes
71	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
72	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
73	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
74	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
75	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
76	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
77	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
78	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
79	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
80	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes
81	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
	Y	-0.0019	-0.0019	0.00	Yes	100.00	Yes

	82	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	83	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	84	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	85	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	86	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.0034	-0.0034	0.00	Yes	100.00	Yes
	87	Y	-0.0022	-0.0022	0.00	Yes	100.00	Yes
		Y	-0.003	-0.003	0.00	Yes	100.00	Yes
	88	Y	-0.0023	-0.0023	0.00	Yes	100.00	Yes
	89	Y	-0.0023	-0.0023	0.00	Yes	100.00	Yes
	90	Y	-0.0023	-0.0023	0.00	Yes	100.00	Yes
	91	Y	-0.0023	-0.0023	0.00	Yes	100.00	Yes
	92	Y	-0.0023	-0.0023	0.00	Yes	100.00	Yes
	95	Y	-0.0023	-0.0023	0.00	Yes	100.00	Yes
	97	Y	-0.0023	-0.0023	0.00	Yes	100.00	Yes
	120	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	121	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	122	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	123	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	124	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	125	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	126	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	127	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	128	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	141	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	142	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	143	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	144	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	145	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	146	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	147	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	148	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	149	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	150	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	151	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	152	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	153	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	154	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	155	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	156	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	157	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	158	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	159	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	160	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	161	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	162	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	163	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	164	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	165	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	166	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	167	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	168	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	169	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	170	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	171	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	172	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	173	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	174	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	175	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
	176	Y	-0.0029	-0.0029	0.00	Yes	100.00	Yes
LL	4	Y	-0.0375	-0.0375	147.00	No	100.00	Yes
	5	Y	-0.075	-0.075	0.00	Yes	100.00	Yes

	6	Y	-0.075	-0.075	0.00	Yes	100.00	Yes
	7	Y	-0.075	-0.075	0.00	Yes	100.00	Yes
	8	Y	-0.075	-0.075	0.00	Yes	100.00	Yes
	10	Y	-0.0375	-0.0375	24.00	No	204.00	No
WL1	1	Z	-0.0305	-0.0305	0.00	Yes	100.00	Yes
	32	Z	-0.0381	-0.0381	0.00	Yes	100.00	Yes
	33	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	34	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	35	Z	-0.061	-0.061	0.00	Yes	100.00	Yes
	36	Z	-0.061	-0.061	0.00	Yes	100.00	Yes
	37	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	38	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	39	Z	-0.0381	-0.0381	0.00	Yes	100.00	Yes
	40	Z	-0.061	-0.061	0.00	Yes	100.00	Yes
	41	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	42	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	43	Z	-0.0381	-0.0381	0.00	Yes	100.00	Yes
	44	Z	-0.061	-0.061	0.00	Yes	100.00	Yes
	45	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	46	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	47	Z	-0.0381	-0.0381	0.00	Yes	100.00	Yes
	48	Z	-0.061	-0.061	0.00	Yes	100.00	Yes
	49	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	50	Z	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	51	Z	-0.0381	-0.0381	0.00	Yes	100.00	Yes
WL2	10	X	0.0305	0.0305	0.00	Yes	100.00	Yes
	15	X	0.0381	0.0381	0.00	Yes	100.00	Yes
	16	X	0.0381	0.0381	0.00	Yes	100.00	Yes
	17	X	0.0381	0.0381	0.00	Yes	100.00	Yes
	18	X	0.0686	0.0686	0.00	Yes	100.00	Yes
	19	X	0.0686	0.0686	0.00	Yes	100.00	Yes
	20	X	0.0686	0.0686	0.00	Yes	100.00	Yes
	21	X	0.0686	0.0686	0.00	Yes	100.00	Yes
	22	X	0.0686	0.0686	0.00	Yes	100.00	Yes
	23	X	0.0686	0.0686	0.00	Yes	100.00	Yes
	24	X	0.061	0.061	0.00	Yes	100.00	Yes
	25	X	0.061	0.061	0.00	Yes	100.00	Yes
	26	X	0.061	0.061	0.00	Yes	100.00	Yes
WL3	2	Z	0.0305	0.0305	0.00	Yes	100.00	Yes
	69	Z	0.061	0.061	0.00	Yes	100.00	Yes
	70	Z	0.061	0.061	0.00	Yes	100.00	Yes
	71	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	72	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	73	Z	0.0381	0.0381	0.00	Yes	100.00	Yes
	74	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	75	Z	0.0381	0.0381	0.00	Yes	100.00	Yes
	77	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	79	Z	0.0381	0.0381	0.00	Yes	100.00	Yes
	81	Z	0.0381	0.0381	0.00	Yes	100.00	Yes
	82	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	83	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	84	Z	0.061	0.061	0.00	Yes	100.00	Yes
	85	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	86	Z	0.0686	0.0686	0.00	Yes	100.00	Yes
	87	Z	0.061	0.061	0.00	Yes	100.00	Yes
WL4	4	X	-0.0305	-0.0305	0.00	Yes	100.00	Yes
	52	X	-0.0381	-0.0381	0.00	Yes	100.00	Yes
	53	X	-0.0381	-0.0381	0.00	Yes	100.00	Yes
	54	X	-0.0381	-0.0381	0.00	Yes	100.00	Yes
	55	X	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	56	X	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	57	X	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	61	X	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	62	X	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	63	X	-0.0686	-0.0686	0.00	Yes	100.00	Yes
	64	X	-0.061	-0.061	0.00	Yes	100.00	Yes

65	X	-0.061	-0.061	0.00	Yes	100.00	Yes
66	X	-0.061	-0.061	0.00	Yes	100.00	Yes

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [in]	%
DL	98	Y	-0.068	36.00	No
		Y	-0.053	40.00	No
		Y	-0.073	66.00	No
		Y	-0.053	90.00	No
	99	Y	-0.0728	36.00	No
		Y	-0.0485	40.00	No
	100	Y	-0.0441	36.00	No
		Y	-0.0594	40.00	No
		Y	-0.033	66.00	No
		Y	-0.038	90.00	No
	101	Y	-0.0441	68.00	No
		Y	-0.0594	60.00	No
		Y	-0.038	36.00	No
	102	Y	-0.0728	68.00	No
		Y	-0.033	60.00	No
		Y	-0.0485	36.00	No
		Y	-0.06	15.00	No
	103	Y	-0.068	68.00	No
		Y	-0.053	60.00	No
		Y	-0.073	36.00	No
	106	Y	-0.025	12.00	No
		Y	-0.025	24.00	No
	107	Y	-0.025	12.00	No
		Y	-0.025	24.00	No
	108	Y	-0.025	12.00	No
		Y	-0.025	24.00	No
	109	Y	-0.025	12.00	No
		Y	-0.025	24.00	No
	112	Y	-0.0167	15.00	No
		Y	-0.0167	30.00	No
		Y	-0.0167	45.00	No
	113	Y	-0.0167	15.00	No
		Y	-0.0167	30.00	No
		Y	-0.0167	45.00	No
	114	Y	-0.0167	15.00	No
		Y	-0.0167	30.00	No
		Y	-0.0167	45.00	No
	117	Y	-0.0064	6.00	No
		Y	-0.0064	12.00	No
		Y	-0.0064	18.00	No
		Y	-0.0064	24.00	No
	118	Y	-0.0064	6.00	No
		Y	-0.0064	12.00	No
		Y	-0.0064	18.00	No
		Y	-0.0064	24.00	No
	119	Y	-0.0064	6.00	No
		Y	-0.0064	12.00	No
		Y	-0.0064	18.00	No
		Y	-0.0064	24.00	No

Self weight multipliers for load conditions

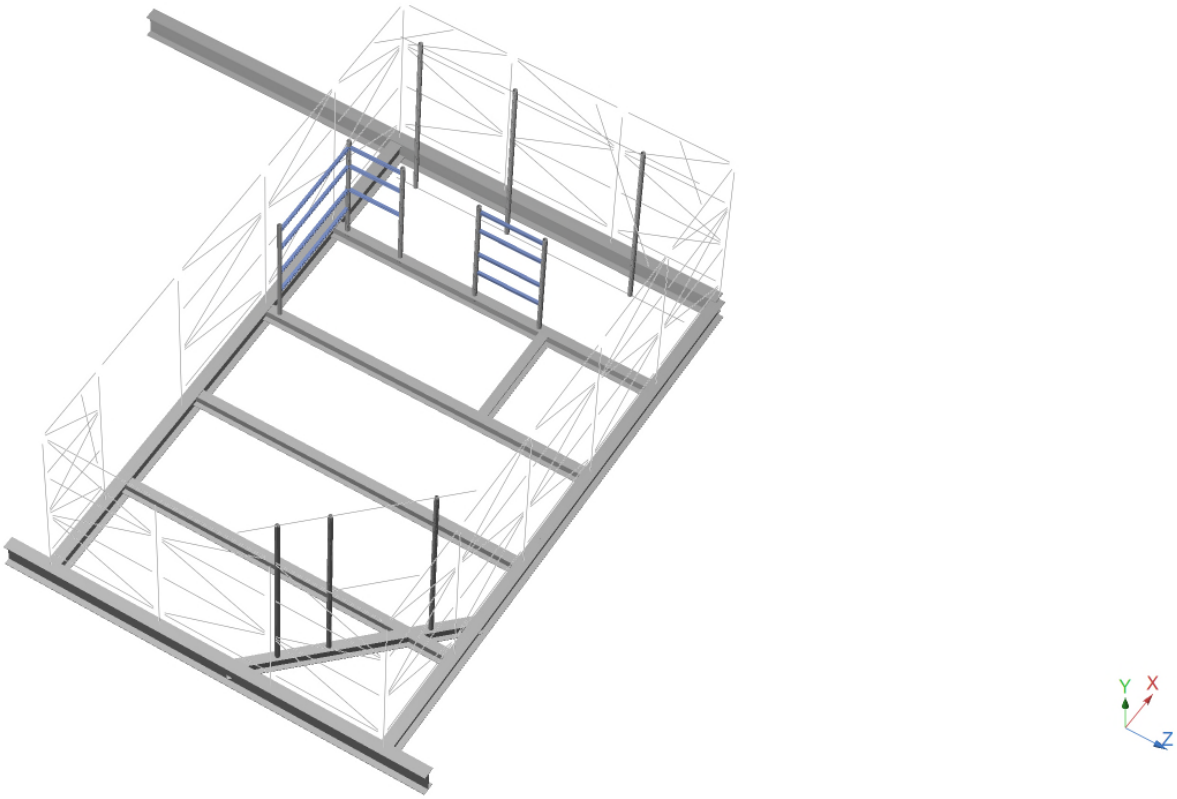
Condition	Description	Self weight multiplier Comb.	MultX	MultY	MultZ
DL	Dead Load	No	0.00	-1.00	0.00
LL	Live Load (Technician)	No	0.00	0.00	0.00
WL1	Wind Load 1	No	0.00	0.00	0.00
WL2	Wind Load 2	No	0.00	0.00	0.00
WL3	Wind Load 3	No	0.00	0.00	0.00
WL4	Wind Load 4	No	0.00	0.00	0.00
D1	1.4DL	Yes	0.00	0.00	0.00
D2	1.2DL+1.6LL	Yes	0.00	0.00	0.00
D3	1.2DL+0.5WL1	Yes	0.00	0.00	0.00
D4	1.2DL+0.5WL2	Yes	0.00	0.00	0.00
D5	1.2DL+0.5WL3	Yes	0.00	0.00	0.00
D6	1.2DL+WL1	Yes	0.00	0.00	0.00
D7	1.2DL+WL2	Yes	0.00	0.00	0.00
D8	1.2DL+WL3	Yes	0.00	0.00	0.00
D9	1.2DL+LL+WL1	Yes	0.00	0.00	0.00
D10	1.2DL+LL+WL2	Yes	0.00	0.00	0.00
D11	1.2DL+LL+WL3	Yes	0.00	0.00	0.00
D12	0.9DL+WL1	Yes	0.00	0.00	0.00
D13	0.9DL+WL2	Yes	0.00	0.00	0.00
D14	0.9DL+WL3	Yes	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
DL	0.00	0.00	0.00
LL	0.00	0.00	0.00
WL1	0.00	0.00	0.00
WL2	0.00	0.00	0.00
WL3	0.00	0.00	0.00
WL4	0.00	0.00	0.00
D1	0.00	0.00	0.00
D2	0.00	0.00	0.00
D3	0.00	0.00	0.00
D4	0.00	0.00	0.00
D5	0.00	0.00	0.00
D6	0.00	0.00	0.00
D7	0.00	0.00	0.00
D8	0.00	0.00	0.00
D9	0.00	0.00	0.00
D10	0.00	0.00	0.00
D11	0.00	0.00	0.00
D12	0.00	0.00	0.00
D13	0.00	0.00	0.00
D14	0.00	0.00	0.00

Centerline Communications

Current Date: 4/24/2020 10:17 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was



Centerline Communications

Current Date: 4/24/2020 10:18 AM
Units system: English
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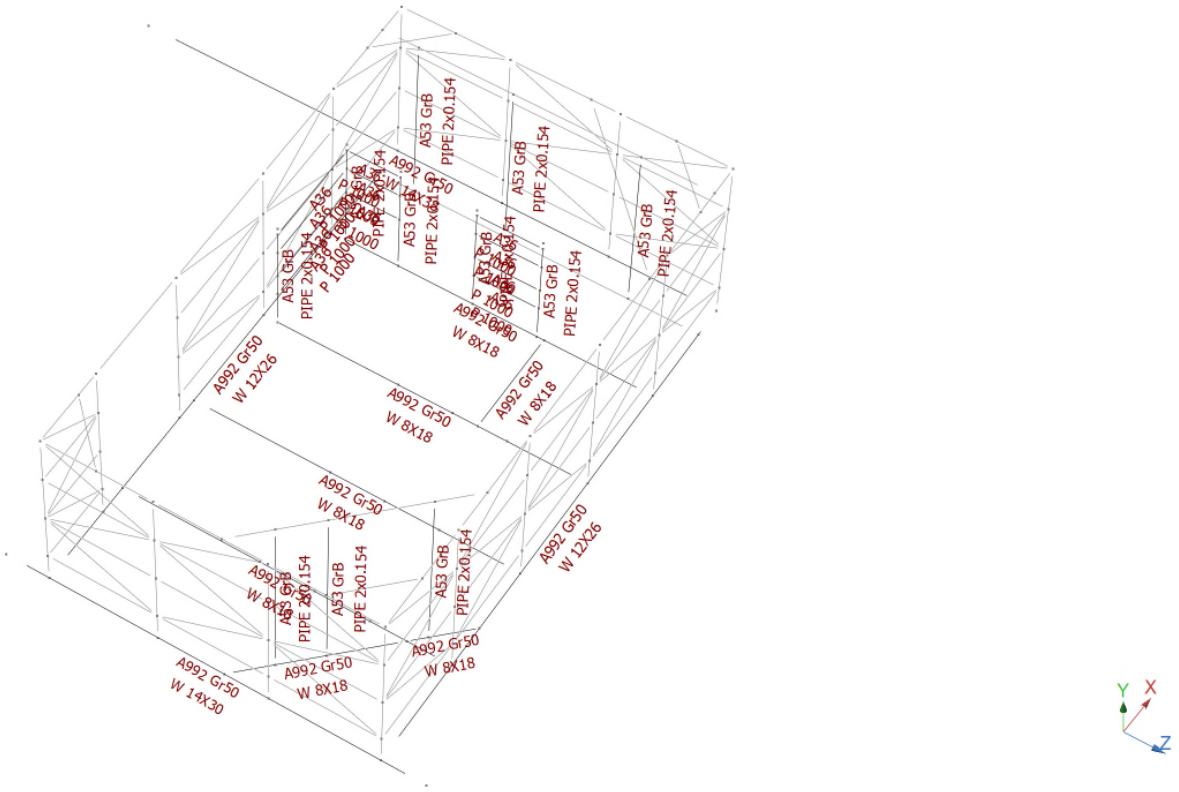

Centerline Communications

Current Date: 4/24/2020 10:21 AM
Units system: English
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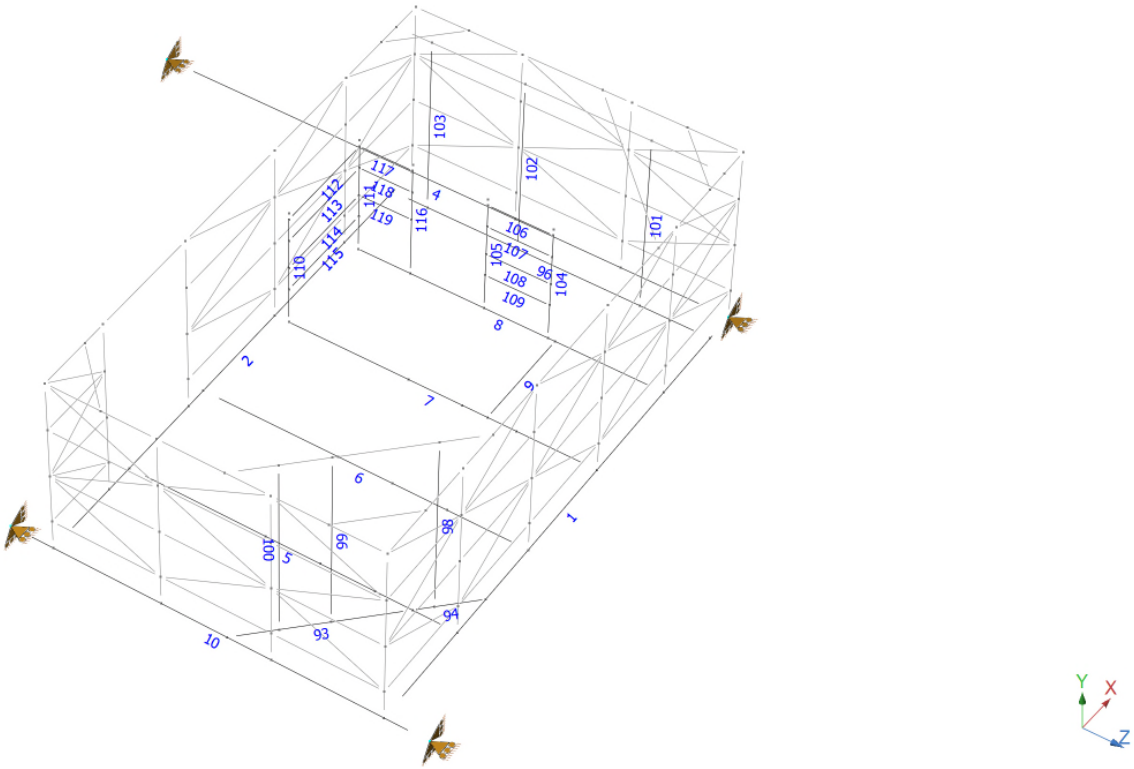

Centerline Communications

Current Date: 4/24/2020 9:57 AM
Units system: English
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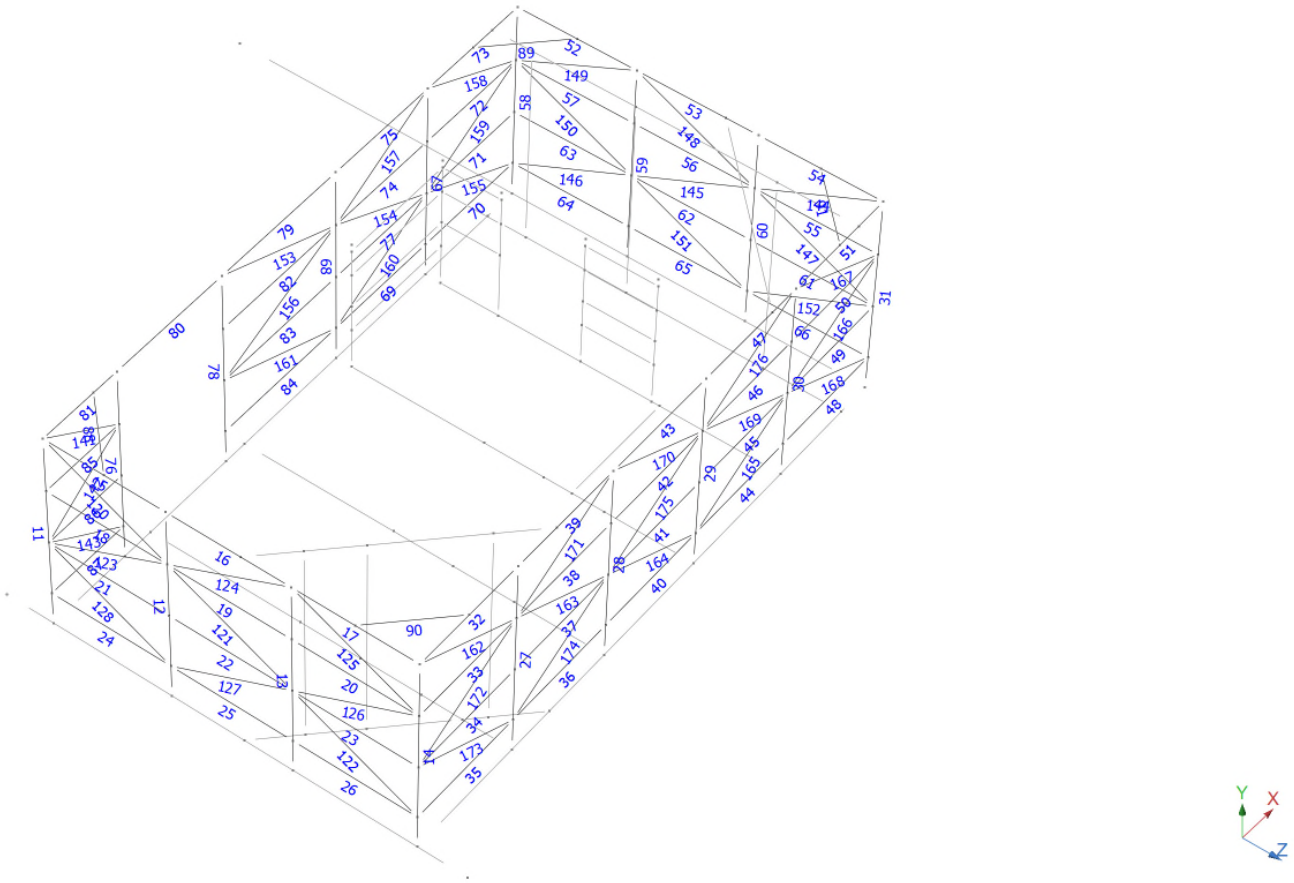
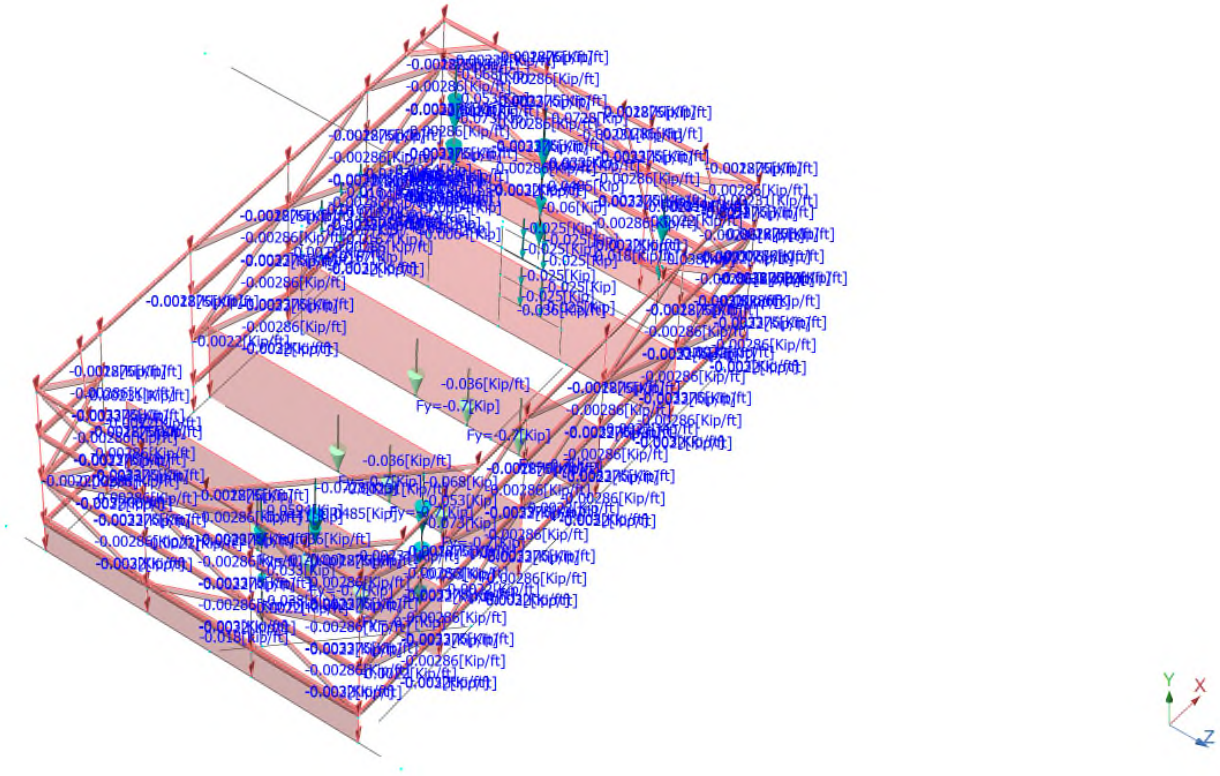


FRP MEMBERS (NOT ANALYZED)
(SEE SA BY INFINIGY DATED 12/7/18)

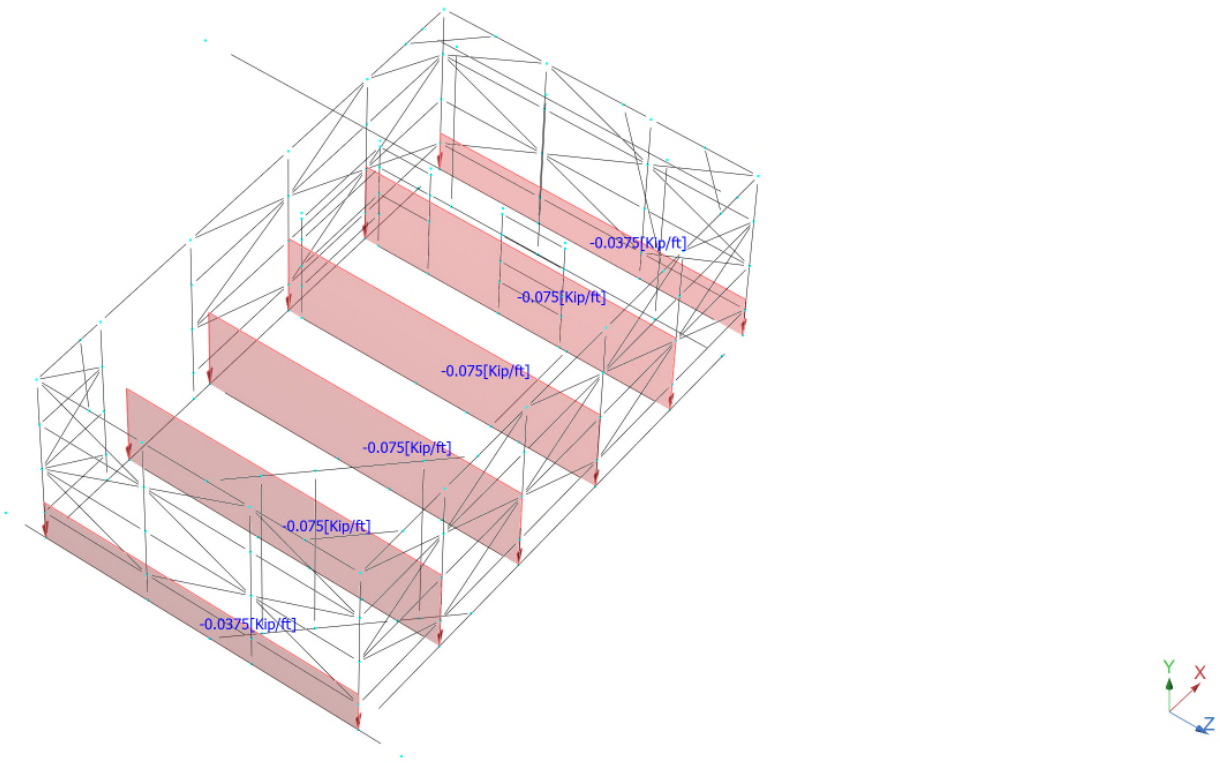
Centerline Communications

Current Date: 4/24/2020 9:51 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was
Load condition: DL=Dead Load



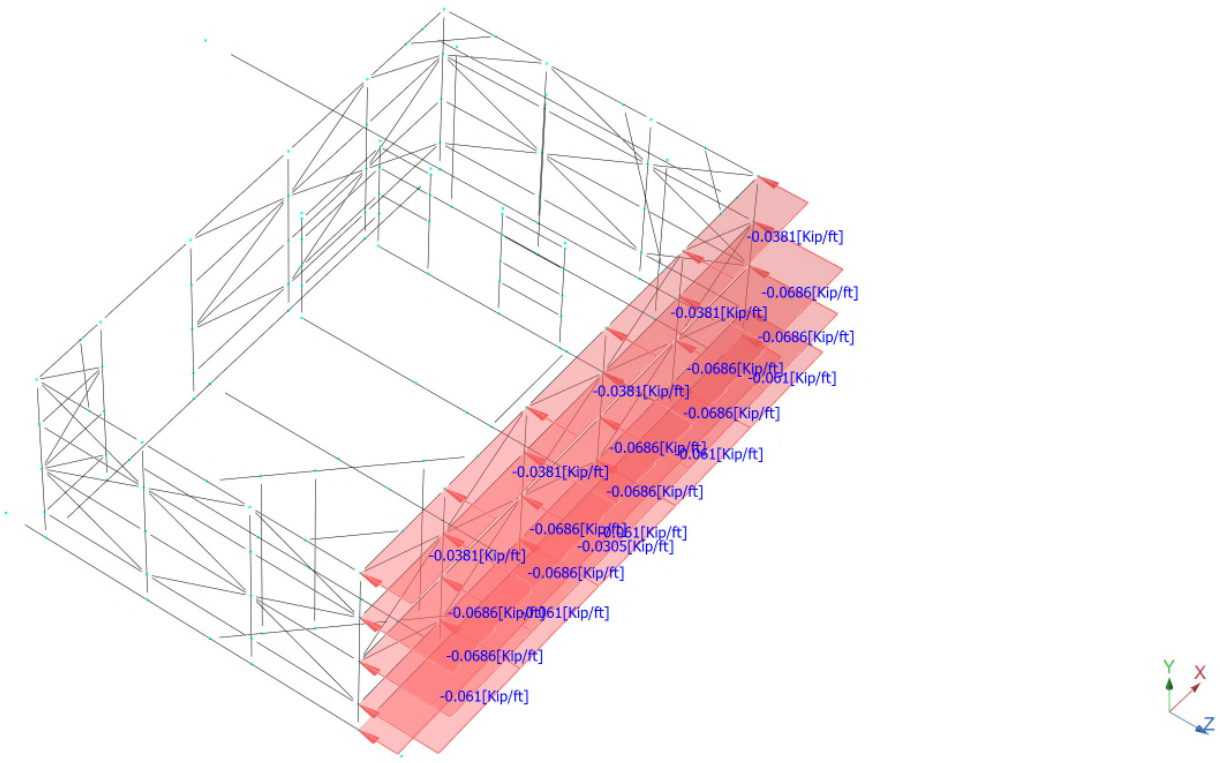
Centerline Communications

Current Date: 4/24/2020 9:51 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was
Load condition: LL=Live Load (Technician)



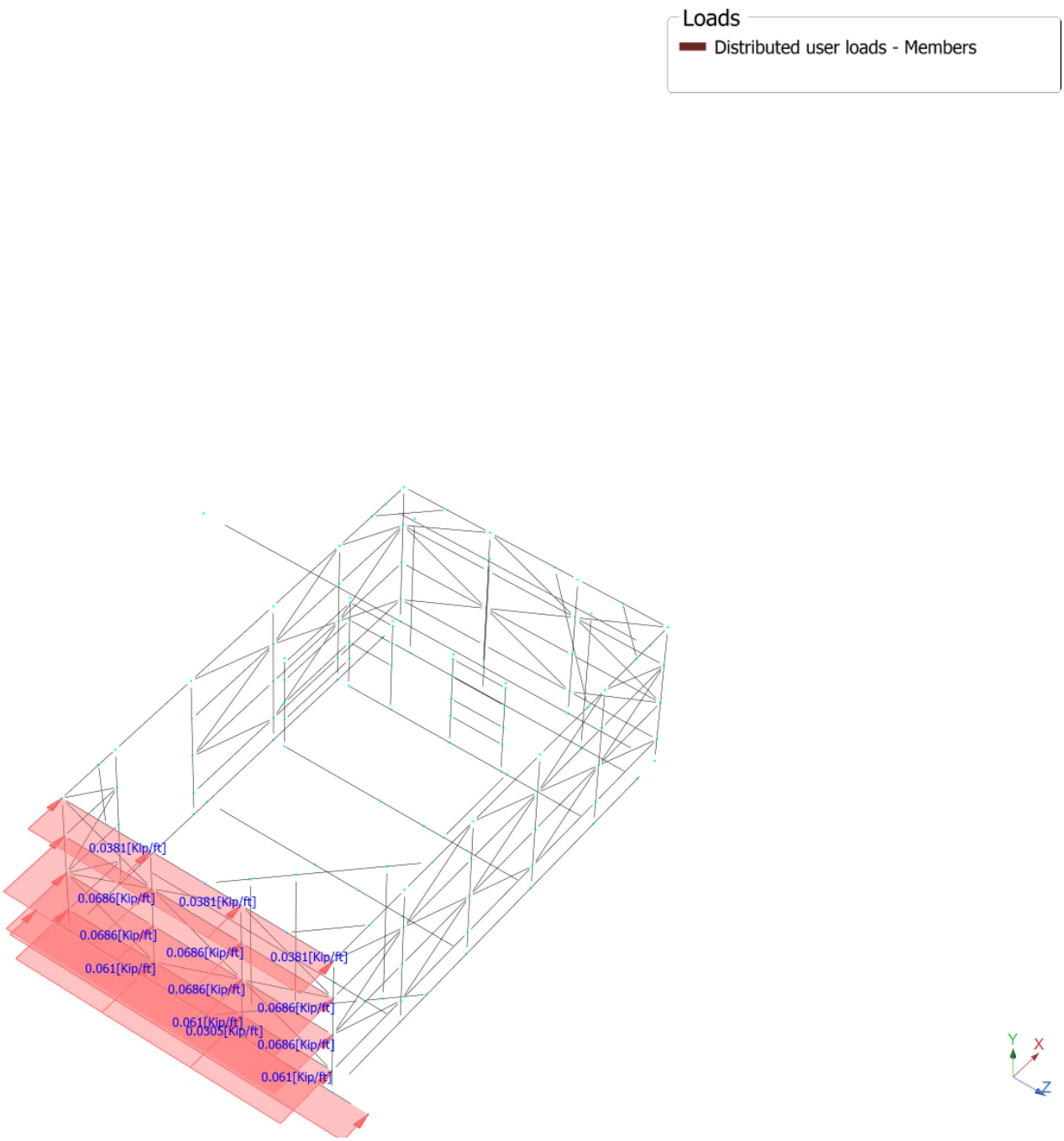
Centerline Communications

Current Date: 4/24/2020 9:51 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was
Load condition: WL1=Wind Load 1



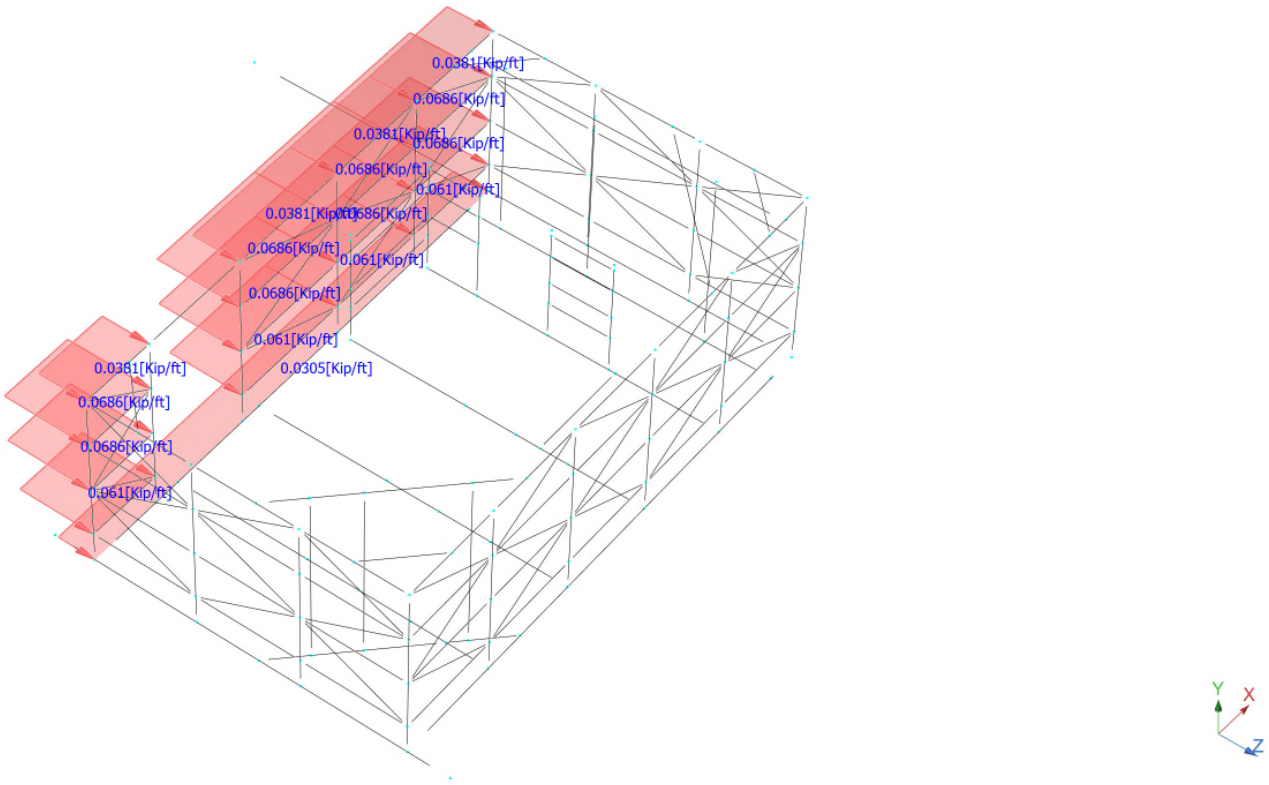
Centerline Communications

Current Date: 4/24/2020 9:51 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was
Load condition: WL2=Wind Load 2



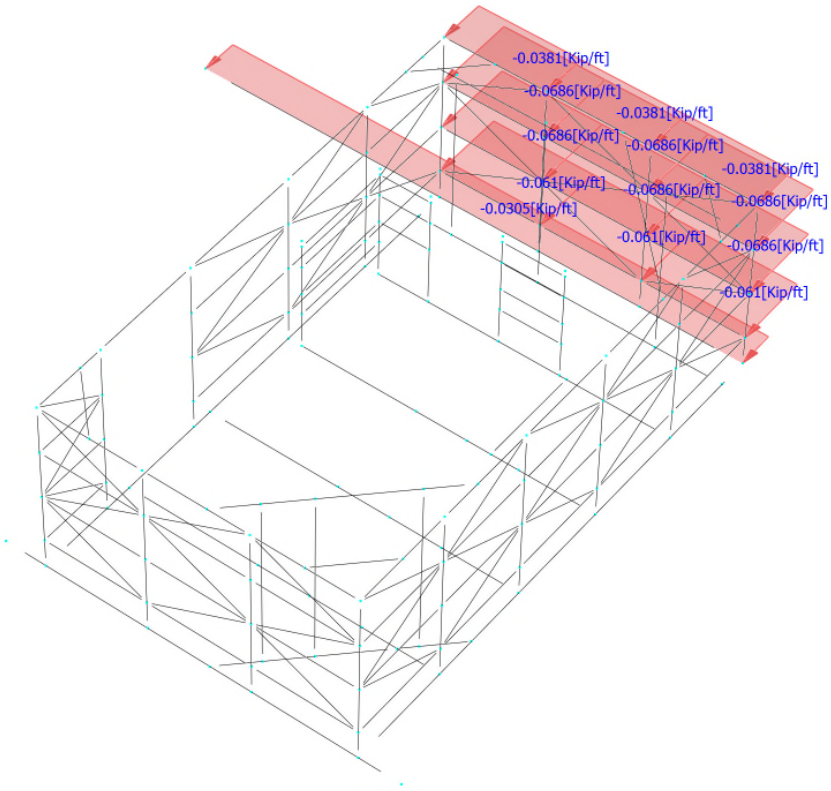
Centerline Communications

Current Date: 4/24/2020 9:52 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was
Load condition: WL3=Wind Load 3



Centerline Communications

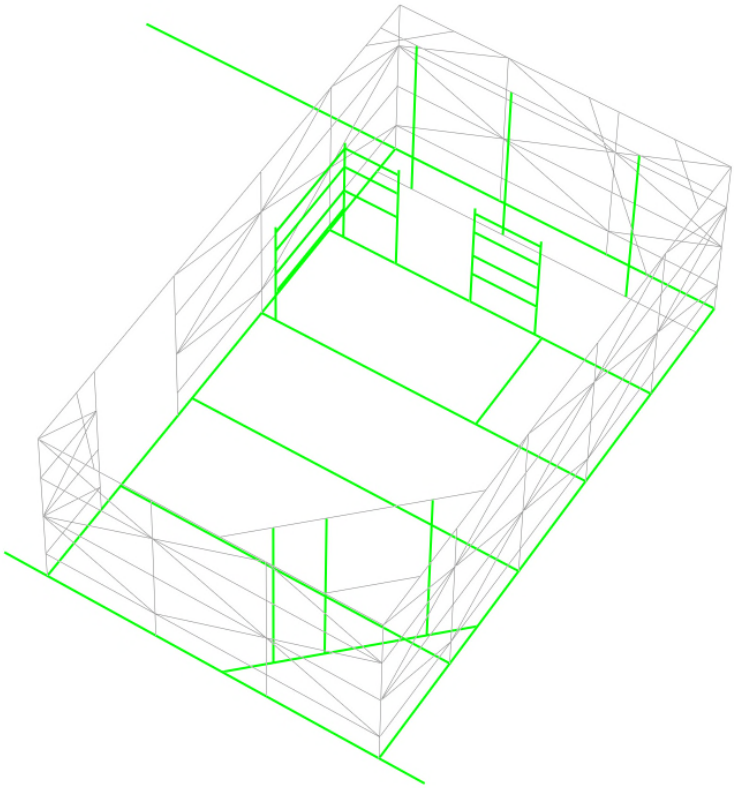
Current Date: 4/24/2020 9:52 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was
Load condition: WL4=Wind Load 4



Centerline Communications

Current Date: 4/24/2020 10:18 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Was

Design status
- Not designed
- Error on design
- Design O.K.
- With warnings



Centerline Communications

Current Date: 4/24/2020 10:19 AM
Units system: English
File name: C:\Users\Andres Agudelo\Centerline Communications\Derek Creaser - Centerline Engineering\Projects\AT&T\NEW ENGLAND\MA\MA2265 - Wellesley Washington Street, 372 Wasnington St - RT\LTE 5G NR\Structural\Working Files\ST02\RAM\MA2265-Platform.retx

Steel Code Check

Report: Summary - For all selected load conditions

Load conditions to be included in design :

D1=1.4DL
D2=1.2DL+1.6LL
D3=1.2DL+0.5WL1
D4=1.2DL+0.5WL2
D5=1.2DL+0.5WL3
D6=1.2DL+WL1
D7=1.2DL+WL2
D8=1.2DL+WL3
D9=1.2DL+LL+WL1
D10=1.2DL+LL+WL2
D11=1.2DL+LL+WL3
D12=0.9DL+WL1
D13=0.9DL+WL2
D14=0.9DL+WL3

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
antenna pipe	*PIPE 2x0.154*	**98**	D1 at 0.00%	0.07	OK	
			D10 at 0.00%	**0.11**	**OK**	Eq. H1-1b
			D11 at 0.00%	0.04	OK	
			D12 at 100.00%	0.01	OK	
			D13 at 0.00%	0.08	OK	
			D14 at 100.00%	0.01	OK	
			D2 at 0.00%	0.08	OK	
			D3 at 0.00%	0.04	OK	
			D4 at 0.00%	0.08	OK	
			D5 at 0.00%	0.04	OK	
			D6 at 0.00%	0.02	OK	
			D7 at 0.00%	0.10	OK	
			D8 at 0.00%	0.02	OK	
			D9 at 0.00%	0.03	OK	
		99	D1 at 100.00%	0.06	OK	
			D10 at 100.00%	0.02	OK	
			D11 at 100.00%	0.09	OK	
			D12 at 100.00%	0.09	OK	
			D13 at 100.00%	0.01	OK	
			D14 at 100.00%	0.07	OK	
			D2 at 100.00%	0.07	OK	
			D3 at 100.00%	0.07	OK	
			D4 at 100.00%	0.03	OK	
			D5 at 100.00%	0.06	OK	
			D6 at 100.00%	0.10	OK	
			D7 at 100.00%	0.01	OK	
			D8 at 100.00%	0.08	OK	
			D9 at 100.00%	**0.11**	**OK**	Eq. H1-1b
		100	D1 at 0.00%	0.09	OK	
			D10 at 0.00%	0.05	OK	
			D11 at 0.00%	0.13	OK	
			D12 at 0.00%	0.11	OK	
			D13 at 0.00%	0.02	OK	
			D14 at 0.00%	0.09	OK	
			D2 at 0.00%	0.11	OK	
			D3 at 0.00%	0.11	OK	
			D4 at 0.00%	0.06	OK	
			D5 at 0.00%	0.09	OK	

			D6 at 0.00%	0.13	OK	
			D7 at 0.00%	0.04	OK	
			D8 at 0.00%	0.11	OK	
			D9 at 0.00%	**0.15**	**OK**	Eq. H1-1b
		101	D1 at 100.00%	**0.02**	**OK**	Eq. H1-1b
			D10 at 100.00%	0.02	OK	
			D11 at 100.00%	0.02	OK	
			D12 at 0.00%	0.01	OK	
			D13 at 100.00%	0.02	OK	
			D14 at 100.00%	0.02	OK	
			D2 at 100.00%	0.02	OK	
			D3 at 0.00%	0.02	OK	
			D4 at 100.00%	0.02	OK	
			D5 at 100.00%	0.02	OK	
			D6 at 0.00%	0.01	OK	
			D7 at 100.00%	0.02	OK	
			D8 at 100.00%	0.02	OK	
			D9 at 0.00%	0.01	OK	
		102	D1 at 0.00%	0.01	OK	
			D10 at 0.00%	**0.01**	**OK**	Eq. H1-1b
			D11 at 100.00%	0.01	OK	
			D12 at 100.00%	0.01	OK	
			D13 at 0.00%	0.01	OK	
			D14 at 100.00%	0.01	OK	
			D2 at 0.00%	0.01	OK	
			D3 at 100.00%	0.01	OK	
			D4 at 0.00%	0.01	OK	
			D5 at 0.00%	0.01	OK	
			D6 at 100.00%	0.01	OK	
			D7 at 0.00%	0.01	OK	
			D8 at 100.00%	0.01	OK	
			D9 at 100.00%	0.01	OK	
		103	D1 at 100.00%	0.05	OK	
			D10 at 100.00%	0.04	OK	
			D11 at 0.00%	0.04	OK	
			D12 at 100.00%	0.04	OK	
			D13 at 100.00%	0.03	OK	
			D14 at 0.00%	0.03	OK	
			D2 at 100.00%	0.05	OK	
			D3 at 100.00%	0.05	OK	
			D4 at 100.00%	0.04	OK	
			D5 at 100.00%	0.04	OK	
			D6 at 100.00%	0.06	OK	
			D7 at 100.00%	0.04	OK	
			D8 at 0.00%	0.04	OK	
			D9 at 100.00%	**0.06**	**OK**	Eq. H1-1b
Beam 1	***W 12X26***	**1**	D1 at 28.57%	0.04	OK	
			D10 at 28.57%	0.06	OK	
			D11 at 28.57%	**0.07**	**OK**	Eq. H1-1b
			D12 at 28.57%	0.04	OK	
			D13 at 28.57%	0.04	OK	
			D14 at 28.57%	0.06	OK	
			D2 at 28.57%	0.05	OK	
			D3 at 28.57%	0.04	OK	
			D4 at 28.57%	0.04	OK	
			D5 at 28.57%	0.05	OK	
			D6 at 28.57%	0.05	OK	
			D7 at 28.57%	0.05	OK	
			D8 at 28.57%	0.07	OK	
			D9 at 28.57%	0.06	OK	
		2	D1 at 39.84%	0.08	OK	
			D10 at 40.63%	0.10	OK	
			D11 at 35.94%	0.10	OK	
			D12 at 39.84%	0.07	OK	
			D13 at 0.00%	0.07	OK	
			D14 at 35.94%	0.06	OK	

			D2 at 39.84%	0.10	OK	
			D3 at 39.84%	0.07	OK	
			D4 at 39.84%	0.07	OK	
			D5 at 35.94%	0.07	OK	
			D6 at 39.84%	0.09	OK	
			D7 at 40.63%	0.08	OK	
			D8 at 35.94%	0.08	OK	
			D9 at 39.84%	**0.11**	**OK**	Eq. H1-1b
Beam 2	***W 14X30***	**10**	D1 at 89.58%	0.09	OK	
			D10 at 10.42%	**0.14**	**OK**	Eq. H1-1b
			D11 at 89.58%	0.13	OK	Eq. H1-1b
			D12 at 89.58%	0.10	OK	
			D13 at 10.42%	0.11	OK	
			D14 at 89.58%	0.10	OK	
			D2 at 10.42%	0.11	OK	
			D3 at 89.58%	0.09	OK	
			D4 at 10.42%	0.09	OK	
			D5 at 89.58%	0.10	OK	
			D6 at 89.58%	0.11	OK	
			D7 at 10.42%	0.13	OK	
			D8 at 89.58%	0.11	OK	
			D9 at 89.58%	0.13	OK	
Beam 3	***W 14X38***	**4**	D1 at 43.75%	0.31	OK	
			D10 at 43.75%	0.35	OK	
			D11 at 43.75%	0.30	OK	
			D12 at 45.31%	0.26	OK	
			D13 at 43.75%	0.21	OK	
			D14 at 45.31%	0.17	OK	
			D2 at 43.75%	0.38	OK	
			D3 at 43.75%	0.29	OK	
			D4 at 43.75%	0.27	OK	
			D5 at 43.75%	0.25	OK	
			D6 at 45.31%	0.33	OK	
			D7 at 43.75%	0.27	OK	
			D8 at 43.75%	0.23	OK	
			D9 at 45.31%	**0.40**	**OK**	Eq. H1-1b
Beam 4	***W 8X18***	**5**	D1 at 57.50%	0.15	OK	
			D10 at 57.50%	0.16	OK	
			D11 at 57.50%	0.17	OK	
			D12 at 41.25%	0.11	OK	
			D13 at 57.50%	0.10	OK	
			D14 at 57.50%	0.10	OK	
			D2 at 57.50%	**0.18**	**OK**	Eq. H1-1b
			D3 at 57.50%	0.13	OK	
			D4 at 57.50%	0.13	OK	
			D5 at 57.50%	0.13	OK	
			D6 at 57.50%	0.14	OK	
			D7 at 57.50%	0.13	OK	
			D8 at 57.50%	0.14	OK	
			D9 at 57.50%	0.17	OK	
		6	D1 at 42.19%	0.23	OK	
			D10 at 42.19%	0.25	OK	
			D11 at 42.19%	0.26	OK	
			D12 at 40.63%	0.17	OK	
			D13 at 42.19%	0.15	OK	
			D14 at 42.19%	0.16	OK	
			D2 at 45.31%	**0.28**	**OK**	Eq. H1-1b
			D3 at 42.19%	0.21	OK	
			D4 at 42.19%	0.20	OK	
			D5 at 42.19%	0.21	OK	
			D6 at 42.19%	0.22	OK	
			D7 at 42.19%	0.20	OK	
			D8 at 42.19%	0.21	OK	
			D9 at 42.19%	0.27	OK	
		7	D1 at 41.67%	0.23	OK	
			D10 at 41.67%	0.25	OK	

		D11 at 41.67%	**0.29**	**OK**	Eq. H1-1b
		D12 at 40.63%	0.19	OK	
		D13 at 41.67%	0.15	OK	
		D14 at 41.67%	0.19	OK	
		D2 at 41.67%	0.27	OK	
		D3 at 41.67%	0.22	OK	
		D4 at 41.67%	0.20	OK	
		D5 at 41.67%	0.22	OK	
		D6 at 41.67%	0.24	OK	
		D7 at 41.67%	0.20	OK	
		D8 at 41.67%	0.24	OK	
		D9 at 41.67%	0.29	OK	
	8	D1 at 56.25%	0.08	OK	
		D10 at 35.42%	0.12	OK	
		D11 at 35.42%	0.15	OK	
		D12 at 33.33%	0.10	OK	
		D13 at 35.42%	0.06	OK	
		D14 at 33.33%	0.09	OK	
		D2 at 56.25%	0.15	OK	Eq. H1-1b
		D3 at 35.42%	0.09	OK	
		D4 at 35.42%	0.08	OK	
		D5 at 35.42%	0.09	OK	
		D6 at 33.33%	0.12	OK	
		D7 at 35.42%	0.08	OK	
		D8 at 35.42%	0.11	OK	
		D9 at 35.42%	**0.16**	**OK**	Eq. H1-1b
	9	D1 at 6.25%	0.00	OK	
		D10 at 0.00%	0.02	OK	
		D11 at 100.00%	0.04	OK	
		D12 at 100.00%	**0.05**	**OK**	Eq. H1-1b
		D13 at 0.00%	0.02	OK	
		D14 at 100.00%	0.04	OK	
		D2 at 0.00%	0.00	OK	
		D3 at 100.00%	0.02	OK	
		D4 at 0.00%	0.01	OK	
		D5 at 100.00%	0.02	OK	
		D6 at 100.00%	0.05	OK	
		D7 at 0.00%	0.02	OK	
		D8 at 100.00%	0.04	OK	
		D9 at 100.00%	0.05	OK	
Support Beam	**93**	D1 at 100.00%	0.11	OK	
		D10 at 100.00%	0.10	OK	
		D11 at 100.00%	0.12	OK	
		D12 at 100.00%	0.09	OK	
		D13 at 100.00%	0.06	OK	
		D14 at 100.00%	0.08	OK	
		D2 at 100.00%	0.12	OK	
		D3 at 100.00%	0.10	OK	
		D4 at 100.00%	0.09	OK	
		D5 at 100.00%	0.09	OK	
		D6 at 100.00%	0.11	OK	
		D7 at 100.00%	0.08	OK	
		D8 at 100.00%	0.10	OK	
		D9 at 100.00%	**0.13**	**OK**	Eq. H1-1b
	94	D1 at 0.00%	0.10	OK	
		D10 at 0.00%	0.11	OK	
		D11 at 0.00%	0.11	OK	
		D12 at 0.00%	0.08	OK	
		D13 at 0.00%	0.07	OK	
		D14 at 0.00%	0.07	OK	
		D2 at 0.00%	0.12	OK	
		D3 at 0.00%	0.10	OK	
		D4 at 0.00%	0.09	OK	
		D5 at 0.00%	0.09	OK	
		D6 at 0.00%	0.11	OK	
		D7 at 0.00%	0.09	OK	
		D8 at 0.00%	0.09	OK	

			D9 at 0.00%	**0.13**	**OK**	Eq. H1-1b
support pipe	***PIPE 2x0.154***	**104**	D1 at 0.00%	0.06	OK	
			D10 at 0.00%	0.08	OK	
			D11 at 0.00%	0.08	OK	
			D12 at 0.00%	0.04	OK	
			D13 at 0.00%	0.04	OK	
			D14 at 0.00%	0.04	OK	
			D2 at 0.00%	**0.09**	**OK**	Eq. H1-1b
			D3 at 0.00%	0.05	OK	
			D4 at 0.00%	0.05	OK	
			D5 at 0.00%	0.05	OK	
			D6 at 0.00%	0.06	OK	
			D7 at 0.00%	0.05	OK	
			D8 at 0.00%	0.06	OK	
			D9 at 0.00%	0.08	OK	
		105	D1 at 0.00%	0.06	OK	
			D10 at 0.00%	0.08	OK	
			D11 at 0.00%	0.08	OK	
			D12 at 0.00%	0.04	OK	
			D13 at 0.00%	0.04	OK	
			D14 at 0.00%	0.05	OK	
			D2 at 0.00%	**0.09**	**OK**	Eq. H1-1b
			D3 at 0.00%	0.05	OK	
			D4 at 0.00%	0.05	OK	
			D5 at 0.00%	0.05	OK	
			D6 at 0.00%	0.06	OK	
			D7 at 0.00%	0.05	OK	
			D8 at 0.00%	0.06	OK	
			D9 at 0.00%	0.08	OK	
		110	D1 at 100.00%	0.04	OK	
			D10 at 100.00%	0.04	OK	
			D11 at 100.00%	**0.05**	**OK**	Eq. H1-1b
			D12 at 70.00%	0.02	OK	
			D13 at 100.00%	0.03	OK	
			D14 at 100.00%	0.04	OK	
			D2 at 100.00%	0.04	OK	
			D3 at 100.00%	0.03	OK	
			D4 at 100.00%	0.03	OK	
			D5 at 100.00%	0.04	OK	
			D6 at 100.00%	0.03	OK	
			D7 at 100.00%	0.03	OK	
			D8 at 100.00%	0.04	OK	
			D9 at 100.00%	0.03	OK	
		111	D1 at 6.25%	**0.02**	**OK**	Eq. H1-1b
			D10 at 6.25%	0.02	OK	
			D11 at 6.25%	0.02	OK	
			D12 at 6.25%	0.02	OK	
			D13 at 6.25%	0.02	OK	
			D14 at 6.25%	0.02	OK	
			D2 at 6.25%	0.02	OK	
			D3 at 6.25%	0.02	OK	
			D4 at 6.25%	0.02	OK	
			D5 at 6.25%	0.02	OK	
			D6 at 6.25%	0.02	OK	
			D7 at 6.25%	0.02	OK	
			D8 at 6.25%	0.02	OK	
			D9 at 6.25%	0.02	OK	
		116	D1 at 100.00%	0.03	OK	
			D10 at 100.00%	0.03	OK	
			D11 at 100.00%	**0.04**	**OK**	Eq. H1-1b
			D12 at 100.00%	0.02	OK	
			D13 at 100.00%	0.02	OK	
			D14 at 100.00%	0.03	OK	
			D2 at 100.00%	0.03	OK	
			D3 at 100.00%	0.02	OK	
			D4 at 100.00%	0.02	OK	

			D5 at 100.00%	0.03	OK	
			D6 at 100.00%	0.02	OK	
			D7 at 100.00%	0.02	OK	
			D8 at 100.00%	0.03	OK	
			D9 at 100.00%	0.03	OK	
unistrut	***P 1000***	**106**	D1 at 100.00%	**0.04**	**OK**	Sec. C5.2
			D10 at 100.00%	0.03	OK	
			D11 at 100.00%	0.04	OK	
			D12 at 0.00%	0.03	OK	
			D13 at 100.00%	0.03	OK	
			D14 at 100.00%	0.03	OK	
			D2 at 100.00%	0.03	OK	
			D3 at 0.00%	0.04	OK	
			D4 at 100.00%	0.03	OK	
			D5 at 100.00%	0.03	OK	
			D6 at 0.00%	0.04	OK	
			D7 at 100.00%	0.03	OK	
			D8 at 100.00%	0.04	OK	
			D9 at 0.00%	0.04	OK	
		107	D1 at 100.00%	**0.04**	**OK**	Sec. C3.3
			D10 at 100.00%	0.03	OK	
			D11 at 100.00%	0.03	OK	
			D12 at 0.00%	0.03	OK	
			D13 at 100.00%	0.03	OK	
			D14 at 100.00%	0.03	OK	
			D2 at 100.00%	0.03	OK	
			D3 at 0.00%	0.03	OK	
			D4 at 100.00%	0.03	OK	
			D5 at 100.00%	0.03	OK	
			D6 at 0.00%	0.04	OK	
			D7 at 100.00%	0.03	OK	
			D8 at 100.00%	0.03	OK	
			D9 at 0.00%	0.04	OK	
		108	D1 at 100.00%	**0.04**	**OK**	Sec. C3.3
			D10 at 100.00%	0.03	OK	
			D11 at 100.00%	0.04	OK	
			D12 at 0.00%	0.03	OK	
			D13 at 100.00%	0.03	OK	
			D14 at 100.00%	0.03	OK	
			D2 at 100.00%	0.03	OK	
			D3 at 0.00%	0.03	OK	
			D4 at 100.00%	0.03	OK	
			D5 at 100.00%	0.03	OK	
			D6 at 0.00%	0.04	OK	
			D7 at 100.00%	0.03	OK	
			D8 at 100.00%	0.04	OK	
			D9 at 0.00%	0.04	OK	
		109	D1 at 100.00%	0.05	OK	
			D10 at 100.00%	0.06	OK	
			D11 at 100.00%	**0.06**	**OK**	Sec. C5.2
			D12 at 100.00%	0.04	OK	
			D13 at 100.00%	0.04	OK	
			D14 at 100.00%	0.04	OK	
			D2 at 100.00%	0.06	OK	
			D3 at 0.00%	0.05	OK	
			D4 at 100.00%	0.05	OK	
			D5 at 100.00%	0.05	OK	
			D6 at 100.00%	0.05	OK	
			D7 at 100.00%	0.05	OK	
			D8 at 100.00%	0.05	OK	
			D9 at 100.00%	0.06	OK	
		112	D1 at 100.00%	**0.11**	**OK**	Sec. C5.2
			D10 at 100.00%	0.10	OK	
			D11 at 100.00%	0.10	OK	
			D12 at 100.00%	0.07	OK	
			D13 at 100.00%	0.07	OK	

	D14 at 100.00%	0.08	OK	
	D2 at 100.00%	0.10	OK	
	D3 at 100.00%	0.09	OK	
	D4 at 100.00%	0.09	OK	
	D5 at 100.00%	0.10	OK	
	D6 at 100.00%	0.09	OK	
	D7 at 100.00%	0.09	OK	
	D8 at 100.00%	0.10	OK	
	D9 at 100.00%	0.10	OK	
113	D1 at 100.00%	**0.09**	**OK**	Sec. C5.2
	D10 at 100.00%	0.08	OK	
	D11 at 100.00%	0.09	OK	
	D12 at 100.00%	0.05	OK	
	D13 at 100.00%	0.06	OK	
	D14 at 100.00%	0.07	OK	
	D2 at 100.00%	0.08	OK	
	D3 at 100.00%	0.07	OK	
	D4 at 100.00%	0.08	OK	
	D5 at 100.00%	0.08	OK	
	D6 at 100.00%	0.07	OK	
	D7 at 100.00%	0.08	OK	
	D8 at 100.00%	0.08	OK	
	D9 at 100.00%	0.08	OK	
114	D1 at 100.00%	0.08	OK	
	D10 at 100.00%	0.08	OK	
	D11 at 100.00%	**0.08**	**OK**	Sec. C5.2
	D12 at 100.00%	0.04	OK	
	D13 at 100.00%	0.06	OK	
	D14 at 100.00%	0.07	OK	
	D2 at 100.00%	0.07	OK	
	D3 at 100.00%	0.07	OK	
	D4 at 100.00%	0.07	OK	
	D5 at 100.00%	0.08	OK	
	D6 at 100.00%	0.06	OK	
	D7 at 100.00%	0.07	OK	
	D8 at 100.00%	0.08	OK	
	D9 at 100.00%	0.06	OK	
115	D1 at 100.00%	0.02	OK	
	D10 at 100.00%	0.03	OK	
	D11 at 0.00%	**0.03**	**OK**	Sec. C5.1
	D12 at 0.00%	0.02	OK	
	D13 at 100.00%	0.02	OK	
	D14 at 0.00%	0.03	OK	
	D2 at 100.00%	0.02	OK	
	D3 at 100.00%	0.01	OK	
	D4 at 100.00%	0.02	OK	
	D5 at 100.00%	0.03	OK	
	D6 at 0.00%	0.02	OK	
	D7 at 100.00%	0.03	OK	
	D8 at 0.00%	0.03	OK	
	D9 at 0.00%	0.02	OK	
117	D1 at 100.00%	0.04	OK	
	D10 at 100.00%	0.04	OK	
	D11 at 100.00%	**0.04**	**OK**	Sec. C5.2
	D12 at 100.00%	0.02	OK	
	D13 at 100.00%	0.03	OK	
	D14 at 100.00%	0.04	OK	
	D2 at 100.00%	0.03	OK	
	D3 at 100.00%	0.03	OK	
	D4 at 100.00%	0.03	OK	
	D5 at 100.00%	0.04	OK	
	D6 at 100.00%	0.03	OK	
	D7 at 100.00%	0.04	OK	
	D8 at 100.00%	0.04	OK	
	D9 at 100.00%	0.03	OK	
118	D1 at 100.00%	0.03	OK	

	D10 at 100.00%	0.03	OK	
	D11 at 100.00%	**0.03**	**OK**	Sec. C5.2
	D12 at 100.00%	0.02	OK	
	D13 at 100.00%	0.02	OK	
	D14 at 100.00%	0.03	OK	
	D2 at 100.00%	0.02	OK	
	D3 at 100.00%	0.02	OK	
	D4 at 100.00%	0.03	OK	
	D5 at 100.00%	0.03	OK	
	D6 at 100.00%	0.02	OK	
	D7 at 100.00%	0.03	OK	
	D8 at 100.00%	0.03	OK	
	D9 at 100.00%	0.02	OK	
119	D1 at 0.00%	0.03	OK	
	D10 at 0.00%	0.03	OK	
	D11 at 100.00%	**0.04**	**OK**	Sec. C5.2
	D12 at 100.00%	0.03	OK	
	D13 at 0.00%	0.02	OK	
	D14 at 100.00%	0.03	OK	
	D2 at 0.00%	0.03	OK	
	D3 at 100.00%	0.03	OK	
	D4 at 0.00%	0.03	OK	
	D5 at 100.00%	0.03	OK	
	D6 at 100.00%	0.03	OK	
	D7 at 0.00%	0.03	OK	
	D8 at 100.00%	0.04	OK	
	D9 at 100.00%	0.03	OK	