DC CLEAN RIVERS PROJECT
Division J – Northeast Boundary Tunnel

Briefing for:

Commission of Fine Arts

November, 2014
Northeast Boundary Tunnel Overview

- Northern Section of DC Water’s Combined Sewer Overflow (CSO) Tunnel System
- Store and convey captured CSOs to DC Water’s Blue Plains AWWTP
- 5.1 miles long with an Inside Diameter = 23 feet
- Eight drop shafts
- Diversion Chambers
- Odor Control and Ventilation Facilities
- Schedule:
  - Award for Design-Build: December 2016
  - Construction: December 2016 – March 2022
Northeast Boundary Tunnel
Sites With Above Ground Construction

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Property Owner</th>
<th>Above Ground Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>W Street Junction Shaft Site Site</td>
<td>Located South of W Street NE between Downing</td>
<td>DPW</td>
<td>• Ventilation Control Facility Building</td>
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<tr>
<td></td>
<td>Street NE and 14th Street NE.</td>
<td></td>
<td>• Ventilation Vault Structure</td>
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<td></td>
<td></td>
<td>• Exposed Retaining Wall</td>
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<tr>
<td>R Street Diversions Site</td>
<td>Located at Intersection of 6th Street NW, R</td>
<td>U. S. Under</td>
<td>• Relocate Existing Traffic Signal Boxes</td>
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<td></td>
<td>Street NW and Rhode Island Avenue NW.</td>
<td>District Jurisdiction</td>
<td>• Reconstructed Cooper Park</td>
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<tr>
<td>Mount Olivet Road Diversions Site</td>
<td>Located Adjacent to the Mount Olivet Cemetery</td>
<td>DPW</td>
<td>• Installation of New Electrical Equipment in Cabinets</td>
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<tr>
<td></td>
<td>along Mount Olivet Road NE.</td>
<td></td>
<td>Screened Behind Existing Fence</td>
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</tbody>
</table>
W Street Junction Shaft Site
Existing Site Photo Key

Existing DPW Salt Dome

Existing Hill to Be Removed

W Street NE

Photo 1

Photo 2

Photo 3

Photo 4

Photo Location

Image from Google Maps.
W Street Junction Shaft Site
Existing Site Photos

Photo 1
Existing Hill to Be Removed

Photo 2
Existing DPW Salt Dome

Photo 3
View of Amtrak Facilities

Photo 4
Natural Visual Barrier
- The Ground Rises along portions of W Street NE
- 35 Feet from curb line to remain undisturbed.
W Street Junction Shaft Site
Key Design Elements

1. Ventilation Control Facility Building and Ventilation Control Vault will channel air from the Northeast Boundary Tunnel
2. Air will pass through carbon treatment during low flow conditions
3. Retaining Wall will allow removal of existing hill to provide usable area for the Department of Public Works
4. Install 42-Inch high aluminum rail fence at retaining wall for fall protection
5. Install 8-Foot high Screening Fence located 15 feet inside property line to meet Zoning requirements
6. Green infrastructure includes:
   a) Bioretention Area for entire impervious area
   b) Green roof
   c) Building design to LEED Silver equivalent
W Street Junction Shaft Site
Proposed Final Site Plan
W Street Junction Shaft Site
Rendering 1: Aerial View

- W Street Residences
- Green Roof
- 35 Feet of Natural Vegetation and 8 Foot High Screening Fence
- Existing Salt Dome
- DPW Usable Space Created by Removal of Hill
- Ventilation Control Facility
- Bioretention Area
- Amtrak Property
W Street Junction Shaft Site
Rendering 2: Ventilation Control Facility – East Elevation

- Existing Salt Dome
- 35 Feet of Natural Vegetation and 8 Foot High Screening Fence
W Street Junction Shaft Site
Rendering 3: Ventilation Control Facility – South and West Elevations

Proposed Materials
- Aluminum Sun Screens
- Precast Concrete Panels
- Vision Roll Up Doors
- Textured Precast Concrete
- Corrugated Metal Panel (on East Elevation)

Bioretention Area

35 Feet of Natural Vegetation and 8 Foot High Screening Fence
W Street Junction Shaft Site
Example Retaining Wall and Screen Fence Materials

Limestone Texture Blocks
as Manufactured By Redi-Rock or Similar

Louvered Screening Fence
as Manufactured By Ametco or Similar
W Street Junction Shaft Site
As Viewed From Amtrak Rails

Note: View from New York Avenue is completely obstructed by existing vegetation
Conclusion: Proposed construction will not impact the view from Amtrak trains.
DC Clean Rivers
Construction at this Site is Below Grade
(Relocation of Existing Above Ground Features Only)

Cooper-Gordon Park
Project has been reviewed and approved by District DPR, DGS, HPO & ANC
R Street Diversions Site

Existing Site Photo

- Photo 1
- Photo 2
- Photo 3
- Photo 4

Park to Be Restored
- Character of park preserved
- Amenities improved per DPR & ANC request
- All New Construction is At or Below Grade
- Existing Above Ground Traffic Signal Cabinets Relocated Outside of Park
R Street Diversions Site
Design Concept

1. All New Construction Located Underground
2. Two Existing Traffic Signal Boxes to be Relocated Out of Park
3. Cooper-Gordon Park to Be Restored Based on Extensive Coordination Between:
   a) DC Department of General Services (DGS)
   b) DC Department of Parks and Recreation (DPR)
   c) DC Historic Preservation Office (HPO)
   d) Advisory Neighborhood Commission 6E (ANC)
   e) Community Groups
R Street Diversions Site Proposed Final Site Plan

**Park to Be Restored**
- Character of park preserved
- Amenities improved per DPR & ANC request
- All New Construction is At or Below Grade
- Existing Above Ground Traffic Signal Cabinets Relocated Outside of Park
R Street Diversions Site
Cooper-Gordon Park Restoration Plan
R Street Diversions Site
Looking North on R Street

**Conceptual Rendering: details may differ from appearance depicted**

Relocated Traffic Signal Boxes

**Conceptual Rendering: details may differ from appearance depicted**
Mount Olivet Road Diversions Site
Existing Site Photo Key

Images from Google Maps.

DPW
WV Avenue Facility

Restored to Existing Conditions
• Restore Fence Consistent with Commercial-Light Industrial Zoning
• Above Ground Electrical Cabinets are Inside the Fence

Mount Olivet Road NE
Looking West
Mount Olivet Road Diversions Site
Design Concept

1. Major New Construction is Located Underground
2. New Above Ground Equipment Consists of:
   • Electrical Cabinet
   • Electrical Transformer
3. Above Ground Equipment Located Behind Existing Chain Link Fence With Privacy Slats
4. Coordination in Progress with Department of Public Works (DPW)
Mount Olivet Road Diversions Site Proposed
Site Plan and Renderings

Site Plan

Transformer

Electrical Cabinet

Restore Existing Fence
Request For Conceptual Design Approval
Northeast Boundary Tunnel

Northeast Boundary Tunnel
• Ventilation Control Facility Building and Appurtenances
• Miscellaneous Above Ground Electrical Cabinets
Questions

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