

Seattle Design Commission

November 4, 2010

CAPITOL HILL WATER QUALITY PROJECT (SWALE ON YALE)

Agenda

1. Problem
2. Goal
3. Site Conditions
4. Proposed Solution
5. Schedules
6. Design Challenges
7. Public-Private Partnership

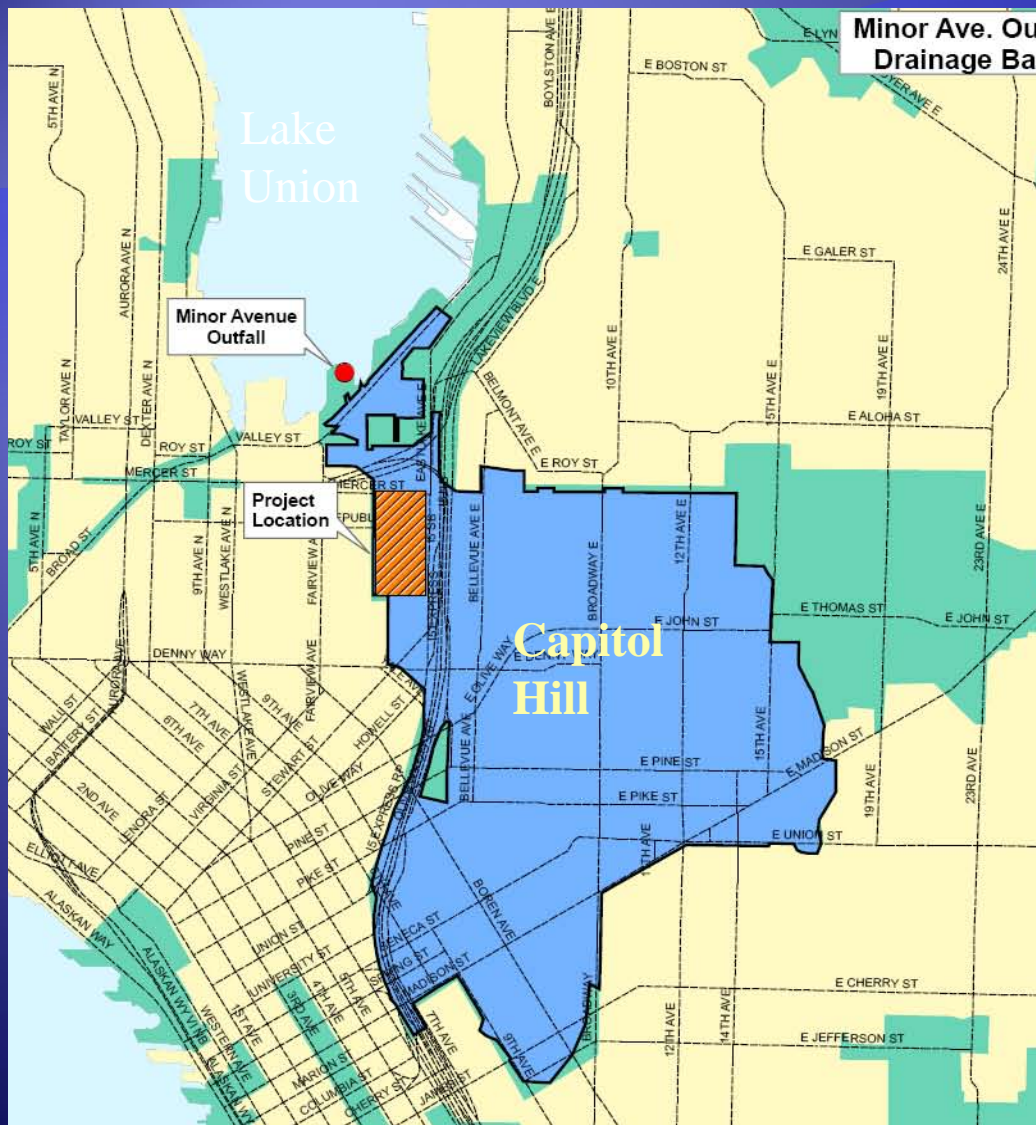
1. Problem

- ◆ Capitol Hill Stormwater Runoff is polluted
- ◆ Drainage Discharges to South Lake Union (SLU) Untreated

2. Goal

- ◆ Remove as much of the pollutant load as possible before discharging to SLU
 - ◆ Provide cost-effective water quality treatment
 - ◆ Create more green space and friendly street-scape
 - ◆ Treat equivalent of 150-acres of Capitol Hill

3. Site Conditions



- Combined area
- Separated area
- Separated area draining to Minor Ave outfall

Historic uses



Cascade neighborhood and portion of Capitol Hill behind it, Lake Union off picture to left, Seattle, 1890
Photo by F. Jay Hayes, Courtesy Montana State Historical Society



Western Mill Co., South Lake Union, Seattle, ca. 1891
Photo by Frank La Roche, Courtesy UW Special Collections (Neg. LAR303)



Cascade neighborhood from 5th Avenue and Stewart Street, 1891
Courtesy UW Special Collections

Project Area



Cascade Neighborhood



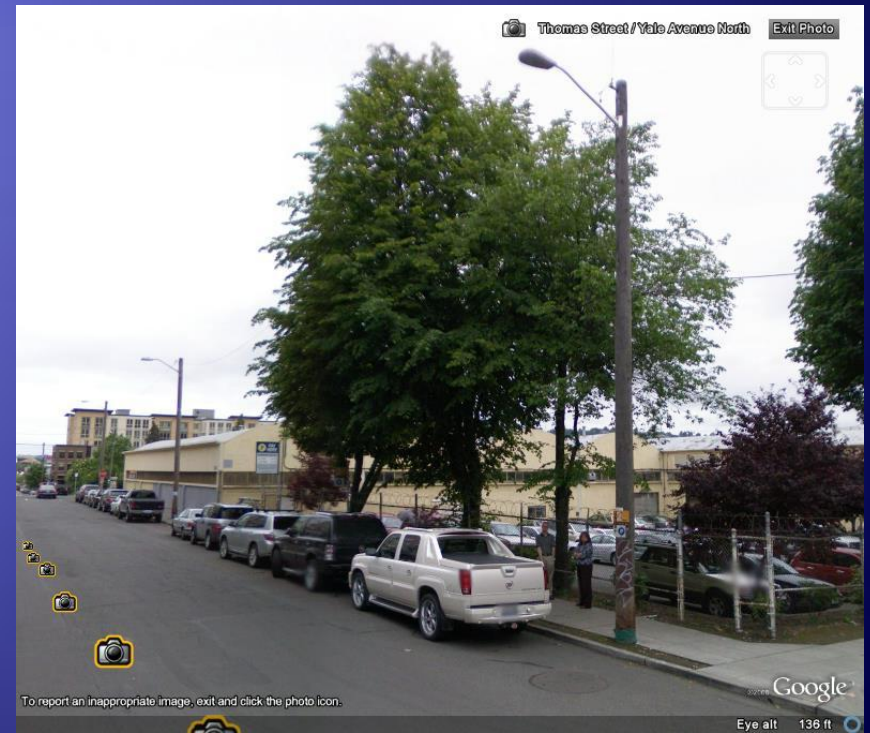
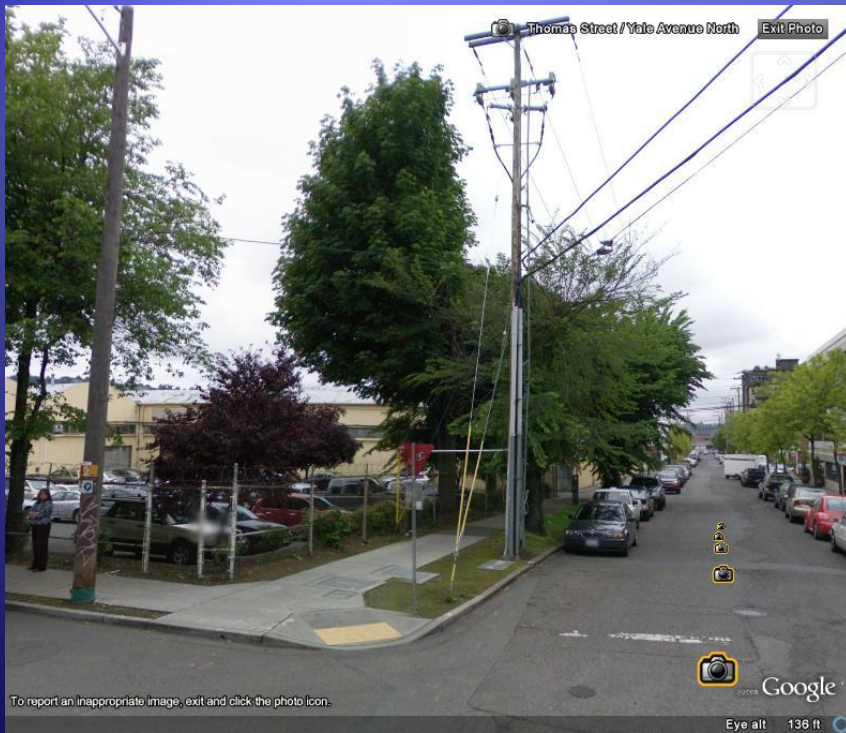
Cascade Neighborhood



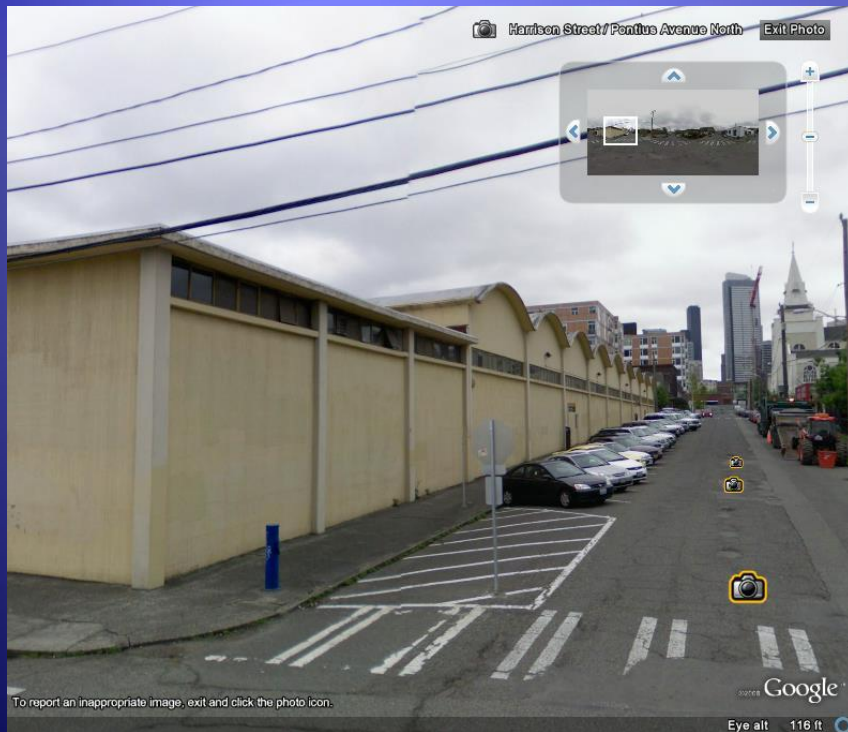
North Block



South Block



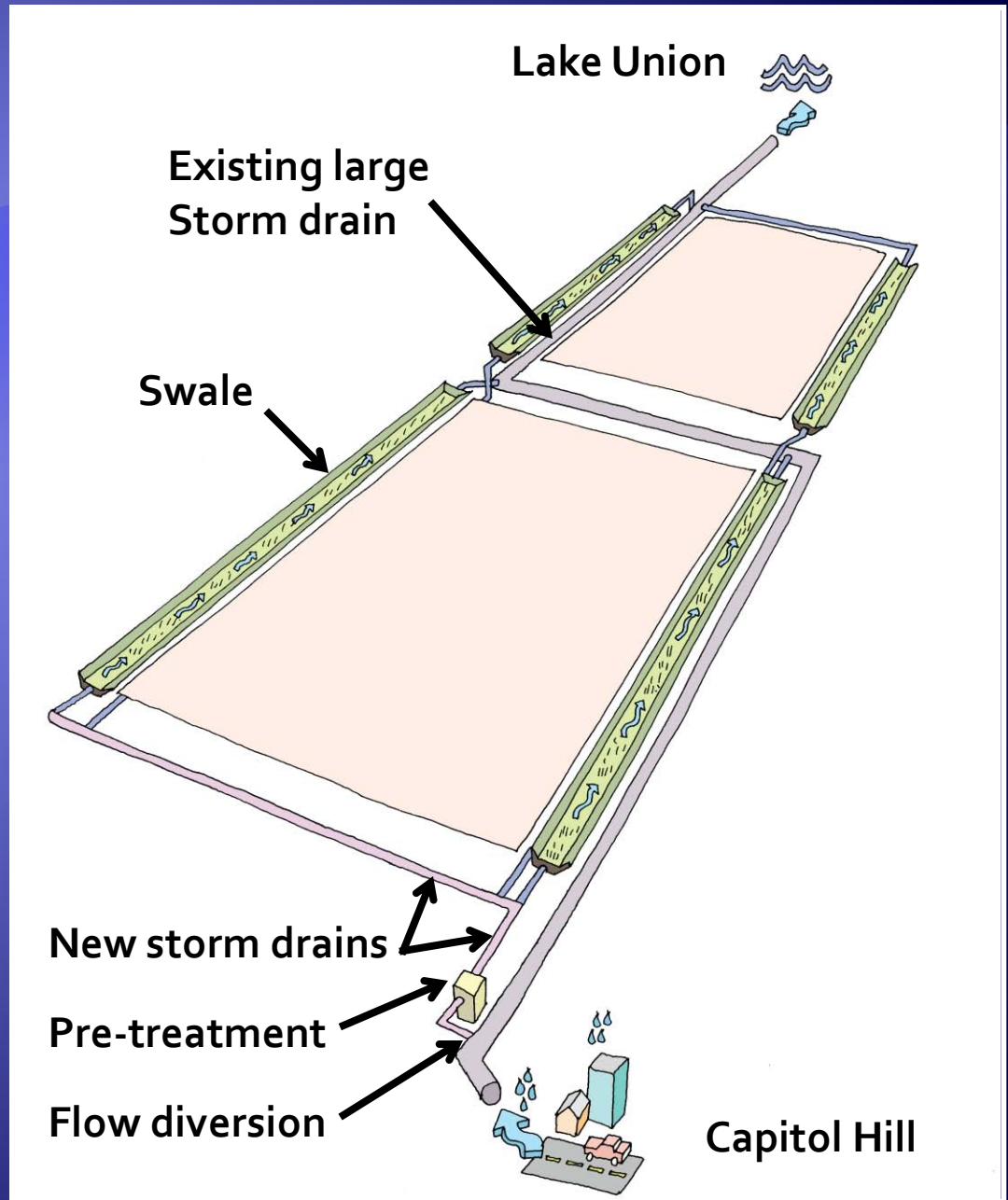
South Block



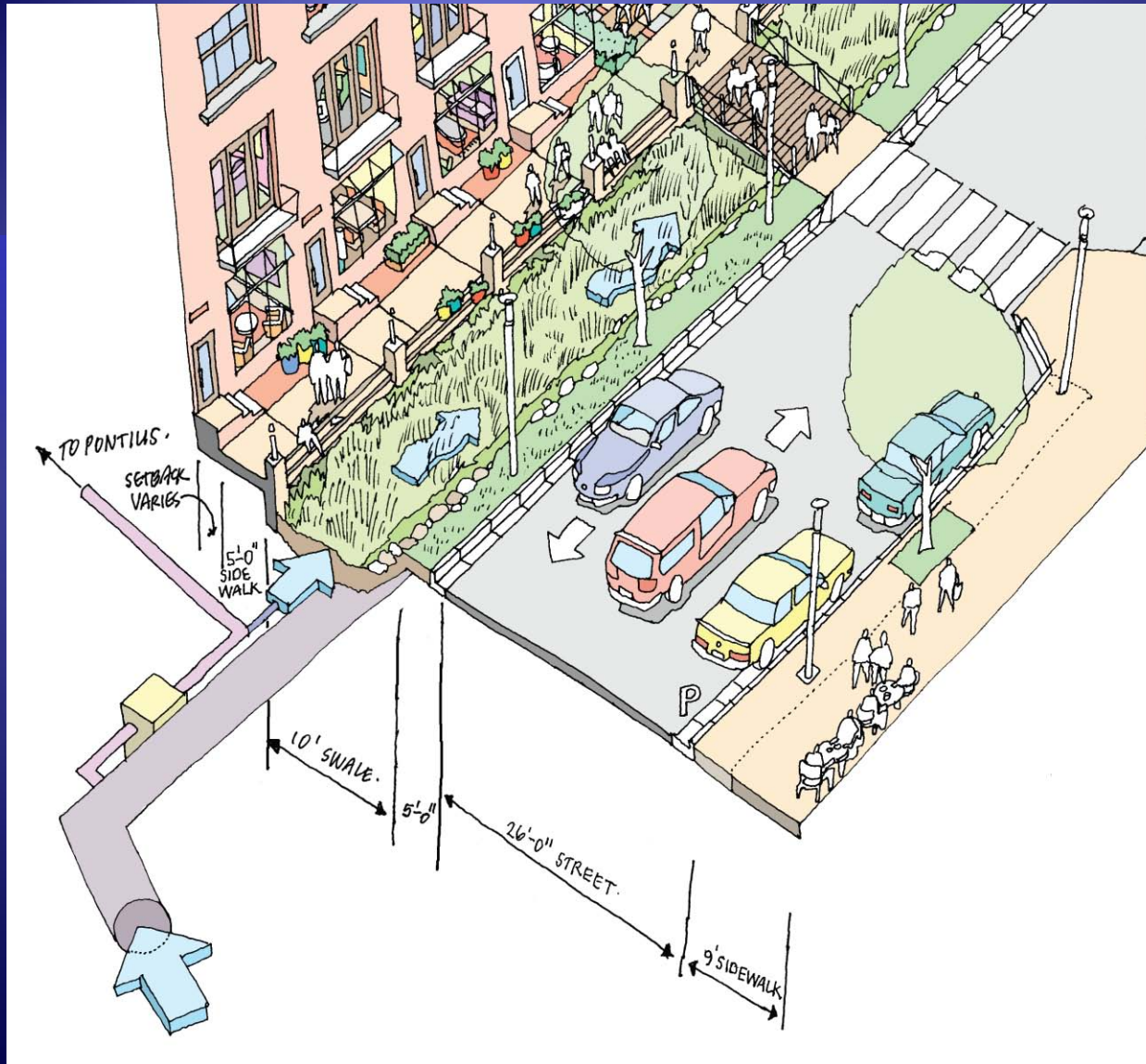
4. Proposed Solution

Biofiltration Swale

How does it work?

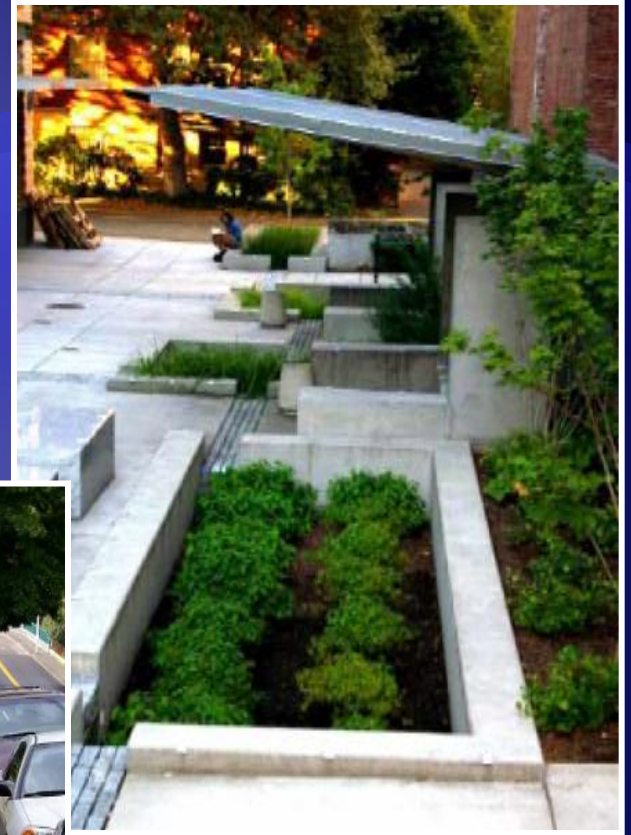


Key Design elements



- Swale takes parking lane
- Swale ~10-17 ft wide, 12 to 23-in deep
- 26-ft wide driving/parking roadway
- Minimum 6-ft sidewalks
- Mid-block (~ 17 ft) pedestrian crossing

Stormwater Design Inspiration



Yale Ave

artist rendition



Capitol Hill Water Quality Improvement Project
(formerly known as Swale on Yale) 4/29/07

North Block
Paving

South Block
Paving

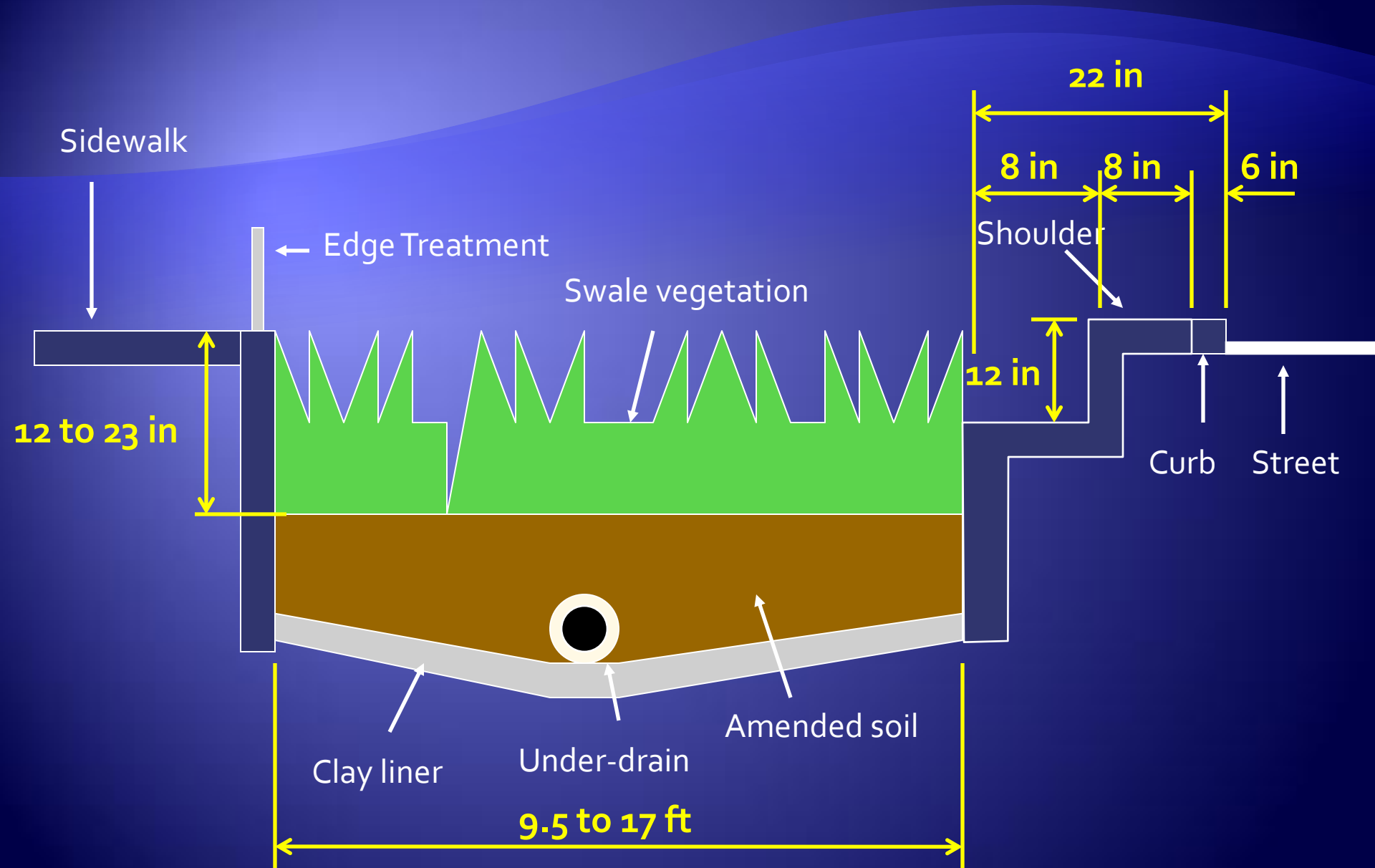
North Block
Redevelopment

South Block
Redevelopment

Conveyance &
Pretreatment



Swale cross-section





VIEW OF HARRISON STREETScape



VIEW OF PONTIUS STREETScape

5. Project Schedule

Phase	2010	2011	2012	2013	2014	2015	2016	2016 - 2018
1. & 4. Conveyance	Design	Ad	Build			Ad	Build	
2. Northern Swales	Design	Developer Construction			Swale Construction			
3. North Block Repaving	Design			Ad	Roadway			
4. Southern Swales*					Design	Developer Construction	Swale Construction	
5. South Block Repaving*					Design			Ad Road
Plant Establishment Monitoring					Plant Establishment and Monitoring			

SPU Lead

Developer Lead

* Timing of South Block work depends on market conditions

Commission Presentation Schedule

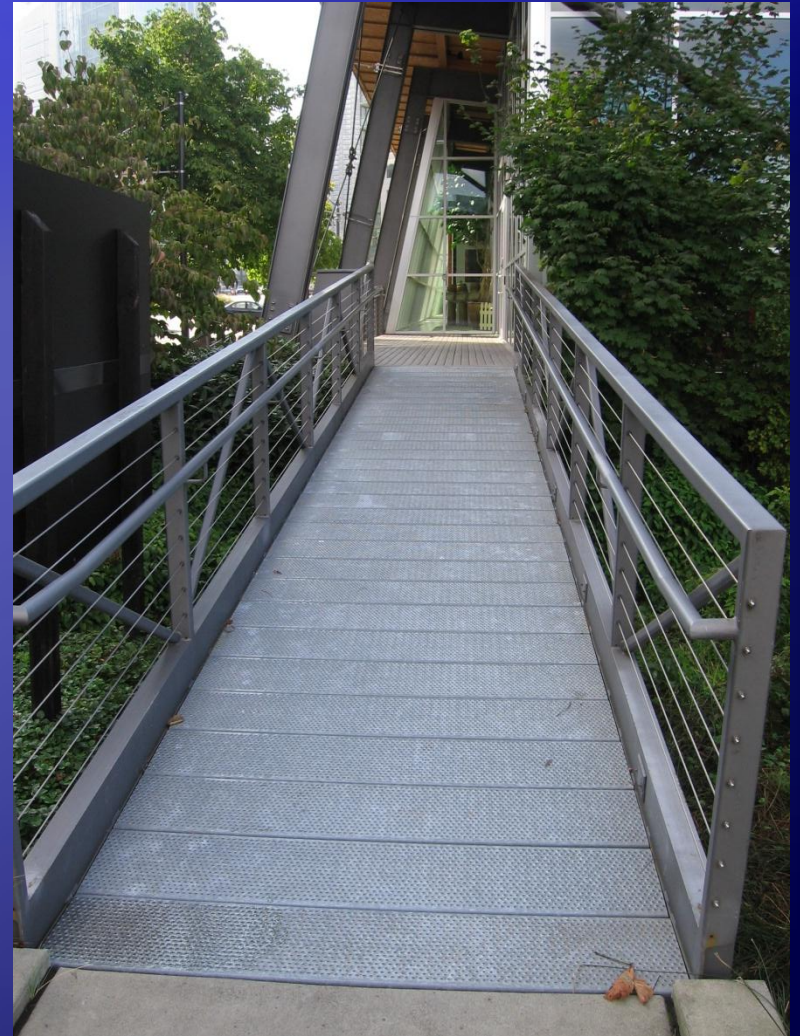
- ◆ November 2006 Concept
- ◆ December 2008 Early designs
- ◆ 11.07.10 30% Design
- ◆ 1Q 2011 60% Design
- ◆ 2Q 2011 pre-90% Design
- ◆ 2013 pre-construction North Block Swales
- ◆ 2017 pre-construction South Block Swales

6. Design Challenges

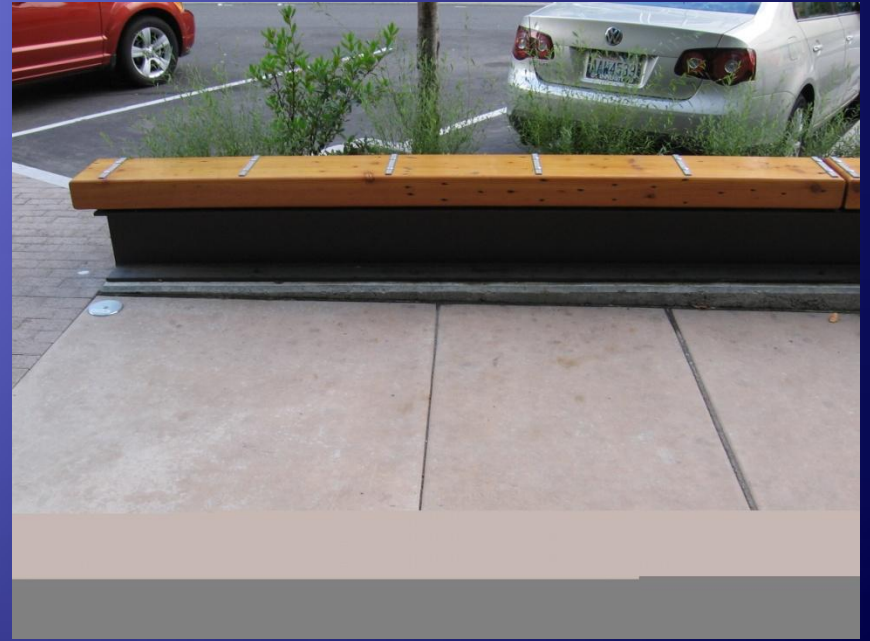
**A. PEDESTRIAN MID-BLOCK
CROSSING**

B. SWALE EDGE TREATMENTS

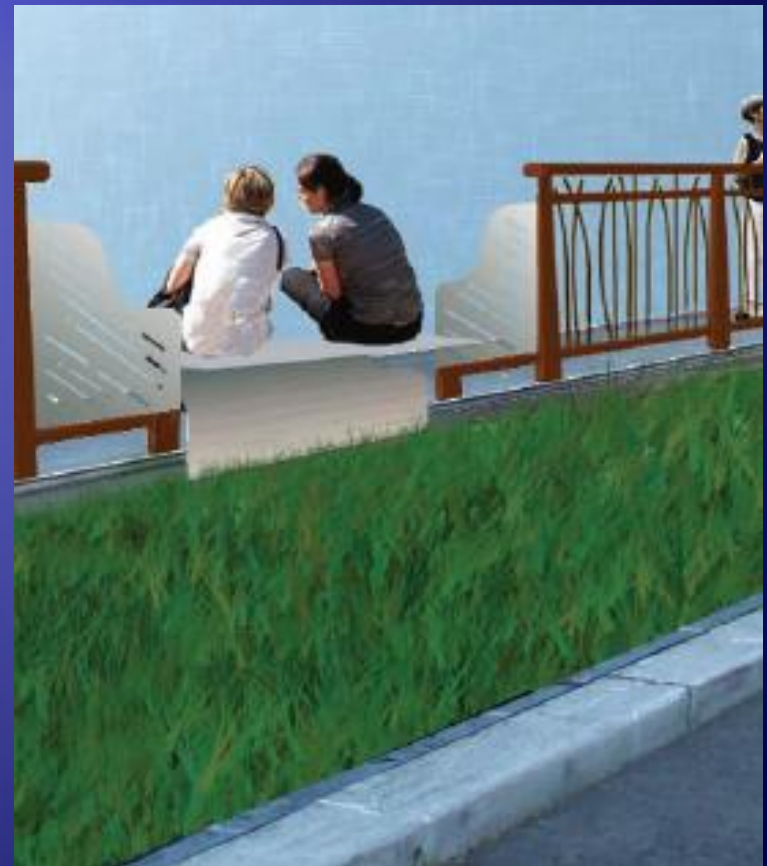
Denny Way Discovery Center



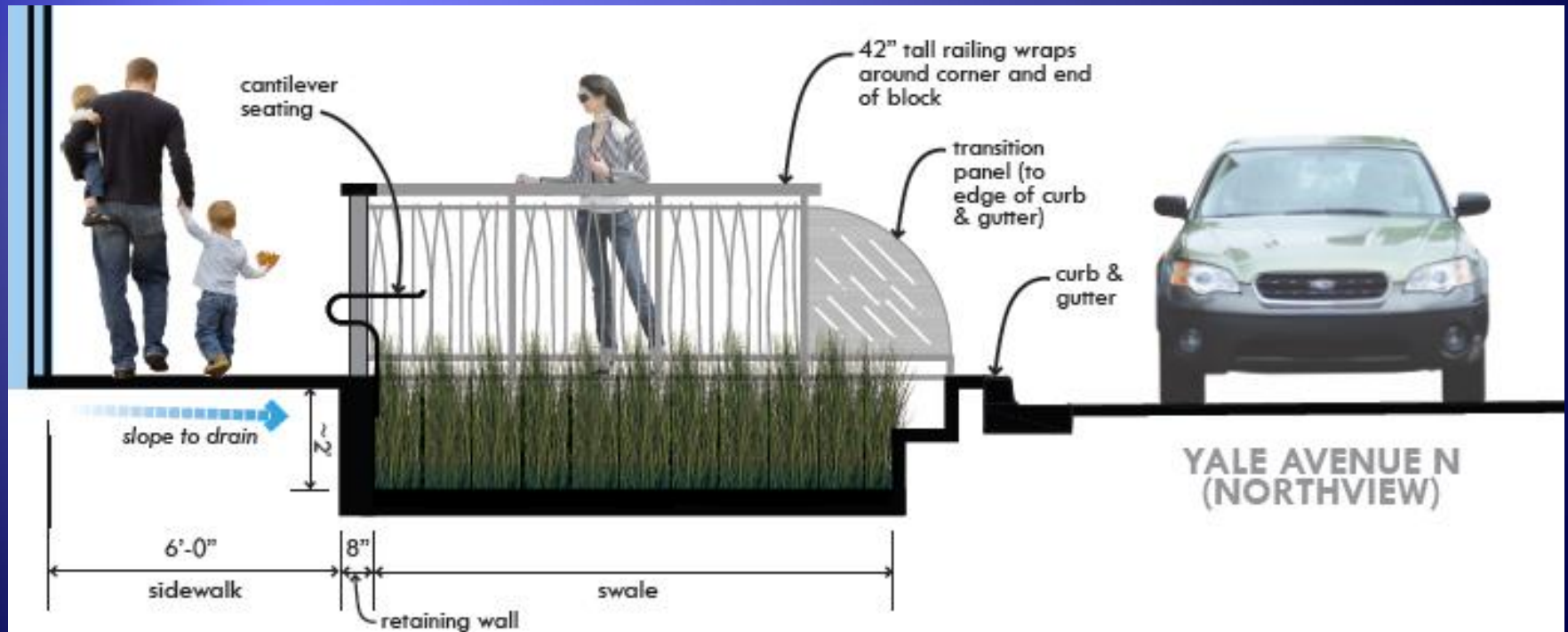
Swale Edge Treatments



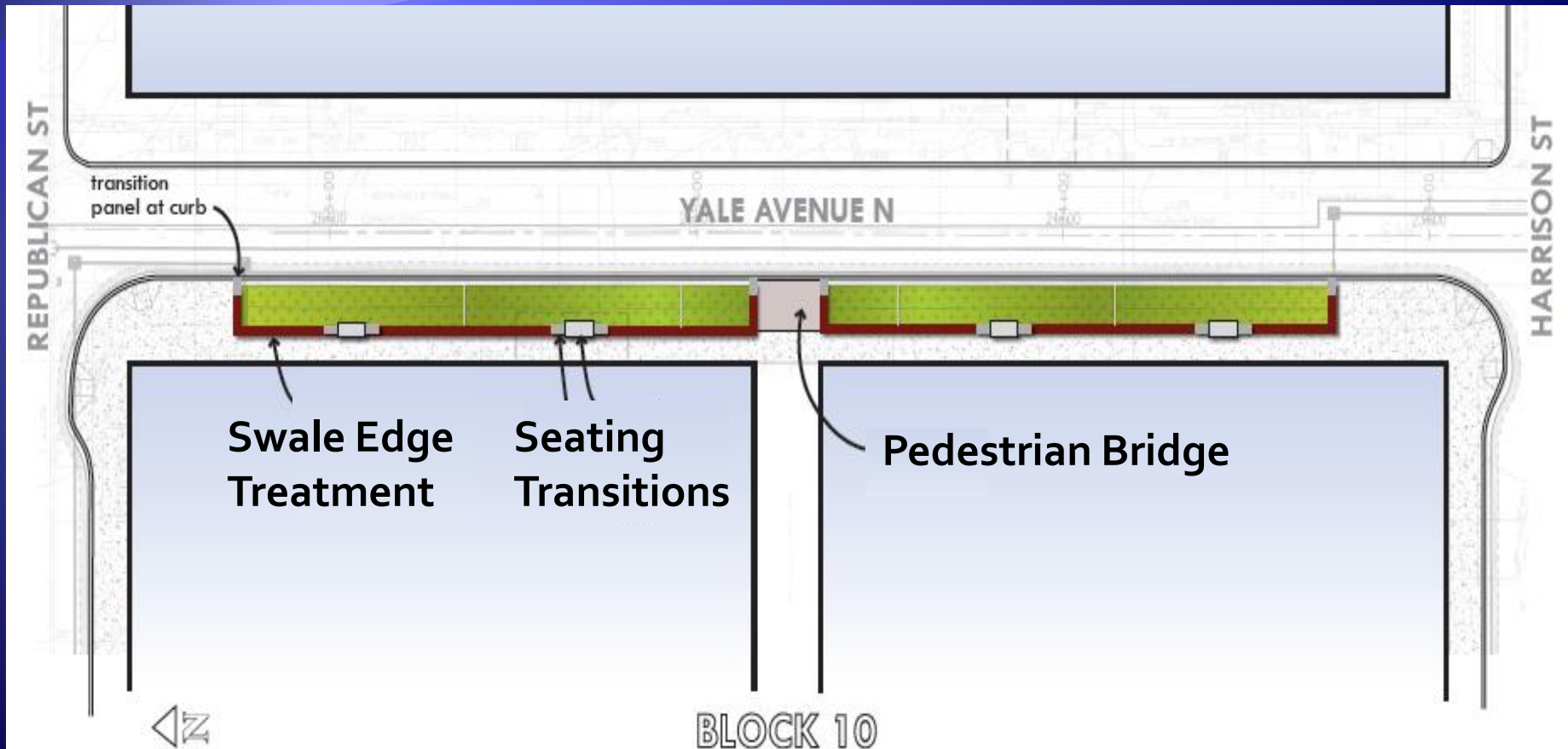
Swale Edge Treatments



Swale Edge Treatments



Swale Edge Treatments



7. Public-Private Partnership

- ◆ The project is only possible with support from the adjacent property owner:
- ◆ Voluntary 1-ft building set back provides extra room in the right-of-way.
- ◆ Shared construction costs.
- ◆ Shared maintenance
- ◆ Shared vision of sustainability.

BUILDING CHARACTER DESIGN



F.6 ARCHITECTURAL SITE CONCEPT: CONCEPT K - PREFERRED SCHEME



EARLY CONCEPT SKETCH OF SITE PLAN