City of Noblesville – Long-term Control Plan & Maple Avenue Project

Design Advisory Committee Meeting

February 4th, 2009

RW ARMSTRONG

Design Advisory Committee

- Serve an important advisory role to the Project Team
  - Sidewalks, Tree/plant selection, Lighting/signage
- Become educated on the technical issues surrounding the project to serve as a resource to the general public
- Serve as a liaison between the community you represent and the Project Team
- Share your views and discuss project design elements with one another in a small-group setting

Anticipated Schedule

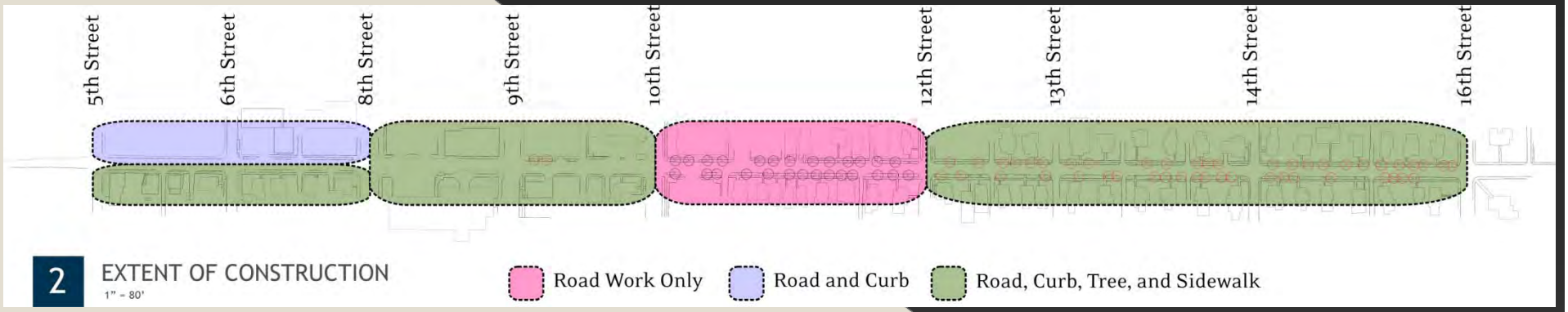
- Design Advisory Committee Mtgs – Winter 2009
- Bid Requests – Spring 2009
- Construction Begins – Early Summer 2009
- Construction Complete – Fall 2010

Construction Sequencing

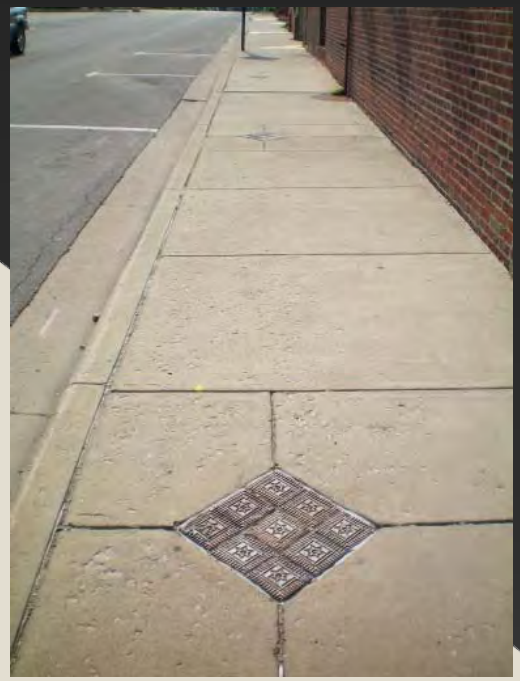
Sidewalk Infrastructure

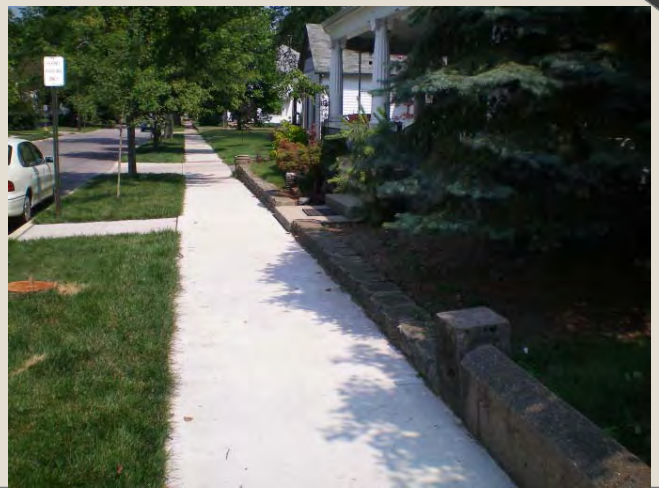
Maple Avenue Project Elements

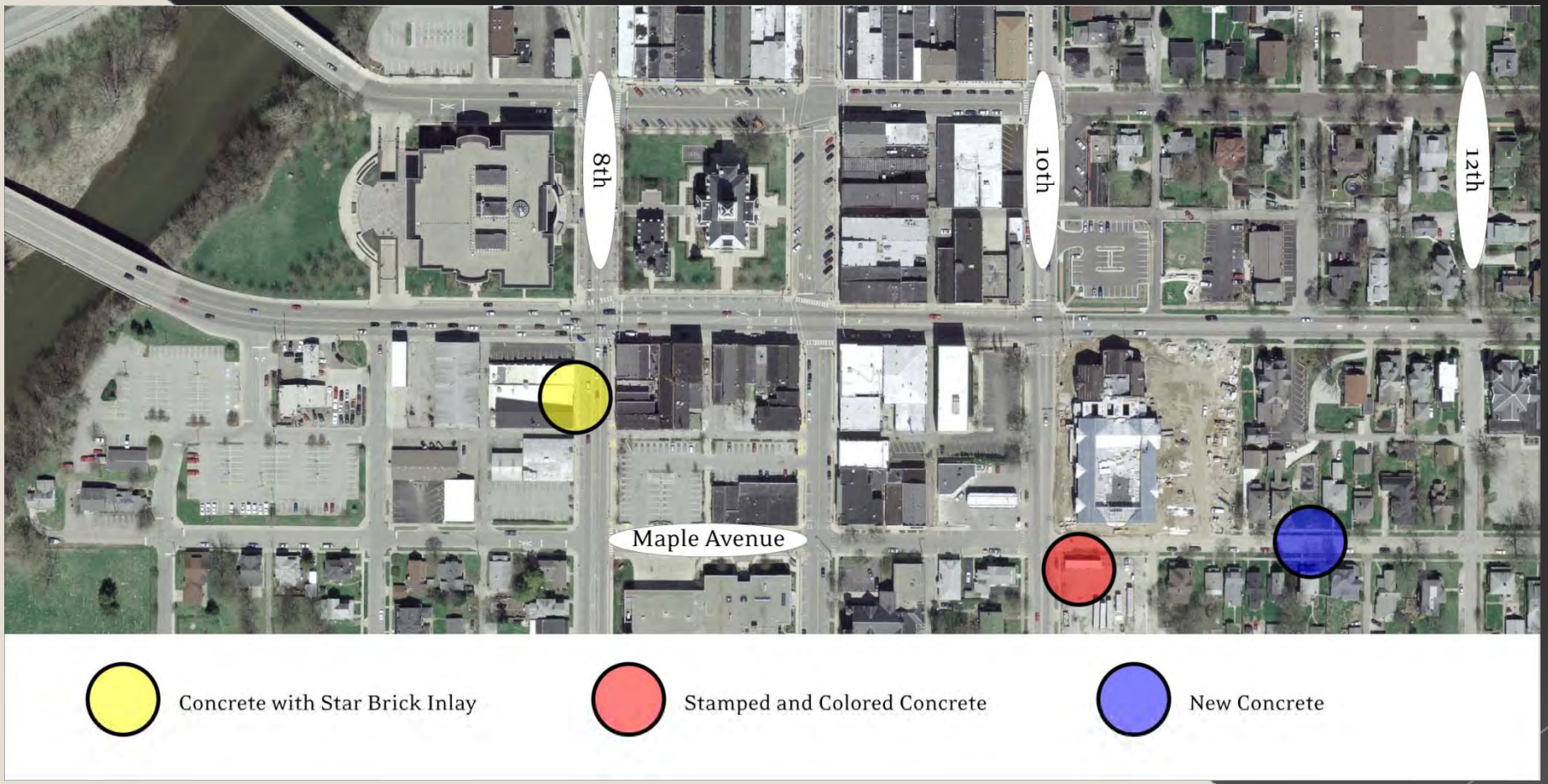
Extent of Construction



Sidewalks Alternatives






8th
10th
12th
Maple Avenue
Concrete with Star Brick Inlay
Stamped and Colored Concrete
New Concrete

- Stamped and Colored Concrete
- Mimics Existing Brick in Area
- Exists at City Building South Parking
- Moderate Cost

- ADA Compliant at All Crossings
- Truncated Dome Pavers
- Grooved Ramp Surface
- City Standard

- Historic Paver Inset
- Exists in Neighborhood
- Use Stockpiled Bricks
- Highest Cost

- Standard Concrete
- Typical Sidewalk Treatment
- Least Cost
- New Concrete Walk Exists Within Project Area

Stormwater Management & Rain Gardens

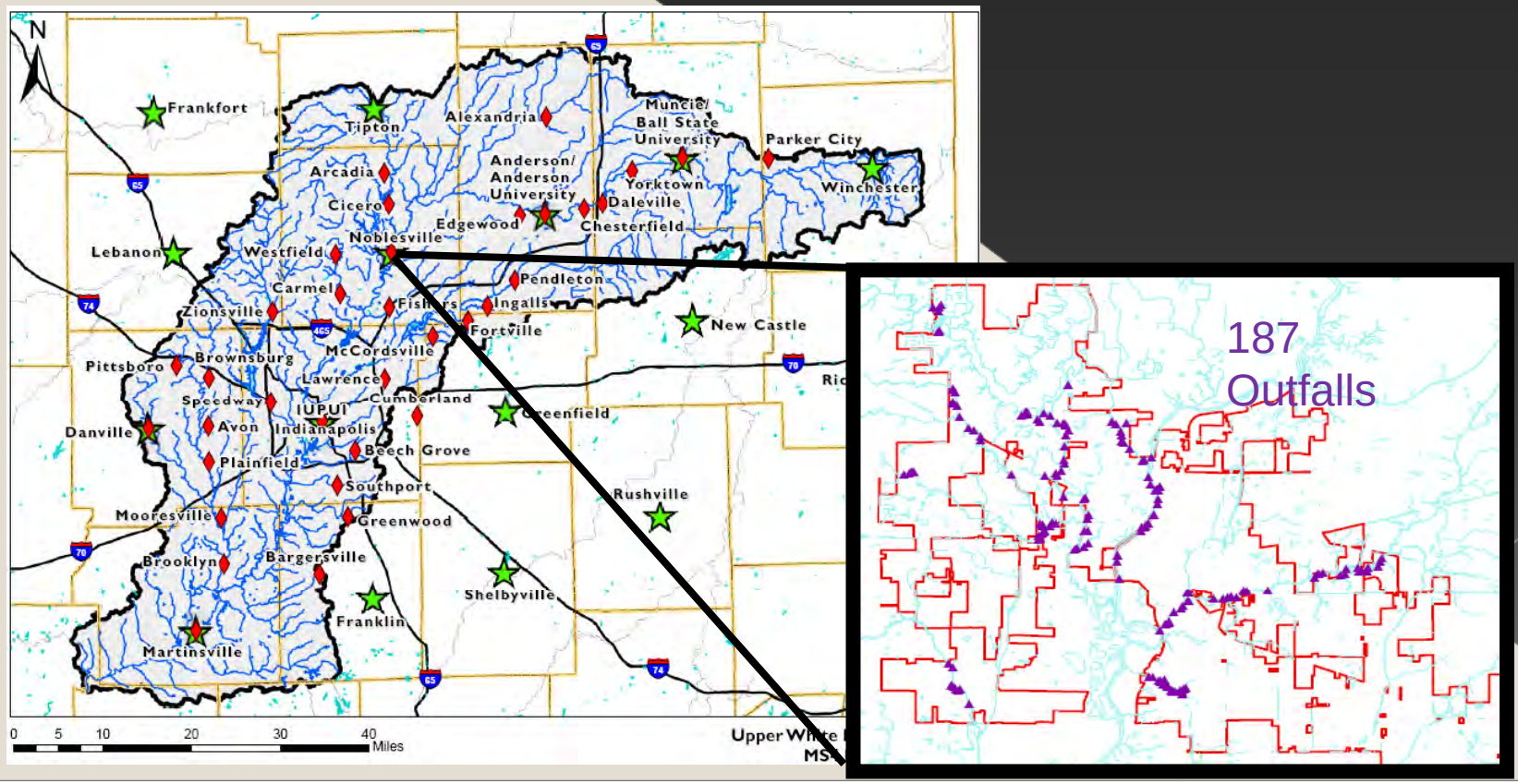
Maple Avenue Project Elements

Post-Construction Stormwater Management Options

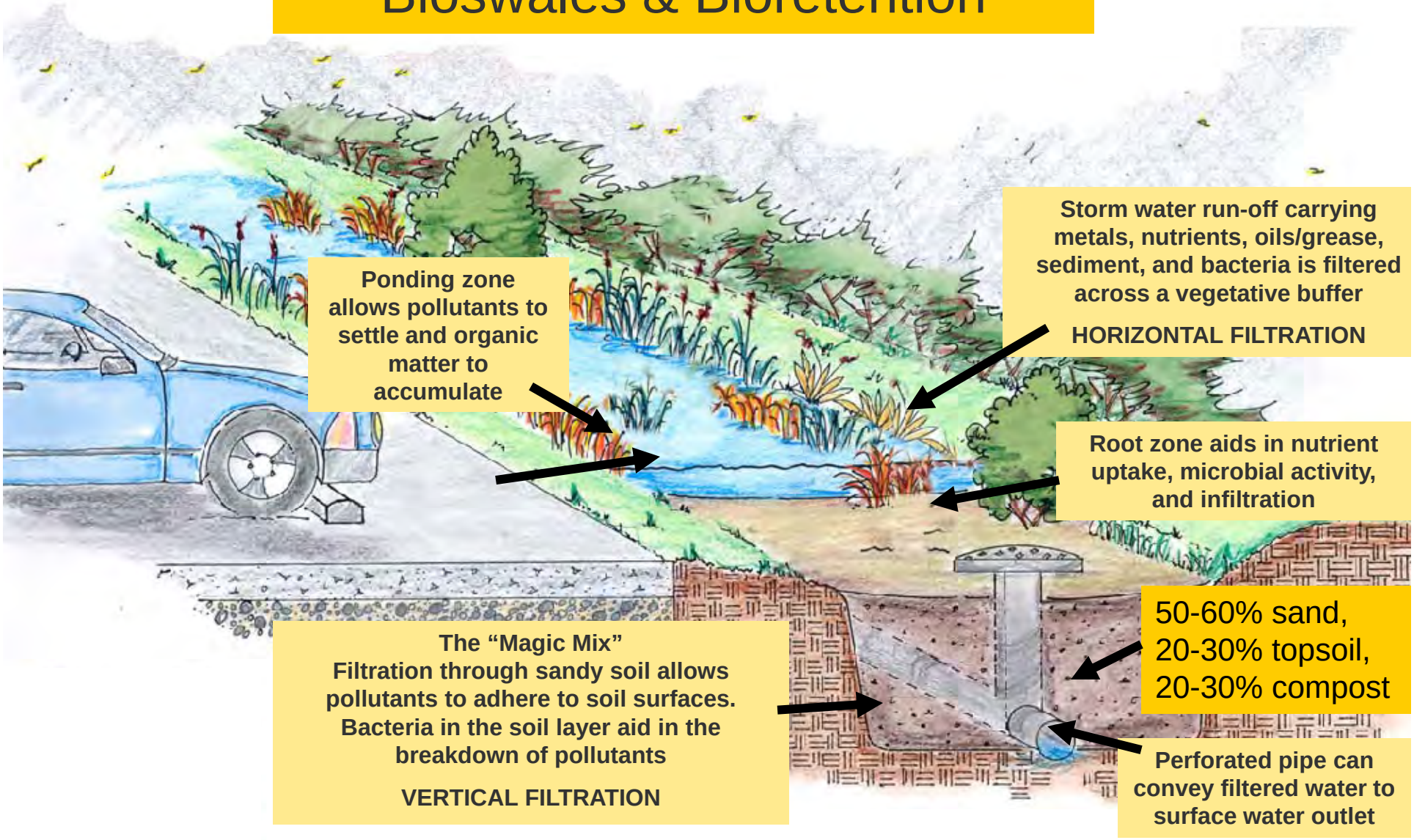
- Wet Retention and Detention
- Dry Detention
- Wetlands
- Underground Detention
- Infiltration Trenches or Basins
- Biorention or bioswales
  - Rain Gardens

Why Rain Gardens?

- Good at reducing <u>volume</u> impacts to streams
- Good at trapping and treating <u>pollutants</u>



Bioswales & Bioretention



Storm water run-off carrying metals, nutrients, oils/grease, sediment, and bacteria is filtered across a vegetative buffer

HORIZONTAL FILTRATION

Ponding zone allows pollutants to settle and organic matter to accumulate

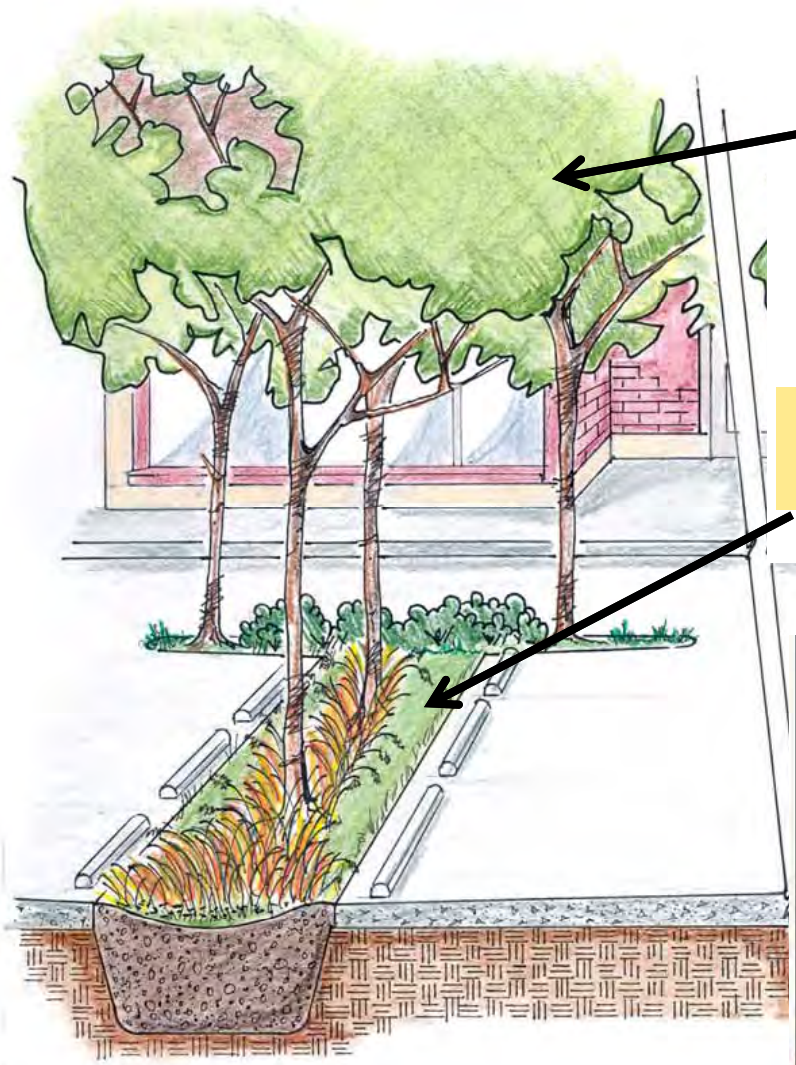
Root zone aids in nutrient uptake, microbial activity, and infiltration

50-60% sand,
20-30% topsoil,
20-30% compost

The "Magic Mix"
Filtration through sandy soil allows pollutants to adhere to soil surfaces. Bacteria in the soil layer aid in the breakdown of pollutants

VERTICAL FILTRATION

Perforated pipe can convey filtered water to surface water outlet



Might include tress

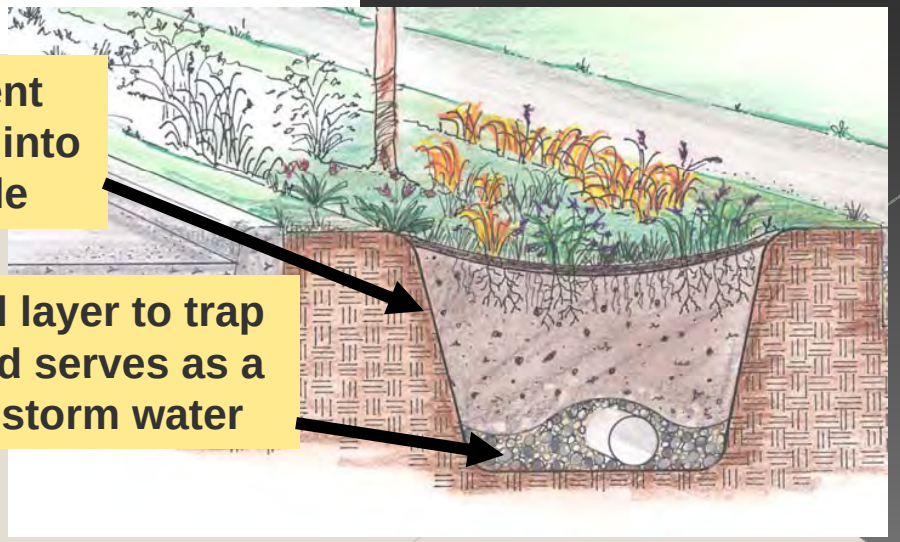
Might have ornamental flowers

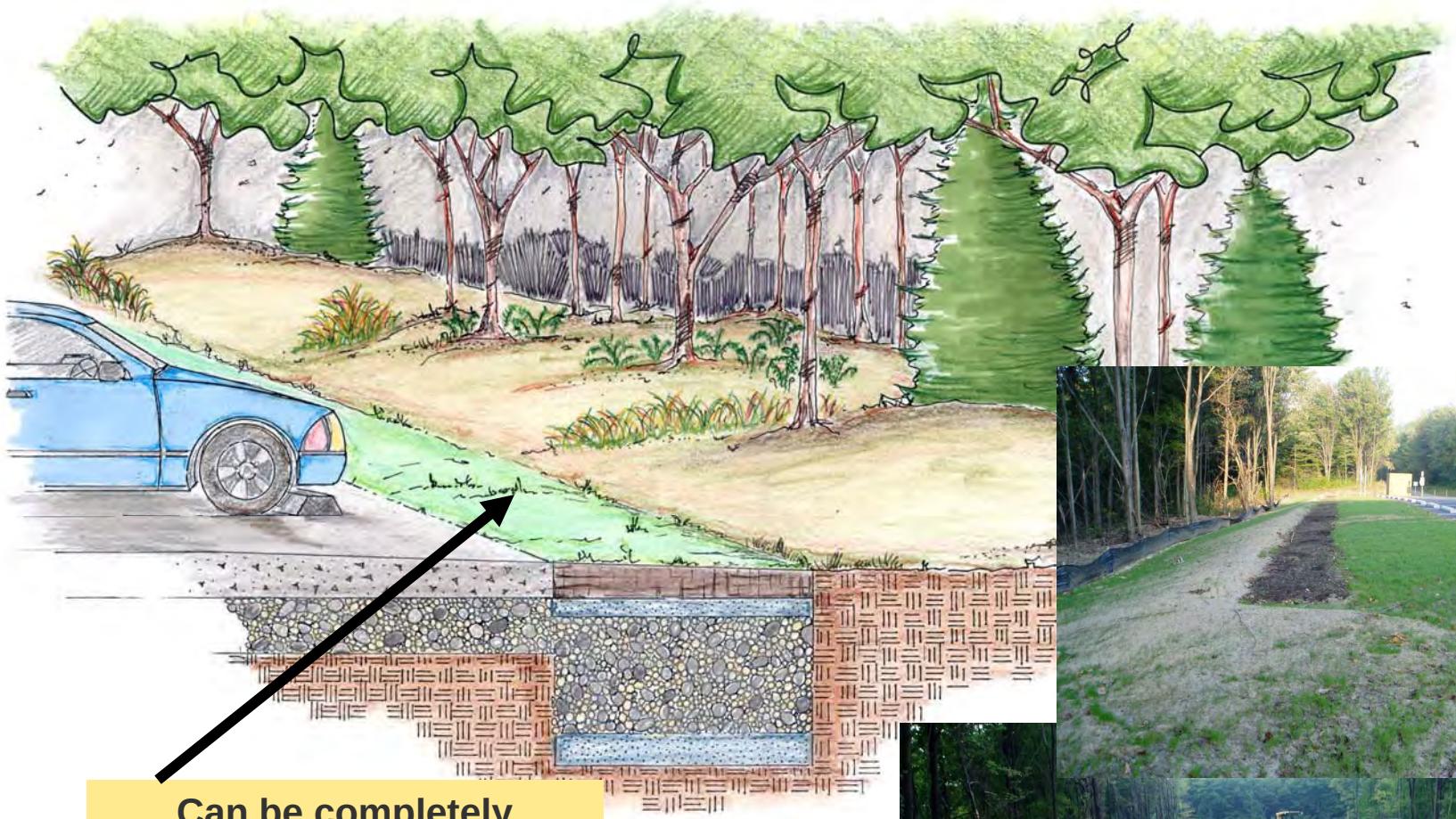
Might have low maintenance grasses

Can be designed as part of standard landscaping

Can include liner to prevent high nitrates from leaching into nearby ground water table

Can include large gravel layer to trap remaining pollutants and serves as a reservoir for detaining storm water

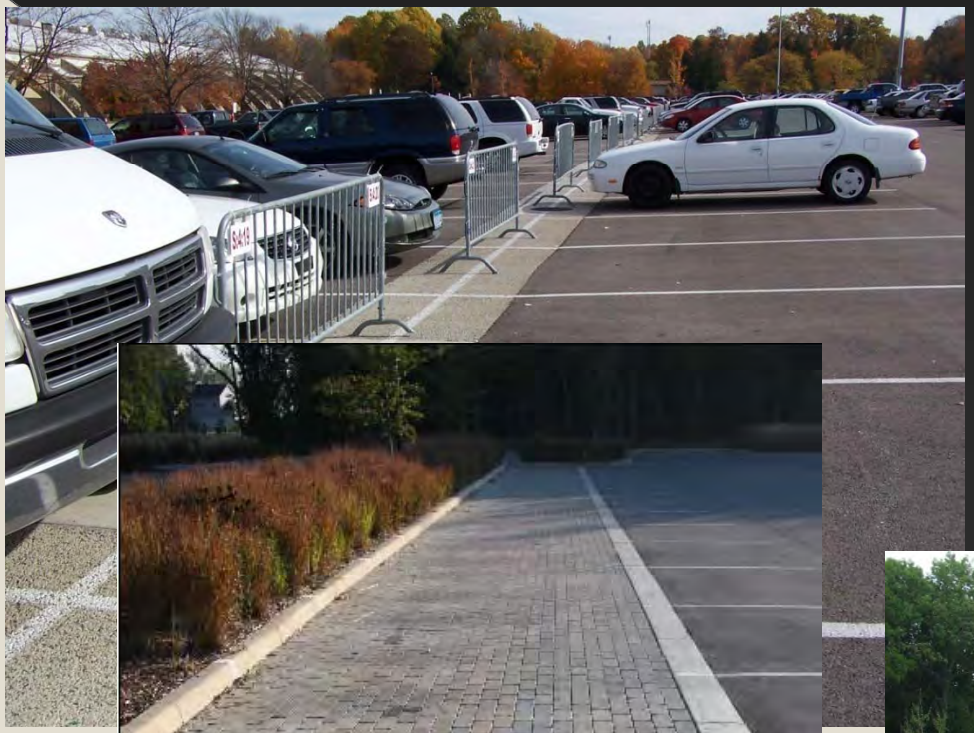


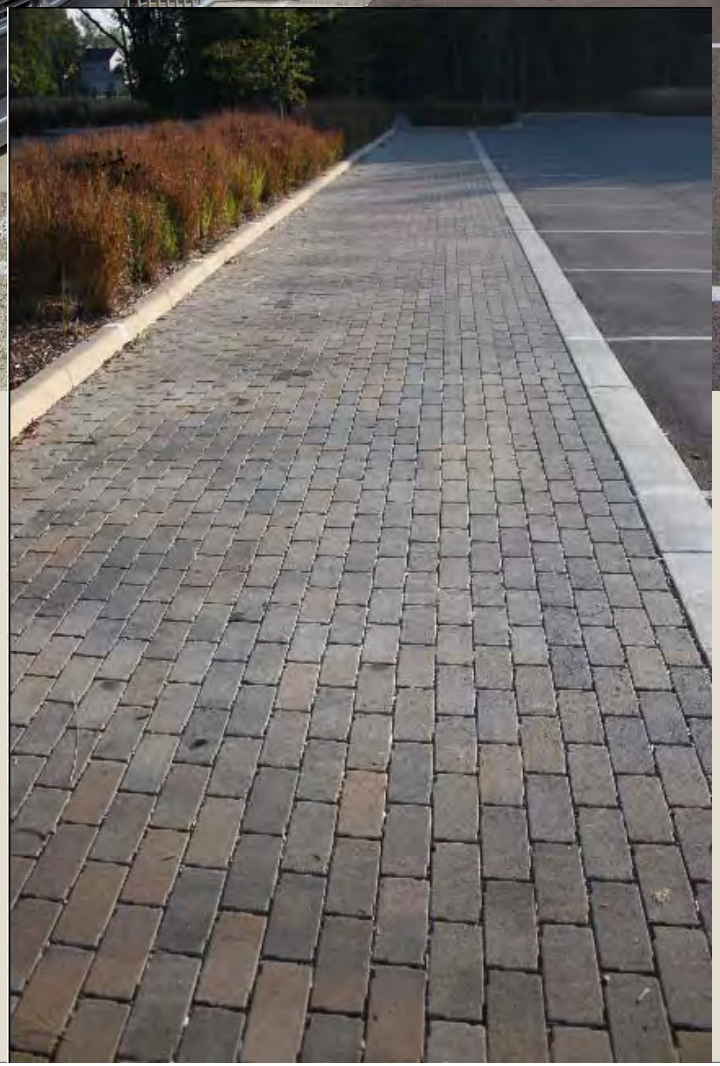


Can be completely inconspicuous or less concspicous on the landscape

Infiltration Trench

Dillon Park





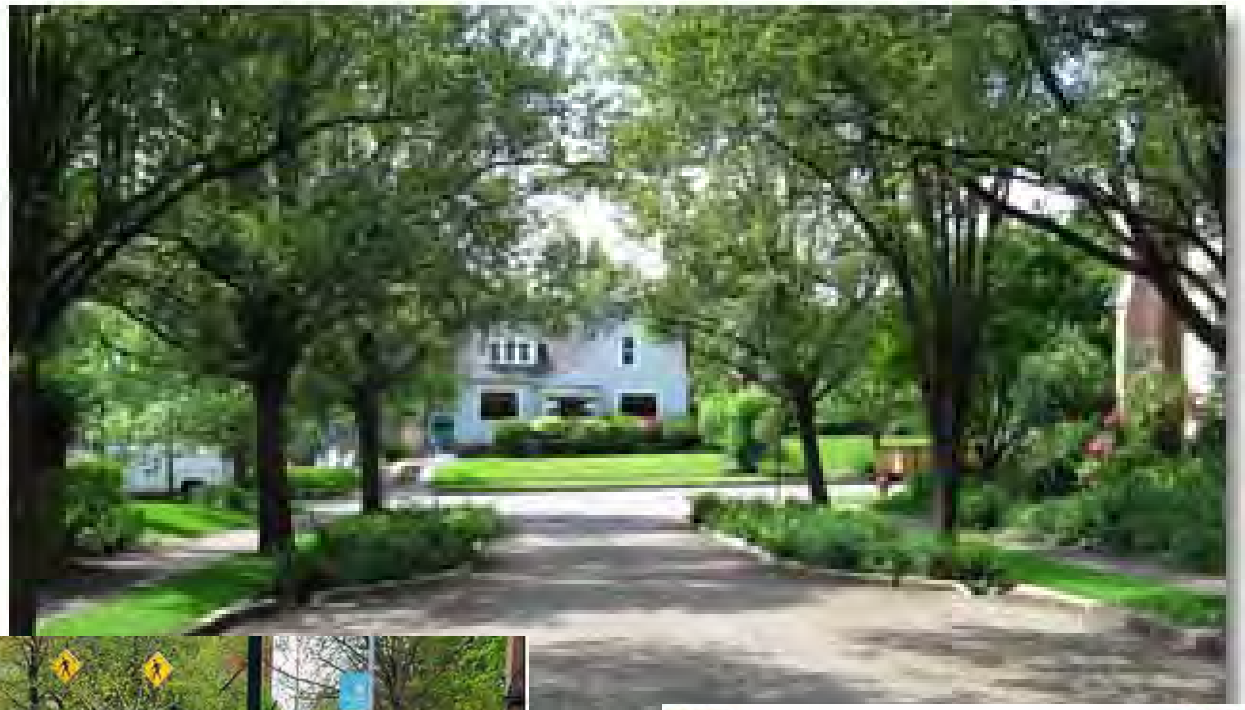

4 24 2003


4 24 2003

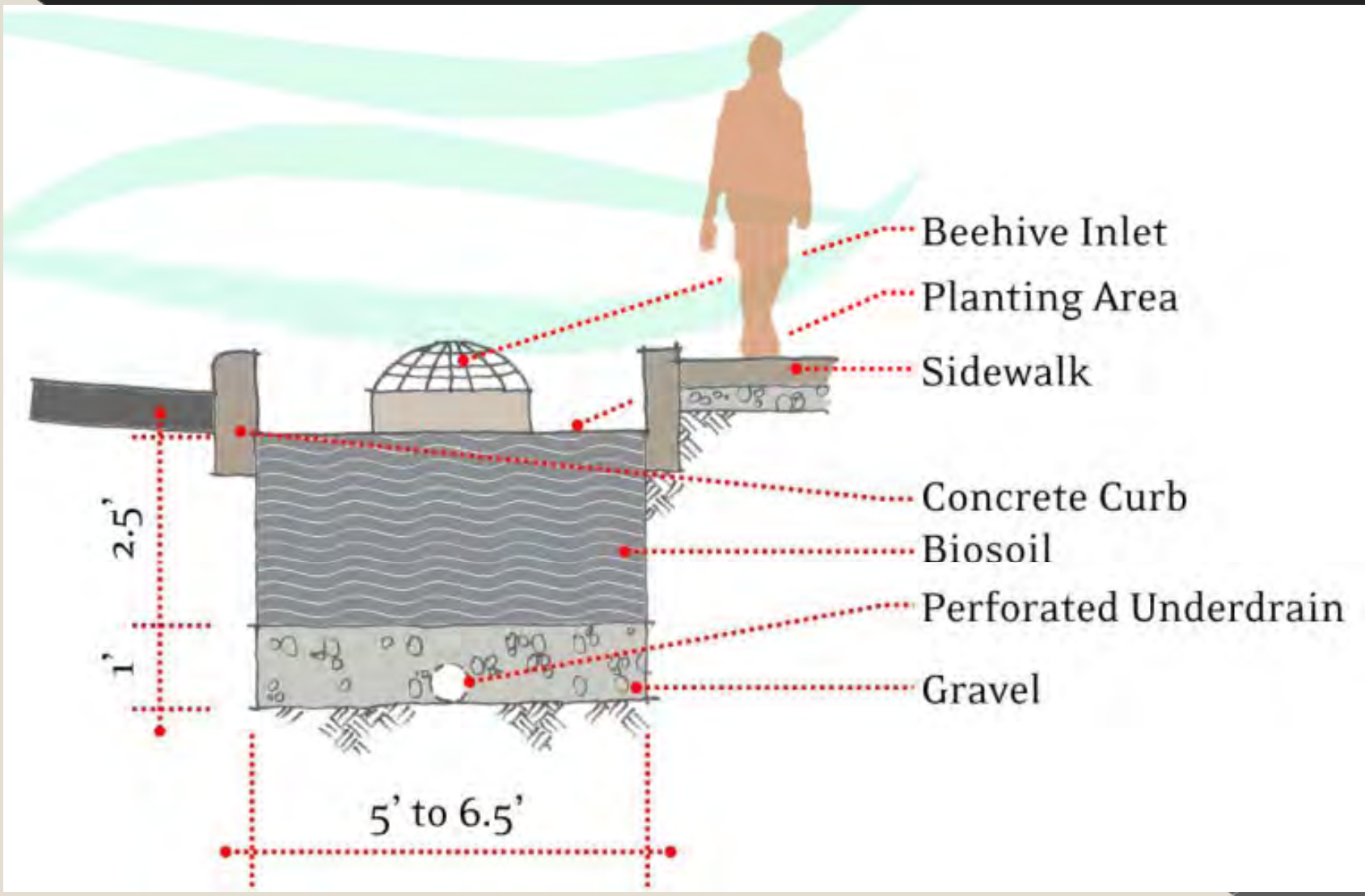

8 2 2004

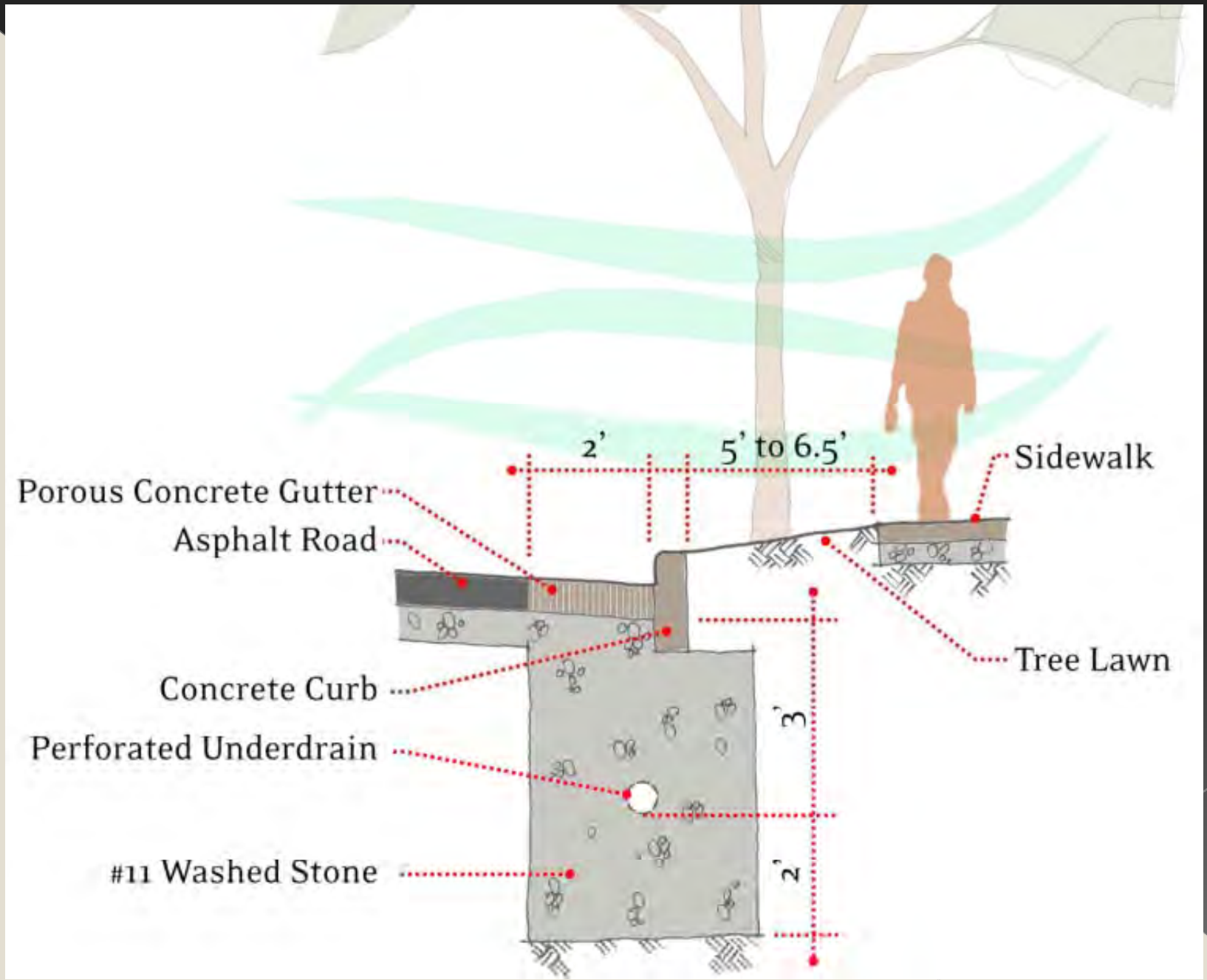

8 2 2004


DHL




© www.sitephocus.com


Beehive Inlet
Planting Area
Sidewalk
Concrete Curb
Biosoil
Perforated Underdrain
Gravel
2.5'
1'
5' to 6.5'


2'
5' to 6.5'
Sidewalk
Porous Concrete Gutter
Asphalt Road
Tree Lawn
Concrete Curb
Perforated Underdrain
#11 Washed Stone
3'
2'

Maple Ave Rain Gardens Criteria

- Current tree lawn exists?
- Right-of-way available?
- New/recent sidewalk infrastructure in place?
- Large slope between sidewalk and curb?

Other Design Elements

Trees and Plant Selection







Ways to Stay Up-to-date

- Neighborhood Mailing(s)
- Public Meeting(s)
- News Releases
- Project Webpage
  - www.cityofnoblesville.org/wastewater

Questions, Additional Input…

RW ARMSTRONG