

Public Facilities Committee Agenda

City of Newton In City Council

Wednesday, April 3, 2019

7:00 PM Room 204

Public hearing

#114-19

ExteNet Systems petition for wireless grant of location on Adams Street

EXTENET SYSTEMS, LLC petitioning for a grant of location to install a small cell wireless facility on an existing utility pole located in the right-of-way in the vicinity of 132 Adams Street. The installation will include an antenna, radio equipment, an electric meter, and cabling for fiber and power to enhance wireless coverage in the area. (60-day action date: 05/04/19)

Public hearing

#115-19

ExteNet Systems petition for wireless grant of location on Beacon Street

EXTENET SYSTEMS, LLC petitioning for a grant of location to install a small cell wireless facility on an existing utility pole located in the right-of-way in the vicinity of 262 Beacon Street. The installation will include an antenna, radio equipment, an electric meter, and cabling for fiber and power to enhance wireless coverage in the area. (60-day action date: 05/04/19)

Public hearing

#116-19

ExteNet Systems petition for wireless grant of location on Commonwealth Avenue

EXTENET SYSTEMS, LLC petitioning for a grant of location to install a small cell wireless facility on an existing city-owned streetlight pole located in the right-of-way in the vicinity of 140 Commonwealth Avenue. The installation will include an antenna, radio equipment, an electric meter, and cabling for fiber and power to enhance wireless coverage in the area. (60-day action date: 05/04/19)

Public hearing

#279-18

Petition for Drain Extension in Staniford Street

<u>JAMES BARBERIO</u>, 49 STANIFORD STREET, ET AL petition for main drain extensions in STANIFORD STREET from the property at 65 Staniford Street 450'± easterly to the existing sewer manhole at the intersection of Staniford Street and Freeman Street and

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.

from the property at 68 Staniford Street 700'± to the existing sewer manhole at the intersection of Staniford Street and West Pine Street.

Referred to Public Facilities and Finance Committees

#118-19 Funding for a sewer main extension in Staniford Street

<u>HER HONOR THE MAYOR</u> requesting authorization to appropriate and expend two hundred fifty-six thousand dollars (\$256,000) from the Sewer Fund Reserve for the purpose of funding the Staniford Street Sewer Extension.

#133-19 Partial easement relocation on Boston College Middle Campus

<u>COMMISSIONER OF PUBLIC WORKS</u> requesting the relocation of a portion of an easement from the Trustees of Boston College to the City of Newton for drain lines in Section 63, Block 9, Lot 2 (Boston College Middle Campus) originally granted in 1917 and partially relocated in 2010 and 2013 under Board Orders # 232-10 and #232-10(2) and again in 2018 under Council Order #357-18 to reroute a portion of the existing City storm drain beyond the footprint of the planned Integrated Science Building. There will be no cost to the City.

Respectfully submitted,

Deborah Crossley, Chair



CITY OF NEWTON MASSACHUSETTS

APPLICATION FORM

This Application Form is to be used for the permitting of (1) Wireless Communication Facility attachments to an existing or replacement utility pole which is located in the public way and which does not have any pre-existing Wireless Communication Facility attachments; (2) Wireless Communication Facility attachments to an existing or replacement utility pole which is located in the public way and which does have pre-existing Wireless Communication Facility attachments, but does not satisfy the requirements under 47 U.S.C. §1455 and related Federal Communications Commission ("FCC") regulations; and (3) new pole construction in a public way primarily for purposes of providing Wireless Communication Services. Refer to City Council Wireless Grant of Location Standards & Procedures.

Filing of Application & Fee:

Please provide to the City Clerk in paper format an original and two (2) copies of your application and 10 copies of all attachments and plans. Also provide a complete application and attachments in PDF format or in a digital format compatible with the City's systems. The application must be complete per the attached check list in ordered to be filed with the City Clerk.

A filing fee of \$750 per location must accompany the application at the time of filing.

Applicant Contact Information:	
Name: ExteNet Systems, Inc.	Phone: 617-680-5464
Address: 100 Apollo Dr., Chelmsford, MA	Email Address:kbrinn@nbcllc.com
Owner(s) of the Utility Pole:	
Name: Eversource	Phone: 617-680-5464
Address: One NStar Way, Westwood, MA	Email Address:steve.kelly@eversource.com
Owner of the Proposed Wireless Communications Facilities Wireless Communications Purposes in whose name a Gra	es and/or New Pole Primarily for nt of Location order would be issued:
Name: ExteNet Systems, Inc.	Phone: 617-680-5464
Address: 3030 Warrenville Rd., Lisle, IL	Email Address: kbrinn@nbcllc.com

If different than the Owner, the User of the Proposed Wireless Communications Facilities and/or New Pole Primarily for Wireless Communications Purposes:
Name: Phone:
Address: Email Address:
If in residential area, is the location directly in front of a residence? Yes No
If yes, what is the distance between the proposed pole location and residence that it would front?
If the location is within a Historic District, please identify the historic district and state whether the applicant has filed for a Certificate from the Historic District Commission and if so, the date of that filing:
The Historic Preservation Officer has Certified that there is no adverse effect.
Pole #:
Description of Proposed Wireless Communications Facilities
Narrative description of the proposed wireless communications facilities.
The Applicant is seeking permission to build a small cell wireless facility utilizing an existing utility pole near the vicinity
of 132 Adams St. This installation will include an antenna, radio equipment, an electric meter and cabling for fiber and power.
The applicant has an approved application with the local utility company that controls the pole and a Letter of Authorization
is included here. This facility will assist in enhancing wireless coverage in the area by providing voice and data upgrades.
If an applicant proposes adding to the number of Wireless Communications Facilities or expanding the dimensions of the proposed wireless communications facilities (except with regard to replacement of existing wireless communications equipment with comparable equipment), the applicant must apply for a new wireless grant of location for the additional wireless communications equipment.

Compliance Issues

Identify any requirement or condition in the Standards with which the Applicant will not or
cannot comply with and provide a complete explanation why it cannot or will not comply: The Applicant is not aware of any requirement or condition with which it cannot comply. In the event there
is additional information requested the Applicant will make all efforts to deliver and satisfy such requests.
Is the applicant requesting an exception to any standard under Section III.L.? If so, please specify
the standard and provide factual support for the requested exception:
The Applicant is requesting no such exceptions at this time unless additional request are made by the City Departments.
1/0
Signature of Applicant:
Voonen Brinn, ND, O. Oite Association of the
Name and Title and any Business Name: Keenan Brinn - NB+C - Site Acquisition Consultant
Name of Principal or Client of Applicant: Extenet Systems, Inc.
7.76.16
Date Signed: 2 - 26 · 19

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ATTACHMENT B - PHOTO SIMULATIONS

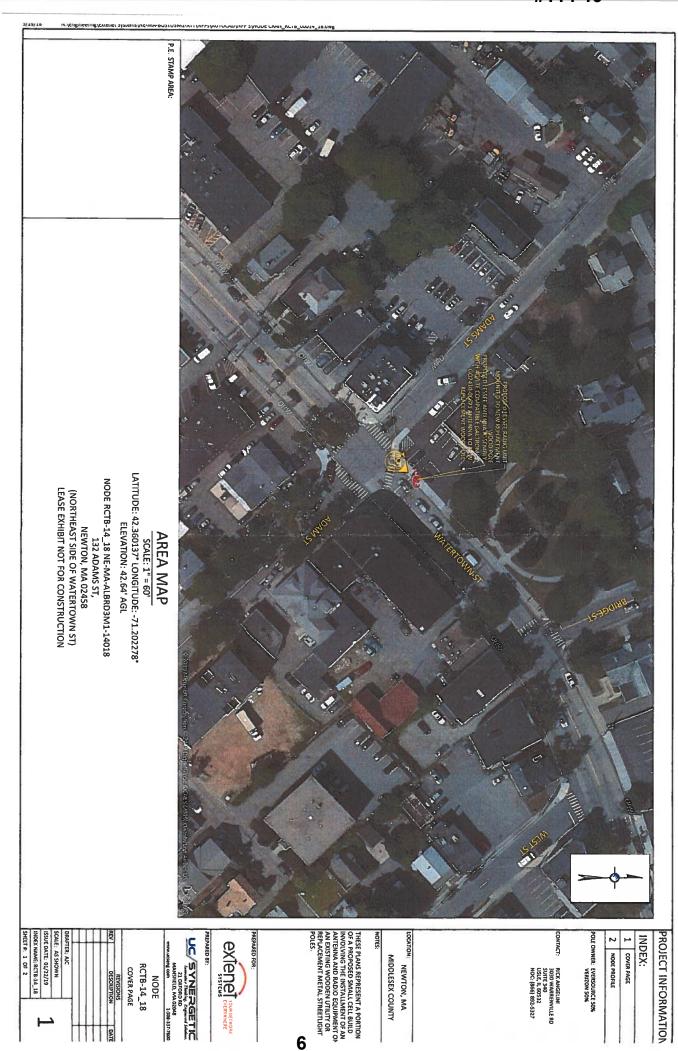
ATTACHMENT C - EVERSOURCE UTILITY LICENSE

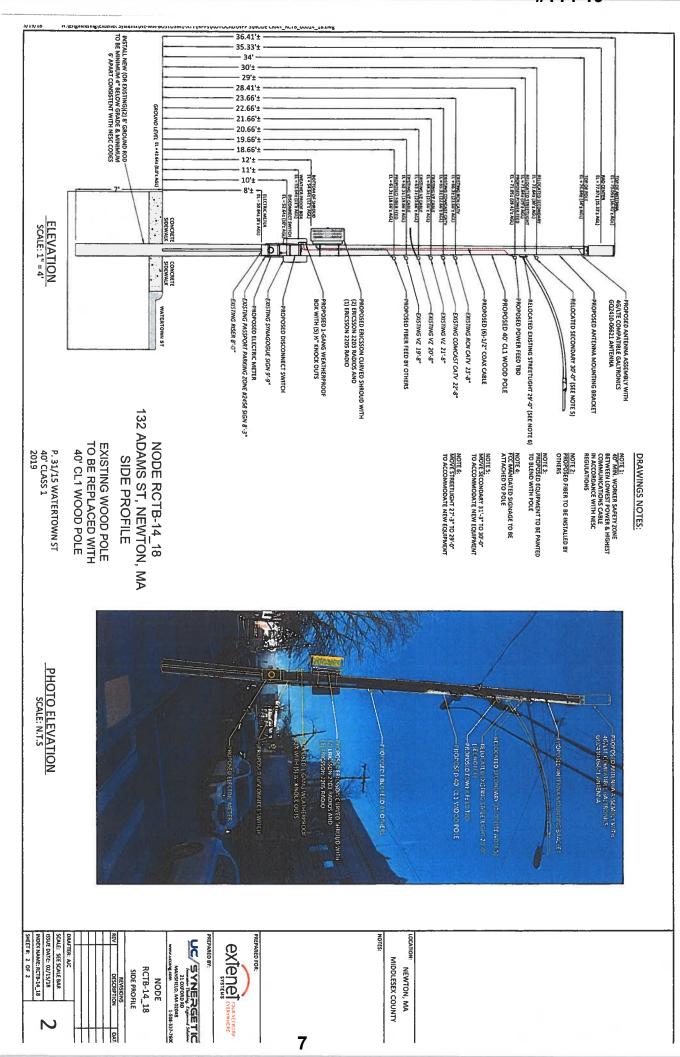
ATTACHMENT D - RF EMISSIONS STUDY

ATTACHMENT E - EVERSOURCE LETTER OF AUTHORIZATION

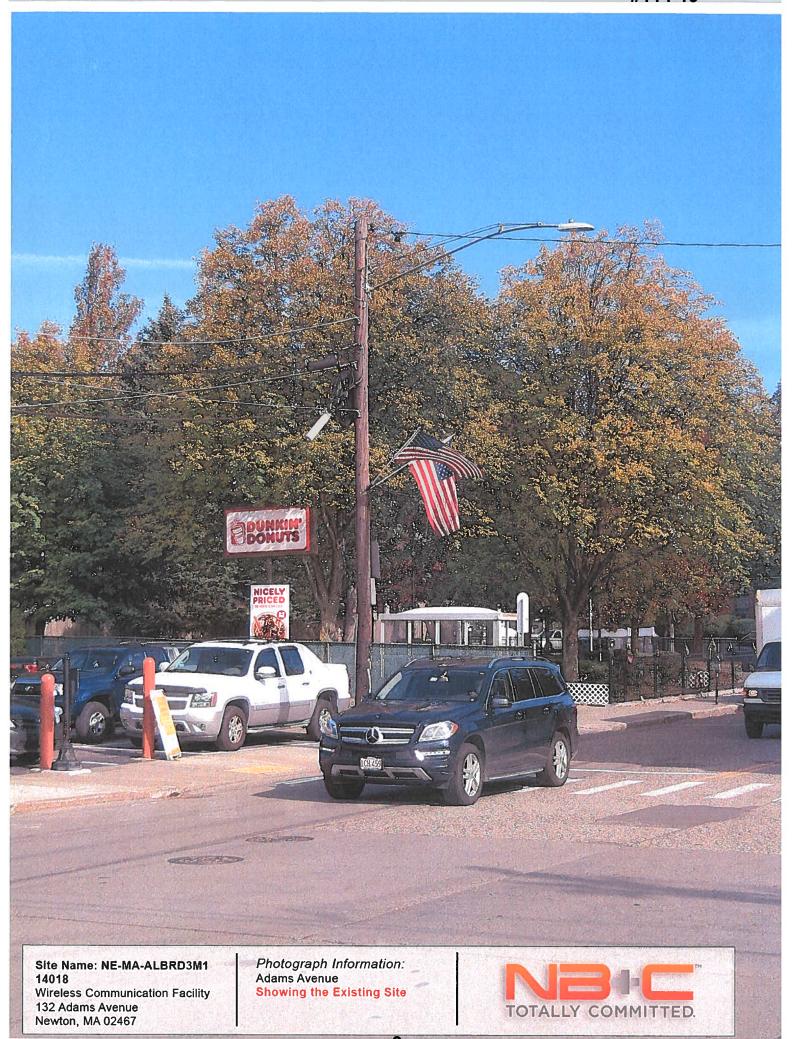
ATTACHMENT F - HISTORIC PRESERVATION CERTIFICATION

ATTACHMENT A





ATTACHMENT B





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ATTACHMENT C

Form 1

APPLICATION AND POLE ATTACHMENT LICENSE

Licensee: Extenet Systems				
Street Address: 3030 WARRENVIL	LE ROAD			
City, State and Zip: Lisle, IL 60532				
Date: 3/20/2018				69
In accordance with the term application is hereby made for a licent Power Supply(ies) and N/A other at Newton in the States	se to make tachments loc	1 attacl	uments to poles a unicipality of	
This request will be designated Pole NEW-ALBRD3M1-14018. Attached The cable's strand size is 1/4 in	l are my pow	License Appli er supply spe ht per foot o	cifications if ap	plicable.
May and a second a se			Extenet Systems	
F	Signature:			Lili Mendonca
Eversource Power Company	Title: Lili	Mendonca (A	gent)	
	Tel. No.	978-995-7101		
	Fax No.	(603) 598-009	1	
	E-mail: 1	ıtil-mgt-group	@waveguidefiber	:.com
***********************For licenso	r use, do not	write below	this line*****	*****
Pole Attachment License Application the attachments described in this appl attachments to FO2 poles, and other attachments located in the State of Massachusetts	ication to attacheme in the munici	attachments to JU3 po	ents to JO1 poles, les, Newton	Power Supplies
1752	Licensor's No.	ame (Print)	Steve Owens R LQ Come	CHARD A COMEA
(AGREEMENT ID #)	Title: Sup	ervisor, Right	ts, & Public Wor	ks
	Date:			
	Tel. No.	508-441-5881		
The Licensee shall submit an origin Inc. and the appropriate Power Con Revised 10/15/03	al copy of thi mpany.	is application	to Verizon Nev	v England
			CK#	76072

Form 2

AUTHORIZATION FOR FIELD SURVEY WORK

Licensee:	Extenet Systems		Mata			
following	n accordance with Article II is a summary of the charges chment License Application Newton in t	s which wil	l apply to NEW-ALI	complete	e a field si 14018 in	urvey covering
	FIEL	D SURVE	Y CHAR	GES		
<u>F</u>	ield Survey	#Pole	<u>es</u> <u>T</u>	Jnit Rate	9	<u>Total</u>
F	ield Survey Application Fe	e (Cover	s 1 pole)			\$139.00
F	ield Survey 2-200 Poles	0	and part of the	\$13.45	per Pole	\$0.00
A	dditional Travel Time*	0		\$220.50	per Day	\$0.00
T	OTAL Charges					\$139.00
* Based or day require	n average of 75 poles survey ed to complete survey.	yd per day,	add \$220	.50 travel	time for	each additional
for the cor	e, if you calculated the cost rect amount must be receive ance, please call the HOTI	ed by this o	ffice in o	rder to scl	e returned hedule the	and a new check survey. If you
The require	ed field survey covering Po ed. I am enclosing an advan	le Attachmo	ent Licen t in the ar	se Applic nount of	ation#	NEW-ALBRD3M1-1401 \$139.00
		Licensee's	Name (P	rint) Ex	tenet Syst	tems
		Signature:	Lili .	Mendonca		
		Title: Li	ili Mendo	nca (Ager	nt)	Afronia a company
		Tel. No.	978-995	-7101		
		Fax No.	(603) 59	8-0097		
		E-mail:	util-mgt	-group@v	vaveguide	fiber.com

Work Charges
Pole Make-Ready
· VERIZON ITEMIZED
FORM 3-

PAGE 1 OF

	SURVEYORS:				JIVA	OF	SUK	DATE OF SURVEY:				CWO #:
Verizon					MUNIC: Newton	i Ne	vton		STA	STATE: MA	MA	Exch Code: Munic Code:
Licensee	Waveguide				LICENSEE NAME:	SEE	MA	ME:	Exten	Extenet Systems	ms	LICENSEE APPLICATION#: NEW-ALBRD3M1-1
ELCO					ELCO NAME: Eversource	NAN	E	Everse	urce			1
LOCA	COCATION	FOLE .		ATT		OWNERSHIP	ERS	HIP		CHARGE	RGE	WORK DESCRIPTION
TEL RTE / STREET NAME	TREET NAME	Tel	13	F/C	J.O.		J.U.	F.0.		YES	ON	TASK #S / * Height
List one pole per line	le per line	A		P.S.	Tel El Tel El	77.	H	Tel El	13			`S
132 Adams St, Newton, MA		31/15	31/1		Arron							*
			1				_					ANTENNA ATTACHMENT
												*
								A				*
	1						1					*
					Control of the second		ļ					*
	TOTALS:	ĽŠ:	T			19.			T			

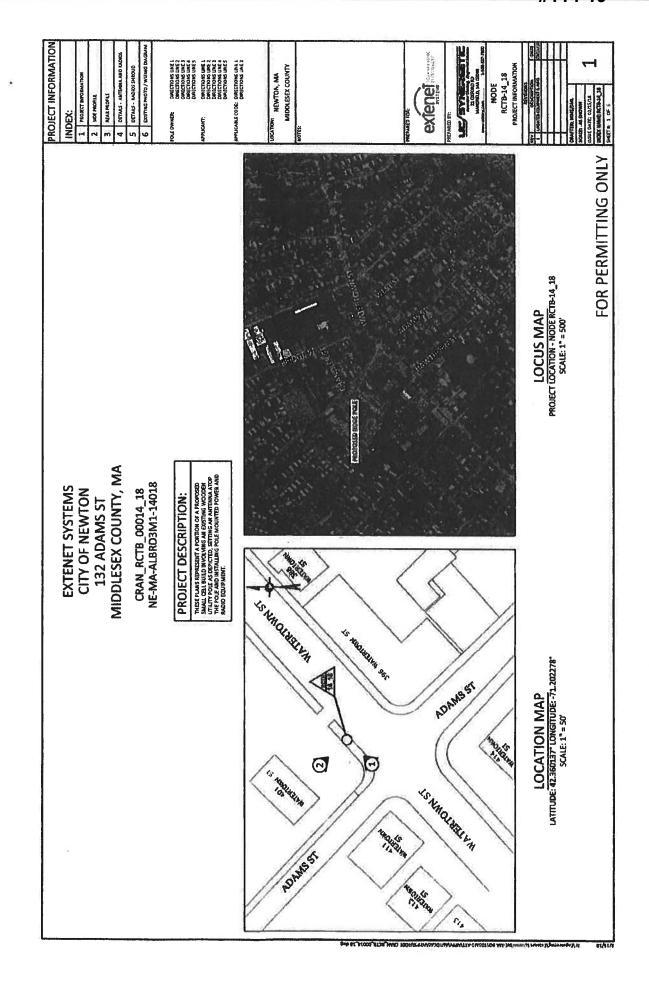
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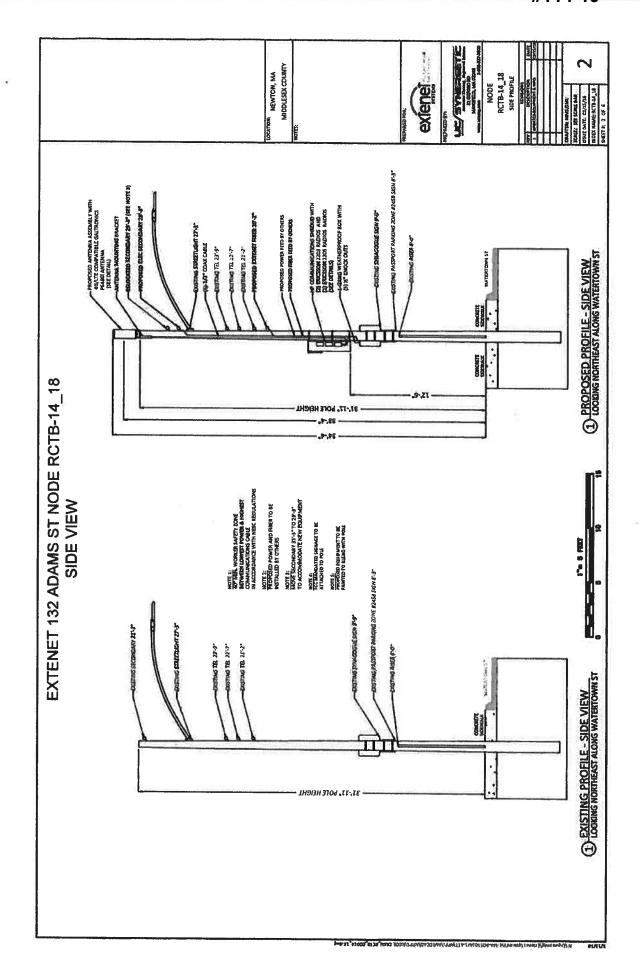
Work Order Application - NEW-ALBRD3M1-14018

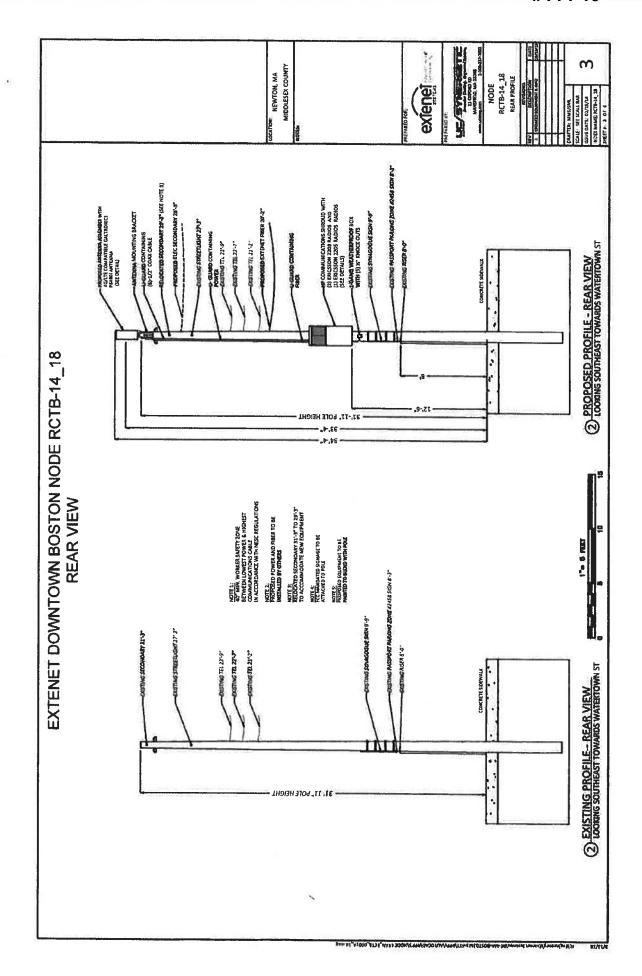
Service Addre	ess: Street: Utility	Pole # 31/15 - 132 Ad	WO Received Date:
See attached NE	W-ALBRD3M1-140	18 Node profile.	
Customer Of	Record:		
		ent of Monthly Electric	c Rille
Name to	appear on Monthly	Bill: ExteNet System	ns Inc.
DBA - C/	O Name:		no mo.
Billing Ad	dress: 303	0 Warrenville Rd. Su	ite 340, Lisie, IL 60532
Telephon	e: 630-535-38	300	Tay ID Number: 22-2976065
Existing A	Account or Meter Nu	umber (if applicable):	Tax ID Number:22-3876065
Fluberty Owner	warrie (ii uillererii	i irom abovei:	
Owner Ad	ddress:		
Owner Ph	none Number:		
Party Responsit	ole for Construction	n costs associated w	vith work order (if different from above)
ivame:			
Address:	e Antalografia e Tre-casaran		
Phone Nu	ımber:		ired for new commercial Eversource Customers
Please Note tha	at Articles of Inc	orporation are requi	ired for new commercial Eversource Customers
Pole Relocation	Service Upg Disconnect/F	Reconnect	Service Relocation Temporary Service Service Removal Metering Only
OH Service from	Pole, Pole#: <u>31/</u> Customer Loadi	UG Service from	n; Riser-Pole # : Padmount # : Brief Description of Work
OH Service from I	Pole, Pole# : 31/	ing	Brief Description of Work Install new Antenna and power supply
OH Service from	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs
Type of Load	Pole, Pole# : 31/	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply
Type of Load Lighting	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs
Type of Load Lighting Electric heat	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs
Type of Load Lighting Electric heat Air Conditioning	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap
Type of Load Lighting Electric heat Air Conditioning Refrigeration	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase 120/240 Amps
Type of Load Lighting Electric heat Air Conditioning Refrigeration Cooking	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase
Type of Load Lighting Electric heat Air Conditioning Refrigeration Cooking Electric Dryer	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase 120/240 Amps 20 Amps
Type of Load Lighting Electric heat Air Conditioning Refrigeration Cooking Electric Dryer Water Heater	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase 120/240 Amps
Type of Load Lighting Electric heat Air Conditioning Refrigeration Cooking Electric Dryer Water Heater Computer	Customer Loadi New Connecte	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase 120/240 Amps 20 Amps
Type of Load Lighting Electric heat Air Conditioning Refrigeration Cooking Electric Dryer Water Heater Computer Process Equip.	New Connecte Single Phase	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase 120/240 Amps 20 Amps
Type of Load Lighting Electric heat Air Conditioning Refrigeration Cooking Electric Dryer Water Heater Computer Process Equip. Motors/Elevators	New Connecte Single Phase	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase 120/240 Amps 20 Amps
Type of Load Lighting Electric heat Air Conditioning Refrigeration Cooking Electric Dryer Water Heater Computer Process Equip.	New Connecte Single Phase	ing ed Load in KVA	Brief Description of Work Install new Antenna and power supply cabinet for Extenet Systems Inc. Needs permanent connection by aerial HTap Single Phase 120/240 Amps 20 Amps

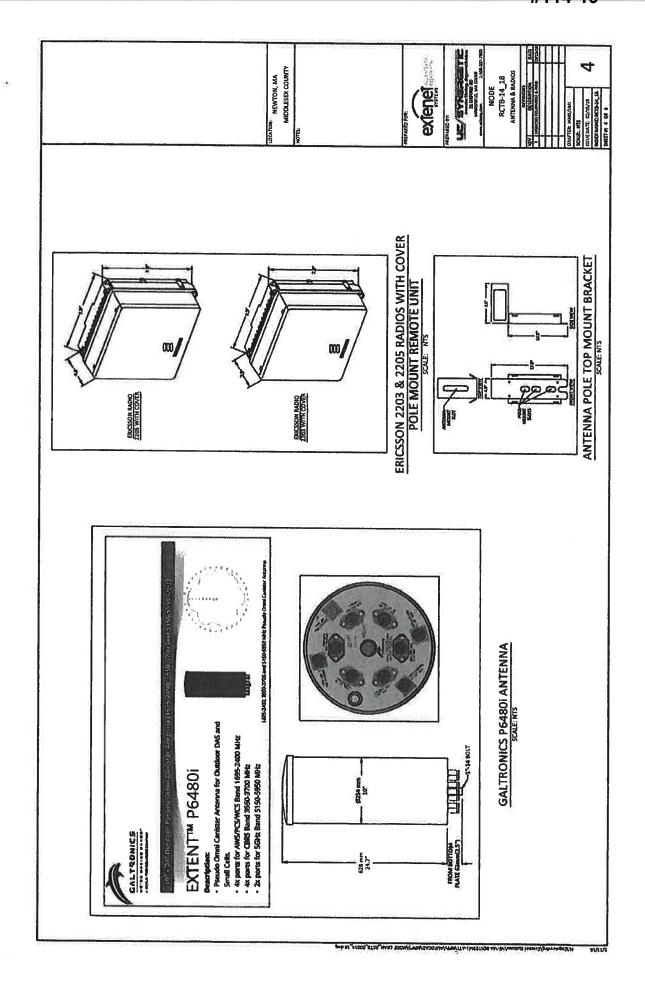
Additional Equipment: Generator: KW:	Phase:	Purpose:
Motor(S): Total #:Largest HP:	Phase:	Locked Rotor AMP:
Type of Starting Compensation (choose one):	Hard Soft	Capacitor VFD
*See Article 802 of NSTAR Information and	Requirements Book for N	Maximum LR current and Three Phase Protection *
Contact Name (circle appropriate): Customer/Contractor/Consultant: Lili M Street Address: 10 N. Southwood D City, State, Zip: Nashua, NH 03063 Telephone: 978-995-7101 Pager: Cell: 978-995-7101	rive Best Time to	e Inc. Call: Anytime I: Imendonca@waveguidefiber.com
		an Neumber
Electrician: <u>Dave McMullen</u> Business Name: <u>Newport Electric</u>		se Number:
Street Address: 200 High Point Ave.	B5.	
City, State, Zip: Portsmouth, Rt 028	71	
Telephone: 401-293-0527	Best	Time to Call:
Pager:	Fax:	
Please note that by Interconnecting vacknowledges that they have reviewed an Electric Service (Blue Book).	vith Eversource's Dis d are in compliance w	stribution System the Customer of Record ith the NSTAR Information & Requirements for
Any questions with regards to your	electric service can	be answered by calling 888-NEEDPWR
1 NS` West Tel: (Fax: (respondence to: cource Energy FAR Way wood, MA, 02090 888) 633-3797 781) 441-8721 cowService@eversource.c	<u>∞m</u>
FOR EVERSOURCE USE ONLY		
Eversource Revenue Allowance:		Eversource Rate:
KVA or KW rating of Existing Loads (if app Existing Winter Peak Demand: Existing Summer Peak Demand:	ACCOUNT A PERMANENTAL	Month/Date/Year:

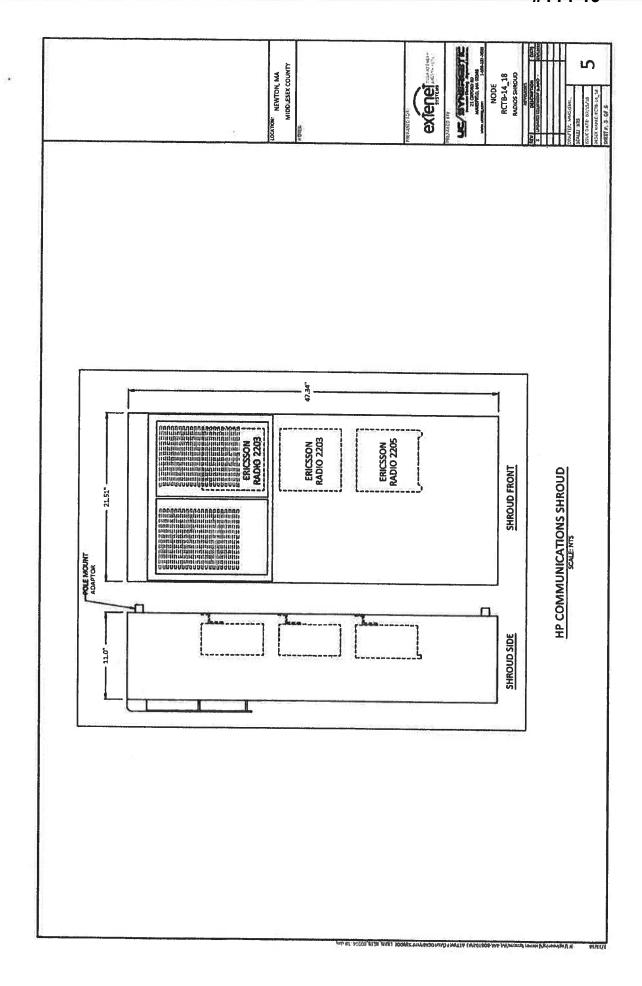
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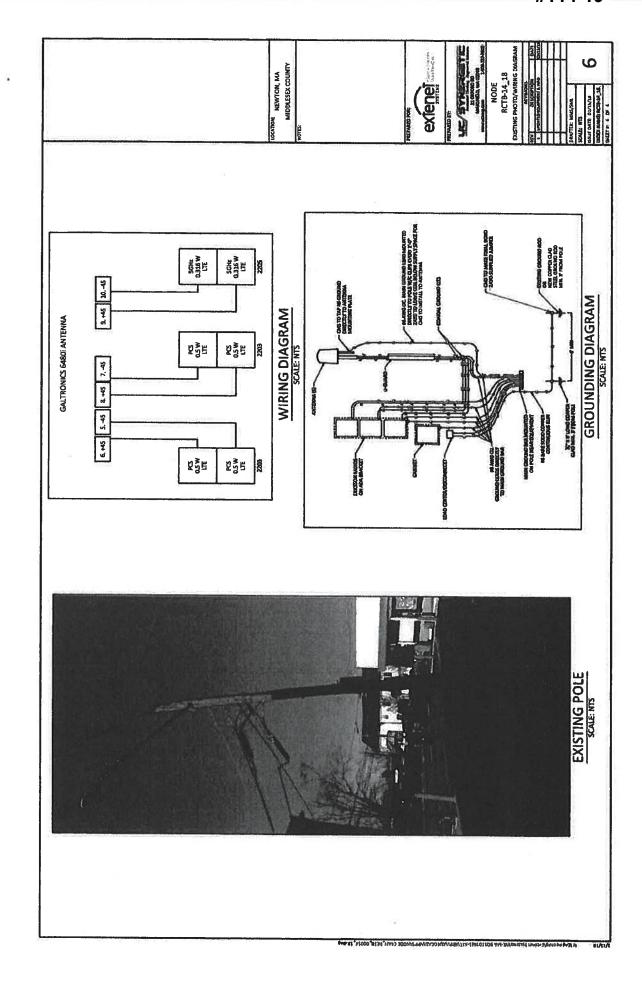








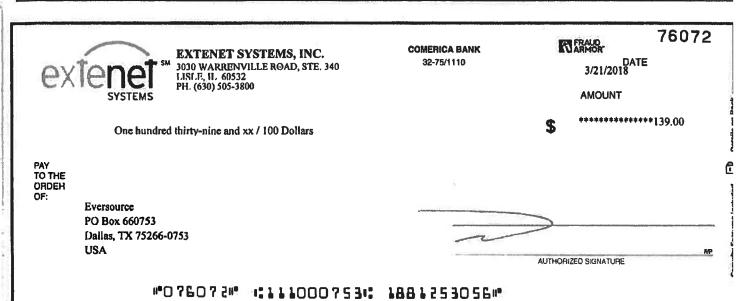




EXTENET SYSTEMS, INC.

76072

REFERENCE NO.	DESCR	IPTION INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
CK RQ 032018-		3/20/2018	139.00	0.00	139.00
15	New-ALB	RD3m1-14018			
CHECK DATE	CHECK NO.	PAYEE		DISCOUNTS TAKEN	CHECK AMOUNT
3/21/2018	0000076072	RSOBACKBA Eversource	The second district History	0.00	139.00



ATTACHMENT D

DATE: 5/4/2018



Declaration of Site MPE Compliance

The following sites in Table 2 have been analyzed against the attached worst-case site parameters for MPE compliance and have been determined to meet occupational and general public MPE compliance requirements. See table below.

PROJECT ID:

NE-MA-ALBRD3M1_BOSTD3M1_BRAND3m1_CN

Antenna:

Galtronics GQ2410-06621 Quasi-OMNI

Config:

3

Table 1

Parameter Parameter	Site-Specific Result	Compliant?
Maximum amplifier output power	27 dBm	yes
Maximum antenna gain	3.7 dBi	yes
Minimum horizontal distance from any general public structure	0 ft	yes
Minimum horizontal distance to antenna for occupational MPE requirement	0 ft	yes
Minimum vertical distance to antenna for general public MPE requirement	0 ft	yes
Minimum vertical distance to antenna for occupational MPE requirement	0 ft	yes

Table 2

<u>Latitude</u>	<u>Longitude</u>	<u>Name</u>	<u>Status</u>	Rooftop
42.35837688	-71.13056787	NE-MA-ALBRD3M1-14001	Clear	N
42.35748492	-71.15375691	NE-MA-ALBRD3M1-14004	Clear	N
42.340668	-71.14760375	NE-MA-ALBRD3M1-14007	Clear	N
42.3601377	-71.20227834	NE-MA-ALBRD3M1-14018	Clear	N
42.34414533	-71.13697584	NE-MA-ALBRD3M1-14022	Clear	N
42.34448972	-71.12487042	NE-MA-ALBRD3M1-14023	Clear	N
42.21168023	-71.01927863	NE-MA-BRAND3M1-16001	Clear	N
42.26119856	-70.97930905	NE-MA-BRAND3M1-16003	Clear	N
42.22905418	-70.97046064	NE-MA-BRAND3M1-16005	Clear	N
42.23703105	-71.00194461	NE-MA-BRAND3M1-16006	Clear	N
42.25343044	-70.99368284	NE-MA-BRAND3M1-16008	Clear	N
42.26904474	-70.9587997	NE-MA-BRAND3M1-16009	Clear	N
42.26597234	-70.95345548	NE-MA-BRAND3M1-16010	Clear	N
42.401412	-71.10412724	NE-MA-CMARD3M1-26001	Clear	N
42.39948634	-71.13712314	NE-MA-CMARD3M1-26003	Clear	N
42.39459203	-71.03269949	NE-MA-NTSHD3M1-27004	Clear	N
42.39181068	-71.02830549	NE-MA-NTSHD3M1-27005	Clear	N
42.382477	-70.993	NE-MA-NTSHD3M1-27007	Clear	N
42.412282	-71.021132	NE-MA-NTSHD3M1-27008	Clear	N
42.39689219	-71.0251827	NE-MA-NTSHD3M1-27009	Clear	N
42.39766355	-70.99188586	NE-MA-NTSHD3M1-27010	Clear	N
42.26030633	-71.09923483	NE-MA-BOSTD3M1-57003	Clear	N
42.25667367	-71.14690278	NE-MA-BOSTD3M1-57008	Clear	N



<u>Latitude</u>	<u>Latitude</u> <u>Longitude</u> <u>Name</u>		Status	Rooftop
42.28497772	-71.12954588	NE-MA-BOSTD3M1-57012	Clear	N
42.26595547	-71.10835031	NE-MA-BOSTD3M1-57020	Clear	N
42.278494	-71.076745	NE-MA-BOSTD3M1-57021	Clear	N
42.30888932	-71.06917304	NE-MA-BOSTD3M1-58007	Clear	N
42.30171641	-71.06160582	NE-MA-BOSTD3M1-58013	Clear	N
42.29550472	-71.05635162	NE-MA-BOSTD3M1-58021	Clear	N



Radio Frequency Exposure Pre-Installation FCC Compliance Assessment

	Site Specific Inf	formation			
Site Name	NE-MA-ALBRD3M1_CMARD3M1-ATT (Node: NE-MA-CMARD3M1-26003)	Categorically Excluded?	No		
Street Address Harrison Avenue		5% Contributor to Areas			
City, State, Zip	Cambridge, MA 02140	Requiring Mitigation?	No		
Multi-Licensee Facility	No	Max % MPE (Predictive) at Ground Level	0.06 % Occupational 0.30 % General Population		
Structure Type	Pole	Max % MPE (Measured)	N/A		
Broadcast Equipment	No	Assessment Date	May 3, 2018		
# of Access Points	Unknown	Assessment Purpose	Proposed Site		
	Compliance Status	Mitigation Required			

☒	Worst-case RF power density levels are BELOW the MPE for General Population/Uncontrolled Environments in accessible areas.
	Worst-case RF power density levels are ABOVE the MPE for General Population/Uncontrolled Environments but BELOW the MPE for Occupational/Controlled environments.
	Worst-case RF power density levels are ABOVE the MPE for Occupational/Controlled Environments but BELOW 10x the MPE for Occupational/Controlled environments.
	Worst-case RF power density levels are ABOVE 10x the MPE for Occupational/Controlled environments.

Compliance Requirements	A NOTICE A RADIO FECULINES OF MODIFIED IN A PARTICIPATION OF	NOTICE (((()))) Individual summer in the feature and a post of the f	CAUTION Take Integrated to the state of the	WARNING From your party and as they are more offered and a second and	INFORMATION This is a Antenna Site Sale Str. For information and	
	Guidelines	Notice	Caution	Warning	NOC Information	Barrier
Access Points						
Alpha	⊠[1]					
Beta						
Gamma						

Additional Compliance Requirements(s):

There are no barriers recommended on this site. A Yellow Notice sign is recommended to be posted at the equipment installation location. Since there are no areas exceeding either the FCC's general population or occupational thresholds, no additional signage is required.

Consultant Legal Name	Centerline Communications, LLC	Phone/Fax	(978)660-3998	
Address	95 Ryan Drive, Suite 1, Raynham, N	AA 02767		

Confidential & proprietary material for authorized ExteNet Systems personnel only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement | ExteNet Systems

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1. Executive Summary

ExteNet Systems has contracted with Centerline Communications, LLC, an independent Radio Frequency consulting firm, to conduct a Radio Frequency Exposure (RFE) Compliance Pre-Installation Assessment of the NE-MA-ALBRD3M1_CMARD3M1-ATT (Node: NE-MA-CMARD3M1-26003) cell site located along Harrison Avenue in Cambridge, MA. The following report contains a detailed summary of the Radio Frequency environment as it relates to Federal Communications Commission (FCC) and Occupational Safety & Health Administration (OSHA) Rules and Regulations for all individuals.

The ExteNet Systems antenna data was provided by:

Name	Sunday Aiyash	
Title	Technical Program Manager	
Date	May 3, 2018	
Region	Northeast	

This Pre-Installation compliance assessment and report has been prepared and reviewed by:

	Preparer	Reviewer
Name	Scott Heffernan	Brian Frazier
Title	Director RF Engineering	Sr RF Engineer
Date	May 3, 2018	May 3, 2018

This report utilizes the following for predictive modeling of the ambient RF environment:

MPE Modeling Program: Roofview® 4.15

Required Modeling Assumptions: 100% Duty Cycle and Maximum Total Power Output.

Additional Modeling Assumptions:

Centerline Communications, LLC has performed theoretical modeling using RoofView® software as well as our proprietary small cell modeling software to estimate the worst-case power density at the site ground-level resulting from operation of the antennas as well as at the antenna level and at adjacent residential and business structures. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit. RoofView® is used to model areas close to the antenna at the antenna mounting level. Our proprietary small cell modeling software analyzes the site profile based upon configuration power levels and antenna characteristics to accurately model the emissions profile extending away from the antenna location in a 6 foot spatially averaged format. This software is used to model far field areas where the antenna patterns have formed and is a better representation of actual power density values in these areas

The modeling is based on worst-case assumptions for the number of antennas and transmitter power. For AT&T, the modeling assumes a maximum 2 LTE radio with a composite transmit power level of 40 dBm (10 Watts) at 1900 MHz in 4 x 4 MIMO configuration and a maximum 1 LTE radio with a composite transmit power level of 27 dBm (0.5 Watts) at 5 GHz in 2 x 2 MIMO configuration in order to provide a worst-case evaluation of predicted MPE levels. The assumptions used in the modeling are based upon information provided by ExteNet.

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For all calculations, all equipment was calculated using the following assumptions:

- AT&T: Two (2) 2203 Remote Radios for 1900 and one (1) 2205 Remote Radios for 5 GHz. The maximum deployed transmit power specified for these radio units is 5 Watts each for 1900 MHz and 0.5 Watts for 5 GHz.
- The antenna used in this modeling is the **Galtronics GQ2410-06621** which is a quasi-omnidirectional canister antenna.
- The calculations were performed at maximum gain on the main lobe of the antennas. The antenna mounting height for the proposed utility pole antenna installation is 35 feet above ground level to antenna centerline.
- All calculations were done with respect to uncontrolled / general population and controlled / occupational threshold limits as specified in FCC OET65.
- There was 1.0 dB of system loss resulting from 1.0 dB of cable loss for each 1900 MHz and 5 GHz path.

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2. Proposed Site Characteristics

a. Structure

Physical Description	This project involves the installation of one (1) Galtronics GQ2410-06621 quasi-omnidirectional canister antenna on a utility pole at 35 feet above ground level. For AT&T, there will be three (3) radios installed on the utility pole. two (2) remote radio units for 1900 MHz LTE and one (1) remote radio unit for 5 GHz. The antenna will be installed on the approximate 34-foot pole at the 35-foot level (antenna centerline).
Site Latitude (NAD 83)	42.39948634 N
Site Longitude (NAD 83)	-71.1371231406 W
Site Elevation (AMSL)	5 feet
Structure Height (AGL)	~34 feet
Overall Structure Height	~36 feet

b. Accessibility

Access to this site is accomplished by approaching the pole at ground level. Workers must be elevated to antenna level in order to access them, so these antennas are not accessible to the general population.

All access points locked at time of assessment?	N/A
All access points alarmed at time of assessment?	N/A

c. ExteNet Systems Signage

Existing Signage	Signage Whitehis restream 1 feet risease a foon all seleverus. Do not deple food of an eleverus. Use promote 18 readers white a relating need anderson. Helica op at a featurement of trust thick is selly proved operature. Helica op at a featurement of struct of thick is selly proved operature. The control operature is a selection and operature in the selection of the selec		NOTICE Could be before a radic bound graph and a radi		INFORMATION This is a Antenia Site See 80 For information and 1				
_	Guidelines	Notice	Caution	Warning	NOC Information	Barrier			
Access Points									
Alpha									
Beta									
Gamma									
	Existing Signage Adheres to carrier Signage & Demarcation Policy? N/A								

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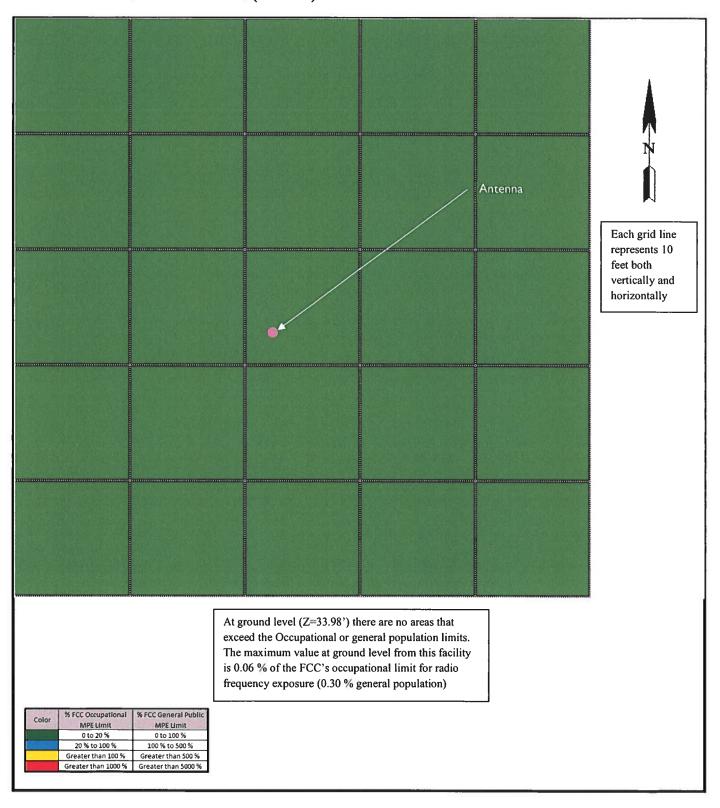
d. Antenna Inventory

Ant#	Operator	Antenna Model	Туре	Frequency (MHz)	Az (deg)	Downtilt (deg.)	Horizontal Beamwidth (Degrees)	Ant (ft)	Total ERP (watts)	x	Y	Height above Nearest Walking Surface (z**)
ANT1	AT&T	Galtronics GQ2410-06621	Quasi- omnidirectional	1900 MHz & 5 GHz	0	0 degrees	Omni	2.04	38.42	50	50	33.98′

^{**} The Z-Value represents the distance in feet from the bottom of the antenna to the ground level

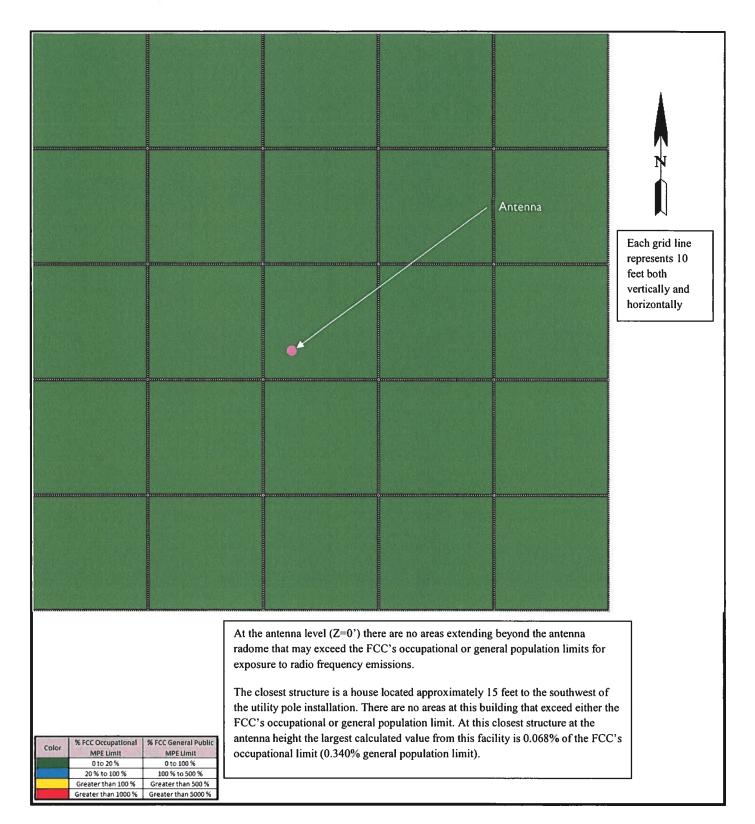
3. Analysis

a. Predictive Model: All Transmitters (Z=33.98')



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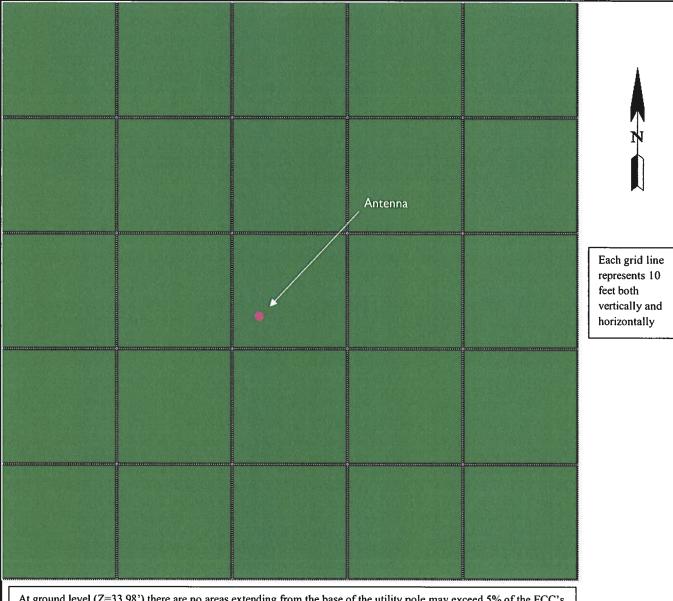
b. Predictive Model: All Transmitters (Z=0')



8

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c. Predictive Model: Significant Contribution of ExteNet Systems



At ground level (Z=33.98') there are no areas extending from the base of the utility pole may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational). At the antenna level (Z=0') this area that may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational) extends 9 feet from the antenna face.

The closest structure is a house located approximately 15 feet to the southwest of the utility pole installation. There are no areas at this building that exceed either the FCC's occupational or general population limit. At this closest structure at the antenna height the largest calculated value from this facility is 0.068% of the FCC's occupational limit (0.340% general population limit).

Color	% FCC Occupational MPE Limit	% FCC General Public MPE Limit
	0 to 1 %	0 to 5 %
TUE	Greater than 1%	Greater than 5%

- 4. Conclusion
- a. Conclusion Narrative

Description of MPE-Limit Exceeding Areas:

Based on worst-case predictive modeling, there are no modeled exposures on any accessible ground walking/working surface related to ExteNet's proposed antennas that exceed the FCC's occupational and/or general population exposure limits at this site. At the antenna level (Z=0') there are no areas extending beyond the antenna radome that may exceed the FCC's occupational or general population limits for exposure to radio frequency emissions.

Carrier Significant Contribution Areas:

At ground level (Z=33.98') there are no areas extending from the base of the utility pole may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational). At the antenna level (Z=0') this area that may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational) extends 9 feet from the antenna face.

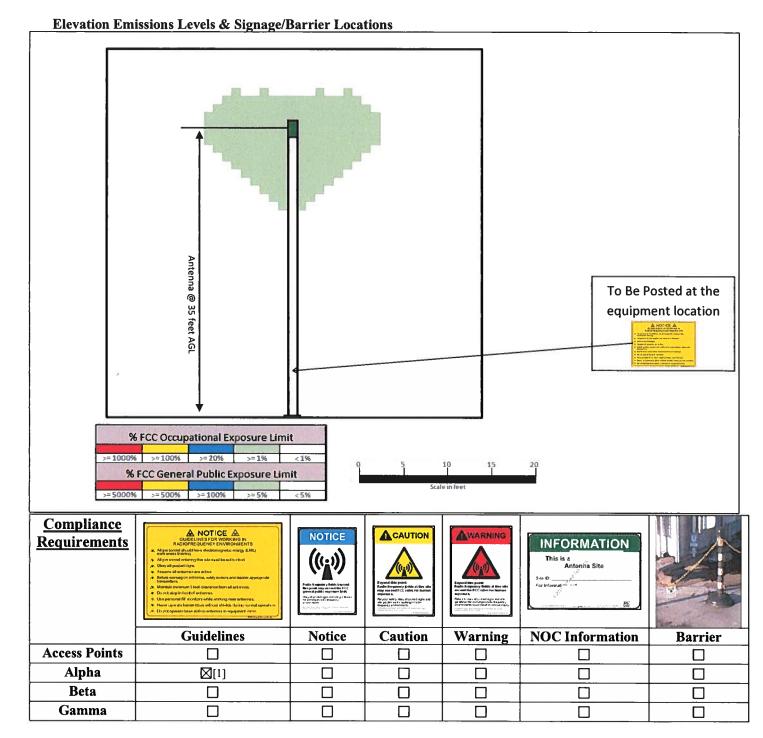
The closest structure is a house located approximately 15 feet to the southwest of the utility pole installation. There are no areas at this building that exceed either the FCC's occupational or general population limit. At this closest structure at the antenna height the largest calculated value from this facility is 0.068% of the FCC's occupational limit (0.340% general population limit).

Collocator Significant Contribution Areas:

Based on review of construction drawings and aerial photographs, no collocators were identified onsite.

Based on worst-case predictive modeling, there are no modeled exposures on any accessible ground walking/working surface related to the carrier's proposed antennas that exceed the FCC's occupational and/or general population exposure limits at this site.

b. Compliance Requirements



Signage/Barrier Installation Detail

- There are no barriers recommended on this site.
- A Yellow Notice sign is recommended to be posted at the equipment installation location

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5. Appendix C: RF Consultant Certifications

a. Preparer Certification

I, Scott Heffernan, the preparer of this report, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also fully aware of and familiar with the ExteNet Systems Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

b. Reviewer Certification

I, Brian Frazier, the reviewer and approved of this report, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also fully aware of and familiar with the ExteNet Systems Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

6. Appendix D: Reference Information

a. FCC Rules & Regulations

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed those standards, known as Maximum Permissible Exposure (MPE) limits, in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. The standards were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The FCC explains that its standards "incorporate prudent margins of safety." The following represents explanations of the most applicable information:

Two Classifications for Exposure Limits

Occupational – Applies to situations in which persons
are "exposed as a consequence of their employment"
and are "fully aware of the potential for exposure and
can exercise control over their exposure".

General Population – Applies to situations in which persons 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". Generally speaking, those without significant and documented RF Safety & Awareness training would be in the General Population classification.

Environment Classification

<u>Controlled</u> – Applies to environments that are restricted or "controlled" in order to prevent access from members of the General Population classification.

<u>Uncontrolled</u> – Applies to environments that are unrestricted or "uncontrolled" that allow access from members of the General Population classification.

Frequency	Power Density	Averaging Time
Range	(S)	$ E ^2$, $ H ^2$, or S
(MHz)	(mW/cm ²)	(minutes)
300-1500	f/300	6
1500-100,000	5	6
	eneral Population/Unc	
	eneral Population/Unc	ontrolled Exposure
Limits for G	eneral Population/Unc Power Density (S)	ontrolled Exposure Averaging Time
Limits for Go	Power Density	ontrolled Exposure
Limits for Go Frequency Range	Power Density (S)	ontrolled Exposure Averaging Time E ², H ², or S

Significant Contribution to the RF Environment

Any carrier contributing an aggregate MPE percentage of 5 or more (to the applicable RF Environment Classification) is defined as a significant contributor. This means that if any area is determined to be out of compliance with FCC rules, all significant contributors are jointly responsible for correcting any deficiencies.

b. Occupational Safety and Health Administration (OSHA) Requirements

A formal adopter of FCC Standards, OSHA stipulates that those in the Occupational classification must complete training in the following: RF Safety, RF Awareness, and Utilization of Personal Protective Equipment. OSHA also provides options for Hazard Prevention and Control:

Hazard Prevention	Control
 Utilization of good equipment 	Employ Lockout/Tag out
Enact control of hazard areas	Utilize personal alarms & protective clothing
Limit exposures	Prevent access to hazardous locations
Employ medical surveillance and accident	Develop or operate an administrative control
response	program

c. RF Signage

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personnel exposures in excess of the FCC guidelines. These areas must be demarcated by conspicuously posted signage that identifies the potential exposure. Signage MUST be viewable regardless of the viewer's position.

GUIDELINES	NOTICE	CAUTION	WARNING
Used anytime hazard signage is employed to achieve FCC compliance. This sign will inform visitors of the basic precautions to follow when working around radiofrequency equipment.	Used to distinguish the boundary between the General Population/Uncontrolled and the Occupational/Controlled areas. The limits associated with this notification must be less than the Occupational/Controlled MPE.	Identifies RF controlled areas where RF exposure can exceed the Occupational/Controlled MPE but below 10 x the Occupational/Controlled MPE.	Denotes the boundary of areas with RF levels substantially above the FCC limits, normally defined as those greater than ten (10) times the Occupational/Controlled MPE.
GUIDELINES FOR WORKING IN RADIOFREQUENCY ENVIRONMENTS 4. All personnel stould have electromagnetic energy (EME) ownerees braining. 9. All personnel electromagnetic energy (EME) ownerees braining. 9. All personnel electromagnetic energy (EME) ownerees braining. 9. All personnel entering this site must be authorized. 9. Obey all posted signs. 9. Before working on unfenness, notify comers and disrible appropriate transmitters. 9. Before working on unfenness, notify comers and disrible appropriate transmitters. 9. Do not stop in front of antenness. 9. Use personal RF monitors while working neer antennas. 9. Never operate bursmitters without shields during normal operation. 9. Do not operate base station antennas in equipment room.	Radio frequency fields beyond this point may exceed the FCC general public corporate limit. Cby all posted signs and all a guidelines for exching in radio bequancy environments.	Beyond this police Radio frequency fleds at this site may creed FCC tubes for human ceporaria. For pore uses for earling in 1999 Begang shallowned. Land and secretary shall be and the site and the shall be and	Beyond this point: Radio frequency fields at this alterex could the FCC rules for human exposure. Figure to they all posted signs and site additions for confinging and on the additions for confinging and on the additions for confinging and on the additions for confineing and all the additions are additionally and additionally and additionally additionally and additionally additionall

INFORMATION SIGN

Information signs are used as a means to provide contact information for any questions or concerns. They will include specific cell site identification information and the ExteNet Systems Network Operations Center phone number.



d. Barriers

A barrier is any physical demarcation employed as a preventative and/or notification measure that one is entering into an area with RF power density levels greater than the General Population/Uncontrolled limit.







14

ATTACHMENT E



247 Station Drive, NWBED Westwood, Massachusetts 02090

November 29, 2018

Re: Initial Authorization for ExteNet Systems, Inc.to Attach to Eversource Energy d/b/a NSTAR poles

To Whom It May Concern:

Eversource Energy ("NSTAR") is aware that ExteNet Systems, Inc. is in the process of permitting for the installation of necessary telecommunications equipment and corresponding aerial fiber optic cable in various locations on NSTAR-owned poles in various municipalities within our service territory. As part of the process, we understand that there is a requirement for NSTAR to review these locations and provide the municipalities with confirmation of its approval in advance of ExteNet Systems, Inc. proposed attachment.

Accordingly, NSTAR hereby submits its initial authorization for ExteNet Systems, Inc. to install its equipment and corresponding aerial fiber routes to NSTAR poles in the geographic locations as depicted on the plans submitted by Extranet Systems Inc. and on file with the municipalities. The installations on NSTAR poles will be subject to the underlying terms and conditions of agreements by and between NSTAR and ExteNet Systems, Inc., as the same may be in effect from time to time.

If there is anything further that I can provide you with for your analysis, please do not hesitate to contact me at 508-441-5881.

Sincerely,

Richard A Comeau

Eversource Energy d/b/a NSTAR Electric Supervisor - Rights, Permits & Public Works

247 Station Dr., NWBED Westwood, MA 02090

Ph: (508) 441-5881

CC: Paul Kelley

ATTACHMENT F

(0

02186 | 617.680.5464 |

kbrinn@nbcllc.com

From: Katy Hax Holmes

kholmes@newtonma.gov

Sent: Thursday, February 14, 2019 9:54:43 AM

To: Keenan Brinn

Subject: RE: SMALL CELL APPLICATIONS

Keenan, as proposed these additions to existing polls would not constitute an effect on historic structures. Thanks for asking. Katy

From: Keenan Brinn < kbrinn@nbcllc.com>

Sent: Wednesday, February 13, 2019 4:48 PM

To: Katy Hax Holmes < kholmes@newtonma.gov>

Subject: Re: SMALL CELL APPLICATIONS

Katy -

These three small cells are all designed to sit on top of the wooden or steel utility pole in the Public right of way. They are all cylindrical in shape and about 24" tall and 10" in diameter. I sent the plans













CITY OF NEWTON MASSACHUSETTS

APPLICATION FORM

This Application Form is to be used for the permitting of (1) Wireless Communication Facility attachments to an existing or replacement utility pole which is located in the public way and which does not have any pre-existing Wireless Communication Facility attachments; (2) Wireless Communication Facility attachments to an existing or replacement utility pole which is located in the public way and which does have pre-existing Wireless Communication Facility attachments, but does not satisfy the requirements under 47 U.S.C. §1455 and related Federal Communications Commission ("FCC") regulations; and (3) new pole construction in a public way primarily for purposes of providing Wireless Communication Services. Refer to City Council Wireless Grant of Location Standards & Procedures.

Filing of Application & Fee:

Please provide to the City Clerk in paper format an original and two (2) copies of your application and 10 copies of all attachments and plans. Also provide a complete application and attachments in PDF format or in a digital format compatible with the City's systems. The application must be complete per the attached check list in ordered to be filed with the City Clerk.

A filing fee of \$750 per location must accompany the application at the time of filing.

Applicant Contact Information:	
Name: ExteNet Systems, Inc.	Phone: 617-680-5464
Address: 100 Apollo Dr., Chelmsford, MA	Email Address: kbrinn@nbcllc.com
Owner(s) of the Utility Pole:	2
Name: Eversource	Phone: 617-690-5464
Address: One NStar Way, Westwood, MA	Email Address: steve.kelly@eversource.com
Owner of the Proposed Wireless Communications Facilitie Wireless Communications Purposes in whose name a Gra	• • • • • • • • • • • • • • • • • • •
Name: ExteNet Systems, Inc.	Phone: 617-680-5464
Address: 3030 Warrenville Rd., Lisle, IL	Email Address: kbrinn@nbcllc.com

If different than the Owner, the User of the Proposed Wi and/or New Pole Primarily for Wireless Communications	
Name:	Phone:
Address:	Email Address:
If in residential area, is the location directly in front of a r	esidence? Yes No
If yes, what is the distance between the proposed pole lo front?	cation and residence that it would
35 feet	
If the location is within a Historic District, please identify the applicant has filed for a Certificate from the Historic C of that filing:	
The Historic Preservation Officer has Certified that there is no	o adverse effect.
Pole #:	
Description of Proposed Wireless Communications Facility	<u>ies</u>
Narrative description of the proposed wireless communic	rations facilities.
The Applicant is seeking permission to build a small cell wireless facility a	at 262 Beacon St. utilizing an existing utility pole
within the public ROW. This installation will include an antenna, radio equipment	nt, an electric meter and cabling for fiber and power.
The applicant has an approved application with the local utility company the	
is included here. This facility will assist in enhancing wireless coverage in	the area by providing voice and data upgrades.
If an applicant proposes adding to the number of Wireless expanding the dimensions of the proposed wireless commregard to replacement of existing wireless communication equipment), the applicant must apply for a new wireless gwireless communications equipment.	nunications facilities (except with ns equipment with comparable

Compliance Issues

	tify any requ not comply w								
The	Applicant is no	ot aware	of any requi	irement or o	condition with	n which i	t cannot o	comply. In the	event there
									uch requests.
		- <u>2</u> - 1							
•		~							
24									
-	-							-	
									lease specify
the	standard	and	provide	factual	support	for	the	requested	exception
The A	Applicant is requ	esting no	such exception	ons at this tin	ne unless addi	tional req	uest are n	nade by the City	y Departments.
				<u> </u>					
					·		(5)		
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				$\overline{}$					
			Kun						
Signa	ture of Applic	ant:	Kun	12	is				
				10	5				
Name	e and Title and	d any Bu	siness Nam	e: Keenan	Brinn - NB+	C - Site	Acquisit	ion Consulta	<u>nt</u>
Name	e of Principal o	or Client	of Applican	t: Extenet	Systems, In	c.			
Date	Signed:	7	- 26.	19					
				. '			•		

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ATTACHMENT A - SITE PLAN

ATTACHMENT B - PHOTO SIMULATIONS

ATTACHMENT C - EVERSOURCE UTILITY LICENSE

ATTACHMENT D - RF EMISSIONS STUDY

ATTACHMENT E - EVERSOURCE LETTER OF AUTHORIZATION

ATTACHMENT F - HISTORIC PRESERVATION CERTIFICATION

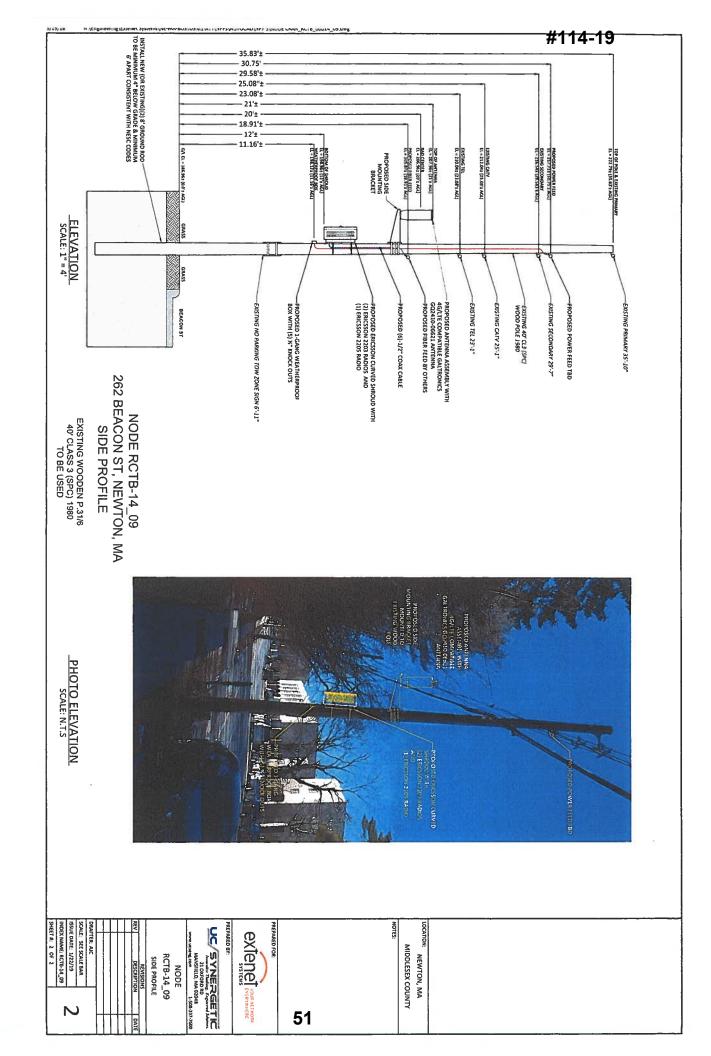
ATTACHMENT A



SCALE: AS SHOWN ISSUE DATE: 1/22/19 INDEX NAME: RCTB-14_09

YOUR NE WORK

50



ATTACHMENT B





ATTACHMENT C

Form 1

APPLICATION AND POLE ATTACHMENT LICENSE

Licensee: Extenet Systems	
Street Address: 3030 WARRENVII	LLE ROAD
City, State and Zip: Lisle, IL 60532	
Date: 3/27/2018	
Power Supply(ies) and N/A other a Newton in the St This request will be designated Pole.	ttachments located in the municipality of ate of Massachusetts Attachment License Application Number
The cable's strand size is 1/4 i	d are my power supply specifications if applicable. n. and weight per foot of cable is 17 lb/fl
	Licensee's Name (Print) Extenet Systems
Eversource	Signature: Lili Mendonca
Power Company	Title: Lili Mendonca (Agent)
	Tel. No. 978-995-7101
	Fax No. (603) 598-0097
	E-mail: util-mgt-group@waveguidefiber.com
Pole Attachment License Application the attachments described in this appl attachments to FO2 poles, and other attachments located in the State of Massachusetts	attachements to JU3 poles, In the municipality Power Supplies Newton
	Licensor's Name (Print) Steve Owens
1752	Signature:
(AGREEMENT ID #)	Title: Supervisor, Rights, & Public Works
	Date: 7/12/18
	Tel. No. 508-441-5881
The Licensee shall submit an origin	al copy of this application to Verizon New England

The Licensee shall submit an original copy of this application to Verizon New England Inc. and the appropriate Power Company.

Revised 10/15/03

CV# 76076

Form 2

AUTHORIZATION FOR FIELD SURVEY WORK

Licens	ee: Extenet Systems					
follow Pole A of	In accordance with Article III ing is a summary of the charges ttachment License Application Newton in the	which wil	l apply to NEW-ALI	complete a	field su	rvey covering
	FIELI	SURVE	Y CHAR	GES		
	Field Survey	#Pol	les <u>I</u>	Jnit Rate		Total
	Field Survey Application Fee	e (Cover	rs 1 pole)			\$139.00
	Field Survey 2-200 Poles	0		\$13.45 p	er Pole	\$0.00
	Additional Travel Time*	0		\$220.50 p	er Day	\$0.00
	TOTAL Charges					\$139.00
* Based	d on average of 75 poles surveyoured to complete survey.	d per day,	add \$220	.50 travel ti	me for e	ach additional
for the	note, if you calculated the cost is correct amount must be received sistance, please call the HOTL .	d by this o	ffice in or	der to sched	eturned dule the	and a new check survey. If you
The recis author	quired field survey covering Polorized. I am enclosing an advanc	e Attachmore paymen	ent Licen t in the ar	se Applicati		NEW-ALBRD3M1-14009 \$139.00
		Licensee's	Name (P	rint) Exte	net Syste	ems
		Signature:	Lili .	Mendonca		
		Title: L	ili Mendo	nca (Agent)		
		Tel. No.	978-995	-7101		
		Fax No.	(603) 59	8-0097		
		E-mail:	util-mgt	group@way	veguidefi	iher com

FORM 3 - VERIZON ITEMIZED Pole Make-Ready Work Charges

OF

PAGE

	SURVEYORS:				DATE OF SURVEY:	SOF	SUR	VEY:				CWO #:					
Verizon					MUNIC: Newton	ĬĊ:	wton		ST	STATE: MA	MA	Exch Code:	<u>ن</u> و		Munic Code:	ode:	
Licensee	Waveguide				LICENSEE NAME:	NSE	E NA	HE:	Exten	Extenet Systems	Sm:	LICENSE	EA	LICENSEE APPLICATION#:		NEW-ALBRD3M1-14	D3MI.
ELCO		74			ELCO NAME:	MA	Ë	Evers	Eversource			VERIZOR	AP	VERIZON APPLICATION #:			
7007	COCATION	POEE	#	ATT		MO	PRES	OWNERSHIP		CHA	CHARGE		1	WORK DESCRIPTION	CRIPTIC	N	
TEL RTE / S. List one po	TEL RTE / STREET NAME List one pole per line	Tel	13	F/C P.S. Riser		EI T	J.O. J.U. Tel El Tel El		F.O. Tel El	YES	ON		E M	TASK #S / REMARKS		*	* Height of Att.
262 Beacon St, Newton, MA	ewton, MA	31/6	31/6			1						Side Moun	- AN	Side Mount - ANTENNA ATTACHMENT	FACHIME	*	
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	TOTALS:	ES:					-	_									

EVERSOU FNIF Work Order Application - NEW-ALBRD3M1-14009

Customer Red Service Addre See attached NE	quest In-Servicess: Street: Utility N-ALBRD3M1-140	e Date: ASAP Pole # 31/16 - 262 Be 09 Node profile	WO Received Date:	
Name to a	onsible for Payme	ent of Monthly Electric Bill: <u>ExteNet System</u>	ns Inc	
Billing Ad	dress: 303	0 Warrenville Rd. Su	ite 340, Lisle, IL 60532	
Telephon	e: <u>630-535-38</u>	300	Tax ID Number:22-3876065	
Existing A	ccount or Meter Nu	umber (if applicable):	2230/0003	
Property Owner	Name (if different	t from above):		
Owner Ad	Idress:			
Owner Ph	one Number:			
Party Responsib	ole for Construction	on costs associated w	rith work order (if different from above)	
Name:				
ridal Coo.				
Phone Nu	Imber			V
Please Note tha	at Articles of Inc	orporation are requi	ired for new commercial Eversource Customers	
New Service XXX	Service Ung	(Circle Appropriate rade Reconnect UG Service from;		
	ustomer Loadi		Brief Description of Work Install new Antenna and power su	ylqq
Type of Load		ed Load in KVA	cabinet for Extenet Systems Inc. No	eds
2000000-1-1000	Single Phase	Three Phase	permanent connection by aerial HTap	100
Lighting				
Electric heat			Single Phase	
Air Conditioning			120/240 Amps	
Refrigeration			20 Amps	***************************************
Cooking			ZO Allips	
Electric Dryer				
Electric Dryer Water Heater				
Electric Dryer Water Heater Computer				
Electric Dryer Water Heater Computer Process Equip.				
Electric Dryer Water Heater Computer Process Equip. Motors/Elevators	<3.6 KVA			
Electric Dryer Water Heater Computer Process Equip. Motors/Elevators Miscellaneous	<3.6 KVA			
Electric Dryer Water Heater Computer Process Equip. Motors/Elevators	<3.6 KVA <3.6 KVA			

Additional Equipment: Generator: KW:	Phase:	Purpose:
Motor(S): Total #:Largest HP:	Phase:	Locked Rotor AMP:
Type of Starting Compensation (choose one):	Hard	Soft Capacitor VFD
*See Article 802 of NSTAR Information and F	Requirements Book	for Maximum LR current and Three Phase Protection *
City. State. Zip: Nashua. NH 03063	ive	guide Inc.
Telephone: 978-995-7101	Rest Ti	me to Call: <u>Anytime</u>
Pager:	DOSCIT	Email: Imondones@wayoguide@ber.com
Cell: <u>978-995-7101</u>		Email: Imendonca@waveguidefiber.com
Cell. <u>976-995-7101</u>		
Electrician: <u>Dave McMullen</u>		License Number:
Business Name: Newport Electric		
Street Address: 200 High Point Ave,	B5.	
City, State, Zip: Portsmouth, RI 0287	'1	
Telephone: 401-293-0527		Best Time to Call:
Pager:		Fay
Cell: 617-908-4193		Fax:
Any questions with regards to your of You may Fax, email or mail any additional corn Evers 1 NST Wester Tel: (d are in compliar	s Distribution System the Customer of Record ace with the NSTAR Information & Requirements for each the NSTAR Info
	wService@everso	urice.com
FOR EVERSOURCE USE ONLY		
Eversource Revenue Allowance:		Eversource Rate:
KVA or KW rating of Existing Loads (if appl	icable):	
Existing Winter Peak Demand:		Month/Date/Year:
Existing Summer Peak Demand:	- /	Month/Date/Year:

Revised 03-15-06

ATTACHMENT D

DATE: 5/4/2018



Declaration of Site MPE Compliance

The following sites in Table 2 have been analyzed against the attached worst-case site parameters for MPE compliance and have been determined to meet occupational and general public MPE compliance requirements. See table below.

PROJECT ID:

NE-MA-ALBRD3M1_BOSTD3M1_BRAND3m1_CN

Antenna:

Galtronics GQ2410-06621 Quasi-OMNI

Config: Table 1

1

Parameter	Site-Specific Result	Compliant?
Maximum amplifier output power	27 dBm	yes
Maximum antenna gain	3.7 dBi	yes
Minimum horizontal distance from any general public structure	0 ft	yes
Minimum horizontal distance to antenna for occupational MPE requirement	0 ft	yes
Minimum vertical distance to antenna for general public MPE requirement	0 ft	yes
Minimum vertical distance to antenna for occupational MPE requirement	0 ft	yes

Table 2

<u>Latitude</u>	<u>Longitude</u>	Name	Status	Rooftop
42.33313169	-71.16980894	NE-MA-ALBRD3M1-14009	Clear	N
42.35859189	-71.14594504	NE-MA-ALBRD3M1-14012	Clear	N
42.37108327	-71.18465218	NE-MA-ALBRD3M1-14021	Clear	N
42.40349548	-70.99447572	NE-MA-NTSHD3M1-27003	Clear	- 'N
42.272999	-71.110832	NE-MA-BOSTD3M1-57005	Clear	N N
42.30606228	-71.11599653	NE-MA-BOSTD3M1-57017	Clear	



Radio Frequency Exposure Pre-Installation FCC Compliance Assessment

	Site Specific Inf	formation		
Site Name	NE-MA-ALBRD3M1_CMARD3M1-ATT (Node: NE-MA-ALBRD3M1-14009)	Categorically Excluded?	No	
Street Address	Beacon Street	5% Contributor to Areas	No	
City, State, Zip	Chestnut Hill, MA 02467	Requiring Mitigation?		
Multi-Licensee Facility	No	Max % MPE (Predictive) at Ground Level	0.16 % Occupational 0.80 % General Population	
Structure Type	Pole	Max % MPE (Measured)	N/A	
Broadcast Equipment	No	Assessment Date	May 3, 2018	
# of Access Points	Unknown	Assessment Purpose	Proposed Site	
	Compliance Status	Mitigation Requi	red	

×	Worst-case RF power density levels are BELOW the MPE for General Population/Uncontrolled Environments in accessible areas.
	Worst-case RF power density levels are ABOVE the MPE for General Population/Uncontrolled Environments but BELOW the MPE for Occupational/Controlled environments.
	Worst-case RF power density levels are ABOVE the MPE for Occupational/Controlled Environments but BELOW 10x the MPE for Occupational/Controlled environments.
	Worst-case RF power density levels are ABOVE 10x the MPE for Occupational/Controlled environments.

Compliance Requirements	A NOTICE A GUIDELANTS FOR WORKING ON RADDOFFE OUT NOT ENVIRONMENT A Personnel who deliver a delivery of Mallo axis even before; A per sound whose type is a sound Othyralia public by a A discovered whose type is a sound Othyralia public by a A discovered and environ of a sound Othyralia public by a A discovered and environ of a sound Othyralia public by a A discovered information and and and and and and a sound Do not deposition and feed release or feed and and and and and and a sound Other and a sound and a sound Other and a sound and a sound Other and a sound and and a sound Other and a sound and a sound and a sound Other and a sound and a sound and a sound Other and a sound and a sound and a sound and a sound Other and a sound and a sound a sound and a sound and a sound and a sound a sound and a sound a sound and a sound a sound a sound a sound and a sound a soun	NOTICE (((2))) British and a state of a st	CAUTION Literature Page 1992 P	WARNING Figure 18 series Began 18 seri	INFORMATION This is a Antenna Site Site & For britanniated is u.s.	
	Guidelines	Notice	Caution	Warning	NOC Information	Barrier
Access Points						
Alpha	⊠[1]					
Beta						
Gamma						

Additional Compliance Requirements(s):

There are no barriers recommended on this site. A Yellow Notice sign is recommended to be posted at the equipment installation location. Since there are no areas exceeding either the FCC's general population or occupational thresholds, no additional signage is required.

Consultant Legal Name	Centerline Communications, LLC	Phone/Fax	(978)660-3998	
	95 Ryan Drive, Suite 1, Raynham, M		1 (270)000 2220	
Approximation and the second s				

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1. Executive Summary

ExteNet Systems has contracted with Centerline Communications, LLC, an independent Radio Frequency consulting firm, to conduct a Radio Frequency Exposure (RFE) Compliance Pre-Installation Assessment of the NE-MA-ALBRD3M1_CMARD3M1-ATT (Node: NE-MA-ALBRD3M1-14009) cell site located along Beacon Street in Chestnut Hill, MA. The following report contains a detailed summary of the Radio Frequency environment as it relates to Federal Communications Commission (FCC) and Occupational Safety & Health Administration (OSHA) Rules and Regulations for all individuals.

The ExteNet Systems antenna data was provided by:

Name	Sunday Aiyash
Title	Technical Program Manager
Date	May 3, 2018
Region	Northeast

This Pre-Installation compliance assessment and report has been prepared and reviewed by:

	Preparer	Reviewer
Name	Scott Heffernan	Brian Frazier
Title	Director RF Engineering	Sr RF Engineer
Date	May 3, 2018	May 3, 2018

This report utilizes the following for predictive modeling of the ambient RF environment:

MPE Modeling Program: Roofview® 4.15

Required Modeling Assumptions: 100% Duty Cycle and Maximum Total Power Output.

Additional Modeling Assumptions:

Centerline Communications, LLC has performed theoretical modeling using RoofView® software as well as our proprietary small cell modeling software to estimate the worst-case power density at the site ground-level resulting from operation of the antennas as well as at the antenna level and at adjacent residential and business structures. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit. RoofView® is used to model areas close to the antenna at the antenna mounting level. Our proprietary small cell modeling software analyzes the site profile based upon configuration power levels and antenna characteristics to accurately model the emissions profile extending away from the antenna location in a 6 foot spatially averaged format. This software is used to model far field areas where the antenna patterns have formed and is a better representation of actual power density values in these areas

The modeling is based on worst-case assumptions for the number of antennas and transmitter power. For AT&T, the modeling assumes a maximum 2 LTE radio with a composite transmit power level of 40 dBm (10 Watts) at 1900 MHz in 4 x 4 MIMO configuration and a maximum 1 LTE radio with a composite transmit power level of 27 dBm (0.5 Watts) at 5 GHz in 2 x 2 MIMO configuration in order to provide a worst-case evaluation of predicted MPE levels. The assumptions used in the modeling are based upon information provided by ExteNet.

For all calculations, all equipment was calculated using the following assumptions:

- AT&T: Two (2) 2203 Remote Radios for 1900 and one (1) 2205 Remote Radios for 5 GHz. The maximum deployed transmit power specified for these radio units is 5 Watts each for 1900 MHz and 0.5 Watts for 5 GHz.
- The antenna used in this modeling is the Galtronics GQ2410-06621 which is a quasi-omnidirectional canister antenna.
- The calculations were performed at maximum gain on the main lobe of the antennas. The antenna mounting height for the proposed utility pole antenna installation is **20 feet** above ground level to antenna centerline.
- All calculations were done with respect to uncontrolled / general population and controlled / occupational threshold limits as specified in FCC OET65.
- There was 1.0 dB of system loss resulting from 1.0 dB of cable loss for each 1900 MHz and 5 GHz path.

2. Proposed Site Characteristics

a. Structure

Physical Description	This project involves the installation of one (1) Galtronics GQ2410-06621 quasi-omnidirectional canister antenna on a utility pole at 20 feet above ground level. For AT&T , there will be three (3) radios installed on the utility pole. two (2) remote radio units for 1900 MHz LTE and one (1) remote radio unit for 5 GHz. The antenna will be installed on the approximate 19-foot pole at the 20-foot level (antenna centerline).
Site Latitude (NAD 83)	42.3331316871 N
Site Longitude (NAD 83)	-71.1698089374 W
Site Elevation (AMSL)	180 feet
Structure Height (AGL)	~19 feet
Overall Structure Height	~21 feet

b. Accessibility

Access to this site is accomplished by approaching the pole at ground level. Workers must be elevated to antenna level in order to access them, so these antennas are not accessible to the general population.

All access points locked at time of assessment?	N/A
All access points alarmed at time of assessment?	N/A

c. ExteNet Systems Signage

Existing Signage	NOTICE A POLICE LINES FOR WORKING IN REQUIRE LINES FOR WORKING IN REQUIRE LINES FOR WORKING IN PART OF THE POLICE LINES OF THE POLICE LINES A per count of the police Lines A per count of the police Lines A per count of the police Lines Ballon southers Bal	NOTICE (((2))) Inflation and all the property of the propert	For the property of the proper	I grant of the normal and an analysis of the state of the	INFORMATION This is a Antenin Sito Edg 67. For information due 6	
	O-21-12	30.T 4.0	~	***	210 0 7 0	
	Guidelines	Notice	Caution	Warning	NOC Information	Barrier
Access Points	Guidelines	Notice	Caution	Warning	NOC Information	Barrier
Access Points Alpha		Notice	Caution	Warning □ □	NOC Information	Barrier □ □
		Notice		Warning	NOC Information	Barrier □ □ □
Alpha					NOC Information	Barrier □ □ □ □

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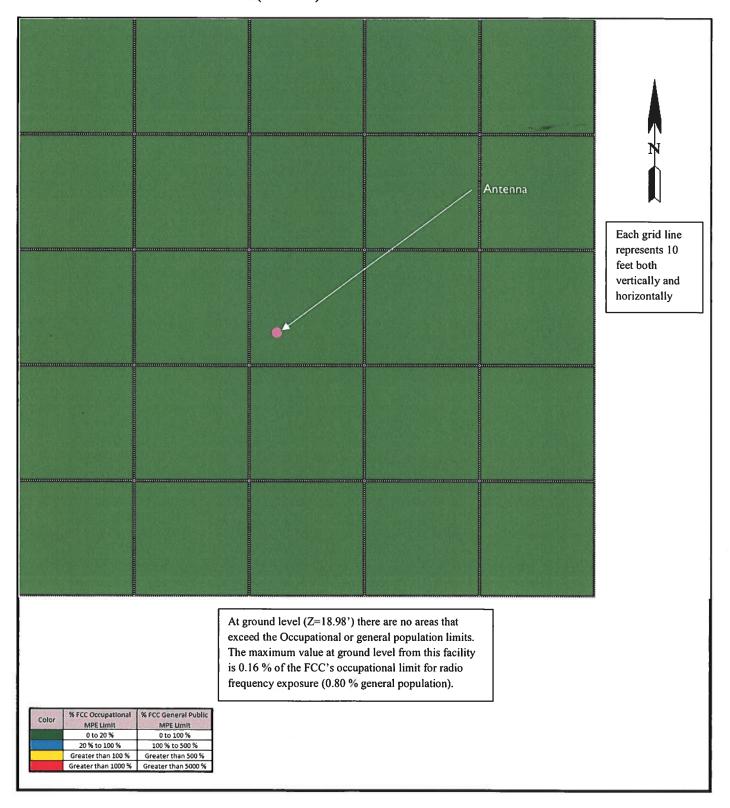
d. Antenna Inventory

Ant#	Operator	Antenna Model	Туре	Frequency (MHz)	Az (deg)	Downtilt (deg.)	Horizontal Beamwidth (Degrees)	Ant (ft)	Total ERP (watts)	x	Y	Height above Nearest Walking Surface (z**)
ANT1	AT&T	Galtronics GQ2410-06621	Quasi- omnidirectional	1900 MHz & 5 GHz	0	0 degrees	Omni	2.04	38.42	50	50	18.98'

^{**} The Z-Value represents the distance in feet from the bottom of the antenna to the ground level

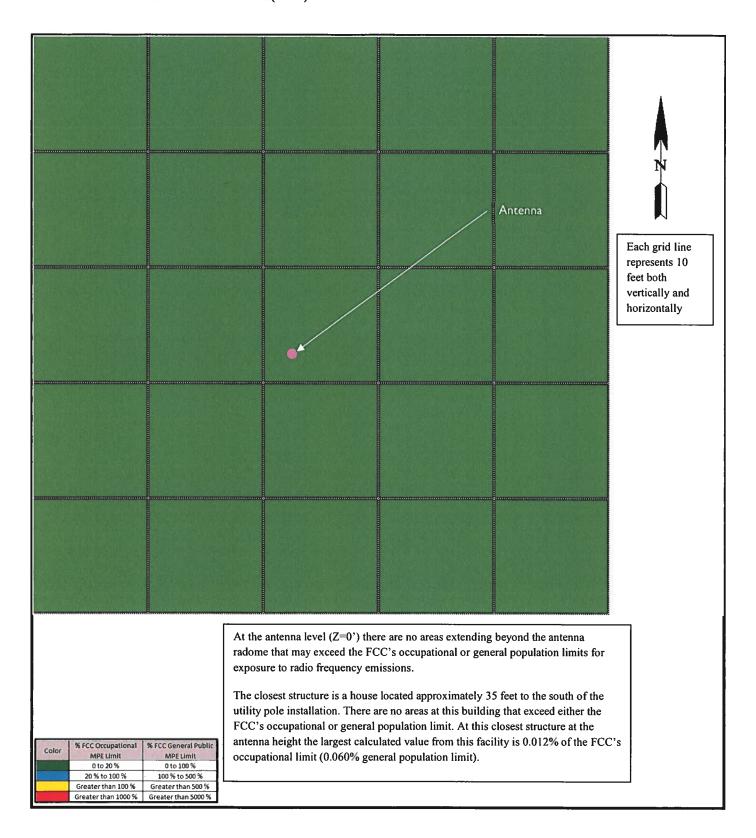
3. Analysis

a. Predictive Model: All Transmitters (Z=18.98')

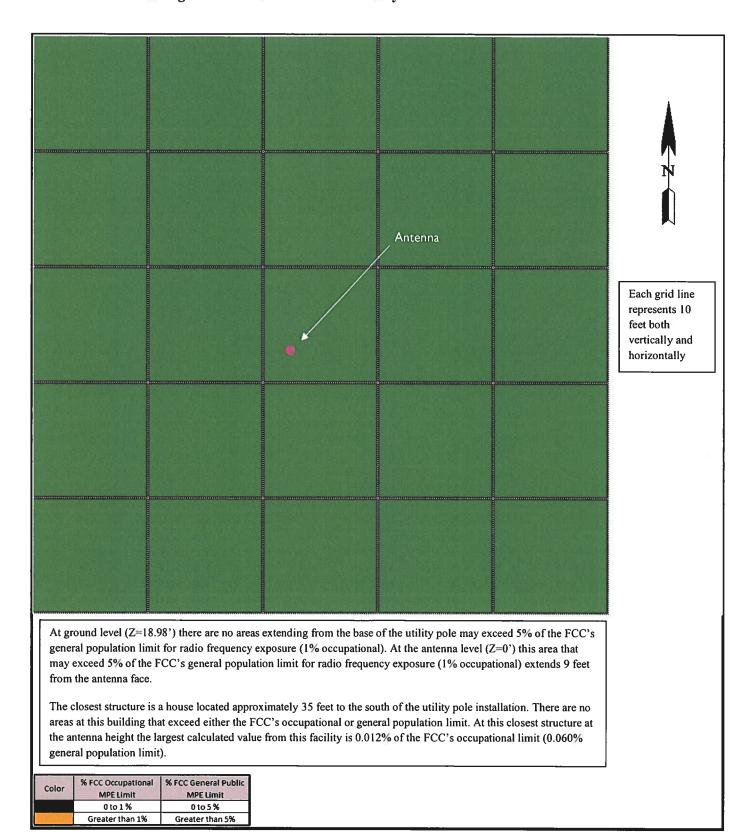


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b. Predictive Model: All Transmitters (Z=0')



c. Predictive Model: Significant Contribution of ExteNet Systems



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- 4. Conclusion
- a. Conclusion Narrative

Description of MPE-Limit Exceeding Areas:

Based on worst-case predictive modeling, there are no modeled exposures on any accessible ground walking/working surface related to ExteNet's proposed antennas that exceed the FCC's occupational and/or general population exposure limits at this site. At the antenna level (Z=0') there are no areas extending beyond the antenna radome that may exceed the FCC's occupational or general population limits for exposure to radio frequency emissions.

Carrier Significant Contribution Areas:

At ground level (Z=18.98') there are no areas extending from the base of the utility pole may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational). At the antenna level (Z=0') this area that may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational) extends 9 feet from the antenna face.

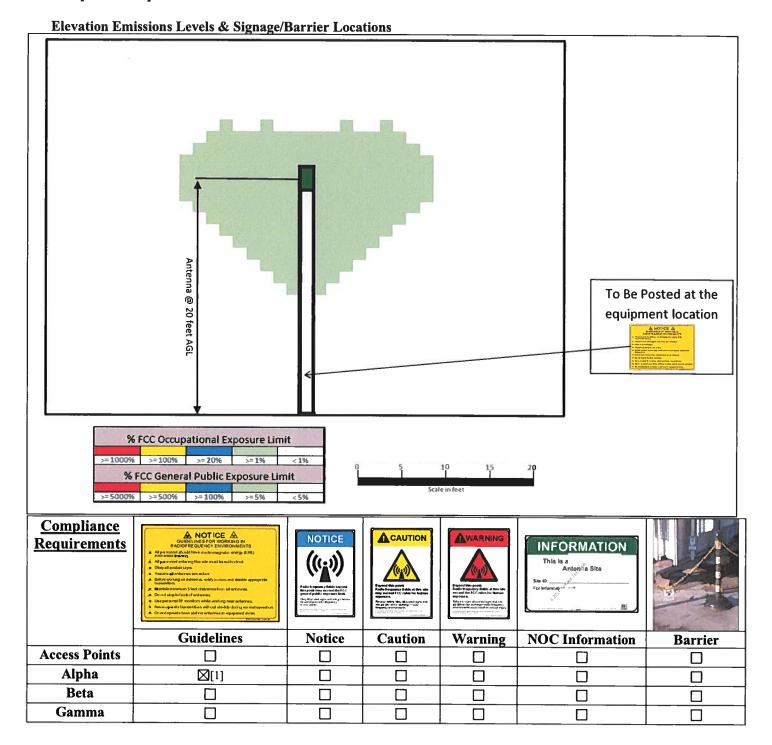
The closest structure is a house located approximately 35 feet to the south of the utility pole installation. There are no areas at this building that exceed either the FCC's occupational or general population limit. At this closest structure at the antenna height the largest calculated value from this facility is 0.012% of the FCC's occupational limit (0.060% general population limit).

Collocator Significant Contribution Areas:

Based on review of construction drawings and aerial photographs, no collocators were identified onsite.

Based on worst-case predictive modeling, there are no modeled exposures on any accessible ground walking/working surface related to the carrier's proposed antennas that exceed the FCC's occupational and/or general population exposure limits at this site.

b. Compliance Requirements



Signage/Barrier Installation Detail

- There are no barriers recommended on this site.
- A Yellow Notice sign is recommended to be posted at the equipment installation location

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5. Appendix C: RF Consultant Certifications

a. Preparer Certification

I, Scott Heffernan, the preparer of this report, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also fully aware of and familiar with the ExteNet Systems Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

b. Reviewer Certification

I, Brian Frazier, the reviewer and approved of this report, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also fully aware of and familiar with the ExteNet Systems Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

6. Appendix D: Reference Information

a. FCC Rules & Regulations

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed those standards, known as Maximum Permissible Exposure (MPE) limits, in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. The standards were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The FCC explains that its standards "incorporate prudent margins of safety." The following represents explanations of the most applicable information:

Two Classifications for Exposure Limits

Occupational – Applies to situations in which persons	General Po
are "exposed as a consequence of their employment"	persons are
and are "fully aware of the potential for exposure and	employmer
can exercise control over their exposure".	potential fo
	their exposi
	significant
	, –

General Population – Applies to situations in which persons 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". Generally speaking, those without significant and documented RF Safety & Awareness training would be in the General Population classification.

Environment Classification

<u>Controlled</u> – Applies to environments that are restricted
or "controlled" in order to prevent access from members
of the General Population classification.

<u>Uncontrolled</u> – Applies to environments that are unrestricted or "uncontrolled" that allow access from members of the General Population classification.

Limits for Occupational/Controlled Exposure				
Frequency Power Density Averaging Time				
Range	(S)	$ E ^2$, $ H ^2$, or S		
(MHz)	(mW/cm ²)	(minutes)		
300-1500	f/300	6		
1500-100,000	5	6		
Frequency	Limits for General Population/Uncontrolled Exposure Frequency Power Density Averaging Time			
	Power Density	Averaging Time		
Range	(S)	$ E ^2$, $ H ^2$, or S		
(MHz)	(mW/cm ²)	forester Acres		
(IVIIIZ)	(m w/em-)	(minutes)		
300-1500	f/1500	30		
	· · · · · · · · · · · · · · · · · · ·			

Significant Contribution to the RF Environment

Any carrier contributing an aggregate MPE percentage of 5 or more (to the applicable RF Environment Classification) is defined as a significant contributor. This means that if any area is determined to be out of compliance with FCC rules, all significant contributors are jointly responsible for correcting any deficiencies.

b. Occupational Safety and Health Administration (OSHA) Requirements

A formal adopter of FCC Standards, OSHA stipulates that those in the Occupational classification must complete training in the following: RF Safety, RF Awareness, and Utilization of Personal Protective Equipment. OSHA also provides options for Hazard Prevention and Control:

Hazard Prevention	Control	
 Utilization of good equipment 	Employ Lockout/Tag out	
 Enact control of hazard areas 	Utilize personal alarms & protective clothing	
Limit exposures	Prevent access to hazardous locations	
Employ medical surveillance and accident response	Develop or operate an administrative control program	

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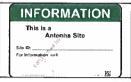
c. RF Signage

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personnel exposures in excess of the FCC guidelines. These areas must be demarcated by conspicuously posted signage that identifies the potential exposure. Signage MUST be viewable regardless of the viewer's position.

GUIDELINES	NOTICE	CAUTION	WARNING
Used anytime hazard signage is employed to achieve FCC compliance. This sign will inform visitors of the basic precautions to follow when working around radiofrequency equipment.	Used to distinguish the boundary between the General Population/Uncontrolled and the Occupational/Controlled areas. The limits associated with this notification must be less than the Occupational/Controlled MPE.	Identifies RF controlled areas where RF exposure can exceed the Occupational/Controlled MPE but below 10 x the Occupational/Controlled MPE.	Denotes the boundary of areas with RF levels substantially above the FCC limits, normally defined as those greater than ten (10) times the Occupational/Controlled MPE.
GUIDELINES FOR WORKING IN RADIOFREQUENCY ENVIRONMENTS All per sonnel should have electromagnetic energy (EME) watereass fraining. All per sonnel entering this site must be authorized. Dey all posted signs. Assume all enterinas are active. Before working on antennas, notify owners and distribe appropriate transmitters. Maintain minimum 3 feet clearance from all antennas. Do not stop in front of antennas. No Use personal RF monitors while working near antennas. No Never operate transmitters without shided during normal operation. Do not operate base station antennas in equipment room.	Radio frequency fields beyond this point may encoed the FCC general public copysare limit. Chy all posted signs and also got adminester working in radio frequency and instruction to the control of the	Beyond this policing and the sale reads to tage policy and the sale reads to tage policy and the sale response sale for human exposure. For our salety, obey, all posted signs and its policy and the sale reads for human exposure. For our salety obey, all posted signs and its policy and the sale reads for human exposure and the sale r	Beyond this point: Radio frequency fields at this alte exceed the FCC rules for human exposure. Chiurs to obey all posted signs and dis public for which the control of the poster of t

INFORMATION SIGN

Information signs are used as a means to provide contact information for any questions or concerns. They will include specific cell site identification information and the ExteNet Systems Network Operations Center phone number.

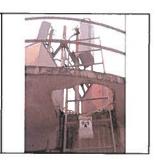


d. Barriers

A barrier is any physical demarcation employed as a preventative and/or notification measure that one is entering into an area with RF power density levels greater than the General Population/Uncontrolled limit.







ATTACHMENT E

Westwood, Massachusetts 02090

November 29, 2018

Re: Initial Authorization for ExteNet Systems, Inc.to Attach to Eversource Energy d/b/a NSTAR poles

To Whom It May Concern:

Eversource Energy ("NSTAR") is aware that ExteNet Systems, Inc. is in the process of permitting for the installation of necessary telecommunications equipment and corresponding aerial fiber optic cable in various locations on NSTAR-owned poles in various municipalities within our service territory. As part of the process, we understand that there is a requirement for NSTAR to review these locations and provide the municipalities with confirmation of its approval in advance of ExteNet Systems, Inc. proposed attachment.

Accordingly, NSTAR hereby submits its initial authorization for ExteNet Systems, Inc. to install its equipment and corresponding aerial fiber routes to NSTAR poles in the geographic locations as depicted on the plans submitted by Extranet Systems Inc. and on file with the municipalities. The installations on NSTAR poles will be subject to the underlying terms and conditions of agreements by and between NSTAR and ExteNet Systems, Inc., as the same may be in effect from time to time.

If there is anything further that I can provide you with for your analysis, please do not hesitate to contact me at 508-441-5881.

Sincerely,

Richard A Comeau

Eversource Energy d/b/a NSTAR Electric Supervisor – Rights, Permits & Public Works 247 Station Dr, NWBED

Westwood, MA 02090 Ph: (508) 441-5881

CC: Paul Kelley

ATTACHMENT F



02186 | 617.680.5464 |

kbrinn@nbcllc.com

From: Katy Hax Holmes

<kholmes@newtonma.gov>

Sent: Thursday, February 14, 2019 9:54:43 AM

To: Keenan Brinn

Subject: RE: SMALL CELL APPLICATIONS

Keenan, as proposed these additions to existing polls would not constitute an effect on historic structures. Thanks for asking. Katy

From: Keenan Brinn < kbrinn@nbcllc.com>

Sent: Wednesday, February 13, 2019 4:48 PM

To: Katy Hax Holmes < kholmes@newtonma.gov>

Subject: Re: SMALL CELL APPLICATIONS

Katy -

These three small cells are all designed to sit on top of the wooden or steel utility pole in the Public right of way. They are all cylindrical in shape and about 24" tall and 10" in diameter. I sent the plans













CITY OF NEWTON MASSACHUSETTS

APPLICATION FORM

This Application Form is to be used for the permitting of (1) Wireless Communication Facility attachments to an existing or replacement utility pole which is located in the public way and which does not have any pre-existing Wireless Communication Facility attachments; (2) Wireless Communication Facility attachments to an existing or replacement utility pole which is located in the public way and which does have pre-existing Wireless Communication Facility attachments, but does not satisfy the requirements under 47 U.S.C. §1455 and related Federal Communications Commission ("FCC") regulations; and (3) new pole construction in a public way primarily for purposes of providing Wireless Communication Services. Refer to City Council Wireless Grant of Location Standards & Procedures.

Filing of Application & Fee:

Applicant Contact Information:

Please provide to the City Clerk in paper format an original and two (2) copies of your application and 10 copies of all attachments and plans. Also provide a complete application and attachments in PDF format or in a digital format compatible with the City's systems. The application must be complete per the attached check list in ordered to be filed with the City Clerk.

A filing fee of \$750 per location must accompany the application at the time of filing.

• • • • • • • • • • • • • • • • • • • •	
Name: ExteNet Systems, Inc.	Phone: 617-680-5464
Address: 100 Apollo Dr., Chelmsford, MA	Email Address: kbrinn@nbcllc.com
Owner(s) of the Utility Pole:	
Name: City of Newton	Phone: 617-796-1000
Address: 1000 Commonwealth Ave. Newton, MA	Email Address:
Owner of the Proposed Wireless Communications Facilities Wireless Communications Purposes in whose name a Gra	
Name: ExteNet Systems, Inc.	Phone: 617-680-5464
Address: 3030 Warrenville Rd., Lisle, IL	Email Address: kbrinn@nbcllc.com

Name:	Phone:	
Address:		
If in residential area, is the location directly in		
If yes, what is the distance between the propo front?	sed pole location and residence that it would	
If the location is within a Historic District, pleas the applicant has filed for a Certificate from the of that filing: The Historic Preservation Officer has Certified that	se identify the historic district and state whether e Historic District Commission and if so, the date	
Pole #:	and the first that the second controls.	
Description of Proposed Wireless Communicat	ions Facilities	
Narrative description of the proposed wireless	communications facilities.	
The Applicant is seeking permission to build a small cell w	ireless facility utilizing an existing utility pole near the vicinity	
	io equipment, an electric meter and cabling for fiber and power.	
	ty company that controls the pole and a Letter of Authorization	
is included here. This facility will assist in enhancing wireles	s coverage in the area by providing voice and data upgrades.	
If an applicant proposes adding to the number expanding the dimensions of the proposed wire regard to replacement of existing wireless comequipment), the applicant must apply for a new wireless communications equipment.	eless communications facilities (except with munications equipment with comparable	

Compliance Issues

cannot comply with and provide a complete explanation why it cannot or will not comply:			
The Applicant is not aware of any requirement or condition with which it cannot comply. In the event there			
is additional information requested the Applicant will make all efforts to deliver and satisfy such requests.			
Is the applicant requesting an exception to any standard under Section III.L.? If so, please specify the standard and provide factual support for the requested exception:			
The Applicant is requesting no such exceptions at this time unless additional request are made by the City Departments.			
Signature of Applicant:			
Name and Title and any Business Name: Keenan Brinn - NB+C - Site Acquisition Consultant			
Name of Principal or Client of Applicant: Extenet Systems, Inc.			
Date Signed: 2-26-(9			

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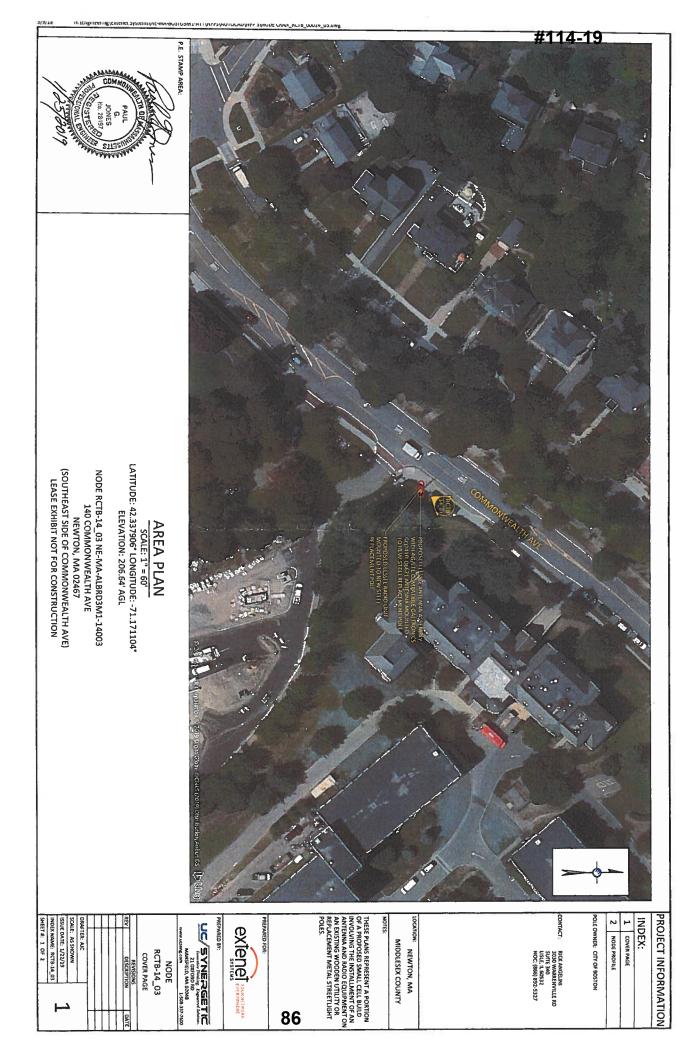
ATTACHMENT C - EVERSOURCE UTILITY LICENSE

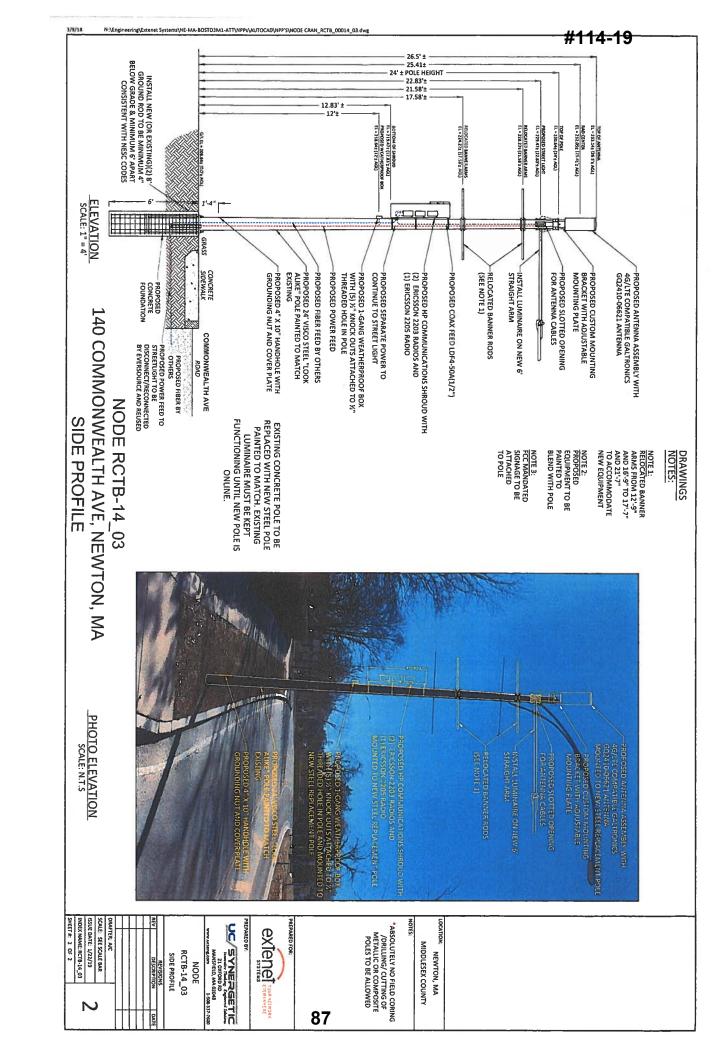
ATTACHMENT D - RF EMISSIONS STUDY

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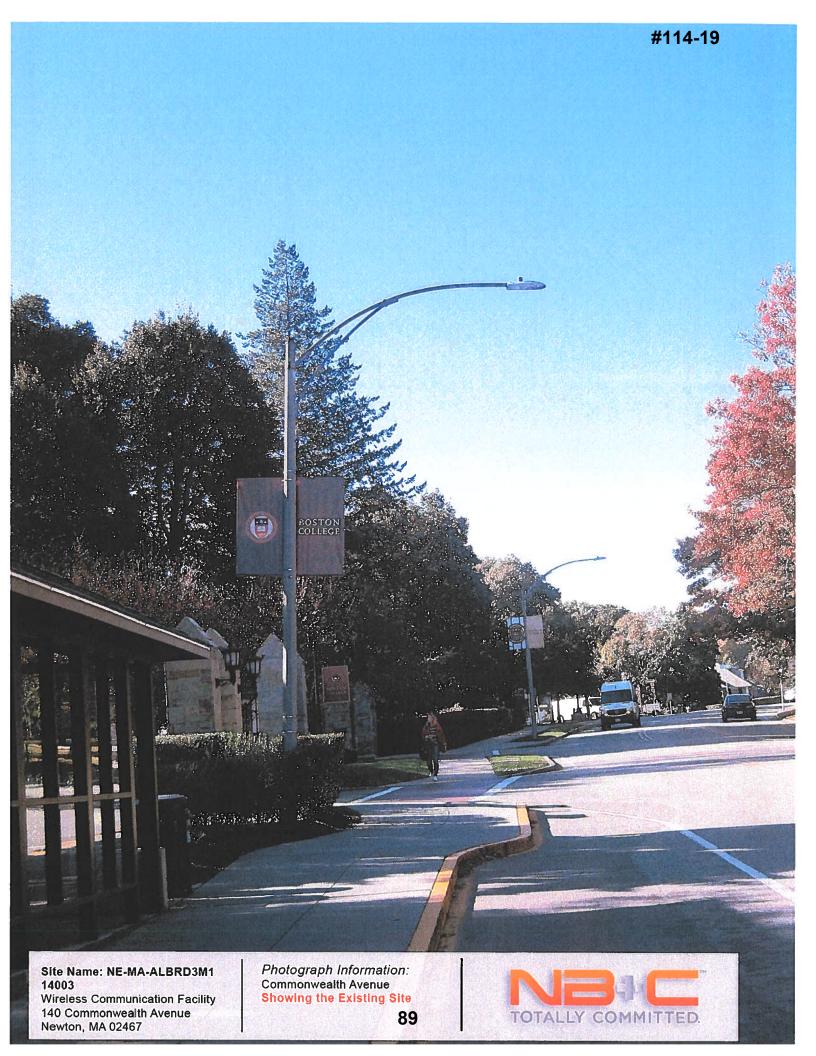
ATTACHMENT F - HISTORIC PRESERVATION CERTIFICATION

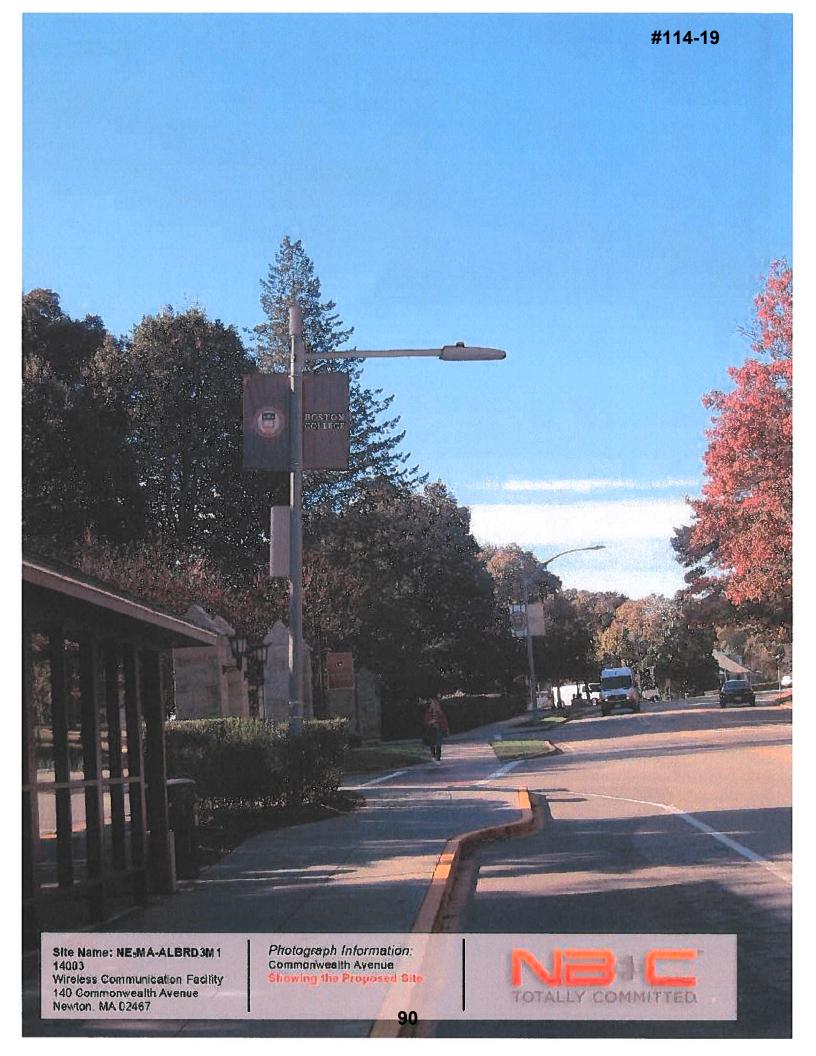
ATTACHMENT A





ATTACHMENT B





ATTACHMENT C

ATTACHMENT D



Declaration of Site MPE Compliance

The following sites in Table 2 have been analyzed against the attached worst-case site parameters for MPE compliance and have been determined to meet occupational and general public MPE compliance requirements. See table below.

PROJECT ID:

NE-MA-ALBRD3M1_BOSTD3M1_BRAND3m1_CN

DATE: 7/6/2018

Antenna:

Galtronics GQ2410-06621 Quasi-OMNI

Config:

2

Table 1

Parameter	Site-Specific Result	Compliant?
Maximum amplifier output power	27 dBm	yes
Maximum antenna gain	3.7 dBi	yes
Minimum horizontal distance from any general public structure	0 ft	yes
Minimum horizontal distance to antenna for occupational MPE requirement	0 ft	yes
Minimum vertical distance to antenna for general public MPE requirement	0 ft	yes
Minimum vertical distance to antenna for occupational MPE requirement	0 ft	yes

Table 2

<u>Latitude</u>	<u>Longitude</u>	<u>Name</u>	<u>Status</u>	Rooftop
42.33790645	-71.17110485	NE-MA-ALBRD3M1-14003	Clear	N
42.33598038	-71.1511662	NE-MA-ALBRD3M1-14005	Clear	N
42.34933711	-71.14903061	NE-MA-ALBRD3M1-14006	Clear	N
42.34176131	-71.14506417	NE-MA-ALBRD3M1-14010	Clear	N
42.34781842	-71.13815185	NE-MA-ALBRD3M1-14011	Clear	N
42.34928198	-71.14193649	NE-MA-ALBRD3M1-14013	Clear	N
42.33832828	-71.15328283	NE-MA-ALBRD3M1-14014	Clear	N
42.36247808	-71.16820148	NE-MA-ALBRD3M1-14015	Clear	N
42.3502548	-71.14713717	NE-MA-ALBRD3M1-14016	Clear	N
42.362972	-71.157684	NE-MA-ALBRD3M1-14017	Clear	N
42.35498888	-71.14993446	NE-MA-ALBRD3M1-14019	Clear	N
42.3401361	-71.15241162	NE-MA-ALBRD3M1-14020	Clear	N
42.34772798	-71.14942981	NE-MA-ALBRD3M1-14024	Clear	N
42.36203999	-71.13031694	NE-MA-ALBRD3M1-14025	Clear	N
42.36421343	-71.11837779	NE-MA-ALBRD3M1-14026	Clear	N
42.33375961	-71.16541883	NE-MA-ALBRD3M1-14027	Clear	N
42.300966	-71.1148	NE-MA-BOSTD3M1-57001	Clear	N
42.28951896	-71.11835481	NE-MA-BOSTD3M1-57002	Clear	N
42.28131323	-71.07589315	NE-MA-BOSTD3M1-57004	Clear	N
42.28308138	-71.1137419	NE-MA-BOSTD3M1-57007	Clear	N
42.2819938	-71.07116925	NE-MA-BOSTD3M1-57009	Clear	N
42.26263751	-71.10828639	NE-MA-BOSTD3M1-57010	Clear	N
42.28350098	-71.08337263	NE-MA-BOSTD3M1-57011	Clear	N



<u>Latitude</u>	Longitude	<u>Name</u>	<u>Status</u>	Rooftop
42.28394638	-71.09177133	NE-MA-BOSTD3M1-57013	Clear	N
42.27928614	-71.09827056	NE-MA-BOSTD3M1-57014	Clear	N
42.26109829	-71.11349516	NE-MA-BOSTD3M1-57015	Clear	N
42.26438	-71.100362	NE-MA-BOSTD3M1-57016	Clear	N
42.27352792	-71.07910893	NE-MA-BOSTD3M1-57018	Clear	N
42.28664482	-71.09051273	NE-MA-BOSTD3M1-57019	Clear	N
42.32498411	-71.09901556	NE-MA-BOSTD3M1-58001	Clear	N
42.29732253	-71.06505687	NE-MA-BOSTD3M1-58002	Clear	N
42.29753721	-71.07063774	NE-MA-BOSTD3M1-58003	Clear	N
42.30592876	-71.06750948	NE-MA-BOSTD3M1-58004	Clear	N
42.29657043	-71.07936502	NE-MA-BOSTD3M1-58005	Clear	N
42.29746505	-71.05126096	NE-MA-BOSTD3M1-58006	Clear	N
42.30031734	-71.06609476	NE-MA-BOSTD3M1-58008	Clear	N
42.28996709	-71.05607189	NE-MA-BOSTD3M1-58009	Clear	N
42.32875057	-71.08279305	NE-MA-BOSTD3M1-58011	Clear	N
42.32186735	-71.07020376	NE-MA-BOSTD3M1-58012	Clear	N
42.31275466	-71.05868507	NE-MA-BOSTD3M1-58014	Clear	N
42.28545434	-71.06427795	NE-MA-BOSTD3M1-58015	Clear	N
42.30260608	-71.07806262	NE-MA-BOSTD3M1-58017	Clear	N
42.30409418	-71.06469337	NE-MA-BOSTD3M1-58018	Clear	N
42.29919125	-71.07412762	NE-MA-BOSTD3M1-58019	Clear	Ν
42.29369476	-71.0841004	NE-MA-BOSTD3M1-58020	Clear	N
42.32530262	-71.07473044	NE-MA-BOSTD3M1-58022	Clear	N
42.29353436	-71.05563659	NE-MA-BOSTD3M1-58023	Clear	N
42.32489908	-71.0829225	NE-MA-BOSTD3M1-58024	Clear	N
42.29621306	-71.08306968	NE-MA-BOSTD3M1-58025	Clear	N
42.2380176	-70.99174954	NE-MA-BRAND3M1-16002	Clear	N
42.28442062	-71.0451353	NE-MA-BRAND3M1-16004	Clear	N
42.24176218	-71.00369961	NE-MA-BRAND3M1-16007	Clear	N
42.39490846	-71.16369407	NE-MA-CMARD3M1-26002	Clear	N
42.39693966	-71.175784	NE-MA-CMARD3M1-26004	Clear	N
42.40025142	-71.02021432	NE-MA-NTSHD3M1-27001	Clear	N
42.40903323	-71.00251321	NE-MA-NTSHD3M1-27002	Clear	N
42.383683	-71.000268	NE-MA-NTSHD3M1-27006	Clear	N



Radio Frequency Exposure Pre-Installation FCC Compliance Assessment

Site Specific Information					
Site Name	NE-MA-ALBRD3M1_CMARD3M1-ATT (Node: NE-MA-CMARD3M1-26002)	Categorically Excluded?	No		
Street Address	Off Concord Street	5% Contributor to Areas			
City, State, Zip	Belmont, MA 02478	Requiring Mitigation?	No		
Multi-Licensee Facility	No	Max % MPE (Predictive) at Ground Level	0.08 % Occupational 0.40 % General Population		
Structure Type	Pole	Max % MPE (Measured)	N/A		
Broadcast Equipment	No	Assessment Date	May 3, 2018		
# of Access Points	Unknown	Assessment Purpose	Proposed Site		
	Compliance Status	Mitigation Requir			

Worst-case RF power density levels are BELOW the MPE for General Population/Uncontrolled Environments in accessible areas.
Worst-case RF power density levels are ABOVE the MPE for General Population/Uncontrolled Environments but BELOW the MPE for Occupational/Controlled environments.
Worst-case RF power density levels are ABOVE the MPE for Occupational/Controlled Environments but BELOW 10x the MPE for Occupational/Controlled environments.
Worst-case RF power density levels are ABOVE 10x the MPE for Occupational/Controlled environments.

Compliance Requirements	A NOTICE A COUNTEDED FOR WORKING IN RADIOSELEUS FOR AND	NOTICE (((c))) India de grante à faith de red and a partie de grante à faith de red and a pa	CAUTION Cau	WARNING COLUMN TO THE PARTY OF	INFORMATION This is a Antenna Site See ID For information and	
6	Guidelines	Notice	Caution	Warning	NOC Information	Barrier
Access Points						
Alpha	⊠[1]					
Beta						
Gamma						

Additional Compliance Requirements(s):

There are no barriers recommended on this site. A Yellow Notice sign is recommended to be posted at the equipment installation location. Since there are no areas exceeding either the FCC's general population or occupational thresholds, no additional signage is required.

Consultant Legal Name	Centerline Communications, LLC	Phone/Fax	(978)660-3998
Address	95 Ryan Drive, Suite 1, Raynham, M	1A 02767	

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1. Executive Summary

ExteNet Systems has contracted with Centerline Communications, LLC, an independent Radio Frequency consulting firm, to conduct a Radio Frequency Exposure (RFE) Compliance Pre-Installation Assessment of the NE-MA-ALBRD3M1_CMARD3M1-ATT (Node: NE-MA-CMARD3M1-26002) cell site located off Concord Street in Belmont, MA. The following report contains a detailed summary of the Radio Frequency environment as it relates to Federal Communications Commission (FCC) and Occupational Safety & Health Administration (OSHA) Rules and Regulations for all individuals.

The ExteNet Systems antenna data was provided by:

Name	Sunday Aiyash
Title	Technical Program Manager
Date	May 3, 2018
Region	Northeast

This Pre-Installation compliance assessment and report has been prepared and reviewed by:

	Preparer	Reviewer
Name	Scott Heffernan	Brian Frazier
Title	Director RF Engineering	Sr RF Engineer
Date	May 3, 2018	May 3, 2018

This report utilizes the following for predictive modeling of the ambient RF environment:

MPE Modeling Program: Roofview® 4.15

Required Modeling Assumptions: 100% Duty Cycle and Maximum Total Power Output.

Additional Modeling Assumptions:

Centerline Communications, LLC has performed theoretical modeling using RoofView® software as well as our proprietary small cell modeling software to estimate the worst-case power density at the site ground-level resulting from operation of the antennas as well as at the antenna level and at adjacent residential and business structures. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit. RoofView® is used to model areas close to the antenna at the antenna mounting level. Our proprietary small cell modeling software analyzes the site profile based upon configuration power levels and antenna characteristics to accurately model the emissions profile extending away from the antenna location in a 6 foot spatially averaged format. This software is used to model far field areas where the antenna patterns have formed and is a better representation of actual power density values in these areas

The modeling is based on worst-case assumptions for the number of antennas and transmitter power. For AT&T, the modeling assumes a maximum 2 LTE radios with a composite transmit power level of 40 dBm (10 Watts) at 1900 MHz in 4 x 4 MIMO configuration and a maximum 1 LTE radio with a composite transmit power level of 27 dBm (0.5 Watts) at 5 GHz in 2 x 2 MIMO configuration in order to provide a worst-case evaluation of predicted MPE levels. The assumptions used in the modeling are based upon information provided by ExteNet.

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For all calculations, all equipment was calculated using the following assumptions:

- AT&T: Two (2) 2203 Remote Radios for 1900 and one (1) 2205 Remote Radios for 5 GHz. The maximum deployed transmit power specified for these radio units is 5 Watts each for 1900 MHz and 0.5 Watts for 5 GHz.
- The antenna used in this modeling is the Galtronics GQ2410-06621 which is a quasi-omnidirectional canister antenna.
- The calculations were performed at maximum gain on the main lobe of the antennas. The antenna mounting height for the proposed utility pole antenna installation is 30 feet above ground level to antenna centerline.
- All calculations were done with respect to uncontrolled / general population and controlled / occupational threshold limits as specified in FCC OET65.
- There was 1.0 dB of system loss resulting from 1.0 dB of cable loss for each 1900 MHz and 5 GHz path.

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2. Proposed Site Characteristics

a. Structure

Physical Description	This project involves the installation of one (1) Galtronics GQ2410-06621 quasi-omnidirectional canister antenna on a utility pole at 30 feet above ground level. For AT&T, there will be three (3) radios installed on the utility pole. two (2) remote radio units for 1900 MHz LTE and one (1) remote radio unit for 5 GHz. The antenna will be installed on the approximate 29-foot pole at the 30-foot level (antenna centerline).
Site Latitude (NAD 83)	42.3949084557 N
Site Longitude (NAD 83)	-71.1636940749 W
Site Elevation (AMSL)	11 feet
Structure Height (AGL)	~29 feet
Overall Structure Height	~31 feet

b. Accessibility

Access to this site is accomplished by approaching the pole at ground level. Workers must be elevated to antenna level in order to access them, so these antennas are not accessible to the general population.

All access points locked at time of assessment?	N/A
All access points alarmed at time of assessment?	N/A

c. ExteNet Systems Signage

Existing Signage	A NOTICE A COURT DIES FOR PROPERTIES IN A PROPERTIES FOR PROPERTIE	NOTICE (((2))) Administration of distance of management	CAUTION Figure 1 and 1	WARNING To you do you want to the day and the day of t	INFORMATION This is a Anterina Sito San D For information Call	
	Guidelines	Notice	Caution	Warning	NOC Information	Barrier
	Guidellies	1100100	Caucion	***************************************	1100 Intol mation	Darrier
Access Points						
Access Points Alpha						
Alpha						

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d. Antenna Inventory

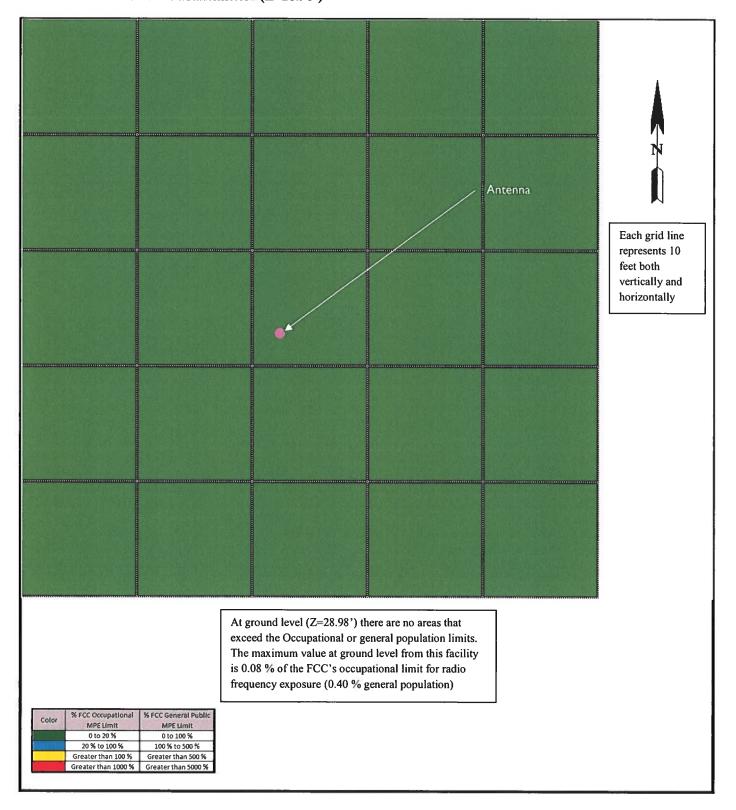
Ant#	Operator	Antenna Model	Туре	Frequency (MHz)	Az (deg)	Downtilt (deg.)	Horizontal Beamwidth (Degrees)	Ant (ft)	Total ERP (watts)	х	Y	Height above Nearest Walking Surface (z**)
ANT1	AT&T	Galtronics GQ2410-06621	Quasi- omnidirectional	1900 MHz & 5 GHz	0	0 degrees	Omni	2.04	38.42	50	50	28.98′

^{**} The Z-Value represents the distance in feet from the bottom of the antenna to the ground level

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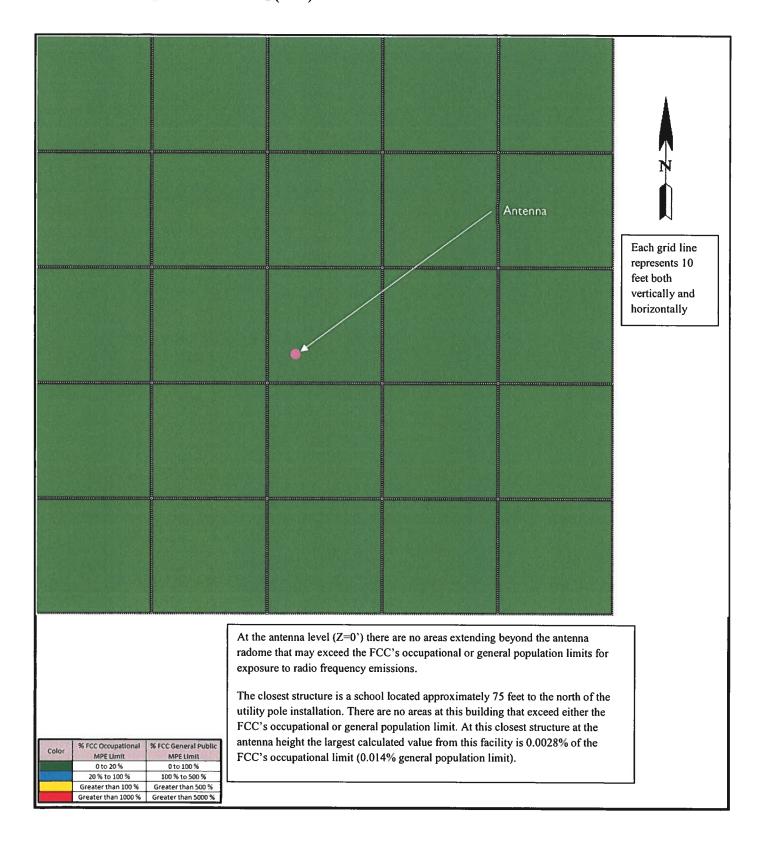
3. Analysis

a. Predictive Model: All Transmitters (Z=28.98')



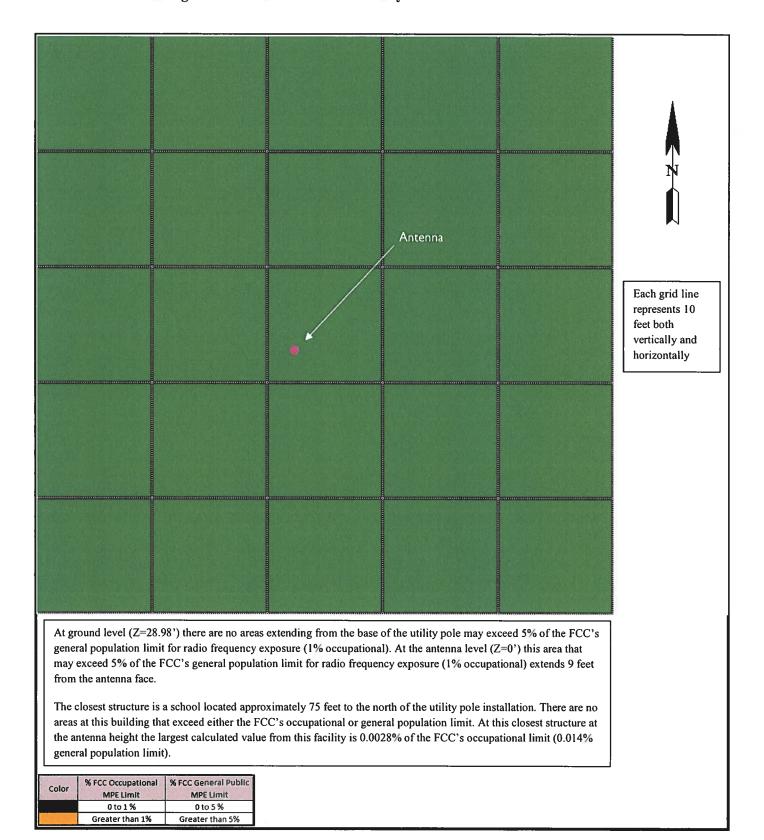
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b. Predictive Model: All Transmitters (Z=0')



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c. Predictive Model: Significant Contribution of ExteNet Systems



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- 4. Conclusion
- a. Conclusion Narrative

Description of MPE-Limit Exceeding Areas:

Based on worst-case predictive modeling, there are no modeled exposures on any accessible ground walking/working surface related to ExteNet's proposed antennas that exceed the FCC's occupational and/or general population exposure limits at this site. At the antenna level (Z=0') there are no areas extending beyond the antenna radome that may exceed the FCC's occupational or general population limits for exposure to radio frequency emissions.

Carrier Significant Contribution Areas:

At ground level (Z=28.98') there are no areas extending from the base of the utility pole may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational). At the antenna level (Z=0') this area that may exceed 5% of the FCC's general population limit for radio frequency exposure (1% occupational) extends 9 feet from the antenna face.

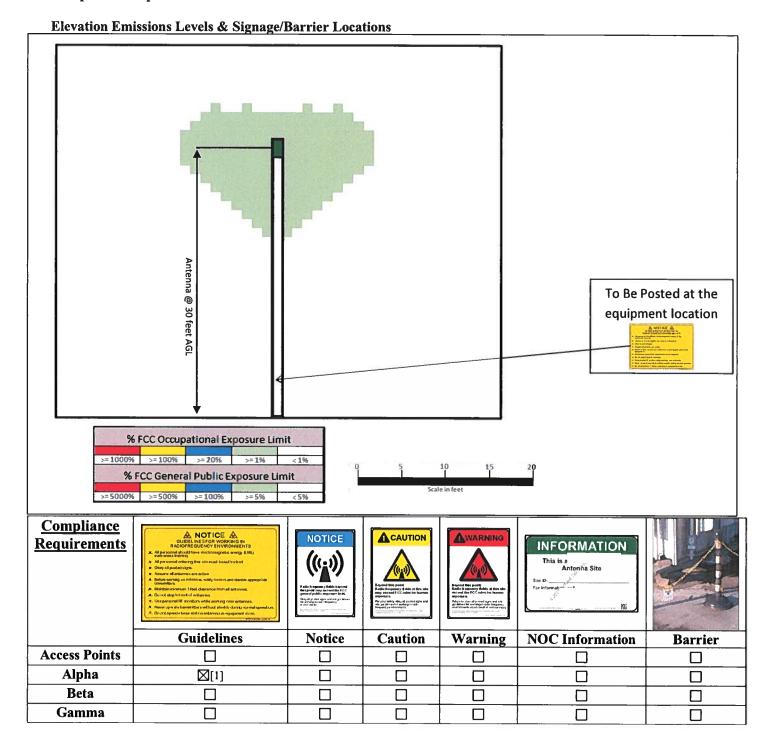
The closest structure is a school located approximately 75 feet to the north of the utility pole installation. There are no areas at this building that exceed either the FCC's occupational or general population limit. At this closest structure at the antenna height the largest calculated value from this facility is 0.0028% of the FCC's occupational limit (0.014% general population limit).

Collocator Significant Contribution Areas:

Based on review of construction drawings and aerial photographs, no collocators were identified onsite.

Based on worst-case predictive modeling, there are no modeled exposures on any accessible ground walking/working surface related to the carrier's proposed antennas that exceed the FCC's occupational and/or general population exposure limits at this site.

b. Compliance Requirements



Signage/Barrier Installation Detail

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- There are no barriers recommended on this site.
- A Yellow Notice sign is recommended to be posted at the equipment installation location

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5. Appendix C: RF Consultant Certifications

a. Preparer Certification

I, Scott Heffernan, the preparer of this report, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also fully aware of and familiar with the ExteNet Systems Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

b. Reviewer Certification

I, Brian Frazier, the reviewer and approved of this report, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also fully aware of and familiar with the ExteNet Systems Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

6. Appendix D: Reference Information

a. FCC Rules & Regulations

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed those standards, known as Maximum Permissible Exposure (MPE) limits, in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. The standards were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The FCC explains that its standards "incorporate prudent margins of safety." The following represents explanations of the most applicable information:

Two Classifications for Exposure Limits

Occupational – Applies to situations in which persons	G
are "exposed as a consequence of their employment"	pe
and are "fully aware of the potential for exposure and	er
can exercise control over their exposure".	١.,
can exercise control over their exposure.	po th
	ιtn

General Population – Applies to situations in which persons 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". Generally speaking, those without significant and documented RF Safety & Awareness training would be in the General Population classification.

Environment Classification

Controlled - Applies to environments that are restricted
or "controlled" in order to prevent access from members
of the General Population classification.

<u>Uncontrolled</u> – Applies to environments that are unrestricted or "uncontrolled" that allow access from members of the General Population classification.

Limits for Occupational/Controlled Exposure			
Frequency	Power Density	Averaging Time	
Range	(S)	$ E ^2$, $ H ^2$, or S	
(MHz)	(mW/cm ²)	(minutes)	
300-1500	f/300	6	
1500-100,000	5	6	
Limits for Ge	eneral Population/Unc	ontrolled Exposure	
Limits for Go Frequency Range	Power Density (S)	ontrolled Exposure Averaging Time E ² , H ² , or S	
Frequency	Power Density	Averaging Time	
Frequency Range	Power Density (S)	Averaging Time E ² , H ² , or S	
Frequency Range (MHz)	Power Density (S) (mW/cm²)	Averaging Time E ² , H ² , or S (minutes)	

Significant Contribution to the RF Environment

Any carrier contributing an aggregate MPE percentage of 5 or more (to the applicable RF Environment Classification) is defined as a significant contributor. This means that if any area is determined to be out of compliance with FCC rules, all significant contributors are jointly responsible for correcting any deficiencies.

b. Occupational Safety and Health Administration (OSHA) Requirements

A formal adopter of FCC Standards, OSHA stipulates that those in the Occupational classification must complete training in the following: RF Safety, RF Awareness, and Utilization of Personal Protective Equipment. OSHA also provides options for Hazard Prevention and Control:

Hazard Prevention	Control
Utilization of good equipment	Employ Lockout/Tag out
 Enact control of hazard areas 	Utilize personal alarms & protective clothing
Limit exposures	Prevent access to hazardous locations
 Employ medical surveillance and accident 	Develop or operate an administrative control
response	program

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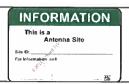
c. RF Signage

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personnel exposures in excess of the FCC guidelines. These areas must be demarcated by conspicuously posted signage that identifies the potential exposure. Signage MUST be viewable regardless of the viewer's position.

GUIDELINES	NOTICE	CAUTION	WARNING
Used anytime hazard signage is employed to achieve FCC compliance. This sign will inform visitors of the basic precautions to follow when working around radiofrequency equipment.	Used to distinguish the boundary between the General Population/Uncontrolled and the Occupational/Controlled areas. The limits associated with this notification must be less than the Occupational/Controlled MPE.	Identifies RF controlled areas where RF exposure can exceed the Occupational/Controlled MPE but below 10 x the Occupational/Controlled MPE.	Denotes the boundary of areas with RF levels substantially above the FCC limits, normally defined as those greater than ten (10) times the Occupational/Controlled MPE.
GUIDELINES FOR WORKING IN RADIOFREQUENCY EN VIRONMENTS &. All per sonnel should have electromognatic energy (EME) awareness training. Usis alle must be authorized. 9. Obey all posts of signs. 5. Assume all antennas are active. 9. Before working on unitennas, notify owners and distribit appropriate trussmitters. 9. Maintain minimum 3 foet clearance from all antennas. 9. Do not stop infront of antennas. 9. Use personal RF monitors while working near antennas. 9. Never operate transmitters without shields during normal operation. 9. Do not operate base station antennas in oquipment room.	Radio frequency fields beyond this point may exceed the FCC general public exposure first. Chay all ported days and its guidalines for working in radio frequency environments.	Beyond this point: Radio frequency fields at this site monotonic. For your ability day, a borote signs and site guidalines for sorting in middle bequery shriftonment. For your ability day, a borote signs and site guidalines for sorting in middle bequery shriftonment. The sorting is the sorting in the sorting in middle bequery shriftonment.	8 oyorid this point: Relief frequency fields at this alteraction of the common state o

INFORMATION SIGN

Information signs are used as a means to provide contact information for any questions or concerns. They will include specific cell site identification information and the ExteNet Systems Network Operations Center phone number.

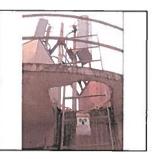


d. Barriers

A barrier is any physical demarcation employed as a preventative and/or notification measure that one is entering into an area with RF power density levels greater than the General Population/Uncontrolled limit.







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ATTACHMENT E



Westwood, Massachusetts 02090

November 29, 2018

Re: Initial Authorization for ExteNet Systems, Inc. to Attach to Eversource Energy d/b/a NSTAR poles

To Whom It May Concern:

Eversource Energy ("NSTAR") is aware that ExteNet Systems, Inc. is in the process of permitting for the installation of necessary telecommunications equipment and corresponding aerial fiber optic cable in various locations on NSTAR-owned poles in various municipalities within our service territory. As part of the process, we understand that there is a requirement for NSTAR to review these locations and provide the municipalities with confirmation of its approval in advance of ExteNet Systems, Inc. proposed attachment.

Accordingly, NSTAR hereby submits its initial authorization for ExteNet Systems, Inc. to install its equipment and corresponding acrial fiber routes to NSTAR poles in the geographic locations as depicted on the plans submitted by Extranet Systems Inc. and on file with the municipalities. The installations on NSTAR poles will be subject to the underlying terms and conditions of agreements by and between NSTAR and ExteNet Systems, Inc., as the same may be in effect from time to time.

If there is anything further that I can provide you with for your analysis, please do not hesitate to contact me at 508-441-5881.

Sincerely,

Richard A Comeau

Eversource Energy d/b/a NSTAR Electric Supervisor - Rights, Permits & Public Works 247 Station Dr. NWBED

Westwood, MA 02090 Ph: (508) 441-5881

CC: Paul Kelley

ATTACHMENT F



02186 | 617.680.5464 |

kbrinn@nbcllc.com

From: Katy Hax Holmes

<kholmes@newtonma.gov>

Sent: Thursday, February 14, 2019 9:54:43 AM

To: Keenan Brinn

Subject: RE: SMALL CELL APPLICATIONS

Keenan, as proposed these additions to existing polls would not constitute an effect on historic structures. Thanks for asking. Katy

From: Keenan Brinn < kbrinn@nbcllc.com>

Sent: Wednesday, February 13, 2019 4:48 PM

To: Katy Hax Holmes < kholmes@newtonma.gov>

Subject: Re: SMALL CELL APPLICATIONS

Katy -

These three small cells are all designed to sit on top of the wooden or steel utility pole in the Public right of way. They are all cylindrical in shape and about 24" tall and 10" in diameter. I sent the plans









CITY OF NEWTON Department of Public Works ENGINEERING DIVISION

Memorandum

To: Council Deborah Crossley, Facilities Committee Chair.

From: John Daghlian, Associate City Engineer

Re: Wireless Communication Facility ~ 132 Adams Street (pole 31/15 Watertown Street)

Date: March 14, 2019

CC: Jonathon Yeo, CEO

Jim Mcgonagle, Commissioner DPW

Lou Taverna, PE City Engineer Shawna Sullivan, Associate Clerk Nadia Khan, Committee Clerk

In reference to the above location, the following are my comments for an application submitted by and entitled:

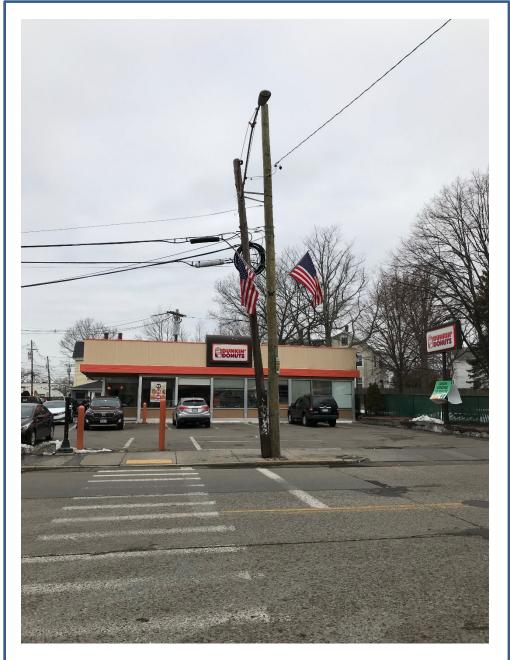
ExteNet Systems, Inc.
Prepared by: ExteNet Systems, Inc.
Dated: 2-26- '19

Executive Summary:

The applicant ExteNet Systems wishes to install wireless communication facility onto an existing pole #31/5 located on Watertown Street, not Adams Street as described on the application.

Based on a site visit today a new wood pole has been erected by Verizon crews that were on site, see following photo. It appears that the proposed equipment will not interfere with sidewalk snow removal equipment as the lowest proposed electric meter is 8-feet above sidewalk grade.

I recommend that the Fire Department Wires Division review and comment via separate memo for any concerns that they make have. Historic District Commission has certified that there is no adverse effect.



Pole #31/15 Watertown Street Photo taken March 14, 2019

Once the application is approved, the double pole should be removed with 90 days after the wireless facilities are installed.

- 1. The contractor of record shall contact the Newton Police Department and arrange for Police Detail during installation of new equipment.
- 2. Upon final installation an As Built drawing [plan & profile] indicating elevations of all new equipment shall be submitted in digital and hard copy format to the City Engineer stamped by a Massachusetts Professional Engineer.
- 3. The contractor of record shall obtain appropriate Permits with the Inspectional Services Department for all electrical, telecommunications construction.
- 4. The contractor of record shall contact the Newton Police Department and arrange for Police detail to help residents navigate around the construction activity.

If you have any questions or concerns, please call me at 617-796-1023.



Wireless Antenna Facilities Application Internal Only Check List

_ocatio	on: 132 Adams Street Pole #:
Date o	f Review: March 28, 2019
	No Action Needed
	Approved as Submitted
X	Approved with Required Condition(s):
	Paint the equipment to match the color of the pole
	# of Hours for this Review (Track each location separately): 0.5 hours
	Employee Name: Shubee Sikka
	Employee Department: Planning Department

Final Label Report

#114-19

SBL	Owner	Number	Street	Unit
14014 0036	SEWALL RICHARD D	132-136	ADAMS ST	
14014 0034	JENNIE MARIE TWO LLC	138-142	ADAMS ST	
14014 0033	DEVITO ALFONSO MNGR	150	ADAMS ST	
14001 0003	MAGNI ANDREW J & SERAFINA M	365-369	WATERTOWN ST	
14014 0040A	AMJ LLC	372	WATERTOWN ST	
14014 0040	376 380 WATERTOWN ST LLC	376-380	WATERTOWN ST	
14014 0039	DUBOIS DONALD & DOUGLAS	382-384	WATERTOWN ST	
14014 0037	MULA JOHN TR	386-390	WATERTOWN ST	
14014 0038	MULA JOHN L TR	392	WATERTOWN ST	
14014 0035	MULA JOHN L TR	394	WATERTOWN ST	
14011 0011	FARINA JOHN A & JOSEPH B	399-401	WATERTOWN ST	
14008 0001	THE VILLAGE BANK	405-411	WATERTOWN ST	
14008 0002	THE VILLAGE BANK	413	WATERTOWN ST	
14015 0024	A & L AUTO SERVICE LLC	414	WATERTOWN ST	
14015 0023	FOX PHARMACY OF NEWTON INC	416	WATERTOWN ST	
14008 0004	TURNER R BROUGH	417-417	WATERTOWN ST	
14015 0022	BIANCHI MARIA TR	418	WATERTOWN ST	

CITY OF NEWTON Department of Public Works ENGINEERING DIVISION

Memorandum

To: Council Deborah Crossley, Facilities Committee Chair.

From: John Daghlian, Associate City Engineer

Re: Wireless Communication Facility ~ 262 Beacon Street Utility Pole #31/6

Date: March 14, 2019

CC: Jonathan Yeo, CEO

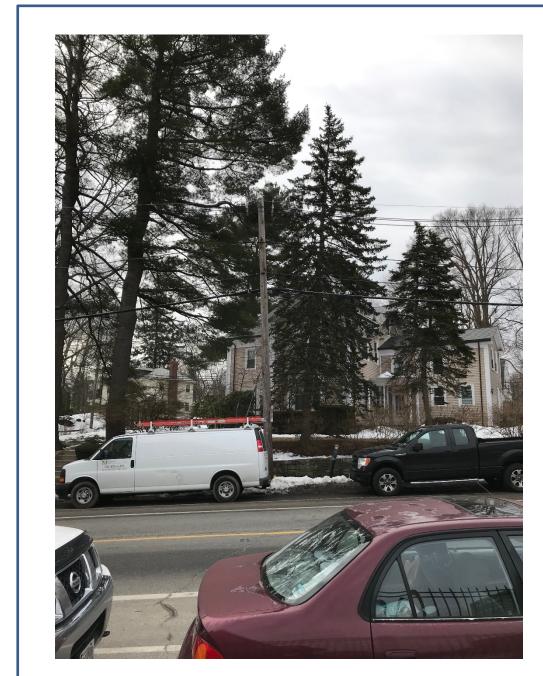
Jim Mcgonagle, Commissioner Lou Taverna, PE City Engineer Shawna Sullivan, Associate Clerk Nadia Khan, Committee Clerk

In reference to the above location, the following are my comments for an application submitted by and entitled:

ExteNet Systems, Inc.
Prepared by: ExteNet Systems, Inc.
Dated: 2-26- '19

Executive Summary:

This application entails the installation of small cell wireless facilities at #262 Beacon Street in Chestnut Hill across the Boston College campus, (see attached photo). The installation is onto an existing wood pole, it appears that the proposed equipment will not interfere with sidewalk snow removal equipment as the lowest proposed electric meter is 11-feet above sidewalk grade. Power supply will be provided from the secondary distribution that exists in the pole.



Pole #31-6 @ #120 Beacon Street Photo taken 3-14-'19

- 1. The contractor of record shall contact the Newton Police Department and arrange for Police Detail during installation of new equipment.
- 2. Upon final installation an As Built drawing [plan & profile] indicating elevations of all new equipment shall be submitted in digital and hard copy format to the City Engineer stamped by a Massachusetts Professional Engineer.
- 3. The contractor of record shall obtain appropriate Permits with the Inspectional Services Department for all electrical, telecommunications construction.
- 4. The contractor of record shall contact the Newton Police Department and arrange for Police detail to help residents navigate around the construction activity.

If you have any questions or concerns, please call me at 617-796-1023.

STAFF MEMORANDUM

DATE: March 26, 2019

TO: Public Facilities Committee

FROM: Barbara Kurze, Senior Preservation Planner

SUBJECT: Wireless Application for 262 Beacon Street, Chestnut Hill Historic District

The Chestnut Hill Historic District Commission reviewed the 262 Beacon Street application at the March 21, 2019 meeting and determined that the Commission did not have all the information needed to justify this location and to justify granting a Certificate of Hardship. The applicant, Keenan Brinn, agreed in writing to continue the review to the April 18th meeting. To make the case for a Certificate of Hardship, Keenan Brinn agreed to provide the radio frequency coverage map and other information to explain why this is the only location that will meet the applicants' needs.



Wireless Antenna Facilities Application Internal Only Check List

Location: 26	2 Beacon Street Pole #:
Date of Revi	ew: March 28, 2019
□ No A	Action Needed
□ Арр	roved as Submitted
⊠ App	roved with Required Condition(s):
furt	planning department recommends the applicant to investigate the following to have her discussion at the City Council meeting:
•	Investigate if it is possible to move to another pole, since the pole chosen is in front of a house
•	Investigate if there are options to narrow the equipment to nearly the same width as the pole
•	Investigate if the antenna can be top-mounted, shorter, and narrower
# of	Hours for this Review (Track each location separately): 1 hour
Emp	oloyee Name: Shubee Sikka
Emp	ployee Department: Planning Department

Final Label Report

SBL	Owner	Number	Street	Unit
63021 0001	TRUSTEES OF BOSTON COLLEGE		BEACON ST	
63021 0007	JESUIT COMMUNITY AT BOSTON COLLEGE	246	BEACON ST	
63020 0005	TRUSTEES OF BOSTON COLLEGE	262	BEACON ST	
63009 0002	TRUSTEES OF BOSTON COLLEGE	140	COMMONWEALTH AVE	
63020 0004	TRUSTEES OF BOSTON COLLEGE	258	HAMMOND ST	
63020 0006	TRUSTEES OF BOSTON COLLEGE		LAWRENCE AVE	
63020 0007	DRISCOLL BRIDGET A	19	LAWRENCE AVE	
63021 0006	TRUSTEES OF BOSTON COLLEGE	67	LEE RD	

#115-19

CITY OF NEWTON Department of Public Works ENGINEERING DIVISION

Memorandum

To: Council Deborah Crossley, Facilities Committee Chair.

From: John Daghlian, Associate City Engineer

Re: Wireless Communication Facility ~ 140 Commonwealth Avenue

Date: March 27, 2019

CC: Jonathan Yeo, CEO

Jim Mcgonagle, Commissioner Lou Taverna, PE City Engineer Shawna Sullivan, Associate Clerk Nadia Khan, Committee Clerk

In reference to the above location, the following are my comments for an application submitted by and entitled:

ExteNet Systems, Inc.
Prepared by: ExteNet Systems, Inc.
Dated: 2-26- '19

Executive Summary:

The applicant ExteNet Systems wishes to install wireless communication facility onto an existing cement concrete street light located at #140 Commonwealth Avenue in Chestnut Hill near the main entrance of Boston College. Based on a site visit of March 14th the street light pole is about 3° off vertically plumb. The DPW will require that the applicant retain a Registered Professional Engineer certified in Massachusetts to design a new cast aluminum ornamental street light pole and concrete foundation base that will be capable of supporting the street light along with the new small cell facility; the design needs to account for dead & live loads such as all the equipment weight plus street light, banners, wind load, soil bearing capacity. The Traffic Division will provide specifications for style and paint requirements of the street light & post.

Additionally, an agreement is needed that if this new street light pole is damaged due to any accident and or vandalism, the applicant will be responsible for replacement in kind for the designed intent with 72 hours.



- 1. The contractor of record shall contact the Newton Police Department and arrange for Police Detail during installation of new equipment.
- 2. Upon final installation an As Built drawing [plan & profile] indicating elevations of all new equipment shall be submitted in digital and hard copy format to the City Engineer stamped by a Massachusetts Professional Engineer.
- 3. The contractor of record shall obtain appropriate Permits with the Inspectional Services Department for all electrical, telecommunications construction.

If you have any questions or concerns, please call me at 617-796-1023.



Wireless Antenna Facilities Application Internal Only Check List

Locatio	on: 140 Commonwealth Avenue Pole #:	
Date of	f Review: March 28, 2019	
	No Action Needed	
X	Approved as Submitted	
	Approved with Required Condition(s):	
	# of Hours for this Review (Track each location separately): 0.5 hours	
	Employee Name: Shubee Sikka	
	Employee Department: Planning Department	

Final Label Report

#116-19

SBL	Owner	Number	Street Ur	nit
63016 0020	SANDER MARCEL & DANIEL T/C	342	BEACON ST	
63014 0010	TRUSTEES OF BOSTON COLLEGE	36	COLLEGE RD	
63010 0013	TRUSTEES OF BOSTON COLLEGE	50	COLLEGE RD	
63010 0012	TRUSTEES OF BOSTON COLLEGE	58	COLLEGE RD	
63010 0011	ONEILL INDUSTRIES LLC	66	COLLEGE RD	
63010 0010	TRUSTEES OF BOSTON COLLEGE	72	COLLEGE RD	
63010 0009	TRUSTEES OF BOSTON COLLEGE	78	COLLEGE RD	
63010 0008	TRUSTEES OF BOSTON COLLEGE	84	COLLEGE RD	
63010 0007	TRUSTEES OF BOSTON COLLEGE	90	COLLEGE RD	
63010 0006	TRUSTEES OF BOSTON COLLEGE	96	COLLEGE RD	
63010 0005	TRUSTEES OF BOSTON COLLEGE	102	COLLEGE RD	
63010 0004	TRUSTEES OF BOSTON COLLEGE	110	COLLEGE RD	
63010 0003	TRUSTEES OF BOSTON COLLEGE	116	COLLEGE RD	
63010 0002	TRUSTEES OF BOSTON COLLEGE	122	COLLEGE RD	
63010 0001	TRUSTEES OF BOSTON COLLEGE	128	COLLEGE RD	
63013 0017	TRUSTEES OF BOSTON COLLEGE		COMMONWEALTH AVE	
63009 0002A	TRUSTEES OF BOSTON COLLEGE	90-100	COMMONWEALTH AVE	
63008 0046	POLYHRONOPOULOS NICHOLAS & VASILKI	103	COMMONWEALTH AVE	
63008 0047	BROWN MELINDA J	109	COMMONWEALTH AVE	
63008 0048	KELLEY JEAN M	115	COMMONWEALTH AVE	
63008 0049	QUINTANAR GERARD	119	COMMONWEALTH AVE	
63008 0050	WILSON CHRISTOPHER	127	COMMONWEALTH AVE	
63008 0051	BENEDICT COLEMAN J JR	137	COMMONWEALTH AVE	
63009 0002	TRUSTEES OF BOSTON COLLEGE	140	COMMONWEALTH AVE	
63008 0052	MORRISSEY WILLIAM P	143	COMMONWEALTH AVE	
63008 0053	MCNAMARA JOHN B JR	151	COMMONWEALTH AVE	
63008 0027	WONG PETER & LILY C	159	COMMONWEALTH AVE	
63015 0001	TRUSTEES OF BOSTON COLLEGE	147-201	HAMMOND ST	
63014 0011	TRUSTEES OF BOSTON COLLEGE	180-200	HAMMOND ST	
63020 0004	TRUSTEES OF BOSTON COLLEGE	258	HAMMOND ST	
63016 0021	GREEN MARION TR	9	OLD ORCHARD RD	
63014 0009	TRUSTEES OF BOSTON COLLEGE	4	QUINCY RD	

Nadia Khan

From: Glenn Manning

Sent: Wednesday, March 27, 2019 9:58 AM

To: Nadia Khan
Subject: Re: Applications

Nadia I did not see any issue on my end of things with this location.

Glenn Manning Superintendent Fire Alarm and Wires Division Newton Fire Department

No not write here. Binding margin!



City of Newton

PETITION FOR DRAIN AND SEWER

December 12 3014

TO THE BOARD OF ALDERMEN:-

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rom 49 STariford	
o 48 STaviforo	1
in that part of Newton called Jubura	Idale 05 00
Signatures of petitioners here:	ADDRESSES
James P. Barberia	49 STaviford ST. Aubunda
form & Pine L	50 STANIFORD St. Auburuda
lotto Deca	UB Stanford St. Auburnda
AHa loth	56 Staniford SZ, Auburnda
Charles Wes	65 Staniford St, aubundals
Travayan a.	55 Staniford Street, Aubuna
Way Dox Me Work	62 Stanford St. Celluris
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Referred to Committee on Public Works



City of Newton, Massachusetts Office of the Mayor

#114-19
Telephone
(617) 796-1100

Telefax
(617) 796-1113

TDD
(617) 796-1089

E-mail
rfuller@newtonma.gov

Honorable City Council Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02459



Councilors:

I write to request that your Honorable Council docket for consideration a request to authorize the appropriation and expenditure of \$256,000 from Sewer Fund Reserve for the purpose of funding the Staniford Street Sewer Extension. This sewer extension project will connect 8 residences to the City's sewer system.

Sewer betterment assessments will be attached based on the residents paying half of the construction cost, currently estimated at (\$128,000). Final assessments will be presented once construction is completed and actual construction costs are known.

In the end, the City will only pay 50% of the cost of this project with the residents paying the other 50%.

Thank you for your consideration of this matter.

Sincerely,

Ruthanne Fuller Mayor

Russam Fuller

City of Newton



Ruthanne Fuller Mayor

DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER 1000 Commonwealth Avenue Newton Centre, MA 02459-1449

February 28, 2019

To:

Jonathan Yeo, Chief Operating Officer

Maureen Lemieux, Chief Financial Officer

From: James McGonagle, Commissioner of Public Works

Subject:

Request for Construction Project Funds

Preliminary Assessment of Sewer Betterments

Staniford Street Sewer Extension

Docket Item #279-18

The proposed Staniford Street sewer extension design project is completed. The proposed sewer extension extends in a west to east direction from house #68 Staniford Street toward an existing sewer manhole in Freeman Street. The sewer extension includes approximately 368 linear feet of new 8" diameter sewer main, plus 2 new sewer manholes, plus connections to the property line at 8 residences. The 8 residences include numbers 39, 49, 50, 55, 56, 62, 65, and 68.

The preliminary sewer betterment assessments are attached, and are based on current city ordinance Section 29-71 and 29-72. The engineer's opinion of probable construction cost is \$256,000. Preliminary sewer betterments are assessed based on the residents paying half of the construction cost (\$128,000), and the city paying half of the construction cost. Final sewer betterment assessments will be presented for consideration once construction is completed, and actual construction costs are known.

We request construction project funds of \$256,000 for this sewer extension project.

Please docket this request with the Honorable City Council.

attachments

cc:

David Olsen, City Clerk

Shawna Sullivan Assistant City Clerk Louis M. Taverna. P.E., City Engineer

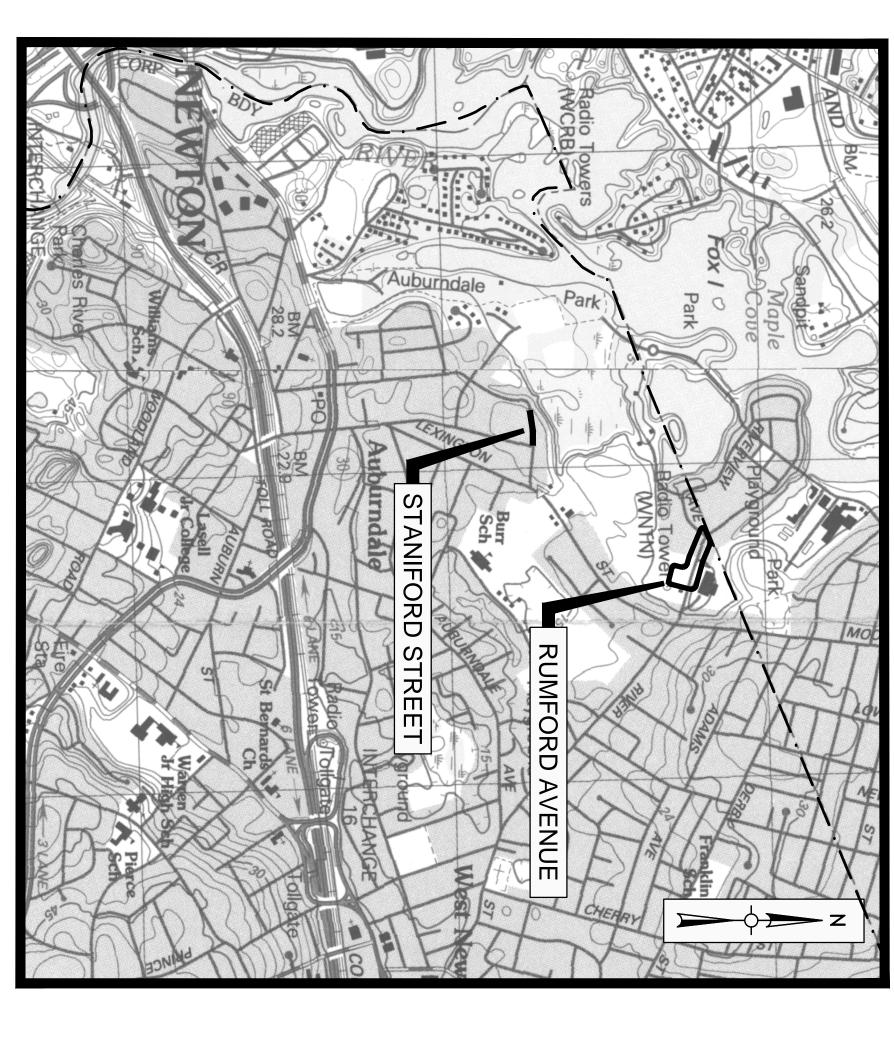
Ted Jerdee. Director of Utilities Jack Cowell, DPW Finance Director WSE Job No. 2180692 2/27/2019 ENGINEER'S COST ESTIMATE DONE BY: Patrick Terrien CHECKED BY David Elmer

CITY OF NEWTON, MASSACHUSETTS STANIFORD STREET SEWER EXTENSION

ITEM #	QUANTITY	UNIT	DESCRIPTION	UNIT COST	TOTAL AMOUNT
1			BASE BID (Items 1 to 10) Sewers Complete in Place		
1a	368	1.f.	8-inch PVC gravity sewers, per linear foot	\$275.00	\$101,200.00
				SUBTOTAL	\$101,200.00
2			Building Connection Systems		
2a	8	wyes or tees	8x6 inch wye branches for PVC pipe, each	\$2,500.00	\$20,000.00
2b	185	1.f.	6-inch PVC building connections, per linear foot	\$125.00	\$23,125.00
				SUBTOTAL	\$43,125.00
3			Manholes and Catch Basins		
3a	2	manholes	Precast concrete manhole base with standard frame and cover, 4.0 ft. diameter, per manhole	\$8,000.00	\$16,000.00
3b	16	v.f.	Precast concrete manhole walls and cones, 4.0 ft. diameter, per vertical foot	\$250.00	\$4,000.00
3c	1	catch basin	Precast concrete catch basin with frame and grates, per catch basin	\$6,000.00	\$6,000.00
				SUBTOTAL	\$26,000.00
5			Rock Excavation and Disposal		
5a	75	c.y.**	Rock excavation and disposal, per cubic yard (minimum)	\$60.00	\$4,500.00

ITEM#	QUANTITY	UNIT	DESCRIPTION	UNIT COST	TOTAL AMOUNT
5b	75	c.y.**	Rock excavation and disposal, per cubic yard (additional)	\$0.01	\$0.75
				SUBTOTAL	\$4,500.75
6			Additional Earthwork		
6a	75	c.y.	Earth excavation and backfill below normal grade, per cubic yard	\$20.00	\$1,500.00
6b	75	c.y.	Earth excavation and backfill above normal grade, per cubic yard	\$10.00	\$750.00
6c	75	c.y.	Test pits, per cubic yard	\$50.00	\$3,750.00
				SUBTOTAL	\$6,000.00
7			Pavement Replacement		
7a	368	1.f.	Temporary trench width pavement (2-inches thick), per linear foot	\$25.00	\$9,200.00
7b	368	1.f.	Permanent binder course trench width pavement (2 1/2-inches thick), per linear foot	\$25.00	\$9,200.00
7c	368	1.f.	Permanent top course trench width pavement (1 1/2-inches thick), per linear foot	\$25.00	\$9,200.00
7d	25	tons	Additional pavement, per ton	\$150.00	\$3,750.00
				SUBTOTAL	\$31,350.00
8			Water and Drain Reconstruction		
8a	2	reconstru ctions	Water and drain reconstruction within sewer trench limits, per reconstruction	\$1,200.00	\$2,400.00
				SUBTOTAL	\$2,400.00

ITEM #	QUANTITY	UNIT	DESCRIPTION	UNIT COST	TOTAL AMOUNT
9			Mobilization		
9a	1	1.s.	Mobilization, lump sum (not more than 5% of Items 1 to 8)		\$11,603.79
				SUBTOTAL	\$11,603.79
10			Allowances for Services of Uniformed Officers		
10a	350	hours	Uniformed officers for traffic control, per hour	\$50.00	\$17,500.00
				SUBTOTAL	\$17,500.00
			BASE BID (Items 1 to 10) CONTING	GENCY: 5%	\$12,183.98
			BASE BID (Items 1 t	to 10) TOTAL	\$255,863.51
				TOTAL	\$255,863.51



OCUS 1"=1000 MAP

CITY OF NEWTON, MA SSACHUSETTS

NEWTON CENTRE, MASSACHUSETTS 02459 DEPARTMENT OF PUBLIC WORKS 1000 COMMONWEALTH AVENUE,

STANIFORD STREET SE AND RUMFORD AVENUE TRANSFER STATION GRINDER PUMP VER EXTENSION

BID INVITATION # - - -

135

IAMES MCGONAGLE, COMMISSIO RUTHANNE FULLER, MAYOR NER OF PUBLIC WORKS

FEBRUARY 2019

Weston & Sampson

 $\verb|\wse03.| local| WSE\Projects\MA\Newton\2180692\ -\ STANIFORD\ STREET\ SEWER\ EXTENSION\CAD\Design\Cover\ Sheet. dwg_three_$

D-2 D-3

DETAILS

DETAILS III

DETAILS

CONSTRUCTION ZONE

SAFE:

RUMFORD AVENUE PLAN AND PROFILE

C-3

G-1 C-1 C-2

STANIFORD STREET

PLAN AND PROFILE

AND LEGEND

ABBREVIATIONS, NOTE

SHEE

DRAWING

INDEX

55 Walkers Brook Drive, Reading Weston & Sampson Enginee ers, Inc. J, MA 01867

GEND

DESCRIPTION	EXISTING	PROPOSED
FORCE MAIN		8"S PVC
WATER MAIN	₩ ₩	6"W DI-
TEMPORARY WATER		4"W
STORM DRAIN	D	— 18"D RCP —
GAS	- G	4"G
ELECTRIC		
HOUSE CONNECTION	-	6" HOUSE
)	
GRINDER PUMP	9 0	• GF
STORM DRAIN MANHOLE	9 (0	• SDMH
ICAL MANHOLE	0	● EMH
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ORM DRAIN, DEPTH FROM RIM TO INVERT OP INLET, DUCTILE IRON METER NG ELECTRIC MANHOLE

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ELLANEOUS ACHUSETTS W. HUSETTS DEPARTMENT OF TRANSPORTATION

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ERTY LINE WATER RESOURCES AUTHORITY

FORM BRICK INVERTS IN MANHOLES WITH BRICK ON EDGE TO A DEPTH OF 0.8 INSIDE DIAMETER OF PIPE AND FORM A 1 INCH SLOPED BENCH WITH BRICK FLAT. INVERT SHALL BE SLOPED UNIFORMLY BETWEEN INLET AND OUTLET PIPE AND SHALL BE FORMED AND FILLED AS REQUIRED TO DIRECT THE FLOW AS INDICATED AND TO PREVENT DEPOSITION OF SOLIDS.

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL CALL DIGSAFE AT 1-888-344-7233 AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIGSAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION.
- TEST PITS ORDERED E S TO LOCATE EXISTING UTILITIES MAY BE BY THE ENGINEER.
- STONE WALLS, FENCES, MAIL BOXES, SIGNS, CURBS, LIGHT POLES, ETC. SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK. UNLESS OTHERWISE INDICATED, ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.
- ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
- ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- CONCRETE CRADLES OR ARCHES SHALL BE CONSTRUCTED WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED BY THE ENGINEER. UNLESS OTHERWISE INDICATED, CONCRETE USED FOR PIPE ANCHOR BLOCKS, BACKING, PIPE CRADLES, ARCHES, AND FILL SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
- THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES OR WITHIN 100 FEET OF WETLANDS.
- SEWER TRENCHES MAY BE EXCAVATED WIDER THAN THE LIMIT OF EXCAVATION AND PAYMENT FOR EARTH EXCAVATION ABOVE THE LINE OF NARROW TRENCH LIMIT. ANY SUCH ADDITIONAL EXCAVATION SHALL BE AT THE CONTRACTORS EXPENSE AND SHALL NOT BE MEASURED FOR PAYMENT.
- BELOW THE 'LINE OF NARROW TRENCH LIMIT' THE TRENCH SHOULD NOT BE EXCAVATED BEYOND THE TRENCH WIDTH 'W'. IF MATERIAL IS LOOSENED OR REMOVED BEYOND THE ABOVE MENTIONED LIMITS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE CRUSHED STONE FOR THE FULL WIDTH OF THE TRENCH AT NO ADDITIONAL COST TO THE OWNER.
- FOUR FOOT INSIDE DIAMETER MANHOLES SHALL BE USED WITH SEWERS LESS THAN 24 INCHES IN DIAMETER, AND FIVE FOOT INSIDE DIAMETER MANHOLES SHALL BE USED WITH SEWERS EQUAL TO OR GREATER THAN 24 INCHES IN DIAMETER, UNLESS OTHERWISE SPECIFIED. SHEETING TO BE LEFT IN PLACE SHALL BE USED WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED BY THE ENGINEER. IT SHALL BE LEFT IN PLACE AT A DEPTH NOT LESS THAN TWO (2) FEET BELOW FINISH GRADE UNLESS OTHERWISE REQUIRED BY THE ENGINEER.
- OPENINGS FOR PIPE IN PRECAST MANHOLE BASES SHALL BE CAST IN THE REQUIRED LOCATIONS DURING MANHOLE MANUFACTURE. FIELD CUT OPENINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

- LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.

- 2
- CALCULATION OF PIPE SLOPES IS BASED ON ELEVATION
 CHANGES DIVIDED BY THE DISTANCE BETWEEN THE
 DUTSIDE EDGES OF THE MANHOLE WALLS. FOR FOUR FOOT
 DIAMETER MANHOLES, THIS DISTANCE WAS CALCULATED AS
 THE CENTERLINE STATIONING MINUS FIVE FEET. FOR FIVE
 FOOT DIAMETER MANHOLES, THIS DISTANCE WAS CALCULATED
 AS THE CENTERLINE STATIONING MINUS SIX FEET. 'IN'
 NDICATES UPSTREAM END OF MANHOLE, 'OUT' INDICATES
 DOWNSTREAM END OF MANHOLE.
- WATER SERVICE CONNECTIONS AND GAS SERVICE CONNECTIONS HAVE NOT BEEN INCLUDED ON THE PLAN VIEWS OR PROFILE VIEWS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF WATER SERVICE CONNECTIONS AND GAS SERVICE CONNECTIONS AS NECESSARY TO PERFORM THE WORK.
- THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC THROUGHOUT THE DURATION OF THE PROJECT. ALL STREETS

23.

- TRACTOR SHALL NOTIFY RESIDENTS IN PROXIMITY TO EXCAVATIONS, AND LL POST NO PARKING SIGNS, AS REQUIRED BY NEWTON POLICE DEPARTMENT.

N PAVED AREAS THE TOP OF THE MANHOLE COVER SHALL BE SET FLUSH WITH THE PAVED SURFACE. IN OTHER AREAS THE TOP OF THE COVER SHALL EXTEND 6 INCHES ABOVE TINISHED GRADE, OR AS SHOWN ON THE DRAWINGS, OR AS
REQUIRED BY THE ENGINEER.

- SEWER CHIMNEY AND HOUSE CONNECTION LOCATIONS ARE SHOWN FOR ESTIMATING PURPOSES, AND ARE APPROXIMATE IN LOCATION. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD.
- PROTECTION OF WATER SUPPLIES WHENEVER A SEWER AUST CROSS UNDER A WATER MAIN, THE SEWER SHALL BE AND AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER SAID AT SUCH AN ELEVATION OF THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE MAIN. WHEN THE ELEVATION OF THE SEWER TO PROVIDE THIS SEPARATION OR THE CONTRACTOR AS REQUIRED BY THE ENGINEER TO PROVIDE THIS SEPARATION OR THE CONTRACTOR SHALL CONSTRUCT THE NEW SEWER OF CLASS 50 PRESSURE PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN. ONE FULL LENGTH OF CLASS 150 PRESSURE PIPE SEWER SHOULD BE CENTERED ON THE WATER MAIN AS MUCH AS POSSIBLE. THE SEWER CONSTRUCTED OF THE PRESSURE PIPE MUST BE PRESSURE TESTED TO ASSURE MATCH TO THE WATER WATER WATER TO THE WATER WATER TO THE WATER WATER TO THE WATER WATER WATER TO THE WATER WATER WATER TO THE WATER WATER

- STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT END OF EACH WORKING DAY BY BACKFILLING OR COVERING NON—SKID STEEL PLATES. STEEL PLATES SHALL BE RECESSED COLD PATCHED BETWEEN NOVEMBER 1ST AND APRIL 30TH.
- REFERENCE ELEVATIONS ARE ASSUMED FOR EACH LOCATION.

20.

- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF MASSACHUSETTS GENERAL LAW CHAPTER 82A, TRENCH EXCAVATION AND SAFETY REQUIREMENTS, TO PREVENT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES.
- NTRACTOR SHALL MEET WITH NEWTON POLICE DEPARTMENT PRIOR TO AVATION WORK. ROAD CLOSURES AND DETOURS TO BE AS REQUIRED NEWTON POLICE DEPARTMENT.

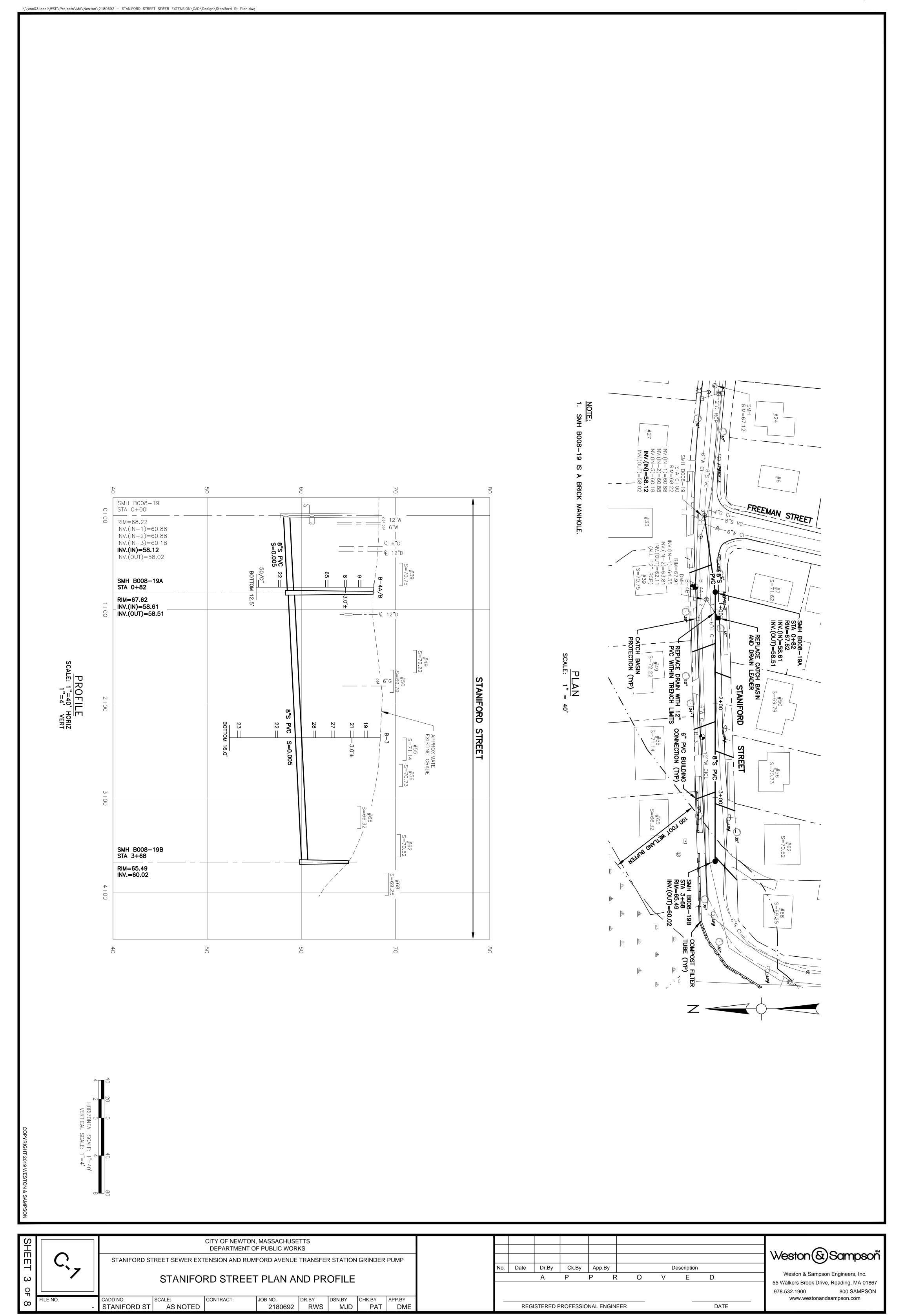
- PAVEMENT REPLACEMENT RELATED TO BUILDING CONNECTIONS SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL NOT BE SEPARATELY MEASURED FOR PAYMENT.

SHEET CITY OF NEWTON, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANIFORD STREET SEWER EXTENSION AND RUMFORD AVENUE TRANSFER STATION GRINDER PUMP ABBREVIATIONS, NOTES, AND LEGEND N 유 CADD NO. CONTRACT: JOB NO. DSN.BY CHK.BY APP.BY FILE NO. ∞ AS NOTED PAT 2180692 RWS MJD DME

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Weston & Sampson

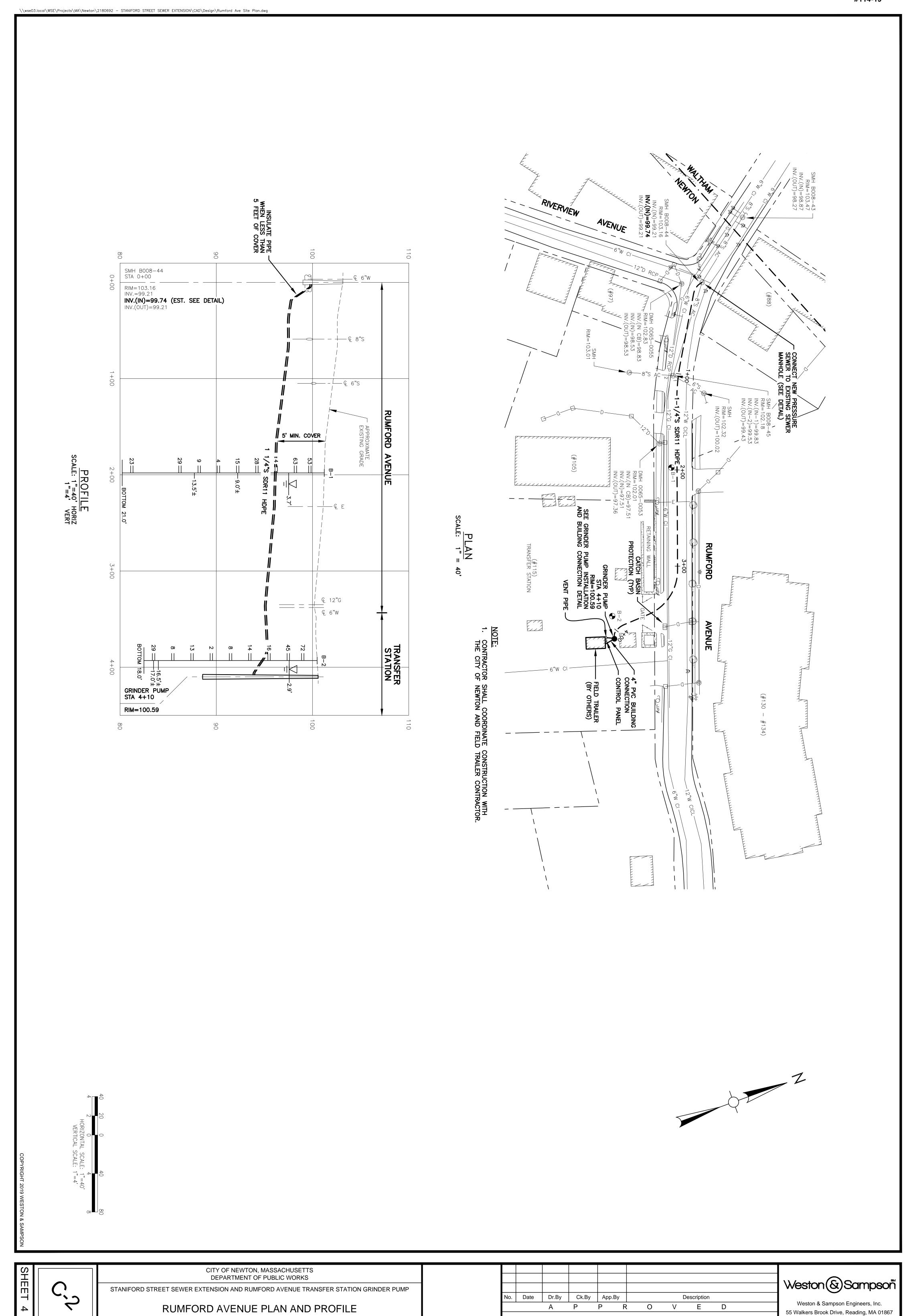
Weston & Sampson Engineers, Inc. 55 Walkers Brook Drive, Reading, MA 01867 978.532.1900 www.westonandsampson.com



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www.westonandsampson.com



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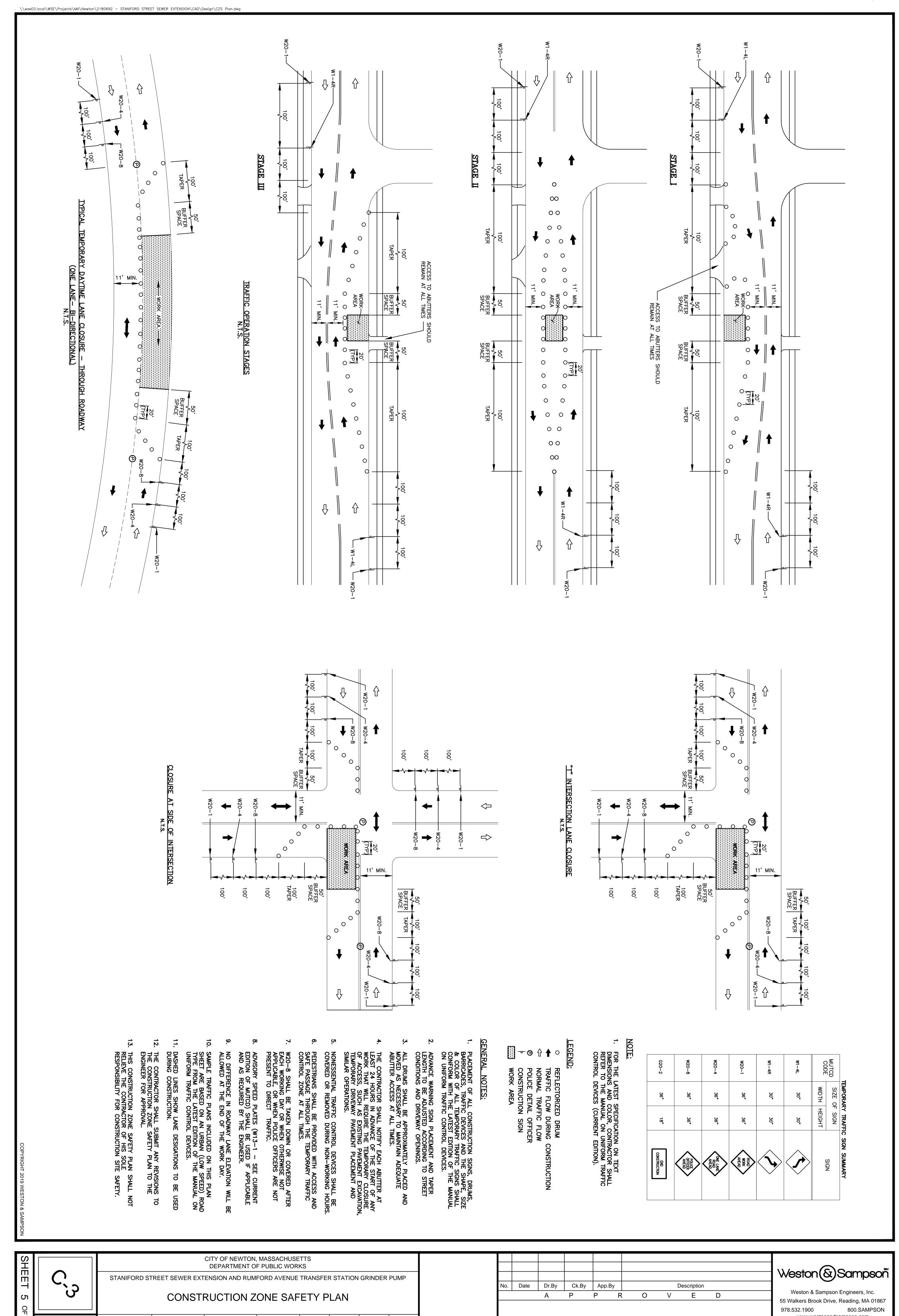
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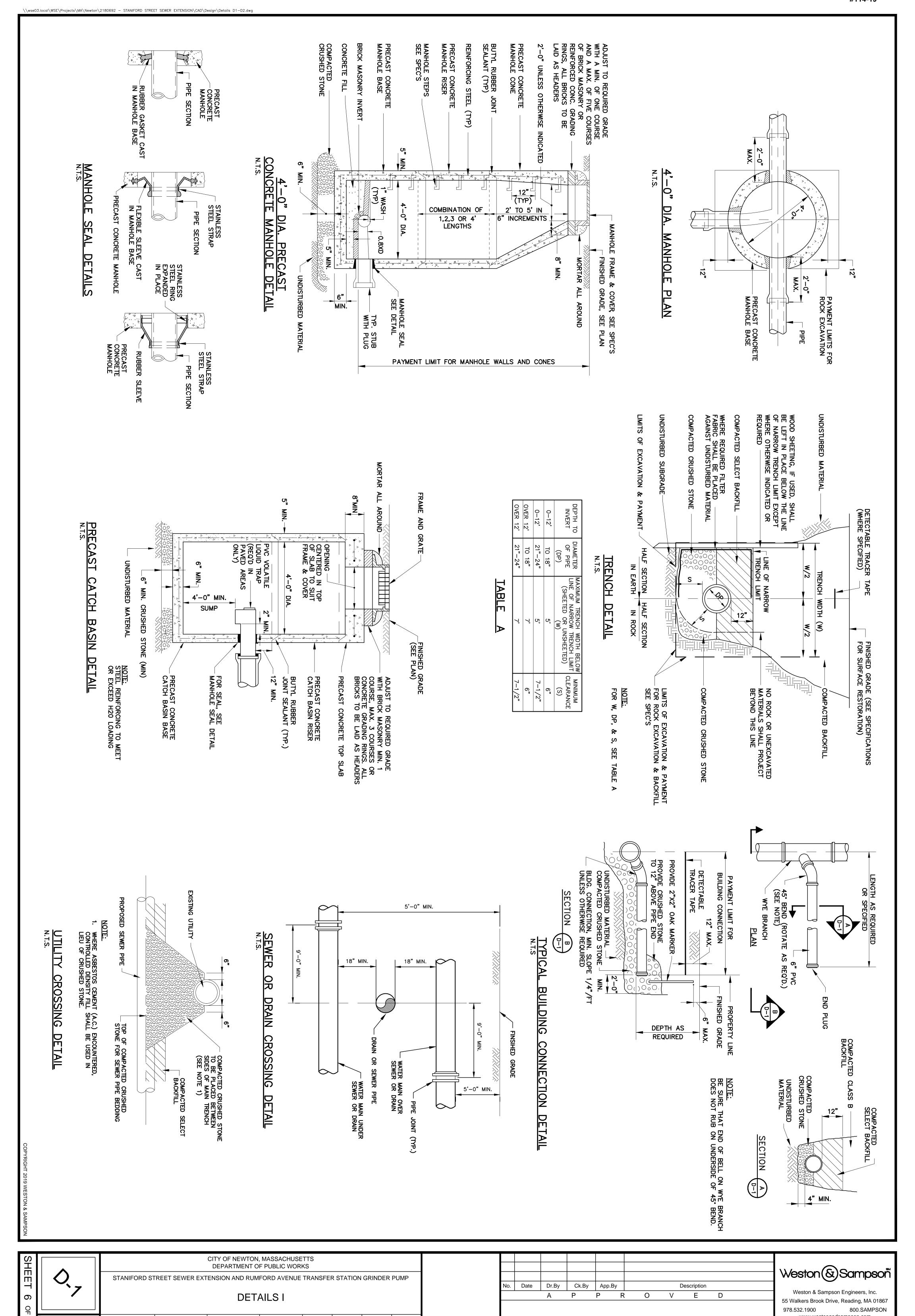
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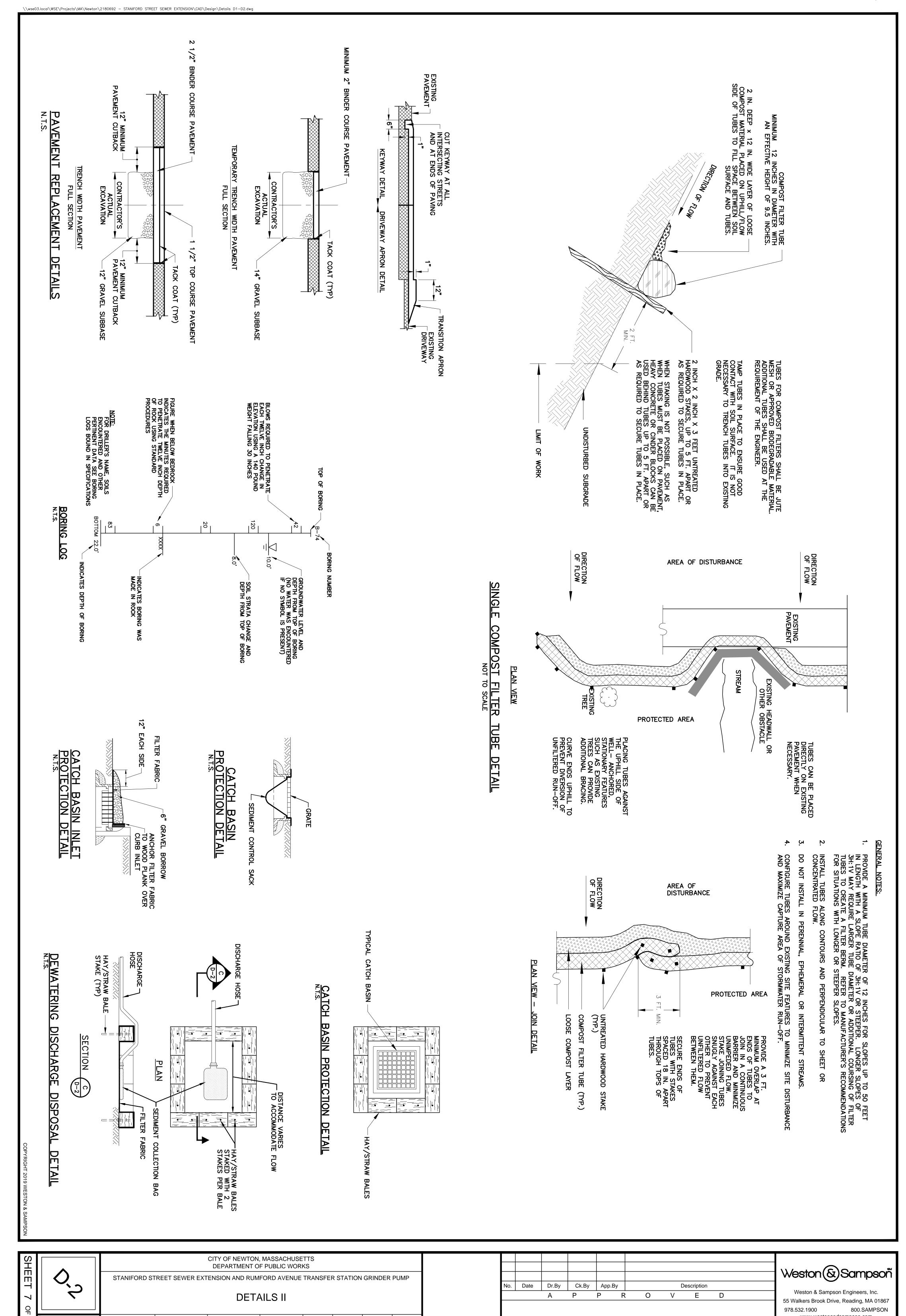
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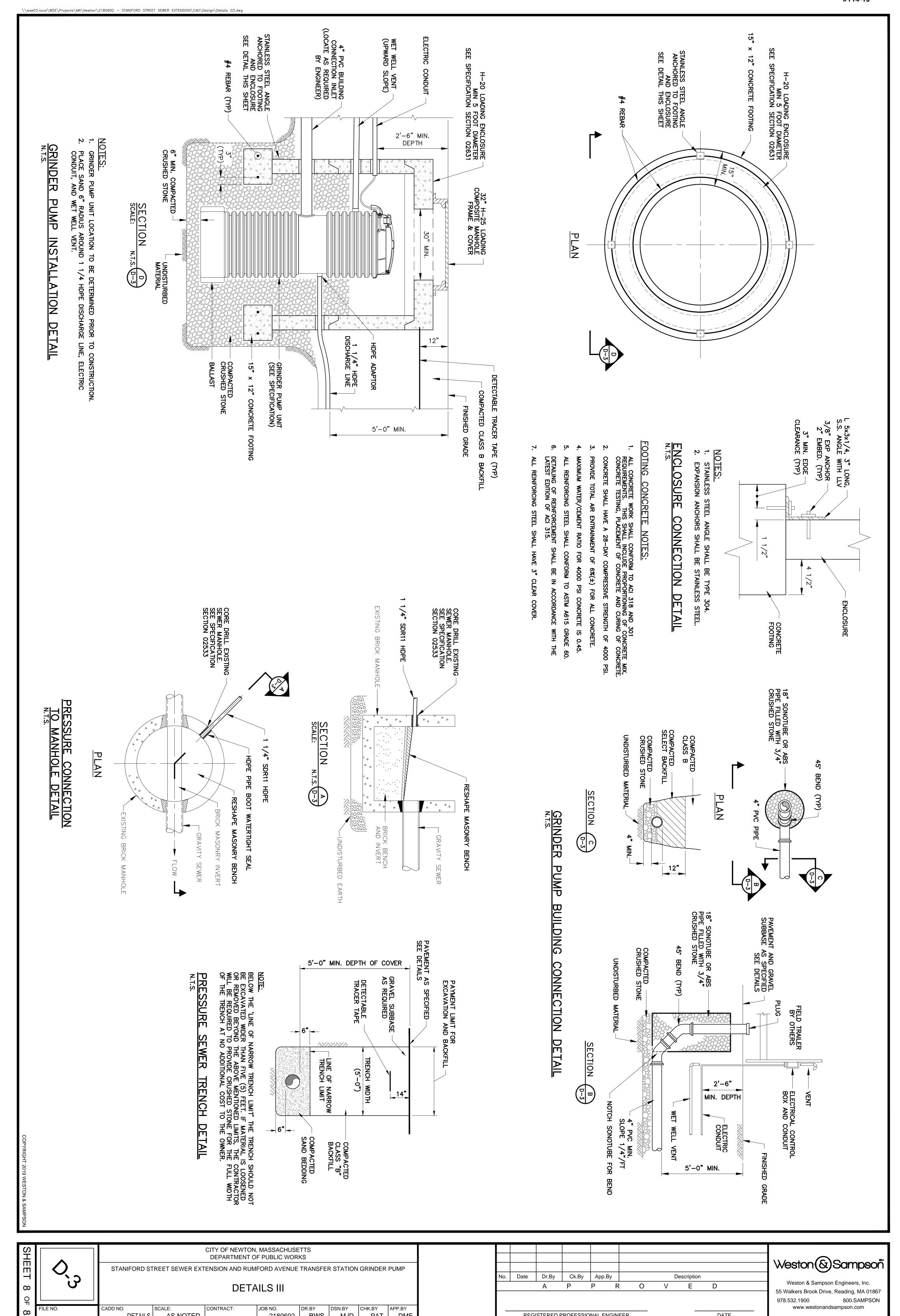
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DETAILS

AS NOTED

Staniford St
Sanitary Sewer Extension
Preliminary Sewer Betterment Assessments

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Using Current City Ordinance Assessment Calculations, Section 29-71 and 29-72	
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Address	Owner	Book & Page #	Percent of Assessment Cost	Sewer Asses	2/28/2019 Sewer Betterment Assessment Cost	
39 Staniford St	Patel, Sandip V and Vibha S	037165/0228	12.50%	\$	16,000	
49 Staniford St	Barberio, James P and Dianne M	000883/0144	12.50%	↔	16,000	
50 Staniford St	Grieco, Elizabeth Tr	065299/0315	12.50%	↔	16,000	
55 Staniford St	Kadambi, Narayan	001350/0040	12.50%	↔	16,000	
56 Staniford St	Roth, Alan H and Holli G	028914/0383	12.50%	↔	16,000	
62 Staniford St	Wilson, Paul D	021380/0115	12.50%	↔	16,000	
65 Staniford St	West, Charles L Tr	001443/0086	12.50%	↔	16,000	
68 Staniford St	Decelles, Katherine	061908/0221	12.50%	↔	16,000	
			100.00%	↔	128,000	
TOTAL BETTERMI	TOTAL BETTERMENT ASSESSMENTS		50%	↔	128,000	
TOTAL PROJECT COST	COST		100%	↔	256,000	
CITY SHARE			50%	↔	128,000	

City of Newton



DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER 1000 Commonwealth Avenue Newton Centre, MA 02459-1449

March 8, 2019

Mayor

To: Ruthanne Fuller, Mayor

Jonathan Yeo, Chief Operating officer

From: James McGonagle, Commissioner

Subject: Request for Authorization by the Public Facilities Committee of the City Council

For Easement Relocation on Boston College Middle Campus at Beacon Street

I request that the following item be docketed with the Public Facilities Committee of the Honorable City Council; that the Honorable City Council consider the following action to approve a partial relocation of an easement (the "City Easement") from the Trustees of Boston College to the City, originally granted in 1917, and amended in 2013 under Board Order 232-10 and 232-10 (2), and again in 2018 under Council order 357-18.

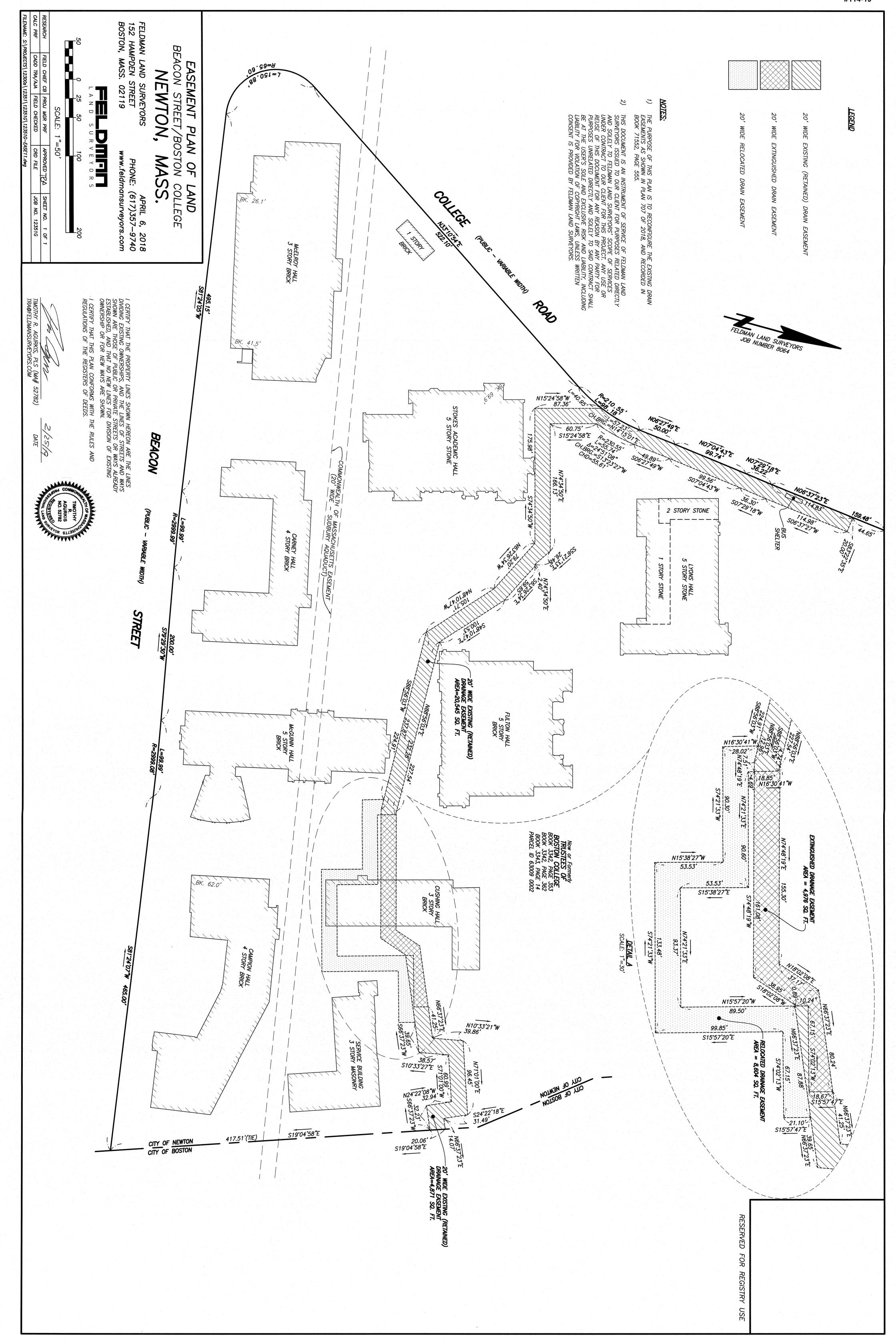
Boston College is planning a new Integrated Science Building on its Middle Campus on the present location of Cushing Hall, which will be demolished. Following discussions with representatives of the City's Engineering Division and the Law Department, Boston College desires to further amend a portion of the City Easement so that the City's existing storm drain can be rerouted beyond the footprint of the proposed building. A plan showing the City Easement as it would be affected by the proposed relocation is attached as Exhibit A.

I request that you ask the office of the City Clerk to place this matter on the docket of the Public Facilities Committee for a public hearing on the next available date.

Sincerely,

James McGonagle Commissioner Public Works

cc: Louis M. Taverna, P.E., City Engineer
John Daghlian, Associate City Engineer
Alisa O. Guliani, City Solicitor
Jonah Temple, Law Department
Andrew Lee, Law Department
Shawna Sullivan, City Clerk's Office
Nadia Khan, City Clerk's Office



CITY OF NEWTON Department of Public Works ENGINEERING DIVISION

Memorandum

To: Council Deborah Crossley, Facilities Committee Chair.

From: John Daghlian, Associate City Engineer

Re: Boston College Institute for Integrated Science & Society

Date: March 25, 2019

CC: Jim Mcgonagle, Commissioner

Lou Taverna, PE City Engineer Ted Jerdee, Director of Utilities Shawna Sullivan, Associate Clerk Nadia Khan, Committee Clerk

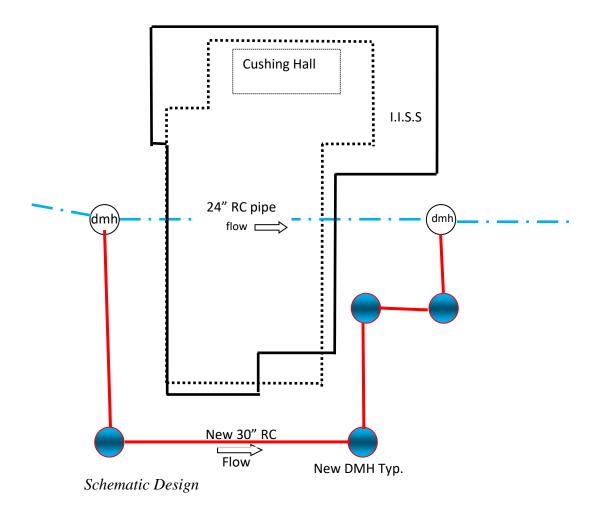
In reference to the above location, the following are my comments for a plan entitled:

Boston College
Institute for Integrated Science & Society
Prepared By: Nitsch Engineering
Dated: 2/27/19

Executive Summary:

Boston College wishes to erect a new *Institute Integrated Science & Society (IISS)* building located in the middle campus to replace the existing Cushing Hall. A complete demolition of Cushing Hall is required to building the new facility; associated with the demolition and new construction, a portion of an existing City drain pipe and easement that currently runs under Cushing Hall which dates to 1916 must be relocated.

The engineer of record has designed a re-routed system & easement that connects at an upstream manhole and diverts the alignment outside of the footprint of the new building; see schematic sketch for clarification.



The new 30" reinforced concrete pipe and manholes will be located into a new easement that will be granted to the City, the drafted easement is acceptable for the DPW & Engineering Division.

Once the City Council has approved the relocation abandonment of the old easement, and acceptance of the new easement, Boston college shall record the fully executed Grant and Board Order & Easement plan at the Middlesex Registry of Deed and submit to the City Clerk & City Engineer copies of the recording instrument(s).

General:

- 1. Final Approval of this plan by the City of Newton Engineering Division implies that the plan meets the minimal design standards of the City of Newton. However, the Engineering Division makes no representations and assumes no responsibility for the design(s) in terms of suitability for the particular site conditions or of the functionability or performance of any items constructed in accordance with the design(s). The City of Newton assumes no liabilities for design assumption, error or omissions by the Engineer of Record.
- 2. Prior to Occupancy permit being issued, an As-Built Plan shall be submitted to the Engineering Division in both digital format and in hard copy. The plan should show all utilities and final grades, any easements and final grading, all underground drainage facilities with swing ties from the corner of the new building. *This note must be incorporated onto the site plan*.
- 3. The applicant will have to apply for a Utilities Connection Permit with the DPW. *This note must be incorporated onto the site plan.*
- 4. If a Certificate of Occupancy is requested prior to all site work being completed, the applicant will be required to post a Certified Bank Check in the amount to cover the remaining work. The City Engineer shall determine the value of the uncompleted work.

If any changes from the original approved design plan that are required due to unforeseen site conditions, the engineer of record shall submit a revised design & stamped and submitted for review and approval prior to continuing construction.

If you have any questions or concerns, please feel free to contact me @ 617-796-1023.