

617-308-4489

dogprop.com joe@browndogprop.com

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## **Green Building Overview** for; 148 Myrtle St. Melrose Ma 02176

## Green built for carbon neutrality

As we all know by now, the world is facing a climate crisis and action must be taken immediately if there is a chance to arrest global warming. Communities such as Melrose have indicated they want to be part of the solution through efforts such as the Net Zero Action Plan.

Massachusetts own 2050 Decarbonization Roadmap dimensionalizes the Greenhouse Gases produced by residential and commercial buildings as 27% of the state's overall pollution. There is an immediate need to build green buildings.

The proposed building at 148 Myrtle St would be built using advanced building techniques including;

- The entire building will be fully electrified with **no combustible fuels** brought to the site allowing for reliances on an increasingly clean energy electric grid
- An overall air tight building envelope close to Passive House standards for air exchange.
- Triple paned windows delivering at least 50% greater insulation than a conventional double paned window are speced
- Insulation R values in excess of 2-3X current code through the use of thicker wall assemblies and roof structures
- Fully heated and cooled by ultra efficient, all-electric heat pumps
- Individual unit energy recovery ventilators (ERV) aid in energy efficiency as well as providing clean, filtered air to occupants resulting in better health and comfort for residents.
- Designed to be a Net Zero ready building with the addition of solar panels. All
  infrastructure needed to install and wire a solar array will be in place at the time
  the units are offered to the public.
- Finish materials and paints used will all be low VOC based products.
- Siding to be lifetime fiber cement siding with natural wood accents providing for lower maintenance and use of materials over the lifetime of the building.

- Each unit will have it's own dedicated EV charger ready outlet.
- Bicycle lock stations are provided in several locations outside the home.
   Indoor storage is also provided inside of the common utility and storage room.

Mass Save's statewide incentives have shifted in 2022 to promoting full electrification for the next three years.

Brown Dog Properties is committed to building ultra tight, super insulated, fully electric homes which results in longer lasting buildings, lower material usage over time and much greater lifetime energy savings than buildings built using stretch energy codes.

We appreciate the consideration for this project and look forward to working with the City of Melrose on this project.

Prepared by:

Joe Roman Brown Dog Properties