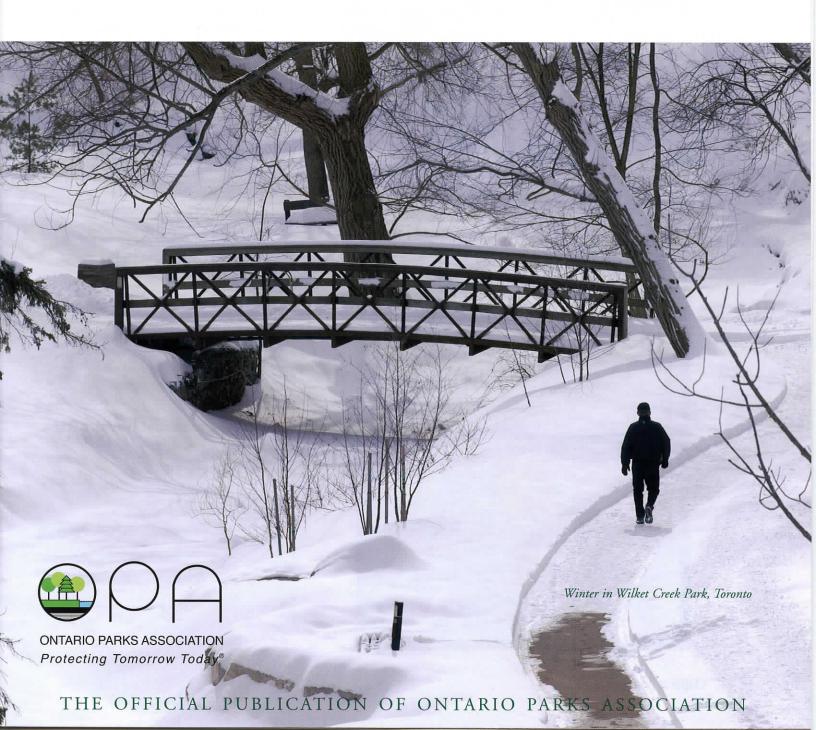


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Playground Surfacing Pitfalls

ou get that sinking feeling in your stomach as you hear or read the words "your playground surface does not pass the requirements of the CSA Z614 Standard". The first question is what do I do and the second is What Went WRONG?

Your playspace and playground surface will eventually get inspected and tested. For a Child Care facility, testing is mandated as a part of annual licensing. Schools, municipalities and public entities have risk managers or insurance carriers that will mandate the inspections. Hopefully the inspection is not the result of a fall to a surface and a severe injury.

Ultimately the owner/operator is responsible for the entire playground including the surface to meet the CSA Z614 as a minimum and that includes regular inspections and maintenance.

Municipalities have the added responsibility, since they have access to specialist that are directly employed for design and contract administration or outside architects and landscape architects that provide professional services. Once the surface has been installed, it will be maintained by personnel, who have had the opportunity to avail themselves of courses from the Ontario Playground Academy and they will

understand the issues involved with Standards compliance and best practices. There is also the work that the Ontario Parks Association has done for the past 15 years with "Its Time to Stop Playing Around" and other information that has been disseminated at the OPA Annual Educational Seminar and Explorations Trade Shows and other conventions over the years. As a result the expected level of knowledge and therefore compliance is very high.

The minimum Standard of care is the CSA Z614 which requires that when the surface is tested the Gmax value (maximum acceleration experienced during an impact) shall not

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Brampton Staff Share Story of Renaturalizing Valleys

uring the Ontario Parks
Association Conference held
in Brampton, July 20th and
21st, City employees shared the success of the first three years of a 10year plan to re-naturalize Brampton's
valley land.

"To be able to witness what has happened in the valleys in the last three years is quite dramatic," said OPA President, Bruce Hay, Manager of Parks Operations for the City. "Naturalization of these valleys is creating wildlife habitat, erosion protection and recreation opportunities where, due to development, these opportunities were eliminated."

Hay, along with Karl Walsh, Director of Community Design, Parks Planning and Development; Werner Kuemmling, landscape architect with the City; and Aaron Fox, a landscape architect with Baker Turner Inc.; shared the story of a private-public partnership between the City and Sheridan Nurseries Inc.

Kuemmling spoke about the impact of early Brampton settlers who "denuded the valleys of vegetation from logging and agriculture." Working with community partners that include the conservation authorities and developers, City Council and staff created a plan to re-naturalize environmentally-sensitive lands.

In 2002, Brampton issued a tender for a company who could provide large and frequent supplies of native trees and shrubs. The first phase of the plan included re-naturalizing Fletchers Creek Valley.

"We believe that this project is already a success, and look forward to seeing the valley lands continue to grow and flourish," Walsh told conference-goers. "The ultimate test, of course, of the planting will be determined by the citizens of Brampton."

The OPA conference held July 20th and 21st, co-sponsored by Sheridan Nurseries, featured an all-star lineup of industry experts and motivational speakers. NHL Coach of the Year Tom Watt, best-selling author and keynote speaker on leadership Jim Clemmer and University of Guelph Professor and toxicology expert Len Ritter spoke and inspired conference delegates.

"This was an excellent conference, and one that will be remembered by those parks professionals from across Ontario in attendance," said City Councillor John Hutton. "When you talk about Groundwork for Success, the theme of the conference, you can see that parks professionals in Brampton lay the groundwork and achieve that success for our citizens."

The City of Brampton is responsible for the operation and maintenance of more than 350 parks, 150 kilometres of trails and more than 3,800 acres of parkland. For information about services offered by Parks and Recreation, visit the City's website at www.brampton.ca.

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exceed 200 and the HIC (Head Injury Criteria) shall not exceed 1000 from the specified drop height. At 1000 HIC everyone will have a head injury; and a 99% risk of it being minor (fractured nose and teeth), 90% risk of it being moderate (non-dislocated fracture and brief loss of consciousness), 4% risk of loosing consciousness for 12 hours and having non-recoverable brain damage. The risk of death begins at 1000 HIC. Therefore being compliant to the CSA Z614 only protects children from a life-threatening or debilitating head injury.

To make sure you don't get caught with a failure of your playground surface you can follow a few simple recommendations;

1. Make sure your supplier has the required laboratory surface testing for the heights from which you think your children will fall;

The ASTM F1292 requires that all surface manufacturers shall provide this certificate. For many organizations that purchase sand or pea gravel, they do not seem to understand this and assume that these are not manufactured materials. Ask your supplier if they process the material before delivering or if it is naturally occurring. Why did they spend millions on crushers, screens and washers if not to manufacture? In the case of sand or pea gravel, this information will assist the maintenance crews in buying additional materials in the future when there is a need to

2. Request a list of references that are at least 5 years old and talk with them;

It is important to discuss with other purchasers of similar products about the history of those surfaces and any compliance or warranty issues that have been noted. One would hope that other municipalities and members of OPA would want to provide assistance to their colleagues.

3. Ask for a certificate of playground product liability insurance (this is not just contractors insurance, it must have the word playground in the certificate)

Since 70% of all injuries in playgrounds are the results of falls, it is important to know whether you are on the liability hook for a non compliant surface or is your supplier joining you in your hour of need. The only way you will know this is to have your surface supplier provide a certificate of product liability insurance, naming the owner and specifically covering playgrounds.

4. Specify that the surface must provide a Gmax <150 and HIC <850 from the tops of all horizontal railings and climbers and give yourself some maneuver margin;

The CSA Z614 and ASTM F1292 stipulate that the Gmax shall not exceed 200 and the HIC shall not exceed 1000 at any time that the playground is in operation. The standards also stipulate that should the values be exceeded, the play structure is to be taken out of service until the surface complies. With a loose fill material corrections and topping up is easy, whereas with a synthetic surfaces you will be dependent upon your supplier. Starting with lower values initially gives the playground years to start to reach the failure point. Measuring from the tops of barriers provides protection from where children fall and gets the owner to where the CSA Z614 is expected to go in its next revision.

5.Don't pay for the surface until it has been initially tested and passes your requirements;

When a playground surface is purchased there is a commitment on the part of the surfacing supplier to install a surface that meets the CSA Z614 as a minimum and a better performance as a preferably. The obligation on the part of the owner is to pay for the surface, but not until it has been tested on site.

6. Require that the warranty cover the passing of the impact test for the warranty period;

Since the surface must continue to meet the impact attenuation performance of the CSA Z614, this is the cornerstone of any warranty. Other factors specific to the material would be important. It is also important to have a warranty period that covers the owner for a number of years.

7. Get the maintenance instructions for the surface and follow them; Every surface will require maintenance and the supplier of the surface must provide the procedures necessary to keep the surface in service. For loose fill materials there should also be enough description of the original materials to allow for the purchase of the same material in the future when topping up becomes necessary.

8. Test the surface annually and have your surfacing supplier make corrections immediately;

Since a surface must continue to pass, the only way to know is to test on an annual basis. Although it is never good news to have a failure, it could trigger a warranty claim or remedial action before a problem becomes unmanageable.

A good strategy to avoid surfacing problems is to involve a person that has been trained and has the tools and experience required to perform the playground inspections. They will be able to act as a specialist to help you in the development of your specifications and contract management. The selection, installation and maintenance of playgrounds and surfaces are specialized and technical subjects and need expertise. There are people who have dedicated many years to the issues related to playground standards and compliance. A group of dedicated playground professionals can be found at the web site for the Canadian Association of Playground Practitioners, http://www.capp-online.ca/.

Those interested in the ongoing issues in playgrounds might want to join CAPP and participate in the networking of ideas. The best part is that the membership for associates is free for the first year. You might gain some information, develop contacts and share information that will make playgrounds a better place.

Your playground should be worry free and with a little bit of effort, networking and following the above list, inspections should not be a source of dread.

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A vulture boards an airplane, carrying two dead raccoons.
The stewardess looks at him and says, "I'm sorry, sir, only one carrion allowed per passenger."