Q. Utilities

The proposed project will include installation of multiple utility services to the new building.

Water:

It is our understand the existing water service to the single-family was disconnected during the recent demolition of the building. It is proposed to tap a 4" service off the water main within Washington Ave. The 4" line will serve as the sprinkler line with a 2" child connection for domestic service.

Sewer:

No service card was found for this property. It's believed the front 143 building may have shared a service with the former 145 (or rear 143) building. A new 6" service is proposed to tap into sewer main within the Washington Ave. right-of-way.

Stormwater:

There is currently no drainage infrastructure on site. It is proposed to implement several measures to handle runoff. This includes infiltration trenches to intercept runoff from adjacent properties and the slope behind the building. Field inlets and storm drains will be used within the courtyards and walkways to drain water. Lastly, a portion of the roof area will likely feature green roof trays which will store and filter stormwater.

UGE/T/C:

The aerial lines were recently disconnected prior to demolishing the building. All new services will be routed underground to the proposed building.

Additionally, it is proposed to drop the neighboring 143 Washington Ave's building services underground upon written agreement.

Gas:

There is currently no natural gas servicing the property. It is proposed to install a gas service off of the gas main within East Cove Street as seen on the Utility Plan, Sheet C-20.

Ability to serve letters have been sent out to the respective utility companies on September 25, 2018 in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies can be found attached to this section.

September 25, 2018

Portland Water District Attn: MEANS Department 225 Douglass Street Portland, Maine 04104

Subject: 145 Washington Ave. Redevelopment

Re: Ability to Serve

To Whom It May Concern:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Portland Water District's (PWD) ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is believed that the existing water service was retired during demolition. It is proposed to tap a 4" sprinkler line off the main within Washington Ave with a 2" domestic line splitting off the 4" line just before the property line. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following design flows:

Estimate of Design Flows			
Classification of Water Demand	Number of Units	Gallons per Day per unit	Total Gallons per Day
Proposed			
Swimming pool, Bathhouses & Spas	4 (toilets)	250	1,000
Single-Family Residential (1- bedroom)	1 (dwelling unit)	180	180
Existing			
Single-Family Residential (2- bedroom)	1 (dwelling unit)	180	180
		Total Proposed	1,180
		Total Existing	180

Net Change +1,000 GPD

*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition

Based on a value of 4 toilets and one single-family residence, the proposed project is anticipated to increase the net water demand by approximately 1,000 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules and that the bathhouse/sauna took the higher projected usage (toilets) versus using the establishment's seat count to derive the estimated flowrate.

On behalf of the client, we are requesting the following information:

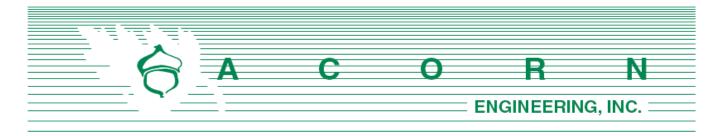
- 1. Any additional information, such as utility mapping within Washington Ave.
- 2. Alternative connection locations from the property to the existing system
- 3. PWD's proposed infrastructure improvements within the project vicinity
- 4. Flow data for adjacent hydrants
- 5. PWD's ability to serve the project

I have attached an existing conditions plan created by R.W. Eaton Associates, the fixture count spreadsheet, and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I. Project Engineer

Sum Lebel



Central Maine Power Company Attn: Mr. Paul DuPerre 162 Canco Road Portland, Maine 04103 September 25, 2018

Subject: 145 Washington Ave. Redevelopment

Re: Ability to Serve

Mr. DuPerre:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Central Maine Power's (CMP) ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding the aerial lines were removed as part of the demolition. It is proposed to route new conduits underground to the proposed building as seen on the Utility Plan. It is anticipated that the existing transformer on the adjacent pole has sufficient capacity to service this project.

Additionally, upon agreement with the neighbor, it also proposed to reroute the existing overhead lines that run from the utility pole to the abutting house at 143 Washington Ave underground. Overall, the new building is anticipated to maintain 10' of radial separation from the primary lines given its low height.

On behalf of the client, we are requesting the following information:

- 1. Any easements for overhead services currently crossing the proposed development
- 2. Alternative connection locations from the property to the existing system
- 3. CMP's proposed infrastructure improvements within the project vicinity
- 4. CMP's ability to serve the project
- 5. Access requirement to the CMP meters

I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I. Project Engineer

Sum Lebel

Unitil Service Corp. Attn: Scott Carpenter 376 Riverside Industrial Parkway Portland, Maine 04103 September 25, 2018

Subject: 145 Washington Ave. Redevelopment

Re: Ability to Serve

Mr. Carpenter:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Unitil's ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding that natural gas does not currently serve the property. It is proposed to route a new a service to the building as seen on the Utility Plan.

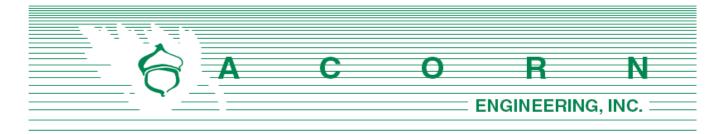
On behalf of the client, we are requesting the following information:

- 1. Any additional utility mapping.
- 2. The size of any gas lines and services in the vicinity.
- 3. Unitil's proposed infrastructure improvements within the project vicinity.
- 4. Unitil's ability to serve the project.

I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I. Project Engineer



Consolidated Communications 5 Davis Farm Road Portland, Maine 04103 September 25, 2018

Subject: 145 Washington Ave. Redevelopment

Re: Ability to Serve

Pat Morrison:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Consolidated Communications' ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding the aerial lines were removed as part of the demolition. It is proposed to route new conduits underground to the proposed building as seen on the Utility Plan. Upon agreement with the neighbor, it also proposed to reroute the existing overhead lines that run from the utility pole to the abutting house at 143 Washington Ave underground.

On behalf of the client, we are requesting the following information:

- 1. Any additional information, such as utility mapping within Washington Ave.
- 2. Any easements for overhead services currently crossing the proposed development
- 3. Alternative connection locations from the property to the existing system
- 4. Consolidated's proposed infrastructure improvements within the project vicinity
- 5. Consolidated's ability to serve the project

I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I. Project Engineer

Sum Lebel

Charter Communications Attn: Mr. Mark Pelletier 118 Johnson Road Portland, Maine 04102 September 25, 2018

Subject: 145 Washington Ave. Redevelopment

Re: Ability to Serve

Mr. Pelletier:

On behalf of Akasha 155 LLC, we are pleased to submit the following request for Charter's ability to serve the proposed redevelopment project. The project is located at 145 Washington Avenue (Chart, Book, Lots 12-G-9 & 20), within the B-1 Zoning District in Portland, Maine. The project consists of the development of two-story building with a sauna/bathhouse on the first floor and a residence on the second floor. A portion of the building will remain at 1-story and feature green roofs. Utilities for the new building are proposed to be installed from the mains within Washington Ave. The single-family house that used to occupy the property was recently demolished to facilitate the redevelopment. The building that occupies 143 Washington Ave will remain and is not part of the project or under ownership by the Developer.

It is our understanding the aerial lines were removed as part of the demolition. It is proposed to route new conduits underground to the proposed building as seen on the Utility Plan. Upon agreement with the neighbor, it also proposed to reroute the existing overhead lines that run from the utility pole to the abutting house at 143 Washington Ave underground.

On behalf of the client, we are requesting the following information:

- 1. Any additional information, such as utility mapping within Washington Ave.
- 2. Any easements for overhead services currently crossing the proposed development
- 3. Alternative connection locations from the property to the existing system
- 4. Charter's proposed infrastructure improvements within the project vicinity
- 5. Charter's ability to serve the project

I have attached an existing conditions plan created by R.W. Eaton Associates and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sum Lebel

Sam Lebel, E.I. Project Engineer



October 15, 2018

Sam Lebel Acorn Engineering 158 Danforth Street Portland, ME 04102

Re: 145 Washington Avenue, PO

Ability to Serve with PWD Water

Dear Mr. Lebel:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on September 26, 2018. Based on the information provided per plans dated September 25, 2018, we can confirm that the District will be able to serve the proposed project as further described in this letter. Please note that this letter constitutes approval of the water system as currently designed. Any changes affecting the approved water system will require further review and approval by PWD.

Conditions of Service

The following conditions of service apply:

- A new 4-inch fire service and 2-inch domestic service may be installed from the water main in Washington Avenue. The service should enter through the properties frontage on Washington Avenue at least 10-feet from any side property lines. Please note that only one meter and one bill will be associated to each domestic service line. This one master meter would be located in a common space that all tenants could gain access to if necessary.
- Our records show that the property is currently served with an inactive 1-inch domestic water service. The existing service will no longer be used as a result of the development and must be retired per PWD standards which includes shutting the corporation valve and cutting the pipe from the water main.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.
- An approved RPZ backflow preventer must be installed on the domestic service line directly after the
 meter and testable double check valve backflow preventer installed on the fire service line at the riser prior
 to service activation. Please refer to the PWD website for more information on cross-connection control
 policies.

Prior to construction, the owner or contractor will need to make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.

Existing Site Service

According to District records, the project site does currently have existing water service. A 1-inch diameter copper domestic service line provides water service to the site. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 8-inch diameter cast iron water main in Washington Avenue and a public fire hydrant located approximately 110 feet from the site. The most recent static pressure reading was 80 psi on July 3, 2018.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely, Portland Water District

Robert A. Bartels, P.E. Senior Project Engineer

Bligarghs





September 26, 2018

Acorn Engineering, Inc. C/O Mr. Sam Lebel, E.I. PO Box 3372 Portland, Maine 04104

RE: 145 Washington Avenue, Portland, Maine

Dear Mr. Lebel,

This letter is to advise you Central Maine Power has sufficient three phase electrical capacity in the area to serve the subject project.

Once the project is accepted by the City of Portland, the owner will need to call our Customer Service Center at 1-800-565-3181 to sign up for a New Account and a SAP Work Request Order so we may provide an actual cost. Transmission and Primary feeders may need to be relocated if this project moves forward.

If you have any questions please feel free to call me at 629-1487.

Sincerely,

Paul DuPerre

Energy Service Specialist



From: Pelletier, Mark
To: Sam Lebel

Subject: RE: 145 Washington Ave - Ability to Serve Date: Tuesday, September 25, 2018 2:35:46 PM

Sam,

Spectrum Cable can services the new Bldg. We have Coax and Fiber on pole line on Washington Ave. The new bldg U/G services and the relocation of drop from aerial to U/G for #143 are all able to be serviced from the pole with service drops No construction work will be required. Please provide a min of a 1.5 in conduits for each drop with pull strings.

Mark

From: Sam Lebel [mailto:slebel@acorn-engineering.com]

Sent: Tuesday, September 25, 2018 1:35 PMTo: Pelletier, Mark < Mark.Pelletier@charter.com>Cc: William Savage < wsavage@acorn-engineering.com>

Subject: 145 Washington Ave - Ability to Serve

Hi Mark,

On behalf of our client, Akasha 155 LLC, we are sending a formal ability to serve letter for the proposed redevelopment at 145 Washington Ave. Also attached is an existing conditions plan and the preliminary Utility Plan. Please do not hesitate to reach out should you have any questions.

Thanks,

Sam Lebel, E.I. Project Engineer

Licensed in Maine

Acorn Engineering, Inc. PO Box 3372 Portland, Maine 04104 www.acorn-engineering.com

B. 207.775.2655C. 207.478.4327

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