



CITY OF SALEM

In City Council, April 23, 2020

ORDERED: That the Salem City Council reappoint Ed Moriarty and Deborah Greel to the Community Preservation Committee with their terms to expire on May 23, 2022



CITY OF SALEM, MASSACHUSETTS

Kimberley Driscoll
Mayor

Office of the Mayor

April 23, 2020

Honorable Salem City Council
Salem City Hall
Salem, Massachusetts 01970

Ladies and Gentlemen of the City Council:

I reappoint, subject to City Council confirmation, Tim Shea of 21 Buchanan Road to the Community Preservation Committee for a term of 2 years to expire May 10, 2022.

I recommend confirmation of his reappointment to the Committee and ask that you join me in thanking Mr. Shea for his continued dedicated service and commitment to our community.

Very truly yours,

Kimberley Driscoll
Mayor
City of Salem



CITY OF SALEM, MASSACHUSETTS

Kimberley Driscoll
Mayor

Office of the Mayor

April 23, 2020

Honorable Salem City Council
Salem City Hall
Salem, Massachusetts 01970

Ladies and Gentlemen of the City Council:

I reappoint, subject to City Council confirmation, Rosa Ordaz of 13 Forest Avenue to the Zoning Board of Appeals for a term of 3 years to expire May 1, 2023.

I recommend confirmation of her reappointment to the Board and ask that you join me in thanking Ms. Ordaz for her continued dedicated service and commitment to our community.

Very truly yours,

Kimberley Driscoll
Mayor
City of Salem



CITY OF SALEM, MASSACHUSETTS

Kimberley Driscoll
Mayor

Office of the Mayor

April 23, 2020

Honorable Salem City Council
Salem City Hall
Salem, Massachusetts 01970

Ladies and Gentlemen of the City Council:

I am pleased to appoint Darren Black of 1 Essex Street #1 to the Commission on Disabilities for a three-year term to expire April 23, 2023. Mr. Zamborlini will take the seat previously filled by Mr. David Martel, who has stepped down from the Commission. I hope you will join me in thanking Mr. Martel for his volunteer service on this Commission and his commitment to our community.

Mr. Black is an experienced disability services professional and a passionate advocate for those living with disabilities. For the last eight years, he has worked as a vocational rehabilitation counselor for the Massachusetts Commission for the Blind. Prior to that he worked as a counselor and teacher with the Commission starting in 1996. Mr. Black holds a Master's of Science degree in Rehabilitation Counseling from UMass-Boston and earned his Bachelor's degree from the University of Notre Dame.

I recommend confirmation of Mr. Black to the Commission on Disabilities. We are fortunate that he is willing to serve our community in this important role and lend his insights and expertise to the Commission and its work.

Very truly yours,

Kimberley Driscoll
Mayor
City of Salem

PETITION FOR SMALL CELL POLE ATTACHMENT

Under MGL Chapter 166, Section 22.

To the Honorable City Council of Salem, Massachusetts

Cellco Partnership d/b/a Verizon Wireless hereby respectfully requests permission to locate a small cell wireless antenna and necessary sustaining and protecting fixtures, on an existing utility pole #4916, located in the right of way adjacent to 1 Brown Street in the City of Salem, as more particularly shown on the plans attached hereto.

Wherefore it prays that after due notice and hearing as provided by law, it be granted permission to install and maintain a small cell wireless antenna including the necessary sustaining and protecting fixtures in accordance with the plan filed herewith marked SALEM_SC26_MA.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #4916, located in the right of way near the property line of 1 Brown Street with location as shown on the plan attached.

PETITIONER:

Cellco Partnership d/b/a
Verizon Wireless

By

Bryan Sarchi
Airosmith Development
318 West Avenue
Saratoga Springs, NY. 12866
480-734-4970

ORDER FOR POLE ATTACHMENT

In the City of Salem, Massachusetts

Notice having been given and public hearing held, as provided by law, IT IS HEREBY ORDERED:

That Cellco Partnership d/b/a Verizon Wireless is granted a location for and permission to attach equipment to an existing utility pole, including the necessary sustaining and protecting fixtures as said company may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Company dated the ___ day of _____, 2020.

All construction under this order shall be in accordance with the following conditions:

Equipment shall be installed as indicated upon the plan marked - Site ID: SALEM_SC26_MA, 1 Brown Street, Salem, MA 01970, dated November 22, 2019 and filed with this order.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon under this order:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #4916, in the right of way near the property line of 1 Brown Street with location as shown on the plan attached.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Salem, Massachusetts held on the ___ day of _____, 2020., with the following conditions set below. *

Received and entered in the records of location orders of the City of Salem Book _____, Page _____.

Attest: _____
City Clerk

*

ROUTING SLIP

Telecommunications Attachments in the Public Right of Way

Pursuant to the Code of Ordinances, Sections 12-86 through 12-200, each applicant who seeks access to the public right of way for telecommunications purposes must submit a petition and plans along with a \$500 application fee to the Electrical Department. Once the City Electrician has signed off, please circulate to the Departments listed on the reverse side of this Routing Slip for signature and return it to the City Clerk's Office prior to the petition being placed on the City Council Agenda for a grant of location pursuant to MGL Chapter 166, Section 22.

Right of Way Location Requested: 13 WASHINGTON SQ #KA/1 BROWN ST. / 42.523283, 70.891235

Application Fee Received: Yes Check No. 6477 Date: 2/27/20

City Electrician Approval: Jim J. Giardi

BUSINESS NAME
 Corporate name: VERIZON WIRELESS
 d/b/a: _____

Address: 116 FLANDERS RD 3rd Floor WESTBOROUGH, MA 01581 Tele. # _____

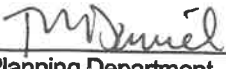
CONTACT: BRYAN SARCHI / AGENT w/ AIRSMITH DEVELOPMENT
 Street: 318 WEST AVE Tele. # 920-734-9970
 City: SARATOGA SPRINGS State: NY Zip: 12866
 Email Address: BSARCHI@AIRSMITHDEVELOPMENT.COM

Pole Ownership
 To be attached to utility-owned pole ___ To be attached to City-owned pole
 Pole Attachment Agreement attached* ___ Pole Attachment Agreement to follow*

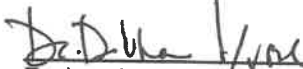
*All grants of location for telecommunications attachments to poles are conditioned upon evidence of a valid pole attachment agreement.

Conduits
 Will the attachment also require a conduit? Yes ___ No


TO ALL CITY DEPARTMENTS: By signing this slip you are only acknowledging that the applicant has made your department aware of its plans. All grants of location will be conditioned upon compliance with all departmental requirements and require a vote of the City Council after a public hearing. Please attach comments on separate sheet.

note this letter
 *3/11/2020*

DATE
Planning Department
City Hall Annex, 98 Washington Street

please see memo
 *3/20/2020*


DATE
Engineering Department
City Hall Annex, 98 Washington Street

please see comment letter
 *3/10/20*

DATE
Salem Historical Commission
City Hall Annex, 98 Washington Street

 *3/27/2020*

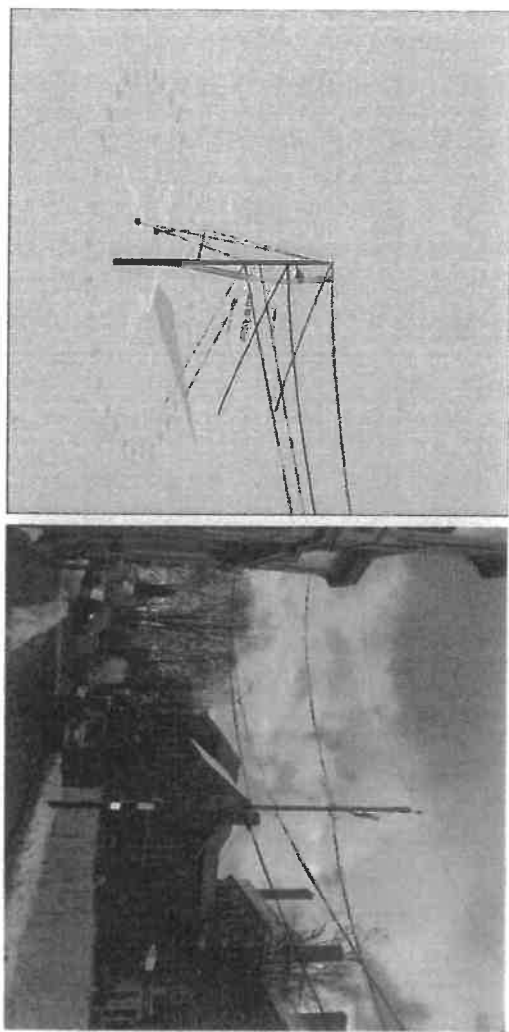
DATE
Office of Information Technology
29 Highland Avenue

 *3/20/2020*

DATE
Legal Department
City Hall, 93 Washington Street

RETURN ROUTING SLIP, ANY COMMENTS, PETITION, PLANS, ABUTTER LABELS, AND PROPOSED ORDER TO CITY CLERK'S OFFICE, CITY HALL, 93 WASHINGTON STREET WHEN COMPLETE SO THAT IT MAY BE PLACED ON THE COUNCIL'S AGENDA.

Pole Num:	4916_BROWN ST	Pole Length / Class:	40 / 3	Code:	40 / 3	Code:	40 / 3	Code:	40 / 3
Aux Data 1	Unset	Species:	SOUTHERN PINE	NESC Rule:	Rule 250B	Status:	C	Pole Strength Factor:	Guy Wires Adequate
Aux Data 2	Unset	Setting Depth (ft):	6.5	Construction Grade:	Heavy	Transverse Wind LF:	0.50	Wire Tension LF:	1.75
Aux Data 3	Unset	G/L Circumference (in):	38.00	Ice Thickness (in):	8,000	Wind Speed (mph):	6,800	Fiber Stress (psi):	39.53
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Wind Pressure (psf):	No	Wind Pressure (psf):	4.00	Elevation:	0M
Aux Data 5	Unset	Allowable Stress (psi):	6,800	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	4.00	Elevation:	0M
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	No	Wind Pressure (psf):	4.00	Elevation:	0M
Latitude:		Longitude:	0	Elevation:	0				



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Maximum	66.8	83.4
Groundline	66.8	84.1
Vertical	8.5	45.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	63,389	82.3
Groundline	63,389	82.3
GL Allowable	98,453	84.1

Guy System Component Summary

Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Load From Worst Wind Angle on Pole		Individual Maximum Load With Overload Applied	
				Nominal Capacity (%)	Wind Angle (deg)	Max* Load Capacity (%)	Wind Angle (deg)
Single Helix Anchor	10.0	180.0					
12.5M (Down)			18.1	27.6	83.4	32.8	10.0
12.5M (Down)			32.3	33.9	83.4	39.6	10.0
Single Helix Anchor	8.0	270.0		15.4	83.4	19.0	10.0
12.5M (Sidewalk)			32.1	29.2	83.4	32.1	84.8
Sidewalk Strut	8.5	270.0		51.9	83.4	57.0	84.8
			9.4	93.2	83.4	93.2	84.8

System Capacity Summary:

Near Capacity

Near Capacity

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 82.3°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	985	16.7	24,527	38.7	24.9	1,924	450	4	1,928	28.4
Comms	4,452	75.7	76,812	121.2	78.0	6,026	672	6	6,031	88.7
Guy/Braces	231	3.9	-41,430	-65.4	-42.1	-4,072	15,801	138	-3,934	-57.9
Pole	190	3.2	2,830	4.5	2.9	222	2,005	17	239	3.5
Streetlights	24	0.4	604	1.0	0.6	47	86	1	48	0.7
Insulators	2	0.0	45	0.1	0.1	4	51	0	4	0.1
Pole Load	5,884	100.0	63,389	100.0	64.4	4,151	19,064	166	4,317	63.5
Pole Reserve Capacity			35,064		35.6	2,649			2,483	36.5

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 82.3°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
NGrid	1,218	20.7	-16,859	-26.6	-17.1	-2,144	16,264	142	-2,003	-29.5
Catv	2,222	37.8	40,619	64.1	41.3	3,186	270	2	3,189	46.9
Telco	2,230	37.9	36,194	57.1	36.8	2,839	439	4	2,843	41.8
Pole	190	3.2	2,830	4.5	2.9	222	2,005	17	239	3.5
Municipal	24	0.4	604	1.0	0.6	47	86	1	48	0.7
Totals:	5,884	100.0	63,389	100.0	64.4	4,151	19,064	166	4,317	63.5

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment** (ft-lb)	Wind Moment** (ft-lb)	Moment at GL* (ft-lb)
Primary	AAAC 123.3 KCM AZUSA	34.16	3.66	0.3980	0.46	0.115	174.0	0.0	174.2	128	763	-5	2,387	3,145
Primary	AAAC 123.3 KCM AZUSA	34.16	3.66	0.3980	0.04	0.115	60.0	115.0	60.0	128	4,789	-2	237	5,025
Secondary	TRIPLEX 1/0 10-5 NGrid	26.19	6.36	1.0300	3.66	0.399	174.0	0.0	174.2	500	2,283	117	2,656	5,056
Secondary	TRIPLEX 1/0 10-5 NGrid	26.19	6.36	1.0300	0.79	0.399	60.0	115.0	60.0	500	14,327	40	264	14,631
Totals:											22,162	151	5,544	27,857

O-Calco® Pro Analysis Report

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Spun Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Overlashed Bundle	6.6M Strand .75 Catv	20.78	6.94	0.2500	1.01	0.121	174.0	0.0	174.0	1,663	6,022	8	1,589	7,620
CATV	CATV .75	20.74	6.94	0.8200		0.038	174.0	0.0	174.0			7	550	557
Overlashed Bundle	6.6M Strand .75 Catv	20.76	6.94	0.2500	0.06	0.121	60.0	115.0	60.0	1,663	37,750	-3	158	37,905
CATV	CATV .75	20.72	6.94	0.8200		0.038	60.0	115.0	60.0			-2	55	52
Overlashed Bundle	6.6M STRAND	18.06	7.10	0.2500	2.31	0.121	174.0	0.0	174.0	1,663	5,234	9	1,453	6,685
Telco	Telco	18.01	7.10	1.0000		0.700	174.0	0.0	174.0			16	549	565
Overlashed Bundle	6.6M STRAND	18.50	7.08	0.2500	0.27	0.121	60.0	115.0	60.0	1,663	33,652	-3	148	33,796
Telco	Telco	18.46	7.08	1.0000		0.700	60.0	115.0	60.0			-6	56	50
Totals:											82,658	26	4,557	87,241

Streetlight	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Flood Light	Flood Light - 3 ft. Arm	27.59	4.02	0.0	0.0	45.00	0.00	20.00	3.00	36.00	25	661	666
Totals:											25	661	666

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Pin	Pin 7.5	33.54	0.00	180.0	0.0	6.00	3.50	7.50	43	0	43	43	
Spool	Spool Insulator	26.19	0.00	90.0	0.0	1.00	2.50	2.12	7	0	7	7	
Bolt	Three Bolt 0.75"	20.78	0.00	0.0	0.0	5.00	0.10	0.10	0	0	0	0	
Bolt	Three Bolt 0.75"	20.76	0.00	180.0	0.0	5.00	3.00	3.00	0	0	0	0	
Bolt	Three Bolt 1.0"	18.06	0.00	0.0	0.0	5.00	3.00	0.10	0	0	0	0	
Bolt	Three Bolt 1.0"	18.50	0.00	180.0	0.0	5.00	3.00	0.10	0	0	0	0	
Totals:											0	51	51

Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead/Spun Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
12.5M	NGrid	18.07	0.00	10.00	0.343	100.00	180.0	60.8	0.208	24.85	0.54
12.5M	NGrid	32.32	0.00	10.00	0.343	100.00	180.0	72.5	0.208	38.48	0.38
12.5M	NGrid	32.07	0.00	8.00	0.343	100.00	270.0	69.1	0.208	38.48	1.27

Guy Wire and Brace (Loads and Reactions)	Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ² (lbs)	Maximum Tension ² (lbs)	Applied Tension ³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ² (ft-lb)		
12.5M	2.30e+7	12,500	0.90	11,250	700	4,458	4,053	3,811	3,327	1,860	-249	-4,153		
12.5M	2.30e+7	12,500	0.90	11,250	700	2,140	1,945	1,731	1,651	521	-70	-1,660		
12.5M	2.30e+7	12,500	0.90	11,250	700	6,417	5,834	5,833	5,448	2,085	-2,067	-41,241		
Totals:											10,425	4,466	-2,386	-47,055

O-Calcul® Pro Analysis Report

Anchor/Rod Load Summary		Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ² (lbs)	Max Required Capacity ² (%)
Single Helix Anchor		NGhd	18.00	10.00	180.0	20,000	1.00	20,000	6,563	5,513	32.8
Single Helix Anchor		NGhd	18.00	8.00	270.0	20,000	1.00	20,000	6,417	5,833	32.1

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	26.94	34.76	10.76	6.52	7.32	12.10	2.13e+6	60.00	57.00	33.54	225,149	2242.85	11.76



2/7/2020

To: City of Salem

Transmitted via email

RE: Verizon Wireless Small Cell Sites

Dear City of Salem,

Verizon is installing additional wireless telecommunications facilities in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas of potential concern as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antennas and proximity of the work location.

Thank you for your inquiry. Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

You also expressed concerns about the health effects of RF emissions from Verizon's network equipment. The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell towers on the FCC's website, which you can access via this link: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>.

Thank you for reaching out to us regarding your concerns. We appreciate the chance to explain our activities regarding the wireless facility at issue. Questions related to compliance with federal regulations should be directed to VZWRFCOMPLIANCE@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

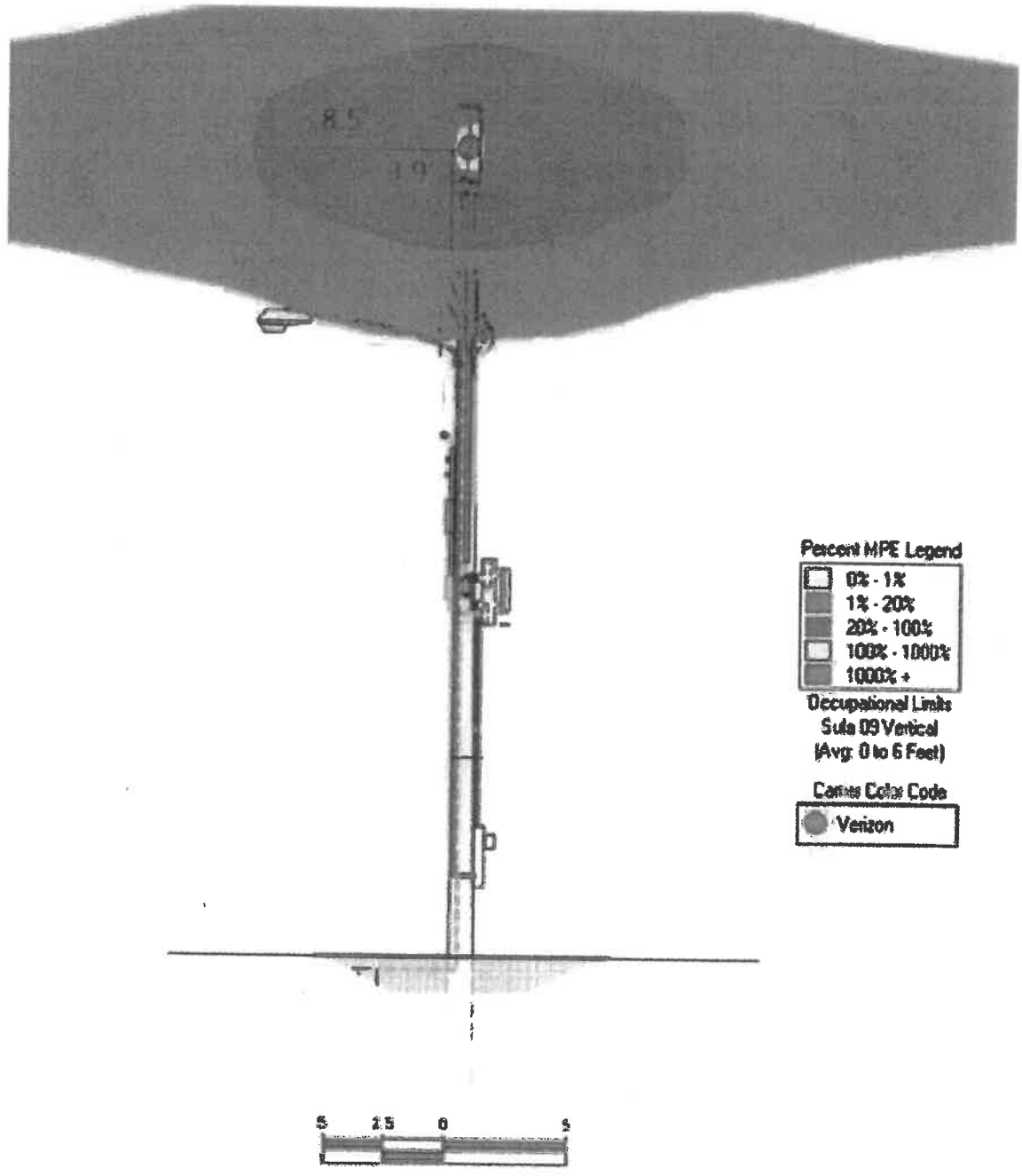
Contact Name	Contact Email	Contact Phone
Luis Teves	Luis.Teves@VerizonWireles.com	508-479-3197

Sincerely,

Michael Creamer
Sr Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from transmitting antennas on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-green areas.



Color	% Occupational MPE	Instructions
	0 to 20	Safe In Relation to VZW. Contact Other Carriers Before Entering This Area Contact VZW Before Accessing This Area
	20 to 100	
	Greater Than 100	
	Greater Than 1000	

Property Owner Responsibilities (M.E.N.U)

RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- ⇒ **M**aintaining all necessary wireless licensee contact information.
- ⇒ **E**nforcing restricted access (help maintain a Controlled Environment). Ensuring all building/maintenance personnel are aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- ⇒ **N**otifying all licensees when any non-carrier requests access to any area with antennas at least 24 hours in advance.
- ⇒ **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.



For General RF Safety & Awareness Questions

Verizon Wireless

E-mail: VZWRFCompliance@vzw.com

E-mail Subject: "ATTN: RF Compliance"

In The Event That Emergency Maintenance Is Required

24-Hour Network Operations Center:

1-800-264-6620

Radio Frequency (RF) Emissions



RF Safety & Awareness Training Contracts

Dorch Communications

(michelle@drch.com.)

EBI Consulting

spenta@ebiconsulting.com

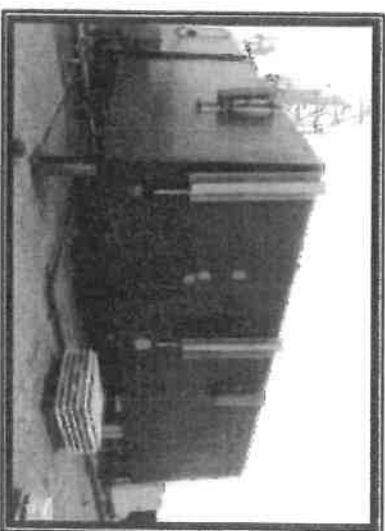
Sitesafe

(chailey@sitesafe.com)

Waterford Consultants

Spaler.

anderson@waterfordconsultants.com



Federal Compliance Requirements

Compliance Materials

Antenna Safety

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 an overview of the most applicable information:

Classifications for Exposure Limits

Occupational
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
Any persons that "may not be made fully aware of the potential for exposure or cannot exercise control over their exposure".

Those in this category do not have RF Safety & Awareness Training.

Ensuring Compliance With FCC Guidelines

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.

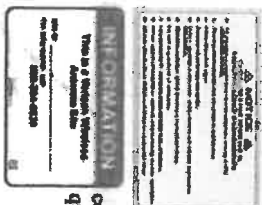
Wireless Licensees are required by law to implement the following:

- Restrict access (lock door/shutters)
- Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
- Place additional notification signage and visual indicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.

Notification Signage

(Notice) RF Guidelines - Informs viewer of the basic safety guidelines for working in an RF Environment.

Information - Provides relevant contact information for any questions or requests.



(Blue) Notice - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population MPE limit but will remain below the Occupational MPE limit.

(Yellow) Caution - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population and Occupational MPE limit.



(Red) Warning - Informs viewer that beyond the sign, RF exposure levels may substantially exceed the General Population and Occupational MPE limit.

Indicative Barriers

In addition to physical barriers, such as locked doors or ladders, wireless licensees may also be required to place indicative barriers as a means of visually demarcating an area where RF levels are expected to exceed the FCC's limits. Examples of Indicative Barrier Materials: plastic chains, buckets, reflective paint or plastic cones, fiberglass fences, and poles mounted in cinderblocks.

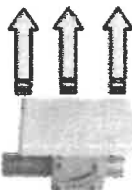


Antenna Types

Yagi - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk behind or under this antenna.



Panel - Antenna that radiates energy in one direction. RF energy beam can range from narrow to very wide. Walk behind this antenna. Stay out of the general direction that the antenna is pointing.



Whip - Antenna that radiates energy equally in all directions. Maintain as much distance as possible from this antenna.



Microwave - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk under or behind this antenna.



When In An Environment With Antennas:

- ⇒ Maintain at least a 3-foot clearance from all antennas. A 10-foot separation distance is preferred.
- ⇒ Never touch an antenna. Assume all are active.
- ⇒ Read and obey ALL signs on an access point.
- ⇒ Read and obey ALL signs in the environment with antennas.
- ⇒ Never walk past an indicative barrier without first confirming transmitter inactivity.
- ⇒ Never walk in front of or stand in front of an antenna whenever possible. Keep walking.
- ⇒ Contact all wireless licensees at least 24 hours in advance of scheduled maintenance.



SALEM_SC26_MA CLUSTER: SALEM MA

UTILITY POLE #4816
13 WASHINGTON SQUARE (MA ROUTE 1A), POLE ON BROWN STREET
SALEM, MA 01970

PRESDING POWER COMPANY
nationalgrid



* Because Better Matters *

**CHAPPELL
ENGINEERING
ASSOCIATES, LLC**
Civl-Structural - Land Surveying
P.O. BOX 100
201 BOSTON POST ROAD WEST, SUITE 101
BOSTON, MA 02129
TEL: 617.552.1100
WWW.CHAPPELLENGINEERING.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON, ORGANIZATION OR BUSINESS TO REPRODUCE OR TRANSMIT THIS INFORMATION OR ANY INFORMATION CONTAINED HEREIN TO ANY OTHER PERSON OR ENTITY WITHOUT THE WRITTEN PERMISSION OF CHAPPELL ENGINEERING ASSOCIATES, LLC.

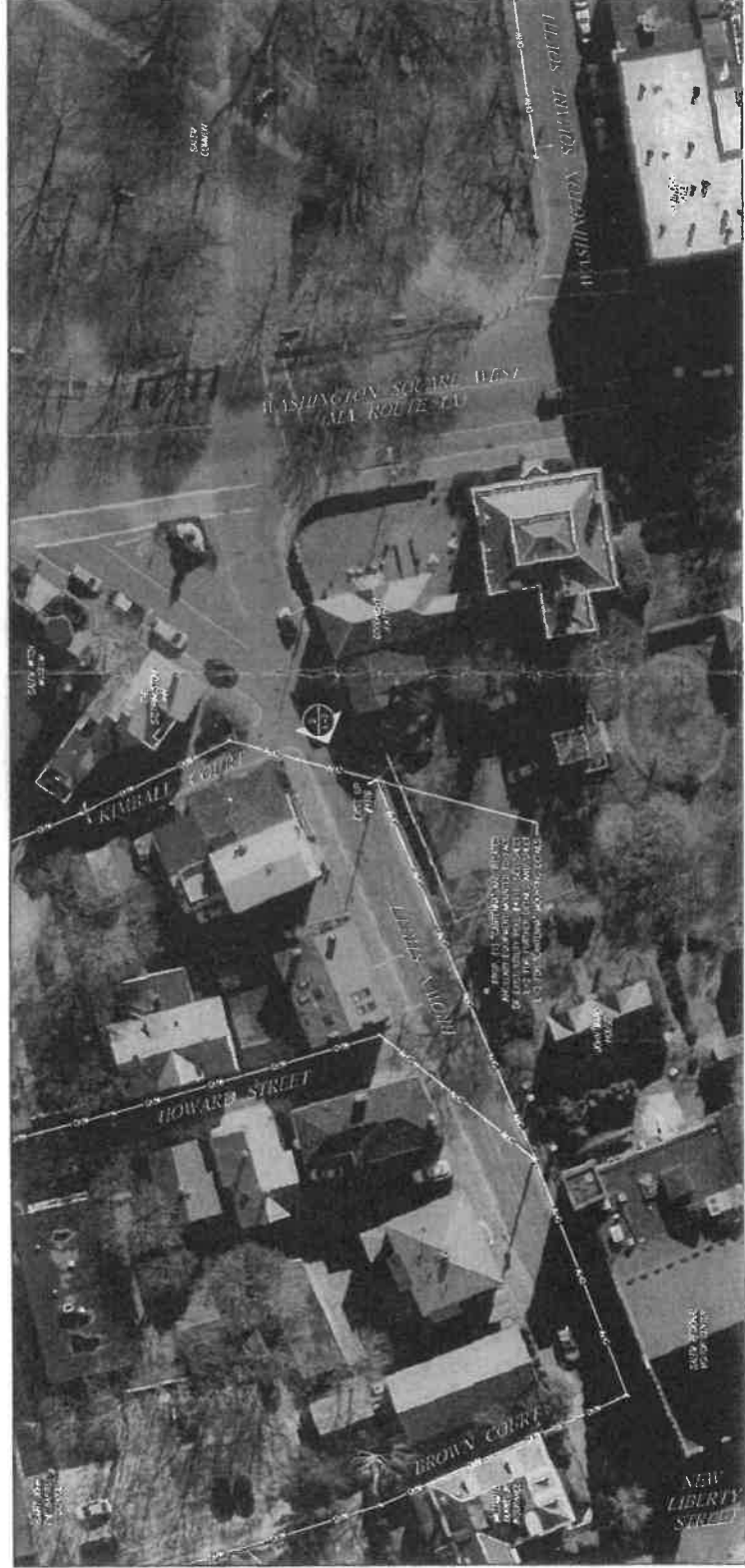
REVISIONS	
NO.	DATE
0	ISSUED FOR REVIEW 11/29/18

SITE NAME:
SALEM_SC26_MA
UTILITY POLE #4816
13 WASHINGTON SQUARE
(MA ROUTE 1A),
POLE ON BROWN STREET
SALEM, MA 01970

DRAWING TITLE:
LOCATION PLAN/
AERIAL IMAGE

DRAWING LOG:
L-1

NOT FOR CONSTRUCTION	
DATE	BY
11/29/18	11/29/18



SHEET INDEX		
DWG.	DESCRIPTION	REV.
L-1	LOCATION PLAN/AERIAL IMAGE	0
L-2	UTILITY POLE PHOTOGRAPHY AND ELEVATION	0
L-3	ANTENNA & HOLLARY EQUIPMENT DETAILS AND ONE-LINE DIAGRAM	0

LOCATION PLAN/AERIAL IMAGE
SCALE: 1" = 50'
0 50' 100' 150'

SEE CONTROL POINT:
CENTER OF EXISTING UTILITY POLE #4816
N 42.92223° (42°-31'-23.67")
W 70.89123° (70°-53'-28.95")
APPROXIMATE GROUND ELEVATION - 20'S ASEL



* Because Better Matters *



CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil-Structural-Land Surveying
BLK. EXODUS CENTRE
100 WASHINGTON SQUARE
PO BOX 101
SALEM, MA 01970
(508) 481-7400
www.chappellengineering.com

IT IS THE POLICY OF OUR FIRM AND THE POLICY OF OUR CLIENTS TO MAINTAIN THE INTEGRITY OF A LICENSED PROFESSIONAL ENGINEER TO ACHIEVE THE HIGHEST QUALITY OF WORK.

REVISIONS	
NO.	DESCRIPTION
0	ISSUED FOR REVIEW
1	DATE: 11/22/19

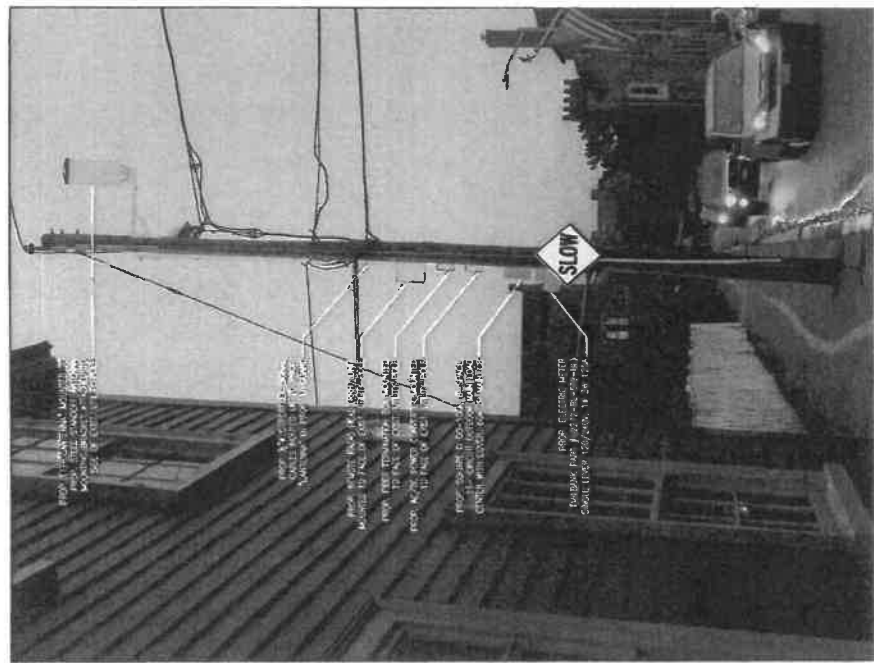
SITE NAME:
SALEM SC26 MA
UTILITY POLE #4916
13 WASHINGTON SQUARE
PO BOX 101
SALEM, MA 01970

DRAWING TITLE:
UTILITY POLE PHOTOGRAPH AND ELEVATION

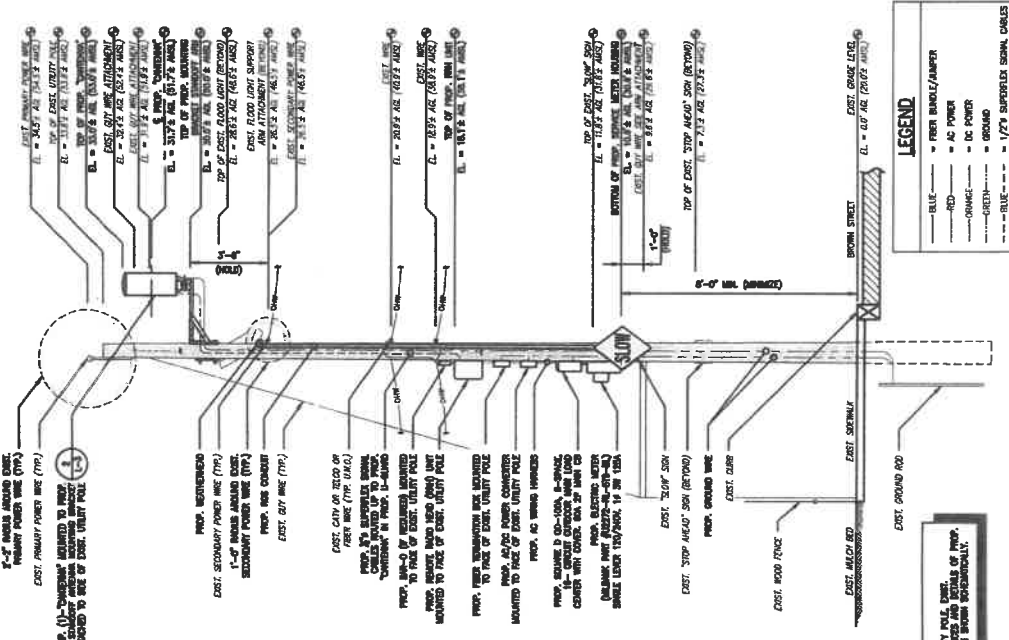
DRAWING NO.:
L-2

LEASE EXHIBIT NOT FOR CONSTRUCTION	
DATE: 11/22/19	BY: [Signature]
DATE: 11/22/19	BY: [Signature]

GENERAL NOTES:
1. THESE DRAWINGS ARE ORIGINATED IN PART AND ARE INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION, SIZE AND ORIENTATION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSTALLATION ON THE UTILITY POLE AND ARE NOT SPECIFICALLY INTENDED FOR CONSTRUCTION.
2. WIRELESS INSTALLATION SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCATION, SIZE AND ORIENTATION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSTALLATION ON THE UTILITY POLE AND ARE NOT SPECIFICALLY INTENDED FOR CONSTRUCTION.
3. ALL WIRELESS INSTALLATIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCATION, SIZE AND ORIENTATION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSTALLATION ON THE UTILITY POLE AND ARE NOT SPECIFICALLY INTENDED FOR CONSTRUCTION.
4. WIRELESS INSTALLATION SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCATION, SIZE AND ORIENTATION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSTALLATION ON THE UTILITY POLE AND ARE NOT SPECIFICALLY INTENDED FOR CONSTRUCTION.

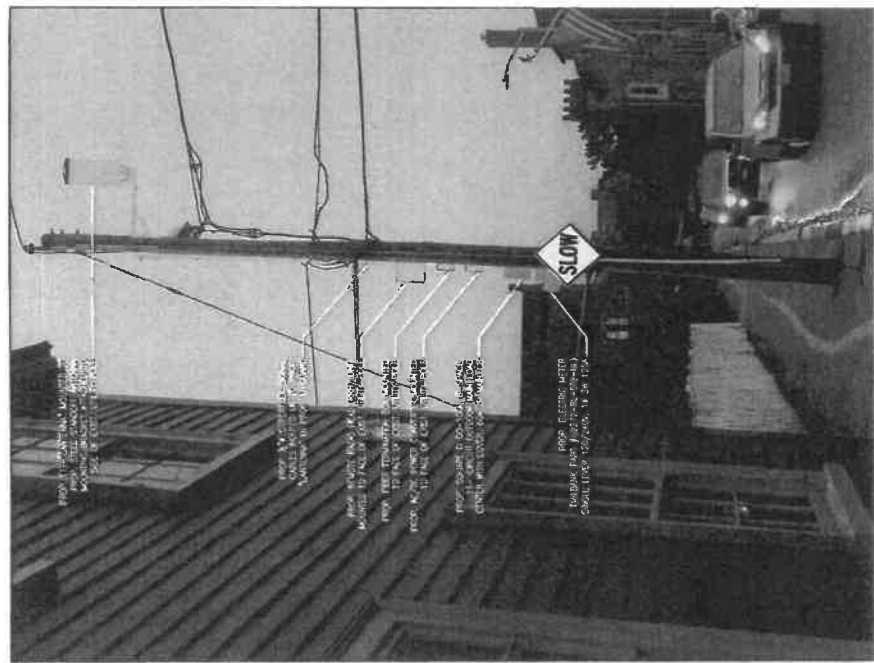


UTILITY POLE #4916 PHOTOGRAPH (EXISTING CONDITIONS / SCHEMATIC RENDERING)
SCALE: NO SCALE



UTILITY POLE #4916 ELEVATION (PROPOSED CONDITIONS)
SCALE: 3/8\"/>

GENERAL NOTES:
1. THESE DRAWINGS ARE ORIGINATED IN PART AND ARE INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION, SIZE AND ORIENTATION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSTALLATION ON THE UTILITY POLE AND ARE NOT SPECIFICALLY INTENDED FOR CONSTRUCTION.
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UTILITY POLE #4916 PHOTOGRAPH (EXISTING CONDITIONS / SCHEMATIC RENDERING)
SCALE: NO SCALE

verizon

Brounce Balfour Architects



CHAPPELL ENGINEERING ASSOCIATES, LLC
 Civil-Structural-Land Surveying
 201 BOSTON POST ROAD WEST, SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
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IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE LICENSED UNDER THE PROVISIONS OF A STATE, FEDERAL, OR LOCAL STATUTE, TO ALTER THIS DOCUMENT.

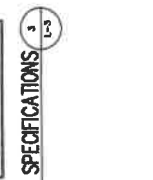
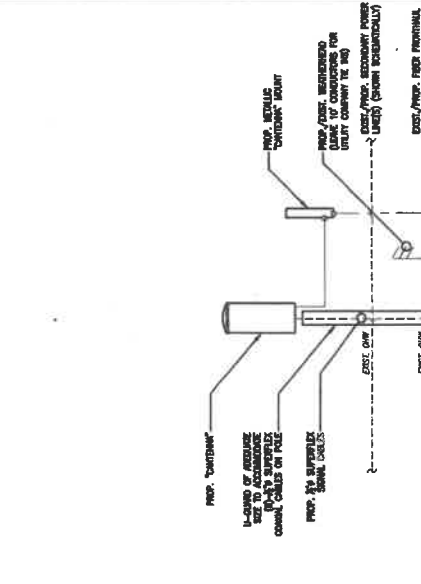
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	11/22/19

SITE NAME:
 SALEM SC26 MA
 UTILITY POLE #4918
 13 WASHINGTON SQUARE
 (ON ROUTE 1A),
 POLE ON BROWN STREET
 SALEM, MA 01870

DRAWING TITLE:
 ANTENNA & ANCILLARY EQUIPMENT DETAILS AND ONE-LINE DIAGRAM

DRAWING NOS:
 L-3

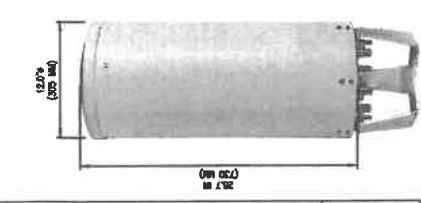
DATE	SCALE	BY	CHECKED
11/22/19	AS SHOWN	11/22/19	11/22/19
1/16/20	AS SHOWN	11/22/19	11/22/19



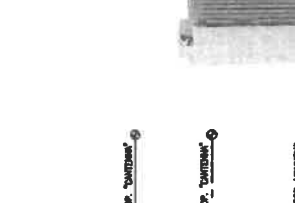
TYPICAL "CANTENNA" SPECIFICATIONS
 SCALE: N.T.S.



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



"CANTENNA" MOUNT DETAIL
 SCALE: 1/2" = 1'-0"



FIBER/ELECTRICAL ONE-LINE DIAGRAM
 SCALE: N.T.S.

LEGEND
 BLUE --- FIBER BUNDLE/JUMPER
 RED --- AC POWER
 ORANGE --- DC POWER
 GREEN --- GROUND
 BLUE - - - 1/2" SUPERSTRET SIGNAL CABLES

NOTES:
 1) PROVIDE WEATHER TIGHT SEAL CONNECTIONS ON ALL CONNECTIONS EXCEPT SIZE OF EXCLUSIVE WIRELESS CONNECTIONS.
 2) DOCUMENT ANY FURTHER UNUSUAL WIRELESS WIRELESS CONNECTIONS WITH WIRELESS WIRELESS CONNECTIONS.
 3) PROVIDE WEATHER TIGHT SEAL CONNECTIONS ON ALL CONNECTIONS EXCEPT SIZE OF EXCLUSIVE WIRELESS CONNECTIONS.

REVISIONS

SCALE: 1/2" = 1'-0"

SCALE: 1/2" = 1'-0"

SCALE: 1/2" = 1'-0"

**Salem
Abutters List**

Subject Parcel ID: b

Subject Property Location:

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
35-0214-0	132 134 ESSEX STREET	ESSEX INSTITUTE		120 ESSEX ST	SALEM	MA	01970
35-0215-0	1 BROWN STREET	ESSEX INSTITUTE		132 ESSEX STREET	SALEM	MA	01970

Parcel Count: 2

End of Report

PETITION FOR SMALL CELL POLE ATTACHMENT

Under MGL Chapter 166, Section 22.

To the Honorable City Council of Salem, Massachusetts

Cellco Partnership d/b/a Verizon Wireless hereby respectfully requests permission to locate a small cell wireless antenna and necessary sustaining and protecting fixtures, on an existing utility pole #3412, located in the right of way adjacent to 28 Raymond Road in the City of Salem, as more particularly shown on the plans attached hereto.

Wherefore it prays that after due notice and hearing as provided by law, it be granted permission to install and maintain a small cell wireless antenna including the necessary sustaining and protecting fixtures in accordance with the plan filed herewith marked SALEM_SC13_MA.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #3412, located in the right of way near the property line of 28 Raymond Road with location as shown on the plan attached.

PETITIONER:

Cellco Partnership d/b/a
Verizon Wireless

By

Bryan Sarchi
Airosmith Development
318 West Avenue
Saratoga Springs, NY. 12866
480-734-4970

28 Raymond

ORDER FOR POLE ATTACHMENT

In the City of Salem, Massachusetts

Notice having been given and public hearing held, as provided by law, IT IS HEREBY ORDERED:

That Cellco Partnership d/b/a Verizon Wireless is granted a location for and permission to attach equipment to an existing utility pole, including the necessary sustaining and protecting fixtures as said company may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Company dated the ____ day of _____, 2020.

All construction under this order shall be in accordance with the following conditions:

Equipment shall be installed as indicated upon the plan marked - Site ID: SALEM_SC13_MA, 28 Raymond Road, Salem, MA 01970, dated October 30, 2019 and filed with this order.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon under this order:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #3412, in the right of way near the property line of 28 Raymond Road with location as shown on the plan attached.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Salem, Massachusetts held on the ____ day of _____, 2020., with the following conditions set below. *

Received and entered in the records of location orders of the City of Salem Book _____, Page _____.

Attest: _____
City Clerk

*

ROUTING SLIP

Telecommunications Attachments in the Public Right of Way

Pursuant to the Code of Ordinances, Sections 12-86 through 12-200, each applicant who seeks access to the public right of way for telecommunications purposes must submit a petition and plans along with a \$500 application fee to the Electrical Department. Once the City Electrician has signed off, please circulate to the Departments listed on the reverse side of this Routing Slip for signature and return it to the City Clerk's Office prior to the petition being placed on the City Council Agenda for a grant of location pursuant to MGL Chapter 166, Section 22.

Right of Way Location Requested: 28 Raymond Rd. / 42.499903, 70.892019

Application Fee Received: Yes Check No. 6477 Date: 2/27/20

City Electrician Approval: John J. Gaidi

BUSINESS NAME

Corporate name: VERIZON WIRELESS

d/b/a: _____

Address: 118 FLANDERS RD 3RD FLOOR WESTBOROUGH, MA, 01581 Tele. # _____

CONTACT: BRYAN SARCHI / AGENT W/ AIROSMITH DEVELOPMENT

Street: 318 WEST AVE Tele. # 480-734-4970

City: SARATOGA SPRINGS State: NY Zip: 12866

Email Address: BSARCHI@AIROSMITHDEVELOPMENT.COM

Pole Ownership

To be attached to utility-owned pole

___ To be attached to City-owned pole

Pole Attachment Agreement attached*

___ Pole Attachment Agreement to follow*

*All grants of location for telecommunications attachments to poles are conditioned upon evidence of a valid pole attachment agreement.

Conduits

Will the attachment also require a conduit?

Yes

___ No

TO ALL CITY DEPARTMENTS: By signing this slip you are only acknowledging that the applicant has made your department aware of its plans. All grants of location will be conditioned upon compliance with all departmental requirements and require a vote of the City Council after a public hearing. Please attach comments on separate sheet.

Daniel note Hiker letter
3/11/2020
DATE
Planning Department
City Hall Annex, 98 Washington Street

Deb Dub. Vore please see memo
3/30/2020
DATE
Engineering Department
City Hall Annex, 98 Washington Street

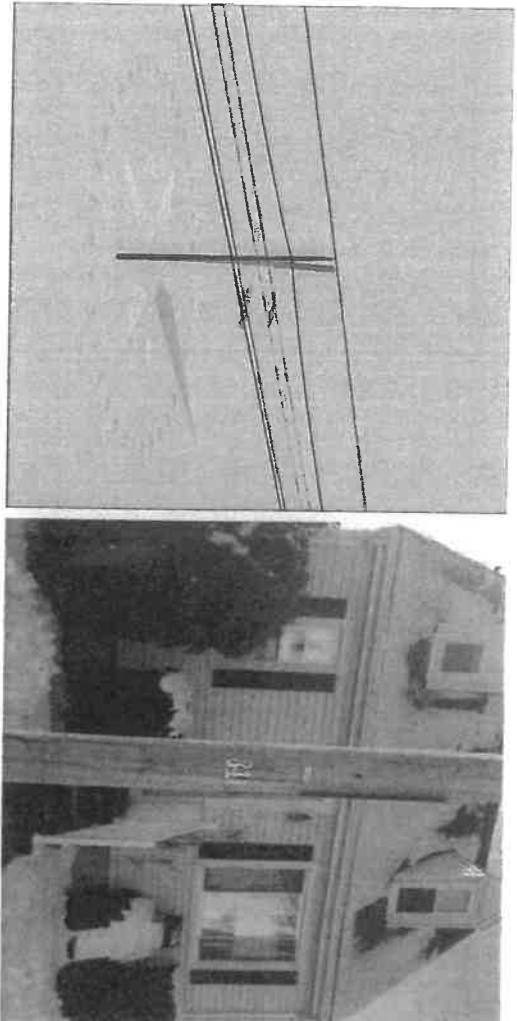
[Signature] please see comment letter
3/10/20
DATE
Salem Historical Commission
City Hall Annex, 98 Washington Street

Matt K. W.
3/27/2020
DATE
Office of Information Technology
29 Highland Avenue

Nick Beaman
3/30/2020
DATE
Legal Department
City Hall, 93 Washington Street

RETURN ROUTING SLIP, ANY COMMENTS, PETITION, PLANS, ABUTTER LABELS, AND PROPOSED ORDER TO CITY CLERK'S OFFICE, CITY HALL, 93 WASHINGTON STREET WHEN COMPLETE SO THAT IT MAY BE PLACED ON THE COUNCIL'S AGENDA.

Pole Num:	3412	Pole Length / Class:	40 / 3	Code:	40 / 3	Code:	40 / 3
Aux Data 1	Unset Species:	SOUTHERN PINE	NESC Rule:	NESC Structure Type:	Unguyed Tangent	Unguyed	
Aux Data 2	Unset Setting Depth (ft):	6.11	Construction Grade:	Rule 250B	Status	Unguyed	
Aux Data 3	Unset G/L Circumference (in.):	38.00	Loading District:	C	Pole Strength Factor:	0.85	
Aux Data 4	Unset G/L Fiber Stress (psi):	8,000	Ice Thickness (in.):	Heavy	Transverse Wind LF:	1.75	
Aux Data 5	Unset Allowable Stress (psi):	6,800	Wind Speed (mph):	0.50	Wire Tension LF:	1.00	
Aux Data 6	Unset Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	No	Vertical LF:	1.90	
Latitude:		0.000000 Deg	Longitude:		Elevation:	0 Feet	



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Maximum	23.8	0.0
Groundline	23.8	0.0
Vertical	5.5	18.6

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	22,973	90.1
Groundline	22,973	90.1
GL Allowable	98,453	90.0

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 90.1°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	318	31.3	9,454	41.2	9.6	651	641	6	657	9.7
Comms	507	49.8	10,152	44.2	10.3	699	1,142	10	709	10.4
Pole	192	18.8	3,292	14.3	3.3	227	2,026	18	244	3.6
Insulators	2	0.2	75	0.3	0.1	5	51	0	6	0.1
Pole Load	1,019	100.0	22,973	100.0	23.3	1,583	3,860	34	1,616	23.8
Pole Reserve Capacity			75,480		76.7	5,217			5,184	76.2

O-Calcul® Pro Analysis Report

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 90.1°												
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)		
NGrid	320	31.4	9,506	41.4	9.7	655	654	6	661	9.7		
Fiber	218	21.4	4,931	21.5	5.0	340	380	3	343	5.0		
Catv	120	11.8	2,174	9.5	2.2	150	215	2	152	2.2		
Telco	169	16.6	3,048	13.3	3.1	210	547	5	215	3.2		
Pole	192	18.8	3,292	14.3	3.3	227	2,026	18	244	3.6		
Communication	0	0.0	23	0.1	0.0	2	38	0	2	0.0		
Totals:	1,019	100.0	22,973	100.0	23.3	1,583	3,860	34	1,616	23.8		

Detailed Load Components:

Power	Owner	Height (ft)	Hortz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Primary	AAAC 123.3 KCM AZUSA	34.52	3.66	0.3980	0.20	0.115	100.0	0.0	100.0	1,281	-82	0	1,408	1,326
Primary	AAAC 123.3 KCM AZUSA	34.52	3.66	0.3980	0.20	0.115	100.0	180.0	100.0	1,281	82	0	1,408	1,490
Secondary	NGrid TRIPLEX 1/0 10-5	26.77	6.41	1.0300	2.98	0.399	200.0	0.0	200.1	1,065	-53	137	3,170	3,254
Secondary	NGrid TRIPLEX 1/0 10-5	26.77	6.41	1.0300	2.98	0.399	200.0	180.0	200.1	1,065	53	137	3,170	3,359
Totals:											0	274	9,155	9,430

Comm	Owner	Height (ft)	Hortz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Overlashed Bundle	Fiber	22.42	6.97	0.2500	0.14	0.121	100.0	180.0	100.0	1,663	69	32	975	1,076
Fiber	Fiber	22.38	6.97	0.7500		0.035	100.0	180.0	100.0			27	321	348
Overlashed Bundle	Fiber	22.42	6.97	0.2500	0.14	0.121	100.0	0.0	100.0	1,663	-69	32	975	939
Fiber	Fiber	22.38	6.97	0.7500		0.035	100.0	0.0	100.0			27	321	348
Overlashed Bundle	Fiber	20.60	7.10	0.2500	0.13	0.121	100.0	180.0	100.0	1,663	63	29	826	918
Fiber	Fiber	20.57	7.10	0.5000		0.023	100.0	180.0	100.0			23	225	248
Overlashed Bundle	Fiber	20.60	7.10	0.2500	0.13	0.121	100.0	0.0	100.0	1,663	-63	29	826	791
Fiber	Fiber	20.57	7.10	0.5000		0.023	100.0	0.0	100.0			23	225	248
Overlashed Bundle	CATV	16.94	7.35	0.2500	0.15	0.121	100.0	0.0	100.0	1,663	-52	35	756	740
CATV	CATV	16.90	7.35	0.8200		0.038	100.0	0.0	100.0			30	262	292
Overlashed Bundle	CATV	16.94	7.35	0.2500	0.15	0.121	100.0	180.0	100.0	1,663	52	35	756	844
CATV	CATV	16.90	7.35	0.8200		0.038	100.0	180.0	100.0			30	262	292
Overlashed Bundle	Telco	16.03	7.42	0.3060	0.81	0.165	100.0	0.0	100.0	2,500	-74	53	910	889

O-Calco® Pro Analysis Report

Item	Quantity	Unit	Weight (lbs)	Diameter (in)	Length (ft)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Telco	1.25	Telco	15.96	7.42	1.7500		116	441
Overlashed Bundle	10M STRAND	Telco	16.03	7.42	0.3060	0.81	53	910
Telco	1.25	Telco	15.96	7.42	1.7500		116	441
Totals:						0	692	9,434
								10,126

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Pin	Pin 7.5	33.89	0.00	180.0	0.0	6.00	3.50	7.50	0	44	44
Spool	Spool Insulator	26.77	0.00	90.0	0.0	1.00	2.50	2.12	1	7	8
Bolt	Three Bolt	22.42	0.00	90.0	0.0	5.00	3.00	0.00	6	0	6
Bolt	Three Bolt	20.60	0.00	90.0	0.0	5.00	3.00	0.00	6	0	6
Bolt	Three Bolt	16.94	0.00	90.0	0.0	5.00	3.00	0.00	6	0	6
Bolt	Three Bolt	16.03	0.00	90.0	0.0	5.00	3.00	0.00	6	0	6
Totals:									24	51	74

Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
2.00	18.61	33.25	11.22	5.87	7.32	12.10	2.13e+6	60.00	57.00	33.89	69,784	701.84	18.18



2/7/2020

To: City of Salem

Transmitted via email

RE: Verizon Wireless Small Cell Sites

Dear City of Salem,

Verizon is installing additional wireless telecommunications facilities in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas of potential concern as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antennas and proximity of the work location.

Thank you for your inquiry. Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

You also expressed concerns about the health effects of RF emissions from Verizon's network equipment. The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell towers on the FCC's website, which you can access via this link: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>.

Thank you for reaching out to us regarding your concerns. We appreciate the chance to explain our activities regarding the wireless facility at issue. Questions related to compliance with federal regulations should be directed to VZWRFCOMPLIANCE@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

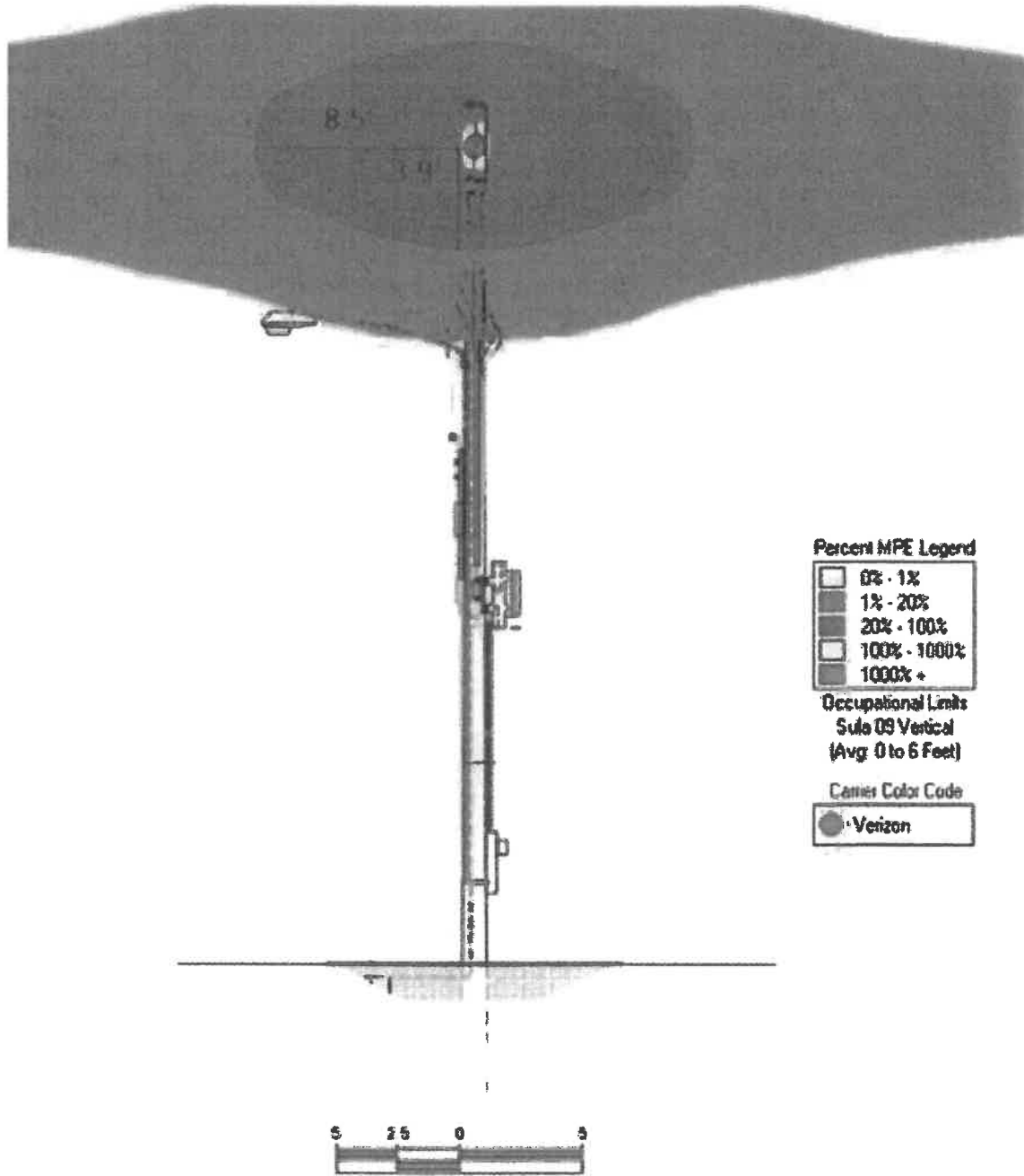
Contact Name	Contact Email	Contact Phone
Luis Teves	Luis.Teves@VerizonWireless.com	508-479-3197

Sincerely,

Michael Creamer
Sr Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from transmitting antennas on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-green areas.



Color	% Occupational MPE	Instructions
[Lightest Color]	0 to 20	Safe In Relation to VZW. Contact Other Carriers Before Entering This Area
[Light Color]	20 to 100	
[Medium Color]	Greater Than 100	
[Dark Color]	Greater Than 1000	

Property Owner Responsibilities (M.E.N.U)

RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- ⇒ **M**aintaining all necessary wireless licensee contact information.
- ⇒ **E**nforcing restricted access (help maintain a Controlled Environment). **E**nsuring all building/maintenance personnel are aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- ⇒ **N**otifying all licensees when any non-carrier requests access to any area with antennas at least 24 hours in advance.
- ⇒ **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.



For General RF Safety & Awareness Questions

Verizon Wireless

E-mail: VZWRFCompliance@vzw.com

E-mail Subject: "ATTN: RF Compliance"

In The Event That Emergency Maintenance Is Required

24-Hour Network Operations Center:

1-800-264-6620

Radio Frequency (RF) Emissions



RF Safety & Awareness Training Contacts

Dorch Communications

(michelle@dtorch.com.)

EBI Consulting

spenta@ebiconsulting.com

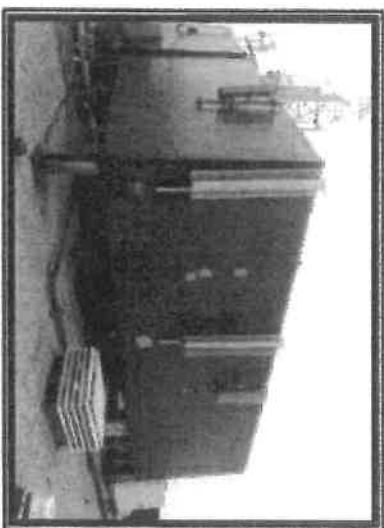
SiteSafe

(charley@sitesafe.com)

Waterford Consultants

Spaler:

anderson@waterfordconsultants.com



Federal Compliance Requirements

Compliance Materials

Antenna Safety

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed these 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 an overview of the most applicable information:

Classifications for Exposure Limits

Occupational 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 Any persons that "may not be made fully aware of the potential for exposure or cannot exercise control over their exposure".

Those in this category do not have RF Safety & Awareness Training.

Ensuring Compliance With FCC Guidelines

- 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.
- Wireless Licensees are required by law to implement the following:
 - Restrict access (lock door/sladders)
 - Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
 - Place additional notification signage and visual indicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.



Notification Signage (Notice) RF Guidelines - Informs viewer of the basic safety guidelines for working in an RF Environment.



Information - Provides relevant contact information for any questions or requests.



(Blue) Notice - Informs viewer that beyond the sign, RF exposure levels may exceed the Occupational MPE limit but will remain below the Occupational MPE limit.



(Yellow) Caution - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population and Occupational MPE limit.



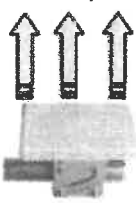
(Red) Warning - Informs viewer that beyond the sign, RF exposure levels may substantially exceed the General Population and Occupational MPE limit.

Indicative Barriers

In addition to physical barriers such as locked doors or ladders, wireless licensees may also be required to place indicative barriers as a means of visually demarcating an area where RF levels are expected to exceed the FCC's limits. Examples of Indicative Barrier Materials: plastic chains, buckets, reflective paint or plastic cones, fiberglass fences, and poles mounted in cinderblocks.



Antenna Types
Yagi - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk behind or under this antenna.



Panel - Antenna that radiates energy in one direction. RF energy beam can range from narrow to very wide. Walk behind the antenna. Stay out of the general direction that the antenna is pointing.



Whip - Antenna that radiates energy equally in all directions. Maintains as much distance as possible from this antenna.



Microwave - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk under or behind this antenna.

When In An Environment With Antennas:

- ⇒ Maintain at least a 3-foot clearance from all antennas. A 10-foot separation distance is preferred.
- ⇒ Never touch an antenna. Assume all are active.
- ⇒ Read and obey ALL signs on an access point.
- ⇒ Read and obey ALL signs in the environment with antennas.
- ⇒ Never walk past an indicative barrier without first confirming transmitter inactivity.
- ⇒ Never walk in front of or stand in front of an antenna whenever possible. Keep walking.
- ⇒ Contact all wireless licensees at least 24 hours in advance of scheduled maintenance.



* Verizon Service Providers *



CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil-Structural - Land Surveying
R.L. EXCURSION CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
WILMINGTON, MA 01975
(603) 653-7373
www.chappellengineering.com

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REVISIONS		DATE
NO.	DESCRIPTION	
0	ISSUED FOR REVIEW	10/26/19

SITE NAME:
SALEM_SC13_MA
UTILITY POLE #3412 (N.G.)/
#132/10 (NET&T C.)
28 RAYMOND ROAD
SALEM, MA 01970

EXHIBIT TITLE:
LOCATION PLAN/
AERIAL IMAGE

DESIGNING NO.:	L-1
LEASE EXEMPT:	NOT FOR CONSTRUCTION
DATE:	10/26/19
SCALE:	AS SHOWN
PROJECT NO.:	1403.310
REVISIONS:	

SALEM_SC13_MA
CLUSTER: SALEM_MA
UTILITY POLE #3412 (N.G.)/ #132/10 (NET&T C.)
28 RAYMOND ROAD
SALEM, MA 01970



SHEET INDEX

DWG.	DESCRIPTION	REV.
L-1	LOCATION PLAN/AERIAL IMAGE	0
L-2	UTILITY POLE PHOTOGRAPHY AND ELEVATION	0
L-3	ANTENNA & AUXILIARY EQUIPMENT DETAILS AND ONE-LINE DIAGRAM	0

LOCATION PLAN/AERIAL IMAGE
SCALE: 1" = 50'
0 50' 100' 150'

SITE EXCURSION CENTER:
CENTER OF EXISTING UTILITY POLE #3412 (N.G.)/
#132/10 (NET&T C.)
N 42.499933 (42°-29'-59.65")
W 70.999933 (70°-59'-59.65")
APPROXIMATE GROUND ELEVATION - 115.2' AGL





* Secure Better. Mature *

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil-Structural-Land Surveying
P.O. EXECUTIVE CENTER
1000 STATE ST. SUITE 101
MARTINBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

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REVISIONS table with columns: NO., DESCRIPTION, DATE

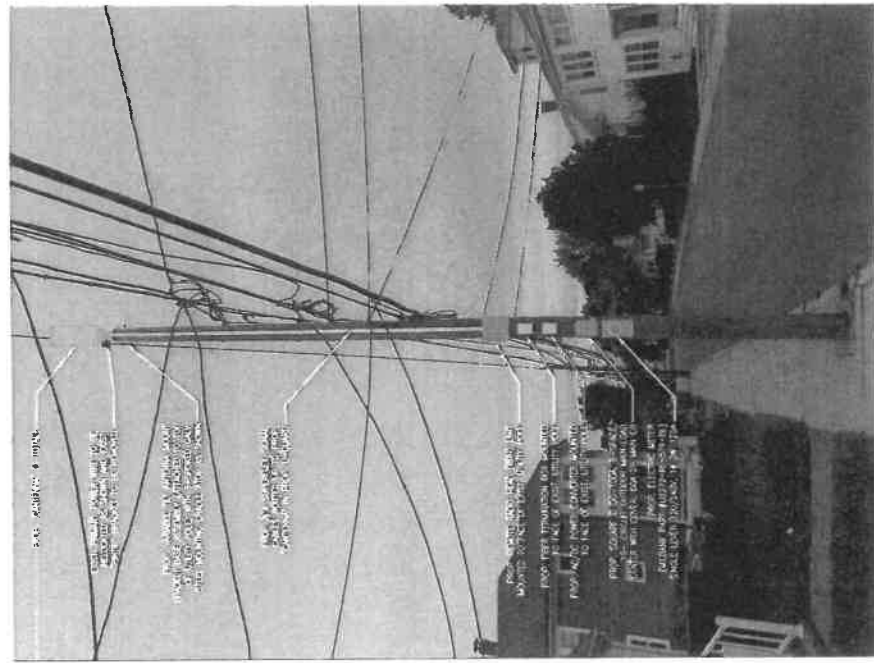
SITE NAME: SALEM, SC19, MA
UTILITY POLE #3412 (NGJ)/ #132/10 (NETEL) (N) 28 BAYVIEW ROAD SALEM, MA 01870

DRAWING TITLE: UTILITY POLE AND PHOTOGRAPH AND ELEVATION

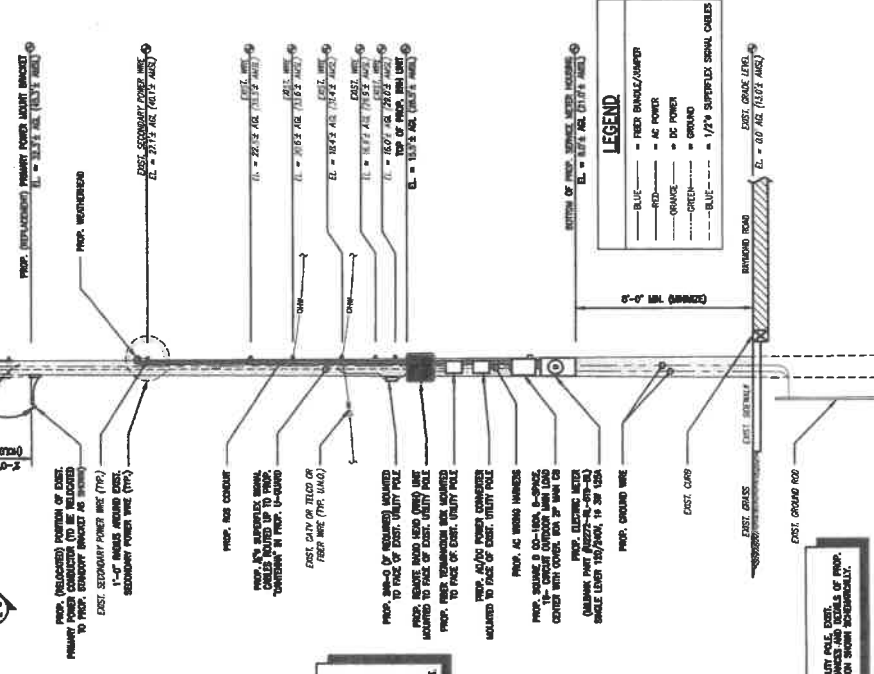
DRAWING NO.: L-2

DATE, AS SHOWN, DATE PREPARED, DATE PLOTTED, SHEET NO. table

CONDUCTOR AND INSULATOR MOUNTING: CONDUCTOR AND INSULATOR MOUNTING SHALL BE AS SHOWN ON THE DRAWING. THE CONDUCTOR SHALL BE MOUNTED ON THE INSULATOR AS SHOWN ON THE DRAWING. THE INSULATOR SHALL BE MOUNTED ON THE POLE AS SHOWN ON THE DRAWING.



- GENERAL NOTES: 1. VERIZON ENGINEERING ASSOCIATES, LLC HAS CONDUCTED VISUAL SURVEYS OF THE EXISTING UTILITY POLE AND THE PROPOSED UTILITY POLE AND THE RESULTS OF THE VISUAL SURVEYS ARE SHOWN ON THIS DRAWING. 2. VERIZON ENGINEERING ASSOCIATES, LLC HAS CONDUCTED VISUAL SURVEYS OF THE EXISTING UTILITY POLE AND THE PROPOSED UTILITY POLE AND THE RESULTS OF THE VISUAL SURVEYS ARE SHOWN ON THIS DRAWING. 3. VERIZON ENGINEERING ASSOCIATES, LLC HAS CONDUCTED VISUAL SURVEYS OF THE EXISTING UTILITY POLE AND THE PROPOSED UTILITY POLE AND THE RESULTS OF THE VISUAL SURVEYS ARE SHOWN ON THIS DRAWING. 4. VERIZON ENGINEERING ASSOCIATES, LLC HAS CONDUCTED VISUAL SURVEYS OF THE EXISTING UTILITY POLE AND THE PROPOSED UTILITY POLE AND THE RESULTS OF THE VISUAL SURVEYS ARE SHOWN ON THIS DRAWING.



UTILITY POLE #3412 & #132/10 ELEVATION (PROPOSED CONDITIONS)
SCALE: 1/8" = 1'-0"
0 5'-0" 10'-0" 15'-0"

1 L-2

2 L-2

UTILITY POLE #3412 & #132/10 PHOTOGRAPH (EXISTING CONDITIONS)/SCHEMATIC RENDERING



Excellence. Better. Always.™

CHAPPELL ENGINEERING ASSOCIATES, LLC
 Civil-Structural-Land Surveying
 24 E. BOSTON COMMON
 201 BOSTON POST ROAD WEST, SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
 www.chappellengineering.com

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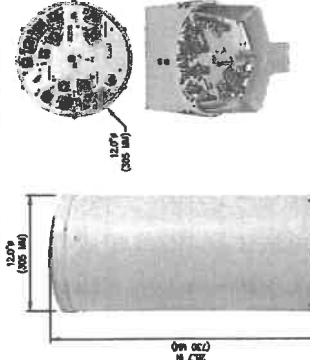
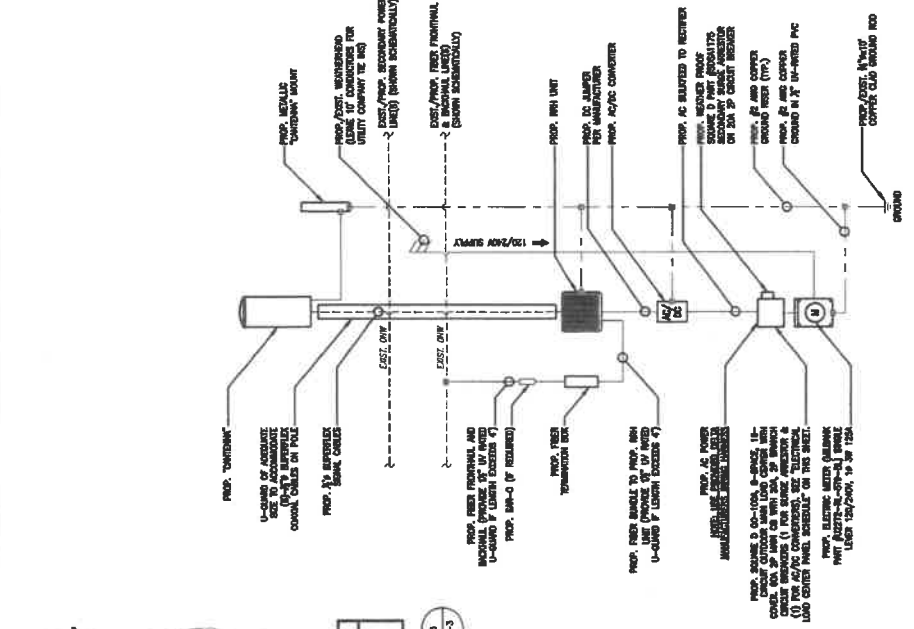
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	11/29/19

SITE NAME:
 SALEM_SC13_MA
 UTILITY POLE #29412 (ING.)
 #152710 (NET 1ST C)
 28 RAYMOND ROAD
 SALEM, MA 01870

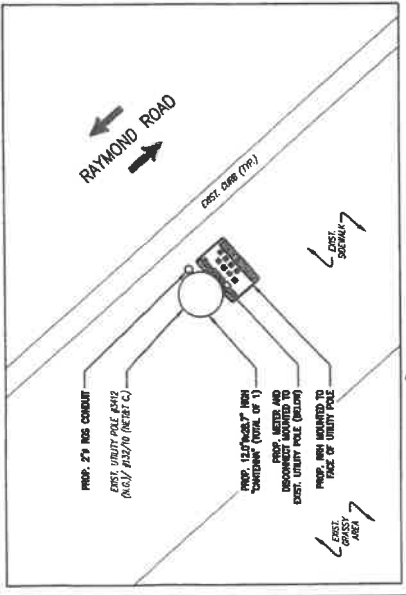
DRAWING TITLE:
 ANTENNA & ANCILLARY EQUIPMENT DETAILS AND ONE-LINE DIAGRAM

DRAWING NO.:
 L-3

DATE FOR CONSTRUCTION	
DATE FOR REVIEW	
DATE FOR ISSUE	
DATE FOR AS-BUILT	
DATE FOR RECORD	
DATE FOR ARCHIVE	
DATE FOR DELETED	
DATE FOR REVISION	
DATE FOR CANCEL	
DATE FOR ARCHIVE	
DATE FOR DELETED	
DATE FOR REVISION	
DATE FOR CANCEL	



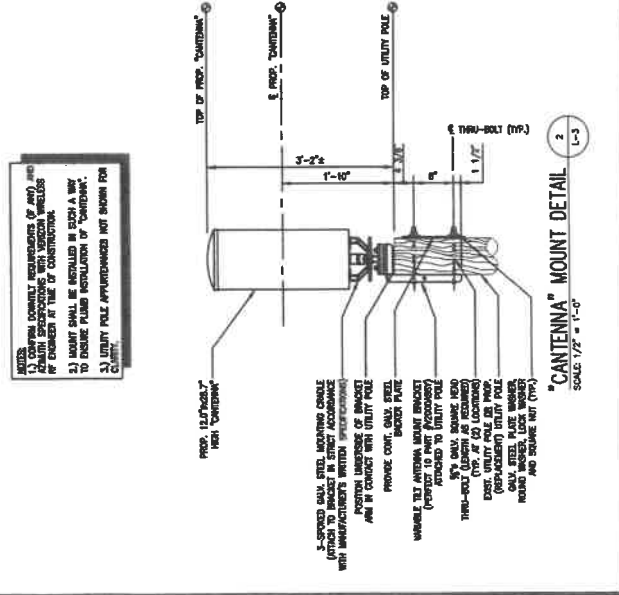
TYPICAL "CANTENNA" SPECIFICATIONS
 SCALE: N.T.S.



"CANTENNA" MOUNT DETAIL
 SCALE: 1/2" = 1'-0"

NOTES:

- ANTENNA SHALL BE MOUNTED TO THE UTILITY POLE IN SUCH A MANNER AS TO ENSURE FULL INSULATION OF "CANTENNA".
- UTILITY POLE APPROPRIATELY NOT SHOWN FOR CLARITY.



**Salem
Abutters List**

Subject Parcel ID: b

Subject Property Location:

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
32-0002-0	30 RAYMOND ROAD	ABRAMO VINCENT J	ABRAMO MARIE L	30 RAYMOND ROAD	SALEM	MA	01970
32-0003-0	28 RAYMOND ROAD	DOWARD DORIS P		28 RAYMOND ROAD	SALEM	MA	01970
32-0004-0	26 RAYMOND ROAD	GAUTHIER MARY LOU	GAUTHIER DONALD J	26 RAYMOND ROAD	SALEM	MA	01970
32-0150-0	27 RAYMOND ROAD	SABELLA STEPHEN		18 MOHAWK STREET	DANVERS	MA	01923
32-0151-0	31 RAYMOND ROAD	DELA CRUZ VICTORIA		31 RAYMOND RD	SALEM	MA	01970

Parcel Count: 5

End of Report

ORDER FOR POLE ATTACHMENT

In the City of Salem, Massachusetts

Notice having been given and public hearing held, as provided by law, IT IS HEREBY ORDERED:

That Celco Partnership d/b/a Verizon Wireless is granted a location for and permission to attach equipment to an existing utility pole, including the necessary sustaining and protecting fixtures as said company may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Company dated the ___ day of _____, 2020.

All construction under this order shall be in accordance with the following conditions:

Equipment shall be installed as indicated upon the plan marked - Site ID: SALEM_SC15_MA, 198 Loring Avenue, Salem, MA 01970, dated October 30, 2019 and filed with this order.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon under this order:

Celco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #4064-84, in the right of way near the property line of 198 Loring Avenue with location as shown on the plan attached.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Salem, Massachusetts held on the ___ day of _____, 2020., with the following conditions set below. *

Received and entered in the records of location orders of the City of Salem Book _____, Page _____.

Attest: _____
City Clerk

*

ROUTING SLIP**Telecommunications Attachments in the Public Right of Way**

Pursuant to the Code of Ordinances, Sections 12-86 through 12-200, each applicant who seeks access to the public right of way for telecommunications purposes must submit a petition and plans along with a \$500 application fee to the Electrical Department. Once the City Electrician has signed off, please circulate to the Departments listed on the reverse side of this Routing Slip for signature and return it to the City Clerk's Office prior to the petition being placed on the City Council Agenda for a grant of location pursuant to MGL Chapter 166, Section 22.

Right of Way Location Requested: 198 LORING AVE / 92.495641, 70.895167

Application Fee Received: Yes Check No. 6477 Date: 2/27/20

City Electrician Approval: Jan J. Scardi

BUSINESS NAME

Corporate name: VERIZON WIRELESS

d/b/a: _____

Address: 118 FLANDERS RD. 3RD FLOOR WESTBOROUGH, MA 01581 Tele. # _____

CONTACT: BRYAN SARCHI / AGENT w/ AIROSMITH DEVELOPMENT

Street: 318 WEST AVE Tele. # 980-734-9970

City: SARATOGA SPRINGS State: NY Zip: 12866

Email Address: BSARCHI@AIROSMITHDEVELOPMENT.COM

Pole Ownership

To be attached to utility-owned pole To be attached to City-owned pole

Pole Attachment Agreement attached* Pole Attachment Agreement to follow*

*All grants of location for telecommunications attachments to poles are conditioned upon evidence of a valid pole attachment agreement.

Conduits

Will the attachment also require a conduit? Yes No

TO ALL CITY DEPARTMENTS: By signing this slip you are only acknowledging that the applicant has made your department aware of its plans. All grants of location will be conditioned upon compliance with all departmental requirements and require a vote of the City Council after a public hearing. Please attach comments on separate sheet.

Daniel *note his letter* 3/11/2020
Planning Department DATE
City Hall Annex, 98 Washington Street

see attached memo
Deb 3/30/2020
Engineering Department DATE
City Hall Annex, 98 Washington Street

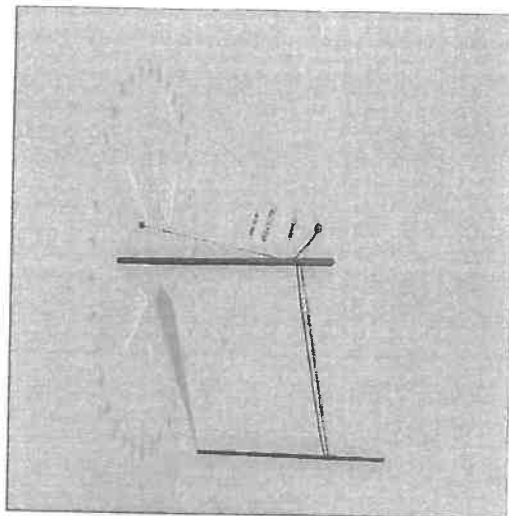
PLEASE SEE comment letter 3/10/20
Salem Historical Commission DATE
City Hall Annex, 98 Washington Street

Matt 3/27/2020
Office of Information Technology DATE
29 Highland Avenue

Nick 3/30/2020
Legal Department DATE
City Hall, 93 Washington Street

RETURN ROUTING SLIP, ANY COMMENTS, PETITION, PLANS, ABUTTER LABELS, AND PROPOSED ORDER TO CITY CLERK'S OFFICE, CITY HALL, 93 WASHINGTON STREET WHEN COMPLETE SO THAT IT MAY BE PLACED ON THE COUNCIL'S AGENDA.

Pole Num: 4064	Pole Length / Class: 40 / 1	Code: 40 / 1	Structure Type: NESCS	Deadend
Aux Data 1	Unset Species: SOUTHERN PINE	NESC Rule: Rule 250B	Status	Guy Wires Adequate
Aux Data 2	Unset Setting Depth (ft): 6.22	Construction Grade: C	Pole Strength Factor: 0.85	
Aux Data 3	Unset G/L Circumference (in): 40.91	Loading District: Heavy	Transverse Wind LF: 1.75	
Aux Data 4	Unset G/L Fiber Stress (psi): 8,000	Ice Thickness (in): 0.50	Wire Tension LF: 1.30	
Aux Data 5	Unset Allowable Stress (psi): 6,800	Wind Speed (mph): 39.53	Vertical LF: 1.90	
Aux Data 6	Unset Fiber Stress Ht. Reduc: No	Wind Pressure (psf): 4.00		
Latitude:	0.000000 Deg	Longitude:	0.000000 Deg	Elevation: 0 Feet



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Maximum	7.1	0.0
Groundline	7.1	0.0
Vertical	0.9	21.7

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	8,019	301.8
Groundline	8,019	301.8
GL Allowable	122,826	278.6

Guy System Component Summary

Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Load From Worst Wind Angle on Pole		Individual Maximum Load With Overload Applied	
				Nominal Capacity (%)	Wind Angle (deg)	Max* Load Capacity (%)	Wind Angle (deg)
Single Helix Anchor	9.0	180.0	26.6	8.6	278.6	10.9	0.0
12.5M (Down)				15.3	278.6	19.4	0.0
Stub Pole	57.0	0.0	28.1	0.0	278.6	0.0	0.0
12.5M (Span/Head)				0.0	278.6	0.0	0.0

System Capacity Summary:

Adequate

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 301.8°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	406	108.7	9,685	120.8	7.9	616	49	0	617	9.1
GuyBraces	-250	-66.9	-5,757	-71.8	-4.7	-366	2,497	19	-348	-5.1
Pole	196	52.3	2,941	36.7	2.4	187	2,487	19	206	3.0
Streetlights	22	5.8	1,145	14.3	0.9	73	142	1	74	1.1
Insulators	0	0.1	5	0.1	0.0	0	2	0	0	0.0
Pole Load	374	100.0	8,019	100.0	6.5	510	5,177	39	549	8.1
Pole Reserve Capacity			114,807		93.5	6,290			6,251	91.9

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 301.8°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
NGrid	156	41.8	3,933	49.1	3.2	250	2,548	19	269	4.0
Pole	196	52.3	2,941	36.7	2.4	187	2,487	19	206	3.0
Municipal	22	5.8	1,145	14.3	0.9	73	142	1	74	1.1
Totals:	374	100.0	8,019	100.0	6.5	510	5,177	39	549	8.1

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Secondary	TRIPLEX 4 AWG	27.47	6.96	0.6800	0.63	0.164	57.0	0.0	57.0	558	10,514	-24	644	11,135	
											Totals:	10,514	-24	644	11,135

Streetlight	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Unit Offset Moment* (ft-lb)	Unit Wind Moment* (ft-lb)	Unit Moment at GL* (ft-lb)	
General	Streetlight - 8 ft. Arm	26.22	4.79	270.0	270.0	75.00	48.00	20.00	3.00	96.00	745	571	1,317	
											Totals:	745	571	1,317

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Unit Offset Moment* (ft-lb)	Unit Wind Moment* (ft-lb)	Unit Moment at GL* (ft-lb)			
Spool	Spool Insulator	27.47	0.00	90.0	0.0	1.00	2.50	2.12	-1	7	6			
											Totals:	-1	7	6

O-Calcul® Pro Analysis Report

Guy Wire and Brace		Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
12.5M	Down	NGrid	26.59	0.00	9.00	0.343	100.00	180.0	71.0	0.208	32.42	0.32
12.5M	Span/Head	NGrid	28.10	28.10	57.00	0.343	75.00	0.0	0.0	0.208	54.45	0.00

Guy Wire and Brace (Loads and Reactions)		Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ² (lbs)	Maximum Tension ² (lbs)	Applied Tension ² (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ² (ft-lb)	
12.5M	Down	2.30e+7	12,500	0.90	11,250	700	2,180	1,982	1,723	1,630	561	-296	-7,161	
12.5M	Span/Head	2.30e+7	12,500	0.90	11,250	700	0	0	0	0	0	0	543	
Totals:											1,630	561	-296	-6,618

Anchor/Rod Load Summary		Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole M/CUP ² (lbs)	Max Required Capacity ² (%)
Single Helix Anchor		NGrid	18.00	9.00	180.0	20,000	1.00	20,000	2,180	1,723	10.9
Stub Pole		NGrid	30.00	57.00	0.0	20,000	1.00	20,000	0	0	0.0

Pole Buckling		Buckling Column Height ¹ (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	21.68	33.27	12.08	4.05	8.60	13.03	2.13e+6	60.00	57.00	33.78	550,960	5752.67	111.11	



2/7/2020

To: City of Salem

Transmitted via email

RE: Verizon Wireless Small Cell Sites

Dear City of Salem,

Verizon is installing additional wireless telecommunications facilities in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas of potential concern as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antennas and proximity of the work location.

Thank you for your inquiry. Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

You also expressed concerns about the health effects of RF emissions from Verizon's network equipment. The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell towers on the FCC's website, which you can access via this link: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>.

Thank you for reaching out to us regarding your concerns. We appreciate the chance to explain our activities regarding the wireless facility at issue. Questions related to compliance with federal regulations should be directed to VZWRFCompliance@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

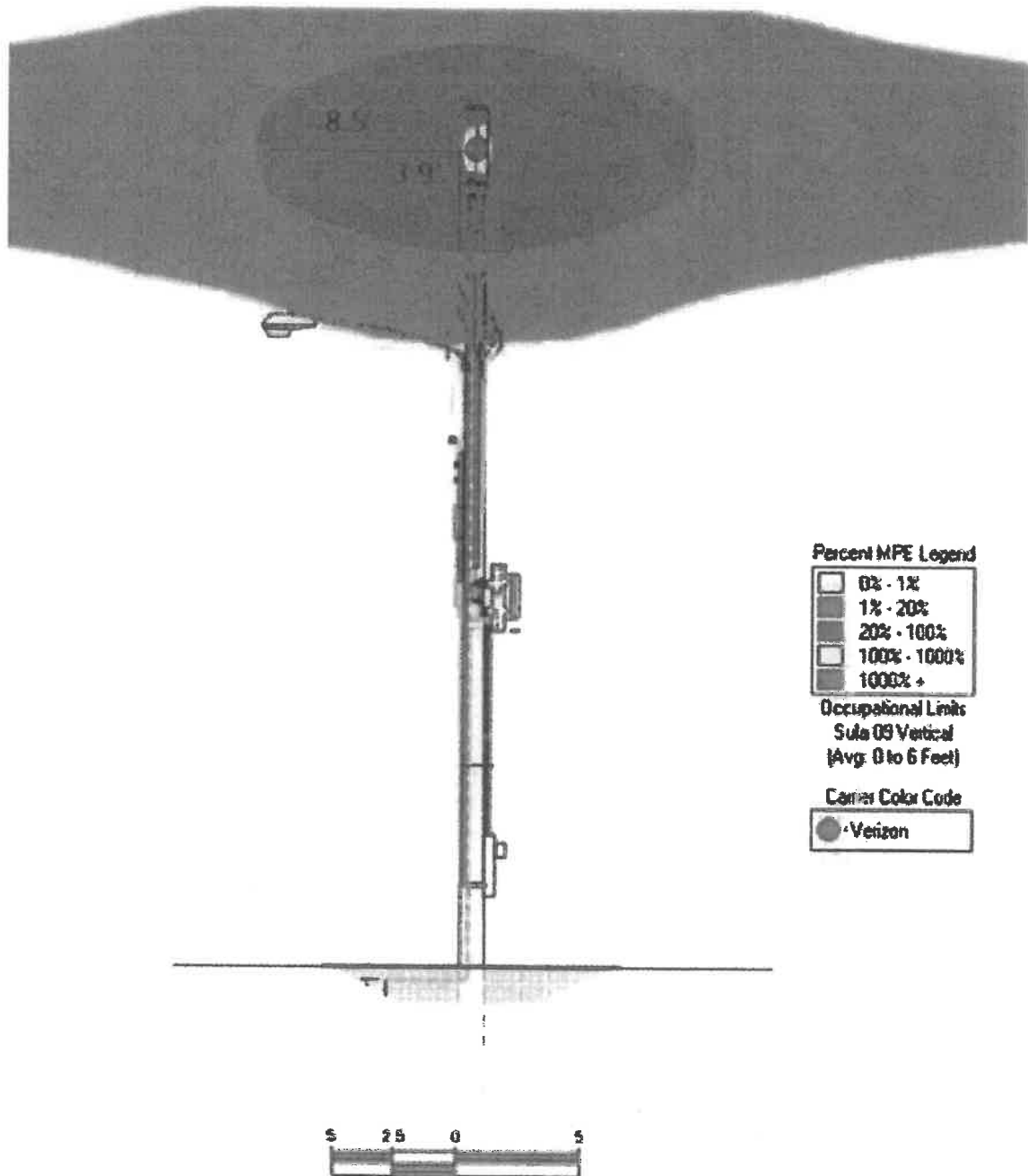
Contact Name	Contact Email	Contact Phone
Luis Teves	Luis.Teves@VerizonWireles.com	508-479-3197

Sincerely,

Michael Creamer
Sr Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from transmitting antennas on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-green areas.



Color	% Occupational MPE	Instructions
Lightest Grey	0 to 20	Safe In Relation to VZW. Contact Other Carriers Before Entering This Area
Light Grey	20 to 100	
Dark Grey	Greater Than 100	
White	Greater Than 1000	

Property Owner Responsibilities (M.E.N.U)

RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- ⇒ **M**aintaining all necessary wireless licensee contact information.
- ⇒ **E**nforcing restricted access (help maintain a Controlled Environment); **E**nsuring all building/maintenance personnel are aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- ⇒ **N**otifying all licensees when any non-carrier requests access to any area with antennas at least 24 hours in advance.
- ⇒ **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.



For General RF Safety & Awareness Questions
Verizon Wireless

E-mail: VZWRFCompliance@vzw.com
E-mail Subject: "ATTN: RF Compliance"
In The Event That Emergency Maintenance Is Required
24-Hour Network Operations Center:
1-800-264-6620

RF Safety & Awareness Training Contacts
Dorch Communications

(michelle@diechcom.com)

EDI Consulting

spenta@ediconsulting.com

Sitesafe

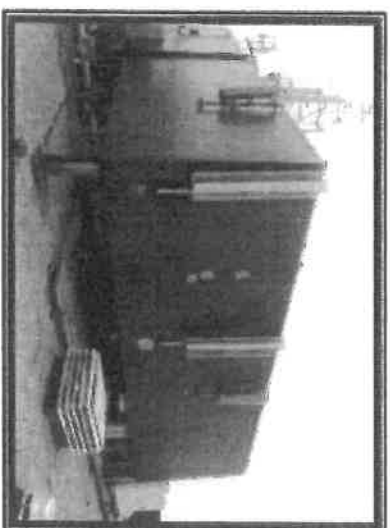
(charley@sitesafe.com)

Waterford Consultants

Shaler

anderson@waterfordconsultants.com

Radio Frequency (RF) Emissions



Federal Compliance Requirements

Compliance Materials

Antenna Safety

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 an overview of the most applicable information:

Classifications for Exposure Limits

Occupational
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
Any persons that "may not be made fully aware of the potential for exposure or cannot exercise control over their exposure".

Those in this category do not have RF Safety & Awareness Training.

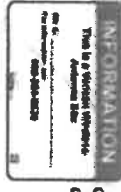
Ensuring Compliance With FCC Guidelines

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personal exposures in excess of the FCC guidelines. Wireless Licenses are required by law to implement the following:

- Restrict access (lock door/sladder's)
- Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
- Place additional notification signage and visual indicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.



(Yellow) Caution - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population and Occupational MPE limit.



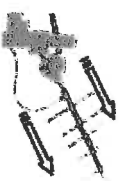
(Blue) Notice - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population MPE limit but will remain below the Occupational MPE limit.



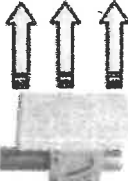
(Red) Warning - Informs viewer that beyond the sign, RF exposure levels may substantially exceed the General Population and Occupational MPE limit.

Indicative Barriers

In addition to physical barriers such as locked doors or ladders, wireless licenses may also be required to place indicative barriers as a means of visually denoting an area where RF levels are expected to exceed the FCC's limits. Examples of Indicative Barrier Materials: plastic, chains, buckets, reflective paint or plastic cones, fiberglass fences, and poles mounted in cinchlocks.



Antenna Types
Yagi - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk behind or under this antenna.



Panel - Antenna that radiates energy in one direction. RF energy can range from narrow to very wide. Walk behind this antenna. Stay out of the general direction that the antenna is pointing.



Whip - Antenna that radiates energy equally in all directions. Maintain as much distance as possible from this antenna.



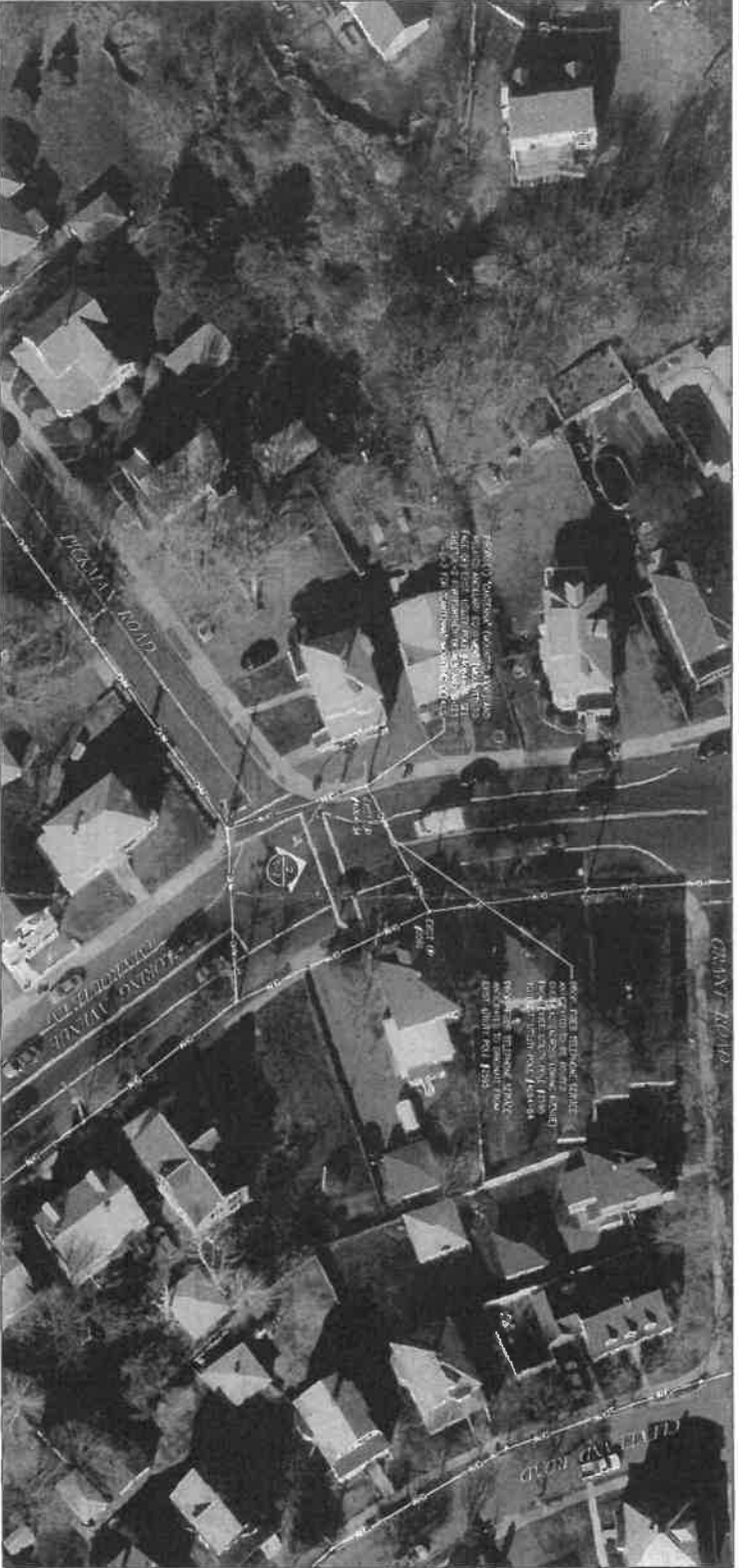
Microwave - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk under or behind this antenna.

When In An Environment With Antennas:

- ⇒ Maintain at least a 3-foot clearance from all antennas. A 10-foot separation distance is preferred.
- ⇒ Never touch an antenna. Assume all are active.
- ⇒ Read and obey ALL signs on an access point.
- ⇒ Read and obey ALL signs in the environment with antennas.
- ⇒ Never walk past an indicative barrier without first confirming transmitter inactivity.
- ⇒ Never walk in front of or stand in front of an antenna whenever possible. Keep walking.
- ⇒ Contact all wireless licenses at least 24 hours in advance of scheduled maintenance.



SALEM_SC15_MA
CLUSTER: SALEM MA
 UTILITY POLE #4064-84 (N.G.)
 188 LORING AVENUE (MA ROUTE 1A)
 SALEM, MA 01970



SEE SCHEMATIC
 CENTER OF EXISTING UTILITY POLE: #4064-84
 N 42.88841° (62°-28'-44.31")
 W 70.983167° (70°-53'-42.00")
 APPROXIMATE GROUND ELEVATION - 18 ± METERS

LOCATION PLAN/AERIAL IMAGE
 SCALE: 1" = 50'
 0 50' 100' 150'

SHEET INDEX		
DWG.	DESCRIPTION	REV.
L-1	LOCATION PLAN/AERIAL IMAGE	0
L-2	UTILITY POLE PHOTOGRAPH AND ELEVATION	0
L-3	AERIAL IN ANGLE/SLANT EQUIPMENT DETAILS AND ONE-LINE DIAGRAM	0



CHAPPELL ENGINEERING ASSOCIATES, LLC
 Civil, Structural, Land Surveying
 201 BOSTON POST ROAD WEST, SUITE 101
 WALTHAM, MA 01752
 (508) 481-7100
 www.chappelleng.com

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	10/20/19

DATE: 10/20/19
 DRAWN BY: [Blank]
 CHECKED BY: [Blank]
 IN CHARGE: [Blank]

PROJECT: SALEM_SC15_MA
 UTILITY POLE #4064-84 (N.G.)
 188 LORING AVENUE
 (MA ROUTE 1A)
 SALEM, MA 01970

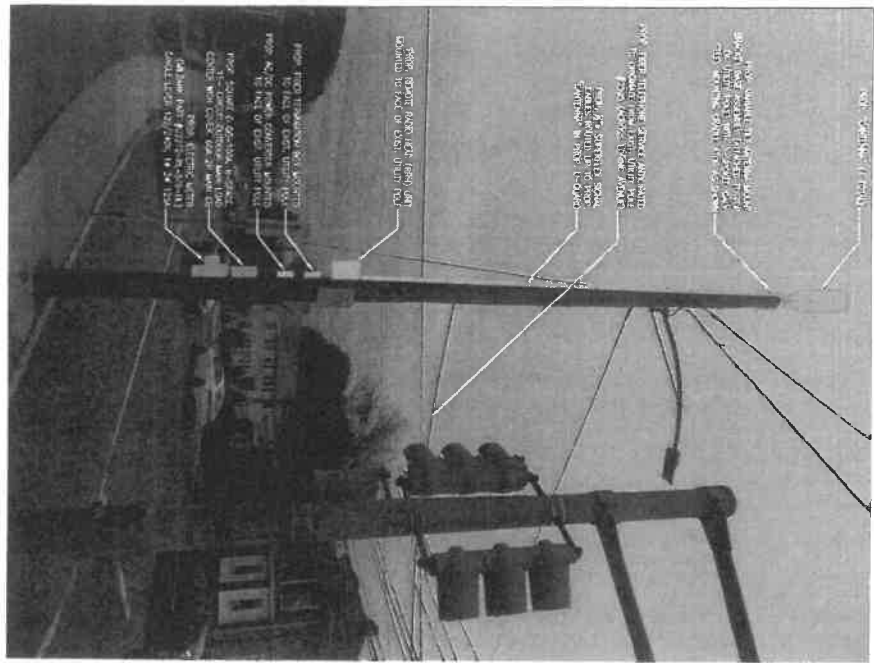
DATE: 10/20/19
 DRAWN BY: [Blank]
 CHECKED BY: [Blank]
 IN CHARGE: [Blank]

PROJECT: SALEM_SC15_MA
 UTILITY POLE #4064-84 (N.G.)
 188 LORING AVENUE
 (MA ROUTE 1A)
 SALEM, MA 01970

DATE: 10/20/19
 DRAWN BY: [Blank]
 CHECKED BY: [Blank]
 IN CHARGE: [Blank]

PROJECT: SALEM_SC15_MA
 UTILITY POLE #4064-84 (N.G.)
 188 LORING AVENUE
 (MA ROUTE 1A)
 SALEM, MA 01970

- GENERAL NOTES:**
1. THESE DRAWINGS ARE PRELIMINARY IN NATURE AND ARE INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION, SIZE AND SCOPE OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.
 3. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNAL CODE (NFPA 72).
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.



UTILITY POLE #4064-84 PHOTOGRAPH (EXISTING CONDITIONS) SCHEMATIC RENDERING 1

CONSTRUCTION AND INSTALLATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.

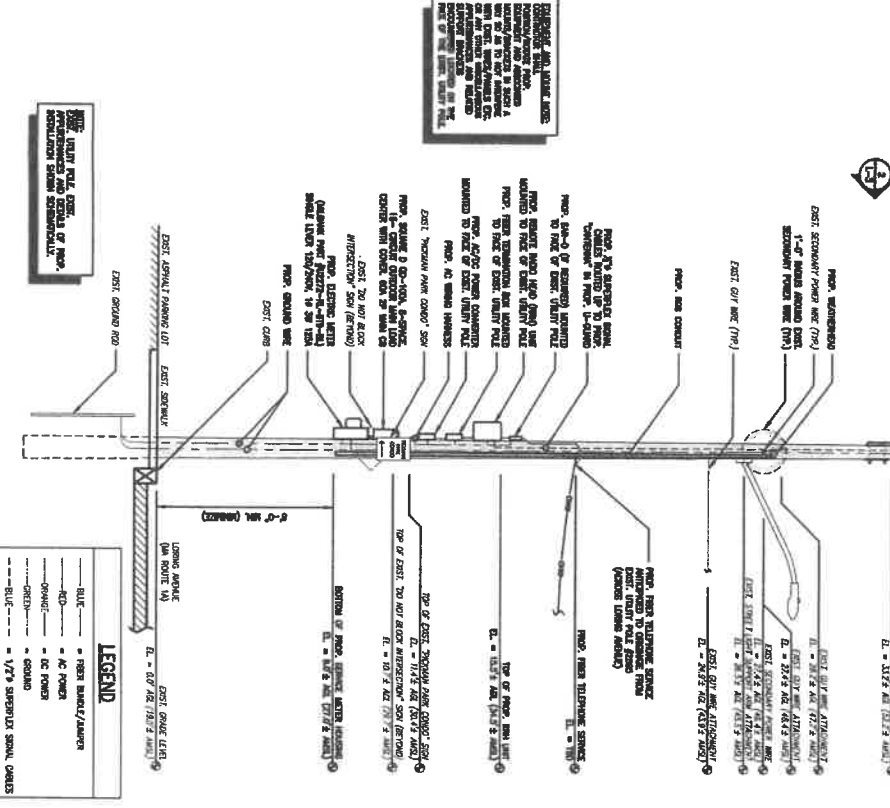
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.

CONSTRUCTION AND INSTALLATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.



UTILITY POLE #4064-84 ELEVATION (PROPOSED CONDITIONS) 2

UTILITY POLE ELEVATION (PROPOSED CONDITIONS)

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

LEGEND

- BLUE — FIBER BUNDLE/JACKET
- RED — AC POWER
- GREEN — DC POWER
- BLACK — GROUND
- DASHED — 1/2" SUSPENDED SMALL CABLES

Discourse Gateway Services

CHAPPPELL ENGINEERING ASSOCIATES, LLC
 Civil/Structural/Land Surveying
 R. K. DEWITT CENTRE
 201 BRISTOL ROAD, WEST, SUITE 101
 BRISTOL, MA 01521
 (508) 481-7100
 www.chappellengineering.com

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	10/29/18

SITE NAME:
 SALEM, SC15, MA
 UTILITY POLE #4064-84 (N.G.)
 198 LORING AVENUE
 (MA ROUTE 1A)
 SALEM, MA 01970

REVISION TITLE:
 UTILITY POLE PHOTOGRAPH AND ELEVATION

DESIGNED BY:
 L-2

LEADER SHEET:
 NEXT POLE CONSTRUCTION



CHAPPELL ENGINEERING ASSOCIATES, LLC
 Civil, Structural, Land Surveying
 81 EGDONG CORSE
 WAREHOUSES, MA 01752
 (508) 481-1440
 www.chappell-engineering.com

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	10/29/18

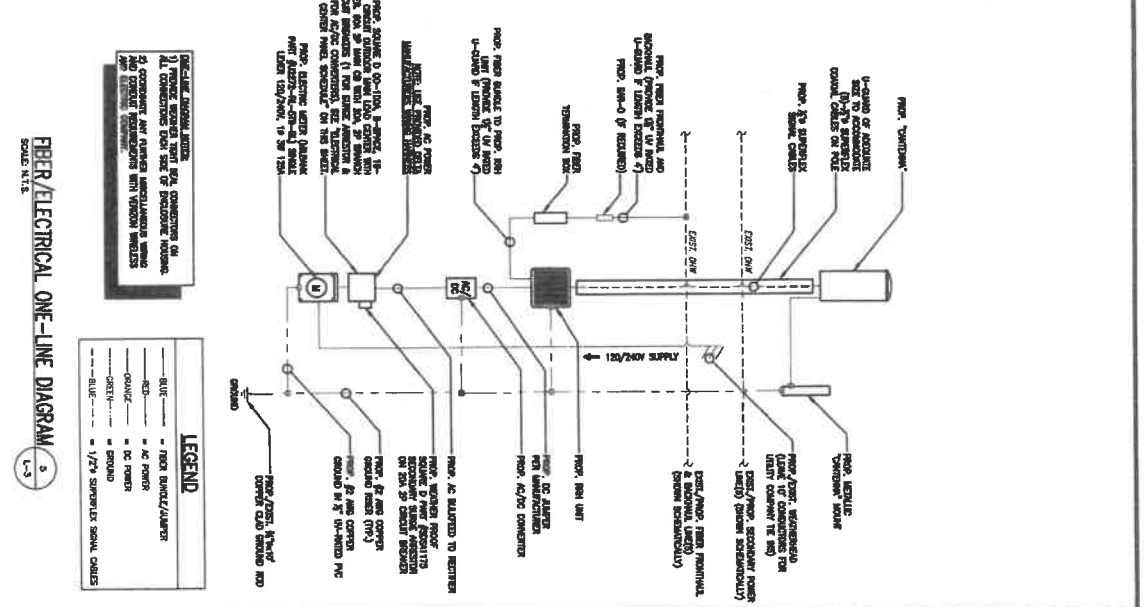
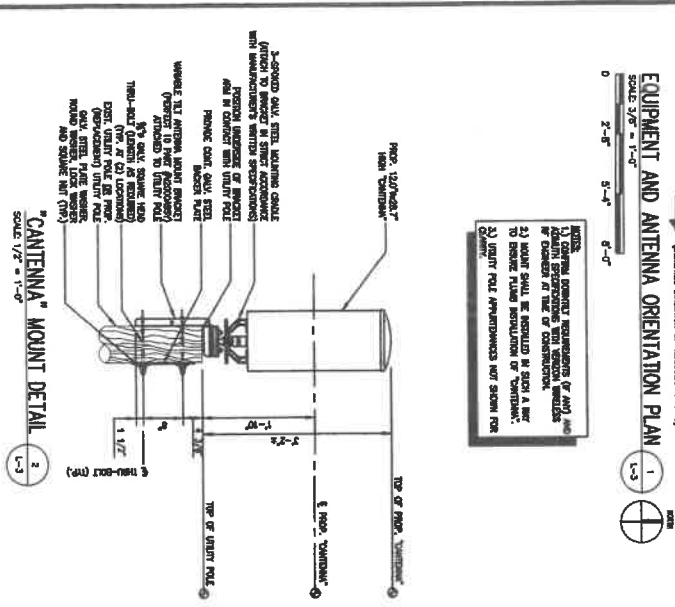
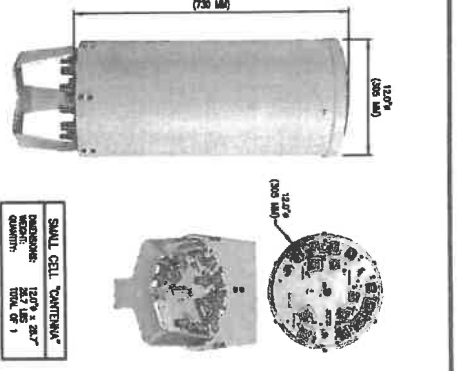
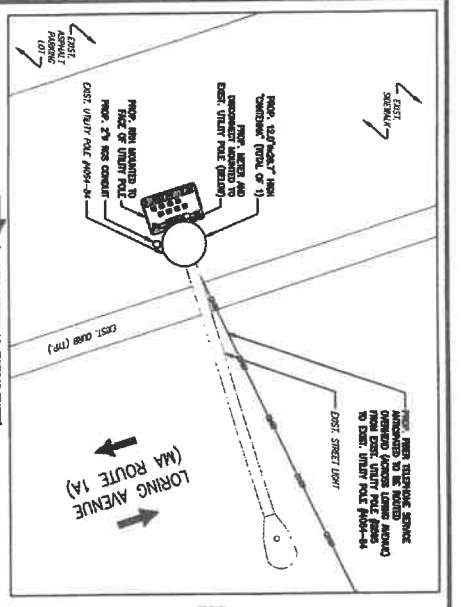
ISSUE DATE:
 SALEM_SC15_MA
 UTILITY POLE #4004-04 (N/G)
 1981 LORING AVENUE
 (MA ROUTE 1A)
 SALEM, MA 01970

ISSUE TITLE:
 ANTENNA & ANCILLARY
 EQUIPMENT DETAILS AND
 ONE-LINE DIAGRAM

LEADER SYMBOL
 NOT FOR CONSTRUCTION

SCALE: 1/2" = 1'-0"

DATE: 10/29/18
 DRAWN BY: SMO
 CHECKED BY: SMO



**Salem
Abutters List**

Subject Parcel ID: b

Subject Property Location:

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
31-0014-0	202 LORING AVENUE	FARNSWORTH KELL Y/TURNER R	DEYOUNG PHYLLIS A	202 LORING AVE	SALEM	MA	01970
31-0030-0	4 PICKMAN ROAD	GUY STEVEN G	CHERYL A	4 PICKMAN RD	SALEM	MA	01970
31-0031-0	198 LORING AVENUE	FABIANO JOSEPH	GUY JENNIFER	28 BOXFORD ROAD	TOPSFIELD	MA	01983
31-0032-0	196 LORING AVENUE	BRIDGMAN & BRIDGMAN, LLC		85 MARLBOROUGH ROAD	SALEM	MA	01970

Parcel Count: 4

End of Report

PETITION FOR SMALL CELL POLE ATTACHMENT

Under MGL Chapter 166, Section 22.

To the Honorable City Council of Salem, Massachusetts

Cellco Partnership d/b/a Verizon Wireless hereby respectfully requests permission to locate a small cell wireless antenna and necessary sustaining and protecting fixtures, on an existing utility pole #3308-1, located in the right of way adjacent to 8 Loring Avenue in the City of Salem, as more particularly shown on the plans attached hereto.

Wherefore it prays that after due notice and hearing as provided by law, it be granted permission to install and maintain a small cell wireless antenna including the necessary sustaining and protecting fixtures in accordance with the plan filed herewith marked SALEM_SC11_MA.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #3308-1, located in the right of way near the property line of 8 Loring Avenue with location as shown on the plan attached.

PETITIONER:

Cellco Partnership d/b/a
Verizon Wireless

By

Bryan Sarchi
Airosmith Development
318 West Avenue
Saratoga Springs, NY. 12866
480-734-4970

ORDER FOR POLE ATTACHMENT

In the City of Salem, Massachusetts

Notice having been given and public hearing held, as provided by law, IT IS HEREBY ORDERED:

That Celco Partnership d/b/a Verizon Wireless is granted a location for and permission to attach equipment to an existing utility pole, including the necessary sustaining and protecting fixtures as said company may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Company dated the ___ day of _____, 2020.

All construction under this order shall be in accordance with the following conditions:

Equipment shall be installed as indicated upon the plan marked - Site ID: SALEM_SC11_MA, 8 Loring Avenue, Salem, MA 01970, dated October 30, 2019 and filed with this order.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon under this order:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #3308-1, in the right of way near the property line of 8 Loring Avenue with location as shown on the plan attached.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Salem, Massachusetts held on the ___ day of _____, 2020., with the following conditions set below. *

Received and entered in the records of location orders of the City of Salem Book _____, Page _____.

Attest: _____
City Clerk

*

ROUTING SLIP

Telecommunications Attachments in the Public Right of Way

Pursuant to the Code of Ordinances, Sections 12-86 through 12-200, each applicant who seeks access to the public right of way for telecommunications purposes must submit a petition and plans along with a \$500 application fee to the Electrical Department. Once the City Electrician has signed off, please circulate to the Departments listed on the reverse side of this Routing Slip for signature and return it to the City Clerk's Office prior to the petition being placed on the City Council Agenda for a grant of location pursuant to MGL Chapter 166, Section 22.

Right of Way Location Requested: 8 LORING AVE / 42.504214, 70.891310

Application Fee Received: Yes Check No. 6477 Date: 2/27/20

City Electrician Approval: John J. Giardi

BUSINESS NAME
 Corporate name: VERIZON WIRELESS
 d/b/a: _____

Address: 118 FLADERS RD. ^{3RD FLOOR} WESTBOROUGH, MA. 01581 Tele. # _____

CONTACT: BRYAN SARCHI / AGENT w/ AIROSMITH DEVELOPMENT
 Street: 318 WEST AVE Tele. # 480-734-4970
 City: SARATOGA SPRINGS State: NY Zip: 12866
 Email Address: BSARCHI@AIROSMITHDEVELOPMENT.COM

Pole Ownership

To be attached to utility-owned pole ___ To be attached to City-owned pole

Pole Attachment Agreement attached* ___ Pole Attachment Agreement to follow*

*All grants of location for telecommunications attachments to poles are conditioned upon evidence of a valid pole attachment agreement.

Conduits

Will the attachment also require a conduit? Yes ___ No

TO ALL CITY DEPARTMENTS: By signing this slip you are only acknowledging that the applicant has made your department aware of its plans. All grants of location will be conditioned upon compliance with all departmental requirements and require a vote of the City Council after a public hearing. Please attach comments on separate sheet.

Johnnie *note this copy letter 3/16/2020*

Planning Department DATE
City Hall Annex, 98 Washington Street

Debra M. Lytle *Please see memo* *3/30/2020*

Engineering Department DATE
City Hall Annex, 98 Washington Street

[Signature] *Please see comment letter 3/10/20*

Salem Historical Commission DATE
City Hall Annex, 98 Washington Street

Matt Kell *MM* *3/27/2020*

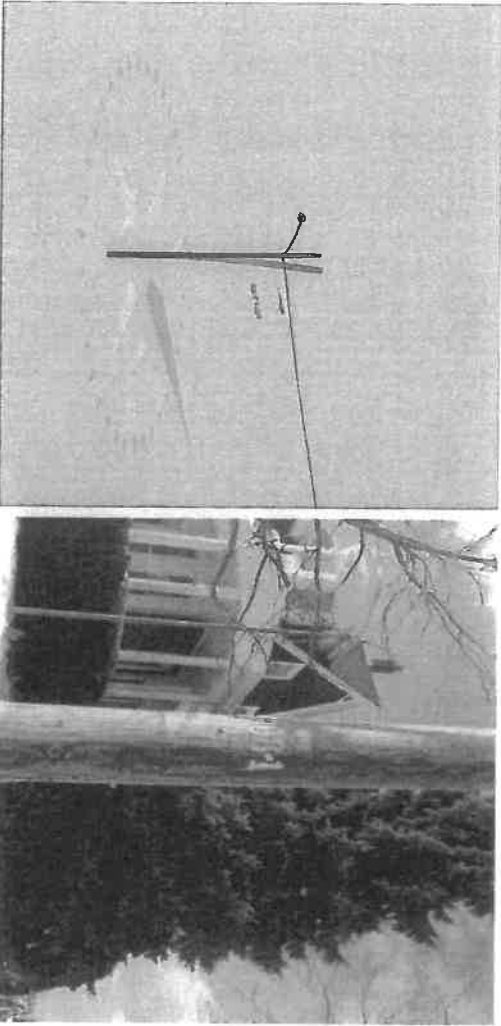
Office of Information Technology DATE
29 Highland Avenue

Nick B. [Signature] *3/30/2020*

Legal Department DATE
City Hall, 93 Washington Street

RETURN ROUTING SLIP, ANY COMMENTS, PETITION, PLANS, ABUTTER LABELS, AND PROPOSED ORDER TO CITY CLERK'S OFFICE, CITY HALL, 93 WASHINGTON STREET WHEN COMPLETE SO THAT IT MAY BE PLACED ON THE COUNCIL'S AGENDA.

Pole Num:	3308-1	Pole Length / Class:	40 / 3	Code:	40 / 3	Code:	40 / 3
Aux Data 1	Unset	Species:	SOUTHERN PINE	NESC Rule:	NESC Rule 250B	Status	Ungraded
Aux Data 2	Unset	Setting Depth (ft):	6.20	Construction Grade:	C	Pole Strength Factor:	0.85
Aux Data 3	Unset	G/L Circumference (in):	38.00	Loading District:	Heavy	Transverse Wind LF:	1.75
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.50	Wire Tension LF:	1.30
Aux Data 5	Unset	Allowable Stress (psi):	6,800	Wind Speed (mph):	39.53	Vertical LF:	1.90
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	4.00		
Latitude:							
		Longitude:	0.000000	Deg		Elevation:	0 Feet



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Maximum	33.9	0.0
Groundline	33.9	0.0
Vertical	2.6	16.7

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	33,055	0.2
Groundline	33,055	0.2
GL Allowable	98,453	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 0.2°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	1,112	83.8	30,003	90.8	30.5	2,070	201	2	2,071	30.5
Pole	191	14.4	3,270	9.9	3.3	226	2,021	18	243	3.6
Streetlights	24	1.8	-226	-0.7	-0.2	-16	142	1	-14	-0.2
Insulators	0	0.0	7	0.0	0.0	1	2	0	0	0.0
Pole Load	1,327	100.0	33,055	100.0	33.6	2,280	2,367	21	2,301	33.8
Pole Reserve Capacity			65,398		66.4	4,520			4,499	66.2

O-Calcul® Pro Analysis Report

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 0.2°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
NGrid	1,112	83.8	30,010	90.8	30.5	2,070	203	2	2,072	30.5
Pole	191	14.4	3,270	9.9	3.3	226	2,021	18	243	3.6
Municipal	24	1.8	-226	-0.7	-0.2	-16	142	1	-14	-0.2
Totals:	1,327	100.0	33,055	100.0	33.6	2,280	2,367	21	2,301	33.8

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Secondary	TRIPLEX 2 AWG	NGrid	26.96	6.33	0.8060	2.68	0.248	200.0	0.0	200.0	855	29,965	0	0	29,966
Totals:											29,965	0	0	29,966	

Streetlight	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Unit Offset Moment* (ft-lb)	Unit Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
General	Streetlight - 8 ft. Arm	Municipal	27.23	4.06	180.0	180.0	75.00	48.00	20.00	3.00	96.00	-871	646	-225
Totals:											-871	646	-225	

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Unit Offset Moment* (ft-lb)	Unit Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Spool	Spool Insulator	NGrid	26.96	0.00	90.0	0.0	1.00	2.50	2.12	0	7	7
Totals:										0	7	7

Pole Buckling	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety	
Constant	2.00	16.70	32.93	11.32	4.88	7.32	12.10	2.13e+6	60.00	57.00	33.80	89,629	910.25	38.46



2/7/2020

To: City of Salem

Transmitted via email

RE: Verizon Wireless Small Cell Sites

Dear City of Salem,

Verizon is installing additional wireless telecommunications facilities in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas of potential concern as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antennas and proximity of the work location.

Thank you for your inquiry. Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

You also expressed concerns about the health effects of RF emissions from Verizon's network equipment. The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell towers on the FCC's website, which you can access via this link: <http://www.fcc.gov/oet/rfsafety/ef-faqs.html>.

Thank you for reaching out to us regarding your concerns. We appreciate the chance to explain our activities regarding the wireless facility at issue. Questions related to compliance with federal regulations should be directed to VZWRFCCompliance@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

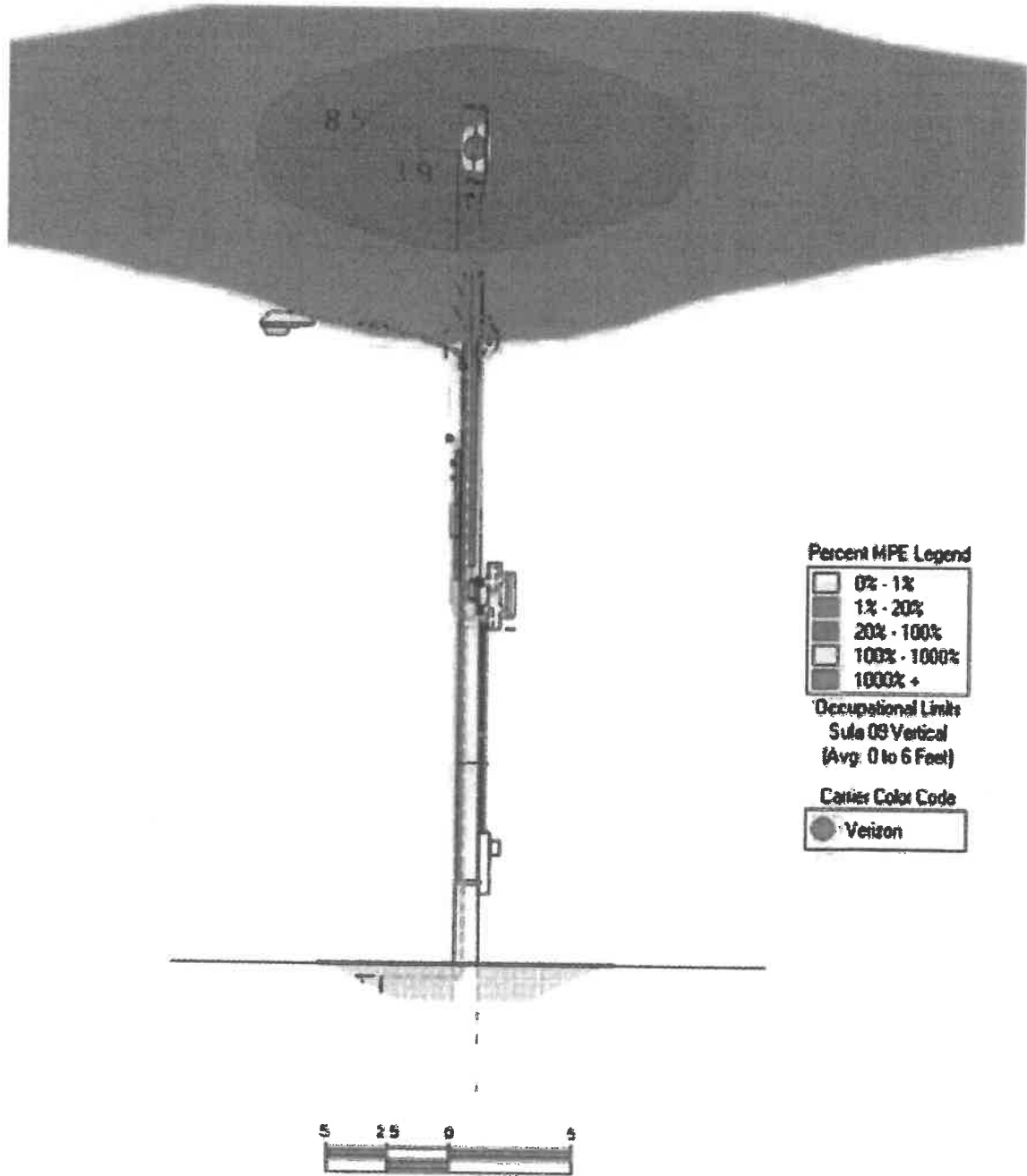
Contact Name	Contact Email	Contact Phone
Luis Teves	Luis.Teves@VerizonWireless.com	508-479-3197

Sincerely,

Michael Creamer
Sr Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from transmitting antennas on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-green areas.



Color	% Occupational MPE	Instructions
	0 to 20	Safe In Relation to VZW. Contact Other Carriers Before Entering This Area Contact VZW Before Accessing This Area
	20 to 100	
	Greater Than 100	
	Greater Than 1000	

Property Owner Responsibilities

(M.E.N.U)

RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- ⇒ **M**aintaining all necessary wireless licensee contact information.
- ⇒ **E**nforcing restricted access (help maintain a Controlled Environment). **E**nsuring all building/maintenance personnel are aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- ⇒ **N**otifying all licensees when any non-carrier requests access to any area with antennas at least 24 hours in advance.
- ⇒ **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.



For General RF Safety & Awareness Questions

Verizon Wireless

E-mail: VZWRFCompliance@vzw.com

E-mail Subject: "ATTN: RF Compliance"

In The Event That Emergency Maintenance Is Required

24-Hour Network Operations Center:

1-800-264-6520

Radio Frequency (RF) Emissions



RF Safety & Awareness Training Contacts

Dorch Communications

(michelle@dlcch.com.)

EDI Consulting

(spertat@ediconsulting.com)

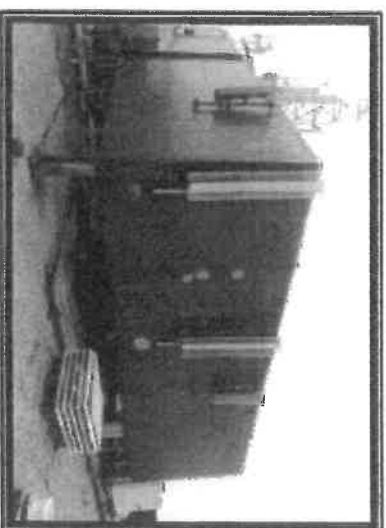
Sitesafe

(cbagley@sitesafe.com)

Waterford Consultants

(Shaler-

anderson@waterfordconsultants.com)



Federal Compliance Requirements

Compliance Materials

Antenna Safety

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 an overview of the most applicable information:

Classifications for Exposure Limits

Occupational
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
Any persons that "may not be made fully aware of the potential for exposure or cannot exercise control over their exposure".

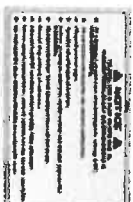
Those in this category do not have RF Safety & Awareness Training.

Ensuring Compliance With FCC Guidelines

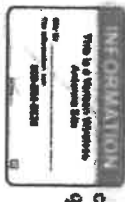
Areas or portions of any transmitter site may be susceptible to high power densities that could cause personal exposures in excess of the FCC guidelines.

Wireless Licenses are required by law to implement the following:

- Restrict access (lock door/sladders)
- Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
- Place additional notification signage and visual indicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.



Notification Signage
(Notice) RF Guidelines - Informs viewer of the basic safety guidelines for working in an RF Environment.



Information - Provides relevant contact information for any questions or requests.



(Blue) Notice - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population MPE limit but will remain below the Occupational MPE limit.



(Yellow) Caution - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population and Occupational MPE limit.



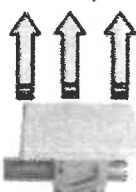
(Red) Warning - Informs viewer that beyond the sign, RF exposure levels may substantially exceed the General Population and Occupational MPE limit.

Indicative Barriers

In addition to physical barriers such as locked doors or ladders, wireless licenses may also be required to place indicative barriers as a means of visually demarcating an area where RF levels are expected to exceed the FCC's limits. Examples of Indicative Barrier Materials: plastic chains, buckets, reflective paint or plastic cones, fiberglass fences, and poles mounted in cinderblocks.



Antenna Types
Yagi - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk behind or under this antenna.



Panel - Antenna that radiates energy in one direction. RF energy beam can range from narrow to very wide. Walk behind this antenna. Stay out of the general direction that the antenna is pointing.



Whip - Antenna that radiates energy equally in all directions. Maintain as much distance as possible from this antenna.



Microwave - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk under or behind this antenna.

When In An Environment With Antennas:

- ⇒ Maintain at least a 3-foot clearance from all antennas. A 10-foot separation distance is preferred.
- ⇒ Never touch an antenna. Assume all are active.
- ⇒ Read and obey ALL signs on an access point.
- ⇒ Read and obey ALL signs in the environment with antennas.
- ⇒ Never walk past an indicative barrier without first confirming transmitter inactivity.
- ⇒ Never walk in front of or stand in front of an antenna whenever possible. Keep walking.
- ⇒ Contact all wireless licenses at least 24 hours in advance of scheduled maintenance.



* Because Better. Faster.™



CHAPPELL ENGINEERING ASSOCIATES, LLC
 Civil/Structural/Land Surveying
 R.K. EXECUTIVE CENTRE
 201 BOSTON ROAD, SUITE 101
 SALEM, MA 01970
 (508) 461-7400
 www.chappellengineering.com

IT IS THE POLICY OF THE FIRM TO PROVIDE ONLY THE INFORMATION SHOWN ON THIS DRAWING UNLESS THE CLIENT HAS BEEN ADVISED BY A LICENSED PROFESSIONAL ENGINEER TO ADD TO THIS DOCUMENT.

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	10/20/19

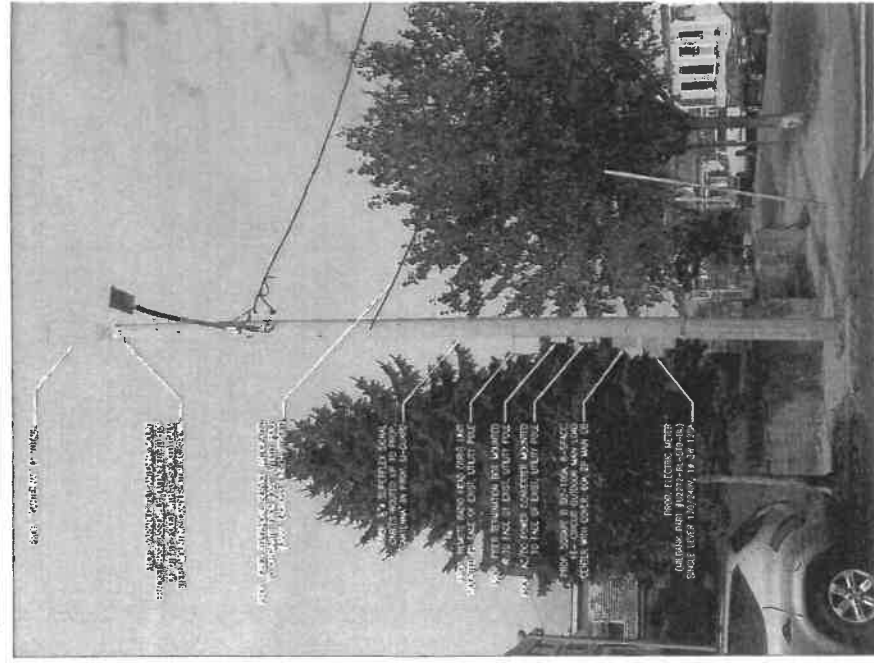
SITE NAME:
 SALEM_SC11_MA
 UTILITY POLE #3308-1 (NO.)
 8 LONGING AVENUE
 SALEM, MA 01970

DRAWING TITLE:
 UTILITY POLE PHOTOGRAPH AND ELEVATION

DESIGNER: L-2

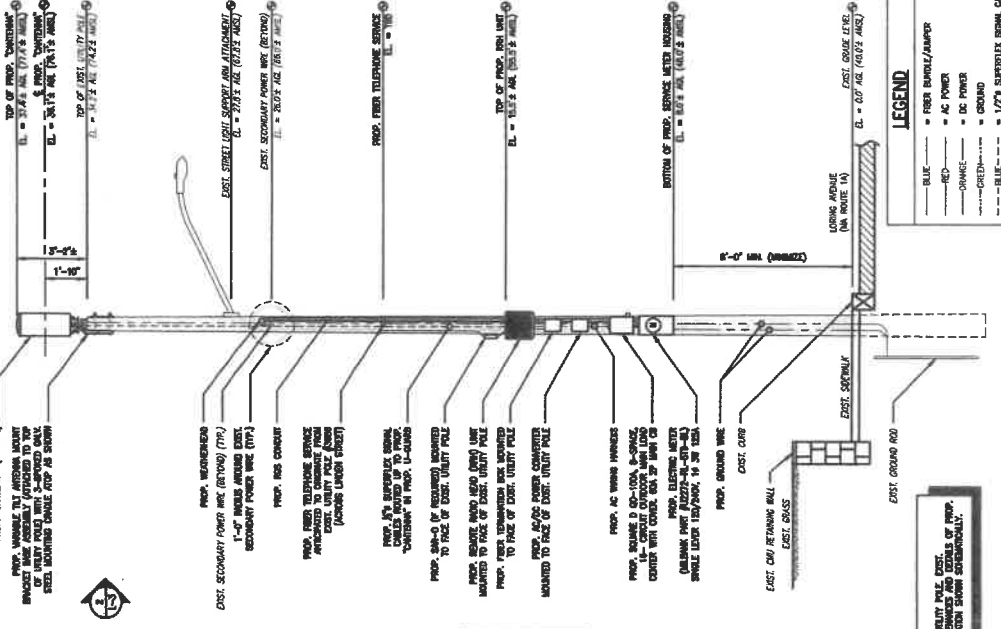
NOT FOR CONSTRUCTION
 LEASE EXHIBIT
 DATE: 10/20/19
 DRAWN BY: 146L306
 CHECKED BY: 146L306
 SCALE: AS SHOWN
 SHEET NO: 38011

CONSTRUCTION NOTES:
 1. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).
 2. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).
 3. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).
 4. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).



UTILITY POLE #3308-1 PHOTOGRAPH (EXISTING CONDITIONS)/SCHEMATIC RENDERING
 SCALE: 3/16" = 1'-0"
 1
 L-2

- GENERAL NOTES:**
1. THESE DRAWINGS ARE PRELIMINARY IN NATURE AND ARE INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION, SIZE AND OPERATION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSTALLATION ON THE UTILITY POLE AND ARE NOT INTENTIONALLY INTENDED FOR CONSTRUCTION.
 2. VERIZON WIRELESS SHALL PLACE WEATHER RESISTANT PERMITS PLACEMENT ON UTILITY POLE AND AUXILIARY EQUIPMENT TO IDENTIFY EQUIPMENT OWNERSHIP & CONTACT INFORMATION TO BE INCLUDED IN THE CASE OF EMERGENCY.
 3. AN ANALYSIS OF THE EXISTING UTILITY POLE TO SUPPORT THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT SHALL BE PROVIDED BY OTHERS. THESE DRAWINGS ARE SUBJECT TO CHANGE THROUGH THE COURSE OF A STRUCTURAL ANALYSIS TO BE PROVIDED BY OTHERS.
 4. VERIZON WIRELESS GENERAL CONTRACTOR SHALL EXERCISE EXTENSIVE EFFORTS TO ENSURE THAT ALL PROPOSED EQUIPMENT MEETS THE REQUIREMENTS OF THE EXISTING UTILITY COMPANY'S COMPANIES CURRENTLY OCCUPYING THE UTILITY POLE AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE.



CONSTRUCTION AND MAINTENANCE NOTES:
 1. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).
 2. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).
 3. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).
 4. THE UTILITY POLE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE (NEC).

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO REPRODUCE THIS DOCUMENT.

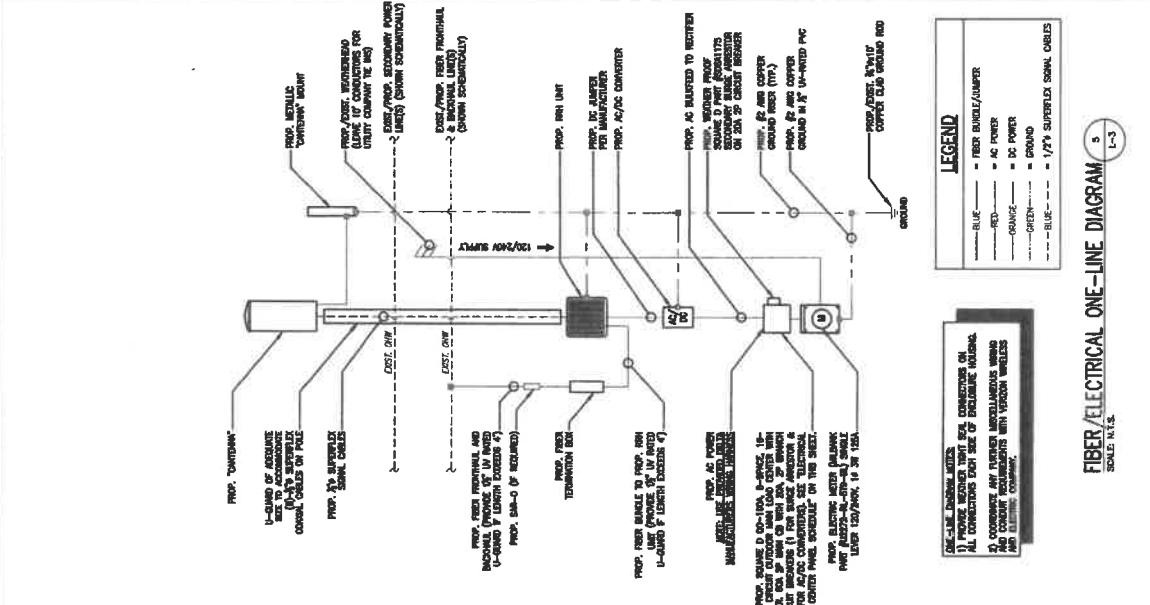
REVISIONS		DATE
NO.	DESCRIPTION	10/29/19
0	ISSUED FOR PERMITS	

SITE NAME
SALEM_SC11_MA
UTILITY POLE #53009-1 (N.G.)
BLUCHING AVENUE
(MA ROUTE 1A)
SALEM, MA 01870

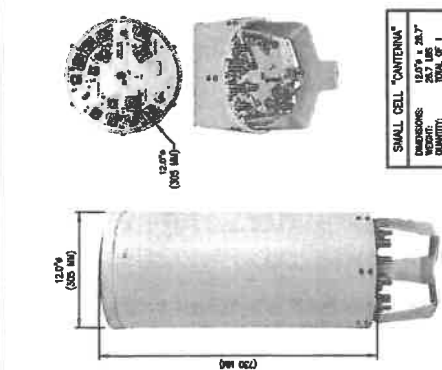
DRAWING TITLE
ANTENNA & ANCILLARY EQUIPMENT DETAILS AND ONE-LINE DIAGRAM

DRAWING NO.
L-3

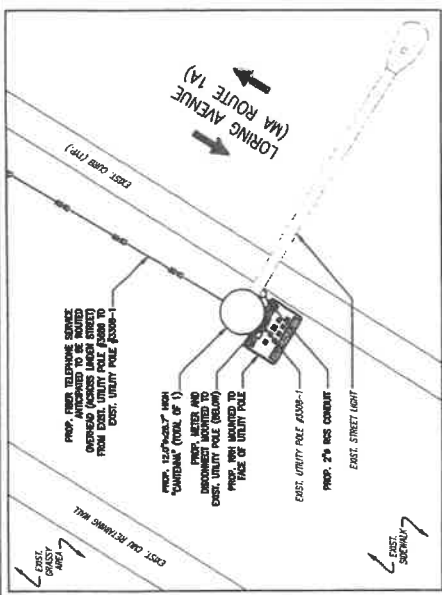
LEAVE EXHIBIT NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DATE	10/29/19
BY	10/29/19
CHKD BY	10/29/19
DATE	10/29/19



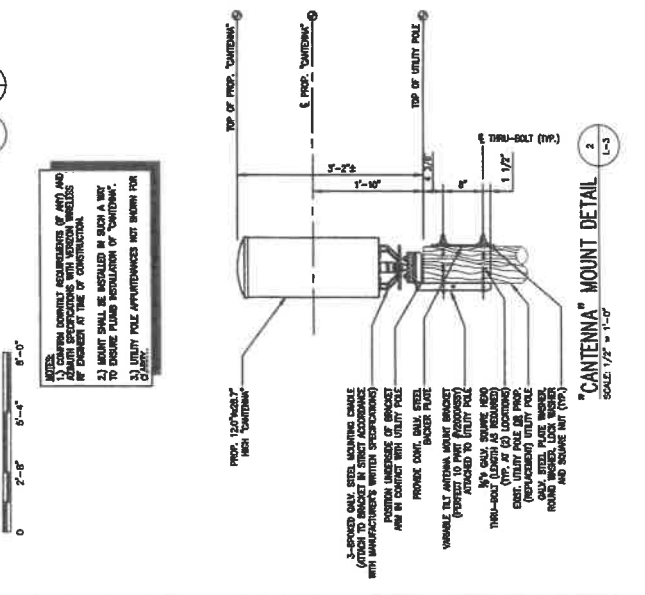
FIBER/ELECTRICAL ONE-LINE DIAGRAM
SCALE: N.T.S.



"CANTENNA" SPECIFICATIONS
SCALE: N.T.S.



"CANTENNA" MOUNT DETAIL
SCALE: 1/2" = 1'-0"



**Salem
Abutters List**

Subject Parcel ID: b

Subject Property Location:

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
32-0090-0	10 LORING AVENUE	CURREN DEBORAH	CARDARELLI PAULA L	10 LORING AVENUE	SALEM	MA	01970
32-0091-0	8 LORING AVENUE	FISCHER SAMUEL G		8 LORING AVE	SALEM	MA	01970
32-0092-0	112 LINDEN STREET	VINCENT SUZANNE		112 LINDEN ST	SALEM	MA	01970
32-0173-0	352 LAFAYETTE STREET	MASS COMMONWEALTH OF	SALEM STATE COLLEGE	354 LAFAYETTE ST	SALEM	MA	01970
32-0208-0	24 LORING AVENUE	RPS REALTY MANAGEMENT,LLC	C/O SCOTT NGUYEN	1 CURTIS STREET	EAST BOSTON	MA	02128

Parcel Count: 5

End of Report

PETITION FOR SMALL CELL POLE ATTACHMENT

Under MGL Chapter 166, Section 22.

To the Honorable City Council of Salem, Massachusetts

Cellco Partnership d/b/a Verizon Wireless hereby respectfully requests permission to locate a small cell wireless antenna and necessary sustaining and protecting fixtures, on an existing utility pole #2512, located in the right of way adjacent to 389 Lafayette Street in the City of Salem, as more particularly shown on the plans attached hereto.

Wherefore it prays that after due notice and hearing as provided by law, it be granted permission to install and maintain a small cell wireless antenna including the necessary sustaining and protecting fixtures in accordance with the plan filed herewith marked SALEM_SC12_MA.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #2512, located in the right of way near the property line of 389 Lafayette Street with location as shown on the plan attached.

PETITIONER:

Cellco Partnership d/b/a
Verizon Wireless

By

Bryan Sarchi
Airosmith Development
318 West Avenue
Saratoga Springs, NY. 12866
480-734-4970

ORDER FOR POLE ATTACHMENT

In the City of Salem, Massachusetts

Notice having been given and public hearing held, as provided by law, IT IS HEREBY ORDERED:

That Cellco Partnership d/b/a Verizon Wireless is granted a location for and permission to attach equipment to an existing utility pole, including the necessary sustaining and protecting fixtures as said company may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Company dated the ___ day of ____, 2020.

All construction under this order shall be in accordance with the following conditions:

Equipment shall be installed as indicated upon the plan marked - Site ID: SALEM_SC12_MA, 389 Lafayette Street, Salem, MA 01970, dated October 30, 2019 and filed with this order.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon under this order:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #2514, in the right of way near the property line of 389 Lafayette Avenue with location as shown on the plan attached.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Salem, Massachusetts held on the ___ day of ____, 2020., with the following conditions set below. *

Received and entered in the records of location orders of the City of Salem Book _____, Page _____.

Attest: _____
City Clerk

*

ROUTING SLIP**Telecommunications Attachments in the Public Right of Way**

Pursuant to the Code of Ordinances, Sections 12-86 through 12-200, each applicant who seeks access to the public right of way for telecommunications purposes must submit a petition and plans along with a \$500 application fee to the Electrical Department. Once the City Electrician has signed off, please circulate to the Departments listed on the reverse side of this Routing Slip for signature and return it to the City Clerk's Office prior to the petition being placed on the City Council Agenda for a grant of location pursuant to MGL Chapter 166, Section 22.

Right of Way Location Requested: 389 LAFAYETTE STREET / 42.501520, 70.889 d10

Application Fee Received: Yes Check No. 6477 Date: 2/27/20

City Electrician Approval: John J. Guardi

BUSINESS NAME

Corporate name: VERIZON WIRELESS

d/b/a: _____

Address: 118 FLANDERS Rd. 3RD FLOOR WEST BURLINGHAM, MA. 01581 Tele. # _____

CONTACT: BRYAN SARCHI / AGENT w/ AIROSMITH DEVELOPMENT

Street: 318 WEST AVE Tele. # 480-734-4970

City: SARATOGA SPRINGS State: NY Zip: 12866

Email Address: BSARCHI@AIROSMITHDEVELOPMENT.COM

Pole Ownership

To be attached to utility-owned pole

___ To be attached to City-owned pole

Pole Attachment Agreement attached*

___ Pole Attachment Agreement to follow*

*All grants of location for telecommunications attachments to poles are conditioned upon evidence of a valid pole attachment agreement.

Conduits

Will the attachment also require a conduit?

Yes

___ No

TO ALL CITY DEPARTMENTS: By signing this slip you are only acknowledging that the applicant has made your department aware of its plans. All grants of location will be conditioned upon compliance with all departmental requirements and require a vote of the City Council after a public hearing. Please attach comments on separate sheet.

MDaniel *note historic letter* 3/11/2020
DATE
Planning Department
City Hall Annex, 98 Washington Street

Deb Behr *please see memo* 3/30/2020
DATE
Engineering Department
City Hall Annex, 98 Washington Street

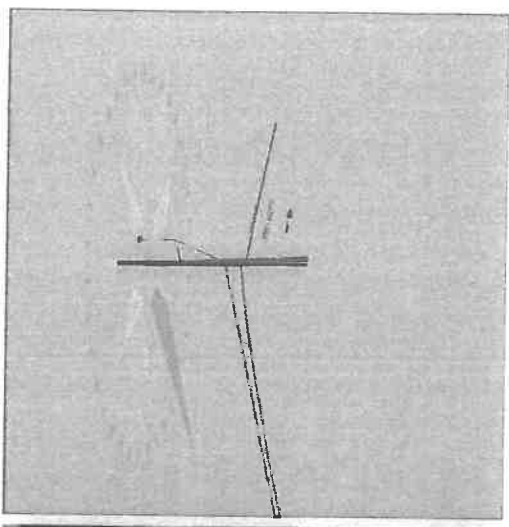
ROO *please see comment letter* 3/10/20
DATE
Salem Historical Commission
City Hall Annex, 98 Washington Street

Matt Kille *pkc* 3/22/2020
DATE
Office of Information Technology
29 Highland Avenue

Nathan Caldwell 3/30/2020
DATE
Legal Department
City Hall, 93 Washington Street

RETURN ROUTING SLIP, ANY COMMENTS, PETITION, PLANS, ABUTTER LABELS, AND PROPOSED ORDER TO CITY CLERK'S OFFICE, CITY HALL, 93 WASHINGTON STREET WHEN COMPLETE SO THAT IT MAY BE PLACED ON THE COUNCIL'S AGENDA.

Pole Num:	2514	Pole Length / Class:	35 / 4	Code:	NESC	Structure Type:	Angle
Aux Data 1	Unset	Species:	SOUTHERN PINE	NESC Rule:	Rule 250B	Status	Guy Wires Adequate
Aux Data 2	Unset	Setting Depth (ft):	5.21	Construction Grade:	C	Pole Strength Factor:	0.85
Aux Data 3	Unset	G/L Circumference (in):	31.79	Loading District:	Heavy	Transverse Wind LF:	1.75
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.50	Wire Tension LF:	1.30
Aux Data 5	Unset	Allowable Stress (psi):	6,800	Wind Speed (mph):	39.53	Vertical LF:	1.90
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	4.00		
Latitude:		Longitude:	0.000000	Deg	Elevation:	0 Feet	



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Maximum	9.2	270.7
Groundline	9.2	270.7
Vertical	0.3	13.5

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	5,119	272.9
Groundline	5,119	272.9
GL Allowable	57,618	270.7

Guy System Component Summary

Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Load From Worst Wind Angle on Pole		Individual Maximum Load With Overload Applied	
				Nominal Capacity (%)	Wind Angle (deg)	Max* Load Capacity (%)	Wind Angle (deg)
Stub Pole	138.0	0.0		0.0	270.7	0.4	180.0
12.5M (Span/Head)			15.0	0.0	270.7	0.7	180.0
Single Helix Anchor	6.0	180.0		0.6	270.7	2.2	0.0
25M (Sidewalk)			15.0	0.5	270.7	1.9	0.0
Sidewalk Strut	6.0	180.0	6.8	0.3	270.7	1.1	0.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 272.9°												
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)		
Comms	107	33.2	1,924	37.6	3.3	229	88	1	230	3.4		
GuyBraces	68	21.3	949	18.5	1.7	110	219	3	113	1.7		
Pole	146	45.5	2,245	43.9	3.9	268	1,325	16	284	4.2		
Insulators	0	0.0	0	0.0	0.0	0	19	0	0	0.0		
Pole Load	321	100.0	5,119	100.0	8.9	607	1,651	21	628	9.2		
Pole Reserve Capacity			52,499		91.1	6,193			6,172	90.8		

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 272.9°												
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)		
Telco	55	17.0	964	18.8	1.7	115	78	1	116	1.7		
Catv	52	16.2	961	18.8	1.7	115	29	0	115	1.7		
NGrid	68	21.3	949	18.5	1.7	110	219	3	113	1.7		
Pole	146	45.5	2,245	43.9	3.9	268	1,325	16	284	4.2		
Totals:	321	100.0	5,119	100.0	8.9	607	1,651	21	628	9.2		

Detailed Load Components:

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Telco	Telco Drop	17.83	5.78	0.2900	2.70	0.029	138.0	0.0	138.1	40	47	2	2	925
CATV	CATV Drop	18.67	5.73	0.2370	0.60	0.026	42.0	0.0	42.0	40	969	0	0	970
Totals:											1,017	2	925	1,944

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)		
J-Hook	J-Hook	17.83	0.00	0.0	0.0	5.00	1.50	0.00	0	0	0		
J-Hook	J-Hook	18.67	0.00	0.0	0.0	5.00	1.50	0.00	0	0	0		
Totals:											0	0	0

O-Calc® Pro Analysis Report

Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
12.5M	NGrid	15.02	15.02	138.00	0.343	75.00	0.0	0.0	0.208	135.25	0.00
25M	NGrid	15.04	0.00	6.00	0.519	75.00	180.0	53.6	0.475	20.50	0.01

Guy Wire and Brace (Loads and Reactions)	Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ² (lbs)	Maximum Tension ² (lbs)	Applied Tension ² (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ² (ft-lb)		
12.5M	Span/Head	2.30e+7	12,500	0.90	11,250	700	80	73	0	0	0	810		
25M	Sidewalk	2.30e+7	25,000	0.90	22,500	700	433	393	115	92	68	149		
Totals:											92	68	-3	959

Anchor/Rod Load Summary												
Stub Pole	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ² (lbs)	Max Required Capacity ² (%)		
Single Helix Anchor	NGrid	30.00	138.00	0.0	20,000	1.00	20,000	80	0	0.4		
	NGrid	18.00	6.00	180.0	20,000	1.00	20,000	433	115	2.2		

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	13.53	32.31	9.61	2.35	6.69	10.12	2.13e+6	60.00	57.00	29.79	568,647	550,442	333.33



2/7/2020

To: City of Salem

Transmitted via email

RE: Verizon Wireless Small Cell Sites

Dear City of Salem,

Verizon is installing additional wireless telecommunications facilities in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas of potential concern as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antennas and proximity of the work location.

Thank you for your inquiry. Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

You also expressed concerns about the health effects of RF emissions from Verizon's network equipment. The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell towers on the FCC's website, which you can access via this link: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>.

Thank you for reaching out to us regarding your concerns. We appreciate the chance to explain our activities regarding the wireless facility at issue. Questions related to compliance with federal regulations should be directed to VZWRFCCompliance@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

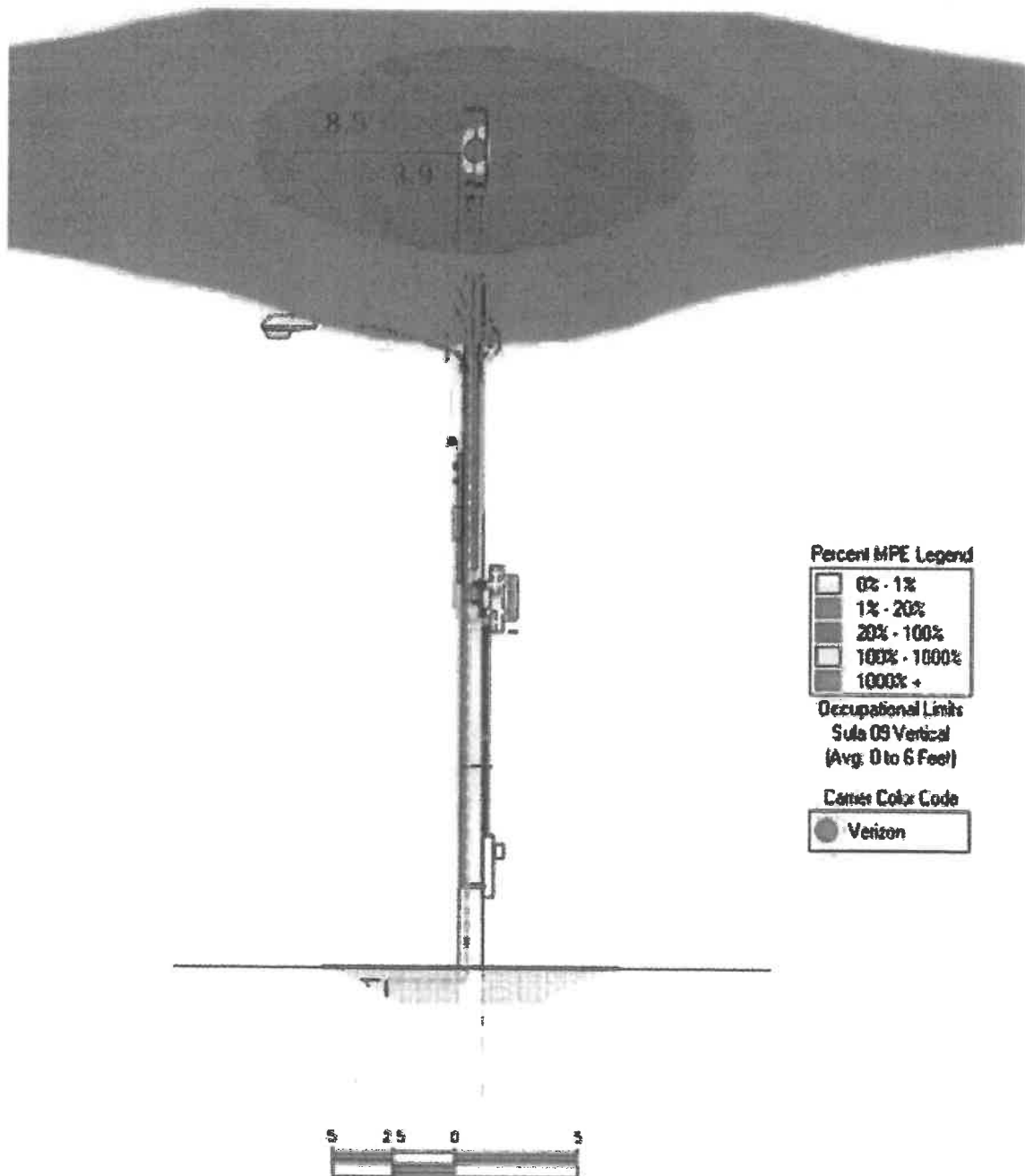
Contact Name	Contact Email	Contact Phone
Luis Teves	Luis.Teves@VerizonWireless.com	508-479-3197

Sincerely,

Michael Creamer
Sr Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from transmitting antennas on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-green areas.



Color	% Occupational MPE	Instructions
	0 to 20	Safe In Relation to VZW. Contact Other Carriers Before Entering This Area
	20 to 100	
	Greater Than 100	
	Greater Than 1000	

Property Owner Responsibilities (M.E.N.U)

RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- ⇒ **M**aintaining all necessary wireless licensee contact information.
- ⇒ **E**nforcing restricted access (help maintain a Controlled Environment). Ensuring all building/maintenance personnel are aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- ⇒ **N**otifying all licensees when any non-carrier requests access to any area with antennas at least 24 hours in advance.
- ⇒ **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.



For General RF Safety & Awareness Questions

Verizon Wireless

E-mail: VZWRFCompliance@vzw.com

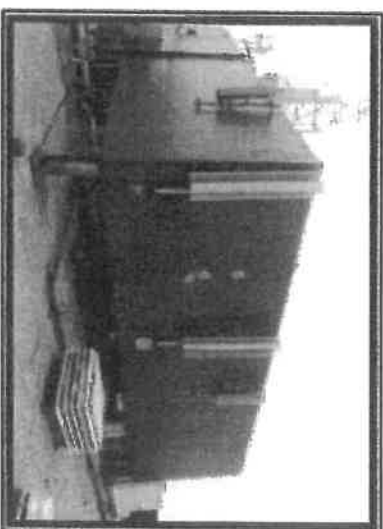
E-mail Subject: "ATTh RF Compliance"

In The Event That Emergency Maintenance Is Required

24-hour Network Operations Center:

1-800-264-6620

Radio Frequency (RF) Emissions



RF Safety & Awareness Training Contacts

Dech Communications

(michelle@dechcom.com.)

EBI Consulting

spenta@ebiconsulting.com

Sitesafe

(cbagley@sitesafe.com)

Waterford Consultants

Shaler

anderson@waterfordconsultants.com

Federal Compliance Requirements

Compliance Materials

Antenna Safety

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 an overview of the most applicable information:

Classifications for Exposure Limits

Occupational
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."

Those in this category do not have RF Safety & Awareness Training.

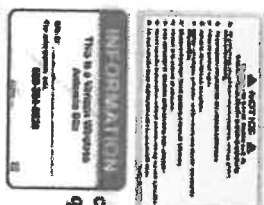
Ensuring Compliance With FCC Guidelines

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personal exposures in excess of the FCC guidelines.

Wireless Licensees are required by law to implement the following:

- Restrict access (lock door/shutters)
- Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
- Place additional notification signage and visual indicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.

Notification Signage
(Notice) RF Guidelines - Informs viewer of the basic safety guidelines for working in an RF Environment.
Information - Provides relevant contact information for any questions or requests.



(Blue) Notice - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population MPE limit but will remain below the Occupational MPE limit.

(Yellow) Caution - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population and Occupational MPE limit.

(Red) Warning - Informs viewer that beyond the sign, RF exposure levels may substantially exceed the General Population and Occupational MPE limit.

Indicative Barriers

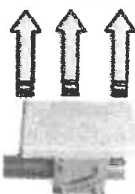
In addition to physical barriers such as locked doors or ladders, wireless licensees may also be required to place indicative barriers as a means of visually denoting an area where RF levels are expected to exceed the FCC's limits. Examples of Indicative Barrier Materials: plastic chains, buckets, reflective paint, or plastic cones, fiberglass fences, and poles mounted in chockblocks.



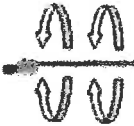
Antenna Types
Yagi - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk behind or under this antenna.



Panel - Antenna that radiates energy in one direction. RF energy beam can range from narrow to very wide. Walk behind this antenna. Stay out of the general direction that the antenna is pointing.



Wave - Antenna that radiates energy equally in all directions. Maintain as much distance as possible from this antenna.



Microtower - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk under or behind this antenna.

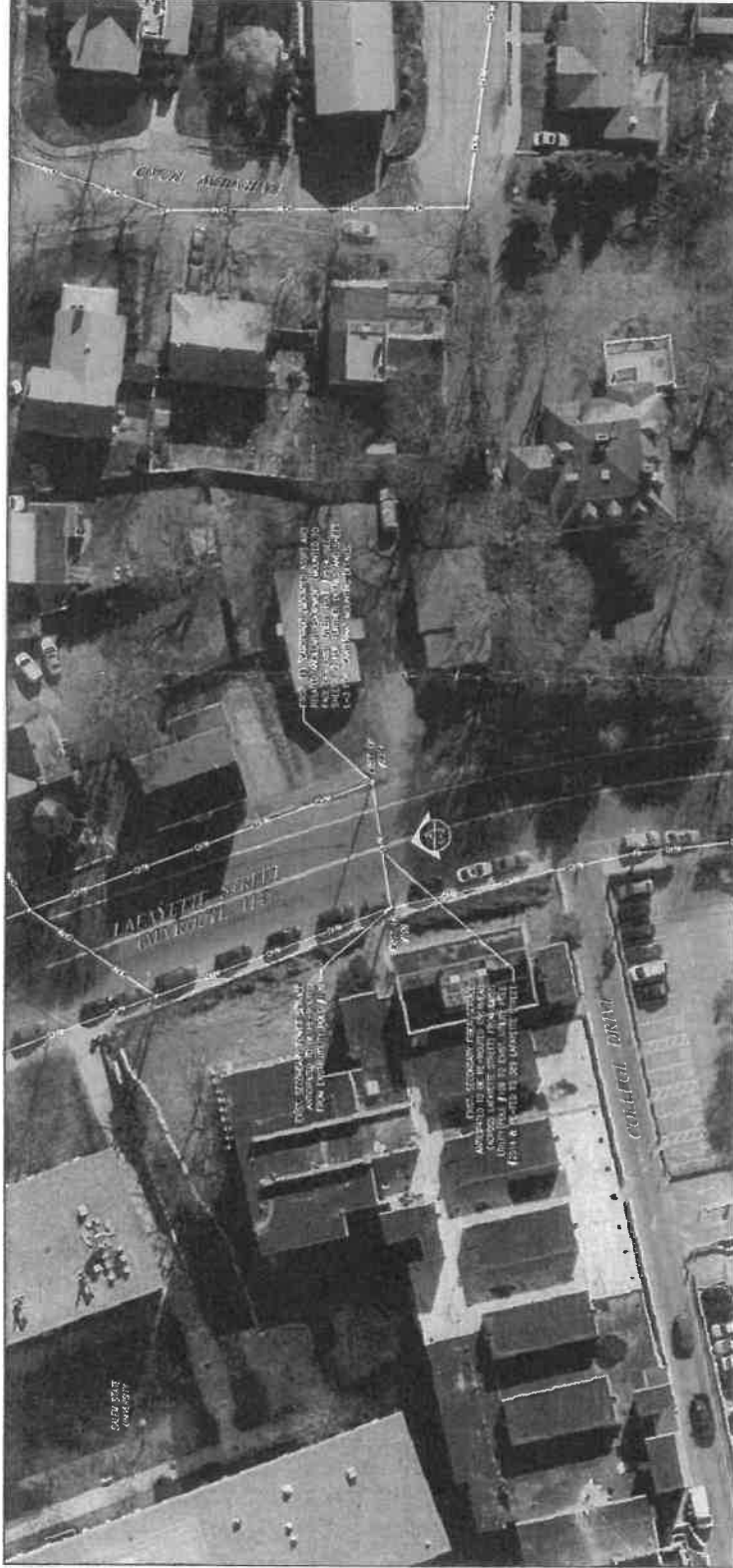


When In An Environment With Antennas:

- ⇒ Maintain at least a 3-foot clearance from all antennas. A 10-foot separation distance is preferred.
- ⇒ Never touch an antenna. Assume all are active.
- ⇒ Read and obey ALL signs on an access point.
- ⇒ Read and obey ALL signs in the environment with antennas.
- ⇒ Never walk past an indicative barrier without first confirming transmitter inactivity.
- ⇒ Never walk in front of or stand in front of an antenna whenever possible. Keep walking.
- ⇒ Contact all wireless licensees at least 24 hours in advance of scheduled maintenance.



SALEM_SC12_MA
CLUSTER: SALEM MA
 UTILITY POLE #2514 (N.G.)
 389 LAFAYETTE STREET (MA ROUTE 114)
 SALEM, MA 01970



UTILITY POLE #2514
 CENTER OF UTILITY POLE #2514
 N 42.502825 (42°30'08.08")
 W 70.880017 (70°53'26.44")
 APPROXIMATE GROUND ELEVATION - 45 ± FEET

LOCATION PLAN / AERIAL IMAGE
 SCALE: 1" = 50'
 0 50' 100' 150'

SHEET INDEX

DWG.	DESCRIPTION	REV.
L-1	LOCATION PLAN/AERIAL IMAGE	0
L-2	UTILITY POLE PHOTOGRAPH AND ELEVATION	0
L-3	ANTENNA & AUXILIARY EQUIPMENT DETAILS AND ONE-LINE DIAGRAM	0

verizon

Decision Maker Address

CHAPPELL ENGINEERING ASSOCIATES, LLC
 Civil Structural - Land Surveying
 201 EASTON ROAD WEST, SUITE 101
 WILMINGTON, MA 01897
 (508) 661-7100
 www.chappelleng.com

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REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	10/20/10

SITE NAME:
 SALEM_SC12_MA
 UTILITY POLE #2514 (N.G.)
 389 LAFAYETTE STREET
 SALEM, MA 01970

DRAWING TITLE:
 LOCATION PLAN / AERIAL IMAGE

DESIGNER:
 L-1

DATE:
 10/20/10
SCALE:
 AS SHOWN
PROJECT NO.:
 1486330
DATE PLOTTED:
 11/20/10
SCALE:
 AS SHOWN



Rescue Better. Move™

CHAPPELL ENGINEERING ASSOCIATES, LLC
 Civil/Structural/Land Surveying
 P.O. BOXING CENTRE
 201 BOSTON POST ROAD WEST, SUITE 101
 MAINTENANCE BLDG. 101
 SALEM, MA 01970
 www.chappellengineering.com

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NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	10/29/18

REVISIONS

SITE NAME:
SALEM_SC12_MA

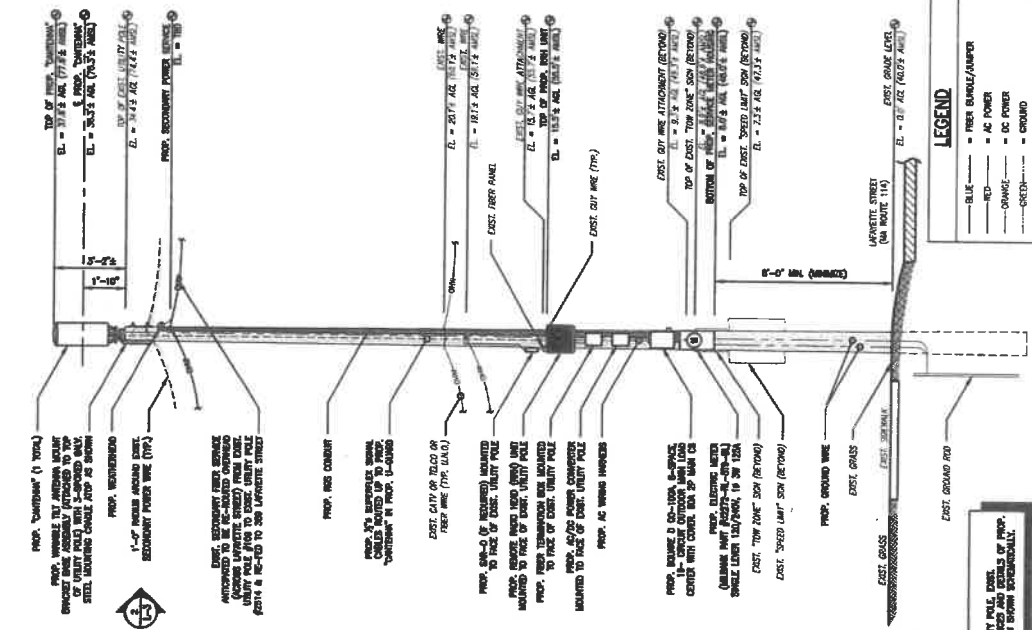
UTILITY POLE #2514 (R.G.)
 388 LAVAFRETTE STREET
 (ON THE WEST SIDE OF THE STREET)
 SALEM, MA 01970

DRAWING TITLE:
UTILITY POLE PHOTOGRAPH AND ELEVATION

DRAWING NO.:
L-2

NOT FOR CONSTRUCTION

DATE	DESIGNED BY	NOTED BY
AS SHOWN	10/29/18	
DATE	DESIGNED BY	NOTED BY
10/29/18		



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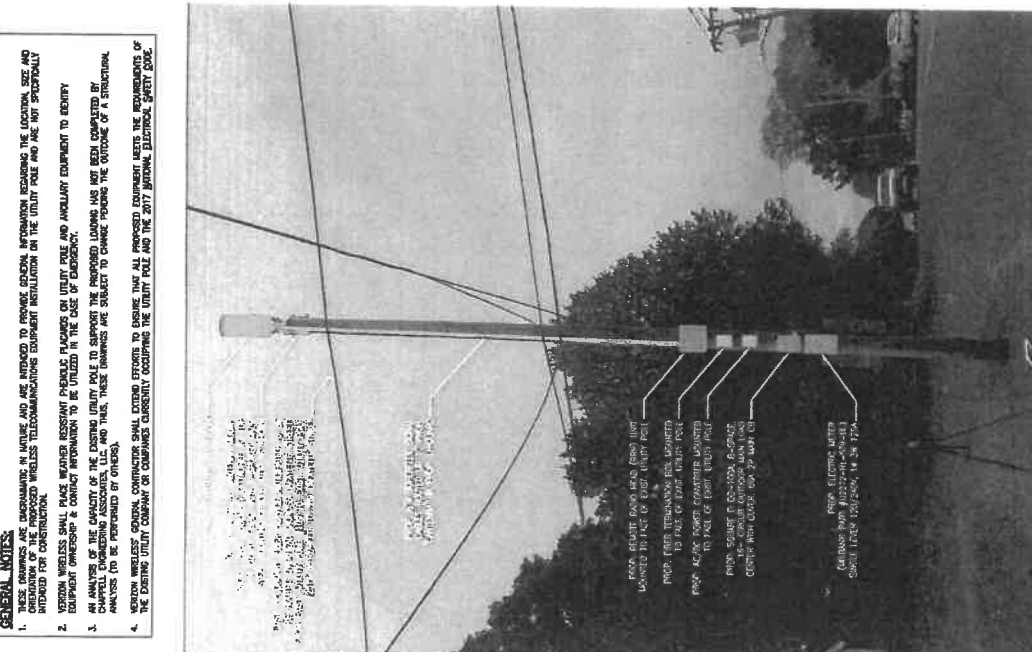
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- 5. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 6. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 7. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 8. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 9. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 10. 1" - 10" DIAMETER STEEL BANDS/WASHERS

EXISTING AND PROPOSED UTILITY POLE ATTACHMENTS:

- 1. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 2. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 3. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 4. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 5. 1" - 10" DIAMETER STEEL BANDS/WASHERS
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- 9. 1" - 10" DIAMETER STEEL BANDS/WASHERS
- 10. 1" - 10" DIAMETER STEEL BANDS/WASHERS

IT IS A VIOLATION OF LAW FOR ANY PERSON
 UNLESS THEY ARE ACTING UNDER THE DIRECTION
 OF A LICENSED PROFESSIONAL ENGINEER,
 TO COPY THIS DOCUMENT.

NO.	REVISIONS	DATE
0	ISSUED FOR PERM.	10/25/10

SITE NAME:

SALEM_SC12_MA
 UTILITY POLE #06214 (R.G.)
 389 LAFAYETTE STREET
 (80A ROUTE 11A)
 SALEM, MA 01970

DRAWING TITLE:

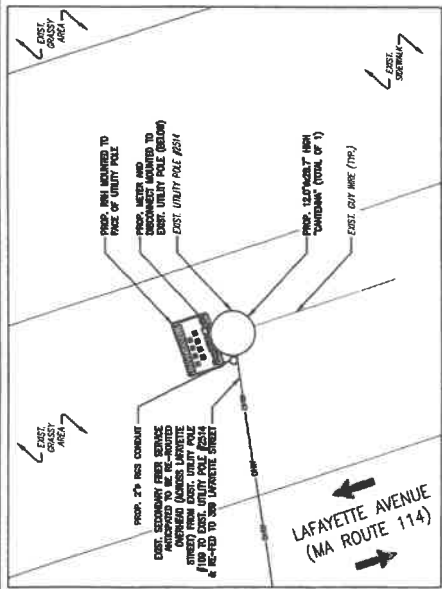
**ANTENNA & ANCILLARY
 EQUIPMENT DETAILS AND
 ONE-LINE DIAGRAM**

DRAWING NO.:

L-3

LEAVE FOR BIDDING
 NOT FOR CONSTRUCTION

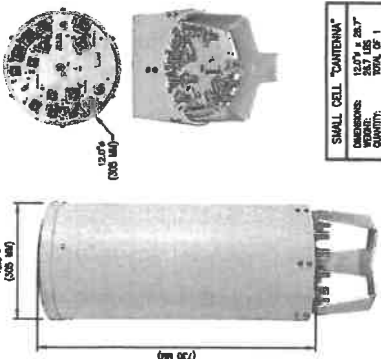
DATE AS SHOWN	DATE FOR CONSTRUCTION
10/25/10	10/25/10
DATE PROJECT SET	DATE SET
10/25/10	10/25/10



EQUIPMENT AND ANTENNA ORIENTATION PLAN
 SCALE: 3/8" = 1'-0"
 (INDICATED DIRECTION OF VEHICULAR TRAFFIC)



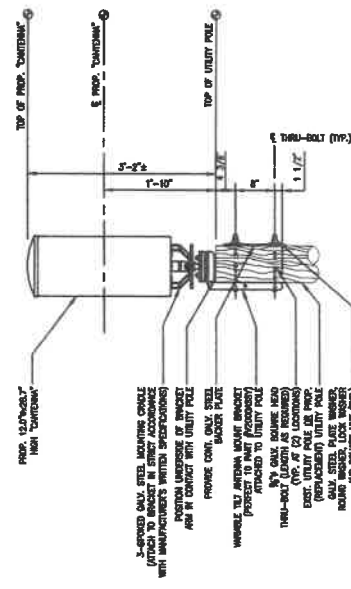
1 L-3



TYPICAL "CANTENNA" SPECIFICATIONS
 SCALE: N.T.S.



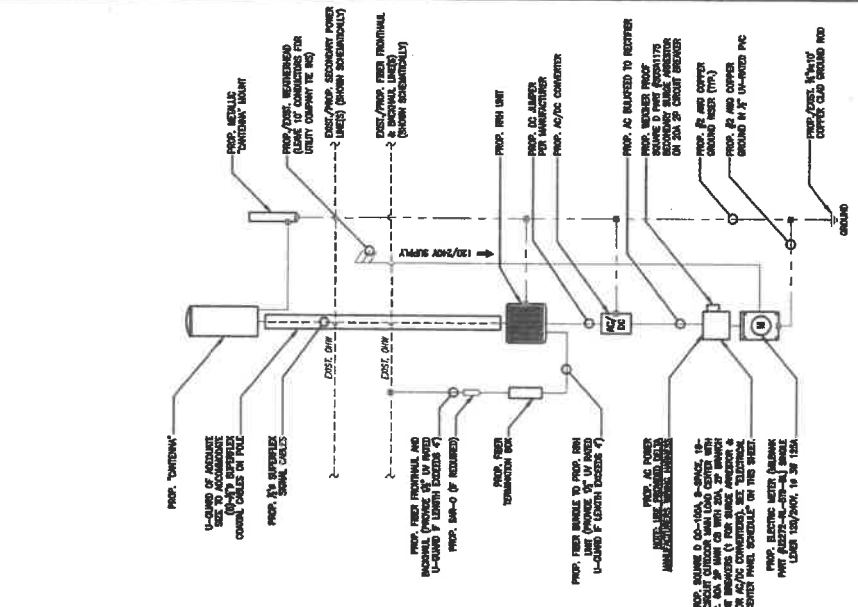
3 L-3



"CANTENNA" MOUNT DETAIL
 SCALE: 1/2" = 1'-0"



2 L-3



LEGEND

- BLUE — FIBER BUNDLE/JUMPER
- RED — AC POWER
- ORANGE — DC POWER
- DASHED — GROUND
- BLUE — 1/2" STAINLESS STEEL SIGNAL CABLES

FIELD INSTALLATION NOTES:

- PROVIDE WEATHER TIGHT SEAL CONNECTIONS ON ALL CONNECTIONS SUCH AS: ALL CONDUITS, ALL WIRING AND CONDUIT ENCLOSURES WITH VERIZON WIRELESS FIELD INSTALLATION.
- COORDINATE ANY REQUIRED MISCELLANEOUS WIRING AND CONDUIT ENCLOSURES WITH VERIZON WIRELESS FIELD INSTALLATION.

FIBER/ELECTRICAL ONE-LINE DIAGRAM
 SCALE: N.T.S.



5 L-3

**Salem
Abutters List**

Subject Parcel ID: b

Subject Property Location:

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
32-0370-0	385 LAFAYETTE STREET	JCG INVESTMENTS, LLC		348 PARK STREET SUITE 20	N. READING	MA	01864
32-0371-0	387 LAFAYETTE STREET	LAFAYETTE STREET 387 TRUST	KNIGHT PAMELA P TR	5R EMERALD AVE	MARBLEHEAD	MA	01945
32-0372-0	389 LAFAYETTE STREET	JOHN J MCCARTHY REVOCABLE 1	MIGLIACCIO MAUREEN	236 CANYON CIRCLE NORT	PALM SPRINGS	CA	92264
32-0373-0	391 LAFAYETTE STREET	WILLIAMS LOUIS D		391 LAFAYETTE ST	SALEM	MA	01970

Parcel Count: 4

End of Report

PETITION FOR SMALL CELL POLE ATTACHMENT

Under MGL Chapter 166, Section 22.

To the Honorable City Council of Salem, Massachusetts

Cellco Partnership d/b/a Verizon Wireless hereby respectfully requests permission to locate a small cell wireless antenna and necessary sustaining and protecting fixtures, on an existing utility pole #3502/84, located in the right of way adjacent to 201 Derby Street in the City of Salem, as more particularly shown on the plans attached hereto.

Wherefore it prays that after due notice and hearing as provided by law, it be granted permission to install and maintain a small cell wireless antenna including the necessary sustaining and protecting fixtures in accordance with the plan filed herewith marked SALEM_SC24_MA.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #3502/84, located in the right of way near the property line of 201 Derby Street with location as shown on the plan attached.

PETITIONER:

Cellco Partnership d/b/a
Verizon Wireless

By

Bryan Sarchi
Airosmith Development
318 West Avenue
Saratoga Springs, NY. 12866
480-734-4970

ORDER FOR POLE ATTACHMENT

In the City of Salem, Massachusetts

Notice having been given and public hearing held, as provided by law, IT IS HEREBY ORDERED:

That Cellco Partnership d/b/a Verizon Wireless is granted a location for and permission to attach equipment to an existing utility pole, including the necessary sustaining and protecting fixtures as said company may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Company dated the ____ day of _____, 2020.

All construction under this order shall be in accordance with the following conditions:

Equipment shall be installed as indicated upon the plan marked - Site ID: SALEM_SC24_MA, 201 Derby Street, Salem, MA 01970, dated November 21, 2019 and filed with this order.

The following are the public ways or part of ways along which the above referred attachment may be installed thereon under this order:

Cellco Partnership d/b/a Verizon Wireless proposes to attach equipment to an existing utility pole #3502/84, in the right of way near the property line of 201 Derby Street with location as shown on the plan attached.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Salem, Massachusetts held on the ____ day of _____, 2020., with the following conditions set below. *

Received and entered in the records of location orders of the City of Salem Book _____, Page _____.

Attest: _____
City Clerk

*

ROUTING SLIP

Telecommunications Attachments in the Public Right of Way

Pursuant to the Code of Ordinances, Sections 12-86 through 12-200, each applicant who seeks access to the public right of way for telecommunications purposes must submit a petition and plans along with a \$500 application fee to the Electrical Department. Once the City Electrician has signed off, please circulate to the Departments listed on the reverse side of this Routing Slip for signature and return it to the City Clerk's Office prior to the petition being placed on the City Council Agenda for a grant of location pursuant to MGL Chapter 166, Section 22.

Right of Way Location Requested: 201 DERBY ST. / 42.520759, 70.888482

Application Fee Received: Yes Check No. 6477 Date: 2/27/20

City Electrician Approval: John J. Gaudi

BUSINESS NAME
 Corporate name: VERIZON WIRELESS
 d/b/a: _____

Address: 118 FLANDERS RD 3RD FLOOR WESTBOROUGH, MA 01581 Tele. # _____

CONTACT: BRYAN SARCHI / AGENT IN / AIRO-SMITH DEVELOPMENT
 Street: 318 WEST AVE Tele. # 980-734-4170
 City: SARATOGA SPRING State: NY Zip: 12866
 Email Address: BSARCHI@AIROSMITHDEVELOPMENT.COM

Pole Ownership

To be attached to utility-owned pole ___ To be attached to City-owned pole

Pole Attachment Agreement attached* ___ Pole Attachment Agreement to follow*

*All grants of location for telecommunications attachments to poles are conditioned upon evidence of a valid pole attachment agreement.

Conduits

Will the attachment also require a conduit? Yes ___ No

TO ALL CITY DEPARTMENTS: By signing this slip you are only acknowledging that the applicant has made your department aware of its plans. All grants of location will be conditioned upon compliance with all departmental requirements and require a vote of the City Council after a public hearing. Please attach comments on separate sheet.

DM Daniel *note his letter* 3/11/2020
Planning Department DATE
City Hall Annex, 98 Washington Street

David DeRose *please see memo* 3/30/2020
Engineering Department DATE
City Hall Annex, 98 Washington Street

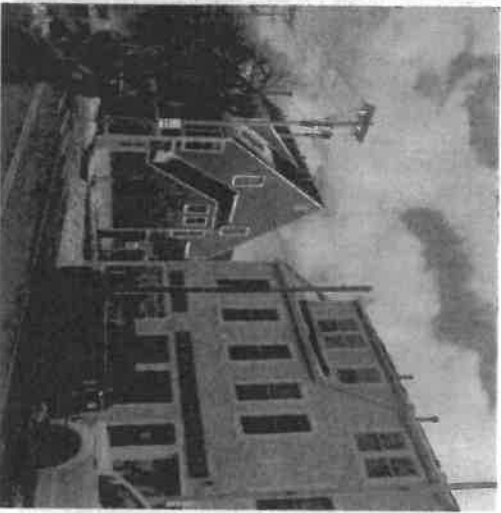
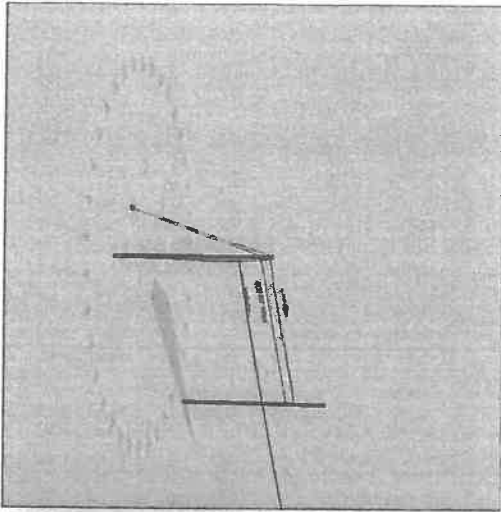
POO *Please see comment letter* 3/10/20
Salem Historical Commission DATE
City Hall Annex, 98 Washington Street

Max Hillen *see* 3/27/2020
Office of Information Technology DATE
29 Highland Avenue

Nick B. Calder 3/30/2020
Legal Department DATE
City Hall, 93 Washington Street

RETURN ROUTING SLIP, ANY COMMENTS, PETITION, PLANS, ABUTTER LABELS, AND PROPOSED ORDER TO CITY CLERK'S OFFICE, CITY HALL, 93 WASHINGTON STREET WHEN COMPLETE SO THAT IT MAY BE PLACED ON THE COUNCIL'S AGENDA.

Pole Num:	3502-84_DERBY ST	Pole Length / Class:	30 / 5	Code:	30 / 5	Structure Type:	NESC	Deadend
Aux Data 1	Unset	Species:	SOUTHERN PINE	Construction Grade:	NESC Rule:	Status	Rule 250B	Guy Wires Adequate
Aux Data 2	Unset	Setting Depth (ft):	5.89	Loading District:	28.00	Pole Strength Factor:	C	0.85
Aux Data 3	Unset	G/L Circumference (in):	28.00	Ice Thickness (in):	8,000	Wire Tension LF:	0.50	1.75
Aux Data 4	Unset	G/L Fiber Stress (psi):	6,800	Wind Speed (mph):	39.53	Vertical LF:	4.00	1.30
Aux Data 5	Unset	Allowable Stress (psi):	No	Fiber Stress Ht. Reduc:	0.000000	Elevation:	0.000000	1.90
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	4.00			
Latitude:	0.000000	Longitude:	0.000000	Deg	0.000000	Deg	0.000000	0 Feet



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Maximum	43.4	17.7
Groundline	24.4	0.0
Vertical	4.1	20.6

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	7,172	180.0
Groundline	8,687	0.0
GL Allowable	39,387	82.0

Guy System Component Summary

Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Load From Worst Wind Angle on Pole		Individual Maximum Load With Overload Applied	
				Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Stub Pole	42.0	0.0		0.0	0.0	0.0	0.0
12.5M (Span/Head)			21.8	0.0	0.0	0.0	0.0
12.5M (Span/Head)			23.5	0.0	0.0	0.0	0.0
Single Helix Anchor	12.0	180.0		14.7	0.0	16.2	0.0
12.5M (Down)			21.9	19.8	0.0	21.8	0.0
12.5M (Down)			23.7	6.3	0.0	7.0	0.0

System Capacity Summary:

Adequate	Adequate
----------	----------

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 0.0°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	2,308	221.2	30,156	347.1	76.6	7,072	257	4	7,076	104.1
GuyBraces	-1,370	-131.3	-22,465	-258.6	-57.0	-5,268	3,960	63	-5,205	-76.5
Pole	105	10.1	992	11.4	2.5	233	849	14	246	3.6
Insulators	0	0.0	4	0.1	0.0	1	2	0	1	0.0
Pole Load	1,043	100.0	8,687	100.0	22.1	2,037	5,068	81	2,118	31.2
Pole Reserve Capacity			30,700		77.9	4,763			4,682	68.8

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 0.0°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
NGrid	938	89.9	7,695	88.6	19.5	1,805	4,219	68	1,872	27.5
Pole	105	10.1	992	11.4	2.5	233	849	14	246	3.6
Totals:	1,043	100.0	8,687	100.0	22.1	2,037	5,068	81	2,118	31.2

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Secondary	TRIPLEX 1/0 10-5 NGrid	17.70	5.64	1.0300	2.46	0.399	200.0	0.0	200.0	1,775	40,843	120	0	40,963
Totals:											40,843	120	0	40,963

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)		
Spool	Spool Insulator NGrid	17.70	0.00	0.0	0.0	1.00	2.50	2.12	1	5	5		
Totals:											1	5	5

O-Calc® Pro Analysis Report

Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead Length (ft)	Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
12.5M	NGrid	21.81	21.81	42.00	0.343	75.00	0.0	0.0	0.0	0.208	39.65	0.00
12.5M	NGrid	23.52	23.52	42.00	0.343	75.00	0.0	0.0	0.0	0.208	39.66	0.00
12.5M	NGrid	21.86	0.00	12.00	0.343	100.00	180.0	61.0	0.208	28.63	0.36	0.36
12.5M	NGrid	23.67	0.00	12.00	0.343	100.00	180.0	62.9	0.208	30.31	0.12	0.12

Guy Wire and Brace (Loads and Reactions)	Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ^{2a} (lbs)	Maximum Tension ^{2b} (lbs)	Applied Tension ³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ² (ft-lb)		
													Span/Head	Span/Head
12.5M	2.30e+7	12,500	0.90	11,250	700	0	0	0	0	0	0	24		
12.5M	2.30e+7	12,500	0.90	11,250	700	0	0	0	0	0	0	26		
12.5M	2.30e+7	12,500	0.90	11,250	700	2,448	2,226	2,226	1,947	1,079	-1,079	-23,037		
12.5M	2.30e+7	12,500	0.90	11,250	700	784	713	713	635	325	-325	-7,528		
Totals:											2,582	1,403	-1,403	-30,516

Anchor/Rod Load Summary		Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ³ (lbs)	Max Required Capacity ² (%)
Stub Pole	NGrid	30.00	42.00	0.0	20,000	1.00	20,000	0	0	0	0.0
Single Helix Anchor	NGrid	18.00	12.00	180.0	20,000	1.00	20,000	3,232	2,938	2,938	16.2

Pole Buckling													
Buckling Constant	Buckling Column Height ¹ (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	20.59	34.12	8.08	4.02	6.05	8.92	2.13e+6	60.00	57.00	24.11	122,369	1236.08	24.39



2/7/2020

To: City of Salem

Transmitted via email

RE: Verizon Wireless Small Cell Sites

Dear City of Salem,

Verizon is installing additional wireless telecommunications facilities in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas of potential concern as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antennas and proximity of the work location.

Thank you for your inquiry. Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

You also expressed concerns about the health effects of RF emissions from Verizon's network equipment. The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell towers on the FCC's website, which you can access via this link: <http://www.fcc.gov/oet/rfsafety/ef-faqs.html>.

Thank you for reaching out to us regarding your concerns. We appreciate the chance to explain our activities regarding the wireless facility at issue. Questions related to compliance with federal regulations should be directed to VZWRFCCompliance@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

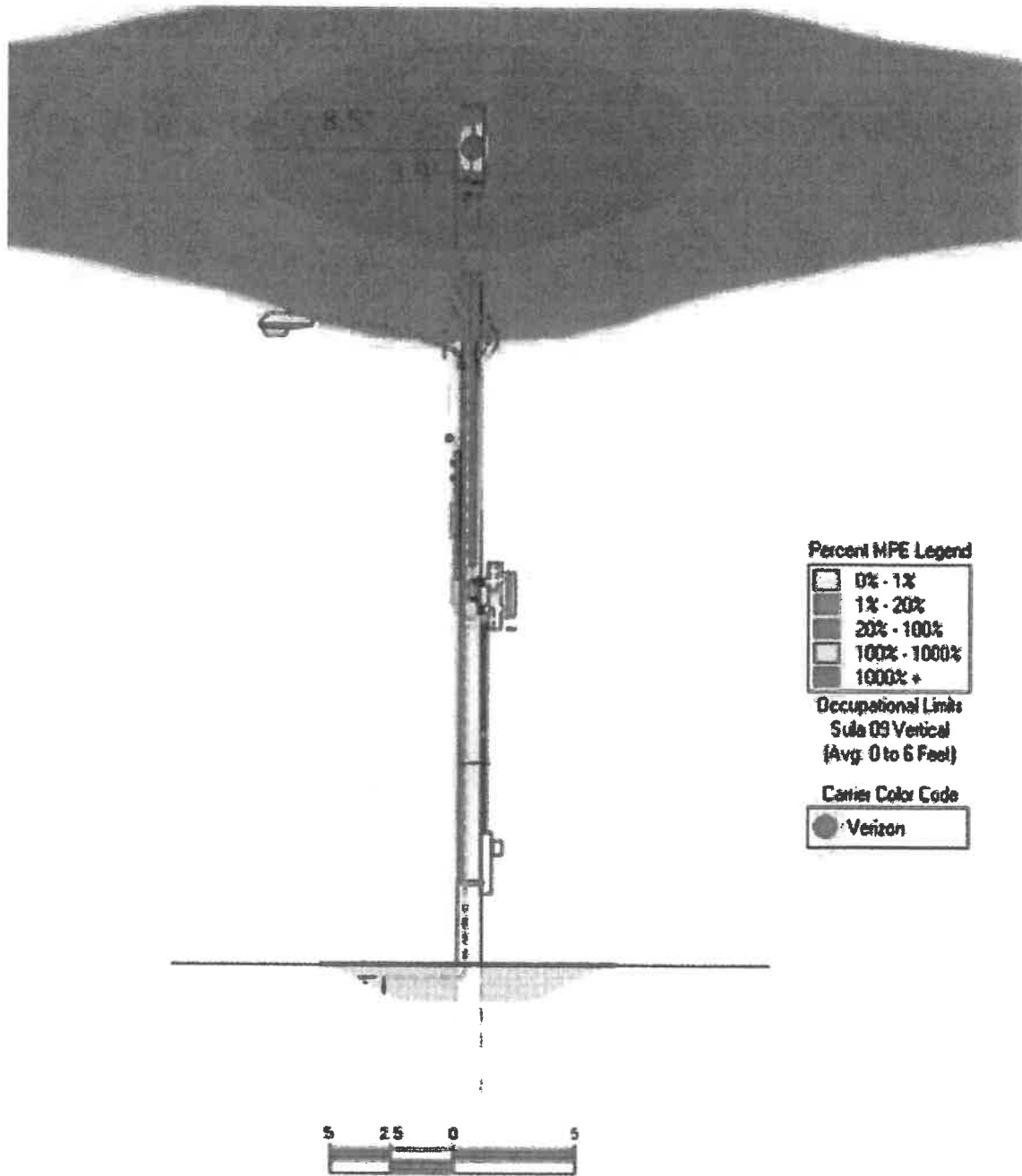
Contact Name	Contact Email	Contact Phone
Luis Teves	Luis.Teves@VerizonWireles.com	508-479-3197

Sincerely,

Michael Creamer
Sr Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from transmitting antennas on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-green areas.



Color	% Occupational MPE	Instructions
	0 to 20	Contact VZW Before Accessing This Area
	20 to 100	
	Greater Than 100	
	Greater Than 1000	

Property Owner Responsibilities (M.E.N.U)

RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- ⇒ **M**aintaining all necessary wireless licensee contact information.
- ⇒ **E**nforcing restricted access (help maintain a Controlled Environment). Ensuring all building/maintenance personnel are aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- ⇒ **N**otifying all licensees when any non-carrier requests access to any area with antennas at least 24 hours in advance.
- ⇒ **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.



For General RF Safety & Awareness Questions
Verizon Wireless

E-mail: VZWRFCompliance@vzw.com
E-mail Subject: "ATTN: RF Compliance"

In The Event That Emergency Resolutions Is Required
24-Hour Network Operations Center:
1-800-264-6620

RF Safety & Awareness Training Contacts
Dtech Communications

(michelle@dtech.com)

EBI Consulting

spental@ebiconsulting.com

Sitesafe

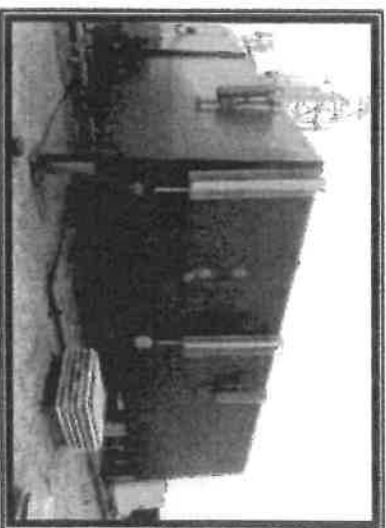
(cbailey@sitesafe.com)

Waterford Consultants

Shaler-

anderson@waterfordconsultants.com

Radio Frequency (RF) Emissions



Federal Compliance Requirements

Compliance Materials

Antenna Safety

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed these 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 an overview of the most applicable information:

Classifications for Exposure Limits

Occupational
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
Any persons that "may not be made fully aware of the potential for exposure or cannot exercise control over their exposure".

Those in this category do not have RF Safety & Awareness Training.

Ensuring Compliance With FCC Guidelines

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personal exposures in excess of the FCC guidelines.

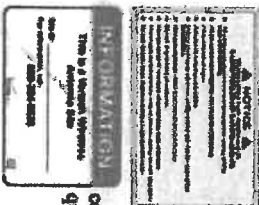
Wireless Licensees are required by law to implement the following:

- Restrict access (lock door/ladder's)
- Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
- Place additional notification signage and visual indicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.

Notification Signage

(Note-2) RF Guidelines - Informs viewer of the basic safety guidelines for working in an RF Environment.

Information - Provides relevant contact information for any questions or requests.



(Blue) Notice - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population MPE limit but will remain below the Occupational MPE limit.

(Yellow) Caution - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population and Occupational MPE limit.



(Red) Warning - Informs viewer that beyond the sign, RF exposure levels may substantially exceed the General Population and Occupational MPE limit.

Indicative Barriers

In addition to physical barriers such as locked doors or ladders, wireless licensees may also be required to place indicative barriers as a means of visually demarcating an area where RF levels are expected to exceed the FCC's limits. Examples of Indicative Barrier Materials: plastic chains, buckets, reflective paint or plastic cones, fiberglass fences, and poles mounted in cinderblocks.



Antenna Types

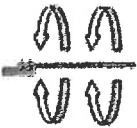
Yagi - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk behind or under this antenna.



Panel - Antenna that radiates energy in one direction. RF energy beam can range from narrow to very wide. Walk behind this antenna. Stay out of the general direction that the antenna is pointing.



Wave - Antenna that radiates energy equally in all directions. Maintains as much distance as possible from this antenna.



Microwave - Antenna that radiates energy in one direction. RF energy has a narrow beam. Walk under or behind this antenna.



When In An Environment With Antennas:

- ⇒ Maintain at least a 3-foot clearance from all antennas. A 10-foot separation distance is preferred.
- ⇒ Never touch an antenna. Assume all are active.
- ⇒ Read and obey ALL signs on an access point.
- ⇒ Read and obey ALL signs in the environment with antennas.
- ⇒ Never walk past an indicative barrier without first confirming transmitter inactivity.
- ⇒ Never walk in front of or stand in front of an antenna whenever possible. Keep walking.
- ⇒ Contact all wireless licensees at least 24 hours in advance of scheduled maintenance.



SALEM_SC24_MA
CLUSTER: SALEM MA
 UTILITY POLE #3502/84
 201 DERBY STREET
 SALEM, MA 01970

PRESIDING POWER COMPANY
 nationalgrid



CHAPPELL
 ENGINEERING
 ASSOCIATES, LLC
 Civil/Structural/Land Surveying

CKE ENGINEERING
 201 BOSTON STREET, SUITE 101
 LENOX, MASSACHUSETTS 01922
 (978) 481-7400
 www.chappellengineering.com

IT IS A VIOLATION OF LAW FOR ANY PERSON,
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 OR ARCHITECT.

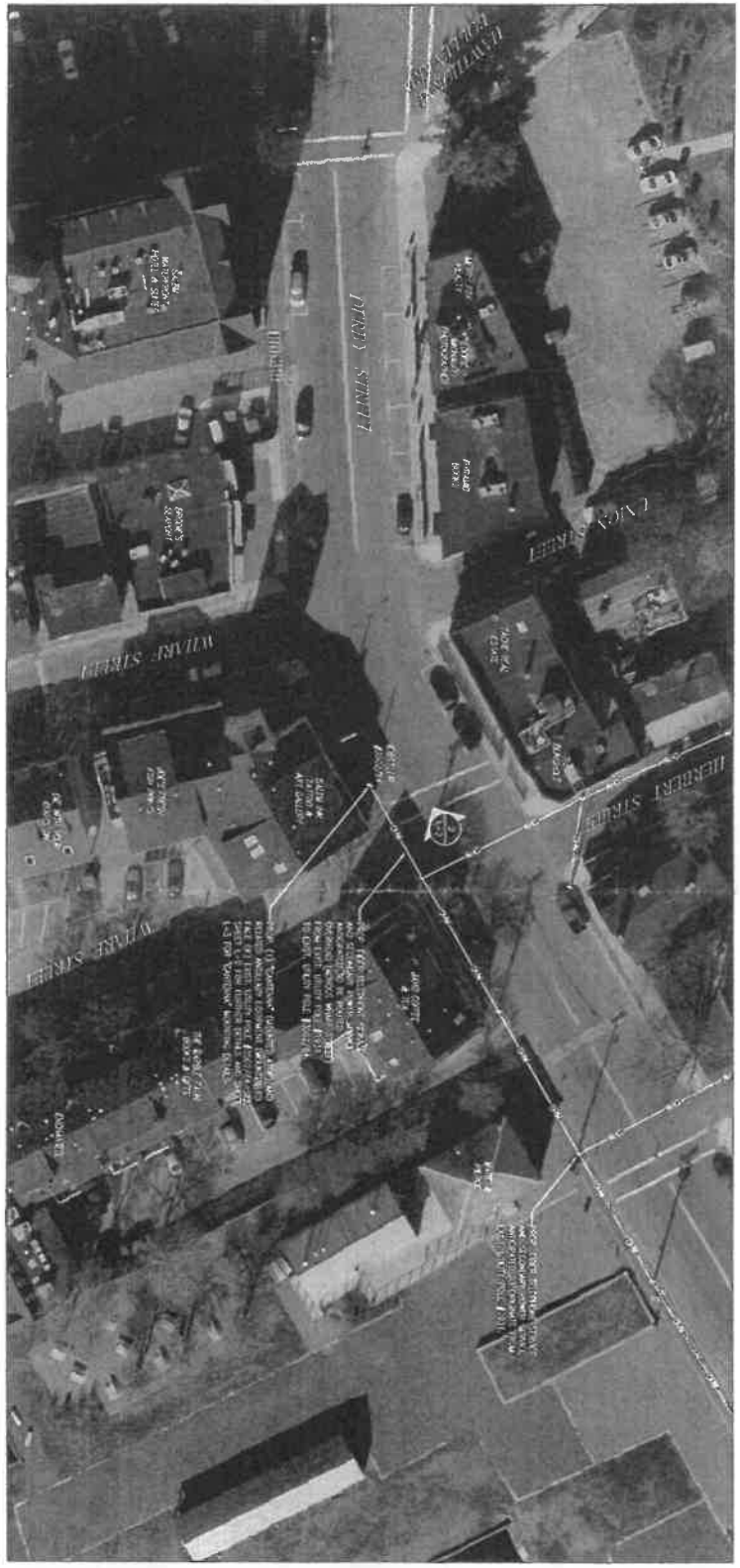
REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	11/25/19

SITE NAME:
SALEM_SC24_MA
 UTILITY POLE #3502/84
 201 DERBY STREET
 SALEM, MA 01970

ISSUANCE TITLE:
**LOCATION PLAN
 AERIAL IMAGE**

DRAWING JOB:
L-1

DATE	BY	CHKD	DATE
11/25/19			

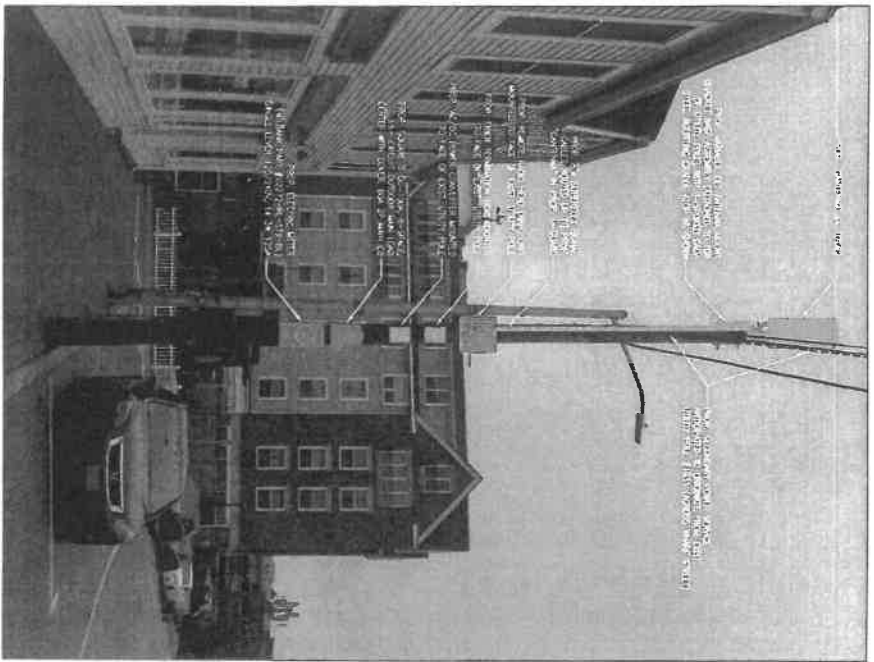


SITE LOCATION POINT
 CENTER OF UTILITY POLE #3502/84
 N 43.8078° W 14.7517°
 APPROXIMATE GROUND ELEVATION - 102.4 FEET

LOCATION PLAN/AERIAL IMAGE
 SCALE: 1" = 50'
 0 50' 100' 150'

SHEET INDEX		
DWG.	DESCRIPTION	REV.
L-1	LOCATION PLAN/AERIAL IMAGE	0
L-2	UTILITY POLE PHOTOGRAPH AND ELEVATION	0
L-3	ANTENNA & MULTIMETER EQUIPMENT DETAILS AND ONE-LINE DIAGRAM	0

- GENERAL NOTES:**
1. THESE DRAWINGS ARE DISCUSSANT IN NATURE AND ARE INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION, SIZE AND PROPORTION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSULATION ON THE UTILITY POLE AND ARE NOT SPECIFICALLY INTENDED TO BE USED FOR CONSTRUCTION.
 2. WIRELESS WIRELESS EQUIPMENT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FEDERAL COMMUNICATIONS COMMISSION (FCC) AND THE FEDERAL ELECTRICITY REGULATORY COMMISSION (FERC).
 3. AN ANALYSIS OF THE CHARACTER OF THE EXISTING UTILITY POLE TO SUPPORT THE PROPOSED LOADING HAS NOT BEEN CONDUCTED BY CHAPPELL ENGINEERING ASSOCIATES, LLC AND THIS, THESE DRAWINGS ARE SUBJECT TO CHANGE FOLLOWING THE OUTCOME OF A STRUCTURAL ANALYSIS TO BE PERFORMED BY OTHERS.
 4. WIRELESS WIRELESS EQUIPMENT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FEDERAL COMMUNICATIONS COMMISSION (FCC) AND THE FEDERAL ELECTRICITY REGULATORY COMMISSION (FERC).



UTILITY POLE #3502/84 PHOTOGRAPH (EXISTING CONDITIONS /SCHEMATIC RENDERING)

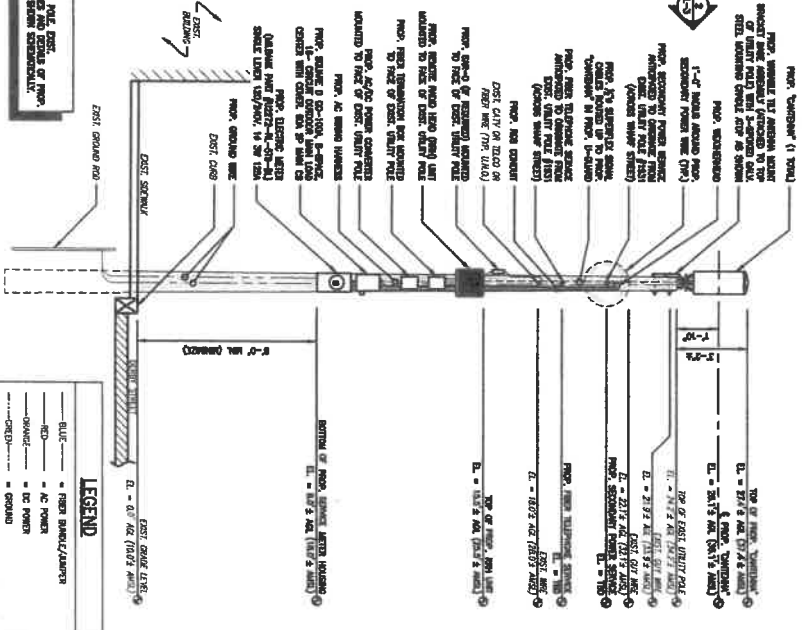
SCALE: NO SCALE

EXISTING AND PROPOSED WIRELESS EQUIPMENT INSULATION:
 WIRELESS EQUIPMENT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FEDERAL COMMUNICATIONS COMMISSION (FCC) AND THE FEDERAL ELECTRICITY REGULATORY COMMISSION (FERC).

EXISTING AND PROPOSED WIRELESS EQUIPMENT INSULATION:
 WIRELESS EQUIPMENT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FEDERAL COMMUNICATIONS COMMISSION (FCC) AND THE FEDERAL ELECTRICITY REGULATORY COMMISSION (FERC).

UTILITY POLE #3502/84 ELEVATION (PROPOSED CONDITIONS)

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



CHAPPELL ENGINEERING ASSOCIATES, LLC
 CIVIL / STRUCTURAL / LAND SURVEYING
 201 BOWEN DRIVE
 SALEM, MA 01970
 (508) 461-7400
 www.chappellengineering.com

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR BIDDING	1/25/19

SITE NAME:
 SALEM_SC24_MA
 UTILITY POLE #3502/84
 201 DERBY STREET
 SALEM, MA 01970

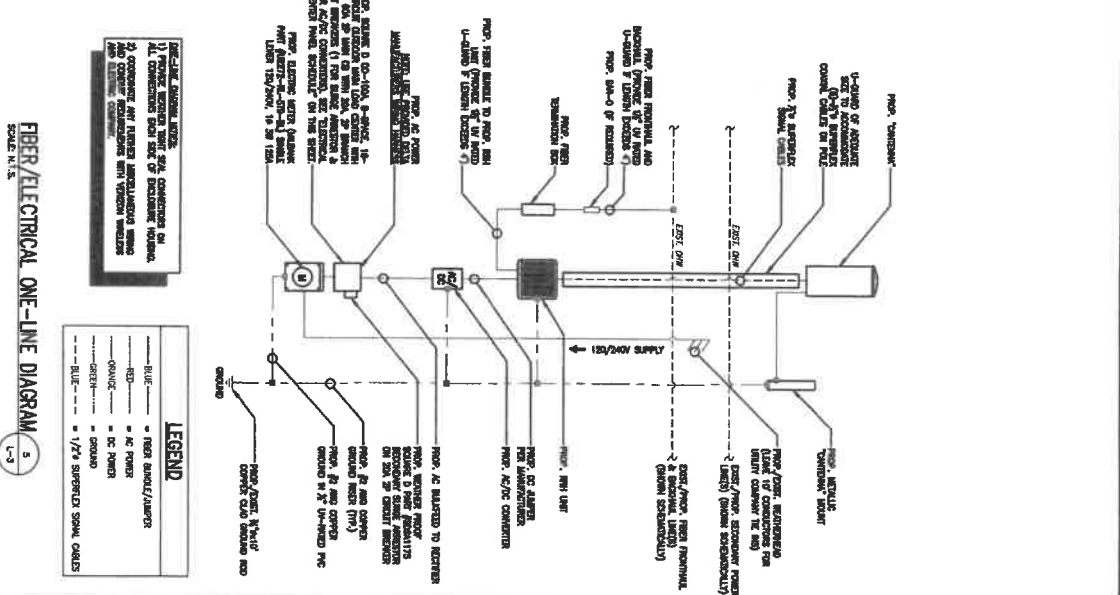
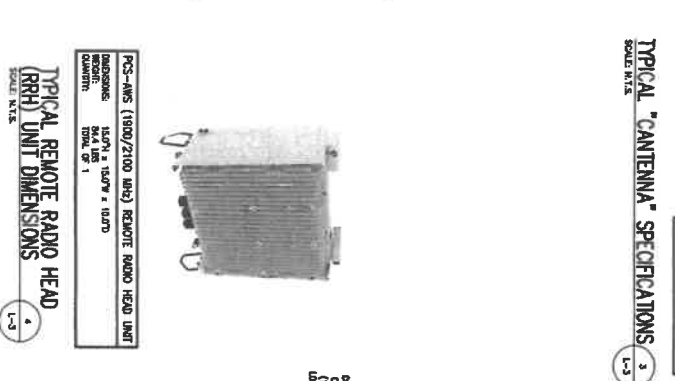
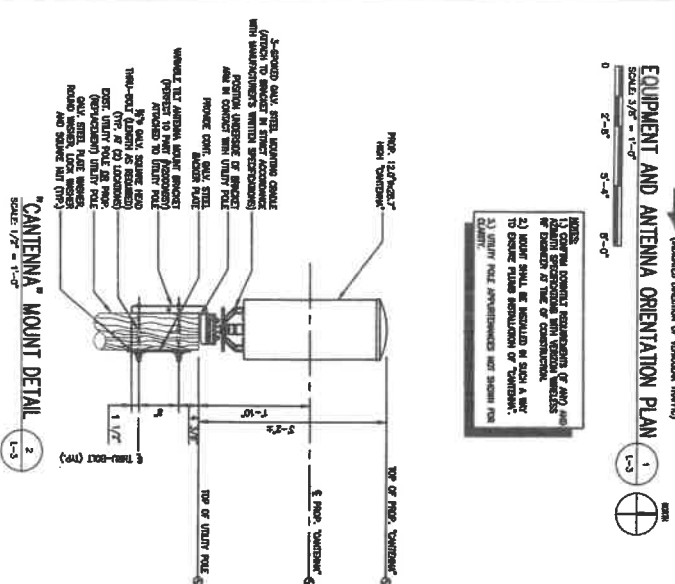
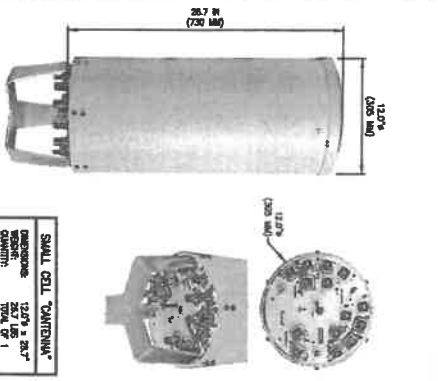
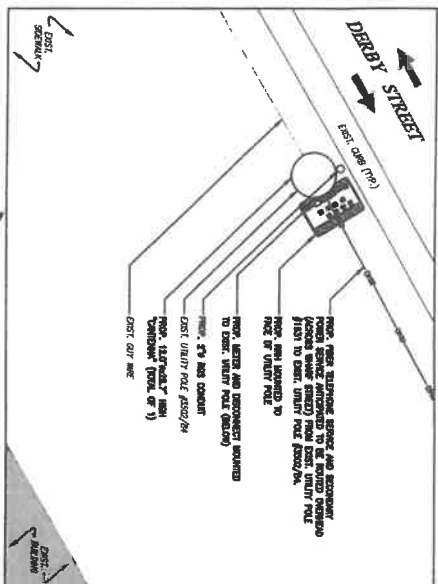
DESIGN TITLE:
 UTILITY POLE PHOTOGRAPH AND ELEVATION

DESIGN JOB:
 L-2

LEADER CONTACT:
 NOT FOR CONSTRUCTION

SCALE:
 AS SHOWN

DATE:
 11/27/19



verizon
"Because Better Matters"

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil / Structural / Land Surveying
R.K. DEJONGE CORP
201 BOSTON POST ROAD WEST, SUITE 101
SALEM, MA 01970
(508) 451-7400
www.chappellengineering.com

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR BIDD	11/27/18

SITE NAME:
SALEM_SCP24_MA
UTILITY POLE #892084
301 DERBY STREET
SALEM, MA 01970

DRAWING TITLE:
ANTENNA & ANCILLARY EQUIPMENT DETAIL S AND ONE-LINE DIAGRAM

DRAWING JOB:
L-3

LEADER BOARD:
NOT FOR CONSTRUCTION

DATE	BY	CHKD	APP'D
11/27/18	AS	SK	AS

SCALE: AS SHOWN
DATE PLOTTED: 01/11/21/18
108333

Salem
Abutters List

Subject Parcel ID: b

Subject Property Location:

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
34-0289-0	15 POND STREET	BATISTA GEOVANNI	BATISTA CARMEN	15 POND STREET	SALEM	MA	01970
34-0290-0	47 CANAL STREET	SOUTH HARBOR HOLDINGS,LLC		P O BOX 829	SALEM	MA	01970
34-0408-862	201 DERBY STREET UCA	PICKERING WHARF COMPLEX, LL	C/O ROCKETT MANAG & RE	57 WHARF STREET STE 2E	SALEM	MA	01970
34-0427-0	215 DERBY STREET	LU LU GRACIOUS REALTY TRUST	DONOVAN SHAWN E TR	4 JOHNS AVENUE	MIDDLETON	MA	01949
34-0481-0	60 WHARF STREET	MEZINI ANIL		197 DERBY STREET	SALEM	MA	01970

Parcel Count: 5

End of Report

nationalgrid

March 26, 2020

City of Salem

To Whom It May Concern:

Enclosed please find a petition of NATIONAL GRID and VERIZON, covering joint NATIONAL GRID-VERIZON pole location(s)

If you have any questions regarding this permit please contact:

Please notify National Grid's Vincent LoGuidice of the hearing date / time at 978-725-1392 or Vincent.LoGuidice@NationalGrid.com.

If this petition meets with your approval, please return an executed copy to each of the above named Companies.

National Grid Contact: Vincent LoGuidice; 1101 Turnpike Street; North Andover, MA 01845

Very truly yours,

Robert Coulter

**Name: Distribution Design Supervisor
Supervisor, Distribution Design**

Enclosures

Maureen Fisher

From: John Giardi
Sent: Wednesday, April 15, 2020 11:06 AM
To: Maureen Fisher
Subject: RE: JO Pole Ferry & Waite St

Good morning Maureen, I move for approval from the Electrical Department.

From: Maureen Fisher
Sent: Wednesday, April 15, 2020 10:08 AM
To: John Giardi; David Knowlton; Deborah Duhamel; Giovanna Zabaleta Recinos
Subject: JO Pole Ferry & Waite St

For your review and feedback. Hearing to be held April 23, 2020.
Please respond by April 21, 2020 @ 12:00 PM.

Thank you!

Maureen

Maureen E. Fisher
Assistant City Clerk - Council
Justice of the Peace
City of Salem
93 Washington St
Salem, MA 01970
978-619-5614
mfisher@salem.com

Questions contact – Elizabeth Cardarelli 978-380-8813

PETITION FOR JOINT OR IDENTICAL POLE LOCATIONS

North Andover, Massachusetts

To the City Council
Of Salem, Massachusetts

Massachusetts Electric Company d/b/a National Grid and Verizon New England, Inc requests permission to locate poles, wires, and fixtures, including the necessary sustaining and protecting fixtures, along and across the following public way:

Ferry St and Waite St - National Grid to install 2 JO Poles (1) on Ferry St and (1) on Waite St beginning at a point approximately 150 feet SE of the centerline of the intersection of Bridge St and continuing approximately 100 feet in a SE direction. National Grid to install 2 JO Poles, 1 on Ferry St and 1 on Waite St.

Location approximately as shown on plan attached

Wherefore it prays that after due notice and hearing as provided by law, it be granted a location for and permission to erect and maintain poles and wires, together with such sustaining and protecting fixtures as it may find necessary, said poles to be erected substantially in accordance with the plan filed herewith marked – Ferry St and Waite St - Salem – Massachusetts.

No.# 29191031 February 24, 2020

Also for permission to lay and maintain underground laterals, cables, and wires in the above or intersecting public ways for the purpose of making connections with such poles and buildings as each of said petitioners may desire for distributing purposes.

Your petitioner agrees to reserve space for one cross-arm at a suitable point on each of said poles for the fire, police, telephone, and telegraph signal wires belonging to the municipality and used by it exclusively for municipal purposes.

Massachusetts Electric Company d/b/a National Grid
BY Robert Cauter
Engineering Department

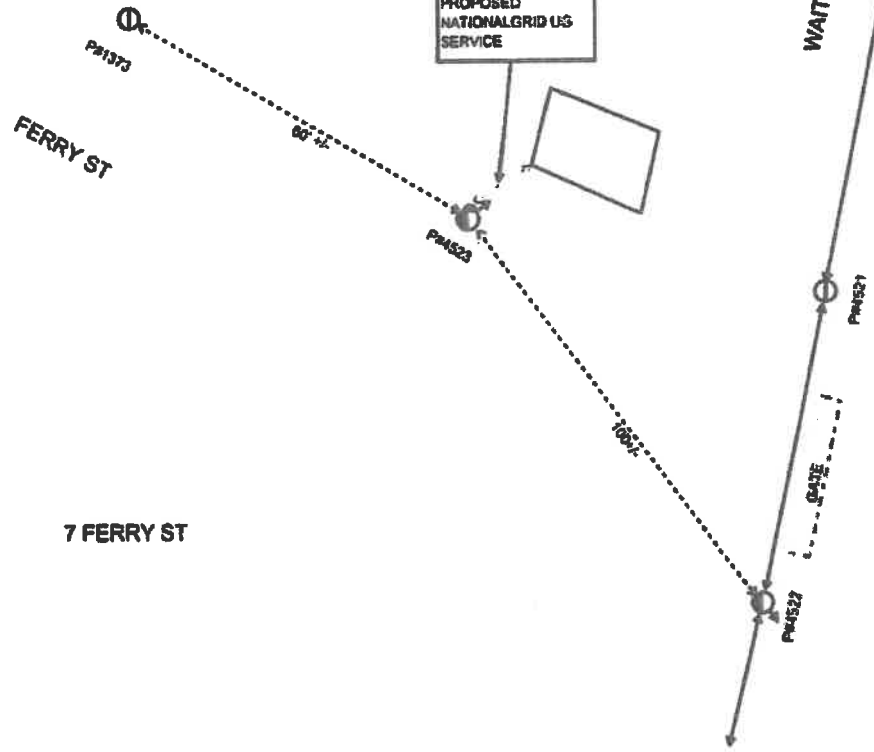
VERIZON NEW ENGLAND, INC.
BY _____
Manager / Right of Way



8 WAITE ST
36-0231-0

10 WAITE ST
36-0233-0

PROPOSED
NATIONALGRID US
SERVICE



7 FERRY ST

JOINT OWNED POLE PETITION

LEGEND

- ⊕ EXISTING J. O. POLE LOCATIONS
- PROPOSED J. O. POLE LOCATIONS
- ← PROPOSED ANCHOR/GUY WIRE
- ⋯ PROPOSED OVERHEAD CONDUCTORSS
- ↔ EXISTNG OVERHEAD CONDUCTORS

Date: FEBRUARY 10, 2020 Drawn by: ELIZABETH CARDARELLI
 DRAWING NOT TO SCALE. DISTANCES ARE APPROXIMATE.

Plan Number 29191031

nationalgrid

and Verizon New England, Inc.

To The: CITY OF SALEM

For Proposed:
INSTALLATION OF 2 J. O. POLE LOCATIONS
AND ALL APPURTENANCES

Location:
10 WAITE ST. SALEM, MA 01970

Sketch to accompany petition for:
 THE INSTALLATION OF 2 J. O. POLES
 AND ALL APPURTENANCES

Salem

ORDER FOR JOINT OR IDENTICAL POLE LOCATIONS

To the City Council - Salem, Massachusetts

Notice having been given and public hearing held, as provided by law,
IT IS HEREBY ORDERED:

that Massachusetts Electric Company d/b/a National Grid and VERIZON NEW ENGLAND INC. (formerly known as NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY) be and they are hereby granted joint or identical locations for and permission to erect and maintain poles and wires to be placed thereon, together with such sustaining and protecting fixtures as said Companies may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Companies dated the 24th day of February, 2020.

All construction under this order shall be in accordance with the following conditions:

Poles shall be of sound timber, and reasonable straight, and shall be set substantially at the points indicated upon the plan marked – Ferry St and Waite St - Salem – Massachusetts.

February 24, 2020. Filed with this order

There may be attached to said poles by Massachusetts Electric Company d/b/a National Grid and Verizon New England Inc. such wires, cables, and fixtures as needed in their business and all of said wires and cables shall be placed at a height of not less than twenty (20) feet from the ground.

The following are the public ways or part of ways along which the poles above referred to may be erected, and the number of poles which may be erected thereon under this order:

Ferry St and Waite St - National Grid to install 2 JO Poles (1) on Ferry St and (1) on Waite St beginning at a point approximately 150 feet SE of the centerline of the intersection of Bridge St and continuing approximately 100 feet in a SE direction. National Grid to install 2 JO Poles, 1 on Ferry St and 1 on Waite St.

Also for permission to lay and maintain underground laterals, cables, and wires in the above or intersecting public ways for the purpose of making connections with such poles and buildings as each of said petitioners may desire for distributing purposes.

I hereby certify that the foregoing order was adopted at a meeting of the
of the City/Town of _____, Massachusetts held on the _____ day of _____ 20 .

Massachusetts

City/Town Clerk.

20 .

Received and entered in the records of location orders of the City/Town of
Book Page

Attest:
City/Town Clerk

I hereby certify that on 20 , at o'clock, M
at a public hearing was held on the petition of
Massachusetts Electric Company d/b/a National Grid and VERIZON NEW ENGLAND, INC.

for permission to erect the poles, wires, and fixtures described in the order herewith recorded, and
that we mailed at least seven days before said hearing a written notice of the time and place of said
hearing to each of the owners of real estate (as determined by the last preceding assessment for
taxation) along the ways or parts of ways upon which the Company is permitted to erect
poles, wires, and fixtures under said order. And that thereupon said order was duly adopted.

City/Town Clerk.

.....
.....
.....
.....

Board or Council of Town or City, Massachusetts

CERTIFICATE

I hereby certify that the foregoing is a true copy of the location order and certificate of
hearing with notice adopted by the of the City of
Massachusetts, on the day of 20 , and recorded with the
records of location orders of the said City, Book , Page . This certified copy
is made under the provisions of Chapter 166 of General Laws and any additions thereto or
amendments thereof.

Attest:

NGRID

ORDER FOR JOINT OR IDENTICAL POLE LOCATIONS

To the City Council - Salem, Massachusetts

Notice having been given and public hearing held, as provided by law,
IT IS HEREBY ORDERED:

that Massachusetts Electric Company d/b/a National Grid and VERIZON NEW ENGLAND INC. (formerly known as NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY) be and they are hereby granted joint or identical locations for and permission to erect and maintain poles and wires to be placed thereon, together with such sustaining and protecting fixtures as said Companies may deem necessary, in the public way or ways hereinafter referred to, as requested in petition of said Companies dated the 24th day of February, 2020.

All construction under this order shall be in accordance with the following conditions:

Poles shall be of sound timber, and reasonable straight, and shall be set substantially at the points indicated upon the plan marked – Ferry St and Waite St - Salem – Massachusetts.

February 24, 2020. Filed with this order

There may be attached to said poles by Massachusetts Electric Company d/b/a National Grid and Verizon New England Inc. such wires, cables, and fixtures as needed in their business and all of said wires and cables shall be placed at a height of not less than twenty (20) feet from the ground.

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Also for permission to lay and maintain underground laterals, cables, and wires in the above or intersecting public ways for the purpose of making connections with such poles and buildings as each of said petitioners may desire for distributing purposes.

I hereby certify that the foregoing order was adopted at a meeting of the
of the City/Town of _____, Massachusetts held on the _____ day of _____ 20 .

Massachusetts City/Town Clerk.
20 .

Received and entered in the records of location orders of the City/Town of
Book _____ Page _____

Attest:
City/Town Clerk

I hereby certify that on _____ 20 _____, at _____ o'clock, M
at _____ a public hearing was held on the petition of
Massachusetts Electric Company d/b/a National Grid and VERIZON NEW ENGLAND, INC.

for permission to erect the poles, wires, and fixtures described in the order herewith recorded, and
that we mailed at least seven days before said hearing a written notice of the time and place of said
hearing to each of the owners of real estate (as determined by the last preceding assessment for
taxation) along the ways or parts of ways upon which the Company is permitted to erect
poles, wires, and fixtures under said order. And that thereupon said order was duly adopted.

City/Town Clerk.

.....
.....
.....
.....

Board or Council of Town or City, Massachusetts

CERTIFICATE

I hereby certify that the foregoing is a true copy of the location order and certificate of
hearing with notice adopted by the _____ of the City of
Massachusetts, on the _____ day of _____ 20 _____, and recorded with the
records of location orders of the said City, Book _____, Page _____. This certified copy
is made under the provisions of Chapter 166 of General Laws and any additions thereto or
amendments thereof.

Attest:



Comcast
David R. Flewelling
Specialist 2 Construction
9 Forbes Road, Suite 9B
Woburn, MA 01801
Cell – 617-279-7864
dave_flewelling@comcast.com

March 26,2020

Ms. Maureen Fisher
Salem Assistant City Clerk
City Hall
93 Washington Street
Salem, MA 01970

RE: 125 Essex St Salem
Grant of Location-Petition

Dear Ms. Fisher:

Enclosed please find materials supporting Comcast request for a grant of location from the Salem City Council. The work associated with the attached petition is for the purpose of installing new underground conduit . To be used to provide the Comcast service to number 125 Essex Street. For a detailed description of the work please refer to the attached construction plans.

I look forward to the opportunity to address this matter in further detail at the next Salem City Council Meeting. Should you have any questions or concerns, please feel free to contact me at (617) 279-7864.

Sincerely,

A handwritten signature in black ink, appearing to read "David R. Flewelling", with a long, sweeping flourish extending to the right.

David R. Flewelling
Comcast
Specialist 2, Construction

Enclosure (4)

Maureen Fisher

From: John Giardi
Sent: Wednesday, April 15, 2020 11:10 AM
To: Maureen Fisher
Subject: RE: Conduit 125 Essex St.

Hi Maureen, I move approval from the Electrical Department as long as David Knowlton is satisfied with this petition. I hope you are well and ill see you soon, John

From: Maureen Fisher
Sent: Wednesday, April 15, 2020 10:08 AM
To: John Giardi; David Knowlton; Deborah Duhamel; Giovanna Zabaleta Recinos
Subject: Conduit 125 Essex St.

For your review and feedback. Hearing to be held April 23, 2020.
Please respond by April 21, 2020 @ 12:00 PM.

Thank you!

Maureen

Maureen E. Fisher
Assistant City Clerk - Council
Justice of the Peace
City of Salem
93 Washington St
Salem, MA 01970
978-619-5614
mfisher@salem.com

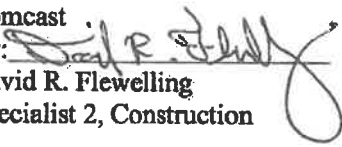
PETITION OF COMCAST FOR LOCACTION FOR CONDUITS, MANHOLES AND POLES

To the City Council for the City of Salem, Massachusetts:

Respectfully represents Comcast Cable Communications Management LLC., a company incorporated for the distribution of broadband services, that it desires to construct a line for such telecommunications under the public way or ways hereinafter specified.

Essex Street: Starting at the existing Comcast Manhole excavating to place (1) 4" PVC Conduit 31'+/- to provide the Comcast Service to number 125 Essex Street.

Wherefore, your petition prays that, after due notice and hearing as provided by law, the City Council may by Order grant your petitioner permission to construct, and a location for, such a line of conduits, manholes and poles with the necessary wires and cables therein, said conduits manholes and poles to be located, substantially as shown on the plan made by Dewsnap Engineering dated March 18, 2020 and filed here with, under the following public way or ways of said City of Salem.

Comcast
By: 
David R. Flewelling
Specialist 2, Construction

Dated this March 26, 2020

City of Salem Massachusetts

Received and filed _____, 2020

Maureen Fisher

From: Giovanna Zabaleta Recinos
Sent: Tuesday, April 21, 2020 11:36 AM
To: Maureen Fisher; John Giardi; David Knowlton; Deborah Duhamel
Subject: RE: Conduit 125 Essex St.

Maureen,

We don't have any special comments for the conduit. Just add the language about applying for a street opening permit prior of doing any work.

Sincerely,

Giovanna Z. Recinos

*Junior Engineer, Engineering Department
City of Salem
She/Her/Hers*

*98 Washington Street, 2nd Floor
Salem, Massachusetts 01970
P: 978-619-5671 | grecinos@salem.com*

Please be aware the Engineering Department is a SCENT FREE ENVIRONMENT

Please be advised that City offices are closed until further notice in order to help minimize the spread of COVID-19. I will frequently check my emails and phone messages while working remotely during this temporary closure. Thank you in advance for your patience and cooperation with keeping our community healthy.

Por favor tenga en cuenta que las oficinas de la ciudad estarán cerradas hasta nuevo aviso para ayudar a minimizar la propagación del COVID-19. Durante este cierre temporal estaré revisando con frecuencia mis correos electrónicos mientras trabajo de forma remota. Gracias de antemano por su paciencia y cooperación para mantener a nuestra comunidad saludable.

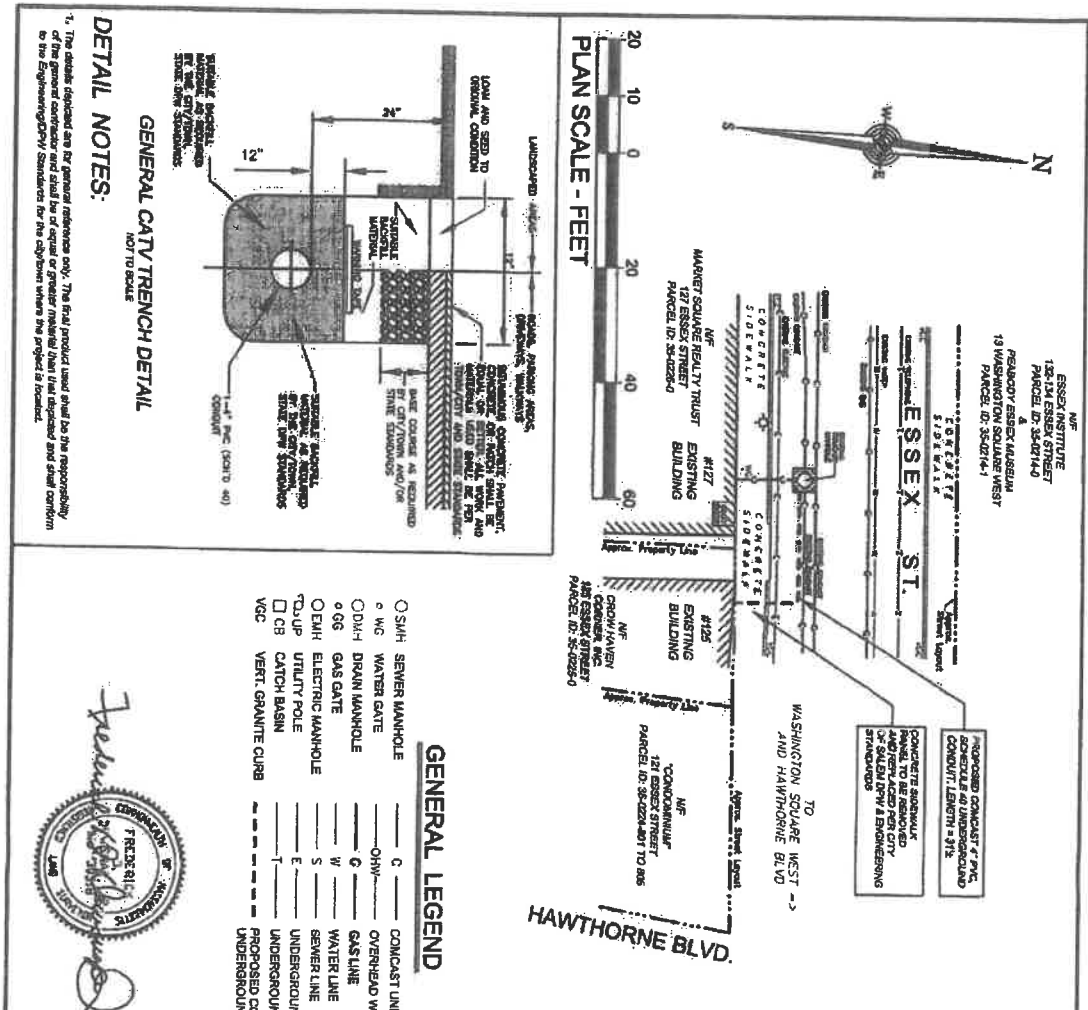
From: Maureen Fisher <MFisher@Salem.com>
Sent: Wednesday, April 15, 2020 10:08 AM
To: John Giardi <JGiardi@Salem.com>; David Knowlton <DKnowlton@Salem.com>; Deborah Duhamel <dduhamel@Salem.com>; Giovanna Zabaleta Recinos <GZabaleta@Salem.com>
Subject: Conduit 125 Essex St.

For your review and feedback. Hearing to be held April 23, 2020.
Please respond by April 21, 2020 @ 12:00 PM.

Thank you!

Maureen

Maureen E. Fisher
Assistant City Clerk - Council
Justice of the Peace
City of Salem
93 Washington St
Salem, MA 01970
978-619-5614
mfisher@salem.com

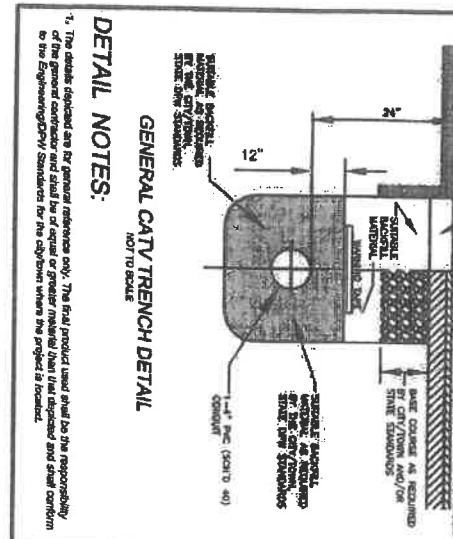


NOTES:

- This plan was prepared from record data on file at the City of Salem, the Essex South Registry of Deeds, and a field location tape survey performed by this office on March 16, 2020.
- The locations of underground utilities as shown are based on above ground structures and record drawings, if any, provided to the Surveyor. The locations of underground utilities/structures may vary from location hereon and are not warranted to be accurate and/or correct. Additional buried utilities/structures may be encountered. No excavations were performed during the progress of this survey to locate buried utilities/structures.
- Prior to any construction the Contractor shall notify DIG-SAFE at least 72 hours in advance at 811 (National Call Number) for verification of utilities and for field locations.
- It is the responsibility of the Utility Contractor installing the Concast underground conduit to notify those utility companies not associated with the DIG-SAFE system to verify the locations of their respective utilities. Also, the installing contractor shall be responsible for repairing or replacing any traffic signal loops damaged during the installation of the new Concast underground conduit.
- All work to be performed is the installation of a Concast 4" PVC, Sct. 40 underground conduit to service #125 Essex Street.
- All work shall conform to the approving authorities Engineering and DPW Standards.
- Prior to the start of any construction, the Utility Contractor shall confirm the number of conduits and the size of the conduit(s) for this project with the Concast project Coordinator.
- Upon completion of the trench work for the day, the contractor shall backfill, compact and pave the trench and the work area shall be broom swept clean. In grassed areas the trench shall be loamed and seeded and they must spread to keep the area stabilized until the grass has taken hold.
- Street/Property lines are not the result of a boundary survey and are considered to be approximate.

CONSTRUCTION NOTES:

- Following the Dig-Safe "mark out" and field verification of the existing underground utilities, the Proposed 4" PVC, Sct. 40 Concast Conduit and Proposed 3X3" manhole shall be adjusted in the field by the utility contractor to avoid being located over any existing utilities.



GENERAL LEGEND

○ SHH	SEWER MANHOLE	— G —	CONCAST UNDERGROUND CABLE
○ WG	WATER GATE	— OHW —	OVERHEAD WIRES
○ DM-H	DRAIN MANHOLE	— G —	GAS LINE
○ GG	GAS GATE	— W —	WATER LINE
○ EMH	ELECTRIC MANHOLE	— S —	SEWER LINE
○ TUP	UTILITY POLE	— E —	UNDERGROUND TELEPHONE
□ CB	CATCH BASIN	— T —	UNDERGROUND CONCAST UNDERGROUND CONDUITS
VCC	VERT. GRANITE CURB		

PROPOSED CONCAST UNDERGROUND

ESSEX COUNTY

PLAN OF LAND

IN

SALEM, MA

Prepared for:	COMCAST	Prepared by:	DEWISMAP ENGINEERING ASSOC. LLP
	9 ESSEX FLD, SUITE 88		178 LEBANON AVENUE - SALEM, MA 01988
	WOBURN, MA 01897		TEL: (781) 253-0535
Date:	MARCH 18, 2020	Scale:	As Shown
Checked By:	F.A.D. & P.A.D.	PROJECT LOCATION:	125 ESSEX STREET
Drawn By:	P.A.D.		WARD 1, PRECINCT 1
Field By:	P.A.D. & P.A.D.		
	Sheet No. 1 of 2		

GENERAL NOTES:

- The details depicted are for general reference only. The final product must shall be the responsibility of the general contractor and shall be of equal or greater material than that specified and shall conform to the Engineering/DPW Standards for the job when the project is located.

April 9, 2020

Mr. David Flewelling
Comcast
Specialist 2, Construction
9 Forbes Road, Suite 9B
Woburn, MA 01801

Dear Mr. Flewelling:

You are hereby notified that the City Council will hold a Public Hearing remotely on Thursday, April 23, 2020 at 7:00 P.M. for the purpose of discussing installing a conduit on 125 Essex St. via remote participation in accordance with Chapter 40A of the Massachusetts General Laws and Governor Baker's Emergency Order dated March 12, 2020. Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitation on the number of people that may gather in one place, this meeting of the Salem City Council will be conducted via remote participation to the greatest extent possible. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings in real time, via technological means. In the event that we are unable to do so on matters not requiring a public hearing, we will post on the City of Salem's website an audio or video recording, transcript, or other comprehensive record of proceedings as soon as possible after the meeting. Individuals may participate remotely in the meeting via a remote participation platform called Zoom. Members of the public and/or parties with a right and/or requirement to attend this meeting may access the remote participation meeting through any one of the following ways:

You are invited to a Zoom webinar. Please do not respond to this message. Please direct all responses to the meeting organizer.

When: Apr 23, 2020 07:00 PM Eastern Time (US and Canada)

Topic: City Council Regular Meeting, April 23, 2020

Please click the link below to join the webinar:

<https://zoom.us/j/98724659996?pwd=cHpIQmVDTUJmR3pBQlVJZWdzVW92QT09>

Password: 266493

Or Telephone:

Dial(for higher quality, dial a number based on your current location):

US: 877 853 5257 (Toll Free) or 888 475 4499 (Toll Free)

Webinar ID: 987 2465 9996

Very truly yours,

Very truly yours,

ATTEST:

ILENE SIMONS
CITY CLERK

April 9, 2020

Dear Abutter:

You are hereby notified that the City Council will hold a Public Hearing remotely on Thursday, April 23, 2020 at 7:00 P.M. for the purpose of discussing installing a conduit on 125 Essex St. via remote participation in accordance with Chapter 40A of the Massachusetts General Laws and Governor Baker's Emergency Order dated March 12, 2020.

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitation on the number of people that may gather in one place, this meeting of the Salem City Council will be conducted via remote participation to the greatest extent possible. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings in real time, via technological means. In the event that we are unable to do so on matters not

requiring a public hearing, we will post on the City of Salem's website an audio or video recording, transcript, or other comprehensive record of proceedings as soon as possible after the meeting.

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Password: 266493

Please let me know what your email or name or if dialing in by phone, phone number you will be using for the meeting.

Or Telephone:

Dial (for higher quality, dial a number based on your current location):

US: 877 853 5257 (Toll Free) or 888 475 4499 (Toll Free)

Webinar ID: 987 2465 9996

Press *9 in order to raise your hand to speak if call in via telephone

You are respectfully invited to speak in favor or in opposition on this matter.

ILENE SIMONS
CITY CLERK

**Salem
Abutters List**

Subject Parcel ID: B

Subject Property Location:

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
35-0214-0	132 134 ESSEX STREET	ESSEX INSTITUTE		120 ESSEX ST	SALEM	MA	01970
35-0224-801	121 ESSEX STREET U1	SALEM HERITAGE VENTURES, L	C/O ATOMIC COFFEE ROAS	107 WATER STREET	DANVERS	MA	01923
35-0224-802	121 ESSEX STREET U2	GOES KATHERINE M		2 HAWTHORNE BLVD U2	SALEM	MA	01970
35-0224-803	121 ESSEX STREET U3	SHEA MICHAEL N		2 HAWTHORNE BLVD UNIT 3	SALEM	MA	01970
35-0224-804	121 ESSEX STREET U4	2-4 HAWTHORNE LLC		4 FIELDSTONE DRIVE	WINCHESTER	MA	01890
35-0224-805	121 ESSEX STREET U5	SUMMER NORTH LAND HOLDING		45 STUART STREET U1902	BOSTON	MA	02116
35-0225-0	125 ESSEX STREET	CROW HAVEN CORNER, INC		125 ESSEX STREET	SALEM	MA	01970
35-0226-0	127 ESSEX STREET	MARKET SQUARE REALTY LLC		55 C BRACKETT PLACE	MARBLEHEAD	MA	01945

Parcel Count: 8

End of Report