

# Leadership in Energy and Environmental Design (LEED)



The need for sustainable development has become a leading issue among governments, developers, designers, builders and citizens. The Leadership in Energy and Environmental Design (LEED®) Green Building Rating System has become the accepted measure for sustainable development or green building construction within Canada. Currently, there are LEED rating systems for new construction, commercial interiors, existing building operations and management, core and shell development, homes, neighborhood development and schools. Other systems are being continually developed to promote the design, renovation, operation and construction of different types of sustainable buildings.

Navascape architectural hardscape products can be used toward achieving LEED credits in several new construction or major renovation categories:

- Sustainable Sites
- Materials and Resources:
- Innovative Ideas and Designs.

The following chart identifies the opportunities for LEED certification utilizing Navascape architectural hardscape products.

Category	Canada Green Building Council (CAGBC) Requirement	Suggested LEED Strategy	Navascape Solutions	Points
SS 6.1 Sustainable Sites	1) For impervious sites of < 50%, ensure post-development peak discharge rate does not exceed pre-development peak discharge rate and quantity for 1.5 year 24 hour storm, OR 2) For impervious sites > 50%, develop plan to reduce stormwater runoff by 25% in rate and quantity.	Utilize permeable paving or concrete grid paving	a) <b>AquaPave</b> Permeable Paving System b) <b>turfstone 80</b> and <b>turfstone 100</b> c) <b>GRANDE</b> retaining wall system for stream channel protection	1
SS 6.2 Sustainable Sites	1) Remove 80% of the post-development TSS and 40% of the post-development TP, based on average annual loadings from all storms less than or equal to two year 24 hour storm.	Natural or mechanical treatment systems	a) <b>AquaPave</b> Permeable Paving System b) <b>turfstone 80</b> and <b>turfstone 100</b>	1
SS 7.1 Sustainable Sites	1) Provide light coloured/high albedo materials (Solar Reflectance Index of at least 29) and/or open grid pavement for min. 50% of site's non-roof impervious surfaces.	Use high albedo paving stones or open grid paving	a) <b>turfstone 80</b> and <b>turfstone 100</b> b) Any <b>Navascape</b> interlocking concrete paver with completed albedo testing* c) <b>StoneTile</b> vehicular pavers with completed albedo testing*	1

Category	Canada Green Building Council (CAGBC) Requirement	Suggested LEED Strategy	Navascape Solutions	Points
SS 7.2 Sustainable Sites	1) Use roofing materials having a Solar Reflectance Index (SRI) equal to or greater than 78 for low sloped roof and 29 for steep sloped roof, OR 2) Combinations of high albedo and vegetative roof for 75% of roof surface.	Use high albedo paving and vegetative roofs	a) Any <b>Navascape</b> interlocking concrete paver with completed albedo testing b) Any <b>Navascape</b> architectural tile or slab paver with completed albedo testing* c) <b>turfstone 80</b> and <b>turfstone 100</b> with grass infill	1
MR 4.1 / 4.2 Material & Resources	1) Use materials where 100% post-consumer recycled content plus 1/2 pre-consumer content makes up at least 7.5% or 15% of total value of materials.	Identify suppliers with ability to provide recycled content in products	a) Most <b>Navascape</b> products utilize recycled content. Call <b>Navascape</b> with questions regarding specific products.	2
MR 5.1 / 5.2 Regional Materials	1) Use a minimum of 10% or 20% of building materials or products for which at least 80% of the mass is extracted, processed and manufactured within 800 km of project site.	Identify suppliers within established radii	a) <b>Navascape</b> manufacturing facilities are located in Ontario. Call <b>Navascape</b> for product specific manufacturing site."	2
MR 8 Durable Building	1) Develop and implement a plan for the building's durability.	Minimize premature deterioration of walls and roof	a) Any <b>Navascape</b> interlocking concrete paver, architectural tile or slab paver for exterior roof surface.	1
ID 1.1 / 1.2 Innovation and Design Process	1) Innovation and design exceeding current LEED addressed categories.	Strategies beyond LEED requirements	a) <b>Navascape</b> paving products life cycle b) Reuse/reinstatement capabilities of any product produced by <b>Navascape</b> (paving stones, architectural tiles, retaining walls, slab pavers).	2

\* Call Navascape for product data on reflectance and SRI values. Products under testing at time of publishing.  
 \*\*Not all products are manufactured at all facilities. Call Navascape for product specific manufacturing site.

**References:**

- 1) LEED Green Building Rating System for New Construction & Major Renovations LEED Canada-NC, Version 1, December 2009, Canada Green Building Council.
- 2) ICPI Tech Spec Number 16, Achieving LEED Credits with Segmental Concrete Pavement, 2010, ICPI

[navascape.ca](http://navascape.ca)

Contact our Engineering Department at 1 800 265 6496 for more information.

