

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE:

NEW CINGULAR WIRELESS PCS, LLC (AT&T)  
TOWER SHARING REQUEST AND PETITION  
FOR A DECLARATORY RULING, PURSUANT TO  
CONNECTICUT GENERAL STATUTES §16-50aa,  
4-176 AND §16-50K FOR THE INSTALLATION OF  
A SECOND WIRELESS TELECOMMUNICATIONS  
TOWER AT A CITY OWNED PROPERTY/TOWER  
SITE FACILITY LOCATED AT 499 MILE LANE,  
MIDDLETOWN, CT.

PETITION NO. \_\_\_\_\_

September 30, 2021

TOWER SHARING REQUEST & PETITION FOR A DECLARATORY RULING  
ADDITION OF A SECOND TOWER AT A MUNICIPAL TOWER FACILITY HAVING  
NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

I. Introduction

Pursuant to Section 16-50j-38, 16-50j-39 and 16-50j-89(a) of the regulations of Connecticut State Agencies (RCSA) and Section 16-50aa of the Connecticut General Statutes (CGS), New Cingular Wireless PCS LLC (“AT&T”) hereby files this tower site sharing request and petitions the Connecticut Siting Council (the “Council”) for a declaratory ruling (“Petition”) that no Certificate of Environmental Compatibility and Public Need (“Certificate”) is required under CGS Section 16-50k(a) to modify and add a second tower at an existing municipal communications tower site located on property owned by the City of Middletown located at 499 Mile Lane, Middletown, Connecticut (the “Existing Facility” or the “Site”). AT&T’s project was considered by the City of Middletown Planning & Zoning Commission as required by CGS Section 8-24 for any improvements of municipal land, reviewed by various City agencies and approved by the City’s Common Council. Included in Attachment 1 are copies of an August 11, 2021 Legal Notice from the Middletown Planning and Zoning Commission issuing an affirmative 8-24 report and the Common Council’s resolution of approval for the project.

II. Factual Background

a. The City’s Land and Existing Public Safety Communications Facility

The approximately 23.72-acre City owned property is located on the southern side of Mile Lane. The property was previously part of a U.S. Army Reserve Center now serving in part as a

fire training site. Surrounding parcels are primarily single family residential or also owned by the City as part of the public school system. The existing municipal tower site facility is located central to the property with surrounding wooded lands and buffer areas. The existing public safety municipal communications facility consists of an approximately 180' lattice tower constructed in 2017 with associated equipment located at grade within a fenced equipment compound. Existing tower site access and utilities utilize the property's drives and extend from Mile Lane. No commercial wireless carriers are currently operating wireless facilities from the City's facility site.

b. AT&T's Proposed Shared Use of the Existing City Public Safety Tower Site

AT&T approached the City a few years ago proposing to share use of the existing 180' lattice tower site to provide its services in an area of Middletown in need of wireless network improvements. A 2019 structural report by a Professional Engineer revealed that the City's tower would require major structural modifications to the tower legs, bolts, diagonal steel and anchor rods to accommodate AT&T's proposed antenna loading. Attachment 2 includes the first four pages of that structural report and summary results.

In continued discussions with the City, AT&T proposed implementing the tower modifications outlined in the 2019 report at its cost and to enable the company's proposed collocation on the City's tower. As part of various City agency reviews of that proposal, the City identified its own concerns with such a plan and that modifications to the tower itself might impact its existing public safety communications during construction and this tower site's integration into the citywide public safety network and importance to serving the public.

As such, AT&T and the City discussed installation of a second tower immediately adjacent to the existing tower at a lower height to meet AT&T's, and potentially other wireless carriers', needs for a location to serve the community including the nearby Middletown high school which has over 2,000 students. A ground lease was negotiated for a 150' tower which would support AT&T and other commercial carriers. The project was reviewed by numerous City agencies and committees, including recent public meetings before the Planning & Zoning Commission and City's Common Council where the project was approved.

c. AT&T's Proposed Monopole Addition to the City's Public Safety Tower Site

AT&T proposes shared use of the existing public safety tower facility site by installing a 150' monopole with nine (9) antennas on a platform at a centerline height of approximately 150' AGL. The second tower will be located immediately adjacent to the City's 180' lattice tower.

Associated unmanned equipment will be located at grade within a 50-foot by 50-foot expanded fenced equipment compound. A diesel generator will also be installed as an emergency back-up power source and located on a concrete pad within the equipment area. Access and utilities will remain the same along the existing paved access drive that extends south of Mile Lane. AT&T will own the tower subject to a ground lease with the City. The monopole and expanded equipment compound are being designed to accommodate future collocations by additional wireless carriers. Specifications and details of AT&T's proposed tower site modifications are shown on the drawings included in Attachment 3.

d. AT&T's Need to Share the City's Tower Site to Provide Reliable Service

AT&T is licensed by the Federal Communications Commission ("FCC") to provide wireless services in this area of the State of Connecticut. AT&T identified a need for additional coverage and/or capacity relief in its network, as well as the need for first responder public safety communications as part of FirstNet, in the northern part of Middletown. The proposed project is designed to assure reliable wireless service to AT&T customers and first responders in the northern area of Middletown, particularly along Mile Lane, State Highway 3, Ridgewood Road and the surrounding roads, businesses, schools and neighborhoods. A RF Report detailing AT&T's need and coverage objectives for the proposed sharing of the tower site are included in Attachment 4 and highlights the thousands of people in the coverage area that can benefit from the AT&T facility.

III. Council Jurisdiction, Tower Sharing & This Petition for a Declaratory Ruling

Connecticut law confers original tower siting jurisdiction to the Council over certain "facilities" which are defined to include cellular telecommunication towers. C.G.S. §16-50i(a)(6). The existing City-owned 180' lattice tower, fenced equipment compound and surrounding area is not specifically a facility under the Council's original tower jurisdiction pursuant to C.G.S. §16-50i(a)(6). However, Section 16-50aa of the Connecticut General Statutes, which has a much more expansive definition of "facility" for purposes of tower site sharing, grants the Council subsequent jurisdiction to approve tower sharing requests by cellular carriers for any tower site including sites owned by a public agency like the City that were not under the Council's original jurisdiction. See CGS § 16-50aa(b). Additionally, the Council has authority to render declaratory rulings and make determinations that even standalone cellular tower facilities do not present substantial adverse environmental effects that might otherwise require a Certificate process as expressly provided by statute. See CGS § 16-50k(a)(only facilities deemed to have a "substantial adverse effect" require

a Certificate). AT&T's request for tower site sharing approval of a City owned facility site and petition for a declaratory ruling that the addition of second tower to this site falls squarely within the Council's jurisdiction and is in furtherance of the State Legislature's express findings that whenever "technically, legally, environmentally and economically feasible, and meeting public safety concerns" tower sharing should be approved to avoid the unnecessary proliferation of towers and is in the public interest.

IV. A Second Tower at the City of Middletown's Existing Public Safety Tower Site Meets all the Criteria for 16-50aa Tower Sharing and a Declaratory Ruling In Order to Avoid the Proliferation of Towers in Nearby Areas of the City

For purposes of CGS Section 16-50aa it is important to note that the City raised its proprietary and public safety concerns with sharing the existing public safety tower once it was determined that major structural modifications to the existing tower would be required to accommodate AT&T. As part of a collaborative effort between AT&T and the City over the course of several years, this project evolved to one approved by the City which best meets the parties needs for a technically, legally, environmentally and economically feasible tower site sharing solution including the City's public safety concerns. As such, AT&T is not invoking that aspect of the Council's authority that has been exercised in other proceedings and involving other municipal tower sites overriding local objections or seeking a feasibility proceeding in this matter. See e.g. TS-Sprint-159-030630 and 16-50j-89(b). Rather and because the City and AT&T have consented to all aspects of the proposed tower site sharing which will be governed by a ground lease, subject to the Council's approval of the project, this tower sharing request and petition for a declaratory ruling is being filed with the City's assent.

For the reasons set forth below, AT&T respectfully submits that its proposed modification to the existing City facility through the addition of a second tower will have no substantial environmental effects, that a Certificate pursuant to C.G.S. Section 16-50k(a) is not required and that it promotes tower site sharing avoiding the potential need for entirely new tower sites in this part of Middletown.

a. Minor Physical & Environmental Effects of Compound Expansion

AT&T's proposed facility modifications will not result in any significant physical or environmental changes to the City's property. The installation of the second monopole and expanded equipment compound will result in a limited disturbance and improvement of a 2,500 square foot expanded compound on the 20+ acre site in an area immediately adjacent to and

already improved with the existing City public safety tower facility. The second monopole will, like the existing tower, be located central to the parcel and well setback from the nearest property boundaries, with the second monopole maintaining a 150' height to setback ratio. AT&T's unmanned site will have no sanitary facilities and would generate on average 1 vehicle trip per month by a service technician in a light duty van or truck using the existing access drives. Access to the expanded equipment compound would utilize the existing access road and utilities which will remain unchanged. Enclosed as Attachment 5 is a U.S. Fish and Wildlife Service National Wetlands Inventory Map demonstrating that there are no wetlands on the site or immediately offsite. Included in Attachment 6 is the Connecticut Natural Diversity Data Base area map for Middletown highlighting that the tower project site is not within or adjacent to a critical habitat or area likely to have state and federally listed species. As such, it is respectfully submitted that there are no potential adverse environmental effects associated with the proposed tower compound expansion.

b. The Incremental Visual Effects of a Shorter Second Tower at the City's Facility Site are Not Significant

The facility site is already improved with a 180' tall lattice tower facility that already has a visual footprint in the community. AT&T's proposed addition of a second 150' monopole tower at a lower tower height will not increase any areas of visibility in the community. Enclosed as Attachment 7 is a letter from the State Historic Preservation Office ("SHPO") concluding that the added tower and proposed site modifications will have no impact on historic properties. Additionally, the addition of the second structure and the incremental effects on general visibility in the community are not significant as depicted in the visual report included in Attachment 8.

In this regard, the Council will note from the photosimulations that AT&T was asked by the City to study two forms of tower structures, a monopole or a monopine. During the CGS 8-24 process and a public meeting, members of the City's Planning & Zoning Commission (P&Z) were invited by AT&T to comment on the two options and generally concurred that the monopole was the better option. Their opinions were consistent with the professional opinion of AT&T's visual consultant, All-Points Technologies, that a monopine was not needed nor an appropriate form of visual mitigation at this tower location and would be significantly more apparent visually than a simple galvanized monopole consistent with the existing lattice tower at the site. It was noted by AT&T that the tower's final design would be up to the Siting Council to decide as part of ruling on this petition.

As part of its scope of review, the City's P&Z concluded that the City and AT&T's tower site sharing project were consistent with the City's Plan of Conservation and Development (POCD) and gave a positive report to the City's Common Council. The Common Council thereafter approved a ground lease for the project noting its overall objectives to make space at City owned tower sites available for wireless carrier leasing to offset the taxpayer incurred costs in building the City's public safety communications network. See Common Council Resolution 12C included in Attachment 1. For the Siting Council's and community's purposes, the proposed sharing of this tower site will enable AT&T to avoid the proliferation of towers on other parcels within this area of the City for not just AT&T but other carriers since the facility is designed to support colocation.

c. FCC MPE and Cumulative Compliance

The operation of AT&T's antennas will not increase the total radio frequency electromagnetic power density at the site to a level at or above applicable standards. A cumulative power density report is included in Attachment 9. The total radio frequency power density will be 8.19% of the allowable FCC established general public limit at ground level and well within standards adopted by the Connecticut Department of Energy & Environmental Protection as set forth in C.G.S. Section 22a-162.

d. Notice to Municipal Officials and Adjoining Landowners

Pursuant to RCSA Section 16-50j-40(a), notice of AT&T's intent to file this Tower Sharing Request and Petition was sent to each person appearing of record as an owner of property that abuts the site, as well as the appropriate municipal officials and government agencies as listed in Section 16-50l of the C.G.S. Certification of such notice, a copy of the notice and the list of property owners is included in Attachment 10 along with the map from the City's GIS website used to identify abutting property owners. Attachment 10 also includes a certification of service to municipal officials and government agencies to whom notice was sent.

V. Conclusion

As set forth above, AT&T's proposed expansion of the City's public safety communications facility compound and addition of a second shorter monopole tower at the site will not result in any adverse environmental effects. Moreover, the project is in furtherance of state policy to the greatest extent possible which promotes tower site sharing to avoid the proliferation of tower sites to other properties in this area of Middletown and meet the need of AT&T and other carriers in providing wireless services to the public. For all the foregoing reasons, AT&T petitions the Council

providing wireless services to the public. For all the foregoing reasons, AT&T petitions the Council for a declaratory ruling that the proposed modification of the City's site and tower sharing does not require a Certificate of Environmental Compatibility and Public Need and that the Council issue an order approving same.

Respectfully submitted,



Christopher B. Fisher, Esq.

On behalf of the Petitioner

cc: Mayor Benjamin Florsheim, City of Middletown  
Christopher J. Forte, Esq., City of Middletown Office of the Attorney General  
Wayne Bartolotta, City of Middletown Director of Central Communications  
Marek Kozikowski, AICP, City of Middletown Director of Land Use & City Planning  
AT&T  
Smartlink  
Kristen Motel, Esq.

# **ATTACHMENT 1**



## LEGAL NOTICE

### NOTICE OF DECISION BY THE MIDDLETOWN PLANNING AND ZONING COMMISSION AT ITS REGULAR MEETING OF AUGUST 11, 2021

- 1) Approved Special Exception for a childcare facility in an R-15 Zone at 170 Long Lane. Applicant/agent Wesleyan University SE2021-9
- 2) Approved zoning text amendment to Sections 44 and 60 of the Middletown Zoning Code regarding permanent year round farm markets and seasonal farm stands. Applicant/agent City of Middletown/ LU Dept. Z2021-5
- 3) Approved zoning text amendment to Sections 16, 40, 44 and 61 regarding adult-use cannabis micro-cultivation and cannabis retail uses. Applicant/agent City of Middletown/ City of Middletown/ LU Dept. Z2021-7
- 4) Approved zoning text amendment to Section 61 of the Middletown Zoning Code to include brewpubs as permitted uses in the RF zone. Applicant/agent City of Middletown Z2021-8
- 5) Granted an affirmative G.S. 8-24 report for a lease agreement on a new cell tower to be constructed at 499 Mile Lane. Applicant/agent City of Middletown/Central Communications G.S. 8-24 2021-19
- 6) Granted an affirmative G.S. 8-24 report for a parking lot expansion at 311 Hunting Hill Avenue (Beman Middle School). Applicant/agent Middletown Public Schools G.S. 8-24 2021-21

Stephen Devoto, Chair  
Planning and Zoning Commission

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P. O. No. 2003-01785, Account No. 067419

The above legal notice to appear in the Hartford Courant ONCE

Thursday, August 19, 2021

Resolution No.  
Date: August 13, 2021

12C

## RESOLUTION

**Whereas**, the City of Middletown as part of its 2019 radio upgrade project entered into leasing City space for commercial communications networks; and

**Whereas**, the intent of such agreements is to offset the costs incurred by the City to lease towers for its Public Safety Radio System; and

**Whereas**, if such approval of the Common Council is obtained for this lease the City will have generated over half the cost of its yearly expenditures for leasing communications towers by such leasing of City properties; and

**Whereas**, the agreement between the City of Middletown and New Cingular Wireless, PCS LLC includes a rental payment of \$30,000 per year with five year incremental 2% escalators based on lease renewal; and

**Whereas**, the Office of General Council has entered in the lease process and approved the lease on behalf of the City; and

**Whereas**, all concerns of interference and other liabilities have been addressed in the lease agreement; and

**Whereas**, all tower facilities such as this are subject to approval of the Connecticut Siting Council; and

**Whereas**, all proper committee procedures have been followed including approval at the Public Safety Telecommunications Commission, Planning and Zoning Commission and Finance and Government Operations Committee; and

**Now, therefore, be it resolved by the Common Council of the City of Middletown:** pending CT Siting Council approval, the Mayor of the City of Middletown is hereby authorized to execute a lease agreement between the City of Middletown and New Cingular Wireless, PCS LLC, a Delaware limited liability company for the lease of specific ground space at 499 Mile Lane in Middletown, CT for the purpose of erecting a communications tower, subject to approval as to content and form by the Office of the General Counsel.

**FISCAL IMPACT STATEMENT:** Annual revenue to the City per year is \$30,000/year for 5 years and an escalator of 2% at each 5 year renewal. This brings annual leasing total of Communications tower and ground space to \$54,000/year. Annual leasing cost the City pays out annually is estimated at \$98,000. This and previous lease covers 55% of that cost.

**Submitted by:** Councilman Eugene Nocera

**Committee Reviewed:** Finance and Government approved on June 30, 2021  
Planning and Zoning Commission approved on August 11, 2021

**Status:**  
**By Common Council, City of Middletown**  
**At its meeting held on:**

*K: submit/ resolution/ CComm Mile Lane tower – Sept 2021*

# **ATTACHMENT 2**

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# STRUCTURAL CALCULATIONS

Prepared for: Smartlink / AT&T

## New Antenna and Equipment Installation on Self-Support Tower

Site No: CT3470A

FA No: 10578361

USID: 221794

Site Name: Mile LN\_Middletown

499 Mile Lane

Middletown, CT 06457

January 7, 2019

### Tower Modification Required

**Henry M. Bellagamba, P.E.**

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**FULLERTON**  
ENGINEERING • DESIGN

**Fullerton Engineering Consultants, Inc.**  
1100 E. Woodfield Road, Suite 500  
Schaumburg, IL 60173  
Tel: 847.908.8400  
[www.fullertonengineering.com](http://www.fullertonengineering.com)  
Project Number: 2018.0265.E023

## Summary

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A structural analysis was performed by Fullerton, as requested by the client, to determine the conformance of existing structure with the governing building code, 2018 Connecticut State Building Code (2015 International Building Code) and the industry standard, ANSI/TIA-222-G (Structural Standard for Steel Antenna Supporting Structures and Antennas). The analysis considers the tower properties, existing and proposed appurtenances and the required loading criteria.

## Conclusion

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- The tower member stresses are **NOT** in conformance for the loading considered.
- The tower foundation was not analyzed due to a lack of geotechnical information.

## Analysis Data

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The following is based on information provided by the client, field investigation, and other determination by Fullerton Engineering Consultants or third parties.

**Configuration**                      180 ft. Self-Support tower with a 5' top and 13' bottom face width.

**References**                              RF Design Sheet by AT&T, dated 10/3/2018.

Original Tower Construction Drawings by Valmont Structures, Eng. File No. 337273,  
Drawings No. 276371T & 276371F, dated 9/18/2017.

# Appurtenance Loading Schedule

ELEV. (FT.=AGL)	APPURTENANCE	TRANSMISSION LINES
	Proposed AT&T	
180'	(6) KMW EPBQ-654L8H8-L2 antennas (3) CCI HPA65R-BU8A antennas (3) Ericsson RRUS-4478 B14 units (3) Ericsson RRUS-4415 B30 units (3) Ericsson RRUS-4449 B5/B12 units (3) Ericsson RRUS-8843 B2/B66A units (3) Ericsson RRUS-E2 units (3) Raycap DC6-48-60-18-8F units Mounted on proposed (3) Sector Frames	(2) 3/8" Fiber (6) 3/4" DC Power
	Existing (to remain)	
182'	(1) Lightning Rod Mounted on tower leg	
157.225' 150'	(1) Sinclair SC479-HF1LDF RX antenna (1) Motorola TTA (DS428E83I01T) unit Mounted on existing (1) 6' Standoff Mount Frame with Stiff Arm	(1) 1/2" coax (1) 7/8" coax
137.225' 130'	(1) Sinclair SC479-HF1LDF TX antenna Mounted on existing (1) 6' Standoff Mount Frame with Stiff Arm	(1) 7/8" coax
130'	(1) Radiowaves HP3-11 dish Mounted on existing (1) Pipe Mount to Tower Leg	(1) EW90
121.58' 110'	(1) Sinclair SC229-DFLN VHF antenna Mounted on existing (1) 6' Standoff Mount Frame with Stiff Arm	(1) 7/8" coax
95'	(1) Radiowaves HP3-11 dish Mounted on existing (1) Pipe Mount to Tower Leg	(1) EW90

## Results

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The results of the structural analysis are summarized as follows:

### **Tower mast**

The tower leg members are **NOT adequate** for new loads, with a maximum stress ratio of 252.3% @ Elev. 120'-140' AGL.

The tower leg bolts are **NOT adequate** for new loads, with a maximum stress ratio of 120.2% @ Elev. 80' AGL.

The tower main diagonal members are **NOT adequate** for new loads, with a maximum stress ratio of 111.5% @ Elev. 80'-100' AGL.

The tower diagonal bolts are **NOT adequate** for new loads, with a maximum stress ratio of 124.9% @ Elev. 140'-160' AGL.

The tower top girt members are **adequate** for new loads, with a maximum stress ratio of 14.8% @ Elev. 180' AGL.

### **Anchor Rods**

The anchor rods are **NOT adequate** for new loads, with a maximum stress ratio of 109.73%.

### **Foundation**

The tower foundations were **NOT analyzed** due to a lack of geotechnical information.

# ATTACHMENT 3



**PROJECT INFORMATION**

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY (NSB A PROPOSED 150'-0" A.G.L. TALL MONOPOLE, PROPOSED WALK-IN CABINET, AND GENERATOR WILL BE INSTALLED AT GRADE INSIDE A EXISTING FENCED-IN COMPOUND. PROPOSED (3) TPA65R-BU8DA-K ANTENNAS, (3) HPA65R-BU8A ANTENNAS, (3) DMP65R-BU8DA-K ANTENNAS, (3) 4478-B14 RRH'S, (3) FUTURE E2 RRH'S, (3) 4415 B30 RRH'S, (3) 4449 B5/B12 RRH'S, (3) 8843 B2/B66A RRH'S, (2) DC6-48-60-18-8C-EV SURGE ARRESTORS, & (1) DC6-48-60-0-8C-EV WILL BE INSTALLED AT A HEIGHT OF 150'-0" A.G.L.):

SITE ADDRESS: 499 MILE LANE  
MIDDLETOWN, CT 06457

APPLICANT: AT&T  
550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

SITE OWNER: CITY OF MIDDLETOWN  
245 DEKOVEN DRIVE  
MIDDLETOWN, CT 06457

LATITUDE: 41.58000 N, 41° 34' 48.0" N

LONGITUDE: 72.68579 W, 72° 41' 8.9" W

TYPE OF SITE: MONOPOLE/ WALK-IN CABINET

TOWER HEIGHT: 150'-0"±

RAD CENTER: 150'-0"±

APPLICABLE CODES: ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE CT STATE BUILDING CODE, NATIONAL ELECTRIC CODE (NEC 2017), ANSI/EIA/TIA-222 H & COMPLY WITH AT&T MOBILITY SPECIFICATIONS



**SITE NUMBER: CT3470A**

**SITE NAME: MIDDLETOWN\_MILE LANE**

**FA CODE:10578361**

**PACE ID: MRCTB033524, MRCTB036341, MRCTB036593, MRCTB036513, MRCTB036367, MRCTB047889**

**PROJECT: NSB**

**DRAWING INDEX**

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	2
GN-1	GENERAL NOTES	2
SN-1	STRUCTURAL NOTES	2
C-1	PLOT PLAN	2
A-1	COMPOUND & EQUIPMENT PLAN	2
A-2	ELEVATION & ANTENNA PLAN	2
A-3	DETAILS & ANTENNA SCHEDULE	2
A-4	EQUIPMENT DETAILS	2
A-5	EQUIPMENT DETAILS	2
E-1	ELECTRICAL NOTES & ONE-LINE DIAGRAM	2
G-1	GROUNDING DETAILS	2
RF-1	RF PLUMBING DIAGRAM	2

**VICINITY MAP**

**DIRECTIONS TO SITE:**  
DEPART NORTHEAST, TURN RIGHT AND THEN IMMEDIATELY TURN LEFT ONTO LEGGATT MCCALL CONNECTOR ROAD, BEAR LEFT ONTO BURR ST, TURN LEFT ONTO MA-30 / COCHITUATE RD, TAKE RAMP RIGHT FOR I-90 EAST / I-90 WEST TOWARD BOSTON / SPRINGFIELD, AT EXIT 9 TAKE RAMP RIGHT FOR I-84 TOWARD HARTFORD / NEW YORK CITY, KEEP LEFT ONTO CT-15 S / WILBUR CROSS HWY S, KEEP STRAIGHT ONTO US-5 S / CT-15 S / WILBUR CROSS HIGHWAY S, AT EXIT 86 TAKE RAMP RIGHT FOR I-91 SOUTHBOUND, AT EXIT 21 TAKE RAMP RIGHT FOR CT-372 TOWARD CROMWELL / MIDDLETOWN, TURN LEFT ONTO CT-372 / BERLIN ROAD TOWARD CROMWELL / MIDDLETOWN, TURN RIGHT ONTO CT-217 / EAST STREET, TURN LEFT ONTO RIDGEWOOD RD, ARRIVE AT RIDGEWOOD ROAD



**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 PURPOSES 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 MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

**72 HOURS**



**CALL BEFORE YOU DIG**



CALL TOLL FREE 1-800-922-4455

OR CALL 811

**UNDERGROUND SERVICE ALERT**

**HGD HUDSON Design Group LLC**  
45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553 FAX: (978) 336-5586

**smartlink**  
1997 ANNAPOLIS EXCHANGE PKWY SUITE 200 ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A  
SITE NAME: MIDDLETOWN\_MILE LANE**

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY

**at&t**  
550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

AT&T		
TITLE SHEET (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	T-1	2

**GROUNDING NOTES**

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

**GENERAL NOTES**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
 CONTRACTOR – SMARTLINK  
 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. TOUCH UP 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 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 WITH 2018 CT STATE BUILDING CODE AMENDMENTS  
 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL 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-H, STRUCTURAL STANDARDS FOR STEEL**

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	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



45 BEECHWOOD DRIVE  
 NORTH ANDOVER, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 336-5586



1997 ANNAPOLIS EXCHANGE PKWY  
 SUITE 200  
 ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A  
 SITE NAME: MIDDLETOWN\_MILE LANE**

**499 MILE LANE  
 MIDDLETOWN, CT 06457  
 MIDDLESEX COUNTY**



550 COCHITUATE ROAD  
 FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: CC/VP		

**AT&T**

**GENERAL NOTES  
 (NSB)**

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	GN-1	2

**STRUCTURAL NOTES:**

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- 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.
- 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".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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 D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL", 14TH EDITION.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

**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.

**NOTES:**

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- 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.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

**NOTES:**

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- 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.
- AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

**SPECIAL INSPECTION CHECKLIST**

**BEFORE CONSTRUCTION**

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
<b>REQUIRED</b>	ENGINEER OF RECORD APPROVED SHOP DRAWINGS <sup>1</sup>
<b>REQUIRED</b>	MATERIAL SPECIFICATIONS REPORT <sup>2</sup>
N/A	FABRICATOR NDE INSPECTION
<b>REQUIRED</b>	PACKING SLIPS <sup>3</sup>

ADDITIONAL TESTING AND INSPECTIONS:

**DURING CONSTRUCTION**

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
<b>REQUIRED</b>	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS <sup>4</sup>
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION <sup>5</sup>
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
<b>REQUIRED</b>	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS <sup>6</sup>
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
<b>REQUIRED</b>	PHOTOGRAPHS

ADDITIONAL TESTING AND INSPECTIONS:



45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586



1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A**  
**SITE NAME: MIDDLETOWN\_MILE LANE**

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY



550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

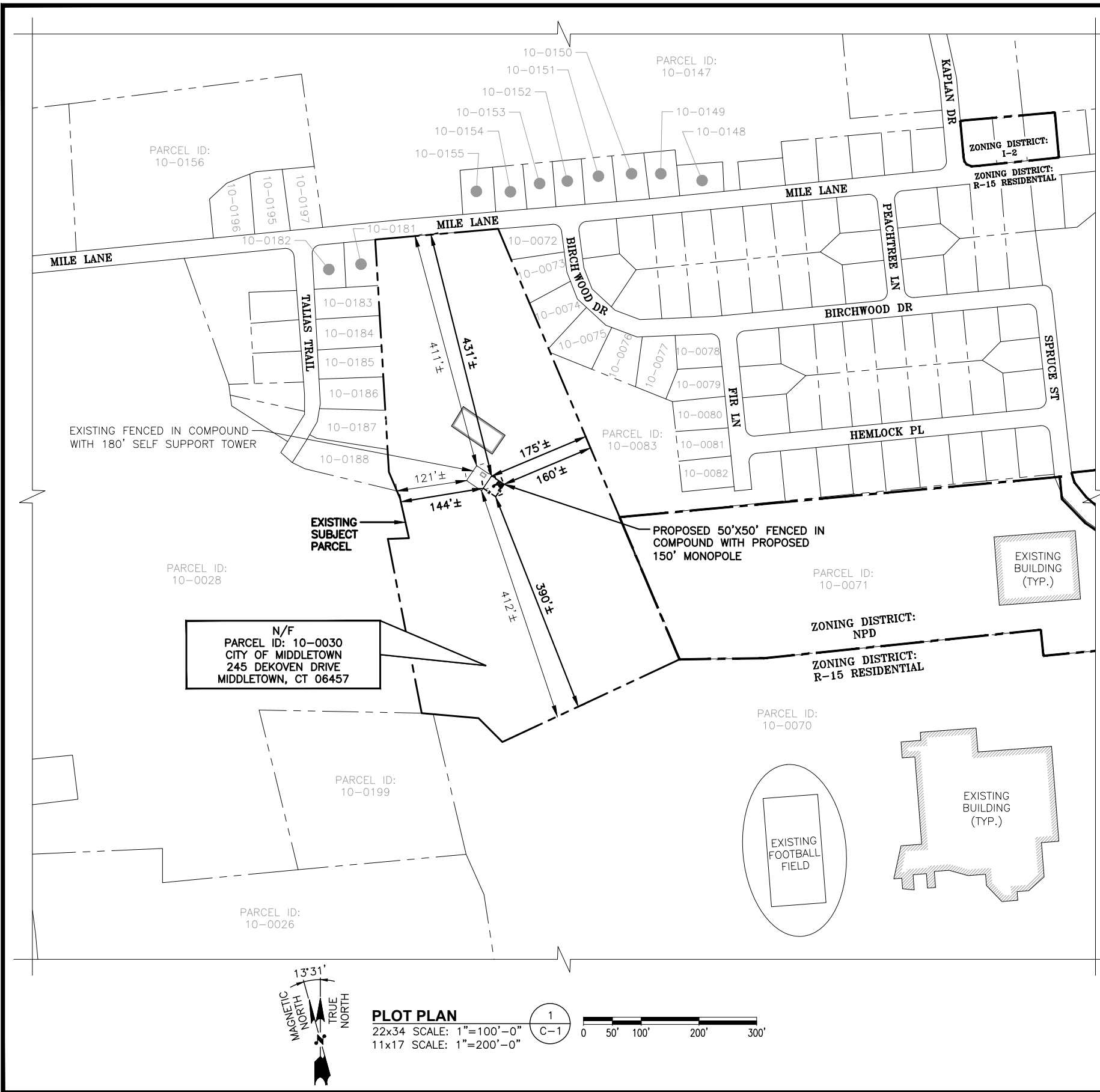
NO.	DATE	REVISIONS	BY	CHK	APP'D
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SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

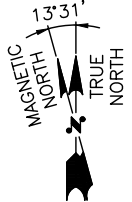
AT&T

STRUCTURAL NOTES  
(NSB)

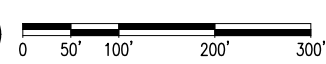
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	SN-1	2



N/F  
 PARCEL ID: 10-0030  
 CITY OF MIDDLETOWN  
 245 DEKOVEN DRIVE  
 MIDDLETOWN, CT 06457



**PLOT PLAN**  
 22x34 SCALE: 1"=100'-0"  
 11x17 SCALE: 1"=200'-0"



**IMMEDIATE ADJOINING PROPERTY OWNER INFORMATION**

PARCEL	OWNER	ADDRESS
10-0072	MAURA THEODORE JR	5 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0073	MORGAN RYAN & WILES EMILY M	15 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0074	LAMB DORIS L	25 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0075	ZADROGA ANTHONY F TRUSTEE	35 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0083	BENNETT RHODA (1/4 INT) ETALS	65 HOLLYBERRY LN BRISTOL, CT 06010
10-0070	CITY OF MIDDLETOWN	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0071	CITY OF MIDDLETOWN C/O KEIGWIN SCHOOL	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0199	CITY OF MIDDLETOWN	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0028	OLD COLONY OF WALLINGFORD LLC	273 NORTH COLONY ST UNIT 2 WALLINGFORD, CT 06492
10-0188	SZCZERBICKI ADAM & RAZEL MELISSA	70 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0187	LAVIGNE CHRISTOPHER J & ALONSO LISA C	60 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0186	PUGLIARES ROBERTO & KENEFIGK-PUGLIARES KELLY	50 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0185	CONNER MICHAEL T & VIVIANA	40 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0184	LOMBARDO GIUSEPPE & DIANA	30 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0183	LAMANIVONG MICHAEL & YI LIANA JIEUN	20 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0181	GAINES PALMER L	509 MILE LA MIDDLETOWN, CT 06457

**NOTE:**  
 PLOT PLAN PREPARED BY HUDSON DESIGN GROUP, LLC. FROM GIS, ASSESSORS DATA AND OTHER SOURCES, ACCESSED 04/08/21, AND DOES NOT REPRESENT AN ACTUAL FIELD OR BOUNDARY SURVEY.

**ZONING INFORMATION**

ZONING DISTRICT:	R-15 (RESIDENTIAL)	
DIMENSIONS REQUIREMENTS:	EXISTING	PROPOSED
ANTENNA SETBACKS:		
FRONT YARD SETBACK:	411'	431'±
SIDE YARD SETBACK:	121'	144'±
REAR YARD SETBACK:	412'	390'±

(ALL MEASUREMENTS ARE IN FEET ± UNLESS OTHERWISE NOTED)  
 (SETBACK TO EXISTING EQUIPMENT SHELTER UNLESS OTHERWISE NOTED)

**PROJECT INFORMATION & DIMENSIONS**

TEMPORARY GROUND DISTURBANCE	300± SF
PERMANENT IMPERVIOUS GROUND SURFACE ADDITIONS	125± SF

**NOTE:**  
 RRU & ASSOCIATED EQUIPMENT LOCATED BEHIND ANTENNAS. CALCULATION IS FOR PORTION OF RRU & ASSOCIATED EQUIPMENT THAT EXTENDS BEYOND ANTENNAS.

**GENERAL NOTES:**

- PROPERTY LINE INFORMATION (WHEN APPLICABLE) WAS PREPARED USING TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUCTED AS A BOUNDARY SURVEY.
- NO NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
- THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (THERE IS NO HANDICAP ACCESS REQUIRED).
- THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
- CONNECTION TO ELECTRICAL & TELEPHONE UTILITIES TO BE DETERMINED BY THE APPROPRIATE UTILITY COMPANY.
- SUBCONTRACTOR TO VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEER PRIOR TO INSTALLATION. SEE ANTENNA CONFIGURATION SHEETS FOR SITE SPECIFIC DETAILS.
- SUBCONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION.
- THE MAXIMUM AREA OF DISTURBANCE IS LESS THAN 1 ACRE. THE PROJECT IMPACT AREA IS BELOW THE EXEMPTION THRESHOLD OF 43,560 SQUARE FEET IN 40 CFR PARTS 9, 122-124 AND THEREFORE IS NOT SUBJECT TO REGULATION UNDER THE EPA OR STATE-MANAGED NPDES GENERAL CONSTRUCTION PERMIT PROGRAM. THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL SITE DEVELOPMENT IN ACCORDANCE WITH THE "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" ISSUED BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION. ADDITIONALLY, THE PROJECT OWNERS GENERAL CONTRACTOR SHALL CONDUCT ALL CONSTRUCTION ACTIVITIES IN A MANNER THAT DOES NOT RESULT IN STORM WATER DISCHARGES WITH AN ADVERSE IMPACT ON ANY STORM WATER COLLECTION/CONVEYANCE SYSTEM, WETLAND, WATER BODY, OR OTHER WATER RESOURCE AREAS.
- THE PROJECT WILL COMPLY WITH THE LOW RISK HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

**HANDICAP REQUIREMENTS**

FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION.  
 HANDICAPPED ACCESS REQUIREMENTS NOT REQUIRED.

**HGD HUDSON Design Group LLC**  
 45 BEECHWOOD DRIVE  
 NORTH ANDOVER, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 336-5586

**smartlink**  
 1997 ANNAPOLIS EXCHANGE PKWY  
 SUITE 200  
 ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A**  
**SITE NAME: MIDDLETOWN\_MILE LANE**  
 499 MILE LANE  
 MIDDLETOWN, CT 06457  
 MIDDLESEX COUNTY

**at&t**  
 550 COCHITUATE ROAD  
 FRAMINGHAM, MA 01701

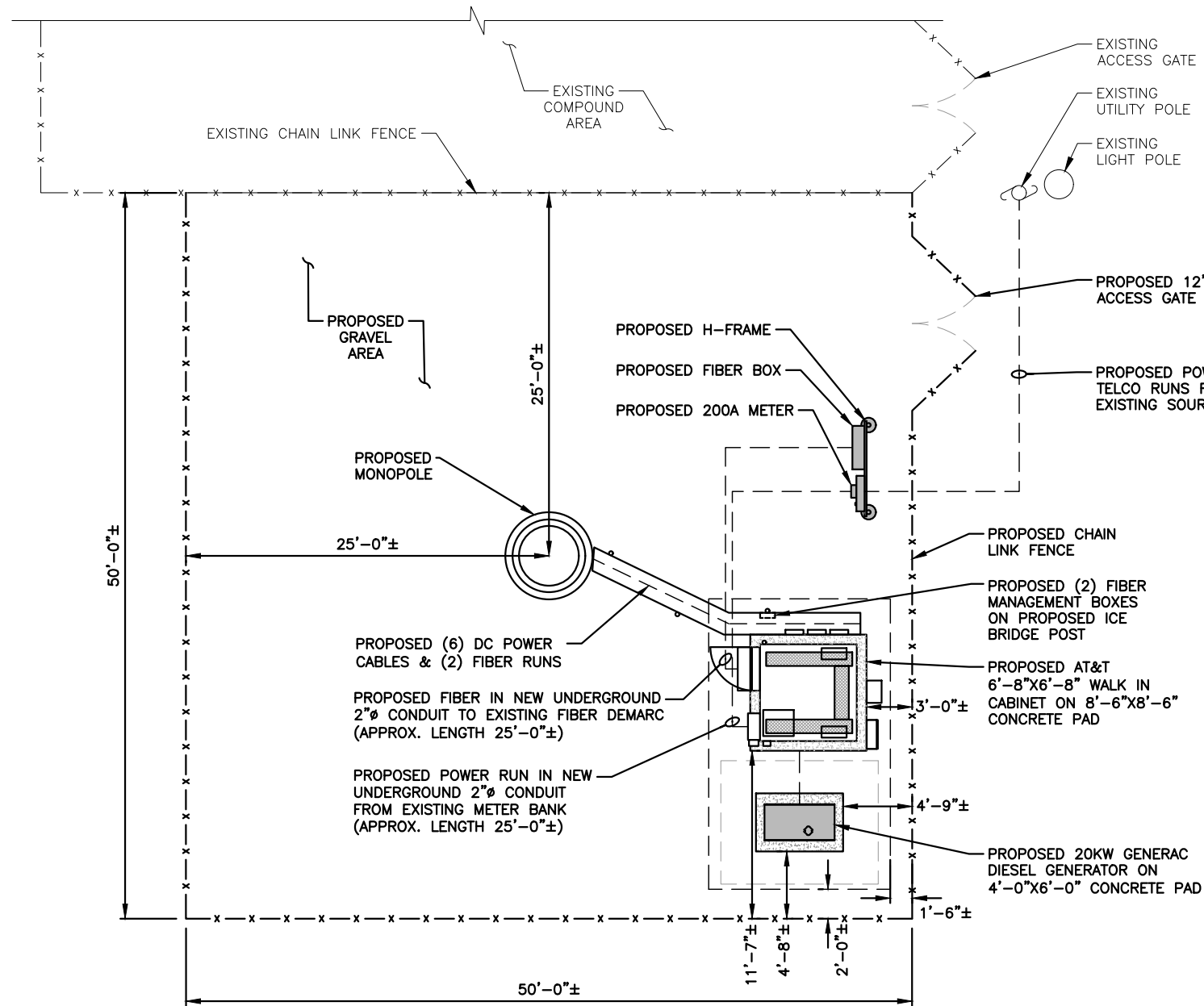
NO.	DATE	REVISIONS	BY	CHK	APP'D
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0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

**AT&T**

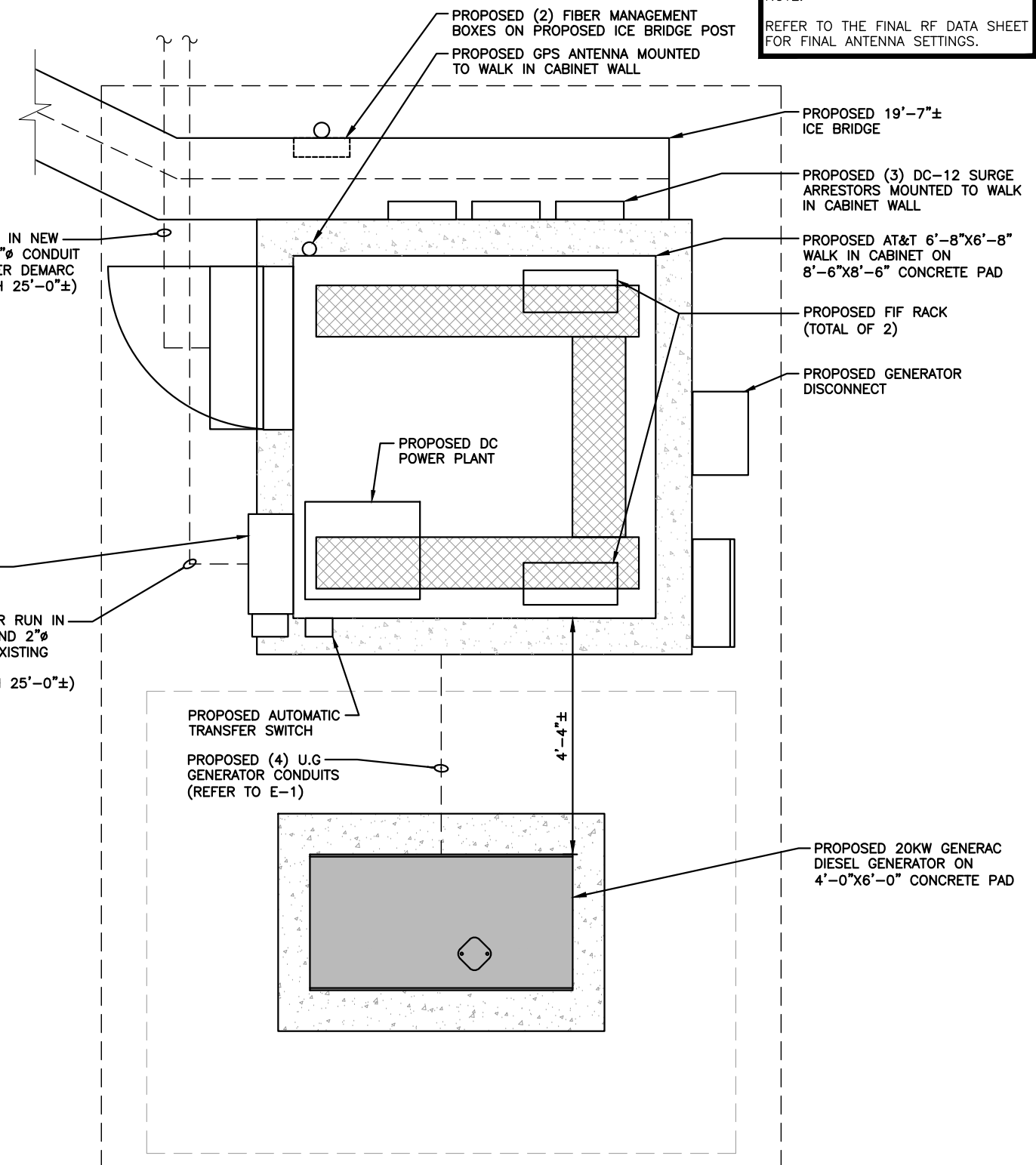
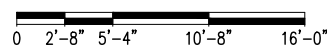
**PLOT PLAN (NSB)**

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	C-1	2



**COMPOUND PLAN**

22x34 SCALE: 3/16"=1'-0"  
11x17 SCALE: 3/32"=1'-0"



**EQUIPMENT PLAN**

22x34 SCALE: 3/4"=1'-0"  
11x17 SCALE: 3/8"=1'-0"



NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



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MIDDLESEX COUNTY



550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

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0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: CC/VP		

AT&T

COMPOUND & EQUIPMENT PLAN  
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-1	2

TOP OF EXISTING TOWER  
ELEV. = 180'-0"± A.G.L.

EXISTING TOWER (BEYOND)

PROPOSED SURGE ARRESTOR  
(TOTAL OF 3)

TOP OF PROPOSED  
MONOPOLE & C OF  
PROPOSED AT&T ANTENNAS  
ELEV. = 150'-0"± A.G.L.

PROPOSED AT&T ANTENNAS  
(TYP. OF 3 PER SECTOR,  
TOTAL OF 9)

PROPOSED AT&T RRH'S  
(TYP. OF 4 PER SECTOR,  
TOTAL OF 12)

FUTURE AT&T RRH'S  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

GROUND LEVEL  
ELEV. = 0'-0"± A.G.L.

**EASTERN ELEVATION**  
22x34 SCALE: 3/32"=1'-0"  
11x17 SCALE: 3/64"=1'-0"

1  
A-2



- PROPOSED MONOPOLE
- PROPOSED 19'-7"± ICE BRIDGE
- PROPOSED AT&T 6'-8"x6'-8" WALK IN CABINET ON 8'-6"x8'-6" CONCRETE PAD
- PROPOSED 20KW GENERAC DIESEL GENERATOR ON 4'-0"x6'-0" CONCRETE PAD
- PROPOSED METER BANK ON PROPOSED H-FRAME
- PROPOSED CHAIN LINK FENCE

NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

PROPOSED SECTOR FRAME  
VALMONT PART# VFA12-WLL-30120  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

FUTURE AT&T RRH'S (BELOW)  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T RRH'S  
(TYP. OF 4 PER SECTOR,  
TOTAL OF 12)

PROPOSED 3" STD. (3.5"O.D.)  
8'-0" LONG PIPE MAST (TYP.  
OF 1 PER SECTOR, TOTAL OF 3)

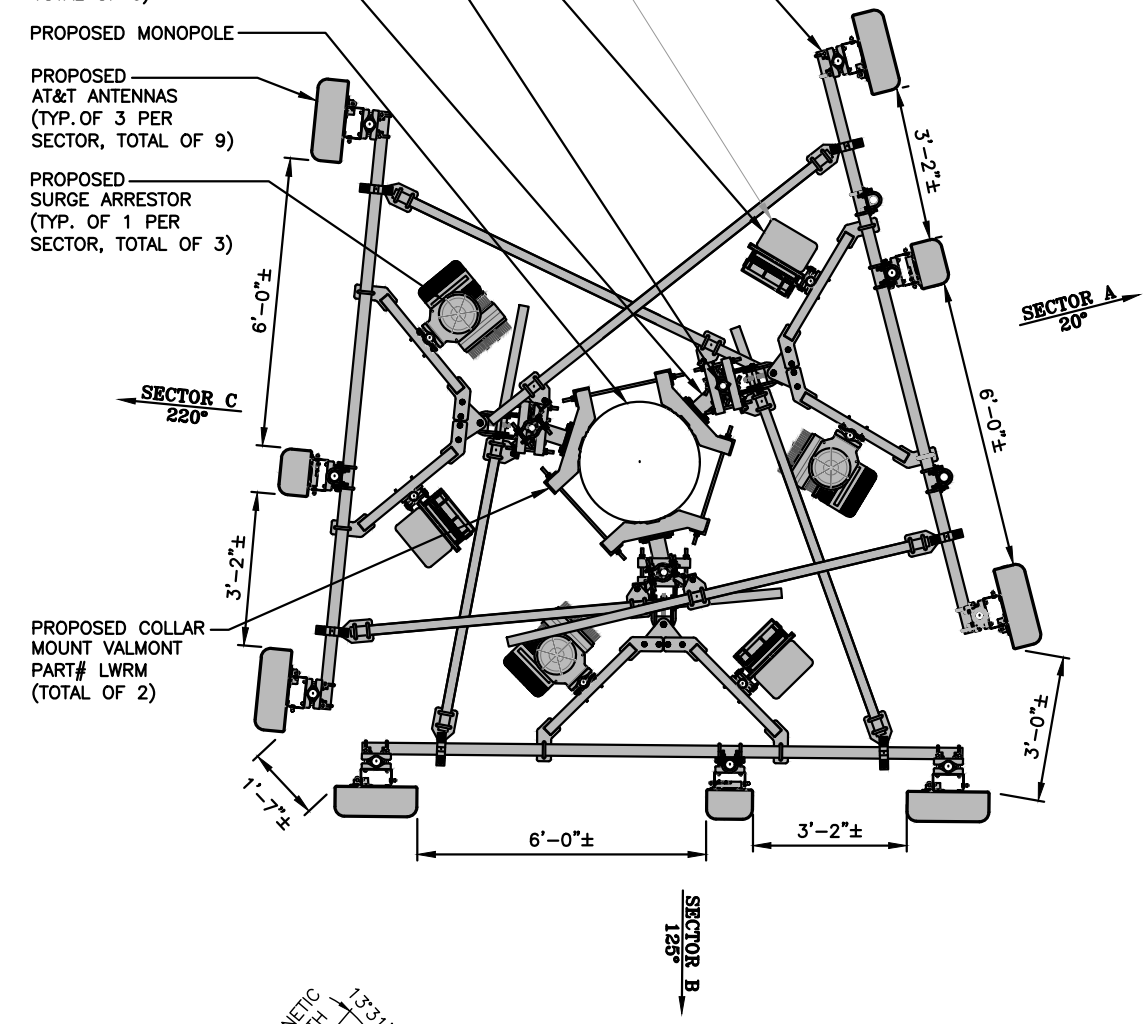
PROPOSED 8" STAND-OFF  
VALMONT PART# MM01  
(TYP. OF 2 PER SECTOR,  
TOTAL OF 6)

PROPOSED MONOPOLE

PROPOSED AT&T ANTENNAS  
(TYP. OF 3 PER SECTOR,  
TOTAL OF 9)

PROPOSED SURGE ARRESTOR  
(TYP. OF 1 PER SECTOR,  
TOTAL OF 3)

PROPOSED COLLAR  
MOUNT VALMONT  
PART# LWRM  
(TOTAL OF 2)



**PROPOSED ANTENNA LAYOUT DESIGN** 2  
SCALE: N.T.S. A-2

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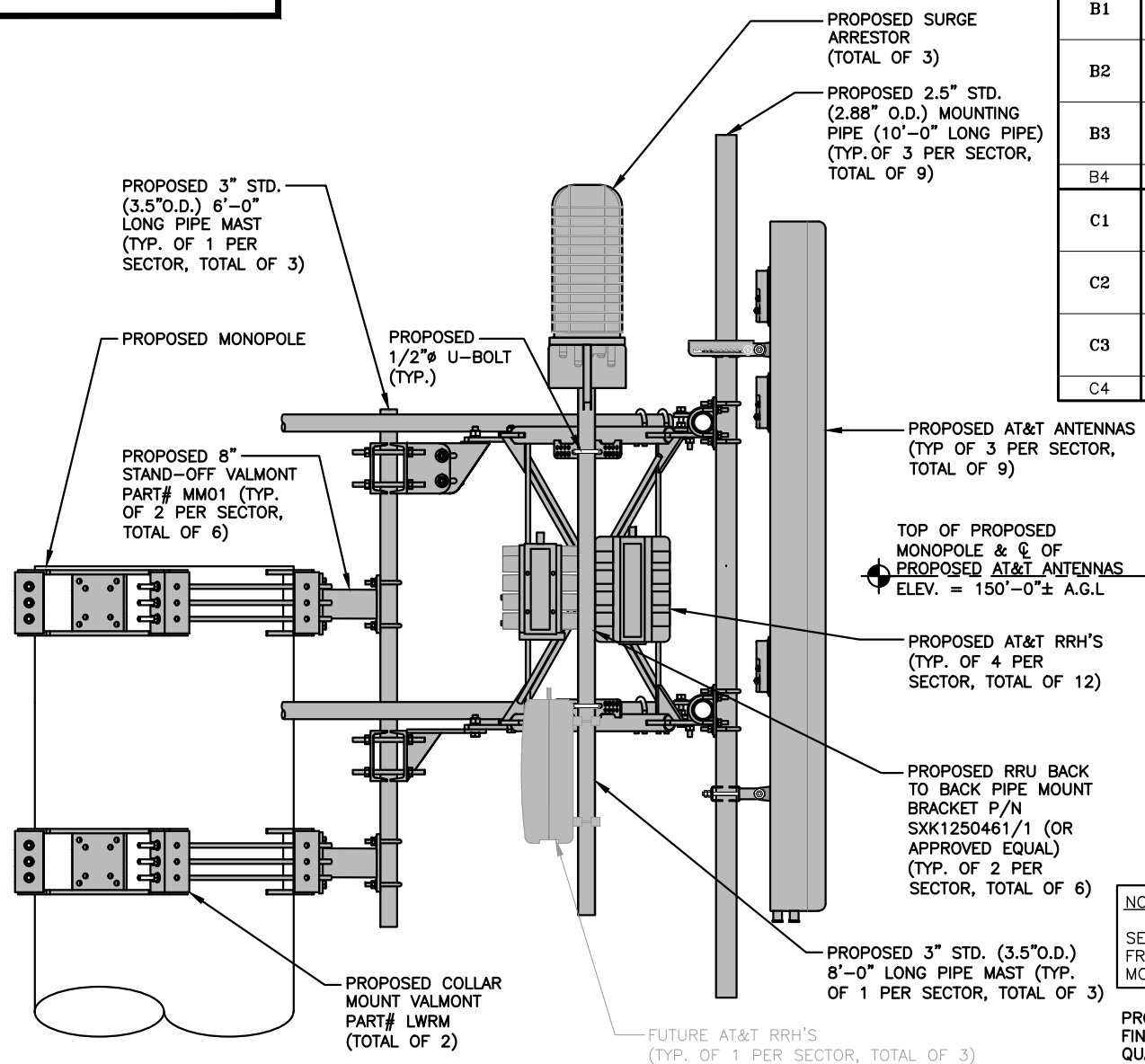
<b>AT&amp;T</b>		
ELEVATION AND ANTENNA PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-2	2

NOTE:  
HDG RECOMMENDS THE PROPOSED ANTENNA MOUNT BE MAPPED IN ITS ENTIRETY & A STRUCTURAL ANALYSIS BE PERFORMED PRIOR TO THE ANTENNA INSTALLATION.

NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:  
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

ANTENNA SCHEDULE											
SECTOR	EXISTING/PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA Q. HEIGHT	AZIMUTH	TMA/DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	20°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-18-8C-EV
A2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	20°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
A3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	20°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
A4	-	-	-	-	-	-	-	-	-	-	-
B1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	140°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-18-8C-EV
B2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	140°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
B3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	140°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
B4	-	-	-	-	-	-	-	-	-	-	-
C1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	240°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-0-8C-EV
C2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	240°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
C3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	240°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
C4	-	-	-	-	-	-	-	-	-	-	-



**PROPOSED SECTOR FRAME, ANTENNA, SURGE SUPPRESSOR & RRH'S MOUNTING DETAIL**  
22x34 SCALE: 1"=1'-0"  
11x17 SCALE: 1/2"=1'-0"

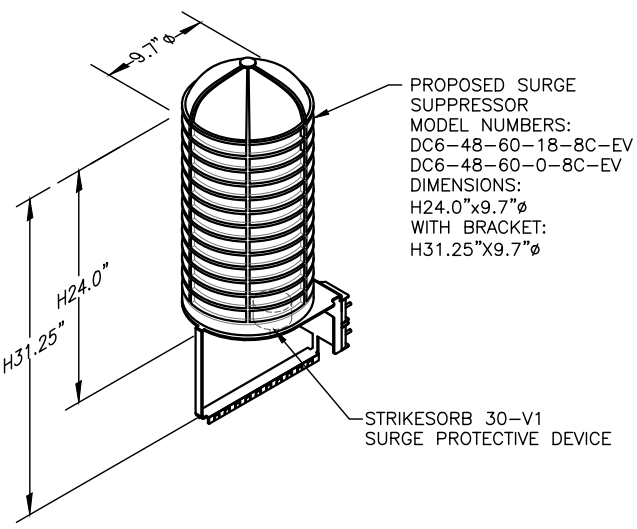
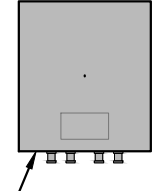
NOTE:  
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

NOTE:  
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

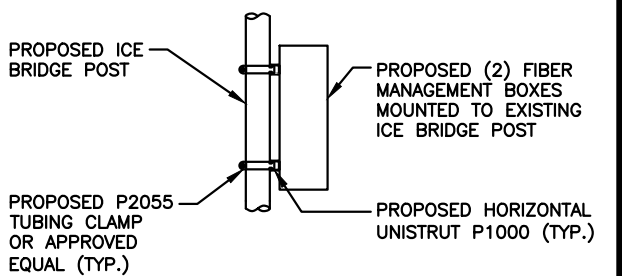
NOTE:  
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

**PROPOSED RRUS DETAIL**  
SCALE: N.T.S.



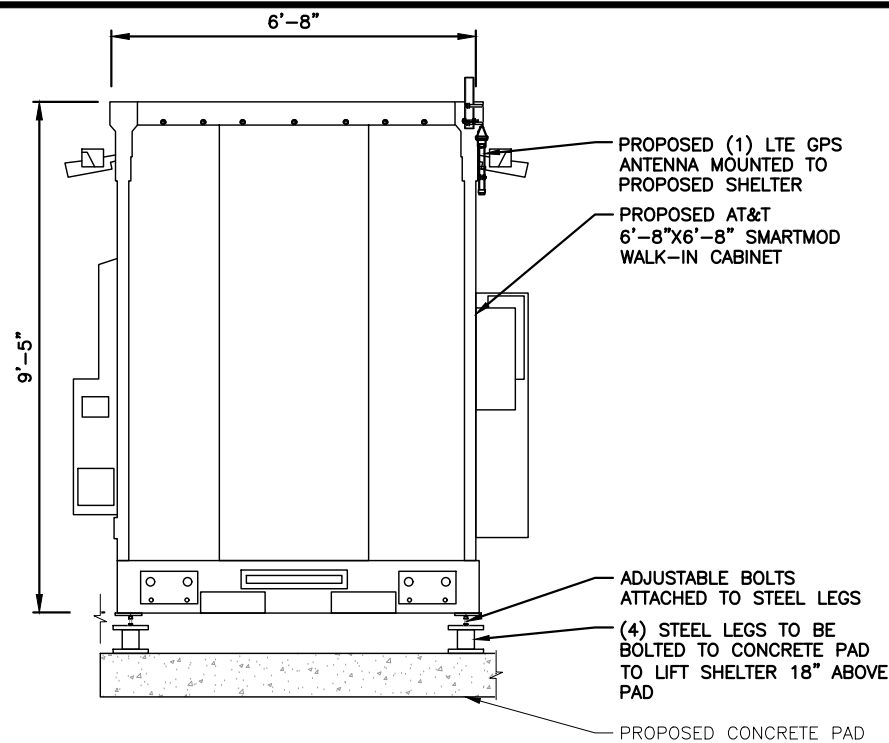
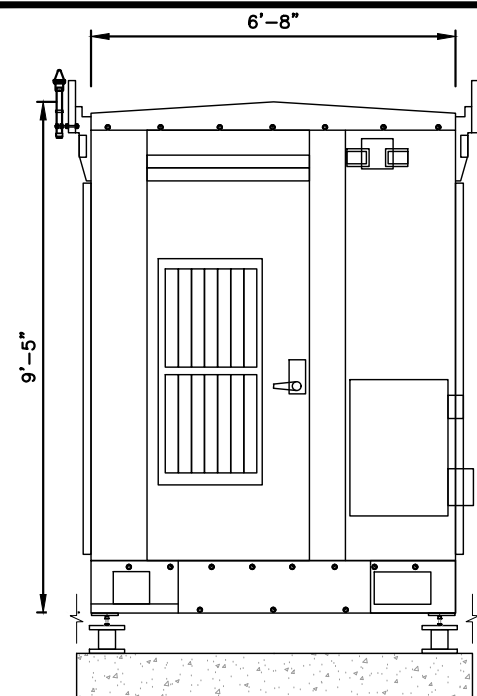
NOTE:  
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

**DC SURGE SUPPRESSOR DETAIL**  
SCALE: N.T.S.



**PROPOSED FIBER MANAGEMENT BOX MOUNTING DETAIL**  
SCALE: N.T.S.

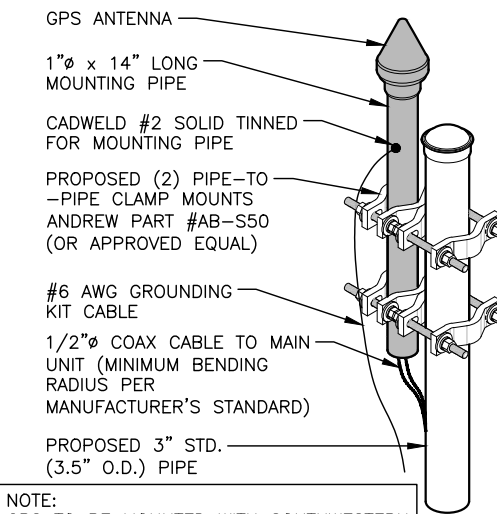
**FINAL ANTENNA SCHEDULE**  
SCALE: N.T.S.



NOTE:  
SHELTER SHALL BE MOUNTED PER  
MANUFACTURER'S SPECIFICATIONS.

**TYPICAL SHELTER DETAIL**  
SCALE: N.T.S

1  
A-4



NOTE:  
GPS TO BE MOUNTED WITH SOUTHWESTERN  
EXPOSURE. (MIN. OF 10' AWAY FROM  
EXISTING GPS ANTENNA)

**GPS MOUNTING DETAIL**  
N.T.S

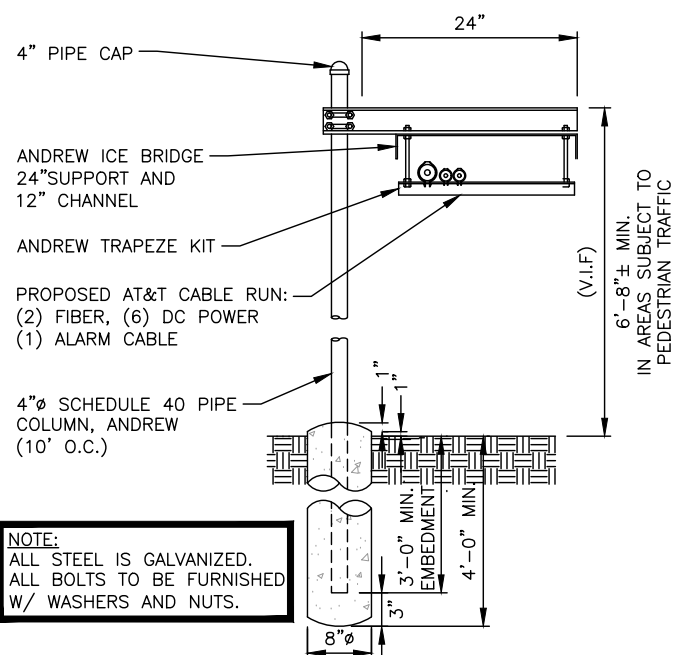
2  
A-4

20 KW GENERATOR DIMENSIONS	
MODEL #	G007098-0
MANUF.	GENERAC
HEIGHT	90"
WIDTH	36"
LENGTH	48"



**GENERATOR DETAIL**  
SCALE: N.T.S

4  
A-4



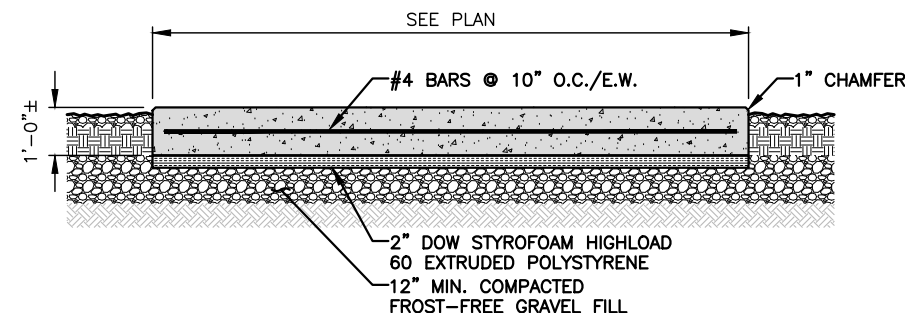
NOTE:  
ALL STEEL IS GALVANIZED.  
ALL BOLTS TO BE FURNISHED  
W/ WASHERS AND NUTS.

**ICE BRIDGE DETAIL**  
SCALE: N.T.S

3  
A-4

**FOUNDATION NOTES & CONCRETE SPECIFICATIONS:**

- FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
- UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
- CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
- REINFORCING BAR TO BE ASTM A615 GRADE 60.
- WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
- COORDINATE WITH MANUFACTURER OF PREFABRICATED SHELTER FOR LOCATION OF ATTACHMENTS TO BASE SLAB.
- ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
- ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.



**CONCRETE PAD DETAIL**  
22x34 SCALE: N.T.S

5  
A-4



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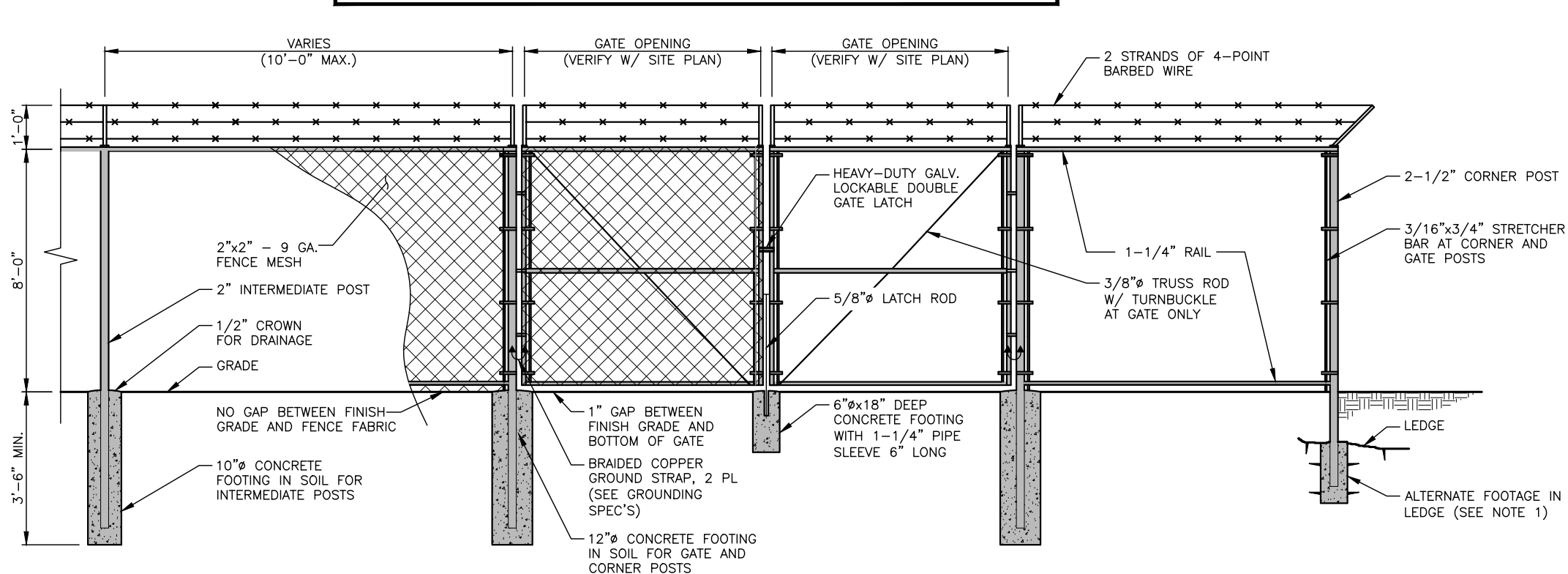
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AT&T		
EQUIPMENT DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-4	2

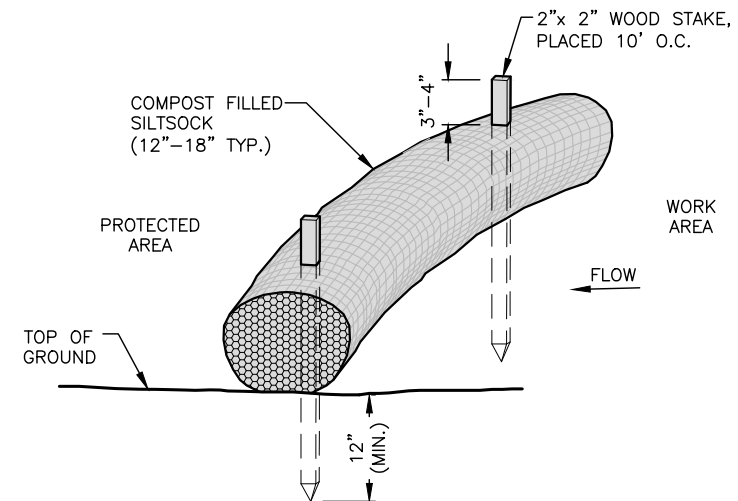


**FENCE NOTES**

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.
2. ATTACH EACH GATE WITH 1-1/2" PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.



**CHAINLINK FENCE DETAIL** 1  
SCALE: N.T.S. A-5



- NOTES:**
1. SILT SOCK SHALL BE FILTREXX SILT SOCK, OR APPROVED EQUAL.
  2. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
  3. SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
  4. SEE SPECIFICATIONS FOR SOCK SIZE, AND COMPOST FILL, REQUIREMENTS.

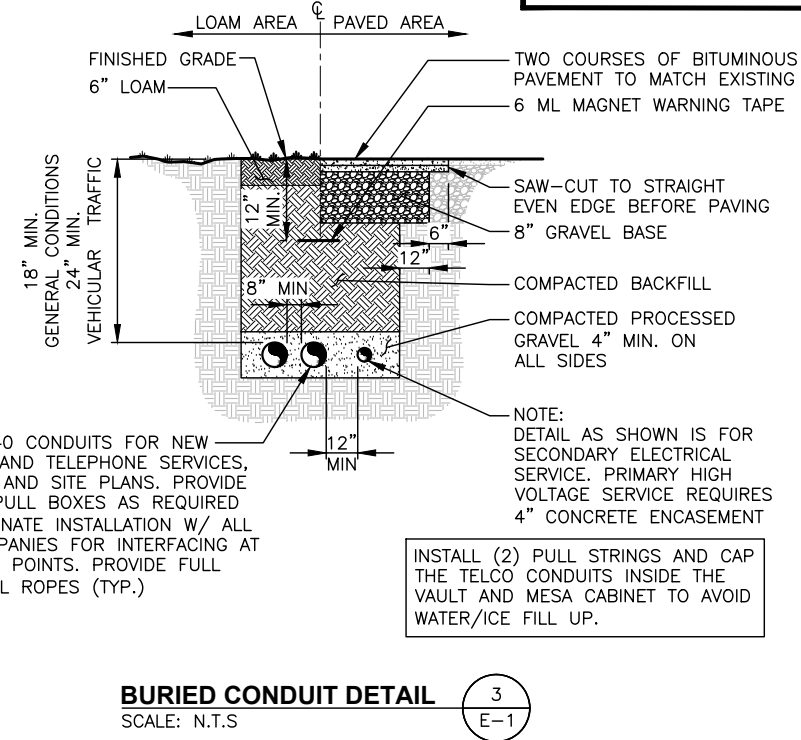
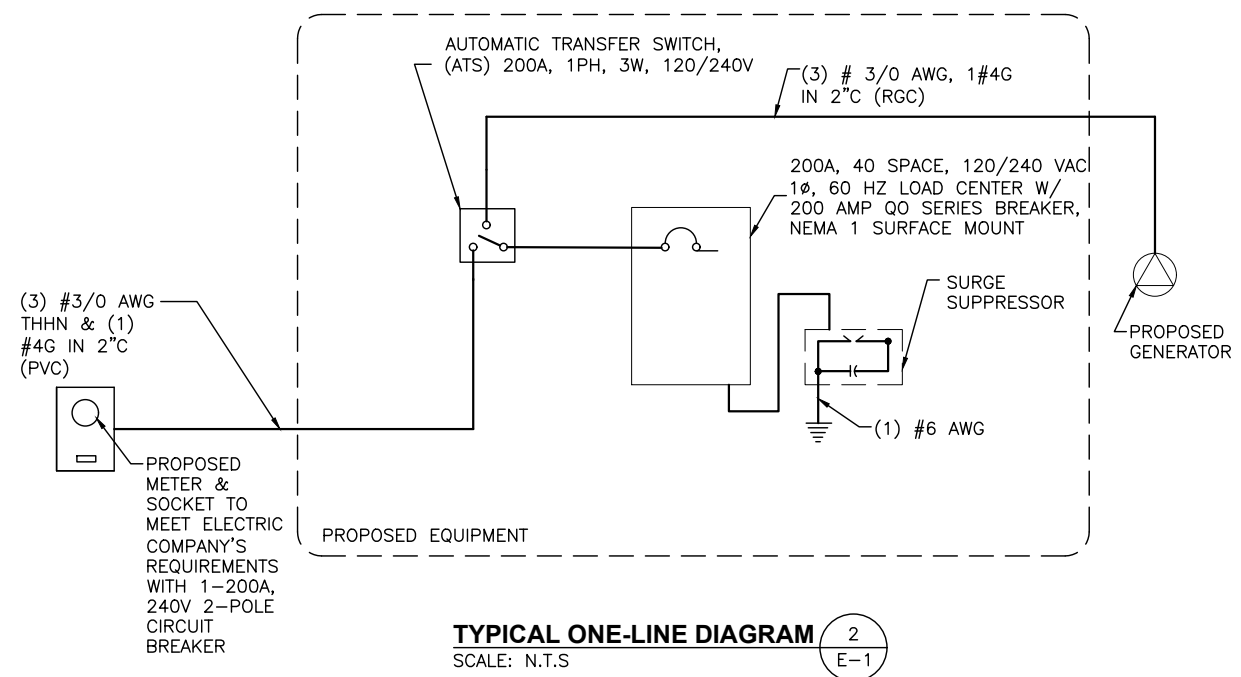
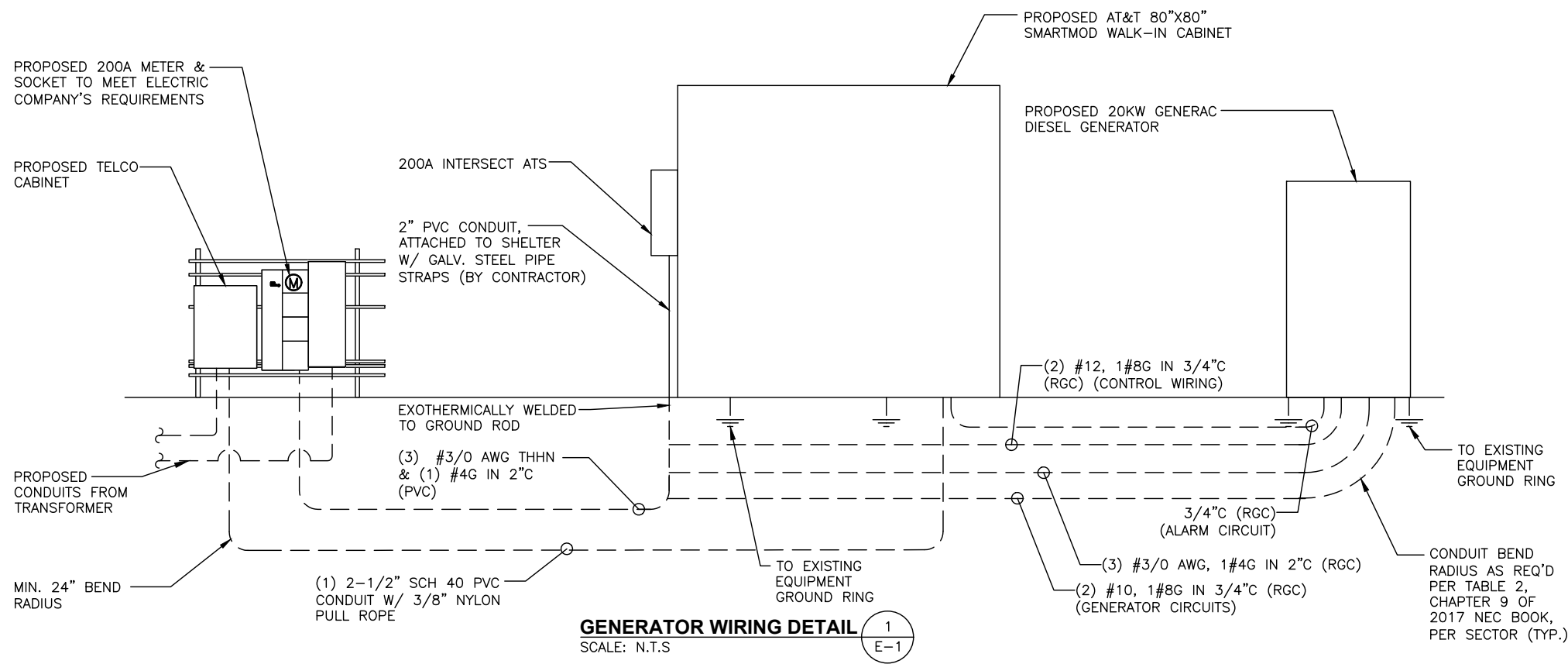
**SILT SOCK DETAIL** 2  
SCALE: N.T.S. A-5

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AT&T		
EQUIPMENT DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-5	2

NOTES:  
 1. GROUND [ATS] TO EXISTING GROUND BAR  
 2. GROUND GENERATOR TO EXISTING GROUND RING WITH (2) #2 AWG GROUND WIRES.

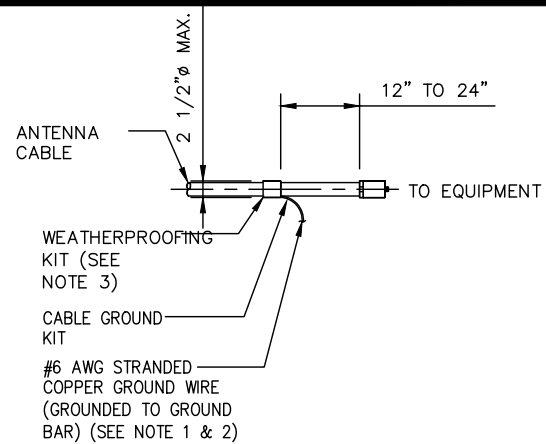


### ELECTRICAL LEGEND & ABBREVIATIONS

	NEW PANEL BOARD, SURFACE MOUNTED
	EXISTING PANEL BOARD, SURFACE MOUNTED
	DRY TYPE TRANSFORMER
	METER
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
	FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
	TRANSIENT VOLTAGE SURGE SUPPRESSOR WITH BUILT-IN FUSES, SURFACE MOUNTED
	DUPLEX OUTLET, SURFACE MOUNTED, 20 AMPS, 125 VOLTS, SINGLE PHASE
	JUNCTION BOX, SURFACE MOUNTED 18" A.F.F.
	EXPOSED WIRING
	HOME RUNS, MINIMUM 2#10 + 1#8G IN 3/4" CONDUIT U.O.N.
A.F.F.	ABOVE FINISHED FLOOR
U.O.N.	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
GFI	GROUND FAULT INTERRUPTER
A	AMPERE
V	VOLT
KWH	KILOWATT - HOUR
C	CONDUIT
PVC	POLYVINYL CHLORIDE
HZ	HERTZ
PH, Ø	PHASE
W	WATTS
NEC	NATIONAL ELECTRIC CODE
PPC	POWER PROTECTION CABINET
UL	UNDERWRITER LABORATORIES
PTS	POWER TRANSFER SWITCH
QO	QUICK OPEN
RGC	GALVANIZED RIGID CONDUIT
G	GROUND
	GROUND
	MASTER GROUND BAR
	EQUIPMENT GROUND BAR
	GROUND COPPER WIRE, SIZE AS NOTED
	EXPOSED WIRING
	COAXIAL CABLE
	5/8"x8" COPPER CLAD STAINLESS STEEL GROUND ROD
	POWER FACTOR

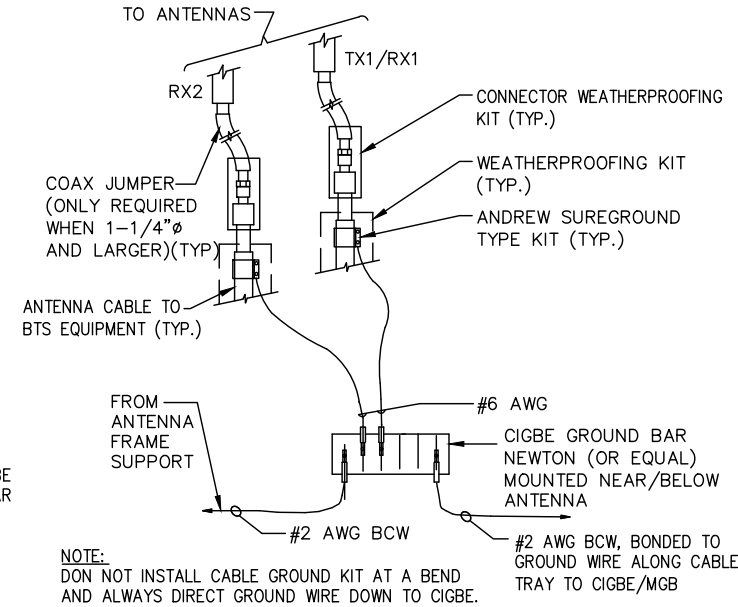
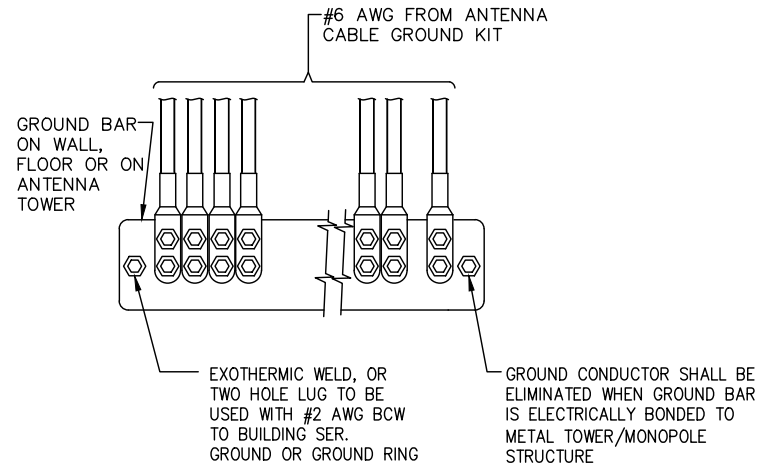
- ### ELECTRICAL AND GROUNDING NOTES
- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
  - ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
  - THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
  - GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
  - ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
  - BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
  - ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
  - RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
  - RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
  - WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
  - ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
  - PPC SUPPLIED BY PROJECT OWNER.
  - GROUNDING SHALL COMPLY WITH NEC ART. 250.
  - GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
  - USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
  - ALL GROUND CONNECTIONS TO BE BURNDY HYGRUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
  - ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
  - CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
  - APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
  - BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
  - BOND ANTENNA EGB'S AND MGB TO GROUND RING.
  - CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
  - CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.
  - ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL, MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50.

2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: CC/VP		



**NOTES:**

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
- WEATHER PROOFING SHALL BE TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.



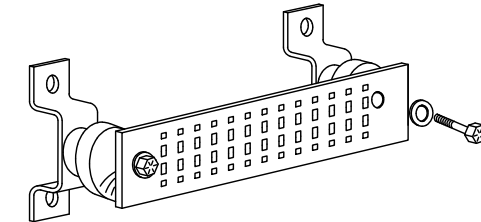
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

**SECTION "P" - SURGE PRODUCERS**

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

**SECTION "A" - SURGE ABSORBERS**

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



**CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE**

SCALE: N.T.S.

1  
G-1

**INSTALLATION OF GROUND WIRE TO GROUND BAR**

SCALE: N.T.S.

2  
G-1

**INSTALLATION OF GROUND WIRE TO GROUNDING BAR TOWER**

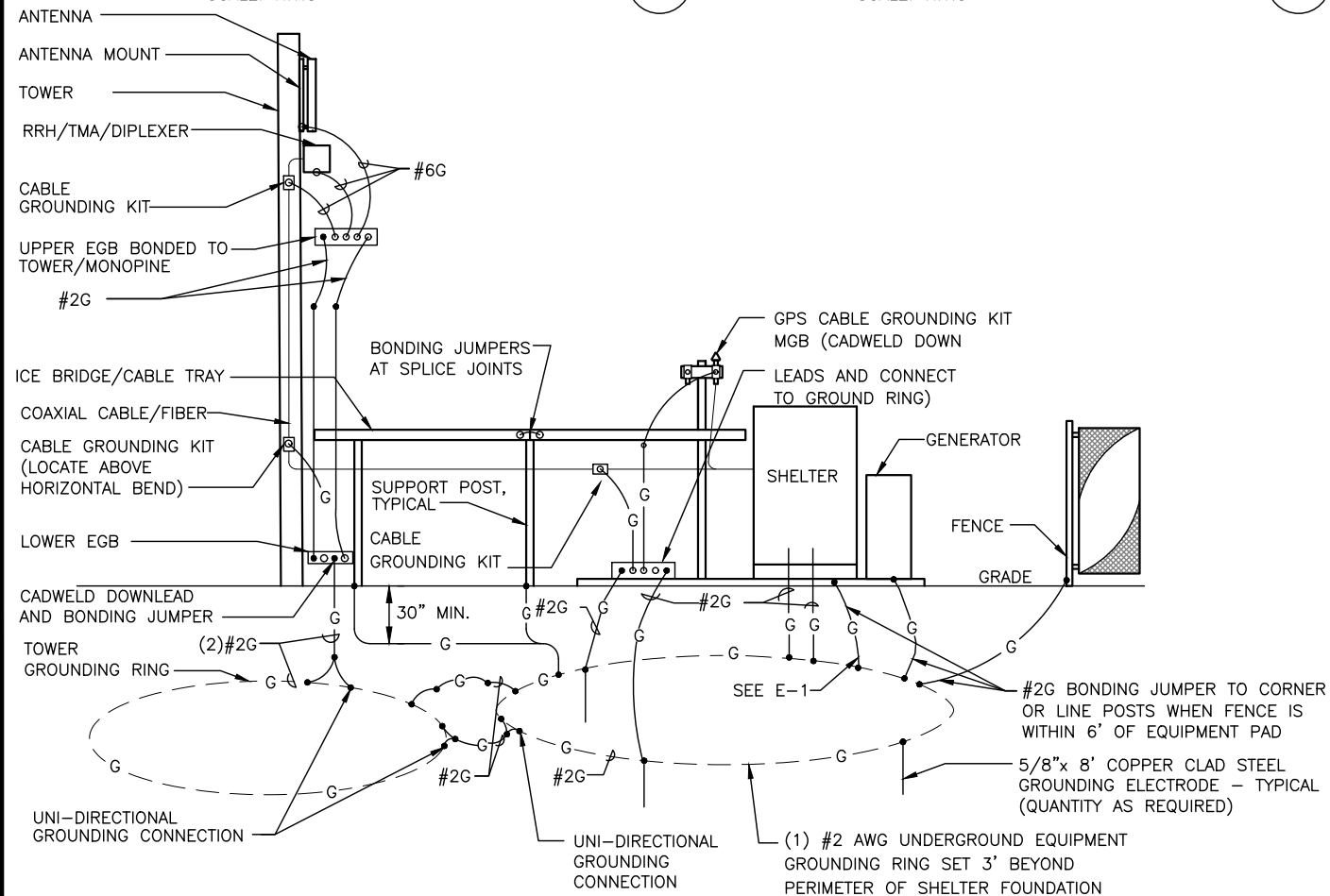
SCALE: N.T.S.

3  
G-1

**GROUND BAR - DETAIL**

SCALE: N.T.S.

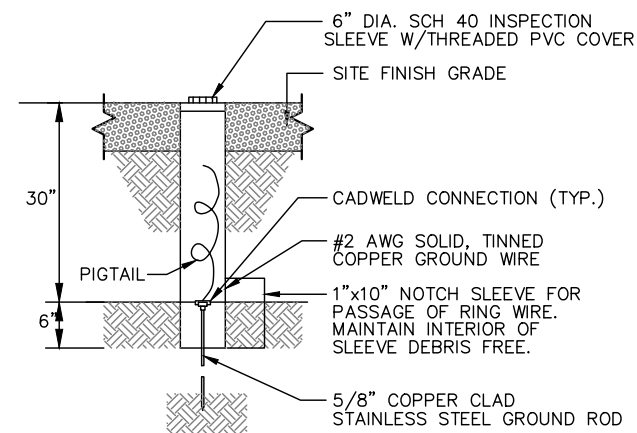
4  
G-1



**GROUNDING ONE-LINE DIAGRAM**

SCALE: N.T.S.

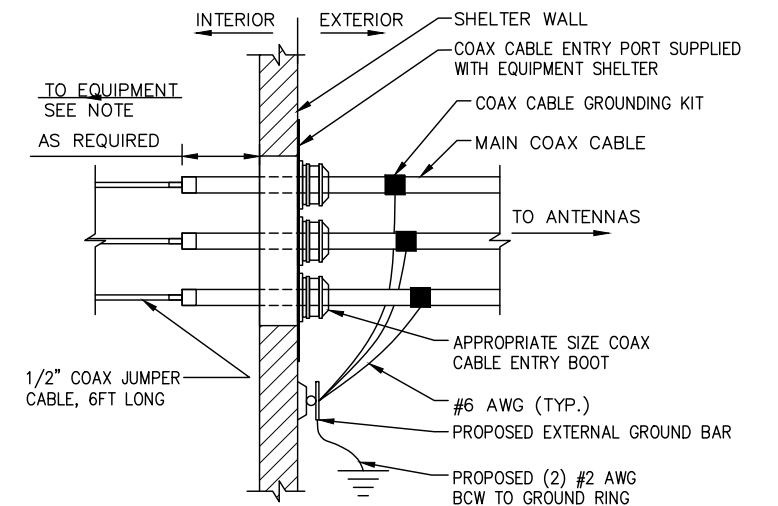
5  
G-1



**GROUND ROD TEST WELL DETAIL**

SCALE: N.T.S.

6  
G-1



**NOTE:**  
EXTEND MAIN COAXIAL CABLE AS CLOSE AS POSSIBLE TO BTS EQUIPMENT. MAX LENGTH OF BTS JUMPER IS 6 FT.

**INSTALLATION OF GROUND WIRE TO GROUND BAR**

SCALE: N.T.S.

7  
G-1



45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586



1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A**  
**SITE NAME: MIDDLETOWN\_MILE LANE**

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY



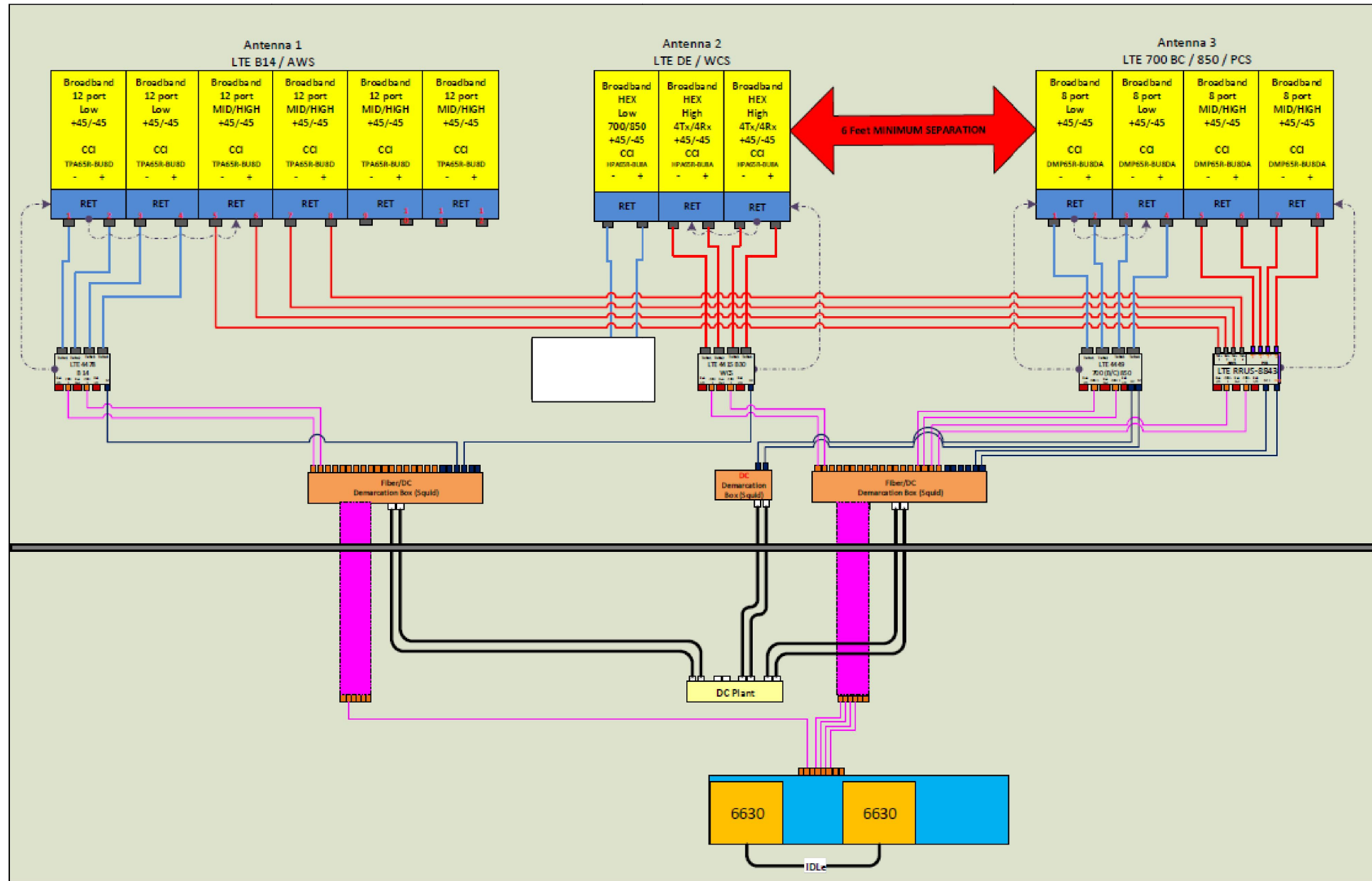
550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: CC/VP		

AT&T

GROUNDING DETAILS  
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	G-1	2



**RF PLUMBING DIAGRAM** 1  
SCALE: N.T.S. RF-1

**NOTE:**  
1. CONTRACTOR TO CONFIRM ALL PARTS.  
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

**NOTE:**  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

AT&T		
RF PLUMBING DIAGRAM (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	RF-1	2

# ATTACHMENT 4

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RF Report  
Proposed Wireless Facility



CT3470  
499 Mile Lane  
Middletown, CT 06457

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August 27, 2021

## TABLE OF CONTENTS

1. Overview .....	2
2. Introduction .....	2
3. AT&T Mobility Coverage and Capacity Objectives .....	3
4. Pertinent Site Data .....	5
5. Coverage Analysis and Propagation Plots .....	6
6. Summary .....	7
7. Statement of Certification .....	7
8. Attachments .....	8

## LIST OF TABLES

Table 1: Coverage Summary.....	5
Table 2: AT&T Mobility Site Information Used in Coverage Analysis.....	5

## ATTACHMENTS

Attachment 1: CT3470 – Existing 700 MHz LTE Coverage.....	9
Attachment 2: CT3470 – 700 MHz LTE Coverage with Proposed Site.....	10
Attachment 3: CT3470 – Area Terrain Map.....	11
Attachment 4: CT3470 – Neighbor Sites & Radial Distances.....	12

## 1. Overview

This RF Report has been prepared on behalf of AT&T Mobility in support of its application to the Connecticut Sitting Council for the installation and operation of a wireless facility located at 499 Mile Lane in Middletown, CT. The proposed facility consists of ground-based equipment cabinets, and antennas mounted to a proposed 150' monopole.

This report concludes that the proposed site will provide additional capacity and coverage improvement to Middletown in order to improve deficient service areas along Mile Lane, State Highway 3, Ridgewood Road, and the surrounding roads, businesses, and neighborhoods in the proximity of the proposed site.

Included in this report is: a brief summary of the site's objectives, maps showing AT&T's neighboring sites, and predicted Radio Frequency coverage maps of the subject site and the surrounding sites in AT&T's network.

## 2. Introduction

To maintain a reliable and robust communications system for the individuals, businesses, public safety workers and others who use its network, AT&T deploys a network of cell sites (also called wireless communications facilities) throughout the areas in which it is licensed to provide service. These cell sites consist of antennas mounted on structures, such as buildings and towers, supported by radio and power equipment. The receivers and transmitters at each of these sites process signals within a limited geographic area known as a "cell."

Mobile subscriber handsets and wireless devices operate by transmitting and receiving low power radio frequency signals to and from these cell sites. Handset signals that reach the cell site are transferred through land lines (or other means of backhaul transport) and routed to their destinations by sophisticated electronic equipment. In order for AT&T's network to function effectively, there must be adequate overlapping coverage between the "serving cell" and adjoining cells. This not only allows a user to access the network initially, but also allows for the transfer or "hand-off" of calls and data transmissions from one cell to another, and prevents unintended disconnections or "dropped calls."

AT&T's antennas also must be located high enough above ground level to allow transmission (a.k.a. propagation) of the radio frequency signals above trees, buildings, and other natural or man-made structures that may obstruct or diminish the signals. Areas without adequate radio frequency coverage have substandard service, characterized by dropped and blocked calls, slow data connections, or no wireless service at all, and are commonly referred to as coverage gaps.

The size of the area potentially served by each cell site depends on several factors including the number of antennas used, the height at which the antennas are deployed, the topography of the surrounding land, vegetative cover, and natural or man-made obstructions in the area. The actual service area at any given time also depends on the number of customers who are on the network in range of that cell site. As customers move throughout the service area, the transmission from the phone or other device is automatically transferred to the AT&T facility with the best reception, without interruption in service, provided that there is overlapping coverage between the cells.

Each cell site must be primarily designed to strike a balance between the overall geographic coverage area it will serve, and the site's capacity to support the usage within the coverage footprint. In rural areas, cell sites are generally



designed to have broader coverage footprints because the potential traffic is sparser and distributed over a larger area. In more densely populated suburban and urban environments, the capacity to handle calls and data transmissions is of increasing concern, and cell sites must limit their coverage footprint to an area where the offered network traffic can be supported by the radio equipment and resources. Due to the aggressive historical and projected growth of mobile usage, particularly for mobile data (42% in 2016-2017, 35% CAGR 2016-2021 in North America)<sup>1</sup>, instances arise where the usage demand can no longer be supported by the site(s) serving an area, and new facilities must be integrated to provide capacity relief to the overloaded sites.

We have concluded that by installing the proposed wireless communication facility on the proposed monopole tower at 499 Mile Lane at an antenna centerline height of 176' AGL (above ground level), AT&T will be able to provide additional capacity and coverage improvement to residents, businesses, and traffic corridors within Middletown that are currently located within deficient service areas of AT&T's network.

### 3. AT&T Mobility Coverage and Capacity Objectives

In order to expand and enhance their wireless services throughout New England, AT&T must fill in existing coverage gaps and address capacity, interference, and high-speed broadband issues. As part of this effort, AT&T has determined that significant gaps in service exist in and around sections of the Town of Middletown, CT, as described further below.

AT&T currently operates wireless facilities similar to the proposed facility within Middletown and the surrounding cities/towns. Due in large part to the distances between the existing sites, the intervening topography, and volume of user traffic in the area, these existing facilities do not provide sufficient coverage to portions of Middletown. Specifically, AT&T determined that much of Middletown is without reliable service in the following areas and town roads<sup>2</sup>, including but not limited to:

- Mile Lane;
- State Highway 3;
- Ridgewood Road;
- The surrounding roads, businesses, and neighborhoods in the proximity of the proposed site and the above-mentioned roads.

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<sup>1</sup> "Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2016-2021", February 7, 2017, Cisco Systems, Inc. <http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html>

<sup>2</sup> Traffic counts are sourced from the Massachusetts Department of Transportation, Transportation Data Management System.

Table 1 below lists the coverage statistics compiled for the AT&T's 700 MHz 4G LTE network with the deployment of the Proposed Site.

	<b>Incremental Coverage from Proposed Site (700 MHz)</b>	
<b>Population:</b> <sup>3</sup>	(≥ -83 dBm)	2691
	(≥ -93 dBm)	2000
<hr/>		
<b>Business Pops:</b> <sup>4</sup>	(≥ -83 dBm)	1018
	(≥ -93 dBm)	891
<hr/>		
<b>Area (mi<sup>2</sup>):</b>	(≥ -83 dBm)	2.12
	(≥ -93 dBm)	1.57
<hr/>		
<b>Roadway (mi):</b>	Main (-93 dBm):	1.29
	Secondary (-93 dBm):	7.17
	<b>Total (-93 dBm):</b>	<b>8.46</b>

Table 1: Coverage Statistics

<sup>3</sup> Population figures are based upon 2010 US Census Block Data

<sup>4</sup> Employee population counts are based upon the 2015 U.S. Census Bureau LEHD database.

## 4. Pertinent Site Data

Table 2 below details the site-specific information for the on-air AT&T macro-sites used to perform the coverage analysis and generate the coverage plots provided herein.

Site Name	Address	City/State	Location		Antenna Height (ft AGL)	Structure Type	Status
			Latitude	Longitude			
CT5121	51 Inwood Road	Rocky Hill/CT	41.6383	-72.6800	175	Monopole	On-Air
CT1141	9 Twin Oaks Drive	Cromwell/CT	41.6232	-72.6790	114	Lattice	On-Air
CT5375	1657 Berlin Turnpike	Berlin/CT	41.6063	-72.7496	170	Monopole	On-Air
CT5144	24 Christian Hill Road	Cromwell/CT	41.6056	-72.7019	98	Self-Support	On-Air
CT5271	101 Skyview Drive	Cromwell/CT	41.6070	-72.6771	39	Concealment Pole	On-Air
CT5381	607 Toll Gate Road	Berlin/CT	41.5888	-72.7611	28	Rooftop	On-Air
CT1044	90 Industrial Park Road	Middletown/CT	41.5856	-72.7140	174	Monopole	On-Air
<b>CT3470</b>	<b>499 Mile Lane</b>	<b>Middletown/CT</b>	<b>41.5800</b>	<b>-72.6858</b>	<b>150</b>	<b>Lattice</b>	<b>Proposed</b>
CT5272	201 Main Street	Cromwell/CT	41.5833	-72.6497	117	Monopole	On-Air
CT1066	97 High Street	Portland/CT	41.5807	-72.6239	77.5	Lattice	On-Air
CT5118	1100 Country Club Road	Middletown/CT	41.5711	-72.7283	26	Rooftop	On-Air
CT1142	290 PRESTON	Middletown/CT	41.5573	-72.7433	150	Monopole	On-Air
CT1017	231 Court Street	Middletown/CT	41.5595	-72.6511	171	Rooftop	On-Air
CT1143	228 Meriden Road	Middlefield/CT	41.5460	-72.7150	133	Monopole	On-Air
CT5437	1221-8 Washington Street	Middletown/CT	41.5494	-72.6913	64	Rooftop	On-Air
CT5280	677 Meriden Road	Middlefield/CT	41.5353	-72.7319	135	Monopole	On-Air

**Table 2: AT&T Mobility Site Information Used in Coverage Analysis<sup>5</sup>**

<sup>5</sup> Some sites listed in this table are outside the plot view but are included for completeness of information.

## 5. Coverage Analysis and Propagation Plots

The radio frequency coverage plots provided in this report were produced using deciBel Planner™, a Windows-based RF propagation computer modeling program and network planning tool. The software takes into account the geographical features of an area, land cover, antenna models, antenna heights, RF transmitting power and receiver thresholds to predict coverage and other related RF parameters used in site design and wireless network expansion.

The plots included as attachments show coverage based on the minimum required signal strength needed to support reliable 4G LTE service in this area. All other areas (depicted in white) fall within coverage areas characterized by poor voice and data quality, slow data speeds, latency<sup>6</sup>, and the substantial likelihood of unreliable service.

While AT&T holds licenses in the 700 MHz, 850 MHz (Cellular), 1900 MHz (PCS), 2100 MHz (AWS), and 2300 MHz (WCS) bands, this report focuses on the 700 MHz layers, which are representative of the 4G LTE service most readily available to AT&T subscribers in Middletown, and are the spectrum layers that are essential to AT&T's ability to address the coverage needs for their 4G LTE service offerings. It is relevant to note that the 700 MHz coverage layer, which serves as the “base” layer for the LTE service, has a substantially larger coverage footprint due to the propagation characteristics of the frequency band. The 1900 MHz, 2100 MHz, and 2300 MHz overlay layers will have incrementally smaller footprints and are used by AT&T to manage capacity.

The following paragraphs discuss each of the AT&T maps attached hereto.

**Attachment 1** titled “CT3470 - Existing 700 MHz LTE Coverage” shows the coverage provided to Middletown from the “On-Air” sites listed in Table 1. The green and yellow shaded areas represent the minimum desired level of coverage for much of this area on the 700 MHz network layers, respectively. As such, the deficient areas of 700 MHz coverage are defined by the unshaded or “white” areas. As shown in this plot, the surrounding AT&T macro-sites are unable to provide adequate coverage to Middletown.

**Attachment 2** titled “CT3470 - 700 MHz LTE Coverage with Proposed Site” shows the composite coverage with the proposed "CT3470" facility. As shown by the additional areas of coverage in comparison with the Attachment 1, the proposed facility will provide coverage improvement at the 700 MHz layer in the areas of Mile Lane, State Highway 3, and Ridgewood Road.

- 2000 additional residents<sup>7</sup> within the surrounding area at the 700 MHz frequency;
- The surrounding roads, neighborhoods, and business areas within the proximity of the proposed site and the above-mentioned roadways.

**Attachment 3** titled “CT3470 – Area Terrain Map” details the topographical features around the proposed “CT3470” site. These terrain features play a key role in dictating both the unique coverage areas served from a given location, and the coverage gaps within the network. This map is included to provide a visual representation of the terrain variations that must be considered when determining the appropriate location and design of a proposed wireless facility. The purple, blue, and green shades correspond to lower elevations, whereas the yellow, red and grey shades indicate higher elevations.

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<sup>6</sup> In data transfer it is the delay or lapse in the time between initiating a request from the wireless device and receiving the response.

<sup>7</sup> Population counts are based upon 2010 U.S. Census residential data. Please note that this does not include any visitors in the area.

**Attachment 4** titled “CT3470 - Neighbor Sites & Radial Distances” provides a “zoomed-out” view of the subject area showing the locations of AT&T’s existing sites within Middletown relative to the proposed facility, as well as other AT&T sites in neighboring cities and towns that may be contributing to the aggregate coverage in Middletown.

## 6. Summary

In undertaking its build-out of 4G LTE service in Middlesex County, AT&T has determined that an additional facility is needed to provide reliable service and additional capacity throughout Middletown, CT. AT&T determined that installing the proposed wireless communications facility at 499 Mile Lane in Middletown at an antenna centerline height of 150 feet (AGL) will provide additional capacity and coverage needed in the targeted coverage areas including key roadways such as Mile Lane, State Highway 3, Ridgewood Road and the surrounding roads, businesses and neighborhoods in the proximity of the proposed site. In addition to providing service to the targeted areas of Middletown, AT&T is providing enhanced services for Public Safety and meeting E911 compliance for the State of Connecticut. Without the installation of the proposed site, AT&T will be unable to improve and expand their existing 4G LTE wireless communication services in this area of Middletown; therefore, AT&T respectfully requests that the Connecticut Sitting Council act favorably upon the proposed facility.

## 7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate.



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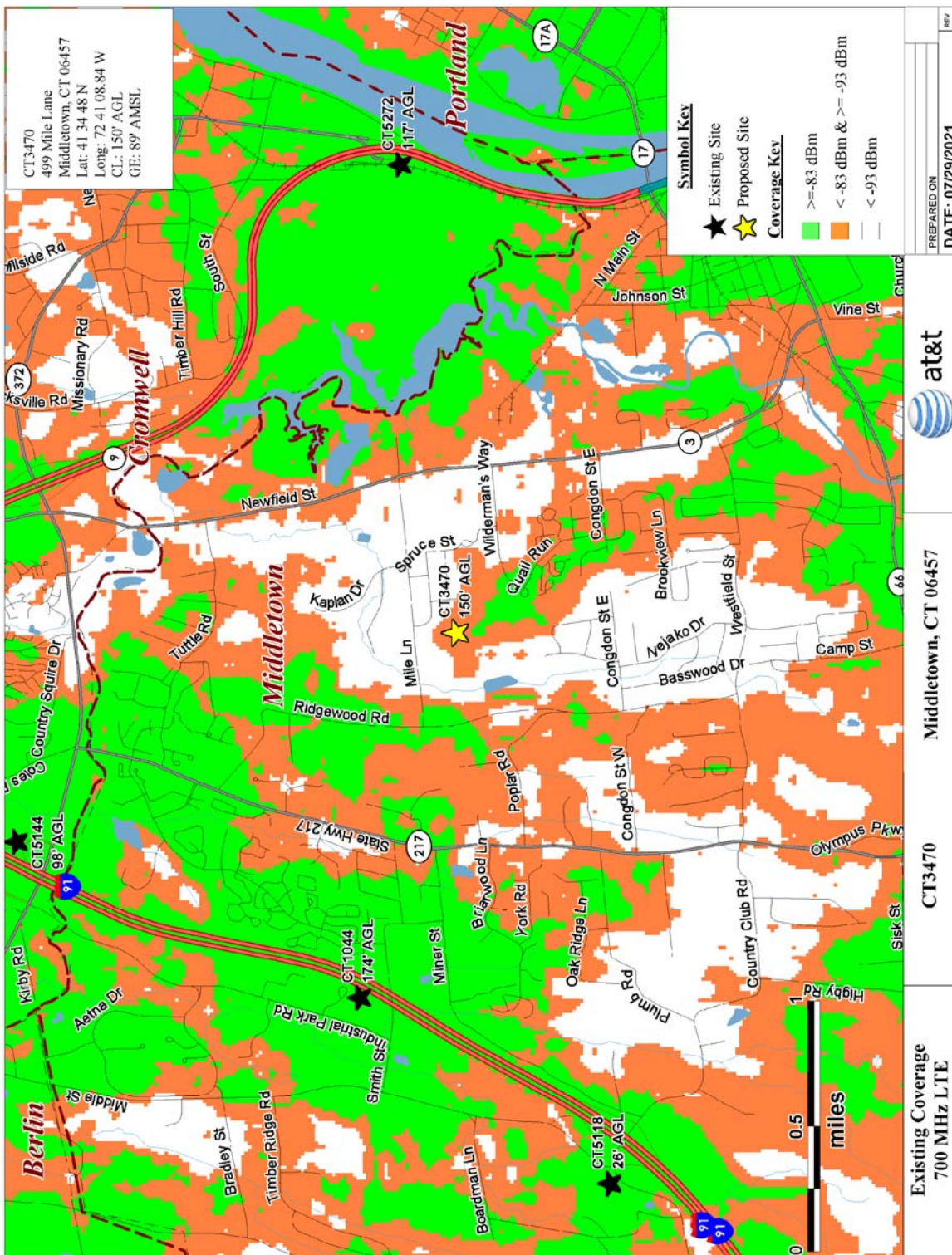
Martin J. Lavin  
Senior RF Engineer  
C Squared Systems, LLC

August 27, 2021

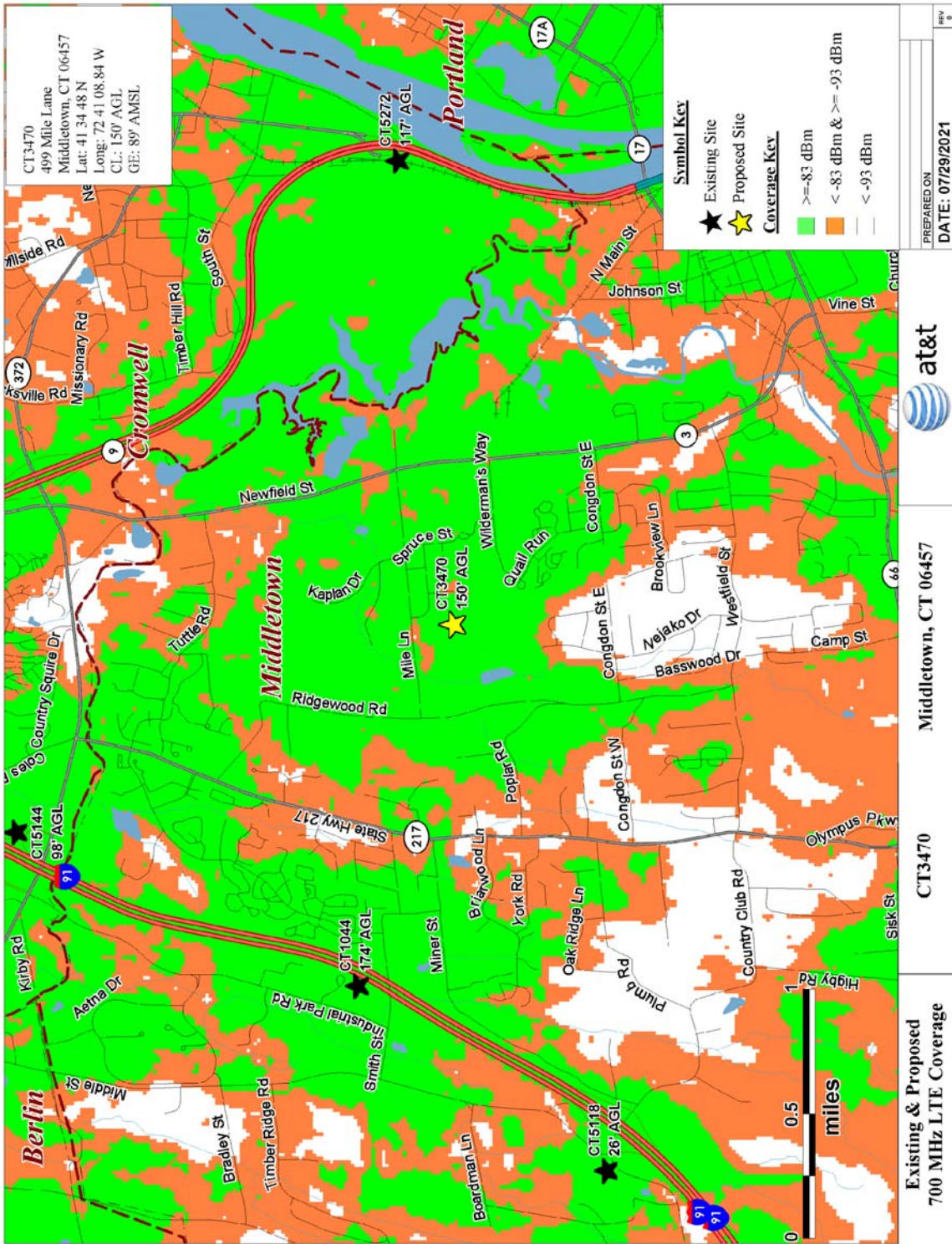
Date

## 8. Attachments

Attachment 1: CT3470 – Existing 700 MHz LTE Coverage

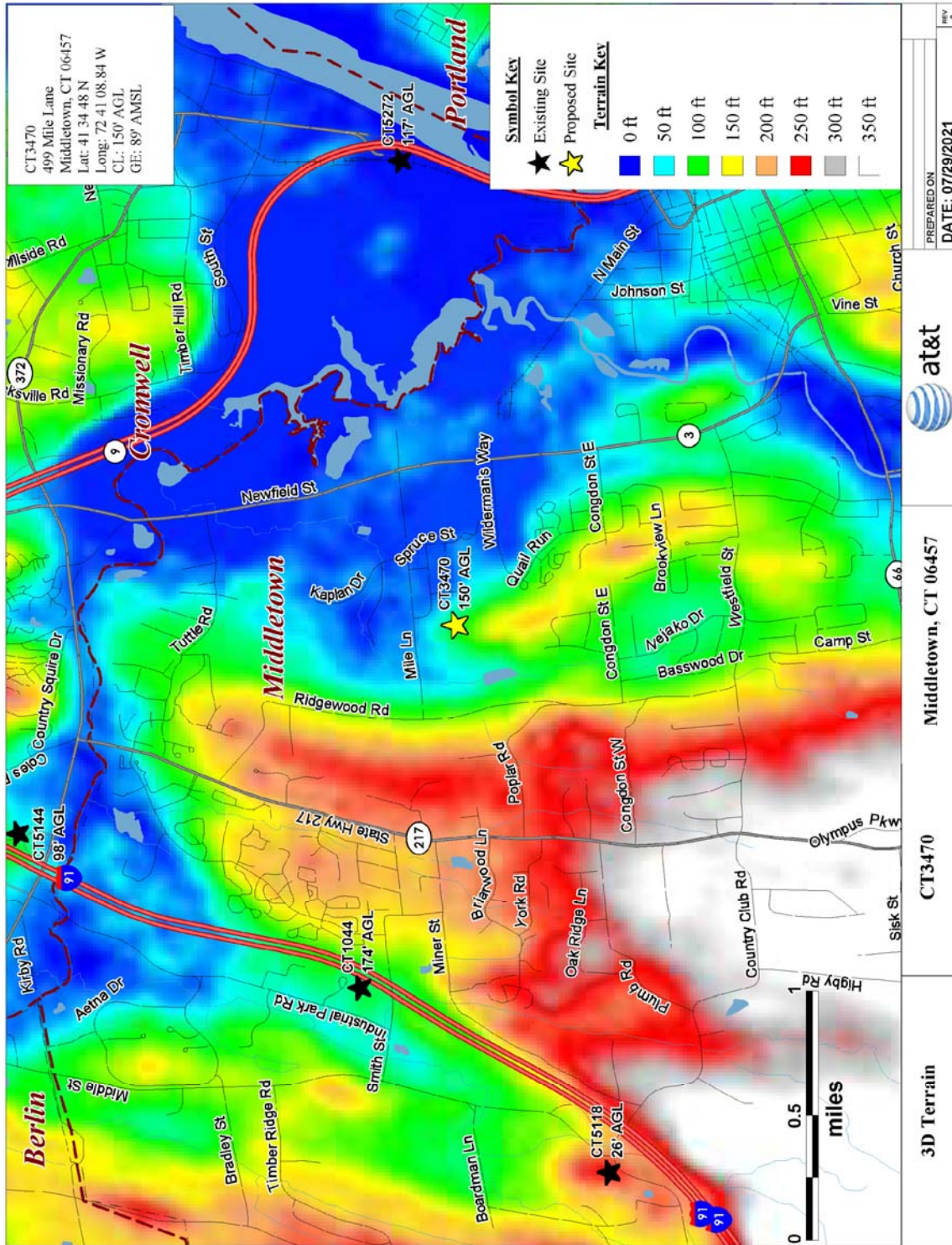


Attachment 2: CT3470 – 700 MHz LTE Coverage with Proposed Site

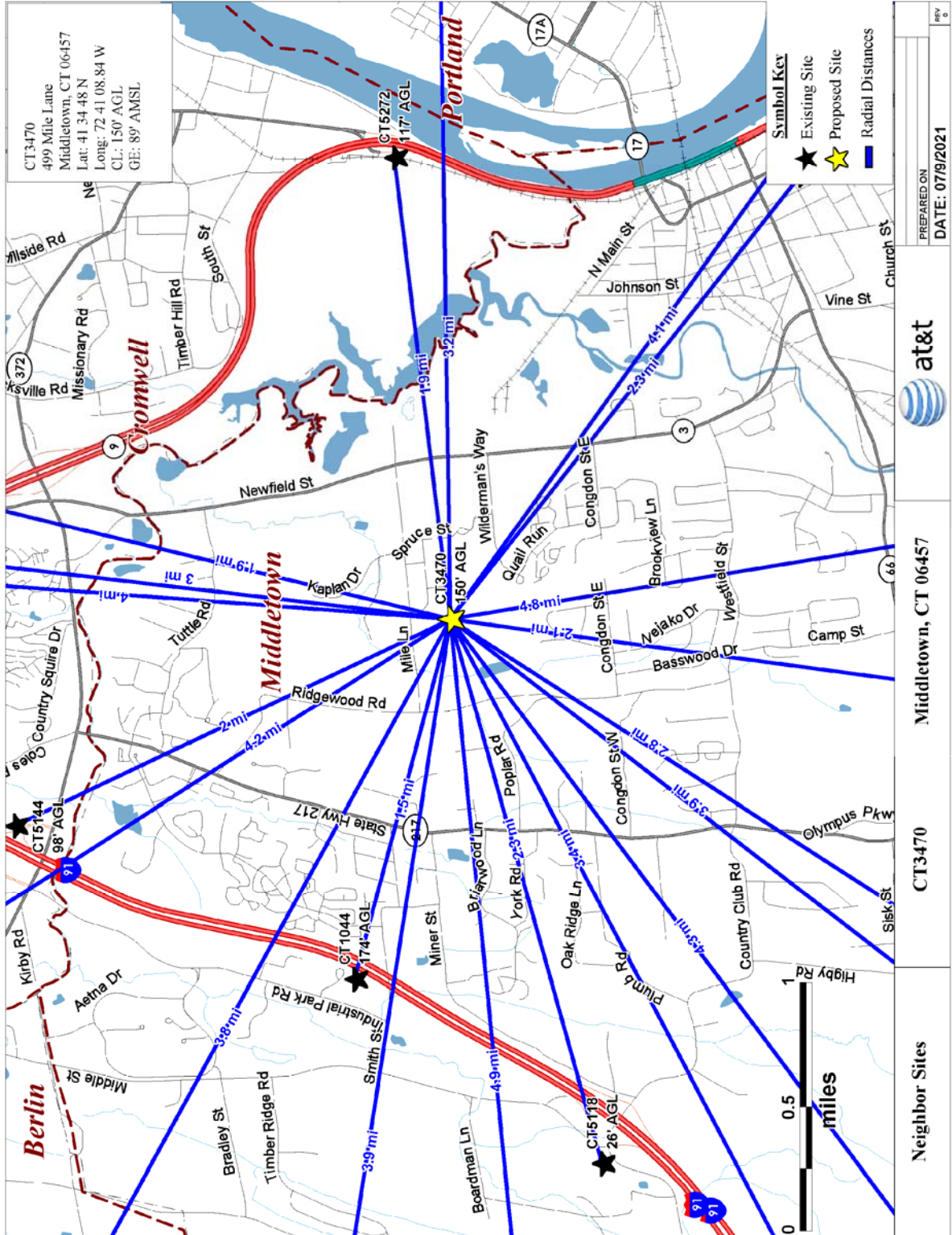




Attachment 3: CT3470 – Area Terrain Map



Attachment 4: CT3470 – Neighbor Sites & Radial Distances



# ATTACHMENT 5



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

March 31, 2021

**Wetlands**

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine




This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# ATTACHMENT 6

# Natural Diversity Data Base Areas

MIDDLETOWN, CT

December 2020

-  State and Federal Listed Species
-  Critical Habitat
-  Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDDB) from a variety of data sources. Exact locations of species have been buffered to produce the generalized locations.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a hatched area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

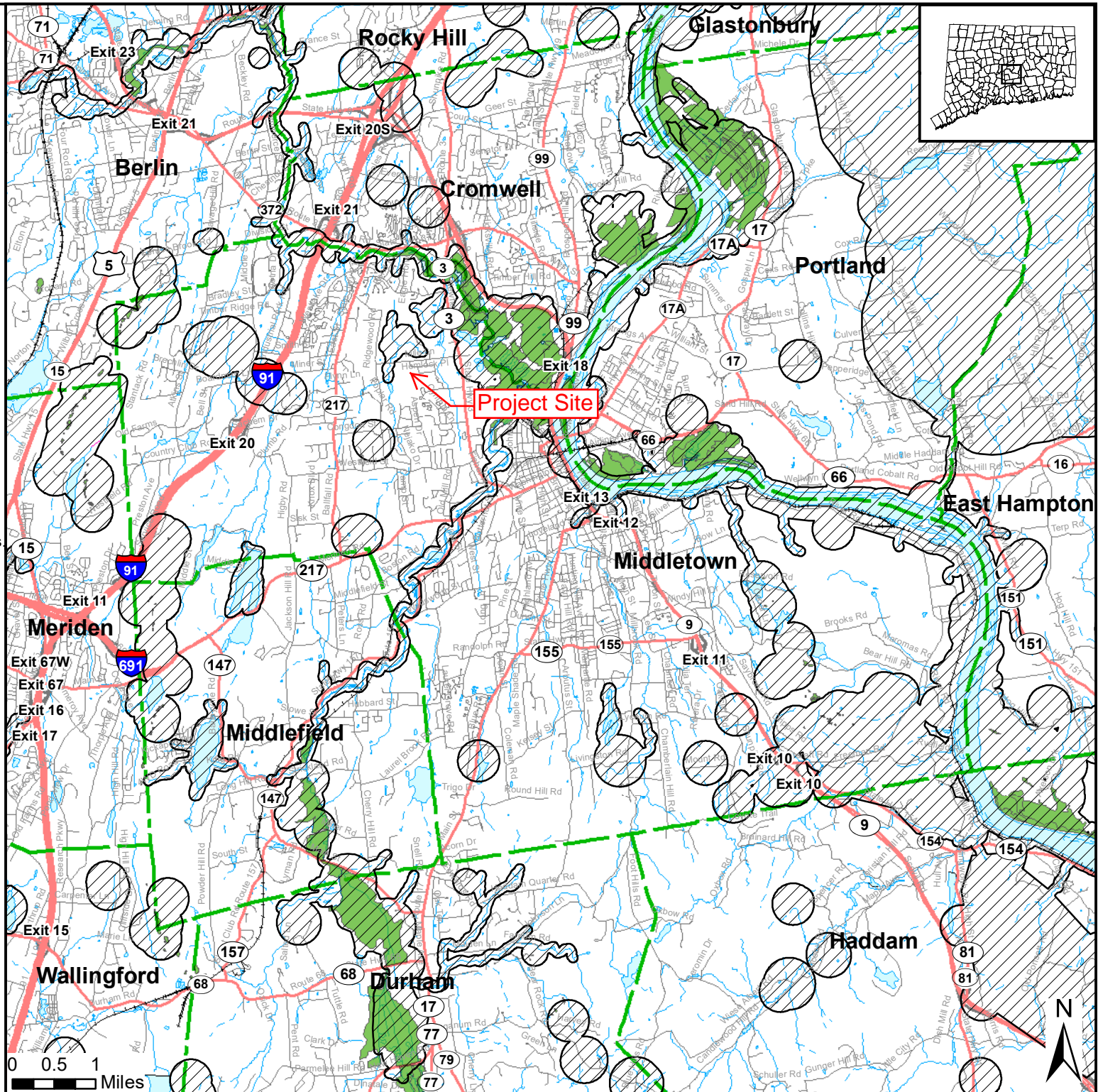
[www.ct.gov/deep/nddbrequest](http://www.ct.gov/deep/nddbrequest)

Use the CTECO Interactive Map Viewers at <http://cteco.uconn.edu> to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)  
79 Elm St, Hartford, CT 06106  
email: [deep.nddbrequest@ct.gov](mailto:deep.nddbrequest@ct.gov)  
Phone: (860) 424-3011



Connecticut Department of  
Energy & Environmental Protection  
Bureau of Natural Resources  
Wildlife Division



# ATTACHMENT 7



Department of Economic and  
Community Development

State Historic Preservation Office

June 24, 2021

Mr. Matthew Holtkamp  
EBI Consulting  
21 B Street  
Burlington, MA 01803

Subject: Proposed Telecommunications Facility  
499 Mile Lane  
Middletown, CT  
AT&T Mobility  
ENV-21-0685

Dear Mr. Holtkamp:

The State Historic Preservation Office is in receipt of the revised proposal for the above-referenced project, submitted for review and comment pursuant to the National Historic Preservation Act and in accordance with Federal Communications Commission regulations.

The proposed undertaking includes the installation of a 154-foot self-supporting telecommunications tower (monopine) within a 50-foot by 50-foot lease area. Supporting electrical equipment, as well as a propane tank will be located within a fenced compound of the lease area, to be accessed by an existing drive, originating from Mile Lane.

While the property was previously the location of a US Military Nike Missile Launch Site, it appears that all resources related to this use have been either demolished or destroyed. Two previously identified archaeological sites are located within 1 mile of the project area; however, they will not be impacted by the proposed undertaking. Soil profiles of the compound are categorized as udorthents, and appear to have been previously disturbed by construction of the adjacent facility.

The SHPO concurs with EBI's determination that the scope of work will not impact historic resources. Based on the information provided to this office, no historic properties will be affected.

State Historic Preservation Office

450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | P: 860.500.2300 | [ct.gov/historic-preservation](http://ct.gov/historic-preservation)

*An Affirmative Action/Equal Opportunity Employer An Equal Opportunity Lender*





Department of Economic and  
Community Development

State Historic Preservation Office

The State Historic Preservation Office appreciates the opportunity to review and comment upon this project. These comments are provided in accordance with the Connecticut Environmental Policy Act and Section 106 of the National Historic Preservation Act. For further information please contact Marena Wisniewski, Environmental Reviewer, at (860) 500-2357 or [marena.wisniewski@ct.gov](mailto:marena.wisniewski@ct.gov).

Sincerely,

A handwritten signature in black ink that reads "Jonathan Kinney". The signature is written in a cursive style.

Jonathan Kinney  
Deputy State Historic Preservation Officer

State Historic Preservation Office

450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | P: 860.500.2300 | [ct.gov/historic-preservation](http://ct.gov/historic-preservation)

*An Affirmative Action/Equal Opportunity Employer An Equal Opportunity Lender*

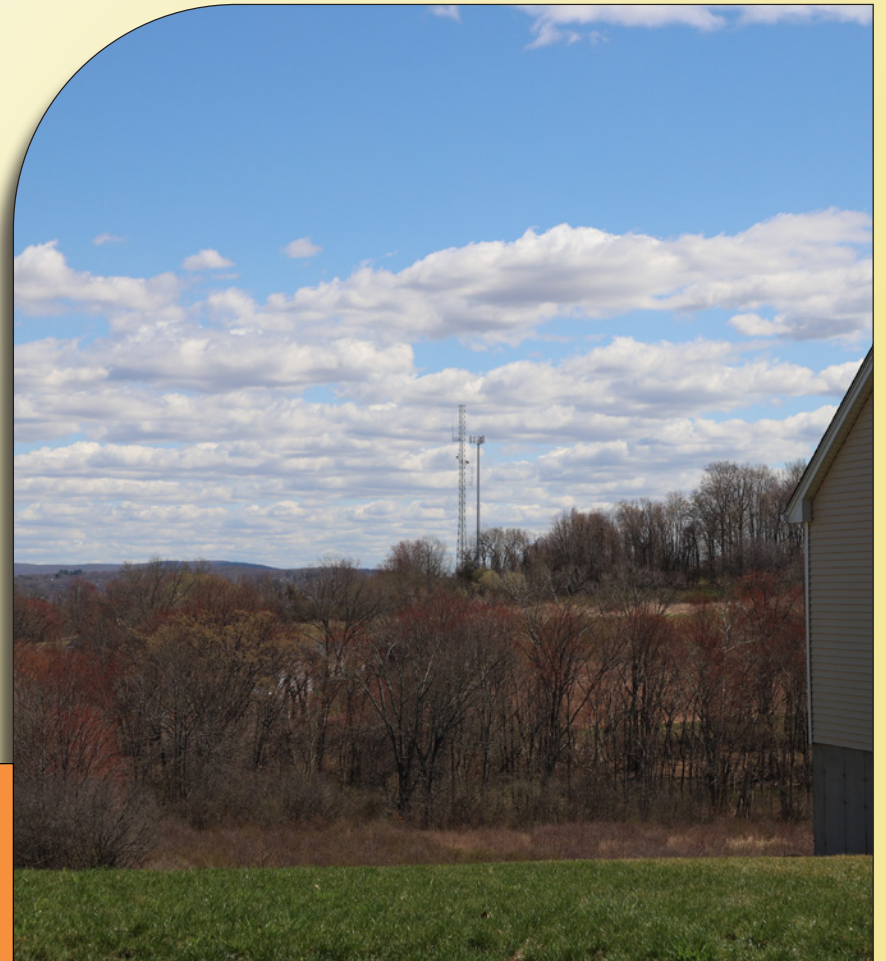
# ATTACHMENT 8

# Photographic Documentation & Simulations

MIDDLETOWN\_MILE LANE  
499 MILE LANE  
MIDDLETOWN, CT

*Prepared in May 2021 by:*  
All-Points Technology Corporation, P.C.  
567 Vauxhall Street Extension – Suite 311  
Waterford, CT 06385

*Prepared for Smartlink*

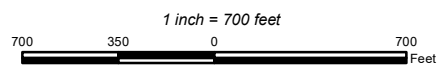




# PHOTO LOG

## Legend

- Site
- Photographic Location
- Municipal Boundary





**EXISTING**

PHOTO

1

LOCATION

**MILE LANE**

ORIENTATION

**SOUTH**

DISTANCE TO SITE

**+/- 0.16 MILE**



**PROPOSED**

PHOTO

1

LOCATION

**MILE LANE**

ORIENTATION

**SOUTH**

DISTANCE TO SITE

**+/- 0.16 MILE**



**PROPOSED**

***ALTERNATE OPTION - MONOPOLE***

PHOTO

1

LOCATION

**MILE LANE**

ORIENTATION

**SOUTH**

DISTANCE TO SITE

**+/- 0.16 MILE**



**EXISTING**

PHOTO

2

LOCATION

**TALIAS TRAIL**

ORIENTATION

**SOUTHEAST**

DISTANCE TO SITE

**+/- 0.12 MILE**





**PROPOSED**

PHOTO

2

LOCATION

**TALIAS TRAIL**

ORIENTATION

**SOUTHEAST**

DISTANCE TO SITE

**+/- 0.12 MILE**



**PROPOSED**

**ALTERNATE OPTION - MONOPOLE**

PHOTO

2

LOCATION

**TALIAS TRAIL**

ORIENTATION

**SOUTHEAST**

DISTANCE TO SITE

**+/- 0.12 MILE**



**EXISTING**

PHOTO

3

LOCATION

**RIDGEWOOD ROAD**

ORIENTATION

**EAST**

DISTANCE TO SITE

**+/- 0.35 MILE**



**PROPOSED**

PHOTO

3

LOCATION

**RIDGEWOOD ROAD**

ORIENTATION

**EAST**

DISTANCE TO SITE

**+/- 0.35 MILE**



**PROPOSED**

**ALTERNATE OPTION - MONOPOLE**

PHOTO

LOCATION

ORIENTATION

DISTANCE TO SITE

3

**RIDGEWOOD ROAD**

**EAST**

**+/- 0.35 MILE**





**EXISTING**

PHOTO

4

LOCATION  
**RIDGEWOOD ROAD**

ORIENTATION  
**NORTHEAST**

DISTANCE TO SITE  
**+/- 0.39 MILE**



**PROPOSED**

PHOTO

4

LOCATION

**RIDGEWOOD ROAD**

ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

**+/- 0.39 MILE**



**PROPOSED**

PHOTO

4

LOCATION

**RIDGEWOOD ROAD**

ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

**+/- 0.39 MILE**

**ALTERNATE OPTION - MONOPOLE**





**EXISTING**

PHOTO

5

LOCATION  
**CYNTHIA LANE**

ORIENTATION  
**NORTHWEST**

DISTANCE TO SITE  
**+/- 0.42 MILE**



**PROPOSED**

PHOTO

5

LOCATION  
**CYNTHIA LANE**

ORIENTATION  
**NORTHWEST**

DISTANCE TO SITE  
**+/- 0.42 MILE**



**PROPOSED**

**ALTERNATE OPTION - MONOPOLE**

PHOTO

LOCATION

ORIENTATION

DISTANCE TO SITE

5

**CYNTHIA LANE**

**NORTHWEST**

**+/- 0.42 MILE**





**EXISTING**

PHOTO

6

LOCATION

**MIDDLETOWN HIGH SCHOOL**

ORIENTATION

**NORTHWEST**

DISTANCE TO SITE

**+/- 0.45 MILE**



**PROPOSED**

PHOTO

6

LOCATION

**MIDDLETOWN HIGH SCHOOL**

ORIENTATION

**NORTHWEST**

DISTANCE TO SITE

**+/- 0.45 MILE**





**PROPOSED**

**ALTERNATE OPTION - MONOPOLE**

PHOTO

LOCATION

ORIENTATION

DISTANCE TO SITE

6

**MIDDLETOWN HIGH SCHOOL**

**NORTHWEST**

**+/- 0.45 MILE**





**EXISTING**

PHOTO

7

LOCATION

**NEWFIELD STREET**

ORIENTATION

**SOUTHWEST**

DISTANCE TO SITE

**+/- 0.64 MILE**





**PROPOSED**

PHOTO

7

LOCATION

**NEWFIELD STREET**

ORIENTATION

**SOUTHWEST**

DISTANCE TO SITE

**+/- 0.64 MILE**





**PROPOSED**

**ALTERNATE OPTION - MONOPOLE**

PHOTO

LOCATION

ORIENTATION

DISTANCE TO SITE

7

**NEWFIELD STREET**

**SOUTHWEST**

**+/- 0.64 MILE**





**EXISTING**

PHOTO

8

LOCATION

**NEWFIELD STREET**

ORIENTATION

**WEST**

DISTANCE TO SITE

**+/- 0.68 MILE**



**PROPOSED**

PHOTO

8

LOCATION

**NEWFIELD STREET**

ORIENTATION

**WEST**

DISTANCE TO SITE

**+/- 0.68 MILE**



**PROPOSED**

**ALTERNATE OPTION - MONOPOLE**

PHOTO

LOCATION

ORIENTATION

DISTANCE TO SITE

8

**NEWFIELD STREET**

**WEST**

**+/- 0.68 MILE**



**EXISTING**

PHOTO

9

LOCATION

**SPRUCE STREET AT HEMLOCK PLACE**

ORIENTATION

**WEST**

DISTANCE TO SITE

**+/- 0.37 MILE**



**PROPOSED**

PHOTO

9

LOCATION

**SPRUCE STREET AT HEMLOCK PLACE**

ORIENTATION

**WEST**

DISTANCE TO SITE

**+/- 0.37 MILE**



**PROPOSED**

**ALTERNATE OPTION - MONOPOLE**

PHOTO

LOCATION

ORIENTATION

DISTANCE TO SITE

9

**SPRUCE STREET AT HEMLOCK PLACE**

**WEST**

**+/- 0.37 MILE**

# ATTACHMENT 9





C Squared Systems, LLC  
65 Dartmouth Drive  
Auburn, NH 03032  
603-644-2800  
[support@csquaredsystems.com](mailto:support@csquaredsystems.com)

---

## Calculated Radio Frequency Exposure



CT3470

499 Mile Lane, Middletown, CT 06457

---

September 27, 2021

## Table of Contents

1. Introduction.....	1
2. FCC Guidelines for Evaluating RF Radiation Exposure Limits.....	1
3. RF Exposure Calculation Methods.....	2
4. Calculation Results.....	3
5. Conclusion.....	4
6. Statement of Certification.....	4
Attachment A: References.....	5
Attachment B: FCC Limits for Maximum Permissible Exposure (MPE).....	6
Attachment C: AT&T Antenna Data Sheets and Electrical Patterns.....	8

## List of Tables

Table 1: Carrier Information.....	3
Table 2: FCC Limits for Maximum Permissible Exposure (MPE).....	6

## List of Figures

Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE).....	7
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## 1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of the AT&T antenna arrays on a new monopole tower located at 499 Mile Lane in Middletown, CT adjacent to the Town's existing tower. The coordinates of the proposed tower are 41° 34' 48.00" N, 72° 41' 8.844" W.

AT&T is proposing the following:

- 1) Install nine (9) multi-band antennas (two per sector) to support its commercial LTE network and the FirstNet National Public Safety Broadband Network ("NPSBN").

This report considers the planned antenna configuration for AT&T<sup>1</sup> to derive the resulting % Maximum Permissible Exposure of its proposed installation.

## 2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm<sup>2</sup>). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

---

<sup>1</sup> As referenced to AT&T's Radio Frequency Design Sheet updated 12/14/2020.

### 3. RF Exposure Calculation Methods

The power density calculation results were generated using the following formula as outlined in FCC bulletin OET 65, and Connecticut Siting Council recommendations:

$$\text{Power Density} = \left( \frac{1.6^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

ERP = Effective Radiated Power

R = Radial Distance =  $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna

V = Vertical Distance from radiation center of antenna

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all antenna channels are transmitting simultaneously. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not consider actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

#### 4. Calculation Results

Table 1 below outlines the cumulative power density information for the AT&T installation on the proposed tower and Town of Middletown equipment on the existing tower at the site. The proposed antennas are directional in nature; therefore, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. The calculated results for AT&T in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas. A nominal 20 dB off-beam pattern loss is applied to the microwave antennas (the first 4 Middletown antennas) to account for the highly directional antennas used in these frequency ranges.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm <sup>2</sup> )	Limit	% MPE
AT&T	150	739	1	3156	0.0055	0.4927	1.11%
AT&T	150	763	1	3541	0.0061	0.5087	1.21%
AT&T	150	885	1	3883	0.0067	0.5900	1.14%
AT&T	150	1900	1	5877	0.0102	1.0000	1.02%
AT&T	150	2100	1	9890	0.0172	1.0000	1.72%
AT&T	150	2300	1	6153	0.0107	1.0000	1.07%
Town of Middletown							
WQZR499	120	11525	1	1995	0.0006	1.0000	0.06%
WQZR491	130	11035	1	2138	0.0005	1.0000	0.05%
WQZR491	130	11075	1	2138	0.0005	1.0000	0.05%
WQZR484	75	11565	1	2399	0.0018	1.0000	0.18%
VHF	110	159.135	1	40	0.0001	0.2000	0.07%
WQYT436	110	859.6875	1	150	0.0005	0.5731	0.09%
WQYT436	110	859.5125	1	150	0.0005	0.5730	0.09%
WQYT436	110	858.5125	1	150	0.0005	0.5723	0.09%
WQYT436	110	858.1625	1	150	0.0005	0.5721	0.09%
WQYT436	110	856.6625	1	150	0.0005	0.5711	0.09%
WQYT436	110	856.0625	1	150	0.0005	0.5707	0.09%
						<b>Total</b>	<b>8.19%</b>

Table 1: Carrier Information

## 5. Conclusion

The above analysis concludes that RF exposure at ground level from the proposed site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using conservative calculation methods, the highest expected percent of Maximum Permissible Exposure at ground level is **8.19% of the FCC General Population/Uncontrolled limit**.

As noted previously, the calculated % MPE levels are more conservative (higher) than the actual signal levels will be from the finished modifications.

## 6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in FCC OET Bulletin 65 Edition 97-01, ANSI/IEEE Std. C95.1 and ANSI/IEEE Std. C95.3.



September 27, 2021

Date

Reviewed/Approved By: Martin J. Lavin  
Senior RF Engineer  
C Squared Systems, LLC

## Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2005, IEEE Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz IEEE-SA Standards Board

**Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)**

**(A) Limits for Occupational/Controlled Exposure<sup>2</sup>**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

**(B) Limits for General Population/Uncontrolled Exposure<sup>3</sup>**

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

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

**Table 2: FCC Limits for Maximum Permissible Exposure (MPE)**

<sup>2</sup> Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

<sup>3</sup> General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure



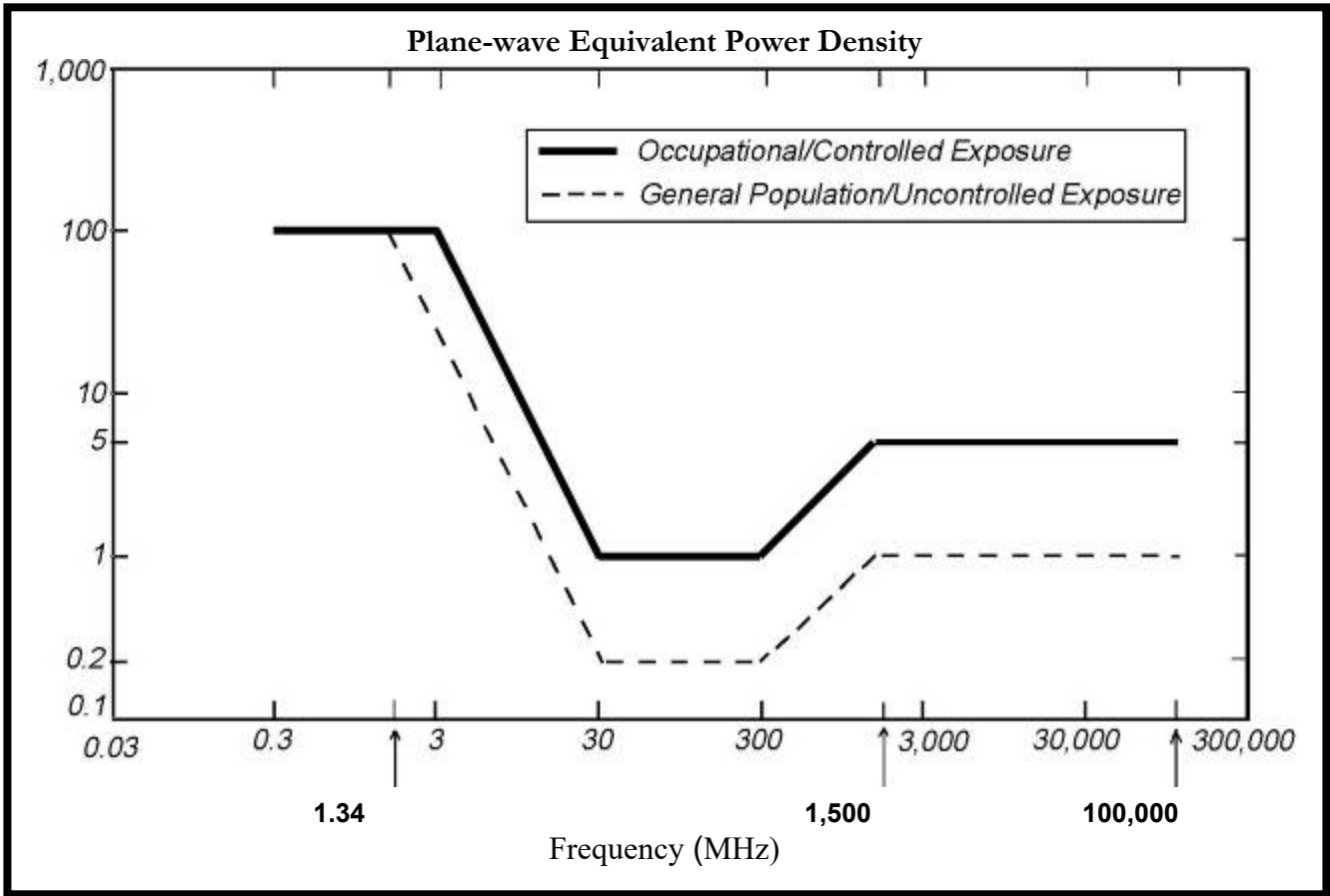
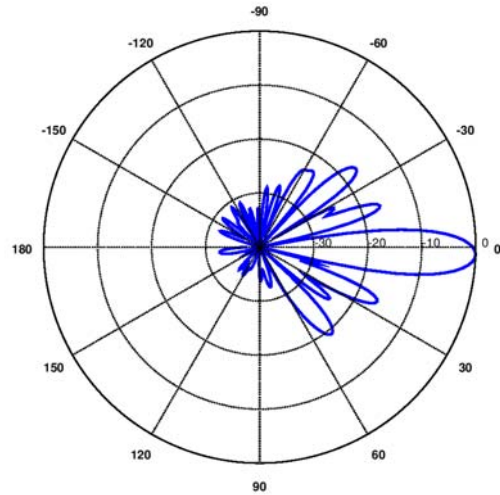


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

**Attachment C: AT&T Antenna Data Sheets and Electrical Patterns**

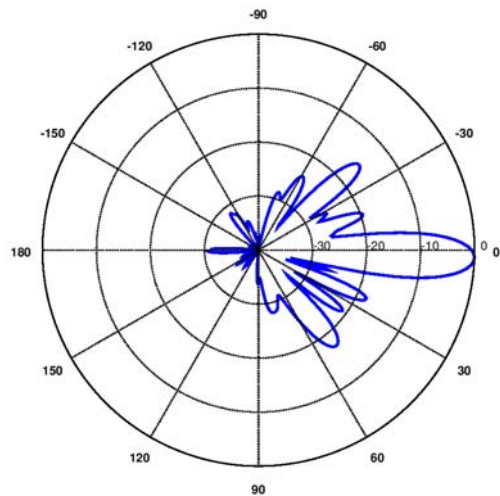
**739 MHz**

Manufacturer: CCI Products  
 Model #: DMP65R-BU8D  
 Frequency Band: 698-798 MHz  
 Gain: 15.1 dBi  
 Vertical Beamwidth: 9.5°  
 Horizontal Beamwidth: 75°  
 Polarization: Dual Linear 45°  
 Size L x W x D: 96.0" x 20.7" x 7.7"



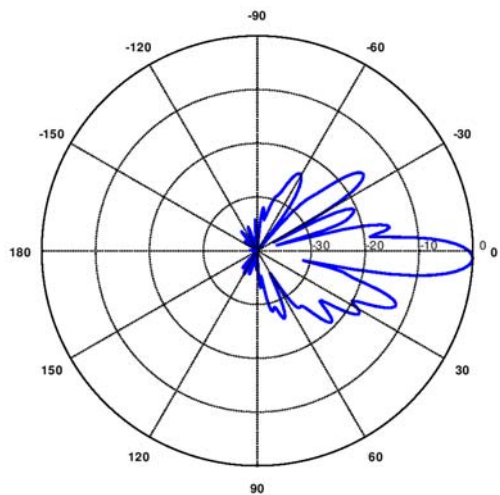
**763 MHz**

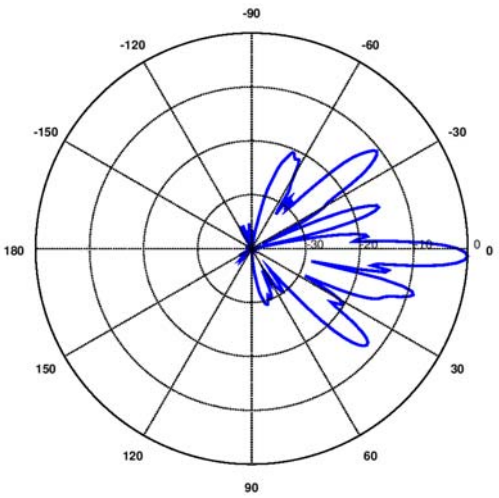
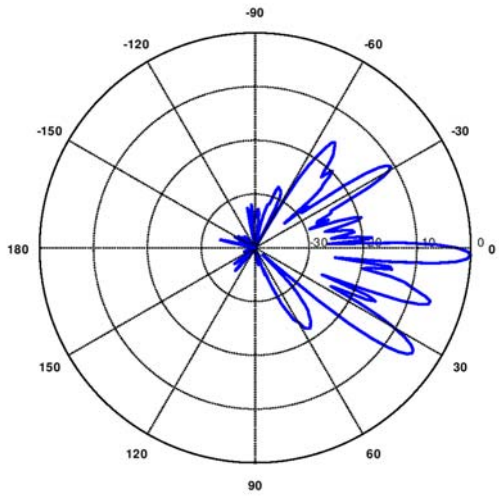
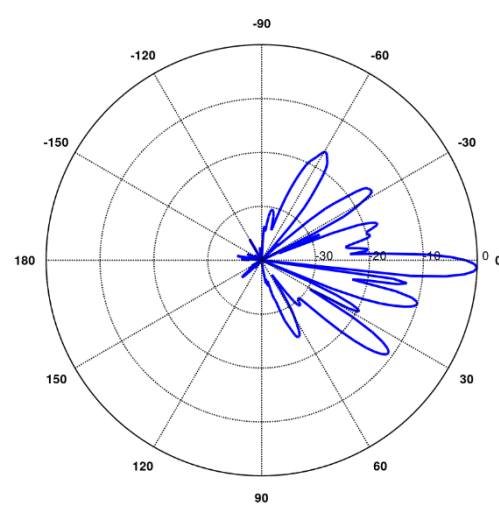
Manufacturer: CCI Products  
 Model #: TPA65R-BU8D  
 Frequency Band: 698 - 806MHz  
 Gain: 15.6 dBi  
 Vertical Beamwidth: 9.5°  
 Horizontal Beamwidth: 74°  
 Polarization: Dual Linear 45°  
 Size L x W x D: 96.0" x 20.7" x 7.7"



**885 MHz**

Manufacturer: CCI Products  
 Model #: DMP65R-BU8D  
 Frequency Band: 824 - 896 MHz  
 Gain: 16.0 dBi  
 Vertical Beamwidth: 8.0°  
 Horizontal Beamwidth: 64°  
 Polarization: Dual Linear 45°  
 Size L x W x D: 96.0" x 20.7" x 7.7"



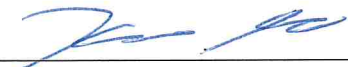
<p><b>1900 MHz</b></p> <p>Manufacturer: CCI Products            Model #: DMP65R-BU8D            Frequency Band: 1850-1990 MHz            Gain: 17.8 dBi            Vertical Beamwidth: 5.1°            Horizontal Beamwidth: 68°            Polarization: Dual Linear 45°            Size L x W x D: 96.0" x 20.7" x 7.7"</p>	 <p>A polar plot showing the radiation pattern for a 1900 MHz antenna. The plot is circular with concentric dashed lines representing gain levels and radial lines representing angles from 0 to 180 degrees. The main beam is directed towards 0 degrees, with a horizontal beamwidth of 68 degrees. The vertical beamwidth is 5.1 degrees. The gain is 17.8 dBi.</p>
<p><b>2100 MHz</b></p> <p>Manufacturer: CCI Products            Model #: TPA65R-BU8D            Frequency Band: 1920-2180 MHz            Gain: 18.3 dBi            Vertical Beamwidth: 4.7°            Horizontal Beamwidth: 67°            Polarization: Dual Linear 45°            Size L x W x D: 96.0" x 20.7" x 7.7"</p>	 <p>A polar plot showing the radiation pattern for a 2100 MHz antenna. The plot is circular with concentric dashed lines representing gain levels and radial lines representing angles from 0 to 180 degrees. The main beam is directed towards 0 degrees, with a horizontal beamwidth of 67 degrees. The vertical beamwidth is 4.7 degrees. The gain is 18.3 dBi.</p>
<p><b>2300 MHz</b></p> <p>Manufacturer: CCI Products            Model #: TPA65R-BU8D            Frequency Band: 2300 - 2400 MHz            Gain: 18.0 dBi            Vertical Beamwidth: 4.1°            Horizontal Beamwidth: 62°            Polarization: Dual Linear 45°            Size L x W x D: 96.0" x 20.7" x 7.7"</p>	 <p>A polar plot showing the radiation pattern for a 2300 MHz antenna. The plot is circular with concentric dashed lines representing gain levels and radial lines representing angles from 0 to 180 degrees. The main beam is directed towards 0 degrees, with a horizontal beamwidth of 62 degrees. The vertical beamwidth is 4.1 degrees. The gain is 18.0 dBi.</p>

# **ATTACHMENT 10**

**CERTIFICATION OF SERVICE**

I hereby certify that on the 28th day of September 2021, a copy of the following notice of intended filing of a Petition with the Connecticut Siting Council for a declaratory ruling was sent by first class certified mail to the list below.

Dated: 9/28/2021

  
 Cuddy & Feder LLP  
 45 Hamilton Avenue, 14<sup>th</sup> Floor  
 White Plains, New York 10601  
 Attorneys for:  
 New Cingular Wireless PCS, LLC ("AT&T")

**State**

THE HONORABLE WILLIAM TONG ATTORNEY GENERAL OFFICE OF THE ATTORNEY GENERAL 165 CAPITOL AVENUE HARTFORD, CT 06106	DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT OFFICES OF CULTURE AND TOURISM DAVID LEHMAN, COMMISSIONER 450 COLUMBUS BLVD HARTFORD, CT 06103
DEPARTMENT OF PUBLIC HEALTH Dr. DEIDRE S. GIFFORD, MD, MPH, ACTING COMMISSIONER 410 CAPITOL AVENUE HARTFORD, CT 06134	DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION PUBLIC UTILITIES REGULATORY AUTHORITY MARISSA P. GILLETT, CHAIRMAN TEN FRANKLIN SQUARE NEW BRITAIN, CT 06051
COUNCIL ON ENVIRONMENTAL QUALITY 79 ELM STREET 6 <sup>TH</sup> FLOOR HARTFORD, CT 06106	DEPARTMENT OF TRANSPORTATION JOSEPH GIULIETTI, COMMISSIONER 2800 BERLIN TURNPIKE P.O. BOX 317546 NEWINGTON, CT 06131
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION KATIE DYKES, COMMISSIONER 79 ELM STREET HARTFORD, CT 06106	DEPARTMENT OF AGRICULTURE BRYAN P. HURLBURT, COMMISSIONER 450 COLUMBUS BOULEVARD SUITE 701 HARTFORD, CT 06103
OFFICE OF POLICY AND MANAGEMENT MELISSA MCCAWE, SECRETARY 450 CAPITOL AVENUE HARTFORD, CT 06106	DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY JAMES C. ROVELLA, COMMISSIONER 1111 COUNTRY CLUB ROAD MIDDLETOWN, CT 06457

DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT COMMISSIONER DAVID LEHMAN 450 COLUMBUS BLVD. HARTFORD, CT 06103	SECRETARY OF STATE DENISE MERRILL 165 CAPITOL AVENUE HARTFORD, CT 06106
STATE HOUSE REPRESENTATIVE- DISTRICT 033 BRANDON CHAFEE LEGISLATIVE OFFICE BUILDING ROOM 4014 300 CAPITOL AVENUE HARTFORD, CT 06106	STATE SENATOR MATTHEW L. LESSER- DISTRICT 509 LEGISLATIVE OFFICE BUILDING ROOM 3300 300 CAPITOL AVENUE HARTFORD, CT 06106
LOWER CONNECTICUT RIVER VALLEY COUNCIL OF GOVERNMENTS 145 DENNISON ROAD ESSEX, CT 06426	STATE HISTORIC PRESERVATION OFFICE 450 COLUMBUS BLVD., SUITE 5 HARTFORD, CT 06103

**Federal**

FEDERAL COMMUNICATIONS COMMISSION 45 L STREET NE WASHINGTON, DC 20554	FEDERAL AVIATION ADMINISTRATION 800 INDEPENDENCE AVENUE, SW WASHINGTON, DC 20591
U.S. SENATOR CHRIS MURPHY COLT GATEWAY 120 HUYSHOPE AVENUE SUITE 401 HARTFORD, CT 06106	U.S. SENATOR RICHARD BLUMENTHAL 90 STATE HOUSE SQUARE, 10TH FLOOR HARTFORD, CT 06103
U.S. CONGRESSMAN -1 <sup>ST</sup> DISTRICT JOHN B. LARSON 221 MAIN STREET, 2 <sup>ND</sup> FLOOR HARTFORD, CT 06106	

**Town of Middletown**

BEN FLORSHEIM, MAYOR OFFICE OF THE MAYOR CITY OF MIDDLETOWN 245 DEKOVEN DRIVE ROOM 209 MIDDLETOWN, CT 06457	JOSEPH SAMOLIS, DIRECTOR OF PLANNING PLANNING, CONSERVATION AND DEVELOPMENT CITY OF MIDDLETOWN 245 DEKOVEN DRIVE SUITE 202 MIDDLETOWN, CT 06457
--	--

<p>INLAND WETLANDS &amp; WATERCOURSES AGENCY CITY OF MIDDLETOWN 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457</p>	<p>ASHLEY FYNN-NATALE CITY &amp; TOWN CLERK CITY OF MIDDLETOWN 245 DEKOVEN DRIVE 1<sup>st</sup> FLOOR MIDDLETOWN, CT 06457</p>
<p>CONSERVATION &amp; AGRICULTURE COMMISSION CITY OF MIDDLETOWN 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457</p>	<p>PLANNING &amp; ZONING COMMISSION CITY OF MIDDLETOWN 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457</p>

## NOTICE

Notice is hereby given, pursuant to Section 16-50j-40(a) of the Regulations of Connecticut State Agencies of a Petition being filed with the Connecticut Siting Council (“Siting Council”) on or after September 30, 2021, by New Cingular Wireless PCS, LLC (“AT&T”). AT&T seeks a declaratory ruling that sharing of an existing City of Middletown tower site and modifications to install a second shorter tower in an expanded compound adjacent thereto presents no substantial adverse effects such that a Certificate of Environmental Compatibility and Public Need (“Certificate”) is not required under Section 16-50k(a) of the Connecticut General Statutes (“C.G.S.”).

The proposed AT&T Facility will be located on an approximately 23.72-acre parcel located at 499 Mile Lane in Middletown, Connecticut, that was previously part of the U.S. Army Reserve Center and is now serving in part as a fire training site. The city of Middletown’s existing communications facility consists of an approximately 180’ lattice tower and a fenced equipment compound. AT&T proposes to share the site and modify the existing facility by installing a 150’ monopole tower immediately adjacent to the existing tower, with nine (9) antennas at a centerline height of approximately 150’ above ground level (“AGL”). The monopole and expanded equipment compound are being designed to accommodate future collocations by additional wireless carriers. Associated unmanned equipment will be located within a 50-foot by 50-foot expanded area of the existing fenced equipment compound. Vehicle access to AT&T’s Facility would remain the same along the existing paved access drive that extends south of Mile Lane.

The Facility is proposed to allow wireless services to AT&T customers and first responders in the northern area of Middletown, particularly along Mile Lane, State Highway 3, Ridgewood Road and the surrounding roads, businesses, schools and neighborhoods.

The Petition will provide additional details of the proposal and explain why AT&T submits that the proposed shared use, modification and installation of a second tower presents no significant adverse environmental effects. The location, height, and other features of the proposal are subject to review and potential change under the provisions of Connecticut General Statutes Sections 16-50g et. seq.

Copies of the Petition will be available for review during normal business hours on or after September 30, 2021 at the following:

Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

City & Town Clerk of Middletown  
Ashley Flynn-Natale  
City Hall 1<sup>st</sup> Floor  
245 DeKoven Drive  
Middletown, CT 06457

or the offices of the undersigned. A copy of the Petition will also be available on the Connecticut Siting Council website: <https://www.ct.gov/cSc/site/default.asp> under Pending Matters. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Christopher B. Fisher, Esq.  
Cuddy & Feder LLP  
445 Hamilton Ave, 14th Floor  
White Plains, New York 10601  
(914) 761-1300  
Attorney for the Petitioner



**PROJECT INFORMATION**

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY (NSB A PROPOSED 150'-0" A.G.L. TALL MONOPOLE, PROPOSED WALK-IN CABINET, AND GENERATOR WILL BE INSTALLED AT GRADE INSIDE A EXISTING FENCED-IN COMPOUND. PROPOSED (3) TPA65R-BU8DA-K ANTENNAS, (3) HPA65R-BU8A ANTENNAS, (3) DMP65R-BU8DA-K ANTENNAS, (3) 4478-B14 RRH'S, (3) FUTURE E2 RRH'S, (3) 4415 B30 RRH'S, (3) 4449 B5/B12 RRH'S, (3) 8843 B2/B66A RRH'S, (2) DC6-48-60-18-8C-EV SURGE ARRESTORS, & (1) DC6-48-60-0-8C-EV WILL BE INSTALLED AT A HEIGHT OF 150'-0" A.G.L.):

SITE ADDRESS: 499 MILE LANE  
MIDDLETOWN, CT 06457

APPLICANT: AT&T  
550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

SITE OWNER: CITY OF MIDDLETOWN  
245 DEKOVEN DRIVE  
MIDDLETOWN, CT 06457

LATITUDE: 41.58000 N, 41° 34' 48.0" N

LONGITUDE: 72.68579 W, 72° 41' 8.9" W

TYPE OF SITE: MONOPOLE/ WALK-IN CABINET

TOWER HEIGHT: 150'-0"±

RAD CENTER: 150'-0"±

APPLICABLE CODES: ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE CT STATE BUILDING CODE, NATIONAL ELECTRIC CODE (NEC 2017), ANSI/EIA/TIA-222 H & COMPLY WITH AT&T MOBILITY SPECIFICATIONS



**SITE NUMBER: CT3470A**

**SITE NAME: MIDDLETOWN\_MILE LANE**

**FA CODE:10578361**

**PACE ID: MRCTB033524, MRCTB036341, MRCTB036593, MRCTB036513, MRCTB036367, MRCTB047889**

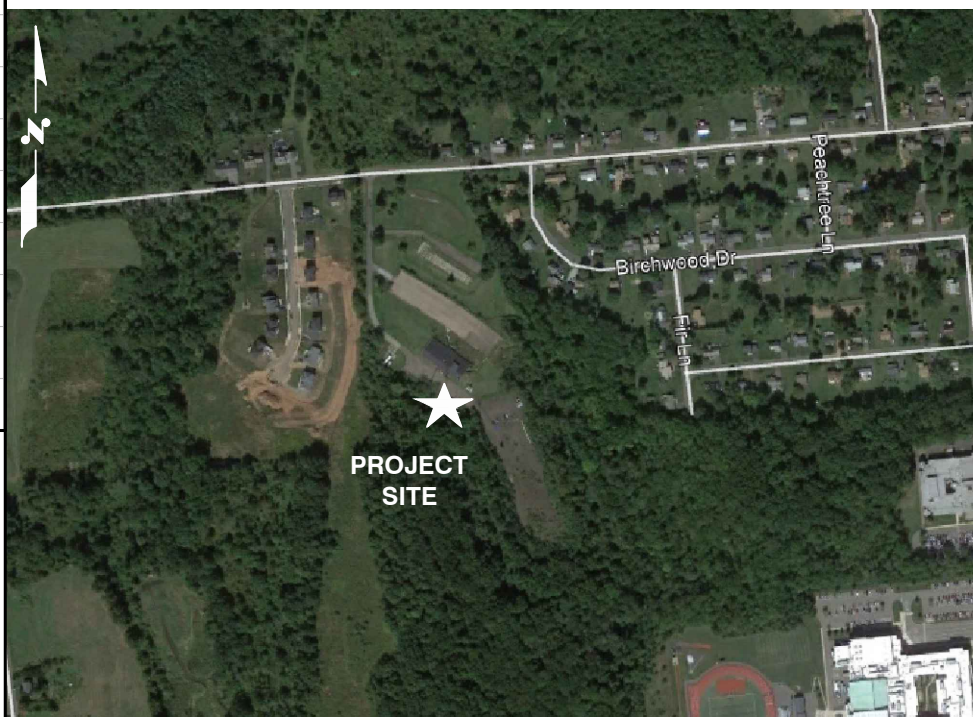
**PROJECT: NSB**

**DRAWING INDEX**

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	2
GN-1	GENERAL NOTES	2
SN-1	STRUCTURAL NOTES	2
C-1	PLOT PLAN	2
A-1	COMPOUND & EQUIPMENT PLAN	2
A-2	ELEVATION & ANTENNA PLAN	2
A-3	DETAILS & ANTENNA SCHEDULE	2
A-4	EQUIPMENT DETAILS	2
A-5	EQUIPMENT DETAILS	2
E-1	ELECTRICAL NOTES & ONE-LINE DIAGRAM	2
G-1	GROUNDING DETAILS	2
RF-1	RF PLUMBING DIAGRAM	2

**VICINITY MAP**

**DIRECTIONS TO SITE:**  
DEPART NORTHEAST, TURN RIGHT AND THEN IMMEDIATELY TURN LEFT ONTO LEGGATT MCCALL CONNECTOR ROAD, BEAR LEFT ONTO BURR ST, TURN LEFT ONTO MA-30 / COCHITUATE RD, TAKE RAMP RIGHT FOR I-90 EAST / I-90 WEST TOWARD BOSTON / SPRINGFIELD, AT EXIT 9 TAKE RAMP RIGHT FOR I-84 TOWARD HARTFORD / NEW YORK CITY, KEEP LEFT ONTO CT-15 S / WILBUR CROSS HWY S, KEEP STRAIGHT ONTO US-5 S / CT-15 S / WILBUR CROSS HIGHWAY S, AT EXIT 86 TAKE RAMP RIGHT FOR I-91 SOUTHBOUND, AT EXIT 21 TAKE RAMP RIGHT FOR CT-372 TOWARD CROMWELL / MIDDLETOWN, TURN LEFT ONTO CT-372 / BERLIN ROAD TOWARD CROMWELL / MIDDLETOWN, TURN RIGHT ONTO CT-217 / EAST STREET, TURN LEFT ONTO RIDGEWOOD RD, ARRIVE AT RIDGEWOOD ROAD



**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 PURPOSES 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 MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

**72 HOURS**



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FAX: (978) 336-5586

1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A**  
**SITE NAME: MIDDLETOWN\_MILE LANE**

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY

550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
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0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

AT&T		
TITLE SHEET (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	T-1	2

**GROUNDING NOTES**

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

**GENERAL NOTES**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
 CONTRACTOR – SMARTLINK  
 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. TOUCH UP 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 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 WITH 2018 CT STATE BUILDING CODE AMENDMENTS  
 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL 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-H, STRUCTURAL STANDARDS FOR STEEL**

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	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



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 NORTH ANDOVER, MA 01845  
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 FAX: (978) 336-5586



1997 ANNAPOLIS EXCHANGE PKWY  
 SUITE 200  
 ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A  
 SITE NAME: MIDDLETOWN\_MILE LANE**

**499 MILE LANE  
 MIDDLETOWN, CT 06457  
 MIDDLESEX COUNTY**



550 COCHITUATE ROAD  
 FRAMINGHAM, MA 01701

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SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: CC/VP		

**AT&T**

**GENERAL NOTES  
 (NSB)**

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	GN-1	2

**STRUCTURAL NOTES:**

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- 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.
- 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".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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 D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL", 14TH EDITION.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

**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.

**NOTES:**

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- 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.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

**NOTES:**

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- 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.
- AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

**SPECIAL INSPECTION CHECKLIST**

**BEFORE CONSTRUCTION**

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	ENGINEER OF RECORD APPROVED SHOP DRAWINGS <sup>1</sup>
REQUIRED	MATERIAL SPECIFICATIONS REPORT <sup>2</sup>
N/A	FABRICATOR NDE INSPECTION
REQUIRED	PACKING SLIPS <sup>3</sup>

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 <sup>4</sup>
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION <sup>5</sup>
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 <sup>6</sup>
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS

ADDITIONAL TESTING AND INSPECTIONS:



45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586



1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

SITE NUMBER: CT3470A  
SITE NAME: MIDDLETOWN\_MILE LANE

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY



550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

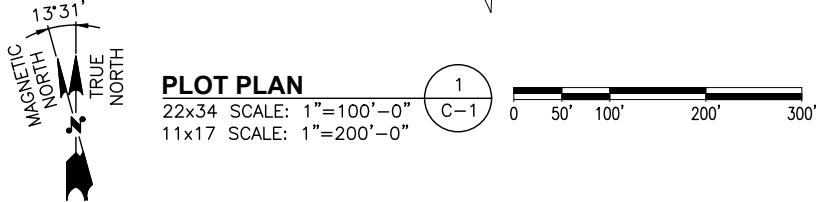
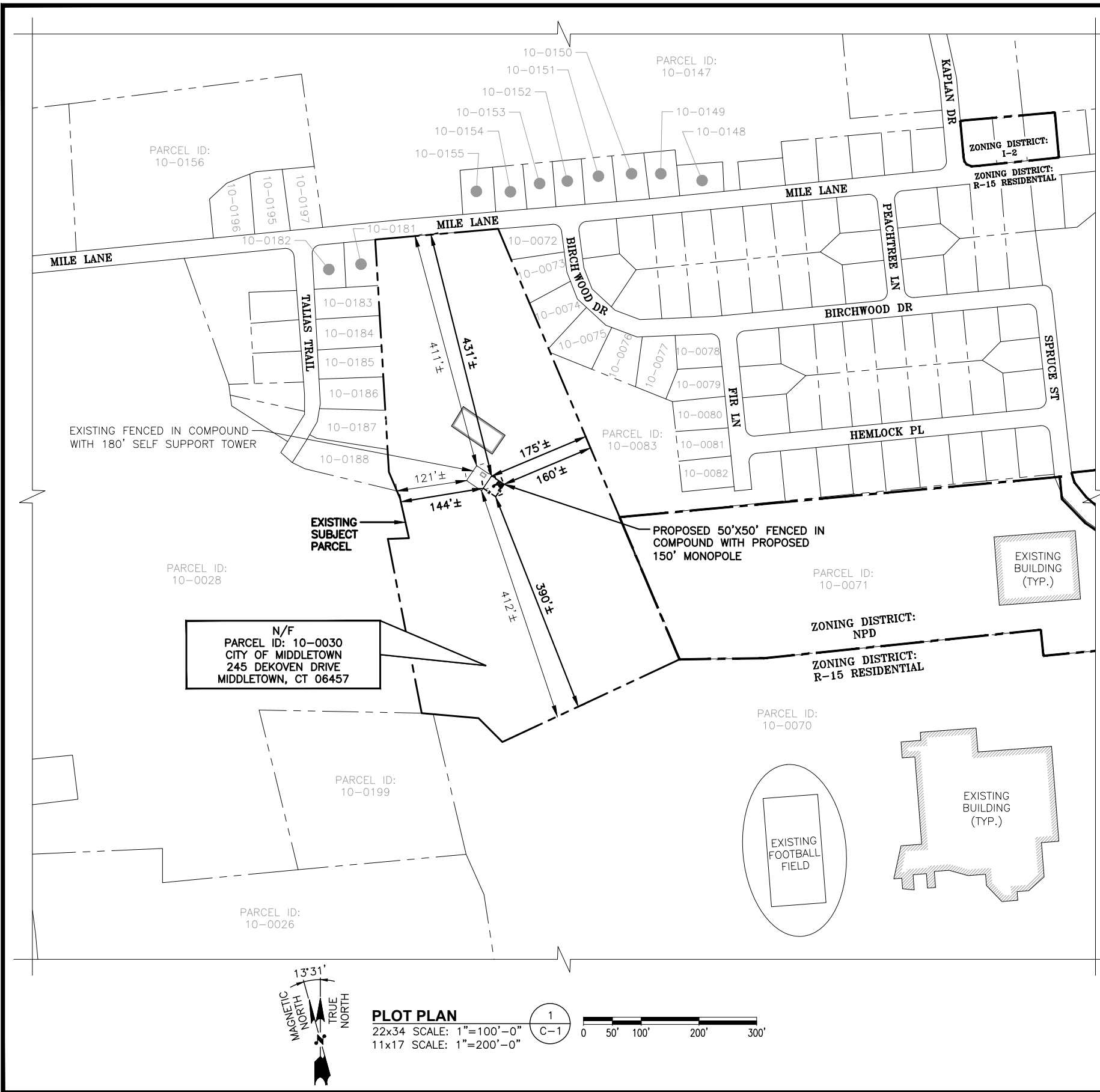
NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

AT&T

STRUCTURAL NOTES  
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	SN-1	2



### IMMEDIATE ADJOINING PROPERTY OWNER INFORMATION

PARCEL	OWNER	ADDRESS
10-0072	MAURA THEODORE JR	5 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0073	MORGAN RYAN & WILES EMILY M	15 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0074	LAMB DORIS L	25 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0075	ZADROGA ANTHONY F TRUSTEE	35 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0083	BENNETT RHODA (1/4 INT) ETALS	65 HOLLYBERRY LN BRISTOL, CT 06010
10-0070	CITY OF MIDDLETOWN	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0071	CITY OF MIDDLETOWN C/O KEIGWIN SCHOOL	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0199	CITY OF MIDDLETOWN	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0028	OLD COLONY OF WALLINGFORD LLC	273 NORTH COLONY ST UNIT 2 WALLINGFORD, CT 06492
10-0188	SZCZERBICKI ADAM & RAZEL MELISSA	70 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0187	LAVIGNE CHRISTOPHER J & ALONSO LISA C	60 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0186	PUGLIARES ROBERTO & KENEFICK-PUGLIARES KELLY	50 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0185	CONNER MICHAEL T & VIVIANA	40 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0184	LOMBARDO GIUSEPPE & DIANA	30 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0183	LAMANIVONG MICHAEL & YI LIANA JIEUN	20 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0181	GAINES PALMER L	509 MILE LA MIDDLETOWN, CT 06457

**NOTE:**  
PLOT PLAN PREPARED BY HUDSON DESIGN GROUP, LLC. FROM GIS, ASSESSORS DATA AND OTHER SOURCES, ACCESSED 04/08/21, AND DOES NOT REPRESENT AN ACTUAL FIELD OR BOUNDARY SURVEY.

ZONING INFORMATION		
ZONING DISTRICT:	R-15 (RESIDENTIAL)	
DIMENSIONS REQUIREMENTS:	EXISTING	PROPOSED
<b>ANTENNA SETBACKS</b>		
FRONT YARD SETBACK:	411'	431'±
SIDE YARD SETBACK:	121'	144'±
REAR YARD SETBACK:	412'	390'±
(ALL MEASUREMENTS ARE IN FEET ± UNLESS OTHERWISE NOTED)		
(SETBACK TO EXISTING EQUIPMENT SHELTER UNLESS OTHERWISE NOTED)		

PROJECT INFORMATION & DIMENSIONS	
TEMPORARY GROUND DISTURBANCE	300± SF
PERMANENT IMPERVIOUS GROUND SURFACE ADDITIONS	125± SF
<b>NOTE:</b> RRU & ASSOCIATED EQUIPMENT LOCATED BEHIND ANTENNAS. CALCULATION IS FOR PORTION OF RRU & ASSOCIATED EQUIPMENT THAT EXTENDS BEYOND ANTENNAS.	

### GENERAL NOTES:

- PROPERTY LINE INFORMATION (WHEN APPLICABLE) WAS PREPARED USING TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUCTED AS A BOUNDARY SURVEY.
- NO NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
- THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (THERE IS NO HANDICAP ACCESS REQUIRED).
- THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
- CONNECTION TO ELECTRICAL & TELEPHONE UTILITIES TO BE DETERMINED BY THE APPROPRIATE UTILITY COMPANY.
- SUBCONTRACTOR TO VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEER PRIOR TO INSTALLATION. SEE ANTENNA CONFIGURATION SHEETS FOR SITE SPECIFIC DETAILS.
- SUBCONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION.
- THE MAXIMUM AREA OF DISTURBANCE IS LESS THAN 1 ACRE. THE PROJECT IMPACT AREA IS BELOW THE EXEMPTION THRESHOLD OF 43,560 SQUARE FEET IN 40 CFR PARTS 9, 122-124 AND THEREFORE IS NOT SUBJECT TO REGULATION UNDER THE EPA OR STATE-MANAGED NPDES GENERAL CONSTRUCTION PERMIT PROGRAM. THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL SITE DEVELOPMENT IN ACCORDANCE WITH THE "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" ISSUED BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION. ADDITIONALLY, THE PROJECT OWNERS GENERAL CONTRACTOR SHALL CONDUCT ALL CONSTRUCTION ACTIVITIES IN A MANNER THAT DOES NOT RESULT IN STORM WATER DISCHARGES WITH AN ADVERSE IMPACT ON ANY STORM WATER COLLECTION/CONVEYANCE SYSTEM, WETLAND, WATER BODY, OR OTHER WATER RESOURCE AREAS.
- THE PROJECT WILL COMPLY WITH THE LOW RISK HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

### HANDICAP REQUIREMENTS

FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION.  
HANDICAPPED ACCESS REQUIREMENTS NOT REQUIRED.

45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845

TEL: (978) 557-5553  
FAX: (978) 336-5586

1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

SITE NUMBER: CT3470A  
SITE NAME: MIDDLETOWN\_MILE LANE

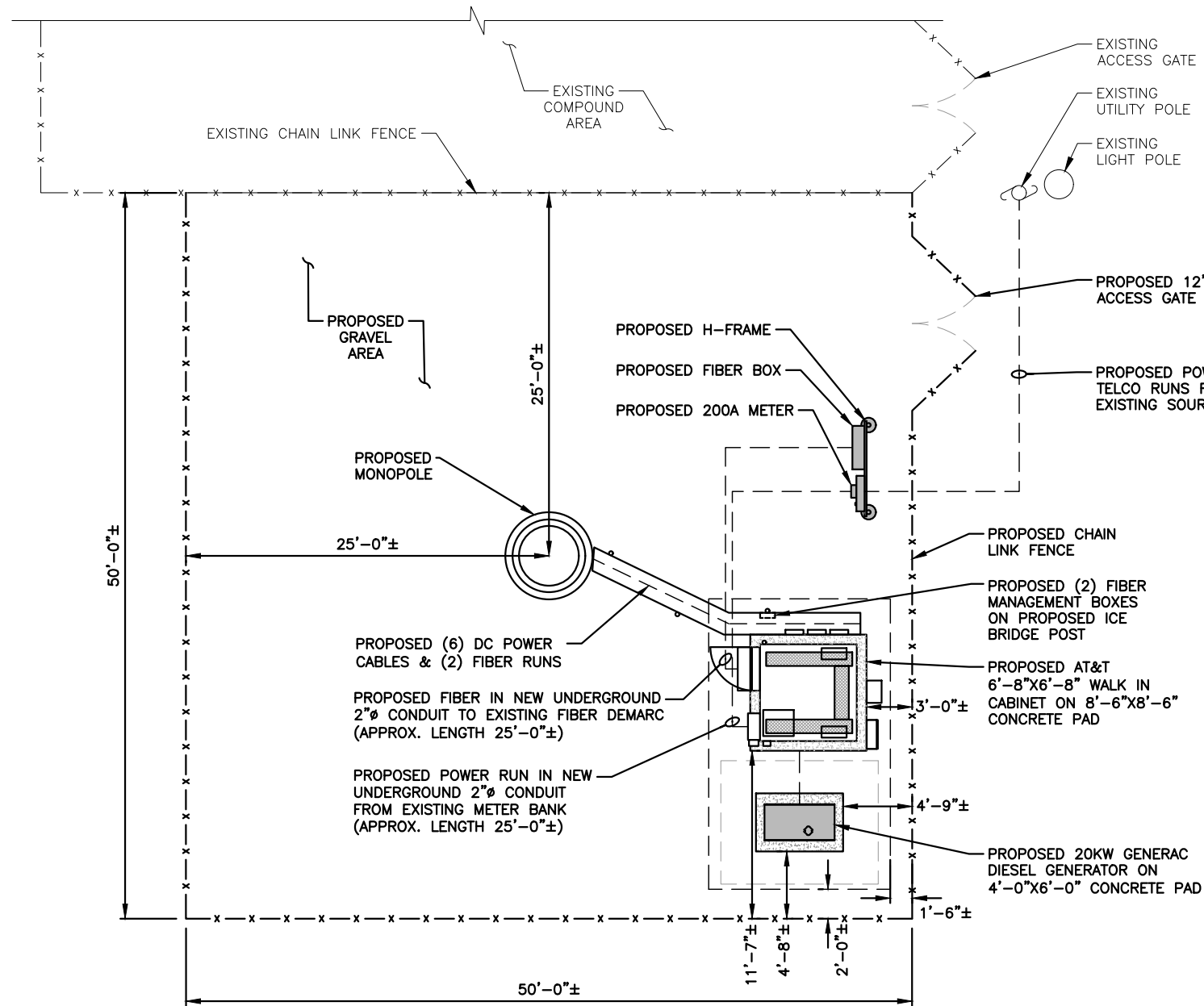
499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY

550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
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0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

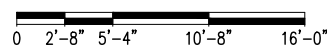
SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

AT&T		
PLOT PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	C-1	2



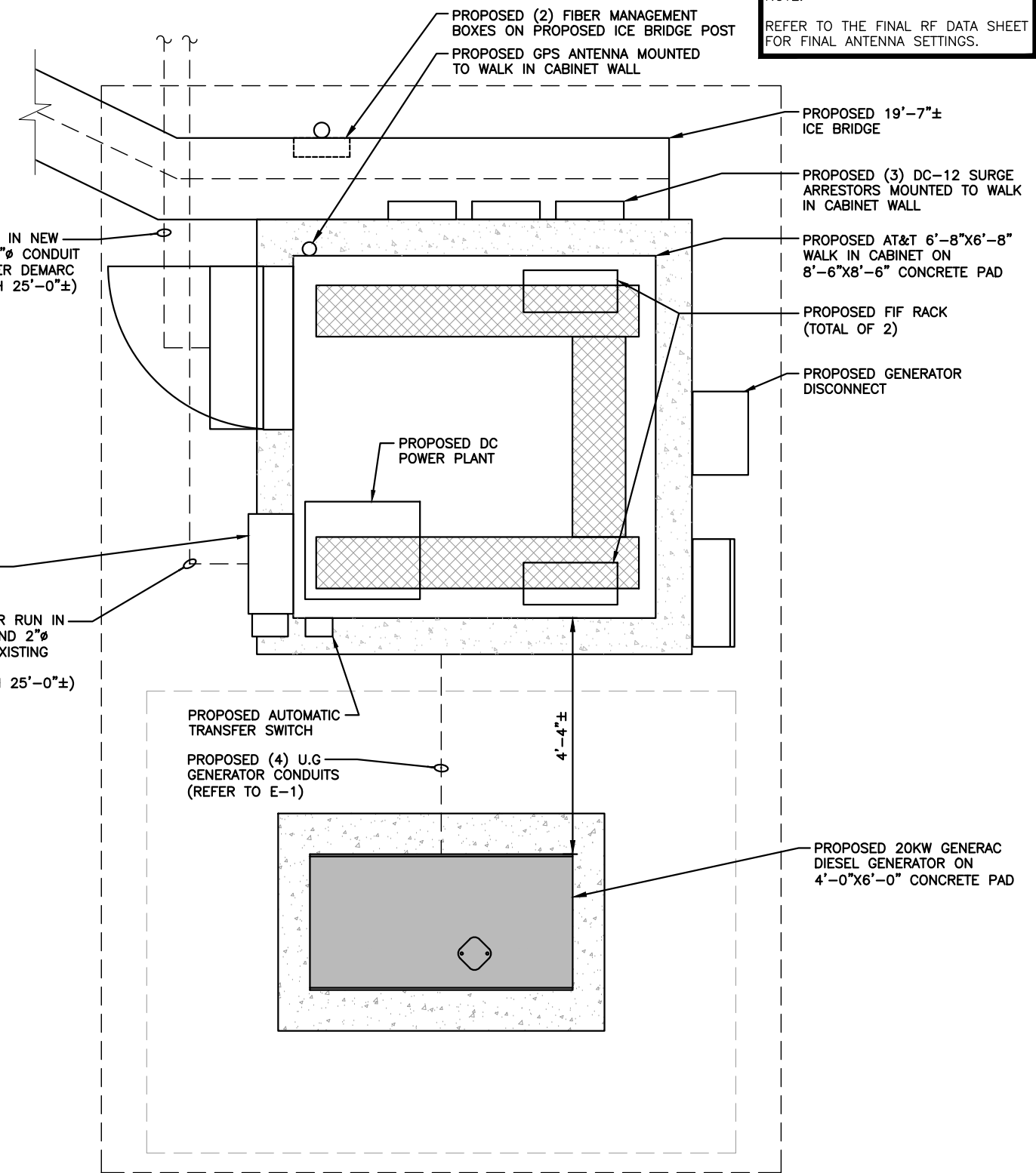
**COMPOUND PLAN**

22x34 SCALE: 3/16"=1'-0"  
11x17 SCALE: 3/32"=1'-0"



PROPOSED FIBER IN NEW UNDERGROUND 2"Ø CONDUIT TO EXISTING FIBER DEMARC (APPROX. LENGTH 25'-0"±)

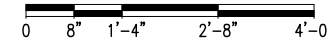
PROPOSED 200A INTERSECT PTS  
PROPOSED POWER RUN IN NEW UNDERGROUND 2"Ø CONDUIT FROM EXISTING METER BANK (APPROX. LENGTH 25'-0"±)



NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

**EQUIPMENT PLAN**

22x34 SCALE: 3/4"=1'-0"  
11x17 SCALE: 3/8"=1'-0"



**HGD HUDSON Design Group LLC**  
45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586

**smartlink**  
1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A**  
**SITE NAME: MIDDLETOWN\_MILE LANE**  
  
499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY

**at&t**  
550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

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0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: CC/VP		

<b>AT&amp;T</b>		
<b>COMPOUND &amp; EQUIPMENT PLAN (NSB)</b>		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-1	2

TOP OF EXISTING TOWER  
ELEV. = 180'-0"± A.G.L.

EXISTING TOWER (BEYOND)

PROPOSED SURGE ARRESTOR  
(TOTAL OF 3)

TOP OF PROPOSED  
MONOPOLE & C OF  
PROPOSED AT&T ANTENNAS  
ELEV. = 150'-0"± A.G.L.

PROPOSED AT&T ANTENNAS  
(TYP. OF 3 PER SECTOR,  
TOTAL OF 9)

PROPOSED AT&T RRH'S  
(TYP. OF 4 PER SECTOR,  
TOTAL OF 12)

FUTURE AT&T RRH'S  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

GROUND LEVEL  
ELEV. = 0'-0"± A.G.L.

**EASTERN ELEVATION**  
22x34 SCALE: 3/32"=1'-0"  
11x17 SCALE: 3/64"=1'-0"

1  
A-2

0 5'-4" 10'-8" 21'-4" 32'-0"

- PROPOSED MONOPOLE
- PROPOSED 19'-7"± ICE BRIDGE
- PROPOSED AT&T 6'-8"X6'-8" WALK IN CABINET ON 8'-6"X8'-6" CONCRETE PAD
- PROPOSED 20KW GENERAC DIESEL GENERATOR ON 4'-0"X6'-0" CONCRETE PAD
- PROPOSED METER BANK ON PROPOSED H-FRAME
- PROPOSED CHAIN LINK FENCE

NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

PROPOSED SECTOR FRAME  
VALMONT PART# VFA12-WLL-30120  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

FUTURE AT&T RRH'S (BELOW)  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T RRH'S  
(TYP. OF 4 PER SECTOR,  
TOTAL OF 12)

PROPOSED 3" STD. (3.5"O.D.)  
8'-0" LONG PIPE MAST (TYP.  
OF 1 PER SECTOR, TOTAL OF 3)

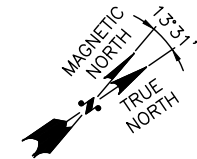
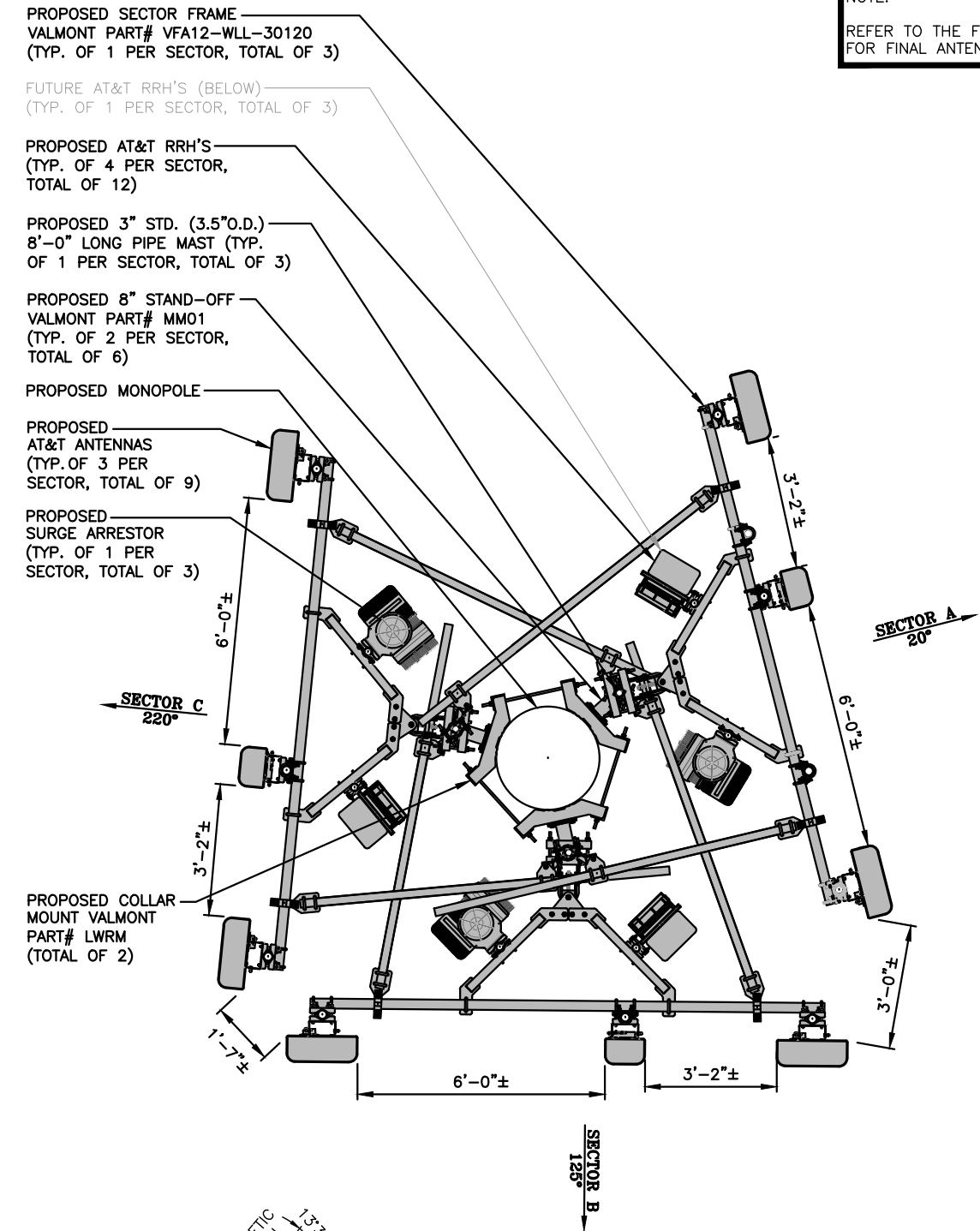
PROPOSED 8" STAND-OFF  
VALMONT PART# MM01  
(TYP. OF 2 PER SECTOR,  
TOTAL OF 6)

PROPOSED MONOPOLE

PROPOSED AT&T ANTENNAS  
(TYP. OF 3 PER SECTOR,  
TOTAL OF 9)

PROPOSED SURGE ARRESTOR  
(TYP. OF 1 PER SECTOR,  
TOTAL OF 3)

PROPOSED COLLAR  
MOUNT VALMONT  
PART# LWRM  
(TOTAL OF 2)



**PROPOSED ANTENNA LAYOUT DESIGN** 2  
SCALE: N.T.S. A-2

**HG HUDSON**  
Design Group LLC  
45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
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**smartlink**  
1997 ANNAPOLIS EXCHANGE PKWY  
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**at&t**  
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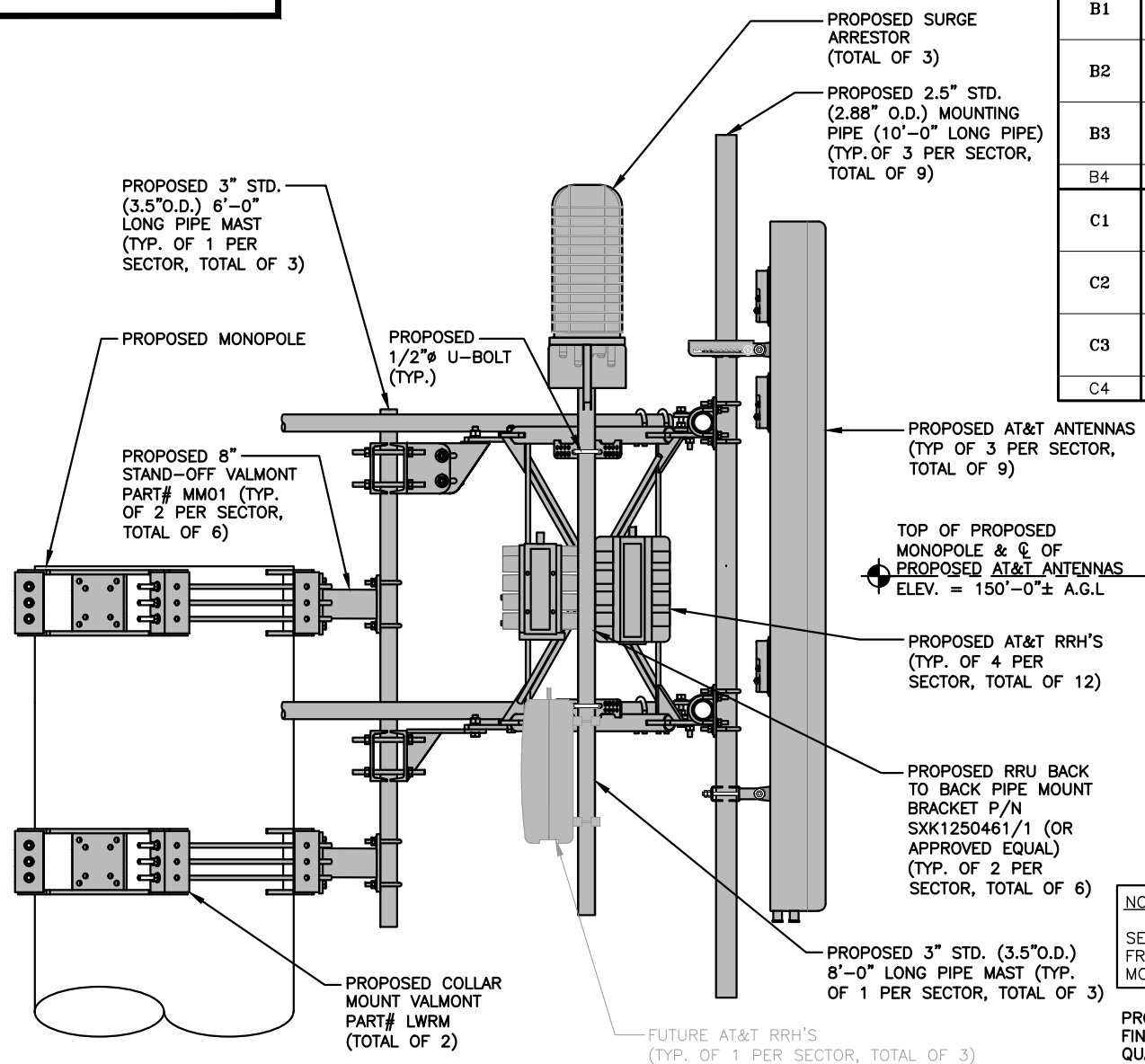
AT&T		
ELEVATION AND ANTENNA PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-2	2

NOTE:  
HDG RECOMMENDS THE PROPOSED ANTENNA MOUNT BE MAPPED IN ITS ENTIRETY & A STRUCTURAL ANALYSIS BE PERFORMED PRIOR TO THE ANTENNA INSTALLATION.

NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:  
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

ANTENNA SCHEDULE											
SECTOR	EXISTING/PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA Q. HEIGHT	AZIMUTH	TMA/DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	20°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-18-8C-EV
A2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	20°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
A3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	20°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
A4	-	-	-	-	-	-	-	-	-	-	-
B1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	140°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-18-8C-EV
B2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	140°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
B3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	140°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
B4	-	-	-	-	-	-	-	-	-	-	-
C1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	240°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-0-8C-EV
C2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	240°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
C3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	240°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
C4	-	-	-	-	-	-	-	-	-	-	-



**PROPOSED SECTOR FRAME, ANTENNA, SURGE SUPPRESSOR & RRH'S MOUNTING DETAIL**  
22x34 SCALE: 1"=1'-0"  
11x17 SCALE: 1/2"=1'-0"

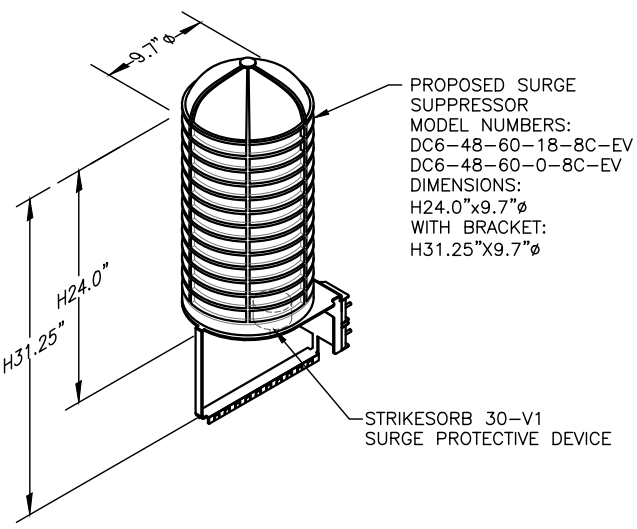
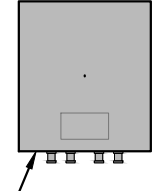
NOTE:  
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

NOTE:  
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

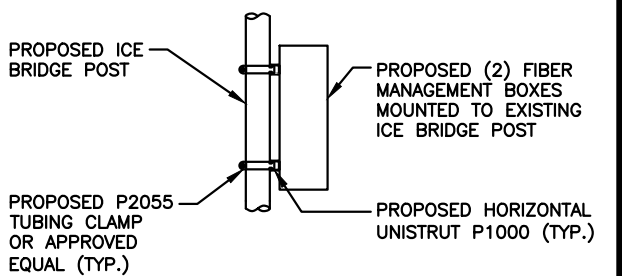
NOTE:  
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

**PROPOSED RRUS DETAIL**  
SCALE: N.T.S.



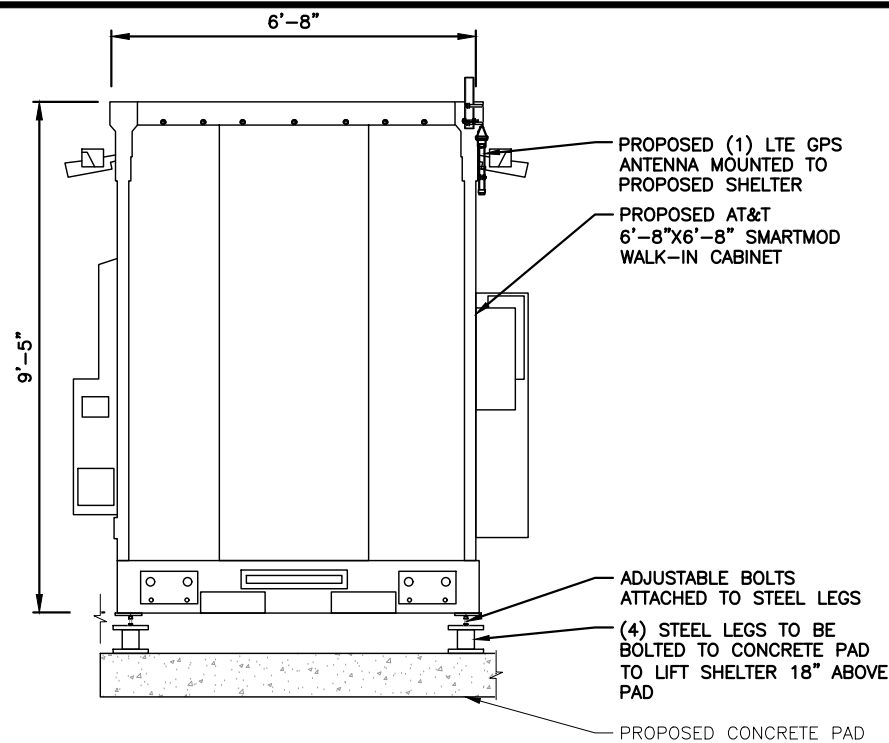
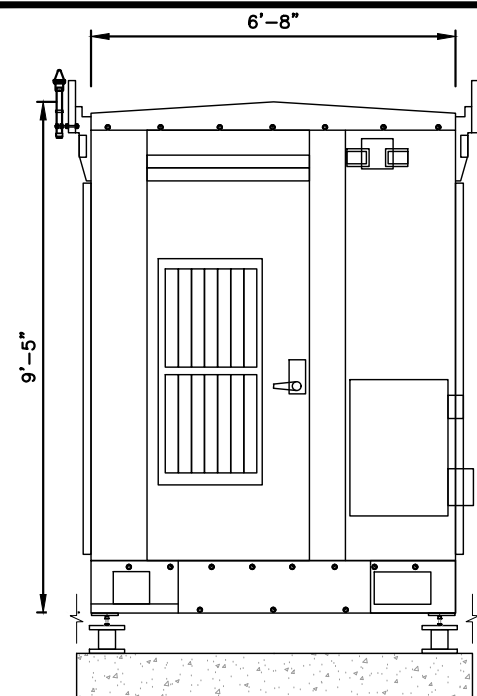
NOTE:  
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

**DC SURGE SUPPRESSOR DETAIL**  
SCALE: N.T.S.



**PROPOSED FIBER MANAGEMENT BOX MOUNTING DETAIL**  
SCALE: N.T.S.

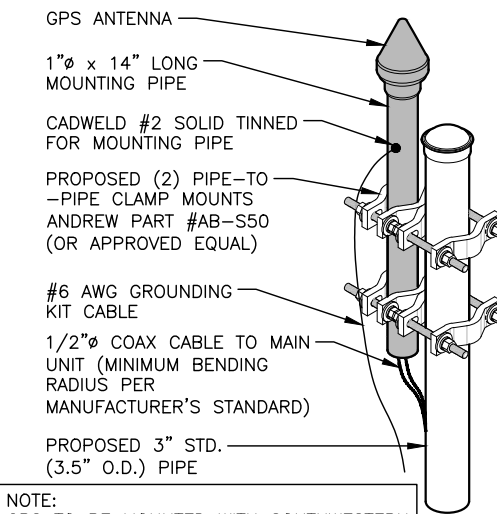
**FINAL ANTENNA SCHEDULE**  
SCALE: N.T.S.



NOTE:  
SHELTER SHALL BE MOUNTED PER  
MANUFACTURER'S SPECIFICATIONS.

**TYPICAL SHELTER DETAIL**  
SCALE: N.T.S

1  
A-4



NOTE:  
GPS TO BE MOUNTED WITH SOUTHWESTERN  
EXPOSURE. (MIN. OF 10' AWAY FROM  
EXISTING GPS ANTENNA)

**GPS MOUNTING DETAIL**  
N.T.S

2  
A-4

20 KW GENERATOR DIMENSIONS	
MODEL #	G007098-0
MANUF.	GENERAC
HEIGHT	90"
WIDTH	36"
LENGTH	48"

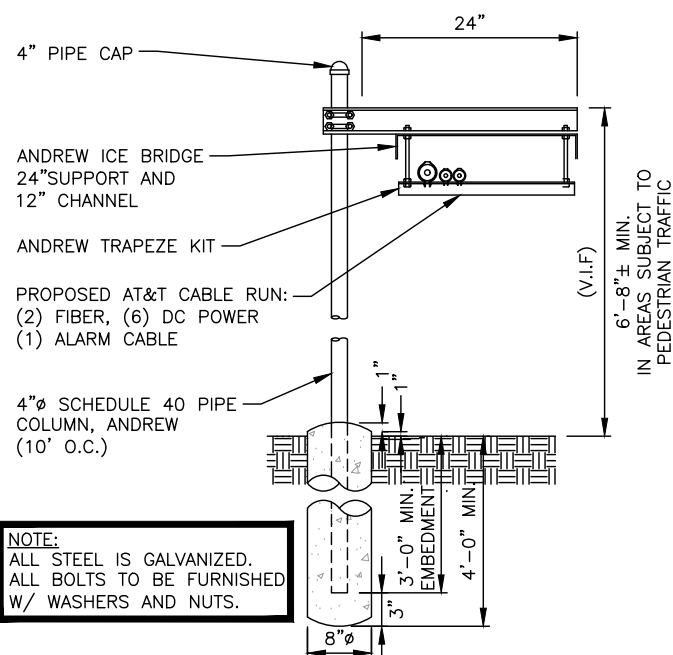


**GENERATOR DETAIL**  
SCALE: N.T.S

4  
A-4

**FOUNDATION NOTES & CONCRETE SPECIFICATIONS:**

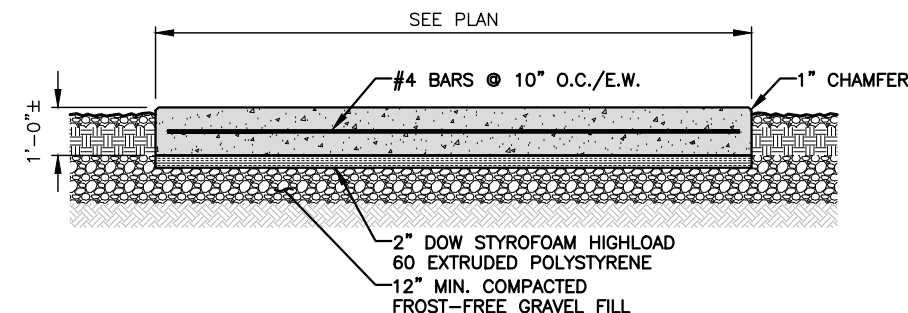
- FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
- UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
- CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
- REINFORCING BAR TO BE ASTM A615 GRADE 60.
- WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
- COORDINATE WITH MANUFACTURER OF PREFABRICATED SHELTER FOR LOCATION OF ATTACHMENTS TO BASE SLAB.
- ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
- ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.



NOTE:  
ALL STEEL IS GALVANIZED.  
ALL BOLTS TO BE FURNISHED  
W/ WASHERS AND NUTS.

**ICE BRIDGE DETAIL**  
SCALE: N.T.S

3  
A-4



**CONCRETE PAD DETAIL**  
22x34 SCALE: N.T.S

5  
A-4



45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586



1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

SITE NUMBER: CT3470A  
SITE NAME: MIDDLETOWN\_MILE LANE

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY



550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP


AT&T		
EQUIPMENT DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-4	2



**CERTIFICATION OF SERVICE**

I hereby certify that on the 28th day of September 2021, a copy of the following letter and notice of the intended filing of a Petition with the Connecticut Siting Council for a declaratory ruling was sent by certified mail, return receipt requested, to the attached list of abutting property owners:

Dated: 9/28/2021

  
 Cuddy & Feder LLP  
 45 Hamilton Avenue, 14<sup>th</sup> Floor  
 White Plains, New York 10601  
 Attorneys for:  
 New Cingular Wireless PCS, LLC (AT&T)

CITY OF MIDDLETOWN LAWRENCE SCHOOL 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457	TINA P. LUN 468 MILE LANE MIDDLETOWN, CT 06457
CITY OF MIDDLETOWN LAWRENCE SCHOOL MILE LANE MIDDLETOWN, CT 06457	THEODORE J. MAURA 5 BIRCHWOOD DRIVE MIDDLETOWN, CT 06457
RYAN MORGAN EMILY M. WILES 15 BIRCHWOOD DRIVE MIDDLETOWN, CT 06457	DORIS LAMB 25 BIRCHWOOD DRIVE MIDDLETOWN, CT 06457
ANTHONY F. ZADROGA TRUSTEE 35 BIRCHWOOD DRIVE MIDDLETOWN, CT 06457	RHODA BENNETT, ET AL 65 HOLLYBERRY LANE BRISTOL, CT 06010
RHODA BENNETT, ET AL FIR LANE MIDDLETOWN, CT 06457	CITY OF MIDDLETOWN KEIGWIN SCHOOL 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457
CITY OF MIDDLETOWN KEIGWIN SCHOOL NEWFIELD STREET 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457	CITY OF MIDDLETOWN 200 LAROSA LANE MIDDLETOWN, CT 06457
CITY OF MIDDLETOWN RIDGWOOD ROAD MIDDLETOWN, CT 06457	OLD COLONY ONE OF WALLINGFORD LLC RIDGWOOD ROAD MIDDLETOWN, CT 06492
CITY OF MIDDLETOWN 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457	OLD COLONY ONE OF WALLINGFORD LLC 273 NORTH COLONY STREET UNIT 2 WALLINGFORD, CT 06492
ADAM SZCZERBICKI MELISSA RAZEL 70 TALIAS TRAIL MIDDLETOWN, CT 06457	CHRISTOPHER J. LAVIGNE 60 TALIAS TRAIL MIDDLETOWN, CT 06457

ROBERTO PUGLIARES KELLY KENEFICK-PUGLIARES 50 TALIAS TRAIL MIDDLETOWN, CT 06457	MICHAEL T. CONNER VIVIANA CONNER 40 TALIAS TRAIL MIDDLETOWN, CT 06457
GIUSEPPE LOMBARDO DIANA LOMBARDO 30 TALIAS TRAIL MIDDLETOWN, CT 06457	MICHAEL LAMANIVONG JIEUN LIANA YI 20 TALIAS TRAIL MIDDLETOWN, CT 06457
PALMER L. GAINES 509 MILE LANE MIDDLETOWN, CT 06457	CITY OF MIDDLETOWN ASHLEY FYNN-NATALE CITY & TOWN CLERK 245 DEKOVEN DRIVE MIDDLETOWN, CT 06457



445 Hamilton Avenue, 14th Floor  
White Plains, New York 10601  
T 914 761 1300  
F 914 761 5372  
cuddyfeder.com

September 28, 2021

**VIA CERTIFIED MAIL/  
RETURN RECEIPT REQUESTED**

Re: New Cingular Wireless PCS, LLC (“AT&T”)  
Share City Tower Site/Install a Second Shorter Tower in Expanded Compound  
499 Mile Lane, Middletown, Connecticut

---

Dear Sir or Madam:

We are writing to you on behalf of our client New Cingular Wireless PCS, LLC (“AT&T”) with respect to the above referenced matter and our client’s intent to file a petition for a declaratory ruling with the State of Connecticut Siting Council for approval to share an existing City-owned tower site and install a second tower in an expanded fenced compound area immediately adjacent to the existing municipal communications tower facility (the “Facility”) owned by the City of Middletown. The project has been reviewed by the City’s Planning & Zoning Commission and Common Council as part of an approved lease with AT&T. The project is proposed to provide reliable AT&T wireless services in this area of Middletown.

State law requires that record owners of property abutting a parcel on which a facility is proposed be sent notice of an applicant’s intent to file a petition with the State Siting Council. Included with this letter please find a Notice of this submission and details of the proposal. We have also included a copy of the plans showing the project details. The location, height and other features of the Facility are subject to review and potential change by the Connecticut Siting Council under the provisions of Connecticut General Statutes §16-50g *et seq.*

If you have any questions concerning this petition, please contact the Connecticut Siting Council or the undersigned after September 29, 2021 which is the date that the petition is expected to be on file.

Very truly yours,

A handwritten signature in black ink, appearing to read "Chris B. Fisher", written over a horizontal line.

Christopher B. Fisher  
Enclosure

cc: Kristen Motel, Esq., Cuddy & Feder L

## NOTICE

Notice is hereby given, pursuant to Section 16-50j-40(a) of the Regulations of Connecticut State Agencies of a Petition being filed with the Connecticut Siting Council (“Siting Council”) on or after September 30, 2021, by New Cingular Wireless PCS, LLC (“AT&T”). AT&T seeks a declaratory ruling that sharing of an existing City of Middletown tower site and modifications to install a second shorter tower in an expanded compound adjacent thereto presents no substantial adverse effects such that a Certificate of Environmental Compatibility and Public Need (“Certificate”) is not required under Section 16-50k(a) of the Connecticut General Statutes (“C.G.S.”).

The proposed AT&T Facility will be located on an approximately 23.72-acre parcel located at 499 Mile Lane in Middletown, Connecticut, that was previously part of the U.S. Army Reserve Center and is now serving in part as a fire training site. The city of Middletown’s existing communications facility consists of an approximately 180’ lattice tower and a fenced equipment compound. AT&T proposes to share the site and modify the existing facility by installing a 150’ monopole tower immediately adjacent to the existing tower, with nine (9) antennas at a centerline height of approximately 150’ above ground level (“AGL”). The monopole and expanded equipment compound are being designed to accommodate future collocations by additional wireless carriers. Associated unmanned equipment will be located within a 50-foot by 50-foot expanded area of the existing fenced equipment compound. Vehicle access to AT&T’s Facility would remain the same along the existing paved access drive that extends south of Mile Lane.

The Facility is proposed to allow wireless services to AT&T customers and first responders in the northern area of Middletown, particularly along Mile Lane, State Highway 3, Ridgewood Road and the surrounding roads, businesses, schools and neighborhoods.

The Petition will provide additional details of the proposal and explain why AT&T submits that the proposed shared use, modification and installation of a second tower presents no significant adverse environmental effects. The location, height, and other features of the proposal are subject to review and potential change under the provisions of Connecticut General Statutes Sections 16-50g et. seq.

Copies of the Petition will be available for review during normal business hours on or after September 30, 2021 at the following:

Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

City & Town Clerk of Middletown  
Ashley Flynn-Natale  
City Hall 1<sup>st</sup> Floor  
245 DeKoven Drive  
Middletown, CT 06457

or the offices of the undersigned. A copy of the Petition will also be available on the Connecticut Siting Council website: <https://www.ct.gov/cSc/site/default.asp> under Pending Matters. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Christopher B. Fisher, Esq.  
Cuddy & Feder LLP  
445 Hamilton Ave, 14th Floor  
White Plains, New York 10601  
(914) 761-1300  
Attorney for the Petitioner

**PROJECT INFORMATION**

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY (NSB A PROPOSED 150'-0" A.G.L. TALL MONOPOLE, PROPOSED WALK-IN CABINET, AND GENERATOR WILL BE INSTALLED AT GRADE INSIDE A EXISTING FENCED-IN COMPOUND. PROPOSED (3) TPA65R-BU8DA-K ANTENNAS, (3) HPA65R-BU8A ANTENNAS, (3) DMP65R-BU8DA-K ANTENNAS, (3) 4478-B14 RRH'S, (3) FUTURE E2 RRH'S, (3) 4415 B30 RRH'S, (3) 4449 B5/B12 RRH'S, (3) 8843 B2/B66A RRH'S, (2) DC6-48-60-18-8C-EV SURGE ARRESTORS, & (1) DC6-48-60-0-8C-EV WILL BE INSTALLED AT A HEIGHT OF 150'-0" A.G.L.):

SITE ADDRESS: 499 MILE LANE  
MIDDLETOWN, CT 06457

APPLICANT: AT&T  
550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

SITE OWNER: CITY OF MIDDLETOWN  
245 DEKOVEN DRIVE  
MIDDLETOWN, CT 06457

LATITUDE: 41.58000 N, 41° 34' 48.0" N

LONGITUDE: 72.68579 W, 72° 41' 8.9" W

TYPE OF SITE: MONOPOLE/ WALK-IN CABINET

TOWER HEIGHT: 150'-0"±

RAD CENTER: 150'-0"±

APPLICABLE CODES: ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE CT STATE BUILDING CODE, NATIONAL ELECTRIC CODE (NEC 2017), ANSI/EIA/TIA-222 H & COMPLY WITH AT&T MOBILITY SPECIFICATIONS



**SITE NUMBER: CT3470A**

**SITE NAME: MIDDLETOWN\_MILE LANE**

**FA CODE:10578361**

**PACE ID: MRCTB033524, MRCTB036341, MRCTB036593, MRCTB036513, MRCTB036367, MRCTB047889**

**PROJECT: NSB**

**DRAWING INDEX**

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	2
GN-1	GENERAL NOTES	2
SN-1	STRUCTURAL NOTES	2
C-1	PLOT PLAN	2
A-1	COMPOUND & EQUIPMENT PLAN	2
A-2	ELEVATION & ANTENNA PLAN	2
A-3	DETAILS & ANTENNA SCHEDULE	2
A-4	EQUIPMENT DETAILS	2
A-5	EQUIPMENT DETAILS	2
E-1	ELECTRICAL NOTES & ONE-LINE DIAGRAM	2
G-1	GROUNDING DETAILS	2
RF-1	RF PLUMBING DIAGRAM	2

**VICINITY MAP**

**DIRECTIONS TO SITE:**  
DEPART NORTHEAST, TURN RIGHT AND THEN IMMEDIATELY TURN LEFT ONTO LEGGATT MCCALL CONNECTOR ROAD, BEAR LEFT ONTO BURR ST, TURN LEFT ONTO MA-30 / COCHITUATE RD, TAKE RAMP RIGHT FOR I-90 EAST / I-90 WEST TOWARD BOSTON / SPRINGFIELD, AT EXIT 9 TAKE RAMP RIGHT FOR I-84 TOWARD HARTFORD / NEW YORK CITY, KEEP LEFT ONTO CT-15 S / WILBUR CROSS HWY S, KEEP STRAIGHT ONTO US-5 S / CT-15 S / WILBUR CROSS HIGHWAY S, AT EXIT 86 TAKE RAMP RIGHT FOR I-91 SOUTHBOUND, AT EXIT 21 TAKE RAMP RIGHT FOR CT-372 TOWARD CROMWELL / MIDDLETOWN, TURN LEFT ONTO CT-372 / BERLIN ROAD TOWARD CROMWELL / MIDDLETOWN, TURN RIGHT ONTO CT-217 / EAST STREET, TURN LEFT ONTO RIDGEWOOD RD, ARRIVE AT RIDGEWOOD ROAD



**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 PURPOSES 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 MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

**72 HOURS**



**CALL BEFORE YOU DIG**



CALL TOLL FREE 1-800-922-4455

OR CALL 811

**UNDERGROUND SERVICE ALERT**

**HGD HUDSON Design Group LLC**  
45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553 FAX: (978) 336-5586

**smartlink**  
1997 ANNAPOLIS EXCHANGE PKWY SUITE 200 ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A  
SITE NAME: MIDDLETOWN\_MILE LANE**

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY

**at&t**  
550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
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0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

AT&T		
TITLE SHEET (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	T-1	2

**GROUNDING NOTES**

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

**GENERAL NOTES**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
 CONTRACTOR – SMARTLINK  
 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. TOUCH UP 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 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 WITH 2018 CT STATE BUILDING CODE AMENDMENTS  
 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL 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-H, STRUCTURAL STANDARDS FOR STEEL**

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	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



45 BEECHWOOD DRIVE  
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1997 ANNAPOLIS EXCHANGE PKWY  
 SUITE 200  
 ANNAPOLIS, MD 21401

**SITE NUMBER: CT3470A  
 SITE NAME: MIDDLETOWN\_MILE LANE**

**499 MILE LANE  
 MIDDLETOWN, CT 06457  
 MIDDLESEX COUNTY**



550 COCHITUATE ROAD  
 FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: CC/VP		

**AT&T**

**GENERAL NOTES  
 (NSB)**

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	GN-1	2

**STRUCTURAL NOTES:**

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- 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.
- 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".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- 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.
- 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.
- 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.
- 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.
- 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 LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- 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 D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL", 14TH EDITION.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

**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.

**NOTES:**

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- 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.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

**NOTES:**

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- 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.
- AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

**SPECIAL INSPECTION CHECKLIST**

**BEFORE CONSTRUCTION**

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
<b>REQUIRED</b>	ENGINEER OF RECORD APPROVED SHOP DRAWINGS <sup>1</sup>
<b>REQUIRED</b>	MATERIAL SPECIFICATIONS REPORT <sup>2</sup>
N/A	FABRICATOR NDE INSPECTION
<b>REQUIRED</b>	PACKING SLIPS <sup>3</sup>

ADDITIONAL TESTING AND INSPECTIONS:

**DURING CONSTRUCTION**

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
<b>REQUIRED</b>	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS <sup>4</sup>
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION <sup>5</sup>
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
<b>REQUIRED</b>	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS <sup>6</sup>
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
<b>REQUIRED</b>	PHOTOGRAPHS

ADDITIONAL TESTING AND INSPECTIONS:



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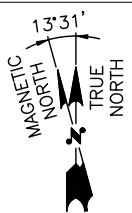
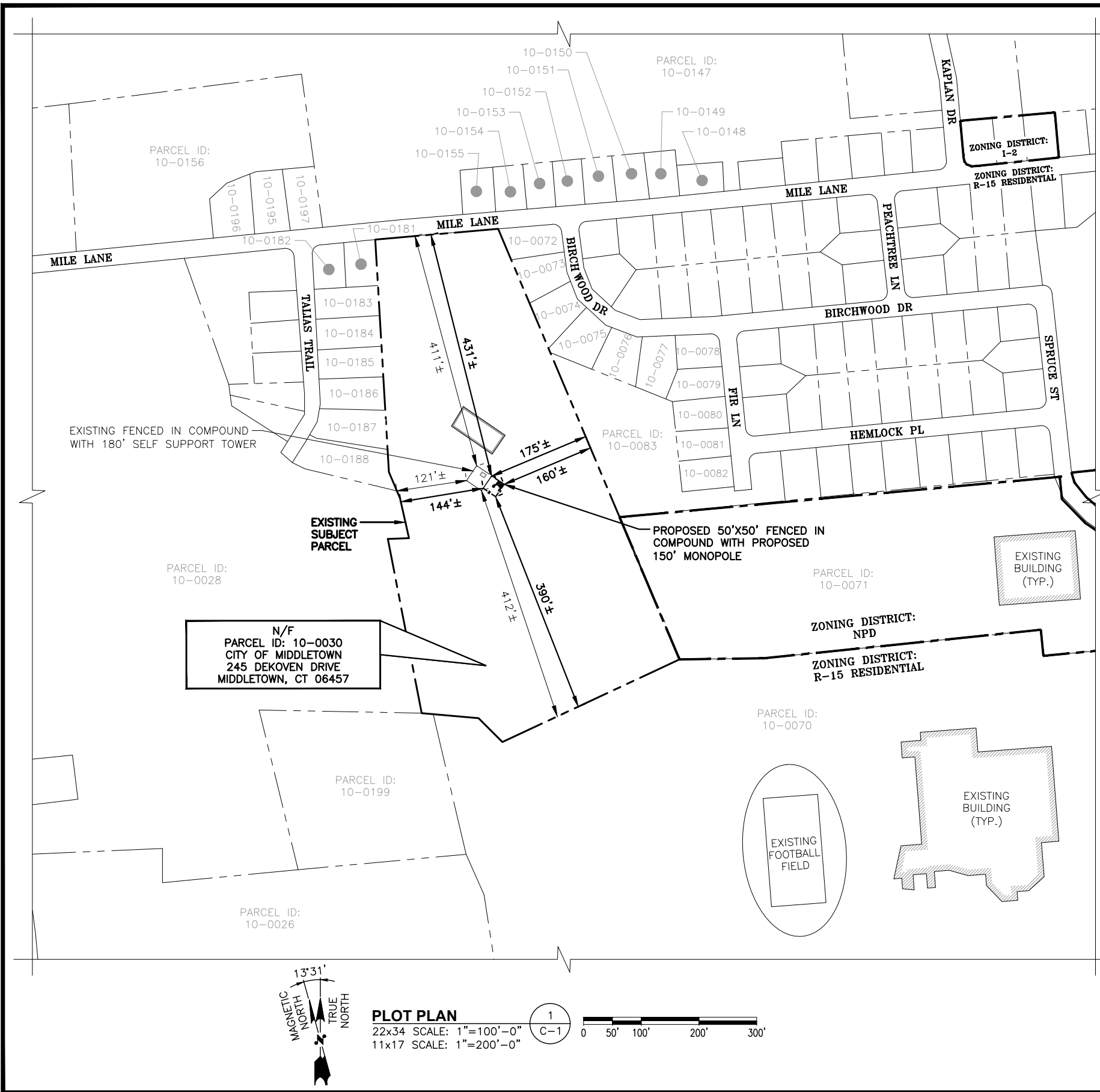
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SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

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STRUCTURAL NOTES  
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	SN-1	2



**PLOT PLAN**  
 22x34 SCALE: 1"=100'-0"  
 11x17 SCALE: 1"=200'-0"

**IMMEDIATE ADJOINING PROPERTY OWNER INFORMATION**

PARCEL	OWNER	ADDRESS
10-0072	MAURA THEODORE JR	5 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0073	MORGAN RYAN & WILES EMILY M	15 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0074	LAMB DORIS L	25 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0075	ZADROGA ANTHONY F TRUSTEE	35 BIRCHWOOD DR MIDDLETOWN, CT 06457
10-0083	BENNETT RHODA (1/4 INT) ETALS	65 HOLLYBERRY LN BRISTOL, CT 06010
10-0070	CITY OF MIDDLETOWN	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0071	CITY OF MIDDLETOWN C/O KEIGWIN SCHOOL	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0199	CITY OF MIDDLETOWN	245 DEKOVEN DR MIDDLETOWN, CT 06457
10-0028	OLD COLONY OF WALLINGFORD LLC	273 NORTH COLONY ST UNIT 2 WALLINGFORD, CT 06492
10-0188	SZCZERBICKI ADAM & RAZEL MELISSA	70 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0187	LAVIGNE CHRISTOPHER J & ALONSO LISA C	60 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0186	PUGLIARES ROBERTO & KENEFIGK-PUGLIARES KELLY	50 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0185	CONNER MICHAEL T & VIVIANA	40 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0184	LOMBARDO GIUSEPPE & DIANA	30 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0183	LAMANIVONG MICHAEL & YI LIANA JIEUN	20 TALIAS TRAIL MIDDLETOWN, CT 06457
10-0181	GAINES PALMER L	509 MILE LA MIDDLETOWN, CT 06457

**NOTE:**  
 PLOT PLAN PREPARED BY HUDSON DESIGN GROUP, LLC. FROM GIS, ASSESSORS DATA AND OTHER SOURCES, ACCESSED 04/08/21, AND DOES NOT REPRESENT AN ACTUAL FIELD OR BOUNDARY SURVEY.

**ZONING INFORMATION**

ZONING DISTRICT:	R-15 (RESIDENTIAL)	
DIMENSIONS REQUIREMENTS:	EXISTING	PROPOSED
<b>ANTENNA SETBACKS</b>		
FRONT YARD SETBACK:	411'	431'±
SIDE YARD SETBACK:	121'	144'±
REAR YARD SETBACK:	412'	390'±

(ALL MEASUREMENTS ARE IN FEET ± UNLESS OTHERWISE NOTED)  
 (SETBACK TO EXISTING EQUIPMENT SHELTER UNLESS OTHERWISE NOTED)

**PROJECT INFORMATION & DIMENSIONS**

TEMPORARY GROUND DISTURBANCE	300± SF
PERMANENT IMPERVIOUS GROUND SURFACE ADDITIONS	125± SF

**NOTE:**  
 RRU & ASSOCIATED EQUIPMENT LOCATED BEHIND ANTENNAS. CALCULATION IS FOR PORTION OF RRU & ASSOCIATED EQUIPMENT THAT EXTENDS BEYOND ANTENNAS.

**GENERAL NOTES:**

- PROPERTY LINE INFORMATION (WHEN APPLICABLE) WAS PREPARED USING TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUCTED AS A BOUNDARY SURVEY.
- NO NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
- THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (THERE IS NO HANDICAP ACCESS REQUIRED).
- THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
- CONNECTION TO ELECTRICAL & TELEPHONE UTILITIES TO BE DETERMINED BY THE APPROPRIATE UTILITY COMPANY.
- SUBCONTRACTOR TO VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEER PRIOR TO INSTALLATION. SEE ANTENNA CONFIGURATION SHEETS FOR SITE SPECIFIC DETAILS.
- SUBCONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION.
- THE MAXIMUM AREA OF DISTURBANCE IS LESS THAN 1 ACRE. THE PROJECT IMPACT AREA IS BELOW THE EXEMPTION THRESHOLD OF 43,560 SQUARE FEET IN 40 CFR PARTS 9, 122-124 AND THEREFORE IS NOT SUBJECT TO REGULATION UNDER THE EPA OR STATE-MANAGED NPDES GENERAL CONSTRUCTION PERMIT PROGRAM. THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL SITE DEVELOPMENT IN ACCORDANCE WITH THE "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" ISSUED BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION. ADDITIONALLY, THE PROJECT OWNERS GENERAL CONTRACTOR SHALL CONDUCT ALL CONSTRUCTION ACTIVITIES IN A MANNER THAT DOES NOT RESULT IN STORM WATER DISCHARGES WITH AN ADVERSE IMPACT ON ANY STORM WATER COLLECTION/CONVEYANCE SYSTEM, WETLAND, WATER BODY, OR OTHER WATER RESOURCE AREAS.
- THE PROJECT WILL COMPLY WITH THE LOW RISK HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

**HANDICAP REQUIREMENTS**

FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION.  
 HANDICAPPED ACCESS REQUIREMENTS NOT REQUIRED.

**HG HUDSON Design Group LLC**  
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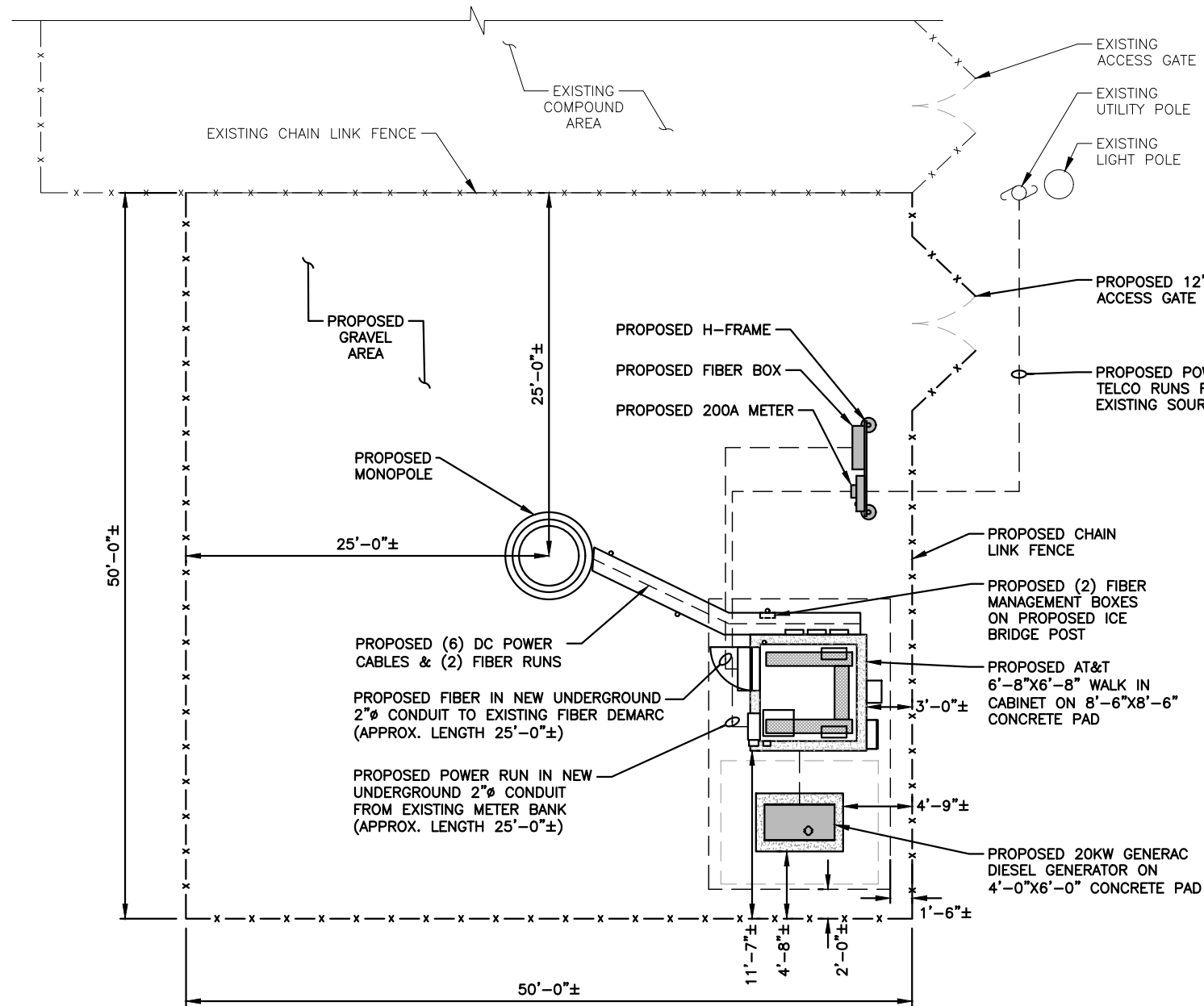
SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

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**PLOT PLAN (NSB)**

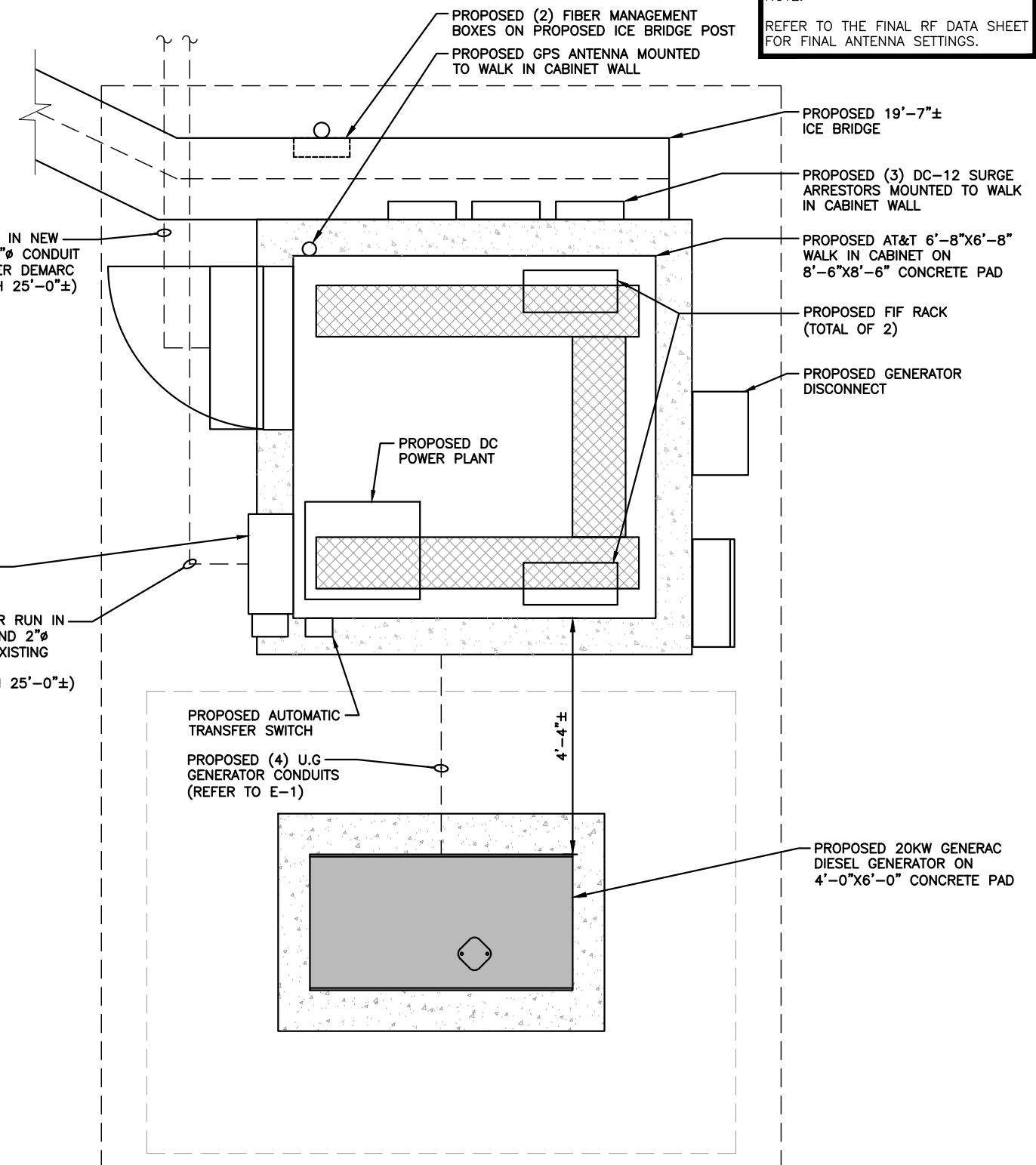
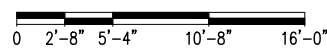
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	C-1	2





**COMPOUND PLAN**

22x34 SCALE: 3/16"=1'-0"  
11x17 SCALE: 3/32"=1'-0"



**EQUIPMENT PLAN**

22x34 SCALE: 3/4"=1'-0"  
11x17 SCALE: 3/8"=1'-0"



NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



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COMPOUND & EQUIPMENT PLAN  
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-1	2

TOP OF EXISTING TOWER  
ELEV. = 180'-0"± A.G.L.

EXISTING TOWER (BEYOND)

PROPOSED SURGE ARRESTOR  
(TOTAL OF 3)

TOP OF PROPOSED  
MONOPOLE & C OF  
PROPOSED AT&T ANTENNAS  
ELEV. = 150'-0"± A.G.L.

PROPOSED AT&T ANTENNAS  
(TYP. OF 3 PER SECTOR,  
TOTAL OF 9)

PROPOSED AT&T RRH'S  
(TYP. OF 4 PER SECTOR,  
TOTAL OF 12)

FUTURE AT&T RRH'S  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

GROUND LEVEL  
ELEV. = 0'-0"± A.G.L.

**EASTERN ELEVATION**

22x34 SCALE: 3/32"=1'-0"  
11x17 SCALE: 3/64"=1'-0"

1  
A-2



- PROPOSED MONOPOLE
- PROPOSED 19'-7"± ICE BRIDGE
- PROPOSED AT&T 6'-8"x6'-8" WALK IN CABINET ON 8'-6"x8'-6" CONCRETE PAD
- PROPOSED 20KW GENERAC DIESEL GENERATOR ON 4'-0"x6'-0" CONCRETE PAD
- PROPOSED METER BANK ON PROPOSED H-FRAME
- PROPOSED CHAIN LINK FENCE

NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

PROPOSED SECTOR FRAME  
VALMONT PART# VFA12-WLL-30120  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

FUTURE AT&T RRH'S (BELOW)  
(TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T RRH'S  
(TYP. OF 4 PER SECTOR,  
TOTAL OF 12)

PROPOSED 3" STD. (3.5"O.D.)  
8'-0" LONG PIPE MAST (TYP.  
OF 1 PER SECTOR, TOTAL OF 3)

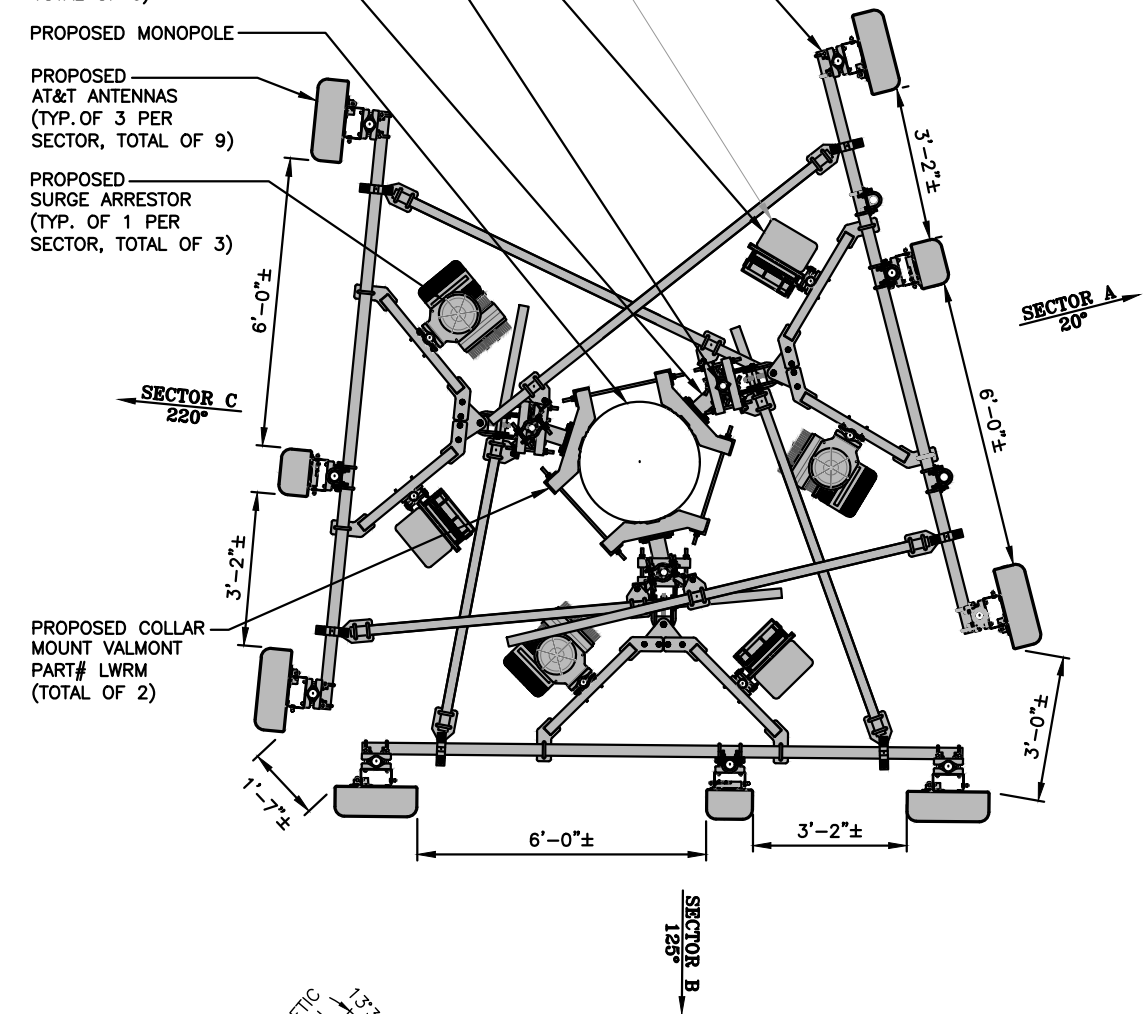
PROPOSED 8" STAND-OFF  
VALMONT PART# MM01  
(TYP. OF 2 PER SECTOR,  
TOTAL OF 6)

PROPOSED MONOPOLE

PROPOSED AT&T ANTENNAS  
(TYP. OF 3 PER SECTOR,  
TOTAL OF 9)

PROPOSED SURGE ARRESTOR  
(TYP. OF 1 PER SECTOR,  
TOTAL OF 3)

PROPOSED COLLAR  
MOUNT VALMONT  
PART# LWRM  
(TOTAL OF 2)



**PROPOSED ANTENNA LAYOUT DESIGN**  
SCALE: N.T.S.

2  
A-2

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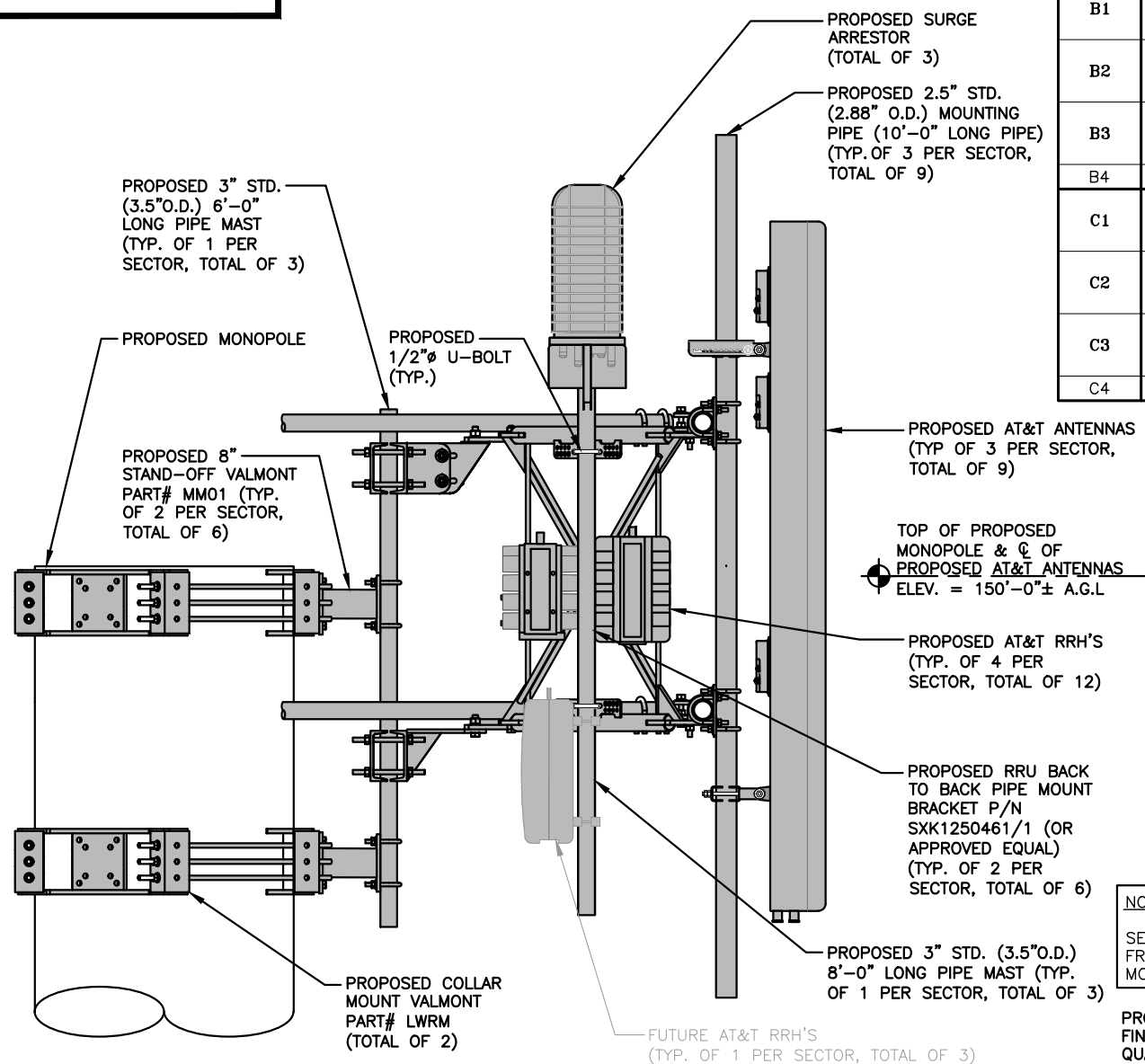
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ELEVATION AND ANTENNA PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-2	2

NOTE:  
HDG RECOMMENDS THE PROPOSED ANTENNA MOUNT BE MAPPED IN ITS ENTIRETY & A STRUCTURAL ANALYSIS BE PERFORMED PRIOR TO THE ANTENNA INSTALLATION.

NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:  
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

ANTENNA SCHEDULE											
SECTOR	EXISTING/PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA Q. HEIGHT	AZIMUTH	TMA/DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	20°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-18-8C-EV
A2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	20°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
A3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	20°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
A4	-	-	-	-	-	-	-	-	-	-	-
B1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	140°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-18-8C-EV
B2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	140°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
B3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	140°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
B4	-	-	-	-	-	-	-	-	-	-	-
C1	PROPOSED	LTE B14/AWS	TPA65R-BU8DA-K	96X21X7.8	150'-0"	240°	-	(P) (1) 4478 B14	18.1X13.4X8.3	-	(P) (1) RAYCAP DC6-48-60-0-8C-EV
C2	PROPOSED	LTE DE/WCS	HPA65R-BU8A	96X11.7X7.6	150'-0"	240°	-	(P) (1) 4415 B30 (F) E-2	16.5X13.4X5.9 20.4X18.5X7.5	-	
C3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	150'-0"	240°	-	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	14.9X13.2X10.4 14.9X13.2X10.9	-	
C4	-	-	-	-	-	-	-	-	-	-	-



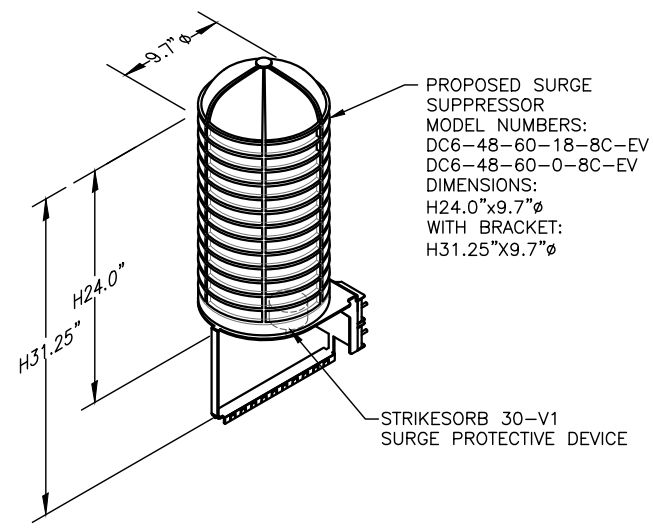
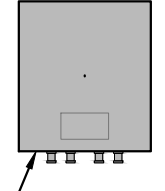
**PROPOSED SECTOR FRAME, ANTENNA, SURGE SUPPRESSOR & RRH'S MOUNTING DETAIL**  
22x34 SCALE: 1"=1'-0"  
11x17 SCALE: 1/2"=1'-0"

NOTE:  
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

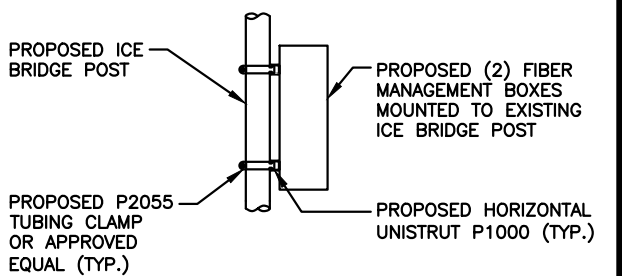
NOTE:  
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

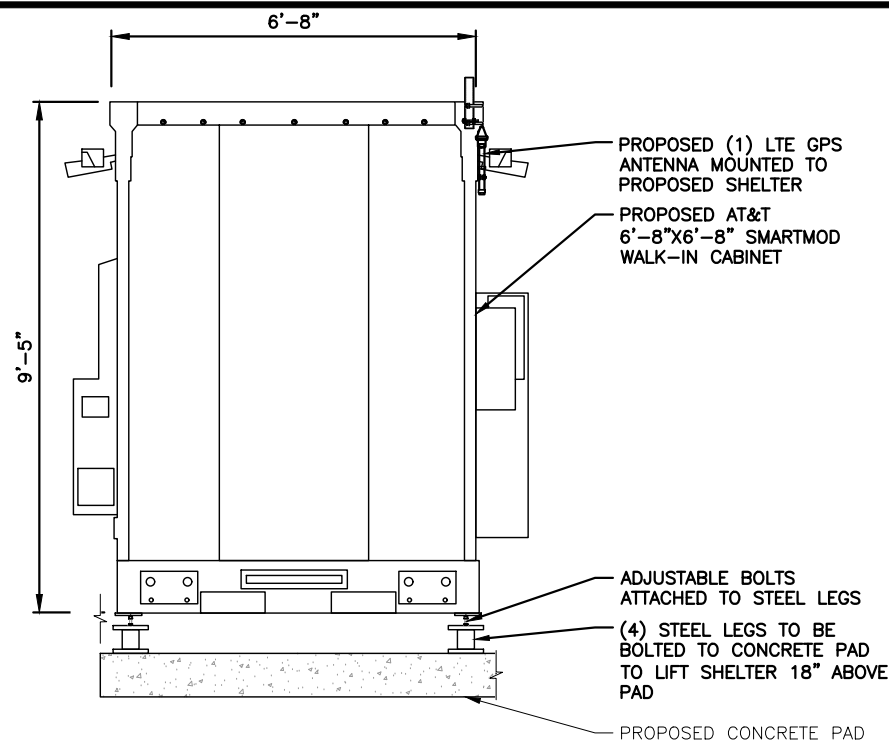
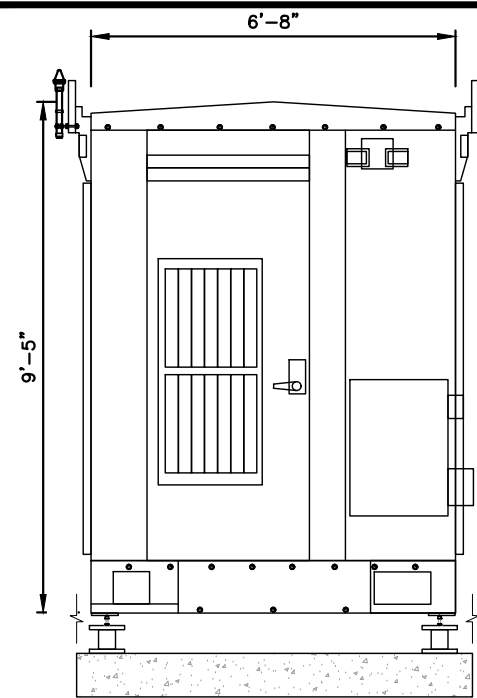
**PROPOSED RRUS DETAIL**  
SCALE: N.T.S.



**DC SURGE SUPPRESSOR DETAIL**  
SCALE: N.T.S.



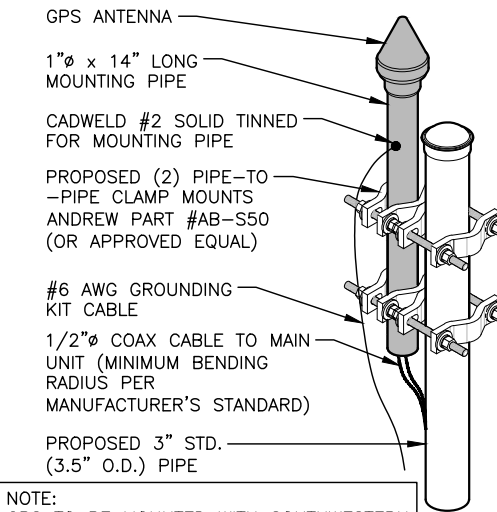
**PROPOSED FIBER MANAGEMENT BOX MOUNTING DETAIL**  
SCALE: N.T.S.



NOTE:  
SHELTER SHALL BE MOUNTED PER  
MANUFACTURER'S SPECIFICATIONS.

**TYPICAL SHELTER DETAIL**  
SCALE: N.T.S

1  
A-4



NOTE:  
GPS TO BE MOUNTED WITH SOUTHWESTERN  
EXPOSURE. (MIN. OF 10' AWAY FROM  
EXISTING GPS ANTENNA)

**GPS MOUNTING DETAIL**  
N.T.S

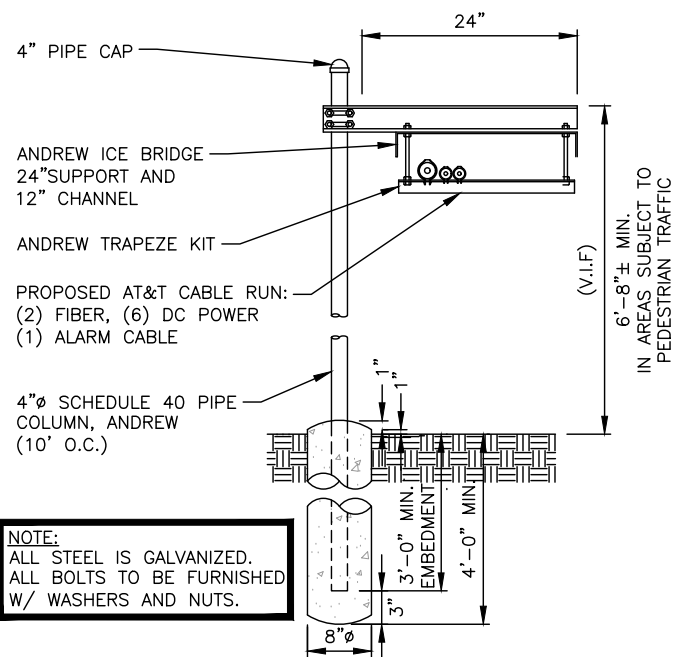
2  
A-4

20 KW GENERATOR DIMENSIONS	
MODEL #	G007098-0
MANUF.	GENERAC
HEIGHT	90"
WIDTH	36"
LENGTH	48"



**GENERATOR DETAIL**  
SCALE: N.T.S

4  
A-4



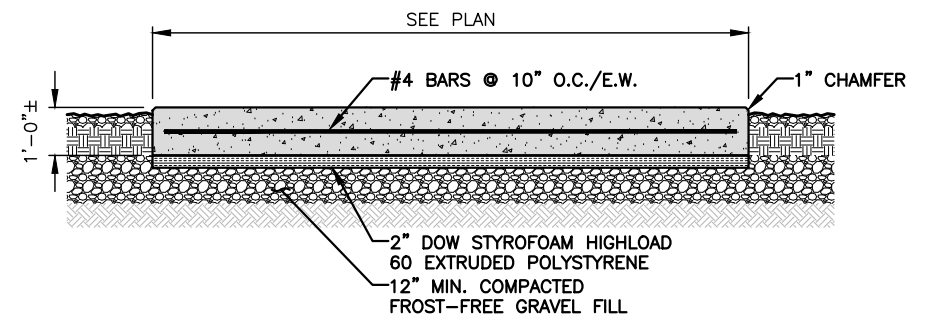
NOTE:  
ALL STEEL IS GALVANIZED.  
ALL BOLTS TO BE FURNISHED  
W/ WASHERS AND NUTS.

**ICE BRIDGE DETAIL**  
SCALE: N.T.S

3  
A-4

**FOUNDATION NOTES & CONCRETE SPECIFICATIONS:**

- FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
- UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
- CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
- REINFORCING BAR TO BE ASTM A615 GRADE 60.
- WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
- COORDINATE WITH MANUFACTURER OF PREFABRICATED SHELTER FOR LOCATION OF ATTACHMENTS TO BASE SLAB.
- ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
- ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.



**CONCRETE PAD DETAIL**  
22x34 SCALE: N.T.S

5  
A-4



45 BEECHWOOD DRIVE  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586



1997 ANNAPOLIS EXCHANGE PKWY  
SUITE 200  
ANNAPOLIS, MD 21401

SITE NUMBER: CT3470A  
SITE NAME: MIDDLETOWN\_MILE LANE

499 MILE LANE  
MIDDLETOWN, CT 06457  
MIDDLESEX COUNTY



550 COCHITUATE ROAD  
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	09/24/21	ISSUED FOR REVIEW	AR	JC	DPH
1	09/22/21	ISSUED FOR REVIEW	AR	JC	DPH
0	04/07/21	ISSUED FOR REVIEW	VP	JC	DPH

SCALE: AS SHOWN    DESIGNED BY: JC    DRAWN BY: CC/VP

AT&T  
EQUIPMENT DETAILS  
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT3470A	A-4	2



**ABUTTERS LIST**

<b>Parcel ID</b>	<b>Site Address</b>	<b>Owner Name</b>	<b>Mailing Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
10-0147	Mile Lane	City of Middletown Lawrence School	245 Dekoven Drive	Middletown	CT	06457
10-0155	468 Mile Lane	Tina P. Lun	468 Mile Lane	Middletown	CT	06457
10-0072	5 Birchwood Drive	Theodore J. Maura	5 Birchwood Drive	Middletown	CT	06457
10-0073	15 Birchwood Drive	Ryan Morgan Emily M. Wiles	15 Birchwood Drive	Middletown	CT	06457
10-0074	25 Birchwood Drive	Doris L. Lamb	25 Birchwood Drive	Middletown	CT	06457
10-0075	35 Birchwood Drive	Anthony F. Zadroga Trustee	35 Birchwood Drive	Middletown	CT	06457
10-0083	Fir Lane	Rhoda Bennett, et al	65 Hollyberry Lane	Bristol	CT	06010
10-0071	Newfield Street	City of Middletown Keigwin School	245 Dekoven Drive	Middletown	CT	06457
10-0070	200 Larosa Lane	City of Middletown	245 Dekoven Drive	Middletown	CT	06457
10-0199	Ridgewood Road	City of Middletown	245 Dekoven Drive	Middletown	CT	06457
10-0028	Ridgewood Road	Old Colony One of Wallingford LLC	273 North Colony Street Unit 2	Wallingford	CT	06492
10-0188	70 Talias Trail	Adam Szczerbicki Melissa Razel	70 Talias Trail	Middletown	CT	06457
10-0187	60 Talias Trail	Christopher J. Lavigne Lisa C. Alonso	60 Talias Trail	Middletown	CT	06457
10-0186	50 Talias Trail	Roberto Pugliares Kelly Kenefick-Pugliares	50 Talias Trail	Middletown	CT	06457
10-0185	40 Talias Trail	Michael T. Conner Viviana Conner	40 Talias Trail	Middletown	CT	06457
10-0184	30 Talias Trail	Giuseppe Lombardo Diana Lombardo	30 Talias Trail	Middletown	CT	06457
10-0183	20 Talias Trail	Michael Lamanivong Jieun Liana Yi	20 Talias Trail	Middletown	CT	06457
10-0181	509 Mile Lane	Palmer L. Gaines	509 Mile Lane	Middletown	CT	06457