

# ANN ARBOR WATER

Committed to Excellence

# “Green Streets” Policy

- After 10 years....what now?
- What have we learned?
- How can we do BETTER?



# Green Infrastructure

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Adaptable term used to describe an array of products, technologies, and practices that use natural systems – or engineered systems that mimic natural processes – to enhance overall environmental quality and provide utility services.

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Does not have to be plant-based or nature-based.

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Can mimic natural intentions (infiltration)

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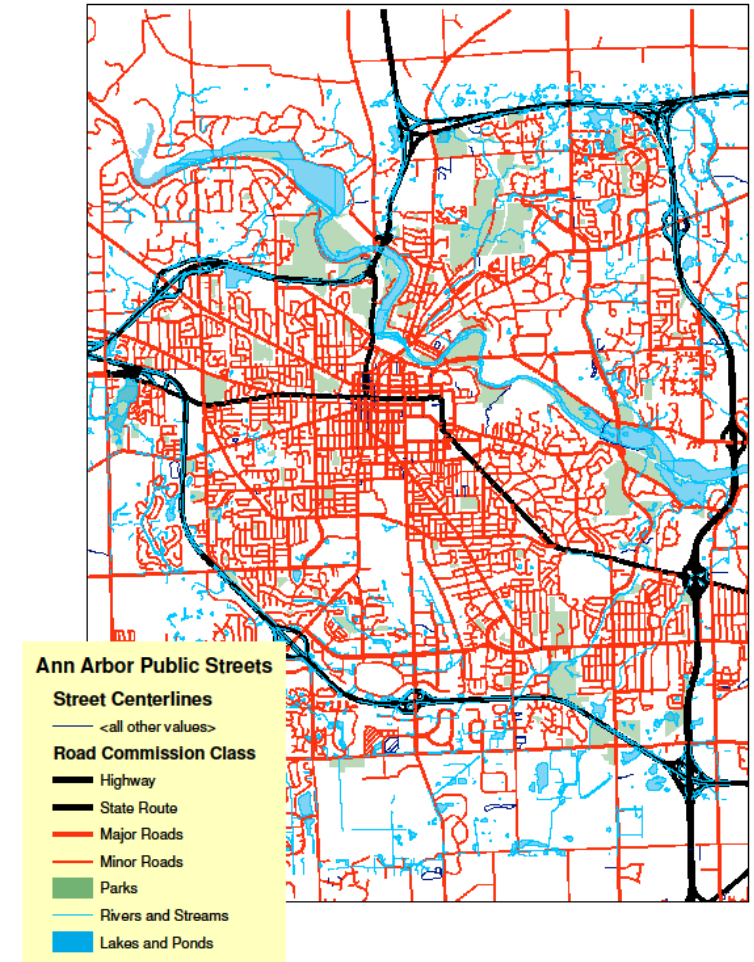


# Scale of Public Street Issue

City of Ann Arbor Public right-of-way contains 2.9 square miles of impervious area

= 10.5% of the total City area

= 25.9% of the total impervious area within the City of Ann Arbor



# What was the original intention?

- “Green Streets” as the new standard for street design.
- This encompasses “an array of products, technologies, and practices that use natural systems – or engineering systems to mimic natural processes – to enhance overall environmental quality and provide utility services.

*Master Continued (12-0592)*

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## **Text of Legislative File 12-0592**

### Environmental Commission Resolution in Support of Green Streets Policy

For the past two years the City of Ann Arbor's Water Committee, a committee of the Environmental Commission, has been discussing the City's water resources improvements, practices, and policies. The Water Committee decided to focus its efforts on improving stormwater management within the City's street system. To make sure it's goals are both attainable and desirable in the community, the Water Committee recently held a series of "Green Streets" focus group meetings to discuss the past, present, and future of stormwater practices within the City's road right-of-ways.

The terms Green Streets or Green Infrastructure are adaptable terms used to describe an array of products, technologies, and practices that use natural systems - or engineered systems that mimic natural processes - to enhance overall environmental quality and provide utility services. Green Streets usually treat and/or infiltrate storm water which improves water quality and reduces the volume and rate at which stormwater leaves the street.

As a result of the discussions at the Green Street focus group meetings the Environmental Commission Water Committee encourages the City to consider policy changes that would make "Green Streets" the new standard for street design.

Approved by: Environmental Commission on March 22, 2012  
Members: Briere, German, Graham, Hohnke, Loch-Caruso, Stead, and Strassberg

Whereas, Impervious surfaces are major contributors to stormwater runoff pollution and volume;

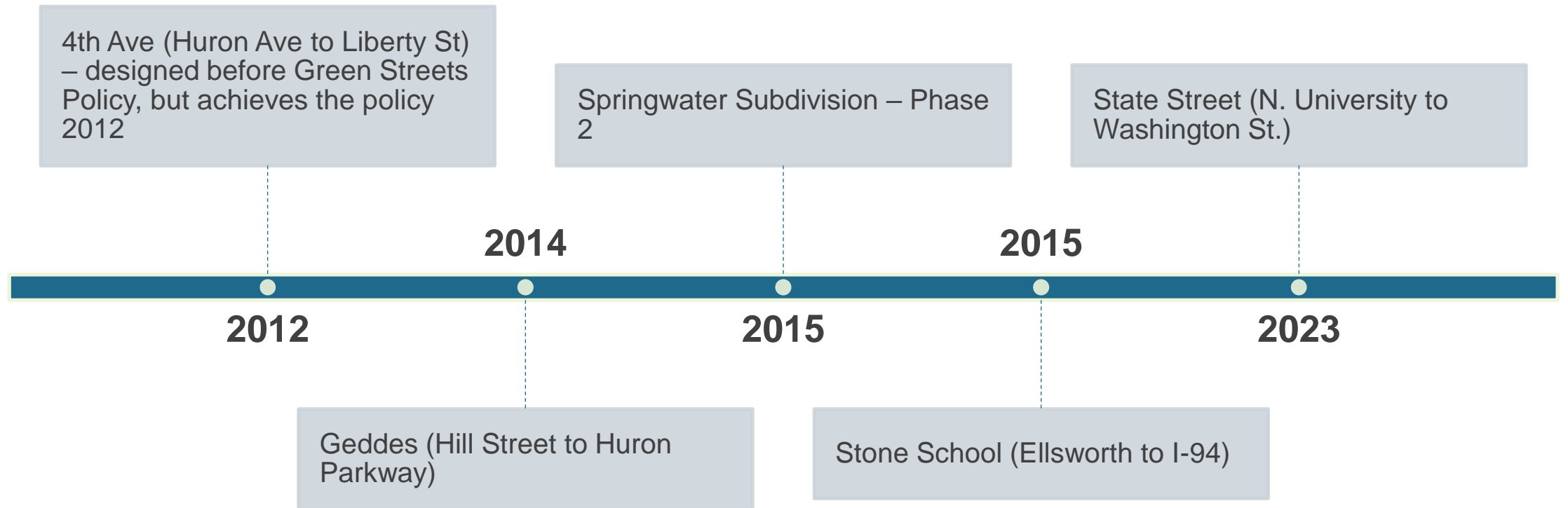
Whereas, Pollutant load is significant in stormwater, especially in the first flush (first ½" of rain during any rain event);

## Projects that received a waiver (due to poor infiltration rate of the existing soils):

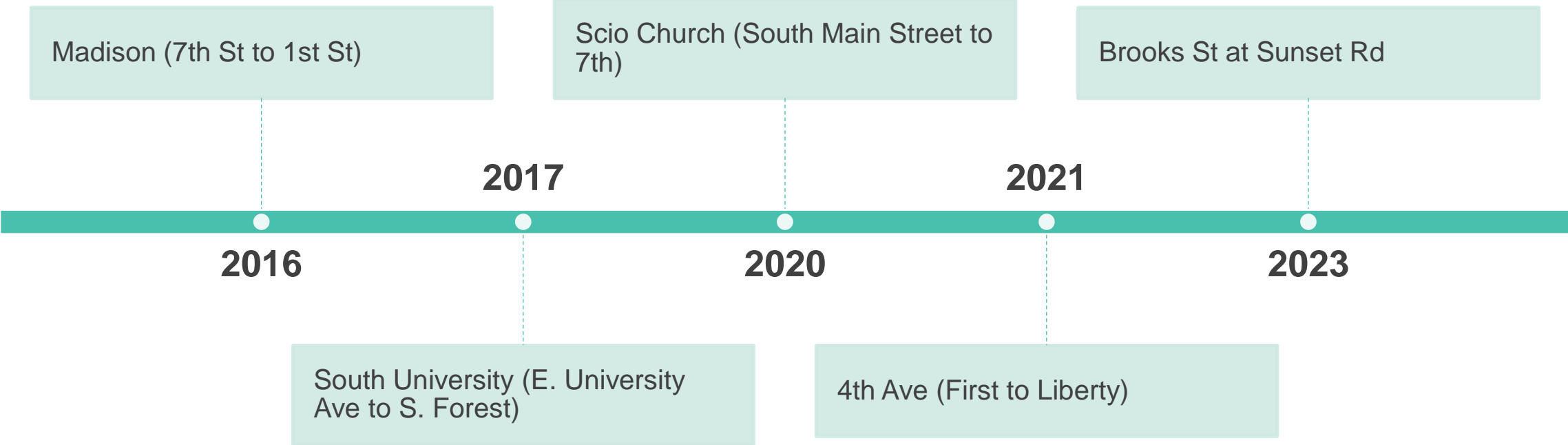
Russell Street - 2022



# Number of construction projects using Green Streets methods since program approval by Council in 2014, new or reconstructed streets:



# Projects that included infiltration to the maximum extent practicable





# Lessons Learned

- Soon after the policy was approved, the Engineering Dept modified their streets maintenance program, to incorporate “Capital Preventative Maintenance” – i.e. mill and fill
- THEREFORE – no streets were being reconstructed....



# Lessons Learned

- In order to ensure the maximum infiltration was achieved, the soils and site conditions promoted underground infiltration, rather than installations in the right of way.
- For example - In the right of way there are often numerous other utilities that hinder or prohibit any installation of above ground storm water features.



# Lessons Learned

- Maintenance is NEVER easy – and it NEVER happens magically
- We have to be pragmatic about what is achievable – including the desired aesthetic for the road corridor...
- ALSO – there are competing interests within a very restricted ROW width.



# Where can we improve?



Completed a third-party independent review of the policy

Realistic  
Implementability  
Cost awareness  
Site conditions



Recommendations were heard from:

Consulting Engineers  
City Staff from Engineering  
City Staff from Public Works  
City Staff from Systems Planning

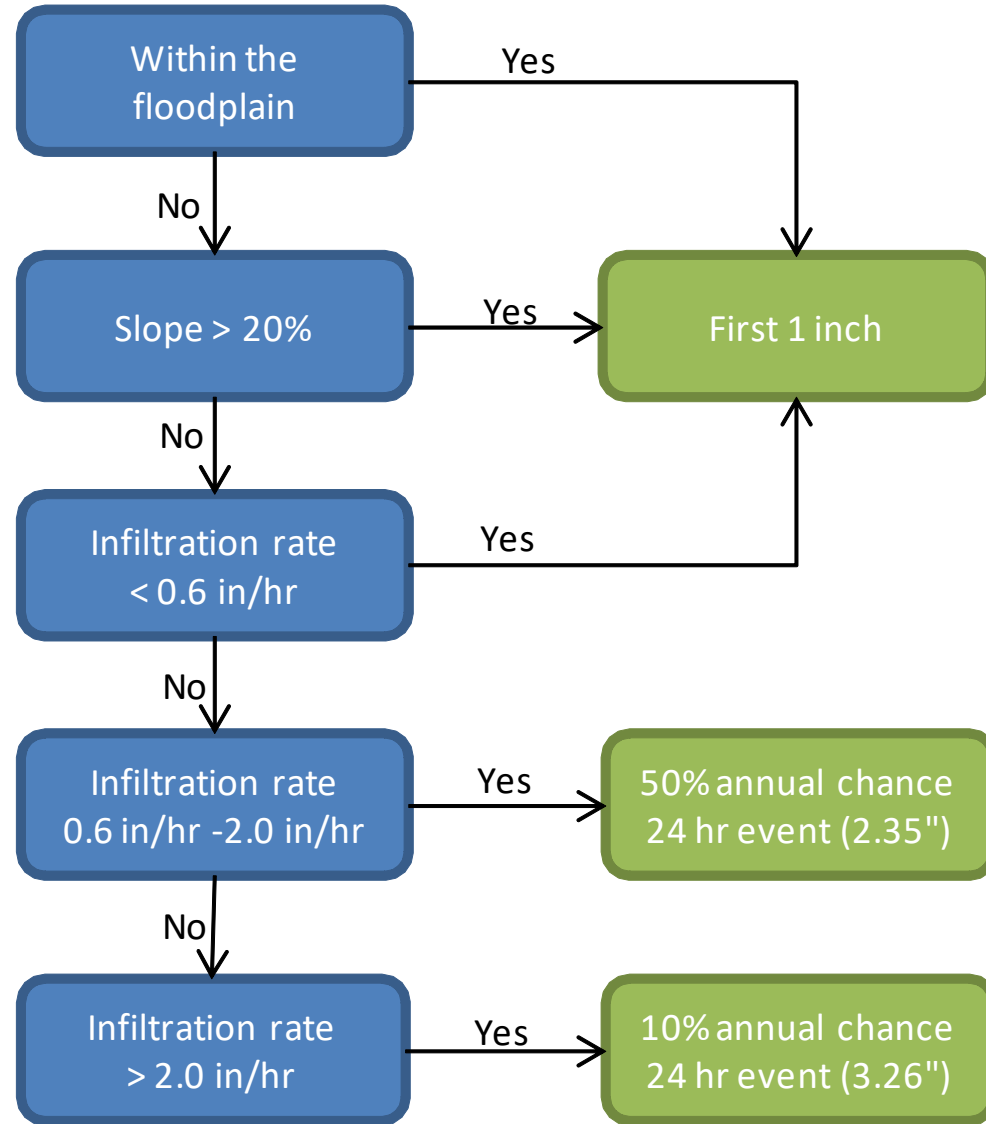
# Recommendations and Discussion Topics

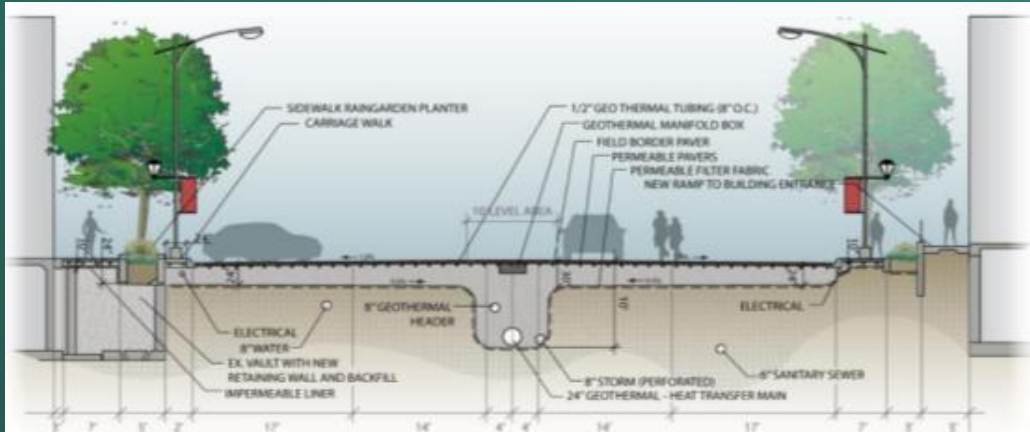
- Change policy title to Public Street Stormwater Management Guidelines
- Rewrite to calculate volume for the full right-of-way within the project limits.
- Clarify that the policy does not apply to preventative maintenance and resurfacing where the subsoil/full road base is not disturbed.
- Apply policy to underground utility projects that disturb at least half of the road width base at the CIP level.
- Allow multiple infiltration standards on one project to be used for different soil zones.
- Move note about following the “County stormwater Rules” to the first paragraph of the policy.
- Describe the process for a PSAA waiver.
- Describe the maintenance plans, who develops (project designer), who reviews (Water Quality Manager).
- Describe the design/review process as a collaboration with Public Works, Systems Planning Staff, Engineering (Project Designer)



Site Conditions

Infiltration Standard





A photograph of a city street scene. In the background, there is a brick building with a Starbucks storefront. A person is walking on the sidewalk. In the foreground, there is a concrete sidewalk, a small landscaped area with a tree and some plants, and a utility box. The scene is brightly lit, suggesting a sunny day.

# Updated Policy - Draft

Discussion





ANN ARBOR  
**WATER**

