

# LEEDv5 + Climate Solutions Now

# Critical Dates

**April 28, 2025:** USGBC Launches LEEDv5 Registrations

Final date to register LEEDv4 projects: TBD

*\*but we've heard Q1 2026\**

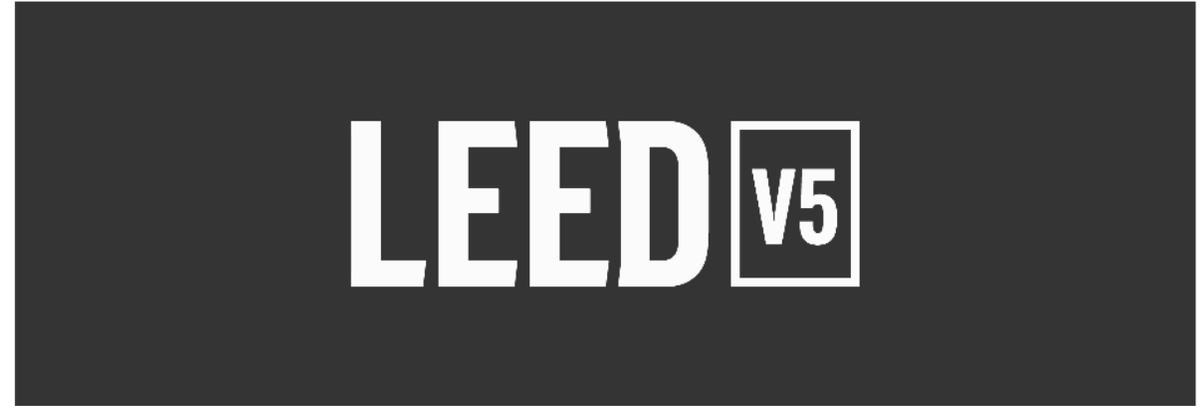
First date LEEDv5 is mandatory: TBD

*\*but the rating system is already available for registrations\**

Final date to complete LEEDv4 certification: TBD

Media

## U.S. Green Building Council Launches New, More Comprehensive LEED Rating System for Sustainable Buildings



Deisy Verdinez

3 minute read



Apr 28, 2025

**LEED v5 features new tools to help the world's best buildings achieve even greater impact on human health, resilience and global communities**

**APRIL 28, 2025 (WASHINGTON, D.C.)** – Today, the U.S. Green Building Council (USGBC) launched LEED v5, the latest version of its flagship LEED (Leadership in Energy and Environmental Design) green building program. LEED v5 builds on the 25-year legacy and global impact of LEED, updating and strengthening the most widely recognized, influential sustainability standard for the building industry while providing user-friendly tools for building owners and teams to pursue certification through enhanced technology updates.

# The Basics

POINTS AVAILABLE	LEED v4	LEED v5	POINTS AVAILABLE
1	Integrative Process	Integrative Process, Planning, and Assessments	1
16	Location and Transportation	Location and Transportation	15
10	Sustainable Sites	Sustainable Sites	11
11	Water Efficiency	Water Efficiency	9
33	Energy and Atmosphere	Energy and Atmosphere	33
13	Materials and Resources	Materials and Resources	18
16	Indoor Environmental Quality	Indoor Environmental Quality	13
6	Innovation in Design	Project Priorities and Innovation	10
4	Regional Priority		
110	TOTAL		110

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## Achievement Levels and Point Requirements Maintained

	LEED v4	LEED v5
Certified	40 – 49	40 – 49
Silver	50 – 59	50 – 59
Gold	60 – 79	60 – 79
Platinum	80+	80+

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# New LEED Platinum Requirements for New Construction

## **EA Credit: Electrification**

- 5 points required
- No on-site combustion except for emergency support systems

## **EA Credit: Enhanced Energy Efficiency**

- 8 points required
- ASHRAE90.1-2019 baseline until January 1, 2028; ASHRAE90.1-2022 baseline after January 1, 2028

## **EA Credit: Renewable Energy**

- 100% of site energy use from any combination of Tier 1, Tier 2, and Tier 3 renewable energy
- Functionally this will allow all LEEDv5 Platinum buildings to claim net-zero carbon operations

## **MR Credit: Reduce Embodied Carbon**

- 20% reduction in embodied carbon

# LEED v5 Building Design + Construction: New Construction

Y	?	N			
			<b>Integrative Process, Planning &amp; Assessments</b>		<b>1</b>
x			Prereq	Climate Resilience Assessment	Required
x			Prereq	Human Impact Assessment	Required
x			Prereq	Carbon Assessment	Required
			Credit	Integrative Design Process	1
			<b>Location + Transportation</b>		<b>15</b>
			Credit	Compact and Connected Development	6
			Credit	Electric Vehicles	2
			Credit	Equitable Development	2
			Credit	Sensitive Land Protection	1
			Credit	Transportation Demand Management	4
			<b>Sustainable Sites</b>		<b>11</b>
x			Prereq	Minimize Site Disturbance	Required
			Credit	Accessible Outdoor Space	1
			Credit	Biodiverse Habitat	2
			Credit	Enhanced Resilient Site Design	2
			Credit	Rainwater Management	3
			Credit	Heat Island Reduction	2
			Credit	Light Pollution Reduction	1
			<b>Water Efficiency</b>		<b>9</b>
x			Prereq	Minimum Water Efficiency	Required
x			Prereq	Water Metering and Reporting	Required
			Credit	Enhanced Water Efficiency	8
			Credit	Water Metering and Leak Detection	1

			<b>Energy + Atmosphere</b>		<b>33</b>
x			Prereq	Energy Metering and Reporting	Required
x			Prereq	Fundamental Commissioning	Required
x			Prereq	Fundamental Refrigerant Management	Required
x			Prereq	Minimum Energy Efficiency	Required
x			Prereq	Operational Carbon Projection and Decarbonization Plan	Required
			Credit	Electrification	5
			Credit	Enhanced Commissioning	4
			Credit	Enhanced Energy Efficiency	10
			Credit	Enhanced Refrigerant Management	2
			Credit	Grid-Interactive	2
			Credit	Reduce Peak Thermal Loads	5
			Credit	Renewable Energy	5

			<b>Materials + Resources</b>		<b>18</b>
x			Prereq	Access and Quantify Embodied Carbon	Required
x			Prereq	Planning for Zero Waste Operations	Required
			Credit	Building Product Disclosure and Optimization	5
			Credit	Building and Materials Reuse	3
			Credit	Construction and Demolition Waste Diversion	2
			Credit	Low-Emitting Materials	2
			Credit	Reduce Embodied Carbon	6

			<b>Indoor Environmental Quality</b>		<b>13</b>
x			Prereq	Construction Management Plan	Required
x			Prereq	Fundamental Air Quality	Required
x			Prereq	No Smoking or Vehicle Idling	Required
			Credit	Accessibility and Inclusion	1
			Credit	Air Quality Testing and Monitoring	2
			Credit	Enhanced Air Quality	1
			Credit	Occupant Experience	7
			Credit	Resilient Spaces	2

			<b>Project Priorities + Innovation</b>		<b>10</b>
			Credit	LEED Accredited Professional	1
			Credit	Project Priorities	9

			<b>TOTALS</b>		<b>Possible Points: 110</b>
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 New Credits

 Platinum Mandatory Credits

# Integrative Process, Planning, and Assessments

3 Prerequisites, 1 Credit  
Potential Points: 1

# Integrative Process, Planning, and Assessments

LEEDv4		LEEDv5	
POINTS	Integrative Process	Integrative Process, Planning, and Assessments	POINTS
1	Integrative Process	Climate Resilience Assessment	Required
		Human Impact Assessment	Required
		Carbon Assessment	Required
		Integrative Design Process	1

# Climate Resilience Assessment

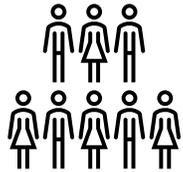
Complete assessment for 2 priority hazards.

Description		Calendar year at end of Design Service Life	Total years of Design Service Life	IPCC Shared Socioeconomic Pathway (NA, SSP1-1.9, SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5)	Current Hazard Level (NA, low, medium, high)	Service Life Hazard Level (NA, low, medium, high)	Risk Rating from Local Hazard Mitigation / Disaster Risk Management / Climate Adaptation Plan, or equivalent source (NA, low, medium, high)	Exposure (NA, low, medium, high)	Sensitivity (NA, low, medium, high)	Adaptive Capacity (NA, low, medium, high)	Potential Impact on Function (NA, low, medium, high)	Vulnerability	Priority Hazard Risk (NA, yes, no)
Hazard	Drought												
	Earthquake												
	Extreme Cold												
	Extreme Heat												
	Flooding												
	Hail												
	Hurricanes												
	High-Wind Areas												
	Landslides and Unstable Soils												
	Sea Level Rise and Storm Surge												
	Tornado Areas												
	Tsunami												
	Wildfire												
	Wildfire Smoke												
	Winter Storms												
	Other												
Other													
Notes/Other Relevant Information Use this space for any findings or considerations not covered by the individual indicators above.													

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# Human Impact Assessment

Assess the following:



## Demographics

Race and ethnicity, gender, age, income, employment rate, population density, education levels, household types, identification of nearby vulnerable populations.



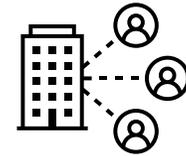
## Local Infrastructure and Land Use

Adjacent transportation and pedestrian infrastructure, adjacent diverse uses, relevant local or regional sustainability goals/commitments.



## Human Use and Health Impacts

Housing affordability and availability, availability of social services, community safety, local community groups, supply chain and construction workforce protections.



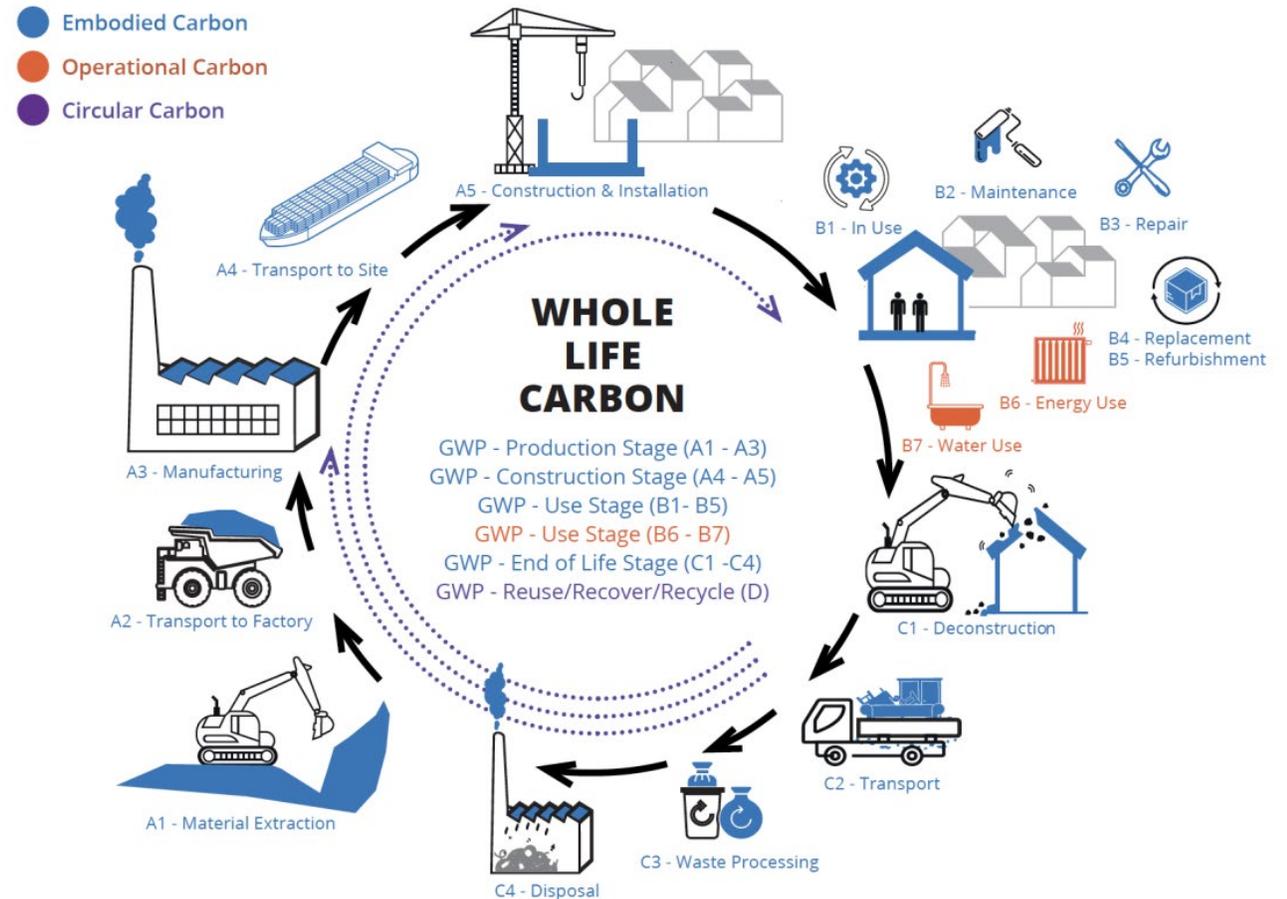
## Occupant Experience

Daylight, views, operable windows, environmental conditions or air and water, adjacent soundscapes, lighting, and wind patterns.

# Carbon Assessment

USGBC will provide the team with a 25-year projected carbon emissions assessment using data from:

- EAp1 Prerequisite: Operational Carbon Projection and Decarbonization Plan
- EAp5 Prerequisite: Fundamental Refrigerant Management
- MRp2 Prerequisite: Assess Embodied Carbon
- LTc4: Transportation Demand Management



# Location and Transportation

5 Credits

Potential Points: 15

# Location and Transportation

LEEDv4		LEEDv5	
POINTS	Location and Transportation	Location and Transportation	POINTS
16	LEED for Neighborhood Development	Compact and Connected Development	6
1	Sensitive Land Protection	Electric Vehicles	2
2	High Priority Site and Equitable Development	Equitable Development	2
5	Surrounding Density and Diverse Uses	Sensitive Land Protection	1
5	Access to Quality Transit	Transportation Demand Management	4
1	Bicycle Facilities		
1	Reduced Parking Footprint		
1	Electric Vehicles		

# Compact and Connected Development

2 separate LEEDv4 credits  
worth up to 10 points

Surrounding Density and  
Diverse Uses

Access to Quality Transit

Combined into one



Option 1. Surrounding Density (1 – 2 points)



Option 2. Access to Transit (1 – 4 points)

- Path 1. Public Transit Service (1 – 4 points)
- Path 2. Project-Sponsored Transit Service (1 – 2 points)



Option 3. Walkable Location (1 – 3 points)

*Options 4 – 7 also exist in this credit, but are less likely to be pursued in Maryland community college projects.*

*Bias for dense, urban environments continues to exist in LEEDv5, but less so than in LEEDv4.*

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# Equitable Development

## Option 1. Priority Sites (1 – 2 points)

- Path 1. Brownfield Remediation (2 points)
- Path 2. Historic Location (1 point)

## Option 2. Housing and Jobs Proximity (1 – 2 points)

- Path 1. Support Local Economy (1 point)
- Path 2. Location Efficient Affordable Housing (2 points)

## Option 3. Equitable Construction (2 points)



# Transportation Demand Management

## Transportation Demand Assessment

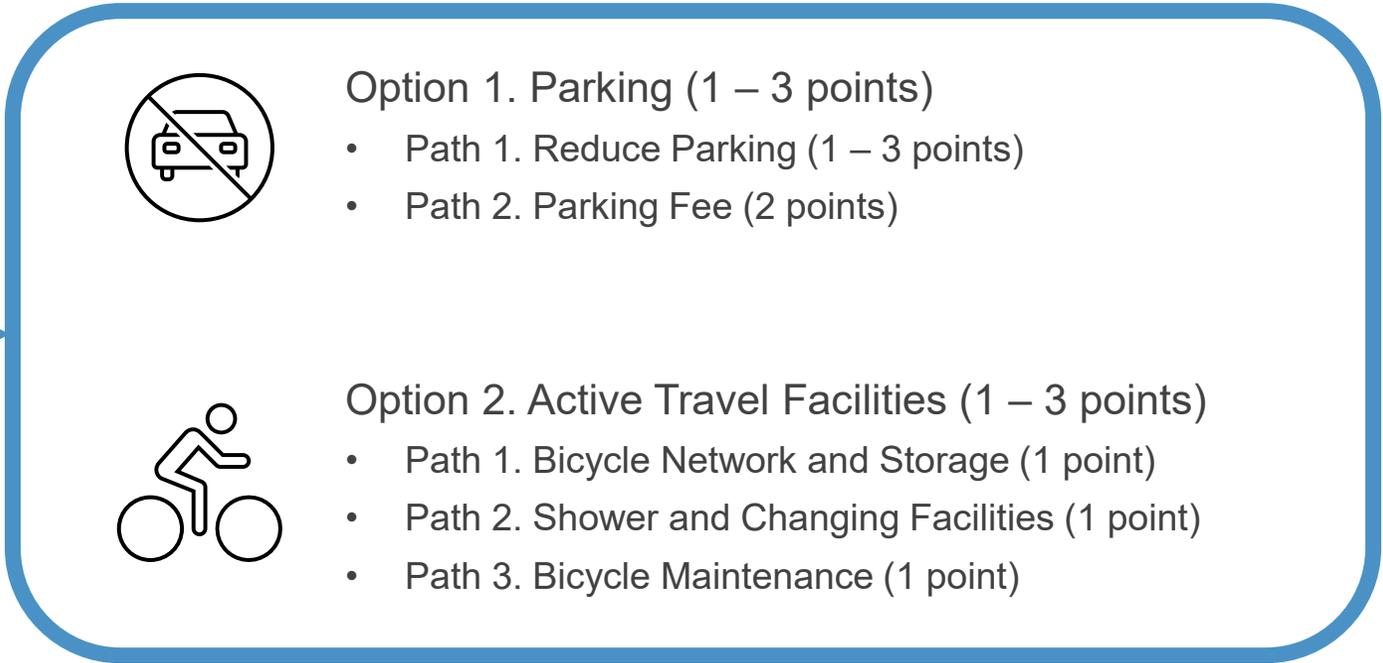
- Assessment of vehicle miles traveled (VMT) and carbon emissions associated

AND

2 separate LEEDv4 credits  
worth up to 2 points



Combined into one



# Sustainable Sites

1 Prerequisite, 6 Credits  
Potential Points: 11

# Sustainable Sites

LEEDv4		LEEDv5	
POINTS	Sustainable Sites	Sustainable Sites	POINTS
Required	Construction Activity Pollution Prevention	Minimize Site Disturbance	Required
1	Site Assessment	Accessible Outdoor Space	1
2	Site Development – Protect or Restore Habitat	Biodiverse Habitat	2
1	Open Space	Enhanced Resilient Site Design	2
3	Rainwater Management	Rainwater Management	3
2	Heat Island Reduction	Heat Island Reduction	2
1	Light Pollution Reduction	Light Pollution Reduction	1

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# Biodiverse Habitat

Option 1. Preserve and Restore Habitat (1 – 2 points)

- Path 1: Greenfield Sites (1 point)
- Path 2: Previously Disturbed Sites (1 – 2 points)

AND/OR

Option 2. Bird-Friendly Glass (1 points)



# Heat Island Reduction

Option 1. Nonroof and Roof (1 – 2 points)

Option 2. Parking Under Cover (1 point)

Option 3. Tree Equity (1 point)

- Evaluate the American Forests Tree Equity score for the site location

**TREE EQUITY SCORE** National Explorer

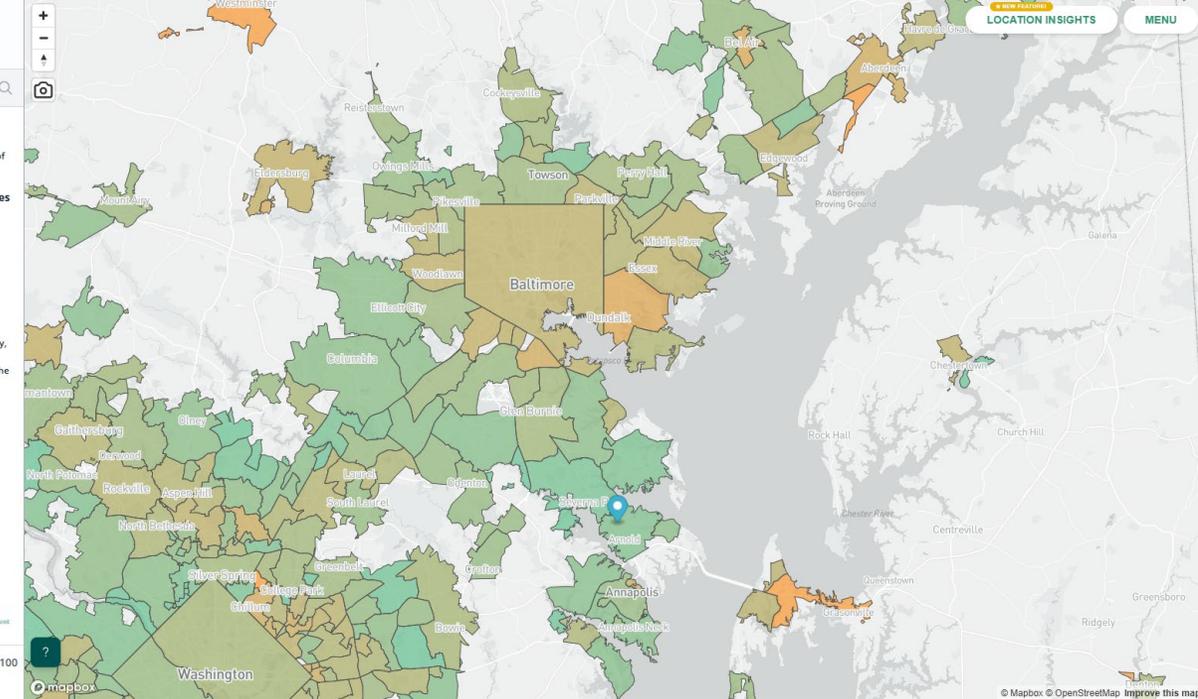
Search for a location

- Find your score.**
  - Search a location or address, or browse the map of nearly 200,000 Tree Equity Scores.
- Uncover the hidden story behind where trees are in your community.**
  - Click or tap the shaded areas on the map to discover more information.
  - Toggle map layers to explore patterns.
  - Identify areas with the greatest need for investment.
- Make the case with data and reports.**
  - Compare neighborhood information.
  - Customize dynamic reports for any locality, county, congressional district, or state.
  - Set targets and calculate tree planting need and the potential benefit to health, economy and environment.

American Forests

Google i-Tree The University of Vermont

0 100 Tree Equity Score



**TREE EQUITY SCORE** National Explorer

Search for a location

Census Block Group 240037311033  
Population: 2,672  
Arnold, MD  
MD Congressional District 4

**100** Tree Equity Score  
Ranked 1st of 12 block groups in Arnold  
Priority: **NONE**

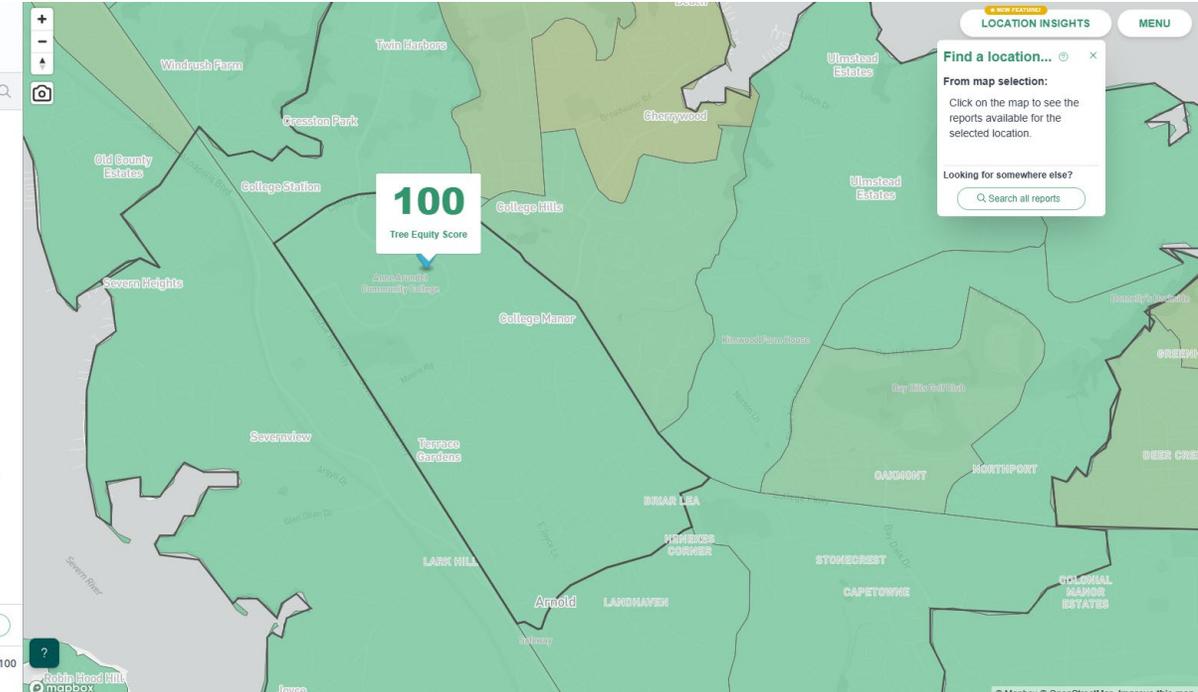
Canopy goal achieved: 53% canopy  
Canopy cover goal: 50%

Score indicators  
Priority index

People of color	13%	Children and seniors	41%
Unemployment	7%	Linguistic isolation	0%
People in poverty	7%	Heat disparity	-6.4°F
		Health burden index	21

Layers Filters

<70 100 Tree Equity Score



# Water Efficiency

2 Prerequisites, 4 Credits  
Potential Points: 9

# Water Efficiency

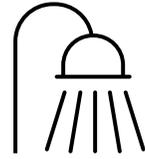
LEEDv4		LEEDv5	
POINTS	Water Efficiency	Water Efficiency	POINTS
Required	Outdoor Water Use Reduction	Minimum Water Efficiency	Required
Required	Indoor Water Use Reduction	Water Metering and Reporting	Required
Required	Building-Level Water Metering	Enhanced Water Efficiency	8
2	Outdoor Water Use Reduction	Water Metering and Leak Detection	1
6	Indoor Water Use Reduction		
2	Cooling Tower Water Use		
1	Water Metering		

# Minimum Water Efficiency

2 separate LEEDv4 prerequisites

Outdoor Water Use Reduction  
Indoor Water Use Reduction

Combined into one



Option 1. Prescriptive Path – Maximum Flush and Flow Rates

Option 2. Performance Path – Calculated Reduction



AND

Minimum Equipment Water Efficiency

AND



Minimum Outdoor Water Use Efficiency

- Option 1. No irrigation
- Option 2. Efficient irrigation (min. 30% reduction)

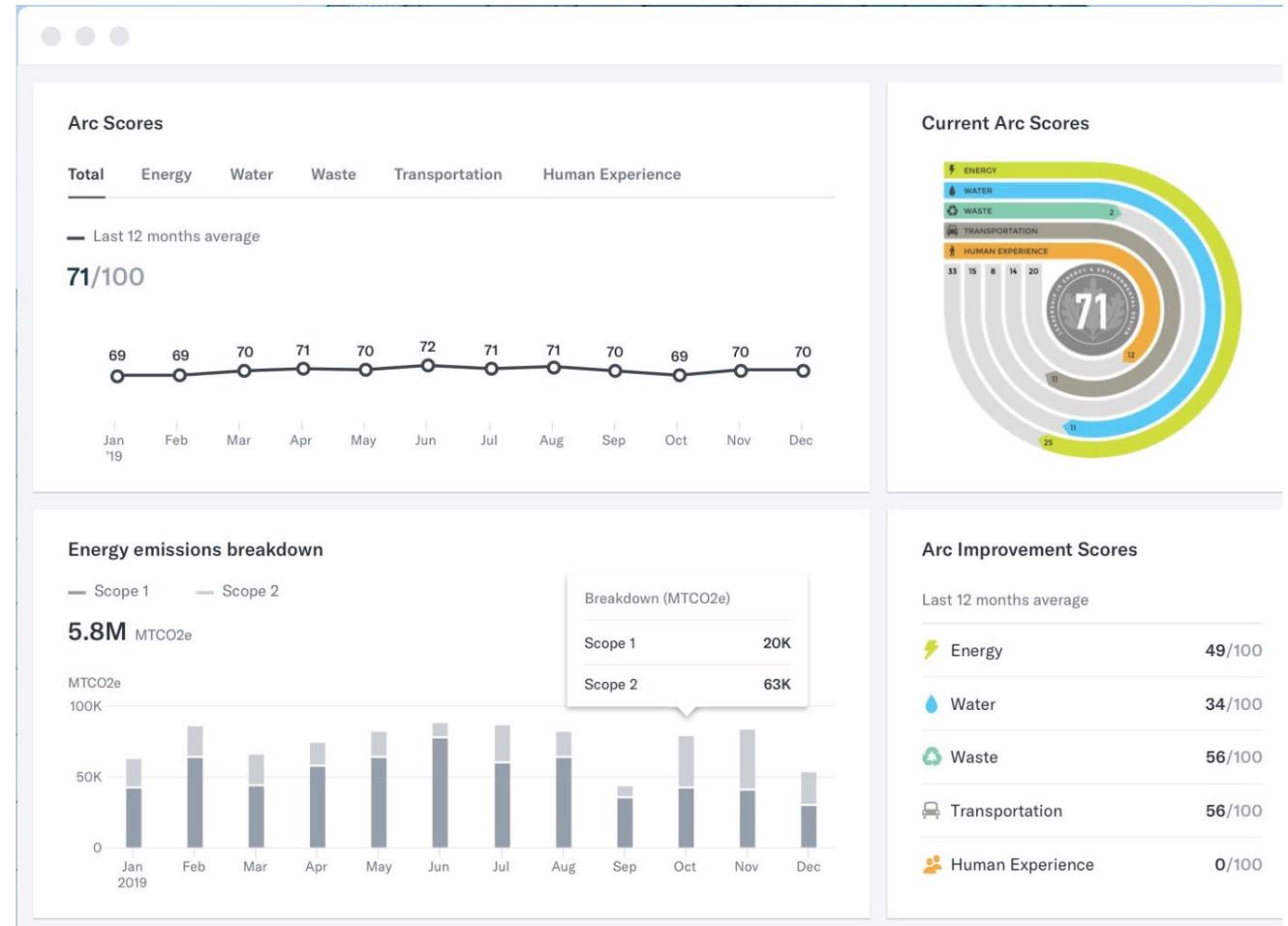
# Water Metering and Reporting

Install or use existing permanent water meters to monitor and report the total water consumption for all water sources for the building and associated grounds.

The facility manager and/or tenant(s) must be able to access the meter data.

Meter alternative water sources separately from potable water.

Commit to sharing data with USGBC at least annually for 5 years or until the building changes ownership or lessee.



# Enhanced Water Efficiency

Option 1. Whole Project Water Use (1 – 8 points)

Option 2. Fixture and Fittings – Calculated Reduction (1 – 3 points)

Option 3. Appliance and Process Water (1 – 2 points)

Option 4. Outdoor Water Use (1 – 2 points)

- Path 1: No irrigation: 2 points
- Path 2: Efficient irrigation: 50% (1 point) 100% (2 points)

Option 5. Optimize Process Water Use (1 – 2 points)

- Path 1: Limit Cooling Tower Cycles (1 – 2 points)
- Path 2: Optimize Water Use for Cooling (1 – 2 points)
- Path 3: Process Water Use (1 – 2 points)

Option 6. Water Reuse (1 – 2 points)

- Path 1: Reuse-Ready System (1 point)
- Path 2: Alternative Water Sources (2 points)

## Option 1

Table 1. Points for reducing overall project water use

Percent reduction	Points	Total Points for Alternative Water
30%	1	2
35%	2	3
40%	3	4
45%	4	5
50%	5	6
55%	6	7
60%	7	8
65%	8	Exemplary Performance

# Enhanced Water Efficiency – MOCK CALCULATIONS

*Howard Community College Math + Athletics Complex*

- No irrigation
- 33% indoor water use reduction

## LEED v4

2 pts no irrigation  
 + 2 pts indoor water reduction

4 pts

Percentage Reduction	Points (BD+C)
25%	1
30%	2
35%	3
40%	4
45%	5
50%	6

## LEED v5

irrigation baseline = 2,572,704 gallons / yr  
 indoor water use baseline = 573,079 gallons / yr

Irrigation proposed = 0 gallons / yr  
 indoor water use baseline = 381,597 gallons / yr

## 88% Reduction

### Option 1

Table 1. Points for reducing overall project water use

Percent reduction	Points	Total Points for Alternative Water
65%	8	Exemplary Performance

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## Water Metering and Leak Detection

### Option 1. Submeters (1 point)

- Indoor plumbing fixtures and fittings
- Irrigation
- Each makeup water system
- Commercial kitchens
- Commercial laundries
- Each dwelling unit (if applicable)

### Option 2. Leak detection sensors (1 point)

- Irrigation
- 50% of project flush fixtures (by fixture or restroom facility)
- Each makeup water system

## Whole Home Leak Detection with Automatic Water Shutoff



**Automatically** shut off the water when a leak is detected



**Remotely** control your home's water from anywhere



# Energy + Atmosphere

5 Prerequisites, 12 Credits  
Potential Points: 33

# Energy + Atmosphere

LEEDv4		LEEDv5	
POINTS	Energy + Atmosphere	Energy + Atmosphere	POINTS
Required	Fundamental Commissioning and Certification	Energy Metering and Reporting	Required
Required	Minimum Energy Performance	Fundamental Commissioning	Required
Required	Building-Level Energy Metering	Fundamental Refrigerant Management	Required
Required	Fundamental Refrigerant Management	Minimum Energy Efficiency	Required
6	Enhanced Commissioning	Operational Carbon Projection and Decarbonization Plan	Required
18	Optimize Energy Performance	Electrification	5
1	Advanced Energy Metering	Enhanced Commissioning	4
2	Demand Response	Enhanced Energy Efficiency	10
3	Renewable Energy Production	Enhanced Refrigerant Management	2
1	Enhanced Refrigerant Management	Grid Interactive	2
2	Green Power and Carbon Offsets	Reduce Peak Thermal Loads	5
		Renewable Energy	5

# Energy Metering and Reporting

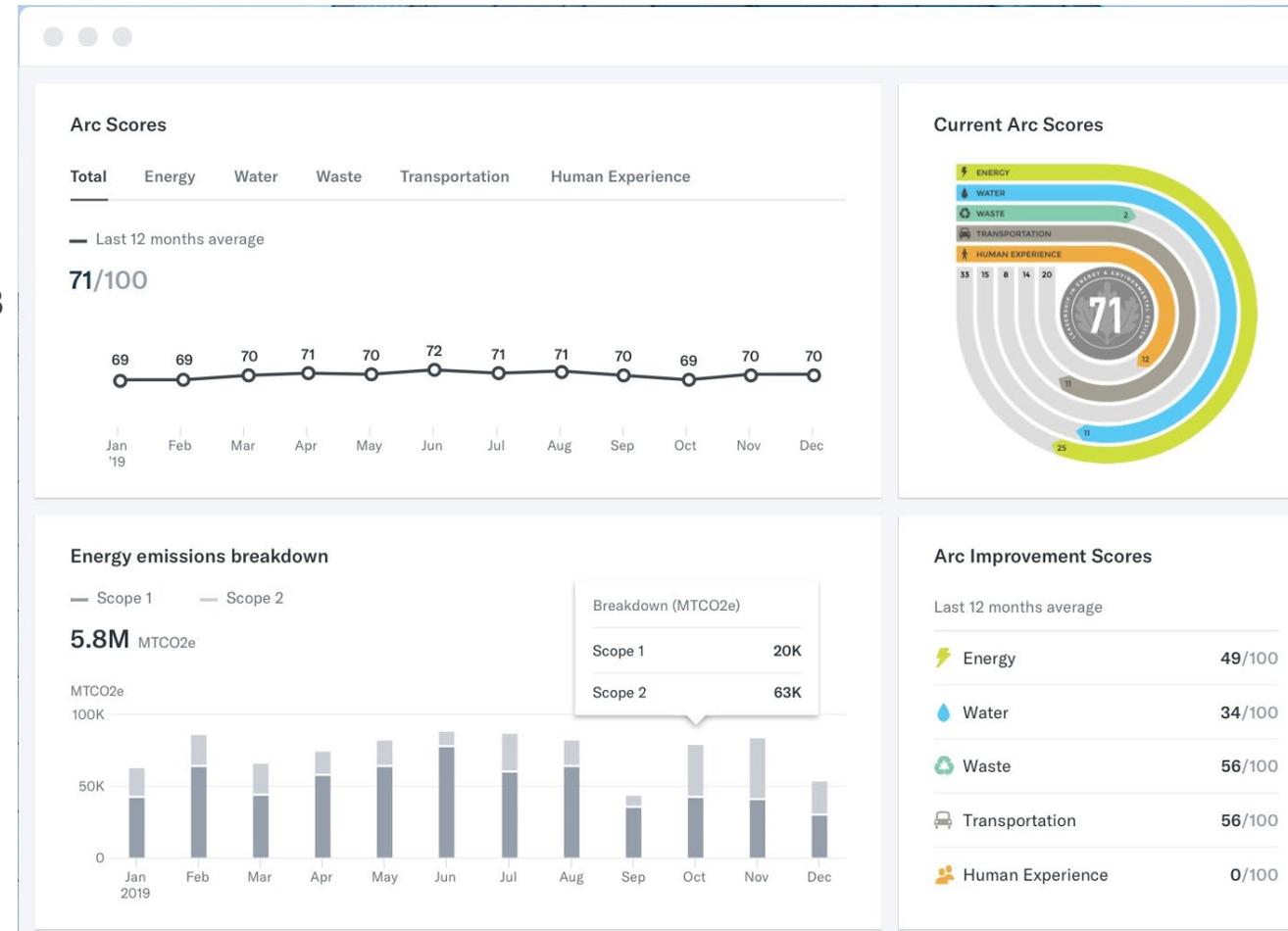
## Energy Monitoring and Recording

- Install (or use existing) devices to monitor and record energy use per ASHRAE90.1.
  - 2019 for projects registered before January 1, 2028
  - 2022 for project registered on or after January 1, 2028
- Install (or use existing) devices to monitor and record energy consumption for electrical end uses and on-site renewable energy generation.

AND

## Report Energy Data

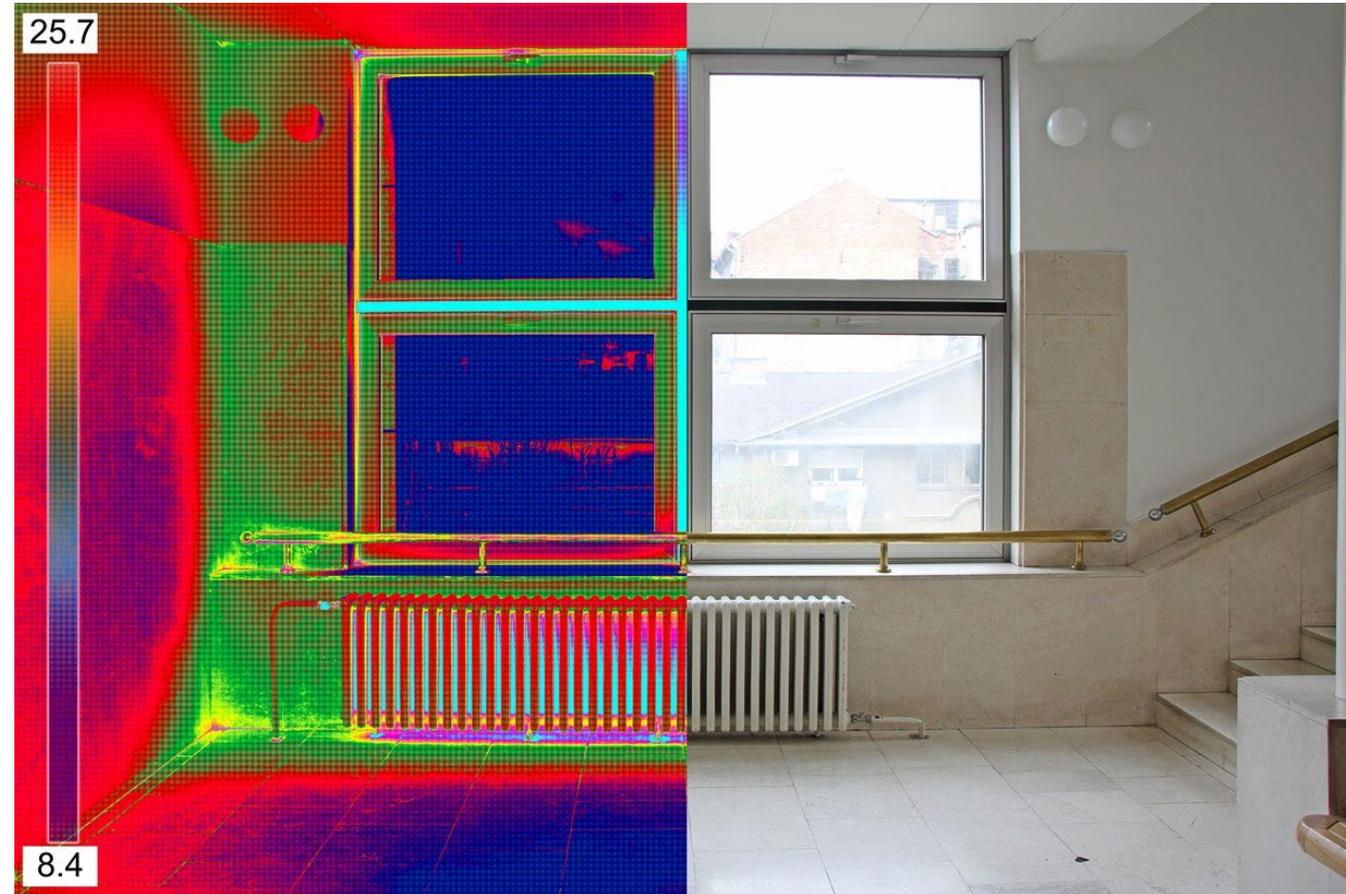
- Commit to sharing data with USGBC at least annually for 5 years or until the building changes ownership or lessee.



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# Fundamental Commissioning

Includes all building systems, controls, and the building envelope.

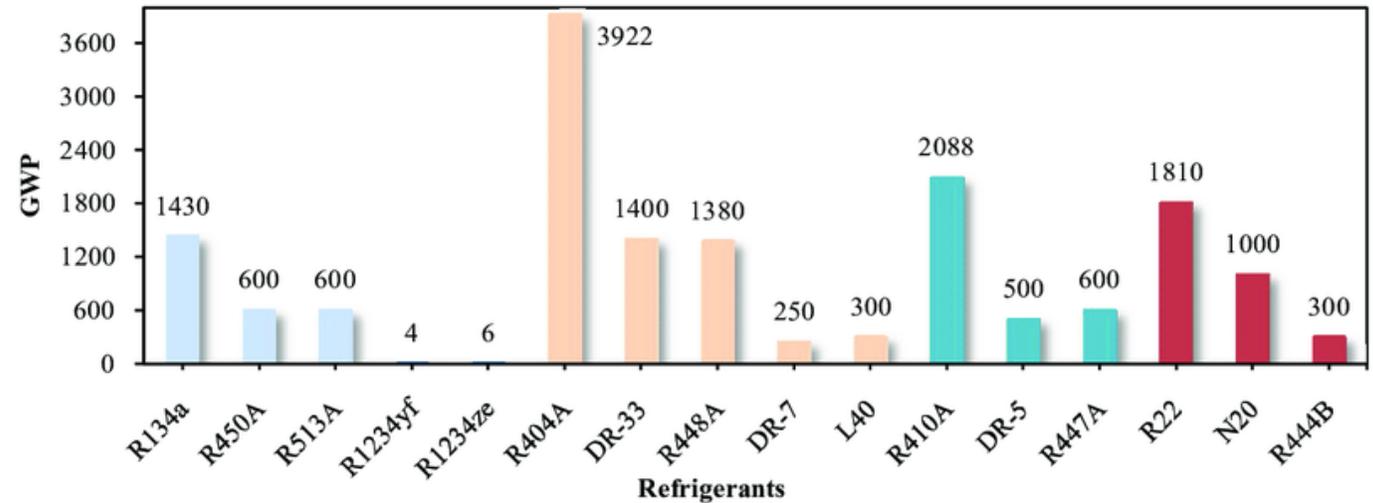


# Fundamental Refrigerant Management

Option 1. No Refrigerants

Option 2. Refrigerants

- Complete refrigerant inventory.
- No HCFC refrigerants.
- Evaluate available alternatives during design process for any refrigerants with GWP > 700.
- Leak check and repair.



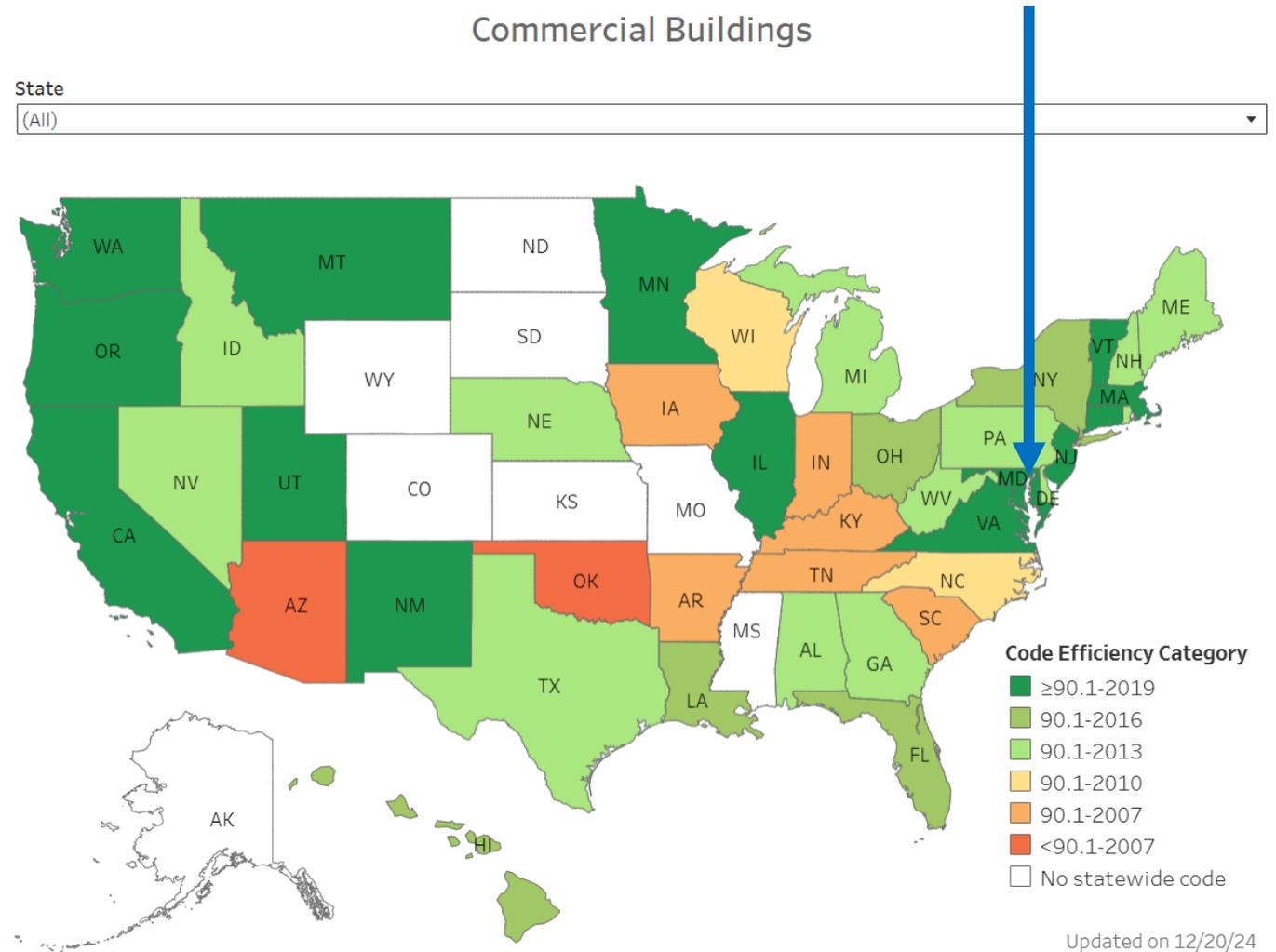
Devecioğlu, Atilla & Oruc, Vedat. (2015). Characteristics of Some New Generation Refrigerants with Low GWP. Energy Procedia. 75. 1452-1457. 10.1016/j.egypro.2015.07.258.

# Minimum Energy Efficiency

Projects registering before January 1, 2028 may use either Option 1 or Option 2. Project registering on or after January 1, 2028 must comply with Option 2.

Option 1. ASHRAE 90.1 – 2019

Option 2. ASHRAE 90.1 – 2022



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# Operational Carbon Projection and Decarbonization Plan

Design Analysis

AND

Site Energy Estimate

AND

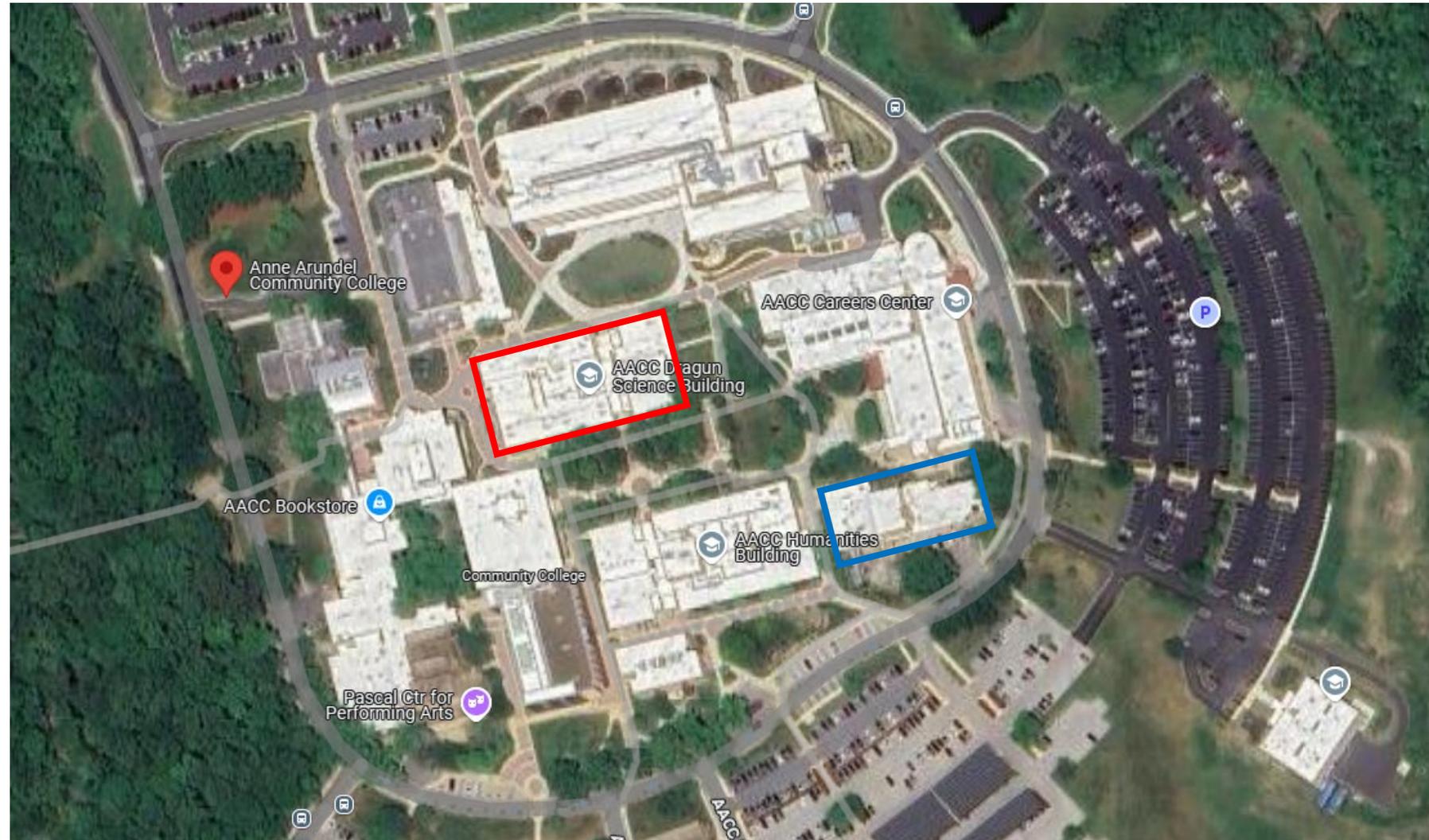
Review Carbon Projection

AND

Decarbonization Plan

Path 1. Design for Electrification

Path 2. Plan for Decarbonization

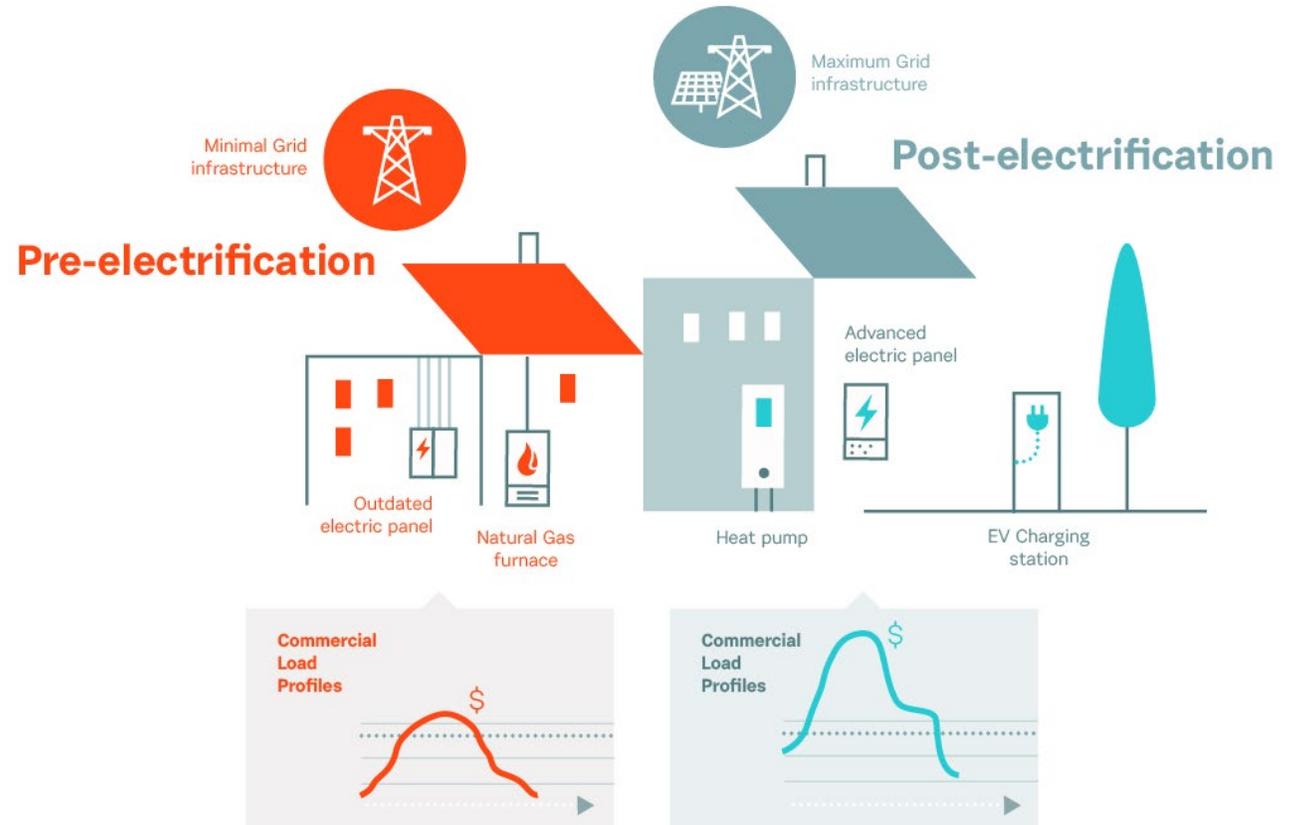


# Electrification

Option 1. No On-Site Combustion (5 points)

Option 2. No On-Site Combustion Except at Low Temperatures (1 – 4 points)

- Path 1. Space Heating (2 points)
- Path 2. Water Heating (1 point)
- Path 3. Cooking and Other Process Loads (1 point)



# Enhanced Energy Efficiency

## Option 1. Prescriptive Path (1 – 10 points)

- Path 1. Regulated Loads (1 – 7 points)
  - Case 1. ASHRAE90.1-2019 (1 – 5 points)
  - Case 2. ASHRAE90.1-2022 (4 – 7 points)
- Path 2. Plug and Process Loads (1 – 4 points)
  - Case 1. Plug Load Management (1 point)
  - Case 2. Efficient Plug and Process Load Equipment (1 – 4 points)
  - Case 3. Plug and Process Load Exceptional Calculation (1 – 4 points)

## Option 2. Energy Simulation (1 – 10 points)

- $PI_{nre}$  = performance index for future source energy excluding on-site renewable contribution
- $PI_t$  = performance index target for future source energy use

Path 1. Percentage Reduction excluding On-Site Renewable Contribution ( $100\% - PI_{nre} / PI_t$ )	or	Path 2. Percentage Reduction including On-Site Renewable Contribution ( $100\% - PI / PI_t$ )	Points
3%		10%	1
6%		20%	2
9%		30%	3
12%		40%	4
15%		50%	5
18%		60%	6
21%		70%	7
24%		80%	8
27%		90%	9
30%		100%	10

# Grid Interactive

Option 1. Energy Storage (1 – 2 points)

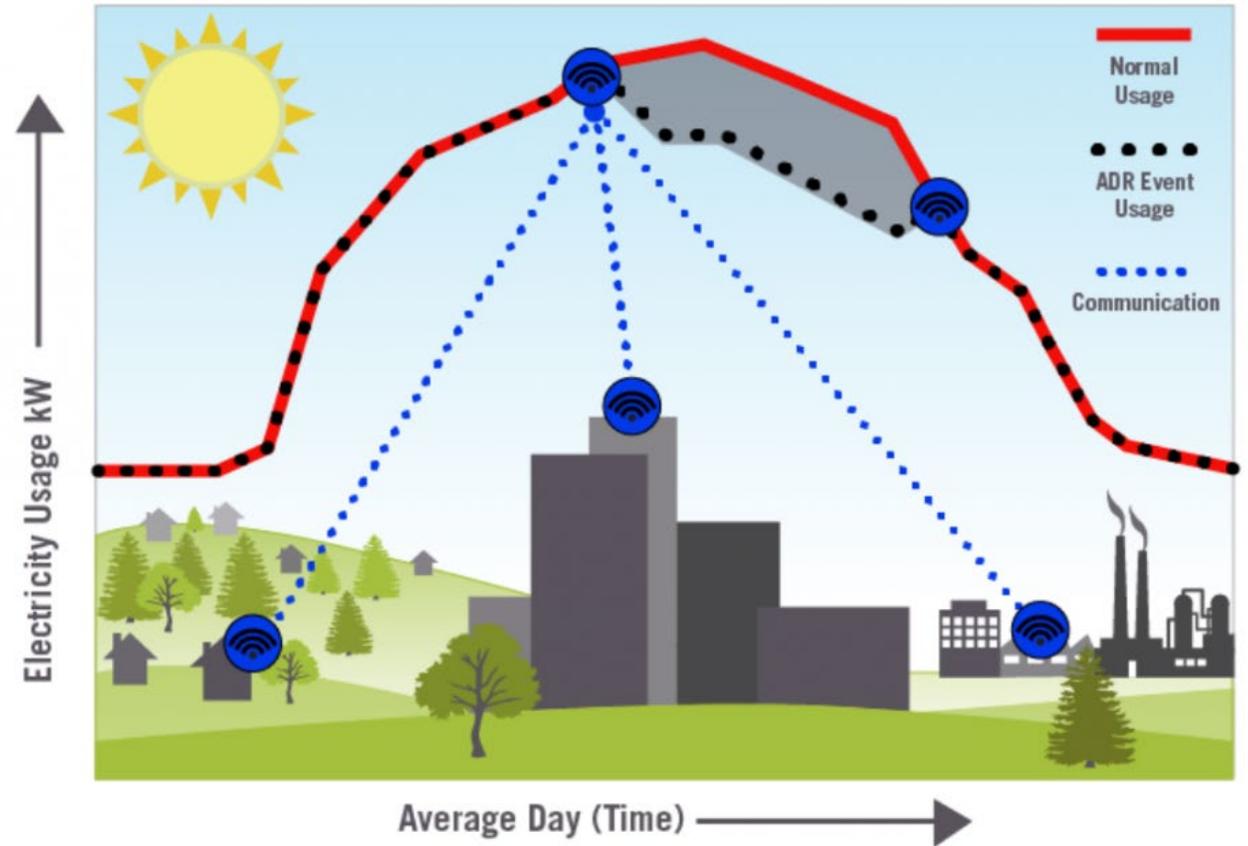
Option 2. Demand Response Program (1 point)

Option 3. Automated Demand-Side Management (1 point)

- Path 1. System-Level Controls (1 point)
- Path 2. Building Automated System (1 point)

Option 4. Power Resilience (1 point)

## Automated Demand Response



# Renewable Energy

Tier 1. On-site renewable energy generation or equity project

Tier 2. New off-site renewable electricity

Tier 3. Off-site renewable energy

**Table 1. Points for Renewable Energy Procurement**

Points	Tier 1			Tier 2	Tier 3
	Minimum Rated Capacity <sup>1</sup>	or	Percent of Annual Site Energy	Percent of Annual Site Energy	Percent of Annual Site Energy
1	A * 1 W / ft <sup>2</sup> (A * 10.8 W/m <sup>2</sup> )	or	5%	20%	50%
2	A * 2 W / ft <sup>2</sup> (A * 21.6 W/m <sup>2</sup> )	or	10%	40%	100%
3			20%	60%	
4			35%	80%	
5			100% Tier 1 and/or Tier 2 renewable energy		

*A = the sum of gross floor area of all floors up to the three largest floors.*

# Materials + Resources

2 Prerequisites, 7 Credits  
Potential Points: 18

# Materials + Resources

LEEDv4		LEEDv5	
POINTS	Materials + Resources	Materials + Resources	POINTS
Required	Storage and Collection of Recyclables	Quantify and Assess Embodied Carbon	Required
Required	Construction and Demolition Waste Management Planning	Planning for Zero Waste Operations	Required
5	Building Life-Cycle Impact Reduction	Building Product Selection and Procurement	5
2	Building Product Disclosure and Optimization – Environmental Product Declarations	Building and Materials Reuse	3
2	Building Product Disclosure and Optimization – Sourcing of Raw Materials	Construction and Demolition Waste Diversion	2
2	Building Product Disclosure and Optimization – Material Ingredients	Low-Emitting Materials	2
2	Construction and Demolition Waste Management	Reduce Embodied Carbon	6

# Quantify and Assess Embodied Carbon

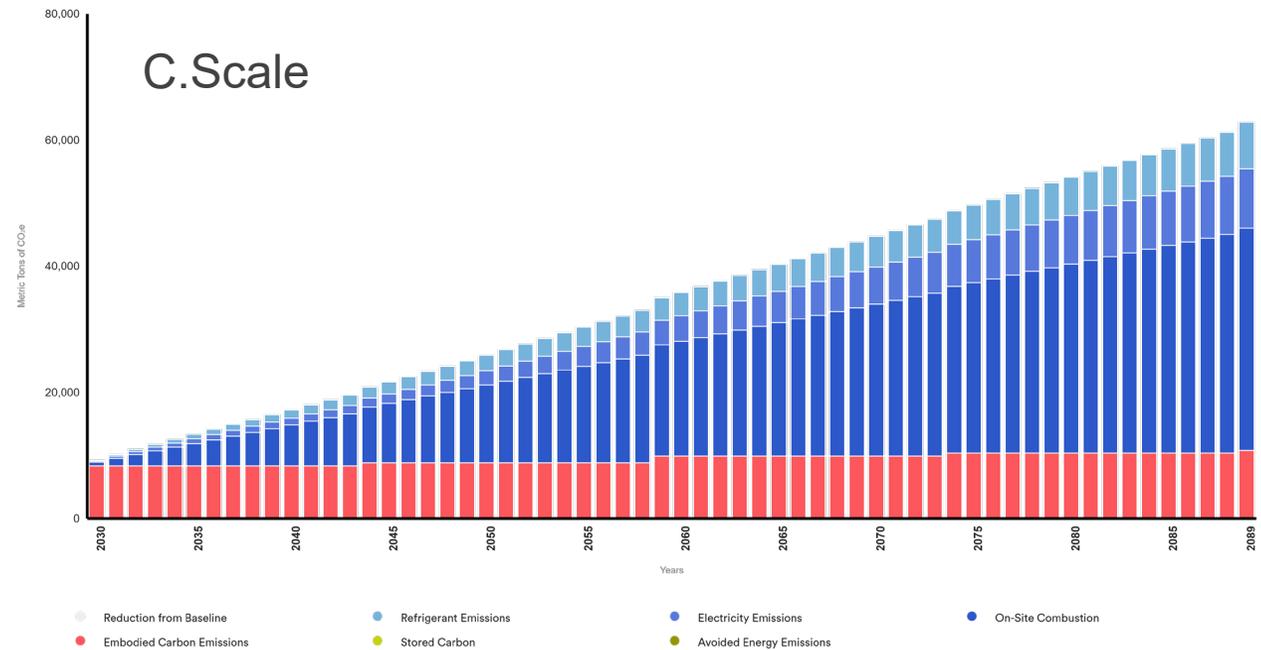
Embodied Carbon

AND

High-Priority Embodied Carbon Sources



Cumulative Emissions Over 60 Years  
Raze and Rebuild



C.Scale

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# Planning for Zero Waste Operations

Storage and Collection of Recyclables

Zero Waste Operations Planning



# Building Product Selection and Procurement

Products must have achievements in one or more of the five criteria areas:

1. Climate health (Ex. EPD, Recycled Content)
2. Human health (Ex. HPD)
3. Ecosystem health (Ex. EPD, FSC)
4. Social health and equity (Ex. 8 ILO Conventions Certified)
5. Circular economy (Ex. Recycled Content, EPR, Reuse)

Option 1. Number of Manufacturers (1 – 3 points)

Option 2. Product Categories (1 – 5 points)

- Paints and coatings
- Adhesives and sealants
- Flooring
- Walls
- Ceilings
- Insulation
- Furniture
- Composite Wood
- Plumbing fixtures

Materials Pledge Meets Framework: How the CMF supports the Pledges 		
A&D Pledge Bucket Description	CMF Sub-Buckets	Example Programs + Standards Referenced (full list to be released with Reference Guide)
 <b>HUMAN HEALTH</b> Support HH by preferring products that support and foster life throughout their life cycles and seek to eliminate the use of hazardous substances.	substances	HPD, Declare, C2C, BIFMA, LPC, GreenCircle CEF
	VOCs	CDPH, SCS Indoor Advantage, GreenGuard, BIFMA, SCAQMD
	Company human health impacts	Chemical Footprint Project, LPC, BIFMA, C2C
 <b>CLIMATE HEALTH</b> Support CH by preferring products that reduce carbon emissions and sequester more carbon than emitted.	embodied carbon	LCA, EPD, EC3, LPC, GreenCircle (GC) CEF
	company carbon	SBTi, CDP, GRI, GC Carbon Footprint Reduction, GreenCircle Certified Environmental Facts
 <b>ECOSYSTEM HEALTH</b> Support EH by preferring products that support and regenerate the natural air, water, and biological cycles of life through thoughtful supply chain management and restorative company practices	pollution	BIFMA, C2C
	Water footprint (product)	LPC, C2C, BIFMA, GreenCircle CEF, WaterSense
	Water footprint (company)	Global Water Footprint Assessment Standard, Alliance for Water Stewardship, CDP, GRI, B-Corp
	Biodiv & Conserv.	LPC, C2C, SCS Environmentally Preferable Product Certified, FSC, SFI, BIFMA
 <b>SOCIAL HEALTH &amp; EQUITY</b> Support SH+E by preferring products from mfgs that secure human rights in operations and in supply chains, positively impacting workers + communities where they operate	Life cycle enviro. impacts	LCA, EPD, TRACI (US EPA)
	Supply chain	ILO, FSC, C2C, LPC, Copper Mark, PEFC, Design for Freedom
	Comp. workplace	JUST, B-Corp, UN Glob. Comp., C2C, LPC, BIFMA
 <b>CIRCULAR ECONOMY</b> Support CE by reusing and improving buildings and by designing for resiliency, adaptability, disassembly, and reuse, aspiring to a zero-waste goal for global construction activities.	Community	BIFMA, JUST, FSC Certified, Certified B-Corp, LPC
	Sourcing	FSC, SFI, USDA Biobased, ANSI 373 Sustainable Stone, C2C, LPC, BIFMA, Ecologo
	End of life	C2C, LPC, GreenCircle Closed Loop Product Certification, UL claims, SCS claims
	Packaging	FSC, SFI, LPC, C2C, USDA Biobased
	Company circularity	C2C, TRUE certification
Waste	TRUE Certified, LPC, BIFMA, SCS Zero Waste, NSF Landfill-free, Greencircle Zero Waste	

# Reduce Embodied Carbon

Option 1. Whole Building Life-Cycle Assessment (1 – 6 points)

Option 2. EPD Analysis: Project-Average Approach (1 – 3 points)

- Path 1. Project-Average Approach (1 – 3 points)
- Path 2. Materials-Type Approach (1 – 2 points)

Option 3. Track Carbon Emissions from Construction Activities (1 – 2 points)

**Table 2. Points for Tracking Emissions During Construction Activities**

Pathway	Type of Construction-Phase Emissions to Track	LCA Modules	Points
Path 1	Track all fuel and utility usage for contractor jobsite operations	A5	1
Path 2	Track all fuel and utility usage for contractor and subcontractor jobsite operations	A5	2

**Table 1. Points for embodied carbon reductions in Options 1-3**

	Option 1. Whole Building Life-Cycle Assessment	Option 2. EPD Analysis: Project-Average Approach	Option 3. EPD Analysis by Material Category
Meet Baseline or Industry Average	2	1	3 material categories for 1 point or 5+ material categories for 2 points
10% Reduction in GWP	3	-	-
20% Reduction in GWP	4	2	-
30% Reduction in GWP	5	-	-
40%+ Reduction in GWP	6	3	-

# Indoor Environmental Quality

3 Prerequisites, 8 Credits  
Potential Points: 13

# Indoor Environmental Quality

LEEDv4		LEEDv5	
POINTS	Indoor Environmental Quality	Indoor Environmental Quality	POINTS
Required	Minimum Indoor Air Quality Performance	Construction Management	Required
Required	Environmental Tobacco Smoke Control	Fundamental Air Quality	Required
2	Enhanced Indoor Air Quality Strategies	No Smoking or Vehicle Idling	Required
3	Low-Emitting Materials	Accessibility and Inclusion	1
1	Construction Indoor Air Quality Management Plan	Air Quality Testing and Monitoring	2
2	Indoor Air Quality Assessment	Enhanced Air Quality	1
1	Thermal Comfort	Occupant Experience	7
2	Interior Lighting	Resilient Spaces	2
3	Daylight		
1	Quality Views		
1	Acoustic Performance		

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# Construction Management

Plan addresses:

- No smoking
- Extreme heat protection
- HVAC protection
- Source Control
- Pathway interruption
- Housekeeping
- Scheduling

NEWS ANALYSIS

## What Last Summer's Weather Taught Us about Jobsite Equity

Climate change symptoms, including wildfire smoke and extreme heat, are endangering outdoor workers and changing assumptions about productivity and construction timelines.

by [Elizabeth Waters](#)

Climate change is threatening outdoor construction workers. Extreme heat and dangerous air quality from wildfire smoke are becoming more frequent and prolonged, occurring in places that have not previously experienced them. And without federal regulations in place, employers must make judgment calls about safety breaks and work stoppages in an industry notorious for its immense time pressures.

### *How climate change compromises safety*

According to a [report](#) by the World Meteorological Organization (WMO), climate change increases the likelihood of prolonged heat waves, which in turn contribute to poor air quality by increasing the development of ground-level ozone (a.k.a. smog) as well as the risk of wildfire, dust storms, and other consequences of drought.

In an [August article](#) from *The Guardian*, author Oliver Milman cites data from the U.S. Centers for Disease Control and Prevention (CDC) that shows a 95% increase in annual heat-related deaths in the U.S. from 2010 to 2022. He writes that, although the total global death count from extreme heat in the summer of 2023 is still unknown, the world-record-breaking temperatures in June, July, and August mean fatalities likely surpassed those of recent years.

Construction laborers are at particular risk of heat illness and death. They often work outside and on hot surfaces, and they are required to wear long-sleeved shirts, boots, jeans, hard hats, glasses, and respirators that can make it almost impossible to keep cool. According to the Bureau of Labor Statistics, [436 construction workers died](#) of heat exposure between 2011 and 2021. But, [as reported](#) by Anita Snow and Kendria Lafleur of the *Associated Press*, official numbers of heat-related deaths are certainly undercounts. Such fatalities are often recorded only as their immediate cause, such as heart disease.



[https://www.buildinggreen.com/news-analysis/what-last-summer-s-weather-taught-us-about-jobsite-equity?utm\\_source=chatgpt.com](https://www.buildinggreen.com/news-analysis/what-last-summer-s-weather-taught-us-about-jobsite-equity?utm_source=chatgpt.com)

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## No Smoking or Vehicle Idling

No indoor or outdoor smoking.

Prohibit vehicle idling on-site.



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# Accessibility and Inclusion

Comply with local accessibility codes

AND

Include at least 10 strategies from these accessibility categories:

- Physical diversity
  - Ex. Wave-to-open or press door operators, alternate stair routes
- Safety and aging
  - Ex. Non-slip flooring, transition strips and fixed area rugs, audible and visual emergency alerts, closed risers, visual contrast of interiors
- Social health
  - Ex. Lactation rooms, all-gender restrooms
- Navigation
  - Ex. Wayfinding signage, pattern and color blocking, symbols on signage



# Occupant Experience

5 separate LEEDv4 credits  
worth 8 points

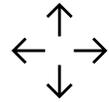
Quality Views  
Thermal Comfort  
Acoustic Performance  
Interior Lighting  
Daylight

Combined into one



Option 1. Biophilic Environment (1 – 4 points)

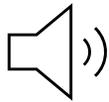
- Path 1. Indoor Biophilic Design (1 point)
- Path 2. Quality Views (2 – 3 points)



Option 2. Adaptable Environment (1 point)



Option 3. Thermal Environment (1 point)



Option 4. Sound Environment (1 - 2 points)

- Path 1. Mapping Acoustical Expectations for Indoor and Outdoor Spaces (1 point)
- Path 2. Acoustic Criteria for Indoor and Outdoor Spaces (1 point)



Option 5. Lighting Environment (1 – 6 points)

- Path 1. Solar Glare (1 point)
- Path 2. Quality Electric Lighting (1 point)
- Path 3. Proximity to Windows for Daylight Access (1 point)
- Path 4. Daylight Simulation (1 – 4 points)

# Resilient Spaces

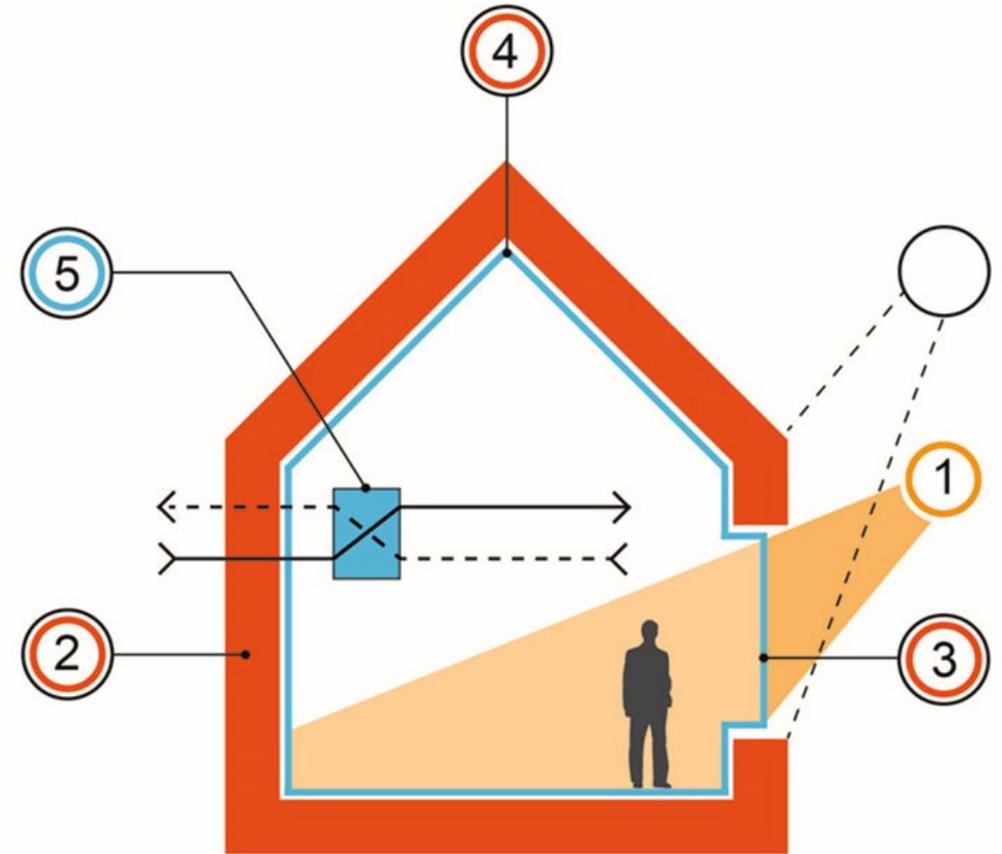
Option 1. Management Mode for Episodic Outdoor Ambient Conditions – NC Only (1 point)

Option 2. Management Mode for Respiratory Diseases – NC Only (1 point)

Option 3. Design for Occupant Thermal Safety during Power Outages (1 – 2 points)

- Path 1. Consider Extreme Heat (1 point)
- Path 2. Consider Extreme Cold (1 point)

Option 4. Operable Windows (1 - 2 points)



## PASSIVE HOUSE PRINCIPLES

- 1 SOLAR ORIENTATION
- 2 HIGH INSULATION
- 3 HIGH PERFORMANCE WINDOWS
- 4 AIR TIGHT ENCLOSURE
- 5 BALANCED VENTILATION WITH HEAT RECOVERY

# Project Priorities + Innovation

2 Credits

Potential Points: 10

# Project Priorities + Innovation

LEEDv4		LEEDv5	
POINTS	Innovation	Project Priorities + Innovation	POINTS
1	LEED Accredited Professional	LEED Accredited Professional	1
5	Innovation	Project Priorities	9
4	Regional Priority		

# Project Priorities

Any combination for a maximum of 9 points:

- Regional Priority
- Project-Type Credits
- Exemplary Performance
- Pilot Credits
- Innovative Strategies

v4.1 LEED BD+C: New Construction Brattleboro, Vermont

Projects registered prior to **May 8th 2016**, regional priority selections are based on zip code. [Click here](#) to view zip code lookup



### Site Assessment

Sustainable sites

Up to 1 points

Required Point Threshold: 1

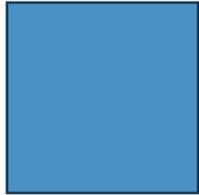
LEED BD+C: New Construction, LEED BD+C: Core And Shell, LEED BD+C: Schools, LEED BD+C: Retail, LEED BD+C: Healthcare, LEED BD+C: Data Centers, LEED BD+C: Hospitality, LEED BD+C: Warehouses And Distribution Centers • V4.1 - LEED V4.1



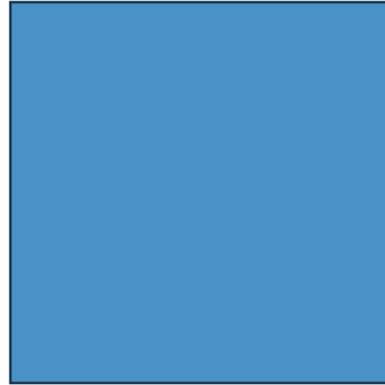
# Climate Solutions Now

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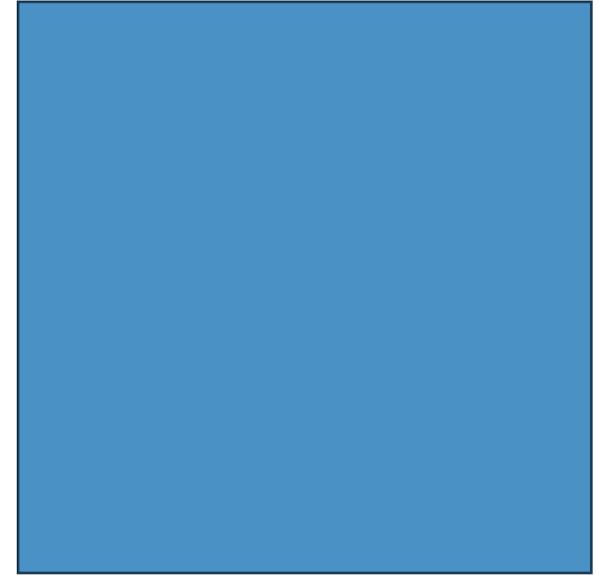
## Small, Medium, and Large



If less than 7,500 GSF, then IECC2021 by either the prescriptive or performance pathways.



If 7,500 – 34,999 GSF, then IECC2021 by either the prescriptive or performance pathway and LEED Silver or better to meet the High Performance Green Building Program.



If 35,000+ GSF, then IECC2021 by either the prescriptive or performance pathway and LEED Silver or better to meet the High Performance Green Building Program, and no on-site combustion by 2040.

# Recommendations

1. Map your assets. What fits into each of the three categories?
2. Meter at a building scale.
3. Manage your metered data.

Size	Building	Cost
Large		
	Henson Hall	\$\$\$
	Sea Gull Square	\$\$\$
	Fulton Hall	\$\$\$
	Maggs Gym and Annex	\$\$\$
Medium		
	Guerrieri Student Union	\$\$
	Perdue Hall	\$
	Chester Hall	\$
Small		
	Chesapeake Hall	\$
	Saint Martin Hall	\$
	Severn Hall	\$



# So What?

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## So what?

- LEEDv5 and Climate Solutions Now are aligned in their decarbonization ambitions.
- The scope of LEED certification expands under LEEDv5, but LEEDv5 in general is a more targeted transition from LEEDv4 than the transition from LEED 2009 to LEEDv4 was.
- Energy performance benchmark upgrades to ASHRAE90.1-2019 and ASHRAE90.1-2022 depending on when a project registers.
- Energy performance metric transitions to carbon.
- It's likely a tracking "high Silver / low Gold" in Maryland under LEEDv4 would achieve "high Certified / low Silver" under LEEDv5.

# Likely Typical Outcomes HCC MAC – LEED v4



## LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Project Name: HCC MAC

Date: 3/12/2025

Y ? N

1		Credit	Integrative Process	1
<b>6</b>	<b>0</b>	<b>10</b>	<b>Location and Transportation</b>	<b>16</b>
		x	Credit LEED for Neighborhood Development Location	16
1			Credit Sensitive Land Protection	1
1	1		Credit High Priority Site	2
2		3	Credit Surrounding Density and Diverse Uses	5
		5	Credit Access to Quality Transit	5
1			Credit Bicycle Facilities	1
1			Credit Reduced Parking Footprint	1
		1	Credit Green Vehicles	1
<b>5</b>	<b>0</b>	<b>5</b>	<b>Sustainable Sites</b>	<b>10</b>
			Prereq Construction Activity Pollution Prevention	Required
1			Credit Site Assessment	1
		2	Credit Site Development - Protect or Restore Habitat	2
1			Credit Open Space	1
		3	Credit Rainwater Management	3
2			Credit Heat Island Reduction	2
1			Credit Light Pollution Reduction	1
<b>5</b>	<b>0</b>	<b>6</b>	<b>Water Efficiency</b>	<b>11</b>
			Prereq Outdoor Water Use Reduction	Required
			Prereq Indoor Water Use Reduction	Required
			Prereq Building-Level Water Metering	Required
2			Credit Outdoor Water Use Reduction	2
2		4	Credit Indoor Water Use Reduction	6
		2	Credit Cooling Tower Water Use	2
1			Credit Water Metering	1
<b>18</b>	<b>2</b>	<b>10</b>	<b>Energy and Atmosphere</b>	<b>33</b>
			Prereq Fundamental Commissioning and Verification	Required
			Prereq Minimum Energy Performance	Required
			Prereq Building-Level Energy Metering	Required
			Prereq Fundamental Refrigerant Management	Required
5		1	Credit Enhanced Commissioning	6
12		3	Credit Optimize Energy Performance	18
		1	Credit Advanced Energy Metering	1
		2	Credit Demand Response	2
		3	Credit Renewable Energy Production	3
1			Credit Enhanced Refrigerant Management	1
		2	Credit Green Power and Carbon Offsets	2

<b>8</b>	<b>0</b>	<b>5</b>	<b>Materials and Resources</b>	<b>13</b>
			Prereq Storage and Collection of Recyclables	Required
			Prereq Construction and Demolition Waste Management Planning	Required
3		2	Credit Building Life-Cycle Impact Reduction	5
1		1	Credit Building Product Disclosure and Optimization - Environmental Product Declarations	2
1		1	Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1		1	Credit Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit Construction and Demolition Waste Management	2

<b>7</b>	<b>1</b>	<b>8</b>	<b>Indoor Environmental Quality</b>	<b>16</b>
			Prereq Minimum Indoor Air Quality Performance	Required
			Prereq Environmental Tobacco Smoke Control	Required
1		1	Credit Enhanced Indoor Air Quality Strategies	2
3			Credit Low-Emitting Materials	3
1			Credit Construction Indoor Air Quality Management Plan	1
1	1		Credit Indoor Air Quality Assessment	2
1			Credit Thermal Comfort	1
		2	Credit Interior Lighting	2
		3	Credit Daylight	3
		1	Credit Quality Views	1
		1	Credit Acoustic Performance	1

<b>6</b>	<b>0</b>	<b>0</b>	<b>Innovation</b>	<b>6</b>
5			Credit Innovation	5
1			Credit LEED Accredited Professional	1

<b>3</b>	<b>0</b>	<b>1</b>	<b>Regional Priority</b>	<b>4</b>
1			Credit Regional Priority: Enhanced Refrigerant Management: 1 point threshold	1
1			Credit Regional Priority: Sensitive Land Protection: 1 point threshold	1
1			Credit Regional Priority: Reduced Parking Footprint: 1 point threshold	1
		1	Credit Regional Priority: Indoor Water Use Reduction: 3 point threshold	1

<b>59</b>	<b>3</b>	<b>45</b>	<b>TOTALS</b>	<b>Possible Points: 110</b>
Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110				

CONSTRUCTION PHASE PREREQS / CREDITS

**59 points – Silver Certification**

Pending LEEDv4 scorecard.

\*this scorecard does not reflect a completed project. The project is still pursuing certification.

# Likely Typical Outcomes HCC – LEED v5

## LEED v5 Building Design + Construction: New Construction

Y	?	N			
<b>1</b>	<b>0</b>	<b>0</b>	<b>Integrative Process, Planning &amp; Assessments</b>		<b>1</b>
x			Prereq	Climate Resilience Assessment	Required
x			Prereq	Human Impact Assessment	Required
x			Prereq	Carbon Assessment	Required
1			Credit	Integrative Design Process	1
<b>7</b>	<b>0</b>	<b>8</b>	<b>Location + Transportation</b>		<b>15</b>
2		4	Credit	Compact and Connected Development	6
		2	Credit	Electric Vehicles	2
		2	Credit	Equitable Development	2
1			Credit	Sensitive Land Protection	1
4			Credit	Transportation Demand Management	4
<b>3</b>	<b>0</b>	<b>8</b>	<b>Sustainable Sites</b>		<b>11</b>
x			Prereq	Minimize Site Disturbance	Required
1			Credit	Accessible Outdoor Space	1
		2	Credit	Biodiverse Habitat	2
		2	Credit	Enhanced Resilient Site Design	2
		3	Credit	Rainwater Management	3
1		1	Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1
<b>4</b>	<b>0</b>	<b>5</b>	<b>Water Efficiency</b>		<b>9</b>
x			Prereq	Minimum Water Efficiency	Required
x			Prereq	Water Metering and Reporting	Required
3		5	Credit	Enhanced Water Efficiency	8
1			Credit	Water Metering and Leak Detection	1

Y	?	N			
<b>13</b>	<b>0</b>	<b>20</b>	<b>Energy + Atmosphere</b>		<b>33</b>
x			Prereq	Energy Metering and Reporting	Required
x			Prereq	Fundamental Commissioning	Required
x			Prereq	Fundamental Refrigerant Management	Required
x			Prereq	Minimum Energy Efficiency	Required
x			Prereq	Operational Carbon Projection and Decarbonization Plan	Required
		5	Credit	Electrification	5
3		1	Credit	Enhanced Commissioning	4
10			Credit	Enhanced Energy Efficiency	10
		2	Credit	Enhanced Refrigerant Management	2
		2	Credit	Grid-Interactive	2
		5	Credit	Reduce Peak Thermal Loads	5
		5	Credit	Renewable Energy	5

Y	?	N			
<b>9</b>	<b>0</b>	<b>8</b>	<b>Materials + Resources</b>		<b>18</b>
x			Prereq	Access and Quantify Embodied Carbon	Required
x			Prereq	Planning for Zero Waste Operations	Required
2		3	Credit	Building Product Disclosure and Optimization	5
		2	Credit	Building and Materials Reuse	3
2			Credit	Construction and Demolition Waste Diversion	2
2			Credit	Low-Emitting Materials	2
3		3	Credit	Reduce Embodied Carbon	6

Y	?	N			
<b>4</b>	<b>0</b>	<b>9</b>	<b>Indoor Environmental Quality</b>		<b>13</b>
x			Prereq	Construction Management Plan	Required
x			Prereq	Fundamental Air Quality	Required
x			Prereq	No Smoking or Vehicle Idling	Required
		1	Credit	Accessibility and Inclusion	1
2			Credit	Air Quality Testing and Monitoring	2
1			Credit	Enhanced Air Quality	1
1		6	Credit	Occupant Experience	7
		2	Credit	Resilient Spaces	2

Y	?	N			
<b>10</b>	<b>0</b>	<b>0</b>	<b>Project Priorities + Innovation</b>		<b>10</b>
1			Credit	LEED Accredited Professional	1
9			Credit	Project Priorities	9

<b>51</b>	<b>0</b>	<b>58</b>	<b>TOTALS</b>		<b>Possible Points: 110</b>
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Certified: 40 - 49 points, Silver: 50 - 59 points, Gold: 60 - 79 points, Platinum: 80+ points

**51 points – Silver Certification**

Comparing the same building under a LEEDv5 scorecard\*.

\*this scorecard assumes “no” for all the new v5 credits.

# Summary of Changes Resource

## LOCATION AND TRANSPORTATION

The Location and Transportation (LT) category emphasizes the critical role of location and transportation decisions in project long-term sustainability potential. By prioritizing strategies as the intersection of resource access, land use, and transportation, this category guides projects toward an efficient, equitable, and low-carbon future. The category encourages projects to utilize existing infrastructure, increase urban density, and implement transportation demand management strategies. It also supports electric vehicle adoption and other low-carbon alternatives to reduce greenhouse gas emissions. The overall intent aims to improve quality of life, conserve ecosystems, and contribute to decarbonization. Notable changes in LEED v5 include the addition of three credits to consolidate many of the previous strategies, an emphasis on electric vehicles, and an emphasis on equitable development strategies.



Credit	LEED for Neighborhood Development Location	<ul style="list-style-type: none"> <li>Credit removed and will be updated and added to the Project Priority Library in the future.</li> </ul>
Credit	Sensitive Land Protection	<ul style="list-style-type: none"> <li>Added sensitive land type steep slopes.</li> </ul>
Credit	High-Priority Site	<ul style="list-style-type: none"> <li>Incorporated into new credit: LTc Equitable Development.</li> <li>Removed economically disadvantaged community location path.</li> <li>Removed equity and community benefits path.</li> <li>Affordable housing in residential or mixed-use projects pathway is now called location-efficient affordable housing and added requirements and increased point threshold.</li> </ul>
Credit	Surrounding Density and Diverse Uses	<ul style="list-style-type: none"> <li>Surrounding density incorporated into new credit: LTc Compact and Connected Development, Option 1, and reduced point thresholds.</li> <li>Diverse uses incorporated into new credit: LTc Compact and Connected Development Option 3, and added a new option to document 11 or more diverse uses for an additional point.</li> <li>Walkable location incorporated into the new credit: LTc Compact and Connected Development Option 3, reduced point thresholds, and increased the minimum Walk Score.</li> </ul>
Credit	Access to Quality Transit	<ul style="list-style-type: none"> <li>Incorporated access to public transit service into new credit: LTc Compact and Connected Development, Option 2.</li> <li>Modified transit service requirements (# of weekday and weekend trips) and point thresholds</li> <li>Clarified transit trip criteria.</li> <li>Removed clarification on temporarily rerouted transit services.</li> <li>Renamed access to project-sponsored transit service pathway to project-sponsored transit service, modified transit service criteria, and modified total daily trips options.</li> </ul>
Credit	Bicycle Facilities	<ul style="list-style-type: none"> <li>Incorporated into new credit: LTc Transportation Demand Management, Option 2.</li> <li>Modified requirements for bicycle storage location, other bicycle network criteria, and point thresholds for bicycle networks.</li> <li>Modified requirements and point thresholds for bicycle storage.</li> </ul>



**Thank You!**