



The Park Development Division of the Montgomery County Department of Parks

Woodside Urban Park

Facility Plan Report

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ecologically smart

culturally significant

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aesthetically pleasing

Appendices / Facility Plan Report Book 2

A	Technical Plans and Information
	30% Construction Documents
	Natural Resource Inventory/Forest Stand Delineation
	Preliminary Forest Conservation Plan
	Geotechnical Report
	Stormwater Management Concept Plan
	Traffic Report
	Soil Report
	Tree Preservation Plan
	Lighting Concept
	Detailed Cost Estimate
B	Plan Review and Community Correspondence
	Community Correspondence
	Agency Correspondence

Project Overview

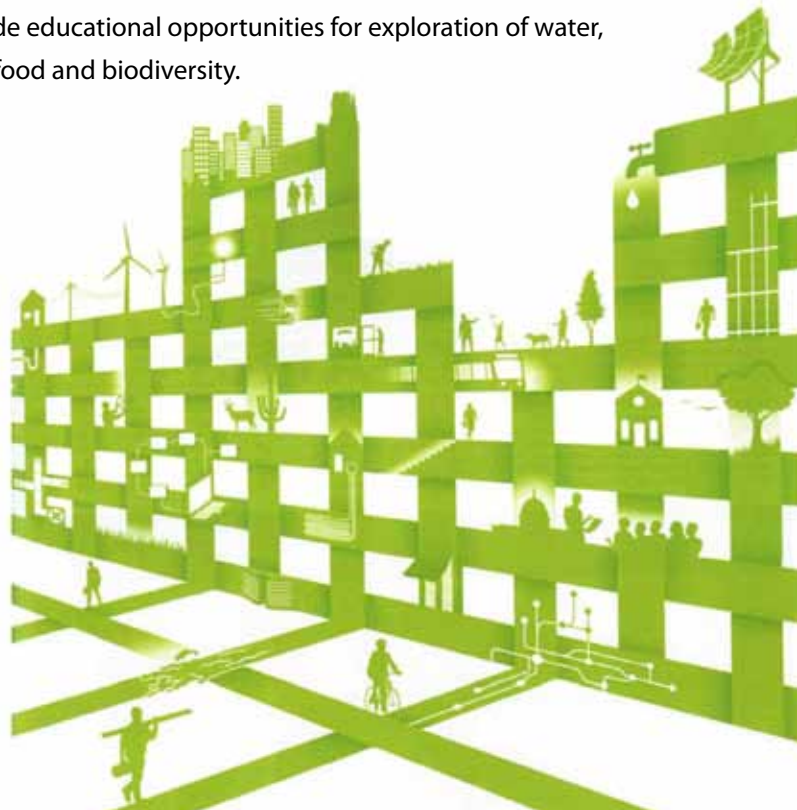
A forward-thinking park for future generations



This project involves the renovation of an aging urban park located in Silver Spring, Maryland. The park was originally established in 1976 and expanded to include a tennis court and a picnic area in 1991. The purpose of the project is to develop a facility plan for the park including a cost estimate.

The proposed facility plan adopted the recommendations from the 2000 Silver Spring CBD Sector Plan and the North and West Silver Spring Master Plan to rethink the park in terms of urban connectivity, experiential complexity, environmental sustainability, economic efficiency and cultural vibrancy. The concept envisions a 21st century urban park that is smart, coherent and pleasing; a green infrastructure that supports the re-emergent economy, strengthens the community and contributes to the urban ecosystem. People of all ages will have more ways to experience the park, more places to play, greener and safer routes to stroll and new grounds to garden together.

The plan intends to protect and enhance the existing natural resources and create a flexible framework for multi-purpose recreational and leisure uses. To catalyze the green benefits, the plan advocates a sustainable approach and best management practices in all aspects of the design, construction, operation and management. The renewed park environment will promote a healthy life style of urban living as well as provide educational opportunities for exploration of water, energy, food and biodiversity.



Context

A forward-thinking park for future generations

Location and
Vicinity



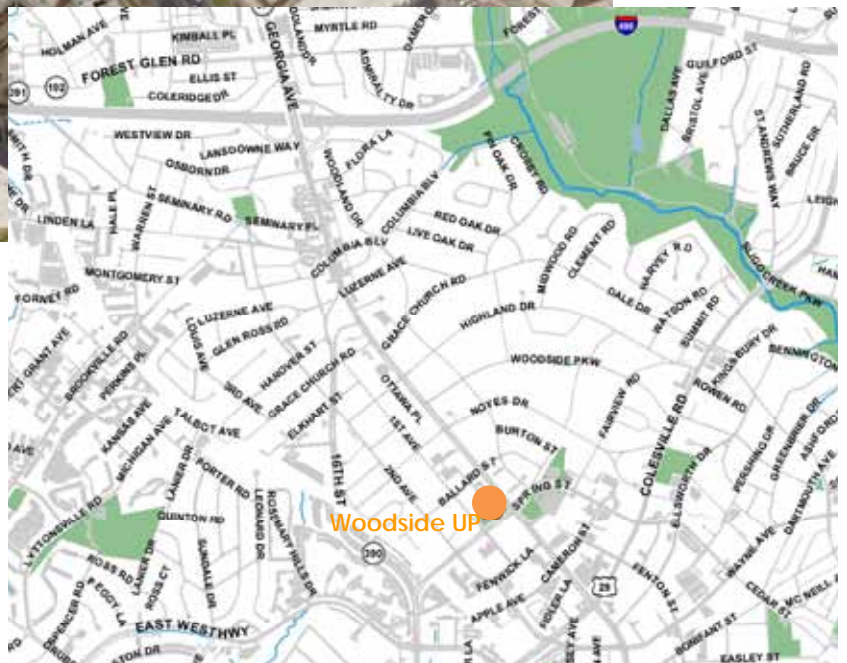
Woodside Urban Park is one of the three urban parks in the North and West Silver Spring Planning Area. Located at 8800 Georgia Avenue, at the intersection of Georgia Avenue and Spring Street, the 2.62 acre park is situated prominently at the edge of a residential community and the Silver Spring Central Business District. It is approximately a mile from the Capital Beltway, half a mile from the Silver Spring Metro station and in proximity to regional bike trails. The Purple Line study has also planned a Woodside Station on Second Avenue near the park.



^ Aerial Map of Immediate Area

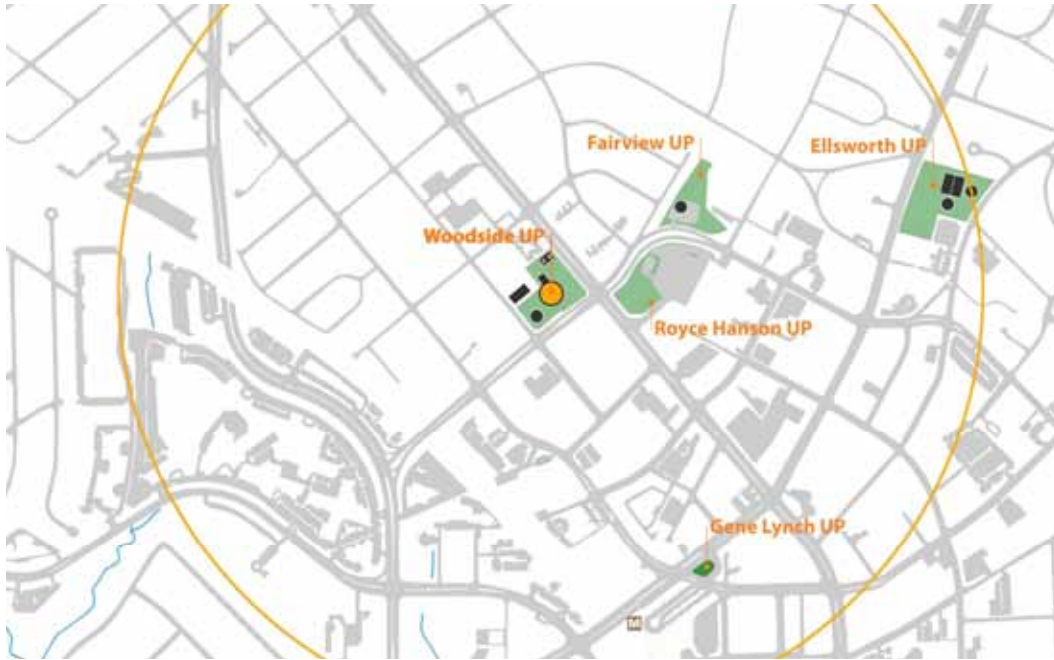


Vicinity Map >

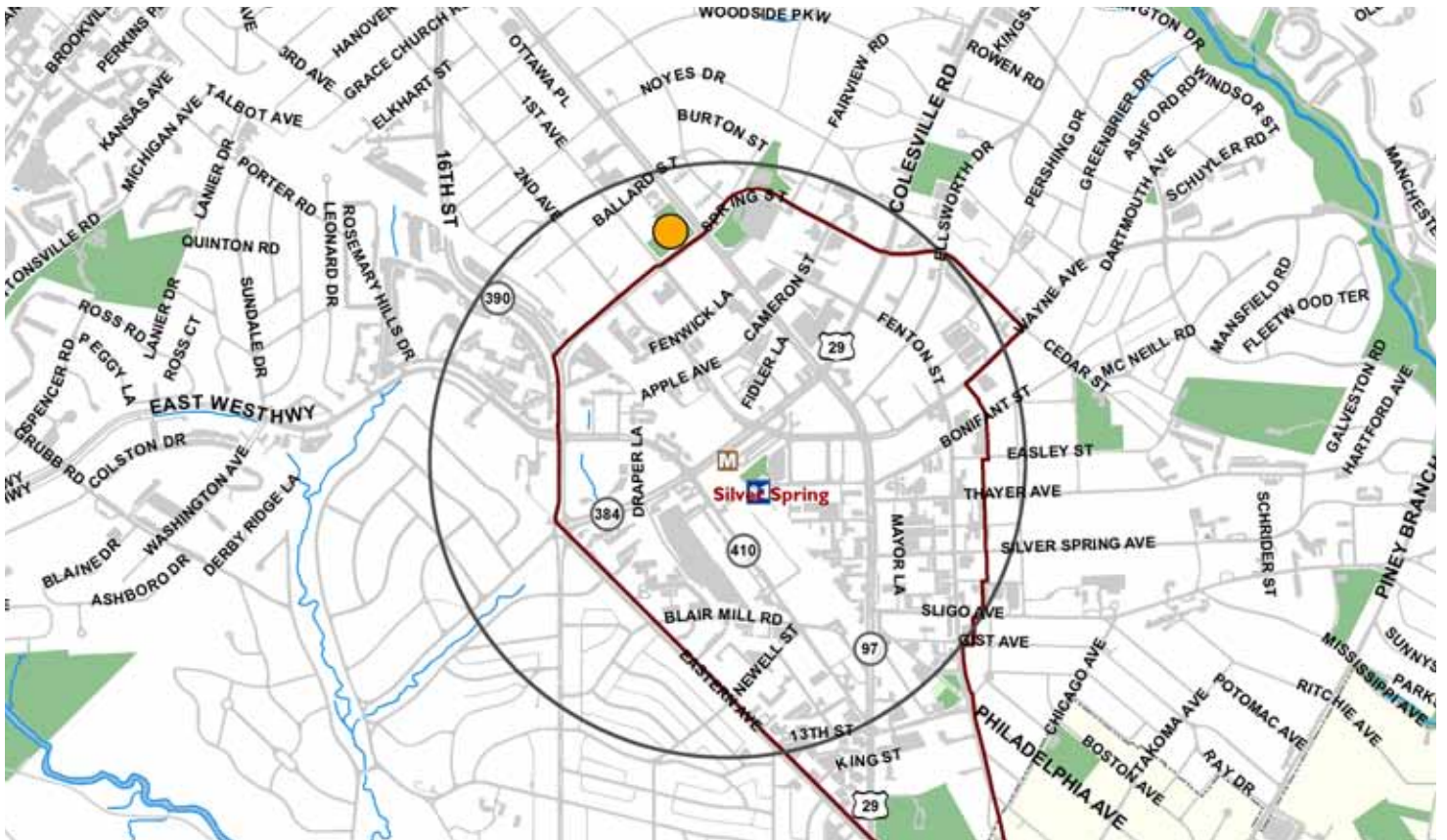


Site Context

Adjacent Parks >



Silver Spring Metro Vicinity Map

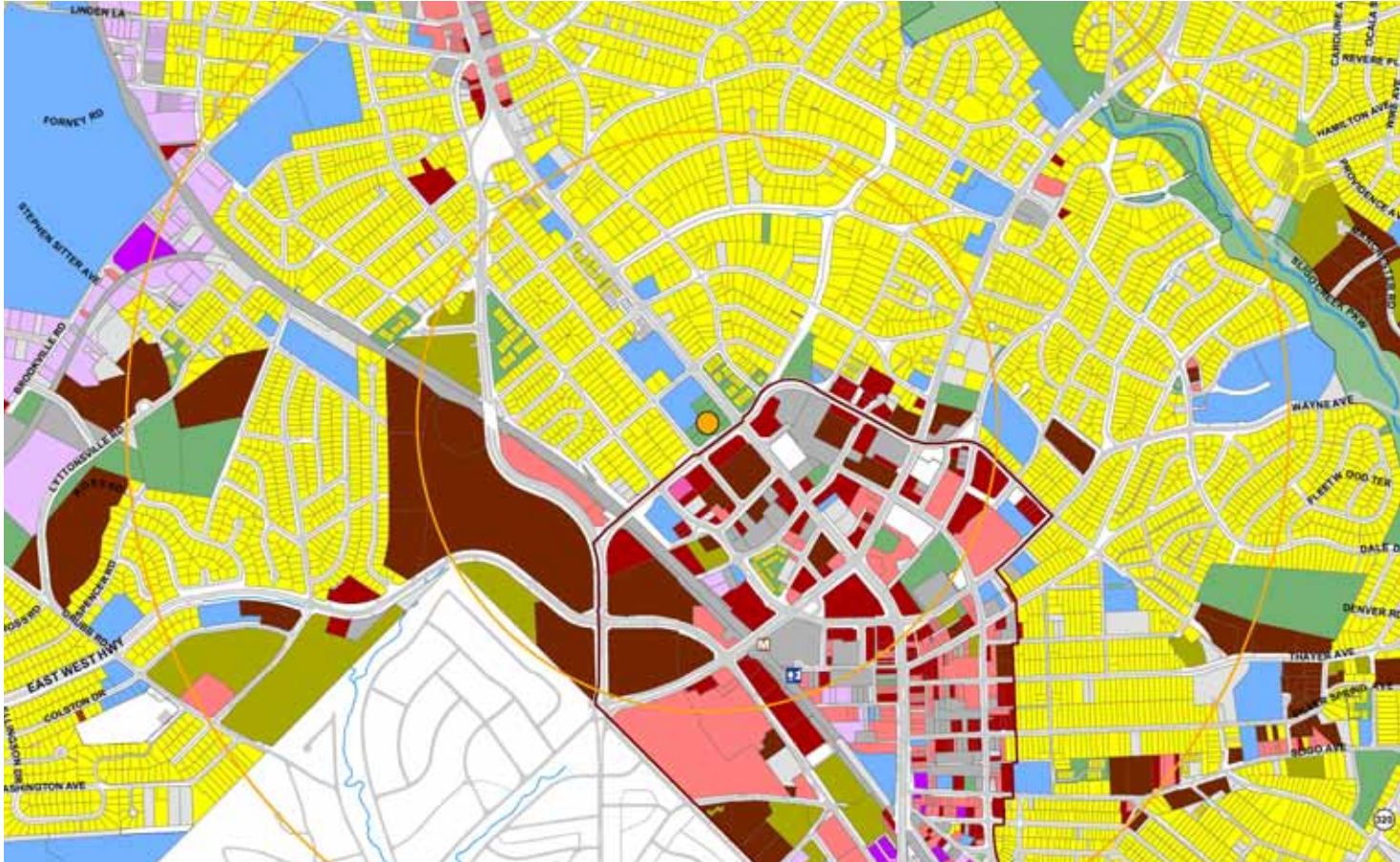


Context



^ Bus Routes

v Land Use 1



Woodside Urban Park | Project Overview



∨ Land Use 2

∧ Local Bike Routes

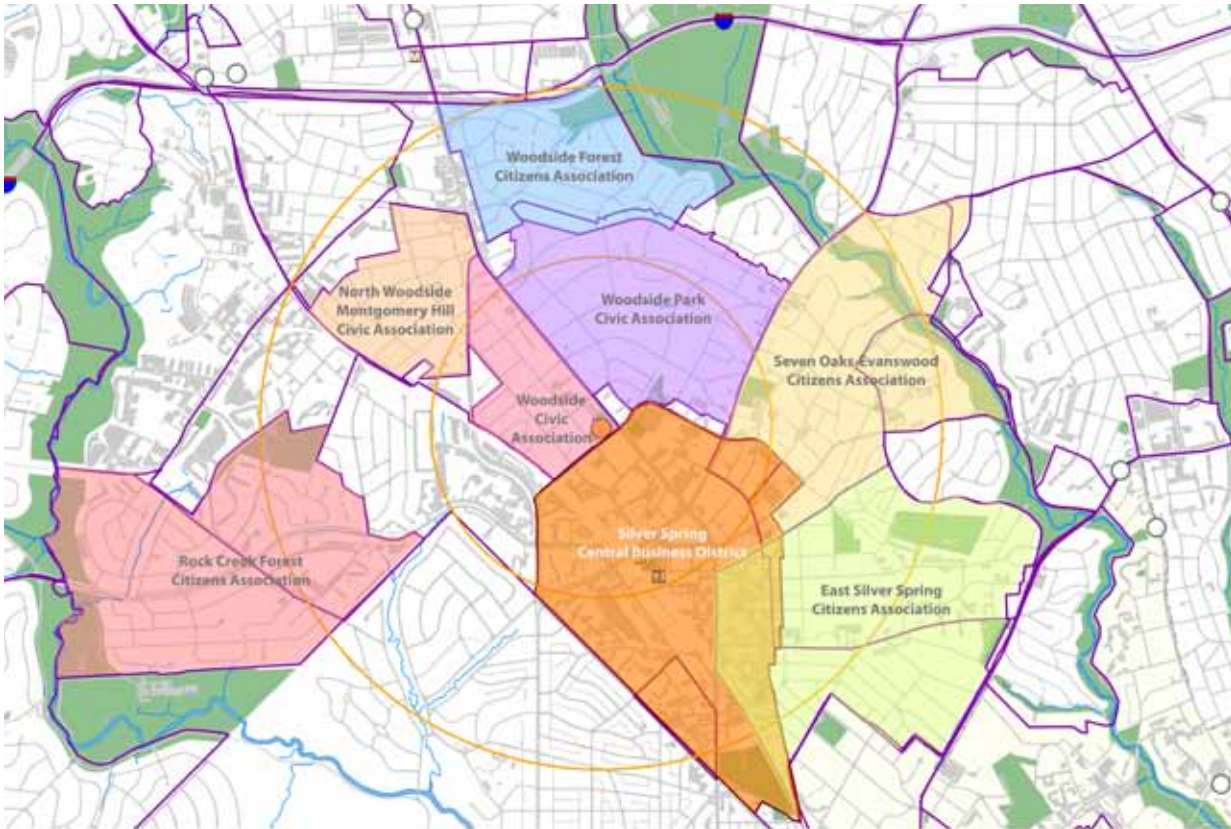


Context



^ Building Heights

v Community Associations



Existing Conditions and Concerns

The existing park includes a decorative fountain, seating areas with trellis structures, pavilions, lighting, picnic areas, playgrounds, a basketball court, a handball court and a skate spot. The adjacent county facility includes a gym and a tennis court, which has been considered in the overall design of the park.



^ Mature trees

Complicated
v hardscape



^ Existing fountain

The park includes many mature trees with changes in grade, which are significant assets to the park but will also create challenges for the renovation. The park is currently used for active and passive recreation and as a passage way to the CBD and local neighborhood. Although it has served the community well over



the years, the park suffers from a complicated hardscape, fragmented picnic areas and overall deteriorating conditions.

The following is a list of concerns identified by the community in the first public meeting.

Space	Safety and Access	Maintenance	Facilities
<ul style="list-style-type: none"> Fragmented Disconnected No central space Wasted space Over-programmed Not flexible No place for kids to run 	<ul style="list-style-type: none"> Overgrown vegetation Secluded spaces Poor visibility Limited access Unsafe crossings Poor lighting at night 	<ul style="list-style-type: none"> Hardscape Water feature Trash in the park Trees Tree in the utility ROW 	<ul style="list-style-type: none"> Outdated Deteriorating Fountain too large Underutilized Insufficient furniture Too many steps



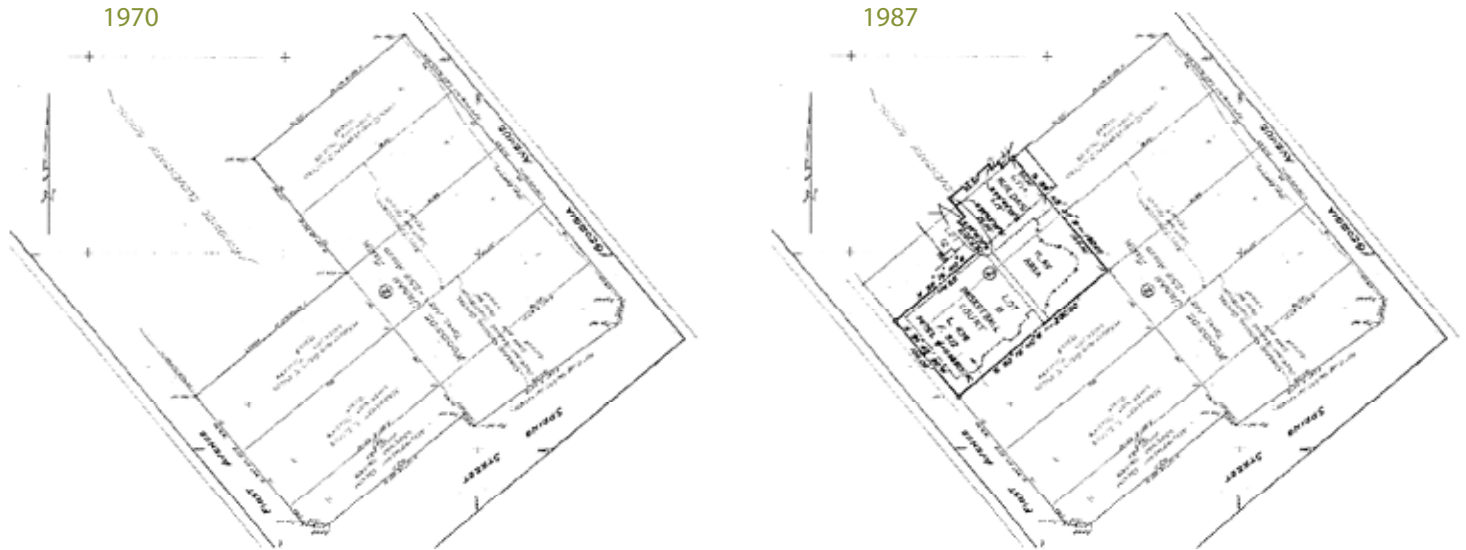
Context

Background and History

The property of Woodside Urban Park was acquired in the early 1970s. It consists of 7 residential lots totaling of 2.28 acres. An additional lot owned by Montgomery County, Maryland that consists of approximately 0.34 acre has been incorporated as part of the park in the early 1990s. The park was built at a time when the CBD was a suburban residential community with a commercial center. The park was located and designed to buffer residential communities from commercial development and to offer active recreation opportunities. The park now serves both the business community and the surrounding residential areas. Most of the park facility was designed in 1976 and constructed afterwards.



Initially the adjacent building and grounds were used by the Woodside Elementary School. In 1987, The Board of Education (BOE) of the Montgomery County granted the conveyance of the former school site to Montgomery County and a gymnasium, outdoor basketball court and play areas were to be transferred to The Maryland-National Capital Park and Planning Commission as part of the Woodside Urban Park.



The former school site was deeded from BOE to the County in 1991. The outdoor basketball court and the play areas had been integrated into the park and developed into a tennis court and a picnic area. The gym continues to provide the function as an indoor recreational facility. Though the conveyance of the added park program area to the Commission did not occur, The Department of Parks has been maintaining the added recreational facilities since 1991.

The adjacent County-owned building, The Silver Spring Government Center, currently houses programs for the Department of Health and Human Services.

To fulfill the current needs while the facility planning is underway, the playground at the southwest quadrant was renovated in 2009. A temporary skate spot was built adjacent to the gym and the basketball court in spring 2010 to meet the skating demand of the Silver Spring area. In addition, a Xeriscape Demonstration Garden was planted with local business, community volunteers and the park staff at the corner of Georgia Avenue and Spring Street in fall of 2010. Although the existing park facilities are in need of an upgrade, it continues to be a popular place for people to spend their leisure time.

Master Plan Recommendations

A forward-thinking park for future generations

North and West Silver Spring Master Plan



Woodside Urban Park is located on the border of two master plan areas, and both plans include recommendations which inform the renovation of the park. The park falls within the boundary of the North and West Silver Spring Master Plan, approved and adopted August 2000. This plan area is located south of I-495 and is described as part of the densely developed urban ring close to Washington, DC. The area is almost completely built with well-established, compactly developed residential neighborhoods and local services to support community life. The plan includes a number of recommendations to improve transit, as well as provide pedestrian and bicycle connections from neighborhoods to public facilities. It makes the following recommendation on page 72:

- Improve transit and reliability along Georgia Avenue and Colesville Road. Improvements to passenger accessibility to transit such as sidewalks, crosswalks, bicycle racks and passenger shelters will be very important if goals of increased ridership are to be met.

One goal of the plan is to connect the Rock Creek Hiker-Biker Trail and the Sligo Creek Hiker-Biker Trail through North Silver Spring. Woodside Park is located between these two trails. Map 25 on page 77 shows a proposed on-road bikeway (Class III signed shared roadway) on Spring Street south of the park. This segment of bikeway provides an im-



portant connection from neighborhoods on the east side of Georgia Avenue to the Silver Spring CBD, Transit Center and the Sligo Creek Hiker-Biker Trail. Specific bikeway recommendations are further explained in the 2005 Countywide Bikeways Functional Master Plan.

The master plan makes the following additional recommendations for parks and open space on pages 83 and 86:

- Renovate existing facilities and provide new facilities and recreational programs for a wide range of ages, backgrounds and interests.
- Examine all parks in the Master Plan area to promote design refurbishing and possible physical modifications consistent with Crime Prevention Through Environmental Design (CPTED) principles.....Many of the parks in North and West Silver Spring are some of the Commission's earliest holdings; they should be assessed from the perspective of visibility and street surveillance to ensure public safety. Each park design should be consistent with the CPTED principles.

The master plan makes the following additional recommendations for environmental resources on pages 92 and 94:

- Enhance the natural environment by creating green spaces, continuing street tree maintenance and planting programs, and identifying locations for improved street tree planting
- Encourage the application of urban forestry principles to landscaping projects to improve the diversity, health and aesthetics of the urban ecosystem and better support the remaining natural ecosystem of the stream valley parks.
- Provide on-site stormwater treatment with effective technologies

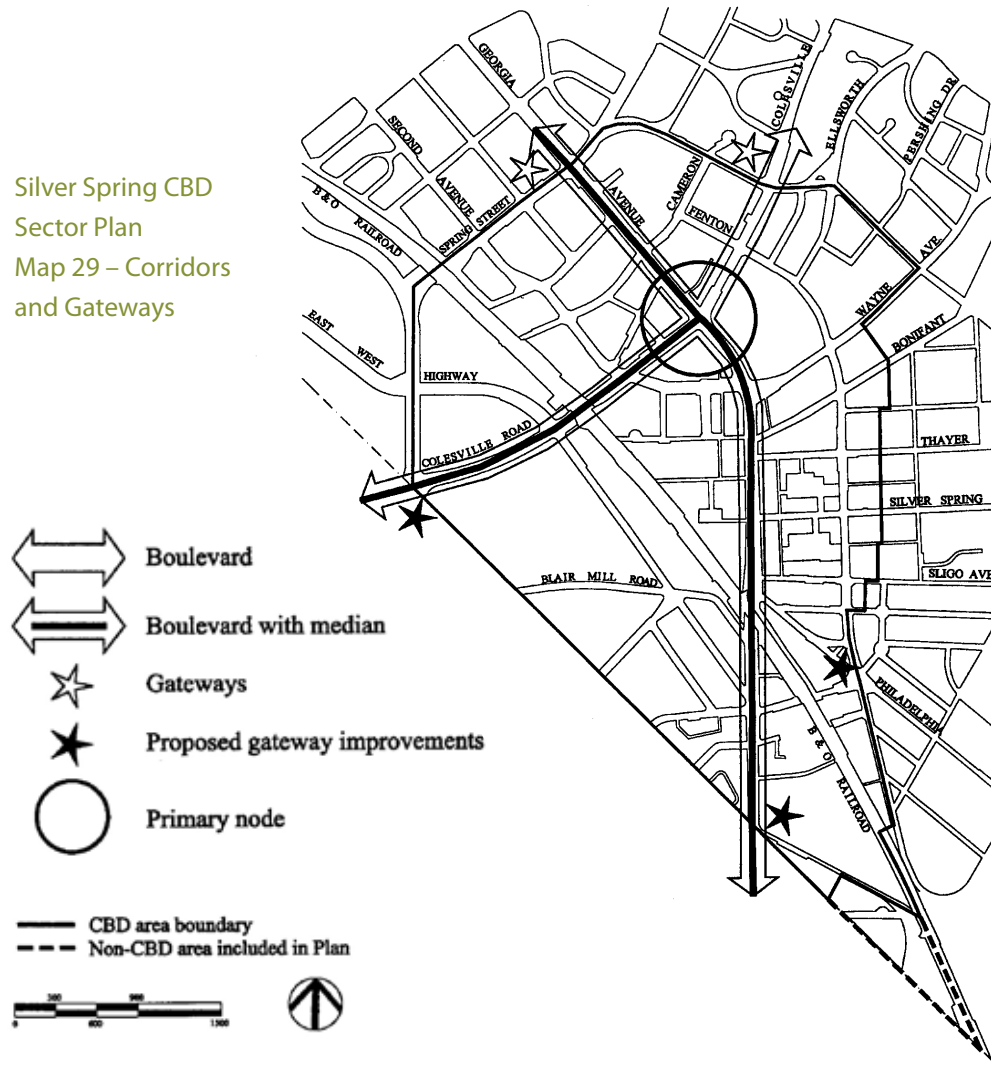
Silver Spring
CBD Sector Plan

Woodside Urban Park is the northern gateway that marks the entrance to the Silver Spring Central Business District. The Silver Spring CBD Sector Plan, Approved and Adopted in 2000, envisions a revitalized downtown that serves the surrounding residential communities, as well as a broader regional market, including the District of Columbia and western Prince George's County.

The CBD will be a focal point for community life, offering a variety of activities where residents and visitors can work, live, play and socialize. Community goals include creating an active place with mixed uses that attract people at all times and creating an upgraded urban environment that will attract private investment. The Sector Plan identifies six themes that articulate the shared goals and vision of the plan: transit-oriented downtown; commercial downtown; residential downtown; civic downtown; green

Master Plan Recommendations

Silver Spring CBD
Sector Plan
Map 29 – Corridors
and Gateways



downtown; and pedestrian-friendly downtown. On page 127, the plan identifies how urban parks can support these themes:

- Along with meeting recreation needs and supporting Silver Spring revitalization, the park system and the special facilities contribute to realizing Plan themes — including the Green Downtown, Pedestrian-Friendly Downtown, and Residential Downtown themes.

Map 29 on page 75 of the plan identifies Woodside Urban Park as the northern gateway to the CBD and envisions Georgia Avenue as an urban boulevard. On page 74, the vision for urban boulevards and gateways is described as follows:

- Through the CBD, Georgia Avenue and Colesville Road should be envisioned as urban boulevards linking the downtown’s revitalization areas while balancing the needs and demands of public transportation, bicyclists, pedestrians, and car traffic. As wide, tree-lined corridors, made safer and more pleasant with improved signs, streetscaping, landscaping, and signal timing, these corridors will link redevelopment projects in the Core, Ripley District, Fenton Village, and South Silver Spring. CBD gateways and nodes will also be defined by landscaping, streetscaping, signs,

public art, and buildings, all designed to signal the entrance and change to an active urban area.

Specific gateways are described on page 78, as follows:

- Woodside Park, at the corner of Spring Street and Georgia Avenue is outside the CBD boundaries, but still marks the entrance into downtown Silver Spring as the buildings and streetscape change character at this point. Intersection improvements should be made here.

Recommendations for civic and cultural facilities include the following, on page 126:

- Develop an art theme for revitalization projects. Include art spaces, programming, and objects whenever possible in new development and in existing buildings and parks. Use the arts to add value, character and amenity to the CBD and explore groups and techniques that could help Silver Spring compete effectively for arts funding and programming.

The plan describes urban parks as community nodes and places that define their surroundings and gather people, becoming centers of community life. The plan identifies two purposes for urban parks and open spaces on page 127:

- Supporting the recreation needs and desires of the employees and surrounding residential communities
- Contributing to downtown revitalization by providing another convenient and interesting reason to come to Silver Spring.

On page 128, the plan further describes Woodside Park:

- Woodside Park and Jesup Blair Park – Located at the northern and southern ends of the Silver Spring CBD are Woodside Park and Jesup Blair Park. These major public parks were built at a time when the CBD was a suburban residential community with a commercial center. These parks, and the more recently created Fairview Park at the CBD's northeast edge, were located and designed to buffer residential communities from commercial development and to offer active recreation opportunities – tennis, soccer, and basketball. These parks now serve both the business community and the surrounding residential areas.

On pages 129-131, the plan describes urban recreation opportunities and the need to respond to new recreation trends such as skateboarding as well as provide other unique play features in parks. In the Parks, Recreation and Open Space Recommendations on page 127, identifies a growing interest in walking as a leisure time activity- a use suited to an urban environment. On page 134, the plan recommends "Explore relocating a skateboard park within the Silver Spring CBD."

Master Plan Recommendations

On pages P34, 73, 127 and 128, the Plan recommends public/private partnership to attract contribution of park fund through developmental incentives such as establishing an off-site transfer of open space mechanism to encourage redevelopment and an open space fund alternative for optional method development.

- Private sector development will be supported with public/private partnership investments in streetscape improvements, the proposed Transit Center, park projects, and community facilities. By capitalizing on existing and proposed developments, Silver Spring will meet the goal of Smart Growth initiative.

The Plan recommends *“protect and enhance environmental resources to achieve to a healthy, pleasant and revitalized downtown”* include the following, on page 141:

- Encourage the use of alternatives to automobile transportation to reduce air pollution.
- Incorporate recycling and energy efficiency program in new development.
- Enhance the natural environment by creating green space.
- Enhance water quality through stormwater management techniques.

On page 145, the Plan recommends strategies including reduction of impervious surfaces, on-site infiltration and treatment, linear stormwater facilities and porous hardscape.

Countywide Bikeways Functional Master Plan

The March 2005 Approved and Adopted Countywide Bikeways Functional Master Plan was developed with the goal of providing connectivity to major park destinations and the major park trail corridors. The Countywide Park Trails Plan by contrast focuses solely on trails within the park system. Both plans together create an integrated bikeway and park trail system.

Woodside Urban Park is located within 2-4 miles of two major park trail systems, the Sligo Creek Hiker-Biker Trail and the Rock Creek Hiker-Biker Trail. Figure 2-9 on page 36 of the plan identifies three bikeways that provide direct connections from Woodside Urban Park to the countywide bikeway and park trail system. The routes are described on pages 47 and 48:

- Route SR-15, Sligo Creek Trail-Silver Spring Metrorail Connector: This is a signed, shared roadway (Class III bikeway) that travels along Columbia Boulevard, Woodland Drive, and Spring Street at Woodside Park. It connects neighborhoods on the east side of Georgia Avenue, north of Spring Street, to the west side of Georgia Avenue. This route is the same as Routes 11 and 14 in the North and West Silver Spring Master Plan.

Master Plan Recommendations

landscaped sitting areas, walkways, and in several cases, play equipment, handball and paddle-ball courts. Urban parks serve an important role as gathering places for the community and accommodate activities such as concerts and performances, celebrations, fairs, and outdoor spaces for area employees to have lunch.

On page III-23, the Silver Spring planning area shows a need for one additional basketball court, and no need for additional tennis courts or playgrounds by the year 2020. Additional facilities that are needed countywide are identified on page III-28 and include skate parks, dog exercise areas, regional trails, picnic areas and natural areas within parks. The plan further describes needs for tennis on page III-24:

- There are approximately 410 tennis courts currently available for community use in public parks and schools in Montgomery County. Local park tennis court usage observed in our 2000 user survey declined by nearly half from that observed in 1995. At these parks where there are usually only 2 courts, they are generally used informally by the adjacent community and use is often low. It is estimated that only 4 new park courts will be needed at local parks by 2020, primarily to serve new development in the upcounty area.

Vision 2030: The Parks and Recreation Strategic Plan

Vision 2030 is a strategic plan for park and recreation services in Montgomery County for the next twenty years. The current draft plan, dated June 2011, shows Woodside Urban Park located in the South Central planning area. Volume 2 of the current draft (page 63) indicates that the South Central area has the lowest level of service of all planning areas for parks and recreation compared to the density of population, even though this area shows a relatively high concentration and access to recreational facilities.

A summary of survey results are outlined on page 16 of Volume 2. The results identify program areas rated as high priorities to improve or expand, including health and wellness, outdoor nature programs, children and youth activities, community gardens, and youth league sports. On page 22 surveys identified additional facilities rated high in importance, including trails, playgrounds and natural areas. In the table on page 75 (Appendix E), survey results from the South Central planning area show increasing demand for community gardens, dog parks, picnic shelters, and playgrounds.

A forward-thinking park for future generations



The Facility Plan for Woodside Urban Park was funded with \$300,000 in the FY10-12 Capital Improvements Program in the Facility Planning Local PDF. The facility planning phase began in fall of 2009. The M-NCPPC PDCO (Planning, Design, Construction and Operations) staff review team was formed and included expertise in Environmental Planning, Transportation Planning, Facilities Management, Park & Trail Planning, Natural Resources Stewardship, Horticulture and Forestry, Park Police, Environmental Engineering, and Park Management of the Southern Region.

The project has been designed in house by a staff landscape architect in the Park Development Division, in a collaborative effort with support by engineering and specialty consultants. The prime consultant was procured via a Multi-disciplinary Task Order in April 2010. The contract was awarded to A. Morton Thomas and Associates, Inc. (AMT) in May, 2010 to perform civil engineering, survey, natural resources inventory, geotechnical work, stormwater management, environmental site design, and cost estimating services. Additional professional expertise was added for design of play areas, soil, lighting, tree preservation and graphic design as the plan was developed and the program was further defined.

The facility planning process is summarized as follows:

- Sept 11, 2009 Kick-off meeting attended by the PDCO team; reviewed and discussed project background, program and vision
- May 3, 2010 Task Order contract was awarded to AMT
- April 19, 2010 Site meeting attended by the PDCO urban forester and consultants; reviewed site conditions and program possibilities
- May 10, 2010 Coordination meeting attended by Montgomery County Parks and Montgomery County Department of General Services; reviewed proposed project for Woodside Urban Park; discussed park footprint; county was uncertain about the future of their site and timing of any projects.
- May 17, 2010 1st community meeting held at M-NCPPC Montgomery Regional Office; presented background, vision of CBD and North West Silver Spring Master Plan, Silver Spring Green Space Guidelines, examples of successful urban parks as visual references to the community and received comments.
- May 27, 2010 Site meeting attended by AMT and M-NCPPC arborist; reviewed site constraints and tree protection
- July 12, 2010 Site meeting attended by Park Planning and Cultural Resource staff; discussed program requirements and needs of active recreational facilities in the region.

Facility Plan Process

- Sept 20, 2010** Presentation of schematic concepts attended by PDCO team; design approach, concept alternatives were presented and discussed
- Nov 15, 2010** Meeting with Director of Silver Spring Regional Center to review concept alternatives and received comments
- Dec 10, 2010** Schematic concept briefing attended by the senior management; design approach, concept alternatives were presented and discussed
- Dec 15, 2010** 2nd community meeting held at M-NCPPC Montgomery Regional Office; presented schematic concept alternatives to the community and received comments; the community requested the tennis court to remain.
- March 4, 2010** Posted revised design per community input on M-NCPPC website, sent notice to community and received comments; the concept was well-received by the community
- March 7, 2011** Meeting regarding preferred concept attended by PDCO team and consultants; discussed revised design, stormwater management and tree protection.
- March 8, 2011** Site meeting regarding tree protection attended by tree protection consultant; discussed design refinements and tree protection strategies
- March 25, 2011** Site meeting regarding soil investigation attended by soil consultant, soil boring and percolation tests were performed
- March 30, 2011** Briefing meeting regarding coordination of stormwater management on Georgia Avenue attended by Development Review Committee; received comments and referral of SHA, DOT and PEPCO contacts.
- April 4, 2011** Meeting regarding lighting design with lighting consultants; discussed park policy and design intent
- April 21, 2011** Meeting regarding 50% facility plan submission attended by PDCO team and consultants; presented and discuss play areas, stormwater management, tree protection, soil management and lighting design.
- May 9, 2011** Coordination meeting with Montgomery County Department of General Services to review recommended park facility plan; county informed staff that their site would be redeveloped for the Department of Health and Human Services and that facility planning was beginning for their project.
- May 20, 2011** Meeting regarding 95% facility plan submission attended by PDCO team and consultants; updated drawings were presented and discussed.

- May 26, 2011** Meeting with DPS regarding Environmental Site Design; reviewed stormwater management concept and issues
- June 13, 2011** Site meeting regarding tree protection attended by M-NCPPC urban forester and horticulturalist
- June 22, 2011** Approval of Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) by M-NCP-PC Environmental Planning Division
- June 28, 2011** Meeting attended by Directors, Supervisors and Project Managers of Montgomery County Parks and Montgomery County Department of General Services regarding coordination of Woodside Urban Park and the building and grounds of the Department of Health and Human Services; confirmed collaborative effort of coordinated project for both agencies and need for additional public meeting to inform the community.
- June 28, 2011** Meeting regarding operation budget impact attended by Southern Region Park Management; reviewed scope and best management strategies
- July 25, 2011** 3rd community meeting held at M-NCPPC Montgomery Regional Office; informed community with the upcoming county project and funding schedule of the Department of Health and Human Services at 8818 Georgia Avenue; conveyed the intent of Park and County collaboration in design stage of project; presented an update on the recommended park plan to the community and received comments.
- October 6, 2011** Public presentation to the Montgomery County Planning Board



Design Approach

A forward-thinking park for future generations

Ecologically Smart

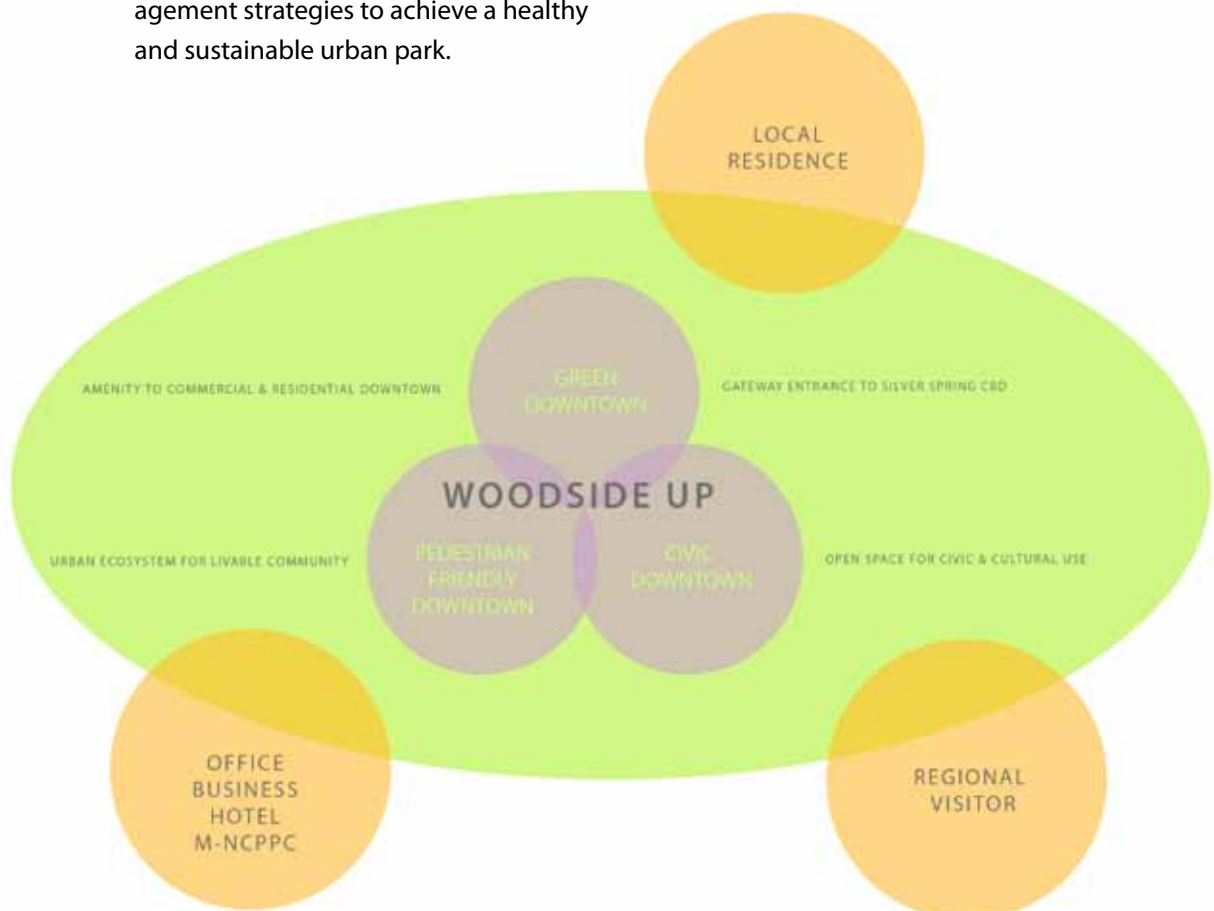
- Embody the vision of a forward thinking park facility for future generations; is ecologically sound, culturally significant and aesthetically pleasing.

Culturally Significant

- Promote urban connectivity; enhance the notion of the park as a gateway entrance to the Silver Spring Central Business District (CBD), an anchor of the urban green boulevard (Georgia Avenue) and a green hub for the Pedestrian-friendly downtown.

Aesthetically Pleasing

- Provide a cohesive and flexible framework that supports recreational needs and cultural activities for the Silver Spring CBD and the surrounding communities.
- Offer unique and viable park experience with upgraded 21st century facilities. Create well-crafted built work that sustains function and beauty.
- Incorporate the principles of Crime Prevention Through Environmental Design (CPTED) in design solutions to achieve a safer and more accessible urban space.
- Protect and enhance environmental resources; incorporate on-site stormwater treatment, regenerative landscape, urban ecology, horticulture and active management strategies to achieve a healthy and sustainable urban park.



Program of Requirements

- Hardscape elements include a water feature, terraces, paths, steps, walls and stormwater management facilities.
- Active recreational components include playgrounds and facilities that are suitable in scale for the urban location.
- Passive recreational elements consist of community gardens, rain gardens, lawn terraces and pathways for walking.



^ Horticulture, and community garden



^ Play elements for all ages



^ Pathways for walking and running

Woodside Urban Park | Design Approach



^ Areas for sitting, reading, relaxing, viewing, lounging



^ Large open space for passive recreation



^ Water feature



^ Shelter, bike rack



^ Public art

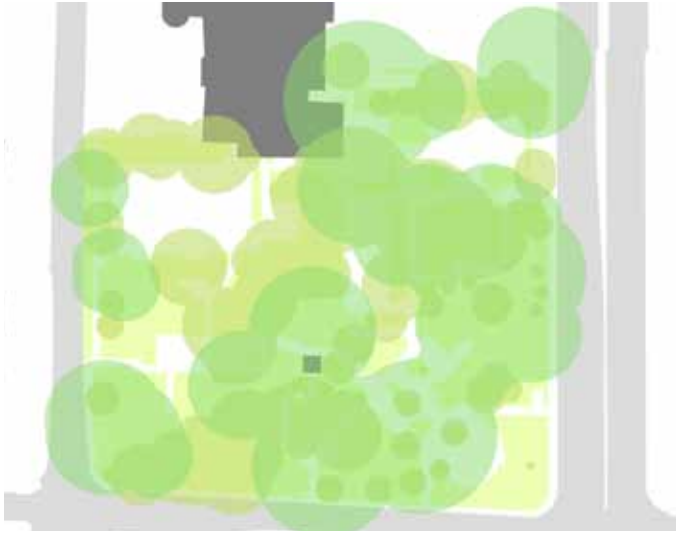
Site Assessment



^ Access

N
↑
Drainage >





^ Vegetation



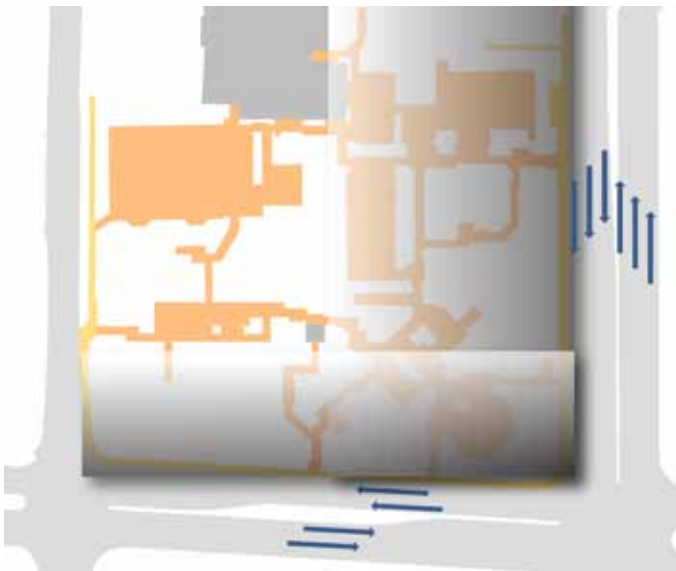
^ Topography



^ Pervious



^ Impervious

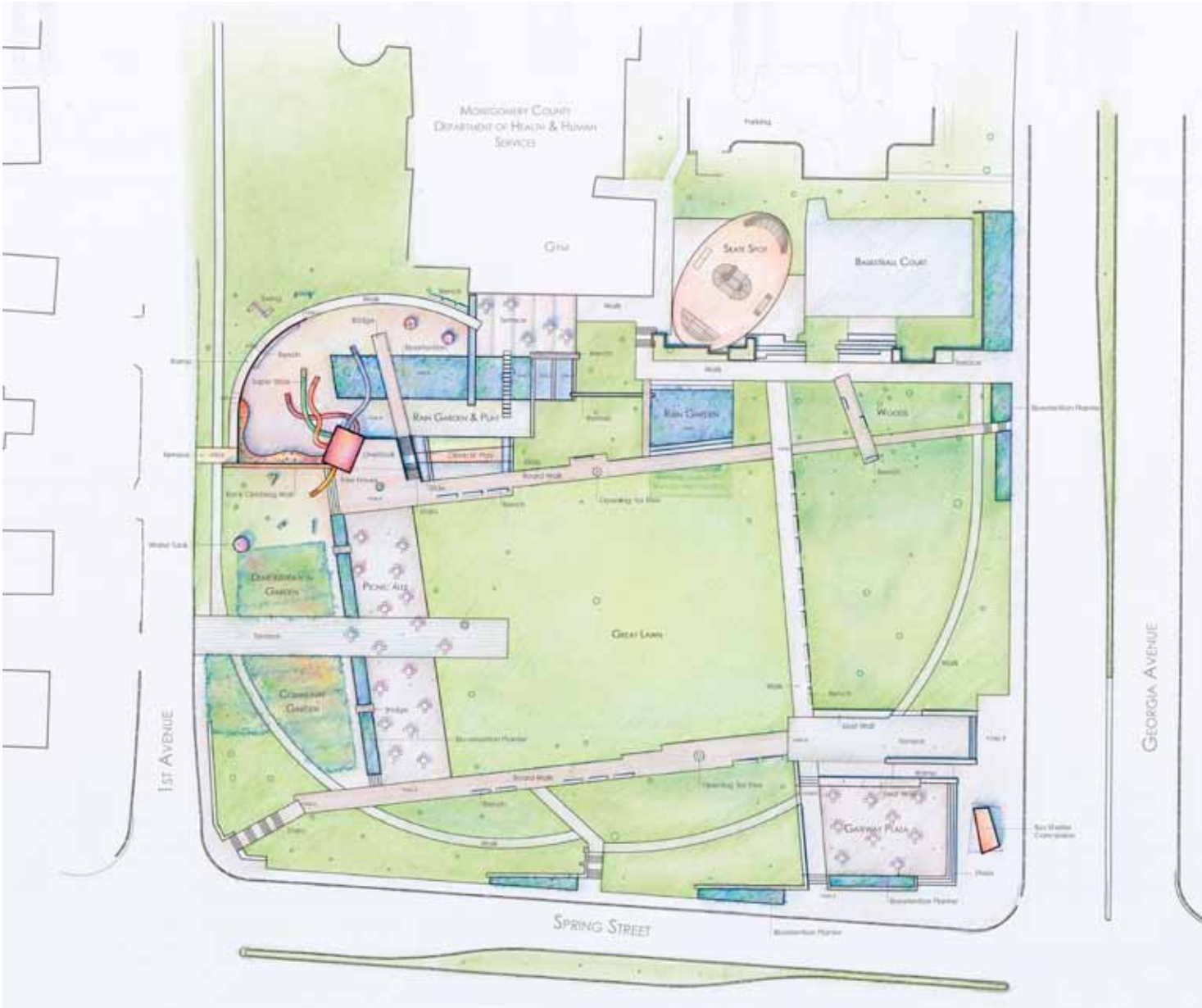


^ Noise



^ Visibility

Concept Alternatives



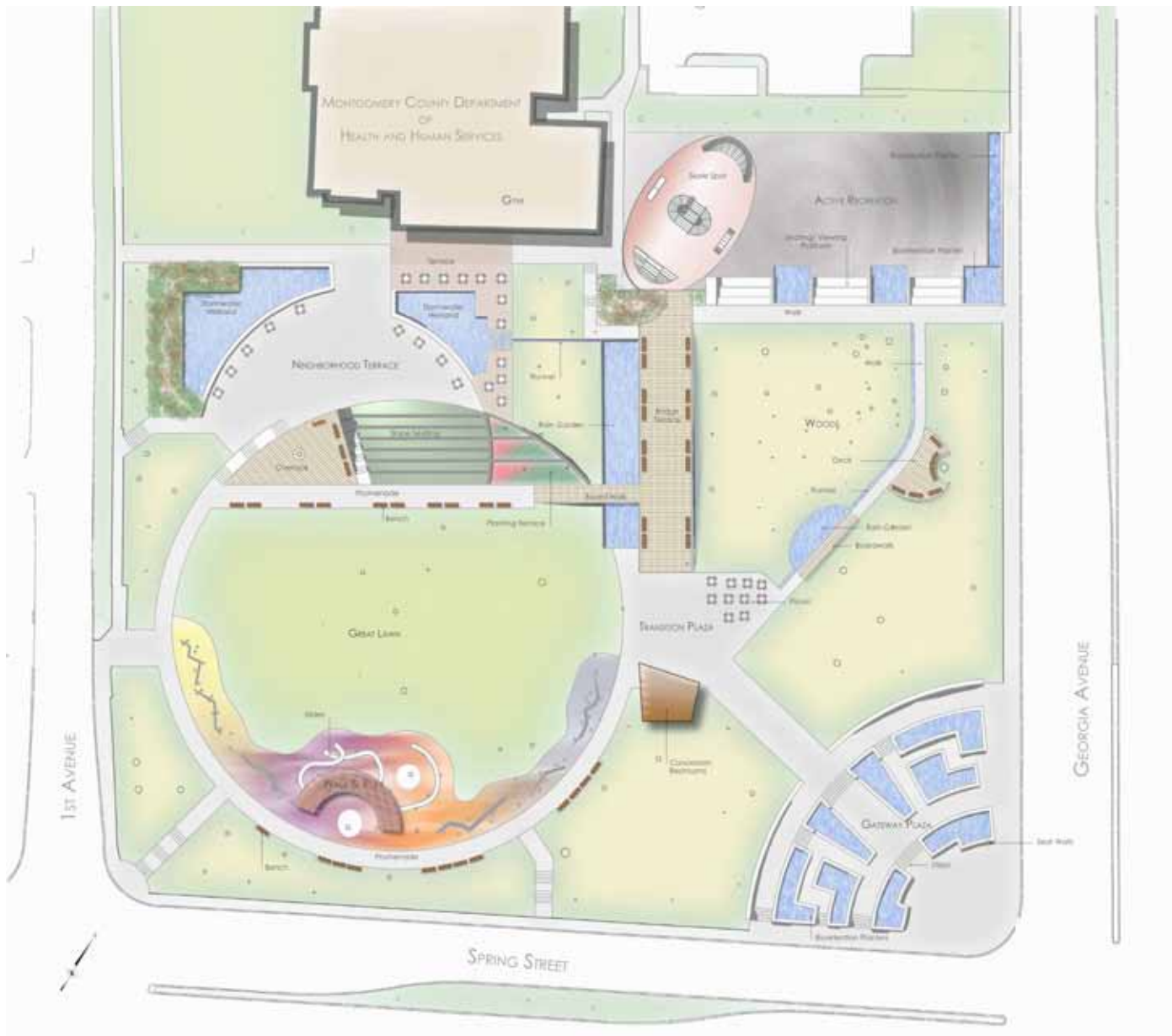
Concept Alternative A

Concept A configures passive uses, play areas, seating and community gardens near the residences on First Avenue. It reconfigures the park to create a large, flexible, open space in the center of the park. Active recreation uses are located near Georgia Avenue, and a gateway entrance is created at the corner of Georgia Avenue and Spring Street.

Spatial Concept Diagram >



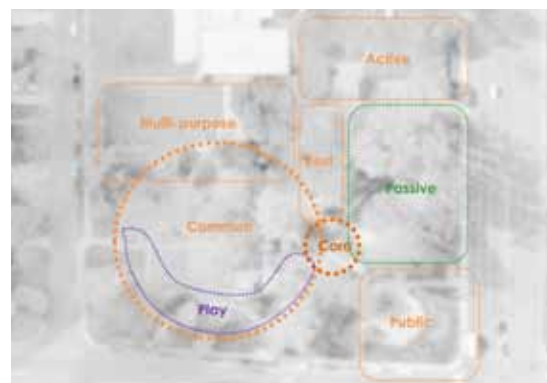
Concept Alternatives



Concept Alternative C

Concept C creates a common central open space with play areas located near Spring Street. It proposes an amphitheater in the location of the existing tennis court to utilize the existing slope. It proposes active recreation and passive uses near Georgia Avenue and a gateway entrance at the corner of Georgia Avenue and Spring Street.

Spatial Concept Diagram >





Woodside Urban Park strives to achieve the aspiration of *Biophilic Design*:

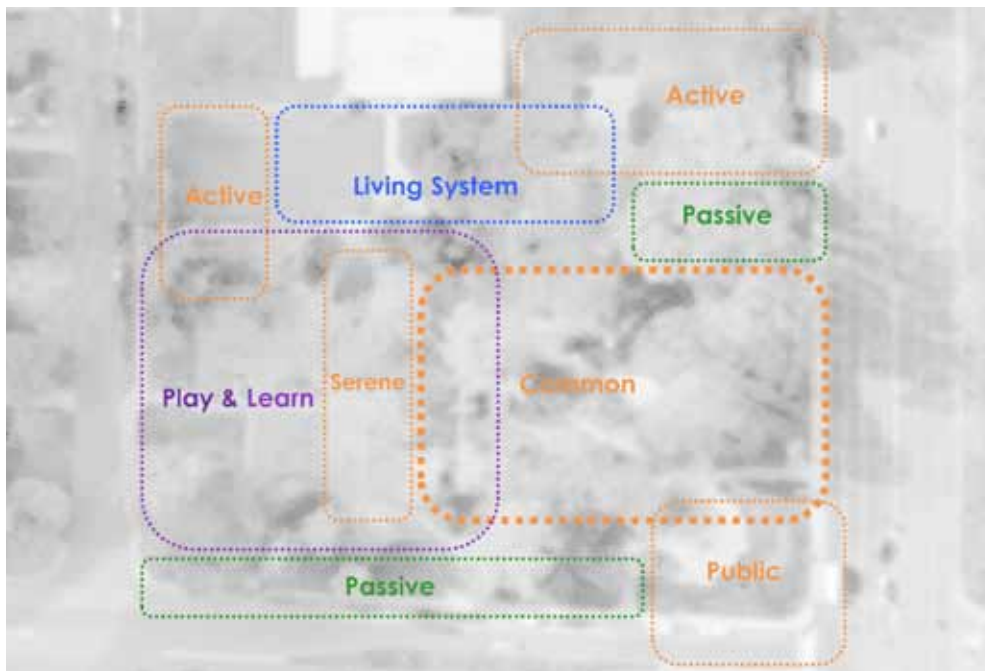
“Buildings and landscapes that enhance human physical and mental well-being by fostering positive connections between people and nature in places of cultural and ecological meaning and significance.” — defined by Stephen R. Kellert, PhD, Professor of Social Ecology and co-director of the Hixon Center for Urban Ecology at Yale University

Realizing the CBD Sector Plan’s vision of a green downtown, a civic downtown and pedestrian friendly downtown, and serving local, regional and diverse neighboring communities — Woodside Urban Park aims to fulfill the role as the gateway entrance to Silver Spring CBD; as an open space for civic and cultural use; as an amenity to commercial and residential downtown; and as an urban ecosystem for a livable community.

The preferred design concept proposes an aesthetic framework with opportunities for recreation and leisure, including pathways for walking, areas to picnic, rain gardens as water features, play elements for all ages, planned horticulture and a community garden, large open space for passive recreation, a multi-purpose concession and bus shelter, a tennis court, basketball court and skate spot.

The preferred concept seeks to fulfill the goals of a contemporary urban park.

Design features were driven by this spatial concept diagram.



Preferred Concept



Preferred Concept



^ Existing Tree Canopy



^ New Tree Canopy



Combined Canopy

Materials Key

Concept Images

- 1 Precast concrete sidewalk
 - 2 Precast concrete paving
 - 3 Transitional steps
 - 4 Granite steps, ramp and seat wall
 - 5 Granite seat wall
-
- 6 Bluestone paving
 - 7 Metal boardwalk with edging
 - 8 ADA metal grate
 - 9 Permeable paver
 - 10 Granite cobble edging
-
- 11 Permeable paving with proposed trees
 - 12 ADA sidewalk & permeable paving with trees
 - 13 Permeable paving with existing trees
 - 14 Concrete walk with designed joints
 - 15 Stone wall and steps matching existing
-
- 16 Precast concrete edging at rain garden
 - 17 Bioswale/bioretenion with low planting
 - 18 Rain garden with water feature
 - 19 Stepping stone crossing
 - 20.1 Cobble runnel
 - 20.2 Metal runnel
-
- 21 Rain garden with frequent inundation
 - 22 Bioswale planting
 - 23 Groundcover planting
 - 24 Concrete rock climbing wall with mural
 - 25 Pour-in-place rubber







Materials Key

- 1 Precast concrete sidewalk
- 2 Precast concrete paving
- 3 Transitional steps
- 4 Granite steps, ramp and seat wall
- 5 Granite seat wall
- 6 Bluestone paving
- 7 Metal boardwalk with edging
- 8 ADA metal grate
- 9 Permeable paver
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- 18 Rain garden with water feature
- 19 Stepping stone crossing
- 20.1 Cobble runnel
- 20.2 Metal runnel
- 21 Rain garden with frequent inundation
- 22 Bioswale planting
- 23 Groundcover planting
- 24 Concrete rock climbing wall with mural
- 25 Pour-in-place rubber
- 26 Mulch
- 27 Concrete steps
- 28 Concrete wall
- 29 Athletic Surface





Design Themes

Connectivity

Woodside Urban Park serves as a green hub for outdoor activities and a social connection point for adjoining communities.



With a seamless transition from sidewalk to park entrance, the south-east corner of the park connects pedestrians to the surrounding greater circulation routes and the central business district.

Whether one is entering the park or leaving, there is a synergy between man and space, and a connection to the adjacent streetscape.



Improved streetscape



Safe crosswalk



Visible, accessible entrance

Connectivity

1 Gateway Terrace

Provide a gateway entrance that is visible, ADA accessible and welcoming.

2 Crosswalk

Improve signage and crosswalk to offer safe connection to the urban juncture.

3 Bus Shelter / Bike Racks

Provide a visually appealing bus shelter and bike racks for commuters.

4 Streetscape

Enhance Georgia Avenue as Green Boulevard of Silver Spring and transition it into the CBD, improve park fronting on both Georgia Avenue and Spring Street.

5 Sidewalk

Allocate 10' wide sidewalk on Georgia Avenue to match CBD design guidelines; upgrade sidewalk on Spring Street to 6' wide to improve accessibility and accommodate street parking mechanism.

6 Path Network

Provide approximately 850 yards of ADA accessible, interconnected primary and secondary path system throughout the park.



7 Play

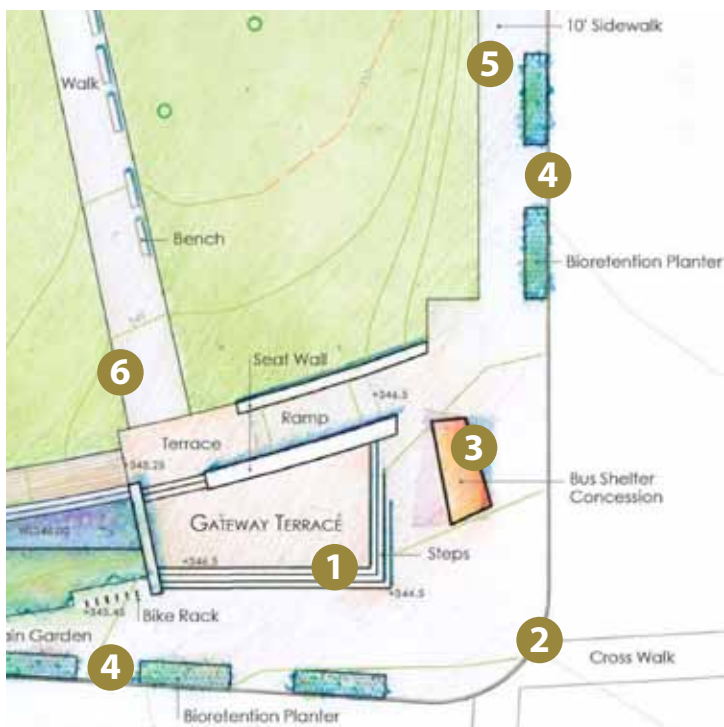
Provide an integrated play experience through multiple play settings and play structures designed for all ages and abilities

8 1st Avenue Entrance

Provide a direct entrance to welcome visitors coming from the south east corner.

9 ADA Entrance on 1st Avenue

Provide an ADA accessible entrance at mid block to bring access to the tennis court, community garden and the lower play area.





Woodside Urban Park *is inspiring, dynamic, creative and is NOT boring or repetitive*

Experience

Experiences are choreographed with spatial events offering opportunities for active and passive recreation, to be enjoyed by all ages, at all times.



Woodside Urban Park provides a shared environment, with opportunities for citizens to coexist and connect, nurturing social interaction and connections to a common ground.

It's an open environment, a collage so-to-speak of people, movement and activity — and yet available for momentary individual ownership.



Gathering



Resting



Playing

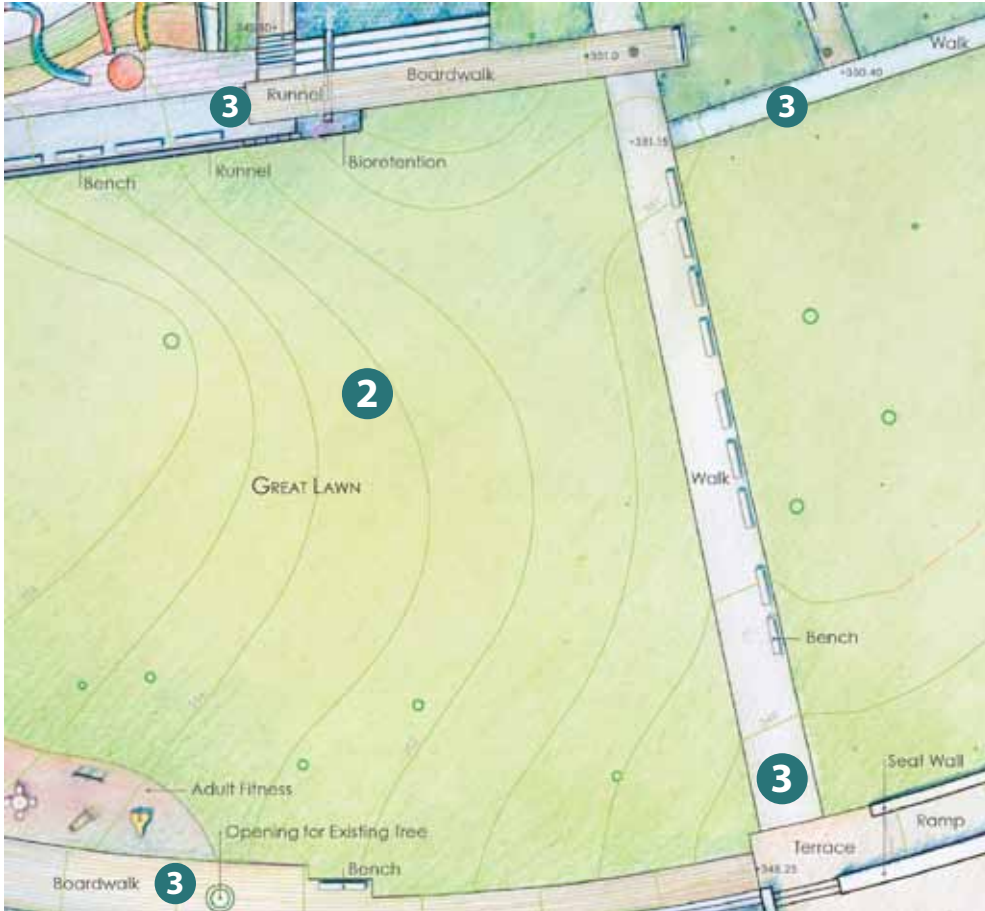
Experience

- | | |
|--------------------|----------------------|
| 1 Woods | 8 Rain Garden |
| 2 Great Lawn | 9 Crossing |
| 3 Walk | 10 Playscape |
| 4 Art & Play | 11 Active Recreation |
| 5 Picnic Alee | 12 Terrace |
| 6 Play Path | 13 Insect House |
| 7 Community Garden | 14 Overlook |



1 Woods . . . nature, resting, habitat enhancement, bird watching, mature trees





2 Great Lawn . . . open space, recreation, gathering, resting



3 Walk . . . strolling, running, connecting

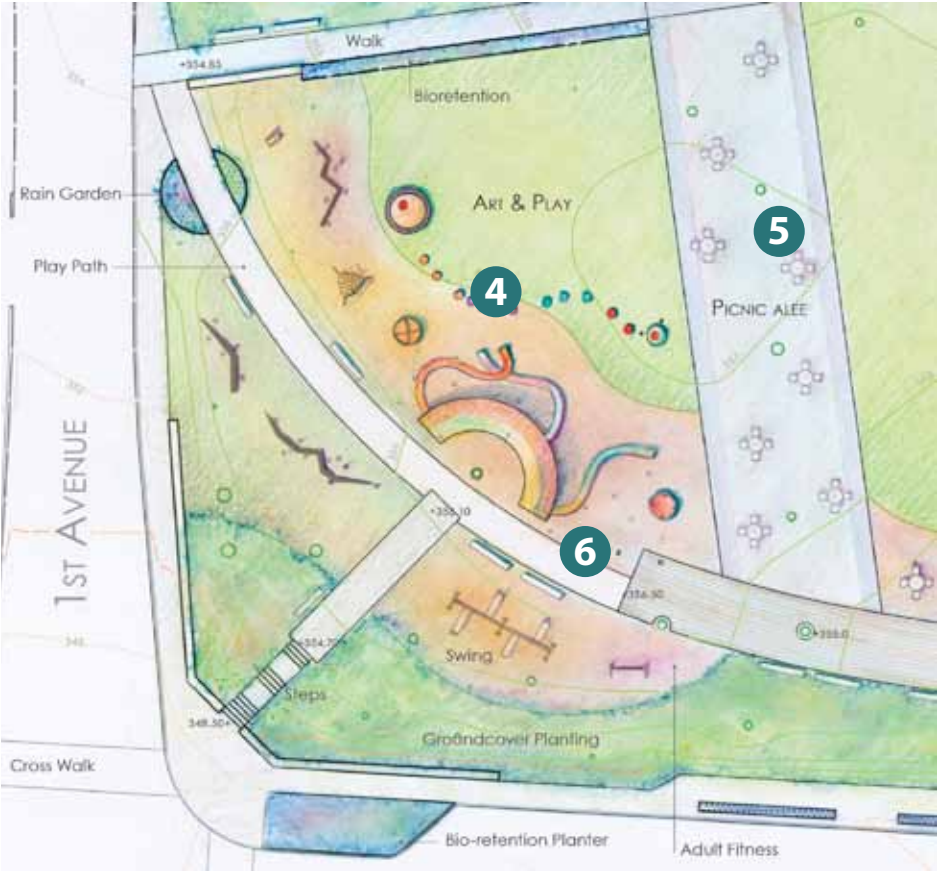


Experience

4 Art & Play . . . visual stimulation and creative play

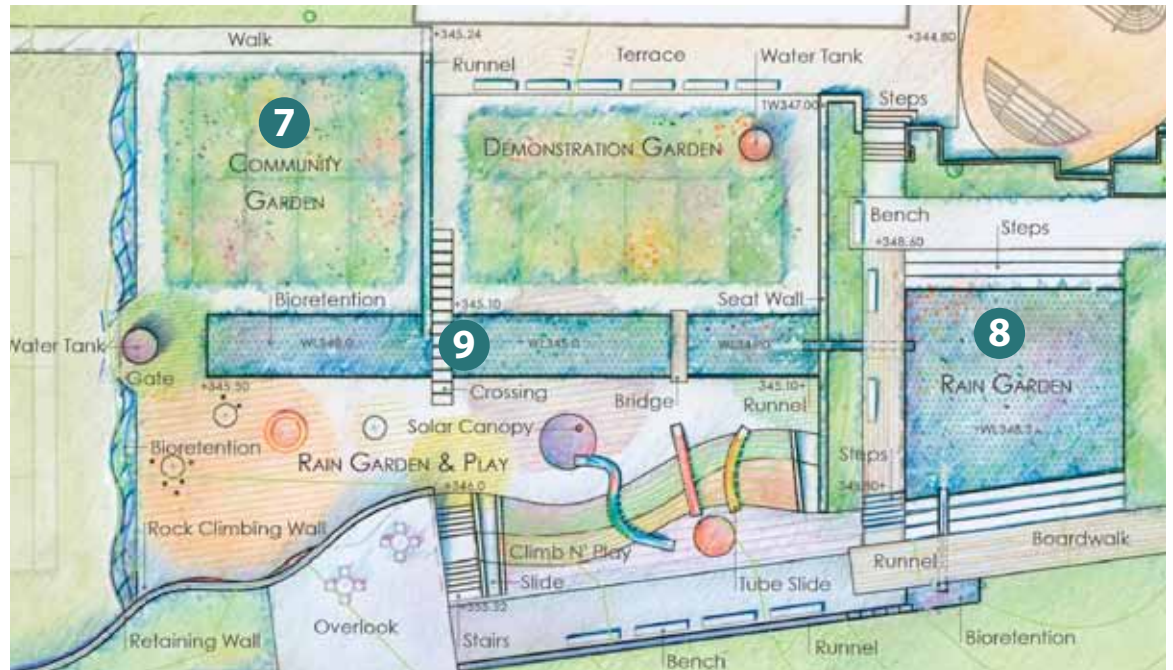


5 Picnic Alee . . . picnicking, lunch break, people watching



6 Play Path . . . walk, play, imagine





7 Community Garden . . . gardening, interactive education, connect to people, land, habitat

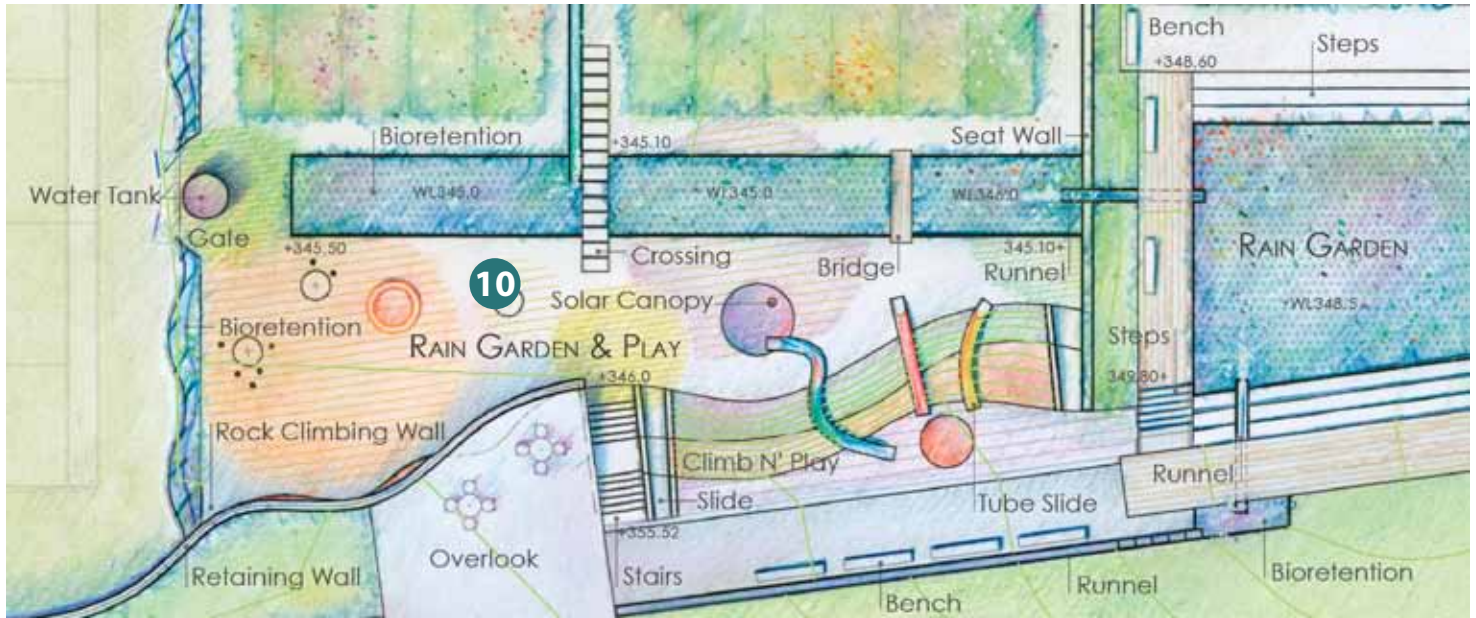


9 Crossing . . .

8 Rain Garden . . . environmental stewardship, habitat enhancement, horticulture, education



Experience



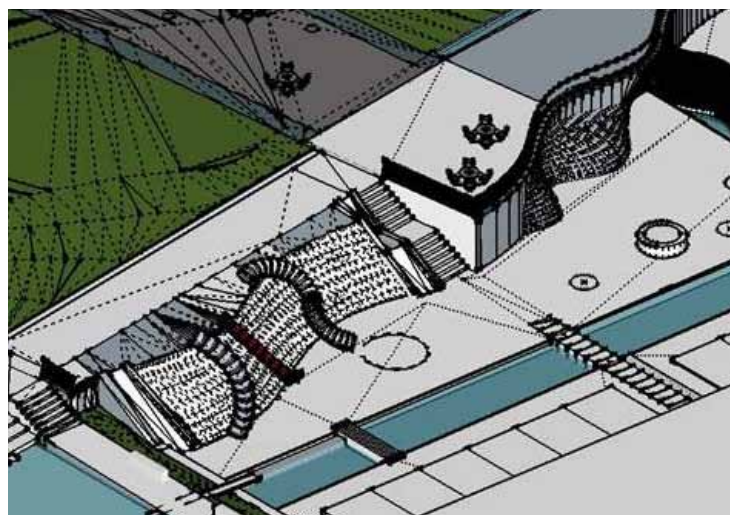
Play

Play refers to a range of voluntary, intrinsically motivated activities that are normally associated with pleasure and enjoyment. Although play is commonly associated with children, play is imperative for people of all ages

In ethology, play is an important part of learning. Play prepares youngsters for adulthood.

Play has also been associated with creativity and happiness.

- Play releases energy.
- Play is instinctive.
- Play is restorative.



Playscape

In play, children choose activities based on their particular stage of physical or social development. They tend to go at their own pace as they develop a sense of independence and self-worth.

The playscape at Woodside provides a variety of play settings for children of different ages and abilities.

Children play whenever and wherever they can. The playscape supports this through designated play spaces and a variety of play structures that will stimulate children to explore, be curious and invent games. They will participate in their own free-form, relevant play experience.

Not just exercise for the body — play can offer:

- Physical stimulation
- Sensory stimulation
- Perception stimulation
- Emotional stimulation
- Intellectual stimulation

Playscape is about an integrated play experience — inviting visitors of any age to investigate its interesting spaces, manipulate its moveable parts and explore its coordinated aspects of nature.

10 Playscape . . . Integrated play, participate, move, manipulate, sand and water, turn, chase, learn



Physical stimulation . . . net, seesaw, jump on, climb up, slide down



Perception stimulation . . . water play, role play, watch and observe



Intellectual stimulation . . . shadow play, invent, investigate and interpret, create



Sensory stimulation . . . sound play, water play, color, shape, material



Emotional stimulation . . . meeting place, resting place, share and evaluate

Experience

Play Themes

- 1 Climb N' Play
- 2 Rock Climbing
- 3 Social & Resting
- 4 Play Path
- 5 Theme Play
- 6 Senior Play
- 7 Active Recreation
- 8 Environmental
- 9 Art & Play
- 10 Free Play

Associated play areas overlap and extend throughout the park. The play experience at Woodside is for all ages and abilities.





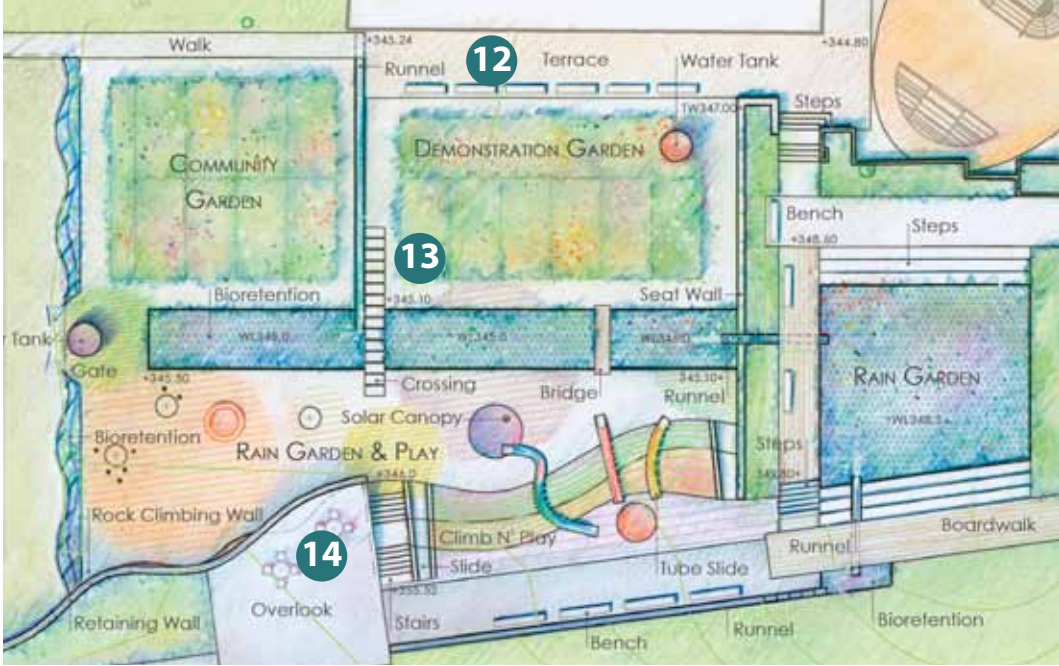
Experience



12 Terrace . . . resting, gathering, waiting



13 Insect House . . .
interactive education,
habitat enhancement



14 Overlook . . . viewing, watching, meeting



Sustainability

Landscape is understood and then designed as a living system.



With the theme of sustainability in mind, strategies were explored to manipulate the active elements of water, soil and vegetation.

Design solutions include ways to ecologically manage stormwater, amplify carbon sequestration, reintroduce native plants, restore biodiversity, cool air temperature and alleviate urban heat island effect, as well as restore soil, prevent erosion and filter noise and air pollutants.



Reuse water



Enhance habitat



Low maintenance landscape

Sustainability

Water



Section view through the bioretention facility showing water-retaining cisterns and infiltration areas

Water

Water brings our gardens and landscapes to life. The facility plan of Woodside Urban Park takes advantage of stormwater runoff and aims to integrate water ecologically, aesthetically and programmatically.

Working with the existing site hydrology, rain water will be harvested, retained, cleansed and reused through a chain of rain gardens, runnels, infiltration facilities and water tanks. Rain gardens provide visual and sensory pleasure and offer opportunities for play and environmental education. The harvested rain water can be reused for irrigation for the community gardeners.

Integrated within the physical framework of the park, the rain garden becomes a focal feature and a great amenity for park visitors.

An attractive water feature is envisioned as part of the stormwater chain and fulfills program requirements. The process of retention, conveyance, and filtration is purposely revealed to promote public awareness and interest.



The stormwater management facility at Woodside will contribute to the green infrastructure of the urban fabric of Silver Spring. Recommendations include:

- Protect and restore natural hydrology
- Reduce flow to storm sewers
- Create absorbent landscapes
- Use infiltration bed
- Incorporate rain garden
- Install porous pavements
- Incorporate curbside bioretention planters*

** idea is under consideration but has not been approved*





- 1 Bioretention Facility
- 2 Rain Garden
- 3 Bioretention Planter
- 4 Runnel
- 5 Bioretention / Water Feature
- 6 Water Tank



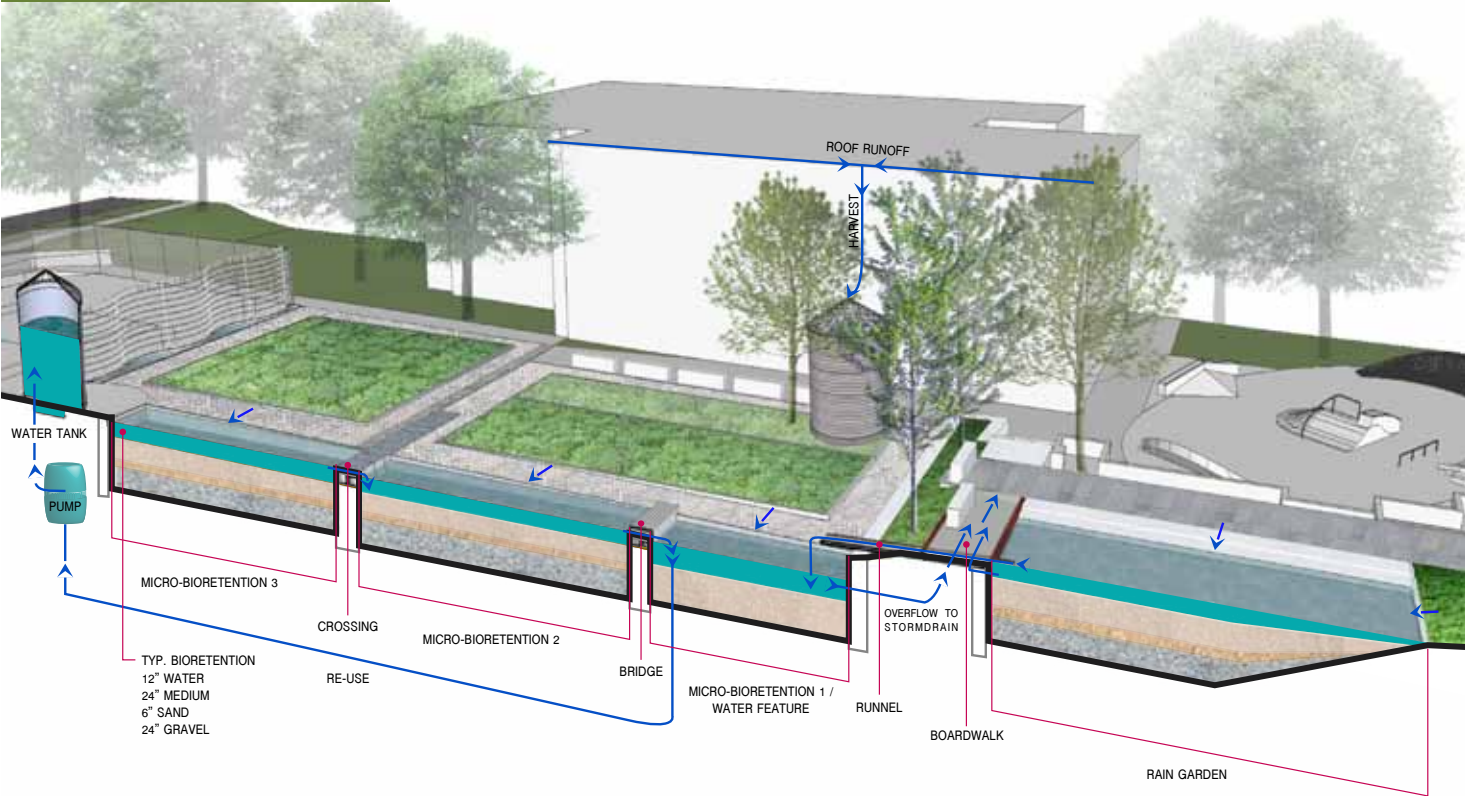
Runnels are designed visible drains that expose stormwater movement



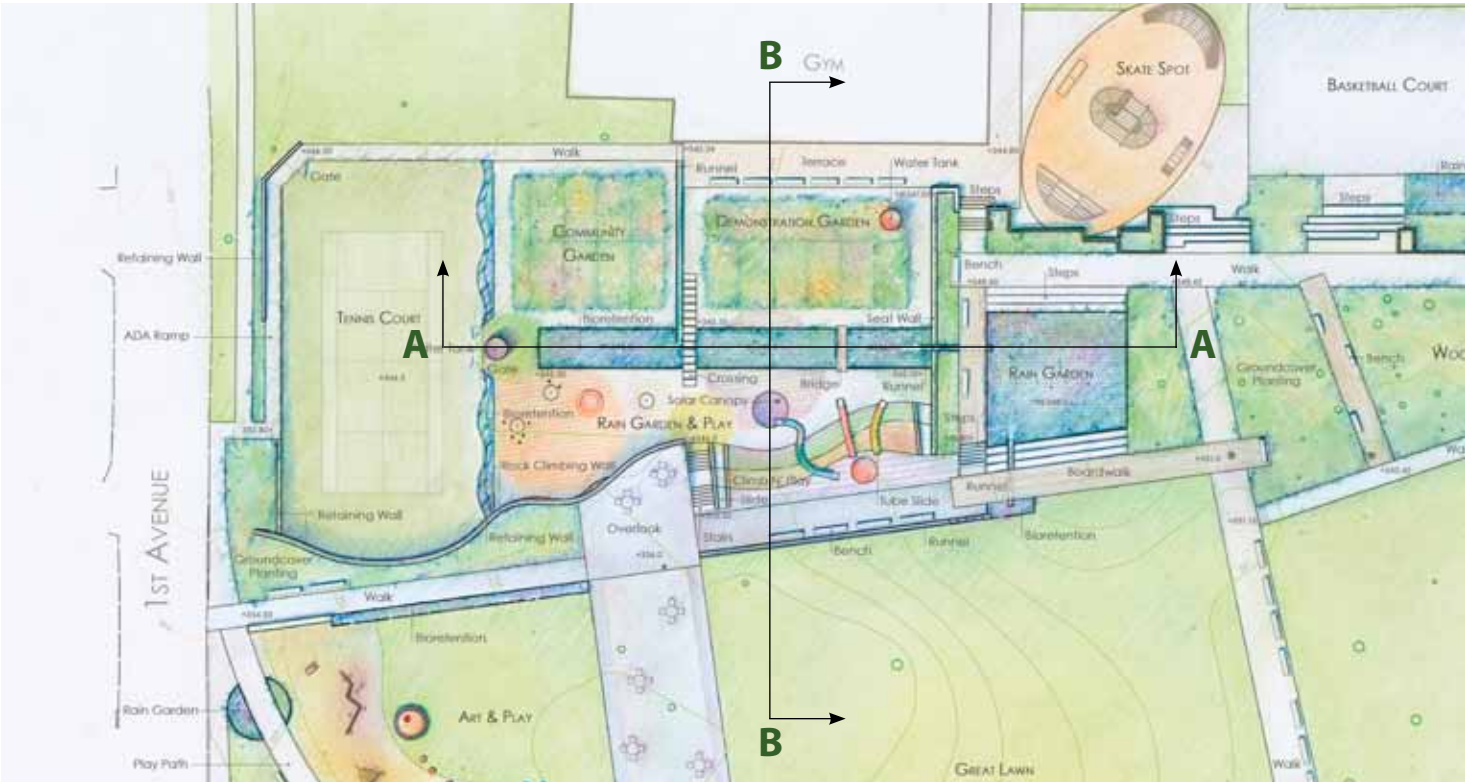
Bioretention facilities capture water then allow for infiltration

Sustainability

Water



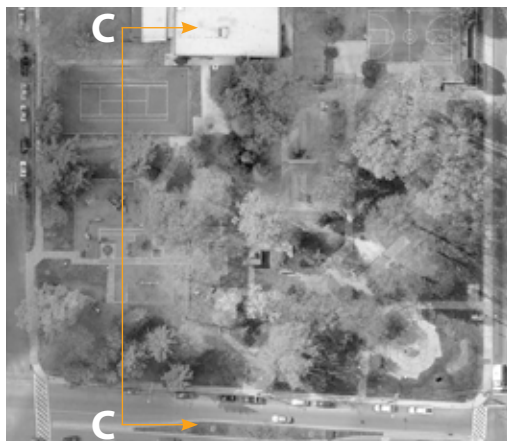
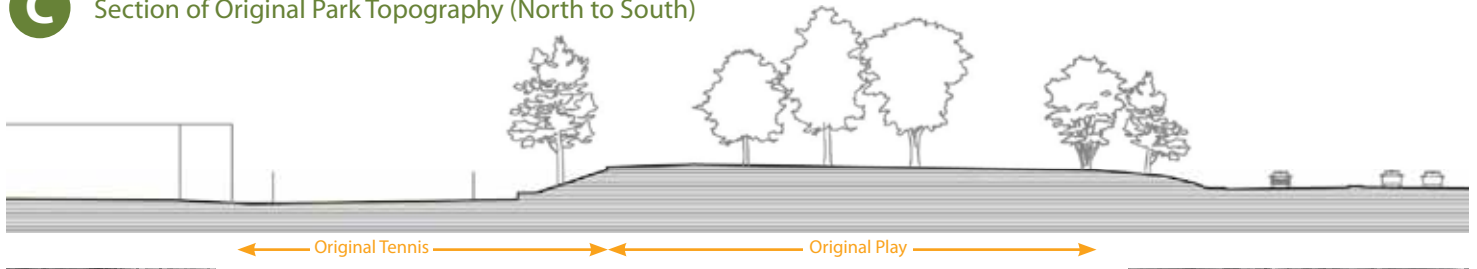
A Cross Section of Bioretention System (West to East at full capacity)





B Cross Section of Bioretention System (North to South at full capacity)

C Section of Original Park Topography (North to South)



The Woodside Urban Park project complies with the Environmental Site Design (ESD) regulations as required by the Montgomery County Department of Permitting Services (MC DPS) and the Maryland Department of the Environment (MDE). The Stormwater Management design seeks to replicate the natural hydrology of the site by utilizing small-scale Stormwater Management practices to minimize the impact of land development on downstream water resources. The Stormwater Management design calculations for this project are based upon the ESD criteria established by the Stormwater Management Act of 2007, and additional information provided by MC DPS throughout the design process.

ESD is met through the use of Micro-bioretention facilities, strategically located throughout the site. The proposed facilities provide the necessary volume and filter area to provide Full ESD for the site. The required groundwater recharge for the project will be provided in stone reservoirs beneath the underdrains of these facilities. 16 micro-bioretention facilities, totaling 5,700 SF, are proposed with this Concept.

Soil



^ Core Soil Sample



^ Field Percolation Test 1



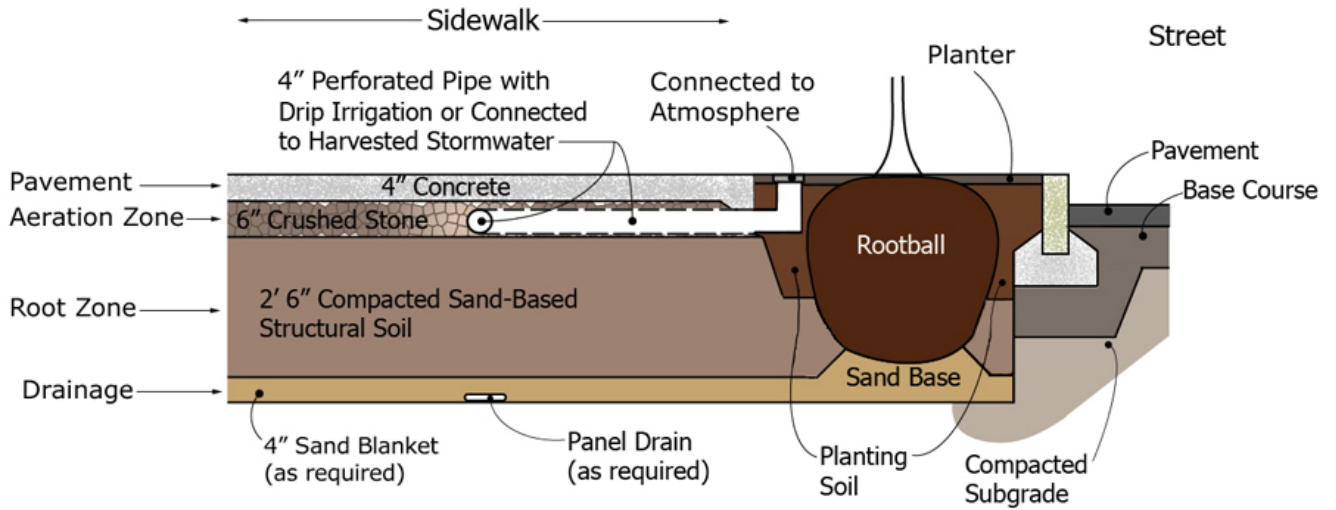
^ Field Percolation Test 2

Soil

Soil is an important component of the urban park infrastructure. Healthy soils are the foundation for a healthy environment and are critical for the ecological function of water, vegetation, nutrient cycle and habitat.

Currently, soil compaction, erosion and deficiency of nutrients is apparent in the park. In addition to geotechnical investigation, the facility plan involved soil expertise in the process to ensure thorough understanding of the existing soil and integrated design for the renovation of the park. The soil approach and best management practices include:

- Perform comprehensive soil analysis and testing on site and in laboratory
- Evaluate nutrient level, compaction, aeration, permeability and stress of existing soil
- Determine and prioritize the rejuvenation of existing soil per cut and fill requirements
- Develop strategies for reuse of on-site soils as horticultural subsoil
- Design planting soil specific for High Use Lawn Soil, Planting Bed Soil, Infiltration Soil and Sand-based Structural Soil
- Develop soil profiles for Lawn Areas, Tree General, Tree in Lawn, Planting Beds, Infiltration Beds and Sand-Based Structural Soil area with varying the component of base loam, coarse sand and compost.
- Develop soil budget in facility plan
- Provide soil management plan and specification for construction and maintenance.



Soil Cut and Fill Diagram

- A** Red indicates cut
- B** Blue indicates fill



Tree Preservation

The existing trees are the most valuable resources of the site. The Plan intends to protect and enhance the existing trees upon detailed assessment of the tree health and establishment of protection priorities by a team of M-NCPPC urban foresters, ISA certified arborists and field arborists.

Tree preservation strategies were developed side by side with the proposed design to ensure feasibility throughout the design and planning process. Hardscape, grading, stormwater management, material selection, construction method and staging were carefully coordinated in the plan.



Roots interpretation

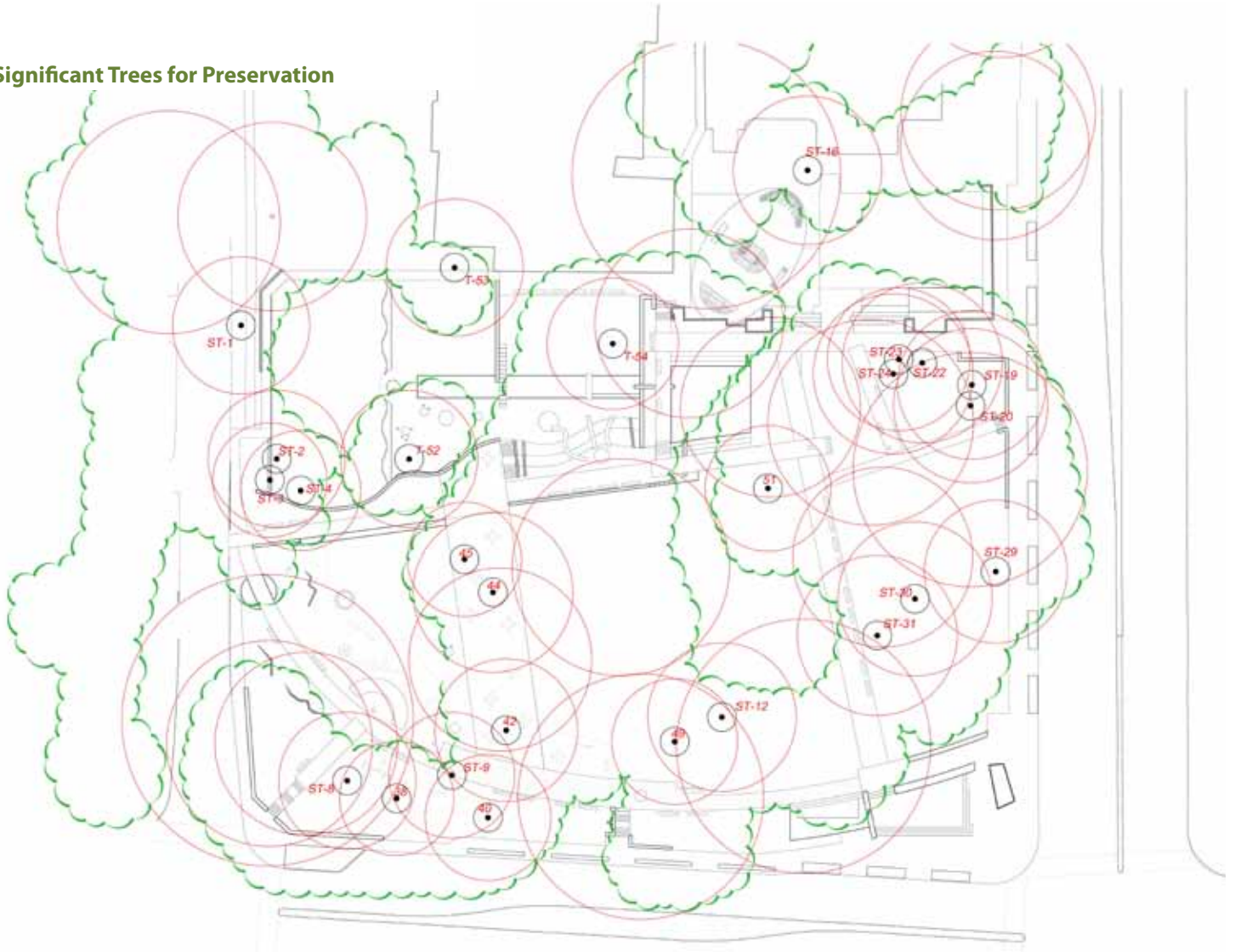


Tree protection approach and best management practices implemented and recommended include:

- Develop a Conceptual Tree Protection Action key with item specific protection measures for each tree based upon health, species, and age, as well as level of construction impact to be incurred.
- Calculate and map critical root zones and coordinate site design
- Coordinate soil testing for nutrient and biological properties and recommend soil amendments
- Develop methods of construction specific to tree protection needs
- Propose elevated boardwalk to work with the existing trees and offer access for circulation.
- Develop construction sequencing, equipment access, staging, stockpiling pertains to tree protection
- Develop tree preservation plans, details and specification.
- Include detailed budget for tree protection in the facility plan process
- Include high strength steel fence and trenchless silt and sediment control fence for tree protection
- Incorporate different grades of root protection/aeration matting to fit the specific fill requirement
- Mandate site arborist as a 3rd party inspector to coordinate tree protection and construction activities
- Develop a short-term, mid-term and long-term plan to monitor tree health



Significant Trees for Preservation



Sustainability

Vegetation

Proposed Groundcover

Proposed New Trees

Existing Tree Canopy



Vegetation

The facility plan intends to focus on sustainable planting design for the living landscape and to explore cost effective and practical solutions for plant communities that respond to the existing site conditions and environmental context.

While attentively preserving existing trees and restoring soil health, the proposed planting plan intends to design for low-maintenance and attractive appearance. The plan proposes simple groundcover planting for steep slopes and wooded areas, including residual program space that will be difficult to mow. The groundcover will contribute to nutrient and water conservation, habitat enhancement and erosion control.

Though biodiversity is emphasized at the Community Garden and Demonstration garden, simple masses of herbaceous groundcovers will reduce the required park maintenance in other areas.

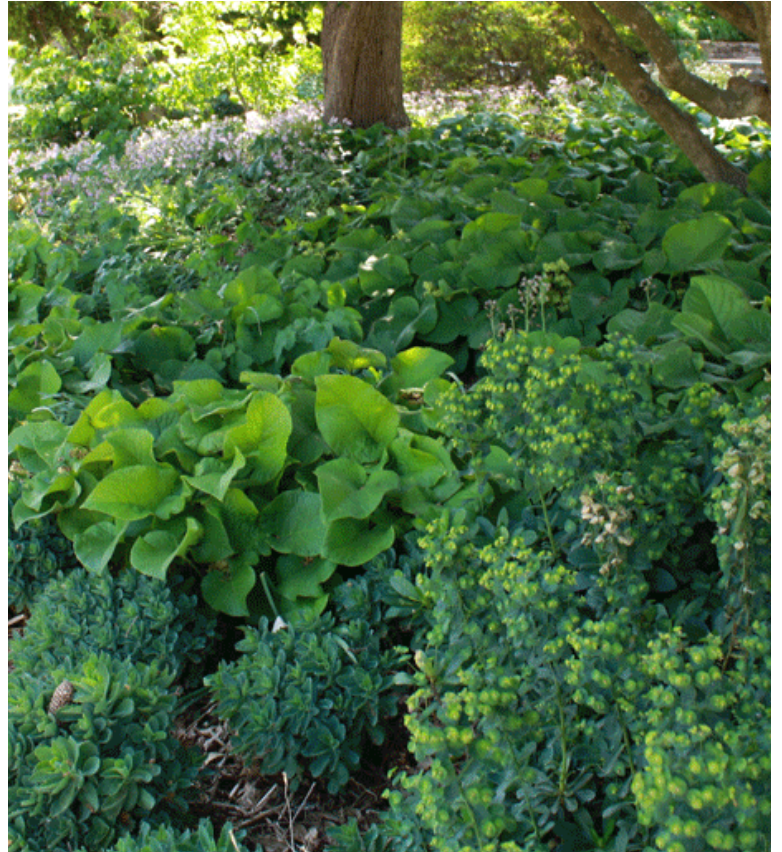
With adequate canopy coverage from mature trees, a supplemental planting of new trees will include native understory and flowering specimens. These will provide additional shade while leaving plenty of sunny areas for program needs. Minimum shrub planting is intended for visibility and safety reasons.

Community Garden, maintained by community gardeners >

< Demonstration Garden, maintained by volunteers

Attributes considered for plant selection are:

- Drought tolerant
- Dense root mat
- Low growing
- Evergreen
- Long season (early emerging / late flowering)
- No spring cut-down required
- Seasonal interest
- Habitat enhancement



Simple masses of herbaceous groundcovers will reduce the required park maintenance in designated areas



Sustainability

Habitat

- 1 Woods
- 2 Groundcover
- 3 Native Plants
- 4 Insect House
- 5 Demonstration Garden
- 6 Community Garden



Habitat

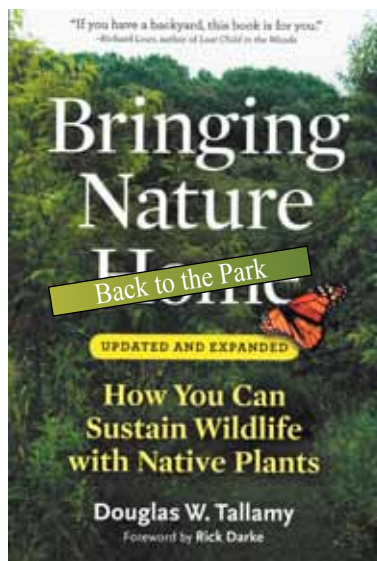
Woodside Urban Park is a precious green space in Silver Spring, fringing the dense Central Business District. The park offers recreation and leisure use for the community.

The matured tree canopy provides shade and shelter for people and activities. However, existing lawn, paved and non-vegetated ground do not contribute fully to the urban ecosystem.

Renovation of the park is the opportunity to bring back missing layers of the ecosystem. Understanding the constraints of maintenance and operations, the Plan provides opportunities for people to volunteer and participate in maintaining some of the garden spaces — to play a part in bringing nature back to the park.

The 2010 installed Xeriscape Demonstration Garden, with over 500 native herbaceous plants, has already re-introduced habitat for insects and birds to Woodside. The Community Garden will have a wealth of seasonal edible plants and vegetables; rain gardens will provide wetland and mesic habitat.

The renewed park environment will promote a healthy urban ecosystem and provide educational opportunities for exploration of habitat and biodiversity.



Green approach and best management practices pertaining to habitat include:

- Embed habitat in the proposed design features
- Gardening for insect diversity
- Creating balanced community
- Control invasive plants
- Restore natives to the urban environment
- Provide host plants, food, shelter and water for wildlife, birds and insects.
- Involve community and encourage interest groups to participate
- Provide demonstration and interpretation



Woodside Urban Park *is inspiring, dynamic, creative and is NOT boring or repetitive*

Woodside Urban Park *is flexible, adaptable, inclusive and is NOT selfish, uncommitted*

Efficiency

Functional Efficiency

The park is designed to be a cohesive system of functionality and operation. Design features fulfill multiple program requirements — stormwater management facilities contribute to the park aesthetic; crime prevention is deliberated in the physical framework; education and environmental stewardship is embedded in play. And existing aspects of the park are adapted and incorporated for maximum usage.

Economic Efficiency

Understanding that sustained public interest and funding will be needed to future-proof the park, the plan explores the prospect of enterprise opportunities. The CBD Sector Plan recommends public/private partnership to attract contributions to park funds through developmental incentives to encourage redevelopment. Lessons learned from successful urban parks also suggest a hybrid model of public and private funding. Though Woodside is outside of the CBD, it has opportunities for

- **A Concession / Bus Shelter**

Revenue through leases of a seasonal or permanent concession can contribute to funding for maintenance of the park.

- **Friends of Woodside**

A non-profit, Friends of Woodside can be formed to be a liaison among the community, enterprise partner (if any) and the Parks; Friends of Woodside can provide opportunities for the public to adopt their park as part of a volunteer stewardship program.

- **Rain Garden**

Prominent park feature used to seek partnership with the business community in the Silver Spring CBD, as an open space fund alternative for an optional method of development, or with an organization that promotes environmental education.

- **Solar Canopy**

Prominent park feature used to pursue corporate sponsorship for possible product demonstration.



^ Seasonal revenue from concession



^ Corporate sponsorship



^ Community adoption



^ Local business partnership

Efficiency

Lighting

Lighting Design Concept : Responsive

Through strategic use of general and accent illumination, lighting responds visibly to stimuli such as user presence, activity, and time.





Leading Edge Diagram (Spring Street) ^

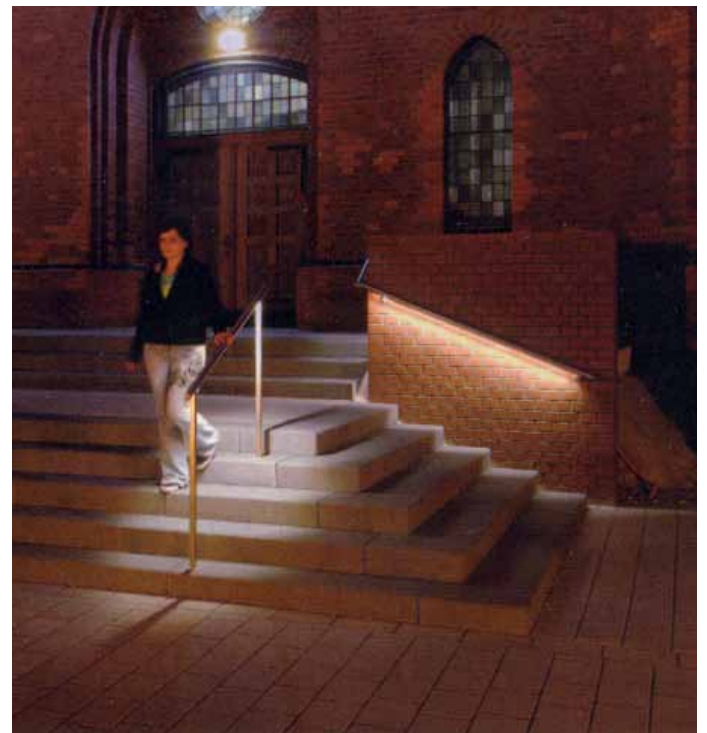
Goals

- Create Nocturnal Identity for Woodside Urban Park
- Highlight interior moments and emphasize the leading edge
- Use state of art “smart technology” to provide aesthetic and a safe “closed at dark” outdoor urban environment
- Use as little energy as possible while maintaining principles and recommendations for outdoor lighting by IESNA

Objectives

- Incorporate judicious but highly intentional use of color
- Create distinguished boundaries and welcome entry nodes
- Conceal lighting equipment where ever possible
- Avoid recessed applications in masonry

A pedestrian safety audit was conducted for Georgia Avenue between Spring Street and Sligo Avenue. As a result, the sidewalk is too dark during late evening and night time and not safe for people. Montgomery County Department of Transportation, Traffic Engineering Division requests enhancing lighting at this location.



Efficiency

Lighting





1 Photovoltaics



4 Limited use of poles



2 Color



5 Furniture integrated lighting elements



3 Hierarchy of paths



Data based control technology

Woodside Urban Park *is inspiring, dynamic, creative and is NOT boring or repetitive*

Woodside Urban Park *is flexible, adaptable, inclusive and is NOT selfish, uncommitted*

Woodside Urban Park *is shared, accessible, transparent and is NOT isolated, segregated*

Vitality

Sustaining an urban park requires developing a constituency of dedicated park users, neighbors, and stewards.



The park space is designed to promote cultural connections and a sense of community as well as encourage personal bonds to the place.

Activities are layered and linked responding to the needs of a diverse range of users. Design features allow social patterns to mix and evolve. People of all age groups are welcomed to enjoy the park.

It is a desirable place to meet people, share ideas, and observe activities.



Explore



Connect



Enjoy

- 1 Exploration and Experience
- 2 Observation and Participation
- 3 Fun and Flexible
- 4 Gather and Observe
- 5 Walk and Interact
- 6 Interpretation and Creativity
- 7 Play and Learn
- 8 Climb and Play
- 9 Socialize and Cultivate



1 Rain Garden

The rain garden provides a living classroom for environmental education offering opportunities for kids to explore and manipulate the environment using objects of sand and water.

Kids will experience the inundation and desiccation of rain. They will be exposed to the year-round visual changes plants undergo creating memorable horticultural reference points.

2 Great Lawn

At the heart of the park, the Great Lawn accommodates people and their diverse activities at all times. Approximately half an acre, this common space is transparent, accessible and visible from all parts of the park and walks ways. The space invites participation in an open and safe manner.

3 Senior Play

This area includes fun fitness equipment — offering a range of exercise activities to improve strength and flexibility and help adults continue active and healthy lifestyles in later years.

4 Picnic Alee

At the high point of the park and distant away from busy Georgia Avenue, the Picnic Alee is a place to be social and observe activities in the adjacent Great Lawn and play area. With plenty of movable tables and chairs, people can create their own seating arrangements and social groups. This flexible, comfortable





gathering space takes advantage of the shade from the existing tree canopy.

5 Play Path

An engaging walk at the south-west quadrant — for adult visitors and children. Play structures positioned along the walk encourage intellectual, visual, emotional and motor stimulation where people can pause, mingle and explore.



encourage intellectual, visual, emotional and motor stimulation where people can pause, mingle and explore.

6 Art & Play

This open play space overflows from the Play Path — offering opportunities for free interpretation and creative play. Framed by the picnic allee, children can be easily supervised. It's a safe alcove for younger kids to run around and have fun.



7 Playscape

The playscape area is part of the park's spatial network and seeks to provide a variety of play settings for children of different ages and abilities.

8 Climb N' Play

This area makes use of the park's topography and presents multiple challenges including sliding down and climbing up activities. Older kids will love the rock climbing wall.



Personality — the distinct character, quality and tone of a place

9 Community Garden

The community garden provides social, cultural and economic functions as follows:

- for families — a meaningful leisure activity and the personal experience of sowing, growing, cultivating and harvesting healthy vegetables
- for children and adolescents — a place to play, communicate and to discover nature
- for working people — relaxation from the stress of work
- for disabled persons — a place enabling them to participate in social life, to establish contacts and overcome loneliness
- for senior citizens — a place of communication with persons having the similar interests as well as an opportunity for self-fulfillment during the period of retirement



Woodside Urban Park *is inspiring, dynamic, creative and is NOT boring or repetitive*

Woodside Urban Park *is flexible, adaptable, inclusive and is NOT selfish, uncommitted*

Woodside Urban Park *is shared, accessible, transparent and is NOT isolated, segregated*

Woodside Urban Park *is thoughtful, purposeful, appropriate and is NOT short-sighted, careless*

Cost Estimates

ITEM	TOTAL
Section 100 - Site Preparations	\$160,000
Section 200 - Earthwork	\$295,000
Section 300 - Drainage, SWM, Erosion & Sediment Control	\$549,200
Section 400 - Structures	\$867,300
Section 500 - Paving & Hardscape Materials	\$635,800
Section 600 - Utilities & Fencing	\$785,100
Section 700 - Landscaping, Athletics, Playgrounds	\$780,300
PROJECT SUBTOTAL	\$4,072,500
Contingency (30%)	\$1,221,800
CONSTRUCTION TOTAL	\$5,294,200
Design Cost (15% of Constr. Total)	\$794,200
Staff Chargebacks (20% x Design w/Contingency)	\$158,900
Construction Management & Inspection (4% x Construction total)	\$211,800
TOTAL PROJECT COST	\$6,458,900
Design Options / Alternates	
Relocate Existing Georgia Avenue Power Poles Underground (cost from PolyVoltechnic Power)	\$1,000,000
Additional Bioretentions along Georgia Avenue (includes plantings)	\$33,800
Design Options / Alternates SUBTOTAL	\$2,033,800
Contingency (30%)	\$610,200
CONSTRUCTION TOTAL	\$2,643,900
Design Cost (15% of Constr. Total)	\$396,600
Staff Chargebacks (20% x Design w/Contingency)	\$79,400
Construction Management & Inspection (4% x Construction total)	\$105,800
DESIGN OPTIONS/ALTERNATES TOTAL COST	\$3,225,600
TOTAL COST WITH ALL DESIGN OPTIONS/ALTERNATES INCLUDED	\$9,684,400

Summary Detail

ITEM	TOTAL
Section 100 - Site Preparations	
Mobilization	\$30,000
Maintenance of Traffic	\$15,000
Geotechnical Inspections/Certification	\$15,000
General Demolition	\$60,000
Clear And Grub (light)	\$15,000
As Built Drawings	\$15,000
Maintenance and Operational Manual	\$10,000
Subtotal Section 100	\$160,000
Section 200 - Earthwork	
Fine Grading	\$52,500
Treatment or Removal of Unsuitable Material	\$34,500
Horticultural Subsoil	\$60,000
Import Topsoil for Lawn 6"	\$60,000
Import Topsoil for Garden & New Bed 12"	\$25,000
Import Compost for existing trees (2")	\$10,000
Import Topsoil for Structural Soil 30"	\$48,000
Testing	\$5,000
Subtotal Section 200	\$295,000
Section 300 - Drainage, SWM, Erosion & Sediment Control	
Stabilized Construction Entrance	\$6,000
Silt Fence	\$600
Super Silt Fence	\$18,000
Tree Protection - Demolition	\$110,000
Tree Protection - Construction	\$125,000
Inlet Protection	\$1,400
Maintenance of E&S Measures	\$30,000
Inlets	\$12,000
Storm drain	\$5,500
Bioretention	\$227,700
Slotted Drain	\$1,700
Runnel (Metal)	\$7,700
Runnel (Cobble)	\$3,600
Subtotal Section 300	\$549,200

ITEM	TOTAL
Section 400 - Structures	
Seat Wall (Granite Veneer)	\$36,000
Retaining Walls (0'-4')	\$180,000
Retaining Walls (4'-10')	\$274,500
Walls around Bioretention	\$240,000
Small Bridge	\$10,000
Large Bridge	\$20,000
Granite Steps	\$8,000
Railing	\$23,800
Bus Shelter/Concession Stand	\$75,000
Subtotal Section 400	\$867,300
Section 500 - Paving & Hardscape Materials	
Bluestone Paving	\$260,800
Concrete (includes Poured in Place Concrete)	\$151,700
Pour In Place Rubber (included in playscape)	\$0
Permeable Pavers (not for ESD credit)	\$36,000
Granite Pavers (Reuse Existing)	\$12,500
Granular Pervious Paving	\$20,400
Sports Surfacing	\$62,100
Grating	\$79,500
Existing Skate Spot (not included)	\$0
Existing Basketball Court (resurface)	\$13,200
Subtotal Section 500	\$635,800
Section 600 - Utilities & Fencing	
Fence Around Tennis Court (10')	\$10,500
Waterline	\$35,200
Elevated Water Tank (includes Cistern, pumps, secondary line)	\$50,000
Frost Free Water Fountain	\$20,000
Transformer	\$75,000
Gateway Terrace Lighting	\$26,500
Boardwalk Lighting	\$23,900
Art & Play Lighting	\$34,700
Picnic Alee Lighting	\$25,400
Secondary Paths Lighting	\$56,500
Overlook and Garden Lighting	\$63,500
Lighting Between Skate Spot and Basketball Court (Mast-mounted)	\$10,400
Lighting Control Equipment	\$26,500
Provide Additional Street Lights on Georgia Avenue and Spring Street per MCDOT Comments received	\$60,000
Subtotal Section 600	\$785,100

Summary Detail

ITEM	TOTAL
Section 700 - Landscaping, Athletics, Playgrounds	
Mulch (2" Depth)	\$7,800
Turf Sod	\$48,800
Garden	\$7,500
Ground Cover Planting	\$96,000
Trees	\$58,500
Bioretention Plantings	\$34,200
Picnic Tables	\$22,000
Park Benches (6' Length)	\$4,000
Park Benches (8' Length)	\$28,500
Park Benches (10' Length)	\$34,000
Bike Rack	\$2,000
Play/Fitness: Lower Play Area and Climbing Slope	\$150,600
Play/Fitness: Climbing Wall Area	\$32,000
Play/Fitness: Active Play Area	\$254,900
Public Art	\$150,000
Subtotal Section 700	\$780,300
PROJECT SUBTOTAL	\$4,072,500
Contingency (30%)	\$1,221,800
CONSTRUCTION TOTAL	\$5,294,200
Design Cost (15% of Constr. Total)	\$794,200
Staff Chargebacks (20% x Design w/Contingency)	\$158,900
Construction Management & Inspection (4% x Construction total)	\$211,800
TOTAL PROJECT COST	\$6,458,900
Design Options / Alternates	
Relocate Existing Georgia Avenue Power Poles Underground (cost from PolyVoltechnic Power)	\$1,000,000
Additional Bioretentions along Georgia Avenue (includes plantings)	\$33,800
Design Options / Alternatives SUBTOTAL	\$2,033,800
Contingency (30%)	\$610,200
CONSTRUCTION TOTAL	\$2,643,900
Design Cost (15% of Constr. Total)	\$396,600
Staff Chargebacks (20% x Design w/Contingency)	\$79,400
Construction Management & Inspection (4% x Construction total)	\$105,800
DESIGN OPTIONS/ALTERNATES TOTAL COST	\$3,225,600
TOTAL COST WITH ALL DESIGN OPTIONS/ALTERNATES INCLUDED	\$9,684,400

* INDICATES VALUES PROVIDED BY THE CARE OF TREES ON 09/14/2011

M-NCPPC PDCO (Planning, Design, Construction and Operations) Team:

Landscape Architect/Project Manager: Ching-Fang Chen



Planning:

Environmental Planning: Tina Schneider

Transportation Planning: Cherian Eapen

Urban Design: John Marcolin

Parks:

Park Development: Mitra Pedoeem, Patricia McManus

Central Maintenance: Arnold Ramsammy

Park & Trail Planning: Rachel Newhouse

Horticulture & Arboriculture: Holly Thomas, Herbert White

Park Manager: Mohammed Turay, Kevin Hagberg

Park Police: Sabrina Pirtle

Environmental Engineering: Brian Lewandowski

Consultant Team:

Site Engineering

A. Morton Thomas & Associates, Inc.

Matthew Ernest, P.E.

Chuck Harper, P.E.

Steven Torgerson

Tree Preservation

The Care of Trees®

Chris Cowles

Atkins, Noble

Lighting Design

Gilmore Lighting Design

Debra J. Gilmore

Playscape Design

Symbiosis Inc.

Lanshing Hwang

Soil Science & Engineering

Pine&Swallow ENVIRONMENTAL

Robert Pine

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Graphic Design

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Christine Kelley

3D Modeling

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