WHEATON
REGIONAL PARK
MASTER PLAN

prepared for:
The Maryland-National Capital
Park and Planning Commission

Montgomery County Planning Board
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Donald K. Cochran, Director of Parks
15 October 1987

Mr. Donald K. Cochran, Director
The Maryland-National Capital Park
& Planning Commission
Parkside Headquarters
9500 Brumett Avenue
Silver Spring, MD 20901

Dear Mr. Cochran:

It is with a great deal of pleasure that we transmit to you our final report on the Master Plan for Wheaton Regional Park. It has been a challenging task to develop these recommendations working with your staff, the Citizens Advisory Committee, and the resource of the Park itself.

We are impressed with the work that has been accomplished at Wheaton Regional Park in the last twenty-five years in providing this wonderful natural and recreational resource. We are similarly impressed with the thoughtful dedication of your staff and their wonderful cooperation in assisting us in our task.

The implementation of these recommendations has no specific timetable. Since Wheaton Regional Park can not expand externally, our goal was to forecast those natural and recreational forces that can guide any future improvements towards their ultimate capacity and development goals. As with any series of public improvements, some of these recommendations may be controversial. Many will take some time to implement as certain improvements may be beyond current needs, but could be accomplished as these needs become evident.

This plan, prepared within our 90-day timetable represents a series of proposals based upon the collective experience of your staff, the thoughtful observations of the Citizens Advisory Committee and our own experience in park planning.

Thank you for the opportunity to work with you on this very interesting project.

Cordially,
MORTENSEN, LEWIS & SCULLY, INC.

[Signature]

Robert H. Mortensen, FASLA
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1. EXECUTIVE SUMMARY

The following inventory and analysis, concepts, plans and recommendations represent the conclusion of an exciting and challenging assignment. The Master Plan process began with a review of impressive although seemingly overwhelming quantities of careful, thoughtful studies previously prepared by Park and Planning staff, the Steering Committee and its various Sub-Committees. These illustrated deeply felt concerns and high commitment to the responsibilities of operating and maintaining Wheaton Regional Park. The preparation of this report was made considerably more efficient by the exhaustive leg work and thorough processes undertaken in previous park studies. Conversely, the development of a unifying Master Plan concept was made more challenging because of the seeming polarity which had developed on several issues. These very distinct points of views were carefully outlined in the information made available to the Master Plan consultants in interviews with staff, and in working with the Citizens Advisory Committee.

This Master Plan report advances the idea of a comprehensive vision of Wheaton Regional Park which can be created based on current park policies, program needs, user desires and the available resource base. This comprehensive scheme provides a framework within which decision makers can act on specific park operations or management questions which have arisen and which will continue to arise. The recommended concept is developed in Chapters 2 through 6.

Chapter 2 of this report provides an introduction framework for the Master Plan by describing the foregoing planning process which resulted in the commission of an independent study. The chapter identifies five key issue areas in which previously raised questions of specific park development may be categorized. These issues are transportation, preservation of natural areas, access and park capacity, internal operations of facilities, and impact on surrounding neighborhoods. Chapter 3 inventories the natural and human factors which make up Wheaton Regional Park, and its current attendance and revenue generation. The chapter concludes with a summation of analysis points which guided the creation of Master Plan concepts.
Chapter 4 provides a series of recommended goals to be met by proposed park development. The development of Master Plan concepts for the major activity areas of the park are reviewed as are potential automobile access corridors to each facility. Chapter 5 explores two site access and circulation schemes, one based on a single access point, and the other based on the currently employed concept of multiple access points serving individual facilities.

Chapter six concludes with specific illustrated plans of the park and each of three major activity areas. These are described, and specific cost estimates for each facility are included in an Appendix to the report. The recommendations are summarized as follows:

1. Retain the existing concept of multiple and peripheral access points to the specific use facilities.

2. Enhance automobile circulation by providing dual access points to the Rubini Athletic Complex and the Shorefield Picnic Area for ease of access during times of peak use.

3. Reduce the impact of overflow parking in the neighborhoods by providing more on-site parking at the Shorefield Picnic Area and Brookside Gardens facilities, and by reorganizing parking at the Rubini Athletic Complex so that all special sports uses can share one parking resource more efficiently. Provide 190 new parking spaces in the Shorefield area and 12 designated bus parking spaces. Construct a new 185 car parking lot conjunctive with other improvements at Brookside Gardens.

4. Create new visitor orientation and activity centers at these three major activity areas.

5. Focus new capital improvements in Brookside Gardens, including an education/visitor orientation center in the central portion of the Gardens. Proposed education facility should include orientation, and office space, classrooms and workshops, a 150 seat auditorium, and related parking.

6. Reduce the number of campsites from ten to three.

7. Increase the maintenance facility to handle new needs by development to the south of the present facility. A doubling of the present facility can be accommodated in this area.

8. Retain the Equestrian Center in its present configuration and allow new facilities such as a dressage ring as dictated by available funds and enterprise agreements.

9. Retain Brookside Nature Center in its present configuration but remodel the existing building to meet building code and handicapped requirements. Provide additional office space and upgrade all interior finishes, display areas and mechanical systems.
10. Create a major handicapped accessible walkway connecting the Frank Rubini Athletic Center with the Shorefield Picnic Area and continuing through to the Brookside Gardens Center. This facility should be paved and designed primarily for pedestrians and bicycles. In conjunction with the proposed new parking areas and the previously planned signage system, this walkway should meet user demand and program needs for intra-facility circulation without the provision of additional modes of transportation. Future major changes in use patterns may warrant the investigation of pedestrian conveying systems which could conceivably utilize the walkway.

11. Refurbish existing facilities in the Shorefield area, the Equestrian Center, and Rubini Athletic Complex to express a common architectural theme through form, detailing, materials and colors. Proposed facilities in the Rubini Athletic Complex should be designed to match this architectural theme.

12. Relocate the ice rink to the south nearer to the tennis courts and existing parking resources. A new enclosed facility is recommended; however, an open facility may be constructed initially.

13. Should group picnicking as generally programmed within the parks system be provided on-site, the existing ice rink should be remodeled for this use. Group picnicking represents the only new use, not currently accommodated in some fashion within the park, for which this Master Plan explicity allocates space.

14. Retain all existing historic structures and remove all existing buildings that do not serve park purposes or have demonstrable historic significance. If structures can be moved, they may be relocated to areas such as the Shorefield Picnic Area center and remodeled to fit new appropriate uses.

15. Expand the Shorefield Picnic Area to the south to include a new five and one-half acre picnic facility. Provide for a range of family picnicking activities including two new larger pavilions for family group use. Provide an additional 196 picnic tables in the enlarged area including 72 tables accommodated in the 1.8 acre area of the Village Center. Group other tables and mount them on concrete pads to limit disturbance of soil and vegetation.

16. Achieve the one third/two thirds ratio by eliminating areas that are currently maintained but which do not directly support specific recreation activities, and by eliminating or moving non-park structures or uses as in 14 above. Consolidate all park maintenance within existing Brookside and expanded Kemp Mill maintenance areas and restore localized material storage areas to natural areas.
17. Create a new handicapped accessible fitness trail to the east of the present tennis courts.

Wheaton Regional Park is a dominant cultural resource in Montgomery County. As it approaches a second generation of users, it is necessary to maintain the diverse and unique recreation opportunities and at the same time preserve and enhance the natural resource base. The following plan discusses in more detail a vision to assist decision makers necessary to meet the goal of perpetuating "an environment fit for life, and fit for living".
2. INTRODUCTION

The purpose of this study is to provide a Master Plan vision and a series of recommendations that will serve as guidelines to the on-going and future development of Wheaton Regional Park. These recommendations are based on extensive previous studies of the park, interviews with staff and operations personnel, independent research and generally accepted principles for providing facilities for the general public to engage in active recreation and appreciate nature and natural beauty. There is no identified time frame for the implementation of these recommendations, although they can serve as the basis for capital improvements programming. Estimated cost are included in the appendix. These recommendations are developed from the logic of the experiences of the first twenty-five years of use and development of Wheaton Regional Park. They provide a platform for its ultimate development within the framework of the policies of the Maryland National Capital Park and Planning Commission.

Wheaton Regional Park was the first Regional Park in the Montgomery County Parks system. During its existence, the Maryland National Capital Park and Planning Commission created an extraordinary range of passive and active recreation opportunities within its five-hundred-thirty-nine acre area. This diversity of uses is consistent with the policy objectives for regional parks which must combine conservation and recreation while meeting county wide recreational needs (PROS 1987, Policy for Parks, 1965). The park contains uses which are unique to the system, such as Brookside Gardens; other uses such as the ice rink, which are typical of other regional parks; and general park activities including picnicking, which are provided in a range of other types of county parks. The combination of these opportunities with the outstanding natural beauty of Wheaton Regional Park has ensured continued user appeal which extends beyond county boundaries.

While most park activity areas were completed between 1961 and 1969, the Commission has continued to add facilities, providing opportunities unique to Wheaton, such as the carousel, or meeting system-wide objectives such as the proposed expansion of the maintenance area to serve adjacent parks. With the possible exception of current low campground attendance, all facilities have demonstrated consistent user demand and ongoing management actions. Responses to program driven activities including ball games at the Rubini Athletic Complex or the horticultural classes at Brookside Gardens have included tighter scheduling or the re-use of existing structures to meet expanding needs. Responses to additional demand for space limited activities such as picnicking or parking, have included the incremental
provision of new facilities, such as adding several new picnic tables each year at Shorefield, (Byrd 1987), or ad hoc arrangements for off-site parking for peak attendance at Brookside Gardens. Twenty-five years of steady park use is evident in both the need for programmed restorative maintenance efforts (the Shorefield Picnic Area is reseeded to reestablish lawn each spring) to the reconstruction of some major capital improvements including the ice rink floor and roof (Kwitowski, 1987).

In twenty-five years, Wheaton Regional Park has become an important cultural feature to neighborhood and county residences. User studies point to the significance each of its facilities holds to individual users and to the strong and often vocal constituency for each facility (WRP Information Survey, 1985). Now, a second generation, often childhood visitors, have begun to include the park in their family activities. Greater proportions of elderly and handicapped residents nearby, the extension of the Metro service to Glenmont within walking distance of the park and greater urbanization and infill development within the Wheaton area will add to the pressure on those features of Wheaton Regional Park which make it so attractive (1985 Regional Park Survey, Master Plan for Kensington Wheaton, 1987). It is, in the words of a park employee, a "victim of its own success".

To ensure this success, and to identify current problems and shape program needs so that they can be incorporated into the six year Capital Improvements Program, Director of Parks Donald Cochran established the Wheaton Regional Park Steering Committee in 1985. The Committee consisted of Maryland-National Capital Park & Planning staff, elected officials and others. It conducted extensive research and produced a final report in July 1986. The report focused on the current condition and projected needs for each individual park activity areas, and on the provision of parking for and transportation between each of the activity areas.

The Director of Parks prepared an additional memorandum for the Planning Boards, reviewing the implications of the steering committee report. The Director identified the need to consider the original concept of the park, based on multiple peripheral access points, in relation to current use patterns and traffic and parking issues. Both the committee and the Director's recommendations were developed as illustrative plans which were reviewed by the Eastern and County-Wide Recreation Advisory Boards. A final refined plan, suggesting specific capital improvements, was prepared for presentation to the Montgomery County Planning Board.

In reviewing the alternative proposals, the Board recognized the diversity of points of view concerning the direction the park should take in its next twenty-five years. Each park facility posed sensitive issues and significant capital costs were necessary under almost any scenario. Cognizant of the Director's recommendation that the original design concept must be addressed in any comprehensive examination of Wheaton Regional Park, the Board decided to commission an outside consultant to prepare a Master Plan for the park. To ensure user representation and input in the plan formulation, the Board appointed a fifteen member Citizens Advisory Committee to meet with the consultants, identify problems and suggest solutions to current park problems, comment on previous plans and respond to the consultant's recommendations.
The planning and steering committee process leading to the decision to prepare an overall park master plan identified a number of complex individual concerns whose diversity reflected the variety of constituencies who currently plan, manage, fund and use the park. These issues were explicitly noted in the master planning consultant's original charge and dominated discussion during the three consultant-advisory committee sessions. These concerns, in turn, may be grouped into five major issues. The master planning process examined each of these issues in detail with the goal of providing a comprehensive vision of Wheaton Regional Park.

This vision, outlined in subsequent chapters establishes a structure or framework through which these issues may be assessed. While this vision may not explicitly solve each issue, it at least provides guideline for their resolution. The issues stated as questions, and their relative concerns, are as follows:

1. How can the underlying natural resource base of Wheaton Regional Park be both conserved and utilized to meet the dual missions of a Regional Park?
   - How should the Policy for Parks and the 1/3:2/3 development ratio relate to existing and potential uses at Wheaton Regional Park?
   - What natural habitat should be preserved and how should it be managed?
   - How should user interaction with natural areas be encouraged?

2. How can Wheaton Regional Park be a good neighbor?
   - What can be done to alleviate current peak use traffic problems along Shorefield Road and Glenallen Avenue?
   - How can impacts of future park development on adjacent neighborhoods be mitigated?

3. How can users best move to and from and between each of the park facilities?
   - Is the original development concept of multiple access points still appropriate?
   - How much parking should be provided and where should it be located?
   - Are current transportation modes between facilities adequate?
4. How many uses can the park effectively serve and how can it best serve them while preserving those features which make Wheaton Regional Park attractive?

- How many picnickers can the Shorefield area accommodate?
- Should "group picnicking" be provided on site?
- How can the elderly and handicapped best utilize the park?

5. Based on current programming and given existing capital improvements in place, how can the operation of each facility be enhanced?

- Would a new educational facility be an appropriate addition to Brookside Gardens?
- Should the nature center be rehabilitated or replaced?
- How can necessary major capital improvements at the Rubini Athletic Complex be coordinated to provide efficient shared use of common facilities?
- Should the equestrian center and campground be retained, upgraded or eliminated?

To create a Master Plan concept which begins to suggest answers to these questions requires an understanding of the different natural and human components which make up Wheaton Regional Park. The next chapter summarizes an inventory of existing conditions gleaned from written and mapped information, survey results, and interviews with Park and Planning Staff. Subsequent chapters describe potential and recommended Master Plan concepts and a final Master Plan vision for Wheaton Regional Park.
3. INVENTORY OF PARK RESOURCES

A. Location

The Maryland National Capital Park and Planning Commission administers approximately 26,000 acres of park lands within the Montgomery County Park System. There are nine categories of park types, serving a range of needs from preservation of unique natural resources (conservation and stream valley parks), to centers of active recreation (recreational parks). Five regional parks combine a number of resources to serve system wide user recreation needs. Wheaton Regional Park is one of the smaller regional parks, which vary from 281 to 3,556 acres in size. Like some other regional parks, Wheaton Regional is contiguous to a stream valley park, providing the opportunity for a connected system-wide green space network.

The Park is located in southeast Montgomery County, within the Wheaton and Kemp Mill Planning areas. The surrounding neighborhoods consist principally of single family homes with supporting commercial and institutional uses. The Park itself is bounded by single family homes to the north, west and south and a mixture of single family homes and multifamily dwellings on the west. St. Andrews Church and Kemp Mill Junior High School abut the Park on its south-east. The Location Plan indicates the Park and its proximity to major regional transportation routes and the park system.

B. Natural Factors

Wheaton Regional Park exhibits many of the original natural features and characteristics of the area that urbanization has either overwhelmed or concealed. The Park is located within the Piedmont Plateau physiographic province. The area is composed of a rolling topography of ridges and valleys incised with small streams. Park topography varies from a high point of elevation 446 at Park Headquarters to a low point of elevation 269 at the intersection of Glenallen Avenue and Kemp Mill Road. Slopes vary from relatively flat (0-5%) man made ball field areas at the Rubini Athletic Complex, and more natural flat areas at the crests of ridges, to steep (15% and greater) slopes rising from Glenallen Avenue in the north-west of the Park and surrounding the valley to the west of the Campground area. Gradations of topography are depicted on the topography plan.
Underlying geology consists principally of metamorphic rocks of the Wissahickon formation. These are schists, originating as sediments deposited some 440 million years ago and subsequently consolidated, intruded by magmas, compressed, folded and intruded further, probably by the Kensington Granite Gneiss formation. Following a long period of erosion, additional sedimentation occurred, and, regionally, the rock was again intruded by mafic rocks. Tilting and faulting then created low mountains, which were eroded over time by stream cutting. The schists in this area have been classified as oligoclase-mica facies consisting of gareiferous quartz-muscovite schist. The schist is foliated, silver grey, bluish grey or greenish grey rock of interlocking plates of mica or chlorite and other minerals. The intruding Kensington Granite Gneiss, evident in a north south formation mapped through the area of the Park, is a highly foliated, coarse rock. White quartz viens, generally compressed and shattered, are mapped in the park area (Proelich, 1975, Johnston, 1964).

Because the region was not subject to glaciation, deep soils commonly cover uplands and hillside and are eroded to expose underlying rock only in river and major stream valleys. These soils are principally saprolitic in origin, developing from weathered rock. Soils within Wheaton Regional Park are characteristic of this and include extensive deposits of Glenelg silt loam of varying slopes and Manor Silt loam. Wickham silt loam and Worsham silt loam are found in stream channels.

The Glenelg soils are the most extensive on site. They are moderately deep, well drained, and while susceptible to erosion on steeper slopes, are well suited to park uses if kept in forest. These soils are fair to good material for road subgrades or fill and provide no constraints to road drainage. Depth to bedrock is estimated to be a minimum 3 to 10 feet. The engineering properties of Manor silt loam are similar. The Glenville silt loams provide poor road subgrade or fill. While moderately well-drained, a compact silt horizon, or fragipan, in the subsoil may impede drainage causing temporary ponding after heavy rains in the upper courses of drainageways, where those soils occur. Depth to bedrock is in excess of four feet.

The Wickham silt loams are well drained, developed from materials deposited by water or stream terraces. They are fair to good road subgrade and fill materials, although difficult to drain due to their location in flood prone steam areas. Depth to bedrock is difficult to determine. The last soil group within the Park, Worsham silt loam, is a poorly drained; fine textured soil occurring in pockets and depressions throughout drainageways of the Piedmont plateau. This soil is poor for road construction and drainage, and the seasonally high water table is typically within a foot of the surface. Depth to bedrock is 5 to 8 feet (U.S.D.A., 1961). Approximate locations of geologic and soil formations are shown on the Geology and Soils map.
Wheaton Regional Park forms part of the drainage area of the Northwest Branch which flows ultimately into the Anacostia River. The park is bounded to the north along Glenallen by an unnamed stream, which drains areas to the north west of the Park. This stream is joined by two streams flowing north from within the Park. They divide land area of the Park approximately into thirds. The resulting stream crosses Kemp Mill Road and enters the Northwest Branch. According to a recent study of the Anacostia basin, the one hundred year flood elevation at old Randolph Road and the Northwest Branch is 263.44. Flood waters would thus be above the road, and sufficient to flood the intersection as currently constructed, although posing no danger to the adjacent Equestrian Center (CH2M Hill, 1982). Flood elevations along the Park boundary are at elevations 275.8 to 274.75. They would result in the inundation of approximately 6 acres, although no danger is posed to permanent park resources.

The western stream within the site was dammed to create Pine Lake, an approximately five acre open body of water stocked for fishing. The western shore is maintained as lawn area, while the eastern shore has been allowed to revegetate naturally, exhibiting growth of pickerel weed, arrowhead, cattails and other aquatic vegetation. Downstream from the lake and to its north, a series of interconnected groundwater-fed ponds have been dug as part of the Brookside Gardens area. Their elevations are controlled through a series of weirs and they ultimately discharge into the stream. The most upstream of the ponds exhibits algae growth and sign of eutrophication in warmer months. Two other ponds for aquatic display have been dug south of the stream along Glenallen and discharge back into it.

A groundwater-fed pond was created for nature study at the Brookside Nature Center. Elevation of this pond is controlled by discharge into the stream. These ponds are all mapped on United States Fish and Wildlife Service National Wetlands Inventory Maps, and are shown as palustrine open water wetlands, intermittently exposed—permanent and excavated or diked. No other wetlands resources are shown on these maps (USFWS, 1981).

The other stream flowing North through the campground area to Glenallen has been crossed with culverts in some locations but has otherwise been retained in its natural state to its confluence with the Glenallen stream near Kemp Mill Road. Culverts, headwalls and other surface drainage appurtenances are evident near most developed Park facilities. Paved swales have been constructed in the Shorefield picnic area to divert runoff. All on-site stormwater drains eventually into these streams. Siltation, siltbars and sheet erosion are evident in some areas of the west shores of Pine Lake. Due to the date of completion, parking lots and roads were constructed without stormwater treatment or other best management practices.

Like nearly all cultivatable lands in the area, the Park was at one time farmed, probably for tobacco, and then as a country gentleman's farm and for dairy and truck farming. Reforestation often occurred between periods of agricultural use, leading to a succession of timbering and reforestation which has commonly occurred four to five times in the Piedmont area. Typically, pastured areas reseed to coniferous species such as red cedar which tolerates grazing. Hayed areas frequently revert to Virginia pine, while plowed fields allowed to lie fallow are typically recolonized with deciduous species including cherry, aspen and birches.
Currently, forest makes up the majority of land cover in the park and is dominated by two forest associations, Virginia pines and the Mesic association of tulip poplar, hickory and oak. Tulip poplars dominate stream areas, and in and around the Campground area. Core samples of trees taken by Park and Planning staff show trees to be forty to fifty years old. The tulip poplars are mid-successional, with oaks and hickories dominating the understory. As the tulip poplars are less shade tolerant, oak-hickory dominance can be expected as the forest evolves undisturbed.

Areas around the Shorefield Picnic Area include black locusts as well as Virginia pines and tulip poplars. Many exhibit signs of stress from soil compaction, mechanical damage to bark and limbs and butt scarring. Use areas are not rotated to limit damage. Planted areas of Brookside Gardens consist of maintained lawns with ornamental tree and shrub species and existing woods underplanted with ornamental azaleas and other shrubs. Street trees have been planted in the Rubini Athletic Complex and Equestrian area and the remaining unforested or unpaved portions of the Park are primarily in maintained meadows.

The Park supports a wide variety of wildlife which inhabit developed, edge and interior Park habitat areas. The best habitat area, according to Park and Planning personnel, is the stream valley and surrounding hillsides to the west of the campground area. Two pairs of hooded warblers nested there in 1986, although they were not present in 1987. Red shouldered hawks, and screech and grey horned owls have also been sighted. The area is frequented by the park's white tailed deer which travel through the wooded areas of the Park, and have frequently been observed in its south east section. The stream valley area provides the least disturbed and most diverse contiguous habitat opportunities (stream, stream side, upland) within the Park (Hench, 1987).

Other common species in the Park include the Kentucky warbler, Parula warbler, ovenbird, Acadia flycatcher, and scarlet tanager. Worm eating warblers, and redstarts have been sighted along the bike trail in the south east part of the site. Most of the birds are edge related species, evidencing the extent of habitat fragmentation, edge conditions, and reduced habitat space brought upon by development and use of the forested area (Hench, VanNess, Gibbs, 1987). Other animals which might be expected in the natural community of Wheaton Regional Park, but which are not evident include Northern two-lined salamanders, dusty salamanders and Northern red salamanders (Hench, 1987). The vegetation and drainage map indicates forested areas and water bodies on site.

C. Human Factors

The results of years of both park and non-park uses are superimposed over Wheaton Regional Park's natural base. The Park Headquarters Building (the former Stubb's house), and the Armstrong house and the Stubb's barn are all remnants of a former farm. The barn dates to 1848, and the house was probably constructed in the 1850s. The house was covered with a brick veneer in the 1940s. The barn is an English-type swing beam two level barn, one of the earliest of one to two hundred constructed in the area, and the last left in Wheaton. It remains unused at present. The Armstrong house, adjacent to the barn, is rented as a residence (Mike Dwyer, 1987).
Other houses dot the Park. The Ryan house, near the Equestrian Center dates to 1890 and is rented as a residence. The Anderson and Owen's residences, located near the Shorefield picnic area, and the Norse house located near the Rubini Athletic Complex, are similarly rented for non-park uses. The Nairn House, located off Arcola and near Nairn Avenue, is used as a County Rehabilitation Center. Other structures associated with the former Stadler nursery have been utilized as part of Brookside Gardens.

Brookside Nature Center was the first facility opened in Wheaton Regional Park. The center consists of a former residence renovated to include a large meeting room seating 80, exhibit and display areas, offices, and bathrooms. Deficiencies in storage spaces, handicapped accessibility, office space, kitchen facilities, and mechanical and electrical systems were documented in the Steering Committee report (Steering Committee, 1986). Outbuildings include the former "Park House", used for office and media storage, and a log cabin and smoke house used for programmed activities.

The Center's activities are interpretively based and outwardly focused. Many revolve around guiding smaller groups of school age children through various program elements inside the center, and outside, at the pond, the meadow, the maple sugar grove, and trails throughout adjacent park lands. Frequently, programmed groups using the Campgrounds or visiting Brookside Gardens include the Nature Center in their visits. The nearby Campgrounds provides 10 walk-in tent sites with water spigots and restrooms. The Campgrounds are used principally by organized groups such as scouts.

The Shorefield area was the next portion of the Park completed, and contains the most diverse range of family recreation activities. An area of approximately twenty-three acres includes over a hundred picnic tables, seven picnic shelters, a small farm/zoo, a large playground, an amphitheater programmed for summer concerts, Park Headquarters Building and related vehicle storage, a miniature train ride, a carousel, restrooms, a concession stand and parking for 269 cars. This area is the heart of the Park and provides the strongest and most memorable park image to visitors. The consequent heavy use is also evident in need for improved restroom facilities (cited extensively in 1986 user survey), new play equipment and general improvements to the farm (now ongoing), train tracks and station. The carousel, a recent improvement, exhibits some very attractive architectural form, color and detailing which older shelters, stage, and train station lack. Demand for parking and picnic tables is acute particularly on Sundays from April to September (Steering Committee, 1986). Families and other groups not specifically accommodated by facilities or given permits for group use often move numbers of available tables to a single location, taking them out of general use.
The Park is equally well served by the regional road network, although the final one-quarter mile drive to most of the parks more popular activities often traverses residential streets. To the west and south, the Park is bounded by Kemp Mill Road, Arcola Avenue, both considered by Montgomery County to be arterial roads. Glenallen Avenue to the north is a primary road, although the section between Randolph Road and the Brookside Nature Center is not built to standards and is proposed to be upgraded (Kensington Wheaton Master Plan, 1987). Georgia Avenue west of the park, and Randolph Avenue to the north are both controlled major highways.

There are seven separate access points to the Park used to reach its facilities. Brookside Gardens and its maintenance facility, Brookside Nature Center, and the Equestrian Center all have separate direct drive entrances off Glenallen Avenue. The Campground and Maintenance Yards access from Kemp Mill Road. The Rubini Athletic Complex is reached from Arcola Avenue at the end of Orebaugh Avenue. The Shorefield picnic area is reached at the end of Shorefield Road, a primary road according to County transportation classifications. This multiple access approach was specifically implemented to limit automobile encroachment in the interior of the Park.

Parking is similarly dispersed, although at two of the three largest activity areas, Shorefield and Brookside Gardens, lack of parking is a common visitor complaint. At the Shorefield picnic area peak use of facilities occurs throughout the late Spring and Summer, on nearly all Sundays and holidays and during special events at the stage (Steering Committee Report, 1986). According to staff, on peak days the 269 car lot is full by 10:00 A.M. and employees must turn away cars at the site until 3:00 P.M. (Kwitowski, 1987). Not easily discouraged, drivers of many of these cars park along Shorefield Road to the consternation of surrounding park neighbors.

Brookside Gardens faces similar problems. Only forty-five spaces are provided at the conservatory. Peak use, typically weekend days during Spring flowering months, produces thousand visitor days with consequent parking demands. Currently this need is met by providing shuttle bus service for off-site parking at Glenallen Elemetary School and at Kennedy High School to Brookside Gardens and Brookside Nature Center. This shuttle is popular, but can only seat 10 and make three runs per hour. Extra policing is required during peak times to insure passable automobile circulation on Glenallen.

Additional visitors may reach Wheaton Regional Park via Metro bus service along Georgia Avenue, and Montgomery County Ride-On service along Arcola. The planned Metro station at Glenmont is expected to make the park more accessible to urban residents.

Internal park vehicular circulation is limited to maintenance equipment. Lack of an internal connection between the maintenance facility and the remainder of the park results in maintenance vehicles traveling out of the Park, along Kemp Mill to Arcola, and from there to Orebaugh to re-enter the Park at the Athletic Complex. Other internal Park roads are utilized by equipment to reach the Shorefield area from the Athletic Complex. Brookside Gardens maintains their own grounds, utilizing garden paths. However, the maintenance equipment and administration are widely separated from the conservatory and proposed Director's offices.
The Motorized circulation plan indicates vehicular movement in and around the Park. It is also possible to move within Wheaton Regional Park without using an automobile. Bicycle routes, bridle trails and hard and soft surfaced paths are available to Park users. The extent of these routes is shown on the Non-Motorized Circulation Plan.

An existing Class I bicycle trail consisting of a loop from the Shorefield area to west of the Rubini Athletic Complex was constructed as part of initial park improvements. Bicycles were rented from a shed in the Shorefield area. Rentals are no longer available, and current users consist of children on bicycles, joggers and others utilizing the trail to reach less developed portions of the park. The current Master Plan for Kensington Wheaton proposes to connect this loop with new Class 1 trails leading from Randolph Road to Kemp Mill and then into the Park. Another Class 1 trail would be constructed as part of the proposed improvements to Glenallen Avenue, reaching from Randolph Road east to Kemp Mill. Another bike trail is proposed to extend along the Western boundary of Wheaton Regional Park and would connect to the existing bicycle trail at the Shorefield picnic area.

A bridle path loop circling the Campground area is used for supervised trail rides and other activities beginning at the Equestrian Center. The Center also uses trails in the adjacent Northwest Branch Stream Valley Park, some of which were recently improved to enhance off park use of horse trails.

Paved pedestrian paths are located around most major activities. Brookside Gardens publishes a pamphlet mapping the location of handicapped accessible trails, and periodic access improvements have been made in the Shorefield picnic area. Nevertheless, steep grades and unpaved surfaces make full accessibility difficult for the elderly and handicapped. User studies point specifically to a desire for access to Pine Lake. A number of unpaved hiking trails penetrate more remote portions of the Park, particularly those areas near the Campgrounds and the Nature Center. These trails and others are frequented by joggers, nature observers, persons involved in programmed activities and others. Significant numbers of users have cited these kinds of activities as desirable in Wheaton Regional Park (Kwitowski Survey, 1986).

D. Park Attendance and Revenues

The greatest dichotomy of opinion concerning the condition and future of Wheaton Regional Park is caused by attendance figures. Staff's often cited finding of 1,070,000 visitors per year produces both a sense of pride and fear of placing further strain on park resources. While yearly attendance figures are not available for the park's complete twenty-five year history, attendance at individual activities, particularly those where use can be traced through revenue generation, point to consistent user demand for all activities, with a resurgence in popularity of the ice rink, and growing increase in the popularity of Brookside Gardens (Kwitowski; Survey, 1986). Revenue Generation 1986-1987). The 1985 Regional Park Survey recorded an increase in visitors per survey observation period between 1980 and 1985.
Table 3.1 summarizes usage of various facilities over a two year period from July, 1985 to June, 1987. Because the figures are drawn from various sources, users may be counted more than once, and some users not engaged in specific activities may not be counted.

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Sources:
1. Attendance Estimates, John Kulicki
2. Attendance Estimates, Enterprise Division Survey
3. Attendance Estimates, Jim Benjamin
4. Attendance Estimates, Steering Committee Report

Typical of regional parks, users are drawn from many locations. The 1985 Regional Park Survey indicated that 83.6% of visitors to Wheaton Regional Park are from within Maryland. The 1986 in park survey found 85.2% Maryland visitors. According to the 1986 survey, 73.5% of all users are from Montgomery County. As noted, the planned Glenmont Metro station can be expected to provide park access to potential users outside of the Wheaton area.
Within the Wheaton Kensington Planning Area, current demographic trends point to a rising median age, and greater population of elderly residents, greater ethnic diversity, and slightly higher proportion of handicapped residents than found county wide. Existing housing is predominately single family detached, but townhouse construction is the predominant form of infill residential construction (Wheaton Kensington Master Plan, 1987).

Users reaching the Park are more or less likely to visit other park facilities based on the nature of their visit. Highly programmed facilities such as the Equestrian Center or scheduled softball games and the ice rink at the Rubini Athletic Complex attract users who generally do not utilize other Park facilities during their visit. Some areas, such as the Gardens and Nature Center, have well correlated positive synergistic use patterns. Attendance plan depicts 1986 attendance in each facility area with proportions of user migration to other facilities, based on the 1986 in park survey. Table 3.2 describes the 1986 findings in greater detail.

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<tr>
<th></th>
<th>Shorefield Picnic Area</th>
<th>Rubini Athletic Complex</th>
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<th>Brookside Nature Center</th>
<th>Equestrian Center</th>
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The final analysis plan displays relative gross and net revenues for the 1986 calendar year based on information supplied by the Enterprise Division Facilities with high initial capital costs such as the ice rink or tennis bubble generate comparable revenues. The miniature train and recently added carousel both exhibit solid revenue growth over recent years. However, the current closing of Old MacDonald's Farm for repairs is expected to limit attendance as visits to the farm are often coupled with use of the rides. Only the concession stands show limited revenue generation, due to limited hours, and in the instance of the Shorefield snack bar, poor location in relation to other popular features.
E. Summary

A review of the foregoing inventory of natural and human components of Wheaton Regional Park suggests some preliminary conclusions concerning the condition of park facilities, and opportunities and constraints which will affect the proposed Master Plan concept. The conclusions of this analysis serve as the basis for design concepts developed in successive chapters.

1. Wheaton Regional Park is a significant, largely undeveloped tract of land within and surrounded by nearly built-out low density residential neighborhoods and their related services and transportation routes.

2. The Park's topography, geology and soils, as identified, present no significant obstacles to the reconstruction, expansion, relocation or removal of developed park facilities. Steep slopes and some stream bottom soils will require site specific engineering design responses, but should not result in excessive costs or impacts.

3. Forests on site are typical of recolonized farm fields. Their age and extent make them ideal for passive recreational uses and contribute to the uniqueness of the park within its urban context. Individual trees near heavily used areas exhibit various symptoms of decline and suggest comprehensive replanting efforts, rotation of use areas or other strategies.

4. Site drainage patterns have been variously affected by development of activity areas. All parking and other runoff contributing facilities were developed prior to current stormwater management regulations. The westerly on-site stream and the one paralleling Glenallen drain some offsite areas, which also affect water quality of these streams. Groundwater-fed ponds in the Brookside Gardens area exhibit stagnation signifying a need for aeration or deeper pools.

5. The Park supports a wide variety of bird and animal life, although the impact of on and off-site development has affected the numbers and diversity of species evident. No rare or endangered species were reported on site by staff.

6. The most significant habitat area is the stream valley and adjacent uplands west of the campground. This area is traversed only by camp trails and unpaved hiking paths.

7. Numerous structures existing on-site date from the previous farm, nursery and residential land uses. Some have been re-used for park purposes, some are employed for non-park purposes including rental residential units and some are unused.

8. Brookside Nature facility functions well in serving the smaller visitor groups who are led through a series of interpretive exhibits. The Center facility has documented need for mechanical, plumbing, handicapped access, code and space needs.

9. The camping facility is greatly under utilized for the space it consumes.
10. The Shorefield Picnic Area is the most heavily used single activity area on site and in need of the widest range of improvements.
   a. Parking and access are constrictive, particularly during peak use.
   b. Demand for large group facilities is not officially accommodated, although groups still attempt to use the facility.
   c. Demand for existing picnic facilities exceeds supply.
   d. Most facilities including play equipment, shelters, and amphitheater need to be upgraded or replaced.
   e. There is no central focal point for activities, auto passenger drop-off, or visitor orientation.
   f. Concession facility is poorly located.

11. The Equestrian Center location is adjacent, but not necessarily integral with the park. Need for additional trail riding areas, while justified due to the relatively short loop available within the park, may be better satisfied in the adjacent Stream Valley Park. The facility provides a good equestrian experience for the community but requires some minor repairs to continue effectively.

12. The Frank Rubini Athletic Complex represents significant capital investment. Certain problems with its current workings include the following:
   a. There is no central contact or orientation point for users of tennis, the ball fields, or the hockey rink.
   b. The ice rink is poorly located for the common use of parking, concessions and other facilities in the area.
   c. The concession stand is poorly located to serve all users.
   d. The tennis court structure should be made permanent, although the opportunity exists to provide both all season indoor and outdoor play.

13. Brookside Gardens Center presents some of the most intriguing problems:
   a. The basic facility layout produces inefficiency in management, maintenance and operation of the conservatory and maintenance and propagation areas are located on opposite poles. Similarly opposite locations of visitor parking and educational facilities produce inefficiency and require visitors, often school children, to travel through the maintenance area.
   b. There is significant need for a visitor orientation point providing restrooms, waiting areas, program displays and other program element which are currently not offered, or are abbreviated or compromised due to space limitations.
c. Pedestrian access from the Shorefield Picnic Area is difficult due to steep grades.

d. Access and parking, now served with off-site means, are inadequate.

14. The current maintenance facility is slated to be approximately doubled in size in accordance with system wide management plans. The current site has poor access to other park facilities, as workers must exit the park, travel along Kemp Mill Road at Aroola Avenue, before reentering the park at the Rubini Athletic Complex.

15. The park is well served by the regional road and transportation network, although current access points require travel through residential neighborhoods to reach the most popular facilities.

16. As a capital improvement, the existing bike trail is probably the most flexible facility and may be reshaped to meet future needs, although it should be integrated with the proposed hiker/biker trail system outlined in the Wheaton Kensington Master Plan.

17. Past attendance figures suggest sustained park attendance with increases of users in those areas providing new facilities or introducing new program elements.

18. Current buffer areas between park uses and neighbors have limited negative impacts. The greatest negative influence caused by the park is the problem of on street parking and congestion caused by insufficient onsite parking capacity.

19. Without requiring specific returns, areas of heavy capital investment have a pattern of comparable revenue generation.
4. CONCEPT DEVELOPMENT

A. Introduction

Based on the Policy for Parks, current administrative and operations strategies, user preferences as expressed in surveys and information provided by the Citizens Advisory Group, and preceding inventory and analysis, several goals appear to be central to any form of development in Wheaton Regional Park. These should serve as the basis for any capital improvements that might reasonably be expected to be implemented.

1. Preserve, protect and maintain as much natural area as possible. This is necessary to maintain the very essence and charm of Wheaton Regional Park, and to provide multiple habitats to insure variety of plant and animal life.

2. Improve automobile circulation during the most popular times. It must be clear to visitors that their planned or spontaneous decision to utilize the park on a busy day has reasonably simple consequences. This entails a clear auto destination that, if full, will allow the visitor to easily leave the Park and return later. It is important that arriving visitors are able to easily access the available parking spaces in sequence, rather than continuing to double back through multiple dead-end parking lots while looking for a space.

3. Maintain the concept of limited automobile access to the interior of the Park.

4. Provide a clear and efficient activity center for each major activity to provide the highest enjoyment of the facility by users and the highest operations efficiency for those who operate and maintain the facilities.

5. Allow park users optimum interaction and access between the facilities.

6. Provide a clear definition of facility development potential that:
   a. Matches the carrying capacity of the park.
   b. Allows clear long-range allocation of development funds.
   c. Takes advantage of the existing capital improvements to the maximum extent possible.
7. Adhere to the 1/3-2/3 development/non-development policy established by
   the Commission.

8. Realize that Wheaton Regional Park means many different things to many
different people and that different segments of the population come here
for singular purposes.

One of the central themes suggested by these goals is the development of
central focus areas for each major activity. This is important for visitor
orientation, and visualization of the destination. Central focus areas can
consolidate such activities as restrooms, concessions and on-site personnel
to maximize user services in minimum park area.

The following plate illustrates the major portions of the site that should
be retained and become the basis for the overall development concept. It is
followed by explorations of each of five concept areas, including a
rationale for the establishment and location of a central focus or village
area, and an examination of all conceivable automobile routes to access each
focus area. A summary of the major activity centers and illustration of a
composite internal route map conclude the chapter. The review of composite
internal routes addresses the possibility of a single site entry concept,
designed to achieve, to the extent possible, as low an impact as possible on
the surrounding neighborhoods realizing that Wheaton Regional Park is within
an intensely developed urban area, and surrounded by low density residential
areas.
B. Basic Site Uses

There are several developed park areas that are popular and will probably remain much as they are in any future configuration of any development plan for the Park. Over the years, considerable care has been given to the preservation and nurturing of the entire Park, but these areas are particularly prominent, and their preservation seems a prerequisite under any conceivable scheme.

The area on the accompanying plate entitled "Major Natural Area" has been identified as perhaps the best natural area on the site. It falls within the heart of the large natural area.

The other identified features exhibit enormous capital improvement expenditures and the essence of the major visitation to the park. These areas, The Frank Rubini Athletic Complex, Shorefield Picnic Area, Brookside Gardens, the Nature Center and the Equestrian Center are reasonably well located and serve the public well. While improvements are necessary as previously documented, no outstanding problem adversely affects attendance or demand for facilities in these areas.

The Pine Lake area, although a man-made lake, exhibits natural charm and is a popular passive recreation park feature. The Brookside Gardens maintenance area, a former nursery, contains a number of maintenance related buildings, some dating to the Stadler Nursery operation and others added more recently. It would be difficult to relocate.

In addition to these major areas, there are many other improvements within the park. Some may be incorporated or restructured to fit new needs. It is the intent of this planning effort to utilize as many of the existing facilities as possible.
C. Natural Area and Related Facilities

The single most important site use is the preservation and maintenance of the major natural area. Over the past twenty-five years, this area has been zealously maintained and advanced as a major natural area. There are three uses on its periphery which have minimal impact on the area and utilize it as integral parts of their program.

The heavily used site facilities including Brookside Gardens, Shorefield picnic area and the Rubini Athletic facility are all grouped together and form a crescent shaped zone on the western part of the park. These uses are somewhat removed from the major natural area. While there are other undeveloped or natural areas within that crescent, they serve more to enhance the high activity areas rather than serve as large natural areas or good habitat.

The equestrian center is remote from most park activities of the park. Its primary riding trail is through the major natural area which contributes to the enjoyment of equestrian activities. This facility should remain essentially as it is with the addition of selected capital improvements and repairs as necessary. This facility serves a very focused constituency, but provides a recognized park use and a somewhat unique use in the center of a developed area.

Brookside Nature Center is geared towards servicing small groups. Utilizing a pre-existing building, the Center has grown to handle small groups that utilize the natural area as its laboratory. Comparative cost studies indicate that upgrading the present building would be much more cost effective than building a new one on the site. Rehabilitation would probably take less time to achieve. The parking is adequate, and with the addition of handicapped accessible ramp, larger restrooms, the upgrading of the exhibits, and other improvements, this facility should continue to serve its present function very well at its present scale.

The overnight camping area is relatively primitive and has a less than 4% utilization rate. For the portion of parkland it utilizes, it provides the lowest utility of facilities on site. While the Commission may wish to study the use of Wheaton Regional Park for overnight camping in relationship to other camping facilities in other parks, it would seem reasonable to retain three of the existing ten sites, and abandon the remainder. This would allow the remaining areas to naturalize, thus improving the ratio of developed to undeveloped lands. If current utilization remains constant, the campgrounds would still have only a 14% occupancy rate. This proposed action would require no additional capital improvements and could utilize those improvements already in place.

These three low impact use activities are appropriately located with respect to the natural area, and should enjoy a rather constant use in the foreseeable future.
D. Alternate Maintenance Locations

In the current park reorganization plan, the maintenance facility at Wheaton Regional Park will be expanded to become a central location for the maintenance of approximately twenty other smaller parks in the region. It is estimated that the current size would double. It is appropriate then to consider other locations within the park that may be more advantageous for this facility.

Those general areas that require the most maintenance are illustrated on the accompanying maps, and are labeled "park maintenance areas".

Locations 1 and 2 utilize the existing facility and allow it to expand either to the north or to the south. This location has good access to Kemp Mill Road to facilitate workers and material movement but is somewhat remote to the major maintenance needs of Wheaton Regional Park itself.

Location 3 would be closer to higher maintenance needs and have access off Arcola Avenue. Intersection site distance is very poor in this area, however. Location 4 is a central location and would be predicated on abandoning the ice rink but keeping the structure and utilizing it for the maintenance facility.

Location 5 is centrally located, and would be able to be accessed easily from Arcola Avenue. It would require, however, the removal of an existing natural area, and its proximity to residential areas on Arcola may result in adverse noise or other impacts.

Location 6 would be an expansion of the area around and behind the present Park Administrative Headquarters. It would be accessed from Shorefield Road. While centrally located, it would have the disadvantage of placing major maintenance facilities close to a high public use area.

Location 7 would constitute a consolidation of the Wheaton Park maintenance with the Brookside Gardens maintenance facilities, currently utilized exclusively to maintain Brookside Gardens. The advantage includes consolidating all on-site maintenance and avoiding any duplication of personnel and equipment that may presently occur. While the Brookside maintenance staff and facilities do the bulk of the work at Brookside, existing Wheaton Park maintenance staff performs some maintenance tasks there as well. Disadvantages include forcing additional maintenance traffic onto Glenallen Avenue, although at non-peak times.

Location 8 presents an opportunity to utilize some minimally used areas near the Equestrian Center. They have good access from Glenallen Road and Kemp Mill Road. The disadvantage to this location is its remoteness from the main park maintenance need areas.

For the purpose of this concept development, the alternatives 1 or 2, utilizing the existing maintenance area, will be used.
E. The Frank Rubini Athletic Area

The central theme for the development for this area is the establishment of one location where the user needs for each major athletic use can be centralized. The synergistic advantage of one location can benefit each use. The ball fields, tennis facility, and ice rink, each require restrooms and concessions, and would be enhanced by the ability of users to purchase services or equipment. This central place for people to meet and relax before or after sports events could also serve as an orientation point for the proposed handicapped accessible fitness trail.

Two additional fundamental ideas are to relocate the ice rink facility so that it can share the parking area and the other facilities, and to create a new covered indoor tennis facility that would eliminate the need for the existing seasonal bubble. It has been estimated that it would cost in excess of five hundred thousand dollars to upgrade the present ice rink. The present ice rink might continue to operate without improvements, and a new, completely indoor facility built in this focal area. A new rink could cost two and a half to three million dollars. Following its construction, the existing rink could be dismantled or rehabilitated for another use. The proposed rink would be a more usable facility in the long run and provide the growing ice hockey community with greater opportunity for ice time. The increased user fees should make this additional expenditure feasible.

The new tennis facility would provide a permanent structure over six tennis courts, and have room for an additional six covered courts to the east if dictated by future needs and desires. The twelve existing courts would remain for seasonal play. No modifications of the existing six ball fields are proposed except for the provision of improved parking facilities and the central concession facility. A suitable adjunct use to the central facility would be a pro shop providing services for all three uses, but be in operation twelve months out of the year, and could provide a different marketing emphasis for different seasons.

The access to this facility is currently through Orebaugh Street. There is a serious disadvantage of poor site distance for exiting autos, creating some traffic jams between ball games when traffic is both entering and exiting the facility. While there are a number of conceivable alternatives, as illustrated on the accompanying maps, possible entrance 10 also has very poor site distance and would only slightly ease the problem of access at point 11.

Potential access corridors 1, 3, 4, 12 and 13 are only remotely feasible. However, point 9, with the alternate of going on either side of the maintenance facility would ease the traffic congestion at point 11 without actually adding another entrance to Wheaton Park. It would have the further advantage of allowing the maintenance staff to access all maintenance areas in Wheaton Park proper without having to leave the Park and go north or south on Kemp Mill Road, for maintenance purposes.
F. Shorefield Picnic Area

By far the most heavily attended use on the site, the Shorefield Picnic Area currently lacks visitor support areas and is very congested during peak uses. The central concept for development in this area is the establishment of an orientation plaza which would contain the existing carousel, new train station, and relocated track and train maintenance area, new restrooms, concessions, and the potential to have displays of other park uses. These displays would be a window on the rest of the Park informing visitors of other ongoing activities at Brookside Gardens, Brookside Nature Center and other facilities. It can also be a window on natural aspects of the creation and existence of the Park itself.

As this central area develops, more intensive picnic areas on hard surfaces could be provided as an alternative to the picnic features that currently exist. Minor concession activities, including sales of such items as bird feeders, plants and post cards might be provided. Ultimately, activities such as artists workshops and other items of interest to park users could be included. There is a small area, five and one half acres, south of this central focus area that could be developed in the future for additional lower impact picnic facilities in the style of those that exist in the Shorefield area today.

One of the key issues in this area is carrying capacity and impact of additional parking facilities to alleviate off-site parking. The citizens advisory group stressed the need to identify a number that could be determined as a maximum capacity.

Park standards suggest about 15-25 picnic tables per acre with the higher ratio representing more intensive use (Boaz, 1970, Gold, 1980). This concept is based on the lower density ratio for the majority of picnic areas, with higher densities in the more paved center area including a family picnic pavilion. Parking would be limited to the zone on the accompanying map titled "Existing and Proposed Parking". Parking would continue to be peripheral and would not extend beyond this zone.

There are several possibilities to alleviate access to the park. However, 3, 4, 9, 10 and 11 are possible only with major access concept changes. Points 12 and 13 alleviate the congestion on Shorefield Road and allow access to this facility from two points, rather than focusing it on one. Point 13, is probably not feasible, as it would go through a very low use residential street.
Other features in the Shoresfield Area include Pine Lake which, because of its distance from existing and any reasonably proposed future parking and the very sensitive edges, should remain as it is today, somewhat usable from the west side but limited to low impact use. Any introduction of major uses here would require a great deal more hard surfacing and probably the development of a hard edge or docks or both into the lake itself. A minimal paved path on the western shore would serve to provide better handicapped and elderly accessibility.

Old MacDonalds Farm, which is both a popular destination and ancillary use to the picnic area, can be kept indefinately where it is because it is easily accessible from the parking area, and the picnic area. From a planning standpoint, its current location or potential location at the Armstrong property in the future would have equal advantages, as the greater distance to the Armstrong property would be offset by the possible use of Stubb's barn for interpretive functions.
G. Brookside Gardens

As noted by Mr. Karl Hahn, the first Director of Brookside Gardens at the August 18 Wheaton Regional Park Citizen's Advisory Committee meeting, "It (Brookside Gardens) was not planned to be the enormous success that it has become". Brookside Gardens is operating under several disadvantages. While Glenallen Avenue is identified as a primary road, slated for improvements in the future, it does not have the carrying capacity to easily handle the traffic that follows the popularity of the facility. In addition, the central arrival point is at the extreme Northeast corner of the property, with virtually no capability to expand to handle additional traffic. Furthermore, utilization of the old nursery facility on the hill creates 1800 to 2000 foot frequent daily walks between administrative functions. Therefore, we propose the concept of creating a new visitors orientation center and needed educational facilities in a location between the two existing heavily used areas. This new facility would allow for consolidation of administrative offices, the proposed education center to the size and extent necessary and feasible, other meeting, library and support facilities as needed, and adequate parking.

While Brookside Gardens could continue to expand indefinitely, it is not conceivable that all required parking could be handled on-site. However, the majority of functions could be accommodated on-site and eliminate the visitor destination confusion that exists today with inadequate parking lots and the shuttle bus service from Glenallen Elementary School. This central facility would be an identifiable visitor destination focus and can be located attractively within the Gardens with little disruption to the existing collections. It would have the advantage of being centralized within the facility, allowing all maintenance activities to occur on the hill, and the collections to surround and enhance the center.

Access to this central facility present several possibilities. However, 1, 9, 10 and 12 are very remote, 2 and 3 have severe site distance and grading problems. Point 5 would utilize the existing entry, although it would cause the disruption of existing collections in a major way.

Entry point 4 occurs at the intersection of Heurich Road and Glenallen. This entry would avoid the Aquatic Gardens, be a very gentle entry along the base of the hill and flow into the new Brookside Garden center. The feasibility of that intersection would need further study and coordination with the Department of Transportation regarding site distance and its general relationship to Glenallen itself. It is not anticipated that traffic would be increased on Heurich Road because currently visitors travel up and down here to get to the school and the shuttlebus utilizes it as well.

The location of this new center and central orientation theme, and new entrance, would breathe new life into the operations of Brookside Gardens and allow it to limit development to the overall bounds of its current site.
H. Summary of Major Activity Centers

The accompanying map illustrates and summarizes the location of the major site uses. These are nicely dispersed on the periphery of the site and allow each some positive relationships with the natural area. With the proposed initial focus for each, and expanded facilities, visitors can have a clear destination target in mind, a clear arrival point, and the ability to enjoy that particular aspect of Wheaton Park that they choose to visit.

As determined in the analysis, the major use activities are Brookside Gardens, Shorefield Picnic Area and the Rubini Athletic Complex. After experiencing an initial visit, a portion of visitors to these facilities, if motivated, will generally tend to use the other facilities as well.
I. Internal Auto Access Corridors

The accompanying plate is a composite of all feasible internal auto corridors in the Park. This is shown only to identify these corridors if the policy were developed to internalize the auto circulation. This notion is the basis for considering the impact a single access point would have.
5. CONCEPT ALTERNATIVES

A. Concept 1 - Single Site Entry

Based upon individual use area concept development and the consolidated auto access corridors, the single entry concept eliminates all traffic through the neighborhoods and provides a single entry point to the site. The advantages of such a scheme include controlled entry to the park and the ability to collect gate fees if such a policy were later developed. Traffic through Arcola, Shorefield and Glenallen would be redirected to Kemp Mill Road, designated as an arterial road by Montgomery County. Kemp Mill has good access to Randolph Road and ties in with another arterial, Arcola and subsequently, University Avenue.

While this scheme very tightly controls automobile access to the park, it also intrudes dramatically into the site, creating major disturbed areas. By not utilizing this scheme, the three highest use areas in the park are committed to continue using Arcola, Shorefield and Glenallen for access.

Except for the different road configuration, all other elements of the concept described in Concept Two would apply to Concept One.
B. Concept 2 - Multiple and Peripheral Site Entries

The multiple and peripheral site entry concept expands upon the locational recommendations explained in the chapter covering individual use concept development. There are several features of this concept plan that form the basis for detailed development.

1. Rubini Athletic Village

   a. Create a new center east of the current parking lot containing restrooms, snack bar, a proshop for hockey, tennis, baseball and softball, storage, offices, dining tables and chairs, and an orientation point for a handicapped accessible fitness trail.

   b. Relocate the ice rink to be an integral part of the center. Design it so that it can be used for indoor tennis in the summer.

   c. Create a new tennis area south of the center with year-round cover to replace the tennis bubble.

   d. Phase out the bubble following the construction of the new facility.

   e. Reorganize and expand parking to provide for central parking meeting all needs.

   f. Create new auto linkage with Kemp Mill Road to alleviate the congestion at Arcola Avenue.

   g. Gradually light more ball diamonds as need requires.

   h. Create a new snack bar and restrooms at a central location at the ball diamonds to be used when needed.

   i. Convert the existing snack bar to storage or remove it.

2. Group Picnic Area

   a. Convert the ice rink to the group picnic area utilizing the restrooms, parking areas, etc.

   b. Remove the fences.

   c. Refurbish the rink structure architecturally to match other attractive park facilities.

   d. Create an informal playfield to the north of the building.


   a. Create a new entrance orientation plaza utilizing:

      - existing carousel.
- new train station and train storage area.
- restrooms.
- food and other limited concessions.
- displays.
- hard surface picnic opportunities.
- shelters large enough to accommodate 20-30 tables each.

b. Extend Shorefield access to connect along the periphery of the property to Arcola.

c. Expand the parking as feasible along this road extension.

d. Refurbish the existing play area. Provide smaller satellite play areas near the expanded picnic opportunities as warranted.

e. Create a new low-density picnic area south of the Center emulating the existing picnic area to the north.

f. Restore the old house and barn to future use. Provide historic interpretive sign information.

g. Eliminate all existing houses and/or related out buildings that serve no recreational purposes.

h. Create paved handicapped accessible pathway to Pine Lake. Do not provide picnic opportunities in this area due to potential environmental strain on this resource.

i. Allow access only to the west side of Pine Lake. Allow the east shore of Pine Lake to remain as a natural edge.

j. Rebuild the train track as necessary, maintaining its present location and re-establishing new natural areas around the tracks. Eliminate the tunnel and utilize part of the proposed train station for train storage.

4. Brookside Gardens Village

   a. Create new entry from Glenallen Avenue at Heurich Road.

   b. Create new visitors orientation center containing visitor orientation administrative offices, education center, auto parking, tea room, other meeting rooms and auxiliary uses as necessary.
c. Provide gentle siting of the new development and minimize disruption of existing collections.

d. Continue to improve maintenance and propagation areas on the hill.

e. Eliminate all education and visitor uses from the hill area.

f. Convert existing library and offices at the north end of the conservatory into a display area or other programmed use.

5. Brookside Nature Center

a. Retain existing building and up-grade to meet current needs.

b. Utilize existing parking lot in its present configuration.

c. Retain walkways and access to nature trails that exist today.

6. Create a major internal pedestrian-bicycle path extending from Brookside Gardens through Shorefield Picnic Area to the Rubini Athletic Complex. This path would provide a strong pedestrian connection between these three major facilities and by extension include the Brookside Nature Center via trails that currently exist. The relocation of the Brookside Gardens visitor orientation point to the proposed location significantly reduces the distance between Brookside Gardens and the Shorefield Area. The playground, Old MacDonald’s Farm, and the historic Stubbs barn could be accessed by this walkway.

This walkway should accommodate the current user desires and program needs to travel between activity areas. If future user trends determine that a pedestrian carrier of some nature were desirable to supplement walking between these facilities, this walkway could serve as a potential route. Nevertheless, a review of other park systems employing tram points to the need to provide separate tram/pedestrian circulation systems to avoid conflicts.

7. Equestrian Center

a. Retain the existing use.

b. Add new facilities such as a dressage ring, as needed, and as can be operated under concession arrangement.

c. Repair the exterior of the building.

d. Do not add additional trails into Wheaton Park.

e. If feasible, add new trails for longer rides in Northwest Stream Valley Park.

8. Campground

a. Retain as primitive camping.

b. Eliminate 7 of the 10 areas, allowing them to grow back into a natural state.
c. Retain 3 camping spaces.
d. Retain hiking trails.

9. Maintenance Area
   a. Retain and expand as required by management plans.
   b. Stay at least 150 feet from the Park boundary.
   c. Allow new expansion to occur to the south of the existing facility.
   d. Screen very carefully from the new entry road extension.

10. Natural Area
    a. Create as large an undisturbed natural area as possible.
    b. Allow only non-paved hiking and horse trails.
    c. Retain and improve natural habitats.
    d. Maintain eastern shore of Pine Lake in aquatic vegetation.

11. Old MacDonalds Farm
    a. Retain in existing location.
    b. Upgrade and improve as necessary.
    c. Provide an interpretive program and signage
A. Illustrative Master Plan

The concept as outlined in chapter 5 and further refined is shown on the illustrative plan on the accompanying plate. Facilities are depicted in accordance with square foot requirements derived from the program as developed in the preceding chapters. Each proposed or upgraded facility is referenced in cost estimates which appear as part of the appendix.

Current and long-standing park policies dictate the sensitive nature of the attitude towards development in any Montgomery County Park facilities. The following three plates illustrate what the proposed developments in the three major activity areas may look like. These are again, illustrative, and show examples of how these facilities may be best designed to fit comfortably within the natural beauty of the Park.
B. Frank Rubini Athletic Complex

This plan illustrates how the new Sports Complex can be located to the east of the present tennis courts. The main structure consists of the center of all of the activities, and includes the Proshop, lockers, restrooms, food service, lounge, and other facilities. It serves six covered tennis courts and a new ice rink facility. If future use warrants, there is sufficient space to add an additional six court facility. The parking area has been expanded to accommodate up to 420 spaces reflecting approximate the combined total of current ice rink and ballfield/tennis parking. Most of the existing parking has been retained. However, parking backing on to the access road has been eliminated and a wider handicapped strip provided. The new landscaped fitness trail has been sited along the east side of the property, tied in to the existing bicycle trail, and accessible from the portion of the building containing the restrooms and food service. The new concession stand has been centrally located between the six ballfields. This facility would be operated only on an as-needed basis and would serve spectator and players in the ballfield areas. The stand is also located along the walkway that connects the Rubini Athletic Area and to the Shorefield Picnic Area beyond.

Moving the ice rink into the main area of the complex leaves the existing ice rink structure which can be easily utilized for group picnicking. It is in an attractive area of the park, separate from other uses. Renovation to the structure to meet an overall park architectural theme, landscaping and the creation of an informal ball field would make this the most acceptable location for group picnicking in the park.
C. Shorefield Picnic Area

As the most popular facility in the Park, the Shorefield Picnic Area presents the highest need for improved traffic circulation. The north parking lot is depicted with minimal additional automobile parking, six bus parking spaces and a drop-off area at Park Headquarters. The south parking lot is shown expanded further south to accommodate additional automobile spaces, bus parking and drop off areas, bringing the total parking capacity of the area to 460 cars. The site can efficiently accommodate this expansion while allowing the parking lot to be gently placed within that area containing a large number of the existing trees. A minimum 50 foot planted evergreen buffer is recommended to separate new parking and the connector drive from abutters.

The new center of Shorefield Picnic Area would have the capacity for 72 tables based upon a density of forty tables per acre. The existing ten acre parcel could accommodate 150, and the new 5.5 acre area to the south of the new center would contain 82 tables at the ratio of 15 tables per acre. The total number of tables would be 304 as opposed to the current 108 tables. A proportionate number of grills should be provided with the tables. Paved pads should be added under picnic tables to limit erosion and the problem of large groups claiming large numbers of tables - by moving them. Picnic shelters should be upgraded or replaced and a tree planting program begun to replace trees in decline.

At an average of 3.5 people per car, peak use of the 460 car parking lot would result in a site population of 1600 persons, exclusive of those arriving by means other than cars. According to the 1985 Regional Park Survey, over 90% of Wheaton visitors reach the park by automobile or bus. The in park survey observed similar results (Kwitowski, 1986). The proposed number of parking spaces represents one space per table plus an additional 150 spaces for general park users who may park in this area. This is comparable to the current ratios and number of spaces provided.

The major walkway as described in the concept, goes north from the Village Complex area, accessing use and activity areas of the park including Old MacDonald's Farm and continues on to Brookside Gardens. As the walkway moves south from the center, it passes through the proposed picnic area, some very nice natural areas and through to the Rubini Athletic Center.
D. Brookside Gardens and Brookside Nature Center

One of the very strong features of Brookside Gardens is the dramatic center line that has been established, currently terminating in the Wedding Pavilion. The ideal location for the new visitors orientation and education center would be along a continuation of this center line. The proposed location is in a dominant point and allows visitors within the center look over the existing collections.

The new entrance from Glenallen Road is shown conceptually. The reality of providing this intersection probably includes improvements to Glenallen to enhance sight distance, perhaps in conjunction with planned reconstruction of the entire road. The new entrance road rises gently along the base of the hill and enters a parking lot that accommodates up to 185 cars. This lot would be largely hidden from the other site activities and be screened by the retention of a large number of trees in the area. As uses are relocated from the current maintenance and education area on the hill, specific plans for new propagation and plans for related should be made so used portions of the facility not needed for use could be returned to natural areas.

The capacity of the parking lot was determined by taking the combined attendance during the four peak spring months in 1986 and 1987 and determining a peak period weekend capacity. Total average four month attendance is 66,183. Based on a peak season of 85 weekdays and 37 weekend days and holidays, and utilizing the 3.06 : 1 weekend : weekday user ratio observed for the park in the 1985 Regional Park Survey, average weekday users was determined as follows:

\[
(3.06 \times \text{A.W.D.}) + (\text{A.W.U.} \times 85) = 66,183
\]

Average Weekday Users = 334
Average Weekend Users = 1,022

Use standards indicate that 50% of users, or 511 will be present at peak hours on a given day. According to the in park survey, weekend use of Brookside Gardens average 2.9 occupants per car for a total parking demand of 176 cars at peak spring weekend daytime use. These are provided in the proposed lot in addition to ten handicapped parking spaces. Limited parking and space for parking six buses would still be available at the conservatory.

This plan retains all existing uses at Brookside Gardens and consolidates all facilities. At the eastern end of the center line, south of the conservatory, there exists an opportunity to build a structure or feature which would be large enough to serve as the eastern terminus of the center line. The Brookside Nature Center is shown in its present condition with this and other modest improvements and additions that are planned.
E. Ratio of Developed and Undeveloped Land

Improvements proposed for Wheaton Regional Park are consistent with the strong development guidelines that no more than one-third of the land be developed. At the time of this writing, discussions are ongoing concerning the criteria for this ratio. The accompanying illustration shows the ratios proposed by staff with the following exceptions that have been discussed at the Planning Board level:

1. Primitive camping will be considered development only in the specific location of the camp site.

2. Unpaved trails through the natural area are not considered developed.

3. Water bodies will be considered natural areas.

For purposes of this overlay, we have assigned a natural designation to Pine Lake, but have designated as developed all of the ponds and water bodies at Brookside Gardens. The simple elimination of the campgrounds created a substantial shift in the percentage of developed to undeveloped. With the more stringent interpretation, staff had earlier estimated that Wheaton Park was currently 40% developed. Considering the new proposals, with the full realization of everything shown in this Master Plan, and using the above criteria, Wheaton Park would be 32% developed.

Several areas are identified to be taken out of maintenance and returned to a natural state, and structures not used for recreation or other park purposes are shown eliminated.
F. Phasing of Improvements

A major purpose of this planning effort was the development of a plan that could easily see Wheaton Park through its next twenty-five years. The exact timing of the improvements depend solely on the availability of funds and the willingness to make capital expenditures to achieve these objectives.

Before capital funds are allocated it is important to study these recommendations to determine more detailed engineering and cost impacts, and implementation criteria. Each of the major facilities is complex in its individual operation, and more detailed master plans for each could be prepared by Park and Planning staff to identify the specific sequence of improvements in conjunction with ongoing operations, maintenance and programmed activities. Cost estimates are provided in the following section and may serve as a basis for organizing development priorities.
7.
APPENDIX
A. Bibliography

BOOKS


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Wheaton Regional Park Survey Information. MNCPPC, 1986.
MAPS


INTERVIEWS

Benjamin, Els; Director; Brookside Gardens; July 21, 1987.

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Christie, Don; Director; Equestrian Center; July 27, 1987.


McMahon, James; Manager of Park Facilities; July 22, 1987.
# B. Cost Estimates

## 1. Frank Rubini Athletic Complex

### a. Parking
- Resurface existing parking lots to remain: 51,900
- Construct new parking lots: 399,900
  - Total: 451,800

### b. Connector drive to Kemp Mill Road
- Total: 332,300

### c. Upgrade entrance drive from Orebaugh Avenue
- Total: 60,800

### d. New Tennis/Ice Rink Complex
- Enclosed ice rink, seating under 1000 (34,000 sf): 2,425,000
- Enclosed 6-court tennis structure (39,000 sf): 1,167,500
- Shared locker facility, snack bar, pro-shop, lobby, (3500 sf): 175,000
  - Total: 3,767,500

### e. Walkways
- Total: 10,000

### f. Concession Stand
- Restrooms (400 sf), prepared food sales (200 sf): 33,600

### g. Landscaping
- Total: 50,000

### h. Lighting/benches/trash receptacles
- Total: 50,000

### i. Utilities
- Waterline: 38,700
- Hydrants: 12,900
- Sanitary sewer: 28,800
  - Total: 80,400

### j. Refurbish existing rink for group picnicking
- Total: 50,000

### k. Subtotal
- Total: 4,886,400

### l. Contingency, design and engineering @ 22.5%
- Total: 1,099,500

### m. Total Frank Rubini Athletic Complex
- Total: 5,985,900
2. Shorefield Picnic Area

a. North Parking Lot 92,100

b. South Parking Lot
   Resurface entry drive 9,800
   Resurface existing parking 17,600
   New construction 437,500
   Total 464,900

c. Connector Drive to Arcoila Avenue 158,800

d. Miniature Railroad
   Train Station, train storage, 75,600
   restrooms, waiting area
   Relocate railroad tracks 72,500
   Total 148,100

e. Concessions and "Window on the Park"
   Concession facility (1200 sf) 9,600
   Interpretive space, displays and 17,300
   covered area (575 sf)
   Total 26,900

f. Picnic Shelters
   2 New group shelters (2880 sf each) 57,600
   5 New Shelters (300 sf each) 30,000
   Replace 7 existing shelters with 42,000
   matching architecture (300 sf each)
   Total 129,500

g. Upgrade Amphitheater to be consistent 25,000
   with other park architecture

h. Walkways
   Entry plaza (8000 sf) 40,000
   Paths in picnic area 10,000
   Connector to Brookside Gardens 40,000
   Connector path to Rubini Complex 35,000
   Total 125,000

i. Freestanding restrooms
   New restrooms (400 sf) 24,000
   Upgrade existing restrooms for handi-
   capped accessibility and consistency 15,000
   with other park architecture
   Total 39,000

j. Miscellaneous
   196 Picnic tables 58,000
   50 Grills 10,000
   50 Trash receptacles 10,000
   Landscaping 75,000
   Total 153,000
k. Utilities
   Waterline  64,500
   Hydrant  21,500
   Sanitary sewer  9,600
                     95,600

l. Subtotal  1,458,000

m. Contingency, design and engineering @ 22.5%  328,050

n. Total Shorefield Picnic Area  1,786,050

3. Brookside Gardens

a. Access road  45,900

b. Parking lot  293,200

c. Education/Visitor Center (10,300 sf)
   High quality wood frame construction
   Lobby/orientation area
   Cohort/information center
   150 seat auditorium
   Restrooms
   Library (400 sf)
   3 Administrative offices
   Workshop/secondary classroom
   30 seat classroom
   Greenhouse/conservatory display (200 sf)
   Tea room (70 Seat) with small kitchen
   Shop, storage, circulation  670,000

d. Internal walks, paths  15,000

e. Landscaping  50,000

f. Parking in maintenance area  40,800

g. Utilities
   Water line  27,950
   Hydrants  6,450
   Sanitary sewer  12,570
                     46,970

h. Subtotal  1,161,870

i. Contingency, design and engineering @ 22.5%  261,430

j. Total Brookside Gardens  1,423,300
4. Brookside Nature Center

a. Upgrade existing structure (3500 sf)
   New mechanical system
   New interior finish
   Upgrades to meet building codes and accessibility requirements
   New exhibit/display
   122,500

b. New restroom/office addition (500 sf)  30,000
   (Comparative cost of new structure: (4000 sf) plus new and reinstall exhibit $270,000)
   152,500

c. Regrade walkway
   15,000

d. Subtotal
   167,500

e. Contingency, design and engineering @ 22.5%
   37,700

f. Total Brookside Nature Center
   205,200

5. Equestrian Center

a. 3' Concrete block wainscot
   Miscellaneous trim to make facility consistent with other park architecture,
   paint and miscellaneous repair
   20,000

b. New roof as required in future
   50,000

c. Subtotal
   70,000

d. Contingency, design and engineering @ 22.5%
   15,800

e. Total Equestrian Center
   85,800
6. Maintenance Facility

a. Parking
   - Resurface existing lot 43,600
   - New construction 83,200
   Total: 126,800

b. Structures
   - Equipment storage, 16 bays (4600 sf) 115,200
   - Office, restrooms changing area, assembly/lunch area (1200 sf) 34,600
   Total: 149,800

c. Miscellaneous material
   - Storage bins 7,000
   - Landscaping 10,000
   Total: 17,000

d. Subtotal
   Total: 293,600

e. Contingency, design and engineering @ 22.5%
   Total: 66,060

f. Total Maintenance Facility
   Total: 359,660
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