

# 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 and the United States. 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.

Hanson's architectural landscape 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 Hanson architectural landscape products.

Category	US Green Building Council (USGBC) Requirement	Canada Green Building Council (CAGBC) Requirement	Suggested LEED Strategy	Hanson Solutions	Points
SS 6.1 Sustainable Sites	1) For imperviousness < 50%, ensure post-development peak discharge rate does not exceed pre-development peak discharge rate and quantity for one year and two year 24 hour storm, OR 2) Implement stormwater plan that protects receiving stream channels from excessive erosion using a stream channel protection plan, OR 3) For imperviousness > 50%, develop plan to reduce stormwater runoff by 25% from two year 24 hour storm.	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) Permeable paving solutions b) <b>turfstone80</b> and <b>turfstone100</b> c) <b>GRANDE</b> retaining wall for stream channel protection	1
SS 6.2 Sustainable Sites	1) Implement stormwater management plan that reduces impervious cover, promotes infiltration and captures and treats stormwater runoff from 90% of average annual rainfall, resulting in removal of 80% of the TSS.	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) Permeable paving solutions b) <b>turfstone80</b> and <b>turfstone100</b>	1
SS 7.1 Sustainable Sites	1) For 50% of hardscape: provide Solar Reflective Index of at least 29. 2) Open grid paving system.	1) Provide light coloured/high albedo materials (Solar Reflective 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>turfstone80</b> and <b>turfstone100</b> b) Any <b>Hanson</b> interlocking concrete paver with completed albedo testing c) <b>StoneTile</b> vehicular pavers with completed albedo testing*	1

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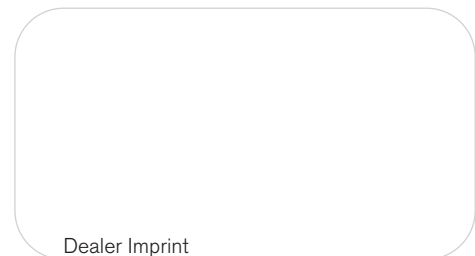
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Category	US Green Building Council (USGBC) Requirement	Canada Green Building Council (CAGBC) Requirement	Suggested LEED Strategy	Hanson Solutions	Points
SS 7.2 Sustainable Sites	1) Use roofing materials having a Solar Reflectance Index (SRI) equal to or greater than 78 for low sloped roof and 29 for steep sloped roof, OR 2) Install high albedo materials in combination with vegetated surfaces.	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) <b>turfstone80</b> and <b>turfstone100</b> with grass infill b) Any <b>Hanson</b> interlocking concrete paver with completed albedo testing* c) Any <b>Hanson</b> architectural tile or slab paver with completed albedo testing*	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 10% or 20% of total value of materials.	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>Hanson</b> products utilize recycled content. Call <b>Hanson</b> with questions regarding specific products.	2
MR 5.1 / 5.2 Regional Materials	1) Use building materials or products that have been extracted, harvested or recovered and manufactured within 500 miles of project site for 10% or 20% of the total materials value.	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>Hanson</b> manufacturing facilities are located in Ontario, Michigan and Florida. Call <b>Hanson</b> for product specific manufacturing site.**	2
MR 8 Durable Building	n/a	1) Develop and implement a plan for the building's durability.	Minimize premature deterioration of walls and roof	a) Any <b>Hanson</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.	1) Innovation and design exceeding current LEED addressed categories.	Strategies beyond LEED requirements	a) <b>Hanson</b> paving products life cycle b) Reuse/reinstatement capabilities of any product produced by <b>Hanson</b> (retaining walls, paving stones, architectural tiles, slab pavers).	2

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

**References:**

- 1) LEED-NC, Green Building Rating System for New Construction & Major Renovations, version 2.2, October 2005, US Green Building Council.
- 2) LEED Green Building Rating System for New Construction & Major Renovations LEED Canada-NC, Version 1, December 2004, Addendum 1.0, March 2007, Canada Green Building Council.
- 3) ICPI Tech Spec Number 16, Achieving LEED Credits with Segmental Concrete Pavement, 2005, ICPI



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

