Bringing Green Infrastructure to Tireman Avenue in 2015

Project Overview

This fact sheet provides details on the Green Infrastructure projects for sections of Tireman Avenue proposed by the Detroit Water and Sewerage Department (DWSD) in summer 2015. As more project information becomes available, DWSD will update this fact sheet.

What's happening on Tireman Avenue in 2015?

The Detroit Department of Public Works (DPW) plans to resurface Tireman Avenue, as well as other surrounding residential streets, in 2015. Construction will start in early summer. DPW and DWSD identified an opportunity to work together to incorporate innovative green infrastructure projects to help manage storm water runoff more effectively.

What is green infrastructure?

Green infrastructure is an approach to managing storm water that uses the natural processes of soils and plants to soak up storm water where it falls before it can enter and overwhelm the sewer system. DWSD is working with partners throughout Detroit to install a variety of green infrastructure practices, including bioswales, pervious pavement, rain gardens, and tree planting.

DWSD will plant turf in the bioswales, but residents could request other vegetation for the bioswale in front of their property. Contact DWSD if you are a property owner interested in discussing vegetation options for the bioswale near you.

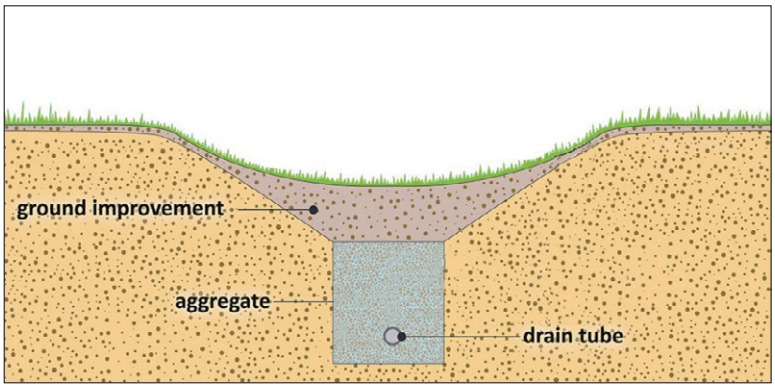
What type of green infrastructure would DWSD construct on Tireman Avenue?

DWSD proposes to construct bioswales on portions of Tireman Avenue.

A bioswale is a sloped retention area designed to capture and convey water, while allowing it to infiltrate into the ground slowly over a 24 to 48 hour period. Turf grass will be planted within the bioswales unless there is homeowner support for other plantings. Bioswales can help to reduce ponding and flooding on streets, as well as help to beautify a neighborhood. DWSD proposes to construct bioswales in two areas along Tireman Avenue. One area is between Chatham and Parkland. The other area is between Parkland and W. Outer Drive.

Properties near the proposed bioswale projects on Tireman Avenue.

How do bioswales work?



A bioswale is specially designed to have a wide, porous bottom and a gentle slope that allows storm water to infiltrate and sediment to settle out. The top layer consists of enhanced soil with plants. The next layer is stone that provides large empty spaces to allow the storm water to infiltrate. A perforated pipe sits below the stone to capture storm water that doesn't infiltrate. During heavy rainfall, the bioswales fill up and then overflow back into the street and into the nearest catch basin. The catch basin is connected to the sewer. The existing drainage system (pipes and catch basins) will not be removed.

Are there other examples of bioswales in Detroit and southeast Michigan?

Bioswales are not a new approach to managing storm water. Property owners are using this type of green infrastructure practice around Detroit, throughout southeast Michigan, and around the country. Lawrence Tech has an interactive map that shows the location of selected bioswale projects. http://www.ltu.edu/lid/

How well do bioswales perform?

Research has shown that, during smaller storms, grassed bioswales along roads can completely absorb storm water runoff by infiltrating storm water to the groundwater table and releasing water to the atmosphere. In the case of large storms, bioswales are designed to direct excess storm water to the sewer system.

Tireman Avenue Before

Tireman Avenue After

Can bioswales cause basement flooding?

Bioswales actually help reduce basement flooding caused by storms that overload the sewer system. The bioswales will be located more than 10 feet from homes and at least 2 feet above the groundwater table so as not to cause seeping into basements. Drain pipes beneath the bioswales also help direct storm water to the sewer during heavy rains. Residents with concerns about basement flooding should remember to direct downspouts 6 feet away from the house and ensure that the ground slopes away from the house.

Will trees get cut down during bioswale construction?

Trees in the area between the sidewalk and curb will be protected during construction. Any small trees that have to be removed to facilitate construction will be replaced as part of this project.

Where will residents park during road resurfacing and bioswale construction?

Construction of the bioswales will take place on one side of the street at a time. This will allow for parking on one side of the street while the bioswales on the other side are being built. Driveways will remain accessible most of the time.

Who can residents call if there are questions or problems with the bioswales once they're installed?

If residents on Tireman Avenue have questions or concerns about the bioswales in front of their property or in the neighborhood, they can call DWSD at the 24 hour emergency hotline (313-267-7401) or email public.affairs@dwsd.org. It is important to DWSD to know if there are problems with the bioswales or any questions on proper maintenance or functioning.

Who is responsible for maintaining the bioswales?

DWSD is responsible for maintaining the underground components of the bioswales, but needs local residents' help in maintaining the above ground vegetation, whether that's turf grass or other types of vegetation. If the bioswale has turf grass, the only maintenance needed is mowing, just like a lawn. If a resident chooses another type of vegetation, the bioswale will need upkeep typical of a garden.

What is the project schedule?

The project would begin in May or June 2015 and last approximately 3–4 months. Residents will receive notification 2 weeks prior to construction.

Where can I get more information and how can I share my thoughts?

DWSD will provide updates about the Tireman Avenue bioswale project, as well as other Green Infrastructure projects, on their website (www.dwsd.org). More technical information about bioswales and how they work is available in Chapter 7 of SEMCOG's *Low Impact Development Manual for Michigan* (http://www.semcog.org/lowimpactdevelopmentreference.aspx).

If you have questions or concerns about the bioswale project,
please contact Dan Schechter at 313-297-6408 or dschecht@dwsd.org.

If you have questions or concerns about road resurfacing,
please contact Jihad Slim 313-224-3947 or slimj@detroitmi.gov.