Ontario

Ministry of Transportation

GREENPAVE

Ontario's Pavement Sustainability Rating System

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INTRODUCTION OF GREENPAVE

- A simplified rating system based on LEED and GreenRoads, but customized for Ontario, with a focus on pavement components
- A tool to raise awareness of sustainable technologies and processes
- The goal is to enhance the sustainability of Ontario's transportation infrastructure through designing and selecting sustainable pavement treatment alternatives
- GreenPave consists of two components:
  - Design: Provide guidance to designers to select "green" pavement alternatives
  - Construction: Encourage contractors to incorporate "green" practices

Category	Goal	Points
Pavement Design Technologies	To optimize sustainable designs. These include long life pavements, permeable pavements, noise mitigating pavements, and pavements that minimize the heat island effect	9
Materials & Resources	To optimize the use/reuse of recycled materials and to minimize material transportation distances	11
Energy & Atmosphere	To minimize energy consumption and GHG emissions	8
Innovation & Design Process	To recognize innovation and exemplary efforts made to foster sustainable pavement designs	4
	Maximum Total:	**32**

Category

Sub-Category

Pavement Technologies — *9 Points*

- **Long-Life Pavements** — *3 Points*
- **Permeable Pavements** — *2 Points*
- **Noise Mitigation** — *2 Points*
- **Cool Pavements** — *2 Points*

Materials & Resources — *11 Points*

- **Recycled Content** — *5 Points*
- **Undisturbed Pavement Structure** — *2 Points*
- **Local Materials** — *2 Points*
- ***Construction Quality** — *2 Points*

Energy & Atmosphere — *8 Points*

- **Reduce Energy Consumption** — *3 Points*
- **GHG Emissions Reduction** — *3 Points*
- ***Pavement Smoothness** — *1 Point*
- ***Pollution Reduction** — *1 Point*

Innovation & Design Process — *4 Points*

- **Innovation in Design** — *2 Points*
- **Exemplary Process** — *2 Points*

***Asterisk designates subcategory applicable to constructed pavements only**

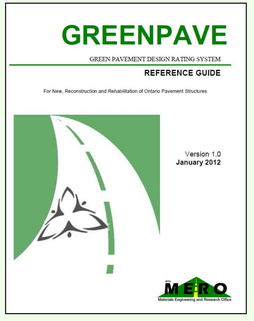
GreenPave certified — BRONZE — 10 to 15 points

GreenPave certified — SILVER — 15 to 20 points

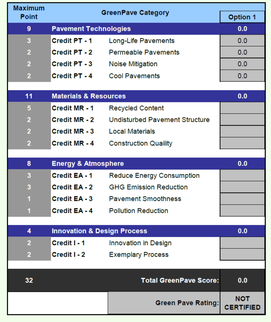
GreenPave certified — GOLD — 20+ points

GreenPave certified — TRILLIUM — Future Development Stage

GREENPAVE DOCUMENTS



MTO GreenPave Guideline



Maximum Point	GreenPave Category		Option 1
9	**Pavement Technologies**		0.0
3	Credit PT - 1	Long-Life Pavements	0.0
2	Credit PT - 2	Permeable Pavements	0.0
2	Credit PT - 3	Noise Mitigation	0.0
2	Credit PT - 4	Cool Pavements	0.0
11	**Materials & Resources**		0.0
5	Credit MR - 1	Recycled Content	
2	Credit MR - 2	Undisturbed Pavement Structure	
2	Credit MR - 3	Local Materials	
2	Credit MR - 4	Construction Quality	
8	**Energy & Atmosphere**		0.0
3	Credit EA - 1	Reduce Energy Consumption	
3	Credit EA - 2	GHG Emission Reduction	
1	Credit EA - 3	Pavement Smoothness	
1	Credit EA - 4	Pollution Reduction	
4	**Innovation & Design Process**		0.0
2	Credit I - 1	Innovation in Design	
2	Credit I - 2	Exemplary Process	
32		**Total GreenPave Score:**	0.0
		Green Pave Rating:	NOT CERTIFIED

Snapshot of GreenPave Worksheet

CONCLUSIONS & RECOMMENDATIONS

- GreenPave has been implemented internally. The next phase is to officially roll out to consultants, industry and stakeholders by developing workshops, seminars and training sessions to promote GreenPave
- To date we have evaluated 64 pavement design projects and 25 of which were GreenPave certified (~40% GreenPave certified)
- Recommend setting a target to obtain a specified number of green pavement certified designs per year
- Explore opportunities to expand the MTO GreenPave model to incorporate other highway design components