

Permeable Interlocking Unit Paving Systems

Presented by Trowel Trades Supply



What is Permeable Unit Paving?

- A variation of standard unit paving that allows water surcharge to drain through the system and return to the ground water
- A storm water management tool that filters out particulates and manages run-off
- A flexible paving system that has applications ranging from municipal roads, parking lots, and residential patios
- A durable paving surface that allows for easier utility repairs

Why Permeable Paving?



Increasing Intense Rainstorms



Jamaica, VT

2021

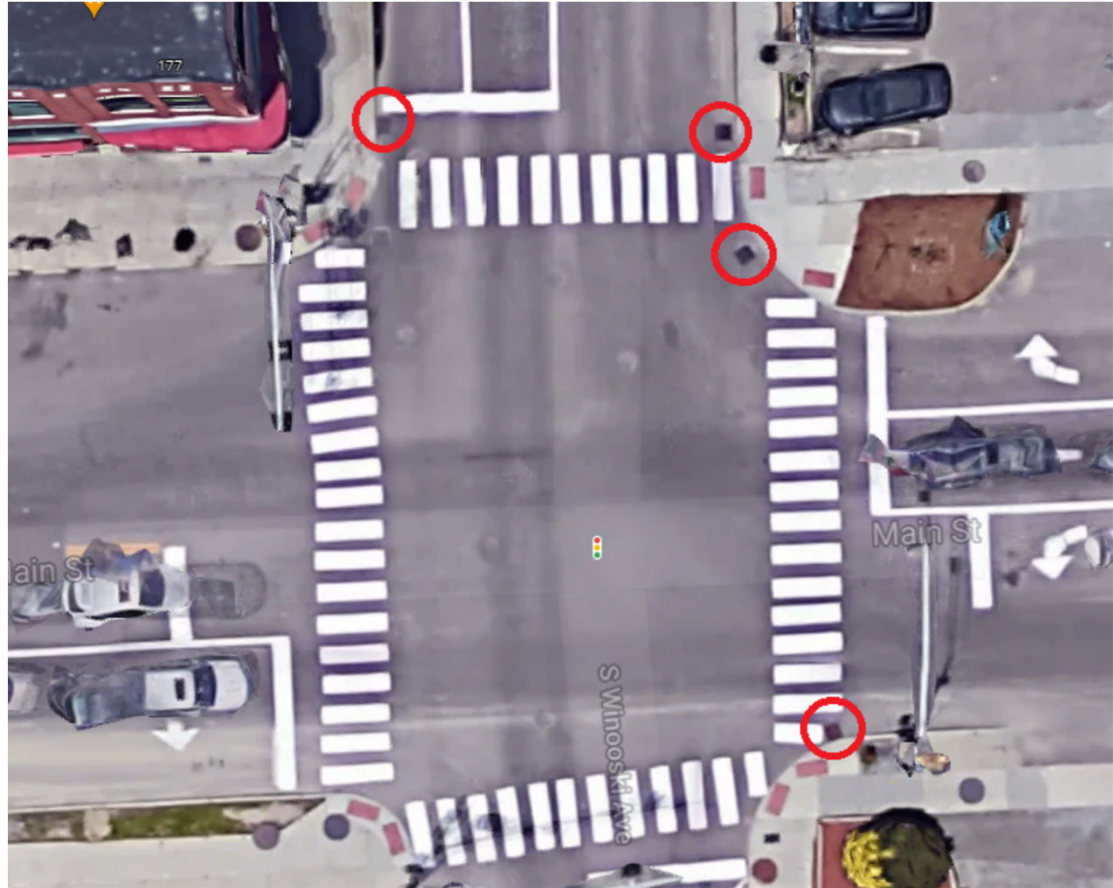


Main St
Burlington, VT

2014

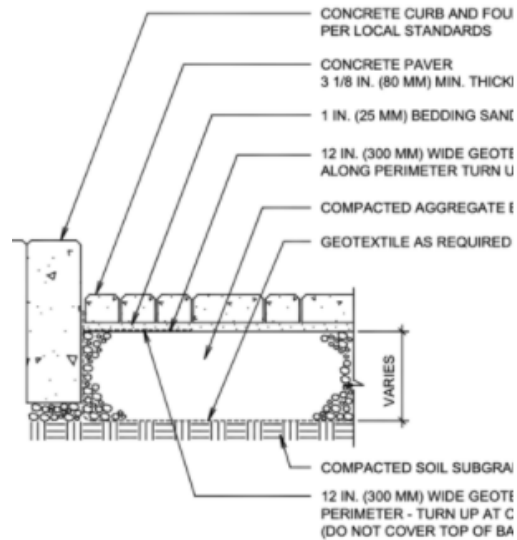


Main St
Burlington, VT
4 Storm Drains

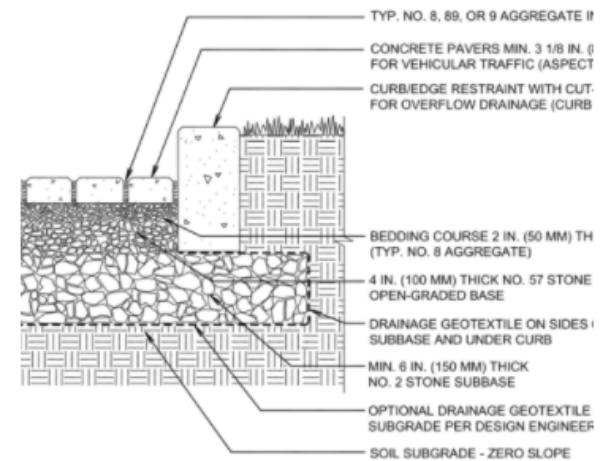


Typical Cross-Section

Standard Interlocking Concrete Paving

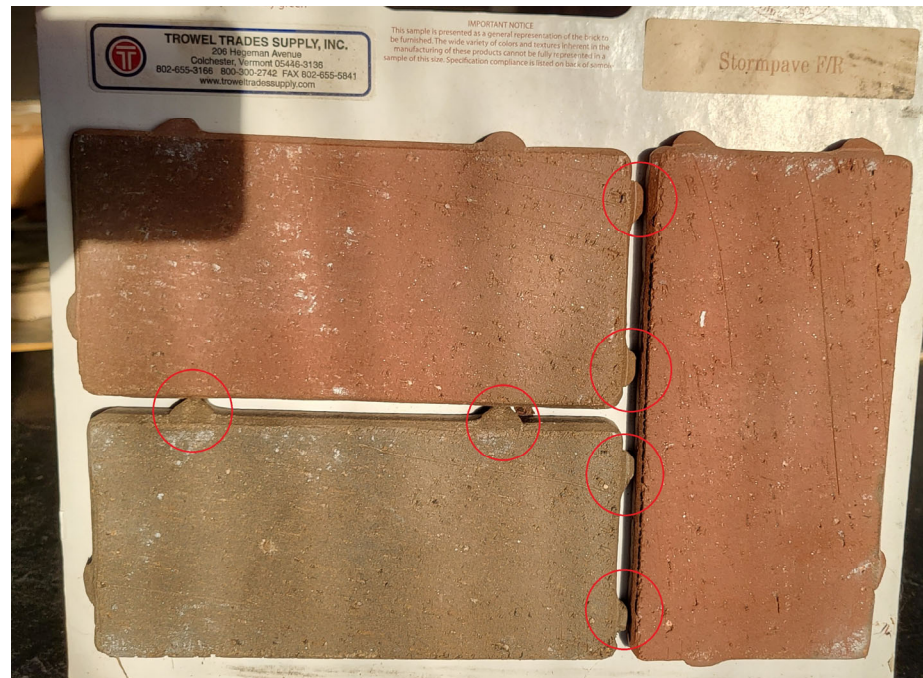


Permeable Interlocking Concrete Paving



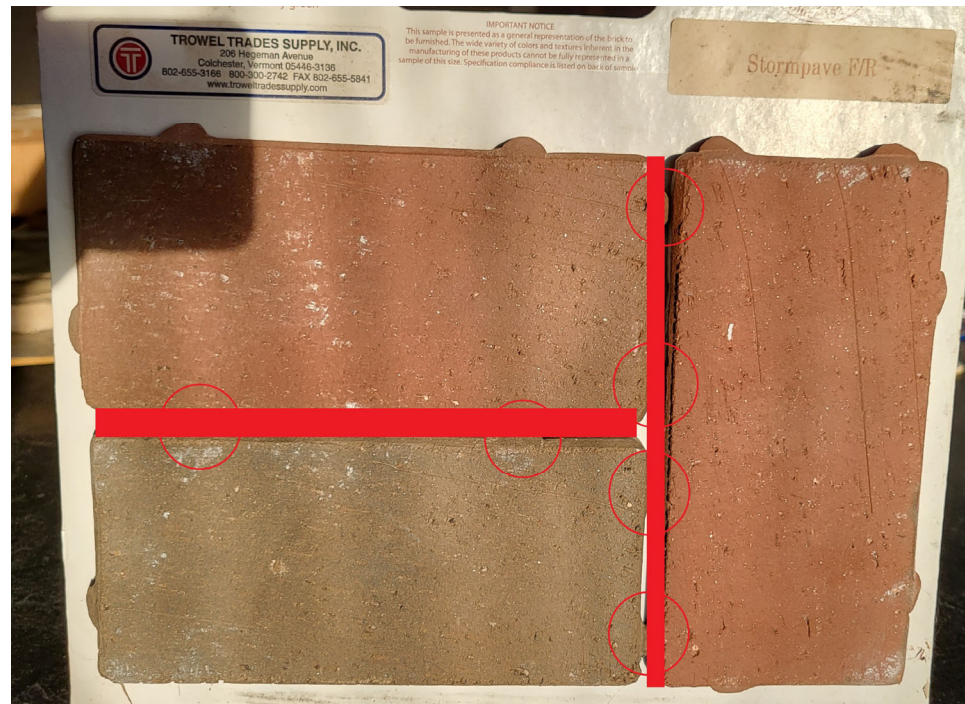
Maintained
 $\frac{1}{4}$ " Joint

Premeable Lugs & Joints



Maintained
 $\frac{1}{4}$ " Joint

Premeable Lugs & Joints



Case Study #1

Ticonic Hotel – Manchester, VT



Base Prep

Ticonic Hotel – Manchester, VT



Setting Bed

Ticonic Hotel – Manchester, VT



Laying & Cutting

Ticonic Hotel – Manchester, VT



Case Study #2

Marriot – Burlington, VT



Existing Site

Marriot – Burlington, VT



Base Prep

Marriot – Burlington, VT



Laying & Cutting

Marriot – Burlington, VT



Private Residence

Middlebury, VT



Private Residence

Burlington, VT



Private Residence

Shelburne, VT



Permeable Poured Concrete

Champlain College



Permeable Poured Concrete

Due to limited freeze/thaw resistance the entire surface of the installation failed after one winter



Champlain College

The entire project was demoed and replaced with permeable unit pavers



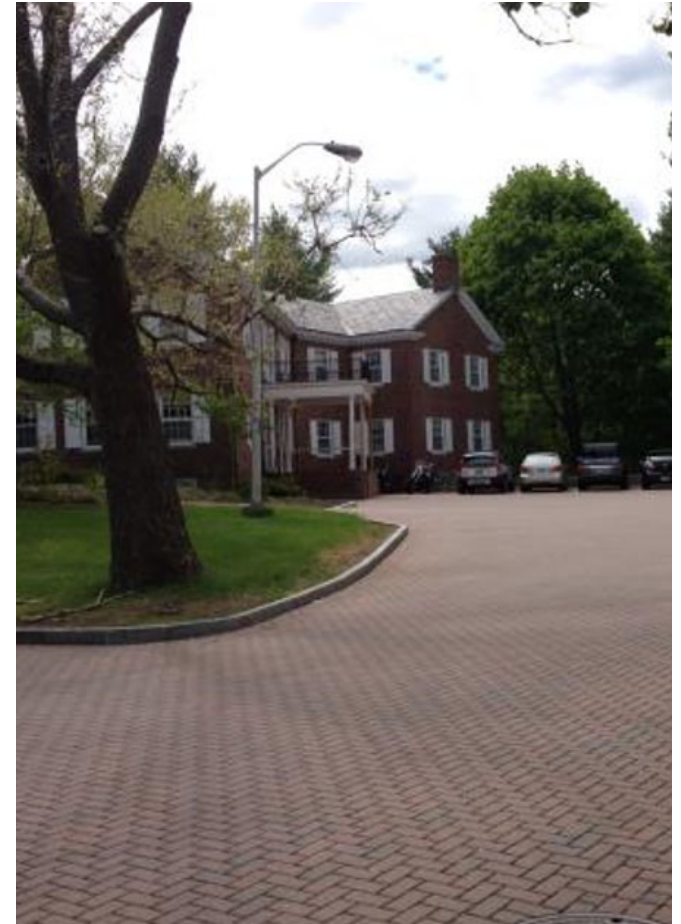
UHN Study on Permeable Paving

Permeable systems work in northern climates

The systems assist with ice build up

The system performed flawlessly with little to no maintenance

Water exiting the system had over 93% of the solid particulates removed



Maintenance After Installation

Monitor for areas that are clogged

Free debris out of troublesome areas

Reinstall areas that continue to have drainage issues

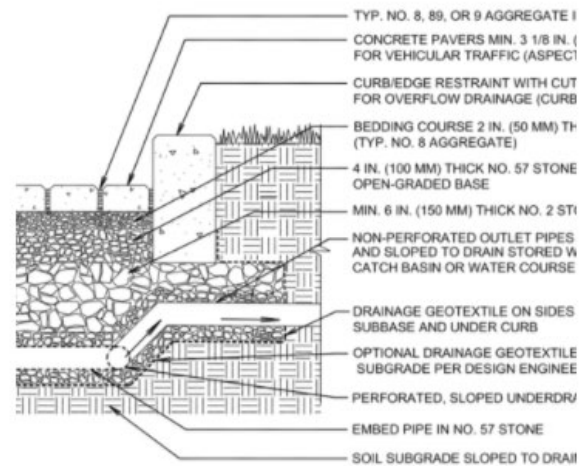


Utility Repair

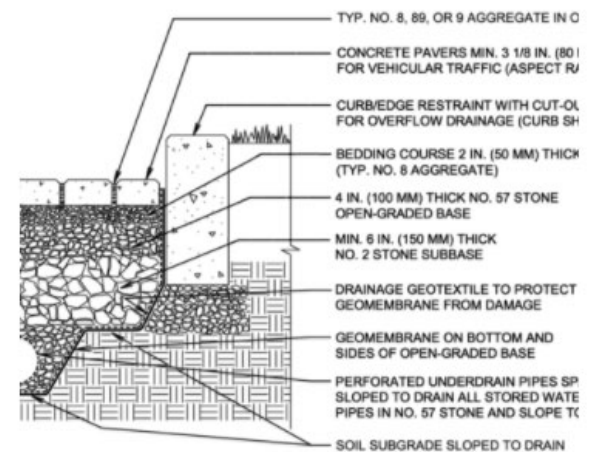
Interlocking Unit Paving Systems allow for simplified utility repair and can be removed and replaced with damage to paving units themselves



Alternative Construction Details



Permeable Pavement with Partial Exfiltration to Soil Subgrade



Permeable Pavement with No Exfiltration to Soil Subgrade

Additional Products & Accessories

PermEdge



Permeable Spacers



Budget & Costs

Questions?