

NET Zero Narrative and Submission Requirements

KRE Washington St

Narrative

- KRE Washington Street located at 7 Washington Street, Somerville, MA is 10 dwelling unit multi-family building. The building consists of (4) 1-bedroom units, (5) 2-bedroom units, and (1) 3-bedroom unit totaling 10,537 GSF including basement. There will be no vehicular parking on the site, but enclosed bicycle parking will be included at the rear of the building for the tenants.



7 Washington St, Somerville MA will be designed to incorporate sustainable design elements that comply with Net Zero Energy consumption and the definition of a Net Zero Ready Building. It will pursue Net Zero using the PHIUS certification process and by implementing the following methods during the design and construction process

- Envelope
 - A continuous airtight layer will wrap the building to ensure improved airtightness on the overall exterior of the building

Net Zero Narrative

KRE Washington St Development

7 Washington St, Somerville, MA



- A thermally insulated envelope will wrap the building
 - A building envelope consultant will be engaged at the next phase of the project to work with the PHIUS consultant and further study this design
- MEP Systems
 - A balanced ventilation system will be implemented to filter out stale air in bathrooms and kitchens and pump in fresh air
 - Solar radiation will be utilized along with the orientation/location of the building to maximize the use of shading/daylighting and avoid overheating of the building. High performance windows will be installed to ensure maximum solar heat gain
 - Fully electric heating/cooling systems as well as kitchen equipment will be installed
 - Thermal bridging will be avoided as much as possible
 - An MEP consultant will be engaged at the next phase of the project to work with the PHIUS consultant and further study this design
- Site Design/Systems
 - On-site renewable generation
 - On-site energy storage
 - Building components and flood risk - the site is projected to have between 1-3ft of water during a 10-year storm event.
 - These items will be studied further in the next design phase when a civil engineer is engaged in the project

The building will be designed to Net Zero Standards using PHIUS certification requirements for Passive House design. Per Somerville Zoning Ordinance, increased residential density buildings must be permitted meeting the definition of a Net Zero Ready Building.