

Southwest Ecodistrict Initiative Public Scoping Meeting #4

Development Scenarios

National Capital Planning Commission
District Office of Planning
Washington, DC

July 26, 2011

Meeting Purpose:

To share and obtain public input on the land use, urban design, and sustainability framework for a range of revitalization scenarios, including the future character and experience along 10th Street, SW and the Overlook at Banneker Park.

Agenda

Welcome and Project Introduction 6:45 p.m.

Elizabeth Miller, NCPC

Presentation 7:00 p.m.

Otto Condon, ZGF Architects

Questions, Comments, Discussion 7:30 p.m.

Adjourn 8:30 p.m.

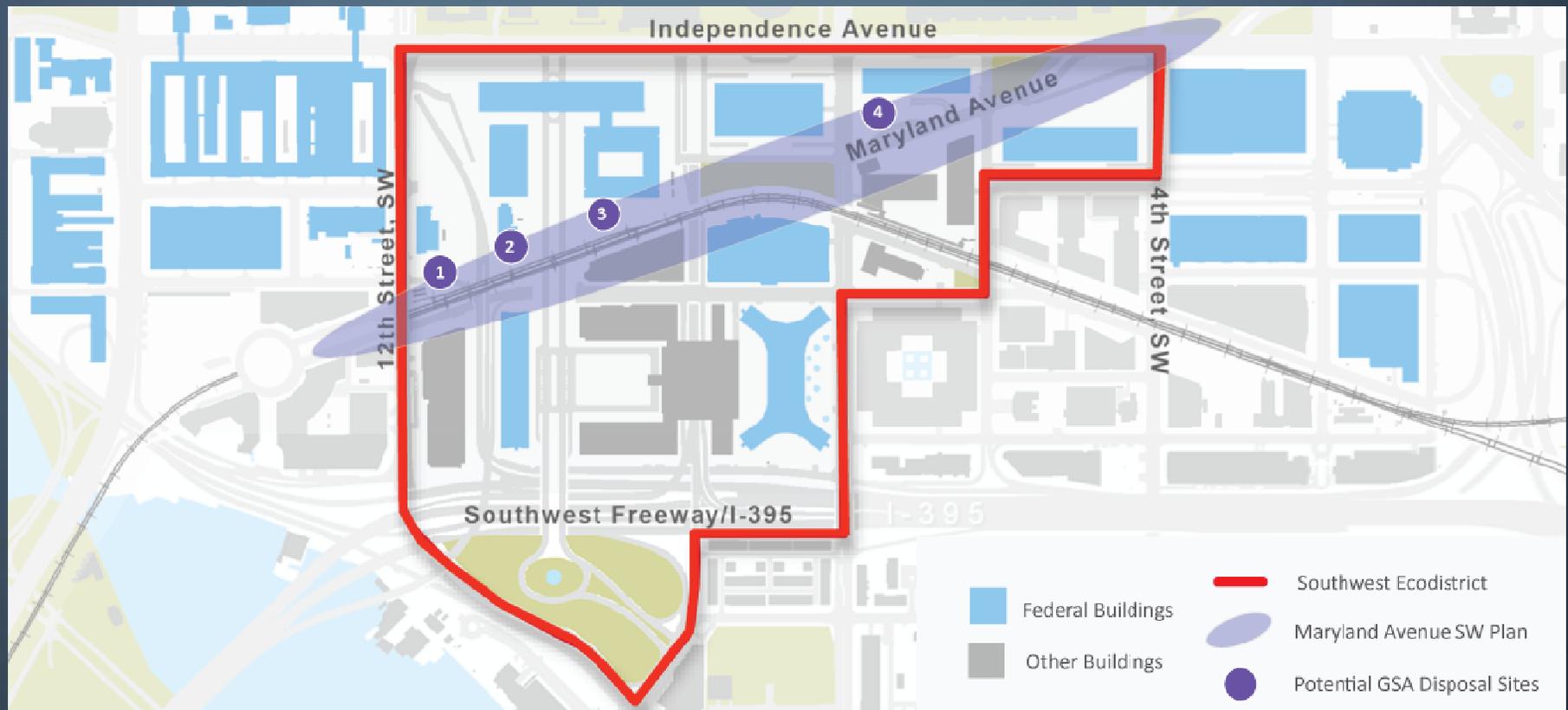
One plan: 2 components

SW Ecodistrict

Sustainability and
Urban Design Recommendations

Maryland Avenue, SW Plan

Maryland Avenue Decking and
Infill Development Recommendations



SW Ecodistrict Mission Statement:

Establish an Ecodistrict that transforms the 10th Street and Maryland Avenue corridors into vibrant well-connected places to commemorate, visit, work, and live in a manner that creates a national showcase of sustainability through innovation, technology, and design.

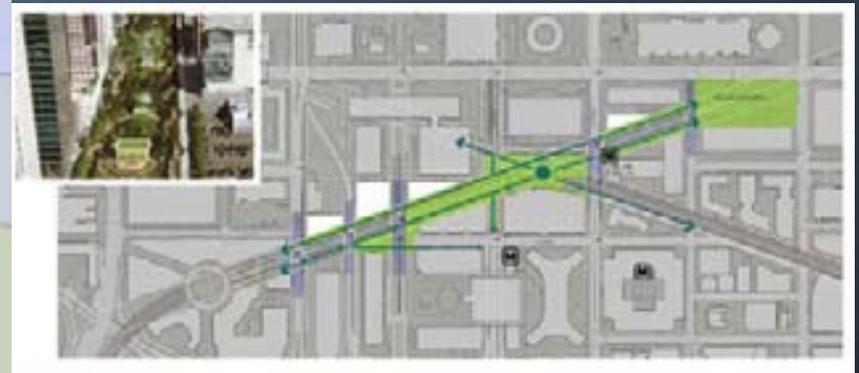
Goals:

- Create a Livable Community, Workplace, and National Cultural Destination
- Create a National Showcase of Sustainability
- Ensure Mobility To, From, and Within the Area for all Modes of Travel
- Create a Healthy Urban Ecosystem



Maryland Avenue SW Plan

1. Identify the best land-use mix.
2. Identify reconstruction alternatives for the Avenue.
3. Create an overall sustainability framework.
4. Create urban design and public realm guidelines.
5. Identifies approaches that connect the Avenue to transit.





Who uses the study area today?

Office

60,000 office workers



Residential

0 housing units

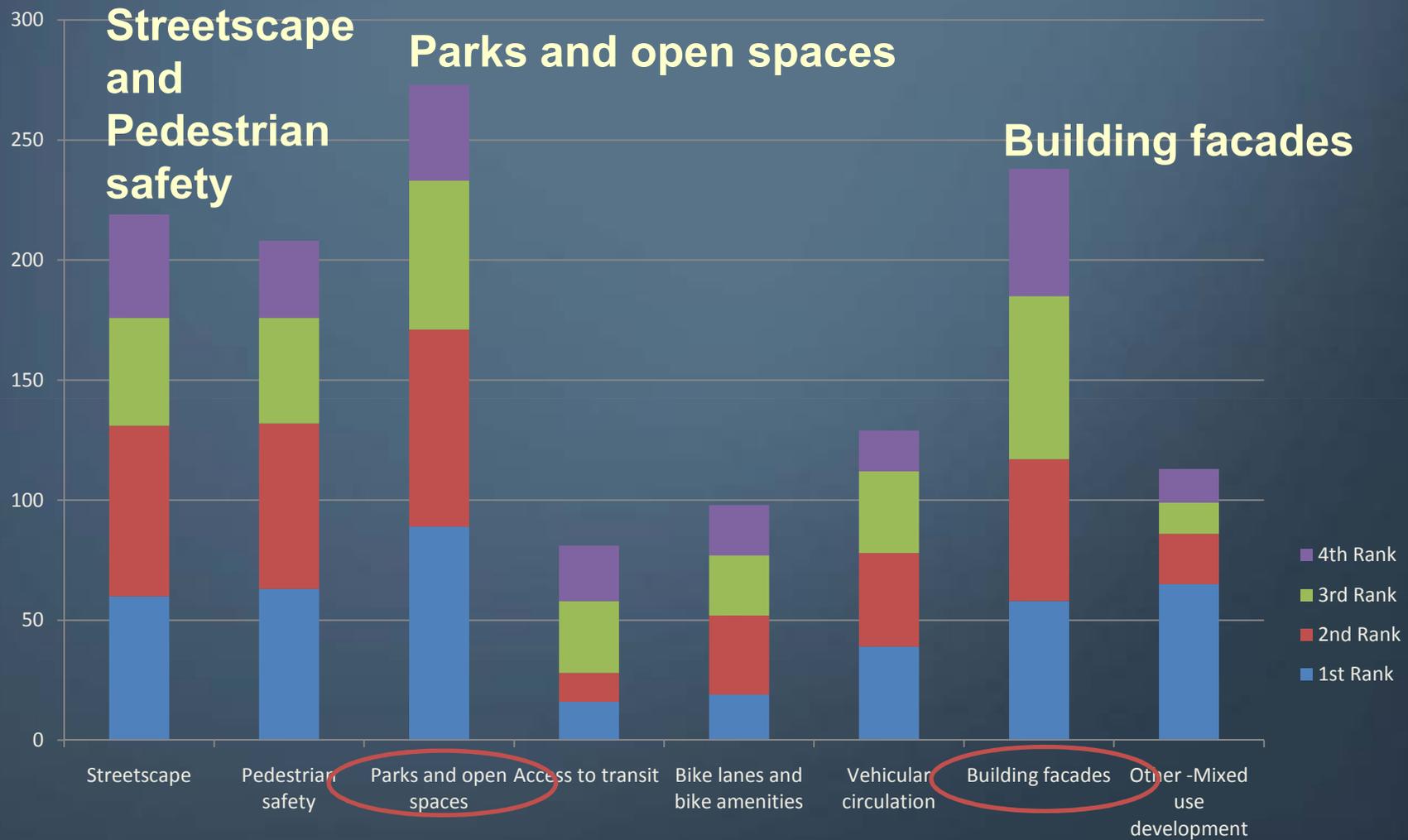
6,000 housing units in broader Southwest



Tourism

22 million visitors to National Mall

What physical enhancements are most needed here?



What USES are missing in the study area?

- Personal services (e.g. dry cleaner, bank, medical, drug store)



- Entertainment and cultural (e.g. museums, monuments, theater, public art)



- Grocery



- Restaurant and cafe



- Park and open space



- Residential



- Hotel



- Retail shop (e.g. bookstore)



What PUBLIC REALM improvements are most needed?

- Streetscape (e.g., sidewalks, benches, street trees, wayfinding, public art)



- Pedestrian safety (e.g., lighting, clearly defined street intersections, walk signal timing, painted crossings)



- Passive parks and open spaces (e.g., benches, shade trees, landscaping, public art)



- Access to transit (e.g., transfers, signage, bus stops/shelters, entrances)



- Bike lanes and bike amenities (bike racks, Capital Bikeshare)



- Vehicular circulation (e.g., parking, travel lanes, highway access)



- Building facades (e.g., signage, entrances, storefronts)



**Improve the streetscape;
add more green and shade**

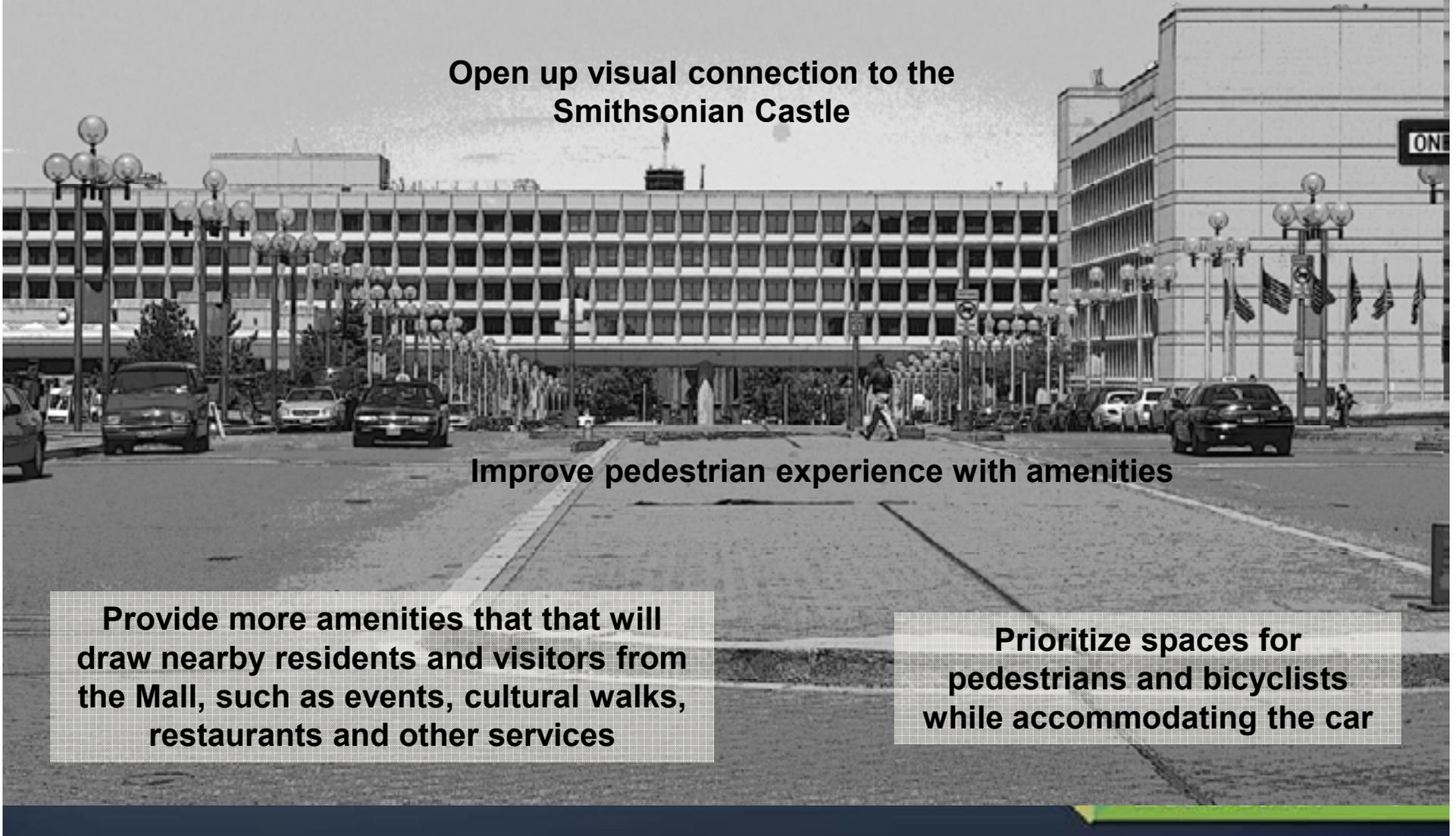
**Increase mix of uses, such as residences,
retail and visitor and education centers, etc.**

**Open up visual connection to the
Smithsonian Castle**

Improve pedestrian experience with amenities

**Provide more amenities that that will
draw nearby residents and visitors from
the Mall, such as events, cultural walks,
restaurants and other services**

**Prioritize spaces for
pedestrians and bicyclists
while accommodating the car**

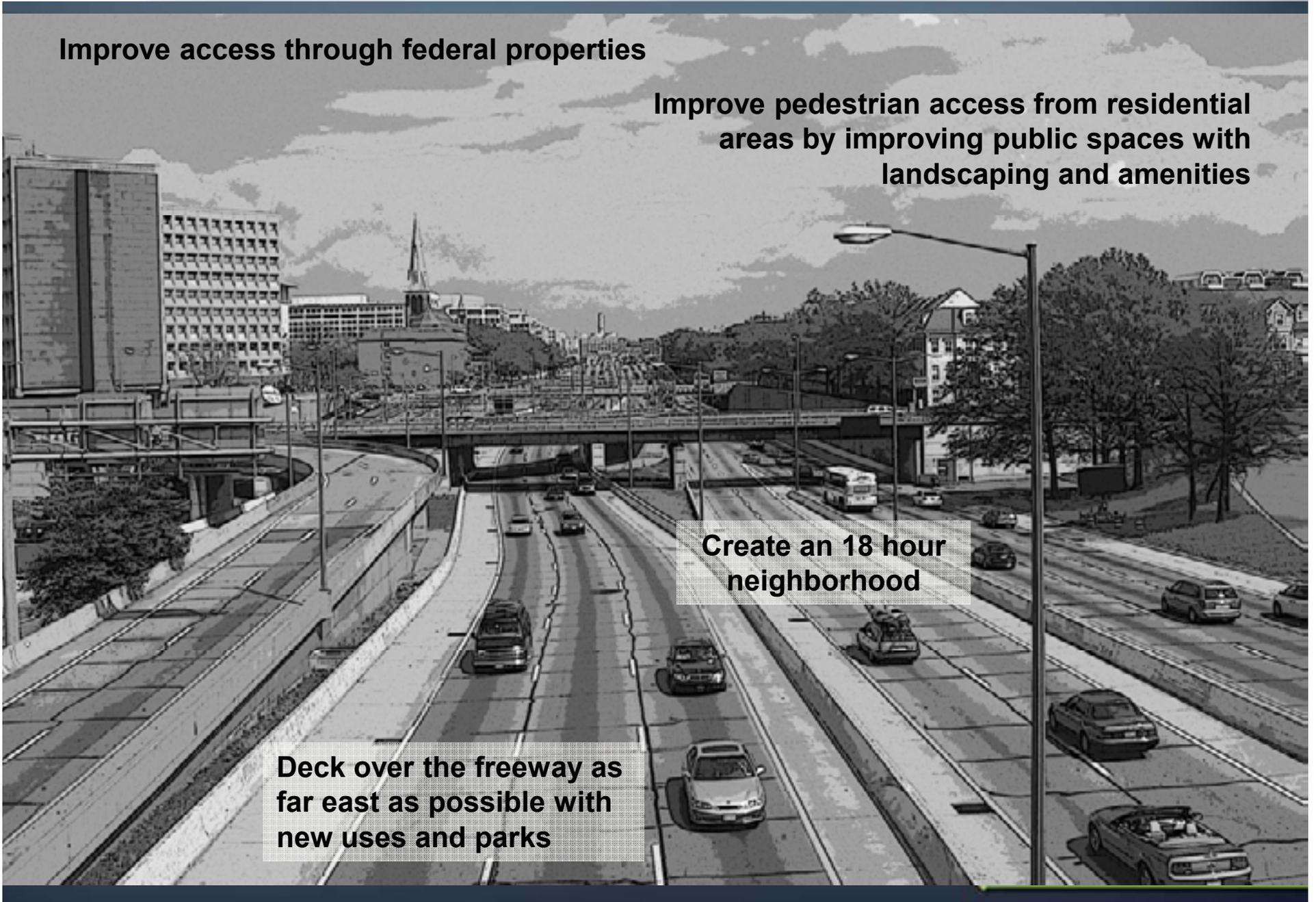


Improve access through federal properties

Improve pedestrian access from residential areas by improving public spaces with landscaping and amenities

Create an 18 hour neighborhood

Deck over the freeway as far east as possible with new uses and parks



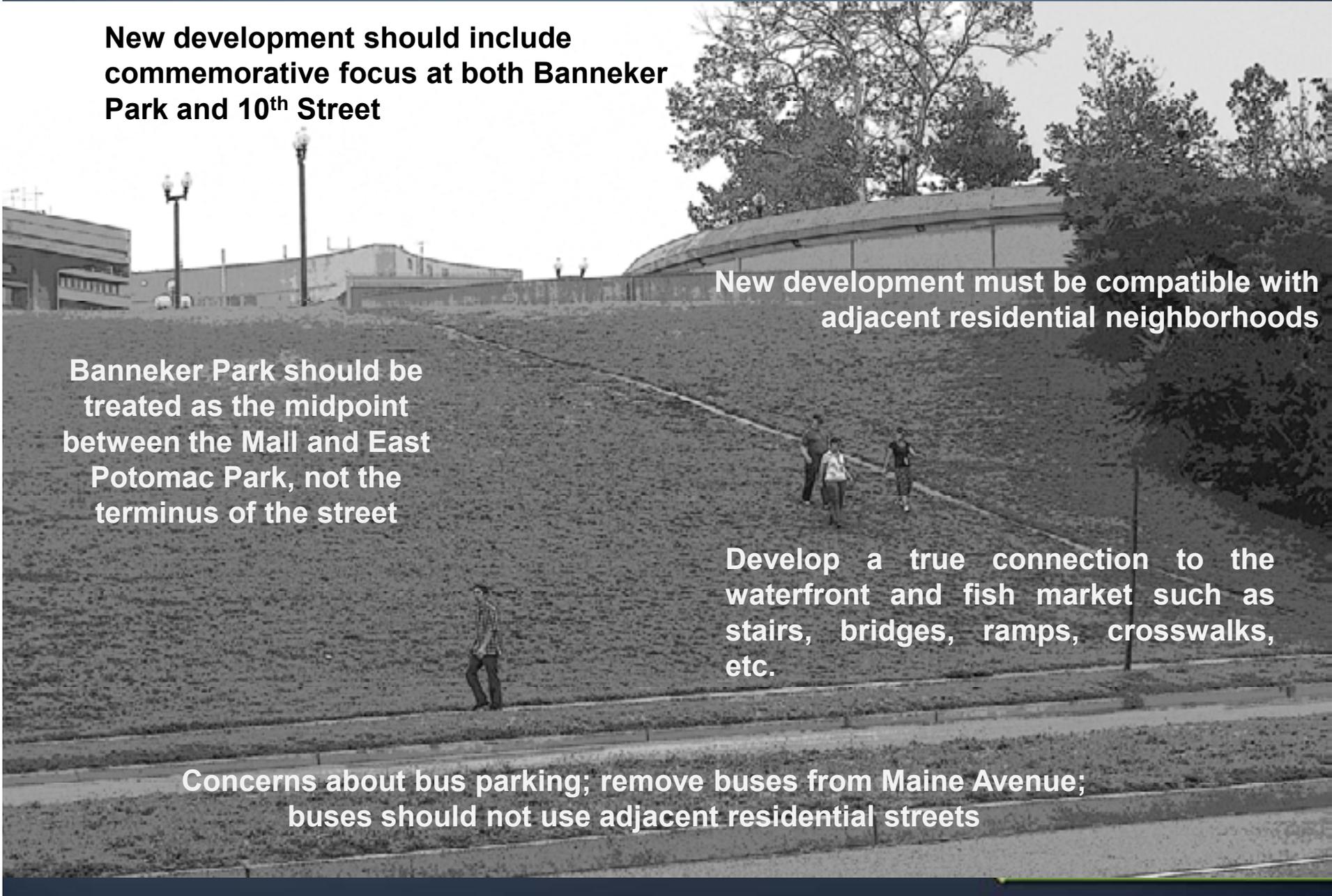
New development should include commemorative focus at both Banneker Park and 10th Street

New development must be compatible with adjacent residential neighborhoods

Banneker Park should be treated as the midpoint between the Mall and East Potomac Park, not the terminus of the street

Develop a true connection to the waterfront and fish market such as stairs, bridges, ramps, crosswalks, etc.

Concerns about bus parking; remove buses from Maine Avenue; buses should not use adjacent residential streets





Use solar-powered street lights to minimize energy use

Make all sustainability improvements very visible so people know this is an Ecodistrict

Capture rain water in fountain reservoirs for watering trees/greenery

More trees and landscaping are needed to reduce the urban heat island effect

Grow “green walls” along the unsightly concrete buildings and put gardens on the roofs

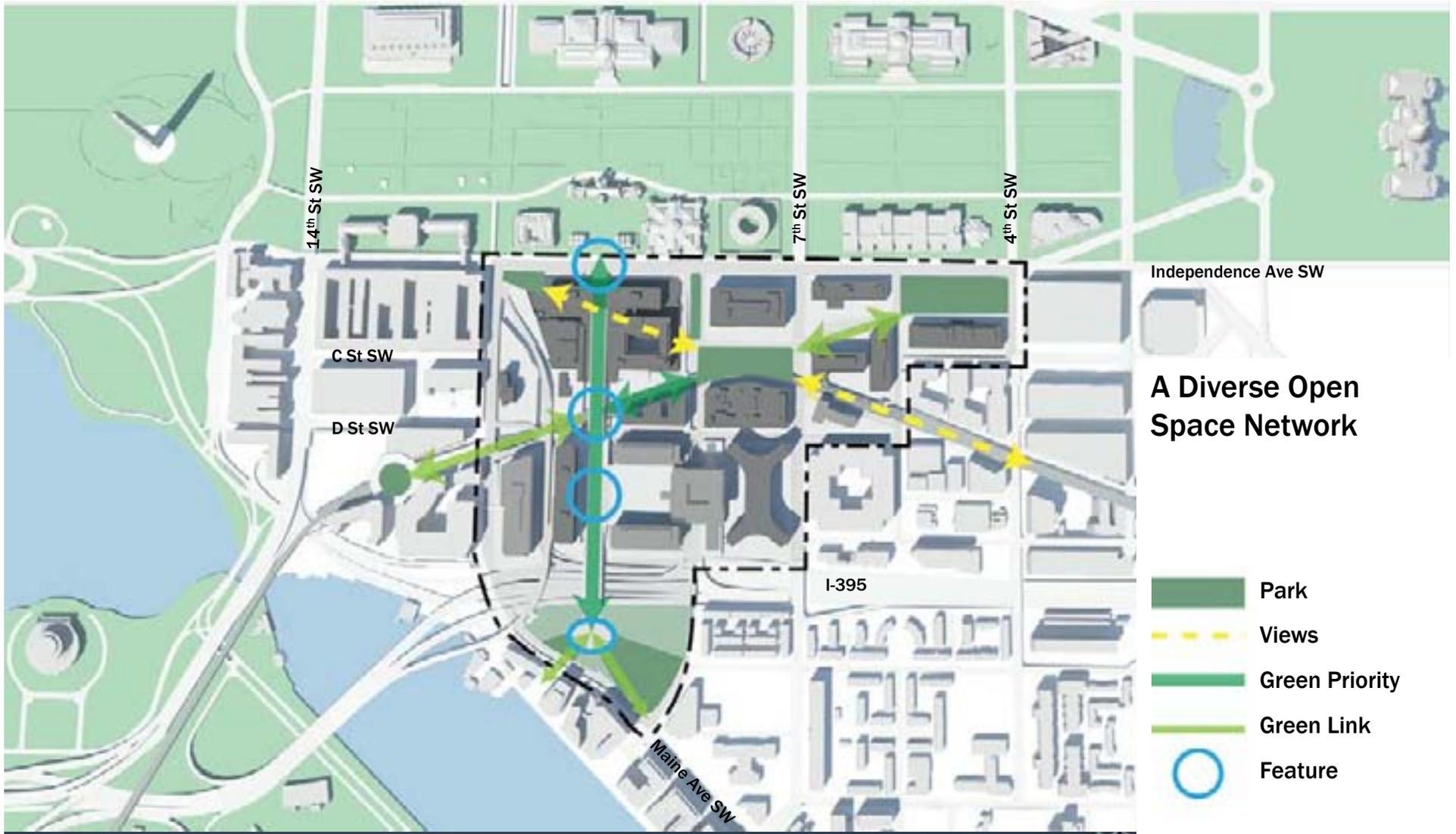
Create areas within streets, sidewalks and parks to capture and treat stormwater runoff

The Framework for Revitalizing the Precinct into a Sustainable Community

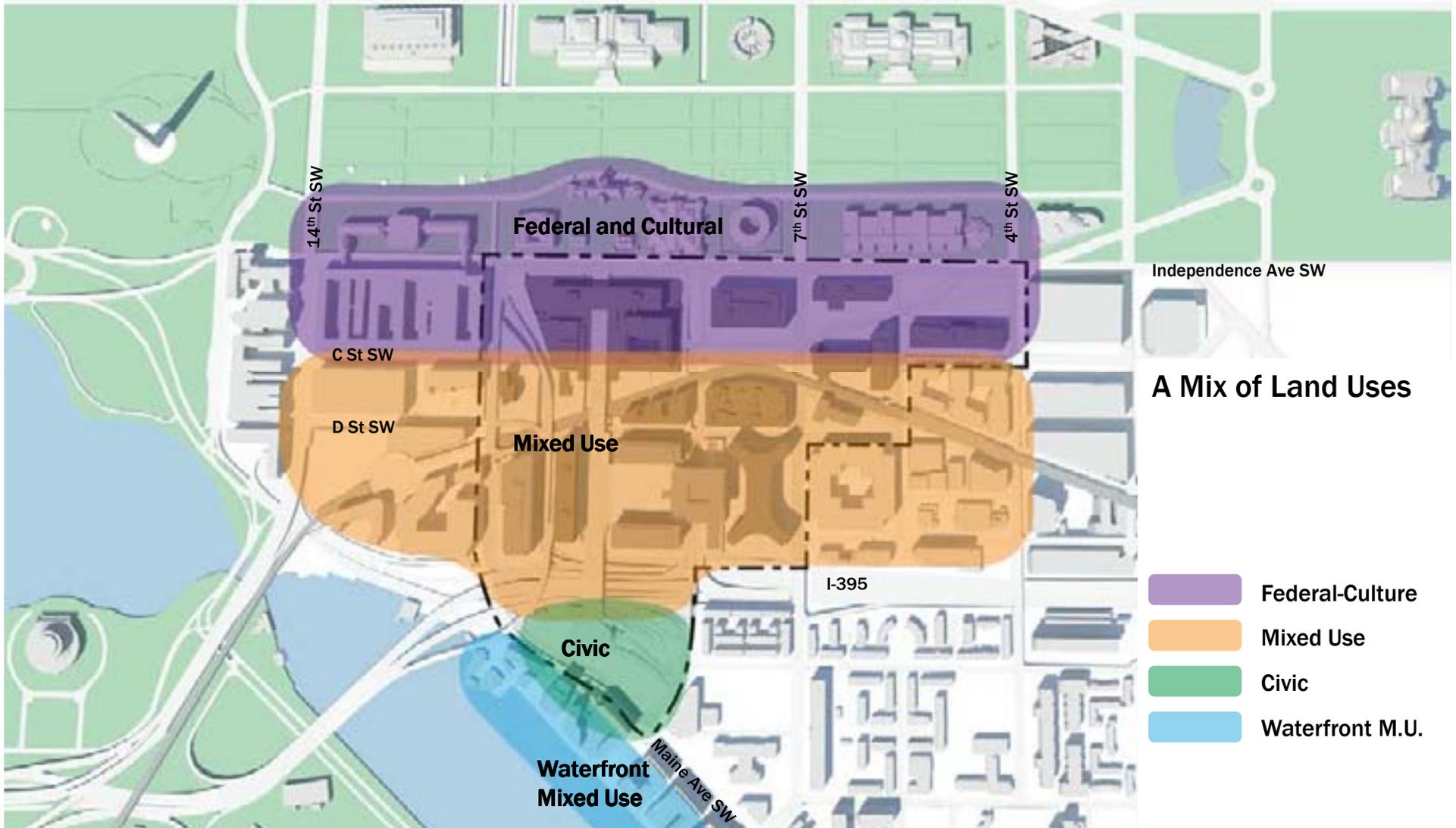
**Review Urban Design and Sustainability Framework and Strategies
and seek public input on**

- Urban Design Framework – Open Space, Land Use and Connectivity
- Energy Reduction and Generation Strategies
- Potable Water Conservation and Reuse
- Stormwater Management

Open Space



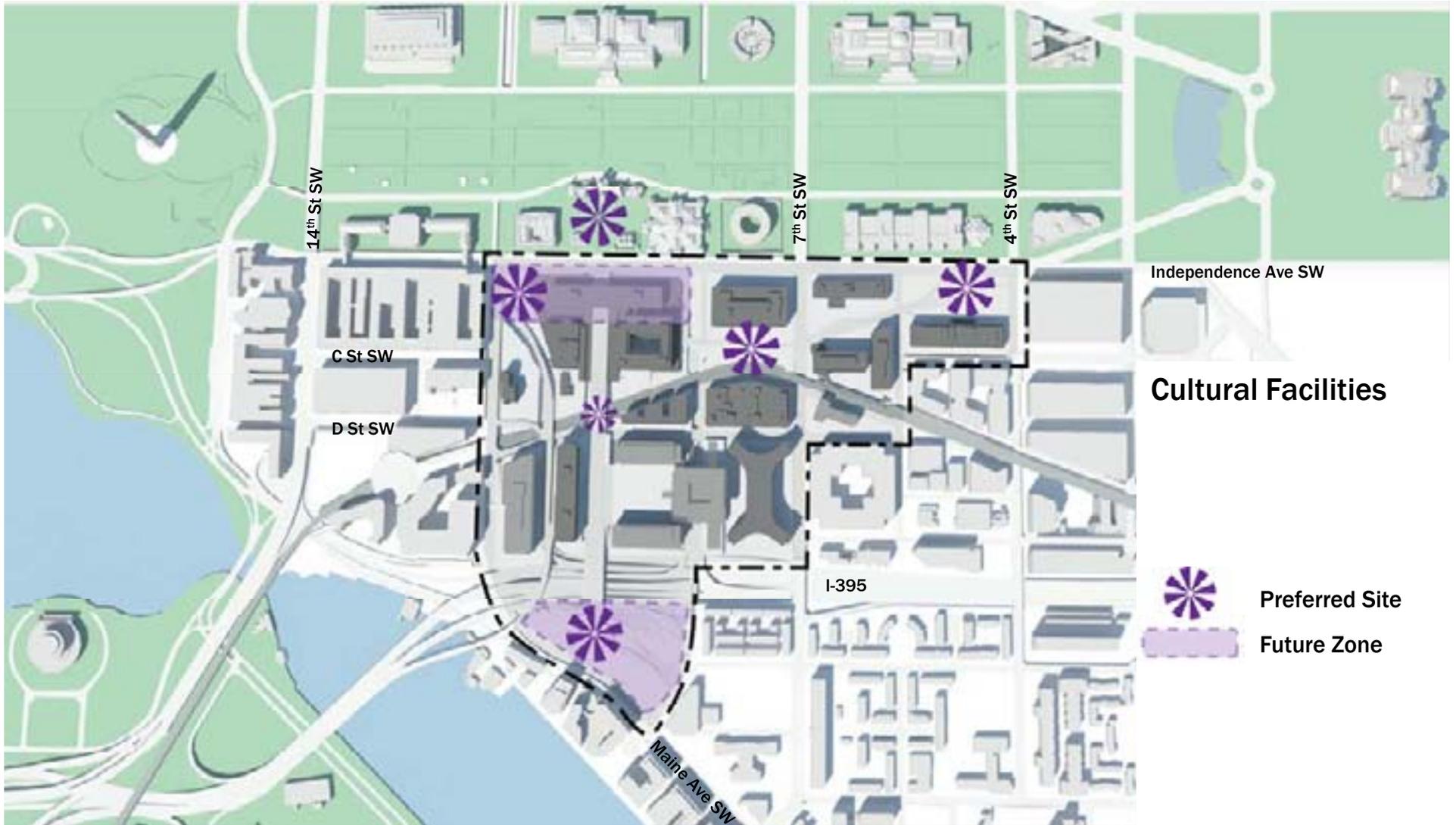
Land Use



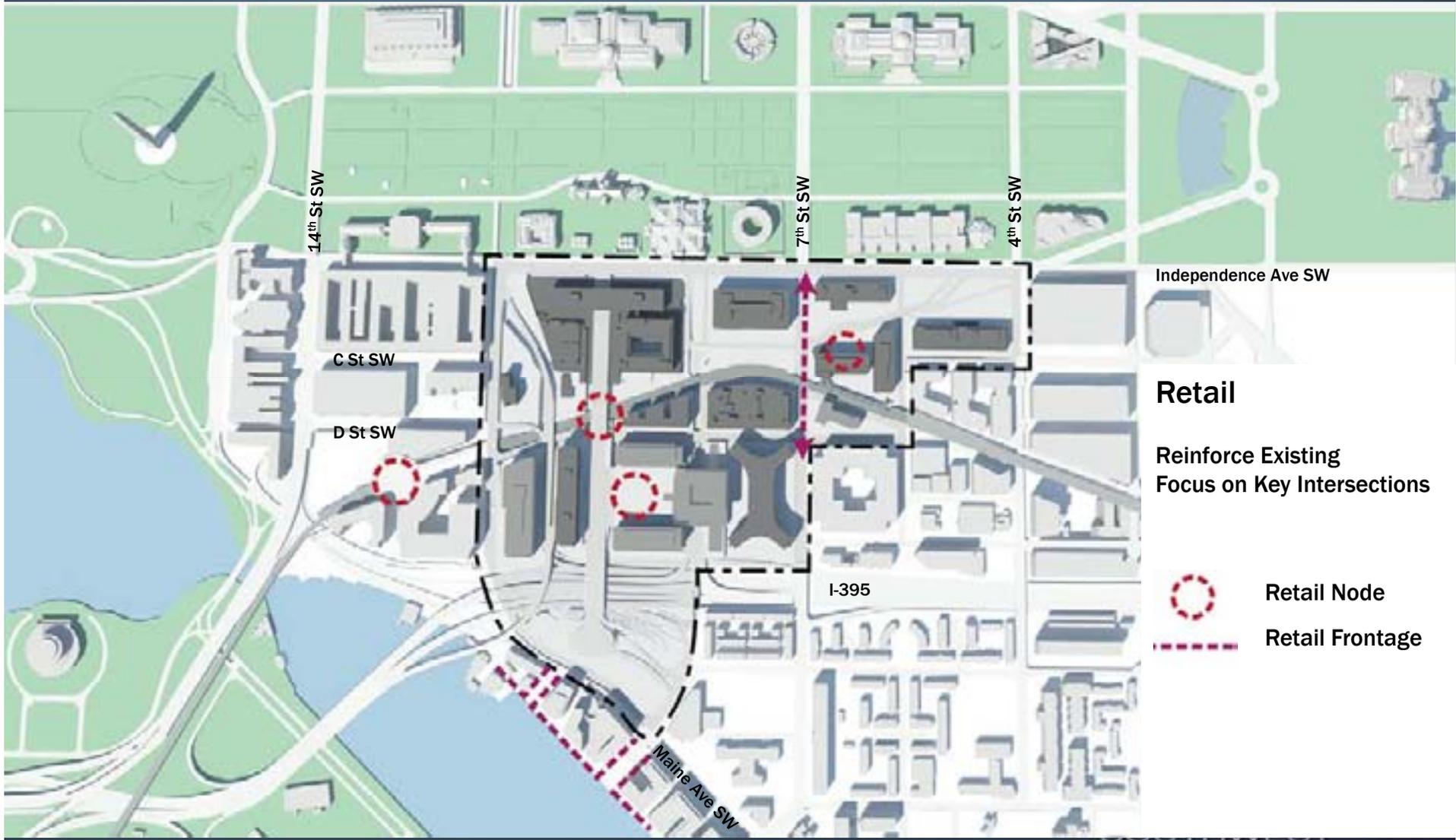
A Mix of Land Uses

-  Federal-Culture
-  Mixed Use
-  Civic
-  Waterfront M.U.

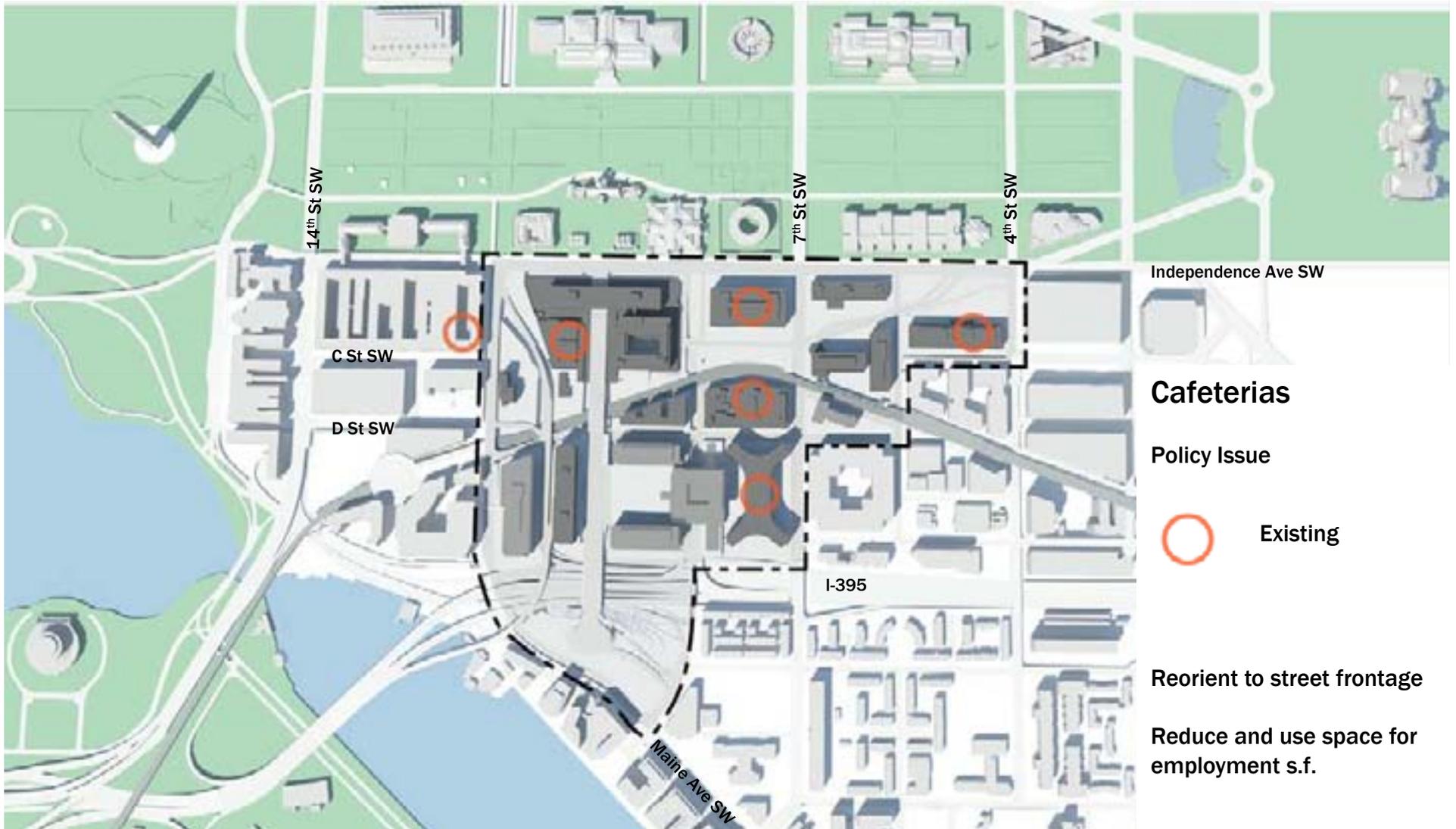
Cultural



Retail



Cafeterias



Independence Ave SW

Cafeterias

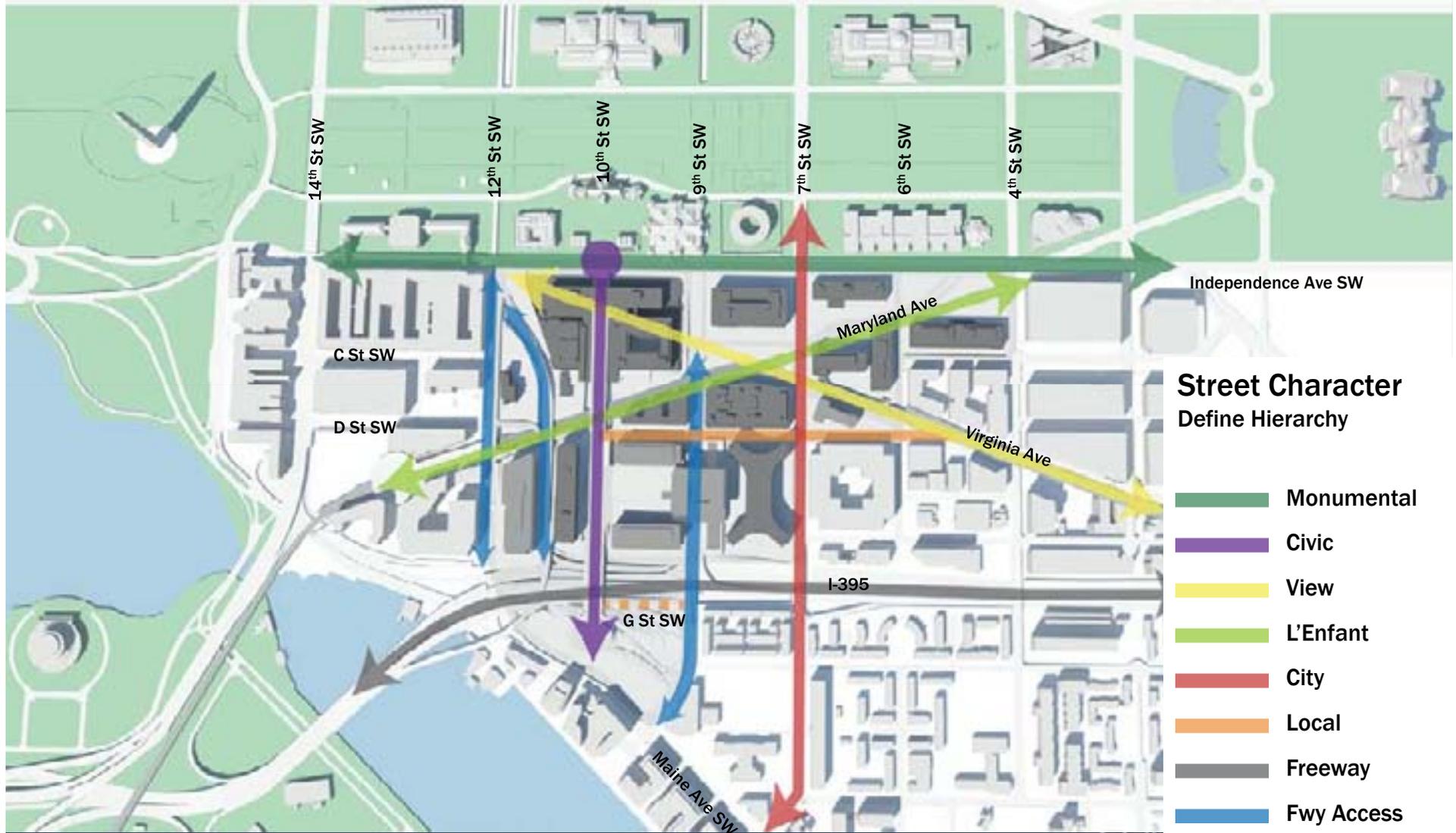
Policy Issue

Existing

Reorient to street frontage

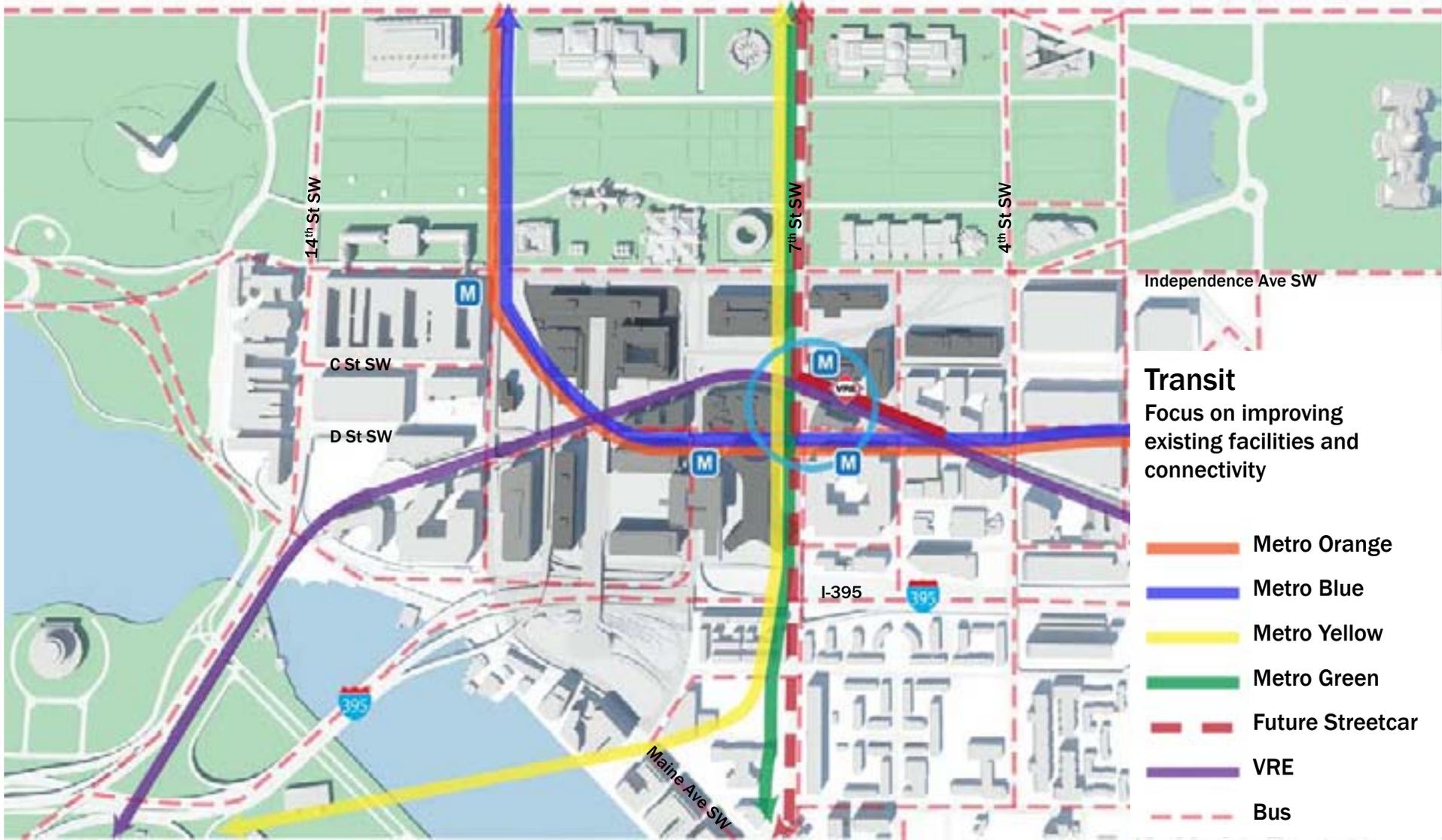
Reduce and use space for employment s.f.

Street Character





Transit



The Sustainability Framework

Energy



Minimize Energy Use and
Reduce Carbon Emissions

DISTRICT STRATEGIES

- Cogeneration/Microgrids

BUILDING STRATEGIES

- Prototype Framework
- On-site Renewables

Low Carbon / High Efficiency Energy



Wind Turbine

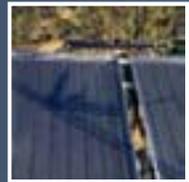


Solar Energy

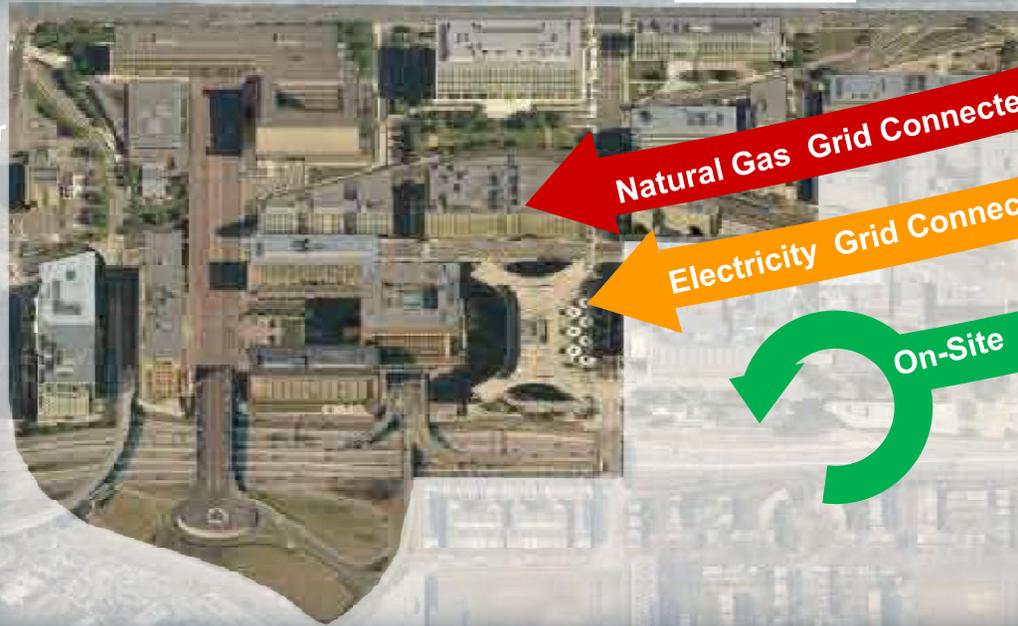
Bio-gas Plant



District Co-generation



Solar Hot Water



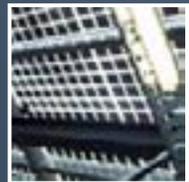
Natural Gas Grid Connected Gas (MBH)

Electricity Grid Connected power (MV)

On-Site Generated power to grid



Wind Energy



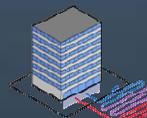
Photovoltaics



Roof Mounted PV



Water Heat Rejection



Ground Source Heat Rejection



District Heat



Central Utility Plant



Renewable Power Purchase Agreement

Reduce Energy Demand



Appropriate
Building
Orientation



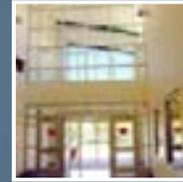
Energy
Star
Equipment



Natural
Ventilation



Efficient
Lighting



Daylight
Penetration



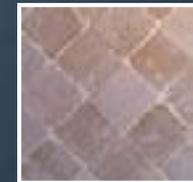
Green
Roof



Reflective
Roof



Optimized
Building
Shading



Light Colored
Paving Material



High
Performance
Glazing



Underfloor
Ventilation

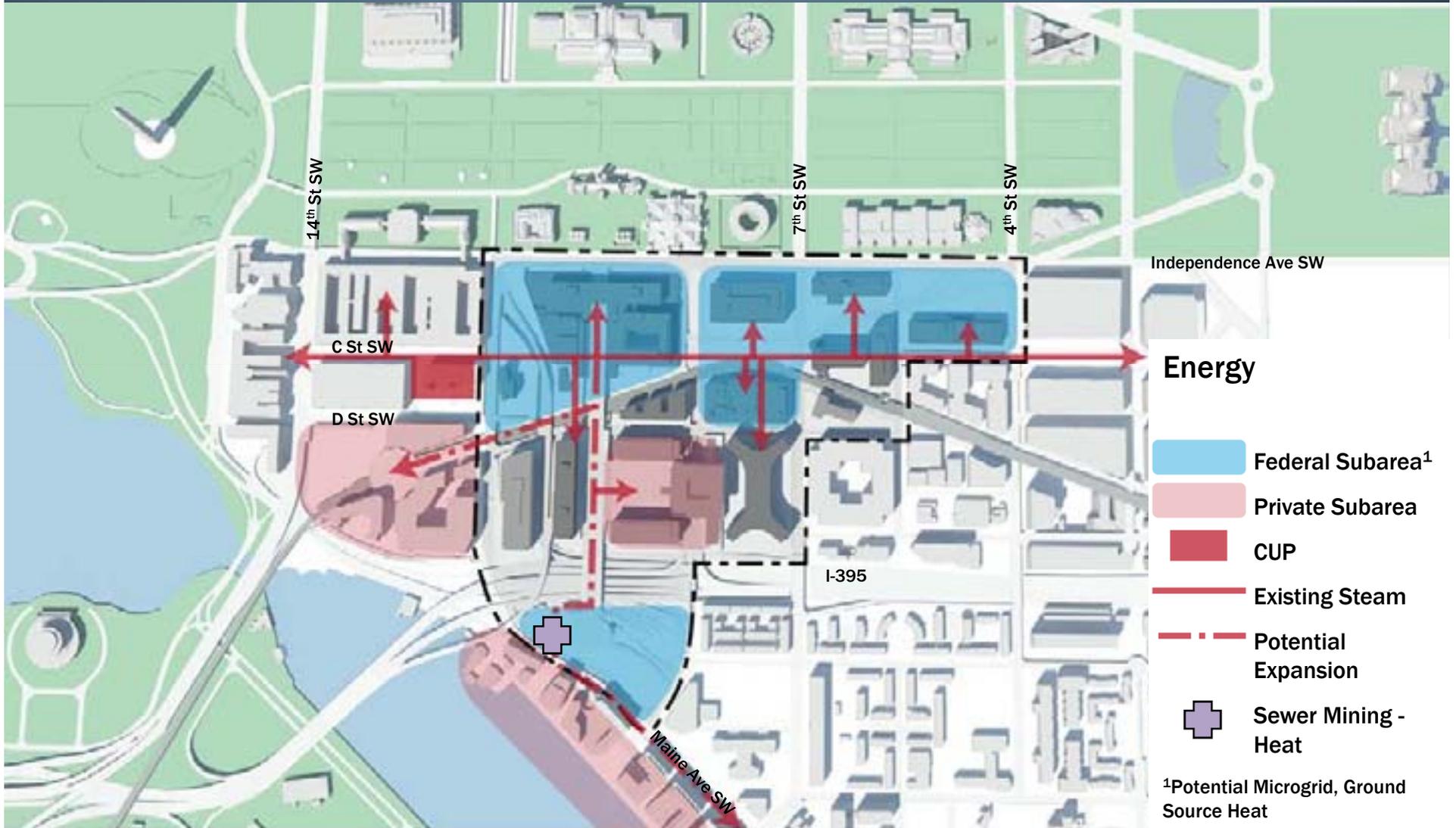


Central Utility Plant

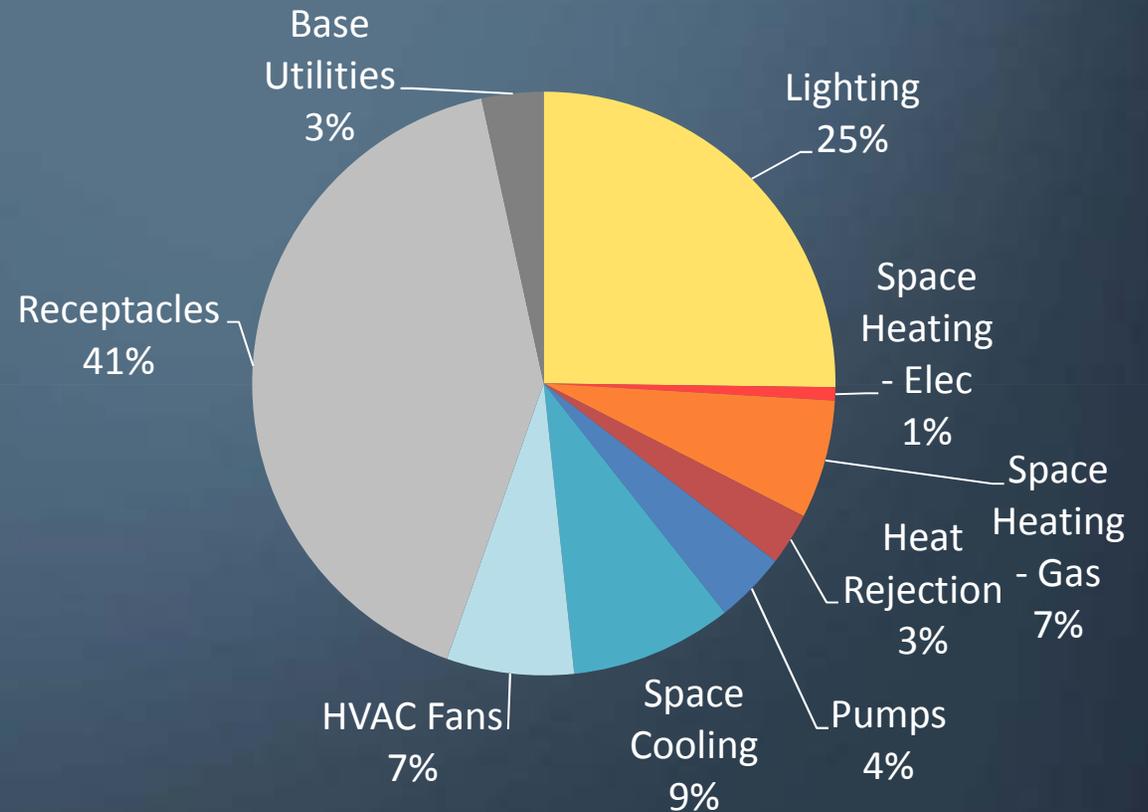
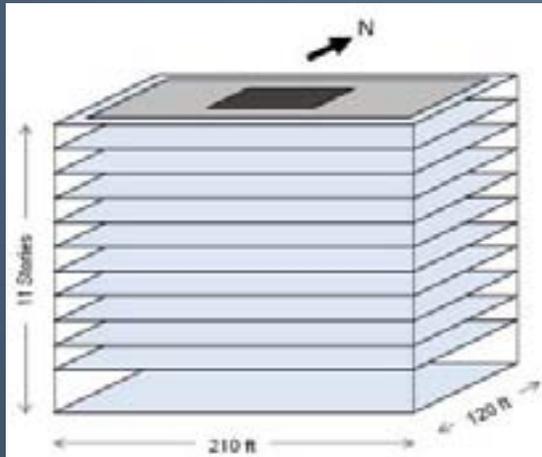


Shaded
Walkways

Energy



Sample of Typical Office Energy Use – Washington DC



Preliminary Rehab Strategy – FAA Orville Wright

Building Properties	
Occupancy	2,586
Area	1,114,224 ft ²
Floors	12
Year Built	1963
Electricity	22,208,880 kWh/year
Construction Type	High Mass, Low insulation

Results	
Expected Energy Use	15,700,000
% Over Expected	29.3%
Main Culprits in Large Loads	Poor glazing, insufficient insulation, old HVAC equipment
Recommendations	Upgrade Façade and replace HVAC equipment

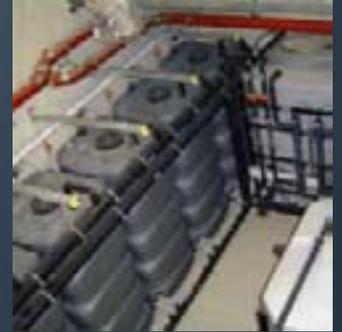
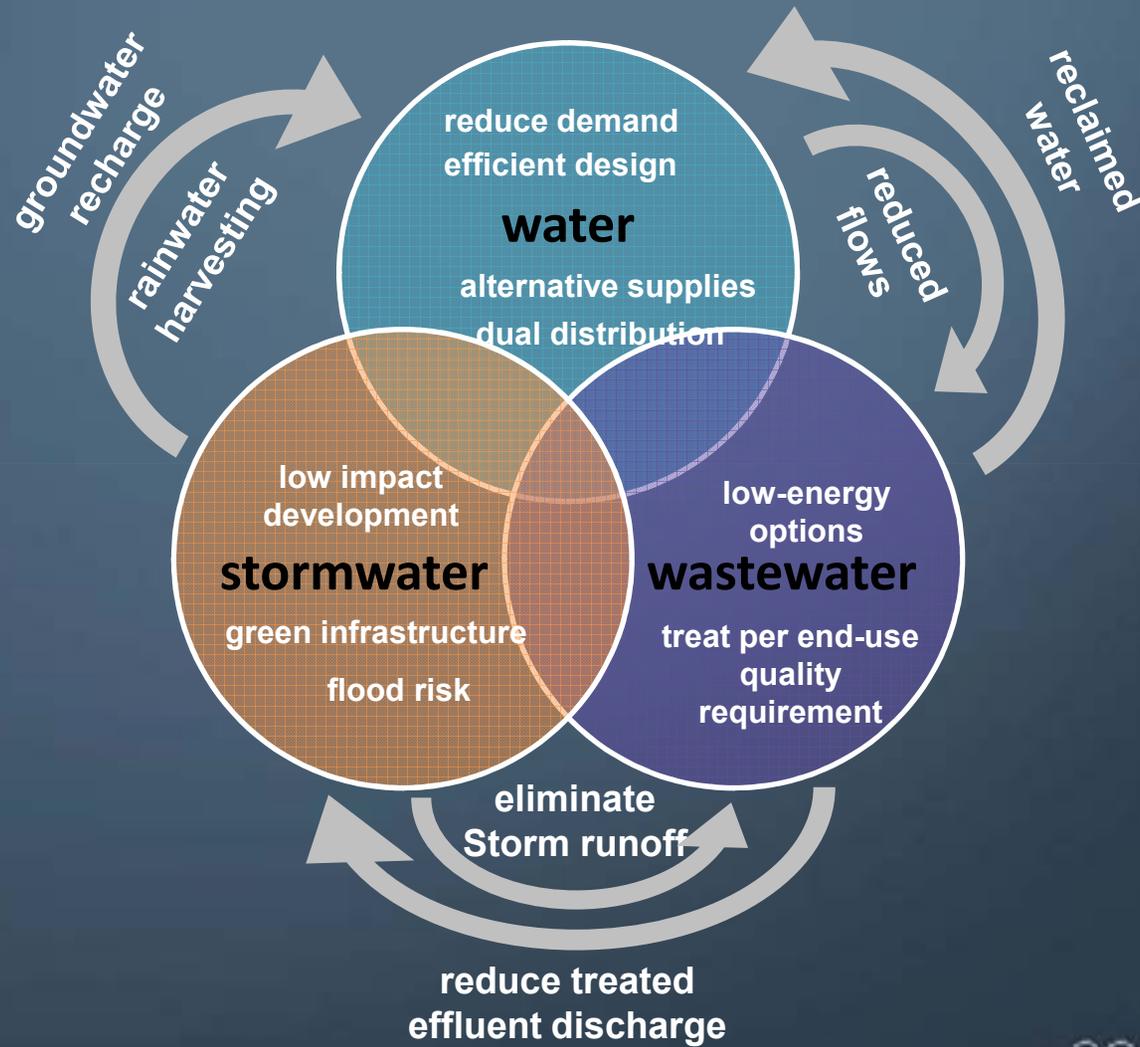


New Buildings

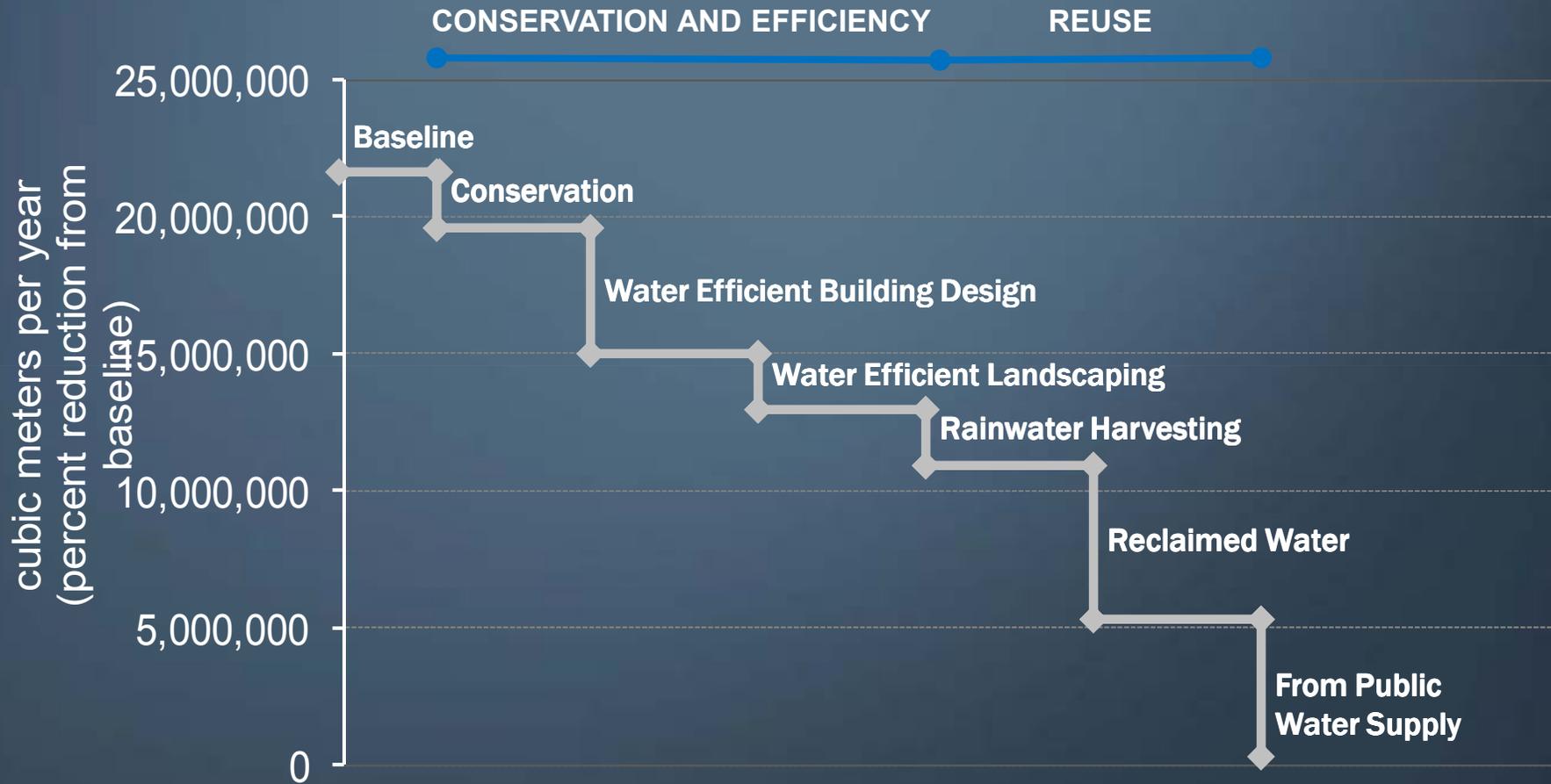
1. ZERO-NET ENERGY

- Post 2020 All New Construction Shall Achieve Net Zero Energy by 2030
- 15% of Agency Buildings meet Guiding Principles by 2015
- New buildings shall consume 30% less energy than ASHRAE Standards
- Major Renovations shall consume 20% below 2003 baseline

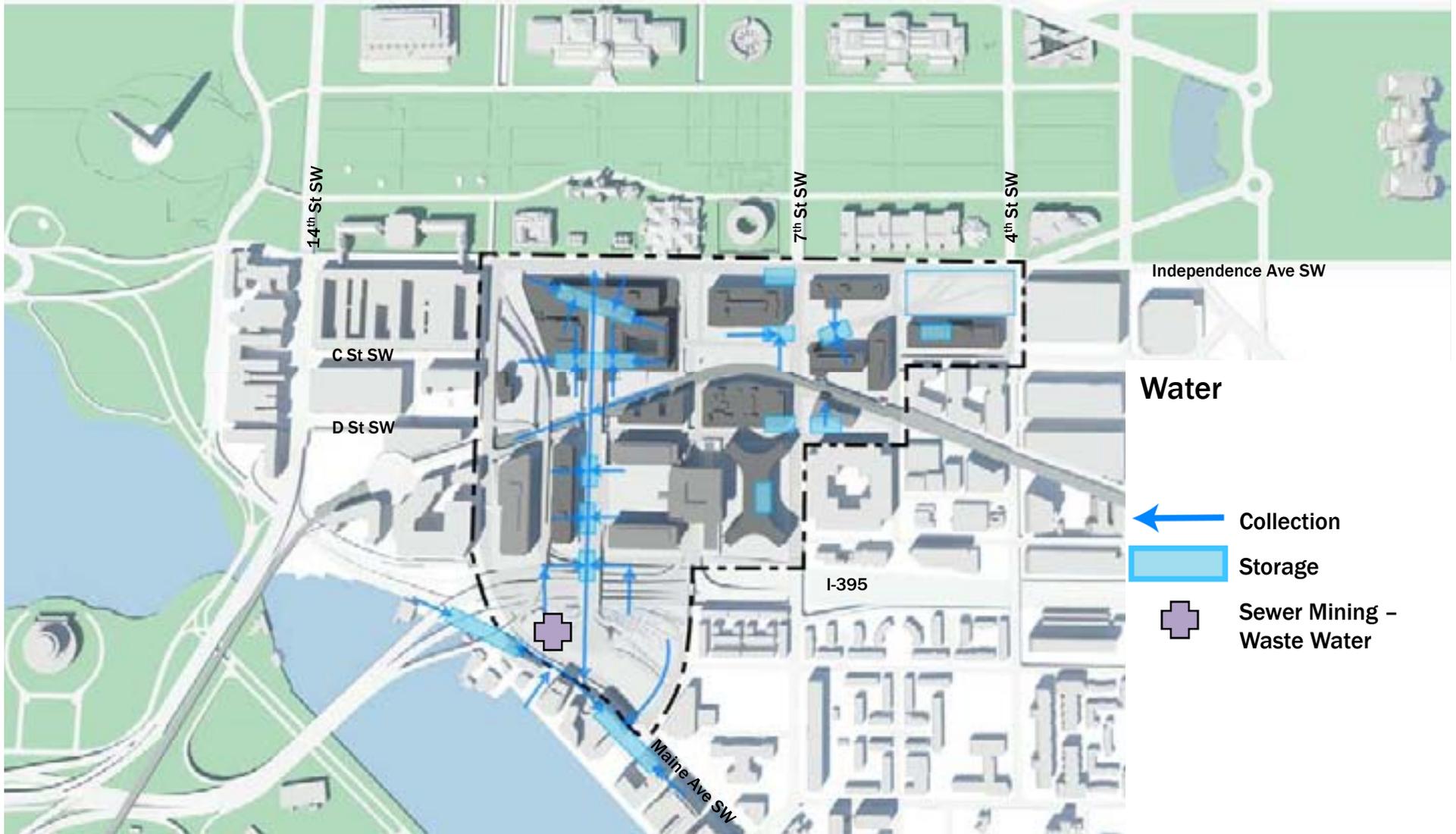
Boundary-Setting Integrated Water Systems



Self-Sufficiency in Water Use - Water Management Hierarchy



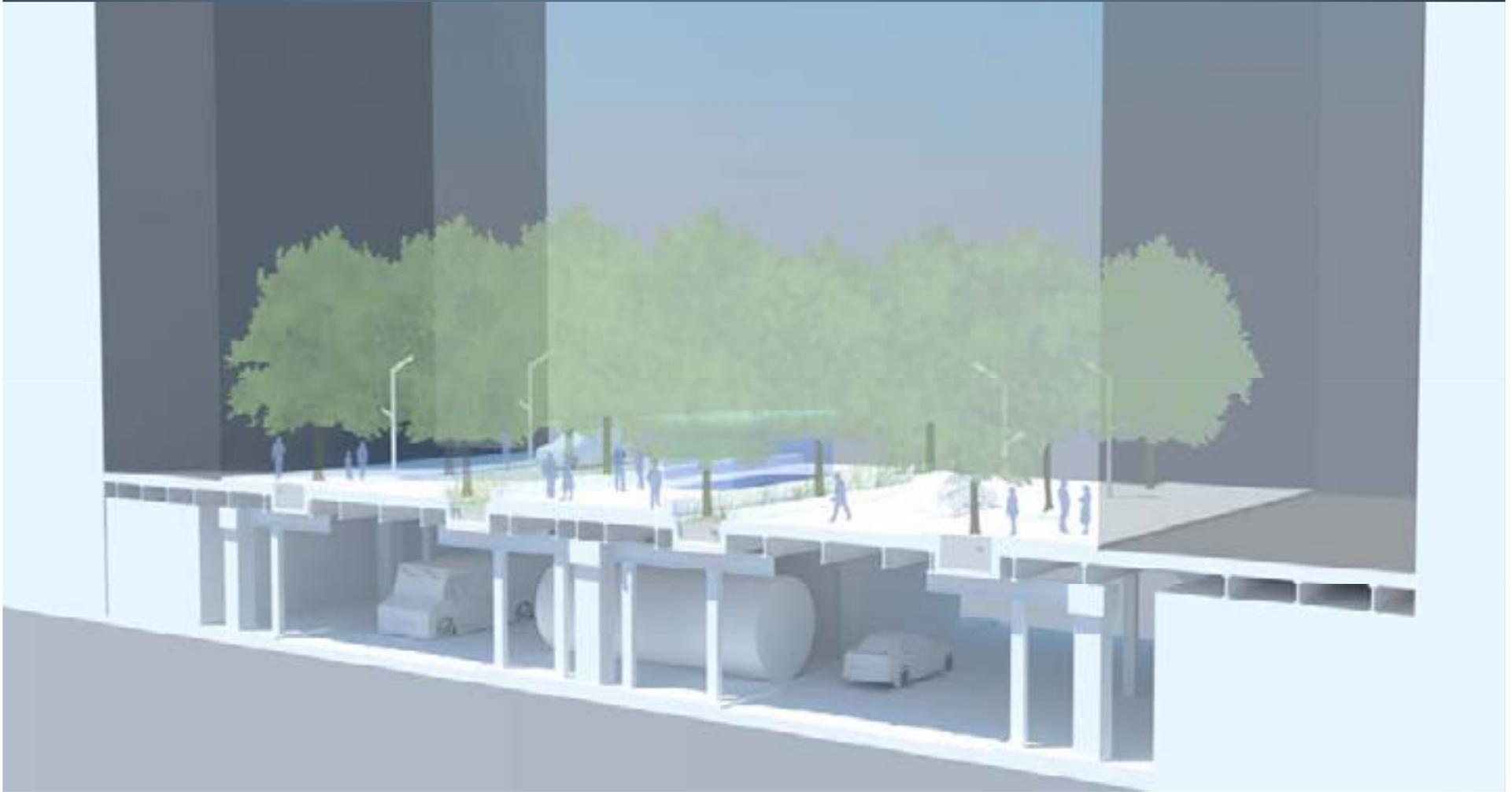
Water



Water

- ← Collection
- Storage
- ⊕ Sewer Mining - Waste Water

Integrating Water Management



Wrap up and Next Steps

- Summarize Key Discussion Points
- Next Steps
 - Sustainability and Costs and Benefits Analysis
 - Recommendations
 - Task Force Review (October 2011)
 - Public Comment (October 2011)

Public Comments will be accepted through August 12, 2011

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