

## Memo

**To:** Kevin Sheehan                      Greatland Realty Partners  
**From:** Erik Ruoff                         The Green Engineer (TGE)  
**Project:** 1050 Waltham St  
**Re:** Initial Sustainability Narrative  
**Date Issued:** November 26, 2019

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Greatland Realty Partners have identified environmental sustainability as an important goal for this project and seek to develop an energy-efficient building that actively serves as a positive addition to the neighborhood. This goal is one that is shared by the members of the design team.

The project has committed to pursue LEED certification under the LEED-CS v4.0 rating system. A preliminary LEED checklist is included which outlines the targets credits. A good number of credits remain designated as 'Maybe' at this point where final decisions or calculations have not yet been made. Sustainable features will be further reviewed and refined as the design develops.

Below is a section-by-section breakdown detailing the Project's approach.

### **Integrative Process**

In general, the project team intends to undertake an integrative design process, to study the factors that will impact the building design.

### **Location and Transportation**

The site will be designed to be activated while being sensitive to site conditions and the existing mixed-use community. The building will work with the community and surrounding property owners to facilitate a shuttle service connection to the Alewife red line T stop, and will accommodate a stop on Lexpress, the Lexington local shuttle service. Walkable amenities and a bike share program will minimize additional car trips during the day.

### **Sustainable Sites**

The development will include outdoor amenity areas for building occupants and the public, and will seek to reduce existing onsite impervious area. The building will include a reflective roof to reduce heat island effect and the site and garage lighting will be provided by cut off fixtures to minimize light pollution. In addition, the project will provide storage and infiltration to comply with state and local stormwater regulations.

### **Water Efficiency**

The project will use standard/low flow bathroom fixtures, and will provide water metering. The site will utilize native, adaptive, and/or drought tolerant plant species to lower water demand and install efficient irrigation technology to further reduce water delivered. The team has set minimum goals to reduce exterior water use by 50% and indoor water use by 30% against the LEED baseline.

### **Energy and Atmosphere**

Multiple HVAC options will be evaluated. The project team will evaluate the financial and operational feasibility of minimizing fossil fuel use in the building systems, and/or purchasing green power and carbon offsets. The building is required to meet state energy code, which will provide a relatively high level of energy efficiency. Additionally, the use of renewables is being explored where feasible. Specifically, the parking garage may include electric vehicle charging stations and will be designed to accommodate solar canopies on the roof level.

### **Materials and Resources**

The design team will seek to specify materials and products with environmental and health product declarations to help support a reduced impact of the development on the environment. Waste management will be addressed during demolition, construction and post occupancy.

**Indoor Environmental Quality**

The building systems will include high quality air filters, and the building will be designed to provide access to light and views. During construction, low VOC materials will be used and an air quality management plan will be implemented.

**Innovation**

The project team will set up operation and maintenance standards to maintain sustainable operation of the building post-construction. The building may employ other innovative strategies as well, including the use of energy efficient LED fixtures.

**Regional Priority**

The project team will continue to evaluate regional priority items as the design of the project evolves, including energy performance and renewable energy production.





# LEED v4 for BD+C: Core and Shell Project Checklist

Project Name: 1050 Waltham St  
Date: 11.26.19

Y ? N

<b>0</b>	<b>1</b>	<b>0</b>	<b>Integrative Process</b>	<b>1</b>
	1		Credit Integrative Process	1

<b>9</b>	<b>5</b>	<b>6</b>	<b>Location and Transportation</b>	<b>20</b>
		X	Credit LEED for Neighborhood Development Location	15
2			Credit <u>Sensitive Land Protection</u>	2
2	1		Credit High Priority Site	3
4	2		Credit Surrounding Density and Diverse Uses	6
	1	5	Credit <u>Access to Quality Transit</u>	6
1			Credit Bicycle Facilities	1
		1	Credit Reduced Parking Footprint	1
	1		Credit Green Vehicles	1

<b>4</b>	<b>5</b>	<b>2</b>	<b>Sustainable Sites</b>	<b>11</b>
Y			Prereq Construction Activity Pollution Prevention	Required
1			Credit Site Assessment	1
		2	Credit <u>Site Development - Protect or Restore Habitat</u>	2
1			Credit Open Space	1
	3		Credit Rainwater Management	3
	2		Credit Heat Island Reduction	2
1			Credit Light Pollution Reduction	1
1			Credit Tenant Design and Construction Guidelines	1

<b>4</b>	<b>5</b>	<b>2</b>	<b>Water Efficiency</b>	<b>11</b>
Y			Prereq Outdoor Water Use Reduction	Required
Y			Prereq Indoor Water Use Reduction	Required
Y			Prereq Building-Level Water Metering	Required
1	1		Credit Outdoor Water Use Reduction	2
2	2	2	Credit Indoor Water Use Reduction	6
	2		Credit Cooling Tower Water Use	2
1			Credit Water Metering	1

<b>12</b>	<b>12</b>	<b>9</b>	<b>Energy and Atmosphere</b>	<b>33</b>
Y			Prereq Fundamental Commissioning and Verification	Required
Y			Prereq Minimum Energy Performance	Required
Y			Prereq Building-Level Energy Metering	Required
Y			Prereq Fundamental Refrigerant Management	Required
3	3		Credit Enhanced Commissioning	6
8	3	7	Credit <u>Optimize Energy Performance</u>	18
	1		Credit Advanced Energy Metering	1
	2		Credit Demand Response	2
	1	2	Credit <u>Renewable Energy Production</u>	3
1			Credit Enhanced Refrigerant Management	1
	2		Credit Green Power and Carbon Offsets	2

<b>3</b>	<b>4</b>	<b>7</b>	<b>Materials and Resources</b>	<b>14</b>
Y			Prereq Storage and Collection of Recyclables	Required
Y			Prereq Construction and Demolition Waste Management Planning	Required
	2	4	Credit <u>Building Life-Cycle Impact Reduction</u>	6
1		1	Credit Building Product Disclosure & Optimization Environmental Product Declarations	2
	1	1	Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1		1	Credit Building Product Disclosure and Optimization - Material Ingredients	2
1	1		Credit Construction and Demolition Waste Management	2

<b>6</b>	<b>3</b>	<b>1</b>	<b>Indoor Environmental Quality</b>	<b>10</b>
Y			Prereq Minimum Indoor Air Quality Performance	Required
Y			Prereq Environmental Tobacco Smoke Control	Required
Y			Prereq Minimum Acoustic Performance	Required
2			Credit Enhanced Indoor Air Quality Strategies	2
2	1		Credit Low-Emitting Materials	3
1			Credit Construction IAQ Management Plan	1
	2	1	Credit Daylight	3
1			Credit Quality Views	1

<b>3</b>	<b>3</b>	<b>0</b>	<b>Innovation</b>	<b>6</b>
	1		Credit Innovation: OM Starter Kit	1
1			Credit Innovation: Sustainable Purchasing - Lamps	1
1			Credit Innovation: Pilot - Integrative Analysis of Building Materials	1
	1		Credit Innovation: TBD	1
	1		Credit Innovation: TBD	1
1			Credit LEED Accredited Professional	1

<b>2</b>	<b>1</b>	<b>1</b>	<b>Regional Priority (max of 4 points)</b>	<b>4</b>
1			Credit Surrounding Density and Diverse Uses (RP@4)	1
		1	Credit Access to Quality Transit (RP@1)	1
		X	Credit Site Development (RP@2)	
1			Credit Optimize Energy Performance (RP@8)	
		X	Credit Renewable Energy Production (RP@2)	1
	1		Credit Building Life-Cycle Impact Reduction (RP@2)	1

<b>43</b>	<b>39</b>	<b>28</b>	<b>TOTALS</b>	<b>110</b>
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Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110