Sustainable infrastructure is development that meets the needs of present society without compromising the ability of future generations to meet their own.
Innovative solutions for the urban landscape.

Making grey cities green.
Importance of Trees in Green Infrastructure

TREES = BMP’s
The Challenges of Green Infrastructure in the Urban Environment
The average life span of a tree in an urban environment is only 3 to 8 years.
INSUFFICIENT ROOT GROWTH
IRRIGATION
INSUFFICIENT SOIL VOLUME
INFRASTRUCTURE DAMAGE
AERATION
SOIL COMPACTION
Are We Leading the way in Sustainable Infrastructure?
Healthy root systems MAKE FOR Healthy trees and sustainable stormwater management.
Compacted Soil
The results of Compacted Soil
UNDERSTANDING THE REQUIREMENTS FOR Sustainable Infrastructure
UNDERSTANDING WHY WE REQUIRE SYSTEMS LIKE Soil Cells
THE IMPORTANCE OF Uncompacted Soil
Importance of Void Space and Structural Capacity
Soil Cells

Structural Soil

1 YEAR INSTALLATION

VS

Bartlett Tree Labs – Charlotte, NC
SOIL CELLS FOR STORMWATER WITH Pervious Surfaces
SOIL CELLS FOR STORMWATER WITH Retention or Detention
Stormwater Storage
SOIL CELLS FOR STORMWATER IN Parking Lots
Stormwater Harvesting
STORMWATER MANAGEMENT

ArborFlow
STORMWATER MANAGEMENT

ArborFlow
ArborFlow Installation Dundee
ArborFlow Installation Dundee
Water flowing into the system from parking lot strip drain.

Shows outlet drain - no water flow outwards after 2 hours of rainfall, demonstrating attenuation in action. Some post installation debris visible. This is 80" (2m) down.
STORMWATER MANAGEMENT

DEVELOPMENT TYPE: Small scale commercial with carpark
SITE AREA: 0.42 ha - 98% Impervious

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Base Case</th>
<th>Test Case</th>
<th>SEQ Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSS</td>
<td>60% - 1.2 kg/y</td>
<td>83% - 867 kg/y</td>
<td>95% - 975.4 kg/y</td>
</tr>
<tr>
<td>TP</td>
<td>60% - 1.4 kg/y</td>
<td>73% - 1.4 kg/y</td>
<td></td>
</tr>
<tr>
<td>TN</td>
<td>49% - 4.6 kg/y</td>
<td>64% - 6 kg/y</td>
<td></td>
</tr>
</tbody>
</table>

Best practice requirements: 65 kg of sediment each year
Planted in ArborFlow*: 75 kg of sediment each year (10kg more than best practice requirements)
TREE SURROUND

Resin Bonded Aggregate
STORMWATER MANAGEMENT

Linear Drain
STORMWATER MANAGEMENT

CurbFlow
STORMWATER MANAGEMENT

Water Channel
Applications

Streetscapes & Parking Lots

GreenBlue URBAN®
Case Study

Before

Riverwalk, Chicago
Case Study
During Riverwalk, Chicago
Case Study
Portland Slip
Toronto, ON
Case Study

Before

Navy Pier, Chicago
After
Navy Pier, Chicago
2017
Navy Pier, Chicago
Case Study

Pace University
New York City, NY
Case Study

Thunder Bay Regional Hospital
Thunder Bay, ON
Installation
Sustainable Infrastructure Starts in Design!!
Design Services

Our FREE design services and best-practice consulting make it easy to incorporate high quality tree pit layouts into your design.