

**BOARD OF SELECTMEN AGENDA**  
**MONDAY, OCTOBER 24, 2016**  
SELECTMEN MEETING 7:00 P.M.  
SELECTMEN'S CONFERENCE ROOM, TOWN OFFICES

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The agenda for each meeting closes at 4:30 P.M. on the Wednesday preceding the meeting. Times designated for agenda items are estimated.

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- I. Call to Order– 7:00 P.M.
- II. Opening Ceremonies – 7:00 P.M.
  - A. Moment of Silence/Pledge of Allegiance
- III. Communications/Announcements/Liaison Reports – 7:05 P.M.
- IV. Citizens Petitions and Presentations – 7:10 P.M.
- V. Public Hearing – 7:15 P.M.
  - A. Andover Spa – (20 minutes)

Application of Prayosha 108 Corporation d/b/a Andover, Spa, 9 Elm Street, Andover, MA has applied for an All Alcoholic Package Store Beverage License at 9 Elm Street, Andover, MA. Niki Patel, 342 Treble Cove Road, North Billerica, MA for the appointment of as designated manager, subject to the condition that all other requirements of the Town are met prior to issuance.
  - B. Mobilitie, LLC – (5 minutes)

Mobilitie, LLC is requesting permission to construct, in accordance with plans dated June 14, 2016 the following: Haverhill and York Streets to attach equipment to a new utility pole in the right of way east of the intersection of Haverhill Street and York Street with electricity connection.
  - C. Mobilitie, LLC – (5 minutes)

Mobilitie, LLC is requesting permission to construct, in accordance with plans dated June 9, 2016 the following: River Road and Riverside Drive to attach a new wooden utility pole in the right of way north west of the intersection of River Road and Riverside Drive with electricity connection.
  - D. Mobilitie, LLC – (5 minutes)

Mobilitie, LLC is requesting permission to construct, in accordance with plans Dated September 21, 2016, the following: Railroad and North Main Streets to attach equipment to a new utility pole in the right way southwest of the intersection of Railroad and North Main Streets, with electricity connection.

- E. National Grid – (5 minutes)  
National Grid and Verizon New England requesting permission to locate poles, wires, and fixtures, including the necessary sustaining and protecting fixtures, along and across the following public way: #22027, Lowell Junction Road. 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.
- F. Comcast – (5 minutes)  
Comcast requesting permission to place and maintain 1 4-inch PVC Communication Conduit a total of +/-92 feet easterly from Utility Pole #1535/5 on Chestnut Street to a proposed 4' x 4' manhole and continuing +/- 154 feet southerly on Main Street into the building located at 71 Main Street.

VI. Regular Business of the Board – 8:00 P.M.

- A. Presentation of Conceptual Plan for Municipal Services Building at 5 Campanelli Drive – (30 minutes)  
Joint Discussion with Permanent Town Building Committee.
- B. Policy Guidelines Review 2<sup>nd</sup> Reading – (25 minutes)  
Board of Selectmen to conduct a policy review of Section 1, Section 9 and Section 12.
- C. 2017 Annual Town Election Calendar Discussions – (5 minutes)  
Board to discuss the 2017 Annual Town Election Calendar dates with Town Clerk.
- D. 2017 Annual Town Meeting Warrant – (5 minutes)  
Board to vote to open the 2017 Annual Town Meeting Warrant on October 24, 2016 and close the Warrant at 4:30 p.m. on January 27, 2017.
- E. GLTS Net Metering Contract – (10 minutes)  
Municipal Services requests to purchase Net Metering credits from The Greater Lawrence Technical School and Board to discuss and consider voting to approve the Town Manager to enter into a contract.
- F. Request to Turn on Selected Street Lights – (10 minutes)  
Board of Selectmen to discuss and consider voting to approve Municipal Services requests to turn on approximately 200 street lights.
- G. Solar Statement – ( 10 minutes)  
Town of Andover is seeking national recognition as a SolSmart Community under a new EPA program and Board to discuss and consider voting to approve support of the Solar Statement.

VII. Consent Agenda – 9:35 P.M.

**A. APPOINTMENTS – (Town Manager)**

**That the following appointments by the Town Manager be approved:**

<b>NAME:</b>	<b>POSITION:</b>	<b>RATE:</b>	<b>DOH:</b>
<b>Community Services</b>			
Thomas Gallagher	Program Counselor	\$9.00/hr.	10/7/16
<b>Municipal Services</b>			
Anna Scapicchio (v. D Fay)	Office Assistant III IE14-1-0	\$44,589	10/25/16

VIII. Adjournment– 9:40 P.M.

*If any member of the public wishing to attend this meeting seeks special accommodations in accordance with the Americans with Disabilities Act, please contact Wendy Adams at 978-623-8225 or [wadams@andoverma.gov](mailto:wadams@andoverma.gov) in the Town Manager’s Office.*



# TOWN OF ANDOVER

## Town Clerk's Office

36 Bartlet Street  
Andover, MA 01810  
978-623-8255  
townclerk@andoverma.gov

## TOWN OF ANDOVER



## PUBLIC HEARING

Notice is hereby given under Chapter 138 of the General Laws, as amended, that Prayosha108 Corporation d/b/a Andover Spa, 9 Elm Street, Andover, MA has applied for an All Alcoholic Package Store Alcoholic Beverage License at 9 Elm Street, Andover, MA. Niki Patel, 342 Treble Cove Road, N. Billerica, MA is the proposed designated manager.

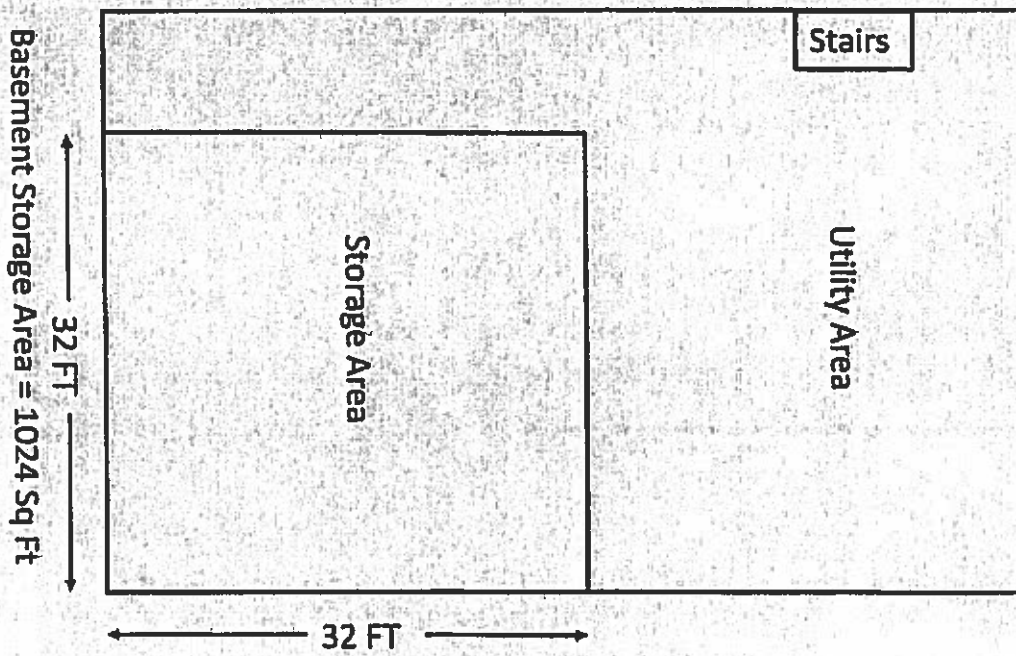
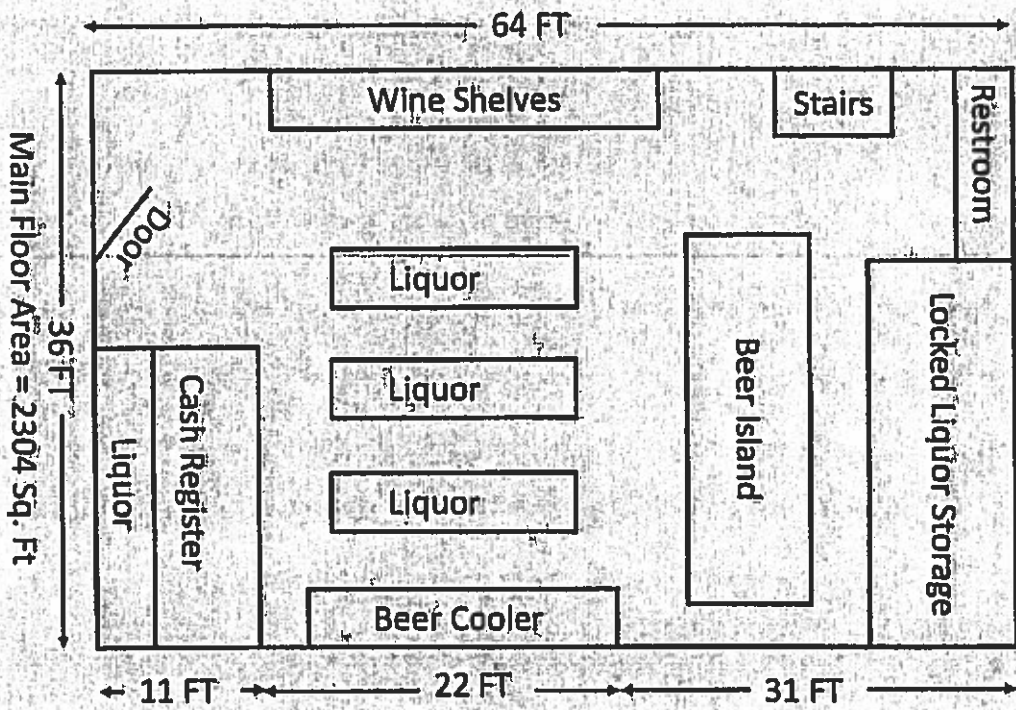
**The premises to be described as follows: One story building with 2304 s.f. retail space on 1<sup>st</sup> floor and 1024 s.f. basement alcohol storage.**

The public hearing will be held on Monday October 24, 2016 in Conference Room A on the third floor of the Andover Town Offices, 36 Bartlet Street, Andover, Massachusetts at 7:00 p.m. in accordance with the General Laws relating thereto.

By Order of the  
Board of Selectmen

Lawrence J. Murphy  
Town Clerk

Date of Issue: Thursday, October 6, 2016



## John Mangiaratti

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**From:** John Mangiaratti  
**Sent:** Thursday, October 20, 2016 7:16 AM  
**To:** Chris Clemente; Tom Urbelis; Paul Puzanghera; Brian Moore; Christopher Cronin  
**Cc:** Andrew Flanagan; Lisa Schwarz; David Dargie; Glen Ota; Jacki Byerley; Paul Materazzo; Thomas Carbone; Lawrence Murphy; Patrick Keefe; Michael Mansfield; Carol McGravey  
**Subject:** Fwd: 10.19- Response and Package AttachmentRequest for Information Regarding Petitions from Mobilitie LLC  
**Attachments:** EME-Report-Generic summary report v3-10.20.pdf; CLEC-StatementOperations-2016-MA-Mobilitie Management LLC SBO.pdf

Good morning

Please see below response from Mobilitie LLC with information for the public hearing on Monday night. I am including this in a packet of info for the Selectmen and will also send to neighbors. Please let me know if you have anything to add to the packet.

Thanks

John

John S. Mangiaratti  
Deputy Town Manager  
Town of Andover  
[John.Mangiaratti@andoverma.us](mailto:John.Mangiaratti@andoverma.us)

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From: James George <[jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com)>  
Sent: Thursday, October 20, 2016 6:24 AM  
Subject: 10.19- Response and Package AttachmentRequest for Information Regarding Petitions from Mobilitie LLC  
To: John Mangiaratti <[jmangiaratti@andoverma.gov](mailto:jmangiaratti@andoverma.gov)>

Hello John,

Below and Attached please find responses to the Selectmen questions and comments for 10.24 hearing. I have gotten with Mr. Moore as indicated on the survey of a revised location on River Road. To accommodate a better concern I am moving the proposed location approx. 30' south, along the same frontage, to the cover of the lot. I am re-engineering the site, as well as engaged Dig-safe and Survey to allow Mr. Moore's review and approval.

It is not my intent to be approved @ the 10.24 upcoming hearing. I have withdrawn 2 sites as you know, I would like to utilize this hearing to educate and expand on any further questions the board may have, provide a briefing on the withdrawals of the other applications, and have a discussion about colocation on existing pole option @ Railroad Avenue site.

Thank you.

James S. George  
Mobilitie, LLC  
New England Permitting Manager  
978-998-9795

**From:** John Mangiaratti [<mailto:jmangiaratti@andoverma.gov>]

**Sent:** Wednesday, October 05, 2016 5:08 PM

**To:** James George <[jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com)>

**Cc:** John Mangiaratti <[jmangiaratti@andoverma.gov](mailto:jmangiaratti@andoverma.gov)>; Lawrence Murphy <[lmurphy@andoverma.gov](mailto:lmurphy@andoverma.gov)>; tju ([tju@uf-law.com](mailto:tju@uf-law.com)) <[tju@uf-law.com](mailto:tju@uf-law.com)>; Chris Clemente <[cclemente@andoverma.gov](mailto:cclemente@andoverma.gov)>; Paul Materazzo <[pmaterazzo@andoverma.gov](mailto:pmaterazzo@andoverma.gov)>; Lisa Schwarz <[lschwarz@andoverma.gov](mailto:lschwarz@andoverma.gov)>; Christopher Cronin <[ccronin@andoverma.gov](mailto:ccronin@andoverma.gov)>; David Dargie <[ddargie@andoverma.gov](mailto:ddargie@andoverma.gov)>; Jacki Byerley <[jbyerley@andoverma.gov](mailto:jbyerley@andoverma.gov)>; Carol McGravey <[chm@uf-law.com](mailto:chm@uf-law.com)>; Michael Mansfield <[MMan@andoverps.net](mailto:MMan@andoverps.net)>; Patrick Keefe <[PKee@andoverps.net](mailto:PKee@andoverps.net)>; Thomas Carbone <[tcarbone@andoverma.gov](mailto:tcarbone@andoverma.gov)>; Andrew Flanagan <[aflanagan@andoverma.gov](mailto:aflanagan@andoverma.gov)>

**Subject:** Request for Information Regarding Petitions from Mobilitie LLC

Mr. George,

As directed by the Selectmen I have been working with staff to review your petitions for free standing poles at multiple locations in Andover. I am providing below 11 questions and comments from town staff regarding your proposed projects. Please provide a written response to these comments and questions prior to October 20<sup>th</sup> so that your response can be distributed to the Board of Selectmen as part of the meeting packet for the 10/24 meeting. If you need further clarification on any of these comments/questions please let me know.

1. Is Mobilitie a utility or a wireless provider?

A- **Please see attached. Statement of Business Operations and MA LLC Certificate of Good Standing**

2. It is not possible to review the proposed project without survey accurate drawings showing the precise location of the proposed structures in relation to existing infrastructure in the ROW. Please provide a survey drawing of the proposed location for each petition.

A- **Yes. I have been in contact with Michael Moore the Town Engineer, received Street Plans, and performed title of the abutting parcels of the River Road Parcel. I have been in contact and come to an accommodation with the Mr. Doyle of Doyle Lumber regarding location of the proposed utility pole. Mr. Doyle is agreeable to moving the pole further south along River Road, to the abutting corner of the Lawrence Vocational School and the corner of his property. This accommodation satisfy the abutter concern that was expressed at the last meeting. I have made expedited request of my client to survey the area and redraft the drawings. These drawings will not be ready or available for the 10.24 hearing, but I can speak to the accommodation location. It is not my expectation to be granted the approval for this location @ the 10.24 continued hearing, as I will need to gain approval from Mr. Moore for the revised plans. Additionally, Engineering will engage Dig-Safe to provide report on the underground utilities in the area of the revised location per Mr. Moore.**

3. In which Massachusetts communities have you received approvals for projects similar to what you are proposing in Andover?

A. - **Westfield MA has issued permit to build similar proposed facility. To date, construction has not commenced at the Wesfield MA permitted location. Mobilitie is engaged with a number of MA Communities in the level of Permitting, Zoning, and Agreement negotiation to deploy its network. We are working through the process in each county, in several levels of the required zoning process throughout New England.**

4. In which Massachusetts communities have you received denials for projects similar to what you are proposing in Andover?

A - **Mobilitie is working through the process of the permitting, zoning and meeting the ordinance requirements of numerous communities in New England. That process of addressing concerns and questions of each specific jurisdiction, ordinance review, and contract negotiation is ongoing. With a new technology and business model of this type as presented by Mobilitie, the process of zoning and approval is lengthy.**

5. Please provide data that demonstrates that there is a need for these proposed installations in each location?

- A. **With the accommodation made on the River Road Site to the revised location and coordinate, I have requested RF Mapping from my client for this site. To date, I do not have the RF Mapping back which indicates the visual you requested. The need at this River Road Location is to increase capacity for the high density area of the residential, vehicular traffic, and mostly the Lawrence Vo Tech School location.**
6. Have you contacted National Grid regarding potentially locating infrastructure on their existing poles?  
A – **Mobilitie, LLC has a master license with National Grid for colocation on its facilities, where feasible. Under separate cover and e-mail, I will brief you specifically and further regarding withdrawal of new pole application I have made a determination through my local diligence efforts knowledge of the area of Railroad Avenue proposed site, I have made inquiry into a possible attachment (colocation) on an existing wood pole in the immediate facility, but must check into the structural with the Pole Owner (Licensor). I acknowledge the historic section of the proposed location, and the language in the ordinance requirement in these areas. Prior to withdrawal of the pending application, I would like to present the alternative, as well as the reasonableness argument @ the meeting 10.24.**
7. Please provide data indicating that the RF exposure from the proposed equipment does not create a health concern for nearby residents and businesses.  
A – **I have attached here a non-site specific EME Report which describes in detail the compliance of the facility with FCC Regulated RF Exposure. With each approved location as the process moves forward, a site specific report is generated to the jurisdiction and into record, similar to this report which satisfies this question and requirement.**
8. If any of these projects move forward who would be responsible for maintaining the pole. Who would be on-call to address vehicle strikes or other issues?  
A – **Mobilitie is the owner of the pole facility. Mobilitie is the response party to vehicle strikes, repair, and maintenance of the facility. Local dispatching of crews is worked through the Regional Office in Lowell, and contact information will be provided to the host jurisdiction as requested, and conditioned upon approval.**
9. Are you willing to pay for a peer review from an engineering consultant to confirm location, evaluate potential RF exposure concerns, review structural design, and investigate potential impacts to existing public infrastructure located in the ROW?  
A – **That is not something Mobilitie typically agrees to for this small cell project.**
10. Are you aware that the Railroad Street proposal is located within historic district?  
A – **Yes. I am aware with my local knowledge and my diligence performed. I have reviewed the existing pole structures in this area of target (Railroad Street), and my client is considering Attachments to existing utility pole, and/or aesthetic design considerations to accommodate this district item. I would like to have further discussions on options @ to receive the consensus of the board. If the path of least resistance, at this Railroad Ave site, is colocation on existing pole, this consideration will be recommended to my client.**
11. Today we received your petition for Shawsheen Street. It appears that this location is actually in Tewksbury. Can you please confirm the precise location and confirm that is located in Andover?  
A – **This Shawsheen Street site (application) was determined to be in Tewksbury MA. This was a poor choice to advance this application into Andover, and I have immediately withdrawn the application after confirming this fact. This site will no longer advance forward, in Andover Process.**

For your reference, I have attached the notifications that will be sent to abutters of first three projects you proposed. We will hold on the fourth until we have confirmation from you regarding its location. I look forward to your responses.

Thanks

John

**John S. Mangiaratti**

Deputy Town Manager

Town of Andover

36 Bartlet Street

Andover, MA 01810

[john.mangiaratti@andoverma.us](mailto:john.mangiaratti@andoverma.us)

(978) 623-8225

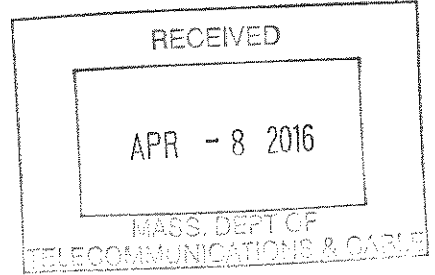


COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND CABLE

APPLICATION FOR REGISTRATION  
FOR TELECOMMUNICATIONS SERVICE PROVIDERS  
OTHER THAN PAYPHONE SERVICE PROVIDERS

**STATEMENT OF BUSINESS OPERATIONS (SBO)**

Revised 5/2010



Date: April 6, 2016

Please check appropriate box:

- Initial SBO
- Amended SBO
- Reason:
- Effective:

**Part I**

1. Legal Name of Registrant	Mobilite Management, LLC
2. Doing Business As (DBA)	ANI/A@2 - Applicant does not use a d/b/a
3. Federal Taxpayer ID No.	81-0819781
4. Address - Corporate Office (Street, City, State, Zip +)	2220 University Drive, Newport Beach, CA 92660
5. Main Telephone Number	(877) 999-7070
6. Customer Service Number	(877) 999-7070
7. Website/URL	http://www.mobilite.com

8. Please provide the following information for the <b>regulatory contact person</b> to work with the Department on the following:	
A. Issues related to processing this Registration and tariff filing only	Michael P. Donahue Counsel for Mobilitie Management, LLC Marashlian & Donahue, PLLC 1420 Spring Hill Road, Suite 401 McLean, VA 22102 Phone: (703) 714-1319 Fax: (703) 563-6222 Email: <a href="mailto:mpd@commlawgroup.com">mpd@commlawgroup.com</a>
B. Issues related to consumer complaints ( <b>not</b> the general customer service department)	Chester Bragado Accounting Manager Mobilitie, LLC 2220 University Drive Newport Beach, CA 92660 Phone: (949) 999-5790 Fax: (949) 887-2932 Email: <a href="mailto:chester@mobilitie.com">chester@mobilitie.com</a>
C. All other regulatory- related issues ( <b>in- house</b> )	Ethan Rogers Senior Counsel Mobilitie, LLC 2220 University Drive Newport Beach, CA 92660 Phone: (949) 999-5767 Fax: (949) 274-7556 Email: <a href="mailto:ethan@mobilitie.com">ethan@mobilitie.com</a>

9. Authorized As:		
10. Technology Type: <input type="checkbox"/> Circuit Switch	<input checked="" type="checkbox"/> VoIP	<input checked="" type="checkbox"/> Other
11. Provide a clear and concise summary of the <b>specific</b> services the Registrant will be offering ( <u>e.g.</u> , local, interexchange, bundled local and interexchange services, wholesale or carrier-to-carrier services; package of regulated and/or unregulated telecom services; bundle of voice and/or video and/or wireless and/or broadband, such as voicemail, call forwarding or vertical features.		
<p><b>Applicant proposes to provide facilities-based and resold local exchange telecommunications services. Specifically, Applicant will provide transport, backhaul, and broadband data and other voice and data services as well as other infrastructure used by carriers, emergency responders, public safety agencies, backhaul providers, and other companies. These services will be provided using a combination of fixed lines and microwave links to ensure resiliency.</b></p>		

12. Registrant will be providing telecommunications services as indicated:

- Residential
  Business
  Wholesale/Carrier-to-Carrier

Services Provided Using:

- Facilities-based service
  Reseller  
 Leased Facilities
  Own Network  
 Leased Facilities
  Underlying Carrier  
 Non-UNE

13. Registrant's initial tariff offers the following services: (check all that apply)

Services	If any of the services are sold on a prepaid basis	Residential	Business
<input checked="" type="checkbox"/> Local Exchange	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Lifeline/Linkup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Long Distance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Calling Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Operator Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Operator Services at traffic aggregated locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Payphone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Inmate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Data (explain below)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Other (explain below)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please see response to Question #11.

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14. If the Registrant will be providing operator-assisted service, describe how: (A) a company operator would be reached, e.g. dial 00; (B) an emergency-type call will be handled. **AN/A@14 – Applicant will not provide operator-assisted service.**

15. Please list alphabetically names of cities and/or towns served. (Attachment Acceptable) – **Applicant will offer its services in all cities and towns in the Commonwealth of Massachusetts.**

16. If a corporation, please: **AN/A@16 – Applicant is not a corporation, but a limited liability company.**

A. Provide the date of organization

B. Indicate the jurisdiction under the laws of which it is organized

C. Provide the following information as to each officer, director and stockholder owning of record, or beneficially, 10% or more of Registrant's outstanding capital stock:

Name/Title	Address	Percent & Class of Shares
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17. All businesses incorporated in states other than the Commonwealth which are doing business in Massachusetts must register with the Secretary of the Commonwealth (SOC) within ten days after they commence doing business in the state by filing a foreign registration certificate. Failure to register may result in the imposition of fines and/or an injunction restraining the further prosecution of business in the Commonwealth by the foreign corporation.

A copy of the SOC Foreign Registration Certificate:

X is attached.  will be filed with the DTC within the following 30 days.


<http://corp.sec.state.ma.us/Portal/PortalPage.htm>

Part III

**MASSACHUSETTS STATE TAX ATTESTATION**

In accordance with Massachusetts General Laws, Chapter 62C, Section 49A, I hereby certify under the pains and penalties of perjury that the Registrant, to the best of my knowledge and belief, **Mobilite Management, LLC** has filed all Massachusetts state tax returns and paid all Massachusetts state taxes required by law. I also certify, under the pains and penalties of perjury that the Registrant, to the best of my knowledge and belief, has filed and paid all federal taxes required by law.

81-0819781  
Federal Taxpayer Identification No.

  
Signature of Corporate Officer  
if Registrant is a corporation

\_\_\_\_\_  
Social Security Number

\_\_\_\_\_  
Signature of Individual, if applicable

April 6, 2016  
Date

**AFFIDAVIT**

The undersigned declares under penalty of perjury that they are authorized to make this verification for, and on behalf of, the Registrant; that they have read the information provided by the Registrant in the foregoing document, and is informed and believes the same are true and on that ground affirms that the matters therein stated are true.

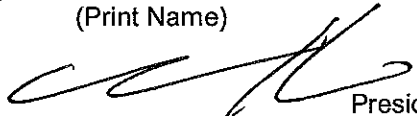
In addition, the undersigned, on behalf of the Registrant, attests that the Registrant will comply with all applicable Massachusetts laws and rules, Department Orders, regulations, letter rulings, directives and other requirements, whether formal or informal.

**Registrant understands that failure to comply will be grounds for the Department to cancel the Registrant's registration/SBO and tariff(s), thus preventing the Registrant from operating and/or providing telecommunications services within Massachusetts.**

Dated this \_\_\_\_\_ day of \_\_\_\_\_, **2016**

Legal Name of Registrant **Mobilitie Management, LLC**

By Christos Karmis  
(Print Name)

  
\_\_\_\_\_  
President  
(Signature/Title)

NOTARIZE BY:

~~SUBSCRIBED AND SWORN to before me~~

~~this \_\_\_\_\_ day of \_\_\_\_\_, **2016**~~

~~\_\_\_\_\_  
Notary Public~~



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# **Radio Frequency- Electromagnetic Energy-EME Summary of Modelling & Compliance Report**

**Prepared by:**

**ATG LLC**

# TABLE OF CONTENT

<b>1</b>	<b>EXECUTIVE SUMMARY.....</b>	<b>3</b>
<b>2</b>	<b>MAXIMUM PERMISSIBLE EXPOSURE (MPE) SIMULATION RESULTS FOR PROPOSED SITE.....</b>	<b>4</b>
	1. <i>Site 1</i> .....	5
	2. <i>Site 2</i> .....	9
	3. <i>Site 3</i> .....	13
	4. <i>Site 4</i> .....	16
<b>3</b>	<b>MODELING SUMMARY.....</b>	<b>20</b>
<b>4</b>	<b>CONCLUSION.....</b>	<b>21</b>
	1. <i>Compliance Status</i> .....	21
	2. <i>Signage Recommendation</i> .....	21
<b>5</b>	<b>LOCKOUT/TAGOUT PROCEDURES.....</b>	<b>23</b>
<b>6</b>	<b>PREPARER CERTIFICATION.....</b>	<b>24</b>
	<b>APPENDIX A.....</b>	<b>25</b>
	<b>FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS.....</b>	<b>25</b>
	<b>APPENDIX B.....</b>	<b>28</b>
	<b>GLOSSARY OF TERMS.....</b>	<b>28</b>

# 1 Executive Summary

## Purpose of Report

ATG LLC's RF Engineering has conducted radio frequency electromagnetic (RF-EME) modeling for several Mobilitie sites in different markets like New Jersey, Baltimore, Boston. These modeling are completed to determine RF-EME exposure levels from proposed Mobilitie wireless communications equipment the sites.

The Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. The details of FCC defined exposure limits are provided in Appendix A of this report. This report also summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields in section 2 of this report.

The purpose of this report is to show the compliance status of the predictive models for four sample sites according to FCC General Public/Uncontrolled Exposure and Occupational/ Controlled Exposure guidelines.

Maximum Permissible Exposure (MPE) modeling is done via Roofview 4.15

## Statement of Compliance

According to FCC's guidelines (refer to Appendix A table 2) for Maximum Permissible Exposure (MPE):

**The Maximum Permissible Exposure for all the models operating at 1500-100,000 MHz should be below 100% (1 mW/cm<sup>2</sup>) of FCC General Public/Uncontrolled Exposure Limit at ground/street level**

**The Maximum Permissible Exposure for all the models operating at 1500-100,000 MHz should be below 100% (5 mW/cm<sup>2</sup>) of FCC Occupational/Controlled Exposure Limit at elevated levels on the pole**

The compliance statuses of the sites are based on the analysis of predictive modeling of Mobilitie's proposed equipment. The MPE values obtained from the predictive modelling are compared to FCC's guidelines for General Public and Occupational exposure limits.

## 2 Maximum Permissible Exposure (MPE) Simulation Results for Proposed Site

The table below summarizes the MPE results for 4 proposed sites

**Table 1: Maximum Permissible Exposure- Sites from different markets**

Site	Site Type	Antenna Model	Antenna Type	Frequency (MHz)	Input Power (W)	ERP (W)	Z Ground/Street Level (ft.)	% of FCC General Public/Uncontrolled Exposure Limit on Ground/Street Level	Power Density (mW/cm <sup>2</sup> ) at Ground/Street Level	Power Density (mW/cm <sup>2</sup> ) Limit set by FCC General Public/Uncontrolled Standard	Compliance Status for FCC General Public/Uncontrolled Environment	Z Light/Power Line Level (ft.)	% of FCC Occupational /Controlled Exposure Limit on Light/Power Line Level	Power Density (mW/cm <sup>2</sup> ) at Light/Power Line Level	Height from ground where 20% of FCC Occupational /Controlled Exposure Limit is exceeding	Power Density (mW/cm <sup>2</sup> ) Limit set by FCC Occupational/Controlled Standard	Compliance Status for FCC Occupational /Controlled Environment
1	Light Pole	KMW FX-X-360-9-06T-ST	Omni	2496	40	173.0	26.3	2.80	0.028	1.0	Compliant	2.3	23.0	1.150	28.4	5.0	Compliant
		Airspan iRelay (i460)	UE Relay	2496	3.2	30.53	11.5					-12.4					
2	Utility Pole	KMW FX-X-360-9-06T-ST	Omni	2496	40	173.0	24.3	3.10	0.031	1.0	Compliant	3.3	23.0	1.150	26.4	5.0	Compliant
		Airspan iRelay (i460)	UE Relay	2496	3.2	30.53	11.5					-9.5					
3	Light Pole	KMW FX-X-360-7-00T-ST	Omni	2496	10	27.23	21.3	1.90	0.019	1.0	Compliant	3.3	6.00	0.290	N/A	5.0	Compliant
		Airspan iRelay (i460)	UE Relay	2496	3.2	30.53	11.5					-6.5					
4	Utility Pole	KMW FX-X-360-9-11T-ST	Omni	2496	40	173.0	35.3	1.40	0.014	1.0	Compliant	1.3	22.9	1.145	37.4	5.0	Compliant
		Airspan iRelay (i460)	UE Relay	2496	3.2	30.53	11.5					-22.5					

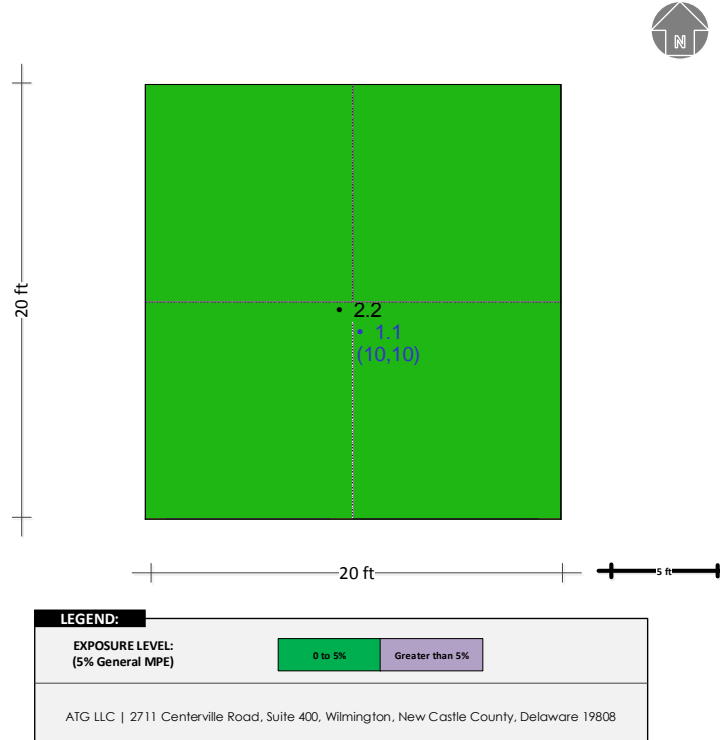
Details of the study includes snapshots of Roofview 4.15 tables, schematics and MPE results for each of the above sites.

### Site 1

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	26.3	VC	2.5	6.36	360	ON	10	10	26.3	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	11.5	VC	1.1	9.85	35	ON	10	10	11.5	2

**Figure 1**  
**Screenshot of Roofview table for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level**

The exposure level is calculated for a person of height 6ft standing right below the devices at ground level



**Figure 2**  
**Schematic for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level**

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0 -5	400	100.00 % of total ROOF Area
6 - 500	0	0.00 % of Selected Area
501 - 5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area

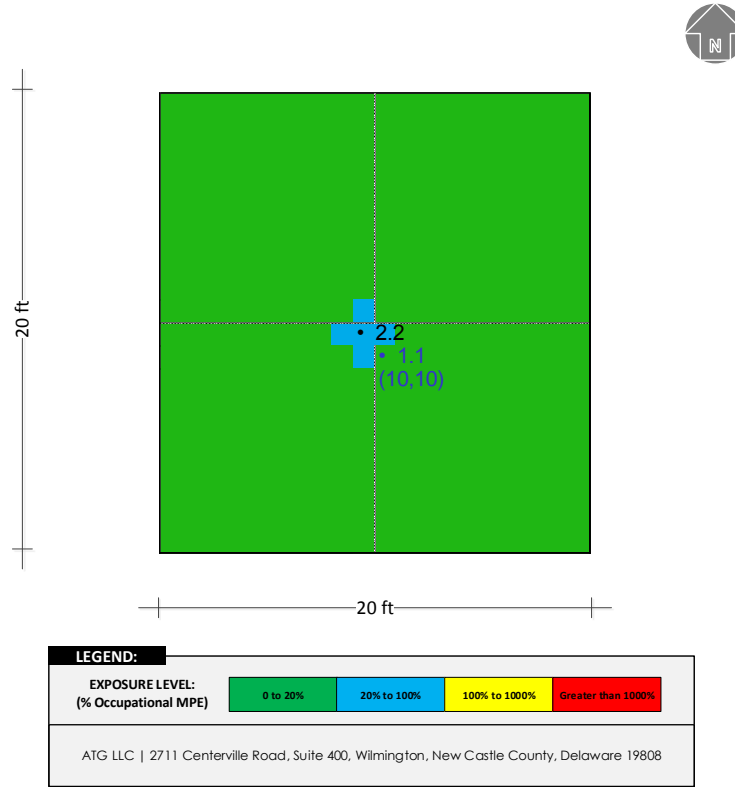
  

Roof Area	400 sq. ft.
Max %MPE	2.8 %
Min %MPE	0.2 %
Using Near Spatial Avg Model	
With FCC 1997 Public Standard	

**Figure 3**  
**Simulation Result for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilitie	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	2.3	VC	2.5	6.36	360	ON	10	10	2.3	1
2	2	Mobilitie	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-12.4	VC	1.1	9.85	35	ON	10	10	-12.4	2

**Figure 4**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at Light Level**



**Figure 5**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at Light Level**

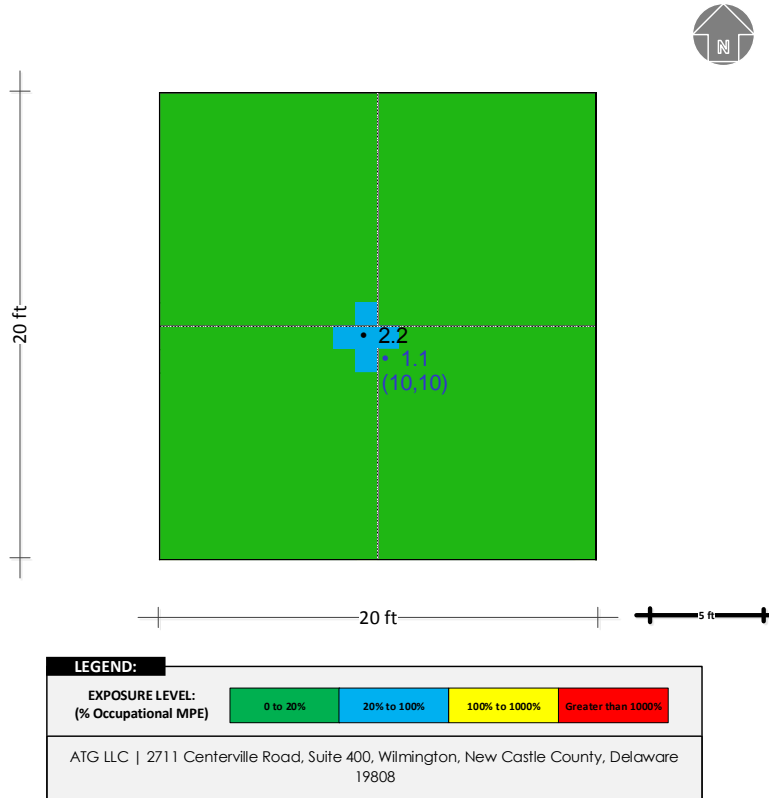
Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0 - 20	400	100.00 % of total ROOF Area
21 - 100	395	98.75 % of Selected Area
101 - 1000	5	1.25 % of Selected Area
> 1000	0	0.00 % of Selected Area

Roof Area 400 sq. ft.  
 Max %MPE 23.0 %  
 Min %MPE 1.6 %  
 Using Near Spatial Avg Model  
 With FCC 1997 Occupational Standard

**Figure 6**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at Light Level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	0.0	VC	2.5	6.36	360	ON	10	10	0.0	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-14.8	VC	1.1	9.85	35	ON	10	10	-14.8	2

**Figure 7**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**



**Figure 8**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**

Statistical Summary			
%MPE	SQ. FT.	%SQ. FT.	
0-20	400	100.00	% of total ROOF Area
21-100	395	98.75	% of Selected Area
101-1000	5	1.25	% of Selected Area
> 1000	0	0.00	% of Selected Area

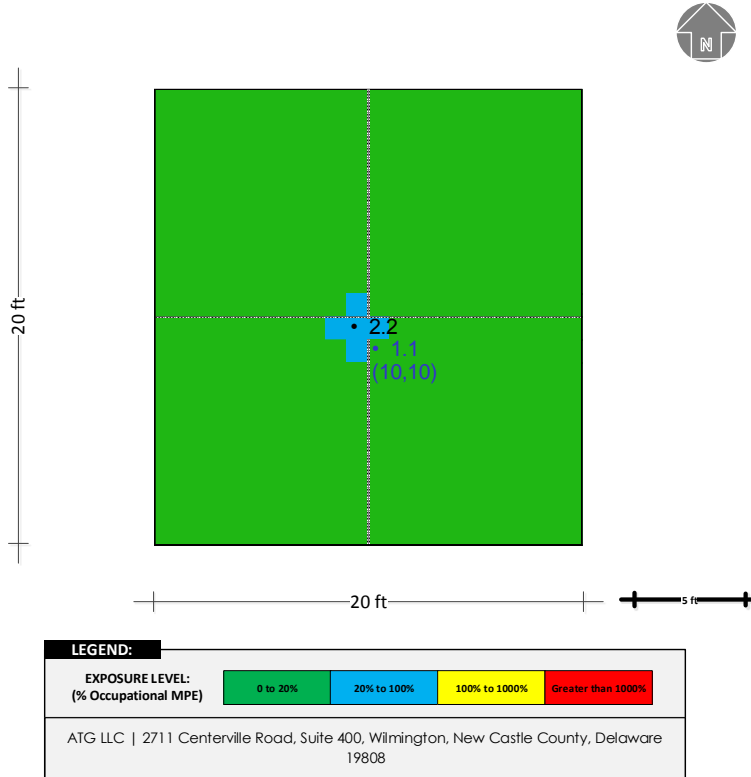
Roof Area	400 sq. ft.
Max %MPE	22.9 %
Min %MPE	1.6 %
Using Near Spatial Avg Model	
With FCC 1997 Occupational Standard	

**Figure 9**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	dBd Aper	BWdth Gain	Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	3.9	VC	2.5	6.36	360	ON*	10	10	3.9	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-10.9	VC	1.1	9.85	35	ON*	10	10	-10.9	2

**Figure 10**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at 28.4ft from Ground**

\*Note that height of 20% exceeding point from ground specified in table 1 = (Antenna height from ground) – (Distance of 20% exceeding point from antenna). The Z value in the figure above is the distance of the exceeding point from the Small Cell and UE Relay



**Figure 11**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at 28.4ft from Ground**

Statistical Summary			
%MPE	SQ. FT.	%SQ. FT.	
0 -20	400	100.00	% of total ROOF Area
21 - 100	395	98.75	% of Selected Area
101 - 1000	5	1.25	% of Selected Area
> 1000	0	0.00	% of Selected Area
Roof Area		400	sq. ft.
Max %MPE		20.1	%
Min %MPE		1.4	%
Using Near Spatial Avg Model With FCC 1997 Occupational Standard			

**Figure 12**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at 28.4ft from Ground**

## Site 2

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	dBd Aper	BWdth Gain	ON Pt Dir	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num	
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	24.3	VC	2.5	6.36	360	ON	10	10	24.3	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	11.5	VC	1.1	9.85	35	ON	10	10	11.5	2

Figure 13

### Screenshot of Roofview table for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

The exposure level is calculated for a person of height 6ft standing right below the devices at ground level

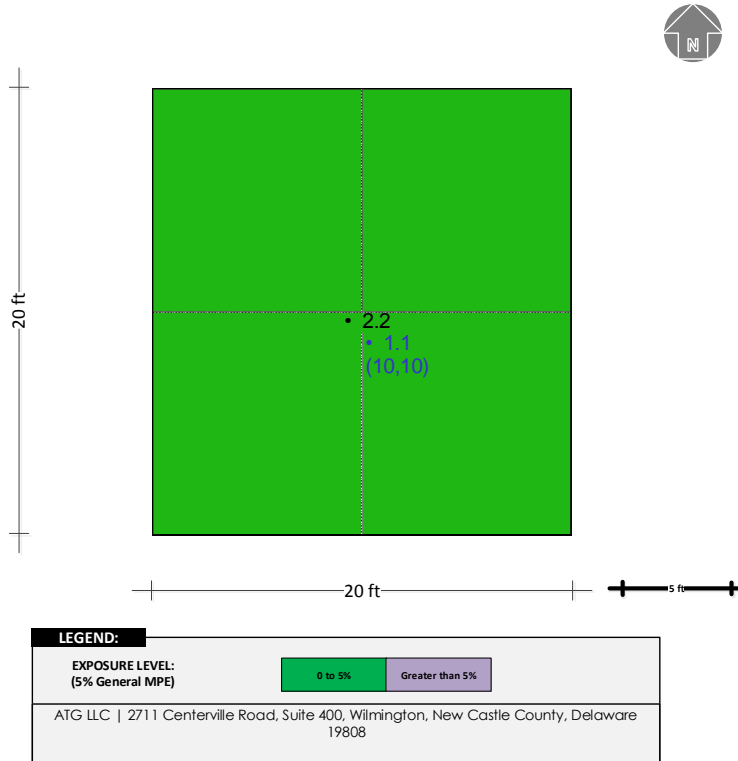


Figure 14

### Schematic for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

%MPE	SQ. FT.	%SQ. FT.
0-5	400	100.00 % of total ROOF Area
6-500	400	100.00 % of Selected Area
501-5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area

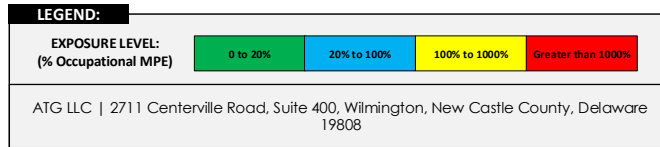
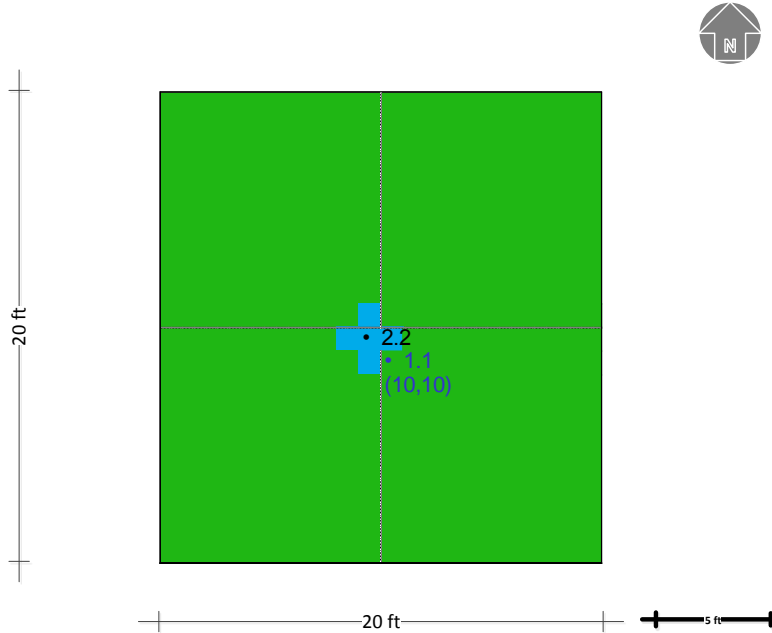
Roof Area	400 sq. ft.
Max %MPE	3.1 %
Min %MPE	0.2 %
Using Near Spatial Avg Model With FCC 1997 Public Standard	

Figure 15

### Simulation Result for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	dBd Aper	BWdth Gain	Pt Dir	ON flag	ver 3500021003	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	3.3	VC	2.5	6.36	360	ON		10	10	3.3	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-9.5	VC	1.1	9.85	35	ON		10	10	-9.5	2

**Figure 16**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at Power Line Level**



**Figure 17**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at Power Line Level**

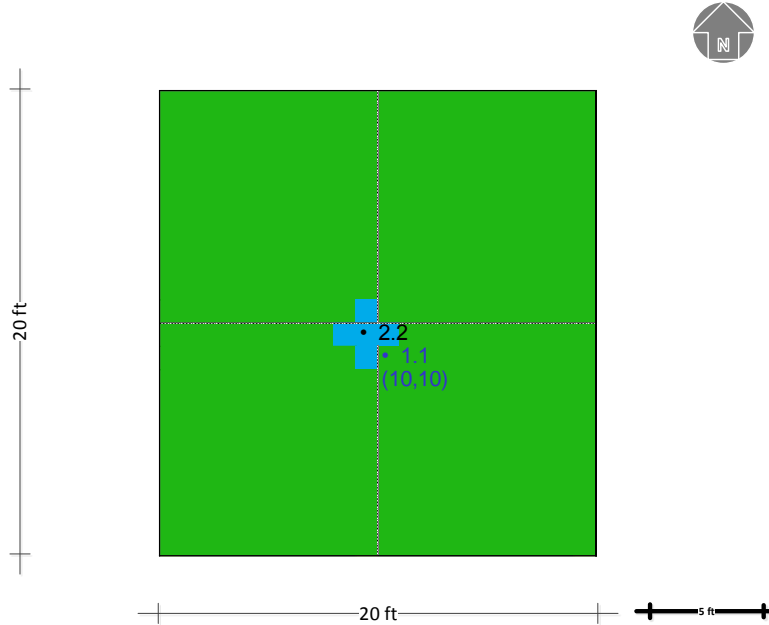
Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
	400	100.00 % of total ROOF Area
0-20	395	98.75 % of Selected Area
21-100	5	1.25 % of Selected Area
101-1000	0	0.00 % of Selected Area
> 1000	0	0.00 % of Selected Area

Roof Area 400 sq. ft.  
 Max %MPE 23.0 %  
 Min %MPE 1.6 %  
 Using Near Spatial Avg Model  
 With FCC 1997 Occupational Standard

**Figure 18**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at Power Line Level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	0.0	VC	2.5	6.36	360	ON	10	10	0.0	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-12.8	VC	1.1	9.85	35	ON	10	10	-12.8	2

**Figure 19**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**



LEGEND:			
EXPOSURE LEVEL: (% Occupational MPE)	0 to 20%	20% to 100%	100% to 1000%
ATG LLC   2711 Centerville Road, Suite 400, Wilmington, New Castle County, Delaware 19808			

**Figure 20**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0-20	395	98.75 % of Selected Area
21 - 100	5	1.25 % of Selected Area
101 - 1000	0	0.00 % of Selected Area
> 1000	0	0.00 % of Selected Area

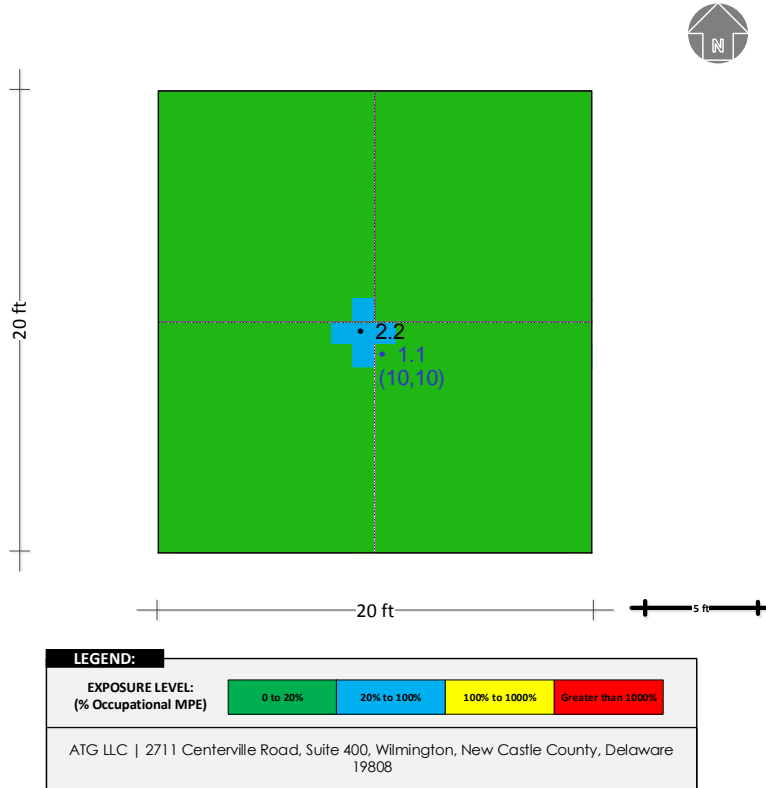
Roof Area	400 sq. ft.
Max %MPE	23.0 %
Min %MPE	1.6 %
Using Near Spatial Avg Model	
With FCC 1997 Occupational Standard	

**Figure 21**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	dBd Aper	BWdth Gain	ON Pt Dir	ON flag	ver 3500021003	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilitie	2496.00000	40.0	40.0	KMW	FX-X-360-9-06T-ST	10.0	10.0	3.9	VC	2.5	6.36	360	ON+		10	10	3.9	1
2	2	Mobilitie	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-8.9	VC	1.1	9.85	35	ON+		10	10	-8.9	2

**Figure 22**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at 26.4ft from Ground**

Note that height of 20% exceeding point from ground specified in table 1 = (Antenna height from ground) - (Distance of 20% exceeding point from antenna). The Z value in the figure above is the distance of the exceeding point from the Small Cell and UE Relay



**Figure 23**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at 26.4ft from Ground**

Statistical Summary			
%MPE	SQ. FT.	%SQ. FT.	
0-20	400	100.00 %	of total ROOF Area
21 - 100	395	98.75 %	of Selected Area
101 - 1000	5	1.25 %	of Selected Area
> 1000	0	0.00 %	of Selected Area

<b>Roof Area</b>	<b>400 sq. ft.</b>
<b>Max %MPE</b>	<b>20.2 %</b>
<b>Min %MPE</b>	<b>1.4 %</b>
<b>Using Near Spatial Avg Model</b>	
<b>With FCC 1997 Occupational Standard</b>	

**Figure 24**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at 26.4ft from Ground**

### Site 3

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	10.0	10.0	KMW	FX-X-360-7-00T-ST	10.0	10.0	21.3	VC	2.5	4.35	360	ON	10	10	21.3	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	11.5	VC	1.1	9.85	35	ON	10	10	11.5	2

Figure 25

### Screenshot of Roofview table for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

The exposure level is calculated for a person of height 6ft standing right below the devices at ground level

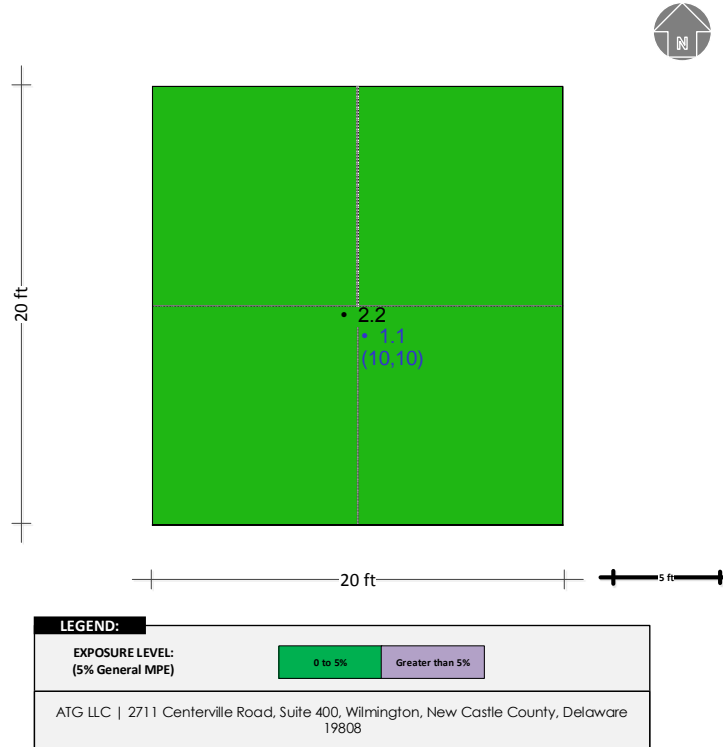


Figure 26

### Schematic for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
	400	100.00 % of total ROOF Area
0-5	400	100.00 % of Selected Area
6 - 500	0	0.00 % of Selected Area
501 - 5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area

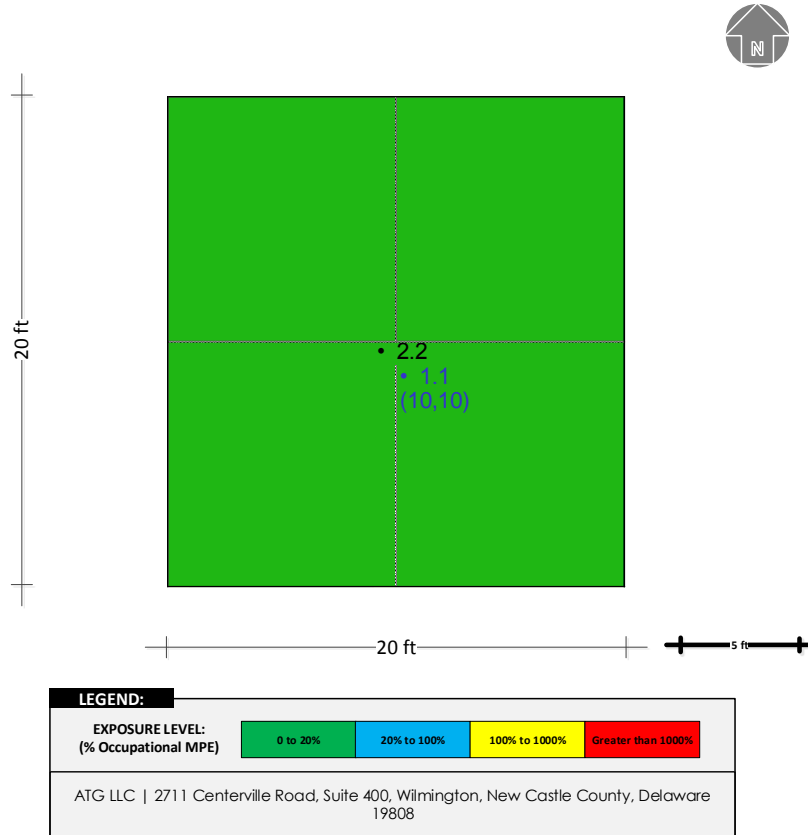
<b>Roof Area</b>	<b>400 sq. ft.</b>
<b>Max %MPE</b>	<b>1.9 %</b>
<b>Min %MPE</b>	<b>0.1 %</b>
<b>Using Near Spatial Avg Model</b>	
<b>With FCC 1997 Public Standard</b>	

Figure 27

### Simulation Result for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilitie	2496.00000	10.0	10.0	KMW	FX-X-360-7-00T-ST	10.0	10.0	3.3	VC	2.5	4.35	360	ON	10	10	3.3	1
2	2	Mobilitie	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-6.5	VC	1.1	9.85	35	ON	10	10	-6.5	2

**Figure 28**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at Light Level**



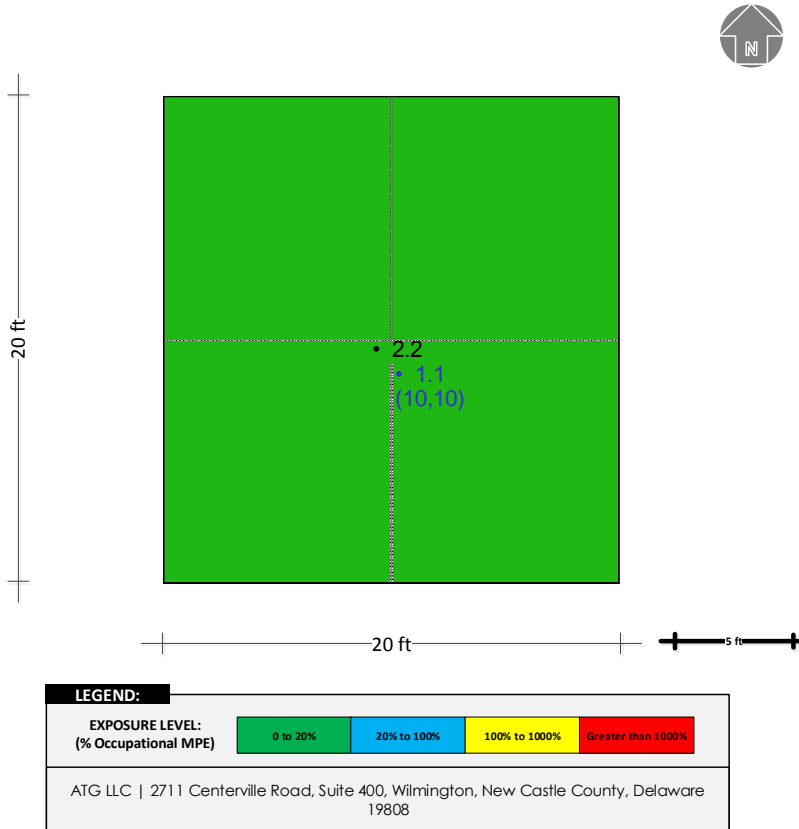
**Figure 29**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at Light Level**

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0-20	400	100.00 % of total ROOF Area
21-100	0	0.00 % of Selected Area
101-1000	0	0.00 % of Selected Area
> 1000	0	0.00 % of Selected Area
Roof Area 400 sq. ft.		
Max %MPE 6.0 %		
Min %MPE 0.4 %		
Using Near Spatial Avg Model		
With FCC 1997 Occupational Standard		

**Figure 30**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at Light Level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	dBd Aper	BWdth Gain	Pt Dir	ON flag	ver 3500021003	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	10.0	10.0	KMW	FX-X-360-7-00T-ST	10.0	10.0	0.0	VC	2.5	4.35	360	ON+		10	10	0.0	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-12.8	VC	1.1	9.85	35	ON+		10	10	-12.8	2

**Figure 31**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**



**Figure 32**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0-20	400	100.00 % of total ROOF Area
21-100	400	100.00 % of Selected Area
101-1000	0	0.00 % of Selected Area
> 1000	0	0.00 % of Selected Area

Roof Area	400 sq. ft.
Max %MPE	5.8 %
Min %MPE	0.4 %
Using Near Spatial Avg Model	
With FCC 1997 Occupational Standard	

**Figure 33**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at Antenna Level**

### Site 4

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilitie	2496.00000	40.0	40.0	KMW	FX-X-360-9-11T-ST	10.0	10.0	35.3	VC	2.5	6.36	360	ON	10	10	35.3	1
2	2	Mobilitie	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	11.5	VC	2.5	9.85	35	ON	10	10	11.5	2

Figure 34

### Screenshot of Roofview table for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

The exposure level is calculated for a person of height 6ft standing right below the devices at ground level

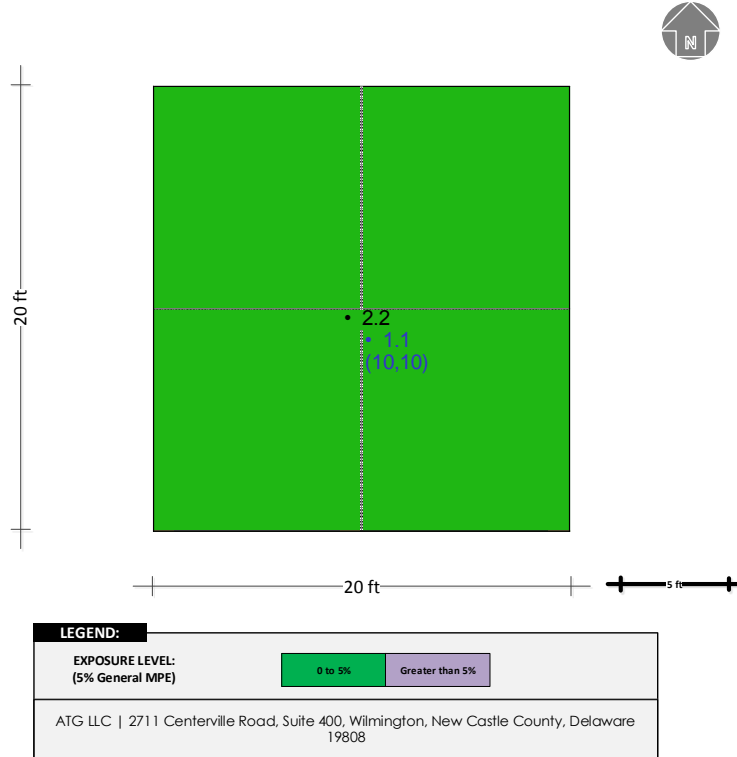


Figure 35

### Schematic for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0-5	400	100.00 % of total ROOF Area
6 - 500	0	0.00 % of Selected Area
501 - 5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area

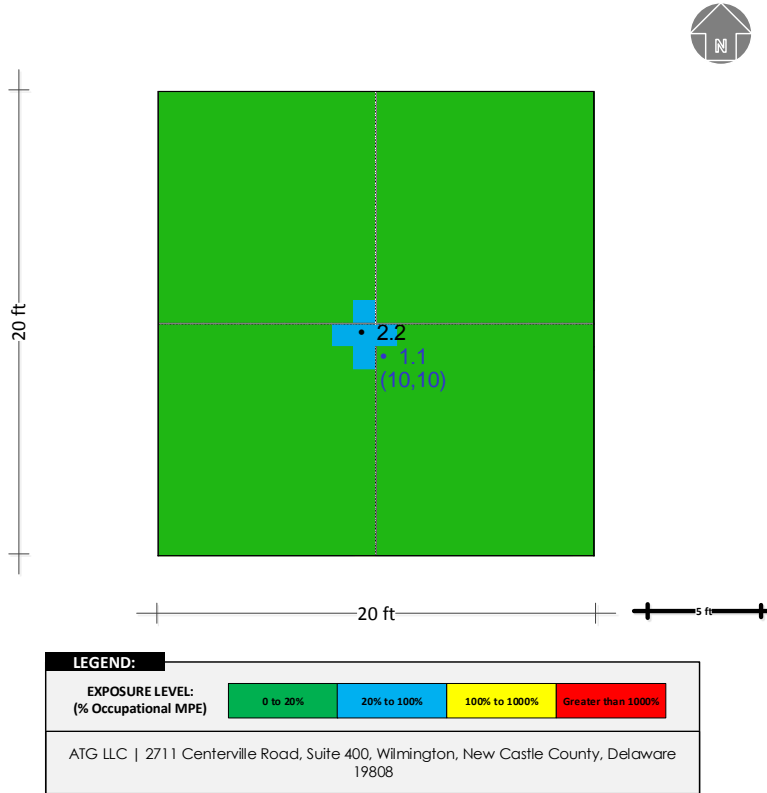
<b>Roof Area</b>	<b>400 sq. ft.</b>
<b>Max %MPE</b>	<b>1.4 %</b>
<b>Min %MPE</b>	<b>0.1 %</b>
<b>Using Near Spatial Avg Model</b>	
<b>With FCC 1997 Public Standard</b>	

Figure 36

### Simulation Result for % of FCC General Public/Uncontrolled Exposure Limit at Ground/Street Level

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	Aper	dBd Gain	BWdth Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-11T-ST	10.0	10.0	1.3	VC	2.5	6.36	360	ON	10	10	1.3	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-22.5	VC	2.5	9.85	35	ON	10	10	-22.5	2

**Figure 37**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at Power Line Level**



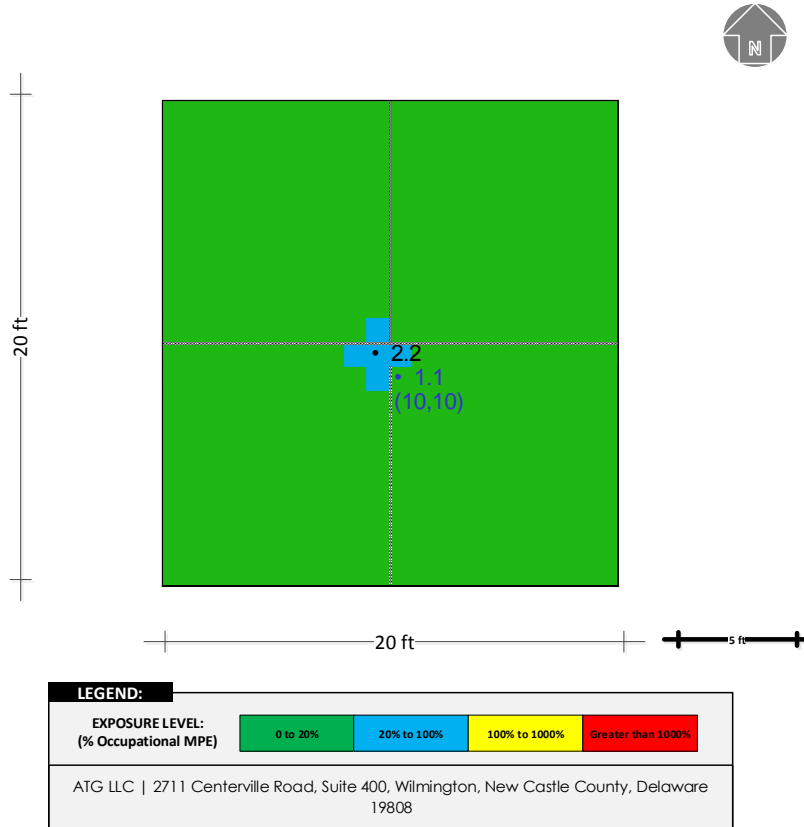
**Figure 38**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at Power Line Level**

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
	400	100.00 % of total ROOF Area
0-5	331	82.75 % of Selected Area
6 - 500	69	17.25 % of Selected Area
501 - 5000	0	0.00 % of Selected Area
> 5000	0	0.00 % of Selected Area
Roof Area 400 sq. ft.		
Max %MPE 22.9 %		
Min %MPE 1.6 %		
Using Near Spatial Avg Model With FCC 1997 Occupational Standard		

**Figure 39**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at Power Line Level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	dBd Aper	BWdth Gain	Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilite	2496.00000	40.0	40.0	KMW	FX-X-360-9-11T-ST	10.0	10.0	0.0	VC	2.5	6.36	360	ON	10	10	0.0	1
2	2	Mobilite	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-23.8	VC	2.5	9.85	35	ON	10	10	-23.8	2

**Figure 40**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit at antenna level**



**Figure 41**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit at antenna level**

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0-20	395	98.75 % of Selected Area
21-100	5	1.25 % of Selected Area
101-1000	0	0.00 % of Selected Area
> 1000	0	0.00 % of Selected Area

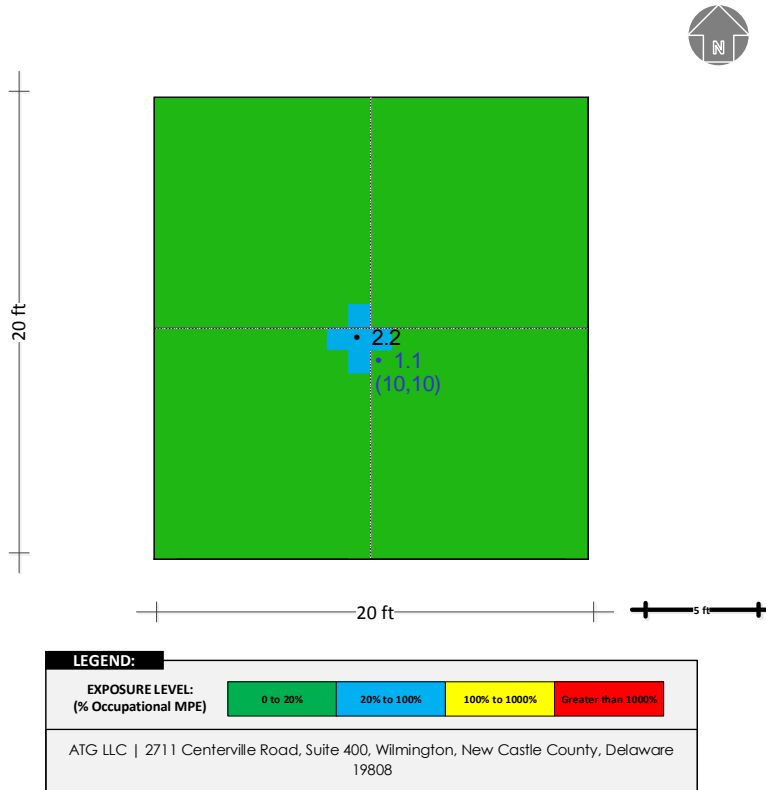
Roof Area	400 sq. ft.
Max %MPE	22.9 %
Min %MPE	1.6 %
Using Near Spatial Avg Model	
With FCC 1997 Occupational Standard	

**Figure 42**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit at antenna level**

Ant Num	ID	Name	(MHz) Freq	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	(ft) Type	dBd Apher	BWdth Gain	ON Pt Dir	ON flag	Antenna Pixel X	Antenna Pixel Y	Antenna Pixel Z	Ant Num
1	1	Mobilitie	2496.00000	40.0	40.0	KMW	FX-X-360-9-11T-ST	10.0	10.0	3.8	VC	2.5	6.36	360	ON	10	10	3.8	1
2	2	Mobilitie	2496.00000	3.2	3.2	Airspan	iRelay 460	10.0	10.0	-19.9	VC	2.5	9.85	35	ON	10	10	-19.9	2

**Figure 43**  
**Screenshot of Roofview table for % of FCC Occupational/Controlled Exposure Limit on Z = 37.4 ft. from ground**

Note that height of 20% exceeding point from ground specified in table 1 = (Antenna height from ground) – (Distance of 20% exceeding point from antenna). The Z value in the figure above is the distance of the exceeding point from the Small Cell and UE Relay



**Figure 44**  
**Schematic for % of FCC Occupational/Controlled Exposure Limit on Z = 37.4 ft. from ground**

Statistical Summary		
%MPE	SQ. FT.	%SQ. FT.
0-20	400	100.00 % of total ROOF Area
21 - 100	395	98.75 % of Selected Area
101 - 1000	5	1.25 % of Selected Area
> 1000	0	0.00 % of Selected Area

<b>Roof Area</b>	<b>400 sq. ft.</b>
<b>Max %MPE</b>	<b>20.1 %</b>
<b>Min %MPE</b>	<b>1.4 %</b>
<b>Using Near Spatial Avg Model</b>	
<b>With FCC 1997 Occupational Standard</b>	

**Figure 45**  
**Simulation Result for % of FCC Occupational/Controlled Exposure Limit on Z = 37.4 ft. from ground**

### **3 Modeling Summary**

The modeling predictions in Roofview 4.15 assumes that the antennas are operating at 100% capacity; that all antenna channels are transmitting simultaneously and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that will normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the measurement conclusions.

GPS Antennas proposed are receive-only antennas. It does not transmit radio frequency signals. Therefore, there is not risk for RF exposure from these antennas.

The exposure level on ground/street level is predicted for a person of height 6ft standing right below the devices at ground level to provide more accuracy.

MPE simulations are calculated on 20'x20' scale around the site location.

In order to model for workers at elevated levels of the poles, light/power line level simulations are done for Occupational/Controlled Environment.

In order to predict whether the equipment at a site exceeds 20% of the Occupational/Controlled Exposure Limit or not, antenna level simulations are performed. If any site exceeds that limit, then the height from ground of that point is provided.

The sites are modeled with these assumptions to show the maximum RF energy density. ATG LLC believes this to be a worst case analysis, based on best available data.

## 4 Conclusion

### Compliance Status

The predictive model of sites 1-4 are all compliant at ground/street level as the Maximum Permissible Exposure (MPE) values are below 100% (1 mW/cm<sup>2</sup>) of FCC General Public/Uncontrolled Exposure Limit.

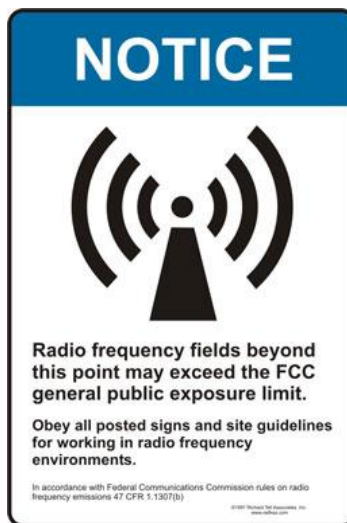
The predictive model of sites 1-4 are all compliant at elevated levels of the poles as the MPE values are below 100% (5 mW/cm<sup>2</sup>) of FCC Occupational/Controlled Exposure Limit.

However, the MPE values for sites 1,2 and 4 exceed 20% of Occupational Standard which is equivalent to 100% MPE (1mw/cm<sup>2</sup>) of General Public Standard. For sites like these, proper signage need to be installed on the pole to advise personnel to take precautionary measure when working at proximity to the antennas.

### Signage Recommendation

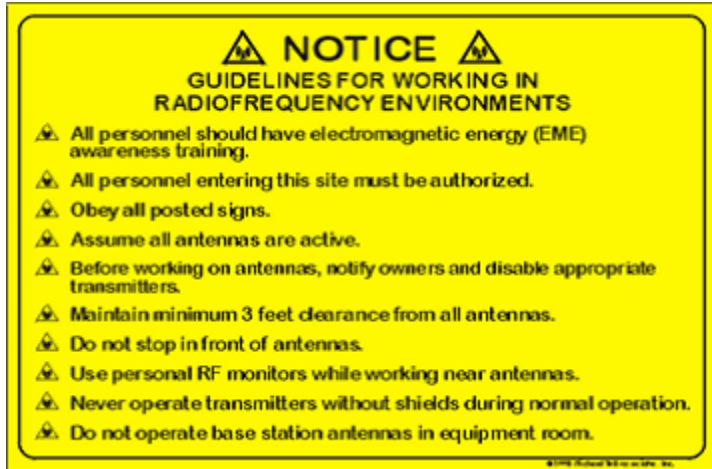
According to OSHA standards for signage for radiofrequency environments:

Sites 1,2 and 4 will need a blue Notice sign (shown below) to be installed at the point on the pole where the General Public limit is exceeding.



As the Occupational limit (5 mW/cm<sup>2</sup>) is not exceeding, yellow Caution signs are not required for these sites.

Sites 1-4 will also need either one of the guidelines signs (shown below) for personnel working in radiofrequency environments.



The document for OSHA signage standards and regulations can be found in the link below:

[https://www.osha.gov/dte/library/radiation/nir\\_stds\\_20021011/nir\\_stds\\_20021011.ppt](https://www.osha.gov/dte/library/radiation/nir_stds_20021011/nir_stds_20021011.ppt)

## 5 Lockout/Tagout Procedures

Adhere to the following procedures to prevent injury to servicing and/or maintenance personnel due to the unexpected energization or startup of machines and equipment, or release of stored energy:

<p><b>Mobilitie, LLC</b> In case of emergency or equipment access contact:</p> <p>E-mail: <a href="mailto:MNOC@mobilitie.com">MNOC@mobilitie.com</a></p> <p>Phone: (877) 244-7889</p> <p>Please reference site ID</p> <p>SITE ID: _____</p> <p>FCC ID: _____</p>
--

### Lockout/Tagout Procedures:

*Use Before Setup, Maintenance,  
Service or Repair*

**STEP 1:** Identify power sources and shut off power to the affected equipment

**STEP 2:** Notify MNOC and all affected workers onsite

**STEP 3:** Shutdown and isolate the affected equipment from the power box

**STEP 4:** Lockout/Tagout the affected equipment by affixing locks and tags to each power box controlling device

**STEP 5:** Verify isolation of power has occurred by trying affected equipment

**STEP 6:** Perform servicing

**STEP 7:** Upon completion of servicing, release the affected equipment from Lockout/Tagout

**STEP 8:** Again notify MNOC and all affected workers onsite that equipment has been restored to normal operation

## 6 Preparer Certification

I, Preparer, state that:

- I am an employee of ATG LLC that provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed 100s of RF-EME exposure studies and reports for various carriers.
- I am aware of the potential hazards from RF-EME exposures and would be classified "occupational" or "general public" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have reviewed all the data related to the site and incorporated it into this study and Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.

*Shafin Mohammed*

-----  
Shafin Mohammed (RF Engineer)

## Appendix A

### Federal Communications Commission (FCC) Requirements

The FCC has established guidelines and limits for Maximum Permissible Exposure (MPE) for human exposure to Radiofrequency Electromagnetic Energy fields.

MPE limits are based on exposure limits over a wide range of frequencies recommended by the NCRP and the exposure limits developed by the IEEE and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. The limits for localized absorption are based on the recommendations of both the ANSI/IEEE and the National Council on Radiation Protection and Measurements (NCRP).

The potential hazard associated with the RF electromagnetic fields is discussed in OET Bulletin No. 65. This document can be obtained on the FCC website. ([https://transition.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet65/oet65.pdf](https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf))

As per FCC guidelines there are two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

**Occupational/controlled exposure limits** apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means

**General public/uncontrolled exposure limits** apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment and not be made fully aware of the potential for exposure or cannot exercise control over their exposure.

Table 1 (A& B) and Figure 1 below, which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

FCC's MPE is measured in terms of power (mW) over a unit surface area (cm<sup>2</sup>), also referred as power density, the FCC has established the limit of an occupational MPE of 5 milliwatts per square centimeter (mW/cm<sup>2</sup>) and an uncontrolled MPE of 1mW/cm<sup>2</sup>.

The above mentioned limits are for equipment operating in the 1900 MHz and 2500 MHz frequency ranges. For the equipment operating at 800 MHz, the FCC's occupational MPE is 2.66 mW/cm<sup>2</sup> and an uncontrolled MPE of 0.53 mW/cm<sup>2</sup>.

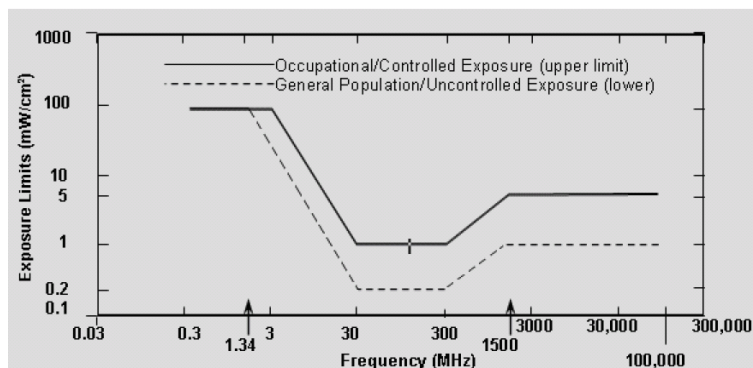
<b>Limits for Maximum Permissible Exposure (MPE)</b>				
<b>A- Limits for Occupational/Controlled Exposure</b>				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

<b>B- Limits for General Population/Uncontrolled Exposure</b>				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1	30

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

**Table 2**



**Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)**

The above mentioned FCC guidelines define MPE limits that are designed to provide substantial margin of safety for continuous exposure of all persons regardless of gender, age, size or health.

**FCC Compliance Requirement**

A site is considered non-compliant with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier or operator's installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

## Appendix B

### Glossary of Terms

1. *Electromagnetic Field (energy density)* – the electromagnetic energy contained in an infinitesimal volume divided by that volume.
2. *Exposure* – Exposure occurs whenever and wherever a person is subjected to electric, magnetic or electromagnetic fields other than those originating from physiological processes in the body and other natural phenomena.
3. *General Population / Uncontrolled Exposure* – applies to human exposure to RF fields when the general public is exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.
4. *Maximum Permissible Exposure (MPE)* – the rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with an acceptable safety factor.
5. *Occupational / Controlled Exposure* – applies to human exposure to RF fields when persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/controlled limits.
6. *Power Density (S)* – Power per unit area normal to the direction of propagation, usually expressed in units of watts per square meter ( $\text{W}/\text{m}^2$ ) or, for convenience, units such as milliwatts per square centimeter ( $\text{mW}/\text{cm}^2$ ) or microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ).

URBELIS & FIELDSTEEL, LLP  
155 FEDERAL STREET  
BOSTON, MASSACHUSETTS 02110-1727

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THOMAS J. URBELIS  
e-mail tju@uf-law.com

Telephone 978-475-4552  
Telephone 617-338-2200  
Telecopier 617-338-0122

October 4, 2016

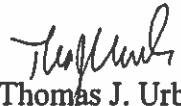
Douglas T. Radigan, Esq.  
Bowditch & Dewey, LLP  
331 Main Street  
P. O. Box 15156  
Worcester, MA 01615-0156

RE: Application by Mobilitie, LLC

Dear Attorney Radigan:

Since you are an attorney for National Grid, enclosed please find Notice of hearings regarding applications by Mobilitie, LLC.

Very truly yours,

  
Thomas J. Urbelis

TJU/kmp  
Enclosure  
cc: Lawrence Murphy, Esq.

RECEIVED  
CLERK'S OFFICE  
2016 OCT -7 A 10:39  
OWN OF ANDOVER, MASS



# TOWN OF ANDOVER

**Town Clerk's Office**

36 Bartlet Street

Andover, MA 01810

978-623-8255

[townclerk@andoverma.gov](mailto:townclerk@andoverma.gov)

## NOTICE OF CONTINUATION

You are hereby notified that the Public Hearing held by the Andover Board of Selectmen at the Town Offices on Bartlet Street, in the third floor Selectmen's Conference Room on Monday, September 12, 2016 at 7:00 P.M. has been continued until Monday, October 24 at the same time and location.

This hearing is being held on the petition of Mobilitie, LLC for permission to construct, in accordance with plans dated June 9, 2016, the following:

**River Road and Riverside Drive - Attach equipment to a new wooden utility pole in the right of way north west of the intersection of River Road and Riverside Drive with electricity connection. Location approximately as shown on plan attached.**

Should you have any major concerns about this proposal, please contact Mobilitie LLC representative, James George by email at [jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com) or phone at 978-998-9795 prior to the above-mentioned Selectmen's meeting date. Representatives from the Mobilitie LLC will also be available at 6:45 P.M. on the above date to answer any other questions you may have relating to the proposed work.

If you have questions about this notice please contact the Town Manager's office by email to [manager@andoverma.gov](mailto:manager@andoverma.gov) or phone 978-623-8225.

By order of the  
Board of Selectmen

Lawrence J. Murphy  
Town Clerk

Plan No.: BS90XSB11B

Date: October 14, 2016



# TOWN OF ANDOVER

Town Clerk's Office  
36 Bartlet Street  
Andover, MA 01810  
978-623-8255  
townclerk@andoverma.gov

## NOTICE OF CONTINUATION

You are hereby notified that the Public Hearing held by the Andover Board of Selectmen at the Town Offices on Bartlet Street, in the third floor Selectmen's Conference Room on Monday, September 12, 2016 at 7:00 P.M. has been **continued** until Monday, **October 24** at the same time and location.

This hearing is being held on the petition of Mobilitie, LLC for permission to construct, in accordance with plans dated June 14, 2016, the following:

**Haverhill and York Streets - Attach equipment to a new utility pole in the right of way east of the intersection of Haverhill Street and York Street with electricity connection.**

Should you have any major concerns about this proposal, please contact Mobilitie LLC representative James George by email at [jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com) or phone at 978-998-9795 prior to the above-mentioned Selectmen's meeting date. Representatives from the Mobilitie LLC will also be available at 6:45 P.M. on the above date to answer any other questions you may have relating to the proposed work.

If you have questions about this notice please contact the Town Manager's office by email to [manager@andoverma.gov](mailto:manager@andoverma.gov) or phone 978-623-8225.

By order of the  
Board of Selectmen

Lawrence J. Murphy  
Town Clerk

Plan No.: BS90XSC47E  
Date: October 14, 2016



# TOWN OF ANDOVER

**Town Clerk's Office**  
36 Bartlet Street  
Andover, MA 01810  
978-623-8255  
[townclerk@andoverma.gov](mailto:townclerk@andoverma.gov)

## NOTICE

You are hereby notified that a Public Hearing will be held by the Andover Board of Selectmen at the Town Offices on Bartlet Street, in the third floor Selectmen's Conference Room on Monday, October 24, 2016 at 7:00 P.M.

This hearing is being held on the petition of Mobilitie, LLC for permission to construct, in accordance with plans dated September 21, 2016, the following:

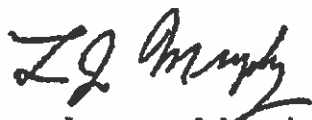
**Railroad and North Main Streets – Attach equipment to a new utility pole in the right of way southwest of the intersection of Railroad and North Main Streets, with electricity connection.**

Plan(s) of the proposed work can be found on the Town of Andover web site at [www.andoverma.gov](http://www.andoverma.gov) in the Open Meeting Calendar by searching under the public hearing date.

Should you have any major concerns about this proposal, please contact Mobilitie LLC representative James George by email at [jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com) or phone at 978-998-9795 prior to the above-mentioned Selectmen's meeting date. Representatives from the Mobilitie LLC will also be available at 6:45 P.M. on the above date to answer any other questions you may have relating to the proposed work.

If you have questions about this notice please contact the Town Manager's office by email to [manager@andoverma.gov](mailto:manager@andoverma.gov) or phone 978-623-8225.

By order of the  
Board of Selectmen

  
Lawrence J. Murphy  
Town Clerk

Plan No.: BS90XSH02A  
Date: October 14, 2016



# TOWN OF ANDOVER

## Town Clerk's Office

36 Bartlet Street  
Andover, MA 01810  
978-623-8255  
townclerk@andoverma.gov

### NOTICE

You are hereby notified that a Public Hearing will be held by the Andover Board of Selectmen at the Town Offices on Bartlet Street, in the third floor Selectmen's Conference Room on Monday, October 24, 2016 at 7:00 P.M.

This hearing is being held on the petition of Mobilitie, LLC for permission to construct, in accordance with plans dated September 21, 2016, the following:


**Railroad and North Main Streets** – Attach equipment to a new utility pole in the right of way southwest of the intersection of Railroad and North Main Streets, with electricity connection.

Plan(s) of the proposed work can be found on the Town of Andover web site at [www.andoverma.gov](http://www.andoverma.gov) in the Open Meeting Calendar by searching under the public hearing date.

Should you have any major concerns about this proposal, please contact Mobilitie LLC representative James George by email at [jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com) or phone at 978-998-9795 prior to the above-mentioned Selectmen's meeting date. Representatives from the Mobilitie LLC will also be available at 6:45 P.M. on the above date to answer any other questions you may have relating to the proposed work.

If you have questions about this notice please contact the Town Manager's office by email to [manager@andoverma.gov](mailto:manager@andoverma.gov) or phone 978-623-8225.

By order of the  
Board of Selectmen

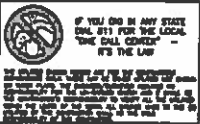
  
Lawrence J. Murphy  
Town Clerk

Plan No.: BS90XSH02A  
Date: October 14, 2016

SITE ID-CANDIDATE LETTER/CASCADE ID-CANDIDATE LETTER:  
**9MAB001494/BS90XSH02A**

LATITUDE/LONGITUDE:  
**42.661331/-71.144264**

CROSS STREET:  
**RAILROAD ST & N MAIN ST**  
 CITY, STATE, ZIP:  
**ANDOVER, MA 01810**



**GENERAL NOTES**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TELEPHONE WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DEGRADATION OF EFFECT OR ENHANCEMENT OF ENVIRONMENTAL QUALITY. SERVICE, POTENTIAL WATER OR WASTE DISPOSAL IS REQUIRED AND NO COMMERCIAL SERVICE IS IN.

**SITE INFORMATION**

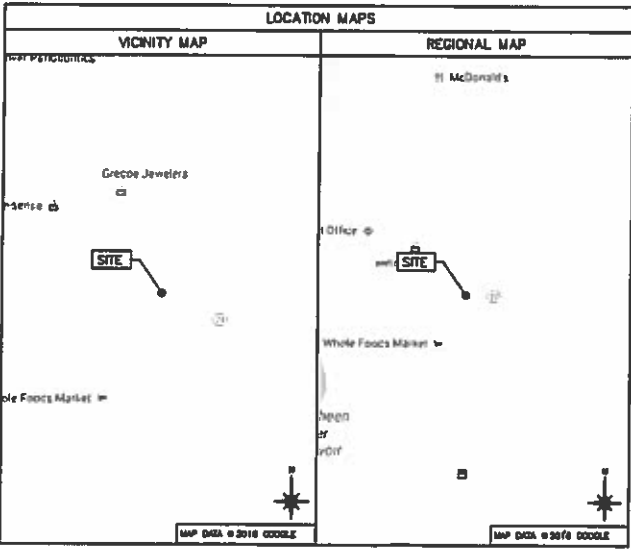
SITE ID: 9MAB001494  
 CASCADE ID: BS90XSH02A  
 LATITUDE: 42.661331  
 LONGITUDE: -71.144264  
 CROSS STREET: RAILROAD ST & N MAIN ST  
 CITY, STATE, ZIP: ANDOVER, MA 01810  
 COUNTY: ESSEX COUNTY  
 JURISDICTION: ANDOVER TOWN  
 PROPERTY OWNER: PUBLIC ROAD-OF-1007  
 APPLICANT: MOBILITE, LLC  
 2479 FREMONT ROAD MC SUITE 1000  
 ATLANTA, GEORGIA 30338  
 PHONE: (312) 530-5400

**ENGINEER**

THE DESIGN GROUP, LLC  
 1800 ROUTE 24, SUITE 300  
 HALL, NJ 07718  
 FOR QUESTIONS EMAIL: DESIGN@THEDESIGNGROUP.COM  
 TEL: (732) 282-5421 FAX: (732) 282-2182 WWW.THEDESIGNGROUP.COM

**DO NOT SCALE DRAWINGS**

CONTRACTORS SHALL VERIFY ALL PLANS, (3) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



**PROJECT DESCRIPTION**

ONE USER PROPOSED TO INSTALL EQUIPMENT ON A NEW WOOD POLE WITH AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- INSTALL A NEW WOOD UTILITY POLE WITH PROPOSED BACKHAUL TRANSPORT EQUIPMENT

**CODES**

2018 INTERNATIONAL BUILDING CODE  
 2018 NATIONAL ELECTRICAL CODE  
 2018-2021-0-1 ON LATEST EDITION  
 LOCAL BUILDING/PLANNING CODE

**DRAWING INDEX**

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
SP-1	SURVEY PHOTO & SITE PLAN
ES-1	ELECTRICAL
PL-1	PLUMBING & ROOFING
EQ-1	EQUIPMENT DETAILS
ED-2	EQUIPMENT DETAILS
E-1	ELECTRICAL DETAILS
GR-1	GROUNDING DETAILS
TD-1	TRAFFIC CONTROL PLAN
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GD-1	CLOSE OUT PACKAGE

**mobilitie**

PROJECT NO: 9MAB001494  
 DRAWING NO: BS  
 DRAWING BY: LAD

THE DESIGN GROUP, LLC  
**Stephen A. Bray**  
 LICENSED PROFESSIONAL ENGINEER

DATE: 08/13/2018

**PRELIMINARY**

BS90XSH02A  
 ANDOVER, MA 01810  
 PROPOSED 77'-0" WOOD POLE

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER  
**T-1**

**ORDER FOR GRANT OF LOCATION FOR  
NEW UTILITY POLE**

**Town of Andover, Massachusetts  
Board of Selectmen**

WHEREAS, MOBILITIE, LLC, (hereinafter known as the PETITIONER) has petitioned for permission to construct upon, along, under or across the public way(s) of the Town of Andover, the following:

*Petitioner proposes to attach equipment to a new utility pole in the right of way southwest of the intersection of RAILROAD ST & N MAIN ST, with electricity connection (Lat: 42.661331, - 71.144264). Location approximately as shown on attached plan.*

AND WHEREAS, notice has been given and a hearing held on said petition as provided by law; NOW THEREFORE BE IT ORDERED that the PETITIONER be and hereby is granted permission by the Town of Andover to complete the construction described above, all in accordance with the following conditions:

1. PETITIONER shall locate and complete all work as shown by plan(s) specified and approved by the Town, and as may have been amended by the Town.
2. PETITIONER shall comply with the requirements of existing ordinances and such as may hereafter be adopted governing the construction.
3. PETITIONER shall perform all work to the requirements and satisfaction of the Department of Municipal Services – Public Works or other such officer(s) as may be hereafter appointed by the Town.

Approved by the Town of Andover on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

A True Record. Attest: \_\_\_\_\_ Date: \_\_\_\_\_  
Town Clerk

**Certificate**

I hereby certify that the foregoing Order was adopted by the Town of Andover on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. Received and entered in the records of Location Orders of the Town of Andover, in Book \_\_\_\_\_, Page \_\_\_\_\_.

Certified. Attest: \_\_\_\_\_ Date: \_\_\_\_\_  
Town Clerk

**PETITION FOR GRANT OF LOCATION FOR  
NEW UTILITY POLE**

**Town of Andover, Massachusetts  
Board of Selectmen**

RESPECTFULLY REPRESENTS MOBILITIE, LLC, (hereinafter known as the PETITIONER), that it desires to construct upon, along, under or across the public way(s) of the Town of Andover, wires, cables, poles, piers, abutments, conduits or fixtures.

WHEREFORE, the PETITIONER prays that, after due notice and public hearing as provided by law, the Town of Andover may by Order grant to the PETITIONER permission to construct, in accordance with plan(s) dated September 21, 2016, the following:

*Petitioner proposes to attach equipment to a new utility pole in the right of way southwest of the intersection of RAILROAD ST & N MAIN ST, with electricity connection (Lat: 42.661331, - 71.144264). Location approximately as shown on attached plan.*

The PETITIONER understands and agrees that:

1. PETITIONER shall locate and complete all work as specified and approved by the Town.
2. PETITIONER shall comply with the requirements of existing ordinances and such as may hereafter be adopted governing the construction.
3. PETITIONER shall perform all work to the requirements and satisfaction of the Department of Municipal Services – Public Works or other such officer(s) as may be hereafter appointed by the Town.

For the PETITIONER:

MOBILITIE, LLC

By  \_\_\_\_\_  
Scott Schneider, NRE Specialist

Date: 9/21/2016



10/27

3475 Piedmont Road NE, Suite 1000  
Atlanta, Georgia 30305

September 21, 2016

Office of the Town Manager  
ATTN: Andrew P. Flanagan  
36 Bartlet Street  
Andover, MA 01810  
(978) 623-8227  
[aflanagan@andoverma.gov](mailto:aflanagan@andoverma.gov)

**RE: Mobilitie, LLC Permit Application Submission – BS90XSH02A\_9MAB001494**

Dear Mr. Flanagan:

Please find Mobilitie, LLC's Petition for Grant of Location Application for the proposed new utility infrastructure facility in your jurisdiction. Along with the attached permit application, you will also find construction drawings and photo simulations for the said facility.

Applicant is a limited liability company that is certificated by the Massachusetts Secretary of the Commonwealth's Corporations Division and is regulated by the Massachusetts Office of Consumer Affairs and Business Regulation to operate as a Competitive Local Exchange Carrier within the Commonwealth. To meet the growing demand for connectivity, Applicant is deploying a hybrid transport network that provides high-speed, high-capacity bandwidth in order to facilitate the next generation of devices and data-driven services. Therefore our applications include utility pole infrastructure which will create greater connectivity and opportunities for the citizens of Andover

Our applications are for the installation of new "small cell" facilities that will address ever-increasing mobile data demands because they provide coverage redundancy to the cellular network. The greatest demand for mobile data currently exists in the public rights-of-way. These facilities are low-powered, compact, and consist of no ground equipment so that they can be safely and conveniently located in such dense and congested areas and provide the capacity to your residents' devices and applications.

We are excited to work with Andover and available to answer questions.

Please do not hesitate to contact James George, Permitting Manager, at 978-998-9795 / [jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com) or myself at (404)-391-4025 / [sschneider@mobilitie.com](mailto:sschneider@mobilitie.com).

Thank you for your attention to this matter.

Respectfully submitted,

Scott Schneider  
Network Real Estate Specialist

\*Enclosures

SEP 25 3:04 PM 2:00



3475 Piedmont Road NE, Suite 1000  
Atlanta, Georgia 30305

September 21, 2016

Office of the Town Manager  
ATTN: Andrew P. Flanagan  
36 Bartlet Street  
Andover, MA 01810  
(978) 623-8227  
[aflanagan@andoverma.gov](mailto:aflanagan@andoverma.gov)

RECEIVED  
TOWN CLERK'S OFFICE  
2016 SEP 29 A 10:48  
TOWN OF ANDOVER, MASS.

**RE: Mobilitie, LLC Permit Application Submission – BS90XSH02A\_9MAB001494**

Dear Mr. Flanagan:

Please find Mobilitie, LLC's Petition for Grant of Location Application for the proposed new utility infrastructure facility in your jurisdiction. Along with the attached permit application, you will also find construction drawings and photo simulations for the said facility.

Applicant is a limited liability company that is certificated by the Massachusetts Secretary of the Commonwealth's Corporations Division and is regulated by the Massachusetts Office of Consumer Affairs and Business Regulation to operate as a Competitive Local Exchange Carrier within the Commonwealth. To meet the growing demand for connectivity, Applicant is deploying a hybrid transport network that provides high-speed, high-capacity bandwidth in order to facilitate the next generation of devices and data-driven services. Therefore our applications include utility pole infrastructure which will create greater connectivity and opportunities for the citizens of Andover

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We are excited to work with Andover and available to answer questions.

Please do not hesitate to contact James George, Permitting Manager, at 978-998-9795 / [jgeorge@mobilitie.com](mailto:jgeorge@mobilitie.com) or myself at (404)-391-4025 / [sschneider@mobilitie.com](mailto:sschneider@mobilitie.com).

Thank you for your attention to this matter.

Respectfully submitted,

Scott Schneider  
Network Real Estate Specialist

\*Enclosures

SEP 25 10:34 PM 2:00



**BOARD OF ASSESSORS  
TOWN OFFICES  
36 BARTLET ST  
ANDOVER, MA 01810  
978-623-8265**

**BOARD OF ASSESSORS  
CERTIFICATION OF ABUTTERS**

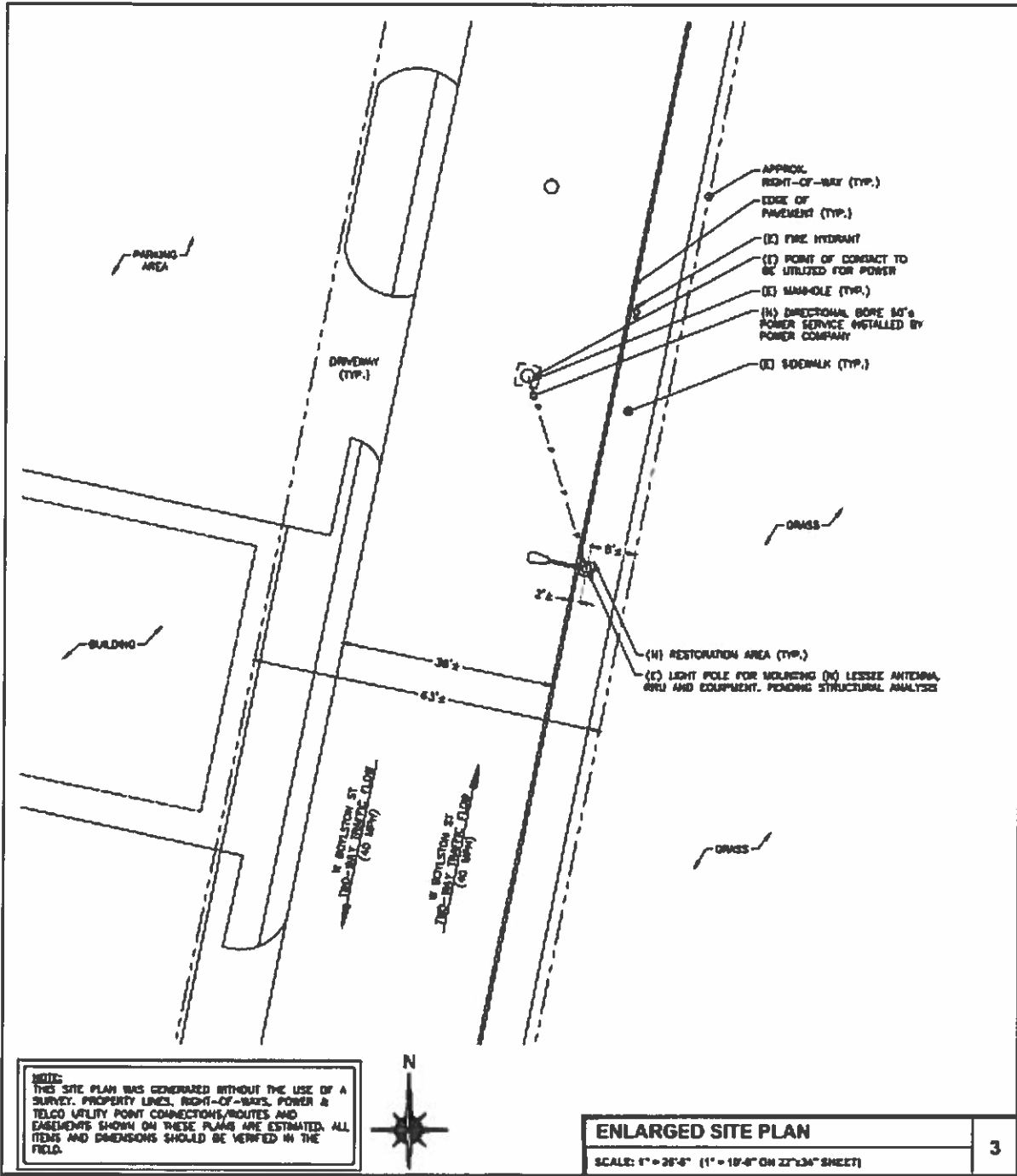
**PETITION # 9MA3001494 / B390XS HQ2A**

I hereby certify the attached list of abutters as they currently appear on the Assessors' Office records.

Patricia Sullivan  
Senior Assessor

**OCT 03 2016**

**Exhibit A**  
**Mobilitie # BS90XSH02A\_9MAB001494**  
**RAILROAD ST & N MAIN ST, Andover, MA**  
**(Lat/Long: 42.661331/-71.144264)**



0 RAILROAD ST	38 0 1
	LUC: 972
MASS BAY TRANS AUTHORITY C/O DIR OF REAL ESTATE TEN PARK PLAZA RM 5750 BOSTON, MA 02116	
40 R RAILROAD ST	54 0 12 A
	LUC: 392
ANDOVER MAIN STREET II LLC C/O WS ASSET MANAGEMENT INC 33 BOYLSTON ST STE 3000 CHESTNUT HILL, MA 02487	
30 RAILROAD ST	54 0 3
	LUC: 112
ANDOVER COMMONS ASSOCIATES ATTN: ACCOUNTING DEPT 100 GRANDVIEW RD STE 207 BRAintree, MA 02184	
40 RAILROAD ST	54 0 4
	LUC: 324
ANDOVER MAIN STREET II LLC C/O WS ASSET MANAGEMENT LLC 33 BOYLSTON ST STE 3000 CHESTNUT HILL, MA 03467	
42 RAILROAD ST	54 0 5
	LUC: 390
ANDOVER MAIN STREET II LLC C/O WS ASSET MANAGEMENT INC 33 BOYLSTON ST STE 3000 CHESTNUT HILL, MA 02487	
168 NORTH MAIN ST	54 0 6
	LUC: 031
NATHAN FRYE LLC 9 PRIDES CI ANDOVER, MA 01810	
168 NORTH MAIN ST	54 0 6 A
	LUC: 340
168-172 NORTH MAIN LLC 9 PRIDES CI ANDOVER, MA 01810	



# TOWN OF ANDOVER

## Town Clerk's Office

36 Bartlet Street  
Andover, MA 01810  
978-623-8255  
townclerk@andoverma.gov

### NOTICE

You are hereby notified that a Public Hearing will be held by the Andover Board of Selectmen, on Monday, October 24 in the 3<sup>rd</sup> Floor Conference Room, 36 Bartlet Street, at 7 p.m.

This hearing is being held on the petition of National Grid and Verizon New England requesting permission to locate poles, wires and fixtures, including the necessary sustaining and protecting fixtures, along and across the following public way:

**# 22027985, Lowell Junction Road** – National Grid to install a new jointly owned pole to service 10 Lowell Junction Road. Location approximately as shown on plan attached.

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.

Plan(s) of the proposed work can be found on the Town of Andover web site at [www.andoverma.gov](http://www.andoverma.gov) in the Open Meeting Calendar by searching under the public hearing date.

Should you have any major concerns about this proposal, please call Dave Boucher at National Grid, (978) 725-1416, prior to the above-mentioned Selectmen's meeting date. Representatives from the utility company will be available at 6:45 P.M. on the above date to answer any other questions you may have relating to the proposed work.

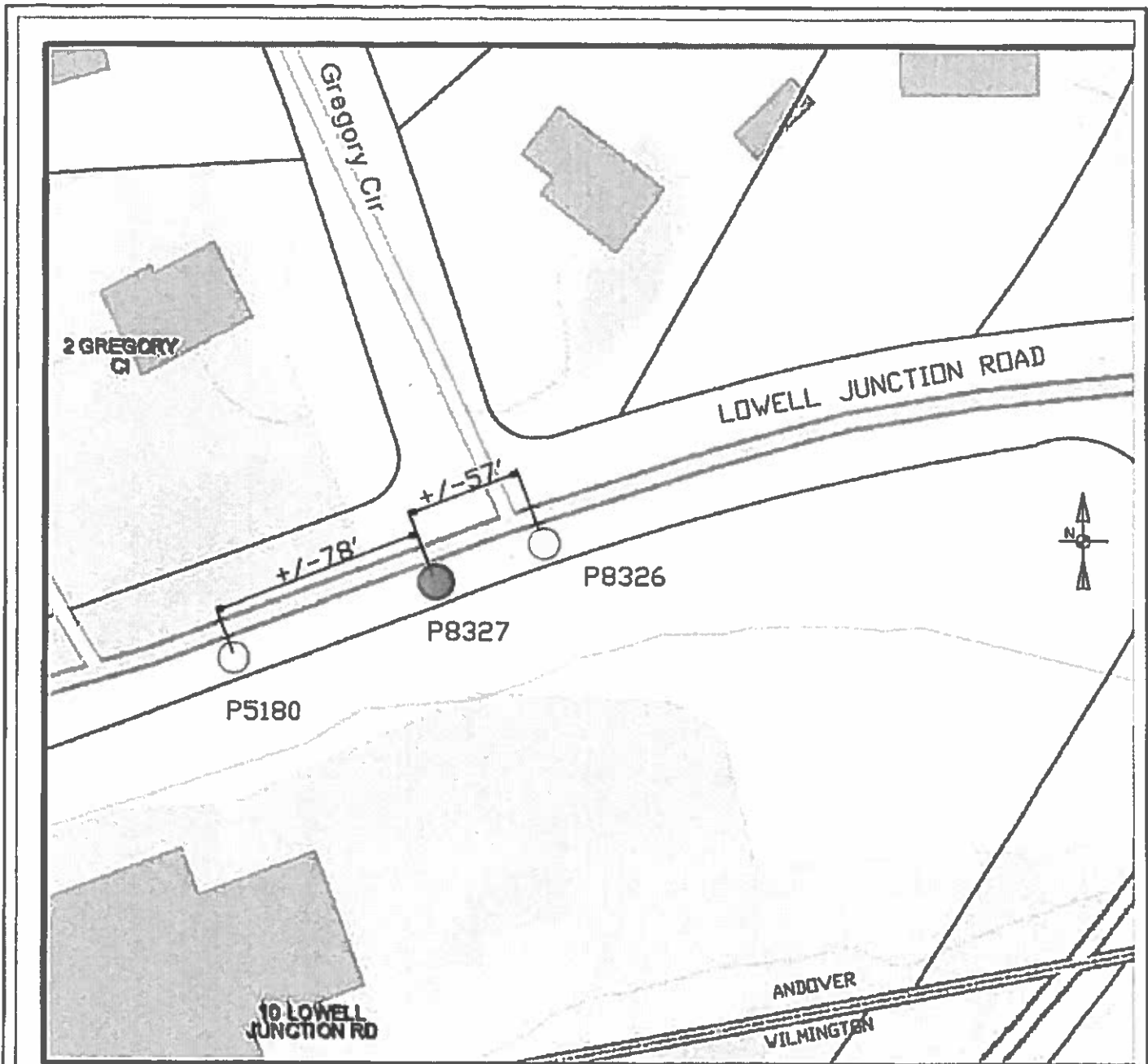
By order of the  
Board of Selectmen

Lawrence J. Murphy  
Town Clerk

Plan No.: 22027985

Date: October 14, 2016





**JOINT OWNED POLE PETITION**

- Proposed J.O. Pole Locations
- Existing J.O. Pole Locations

DISTANCES ARE APPROXIMATE

**nationalgrid**  
And  
Verizon New England, Inc.

Date: 7-21-16

Work Request Number: WR# 22027985

To Accompany Petition Dated:

To The: City / Town Of ANDOVER, MA

For Proposed: NEW POLE Pole: 8327 Location: LOWELL JUNCTION RD



Questions contact Dave Boucher-978-725-1461

RECEIVED  
TOWN CLERK'S OFFICE

**PETITION FOR JOINT OR IDENTICAL POLE LOCATIONS**

8 A 11: 25

North Andover, Massachusetts

TOWN OF ANDOVER, MASS

To Board of Selectmen  
Of Andover Massachusetts

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:

**Lowell Junction Road-National Grid to install a new jointly owned pole to service 10 Lowell Junction Road.**

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 – Lowell Junction Road-Andover Massachusetts

22027985 August 25, 2016

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.

NATIONAL GRID  
BY Chris Royle  
Engineering Department

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



TOWN

Questions contact – Dave Boucher 978 725 1461

**ORDER FOR JOINT OR IDENTICAL POLE LOCATIONS**

To the Board of Selectmen of Andover Massachusetts

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

that 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 25th day of August 2016

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 – Lowell Junction Road Andover, Massachusetts.

22027985 Dated August 25, 2016. Filed with this order

There may be attached to said poles by 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:

**Lowell Junction Road-National Grid to install a new jointly owned pole to service 10 Lowell Junction Road.**

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  
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

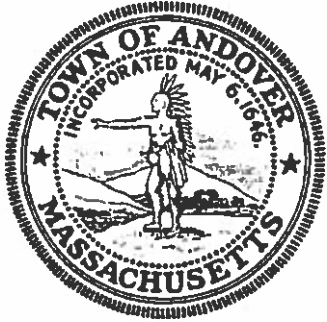
CERTIFICATE

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:  
City/Town Clerk

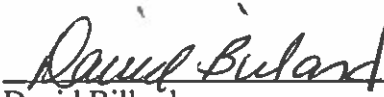




**BOARD OF ASSESSORS  
TOWN OFFICES  
36 BARTLET ST  
ANDOVER, MA 01810  
978-623-8265**

**BOARD OF ASSESSORS  
CERTIFICATION OF ABUTTERS  
PETITION # 22007985**

I hereby certify the attached list of abutters as they currently appear on the Assessors' Office records.

  
David Billard  
Chief Assessor  
SEP 08 2016



*Per # 2502 7985*

15	LOWELL JUNCTION RD	160 0 2
		LUC: 101
JAMES LEONARD E PALGI DANIELLE A TE 15 LOWELL JUNCTION RD ANDOVER, MA 01810		
13	LOWELL JUNCTION RD	160 0 3
		LUC: 101
VELIGOR MARK VELIGOR LAURA TE 13 LOWELL JUNCTION RD ANDOVER, MA 01810		
11	LOWELL JUNCTION RD	160 0 7
		LUC: 101
SPROUL PETER J 11 LOWELL JUNCTION RD ANDOVER, MA 01810		
2	GREGORY CI	160 0 7 A
		LUC: 101
GHOSH PRASENJIT GHOSH DOLA TE 2 GREGORY CI ANDOVER, MA 01810		
1	GREGORY CI	160 0 7 H
		LUC: 101
CARLI THOMAS CARLI KATHRYN TE 1 GREGORY CI ANDOVER, MA 01810		
3	LOWELL JUNCTION RD	160 0 8
		LUC: 101
DURRANI SAJID MOLGAARD JENNESSA KAE JT 3 LOWELL JUNCTION RD ANDOVER, MA 01810		
10	LOWELL JUNCTION RD	160 0 9
		LUC: 401
CONSOLIDATED PROPERTY LLC 81 HICKS AV MEDFORD, MA 02155		
18	LOWELL JUNCTION RD	160 0 9 B
		LUC: 440
TASCO REALTY COMPANY FORD THOMAS+GAETANE GP 2 CONNECTOR RD ANDOVER, MA 01810		





# TOWN OF ANDOVER

**Town Clerk's Office**  
36 Bartlet Street  
Andover, MA 01810  
978-623-8255  
townclerk@andoverma.gov

## NOTICE

You are hereby notified that a Public Hearing will be held by the Andover Board of Selectmen at the Town Offices on Bartlet Street, in the third floor Selectmen's Conference Room on Monday, October 24, 2016 at 7:00 P.M.

This hearing is being held on the petition of Comcast requesting permission to place and maintain 1 4-inch PVC Communication Conduit a total of +/- 92 feet easterly from Utility Pole #1535/5 on Chestnut Street to a proposed 4' x 4' manhole, and continuing +/- 154 feet southerly on Main Street into the building located at **71 Main Street**.

Plan(s) of the proposed work can be found on the Town of Andover web site at [www.andoverma.gov](http://www.andoverma.gov) in the Open Meeting Calendar by searching under the public hearing date.

Should you have any major concerns about this proposal, please call Bill Conway, Project Manager, at (508) 870-7221 prior to the above-mentioned Selectmen's meeting date. Representatives from the utility company will be available at 6:45 P.M. on the above date to answer any other questions you may have relating to the proposed work.

By order of the  
Board of Selectmen

Lawrence J. Murphy  
Town Clerk

Plan No.: 71 Main Street  
Date: October 14, 2016









**PROPOSED CABLE INSTALLATION**

**AT**

**71 MAIN ST  
ANDOVER, MA**

**INDEX OF DRAWING**

SHEET NO.	DESCRIPTION
01	COVER SHEET
02	CONDUIT INSTALLATION
03	DETAILS

**AXIS**  
ENGINEERING GROUP  
1900 West Park Dr. Suite 165  
Westboro, MA 01581  
(508) 876-7221 [www.axis-group.com](http://www.axis-group.com)



## Susan Pimentel

---

**From:** Brian Moore  
**Sent:** Tuesday, October 04, 2016 3:53 PM  
**To:** Susan Pimentel  
**Subject:** RE: Comcast petition

Susan,  
We finished reviewing the Comcast Plan and it is acceptable. I called Bill Conway and informed him also.  
Brian

---

**From:** Susan Pimentel  
**Sent:** Thursday, September 29, 2016 3:38 PM  
**To:** Brian Moore <bmoore@andoverma.gov>  
**Subject:** RE: Comcast petition

You are the best, Brian. Thanks!!

*Susan Pimentel*  
Town of Andover  
Clerk's Office  
[spimentel@andoverma.gov](mailto:spimentel@andoverma.gov)  
978-623-8256

---

**From:** Brian Moore  
**Sent:** Thursday, September 29, 2016 3:36 PM  
**To:** Susan Pimentel <[spimentel@andoverma.gov](mailto:spimentel@andoverma.gov)>  
**Cc:** David Dargie <[ddargie@andoverma.gov](mailto:ddargie@andoverma.gov)>  
**Subject:** RE: Comcast petition

Susan,  
This person Bill Conway came in yesterday with a plan of the proposed conduit for this location. This will definitely need to have a public hearing. I told him that we needed to first look at the plan and check out site first to see if the location of the proposed conduit was OK or if it needed to be changed. Then I would let him know the results of the review before he submit this to you, but I guess he misunderstood that. As soon as we have completed our review, I'll let both you and Bill know if the proposed location on the plan is OK, and then proceed with the public hearing process or revise the plan.  
Brian

---

**From:** Susan Pimentel  
**Sent:** Thursday, September 29, 2016 2:49 PM  
**To:** Brian Moore <[bmoore@andoverma.gov](mailto:bmoore@andoverma.gov)>  
**Subject:** Comcast petition

Hi Brian,

Did you get a copy of a Comcast petition today? I've scanned and attached the letter and the accompanying business card. The letter asks if they need a Grant of Location hearing. I didn't know if



this was one of the ones that has to go thru Building first??? I have maps but thought I'd check with you before getting into too much.

Thanks,

*Susan Pimentel*  
Town of Andover  
Clerk's Office  
[spimentel@andoverma.gov](mailto:spimentel@andoverma.gov)  
**978-623-8256**





RECEIVED  
TOWN CLERK'S OFFICE  
2016 SEP 29 P 2:49  
TOWN OF ANDOVER, MASS

September 29, 2016

Town Clerk  
Town of Andover  
36 Bartlet Street  
Andover, MA 01810

RE: Comcast of Massachusetts I, Inc. 71 Main Street

Dear Mr. Murphy,

Comcast of Massachusetts I, Inc. respectfully submits the attached drawings in order to determine if a Grant of Location Hearing will be needed. The purpose of the proposed build is to connect Comcast's existing fiber network to the customer located 71 Main Street.

Comcast would like to place and maintain (1) 4 inch PVC Communication Conduit a total of +/- 92 feet easterly from Utility Pole #1535/5 on Chestnut St to a proposed 4' x4' Manhole, and continuing +/- 154 feet southerly on Main St into the building located at 71 Main St. If you have any questions or concerns, please let me know.

Sincerely,

*Robert Oliveira*

Comcast Contract Project Coordinator  
(603)-937-7730  
Robert\_Oliveira@cable.comcast.com









**TRAFFIC MANAGEMENT PLAN  
AT  
71 MAIN ST  
ANDOVER, MA**

**INDEX OF DRAWING**

SHEET NO.	DESCRIPTION
01	COVER SHEET
02	TRAFFIC CONTROL (PHASE 1)
03	TRAFFIC CONTROL (PHASE 2)
04	TRAFFIC CONTROL (PHASE 3)









**TRAFFIC MANAGEMENT NOTES**

- 1 PLACE ALL SAFETY DEVICES AND CONSTRUCTION SIGNS BEFORE ACTUAL CONSTRUCTION WORK BEGINS
- 2 DISTANCES AND A SOURCE WHO MAY BE ADMITTED BASED ON FIELD CONDITIONS
- 3 EACH INDIVIDUAL COVER SIGN IS NECESSARY WHEN NOT IN USE
- 4 ALL SIGNING SIGNS SHALL BE BLACK LETTER ON A REFLECTIVE ORANGE BACKGROUND
- 5 MAINTAIN ADEQUATE ANCHORAGE AT ALL TIMES

**TRAFFIC CONTROL LEGEND**

TRAFFIC CONE	TRAFFIC SIGN	TRAFFIC SIGN	TRAFFIC SIGN
TRAFFIC CONE	TRAFFIC SIGN	TRAFFIC SIGN	TRAFFIC SIGN

**LEGEND**

TRAFFIC CONE	TRAFFIC SIGN	TRAFFIC SIGN	TRAFFIC SIGN
TRAFFIC CONE	TRAFFIC SIGN	TRAFFIC SIGN	TRAFFIC SIGN

**NOTE:** THE LOCATION OF ALL SIGNS AND DEVICES SHALL BE AS SHOWN ON THIS PLAN. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL SIGNS AND DEVICES PRIOR TO ANY EXCAVATION.

**AXIS ENGINEERING LLC**

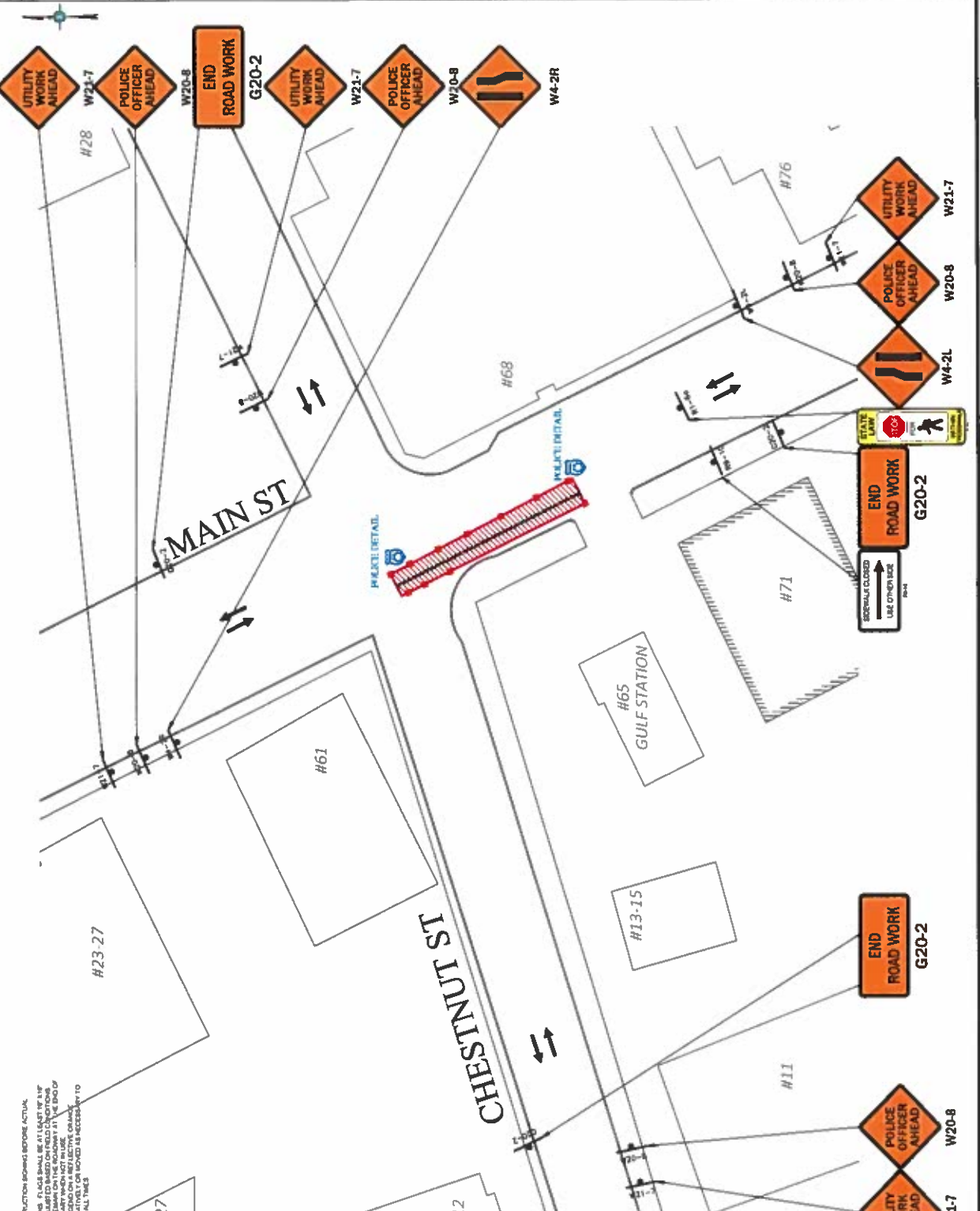
**Comcast**

**TRAFFIC CONTROL (PHASE 2)**

DATE: 10/15/2014

PROJECT: 10000000000000000000

SCALE: 1"=40'











## TOWN OF ANDOVER

### Town Clerk's Office

36 Bartlet Street  
Andover, MA 01810  
978-623-8255  
townclerk@andoverma.gov

### ANNUAL TOWN MEETING AND TOWN ELECTION CALENDAR

2017

<b>TOWN ELECTION:</b>	<b>Tuesday, March 28, 2017 7:00 AM - 8:00 PM</b> <b>Precinct Polling places:</b> <b>Precincts 1 &amp; 3 – Center at Punchard</b> <b>Precincts 4, 5, &amp; 6 – Wood Hill Middle School</b> <b>Precincts 2, 7, 7A, 8, 9 &amp; 9A – Andover High School</b>
<b>ANNUAL TOWN MEETING:</b>	<b>May 1, 2, 8 &amp; 9, 2017 7:00 PM</b> <b>J. Everett Collins Center Auditorium</b> <b>Andover High School, Shawsheen Road</b>
<b>TOWN WARRANT:</b>	<b>Opens: Monday, TBD, 2016</b> <b>Closes: Friday, January 27, 2017 (4:30 PM)</b>
<b>BUDGET DUE TO TOWN:</b>	<b>Friday, February 3, 2017 (First Friday of February)</b>
<b>ANNUAL TOWN REPORT:</b>	<b>Tuesday, March 21, 2017 (7 days before town election)</b>
<b>FINANCE COMMITTEE REPORT</b>	<b>Friday, April 21, 2017 (10 days before business meeting)</b>

**PLEASE NOTE:** Mail-in voter registration forms are available at the Registry of Motor Vehicles, the Public Library, all four Post Offices, the Secretary of the Commonwealth's web site and the Town Offices on Bartlet Street. If you are not a registered voter, to be eligible to vote at an Election or Town Meeting your mail-in form must be received or postmarked by the last day to register per State Law. On-line voter registration is now available on the Secretary of the Commonwealth's web site.

### ANDOVER TOWN ELECTION DEADLINES

1. Last day to submit nomination papers to the Board of Registrars for Town Election  
**Tuesday, February 7, 2017 5:00 PM (49 days)**
2. Last day to Withdraw from Town Election (notarized statement in writing)  
**Thursday, February 23, 2017 5:00 PM (33days)**

3. Last Day to Register to vote for the Town Election for non registered voters:  
**Wednesday, March 8, 2017** (20 days)  
**Town Clerk's Office: Open for voter registration from 8:30 AM to 8:00 PM**
4. Warrant Posted & Published: **No later than Tuesday, March 14, 2017** (14 days)  
(Submit to Newspaper by: March 3 to publish on March 9)

#### **ANNUAL TOWN MEETING DEADLINES**

1. Last Day to Register to vote for the Annual Town Meeting for non registered voters:  
**Tuesday, April 11, 2017** (20 days)  
**Town Clerk's Office: Open for voter registration from 8:30 AM to 8:00 PM**
2. Warrant Posted & Published: **No later than Monday, April 17, 2016** (14 days)  
(Submit to Newspaper by: April 7 to publish on April 13)

#### **TOWN ELECTION CAMPAIGN FINANCE REPORTING FOR 2016**

##### **REPORT DUE:**

##### **REPORTING PERIOD DATES:**

- Due Jan. 20, 2017**      **Reporting Period Ending: December 31, 2016**  
from date of last report filed in 2016.
- **April 12, 2016 – Dec. 31, 2016** (2016 Candidates not dissolved)
  - **January 1, 2016 - Dec. 31, 2016** (all others)
- Due March 20, 2017**      **Reporting period: January 1, 2017 - March 10, 2017**  
(due 8 days before election)      (accounting closes 10 days before due date)
- Due April 27, 2017**      **Reporting period: March 11, 2017 – April 17, 2017**  
(due 30 days after election)      (accounting closes 10 days before due date)
- Due Jan. 20, 2018**      **Reporting Period Ending - December 31, 2017**  
(End of year report)      from date of last report filed in 2017:
- **April 18, 2017 through Dec. 31, 2017** (all 2017 candidates not dissolved)
  - **January 1, 2017 through December 31, 2017** (all others)

**DISSOLUTION REPORT:** When balance is zero with written notice.

#### **2017 STATE ELECTIONS**

There are no regularly scheduled State elections for 2017

## NET METERING CREDIT PURCHASE AND SALE AGREEMENT

This Net Metering Credit Purchase and Sale Agreement (“Agreement”) is entered into as of \_\_\_\_\_, 2016 (the “Effective Date”) pursuant to G.L. c. 40, § 4A, by and between the Greater Lawrence Regional School District, a Massachusetts regional vocational school established pursuant to Chapter 330 of the Acts of 1960, as amended by Chapter 274 of the Acts of 1961 (“Seller”), and the Town of Andover, Massachusetts, a Massachusetts municipal corporation (“Buyer”). In this Agreement, Seller and Buyer are sometimes referred to individually as a “Party” and collectively as the “Parties.”

### RECITALS

A. Seller is a party to that certain Power Purchase Agreement by and between Sun3East, LLC and the Greater Lawrence Technical School dated as of July 16, 2012, as amended on February 26, 2013 (the “PPA”) for purchase of the electricity from a solar photovoltaic project located at 28 Madbrook Road, North Brookfield, MA 01535 (the “Facility”).

B. In accordance with the PPA, Seller is entitled to the Net Metering Credits issued by the LDC as a result of the electricity generated by the Facility and the LDC applies the Net Metering Credits to Seller’s electric accounts on file with the LDC.

C. Seller has amassed excess Net Metering Credits (the “Excess Credits”) and desires to sell such Excess Credits to Buyer.

D. Buyer desires to purchase the Excess Credits.

**NOW, THEREFORE**, in consideration of the foregoing recitals, the mutual premises, representations, warranties, covenants and conditions herein, Seller and Buyer agree as follows.

### ARTICLE I DEFINITIONS

When used in this Agreement, the following terms shall have the meanings given, unless a different meaning is expressed or clearly indicated by the context. Words defined in this Article I which are capitalized shall be given their common and ordinary meanings when they appear without capitalization in the text. Words not defined herein shall be given their common and ordinary meanings.

“**Buyer**” means the Town of Andover, Massachusetts.

“**Excess Credits**” has the meaning set forth in the Recitals hereto.

“**Facility**” has the meaning set forth in the Recitals hereto.

“**LDC**” means the local electric distribution company of Massachusetts Electric Company, d/b/a National Grid, or any successor thereto.

**“LDC Distributed Generation Tariff”** means the LDC’s Interconnection Agreement, M.D.P.U. No. 1248 (Standards for Interconnection of Distributed Generation), as amended from time to time.

**“Net Metering Credit or Net Metering Credits”** means the applicable monetary value of an excess kilowatt-hour of electricity generated by a Solar Net Metering Facility, as defined in accordance with the Net Metering Rules.

**“Net Metering Rules”** means, collectively and as amended from time to time, the Massachusetts net metering statute, M.G.L. c. 164, §§138-140, the Massachusetts net metering regulations, 220 C.M.R. §18, *et seq.*, and the associated net metering tariff of the LDC.

**“PPA”** has the meaning set forth in the recitals hereto.

**“Seller”** means the Greater Lawrence Technical School.

**“Solar Net Metering Facility”** has the meaning set forth in the Net Metering Rules.

**“Schedule Z”** means Schedule Z to the interconnection agreement for the Facility as set forth in the LDC Distributed Generation Tariff.

**“Transfer Date”** means the date upon which the LDC certifies to the Seller that it has amended the Schedule Z for the Facility to identify Buyer’s electric accounts for receipt of the Excess Credits identified in Exhibit A, and all such Excess Credits have been allocated to Buyer’s LDC accounts listed on the Schedule Z.

## **ARTICLE II TERM; TERMINATION**

2.1 **Term.** The term of this Agreement (the “Term”) commences on the Effective Date of this Agreement and ends upon the date on which Seller has received payment in full from Buyer in accordance with Section 3.1.

2.2 **Termination.** Either Party may terminate this Agreement at no liability to the other Party in the event that (i) the LDC notifies Seller in writing that it will not amend the Schedule Z to direct the Excess Credits to Buyer’s designated electric accounts, or (ii) Buyer has not received from the LDC or Seller notification from the LDC stating that the LDC will direct the Excess Credits to such accounts by [redacted] [insert date], provided that Buyer may not terminate the Agreement under the latter clause if, by such date, the Excess Credits have been allocated to such Buyer accounts. Seller may terminate this Agreement in the event that Buyer fails to make a payment due as set forth in Section 3.1.

**ARTICLE III  
PURCHASE AND SALE**

3.1 Sale and Purchase. Seller represents to Buyer that it has the authority under the PPA to sell the Excess Credits to Buyer free and clear of any claims, liens, security interests or other encumbrances. Buyer shall purchase and Seller shall sell a quantity of Excess Credits of the value and for the price set forth in Exhibit A. The Parties agree to instruct the LDC to undertake a one-time transfer of such Excess Credits to Buyer's designated electric accounts. Buyer shall pay to Seller the purchase price set forth in Exhibit A within forty-five (45) days of the Transfer Date, by check or by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by Seller. Buyer shall provide written notice to Seller confirming Buyer's receipt of the Excess Credits on its electric bills from the LDC. This Section 3.1 shall survive termination of this Agreement. Seller shall be responsible to ensure that the LDC allocates no more net metering credits to Buyer's accounts beyond the quantity of Excess Credits set forth in Exhibit A without amendment to this Agreement, and that, following the allocation of Excess Credits to such accounts, Seller shall, with the cooperation of Buyer, promptly remove Buyer's accounts from the Schedule Z.

3.2 Environmental Credits and Value. Buyer may not, under this Agreement, make any claims whatsoever with respect to any renewable energy certificates in regards to a renewable portfolio standard, emission offset or other environmental, disclosure or similar regulatory requirement.

3.3 LDC and Schedule Z. The Parties agree to act expeditiously, cooperatively and in good faith in facilitating the amendment to Schedule Z for the Facility as necessary to direct the LDC to apply the Excess Credits to Buyer's designated electric accounts. Buyer and Seller each agree to make all reasonable efforts with respect to which it has legal capacity to facilitate and expedite the review of all approvals necessary for any amendments to the Schedule Z. The Parties acknowledge and agree that each Party's obligations under this Agreement are subject to the LDC's agreement to amend the Schedule Z to add Buyer's designated electric accounts.

**ARTICLE IV  
REPRESENTATIONS AND WARRANTIES**

4.1 Buyer's and Seller's Representations and Warranties. As of the Effective Date of this Agreement, on the assumption and with the understanding that this Agreement is authorized pursuant to M.G.L. c. 44, § 4A, Seller and Buyer each represent and warrant as follows:

- (a) It has full legal capacity to enter into this Agreement;
- (b) The execution of this Agreement has been duly authorized, and each person executing this Agreement on its behalf has full authority to do so and to fully bind Seller; and

**ARTICLE V**

## **REMEDIES; LIMITATION OF LIABILITY; DISPUTE RESOLUTION; GOVERNING LAW**

5.1 Remedies. Subject to the limitations set forth in this Agreement, Buyer and Seller each reserve and shall have all rights and remedies available to it at law or in equity with respect to the performance or non-performance of the other Party hereto under this Agreement.

5.2 Limitation of Liability. **NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES OF ANY CHARACTER, RESULTING FROM, ARISING OUT OF, IN CONNECTION WITH OR IN ANY WAY INCIDENT TO ANY ACT OR OMISSION OF EITHER PARTY RELATED TO THE PROVISIONS OF THIS AGREEMENT, IRRESPECTIVE OF WHETHER CLAIMS OR ACTIONS FOR SUCH DAMAGES ARE BASED UPON CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY AT LAW OR EQUITY.**

5.3 Dispute Resolution. Unless otherwise expressly provided for in this Agreement, the dispute resolution procedures of this Article V shall be the exclusive mechanism to resolve disputes arising under this Agreement. The Parties agree to use their respective best efforts to resolve any dispute(s) that may arise regarding this Agreement. Any dispute that arises under or with respect to this Agreement that cannot be resolved shall in the first instance be the subject of informal negotiations between the Parties. The dispute shall be considered to have arisen when one Party sends the other Party a written notice of dispute. The period for informal negotiations shall be fourteen (14) days from receipt of the written notice of dispute unless such time period is modified by written agreement of the Parties. In the event that the Parties cannot resolve a dispute by informal negotiations, the Parties agree to submit the dispute to mediation. Within fourteen (14) days following the expiration of the time period for informal negotiations, the Parties shall propose and agree upon a neutral and otherwise qualified mediator. In the event that the Parties fail to agree upon a mediator, the Parties shall request that the American Arbitration Association, Boston, Massachusetts, appoint a mediator. The period within which mediation shall occur shall commence upon the appointment of the mediator and shall not exceed sixty (60) days, and the mediation shall not exceed a single, seven-hour business day, unless such time periods are modified by written agreement of the Parties. The decision to continue mediation shall be in the sole discretion of each Party. The Parties will bear their own costs of the mediation. The mediator's fees shall be shared equally by the Parties. In the event that the Parties cannot resolve a dispute by informal negotiations or mediation, the sole venue for judicial enforcement shall be Essex County Superior Court, Massachusetts. Notwithstanding the foregoing, injunctive relief from such court may be sought without resorting to alternative dispute resolution to prevent irreparable harm that would be caused by a breach of this Agreement.

5.4 Governing Law. This Agreement and the rights and duties of the Parties hereunder shall be governed by and shall be construed, enforced and performed in accordance with the laws of the Commonwealth of Massachusetts without regard to principles of conflicts of law.

## **ARTICLE VI**

## MISCELLANEOUS

6.1 Notices. Unless otherwise provided in this Agreement, any notices required hereunder shall be in writing and shall be personally delivered or sent by reputable overnight carrier or certified mail, return receipt requested, to the parties' addresses set forth on the signature page, and shall be deemed delivered on the earlier of actual delivery or two (2) days from date of mailing. Notices may also be transmitted by electronic mail, provided that any notice transmitted solely by electronic mail which is not confirmed as received by the receiving party shall be followed up by personal delivery or by reputable overnight carrier within forty-eight (48) hours. Either party may change its address and contact person for the purposes of this Section 6.1 by giving notice thereof in the manner required herein.

6.2 Entire Agreement; Amendments; Binding Effect. This Agreement constitutes the entire agreement between the Parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings between the Parties relating to the subject matter hereof. This Agreement may only be amended or modified by a written amendment to this Agreement signed by both Parties hereto. This Agreement inures to the benefit of and is binding upon the Parties and their respective successors and permitted assigns.

6.3 No Joint Venture. Nothing herein contained shall be deemed to constitute either Party a partner, agent or legal representative of the other Party or to create a joint venture, partnership, agency or any relationship between the Parties. The obligations of the Parties are individual and not collective in nature.

6.4 Joint Workproduct. This Agreement shall be considered the workproduct of both Parties hereto, and, therefore, no rule of strict construction shall be applied against either Party.

6.5 Severability. If any section, phrase or portion of this Agreement is, for any reason, held or adjudged to be invalid, illegal or unenforceable by any court of competent jurisdiction, such section, phrase, or portion so adjudged will be deemed separate, severable and independent and the remainder of this Agreement will be and remain in full force and effect and will not be invalidated or rendered illegal or unenforceable or otherwise affected by such adjudication, provided the basic purpose of this Agreement and the benefits to the Parties are not substantially impaired.

6.6 Headings and Captions. The headings and captions appearing in this Agreement are intended for reference only, and are not to be considered in construing this Agreement.

6.7 Counterparts; Scanned Copy. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which shall constitute one and the same agreement. The Parties agree that a scanned or electronically reproduced copy or image of this Agreement bearing the signature of the Parties hereto shall be deemed an original and may be introduced or submitted in any action or proceeding as competent evidence of the execution, terms and existence of this Agreement notwithstanding the failure or inability to produce or tender an original, executed counterpart of this Agreement and without the requirement that the unavailability of such original, executed counterpart of this Agreement first be proven.

6.8 Records. Each Party shall maintain accurate and comprehensive records of services performed, goods provided, costs incurred, and reimbursements and contributions received under this Agreement, and shall reasonably cooperate in the performance of regular audits of such records.

6.9 G.L. c. 40, § 4A. The provisions of G.L. c. 40, § 4A, are incorporated herein by reference and shall control in the event of any direct conflict between such provisions and the provisions of this Agreement.

*[Signature page to follow]*

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

**SELLER**

Greater Lawrence Technical School  
57 River Road  
Andover, MA 01810

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Greater Lawrence Technical School  
57 River Road  
Andover, MA 01810

**BUYER**

Town of Andover, Massachusetts

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Andover Town Hall  
36 Bartlet Street  
Andover, MA 01810  
ATTN: Town Manager

**Commented [A1]:** Janet, Chapter 44, Section 4A, says "chief executive" of town must sign, which we interpret as Board of Selectmen.













**EXHIBIT A**

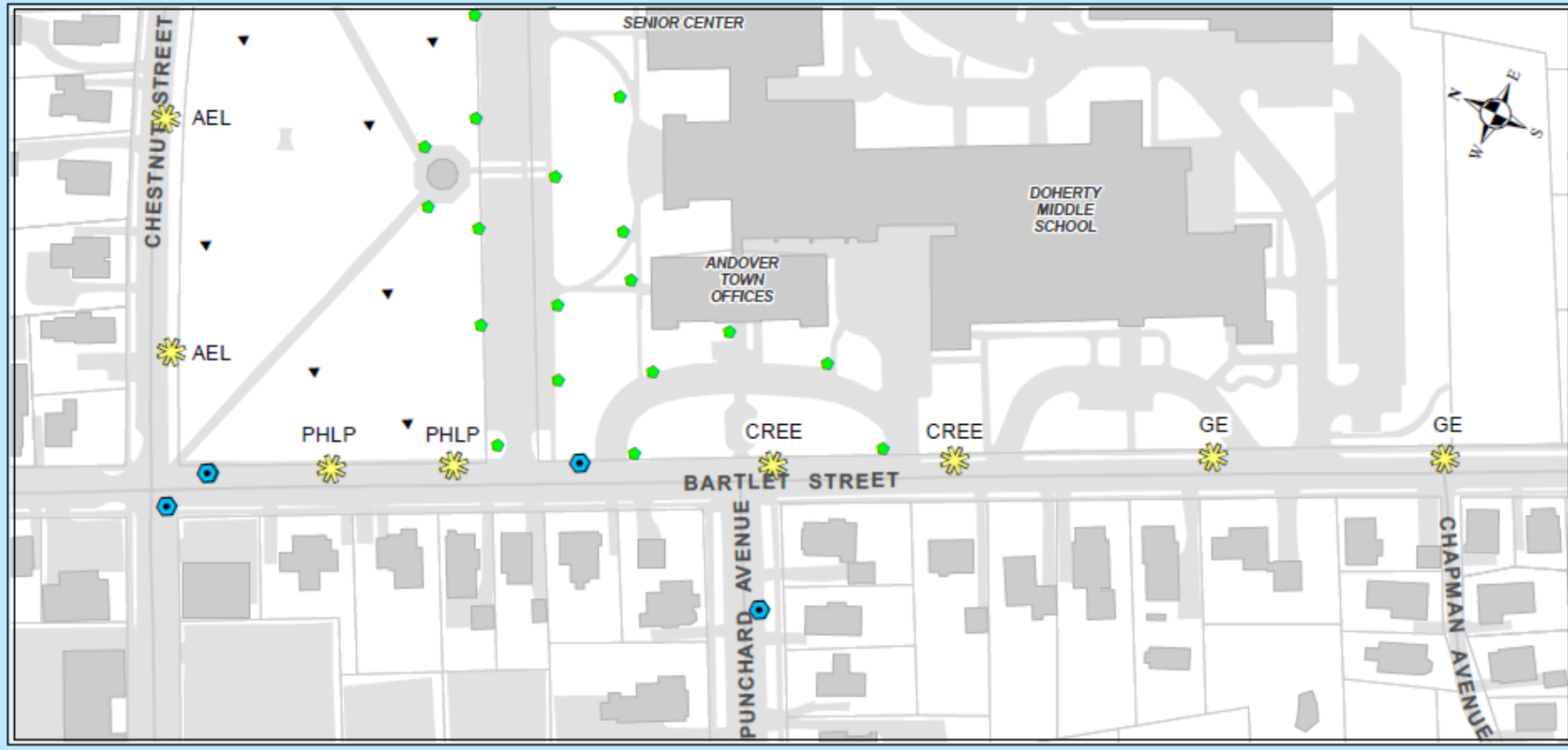
**PURCHASE PRICE**

Seller shall sell to Buyer a quantity of Excess Credits whose monetary value totals \$218,000 for the price of \$102,940.19.

**Andover Municipal Services**  
**LED Streetlight Pilot Program**  
**Locations of Sample LED Streetlights**  
**American Electric (AEL), CREE, General Electric (GE),**  
**and Philips (PHLP)**  
 9/26/16

**Legend**

	LED Pilot Streetlights	<b>Street Pavement Use</b>
	Old HPS Streetlights	 Driveway
	Post Top Decorative Lights	 Parking Lot
<b>Color</b>		 Sidewalk
	Colonial Off or Broken	 Street
	Green Acorn LED	 Walking Path
	Building Footprints	
	Parcel	



0 125 250 500 Feet

## **LED Streetlight Pilot Program**

The Town of Andover has installed eight sample LED streetlights along Bartlet and Chestnut Streets. There are two lights by each manufacturer. American Electric, CREE, General Electric, and Philips are represented. Each light uses approximately 30 watts, which typically replaces a 75 to 100 watt high pressure sodium old style light.

Please look at the map on the other side of this sheet to see the locations. There is a sign on each light pole where each one of the LED's are mounted. They are mounted in groups of two. All lights are 3000 Kelvin "warm" temperature.

The Town of Andover is happy to hear your comments on these lights. A decision will be made in December regarding our final choice and your input is welcome.

Email Janet Nicosia, CEM, Manager of Energy and Utilities  
[jnicosia@andoverma.gov](mailto:jnicosia@andoverma.gov) or call 978-623-8373.



October 24, 2016

Philip Haddix  
The Solar Foundation  
600 14<sup>th</sup> St NW #400  
Washington, DC 20005

RE: Application for Recognition as a *SolSmart Community*

*“SolSmart is a new national designation program, funded by the U.S. Department of Energy SunShot Initiative through the Solar Powering America by Recognizing Communities (SPARC) initiative, designed to recognize communities that have taken key steps to address local barriers to solar energy and foster the growth of mature local solar markets.*

*The SolSmart designation program will provide high-profile, national recognition for communities that have made it cheaper and easier for solar customers to invest in solar energy. In addition, achieving designation will send a signal to solar companies that a community is “open for solar business,” attracting new businesses and helping designees share in the economic development benefits attached to the solar industry.” –*

[www.qosparc.org](http://www.qosparc.org)

Dear Mr. Haddix,

The Town of Andover has a long history of support for solar development. As a Massachusetts Department of Energy Resources designated Green Community we have expressed our commitment by assigned staff and resources to implementing energy conservation and fostering clean energy development. We are committed to making Andover more solar-friendly and reducing barriers to development within our community.

The Town Planning Department has an expert level understanding of solar development. As part of the Green Community program the energy stretch code was adopted and expedited permitting in place for renewable projects. We have ground mounted, canopy mounted and residential roof mounted solar systems permitted and operating in Andover. The Solarize Mass program in Andover recruited over 150 homeowners to install solar systems.

The Town is hosting a solar field under construction on a landfill in Palmer, Massachusetts which will account for almost 40% of Andover municipal electricity usage, and is investigating solar options for other town buildings. Our goal is to lead by example as a municipal government, but also to share our expertise with the community, by promoting renewably sourced energy and materials, to lower the environmental impact of Andover as a whole.

We welcome the opportunity to obtain technical assistance to improve and enhance our solar development programs in Andover. We look forward to working with Meister Consultants Group to receive recognition among other forward thinking municipalities across the nation as a SolSmart Community.

Sincerely,

Andrew Flanagan  
Town Manager