



The following Summary outlines the strategies that are being considered in pursuit of LEED certification for the Old Town Parking Deck Project located in the Old Town section of Traverse City. The LEED Green Building Rating System for New Construction is a set of performance standards for certifying the design and construction of commercial buildings, both public and private. The intent is to promote healthful, durable, affordable, and environmentally sound practices in building design and construction. Prerequisites and credits in the LEED system address 7 topics:

- Sustainable Sites (SS)
- Water Efficiency (WE)
- Energy and Atmosphere (EA)
- Materials and Resources (MR)
- Indoor Environmental Quality (IEQ); note, no credits in this section will be applicable based upon the fact that this structure will accommodate no full time occupants (FTE)
- Innovation and Design (ID)
- Regional Priority (RP)

Work Plan

The following are the minimum credits the Old Town Project is seeking in order to meet the minimum requirements for a “Certified” building.

SUSTAINABLE SITES (SS)

Construction Activity Pollution Prevention: SS - Prerequisite 1

Intent: To reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation through temporary and permanent seeding, mulching and silt fencing.

Development Density and Community Connectivity: SS - Credit 2

Intent: To reduce Construct a building on a previously developed site, is within a ½ mile of a residential area or neighborhood with an average density of 10 units per acre, has pedestrian access to basic services within ½ mile such as banks, restaurants, salons, etc.

Brownfield Redevelopment: SS - Credit 3

Intent: Develop on a site defined as a Brownfield by a local, state or federal government agency.

Alternative Transportation – Low-emitting and Fuel-efficient Vehicles: SS - Credit 4.3

Intent: To promote use of low-emitting and fuel efficient vehicles by providing a discounted parking rate that is discounted by at least 20% or installing alternative-fuel fueling stations for 3% of the total parking capacity of the site.

Stormwater Design – Quantity Control: SS - Credit 6.1

Intent: Sites with existing imperviousness greater than 50%. Implement a stormwater management plan that results in a 25% decrease in the volume of stormwater run-off from the 2-year 24-hour design storm.

Stormwater Design – Quality Control: SS - Credit 6.2

Intent: Implement a stormwater management plan that reduces impervious cover, promotes infiltration and captures and treats the stormwater runoff from 90% of the average annual rainfall using acceptable best management practices (BMPs). BMPs used to treat runoff must be capable of removing 80% of the average annual post development total suspended solids (TSS) load based on monitoring reports.

Heat Island Effect – Non-Roof: SS - Credit 7.1

Intent: 50% of the site's hardscape uses materials with a Solar Reflectance Index of at least 29 and/or use an open grid paving system (at least 50% pervious).

Heat Island Effect – Roof: SS - Credit 7.2

Intent: Install high-albedo and vegetated roofs to reduce heat absorption.

Light Pollution Reduction: SS - Credit 8

Intent: To minimize light trespass from the building and site, reduce sky-glow to increase night sky access, and improve nighttime visibility through glare reduction.

Water Efficiency (WE)

Water Use Reduction: WE - Prerequisite 1

Intent: To increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.

Water Efficient Landscaping: WE Credit 1

Intent: Reduce potable water consumption for irrigation by 50% from a calculated midsummer baseline case or install landscaping that does not require permanent irrigation systems.

Innovative Wastewater Technologies: WE Credit 2

Intent: Reduce potable water use for sewage conveyance by 50% through the use of water-conserving fixtures or nonpotable water.

Water Use Reduction: WE Credit 3

Intent: Employ strategies that in aggregate use less water than the water use baseline, providing a water savings percentage reduction of at least 30%.

Energy and Atmosphere (EA)

Fundamental Commissioning of Building Energy Systems: EA - Prerequisite 1

Intent: To verify that the project's energy-related systems are installed, and calibrated to perform according to the owner's project requirements, basis of design and construction documents.

Optimize Energy Performance: EA Credit 1

Intent: To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use. Target minimum energy cost savings of 20%.

On-site Renewable Energy: EA Credit 2

Intent: Use on-site renewable energy systems to offset building energy costs. After discussing considerations for solar hot water, wind and photo-voltaic systems with NMC's MTEC group it was determined the photo-voltaic panels would be the most reliable and efficient renewable energy technology. Target minimum percentage of renewable energy 1%.

Materials and Resources (MR)

Storage and collection of Recyclables: MR - Prerequisite 1

Intent: Provide an easily-accessible dedicated area for the collection and storage of materials for recycling. Materials must include, at a minimum: paper, corrugated cardboard, glass, plastics and metals.

Construction Waste Management: MR – Credit 2

Intent: Project target is diverting a minimum of 75% from disposal in landfills. This will be accomplished primarily through pre-engineered precast concrete systems which will require minimal waste on-site.

Regional Materials: MR – Credit 5

Intent: Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site with a target percentage of 20%, based on cost, of the total materials value.

Indoor Environmental Quality (IEQ)

Based on the building type having no full time occupants (FTE) the project is not eligible to pursue any credits in this category.

Innovation in Design (ID)

Exemplary Performance

Intent: Achieve exemplary performance in an existing LEED 2009 for New Construction credit for achieving the next incremental percentage threshold of existing credits. Targeted credits include **Construction Waste Management: MR – Credit 2** and **Regional Materials: MR – Credit 5**.

Regional Priority (RP)

Intent: To provide an incentive for the achievement of credits that address geographically-specific environmental priorities. Prioritized credits for the Old Town Deck project location include:

Sustainable Sites: SS – Credit 1

Sustainable Sites: SS – Credit c4.1

Sustainable Sites: SS – Credit c5.1

Water Efficiency: WE – Credit 1, Option 2

Material and Resources: MR – Credit 7

ARCHITECTS



LEED 2009 for New Construction and Major Renovation Project Scorecard

Project Name: OLD TOWN PARKING DECK
Project Address: TRAVERSE CITY, MICHIGAN

Yes	?	No			
15		11		SUSTAINABLE SITES	26 Points

Y					
	Prereq 1	Construction Activity Pollution Prevention			Required
1	Credit 1	Site Selection			1
5	Credit 2	Development Density and Community Connectivity			5
1	Credit 3	Brownfield Redevelopment			1
	6	Credit 4.1	Alternative Transportation - Public Transportation Access		6
	1	Credit 4.2	Alternative Transportation - Bicycle Storage and Changing Rooms		1
3	Credit 4.3	Alternative Transportation - Low-Emitting and Fuel-Efficient Vehicles			3
	2	Credit 4.4	Alternative Transportation - Parking Capacity		2
	1	Credit 5.1	Site Development - Protect or Restore Habitat		1
	1	Credit 5.2	Site Development - Maximize Open Space		1
1	Credit 6.1	Stormwater Design - Quantity Control			1
1	Credit 6.2	Stormwater Design - Quality Control			1
1	Credit 7.1	Heat Island Effect - Nonroof			1
1	Credit 7.2	Heat Island Effect - Roof			1
1	Credit 8	Light Pollution Reduction			1

Yes	?	No			
4		4		WATER EFFICIENCY	10 Points

Y					
	Prereq 1	Water Use Reduction			Required
2	Credit 1	Water Efficient Landscaping			2 to 4
		2	Reduce by 50%		2
		4	No Potable Water Use or Irrigation		4
	2	Credit 2	Innovative Wastewater Technologies		2
2	Credit 3	Water Use Reduction			2 to 4
			Reduce by 30%		2
			Reduce by 35%		3
			Reduce by 40%		4

6		8			
				ENERGY & ATMOSPHERE	35 Points

Y					
	Prereq 1	Fundamental Commissioning of Building Energy Systems			Required
	Prereq 2	Minimum Energy Performance			Required
	Prereq 3	Fundamental Refrigerant Management			Required
5	Credit 1	Optimize Energy Performance			1 to 19
			Improve by 12% for New Buildings or 8% for Existing Building Renovations		1
			Improve by 14% for New Buildings or 10% for Existing Building Renovations		2
			Improve by 16% for New Buildings or 12% for Existing Building Renovations		3
			Improve by 18% for New Buildings or 14% for Existing Building Renovations		4
			Improve by 20% for New Buildings or 16% for Existing Building Renovations		5
			Improve by 22% for New Buildings or 18% for Existing Building Renovations		6
			Improve by 24% for New Buildings or 20% for Existing Building Renovations		7
			Improve by 26% for New Buildings or 22% for Existing Building Renovations		8
			Improve by 28% for New Buildings or 24% for Existing Building Renovations		9
			Improve by 30% for New Buildings or 26% for Existing Building Renovations		10
			Improve by 32% for New Buildings or 28% for Existing Building Renovations		11
			Improve by 34% for New Buildings or 30% for Existing Building Renovations		12
			Improve by 36% for New Buildings or 32% for Existing Building Renovations		13
			Improve by 38% for New Buildings or 34% for Existing Building Renovations		14
			Improve by 40% for New Buildings or 36% for Existing Building Renovations		15
			Improve by 42% for New Buildings or 38% for Existing Building Renovations		16
			Improve by 44% for New Buildings or 40% for Existing Building Renovations		17
			Improve by 46% for New Buildings or 42% for Existing Building Renovations		18
			Improve by 48%+ for New Buildings or 44%+ for Existing Building Renovations		19
1	Credit 2	On-Site Renewable Energy			1 to 7
			1% Renewable Energy		1
			3% Renewable Energy		2
			5% Renewable Energy		3
			7% Renewable Energy		4
			9% Renewable Energy		5
			11% Renewable Energy		6
			13% Renewable Energy		7
	2	Credit 3	Enhanced Commissioning		2
		Credit 4	Enhanced Refrigerant Management		2
		Credit 5	Measurement and Verification		3
		Credit 6	Green Power		2



LEED 2009 for New Construction and Major Renovation Project Scorecard

Project Name: OLD TOWN PARKING DECK
Project Address: TRAVERSE CITY, MICHIGAN

Yes ? No
Yes ? No

4 1 MATERIALS & RESOURCES 14 Points

Y	Prereq 1	Storage and Collection of Recyclables	Required
Y	Credit 1.1	Building Reuse - Maintain Existing Walls, Floors and Roof	1 to 3
		Reuse 55%	1
		Reuse 75%	2
		Reuse 95%	3
Y	Credit 1.2	Building Reuse - Maintain Interior Nonstructural Elements	1
2	Credit 2	Construction Waste Management	1 to 2
		50% Recycled or Salvaged	1
		75% Recycled or Salvaged	2
Y	Credit 3	Materials Reuse	1 to 2
		Reuse 5%	1
		Reuse 10%	2
Y	Credit 4	Recycled Content	1 to 2
		10% of Content	1
		20% of Content	2
2	Credit 5	Regional Materials	1 to 2
		10% of Materials	1
		20% of Materials	2
Y	Credit 6	Rapidly Renewable Materials	1
Y	Credit 7	Certified Wood	1

Yes ? No

INDOOR ENVIRONMENTAL QUALITY 15 Points

Y	Prereq 1	Minimum Indoor Air Quality Performance	Required
Y	Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
Y	Credit 1	Outdoor Air Delivery Monitoring	1
Y	Credit 2	Increased Ventilation	1
Y	Credit 3.1	Construction Indoor Air Quality Management Plan - During Construction	1
Y	Credit 3.2	Construction Indoor Air Quality Management Plan - Before Occupancy	1
Y	Credit 4.1	Low-Emitting Materials - Adhesives and Sealants	1
Y	Credit 4.2	Low-Emitting Materials - Paints and Coatings	1
Y	Credit 4.3	Low-Emitting Materials - Flooring Systems	1
Y	Credit 4.4	Low-Emitting Materials - Composite Wood and Agrifiber Products	1
Y	Credit 5	Indoor Chemical and Pollutant Source Control	1
Y	Credit 6.1	Controllability of Systems - Lighting	1
Y	Credit 6.2	Controllability of Systems - Thermal Comfort	1
Y	Credit 7.1	Thermal Comfort - Design	1
Y	Credit 7.2	Thermal Comfort - Verification	1
Y	Credit 8.1	Daylight and Views - Daylight	1
Y	Credit 8.2	Daylight and Views - Views	1

Yes ? No

3 1 INNOVATION IN DESIGN 6 Points

2	Credit 1	Innovation in Design	1 to 5
		Innovation or Exemplary Performance	1
		Innovation or Exemplary Performance	1
		Innovation or Exemplary Performance	1
		Innovation	1
		Innovation	1
1	Credit 2	LEED [®] Accredited Professional	1

Yes ? No

1 3 REGIONAL PRIORITY 4 Points

1	Credit 1	Regional Priority	1 to 4
		Regionally Defined Credit Achieved	1
		Regionally Defined Credit Achieved	1
		Regionally Defined Credit Achieved	1
		Regionally Defined Credit Achieved	1

Yes ? No

33 28 PROJECT TOTALS (Certification Estimates) 110 Points

Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points