# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN	R	Ε:
111		

NEW CINGULAR WIRELESS PCS, LLC (AT&T) BATCHED PETITION FOR A DECLARATORY RULING, PURSUANT TO CONNECTICUT GENERAL STATUTES §4-176 AND §16-50K, FOR THE INSTALLATION OF THREE SMALL CELL WIRELESS TELECOMMUNICATIONS FACILITIES ON PROPERTY LOCATED AT THE DURHAM FAIR GROUNDS LOCATED AT 24 TOWN HOUSE ROAD, DURHAM, CONNECTICUT.

PETITION NO
-------------

August 29, 2022

# PETITION FOR A DECLARATORY RULING: INSTALLATIONS HAVING NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

# I. <u>Introduction</u>

Pursuant to Section 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies ("R.C.S.A."), New Cingular Wireless PCS LLC ("AT&T") hereby petitions the Connecticut Siting Council (the "Siting Council") for a declaratory ruling ("Petition") that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") to install new small cell wireless telecommunications facilities on new poles on property located at 24 Town House Road (also referred to by Parcel IDs: 48-2 & 48-6) in the Town of Durham, Connecticut (the "Durham Fair Grounds") owned by the Durham Agricultural Fair Association (the "Fair Association"). AT&T submits this batched application for three (3) new small cell wireless facilities on three (3) new utility poles throughout the Durham Fair Grounds as summarized and referred to as follows:

- Facility 1 (AT&T Site ID: CRAN\_RTCB\_A1CT\_205): AT&T proposes a new Class 2 utility pole which will stand approximately 38'6"-tall above grade level ("AGL"). AT&T proposes to mount one 25.16"x24.13" masting antenna at the centerline height of approximately 37' AGL with associated equipment installed at the antenna-level height.
- Facility 2 (AT&T Site ID: CRAN\_RTCB\_A1CT\_204): AT&T proposes a new Class 2 utility pole which will stand approximately 39'-tall AGL. AT&T proposes to mount two 25.16"x24.13" masting antennas at the centerline height of approximately 37' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.

- Facility 3 (AT&T Site ID: CRAN\_RTCB\_A1CT\_109): AT&T proposes a new Class 2 utility pole which will stand approximately 34'-tall above grade level AGL. AT&T proposes to mount three 25.16"x24.13" masting antennas at the centerline height of approximately 30' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.

**Attachment 1** includes the property owner's authorization permitting AT&T to file this Petition and install the above referenced facilities.

# II. <u>Factual Background</u>

# a. AT&T's Need for the Proposed Small Cell Facilities

AT&T identified a need for additional coverage and/or capacity relief in its network at the Durham Fair Grounds. The proposed facilities are designed to assure permanent, reliable wireless service to AT&T customers at the Durham Fair Grounds and surrounding areas. The existing poles located at the Durham Fair Grounds are all owned and maintained by the Fair Association. The existing poles are used by the fair for various electrical, audio, and lighting purposes. AT&T's use of the existing poles is not feasible due to the potential interference that AT&T's use may have on the Fair Association's use and maintenance of their poles. Similarly, shared use of the existing poles could cause disruption of AT&T's services since the Fair Association's pole or equipment maintenance would likely necessitate a temporary shut down or removal of AT&T's equipment. AT&T therefore proposes new poles which will be installed and owned by AT&T or a third-party vendor to be identified following approval by the Siting Council.

# b. AT&T's Proposed Small Cell Facilities

AT&T proposes to install its three (3) small cell facilities on new Class 2 utility poles at three locations throughout the Durham Fair Grounds. The summary of AT&T's proposed facilities is included above. Specifications and details of AT&T's proposed facilities are shown on the drawings included in Attachment 2 (Facility 1: Attachment 2a; Facility 2: Attachment 2b; Facility 3: Attachment 2c). Structural analysis reports confirming that the new pole installations will support AT&T's small cell facilities are included as Attachment 3 (Facility 1: Attachment 3a; Facility 2: Attachment 3b; Facility 3: Attachment 3c). Photosimulations for each proposed facility are also included as Attachment 4 (Facility 1: Attachment 4a; Facility 2: Attachment 4b; Facility 3: Attachment 4c). AT&T will deploy its 1900 MHz and AWS frequencies at each facility. AT&T does not propose any backup power for any of the proposed small cell facilities. The necessary fiber and power connections will be provided via overhead wiring routed by the existing Fair Association utility poles on site.

# c. Siting Council Jurisdiction

Connecticut law confers jurisdiction to the Siting Council over certain "facilities", including "telecommunication towers." C.G.S. §16-50i(a)(6). State regulations define "tower" as a "structure, whether free standing or attached to a building or another structure... used principally to support one or more antennas for receiving or sending radio frequency signals...." R.C.S.A. §16-50j-2a(30)(A). Utility structures used to support electric distribution lines located within the public right-of-way fall under PURA's jurisdiction. Thus, PURA has jurisdiction over small cell facility attachments to utility poles located within the public right-of-way. PURA, Docket 16-06-38.

Here, the proposed utility poles will be "used principally to support one or more antennas for receiving or sending radio frequency signals" and the poles will be located on private property and will not be used as a part of the existing electric distribution system. The proposed utility pole along with AT&T's wireless equipment constitutes a "facility" over which the Siting Council has jurisdiction. This jurisdiction is consistent with the Siting Council's November 5, 2007 Opinion in Petition No. 809.

# III. Discussion

# a. The Proposed Small Cell Facilities Will Not Have A Substantial Environmental Impact

For the reasons set forth below, AT&T respectfully submits that its proposed small cell facilities will not have a substantial environmental impact and as such a Certificate pursuant to C.G.S. Section 16-50k(a) is not required.

# i. Physical Environmental Effects

The proposed utility poles and AT&T's installation of antennas and associated radio and electrical equipment will not result in any significant physical and environmental change to the property or any adjacent parcels. None of the proposed facilities will be located within a wetland: Facility 1 is approximately 310' from the nearest wetland; Facility 2 is approximately 81' from the nearest wetland; and Facility 3 is approximately 530' from the nearest wetland. Facility 1 and Facility 3 are not located within a FEMA Flood Zone while Facility 2 appears to be located within Flood Zone AE. AT&T's proposed small cell facilities will not require any tree removal and the pole installation involves minimal disturbance. Construction activity is expected to take approximately 2 weeks total and construction will only occur Monday through Friday between the hours of 8:00am and 5:00pm.

#### ii. Visual Effects

The Durham Fair Grounds are approximately 45 acres in size and are improved with various agricultural and exhibit buildings. Above-ground utility poles are located throughout the Durham Fair Grounds and along the surrounding right-of-ways. The new poles will be placed upon private property where similar utility poles exist and AT&T's proposed poles will all be located at least 500' from the nearest public right-of-way. The closest residential structure to any of the facilities (Facility 3) will be approximately 500'. As shown in the photosimulations in **Attachment 4** (Facility 1: **Attachment 4a**; Facility 2: **Attachment 4b**; Facility 3: **Attachment 4c**), the proposed poles and AT&T's small cell facilities will not result in a significant visual impact to the area.

# iii. FCC 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. Power density reports are included in **Attachment 5 (Facility 1: Attachment 5a; Facility 2: Attachment 5b; Facility 3: Attachment 5c)** which conclude that the maximum power density at ground/street level for each proposed facility are as follows:

Facility 1: 1.02182%Facility 2: 4.64850%Facility 3: 2.91756%

The total radio frequency power density will be well within standards adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and the MPE limits established by the Federal Communications Commission.

# b. Notice to Municipal Officials and Adjoining Landowners

Pursuant to R.C.S.A. Section 16-50j-40(a), notice of AT&T's intent to file this Petition was sent to each person appearing of record as an owner of property that abuts the two tax parcels referred to herein as the Durham Fair Grounds. Certification of such notice, a copy of the notice, and the list of property owners is included in **Attachment 6** along with the map from the Town's GIS website used to identify abutting property owners. The appropriate municipal officials and government agencies as listed in Section 16-50*l* of the C.G.S were also provided notice of AT&T's intent to file Petition.¹ **Attachment 6** also includes a certification of service to municipal officials and government agencies to whom notice was sent.

<sup>&</sup>lt;sup>1</sup> At the time of this Petition, the Town of Durham has a vacancy in its First Selectman position. This Petition has therefore been sent to the Town of Durham Executive Assistant to the First Selectman as well as the two sitting Town Selectmen.

# IV. Conclusion

As set forth above, AT&T's proposed small cell facilities will not result in any known adverse environmental effects. Therefore, and for all the foregoing reasons, AT&T petitions the Siting Council for a determination that the proposed small cell facilities do not require a Certificate of Environmental Compatibility and Public Need and requests that the Siting Council issue an order approving same.

Respectfully submitted,

**Daniel Patrick** 

On behalf of the Petitioner

cc: Selectman John Szewczyk, Town of Durham

Selectman George Eames, Town of Durham

Charles Lawrence, Executive Assistant to the First Selectman, Town of Durham

Jennifer Perry, Administrative Coordinator of Building and Land Use Department, Town of Durham

Kim Garvis, Town Clerk, Town of Durham

AT&T

Centerline

Lucia Chiocchio, Esq.

Meyling Nuñez

# **ATTACHMENT 1**



# **LETTER OF AUTHORIZATION**

RE: New Cingular Wireless, LLC-Small Cell Installation // cRAN\_RCTB\_A1CT\_109 // cRAN\_RCTB\_A1CT\_204 // cRAN\_RCTB\_A1CT\_204

ADDRESS: 24 Town House Road Durham CT

The Durham Agricultural Fair Association, owners of the above-described property, authorize New Cingluar Wireless PCS, LLC ("AT&T") and/or their agent, to act as our nonexclusive agent for the sole purpose of filing and consummating any land use or building permit application(s) necessary to obtain approval of the applicable jurisdiction for AT&T's three new wireless communications facility at the above-described property.

We understand that this application may be denied, modified, or approved with conditions, and that any such conditions of approval or modifications will be the sole responsibility of the carrier and will be complied with prior to issuance of a building permit.

Sincerely,

Daniel Miramant,

President

Durham Agricultural Fair Association

# **ATTACHMENT 2**

# **ATTACHMENT 2a**



# AT&T SITE ID: CRAN\_RTCB\_A1CT\_205 **24 TOWN HOUSE RD DURHAM, CT 06422**

**GENERAL NOTES** VICINITY MAP (NOT TO SCALE)

**SHEET INDEX DESCRIPTION** REV. TITLE SHEET SITE PLAN ABUTTERS LIST KEY PLAN AND ELEVATION EQUIPMENT DETAILS

# PROJECT DESCRIPTION

- INSTALLATION OF ANTENNA AND ASSOCIATED EQUIPMENT ON PROPOSED NEW POLE.
- THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT SITE AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF IMPROVING CELLULAR AND WIRELESS INTERNET SERVICE.

# PROJECT

## **DRIVING DIRECTIONS**

SITE ADDRESS:

24 TOWN HOUSE RD DURHAM, CT 06422

COUNTY:

MIDDLESEX

NEW POLE

LATITUDE: 41.469264° N

**PROJECT SUMMARY** 

LONGITUDE: 72.683269° W

STRUCTURE TYPE:

ARCHITECT/ENGINEER:

HUDSON DESIGN GROUP LLC 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 FROM ROCKY HILL, CT:

HEAD SOUTHEAST TOWARD CAPITAL BLVD. TURN LEFT ONTO CAPITAL BLVD. TURN LEFT ONTO STATE HWY 411. TURN LEFT TO MERGE ONTO I-9I S. MERGE ONTO I-9I S. TAKE EXIT 3 FOR TRUMBULL ST. CONTINUE ONTO TRUMBULL ST. TURN RIGHT ONTO LINCOLN ST. TURN LEFT AT THE 1ST CROSS STREET ONTO BRADLEY ST. TURN RIGHT ONTO WHITNEY AVE. TURN LEFT INTO SACHEM ST. TURN RIGHT ONTO PROSPECT ST. TURN LEFT, TURN LEFT, TURN LEFT.

- 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.
- 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.
- 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.

FRAMINGHAM, MA 01701

**STRUCTION**)

CON

FOR

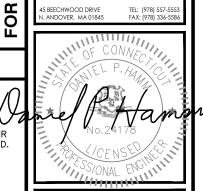
(NOT

ZONIN



SUITE# 301 WEST BRIDGEWATER, MA 02379





CHECKED BY:

APPROVED BY:

SUBMITTALS DESCRIPTION 08/03/22 ISSUED FOR REVIEW A 07/06/22 ISSUED FOR REVIEW

CLUSTER AND NODE NUMBER: CRAN\_RCTB\_A1CT\_205

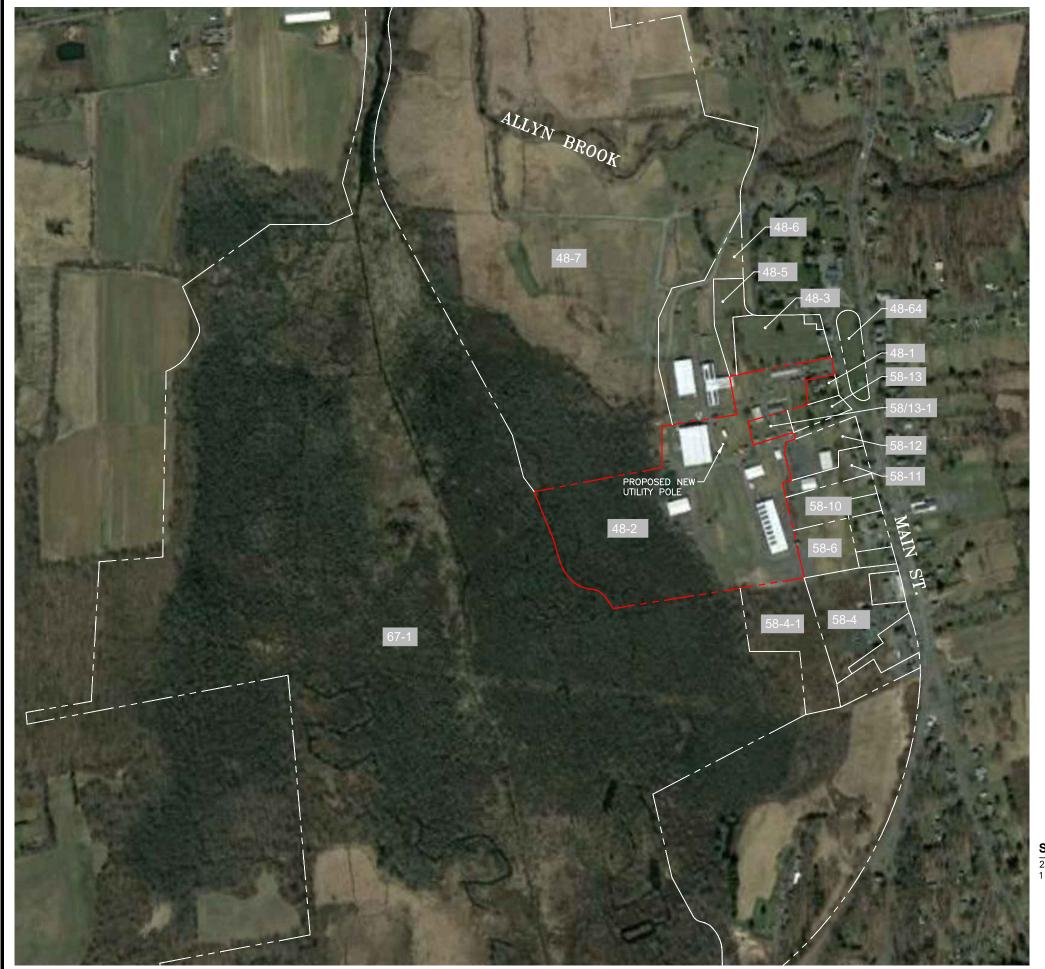
CRAN\_RTCB\_A1CT\_205

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

TITLE SHEET

SHEET NUMBER

1-1



APPROXIMATE LAT: 41.469264° N COORDINATES: LONG: 72.683269° W





750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



45 BEECHWOOD DRIVE

TEL: (978) 557-5553



CHECKED BY: AT

APPROVED BY: DPH

SUBMITTALS

REV. DATE DESCRIPTION BY

1 08/03/22 ISSUED FOR REVIEW MR
A 07/06/22 ISSUED FOR REVIEW MR

CLUSTER AND NODE NUMBER:
CRAN\_RCTB\_A1CT\_205

SITE ID:
CRAN\_RTCB\_A1CT\_205

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

SITE PLAN

SHEET NUMBER

C-1

SITE PLAN

22x34 SCALE: 1"=300'
11x17 SCALE: 1"=600'

GRAPHIC SCALE 150 300 600 900 FEET

INFORMATION SHOWN HEREON IS BASED ON EXISTING INFORMATION OBTAINED FROM TAX MAPS, MUNICIPAL GIS WEBSITE, & AERIAL IMAGERY. THE INFORMATION SHOWN IS NOT A RIGHT OF WAY OR BOUNDARY SURVEY AND DOES NOT SATISFY THE REQUIREMENTS FOR A BOUNDARY SURVEY. A SITE SURVEY WAS NOT PERFORMED BY HUDSON DESIGN GROUP, LLC

IMMEDIATE ADJOINING PROPERTY OWNER INFORMATION			
PARCEL	OWNER	PHYSICAL ADDRESS	MAILING ADDRESS
67-1	STATE OF CONNECTICUT	PARMELEE HILL RD DURHAM, CT 06422	79 ELM ST HARTFORD, CT06115
48-7	TOWN OF DURHAM	MAPLE AVE. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
58-4-1	TOWN OF DURHAM	MAIN ST. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
58-4	LAMOS LLC	16 MAIN ST. DURHAM, CT 06422	P.O. BOX 120111 EAST HAVEN, CT 06512
58-6	DURHAM AGRICULTURAL FAIR ASSOC	MAIN ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
58-10	DURHAM AGRICULTURAL FAIR ASSOC	52 MAIN ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
58-11	DURHAM AGRICULTURAL FAIR ASSOC	62 MAIN ST. DURHAM, CT 06422	24 TOWNHOUSE RD. DURHAM, CT 06422
58-12	DURHAM AGRICULTURAL FAIR ASSOC	68 MAIN ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
58-13	EAMES ADELE M & GEORGE M 3RD	10 TOWN HOUSE RD. DURHAM, CT 06422	10 TOWN HOUSE RD. DURHAM, CT 06422
58/13-1	DURHAM AGRICULTURAL FAIR ASSOC	TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
48-1	SALVA CHERYL N	18 TOWN HOUSE RD. DURHAM, CT 06422	18 TOWN HOUSE RD. DURHAM, CT 06422
48-2	DURHAM AGRICULTURAL FAIR ASSOC	24 TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
48-64	TOWN OF DURHAM	TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
48-3	TOWN OF DURHAM	30 TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
48-5	DURHAM AGRICULTURAL FAIR ASSOC	MAPLE ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
48-6	DURHAM AGRICULTURAL FAIR ASSOC	MAPLE ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422





750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



45 BEECHWOOD DRIVE

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



CHECKED BY:

APPROVED BY: DPH

SUBMITTALS

REV. DATE DESCRIPTION BY

1 08/03/22 ISSUED FOR REVIEW MR

A 07/06/22 ISSUED FOR REVIEW MR

CLUSTER AND NODE NUMBER:

CRAN\_RCTB\_A1CT\_205

SITE ID:
CRAN\_RTCB\_A1CT\_205

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

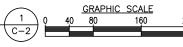
ABUTTER LIST

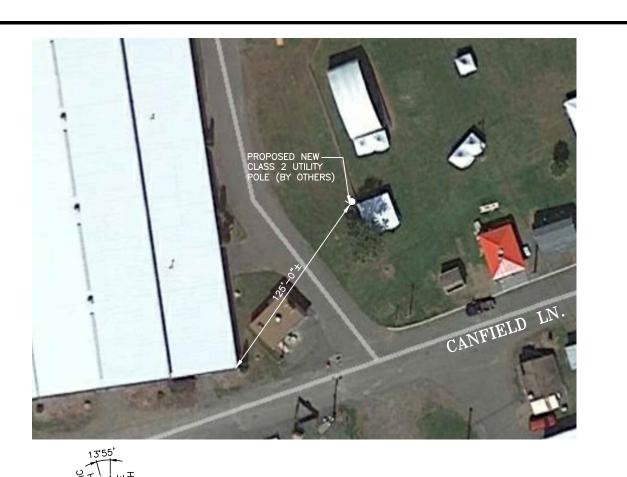
SHEET NUMBER

C-2



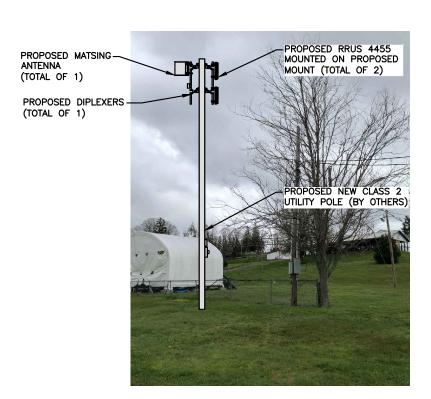






GRAPHIC SCALE

90 FEET



**KEY PLAN**22x34 SCALE: 1"=30'

11x17 SCALE: 1"=60'

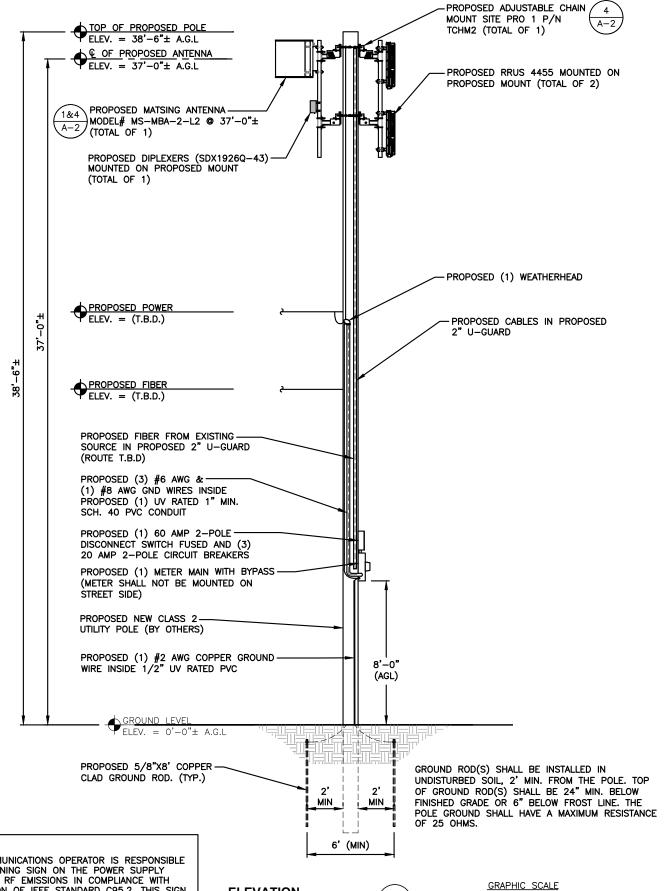


(A-1)

PROPOSED 5/8"X8' COPP
CLAD GROUND ROD. (TYP.

NOTE:

1. THE WIRELESS COMMUNICATIONS OPERATOR IS RESPONSIBLE
FOR PLACING A WARNING SIGN ON THE POWER SUPPLY
COMMUNICATING THE RF EMISSIONS IN COMPLIANCE WITH
THE CURRENT EDITION OF IEEE STANDARD C95.2. THIS SIGN
MUST ALSO HAVE A 24—HOUR CONTACT PHONE NUMBER IN
CASE OF EMERGENCY. THIS NUMBER MUST BE VISIBLE FROM
THE GROUND.



**ELEVATION** 

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

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



41.469264° 1 72.683269° 1

LONG:

APPROXIMATE

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

COORDINATES:



750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



45 BEECHWOOD DRIVE

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

DPH



CHECKED BY:

APPROVED BY:

SUBMITTALS

REV. DATE DESCRIPTION B

1 08/03/22 ISSUED FOR REVIEW M

CLUSTER AND NODE NUMBER:

CRAN\_RCTB\_A1CT\_205

A 07/06/22 ISSUED FOR REVIEW

SITE ID:
CRAN\_RTCB\_A1CT\_205

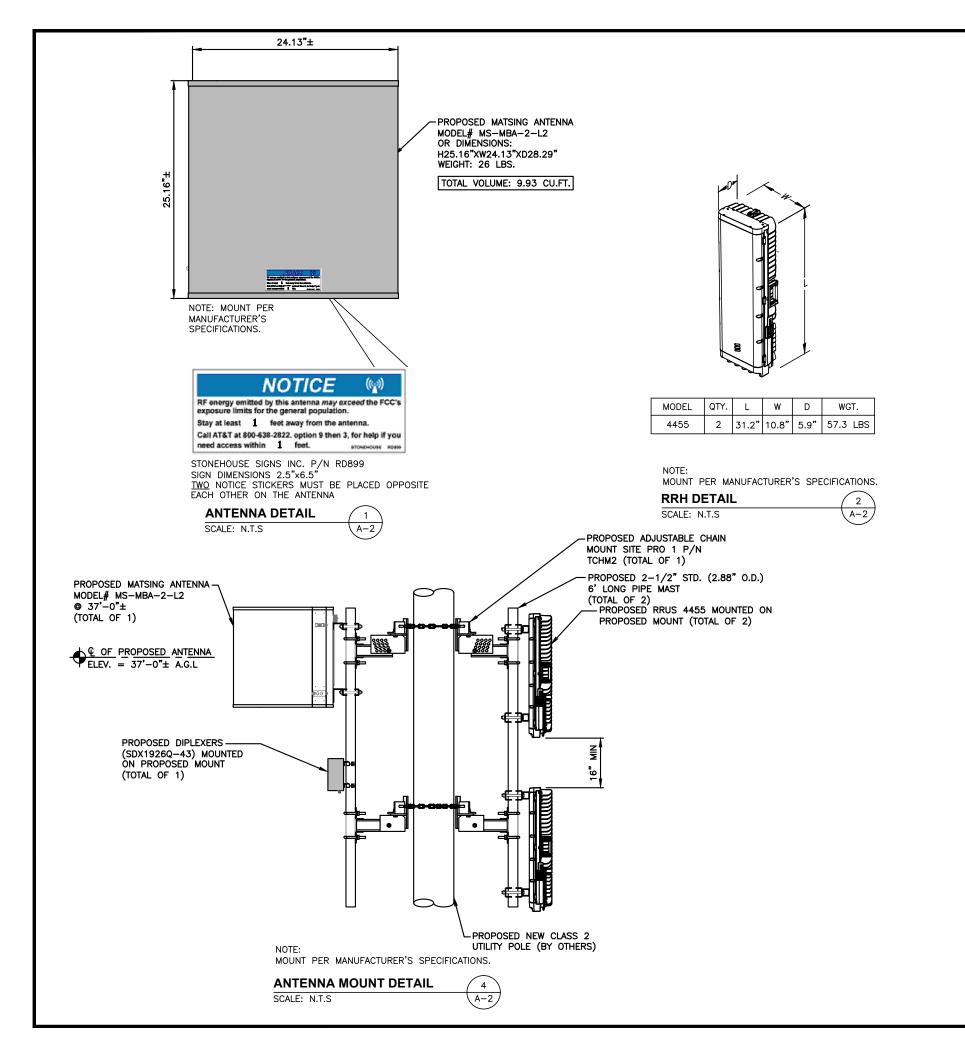
SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

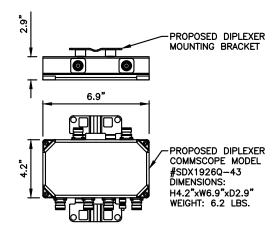
SHEET TITLE

KEY PLAN AND ELEVATION

SHEET NUMBER

**A-1** 





NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

DIPLEXER DETAIL (AS REQUIRED)

SCALE: N.T.S







750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



45 BEECHWOOD DRIVE

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



CHECKED BY: AT

APPROVED BY: DPH

SUBMITTALS

REV. DATE DESCRIPTION B

1 08/03/22 ISSUED FOR REVIEW M

A 07/06/22 ISSUED FOR REVIEW M

CLUSTER AND NODE NUMBER:

CRAN\_RCTB\_A1CT\_205

SITE ID:
CRAN\_RTCB\_A1CT\_205

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMB

A-2

# **ATTACHMENT 2b**



# AT&T SITE ID: CRAN\_RTCB\_A1CT\_204 **24 TOWN HOUSE RD DURHAM, CT 06422**

# **GENERAL NOTES**

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&TY
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.

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.

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.

FRAMINGHAM, MA 01701

**CONSTRUCTION**)



750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



FOR

CHECKED BY:

APPROVED BY:

SUBMITTALS DESCRIPTION

1	08/03/22	ISSUED FOR REVIEW	MR
Α	07/06/22	ISSUED FOR REVIEW	MR

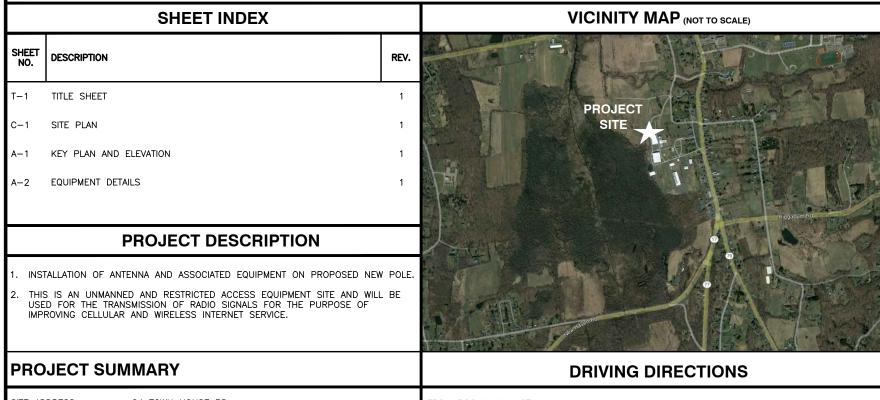
CLUSTER AND NODE NUMBER: CRAN\_RCTB\_A1CT\_204

CRAN\_RTCB\_A1CT\_204

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

TITLE SHEET

T-1



SITE ADDRESS: 24 TOWN HOUSE RD

DURHAM, CT 06422

COUNTY:

MIDDLESEX

LATITUDE: 41.470628° N

LONGITUDE: 72.684386° W

STRUCTURE TYPE: NEW POLE

ARCHITECT/ENGINEER:

HUDSON DESIGN GROUP LLC 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 FROM ROCKY HILL, CT:

HEAD SOUTHEAST TOWARD CAPITAL BLVD. TURN LEFT ONTO CAPITAL BLVD. TURN LEFT ONTO STATE HWY 411. TURN LEFT TO MERGE ONTO I-9I S. MERGE ONTO I-9I S. TAKE EXIT 3 FOR TRUMBULL ST. CONTINUE ONTO TRUMBULL ST. TURN RIGHT ONTO LINCOLN ST. TURN LEFT AT THE 1ST CROSS STREET ONTO BRADLEY ST. TURN RIGHT ONTO WHITNEY AVE. TURN LEFT INTO SACHEM ST. TURN RIGHT ONTO PROSPECT ST. TURN LEFT, TURN LEFT, TURN LEFT.

DJOINING PROPERTY OWNER INFORMATION

OWNER PHYSICAL ADDRESS MAILING ADDRESS



IMMEDIA	IMMEDIATE ADJOINING PROPERTY OWNER INFORMATION			
PARCEL	PARCEL OWNER		MAILING ADDRESS	
48-7	TOWN OF DURHAM	MAPLE AVE. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422	
48-2	DURHAM AGRICULTURAL FAIR ASSOC	24 TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422	
48-3	TOWN OF DURHAM	30 TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422	
48-5	DURHAM AGRICULTURAL FAIR ASSOC	MAPLE ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422	
48-6	DURHAM AGRICULTURAL FAIR ASSOC	MAPLE ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422	
48-15	CORONA KATHLEEN N	17 JOHNS WAY DURHAM, CT 06422	17 JOHNS WAY DURHAM, CT 06422	
48-16	BELTON AMANDA L TRUSTEE	21 MAPLE AVE. DURHAM, CT 06422	21 MAPLE AVE. DURHAM, CT 06422	
48-17	GOSSNER KRISTINA L & MARK B	29 MAPLE AVE. DURHAM, CT 06422	29 MAPLE AVE. DURHAM, CT 06422	





750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



ANDOVER, MA 01845 FAX: (978) 3



CHECKED BY: AT

APPROVED BY: DPH

SUBMITTALS			
DATE	DESCRIPTION	BY	
		MR	
07/06/22	ISSUED FOR REVIEW	MR	
	DATE 08/03/22		

cluster and node number:
CRAN\_RCTB\_A1CT\_204

SITE ID:
CRAN\_RTCB\_A1CT\_204

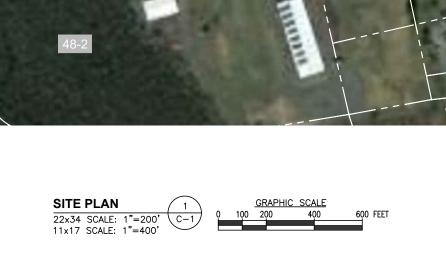
SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

SITE PLAN

SHEET NUMBER

C-1



INFORMATION SHOWN HEREON IS BASED ON EXISTING INFORMATION OBTAINED FROM TAX MAPS, MUNICIPAL GIS WEBSITE, & AERIAL IMAGERY. THE INFORMATION SHOWN IS NOT A RIGHT OF WAY OR BOUNDARY SURVEY AND DOES NOT SATISFY THE REQUIREMENTS FOR A BOUNDARY SURVEY. A SITE SURVEY WAS NOT PERFORMED BY HUDSON DESIGN GROUP, LLC



120 FEET



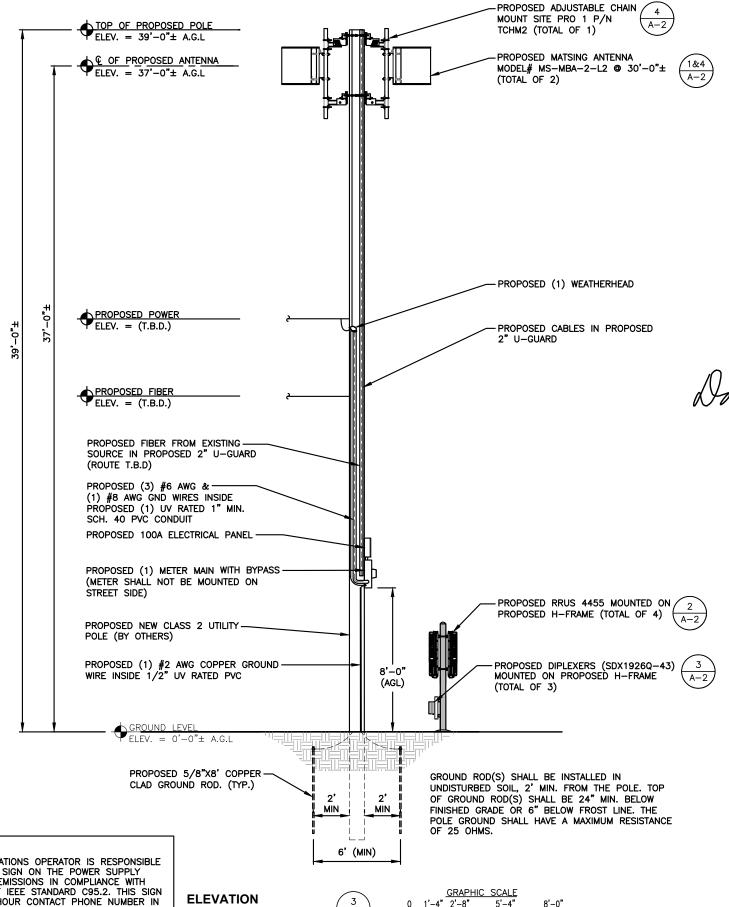


**KEY PLAN** 

22x34 SCALE: 1"=40' 11x17 SCALE: 1"=80'

NOTE:

1. THE WIRELESS COMMUNICATIONS OPERATOR IS RESPONSIBLE FOR PLACING A WARNING SIGN ON THE POWER SUPPLY COMMUNICATING THE RF EMISSIONS IN COMPLIANCE WITH THE CURRENT EDITION OF IEEE STANDARD C95.2. THIS SIGN MUST ALSO HAVE A 24-HOUR CONTACT PHONE NUMBER IN CASE OF EMERGENCY. THIS NUMBER MUST BE VISIBLE FROM THE GROUND.



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

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

APPROXIMATE

COORDINATES

550 COCHITUATE ROAD FRAMINGHAM, MA 01701

41.470628° N 72.684386° W

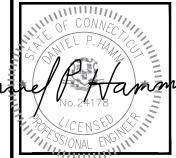
LONG:



750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



5 BEECHWOOD DRIVE TEL I. ANDOVER, MA 01845 FAX



CHECKED BY: A

DPH

APPROVED BY:

SUBMITTALS

REV. DATE DESCRIPTION B

1 08/03/22 ISSUED FOR REVIEW M
A 07/06/22 ISSUED FOR REVIEW M

CLUSTER AND NODE NUMBER:

SITE ID:
CRAN\_RTCB\_A1CT\_204

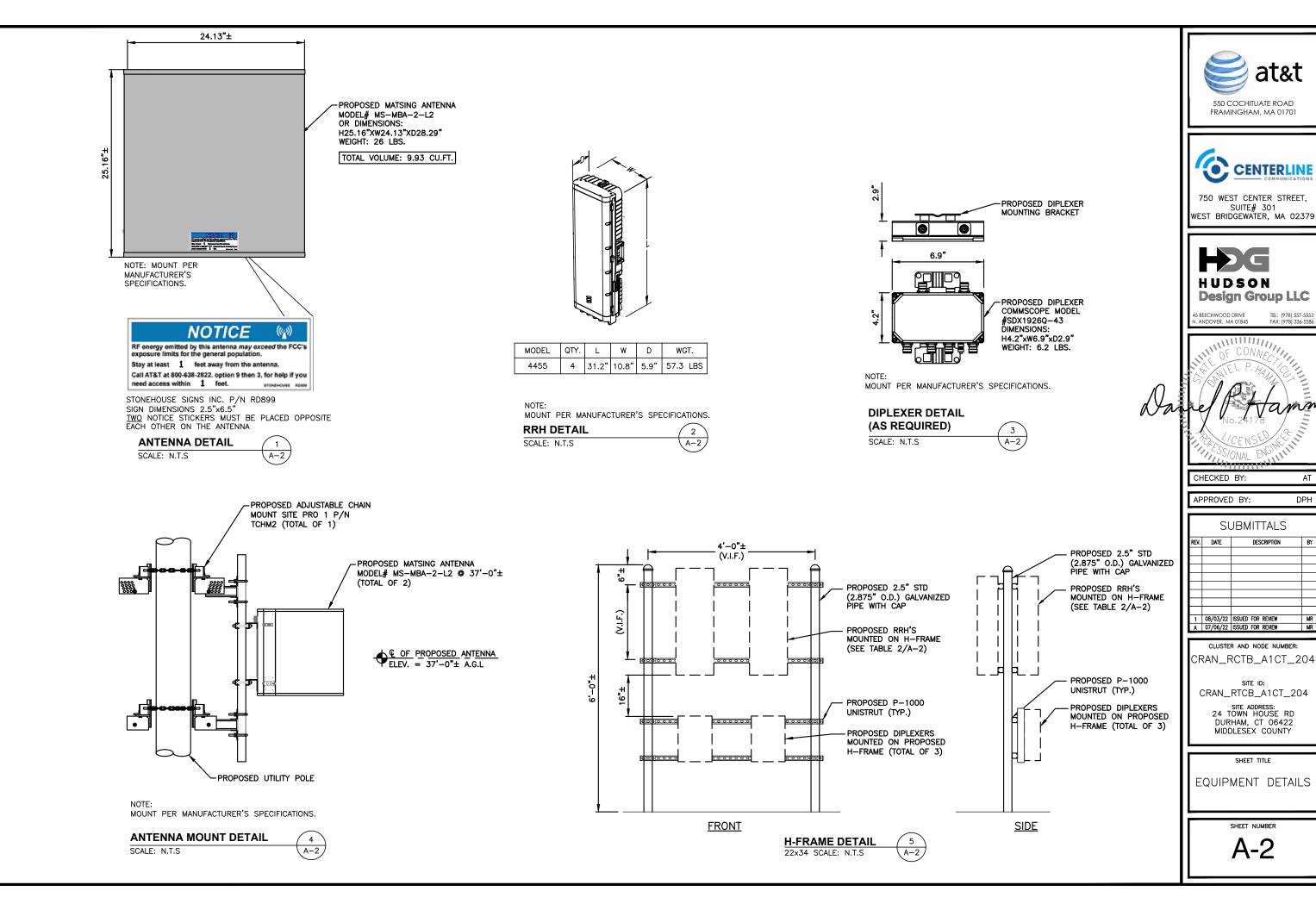
SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

KEY PLAN AND ELEVATION

SHEET NUMBER

**A-1** 



DPH

# **ATTACHMENT 2c**



# AT&T SITE ID: CRAN\_RTCB\_A1CT\_109 **24 TOWN HOUSE RD DURHAM, CT 06422**

**VICINITY MAP** (NOT TO SCALE)

# LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

# PROJECT DESCRIPTION

**SHEET INDEX** 

- INSTALLATION OF ANTENNA AND ASSOCIATED EQUIPMENT ON PROPOSED NEW POLE.
- THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT SITE AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF IMPROVING CELLULAR AND WIRELESS INTERNET SERVICE.

## **DRIVING DIRECTIONS**

SITE ADDRESS: 24 TOWN HOUSE RD

PROJECT SUMMARY

DESCRIPTION

TITLE SHEET

SITE PLAN

ABUTTERS LIST

EQUIPMENT DETAILS

KEY PLAN AND ELEVATION

DURHAM, CT 06422

COUNTY:

MIDDLESEX

LATITUDE: 41.467882° N

LONGITUDE: 72.681727° W

STRUCTURE TYPE: NEW POLE

ARCHITECT/ENGINEER:

HUDSON DESIGN GROUP LLC 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845

FROM ROCKY HILL, CT:

REV.

HEAD SOUTHEAST TOWARD CAPITAL BLVD. TURN LEFT ONTO CAPITAL BLVD. TURN LEFT ONTO STATE HWY 411. TURN LEFT TO MERGE ONTO I—91 S. MERGE ONTO I—91 S. TAKE EXIT 3 FOR TRUMBULL ST. CONTINUE ONTO TRUMBULL ST. TURN RIGHT ONTO LINCOLN ST. TURN LEFT AT THE 1ST CROSS STREET ONTO BRADLEY ST. TURN RIGHT ONTO WHITNEY AVE. TURN LEFT INTO SACHEM ST. TURN RIGHT ONTO PROSPECT ST. TURN LEFT, TURN

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

**GENERAL NOTES** 

- 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.
- 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.

FRAMINGHAM, MA 01701

**CONSTRUCTION**)

FOR

(NOT

**ZONING** 

FOR



750 WEST CENTER STREET, SUITE# 301
WEST BRIDGEWATER, MA 02379





CHECKED BY:

APPROVED BY:

SUBMITTALS DESCRIPTION 08/03/22 ISSUED FOR REVIEW

CLUSTER AND NODE NUMBER: CRAN\_RCTB\_A1CT\_109

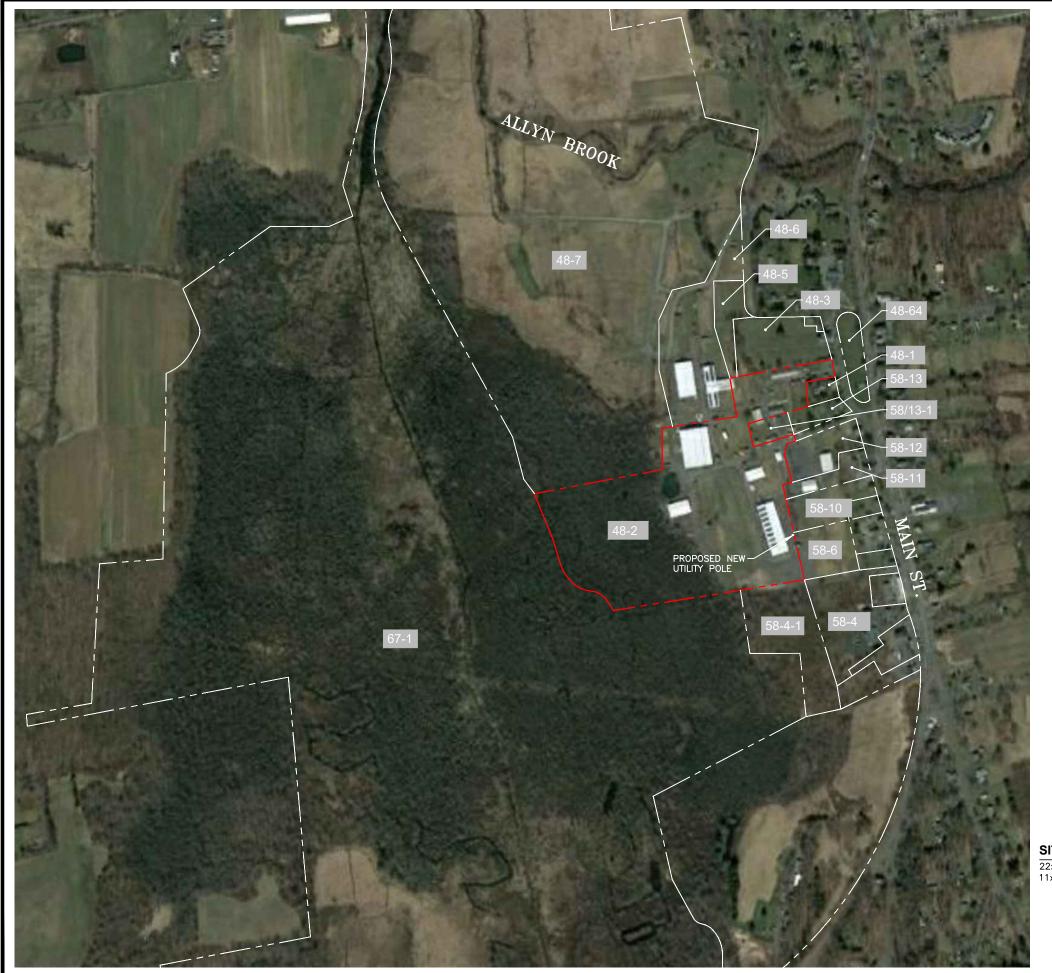
A 07/05/22 ISSUED FOR REVIEW

CRAN\_RTCB\_A1CT\_109

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

TITLE SHEET

| - 1



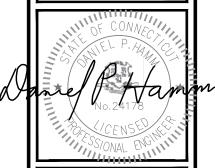
41.467882° N 72.681727° W APPROXIMATE LAT: LONG:





750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379





CHECKED BY:

APPROVED BY:

SUBMITTALS DESCRIPTION 1 08/03/22 ISSUED FOR REVIEW A 07/05/22 ISSUED FOR REVIEW

CLUSTER AND NODE NUMBER: CRAN\_RCTB\_A1CT\_109

SITE ID: CRAN\_RTCB\_A1CT\_109

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

SITE PLAN

C-1

SITE PLAN 150 300 22x34 SCALE: 1"=300' 11x17 SCALE: 1"=600'

INFORMATION SHOWN HEREON IS BASED ON EXISTING INFORMATION OBTAINED FROM TAX MAPS, MUNICIPAL GIS WEBSITE, & AERIAL IMAGERY. THE INFORMATION SHOWN IS NOT A RIGHT OF WAY OR BOUNDARY SURVEY AND DOES NOT SATISFY THE REQUIREMENTS FOR A BOUNDARY SURVEY. A SITE SURVEY WAS NOT PERFORMED BY HUDSON DESIGN GROUP, LLC

900 FEET

IMMED	DIATE ADJOINING P	ROPERTY OWNER I	NFORMATION
PARCEL	OWNER	PHYSICAL ADDRESS	MAILING ADDRESS
67-1	STATE OF CONNECTICUT	PARMELEE HILL RD DURHAM, CT 06422	79 ELM ST HARTFORD, CT06115
48-7	TOWN OF DURHAM	MAPLE AVE. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
58-4-1	TOWN OF DURHAM	MAIN ST. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
58-4	LAMOS LLC	16 MAIN ST. DURHAM, CT 06422	P.O. BOX 120111 EAST HAVEN, CT 06512
58-6	DURHAM AGRICULTURAL FAIR ASSOC	MAIN ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
58-10	DURHAM AGRICULTURAL FAIR ASSOC	52 MAIN ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
58-11	DURHAM AGRICULTURAL FAIR ASSOC	62 MAIN ST. DURHAM, CT 06422	24 TOWNHOUSE RD. DURHAM, CT 06422
58-12	DURHAM AGRICULTURAL FAIR ASSOC	68 MAIN ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
58-13	EAMES ADELE M & GEORGE M 3RD	10 TOWN HOUSE RD. DURHAM, CT 06422	10 TOWN HOUSE RD. DURHAM, CT 06422
58/13-1	DURHAM AGRICULTURAL FAIR ASSOC	TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
48-1	SALVA CHERYL N	18 TOWN HOUSE RD. DURHAM, CT 06422	18 TOWN HOUSE RD. DURHAM, CT 06422
48-2	DURHAM AGRICULTURAL FAIR ASSOC	24 TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
48-64	TOWN OF DURHAM	TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
48-3	TOWN OF DURHAM	30 TOWN HOUSE RD. DURHAM, CT 06422	P.O. BOX 428 DURHAM, CT 06422
48-5	DURHAM AGRICULTURAL FAIR ASSOC	MAPLE ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422
48-6	DURHAM AGRICULTURAL FAIR ASSOC	MAPLE ST. DURHAM, CT 06422	P.O. BOX 225 DURHAM, CT 06422





750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379





CHECKED BY:

APPROVED BY: DPH

SUBMITTALS DESCRIPTION 1 08/03/22 ISSUED FOR REVIEW A 07/05/22 ISSUED FOR REVIEW

CLUSTER AND NODE NUMBER: CRAN\_RCTB\_A1CT\_109

SITE ID: CRAN\_RTCB\_A1CT\_109

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

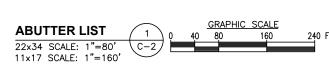
ABUTTER LIST

SHEET NUMBER

C-2

INFORMATION SHOWN HEREON IS BASED ON EXISTING INFORMATION OBTAINED FROM TAX MAPS, MUNICIPAL GIS WEBSITE, & AERIAL IMAGERY. THE INFORMATION SHOWN IS NOT A RIGHT OF WAY OR BOUNDARY SURVEY AND DOES NOT SATISFY THE REQUIREMENTS FOR A BOUNDARY SURVEY. A SITE SURVEY WAS NOT PERFORMED BY HUDSON DESIGN GROUP, LLC





PROPOSED ADJUSTABLE CHAIN / 4

MODEL# MS-MBA-2-L2 @ 30'-0"± (TYP.  $\ddot{1}$  OF PER SECTOR, TOTAL OF 3) A-2

MOUNT SITE PRO 1 P/N TCHM3 (TOTAL OF 1)

PROPOSED (1) WEATHERHEAD

2" U-GUARD

PROPOSED CABLES IN PROPOSED

PROPOSED DIPLEXERS (SDX1926Q-43) (
MOUNTED ON PROPOSED H-FRAME

(TOTAL OF 3)

GROUND ROD(S) SHALL BE INSTALLED IN UNDISTURBED SOIL, 24" MIN. FROM THE POLE. TOP

OF GROUND ROD(S) SHALL BE 24" MIN. BELOW

FINISHED GRADE OR 6" BELOW FROST LINE. THE POLE GROUND SHALL HAVE A MAXIMUM RESISTANCE

PROPOSED MATSING ANTENNA





750 WEST CENTER STREET, SUITE# 301
WEST BRIDGEWATER, MA 02379



DPH



CHECKED BY:

APPROVED BY:

SLIBMITTALS

ı	SUDMITTALS			
	REV.	DATE	DESCRIPTION	
				L
				ŀ
				H
				H
				t
				T
	1		ISSUED FOR REVIEW	
		AT /AT /AA	ICCUED FOR DEVIEW	г

CLUSTER AND NODE NUMBER: CRAN\_RCTB\_A1CT\_109

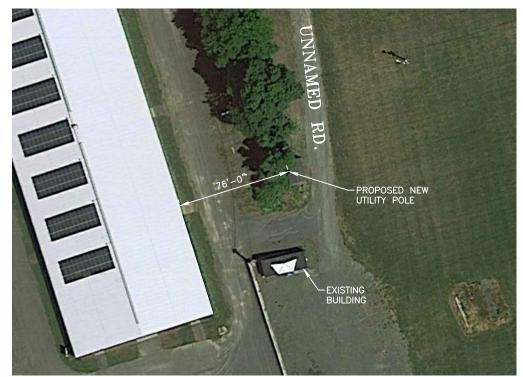
CRAN\_RTCB\_A1CT\_109

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

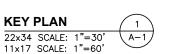
SHEET TITLE KEY PLAN AND

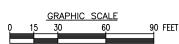
ELEVATION

**A**-1











- PROPOSED RRUS MOUNTED ON PROPOSED H-FRAME (TOTAL OF 6)

PROPOSED NEW UTILITY POLE

PROPOSED MATSING ANTENNA

- EXISTING SHED TO BE REMOVED (BY OTHERS)

PROPOSED 5/8"X8' COPPER -CLAD GROUND ROD. (TYP.) ∥ MIN ¦\_ NOTE: 6' (MIN) THE WIRELESS COMMUNICATIONS OPERATOR IS RESPONSIBLE FOR PLACING A WARNING SIGN ON THE POWER SUPPLY COMMUNICATING THE RF EMISSIONS IN COMPLIANCE WITH THE CURRENT EDITION OF IEEE STANDARD C95.2. THIS SIGN **ELEVATION** 

TOP OF PROPOSED POLE

ELEV. = 34'-0"± A.G.L

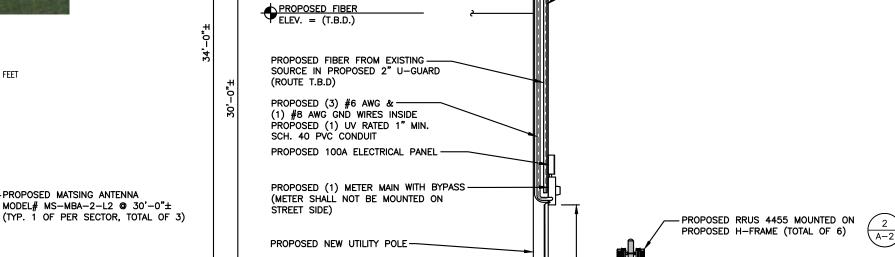
© OF PROPOSED ANTENNA ELEV. = 30'-0"± A.G.L

PROPOSED POWER ELEV. = (T.B.D.)

22x34 SCALE: 3/8"=1'-0" 11x17 SCALE: 3/16"=1'-0"

MUST ALSO HAVE A 24-HOUR CONTACT PHONE NUMBER IN CASE OF EMERGENCY. THIS NUMBER MUST BE VISIBLE FROM THE GROUND.

**EXISTING CONDITIONS PHOTO DETAIL** SCALE: N.T.S



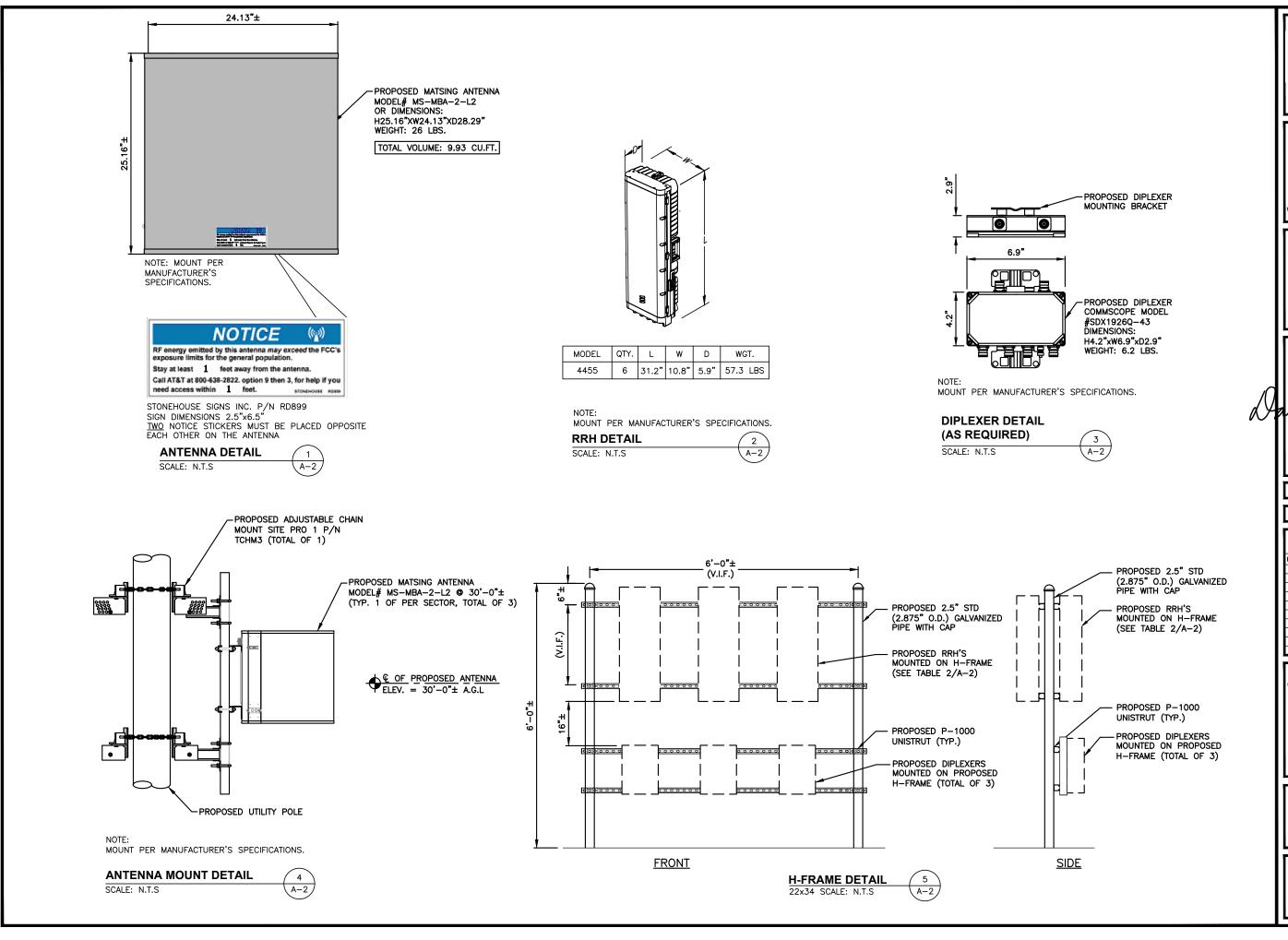
8'-0"

(AGL)

ELEV. =  $0'-0"\pm A.G.L$ 

PROPOSED (1) #2 AWG COPPER GROUND -WIRE INSIDE 1/2" UV RATED PVC

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







750 WEST CENTER STREET, SUITE# 301 WEST BRIDGEWATER, MA 02379



45 BEECHWOOD DRIVE

TEL: (978) 557-5553

DPH

Jane P. Ham C. No. 24178

CHECKED BY:

APPROVED BY:

SUBMITTALS

CLUSTER AND NODE NUMBER:

CRAN\_RCTB\_A1CT\_109

SITE ID:
CRAN\_RTCB\_A1CT\_109

SITE ADDRESS: 24 TOWN HOUSE RD DURHAM, CT 06422 MIDDLESEX COUNTY

SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

A-2

# **ATTACHMENT 3**

# **ATTACHMENT 3a**

# STRUCTURAL ANALYSIS REPORT

For

# CRAN\_RCTB\_A1CT\_205

62 Main Street Durham, CT 06422

# **Equipment Mounted on Proposed Utility Pole**



Prepared for:





Dated: August 15, 2022



45 Beechwood Drive North Andover, MA 01845 Phone: (978) 557-5553 www.hudsondesigngroup/lc.com





#### **SCOPE OF WORK:**

Hudson Design Group LLC (HDG) has been authorized by AT&T to conduct a structural evaluation of the proposed utility pole supporting the proposed AT&T equipment.

This report represents this office's findings, conclusions and recommendations pertaining to the support of the proposed AT&T equipment listed below.

This office did not conduct an on-site visual survey of the above site.

#### **CONCLUSION SUMMARY:**

Based on our evaluation, we have determined that the proposed pole <u>is in conformance</u> with the National Electric Safety Code 2017 (NESC). <u>The utility pole structure is rated at 16.0%.</u>

## APPURTENANCES CONFIGURATION:

Appurtenances	Elevation	Mount
(1) MS-MBA-2-L2 Antenna	37′-0″	Side of Wood Pole
(2) 4455 RRH's	37'-0", 33'-0"	Side of Wood Pole
(1) SDX1926Q-43 Diplexer	34′-8″	Side of Wood Pole
(1) Demarc Box	23′-6″	Side of Wood Pole
(1) Disconnect Switch	10'-9"	Side of Wood Pole
(1) Electric Meter	8'-9"	Side of Wood Pole

<sup>\*</sup> Proposed equipment shown in bold.

## **ANALYSIS RESULTS SUMMARY:**

Component	Max. Stress Ratio	Elev. of Component (ft.)	Pass/Fail
SP 2 (Proposed)	16.0%	0 - 38.5	PASS



# **DESIGN CRITERIA:**

National Electric Safety Code 2017 (NESC) and International Building Code (IBC) 2015 with 2018 Connecticut State Building Code Amendments.				
Wind				
City/Town:	Durham			
County:	Middlesex			
NESC Rule	Rule 250B	NESC Section 25		
Construction Grade	С	NESC Section 25		
Wind Load:	39.53 mph	NESC Table 230-2		
Ice				
Loading District	Heavy	NESC Figure 250-1		
Radial Ice Thickness:	0.50 in	NESC Table 230-1		

1. Approximate height above grade to center of the proposed antenna: 37'-0" +/-

<sup>\*</sup>Calculations and referenced documents are attached.



#### PROPOSED STRUCTURE:

The proposed 38'-6" +/- wood pole is assumed to be Southern Pine Class 2 (Fb = 8000 psi) with a 12.89" diameter base. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.

#### ANTENNA/RRH/DIPLEXER SUPPORT RECOMMENDATIONS:

The proposed antenna, RRH's, and diplexer are to be mounted on a proposed pipe mast installed on the proposed wood pole with chain mounts.

#### **EQUIPMENT SUPPORT RECOMMENDATIONS:**

The proposed equipment is to be installed on the wood pole using the approved manufacturer's mounts.

#### Limitations and assumptions:

- 1. Reference the latest HDG construction drawings for all the equipment locations details.
- 2. Mount all equipment per manufacturer's specifications.
- 3. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities. Contractor to perform pre-inspection prior to construction.
- 4. All antennas and waveguide cables are assumed to be properly installed and supported as per the manufacturer requirements.
- 5. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
- 6. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.
- 7. HDG did not perform any geotechnical analysis / or / investigation. Soil Information is unknown.



# FIELD PHOTOS:



**Photo 1**: Sample photo illustrating the locations of the proposed wood pole.



# **PoleForeman - Pole Loading Analysis Report**

License: Hudson Design Group Version 7.4.14



# **POLE LOADING DATA**

Pole: 45/2 (Wood-Cylindrical)

Soil: None

Pole Loading
Horizontal: 16% (250B)

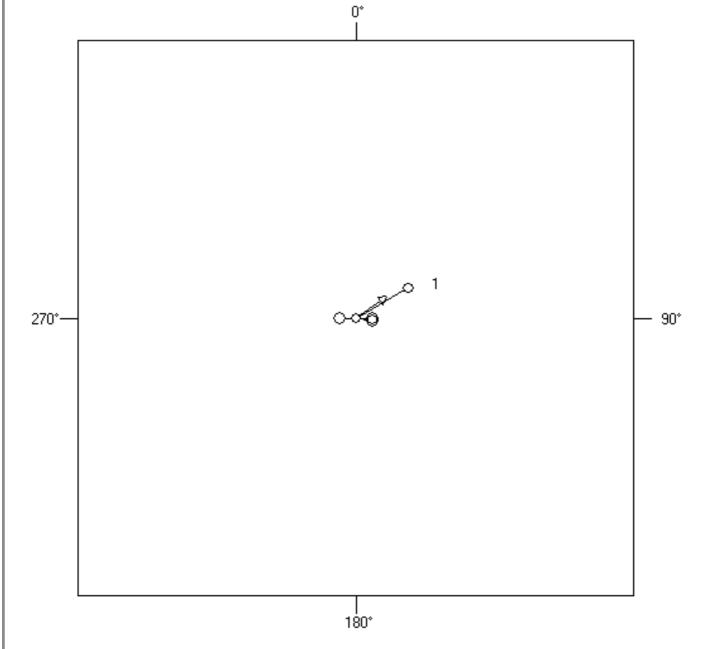
NESC Edition: 2017
Loading District: Hea

Horizontal: 16% (250B) Loading District: Heavy Vertical: 15% (k=1.20) Construction: Grade C (Crossing) Rule 250B: Temp=0F, Wind=4 psf, Ice=0.5 in

# **POLES**

Pole#	Length (ft)	Depth (ft)	Elevation (ft)
0	45	6.5	0
1	45	6.5	0

# **POLE LINE TOPOLOGY**



File: CRAN\_RCTB\_A1CT\_205.pff

# **PoleForeman - Pole Loading Analysis Report**

License: Hudson Design Group Version 7.4.14

INSULATORS			
Insulator	Attach	Loading	

Insulator Attach Loading Angle Spool Tangent 150" 11% 0°

**ARM / BRACKET DATA** 

Arm/Bracket Attach Vert Loading Horz Loading

**SPANS** 

Span: 1 Span Length (ft): 30 Direction: 60°

Secondary

4 ACSR (7/1) 50 0 150 150 120

**Joint Use** 

Joint Use Cable Ruling Span (ft) Diameter (in) Weight (lbs/ft) Attach A (in) Offset (in) Attach B (in) Tension (lbs) Description

User Defined 0 0.38 0.27 174 0 174 60

**EQUIPMENT** 

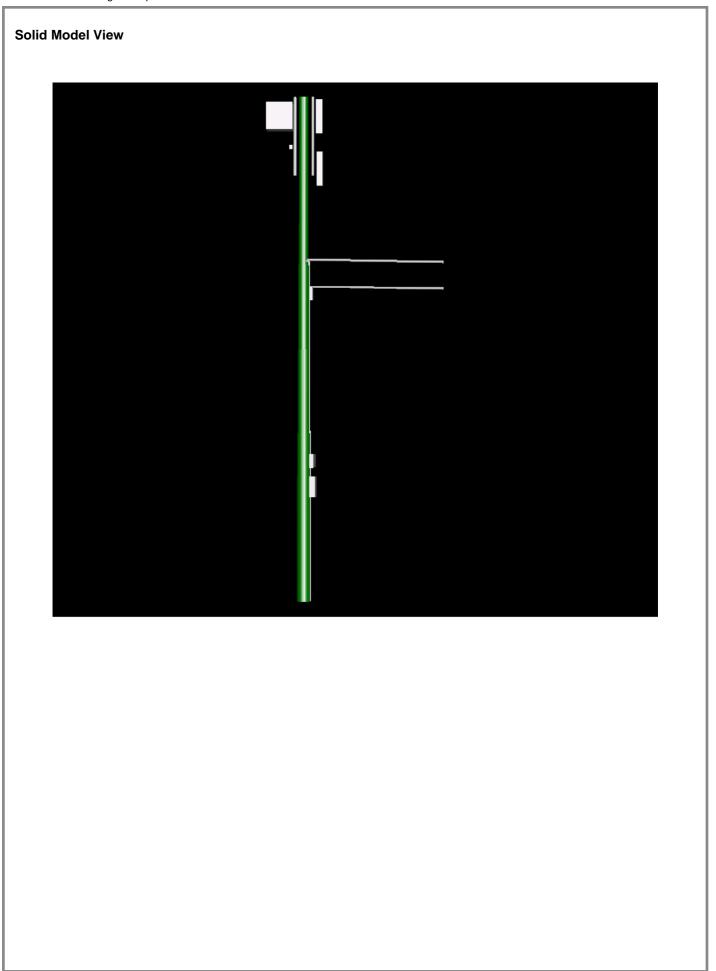
Equipment Weight (lbs) Attach (in) Direction User Defined Equipment 3.0 180 100° User Defined Equipment 57.3 18 90° 17.0 100° User Defined Equipment 333 User Defined Equipment 270° 26.0 18 User Defined Equipment 6.2 46 270° User Defined Equipment 15.0 357 100° User Defined Equipment 34.8 270° User Defined Equipment 90° 34.8 36 User Defined Equipment 57.3 66 90°

**RISERS** 

Riser Length (ft) Direction 2" Riser - Secondary 26 55°

File: CRAN\_RCTB\_A1CT\_205.pff 8/17/22 2:27 PM

License: Hudson Design Group Version 7.4.14



File: CRAN\_RCTB\_A1CT\_205.pff

# **ATTACHMENT 3b**

## STRUCTURAL ANALYSIS REPORT

For

# CRAN\_RCTB\_A1CT\_204

28 Main Street Durham, CT 06422

## **Equipment Mounted on Proposed Utility Pole**



**Prepared for:** 





Dated: August 17, 2022



**HUDSON** Design Group LLC

45 Beechwood Drive North Andover, MA 01845 Phone: (978) 557-5553

www.hudsondesigngroupllc.com





#### **SCOPE OF WORK:**

Hudson Design Group LLC (HDG) has been authorized by AT&T to conduct a structural evaluation of the proposed utility pole supporting the proposed AT&T equipment.

This report represents this office's findings, conclusions and recommendations pertaining to the support of the proposed AT&T equipment listed below.

This office did not conduct an on-site visual survey of the above site.

#### **CONCLUSION SUMMARY:**

Based on our evaluation, we have determined that the proposed pole <u>is in conformance</u> with the National Electric Safety Code 2017 (NESC). <u>The utility pole structure is rated at 16.0%.</u>

#### **APPURTENANCES CONFIGURATION:**

Appurtenances	Elevation	Mount
(2) MS-MBA-2-L2 Antennas	37'-0''	Side of Wood Pole
(1) Electric Panel	10'-9"	Side of Wood Pole
(1) Electric Meter	8'-9"	Side of Wood Pole
(4) 4455 RRH's	5'-0''	Separate Mount
(3) SDX1926Q-43 Diplexers	2'-0"	Separate Mount

<sup>\*</sup>Proposed equipment shown in bold.

#### ANALYSIS RESULTS SUMMARY:

Component	Max. Stress Ratio	Elev. of Component (ft.)	Pass/Fail
SP 2 (Proposed)	16.0%	0 – 39.0	PASS



#### **DESIGN CRITERIA:**

National Electric Safety Code 2017 (NESC) and International Building Code (IBC) 2015 with 2018 Connecticut State Building Code Amendments.			
Wind			
City/Town:	Durham		
County:	Middlesex		
NESC Rule	Rule 250B	NESC Section 25	
Construction Grade	С	NESC Section 25	
Wind Load:	39.53 mph	NESC Table 230-2	
Ice			
Loading District	Heavy	NESC Figure 250-1	
Radial Ice Thickness:	0.50 in	NESC Table 230-1	

1. Approximate height above grade to center of the proposed antennas: 37'-0" +/-

<sup>\*</sup>Calculations and referenced documents are attached.



#### PROPOSED STRUCTURE:

The proposed 39'-0" +/- wood pole is assumed to be Southern Pine Class 2 (Fb = 8000 psi) with a 12.89" diameter base. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.

#### **ANTENNA SUPPORT RECOMMENDATIONS:**

The proposed antennas are to be mounted on a proposed pipe mast installed on the proposed wood pole with chain mounts.

#### RRH/DIPLEXER SUPPORT RECOMMENDATIONS:

The proposed RRH's and diplexers are to be mounted on proposed unistrut components installed on a proposed H-Frame located on the ground.

#### **EQUIPMENT SUPPORT RECOMMENDATIONS:**

The proposed equipment is to be installed on the wood pole using the approved manufacturer's mounts.

#### Limitations and assumptions:

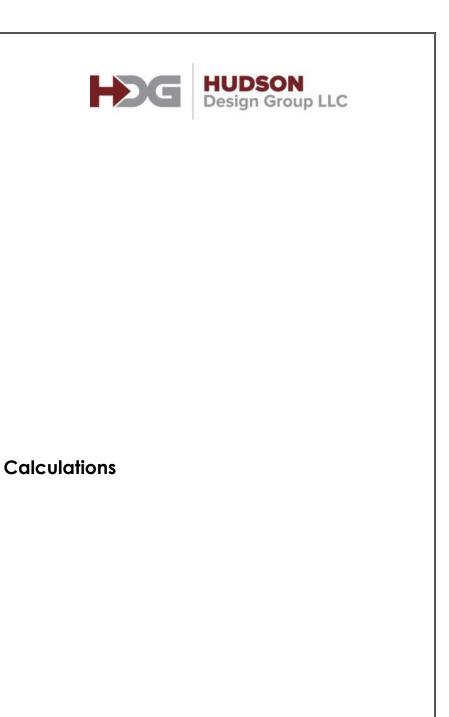
- 1. Reference the latest HDG construction drawings for all the equipment locations details.
- 2. Mount all equipment per manufacturer's specifications.
- 3. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities. Contractor to perform pre-inspection prior to construction.
- 4. All antennas and waveguide cables are assumed to be properly installed and supported as per the manufacturer requirements.
- 5. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
- 6. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.
- 7. HDG did not perform any geotechnical analysis / or / investigation. Soil Information is unknown.



### FIELD PHOTOS:



**Photo 1:** Sample photo illustrating the location of the proposed wood pole.



### **PoleForeman - Pole Loading Analysis Report**

License: Hudson Design Group Version 7.4.14



#### **POLE LOADING DATA**

Pole: 45/2 (Wood-Cylindrical)

Soil: None

Pole Loading

NESC Edition: 2017

Horizontal: 16% (250B) Vertical: 15% (k=1.20)

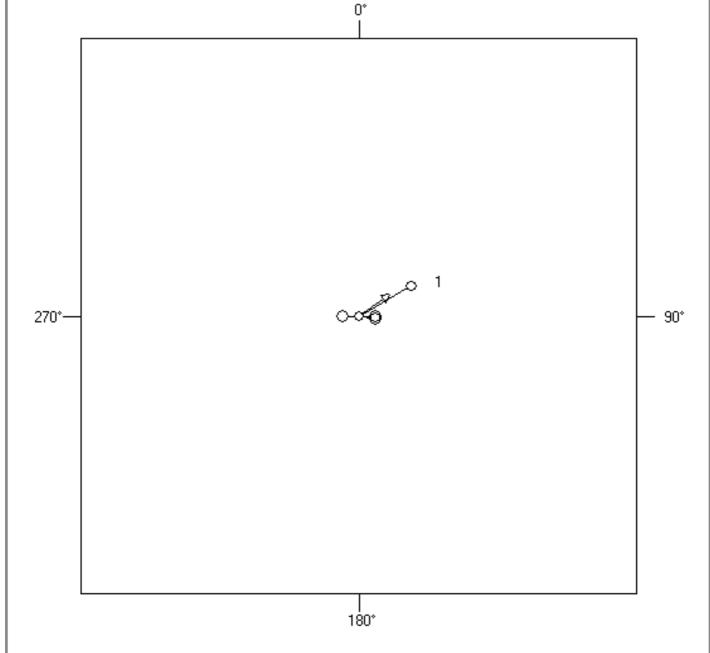
Loading District: Heavy
Construction: Grade C (Crossing)

Rule 250B: Temp=0F, Wind=4 psf, Ice=0.5 in

#### **POLES**

Pole #	Length (ft)	Depth (ft)	Elevation (ft)
0	45	6	0
1	45	6.5	0

### **POLE LINE TOPOLOGY**



File: CRAN\_RCTB\_A1CT\_204.pff

### **PoleForeman - Pole Loading Analysis Report**

License: Hudson Design Group Version 7.4.14

INSULATORS				
Insulator	Attach	Loading	Angle	
Spool Tangent	150"	11%	0°	

**ARM / BRACKET DATA** 

Arm/Bracket Attach Vert Loading Horz Loading

**SPANS** 

Span: 1 Span Length (ft): 30 Direction: 60°

Secondary

4 ACSR (7/1) 50 0 150 150 120

**Joint Use** 

Joint Use Cable Ruling Span (ft) Diameter (in) Weight (lbs/ft) Attach A (in) Offset (in) Attach B (in) Tension (lbs) Description

User Defined 0 0.38 0.27 180 0 174 60

**EQUIPMENT** 

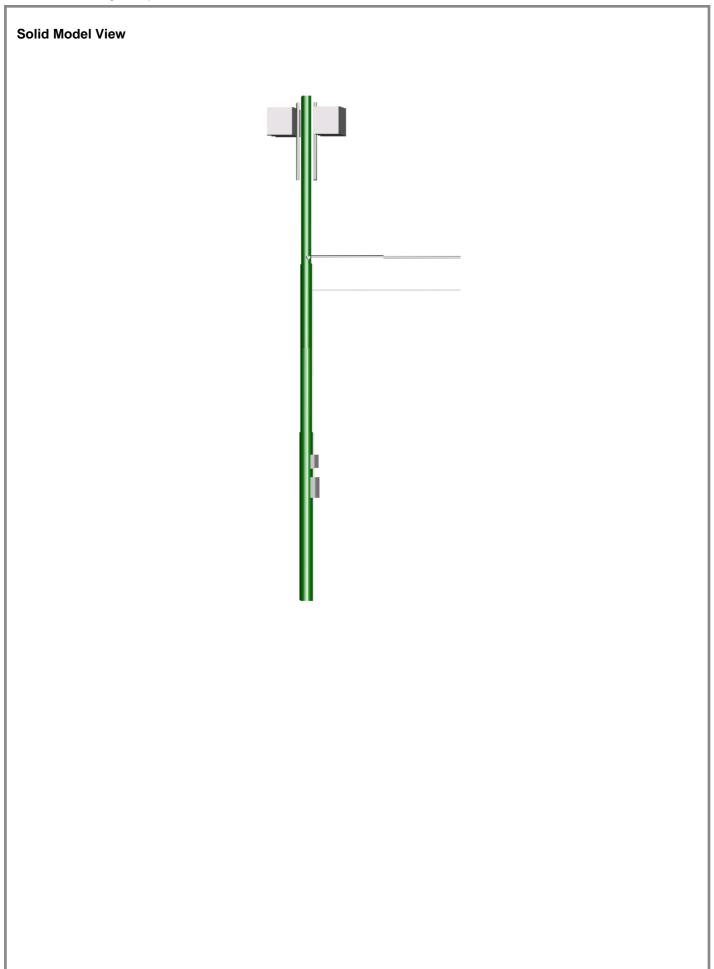
Equipment Weight (lbs) Attach (in) Direction User Defined Equipment 34.8 42 270° 90° User Defined Equipment 26.0 24 100° User Defined Equipment 17.0 339 User Defined Equipment 24 270° 26.0 User Defined Equipment 34.8 42 90° User Defined Equipment 15.0 363 100°

**RISERS** 

Riser Length (ft) Direction 2" Riser - Secondary 26 55°

File: CRAN\_RCTB\_A1CT\_204.pff 8/17/22 2:58 PM

License: Hudson Design Group Version 7.4.14



File: CRAN\_RCTB\_A1CT\_204.pff

# ATTACHMENT 3c

### STRUCTURAL ANALYSIS REPORT

For

# CRAN\_RCTB\_A1CT\_109

28 Main Street Durham, CT 06422

## **Equipment Mounted on Proposed Utility Pole**



#### Prepared for:





Dated: August 17, 2022



**HUDSON** Design Group LLC

45 Beechwood Drive North Andover, MA 01845 Phone: (978) 557-5553

www.hudsondesigngroupllc.com





#### **SCOPE OF WORK:**

Hudson Design Group LLC (HDG) has been authorized by AT&T to conduct a structural evaluation of the proposed utility pole supporting the proposed AT&T equipment.

This report represents this office's findings, conclusions and recommendations pertaining to the support of the proposed AT&T equipment listed below.

This office did not conduct an on-site visual survey of the above site.

#### **CONCLUSION SUMMARY:**

Based on our evaluation, we have determined that the proposed pole <u>is in conformance</u> with the National Electric Safety Code 2017 (NESC). <u>The utility pole structure is rated at 18.0%</u>.

#### APPURTENANCES CONFIGURATION:

Appurtenances	Elevation	Mount
(3) MS-MBA-2-L2 Antennas	30'-0"	Side of Wood Pole
(1) Electric Panel	10'-9"	Side of Wood Pole
(1) Electric Meter	8'-9"	Side of Wood Pole
(6) 4455 RRH's	5'-0''	Separate Mount
(3) SDX1926Q-43 Diplexers	2'-0''	Separate Mount

<sup>\*</sup>Proposed equipment shown in bold.

#### **ANALYSIS RESULTS SUMMARY:**

Component	Max. Stress Ratio	Elev. of Component (ft.)	Pass/Fail
SP 2 (Proposed)	18.0%	0 – 34.0	PASS



#### **DESIGN CRITERIA:**

National Electric Safety Code 2017 (NESC) and International Building Code (IBC) 2015 with 2018 Connecticut State Building Code Amendments.			
Wind			
City/Town:	Durham		
County:	Middlesex		
NESC Rule	Rule 250B	NESC Section 25	
Construction Grade	С	NESC Section 25	
Wind Load:	39.53 mph	NESC Table 230-2	
Ice			
Loading District	Heavy	NESC Figure 250-1	
Radial Ice Thickness:	0.50 in	NESC Table 230-1	

1. Approximate height above grade to center of the proposed antennas: 30'-0" +/-

<sup>\*</sup>Calculations and referenced documents are attached.



#### PROPOSED STRUCTURE:

The proposed 34'-0" +/- wood pole is assumed to be Southern Pine Class 2 (Fb = 8000 psi) with a 12.25" diameter base. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.

#### **ANTENNA SUPPORT RECOMMENDATIONS:**

The proposed antennas are to be mounted on a proposed pipe mast installed on the proposed wood pole with chain mounts.

#### RRH/DIPLEXER SUPPORT RECOMMENDATIONS:

The proposed RRH's and diplexers are to be mounted on proposed unistrut components installed on a proposed H-Frame located on the ground.

#### **EQUIPMENT SUPPORT RECOMMENDATIONS:**

The proposed equipment is to be installed on the wood pole using the approved manufacturer's mounts.

#### Limitations and assumptions:

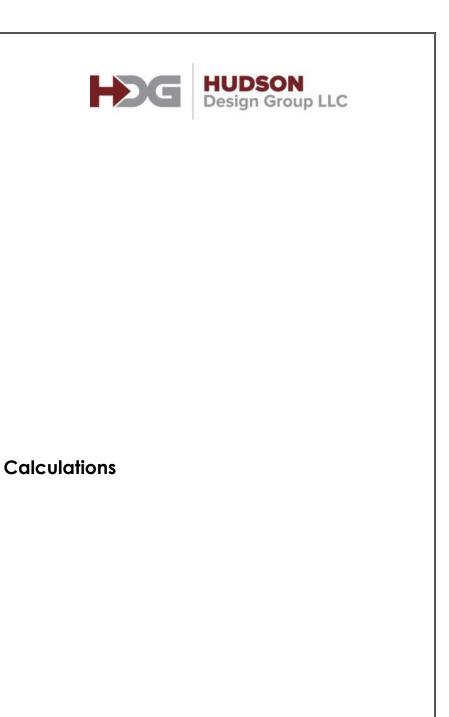
- 1. Reference the latest HDG construction drawings for all the equipment locations details.
- 2. Mount all equipment per manufacturer's specifications.
- 3. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities. Contractor to perform pre-inspection prior to construction.
- 4. All antennas and waveguide cables are assumed to be properly installed and supported as per the manufacturer requirements.
- 5. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
- 6. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.
- 7. HDG did not perform any geotechnical analysis / or / investigation. Soil Information is unknown.



### FIELD PHOTOS:



**Photo 1:** Sample photo illustrating the location of the proposed wood pole.



### **PoleForeman - Pole Loading Analysis Report**

License: Hudson Design Group Version 7.4.14



#### **POLE LOADING DATA**

Pole: 40/2 (Wood-Cylindrical)

Soil: None

Pole Loading

18% (250B)

NESC Edition: 2017 Loading District: Heavy

Horizontal: Vertical: 9% (k=1.20)

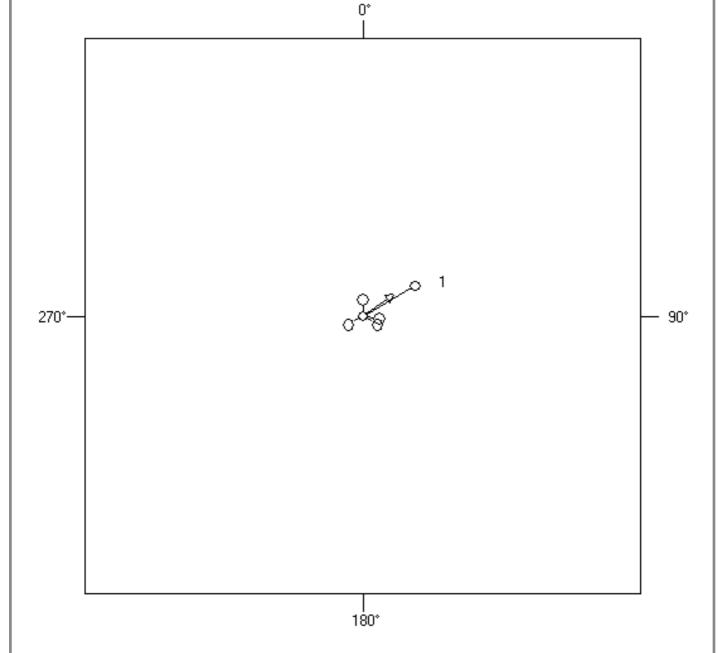
Construction: Grade C (Crossing)

Rule 250B: Temp=0F, Wind=4 psf, Ice=0.5 in

#### **POLES**

Pole # Length (ft) Depth (ft) Elevation (ft) 40 6.5

### **POLE LINE TOPOLOGY**



File: CRAN\_RCTB\_A1CT\_109.pff

### **PoleForeman - Pole Loading Analysis Report**

License: Hudson Design Group Version 7.4.14

**INSULATORS** 

InsulatorAttachLoadingAngleSpool Tangent144"13%0°

**ARM / BRACKET DATA** 

Arm/Bracket Attach Vert Loading Horz Loading

**SPANS** 

Span: 1 Span Length (ft): 30 Direction: 60°

Secondary

4 ACSR (7/1) 50 0 144 144 120

**Joint Use** 

Joint Use Cable Ruling Span (ft) Diameter (in) Weight (lbs/ft) Attach A (in) Offset (in) Attach B (in) Tension (lbs) Description

User Defined 0 0.38 0.27 192 0 246 60

**EQUIPMENT** 

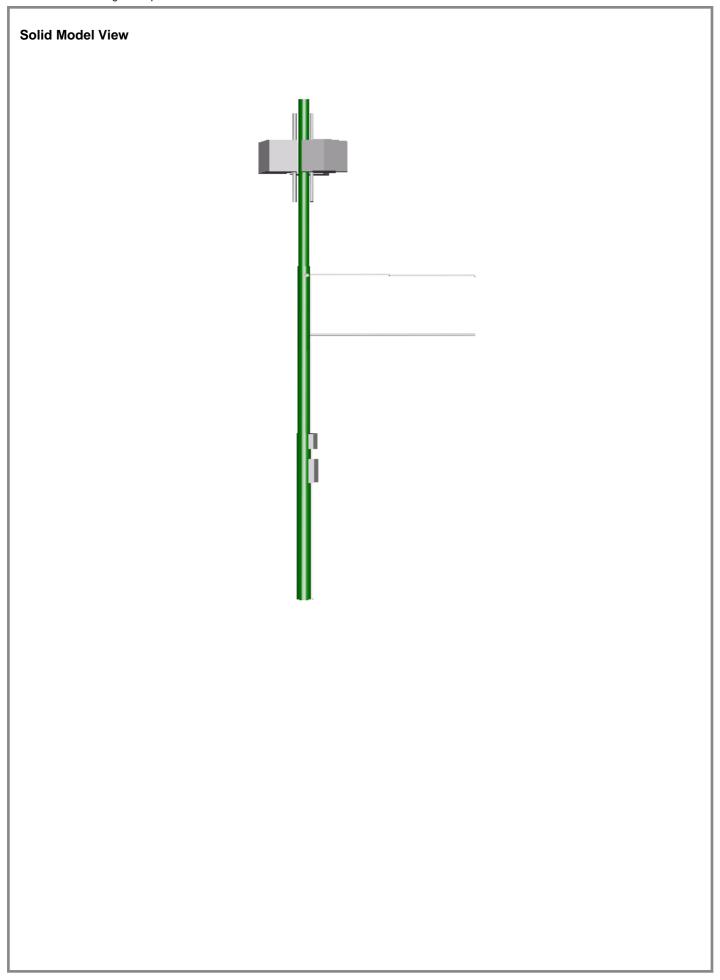
Equipment Weight (lbs) Attach (in) Direction User Defined Equipment 34.8 48 User Defined Equipment 303 100° 15.0 17.0 279 100° User Defined Equipment User Defined Equipment 120° 26.0 48 User Defined Equipment 34.8 48 120° User Defined Equipment 34.8 48 240° User Defined Equipment 26.0 48 240° User Defined Equipment 48 26.0

**RISERS** 

Riser Length (ft) Direction 2" Riser - Secondary 22 55°

File: CRAN\_RCTB\_A1CT\_109.pff 8/17/22 3:29 PM

License: Hudson Design Group



File: CRAN\_RCTB\_A1CT\_109.pff

Version 7.4.14

# **ATTACHMENT 4**

# **ATTACHMENT 4a**

Prepared For: **CENTERLINE-AT&T** Site Number: CRAN\_RCTB\_A1CT\_205 Site Name: CRAN\_RCTB\_A1CT\_205 **62 MAIN STREET** DURHAM, CT 06422



SITE NO: CRAN\_RCTB\_A1CT\_205 **SITE NAME:** CRAN\_RCTB\_A1CT\_205

ADDRESS: 62 MAIN STREET DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701



HUDSON **Design Group LLC** 

SITE TYPE: UTILITY POLE

DATE: 06/30/2022 REV: 0

DRAWN BY: YH SCALE: N.T.S.

REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

TO SHOW THE ONLY AREAS OF VISIBILITY

IT IS MEANT TO SHOW A BROAD

PAGE 1 OF 4

## **LOCUS MAP**

## TAKEN FROM GOOGLE.COM ON 03-2022







SITE NO: CRAN\_RCTB\_A1CT\_205 SITE NAME: CRAN\_RCTB\_A1CT\_205

ADDRESS: 62 MAIN STREET

DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701



HUDSON **Design Group LLC** 

SITE TYPE: UTILITY POLE

DATE: 06/30/2022 REV: 0

DRAWN BY: YH

SCALE: N.T.S.

TO SHOW THE ONLY AREAS OF VISIBILITY IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 2 OF 4

## **EXISTING CONDITIONS**

## **LOCATION #1**

## DATE OF PHOTO: 05/10/2022



VIEW NORTHEAST FROM UNNAMED RD.

SITE NO: CRAN\_RCTB\_A1CT\_205

SITE NAME: CRAN\_RCTB\_A1CT\_205

ADDRESS: 62 MAIN STREET

DURHAM, CT 06422



FRAMINGHAM, MA 01701



750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379



SITE TYPE: UTILITY POLE DATE: 06/30/2022 REV: 0

DRAWN BY: YH

SCALE: N.T.S.

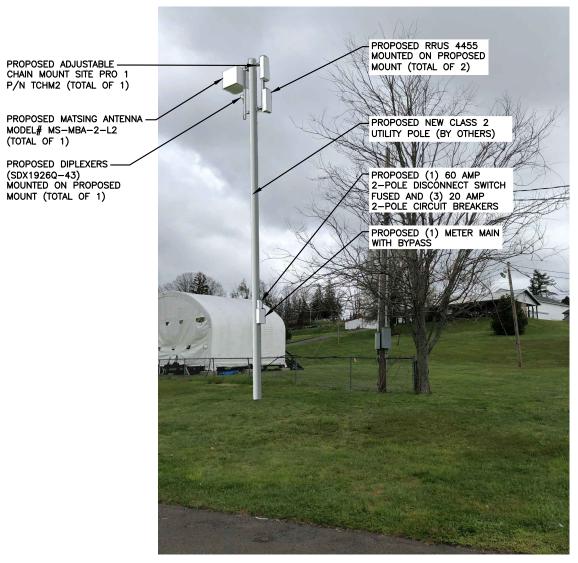
TO SHOW THE ONLY AREAS OF VISIBILITY IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 3 OF 4

### PROPOSED CONDITIONS

### LOCATION # 1

DATE OF PHOTO: 05/10/2022



### VIEW NORTHEAST FROM UNNAMED RD.

SITE NO: CRAN\_RCTB\_A1CT\_205

SITE NAME: CRAN\_RCTB\_A1CT\_205

ADDRESS: 62 MAIN STREET DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701

CENTERLINE
COMMUNICATIONS
750 WEST CENTER STREET

WEST BRIDGEWATER, MA 02379

H U D S O N Design Group LLC

ECHWOOD DRIVE TEL: (978) 557-

DATE: 06/30/2022 REV: 0

DRAWN BY: YH

SCALE: N.T.S.

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 4 OF 4

# **ATTACHMENT 4b**

Prepared For:
CENTERLINE-AT&T
Site Number:
CRAN\_RCTB\_A1CT\_204
Site Name:
CRAN\_RCTB\_A1CT\_204
28 MAIN STREET
DURHAM, CT 06422



SITE NO: CRAN\_RCTB\_A1CT\_204
SITE NAME: CRAN\_RCTB\_A1CT\_204

ADDRESS: 28 MAIN STREET DURHAM, CT 06422

at&t

550 COCHITUATE ROAD

FRAMINGHAM, MA 01701



HUDSON Design Group LLC

5 BEECHWOOD DRIVE TEL: (9 . ANDOVER, MA 01845 FAX: (9 SITE TYPE: UTILITY POLE

DATE: 06/30/2022 REV: 0

DRAWN BY: YH

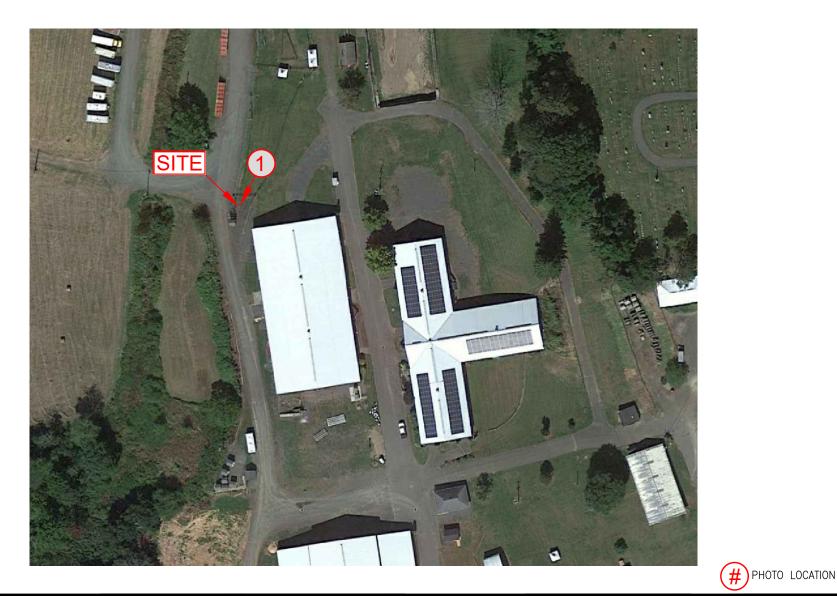
SCALE: N.T.S.

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS A VALIABLE TO DATE.

PAGE 1 OF 4

## **LOCUS MAP**

## TAKEN FROM GOOGLE.COM ON 03-2022





SITE NO:



CRAN\_RCTB\_A1CT\_204

SITE NAME: CRAN\_RCTB\_A1CT\_204

ADDRESS: 28 MAIN STREET

DURHAM, CT 06422



550 COCHITUATE ROAD FRAMINGHAM, MA 01701



750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379



SITE TYPE: UTILITY POLE

DATE: 06/30/2022 REV: 0

DRAWN BY: YH

SCALE: N.T.S.

TO SHOW THE ONLY AREAS OF VISIBILITY IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 2 OF 4

## **EXISTING CONDITIONS**

## **LOCATION #1**

## DATE OF PHOTO: 05/10/2022



VIEW SOUTHWEST FROM GRASS FIELD

SITE NO: CRAN\_RCTB\_A1CT\_204

SITE NAME: CRAN\_RCTB\_A1CT\_204

ADDRESS: 28 MAIN STREET

DURHAM, CT 06422



FRAMINGHAM, MA 01701

750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379



SITE TYPE: UTILITY POLE

DATE: 06/30/2022

DRAWN BY: YH SCALE: N.T.S.

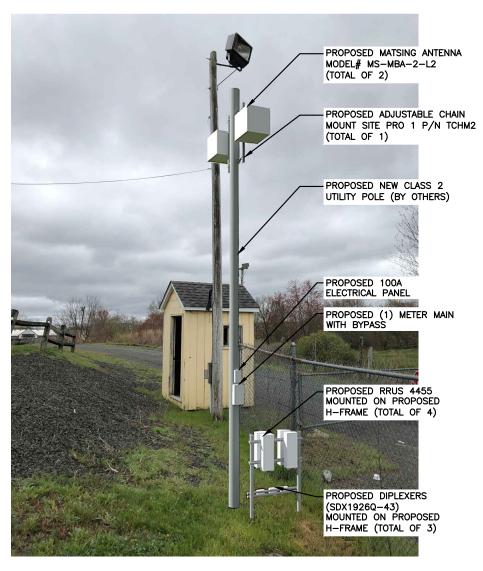
TO SHOW THE ONLY AREAS OF VISIBILITY IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 3 OF 4

### PROPOSED CONDITIONS

### LOCATION # 1

## DATE OF PHOTO: 05/10/2022



### VIEW SOUTHWEST FROM GRASS FIELD

SITE NO: CRAN\_RCTB\_A1CT\_204

SITE NAME: CRAN\_RCTB\_A1CT\_204

ADDRESS: 28 MAIN STREET DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET

WEST BRIDGEWATER, MA 02379

HUDSON Design Group LLC

CHWOOD DRIVE TEL: (978) 557-55 OVER, MA 01845 FAX: (978) 336-55 DATE: 06/30/2022 REV: 0

DRAWN BY: YH
SCALE: N.T.S.

TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

THIS STUDY DOES NOT CLAIM IN ANY WAY

PAGE 4 OF 4

# **ATTACHMENT 4c**

Prepared For:
CENTERLINE-AT&T
Site Number:
CRAN\_RCTB\_A1CT\_109
Site Name:
CRAN\_RCTB\_A1CT\_109
28 MAIN STREET
DURHAM, CT 06422



SITE NO: CRAN\_RCTB\_A1CT\_109
SITE NAME: CRAN\_RCTB\_A1CT\_109

ADDRESS: 28 MAIN STREET DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701

CENTERLINE
COMMUNICATIONS
750 WEST CENTER STREET

SUITE #301 WEST BRIDGEWATER, MA 02379 HUDSON Design Group LLC

BEECHWOOD DRIVE TEL: (978) 55 NNDOVER, MA 01845 FAX: (978) 33 SITE TYPE: UTILITY POLE

DATE: 06/30/2022 REV: 0

DRAWN BY: YH

SCALE: N.T.S.

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS A VALIABLE TO DATE.

PAGE 1 OF 4

## **LOCUS MAP**

## TAKEN FROM GOOGLE.COM ON 03-2022







SITE NO: CRAN\_RCTB\_A1CT\_109
SITE NAME: CRAN\_RCTB\_A1CT\_109

ADDRESS: 28 MAIN STREET DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701

T50 WEST CENTER STREET
SUITE #301
WEST BRIDGEWATER, MA 02379



DATE: 06/30/2022

DRAWN BY: YH

(8) 557-5553 SCALE: N.T.S.

SITE TYPE: UTILITY POLE

REV: 0

TO SHOW THE ONLY AREAS OF VISIBILITY.
IT IS MEANT TO SHOW A BROAD
REPRESENTATION OF AREAS WHERE THE
PROPOSED INSTALLATION MAY BE VISIBLE
BASED UPON THE BEST INFORMATION FOR
TOPOGRAPHY AND VEGETATION
LOCATIONS AVAILABLE TO DATE.

PAGE 2 OF 4

## **EXISTING CONDITIONS**

### LOCATION # 1

## DATE OF PHOTO: 05/10/2022



VIEW WEST FROM GRASS FIELD

SITE NO: CRAN\_RCTB\_A1CT\_109

SITE NAME: CRAN\_RCTB\_A1CT\_109

ADDRESS: 28 MAIN STREET DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701

CENTERLINE COMMUNICATIONS

750 WEST CENTER STREET SUITE #301 WEST BRIDGEWATER, MA 02379



ECHWOOD DRIVE TEL: (978) 557-

SITE TYPE: UTILITY POLE

DATE: 06/30/2022 REV: 0

DRAWN BY: YH

SCALE: N.T.S.

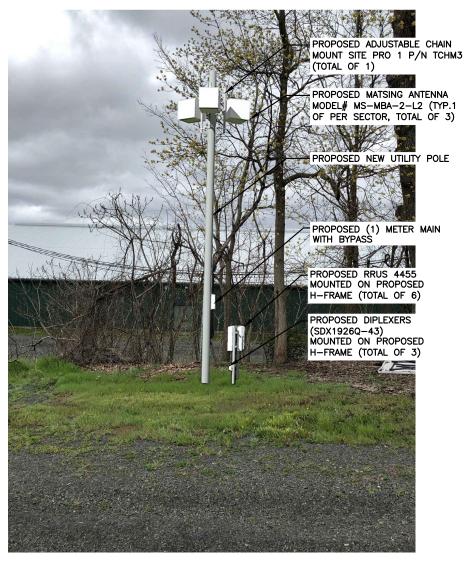
THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY. IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 3 OF 4

### PROPOSED CONDITIONS

### LOCATION # 1

## DATE OF PHOTO: 05/10/2022



VIEW WEST FROM GRASS FIELD

SITE NO: CRAN\_RCTB\_A1CT\_109

SITE NAME: CRAN\_RCTB\_A1CT\_109

ADDRESS: 28 MAIN STREET DURHAM, CT 06422



550 COCHITUATE ROAD

FRAMINGHAM, MA 01701

CENTERLINE 750 WEST CENTER STREET

WEST BRIDGEWATER, MA 02379

HUDSON **Design Group LLC** 

SITE TYPE: UTILITY POLE DATE: 06/30/2022 REV: 0

DRAWN BY: YH

SCALE: N.T.S.

THIS STUDY DOES NOT CLAIM IN ANY WAY TO SHOW THE ONLY AREAS OF VISIBILITY IT IS MEANT TO SHOW A BROAD REPRESENTATION OF AREAS WHERE THE PROPOSED INSTALLATION MAY BE VISIBLE BASED UPON THE BEST INFORMATION FOR TOPOGRAPHY AND VEGETATION LOCATIONS AVAILABLE TO DATE.

PAGE 4 OF 4

# **ATTACHMENT 5**

# **ATTACHMENT 5a**



## **Radio Frequency Exposure Analysis Report**

July 12, 2022

Centerline on behalf of AT&T

AT&T Site Name: cRAN\_RCTB\_A1CT\_205 CSC Site Number: 520857 FA#: 15396690 USID: 298340

Site Address: 10 Town House Road, Durham, CT 06422

### **Site Compliance Summary**

AT&T Compliance Status: Compliant

Cumulative Calculated Power Density (Ground Level): 10.21815 μW/cm²

**Cumulative General Population % MPE (Ground Level):** 1.02182%



July 12, 2022

Centerline Attn: Jilian Fancher 750 W Center St, Suite 301 West Bridgewater, MA 02379

RF Exposure Analysis for Site: cRAN\_RCTB\_A1CT\_205 CSC

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **10 Town House Road, Durham, CT 06422** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm²) or microwatts per square centimeter ( $\mu$ W/cm²). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm²) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ( $f_{MHz}/1500$ ). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm² (1000  $\mu$ W/cm²). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.



#### **Calculation Methodology**

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.



#### **Data & Results**

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at ground level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.



# <u>Maximum Calculated Cumulative Power Density @ Ground Level</u> (Location: approximately 3' north of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
AT&T A 1	MATSING MS-MBA-2 AZ-40	1900	15.68	37.00	2.00	30.00	2218.97	4.76152	1000.00	0.47615
AT&T A 1	MATSING MS-MBA-2 AZ-40	2100	16.22	37.00	2.00	30.00	2512.76	5.38257	1000.00	0.53826
AT&T A 1	MATSING MS-MBA-2 AZ0	1900	15.13	37.00	2.00	30.00	1955.02	0.03254	1000.00	0.00325
AT&T A 1	MATSING MS-MBA-2 AZ0	2100	15.79	37.00	2.00	30.00	2275.89	0.03015	1000.00	0.00302
AT&T A 1	MATSING MS-MBA-2 AZ+40	1900	15.03	37.00	2.00	30.00	1910.52	0.01001	1000.00	0.00100
AT&T A 1	MATSING MS-MBA-2 AZ+40	2100	15.99	37.00	2.00	30.00	2383.15	0.00136	1000.00	0.00014
							Cumulative Power Density:	10.21815 μW/cm²	Cumulative % MPE:	1.02182%



### **Summary**

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **compliant** with FCC rules and regulations.

Katrina Styx RF EME Technical Writer Centerline Communications, LLC

# ATTACHMENT 5b



## **Radio Frequency Exposure Analysis Report**

July 18, 2022

Centerline on behalf of AT&T

AT&T Site Name: cRAN\_RCTB\_A1CT\_204 CSC AT&T Site Number: 520856 FA#: 15396689

USID: 298339

Site Address: 30 Town House Road, Durham, CT 06422



Michael Fischer, P.E. Registered Professional Engineer (Electrical) Connecticut License Number 33928 Expires January 31, 2023

Signed 18 July 2022

### **Site Compliance Summary**

AT&T Compliance Status: Compliant

**Cumulative Calculated Power Density (Ground Level):** 46.48498 μW/cm<sup>2</sup>

**Cumulative General Population % MPE (Ground Level):** 4.64850%



July 18, 2022

Attn: Jilian Fancher Centerline 750 W. Center St, Suite 301 West Bridgewater, MA 02379

RF Exposure Analysis for Site: cRAN\_RCTB\_A1CT\_204 CSC

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **30 Town House Road, Durham, CT 06422** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm²) or microwatts per square centimeter ( $\mu$ W/cm²). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm²) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ( $f_{MHz}/1500$ ). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm² (1000  $\mu$ W/cm²). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

<u>General population/uncontrolled exposure</u> limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.



#### **Calculation Methodology**

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.



#### **Data & Results**

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at ground level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.



# <u>Maximum Calculated Cumulative Power Density @ Ground Level</u> (Location: approximately 112' southeast of site on small hill)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
AT&T A 1	MATSING MS-MBA-2 AZ-40	1900	15.68	37.00	2.00	30.00	2218.97	0.00674	1000.00	0.00067
AT&T A 1	MATSING MS-MBA-2 AZ-40	2100	16.22	37.00	2.00	30.00	2512.76	0.01184	1000.00	0.00118
AT&T A 1	MATSING MS-MBA-2 AZO	1900	15.13	37.00	2.00	30.00	1955.02	0.00007	1000.00	0.00001
AT&T A 1	MATSING MS-MBA-2 AZO	2100	15.79	37.00	2.00	30.00	2275.89	0.00004	1000.00	0.00000
AT&T A 1	MATSING MS-MBA-2 AZ+40	1900	15.03	37.00	2.00	30.00	1910.52	0.00017	1000.00	0.00002
AT&T A 1	MATSING MS-MBA-2 AZ+40	2100	15.99	37.00	2.00	30.00	2383.15	0.00010	1000.00	0.00001
AT&T B 2	MATSING MS-MBA-2 AZ-40	1900	15.68	37.00	2.00	30.00	2218.97	21.79155	1000.00	2.17916
AT&T B 2	MATSING MS-MBA-2 AZ-40	2100	16.22	37.00	2.00	30.00	2512.76	24.67342	1000.00	2.46734
AT&T B 2	MATSING MS-MBA-2 AZO	1900	15.13	37.00	2.00	30.00	1955.02	0.00050	1000.00	0.00005
AT&T B 2	MATSING MS-MBA-2 AZO	2100	15.79	37.00	2.00	30.00	2275.89	0.00047	1000.00	0.00005
AT&T B 2	MATSING MS-MBA-2 AZ+40	1900	15.03	37.00	2.00	30.00	1910.52	0.00007	1000.00	0.00001
AT&T B 2	MATSING MS-MBA-2 AZ+40	2100	15.99	37.00	2.00	30.00	2383.15	0.00001	1000.00	0.00000
							Cumulative Power Density:	46.48498 μW/cm²	Cumulative % MPE:	4.64850%



### **Summary**

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **compliant** with FCC rules and regulations.

Katrina Styx RF EME Technical Writer Centerline Communications, LLC

# ATTACHMENT 5c



## **Radio Frequency Exposure Analysis Report**

July 18, 2022

Centerline on behalf of AT&T

AT&T Site Name: cRAN\_RCTB\_A1CT\_109 Site Number: 520352 FA#: 14885879

USID: 252931

Site Address: 24 Town House Road, Durham, CT 06422



Michael Fischer, P.E. Registered Professional Engineer (Electrical) **Connecticut License Number 33928** Expires January 31, 2023

Signed 18 July 2022

**Site Compliance Summary** 

**AT&T Compliance Status:** Compliant

**Cumulative Calculated Power Density (Ground Level):**  $29.17561 \, \mu W/cm^2$ 

**Cumulative General Population % MPE (Ground Level):** 2.91756%



July 18, 2022

Centerline Attn: Jillian Fancher, Associate Project Manager 750 W Center St, Suite 301 West Bridgewater, MA 02379

RF Exposure Analysis for Site: cRAN\_RCTB\_A1CT\_109

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **24 Town House Road, Durham, CT 06422** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm²) or microwatts per square centimeter ( $\mu$ W/cm²). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm²) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ( $f_{MHz}/1500$ ). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm² (1000  $\mu$ W/cm²). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.



#### **Calculation Methodology**

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.



#### **Data & Results**

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at ground level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.



# <u>Maximum Calculated Cumulative Power Density @ Ground Level</u> (<u>Location: approximately 5' NW of site</u>)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
AT&T A 1	MATSING MS-MBA-2 AZ-40	1900	15.68	30.00	2.00	30.00	2218.97	7.20279	1000.00	0.72028
AT&T A 1	MATSING MS-MBA-2 AZ-40	2100	16.22	30.00	2.00	30.00	2512.76	8.53295	1000.00	0.85330
AT&T A 1	MATSING MS-MBA-2 AZ0	1900	15.13	30.00	2.00	30.00	1955.02	0.11672	1000.00	0.01167
AT&T A 1	MATSING MS-MBA-2 AZ0	2100	15.79	30.00	2.00	30.00	2275.89	0.03442	1000.00	0.00344
AT&T A 1	MATSING MS-MBA-2 AZ+40	1900	15.03	30.00	2.00	30.00	1910.52	0.01174	1000.00	0.00117
AT&T A 1	MATSING MS-MBA-2 AZ+40	2100	15.99	30.00	2.00	30.00	2383.15	0.00449	1000.00	0.00045
AT&T B 2	MATSING MS-MBA-2 AZ-40	1900	15.68	30.00	2.00	30.00	2218.97	0.01098	1000.00	0.00110
AT&T B 2	MATSING MS-MBA-2 AZ-40	2100	16.22	30.00	2.00	30.00	2512.76	0.00938	1000.00	0.00094
AT&T B 2	MATSING MS-MBA-2 AZ0	1900	15.13	30.00	2.00	30.00	1955.02	0.00386	1000.00	0.00039
AT&T B 2	MATSING MS-MBA-2 AZ0	2100	15.79	30.00	2.00	30.00	2275.89	0.00510	1000.00	0.00051
AT&T B 2	MATSING MS-MBA-2 AZ+40	1900	15.03	30.00	2.00	30.00	1910.52	0.00353	1000.00	0.00035
AT&T B 2	MATSING MS-MBA-2 AZ+40	2100	15.99	30.00	2.00	30.00	2383.15	0.00417	1000.00	0.00042
AT&T C 3	MATSING MS-MBA-2 AZ-40	1900	15.68	30.00	2.00	30.00	2218.97	0.00430	1000.00	0.00043
AT&T C 3	MATSING MS-MBA-2 AZ-40	2100	16.22	30.00	2.00	30.00	2512.76	0.01124	1000.00	0.00112
AT&T C 3	MATSING MS-MBA-2 AZ0	1900	15.13	30.00	2.00	30.00	1955.02	0.02117	1000.00	0.00212
AT&T C 3	MATSING MS-MBA-2 AZ0	2100	15.79	30.00	2.00	30.00	2275.89	0.01796	1000.00	0.00180
AT&T C 3	MATSING MS-MBA-2 AZ+40	1900	15.03	30.00	2.00	30.00	1910.52	6.54712	1000.00	0.65471
AT&T C 3	MATSING MS-MBA-2 AZ+40	2100	15.99	30.00	2.00	30.00	2383.15	6.63373	1000.00	0.66337
							Cumulative Power Density:	29.17561 μW/cm²	Cumulative % MPE:	2.91756%



### **Summary**

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **compliant** with FCC rules and regulations.

Michelle Stone RF EME Technical Writer II Centerline Communications, LLC

### **ATTACHMENT 6**

#### **CERTIFICATION OF SERVICE**

I hereby certify that on August 25, 2022 a copy of the following 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 list below:

Dated: <u>August 25, 2022</u>

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	DEPARTMENT OF ECONOMIC AND
ATTORNEY GENERAL	COMMUNITY DEVELOPMENT
OFFICE OF THE ATTORNEY GENERAL	DAVID LEHMAN, COMMISSIONER
165 CAPITOL AVENUE	450 COLUMBUS BLVD
HARTFORD, CT 06106	HARTFORD, CT 06103
DEPARTMENT OF PUBLIC HEALTH	PUBLIC UTILITIES REGULATORY
MANISHA JUTHANI, MD, COMMISSIONER	AUTHORITY
410 CAPITOL AVENUE	MARISSA P. GILLETT, CHAIRMAN
HARTFORD, CT 06134	10 FRANKLIN SQUARE
	NEW BRITAIN, CT 06051
COUNCIL ON ENVIRONMENTAL QUALITY	DEPARTMENT OF TRANSPORTATION
PAUL ARESTA, EXECUTIVE DIRECTOR	JOSEPH GIULIETTI, COMMISSIONER
79 ELM STREET, 6th FLOOR	2800 BERLIN TURNPIKE, P.O. BOX 317546
HARTFORD, CT 06106	NEWINGTON, CT 06131
DEPARTMENT OF ENERGY &	DEPARTMENT OF AGRICULTURE
ENVIRONMENTAL PROTECTION	BRYAN P. HURLBURT, COMMISSIONER
KATIE DYKES, COMMISSIONER	450 COLUMBUS BOULEVARD
79 ELM STREET	SUITE 701
HARTFORD, CT 06106	HARTFORD, CT 06103
OFFICE OF POLICY AND MANAGEMENT	SECRETARY OF THE STATE
JEFFREY R. BECKHAM, SECRETARY	MARK F. KOHLER
450 CAPITOL AVENUE	165 CAPITOL AVENUE, SUITE 1000
HARTFORD, CT 06106	P.O. BOX 150470
	HARTFORD, CT 06115
LOWER CONNECTICUT RIVER VALLEY	DEPARTMENT OF EMERGENCY SERVICES
COUNCIL OF GOVERNMENTS	& PUBLIC PROTECTION
145 DENNISON RD	DIVISION OF EMERGENCY
ESSEX, CT 06426	MANAGEMENT AND HOMELAND
	SECURITY

STATE HISTORIC PRESERVATION OFFICE 450 COLUMBUS BOULEVARD, FLOOR 5 HARTFORD, CT 06103	JAMES C. ROVELLA, COMMISSIONER 1111 COUNTRY CLUB ROAD MIDDLETOWN, CT 06457 STATE REPRESENTATIVE-DISTRICT 101 JOHN-MICHAEL PARKER LEGISLATIVE OFFICE BUILDING 300 CAPITOL AVENUE HARTFORD, CT 06106
STATE SENATOR – DISTRICT S12 CHRISTINE COHEN LEGISLATIVE OFFICE BUILDING 300 CAPITOL AVENUE ROOM 3200 HARTFORD, CT 06106	

### **Federal**

FEDERAL COMMUNICATIONS	FEDERAL AVIATION ADMINISTRATION
COMMISSION	800 INDEPENDENCE AVENUE, SW
45 L STREET NE	WASHINGTON, DC 20591
WASHINGTON, DC 20554	,
U.S. SENATOR CHRISTOPHER MURPHY	U.S. SENATOR RICHARD BLUMENTHAL
COLT GATEWAY	90 STATE HOUSE SQUARE, 10TH FLOOR
120 HUYSHOPE AVENUE	HARTFORD, CT 06103
SUITE 401	
HARTFORD, CT 06106	
,	
U.S. CONGRESSWOMAN – 3 <sup>RD</sup> DISTRICT	
ROSA L. DELAURO	
59 ELM STREET	
NEW HAVEN, CT 06510	

### **Town of Durham**

JOHN SZEWCZYK, SELECTMAN DURHAM TOWN HALL P.O. BOX 428 30 TOWN HOUSE ROAD DURHAM, CT 06422	GEORGE EAMES, SELECTMAN DURHAM TOWN HALL P.O. BOX 428 30 TOWN HOUSE ROAD DURHAM, CT 06422
CHARLES LAWRENCE, EXECUTIVE ASSISTANT TO FIRST SELECTMAN DURHAM TOWN HALL P.O. BOX 428 30 TOWN HOUSE ROAD DURHAM, CT 06422	KIM GARVIS, TOWN CLERK DURHAM TOWN HALL P.O. BOX 428 30 TOWN HOUSE ROAD DURHAM, CT 06422

JENNIFER PERRY	RICHARD ERIKSEN, CHAIRMAN
ADMINISTRATIVE COORDINATOR OF	INLAND WETLANDS AND WATERCOURSES
BUILDING AND LAND USE	AGENCY
DEPARTMENT	DURHAM TOWN HALL
DURHAM TOWN HALL	P.O. BOX 428
P.O. BOX 428	30 TOWN HOUSE ROAD
30 TOWN HOUSE ROAD	DURHAM, CT 06422
DURHAM, CT 06422	
FRANK DEFELICE, CHAIRMAN	
PLANNING AND ZONING COMMISSION	
DURHAM TOWN HALL	
P.O. BOX 428	
30 TOWN HOUSE ROAD	
DURHAM, CT 06422	

#### 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 August 29, 2022 by New Cingular Wireless PCS, LLC ("AT&T"). AT&T seeks a declaratory ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") to install three new "small cell" wireless telecommunications facilities on new utility poles.

The proposed telecommunications facilities will be located on property owned by the Durham Agricultural Fair Association located at 24 Town House Road (also referred to as Parcel IDs: 48-2 & 48-6) in the Town of Durham, Connecticut. AT&T proposes to install the following:

- Facility 1 (AT&T Site ID: CRAN\_RTCB\_A1CT\_205): AT&T proposes a new Class 2 utility pole which will stand approximately 38'6"-tall above grade level ("AGL"). AT&T proposes to mount one 25.16"x24.13" masting antenna at the centerline height of 37' AGL with associated equipment installed at the antenna-level height.
- Facility 2 (AT&T Site ID: CRAN\_RTCB\_A1CT\_204): AT&T proposes a new Class 2 utility pole which will stand approximately 39'-tall AGL. AT&T proposes to mount two 25.16"x24.13" masting antennas at the centerline height of 37' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.
- Facility 3 (AT&T Site ID: CRAN\_RTCB\_A1CT\_109): AT&T proposes a new Class 2 utility pole which will stand approximately 34'-tall AGL. AT&T proposes to mount three 25.16"x24.13" masting antennas at the centerline height of 30' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.

The Petition will provide additional details of the proposal and explain why AT&T submits that the proposed small cell facilities 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 on file with the following on or after August 29, 2022:

Connecticut Siting Council Kim Garvis, Town Clerk

10 Franklin Square 30 Town House Road, P.O. Box 428

New Britain, Connecticut 06051 Durham, CT 06422

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

Daniel Patrick, Esq. Lucia Chiocchio, Esq. Cuddy & Feder LLP 445 Hamilton Ave, 14th Floor White Plains, New York 10601 (914) 761-1300 Attorneys for the Petitioner

#### **CERTIFICATION OF SERVICE**

I hereby certify that on August 25, 2022 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: <u>August 25, 2022</u>

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 OF CONNECTICUT
79 ELM ST
HARTFORD, CT 06115
TOWN OF DURHAM
P.O. BOX 428
DURHAM, CT 06422
LAMOS LLC
16 MAIN ST.
DURHAM, CT 06422
DURHAM AGRICULTURAL FAIR ASSOC
MAIN ST.
DURHAM, CT 06422
DURHAM AGRICULTURAL FAIR ASSOC
P.O. BOX 225
DURHAM, CT 06422
DURHAM AGRICULTURAL FAIR ASSOC
24 TOWNHOUSE RD
DURHAM, CT 06422
EAMES ADELE M & GEORGE M 3 <sup>RD</sup>
10 TOWN HOUSE RD.
DURHAM, CT 06422
SALVA CHERYL N
18 TOWN HOUSE RD.
DURHAM, CT 06422
TOWN OF DURHAM
TOWN HOUSE RD
DURHAM, CT 06422
•
DURHAM AGRICULTURAL FAIR ASSOC
MAPLE AVE.
DURHAM, CT 06422

CORONA KATHLEEN N	BELTON AMANDA L TRUSTEE
17 JOHNS WAY	BIELEFIELD CHILDREN TRUST
DURHAM, CT 06422	AGREEMENT THE
	41 MAPLE AVE
	DURHAM, CT 06422
GOSSNER KRISTINA L & MARK B	
29 MAPLE AVE	
DURHAM, CT 06422	

#### <u>VIA CERTIFIED MAIL/</u> RETURN RECEIPT REQUESTED

Re: New Cingular Wireless PCS, LLC ("AT&T")

Installation of A Small Cell Wireless Telecommunication Facility

24 Town House Road, Durham, 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 of three new "small cell" wireless telecommunications facilities on new utility poles to be installed on property owned by the Durham Agricultural Fair Association located at 24 Town House Road (also referred to as Parcel IDs: 48-2 & 48-6) in the Town of Durham, Connecticut.

AT&T proposes to install the following:

- Facility 1 (AT&T Site ID: CRAN\_RTCB\_A1CT\_205): AT&T proposes a new Class 2 utility pole which will stand approximately 38'6"-tall above grade level ("AGL"). AT&T proposes to mount one 25.16"x24.13" masting antenna at the centerline height of 37' AGL with associated equipment installed at the antenna-level height.
- Facility 2 (AT&T Site ID: CRAN\_RTCB\_A1CT\_204): AT&T proposes a new Class 2 utility pole which will stand approximately 39'-tall AGL. AT&T proposes to mount two 25.16"x24.13" masting antennas at the centerline height of 37' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.
- Facility 3 (AT&T Site ID: CRAN\_RTCB\_A1CT\_109): AT&T proposes a new Class 2 utility pole which will stand approximately 34'-tall AGL. AT&T proposes to mount three 25.16"x24.13" masting antennas at the centerline height of 30' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.

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 Siting Council.

Included with this letter please find a Notice of this submission and details of the proposal. 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 August 29, 2022 which is the date that the petition is expected to be on file.

Very truly yours,

Daniel Patrick, Esq. Enclosure

cc: Lucia Chiocchio, Esq., Cuddy & Feder LLP

#### 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 August 29, 2022 by New Cingular Wireless PCS, LLC ("AT&T"). AT&T seeks a declaratory ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") to install three new "small cell" wireless telecommunications facilities on new utility poles.

The proposed telecommunications facilities will be located on property owned by the Durham Agricultural Fair Association located at 24 Town House Road (also referred to as Parcel IDs: 48-2 & 48-6) in the Town of Durham, Connecticut. AT&T proposes to install the following:

- Facility 1 (AT&T Site ID: CRAN\_RTCB\_A1CT\_205): AT&T proposes a new Class 2 utility pole which will stand approximately 38'6"-tall above grade level ("AGL"). AT&T proposes to mount one 25.16"x24.13" masting antenna at the centerline height of 37' AGL with associated equipment installed at the antenna-level height.
- Facility 2 (AT&T Site ID: CRAN\_RTCB\_A1CT\_204): AT&T proposes a new Class 2 utility pole which will stand approximately 39'-tall AGL. AT&T proposes to mount two 25.16"x24.13" masting antennas at the centerline height of 37' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.
- Facility 3 (AT&T Site ID: CRAN\_RTCB\_A1CT\_109): AT&T proposes a new Class 2 utility pole which will stand approximately 34'-tall AGL. AT&T proposes to mount three 25.16"x24.13" masting antennas at the centerline height of 30' AGL with associated equipment installed on a separate 6'-tall H-Frame mount adjacent to the proposed utility pole.

The Petition will provide additional details of the proposal and explain why AT&T submits that the proposed small cell facilities 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 on file with the following on or after August 29, 2022:

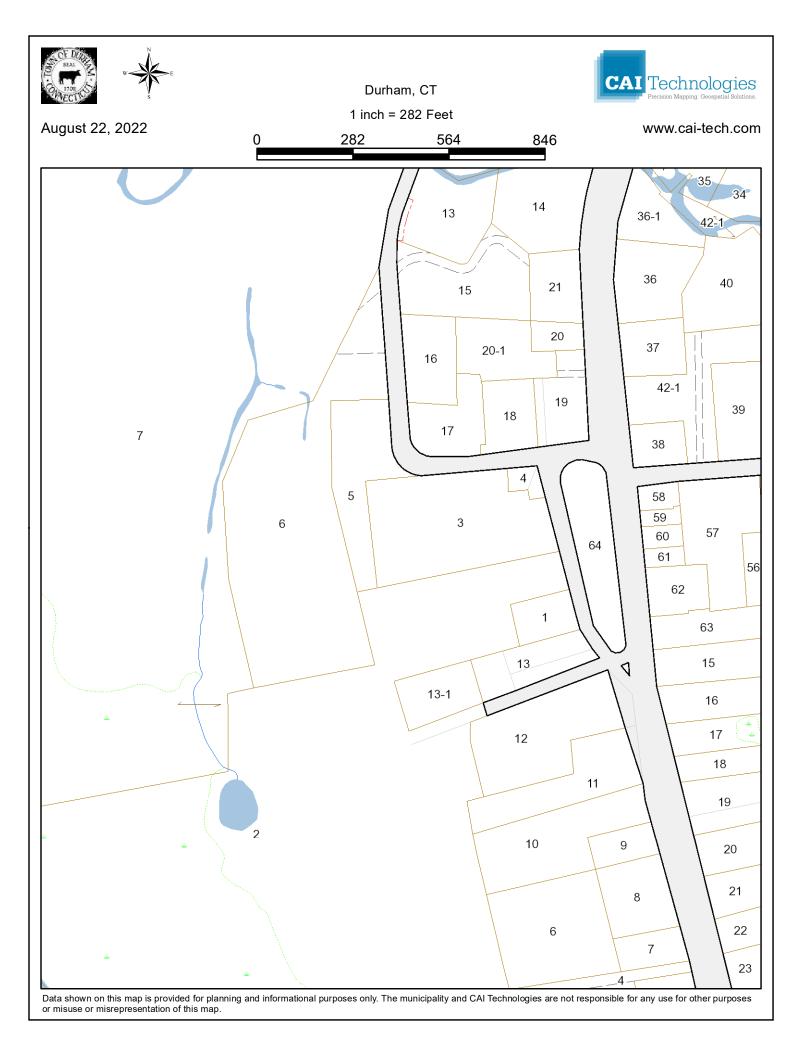
Connecticut Siting Council Kim Garvis, Town Clerk

10 Franklin Square 30 Town House Road, P.O. Box 428

New Britain, Connecticut 06051 Durham, CT 06422

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

Daniel Patrick, Esq. Lucia Chiocchio, Esq. Cuddy & Feder LLP 445 Hamilton Ave, 14th Floor White Plains, New York 10601 (914) 761-1300 Attorneys for the Petitioner



#### **ABUTTERS LIST**

PARCEL	OWNER	SITE	MAILING	CITY	STATE	ZIP CODE
ID	NAME	ADDRESS	ADDRESS			
67-1	State of	Parmelee	79 Elm St	Hartford	СТ	06115
	Connecticut	Hill Rd,				
		Durham				
48-7	Town of	Maple	P.O. Box	Durham	CT	06422
	Durham	Ave.,	428			
		Durham				
58-4-1	Town of	Main St.,	P.O. Box	Durham	CT	06422
	Durham	Durham	428			
58-4	Lamos LLC	16 Main	P.O. Box	Durham	CT	06422
		St.,	120111			
		Durham				
58-6	Durham	Main St.,	P.O. Box	Durham	CT	06422
	Agricultural	Durham	225			
	Fair Assoc					
58-10	Durham	52 Main	P.O. Box	Durham	CT	06422
	Agricultural	St.,	225			
	Fair Assoc	Durham				
58-11	Durham	62 Main	24 Town	Durham	CT	06422
	Agricultural	St.,	House Rd.			
	Fair Assoc	Durham				
58-12	Durham	68 Main	P.O. Box	Durham	CT	06422
	Agricultural	St.,	225			
	Fair Assoc	Durham				
58-13	Eames	10 Town	10 Town	Durham	CT	06422
	Adele M &	House Rd.,	House Rd.			
	George M	Durham				
	3 <sup>rd</sup>					
58/13-1	Durham	Town	P.O. Box	Durham	CT	06422
	Agricultural	House Rd.,	225			
	Fair Assoc	Durham				
48-1	Salva	18 Town	18 Town	Durham	CT	06422
	Cheryl N	House Rd.,	House Rd.			
		Durham				
48-2	Durham	24 Town	P.O. Box	Durham	CT	06422
	Agricultural	House Rd.,	225			
	Fair Assoc	Durham				
48-64	Town of	Town	P.O. Box	Durham	CT	06422
	Durham	House Rd.,	428			
		Durham				
48-3	Town of	30 Town	P.O. Box	Durham	CT	06422
	Durham	House Rd.,	428			
		Durham				

	1		ı	1	1	
48-5	Durham	Maple	P.O. Box	Durham	CT	06422
	Agricultural	Ave.,	225			
	Fair Assoc	Durham				
48-6	Durham	Maple	P.O. Box	Durham	СТ	06422
	Agricultural	Ave.,	225			
	Fair Assoc	Durham				
48-15	Corona	17 Johns	17 Johns	Durham	СТ	06422
	Kathleen N	Way,	Way			
		Durham				
48-16	Belton	41 Maple	41 Maple	Durham	СТ	06422
	Amanda L	Ave.,	Ave.			
	Trustee	Durham				
	Bielefield					
	Children					
	Trust					
	Agreement					
	The					
48-17	Gossner	29 Maple	29 Maple	Durham	CT	06422
	Kristina L &	Ave.,	Ave.			
	Mark B	Durham				