Tracking Disconnections and Maintaining LID

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Tracking – spreadsheet demo
Maintenance
Who actually *likes* to go to the dentist?
Some maintenance truths

• Nobody likes maintenance.
  • Everyone loves to see new projects installed, take pictures, and cut ribbons. Maintenance is often an afterthought

• More frequent maintenance will be easier to do and be more cost effective in the long run
  • Think: dentist

• The right maintenance will ensure a long life for your installation
LID systems do require maintenance

• Vegetated systems need to have plants maintained, mulch replaced, sediment cleaned out, and most importantly have flow paths inspected.

• Pervious pavements (PICPs, pervious concrete, pervious asphalt) need to be cleaned out periodically.
The early years of LID at UConn were challenging...
Over-mulching in early years at UConn

- Storage depth was correct at installation...but...

You need to make sure it stays that way!
Turf dams – maintenance issue
Examples of bioretention “bypass surgery” at UConn
Maintenance is so bittersweet...
FAQ: How often do pervious pavements need to be cleaned?

• It depends...(you knew this was coming, right?)

• Is there vehicle traffic?
  • Even if sand is not used locally, it can come in on vehicle tires
  • Pedestrian PICP areas usually don’t need to be cleaned as often

• Are there landscaped areas/soil that can wash on to the pervious pavement?
  • This will necessitate more frequent cleaning
Maintenance neglect leads to clogging
2018
Paver road

- Clogged, but still functions (1 inch per hour)

- Integrity of road surface (almost 20 years old!) is amazing
Other pavements can become *really* clogged

- Permeable asphalt and concrete have smaller pores than PICPs
- More prone to clogging if not maintained regularly
PICP Maintenance

Not the best tool for the job
(only removes upper ~ ½ inch of sediment)
Tracking pervious pavement performance

• Infiltration testing of pavements on campus

• Informal tests can be really useful
  • Bottle of water poured on same spot
  • Time how long it takes to sink in
  • Track monthly
Best way to assess performance

- Get out there in the rain!
One more maintenance truth:

• Maintenance is done by people, organized by people, funded by people

• Good relationships are the true key to maintenance success
Importance of having good working relationships with those involved in maintenance

- Aris Ristau
  - Director of building services

- Wes Ayers
  - Manager of landscape maintenance

- Glenn Haley
  - Maintenance supervisor

- Katie Milardo
  - Facilities manager
In-house or contracted out?

• UConn has done both

• Depends on staff experience/comfort with LID maintenance

• Training is helpful
  • Informal field trainings done at UConn

• Maintenance spreadsheet/schedule and checklists are very useful
Current maintenance practices at UConn

• All of UConn’s vegetated practices are now on a regular maintenance schedule
  • Spring cleanup, mulch
  • Fall cleanup

• Permeable surfaces are in a work order control system with regular intervals specified

• Inspections and as-needed service requests to address major issues
  • Done by me and others in environmental compliance at UConn
  • Paul Ferri and Jim Hutton
UConn’s new sweeper/vac

- Glenn Haley can provide details
- Has focused vacuum suction
- For pervious pavements, it works best *without* brushes sweeping
- Works well for routine maintenance, but can’t renovate severely clogged pavements
In conclusion

• Maintenance is not sexy, and is often neglected

• Routine maintenance will prevent more costly repairs down the road

• Good relationships and education are the true keys to making maintenance happen
Thank you, and happy holidays!

Questions?

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