

**LEED v4 BD+C Core & Shell
CHECKLIST AND COMMENTS**

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Project Description:

New building, renovation/ addition on existing building. Use: senior living/ assisted living facility.

LOCATION AND TRANSPORTATION

- LTc1 LEED for Neighborhood Development**
Project is not located in LEED for Neighborhood Development Location
- LTc2 Sensitive Land Protection**
The project is located on a site that was previously developed and is not classified as prime farmland or on a floodplain.
- LTc3 High Priority Site**
Project is NOT located on a brownfield site, or similar.
- LTc4 Surrounding Density and Diverse Uses**
Project is not located in an area within ¼ mile that meets following density criteria (2 points)
Residential density 7 DU/ acre per 22,000 sf/ acre of buildable land OR
Nonresidential density (FAR) of 0.5 per 22,000 sf/ acre of buildable land

Or located in area with diverse uses (within ½ mile of building entrance)
- LTc5 Access to Quality Transit**
Project is not located in ¼- ½ mile walking distance to transit
- LTc6 Bicycle Facilities**
Project is not located within 200 yards of a bicycle network and will not provide short term or long term bicycle storage.
- LTc7 Reduced Parking Footprint**
Project WILL? or WILL NOT? provide parking that is 20% less than required by zoning
- LTc8 Green Vehicles**
Project DOES? Or DOES NOT? have a plan to provide either:

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5% of parking spaces are preferred parking for green vehicles (defined as minimum score of 45 on ACEEE annual vehicle rating guide)

Project DOES NOT plan to dedicate electric vehicle charging stations for 2% of parking spaces.

SUSTAINABLE SITES

- SSp1 Construction Activity Pollution Prevention**
(Required) Project will create and implement a sedimentation control plan for all construction activities associated with the project to meet EPA guidelines for CGP.
- SS c1 Site Assessment**
The design team has conducted a bioclimatic and detailed site analysis which influenced building orientation and placement. The assessment included the following information: Topography, Hydrology, Climate, Vegetation, Soils, Human Use and Human Health Effects.
- SS c2 Site Development – Protect and Restore Habitat**
Project may include on-site restoration of 30% (including building footprint) of all portions of the site identified as previously disturbed.
- SS c3 Open Space**
Project will include landscaped and open areas that are greater than or equal to 30% of the site area.
- SS c4 Rainwater Management**
Project will manage on site runoff from the developed site for the 95th percentile of regional or local rainfall events using low-impact development and green infrastructure.
- SS c5 Heat Island Reduction**
Project will address both non-roof and roof areas to reduce heat island effect. The roof will have SRI of at least 82 for low sloped areas and 39 for any steeply sloped areas. Plants or structures will shade paved areas.
- SS c6 Light Pollution Reduction**
Project will specify outdoor lighting that uses the BUG method and meets Dark Sky criteria.
- SS c7 Tenant Design and Construction Guidelines**
Project is not a speculative core and shell building that will have tenants but will be owner-operated and residential in nature.

WATER EFFICIENCY

WE p1 Outdoor Water Use Reduction

(Required). Project will reduce landscape water usage by 30% from calculated baseline of site's peak watering month.

WE p2 Indoor Water Use Reduction

(Required) Project will reduce indoor potable water use by at least 20% from the baseline. Baseline use for fixtures are as follows:
Toilets 1.6 gpf; Urinals 1.0 gpf; Public lav faucets 0.5 gpm; private lav faucets 2.2 gpm;
Kitchen faucets 2.2 gp; showerhead 2.5 gpm.

WEp3 Building Level Water Metering

(Required) Project will install building level water meters to measure the total potable water use for building and grounds.

WEc1 Outdoor Water Use Reduction

Project plans to reduce landscape water use by 50% from calculated baseline of site's peak watering month.

WEc2 Indoor Water Use Reduction

Project anticipates reducing indoor water use by 25% from the baseline.

WEc3 Cooling Tower Water Use

Project will not include a cooling tower so is not eligible for this credit.

WEc4 Water Metering

Project does or does not anticipate installing permanent water meters on two additional water subsystems.

ENERGY AND ATMOSPHERE

- EAp1 Fundamental Commissioning and Verification**
(Required) Project will conduct fundamental commissioning for MEP systems according to ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007. Project will develop OPR and BOD for HVAC&R systems.
- EAp2 Minimum Energy Performance**
(Required) Project will achieve a minimum of 5% improvement compared with baseline building performance. Project will demonstrate performance improvement using energy model per ASHRAE 90.1-2010 Appendix G OR by following prescriptive provisions of ASHRAE 50% Advanced Energy Design Guide.
- EAp3 Building-Level Energy Metering**
(Required) Project will include building level energy meters to measure total building energy consumption (electricity, natural gas, chilled water, steam, fuel oil, propane, biomass, etc.)
- EAp4 Fundamental Refrigerant Management**
(Required) Project will not use CFC based refrigerants in new heating, ventilating, air-conditioning, and refrigeration systems.
- EAc1 Enhanced Commissioning**
Project will conduct enhanced systems commissioning of HVAC&R systems. Does NOT plan to develop monitoring-based procedures to be measured and evaluated to assess performance of energy and water consuming systems. Does NOT plan to conduct envelope commissioning.
- EAc2 Optimize Energy Performance**
Project plans to achieve an energy reduction of 11% from the baseline performance.
- EAc3 Advanced Energy Metering**
Project does not plan to install additional energy meters.
- EAc4 Demand Response**
Project utility company does not offer this incentive for this location.
- EAc5 Renewable Energy Production**
Project does not plan on installing renewable energy sources.
- EAc6 Green Power and Carbon Offsets**
Project does not plan on purchasing RECs to offset GHG emissions or green power.

MATERIALS AND RESOURCES

- MRp1 Storage and Collection of Recyclables**
(Required) Project will dedicate area for recyclables for waste haulers and building occupants.
- MRp2 Construction and Demolition Waste Management Planning**
(Required) Project CM team will develop and implement a construction waste management plan.
- MRc1 Building Life-Cycle Impact Reduction**
Project does not plan to conduct a Life-Cycle assessment.
- MRc2 Building Product Disclosure and Optimization
– Environmental Product Declarations**
Project will select at least 20 products with EPDs from at least 5 suppliers for disclosure point.
- MRc3 Building Product Disclosure and Optimization – Sourcing of Raw Materials**
Project will select 25% (by cost) of products to meet one of the options: take back program, bio-based, salvaged, recycled content, or “legal wood” for optimization point.
- MRc4 Building Product Disclosure and Optimization – Material Ingredients**
Project will select at least 20 products from at least 5 different manufacturers for material ingredients disclosure point.
- MRc5 Construction and Demolition Waste Management**
Project plans to divert at least 75% of total construction and demolition material and at least four material streams.

INDOOR ENVIRONMENTAL QUALITY

- EQp1** **Minimum Indoor Air Quality Performance**
(Required) Project plans to mechanically ventilate per ASHRAE standard 62.1-2010.
- EQp2** **Environmental Tobacco Smoke Control**
(Required) Project will prohibit smoking.
- EQc1** **Enhanced Indoor Air Quality Strategies**
Project plans to comply with minimum ventilation strategies and cross-contamination prevention (removable walk-off mat of at least 10 ft length) and filtration levels of MERV 13.
- EQc2** **Low-Emitting Materials**
Project plans to comply with VOC limits for at least 5 of the 6 categories of materials: 1/ Interior paints and coatings, 2/ Interior adhesives and sealants, 3/ flooring, 4/composite wood, 5/ ceilings, walls, thermal, and acoustic insulation, 6/ furniture
- EQc3** **Construction Indoor Air Quality Management Plan**
Project will develop and implement an indoor air quality (IAQ) management plan for the construction and pre-occupancy phases of the building.
- EQc4** **Daylight**
Project is NOT demonstrating through simulation that regularly occupied spaces have sDA (spatial Daylight autonomy) of at least 55%.
- EQc5** **Quality Views**
Project is NOT demonstrating that 75% of all regularly occupied spaces achieve a direct line of sight to the outdoors with clear image of the exterior and demonstrate at least two of the four kinds of quality views.

INNOVATION

- IDc1** **ID: Walkable Project Site (Innovation Catalog)**
Project may design and build project to achieve at least 8 of the 9 listed features.
- IDc2** **ID: Design for Flexibility (Innovation Catalog)**
Project may design project for ease of future adaptation per credit requirements.
- IDc3** **ID: Occupant Comfort Survey (Innovation Catalog)**
Project may conduct an occupant comfort survey post-occupancy.
- IDc4** **ID: Purchasing- Lamps (Innovation Catalog)**
Project may implement purchasing plan that specifies overall building average of 70 picograms of mercury per lumen-hour or less of all mercury containing lamps purchased for building and associated grounds.
- IDc6** **LEED Accredited Professional**
Project will NOT have a LEED AP BD+C (speciality required) on the project team.

REGIONAL PRIORITY

RPc1

RP

Projects in Lexington, MA are eligible for an additional Regional Priority credit if they achieve the following credits:

- Renewable Energy Production
- Optimize Energy Performance (if achieve at least 8 points)
- Surrounding Density and Diverse Uses
- Access to quality transit
- Building life-cycle impact reduction
- Site Development – Protect or restore habitat