



Why permeable surfaces are important

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PERMEABLE SURFACE



IMPERMEABLE SURFACE

Permeable surfaces allow water to percolate into the soil to filter out pollutants and recharge the water table.

Impermeable surfaces don't allow water to percolate into the ground at such a fast speed that water gets collected above the ground.

What is Permeable Pavement?

Permeable pavement is a porous urban surface composed of open pore pavers, concrete, or asphalt with an underlying stone reservoir. Permeable pavement catches precipitation and surface runoff, storing it in the reservoir while slowly allowing it to infiltrate into the soil below or discharge via a drain tile. The most common uses of permeable pavement are parking lots, low-traffic roads, sidewalks, and driveways.



Benefits:

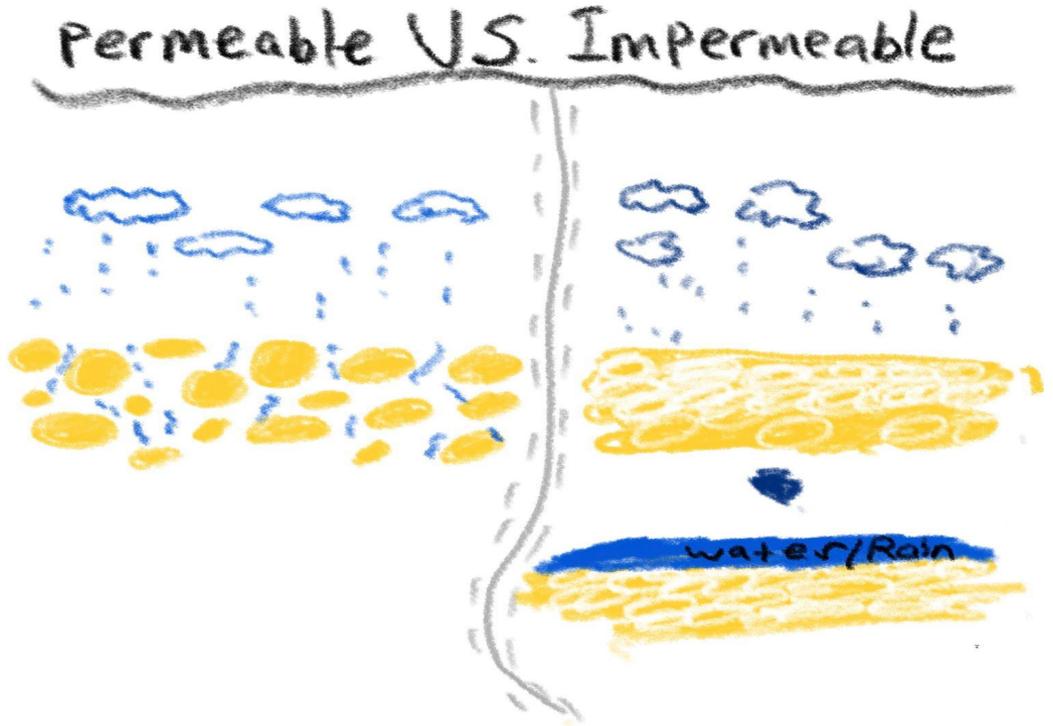
- Permeable pavements help reestablish a more natural hydrologic balance. and reduce runoff volume by trapping and slowly releasing precipitation into the ground instead of allowing it to flow into storm drains and out to receiving waters as effluent.
- Permeable pavement can reduce the concentration of some pollutants either physically, chemically, and biologically.
- Slow down the water, control the pressure (ie.river, ocean, etc.).

Financial:

PERMEABLE PAVEMENT COST COMPARISON

Pavement type	Average cost per square foot
Permeable stone pavers	\$10 – \$30
Pervious concrete	\$8 – \$16
Porous asphalt	\$7 – \$13
Concrete grass grid	\$4 – \$12
Plastic grass grid	\$5 – \$9

Activity:



Green Venture Fall 2021 Stewardship Program: Final Stewardship Project

Main Project Driving Question: Why Permeable Surfaces Are Important (including a policy around pavement tax)

Brainstorming ideas:

- Structures to help guide precipitation to be trapped in the ground so it doesn't contaminate waterways (community surveys and participation) Communications campaign
- Increase the aesthetics of urban roads
- Pavement tax on impermeable pavement

The goal: To help reestablish a more natural hydrologic balance and reduce runoff volume.

Goals: Educate the community on the importance of permeable surfaces by talking about impermeable vs permeable pavement and how it affects waterways.

Ways to achieve:

- Create posters and hold events brainstorming various structures that can be implemented as prototypes in their own homes
- Important to directly reach out to members of the community to deliver our message

Main Project Elements

Brochures

Purpose: Informative packages to explain to the community the importance of permeable surfaces and what they can do individually.

Surveys

Purpose: Conduct a survey within a given neighborhood to assess how educated they currently are on the topic and provide further knowledge. This allows us to analyze our demographic accordingly and organize any further measures.

Social Media

Purpose: In this day in age most people have access to social media which is an easy, quick, efficient and inexpensive way to spread the message. By creating advertisements and maintaining an active social media presence, we can gain a following of people passionate about the issue, educate others and make a step towards change.

Timeline

- Take a good amount of time to research the issue at hand and know it inside out so we can educate others. *This may take up to a month.*
- Begin with the most time consuming element which would be conducting the surveys (allow a *month time span* for results to be submitted, totalled and analyzed). Maintain other elements simultaneously
- Brochures being made should take *no more than a weekspan* to be completed, finalized and approved. Ensure they are eye-catching, informative and accurately represent our message as a group.
- Social media must be continuously maintained. Routine posts must be made 3x a week to keep the audience engaged. Include other engagement tools such as polls on instagram stories, live Q+As, videos, links to other resources, opportunities to reach us directly etc. This will take place *over the entire course of the project.*
- Create a business pitch to submit for funding. This may be an in depth informative presentation so the investors may understand our plan, our issue at hand, where the funding will be going, any questions they have may be resolved and any other concerns. The presentation will be well researched and engaging the investment audience. This may *take multiple weeks* to ensure the accuracy and efficiency of the pitch to achieve our goal.

Project Roles:

1. Project Manager
 - Maintain the goals and workplan
 - Manage all personnel involved ensuring they remain on task
 - In charge of the main pitch
2. Community Outreach
 - Conduct the surveys
 - Assist on social media with resolving community concerns
3. Volunteer Coordinator
 - Post volunteer opportunities
 - In charge of the recruitment process including all files and interviews
 - Host orientations and informational sessions to help new volunteers
4. Researcher
 - Organize information used for all promotional materials
 - Answer our driving question and provide audience with information and how they themselves can do their part

5. Graphic Designer
 - Design social media posts, brochures and other promotional visuals
 - Work together with researcher to collect all information and get it across in an appealing manner

6. Videographer/Photographer
 - Attend meetings and fundraising events to capture media content
 - Content then may be used for social media to promote our message

7. Accountant/Treasurer
 - Manage finances from fundraisers
 - Manage account balance
 - Manage expenses and determine what financial aspects we must include in our pitch to the investors

8. Event Manager
 - Organize events, create clear plans and itineraries for each event
 - Work with the entire team to ensure the event runs smoothly
 - Work with volunteer coordinator to delegate tasks amongst volunteers
 - Work with videographer/photographer to ensure everything is represented

9. Fundraiser
 - Brainstorm event ideas
 - Work with event manager to bring ideas to life
 - Work with community outreach to develop best events that the community will be interested in

Permeable surface vs. Implementable surface

<u>Impermeable Surfaces</u>	<u>Permeable Surfaces</u>
Asphalt	Planting beds
Concrete	Mulched beds
Traditional stone, brick or concrete pavers	Gravel
	Permeable pavers
	Turf



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