Adele N Ashkar, George Washington University
A Very Urban Campus
GW Ecosystems Enhancement Strategy
Adopted Fall 2012

Strategic Focus Areas:
• On Our Campuses
• In the Chesapeake Bay Watershed
• Across GW’s Global footprint

Vision:
A future with resource systems that are healthy and thriving for all

1. Strengthen habitat and optimize natural space
2. Promote healthy air and climate
3. Foster clean and abundant fresh water
4. Support sustainable food production systems
5. Optimize waste decomposition and treatment
6. Encourage a natural urban environment that helps enhance physical, mental & social well-being
Scope of the Guidelines:
Daily and Seasonal tasks, Capital Projects, Opportunities for future projects

1. Daily and Seasonal Maintenance:
Daily and Seasonal Maintenance is at the heart of the diagram and is the main purpose of the Guidelines. The Guidelines provide a framework for maintenance tasks, which will help move the campus forward towards a stable, resilient and sustainable future.

2. Capital Development Projects:
The Guidelines will provide a framework for project designers and site work of all Capital Development Projects on campus. Capital Development Projects are defined as new facilities to be built on development sites identified in the GW 2007 Foggy Bottom Campus Plan.

3. Opportunities:
The Guidelines identify opportunities on campus that are outside of New Development sites and routine maintenance areas. These opportunities have the potential to contribute dramatically to a healthy ecosystem, and a productive and sustainable campus.
Design Aesthetic

Sustainable Campus Guidelines for George Washington University

DESIGN PRINCIPLES

- Create a hierarchical system of places with corresponding landscape recommendations that enhance the context, use and visibility of each space. (See Chapter 3.0)
- Provide a vocabulary of standardized University plant lists to establish a unified campus landscape aesthetic. (See Chapter 3.0)
- Maintain existing trees and facilitate healthy growth and ease of maintenance. (See Chapter 4.0)
- Establish a tree canopy coverage plan that promotes the physical enjoyment of the GW community and the ecological functions of wildlife habitat, biodiversity, and clean air that benefit the greater ecosystem. (See Chapter 4.0)
- Improve green places on campus to enhance the outdoor experience for all users, increasing quality of life health and well-being. (See Chapter 5.0)
- Identify places where stormwater mitigation opportunities can be pursued. (See Chapter 5.0)
Detailed Guidelines
Square-by-Square recommendations for daily and seasonal maintenance and enhancements

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- **Gelman Library**
  - Lerner Auditorium - 714 21st Street
  - James Monroe Hall and Hall of Government - Stoughton Hall
  - 2125, 2127, 2129, 2131 and 2140 G Street

**HIGHLIGHTS**

**KEY PLAN**

- **Turf**
  - Conversion to a ‘Green Street’ on H Street between 21st and 22nd Streets. See Opportunity #13.
  - Improve biodiversity function and aesthetics in Theater and Dance Courtyard. See Opportunity #17.
  - Design to improve scale, function and aesthetics in G Street Park. See Opportunity #6.

- **Soils**
  - Decrease soil compaction and erosion at G Street park.
  - Increase soil volume in tree boxes with existing cherry trees in Kogan Plaza to improve the health of the trees. See tree notes.
  - Improve soil through use of compost under existing southern magnolias to improve tree health.

- **Design**
  - Decrease amount of impervious paving at corner of 22nd and G Street, and in Kogan Plaza, and/or install interceptor drains to redirect water to reduce runoff and increase infiltration.
  - Collect and/or infiltrate runoff from downspouts on buildings along G Street via catchments, rain barrels.
  - Construct rain garden behind 714 21st Street and Monroe Hall, and on north side of Stoughton Hall to collect and infiltrate stormwater runoff from rooftop and surrounding landscape. See Opportunity #16.
  - Construct rain garden/bio swale on south edge of G Street Park to collect and infiltrate runoff and reduce existing erosion issues.

- **Plants**
  - Incorporate more native plants in shrub and groundcover layers.
  - South side of townhouses on G Street. Refer to Plant List D.
  - G Street Park. Refer to plant list B and D.
  - Hall of Government for vegetables and LID. Refer to Plant List A.
  - Interior of Kogan Plaza. Refer to Plant List A.
  - Create wildlife habitats for birds and pollinators through the use of native plantings in G Street Park, behind 714 21st Street and Stoughton Hall.

- **Trees**
  - Enlarge tree boxes in Kogan Plaza to current standard, plant by using structural soils and pervious paving for walkway areas.
  - Replace existing Horimoto and Japanese Maple near Veterans Park in Kogan Plaza with native shade trees. Refer to Plant List A.
  - Intersperse shade trees among existing planted shrubs behind blue pavilion (north side). Refer to Plant List A.
  - Plant new shade and understorey trees north of Stoughton Hall to increase tree-canopy coverage. Refer to Plant List A.
  - Remove turf and install diverse plantings to improve aesthetics and scale on the west side of Gelman Library on 22nd Street. Refer to Plant List B.
  - Remove turf and install an aesthetically engaging design which withstands high use by Lerner Auditorium. Refer to Plant List A.
  - Remove turf west of Stoughton Hall and install diverse plantings. Refer to Plant List A.

**SUSTAINABLE LANDSCAPE GUIDELINES**

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THE GEORGE WASHINGTON UNIVERSITY
Referenced back to Ecosystem Enhancement Strategy
Landscape enhancements linked back to measurable targets

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<th>GUIDELINES BY SQUARE</th>
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<td>Plant native shade trees</td>
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<td>DESIGN</td>
<td>Improve campus wide unifying themes, overall aesthetics, user experience, circulation and plantings</td>
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<td>LOW IMPACT DEVELOPMENT(LID)</td>
<td>Install BMP's as appropriate such as rain gardens, pervious paving, rainwater harvesting</td>
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TREES: Chapter 4.0 GW’s Urban Tree Canopy
PLANTINGS: Plant lists at the end of Chapter 3.0
TURF: Plant lists at the end of Chapter 3.0
SOILS: Soil notes in Appendix D
URBAN AGRICULTURE: Opportunities in Chapters 5.0 and 6.0
DESIGN: Opportunities in Chapters 5.0 and 6.0
LOW IMPACT DEVELOPMENT: Concept ideas in Chapters 5.0 and 6.0
Opportunities Identified

SUSTAINABILITY AND TREES

Trees play a vital role in sustainability because they provide such a wide array of ecosystem services to an urban setting like the Foggy Bottom Campus. George Washington University is a living laboratory to explore how tree selection, placement, and management can address our urbanized landscapes. Arborists from the university’s Landscape and Horticulture Management Department are tasked with identifying and implementing strategies to increase the tree canopy coverage on campus. A key aspect of this work is the promotion and augmentation of the university’s existing tree canopy in order to provide the greatest benefit to the campus community and the greater Washington, D.C., region. The university is committed to adding a minimum of 100 trees per year and has established a goal of reaching 40% canopy coverage by 2050. This chapter provides guidance on the maintenance and visual impact of GWU’s tree canopy coverage in each of the chapters below and ensures campus development follows the plan outlined in Chapter 1.5. It provides recommendations for the campus in the context of the university’s Sustainability Action Plan.

1. VOGEL/PARK CITY, STORMWATER Management

As the project is at an early planning stage, a stormwater management strategy is currently being developed. The project team is working on the installation of swale systems, bioswales, and other permeable pavement systems to manage stormwater runoff. These systems will help to reduce the urban heat island effect and improve water quality by capturing excess water and allowing it to infiltrate into the ground. The stormwater management plan will be integrated into the overall site design, ensuring that the Campus Pedestrian Pathway is resilient to water management needs.

2. WESTBROOK'S DANCE COURTYARD

This is a large garden space on the 16th Street NW between the Dougherty and the Foggy Bottom G.U. (FW). The project team will work closely with the university to develop a sustainable and resilient design for this space. They will incorporate rain gardens and permeable pavement to manage stormwater runoff and create a more sustainable landscape. The design will also include the use of native plants and other strategies to improve biodiversity and sustainability. A preliminary design for the Courtyard is also included in this chapter.

3. Develop Educational Programming for School Without Walls (SWW)

The university is working with School Without Walls (SWW) to provide educational programming for their students. This partnership will offer a range of opportunities for students to engage with the university’s sustainability initiatives. The program will include workshops, lectures, and other educational activities to help students understand the importance of sustainability and how they can contribute to a more sustainable future.

4. Boost the Scope of the GWU, Duke Gardens, Building on the success of the GWU, Duke Gardens, the university is expanding its educational programs to include new opportunities for students and the community. This initiative includes the development of a new research facility that will focus on sustainable practices and technologies.

5. Peggy Buteau Garden Club Partnership

The university is exploring the potential to partner with a local garden club to create a sustainable garden on campus. This partnership will help to promote sustainability and provide opportunities for students to get involved in community gardening.

COMMUNITY INVOLVEMENT AND OUTREACH

The university encourages students, faculty, and staff to participate in community outreach activities. Opportunities include volunteer work, community service projects, and public speaking engagements. The university is committed to fostering a culture of sustainability and encouraging community involvement in sustainability efforts.

Sustainable Campus Guidelines for George Washington University