



# Facility Plan Report

Presented by

The Park Development Division of the Montgomery County Department of Parks

# Little Bennett Regional Park

## Day Use Area

For the Maryland-National Capital Park and Planning Commission, October 6, 2011



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# Project Overview



# Introduction

A comprehensive Facility Plan and cost estimate has been developed for the Little Bennett Regional Park (LBRP) Day Use Area. This project involves nature based recreational activities with an emphasis on interpretation to highlight the site's unique ecological and cultural heritage. The program includes entrances, an access road, parking, interpretive trails, sledging hill, group picnic areas, a playscape complex, amphitheater, group fire ring, a picnic shelter, overlooks and a small multi-purpose classroom pavilion.



**“Development at Little Bennett should emphasize the park’s natural features, beauty and tranquil environment while at the same time providing Montgomery County residents with a variety of recreation experiences oriented to this unique outdoor setting.”**

— *The 2007 Little Bennett Regional Park Master Plan*

The 2007 LBRP Master Plan recommends a ‘Gateway Area’ along MD Route 355, west of the Sopers Branch stream, as the main entrance to the regional park — to welcome people and to provide them with an overview of the natural and cultural opportunities of the entire park. Proposed features of the 2007 gateway concept include a visitor center, interpretive programs and nature based recreational activities.

The Facility Plan adopts many of the 2007 Master Plan’s recommendations and interprets the ‘Gateway Area’ concept as the proposed Day Use Area.

The 65 acre Day Use Area site consists primarily of rolling hills and open meadow and is framed by hedgerows and stream valleys which provide valuable habitats for wildlife. The land form, its ecology and culture offer a



distinctive setting. The Facility Plan addresses the cultural landscapes in which we live and which change over time, and highlights the interesting dichotomy between man and nature that is evident on the existing site — from west to east its character shifts from rural homestead to road, from meadow to forest.

Visitors of all ages from the Clarksburg area and its surrounding region will have a special place to spend leisure time picnicking, strolling and playing, and participating in nature's dynamics. Children will play in context with the environment

while learning about biodiversity, water process and natural succession. Visitors will have the chance to experience the romance of the meadow and appreciate the spectacular views of big sky and distant forest. And ground-nesting birds, animals and insects will continue to have a sustainable habitat to call home.

Program elements for the Day Use Area are carefully planned and are sensitive to the land and its natural inhabitants. While providing recreational and interpretation opportunities for visitors, the concept attempts to leave a good portion of the meadow intact to preserve its biodiversity. Embrac-







ing the site's land use and ecological process, the Facility Plan proposes: to continue mowing the meadow to maintain its habitat and to preserve this historic cultural landscape; to manage succession along the access road to allow the landscape to regenerate; and to ecologically manage stormwater to protect the stream and surrounding environments. The plan advocates a "less but better" approach and seeks to explore new ways to engage people with the land as well as greener ways to access the environment. A basic principle of this plan is to design elements efficiently, to serve multiple functions and to provide flexibility for the future.

Little Bennett Regional Park is a major destination in the Up-County area as well as the area's largest regional park — in many ways a hidden treasure. But the absence of a public entrance along MD Route 355 has limited access and likewise limited public awareness of the greater park's presence. The Day Use Area will fulfill 2007 LBRP Master Plan gateway concept and will become a vital improvement and addition to existing park facilities.

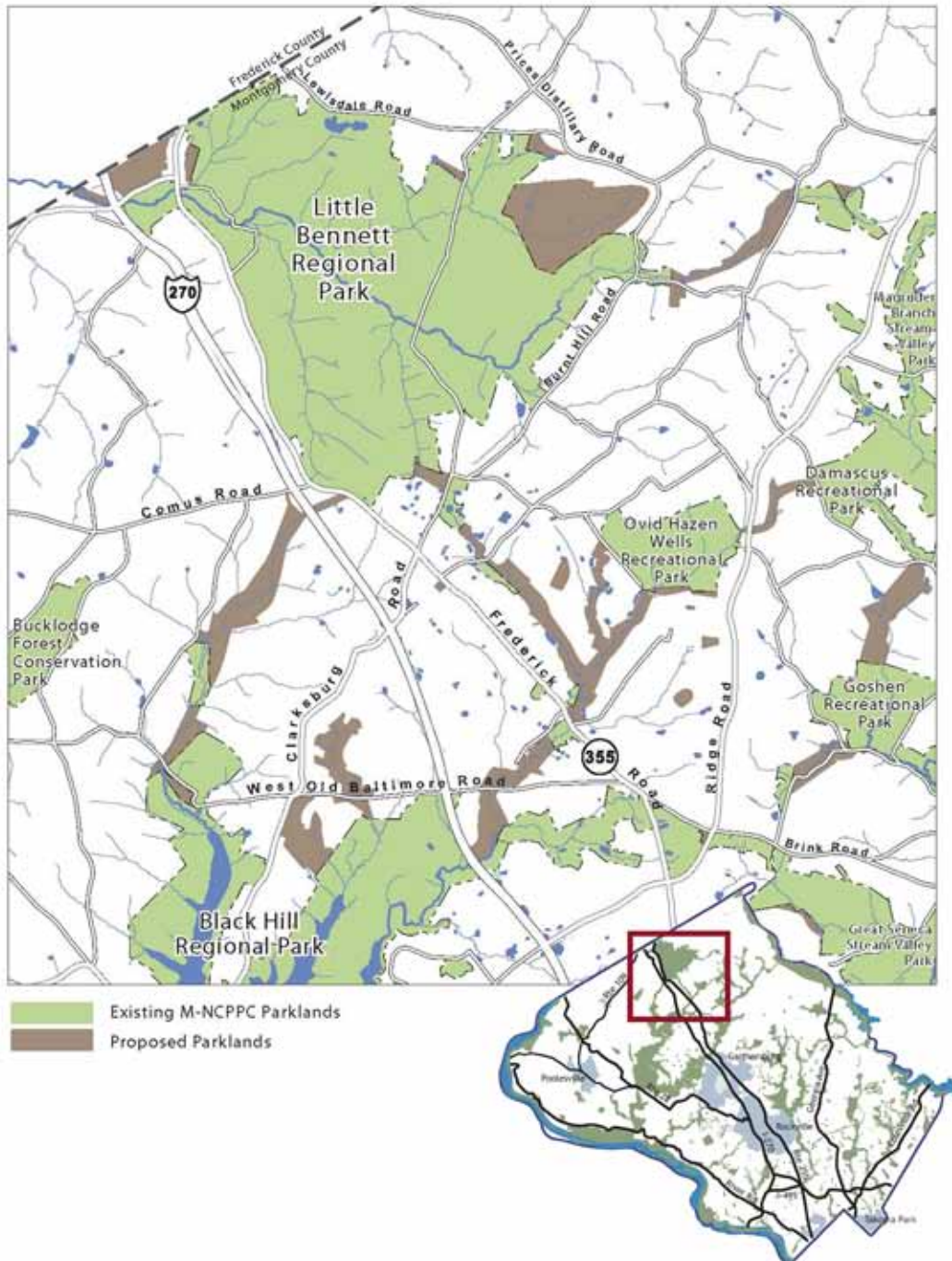
Conservation and preservation, recreation and education *demand* measured planning and thoughtful action. And nowhere is there more at stake for this mission to be furthered than at the Little Bennett Regional Park. As people are becoming increasingly disconnected from nature in this digital age, it is particularly important to promote this project of cultural and ecological meaning and significance. A well-told story can weave depth, history and inspiration into the fabric of our culture. The Day Use Area will offer memorable outdoor experiences for future generations and help bring the story of Montgomery County's Piedmont region to life.

# Location and Vicinity

Little Bennett Regional Park is located in northern Montgomery County, east of I-270 and MD Route 355 (Frederick Road) in Clarksburg, Maryland, about 30 miles northwest of Washington, DC.

The proposed site for the Day Use Area is approximately 65 acres in size and located on the western fringe of Little Bennett Regional Park. The area is just west of the Sopers Branch stream and runs along MD Route 355.

Vicinity Map

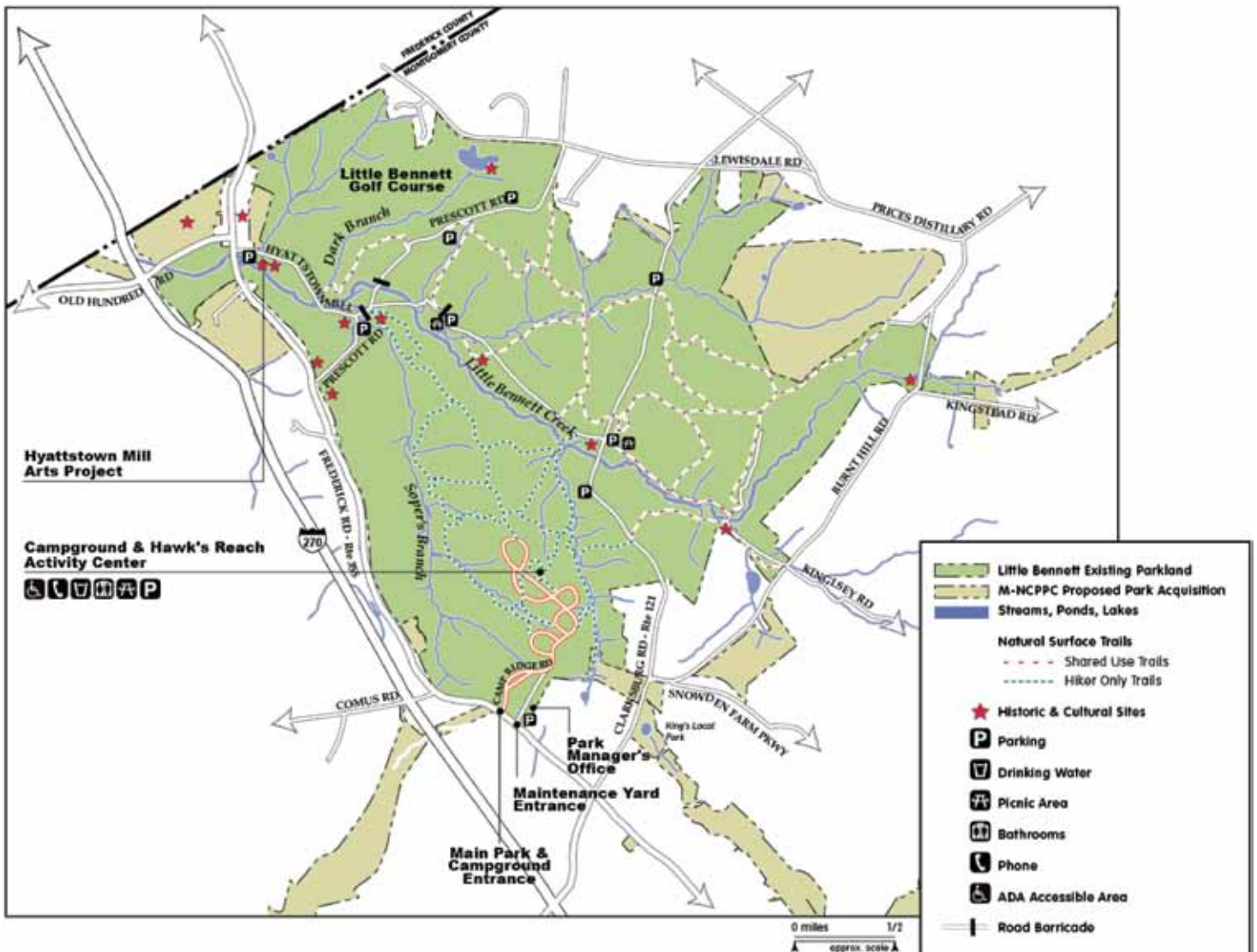


# Context

With over 3,600 acres, Little Bennett Regional Park is the largest park in the M-NCPPC park system. The park is bisected by Little Bennett Creek, a high quality stream that supports one of the few brown trout fisheries in the County. There are many historic sites in the park including the Montgomery Chapel Cemetery, Zeigler Log House, Hyattstown Mill and Kingsley Schoolhouse. The park is considered one of the best contiguous natural areas in Montgomery County.

Existing park facilities include a 91-site campground, 18 hole golf course and driving range, over 23 miles of natural trails and a maintenance yard with offices for park personnel. Approximately 67,500 visitors come to the park every year to enjoy hiking, cycling, birding, camping, fishing, horseback riding, plant walks, interpretive programs and golf.

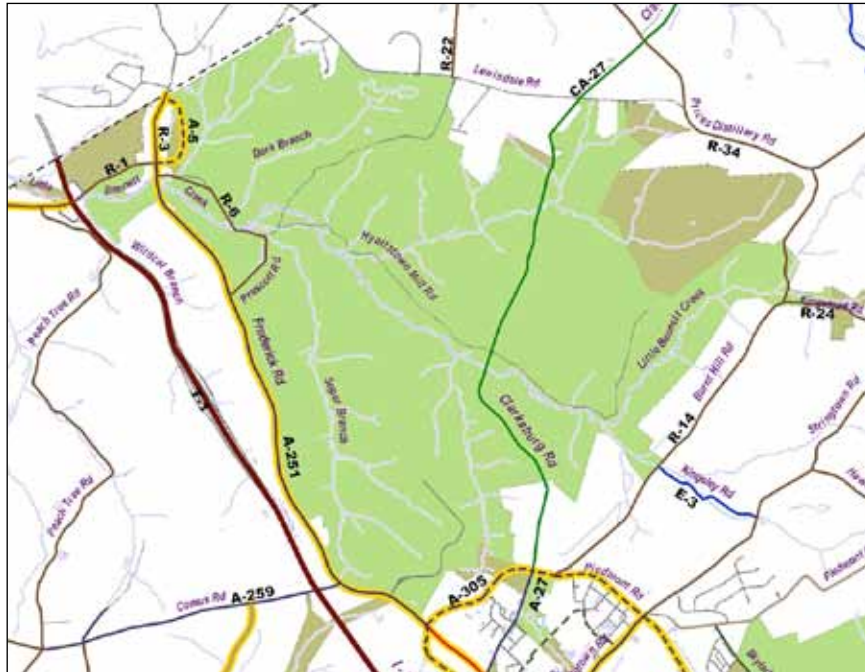
Existing Facilities Map



## Little Bennett Regional Park

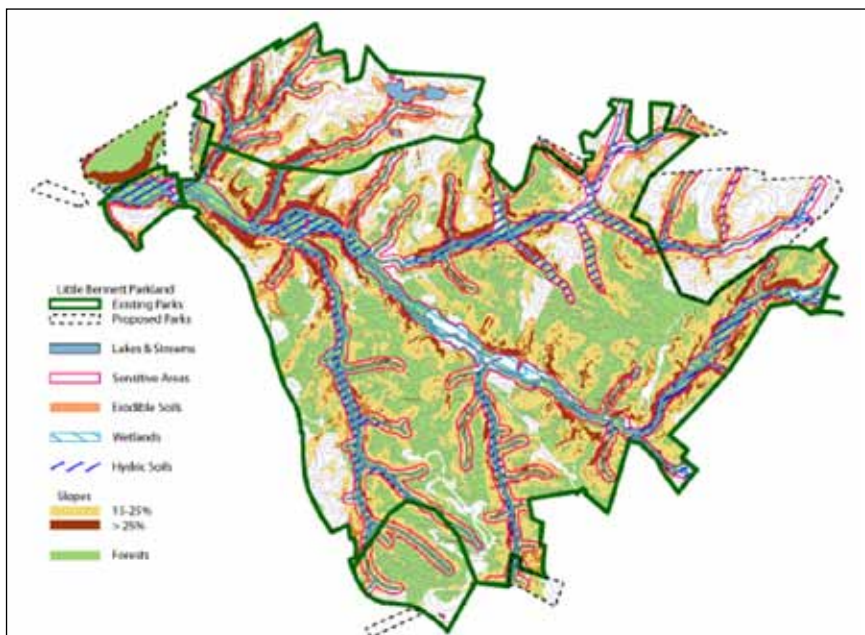
The Park is located between two interchanges on I-270 and is bordered by MD Route 355 (Frederick Road) and Lewisdale Road, with Clarksburg Road running through the middle of the park.

### Local Roads



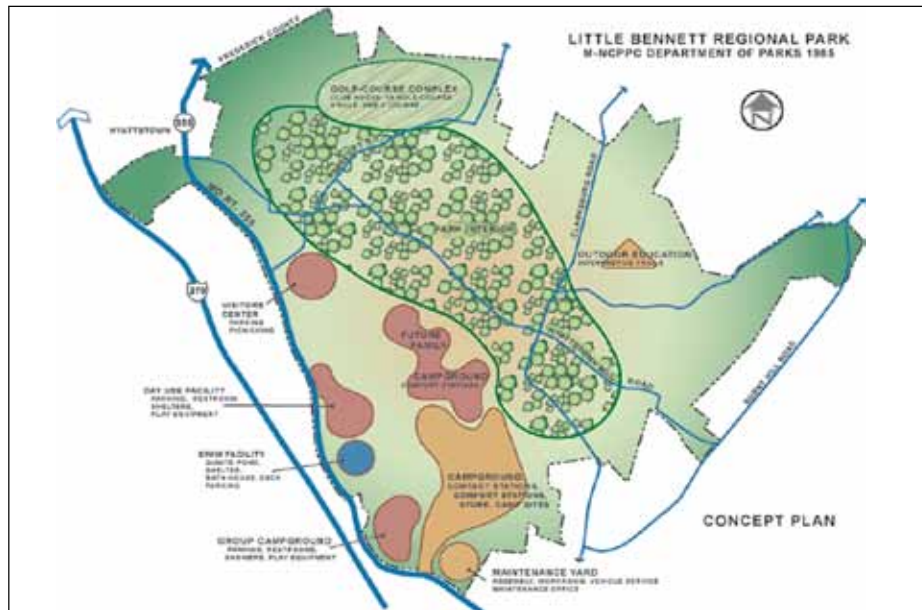
Key environmental features include Little Bennett Creek and Sopers Branch, a successional forest that includes the county's best collection of American sycamore trees and many species of rare plants. The mosaic of upland, flood-plain forest, old fields, wetlands and streams provide habitats for many wild-life species.

### Environmental Impact



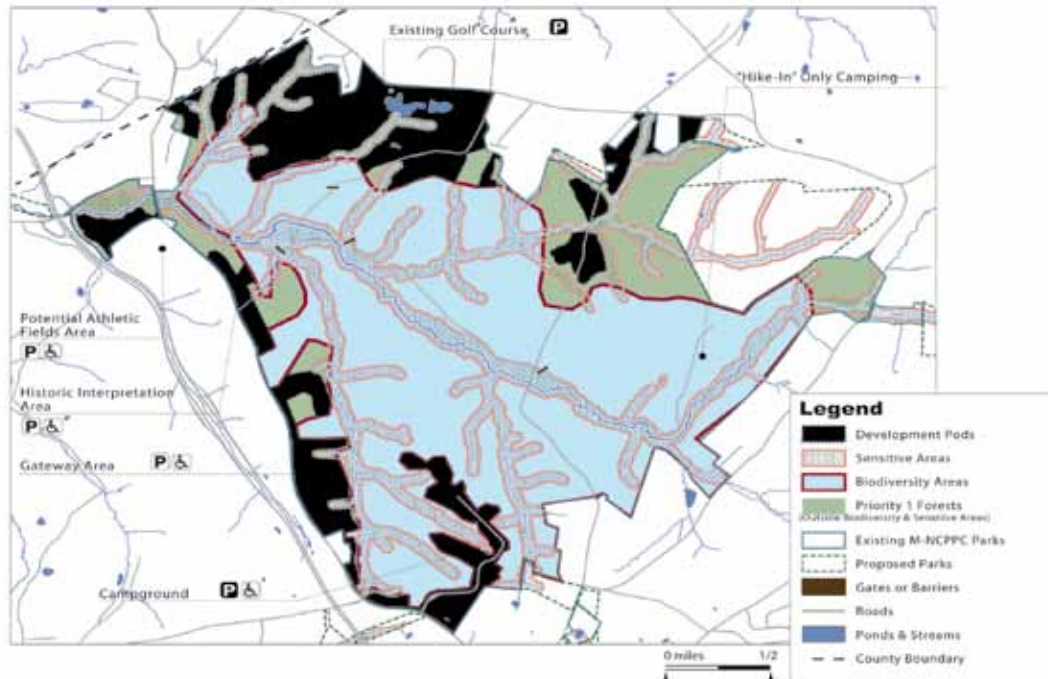
A Concept Plan for the park was completed in 1985. This plan included recommendations for a future family camp ground, a swim facility, a day use facility, a visitors center, an outdoor education area and a golf course complex. The Concept Plan proposed an ambitious implementation schedule that has not yet been realized.

1985 Concept Plan



The approved 2007 LBRP Master Plan recommends preserving the interior of the park. As shown in the development potential analysis, properties at the edges of the park emerge as most suitable for development. The Plan directs development to these edge areas and limits development of the interior to natural surface trails.

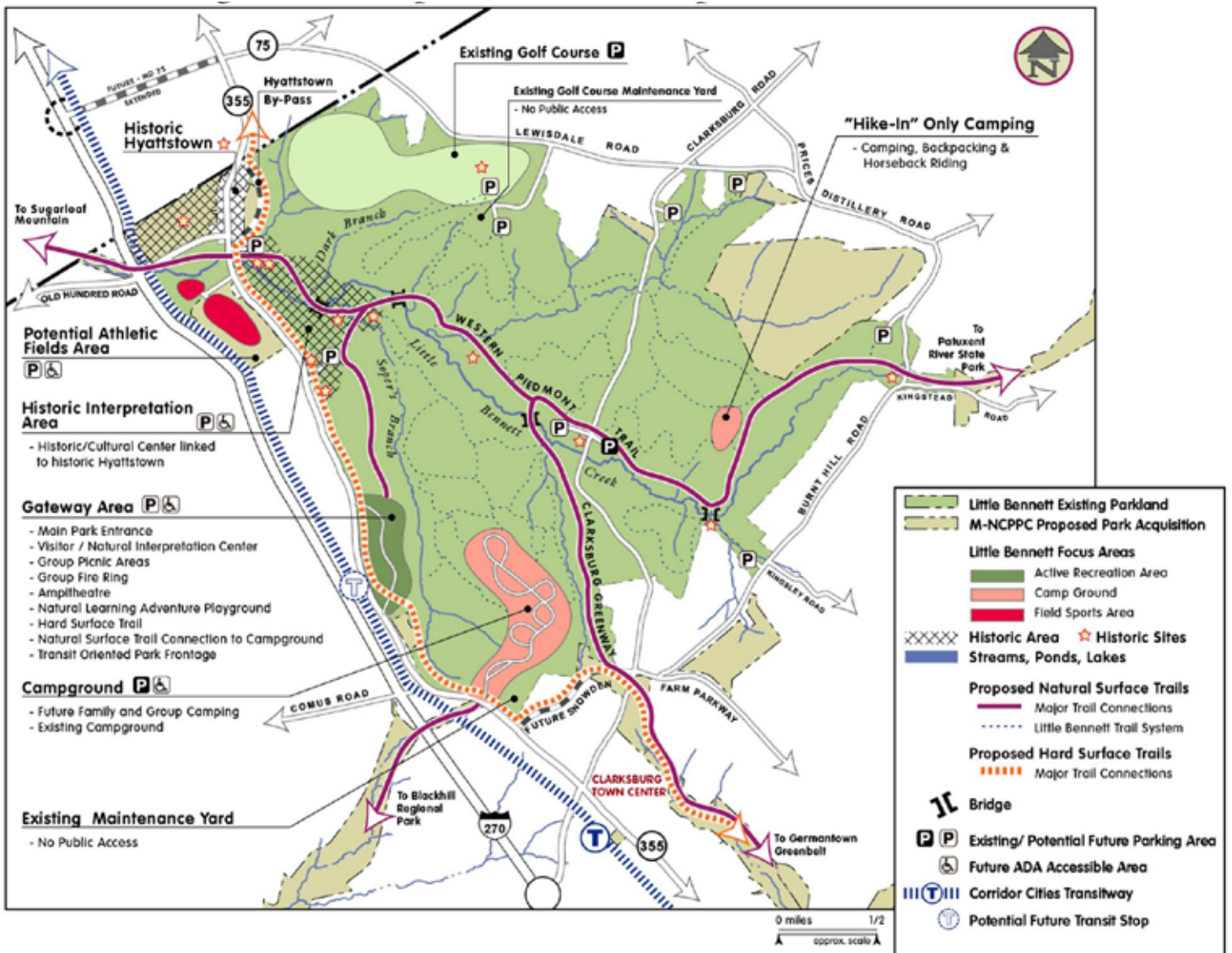
Development Potential Map



**Little Bennett Regional Park**

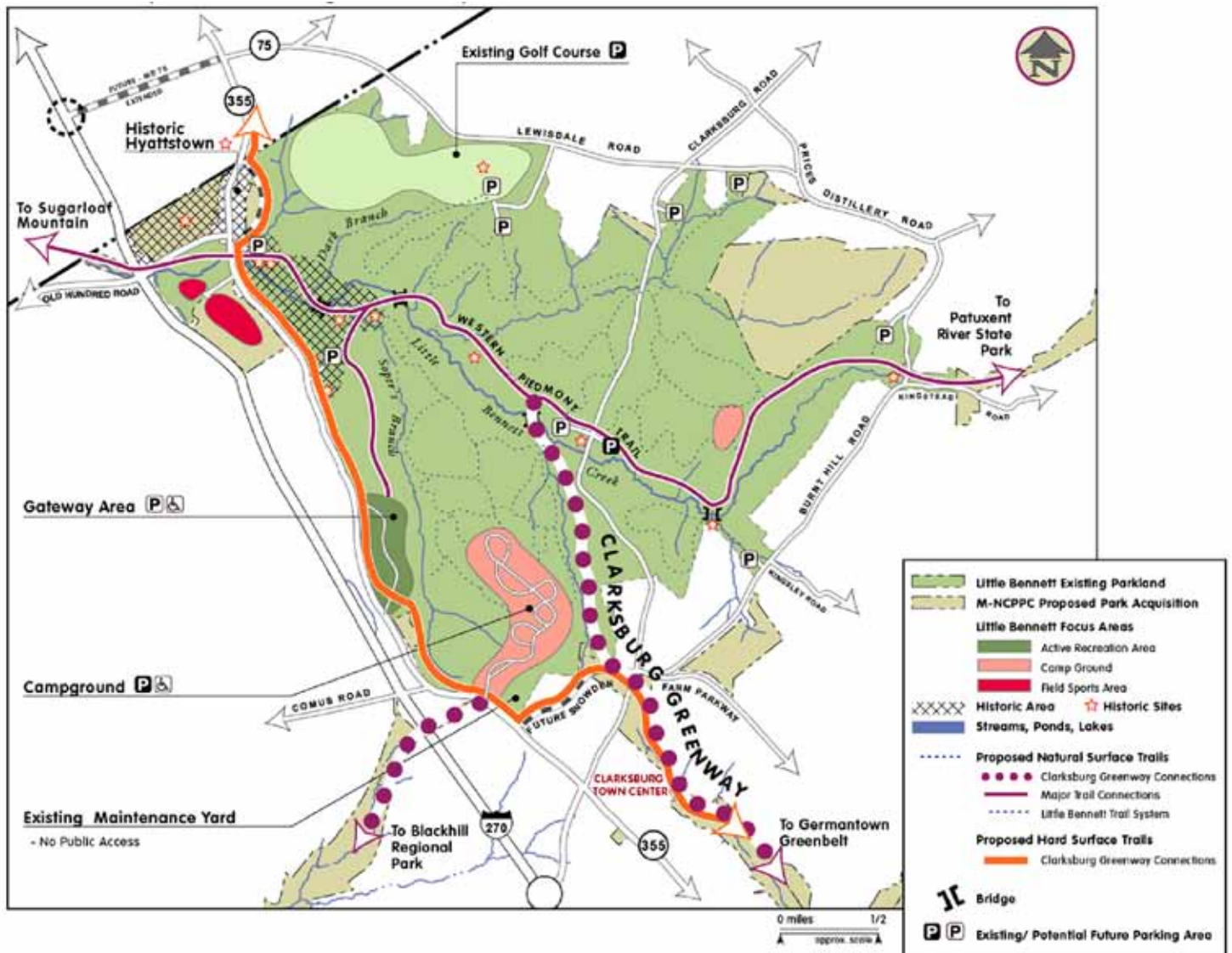
The 2007 LBRP Master Plan revised the recommendations of the 1985 Concept Plan and proposes more detailed guidance for trails, for development of the day use area, for historic and cultural interpretation, for park character along MD Route 355 and for accommodating a potential future need for athletic fields.

2007 Master Plan



Little Bennett Regional Park is a key destination of the greenway system proposed by The Clarksburg Master Plan and the Clarksburg Greenway Implementation Study. The Proposed Trail System Plan Map recommended the Clarksburg Greenway hard surface trail extend north to Hyattstown.

Clarksburg Greenway System



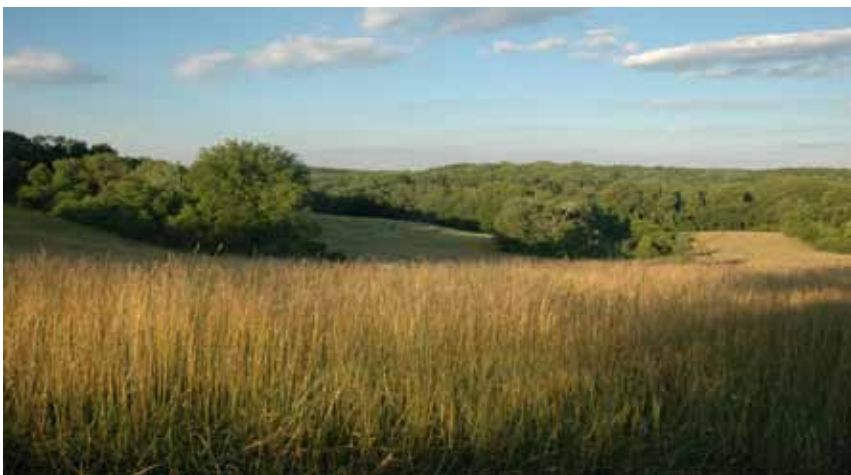
# Site Conditions

**Land Form** The approximately 65 acre site is characterized by undulating topography with folds of stream valley typical of the Piedmont Plateau Province of Maryland. The western periphery sits at the ridgeline along MD Route 355 and dramatically descends 60 to 80 feet east to Sopers Branch. The site is subdivided into three general areas by fingers of the drainage valleys running west to east. The central area is dominated by a high round knoll with a gentle slope on top and falls precipitously near the bottom. The northern and southern fields are steeper with the exception of a flat area at the smallest finger to the east. The rolling topography reflects the nostalgic piedmont landscape of the region.



**View and Vista** The site has uninterrupted long views north south and east over the stream valleys and into the interior forest of the park. The magnificent views are represented with horizons of meadow in the foreground and forest in the backdrop against an immense sky. The stream valleys with accents of Sycamore tree colonies draw an interesting contrast to the rolling meadow. The light and shade, color and texture of the meadow, orchestrate a seemingly simple

yet constantly changing sight. The high point at the central knoll offers a panoramic view into the surrounding environment. On a clear day, the stunning vista can reach as far as Sugarloaf Mountain.





**Hydrology** The entire park falls within the Little Bennett Creek Watershed, and is located outside of the special protection areas within the nearby Little Seneca Creek Watershed. The streams in the Little Bennett Creek watershed east of MD 355 are designated by the Maryland Department of the Environment as natural trout waters (Use III-P), demonstrating a capability for the growth and propagation of natural trout populations and their associated food organism. The site belongs to the Sopers Branch sub-watershed. Water drains generally west to east from the ridge along Route 355 downhill through three major tributaries and eventually to Sopers Branch. The tributaries are characterized as perennial streams; however water is not usually present except after



rainstorm events. The area near the southern property border receives approximately eight acres of off-site stormwater. In the vicinity of the mid-western border an 18 inch diameter pipe outfalls stormwater from approximately 1.25 acres of residential property on the other side of the road. Erosion and cutting along the swales and waterways are present on-site as a result of the large quantity of untreated runoff coming from off-site development.

GIS Site Hydrology Plan



**Meadow** The existing meadow is a remnant left from years of agricultural use. M-NCPPC Natural Resources Stewardship staff identified the existing meadow as one of very few large continuous meadow landscapes left in County parkland, and as a high quality example with very few invasive species. The meadow consists primarily of cold and warm season grasses and forbs such as Little Bluestem, Broomsedge, Aster species, Goldenrod species, Butterfly Milkweed and Mountain Mint. The species combination varies from area to area. There is also a healthy wet meadow at the northeast corner.

**Stream Valley and Wetland** The stream valleys along the tributaries are apparent and delineated by the mowed edge and colonies of early successional woody material. The young seedlings of trees and shrubs form thickets and alcoves provide valuable habitat for an abundance of wildlife. The outer edge is covered by annual



grasses, biennial and perennial herbaceous plants, a few early successional evergreens and whips of woody deciduous trees. Larger, more mature trees sparsely colonize along the waterway as the ephemeral tributary becomes a perennial stream near Sopers Branch. The vegetation consists of native plants such as Red Maple, Sycamore, Tulip Poplar, Spice Bush, Blackhaw Viburnum, wild blackberry and raspberry, as well as invasive species such as Tree of Heaven, Norway Maple, Multiflora Rose, Autumn Olive, Bush honeysuckles and Japanese Barberry.

The stream valley on the west bank of Sopers Branch is about 200 to 300 feet wide with a high quality wetland linking the tributaries. Skunk cabbage colonizes seep areas and wetlands along Sopers Branch and represents a fine example of this native community type now uncommon in Montgomery County.

According to the 2003 update to the Countywide Stream Protection Strategy (CSPS; MCDEP, 1998), all sub watersheds within the park are in good biological condition (on a poor/fair/good/excellent scale). The original (1998) CSPS designated all sub watersheds in the park as Watershed Preservation Areas.



**Hedgerow** The western periphery of the site is framed by a continuous hedgerow approximately 20' to 50' wide along MD Route 355. Although, the hedgerow does contain some invasive shrub species and several mature groves of *Ailanthus*, the woody massing provides a buffer and screening for the site. Situated at a high elevation, the hedgerow casts long afternoon shadows over the meadow providing natural shade and shelter for the western edge.

Habitat and Wildlife

The site is a good representation of non-forested habitat in Montgomery County. The mosaic of upland wild-flower meadow, grassland meadow; lowland wet meadow, early successional young forest; wetland in the stream valley; and hedgerow and mature forest on the edge provide a wealth of habitats for many insects, birds and other wildlife species. These ecosystems are intricately linked and constantly restoring and balancing themselves. While meadow and woodland are at two ends of the spectrum of habitats, the stream buffer area demonstrates the most active regeneration in progress. The diverse habitat provides food, shelter and breeding grounds for abundant wildlife species such as Red Fox, Groundhog, Eastern Meadow Lark, Eastern Bluebird, American Kestrel, Grasshopper Sparrow, Yellow Warbler, American Woodcock, Wild Turkey, Eastern Box Turtle, butterflies and dragonflies and many more. The unique environment provides a living classroom for environmental learning and land stewardship.



Birds are excellent indicator species for evaluating habitat quality and making inferences about that habitat for other species. Data on breeding birds has been collected by park staff over many years and most recently, through a statewide effort, the Maryland Breeding Bird Atlas Project, a five-year intensive effort that ended in Fall 2006. Eighty-five species of birds were detected as breeding in the park. The list includes seventeen forest interior dwelling species (FIDS) including Red-Shouldered Hawk, Barred Owl, Hairy Woodpecker, Pileated Woodpecker, Black-and-White Warbler, Redstart, Worm-Eating Warbler, Ovenbird, Louisiana Waterthrush, Kentucky Warbler, and Scarlet Tanager, indicating that Little Bennett Regional Park protects large areas of a high quality forest.



American Woodcock,  
Blue-winged Warbler,  
Yellow-breasted Chat

Eastern Meadow Lark,  
Eastern Bluebird,  
American Kestrel



Yellow Warbler,  
Bobwhite Quail

**Noise** The main noise source on the site is traffic on MD Route 355 and I-270. There is also some aircraft noise and activity on industrial/commercial parcels between Route 355 and I-270. The Day-Night Average Sound Levels (DNL) of the western 100-foot wide strip is high, approximately 65dB, due to proximity to the road. The noise level decreases dramatically as the grade descends to lower terrain. The east facing slope offers advantages for noise mitigation. The Environmental Protection Agency suggests a DNL of 55 dB for outdoor activities. The recommended sound level can be reached quickly about 200 feet to 600 feet from MD Route 355 because of the significant grade change of 30 to 40 feet. The eastern half of the site is much quieter with a DNL of 50 dB or less. These areas are suitable locations for nature based recreation and interpretive purposes.



Day-Night Average  
Sound Levels Diagram

## Little Bennett Regional Park

### Geology and Soil

Little Bennett Regional Park lies in the Piedmont physiographic province. Bedrock consists predominately of metamorphic rocks of Paleozoic age. In general soils found on the ridge tops and side slopes are well drained Type B and Type C soils and suited for cultivation and pasture, provided erosion can be controlled and moisture maintained, but are best suited for tree growth. Many are not generally good for roads, septic or dwellings because of their shallow depth to bedrock or the potential for frost heaving. Soils within the floodplains are Type D with high clay content, hydric, prone to frequent flooding, and are slow to drain.

The existing soil of the Day Use Area reflects the physiographic transition of the site from Type B soil along MD Route 355 ridge area to Type C soil on the side slopes in the central area and to Type D soil in the stream valley to the east. Due to good drainage and compressive strength of the Type B soils, the ridge and the upper hillside areas of the site will be better suited for development of roads, building, stormwater management facilities and other program elements that require structural support and hard surfacing. The geotechnical investigation also indicates that there is generally enough soil depth over the bedrock to accommodate the septic system where it is required. Design and construction of interpretation trails should take into account the poor drainage and compressive strength of the Type D soils in the stream valley.

### Geology and Soil Diagram



# Land History

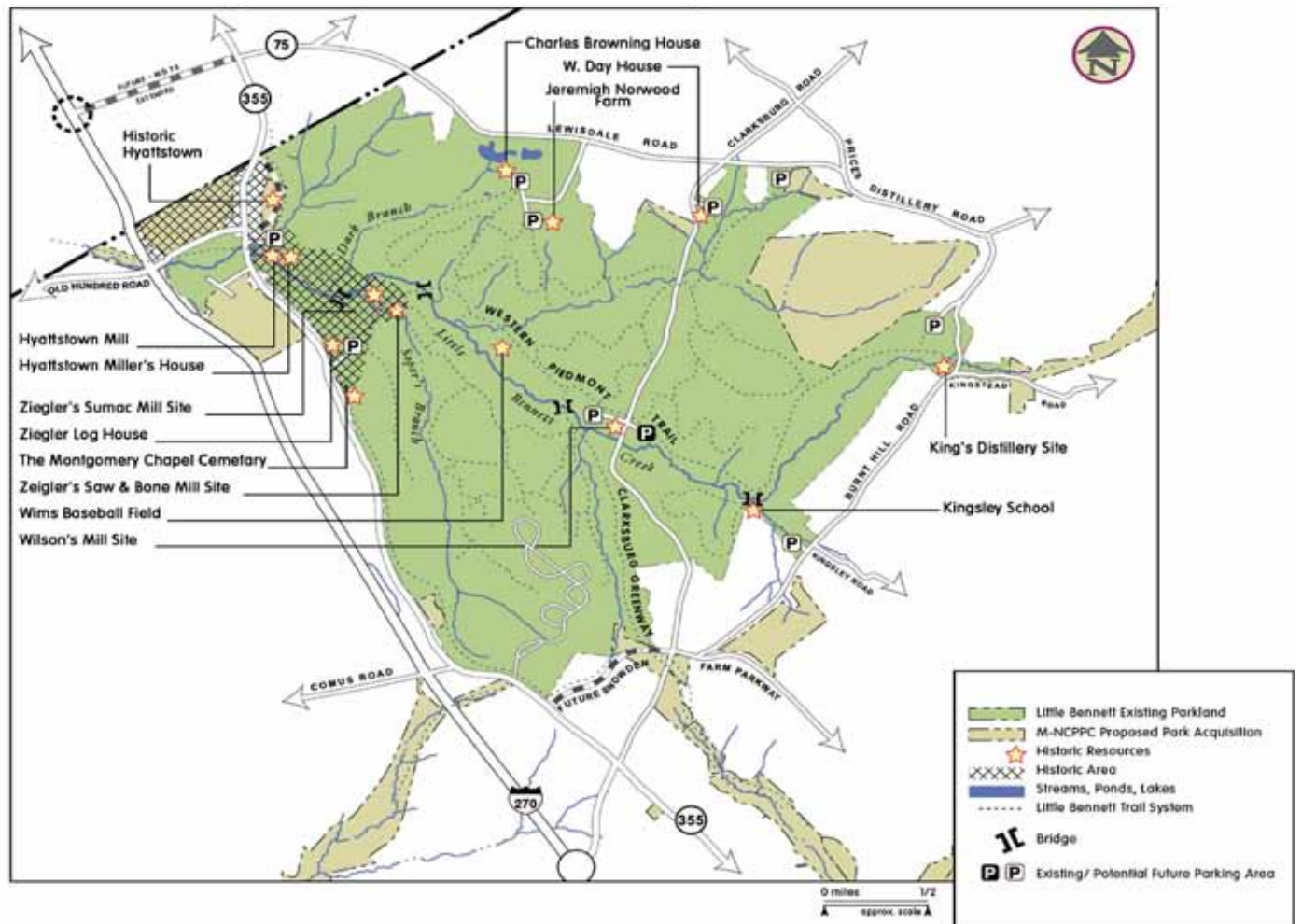
Little Bennett Regional Park lies to the east of Frederick Road between Clarksburg and Hyattstown, extending east to Lewisdale Road and including part of the area known as “Kings Valley.” Soon after plans were announced for a park in 1963, the M-NCPPC began acquiring land.

The road known today as MD Route 355 was established in the 18th century to connect Frederick City (platted 1745) and Georgetown (platted 1751). South of Clarksburg, the road follows an earlier Indian trail. At Clarksburg it veered off to the west to go to the Mouth of the Monocacy River where there was an Indian trading camp from as early as the early 1700s.

The community of Clarksburg began in the 1740s as a trading post located at the intersection of Frederick Road and the Mouth of Monocacy Indian trail. Dowden’s Ordinary, a tavern built on the hill south of the trading post, opened its doors in 1754. In 1793, John Belt patented the land “Woodlot” and laid out the town of Clarksburg.

As shown on the Historic Resources Map, many historic sites and resources from the past still exist in Little Bennett Regional Park.

Historic Resources Map



## Little Bennett Regional Park

Frederick County farmer Jesse Hyatt laid out Hyattstown in 1798. The two main industries of the town were a tannery and a gristmill. By 1880 it had 3 churches, a post office, 2 blacksmiths, 3 carpenter/undertakers, 1 carriage maker, 1 shoemaker, 1 doctor, 1 miller, 1 tailor, 1 harness maker, and 2 general stores. There was also the Hyatt House Hotel and the Tabler Tavern (where Andrew Jackson spent the night on the way to his inauguration in 1829).

The 136.7 acre parcel was granted and conveyed from George Revitz, Hary and Freda Epstein, and Harriet and I. Scott Mishner unto the Maryland-National Capital Park and Planning Commission in 1966.

1951 Aerial Map



As shown in the 1951 aerial map, the land west of the Sopers Branch was mostly farmed including a field on the east side of the stream. At the time, a prominent farm house was situated at the south western edge and another in the northern area enclosed by the forest. After the parcel was conveyed as park land, the M-NCPPC demolished the southern farm house and continued to main-



1970 Aerial Map



tain the open meadow, except the east and northern field. As shown in the 1970 aerial map, evergreen and deciduous trees started to regenerate in the abandoned fields, along the west-east drainage way and the Sopers Branch stream valley. The interior forest and biodiversity area east of Sopers Branch remain protected.

Invasive species progressively took over the former farm house site, particularly Tree of Heaven (*Ailanthus altissima*) which prefers alkaline soils and can tolerate extreme drought conditions. As shown in the 1979 aerial map,

colonies of woody materials formed thick colonies and became part of the existing hedgerow. As the mowing edge gradually receded from the stream valley, the vegetated ribbon grew wider and wider. Deciduous trees were able to mature in the interior of the tributaries and juvenile scrubby landscape was constantly expanding at the edges.

1979 Aerial Map



2002 Aerial Map



Little Bennett Regional Park

2008 Aerial Map



# Master Plan Recommendations

## Clarksburg Master Plan and Hyattstown Special Study Area

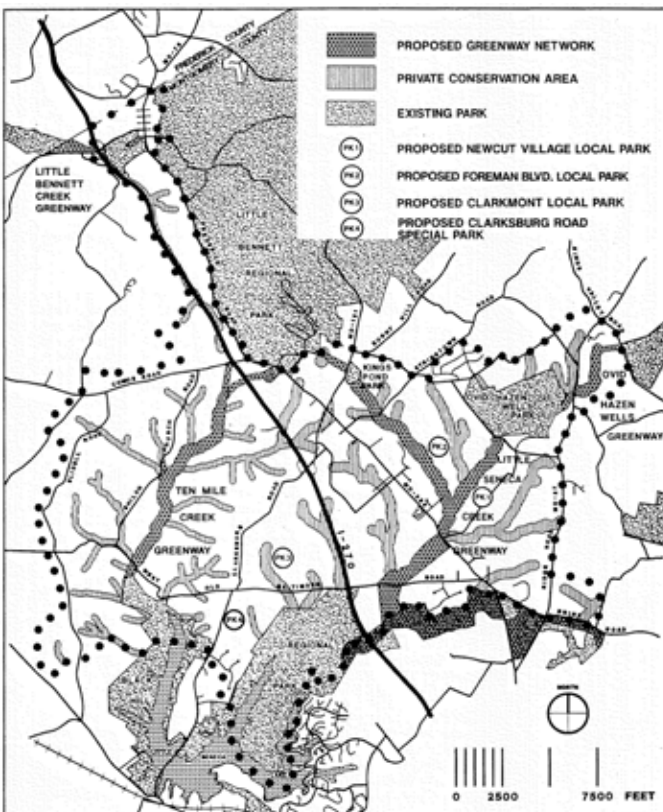
While Little Bennett Regional Park is just outside the boundaries of the June 1994 Approved and Adopted Clarksburg Master Plan and Hyattstown Special Study Area (and included in the boundaries of October 1980 Approved and Adopted Functional Plan Master Plan for Preservation of Agriculture and Rural Open Space,) policies and recommendations from the Clarksburg plan inform the development of the Little Bennett Regional Park Day Use Area. The Clarksburg Master Plan establishes a strong commitment to the vision of Clarksburg as a transit and pedestrian oriented community surrounded by open space, emphasizes protection of environmental and historic resources, and recommends that Clarksburg's natural features — particularly stream valleys — be protected.

The plan also supports and reinforces County policies which seek to preserve a critical mass of farmland. The plan proposes adding 1,900 acres to the

County's Agricultural Reserve Area to create a transition from the I-270 Corridor to productive agricultural land. The preservation of farmland will also contribute to the concept of Clarksburg as a town surrounded by rural open space.

The Clarksburg and Hyattstown areas are conveniently located near two of the County's largest regional parks, Black Hill and Little Bennett. A key goal of the Clarksburg Master Plan is to connect park facilities and natural areas to the greenway network. The plan recommends designating generalized locations for additional local parks and integrating them with future development.

The plan's Greenway Network Policy recommends a multi-purpose greenway system along stream valleys. A greenway network is described on pages 20 and 21 of the master plan along stream



Proposed Greenway Network

valleys as a major organizing element of the open space network, including parks, schools, stream buffer areas and a hiker-biker trail system. The plan defines a greenway as follows:

*A "greenway" is simply a linear corridor — it may be as elaborate as a paved hiker-biker trail or as simple as a woodland path. Facilities in greenways should be compatible with environmental goals.*

The plan proposes the following on page 20:

- Provides a trail system that links the three major parks In the Study Area: Little Bennett Regional Park, Black Hill Regional Park, and Ovid Hazen Wells Park.
- Proposes a bikeway system that is complementary to the greenway network.
- Proposes that the greenway network be part of the M-NCPPC park system.

The proposed greenway network is shown in Figure 48 on page 157 of the plan and follows the main stream stems of three stream valleys: Little Seneca Creek, Little Bennett Creek, and Ten Mile Creek. The proposed Ten Mile Creek Greenway will connect the southern end of Little Bennett Regional Park to Black Hill Regional Park. The proposed Little Seneca Creek Greenway will connect the southern end of Little Bennett Regional Park to the Clarksburg Town Center and Ovid Hazen Wells Recreational Park. The proposed Little Bennett Creek Greenway will connect the northern end of Little Bennett Regional Park to conservation areas in Frederick County. The plan describes the overall intent of the greenway network on page 156 as follows:

*The intent of the Plan is to acquire, at a minimum, enough of these stream valleys to allow development of a trail system. These trails may be paved or soft surfaces that may be enjoyed by hikers, bikers, or equestrians. It is intended that these trails be constructed outside of the 100-year floodplain, wherever possible, with a minimum amount of clearing and grading and with a sufficient buffer from adjacent development.*



The Clarksburg Master Plan includes a bikeway plan on pages 131-135 that supports its objectives regarding greenways, transit and the neighborhood form of development. The bikeway network is intended to be complementary to the greenway network and provide safe, convenient bikeways that can be used by cyclists of all experience levels. The bikeway plan objectives in-

clude: provide a logical relation to the Countywide Bikeway Plan and Master Plan of Boyds, Germantown and Damascus areas; integrate the bikeway system with greenways; emphasize bikeway access from neighborhoods to shopping and employment areas as well as to key community facilities; emphasize bike paths that are separated from streets and roads.

There are five master planned bikeway recommendations in the vicinity of Little Bennett Regional Park shown on Figure 43 and described on Table 10 on pages 132 and 133 of the plan:

- Route B-1, North-South Greenway: This is a Class I Bikeway that extends from Newcut Road through Little Bennett Regional Park with a connection to Sugarloaf and the Frederick County Line. The trail south of Little Bennett from Newcut Road to Clarksburg Road and Snowden Farm Parkway (at Kings Local Park) will be built by developers on land that will be dedicated to the Department of Parks.
- Route B-2, Midcounty Highway: This is a Class I Bikeway that follows the alignment of Midcounty Highway and Snowden Farm Parkway and terminates on Snowden Farm Parkway at MD 355, just south of Little Bennett Regional Park.
- Route B-3, Frederick Road: This is a Class I Bikeway that follows the alignment of MD 355 through the county to the Frederick County line and includes the Hyattstown Bypass. The majority of the existing bikeway north of Gaithersburg is on the west side of MD 355. The bikeway currently ends at MD 121, Clarksburg Road.
- Route B-4, Old Frederick Road In Hyattstown: This is a Class III bikeway (a signed shared roadway) along the segment of MD 355 bypassed by the Hyattstown Bypass.
- Route B-6, East-West Greenway through Little Bennett Regional Park: This is a Class I bikeway from Shiloh Church Road, along Comus Road and crossing the southern section of Little Bennett Regional Park with the intent to connect to Damascus. The proposed alignment bisects the campground and appears to be a conceptual idea rather than a proposed alignment.

Due to the low density land use patterns, the Clarksburg plan does not recommend future sewer or water service for properties adjacent to Little Bennett Regional Park east of I-270 and north of Comus Road, except for Hyattstown. Figure 51 on page 202 of the plan identifies future service areas for sewer and water.

Countywide  
Bikeways Functional  
Master Plan

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

The CBF Master Plan states the following on page 27:

*Bikeways along roads can be important components of a trail network especially when they offer an opportunity to avoid sensitive environmental features in parks. In Clarksburg, shared use paths along future roadways will be part of the Clarksburg Greenway Trail system so that sensitive environmental features in certain stream valleys can be avoided.*

Figure 2-15 on page 42 of the plan shows four existing, planned and proposed countywide bikeways in the Clarksburg area near Little Bennett Regional Park and illustrates a connection to the greenway trail system. The routes are described on pages 60 and 61:

- Route SP-70, Midcounty Highway: This is a shared use, off-road bikeway, along the north side of Midcounty Highway and Snowden Farm Parkway extending from the ICC to MD 355, just south of Little Bennett Regional Park. This route is the same as Route B-2 described in the Clarksburg master plan.
- Route SP-72, Frederick Road (MD 355)-Upcounty: This is a shared use, off-road bikeway extending from Watkins Mill Road to the Frederick County line. This route is the same as Route B-3 described in the Clarksburg master plan.
- Route SP-66, Corridor Cities Transitway bike path: This is a shared use, off-road bikeway extending from Shady Grove Metro Station to MD 355. It is described as already existing in some segments as part of other bikeways and will connect most of the major employment centers in the I-270 corridor north of Rockville.
- Route DB-18, Clarksburg Road (MD 121)/Stringtown Road: This is a proposed dual bikeway (both shared use path and shared roadway) along Clarksburg Road (MD 121) from Stringtown Road south to Clopper Road (MD 117) and will provide connections to Black Hill Regional Park.

Countywide Park  
Trails Plan

The 2008 Countywide Park Trails Plan provides recommendations for the Clarksburg area in Corridor 8 for the Upcounty area. Figure 15 on page 42 shows the overall greenway trail concept shown in the 1994 Clarksburg Master Plan.

**Vision 2030** The Vision 2030 Strategic Plan provides guidance for M-NCPPC Department of Parks and Montgomery and Montgomery County Department of Recreation to steward the County's natural and historic resources; promote awareness, appreciation, and understanding of County's natural, historical and cultural resources; enhance health, wellness and active living and provide opportunities for active life-long learning, leisure and recreation.

The Vision 2030 Strategic Plan on page 24 of the Executive Summary recommend providing adequate and appropriate public lands and facilities that are equitably distributed across the County to meet the needs of residents. The population of Montgomery County is forecasted to grow by seventeen percent over the next twenty years. Most of this growth is projected to occur in the central part of the County, including the I-270 corridor. The Level of Service (LOS) analysis of the parks and recreation inventory shows that when population density is considered, the current overall LOS per capita is lower in the I-270 corridor. The increased growth projected in the next twenty years along the I-270 corridor will create increased demands for parks and recreation facilities and services. The Plan recommends on page 26 of Volume 2 prioritizing the North Central and South Central sub areas for CIP and Park Master Plans to increase the LOS.

The Vision 2030 Strategic Plan, on page 23 to 30 of Volume 2, recommends providing a variety of high-quality programs that meet community needs and interests. Trails (natural and hard surface) and natural areas are rated among the top five priorities to add, expand or improve for park facilities. The Plan also recommends creating a high-functioning system of parks, recreation, trails and open space that is accessible and responsive to changing community needs and interest. Implementation strategies for park planning and development are outlined on page 27, 29 and 30 in Volume 2 as follows:

- Plan, design and create more unprogrammed, flexible parks and recreation spaces and features that are multi-functional or adaptable for multiple purposes.
- Incorporate natural/environmental education into the playground experience.
- Identify new multi-used natural and hard surface trails, with a priority on locating these in under served areas.
- Identify gaps in the regional trail system and prioritize trail connections to create a linked system. Address need for specialty trail users including hikers, bikers, and equestrians.

- Work with State Highway Administration and Department of Transportation to ensure safe ADA pedestrian access to park and recreation facilities via sidewalk, bike lanes, trails, bike-share programs, and safe crossings. Incorporate multi-use trail linkages to park and recreation facilities when feasible as well as sidewalk and bike paths in public rights-of way.

The Vision 2030 Strategic Plan on page 34 and 37 of Volume 2 outlines the objectives to maintain a safe, accessible, quality parks and recreation lands and facilities for efficiency, safety, attractiveness and long-term sustainability; inventory, conserve, restore, and enhance ecologically healthy and biologically diverse natural areas with a focus on Park Best Natural Areas, Biodiversity Areas, and Environmentally Sensitive Areas as defined in the Land Preservation, Parks, and Recreation Plan (M-NCPPC, 2005)

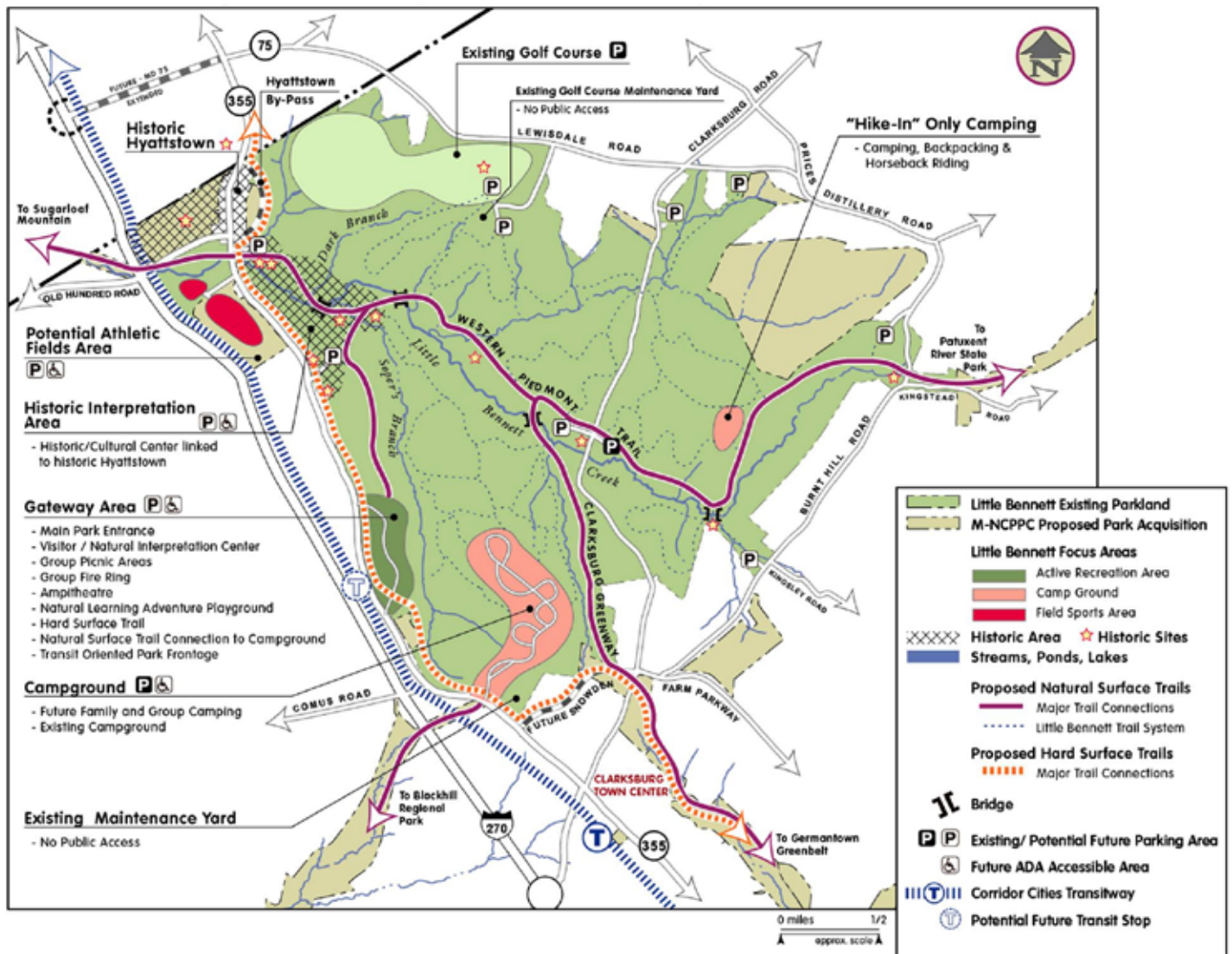
2005 Land Preservation Parks and Recreation Open Space Master Plan

The 2005 Land Preservation Parks and Recreation Open Space Master Plan (LPPRP) discussed future demand for specific recreation facilities to the year 2020. As shown on Page A XIV-1 in Appendix XIV, natural areas, playgrounds, picnic areas, trails are reported to be the most popular facilities. County-wide facilities to be located in regional parks are projected to serve large portions of the population. The need for picnic shelters, nature centers, natural areas, natural and hard surface trails have been identified on page III-29 and III-30 as priorities.

- The County's 4 nature centers are located in regional parks and are especially popular for school groups and families with children. It is estimated that 2.3 more centers will be needed in the County by 2020.
- Enjoying natural area is the most popular recreation activity of County residents according to the 2003 Montgomery County Park User Satisfaction Survey, and the need for additional natural areas was highly ranked among survey respondents.
- Group picnic shelters in regional parks are heavily used during the summer months. "It is estimated that 21 additional shelters that can be permitted will be needed by 2020.
- Trails are one of the top 5 recreation activities noted by respondents to the 2003 Park User Satisfaction Survey and provide recreation for people of all ages and abilities.



**2007 Master Plan** The 2007 Little Bennett Regional Park (LBRP) Master Plan proposes detailed recommendations in the following areas: nature based retreat, trails, the gateway features/day use area, historic and cultural interpretation, park character along MD Route 355, interpretive emphasis, and the accommodation of future active recreational needs. These recommendations have been thoroughly considered in the proposed Facility Plan.



**Nature Based Retreat** The LBRP Master Plan recommends on pages 5-8 preserving the interior of the park and the park’s unique and rare natural resources; providing a natural trail network that is sensitive to environmental features; and identifying interpretive themes for the park to enhance public awareness and appreciation of the park.

“Assure Little Bennett Regional Park continues as a nature based retreat and a major open space feature in the upper portion of Montgomery County.”

**Trails** The LBRP Master Plan promotes the goals of accessibility, linkage and flexibility. The plan recommends on pages 9-14 providing loops and interconnecting trails to integrate the park experience. All natural surface trails are to meet the Department’s Sustainable Trail Guidelines. The plan embraces the Greenway Network Policy of the 1994 Clarksburg Master Plan and recommends linking the Western Piedmont trail to the Clarksburg Greenway and extending the Clarksburg Greenway north to Hyattstown. It recommends a hard surface trail along the park frontage of MD 355.

**“Provide a comprehensive, sustainable trail network for the entire park and link that network to regional greenways.”**

**Gateway Features** The LBRP Master Plan recommends a “Gateway Area” along Route 355 and west of the Sopers Branch as the main entrance to the park, to welcome people and to provide them with an overview of the natural and cultural interpretive opportunities of the entire park. The gateway concept recommends (on pages 14-17) activities appropriate to Little Bennett’s natural setting, including group picnic areas, nature based adventure playground, group fire ring, amphitheatre, interpretive landscapes and gardens. A visitor center with an interpretive focus is proposed to anchor the gateway to the park and help orient people to the park’s historic, cultural and natural features. Recommendations include:

**“Provide a gateway into the park that welcomes visitors and focuses on natural learning and natural themes.”**

- Provide a welcome entrance into the park that respects the natural terrain and preserves vistas of the natural landscape
- Provide an enhanced landscaped buffer along Route MD 355 to heighten the sense of enclosure in the gateway area
- Provide meadows and garden areas as a “preview” of the types of plants, trees, birds and butterflies that may be found in the park interior

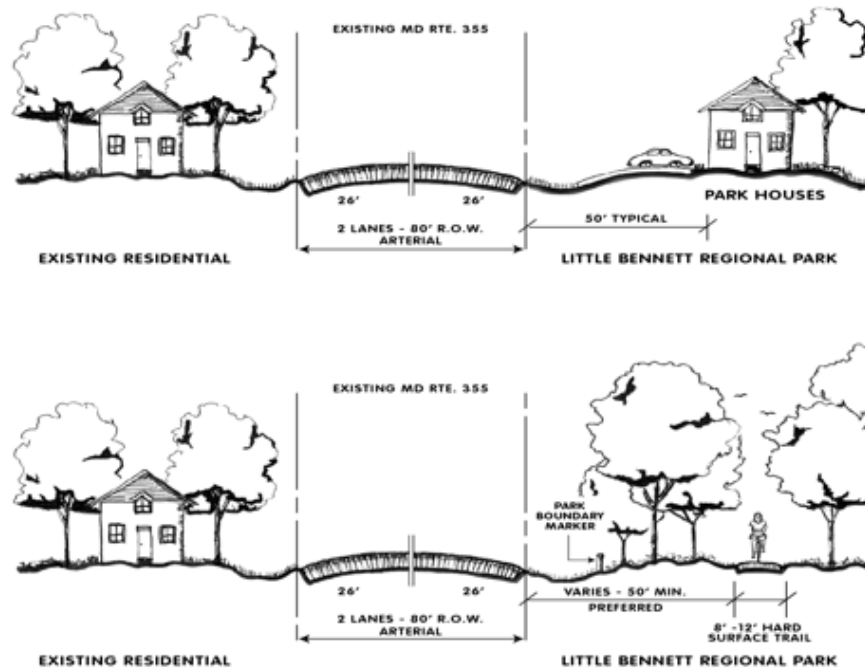


- Provide recreational opportunities that focus on casual enjoyment of the outdoors and are linked to the park's landscape

Park Character Along Road Frontage

Little Bennett Regional Park has frontage along I-270 and along MD Route 355. This frontage defines the entry experience into Montgomery County and the image of the parkland. The LBRP Master Plan recommends on pages 17 and 18 creating a design concept for the park frontage that clearly defines the area as parkland and points to the natural beauty of the park. Upon completion of the historical survey, non-historic park houses should be removed as the opportunity arises.

“Recognize the role of Little Bennett Regional Park as a “gateway” to Montgomery County and the importance of the Park’s character along MD 355 and Clarksburg Road.”



Park Accessibility

The LBRP Master Plan on page 26 recommends providing a main entrance accessible by public transit as well as access to the park by different modes of transportation — by car, by bike, by horseback and by foot. The plan emphasizes design accessibility for people with limited mobility at key recreational facilities and trail segments.

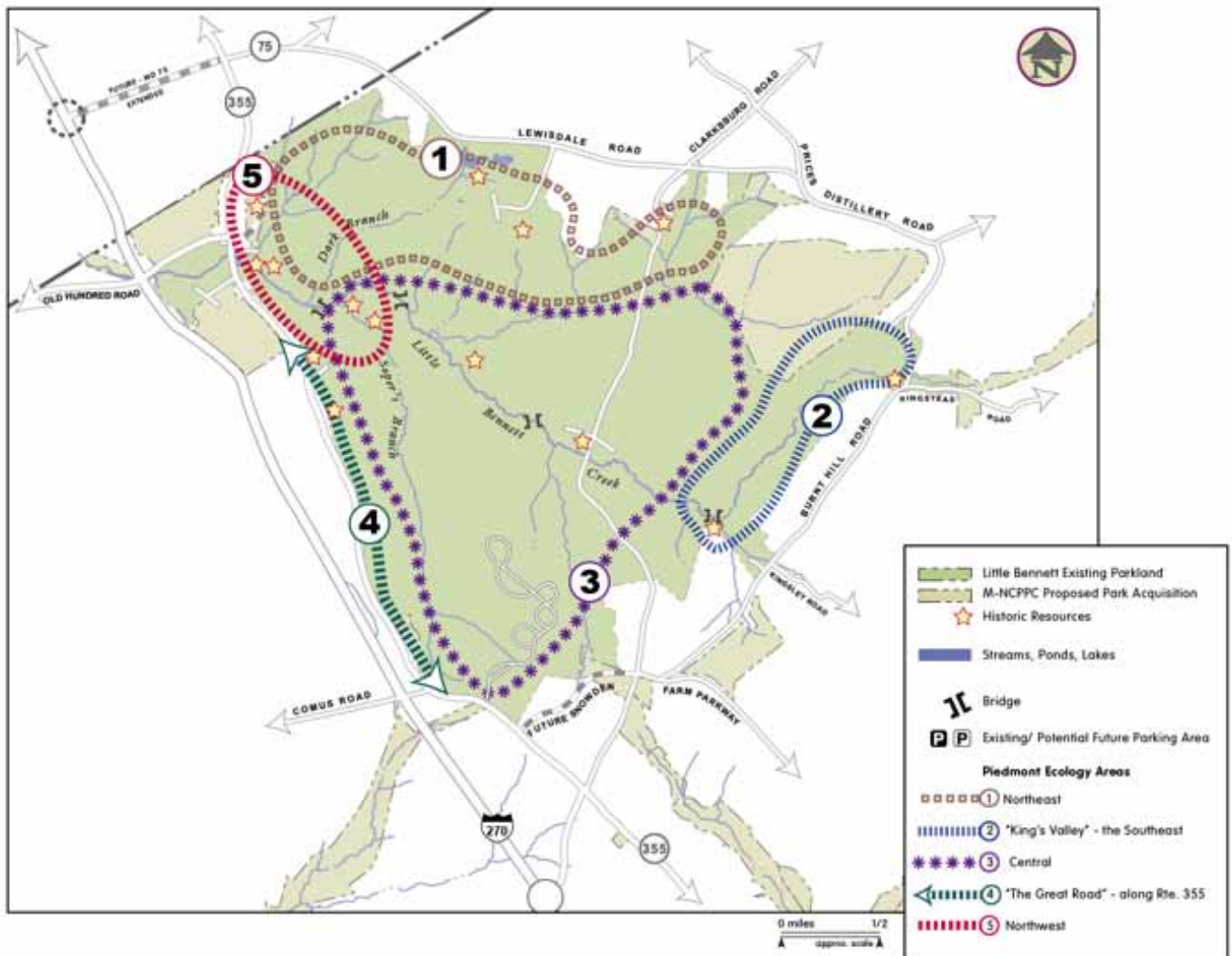
“Assure the park is accessible by different modes of transportation and can be enjoyed by people with limited mobility.”

## Little Bennett Regional Park

### Interpretive Emphasis

The LBRP Master Plan recommends telling the story of life on Montgomery County's Piedmont plateau, and its influence on the culture and ecology of yesterday, today, and tomorrow. The park's hills, valleys and forests were the setting for many rural activities. The unique natural and cultural landscapes present numerous prospects for interpretation. The plan outlines five historic interpretation themes for the overall park on pages 21-22. The Day Use Area is the appropriate setting for interpreting the theme of MD Route 355 and the Piedmont ecology. The plan also recommends on page 24 identifying specific nature-based themes that are unique to Little Bennett Park, including rare open meadow habitats that support mound building ants and unusual plant species.

Little Bennett Regional Park Historical Themes Map



“Emphasize interpretation of the park’s natural, cultural, prehistoric and historic resources.”

The plan includes the following recommendation on page 24:

*Include an interpretive center at Little Bennett Regional Park to foster public understanding of the park’s natural historic and cultural features.*

*While interpretive programming is a given as a recommendation of the Plan, an interpretive center could greatly expand public enjoyment of the Park. An interpretive center could be a part of the proposed Visitor’s center or could be a free-standing building. This decision needs to be guided by a comprehensive study of park interpretive centers. The Park Recreation and Open Space (PROS) Plan anticipates a countywide need for two interpretive centers in the next 20 years. A countywide study should help guide where these centers should be located and include recommendations as to building size, parking requirements and associated scope of services that would be delivered from the facility. As noted in the implementation chapter, such a study should be initiated to allow the findings to guide future planning and design of the Visitors center at Little Bennett Regional Park.*

**Implementation** The LBRP Master Plan recommends on pages 35-38 amending the Countywide Bikeway Plan and the Countywide Park Trails Plan to reflect the proposed trail concept for Little Bennett Regional Park. It also recommends removal of non-historic park houses on Route 355 as opportunities present themselves and exploring the feasibility of adding a future transit stop along the Corridor Cities Transit Corridor to serve Little Bennett Regional Park.





## Program

The 2007 Little Bennett Regional Park (LBRP) Master Plan recommends developing a 'Gateway Area' to welcome people and provide them with an overview of the natural and cultural interpretive opportunities of the entire park. Activities proposed for the gateway area are nature based and largely unstructured including entrances, access road, parking, group picnic areas, meadow habitats, native plant education areas, a group campfire, an amphitheatre, nature based adventure playground, interpretive landscapes, gardens, and trails. A visitors center with an interpretive focus is proposed.

The proposed program for the Day Use Area adopted the 2007 LBRP Master Plan recommendations and was further refined in the Facility Plan process. As part of the Facility Plan effort, program elements were re-evaluated to better fit in with the ecological and cultural context. For instance, the focal point water feature tentatively suggested in the Gateway Concept was removed from the program due to feasibility. The concept of access and parking from the traditional park development approach was re-

visited. The plan explored ways to engage people and minimize the development footprint to preserve the existing meadow landscape, promote sustainable development and reduce project costs.



The Department of Parks has deferred the development of the visitor and nature center — to be located at the south end of the park as recommended by the LBRP master plan — as part of this project due to current economic conditions and the high cost of developing and operating this facility. The planning and design of an interpretive center at Little Bennett Regional Park will require guidance from a future countywide study. A Countywide Interpretive Center Functional Plan recommended by the Master Plan still waits to be implemented. Nevertheless, with significant program area and interpretation emphasis, the facility plan has identified the need for a small visitor and classroom facility as a key component of the plan to welcome and orient the visitors.



The proposed program for the facility plan includes:

- **Park Framework:** entrances, access road, parking, bike path, maintenance path, trails, bridges, boardwalk, stormwater management facilities
- **Nature Based Recreation:** group picnic areas, picnic shelter, amphitheater, group fire ring, playscape complex, hay play and sledding hill
- **Visitor Facility:** a multi-purpose classroom pavilion with interior reception area, multifunction classroom/meeting space, private work area, storage, utility spaces and restrooms; and exterior terrace, outdoor educational space and amphitheatre
- **Interpretation:** meadow habitats, overlooks, Sycamore Rings, Bird House Point, teaching alcoves, interpretation trails and boardwalks
- **Conservation and Stewardship:** meadow enhancement and management, control of invasive plants, managed succession, and stream restoration

# Design Approach

Little Bennett Regional Park presents a story of life within Montgomery County's Piedmont plateau. The Day Use Area site characterizes the culture of an old field and its influence on the ecology. The 'Gateway' area intends to address the cultural landscapes in which we live and which changes over time; cultural landscapes are natural landscapes altered by man. The existing meadow is evidence of many years of cultivation, as meadows do not occur naturally in the Mid-Atlantic region. A slight change to the ecology can alter this landscape forever. The development of the Day Use Area requires careful thought in order to protect this unique and precious rural landscape.

The western edge of the site runs approximately a sixth of a mile fronting MD Route 355 and is framed by Sopers Branch stream valley on the east. It is



surrounded by rural residential and industrial areas with a farmstead neighboring the south and a 1931 farm house situated at the north end. Frederick Road (now MD Route 355) was an historic Indian trail and the major route northwest from Washington, DC between 1740 and 1950. Sopers Branch represents a fine example of the native plant community now uncommon in Montgomery County, with a high quality wetland and skunk cabbage seeps area.

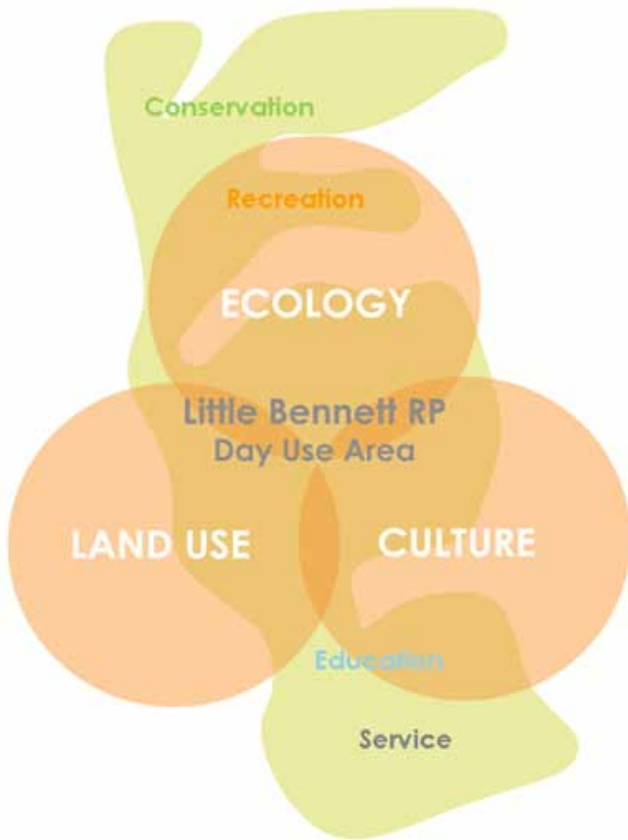
The road, the rural history of the area, and its unique environmental setting position the Day Use Area for a key story-telling opportunity about site identity and character. The proposed Facility

From west to east, the area's character shifts from rural homestead to road, from meadow to forest

Plan attempts to highlight the interesting dichotomy between man and nature that is evident on the existing site — from west to east its character shifts from rural homestead to road, from meadow to forest. This juxtaposition creates an ecologically diverse, culturally rich and beautiful landscape.







The Facility Plan respects this west-east transition and intentionally locates major programmatic elements in a logical way that is sensitive to the land and its inhabitants. The main access road, parking and large group picnic areas are located on the western edge of the site to preserve the existing meadow. Trails and other programmatic elements are designed to be located within the meadow in a linear, non-intrusive manner that leaves large areas of the meadow intact. The basic principle of this plan is to design elements efficiently to serve multiple functions and to provide flexibility for the future. This approach is cost effective and reduces the developed areas of the site. It also minimizes stormwater management requirements.

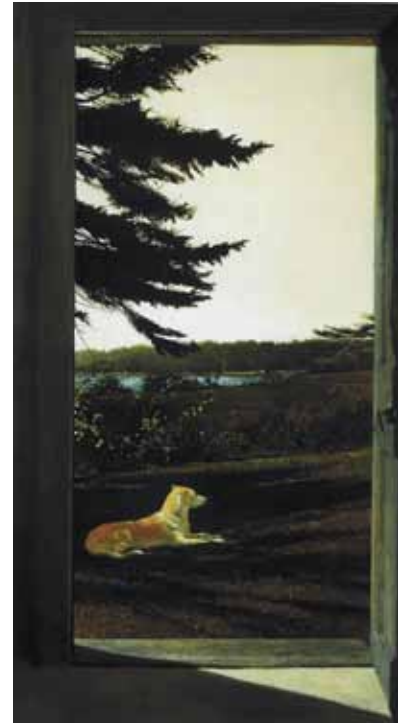
Park entrances are to be identified using an Indian ‘way finding’ approach — directly or intuitively identifying distinctive natural features as road markers; Sycamore trees typically identify stream valleys, which were historic hunting and fishing grounds and corridors of travel for nomadic people. Interpreting this concept, the plan proposes to use a symbol to represent the white sycamore bark to identify points of arrival. White vertical markers will be placed along the road frontage and become more frequently spaced as drivers approach the park entrances. Other sculptural elements may be included throughout the site.

Meadow Drive is the main road along the western periphery, providing opportunities for vehicular access, parking, walking, biking and picnicking. The plan aims to develop a picnic experience based on its broad and basic definition — a picnic is simply a pleasure excursion at which a meal is eaten outdoors. The Facility Plan offers multiple family and group picnic opportunities: under the trees near parking areas in the vicinity of the existing park house; meadow picnicking along the long sweeping western edge of the site; and wilderness picnicking away from park activities for people seeking solitude in nature.

The Facility Plan includes a nature based play experience intended for all ages. An active central play hub is integrated with the natural environment providing opportunities for exploration, education, and pure enjoyment for all park users. Enticing themed experiences and loosely structured areas for nature interpretation will provide physical connections to aspects of the park and its various habitats, including those of birds, bats, butterflies and insects.

The plan aims to develop a picnic experience based on its broad and basic definition — a picnic is simply a pleasure excursion at which a meal is eaten outdoors.

A high round knoll in the center of the site captures the romance of the meadow and opens communication with the wide blue sky. This symbolic and sensitive spot, with panoramic views of the surrounding environment, is the location for a main feature of the plan. Below tall swaying grasses a small visitor facility/multi-purpose classroom pavilion will be nestled into the hill facing the meadow and forested areas. The plan refers to this building as the Underlook. It turns its back on MD Route 355 and is intended to provide an experience that distances the visitor from modern conveniences. An amphitheater, located near the Underlook, will be used for outdoor teaching, relaxed seating, picnicking, performances, and contemplation.



Vegetation is part of the site's natural dynamic. The Facility Plan envisions annual or semi-annual mowing of the meadow to maintain habitat for insects and ground-dwelling birds and to preserve the historic cultural landscape. The plan proposes to cease mowing along specific areas adjacent to Meadow Drive and the existing hedgerow to allow woody plants to emerge through natural succession. These areas will eventually become part of the hedgerow

**Andrew Wyeth's painting of this tender view as seen through the door served as inspiration for the visitor facility**

Painting by Andrew Wyeth



and form a natural buffer for the meadow, as well as shelter for wildlife. This voluntary vegetation will be adapted to the soil and the site. Selective removal of invasive species would occur to manage succession. Immediately adjacent to proposed picnic areas and other visitor facilities, native tree plantings would supplement the spontaneous growth of woody plants to more rapidly shade and screen those areas. This approach is not a

heavy-handed reworking of the landscape, but a managed process of natural succession — an economical, sustainable and effective way to enhance the site. The vegetation will be authentic and will become part of the story of the site.

Stormwater runoff from MD Route 355 will be mitigated along the access road and in the managed succession area. The pervious road surface of Meadow Drive is intended to minimize stormwater impact and complement the rural character of the site. Designed bioretention areas featuring Sycamore tree plantings will function as stormwater management facilities to receive, retain and treat stormwater from a swale along the road before it overflows into the existing stream valley; each 'sycamore ring' will be designed to suit specific topography and stormwater management goals. The rings create visual and hydraulic connections to the stream — highlighting the process of water flow to visitors along the drive.



The Facility Plan anticipates material recycling as part of the story-telling of the landscape. Logs, brush and hay from targeted conservation measures

may be incorporated into design features. Opportunities include compiling logs from invasive trees into log walls for space making; assembling firewood from dead trees at a convenient location for reuse by local residents; stacking brush as nesting places for insects and small animals; orchestrating the placement of hay bales for interactive play. Also, the plan proposes to use hay bales to create a sculptural sound barrier to mitigate noise from Route 355 at the Park House Picnic area.



# Relationship to the Land

*"...it will take more than ecologically regenerative designs for culture to be sustainable, that what is needed are designed landscapes that provoke those who experience them to become more aware of how their actions affect the environment, and to care enough to make changes." —Elizabeth K. Myer*

While sustainability is generally understood in relation to ecological health and economic efficiency, the facility plan considers the aspects of culture and aesthetics in the design agenda in order to retain the essence of the place. The design intends to provoke the simple aesthetics of the rural landscape and translate the cultural value into a memorable landscape. People are encouraged to experience the beauty through seeing, touching, smelling and learning; thus reflect their relationship to the land.

The great American painter, Andrew Wyeth often chose the land and the people around him as subjects for his art. His solitary walks were the primary means of inspiration for his landscape paintings. The plan for the Day Use Area hopes to sustain the aesthetic environmental experience of the place and inspire new generations to adore it.

Green design has been at the forefront of design discourse over the last decade. What does it mean to parks in the 21st Century? The Facility Plan examines our dated sense of park use and seeks to explore sustainability and



Christina's World and Trodden Weed (right) by Andrew Wyeth



Andrew Wyeth often chose the land and the people around him as subjects for his art. His solitary walks were the primary means of inspiration for his landscape paintings.

*“The principle of sustainability is reshaping the way we think about the world, encouraging us to improve the way we design, build and live in the 21st century.”*


—Rob Fleming

innovation within the context of culture and ecology. The plan for the Day Use Area positions itself as a platform of contemporary approaches to park development and land stewardship. The plan challenges the efforts of development practices to adopt a more environmentally responsible and culturally sensitive framework. Rather than treating the land as the development site and altering it, the plan seeks to protect this precious rural landscape and build in harmony with what is there.

The concept attempts to protect the contiguous meadow and areas of biodiversity while providing the required recreational program and interpretation opportunities for visitors. Without disfiguring the land with excess roads and parking, the plan proposes to establish a cooperative relationship with the environment without dominating it. The program elements are carefully sited relevant to the cultural and ecological gradient of the site.

Embracing the site’s land use and ecological process, the plan proposes to continue with mowing of the meadow to maintain its habitat and to preserve the historic cultural landscape; to manage succession along the access road to allow the landscape to rejuvenate; and to ecologically manage stormwater to protect the stream and surrounding environments. The plan examines the “inconvenient truth” and strives for greener ways to access to the environment.

As shown in the summary, the facility plan improves sustainability in comparison with the LBRP Master Plan Gateway Concept.

LBRP Master Plan Concept	Overall Improved Sustainability		Facility Plan Concept
	464	# Parking Spaces	265 <small>(does not include parking for future Visitor Center)</small>
	8,450'	Length of Road	3,590'
	282,000 sf	Paved Surface	160,000 sf
	50,000 sf	Needed Bioretention	28,000 sf
	23.5 acres	Road Disturbance	12 acres
	62-64 acres	Limit of Disturbance	32-34 acres
			

# Facility Plan Process

The Facility Plan for Little Bennett Regional Park Day Use Area was funded with \$349,300 in the FY10 Capital Improvements Program in the Facility Planning Non-Local PDF. The facility planning phase of the Day Use Area began in winter of 2009.

The M-NCPPC PDCO (Planning, Design, Construction and Operation) staff review team was formed and included expertise in Environmental Planning, Transportation Planning, Central Maintenance, Park & Trail Planning, Natural Resources Stewardship, Forest Ecology, Architecture, Trail Design, Park Police, Environmental Engineering, and Park Management of the Northern Region.

The project has been designed in house by a staff landscape architect (LA) in the Park Development Division, in a collaborative effort with support by engineering and specialty consultants. The prime consultant was procured via a Multi-disciplinary Task Order in March 2010. The contract was awarded to A. Mortan Thomas and Associates, Inc. (AMT) in April, 2010 to perform civil engineering, survey, natural resources inventory, geotechnical work, storm-water management, environmental site design, and cost estimating services.

The needed architectural, acoustic, playscape and graphic design expertise beyond the original scope and professional expertise of AMT were added as the plan was developed and the program was further defined.



The facility planning process is summarized as follows:

- January 6, 2010 Kick-off meeting attended by the PDCO team; reviewed and discussed project background, program and vision
- February 19, 2010 Meeting regarding visitor center attended by an internal focused group; reviewed examples of a green visitor center recently completed in the US and discussed the proposed visitor center at Little Bennett
- March 15, 2010 Recap kick-off meeting attended by senior management; reviewed and discussed project background, program and vision.
- March 22, 2010 Follow-up meeting regarding visitor center attended by a focused group; direction was given to defer the development of the visitor center.
- April 13, 2010 Task Order contract was awarded to AMT
- April 19, 2010 Site meeting attended by the PDCO team; reviewed site conditions and program possibilities
- April 27, 2010 Kick-off meeting attended by AMT; reviewed project background, program, vision, scope of services
- May 5, 2010 Site visit attended by LA, natural resource manager and forest ecologist; discussed preliminary concept and site ecology
- June 23, 2010 Presentation of schematic concept attended by PDCO team; design approach, landscape concept and program were presented and discussed
- July 12, 2010 Schematic concept briefing attended by senior management; design approach, landscape concept and program were presented and discussed
- August 23, 2010 Approval of Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) by M-NCPPC Environmental Planning Division
- September 23, 2010 Preparation for the community meeting attended by PDCO team; reviewed and discussed presentation content
- September 27, 2010 Preparation for the community meeting attended by PDCO team and consultants; reviewed refined presentation content
- September 29, 2010 Community meeting held at Cedarbrook Community Church; presented schematic landscape concept to the community and received comments; the plan was well received and supported by the community
- November 11, 2010 Site meeting regarding trail connection attended by PDCO team and consultants; discussed trail connection, multi-purpose trail and verified design of the northern parking area
- December 1, 2010 Meeting regarding American Indian heritage interpretation attended by team of Cultural Resource Stewardship staff; discussed short term and long term plan for interpretation of American Indian heritage in the park system and the program for the Day Use Area
- February 9, 2011 Meeting regarding architectural concept attended by PDCO focused group and consultants;

CAA presented the preliminary concept

- February 25, 2011 Meeting regarding Forest Conservation attended by consultants and Environmental Planning staff; discussed forest conservation issues and limit of disturbance
- March 3, 2011 Site meeting regarding trail design and future crossing of Sopers Branch by PDCO focused group and consultants; discussed layout, feasibility and materials
- April 1, 2011 Meeting with DPS regarding Environmental Site Design; reviewed stormwater management concept and issues
- April 19, 2011 Meeting regarding architectural components attended by PDCO team and consultants; presented and discussed schematic concept
- May 17, 2011 Meeting regarding landscape management and conservation strategies attended by Natural Resource Manager and Forest Ecologist; discussed management plan
- May 23, 2011 Presentation to the Clarksburg Civic Association; presented facility plan concept and answered questions
- June 1, 2011 Meeting regarding design development plan attended by PDCO team and consultants; reviewed schematic design for architectural components, design development plan for the entire site and preliminary cost estimate
- June 1, 2011 Pre-design consultation with DPS regarding building code attended by consultants; reviewed building code requirements
- June 8, 2011 Meeting regarding bikeway and Clarksburg Greenway attended by a focused group; discussed integration of the facility plan with the Clarksburg bikeway plan
- June 14, 2011 Pre-design consultation with DPS regarding fire safety and well and septic attended by consultants; discussed site requirements and strategies
- June 15, 2011 Meeting regarding Forest Conservation attended by a focused group; discussed protection of stream buffer and interpretation
- June 15, 2011 Up-County Recreation Advisory Board; presented the progress plan and received comments; the plan was well received and supported by the Board
- June 27, 2011 Meeting regarding operation budget impact attended by PDCO Central Maintenance; reviewed architectural components and maintenance
- August 16, 2011 Meeting regarding final submission and facility plan report attended by PDCO team; reviewed final submission, report and cost estimate
- August 18, 2011 Meeting regarding trail design attended by PDCO team, M-NCPPC planner, Park Planning and Stewardship trail coordinator and Montgomery County Department of Transportation bikeways coordinators; reviewed park recreation trail, future County shared use path, bikeway and sidewalk connections for the section of MD Route 355
- October 6, 2011 Public presentation to the Montgomery County Planning Board





Distant Thunder, Andrew Wyeth

# Preferred Concept



^ Entry

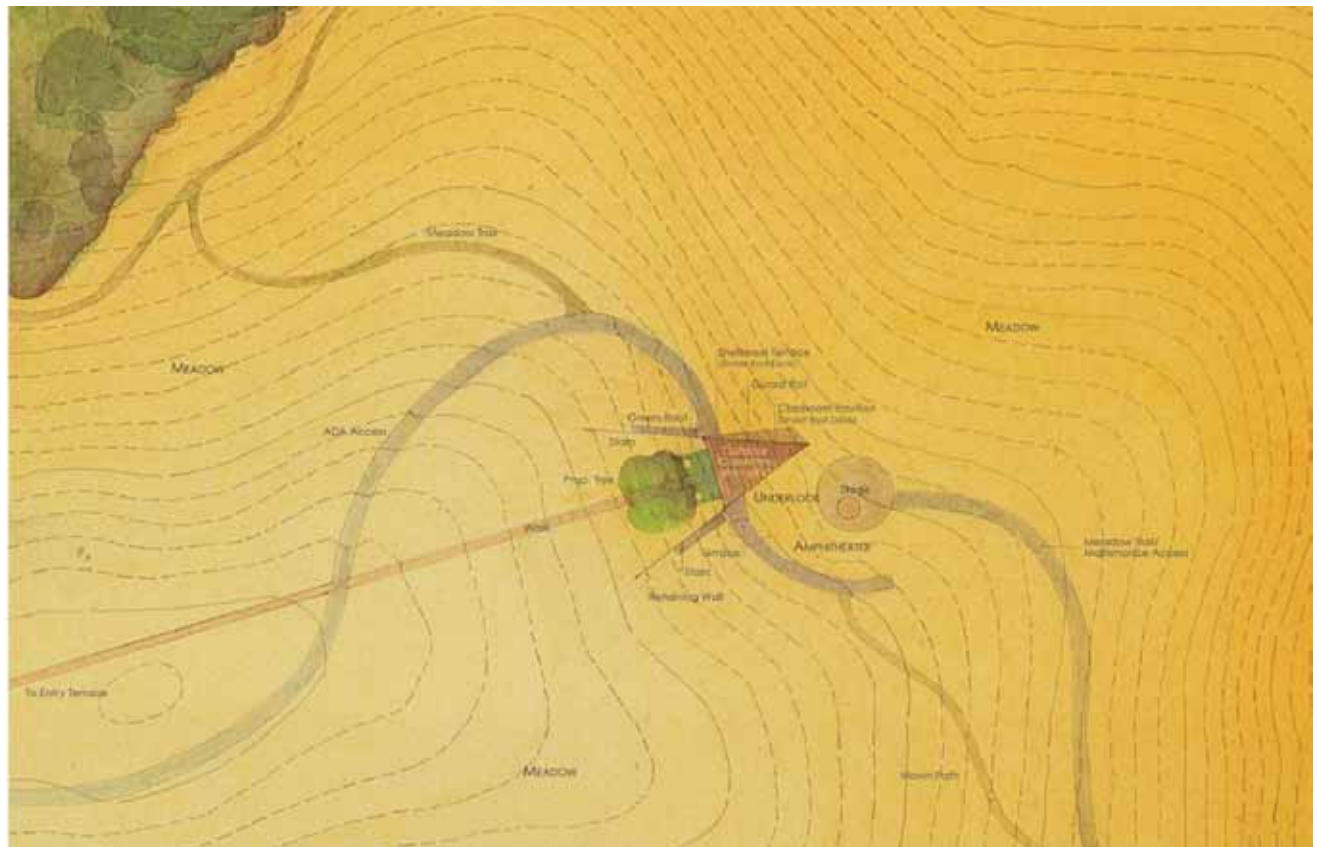
Park House Picnic v





^ Entry Terrace

v Underlook



LITTLE BENNETT REGIONAL PARK DAY USE AREA

Little Bennett Regional Park



^ Sycamore Ring and Overlook

Playscape v



LITTLE BENNETT REGIONAL PARK DAY USE AREA



# Preferred Concept





LITTLE BENNETT REGIONAL PARK DAY USE AREA





# Living Systems



# Meadow



Meadows, sometimes called grasslands, are comprised of grasses and other herbaceous plants that need to grow in open sunlight. Grasslands are disappearing faster than any other habitat in the Eastern US and with them, the plants and animals that depend on these unique areas for food and cover. Population decreases as great as 90% have been recorded for species such as Northern Bobwhite, Grasshopper Sparrow, and Eastern Meadowlark.

Where the meadow meets hedgerows, shrubs or forest, it creates an edge between habitat types, sometimes called ecotones. These edge areas are especially rich and accommodate species from adjacent habitats as well as species specific to that ecotone.

In Montgomery County most meadow areas are the result of human activities — such as and especially farming. Left alone, the park's existing open grassland habitats will grow out of their current vegetative cover and eventually evolve into forest, reducing overall plant and animal diversity. Maintaining these important, diverse habitats requires active, well planned, long-term management.

# Landscape Management

## Hedgerow Expansion Adjacent to Route 355

Shoulder widening and extra lanes for park access will impact the existing hedgerow along route 355. To maintain this important visual and sound buffer a new area will be established parallel to the road extending into the meadow adjacent to remaining trees. The area will be delineated and mowing will be discontinued in order to allow shrubs and trees to grow. Using natural regeneration to expand the hedgerow is cost effective and provides a wonderful educational opportunity for the public to watch this natural process proceed through time. Some areas will receive supplemental plantings of desirable native species and non-native invasive species will need to be managed as the plants grows. Areas will be fenced from deer and Interpretive signs will be used to tell the story of succession.



## Meadow

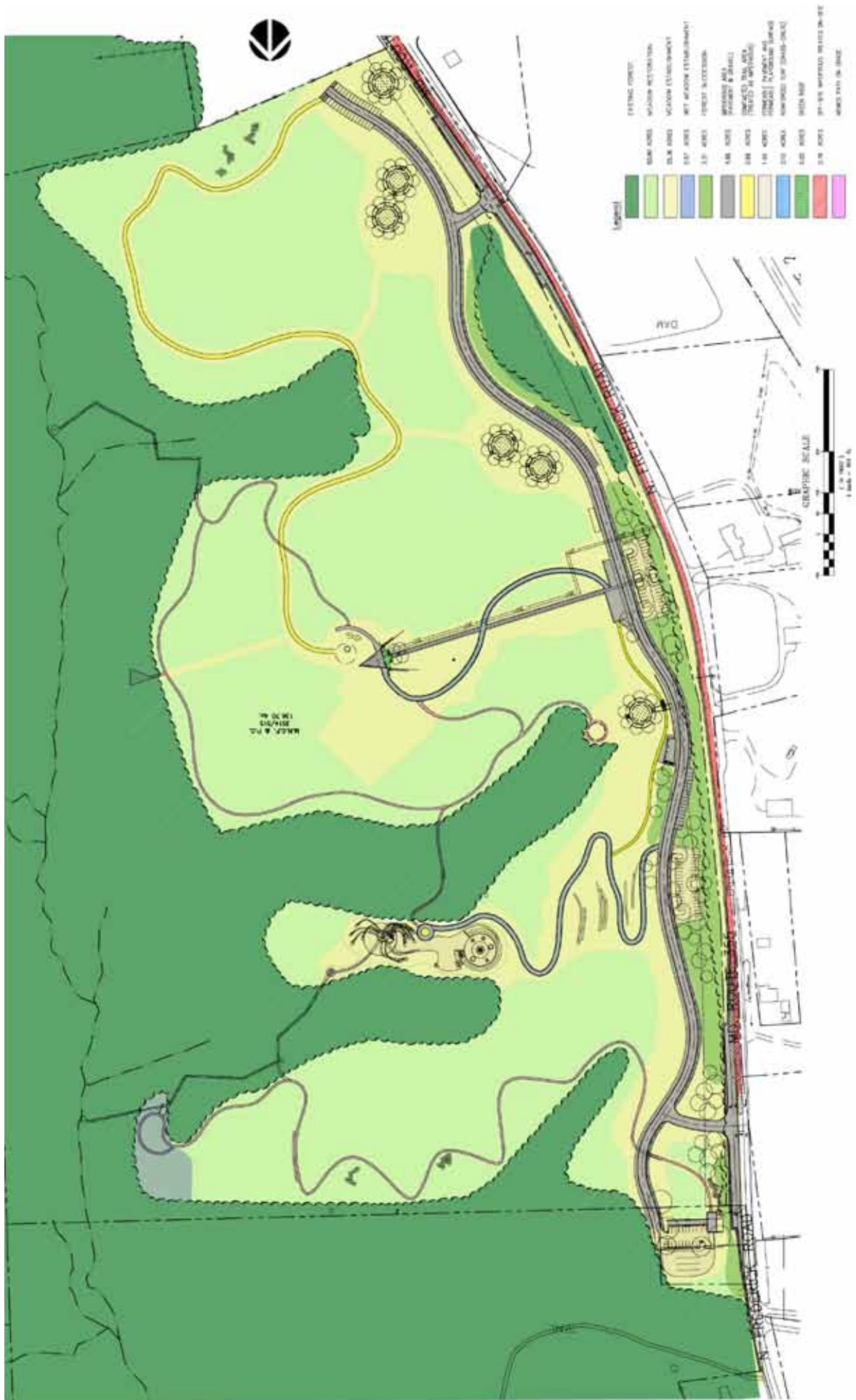
Currently, the park's meadows are maintained by mowing. Regular mowing helps control non-native invasive species and keeps the area from growing shrubs and its natural tendency to become forest. The timing of the mowing operations allows for wildlife to successfully nest and raise young before the hay is cut in mid-Summer, and then allows grasses to grow back and provide important food and shelter through the winter.



## Hay generated from mowing will be made into bales for the sound wall or for play.

Once construction is complete a few small disturbed areas will need to be replanted in meadow. Restoration of these areas will be accomplished through a combination of hand planting native grasses and wildflowers, and allowing existing meadow species to recolonize these spots. Other areas within the expansive meadows will also be enhanced over time by hand planting native seeds and plugs of grasses and wildflowers with a focus on species that benefit wildlife and provide diversity of color and texture. Some of this work will likely be done by Scouts and other volunteers or as naturalist led programs designed to teach and involve citizens. Interpretive signs will also be utilized to tell the story of meadows, the diverse species they support, and how visitors can help support them even in their own yards or community gardens.





MEADOW AND SUCCESSION PLAN

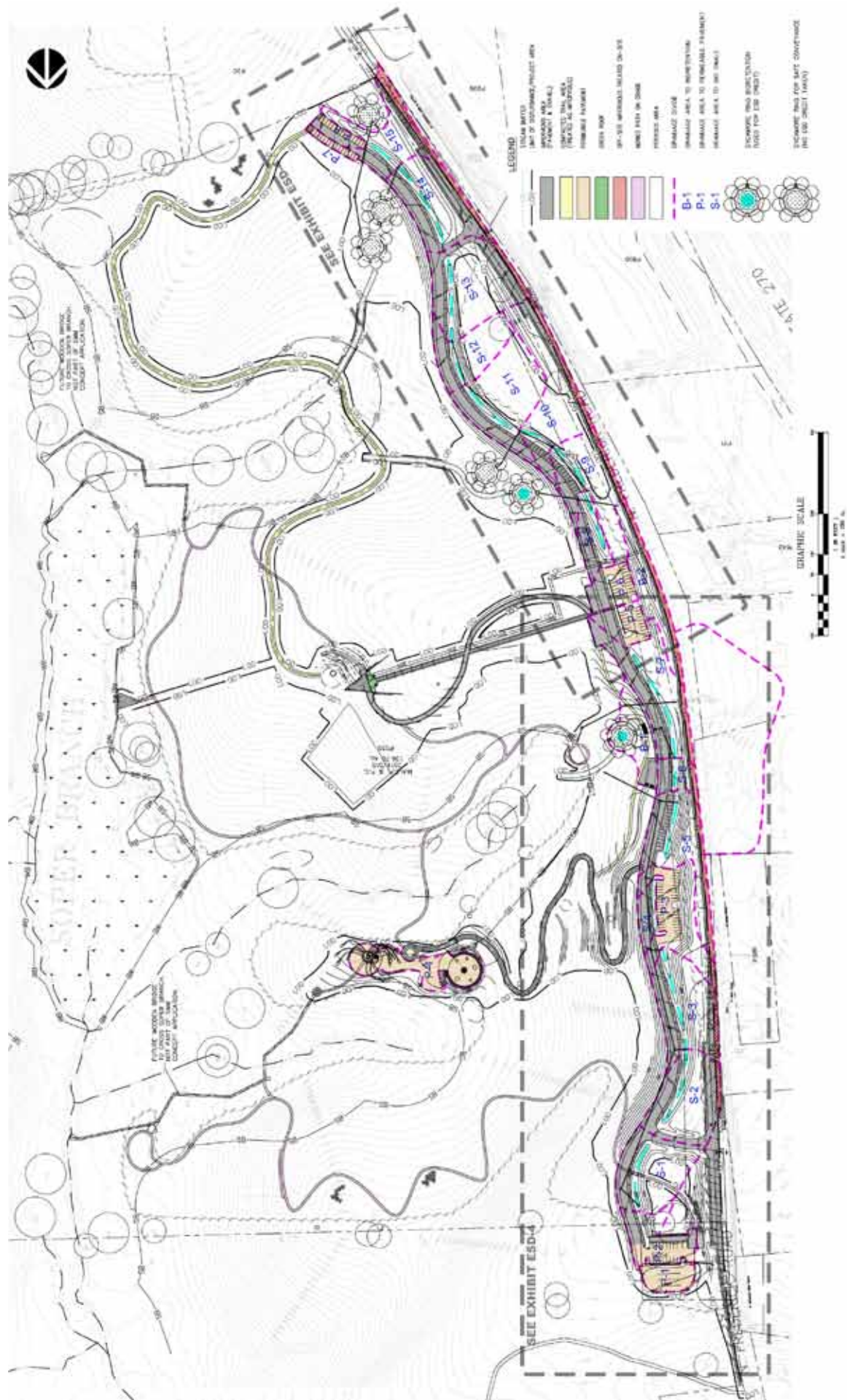
# Stormwater Management

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

One of the goals of Environmental Site design is “Minimizing Site Imperviousness”. The original Master Plan for Little Bennett Regional Park, drafted in 2007, proposed 8,450 LF of roadway within the park. One of the goals of the Facility Plan was to decrease this number. The current design proposes 3,216 LF of roadway, a decrease of 62%. In addition, alternative surfaces are proposed, including 1.40 acres of Permeable Pavement and 0.02 acres of Green Roof.

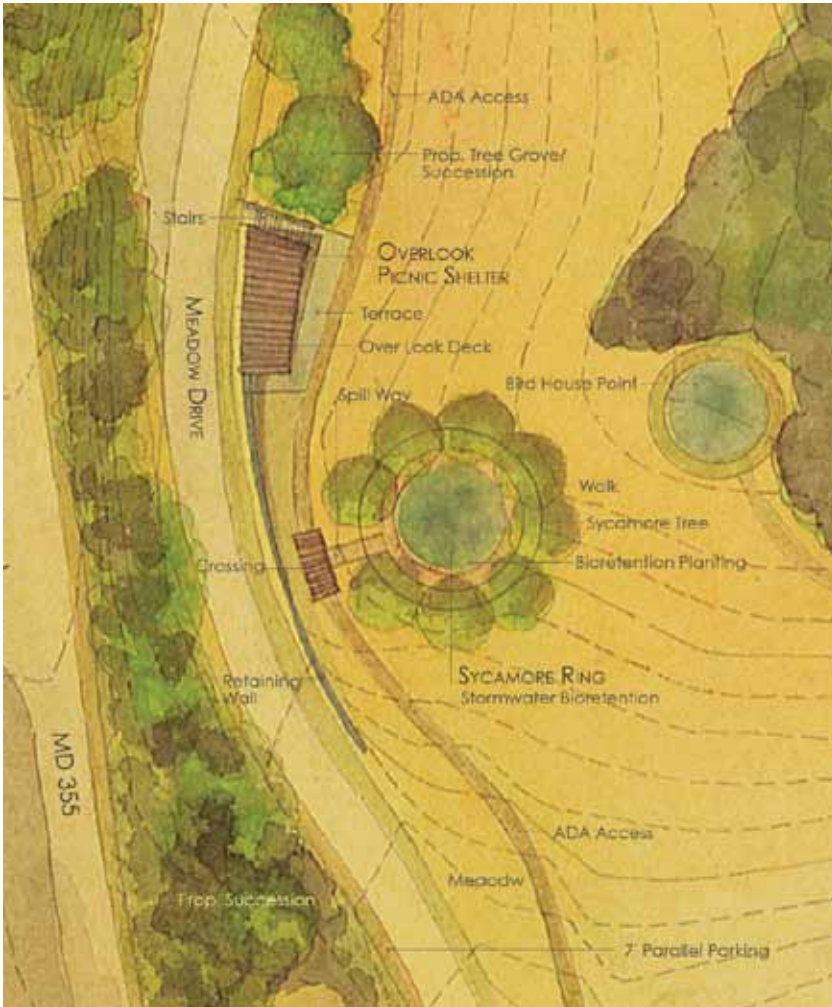
ESD is met through the use of Micro-bioretenion Facilities (Biofilters), Bio-swales, Green Roofs and Permeable Pavements. The proposed facilities provide the necessary volume to provide Full ESD for the site. The required groundwater recharge for the project will be provided beneath the underdrains of the micro-bioretenion facilities and bio-swales. A total of 2,215 linear feet of bio-swale, two (2) micro-bioretenions, 1.40 acres of Permeable Pavement, and 0.02 acres of Green Roof are proposed.





STORMWATER MANAGEMENT PLAN

# Sycamore Ring



Sycamore trees identify stream valleys, which were historic hunting and fishing grounds and corridors of travel for nomadic people.

At Little Bennett, the Sycamore tree takes on increased responsibility.

Designed bioretention areas with Sycamore tree plantings will function as stormwater management facilities to receive, retain and treat stormwater from the swale along the road before overflowing into the existing stream valley.

Seemingly identical, each Sycamore Ring will be designed to suit its specific topography and stormwater management goals.

Functional and aesthetic, the pure geometry of the ring intends to provoke interest in the water process — a visual connection to the hydraulics of the stream valley.



**This sculpted double ring landform was inspiration for the Sycamore Ring concept. >**

— Herbert Bayer,  
Mill Creek Earthworks



# Sycamore Ring



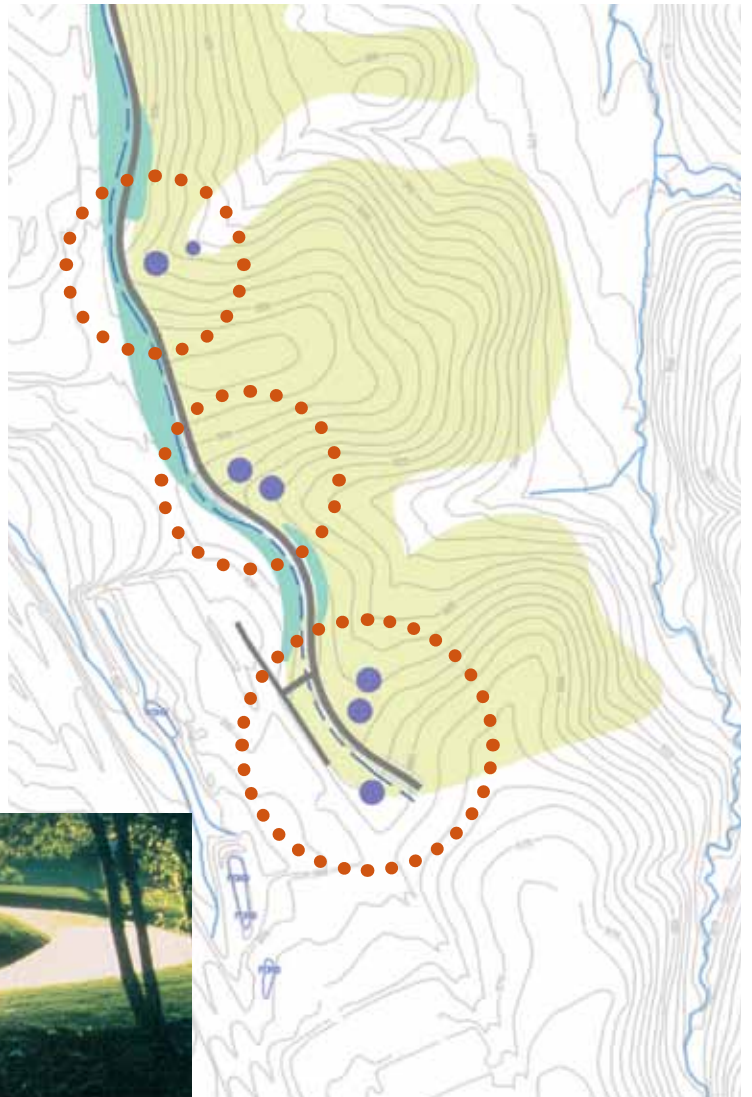
A small perennial ponding area at the ring of the Bird House Point is also envisioned for habitat enhancement and environmental education.

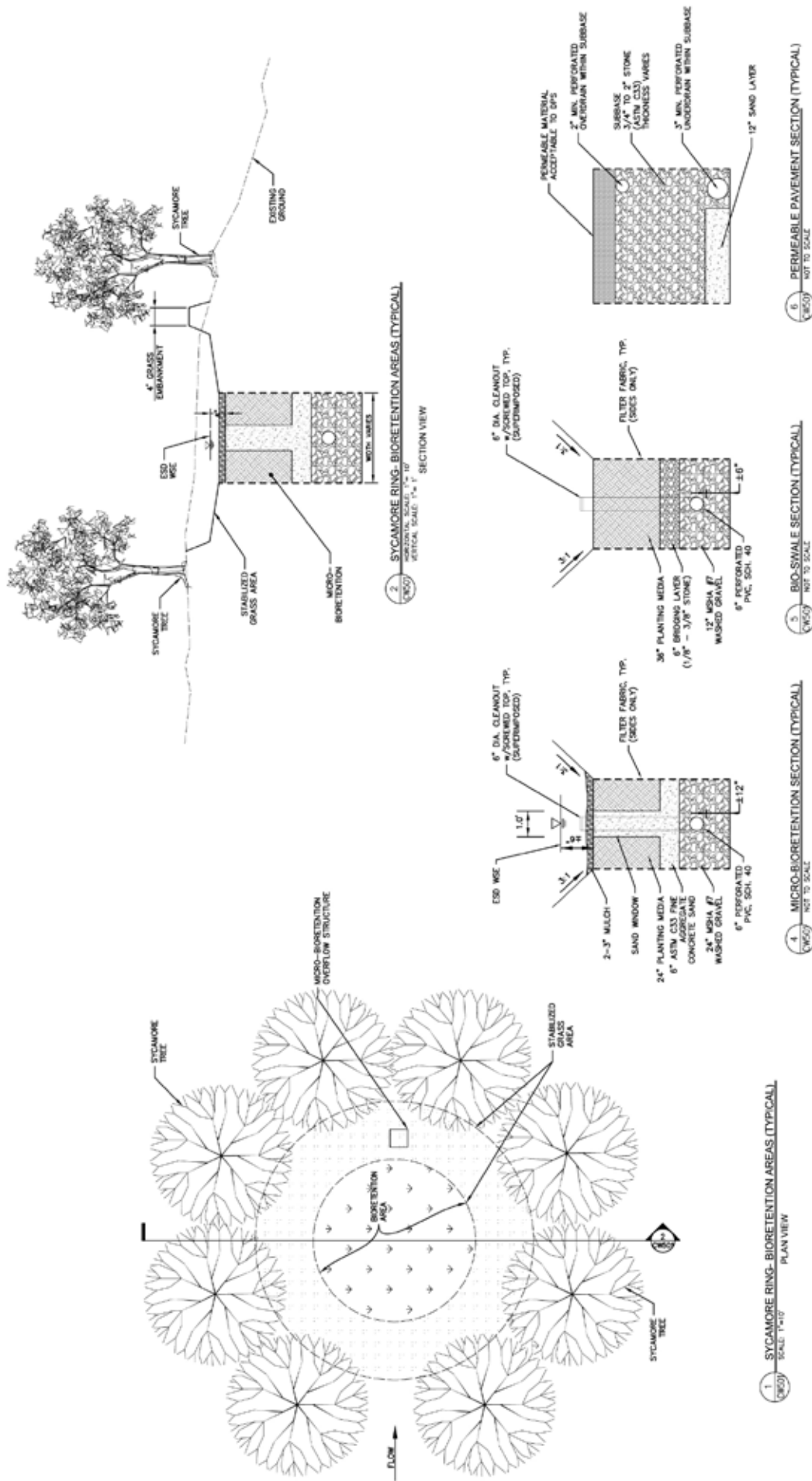
Each ring consists of a 40' diameter circular bio-retention planting area with Sycamore trees planted in an 80' diameter concentric circle.

Seven Sycamore Rings are strategically located along the drive to mitigate stormwater runoff — 3 function as a bioretention facility to handle 20,000 square feet of drainage area each and 4 function as a ponding area for safe conveyance.

Visitors will have the opportunity to take a walk around the Sycamore ring near the picnic shelter.

Here, stormwater from the upper swale is conveyed into the ring, retained and treated before draining to the stream valley. The outfall mechanism for the swale will integrate with the retaining wall to reflect the different storm events. Interpretative signage will be incorporated to tell the story of the water process.



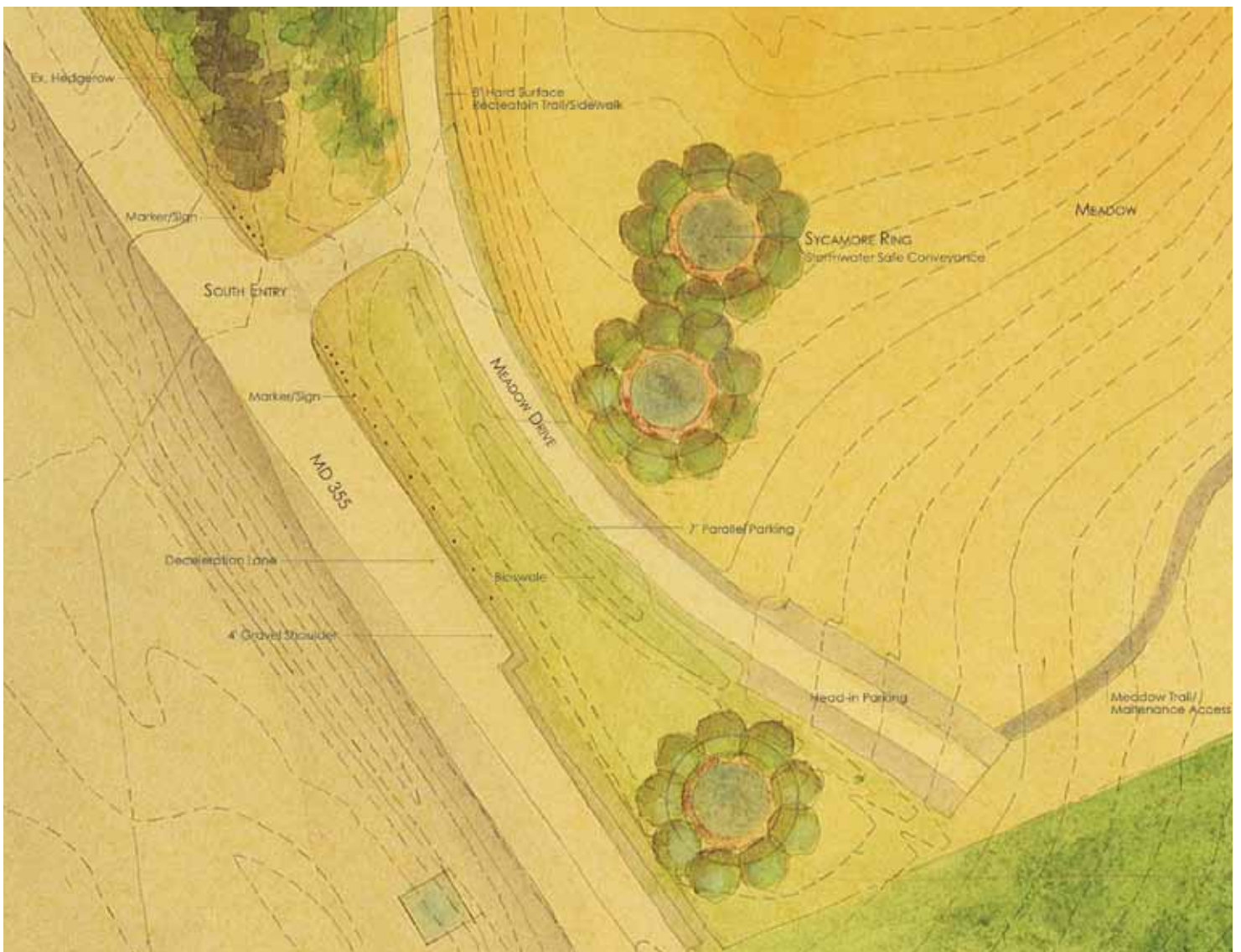


SYCAMORE RING DRAWING, SECTION, DETAILS

# Design Features



# Entry



Park entrances are identified using an Indian way finding approach with distinctive natural features as road markers.

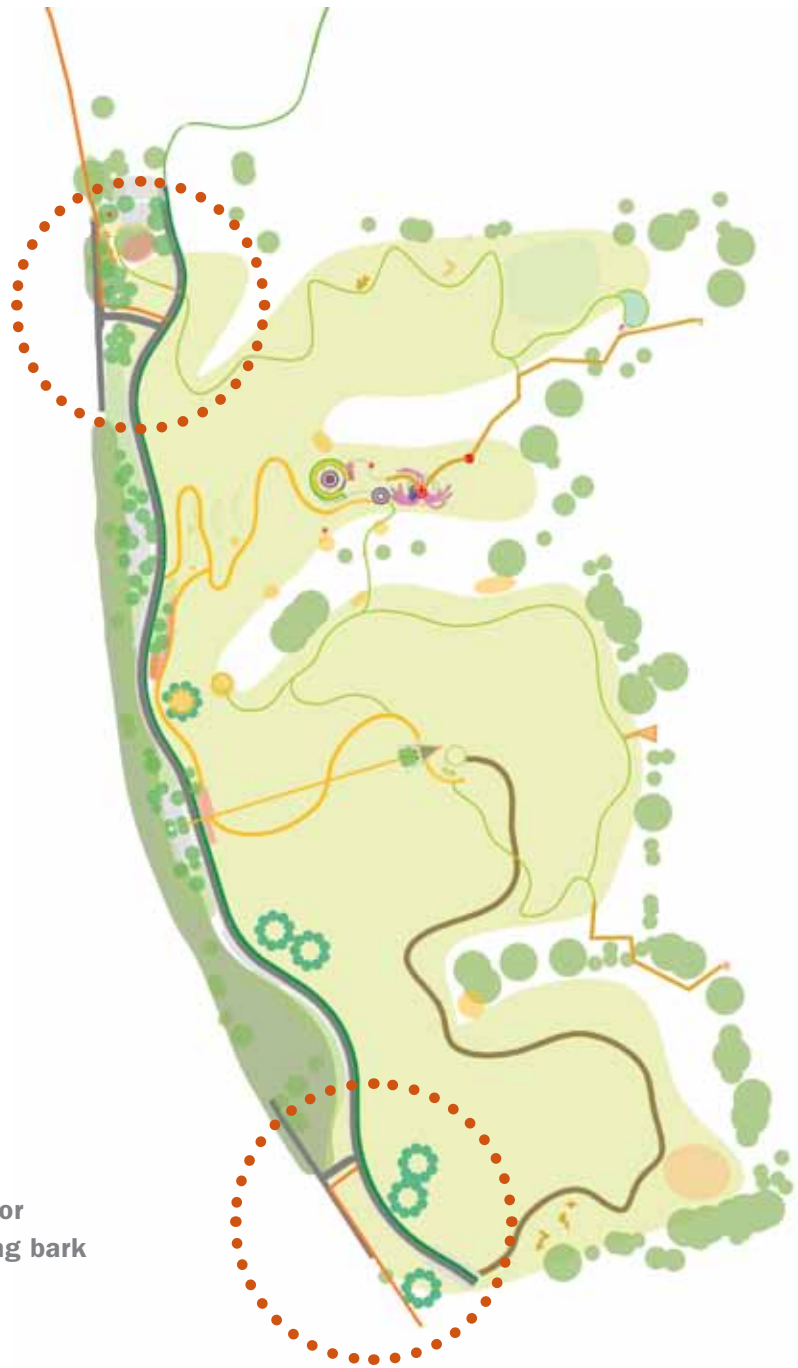
Sycamore trees identify stream valleys, which were historic hunting and fishing grounds and corridors of travel for nomadic people. The park entrances propose using the symbol of the white sycamore bark to identify points of arrival.

White vertical markers would be located along the road frontage of the park and become more frequent at the entrances to signal the park entrances to drivers in a direct and intuitive way.

# Entry



Sycamore tree plantings around circular bio-retention areas provide visual reference for the entry — where the tree's white exfoliating bark and a grand branch display offer timeless character for the entry.



At the road front, tall markers resonating the distant Sycamore bark are arranged in a progressive pattern to elicit entry.



# Meadow Drive

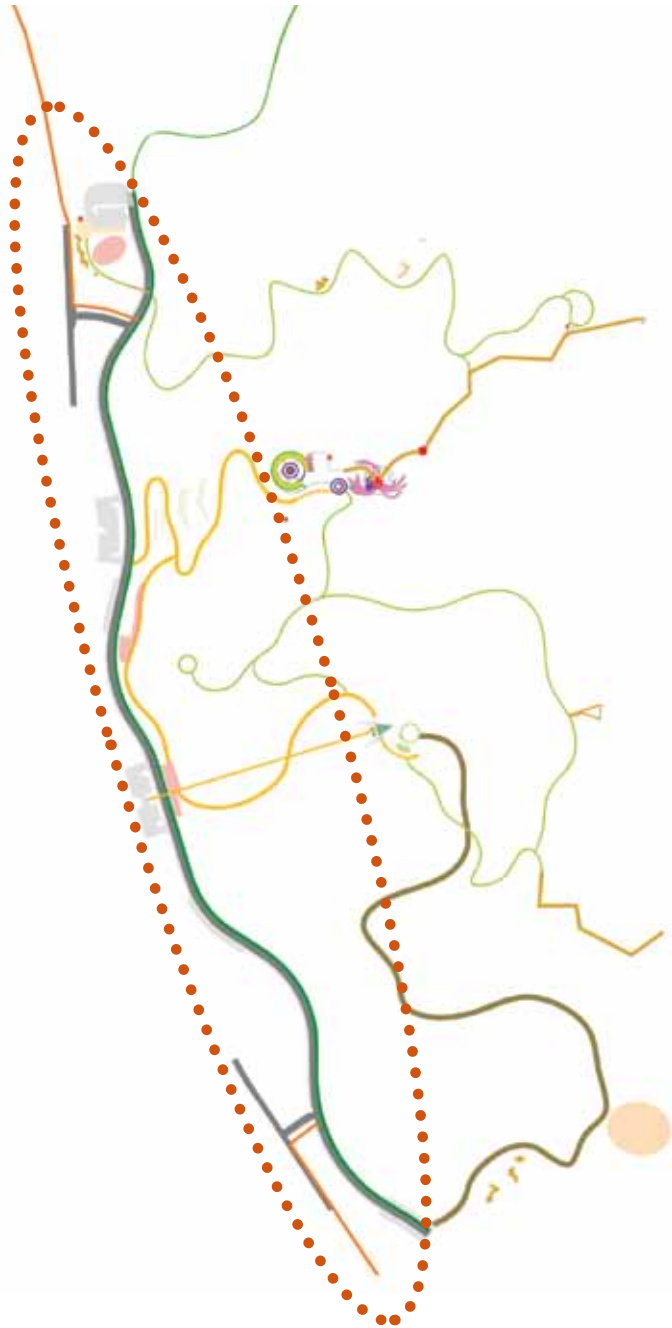


The western Meadow Drive provides opportunities for vehicular access, parking, walking, biking and picnicking.

This main access road is purposely located on the western edge of the site to preserve large areas of the existing meadow. Parking and large group picnic areas are integrated along the way.

Meadow Drive is elegant in its simplicity. It serves multiple functions and supports the idea of less is more, keeping road development to a minimum.

# Meadow Drive



Meadow Drive provides a simple line of access to all the park amenities. The drive is aligned to work with the existing topography achieving slopes less than 5% throughout the entire 0.6 mile stretch.



The 7' shoulder on the west side of Meadow Drive is allocated for parallel parking. Head-in parking areas with permeable surface are designed to provide convenient parking near main point of interests.

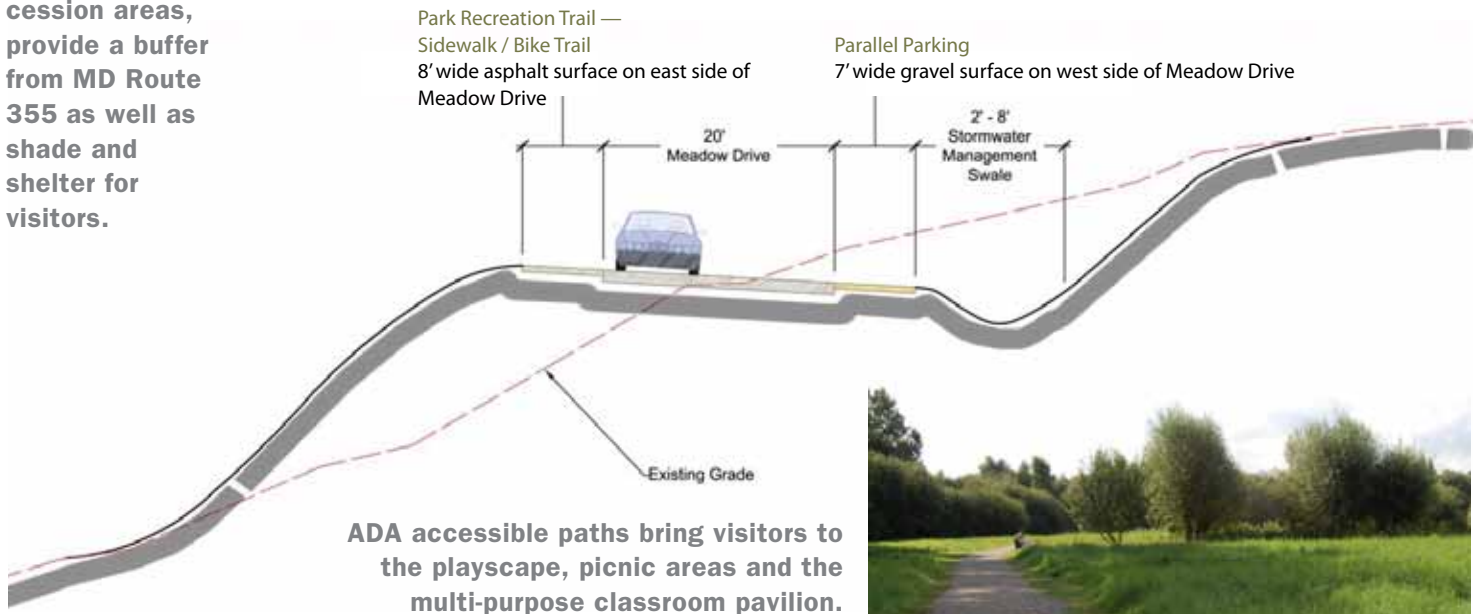
The two-way road and the 8' hard-surface recreation trail/sidewalk on its east side provide picturesque experiences for driving, leisure biking and strolling.





Trees and shrubs of the hedgerow, including future landscape succession areas, provide a buffer from MD Route 355 as well as shade and shelter for visitors.

# Parking, Path and Service Road



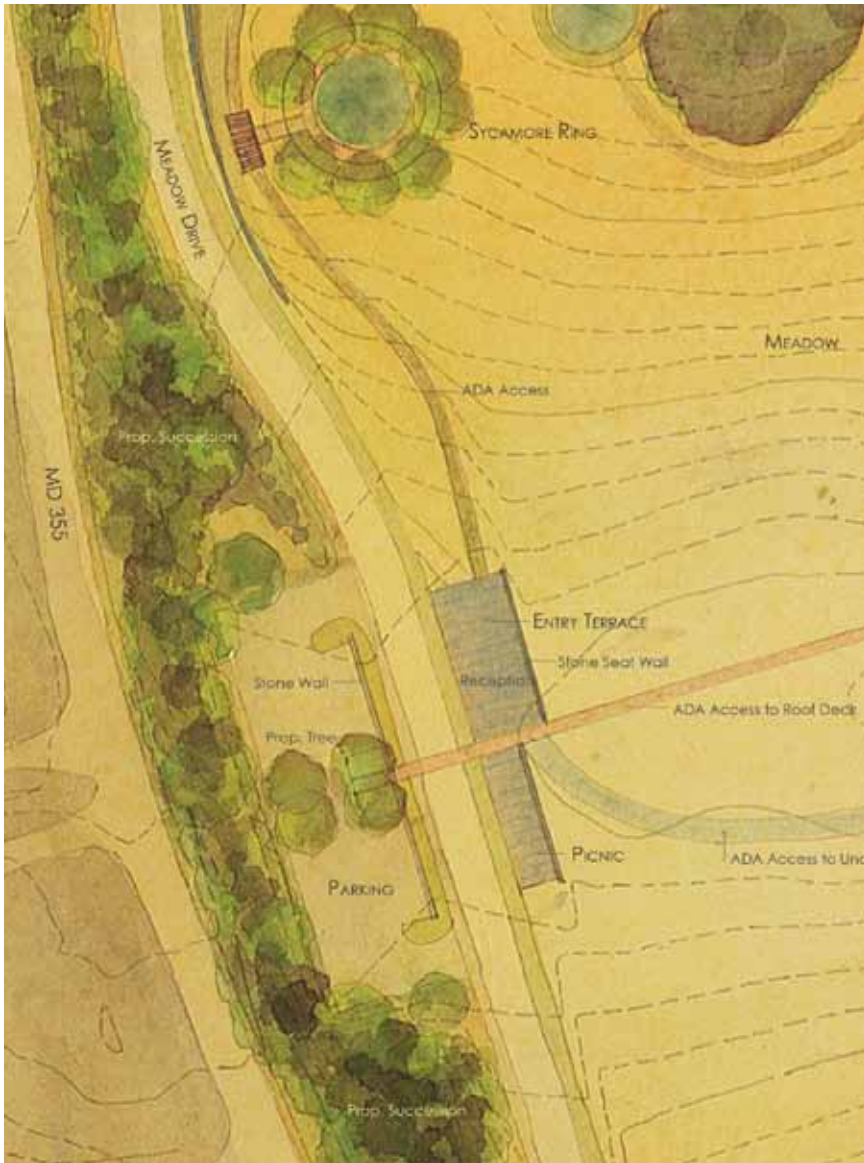
Mown paths offer authentic and least intrusive ways to experience the meadow and surrounding landscape.



Path-like service roads provide access for maintenance and emergency vehicles to all areas of the park.



# Entry Terrace



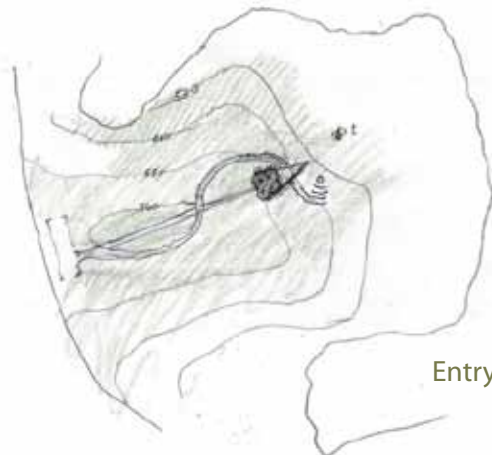
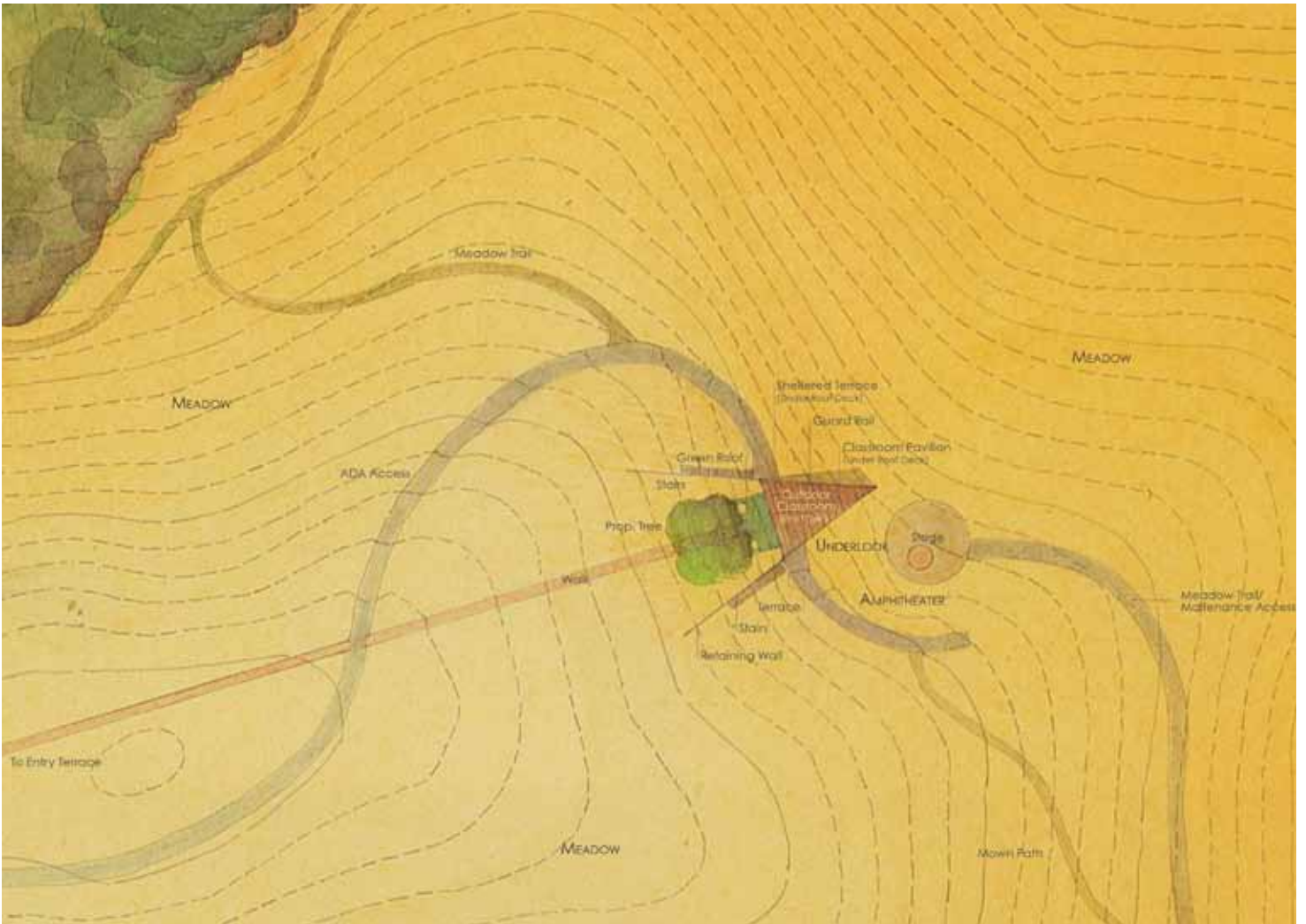
Centrally located, the Entry Terrace provides a reception and orientation space for the Day Use Area and is the starting point for a visit to the Underlook.



The terrace is smartly designed to double as a group picnic area or gathering space and is defined with a natural stone wall reminiscent of those found in age-old fields.



# Underlook



Entry Walks

Surrounded by panoramic views, a small building is tucked into a high round knoll in the center of the site. This symbolic and sensitive spot in the midst of tall swaying grasses captures the romance of the meadow.

The plan refers to this main feature as the Underlook. It turns its back on Route 355 and intends to provide an experience that distances the visitor from modern conveniences. The Underlook is a simple outdoor classroom facility nestled under the hill facing the meadow and the forested areas to the north and east.

The entry walks are an integral part of the Underlook experience, bridging the entry terrace and group picnic area to the multi-purpose facility. Grade changes upon approach to the building are designed to set the mood and engage visitors with the surrounding landscape.

# Underlook



The straight walk stretches atop the knoll and leads to the roof terrace. The curved path wraps around the knoll and gradually descends into the meadow.

Although primarily designed for pedestrian use, the ADA accessible curved path can accommodate vehicular traffic as needed for maintenance, fire safety and emergency.

Four trees are placed to offer shade and visual reference for the linear approach. Stairs on either side provide access to a lower level.

The multipurpose facility provides a flexible indoor/outdoor space for visitors to experience and enjoy the tranquil, minimal and unpretentious quality of the site.



The Underlook takes advantage of the site's distinct natural features for its orientation.



The roof of the Underlook comes into focus as the entry walk comes to an end.



Humbly dwelling on the land, the building preserves the topography of the main knoll.

In spring and fall the windows of the pavilion open for fresh air. Ever-changing views of meadow, sky and forest present a clear overview of the land.

The building's southern exposure provides ample daylight and winter heat gain; geothermal heating and a green roof mitigate temperature change and energy consumption.

The amphitheatre is an extension of the Underlook and can be used for outdoor teaching, performances, relaxed seating, picnicking and contemplation. Outdoor terraces easily accommodate various sized groups.



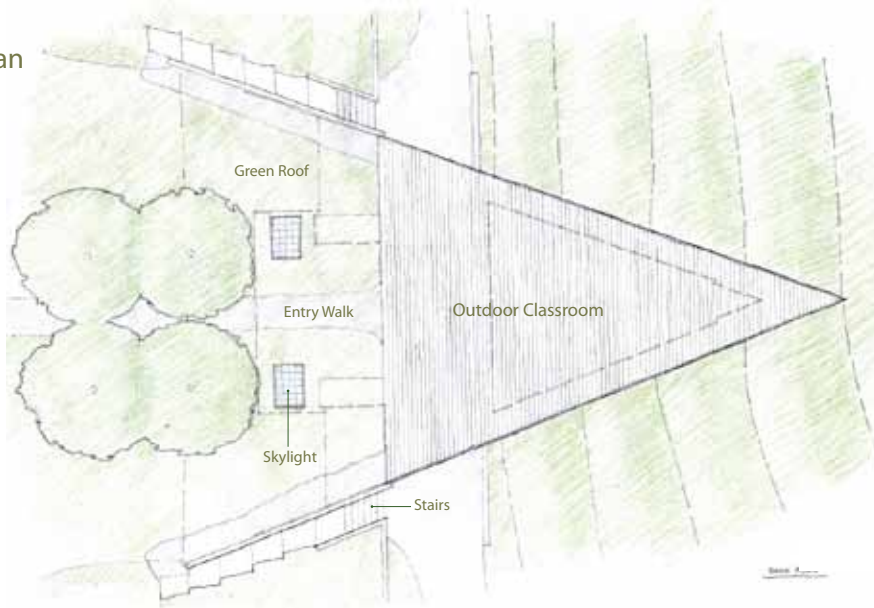
# Underlook

The 2,000 sq ft concrete, steel and wood Underlook is intended for year round usage, staffed or unstaffed.

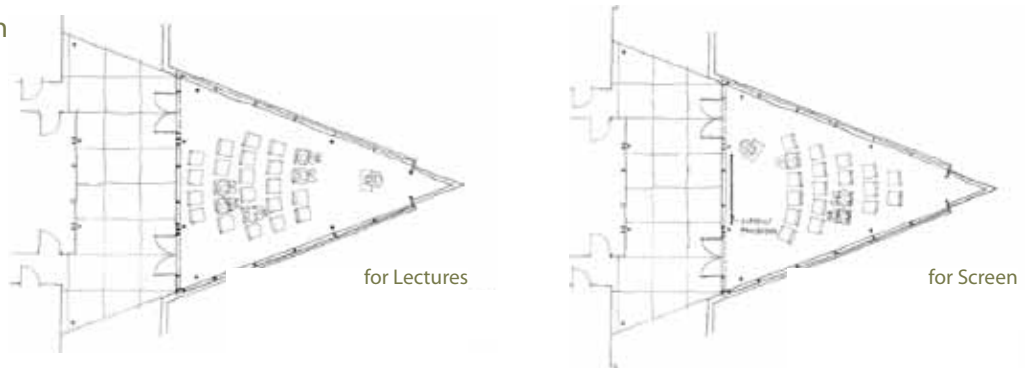
Interior Floor Plan



Exterior Roof Plan



Interior Seating Plan



# Park House Picnic



The plan provides for picnic experiences based on its broad and basic definition — a picnic is simply a pleasure excursion at which a meal is eaten outdoors.

With beautiful long views into the meadow and shade from the existing trees, the open ground near the existing park house\* offers the opportunity for family and group picnic experiences.

The surrounding flat area provides convenient parking for picnic activities and can accommodate horse trailer parking for the future multi-purpose trail immediately north of the area.

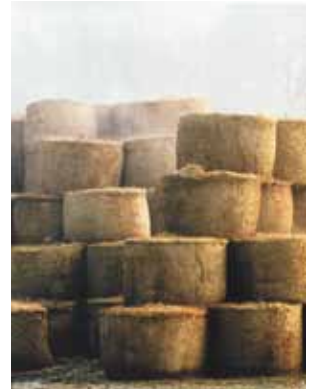
\* The existing farm house is not eligible for historic preservation upon evaluation by the M-NCPPC Cultural Resource Division. The facility plan proposes reusing the foundation and walls of the structure as visitor reception facilities.

# Park House Picnic



The open ground near the existing park house\* offers the opportunity for family and group picnic experiences.

A sidewalk and low stone walls are designed to buffer vehicular activities. A sound wall made of hay bales diverts noise from MD Route 355 and adds interest to the picnic experience.



Large groups or small families can be accommodated in this spacious area with picnic tables scattered throughout.





# Picnic Shelter and Overlook



The Picnic Shelter and Overlook are nestled in the terraced slope north of the main knoll.

The multi-purposed structure takes advantage of the dip of the existing grade and the fill of the Meadow Drive.

While preserving the views and vistas of the site, the structure provides linkages to the recreation trail at the upper level and the ADA access path to the Playscape, Sycamore Rings and Entry Terrace at the lower level.



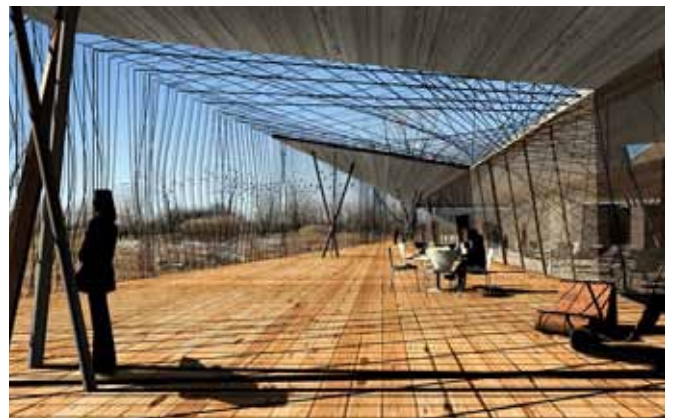
# Picnic Shelter and Overlook



The retaining wall and roof deck shield picnic activities from noise from the road.



Visitors can pause at the roof Overlook taking in a panoramic overview of the landscape or they can descend down to the lower level to picnic in the shelter.



The structure will be constructed with sustainable material and in character with the Underlook facility.

# Playscape



The plan provides a nature-based play experience intended for all ages within an active central play hub. Nestled between the trees, the Playscape attempts to seize that feeling of timelessness one has when playing in a meadow.

The play elements are integrated with the natural environment and provide opportunities for exploration, education, and pure enjoyment for all park users.



Simple yet powerfully modern, the key features of the Playscape are integrated into the landscape, laying low and rising high, appropriately setting the mood for arrivals and then departures from the space.

The play apparatus is not standard. It is an organic sculpture that makes the experience of the meadow real and accessible.

# Playscape



The concept proposes locating the play area within the flattest and smallest finger of meadow between two stream buffers. The design considers the continuous sightlines along meadow edge and stream habitat.



3D View,  
West to East



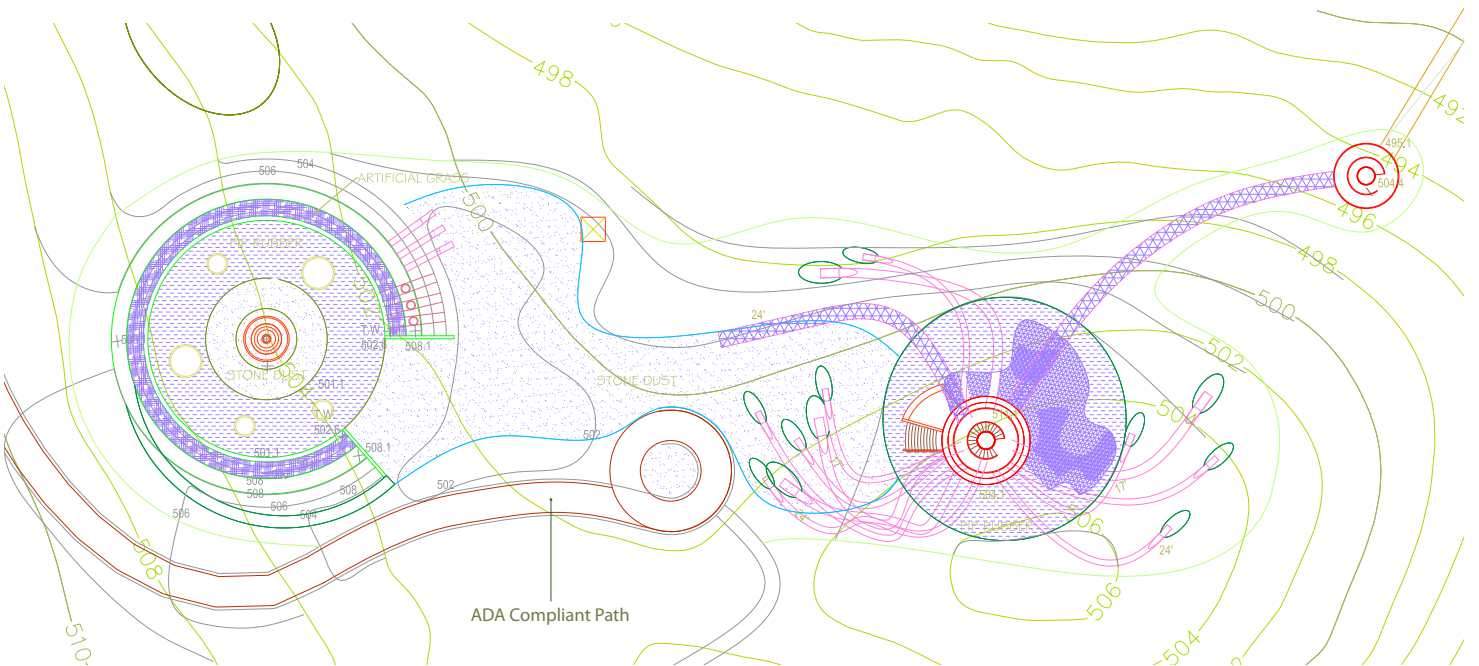
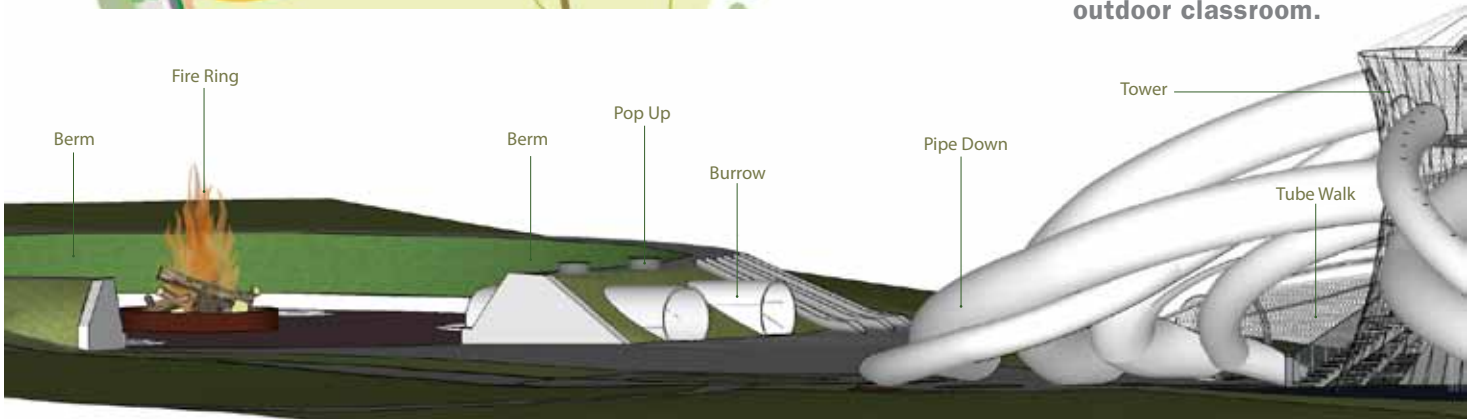
From Berm, looking West



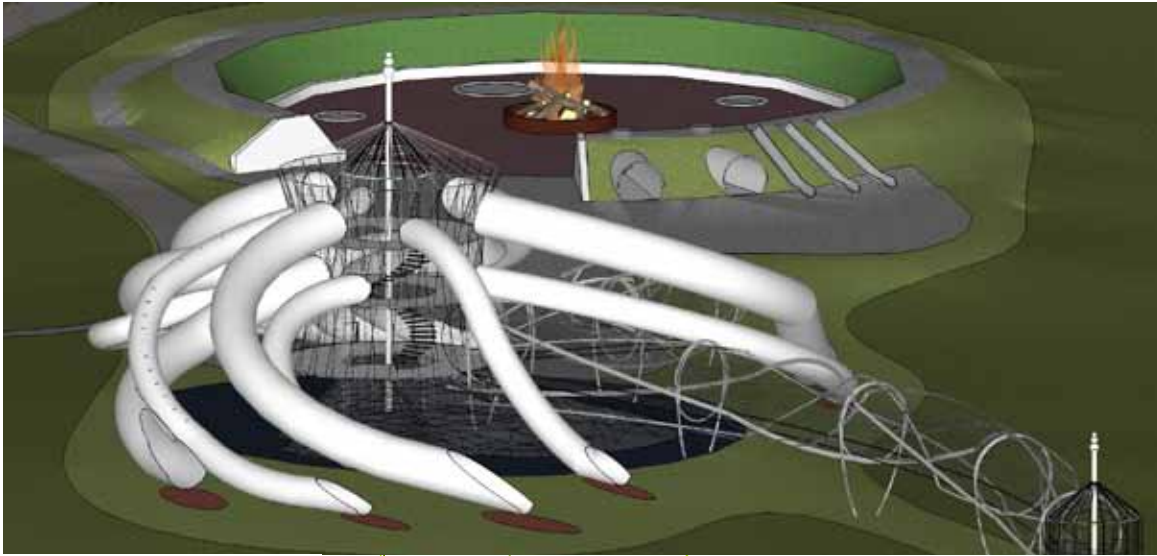
Play is for everyone



The Playscape is a hub for connections to boardwalks and nature interpretation areas, sledding hill, the amphitheatre and outdoor classroom.

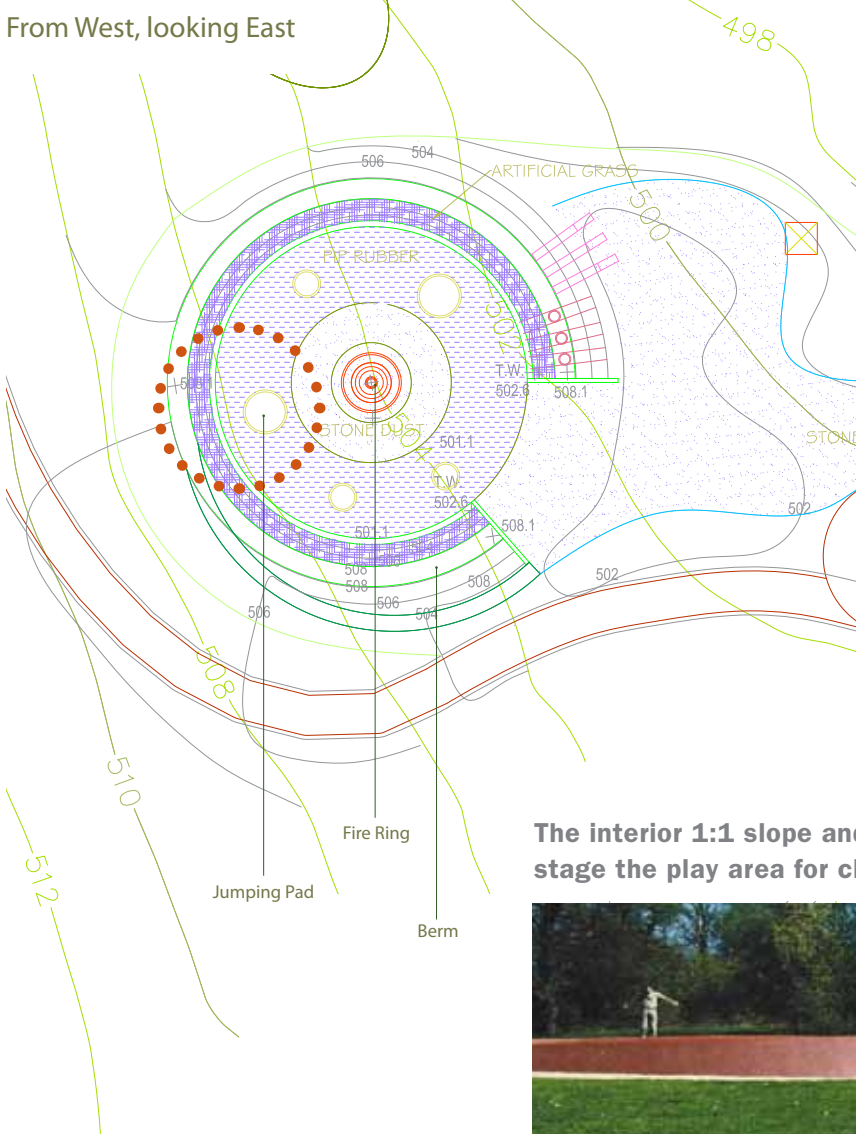


# Fire Ring



The fire ring is encircled by a 7' high and 26' wide berm.

From West, looking East



Day or night, with or without fire, the fire ring will be a focal point for exciting play and social gathering.



The interior 1:1 slope and exterior 2:1 slope stage the play area for climbing, sliding and jumping.

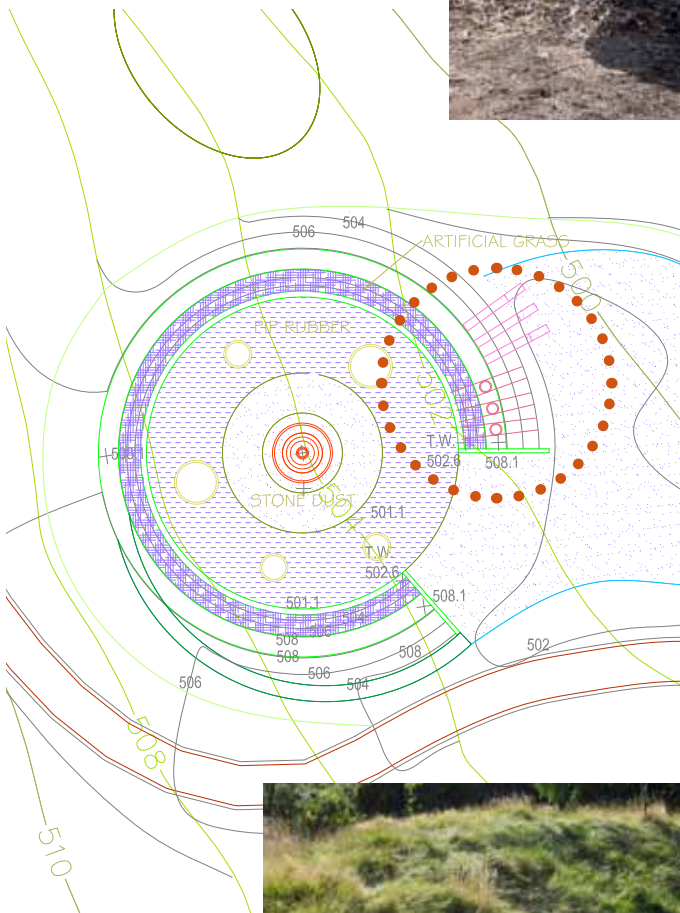
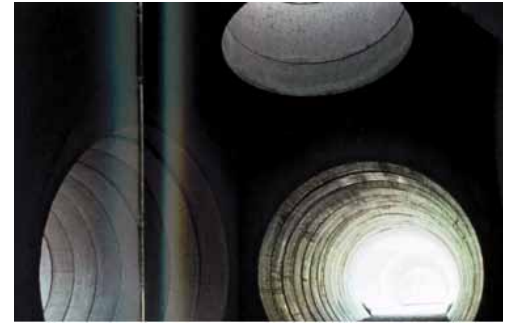


# Berms, Burrows and Pop-ups



The bermed concentric landform is a natural gathering place upon arrival at the Playscape.

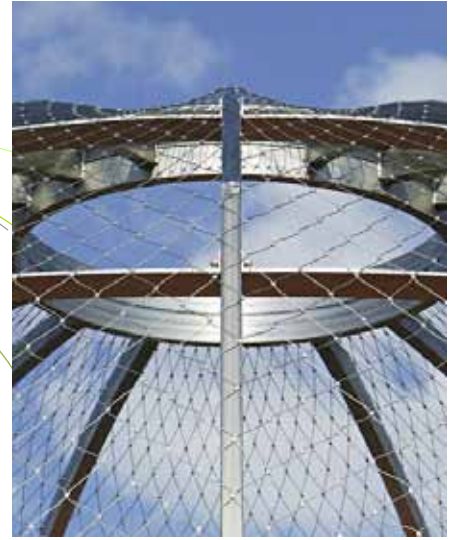
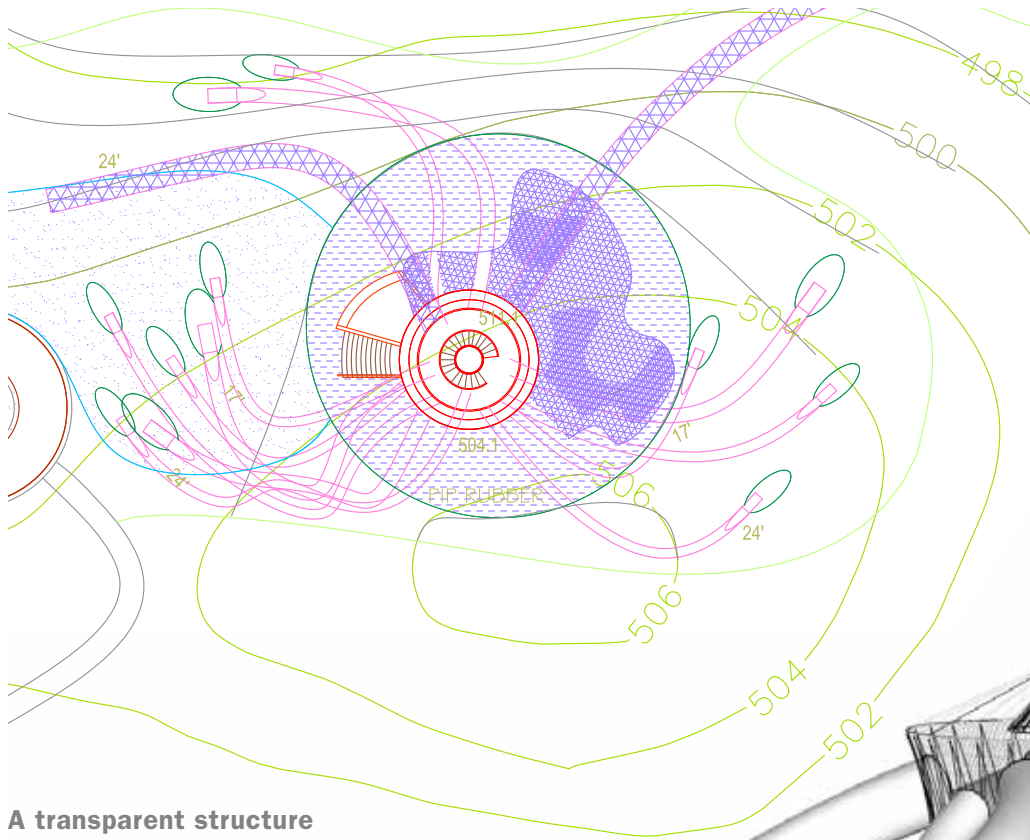
Exploration takes many forms here: burrow underground, tunnel through, or pop up and see the sky.



The berm's grassy slopes encourage creative play.

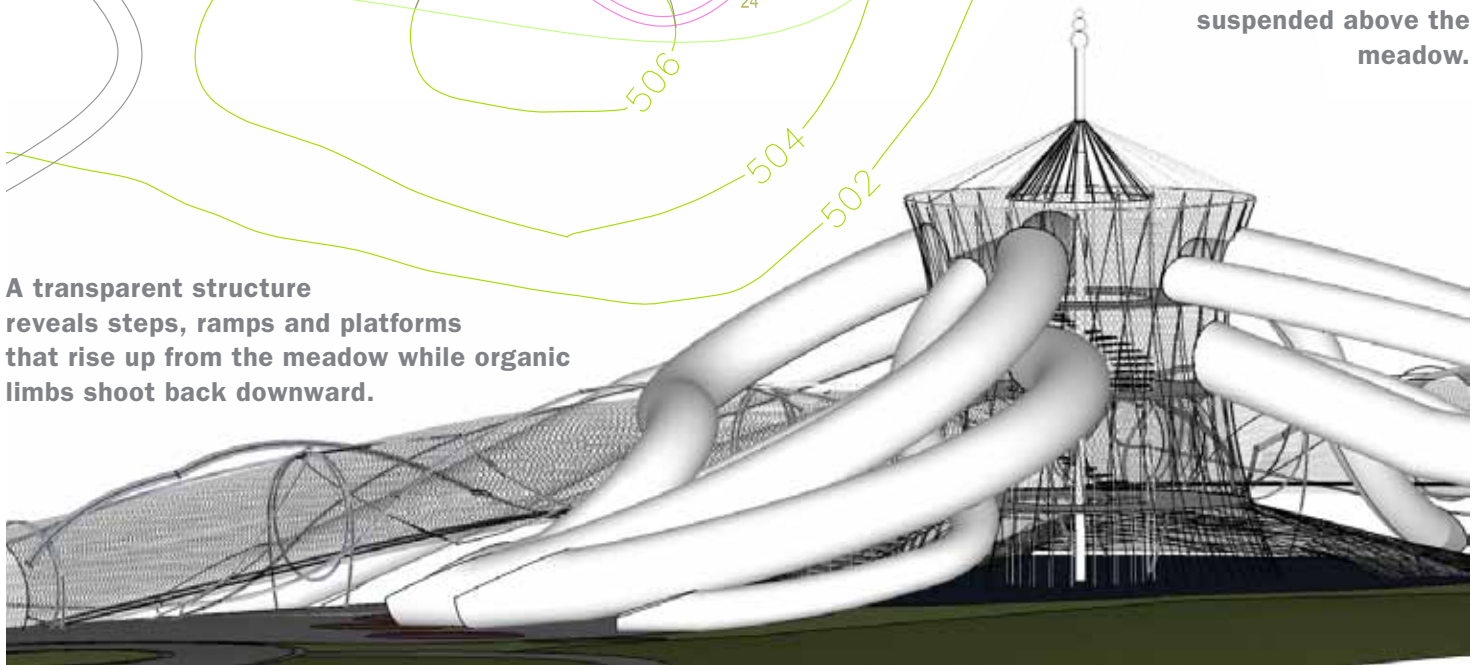


# Tower



The open mesh blurs the line between inside and out; explorers are suspended above the meadow.

A transparent structure reveals steps, ramps and platforms that rise up from the meadow while organic limbs shoot back downward.



The reflective surface under the platforms mirror light, meadow and trees.



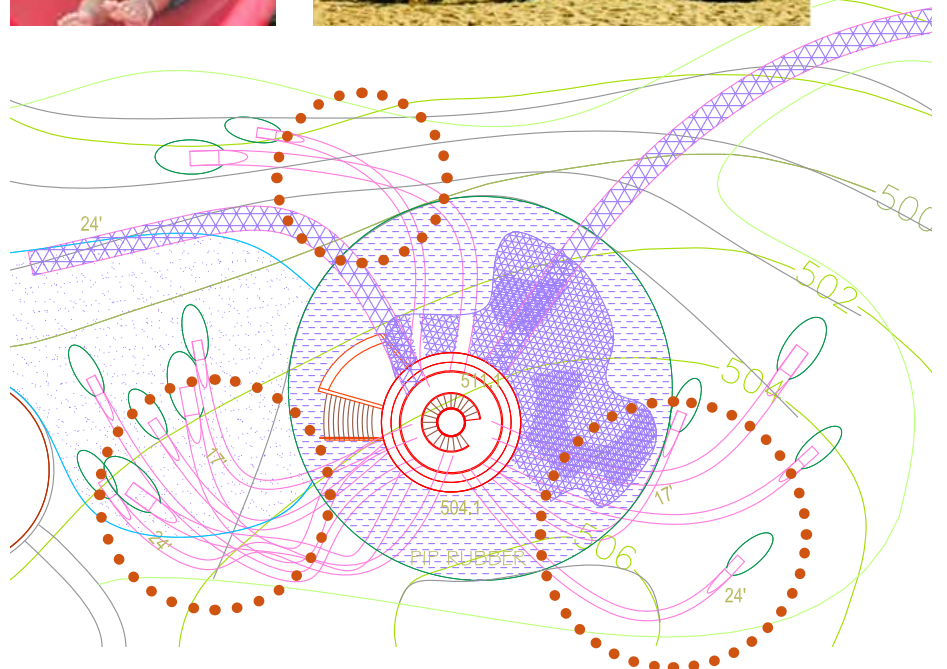
# Pipe Down



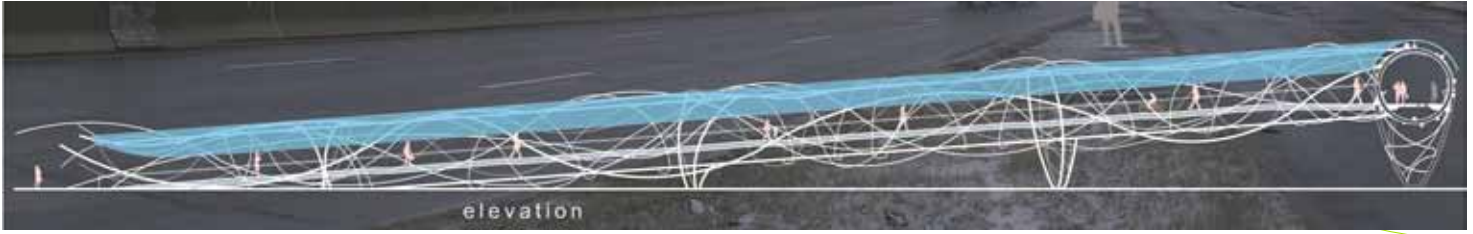
Intertwining slides descend from platforms of different elevations.



These slides transport players from space to place, from sky to meadow.

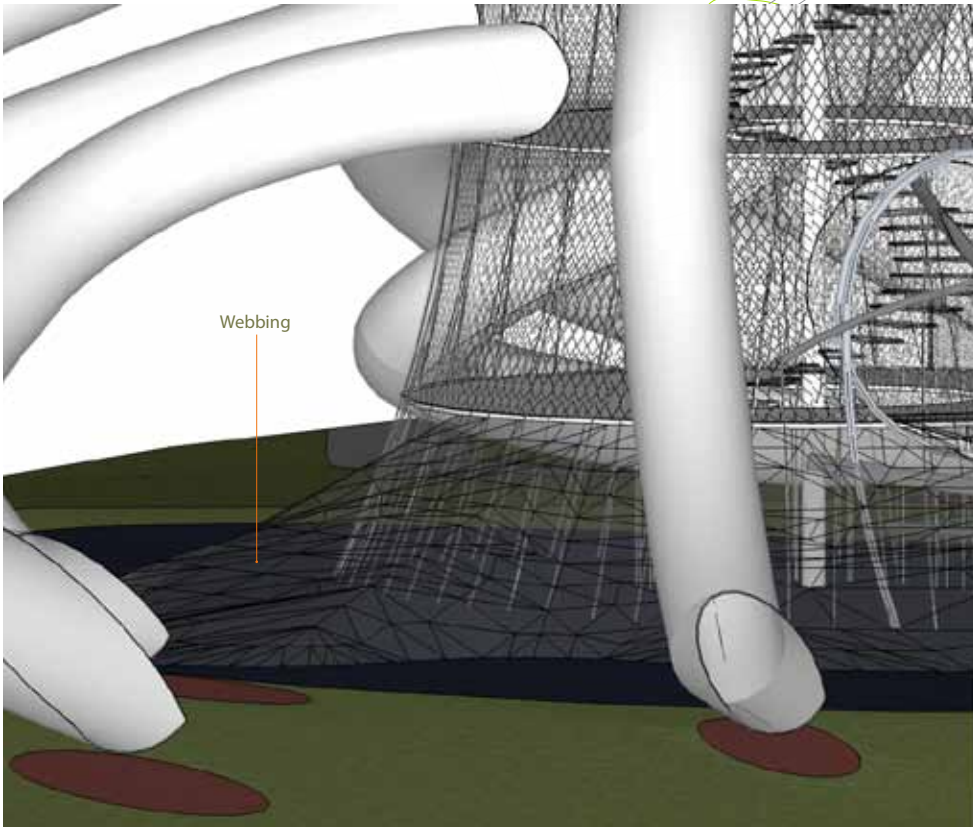
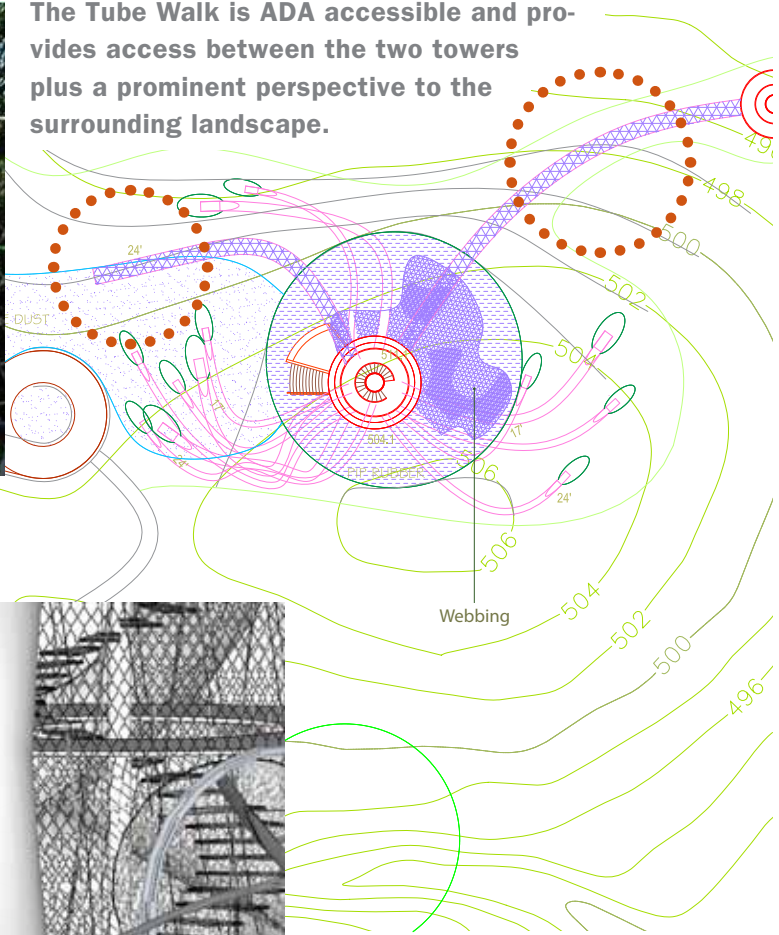


# Tube Walk and Webbing



The Tube Walk is ADA accessible and provides access between the two towers plus a prominent perspective to the surrounding landscape.

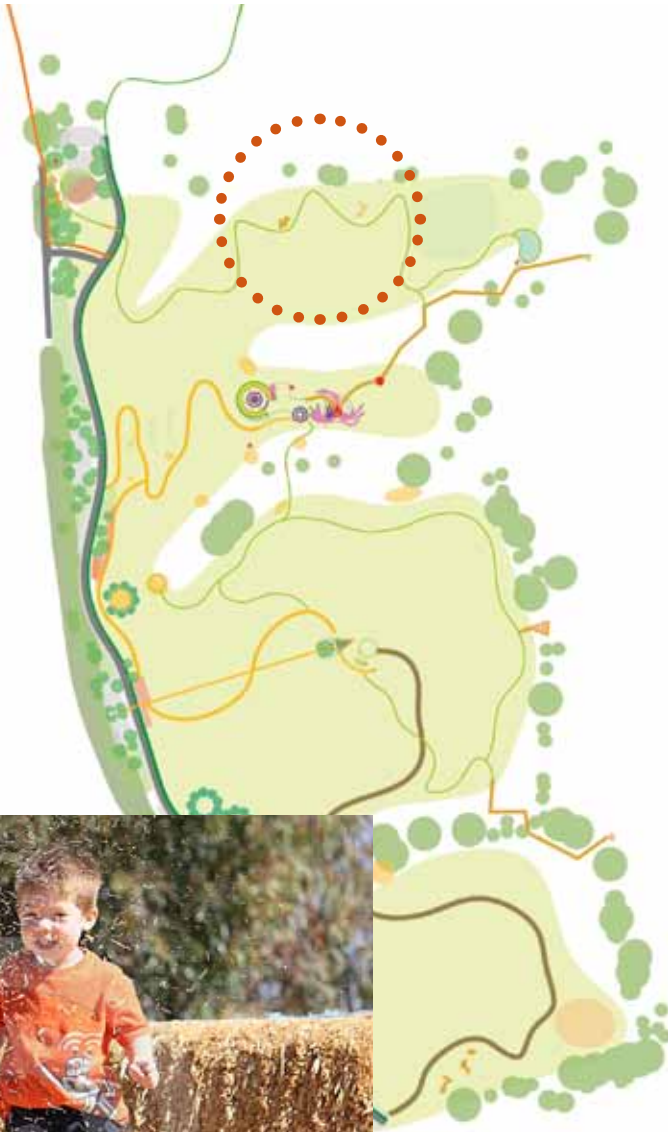
The elevated Tube Walk wraps around visitors as they make connections from meadow to woods.



At the base of the Tower, webbing spreads out and lets kids dangle as they connect with earth and sky.



# Hay Play



Hay bales left from annual mowing can be used for play.



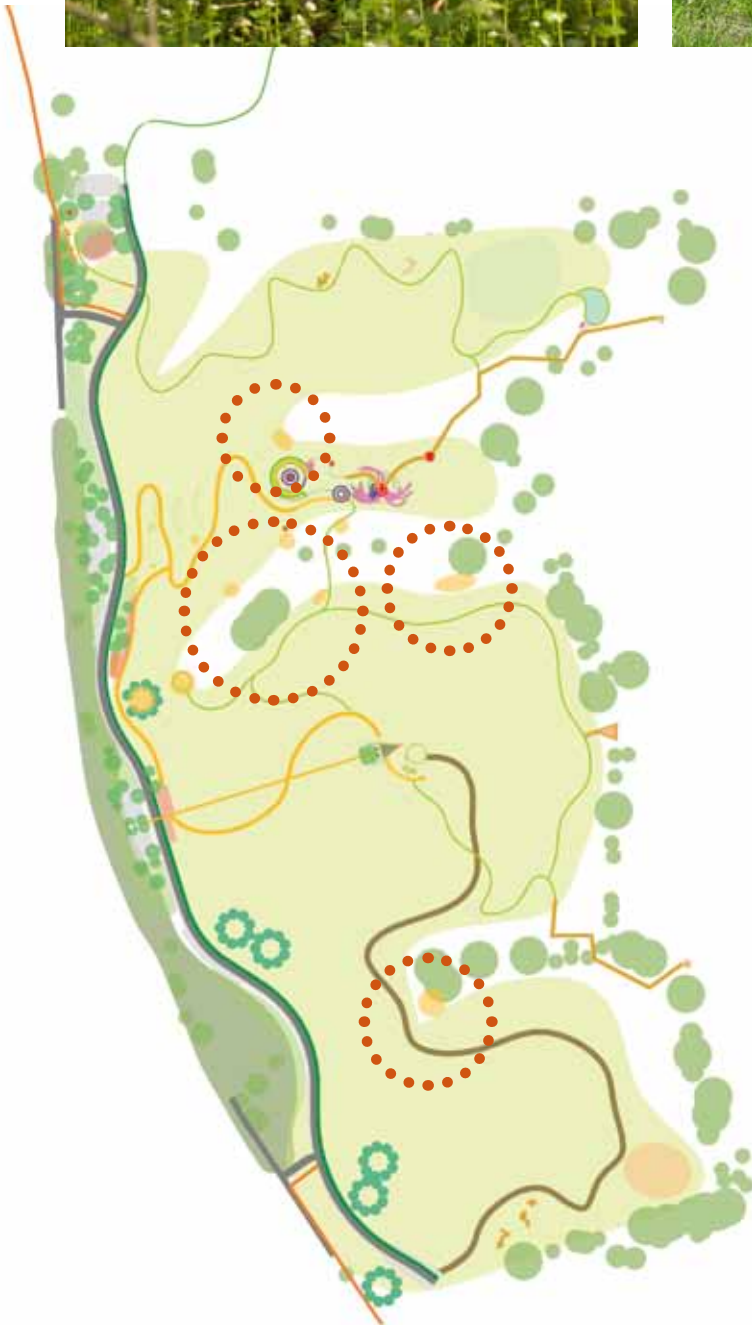
Recycled fun!



Kids can smell and feel the hay. They can climb up and walk on top, jump from one hay bale to another and weave through a maze.

Hay play is not just for kids — Mom and Dad can join in too.

# Learning Alcoves



Designated areas encourage a physical connection to nature through natural and man-made habitats.

The diverse ecosystems of the Day Use Area provide food, shelter and breeding grounds for abundant wildlife species.

Particularly, the stream valley offers many opportunities for environmental education. The pockets and corridors in this juvenile landscape are readily available as learning alcoves for exploration.



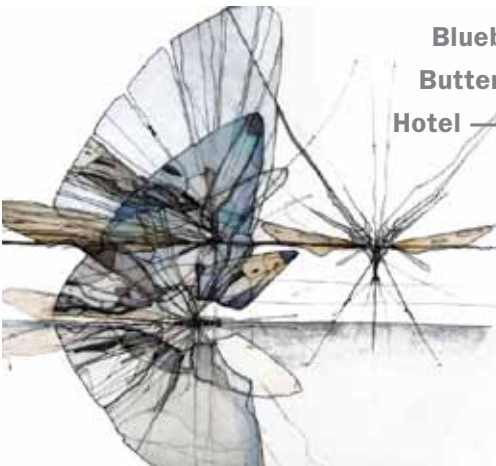
**From birds to butterflies, from bats to bugs, habitats abound!**

# Butterflies, Bats and More



Kids can observe succession, changes in vegetation, and discover wildlife and insects in these living classrooms.

The ever-changing natural process enriches the learning experience with each visit.



Bluebird Trail, Monarch Butterfly Station, Insect Hotel — all to explore and examine.

Education is experiential in the Learning Alcove.





## Bird House Point



In the open area at the tip of the stream valley, Bird House Point is a focal feature highlighting the rich habitat of the Day Use Area.

It's a natural setting for bird watching.

Enhancements to the habitat include placing bird houses for shelter, planting native plants birds love for food and harvesting, and storing rain in a perennial ponding area.

Eastern Meadow Lark,  
Eastern Bluebird,  
American Kestrel



**Birds are excellent indicator species for evaluating habitat quality and making inferences about that habitat.**



# Sledding Hill



Sledding is the winter sport children and adults love!

The large open meadow located in the north finger of the Day Use Area has a gentle top, a constant steep slope on the hillside and a flat bottom. With enough snow, it is an ideal space for sledding.



**Name something that's more fun than a sledding hill!**

# Multi-Purpose Recreation Trails



Little Bennett Regional Park is a key destination along MD Route 355 and an important segment supporting the Clarksburg Greenway system. The Day Use Area will draw visitors from all over the region.

The plan provides for a variety of opportunities throughout the park for hiking, biking or strolling, with loops and interconnecting trails reaching all corners of the park.

From Meadow Drive, hard-surface ADA accessible trails bring visitors to the main points of interest. Natural surface trails and mown paths provide access to the interior meadow and forest edges while maintaining the integrity of the landscape.



**The 8' wide hard surface recreation trail/sidewalk on the east side of Meadow Drive provides a safe, non-vehicular access along the main spine.**

**Visitors will enjoy what the Day Use Area can offer.**





# Boardwalk and Wetland Overlook



The wetland and successional forest along Little Bennett Creek and Sopers Branch are key environmental features of the Day Use Area. The Boardwalk and Wetland Overlook are designed to provide access and interpretation for visitors while protecting the integrity of this unique ecosystem.

**Access is made possible with smart design and material choices**



The Boardwalk will be constructed by hand with helical piles to minimize site disturbance. Transparent metal grating will ensure protection of existing hydrology and forest floor. The 5' wide ADA accessible boardwalks are aligned to stay completely out of the critical root zones of trees larger than 30" dbh.

**The overlook platform tucked away on the wetland edge allows visitors to be immersed with the surrounding landscape.**



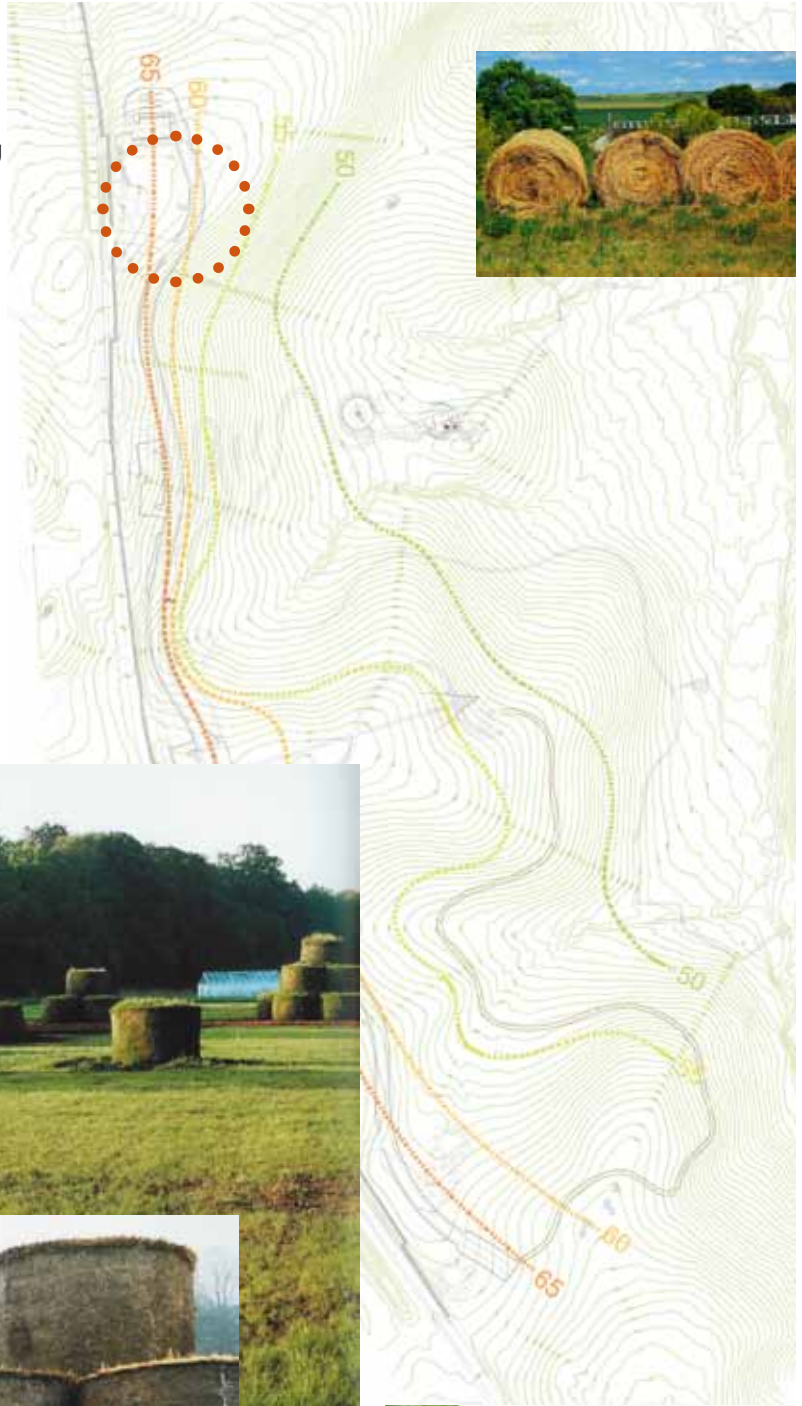
# Sound Wall

The acoustic study indicates that in the year 2030 the Day/Night Average Sound Level will significantly exceed the goal of 55 dB at the park house picnic area. Reducing sound levels in this area would require constructing a noise barrier.

Hay from meadow mowing is part of the story-telling of the landscape.

Hay bales are in keeping with the rural character and can be composed into a sculptural sound wall to divert the noise from MD Route 355.

The material is so modest and ephemeral, yet it can captivate the beauty and power of nature. The process of growth, change, decay and revival will provide an ongoing dialog with visitors.



# Public Art

*"Our sense of the nature of beauty cannot be separated from our sense of the beauty of nature." —Justin Good*

The unique setting of the Day Use Area provides prospects for exhibiting art parallel with nature. The undulating profiles of the piedmont meadow and big blue sky complement artwork by man.

The changes in light and weather make the sight of the art work never the same. The outdoor gallery at Little Bennett is a beautiful, sensuous place for refuge, encounter, discovery and conversation.



**Sculptural accents can explore scale and material.**





# Cost Estimates



# Summary

ITEM	TOTAL
Section 100 - Site Preparations	\$465,000
Section 200 - Earthwork	\$1,060,000
Section 300 - Drainage, SWM, Erosion & Sediment Control	\$1,334,700
Section 400 - Structures	\$1,997,900
Section 500 - Paving & Hardscape Materials	\$2,215,200
Section 600 - Utilities & Fencing	\$495,500
Section 700 - Landscaping, Athletics, Playgrounds	\$2,344,800
<b>PROJECT SUBTOTAL</b>	<b>\$9,912,900</b>
Contingency (25%)	\$2,478,300
<b>CONSTRUCTION TOTAL</b>	<b>\$12,391,100</b>
Design Cost (9% of Constr. Total)	\$1,115,200
Staff Chargebacks (18% x Design w/Contingency)	\$200,800
Construction Management & Inspection (2% x Construction total)	\$247,900
<b>TOTAL PROJECT COST</b>	<b>\$13,954,900</b>

# Summary Detail

## ITEM

### Section 100 - Site Preparations

Mobilization	\$230,000
Layout	\$25,000
Maintenance of Traffic	\$20,000
Geotechnical Inspections/Certifications	\$15,000
General Demolition	\$50,000
Clear And Grub	\$75,000
As Built Drawings	\$35,000
Maintenance and Operations Manual	\$15,000
<b>Subtotal Section 100</b>	<b>\$465,000</b>

### Section 200 - Earthwork

Strip, Stockpile & Place Topsoil (4")	\$280,000
Earth Moving Cut to Fill	\$400,000
Fine Grading	\$200,000
Spread Existing Topsoil	\$180,000
<b>Subtotal Section 200</b>	<b>\$1,060,000</b>

### Section 300 - Drainage, SWM, Erosion & Sediment Control

Stabilized Construction Entrance	\$6,000
Silt Fence	\$3,000
Super Silt Fence	\$105,000
Inlet Protection	\$4,200
Earthdikes	\$7,000
Sediment Traps	\$10,000
Wire Mesh Tree Protection Fence	\$16,000
Root Pruning	\$10,500
Additional Tree Protection Measures	\$50,000
Maintenance of E&S Measures	\$60,000
Inlets	\$75,000
Manholes	\$50,000
15" RCP Storm Drain	\$67,500
24" RCP Storm drain	\$78,000
Endwalls / End Sections	\$17,500
Riprap Outfall Protection	\$50,000
Bioretention	\$40,000
Bio Swales	\$360,000
Flow Splitters	\$35,000
Sycamore Rings at Picnic Shelter/Overlook	\$50,000
Sycamore Rings	\$180,000
Rainwater Wall	\$60,000
<b>Subtotal Section 300</b>	<b>\$1,334,700</b>



ITEM	TOTAL
<b>Section 400 - Structures</b>	
Seat Walls	\$28,400
Retaining Walls (Average Height <8')	\$125,000
Stairs	\$3,000
Metal Entrance Markers	\$160,000
Entrance Markers -	\$80,000
Building at Parking Area	\$150,000
Picnic Shelter/Overlook at Sycamore Ring	\$275,000
Large Bridge	\$20,000
Small Bridge	\$10,000
Handrails	\$14,000
Metal Boardwalk with Aluminum Grating (without railing)	\$260,000
8" Helical Piles (up to 10' depth)	\$25,000
Metal Railings	\$17,500
Amplitheater at Building	\$50,000
Building/Underlook	\$680,000
Wetland Overlook	\$100,000
<b>Subtotal Section 400</b>	<b>\$1,997,900</b>
<b>Section 500 - Paving &amp; Hardscape Materials</b>	
Asphalt Paving	\$697,500
Gravel Shoulder	\$106,300
Permeable Paving	\$837,000
Concrete Paving	\$99,000
GrassCrete	\$33,600
Compacted Trails	\$30,800
Playscape - Poured in Place Rubber	\$126,000
Playscape - Artificial Grass	\$105,000
Playscape - Crushed Granite	\$60,000
Playscape - Steel Edging	\$120,000
<b>Subtotal Section 500</b>	<b>\$2,215,200</b>
<b>Section 600 - Utilities &amp; Fencing</b>	
Well Development	\$20,000
4" PVC Water	\$6,000
2" PVC Water	\$3,000
Fire Service Storage Tank	\$50,000
Septic Field	\$30,000
4" PVC Sanitary Sewer	\$20,000
Sanitary Sewer Cleanout - PVC	\$1,500
PEPCO Pole Relocation (MD 355)	\$300,000
Electrical Service	\$50,000
Communication Service	\$15,000
Fencing	\$2,500
<b>Subtotal Section 600</b>	<b>\$495,500</b>

# Summary Detail

ITEM	TOTAL
<b>Section 700 - Landscaping, Athletics, Playgrounds</b>	
Trees	\$89,300
Bioretention plantings	\$5,000
Bio Swale plantings	\$60,000
Invasive species management	\$175,000
Meadow planting (plugs; 30% cover)	\$300,000
Successional Planting/Deer Fencing	\$36,800
Green Roof Assembly	\$26,700
Hay Bales	\$25,000
Bike Racks	\$5,000
Picnic Tables	\$40,000
Site Signage	\$22,500
Interpetive Panels	\$60,000
Birdhouse Point	\$50,000
Interpretation Station	\$125,000
Public Art	\$200,000
Park Benches (6' Length)	\$4,500
Park Benches (8' Length)	\$40,000
Park Benches (10' Length)	\$50,000
Playscape - Play Tower	\$600,000
Playscape - Slides	\$120,000
Playscape - Play Netting	\$50,000
Playscape - Ramps to Tower	\$180,000
Playscape - Fire Ring	\$10,000
Playscape - Jump pads/tube/popups	\$70,000
<b>Subtotal Section 700</b>	<b>\$2,344,800</b>
<b>PROJECT SUBTOTAL</b>	<b>\$9,912,900</b>
Contingency (25%)	\$2,478,300
<b>CONSTRUCTION TOTAL</b>	<b>\$12,391,100</b>
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\*INDICATES COST ITEMS PROVIDED BY RIDER LEVETT BUCKNALL (RLB)

# Project Team

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

Landscape Architect/Project Manager: Ching-Fang Chen

### **Planning:**

Environmental Planning: Josh Penn

Transportation Planning: Ki Kim



### **Parks:**

Park Development: Mitra Pedoeem, Patricia McManus, Eileen Emmet

Central Maintenance: Gerald Barrick

Park & Trail Planning: Rachel Newhouse

Natural Resources Stewardship: Rob Gibbs, Bill Hamilton, Geoffrey Mason

Forest Ecology: Carole Bergmann

Northern Region: Jim Humerick

Park Manager: Wendy Hanley, Art Nelligan

Trail Design: Bob Turnbull

Park Police: Darien Manley

Environmental Engineering: Steve Reid

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#### **3D Modeling**

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#### **Acoustics**

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#### **Graphic Design**

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