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# Merriweather-Symphony Woods Neighborhood Specific Design Guidelines

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# 01 INTRODUCTION AND OVERVIEW

## THE NEIGHBORHOOD SPECIFIC DESIGN GUIDELINES

In February 2010 the Howard County Council approved the Downtown Plan legislation for a 30-year master plan that will bring as much as 5,500 new homes, 4.3 million square feet of office space, 1.25 million square feet of retail, and hotels and cultural development to Columbia, Maryland's downtown core. Development proposals in downtown are reviewed by the County through a new process established in the Plan. Under the plan Downtown Columbia is divided into six neighborhoods. Each neighborhood must have Neighborhood Specific Design Guidelines (Neighborhood Design Guidelines) approved by the Howard County Planning Board prior to development or redevelopment in that neighborhood.

The Downtown Columbia Design Guidelines (Downtown-wide Guidelines) approved by the Howard County Council in March 2011 provide a template for the Neighborhood Design Guidelines. The Neighborhood Design Guidelines are vetted at a public pre-submission meeting that the applicant is required to host prior to submittal of the Final Development Plan. Additionally, the Howard County Design Advisory Panel (DAP) reviews the Neighborhood Design Guidelines together with the other parts of the Final Development Plan submission and evaluates the Neighborhood Design Guidelines with regard to their consistency with the Downtown-wide Design Guidelines. The DAP provides its recommendations to the County Planning Board. The Planning Board is responsible for approving the Final Development Plan and the Neighborhood Design Guidelines. The adopted guidelines are recorded in the Howard County land records to provide direction for future development of properties in the neighborhood. Upon adoption of the Neighborhood Design Guidelines, the Downtown-wide Design Guidelines are no longer relevant for development in that particular neighborhood.

In the Site Development Plan review process the Design Advisory Panel will compare the submitted plans to the adopted Neighborhood Design Guidelines. The DAP will provide recommendations to the Planning Board and the Board will render a final decision on whether the Site Development Plans conform to the Neighborhood Design Guidelines. The Neighborhood Design Guidelines are living documents that may change over time. Applicants for subsequent projects in the neighborhood may propose to supplement or to amend the Neighborhood Design Guidelines or may utilize the adopted set.

The Neighborhood Design Guidelines for the Merriweather-Symphony Woods Neighborhood will be used to ensure that what is built in that neighborhood will be attractive, aesthetically coherent, environmentally sound, and supportive of a high quality of life.

Throughout the Guidelines, the use of the words "shall," "must," "required," identify mandated criteria. The use of the words "encouraged, should, or recommended" identify criteria which are desired. In some instances, words such as "prohibited" and "not permitted" identify practices, materials, or systems which are not allowed in the Merriweather-Symphony Woods Neighborhood.

## DESIGN PRINCIPLES FOR CREATING A LIVABLE DOWNTOWN

The Downtown-wide Guidelines describe the general character envisioned for each neighborhood and include general provisions for building heights, setbacks and other design objectives for all six downtown neighborhoods. They describe how buildings and landscapes support the intentions of the Plan to create places that people will want to inhabit. The Downtown-wide Guidelines establish these design principles for development within Downtown Columbia to:

1. Ensure that new development contributes to the vision of Downtown Columbia as a sustainable pedestrian-oriented environment with a desirable urban character through the design and placement of new buildings, streets and public amenity spaces.
2. Create high quality streetscapes with buildings and landscape that form pleasant, convenient and safe environments designed for both pedestrians and motorists.
3. Reduce car travel demand by focusing mixed-use growth in appropriate locations and providing connections to destinations through a network of local streets.
4. Provide a measure of predictability to property owners and stake- holders on what may be built on their land or adjacent property, while allowing for flexibility so that the mixture of land uses and design may evolve in response to market factors.
5. Define desirable physical and visual characteristics of development in Downtown and the design criteria and methods that will help create a vibrant, walkable, ecologically sensitive, mixed-use urban center. The Design Guidelines also serve to articulate opportunities for integrating sustainability practices to improve the environmental quality of the development.

Further, the Downtown-wide Guidelines include the following goals for a healthy, vibrant Downtown:

- **Employment Opportunities.** Maintain and enhance the concentration of jobs, in both the public and private sectors that provides the foundation of a sustainable Downtown.
- **Housing Choices.** Provide a range of housing types and price levels that offer a full range of choices, including home ownership, and bring people of diverse ages, ethnicities, household sizes and incomes into daily interaction.
- **Transportation Choices.** Enable people to move around easily on foot, by bicycle, transit and auto. Accommodate cars but also strive to allow people to live easily without one.
- **Shops and Services within Walking Distance.** Provide shops and services for everyday needs, including food/grocery stores, day care, cafes and restaurants, banks and drug stores, within an easy walk from home.
- **Safe, Shared Streets.** Design streets not just for vehicles, but also as complete streets with usable outdoor space for walking, bicycling and visual enjoyment.
- **Gathering Places.** Provide places for people to socialize, including parks, sidewalks, courtyards and plazas that are combined with shops and services. Program places for events and gatherings.
- **Amenity Areas.** Provide adequate public recreational amenity spaces, including joint use open space, within walking distance of residents.
- **A Rich Cultural Environment.** Integrate public art and contribute to the civic and cultural life of Downtown Columbia.

## **ORGANIZATION OF THE NEIGHBORHOOD DESIGN GUIDELINES**

The Neighborhood Design Guidelines provide specific guidance for the evaluation of design proposals that will significantly influence the character of the built environment and environmental features of the neighborhood. Each guideline includes a statement as to the goal for the design element and specific strategies that may be used to partially or fully meet the goal. The strategies provided do not preclude other strategies that may be proposed by an applicant that meet or exceed the same goals. Not all design elements or strategies apply to every development in the neighborhood or are meaningful or practical to incorporate into every development. The material selections and other design choices to be evaluated based on the Neighborhood Design Guidelines will generally be shown on the Site Development Plan.

These Neighborhood Design Guidelines for Merriweather-Symphony Woods are organized into chapters with headings similar to the chapters in the Downtown-wide Design Guidelines so that readers can easily compare information in each document. The ten chapters in the Downtown-wide Design Guidelines are as follows:

1. Introduction and Overview
2. The History – the Downtown Columbia Plan
3. The Vision
4. The Neighborhoods
5. Street and Sidewalk Design Guidelines
6. Amenity Space Guidelines
7. Architecture Guidelines
8. Sustainability Guidelines
9. Definitions
- A. Appendices

Chapters 2 and 3 of the Neighborhood Design Guidelines for Merriweather-Symphony Woods include a summary of the information found in the Downtown-wide Guidelines. The remaining chapters provide information specific to the subject neighborhood. These Neighborhood Design Guidelines do not include Street and Sidewalk Design Guidelines (Chapter 5) because there are no public streets in the Merriweather-Symphony Woods Park Neighborhood. Definitions (Chapter 9) and Appendices are also not included herein.

Chapter 9 – Signage Guidelines- has been added to address this important topic in a comprehensive way.

**02 HISTORY –  
THE DOWNTOWN COLUMBIA PLAN**



## DEVELOPMENT OF THE DOWNTOWN COLUMBIA PLAN

Columbia was developed based on the progressive urban planning ideas of its founder, Jim Rouse. Rouse envisioned Columbia as a new kind of American community that would, through rational planning, avoid the problems associated with the decay that was settling upon America's big cities and the unplanned and often unsightly sprawl that marked its ever-burgeoning suburbs. Though motivated in part by social concerns, Rouse also was a successful business person who knew that Columbia had to be profitable for it to survive and thrive.

Almost since Columbia's founding in 1967, people have debated the best way for development to occur in Columbia's downtown core. In October 2005, residents met with Columbia Association and Howard County elected officials and staff for a series of public meetings and discussions. The meetings were designed to gather ideas from the community on how Downtown Columbia should be redeveloped over the next 30 years for use in developing a master plan to guide downtown's continued evolution as the County's economic and cultural center.

The consensus of those meetings was that Downtown Columbia should become more vibrant by increasing the number of people living and working downtown and by adding more shops and recreational and cultural amenities to Downtown Columbia, while also making

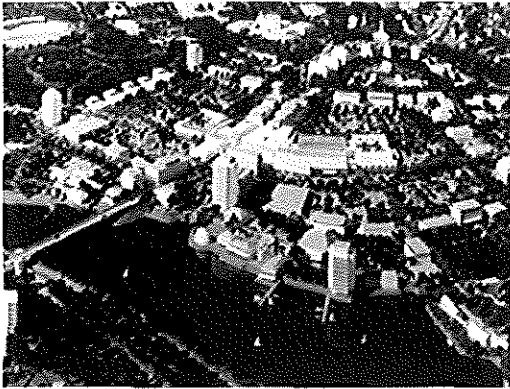
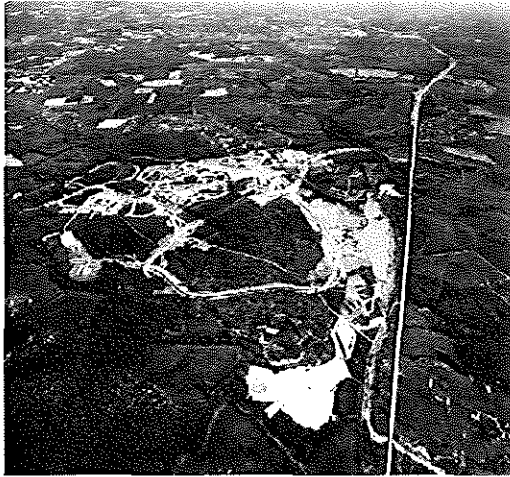
downtown more attractive and easier for pedestrians to navigate. County officials released a preliminary draft master plan in February of 2006 that proposed new residential, office, retail and cultural development, along with modified road and pedestrian networks. A community-based task force was formed by the County to vet the draft. They met between December 2005 and September of 2006 and provided comments that the County utilized in the writing of their subsequent vision plan.

In late 2007, the County released Downtown Columbia: A Community Vision, which laid out a series of planning guidelines that County officials recommended, would lead to a lively, pedestrian friendly, and sustainably redeveloped downtown. The document made clear that County officials consider that Rouse's original goals for Columbia continue to be relevant and guide any plan for downtown development.

In response to the guidance provided by Downtown Columbia: A Community Vision, General Growth Properties, (purchasers of the Rouse Company), began developing a 30-year plan to revitalize and redevelop downtown Columbia in collaboration with the community and an experienced team of consultants. General Growth Properties submitted a proposal for an Amendment to Howard County's General Plan 2000 on October 1, 2008.

On February 1, 2010 the Howard County Council unanimously approved the legislation for the 30-year Downtown master plan that will bring up to 5,500 new homes, 4.3 million square feet of office space, 1.25 million square feet of retail, and hotels and cultural development to Columbia's downtown core. The legislation addresses all aspects of community life in downtown Columbia. It provides for diverse housing choices, new retail and office spaces; measures to protect the environment, proposals for improvements to the transportation network, and improved arts and cultural amenities.

## 03 THE COLUMBIA VISION



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## THE ROUSE VISION FOR COLUMBIA

Jim Rouse envisioned the planned community of Columbia as a socially diverse and financially successful place in which people of all ages, incomes and backgrounds could grow as individuals, neighbors and citizens. His primary goals for Columbia included:

- Provide a real, comprehensive, balanced city
- Respect the land and allow the land to impose itself as a discipline on the form of the community
- Provide the best possible environment for the growth of people
- Realize a profit

These goals are as meaningful today as they were in the 1960's when Rouse first broke ground on Columbia. To achieve these goals, Rouse built Columbia as a series of nine residential villages, each with its own civic and commercial center, and a Town Center district, intended to serve as Columbia's downtown. Rouse's new community was designed to provide a wide spectrum of residential, retail, office, educational, recreational and cultural uses to serve people with a range of incomes. Much of what Rouse envisioned has been achieved.

Despite the passage of over four decades, however, Columbia's Town Center district or downtown has not developed the character one expects in the heart of a community. It is still primarily suburban in nature with relatively undistinguished office buildings and with an enclosed shopping mall at its core. It is a sparsely populated, automobile-dependent area, with isolated amenities separated from one another by vehicular thoroughfares.

The planning challenge today is how best to complete Rouse's vision of a real city in Town Center. The intention of the Downtown Plan is to create a vibrant, walkable downtown in which residents can live, shop, work, exercise and enjoy entertainment and cultural opportunities. And to do so in a way that exemplifies respect for the natural environment.

## THE EVOLUTION OF THE COLUMBIA IDEAL - TOWARDS A SUSTAINABLE CITY

Columbia was originally designed and developed to embody some of the key elements of environmental and community sustainability. The intention of the Downtown Columbia Design Guidelines and the Neighborhood Design Guidelines is to ensure the fulfillment of the vision for downtown as a socially, economically and environmentally sustainable urban community through use of whole systems thinking to inform the design of downtown development going forward.

The concept of sustainability is an overarching goal of the Downtown Columbia Design Guidelines and the Neighborhood Design Guidelines and is essential to the concept of a livable downtown. Green buildings, compact urban design, mixed-use housing and transit opportunities can allow residents to live, work and play locally. Although the downtown development cannot offset all regional issues, downtown Columbia can exemplify resource sensitive development. To design a sustainable community requires understanding of how the primary elements comprising and supporting the community work together and affect each other.



**04 THE MERRIWEATHER-SYMPHONY  
WOODS NEIGHBORHOOD**

## THE DOWNTOWN NEIGHBORHOODS

There are six downtown neighborhoods identified in the Downtown Plan: Warfield, The Lakefront and Lakefront Core, The Crescent, Merriweather-Symphony Woods Park, Symphony Overlook and The Mall. The neighborhood structure for Downtown Columbia encourages a greater mix of uses. The emphasis on primary uses varies between neighborhoods, which when combined with the variety of Amenity Spaces, creates a distinctive identity for each neighborhood. The general character of each neighborhood is described in the Downtown Plan and in the *Downtown Columbia Design Guidelines* (Downtown-wide Guidelines). These documents provide general parameters for future development including land use, building setbacks, the street framework, the block configuration and building heights. The land use configuration for each neighborhood combined with the location, natural features, Amenity Spaces and the provisions in the Neighborhood Design Guidelines will result in a distinctive identity for each neighborhood.

## MERRIWEATHER-SYMPHONY WOODS

The Merriweather-Symphony Woods Neighborhood is south of Little Patuxent Parkway between the Crescent neighborhood and the Symphony Overlook neighborhood. The neighborhood includes the Merriweather Post Pavilion and Symphony Woods Park. Symphony Woods Park, a 36-acre open space parcel owned by Columbia Association, surrounds the 10-acre Merriweather Post Pavilion which is presently owned by the Howard Hughes Corporation.

The Downtown-Wide Guidelines provided a summary of planning parameters for the neighborhood as follows:

- **LAND USE**  
Symphony Woods Park is designated Downtown Parkland (DPL)  
Merriweather is designated Downtown Arts and Entertainment Park (DAEP).
- **BUILDING HEIGHT**  
Maximum 4 stories, not to exceed 60 feet in height.
- **FRONTAGE COVERAGE**  
No requirements in this neighborhood.
- **BUILD-TO-LINE**  
No requirements in this neighborhood.
- **BUILDING SETBACKS/SIDE SETBACKS**  
The separation between buildings will vary, but should be sufficient to allow for pedestrian or vehicular access, where appropriate. A separation of 25 to 40 feet should be provided if an alley or driveway is located between buildings.
- **PUBLIC ROADS AND TRANSPORTATION FACILITIES**  
There are no public roads in the Merriweather-Symphony Woods Neighborhood as indicated on the Street Framework Diagram in the Downtown-wide Guidelines. The Bicycle and Pedestrian Circulation Plan shows primary bicycle routes within the Neighborhood.

The Downtown Plan includes exhibits that provide critical information for planning development in the Merriweather-Symphony Woods Neighborhood. These exhibits are found at the end of this chapter:

- The Neighborhoods
- The Street and Block Plan
- The Maximum Building Height Plan
- The Primary Amenity Space Framework Diagram
- The Street Framework Diagram
- The Bicycle and Pedestrian Circulation Plan
- The Downtown Open Space Preservation Plan

## THE VISION FOR MERRIWEATHER-SYMPHONY WOODS

The Merriweather-Symphony Woods Neighborhood is central to the future of Columbia. Located in the heart of Columbia's future development and adjacent to the Symphony Overlook and Crescent Neighborhoods,

Merriweather-Symphony Woods is planned as one of the most important Downtown destinations. Currently, it has gathering spaces and an immense stand of mature trees surrounding the renowned Merriweather Post Pavilion. This internationally-recognized amphitheater has been the site of entertainment since 1967 when it helped launch Columbia. Merriweather-Symphony Woods is a unique downtown neighborhood given its central park and cultural center functions. And, 45 years after Columbia's founding, the Merriweather-Symphony Woods Neighborhood holds great potential to reinforce and further differentiate Columbia's live-work-play quality of life in the 21st Century.

The Downtown Columbia Plan calls for the Merriweather-Symphony Woods Neighborhood to be a new kind of cultural park where the landscape is a setting for arts, cultural and civic uses. The Merriweather-Symphony Woods Neighborhood will include an enhanced Merriweather Post Pavilion and an activated and beautified Symphony Woods Park where people of all age groups can recreate and be entertained and be culturally enriched. This neighborhood will be anchored by a renovated Merriweather Post Pavilion, an artful cultural park that is imagined to offer the public a full complement of entertainment, cultural, recreation and related commercial uses. Merriweather Post Pavilion and Symphony Woods Park will be designed with a holistic approach thereby creating synergy and interplay between the Pavilion and the park. In Symphony Woods Park a system of walkways will link a variety of spaces designed to support active and passive uses in all months of the year as well as community events including festivals, classes, concerts, art shows, performances, and markets. The park design will reinforce the immersive quality of a natural, wooded escape that the Merriweather-Symphony Woods Neighborhood provides in the middle of an increasingly dense Downtown. Access through Merriweather-Symphony Woods will be compatible with the existing topography. Natural areas will be improved by removing invasive species, restoring stream corridors and planting new trees in accordance with the "Columbia Town Center Merriweather & Crescent Environmental Enhancement Study."



*Merriweather-Symphony Woods will be the setting for arts, cultural and civic uses.*

As a center of recreation and entertainment in Columbia, attention to provisions for pedestrian and bicycle connections between the neighborhood and adjacent residential, cultural, and open spaces is of critical importance. Merriweather-Symphony Woods will be connected to the heart of Symphony Overlook along a new



north/south axis from Market Square at The Mall. Pedestrians will cross Little Patuxent Parkway to a new entrance to Symphony Woods Park. This intersection, designed to allow for safe crossing of the Parkway, will lead to a new Fountain Plaza which will connect Symphony Woods Park with Merriweather Post Pavilion. The Hospital to Blandair multiuse pathway will run along the neighborhood providing great access between Merriweather-Symphony Woods and nearby destinations.

Given the tremendous assets of these properties in terms of location, natural features, infrastructure, historical importance, cultural activities, and the goodwill and experience of the owners, Merriweather-Symphony Woods is destined to evolve into a significant civic center. This neighborhood will provide cultural and recreational activities to Downtown residents and visitors throughout the year.

Imagine an autumn day in the neighborhood. The first visitors are strollers, runners and walkers from throughout Columbia who take in beautiful foliage while using the graceful pathways. By 10:00 a.m. parents with toddlers arrive to enjoy the fountain and a cup of hot chocolate from the café before heading to the library and then down to the lakefront. By noon, the Columbia Association's performance series is in full swing and office workers gather to get a bite to eat and enjoy a relaxing lunch. In the afternoon, seniors walk the loop path through the park to check out the art installations and a group of teens are safely conquering their fears on a challenge course. From 5:00 to 7:00 p.m. a local bar hosts a happy hour and, as that wraps up, concert goers start arriving for the evening performance at Merriweather. Many other possibilities for Merriweather-Symphony Woods which are not yet imagined or fully explored will emerge as the neighborhood and Downtown development moves forward.



*Bryant Park (NYC) – Example of a park that offers a full complement of entertainment, cultural, recreation and related commercial uses.*

### **VISION STATEMENT FOR SYMPHONY WOODS PARK**

Symphony Woods Park will be Columbia's central park and will serve as a gateway to Merriweather Post Pavilion. It will be a meeting ground for people and a place that celebrates music, arts and nature. An inviting and beautiful woodland gathering place, it will provide venues for energetic, creative activities such as community fairs, cultural events, art and craft vendors, local artists and spaces for reflective respite.





*Examples of possible visual arts for Symphony Woods Park.*

Improvements will be designed to ensure a sustainable environment while creating attractive and desirable park features. An environmental approach to park design will support the continuance of portions of Symphony Woods Park as heavily wooded and natural. Pathways will encourage pedestrians and bicyclists to enjoy the park's natural ambiance while viewing sculpture and art. Additionally, the park will have adequate seating to provide rest and reflection of the park's beauty.

The Park will function in a variety of ways in the life of the community and provide:

- A place that reflects love of nature, arts and music through its design and its future development
- A gathering space and setting for cultural and community events and fairs
- A popular place to find craft and food vendors on weekends
- A natural place that provides respite and the opportunity for reflection, peace and appreciation of the environment
- A destination for active living offering extensive pathways that wind through the park
- A place for casual social interaction and people watching, enlivened by the attraction of park activities
- A fountain that serves as a central focus for the park and fills the area with the sounds of children's laughter, family and community
- A gateway to Merriweather Post Pavilion that will enhance the experience of attending that venue
- A connector for downtown Columbia activity centers and other downtown gathering spaces and amenity areas





*Symphony Woods Park will include pedestrian and bicycle connections to other downtown activity areas.*

### **DESIGN APPROACH FOR SYMPHONY WOODS PARK**

The design approach for Symphony Woods Park reflects the concept for the park stated in the Downtown Plan. Symphony Woods Park, in its built form, will be shaped largely by the physical characteristics of the park land and the space available to accommodate a proposed park program. The single most important design issue for Symphony Woods Park is to create access through the woods and venues for community activities that invite use by greater numbers of people, as envisioned in the Downtown Plan, while protecting the wooded character and natural landscape of the park. The park designers should preserve healthy trees when feasible by carefully arranging pathways and use areas around trees and by minimizing grading while providing for anticipated park activities and appropriate circulation for park visitors. While some healthy trees will have to be removed for the construction of park facilities, a sensitive approach to tree impacts will ensure that the wooded character of the park remains intact. Park development will also include the replacement of trees lost due to construction activities by the planting of new trees. Locations for newly planted trees will include environmentally sensitive areas, places where shade is desired, and in other areas to enhance use areas, frame important features and views, and to create accents. In other areas sunlight will be increased so park visitors can enjoy both sunny areas and shaded areas. Removing invasive species in the park will improve the ecological value of the forest and allow native vegetation to regenerate and thrive. Symphony Woods Park plays an important role in absorbing stormwater in Downtown and stormwater best management practices that improve water quality and support stormwater absorption will be employed in the design of park improvements. Park improvements also will be designed to enhance pedestrian and bicycle connectivity within the downtown area.

The park is made up of four quadrants that are defined by Merriweather Post Pavilion in the center and bordered on the edges by existing or proposed roads; Little Patuxent Parkway to the north, the South Entrance Road to the east and future roads planned as part of the Crescent Neighborhood to the south and west. These four north, east, south and west quadrants of the park have distinctly different features, shapes, sizes, and characteristics. The overall plan for the park described below has been envisioned with these unique qualities in mind. Note that the Columbia Association recognizes that it is advantageous to allow for flexibility for future phases of park development so that investments over time reflect the significant economic and demographic changes that are to occur in Columbia and in the County in coming decades.

#### **The North Quadrant**

Most people familiar with Symphony Woods probably think of it as the area that is visible and accessible from the south side of Little Patuxent Parkway. This wooded area is comprised of predominantly mature hardwood shade trees that form a substantially uniform canopy. It is gently sloping and maintained as open understory with lawn as the primary ground plane treatment. This portion of the park does not include streams, wetlands, floodplain or other environmentally sensitive areas that are found in other quadrants of the park. It supports several community activities such as the Wine in the Woods Festival and an occasional concert event. This quadrant is currently the most heavily used part of the park due to ease of accessibility, its relatively gentle slope, and the fact that it does not have some of the environmental constraints found in other areas of the park. For these reasons it is



anticipated that this quadrant will continue to be the most heavily used part of the park, supporting the more intensive activities envisioned in the Downtown Plan.

The first phase of park development will occur in the north quadrant. The plan for this area is to provide access by means of a modest pathway network. This network would allow pedestrians and bicyclists to move within and through the park to enjoy the wooded setting and rolling topography of this area. The paths will be designed to connect to and improve the active transportation network in Columbia with special attention given to accommodating pedestrian access to Merriweather Post Pavilion from parking areas located to the north. Vehicular access will be provided along the existing entry drive to accommodate Merriweather service needs as well as a small amount of parking for park visitors.

Gathering areas within the park will be defined by expanded areas of special paving in a variety of sizes and orientations to encourage people to congregate in various numbers or to assemble for events. The primary gathering area is proposed as a fountain plaza located at the intersection of two of the main walks and on axis with a walk extending from an entry plaza proposed on the south side of Little Patuxent Parkway at the end of the south entrance road to the mall. An interactive fountain feature is envisioned as well as a variety of seating options around the edges of the plaza.



*The North Quadrant of Symphony Woods Park today.*

Future improvements in the north quadrant after the first phase of park construction are proposed to include a café. This is envisioned as a facility that would serve park visitors and that could also be designed to serve Merriweather patrons during concert events. A terrace for seating and dining could be provided on the park side to allow for long views down through the park.

An area at the east end of the north quadrant is under consideration for a themed garden currently proposed to include a collection of woodland species.

Sculpture in the park is proposed to be concentrated in this quadrant of the park. Pieces would be selected to enhance the cultural arts theme of the park and would be located to take advantage of vistas, site lines and proximity to activity areas.

The majority of the paths in this quadrant would be lighted with decorative pedestrian fixtures. Benches will be located at regular intervals for a variety of seating opportunities. Additionally, other site furnishings such as trash and recycling receptacles, and bike racks will be located to accommodate visitor needs.

### **The East Quadrant**

A path connection will continue from the north area, along the top of the site and connect to the east quadrant. The land in this quadrant is relatively flat at the high point adjacent to Merriweather. From there, it slopes moderately to the east to a drainage way that defines the east edge of the site.

This sloping area is characterized by a mature hardwood canopy and maintained understory similar to that of the north quadrant. This area is proposed as an amphitheater facility that could be constructed to take advantage of the naturally sloping topography while providing a unique wooded setting.

A parking field is currently located at the high point and serves the employees of Merriweather. This facility may need to remain. If, however, parking can be accommodated elsewhere in a different manner, this area could become available for additional park uses. Because of its proximity to Merriweather and all of the activities that are visually dominant on the Merriweather grounds, this area may be appropriate for a more active children's play function.

The south end of the east quadrant, in the front yard of the existing farm house (not currently planned to remain), is a relatively flat, south facing area that is currently an open lawn. The warmth of the sun is particularly apparent here and a use that takes advantage of this orientation should be considered. This may be a themed garden, a sun dial, or just an informal picnicking area.



From here a pathway connection traverses the steep south facing slope down to an existing pond in the south quadrant.

### **The South Quadrant**

The south quadrant of Symphony Woods has relatively little space available for a park program. Symphony Stream and associated floodplain define the southern boundary of the park and account for a large portion of the south quadrant land area. An existing pedestrian connection through this area provides access to Merriweather from parking to the south located in the Crescent Neighborhood. Just off the pathway is a small pond surrounded by a small area of maintained lawn. It is envisioned that the pond and its surrounds will be rehabilitated for informal, passive recreation uses such as a botanical garden as intended by Jim Rouse. This could include themed plantings, dedicated picnic areas and, a path around the perimeter of the pond.

Adequate pedestrian and bicycle access will be maintained to Merriweather and vehicular access for service will be coordinated.

From the south a trail connection will be provided that connects to the west side of the park. This may occur through the flood plain or may be more appropriately provided closer to the future street that borders the Crescent property.

### **The West Quadrant**

The west quadrant is bound on the west side by the same stream and flood plain that pass through the south part of the park. Currently the west quadrant accommodates service access to the back of the Merriweather stage, a box office trailer, and a parking field primarily for ADA accessibility. This quadrant is moderately sloping from north to south and is bisected by the entry drive that connects LPP to the Merriweather service and the parking resource.

The plan currently envisions maintaining the Merriweather service access and parking. This quadrant may also provide expanded parking for Symphony Woods Park visitors as well as for Merriweather patrons and/or employees. An important feature to be included in this quadrant is a pathway connection that will complete the loop around Symphony Woods Park. Even if the parking and service functions expand, it will be important that the pathway be provided in a manner that maintains the "park" experience for users.

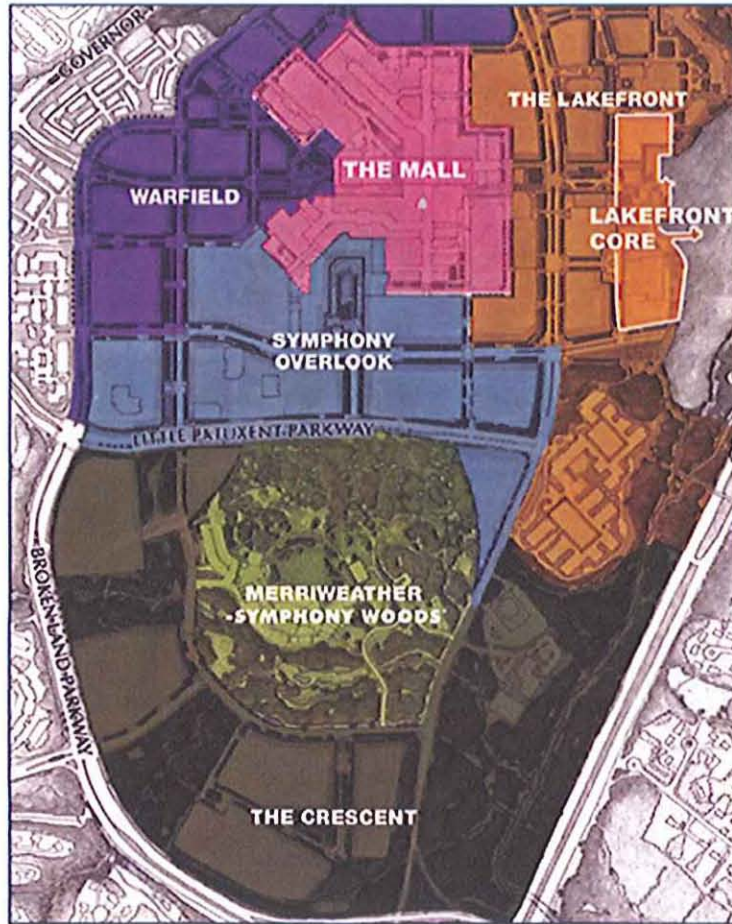
The Columbia Association recognizes that it is advantageous to allow for flexibility for future phases of park development so that its investments over time reflect the significant economic and demographic changes that will occur in Downtown Columbia in coming decades.

## **THE MERRIWEATHER POST PAVILION REDEVELOPMENT PROGRAM**

Merriweather Post Pavilion, Maryland's premiere outdoor concert venue, has been an important part of the cultural and social fabric of Howard County since it opened in 1967. It was designed by architect Frank Gehry and is owned by Howard Hughes Corporation (HHC).

In the development of the Downtown Columbia Plan the Community Enhancements, Programs and Public Amenities (CEPPAs) chart was created. It identifies the timing and implementation of specific CEPPAs to be provided by property owners undertaking development or redevelopment in Downtown Columbia. CEPPA 16 states that Merriweather Post Pavilion's owner will complete phase I of a redevelopment program for the Pavilion prior to issuance of a building permit for the 1,300,000 square feet of downtown development. CEPPA 20 states that phase II redevelopment will be completed prior to the issuance of a building permit for the 2,600,000 square foot of downtown development and CEPPA 21 states that phase III redevelopment will be completed prior to the issuance of a permit for the 3,900,000 square foot of development. Lastly, CEPPA 24 states that ownership of Merriweather will be transferred to the Downtown Arts and Culture Commission prior to issuance of a permit for the 5,000,000 square foot of development.

The program will generally follow the evaluation and conclusions of the 2004 Citizen Advisory Panel on Merriweather Post Pavilion Final Report. Major components of the redevelopment program will include new handicapped parking accommodation; entrance and access modifications; restroom, concession and box office renovations or replacement; utility systems replacement and additions; new roofs over the lodge seating areas; reconfigured and replacement seating; renovated and new administration, back of house, dressing and catering areas; code upgrades including fire suppression systems and handicap ramps and pathway access.



Neighborhood Concept Plan Exhibit - The Neighborhoods

Merriweather - Symphony Woods Neighborhood  
SYMPHONY WOODS PARK

Exhibit adapted from Downtown Columbia Plan -  
A General Plan Amendment, Howard County, Maryland.  
Adopted: February 1, 2010

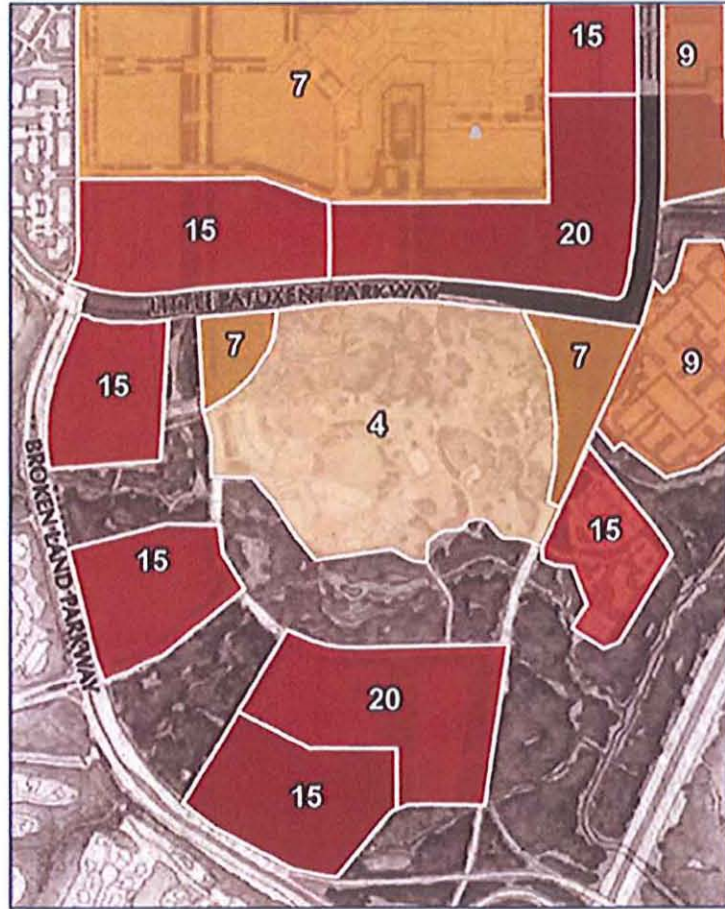







Merrifweather - Symphony Woods Neighborhood  
SYMPHONY WOODS PARK

Neighborhood Concept Plan Exhibit - Street & Block Plan

Exhibit adopted from Downtown Columbia Plan -  
A General Plan Amendment, Howard County, Maryland:  
Adopted: February 1, 2010

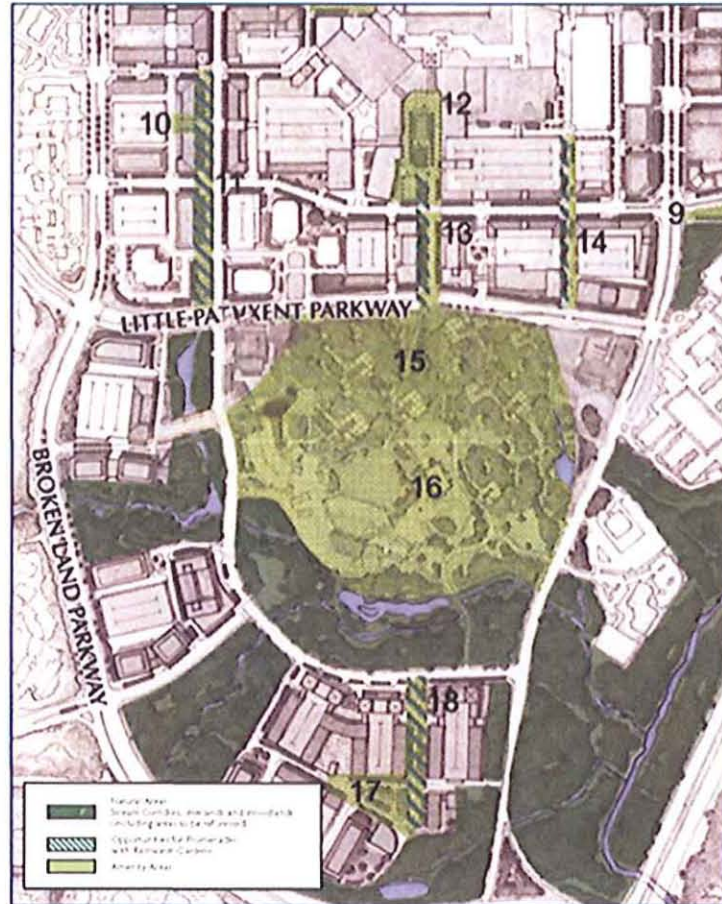




Up to	And not to exceed	Up to	And not to exceed
	4 Stories 60 feet		15 Stories 170 feet
	7 Stories 100 feet		20 Stories 250 feet
	9 Stories 120 feet		

Merrifweather - Symphony Woods Neighborhood  
**SYMPHONY WOODS PARK**

Neighborhood Concept Plan Exhibit -  
 Maximum Building Height Plan  
 Exhibit adopted from Downtown Columbia Plan -  
 A General Plan Amendment, Howard County, Maryland:  
 Adopted: February 1, 2010



New Primary Amenity Spaces - 7.2 Acres

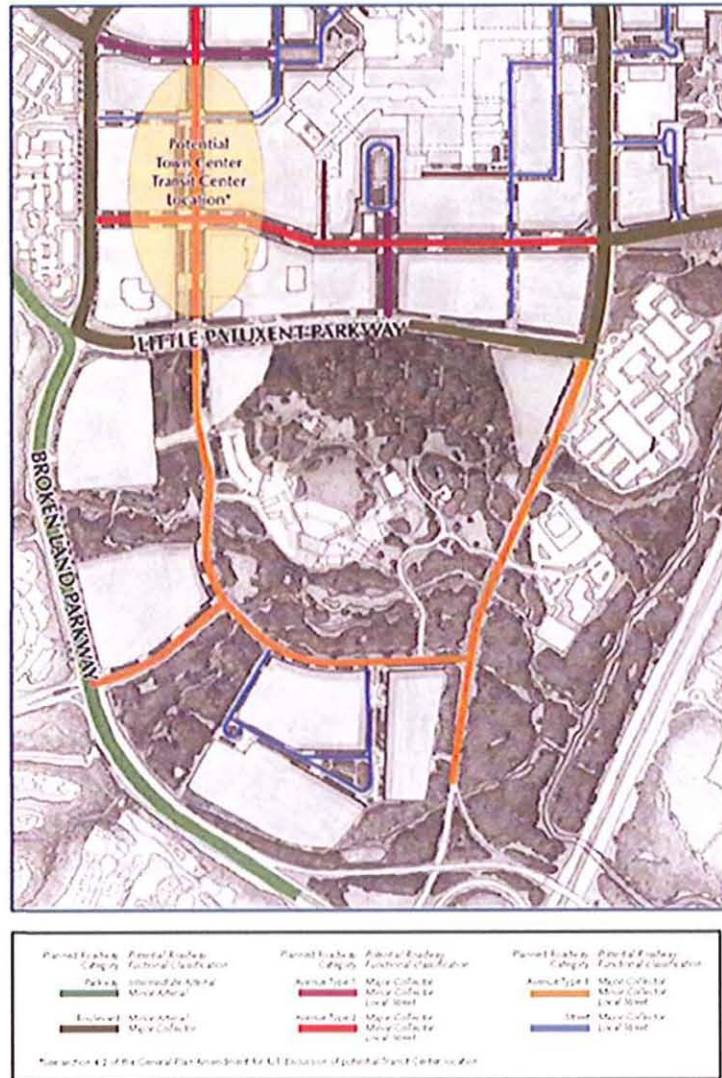
	square ft		square ft		square ft
1. Walkway Green	16,500 sf	7. Lakeland Plaza	14,500 sf	15. Spring Hill Promenade	11,000 sf
2. Walkway Promenade	17,800 sf	8. Walkway Plaza	41,500 sf	16. East Promenade	17,800 sf
3. Walkway Plaza	14,000 sf	9. Lakeland Terrace	41,500 sf	17. Spring Hill Woods Park	17,800 sf
4. Walkway Square	12,900 sf	10. Walkway Playground	6,000 sf	18. Memorial Park	14,000 sf
5. Walkway Green	47,000 sf	11. West Promenade	41,500 sf	17. South Crescent Park	21,000 sf
6. Lakeland Courtyard	41,500 sf	12. Market Square	41,500 sf	18. South Crescent Promenade	11,000 sf

Over 180,000 sq ft of primary amenity space is included in this plan. The location and design of each new Amenity Space will be determined at Final Concept Plan.

Neighborhood Concept Plan Exhibit -  
Primary Amenity Space Framework Diagram

Merrifield - Symphony Woods Neighborhood  
SYMPHONY WOODS PARK

Exhibit adapted from Downtown Columbia Plan -  
A General Plan Amendment, Howard County, Maryland:  
Adopted: February 1, 2010

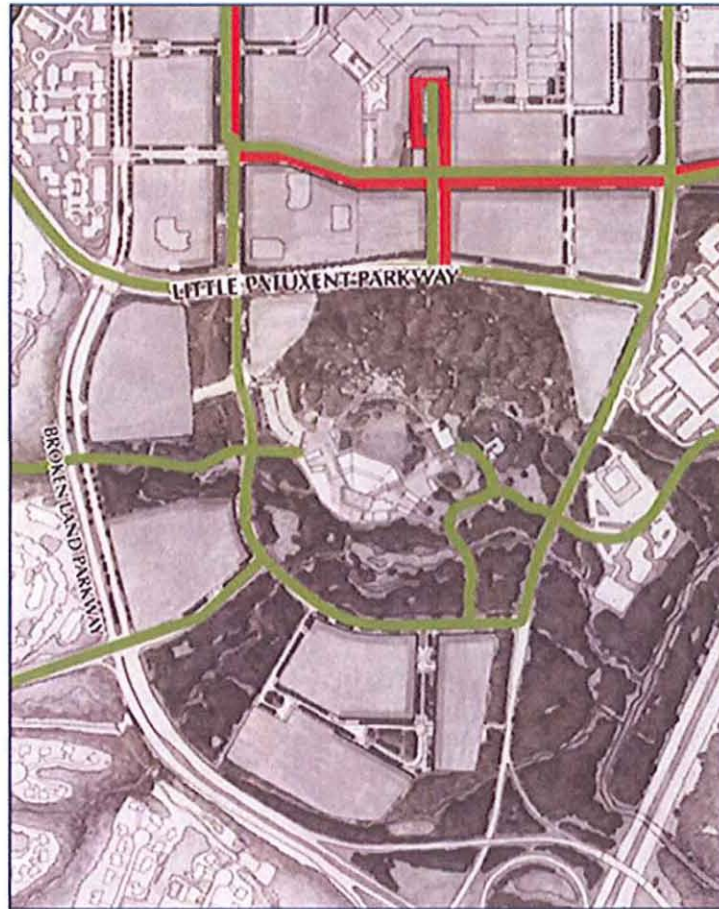


Merrifield - Symphony Woods Neighborhood  
**SYMPHONY WOODS PARK**

Neighborhood Concept Plan Exhibit -  
 Street Framework Diagram

Exhibit adapted from Downtown Columbia Plan -  
 A General Plan Amendment, Howard County, Maryland:  
 Adopted: February 1, 2010



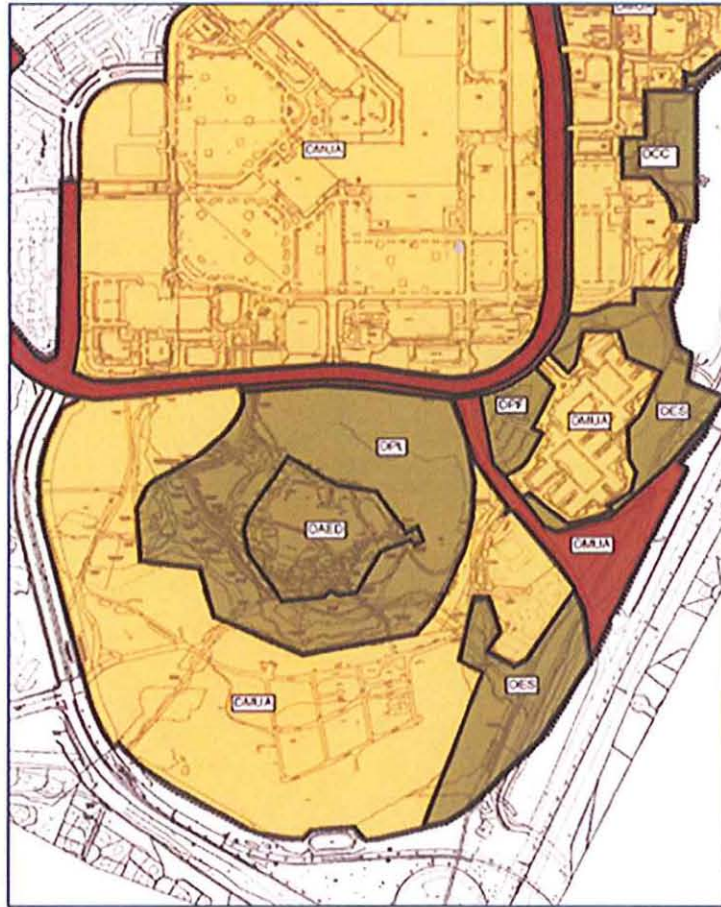


Primary Bicycle Routes      Primary Pedestrian Streets

Merriweather - Symphony Woods Neighborhood  
SYMPHONY WOODS PARK

Neighborhood Concept Plan Exhibit -  
Bicycle & Pedestrian Circulation Plan  
Exhibit adopted from Downtown Columbia Plan -  
A General Plan Amendment, Howard County, Maryland:  
Adopted: February 1, 2010





Downtown Mixed Use Areas - 265 Acres	CA1D	Downtown Arts & Entertainment District
Previously Designated Open Spaces - 50 Acres	CA1E	Downtown Community Commons
Previously Designated Public ROW - 16 Acres	CA1F	Downtown Environmentally Sensitive Areas
	CA1G	Downtown Public Facility
	CA1H	Downtown Parkland
	CA1I	Downtown Mixed Use Areas

Merrimweather - Symphony Woods Neighborhood  
**SYMPHONY WOODS PARK**

Neighborhood Concept Plan Exhibit -  
 Downtown Open Space Preservation Plan  
 Exhibit adopted from Downtown Columbia Plan -  
 A General Plan Amendment, Howard County, Maryland:  
 Adopted: February 1, 2010

## 05 STREET AND SIDEWALK DESIGN GUIDELINES\*

*\*Merriweather-Symphony Woods is entirely dedicated to public and semi-public amenity uses and includes no public streets. Applicable aspects of street and sidewalk design are incorporated into the Amenity Space Guidelines herein.*

## 06 AMENITY SPACE GUIDELINES

## GUIDING PRINCIPLES

The Merriweather-Symphony Woods Neighborhood is a major amenity zone area in Downtown Columbia. It is entirely dedicated to public and semi-public amenity uses as reflected in the Primary Amenity Space Framework Diagram in the Downtown Plan. Symphony Woods Park is designated as Downtown Parkland and Merriweather Post Pavilion is designated as Downtown Arts and Entertainment Park. The Neighborhood is envisioned as an integrated cultural park where a beautiful landscape is the setting for a full complement of entertainment, cultural, recreation and related commercial uses. The overarching goals for the Merriweather-Symphony Woods amenity zone are to provide:

- An exciting place for year-round active and passive recreation for all age groups
- A place for festivals, classes, concerts, art shows, performances, markets, and other community events
- Areas that are predominantly wooded or natural in character and that provide respite in an increasingly dense Downtown environment
- Easy connections for pedestrians to other Downtown neighborhoods, cultural institutions, such as the Central Library, and amenity spaces, particularly Lakefront Park
- A place that conveys a sense of whimsy, surprise and delight and provides an uplifting experience for individuals

The Amenity Space Guidelines chapter in the Downtown-wide Guidelines includes general guidance for the amenity space design that is relevant to the Merriweather-Symphony Woods Neighborhood. The general guidance for the design of such spaces is summarized below.

1. Amenity spaces should be physically (except for environmentally sensitive areas) and visually accessible, and designed to invite people of various ages and mobility.
2. Amenity spaces should be designed for their intended function; for example, plazas should include adequate areas of hardscape to accommodate public gatherings; large greens or parks should not include extensive hardscape areas that would detract from an appearance dominated by native vegetation, some lawn areas, and trees.
3. Amenity spaces should not be overly designed with structures and planting that will block visibility to storefronts, public art, or important vistas.
4. Amenity spaces should be designed with consideration for local climate and sun exposure during different seasons of the year. Amenity Space designs should give careful consideration to maintenance, so that in even severe conditions and with limited maintenance, the Amenity Spaces always look attractive.
5. Neighborhoods should provide opportunities for recreation such as urban playgrounds, tot lots, picnic areas and related parking. Neighborhoods in Downtown Columbia are anticipated to be flexible Amenity Spaces used for a variety of functions, including active recreation at times, as well as festivals and other events.

## TYPES OF NEIGHBORHOOD AMENITY SPACES

The Downtown-wide Guidelines include general descriptions of many types of amenity spaces that will be created in Downtown Columbia. The descriptions from the Downtown Guidelines for the amenity types that apply to the Merriweather-Symphony Woods Neighborhood are summarized below with commentary on these amenity spaces in this particular neighborhood.

### Parks

A park is a public space for active and passive recreation, typically located at the edge of the neighborhood, with access from a public thoroughfare, and is within or connected to natural areas. The landscape generally consists of extensive vegetated areas with a natural character, but may also include more formal lawns, gardens and walks. Although parks may be designed or remain in a somewhat natural state, they require maintenance.

Parks may accommodate structured recreation such as playgrounds, tot lots, picnic areas and related parking. Parks in Downtown Columbia are anticipated to be flexible Amenity Spaces used for a variety of functions, including active recreation at times, as well as festivals and other events.

Symphony Woods Park will be the largest and most significant public park in Downtown Columbia. To accommodate both the diversity of uses and the environmental restoration activities anticipated for Symphony Woods, imaginative park design should be employed to make the park a beautiful and functional setting for relaxation, entertainment and cultural activities. Pathways and other facilities will be designed to lie lightly on the land so that the mature woods can be conserved and the knolls, ravines, and gentle slopes are minimally disturbed while comfortable and varied spaces for people are incorporated.

### **Natural Areas**

Natural areas are reserved for the protection and enhancement of environmental resources. They include streams, buffers, forests, steep slopes, floodplain and other environmentally sensitive land. Portions of natural areas may be suitable for recreational uses such as walking and biking trails that link the natural areas to other portions of the Columbia open space network. Edges of the natural areas may be suitable for limited active recreation and parks.

Symphony Woods Park contains sensitive environmental areas. The Downtown Plan includes requirements for environmental restoration in Symphony Woods as found in the Merriweather and Crescent Environmental Enhancements Study. Improvements in Symphony Woods will be designed with sensitivity to adhere to these requirements and to retain the attractive qualities of the park that people value and enjoy.

### **Paths**

Pathways for pedestrians, cyclists and skaters provide connections among important destinations. Paths are typically fitted to the natural character of the site or to the urban context, and are often constructed with such materials as concrete, stone dust, asphalt, mulch and boardwalks (for spanning waterways and environmentally sensitive areas). Paths should be designed for their intended use and intensity of use, including consideration for safety. If appropriate, they may include lighting, benches and drinking fountains.

Pathways or walkways in Merriweather-Symphony Woods should provide a clear, comfortable and appealing route that links the many activity spaces anticipated within the neighborhood, pathways will support convenient connections to off-site destinations, and be designed to limit environmental disturbance.

### **Multi-Use Pathways**

Multi-use pathways will be separated from traffic and roadways and located within existing recreational pathway alignments through Columbia's open space, and on existing County road Rights-of-Way adjacent to a roadway.

The Hospital to Blandair multiuse pathway will traverse the north edge of Symphony Woods Park. This pathway will make the park easily accessible by foot and bicycle to large numbers of people. Internal circulation in the neighborhood must be designed to optimize connections to this multiuse path.

Multi-use paths, which are intended for two-way use by commuters and recreationists, will be designed and built to a standard that accommodates the various users with minimal conflicts. Multi-use pathways will be accessible by emergency and maintenance vehicles. Light poles scaled appropriately for pedestrian usage may be placed along the path alignments to heighten visibility and safety of users. Shoulders may be widened at regular intervals for placement of benches and trash cans for user convenience. Enhanced landscaping and clearing of undergrowth on existing pathways will increase visibility.

### **AMENITY SPACE GUIDELINES FOR MERRIWEATHER-SYMPHONY**

These Guidelines build on the Downtown-wide Guidelines for Amenity Spaces. They are intended to provide meaningful guidance for the design of Symphony Woods Park (Downtown Parkland) and for Merriweather Post Pavilion (Downtown Arts and Entertainment Center). Each guideline includes a statement as to the goal for the design element and includes specific strategies that may be used to partially or fully meet the goal. The strategies provided do not preclude other strategies that may be proposed to meet or exceed the same goals. Not all design elements and associated goals and strategies apply to every development in the neighborhood or are meaningful or practical to incorporate into every development. Site Development Plans will show how the guidelines were applied. Reviewers of Site Development Plans will evaluate whether the plan meets applicable goals and strategies. These Amenity Space Guidelines for Merriweather-Symphony Woods are intended to be used with and to be consistent with other portions of these Neighborhood Design Guidelines.





*Multiuse path with signage and other desirable features.*

## 1.) Pedestrian and Bicycle Pathways

**Goal:** Paths and walkways in Merriweather-Symphony Woods will be part of the system of planned pedestrian and bicycle facilities that will ultimately link all of the Downtown Columbia amenity areas into a system of connected spaces and provide connections to adjacent neighborhoods. Merriweather-Symphony Woods should be designed so that people are encouraged to arrive at Symphony Woods Park and Merriweather Post Pavilion by bicycle or on foot for major events as well as for day to day use. Once in the neighborhood pedestrian and bicycle facilities will make Merriweather-Symphony Woods a pleasant and safe place for a walk or a leisurely bike ride. Paths and walkways should be designed to provide a safe, interesting and nuanced walk for people with a variety of abilities. Paths and walkways should be

designed with the expectation that they will be used by bicyclists as well as pedestrians, although bicycles use may be discouraged in some areas where appropriate.

### Strategies:

- Include a minimum clear walking zone width of 10 feet for walkways intended for shared use (pedestrians and bicycles); 8 feet for walkways intended for heavy pedestrian use and a minimum clear walking zone width of 6 feet in other areas
- Design walkways in accordance with ADA Title III regulations to allow barrier free access to gathering areas and buildings from the site periphery and from on-site parking and between key use areas within the neighborhood
- Provide an efficient route between key areas
- Design for clear sight lines to allow for passive surveillance
- Include seating at intervals for comfort and convenience
- Locate walkways for convenient connections to future pedestrian and bicycle facilities
- Design walkways to minimize conflicts between bicyclists and pedestrians
- Provide clear way finding signage and visual cues for pedestrian navigation
- Potential conflicts between bicyclists and other transportation modes should be discouraged through the design and location of facilities
- Consider existing land form and vegetation when determining pathway alignments
- Bicycle routes through parking lots should be designed with reference to the On-Road Bicycle Facility Design Guidelines (Appendix A.1.)

## 2.) Gathering Areas

**Goal:** Gathering Areas in Merriweather-Symphony Woods will be designed to encourage use by people of all ages and abilities to congregate and engage in social interaction. Gathering areas will be designed to be equally functional, inviting, and attractive whether there are no people, just a few people or many people. Such spaces should be comfortable and inviting to support informal and spontaneous activities such as eating, playing, small group socialization, people watching, and uses such as performances, festivals and community gatherings.

### Strategies:

- Design to comfortably support large groups of people
- Allow for passive surveillance into and out of gathering areas
- Provide protection against unpleasant sensory experiences (rain, temperature extremes)
- Provide desirable landscape microclimates to maximize human comfort in all seasons
- Maximize pleasant views and opportunities for people watching
- Design to promote communication and interaction

- Provide site furnishings and/or sitting walls and other site furnishing to make the space conducive to and comfortable for lingering
- Provide attractive features and focal points such as water features, artworks or performance spaces to encourage people to linger and to interact
- Provide lighting to reduce opportunities for crimes and to allow for evening activities



*Park with a variety of gathering areas.*

### 3.) Paving Materials

**Goal:** Pavement materials for walkways, gathering areas and parking should be highly durable and connote a sense of permanence and quality. Paving materials should take accessibility needs into consideration. Throughout Merriweather-Symphony Woods, various paving types shall be employed to denote the different zones and uses of hardscape areas. The hierarchy of spaces is encouraged to be reinforced through the creative use of different paving options by varying material, pattern, color, and/or texture. Where a walkway adjoins a seating area, a change in paving type differentiates a movement zone from an area of rest. Hardscape areas within amenity spaces shall contribute to the overall design intent and character of the space and compliment adjacent architecture.

#### **Strategies:**

- Use changes in paving materials to distinguish different use areas
- Select pervious paving options where appropriate
- Design pavements to meet ADA requirements for smoothness

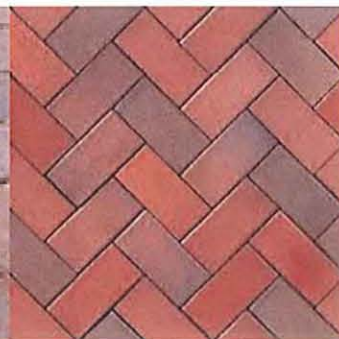
**Materials:** Hardscape in amenity spaces shall be constructed of concrete or brick pavers, stone, exposed aggregate concrete, or brushed concrete. Walkways may be asphalt. Boardwalks may be wood, recycled decking materials and other materials specifically designed for use in boardwalks. Porous pavement systems are encouraged where appropriate; however, pervious asphalt is not encouraged where high levels of maintenance is not feasible. Local materials are encouraged and should be selected when feasible. Lightly colored or high albedo materials for paved surfaces are encouraged. Final material selection will be made by the design professional based on the intended use and character of the space and on maintenance considerations.



*Bluestone pavers.*



*Concrete pavers.*



*Brick pavers.*

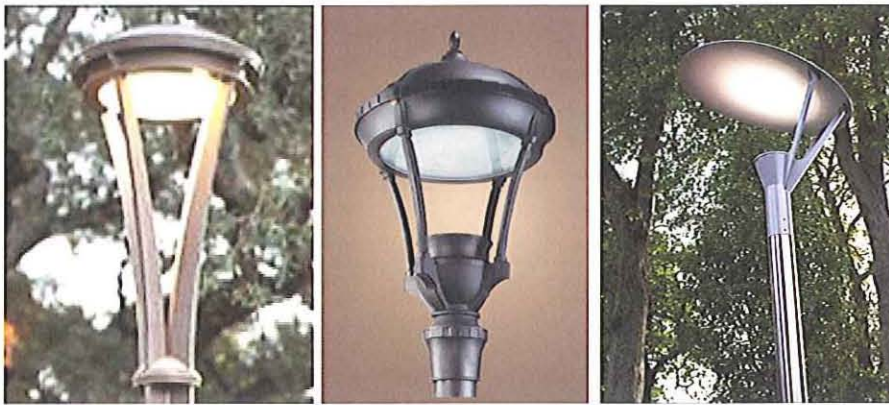


#### 4.) Lighting

**Goal:** Site lighting has three basic objectives: providing for safety, security and aesthetics. All three of these objectives should be considered in the design of lighting at Merriweather and Symphony Woods Park. Lighting in the neighborhood should support the concept of the neighborhood as a setting for arts, cultural and civic uses.

**Strategies:**

- Select fixtures scaled for pedestrians and spaced in observance of average perceptual abilities
- Include fixtures selected for quality design, durable materials and effective performance
- Use a coordinated family of fixtures throughout the Neighborhood
- Use Light-emitting Diode (LED) fixtures, where practical
- Select walkway and pedestrian light fixtures with these features:
  - Meet International Dark-Sky Association standards
  - 12 to 14 feet pole height for pole lights in pedestrian spaces



*Examples of acceptable lights for pedestrian spaces.*

#### 5.) Site Furniture

**Goal:** Site furniture for amenity spaces includes benches, trash/recycling receptacles, bike racks, and tables. Furniture should be expressive of the character and function of Merriweather-Symphony Woods as a cultural park and major amenity zone for Downtown Columbia. Site furniture should be highly durable and connote a sense of permanence and quality and should be appropriately located throughout the Neighborhood. The purpose of site furnishings is to support the comfort of visitors to the neighborhood.

**Strategies:**

- Locate site furniture to allow a minimum clear walking zone of 8 feet in areas of heavy pedestrian use and a minimum clear walking zone of 6 feet in other areas
- Select styles, finishes and colors that are consistent throughout the Neighborhood
- Seating and benches
  - Group together in gathering areas
  - Place along pathways to provide comfort and convenience
  - Acceptable materials for benches: powder coated metal, wood, recycled plastic



Examples of acceptable benches.

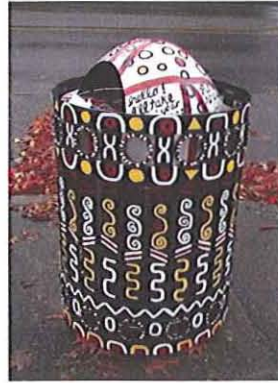
- Tables and chairs
  - Locate for convenience and so that visitors may gather in sun or shade depending on the season or time of day
  - Acceptable materials: powder-coated metal, wood, recycled plastic



Examples of acceptable tables.



- Waste and recycling bins
  - Should be permanently attached to the ground
  - Consider specifying rain guards on waste and recycling bins for sanitation purposes
  - Locate trash and recycling bins together in key locations
  - Locate bins in locations which are likely to encourage maximum use
  - Acceptable materials: metal, wood, recycled plastic or a combination of these materials



Examples of acceptable trash receptacles.



Examples of acceptable recycling receptacles.

- Bike Racks
  - Acceptable materials: powder coated metal
  - Permanently mounted
  - Place in convenient locations that are not in the way of pedestrians
  - Place to allow for passive surveillance
  - Select rack which allows bike contact at 3 points



Examples of acceptable bicycle racks.

## 6.) Fencing

**Goal:** It is important to define appropriate boundaries between Symphony Woods Park and Merriweather Post Pavilion. Fencing is presently in place around Merriweather Post Pavilion and it is anticipated that one or more barrier types will be used in the future for security, crowd management and to protect pedestrians from vehicles. Where this boundary is highly visible, particularly on the north side of the amphitheater, there should be new and attractive gates and fences combined with planting. In addition, the second amphitheater to the northeast will require, on occasion, temporary fencing.

### Strategies:

- Openings in fences and screen should be clearly recognizable and receive special articulation
- Consider varying the degree of opacity in fencing and screening elements
- Consider detailing and materials similar to that found in nearby architecture
- Consider inclusion of plant materials in fencing and screening elements
- Acceptable materials: fences and screens should be primarily metal which may be combined with wood, living plant material and synthetic materials



Examples of acceptable fencing and screening.

## 7.) Landscaping

**Goal:** Landscaped areas include maintained planting beds, shrub masses and trees located in mowed, high use areas. Developers shall follow alternative compliance procedures found in the Howard County landscape manual and submit landscape plans prepared by a registered landscape architect certifying that the landscape plans meet the design intent specified in these guidelines, including plant species selection or comparable alternative. New landscaping including tree plantings should be designed to provide interest and comfortable conditions for people visiting the Neighborhood. Planting may also serve important ecological functions such as providing wildlife habitat and slowing the flow of storm water.

### Strategies:

- Plant two replacement trees, at minimum, in landscaped areas or natural areas for each tree removed due to construction activities
- Plant trees in locations where shade is desirable
- Place trees and other landscaping to allow pedestrian flow
- Place trees and other landscaping to allow for natural surveillance around primary use area
- Place trees and other landscaping to allow site lighting to be effective
- Select plant materials to provide interest in all seasons
- Use predominantly native and adapted species that are durable and have low maintenance requirements
- Specify that plant materials meet the American Standard for Nursery Stock (ANSI Z60.1-2004 or latest edition)
- Meet or exceed requirements in the Howard County Landscape Manual, latest edition, where applicable

### Types of Planting

Throughout Merriweather-Symphony Woods various tree and plant types shall be employed to denote the different zones and uses of landscape areas. For example, shade trees shall be used to shelter seating areas, long swathes of perennials or grasses may edge movement zones, and grass lawn areas may occur in quiet, informal gathering areas. The hierarchy and character of each portion of the amenity area is encouraged to be expressed through the creative use of different plant materials. With a focus on native and adaptive plantings, the criteria below shall guide the plant material palette for the amenity spaces.

#### Shade Trees

**Tree Crown:** Density of tree crowns should be considered when choosing tree species and used where appropriate. Crown density and spacing of trees can negatively affect street lighting, cleanliness, shade density, sight lines to retail and buildings, and safety, when used inappropriately. Shade trees used in plazas, streetscapes, and courtyards should reflect the intended use of the space and balance between ecological function and aesthetic value. Shade trees in amenity areas should consider the desire for adequate filtered sunlight reaching the ground plane and understory plantings. A variety of species and/or sizes at time of planting are desired.

**Soil Compaction:** Preventing soil compaction should be considered in tree species selection and placement, especially in urban settings. Avoidance of excessive movement over tree root zones and the use of root protection materials (such as Silva Cells or other MDE approved systems) should be considered, to allow stormwater infiltration and promote tree longevity.

**Color and texture:** A variety of seasonal color and/or texture should be considered when selecting shade trees. Species cultivated to be thornless, fruitless, disease and insect resistant and are preferred in high use and stressed environments. Shade trees known for excessive plant litter and weak limbs should be avoided in high-use pedestrian and vehicular areas. In these high use areas shade trees should be pruned to not impair specified circulation routes for pedestrians, cyclists and vehicles.

**Growth Habit:** Trees known for root upheaval, water sprouts, or knees should be planted in areas away from pedestrian movement, to prevent personal injury or circulation disruption (unless alternative root protection, root barrier, or root growth methods are implemented). Invasive trees should be avoided to prevent spread of noxious seeds, roots, or rhizomes (refer to local invasive plant species list). Appropriate scale of the shade trees' eventual growth (both eventual height and root mass) should be taken into consideration when deciding tree species, spacing, and proximity to buildings, parking, and utilities.



**Biodiversity:** A variety of trees should be used to promote local bio-diversity and healthy resiliency against insects and diseases. In an urban setting, for both streetscape and amenity areas, the same tree genus should not be used for more than approximately ten percent of the entire planting design.



*Shade tree in park setting.*

*Ornamental tree in a park setting.*

### Specimen/Ornamental Trees

**Tree Crown:** The crown and density of specimen/ornamental trees will vary greatly. Selection and placement/spacing of trees should support the desired design aesthetic, whether in small clumps for accent, in rows to reinforce linear references, or in random/organic patterns to strengthen a natural aesthetic. Specimen trees may be used to denote a place of significance, frame views, accentuate a façade or sculptural piece, or add visual and seasonal variation to a planting area. Specimen/ ornamental trees should not be overused. Appropriate scale of specimen/ornamental trees, eventual growth (both eventual height and root mass) should be taken into consideration when deciding tree species, spacing, and proximity to buildings, parking, and utilities.

**Color and Texture:** “Specimen/ornamental tree” refers to any tree specially noted for its high visual quality of bloom color, foliage color, texture, visibility, or placement in the landscape. Typically, specimen/ornamental trees are lower growing trees, single or multi-stemmed, which can be planted in masses, small clusters, individually, or in large planters. Specimen/ ornamental trees are noted for flowers, color, and texture. Avoid overuse of specimen/ornamental trees that bloom at the same time of year and consider a staggering of species and bloom times that last for different durations and begin and end at different times.

**Growth Habit:** Invasive trees should be avoided to prevent spread of noxious seeds, roots, or rhizomes (refer to local invasive plant species list). Trees known for root upheaval, water sprouts, or knees, should be planted in areas away from pedestrian movement, to prevent personal injury or circulation disruption (unless alternative root protection, root barrier, or root growth methods are implemented). Those with fragrant flowers may attract stinging insects and should be located an appropriate distance out of reach from pedestrians. Maintenance costs and considerations should be weighed when choosing ornamental tree species that require constant attention.

**Biodiversity:** Same as above under Shade Trees

### Shrubs

**Design Objectives:** Planting areas, masses, and large planters are typically the best locations for shrubs. They may be used to control circulation by guiding the movement of pedestrians and cyclists. Shrubs may be used for screening against views, wind, sun, and similar. Shrubs should grow to (or be maintained at) a height that will not obstruct views, block visibility, or create unsafe areas. Shrubs should be spaced for eventual growth and expansion, depending on size of the plant upon installation. Evergreen and deciduous shrubs should be used to create year-round range of colors, textures, and interest in the landscape. Shrubs used in masses or as hedges should be of the same genus and species and not intermixed.

**Color and Texture:** A variety of evergreen and deciduous shrubs should be used throughout the neighborhood. Leaf color, texture, and flowers, as well as growth habit, should be varied and selected to support a particular design



aesthetic. A shrub's fragrance, whether pleasant or odious, should be considered; unpleasant fragrant shrubs should be avoided.

**Growth Habit:** Shrubs with poisonous berries or shrubs that attract stinging insects should be located an appropriate distance out of reach from pedestrians and children. Shrub plantings around playgrounds shall avoid thorns, bright berries, and insect-attracting flowers. Invasive plants should be avoided to prevent spread of noxious seeds, roots, or rhizomes (refer to local invasive plant species list).

**Biodiversity:** Same as above under Shade Trees



*Native varieties of shrubs, grasses and perennials.*

### Grasses and Perennials

In this section, "Grasses" refers to native and ornamental grasses other than sod. Grasses and perennials may be planted in masses, clusters, grids, or borders, but should not be planted alone unless in planters or pots. A blend of noninvasive, native and exotic grasses should be used to exhibit regional character while adding exotic interest and variety. Grasses that grow above 48" should be avoided for security and wildlife issues.

**Growth Habit:** Invasive plants should be avoided to prevent spread of noxious seeds, roots, or rhizomes (refer to local invasive plant species list)

### Rainwater Gardens

Rainwater gardens (also known as bios wales or vegetated swales) are a form of bioretention that is used to capture and filter or promote the evapotranspiration of stormwater.

Details:

- Utilize plant species native to Maryland and the Piedmont physiographic province
- Choose plants that are tolerant of well-drained conditions, periods of drought, and periodic inundation, depending on the hydrologic design of the stormwater practice, per MDE regulations
- Select shade tolerant, partial shade, or full sun tolerant species based on site location, orientation, and proximity to tree cover and buildings
- Consider maintenance and management (weeding) when designing and allow for access needs
- Consider plant height at maturity and include consideration for sight lines (e.g., vehicular and pedestrian), safety and security, access to sidewalks, and overhead height restrictions
- Design for complementary mixtures of foliage, to provide interest and contrast in form, texture, and color; select plants that provide diverse seasonal color and texture, as well as fragrance
- Select flowering species that attract wildlife including hummingbirds, skippers, moths and butterflies, songbirds, and additional pollinators
- Design for a meadow-like mixture of herbaceous plant texture, height, and color with some groves of small-medium height trees as appropriate to space and design constraints
- In this more organic/natural arrangement, plantings are typically free-form but include grouped species. Plant shrubs in groups of 3-5 of the same species and plant herbaceous plants in groups of 5-7 (or more for large areas) unless a more random planting arrangement is desired



## 8.) Natural Areas

**Goal:** Natural areas should be protected from unnecessary disturbance and, in some cases, enhanced, so that they may be ecologically beneficial. Natural areas include vegetation that is un-mowed and essentially unmaintained after establishment.

### Strategies:

- Plant trees to replace trees removed due to neighborhood construction. Two replacement trees, at minimum, will be planted in landscaped or natural areas for each tree removed for construction
- Improve the functionality of natural areas by undertaking appropriate restoration activities outlined in the Merriweather and Crescent Environmental Enhancements Study (2008 by Biohabitats)
- Limit mowing adjacent to pathways in natural areas to no greater than 10 feet on each side, unless more mowing is necessary based on use or safety purposes
- Supplement plantings in natural areas with species that support songbirds and other desirable wildlife
- Include native or adapted species that are durable and require no maintenance after establishment
- Eradicate invasive species as necessary / practical to maintain the health of natural areas



*Meadow planting for no-mow area. Reforestation planting.*

## 9.) Public Art

**Goal:** Merriweather-Symphony Woods is intended as a cultural park where the landscape is a setting for arts, cultural and civic uses. It is envisioned that public or environmental art will play an important role in reinforcing the neighborhood as an arts district. In addition to supporting the identity of the neighborhood, public art can help humanize amenity areas, introduce humor or visual interest or underscore the history of the area. Art objects should be an integrated into the total design of the space. Public art may be placed within any area of Merriweather-Symphony Woods.

### Strategies:

Public art may be placed within any area of Merriweather-Symphony Woods based on the following factors:

- Locate art where it will enhance the park design and accentuate natural or architectural site features. For example, site art to terminate a view, to frame a view, to identify access points, to enhance gathering areas or where it will be harmoniously integrated into architectural structures
- Place to allow for passive surveillance
- Site art where it will be seen to advantage and in locations that are appropriately scaled for the art work
- Allow for unobstructed pedestrian and or vehicular circulation around the art work
- Include water, seating or decorative architectural elements, if appropriate
- Ensure that features are free of physical hazards

- Without major or frequent maintenance requirements



*Examples of art in public spaces.*

**07 URBAN DESIGN &  
ARCHITECTURAL GUIDELINES**



## GUIDING PRINCIPLES

Urban Design is the art of giving form, shape and character to towns and cities. It is concerned with the organization and design of the buildings, public spaces, transportation systems and amenities that make up the urban fabric. As the Merriweather-Symphony Woods Neighborhood is planned and designed, care should be given to how these elements relate to one another within the neighborhood as well as to the surrounding context.

These Guidelines build on relevant portions of the Downtown-wide Architectural Guidelines. They offer general principles to consider in the design of buildings in the Merriweather-Symphony Woods Park Neighborhood. They are not intended to prescribe any style, but to allow progressive, forward looking design. As in other American downtowns that have evolved over time, buildings are expected to have a richness and diversity of architectural expression. Designers are encouraged to recognize the modernist spirit that pervaded the initial development of Columbia and its evolution to the county's urban center. All buildings over 10,000 square feet are required to comply with the County Green Building Law. Smaller buildings should employ these same green building techniques to the extent practical.

Building design may vary among the six neighborhoods. The Architectural Design Guidelines should be adapted to the particular criteria for the character of each neighborhood as defined in the Plan. For example, architectural design for a neighborhood with a substantial residential component will be different from a neighborhood intended to create an office and retail address for Downtown Columbia. The identity of the Merriweather-Symphony Woods neighborhood is envisioned as a cultural amenity with preserved natural areas.

Buildings should be designed to reinforce the distinctly urban character established in the Downtown Columbia Plan. That being said, Symphony Woods Park and Merriweather Post Pavilion represent uniquely civic and cultural uses that may appropriately include buildings that differ from the urban character of the downtown.

Buildings cannot all be "signature" buildings and, for the most part, should be reflective of their intended function and respectful of their context. However, special sites or unique uses could provide potential locations for signature, civic or cultural buildings. The design of signature, civic, and cultural buildings may vary from these Guidelines, as approved by the Planning Board.

In the Merriweather-Symphony Woods Neighborhood it is important to recognize that the two properties, Merriweather Post Pavilion and Symphony Woods Park have distinctly different uses, functions and intended levels of activity. Merriweather is a large outdoor concert venue attracting large crowds to music and other events. Symphony Woods Park is a relatively undisturbed open space parcel set aside as part of the original master plan for Columbia to serve a passive recreation and environmental preservation function. It is envisioned that the proposed improvements to Symphony Woods will provide for greater access to the park and will accommodate a variety of gathering areas that may be used for festivals and other community events. The building program for Symphony Woods Park is envisioned as including small visitor support functions such as restrooms, storage or maintenance-related structures and a possible café. The Merriweather facility is currently characterized by an eclectic mix of buildings that include the main stage and covered seating area, several barn structures and a number of food service, restroom and other ancillary support buildings of varying styles and characters. These facilities may be expanded, renovated or replaced over time. While the scale and composition of the building program on the two properties are substantially different the approach to design of structures within each should follow similar guidelines.

## URBAN DESIGN & ARCHITECTURAL GUIDELINES FOR MERRIWEATHER-SYMPHONY WOODS

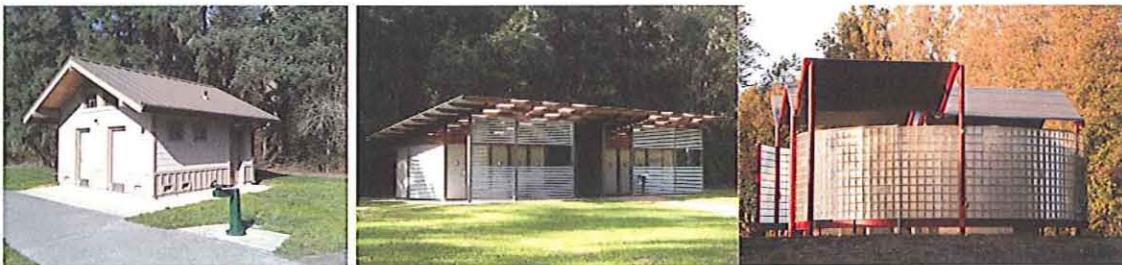
### 1.) Response to Context

**Goal:** It is important that structures built in the Merriweather-Symphony Woods Park Neighborhood be compatible with the surrounding context. The existing setting in Symphony Woods is characterized by a natural landscape with mature shade trees and gently rolling topography. The vision for the neighborhood is to serve as a cultural park where the landscape is a setting for arts, cultural and civic uses.



Existing wooded settings in Symphony Woods Park.

Proposed Structures should be designed to fit within a naturalistic park setting. Appropriate solutions may vary from a simple rustic style and the use of natural materials and colors, to a more contemporary style with contrasting forms and material selections.



Examples of restroom/support use structures.



Examples of park café structures.

Existing structures within Merriweather that are retained may influence but will not define the architectural direction of the pavilion property. The predominantly character defining features of the site include the barns at the northeast corner of the site and the roof structure over the pavilion itself.



Merriweather Post Pavilion Barns at northeast corner of Merriweather.



The design of new facilities should take cues from these existing structures but be interpreted in a distinctly contemporary manner. It is important to consider the proposed uses being developed on site. For instance, building shapes and sizes, and roof heights may affect acoustic performances and sight lines. These considerations need to be balanced with the character of the architecture and the practicality of preserving existing structures.

#### Strategies:

- Take building design cues from the surrounding natural features. Work with or play off existing forms, materials, colors and textures
- Proposed buildings on the Merriweather site should draw from the character of existing defining structures such as the barns and the pavilion roof
- Buildings on the Merriweather and Symphony Woods Park sites should respond to and be compatible with adjacent buildings
- Consider the overall composition of buildings on each site as they relate to buildings on the adjacent site.
- Site buildings to take advantage of the existing topography, placing prominent or signature structures in visible areas such as on high points and locating more service type uses to be less visible

## 2.) Building Orientation

**Goal:** The careful siting and orientation of buildings will help to define the character of both Merriweather Post Pavilion and Symphony Woods Park while assisting visitors in way finding and efficiently moving to and between destinations.

The building program for Symphony Woods Park is envisioned as including relatively small support uses such as restrooms, a café, and storage or maintenance space. Facilities intended for the public should be located to be visible and accessible while those serving a service or maintenance function may be located to be less prominent.

A structure such as a café may serve as a signature building on a small scale and be oriented to serve as a focal element. Care should also be given to maximizing views from sitting areas that may be associated with gathering places such as a café.

The café could be located and designed to serve both Symphony Woods Park visitors and Merriweather patrons. Located along the shared north property boundary, the café would be close to parking to the west and could be designed to accommodate outdoor terrace areas on both sides. It could be open on a daily or seasonal basis with a decision about operations during actual events based on the ultimate operator and particulars of the event.



*Café as focal element.*



Buildings within Symphony Woods Park and parts of Merriweather may be sited such that they would be visible from all sides. Care should be given to orienting buildings to front on primary open spaces, approaches or pedestrian ways. The visual impact of other facades should also receive special attention.

Merriweather is comprised of a complex of buildings of varying styles and characters. The facility is anchored by a relatively large, low-profile structure covering the stage and formal seating area. This structure is located at the low part of the site and is internal to the property so is not particularly visible from the surrounding Symphony Woods Park. More visually apparent are the smaller buildings located along the east, west and north edges of the property. These serve a number of functions including; entrance ways, will call/ticketing, food service, and restrooms. The buildings on the north edge of the property are particularly visible from Symphony Woods Park due to their location along a ridge line that is the high point of the neighborhood.



*Barn structures along north edge of Merriweather.*

New buildings in Symphony Woods Park or on the Merriweather property should be oriented to be compatible with and respond to the scale, character and pattern of the existing structures. Where buildings serve a particular function such as providing for pavilion entry or food service, orient the structures to serve the intended use; make access visible and provide adequate space for queuing.

#### **Strategies:**

- Locate and orient buildings to take advantage of site topography, placing important structures on high points, within view sheds, or in other prominent locations.
- Site important buildings to serve as focal elements and/or to frame views.
- Carefully locate and orient buildings to amenity spaces and to one another.
- Orient Buildings to be compatible with and respond to the scale, character and pattern of existing structures.
- Primary entrances should be located to be visible, accessible and convenient to visitors who will be arriving primarily on foot.
- To the extent possible, building orientation should consider future development on adjacent properties
- Buildings should be sited to benefit from natural lighting and passive solar heating and cooling strategies.
- To the extent possible, mechanical and electrical equipment should be oriented to minimize visual impacts.
- Consider opportunities for Merriweather Post Pavilion and Symphony Woods Park to share the use of certain structures (e.g. a café and/or restrooms).

### **3.) Building Mass and Articulation**

**Goal:** The architectural character of the Merriweather-Symphony Woods neighborhood will, in part, be defined by the expression of structure and the detailed design of the buildings. Building massing, or the clustering of buildings, and articulation are important to reinforcing the Merriweather-Symphony Woods character.

The focus or theme of the Merriweather-Symphony Woods Park neighborhood is the natural landscape; the land form and particularly the unique stand of mature trees. Structures should be designed with this emphasis in mind.

Buildings and groupings of buildings should reflect a scale appropriate to that established by the existing natural features. The tree canopy and the spacing of the tree trunks create and frame spaces that should be mimicked by the structures proposed for the neighborhood. Where larger structures are proposed, facades should be divided into smaller components to reduce the overall scale. Multi-story buildings should be designed with particular attention given to the articulation of the ground floor.

**Strategies:**

- Size buildings and groupings of buildings to reflect the scale of the existing context.
- Building design should be compatible with the “naturalistic” character of the neighborhood.
- Avoid large blank walls, especially on prominent and visible facades. On the ground floor level, incorporate smaller-scale elements to provide a human scale.
- Allow the structure of the building to be expressed.
- Entrances should be clearly recognizable and receive special articulation.
- When grouping buildings, ensure that the aggregate of the structures does not overwhelm the scale of the area within which they are placed.

**4.) Building Materials and Color Palette**

**Goal:** It is important to reinforce the buildings’ massing at the level of material choices and detailing. The relationship of materials, windows, doors, and other elements should support the larger design objectives for the structure.

To the extent possible, buildings should aim for a “timeless design” and employ sustainable materials and careful detailing. The selection of materials should be sensitive to the overall context of the neighborhood as well as to the immediate surroundings. Materials and colors should be compatible with existing and other proposed structures in an effort to create an overall sense of unity.

Building materials should establish a sense of permanence and quality. Materials should be durable and lasting with consideration given to long term maintenance.

**Strategies:**

- The material palette should be appropriate for the scale and context of the unique Merriweather-Symphony Woods Park setting.
- Color palettes should be selected to contribute to the building identity and be compatible with the surrounding natural and built environment.
- Whenever possible and practical, select materials in keeping with the sustainability guidelines.
- Ensure long term durability and ease of maintenance.
- Select materials to minimize vandalism.

**5.) Parking and Service Areas**

**Goal:** Surface parking, structured parking and service areas may be expanded in the Merriweather-Symphony Woods Park Neighborhood. Effort should be made to minimize the visual impact of these facilities on both Merriweather and Symphony Woods Park users. Parking resources should be located to be convenient but in a manner that is non- intrusive and not visually prominent. Facilities should include connections to neighborhood pedestrian and bicycle facilities while ensuring that on-site conflicts between vehicles, pedestrians and bicyclists are minimized. Parking facilities should also be designed to accommodate bicycle storage.

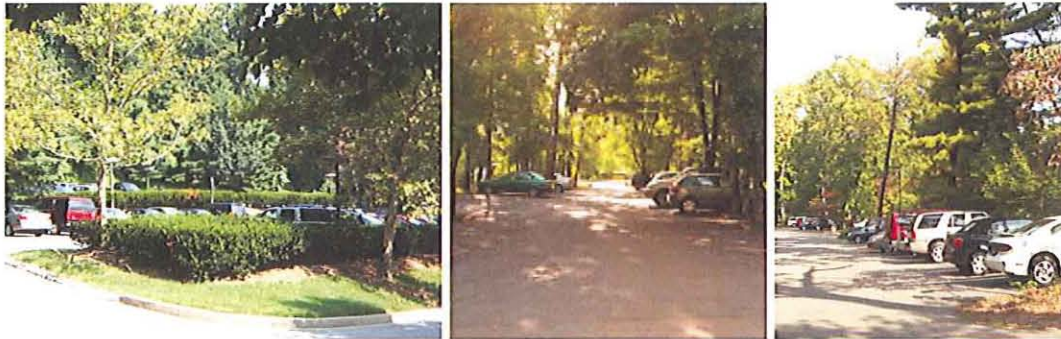
Parking areas should incorporate innovative and sustainable approaches to storm water management. Appropriate approaches may include use of pervious pavement, bio-retention facilities, rain gardens, green roof technologies, structural BMPs, among others.

**Parking**

**Surface parking** areas should be broken into small lots and/or located along edges to avoid aggregating large numbers of parked vehicles in important neighborhood spaces. Landscaping may also be appropriate to screen



cars. Plantings should be limited to a 3-4' height to provide for screening while allowing visibility across and through the neighborhood.



*Parking broken up and screened to minimize visual impact.*

**Parking structures** should exhibit the same principles of good building design noted in previous sections. Providing an exterior comprised of high quality materials that screen the underlying concrete structure can elevate the building's stature and contribute to the overall quality of the built landscape. Providing for screening or landscaping can also soften the impact of parking structures. Parking structures may also be wrapped with uses that support neighborhood functions.



*Examples of screening and landscaping of parking structures.*

#### **Strategies:**

- Parking structures should have an external skin designed to improve the building's appearance over the basic concrete structure of ramps, walls and columns. Sloped ramps should be located internal to the structure so that they are not visible from primary facades.
- Parking structures should integrate sustainable design features such as photovoltaic panels (especially on the top parking deck), renewable materials with proven longevity, and best practices for storm water treatment wherever possible.
- Vertical circulation cores (elevator and stairs) should be located on the primary pedestrian corners and be highlighted architecturally so visitors can easily find and access these entry points.
- The ground floor treatment should provide a screening element that blocks views of parked vehicle bumpers and headlights from pedestrians using the adjacent walkways.
- Signage and way finding should be integrated with the architecture of the parking structure.
- The lighting should be integrated with the architecture of the structure to reinforce its unique identity. Attention should be given to the design of parking garage interior lighting so that light sources are not visible from the neighborhood or Merriweather.

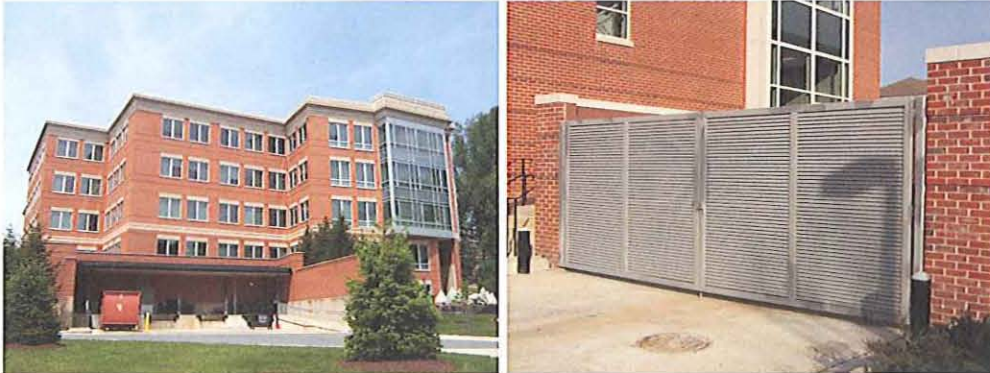


### **Service Areas**

Similar to parking resources, service areas should be located to minimize their visual impact on Merriweather and Symphony Woods users. Locate service areas so they are not visible from public rights-of-way, building entrances and amenity areas. Locate so that they are convenient to the uses they serve and are accessible to service vehicles.

Screening may be necessary to minimize visibility, and may be accomplished by providing a continuous, solid, opaque wall or fence. Design screen walls as visual extensions of the adjacent architecture. They should be designed to extend the use of materials, colors and forms of and be compatible with the adjacent buildings. Additional doors or gates may be appropriate to assist in screening views into loading or service areas.

A dense landscape buffer may also be appropriate based on the location of the service area, its visibility from surrounding areas and the site context.



*Screening and service dock.*

*Use of gates or doors to screen views.*

### **Drop-off Zones, Loading Zones and Vehicular Access**

Locate drop-off zones along the curb or within parking facilities to promote sidewalk continuity and reduce conflicts with pedestrians. Drop-off zones shall be provided either 1) within off-street parking facilities using the parking access or 2) along the required curb line where there is a dedicated parking lane, ensuring no narrowing of the sidewalk. Where there is no curbside parking lane and off-street drop-off is not feasible, a drop-off lane of up to 80 feet long may be provided given that the required sidewalk width is maintained.

#### **Strategies:**

- Limit the number and width of curb cuts and vehicular entries to promote sidewalk continuity and reduce conflicts with pedestrians.
- Curb cuts and parking/loading entries should be limited.
- Parking and loading access should be shared where feasible.
- Parking and loading access should be located a minimum of 25 feet from a primary building entrance, pedestrian way, or public outdoor gathering area. This guideline shall not apply to a porte cochere.

## 08 SUSTAINABILITY GUIDELINES

## GUIDING PRINCIPLES

These Sustainability Guidelines build on the Downtown Columbia Sustainability Program found in the Downtown-wide Guidelines. The intent of the Downtown Columbia Sustainability Program is to promote a vision for an urban community that is sustainable in a comprehensive sense - socially, economically and environmentally. Sustainability efforts must be functional in regards to the needs of the development, must reduce impacts in meaningful ways throughout the project's life cycle and must be financially viable. Not all of these Sustainability Guidelines apply to every development in the Neighborhood or are meaningful or practical to incorporate into every development. The guidelines are intended to allow for flexibility and, as new technologies emerge, additional strategies can be pursued to conserve natural resources. Site Development Plans will show how the guidelines are applied. Reviewers of Site Development Plans will evaluate whether the plan meets applicable goals. These Sustainability Guidelines for Merriweather-Symphony Woods are intended to be used with and consistent with other portions of these Neighborhood Design Guidelines.

The Downtown Columbia Sustainability Program references several documents and guidance tools. Those that are directly relevant to the Merriweather- Symphony Woods Sustainability Guidelines include

1. Columbia Town Center Merriweather and Crescent Environmental Enhancements Study
2. Best Management Practices for Symphony Stream and Lake Kittamaqundi Watersheds
3. The Land Component of the Downtown Columbia Sustainability Guidelines
4. The Howard County Green Building Law

The Columbia Town Center Merriweather and Crescent Environmental Enhancements Study, completed by Howard Hughes Corporation in 2008, include recommendations for environmental enhancements in the Merriweather-Symphony Woods Neighborhood. The Study covered 150 acres in these neighborhoods and in the Little Patuxent River corridor including over 5,000 linear feet of Symphony Stream and its tributaries. Based on the footprint of the development areas proposed for the Downtown redevelopment, at the time of the Study, Biohabitats quantified the overall impacts and identified potential improvements to streambeds, wetlands, forests and vegetation management intended to maintain and restore the Symphony Stream and Little Patuxent River riparian corridors. These mitigations and improvements are to be implemented by property owners in these neighborhoods as development and redevelopment moves forward. Recommended enhancements include invasive species management, reforestation, streambed restoration, wetlands enhancement and wetlands creation. Note that the footprint of the development areas assumed in the Study is not identical to those approved in the Downtown Columbia Plan. In particular, the approved Plan allows for considerably less future development in Symphony Woods Park than was assumed in the Study. A summary table from the Study is included below. The map below for the entire study area shows the location of the environmental impacts and enhancements.

### Summary of Proposed Impacts & Enhancements for the Entire Study Area

	Existing	Impact	Restoration Creation	Restoration Enhancement	Total
Forest (Acres)	106	41	34	56	90
Wetland (Acres)	5	0.1	2	5	7
Stream (Linear (Feet))	5000	945	0	4880	4880
Floodplain (Acres)	40	2.74	2	47	49
Trees (Individual)	1214	588	13600 <sup>(1)</sup>	5600 <sup>(2)</sup>	19200

(1) Based on reforestation using 400 trees per acre

(2) Based on supplementation of existing forest using 100 trees per acre



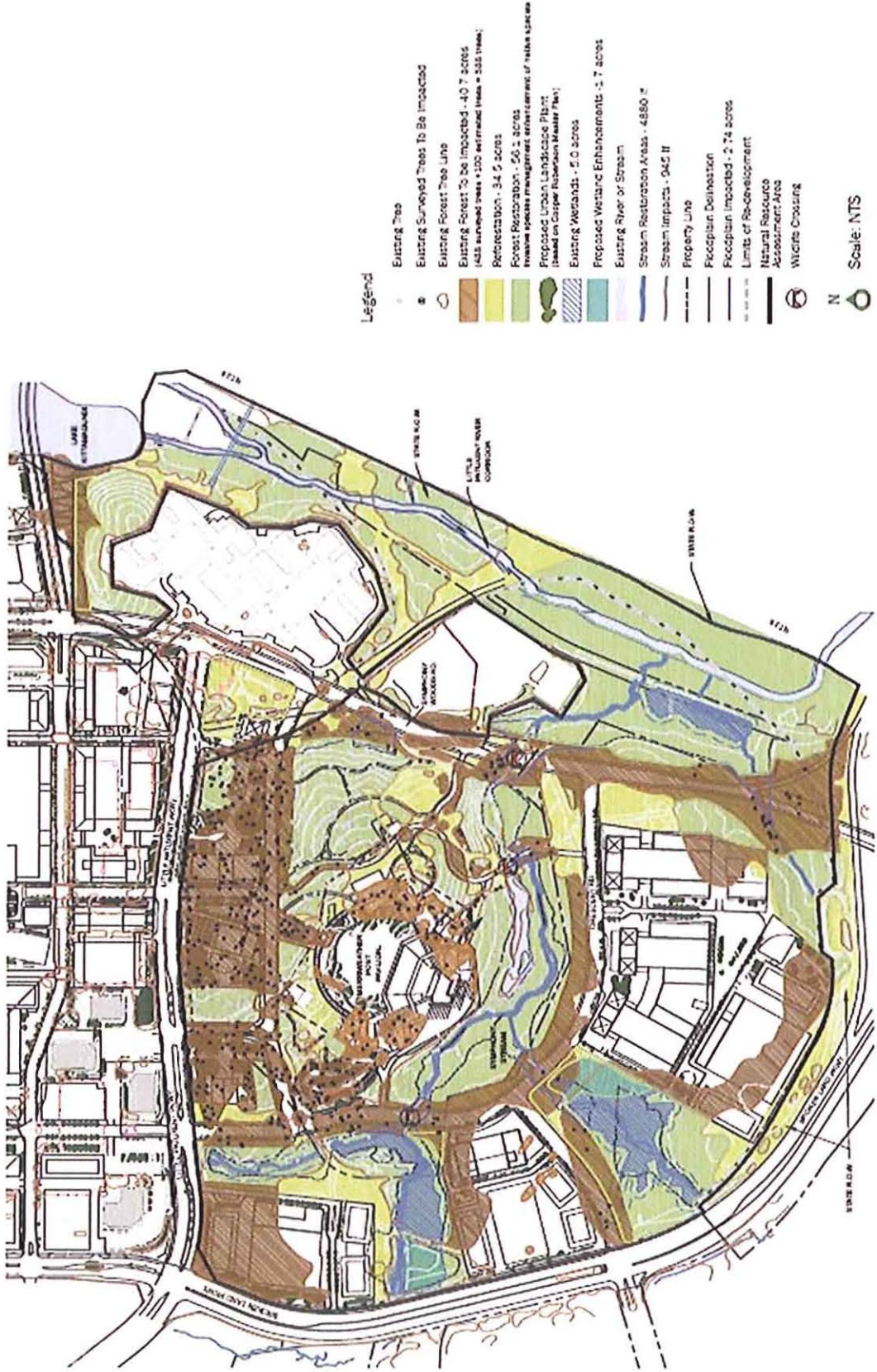


Figure 7. Environmental impacts & enhancements map for the Columbus Town Center Redevelopment

## SUSTAINABILITY GUIDELINES FOR MERRIWEATHER-SYMPHONY WOODS

The Land Component of the Downtown Columbia Sustainability Guidelines provides a framework for these guidelines for the Merriweather-Symphony Woods Neighborhood. The Land Component focuses on built elements of the community as it is planned, designed, constructed and managed. It includes goals, targets and strategies under six topics: Livability, Water, Transportation, Energy, Ecology, and Materials. Under each of these topics below are subtopics. For each subtopic there is a goal statement and specific strategies that can be used to meet or to partially meet the goal. Not all of the goals and strategies are relevant to every development project that is expected to occur in the Neighborhood.

### LIVABILITY

#### 1.1. Sense of Place

**Goal:** Preserve and emphasize the distinctive qualities that make the Neighborhood unique

**Target:** Establish Merriweather-Symphony Woods as a cultural park where the landscape is a setting for arts, cultural and civic uses

**Strategies:**

- Protect and restore forests, waterways and native plant communities in Symphony Woods Park while designing the Park to function in the life of the community as described in the vision for Symphony Woods Park
- Maintain Merriweather Post Pavilion as the region's premiere outdoor concert venue
- Undertake a redevelopment program for Merriweather Post Pavilion as required by the Community Enhancements, Programs and Public Amenities (CEPPAS) chart
- Make Symphony Woods a primary open space element of Downtown Columbia by activating pedestrian spaces
- Use appropriate artisan quality fixtures and outdoor furnishings

#### 1.2. Recreation and Relaxation

**Goal:** Create outdoor spaces in the Neighborhood for active and passive recreation to promote human health and well-being

**Target:** Create access through Symphony Woods to support increased use of the park and to promote walkability

**Strategies:**

- Provide facilities for outdoor physical activity such as walking
- Provide public spaces for social interaction
- Provide views of vegetation and quiet spaces for mental restoration
- Create a diversity of sun and shade areas along walkways and in outdoor use areas to provide for outdoor comfort
- Provide/protect spaces for community events such as concerts, Wine-in-the-Woods, etc.

#### 1.3. Accessibility & Walkability

**Goal:** Provide safe and convenient walkable and bike-able access within the Neighborhood and to off-site areas for persons of all ages and for persons with disabilities.

**Target:** Provide seamless pedestrian and bike routes within the neighborhood and to surrounding neighborhoods

**Strategies:**

- Provide ADA compliant access to, between and within all major use areas
- Work with Howard County to evaluate the potential for a transit facility in the Neighborhood

- Provide adequately sized pedestrian and bicycle routes with appropriate lighting designed to meet Downtown Columbia's Pedestrian and Bicycle Guidelines
- Support a bike-share program by providing space for a station
- Provide seating, lighting and other site amenities/ furnishings at regular intervals suitable for persons with limited physical abilities
- Provide clear way finding signage and visual cues for pedestrian navigation
- Provide adequately sized pedestrian and bicycle routes with appropriate lighting

#### 1.4 Green Buildings

**Goal:** Construct buildings that minimize energy use for heating and cooling and provide a healthy environment for people

**Target:** Investigate the use of green building practices for applicability for all buildings

**Strategies:**

- Design all buildings over 10,000 gross feet area to comply with energy and environmental site design standards of the Howard County Green Building Law
- Design all buildings 10,000 gross square feet and under with appropriate green building technologies, such as those found in the United States Green Building Council LEED rating system, as practical
- Orient buildings to maximize southern exposure to allow passive solar gain and natural lighting

## WATER

### 2.1. Stormwater Quality and Groundwater Recharge

**Goal:** Improve stormwater runoff quality and groundwater recharge

**Target:** Utilize appropriate Environmental Site Design techniques to reduce and treat stormwater runoff from at least 50% of the existing impervious area in Merriweather-Symphony Woods

**Strategies:**

- Protect and enhance forested slopes and stream buffers as outlined in the Merriweather and Crescent Environmental Enhancements Study
- Minimize the use of fertilizers and pesticides and apply in accordance with industry best practices and Maryland regulations
- Use native and adaptive plants
- Amend and maintain soil health
- Design and maintain appropriate landscape buffers to protect receiving waters
- Ensure the use of non-synthetic amendments/fertilizers/pesticides in appropriate quantities and application regimes for all landscape planting and maintenance activities

### 2.2. Stormwater Quantity

**Goal:** Control stormwater runoff quantity

**Target:** Utilize appropriate Environmental Site Design techniques to reduce and treat stormwater runoff from at least 50% of the existing impervious area in Merriweather-Symphony Woods

**Strategies:**

- Maintain predevelopment runoff characteristics after development through the appropriate use of Environmental Site Design (ESD). ESD includes permeable pavements, landscape infiltration, bio swales, green roofs, and related practices



### 2.3. Stream Channel Protection

**Goal:** Protect stream channels and reduce sediment load to streams

**Target:** Prevent future stream channel degradation from stormwater runoff

**Strategies:**

- Utilize regenerative stormwater conveyance (RSC) systems that reduce erosion & increase infiltration. RSC systems are open channel systems that utilize shallow aquatic pools, weir grade controls, and native vegetation to treat and convey storm flow and convert stormwater to groundwater.
- Restore stream channels as outlined in the Merriweather and Crescent Environmental Enhancements Study
- Design and maintain appropriate landscape buffers to protect receiving waters

### 2.4. Landscape Water Use

**Goal:** Minimize potable water use for landscaping

**Target:**

- No potable water use for landscape use after initial plant establishment
- Minimize potable water use in landscape water features

**Strategies:**

- Select native and adapted plants with low water requirements
- Amend soil in landscaped areas to improve water retention or drainage as soil conditions dictate.
- Investigate partnerships to establish infrastructure for utilization of rainwater or greywater to eliminate potable water use for landscaping
- Harvest rainwater from roof surfaces for on-site irrigation
- Incorporate water-saving technology into water features

## TRANSPORTATION

### 3.1. Pedestrian and Bicycle Connectivity

**Goal:** Facilitate and encourage biking and walking as a transportation choice to support environmental sustainability and healthy lifestyles

**Target:** Provide pedestrian and bicycle facilities in accordance with best current practices

**Strategies:**

- Design pedestrian and bicycle facilities to allow easy connections to existing and future routes outside of the neighborhood
- Provide adequately sized pedestrian and bicycle routes to minimize conflicts between users of different transportation modes
- Design facilities to accommodate high volume use during pavilion concerts
- Provide secure bike storage and parking areas
- Encourage bike sharing and provide a location for a bike share station if requested

### 3.2. Cars and Parking

**Goal:** Reduce vehicular trips through “park once” design scenarios and limit surface parking areas within the neighborhood

**Target:** Provide convenient pedestrian, bicycle and transit connections to parking outside the neighborhood

**Strategies:**

- Encourage shared parking scenarios
- Encourage bike sharing and rental programs

## ENERGY

### 4.1. Site Infrastructure, Energy Efficiency & Light Pollution

**Goal:** Reduce site infrastructure, landscape energy use and pollution impacts

**Target:** Investigate the use of green building practices for applicability for all buildings

**Strategies:**

- Install energy efficient luminaries with photo sensors and/or timers and/or motion sensors
- Install luminaries with shield or directional lighting; choose and install accent lighting that will shine directly on specific locations without light trespass beyond 45 degrees above horizontal
- Install photovoltaic systems on public amenity buildings, surface parking areas, and other locations, such as Merriweather Post Pavilion, to provide an alternative energy source supplement for infrastructure needs
- Install light fixtures approved by the International Dark-Sky Association or with ranking published in LEED ND
- Install light-emitting diode (LED) site lights as practical / appropriate
- Install energy efficient irrigation and pump infrastructure for water features
- Consider photovoltaic systems on public amenity buildings, parking lots and other locations
- Use lightly colored or high albedo materials for paved surfaces to minimize the heat island effect
- Use deciduous shade trees within 30 feet of the south facing building façade where practical

## ECOLOGY

### 5.1. Environmental Enhancements

**Goal:** Restore and enhance the natural environment and the ecosystem processes provided by natural and formal systems and open spaces

**Target:** Complete environmental enhancements based on the Merriweather and Crescent Environmental Enhancements Study

**Strategies:**

- Construct low impact trails through ecological corridors for recreation
- Provide and ensure long term funding for maintenance of environmental enhancements

### 5.2. Ecological Connectivity

**Goal:** Preserve and restore natural corridors for wildlife, seed dispersal, and ecological services

**Target:** Complete environmental enhancements based on the Merriweather and Crescent Environmental Enhancements Study

**Strategies:**

- Limit development through significant ecological corridors to pathways to preserve these corridors for wildlife, seed dispersal and ecosystem processes

- Provide and ensure long term funding for the maintenance of environmental enhancements and ecological corridors

### 5.3 Urban Ecology

**Goal:** Create a green infrastructure network within the neighborhood through urban forestry, soil health conservation, integrated stormwater management, and patches of native habitat where space allows within the urban fabric

**Target:** Repair and enhance the urban forest canopy and natural habitat

**Strategies:**

- Remove existing trees only as needed to achieve critical design objectives
- Replace trees removed for construction by planting replacement trees at a 2:1 ratio in landscaped and natural areas
- Protect existing trees to remain with appropriate measures that reduce soil compaction and limit disruption to root zones such as fencing, pavement modification, and soil aeration
- Control and manage invasive exotic plant species found on site
- Plant a diversity of native tree species and other regionally appropriate native and adaptive non-invasive species to encourage songbirds and other desirable wildlife
- Amend soils and maintain soil health for optimum plant growth and to slow the flow of stormwater runoff
- Restore plant communities in accordance with the Merriweather and Crescent Environmental Enhancements Study
- Restore stream corridors
- Provide and ensure long term funding for the maintenance of soils and vegetation

## CONSTRUCTION MATERIALS

### 6.1. Sustainably Sourced Materials

**Goal:** Use environmentally preferable materials

**Target:** Acquire 50% or more of site construction materials from reused, recycled content, regional and rapidly renewable sources

**Strategies:**

- Reuse materials on-site in their original form or location or in another form or location
- Specify a preference for materials with recycled content
- Use materials that are sourced or manufactured in the Mid-Atlantic region
- Use rapidly renewing materials and/or those certified as sustainably harvested
- Use materials based on life span, maintenance and recyclability considerations
- Specify asphalt pavement material with, at minimum, 15% recycled content

### 6.2. Construction Waste

**Goal:** Reduce the amount of construction waste sent to landfills

**Target:** Divert 80% or more of non-hazardous waste sent to landfills

**Strategies:**

- Plan for separation of different types of construction wastes for reuse or recycling
- Inspect, store and manage materials carefully to prevent damage and rejected materials
- Reduce the quantity of construction waste through smart design



## 09 SIGN DESIGN GUIDELINES

## GUIDING PRINCIPLES

These Sign Design Guidelines are based on the Sign Design Guidelines in the Downtown-wide Guidelines found in Appendix A4 of that document. These guidelines are intended to supplement the requirements of the Howard County Sign Code. The current Howard County Sign Code for Downtown Columbia shall serve as the over-riding regulating document for all square footage requirements, sign setbacks, height limitations. The intent of the Downtown-wide Guidelines is to facilitate the development of Downtown Columbia into a vibrant urban center where residents, workers and visitors will enjoy a variety of cultural and recreational amenities and resources. Retail, commercial, entertainment, recreation and residential uses must be readily identified in Downtown and the ability to navigate Downtown easily by foot, by bicycle, via transit or in an automobile is be critical to its success. All signage in Downtown Columbia should effectively communicate the intended message and inform the public in a meaningful way. It should also improve the aesthetic qualities of the building or landscape in which it is located and have a positive visual impact on the surrounding area consistent with the character of a vibrant urban center. The following are general guidelines for sign design in Merriweather- Symphony Woods. Signs should:

- Be designed, fabricated, and maintained comparable to signage found in first class projects in major metropolitan areas
- Relate to their surroundings in terms of size, shape, color, texture and lighting so that they are complementary to the overall design of the neighborhood and to the particular development
- Enhance and relate to, not obscure the architectural features of buildings
- Effectively communicate their message in an aesthetically pleasing and creative manner

## SIGN DESIGN GUIDELINES FOR MERRIWEATHER-SYMPHONY WOODS

### 1. Design and Materials

**Goal:** Quality materials and creative design should be used as a means to attract attention rather than excessively bright colors or over-scaled letters. The overall visual intent of signage for Merriweather-Symphony Woods is shown in the illustrations of Proposed Conceptual Designs found below.

#### Strategies:

- The colors and lettering styles should complement nearby signs and building facades and harmonize with other design features of the neighborhood
- Signs should reflect the neighborhoods dominant characteristics
- Sign titles should be as brief as possible to promote ease of use and readability
- Sign fonts should be selected to provide both clarity and artistic integrity
- Dimensional signs, letter forms and decorative brackets are encouraged
- Sign letters should be pin mounted and have dimensional returns to give the appearance of solid dimensional material
- Internally lit plastic letters or plastic box signs are highly discouraged

Acceptable sign materials include:

- Metal
- Stone
- Hardwood
- Brass plating
- Synthetic hardwood substitutes commonly used in commercial signs

### 2. Sign Placement

**Goal:** The architecture of the building or the site plan often identifies specific location for signs and these locations should be used. If such guidance is not provided, signs should be located where they will function best.

**Strategies:**

- The size of signs should be in proportion to the size of the location
- Repetitious signage information should be avoided, regardless of the sign area square frontage allowed in the sign code
- To minimize damage to masonry, mounting and supports should be inserted into mortar or other joints and not into the faces of the building skin.

**3. Sign Lighting**

**Goal:** Lighted signs help create the night streetscape while assisting with identification and wayfinding. It is important to illuminate signage carefully to ensure safety.

**Strategies:**

- Arrange any external spot or flood lighting such that the light source is directed away from passersby. The light source must be directed against the sign such that it does not shine into adjacent property or cause glare for motorists and pedestrians.
- Backlit, halo-lit illumination, or reverse channel letters with halo illumination are highly encouraged for lighting purposes. Such signs convey a subtle and attractive appearance and are very legible under moderate ambient lighting conditions.
- Projecting light fixtures used for externally illuminated signs should be simple and unobtrusive in appearance. They should not obscure the graphics of the sign.
- Sign lighting should be designed and installed to achieve appropriate illumination of the particular sign type and condition. Effort should be made to only illuminate the graphic surfaces, background and letterforms of the sign, while limiting light spill over to other adjacent uses, buildings, pedestrians and vehicles.
- Signs that use blinking or flashing lights are not permitted

**4. Digital Displays**

**Goal:** Digital displays provide for the electronic display of text, images, video, animation, motion of images and interactivity. It is envisioned that this technology will primarily be used to enhance the overall experience in in downtown by displaying creative images, graphics and other information to complement the distinctive, vibrant and dynamic character envisioned for downtown. Selective and imaginative use of digital displays as part of the overall signage plan will help create a unique sense of place.

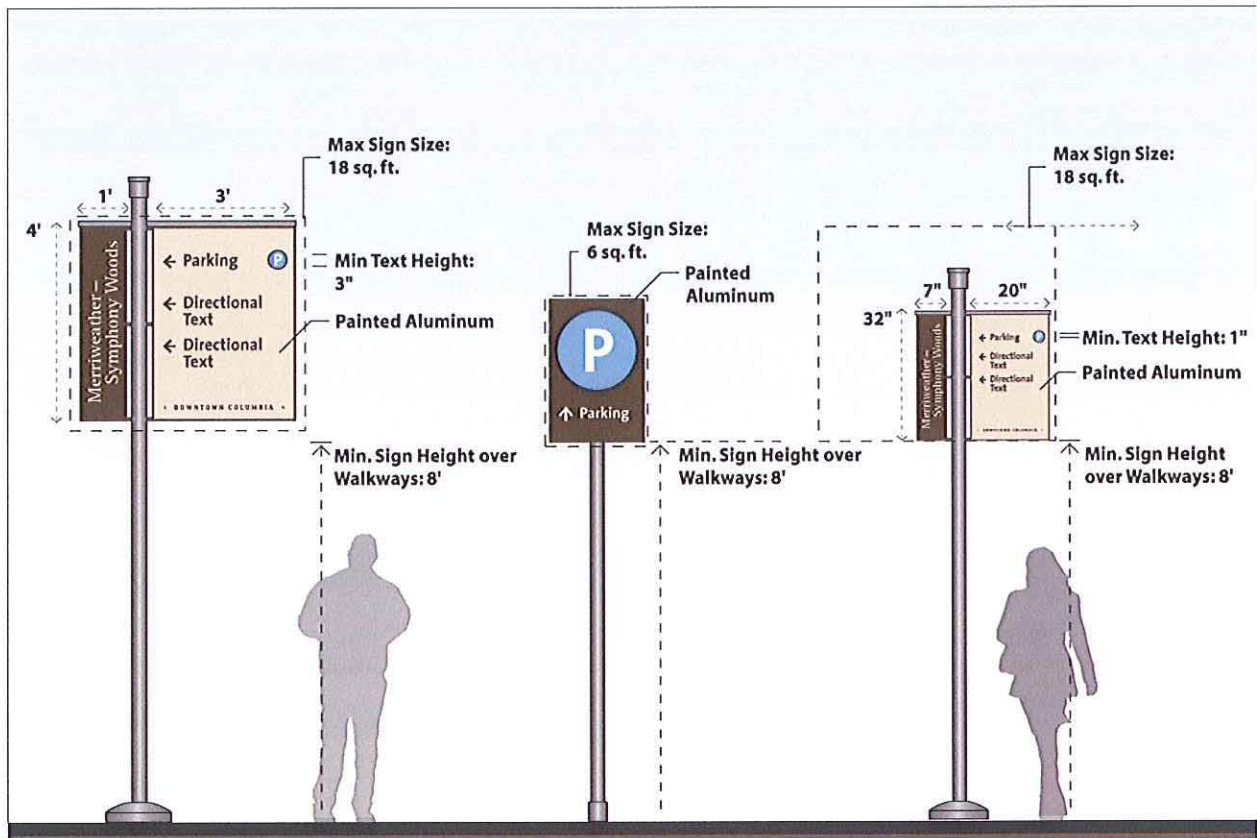
**Strategies:**

- Employ unique designs to include creative imagery that emphasizes graphics and color over text
- Program displays to include public service messaging
- Utilize LED, LCD, plasma displays, projected images and other emerging technologies
- Complement and enhance the architectural elements of buildings and be of a size that is in scale with the setting and the intended audience
- Locate such signs in a way that does not adversely impact surrounding uses
- Place such signs so as to avoid visual clutter

**PERMITTED SIGNS AND SIGN TYPES**

Nine different kinds of signs are permitted in Downtown: Flat wall signs, projecting signs, marquee signs, roof and tall building signs, monument building signs, directional signs, permanent identification signs, banner signs and window signs. Of these, directional signs, permanent identification signs, and banner signs are of greatest importance in Merriweather-Symphony Woods given that the land uses include Symphony Woods Park (Downtown Parkland) and Merriweather Post Pavilion (Downtown Arts and Entertainment Park). However, all such signs are permitted in the neighborhood. The sign types are described below.





Vehicular Directional \*

Parking \*

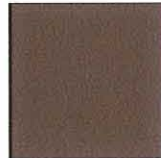
Pedestrian Directional \*  
(pole mounted)

**Color Palette**

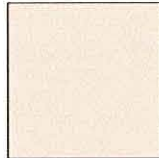
**Recommended**



Dark Bronze Metallic



Pantone 7533c



Pantone 7529c

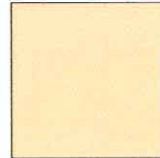
**Alternate 1**



Copper Metallic



Pantone 8624c



Pantone 7502c

**Alternate 2**



Pantone 167c



Pantone Black 2c



Pantone 7499c

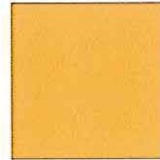
**Alternate 3**



Pantone 133c



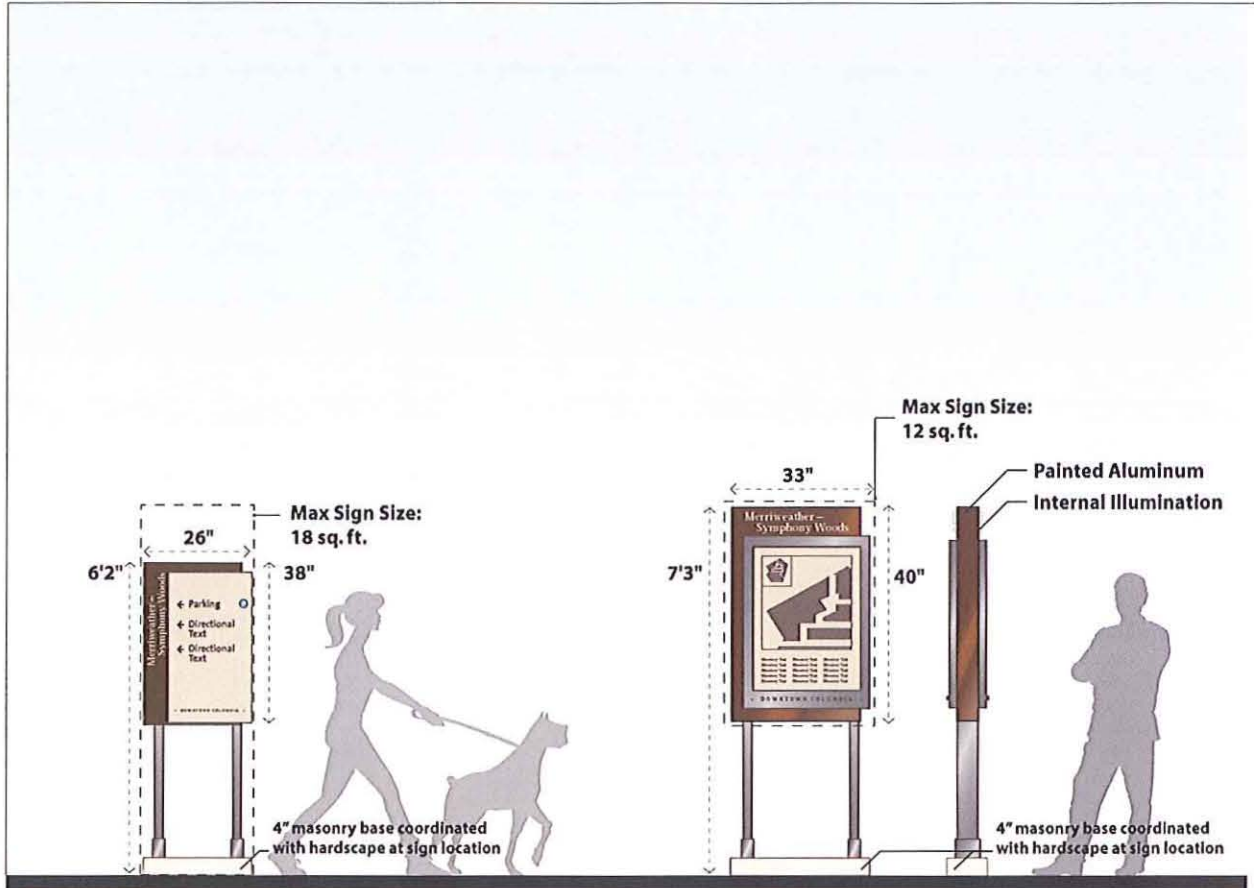
Pantone 627c



Pantone 1245c

Sign types shown above are Proposed Conceptual Designs

\* These conceptual drawings are for the sole purpose of expressing overall visual design intent only and are not intended for fabrication or construction purposes.



Pedestrian Directional \*  
(post mounted)

Directory \*

**Typefaces Palette**

Downtown and Neighborhood Name Fonts:

**ABCDEFGHIJKLMNOPQRSTUVWXYZ  
WXYZ & ? . \$  
abcdefghijklmnopqrstuvwxy  
123456789**

Rotis Serif Std Bold

**ABCDEFGHIJKLMNOPQRSTUVWXYZ  
WXYZ & ? . \$  
abcdefghijklmnopqrstuvwxy  
123456789**

Eidectic Neo Black

Identifying and Directional Information Fonts:

**ABCDEFGHIJKLMNOPQRSTUVWXYZ  
WXYZ & ? . \$  
abcdefghijklmnopqrstuvwxy  
123456789**

The Sans Bold

**ABCDEFGHIJKLMNOPQRSTUVWXYZ  
WXYZ & ? . \$  
abcdefghijklmnopqrstuvwxy  
123456789**

The Sans Condensed Bold

Sign types shown above are Proposed Conceptual Designs

### 1. Flat Wall Signs

Flat wall signs are affixed securely to a building wall. These signs should be legible and easily distinguished from other signage on each building and serve to guide and orient pedestrians and vehicular traffic to the building. Flat wall signs should:

- Be placed within a clear signable area which often, but not always, continuous wall surfaces uninterrupted by doors, windows or architectural details
- Be mounted in locations that respect the design of a building, including the arrangement of bays and openings
- Relate to their surroundings in terms of size, shape, color, texture and lighting so that they are complementary to the overall design of the neighborhood and to the particular development

### 2. Projecting Signs

Projecting signs are affixed perpendicularly to a building and include blade and under canopy signs and awning signs. Projecting signs should:

- Complement the architecture of the building
- Reflect the character of the business
- Be creatively designed
- Blade signs and under canopy signs should have mounting hardware that is attractive an integral to the sign

Awnings should:

- Be sturdy and permanently attached
- A minimum of 8 feet from the ground level
- Open-ended awnings are preferred
- Awning with interior illumination is encouraged
- Desirable materials for awnings include metal, glass and matte finish canvas

### 3. Marquee Signs

Marquee signs are affixed to the face of a marquee and used to accentuate primary building entrances, major tenant entrances or other significant building entry points and aid in orienting pedestrian and tenant traffic going to the building. Marquee signs should:

- Complement the architecture of the marquee or canopy structure
- Be designed as an integral part of the overall building or storefront architecture
- Scaled so that the signs appear proportional to and well supported by the marquee
- Be encouraged on theaters and performing arts facilities

### 3. Roof and Tall Building Signs

Roof and tall building signs are flat signs at the top of a building that enhance the skyline by announcing the identity of a building. They promote wayfinding and are intended to be easily seen from a distance both day and night. Roof and tall building signs should:

- Integrate signs with distinctive building tops whenever possible
- Use logos and logotypes over lengthy business names as clear identifiers
- Be designed for subtly with subdued colors and appropriate illumination
- Be constructed of high quality durable materials that are compatible with the building materials
- Incorporate cutout letters that are individually pin-mounted and backlit creating a halo around the signs



#### 4. Monument Building Signs

Monument building signs are free standing signs with have a lower height configuration and are used for building complexes that are separated from adjacent streets by setbacks. Monument building signs should:

- Be constructed of materials that complement building structures and their uses
- Have architectural lines that complement the building
- Have a low profile and be flanked by either columns or decorative uprights, or have a solid base on the ground
- Be illuminated either by external fixtures designed to complement the appearance of the sign, backlit to create a halo around the lettering or internally lit so that only the lettering and logo are visible after dark
- Be limited to the building or project name, logos, and the business address

#### 5. Permanent Identification Signs

Permanent identification Signs announce the primary entry points to downtown, each of the downtown neighborhoods, as well as locations such as public or quasi-public institutions. They are oriented to guide pedestrian and vehicular traffic. This sign type shall be part of a designed family of signs and shall be integrated with the overall way finding plan for the neighborhood and the Downtown.

Permanent identification signs should be:

- Designed as family of signs
- Designed as an integral part of a site's hardscape and landscaping
- Compatible with the architecture or respective downtown neighborhoods

#### 6. Banner Signs

Banner signs can be permanent or seasonal and temporary. Permanent banner signs help to add visual interest and color to facades of buildings. They are vertically oriented, and compatible with the overall character and color of the building. Seasonal and temporary banners add to the streetscape by celebrating holidays or advertising community events.

Permanent banner signs should:

- Look like or complement purposeful elements of the building
- Be fabricated from durable heavy weight fabric, metal, glass or other awning materials
- Be mounted perpendicularly to the building façade at both the top and bottom from metal brackets of a size and design that are appropriate to the banner and the architectural character of the building
- Contain easily recognizable business names and logos

Seasonal or temporary banner signs should be:

- Carefully designed and constructed to enhance the streetscape
- Limited in duration

#### 7. Window Signs

Window signs are professionally painted, posted, displayed or etched on interior translucent or transparent surfaces, including windows or doors.

Window signs should:

- Cover no more than 20% of the glass for permanent window signs
- Be created from high quality materials such as paint or gold leaf or techniques including sandblasting or etching
- Be applied directly to the interior face of glazing or hung inside the window concealing all mounting hardware and equipment

## 8. Directional Signs

Directional signs promote convenient wayfinding in the neighborhood. They include standardized directional signs, vehicular directional signs, and pedestrian directional signs. This sign type shall be part of a designed family of signs and shall be integrated with the overall way finding plan for the neighborhood and the Downtown.

Vehicle directional signs should be:

- Designed and constructed as a family of signs with an emphasis on clarity and readability for vehicle occupants
- Placed to expedite movement through the neighborhood and downtown

Pedestrian directional signs should be:

- Designed and constructed as part of a family of signs that enhances the pedestrian experience
- Pedestrian in scale and height
- Used to direct and inform pedestrians

Directory signs should:

- Be mounted flat against a wall or incorporated into a freestanding sign located on private property
- Include the building or project name, project logo, address and business tenant names
- Be constructed of materials that complement its surroundings and its use
- Be scaled to inform pedestrians

**A-1    On-Road Bicycle Facilities  
DESIGN GUIDELINES**



# **ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES**

**Downtown Columbia, MD**

## ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

These guidelines are intended to compliment the Howard County Downtown Columbia Downtown-Wide Design Guidelines and provide supplemental guidance for the planning and design of on-road bicycle facilities and bike parking areas within Downtown Columbia, MD. These guidelines are intended to supplement Federal, State, and local design standards and specifications for the planning and design of bicycle facilities. An Engineering Analysis is recommended when designing all on-road bicycle facilities.

The following guidance and standards are referred within this guideline:

AASHTO Guide for the Development of Bicycle Facilities  
AASHTO A Policy On Geometric Design of Highways and Streets  
Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration  
APBP Bicycle Parking Guidelines, Association of Pedestrian and Bicycle Professionals

Revised: August 29, 2011

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# SECTION 1

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## ON-ROAD BICYCLE FACILITIES

- Standard Bike Lanes
- Marked Shared Lanes
- Buffered Bike Lanes
- Cycle Tracks

# ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

## Standard Bike Lanes

### Description / Purpose

On-road bike lanes provide an exclusive space for bicyclists through the use of lines and symbols on the roadway surface. Bike lanes are for one-way travel and are normally provided in both directions on two-way streets and/or on one side of a one-way street. Bicyclists are not required to remain in a bike lane when traveling on a street, and may leave the bike lane as necessary to make turns, pass other bicyclists, or to properly position themselves for other necessary movements. Bike lanes may only be used temporarily by vehicles accessing parking spaces, entering or exiting driveways/alleys, or making turns onto intersecting streets.

### Application

Bicycle lanes should be a minimum of 5' wide when adjacent to a curb or parking lane, and 4' wide minimum with no adjacent obstructions. (Bike lane between travel lanes).

Bicycle lanes are normally placed on the right side of the road to reflect the general principle of slower traffic keeping to the right.

Wider bicycle lanes may be desirable when adjacent to a narrow parking lane with high parking turnover, in areas of high bicycle use, or along higher speed roadways.

### Design Considerations

- Where additional space is available, consider providing a buffered bike lane (Refer to Buffered Bike Lanes).
- Bike Lanes should have a smooth riding surface. Utility covers should be adjusted flush with the surface of the lane.
- Bike lanes should be provided with adequate drainage (bicycle-safe drainage grate) or slope to prevent ponding, debris accumulation, and other hazards for bicyclists.
- On streets where sustained downhill grades are long enough to result in faster bicyclist speeds, a bicycle lane may be provided in the uphill direction with a shared lane marking in the downhill direction. (Refer to Marked Shared Lanes).

### Sources for Design Guidance

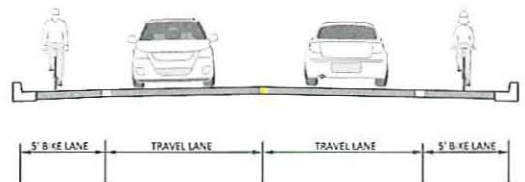
- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO A Policy On Geometric Design of Highways and Streets
- MUTCD



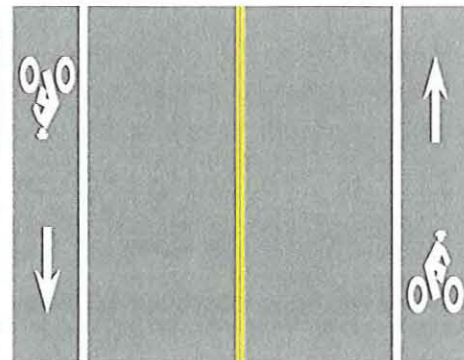
Bike Lane  
Source: TDG Library



Bike Lane  
Source: TDG Library



Section



Plan



## ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

## Marked Shared Lanes

## Description / Purpose

Marked shared lanes are shared lanes that have special bicycle markings to provide a higher level of guidance to bicyclists and motorists. The symbols (called "shared lane markings") alert motorists of locations where bicyclists should be expected to ride and encourage safer passing behaviors.

## Application

Shared lane markings are typically used on streets where right-of-way constraints limit the possibility of providing bike lanes.

On streets with narrow lanes, the shared lane marking is typically placed in the center of the lane to indicate that motorists must change lanes to pass bicyclists.

On narrow travel lanes adjacent to on-street parking, shared lane markings should be placed in a location that is outside of the door zone of parked vehicles.

Shared lane markings can be used to fill a gap between two sections of roadways that have bike lanes or between a shared use path and a nearby destination.

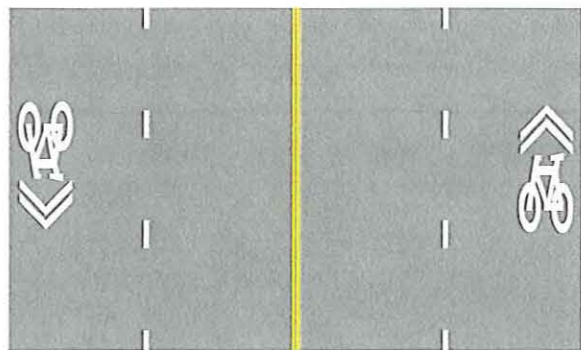
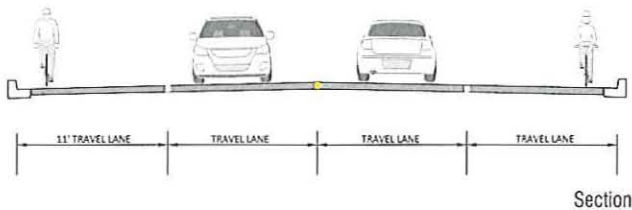
Shared lanes can be used to complete connections between bike lanes and other bicycle facilities.

## Design Considerations

- Marked shared lanes should not be used on roads with a speed limit above 35mph.
- Marked shared lanes should be provided only after other measures to provide bike lanes or other facilities have been proven to not be feasible.
- Shared lane markings should be marked on an alignment that represents a practical path of bicycle travel under typical conditions. For some streets, this may be the center of a shared travel lane.
- Minimum marking placement is 11' from face of curb where parking is permitted and beyond door zone, or 4' minimum from face of curb, when parking is not permitted.
- Bike Chevron (sharrows) symbol dimensions are 9'-3" x 3'-3" and should be placed at a minimum at beginning and end of each block, or more frequently.
- Shared lane markings are not appropriate on paved shoulders or in bike lanes.

## Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO A Policy On Geometric Design of Highways and Streets
- MUTCD



Shared Lane Marking  
Source: TDG Library



## ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

## Buffered Bike Lanes

## Description / Purpose

Buffered bike lanes are created by painting a flush buffer zone between a bike lane and the adjacent travel lane. While buffers are typically used between bike lanes and motor vehicle travel lanes to increase bicyclists comfort, they can also be provided between bike lanes and parking lanes in locations with high parking turnover to discourage bicyclists from riding too close to parked motor vehicles.

## Application

Buffered bike lanes can be provided on any street with sufficient space for a bike lane and additional separation from either motor vehicle travel ways or parking lanes.

Buffered bike lanes provide space for cyclists to pass other bicyclists without encroaching into the travel lane, mitigate for obstacles in the bike lane (i.e. drainage inlets, debris, or manholes), or provide additional separation on roadways with higher speeds.

## Design Considerations

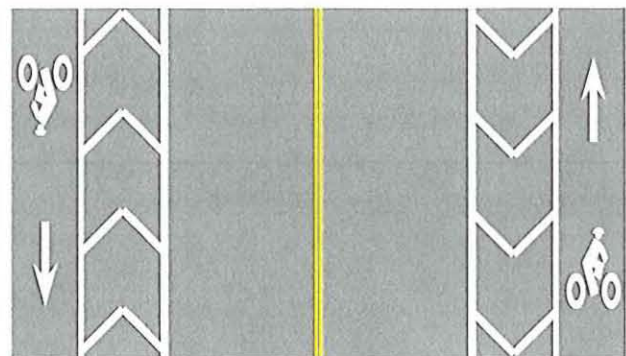
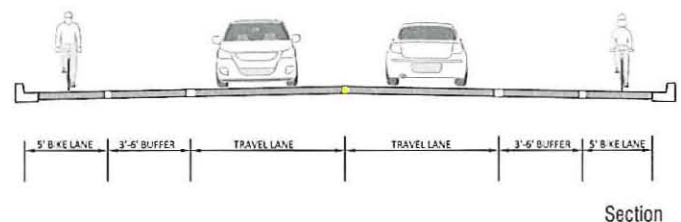
- The buffered space should strive to be 3-ft minimum width, however width may vary depending upon the available space, and need for separation. Buffers should be painted with solid white lines and cross hatches per MUTCD.

## Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO A Policy On Geometric Design of Highways and Streets
- MUTCD



Buffered Bike Lane  
Source: TDG Library





## ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

## Cycle Tracks

## Description / Purpose

Cycle tracks are bikeways that are physically separated from the adjacent roadway through the use of a raised median, striped buffer, or on-street parking. Cycle tracks are for the exclusive use of bicyclists and provide added separation that enhances the experience of bicycling on urban streets. Cycle tracks can either be one-directional or two-directional and can be provided on both sides of two way streets, or on one side of one-way streets.

## Application

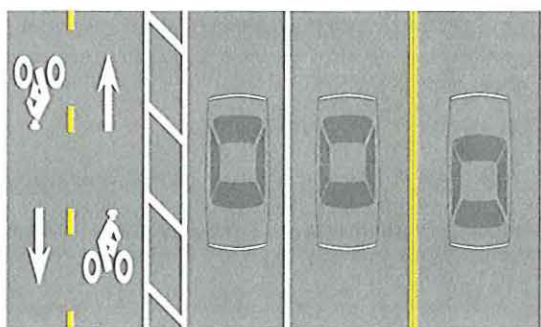
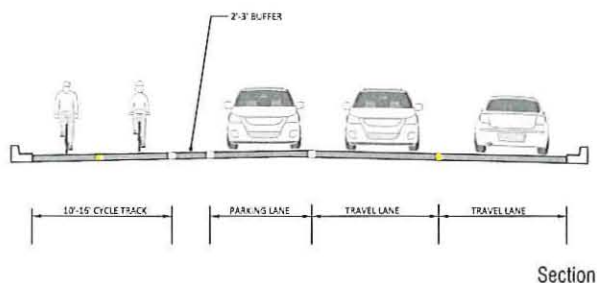
Cycle tracks are typically installed on streets with higher traffic volumes and speeds, with long blocks and therefore fewer intersections.

Cycle tracks are often placed between a parallel parking lane and the curb.

Cycle tracks may be useful on streets that provide connections to off-street trails, since bicyclists on these streets may be more accustomed to riding in a space separated from motor vehicle traffic.



Cycle Track  
Source: TDG Library



Plan

## Design Considerations

- Intersection design for cycle tracks is complex and requires careful attention to conflicts with turning vehicles, signal phasing and operations, stop bars, crosswalk design, and ADA compliance.
- The desired width of a single directional cycle track is 5 feet, when adjacent to on-street parking. A 3-foot buffer should be provided between parking and the cycle track, which serves as a pedestrian loading and unloading zone.
- In areas with higher bicycle volumes, single direction cycle tracks should be 7 feet wide to allow bicyclists to pass one another.
- At driveway and low volume street crossings, pavement markings should be provided to indicate that bicyclists have the right-of-way.
- Cycle tracks require increased parking restrictions compared to bike lanes to provide for visibility between bicyclists and motorists at intersections.
- When cycle tracks are provided on the same side as transit operations, stops, and waiting areas, a buffer should be provided between the cycle track and the roadway to reduce conflicts between bicyclists and pedestrians loading and unloading.

## Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO A Policy On Geometric Design of Highways and Streets
- MUTCD



Cycle Track  
Source: TDG Library

## SECTION 2

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### **BICYCLE PARKING**

Standard Bike Rack Design - Exterior

Bike Rack Site Design - Exterior

Bike Shelter Design - Exterior



## ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

## Standard Bike Rack Design - Exterior

## Description / Purpose

Bicycle racks allow bicyclists to safely park their bikes if they wish to stop along the way or have arrived at a destination. Bicycle racks also prevent damage to trees and street furniture, as well as keep bicycles in an orderly appearance and from blocking pedestrian passageways. Bicycle parking is an important component in order to encourage and accommodate bicyclists throughout Town Center.

## Application

Bike racks should be located in locations easy to locate and access at parking areas, commercial areas, and within close proximity to possible destinations.

A bicycle rack should provide proper support with two or more points of contact on the frame of the bicycle. Bicycle racks that only support the wheel of the bike are not recommended.

Two general bike rack styles include:

**Inverted "U"** - recommended bicycle rack for most site conditions, allowing the bicycle's frame to be supported at two points while also holding two bicycles.

**Post and Ring** - recommended bicycle rack for constrained sites, allowing the bicycle's frame to be supported at two points of contact. This rack is within the footprint of the bicycle and may also be incorporated into the design of parking meters.

## Design Considerations

- Bike racks should be located without interfering with traffic flow or routine maintenance; this includes the space needed for a locked bicycle. (Refer to Bike Rack Site Design - Exterior).
- Bike racks should accommodate the dimensions of a conventional bicycle of 72" in length, 48" in height, and 24" handlebar width.
- Bike racks should be properly located and fit the context of a site's streetscape and/or landscape setting.
- Opportunities for art or customized racks are possible; however, they should be recognizable as bike parking.
- Racks should be located in highly visible locations to promote usage and security.

## Sources for Design Guidance

- APBP Bicycle Parking Guidelines
- AASHTO Guide for the Development of Bicycle Facilities



Post and Ring Bike Rack  
Source: TDG Library



"Inverted U" Bicycle Rack  
Source: TDG Library



"Inverted U" Customized Bicycle Rack  
Source: TDG Library



## ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

## Bike Rack Site Design - Exterior

## Description / Purpose

Bike rack site design should facilitate movement around and between bike racks. Short-term bike parking may consist of a single rack, while long-term parking may include a group of racks beneath a shelter. Specific parking needs should be determined through a site specific needs analysis.

## Application

Short term bicycle parking consists of simple bicycle racks located in front of a building or destination, and therefore site design focuses on convenience, utility, and security. Short-term bicycle parking should be convenient to the entrance of the cyclist's destination, visible from the destination to reassure cyclists about the security of the rack, and located in high-traffic areas with passive surveillance or eyes on the street.

Bicycle racks perpendicular to the curb should have a minimum spacing of 36" from the curb.

Bicycle racks parallel to the curb should have a minimum spacing of 24" from the curb.

Typical bicycle rack spacing of 48" is recommended, (36" minimum).

Avoid handlebar/rack/basket conflicts through proper rack spacing.

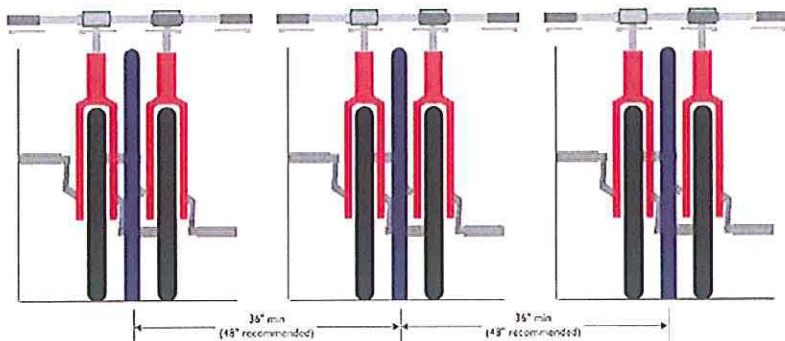
Allow two feet of clearance around each rack for users to be able to access and securely lock bicycles from the side.

## Design Considerations

- Racks placed too close together or too close to nearby objects such as walls or trees may be completely unusable.
- Distance to other racks
  - aligned end to end - 96" between racks
  - side by side - 36" minimum, 48" preferred
- Distance from curb
  - perpendicular to curb - 36"
  - parallel to curb - 24" minimum from back of curb
- Ensure adequate end and side clearance for users to maneuver bicycles around the parking area.
- A greater buffer space from moving traffic can be achieved by positioning bicycle racks at a 60 degree angle.
- Bike racks should be placed at locations near front entrances of buildings and should not be hidden from view to prevent theft.
- For long term bicycle parking, shelters are recommended. The location of the shelter is considered by the setback requirements, providing enough space for pedestrians, overhead, and visibility clearances. (Refer to Bike Shelter Design - Exterior)



Covered Parking  
Source: TDG Library



Typical Rack Spacing  
Source: APBP Bicycle Parking Guidelines



Inverted "U" Bicycle Parking  
Source: TDG Library

## Sources for Design Guidance

- APBP Bicycle Parking Guidelines
- AASHTO Guide for the Development of Bicycle Facilities



## ON-ROAD BICYCLE FACILITIES DESIGN GUIDELINES

## Bike Shelter Design - Exterior

## Description / Purpose

Bike Shelters have many benefits for cyclist as well as pedestrians since both parties can benefit from the shelter from inclement weather as well as protection from the sun and cold. Kiosk shelters can also provide cyclists and pedestrians with travel information, such as bicycle maps and transit routes.

## Application

Typical bike shelters should be placed on sidewalks or on curb extensions, which minimizes encroachment into the pedestrian path.

Bike shelter roof span should be a minimum of 9 feet to clear the length of the bikes underneath,

Bike shelters should be placed at locations where bicyclists frequently park for longer periods of time. The design of bike shelters should be context sensitive and site specific while considering the character of nearby amenities.

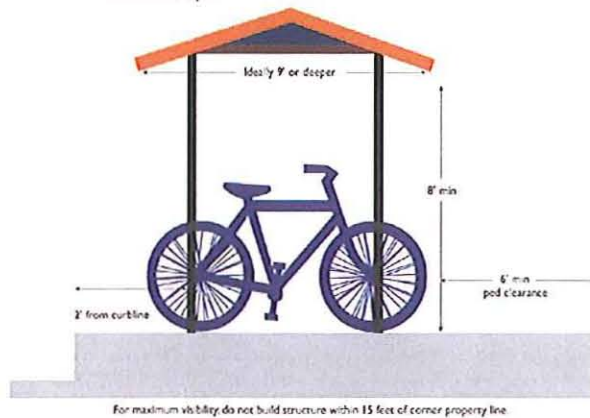
## Design Considerations

- Setback, clearances, and building requirements per local and state guidelines should be considered when installing bicycle shelters.
- The consideration of lighting should be taken into account to assure safety in a bike shelter. Glass roofs provide light from street lamps to pass through the shelter.

## Sources for Design Guidance

- APBP Bicycle Parking Guidelines
- AASHTO Guide for the Development of Bicycle Facilities

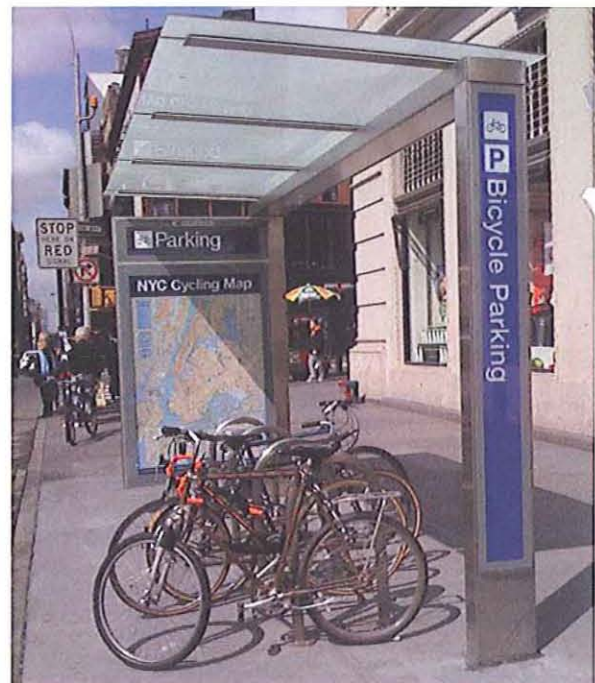
Dimensional Footprint



Sample Clearance Guidelines  
Source: APBP Bicycle Parking Guidelines



Covered Shelter Bicycle Parking  
Source: TDG Library



Covered Shelter Bicycle Parking with Informational Kiosk  
Source: APBP Bicycle Parking Guidelines

A-2 Shared-Use Path  
DESIGN GUIDELINES



# **SHARED-USE PATH DESIGN GUIDELINES**

**Downtown Columbia, MD**

## SHARED-USE PATH DESIGN GUIDELINES

These guidelines are intended to compliment the Howard County Downtown Columbia Downtown-Wide Design Guidelines and provide supplemental guidance for the planning and design of shared-use paths and trail amenity areas within Downtown Columbia, MD. These guidelines are intended to supplement Federal, State, and local design standards and specifications for the planning and design of bicycle and pedestrian facilities.

The following guidance and standards are referred within this guideline:

AASHTO Guide for the Development of Bicycle Facilities  
AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities  
AASHTO A Policy on Geometric Design of Highways and Streets  
Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration  
APBP Bicycle Parking Guidelines, Association of Pedestrian and Bicycle Professionals  
Proposed Right-of-Way Accessibility Guidelines (PROWAG), US Access Board (Draft)  
International Dark-Sky Association/Illuminating Engineering Society of North America, (IDA/IESNA)

Revised: August 29, 2011

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# SECTION 1

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## SHARED-USE PATH - DESIGN GUIDELINES

Geometric Elements

Intersection Design

Surface Materials

Warning Signage and Markings

Interpretative/informational Signage & Markings

Fencing, Handrails, and Retaining Walls

Trail Entrance Design

Lighting

Trailheads and Waysides

Trail Amenities

Integration of Public Art

## SHARED-USE PATH DESIGN GUIDELINES

## Geometric Elements

### Description / Purpose

Shared-use path design criteria are based on the physical and operating characteristics of bicycles and other path users. The usable width, horizontal clearance, horizontal alignment, and grade required for a shared-use path are the primary geometric design considerations.

### Application

**Trail Width:** The appropriate paved width for a shared-use path is dependent on context, volume and mix of users. The minimum recommended paved width for a two-directional shared-use path is 8 feet. Typically, widths range from 8' to 14', with the wider values applicable to areas with high use and/or a wider variety of user groups. In locations where the trail corridor width is restricted and between 8 to 10 feet, the maximum width for the shared use trail is preferred. Wider pathways, typically 11' to 14' are recommended in locations that are anticipated to serve a high percentage of pedestrians (up to 30 - percent of the total pathway volume) and high user volumes (more than 300 users in the peak hour). Wider paths are advisable in the following situations:

- Where there is significant use by in-line skaters, adult tricycles, or other users that use more operating width,
- Where the path is used by larger maintenance vehicles,
- On steep grade to provide additional passing area; or
- Through curves to provide more operating space.

**Trail Buffer/Separation:** A graded area of at least 3' to 5' with a maximum cross slope of 6:1 should be maintained on each side of the pathway.

**Longitudinal Horizontal Alignment:** When determining the minimum radius of a horizontal curve the curve should be based on a design speed between 12 to 30 mph (approximately 27' to 166' radius). Within urban trail segments or areas with an increase in grade change or expected changes in pedestrian volumes, a 14 mph design speed should be used. All other areas should follow guidance in AASHTO Guide for the Development of Bicycle Facilities.

**Cross Slope:** A 1 to 2 percent cross slope is recommended where feasible along shared-use paths.

**Grades:** For pathways adjacent to roads, pathway grade should match the grade of the adjacent roadway. Grades on shared-use paths in independent corridors should be kept to a minimum especially on long inclines. Grades greater than 5 percent are undesirable because the ascents are difficult for many path users. Grades on paths in independent rights-of-way should be limited to:

- 5.0 percent maximum for any distance
- 8.3 percent maximum for up to 200 feet
- 10.0 percent maximum for up to 30 feet
- 12.5 percent for up to 10 feet

Additionally, no more than 30 percent of the total path length should have a grade exceeding 8.3 percent.

Where grades exceed 5 percent, a resting interval is required at the end of any segment of maximum length as described above.

\*Note: This section will need to be revised when US Access Board issues new rules regarding grades within Public Right-of-Way in the future.



Shared-Use Path Buffer Example  
Source: Downtown Columbia Design Guidelines

### Design Considerations

- Trail width should consider existing or anticipated trail user volumes, mix of users, design speed, and anticipated maintenance emergency and patrol vehicles.
- Trail horizontal and vertical alignments should consider site conditions and design speed.

### Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- PROWAG Proposed Right-of-Way Accessibility Guidelines



# SHARED-USE PATH DESIGN GUIDELINES

## Intersection Design

### Description / Purpose

The design of intersections between shared-use paths and roadways has a significant impact on users' comfort and safety. Intersection design should not only address cross-traffic movements, but should also address turning movements of riders entering and exiting the path.

### Application

The nature of shared-use path traffic, speed variability of each travel mode, and its resulting effect on design values should be considered when recommending design treatments for path/roadway intersections.

Path/roadway intersections should be designed to be accessible to all users.

When determining the appropriate safety and control measures for pathway intersections, it is necessary to first determine what measures are needed for pedestrian safety and access, as it may be determined that a grade separated or signalized crossing is needed.

Sight lines should be maintained to meet the requirements of the traffic control provided, and the least restrictive control that is effective should be used.

High visibility marked crosswalks are recommended at path/roadway intersections, they delineate the crossing location and can help alert roadway users to the potential conflict ahead. Additional crossing measures, such as reducing traffic speeds, shortening crossing distance, enhancing driver awareness of the crossing, and/or providing active warning of crosswalk user presence may be necessary when crossing high speed (>40mph) or multi-lane roadways. In these situations, additional strategies for traffic control may include Hybrid Beacon, Rapid Flash Beacon, or Flashing Warning Beacon.

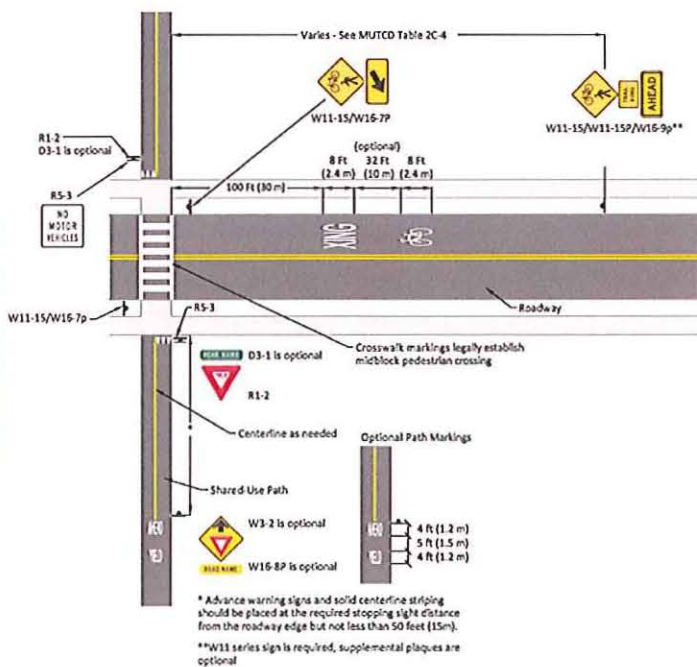
Each approach to a path/roadway intersection should include the appropriate regulatory and warning signage and markings. Signs along shared-use paths should be reduced per MUTCD.

### Design Considerations

- Trail and roadway configurations, traffic volumes, and speeds.
- Least restrictive traffic control measures for minor traffic movement.

### Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- PROWAG Proposed Right-of-Way Accessibility Guidelines
- MUTCD



Example of Midblock Path/Roadway Intersection - Path is YIELD Controlled  
Source: AASHTO Guide for the Development of Bicycle Facilities



MUTCD Regulatory Signage  
Source: MUTCD



## SHARED-USE PATH DESIGN GUIDELINES

## Surface Materials

## Description / Purpose

Surface materials of a shared-use path should be provided to enable year-round use of the path and minimize maintenance needs. A change in materials indicates a change in location from the main circulation corridor to an adjacent secondary corridor or amenity area.

## Application

Hard, all weather smooth pavement surfaces are recommended for shared-use paths intended for a variety of users (bicyclists, in-line skaters, pedestrians, and in particular other wheeled users). In general, the primary trail surface material should be asphalt, which provides a durable all-weather pavement surface. Asphalt is recommended for most segments except where the trail extends through urban areas where concrete may be more appropriate.

Shared-use path structural section shall be a minimum of 4 inches of asphalt concrete on 4 inches of aggregate base, or as otherwise determined by the engineer of record.

At trailheads, waysides, and other amenity areas, alternate paving materials such as brick/concrete pavers, colored concrete, stamped concrete, unit pavers, pervious concrete, and permeable pavers are recommended to create a focal area for trail users. All materials should be context sensitive and coordinated throughout the trail corridor to provide a cohesive network of amenity areas and trail segments.

Where feasible, surface materials which allow water to permeate into the ground are recommended in amenity areas. Pavement section and base material should be evaluated based on geotechnical considerations and should also provide smooth surface conditions for cyclists.

## Considerations

- A soils investigation should be conducted to determine load-carrying capabilities of the native soil, infiltration of water, and the need for any special treatments.
- Geotextiles and other similar materials should be considered where subsurface conditions warrant, such as in locations with swelling clay sub grade.
- Path width and surfaces should be constructed to sustain wheel loads of occasional emergency, patrol, maintenance, and other motor vehicles that are expected to use or cross the path.

## Sources for Design Guidance

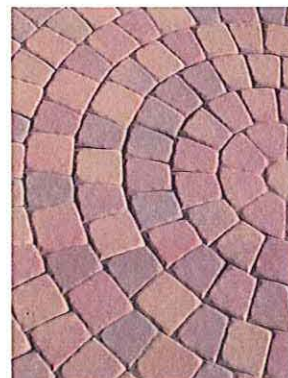
- AASHTO Guide for the Development of Bicycle Facilities



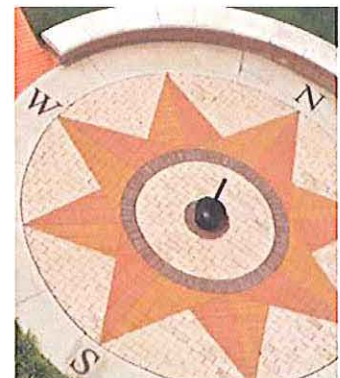
Asphalt Trail  
Source: TDG Library



Permeable Concrete  
Source: Concrete Network



Brick Pavers at Wayside  
Source: Midwest Manufacturing



Brick Pavers at Wayside  
Source: Landscape Communications, Inc.



## SHARED-USE PATH DESIGN GUIDELINES

## Warning Signage and Markings

## Description / Purpose

Warning signs and markings provide guidance to trail users of upcoming conditions, intersections, or features along the trail.

## Application

Warning signs should be retroreflective and conform to the color, legend, shape and size for the trail as described in the MUTCD.

Signs along a shared-use path should be reduced in size per MUTCD.

A yellow center line stripe along the path may be used to separate opposite directions of travel where passing is advisable and to alert path users of approaching intersections. Where center line striping is not provided along the entire length of the path, a center line may be particularly beneficial along segments with heavy user volumes, unlit paths where nighttime riding is expected, on curves with restricted sight distance or designated speeds less than 14 mph.

Within 30-feet of a path/roadway intersection, a solid yellow center line is recommended to discourage passing on the approach and departure of an intersection.

A white edge line is recommended on shared-use paths where bicycle traffic is expected during periods of darkness, and may be considered at approaches to intersections to alert path users of changing conditions. Where it is desirable to reduce path users' speed approaching an intersection, edge line stripes may be useful to create a perceived narrowing of the path.

Advanced and supplemental pavement markings are suggested to notify path users of upcoming road/path intersection.

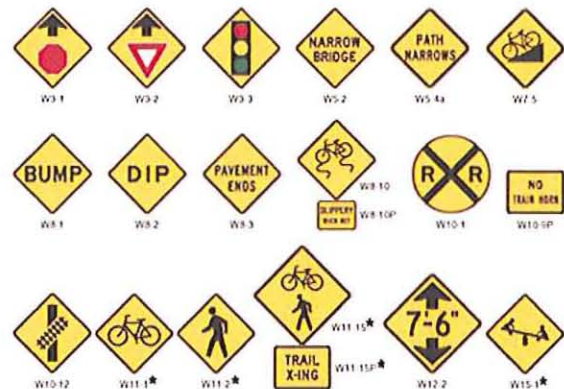
Pavement markings should not be slippery or rise more than 0.16 in. above the pavement.

## Design Considerations

- Consider potential hazards along the path.
- Anticipate period of path use (i.e. daytime, nighttime).

## Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- PROWAG Proposed Right-of-Way Accessibility Guidelines
- MUTCD



MUTCD Warning Signage  
Source: MUTCD



Warning Sign  
Source: TDG Library



Warning Trail Markings  
Source: TDG Library



SHARED-USE PATH DESIGN GUIDELINES

Interpretative/Informational Signage & Markings

Description / Purpose

Directional and wayfinding signs help users find their way along trail corridors and to trailheads, destinations, and other trail amenities.

Application

All interpretative/informational signs should have a consistent design theme as well as be consistent with other trail amenities throughout the trail system.

**Informational Signage** - A signage system which improves wayfinding, identifies direction, destination, and distance should be provided.

Reference location signs and mile markers allow path users to estimate their progress, promote means for identifying the location of emergency incidents, and are beneficial during maintenance activities. Location signs should be provided at major trail intersections and amenity areas.

Road/path name signs should be placed at all path/roadway intersections.

Mile markers should be provided at each 1/2 mile and embedded in trail surface. It is recommended that mile markers be georeferenced locations along the trail for maintenance and emergencies.

**Interpretative Signage** - A cohesive interpretative signage system provides opportunities to interpret the local historical, cultural or environmental features along the trail corridor and provide the opportunity for the general public to gain a sense of the community.

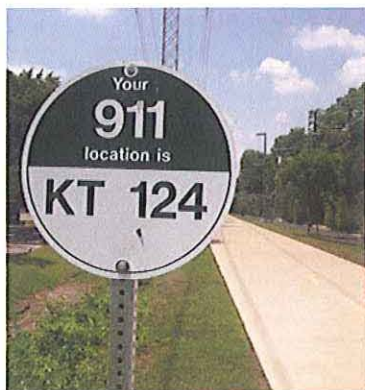
All interpretative and informational signage should be placed along the trail at key decision making points and site specific locations for information or interpretation.

Design Considerations

- A consistent design theme is placed throughout trail corridor for information or interpretation.
- All signs should meet ADA guidelines and text should be easy to read with contrasting colors and universal symbols to indicate direction of important amenities.
- All signs should be located to not impede sight lines for trail users or adjacent roadways.
- **Informational Signage** - signs should be located at decision making points and be based on an analysis of circulation routes and decision points or trail intersections.
- **Interpretative Signage** - with a number of signs in a series, a self-guided tour could be created as a healthy and educational amenity within the community.
- Sign design should consider long term maintenance needs.

Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- PROWAG Proposed Right-of-Way Accessibility Guidelines
- MUTCD



Georeferenced Marking  
Source: TDG Library



Informational Wayfinding  
Source: TDG Library



Trail Mile Marker  
Source: TDG Library



Informational Wayfinding  
Source: TDG Library



Informational Wayfinding  
Source: TDG Library



## SHARED-USE PATH DESIGN GUIDELINES

## Fencing, Handrails, and Retaining Walls

## Description / Purpose

Fencing and handrails are used to protect users from potential hazards such as steep slopes or to restrict access to and from the trail. Retaining walls allow grading to be manipulated to provide sufficient space for the trail and buffers. Fencing, handrails, and retaining walls are all site design features for trails to ensure sufficient space and protection from potential hazards.

## Application

**Fencing** - should be provided as necessary to protect trail users from nearby hazards. Coated, black or green, chain-link fencing is less visually impacting, while wood gives the impression of a more natural setting. Within urban areas, a black metal railing should be used, while a black metal railing with coated chain-link fence or wood fencing is recommended for non-urban trail segments.

**Handrails** - should be provided as necessary along the length of ramps and at the top of retaining walls or as required by ADA for steeper slopes or as required per PROWAG for steeper slopes. Black metal is recommended.

**Retaining Walls** - should be constructed of segmented concrete block or wood, whichever is most context sensitive.

## Design Considerations

- The fences, handrails, and retaining wall style should reflect the character of the site in addition to functionality.
- Materials should be chosen for their durability as well as design.
- Wooden fences or handrails will require more maintenance than a metal or composite materials.
- Poorly maintained site features promote a negative image and should be avoided.
- Handrails should include bike rub rails, at approximately 36" above trail surface to prevent bicycle handlebars from catching vertical rails.
- Landscaping should be considered to soften the appearance of fencing and handrails, and retaining walls at trailheads, waysides, and along trails.
- Handrail designs should comply with PROWAG guidelines and be between 34" and 38" height to provide universal access.
- Retaining walls should meet local engineering standards.

## Sources for Design Guidance

- AASHTO Guide for the Development of Bicycle Facilities
- PROWAG Proposed Right-of-Way Accessibility Guidelines



Metal Railing  
Source: TDG Library



Segmented Concrete Retaining Wall  
Source: TDG Library



Wooden Fence  
Source: TDG Library



## SHARED-USE PATH DESIGN GUIDELINES

**Trail Entrance Design****Description / Purpose**

The entrance/exit to a trail or shared use path at a public right-of-way should be designed to provide a safe transfer for trail users as well as alert motorists as necessary.

**Application**

The opening of a shared-use path at the roadway should be at least the same width as the shared-use path itself, not including side flares if utilized. The path/roadway interface or ramp (if used) should be designed in accordance with PROWAG, including detectable warnings, and should be placed across the full width of the path.

The approach of a shared use path entrance should provide a smooth and accessible transition between the path and the roadway.

A 5-foot radius or flare may be considered to facilitate turns for bicyclists.

Unpaved shared-use paths should be provided with paved aprons extending a minimum of 20-feet from paved road surfaces.

For locations where queuing at an intersection results in crowding at the roadway edge, consideration can be given to widening the path approach. This widening can increase crossing capacity and help reduce conflicts at path entrances.

Proper signage and pavement markings should be provided to inform trail and roadway users at all entrances.

**Design Considerations**

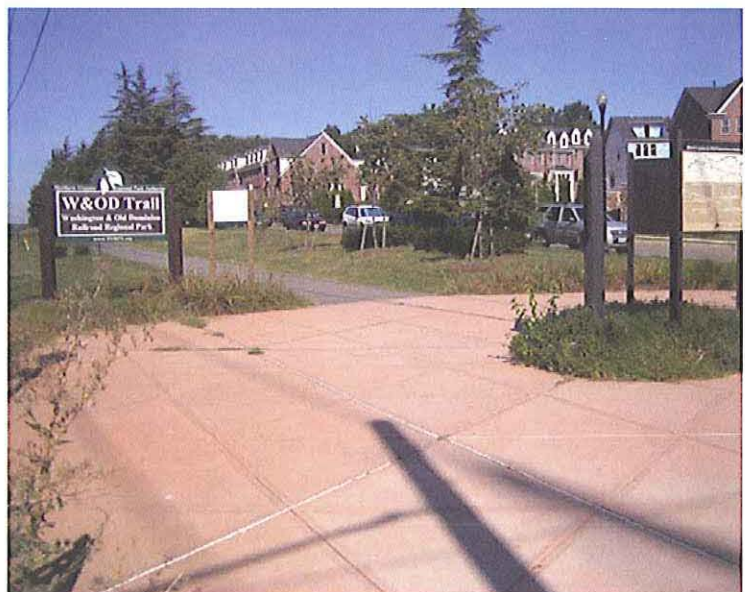
- Pedestrian and bicycle access to trails should be considered.
- Potential conflicting users and adjacent facilities (i.e. sidewalks and roads) should be considered.
- Bollards are not recommended at shared-use path entrances. A preferred method of restricting entry of motor vehicles is to split the entry way into two sections separated by low landscaping. Each section should be half the nominal path width. Where the need for bollards or other vertical barriers is necessary, measures should be taken to ensure that they are as safe as possible, including marked with retroreflectorized material, a minimum height of 40 inches, set back from the roadway edge a minimum of 30 feet, and in odd quantities, not obstructing the travelways.

**Sources for Design Guidance**

- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- PROWAG Proposed Right-of-Way Accessibility Guidelines
- MUTCD



Intersection Crossing  
Source: TDG Library



Trail Entrance  
Source: TDG Library



## SHARED-USE PATH DESIGN GUIDELINES

## Lighting

## Description / Purpose

Lighting provides nighttime visibility along trail corridors and within amenity areas for trail users.

## Application

Lights should be installed along the trail corridor, at trailheads, way-sides, and trail/roadway crossings or activity areas.

Post-top and/or bollard style light fixtures with black posts should be utilized as appropriate to the site.

Lighting should be provided during summer months (June-Sept.) between dusk to 11 P.M. and 5 A.M. to dawn. During winter months, lighting from dusk to 9 P.M. and 6 A.M. to dawn is recommended. Photocells may be used to provide the hours of operation.



Post-top Fixture  
Source: TDG Library



Bollard Style Fixture  
Source: TDG Library

## Design Considerations

- The design and material of lighting poles and fixtures should be consistent with the design of other site amenities, and be scaled for pedestrian users.
- A lighting analysis should be completed to determine required lighting levels along the trail at amenity areas and trail/road crossings.
- Solar powered lighting is a good option that is ultimately less expensive to operate, but has a greater initial capital cost.
- Lighting fixtures should be tamper resistant and be made to withstand vandalism.
- Typical post-top pole spacing ranges from 40' to 60', with a height of 12' to 16'.
- Bollard light spacing ranges from 10' to 20', with a height of 48" to 52".
- Consider energy efficient LED light fixtures and other energy efficient materials when appropriate to minimize maintenance and operation costs.
- Lighting levels should comply with local ordinances and should have cut-offs to shield light from adjacent properties.

## Sources for Design Guidance

- AASHTO Policy for the Geometric Design of Highways and Streets
- IDA/IESNA



Solar Powered Lighting  
Source: Philips Hadco Lighting



Night Lighting  
Source: TDG Library



Post-top Fixture  
Source: Philips Hadco Lighting



## SHARED-USE PATH DESIGN GUIDELINES

## Trailheads and Waysides

## Description / Purpose

Trailheads are locations where trail users can enter or exit a trail network. These locations are clearly marked with signage and other visual cues such as, informational kiosks, interpretation, rest rooms, parking, and other trail amenities.

Trail waysides are locations similar to trailheads except they are amenities located along a trail network, rather than a starting/ending point on the trail.

## Application

**Trailheads** – Provide an access point to trail network with various trail amenities, as well as an access point for emergency and maintenance personnel. Trailheads should be installed at major trail/roadway intersections and significant entrance points throughout the trail network to provide public access.

**Trail Waysides** – Areas along a trail which include trail amenities including seating, interpretation, and bicycle parking.

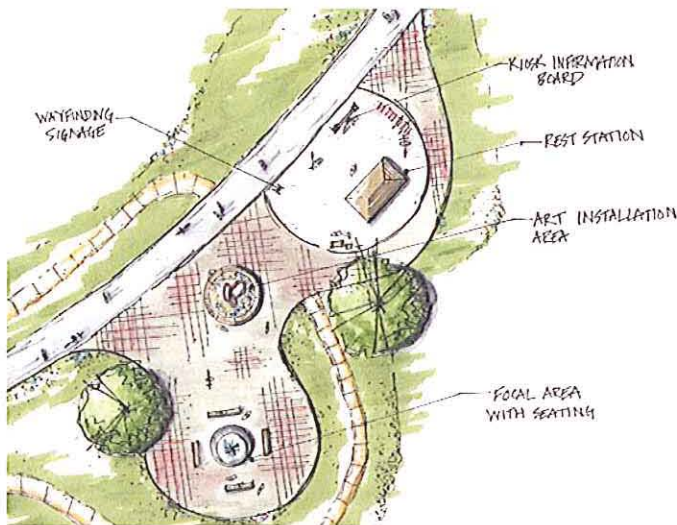
All Trailheads and Waysides are to be placed at approximately 0.25 to 0.5 mile intervals along the trail and at site specific locations.

## Design Considerations

- Available space for trailheads and waysides to ensure sufficient space for trail users to disembark, rest, and enjoy amenity areas.
- Vantage points of adjacent landscape or scenic areas, waterways/lakes.
- Trailheads should be located at easily accessible and identifiable locations that offer safe and convenient access, near major roadways, transit stops, and community amenities.
- Waysides should be located at an easily and identifiable location that offers safe and convenient space to rest.
- Location and quantity of trailheads and access points should be considered for emergency and maintenance access trail.
- Pavement texture, surface, color, and materials should be distinguishable between trail route and amenity areas to alert trail users of wayside or trailhead areas.
- Minimum Area for Trailheads and Waysides: 10' x 10'.
- Local requirements for emergency and maintenance access.

## Sources for Design Guidance

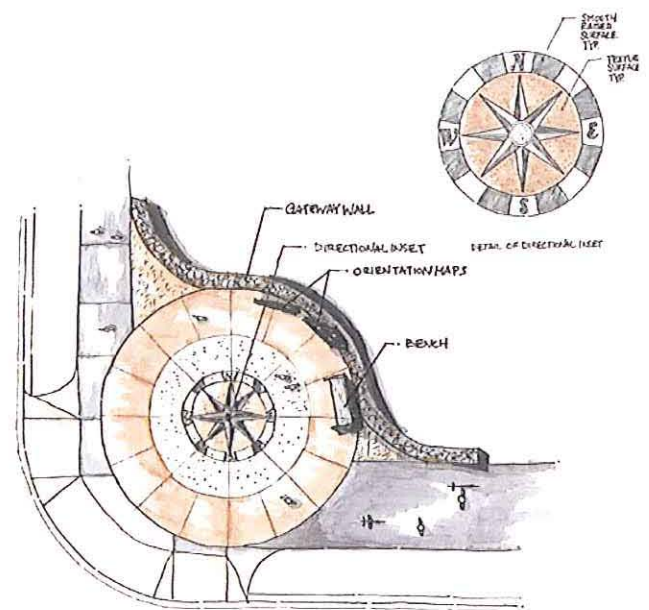
- PROWAG Proposed Right-of-Way Accessibility Guidelines



Example Trail Wayside Design  
Source: TDG Library



Example Trail Wayside  
Source: TDG Library



Example Trailhead  
Source: TDG Library



## SHARED-USE PATH DESIGN GUIDELINES

## Trail Amenities

## Description / Purpose

Trail amenities include items such as benches, trash receptacles, tables, drinking fountains, and dogipot stations that encourage trail use by providing an experience that is safe, comfortable, and convenient. Amenities should be accessible to all users, vandal resistant, and placed in safe, visible, and convenient locations.

## Application

Amenities should be placed away from bicycle and pedestrian circulation paths at least 3-feet from the trail edge to allow adequate room for people's outstretched legs. There should be a clear level space where a person using a wheelchair can rest adjacent to seated people. This area should be at least 30" by 48" and should be located adjacent to site furniture.

Trail Amenities should be metal, painted black, and vandal resistant.

**Benches** provide people of all ages and abilities a place to sit and rest along the trail.

**Trash/Recycling Receptacles** should be placed along more heavily traveled trail segments near other trail amenities and in areas to provide ease of maintenance.

**Tables** should be provided at critical resting points along the trail, especially at trailheads and major waysides.

**Drinking Fountains** provide water for people and pets. Fountains should be installed near rest rooms to optimize the use of combined utilities.

**Dogipot Stations** provide biodegradable waste bags and trash receptacles to provide materials for trail users to easily take after their pets along the trail and are placed at easily accessible points along the trail to provide ease of maintenance.

All amenities are to be placed along the trail at site specific locations where appropriate.

## Design Considerations

- Balance initial capital costs of trail amenities with long-term maintenance needs.
- Trail amenities should have a consistent design throughout individual trail corridors and should have similar colors, materials, and overall design theme to evoke a consistent or notable element to the trail.
- Amenities should be vandal resistant and should be of a type and color that can be quickly repainted if vandalism occurs.
- Frequency of trail amenities along the trail should be site specific and be placed at locations for a respite.
- **Benches** – Benches should accommodate all users and should include back and arm rests. Typically, the seat of a bench is 16" to 18" above the ground.
- **Trash/ Recycling Receptacles** – Receptacles require a 30" to 48" clear space, with ADA accessible lids and an opening height of 15" to 36". Lids should be hinged, tamper resistant, and lockable.
- **Tables** – Tables should be constructed of durable materials, such as vinyl coated expanded metal which require minimal maintenance. They should be secured to a paved, accessible surface so they are universally accessible. The height of the table top should be 30" high with 18" to 20" high benches.
- **Drinking Fountains** – The design of drinking fountains should incorporate the needs of all potential users with spigot heights of 36" and 42" above the ground for ADA access. Additional considerations include, installing steps to the side of the standard spout to accommodate children and to include an additional spigot at the base which allows people to fill water bottles and also basins for pets or uses other than drinking.
- **Dogipot Stations** – Dogipot stations and trash receptacles should be placed along segments of the trail frequently used by dog walkers and easily accessible for maintenance.

## Sources for Design Guidance

- PROWAG Proposed Right-of-Way Accessibility Guidelines



Drinking Fountain  
Source: TDG Library



Trash Receptacle  
Source: Victor Stanley



Wayside with Trail Amenities  
Source: TDG Library



Bench  
Source: Victor Stanley



Trash Compactor  
Source: TDG Library



## SHARED-USE PATH DESIGN GUIDELINES

## Integration of Public Art

## Description / Purpose

Connectivity along a trail corridor is strengthened through the promotion of art, since it calls people to explore and experience segments of the entire trail corridor as well as moves them from one installation to another. Public art also encourages local investments into the trail by people of all ages.

## Application

Public art continues a common theme or thread along the trail from neighborhood to neighborhood or village center to village center.

The trail network is strengthened through the promotion of art, as it allows people to explore the corridor through a common thread.

## Design Considerations

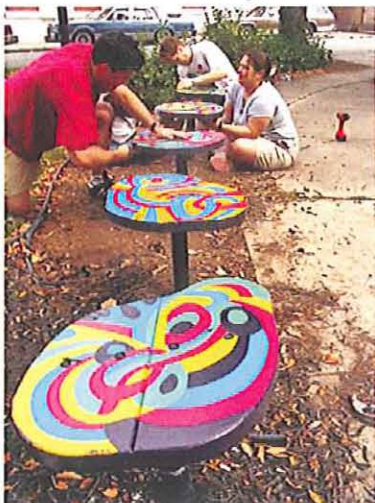
- When intergrating public art into the trail, designers should engage local schools or community groups to participate in a community driven art process or an art competition should be set up to engage nationally unknown artists to complete an installation along the trail within a particular theme or installation piece.
- An overall theme or program should be defined to ensure sufficient space for installation along the trail corridor is allocated.
- In addition to decorative elements, incorporate public art into functional elements as well, (for example: light poles, manhole covers, sidewalks, tree grates, and site furniture).



Public Art Installation  
Source: Bike Iowa



Public Art Sidewalk  
Source: TDG Library - Oakland Mills Village Center



Public Art Installation  
Source: Neighborhood Design Center - Maryland



Public Art Tree Grate  
Source: Neighborhood Design Center - Maryland



## SECTION 2

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### SHARED-USE PATH - OPERATION AND MAINTENANCE

Maintenance Schedule and Responsibilities

Maintenance Equipment

Patrolling/Security

## SHARED-USE PATH DESIGN GUIDELINES

## Maintenance Schedule and Responsibilities

### Description / Purpose

Trail maintenance and management involves a variety of activities including coordinating with various stakeholders to provide maintenance and surveillance support. Trail surfaces and amenity areas should be inspected on a regular basis to identify hazardous conditions as well as issues related to maintenance, repairs, and events of vandalism.

### Application

Trail maintenance includes ongoing regular tasks up to reconstruction/resurfacing of trail segments as needed. The table below outlines the typical maintenance activity and frequency for maintenance scheduling.

MAINTENANCE ACTIVITY	DESCRIPTION	FREQUENCY
Trash Removal	Removal of trash from trail corridor and priority areas, including removing ground debris, and emptying trash receptacles.	Daily / Weekly
Vegetation Pruning & Leaf Removal	Pruning of vegetation to maintain adequate sight distances and clearances. Removal of dead trees and leaves along trail corridor to maintain trail tread way.	Light pruning in Summer Major pruning Annually (Oct. to Dec.) Leaf Removal Monthly (Oct. to Dec./As Needed)
Trail Sweeping / Plowing	Sweeping of debris and sediment, plowing/sweeping snow from trail to maintain tread way.	Weekly / As needed
Mowing / Edging	Mowing and edging grass buffers to prevent encroachment of plant materials onto trail surface.	Weekly during growing season (Spring-Fall)  Annually
Resurfacing, Resealing & Restriping	Resurface, reseal and restripe asphalt trail to maintain trail tread way.	Resurface - 15 to 20yrs Reseal - 5 to 10yrs Restripe - As needed Pothole Repair - As needed
Vandalism & Graffiti Removal	Make repairs due to damage or theft, remove graffiti.	Immediately

### Design Considerations

- Maintaining a trail is a year round effort and the role of a trail manager should include combining permanent maintenance staff support and volunteer/stewardship program efforts.
- Overall volume and typical habits of trail users should be considered when scheduling maintenance activities to ensure that the appropriate attention is applied to the most deserving areas of the trail.
- Maintenance costs are entirely contingent upon the environmental conditions (for example: forested, open fields, wetlands, or adjacent to roadways) as well as the quantity of trailheads, waysides, and amenities within the corridor.
- Maintenance and Operations Departments with appropriate equipment and personnel to regularly maintain trail with dedicated trail managers is recommended.
- General maintenance and operations costs range (from \$2,500 to \$4,250/mile) monthly and from (\$30,000 to \$51,000/mile) annually.



Example of Trail Cleanup Effort  
Source: Los Angeles County Metropolitan Transportation Authority



Volunteers help to maintain trail  
Source: Georgetown University



## SHARED-USE PATH DESIGN GUIDELINES

## Maintenance Equipment

## Description / Purpose

Trail maintenance includes a variety of tasks from day-to-day cleanup to trail repair requiring construction equipment. The appropriate equipment for trail maintenance is necessary to ensure reliable, efficient, and sufficient maintenance is completed.

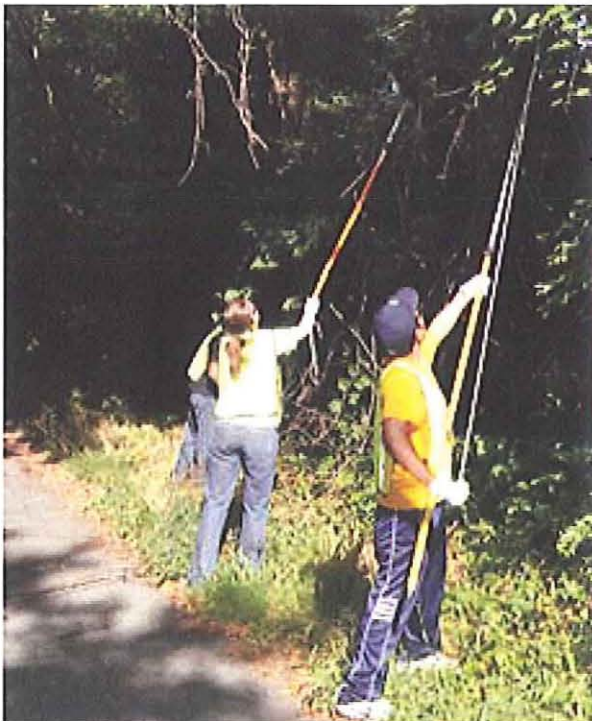
## Application

The table below outlines the typical equipment required for various maintenance tasks.

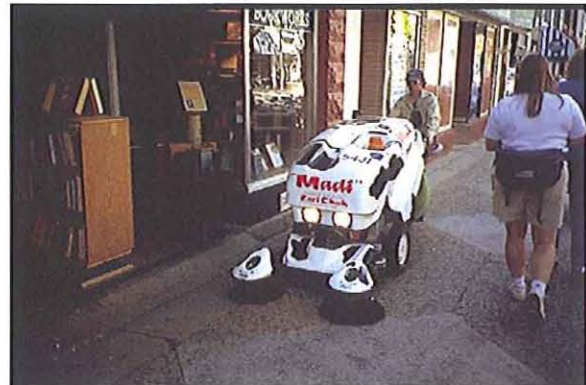
EQUIPMENT TYPES	EXAMPLES
Hand Tools	Shovel, Rake, Hoe, Broom, Tamper, Axe, Hand Saw
Power Tools	Walk Behind Mower, String Trimmer, Chain Saw, Sickle Bar Mower
Power Equipment	Street Sweeper, Tractor with attachments (mower, blade, loader, sickle, brush)
Large Power Equipment	Bobcat Skid Steer / Utility Vehicle, Roller, Chipper, Grader, Loader / Backhoe

## Design Considerations

- Equipment operations should be appropriate to task at hand.
- Proper personnel experience levels and capabilities should be considered.
- Preparation of areas for larger equipment.
- Maintenance and storage of equipment should be completed by experienced personnel to ensure longevity of investment.



Trail Pruning Maintenance  
Source: Georgetown University



Walk behind Street Sweeper  
Source: TDG Library



Example of a Bobcat Skid Steer  
Source: Eagle Rentals Inc.



## SHARED-USE PATH DESIGN GUIDELINES

## Patrolling/Security

### Description / Purpose

Trail patrol/security is an important component of ensuring that the trail is safe and secure for trail users. Utilizing a combination of municipal, community, association, and volunteer groups are the heart of almost every trail patrolling effort. On-going patrolling and managing of trail operations is important to address any user conflicts that may arise.

### Application

User security can be augmented by citizen volunteers through cooperative arrangements with other County programs. The key to effective trail policing is coordination; among the government police forces as well as with private security operations and civic groups.

Volunteer groups such as a "friends of the trail group", "neighborhood watch", or other citizen groups increase voluntary participation, interest, and investment.

Various patrol methods (motor vehicle, bicycle, foot) may be required along different segments of the trail. In general, bicycle mounted patrols are most effective along a trail, while motor vehicle patrols are effective when a trail is adjacent to a street.

Special patrol is not needed if the trail is in a public location.

### Design Considerations

- Coordination with various County agencies, community associations, and stakeholders to provide patrolling and surveillance support, and ensure on-going coordination and information exchange among interested stakeholders.
- Coordinating security issues with maintenance forces to quickly address concerns or repair issues.
- Geolocated signs should be placed along the trail at regular intervals, in coordination with mileage markers. These markers provide identifiable locations for emergency and first responder personnel.
- Coordination and communication with the local police department to ensure presence along the trail.
- Implementing a "Friends of the Trail" group or other volunteer group to adopt the trail.
- Organize regular trail cleanup days or events and develop promotional incentives to increase interest and awareness of the trail.
- Frequent patrolling of trail by bicycle patrols and surveillance from roadways creates more eyes on the trail, increasing perception of safety and awareness of the trail.



T-3 electric vehicle Security Patrol  
Source: New Haven Independent



Geolocated Sign  
Source: TDG Library



Bicycle Patrol  
Source: Macomb Orchard Trail, Macomb County Police



Motorized Patrol  
Source: Dade City, FL Police

## SECTION 3

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### BICYCLE PARKING

Standard Bike Rack Design - Exterior

Bike Rack Site Design - Exterior

Bike Shelter Design - Exterior



## SHARED-USE PATH DESIGN GUIDELINES

## Standard Bike Rack Design - Exterior

## Description / Purpose

Bicycle racks allow bicyclists to safely park their bikes if they wish to stop along the way or have arrived at a destination. Bicycle racks also prevent damage to trees and street furniture, as well as keep bicycles in an orderly appearance and from blocking pedestrian passageways. Bicycle parking is an important component in order to encourage and accommodate bicyclists throughout Town Center.

## Application

Bike racks should be located in locations easy to locate and access at parking areas, commercial areas, and within close proximity to possible destinations.

A bicycle rack should provide proper support with two or more points of contact on the frame of the bicycle. Bicycle racks that only support the wheel of the bike are not recommended.

Two general bike rack styles include:

**Inverted "U"** - recommended bicycle rack for most site conditions, allowing the bicycle's frame to be supported at two points while also holding two bicycles.

**Post and Ring** - recommended bicycle rack for constrained sites, allowing the bicycle's frame to be supported at two points of contact. This rack is within the footprint of the bicycle and may also be incorporated into the design of parking meters.

## Design Considerations

- Bike racks should be located without interfering with traffic flow or routine maintenance; this includes the space needed for a locked bicycle. (Refer to Bike Rack Site Design - Exterior).
- Bike racks should accommodate the dimensions of a conventional bicycle of 72" in length, 48" in height, and 24" handlebar width.
- Bike racks should be properly located and fit the context of a site's streetscape and/or landscape setting.
- Opportunities for art or customized racks are possible; however, they should be recognizable as bike parking.
- Racks should be located in highly visible locations to promote usage and security.

## Sources for Design Guidance

- APBP Bicycle Parking Guidelines
- AASHTO Guide for the Development of Bicycle Facilities



"Inverted U" Bicycle Rack  
Source: TDG Library



Post and Ring Bike Rack  
Source: TDG Library



"Inverted U" Customized Bicycle Rack  
Source: TDG Library



## SHARED-USE PATH DESIGN GUIDELINES

## Bike Rack Site Design - Exterior

## Description / Purpose

Bike rack site design should facilitate movement around and between bike racks. Short-term bike parking may consist of a single rack, while long-term parking may include a group of racks beneath a shelter. Specific parking needs should be determined through a site specific needs analysis.

## Application

Short term bicycle parking consists of simple bicycle racks located in front of a building or destination, and therefore site design focuses on convenience, utility, and security. Short-term bicycle parking should be convenient to the entrance of the cyclist's destination, visible from the destination to reassure cyclists about the security of the rack, and located in high-traffic areas with passive surveillance or eyes on the street.

Bicycle racks perpendicular to the curb should have a minimum spacing of 36" from the curb.

Bicycle racks parallel to the curb should have a minimum spacing of 24" from the curb.

Typical bicycle rack spacing of 48" is recommended, (36" minimum).

Avoid handlebar/rack/basket conflicts through proper rack spacing.

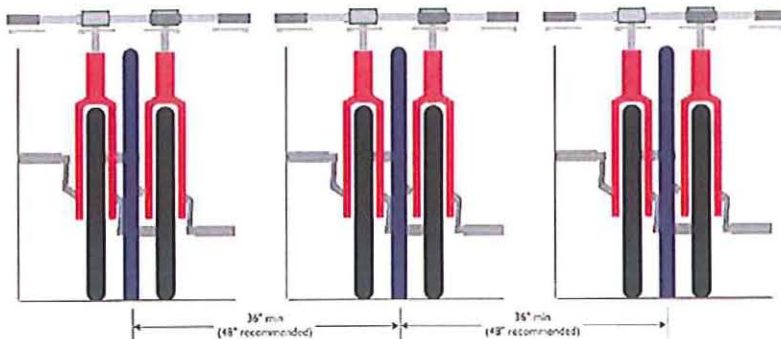
Allow two feet of clearance around each rack for users to be able to access and securely lock bicycles from the side.

## Design Considerations

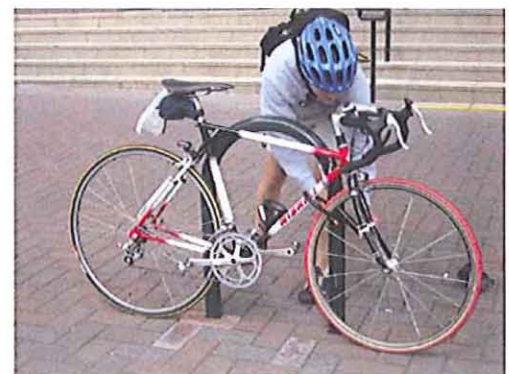
- Racks placed too close together or too close to nearby objects such as walls or trees may be completely unusable.
- Distance to other racks
  - aligned end to end - 96" between racks
  - side by side - 36" minimum, 48" preferred
- Distance from curb
  - perpendicular to curb - 36"
  - parallel to curb - 24" minimum from back of curb
- Ensure adequate end and side clearance for users to maneuver bicycles around the parking area.
- A greater buffer space from moving traffic can be achieved by positioning bicycle racks at a 60 degree angle.
- Bike racks should be placed at locations near front entrances of buildings and should not be hidden from view to prevent theft.
- For long term bicycle parking, shelters are recommended. The location of the shelter is considered by the setback requirements, providing enough space for pedestrians, overhead, and visibility clearances. (Refer to Bike Shelter Design - Exterior)



Covered Parking  
Source: TDG Library



Typical Rack Spacing  
Source: APBP Bicycle Parking Guidelines



Inverted "U" Bicycle Parking  
Source: TDG Library

## Sources for Design Guidance

- APBP Bicycle Parking Guidelines
- AASHTO Guide for the Development of Bicycle Facilities



## SHARED-USE PATH DESIGN GUIDELINES

**Bike Shelter Design - Exterior****Description / Purpose**

Bike Shelters have many benefits for cyclist as well as pedestrians since both parties can benefit from the shelter from inclement weather as well as protection from the sun and cold. Kiosk shelters can also provide cyclists and pedestrians with travel information, such as bicycle maps and transit routes.

**Application**

Typical bike shelters should be placed on sidewalks or on curb extensions, which minimizes encroachment into the pedestrian path.

Bike shelter roof span should be a minimum of 9 feet to clear the length of the bikes underneath,

Bike shelters should be placed at locations where bicyclists frequently park for longer periods of time. The design of bike shelters should be context sensitive and site specific while considering the character of nearby amenities.

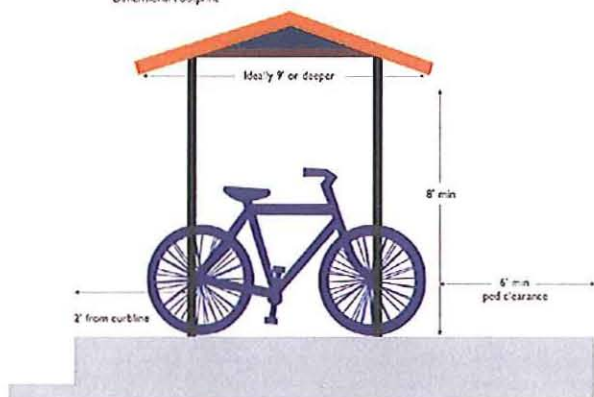
**Design Considerations**

- Setback, clearances, and building requirements per local and state guidelines should be considered when installing bicycle shelters.
- The consideration of lighting should be taken into account to assure safety in a bike shelter. Glass roofs provide light from street lamps to pass through the shelter.

**Sources for Design Guidance**

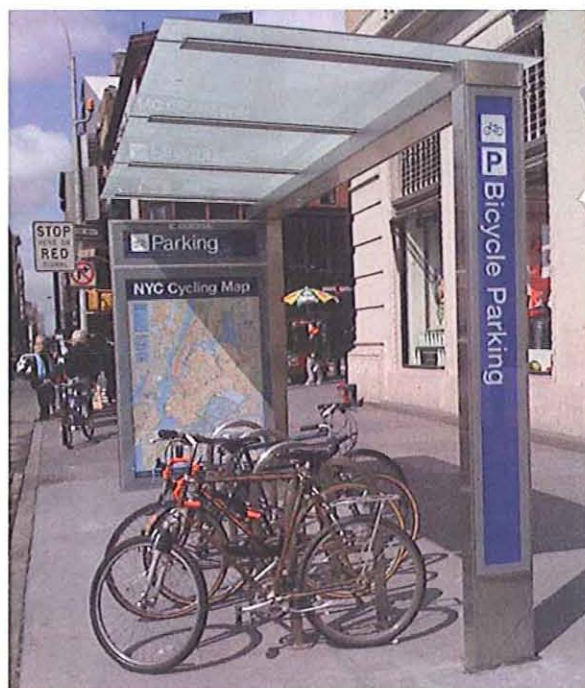
- APBP Bicycle Parking Guidelines
- AASHTO Guide for the Development of Bicycle Facilities

Dimensional Footprint



For maximum visibility do not build structure within 15 feet of corner property line.

Sample Clearance Guidelines  
Source: APBP Bicycle Parking Guidelines



Covered Shelter Bicycle Parking with Informational Kiosk  
Source: APBP Bicycle Parking Guidelines



October 12, 2012

Mr. Kent Sheubrooks, Chief  
 Division of Land Development  
 Howard County Department of Planning and Zoning  
 3430 Courthouse Drive  
 Ellicott City, MD 21043

Re: Planning Board Case No. 394  
 Decision and Order (FDP-DC-MSW-1)  
 Symphony Woods Park  
 Submission of original Final Development Plans

Dear Mr. Sheubrooks:

On behalf of the Columbia Association (CA), we are pleased to submit the original Final Development Plans, Neighborhood Concept Plan and Neighborhood Design Guidelines for signature approval. We have addressed the Department of Planning and Zoning's comments dated May 30, 2012 and the Planning Board's conditions in the Decision and Order (D&O) dated September 6, 2012 and offer the following point-by-point responses in italics below.

DEPARTMENT OF PLANNING AND ZONING comments dated May 30, 2012

Neighborhood Design Guidelines

1. Correct the page alignment within the Neighborhood Design Guidelines, especially at the top margin to provide at least an 1/2 inch space. There should be enough room for the State's Recording Office to add the Liber Folio stamp at the time of the recordation.

*✓ The page alignment in the Neighborhood design Guidelines has been corrected to provide at least 1/2 inch space. ✓*

2. At the top of page 40 in the Neighborhood Design Guidelines, add the subheading "Color and Texture" prior to "A variety of evergreen..." to be consistent with the other landscape sections.

*✓ The subheading "Color and Texture" has been added. ✓*

3. Add "Drop-Off Zones" to the Loading Zones and Access subheading on Page 51 to clarify that this section is not only relevant to areas designated for deliveries.

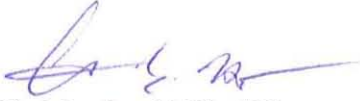
*✓ The subheading has been changed to "Drop-off Zones, Loading Zones and Access."*



Thank you for your assistance on this important project. If you have any questions regarding the project or need anything else, please contact me at 443-224-1616.

Very truly yours,

Whitman, Requardt & Associates, LLP



Christopher Y. Ho, P.E.  
Senior Project Engineer

Enclosures

cc: Jan Clark, Columbia Association  
File

Final Development Plan

4. Add a note indicating that the land will be held, owned and maintained in perpetuity, for common, quasi-public amenity use (including any public art that is not publically owned). You may reference any existing covenants or deeds held by CA for Symphony Woods, and/or indicate any future recorded documents.

*Note 10 has been added to the FDP. ✓*

Implementation Plan

5. In the "Anticipated Schedule" column, revise "2011" with the correct year.

*✓ The years in the column have been revised. ✓*

6. Please confirm restoration efforts on CA land will be completed in coordination with Howard Hughes Corporation, and if restoration will be timed with adjacent restoration efforts on their land or will be otherwise coordinated, as restoration on CA land is not reflected in the draft documents for Environmental Restoration by Howard Hughes Corporation. Revise the statement on the Environmental Concept Plan accordingly, if necessary. Any changes will not affect DPZ's determination that environmental restoration can be pursued in a subsequent phase.

*Environmental restoration efforts on CA land will be completed in coordination with Howard Hughes Corporation in a future phase. No environmental restoration is required for the FDP approved by the Planning Board of Howard County pursuant to its Decision and Order issued on September 6, 2012. ✓*

*✓*  
Planning Board Decision and Order conditions dated September 6, 2012.

1. The Neighborhood Design Guidelines are to be revised to further emphasize preservation of existing trees by routing pathways around healthy trees and minimizing grading.

*The section entitled "Design Approach for Symphony Woods Park" found in Chapter 4 of the Neighborhood Design Guidelines has been revised to further emphasize preservation of existing trees.*

2. The Neighborhood Concept Plan is to be revised to add a general note stating that the Neighborhood Concept Plan is anticipated to evolve based on continuing coordination between Columbia Association and Howard Hughes Corporation regarding a shared vision and design for Merriweather-Symphony Woods as a unique cultural and community amenity. Future Site Development Plan submissions should include updated information on development of a coordinated plan for the neighborhood and which facilities will involve shared use.

*Note 8 has been added to the Neighborhood Concept Plan.*

3. ✓ The Final Development Plan is to be revised to add a general note stating that tree removal shall be minimized by aligning paths around healthy trees and minimizing grading.

*Note 11 has been added to the FDP.*

4. ✓ The Final Development Plan is to be revised to add a general note stating that the Site Development Plan submission for the Shared Use Amphitheater should provide information on the types of events and programming envisioned.

*Note 12 has been added to the FDP.*

In addition, as requested in general comment number 1 from DPZ letter dated April 19, 2012, a copy of the Addendum No. 2, dated June 14, 2012 to the Letter of Understanding between Howard Research and Development Corporation (HRD) and CA is included for your reference. The plans have been revised to reference this additional addendum.

We are also in receipt of your letter to CA dated September 10, 2012, which transmitted a copy of the Planning Board's D&O for Symphony Woods to CA. With regard to the deadline set forth in that letter which requires that the original FDP and associated neighborhood design guidelines be submitted to the County on or before October 21, 2012, we are satisfying that deadline via our submittals being provided herein; however, please note that it is our position that Section 16.144 of the Howard County Subdivision and Land Development Regulations are not applicable and thus it is CA's position that the deadline of October 21, 2012 which is set forth in your letter dated September 10, 2012 is not applicable.

Finally, please accept this letter as confirmation that the second sentence in the second to last paragraph of your letter to CA dated September 10, 2012 is incorrect. The second sentence of the second to last paragraph of your letter to CA dated September 10, 2012 states '[t]hat letter will inform you of the milestone date for submission of the final plat and site development plan application'. I have discussed this issue with Jill Manion-Farrar and she has concurred that there is no deadline for the submittal of CA's Site Development Plan Application or the submittal of CA's Site Development Plan for Symphony Woods Park. Unless I hear to the contrary from you promptly, we will assume that you agree with our position that there is no deadline for the submittal of CA's Site Development Plan Application or the submittal of CA's Site Development Plan for Symphony Woods Park. ✓



## Addendum No. 2 to Letter of Understanding By and Between CA and HRD

The attached Addendum to the February 2011 Letter of Understanding by and between CA and HRD addresses the process and criteria for replacement of Downtown Parkland in Symphony Woods that is needed for the right of way for the "Connector Road" as well as parking, with an equivalent amount of Downtown Mixed Use land when the Crescent Neighborhood is subdivided and the exact acreage of Downtown Parkland replacement is known. A correction to the second paragraph is necessary, as outlined below.

It is correct that Section 125A.9.g.(5) of the Howard County Zoning Regulations (CB 59-2009) requires each acre or portion of an acre of Downtown Parkland (DPL) utilized for a non-permitted use must be replaced with at least one contiguous acre of newly designated DPL and that acreage used in this exchange may not be "Downtown Environmentally Sensitive Area" (DESA). However, the reference is not to existing DESA shown in the Downtown Plan (Exhibit K). Section 125A.9.g.(5) specifically prohibits replacement using new DESA land recorded after April 6, 2010, the effective date of the legislation adopting the Downtown Plan. After this date DESA land is determined based on the definition of Downtown Environmentally Sensitive Land Area in the Zoning Regulations (Section 103.A.46), which precludes floodplain, steep slope, stream or wetland buffers.

HRD has identified areas of non-DESA land in the Crescent Neighborhood that adjoin Symphony Woods. While some of these are smaller than an acre they are integrated into larger open space areas that include DESA land. The acreage of these non-DESA areas can be counted towards the acreage needed for DPL replacement, as long as they are incorporated into parcels of at least 1 contiguous acre, some of which may include DESA land as further clarified in the attached June 1, 2012 letter from the Howard County Department of Planning and Zoning incorporated herein as Exhibit 1.

## READ AND AGREED

Columbia Association

Howard Research and Development Corporation

By: Philip L. Nelson  
 Name: Philip L. Nelson  
 Title: President/CEO  
 Date: 6/14/12

By: [Signature]  
 Name: John E. Dewolf III  
 Title: Sr. VP Development  
 Date: 6/12/12

Addendum to February 2011 Letter of Understanding  
By and Between CA and HRD

The Columbia Association ("CA") and Howard Research and Development ("HRD") executed a Letter of Understanding (the "Letter") in February 2011 in which HRD agreed that it will replace with an equivalent amount of land as open space that portion of CA land needed for a public right of way for the proposed connector road (the "Connector") in the Crescent Neighborhood shown on the Downtown Columbia Plan and the Howard County General Plan. The total amount of land to be transferred from HRD to CA in the Merriweather-Symphony Woods and Crescent Neighborhoods far exceeds the amount needed for the Connector road. The Open Space Exhibit prepared by GLW attached to the Letter (the "Exhibit") shows +/- 15.7 acres of land that HRD will transfer to CA as part of the subdivision process for the Crescent Neighborhood. The Exhibit shows that the future roadway area on CA land is +/- 1.4 acres.

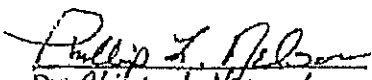
Symphony Woods Park is classified as Downtown Parkland ("DPL") in the Downtown Open Space Preservation Plan that is part of the approved Downtown Plan. Parking is not a permitted use for DPL. CB 59-2009 Section 125 (G) (4) requires each acre or portion of an acre of DPL utilized for a non-permitted use to be replaced with at least one contiguous acre of newly designated DPL. Acreage used in this exchange may not be "downtown environmentally sensitive areas" as shown in the General Plan. As a result, Howard County, in reviewing CA's plans for Symphony Woods Park, has advised that the land to be transferred by HRD to CA must include an amount of non-environmentally sensitive parkland sufficient to replace the land to be used for parking at Symphony Woods Park.

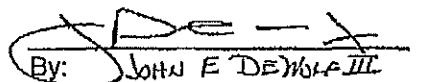
Therefore, the parties hereby affirm that this parkland replacement requirement will be met through the transfer of acreage described in the Letter. The area of DPL to be used for parking will not exceed one acre. The area that will be transferred from HRD to CA for parkland replacement of that one acre is the +/- 2.9 acre area shown on the Exhibit, which is classified as a Downtown Mixed Use Area (DMUA) in the approved Downtown Plan and is located between the area currently classified as DPL and the Connector. This acreage meets all requirements for parkland replacement. This replacement parkland will be transferred to CA as part of the subdivision process for the Crescent Neighborhood once the exact acreage and description of this parcel is determined. It will be transferred by HRD at no cost and in fee simple to CA, following CA's dedication of the right of way needed for the Connector. The future intended land use of this +/- 2.9 acre area is DPL. The parties agree to work cooperatively to expedite the transfer of this acreage to CA and to support the reclassification of this land from DMUA to DPL.

READ AND AGREED

Columbia Association

Howard Research and Development

  
By: Phillip L. Nelson  
Title: President/CEO  
Date: 3/01/12

  
By: JOHN E. DEMOLA III  
Title: AUTHORIZED SIGNATORY  
Date: 3/01/12

## EXHIBIT 1



HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
3430 Courthouse Drive ■ Ellcott City, Maryland 21043 ■ 410-313-2350

Marsha S. McLaughlin, Director

[www.howardcountymd.gov](http://www.howardcountymd.gov)

FAX 410-313-3467

TDD 410-313-2323

June 1, 2012

Mr. Robert Jenkins, Vice President  
Engineering & Construction  
The Howard Hughes Corporation  
10275 Little Patuxent Parkway  
Columbia, MD 21044

Mr. Jenkins:

This letter is to document our conversation on May 25, 2012 regarding the Downtown parkland/Downtown environmentally sensitive land area interpretation/calculations related to the Columbia Association's pending FDP application and future development applications by the HHC and others for Downtown Revitalization:

"The County understands that HRD has identified areas of non-Downtown Environmentally Sensitive Land Area (DESA) in the Crescent Neighborhood that adjoin Symphony Woods for potential replacement of Downtown Parkland. While some of these areas are smaller than one acre, they are integrated into larger open space areas that include DESA land. The acreage of these non-DESA areas can be counted towards the acreage needed for Downtown Parkland replacement under Section 125.A.9.g.(5), as long as the areas are incorporated into parcels of at least one contiguous acre (which may include DESA and non-DESA land). These non-DESA areas may also be used for environmental enhancement, environmental restoration and environmental site design for stormwater management and water quality purposes. The use of non-DESA land for environmental enhancement, environmental restoration and environmental site design for stormwater management and water quality purposes will not convert the non-DESA land into DESA land, and any non-DESA land so used will still be counted toward the acreage needed for Downtown Parkland replacement."

Please let me know if you have questions or concerns

Thank you,

Marsha S. McLaughlin  
Director

cc: Mark Thompson, Director of Downtown Redevelopment  
Todd Brown, Linovos and Blocher, LLP  
Sheri Panaroff, Columbia Association  
Joe Mezzanotte, Whiteford, Taylor & Preston, LLP