383-387 Boylston Street
Newton, MA

50 Jackson Street, LLC.

Rating System Narrative
LEED BD+C: Homes v4

May 26, 2021

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LEED FOR HOMES VERSION 4

The Project Team will incorporate sustainable principles into its design, construction, and operation of the project located at 383-387 Boylston Street, Newton, Massachusetts. The Project will meet its sustainability goals by achieving Silver level certifiability through the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Building Design and Construction (BD+C) for Homes Version 4 (hereby LEED) rating system. Implementation of LEED certifiability ensures the Project design includes the following sustainability principles:

- Environmentally friendly site design and consideration of landscaping that benefits both residents and the surrounding habitats;
- Efficient water use that minimizes waste and maximizes applicable technology;
- Energy efficiency through installation of high-efficiency equipment and right-sized system design;
- Healthy materials and finishes throughout interior spaces, reducing health effects on residents; and
- Effective ventilation and exhaust systems designed to ensure continued health and air quality throughout the life of the building.

The narrative below details the strategies by which the Project will meet various prerequisite and credit requirements under LEED.

HOME SIZE ADJUSTMENT

Using the Home Size Adjustment Calculator, the average home size point adjustment is +8.5 points. See Appendix C for calculator.

LOCATION AND TRANSPORTATION

The Location and Transportation (LT) category addresses reduction of urban sprawl and rewards development on and near previously existing infrastructure, public transportation, and developed land.

LLp Floodplain Avoidance

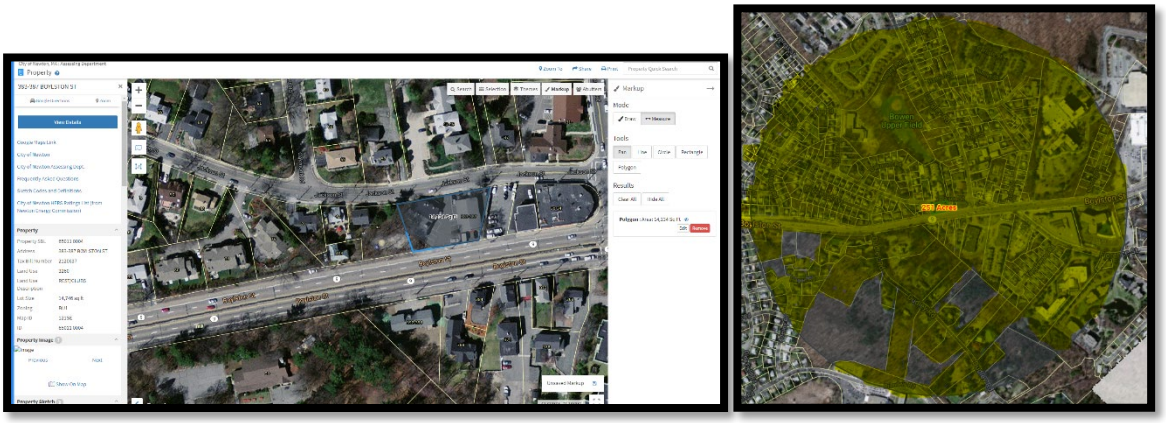
The site is not within a flood hazard area.

LTc Site Selection (7 points)

Previously Developed Land (4 pts). The Project is located on a lot that is 100% previously developed.

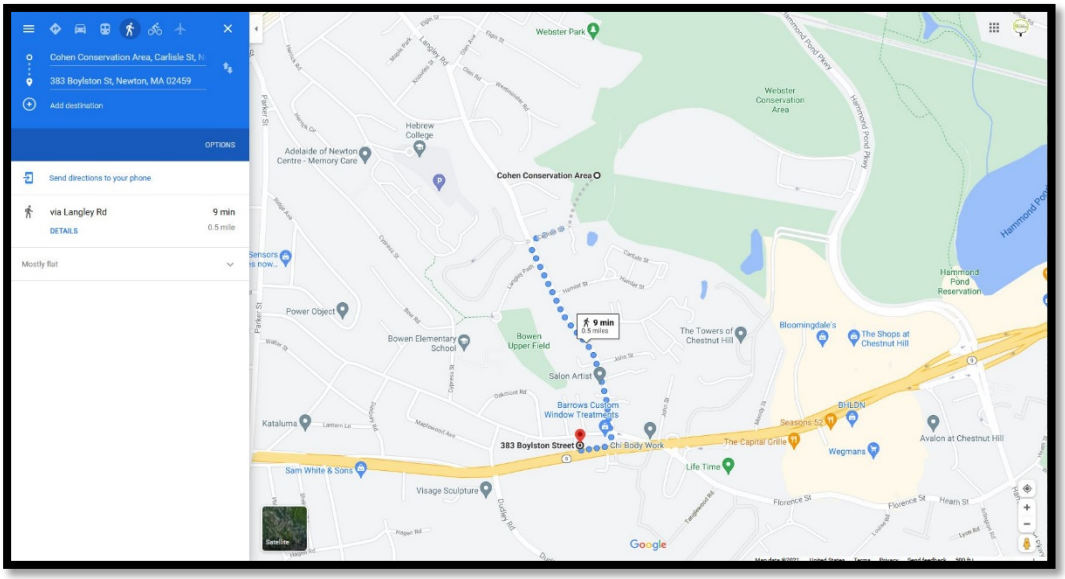
Infill Development (2 pts). The Project is located on a lot where 85% of the land within ½ mile is previously developed; this qualifies as Infill Development.

Existing Conditions demonstrating compliance with Previous Development and Infill requirements can be seen on the Aerial Maps, below.



LTc Site Selection. Aerial Maps of Existing Conditions and Infill Site at 383-387 Boylston St.

Access to Open Space (1 pt). 383-387 Boylston St. residents have nearby access (within ½-mile walking distance) to open space at least ¾ acre in size, at Cohen Conservation Area, which is 6 acres in size – see walking distance map below.



LTc Site Selection – 1/2-mile walking distance to Open Space at Cohen Conservation Area.

LTc Compact Development (3 points)

The Project is designed with the following site density:

- 12 units within 0.3385 acres for a density of 35.45 units per acre

LLc Community Resources (2 points)

The Project is located within 1/2-mile walking distance of the following Community

Resources. The Project far exceeds the credit threshold of 12 accessible resources (21 available), thus qualifying for two (2) points:

Services and Walking Distances to Bishop Allen @ Douglass:
Food Retail

1. Supermarket: Wegmans – 0.5 mile SE
2. Supermarket: Sweetgreen – 0.5 mile SE

Community-Serving Retail

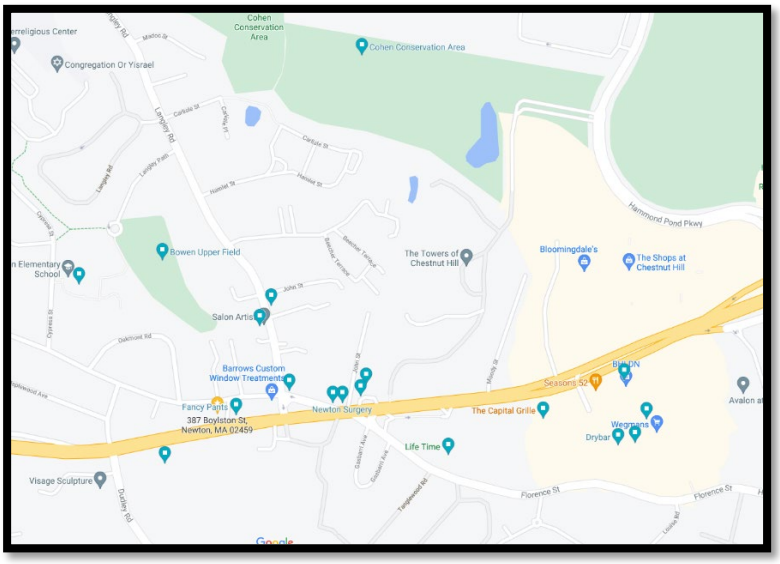
3. Clothing Store: CERI – 0.2 mile NE
4. Clothing Store: Francesca's – 0.5 mile SE
5. Convenience Store: Sunoco Gas Station – 0.2 mile E
6. Other Retail: Fancy Pants – 0.01 mile E
7. Other Retail: Yelena Couture Tailor – 0.2 mile E

Services

8. Bank: Century Bank – 0.5 mile SE
9. Gym/Health Club: Chi Body Work – 0.1 mile E
10. Gym/Health Club: LifeSpa – 0.2 mile E
11. Hair Care: Salon Artist – 0.1 mile N
12. Hair Care: Drybar – 0.5 mile SE
13. Dry Cleaner: Atrium Dry Cleaners – 0.1 mile NE
14. Restaurant: The Capital Grille – 0.4 mile E
15. Restaurant: Seasons 52 – 0.4 mile E

Civic and Community Facilities

16. Educational: Bowen Elementary School – 0.3 mile NW
17. Worship: Church in Newton – 0.3 mile SW
18. Medical: New England TMJ Associates – 0.2 mile E
19. Medical: Newton Surgery – 0.1 mile E
20. Public Park: Brown Upper Field – 0.4 mile N
21. Public Park: Cohen Conservation Area – 0.4 mile NE



LTc Community Resources Map.

SUSTAINABLE SITES

The Sustainable Sites (SS) category addresses environmental issues related to landscape and site design, ensuring a seamless co-existence between the built environment and the natural environment.

SSp Construction Activity Pollution Prevention

The Project will provide appropriate erosion control measures to minimize runoff and wind erosion from the site throughout Construction. All members of the demolition and construction teams will adhere to the erosion control plan. Additionally, the plan will include the following requirements, as applicable:

1. Stockpile and protect disturbed topsoil (for reuse).
2. Control the path and velocity of runoff from site with silt fencing or comparable measures.
3. Protection of on-site storm sewer inlets and water bodies with silt fencing, silt sacks, or comparable measures.
4. Provide swales to divert surface water from hillsides.
5. Use tiers, erosion blankets, compost blankets, filter socks, or comparable measures to stabilize soils in any area with slope of 15% or more that is disturbed during construction.
6. Prevention of air pollution from dust and particulate matter.

SSp No Invasive Plants

The project team has committed to specifying no species listed on the National Association of Exotic Pest Plant Council's list of invasive plants for the state of Massachusetts.

SSc Nontoxic Pest Control (1 point)

The Project will include the following nontoxic pest-deterrent design methodology:

1. Seal all external cracks, joints, penetrations, edges, and entry points with appropriate caulking. Install rodent- and corrosion-proof screens (e.g., copper or stainless steel mesh) on all openings greater than ¼ inch (6 millimeters), except where code prohibits their installation (e.g., dryer vents).
2. Design discharge points for rain gutters, air-conditioning condensation lines, steam vent lines, or any other moisture source such that discharge is at least 24 inches (600 millimeters) from the foundation.

At construction completion, the Project will also develop an integrated pest management policy for distribution to residents. This document will include information on the following:

1. Pesticide use,
2. Housekeeping, and
3. Prompt reporting of any observed pest problems within the building(s).

WATER EFFICIENCY

The Water Efficiency (WE) category addresses environmental degradation related to overuse of potable water within residential buildings and irrigation systems.

WEp Water Metering

The Project will include at least one whole-building water meter.

WEc Indoor Water Use (5 pts)

The Project will specify all WaterSense labeled fixtures as well as reduced flow rates to the following tolerances: 1.0 gpm lavatory faucets, 1.5 gpm showerheads, and 1.10 gpf toilets.

ENERGY AND ATMOSPHERE

The Energy and Atmosphere (EA) category addresses ongoing energy usage and continued building performance.

EAp Minimum Energy Performance

The Project will meet the mandatory requirements of ENERGY STAR for Homes, version 3, including achievement of HERS Index Ratings at or above the HERS Index Target. The Project will have all duct runs (supplies and returns) fully ducted and will meet stringent duct leakage requirements for all dwelling units, to be tested at construction completion by a qualified Energy Rater. The envelope of the building and all items in the ENERGY STAR Certified Homes program will be inspected by a qualified Energy Rater.

All aspects of the LEED rating system will additionally be inspected by a certified Green Rater, acting as a neutral third party, to verify that the Project meets the LEED requirements and claimed credits.

Each unit will, at a minimum, have at least one of the following ENERGY STAR labeled appliances installed:

- Refrigerator
- Dishwasher
- Clothes washer

EAp Energy Metering

The Project will install electric submeters for each residential unit. This will be an all-electric project; therefore, gas metering will not be applicable.

EAp Education of Homeowner, Tenant, or Building Manager

At construction completion, the Project will develop an Operations Training Manual that describes the sustainable aspects of installed systems and assemblies. All operations staff will participate in a 1-hour training walk through to view and inspect installed equipment.

Additionally, the Project will develop a Resident Green Guide to be distributed to applicable staff and/or residents at building occupancy. Distribution will be accompanied by copies of the LEED checklist as well as a 1-hour walk-through of the building and units to highlight installed LEED-related items.

EAc Annual Energy Use (24.5 pts)

Preliminary Energy Modeling shows the Project will have a maximum HERS Index Rating of 55 on the worst-case unit. Additional energy improvement features that are still in design phase and are not currently included in the Preliminary Energy Modeling are being discussed. At a minimum this will include a solar PV array.
See Energy Narrative for Preliminary Modeling Reports.

MATERIALS AND RESOURCES

The Materials and Resources (MR) category addresses all installed materials, including framing and interior finishes, as well as diversion of waste from landfills.

MRp Certified Tropical Wood

The Project will utilize non-tropical wood products, or if necessary, Forestry Stewardship Council (FSC)-certified products for any products with wood from tropical countries.

MRp Durability Management

The Project will meet the requirements of the *ENERGY STAR Certified Homes v3 (Rev 10) National Water Management System Builder Requirements* checklist.

Additionally, the following interior water management measures will be installed:

1. Nonpaper-faced backer boards (or wallboard that meets standard ASTM D3273) will be installed in all areas directly above the bathtub, spa, or shower (extending to the ceiling), as well as at any exposed wall or area behind fiberglass enclosures of tubs or showers.
2. Water-resistant flooring is specified in all kitchen, bathrooms, laundry, and spa areas and at all exterior doors.
3. Install drain and drain pan for tank hot water heaters.
4. Install drain and drain pan under all clothes washers installed in, or over, living space, and
5. Exhaust all conventional clothes dryers directly to the outdoors

MRc Environmentally Preferable Products (0.5 point)

The Project will reduce its environmental footprint by sourcing at least 50% of aggregate for concrete and foundation from local sources that extract, manufacture, and process the product within 100 miles of the Project site.

INDOOR ENVIRONMENTAL QUALITY

The Indoor Environmental Quality (IEQ) category addresses the exhaust and ventilation of all interior spaces within the building, ensuring a consistent healthy environment for building residents.

IEQp Ventilation

The Project will design and install a whole-unit ventilation system for each individual dwelling unit, complying with the mechanical ventilation requirements of ASHRAE 62.2-2010, Sections 5 and 7. Non-unit spaces will meet the minimum requirements of ASHRAE 62.1- 2010, Sections 4 and 7.

This includes all local exhaust systems exhausting air directly to the outdoors, and requirements that all bathroom exhaust fans be ENERGY STAR labeled. If any kitchen exhaust hood systems are capable of exhausting in excess of 400 cfm, a makeup air system will be installed.

All unit ventilation and local exhaust systems will be tested by a qualified Energy Rater to endure proper functioning and compliance.

IEQp Combustion Venting

The Project has designed the residential units as all-electric. There will not be any combustion appliances or fireplaces installed. Carbon Monoxide (CO) monitors will be installed on each floor of all units.

IEQp Garage Pollutant Protection

The Project will have all air-handling equipment and ductwork placed outside the fire-rated envelope of the garage.

All surfaces between the garage and conditioned spaces will be tightly sealed, including all the following measures:

- In conditioned spaces above the garage, seal all penetrations and all connecting floor and ceiling joist bays.
- In conditioned spaces next to the garage, weather-strip all doors, install carbon monoxide detectors in rooms that share a door with the garage, seal all penetrations, and seal all cracks at the base of the walls.

IEQp Radon-Resistant Construction

The Project is located in Radon Zone 1 and will comply with the LEED prerequisite to reduce occupants' exposure to Radon gas and other soil gas contaminants by having a garage under the building with an appropriate exhaust system installed.

IEQp Air Filtering

The Project will install a minimum of MERV 8 rated filters on all recirculating space conditioning systems to protect occupants' health by reducing particulate matter from the air supply system. If there are any mechanically supplied outside air systems with more than 10 feet of ductwork installed, there will be a minimum of MERV 6 rated filters on those systems.

IEQp Environmental Tobacco Smoke

The Project will prohibit smoking within all common areas of the building. Smoking will be prohibited outside the Project building except in designated smoking areas located at least 25-feet from all building entries, outdoor air intakes, and operable windows. Signage communicating the smoking policy will be installed.

IEQp Compartmentalization

The Project will compartmentalize each residential unit to minimize leakage. Each unit will be tested for leakage and will demonstrate compliance with the maximum allowable leakage of 0.30 CFM50 per square foot of enclosure area via blower door testing at construction completion.

IEQc Enhanced Ventilation (3 points)

The Project will include delay timers on exhaust fans in all full bathrooms that operate for at least 20 minutes post occupancy. (1 point)

The Project will install energy recovery ventilators (ERVs) in each residential unit to provide balanced whole-house ventilation in compliance with ASHRAE 62.2-2010. The tested ventilation rates of the installed ERVs will not exceed ASHRAE 62.2-2010 rates by more than 10%.

IEQc Balancing of Heating and Cooling Distribution Systems (1 point)

Each bedroom will be tested to demonstrate a pressure difference of less than 3 Pa with respect to the main body of the unit when the air handler is running and doors are closed.

IEQc Enhanced Combustion Venting (2 points)

The Project will automatically comply with this credit for making the design choice to not install any fireplaces or woodstoves.

IEQc Enhanced Garage Pollutant Protection (1 point)

The Project will follow the requirements of ASHRAE 62.1-2010 when designing the garage exhaust system. The garage will be exhausted sufficiently to create negative pressure with respect to adjacent spaces with the doors to the garage closed. Self-closing doors and deck-to-deck partitions or a hard lid ceiling will be included in the final design. The exhaust fan will either run continuously, or on a carbon monoxide sensor that turns on the fan when ambient CO levels reach 35 ppm.

INNOVATION

The Innovation and Design Process (ID) category encourages project planning and design to improve the coordination and integration of the various elements in a green home.

INp Preliminary Rating

The preliminary Project design indicates LEED Silver for the building. A preliminary checklist is attached in Appendix A, for review.

INc Innovation (3 points)

The Project will provide electric car charging stations for 10 out of 20 parking spaces. The details of these stations will be in compliance with the LEED Innovation Credit, "Green Vehicles."

The Project will earn credit for achieving exemplary performance in an existing LEED v4 prerequisite or credit for the following criteria:

1. LTc Community Resources (1 point)
2. LTc Compact Development (1 point)

INc LEED AP Homes (1 pt)

Abby Adams, of Green Building Consulting, holds a LEED Green Rater credential and is qualified to earn this credit as part of the team per LEED Interpretation 10374; her credentialing certificate can be seen in Appendix B.

REGIONAL PRIORITY

The Regional Priority (RP) category encourages projects to pursue existing checklist credits that have been identified by the United States Green Building Council (USGBC) as "high-priority" for the project location and region.

The following credits have been identified for this building:

1. Annual Energy Use (1pt)

APPENDIX A: LEED CHECKLIST

LEED BD+C: Homes and Multifamily Lowrise v4 - LEED v4

50 Jackson St Scorecard (ID:)

Project Address: 383-387 Boylston St, Newton, MA 2459, USA

Note: The information on this tab is READ-ONLY. To edit this information, see the Credit Category tabs.

Integrative Process		**Preliminary**	Y	0 of 2	M 0	**Verified**	0
IPc	**Integrative Process**			0 of 2	0		
Location and Transportation		**Preliminary**	Y	12 of 15	M 0	**Verified**	12
LTp	Floodplain Avoidance			Required			Verified
Performance Path							
LTc	LEED for Neighborhood Development			0 of 15	0		
Prescriptive Path							
LTc	Site Selection			7 of 8	0		7
LTc	Compact Development			3 of 3	0		3
LTc	Community Resources			2 of 2	0		2
LTc	Access to Transit			0 of 2	0		
Sustainable Sites		**Preliminary**	Y	1 of 7	M 0	**Verified**	0
SSp	Construction Activity Pollution Prevention			Required			Not Verified
SSp	No Invasive Plants			Required			Not Verified
SSc	Heat Island Reduction			0 of 2	0		
SSc	Rainwater Management			0 of 3	0		
SSc	Nontoxic Pest Control			1 of 2	0		
Water Efficiency		**Preliminary**	Y	5 of 12	M 0	**Verified**	0
WEp	Water Metering			Required			Not Verified
Performance Path							
WEc	Total Water Use			0 of 12	0		
Prescriptive Path							
WEc	Indoor Water Use			5 of 6	0		
WEc	Outdoor Water Use			0 of 4	0		
Energy and Atmosphere		**Preliminary**	Y	24.5 of 38	M 3	**Verified**	24.5
EAp	Minimum Energy Performance			Required			Not Verified
EAp	Energy Metering			Required			Not Verified
EAp	Education of the Homeowner, Tenant or Building Manager			Required			Not Verified
Performance Path							
EAc	Annual Energy Use			24.5 of 29	0		24.5
Performance and Prescriptive Paths							
EAc	Efficient Hot Water Distribution System			0 of 5	2		
EAc	Advanced Utility Tracking			0 of 2	0		
EAc	Active Solar-Ready Design			0 of 1	0		
EAc	HVAC Start-Up Credentialing			0 of 1	1		
Prescriptive Path							
EAp	Home Size			Required			Not Verified
EAc	Building Orientation for Passive Solar			0 of 3	0		
EAc	Air Infiltration			0 of 2	0		
EAc	Envelope Insulation			0 of 2	0		
EAc	Windows			0 of 3	0		
EAc	Space Heating & Cooling Equipment			0 of 4	0		
EAc	Heating & Cooling Distribution Systems			0 of 3	0		
EAc	Efficient Domestic Hot Water Equipment			0 of 3	0		
EAc	Lighting			0 of 2	0		
EAc	High-Efficiency Appliances			0 of 2	0		
EAc	Renewable Energy			0 of 4	0		

Materials and Resources		Preliminary	Y	0.5 of 10	N	4	Verified	0
MRp	Certified Tropical Wood			Required				Not Verified
MRp	Durability Management			Required				Not Verified
MRc	Durability Management Verification			0 of 1		0		
MRc	Environmentally Preferable Products			0.5 of 4		2		
MRc	Construction Waste Management			0 of 3		2		
MRc	Material-Efficient Framing			0 of 2		0		

Indoor Environmental Quality		Preliminary	Y	7 of 16	N	2	Verified	0
EQp	Ventilation			Required				Not Verified
EQp	Combustion Venting			Required				Not Verified
EQp	Garage Pollutant Protection			Required				Not Verified
EQp	Radon-Resistant Construction			Required				Not Verified
EQp	Air Filtering			Required				Not Verified
EQp	Environmental Tobacco Smoke			Required				Not Verified
EQp	Compartmentalization			Required				Not Verified
EQc	Enhanced Ventilation			3 of 3		0		
EQc	Contaminant Control			0 of 2		0.5		
EQc	Balancing of Heating and Cooling Distribution Systems			1 of 3		0		
EQc	Enhanced Compartmentalization			0 of 1		0		
EQc	Combustion Venting			2 of 2		0		
EQc	Enhanced Garage Pollutant Protection			1 of 2		0		
EQc	Low-Emitting Products			0 of 3		1.5		

Innovation		Preliminary	Y	4 of 6	N	0	Verified	2
INp	Preliminary Rating			Required				Not Verified
INc	Innovation			3 of 5		0		2
INc	LEED Accredited Professional			1 of 1		0		

Regional Priority		Preliminary	Y	1 of 4	N	0	Verified	0
RPc	Regional Priority			1 of 4		0		

Point Floors	
The project earned at least 6 points total in Location and Transportation and Energy and Atmosphere	Yes
The project earned at least 3 points in Water Efficiency	No
The project earned at least 3 points in Indoor Environmental Quality	No

Total	Preliminary	Y	55 of 110	N	9	Verified	38.5

Certification Thresholds Certified: 40-49, Silver: 50-59, Gold: 60-79, Platinum: 80-110

APPENDIX B: LEED CREDENTIALING CERTIFICATE

LEED GREEN RATER

GREEN BUSINESS CERTIFICATION INC. CERTIFIES THAT

Abby Adams

HAS ATTAINED THE DESIGNATION OF

LEED® GREEN RATER™

by demonstrating the knowledge and understanding of green building practices and principles needed to support the use of the LEED green building program.

11116444-GR

CREDENTIAL ID

12 JUN 2019

ISSUED

11 JUN 2023

VALID THROUGH

Mahesh Ramanujam

MAHESH RAMANUJAM
PRESIDENT & CEO, U.S. GREEN BUILDING COUNCIL
PRESIDENT & CEO, GREEN BUSINESS CERTIFICATION INC.

APPENDIX C: MULTIFAMILY HOME SIZE ADJUSTMENT CALCULATOR

Multifamily Home Size Adjuster

This approach can be used to determine an overall home size adjuster for multifamily buildings.

Input the number of units and the average square footage for units with the corresponding bedroom number. For example, if the building has three 2-bedroom units that are 1300 sq ft, 1400 sq ft, and 1500 sq ft, insert "3" in cell G9 and "1400" in cell H9. Please leave zeroes or blanks where appropriate.

This approach can also be used to determine an overall home size adjuster for a complex with multiple residential buildings. If a project includes multiple residential buildings, add all the buildings together like it's a single-mega structure. For example, if building A has four 2-bedroom units and building B has six 2-bedroom units, insert "10" in cell G9. Average the square footage for all units in the complex with the corresponding bedroom quantity.

Areas of the Building	Floor Area (sq ft)
In-unit area	17,524
Common areas, residential	4,520
Non-residential	0

Building ID	0 Bedrooms		1 Bedroom		2 Bedrooms		3 Bedrooms		4 Bedrooms		5 Bedrooms		6 Bedrooms	
	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)
							12	1,460.33						
Home size adjustment	0%		0%		0%		34%		0%		0%		0%	
Point adjustment	0.0		0.0		0.0		8.4		0.0		0.0		0.0	
Total number of units														12
Average home size point adjustment														**8.5**