

40B COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

SECTION 7
BUILDING TABULATION

Concord Ave Housing

Building Tabulations
Cambridge, MA

Prepared by ICON architecture, inc

1/13/2017

Zoning

	Required	Proposed
Building Height	55' Principal Plane	65' Principal Plane
Front Setback	85' Beyond Setback	70.5' Beyond Setback
Side Setback	25'	25'
Rear Setback	10'	10'
FAR	10'	10'
	2.0	2.89

Site & Building

	AREA	
Building Footprint	19,152	
Building GSF		
	Untempered Garage	13,227
	Garage Conditioned	778
	First Floor	17,227
	Second Floor	19,538
	Third Floor	19,152
	Fourth Floor	19,152
	Fifth Floor	19,152
	Sixth Floor	15,815
	Roof Deck	1,235
	Total Conditioned	110,814
	Total Built	125,276
Open Space	10,746	
Surface Parking	19,739	
Total Parcel Size	43,398	
FAR	Total built / Parcel Size = 2.89	

Parking

	Compact	Standard	Handicapped	Total	Unit: Space Ratio
Surface Parking	13	17		30	
Covered Parking	18	13	4	35	
Total on Site	31	30	4	65	0.66
Required	33 MAX		4	98	1

Bike Parking	104 Long term w/ 20 tandem spaces	10 Short-term
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Unit Mix

	1BR	2BR	3BR	
1st Floor	3	4	5	12
2nd Floor	7	8	4	19
3rd Floor	7	8	4	19
4th Floor	7	8	4	19
5th Floor	7	9	3	19
6th floor	1	8	1	10
	32	45	21	98 UNITS
Percentage	33%	46%	21%	
Average SF	625 SF	845 SF	1175 SF	

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671-675 Concord Avenue, Cambridge MA 02138

SECTION 8
PHOTOGRAPHS

40B SITE COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

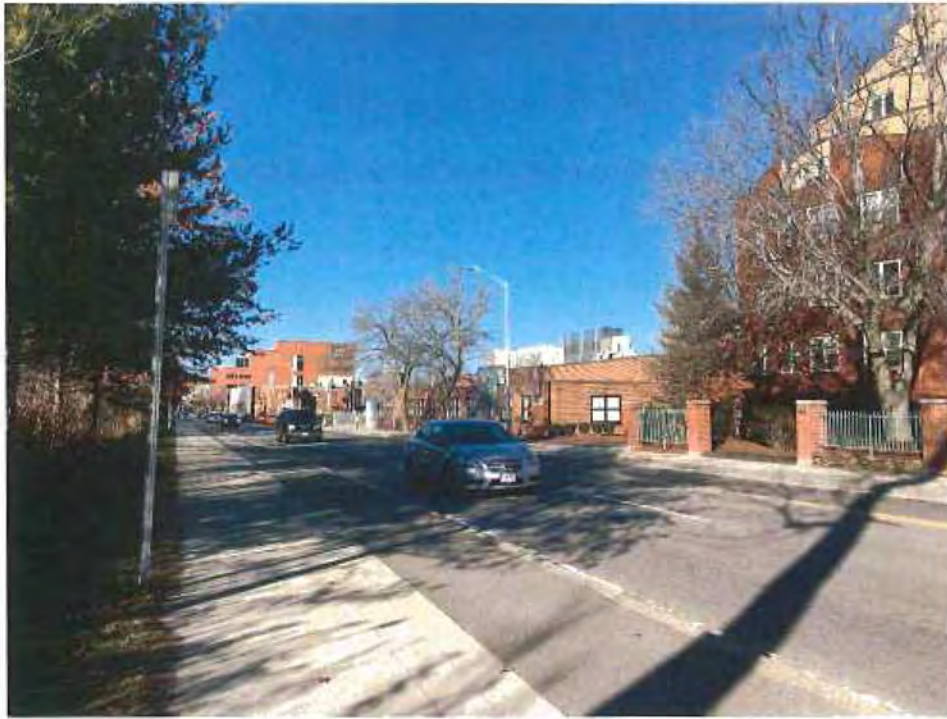
671-675 Concord Avenue, Cambridge MA 02138

PHOTOGRAPHS









40B COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

SECTION 9

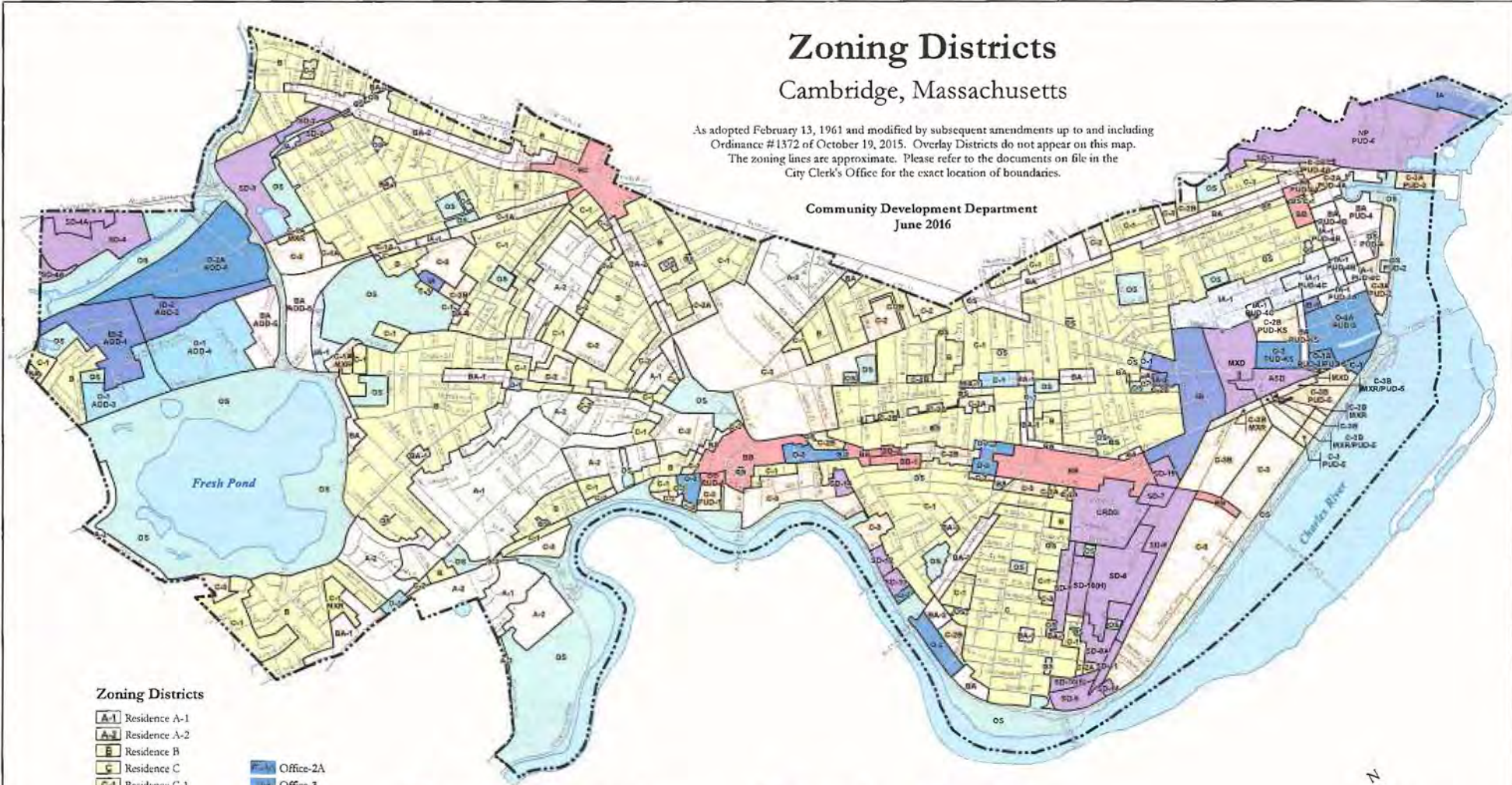
CONCORD AVENUE PARKWAY ZONING OVERLAY MAP

Zoning Districts

Cambridge, Massachusetts

As adopted February 13, 1961 and modified by subsequent amendments up to and including Ordinance #1372 of October 19, 2015. Overlay Districts do not appear on this map. The zoning lines are approximate. Please refer to the documents on file in the City Clerk's Office for the exact location of boundaries.

Community Development Department
June 2016



Zoning Districts

- | | | | | |
|----------------------------|--------------------------|--|----------------------------------|--|
| A-1 Residence A-1 | F-2A Office-2A | MXC Mixed Use Development | SD-2 Special District-2 | SD-9 Special District-9 |
| A-2 Residence A-2 | F-3 Office-3 | ASD Ames Street District | SD-3 Special District-3 | SD-10(F) Special District-10(F) |
| B Residence B | F-3A Office-3A | AOD Alewife Overlay District | SD-4 Special District-4 | SD-10(I) Special District-10(I) |
| C Residence C | BA Business A | PHO Planned Unit Development Overlay | SD-4A Special District-4A | SD-11 Special District-11 |
| C-1 Residence C-1 | BA-1 Business A-1 | MXR Mixed Use Residential Overlay | SD-5 Special District-5 | SD-12 Special District-12 |
| C-1A Residence C-1A | BA-2 Business A-2 | NP North Point District | SD-6 Special District-6 | SD-13 Special District-13 |
| C-2 Residence C-2 | BA-3 Business A-3 | CRD Cambridgeport Revitalization Development District | SD-7 Special District-7 | SD-14 Special District-14 |
| C-2A Residence C-2A | BA-4 Business A-4 | | SD-8 Special District-8 | SD-15 Special District-15 |
| C-2B Residence C-2B | BB Business B | | SD-8A Special District-8A | |
| C-3 Residence C-3 | BB-1 Business-1 | | | |
| C-3A Residence C-3A | BB-2 Business-2 | | | |
| C-3B Residence C-3B | IC Industry C | | | |
| O-1 Office-1 | | | | |
| O-2 Office-2 | | | | |



Map prepared by Brendan McEvoy on June 23, 2016. CDD GIS C:\Projects\Zoning\Zoning1x17.mxd

District	Max. FAR	Min. Lot Area/DU	Min. Setback Front Yard	Min. Setback Side Yard	Min. Setback Rear Yard	Max. Height	Min. OS Ratio	General range of allowed uses	
A-1	0.50	6,000	25	15 sum to 35	25	35	50%	single-family detached dwellings	
A-2	0.50	4,500	20	10 sum to 25	25	35	50%		
B	0.50	2,500	15	7.5 sum to 20	25	35	40%	single- and two-family detached dwellings townhouse dwellings (by special permit)	
C	0.60	1,800	(H+L) + 4 at least 10	(H+L) + 5 ≥7.5, sum ≥20	(H+L) + 4 at least 20	35	36%	single- and two-family detached dwellings townhouse dwellings	
C-1	0.75	1,500	(H+L) + 4 at least 10	(H+L) + 5 at least 7.5	(H+L) + 4 at least 20	35	30%	multifamily dwellings (apartments, condos) limited institutional uses	
C-1A	1.25	1,000	10	(H+L) + 7	(H+L) + 5	45	15%	single- and two-family detached dwellings townhouse dwellings (by special permit) multifamily dwellings (apartments, condos) some institutional uses	
C-2	1.75	600	(H+L) + 4 at least 10	(H+L) + 5	(H+L) + 4 at least 20	85	15%		
C-2A	2.50	300	(H+L) + 5 at least 5	(H+L) + 6	(H+L) + 5 at least 20	60	10%		
C-2B	1.75	600	(H+L) + 4 at least 10	(H+L) + 5	(H+L) + 4 at least 20	45	15%		
C-3	3.00	300	(H+L) + 5 at least 5	(H+L) + 6	(H+L) + 5 at least 20	120	10%		
C-3A	3.00	300	(H+L) + 5 at least 5	(H+L) + 6	(H+L) + 5 at least 20	120	10%		
C-3B	3.00/4.00	300	10	no min	no min	120	10%		
O-1	0.75	1,200	(H+L) + 4 at least 10	(H+L) + 5	(H+L) + 4 at least 20	35	15%	most types of residential dwellings most institutional uses offices and laboratories	
O-2	1.50/2.00	600	(H+L) + 4 at least 10	(H+L) + 5	(H+L) + 4 at least 20	70/85	15%		
O-2A	1.25/1.50	600	(H+L) + 4 at least 10	(H+L) + 5	(H+L) + 4 at least 20	60/70	15%		
O-3	2.00/3.00	300	(H+L) + 5 at least 5	(H+L) + 6	(H+L) + 5 at least 20	90/120	10%		
O-3A	2.00/3.00	300	(H+L) + 5 at least 5	(H+L) + 6	(H+L) + 5 at least 20	90/120	10%		
BA	1.00/1.75	600	no min	no min	(H+L) + 5 at least 20	35/45	no min		
BA-1	1.00/0.75	1,200	no min	no min	(H+L) + 5 at least 20	35	no min	most types of residential dwellings most institutional uses offices and laboratories most retail uses	
BA-2	1.00/1.75	600	5	10	20	45	no min		
BA-3	0.75	1,500	(H+L) + 4 at least 10	(H+L) + 5	(H+L) + 4 at least 20	35	30%		
BA-4	1.00/1.75 2.00 w/limitations	600	(H+L) + 4 10' w/limitations	(H+L) + 5 10' w/limitations	(H+L) + 5 10' w/limitations	35 or 44 w/limitation	no min		
BB	2.75/3.00	300	no min	no min	no min	80	no min		
BB-1	1.50/3.25	300	no min	no min	no min	55/90	15%		
BB-2	1.50/3.00	300	no min	no min	no min	45	15%		
BC	1.25/2.00	500	no min	no min	20	55	no min		
BC-1	2.75/3.00	450	no min	no min	20	50	no min		
IA-1	1.25/1.50	700	no min	no min	no min	45	no min		most types of residential dwellings most institutional uses offices and laboratories some retail uses most light industrial uses some heavy industrial uses
IA-2	2.75/4.00	no min	no min	no min	no min	70	no min		
IA	1.25/1.50	no min	no min	no min	no min	45	no min		
IB-1	1.50/3.00	no min	no min	no min	no min	60/70	no min		
IB-2	0.75	1,200	15	no min	no min	35	15%		
IB	2.75/4.00	no min	no min	no min	no min	120	no min		
IC	1.00	no min	no min	no min	no min	45	no min		
OS	0.25	N/A	25	15	25	35	60%	open space, religious, or civic uses	

City of Cambridge • Community Development Department • June, 2016

Notes on Zoning Regulations Table

Max. FAR = maximum allowed ratio of gross floor area on a parcel divided by the total land area of the parcel ("floor area ratio"). Where a slash (/) separates two figures, the first applies to non-residential and the second to residential & dormitory uses.

Min. Lot Area/DU = minimum allowed ratio of a parcel's lot area, expressed in feet, divided by the number of dwelling units on that parcel.

Min. Setback = minimum required distance between a parcel's lot line (front, side, or rear) and the wall of a building, in feet. The symbol (H+L) in a formula represents the height of the building plus the length of the building parallel to that lot line.

Max. Height = maximum allowed building height on a parcel, in feet. A slash (/) has the same meaning as under Max. FAR (see above).

Min. OS Ratio = minimum required ratio of usable open space on a parcel (not including parking) to total land area, expressed as a percentage.

General range of allowed uses gives an overview of the types of uses permitted by zoning in that district, but does not refer to specific allowed uses. See Article 4 of the Zoning Ordinance for the detailed Table of Use Regulations.

City of Cambridge Zoning Reference Sheet

CAUTIONARY NOTE. This sheet is intended to serve as a quick reference to dimensional standards and use regulations defined in the Cambridge Zoning Ordinance. This sheet does not serve as a substitute for the Cambridge Zoning Ordinance, and the City of Cambridge does not guarantee that this sheet is fully consistent with the Zoning Ordinance. The print version of the Zoning Ordinance, together with any amendments adopted by the City Council subsequent to the most recent update to the print version, remains the official version of the Ordinance. If any discrepancies exist between the print version of the Zoning Ordinance and this sheet, then the print version of the Ordinance, together with any City Council amendments, shall be considered correct.

The full text of the Zoning Ordinance is available online at www.cambridgema.gov/CDD/cp/zng/zord

Special District	Brief Description and Overview of District Regulations (except where otherwise noted, detailed regulations are in Article 17 of the Zoning Ordinance)
MXD (incl. ASD)	Mixed Use Development District: Cambridge Center. Allows a mix of light industry, office, biotechnology manufacturing, retail, residential, hotel, entertainment, and institutional uses. Entire district has a limit on aggregate gross floor area and a minimum open space requirement. Includes "Ames Street District" (ASD). See Article 14 of the Zoning Ordinance.
CRDD	Cambridgeport Revitalization Development District. Allows a mix of light industry, office, retail, residential, hotel, and entertainment uses. Aggregate gross floor area of the entire district limited to 1,900,000 square feet of non-residential and 400,000 square feet (or 400 units) of residential. Limits on FAR and building heights vary. At least 100,000 square feet reserved for open space. See Article 15 of the Zoning Ordinance.
NP	North Point Residence, Office and Business District. Allows certain residential, office, laboratory, retail, and institutional uses. Maximum FAR 1.0, height 40 feet. See Article 16 of the Zoning Ordinance. Greater development density allowed through PUD-6 regulations: See Article 13 of the Zoning Ordinance.
SD-1	Along Monsignor O'Brien Highway in East Cambridge. Regulations similar to Industry A-1 with exceptions.
SD-2	Along Linear Park in North Cambridge. Regulations similar to Residence B with exceptions. Conversion to housing is encouraged.
SD-3	Near Alewife Station. Allows residential, office, institutional, and limited retail uses. Aggregate gross floor area of the entire district limited to 782,500 square feet not including MBTA facilities or existing residential buildings.
SD-4 SD-4A	Along Acorn Park in North Cambridge. Regulations similar to Office 2 with exceptions. Preservation of open space is encouraged.
SD-5	Along Memorial Drive in southern Cambridgeport. Regulations similar to Office 2 with exceptions.
SD-6	Along railroad tracks between Cambridgeport and MIT Campus Area. Regulations similar to Residence C-3 with exceptions.
SD-7	Along Massachusetts Avenue in Cambridgeport. Regulations similar to Business B (as modified by Central Square Overlay District) with exceptions.
SD-8	Between Albany and Sidney Streets in Cambridgeport. Regulations similar to Industry A-1 with exceptions.
SD-8A	Around Fort Washington Park in Cambridgeport. Regulations similar to Residence C-1A with exceptions. Conversion to housing is encouraged.
SD-9	Along Brookline Street in Cambridgeport. Regulations similar to Residence C with exceptions. Conversion to housing is encouraged.
SD-10(F) SD-10(H)	Two locations in southern Cambridgeport near Henry Street, Brookline Street, Sidney Street. Regulations similar to Residence C with exceptions. Conversion to housing is encouraged.
SD-11	Along railroad tracks and Memorial Drive in southeastern Cambridgeport / MIT Campus Area. Regulations similar to Office 2 with exceptions.
SD-12	Along Memorial Drive in Riverside. Regulations similar to Residence C-2B with exceptions. Creation of open space is encouraged.
SD-13	Along Memorial Drive in Riverside. Regulations similar to Residence C-2 with exceptions.
SD-14	Near Grant and Cowperthwaite Streets in Riverside. Regulations similar to Residence C-1 with exceptions. Preservation of neighborhood character is encouraged.
SD-15	At Massachusetts Ave and Albany Street. Regulations similar to Industry B with allowances for additional FAR and height.

Planned Unit Development (PUD) Districts

These are overlay districts providing flexibility to allow for the integration of a variety of land uses and densities into multi-site phased developments. A developer may choose to conform to the PUD controls in lieu of the base district requirements, but must receive a special permit from the Planning Board. For details see Articles 12 and 13 of the Zoning Ordinance.

PUD-KS	Kendall Square. Mixed use with office and retail, residential, and a required public park. Max FAR 3.0 with restrictions. Max height 65' with areas allowing up to 85', 120', 180', or 250', and 45' adjacent to public open space.
PUD-1	Charles Square near Harvard. Medium density mixed use with commercial, office and residential. Max FAR 3.0. Max height 60' with conditional increases to 110'.
PUD-2	East Cambridge Riverfront. Office, retail and residential. Max FAR 3.0, up to 4.0 allowed for residential uses. Max height 120'.
PUD-3 PUD-3A	Kendall Square. Mixed use with office, retail and residential. Max FAR from 2.0 to 3.0 and max height from 120' to 230', with specific conditions and allowances. Links from Kendall Square to riverfront.
PUD-4 PUD-4A PUD-4B PUD-4C	East Cambridge along First and Binney Streets. Mix of retail, office and residential. Max FAR from 2.0 to 3.0 and max height from 65' to 85', with conditions and allowances.
PUD-5	MIT at Kendall Square. Office and institutional development with required housing and ground floor retail. Total FAR 3.9. Heights allowed to 250' for non-residential and 300' for residential uses.
PUD-6	North Point. Residential with retail and office uses, community services, and public open space. Max FAR 3.0 with incentives to encourage housing and development near transit. Max height ranges from 85' to 250', some areas limited to 65'.

Alewife Overlay Districts (AOD-1,2,3,4,5,6)

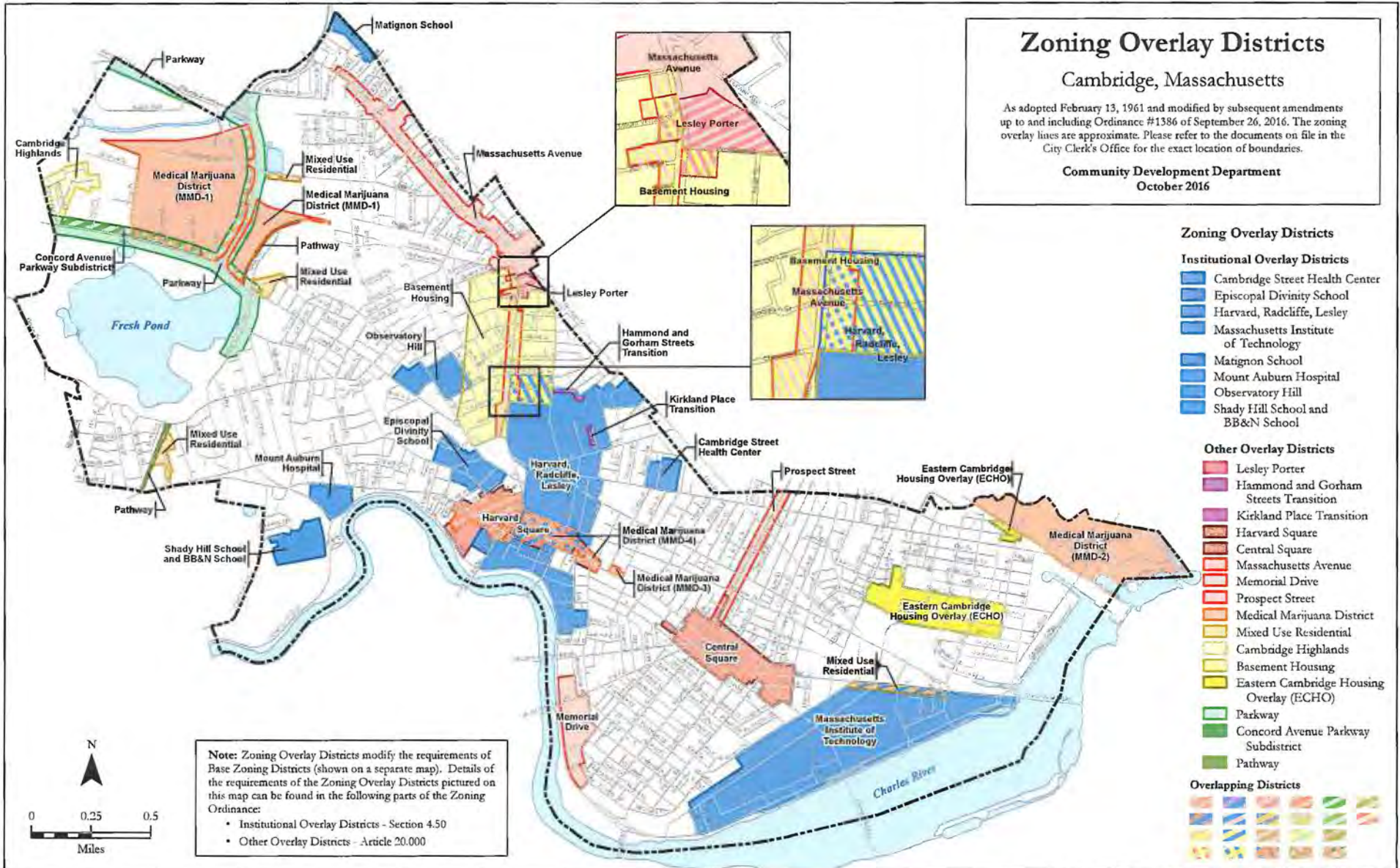
These overlays modify the dimensional provisions of the base districts, generally allowing greater height and FAR by special permit from the Planning Board, but also imposing additional requirements for open space, permeability, setbacks, etc. For details see Section 20.90 of the Zoning Ordinance.

Zoning Overlay Districts

Cambridge, Massachusetts

As adopted February 13, 1961 and modified by subsequent amendments up to and including Ordinance #1386 of September 26, 2016. The zoning overlay lines are approximate. Please refer to the documents on file in the City Clerk's Office for the exact location of boundaries.

Community Development Department
October 2016



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SECTION 10

ENTERPRISE GREEN COMMUNITIES

SUSTAINABILITY REPORTING PROGRAM COMPARISON



However, the 2015 Criteria requires performance equivalent to that required by ENERGY STAR MFHR, which in MA is a currently 15% improvement over ASHRAE 90.1-2013.

**A comparison of 2015 Enterprise Green Communities Criteria
and USGBC's LEED v4 Homes Design and Construction**
(Includes LEED BD+C Homes and Multifamily Lowrise, LEED BD+C Midrise)
Released: February 19, 2016

EXECUTIVE SUMMARY

LEED v4 Homes and the 2015 Enterprise Green Communities Criteria (2015 Criteria) are very similar programs. Similar categories are covered, although each program includes distinct mandatory requirements and optional points that do not overlap. Importantly, the 2015 Criteria and LEED v4 BD+C Homes and MFMR pathways incorporate ENERGY STAR or ASHRAE 90.1-2010 performance targets for building energy performance standards, and feature criterion/points that focus on improving indoor air quality and health by considering material selection and ventilation strategies. A project that meets the 2015 Criteria will most likely meet the Silver tier of LEED v4 Homes, assuming the verification steps of LEED v4 are followed.

INTRODUCTION: LEED v4

Leadership in Energy and Environmental Design (LEED) is a suite of rating systems developed by the United States Green Building Council (USGBC). LEED rating systems are applicable to buildings (including schools, residential, commercial) as well as neighborhoods. The LEED v4 Homes Design and Construction program focuses on whole buildings and has two pathways: Homes and Multifamily Lowrise (Homes), and Multifamily Midrise (MFMR). The LEED v4 Homes Design and Construction program is an updated framework designed around goal oriented impact categories in order to improve the residential built environment. Certification to all of the LEED rating systems is completed by the Green Building Certification Institute (GBCI).

PROGRAM ELIGIBILITY: LEED v4

The LEED v4 Homes pathway applies to single family homes and low-rise multi-family buildings (one to three stories). These projects may be new construction or rehabilitation.*

The LEED MFMR pathway applies to mid-rise multi-family buildings (four to eight plus stories). These projects may be new construction or rehabilitation.* Buildings that are greater than eight stories should contact the USGBC to determine the appropriate pathway.

Under either pathway of the LEED v4 Homes Design and Construction program, prerequisites and credits are applicable for the entire building, not just the residential spaces.

For more information on building classifications, see <http://www.usgbc.org/cert-guide/homes>

Category Comparison		Homes and Multifamily Lowrise		Multifamily Midrise	
LEED CATEGORIES	EGC SECTION ALIGNMENT	Number of Prerequisites	Optional Points (max)	Number of Prerequisites	Optional Points (max)
	1. Integrative Design	LEED does not feature an Integrative Design category, but does include Integrative Process credit (2 points)			
Location and Transportation	2. Location + Neighborhood Fabric	1	15	1	15
Sustainable Sites	3. Site Improvements	2	7	2	7
Water Efficiency	4. Water Conservation	1	12	1	12
Energy and Atmosphere	5. Energy Efficiency	4	38	3	37
Materials and Resources	6. Materials	2	10	2	9
Indoor Environmental	7. Healthy Living Environment	7	16	7	18
	8. Operations, Maintenance + Resident Engagement	LEED does not feature an Operations, Maintenance and Resident Engagement category, but does include several credits that address these topics.			
Innovation	n/a	1	6	1	6
Regional Priority	n/a	n/a	4	n/a	4

* Rehabilitation projects must be of a significant scope to meet the requirements.

POINT STRUCTURE: LEED v4

LEED v4 BD+C: Homes and MFMR include four levels of certification that a project may achieve through meeting the applicable prerequisites and optional credits for the project type. The certification tiers include "Certified" (40-49) points, "Silver" (50-59), "Gold" (60-79), and "Platinum" (80+ Points).

CERTIFICATION: LEED v4

To certify to the LEED v4 Homes Design and Construction system, project teams will:

- **Register:** Register the project in LEED Online
- **Identify:** Assemble the project team and assign roles for the submission.
- **Build:** Ensure the project is built to meet the stated goals and have the green measures verified by the Verification Team.
- **Verify:** The project verification team confirms all prerequisites and pursued credits
- **Review:** The Green Rater submits the appropriate documentation to the LEED for Homes Provider for review and then the GBCI review begins.
- **Certify:** Achieve certification and marketing support.

A Green Rater must be involved throughout the design and construction process of each LEED v4 certified home. At design, the Green Rater will be responsible for confirming all prerequisites and credits in the applicable LEED v4 BD+C: Homes or MFMR rating system have been incorporated into the plans. During construction, the Green Rater will perform onsite verification (including diagnostic testing) at key intervals. And prior to submission of the project to GBCI, the Green Rater will be responsible for confirming that all of the necessary credits have been met.

The Green Rater will conduct several inspections and provide performance testing for several credits including:

- Preliminary Ratings
- Mid-construction verification visit
- Final construction verification visit
- Supplemental Documentation

Verification fees will be negotiated between the Green Rater and the project team.

See more: <http://www.usgbc.org/guide/homes>

FEES: LEED v4

The certification fee depends upon the project rating system and size. Please consult the USGBC [Homes program fee page](#) for additional information.

SIMILARITIES AND DIFFERENCES WITH THE 2015 GREEN COMMUNITIES CRITERIA:

Similarities:

- Similar categories are covered by Enterprise Green Communities (2015 Criteria) and the LEED v4 BD+C Homes and MFMR pathways, although each program has mandatory requirements and optional points that do not overlap.
- A pre-construction green development plan is a component of both programs. In the 2015 Criteria this requirement is addressed in the mandatory Criteria 1.1a Goal Setting and 1.1b Criteria Documentation. In the LEED v4 BD+C Homes and MFMR pathways, a preliminary meeting to identify the goals of the project is documented in the optional credit: Integrative Process.
- The 2015 Criteria and LEED v4 BD+C Homes and MFMR pathways incorporate ENERGY STAR or ASHRAE 90.1-2010 performance targets to set requirements for the building energy performance standards.
- The 2015 Criteria and the LEED v4 BD+C Homes and MFMR pathways feature criterion/points that focus on improving indoor air quality and health by considering material selection and ventilation strategies.

Differences:

- The 2015 Criteria is designed with mandatory measures that address resident health (Criteria 1.2a Resident Health and Well-Being: Design for Health) and resiliency (Criteria 1.3a Resilient Communities: Design for Resilience).
- While new construction projects would follow similar combustion safety prerequisites in the 2015 Criteria and the LEED v4 BD+C Homes and MFHR pathways, the 2015 Criteria also contains allowances for Substantial and Moderate Rehab projects, including a measure that allows these projects to keep space or water heating that is not power-vented or direct vent so long as these pass a combustion safety test.
- LEED v4 BD+C Homes implements a Home Size Adjuster.
- LEED v4 BD+C Homes and MFHR require onsite verification by a Green Rater
- A project that meets the 2015 Criteria will most likely meet the “Silver” tier of LEED v4 BD+C Homes and MFMR. On the other hand, a LEED v4 BD+C Homes and MFMR may not meet all of the mandatory requirements of the 2015 Criteria.

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points		NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
1 Integrative Design												
1.1a	M				Goal Setting	N	n/a	n/a	Preliminary Rating	yes	n/a	n/a
		x	x	x	Develop an integrative design process that works best for your project team and intentions. At minimum, document: 1. A statement of the overall green development goals of the project and the expected intended outcomes from addressing those goals. 2. A summary of the integrative process that was used to select the green building strategies, systems and materials that will be incorporated into the project. 3. A description of how progress and success against these goals will be measured throughout the completion of design, construction and operation to ensure that the green features are included and correctly installed.				As early as practicable, conduct a preliminary LEED for Homes meeting, with the participation of the principal members of the verification and project teams. As part of the meeting, create an action plan that identifies the following: - the targeted LEED award level (Certified, Silver, Gold, or Platinum); - the credits that have been selected to meet the targeted award level; and - the party accountable for meeting the requirements for each selected credit.			
1.1b	M				Criteria Documentation		n/a	n/a	Integrative Process	no	2	2
		x	x	x	Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.				Option 1. Integrative Project Team (1 point) Assemble and involve a project team to meet the three criteria below: a) Include team members, in addition to the builder and verification team, whose capabilities include at least three of the following skill sets: - architecture or residential building design; - mechanical or energy engineering; - building science or performance testing; - green building or sustainable design; and - civil engineering, landscape architecture, habitat restoration, or land-use planning. b) Involve all team members referenced above in at least three of the following phases of the home design and construction process: - conceptual or schematic design; - LEED planning; - preliminary design; - energy and envelope systems analysis or design; - design development; - final design, working drawings or specifications; and - construction. c) Conduct meetings with the project team at least monthly to review project status, introduce new team members to project goals, discuss problems, formulate solutions, review responsibilities, and identify next steps. AND/OR Option 2. Design Charrette (1 point) No later than the design development phase and preferably during schematic design, conduct at least one full-day workshop (or two half-day workshops) with the project team, as defined in Option 1. Use the workshop to integrate green strategies across all aspects of the building design, drawing on the expertise of all participants.			
1.1c	S				Designing for Project Performance							
		x	x	x	Identify how the expected performance of your project compares to the actual performance of other projects in your portfolio and/or community.							
1.2a	M				Resident Health and Wellbeing: Design for Health							
		x	x	x	Identify potential resident health factors and design your project to address resident health and well-being by using the matrix provided on pages 22 and 23.							
1.2b	12				Resident Health and Wellbeing: Health Action Plan							
		x	x	x	At pre-design and continuing throughout the project life cycle, collaborate with public health professionals and community stakeholders to assess, identify, implement and monitor achievable actions to enhance health-promoting features of the project and minimize features that could present health risks. Specifically, create a Health Action Plan and integrate the selected interventions and a plan for monitoring and evaluating progress per the full criterion.							

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points			NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
1.3a	M		x	x		Resilient Communities: Design for Resilience (New Construction & Substantial Rehab only) Given your project building type, location and expected resident population, identify a project characteristic that would most likely impact your project's ability to withstand an unexpected weather event or loss of power. Select at least one criterion from the given list that would help mitigate that impact, and incorporate this within your project plans and design. Include a short narrative providing your rationale for selecting this criterion above the others.							
1.3b	15		x	x	x	Resilient Communities: Multi-Hazard Risk / Vulnerability Assessment Carry out a Vulnerabilities Assessment and implement building elements designed to enable the project to adapt to, and mitigate, climate impacts given the project location, building /construction type and resident population.							
2 Location + Neighborhood Fabric													
2.1	M		#			Sensitive Site Selection (New Construction only) Do not locate new projects, including buildings, built structures, roads or parking areas, on portions of sites that meet any of the following provisions: 1. Land within 100 feet of wetlands, including isolated wetlands or streams. Maintain or establish riparian buffer using native vegetation where possible. Bike and foot paths are allowed if at least 25 feet from the wetlands boundary. 2. Land on slope greater than 15%. 3. Land with prime soils, unique soils or soils of state significance per USDA designations. 4. Public parkland. 5. Land that is specifically identified as an existing habitat for any species on federal or state threatened or endangered lists. 6. Land that is within the Special Flood Hazard Areas (SFHA) as identified by FEMA on the Flood Insurance Rate Map.	LT	both	both	Floodplain Avoidance Do not develop buildings on land that lies within a flood hazard area shown on a legally adopted flood hazard map (such as the Federal Emergency Management Agency (FEMA) 100 year flood plain) or otherwise legally designated by the local jurisdiction or the state, unless the building is designed and built in accordance with the flood provisions of applicable building code, the local floodplain management regulations, or, at a minimum, the National Flood Insurance Program Requirements. Projects outside of the United States may use a local equivalent program to NFIP if the program is equal to or more stringent. Previously developed buildings and landscapes are exempt from the above requirements.	yes	n/a	n/a
										Site Selection Path 2. Avoidance of Sensitive Land (3 points) Do not develop new buildings, landscapes, roads or parking areas on portions of sites that meet any of the following criteria: - Prime farmland. The development footprint does not consist of prime farmland, unique farmland, or farmland of statewide or local importance as defined by the U.S. Code of Federal Regulations, Title 7, Volume 8, Parts 400 to 699, Section 657.5 or local equivalent for projects outside the United States. - Parkland. Land that prior to acquisition for the project was public parkland, unless land of equal or greater value as parkland is accepted in trade by the public landowner (park authority projects are exempt). - Floodplain. Land that lies within a flood hazard area shown on a legally adopted flood hazard map (such as the Federal Emergency Management Agency (FEMA) 100 year flood plain) or otherwise legally designated by the local jurisdiction of the state.; - Habitat. Land specifically identified as habitat for the following: species listed as threatened or endangered under the U.S. Endangered Species Act or the state's endangered species act, or species or ecological communities classified by NatureServe as GH (possibly extinct), G1 (critically imperiled), or G2 (imperiled), or - species listed as threatened or endangered species under local equivalent standards (in areas outside of the United States) that are not covered by NatureServe data. - Wetlands. Land that is either (1) within 50 feet (15 meters) of any wetlands as defined by the U.S. Code of Federal Regulations 40 CFR, Parts 230-233 and Part 22, and isolated wetlands or areas of special concern identified by state or local rule, or (2) within the setback distances from wetlands prescribed local, state, or national regulations, whichever is more stringent; or - Water bodies. Land that is within 100 feet (30 meters) of a water	no	3 per	3 per

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes	points	MidRise	points
										x	8	x	8
2.2	M			Connections to Existing Development and Infrastructure (New Construction only, except for projects eligible for USDA funding) Locate the project on a site with access to existing roads, water, sewers and other infrastructure within or contiguous to (having at least 25% of the perimeter bordering) existing development. Connect the project to the pedestrian grid.	LT		x	Option 2. Infill Development (2 points) Select a lot such that at least 75% of the land within 1/2 mile (800 meters) from the project boundary is previously developed land. Water bodies and publicly owned parks are excluded from the calculation. For projects within city limits or towns with populations of less than 20,000, select a lot where at least 75% of the land immediately adjacent to the project boundary is previously developed land. A bordering street itself does not constitute previously developed land; instead, it is the status of the property on the other side of the segment of the street that matters. Any fraction of the boundary that borders a water body is excluded from the calculation.	no	x	2 pts.	x	2 pts.
2.3	M			Compact Development (New Construction only) At a minimum, build to the residential density (dwelling units / acre) of the census block group in which your project is located.	LT		x	Compact Development Construct or renovate a building that meets the dwelling unit per acre of buildable land area density defined in Table 1. <i>Table 1. Points for housing density</i>	no	x	2	x	2
2.4	5 or 7			Compact Development Exceed the residential density (dwelling units / acre) of the census block group in which your project is located. Exceed by 2x for [5 points]; exceed by 3x for [7 points].									
2.5	M			Proximity to Services (New Construction only) Locate the project within a 0.5-mile walk distance of at least four, or a 1-mile walk distance of at least seven, of the listed services. For projects that qualify as Rural / Tribal / Small Town, locate the project within 5 miles of at least four of the listed services.	LT		x	Community Resources Construct or renovate a project such that the building's main entrance is within a 1/2-mile (800 meters) walking distance from the building entrance of the following number of uses, as listed below. <i>Table 1. Points for proximity to uses.</i> The following restrictions apply: - A single establishment counts as only one type of use (e.g., a retail store may be counted only once even if it sells products in several categories). - No more than half of the minimum number of uses can be in a single building (e.g., a shopping mall). - No more than two establishments in each use type may be counted (e.g., if five restaurants are within the required distance, only two may be counted). - The uses must represent at least two categories, exclusive of the building's primary use. - Uses outside the project boundary must be in place upon occupation of the project.	no	x	2	x	2
2.6	M			Preservation of and Access to Open Space in Rural or Tribal Areas (only for projects eligible for USDA funding) Set aside a minimum of 10% (minimum of 0.25 acre) of the total project acreage as non-paved open space for use by all residents OR locate the project within a 0.25-mile walk distance of dedicated public non-paved open space that is a minimum of 0.75 acres.									
2.7	6 max			Preservation of and Access to Open Space Set aside a percentage of non-paved open space for use by all residents. 20% [2 points]; 30% [4 points]; 40% + written statement of preservation /conservation policy for set-aside land [6 points].	LT		x	Site Selection Option 3. Open Space (1 point) Select a location within 1/2 mile (800 meters) of a publicly accessible or community-based open space that is at least 3/4 acre (0.3 hectare), or create publicly available open space on the project site. The open space requirement can be met with either one large open space or two smaller spaces totaling 3/4 acre (0.3 hectare).	no	x	6	x	6
2.8	8 or 10			Access to Public Transportation	LT		x	Access to Transit	no	x	2	x	2

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	<p>Locate projects within a 0.5-mile walk distance of transit services combined (bus, rail and /or ferry), constituting at least 60 or more transit rides per weekday, with some type of weekend ride option. [8 points]</p> <p>For projects that qualify as Rural / Tribal / Small Town, locate the project within a 5-mile distance of at least one of the following transit options: 1) vehicle share program; 2) dial-a-ride program; 3) employer vanpool; 4) park-and-ride; or 5) public-private regional transportation. [8 points]</p> <p>For an additional 2 points: Locate the project along dedicated bike trails or lanes that lead to transit services or stations (bus, rail and ferry) within 3 miles.</p>				<p>Locate the project within a 1/4-mile (400 meter) walking distance of bus or streetcar stops, or within a 1/2-mile (800 meter) walking distance of bus rapid transit stops, light or heavy rail stations, or ferry terminals.</p> <p>The transit service at those stops in aggregate must meet the minimums listed in Table 1 or Table 2.</p> <p>- A bus or streetcar stop must serve a route that extends in opposite directions; the walking distance can be the average distance to the two stops.</p> <p>- A single stop that serves as the terminal for a transit route can be counted.</p> <p>- Trips in opposite directions are counted separately.</p> <p>- Only one stop per route in a given direction can be counted.</p> <p>Table 1. Minimum daily transit service for projects with multiple transit types (bus, streetcar, rail, or ferry)</p>			
2.9	2-8	x	x	x	Improving Connectivity to the Community		LT	<p>Site Selection</p> <p>Option 5. Bicycle Network and Storage (1 point)</p> <p>Meet both of the following requirements:</p> <p>BICYCLE NETWORK</p> <p>Design or locate the project such that a primary entry and/or bicycle storage is within a 200-yard (180 meters) walking distance or bicycling distance from a bicycle network that connects to at least one of the following. All choices must be within 3 miles (4 800 meters) bicycling distance of the project boundary.</p> <p>a. At least 10 uses (see LT Community Resources)</p> <p>b. A school or employment center</p> <p>c. Bus rapid transit stops, light or heavy rail stations, commuter rail stations and/or ferry terminals</p> <p>If the network borders the project boundary, a safe, all-weather route must exist between the bicycle network and the project's bicycle storage and/or main entrance.</p> <p>Planned bicycle trails or lanes may be counted if they are fully funded at the certificate of occupancy date and are scheduled for completion within one year of that date.</p> <p>AND</p> <p>BICYCLE STORAGE</p> <p>Provide short-term bicycle storage capacity equal to 2.5% or more of all building occupants but no fewer than four storage spaces per building. Short-term bicycle storage must be within 100 feet (30 meters) of a primary entry.</p> <p>Provide long-term bicycle storage capacity equal to 30% of all building occupants, but no less than one storage space per residential unit. Long-term bicycle storage must be within 100 feet (30 meters) of a primary entry.</p> <p>Bicycle storage capacity may not be double counted; storage that is fully allocated to the occupants of non-project facilities cannot also serve project occupants.</p> <p>A single family dwelling unit with enclosed garage meets the bicycle</p>	no	2	1
2.10	5 max.				Passive Solar Heating / Cooling		EA	<p>Windows</p>	no	2	

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	Design and build with passive solar design, orientation and shading that meet specified guidelines.				<p>Homes: Design and install windows, skylights, and glass doors whose ratings from the National Fenestration Rating Council exceed the requirements in the ENERGY STAR for Homes, version 3, prescriptive pathway, as shown in Tables 1-3. Use the average window ratings, average skylight ratings, and average exterior door ratings. Determine the window-to-floor-area (WFA) ratio by calculating the total window area in the above-grade conditioned floor area. All skylight window areas count toward the WFA ratio. For decorative glass, the project team may exclude up to 0.75% of the WFA ratio from the calculations. If the WFA ratio is 15% or more, the following additional requirements apply:</p> <p>In climate zones 4-8, homes with a WFA ratio of 15% or more must meet a more stringent Ufactor requirement: U-factor = (0.15 / WFA) * (U-factor from Table 1)</p> <p>In climate zones 1-3, homes with a WFA ratio of 15% or more must meet a more stringent solar heat gain coefficient (SHGC) requirement: SHGC = (0.15 / WFA) * (SHGC from Table 1)</p> <p>Project teams that achieve EA Credit Building Orientation for Solar Design are exempt from the requirements for window SHGC. (see Table 1. Points for exceeding baseline window ratings. Table 2. Points for exceeding baseline skylight ratings. Table 3. Points for exceeding baseline door ratings)</p>			
					EA			<p>Building Orientation for Passive Solar</p> <p>Requirements: HOMES Meet all of the following requirements:</p> <ul style="list-style-type: none"> - The south-facing glazing area is at least 50% greater than the sum of the glazing area on the east- and west-facing walls. - The east-west axis of the building is within 15 degrees of due east-west. - At least 90% of the south-facing glazing is completely shaded (by awnings, overhangs, plantings) at solar noon on the summer solstice and unshaded at noon on the winter solstice. <p>In areas south of 25 degrees of latitude or where topography significantly impacts insolation, orientation may be adjusted to meet local conditions provided the team provides documentation to demonstrate that its building orientation decision is based on solar and meteorological data for the site.</p>	no	3	
2.11		x	x	x				<p>Brownfield Site or Adaptive Reuse Building</p> <p>Rehabilitate an existing structure that was not previously used as housing or locate the project on a brownfield site.</p>			
2.12		x	x	x				<p>Access to Fresh, Local Foods</p> <p>Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens, community-supported agriculture, or proximity to farmers markets.</p>			
2.13		x	x	x	LT			<p>LEED for Neighborhood Development Certification</p> <p>Locate building(s) in a Stage 2 Pre-Certified or Stage 3 Certified Neighborhood Development.</p>	no	15	15
2.14		x	x	x				<p>Local Economic Development & Community Wealth Creation</p> <p>Demonstrate that local preference for construction employment and subcontractor hiring was part of your bidding process [2 points] OR demonstrate that you achieved at least 20% local employment [3 points] OR provide physical space for small business, nonprofits, and/or skills and workforce education [3 points].</p>			
3 Site Improvements											
3.1	M	x	x	x				<p>Environmental Remediation</p> <p>Conduct an environmental site assessment to determine whether any hazardous materials are present on-site; mitigate any found.</p>			
3.2	M				SS	n/a	n/a	<p>Erosion and Sedimentation Control (Except for infill sites with buildable area smaller than one acre)</p> <p>Construction Activity Pollution Prevention</p>	yes	n/a	n/a

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

2015 Enterprise Green Communities Criteria				LEED v4 Homes and MidRise							
Mandatory/Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	Implement EPA's Best Management Practices for Construction Site Stormwater Runoff Control, or local requirements, whichever is more stringent.				Stockpile and protect disturbed topsoil from erosion (for reuse). Control the path and velocity of runoff with silt fencing or comparable measures. Protect on-site storm sewer inlets, streams, and lakes with straw bales, silt fencing, silt sacks, rock filters, or comparable measures. Provide swales to divert surface water from hillsides. Use tiers, erosion blankets, compost blankets, filter socks, berms, or comparable measures to stabilize soils in any area with a slope of 15% (6.6:1) or more that is disturbed during construction. Prevent air pollution from dust and particulate matter. Construction sites larger than 1 acre must conform to the erosion and sedimentation requirements of the 2012 U.S. Environmental Protection Agency Construction General Permit or local equivalent, whichever are more stringent.			
3.3	M			Low Impact Development (Only for projects located on greenfields)							
		x	x	x	Projects located on greenfields must meet the list of low-impact development criteria.						
3.4	M				Landscaping	SS	n/a	n/a	yes	n/a	n/a
		x	x	x	If providing plantings, all should be native or adapted to the region, appropriate to the site's soil and microclimate, and none of the new plants is an invasive species. Reseed or xeriscape all disturbed areas.						
						WE			no		
					Outdoor Water Use						
					Reduce the landscape area planted to turf grass by landscaping with plants that are native or adapted to the region. Points are awarded according to Table 1.						
					Table 1. Points for reducing turf grass and increasing native plantings, as percentage of total landscape area.						
3.5a	M				Efficient Irrigation and Water Reuse (if irrigation is used)						
		x	x	x	If irrigation is used, install an efficient irrigation or water reuse system per the guidelines.						
3.5b	4 or 5				Efficient Irrigation and Water Reuse						
		x	x	x	Install an efficient irrigation system equipped with a WaterSense-labeled weather-based irrigation controller (WBIC) OR at least 50% of the site's irrigation should be satisfied by reusing water.						
3.6	4 or 8				Surface Stormwater Management	SS	n/a	n/a	no		3

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	Retain, infiltrate and /or harvest the first 1.0 inch of rain that falls [4 points] OR as calculated for a 24-hour period of a one-year (1) storm event, so that no stormwater is discharged to drains / inlets. [8 points] For both options, permanently label all storm drains and inlets.				<p>Case 1. Low Impact Development</p> <p>Use low-impact development (LID) techniques to minimize the amount of stormwater that leaves the site. Examples of acceptable techniques include the following:</p> <ul style="list-style-type: none"> - planting areas with native or adapted plant material (e.g. trees shrubs); - installing a vegetated roof; - using permeable paving, consisting of porous above-ground materials (e.g., open pavers, engineered products), a base layer designed to drain water away from the home, and (often) a 6-inch-deep (150 millimeters) subbase; and - installing permanent infiltration or collection features (e.g., vegetated swale, rain garden, rainwater cistern) that can handle 100% of the runoff from a two-year, 24-hour storm. Single-family home projects may use Table 1 or Table 2 to determine points; multifamily projects must use Table 1. To determine compliance for single-family and multifamily homes, calculate the percentage of the lot area, including the area under roof, that is permeable or can direct water to an on-site catchment or infiltration feature. <p><i>Table 1. Points for permeable area, as percentage of total lot area.</i></p> <p><i>As an alternative approach to determining compliance for single-family homes only, credit is given for reducing the total impermeable area compared to the ENERGY STAR reference home, as listed in Table 2. Table 2. Conditioned floor area of reference home, by number of bedrooms. Table 3. Points for reducing total impermeable area</i></p>			
3.7	1			<p>Reducing Heat Island Effect: Paving</p> <p>Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.</p>	ES	1a	1/a	<p>Heat Island Reduction</p> <p>AND/OR</p> <p>Option 2. Nonabsorptive Materials (1-2 points)</p> <p>Install light-colored, high-albedo materials or vegetation-covered hardscapes. Acceptable strategies include the following:</p> <ul style="list-style-type: none"> - using ENERGY STAR qualified roof products in appropriately sloped applications (or performance equivalent for projects outside the U.S.); - installing vegetated roofing; - using open pavers (counting only the vegetation, not the pavers) or engineered grass pavers; and - using paving materials with a solar reflectance (SR) of at least 0.28. If three-year aged value is not available, use materials with an initial SR of at least 0.33 at installation. 		2	2
4 Water Conservation											
4.1	1			Water-Conserving Fixtures	WE		x	Indoor Water Use	no	5	5

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	<p>Install water-conserving fixtures in all units and any common facilities with the following specifications. Toilets: WaterSense-labeled and 1.28 gpf; Urinals: WaterSense-labeled and 0.5 gpf; Showerheads: WaterSense-labeled and 2.0 gpm; Kitchen faucets: 2.0 gpm; Lav faucets: WaterSense-labeled and 1.5 gpm</p> <p>AND for all single-family homes and all dwelling units in buildings three stories or fewer, the static service pressure must not exceed 60 psi.</p>				<p>Case 1. Single Family Projects that install fixtures consuming more than 2.5 gallons per minute (9.5 liters per minute) per shower compartment must use WE Credit Total Water Use. Each lavatory faucet or faucet aerator must be WaterSense labeled. The average rated flow volume across all lavatory faucets must not exceed 1.5 gallons per minute (5.6 liters per minute) for 1 point or 1.0 gallons per minute (3.7 liters per minute) for 2 points. Each showerhead fixture and fitting must be WaterSense labeled. The average rated flow volume per shower compartment must not exceed 1.75 gallons per minute (6.6 liters per minute) for 1 point or 1.5 gallons per minute (5.6 liters per minute) for 2 points. Each toilet fixture and fitting must be WaterSense labeled. The average rated flush volume across all toilets must not exceed 1.1 gallons (4.1 liters) per flush (1 point). Each clothes washer must be ENERGY STAR qualified or performance equivalent for projects outside the U.S. (1 point) The water pressure in the house must not exceed 60 pounds per square inch (414 kPa), with no detectable water leaks.</p> <p>For projects outside the United States, a local equivalent to WaterSense may be used.</p> <p>Case 2. Multifamily and Midrise Meet the above requirements for all in-unit spaces and non-unit (residential-associated and nonresidential) spaces. Multifamily and midrise projects are exempt from the water pressure testing criterion. No additional credit is awarded if the fixtures and fittings in nonunit spaces are more efficient than those of in-unit spaces.</p>			
4.2	5 max			<p>Advanced Water Conservation Reduce water consumption either by installing water-conserving fixtures in all units and all common space bathrooms with the following specifications: Toilets: WaterSense-labeled and 1.1 gpf [1 point]; Showerheads: WaterSense-labeled and 1.5 gpm [1 point]; Kitchen faucets: 1.5 gpm and lav faucets: WaterSense-labeled and 1.0 gpm [1 point]</p> <p>OR Reduce total indoor water consumption by at least 30% compared to the baseline indoor water consumption chart, through a combination of your choosing. [6 points maximum]</p>	WE	4		Total Water Use	no	12	12
								<p>Requirements Reduce total indoor and outdoor water consumption by at least 10% over standard practices. For indoor water savings, use the Water Reduction Calculator to determine the average flush or flow rate for each fixture type and the estimated daily usage. The baselines for indoor water consumption are shown in Table 1.</p> <p>The water pressure in single-family buildings must not exceed 60 psi (415 kPa), with no detectable water leaks. Any installed water softeners must be demand initiated. For outdoor water savings, use the EPA WaterSense Water Budget Tool to calculate the baseline landscape water consumption and the design landscape water consumption. Implement the following measures to further reduce landscape water consumption. Add the savings associated with each of the following strategies to the reduction from the landscape water requirement, as calculated in the Water Budget Tool:</p> <ul style="list-style-type: none"> - Install smart scheduling technology. This strategy counts for a maximum reduction of 30% provided all landscape water use is controlled by a soil moisture sensor control system or a weather-based irrigation control system. - Use captured rainwater. - Use reclaimed water. - Use water treated on site or conveyed by a public agency specifically for nonpotable uses (water from naturally occurring surface water bodies, such as streams and rivers, and groundwater, such as well water, does not count). Points are awarded according to Table 2. 		3/10/10	3/10/10

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
4.3	4				WE	n/a	n/a	Water Metering Case 1. Single Family Install a whole-house water meter. Single-family attached homes may share a whole-building water meter if landscaping is commonly managed and any units that will not achieve LEED certification are separately metered. Encourage homeowners or tenants to share water usage data with USGBC via a USGBC-approved thirdparty. Homes that use only well water and are not connected to a municipal water system are exempt from this prerequisite. Case 2. Multifamily Install a water meter or submeter for each unit or the entire building. Encourage homeowners or tenants to share water usage data with USGBC via a USGBC-approved thirdparty by describing the benefits of participation in the Homeowner Education Manual.	yes	n/a	n/a
		x	x	x							
4.3	4				EA		x	Efficiency Domestic Hot Water Equipment Install an ENERGY STAR-qualified water heater (1 point), or install a solar water heater that, in combination with an ENERGY STAR water heater, meets at least 40% (2 points) or 60% (3 points) of the annual domestic hot water (DHW) load (Table 1). <i>Table 1. Points for high-efficiency water heater</i>	no	1	
		x	x	x							
					EA	both	both	Efficient Hot Water Distribution System HOMES, MIDRISE Option 1. Efficient Hot Water Distribution (2 points) Path 2. Maximum Allowable Pipe Volume Do not exceed a maximum volume of hot or tempered water of 64 ounces (1.89 L) from a water heater or boiler with no circulation loop or heat traced pipe or in multifamily buildings a central circulation loop or heat traced pipe to the fixture, or 24 ounces (0.71 L) for hot water from a circulation loop pipe or an heattraced pipe serving a single unit or house to the fixture. Pipe volume is the sum of the internal volumes of pipe, fittings, valves, meters, and manifolds between the source of hot water and the termination of the fixture supply pipe. To determine the volume, refer to Table 2, which lists the volumes for specific types of tubing. Branch volume requirements do not apply to cold water demand loads (e.g., toilets), tubs without showerheads, or stovetop pot-fillers.	no	2	2
					EA	both	both	Efficient Hot Water Distribution System	no	5	5

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points		NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
4.5	6 max				Water Reuse Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's total water needs: 10% reuse [3 points]; 20% reuse [4 points]; 30% reuse [5 points]; 40% reuse [6 points]							
4.6	3				Access to Potable Water during Emergencies Provide residents with access to potable water in the event of an emergency that disrupts normal access to potable water, including disruptions related to power outages that prevent pumping water to upper floors of multifamily buildings or pumping of water from on-site wells, per one of the three options.							
5 Energy Efficiency												
5.1a	M				Building Performance Standard - New Construction: single family and low-rise multifamily Certify each dwelling unit in the project through the ENERGY STAR New Homes program.	MR	n/a	n/a	Durability Management Meet the requirements of the ENERGY STAR for Homes, version 3, water management system builder checklist (with the exceptions for existing homes listed in EA Prerequisite Minimum Energy Performance). Midrise projects are exempt from this requirement. Install all the applicable indoor moisture control measures listed in Table 1, Table 1. Required interior moisture control measures for homes.	yes	n/a	n/a
						MR	n/a	n/a	Durability Management Verification Have the verification team inspect and verify each measure listed in the ENERGY STAR for Homes, version 3, water management system builder checklist.	no	1	1
						EA	both	both	HVAC Start-Up Credentialing	no	1	

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/
Optional points NC SR MR Title/Description

Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
			Have all heating, cooling, and ventilation systems commissioned by a technician with North American Technician Excellence certification, HVAC contractor credentialed by an EPA-recognized HVAC Quality Installation Training and Oversight Organization (H-QUITO) (or equivalent as defined by USGBC). The technician must complete the ENERGY STAR for Homes, version 3, HVAC system quality installation contractor checklist, or equivalent as defined by USGBC.			
EA	both	both	<p>Minimum Energy Performance Meet all of the following requirements:</p> <p>1. Meet the requirements of ENERGY STAR for Homes, version 3 Complete the thermal enclosure system rater checklist, the HVAC system quality installation rater and contractor checklists, and the water management system builder checklist. Certified Passive House projects automatically meet the thermal enclosure system rater checklist requirement.</p> <p>Achieve a HERS index rating at or below the HERS index target (or USGBC-approved equivalent for projects outside the U.S.) or meet the requirements of the ENERGY STAR for Homes version 3 Prescriptive Pathway, which includes meeting or exceeding all components of the ENERGY STAR Reference Design.</p> <p>2. At least one of the following appliances must be ENERGY STAR qualified (or performance equivalent for projects outside the U.S.) and installed in each dwelling unit:</p> <ul style="list-style-type: none"> - refrigerator; - dishwasher; or - clothes washer. <p>3. All duct runs must be fully ducted (i.e., building cavities may not be used as ducts). Existing portions of an existing building are given the following allowances: Thermal Enclosure System Rater Checklist 2.1. Slab insulation is strongly encouraged but not required to meet or exceed 2009 IECC levels.</p> <p>4.1. Attic insulation at the intersection of existing roof and existing exterior walls does not have to meet R-value requirements.</p> <p>4.4.5e. Advanced framing is not required on existing framed walls.</p> <p>5.2.1. Existing sill plates on top of concrete are not required to be placed on a foam gasket.</p> <p>Water-Managed Site and Foundation</p> <p>1.3. A capillary break under an existing slab is not required unless there are visible signs of moisture damage on the slab floor.</p>	yes	n/a	n/a
EA		x	<p>Home Size Earn 1 point for every 4% decrease in conditioned floor area compared with the ENERGY STAR for Homes, version 3, reference home (Table 1). Buildings that are larger than the reference home lose 1 point for every 4% increase in conditioned floor area. Projects cannot exceed the maximum number of points in the EA section.</p> <p>Table 1. Conditioned floor area of reference home, by number of bedrooms</p>	yes	n/a	
EA		x	<p>Air Infiltration Case 1. Single Family Meet the air leakage requirements shown in Table 1 or Table 2. The rate of air leakage to outside must be tested and verified by a qualified energy rater.</p> <p>Table 1. Points for reducing air leakage, in ACH50, Table 2a. Points for reducing air leakage, in cfm50 per sf envelope area, Table 2b. Points for reducing air leakage, in cmm50 per 100 square meter envelope area</p>	yes	2	
EA		x	<p>Envelope Insulation</p>	no	2	

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/
Optional points NC SR MR Title/Description

Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
EA	*		<p>Select insulation whose R-value exceeds the requirements listed in the 2012 International Energy Conservation Code (IECC), Chapter 4, or local code, whichever is more stringent. Do not include thermal mass or infiltration effects in the R-value calculation. Points are awarded according to Table 1.</p> <p>Table 1. Points for exceeding code requirements for R-value</p> <p>Space Heating & Cooling Equipment</p> <p>Design and install HVAC equipment that is more efficient than the equipment required by the ENERGY STAR for Homes, version 3, prescriptive pathway. Points are awarded according to Table 1. Any piping designed as part of a heat pump system to carry water that is well above (or below) the thermostatic temperature settings in the home must have R-4 or better insulation. Refrigerant piping must be insulated to R-6 or better on the air-conditioning mode suction line or the heat-pump mode discharge line.</p> <p>Table 1. Points for HVAC equipment that exceeds Energy Star requirements</p>	no	4	
EA	*		<p>Heating & Cooling Distribution Systems</p> <p>Case 1. Forced-Air System</p> <p>Option 1. Ductwork in Conditioned Space (3 points)</p> <p>Duct leakage testing is waived if the following conditions are met:</p> <ul style="list-style-type: none"> - The air-handler unit and all ductwork are located entirely within conditioned spaces. - The envelope is airtight; 2 points are earned in EA Credit: Air Infiltration. <p>Ductless systems with air circulation blowers qualify. This case is not available for multifamily projects whose ductwork runs through spaces between units: interstitial space is considered outside the thermal envelope of the unit.</p> <p>OR</p> <p>Option 2. Ductwork in Unconditioned Space (2 points)</p> <p>Large Homes or Multifamily Units</p> <p>For homes or multifamily units of 1,200 square feet (110 square meters) or more, limit the rate of duct air leakage to outside the conditioned envelope. For each installed system, the tested duct leakage rate must not exceed 3.0 cfm at 25 Pascals per 100 square feet (0.9 cmm at 25 Pascals per 100 square meters) of conditioned floor area, verified by the qualified energy rater.</p> <p>Small Homes or Multifamily Units</p> <p>For homes or multifamily units smaller than 1,200 square feet (110 square meters), limit the rate of duct air leakage to outside the conditioned envelope. For each installed system, the tested duct leakage rate must not exceed 4.0 cfm at 25 Pascals per 100 square feet (1.2 cmm at 25 Pascals per 100 square meters) of conditioned floor area, verified by the qualified energy rater.</p> <p>Case 2. Hydronic System (2-3 points)</p> <p>Keep the system (including boiler and distribution pipes) entirely within the conditioned envelope (2 points). For an additional point, install an outdoor reset control that modulates distribution water temperature based on the outdoor air temperature (1 point).</p>	no	3	
MR	**	n/a	Material-Efficient Framing	no	2	

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points		NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
									Implement any of the following advanced framing techniques for at least 80% of each component. <ul style="list-style-type: none"> - Implement one of the following optimum value engineering measures in exterior walls and common walls (1 point): - Install no more than one horizontal 2x top plate on walls by aligning studs with joists and roof rafters. - Place window and door headers in the rim joist. - Install raised (directly beneath the top plate), single-ply headers not more than 2 inches nominal thickness in a 2x4 wall or 4 inches nominal thickness in a 2x6 wall, in accordance with International Residential Code 2012. - Install structural insulated panels (SIPs) for walls. - Implement any two of the following for all interior and exterior walls (0.5 point): - Size headers for actual loads. - Use ladder blocking or drywall clips. - Use two-stud corners or California corners. - Space interior wall studs greater than 16 inches o.c. (400 mm o.c.) (0.5 point). - Space floor joists greater than 16 inches o.c. (400 mm o.c.) or SIPs (0.5 point). - Space roof rafters greater than 16 inches o.c. (400 mm o.c.) or SIPs (0.5 point). For renovation projects, existing components may be excluded from the calculation. Modular, panelized, or other prefabricated wall or structural systems must comply with the requirements.			
						EQ	n/a	n/a	Air Filtration Install air filters with a minimum efficiency reporting value (MERV) of 8 or higher on all recirculating space conditioning systems, per ASHRAE 62.2-2010. Design ductwork and specify the central blower to account for the pressure drop across the filter. Air filter housings must be airtight to prevent bypass or leakage. Nonducted systems are exempt from the minimum MERV 8 requirements but must have an internal air filter in the air-handling unit. Install air filters rated MERV 6 or higher for mechanically supplied outdoor air for systems with 10 feet (3 meters) of ductwork or more, per ASHRAE 62.2-2010, Section 6.7. Projects may use equivalent filtration media class of F5 or higher for MERV 8 and G4 or higher for MERV 6, as defined by CEN standard EN779-2002. Projects that earn the EPA Indoor airPLUS label automatically meet the requirements of this prerequisite.	yes	n/a	
5.1b	M				Building Performance Standard: New Construction: mid-rise and high-rise multifamily	EA	both	both	Minimum Energy Performance	yes	n/a	n/a

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
x				<p>Certify the project through the ENERGY STAR Multifamily High-Rise program (MFHR) OR follow the combined MFHR and LEED Commissioning Path outlined in the criterion.m (In MA, the current ENERGY STAR Multifamily High-Rise performance requirement is a 15% improvement over the ASHRAE 90.1-2013 Appendix G baseline.)</p>	EA	x		<p>MIDRISE Meet both the whole-building energy simulation and commissioning requirements: Whole-Building Energy Simulation Demonstrate a 5% improvement over the baseline building performance rating. Calculate the baseline according to the building performance rating method of USGBC's residential midrise simulation guidelines, which is based on ANSI/ASHRAE/ESNA Standard 90.1-2010, Appendix G (with errata), or USGBC-approved equivalent standard for projects outside the United States, using a computer simulation model for the whole-building project.</p> <p>Comply with the mandatory provisions of ANSI/ASHRAE/ESNA Standard 90.1-2010 (with errata).</p> <p>Comply with USGBC's residential midrise simulation guidelines.</p> <p>Include all energy consumption and energy costs associated with the building project. Compare the design case with a baseline building that complies with Standard 90.1-2010, Appendix G (with errata but without addenda). AND</p> <p>Commissioning Option 1. Commissioning using ENERGY STAR Protocols. Meet the ENERGY STAR Qualified Multifamily High Rise Buildings Testing and Verification (T&V) Protocols. OR Option 2. Commissioning using Prescriptive Path. Meet all of the following: 1. Reduced Heating and Cooling Distribution System Losses for In-unit HVAC Limit the duct air leakage rate, testing for leakage to outside the unit or conducting a total duct leakage test. The tested</p>			
					EA			<p>Air Infiltration</p> <p>Case 2. Multifamily Meet the air leakage requirements shown in Table 1 or Table 2. The rate of air leakage to outside must be tested and verified by a qualified energy rater. Meet the requirements for leakage to outside the conditioned envelope for each dwelling unit, unless the whole building can be entirely and sufficiently depressurized by a blower door(s). Table 1. Points for reducing air leakage, in ACH50, Table 2a. Points for reducing air leakage, in cfm50 per sf envelope area, Table 2b. Points for reducing air leakage, in cmm50 per 100 square meter envelope area</p>	no	x	2
5.1c	M			<p>Building Performance Standard: Substantial and Moderate Rehab: single family and low-rise multifamily</p> <p>For each dwelling unit, achieve a HERS Index score of 85 or less.</p>							
5.1d	M			<p>Building Performance Standard: Substantial and Moderate Rehab: mid-rise and high-rise multifamily</p> <p>Demonstrate that the energy performance of the completed building will be equivalent to ASHRAE 90.1-2010 using an energy model created by a qualified energy services provider per Appendix G.</p>							
5.2a	5-12			Additional Reductions in Energy Use	EA		x	Annual Energy Use	no	29	30

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	Design and construct a building that is projected to be at least 5% more efficient than what is required of the project by Criteria 5.1a-d. (Projects receiving points in Criterion 5.2a may not receive points per Criterion 5.2b)				<p>Homes Option 2. HERS Index with Home Size Adjuster</p> <p>Design and construct a home whose modeled annual energy usage achieves a HERS index rating of 70 or better (or USGBC-approved equivalent for projects outside the U.S.). Points are awarded according to Table 3.</p> <p>AND</p> <p>Earn 1 point for every 4% decrease in conditioned floor area compared with the ENERGY STAR for Homes, version 3, reference home (Table 4). Buildings that are larger than the reference home lose 1 point for every 4% increase in conditioned floor area. Projects cannot exceed the maximum number of points in the EA section.</p> <p>Midrise</p> <p>Follow the criteria in EA Prerequisite Performance for Energy Star Homes to demonstrate a percentage improvement in the proposed building's performance compared with the baseline building performance of ASHRAE 90.1-2010, or USGBC-approved equivalent standard for projects outside the United States. Points are awarded according to Table 5, Table 5. Points for reducing energy usage below ASHRAE baseline.</p> <p>AND</p> <p>Earn 1 point for every 4% decrease in conditioned floor area compared with the ENERGY STAR for Homes, version 3, reference home (Table 5). Buildings that are larger than the reference home lose 1 point for every 4% increase in conditioned floor area. Projects cannot exceed the maximum number of points in the EA section.</p>			
5.2b	12			<p>Advanced Certification: Nearing Net Zero</p> <p>Certify the project in a program that requires advanced levels of building envelope performance such as PHIUS, Living Building Challenge and/or DOE Zero Energy Ready Home. (Projects receiving points in Criterion 5.2b may not receive points per Criterion 5.2a)</p>							
5.3	M			<p>Sizing of Heating and Cooling Equipment</p> <p>Size and select heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals J and S or ASHRAE handbooks.</p>							
5.4	M			<p>ENERGY STAR Appliances</p> <p>If providing appliances, install ENERGY STAR clothes washers, dishwashers and refrigerators. If appliances will not be installed or replaced at this time, specify that, at the time of installation or replacement, ENERGY STAR models must be used.</p>	EA			<p>High Efficiency Appliances</p> <p>Install appliances from the list below. To receive credit for one type (e.g., refrigerator), every appliance of that type must meet the requirement.</p> <ul style="list-style-type: none"> - ENERGY STAR-qualified refrigerator(s) (1 point); - ENERGY STAR-qualified ceiling fans (at least one in the living or family room and one per bedroom) (0.5 point); - ENERGY STAR-qualified dishwasher(s) (0.5 point). <p>Projects outside the U.S. may use a performance equivalent to ENERGY STAR.</p>	no	2	
5.5	M			<p>Lighting</p>	EA			<p>Lighting</p>			

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

	Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
		x	x	x	Follow the guidance for high-efficacy lighting controls and other characteristics for all permanently installed lighting fixtures in project dwelling units, common spaces and exterior				<p>Case 1. Single Family Option 1. Indoor Lighting (1.5 points) Install high-efficacy lighting. Meet or exceed the requirements for lighting power density for hard-wired fixtures, as listed in Table 1. <i>Table 1. Points for reducing lighting power density.</i> The proposed fixtures used to calculate energy savings must be capable of meeting the recommended light levels (weighted average footcandles) in the Illuminating Engineering Society Lighting Handbook, 9th edition, for the given space type. Either calculate the needs for each space type, or use 16 as the weighted average footcandles for the home. In calculating lighting power density, follow these guidelines: Use a lighting power density of 1.1 W per square foot (11.8 W per square meter) for rooms or portions of any rooms with less than the required hardwired lighting. - Account for all hard-wired fixtures in the home, including the garage and exterior lights (whether affixed to the home or freestanding). - Do not include portable table and floor lamps, appliance lights, or landscape lights. - Include step lights and undercabinet and cabinet lights. - For standard incandescent (a-line medium screw base) bulbs, assume 64 watts per socket. - For LED and Xenon lights, use actual wattages. - For fluorescent lighting, calculate wattage based on the assumptions in Table 2 or use the actual wattages installed. <i>Table 2. Assumptions for fluorescent bulb wattage.</i></p> <p>AND/OR Option 2. Exterior Lighting (0.5 point) All exterior lighting must be Dark Sky qualified and have motion sensor controls, integrative photovoltaic cells, photosensors, or astronomical time-clock operation. The following lighting is exempt: emergency lighting, lighting required</p> <p>Case 2. Multifamily Option 1. Indoor Lighting (1.5 points) Install high-efficacy lighting and/or lighting controls that achieve a reduction from the ENERGY STAR baseline. Complete the ENERGY STAR multifamily midrise worksheet for interior lighting. Table 3. Points for reducing interior lighting from baseline. AND/OR Option 2. Exterior Lighting (0.5 point) Complete the ENERGY STAR multifamily midrise worksheet for exterior lighting. Reduce exterior lighting wattage by at least 50%. All exterior lighting must be Dark Sky qualified.</p>			
5.6	M	x	x		Electricity Meter (Mandatory for New Construction and Substantial Rehab). Install individual or submetered electric meters for all dwelling units.	EA	both	both	Energy Metering	Yes	n/a	n/a
5.6	6			x	Electricity Meter (Optional for Moderate Rehab) Install individual or submetered electric meters for all dwelling units.				<p>Case 1. Single Family Install whole-house electric and gas meters, as applicable. Encourage homeowners or tenants to share energy usage data with USGBC via a USGBC-approved third-party by describing the benefits of participation in the Homeowner Education Manual.</p> <p>Case 2. Multifamily Install an electricity meter or submeter for each residential unit and a gas meter for the entire building, or a gas meter or sub-meter for each unit. Single room-occupancy units, transitional and temporary housing, and designated supportive housing buildings do not need an energy meter in each unit but must have a whole-building energy meter. Encourage homeowners or tenants to share energy usage data with USGBC via a USGBC-approved third party by describing the benefits of participation in the Homeowner Education Manual.</p>			
5.7a	4				Photovoltaic / Solar Hot Water Ready	EA	both	both	Active Solar-Ready Design	No	3	

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	<p>Use products that were extracted, processed and manufactured within 500 miles of the project for a minimum of 50%, based on cost, of the building materials' value.</p> <p>Select any or all of these options (each material can qualify for 1 point):</p> <ul style="list-style-type: none"> Framing materials Exterior materials (e.g., siding, masonry, roofing) Flooring materials Concrete/cement and aggregate material Drywall/interior sheathing materials 				<p>Use building component materials that meet one or more of the criteria below. A material must make up 90% of the component by weight or volume, except as noted. A single component that meets Option 1 and Option 2 can earn points for each (0.5 point per item).</p> <p>Option 1. Local Production Use products that were extracted, processed, and manufactured locally for the following components. Meet the thresholds in Table 1: framing (0.5 point); aggregate for concrete and foundation (0.5 point); drywall or interior sheathing (0.5 point).</p>		0.5 - 1.5 pts	0.5 - 1.5 pts
	x	x	x	<p>Certified, Salvaged and Engineered Wood Products For at least 25% of all structural wood products, by cost or value, commit to using either FSC-certified, salvaged products or engineered framing materials without urea formaldehyde.</p>	MR	n/a	n/a	<p>Certified Tropical Wood All wood in the building must be nontropical, reused or reclaimed, or certified by the Forest Stewardship Council, or USGBC-approved equivalent. For the purposes of this prerequisite, a tree species is considered tropical if it is grown in a location that lies between the Tropic of Cancer and the Tropic of Capricorn.</p>	Yes	n/a	n/a
					EQ	n/a	n/a	<p>Environmentally Preferable Products Use building component materials that meet one or more of the criteria below. A material must make up 90% of the component by weight or volume, except as noted. A single component that meets Option 1 and Option 2 can earn points for each (0.5 point per item) AND/OR</p> <p>Option 2. Environmentally Preferable Products Use products that meet one or more of the following criteria (0.5 points each). At least 90% of each compliant building component (listed in Table 2), by weight or volume, must meet one of the requirements below. A single component that meets more than one criterion does not earn additional credit.</p> <ul style="list-style-type: none"> The product contains at least 25% reclaimed material, including salvaged, refurbished, or reused materials. For renovation projects, existing components are considered reclaimed. Wood byproducts can be counted as reclaimed material. These include items from secondary manufacturers; felled, diseased, or dead trees from urban or suburban areas; orchard trees that are unproductive and cut for replacement; and wood recovered from landfills or water bodies. The product contains at least 25% postconsumer or 50% preconsumer content. Wood products must be Forest Stewardship Council (FSC) Certified, or USGBC-approved equivalent. Bio-based materials. Bio-based products must meet the Sustainable Agriculture Network's Sustainable Agriculture Standard. Bio-based raw materials must be tested using ASTM Test Method D6866 and be legally harvested, as defined by the exporting and receiving country. Exclude hide products, such as leather and other animal skin material. 71 Concrete that consists of at least 30% fly ash or slag used as a cement substitute and 50% recycled content or reclaimed aggregate OR 90% recycled content or reclaimed aggregate. Extended producer responsibility. Products purchased from a 	No	4	4
				<p>Composite Wood Products that Emit Low / No Formaldehyde</p>	EQ	n/a	n/a	<p>Low Emitting Products</p>			

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description
	x	x	x	All composite wood products must be certified as compliant with California 93120 Phase 2 OR, if using a composite wood product that does not comply with California 93120 Phase 2, all exposed edges and sides must be sealed with low-VOC sealants, per Criterion 6.2.

Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points				
			In the interior of the home, use products that have been tested and found compliant with the California Department of Public Health Standard Method V1.1-2010, using CA Section 01350, Appendix B, New Single-Family Residence Scenario, for emissions testing guidance. At least 90% of a component must meet the requirements to earn credit. For composite wood products be constructed from materials documented to have low formaldehyde emissions that meet the California Air Resources Board requirements for ultra-low-emitting formaldehyde (ULEF) resins or no-added formaldehyde based resins. Salvaged and reused architectural millwork more than one year old at the time of occupancy is considered compliant provided any site-applied paints, coatings, adhesives, and sealants meet the requirements. Wood structural panels conforming to DCC PS-1 or PS-2 and manufactured with moisture-resistant adhesive for "Exposure 1" or "Exterior" application as indicated on the panel by the trademark of an approved testing and grading agency are exempt. (1 point).		1 pt	1 pt				
6.7a	M		Environmentally Preferable Flooring Do not install carpets in building entryways, laundry rooms, bathrooms, kitchens / kitchenettes, utility rooms or any rooms built on foundation slabs. Where installed, all carpet products must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad and carpet adhesives. Any hard surface flooring products must be either ceramic tile or solid unfinished hardwood floors, or meet the Scientific Certification System's FloorScore program criteria (including pre-finished hardwood flooring).							
6.7b	6		Environmentally Preferable Flooring Throughout Use non-vinyl, non-carpet floor coverings throughout each building in the project.							
6.8	M		Mold Prevention: Surfaces Use materials that have durable, cleanable surfaces throughout bathrooms, kitchens and laundry rooms. Materials installed in these rooms should not be prone to deterioration due to moisture intrusion or encourage the growth of mold.							
6.9	M		Mold Prevention: Tub & Shower Enclosures Use moisture-resistant backing materials such as cement board, fiber cement board or equivalent per ASTM #D3273 behind tub / shower enclosures. Projects using a one-piece fiberglass tub / shower enclosure are exempt from this requirement.							
6.10	12 max		Asthmagen-free Materials Do not install products that contain ingredients that are known to cause or trigger asthma. Key products to avoid are: • Insulation: Do not use spray polyurethane foam (SPF) or formaldehyde-containing fiberglass bats. [4 points] • Flooring: Do not use flexible vinyl (PVC) roll or sheet flooring or carpet-backed with vinyl with phthalates. Do not use fluid applied finish floors. [4 points] • Wall coverings: Do not use wallpaper made from vinyl (PVC) with phthalates or site-applied high-performance coatings that are epoxy or polyurethane based. [4 points] • Composite wood: Use only ULEF products for cabinetry, subflooring and other interior composite wood uses. [4 points]	EQ	n/a	n/a	Low Emitting Products In the interior of the home, use products that have been tested and found compliant with the California Department of Public Health Standard Method V1.1-2010, using CA Section 01350, Appendix B, New Single-Family Residence Scenario, for emissions testing guidance. At least 90% of a component must meet the requirements to earn credit. - For flooring, meet the requirements of CA Section 01350 (0.5 point). - For insulation, meet the requirements of CA Section 01350 (0.5 point).	no	3 0.5 - 1 pt	3 0.5 - 1 pt
6.11	5		Reduced Heat-Island Effect Roofing	SS	n/a	n/a	Heat Island Reduction	no	3	3

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points			NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
			x	x	x	Use an ENERGY STAR–certified roofing product for 100% of the roof area OR install a “green” (vegetated) roof for at least 50% of the roof area and ENERGY STAR–certified roofing product for the remainder of the roof area.				AND/OR Option 2. Nonabsorptive Materials (1–2 points) Install light-colored, high-albedo materials or vegetation-covered hardscapes. Acceptable strategies include the following: - using ENERGY STAR qualified roof products in appropriately sloped applications (or performance equivalent for projects outside the U.S.); - installing vegetated roofing; - using open pavers (counting only the vegetation, not the pavers) or engineered grass pavers; and - using paving materials with a solar reflectance (SR) of at least 0.28. If three-year aged value is not available, use materials with an initial SR of at least 0.33 at installation.			
6.12	M / 6 max					Construction Waste Management (Minimum requirements for all projects. Optional points are available for projects that go beyond mandatory.)	MR	n/a	n/a	Construction Waste Management	no	3	3
			x	x	x	Commit to following a waste management plan that reduces non-hazardous construction and demolition waste through recycling, salvaging or diversion strategies through one of the three options. Achieve optional points by going above and beyond the requirement.				Reduce total construction waste or divert from landfills and incinerators a large proportion of the waste generated from new construction. Use the tables below to calculate the percentage of waste avoided or recycled. Excavated soil, land-clearing debris, and alternative daily cover (ADC) do not qualify for this credit. Any waste-to-energy is not considered recycling for this credit. (see) Table 1. Baseline waste for LEED reference home. (see) Table 1s. Baseline waste for LEED reference home. For multifamily buildings, use the project's floor area for any non-unit spaces, and add it to the floor area of the LEED reference home calculated for each unit. Calculate the waste generated by the project according to the following equation: Project construction waste = Total waste - (Recycled waste * 0.25) To convert volume to weight, assume 500 pounds per cubic yard (296 kg per cubic meter) of mixed construction waste, or use Table 2 to calculate the weights of specific waste products. Table 2. Volume-to-weight conversion for construction and demolition debris. Table 3. Points for reducing construction waste below baseline		0.5-3pts	0.5-3pts
6.13	3		x	x	x	Recycling Storage for Multifamily Project Provide separate bins for the collection of trash and recycling for each dwelling unit and all shared community rooms (if applicable). Additionally, in multifamily buildings, provide at least one easily accessible, permanent and dedicated indoor area for the collection and storage of materials for recycling. In single-family homes, points will be accrued only if curb-side recycling pickup is available. Collected materials should include, at a minimum, paper, cardboard, glass, metals and plastics.							
7 Healthy Living Environment													
7.1	M					Ventilation (Mandatory for New Construction and Substantial Rehab)	EQ	n/a	n/a	Ventilation	yes	n/a	n/a

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
x	x			<p>For each dwelling unit, in full accordance with ASHRAE 62.2-2010, install a local mechanical exhaust system in each bathroom [4 points], a local mechanical exhaust system in each kitchen [4 points], and a whole-house mechanical ventilation system [4 points].</p> <p>For each multifamily building of four stories and more, in full accordance with ASHRAE 62.2-2010, install a mechanical ventilation system for all hallways and common spaces [3 points].</p> <p>For all project types, in addition to the above requirements:</p> <ul style="list-style-type: none"> All systems and associated ductwork must be installed per manufacturer's recommendations. All individual bathroom fans must be ENERGY STAR labeled, wired to turn on with the light switch, and equipped with a humidistat sensor, timer or other control (e.g., occupancy sensor, delay off switch, ventilation controller). If using central ventilation systems with rooftop fans, each rooftop fan must be direct-drive and variable-speed with speed controller mounted near the fan. Fans with design CFM 300-2000 must also have an ECM motor. 	EQ	IVa	IVa	<p>Case 1. Single Family Meet all of the following requirements for local exhaust and outdoor air ventilation including the requirements of ASHRAE 62.2 – 2010, sections 4, 5 and 7 and Section 1504.4 of the 2009 International Residential Code (IRC), including:</p> <p>1. Local Exhaust. Meet all the following requirements: Design and install local exhaust systems in all bathrooms (including half-baths) and the kitchen to meet the requirements of ASHRAE Standard 62.2–2010, Sections 5 and 7 or local equivalent, whichever is more stringent. Sample requirements that relate to minimum intermittent local exhaust flow rates are shown in Table 1 . Exhaust air to the outdoors. Do not route exhaust ducts to terminate in attics or interstitial spaces. Recirculating range hoods or recirculating over-the-range microwaves do not satisfy the kitchen exhaust requirements.</p> <p>Use ENERGY STAR–labeled bathroom exhaust fans in all bathrooms (including half-baths) or performance equivalent for projects outside the U.S. A HRV or ERV can be used to exhaust single or multiple bathrooms if it has an efficacy level of greater than or equal to 2.8 cfm/Watt (1.3 liters per second/Watt) as certified by HVI. (See) Table 1. Minimum air-flow requirements for intermittent local exhaust.</p> <p>For exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute (188 liters per second), provide makeup air at a rate approximately equal to the exhaust air rate. Makeup air systems must have a means of closure and be automatically controlled to start and operate simultaneously with the exhaust system.</p> <p>Whole House Mechanical Ventilation. Design and install a whole-house mechanical ventilation system that complies with ASHRAE Standard 62.2–2010, Sections 4 and 7 or local equivalent, whichever is more stringent. Whole house ventilation fans must be rated for</p> <p>Case 2. Multifamily Design and install a whole-unit ventilation system for each individual dwelling unit that complies with the requirements of ASHRAE Standard 62.2–2010 (with errata) or local equivalent, whichever is more stringent, and all local exhaust requirements for Single Family section, above. Major components of the standard are summarized below.</p> <ul style="list-style-type: none"> Provide outdoor air to each unit directly from the outdoors. Project teams using exhaust ventilation systems must specify how outside air is delivered at the flow rate required by ASHRAE 62.2–2010. Do not use systems that rely on transfer air from pressurized hallways or corridors, adjacent dwelling units, attics, etc. For continuous ventilation systems, meet the requirements of ASHRAE 62.2–2010 shown in Table 2. Continuous in-unit ventilation fans must be rated for sound at a maximum of 1.0 sone, per ASHRAE 62.2–2010, Section 7.2.1. Remote mounted fans need not meet these sound requirements. For intermittent ventilation systems, install fans to meet ASHRAE Standard 62.2–2010. The fan flow rate must be equal to the outdoor air flow requirements multiplied by the fan flow rate multiplier. The system must be designed such that it can operate automatically based on a timer. Fans must be rated for sound at a maximum of 1.0 sone. Remote mounted fans need not meet these sound requirements. As applicable, follow the restrictions on system types for hot, humid climates and very cold climates. In hot, humid climates, whole-house mechanical net exhaust flow must not exceed 7.5 cfm per 100 square feet (38 liters per second per 100 square meters) of conditioned floor area. In very cold climates, mechanical supply-only systems must not exceed 7.5 cfm per 100 square feet (38 liters per second per 100 square meters). See ASHRAE 62.2–2010, Sections 4.5 and 8, for more details and climate categories. 		3	3
7.1	12 min			Ventilation (Optional for Moderate Rehab)				Enhanced Ventilation	7d		

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
			x	<p>For each dwelling unit, in full accordance with ASHRAE 62.2-2010, install a local mechanical exhaust system in each bathroom [4 points], a local mechanical exhaust system in each kitchen [4 points], and a whole-house mechanical ventilation system [4 points].</p> <p>For each multifamily building of four stories and more, in full accordance with ASHRAE 62.1-2010, install a mechanical ventilation system for all hallways and common spaces [3 points].</p> <p>For all project types, in addition to the above requirements:</p> <ul style="list-style-type: none"> All systems and associated ductwork must be installed per manufacturer's recommendations. All individual bathroom fans must be ENERGY STAR labeled, wired to turn on with the light switch, and equipped with a humidistat sensor, timer or other control (e.g., occupancy sensor, delay off switch, ventilation controller). If using central ventilation systems with rooftop fans, each rooftop fan must be direct-drive and variable-speed with speed controller mounted near the fan. Fans with design CFM 300-2000 must also have an ECM motor. 				<p>Option 1. Enhanced Local Exhaust (1 point) Use one of the following strategies in every bathroom with a shower, bathtub, or spa (i.e., half-baths are exempt) to control the use of the local exhaust fan: an occupancy sensor; an automatic humidistat controller; a continuously operating exhaust fan; or a delay timer that operates the fan for at least 20 minutes.</p> <p>Option 2. Enhanced Whole-House Ventilation (2 points) Install a balanced whole-house ventilation system (not just exhaust only or supply only) that meets the minimum ventilation requirements of ASHRAE Standard 62.2-2010, Sections 4 and 7, or local equivalent whichever is more stringent. Program the system such that it does not exceed the standard's requirements by more than 10%. For multifamily buildings, meet the above requirements for all in-unit residential spaces in both options 1 and 2.</p>		1 pt	1 pt
7.2	M		x x x	<p>Clothes Dryer Exhaust Clothes dryers must be exhausted directly to the outdoors using rigid-type ductwork (except for condensing dryers, which must be plumbed to a drain).</p>							
7.3	M		x x x	<p>Combustion Safety For new construction and rehab projects, specify power-vented or direct vent equipment when installing any new combustion appliance for space or water heating that will be located within the conditioned space.</p> <p>In Substantial and Moderate Rehabs, if there is any combustion equipment located within the conditioned space for space or water heating that is not power-vented or direct vent and that is not scheduled for replacement, conduct initial combustion safety testing per the given guidelines.</p> <p>Install one hard-wired carbon monoxide (CO) alarm with battery backup function for each sleeping zone, placed per National Fire Protection Association (NFPA) 720.</p>	EQ	n/a	n/a	<p>Combustion Venting Do not install any unvented combustion appliances (ovens and ranges excluded). Install a carbon monoxide (CO) monitor on each floor, hard-wired with a battery backup. In multifamily buildings, install a CO monitor on each floor of each unit. For all fireplaces and woodstoves inside the building, provide doors that close or a solid glass enclosure. Interior fireplaces and woodstoves that are not closed-combustion or power-vented must pass BPI or RESNET combustion safety testing protocols to ensure that depressurization of the combustion appliance zone is less than 5 Pa. Space- and water-heating equipment that involves combustion must meet one of the following: - it must be designed and installed with closed combustion (i.e., sealed supply air and exhaust ducting); - it must be designed and installed with power-vented exhaust; or - it must be located in a detached utility building or open-air facility. Projects that earn the EPA Indoor airPLUS label automatically meet the requirements of this prerequisite.</p>	yes	n/a	n/a
7.4	M		x x x	<p>Elimination of Combustion within the Conditioned Space No combustion equipment may be used for cooking (to include, but not limited to ranges, cooktops, stoves, ovens) as part of the building project [9 points]. OR no combustion equipment may be used as part of the building project [11 points].</p>	EQ	n/a	n/a	<p>Enhanced Combustion Venting</p> <p>Requirements: Option 1, No Fireplace or Woodstove (2 points) Do not install any fireplaces or woodstoves.</p>	n/a	2	2
7.5	M		x	<p>Vapor Retarder Strategies (New Construction and Rehab projects with foundation work only) Install vapor barriers that meet specified criteria appropriate for the foundation type.</p>							
7.6	M			<p>Water Drainage (New Construction and Rehab projects replacing assemblies called out in Criterion only)</p>							

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x			Provide drainage of water away from walls, windows and roofs by implementing the list of techniques.							
	x	x	x	Mold Prevention: Water Heaters Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.							
7.8	M			Radon Mitigation (New Construction and Substantial Rehab only) x For New Construction in EPA Zone 1 areas, install passive radon-resistant features below the slab and a vertical vent pipe with junction box within 10 feet of an electrical outlet in case an active system should prove necessary in the future. x For Substantial Rehab projects in EPA Zone 1, test and mitigate per the specified protocols.	EQ	n/a	n/a	Radon-Resistant Construction Case 1. New Construction If the building is in EPA radon zone 1 (or local equivalent for projects outside the United States), design and build with radon-resistant construction techniques, as prescribed by American Association of Radon Scientist and Technologists (AARST), Reducing Radon in New Construction of 1 & 2 Family (RRNC 2.0); EPA Building Radon Out; NFPA 5000, Chapter 49; International Residential Code, Appendix F; CABO, Appendix F; ASTM E1465; or a local equivalent, whichever is more stringent. Follow all the requirements listed in Indoor airPLUS, 2.1: - Provide a capillary break per the Indoor airPLUS specifications. - Provide an electrical outlet near vent piping in the attic to facilitate future fan installation. - Install a 3- or 4-inch (or approximately 80- or 100-millimeters) diameter gas-tight vertical vent pipe with no bends greater than 45 degrees, connected to an open T-fitting in the aggregate layer, extending up through the conditioned spaces and terminating at least 12 inches (300 millimeters) above the roof opening. The requirements for radon protection are automatically satisfied if the building is elevated by at least 2 feet (600 millimeters), with open air space between the building and ground. An enclosed vented crawlspace does not qualify. A garage under a building is an acceptable alternative. For mixed-use buildings, nonresidential space is exempted. Case 2. Renovation of Existing Building If the building is in EPA radon zone 1 (or local equivalent for projects outside the United States), and if no slab work is being performed (i.e., an existing slab is not being demolished, and no new slab floor is being built), test the building for radon. If the results are greater than 4 pCi/L, install an active ventilation system. If the results are less than 4 pCi/L, no radon-resistant construction techniques are required. Projects that earn the EPA Indoor airPLUS label automatically meet the requirements of this prerequisite.	Yes	4	4
7.9	M			Garage Isolation x x x - Provide a continuous air barrier between the conditioned space and any garage space to prevent the migration of any contaminants into the living space. Visually inspect common walls and ceilings between attached garages and living spaces to ensure that they are air-sealed before insulation is installed. - Do not install ductwork or air handling equipment in a garage. - Fix all connecting doors between conditioned space and garage with gaskets or otherwise make substantially airtight with weather stripping. - Install one hard-wired carbon monoxide (CO) alarm with battery backup function for each sleeping zone of the project, placed per National Fire Protection Association (NFPA) 720.	EO	n/a	n/a	Garage Pollutant Protection Place all air-handling equipment and ductwork outside the fire-rated envelope of the garage. Tightly seal shared surfaces between the garage and conditioned spaces, including all of the following: - 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. Projects that earn the EPA Indoor airPLUS label automatically meet the requirements of this prerequisite.	Yes	4	4
7.10	M			Integrated Pest Management	SS	n/a	n/a	Non-toxic Pest Control	Yes	2	2

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points				NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
				x	x	x	Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate nontoxic sealing methods to prevent pest entry.				<p>Each measure is worth 1/2 point, except as noted.</p> <ul style="list-style-type: none"> - Install a steel mesh barrier termite control system (1 point). - Install a physical termite barrier system (e.g., basaltic rock) approved by code (1 point). - For below-grade walls, use solid concrete foundation walls, masonry walls with a course of solid block bond beam, or concrete-filled block. - Install post-tension slabs. - Treat all cellulosic structural material (e.g., wood framing) with a registered pesticide containing borates, following the manufacturer's directions for preconstruction treatment. - Use noncellulosic material for all structural elements. - Install ports or openings for all plumbing elements that penetrate the slab, to allow access for inspection and treatment of pest infestations. - Install a registered termite bait system and provide for ongoing maintenance as required by the manufacturer. - Design a minimum 6-inch (150 millimeters) inspection space between the surface of the planned landscape grade and nonmasonry siding. - 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 1/2 inch (8 millimeters), except where code prohibits their installation (e.g., dryer vents). - 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. - Design landscape features to provide a minimum 18-inch (450 millimeters) space between the exterior wall and any plantings. In addition, multifamily building projects must develop an integrated pest management policy that includes guidance for residents on 			
7.11a	9						Beyond ADA: Universal Design (New Construction only) Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC / ANSI A117.1, Type A, Fully Accessible guidelines. Design the remainder of the ground-floor units and elevator-reachable units in accordance with ICC / ANSI A117.1, Type B.							
7.11b	7 of 9			x	x		Beyond ADA: Universal Design (Substantial and Moderate Rehab only) Design a minimum of 10% of the dwelling units (one, at minimum) in accordance with ICC / ANSI A117.1, Type A, Fully Accessible guidelines. [7 points] For an additional 2 points: Design the remainder of the ground-floor units and elevator-reachable units with accessible unit entrances designed to accommodate people who use a wheelchair.							
7.12	M			x	x	x	Active Design: Promoting Physical Activity within the Building Situate at least one building stairway per the criterion to encourage use OR emphasize at least one strategy inside the building designed to increase frequency and duration of physical activity per the criterion.							
7.13a	9			x	x	x	Active Design: Staircases and Building Circulation A staircase must be accessible and visible from the main lobby as well as visible within a 25-foot walking distance from any edge of lobby. Ensure that no turns or obstacles prevent visibility of or accessibility to the qualifying staircase from the lobby, and that the staircase is encountered before or at the same time as the elevators. From the corridor, accessible staircases should be made visible by: Providing transparent glazing of at least 10 square feet (1 square meter) at all stair doors or at a side light OR providing magnetic door holds on all doors leading to the stairs OR removing door enclosures / vestibules.							
7.14	9						Interior and Outdoor Activity Spaces for Children and Adults							

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/ Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points
	x	x	x	Provide an on-site dedicated recreation space with exercise or play opportunities for adults and / or children that is open and accessible to all residents; see criterion for specifics.							
7.15	M			Reduce Lead Hazards (Substantial Rehab, pre-1978) Conduct lead risk assessment or inspection to identify lead hazards, then control for these per EPA or state / local laws and requirements.							
7.16	10			Smoke-Free Building Implement and enforce a no-smoking policy in all common and individual living areas, and within a 25-foot perimeter around the exterior of all residential projects.	EQ	n/a	n/a	Environmental Tobacco Smoke Requirements: Multifamily projects only Prohibit smoking in all common areas of the building. The prohibition must be communicated in building rental or lease agreements or in condo or co-op association covenants and restrictions, and provisions for enforcement must be included. Locate any exterior designated smoking areas, including balconies where smoking is permitted, at least 25 feet (7.5 meters) from entries, outdoor air intakes, and operable windows opening to common areas. Prohibit on-property smoking within 25 feet (7.5 meters) of entries, outdoor air intakes, and operable windows. Provide signage to allow smoking in designated areas, prohibit smoking in designated areas, or prohibit smoking on the entire property.	yes	n/a	n/a
		x	x		EQ	yes	n/a	No Environmental Tobacco Smoke Requirements: MIDRISE Prohibit smoking throughout the building, including within living units. The prohibition must be communicated in building rental or lease agreements or in condo or co-op association covenants and restrictions, and provisions for enforcement must be included.	no		1
8 Operations, Maintenance, and Resident Engagement											
8.1	M			Building Maintenance Manual (all multifamily projects) Develop a manual with thorough building operations and maintenance guidance and a complementary plan. The manual and plan should be developed over the course of the project design, development and construction stages, and should include sections/chapters addressing the list of topics.							
8.2	M			Emergency Management Manual (all multifamily projects)							

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/Optional points	NC	SR	MR	Title/Description	Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points	
	x	x	x	<p>Provide a manual on emergency operations targeted toward operations and maintenance staff and other building-level personnel. The manual should address responses to various types of emergencies, leading with those that have the greatest probability of negatively affecting the project. The manual should provide guidance as to how to sustain the delivery of adequate housing throughout an emergency and cover a range of topics, including but not limited to:</p> <ul style="list-style-type: none"> • communication plans for staff and residents • useful contact information for public utility and other service providers • infrastructure and building 'shutdown' procedures 								
8.2	AY			<p>Resident Manual</p> <p>Provide a guide for homeowners and renters that explains the intent, benefits, use and maintenance of their home's green features and practices. The Resident Manual should encourage green and healthy activities per the list of topics.</p>	EA	both	both	<p>Education of Homeowner, Tenant or Building Manager HOMES, MIDRISE</p> <p>Provide to all individuals or organizations responsible for ongoing maintenance of the home (e.g., occupants, building managers, maintenance contractors) an operations and maintenance manual, binder, or CD that includes all the following items:</p> <ul style="list-style-type: none"> - the completed checklist of LEED for Homes features; - a copy of each signed accountability form; - copies of all ENERGY STAR for Home, version 3, checklists; - product manufacturers' manuals for all installed equipment, fixtures, and appliances; - general information on efficient use of energy, water, and natural resources; - operations and maintenance guidance for any installed equipment, including space heating and cooling, mechanical ventilation, humidity control, radon protection, renewable energy, and irrigation, rainwater harvesting, or graywater systems (following 2009 EPA WaterSense Single-Family New Home Specifications, item 5.0, Homeowner Education); - guidance on occupants' activities and choices, including cleaning materials and methods, water-efficient landscaping, integrated pest management, effects of chemical fertilizers and pesticides, irrigation, lighting selection, and appliance selection; - information on local green power options; and information on sharing utility data with USGBC via a USGBC-approved third party. In addition, conduct a minimum one-hour walkthrough of the home with the occupants. For buildings with building managers, include the building manager. The walkthrough must feature the following: <ul style="list-style-type: none"> - identification of all installed equipment; - instruction in how to use and operate the equipment; and - information on its maintenance. 	yes	N/A	X	N/A
8.4	M			<p>Resident and Property Manager Orientation</p> <p>Provide a comprehensive walk-through and orientation for all residents, property manager(s) and buildings operations staff. Use the appropriate manuals (see Criteria 8.1, 8.2, 8.3) as the base of the curriculum, and review the project's green features, operations and maintenance procedures, and emergency protocols.</p>								
8.5	M			<p>Project Data Collection and Monitoring System: 100% Owner Paid Utility Accounts, 15% Tenant Paid Utility Accounts.</p> <p>For rental properties: Collect and monitor project energy and water performance data for 100% of owner-paid utilities and 15% of tenant-paid utilities for at least 5 years. This data must be maintained in a manner that allows staff to easily access and monitor it, enabling them to make informed operations and capital planning decisions. Also allow Enterprise access to this data.</p> <p>For owner-occupied units: Collect and monitor energy and water performance data in a manner that allows for easy access and review and provides the ability to influence home operations. Also allow Enterprise access to this data.</p>	EA	both	both	<p>Advanced Utility Tracking</p> <p>Case 1. Single Family Option 2. Third-Party Utility Reporting (1 point) The homeowner must share all applicable utility data with USGBC via a USGBC-approved third-party before the project team submits its application for certification.</p> <p>Case 2. Multifamily Option 2. Third-Party Utility Reporting (1 point) Path 1. Whole-Building Master Meter The building owner must share all applicable utility data with USGBC via a USGBC-approved third-party before the project team submits its application for certification.</p> <p>Case 2. Multifamily Option 2. Third-Party Utility Reporting (1 point); Path 2. Individual Unit Meters</p>	no	2	X	2
										1.10	1.10	

2015 Enterprise Green Communities Criteria

Mandatory/ Optional points	NC	SR	MR	Title/Description
8.6 7 or 11				Project Data Collection and Monitoring System: >15% Tenant Paid Utility Accounts Collect and monitor project energy and water performance data for at least 5 years. This data must be maintained in a manner that allows staff to easily access and monitor it, enabling them to make informed operations and capital planning decisions. Also allow Enterprise access to this data. 16-60% of units [7 points]; 80-100% of units [11 points].
	x	x	x	

LEED v4 Homes and MidRise

Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes points	MidRise points

LEED v4 credits without direct analog in 2015 Enterprise Green Communities Criteria

LEED Credits Credit category	Perf Path	Prescrip Path	Title / Description	Prereq?	Homes points	Midrise points
LT		x	Site Selection Path 1. Previously Developed (4 points) Select a lot such that at least 75% of the total buildable land is previously developed.	no	x 8	x 8
LT		x	Site Selection Option 4. Street Network (1 point) Locate the project in an area of high intersection density, defined as an area whose existing streets and sidewalks create at least 90 intersections per square mile (35 intersections per square kilometers). When determining the number of intersections, include the following: - intersections within a 1/4 mile (400 meters) radius of project boundary; - streets and sidewalks that are available for general public use and not gated; - sidewalk intersections provided they are a unique right of way (i.e., a sidewalk through a city park); and - publicly accessible alleys. Exclude the following: - intersections in gated areas, which are not considered available for public use, with the exception of education and health care campuses and military bases where gates are used for security purposes; - water bodies and public parks; and - intersections leading only to a dead end or cul-de-sac.	no	x 8	x 8
SS	n/a	n/a	Rainwater Management Case 2. National Pollutant Discharge Elimination System (NPDES) Projects Using low-impact development and green infrastructure to replicate natural site hydrology, manage on-site the runoff from the developed site for the percentile regional or local rainfall events listed in Table 4. Use daily rainfall data and the methodology in the U.S. Environmental Protection Agency's Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects, under Section 438 of the Energy Independence and Security Act, to determine the percentile amount. Table 4. Points for on-site management of water from rainfall events	no	x 3	x 3
SS	n/a	n/a	Heat Island Reduction Ensure that at least 50% of hardscapes and roofs, but not including common roads that serve multiple buildings, on the project site meet one or more of the following requirements. Points are awarded according to Table 1. <i>Table 1. Points for percentage area with shading or nonabsorptive material.</i> Option 1. Shading (1-2 points) Locate trees or other plantings to provide shading of hardscapes. Shading should be calculated when the sun is directly overhead (noon on the summer solstice), based on ten years' growth after installation.	no	x 2	x 2
EA	x		Annual Energy Use Homes Option 1. LEED Energy Budget	no	x 29	x 30
EA	both	both	Advanced Utility Tracking	no	x 2	x 2

2015 Enterprise Green Communities Criteria

LEED v4 Homes and MidRise

Mandatory/
Optional points NC SR MR Title/Description

Credit category	Perf Path	Prescrip Path	Title/Description	Prereq?	Homes	points	MidRise	points
			Case 1. Single Family Option 1. Electric and Water (1 point) Case 2. Multifamily Option 1. Electric and Water (1 point)					
EQ	n/a	n/a	Compartmentalization	Yes	X	n/a	X	
EQ	n/a	n/a	Contaminant Control	no	X	2	X	n/a
EQ	n/a	n/a	Balancing of Heating and Cooling Distribution Systems	no	X	3	X	n/a
EQ	n/a	n/a	Enhanced Compartmentalization	no	X	1	X	2
EQ	n/a	n/a	Enhanced Combustion Venting	no	X	2	X	3
			Option 2. Enhanced Combustion Venting Measures (1 point) For any wood- or pellet-burning stoves, install equipment that is EPA certified. For wood-burning fireplaces, install equipment that is EPA qualified. Provide power or direct venting. For any natural gas, propane, or alcohol stoves, install equipment listed by an approved safety testing facility. The stove must have a permanently fixed glass front or gasketed door and an electronic pilot. Provide power or direct venting. Projects that earn the EPA Indoor airPLUS label automatically meet the requirements of Option 2.					3
EQ	n/a	n/a	Enhanced Garage Pollutant Protection	no	X	2	X	2
IN	n/a	n/a	Innovation	no	X	5	X	
IN	n/a	n/a	LEED AP	no	X	1	X	1
RP	n/a	n/a	Regional Priority	no	X	1	X	5
RP	n/a	n/a	Regional Priority	no	X	1	X	1
RP	n/a	n/a	Regional Priority	no	X	1	X	1
RP	n/a	n/a	Regional Priority	no	X	1	X	1

40B COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

SECTION 11
ASSESSOR'S PLAT

40B SITE COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

ASSESSOR'S BLOCK MAP

671 Concord Avenue



675 Concord Avenue



40B COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

SECTION 12

OWNERSHIP CERTIFICATES

40B SITE COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

OWNERSHIP DESCRIPTION

The property that comprises HRI Concord Highlands is owned by HRI Concord Highlands, LLC, an affiliate of Homeowner's Rehab, Inc. (HRI) created for the initial acquisition of the site and predevelopment activities through construction financing.

OWNERSHIP INFORMATION FOR BOARD OF ZONING APPEAL RECORD

(To be completed by OWNER, signed before a notary, and returned to Secretary of Board of Appeal).

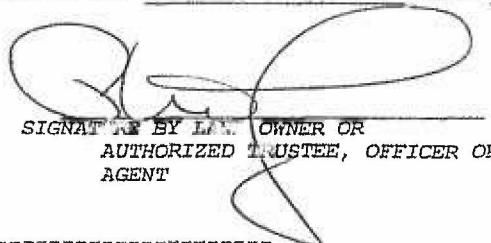
I/We Homeowner's Rehab, Inc.
(OWNER)

Address: 280 Franklin Street, Cambridge, MA 02139

State that I/We own the property located at 671-675 Concord Avenue which is the subject of this zoning application.

The record title of this property is in the name of HRI Concord Highlands, LLC

*Pursuant to a deed of duly recorded in the date 06/01/2016, Middlesex South County Registry of Deeds at Book 67354, Page 28; or Middlesex Registry District of Land Court, Certificate No. _____ Book _____ Page _____.


SIGNATURE BY L.I. OWNER OR AUTHORIZED TRUSTEE, OFFICER OR AGENT

Commonwealth of Massachusetts, County of MIDDLESEX

The above-name PETER DALY personally appeared before me, this 17th of JANUARY, 2017, and made oath that the above statement is true.

John W. Kelley Notary

My commission expires FEB 12, 2021 (Notary Seal).

* If ownership is not shown in recorded deed, e.g. if by court order, recent deed, or inheritance, please include documentation.



Ownership Form
(BZA - PG.5)

Southern Middlesex - 20/20 Perfect Vision i2 Document Detail Report

Current datetime: 6/2/2016 10:08:51 AM

Doc#	Document Type	Town	Book/Page	File Date	Consideration
86835	DEED		67354/28	06/01/2016	10000000.00
Property-Street Address and/or Description					
671-675 CONCORD AVE					
Grantors					
PONDVIEW REALTY LLC, NAJARIAN GEDORGE, NAJARIAN CAROLANN S					
Grantees					
HRI CONCORD HIGHLANDS LLC					
References-Book/Pg Description Recorded Year					
Registered Land Certificate(s)-Cert# Book/Pg					



QUITCLAIM DEED

PONDVIEW REALTY, LLC, a Massachusetts Limited Liability Company with a usual business address of 54 Wendell Street in Cambridge, Middlesex County, Massachusetts 02138, by K. GEORGE NAJARIAN and CAROLANN S. NAJARIAN, its Managers

For consideration paid of TEN MILLION (\$10,000,000.00) DOLLARS

Grant to HRI CONCORD HIGHLANDS LLC, a Massachusetts Limited Liability Company with a usual business address c/o Homeowner's Rehab, Inc. 280 Franklin Street, Cambridge, Massachusetts 02138 ATTN: PETER DALY

With QUITCLAIM COVENANTS,

A certain parcel of land with the buildings thereon, known as and numbered as 671 Concord Avenue, Cambridge, Massachusetts, shown on a plan entitled "Plan of Land, Cambridge, Mass., Scale 1" = 50', dated January, 1928, by C.H. Gannett Co., Civil engineers," recorded with Middlesex South District Registry of Deeds in Book 5202, Page 516, bounded and described as follows:

- SOUTHERLY: By Concord Avenue, as shown on said plan, 80 feet;
- WESTERLY: By land now or formerly of Thomas Lyons, 342.51 feet;
- NORTHWESTERLY: By land now or formerly of the Boston and Maine Railroad on two lines, as shown on said plan, measuring respectively 55.82 and 55.50 feet; and
- EASTERLY: By land now or formerly of F.H. Moulton and R.J. Fawcett as shown on said plan, 419.07 feet.

Containing 30,767 square feet of land, according to said plan.

The premises are conveyed subject to and with the benefit of all easements, restrictions, rights of way, takings, reservation, exceptions and covenants contained in all instruments of record, to the extent now in force and applicable, but not intending hereby to recreate or extend restrictions, reservations, exceptions and covenants previously terminated or expired.

Meaning and intending to convey, and hereby conveying, all the same premises conveyed to PONDVIEW REALTY, LLC by Deed of Sheila A. Perino, as Trustee of the CBL REALTY TRUST, dated October 6, 2015 and recorded at the Middlesex South District Registry of Deeds in Book 66186, Page ~~356~~ 361, Property address: 671-675 Concord Avenue, Cambridge

MASSACHUSETTS EXCISE TAX
Southern Middlesex District ROD # 001
Date: 08/01/2016 12:38 PM
Ctrl: 212998 093 Doc: 00088835
Fee: \$45,800.00 Cons: \$10,000,000.00

671-675 Concord Ave Cambridge MA

Please Return To: SSCali
First American Title Insurance Company
National Commercial Services
800 Boylston Street, Suite 2820
Boston, MA 02199 78340

AND

A certain parcel of land with the buildings thereon, known as and numbered 675 Concord Avenue, Cambridge, Massachusetts, being a portion of Lot 3 on a plan entitled "Plan of Land in Cambridge, Mass. Belonging to William Hoag" dated February 28, 1920 by W.H. Bacon, Civ. Eng., recorded with the Middlesex South District Registry of Deeds in Plan Book 293, Plan 18, bounded and described as follows:

SOUTHERLY: By Concord Avenue, 85.80 feet;
WESTERLY: By land of Travia and owners unknown, 140 feet;
NORTHERLY: By land now or formerly of Flanders Fuel Co., 85.80 feet; and
EASTERLY: By land now or formerly of Hale, 140 feet.

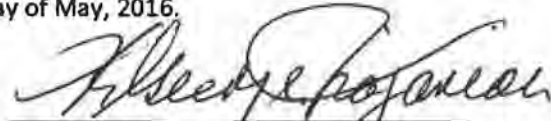
Containing 12,012 square feet of land.

Subject to and with the benefit of easements, restrictions and encumbrances of record, if any, insofar as the same may now be in force and applicable.

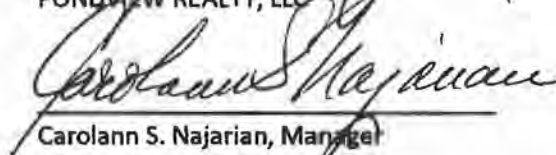
For title, see Deed of Angel Parseghian, E. Arnold Parseghian, and Wayne R. Parseghian dated May 28, 2015, and recorded with the Middlesex South District Registry of Deeds in Book 65437, Page 163.

The Seller has not elected to be taxed as a corporation.

Executed as a sealed instrument this 27th day of May, 2016.



K. George Najarian, Manager
PONDVIEW REALTY, LLC



Carolann S. Najarian, Manager
PONDVIEW REALTY, LLC

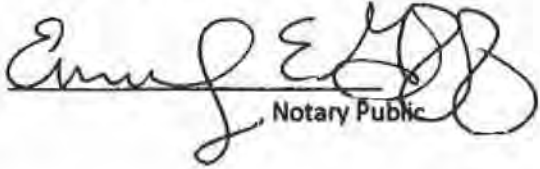
Property address: 671-675 Concord Avenue, Cambridge

, ss

May 27, 2016

Before me, the undersigned authority, on this day personally appeared K. GEORGE NAJARIAN and CAROLANN S. NAJARIAN, known to me to be the persons signing above, through presentation of identification, valid driver's licenses, and acknowledged that the foregoing was their free and voluntary act for the stated purpose.

My Commission expires: 6/14/2018


Notary Public



Property address: 671-675 Concord Avenue, Cambridge

Please return to:

40B COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

SECTION 13

ARTICLES OF ORGANIZATION AND 501(C)3 STATUS

Address any reply to:

Department of the Treasury

P. O. Box 9181
J. F. Kennedy Post Office
Boston, Ma. 02205

District Director

Internal Revenue Service

Date: NOV 14 1974 | In reply refer to: 223-4242
JJ:EO:JD



678 Mass Ave.
Room 206

Homeowner's Rehabilitation, Inc.
97 Austin Street
Cambridge, Mass. 02139

Date of Determination or Ruling Letter: October 13, 1973

Our letter as dated above stated you would be treated as an organization which is not a private foundation for your first two tax years. This was based on our determination that you could reasonably be expected to be an organization of the type described in section 501(c)(3) of the Internal Revenue Code.

We also stated that at the end of your first two tax years you would have to establish with us that you were in fact an organization of the type described in section 170(b)(1)(A)(vi) & 509(a)(1) for those two tax years.

Our records indicate your second year ends on 12:31:74. Therefore, to establish that you are an organization of the type described above, please submit the information requested on the enclosed NAR Form 3-209A.

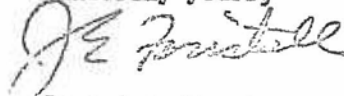
Please send this information to the address shown above within 90 days from the last day of your second tax year. An extension of time for submitting the information will be granted if your request is made before the period expires for furnishing the information and you show why additional time is needed.

If we do not receive the requested information within the time specified, we will classify you as a private foundation.

The information requested in this letter is required to support your claim to be other than a private foundation. It is needed in addition to any required Form 990 or other annual return or report.

Thank you for your cooperation.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "J. E. Forrester".

District Director

Enclosures:

Form

~~Envelope~~

40B COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

SECTION 14

MASSACHUSETTS LIHTC 2016 QUALIFIED ALLOCATION PLAN (DRAFT)

SECTION 54.04 AND 54.05

40B SITE COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

MASSACHUSETTS LIHTC 2017 QUALIFIED ALLOCATION PLAN (DRAFT)
SECTION 54.04 AND 54.05

54.04: Eligible Projects

(1) Project Eligibility. Qualified Massachusetts Projects for which the Department has issued an eligibility statement are eligible for an allocation of Massachusetts low-income housing tax credit.

(2) Prioritization by the Department. The Department shall amend or supplement its existing qualified allocation plan or its program guidelines, or both, to provide taxpayers guidance on how Massachusetts low-income housing tax credit will be allocated among competing projects. Such guidance shall adhere to the statutory requirements of providing the least amount of Massachusetts low-income housing tax credit necessary to ensure financial feasibility of selected projects while allocating the total available Massachusetts low-income housing tax credit among as many Qualified Massachusetts Projects as fiscally feasible. Subject to these statutory constraints, the Department may, in its discretion, provide guidance that

- (a) requires owners of projects with more than a designated dollar amount of federal credit to fund a portion of project equity from funds attributable to the Massachusetts low-income housing tax credit,
- (b) encourages owners of certain projects to raise equity primarily using the Massachusetts low-income housing tax credit while using a minimal amount of the so-called 9% federal low-income housing tax credit,
- (c) encourages the creation of projects funded through a combination of Massachusetts low-income housing tax credit and the so-called 4% federal low-income housing tax credit allowable to buildings financed with tax-exempt bonds, and
- (d) encourages the creation of any other projects that the Department deems to be consistent with the statutory goal of increasing the overall number of low-income housing units.

54.05: Eligible Recipients

Any person or entity (of whatever type) with an ownership interest in a Qualified Massachusetts Project is eligible to receive an allocation of Massachusetts low-income housing tax credit with respect to such project.

40B COMPREHENSIVE PERMIT APPLICATION

HRI Concord Highlands

671-675 Concord Avenue, Cambridge MA 02138

SECTION 15
\$100 FILING FEE