

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

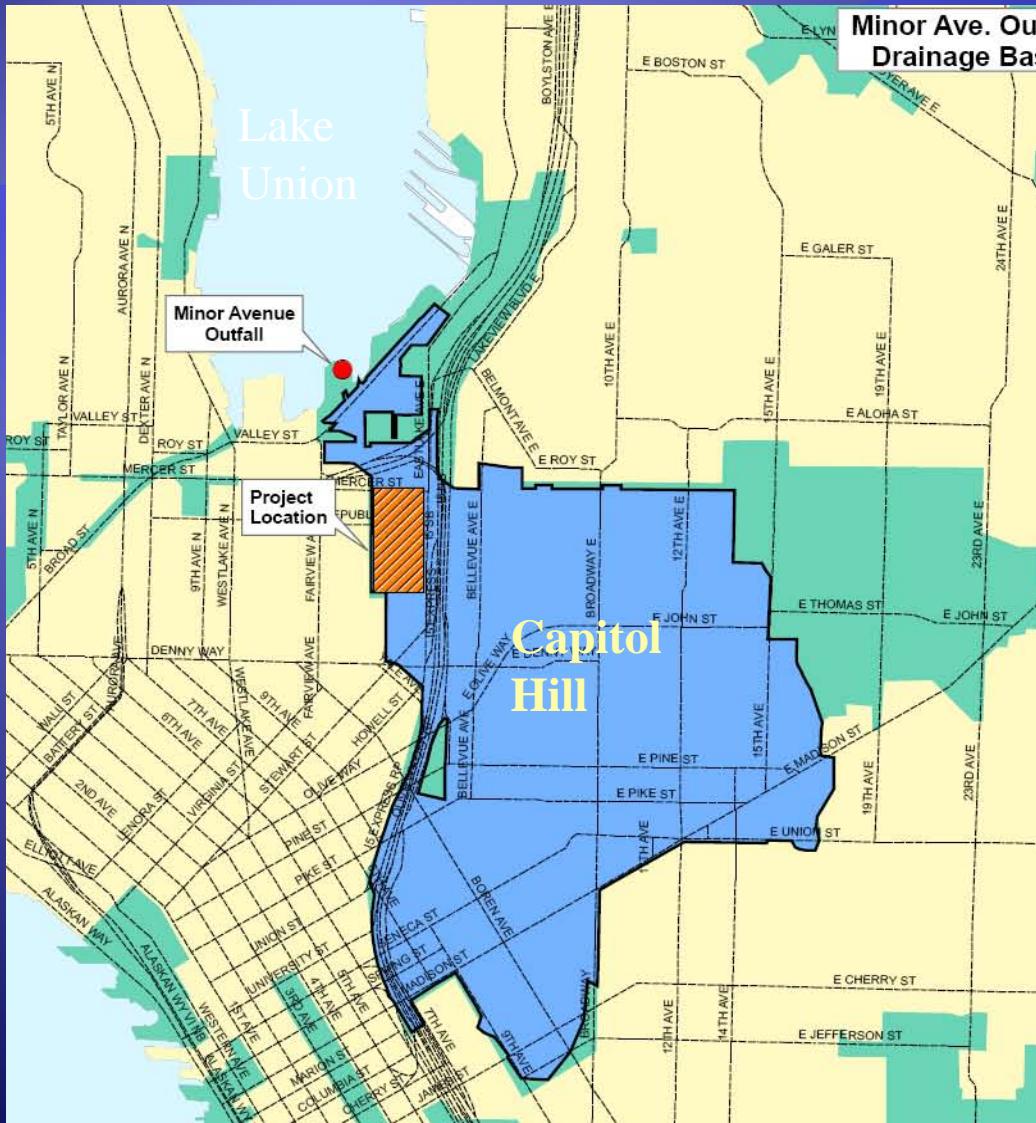
# 1. Problem

- ◆ 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



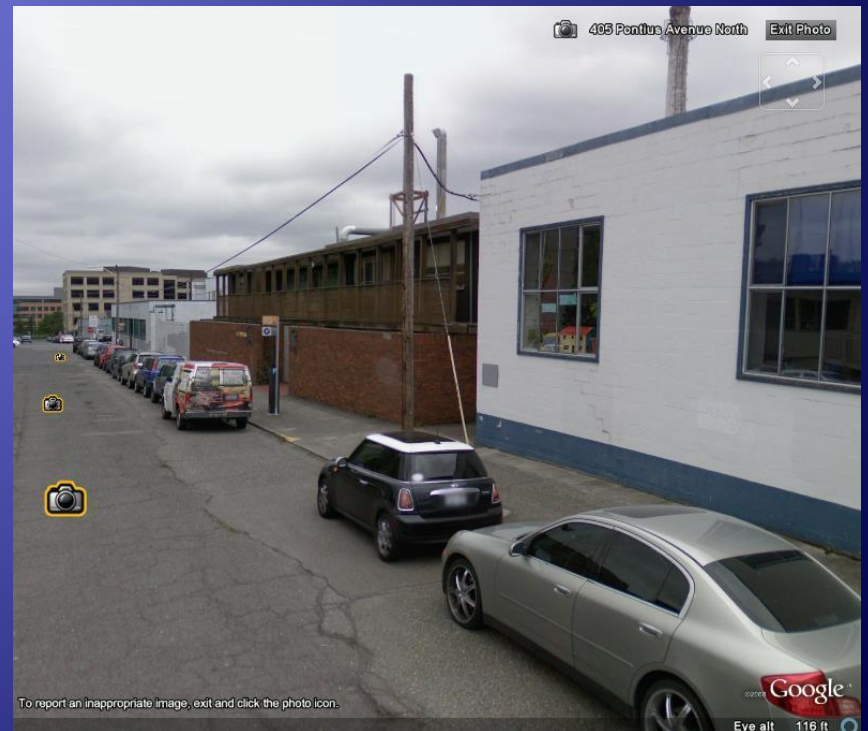


# Cascade Neighborhood

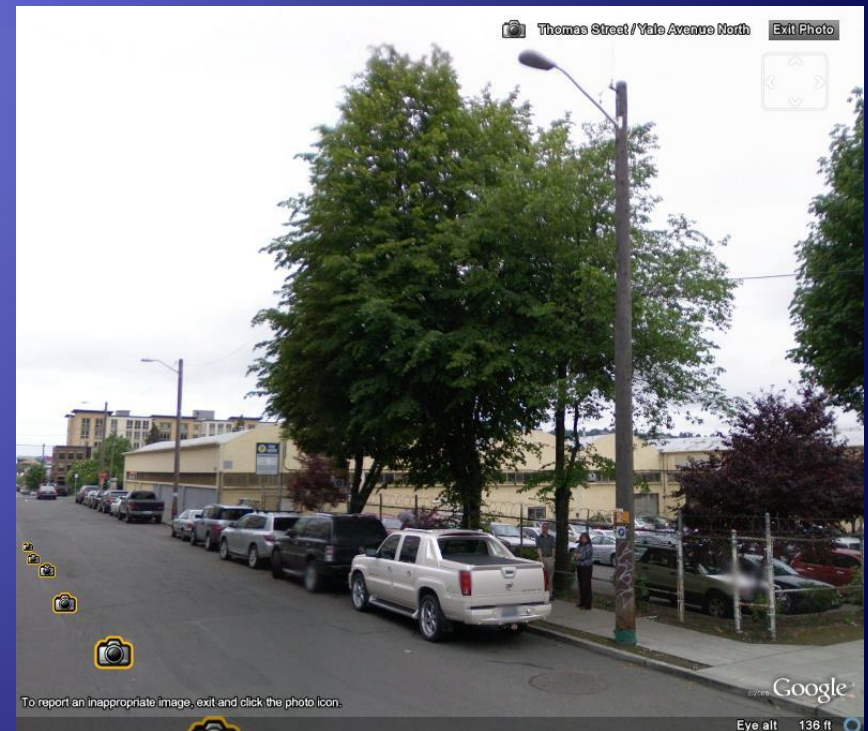
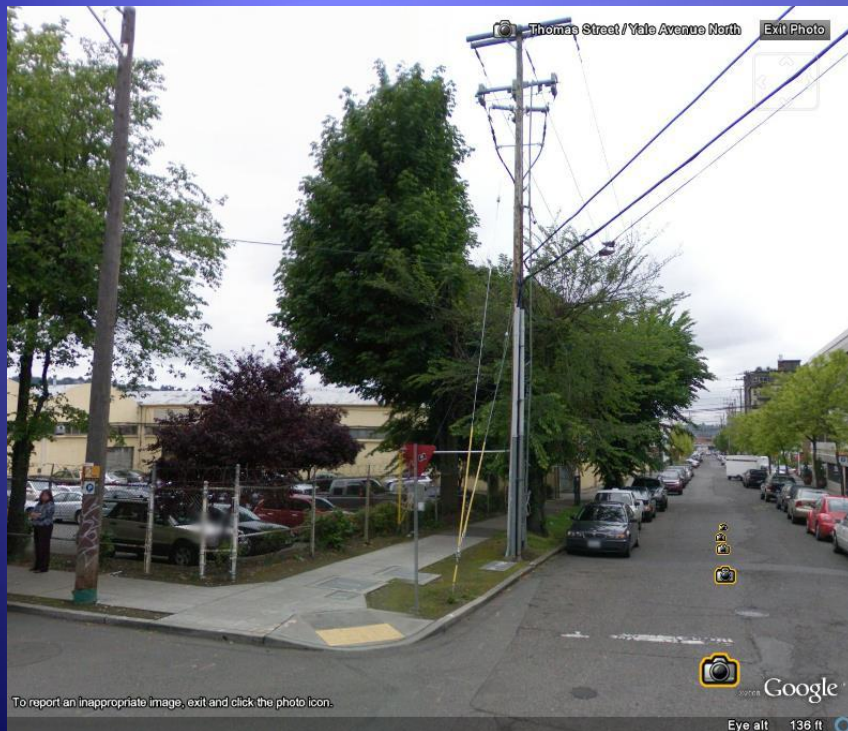




# North Block

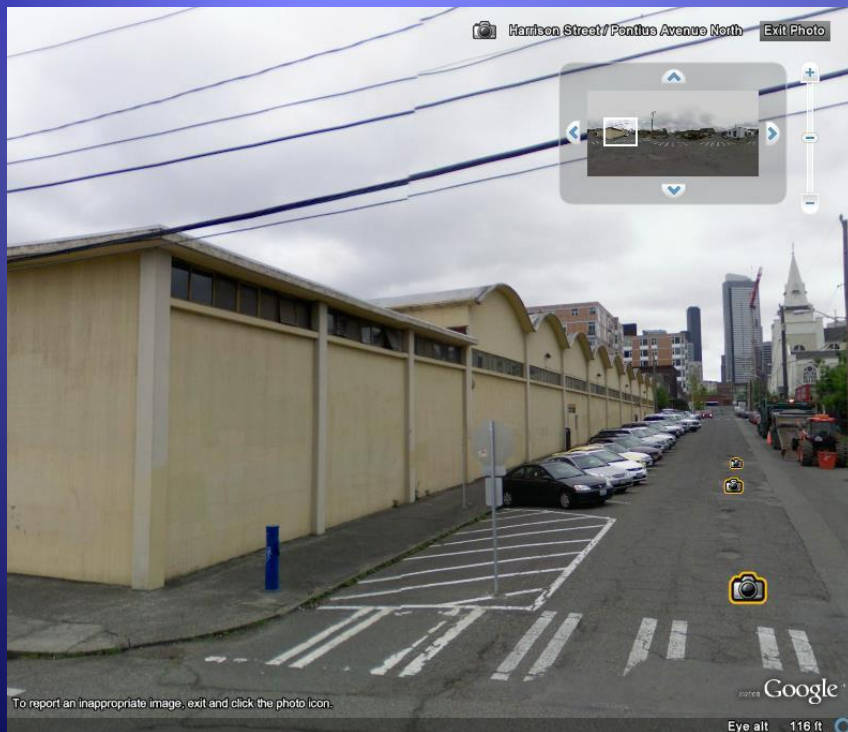


# South Block





# South Block

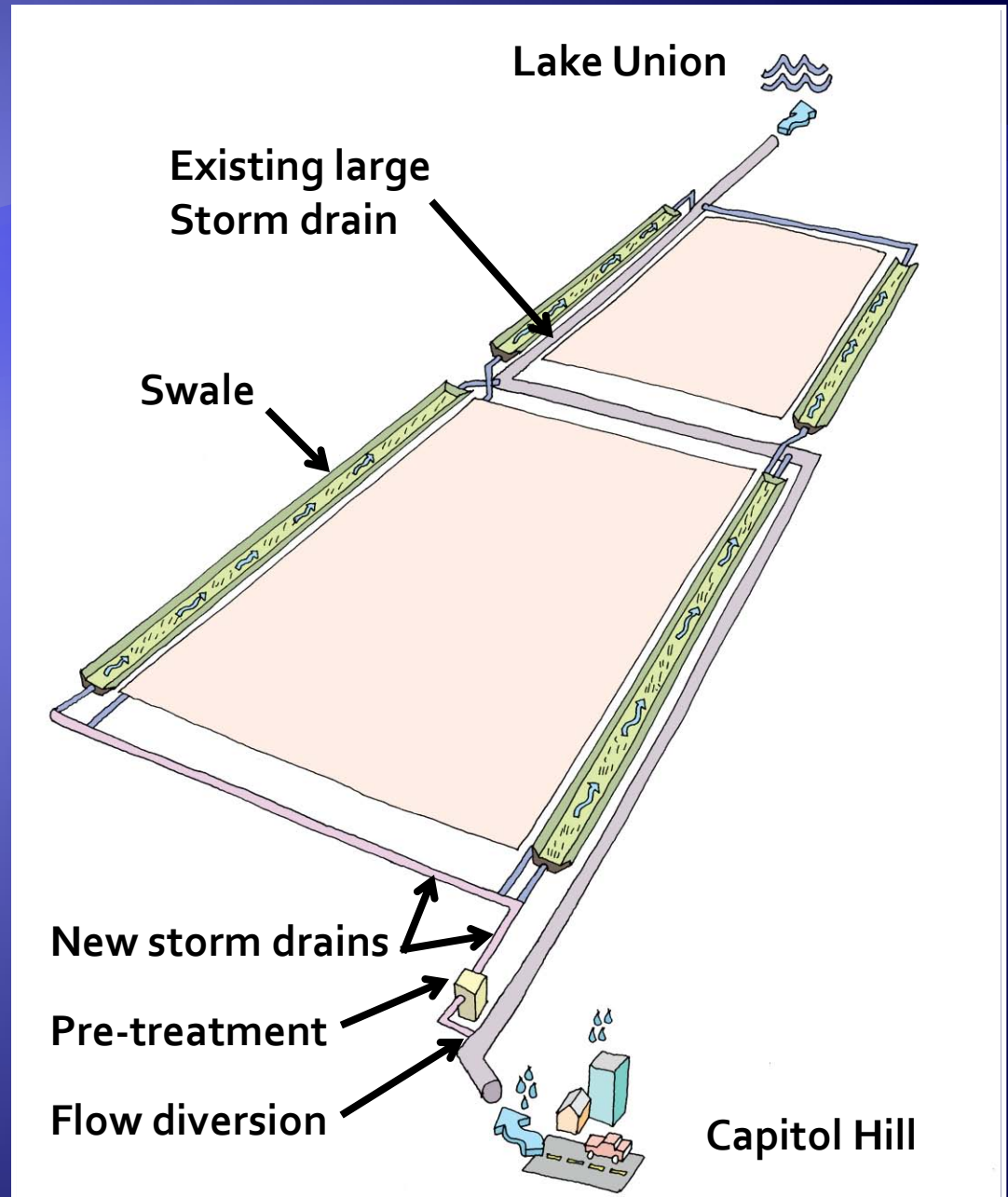


## 4. Proposed Solution

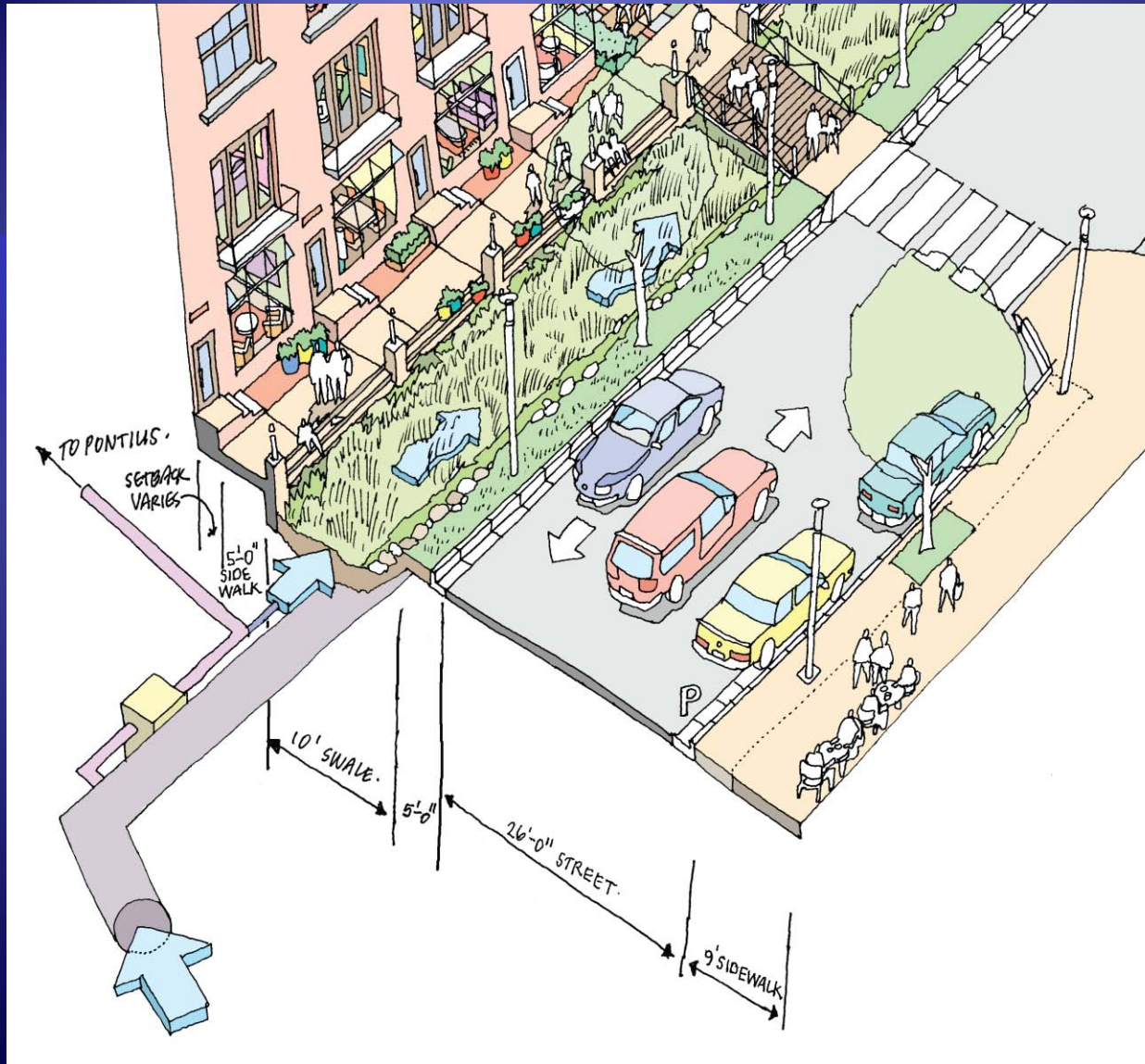


# Biofiltration Swale

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

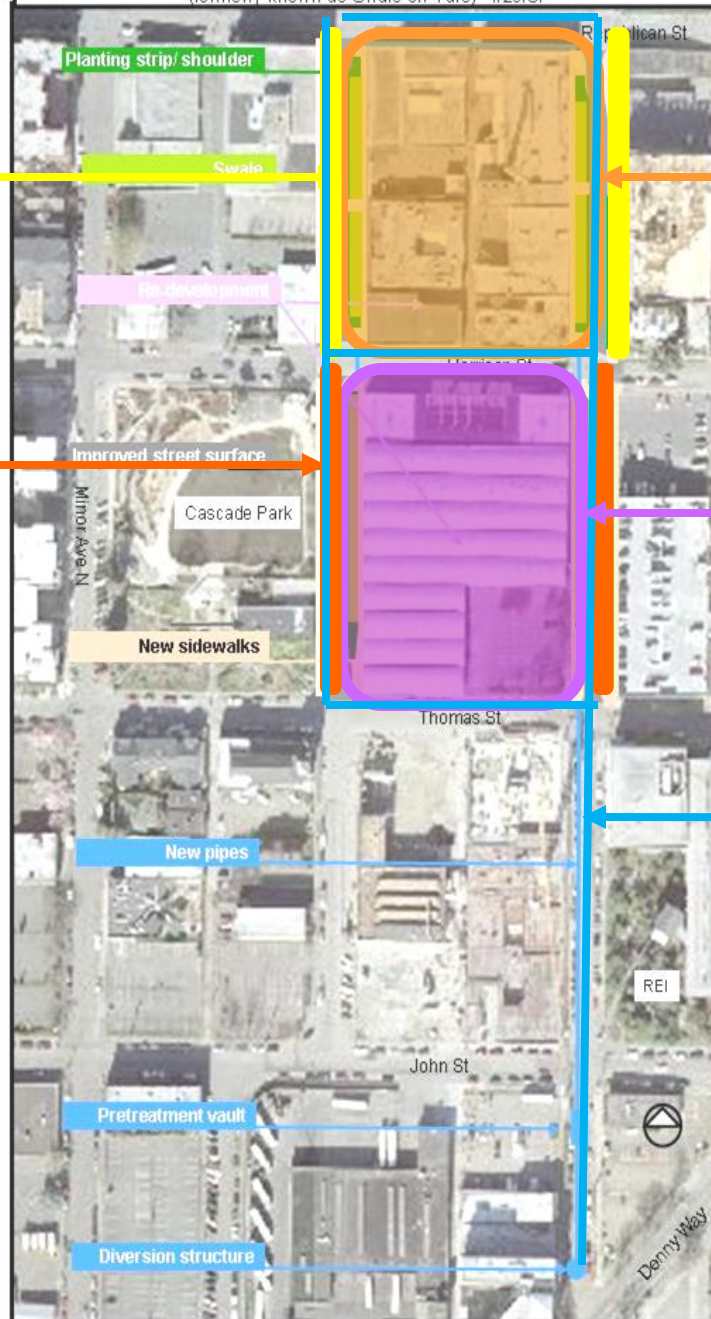
North Block  
Paving

South Block  
Paving

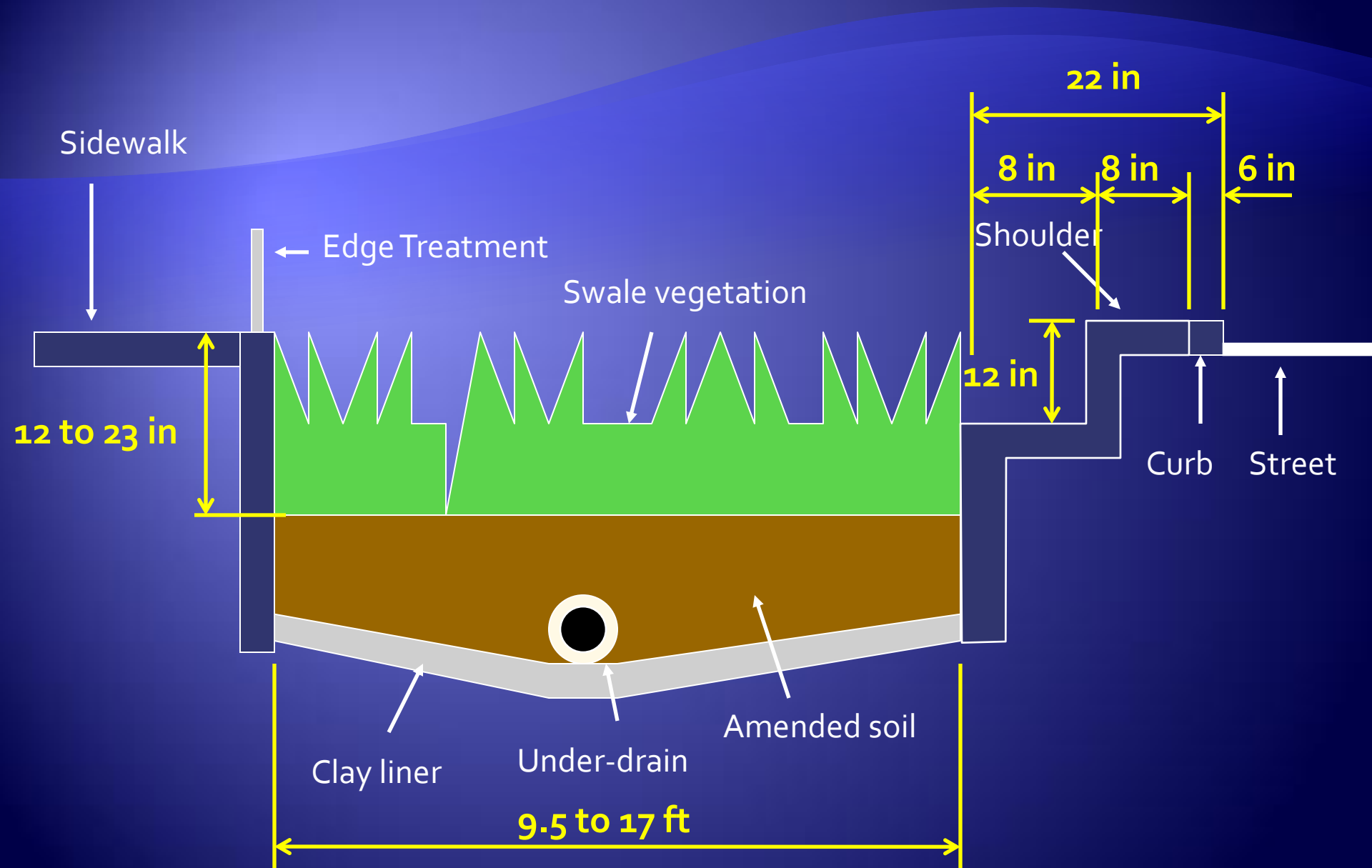
North Block  
Redevelopment

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

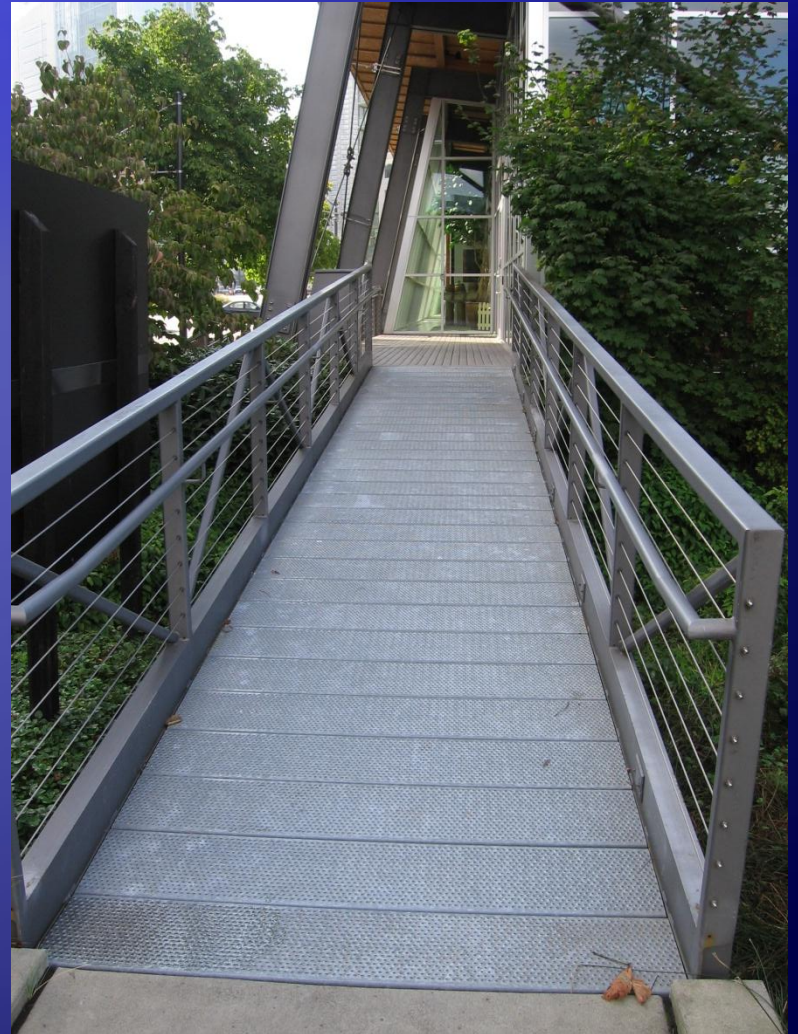
## 6. Design Challenges

**A. PEDESTRIAN MID-BLOCK  
CROSSING**

**B. SWALE EDGE TREATMENTS**



# Denny Way Discovery Center

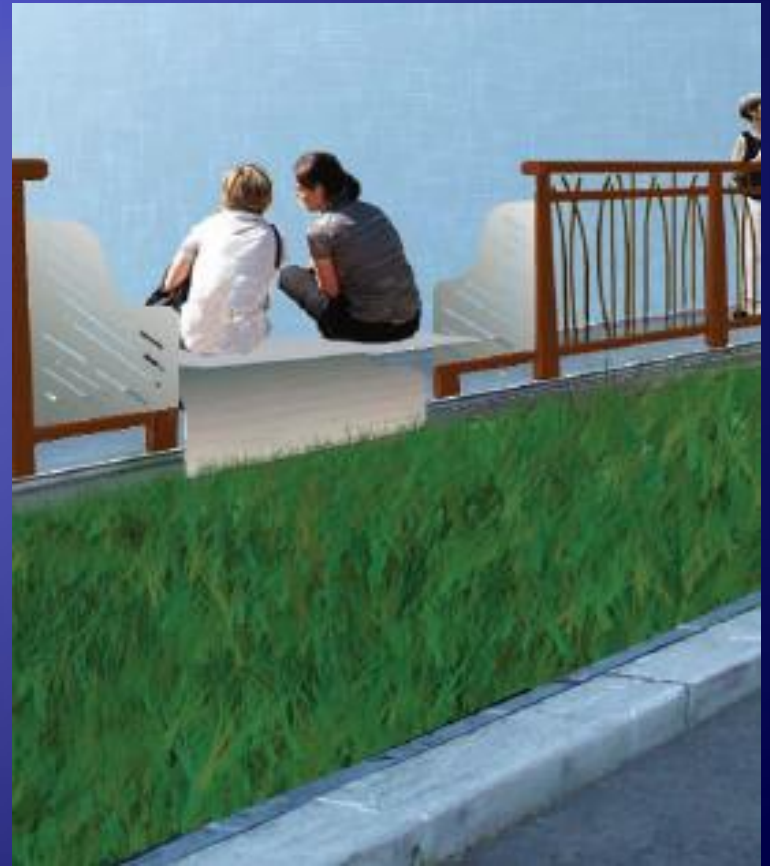


# Swale Edge Treatments

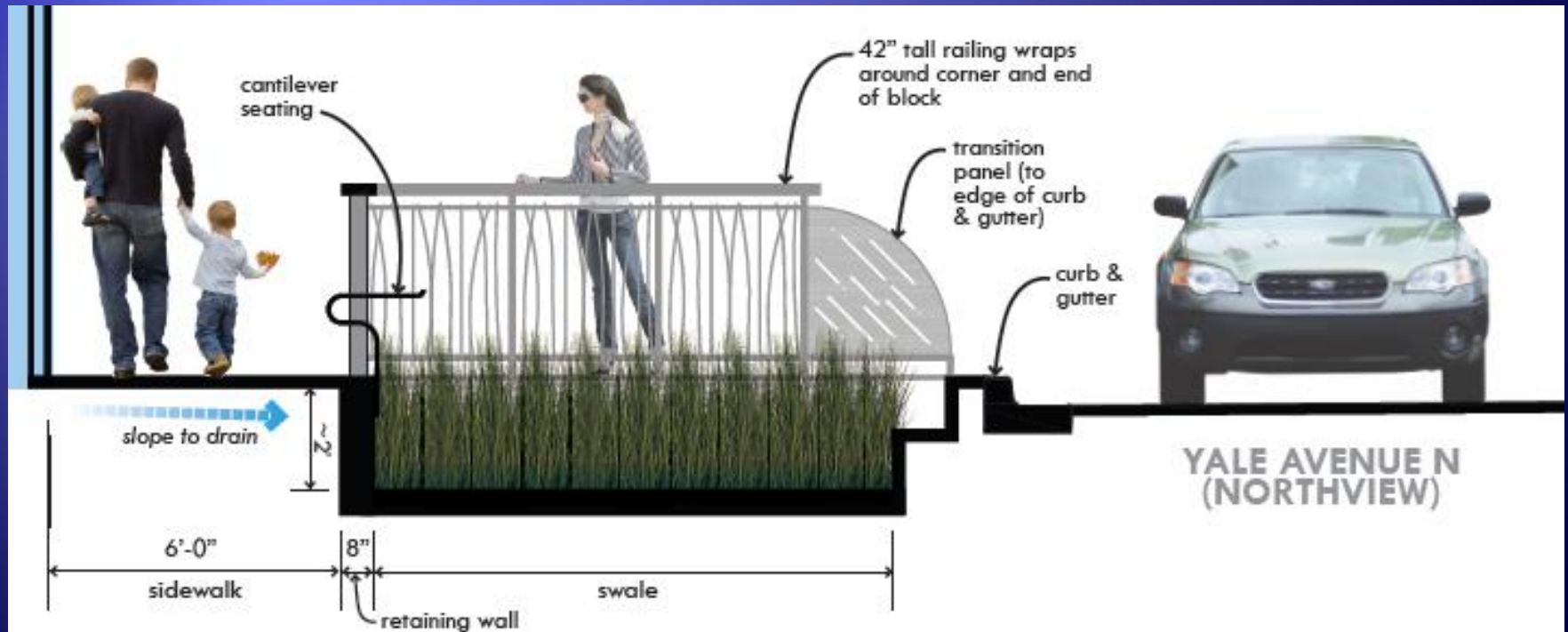




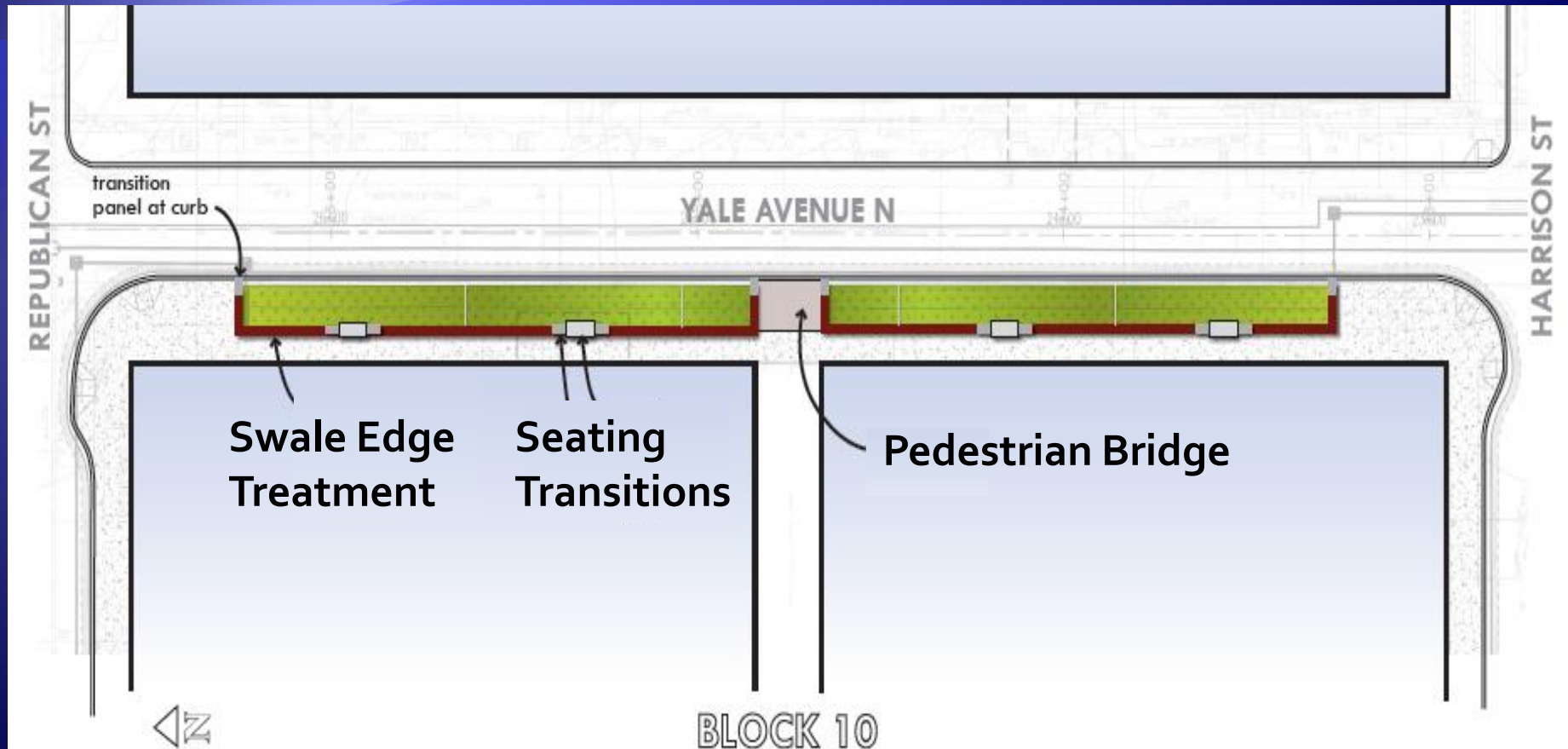
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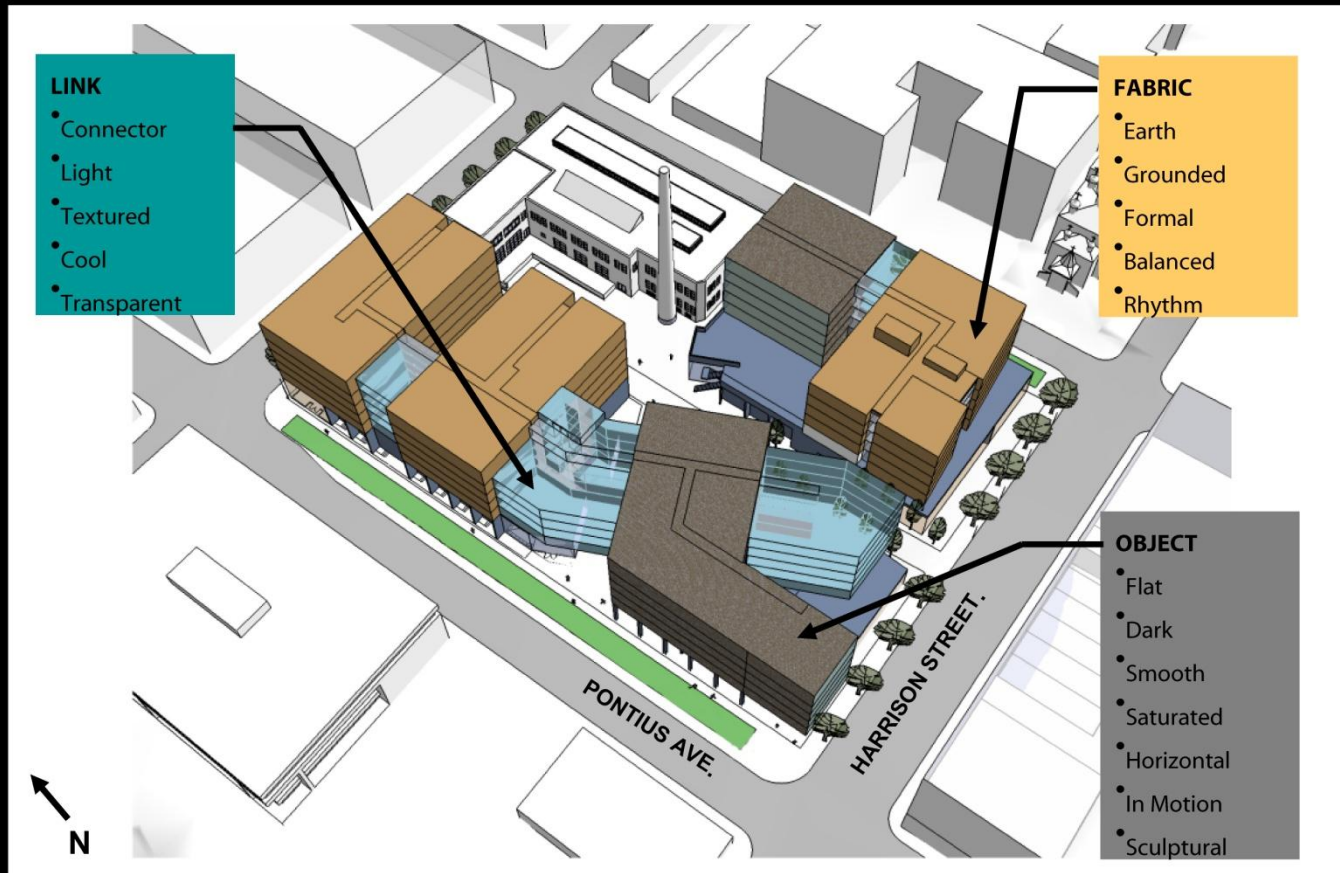




# 7. Public-Private Partnership

- ◆ 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