High Point Redevelopment
Green Gardening Workshop
October 21, 2015

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Longfellow Creek Watershed
High Point Redevelopment, Seattle, WA

Longfellow Creek watershed

High Point prior to redevelopment

Longfellow Creek
High Point Drainage Concept Plan - 2001
How High Point Works

**HOW HIGH POINT DRAINAGE WORKS TO RECHARGE OUR GROUNDWATER AND PROTECT THE CREEK**

**HOUSES** use different strategies to collect, infiltrate, and cleanse rainwater.
- splashblocks
- rocks
- furrows or channels
- stormwater pop-ups
- planted depressions (raingardens)
- yard drains

**STREETS** slope to one side and cut in curb direct rainwater into planted and grass swales.

**SWALES** collect, absorb, and filter rainwater from streets and houses into the ground before going into the city storm drain.

**CONVEYANCE FURROWS** direct water away from the house via a path of gravel and crushed rock.

- slotted pipes enable water to seep into the ground while moving away from the house and into the rain garden
- stormwater pop-ups release water into the yard
- swales are designed with crossing points
- stormwater flows across sidewalks toward swales
- 32nd Street north of Raymond Street is porous concrete to allow water to pass through into the ground before it goes to the swale.
- city storm drain to carry bigger rainstorms to the large pond which slowly releases cleaner stormwater to Longfellow Creek.
- rocky soil holds water until it seeps into the pipe
- filter soil mix
- slotted pipe (underdrain)
- yard drains direct rainwater to swales or a pipe
- splash blocks slow and direct water away from the house and should be kept clean of leaves
- porous concrete sidewalks allow water to pass through into the ground

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High Point Streets - Natural Drainage Approach
Developing Cross Section & Swale Length

Typical Residential Street Section with 25’ Roadway and 56’ Right-of-Way
Developing Cross Section & Swale Length

- Vegetated swale
  - 18” grading depth for 10” of ponding

- Grass-lined swale
  - 8” grading depth for 2” of ponding
High Point Swales

- Vegetated
- Grass-lined
- Conveyance
32nd Avenue SW - Porous Cement Concrete Public Street
Natural Drainage Strategies – Housing Block-level Design

- High Point Drainage Technical Standards and requirements for each lot per the plat

- Examples of Methods to use:
  - Porous pavement
  - Reduce Impervious footprint
  - Conveyance furrow
  - Dispersal trench
  - Rain garden
  - Pop-up emitter
  - Downspout Disconnect
Housing Sites Drainage Dispersion, Splashblocks, Rain Gardens & Art
Stormwater Pond
High Point has proven installations that are now being applied across the country

- Low Impact Design/Site Drainage Technical Standards
- Reduced impervious footprints
- Mature tree protection techniques
- Site fully integrated with Low Impact Development techniques
- Reduced road widths
- Site-wide pedestrian circulation and safety enhancements
- Use of porous paving applications for walks, roads and parking lots
High Point has ... proven installations that are now being applied across the country

- Multifunctional stormwater park
- Menu driven low impact development approach
- Defined permitting review process
- Interagency collaboration
- Community education
- Resident education
- Maintenance and operation standards
- Art integration
- Aesthetic treatment of drainage swales

Sandblasting by Myersculpture
Seattle Public Utilities had a vision for a neighborhood with a naturalistic drainage approach.

Seattle Housing Authority had a vision for a diverse, sustainable neighborhood.

These two public agencies have worked hard to implement these visions.

Recognition:
Seattle Housing Authority
Seattle Public Utilities

Other Agencies:
Washington State Department of Ecology
US Department of HUD
Seattle Department of Planning and Development
Seattle Department of Transportation
Seattle City Light
Seattle Parks Department

Artist
Myers Sculpture

For more information: www.svrdesign.com and www.seattle.gov/util/naturalsystems

Consultants:
SvR Design Company
Mithun Architects and Planners

Resource Consultants:
Shannon and Wilson
RW Beck & Herrera
Nakano Associates
Stoneway Concrete
Cedar Grove Composting
NW ACPA

Ph I Natural Drainage System Contractors:
Absher Construction (ROW & SHA Hsg)
Gary Merlino Construction (ROW)
T. Yuroz Gardening Co. (ROW)
Fardig (SHA Hsg)

Ph II Natural Drainage System Contractors:
Tri-State Construction Inc. (ROW)
T. Yuroz Gardening Co. (ROW)
Absher Construction (SHA Hsg)
High Point Tour

- Break into three groups

- Three 15 minute tour segments:
  - Zach will cover maintenance
  - Jennifer will cover bioretention elements and layout
  - Teresa will cover planting design

- Meeting point at the end of each tour segment is the intersection of SW Graham St and Lanham Pl SW (NW corner of Commons Park)