DESIGN VISION

PROGRAM

65-75 Seattle Street proposes a compact, flexible and environmentally sustainable building design. The Project is proposed as a 46,500 gsf +/- mixed-income development with forty-three (43) homeownership units. Half of the units will be restricted to households earning at or below 80% AMI and the other half of the units will be restricted to households earning at or below 100% AMI. The Project will have four (4) one (1) bedroom units, twenty-five (25) two (2) bedroom units and fourteen (14) three (3) bedroom units. The unit mix will deliver a large number of family sized units as a direct response to the Harvard ERC Framework Plan, feedback from neighborhood meetings and the Development Team's conversations with local community groups.

Five (5) units will be made accessible to those with mobility, hearing and visual impairments. These units will be dispersed evenly throughout the ground floor and upper levels in Building A. We will work with our accessibility consultant, KMA, to determine the optimum location and layout of the accessible units.

Unit Mix by Floor

	1 BR	2BR	3 BR	Total
Ground Floor	2	6	2	**10**
Second Floor	2	9	7	**18**
Third Floor	0	10	5	**15**
	4	**25**	**14**	**43**

DESIGN CONCEPT

The Project is influenced by the existing architectural characters of the surrounding homes. The design is conceived as a small village, with three (3) separate buildings clustered around an internal street, that unifies the overall composition. Building A will be connected at the second and third floors by an enclosed bridge with an internal walkway underneath that connects the Site to the Greenway. In essence, it is a microcosm of the greater Allston neighborhood.
The building height varies and is capped at thirty-eight (38) feet, three (3) stories to be in proportion with abutting homes. The proposed buildings will present a familiar yet modern face to the neighborhood and unify the streetscape at every vantage point.

The design vocabulary is also derived from a reading of the traditional wood frame houses in the immediate area. Elements such texture, color, roof shape, window proportions, angular bays, balconies, bay window and entry overhangs are readily apparent at the neighboring buildings at 65-79 Seattle Street. The design does not mimic them stylistically but derives the common elements and best practices that came from the building traditions of the workforce housing typology.

The Project will include forty (40) on-site parking spaces so every two (2) and three (3) bedroom unit has an individual parking spot. It is our experience that having an individual parking space is crucial for larger units, particularly families with children. The parking is covered and strategically placed underneath the building overhangs so it is not visible from the street. Some selective walls will have a soft vegetation screen between the public and the vehicles. Throughout the site, there are also outdoor bicycle parking areas for the use of the public as well as secured bicycle parking for the residents. The on-site parking and ample bicycle parking will help minimize negative traffic impacts to the current neighborhood residents.

View of Entrance to Internal Walkway from the Greenway

LANDSCAPE AND OPEN SPACE

LANDSCAPE PLAN

The Project boasts of 14,000 square feet of open space and the buildings are set back from the street so that the entire perimeter of the site is green space. The porosity of the street level allows both the public and the residents to access the open spaces and surrounding streets. The ground floor units all have their own individual entrances, allowing for street activity that is beneficial for active street life, neighborhood safety and friendly and neighborly "front stoop" front door interactions. The Team was inspired by the Dutch concept, "Woonerf" or "living street" that combines parking, landscaping area, pedestrian paths and other passive residential uses. Our intention is that our landscape plan will connect with the existing residential area future Greenway.

All plantings and greeneries for 65-79 Seattle Street will be drought tolerant species and low maintenance in nature. Materials will be carefully selected for both their sustainable performance and embodied qualities. Safe and secure outdoor living space is provided for the residents, while the plantings and trees will create a pleasant microclimate for the enjoyment of all. The perimeter green space, the green roof system and the green wall system will be visible from the street, adding a layer of calming greenery and attractive plantings for the enjoyment of the local residents. Additionally, the overall plant palette will be comprised primarily of native and edible planting.

Landscape Diagram

View of Green Roof

View of Green Wall

CIRCULATION

Vehicle Circulation Diagram

Vehicles will enter the Site from Seattle Street and exit through Windom Street. There will be a vehicular drop off area located in the internal street and directly outside Building A lobby. Bicycles will enter the Site from Science Drive, through the Greenway to the internal walkway. There will be outdoor bike racks easily accessible under the bridge and a large indoor bike storage room on the ground floor of Building A.

Pedestrian Circulation Diagram

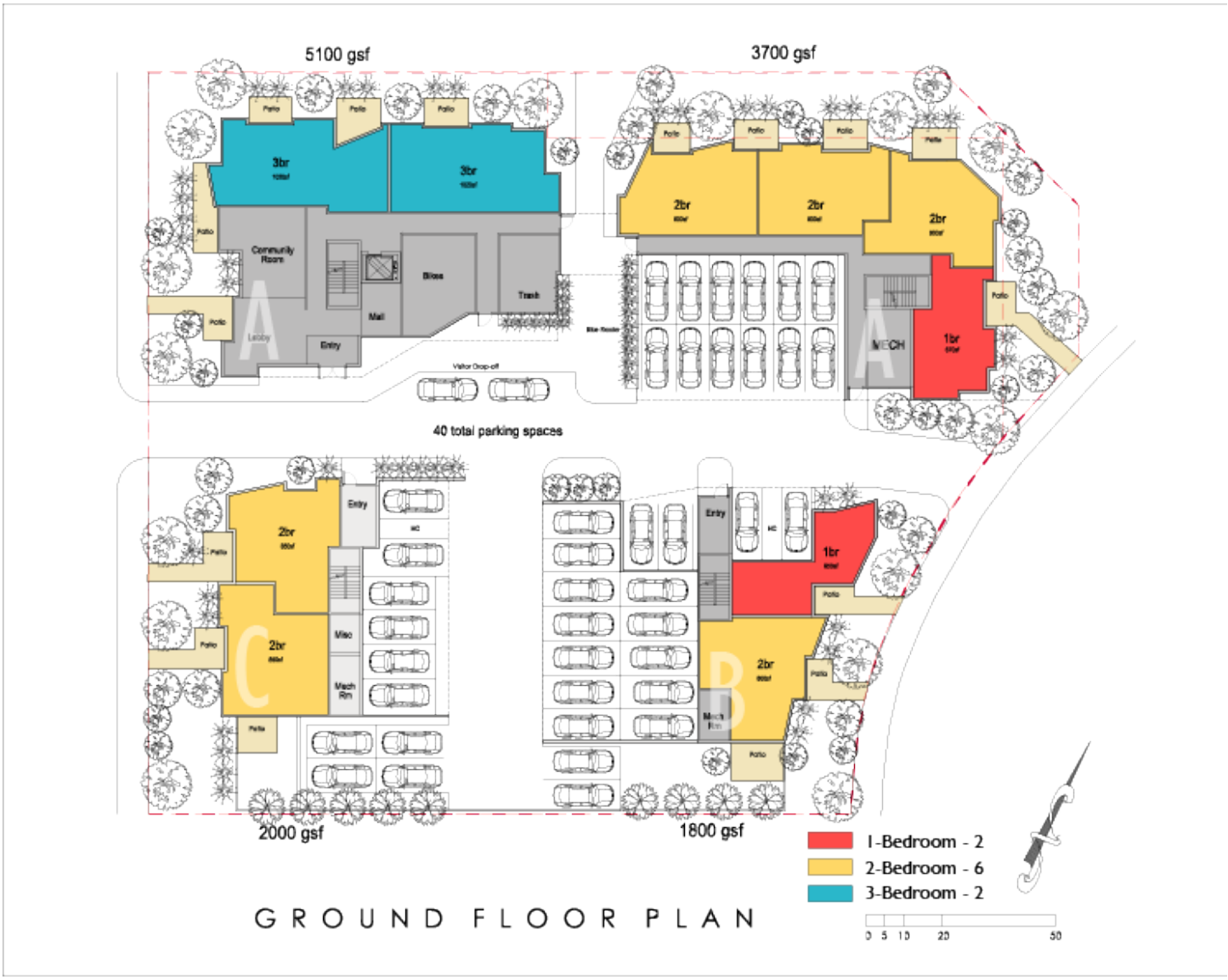
Each building has an entry door located on the internal street. Residents of ground floor units will also have their own individual entrances from the street. Building A will have an elevator that provides direct access to the upper floors ensuring that the units are accessible to all ages.

Site Plan

SITE AND LANDSCAPE PLAN

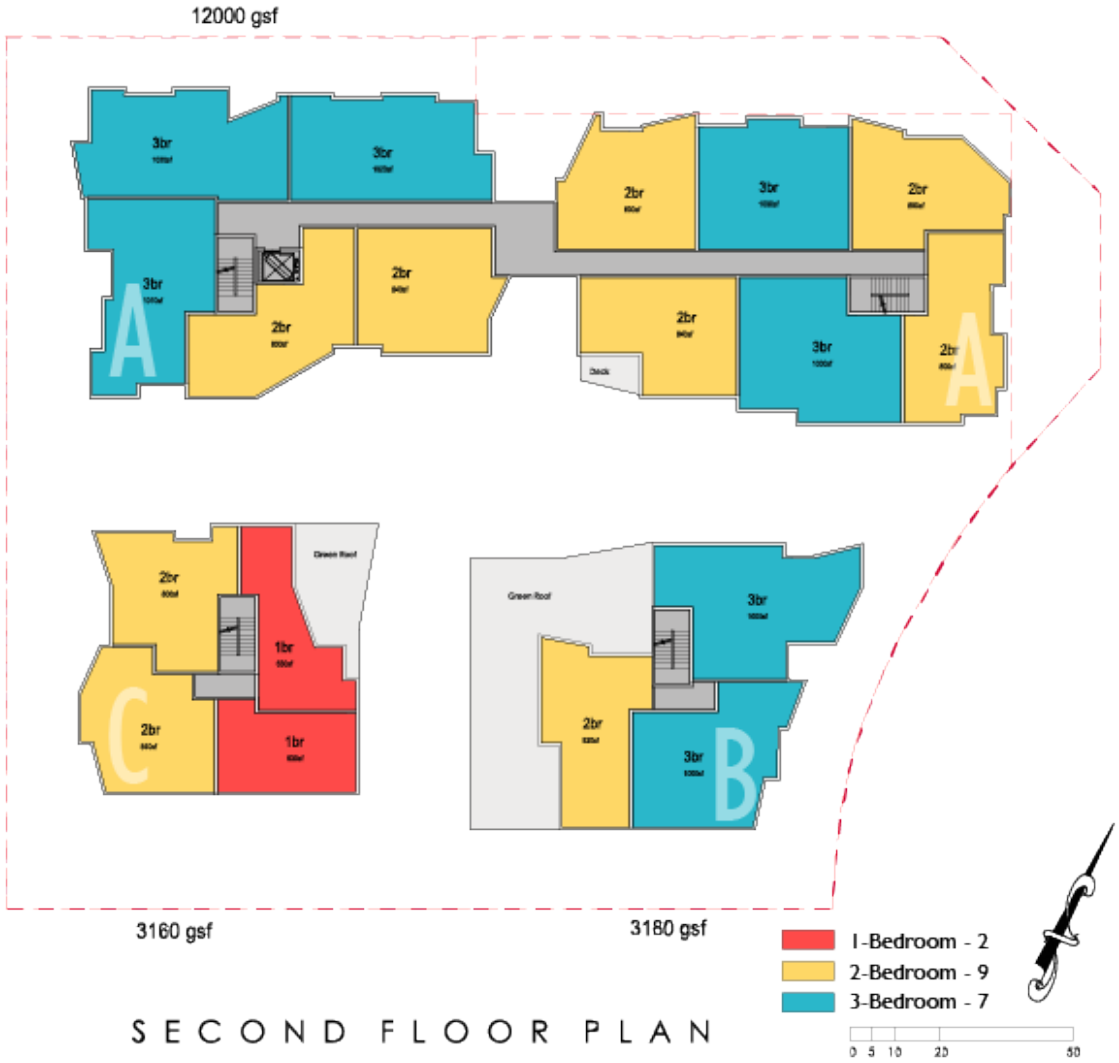
Ground Floor Plan

SCHEMATIC FLOOR PLAN



First Floor Plan

SCHEMATIC FLOOR PLAN



Second Floor Plan

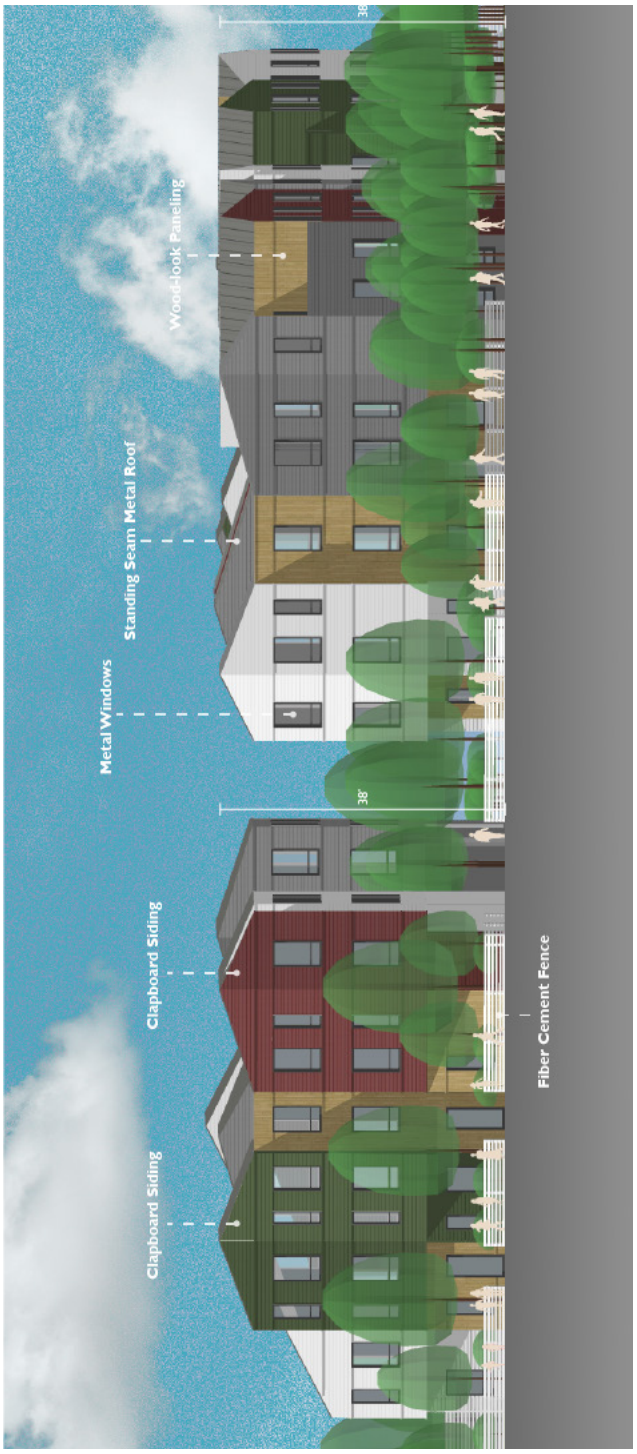
SCHEMATIC FLOOR PLAN

Third Floor Plan

TYPICAL UNIT PLAN

Typical Unit Plan

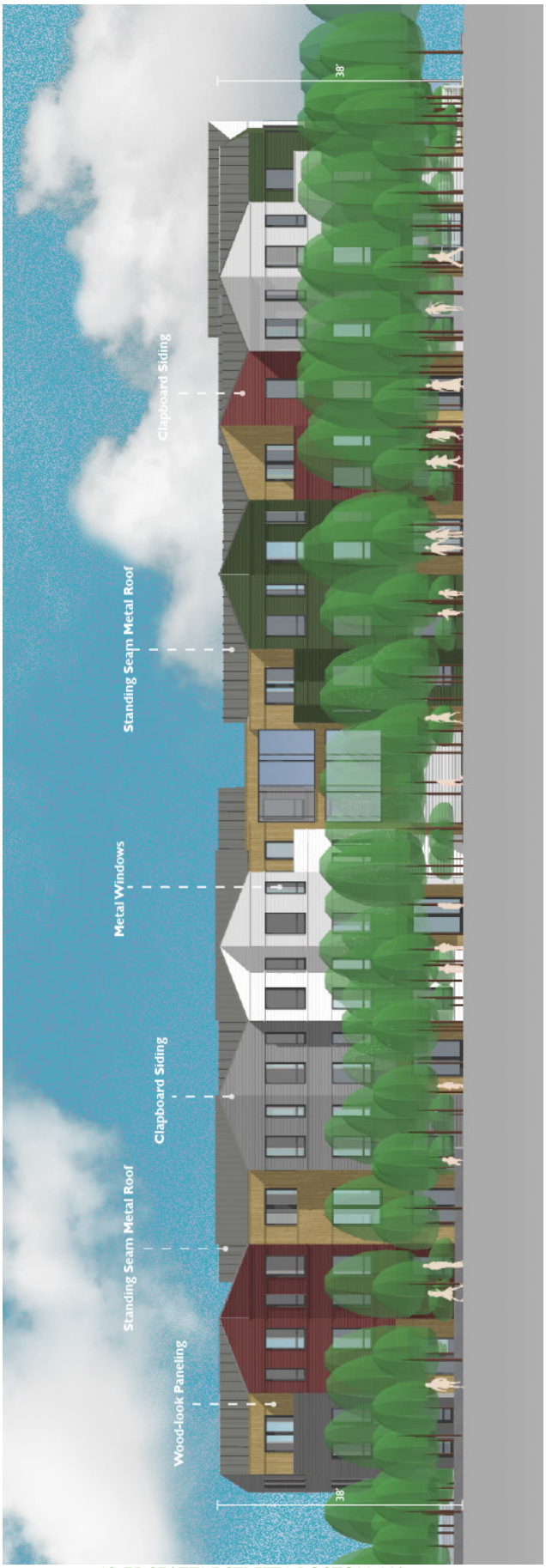
BUILDING ELEVATION



Seattle Street Elevation

Windom Street Elevation

BUILDING ELEVATION



Greenway Elevation

PERSPECTIVE DRAWING

View from Seattle Street

PERSPECTIVE DRAWING

View from Seattle Street

View from Windom Street

PERSPECTIVE DRAWING

View from Windom Street

PERSPECTIVE DRAWING

View from Greenway

PERSPECTIVE DRAWING

View of the driveway out to Windom Street

View of Greenway

PERSPECTIVE DRAWING

View of the driveway on Seattle Street

View of the Internal Walkway to Greenway

PERSPECTIVE DRAWING

View of Greenway to the Internal Walkway

PERSPECTIVE DRAWING

VIew of Greenway Connected to 69-75 Seattle Street

View of the Parking Court

LEED v4 for Building Design and Construction: Multifamily Lowrise
Construction Project Checklist

Project Name: 65-79 Seattle Street
Date: 2023-10-19

Y	?	N			
		x	Credit	Integrative Process	2

15	0	0	**Location and Transportation**		15
Y			Prereq	Floodplain Avoidance	Required
			PERFORMANCE PATH		
			Credit	LEED for Neighborhood Development Location	15
			PRESCRIPTIVE PATH		
8			Credit	Site Selection	8
3			Credit	Compact Development	3
2			Credit	Community Resources	2
2			Credit	Access to Transit	2

4	0	0	**Sustainable Sites**		7
Y			Prereq	Construction Activity Pollution Prevention	Required
Y			Prereq	No Invasive Plants	Required
			Credit	Heat Island Reduction	2
2			Credit	Rainwater Management	3
2			Credit	Non-Toxic Pest Control	2

3	0	0	**Water Efficiency**		12
Y			Prereq	Water Metering	Required
			PERFORMANCE PATH		
			Credit	Total Water Use	12
			PRESCRIPTIVE PATH		
3			Credit	Indoor Water Use	6
			Credit	Outdoor Water Use	4

31.5	0	0	**Energy and Atmosphere**		38
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Energy Metering	Required
Y			Prereq	Education of the Homeowner, Tenant or Building Manager	Required
			PERFORMANCE PATH		
28.5			Credit	Annual Energy Use	29
			BOTH PATHS		
2			Credit	Efficient Hot Water Distribution System	5
			Credit	Advanced Utility Tracking	2
			Credit	Active Solar Ready Design	1
1			Credit	HVAC Start-Up Credentialing	1
			PRESCRIPTIVE PATH		
Y			Prereq	Home Size	Required
			Credit	Building Orientation for Passive Solar	3
			Credit	Air Infiltration	2
			Credit	Envelope Insulation	2
			Credit	Windows	3
			Credit	Space Heating & Cooling Equipment	4

SUSTAINABILITY
LEED CHECKLIST

			EA PRESCRIPTIVE PATH (continued)		
			Credit	Heating & Cooling Distribution Systems	3
			Credit	Efficient Domestic Hot Water Equipment	3
			Credit	Lighting	2
			Credit	High Efficiency Appliances	2
			Credit	Renewable Energy	4
2	**0**	**0**	**Materials and Resources**		**10**
Y			Prereq	Certified Tropical Wood	Required
Y			Prereq	Durability Management	Required
1			Credit	Durability Management Verification	1
			Credit	Environmentally Preferable Products	4
			Credit	Construction Waste Management	3
1			Credit	Material Efficient Framing	2
10	**0**	**0**	**Indoor Environmental Quality**		**16**
Y			Prereq	Ventilation	Required
Y			Prereq	Combustion Venting	Required
Y			Prereq	Garage Pollutant Protection	Required
Y			Prereq	Radon-Resistant Construction	Required
Y			Prereq	Air FIltering	Required
Y			Prereq	Environmental Tobacco Smoke	Required
Y			Prereq	Compartmentalization	Required
3			Credit	Enhanced Ventilation	3
			Credit	Contaminant Control	2
2			Credit	Balancing of Heating and Cooling Distribution Systems	3
			Credit	Enhanced Compartmentalization	1
2			Credit	Enhanced Combustion Venting	2
2			Credit	Enhanced Garage Pollutant Protection	2
1			Credit	Low Emitting Products	3
1	**0**	**0**	**Innovation**		**6**
Y			Prereq	Preliminary Rating	Required
1			Credit	Exemplary Performance - Community Resources	5
			Credit	LEED AP Homes	1
1	**0**	**0**	**Regional Priority**		**4**
1			Credit	Annual Energy Use - achieved 20 points	1
			Credit	Regional Priority: Specific Credit	1
			Credit	Regional Priority: Specific Credit	1
			Credit	Regional Priority: Specific Credit	1
67.5	**0**	**0**	**TOTALS**	Possible Points:	**110**

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

LEED FOR HOMES

LEED RATING

GOLD
65

PROJECTED LEED SCORE

GREEN BUILDING FEATURES

65-79 Seattle Street is designed to be energy efficient. We propose that the building will be LEED Gold Certified. The Home Energy Rating System (HERS) score is targeted to be at least an average HERS 60 range +/-. The Project embodies an approach that reflects its context as well as reduces its environmental impact through a combination of active and passive strategies. The project's specifications support maximizing energy efficiency by reducing the loads demanded by the home.

The design proposal incorporates super insulated building envelope and, a solar ready roof, green roof system and green wall system, and efficient heating and cooling and heat recovery ventilation techniques. The building's massing and height are carefully proportioned to work with neighboring buildings as well as the character of the neighborhood.

HIGHLIGHTS

- Double Studded Exterior Walls
- Double Insulation and Tight Air Sealing
- EPDM Flat Roof, Standing Seam Roof or Green Roof Tray Systems where appropriate
- Solar Ready Roof
- Zip System Roof and Wall Sheathing
- Zero VOC paint or equivalent
- Fiber Cement Rainscreen System with Composite "Wood" Accents and Metal Trim
- Hardie Plank Panels with Tamlyn Trims or equivalent
- Greenwall System/Trellis where appropriate
- Energy Efficient Triple Pane Windows and Doors
- Mini Split Heating and Cooling Units or equivalent
- Heat Recovery Ventilator or equivalent
- Heat Pump Water Heater
- LED Recessed Lighting
- Energy Efficient Refrigerator, Range, Microwave Hood and Dishwasher
- Low Flow Water Efficient Bathroom Fixture, Faucets and Showerheads or equivalent
- Dual Flush Toilets or equivalent

The lot is maximized for open spaces versus density while conforming with zoning restrictions. Design and engineering strategies are critical to optimizing the performance of the home and improve the day-to-day lives of occupants. The design has considered its spatial efficiencies, day lighting, thermal comfort, and incorporates a practical layout. The goal is to create a compact, energy-efficient, and environmentally sustainable, multifamily housing project that will

SUSTAINABILITY
LEED AND GREEN BUILDING NARRATIVE

stand as a model of responsible, contextual development tailored to meet the housing shortage challenges faced by the City of Boston and its surroundings.

The proposal is based in a holistic approach toward sustainability, using both low and high technologies in innovative and efficient ways. By employing a diverse team of experts specializing in many fields related to responsible development, the project will be highly tuned to various specific strategies while maintaining an integrally-resolved, successful solution.

It is the belief of the Team that sustainability is not simply a technological fix, but a reconceptualizing of our outlook on the relationship between ourselves, the environment, and our lifestyle. It is thus our goal to promote compact and efficiently designed housing that actively engages residents with their local environment, neighborhood, city, and region. By re-evaluating and investing in our existing neighborhoods, they can become denser, more diverse, and more active while enabling us to maintain a smaller footprint on the earth.

Inspired by the German Passivhaus approach, the scheme emphasizes a highly insulated building envelope allowing for a smaller, less expensive mechanical system. This approach will include double-stud wall construction, significant insulation levels throughout the building envelope and precise attention to air infiltration prevention at seams and transitions. The envelope strategy provides a thermally robust wall and can easily be built by local labor.

Based on early schematic design assumptions, the units are targeted to achieve a HERS score range of between HERS 65-70, prior to taking into account the Solar Photovoltaic input. This means the homes are 50% more efficient than new construction code compliant home.

LEED FOR HOMES

65-79 Seattle Street is targeted to be a LEED for Homes v4 Gold "Certifiable". This means that its design intentions meet the LEED for Homes prerequisites and has enough credits to qualify for Gold certification.

The points selected work towards providing the occupants and the city with homes that are highly efficient, healthy and durable. LEED for Homes is the guide for these strategies; however certain overall choices exceed the practices required by LEED for Homes. Below is a snapshot of the to meet and exceed the LEED for Homes Checklist on page 78.

Integrated Project Team

•Our Design and Consultant team will be heavily involved and integrated throughout all areas design and construction process. The team will have regular meetings to review the project. There may be more points gained from hosting a Design Charette or Trades training.

Location and Transportation (LT)

• This Site qualifies for a high number of points in LT, based on the reuse of Previously Developed land, Infill Development infrastructure and Street Network and access to important community resources and transit.
• The Site is also located less than 1 mile away from Commuter Rail Line Transit Stop (Boston Landing Station) and multiple bus routes (No. 64, 66, and 70)
• Western Avenue, Cambridge Street, Brighton Avenue Street and Commonwealth Avenue are located within walking distance.

Sustainable Site (SS)

• The Project will meet prerequisites like construction activity pollution prevention and no invasive plants in the landscaping.
• On-site rainwater infiltration systems designed by a professional civil engineer will manage rain on site, avoiding run-offs into the municipal systems.
• A green roof and light-colored paving surfaces will help reduce local heat island effect.
• A non-toxic approach to pest control will be implemented.

Water Efficiency (WE)

Water is a critical resource; low-cost strategies to minimize the projects' consumption of potable water include:
•Effective low-flow toilets, lavatory faucets and showerheads minimize overall water consumption.
• Reducing Outdoor Water Usage through using drought tolerant fescue in lieu of turf grass and maximizing on native/ adapted plant species. Rain harvesting methods will also be sought.

Energy and Atmosphere (EA)

• The building is targeted to be around HERS 68 and will meet at least the requirements of Massachusetts New Homes with Energy Star, Tier II.
• High Performance Building Envelope that is air tight, super insulated and high efficiency windows and doors.
• Energy Star Rated High Efficiency Appliances.

Materials and Resources (MR)

• The Project will use environmentally preferable products and local materials sourced within 100 miles of Boston will be preferred and encouraged during the construction process.
• Construction waste will be minimized.
• The Project will explore efficient framing or other methods like panelization. This includes walls, floors, ceiling and roof framing. Headers and blocking will be sized appropriately framing will be minimized by drywall clips. Optimum value engineered framing strategies will use less lumber. Windows and doors will be sized to fit stud modules to minimize material waste factors.

Indoor Environmental Quality (IEQ)

• Great care has been taken to address ventilation requirements efficiently. Rather than relying on an exhaust only system (as the majority of LEED for Homes projects do for the purpose of providing fresh air to the spaces within a home) this design submission recovers both sensible and latent heat from the exhausted air and supplies tempered fresh air directly to the living spaces using a Heat Recovery Ventilator.
• Durability planning for the construction and design is planned to ensure a dry, mold free and healthy building.
• No fireplace or other open combustion devices are specified.
• Preoccupancy flush is planned to be implemented.
• The parking is designed as a carport that is open to the air.
• Smooth Durable hard flooring finishes reduces asthma triggers, allergens and irritants.
• Low Emitting Products, Zero VOC paints and other safe products will be used.