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LEED v4.1 CITIES AND COMMUNITIES: PLAN AND DESIGN COMMUNITIES

July 26, 2024

U.S. Green Building Council

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Scorecard



LEED for Cities and Communities: Plan and Design Communities

Points

INTEGRATIVE PROCESS		POSSIBLE: 5
Prereq	Integrative Planning and Design Process	REQUIRED
Credit	Green Building Policy and Incentives	5



NATURAL SYSTEMS AND ECOLOGY		POSSIBLE: 13
Prereq	Ecosystem Assessment	REQUIRED
Prereq	Construction Activity Pollution Prevention	REQUIRED
Prereq	Green Spaces	REQUIRED
Credit	Natural Resources Conservation and Restoration	5
Credit	Light Pollution Reduction	2
Credit	Resilience Planning	6



TRANSPORTATION AND LAND USE		POSSIBLE: 18
Credit	Compact, Mixed Use and Transit Oriented Development	6
Credit	Walkability and Bikeability	4
Credit	Access to Quality Transit	2
Credit	Clean Transportation	2
Credit	Mobility Management	2
Credit	Priority Sites	2



WATER EFFICIENCY		POSSIBLE: 12
Prereq	Integrated Water Management	REQUIRED
Prereq	Water Access and Quality	REQUIRED
Credit	Stormwater Management	5
Credit	Wastewater Management	5
Credit	Smart Water Systems	2



ENERGY AND GREENHOUSE GAS EMISSIONS		POSSIBLE: 31
Prereq	Power Access, Reliability and Resiliency	REQUIRED
Prereq	Energy and Greenhouse Gas Emissions Management	19
Credit	Energy Efficiency	4
Credit	Renewable Energy	6
Credit	Grid Harmonization	2

MATERIALS AND RESOURCES		POSSIBLE: 11
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Prereq	Construction and Demolition Waste Management	REQUIRED
Prereq	Solid Waste Management	REQUIRED
Credit	Organic Waste Treatment	2
Credit	Recycling Infrastructure	5
Credit	Responsible Sourcing	2
Credit	Smart Waste Management Systems	2

**QUALITY OF LIFE**

POSSIBLE: 10

Prereq	Demographic Assessment	REQUIRED
Prereq	Social Infrastructure	REQUIRED
Credit	Affordable Housing	2
Credit	Public Health and Wellbeing	6
Credit	Emergency Management and Response	2

**INNOVATION**

POSSIBLE: 6

Credit	Innovation	6
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**REGIONAL PRIORITY**

POSSIBLE: 4

Credit	Regional Priority	4
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TOTAL**110**

40- 49 Points

50-59 Points

60-79 Points

80+ Points

CERTIFIED

SILVER

GOLD

PLATINUM

INTEGRATIVE PROCESS (IP)

IP PREREQUISITE: INTEGRATIVE PLANNING AND DESIGN PROCESS

Required

This prerequisite applies to

- Communities

Intent

To support an early and ongoing analysis of the interrelationships among systems in a community to deliver high-performance, cost-effective programs and services which result in positive and equitable outcomes.

Requirements

Use inter-disciplinary teams and ensure the following processes are followed:

1. **Comprehensive plan:** Prepare a plan which will include vision, mission, key goals and objectives of the ~~city or~~ community.
2. **LEED for Communities team:** Assemble and convene an interdisciplinary, cross-departmental project team. Include diverse team members from a minimum of three of the following areas of expertise.
 - Development Authority/Owner/Owner's Representative
 - Urban / Master Planning and Design
 - Engineering Utilities, Infrastructure and Public Works
 - Economic Development, Finance, and Administration
 - Urban Ecologist, Biologist or Landscape Architect
 - Construction Management
 - Social, Community, and Human Services; Public Health
 - Education / School Board
 - Sustainability / Resilience Officer
 - Data Officer / Information Technology
 - Philanthropy, Community Foundation
 - Community and stakeholder representatives, including advocacy groups for underserved or vulnerable populations.

Include any other experts or stakeholders as relevant to the community.

3. **Preliminary Rating Goals:** Conduct a preliminary LEED meeting (in person or virtual) with a minimum of three key project team members and the Community Development Authority/Owner/Owner's Representative. As part of the meeting, create a LEED action plan to:
 - a. Identify the LEED certification level to pursue (Certified, Silver, Gold, or Platinum)
 - b. Identify the potential LEED credits to be attempted
 - c. Identify the responsible parties to ensure the LEED requirements for each prerequisite and selected credit are met.
4. **Design Charrette:** Conduct a design charrette with the project team as defined above and representatives of the citizens who will get impacted by the project. The goal is to optimize the integration of green strategies across all aspects of community planning and design, construction and operation, drawing on the expertise of all participants.

IP CREDIT: GREEN BUILDING POLICY AND INCENTIVES

1-5 Points

This credit applies to

- Communities

Intent

To encourage the design, construction, and retrofit of buildings using green building practices.

Requirements

Attempt any of the following options for a total of up to 5 points:

Option 1: Green Buildings (1-5 points)

Register and/or certify a percentage of the total project building floor area to LEED, EDGE or a similar green building rating system. The green building rating system must be holistic and address energy, water, waste, transportation, location, and natural systems.

Table 1. Points for green building certification

Percentage of total floor area registered /certified	Points
10% to 20%	1
21% to 30%	2
31% to 40%	3
41% to 50%	4
\geq 50%	5

Option 2. Green Building Policy and Incentives (1-4 points)

Provide incentives for LEED or a similar green building rating system in the community. (1 point per incentive provided)

Structural Incentives:

- Provide expedited review or permitting processes to buildings achieving certification.
- Provide density or height bonus allowing for percentage increases in Floor Area Ratio or other measures of density contingent upon certification.

Financial Incentives:

- Provide tax credits for buildings achieving certification.
- Provide permitting fee reduction or waivers for buildings achieving certification.

NATURAL SYSTEMS AND ECOLOGY (NS)

NS PREREQUISITE: ECOSYSTEM ASSESSMENT

Required

This prerequisite applies to

- Communities

Intent

To assess the existing ecosystem conditions and services provided by ecosystems, built landscapes, and other open spaces to inform development along with conservation and restoration efforts.

Requirements

Complete and document an ecosystem assessment that includes the following topics:

1. Topography-

- a. Contour mapping
- b. Unique topographic features (highlighting landforms, water courses, vegetation, etc.)
- c. Slope stability risks

2. Soils-

- a. Identification of prime farmland, unique farmland or farmland of statewide or local importance
- b. Healthy soils
- c. Soils disturbed by previous development and degree of disturbance

3. Terrestrial Vegetation and Habitat-

Terrestrial Vegetation:

- a. Existing vegetated area, including parks, gardens, and urban tree canopies
- b. Primary vegetation types, native plants and plant communities, significant tree mapping,
- c. Urban farms and community gardens including those in vacant lots.

Habitat:

- d. Habitat for threatened or endangered species, habitat for apex predators
- e. Unique habitat and degraded habitat
- f. Sensitive habitat and local species disturbed by construction and human encroachment

4. Hydrology and aquatic ecosystems-

- a. Special Flood Hazard Areas
- b. Wetlands, lakes, beaches, streams, and shorelines
- c. Precipitation, rainwater collection and reuse opportunities including overland water flow,
- d. Potable and non-potable water sources

5. Pollution Sources and Threats:

- a. Noise, water, and air pollution level for the community and significant sources for high pollution levels (if detected)
- b. Brownfield and hazardous waste sites

c. Invasive species and areas of their extensive growth.

The assessment must demonstrate the relationships between the topics listed above and how these features influenced the community's strategy and development. Note: Not all topics apply to every area, and each community may contain additional important unique elements that are not explicitly addressed here. Give reasons for not addressing any of the topics mentioned above.

NS PREREQUISITE: CONSTRUCTION ACTIVITY POLLUTION PREVENTION

Required

This prerequisite applies to

- Communities

Intent

To reduce pollution from construction activities by controlling soil erosion, waterway sedimentation, and airborne dust.

Requirements

Create and implement an erosion and sedimentation control plan for all construction activities, including but not limited to construction of roads and highways, transit systems, water and wastewater systems, energy systems, waste management systems, buildings to be undertaken by the community development authority. The plan must conform to the erosion and sedimentation requirements of the 2022 U.S. Environmental Protection Agency (EPA) Construction General Permit (CGP) or local regulations. Projects must apply the CGP or local regulations regardless of size. The plan must describe the measures to be implemented.

NS PREREQUISITE: GREEN SPACES

Required

This prerequisite applies to

- Communities

Intent

To provide accessible green spaces that positively impact physical, mental, and psychological health and well-being of the community while also enhancing the environmental quality.

Requirements

Provide publicly accessible green space area for 15% or more of total community area.

AND

90% of the total population must have a green space within 1/2 mile (800 meters) walkable distance.

Adopt either or combination of both of the following criteria to meet the requirement.

- Walkable access to a public park.
- Adopt building ordinance to the effect that residential areas which are not within walkable distance of a public park should provide an equivalent of 15% or more of the total community area of green space within walkable distance.

Communities can include the following green areas in their green space calculation:

- Green infrastructure elements such as rain gardens, swales, sidewalk plantations, and green buffers that are physically accessible.
- Wetlands or naturally designed ponds, if the side slope gradients average 1:4 (vertical:horizontal) or less, and are vegetated.
- City level green spaces which are not within the community boundary but are freely accessible within walking distance (800 meters) to the community residents and meet the prescribed requirements.

Areas allocated for urban agriculture under *QL Credit: Public Health and Wellbeing* may be included to meet the requirements of this credit. Use the USGBC Population Calculator to calculate the total population of the project.

NS CREDIT: NATURAL RESOURCES CONSERVATION AND RESTORATION

2-5 Points

This credit applies to

- Communities

Intent

To conserve natural resources, restore degraded area, improve habitats, and promote biodiversity within the community.

Requirements

Maintain existing habitat for species designated as threatened or endangered within the community (as identified under NS Prerequisite—Ecosystem Assessment)

AND

Attempt any of the following options for a total of up to 5 points:

Option 1. Natural Resource Acreage (3 points)

Maintain protected natural resource acreage at 20% or more of total community area.

Option 2. Natural Resource Conservation and Restoration Plan (2 points)

Develop a Natural Resource Conservation and Restoration Plan based on the study carried out under *NS Prerequisite: Ecosystem Assessment* to meet requirements of any two features of the ecosystems present within the community. Adopt policies or regulations to support the execution of the Plan.

Select any two ecological features from the following:

1. Steep Slopes:

- Do not permit development on slopes greater than 40% and do not disturb portions of the land area within 50 feet (15 meters) horizontally of the top of the slope and 75 feet (23 meters) horizontally from the toe of the slope.
- For undeveloped slopes from 26% to 40%, development can be permitted on 40% of the area.
- For undeveloped slopes from 15% to 25%, development can be permitted on 60% of the area.
- For previously developed slopes (above 15%) restore a minimum of 50% of the slopes with native vegetation or noninvasive adaptive plants within a period of 5 years.

OR

If construction is permitted on steep slopes (greater than 15%), adopt a regulation to the effect that development permits and building permits will only be issued after review of the following for each project:

- A general site survey, topographic and land feature survey along with geotechnical evaluation.
- A grading plan that indicates a clear feasibility for roads, driveways and building envelop without massive manipulation of the site.
- A tree and vegetation plan.
- A drainage management plan.
- An erosion control plan that avoids massive manipulation of the site.
- An Environmental Inventory and Assessment to identify environmentally sensitive areas and features to be protected, and to measures to avoid, minimize or mitigate environmental impacts of the proposed development and development activities.

2. **Agricultural land and food production:**

Do not disturb prime farmland, unique farmland, or farmland of statewide or local importance as defined by the U.S. Code of Federal Regulations, Title 7, Volume 6, Parts 400 to 699, Section 657.5 and identified in a state Natural Resources Conservation Service soil survey (or local equivalent for projects outside the U.S.).

OR

If the development footprint affects farmland of any category, mitigate the loss by providing alternative area for farming such as rooftop farming or vertical farming in the ratio of 2:1 (i.e. two square meters of alternative area for every one square meter farmland affected). In addition, plan for farmer's markets or supermarket or grocery stores with a produce section in residential areas that will be within 1/2 mile (800 meter) walking distance.

3. **Vegetation and Habitat:**

- If the site has any threatened or endangered species or ecological communities, as identified during the ecosystem assessment, comply with an approved habitat conservation plan under the U.S. Endangered Species Act (or local equivalent for cities outside the U.S.) for each identified species or ecological community.
- Conserve any Significant Habitat present within the community.
- Adopt or enforce an ordinance requiring control of the top three most damaging invasive species or enact a preferred plant ordinance for private and public landscaping.
- Restore degraded vegetation and habitats within the community, identified during the Ecosystem Assessment. Restoration strategies must be developed based on Society for Ecological Restoration Science & Policy Working Group. 2002, The SER Primer on Ecological Restoration, Section 3, Attributes of Restored Ecosystems.

4. **Aquatic Ecosystems:**

Do not permit any development within limits specified below except for minor improvements or comply with equivalent local or national regulations.

- Shorelines and coastal areas: Within 200 feet (61 meters) from normal high tide line.
- Floodplains, rivers and streams: A flood hazard area shown on a legally adopted flood hazard map or otherwise legally designated by the local jurisdiction or the state or entirely outside any floodplain subject to a 1% or greater chance of flooding in any given year.
- Wetlands: Within 50 feet (15 meter) of a wetland, except for minor improvements.
- Water bodies: Within 100 feet (30 meters) of a water body which is greater than 50 contiguous acres (20 hectares) and within 50 feet (15 meters) for waterbodies less than 50 contiguous acres (20 hectares).
- Restore degraded aquatic ecosystems identified during the Ecosystem Assessment. Restoration strategies must be developed based on Society for Ecological Restoration Science & Policy Working Group. 2002, The SER Primer on Ecological Restoration, Section 3, Attributes of Restored Ecosystems.

OR

Demonstrate a local Watershed Health Index of greater than or equal to 70.

NS CREDIT: LIGHT POLLUTION REDUCTION

2 Points

This credit applies to

- Communities

Intent

To increase the night sky access, improve nighttime visibility, and reduce the consequences of development for wildlife and people.

Requirements

Lighting Zones

Divide the project into Model Lighting Ordinance (MLO) lighting zones LZ0 to LZ4 based on site-specific characteristics using the definitions of lighting zones provided in the Illuminating Engineering Society and International Dark Sky Association (IES/IDA) MLO User Guide.

Light Pollution Reduction

Meet the Light Pollution Reduction requirements for each lighting zone within the project for the following:

1. Exterior Lighting for Residential Areas
2. Exterior Lighting for Circulation Network
3. Uplight and light Trespass Requirements in Exterior Lighting for All Other Areas
4. Covenants, Conditions, and Restrictions.

Meet the requirements below for each lighting zone within the project.

1. Exterior Lighting for Residential Areas

Meet either Option 1 or Option 2 for all exterior lighting in residential construction. Projects may use different options for Uplight and Light Trespass.

Option 1. BUG Rating Method

Each fixture must have a backlight-uplight-glare (BUG) rating (as defined in IES TM-15-11, Addendum A) of no more than B2-U2-G2.

Option 2. Calculation Method

Meet the requirements of Option 2 in Exterior Lighting for All Other Areas, below.

AND

2. Exterior Lighting for Circulation Network

For any portions of the circulation network not governed by national, state, or other superseding regulations, do not install street lighting unless conditions warrant the need for street lighting.

Street lighting luminaires must not emit any light above 90 degrees (horizontal), based on the photometric characteristics of each luminaire when mounted in the same orientation and tilt as specified in the project design.

Exception for ornamental luminaires: Using the lowest MLO lighting zone for immediately adjacent properties, meet the requirements of the IES/IDA MLO, Table H.

AND

3. Exterior Lighting for All Other Areas

Use either the BUG method (Option 1) or the calculation method (Option 2) to meet Uplight and Light Trespass Requirements. Projects may use different options for Uplight and Light Trespass.

Uplight

Option 1. BUG Rating Method

Do not exceed the following luminaire uplight ratings, based on the specific light source installed in the luminaire as defined in IES TM-15-11, Addendum A.

Table 1. Maximum uplight ratings for luminaires, by lighting zone

MLO Lighting Zone	Luminaire Uplight Rating
LZ0	U0
LZ1	U1
LZ2	U2
LZ3	U3
LZ4	U4

Option 2. Calculation Method

Do not exceed the following maximum percentages of total lumens emitted above horizontal.

Table 2. Maximum percentage of lumens above horizontal

MLO Lighting Zone	Maximum allowed percentage of total luminaire lumens emitted above horizontal
LZ0	0%
LZ1	0%
LZ2	1.5%
LZ3	3%
LZ4	6%

Light Trespass

Option 1. BUG Rating Method

Do not exceed the following luminaire backlight and glare ratings (based on the specific light source installed in the luminaire) as defined in IES TM-15-11, Addendum A, based on the mounting location and distance from the lighting boundary.-

Table 3. Maximum backlight and glare ratings, by lighting zone

Luminaire mounting	MLO Lighting Zone				
	LZ0	LZ1	LZ2	LZ3	LZ4
	Allowed backlight ratings				
2 mounting heights from lighting boundary	B1	B3	B4	B5	B5
1 to 2 mounting heights from lighting boundary and properly oriented	B1	B2	B3	B4	B4
0.5 to 1 mounting height to lighting boundary and properly oriented	B0	B1	B2	B3	B3
< 0.5 mounting height to lighting boundary and properly oriented	B0	B0	B0	B1	B2
	Allowed glare ratings				
Building-mounted > 2 mounting heights from any lighting boundary	G0	G1	G2	G3	G4

Building-mounted 1-2 mounting heights from any lighting boundary	G0	G0	G1	G1	G2
Building-mounted 0.5 to 1 mounting heights from any lighting boundary	G0	G0	G0	G1	G1
Building-mounted < 0.5 mounting heights from any lighting boundary	G0	G0	G0	G0	G1
All other luminaires	G0	G1	G2	G3	G4

A lighting boundary (or boundaries) is defined as the perimeter of each lighting zone within the project boundary. A lighting boundary can be modified under the following conditions:

- When the property line is adjacent to a public area that is a walkway, bikeway, plaza, or parking lot, the lighting boundary may be moved to 5 feet (1.5 meters) beyond the property line;
- When the property line is adjacent to a public street, alley, or transit corridor, the lighting boundary may be moved to the center line of that street, alley, or corridor;
- When there are additional properties owned by the same entity that are contiguous to the property, or properties, that the LEED project is within and have the same or higher MLO lighting zone designation as the LEED project, the lighting boundary may be expanded to include those properties.

Orient all luminaires less than two mounting heights from the lighting boundary such that the backlight points toward the nearest lighting boundary line. Building-mounted luminaires with the backlight oriented toward the building are exempt from the backlight rating requirement.

Option 2. Calculation Method

Do not exceed the following vertical illuminances at the lighting boundary of each lighting zone in the project (use the definition of lighting boundary in Option 1). Calculation points may be no more than 5 feet (1.5 meters) apart. Vertical illuminances must be calculated on vertical planes running parallel to the lighting boundary, with the normal to each plane oriented toward the property and perpendicular to the lighting boundary, extending from grade level to 33 feet (10 meters) above the height of the highest luminaire.

Table 4. Maximum vertical illuminance at lighting boundary, by lighting zone

MLO Lighting Zone	Vertical Illuminance
LZ0	0.05 fc (0.5 lux)
LZ1	0.05 fc (0.5 lux)
LZ2	0.10 fc (1 lux)
LZ3	0.20 fc (2 lux)
LZ4	0.60 fc (6 lux)

Fc= footcandle

Exemptions from Uplight and Light Trespass Requirements

The following exterior lighting is exempt from the requirements, provided it is controlled separately from the nonexempt lighting:

- specialized signal, directional, and marker lighting for transportation;
- internally illuminated signage;
- lighting that is used solely for façade and landscape lighting in MLO lighting zones 3 and 4 and is automatically turned off from midnight until 6 a.m.;
- lighting that is integral to other equipment or instrumentation that has been installed by the equipment or instrumentation manufacturer;
- lighting for theatrical purposes for stage, film, and video performances;
- street lighting;
- hospital emergency departments, including associated helipads; and
- lighting for the national flag in MLO lighting zones 2, 3, or 4.

4. Covenants, Conditions, and Restrictions

Establish covenants, conditions, and restrictions (CC&R) or other binding documents that require continued adherence to the above requirements.

NS CREDIT: RESILIENCE PLANNING

3-6 Points

This credit applies to

- Communities

Intent

To strengthen the resilience of communities to adverse events like climate change risks, natural and ~~man-made~~ human induced hazards and extreme events.

Requirements

Attempt any of the following options for a total of up to 6 points:

Option 1. Vulnerability and Capacity Assessment (3 points)

Identify the local environmental context and conduct a vulnerability and capacity assessment for climate change risks, natural and ~~man-made~~ human induced hazards and extreme events as described in the table below.

Table 1. Classification of impacts for Vulnerability and Capacity Assessment

Natural		Man-made <u>Human Induced</u>	
Geo Physical	Earthquake	Social	Complex Emergencies/Conflicts
	Landslide		Displaced Populations
	Tsunami		
	Volcanic Activity	Technological	Cyber Attack
Hydrological	Avalanches	Industrial	Infrastructure failure
	Flood		Fire
Climatological	Extreme Temperatures	Transport	Explosion
	Drought		Accidents
	Wildfires		Accidents On Road, Air, Railway, Maritime
	Extreme heat/ cold	Pollution	Air and water
	Heat Island Effect		
Meteorological	Cyclones		
	Storms/Wave Surges		
Biological	Disease Epidemics		

Requirements for vulnerability and capacity assessment:

- **Risk Identification-** Identify the impacts from which an area is at risk. Use national/state level maps and historic data of occurrence to identify the potential threats.
- **Risk Assessment-** Estimate the probability of occurrence of the extreme events. Study their characteristics, frequency and potential severity. Conduct a socio-economic and environmental assessment of the impact.
- **Vulnerability and Capacity Assessment-** Assess the most exposed and affected sections, strengths, and weaknesses of the community.
- **Priority Identification-** Identify significant threats based on trends and future predictions, critical infrastructure, and population at risk from the threats. The community must identify top two natural and ~~man-made~~ human induced hazards each.

AND

Option 2. Resilience Plan (3 points)

[Achieve Option 1. Vulnerability and Capacity Assessment](#)

[AND](#)

Develop Resilience Plan for the community. The plan should meet at least two of the following requirements:

- **Adaptation and Mitigation Strategies:** Adaptation and Mitigation strategies to address the threats identified under Vulnerability and Capacity Assessment above.
- **Fundamental Emergency planning and preparedness and access to basic needs:** First aid, emergency supplies, water, food communication, temporary shelter.
- **Early Warning Systems:** Strategies for early warning systems during the extreme event. **Critical Infrastructure:** Operation of critical facilities during the extreme event and post-event rehabilitation.
- **Policy Intervention:** Incorporation of building structure resilience in building regulations in order to withstand the potential damage due to extreme events.
- Meet the requirements of *PEER v2 Rating System, RR Credit: Damage and Exposure Prevention* to achieve a minimum of 2 points.

TRANSPORTATION AND LAND USE (TR)

TR CREDIT: COMPACT, MIXED USE AND TRANSIT ORIENTED DEVELOPMENT

1-6 Points

This credit applies to

- Communities

Intent

To conserve land and concentrate development in compact and mixed use centers, which allow efficient use of shared infrastructures, public transit and promote liveability and walkability.

Requirements

Attempt any of the following options for a total of up to 6 points:

Option 1. Compact Development (1-2 points)

Design the project such that residential and nonresidential components achieve the densities per acre (per hectare) of buildable land listed in the table below. Points are awarded as per the table given below.

Table 1. Points for density per acre (hectare) of buildable land

Residential density		Non-Residential density (FAR)	Points
DU/ acre	DU/ hectare		
10 to 13	25 to 32	0.75 to 1.0	1
13 to 18	32 to 45	1.0 to 1.25	2

DU= Dwelling Unit; FAR= Floor-Area Ratio

Option 2. Access to Diverse Uses (1-2 points)

Design the project such that all residential and non-residential buildings are within a 1/4-mile (400-meter) walking distance of the required number of uses (see Appendix 1). Points are awarded as per the table given below:

Table 2. Points for uses within 1/4-mile (400-meter) walking distance

Diverse Uses	Points
8 to 11	1
12 to 19	2

The following restrictions apply:

- A use may be counted as only one use type (e.g., a retail store may be counted only once even if it sells products in several categories).
- No more than two uses in each use type may be counted (e.g., if five restaurants are within the required distance, only two may be counted).
- The uses accessible to each counted building must represent at least two categories.

Option 3. Access to Transit Facilities (2 points)

Ensure that all residential and non-residential buildings are within ½ mile (800 meters) walking distance of an existing or planned mass transit station such as bus rapid transit stops, passenger rail stations (i.e. light, heavy, or commuter rail) or commuter ferry terminals.

OR

Ensure that all residential and nonresidential buildings are or within ¼ mile (400 meters) walking distance of an existing or planned bus, streetcar or informal transit stops that connects to a mass rapid transit station or a pulse point within 3 miles (5 kilometers).

TR CREDIT: WALKABILITY AND BIKEABILITY

1-4 Points

This credit applies to

- Communities

Intent

To ensure accessible, connected and safe walking and cycling infrastructure to improve public health and reduce environmental impacts.

Requirements

Universal Accessibility

Design sidewalks, bike lanes and crosswalks that are unobstructed and barrier-free for people with disabilities, including wheelchair users and people with low vision. Comply with Americans with Disabilities Act (ADA) or relevant national or local guidelines for 100% of sidewalks, bikeways and crosswalks.

AND

Attempt any of the following options for a total of up to 4 points:

Option 1: Street Design (1 point)

Design at least 90% of the total street length within the city or community as per the table given below or meet the national, state or local regulations on designing of streets, sidewalks and bike lanes:

Table 1. Street Design Strategies

Street segment with Speed Limit	Walkways	Bike Lanes
Up to 10 miles per hour (15 kilometers per hour)	No segregation of pedestrians is required	No segregation of cyclists is required
More than 10 miles per hour (15 kilometers per hour)	Protected walkways separate from roadways	Shared roadway markings/sharrow stencils are recommended
Less than 20 miles per hour (15 to 30 kilometers per hour)		
More than 20 miles per hour (30 kilometers per hour) and less than 25 miles per hour (40 kilometers per hour)		Exclusive or protected bike lanes, spatially segregated from vehicles in both directions (e.g., painted or physically separated cycle lanes)
More than 25 miles per hour (40 kilometers per hour) and less than 35 miles per hour (55 kilometers per hour)		The bike lane width when placed adjacent to curb face should be 6 feet and when placed adjacent to a parking lane should be at least 5 feet wide.
More than 35 miles per hour (55 kilometers per hour)		Provide greater separation, such as: Buffered bike lanes or Cycle tracks, between bicycles and motor traffic

AND

Design the project such that its internal connectivity is at least 140 intersections per square mile (54 intersections per square kilometer).

Option 2. Walkability (2 points)

Achieve at least four of the following requirements for 90% of total street length:

- The pedestrian sidewalks and crosswalks must be a continuous network and devoid of cul-de-sacs. For exceptions, include a pedestrian or bicycle through-connection or crosswalks for paths with cul-de-sac.
- Sidewalks must be at least 10 feet (3 meters) wide for retail or mixed-use blocks and for all other sidewalks it should be a minimum of 5 feet (1.5 meters). One-way bike lanes should be a minimum of 5 feet (1.5 meters) and two-way bike lanes should be a minimum of 8 feet (2.5 meters).
- Provide shade ~~from~~ with trees for at least 40% of all sidewalks and bike lanes for the users. Additionally use other locally appropriate amenities for providing shade. Such amenities include buildings (e.g., arcades, awnings, cast shadows), freestanding structures (e.g., shade shelters at intersections and public transport shelters), and vertical wind and solar screens (e.g., walls and lattices).
- Design roads to ensure high degree of connectivity by providing prioritized connectivity ratio of 1 or higher in the circulation network.
- Design roads with traffic calming measures as applicable to limit the speed as per Section 1.2 in Traffic Calming ePrimer by Federal Highway Administration of U.S. Department of Transportation or in compliance with the state or local regulations.
- Limit the length of urban blocks up to 820 feet (250 meters). For block lengths larger than 820 feet (250 meters) provide interconnectivity, through-connections, skywalks or alleys.
- At-grade crossings with driveways account for no more than 10% of the length of sidewalks within the project.
- 70% of the street lengths within the project is designed for a target speed of no more than 9 mph (15 km/h).

Option 3. Bikeability (1 point)

1. Bicycle Storage

Meet the following requirements in 90% of all buildings. The buildings that do not have bicycle storage may not exceed 10% of the total project building floor area.

Table 2. Short-term and Long-term bicycle storage strategies

Building Typology	Short-Term Bicycle Storage	Long-Term Bicycle Storage
Non-Residential (excluding Retail)	Cater to at least 2.5% of peak visitors, but no fewer than four storage spaces per building	<ul style="list-style-type: none"> • Cater to at least 5% of all regular building occupants, but no fewer than four storage spaces per building in addition to the short-term bicycle storage spaces. • at least one on-site shower with changing facility for the first 100 regular building occupants and one additional shower for every 150 regular building occupants thereafter
Multi-unit Residential	Cater to at least 2.5% of all peak visitors, but no fewer than four storage spaces per building	<ul style="list-style-type: none"> • at least 30% of all regular building occupants, but no less than one storage space per residential unit
Retail	At least two short-term bicycle storage spaces for every 5,000 square feet (465 square meters), but no fewer than two storage spaces per building	<ul style="list-style-type: none"> • at least 5% of regular building occupants, but no fewer than two storage spaces

		per building in addition to the short-term bicycle storage <ul style="list-style-type: none"> • at least one on-site shower with changing facility for the first 100 regular building occupants and one additional shower for every 150 regular building occupants thereafter
Mixed-use	Meet the above requirements for the project's non-residential, multi-unit residential, and retail spaces	

For all projects:

Short-term bicycle storage must be within 100 feet (30 meters) walking distance of any main entrance. Long-term bicycle storage must be within 100 feet (30 meters) walking distance of any functional entry. It must be easily accessible to all building users.

Shower and changing facility requirements may be met by providing the equivalent of free access to on-site health club shower facilities, if the health club can be accessed without going outside.

Additionally, meet any one of the requirements:

2. Bikeable Location

Design the project such that the project boundary is within ¼ mile (400 meters) bicycling distance of an existing or planned bicycle network that connects to at least one of the following.

- o at least 10 diverse uses (see Appendix 1);
- o a school or employment center, if the project total floor area is 50% or more residential;
- or
- o a bus rapid transit stop, light or heavy rail station, commuter rail station, or ferry terminal.

All destinations must be within a 3-mile (4800-meter) bicycling distance of the project boundary.

3. Bicycle Network

Design the project such that at least 50% of dwelling units and nonresidential use entrances are located on an existing or planned bicycle network extending at least 3 continuous miles (4.8 contiguous kilometers). Within those 3 miles (4.8 kilometers), the network must connect to one of the following:

- o a school;
- o an employment center; or
- o at least 10 diverse uses (see Appendix 1)

TR CREDIT: ACCESS TO QUALITY TRANSIT

1-2 Points

This credit applies to

- Communities

Intent

To encourage use of diverse transportation modes in order to reduce the reliance on personal vehicles.

Requirements

Modal Split

Provide data on modal split showing the percentage of population commuting to work and other places by using the following transportation modes:

- Drive alone (or chauffeured)
- Carpool
- Motorcycle
- Taxicab
- Public transportation (excluding taxicab)
- Walk
- Bicycle
- Other transportation modes

AND

Attempt any of the following options for a total of up to 2 points:

Option 1. Quality of Transit Facilities (1 point)

Design safe and comfortable transit stops within the community to encourage use of public transport. Ensure the following for at least 80% of transit facilities:

- Are covered and partially enclosed to buffer wind and rain, have seating and illumination, has signage that display transit schedules and route information. Ensure that the transit facilities are illuminated and display transit schedules and route information at peak and non-peak hours.
- Minimized interference with pedestrian flow.
- Main roads have right-of-way for public transportation, preferably with dedicated lanes.

Option 2. Intermodal connectivity (1 point)

Locate the project within 800 meters walking distance or provide direct transit to an intermodal transit station that is connected to three or more other modes of transportation and includes at least three of the following intermodal connectivity features:

- Three or more public transit routes at station
- Minimum of four short-term bicycle storage spaces at station
- Minimum two long-term bicycle storage spaces or valet at station or policies to allow bicycles on transit systems
- Vehicle parking at station with carpool services provided
- Airport within one connection and total transit travel time of less than 1.5 hours
- Regional or commuter rail within one connection and total transit travel time of less than 1 hour
- Ferry within one connection

- Designated passenger drop off area

OR

Option 3. Frequency of trips (1 point)

Ensure that all transit stops within the community on average meet the minimum requirement of 72 weekday trips and 30 weekend trips Planned stops and stations may count if they are sited, funded, and/or under construction during the time of certification.

Both weekday and weekend trip minimums must be met.

- For each qualifying transit route, only trips in one direction are counted towards the threshold.
- For weekend trips, only trips on the day with the higher number of trips are counted towards the threshold.
- If a qualifying transit route has multiple stops within the required walking distance, only trips from one stop are counted towards the threshold.
- Privately-run shuttles are only acceptable if the service is also made available to the public.

TR CREDIT: CLEAN TRANSPORTATION

1-2 Points

This credit applies to

- Communities

Intent

To reduce pollution by supporting the transition to electricity, and alternative fuels as a means of powering vehicles.

Requirements

Attempt any of the following options for a total of up to 2 points:

Option 1. Electric Vehicle Charging in Public Parking (2 points)

Provide electric vehicle supply equipment (EVSE) in 2% of all public parking spaces. Clearly identify and reserve these spaces for the sole use by plug-in electric vehicles.

AND

All EVSE must meet the following requirements:

- Provide a Level 2 charging capacity (208 – 240 volts) or greater.
- Comply with the relevant regional or local standard for electrical connectors, such as SAE Surface Vehicle Recommended Practice J1772, SAE Electric Vehicle Conductive Charge Coupler or IEC 62196 of the International Electrotechnical Commission for communities outside the U.S.
Be capable of responding to time-of-use market signals (e.g. price).

Demonstrate that the number of planned private and public electric vehicle charging stations exceed 1.07 per 10,000 residents or comply with local or national equivalent.

Option 2. Alternative fuel stations (1 point)

Demonstrate that the total number of government and privately owned planned alternative fuel stations meet or exceed 1.52 per 10,000 residents or comply with local or national equivalent.

TR CREDIT: MOBILITY MANAGEMENT

2 Points

This credit applies to

- Communities

Intent

To reduce vehicle miles traveled, emissions, and congestion associated with single-occupant vehicles.

Requirements

Attempt any one of the following options:

Option 1. Transportation Demand Management (TDM) Strategies (2 points):

Meet any two transportation demand management strategies from the following:

1. Transit Passes:

Provide transit passes valid for at least one year, subsidized to 100% of regular price, to each resident and employee locating within the project during the first three years of project occupancy (or longer). Publicize the availability of subsidized transit passes to project occupants.

2. Developer-Sponsored Transit:

Provide year-round, developer-sponsored transit service (vans, shuttles, buses) from at least one central point in the project to other major transit facilities or to other destinations, such as a retail or employment center, with service no less frequent than 45 daily weekday trips and 30 daily weekend trips. The service must begin by the time the project's total floor area is 20% occupied and must be guaranteed for at least three years beyond project build-out. The occupancy requirement is met when residents are living in 20% of the dwelling units and/or employees are working in 20% of the total non-residential floor area. Provide transit stop shelters and bicycle racks adequate to meet projected demand but no less than one shelter and one bicycle rack at each transit stop.

3. Vehicle Sharing:

Locate the project such that 50% of the dwelling units and non-residential use entrances are within a ¼-mile (400-meter) walking distance of at least one vehicle in a vehicle-sharing program, as specified below, depending on project size.

- If the project has fewer than 100 dwelling units and/or employees, provide one vehicle.
- If the project has more than 100 dwelling units and/or employees and has a minimum transit service of 60 daily weekday trips and 40 daily weekend trips, provide at least one additional vehicle and parking space for every 100 dwelling units and/or employees.
- If the project has more than 100 dwelling units and/or employees but does not have transit service at the frequencies specified above, provide at least one additional vehicle and parking space for every 200 dwelling units and/or employees.

For each vehicle, dedicate one parking space accessible to vehicle-sharing members. Publicize to project occupants the availability and benefits of the vehicle-sharing program. Commit to providing vehicles to the locations for at least two years. If a new vehicle-sharing location is planned, the vehicle-sharing program must begin by the time the project's total floor area is 20% occupied. The occupancy requirement is met when residents are living in 20% of the dwelling units and/or employees are working in 20% of the total non-residential floor area.

4. Unbundling of Parking and Parking Fees:

For 90% of multiunit residential units and/or non-residential floor area, the associated parking spaces must be sold or rented separately from the dwelling units or non-residential floor area. Set parking fees within the project boundary for all off-street parking equal to or greater than the cost of monthly usage for public transit. Off-street parking in this instance does not include parking devoted to individual, detached residential units.

5. Guaranteed Ride Home Program:

Major employers within the project must commit to providing a guaranteed ride home program for employees. A major employer accounts for more than 25% of the workers on the project site. The program must provide free rides to employees who have carpooled, taken transit, walked, or cycled to work but must leave because of an unexpected personal emergency. Rides may be on taxis, company cars, or rental cars.

6. Flexible Work Arrangements:

Major employers within the project must commit to promoting and supporting flexible work arrangements with the goal of reducing vehicle trips during peak commuting hours. A major employer accounts for more than 25% of the workers on the project site. The employer must develop internal policies that outline the terms under which employees can engage in telework, flextime, compressed work weeks, staggered shifts, or other arrangements. These policies must also describe how the program will be promoted to employees.

Option 2. Smart Mobility (1-2 points)

Adopt any two (for 1 point) or any four (for 2 points) of the following solutions or policies to support a community-wide smart and efficient transportation system.

- Passenger Information System (PIS) - At least 80% of all transit stations within the community must be equipped with PIS system.
- Automated Speed Enforcement - At least 80% of community roads to be equipped for automated speed enforcement.
- Traffic Surveillance - At least 80% of the community roads must be equipped with CCTVs for traffic surveillance.
- Global Positioning System (GPS)/ General Packet Radio Service (GPRS) - All public transit vehicles serving the community must be equipped with GPS system.
- Signal Synchronization and Transit Signal Priority - All signals on major roads within the community must be synchronized or prioritized to address varying traffic flows.
- Integrated Ticketing System - At least 80% of all public transit systems and subsystems serving the community must have Automatic Ticketing Systems.
- Real-time Parking Management - At least 80% of all public and multi-level parking located in the community to have real-time parking management system.
- Radio Frequency Identification (RFID) - Adopt RFID technology for public transportation systems serving the community.

TR CREDIT: PRIORITY SITES

1-2 Points

This credit applies to

- Communities

Intent

To preserve historic structures and sites and focus growth and redevelopment to infill and other priority locations.

Requirements

Attempt any of the following options for a total of up to 2 points.

Option 1. Historic Preservation (1 point)

This option is applicable to communities with at least one historic building, contributing building in a historic district, or designated cultural site within the community boundary.

Develop an inventory of building(s) and/or areas within the community that should be considered for preservation and conservation. Consider historic buildings or cultural sites that are outside the community boundary that may be impacted by development.

Do not demolish any historic buildings or contributing buildings in a historic district, or portions thereof, or alter any designated cultural sites as part of the community.

An exception is granted only with approval from an appropriate review body. For buildings or landscapes listed locally, approval must be granted by the local historic preservation review board, or equivalent. For buildings or landscapes listed in a state register or in the National Register of Historic Places (or equivalent for cities outside the U.S.), approval must appear in a programmatic agreement with the state historic preservation office or National Park Service (or local equivalent for cities outside the U.S.).

Option 2. Brownfield Remediation (1 point)

Identify the areas within the community boundary equivalent to at least 20% of the total community area that are identified as a brownfield and requires remediation. Meet the requirements of *Option 1: Brownfield Site, SLL credit Brownfield Remediation of LEED v4 Neighborhood Development* to achieve this credit. (Appendix 2)

Option 3. Previously Developed Sites (1 point)

Identify areas within the community boundary that are served by existing water and wastewater infrastructure, are previously developed and are equivalent to at least 20% of the total community area.

Option 4. Infill Sites (1 point)

Locate the community on an infill site.

WATER EFFICIENCY (WE)

WE PREREQUISITE: INTEGRATED WATER MANAGEMENT

Required

This prerequisite applies to

- Communities

Intent

To support water management, reduce freshwater consumption and encourage to move towards net zero water use.

Requirements

Water Balance Statement

Develop an integrated water management process by developing a water balance statement for the community by projecting the total water demand based on various uses and designing the supply side to meet the total water demand.

Develop water balance calculator which consist of the following to demonstrate flow of water within the community:

1. Water Availability Assessment

Assess the total quantity of water available for use to the community.

2. Water Demand

Estimate water demand for all of the following sectors and use types present within the community for a period of one full calendar year:

- Buildings – All use types such as residential, commercial, institutional, and industrial buildings under the public and private sector.
- Landscaping for public spaces such as parks, alongside roadways and open spaces.
- Any other sector as applicable to the community.

Calculate the projected water demand for the sector based on (i) industry “standard practice” (ii) existing codes, standards or regulatory requirements (iii) published data or (iv) projects of similar scope and size operating within the same geographical area or within a geographical area with similar operating condition.

Document the assumptions for differing daytime and night time population or permanent and transient population, if variations in projected population is expected to significantly alter total water demand.

3. Water Supply

Identify the sources of water supply that will be used to meet the total water demand of the community. Sources of water supply may include but not be limited to the following:

- Freshwater
- Desalinated water
- Alternative water includes:
 - Treated wastewater- For each of the sectors identified in water demand, identify the wastewater generated. Use treated wastewater from centralized and/or decentralized facilities to meet the community water demand. Each facility must meet the requirements for wastewater quality as per *WE Prerequisite Water Access and Quality*.

- Harvested stormwater- For each of the sectors identified in water demand, identify the quantity of stormwater harvested. Provide stormwater infrastructure for harvesting stormwater at community level In addition, meet the requirements for stormwater quality as per *WE Prerequisite Water Access and Quality*.

WE PREREQUISITE: WATER ACCESS AND QUALITY

Required

This prerequisite applies to

- Communities

Intent

To provide equitable access to clean drinking water and sanitation services and prevent pollution from stormwater runoff.

Requirements

Water and wastewater systems must meet the following requirements:

Water and Sanitation Access

Demonstrate that all buildings within the community boundary have access to water supply and wastewater collection system including centralized and decentralized systems.

Drinking Water Quality

Water treatment facilities must demonstrate compliance with U.S. EPA's 2018 Edition of the Drinking Water Standards and Health Advisories Tables for drinking water rules on chemical and microbial contaminants in drinking water pipes or comply with local, state, or national regulations.

- Provide information on periodic water quality testing as per the adopted standard for each of the water supply facility under the following categories:
 - Frequency of water quality testing (quarterly, monthly, bi-monthly, etc.)
 - Water quality testing parameters
- Commit to corrective measures to be taken in case of non-compliance with drinking water quality standard being followed and/or violation of testing frequency.:

Treated Wastewater Quality

Demonstrate compliance with U.S. EPA's National Pollutant Discharge Elimination System (NPDES) permit program of Clean Water Act (CWA) or local, state, or national regulations for 100% of wastewater generated by the community and wastewater discharged to surface waters. Meet the water quality parameter thresholds in NPDES permit program manual, Section 5.1.1 - Secondary and Equivalent to Secondary Treatment Standards.

- Provide information on periodic water quality testing as per the adopted standard for each of the wastewater treatment facility under the following categories:
 - Frequency of water quality testing (quarterly, monthly, bi-monthly, etc.)
 - Water quality testing parameters
- Commit to corrective measures to be taken in case of non-compliance with wastewater treatment and quality standard being followed and/or violation of testing frequency

Wastewater management system should be planned and designed to cater to the phase-wise development of the community to ensure that the requirements are met at each phase.

Stormwater Quality

Monitor the quality of stormwater discharged from the community and demonstrate compliance with U.S. EPA's National Pollutant Discharge Elimination System (NPDES) permit program for stormwater pollution prevention from construction and industrial activities and municipal sources or local, state, or national regulations.

WE CREDIT: STORMWATER MANAGEMENT

3-5 Points

This credit applies to

- Communities

Intent

To prevent erosion and reduce runoff volume, pollution, siltation, and sedimentation while recharging groundwater and providing accessible green infrastructure

Requirements

Attempt any one of the following options for a total of up to 5 points:

Option 1. Rainfall Event Based (3-5 points)

Provide adequate infrastructure to manage stormwater within the community to demonstrate reduction in runoff, maximum capture, treatment and reuse of stormwater for a minimum of 60th percentile of local or regional rainfall event for ten year 24-hr rainfall event data. Points are awarded according to Table given below.

Table 1 Points for retaining percentile of rainfall retained in the community

Percentile rainfall retained	Points
60th percentile	3
80th percentile	4
90th percentile	5

Option 2. Reducing Post-development Stormwater Run-off (3-5 points)

Reduce post-development stormwater run-off by preserving pre-development runoff conditions in the community. The post-construction stormwater runoff should not exceed the pre-development rates and the predevelopment hydrology should be replicated through design and other appropriate strategies. These goals should be accomplished with the use of infiltration, evapotranspiration, and/or rainwater harvesting and reuse.

Table 2 Points for preserving pre-development to post-development run-off conditions in the community

Pre-development to post-development runoff percentage	Points
15%	3
10%	4
Up to 5%	5

Option 3. Green Stormwater Infrastructure (3-5 points)

Provide interconnected bioretention and infiltration services as part of designated green stormwater infrastructure. Points are awarded as per the table given below.

Table 3 Points for percentage of land area with designated stormwater infrastructure

% of land area with designated stormwater infrastructure	Points
35%	3
40%	4
50%	5

Provide details on strategies to be adopted to inspect and maintain the stormwater management facilities. In a manner best replicating natural site hydrology processes, retain (i.e. infiltrate, evapotranspire, or collect and reuse) on site the runoff from the developed site for Option 1, Option 2 and Option 3.

For all communities, the use of coal tar sealants shall be prohibited in any application exposed to stormwater, wash waters, condensates, irrigation water, snowmelt, or icemelt.

WE CREDIT: WASTEWATER MANAGEMENT

2-5 Points

This credit applies to

- Communities

Intent

To reduce pollution from wastewater, encourage water reuse and reduce stress on freshwater sources.

Requirements

Use treated wastewater from centralized and/or decentralized facilities to meet the community water demand. Calculate the percentage of treated wastewater used to meet the community water demand using the following equation.

$$\text{Treated wastewater reused \%} = \frac{\text{Treated wastewater (liters)}}{\text{Total water demand (liters)}} \times 100$$

Points are awarded as per the table below.

Table 1. Percentage of wastewater reused to meet total water demand

Percentage of wastewater reused	Points
70% and above	5
50% to 69%	4
30% to 49%	3
10% to 29%	2

Wastewater management system should be planned and designed to cater to the phase-wise development of the community to ensure that the requirements are met at each phase.

WE CREDIT: SMART WATER SYSTEMS

1-2 Points

This credit applies to

- Communities

Intent

To manage water efficiently by tracking consumption, losses, leakages, theft and reduce wastage of water through smart solutions.

Requirements

Attempt any one of the following options:

Option 1. Smart Water Metering (2 points)

Commit to cover 100% of water connection units with smart water meters to measure the total potable water use at the point of connection.

Option 2. Water Supply Monitoring and Audit (1 point)

Design water supply system to provide information on water consumption, water losses, theft and wastage. Provide auditing and monitoring systems.

ENERGY AND GREENHOUSE GAS EMISSIONS (EN)

EN PREREQUISITE: POWER ACCESS, RELIABILITY AND RESILIENCY

Required

This prerequisite applies to

- Communities

Intent

To provide safe, secured, reliable, resilient and equitable access to power.

Requirements

Power system must meet the following requirements. Communities with multiple utilities or service providers must submit aggregated data to demonstrate compliance.

Access

Demonstrate that all buildings within the community have access to power supply.

Reliability and Resiliency

Protect the power system from common external threats that may cause equipment damage, malfunctioning or service interruption by meeting at least one of the following options as applicable to the project.

Option 1. External Damage Prevention

Identify risks and avoid infrastructure damage and / or service interruption from external risks such as tree contact, animal / bird contact, vehicle traffic or human interference, fire / hazardous area and weather effects.

Option 2. Power System Hardening

Demonstrate the following design considerations and/or infrastructure to harden power systems against flooding, storms, and other extreme events.

- **Flooding avoidance**
 - Prevent damage to electrical equipment and assets (e.g., substations, diesel generator sets, transformers, OH cables) and ancillary equipment (e.g., pumps, compressors), by having a permanent storm water drainage system to protect critical power assets from inundation based on a 100-year flood mark or flood map. Protect stored fuel to meet or exceed the requirements set by the authority having jurisdiction.
 - Existing infrastructure (as applicable): Protect critical assets by installing a standalone pump (operable in the absence of power supply) to pump water from low-lying areas around the electrical systems or permanently relocate the assets or increase the height of critical power assets in the flood-prone area as described in American Society of Civil Engineers (ASCE) - Chapter 7, 24 or equivalent.
- **Storm protection** – Outdoor equipment should withstand three-second wind gusts up to 140 mph or equivalent.
- **Seismic protection** – Have in place seismic restraint–certified equipment for critical electrical systems and/or install a seismic restraint structural support for critical electrical systems, based on the seismic zone.

Option 3. Undergrounding

Protect 10% of the total electric cable length through conduits or underground tunnels.

Power Surety and Resiliency

Meet the following requirements:

- Identify communities' critical loads and essential services/facilities that require backup power during widespread outages or disasters.
- Determine minimum daily runtime requirements for all the identified emergency facilities and essential services.
- Demonstrate that the community can supply back up power to all identified critical loads and essential services or facilities in meeting their minimum daily runtime for at least one day.-

Off-grid developments, micro-grids, or distributed energy storage systems are eligible if they independently meet the above requirements.

EN PREREQUISITE: ENERGY AND GREENHOUSE GAS EMISSIONS MANAGEMENT

1-19 Points

This prerequisite applies to

- Communities

Intent

To support energy management and move towards net zero energy and emissions.

Requirements

Estimate the annual energy consumption and Greenhouse Gas (GHG) emissions for the community.

The projected energy performance must meet the following criteria:

Include Scope 1 and Scope 2 GHG emissions in the calculations. Address all of the following sectors present within the community:

- Buildings – All types of buildings such as residential, commercial, institutional and industrial buildings under public and private sector.
- Transportation – Public and private transportation.
- Street lighting and public area lighting.
- Water and wastewater.
- Waste management.
- Any other sector such as energy generation, mining or extraction if it falls within the community boundary.

Calculate the projected energy performance for a sector based on (i) industry “standard practice” (ii) existing codes, standards, or regulatory requirements (iii) published data or (iv) projects of similar scope and size operating within the same geographical area or within a geographical area with similar operating condition.

LEED points are based on projected energy and GHG performance based on Greenhouse gas emissions per capita (metric tons CO_{2e} per capita).

Table 1. LEED Points for projected Energy and GHG Performance

GHG emissions per capita	Points
No greater than 9.5	Prerequisite
9.0 – 9.4	1
8.5 – 8.9	2
8.0 – 8.4	3
7.5 – 7.9	4
7.0 – 7.4	5
6.5 – 6.9	6
6.0 – 6.4	7
5.5 – 5.9	8
5.0 – 5.4	9
4.5 – 4.9	10
4.0 - 4.4	11
3.5 – 3.9	12

3.0 – 3.4	13
2.5 – 2.9	14
2.0 – 2.4	15
1.5 – 1.9	16
1.0 – 1.4	17
0.5 – 0.9	18
0 – 0.4	19

EN CREDIT: ENERGY EFFICIENCY

1-4 Points

This credit applies to

- Communities

Intent

To improve the energy efficiency of the community services.

Requirements

Attempt any of the following options for a maximum of 4 points:

Option 1. Optimize Building Energy Performance (1-4 points)

The requirements apply to 90% of the total building floor area (rounded up to the next whole building) of all nonresidential buildings, mixed-use buildings, and multiunit residential buildings four stories or more to be constructed as part of the community.

Each counted building must comply with one of the following.

Case 1. Whole-Building Energy Simulation (1-4 points)

Demonstrate a Performance Cost Index (PCI) below the Performance Cost Index Target (PCI_t) calculated in accordance with Section 4.2.1.1 of ANSI/ASHRAE/IESNA Standard 90.1-2016, Appendix G, Table 4.2.1.1. The required BPF (Building Performance Factor) for calculating PCI_t shall be calculated using an area weighted average of all the building use types present within the community.

LEED points are calculated based on the project percent improvement PCI below the PCI_t using metrics of cost. Points are awarded according to the table given below:

Table 1: Points for percentage improvement in energy performance of buildings – % Cost PCI below PCI_t

Percentage Improvement	LEED Points
5%	1
10%	2
15%	3
≥20%	4

For Table 1, on-site renewable energy may be subtracted from proposed energy cost prior to calculating proposed building performance per ASHRAE Standard 90.1- 2016 Section G 2.4.1.

OR

Case 2. Prescriptive Compliance: ASHRAE Advanced Energy Design Guide (4 points)

To be eligible for Case 2, the buildings must meet the requirements of the applicable ASHRAE Advanced Energy Design Guide (AEDGs), and projects must comply with all the requirements of the ASHRAE 90.1-2016 Prescriptive provisions of Sections 5 through 10.

Implement and document compliance with the applicable recommendations and standards in Chapter 4, Design Strategies and Recommendations by Climate Zone, for the appropriate ASHRAE 50% Advanced Energy Design Guide and climate zone.

ASHRAE 50% Advanced Energy Design Guide for Small to Medium Office Buildings

- Building envelope: roofs, walls, floors, slabs, doors, continuous air barriers, and vertical fenestration.
- Interior and exterior lighting, including daylighting and interior finishes.
- Plug loads, including equipment and controls.
- HVAC Systems and Controls.

ASHRAE 50% Advanced Energy Design Guide for Medium to Large Box Retail Buildings

- Building envelope: roofs, walls, floors, slabs, doors, vestibules, and fenestration – all orientations.
- Interior and exterior lighting, excluding lighting power density for sales floor .
- Additional interior lighting for sales floor.
- Plug loads, including equipment choices and controls.
- HVAC efficiency and control requirements.

ASHRAE 50% Advanced Energy Design Guide for K–12 School Buildings

- Building envelope: roofs, walls, floors, slabs, doors, and vertical fenestration.
- Interior and exterior lighting, including daylighting and interior finishes.
- Plug loads, including equipment choices, controls, and kitchen equipment.
- HVAC efficiency and control requirements.

ASHRAE 50% Advanced Design Guide for Large Hospitals

- Building envelope: roofs, walls, floors, slabs, doors, vestibules, continuous air barriers, and vertical fenestration.
- Interior and exterior lighting, including daylighting (form or nonform driven) and interior finishes.
- Plug loads, including equipment choices, controls, and kitchen equipment.
- HVAC and Service Water Heating Systems and Equipment.

ASHRAE 50% Advanced Energy Design Guide for Grocery Stores

- Building envelope: roofs, walls, floors, slabs, doors, vestibules, continuous air barriers, and vertical fenestration.
- Interior and exterior lighting, including sales floor.
- Refrigeration, Plug, and Process loads, including equipment choices and controls.
- HVAC efficiency and control requirements.

For new single-family residential buildings and new multiunit residential buildings three stories or fewer, 90% of the buildings floor area must reduce absolute estimated annual energy usage by 20% compared with the LEED Energy Budget for each building. Follow the method outlined in LEED v4.1 Residential: Single Family Homes, EA Credit Annual Energy Use.

Option 2. Street Lighting and public area lighting (1-2 points)

Provide efficient street lighting and public area lighting in the community. Points are awarded based on the luminous efficacy of all the lamps within the community according to the table below:

Table 2. Points for efficient street lighting and public area lighting

Luminous Efficacy	Points
100	1
120	2

Option 3. Water and Wastewater (2 points)

All pumps used in the water and wastewater systems must meet the Pump Energy Index listed in Table I.1—Proposed Energy Conservation Standards for Pumps, 10 CFR Parts 429 and 431 of DOE standards

Federal Register final rule Energy Conservation Program: Energy Conservation Standards for Pumps or international equivalent standard.

Option 4. District Energy Systems (1-2 points)

Incorporate a district heating and/or cooling system for space conditioning and/ or water heating (at least two buildings total) such that at least 80% of the projects' annual heating and/ or cooling consumption is provided by the district plant.

Single-family residential buildings and existing buildings of any type may be excluded from the calculation.

Each system component (boiler and/ or chiller, as applicable) that is addressed by ANSI/ASHRAE/IESNA Standard 90.1-2016 must at least meet the overall efficiency performance that is specified by the standard's mandatory requirements. Points are awarded according to Table below:

Table 3. Points for percentage Improvement in the overall efficiency performance

Percentage Improvement	Points
Compliance with ANSI/ASHRAE/IESNA Standard 90.1-2016	1
10%	2

EN CREDIT: RENEWABLE ENERGY

2-6 Points

This credit applies to

- Communities

Intent

To support the transition of local energy supply towards renewables.

Requirements

Communities may choose one or more strategies for procuring renewable energy (such as solar PV, wind, geothermal, micro or small scale hydro*, or biomass) from the categories below. Points are based on total energy consumption (total power supply and thermal energy supply) met by renewable energy.

*Small hydroelectric is limited to capacity of 30 MW or as per national standard.

Categories for renewable energy:

- **Tier 1: On-site Renewables-**
 - Local renewables should be planned and designed to cater to the phase-wise development of the city to ensure that the requirements are met at each phase.
 - On-site renewable energy generation, environmental attributes (e.g. RECs) retained.
 - **Tier 2: New Off-Site Renewables-**
 - Off-site renewable electricity (along with the environmental attributes) that is procured by a generation asset(s) built within the last five years or contracted to be operational within two years of building occupancy.
 - **Tier 3: Existing Off-Site Renewables or Renewable Energy Certificates-**
 - Off-site renewable electricity that is Green-e Energy certified or equivalent or captured bio-methane.
- OR
- Green-e certified or equivalent Renewable Energy Certificates (RECs) purchased by the community to mitigate the environmental impacts of energy consumption. For this purpose, engage in a contract for qualified resources that have come online since January 1, 2005, for a minimum of fifteen years to be delivered annually.

Environmental benefits of the procurement must be retained by the community. All off-site qualifying resources must be contracted, owned, or leased for at least 15 years.

Table 1. Points for Renewable Procurement

Points	Tier 1	Tier 2	Tier 3
2	2 %	20 %	100%
3	6 %	40 %	200%

4	15 %	60 %	300%
5	35 %	80 %	
6	60 %	100 %	

Note: Points are awarded for every single threshold that is met through each strategy, Points for each strategy are added to determine the final point achievement.

EN CREDIT: GRID HARMONIZATION

1-2 Points

This credit applies to

- Communities

Intent

To increase participation in demand response technologies, programs, and aggregation that make energy generation and distribution systems more affordable and more efficient, increase grid reliability, and reduce greenhouse gas emissions.

Requirements

Attempt any of the following options for a total of up to 2 points.

Option 1. Demand Response Program Available and Participation (2 points)

Participate in an existing demand response (DR) program and complete the following requirements.

- Design a system with the capability for real-time, fully automated DR based on external initiation by a DR Program Provider. Semi-automated DR may be utilized in practice.
- Enroll in a minimum one-year DR commitment with a qualified DR program provider, with the intention of multiyear renewal, for at least 10% of the estimated annual peak electricity demand of the community. The on-peak demand may vary based on the utility climate and pricing structures.
- Develop a comprehensive plan for meeting the commitment during a demand response event.
- Include the DR program and any installed technologies in the building systems manual or include in the current facilities requirements and operations and maintenance plan.
- Plan at least one full test of the DR program.

Option 2. Demand Response Capable Building (1 point)

Develop infrastructure in place to take advantage of future demand response programs or dynamic, real-time pricing programs and complete the following activities:

- Provide interval recording meters and have equipment capable of accepting an external signal.
- Develop a comprehensive plan for shedding at least 10% of the estimated annual peak electricity demand of the community.
- Include the DR program and any installed technologies in the building systems manual or include in the current facilities requirements and operations and maintenance plan.
- Initiate contact local utility representatives to discuss participation in future DR programs.

Option 3. Load Flexibility and Management Strategies (1-2 points)

Analyze the community's annual estimated load shape and peak load and review the regional grid load profile to identify the best value load management strategies that the buildings within the community can provide.

Implement one or more of the load flexibility and management strategies described below for a maximum of up to two points.

- Peak Load Optimization: Demonstrate that strategy reduces on-peak load by at least 10% as compared to the estimated annual peak electricity demand of the community. (1 point)
- On-site thermal and/or electricity storage: Demonstrate that strategy reduces on-peak load by at least 10% as compared to the estimated peak electrical demand. (1 point)
- Dynamic Pricing Program: Initiate dialogue with utility to be committed to infrastructure and programs that provide access to dynamic pricing for metered users to motivate load shifting.

Rate structures must be clearly defined, communicated to metered users in a standard format, and easily accessible. At minimum, have a tariff scheme that offers Time of Use pricing with at least one time block and two tiers for all consumers. (1 point)

All projects must provide interval recording meters and have equipment capable of accepting an external signal.

Include load flexibility and management strategies and installed technologies in the building systems manual or include in the current facilities requirements and operations maintenance plan. Contact local utility representatives to discuss participation in future DR programs and to inform utility of building load flexibility and management strategies.

Option 4: Aggregation (1 Point)

Participate in meter aggregation of at least two buildings within the community.

MATERIALS AND RESOURCES (MR)

MR PREREQUISITE: CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

Required

This prerequisite applies to

- Communities

Intent

To reduce disposal of construction and demolition waste by recovering, reusing and recycling materials.

Requirements

Develop a detailed construction and demolition (C&D) waste management plan and commit to divert 35% of C&D waste from all construction and infrastructure works and construction undertaken by the community. This includes but is not limited to roads and highways, transits, water supply and wastewater treatment plants, public spaces and parks and buildings. The plan must include an overall project waste diversion goal and strategies for waste diversion. Alternative daily cover (ADC) does not qualify as material diverted from disposal. Land-clearing debris is not considered construction, demolition, or renovation waste that can contribute to waste diversion.

Identify a C&D waste management to treat C&D waste generated from all infrastructure works and construction undertaken by the community. Ensure that waste from community is treated by the assigned facility.

MR PREREQUISITE: SOLID WASTE MANAGEMENT

Required

This prerequisite applies to

- Communities

Intent

To move towards a zero-waste community and reduce environmental and economic harms associated with waste generation.

Requirements

Waste collection services

100% coverage of all buildings for segregated waste collection services including but not limited to recyclables and organics.

Solid Waste Management

Develop solid waste management plan including waste collection, segregation, recycling, and waste disposal strategies and processes.

Meet the following requirements:

1. Waste Generation

- Estimate municipal solid waste generation per year for all of the following sectors present within the community:
 - Residential
 - Institutional
 - Commercial
 - Open Spaces/ Yard waste
 - Other sector as applicable for the community
- Municipal solid waste generated from each sector must be classified according to following waste categories
 - Organic waste including food or kitchen waste and yard waste.
 - Recyclables such as paper, corrugated cardboard, glass, plastic and metal.
 - Any other categories as applicable for the community
- Calculate the projected waste generation based on (i) industry “standard practice” (ii) existing codes, standards or regulatory requirements (iii) published data or (iv) projects of similar scope and size operating within the same geographical area or within a geographical area with similar operating condition.
- Document the assumptions for differing daytime and nighttime population if varying numbers are used to arrive at waste generation based on population.

2. Waste Diversion

Estimate the waste diversion from landfill as the total waste diverted from landfill, in a year as a percentage of total waste generated.

$$\text{Diversion rate} = \frac{\text{Total waste diverted from landfill} \times 100}{\text{Total waste generated}}$$

- Diverted waste includes all recycled, salvaged or reused materials.

- Exclude construction and demolition waste, land clearing debris, soil, and landscaping materials from this calculation.

Waste to energy does not count as a waste diversion method.

Support municipal solid waste management and diversion strategies which are not within the scope of the community's direct execution with appropriate regulations or policies.

3. **Waste Disposal**

Provide dedicated areas for safe disposal of waste streams remaining after waste diversion by the community. Describe the appropriate measures taken for the safe disposal of each of the solid waste streams remaining after waste diversion.

MR CREDIT: ORGANIC WASTE TREATMENT

1-2 Points

This credit applies to

- Communities (1-2 points)

Intent

To encourage the diversion of organic matter away from landfills.

Requirements

Provide waste management systems to recover organic waste estimated as per *MR Prerequisite Waste Management* generated within the community.

Points are awarded based on the table given below:

Table 1. Points for treating organic waste

Percentage of organic waste treated by community	Points
75%	1
76% -100%	2

Waste to energy does not count as waste diversion method.

Waste management system should be planned and designed to cater to the phase-wise development of the city to ensure that the requirements are met at each phase.

MR CREDIT: RECYCLING INFRASTRUCTURE

2-5 Points

This credit applies to

- Communities (1-5 points)

Intent

To encourage waste diversion of inorganic matter away from landfill and move towards 100% diversion from landfill.

Requirements

Attempt any of the following options for a total of up to 5 points:

Option 1. Inorganic Waste Collection and Processing (1-3 points)

- Provide collection centers for any one or both of the following waste products:
 - Electronics and Electrical Equipment (e-waste) (1 point)
 - Packaging, glass, metal scraps, mixed metal, or metal cans (2 points)

Collection centers may be within or outside the community boundary and may be operated by the municipality or other organizations such as Producer Responsible Organizations (PRO).

- Identify suitable vendors for the collected waste product(s). Vendors may be based within the community or outside the community boundary.

Option 2. Material Recovery Facility (MRF) (2 points)

- Waste Collection and Storage: Comply with the 'Requirement' sections of U.S. Code of Federal Regulations, Title 40, Volume 26, Part 243 on Storage, Safety and Collection (or local, state, or national regulations) for storage and collection of recyclables.
- Identify a Material Recovery Facility (MRF) to recycle the collected inorganic waste such as paper/corrugated cardboard, glass, plastic and metal generated within the community.

MR CREDIT: RESPONSIBLE SOURCING

1-2 Points

This credit applies to

- Communities

Intent

To rethink the entire approach to purchasing and encourage the use of products and materials that have environmentally, economically, and socially preferable life cycle impacts.

Requirements

Meet the following requirements:

Use materials for construction and infrastructure works such that the sum of the post-consumer recycled content, on-site reused materials, and one half of the pre-consumer recycled content constitutes at least 20%/40% of the total mass of infrastructure and construction materials.

Include materials in all the following infrastructure items, as applicable:

- Roadways, parking lots, sidewalks, unit paving, and curbs;
- Water retention tanks and vaults;
- Base and sub-base materials for the above; and
- Rainwater, sanitary sewer, steam energy distribution, and water piping.

Points are awarded as per the table given below.

Table 1: Points for responsibly sourcing the materials

Percentage of total mass of responsibly sourced infrastructure/construction materials used	Points
20%	1
21% - 40%	2

MR CREDIT: SMART WASTE MANAGEMENT SYSTEMS

1-2 Points

This credit applies to

- Communities

Intent

To improve operational efficiency of the waste management system.

Requirements

Provide smart waste management strategies or solutions in the community. Points are awarded based on the table given below.

Table 1. Points for Smart Waste Management

Percentage of total waste generated by the community handled by the smart systems	Points
50%	1
75%	2

Indicative list of strategies:

- Pneumatic transport systems
- Smart bins with sensor-based technology
- Image-based or weight-based trash can sensors
- Route optimization using intelligent waste management platform

QUALITY OF LIFE (QL)

QL PREREQUISITE: DEMOGRAPHIC ASSESSMENT

Required

This prerequisite applies to

- Communities

Intent

To understand the population demographics and housing characteristics of the area

Requirements

Provide a comprehensive demographic plan that must address the following population and housing characteristics as applicable:

- Include a brief history of development, noting critical points of change for the overall area or specific neighborhoods.
- Document current land use.
- Develop plan for relocation and rehabilitation of residing population if any. Address impact on current means of livelihood and provide details on future means of livelihood.

QL PREREQUISITE: SOCIAL INFRASTRUCTURE

Required

This prerequisite applies to

- Communities

Intent

To provide facilities and services to users that help meet their social needs, maximize their potential for development, and enhance community well-being.

Requirements

Provide social infrastructure listed below to meet or exceed the baseline requirements as applicable.

- Education: Infrastructure facilities for the following education categories:
 - Secondary Education
 - Higher Secondary Education
 - Vocational Training
- Special Education
- Skill Development: Training centers for skill development to support local economy.
- Health Care: Facilities for community health clinics, hospitals.
- Community Development: Sports club/ centers and socio-cultural facilities like public libraries, senior citizens centers, and museums.
- Safety and Security: Facilities of police stations and fire stations.

Baseline social infrastructure requirement for the community should be developed based on (i) existing codes, standards or regulatory requirements (ii) published data or (iii) average of a minimum of three projects of similar scope and size operating within the same geographical area or within a geographical area with similar operating conditions.

QL CREDIT: AFFORDABLE HOUSING

2 Points

This credit applies to

- Communities

Intent

To provide access to housing at reasonable costs to sections of the society which need assistance.

Requirements

Adopt a comprehensive housing policy for the community. The policy must address the following elements as applicable:

- Higher density of residential units closer to transit hubs. Achieve a minimum of three points under Option 1. Compact Development, and Option 3. Access to Transit Facilities of *TR Credit Compact, Mixed Use and Transit Oriented Development*.
- Land policies to ensure equitable balance for housing for all.
- For housing catering to the lower income groups, define basic socially acceptable standard housing unit based on what is required for decent living. The floor space requirement for standard unit based on building by-laws, regulatory constraints and market conditions. The definition should also include minimum standards for basic amenities (running water, a toilet) as well as access to essential social services such as schools and health clinics. An acceptable housing unit should also place workers no more than an hour's commute from centers of employment.
- Housing policies and regulations to support the implementation of strategies.

QL CREDIT: PUBLIC HEALTH AND WELLBEING

21-6 Points

This credit applies to

- Communities

Intent

To promote mental and physical health and wellbeing in the community and its surroundings.

Requirements

Attempt any of the following options for a total of up to 6 points:

Option 1. Outdoor Air Monitoring (2 points)

Monitor and publicly display the outdoor air quality in key residential, commercial, industrial and sensitive areas based on the national or regional air quality monitoring standards. Each monitoring station must monitor air quality data for minimum five pollutants including Ozone (O₃), Particulate Matter (PM_{2.5}, PM₁₀) and any of the three pollutants from - Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂), Carbon Monoxide (CO), Ammonia (NH₃), Lead (Pb) or Volatile Organic Compounds (VOCs).

Option 2. Access to healthful food (2 points)

Provide permanent and accessible urban agriculture space of at least 2.5 square feet per capita (0.25 square meter per capita) allocated within all residential zones through one or more of the following (i) Community garden (ii) Edible landscaping with labeled plants and signage containing harvesting guideline (iii) Small farm or orchard (iv) Private garden (v) Rooftop garden.

Areas allocated as Green Spaces under NS Prerequisite: Green Spaces may be used for the purpose of urban agriculture.

OR

Adopt regulation to provide supermarkets or grocery stores selling fresh produce within all residential zones. Within each residential zone, a minimum of 50% of the buildings must have access to supermarkets or grocery stores within 1/4 mile (400 meter) walking distance.

AND/OR

Option 3. Active Lifestyle (2 points)

Provide access to any two of the following within all residential areas:

- Athletic field and/or court.
- Trail network.
- Play space geared toward children (e.g., playground).
- All-weather fitness zone.
- Co-located adult and child physical activity space (e.g., a playground with an adult fitness zone).

Option 4: Community mental and physical health advancement (1 point)

Achieve any two of the following requirements:

- Allocate space within the community to display creative businesses, accommodate activities which promote local arts and crafts. Ensure that the space is universally accessible, centrally placed, and located close to the transit stops.
- Provide dedicated and easily accessible lactation room(s) in public and office buildings within the community. The minimum area of one lactation room must be 50 square feet (4.6 square meter). Ensure provision of electrical outlet(s), countertop or table, door lock, and comfortable armchair. Provide a cold storage system and washbasin within or adjacent to the room.
- Provide dedicated quiet room(s) or meditation room(s) in public and office buildings. The minimum area of one room must be 75 square feet (7 square meter). Ensure provision of basic amenities such as ambient lighting, thermal comfort and visual privacy.
- Provide single occupant or multi occupant gender inclusive restroom(s) with full height lockable single occupant stalls in public and office buildings. Include spaces and fixtures equivalent to gender specific facilities. Locate single occupant restroom adjacent to gendered rest rooms. Locate multi-occupant restroom on circulation path with good visibility and openness and without an entry door.
- Provide baby changing facility(s) in public buildings. Ensure that the baby changing facility is either provided as a separate unisex facility or as a dedicated accessible space in a unisex or accessible restroom. Ensure minimum maneuvering space of 5 feet by 5 feet (1.5 meter by 1.5 meter) without any obstruction with changing tables at two heights, hand washing and drying facilities, diaper disposal bin and a storage space.
- Provide childcare facility(s) in public and office buildings. Provide minimum 2000 square feet (185 square meter) area including activity space, nap room, children's washroom, diapering area, parent room, staff area and storage room.
- Provide dedicated pet friendly park within 1.2 km (0.7 mile) walking distance of all dwelling units. Ensure that the park is universally accessible.
- Prohibit smoking in all indoor and outdoor public spaces. Provide designated smoking areas located at minimum 25 feet (7.6 meter) from all entries, outdoor air intakes, and operable windows.

QL CREDIT: EMERGENCY MANAGEMENT AND RESPONSE

2 Points

This credit applies to:

- Communities

Intent

To create sufficient capacity and capability to respond to emergency incidents and reduce its impact on human life/health.

Requirements

Demonstrate that the emergency response time meets the National Fire Protection Association (NFPA) 1710 and 1720 requirement of response time to be within 9 minutes of the dispatch notification or local, state, or national regulations for each of the following emergencies:

- Fire
- Medical
- Police
- Special circumstances or operations as relevant for the community.

INNOVATION (IN)

IN CREDIT: INNOVATION

1-6 Points

This credit applies to:

- Communities

Intent

To encourage communities to achieve exceptional or innovative performance.

Requirements

Attempt any of the following options for a total of up to 6 points: Each option is equivalent to one point.

Option 1. Innovation (1-6 points)

Achieve significant, measurable social, economic, and environmental performance using a strategy not addressed in the LEED for Cities and Communities rating system.

Identify all of the following:

- Intent of the proposed innovation credit
- Proposed requirements for compliance
- Proposed submittals to demonstrate compliance
- Design approach or strategies used to meet the requirements.

Option 2. Exemplary Performance (1-6 points)

Achieve exemplary performance in any of the LEED for Communities prerequisite or credit.

Option 3. Green Rating Systems and Pilot Credits (1-6 points)

Meet all of the requirements of a prerequisite or credit from any of the below rating systems or a pilot credit from USGBC's LEED for Cities and Communities Pilot Credit Library. Credits included in their entirety in the LEED for Cities and Communities rating system are not eligible.

- LEED v4 for Neighborhood Development, July 2017
- PEER Rating System v2, February 2018
- LEED for Transit
- SITES
- WELL

Option 4. LEED Accredited Professional (1 point)

At least one principal participant of the project team must be a LEED Accredited Professional (AP) with successful completion of the LEED for Cities & Communities training program.

REGIONAL PRIORITY (RP)

RP CREDIT: REGIONAL PRIORITY

1-4 Points

This credit applies to:

- Communities

Intent

To provide an incentive for the achievement of credits that address geographically specific socio-economic and environmental priorities.

Requirements

Attempt any of the following options for a total of up to 4 points.

Option 1: Regional Priority

One point is awarded for each Regional Priority credit achieved, up to a maximum of four.

- Identify the credit that is a regional priority. Refer to the credits under Regional Priority Credit Lookup website (<https://www.usgbc.org/rpc>) for credits identified as regional priorities for specific locations.

Option 2. Innovative Regional Priority

One point is awarded for each strategy, up to a maximum of four.

Achieve significant, measurable environmental performance for a regional priority using a strategy not addressed in the LEED for Cities and Communities rating system.

Identify all of the following:

- Intent of the proposed regional priority credit
- Provide Background and context outlining the regional priority.
- Proposed requirements for compliance
- Proposed submittals to demonstrate compliance
- Design approach or strategies used to meet the requirements.

Appendices

APPENDIX 1. DIVERSE USES

List of Diverse Uses

Category	Use type
Food retail	Supermarket
	Grocery with produce section
Community-serving retail	Convenience store
	Farmers market
	Hardware store
	Pharmacy
	Other retail
Services	Bank
	Family entertainment venue (e.g., theater, sports)
	Gym, health club, exercise studio
	Hair care
	Laundry, dry cleaner
	Restaurant, café, diner (excluding those with only drive-thru service)
Civic and community facilities	Adult or senior care (licensed)
	Child care (licensed)
	Community or recreation center
	Cultural arts facility (museum, performing arts)
	Education facility (e.g., K—12 school, university, adult education center, vocational school, community college)
	Government office that serves public on-site
	Medical clinic or office that treats patients
	Place of worship
	Police or fire station
	Post office
	Public library
	Public park
	Social services center
Open community spaces such as squares and plazas	
Community anchor uses	Commercial office

APPENDIX 2. SLL CREDIT: BROWNFIELD REMEDIATION

(LEED v4 ND)

1–2 points

This credit applies to

- Neighborhood Development Plan
- Neighborhood Development

Intent

To encourage the cleanup of contaminated lands and developing sites that have been identified as contaminated.

Requirements

ND PLAN, ND (SLL)

Option 1. Brownfield Site (1 point)

At a project site identified as a brownfield or where soil or groundwater contamination has been identified, and the local, state, or national authority (whichever has jurisdiction) requires its remediation, perform remediation to the satisfaction of that authority.

OR

Option 2. High-Priority Redevelopment Area (2 points)

Achieve the requirements in Option 1.

AND

Locate the project in one of the following high-priority redevelopment areas:

- EPA National Priorities List
- Federal Empowerment Zone
- Federal Enterprise Community
- Federal Renewal Community
- Department of the Treasury Community Development Financial Institutions Fund Qualified Low-Income Community (a subset of the New Markets Tax Credit Program)
- U.S. Department of Housing and Urban Development's Qualified Census Tract (QCT) or Difficult Development Area (DDA)
- Or a local equivalent program administered at the national level for projects outside the U.S.