LEED for Neighborhood Development
Rating System

October 31, 2008
1st Public Comment Draft
Clean Version
Table of Contents

SMART LOCATION & LINKAGE ................................................................................................. 1

SLL Prerequisite 1: Smart Location .................................................................................. 1
SLL Prerequisite 2: Proximity to Water and Wastewater Infrastructure ......................... 6
SLL Prerequisite 3: Imperiled Species and Ecological Communities .............................. 7
SLL Prerequisite 4: Wetland and Water Body Conservation ............................................ 9
SLL Prerequisite 5: Agricultural Land Conservation ....................................................... 11
SLL Prerequisite 6: Floodplain Avoidance .................................................................... 14
SLL Credit 1: Preferred Locations .............................................................................. 16
SLL Credit 2: Brownfields Redevelopment .................................................................. 20
SLL Credit 3: Reduced Automobile Dependence ........................................................ 21
SLL Credit 4: Bicycle Network and Storage .................................................................. 23
SLL Credit 5: Housing and Jobs Proximity .................................................................... 25
SLL Credit 6: Steep Slope Protection ........................................................................... 27
SLL Credit 7: Site Design for Habitat or Wetland Conservation .................................... 29
SLL Credit 8: Restoration of Habitat or Wetlands ......................................................... 31
SLL Credit 9: Conservation Management of Habitat or Wetlands .................................. 32

NEIGHBORHOOD PATTERN & DESIGN ........................................................................... 33

NPD Prerequisite 1: Walkable Streets .......................................................................... 33
NPD Prerequisite 2: Compact Development .................................................................. 35
NPD Prerequisite 3: Connected and Open Community ................................................... 37
NPD Credit 1: Walkable Streets .................................................................................... 39
NPD Credit 2: Compact Development ........................................................................... 44
NPD Credit 3: Diversity of Uses .................................................................................... 45
NPD Credit 4: Mixed-Income Diverse Communities ..................................................... 47
NPD Credit 5: Reduced Parking Footprint ................................................................. 49
NPD Credit 6: Street Network .................................................................................. 51
NPD Credit 7: Transit Facilities ............................................................................. 53
NPD Credit 8: Transportation Demand Management ............................................... 54
NPD Credit 9: Access to Public Spaces .................................................................. 56
NPD Credit 10: Access to Active Public Spaces ...................................................... 57
NPD Credit 11: Universal Accessibility ................................................................. 58
NPD Credit 12: Community Outreach and Involvement ......................................... 59
NPD Credit 13: Local Food Production ................................................................. 60
NPD Credit 14: Tree-Lined and Shaded Streets .................................................... 62
NPD Credit 15: Neighborhood Schools ................................................................. 63

GREEN INFRASTRUCTURE & BUILDINGS ............................................................. 64

GIB Prerequisite 1: Certified Green Building ......................................................... 64
GIB Prerequisite 2: Minimum Building Energy Efficiency ...................................... 65
GIB Prerequisite 3: Minimum Building Water Efficiency ....................................... 66
GIB Prerequisite 4: Construction Activity Pollution Prevention............................ 68
GIB Credit 1: Certified Green Buildings ................................................................. 69
GIB Credit 2: Building Energy Efficiency ............................................................... 70
GIB Credit 3: Water Efficiency Landscaping .......................................................... 71
GIB Credit 4: Existing Building Reuse .................................................................. 72
GIB Credit 5: Historic Building Preservation and Adaptive Use ............................. 73
GIB Credit 6: Minimize Site Disturbance in Design and Construction .................... 74
GIB Credit 7: Stormwater Management ............................................................... 76
GIB Credit 8: Heat Island Reduction ..................................................................... 78
GIB Credit 9: Solar Orientation ........................................................................... 80
GIB Credit 10: On-Site Renewable Energy Sources ............................................. 82
GIB Credit 11: District Heating & Cooling ............................................................. 83
GIB Credit 12: Infrastructure Energy Efficiency ................................................................. 84
GIB Credit 13: Wastewater Management ......................................................................... 85
GIB Credit 14: Recycled Content in Infrastructure ........................................................ 86
GIB Credit 15: Waste Management Infrastructure ......................................................... 87
GIB Credit 16: Light Pollution Reduction ....................................................................... 88

INNOVATION & DESIGN PROCESS ................................................................................. 90
IDP Credit 1: Innovation and Exemplary Performance ................................................... 90
IDP Credit 2: LEED Accredited Professional ................................................................. 91
RP Credit 1: Regional Priority Credit ............................................................................ 92

APPENDIX: List of Diverse Uses .................................................................................... 93
Smart Location & Linkage

SLL Prerequisite 1: Smart Location

Required

Intent

Encourage development within and near existing communities or public transportation infrastructure. Reduce vehicle trips and miles traveled and support walking as a transportation choice. Reduce the risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation and compact development. Improve the mental health of the community by reducing work commute time and increasing time devoted to leisure, community activities and family.

Requirements

OPTION 1 – INFILL SITE

Locate the project on an infill site;

OR

OPTION 2 – ADJACENT SITE WITH CONNECTIVITY

Locate the project on an adjacent site with pre-project connectivity of at least 150 intersections/sq. mile within a half circle using a radius centered on the midpoint of the adjacent portion of the project perimeter. The radius of the half circle must be ¼ mile, or the length of the adjacent portion of the perimeter, whichever is longer; and

if the project contains streets, its connectivity cannot be less than the connectivity of the surrounding area measured within the half circle; and

design and build the project with at least one through-street and/or non-motorized right-of-way (non-motorized rights-of-way may count for no more than 10% of the total) intersecting the project boundary at least every 800 feet;
OR

OPTION 3 – NEARBY ADEQUATE TRANSIT SERVICE

Locate the project near existing or planned adequate transit service so that at least 50% of dwelling units and business entrances within the project are within ¼ mile walk distance of bus or streetcar stops or within ½ mile walk distance of bus rapid transit stops, light or heavy passenger rail stations, ferry terminals, or tram terminals. In the case of planned service, the project must demonstrate that the relevant transit agency has a signed Full Funding Grant Agreement (FFGA) with the Federal Transit Administration (FTA) that includes a revenue operations date (ROD) for the start of transit service. The ROD must be no later than the occupancy date of 50% of total project building square footage. Planned transit service not using FTA funding must provide the legal and functional equivalent of an FFGA and ROD;
OPTION 4 – NEARBY NEIGHBORHOOD ASSETS

Locate the project near existing neighborhood shops, services, and facilities so that the project boundary is within ¼ mile walk distance of at least 5, or within ½ mile walk distance of at least 7, of the diverse uses defined in the Appendix, including at least one use from each of the three diverse use categories (retail, services, civic) with the following limitations: a) uses may not be counted in two categories, e.g. a school or place of worship may be counted only once even if it also contains a daycare facility; b) a mixed use building containing several uses as distinctly operated enterprises with separate exterior entrances may count each as a separate use, but no more than half of the minimum number of diverse uses can be situated in a single building or under a common roof; and c) a single retail store of any type may only be counted once even if it sells products associated with multiple use types.

OR

OPTION 5 – MPO LOCATION KNOWN TO HAVE LOW VMT

Locate the project within a region served by a Metropolitan Planning Organization (MPO) and within a transportation analysis zone for which MPO research demonstrates that the average annual home-based and/or non-home-based rate of Vehicle Miles Traveled (VMT) per capita (or per employee) is lower than the average annual rate of the metropolitan region as a whole. The research must be derived from transportation surveys conducted within ten years of the date of submission for LEED for Neighborhood Development certification.

Adequate Transit Service is the minimum number of daily trips in each direction that a stop must have to be counted: (1) on weekdays, at least 56 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 28 trips/day for commuter/regional rail or ferries; and (2) on weekends, at least 14 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 7 trips/day for commuter/regional rail or ferries. Commuter rail serves more than one MSA and/or the area surrounding an MSA.
Adjacent site is defined as: a site having at least 25% of its perimeter bordering land that has been previously developed. For the purpose of this definition, a street or roadway does not constitute previously developed land. Any fraction of the perimeter that borders waterfront other than a stream is excluded from the calculation. Roadways do not count as previously developed land for purposes of this definition; instead, the status of the property on the other side of the road is considered.

Previously developed is defined as: a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.

Infill site is defined as: a site that meets any of the following three conditions: 1) at least 75% of its perimeter borders sites have been previously developed; 2) the site, in combination with any set of adjoining parcels, forms an aggregate parcel whose perimeter is 75% bounded by previously developed sites; or 3) at least 75% of the lands within a ½ mile radius of the project perimeter are previously developed. For the purpose of this definition, a street does not constitute previously developed land; instead the status of property on the other side of the street is considered. Any fraction of the perimeter that borders waterfront other than a stream will be excluded from the calculation.
Connectivity is defined as: the degree to which the street network is interconnected, as measured by the number of intersections per square mile. Eligible intersections include:

- Junctions of publicly-accessible streets open to motor vehicle movement.
- Intersections of such streets with publicly-dedicated alleys. Intersections of alleys with other alleys shall not be included.
- Intersections of such streets with off-street bicycle and multi-use paths, up to a maximum of 10% of the total intersections.
- A multilegged junction such as a roundabout, traffic circle or plaza counts as a single intersection, unless the space circumscribed by the thoroughfares is larger than 1/2 acre, in which case each of the surrounding component intersections may be included individually.
- The number of dead-end nodes in the street network is subtracted from the total number of intersections. Dead-end nodes are intersections that connect only to other routes that themselves don’t connect further. (See diagram.) If a person must both enter and exit through the same route/intersection, no intersections beyond that point are included.

Areas excluded from the calculation are water bodies, parks larger than 1/2 acre, recreational facilities, public campuses (such as universities), airports, rail yards, areas preserved from development by codified law or prerequisites of the rating system, and land that cannot be developed due to a unique topographic or geologic condition (such as steep slopes). Street rights-of-way may not be excluded.
Smart Location & Linkage

SLL Prerequisite 2: Proximity to Water and Wastewater Infrastructure Required

Intent

Encourage new development within and near existing communities in order to reduce multiple environmental impacts caused by sprawl. Conserve natural and financial resources required for construction and maintenance of infrastructure.

Requirements

FOR ALL PROJECTS

Portions of a project dedicated in perpetuity to open space or similar conservation uses do not have to be located within water and wastewater service areas, providing the open space has no existing development. In addition, water and wastewater infrastructure may not pass through such open space portions of a project to serve land beyond the project outside of the service area;

AND

OPTION 1 – EXISTING WATER & WASTEWATER SERVICE

Locate the project on a site served by existing water and wastewater infrastructure. Replacement of or other on-location improvements to existing infrastructure are considered existing for the purpose of achieving this option;

OR

OPTION 2 – PLANNED WATER & WASTEWATER SERVICE

Locate the project within a legally adopted planned water and wastewater service area and provide new water and wastewater infrastructure for the project.
Smart Location & Linkage

SLL Prerequisite 3: Imperiled Species and Ecological Communities

Required

Intent

Protect imperiled species and ecological communities.

Requirements

FOR ALL PROJECTS

Consult with the state Natural Heritage Program, or state fish and wildlife agencies, to determine if species listed under the federal Endangered Species Act, the state's endangered species act, or species or ecological communities classified by NatureServe as G1 (critically imperiled) or G2 (imperiled), have been found on the site, or have a high likelihood of occurring on the site due to the presence of suitable habitat and nearby occurrences;

AND

OPTION 1 – NO SPECIES PRESENT OR LIKELY

The consultation in the above paragraph determines that no such imperiled species have been found or have a high likelihood of occurring;

OR

OPTION 2 – INITIAL CONSULTATION INCONCLUSIVE

This option applies if the consultation with the state Natural Heritage Program, or state fish and wildlife agencies, is inconclusive. Using a qualified biological scientist, perform biological surveys using accepted methodologies during appropriate seasons to determine whether species listed under the federal Endangered Species Act, the state’s endangered species act, or species or ecological communities classified by NatureServe as G1 (critically imperiled) or G2 (imperiled) occur or have a high likelihood of occurring on the site. If the surveys conclude that species are present or likely, comply with Option 4;

OR

OPTION 3 – SPECIES FOUND: COMPLY WITH HCP

Comply with an approved Habitat Conservation Plan (HCP) under the Endangered Species Act for each identified species or ecological community;

OR

OPTION 4 – SPECIES FOUND: PREPARE HCP EQUIVALENT
If no approved HCP exists for a surveyed and identified species or ecological community, work with a qualified biological scientist, a non-governmental conservation organization, or the appropriate state, regional, or local agency to create and implement a conservation plan that includes the following:

a. Identification and mapping of the geographic extent of the habitat.

b. To the maximum extent practicable, protection of the identified habitat and an appropriate buffer of no less than 100 feet.

c. Analysis of threats from development and a management plan that eliminates or significantly reduces the threats.

d. If there will be negative impacts to species or ecological communities, quantification of the impacts by acres or number of plants and/or animals affected, and off-site protection from development in perpetuity for an equal or greater amount of the affected habitat of similar or better quality by donating or selling the land, or a conservation easement on the land, to an accredited land trust or relevant public agency.
Smart Location & Linkage

SLL Prerequisite 4: Wetland and Water Body Conservation

Required

Intent

Conserve water quality, natural hydrology and habitat, and preserve biodiversity through conservation of water bodies or wetlands.

Requirements

Limit development impacts on wetlands, water bodies, and surrounding buffer land according to the requirements below.

FOR ALL PROJECTS

Unless protected by state or federal law, previously developed land – including man-made linear wetland that is the result of the interruption of natural drainages by existing road or rail beds – is not considered wetlands, water bodies, or 100-foot buffer land that must be protected for the purposes of this prerequisite.

Minor improvements within the 100-foot buffer may be undertaken in order to enhance appreciation for wetlands and water bodies, provided such facilities are open to public access. Such improvements shall only include:

a. Bicycle and pedestrian pathways no more than 8 feet wide
b. Habitat management activities
c. Structures not exceeding 500 square feet
d. Grade changes necessary to ensure public access
e. Small clearings for tables, benches, and access for non-motorized recreational watercraft. Off-street parking is not considered a minor improvement
f. Removal of the following trees: Dead or hazardous trees; trees under 6” diameter at breast height; trees under 40% condition rating; and up to 20% of trees over 6” diameter at breast height with condition rating 40% or higher. Condition rating must be based on an assessment by an International Society of Arboriculture (ISA) Certified Arborist using ISA standard measures.

Streams (first order and higher, including intermittent streams) and high quality wetlands shall only be crossed via bridging, and shall not be paved or otherwise covered. High quality wetlands are wetlands assessed as performing well for all measured wetland functions. Wetland quality assessment must be performed by a qualified biological scientist using a method that is accepted by state or regional agencies;

AND

OPTION 1 – NO WETLANDS, WATER BODIES, OR LAND WITHIN 100 FEET OF THESE AREAS

Locate the project on a site that includes no wetlands, water bodies, or land within 100 feet of these areas;

OR
OPTION 2 – SITES WITH WETLANDS, WATER BODIES, OR LAND WITHIN 100 FEET OF THESE AREAS

Locate the project such that pre-project wetlands, water bodies, and land within 100 feet of such areas shall not be impacted by new development, unless the development is minor improvements or is on previously developed land; or

earn at least one point under GIB Credit 7: Stormwater Management, and limit any impacts beyond minor improvements to less than the percentage of wetlands, water bodies, and land within 100 feet of these areas given in the following table:

<table>
<thead>
<tr>
<th>Residential Density (du/acre) of the project</th>
<th>Non-Residential Density (FAR) of the project</th>
<th>Percentage of wetlands/water bodies/buffer land where impacts beyond minor improvements are allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 30</td>
<td>&gt; 1.5</td>
<td>≤ 20%</td>
</tr>
<tr>
<td>&gt; 20 to ≤ 29</td>
<td>&gt; 1 to ≤ 1.5</td>
<td>≤ 15%</td>
</tr>
<tr>
<td>&gt; 10 to ≤ 19</td>
<td>&gt; .75 to ≤ 1</td>
<td>≤ 10%</td>
</tr>
<tr>
<td>≤ 10</td>
<td>≤ .75</td>
<td>≤ 5%</td>
</tr>
</tbody>
</table>

For the purposes of this prerequisite, mixed use projects may use either the residential or non-residential density of the project to determine the percentage of allowable impacts, regardless of which is higher;

OR

OPTION 3 – SMALL PROJECTS WITH SIGNIFICANT 100-FOOT BUFFER

Projects of 15 acres or less, where buffer land within 100 feet of wetlands and/or water bodies comprises more than 20% of the project site, may double the percentages in the above table if the project earns at least two points under GIB Credit 7: Stormwater Management.

Previously developed is defined as a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.
Smart Location & Linkage

SLL Prerequisite 5: Agricultural Land Conservation

Required

Intent

Reduce the permanent loss of prime agricultural land, especially in places where such land is not abundant. Conserve prime agricultural land for future generations, even if such land is currently covered by forest or otherwise not currently used for food or fiber production.

Requirements

FOR ALL PROJECTS

Locate the project on a site that is not within a state or locally designated agricultural preservation district, unless any changes made to the site conform to the requirements for development within the district;

AND

OPTION 1 – LESS THAN 25% PRIME AGRICULTURAL LAND

Locate the project such that the site contains no more than 25% prime soils, unique soils, or soils of state significance as identified in a state Natural Resources Conservation Service soil survey;

OR

OPTION 2 – INFILL SITE

Locate the project on an infill site;

OR

OPTION 3 – SITE SERVED BY TRANSIT

Locate and/or design the project so that at least 50% of its dwelling units and business entrances are served by existing adequate transit service within a ¼ mile walk distance of bus or streetcar stops, or within a ½ mile walk distance of bus rapid transit stops, light or heavy passenger rail stations, and ferry or tram terminals; or the project is located and designed so that at least 50% of its dwelling units and business entrances will be within a ½ mile walk distance of planned bus rapid transit stops, light or heavy passenger rail stations, ferry terminals, or tram terminals providing adequate transit service. In the case of planned service, the project must demonstrate that the relevant transit agency has a signed Full Funding Grant Agreement (FFGA) with the Federal Transit Administration (FTA) that includes a revenue operations date (ROD) for the start of transit service. The ROD must be no later than the occupancy date of 50% of total project building square footage. Planned transit service not using FTA funding must provide the legal and functional equivalent of an FFGA and ROD;

OR

OPTION 4 – DEVELOPMENT RIGHTS RECEIVING AREA
Locate the project within a designated receiving area for development rights under a publicly administered farmland protection program that provides for the transfer of development rights from lands designated for conservation to lands designated for development;

OR

OPTION 5 – REGIONS WITH MORE THAN 75% PRIME AGRICULTURAL LAND

The project is located on an adjacent site within a metropolitan or micropolitan statistical area for which 75% or more of the total land available for development, including infill sites, is covered by prime soils, unique soils, or soils of state significance. If the project is not in an established metropolitan or micropolitan statistical area, the county boundary may serve as the area of the calculation.

Adequate Transit Service is the minimum number of daily trips in each direction that a stop must have to be counted: (1) on weekdays, at least 56 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 28 trips/day for commuter/regional rail or ferries; and (2) on weekends, at least 14 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 7 trips/day for commuter/regional rail or ferries. Commuter rail serves more than one MSA and/or the area surrounding an MSA.

Adjacent site is defined as: a site having at least 25% of its perimeter bordering land that has been previously developed. For the purpose of this definition, a street or roadway does not constitute previously developed land. Any fraction of the perimeter that borders waterfront other than a stream is excluded from the calculation. Roadways do not count as previously developed land for purposes of this definition; instead, the status of the property on the other side of the road is considered.

Previously developed is defined as: a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.

Infill site is defined as: a site that meets any of the following three conditions: 1) at least 75% of its perimeter borders sites have been previously developed; 2) the site, in combination with any set of adjoining parcels, forms an aggregate parcel whose perimeter is 75% bounded by previously developed
sites; or 3) at least 75% of the lands within a ½ mile radius of the project perimeter are previously developed. For the purpose of this definition, a street does not constitute previously developed land; instead the status of property on the other side of the street is considered. Any fraction of the perimeter that borders waterfront other than a stream will be excluded from the calculation.
Smart Location & Linkage

SLL Prerequisite 6: Floodplain Avoidance

Required

Intent

Protect life and property, promote open space and habitat conservation, and enhance water quality and natural hydrological systems.

Requirement

OPTION 1- SITES WITHOUT FLOODPLAINS

Locate on a site that does not contain any land within a 100-year floodplain as defined and mapped by the Federal Emergency Management Agency (FEMA) or a state or local floodplain management agency, whichever has been done most recently;

OR

OPTION 2- INFILL OR PREVIOUSLY DEVELOPED SITES

Locate the project on an infill site or a previously developed site and comply with the National Flood Insurance Program (NFIP) requirements for developing any portions of the site that lie within a 100-year floodplain as defined and mapped by FEMA, or a state or local floodplain management agency, whichever has been done most recently;

OR

OPTION 3- ALL OTHER SITES

For projects where part(s) of the site is located within a 100-year floodplain as defined and mapped by the FEMA or a state or local floodplain management agency, whichever has been done most recently, develop only on portions of the site that are not in a 100-year floodplain or on portions that have been previously developed. Previously developed portions in the floodplain must be developed according to NFIP requirements.

Infill site is defined as: a site that meets any of the following three conditions: 1) at least 75% of its perimeter borders sites have been previously developed; 2) the site, in combination with any set of adjoining parcels, forms an aggregate parcel whose perimeter is 75% bounded by previously developed sites; or 3) at least 75% of the lands within a ½ mile radius of the project perimeter are previously developed. For the purpose of this definition, a street does not constitute previously developed land; instead the status of property on the other side of the street is considered. Any fraction of the perimeter that borders waterfront other than a stream will be excluded from the calculation.
Previously developed is defined as: a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.
Smart Location & Linkage

SLL Credit 1: Preferred Locations

1 to 10 Points

Intent

Encourage development within existing communities and developed places to reduce multiple environmental harms and public health impacts – such as asthma, respiratory diseases, and injuries from motor vehicles – associated with sprawl. Reduce development pressure beyond the limits of existing development. Conserve natural and financial resources required for construction and maintenance of infrastructure. Reduce the risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation and compact development. Improve the mental health of the community by reducing work commute time and increasing time devoted to leisure, community activities and family.

Requirements

A project may earn a maximum of 10 points by achieving any combination of requirements in the following three options:

OPTION 1 – LOCATION TYPE

Locate the project in one of the following locations:
   a. An infill site that is also a previously developed site (5 points)
   b. An infill site that is not a previously developed site (3 points)
   c. An adjacent site that is also a previously developed site (2 points)
   d. A previously developed site that is not an adjacent or infill site (1 points)

AND/OR

OPTION 2 – CONNECTIVITY

Locate the project in an area that has the following connectivity within a 1 mile radius from the perimeter of the site boundary:
   a. 400 or more intersections/square mile or greater (5 points)
   b. 300-400 intersections/square mile (3 points)
   c. 200-300 intersections/square mile (1 points)
AND/OR

OPTION 3 – DESIGNATED HIGH PRIORITY LOCATION

Achieve the following (3 points):

Earn at least two points in NPD Credit 4: Mixed-Income Diverse Communities; and

locate the project in one of the following high-priority brownfield redevelopment areas: EPA National Priorities List, Federal Empowerment Zone, Federal Enterprise Community, Federal Renewal Community, Department of Justice Weed and Seed Strategy Community, Department of the Treasury Community Development Financial Institutions Fund Qualified Low-Income Community (a subset of the New Markets Tax Credit Program), the U.S. Department of Housing and Urban Development’s Qualified Census Tracts (QCT) or Difficult Development Areas (DDA).

Adjacent site is defined as: a site having at least 25% of its perimeter bordering land that has been previously developed. For the purpose of this definition, a street or roadway does not constitute previously developed land. Any fraction of the perimeter that borders waterfront other than a stream is excluded from the calculation. Roadways do not count as previously developed land for purposes of this definition; instead, the status of the property on the other side of the road is considered.
Previously developed is defined as: a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.

Infill site is defined as: a site that meets any of the following three conditions: 1) at least 75% of its perimeter borders sites have been previously developed; 2) the site, in combination with any set of adjoining parcels, forms an aggregate parcel whose perimeter is 75% bounded by previously developed sites; or 3) at least 75% of the lands within a ½ mile radius of the project perimeter are previously developed. For the purpose of this definition, a street does not constitute previously developed land; instead the status of property on the other side of the street is considered. Any fraction of the perimeter that borders waterfront other than a stream will be excluded from the calculation.

Connectivity is defined as: the degree to which the street network is interconnected, as measured by the number of intersections per square mile. Eligible intersections include:
• Junctions of publicly-accessible streets open to motor vehicle movement.
• Intersections of such streets with publicly-dedicated alleys. Intersections of alleys with other alleys shall not be included.
• Intersections of such streets with off-street bicycle and multi-use paths, up to a maximum of 10% of the total intersections.
• A multi-legged junction such as a roundabout, traffic circle or plaza counts as a single intersection, unless the space circumscribed by the thoroughfares is larger than 1/2 acre, in which case each of the surrounding component intersections may be included individually.
• The number of dead-end nodes in the street network is subtracted from the total number of intersections. Dead-end nodes are intersections that connect only to other routes that themselves don’t connect further. (See diagram.) If a person must both enter and exit through the same route/intersection, no intersections beyond that point are included.

Areas excluded from the calculation are water bodies, parks larger than 1/2 acre, recreational facilities, public campuses (such as universities), airports, rail yards, areas preserved from development by codified law or prerequisites of the rating system, and land that cannot be developed due to a unique topographic or geologic condition (such as steep slopes). Street rights-of-way may not be excluded.
Smart Location & Linkage

SLL Credit 2: Brownfields Redevelopment

1 to 2 Points

Intent

Encourage the reuse of land by developing sites where development is complicated by environmental contamination, reducing pressure on undeveloped land.

Requirements

OPTION 1 – BROWNFIELD (1 point)

Locate the project on a site, part or all of which is documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local Voluntary Cleanup Program), or on a site defined as a brownfield by a local, state or federal government agency; and remediate site contamination such that the controlling public authority approves the protective measures and/or clean-up as effective, safe, and appropriate for the future use of the site;

OR

OPTION 2 – HIGH-PRIORITY BROWNFIELD (2 points)

Achieve the requirements in Option 1; and

locate the project in one of the following high-priority brownfield redevelopment areas: EPA National Priorities List, Federal Empowerment Zone, Federal Enterprise Community, Federal Renewal Community, Department of Justice Weed and Seed Strategy Community, Department of the Treasury Community Development Financial Institutions Fund Qualified Low-Income Community (a subset of the New Markets Tax Credit Program), the U.S. Department of Housing and Urban Development’s Qualified Census Tracts (QCT) or Difficult Development Areas (DDA).
Smart Location & Linkage

SLL Credit 3: Reduced Automobile Dependence
1 to 8 Points

Intent

Encourage development in locations that exhibit superior performance in providing transportation choices or otherwise reducing motor vehicle use. Reduce public health impacts associated with sprawl, such as asthma, respiratory diseases, and injuries from motor vehicles. Improve the mental health of the community by reducing work commute time and increasing time devoted to leisure, community activities and family.

Requirements

Points earned under Options 1 and 2 may not be combined.

OPTION 1 – TRANSIT-SERVED LOCATION

Locate the project on a site with transit service of 40 or more easily accessible transit trips per week. The number of points available for increasing transit service is indicated in the table below. The total number of accessible trips available during weekdays is defined as the number of buses or streetcars stopping at those stops that are within a ¼ mile walk distance of at least 50% of the project's dwelling units and business entrances (inclusive of existing buildings), and the number of bus rapid transit buses, light rail trains, heavy passenger rail trains, ferries, and trams stopping at those stops that are within a ½ mile walk distance of at least 50% of the project's dwelling units and business entrances (inclusive of existing buildings).

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<thead>
<tr>
<th>Total trips per week for projects w/ any combination of transit vehicle types</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>308</td>
<td>1</td>
</tr>
<tr>
<td>359</td>
<td>2</td>
</tr>
<tr>
<td>410</td>
<td>3</td>
</tr>
<tr>
<td>461</td>
<td>4</td>
</tr>
<tr>
<td>512</td>
<td>5</td>
</tr>
<tr>
<td>563</td>
<td>6</td>
</tr>
<tr>
<td>614+</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total trips per week for projects w/ only ferries or commuter rail</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>1</td>
</tr>
<tr>
<td>147</td>
<td>2</td>
</tr>
<tr>
<td>204</td>
<td>3</td>
</tr>
</tbody>
</table>
Projects where existing transit service is temporarily interrupted by project construction for less than two years may achieve this option with a local transit agency commitment to restore service at or above pre-construction levels.

Projects greater than 125 acres can achieve the credit based on the number of buses and/or streetcars stopping within a ¼ mile walk distance of at least 40% of the project’s dwelling units and business entrances, and the number of bus rapid transit buses, light rail trains, heavy passenger rail trains, ferries, and/or trams stopping within a ½ mile walk distance of at least 40% of the project dwelling units and business entrances, as long as:

a. A minimum of 700 dwelling units, two million square feet of non-residential uses, or two million square feet of mixed-residential and non-residential, make up the 40%

b. Any interior portion of the project beyond the ¼ mile and/or ½ mile walk distances must have planned transit service that complies with SLLp1 Option 3.

Projects greater than 500 acres can achieve the credit based on the number of buses and/or streetcars stopping within a ¼ mile walk distance of at least 30% of the project’s dwelling units and business entrances, and the number of bus rapid transit buses, light rail trains, heavy passenger rail trains, ferries, and/or trams stopping within a ½ mile walk distance of at least 30% of the project’s dwelling units and business entrances, as long as:

a. A minimum of 1400 dwelling units, four million square feet of non-residential uses, or four million square feet of mixed residential and non-residential, make up the 30%; and

b. Any interior portion of the project beyond the ¼ mile and/or ½ mile walk distances must have planned transit service that complies with SLLp1 Option 3;

OR

OPTION 2 – MPO LOCATION WITH LOW VMT

Locate the project within a region served by a Metropolitan Planning Organization and within a transportation analysis zone where annual Vehicle Miles Traveled (VMT) per capita has been demonstrated by MPO research derived from a household transportation survey to be no more than 90% of the average of the metropolitan region. The research must be derived from transportation surveys conducted within ten years of the date of submission for LEED for Neighborhood Development certification. Additional credit may be awarded for increasing levels of performance, as indicated in the following table:

<table>
<thead>
<tr>
<th>Percent of average regional per capita VMT or SOV mode share</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>81% to 90%</td>
<td>1</td>
</tr>
<tr>
<td>71% to 80%</td>
<td>2</td>
</tr>
<tr>
<td>61% to 70%</td>
<td>3</td>
</tr>
<tr>
<td>51% to 60%</td>
<td>4</td>
</tr>
<tr>
<td>41% to 50%</td>
<td>5</td>
</tr>
<tr>
<td>31% to 40%</td>
<td>6</td>
</tr>
<tr>
<td>30% or less</td>
<td>7</td>
</tr>
</tbody>
</table>
Smart Location & Linkage

SLL Credit 4: Bicycle Network and Storage

1 Point

Intent

Promote bicycling and transportation efficiency, and reduce the risk of obesity, heart disease, and hypertension by encouraging daily physical activity. Reduce public health impacts associated with sprawl, such as asthma, respiratory diseases, and injuries from motor vehicles.

Requirements

BICYCLE NETWORK

a. Design or locate the project to meet at least one of the three requirements below: A bicycle network of at least five continuous miles in length is within ¼ mile bicycling distance of the project boundary.

b. If the project is 100% residential, provide a bicycle network that begins within ¼ mile bicycling distance of the project boundary, and connects to a school or major employment center within three miles bicycling distance.

c. There is a connection to a bicycle network within ¼ mile cycling distance of the project boundary that allows at least ten diverse uses (see Appendix) to be reached within three miles bicycling distance from the project boundary;

AND

BICYCLE STORAGE

Provide bicycle parking and storage for a capacity of the following building types:

a. Multifamily Residential: Provide at least one accessible, indoor, secure bicycle storage space per occupant for 30% of the planned occupancy but no fewer than one per unit. Provide secure visitor bicycle racks on-site, with at least one bicycle space per 10 dwelling units but no fewer than four spaces per project site.

b. Retail: Provide at least one accessible, indoor, secure bicycle storage space per retail worker for 10% of retail worker planned occupancy. Provide secure visitor/customer bicycle racks on-site, with at least one bicycle space per 5,000 square feet of retail space, but no fewer than one bicycle space per business or four bicycle spaces per project site, whichever is greater.

c. Commercial Non-Retail: Provide at least one accessible, indoor, secure bicycle storage space per occupant for 10% of planned occupancy. Provide secure visitor bicycle racks on-site with at least one bicycle space per 10,000 square feet of commercial non-retail space but not fewer than four bicycle spaces per building.
Visitor and customer bicycle racks must be positioned in areas with active visual surveillance and night lighting, and protected from damage from nearby vehicles. Bicycle racks must be located within 50 feet of each building’s main entries. For retail buildings or other buildings with multiple main entries, bicycle racks must be proportionally disbursed within 50 feet of business or other main entries.
Smart Location & Linkage

SLL Credit 5: Housing and Jobs Proximity
1 to 3 Points

Intent

Encourage balanced communities with a diversity of uses and employment opportunities. Reduce energy consumption and pollution from motor vehicles by providing opportunities for shorter vehicle trips and/or use of alternative modes of transportation. Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation. Reduce public health impacts associated with sprawl, such as asthma, respiratory diseases, and injuries from motor vehicles. Improve the mental health of the community by reducing work commute time and increasing time devoted to leisure, community activities and family.

Requirements

OPTION 1 – PROJECT WITH AFFORDABLE RESIDENTIAL COMPONENT (3 points)
Include a residential component equaling at least 30% of the project’s total building square footage (exclusive of parking structures), and locate and/or design the project such that the geographic center is within a ½ mile walk distance of a number for pre-project full-time equivalent jobs equal to or greater than the number of dwelling units in the project; and satisfy the requirements necessary to earn at least one point under Option 2 of NPD Credit 4: Mixed-Income Diverse Communities;

OR

OPTION 2 – PROJECT WITH RESIDENTIAL COMPONENT (2 points)
Include a residential component equaling at least 30% of the project’s total building square footage (exclusive of parking structures), and locate and/or design the project such that the geographic center is within a ½ mile walk distance of a number of pre-project full-time equivalent jobs equal to or greater than the number of dwelling units in the project;

OR

OPTION 3 – INFILL PROJECT WITH NON-RESIDENTIAL COMPONENT (1 point)
Include a non-residential component equaling at least 30% of the project’s total building square footage (exclusive of parking structures), and locate on an infill site whose geographic center is within a ½ mile walk distance of an existing rail transit, ferry, or tram stop, and within a ½ mile walk distance of a number of existing dwelling units equal to or greater than 50% of the number of new full-time equivalent jobs created as part of the project.

Infill site is defined as: a site that meets any of the following three conditions: 1) at least 75% of its perimeter borders sites have been previously developed; 2) the site, in combination with any set of adjoining parcels, forms an aggregate parcel whose perimeter is 75% bounded by previously developed sites; or 3) at least 75% of the lands within a ½ mile radius of the project perimeter are previously developed. For the purpose of this definition, a street does not constitute previously developed land;
instead the status of property on the other side of the street is considered. Any fraction of the perimeter that borders waterfront other than a stream will be excluded from the calculation.

Previously developed is defined as: a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.
Smart Location & Linkage

SLL Credit 6: Steep Slope Protection

1 Point

Intent

Minimize erosion to protect habitat and reduce stress on natural water systems by preserving steep slopes in a natural, vegetated state.

Requirements

FOR ALL PROJECTS

All options apply to natural or constructed slopes. Those portions of project sites with slopes up to 20 feet in elevation (toe to top; the toe is a distinct break between a 40% slope and lesser slopes) that are more than 30 feet in any direction from another slope greater than 15% are exempt from the requirements, although more restrictive local regulations may apply;

AND

OPTION 1 – NO DISTURBANCE OF SLOPES OVER 15%

Locate on a site that has no pre-project slopes greater than 15%, or avoid disturbing portions of project sites that have pre-project slopes greater than 15%;

OR

OPTION 2 – PREVIOUSLY DEVELOPED SITES PROTECTING SLOPES OVER 15%

On previously developed sites with pre-project slopes greater than 15%, comply with Option 4 on any slope over 15% that has not been previously developed;

OR

OPTION 3 – PREVIOUSLY DEVELOPED SITES RESTORING VEGETATION

On portions of previously developed sites with pre-project slopes greater than 15%, restore native plants or adapted plants to 100% of any previously developed slopes over 40%; 60% of any previously developed slopes between 25%-40%; and 40% of any previously developed slopes between 15%-25%; and

develop CC&Rs, development agreements, or other binding documents that will protect the specified steep slope areas in perpetuity;

OR

OPTION 4 – UNDEVELOPED SITES WITH SLOPES OVER 15%

On sites that are not previously developed, protect pre-project slopes over 15% as follows:
a. Do not disturb slopes greater than 40% and do not disturb portions of the project site within 50 feet of the top of the slope, and 75 feet from the toe of the slope.

b. Limit development to no more than 40% of slopes between 25%-40%, and to no more than 60% of slopes between 15%-25%.

c. Locate development such that the percentage of the development footprint that is on pre-project slopes less than 15% is greater than the percentage of buildable land that has pre-project slopes less than 15%.

d. Develop CC&Rs, development agreements, or other binding documents that will protect the specified steep slope areas in perpetuity.

**Buildable land** is defined as: the portion of the site where construction can occur, and land voluntarily set aside and not constructed upon. When used in density calculations, the calculation for buildable land excludes: public streets and other public rights of way, and land excluded from development by codified law or LEED for Neighborhood Development prerequisites.

**Previously developed** is defined as a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.
Smart Location & Linkage

SLL Credit 7: Site Design for Habitat or Wetland Conservation
1 Point

Intent

Conserve native wildlife habitat, wetlands and water bodies.

Requirements

FOR ALL PROJECTS

Unless protected by state or federal law, previously developed land – including man-made linear wetland that is the result of the interruption of natural drainages by existing road or rail beds – is not considered wetlands, water bodies, or 100-foot buffer land that must be protected for the purposes of this credit;

AND

OPTION 1 – SITES WITH NO SIGNIFICANT HABITAT OR WETLANDS/WATER BODIES

Locate the project on a site that does not have significant habitat, as defined in Option 2 of this credit, or land within 100 feet of such habitat, and fulfill the requirements of Options 1 or 2 under SLL Prerequisite 4: Wetlands and Water Body Conservation;

OR

OPTION 2 – SITES WITH SIGNIFICANT HABITAT

Work with the state's Natural Heritage Program, or the state fish and wildlife agency, to delineate identified significant habitat on the site. Do not disturb significant habitat or portions of the site within an appropriate buffer around the habitat. The geographic extent of the habitat and buffer shall be identified by a qualified biologist, a non-governmental conservation organization or the appropriate state or regional agency. Protect significant habitat and its identified buffers from development in perpetuity by donating or selling the land, or a conservation easement on the land, to an accredited land trust or relevant public agency. Identify on-going management activities, along with parties responsible for management, so that habitat is maintained in pre-project condition, or better, for a minimum period of three years after the project is built out. Significant habitat for this credit includes:

a. Habitat for species that are listed or are candidates for listing under state or federal endangered species acts, or for those classified as G1, G2, G3 and/or S1 and S2 species by NatureServe (see note below about G and S classification); and

b. Locally or regionally significant habitat, or patches of natural vegetation at least 150 acres in size (irrespective of whether some of the 150 acres lies outside the project boundary); and

c. Habitat flagged for conservation under a regional or state conservation or green infrastructure plan;

OR
OPTION 3 – SITES WITH WETLANDS/WATER BODIES

Design the project to conserve 100% of all water bodies, wetlands, and land within 100 feet of these areas on the site. Conduct an assessment, or compile existing assessments, showing the extent to which those water bodies and/or wetlands perform the following functions: 1) water quality maintenance, 2) wildlife habitat protection, and 3) hydrologic function maintenance, including flood protection. Assign appropriate buffers (not less than 100 feet) around the wetlands and water bodies based upon the functions provided, contiguous soils and slopes, and contiguous land uses. Protect the site’s wetlands, water bodies, and buffers from development in perpetuity by donating or selling the land, or a conservation easement on the land, to an accredited land trust or relevant public agency. Identify on-going management activities, along with parties responsible for management, so that habitat is maintained in pre-project condition, or better, for a minimum period of three years after the project is built out.

Previously developed is defined as a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.
Smart Location & Linkage

SLL Credit 8: Restoration of Habitat or Wetlands

1 Point

Intent

Restore native wildlife habitat, water bodies, and wetlands that have been harmed by previous human activities.

Requirements

Using only native plants, restore pre-development native habitat, or pre-development water bodies or wetlands, on the project site in an area equal to or greater than 10% of the development footprint. Work with a qualified ecologist to ensure that restored areas will have habitat, including native species assemblages and hydrology that likely occurred in pre-development conditions. Protect such areas from development in perpetuity by donating or selling the land, or a conservation easement on the land, to an accredited land trust or relevant public agency.

AND

Earn SLL Credit 9: Conservation Management of Habitat or Wetlands.
Smart Location & Linkage

SLL Credit 9: Conservation Management of Habitat or Wetlands

1 Point

Intent

Conserve native wildlife habitat, wetlands and water bodies.

Requirements

Create a long-term (at least 10-year) management plan for new or existing on-site native habitats, and/or water bodies and wetlands, and their buffers, and create a guaranteed funding source for management. Involve at least one person from a natural resources agency, a natural resources consulting firm, or an academic ecologist in writing the management plan and conducting or evaluating the ongoing management. The plan should include biological objectives consistent with habitat and/or water resource conservation, and it should identify a) procedures, including personnel to carry them out, for maintaining the conservation areas; b) estimated implementation costs and funding sources; and c) threats that the project poses for habitat and/or water resources within conservation areas (e.g., introduction of exotic species, intrusion of residents in habitat areas) and measures to substantially reduce those threats.
Neighborhood Pattern & Design

NPD Prerequisite 1: Walkable Streets

Required

Intent

Promote walking and bicycling by providing safe, appealing, and comfortable street environments, thus reducing the risk of obesity, heart disease, and hypertension by encouraging daily physical activity. Promote transportation efficiency, including reduced Vehicle Miles Traveled (VMT).

Requirements

Design and build the project such that all of the following are achieved:

a. A principal functional entry of each new building has a front façade that faces a public space such as a street, square, park, paseo, or plaza, but not a parking lot.

b. At least 20% of all street frontages within the project have a minimum building-height-to-street-width ratio of 1:3, or one foot of building height for every three feet of street width.
   - Alleys are excluded.
   - Pedestrian-only dedicated rights-of-way may be counted toward the 20% requirement, but 100% of such spaces must have a minimum building-height-to-street-width ratio of 1:1.
   - Street frontages are measured in linear feet.
   - Projects with bordering streetscape are only responsible for meeting their proportional share of the height-to-width ratio.
   - Building height is measured to eaves or the top of the roof for a flat roof structure, and street width is measured façade-to-façade. For block frontages with multiple heights and/or widths, use average heights or widths weighted by each segment’s linear share of total block distance.

c. Continuous sidewalks, or equivalent provisions for walking, are provided along both sides of 90% of streets within the project, including the project-side of streets bordering the project. New
sidewalks, whether adjacent to streets or not, must be at least 4 feet wide on residential blocks or 8 feet wide on non-residential or mixed use blocks. Equivalent provisions for walking include woonerfs and all-weather surface footpaths.

Projects located in a designated historic district subject to review by a local historic preservation entity are exempt from b. and c. if approval is not granted for compliance. Projects located in historic districts listed in or eligible for listing in a State Register or the National Register or designated as National Historic Landmarks, that are subject to review by a State Historic Preservation Office (SHPO) or the National Park Service, are exempt from b. and c. if approval is not granted for compliance.
Neighborhood Pattern & Design

NPD Prerequisite 2: Compact Development

Required

Intent

Conserve land. Promote livability, walkability, and transportation efficiency including reduced vehicle miles traveled (VMT). Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation and compact development.

Requirements

OPTION 1 – PROJECTS WITH TRANSIT SERVICE

For projects with transit service equal to the 2-point threshold in SLLc3 Option 1, build any residential components of the project at a density of twelve or more dwelling units per acre of buildable land available for residential uses; and

build any non-residential components of the project at a density of 0.80 FAR or greater per acre of buildable land available for non-residential uses;

OR

OPTION 2 – ALL OTHER PROJECTS

Build any residential components of the project at a density of seven or more dwelling units per acre of buildable land available for residential uses; and

build any non-residential components of the project at a density of 0.50 FAR or greater of buildable land available for non-residential uses;

AND

FOR ALL PROJECTS

Density calculations include all planned and existing buildings in the project, excluding parking structures.

The specified average density must be achieved by the point in the project’s construction at which 50% of dwelling units are built, or within five years of the date that the first dwelling is occupied, whichever is longer; and/or when 50% of non-residential square footage is built, or within five years of the first non-residential building being occupied, whichever is longer.

When a residential or non-residential component of the project meets the minimum density requirement, but the other component does not, consider only the component with qualifying density. Use that component’s dwelling units per acre or non-residential floor area in the numerator and the total buildable
land area in the denominator. If the resulting FAR or DU/acre meets the minimum requirement, the prerequisite is achieved regardless of the density of the secondary use when calculated separately. The density of a mixed use building is calculated by: 1) determining the total square footage of all residential and non-residential uses; 2) calculating the percentages of the total square footage that the residential and non-residential components each represent; 3) applying those percentages to the building parcel to determine the proportionate share of land area for each component; and 4) calculating residential density as the number of dwelling units per acre using the residential share of the building parcel, and calculating non-residential density as FAR using the non-residential share of the land area divided by total non-residential square footage.

If the project location is serviced by a transit agency which has specified minimum service densities that are greater than the densities required by this prerequisite, then the project must meet the transit agency’s minimum service densities instead.

**Buildable land** is defined as: the portion of the site where construction can occur, and land voluntarily set aside and not constructed upon. When used in density calculations, the calculation for buildable land excludes: public streets and other public rights of way, and land excluded from development by codified law or LEED for Neighborhood Development prerequisites.
Neighborhood Pattern & Design

NPD Prerequisite 3: Connected and Open Community

Required

Intent

Promote communities that are physically connected to each other. Foster community and connectedness beyond the development. Encourage the design of projects in existing communities in order to conserve land, promote multimodal transportation choices, promote public health through increased physical activity, and promote transportation efficiency include reduced Vehicle Miles Traveled (VMT).

Requirements

FOR ALL PROJECTS

Design and build the project with at least one through-street and/or non-motorized right-of-way (non-motorized rights-of-way may count for no more than 10% of the total) intersecting the project boundary at least every 800 feet, or at existing abutting street intervals, whichever is less. This does not apply to portions of the boundary where connections cannot be made because of physical obstacles; e.g. existing buildings, parks, wetlands, rivers, railroads, extreme topography, utility lines, easements, and limited-access roads;

AND

OPTION 1 – PROJECTS WITH INTERNAL STREETS

Design the project such that its internal connectivity is at least 150 intersections/square mile. Designate all streets and sidewalks that are counted toward the connectivity requirement as available for general public use and not gated. Gated areas are not considered available for public use, with the exception of education and health care campuses, and military bases, where gates are used for security purposes;
OPTION 2 – PROJECTS WITHOUT INTERNAL STREETS

Locate the project such that the connectivity of the streets within ¼ mile of the project boundary is at least 90 intersections/square mile. Confirm that all streets and sidewalks that are counted toward the connectivity requirement are available for general public use and not gated. Gated areas are not considered available for public use, with the exception of education and health care campuses, and military bases, where gates are used for security purposes.

Connectivity is defined as: the degree to which the street network is interconnected, as measured by the number of intersections per square mile. Eligible intersections include:

- Junctions of publicly-accessible streets open to motor vehicle movement.
- Intersections of such streets with publicly-dedicated alleys. Intersections of alleys with other alleys shall not be included.
- Intersections of such streets with off-street bicycle and multi-use paths, up to a maximum of 10% of the total intersections.
- A multilegged junction such as a roundabout, traffic circle or plaza counts as a single intersection, unless the space circumscribed by the thoroughfares is larger than 1/2 acre, in which case each of the surrounding component intersections may be included individually.
- The number of dead-end nodes in the street network is subtracted from the total number of intersections. Dead-end nodes are intersections that connect only to other routes that themselves don’t connect further. (See diagram.) If a person must both enter and exit through the same route/intersection, no intersections beyond that point are included.

Areas excluded from the calculation are water bodies, parks larger than 1/2 acre, recreational facilities, public campuses (such as universities), airports, rail yards, areas preserved from development by codified law or prerequisites of the rating system, and land that cannot be developed due to a unique topographic or geologic condition (such as steep slopes). Street rights-of-way may not be excluded.
Neighborhood Pattern & Design

NPD Credit 1: Walkable Streets
1 to 12 Points

Intent

Promote walking and bicycling by providing safe, appealing, and comfortable street environments, thus reducing the risk of obesity, heart disease, and hypertension by encouraging daily physical activity. Promote transportation efficiency, including reduced Vehicle Miles Traveled (VMT).

Requirements

A project may earn a maximum of 13 points according to the schedule below:

<table>
<thead>
<tr>
<th>Number of items achieved</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3</td>
<td>1</td>
</tr>
<tr>
<td>4-5</td>
<td>2</td>
</tr>
<tr>
<td>6-7</td>
<td>3</td>
</tr>
<tr>
<td>8-9</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>15</td>
<td>12</td>
</tr>
</tbody>
</table>

Facades & Entries

a. At least 80% of the total linear feet of street-facing building facades in the project are no more than 25 feet from the property line.

b. At least 50% the total linear feet of street-facing building facades in the project are no more than 18 feet from the property line.
c. At least 50% of the total linear feet of mixed use and non-residential street-facing building facades in the project are contiguous to the sidewalk.

d. Functional building entries occur at an average of 75 feet along non-residential or mixed use buildings or blocks.

e. Functional building entries occur at an average of 30 feet along non-residential or mixed use buildings or blocks.
Ground-Level Use & Parking

f. All ground-level retail, service, and trade uses that face a public space have clear glass on at least 60% of their façades between 3 and 8 feet above grade.

g. No blank walls (without doors or windows) longer than 40% of a façade, or more than 50 feet occur along sidewalks.
h. Any ground-level retail, service, or trade windows must be kept open and visible (un-shuttered) at night, and this must be stipulated in CC&Rs or other binding documents.

i. On-street parking is provided on a minimum of 70% of both sides of all new and existing streets including the project side of bordering streets. The percent of on-street parking shall be measured by comparing the length of street designated for parking to the total length of the curb along each street, including curb cuts, driveways, and intersection radii.

j. Continuous sidewalks, or equivalent provisions for walking, are provided along both sides of all streets within the project, including the project-side of streets bordering the project. New sidewalks, whether adjacent to streets or not, must be at least 5 feet wide on residential blocks or 10 feet wide on non-residential or mixed use blocks. Equivalent provisions for walking include woonerfs and all-weather surface footpaths at least 5 feet wide.

k. If the project has ground-floor dwelling units, at least 50% of those units must have an elevated finished floor no less than 24 inches above the sidewalk grade.

l. In non-residential or mixed use projects, 50% or more of the total number of office buildings include ground floor retail along 60% of the length of the street façade and 100% or more of mixed use buildings include ground floor retail, live/work, and/or ground floor dwelling units along at least 60% of the street level facade; and all businesses and/or other community services on the ground floor are accessible directly from sidewalks along a public space such as a street, square, paseo, or plaza, but not a parking lot.

m. At least 40% of all street frontages within the project, have a minimum building-height-to-street-width ratio of 1:3, or one foot of building height for every three feet of street width. Alleys are excluded. Pedestrian-only dedicated rights-of-way may be counted toward the 40% requirement, but 100% of such spaces must have a minimum building height-to-street width ratio of 1:1. Street frontages are measured in linear feet. Projects with bordering streetscape are only responsible for meeting their proportional share of the height-to-width ratio. Building height is measured to eaves, or to the top of the roof for a flat roof structure, and street width is measured façade-to-façade. For block frontages with multiple heights and/or widths, use average heights or widths weighted by each segment’s linear share of total block distance.
Design Speeds for Safe Pedestrian and Bicycle Travel

n. 75% of new exclusively residential streets within the project are designed for a target speed of no more than 20 mph.

o. 70% of new non-residential or mixed use streets within the project, are designed for a target speed of no more than 25 mph.
Neighborhood Pattern & Design

NPD Credit 2: Compact Development

1 to 6 Points

Intent

Conserve land. Promote livability, walkability, and transportation efficiency including reduced Vehicle Miles Traveled (VMT). Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation and compact development.

Requirements

Design and build the project to achieve the densities shown in the table below (exclusive of parking structures).

<table>
<thead>
<tr>
<th>Residential Density (DU/acre)</th>
<th>Non-residential Density (FAR)</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 10 and ≤ 13</td>
<td>&gt; 0.75 and ≤ 1.0</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 14 and ≤ 18</td>
<td>&gt; 1.0 and ≤ 1.25</td>
<td>2</td>
</tr>
<tr>
<td>&gt; 19 and ≤ 25</td>
<td>&gt; 1.25 and ≤ 1.75</td>
<td>3</td>
</tr>
<tr>
<td>&gt; 26 and ≤ 38</td>
<td>&gt; 1.75 and ≤ 2.25</td>
<td>4</td>
</tr>
<tr>
<td>&gt; 39 and ≤ 63</td>
<td>&gt; 2.25 and ≤ 3.0</td>
<td>5</td>
</tr>
<tr>
<td>&gt; 64</td>
<td>&gt; 3.0</td>
<td>6</td>
</tr>
</tbody>
</table>

The specified density must be achieved by the point in the project’s construction at which 50% of dwelling units or non-residential sq.ft. are built, or within five years of the date that the first building of any type is occupied, whichever is longer.

The scoring of a mixed use project is calculated with a weighted average by: 1) determining the total square footage of all residential and non-residential uses; 2) calculating the percentages of the total square footage that the residential and non-residential components each represent; 3) determining the density of each component as measured in dwelling units per acre and FAR respectively; 4) determining how many points the residential and non-residential component each earns separately according to the table above; 5) if the points are different, multiplying the point value of the residential component by the percentage of the total square footage it represents (as determined in step 2) and multiply the point value of the non-residential component by the percentage of the total square footage it represents (as determined in step 2); and 6) adding the two scores together.
Neighborhood Pattern & Design

NPD Credit 3: Diversity of Uses
1 to 4 Points

Intent

Conserve land. Promote livability, walkability, and transportation efficiency including reduced Vehicle Miles Traveled (VMT). Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation and compact development.

Requirements

Satisfy the requirements listed under “FOR ALL PROJECTS” and comply with additional requirements under subsequent sections for neighborhood-scale and retail center projects if applicable.

FOR ALL PROJECTS

Include a residential component in the project that constitutes at least 25% of the project’s total building square footage (inclusive of existing buildings); and design or locate the project such that at least 50% of the dwelling units are within ½ mile walk distance of the number of diverse uses (see Appendix) in the table below, including at least one use from each of the three diverse use categories (retail, services, civic). Uses may exist outside the project or be planned within the project.

Verify that a pedestrian can reach the uses from dwelling units via routes that do not necessitate crossing any streets that have speed limits of greater than 25 miles per hour, unless those crossings have vehicle traffic controls such as signals and stop signs with crosswalks.

The specified number of uses must be in place by the time percentages of occupancy are in place, as indicated in the following table:

<table>
<thead>
<tr>
<th>Number of uses</th>
<th>Percent of project total sq. ft. occupancy at which uses must be in place</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 – 6</td>
<td>20%</td>
<td>1</td>
</tr>
<tr>
<td>7 – 10</td>
<td>30%</td>
<td>2</td>
</tr>
<tr>
<td>11 – 18</td>
<td>40%</td>
<td>3</td>
</tr>
<tr>
<td>≥ 19</td>
<td>50%</td>
<td>4</td>
</tr>
</tbody>
</table>

FOR NEIGHBORHOOD-SCALE PROJECTS (MINIMUM 40 ACRES)

Cluster diverse uses into a Neighborhood Center as follows:
<table>
<thead>
<tr>
<th>Number of Uses</th>
<th>Minimum Number of Uses in a Neighborhood Center</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 – 6</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>7 – 10</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>11 – 18</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>19 or more</td>
<td>9</td>
<td>4</td>
</tr>
</tbody>
</table>

The principal entries of the specified number of diverse uses must all fall within a 300' walk distance from a single common point that represents the center of the diverse uses for 1 or 2 points and a 400' walk distance for 3 and 4 points.

FOR PROJECTS WITH REGIONAL-SCALE RETAIL CENTERS (SUBSTANTIAL RETAIL USES)

To earn points under this credit, projects with a retail footprint of at least 150,000 square feet must also earn a minimum of one point for SLL Credit 3: Reduced Automobile Dependence, and an additional point for each additional 50,000 square feet up to six points.
Neighborhood Pattern & Design

NPD Credit 4: Mixed-Income Diverse Communities
1 to 7 Points

Intent

Promote socially equitable and socially engaging communities by enabling citizens from a wide range of economic levels, household sizes, and age groups to live within a community. Promote architectural diversity.

Requirements

Meet the requirements of one or more options below.

OPTION 1 – DIVERSITY OF HOUSING TYPES

Include a sufficient variety of housing sizes and types in the project such that the total variety of planned and existing housing within the project, or within a ¼ mile of the geographic center of the project, achieves greater than 0.5 according to the following Simpson Diversity Index calculation using the housing categories below. The Simpson Diversity Index calculates the probability that any two dwelling units in a project randomly selected will be of a different unit type.

\[
\text{Score} = 1 - \sum \left( \frac{n}{N} \right)^2,
\]

where \(n\) = the total number of dwelling units in a single category, and \(N\) = the total number of dwelling units in all categories.

<table>
<thead>
<tr>
<th>Simpson Diversity Index Score</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 0.5 and &lt; 0.6</td>
<td>1</td>
</tr>
<tr>
<td>≥ 0.6 and &lt; 0.7</td>
<td>2</td>
</tr>
<tr>
<td>≥ 0.7</td>
<td>3</td>
</tr>
</tbody>
</table>

Housing categories are defined for the purposes of this calculation as (dwelling unit net sq. ft. exclusive of garage):

<table>
<thead>
<tr>
<th>Housing Type</th>
<th>Size Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detached residential – large</td>
<td>&gt; 1250 sq. ft.</td>
</tr>
<tr>
<td>Detached residential – small</td>
<td>≤ 1250 sq. ft.</td>
</tr>
<tr>
<td>Duplex or townhouse - large</td>
<td>&gt; 1250 sq. ft.</td>
</tr>
<tr>
<td>Duplex or townhouse - small</td>
<td>≤ 1250 sq. ft.</td>
</tr>
<tr>
<td>Multifamily dwelling in a building with no elevator - large</td>
<td>&gt; 1250 sq. ft.</td>
</tr>
<tr>
<td>Multifamily dwelling in a building with no elevator – medium</td>
<td>&gt; 750 sq. ft. and ≤ 1250 sq. ft.</td>
</tr>
<tr>
<td>Multifamily dwelling in a building with no elevator - small</td>
<td>≤ 750 sq. ft.</td>
</tr>
<tr>
<td>Multifamily dwelling in a building with elevator four stories or fewer - large</td>
<td>&gt; 1250 sq. ft.</td>
</tr>
</tbody>
</table>
Multifamily dwelling in a building with elevator four stories or fewer – medium  
> 750 sq. ft. and ≤ 1250 sq. ft.

Multifamily dwelling in a building with elevator four stories or fewer - small  
≤ 750 ft.

Multifamily dwelling in a building with elevator of five to eight stories - large  
> 1250 sq. ft.

Multifamily dwelling in a building with elevator of five to eight stories – medium  
> 750 sq. ft. and ≤ 1250 sq. ft.

Multifamily dwelling in a building with elevator of five to eight stories – small  
≤ 750 sq. ft.

Multifamily dwelling in a building with elevator nine stories or more - large  
> 1250 sq. ft.

Multifamily dwelling in a building with elevator nine stories or more – medium  
> 750 sq. ft. and ≤ 1250 sq. ft.

Multifamily dwelling in a building with nine stories or more - small  
≤ 750 sq. ft.

Live/work large  
> 1250 sq. ft.

Live/work small  
≤ 1250 sq. ft.

Accessory Unit – large  
> 1250 sq. ft.

Accessory Unit – small  
≤ 1250 sq. ft.

Townhouse and live/work units may be ground related and/or within a multifamily or mixed use building. Double counting is prohibited. Each dwelling may be classified in only one category. The number of stories in a building is inclusive of the ground floor regardless of its use.

AND/OR

OPTION 2 – AFFORDABLE HOUSING

Include a proportion of rental and/or for-sale dwelling units priced for households earning below area median income (AMI). Rental units must be maintained at affordable levels for a minimum of 15 years. Existing dwelling units are exempt from requirement calculations. A maximum of three points may be earned by meeting any combination of thresholds in the following table.

<table>
<thead>
<tr>
<th>Rental Dwelling Units</th>
<th>For Sale Dwelling Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priced up to 50% AMI</td>
<td>Priced up to 80% AMI</td>
</tr>
<tr>
<td>% of Total Rental Units</td>
<td>Points Earned</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>

AND/OR

OPTION 3 – MIXED-INCOME DIVERSE COMMUNITIES

If a project earns at least two points in Option 1 and at least two points in Option 2 (at least one of which must be earned by providing housing at or below 80% AMI), an additional point is earned.
Neighborhood Pattern & Design

NPD Credit 5: Reduced Parking Footprint

1 Point

Intent

Design parking to increase the pedestrian orientation of projects and to minimize the adverse environmental effects of parking facilities. Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation.

Requirements

For new non-residential buildings and multifamily residential buildings, either do not build new off-street parking lots, or locate all new off-street surface parking lots at the side or rear of buildings, leaving building frontages and streetscapes free of surface parking lots;

AND

Use no more than 20% of the total development footprint area for all new off-street surface parking facilities, with no individual surface parking lot larger than 2 acres. For the purposes of this credit, surface parking facilities include ground-level garages unless they are under habitable building space. Underground or multi-story parking facilities can be used to provide additional capacity, and on-street parking spaces are exempt from this limitation;

AND

Provide bicycle parking and storage for a capacity of the following new buildings:

a. Multifamily Residential: Provide at least one accessible, indoor, secure bicycle storage space per occupant for 30% of the planned occupancy but no less than one per unit. Provide secure visitor bicycle racks on-site, with at least one bicycle space per 10 dwelling units but no fewer than four spaces per project site.

b. Retail: Provide at least one accessible, indoor, secure bicycle storage space per retail worker for 10% of retail worker planned occupancy. Provide secure visitor/customer bicycle racks on-site, with at least one bicycle space per 5,000 square feet of retail space, but no fewer than one bicycle space per business or four bicycle spaces per project site, whichever is greater.

c. Commercial Non-Retail: Provide at least one accessible, indoor, secure bicycle storage space per occupant for 10% of planned occupancy. Provide secure visitor bicycle racks on-site with at least one bicycle space per 10,000 square feet of commercial non-retail space but new fewer than four bicycle spaces per building.

Visitor and customer bicycle racks must be positioned in areas with active visual surveillance and night lighting, and protected from damage from nearby vehicles. Bicycle racks must be located within 50 feet...
of each building’s primary entry. For retail buildings or other buildings with multiple primary entries, bicycle racks should be proportionally disbursed within 50 feet of business or other primary entries;

AND

For new non-residential and mixed use buildings, provide carpool parking spaces equivalent to 10% of the total automobile parking for each non-residential and mixed use building on the site. Signage indicating carpool parking spots must be provided, and carpool parking must be within 200 feet of entrances to buildings served.
Neighborhood Pattern & Design

NPD Credit 6: Street Network
1 to 2 Points

Intent

Encourage the design of projects that incorporate high levels of internal connectivity and the location of projects in existing communities in order to conserve land, promote multimodal transportation and reduce the risk of obesity, heart disease, and hypertension by encouraging daily physical activity. Reduce public health impacts such as asthma, respiratory diseases, and injuries from motor vehicles associated with sprawl. Improve the mental health of the community by reducing work commute time and increasing time devoted to leisure, community activities and family.

Requirements

Include a pedestrian or bicycle through-connection in at least 90% of any new cul-de-sacs, except where prohibited by topographical conditions;

AND

Locate and/or design the project such that its internal connectivity, and/or the connectivity within a 1/4 mile radius from the geographic center of the project, falls within one of the ranges listed in the following table:

<table>
<thead>
<tr>
<th>Connectivity (intersections/sq. mile)</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 300 and ≤400</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 400</td>
<td>2</td>
</tr>
</tbody>
</table>

NPDc6: Connectivity

300-400 intersections/sq. mi. 1 point

>400 intersections/sq. mi. 2 points

AND
Design and build projects with at least one through-street, and/or non-motorized right-of-way, entering and exiting the project boundary every 400 feet, or at existing abutting street intervals, whichever distance is smaller. This does not apply to portions of the boundary where connections cannot be made because of physical obstacles created by: prior platting of property and construction of improvements that constitute barriers; slopes over 15%; water bodies and wetlands; railroad and utility rights-of-way; limited-access motor vehicle rights-of-way; and parks and dedicated open space.

Connectivity is defined as: the degree to which the street network is interconnected, as measured by the number of intersections per square mile. Eligible intersections include:

- Junctions of publicly-accessible streets open to motor vehicle movement.
- Intersections of such streets with publicly-dedicated alleys. Intersections of alleys with other alleys shall not be included.
- Intersections of such streets with off-street bicycle and multi-use paths, up to a maximum of 10% of the total intersections.
- A multilegged junction such as a roundabout, traffic circle or plaza counts as a single intersection, unless the space circumscribed by the thoroughfares is larger than 1/2 acre, in which case each of the surrounding component intersections may be included individually.
- The number of dead-end nodes in the street network is subtracted from the total number of intersections. Dead-end nodes are intersections that connect only to other routes that themselves don’t connect further. (See diagram.) If a person must both enter and exit through the same route/intersection, no intersections beyond that point are included.

Areas excluded from the calculation are water bodies, parks larger than 1/2 acre, recreational facilities, public campuses (such as universities), airports, rail yards, areas preserved from development by codified law or prerequisites of the rating system, and land that cannot be developed due to a unique topographic or geologic condition (such as steep slopes). Street rights-of-way may not be excluded.
Neighborhood Pattern & Design

NPD Credit 7: Transit Facilities

1 Point

Intent

Encourage transit use and reduce driving by creating safe and comfortable transit facilities.

Requirements

Provide or identify covered and at least partially enclosed shelters, adequate to buffer wind and rain, with at least one bench, at each public transit stop. Shelters shall be illuminated to five average maintained footcandles (light levels may be reduced after transit service hours). Existing external lighting can contribute to this level, but any new lighting shall meet light pollution requirements in GIB Credit 16, and be designed to not directly illuminate any windows of residential properties.

AND

Provide kiosks, bulletin boards, and/or signs devoted to providing local public transit information as part of the project, including basic schedule and route information at each public transit stop within or bordering the project.

AND

Confirm that each public transit stop provides adequate transit service.

Adequate Transit Service is the minimum number of daily trips in each direction that a stop must have to be counted: (1) on weekdays, at least 56 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 28 trips/day for commuter/regional rail or ferries; and (2) on weekends, at least 14 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 7 trips/day for commuter/regional rail or ferries. Commuter rail serves more than one MSA and/or the area surrounding an MSA.
Neighborhood Pattern & Design

NPD Credit 8: Transportation Demand Management
1 to 2 Points

Intent

Reduce energy consumption, pollution from motor vehicles, and public health impacts such as asthma, respiratory diseases, and injuries from motor vehicles by encouraging use of public transit.

Requirements

FOR ALL PROJECTS

Earn one point for every two options achieved below, for a maximum of two points. For the purposes of this credit, existing buildings and their occupants are exempt from the requirements.

OPTION 1 – TDM PROGRAM

Create and implement a comprehensive transportation demand management (TDM) program for the project that reduces weekday peak period motor vehicle trips by at least 20% compared to the forecasted trip generation for the project without the TDM strategies; and fund for a minimum of three years following buildout of the project. The TDM program must be prepared by a qualified transportation professional, and the trip reduction effects of other Options may not be included in calculating the 20% threshold;

OR

OPTION 2 – TRANSIT PASSES

Provide transit passes valid for at least one year, subsidized to be half of regular price or cheaper, to each resident, employee, and student locating within the project during the first three years of project occupancy (or longer). Publicize the fact that subsidized transit passes are available to project residents, employees, and students;

OR

OPTION 3 – DEVELOPER-SPONSORED TRANSIT

Provide year-round, developer-sponsored transit service (with vans, shuttles, buses) from at least one central point in the project to rail, ferry, or other major transit facilities, and/or other major destinations such as a retail or employment center, with service no less frequent than 75% of adequate transit service. The service must begin when the project total square footage is 20% occupied or sooner, and must be guaranteed for at least three years beyond project buildout. Twenty percent occupancy is defined as residents living in 20% of the project dwelling units and/or employees working in 20% of the total non-residential square footage of the project. Covered and at least partially enclosed shelters, adequate to buffer wind and rain, with at least one bench, must be provided at each transit stop. Shelters shall be
illuminated to five average maintained footcandles (light levels may be reduced after hours). Existing external lighting can contribute to this level, but any new lighting shall meet light pollution requirements in GIB Credit 16, and be designed to not directly illuminate any windows of residential properties;

OR

OPTION 4 – VEHICLE SHARING

Locate the project such that 50% of the dwelling units and business entrances are within a ¼ mile walk distance of at least one vehicle in a vehicle-sharing program, and publicize the availability and benefits of the vehicle-sharing program to project occupants. If the project has more than 100 dwelling units and/or employees, at least one additional vehicle for every 100 dwelling units and/or employees must be available and the parking space(s) must be dedicated as part of the project. Where new vehicle locations are created, a vehicle share program must commit to providing vehicles to the locations for at least three years;

OR

OPTION 5 – UNBUNDLING OF PARKING

For 100% of multifamily dwelling units, their associated parking spaces are sold or rented separately from the dwelling units.

Adequate Transit Service is the minimum number of daily trips in each direction that a stop must have to be counted: (1) on weekdays, at least 56 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 28 trips/day for commuter/regional rail or ferries; and (2) on weekends, at least 14 trips/day for buses (including bus rapid transit), light rail transit (including streetcars/trams) or heavy rail transit (subways/elevated), or at least 7 trips/day for commuter/regional rail or ferries. Commuter rail serves more than one MSA and/or the area surrounding an MSA.
Neighborhood Pattern & Design

NPD Credit 9: Access to Public Spaces

1 Point

Intent

To provide a variety of open spaces close to work and home to encourage walking, physical activity and time spent outdoors. Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity through access to public spaces. Improve the mental health of the community by providing a variety of open spaces close to work and home. Promote socially equitable and socially engaging communities by providing appealing and comfortable spaces for social networking, civic engagement, personal recreation, and other activities that create social bonds between individuals and groups.

Requirements

Locate and/or design project so that a park, publicly-accessible schoolyard, or plaza at least 1/6 acre in area, lies within a ¼ mile walk distance of 90% of planned and existing dwelling units and business entrances. Parks less than 1 acre must also have a proportion no narrower than 1 unit of width to 4 units of length;

AND

For projects larger than 7 acres, locate and/or design the project so that the average size of parks within and/or contiguous to the project is at least 1/2 acre.
Neighborhood Pattern & Design

NPD Credit 10: Access to Active Public Spaces

1 Point

Intent

To provide a variety of open spaces close to work and home to encourage walking, physical activity and time spent outdoors. Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity through access to active public spaces. Improve the mental health of the community by providing a variety of open spaces close to work and home. Promote socially equitable and socially engaging communities by providing appealing and comfortable spaces for social networking, civic engagement, personal recreation, and other activities that create social bonds between individuals and groups.

Requirements

Locate and/or design the project so that active public facilities (e.g., general playfields, soccer, baseball, basketball or other sports fields) totaling at least one acre, or a public indoor recreational facility, lies within ½ mile walk distance of 90% of dwelling units and/or business entrances (inclusive of existing buildings).
Neighborhood Pattern & Design

NPD Credit 11: Universal Accessibility

1 Point

Intent

Enable the widest spectrum of people, regardless of age or ability, to more easily participate in their community life by increasing the proportion of areas that are usable by people of diverse abilities.

Requirements

OPTION 1 – PROJECTS WITH A RESIDENTIAL COMPONENT

For each new residential dwelling unit type developed, design a minimum of 20% of the dwellings in that type category (and not less than one) to comply with the accessible design provisions of the Fair Housing Amendments Act (FHAA) and Section 504 of the Rehabilitation Act (Rehabilitation Act), as applicable. Separate residential unit types include: single-family, duplex, triplex, multi-unit row or townhouses, and mixed use buildings that include residential units. (Compliance for multifamily buildings of four or more units is already a regulatory requirement.). Regarding residential accessibility design provisions, an accessible entrance can be located at the front, side or back of the residential unit, which may sometimes be determined by the topography of the site. All paths of travel between residential units and other buildings within the project shall comply with the accessible design provisions of the FHAA and Rehabilitation Act, as applicable; and

If any new common-use or recreational facilities are constructed as part of the project:

a. For any residential areas, apply the accessible design provisions of the FHAA and the Rehabilitation Act to facilities and rights-of-way; and

b. For any non-residential areas, apply the accessible design provisions of the American Disabilities Act (ADA) to facilities and rights-of-way;

OR

OPTION 2 – NON-RESIDENTIAL PROJECTS WITH COMMON USE FACILITIES

For projects without a residential component, but where new common-use or recreational facilities are constructed as part of the project, comply with the common-use requirements in Option 1. Non-residential projects without such facilities will not be able to achieve this credit, since they are already required by law to comply with accessibility regulations.
Neighborhood Pattern & Design

NPD Credit 12: Community Outreach and Involvement
1 to 2 Points

Intent

Promote socially equitable and socially engaging communities by encouraging community participation in the project design and planning and by involving the people who live or work in a community in deciding how it should be improved or how it should change over time.

Requirements

OPTION 1 – COMMUNITY OUTREACH (1 point)

Meet with adjacent and nearby neighbors, and local public officials, to solicit and document input on the proposed project prior to commencing design;

AND

Host an open community meeting to solicit and document input on the proposed project during the conceptual design phase;

AND

Modify the project’s conceptual design as a direct result of community input, or if modifications are not made, explain why community input did not generate design modifications;

AND

Work directly with community associations and/or the local government to advertise public meetings and generate comments on project design beginning at the conceptual phase;

AND

Establish ongoing means for communication between the developer and the community throughout the design and construction phases; and, in cases where the developer maintains control of part or the entire project, during the post-construction phase;

OR

OPTION 2 – CHARRETTE (2 points)

Comply with the provisions in Option 1; and

conduct a design charrette over at least four days that includes, at a minimum, citizen preparation of conceptual project plans and drawings.
Neighborhood Pattern & Design

NPD Credit 13: Local Food Production
1 Point

Intent

Promote community-based and local food production to minimize the environmental impacts and public health impacts – such as asthma, respiratory diseases, and injuries from motor vehicles – from transporting food long distances. Reduce the risk of cancer and other chronic diseases by increasing direct access to fresh foods.

Requirements

FOR ALL PROJECTS

Establish CC&Rs or other forms of deed restrictions that do not prohibit areas for growing produce, including greenhouses, on any portion or area of residential front yards, rear yards or side yards; or on balconies, patios or rooftops. Greenhouses, but not gardens, may be prohibited in front yard areas that face the street;

AND

OPTION 1 – NEIGHBORHOOD FARMS AND GARDENS

Dedicate permanent and viable growing space and/or related facilities (such as greenhouses) within the project at the square footage areas specified below (exclusive of existing dwellings). Provide fencing, watering systems, soil and/or garden bed enhancements (such as raised beds), secure storage space for garden tools, solar access, and pedestrian access for these spaces. Ensure that the spaces are owned and managed by an entity that can include occupants of the project in its decision-making, such as a community group, a homeowners association, or a public body.

<table>
<thead>
<tr>
<th>Project density (dwelling units/acre)</th>
<th>Required growing space (sq ft per dwelling unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 to 14</td>
<td>200</td>
</tr>
<tr>
<td>&gt; 14 and ≤ 22</td>
<td>100</td>
</tr>
<tr>
<td>&gt; 22 and ≤ 28</td>
<td>80</td>
</tr>
<tr>
<td>&gt; 28 and ≤ 35</td>
<td>70</td>
</tr>
<tr>
<td>&gt; 35</td>
<td>60</td>
</tr>
</tbody>
</table>

Established community gardens outside the project boundary, but within a ¼ mile walk distance of the project center, can satisfy this option if the garden otherwise meets all of the option requirements;

OR

OPTION 2 – COMMUNITY SUPPORTED AGRICULTURE
Purchase shares in a Community Supported Agriculture (CSA) program located within 150 miles of the project site for at least 80% of households within the project (exclusive of existing dwelling units) for two years. Shares must be delivered to within ¼ mile of the project geographic center on a regular schedule, which shall not be less than twice per month at least four months of the year;

OR

OPTION 3 – PROXIMITY TO FARMERS’ MARKET

Locate the project within a ¼ mile walk distance (measured from the project boundary) of an existing or planned farmer’s market; or design a farmer’s market that will operate at least once a week for at least five months of the year within the project or within a ¼ mile walk distance of the project boundary.
Neighborhood Pattern & Design

NPD Credit 14: Tree-Lined and Shaded Streets
1 to 2 Points

Intent

Requirements

OPTION 1 – TREE-LINED STREETS (1 point)
Design and build the project to provide street trees on both sides of 70% of new and existing streets within the project and on the project-side of bordering streets, between the vehicle travel way and sidewalk, at intervals of no greater than 40 feet (excluding driveways and utility vaults);

AND/OR

OPTION 2 – SHADED STREETS (1 point)
Trees or other structures provide shade over at least 40% of the length of sidewalks on streets included within or contiguous to the project. In the case of shade from trees, shade must be provided within five years of landscape installation. The estimated crown diameter (the width of the shade if the sun is directly above the tree) is used to calculate the shaded area.

AND

FOR ALL PROJECTS
Where trees are planted along non-residential streets, install a root-friendly medium such as structural soil. Where trees are planted along residential streets, ensure that planter strips that are wide enough to provide a healthy growing area for each species of tree are used.
Neighborhood Pattern & Design

NPD Credit 15: Neighborhood Schools

1 Point

Intent

Promote community interaction and engagement. Reduce risk of obesity, heart disease, and hypertension by encouraging daily physical activity associated with alternative modes of transportation, such as walking or biking.

Requirements

Include a residential component in the project that constitutes at least 25% of the project’s total building square footage; and locate or design the project so that at least 50% of project dwelling units are within a ½ mile walk distance of an existing or planned school entrance. In the case of a planned school, the relevant school district or equivalent organization must commit in a legally binding warrant that the school will be provided at or before occupancy of 50% of the project dwelling units.

Streets within the project boundary where pedestrian and bicycle traffic to the school is anticipated must include clear pedestrian pathways, bicycle routes, and speed control measures (traffic calming, design speeds, etc.). If the school is planned as part of the project, it must be designed so that pedestrians and cyclists can easily access building entrances without crossing bus zones, parking entrances, and student drop-off areas;

AND

Planned school campuses must not exceed the following:

High schools – 10 acres
Middle schools – 8 acres
Elementary schools – 5 acres

Schools combining grade levels from more than one category above may use the threshold from the grade level with the higher allowable acreage.
Green Infrastructure & Buildings

GIB Prerequisite 1: Certified Green Building
Required

Intent

Encourage the design, construction or retrofit of buildings to utilize green building practices.

Requirements

Design, construct, or retrofit one whole building to be certified through: LEED for New Construction, LEED for Existing Buildings: Operations & Maintenance, LEED for Homes, LEED for Schools, LEED for Retail (New Construction) or LEED for Core and Shell (with at least 75% of the floor area certified under LEED for Commercial Interiors), or through a third party green building rating system whose certifying body is certified through ISO 17024.
Green Infrastructure & Buildings

GIB Prerequisite 2: Minimum Building Energy Efficiency Required

Intent

Encourage the design and construction of energy efficient buildings to reduce air, water, and land pollution and environmental impacts from energy production and consumption.

Requirements

For non-residential buildings, mixed use buildings, and multifamily residential buildings four stories or greater:

New buildings constructed as part of the project must, on average, be 10% better than ANSI/ASHRAE/IESNA Standard 90.1-2007. Buildings undergoing major renovations as part of the project must, on average, be 5% better than ANSI/ASHRAE/IESNA Standard 90.1-2007. The energy efficiency threshold shall be calculated as a weighted average of energy usage for the buildings constructed as part of the project based on their conditioned square footage. Projects can document their building energy efficiency in a combination of three ways:


b. Follow the prescriptive requirements of the applicable ASHRAE Advanced Energy Design Guides (Office Buildings up to 20,000 sq. ft., Retail Buildings up to 20,000 sq. ft., K-12 schools of any size, and Warehouses up to 50,000 sq. ft.)

c. Follow the prescriptive requirements of the Advanced Buildings Core Performance Guide (all building types under 100,000 sq. ft. with the exception of health care, laboratories, and warehouses).

In determining the weighted average, buildings pursuing (a) will be credited at the percentage value determined by the energy model. Buildings pursuing (b) or Option (c) will be credited at 12% better than ANSI/ASHRAE/IESNA Standard 90.1-2007 for new buildings and 8% better for existing building renovations;

AND

For new multifamily residential buildings three stories or fewer and new single-family residential buildings:

90% of new buildings must meet Energy Star or equivalent criteria. Projects may demonstrate compliance with Energy Star criteria either through the prescriptive requirements of a Builder Option Package, Home Energy Rating System (HERS) index, or a combination of the two.
Green Infrastructure & Buildings

GIB Prerequisite 3: Minimum Building Water Efficiency
Required

Intent

Minimize water use in buildings to reduce the impact to natural water resources and reduce the burden on municipal water supply and wastewater systems.

Requirements

For non-residential buildings, mixed use buildings, and multifamily residential buildings four stories or more:

Indoor water use in new buildings and buildings undergoing major renovations as part of the project must, on average, use 20% less water than baseline buildings. The baseline shall meet the requirements of the Energy Policy Act of 1992 and subsequent rulings by the Department of Energy, requirements of the Energy Policy Act of 2005, and the plumbing code requirements as stated in the 2006 editions of the Uniform Plumbing Code or International Plumbing Code as to fixture performance. Calculations are based on estimated occupant usage and shall include only the following fixtures and fixture fittings (as applicable to the project scope): water closets, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves.

The water efficiency threshold shall be calculated as a weighted average of water usage for the buildings constructed as part of the project based on their conditioned square footage. Projects may also follow the LEED for Multiple Buildings and On-Campus Building Application Guide alternative calculation methodology to show compliance with this prerequisite;

National Efficiency Baselines for Commercial Water-Using Fixtures, Fittings and Appliances
(adapted from information developed and summarized by the U.S. EPA Office of Water)

<table>
<thead>
<tr>
<th>Fixtures, Fittings and Appliances</th>
<th>Current Baseline</th>
</tr>
</thead>
</table>
| Commercial Toilets                               | 1.6 gpf<sup>1</sup>
|                                                   | Except blow-out fixtures: 3.5-gpf                     |
| Commercial Urinals                               | 1.0 gpf                                               |
| Commercial Lavatory (restroom) Faucets           | 2.2-gpm at 60 psi - Private applications only (hotel-motel guest rooms, hospital patient rooms)
|                                                   | 0.5 gpm at 60 psi<sup>2</sup> all others except private applications
|                                                   | 0.25 gallons per cycle for metering faucets          |

<sup>1</sup> EPAct 1992 standard for toilets applies to both commercial and residential models.
<sup>2</sup> In addition to EPAct requirements, the American Society of Mechanical Engineers standard for public lavatory faucets is 0.5 gpm at 60 psi (ASME A112.18.1-2005). This maximum has been incorporated into the national Uniform Plumbing Code and the International Plumbing Code.
<table>
<thead>
<tr>
<th>Fixtures, Fittings and Appliances</th>
<th>Current Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Pre-rinse Spray Valves (for food service applications)</td>
<td>Flow rate ≤ 1.6 gpm (no pressure specified; no performance requirement)</td>
</tr>
</tbody>
</table>

**Outside the scope of water use reduction calculation**

<table>
<thead>
<tr>
<th>Fixtures, Fittings and Appliances</th>
<th>Current Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Steam Cookers</td>
<td>No Water Use Standard</td>
</tr>
<tr>
<td>Commercial Dishwashers</td>
<td>No Water Use Standard</td>
</tr>
<tr>
<td>Automatic Commercial Ice Makers</td>
<td>No Water Use Standard</td>
</tr>
<tr>
<td>Commercial Clothes Washers (Family-sized)</td>
<td>MEF ≥ 1.26 ft³/kWh; WF ≤ 9.5 gal/cycle/ft³</td>
</tr>
</tbody>
</table>

**National Efficiency Baselines for Residential Water-Using Fixtures, Fittings and Appliances**  
(adapted from information developed and summarized by the U.S. EPA Office of Water)

<table>
<thead>
<tr>
<th>Fixtures, Fittings and Appliances</th>
<th>Current Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Toilets</td>
<td>1.6 gpf³</td>
</tr>
<tr>
<td>Residential Lavatory (Bathroom) Faucets</td>
<td>2.2 gpm at 60 psi</td>
</tr>
<tr>
<td>Residential Kitchen Faucet</td>
<td></td>
</tr>
<tr>
<td>Residential Showerheads</td>
<td>2.5 gpm at 80 psi per shower stall⁴</td>
</tr>
</tbody>
</table>

**Outside the scope of water use reduction calculation**

<table>
<thead>
<tr>
<th>Fixtures, Fittings and Appliances</th>
<th>Current Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Clothes Washers</td>
<td>No Water Use Standard</td>
</tr>
<tr>
<td>Standard Size and Compact Residential Dishwashers</td>
<td>No Water Use Standard</td>
</tr>
</tbody>
</table>

AND

For new multifamily residential buildings three stories or fewer and new single-family residential buildings:

90% of buildings must use a combination of water fixtures that would earn 3 points through the Indoor Water Use credit of LEED for Homes 2008.

---

³ EPAAct 1992 standard for toilets applies to both commercial and residential models.

⁴ Residential shower compartment (stall) in dwelling units: The total allowable flow rate from all flowing showerheads at any given time, including rain systems, waterfalls, bodysprays, bodyspas, and jets, shall be limited to the allowable showerhead flow rate as specified above (2.5-gpm) per shower compartment, where the floor area of the shower compartment is less than 2,500 sq.in. For each increment of 2,500 sq.in. of floor area thereafter or part thereof, an additional showerhead with total allowable flow rate from all flowing devices equal to or less than the allowable flow rate as specified above shall be allowed. Exception: Showers that emit recirculated non-potable water originating from within the shower compartment while operating are allowed to exceed the maximum as long as the total potable water flow does not exceed the flow rate as specified above.
Green Infrastructure & Buildings

GIB Prerequisite 4: Construction Activity Pollution Prevention

Required

Intent

Reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.

Requirements

Create and implement an Erosion and Sedimentation Control (ESC) Plan for all new construction activities associated with the project. The ESC Plan shall use practices such as phasing, seeding, grading, mulching, filter socks, stabilized site entrances, preservation of existing vegetation and other practices as identified by the Reference Guide to control erosion and sedimentation in run-off during construction from the entire project site. The ESC Plan shall list the Best Management Practices (BMPs) employed and describe how the BMPs accomplish the following objectives:

a. Prevent loss of soil during construction by stormwater runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse.

b. Prevent sedimentation of any impacted stormwater conveyance systems or receiving streams.

c. Prevent polluting the air with dust and particulate matter.

The BMPs shall be selected from those identified in the Reference Guide and comply with all federal, state, and local erosion and sedimentation control standards and codes.
Green Infrastructure & Buildings

GIB Credit 1: Certified Green Buildings
1 to 5 Points

Intent
Encourage the design, construction, and retrofit of buildings to utilize green building practices.

Requirements

OPTION 1 – PROJECTS WITH 10 OR FEWER HABITABLE BUILDINGS

Design, construct, or retrofit one building as part of the project, beyond the prerequisite, to be certified under one of the following LEED building rating systems: LEED for New Construction, LEED for Existing Buildings, LEED for Homes, LEED for Schools, LEED for Retail (New Construction) or LEED for Core & Shell with at least 75% of the floor area certified under LEED for Commercial Interiors or through a third party green rating system whose certifying bodies are certified through ISO 17024. Additional points (no more than 5 total) may be earned for each additional certified building that is part of the project;

OR

OPTION 2 – PROJECTS OF ALL SIZES

Design, construct, or retrofit a percentage of the total project building square footage to be certified under one of the LEED building rating systems listed above, beyond the prerequisite requirement. Points are available as follows:

<table>
<thead>
<tr>
<th>Percent of project sq. ft. LEED certified</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% to &lt;20%</td>
<td>1</td>
</tr>
<tr>
<td>20% to &lt;30%</td>
<td>2</td>
</tr>
<tr>
<td>30% to &lt;40%</td>
<td>3</td>
</tr>
<tr>
<td>40% to &lt;50%</td>
<td>4</td>
</tr>
<tr>
<td>≥50%</td>
<td>5</td>
</tr>
</tbody>
</table>

AND

FOR ALL PROJECTS

Detached accessory dwelling units must be counted as separate buildings. Accessory dwellings attached to a main building are not counted separately.
Green Infrastructure & Buildings

GIB Credit 2: Building Energy Efficiency

1 to 2 Points

Intent

Encourage the design and construction of energy efficient buildings to reduce air, water, and land pollution and environmental impacts from energy production and consumption.

Requirements

For non-residential buildings, mixed use buildings, and multifamily residential buildings four stories or greater:

90% of new buildings constructed as part of the project must, on average, be 24% better than ANSI/ASHRAE/IESNA Standard 90.1-2007, demonstrated by a whole building project simulation using the Building Performance Rating Method in Appendix G of the Standard. Buildings undergoing major renovations as part of the project must, on average, be 20% better than ANSI/ASHRAE/IESNA Standard 90.1-2007, demonstrated by a whole building project simulation using the Building Performance Rating Method in Appendix G of the Standard. The energy efficiency threshold shall be calculated as a weighted average of energy usage for the buildings constructed as part of the project based on their conditioned square footage. Projects can document their building energy efficiency in a combination of three ways:

a. Produce a LEED for New Construction compliant energy model (all building types and sizes).

b. Follow the prescriptive requirements of the applicable ASHRAE Advanced Energy Design Guides (Office Buildings up to 20,000 sq. ft., Retail Buildings up to 20,000 sq. ft., K-12 schools of any size, and Warehouses up to 50,000 sq. ft.)

c. Follow the prescriptive requirements of the Advanced Buildings Core Performance Guide (all building types under 100,000 sq. ft. with the exception of health care, laboratories, and warehouses).

In determining the weighted average, buildings pursuing (a) will be credited at the percentage value determined by the energy model. Buildings pursuing (b) or Option (c) will be credited at 12% better than ANSI/ASHRAE/IESNA Standard 90.1-2007 for new buildings and 8% better for existing building renovations.

AND

For new multifamily residential buildings three stories or fewer and new single-family residential buildings:

90% of new buildings achieve a Home Energy Rating System (HERS) index score of at least 75.
Green Infrastructure & Buildings

GIB Credit 3: Water Efficient Landscaping

1 Point

Intent

Limit or eliminate the use of potable water, or other natural surface or subsurface water resources available on the project site, for landscape irrigation.

Requirements

Reduce potable water consumption for outdoor landscape irrigation by 50% from a calculated mid-summer baseline case. Reductions may be attributed to any combination of the following items, among others:

a. Plant species, density and microclimate factor
b. Irrigation efficiency
c. Use of captured rainwater
d. Use of recycled wastewater
e. Use of water treated and conveyed by a public agency specifically for non-potable uses.

f. Other non-potable water sources such as stormwater, air conditioning condensate, and foundation drain water.
Green Infrastructure & Buildings

GIB Credit 4: Existing Building Reuse

1 Point

Intent

Extend the life cycle of existing building stock, in order to conserve resources, reduce waste, and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.

Requirements

FOR ALL PROJECTS

To achieve this credit, no historic building or portion of a historic building may be demolished as part of the project.

An exception is granted only in instances where approval for such action is provided by the appropriate review board. For buildings listed locally, approval must be granted by the local historic preservation review board, or equivalent body. For buildings listed in a State Register or in the National Register of Historic Places, approval must appear in a programmatic agreement with the State Historic Preservation Office;

AND

Reuse the existing building stock, achieving the greater of the two benchmarks specified below (based on surface area):

a. 50% of one existing building structure (including structural floor and roof decking) and envelope (including exterior skin and framing, and excluding window assemblies and non-structural roofing material).

b. 20% of the total existing building stock (including structure and envelope, as defined above).

Hazardous materials that are remediated as a part of the project scope shall be excluded from the calculation of the percentage maintained.

Historic Building is defined as building listed or found to be eligible as a historic landmark or as a contributing building in a historic district due to its significance for historical, architectural, engineering, archeological, or cultural reasons. A historic building may be designated by a local historic preservation review board or similar body, in a State Register, or in the National Register of Historic Places.
Green Infrastructure & Buildings

GIB Credit 5: Historic Building Preservation and Adaptive Use

1 Point

Intent

Encourage the preservation and adaptive use of historic buildings, which represent significant embodied energy and cultural value, in a manner that preserves their historic materials and character-defining features.

Requirements

To achieve this credit, no historic building or portion of a historic building may be demolished as part of the project.

An exception is granted only in instances where approval for such action is provided by the appropriate review body. For buildings listed locally, approval must be granted by the local historic preservation review board, or equivalent body. For buildings listed in a State Register or in the National Register of Historic Places, approval must appear in a programmatic agreement with the State Historic Preservation Office;

If the historic building or buildings are to be rehabilitated, rehabilitate in accordance with local review or federal standards for rehabilitation using one of the following approaches:

a. Obtain approval, in the form of a “certificate of appropriateness,” from a locally appointed historic preservation commission or architectural review board for major exterior alterations or additions
b. Obtain confirmation from a State Historic Preservation Office or the National Park Service that the rehabilitation satisfies the Secretary of the Interior’s Standards for Rehabilitation. The project will only receive such confirmation if certain federal funds are used (see Reference Guide for more information).

Historic Building is defined as building listed or found to be eligible as a historic landmark or as a contributing building in a historic district due to its significance for historical, architectural, engineering, archeological, or cultural reasons. A historic building may be designated by a local historic preservation review board or similar body, in a State Register, or in the National Register of Historic Places.
Green Infrastructure & Buildings

GIB Credit 6: Minimize Site Disturbance In Design and Construction

1 Point

Intent

Preserve existing tree canopy, native vegetation and pervious surfaces while encouraging high density, smart growth communities.

Requirements

OPTION 1 – DEVELOPMENT FOOTPRINT ON PREVIOUSLY DEVELOPED LAND

Locate 100% of the development footprint on areas that are previously developed and for which 100% of the zone of construction impact is previously developed;

OR

OPTION 2 – UNDEVELOPED PORTION OF PROJECT REMAINS UNDISTURBED

Depending on the density of the project, do not develop or disturb a portion of the land that has not been previously developed on the site, exclusive of any land excluded from development by codified law or required to be preserved as a prerequisite of LEED for Neighborhood Development, and stipulate in CC&Rs or other binding development documents that the undisturbed area will be protected from development in perpetuity. Densities and minimum percentages are as follows (mixed use projects should use the lowest applicable density or calculate a weighted average per the methodology in NPD Credit 2: Compact Development):

<table>
<thead>
<tr>
<th>Residential Density (DU/acre)</th>
<th>Non-Residential Density (FAR)</th>
<th>Minimum percent of previously undeveloped area to leave undisturbed</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 15</td>
<td>&lt; .50</td>
<td>20%</td>
</tr>
<tr>
<td>15-21</td>
<td>.50 – 1.00</td>
<td>15%</td>
</tr>
<tr>
<td>&gt; 21</td>
<td>&gt; 1.0</td>
<td>10%</td>
</tr>
</tbody>
</table>

For portions of the site that are not previously developed: identify limits of disturbance through the creation of construction impact zones that, at minimum, limits disturbance to 40 feet beyond the building perimeter; 10 feet beyond surface walkways, patios, surface parking and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities and playing fields) that require additional staging areas in order to limit compaction in the constructed area;

AND

FOR ALL PROJECTS

Survey the site to identify:
a. Trees in good or excellent condition as determined by an International Society of Arboriculture (ISA) Certified Arborist,

b. Any Heritage or Champion trees of special importance to the community as defined by a government forester because of their age, size, type, historical association or horticultural value,

c. The diameter of all trees at 4 feet 6 inches above ground (diameter at breast height or DBH), and

d. Any invasive species of tree present on the site, and whether those species threaten the health of other trees to be preserved on the site, as determined by an ISA Certified Arborist.

Preserve the following on the site that are also identified as in good or excellent condition:

a. All Heritage or Champion Trees identified,

b. A minimum of 75% of all non-invasive trees (including the above) over 18 inches diameter at breast height, and

c. A minimum of 25% of all non-invasive trees (including the above) that are over 12 inches diameter at breast height if deciduous, and 6 inches in diameter at breast height if conifer.

Condition rating must be based on assessment by an ISA Certified Arborist using ISA standard measures.

Develop a plan, in consultation with and approved by an ISA Certified Arborist, for the health of the trees, including fertilization and pruning, and construction tree protection specifications which are to include protection fencing located at the drip line of each tree, and specifying that if trenching or other disturbance is necessary within the drip line, this work must be done by hand. If an ISA Certified Arborist has determined that the health of the trees to be preserved is threatened by invasive vegetation, develop a plan for invasive vegetation reduction to the maximum extent possible. Stipulate in CC&Rs or other binding development documents that the preserved trees will be protected from development in perpetuity.

Previously developed is defined as a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.
Green Infrastructure & Buildings

GIB Credit 7: Stormwater Management
1 to 4 Points

**Intent**

Reduce pollution and hydrologic instability from stormwater, prevent flooding, and promote aquifer recharge through the emulation of undeveloped natural hydrological conditions.

**Requirements**

Implement a comprehensive stormwater management plan for the project that infiltrates, re-uses, or evapotranspirates the below-specified amount of rainfall from the project’s development footprint (inclusive of existing buildings and surfaces) and other areas that have been graded so as to be effectively impervious. To demonstrate the following levels of retention, projects may use NOAA published national rainfall data, run an approved stormwater model, or independently gather local rain gauge data and rank storms to determine volume. (Note: See reference guide for guidance on appropriate modeling approaches and calculating required volume to be managed based on the targeted percentages using local rain gauge data.)

<table>
<thead>
<tr>
<th>Points earned</th>
<th>TABLE 1: Targeted Percentage of storm events to be retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80%</td>
</tr>
<tr>
<td>2</td>
<td>85%</td>
</tr>
<tr>
<td>3</td>
<td>90%</td>
</tr>
<tr>
<td>4</td>
<td>95%</td>
</tr>
</tbody>
</table>

Projects that earn at least one point via the above table may earn additional points for meeting one or more of the following site characteristics for a maximum of four total points.

- 1 point: The project is located on a **previously developed** site
- 1 point: The project is located on a brownfield site with contaminated soils.
- 1 point: The project is designed to be transit ready by having the following characteristics:
  - Earn at least 2 points under NPD Credit 1: Walkable Streets
  - Earn at least 2 points under NPD Credit 2: Compact Development
  - Earn at least 2 points under NPD Credit 3: Diversity of Uses

The stormwater management plan should identify pollution generating impervious surfaces and pollution generating pervious surfaces (fertilized lawns, fertilized landscaped areas, etc.) and stormwater treatment best management practices (BMP) to be employed, such as permeable pavements, rain gardens, vegetated swales, sand filters, etc., as identified by the EPA, to treat the pollution generating areas. Additionally, stormwater flow control BMP such as permeable pavements, rain gardens, compost amended soils,
rainwater harvesting systems, green roofs, etc., as identified by the EPA, shall be implemented to achieve the retention requirements of the table above;

For stormwater reuse systems not on a combined stormwater and sewer system the total water reused for indoor use shall not exceed 90% of the average annual rainfall.

For the purposes of the calculations in this credit, the development footprint includes typically impervious surfaces included in the definition of development footprint, such as roofs and pavements, even though they may be made pervious as part of the stormwater management plan;

Stormwater retention BMP, such as pervious pavement systems and rain gardens, shall be designed to drain down within 24 hours.

**Previously developed** is defined as a site having pre-existing paving, construction, or altered landscapes that would typically have required regulatory permitting to have been initiated. This does not apply to altered landscapes resulting from current or historical agricultural or forestry use, or use as preserved natural area. The date of previous development permit issuance constitutes the date of previous development.
Green Infrastructure & Buildings

GIB Credit 8: Heat Island Reduction

1 Point

Intent
Reduce heat islands to minimize impact on microclimate and human and wildlife habitat.

Requirements

OPTION 1 – NON-ROOF MEASURES

Use any combination of the following strategies for 50% of the non-roof impervious site landscape (including roads, sidewalks, courtyards, parking lots, and driveways):

a. Provide shade from open structures such as those supporting solar photovoltaic panels, canopied walkways, vine pergolas, all with a Solar Reflectance Index (SRI) of at least 29;

b. Have paving materials with a SRI of at least 29; or

c. Open grid pavement system (at least 50% pervious);

d. Provide shade from tree canopy (within five years of landscape installation);

OR

OPTION 2 – COVERED OFF-STREET PARKING

Place a minimum of 50% of off-street parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29;

OR

OPTION 3 – HIGH REFLECTANCE ROOFS

Use roofing materials that have a SRI equal to or greater than the values in the table below for a minimum of 75% of the roof surface of all new buildings within the project; or install a vegetated (“green”) roof for at least 50% of the roof area of all new buildings within the project. Combinations of SRI compliant and vegetated roof (as described in Option 4) can be used provided that they collectively cover 75% of the roof area of all new buildings.

<table>
<thead>
<tr>
<th>Roof Type</th>
<th>Slope</th>
<th>SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Sloped Roof</td>
<td>≤ 2:12</td>
<td>78</td>
</tr>
<tr>
<td>Steep-Sloped Roof</td>
<td>&gt; 2:12</td>
<td>29</td>
</tr>
</tbody>
</table>
OR

OPTION 4 – VEGETATED ROOFS

Install a vegetated (“green”) roof on a minimum of 50% of the total project roof area (exclusive of existing buildings). Combinations of SRI compliant and vegetated roof can be used, provided that they collectively cover 75% of the total project roof area (exclusive of existing buildings);

AND

FOR ALL PROJECTS

For the purposes of this credit, shaded areas include areas shaded by trees, other landscape features, but not awnings, buildings, or other structural features.
Green Infrastructure & Buildings

GIB Credit 9: Solar Orientation

1 Point

Intent

Achieve enhanced energy efficiency by creating the optimum conditions for the use of passive and active solar strategies.

Requirements

OPTION 1 – BLOCK ORIENTATION (FOR PROJECTS EARNING AT LEAST 2 POINTS UNDER NPD CREDIT 2: COMPACT DEVELOPMENT)

Locate the project on existing blocks, or design and orient the project, such that 75% or more of the blocks, have one axis within plus or minus 15 degrees of geographical east/west, and the east/west length of those blocks are at least as long, or longer, as the north/south length of the block; and earn at least two points under NPD Credit 2: Compact Development;

OR

OPTION 2 – BUILDING ORIENTATION (AVAILABLE FOR ALL PROJECTS)
Design and orient 75% or more of the project total building square footage (excluding existing buildings) such that one axis of each qualifying building is at least 1.5 times longer than the other, and the longer axis is within 15 degrees of geographical east/west axis. The length to width ratio shall be applied only to the length of walls enclosing conditioned spaces; walls enclosing unconditioned spaces such as garages, arcades, or porches cannot contribute to credit achievement. The height of south-facing vertical surfaces of buildings counting towards credit achievement must not be more than 25% shaded at the time of initial occupancy measured at noon on December 21st.
Green Infrastructure & Buildings

GIB Credit 10: On-Site Renewable Energy Sources

1 to 3 Points

Intent

Encourage on-site renewable energy self-supply in order to reduce environmental and economic impacts associated with fossil fuel energy use.

Requirements

Design and incorporate, for the use of multiple buildings, on-site non-polluting renewable energy generation technologies such as solar, wind, geothermal, small scale/micro hydroelectric, and biomass with production capacity of at least 5% of the project’s annual electrical and thermal energy cost (exclusive of existing buildings), as established through an accepted building energy performance simulation tool. Additional points awarded as described in the table.

<table>
<thead>
<tr>
<th>Percentage of annual electrical and thermal energy cost</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>12.5</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>
Green Infrastructure & Buildings

GIB Credit 11: District Heating & Cooling

2 Points

Intent

Reduce air, water, and land pollution resulting from energy consumption in buildings by employing energy efficient district technologies.

Requirements

Design and incorporate into the project a district heating and/or cooling system for space conditioning and/or water heating of new buildings in the project (at least 2 buildings total) such that at least 80% of the project total square footage is connected, and at least 80% of the project total peak heating and/or cooling load is connected. Project teams may choose to exclude single-family residential buildings and existing buildings of any type from the calculations.

The efficiency of each component of the system which is regulated by ANSI/ASHRAE/IESNA Standard 90.1-2007 must have an overall efficiency performance at least 10% better than specified by the ANSI/ASHRAE/IESNA Standard 90.1 - 2007 Prescriptive Requirements. Additionally, district pumping power consumption over and above 2.5% of the annual thermal energy output of the heating and cooling plant (with one kWh of electricity equal to 3,413 Btu) must be offset by increases in regulated component efficiency beyond the 10% improvement over ANSI/ASHRAE/IESNA Standard 90.1-07 already specified by this credit. Combined Heat and Power (CHP) district systems can achieve this credit by demonstrating equivalency relative to the above criteria.
Green Infrastructure & Buildings

GIB Credit 12: Infrastructure Energy Efficiency

1 Point

**Intent**

Reduce air, water, and land pollution from energy consumption.

**Requirements**

Design or purchase all new traffic lights, street lights, and water and wastewater pumps and treatment systems to achieve a 15% annual energy reduction below an estimated baseline energy use for this infrastructure. The baseline is calculated with the assumed use of lowest first-cost infrastructure items.
Green Infrastructure & Buildings

GIB Credit 13: Wastewater Management

1 to 3 Points

Intent

Reduce pollution from wastewater and encourage water reuse.

Requirements

Design and construct the project to retain on-site at least 25% of the average annual wastewater generated by the project (exclusive of existing buildings), and reuse that wastewater to replace the use of potable water. Additional points are awarded as described in the table below. Provide on-site wastewater treatment to a quality required by state and local regulations for the proposed reuse. The percentage of wastewater diverted and reused is calculated by determining the total wastewater flow using conventional design practices in gallons per day, and demonstrating that 25% or more of that volume is reused on-site.

<table>
<thead>
<tr>
<th>Percentage of Wastewater Reused</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>75</td>
<td>3</td>
</tr>
</tbody>
</table>
Green Infrastructure & Buildings

GIB Credit 14: Recycled Content in Infrastructure

1 Point

Intent
Use recycled materials to reduce the environmental impact of extraction and processing of virgin materials.

Requirements
Meet three of the following four requirements, using the indicated recycled materials.

a. For new roadways, parking lots, sidewalks, and curbs (above-ground structured parking and underground parking are exempt from this requirement), any aggregate base and aggregate subbase shall be at least 90% by volume recycled aggregate materials such as crushed Portland cement concrete and asphalt concrete.

b. Any asphalt base shall be a minimum 15% by volume recycled asphalt pavement.

c. Any asphalt concrete pavement shall be a minimum 15% by volume recycled asphalt pavement; or be a minimum 75% by volume rubberized asphalt concrete from crumb rubber from scrap tires (crumb rubber modifier); or include a minimum of 5% of total weight of pre-consumer or post-consumer asphalt roofing shingles.

d. Any Portland cement concrete pavement shall contain:
   - recycled mineral admixtures (such as coal fly ash, ground granulated blast furnace slag, rice hull ash, silica fume, or other pozzolanic industrial byproduct) to reduce by at least 25% the concrete mix’s typical Portland cement content, and
   - a minimum of 10% by volume reclaimed concrete material aggregate; and

Piping made of Portland cement concrete shall contain recycled mineral admixtures (such as coal fly ash, ground granulated blast furnace slag, rice hull ash, silica fume, or other pozzolanic industrial byproduct) to reduce by at least 25% the concrete mix’s typical Portland cement content.
Green Infrastructure & Buildings

GIB Credit 15: Waste Management Infrastructure

1 Point

Intent

Reduce the waste hauled to and disposed of in landfills. Promote proper disposal of office and household hazardous waste streams.

Requirements

On all storm drain inlets, add signage (or identify existing signage) that states what body of water the drain leads to and a statement that discourages dumping;

AND

Meet at least four of the following five requirements and publicize their availability and benefits:

a. Include at least one recycling or reuse station as part of the project available to all project occupants dedicated to the separation, collection, and storage of materials for recycling including, at a minimum, paper, corrugated cardboard, glass, plastics and metals; or locate project in a local government jurisdiction that provides recycling services for these materials. If a plan for post-collection use does not exist, establish one;

b. Include at least one drop-off point as part of the project available to all project occupants for office or household potentially hazardous wastes such as paints, solvents, oil, batteries; or locate project in a local government jurisdiction that provides services for collecting these materials. If a plan for post-collection disposal or use does not exist, establish one;

c. Include at least one compost station as part of the project available to all project occupants dedicated to the collection and composting of food wastes; or locate project in a local government jurisdiction that provides services for composting materials. If a plan for post-collection use does not exist, establish one;

Include litter receptacles on mixed use and non-residential streets, with recycle containers adjacent to other receptacles or recycled containers integrated into the design of the receptacle, on every block or at least every 800 feet, whichever is shorter. e. Recycle and/or salvage at least 50% of non-hazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be stored on-site or commingled. Excavated soil and land-clearing debris do not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout.
Green Infrastructure & Buildings

GIB Credit 16: Light Pollution Reduction
1 Point

Intent

Minimize light trespass from site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environments.

Requirements

For exterior lighting in shared portions of the project, only light areas as required for safety and comfort. For purposes of this credit, shared portions of a project are publically or privately-owned areas and facilities dedicated to common use. Do not exceed 80% of the lighting power densities for exterior areas and 50% for building facades and landscape features as defined in ANSI/ASHRAE/IESNA Standard 90.1-2007, Exterior Lighting Section, without addenda;

AND

Stipulate CC&Rs or other binding documents that require continued adherence to these standards.

AND

Document which one or more of the lighting zones defined below describes the area(s) immediately around the project, and follow the requirements for those specific zones:

LZ1 — Dark (Park and Rural Settings)
Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.01 horizontal and vertical footcandles at the site boundary and beyond. Document that 0% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down).

LZ2 — Low (Residential areas)
Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.10 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 10 feet beyond the site boundary. Document that no more than 2% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

LZ3 — Medium (Commercial/Industrial, High-Density Residential)
Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.20 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 15 feet beyond the site. Document that no more than 5% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.
**LZ4 — High (Major City Centers, Entertainment Districts)**

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.60 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 15 feet beyond the site. Document that no more than 10% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary;

AND

Where roadway lighting is part of the project, demonstrate compliance with the requirements in IESNA RP-8-00.
Innovation & Design Process

IDP Credit 1: Innovation and Exemplary Performance
1 to 5 Points

Intent

To provide projects the opportunity to be awarded points for exceptional performance above the requirements set by the LEED for Neighborhood Development Rating System and/or innovative performance in green building, smart growth, or new urbanist categories not specifically addressed by the LEED for Neighborhood Development Rating System.

Requirements

In writing, identify the intent of the proposed innovation credit, the proposed requirement for compliance, the proposed submittals to demonstrate compliance, and the design approach and strategies that might be used to meet the requirements.

One point is awarded for each IDPc1 earned. No more than 5 IDPc1 credits may be earned.

Note: No more than 3 Exemplary Performance Credits will be awarded in the Innovation in Design category
Innovation & Design Process

IDP Credit 2: LEED Accredited Professional
1 Point

Intent

To support and encourage the planning and design integration required by a LEED for Neighborhood Development green neighborhood project and to streamline the application and certification process.

Requirements

At least one principal member of the project design team shall be a LEED Accredited Professional.

OR

At least one principal member of the project design team shall be a professional who is credentialed with regard to smart growth as determined by the Natural Resources Defense Council in consultation with Smart Growth America.

OR

At least one principal member of the project design team shall be a professional who is credentialed with regard to new urbanism as determined by the Congress for the New Urbanism.

NOTE

A separate LEED AP exam track for professionals wanting to specialize in the LEED for Neighborhood Development rating system will be available in early 2010 at which point this IDP Credit can be achieved if a principal member of the project design team is accredited as a result of passing this exam.
RP Credit 1: Regional Priority Credit
1–4 Points

Intent
To provide incentive for the achievement of credits that address geographically-specific environmental, social equity, and public health priorities.

Requirements
Earn one of the six Regional Priority credits (credits identified as having additional regional importance for the project’s location by the USGBC Regional Councils and Chapters, in conjunction with subject matter experts representing the Congress for New Urbanism chapters, or membership in regions where there is not an established Chapter, and the Growth Management Leadership Alliance or Smart Growth America). A database of Regional Priority credits and their geographic applicability will be available on the USGBC website – www.usgbc.org.

One point is awarded for each Regional Priority credit earned. No more than 4 Regional Priority credits may be earned. Non-U.S. projects are not eligible for Regional Priority credits.
Appendix : List of Diverse Uses

Retail
Convenience store
Florist
Hardware store
Pharmacy
Supermarket
Other retail

Services
Bank
Coffee shop
Hair care
Health club
Laundry/dry cleaner
Medical/dental office
Restaurant
Homeless shelter

Civic/Community Facilities
Child care (licensed)
Civic/community center
Place of worship in a building
Police/fire station
Post office
Public library
Public park
School
Senior care
Social services facility

Adapted from Criterion Planners, INDEX neighborhood completeness indicator, 2005.