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Now
G.W. Recenter

PRELIMINARY

Report on the Revised Master Plan of Mt. Vernon Community Park

↑ Now
George Washington
Recenter

prepared by

EDAWinc.

for **Fairfax County Park Authority**

AMENDMENT

TO

THE REPORT

ON

THE REVISED PRELIMINARY MASTER PLAN

OF

MT. VERNON COMMUNITY PARK

May 16, 1980

The attached pages, 32, 34, and 40, have been revised and are to be substituted for the corresponding pages in the report prepared by E.D.A.W., Inc. and dated May 1980.

Development Cost Estimate

The approximate costs for the implementation of the development items are as follows:

A. PARKING LOT AND ENTRANCE ROADS	
Parking lot for 300 spaces	$141,600.00
Entrance Roads	140,420.00
Subtotal	$282,020.00
B. SITE WORK/LANDSCAPE TREATMENT	
Walks & Trails	$ 30,000.00
Clearing & Grubbing	4,720.00
Site Grading	5,000.00
Landscape Planting	120,200.00
Outdoor Classroom	10,000.00
Tot lot/Play apparatus area	25,000.00
Subtotal	$194,920.00
C. UTILITIES	$ 33,040
D. PROPERTY ACQUISITION	$103,770 - 300,000 (8.3 acre parcel) 13,400 (2 half acre parcels)
Subtotals	$117,170 - 313,400
GRAND TOTAL	$627,150 - 927,150

Cost/Benefit

The cost estimate for construction of the recreation center on Site 3 is $3,286,645. Dividing this by the projected market penetration of the facility as defined by the primary service area (53,482 persons) yields a per person cost of $61.45. Benefits include the direct acquisition of approximately 9.3 acres of land (8.3 acre parcel plus two half acre lots), the construction of the new recreation facility, and related to this are the contributions to the community in terms of increased cohesiveness and recreational opportunities. The latter benefits are where the real value of the pool facility lies although these kinds of benefits are generally not quantifiable in economic terms.

ESTIMATED PARK MAINTENANCE AND OPERATING COSTS PER YEAR (FY1980 DOLLARS)

The following figures are based on FY1978 information prepared by the staff of the Fairfax County Park Authority and the Office of Research and Statistics. The figures have been updated to May 1980 by an inflation factor.

A. PARKING LOT AND ENTRANCE ROADS	$ 2,940.00
Subtotal	$ 2,940.00
B. SITE WORK	
o Walks & Trails (Nature Walk & Outdoor Classroom)	$ 4,800.00
o Landscape Treatment (Lawn & Planting Areas)	2,400.00
o Tot lot/Play apparatus area	1,975.00
Subtotal	$ 8,275.00
TOTAL	$ 11,215.00
20% Contingency	$ 2,243.00
GRAND TOTAL	$ 13,458.00

TOTAL ESTIMATED OPERATING AND MAINTENANCE COST

A. ESTIMATED BUILDING COSTS	$131,300.00
B. ESTIMATED PARK COSTS	$ 13,458.00
TOTAL	$144,758.00

Trails:

The trail system is the connector for the pool facility to the rest of the properties and facilities in the immediate neighborhood of the park. While created primarily for circulation, the trails through the woods can be enhanced with signage identifying wildlife and vegetation. The trails would then be an interpretive tool in studying the biological community. They should be approximately eight feet wide and either asphalt or gravel covered. The specific course for the trails would be determined in the field.

Buffer:

A minimum of fifty feet should separate any part of the site which borders on residential property from the area where the facility will be constructed. This buffer would serve to lessen the impact of the parking and the building through vegetative screening. No built features would intrude into the buffer zone. Where little or no vegetative cover presently exists, plantings would be introduced.

Special Features:

In response to the proximity of the schools to the site, an outdoor classroom could be placed on the northern slope in the wooded area. The classroom would consist of treated rough-cut timbers placed in a semi-circular arrangement. The flooring would be wood chips or a similar durable material. It could also be used for scouting, club meetings, and community groups. In addition, a tot lot/play apparatus area with a few well chosen pieces of play equipment would be located just southeast of the tennis courts.

Report on the Revised Master Plan of Mt. Vernon Community Park

prepared for the

Fairfax County Park Authority

Joseph P. Downs	DIRECTOR
Louis A. Cable	ASSISTANT DIRECTOR
James A. Heberlein	ASSISTANT DIRECTOR
Donald F. Lederer	SUPERINTENDANT OF DESIGN
Edward Nenstiel	LANDSCAPE ARCHITECT

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by EDAW inc
720 N. Saint Asaph St.
Alexandria VA 22314

May, 1980

OUR THANKS TO THE SOUTH MOUNT VERNON DISTRICT POOL FEASIBILITY SYUDY COMMITTEE.

COMMITTEE MEMBERS

Mrs. Laramie Askin
Captain Thomas A. Boyce
Mrs. Nancy Creech
Mrs. Richard Crowley
Mr. Kenneth Dickerson
Mrs. Debbie Fountain
Mr. William Glenn
Mrs. Claire Hamel
Captain Warren B. Johnson (Retired)
Mr. Charles Lee
Mr. Stewart D. McKnight
Mrs. Vicki Mcleod
Mr. Raymond Phillips

May 15, 1980

Mr. Donald F. Lederer
Fairfax County Park Authority
4030 Hummer Road
Annandale, VA 22003

Dear Mr. Lederer:

We are pleased to submit this Report on the Revised Preliminary Master Plan of Mount Vernon Community Park. We have enjoyed working with you, the Park Authority staff, and the citizens of Mount Vernon.

We believe the Report is responsive to the specific conditions inherent to the site and the Mount Vernon community. The Report provides a sound base by which the Master Planning/Development process may proceed.

We look forward to working with you and the Mount Vernon citizens in the future.

Sincerely yours,
EDAW, inc.

Joseph E. Brown
Principal/Vice President

JEB/jrm

EDAW inc.
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Introduction

INTRODUCTION

The purpose of this report is to document the process of choosing a site for a recreation center, with a 25 yard x 25 meter pool and related pool facilities, within the Mt. Vernon Community Park. The Park was chosen as the most feasible location for the center in a study conducted by EDAW, Inc. and adopted by the Fairfax County Park Authority Board in April, 1979. This report provides a revised master plan for the Mt. Vernon Community Park that includes the proposed recreation center with pool.

The Revised Master Plan Report is composed of six sections as follows:

- Section 1 defines the Master Planning Process and provides goals used to guide development of the revised plan.
- Section 2 provides a comparative analysis of the physical features of the three facility sites considered as appropriate locations for the recreation center with pool. Community characteristics affecting the siting decision are also considered.
- Section 3 lists components of the proposed program for the recreation center.
- Section 4 deals with fiscal considerations involved in the development of the Master Plan. The section includes site development cost estimates for each of the three sites, a cost/benefit analysis, and estimate of operating and maintenance costs.
- Section 5 summarizes the analysis and makes a recommendation for the pool facility building site.
- Section 6 presents design considerations used in the layout of the facility and provides the revised master plan for Mt. Vernon Community Park.

The background material used to select the Mt. Vernon Community Park as the location for a recreation center is provided in the Mt. Vernon Magisterial District Pool Feasibility Study.

Three site alternatives were offered by the Park Authority as possible locations for the facilities: Grist Mill Park (formerly Bryant Farm Park), Mt. Vernon Community Park, and the athletic fields behind Walt Whitman Intermediate School. The locations of these three sites within the Mt. Vernon Magisterial District are shown in Figure 1.

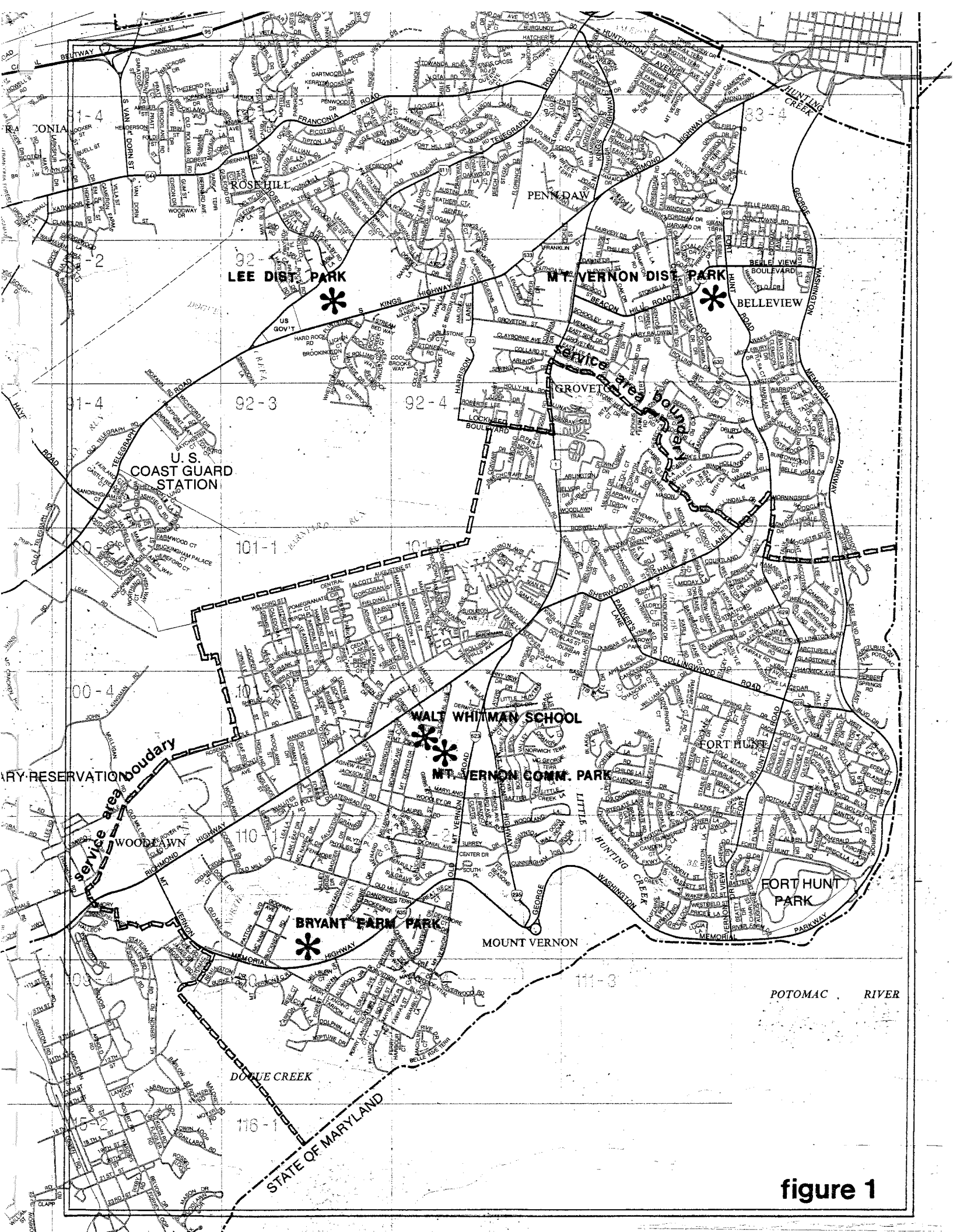

LEE DIST. PARK
MT. VERNON DIST. PARK
BELLEVIEW
U. S. COAST GUARD STATION
WALT WHITMAN SCHOOL
MT. VERNON COMM. PARK
BRYANT FARM PARK
FORT HUNT
FORT HUNT PARK
MOUNT VERNON
WOODLAWN
ROSE HILL
PENNDAW
GROVETON
service area boundary
service area boundary
ARY RESERVATION
STATE OF MARYLAND
POTOMAC RIVER
DOGUE CREEK
LITTLE HUNTING CREEK
HUNTING CREEK
FRANCONIA
S. VAN DORN ST
KINGS HIGHWAY
TELEGRAPH ROAD
FORT HUNT ROAD
COLLINGWOOD ROAD
MEMORIAL PARKWAY
GEORGE WASHINGTON MEMORIAL PARKWAY
HUNTINGTON AVENUE
BEACON HILL ROAD
LOCKHEED BOULEVARD
HARRISON LANE
PARKER'S LANE
SHERWOOD HALL LANE
BELLE VIEW BOULEVARD
RICHMOND HIGHWAY
91-4
92-2
92-3
92-4
93-4
100-4
101-1
101-2
110-1
110-2
111-3
116-1

figure 1

Three distinct but interdependent elements were investigated in the study. First were the locational characteristics of the three sites within the defined primary service area relative to population, accessibility, land use compatibility, and expected demand.

The second element considered the specific site-related features of each proposed location. This involved the complete documentation of all near or on-site characteristics which would affect the ability of the site to accommodate the proposed pool facility.

The third element of the study was the analysis of the proposed facility's fiscal feasibility. This analysis provided cost estimates for the construction and operation of both a "pool only" and a "full program" facility. Similarly, the revenue analysis considered the revenue requirements for both scales of recreation facility and determined the level of attendance required from within the primary service area to produce sufficient revenue levels to compensate their operating costs. Two additional variations were also included: one to test the proposition that operating costs could be materially reduced by contracting the facility's operation to a private management company; and the other, to evaluate the cost implications of combining selected recreation activities with the proposed pool in order to maximize annual attendance and thereby achieve or reinforce its fiscal feasibility.

The study conclusions were: of the three sites offered by the Park Authority as possible locations for the facility, Mt. Vernon Community Park was in a superior location and that this site be selected for the development of the proposed pool/recreation facility. Due to on-site conditions in Mt. Vernon Community Park which would restrict the siting alternatives, it was strongly recommended that these be circumvented by the expansion of the park to include several vacant land parcels lying on its southern border. This site does not have the on-site constraints which restrict the present park property and could easily accommodate the facilities. The analyses indicate that a "pool only" or possibly a pool plus some other recreational activities could be fiscally feasible. Operational effectiveness is important to facility feasibility. Aggressive and imaginative marketing is necessary in order for attendance and net revenues generated to be maximized. Operating cost differences between public and private management of a "pool only" facility are marginal but management effectiveness considerations favor public management.

Since this report was adopted by the Park Authority Board, the Board, a Mt. Vernon District Pool Feasibility Study Committee consisting of concerned citizens living in the District, and the consultant, EDAW, Inc., have studied additional aspects

involved in the final siting decision and programmatic development for a recreation center that includes a pool and related facilities. This report summarizes the results of this planning process. The intent of the document is to provide guidelines for construction and development of a facility that will best serve the needs of the community in an environmentally sensitive fashion.

Analysis Master Plan Conclusions

The Site Analysis results indicate that through evaluation of the three possible sites according to the Site Evaluation Criteria, Site 3, the 9.3 acre site, is in a superior position relative to the other two sites. The Costing Analysis also indicated a favorable position for the Site 3 relative to the other sites. Therefore, the results indicate that Site 3 is indeed the preferred and logical choice for the pool facility. Not only can a good site be acquired by the purchase of this property but the size of the park can be increased by about 50%. The park land will be protected from enroachment of housing developments, and the costs are substantially lower than any other present alternative even when including the cost of purchasing the new property. It is our recommendation, therefore, that the Park Authority acquire the 3 land parcels and that the pool facility be built there.

Having selected the Site 3 for the pool facility, the two half acre lots between the 8.3 acre parcel and Mt. Zephyr Drive should be discussed. This most direct route for a western entry could be provided at a savings to the county with minimal complications due to the use of the Walt Whitman School and/or County properties. Therefore, we recommend that a western access road should be built and that the two lots be acquired in addition to the 8.3 acre parcel in order to facilitate entry and access to the site.

The Citizens Committee; Mrs. Davis Askin, Captain Tom Boyce, Mr. Bill Glen, Mrs. Claire Hamel, Captain Warren Johnson, Mrs. Debbie Fountain, Mr. Charles Lee, Mr. Stewart McKnight, Mrs. Vicki McLeod, Mrs. Nancy Creech, Mrs. Constance Crowley, Mr. Kenneth Dickerson and Mr. Ray Philipps; has been actively involved in this study. At a meeting in December of 1979, the Committee met with the Park Authority and EDAW, Inc. and accepted the report also making the recommendation that the Master Plan for Mt. Vernon Community Park be revised to provide a pool/ recreation center on Site 3.

The Master Planning Process

THE MASTER PLANNING PROCESS

A Master Plan is the result of a developmental process which begins with a definition of needs expressed in social, economic, and enironmental terms. Goals are formulated which are attuned to these needs. The physical form of design components incorporated in the Master Plan begin with these goals and evolve into diagrammatic sketches which portray the facilities and their relationships within the natural environment. Over time, the design will change to more directly respond to the stated needs and goals and conform to the Master Plan as a whole.

The Master Plan serves as a guide for this process as well as a guide for implementation of its design components. It documents all decisions made during this process. The plan should remain viable until any new components are conceived as additions to the existing facilities, at which time either a revised or a new plan can be prepared. This report documents such a change to the existing Mt. Vernon Community Park Master Plan.

The existing and proposed system of Fairfax County parks attempts to establish full opportunity for all residents and visitors to make constructive use of their leisure time through the provision of recreational and cultural programs within safe, accessible and enjoyable parks. Additionally, the park system serves as the primary public mechanism for the preservation of environmentally sensitive land and water resources and areas of historic significance. Parklands to be acquired shall usually be classified in one of several listed categories. However, the list is not restrictive since citizens needs, both present and future, may require acquisition of combination park types or ones that differ from all of the categories listed. It is also true that the typical types of facilities listed under each category are neither all-inclusive nor mandatory. All of these park categories and recreational facilities are important in a well-rounded park system and must be provided if Fairfax County is to continue to provide a desirable living environment for its citizens.

A community park is designed to provide for daily relief within an urban setting. Community parks are therefore oriented towards a few hours of activity for passive or active purposes. They are designed to emphasize short-term visits and are convenient and often accessible by foot or bicycle for after school, after work or weekend activities with no or limited parking. The criteria for the selection of this type of park are flexible so as to allow for a maximum of local citizen comment on the selection, design, development and operation of the site. Community parks are the smaller ones serving

the county's numerous neighborhoods and generally range in size up to twenty-five acres. Facilities often provided in fully developed community parks may include playgrounds, tot lots, athletic fields, open play areas, basketball courts, benches, walks, gardens, picnic areas, tennis courts, shelters with restroom/concession facilities, parking trails and lighting where necessary. They can be wooded, suitable for passive uses.

The goals for the development of the Master Plan are to:

1. Create a focus for community recreation with a program which will accomodate a range of activity directed towards the needs of the community.

2. Relate the community park and its facilities to neighboring facilities, community services, and residential areas.

3. Create a harmonious relationship in the inter-working of the various components of the built (man-made) environment with each other and with the natural environment.

Site and Community Analysis

PROGRAM DEVELOPMENT

The program for the design of the recreation center was developed from the goals for the Master Plan presented previously. The Providence Recreation Center in Falls Church, Virginia was used as a model during the design development process. Based on the results of the site analysis, community analysis, and a wide range of input concerning the facility design, a program can be formulated which is responsive to the needs of the community and is sensitive to the facility component relationships. The interworking of the components is discussed in Section 7 under Design Considerations. A listing of the components of the Revised Master Plan are presented below.

Facility Components

The Building: (Model floor plans shown in Figures 8 & 9)

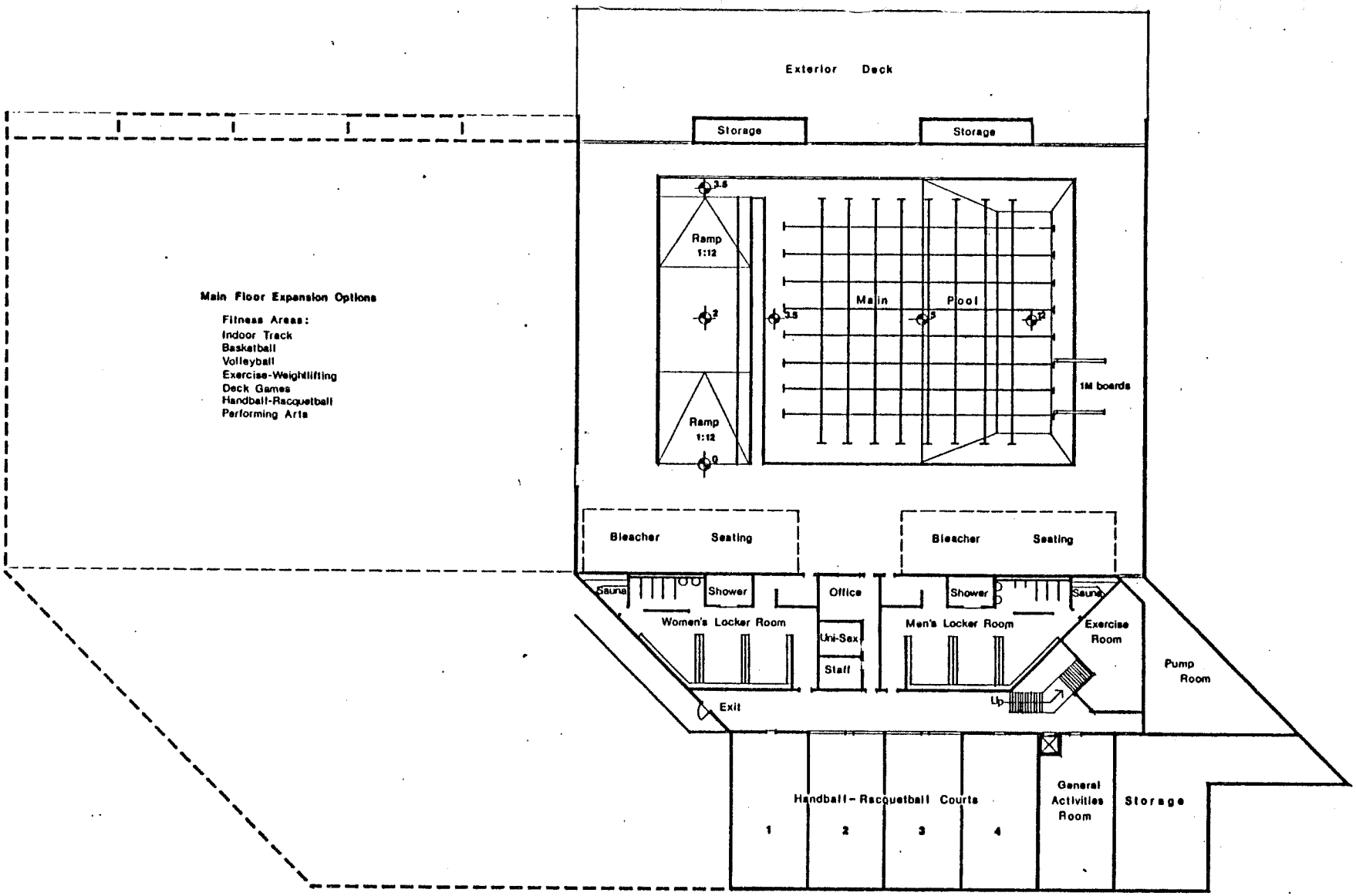
1. 25 yd x 25 m pool with diving well
2. Sun deck
3. Support facilities for pool (supply storage, pump room)
4. Men and women's changing rooms (lockers, showers, toilets, sauna)
5. Office space
6. Staff room (lockers and toilet)
7. Exercise room
8. Four handball - racquetball courts
9. General activities room

Building Related:

1. Parking (spaces for 300 cars)
2. Site access (east and west entry areas with roads)
3. Walkways
4. Drop-off area

The Park:

1. Outdoor Classroom
2. Trail system (bicycle and pedestrian linkage with schools, residential areas; can be an interpretive nature trail and/or an exercise trail)



Main Floor Plan

N

Providence Recreation Center Master Plan

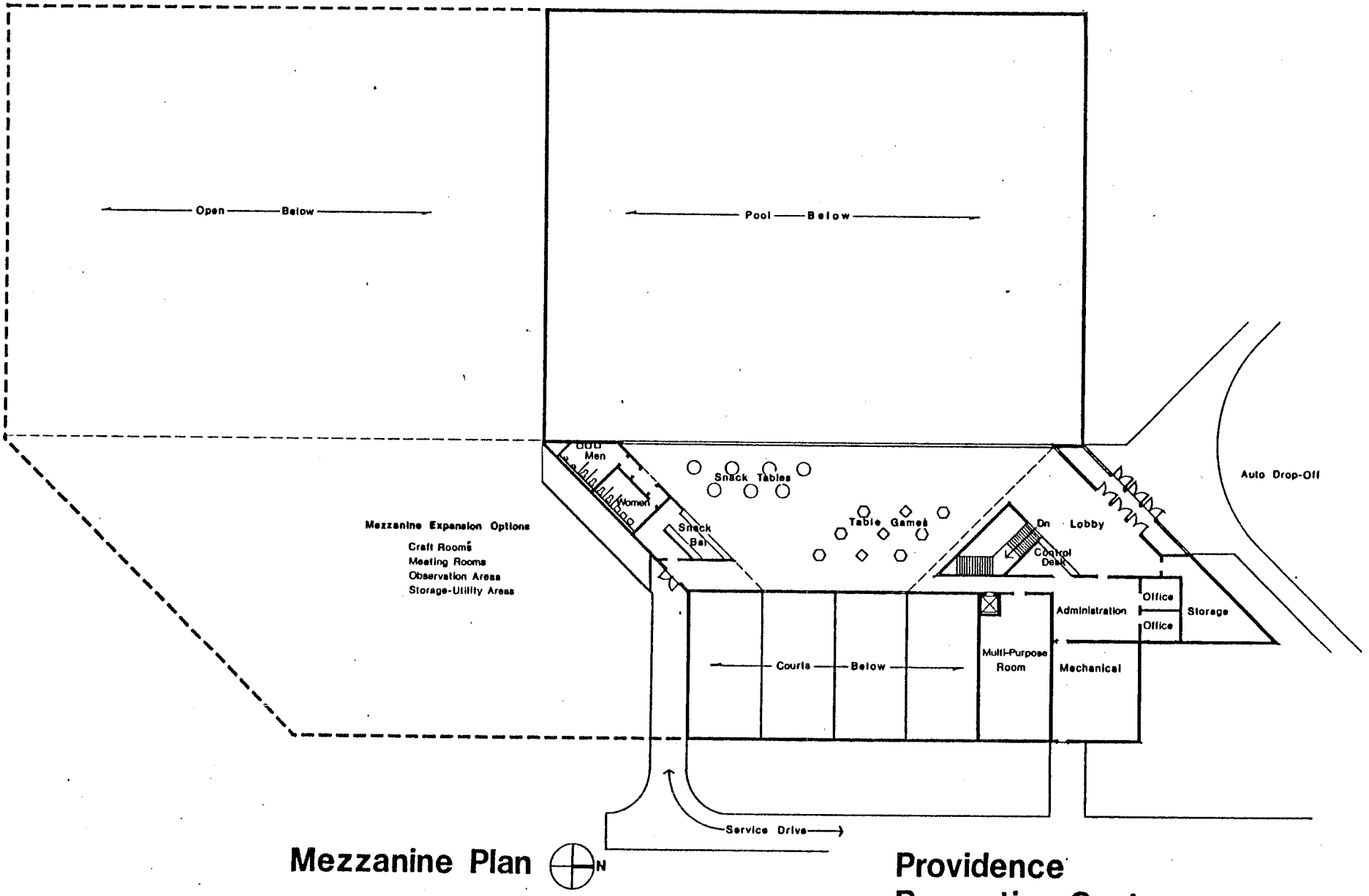
FAIRFAX COUNTY PARK AUTHORITY

December 18 1979

0 10 80

hughes group architects

figure 8



Mezzanine Plan

Providence Recreation Center Master Plan

FAIRFAX COUNTY PARK AUTHORITY

December 18 1978

0 10 50

hughes group architects

figure 9

User Levels

An estimate of user levels is an indication of demand and marketability of a given facility. This becomes a critical determinant of fiscal feasibility. Estimates of attendance from similar existing facilities in Arlington and Gaithersburg indicate that an attendance ratio of 2.3 visits per person per year are sufficient to meet or exceed estimated operating costs for a recreation center as indicated earlier in this section. Applying the user ratio to the existing population in the primary service area yields an estimate of 337 persons per day. The estimate is based on an aggressive marketing campaign which would attempt to maximize the use of the pool. At Wakefield, approximately 72% of the users come because of the pool. A market is apparently present for the additional handball/racquetball facilities. A more complete understanding of demand for and marketing of the pool facility may be had by referring to the Cost Analysis Chapter of the Pool Feasibility Study.

Cost Analysis

SITE LOCATION

The three sites proposed for construction of the recreation center are either in or adjacent to the existing Mt. Vernon Community Park Property located at 8426 Old Mt. Vernon Road. Site No. 1, the Walt Whitman Intermediate School/Northern Corner Park Site, is the combination of the eastern Walt Whitman School athletic field and the corner of the park property north of the stream. Site No. 2, the Park site, is on the existing park property south of the stream. Site No. 3, the 9.3 acre site, consists of 3 parcels of land south of and contiguous to the park property. This land was recommended to the Fiarfax County Park Authority for purchase in the preceding 1979 Pool Feasibility Study.

Figure 2 below shows the three sites considered for location of the proposed facilities.

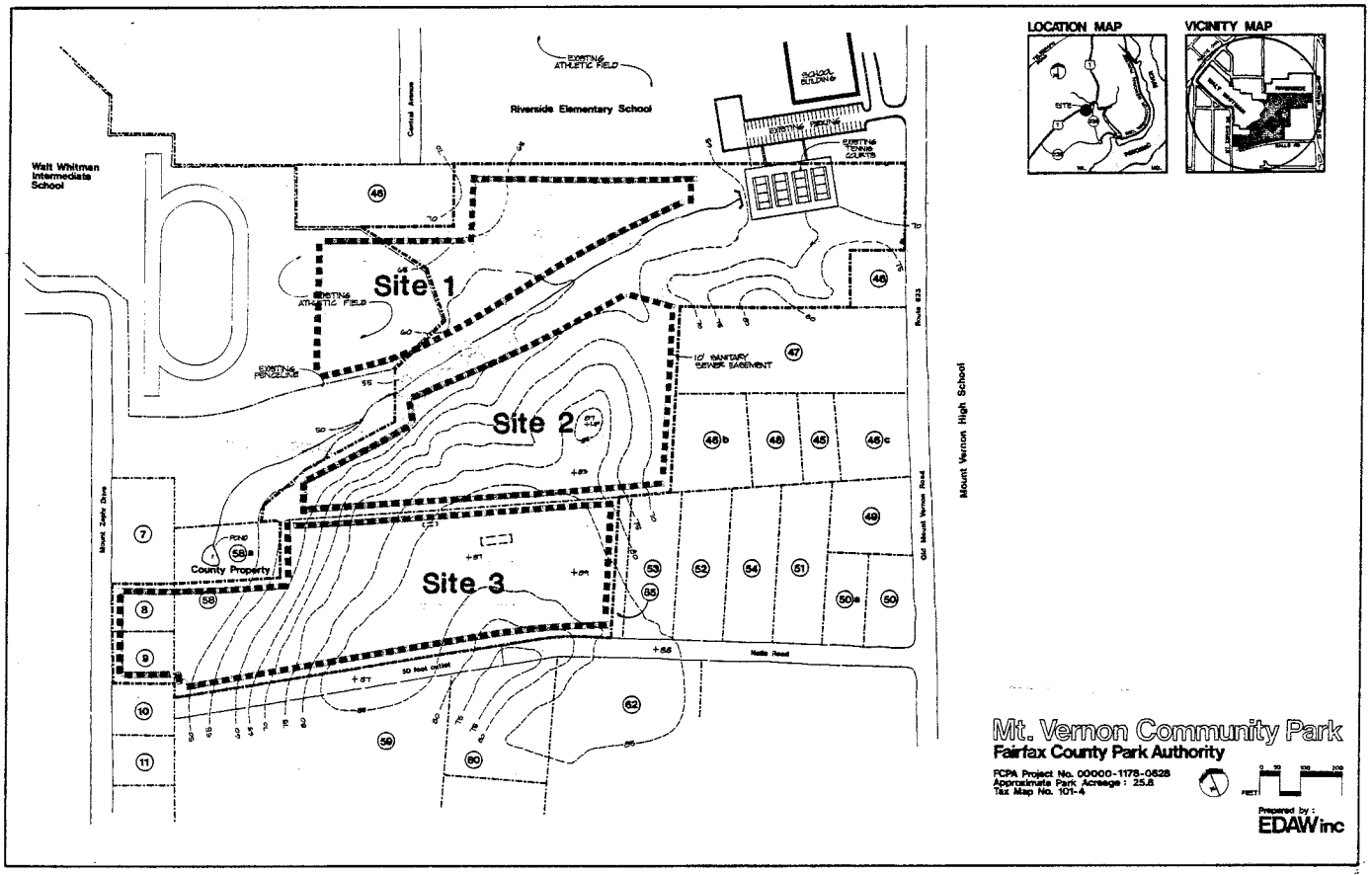


figure 2

SITE ANALYSIS

The site inventory and analysis presented in this section of the report is concerned with total proposed park acreage and encompasses each of the three proposed recreation center locations. The analysis of existing conditions is primarily concerned with the siting of the recreation center, but also looks at the park as a whole to understand on-site conditions which will enable development of a comprehensive plan for the park.

In choosing a building site for the recreation center with pool, there are a number of considerations which must be taken into account in order to make an intelligent site selection. The site evaluation criteria provides a listing of these considerations and therefore becomes the basis by which each site can be evaluated. The ability of each site to accommodate the proposed facilities is dependent on the degree to which the site satisfies these criteria.

Site Evaluation Criteria

1. Accessibility to adjacent public facilities:

    - o The availability of public facilities and convenient access can provide a greater flexibility in planning the facility program.

    - o Existing and potential points of entry onto the site are identified in order to determine the preferred access route(s). The access points and routes identify those areas within the site which can be most easily developed.

2. Suitability of soils for construction:

    - o Soils can effectively increase or reduce construction costs. Sub-surface drainage and special engineering requirements for building and road foundations should be avoided when possible.

3. Hydrology:

    - o The flow of water on the surface or underground as a highwater table have bearing on the land use suitability for various activities on the site.

4. Suitability of slope for construction:

    - o Extremes in slope can influence costs of structures, site preparation, site development, utility services, drainage facilities and access roads. A range of 2-6% is considered preferable for the pool facilities; less than 2% and from 7-10% are marginal, and over 10% is significantly less feasible.

5. Environmental Impact:

   - The degree to which the natural and man-made environments are affected should be considered in order to minimize adverse effects.

6. Sun orientation:

   - The availability of sunlight can be considered an asset to the site for use in solar heating and to provide sunlight to the sundeck relating to the indoor pool.

7. Access to utilities:

   - Sewer/water, electric and telephone lines are needed in order to provide service to the facility. Utility lines which presently exist and which are accessible can reduce construction costs in a specific area making it a more attractive site.

8. Adequate buildable area:

   - The area needed to build a recreation center with parking for ± 300 cars is slightly under six acres. This does not include any other features.

The analysis maps graphically document the existing conditions and illustrate the application of these criteria to the study area. The text accompanying each analysis map further describes site conditions. Tables 1 and 2 summarize this information in a format convenient for comparison purposes.*

* A complete description of soils, access, topography, vegetation, utilities, and other site characteristics of Mt. Vernon Community Park is contained within the Mt. Vernon Magisterial District Pool Feasibility Study.

SOIL CONDITIONS/TOPOGRAPHY/VEGETATION

Within the site are several soil conditions ranging from marginal to good silt loams. Along the stream which runs through the central portion of the site are Mixed Alluvial Soils. This soil is derived from recent soil materials which have washed down from the uplands and have been deposited along the stream bottoms. It consists mainly of somewhat poorly drained soils and poorly mixed soil materials including very sandy areas and gravelly bars. This area is subject to frequent flooding. It is best adapted for permanent pasture or forests.

On the eastern portion of the site is Othello Silt Loam. No information could be found regarding a description of this soil. The northern half of the site is Metapeake Silt Loam. This soil is a deep moderately well to well drained, productive soil which has developed from sands, silts and clays of the Coastal Plain. It has dark brown to yellowish-brown silt loam surface soil and strong brown to yellowish-red silty clay loam subsoils. About 36 inches below the surface there is usually a compact layer which stops the downward movement of water in most places. It rates good for homesites. Over the hilly section of the site the soil is predominantly Mattapex Silt Loam. This soil is poorly to moderately well drained, with yellowish-brown to brown silt surface soils about 18 inches thick. Natural fertility is low, and workability and productivity are fair to poor. Fine to medium sand can be found at depths between 7 and 8 feet and continue to a depth of 20 feet.

The topography is best described as hilly. Approximately 15 acres or 9 percent of the site has a slope of 2 percent or less. Though 7.2 acres or 42% of the park is in the 2-6 percent range, the land area is separated by the lowlands in the drainage field. Those areas that have a slope greater than 6 percent cover 49 percent of the site.

The combination of fair to good soils and an adequate slope for runoff creates a well drained soil condition. This runoff flows into a stream which runs diagonally from the northeast (next to the tennis courts) to the southwest and into a holding pond. The wetlands just below the tennis courts are unique to the park and the environmental along the course of the stream should be preserved as a natural amenity.

The mature vegetation of the park is the primary influence on the park's character. The variety of vegetation is a mix of characters. First, is the dense pine woods in the northwestern corner below the Riverside playing field and adjoining the Walt Whitman site. Next, is the mature oak and maple forest

making up the majority of the woodlands. Third, is the pine strands which occur on the eastern and southern hills. Development in this kind of an environment would have to be carried out carefully in order to maintain the area's original character. Costs resulting from tree removal would also have to be considered.

Most of the sun orientation within the park is on the northern slopes due to the topography. The high canopy of the trees stops most of the sunlight from reaching the surface. Selective cutting could open up the park to allow light in.

UTILITIES

On site utilities include the C&P Telephone Line in the northeastern corner of the site, and sanitary sewer lines which run both north-south and east-west. Water, electricity, gas and storm sewer are all available in the nieghborhood surrounding the park. These utilities are likely to be most available to the site from Old Mount Vernon Road.

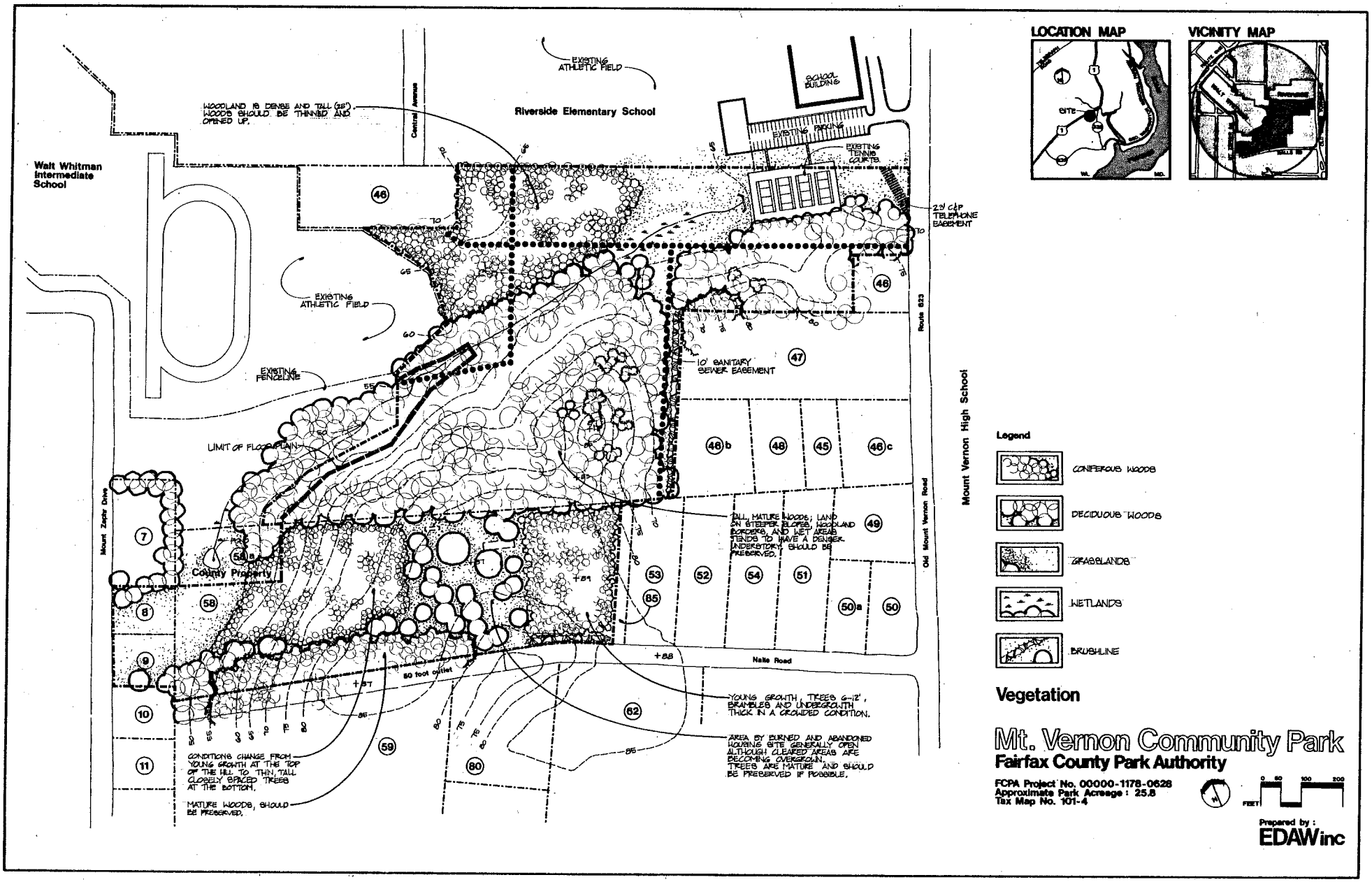
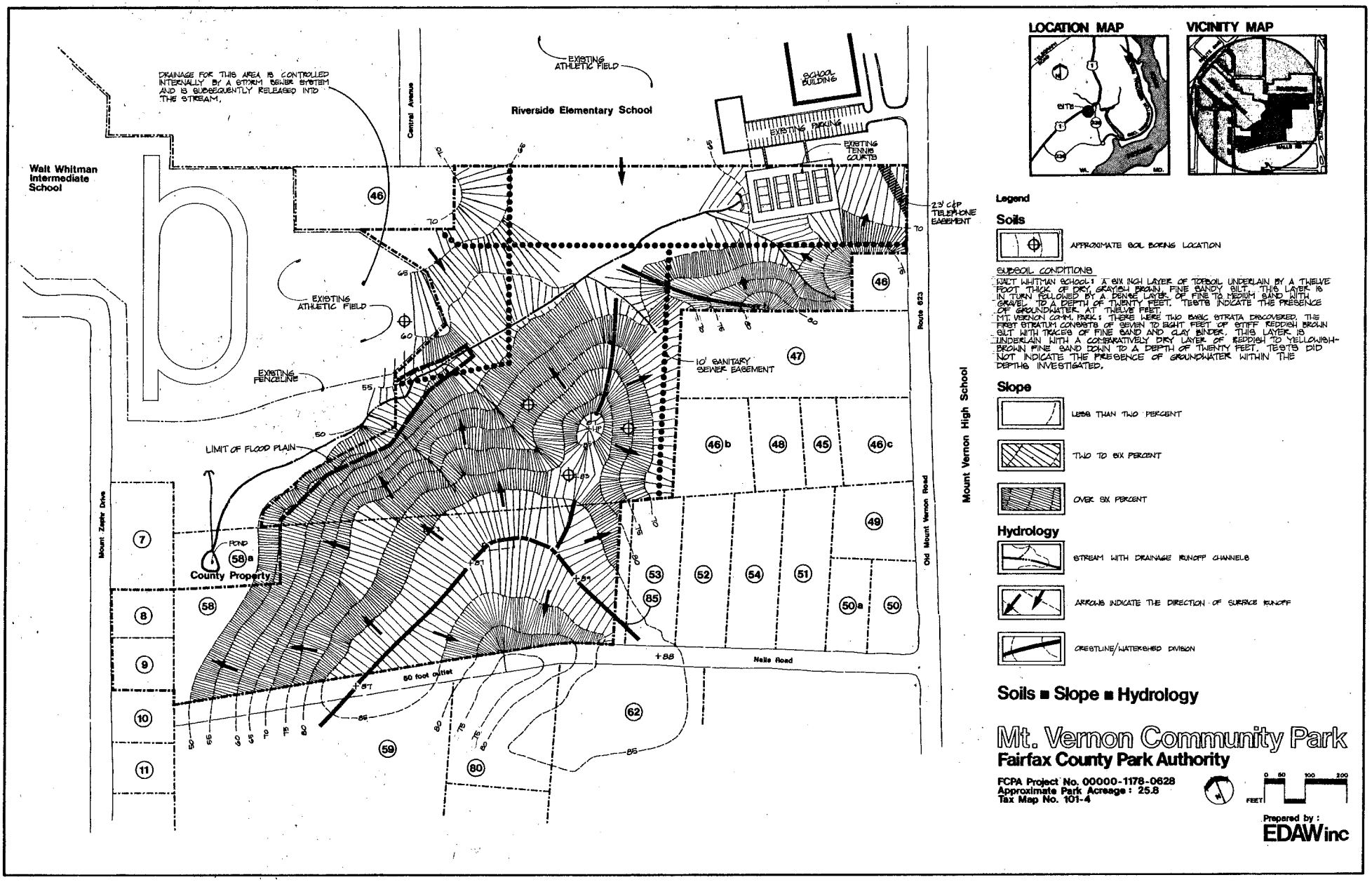

LOCATION MAP
VICINITY MAP
SITE
Riverside Elementary School
Walt Whitman Intermediate School
Mount Vernon High School
Central Avenue
Route 633
Old Mount Vernon Road
Mount Zephr Drive
Nalle Road
EXISTING ATHLETIC FIELD
SCHOOL BUILDING
EXISTING PARKING
EXISTING TENNIS COURTS
EXISTING FENCELINE
LIMIT OF FLOOD PLAIN
WOODLAND IS DENSE AND TALL (25') WOODS SHOULD BE THINNED AND OPENED UP.
2.5' C&P TELEPHONE EASEMENT
10' SANITARY SEWER EASEMENT
County Property
50 foot outlet
TALL MATURE WOODS; LAND ON STEEPER SLOPES, WOODLAND BORDERS, AND WET AREAS TENDS TO HAVE A DENSER UNDERSTORY. SHOULD BE PRESERVED.
YOUNG GROWTH, TREES 6-12', BRAMBLES AND UNDERGROWTH THICK IN A CROWDED CONDITION.
AREA BY BURNED AND ABANDONED HOUSING SITE GENERALLY OPEN ALTHOUGH CLEARED AREAS ARE BECOMING OVERGROWN. TREES ARE MATURE AND SHOULD BE PRESERVED IF POSSIBLE.
CONDITIONS CHANGE FROM YOUNG GROWTH AT THE TOP OF THE HILL TO THIN, TALL CLOSELY SPACED TREES AT THE BOTTOM.
MATURE WOODS, SHOULD BE PRESERVED.
Legend
CONIFEROUS WOODS
DECIDUOUS WOODS
GRASSLANDS
WETLANDS
BRUSHLINE
Vegetation
Mt. Vernon Community Park
Fairfax County Park Authority
FCPA Project No. 00000-1178-0628
Approximate Park Acreage : 25.8
Tax Map No. 101-4
Prepared by :
EDAWinc

figure 3



LOCATION MAP

VICINITY MAP

Legend

Soils

APPROXIMATE SOIL BORING LOCATION

SUBSOIL CONDITIONS

WALT WHITMAN SCHOOL: A SIX INCH LAYER OF TOPSOIL UNDERLAIN BY A TWELVE FOOT THICK OF DRY, GRAYISH BROWN, FINE SANDY SILT. THIS LAYER IS IN TURN FOLLOWED BY A DENSE LAYER OF FINE TO MEDIUM SAND WITH GRAVEL TO A DEPTH OF TWENTY FEET. TESTS INDICATE THE PRESENCE OF GROUNDWATER AT TWELVE FEET.

MT. VERNON COMM. PARK: THERE WERE TWO BASIC STRATA DISCOVERED. THE FIRST STRATUM CONSISTS OF SEVEN TO EIGHT FEET OF STIFF REDDISH BROWN SILT WITH TRACES OF FINE SAND AND CLAY BINDER. THIS LAYER IS UNDERLAIN WITH A COMPARATIVELY DRY LAYER OF REDDISH TO YELLOWISH-BROWN FINE SAND DOWN TO A DEPTH OF TWENTY FEET. TESTS DID NOT INDICATE THE PRESENCE OF GROUNDWATER WITHIN THE DEPTHS INVESTIGATED.

Slope

LESS THAN TWO PERCENT

TWO TO SIX PERCENT

OVER SIX PERCENT

Hydrology

STREAM WITH DRAINAGE RUNOFF CHANNELS

ARROWS INDICATE THE DIRECTION OF SURFACE RUNOFF

CRESTLINE/WATERSHED DIVISION

Soils ■ Slope ■ Hydrology

Mt. Vernon Community Park

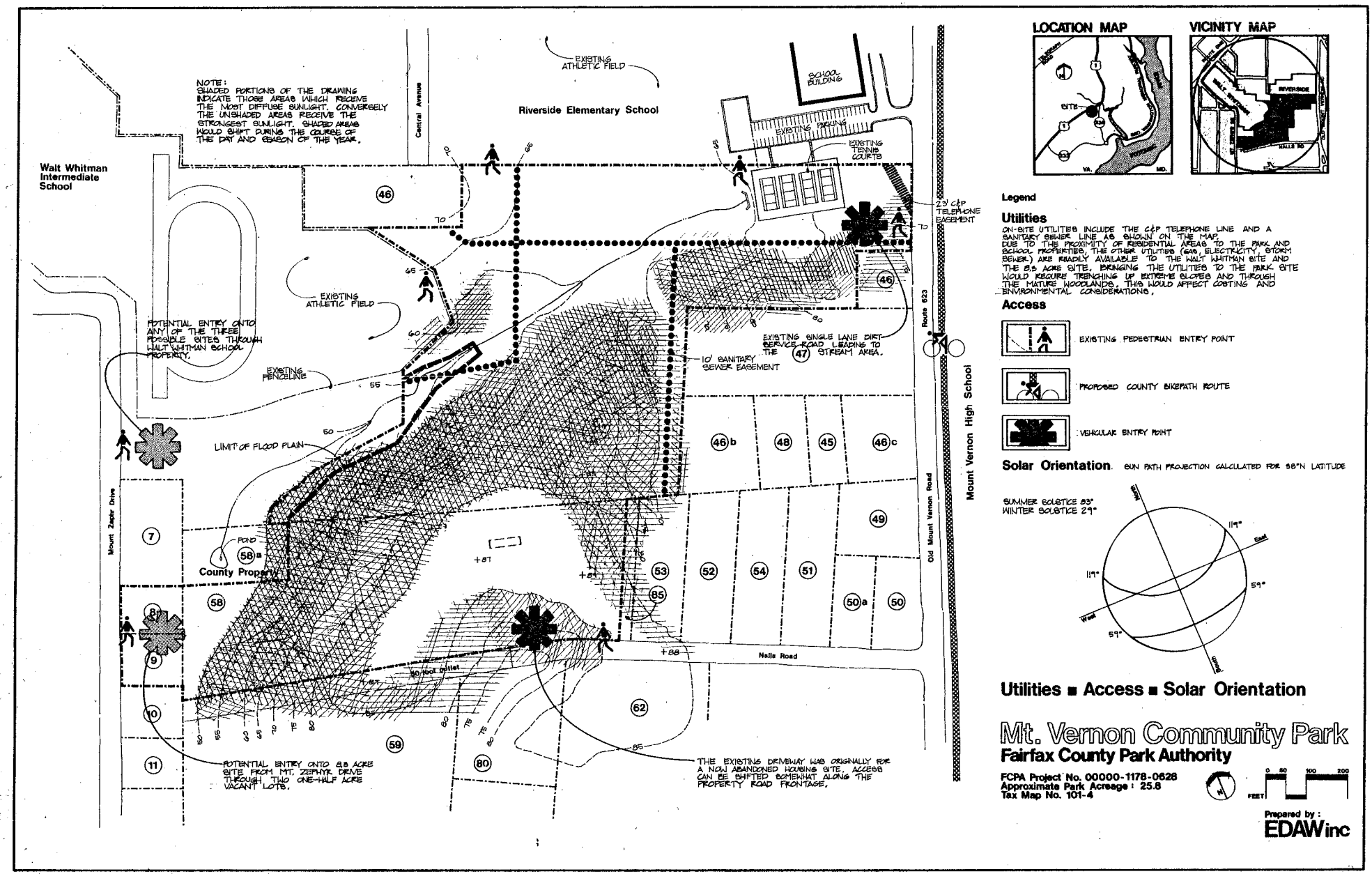
Fairfax County Park Authority

FCPA Project No. 00000-1178-0628
Approximate Park Acreage : 25.8
Tax Map No. 101-4

0 50 100 200
FEET

Prepared by :
EDAWinc

figure 4



LOCATION MAP

VICINITY MAP

Legend

Utilities

ON-SITE UTILITIES INCLUDE THE C&P TELEPHONE LINE AND A SANITARY SEWER LINE AS SHOWN ON THE MAP. DUE TO THE PROXIMITY OF RESIDENTIAL AREAS TO THE PARK AND SCHOOL PROPERTIES, THE OTHER UTILITIES (GAS, ELECTRICITY, STORM SEWER.) ARE READILY AVAILABLE TO THE WALT WHITMAN SITE AND THE 8.8 ACRE SITE. BRINGING THE UTILITIES TO THE PARK SITE WOULD REQUIRE TRENCHING UP EXTREME SLOPES AND THROUGH THE MATURE WOODLANDS. THIS WOULD AFFECT COSTING AND ENVIRONMENTAL CONSIDERATIONS.

Access

EXISTING PEDESTRIAN ENTRY POINT

PROPOSED COUNTY BIKEPATH ROUTE

VEHICULAR ENTRY POINT

Solar Orientation. SUN PATH PROJECTION CALCULATED FOR 38°N LATITUDE

Utilities ■ Access ■ Solar Orientation

Mt. Vernon Community Park

Fairfax County Park Authority

FCPA Project No. 00000-1178-0628
Approximate Park Acreage : 25.8
Tax Map No. 101-4

Prepared by :
EDAWinc

figure 5

Site Criteria/Implications for Development

Table 1

Evaluation Criteria	Site 1 W. Whitman / N. Corner Site		Site 2 Park Site		Site 3 9.3 Ac. Site	
	Opportunities	Constraints	Opportunities	Constraints	Opportunities	Constraints
Accessibility to adjacent Public Facilities	Located in proximity to 3 schools.	Takes away land presently being used by school.	Bordered on two sides by two schools, close to high school.		Within short walking distance of three schools	Not adjacent to a public facility
Access: Pedestrian	Easily within walking distance of schools.	Highway crossing needed for high school.	Existing access from adjacent schools along a trail system.	Highway crossing needed for high school.	Good access from the neighborhood, from Whitman and Riverside schools	Highway crossing needed for high school
Bicycle	Path made from 623 through Park property.		Path made from 623 through Park property.		Potential for link to 623 bikepath through woods	
Vehicular	Potential for access across school property	No direct access onto site.	Potential access directly on to site from Rt. 623, Mt. Zephyr Drive to the west and Nalls Road to the south	Restricted line of sight from Rt. 623, creating access difficulty.	Direct access from Nalls Road, potential for western exit onto Mt. Zephyr Drive.	
Soils	Good, workable silt loams.	Clay soils and water encountered at 12 feet.	Good, workable silt loams on sloped land.	Clay soils in wetland areas.	Good, workable silt loams.	
Slope	Moderate slope 2-3 percent.		Potential for interesting site design.	Increased development costs.	Level area on hilltop ideal for construction, western slope possible view	
Hydrology	Existing positive drainage.		Existing creek provides environmental educational & aesthetic amenities.	Requires protection of existing creek & wetlands which divide the Park into two areas.	Good drainage on hill slope and crest	
Vegetation	Existing grass field creates no obstacle for construction.		Provides a mature landscape setting to visually absorb development.	Requires extensive tree removal for development & protection of wetland vegetation.	Minimal disruption on hill crest	Mature stands should be preserved
Environmental Impact	Minimal impact on woodlands			Strong impact on existing environment.	Minimal adverse impact	
Solar Orientation	Provides a southern exposure optimum for pool facilities.			Northern exposures on most of the site.	Excellent on hill crest	
Utilities	Available through residential lines.	Utilities would have to be brought in.	Existing sewage and water lines on site	Requires power line extension on to site.	Available through residential lines	Some utilities would have to be brought in

Table 2

Site Suitability

● YES
○ NO
◐ PARTIAL

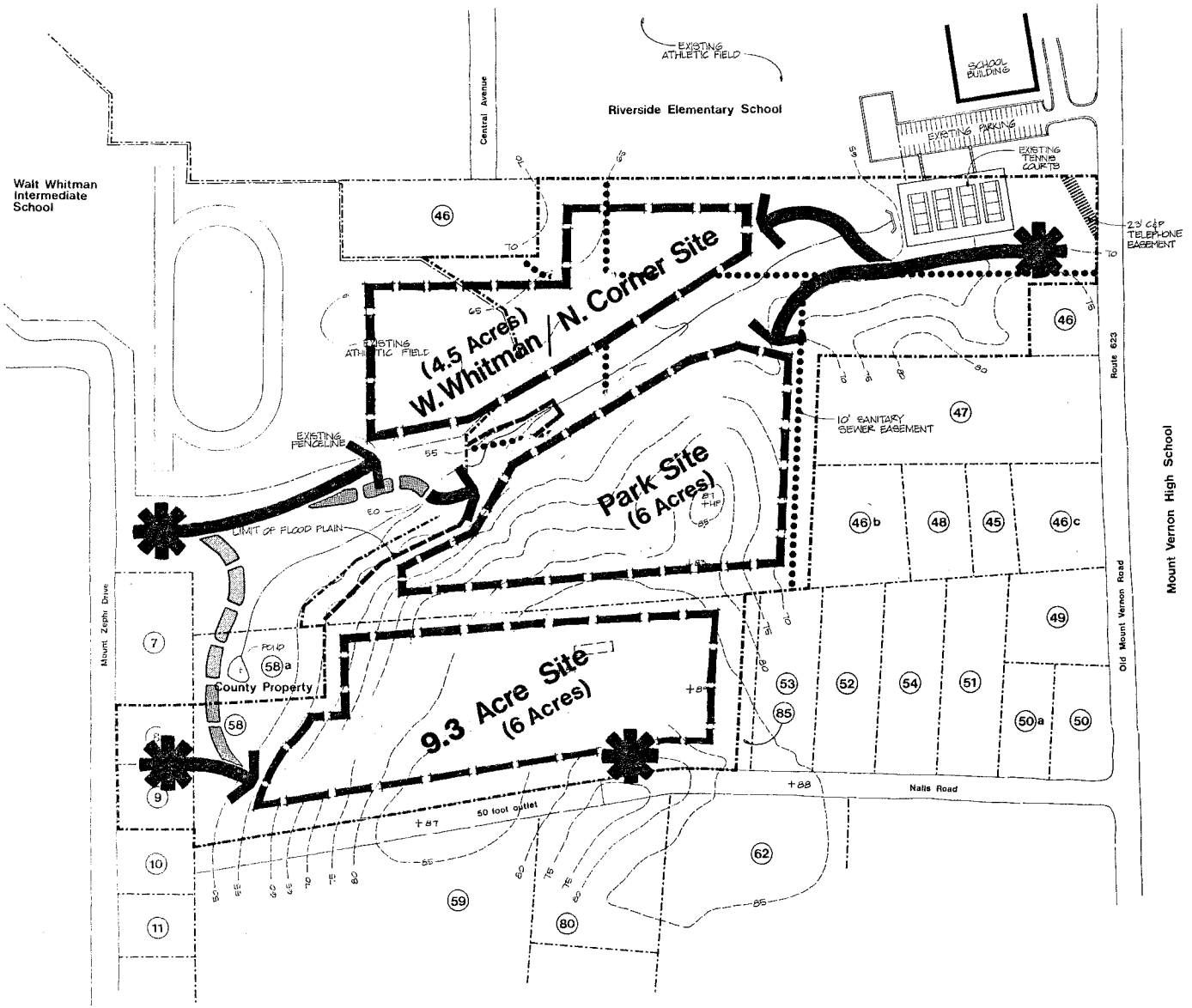
Evaluation Criteria		The Sites: Site 1 – W. Whitman / N. Corner Site	Site 2 – Park Site	Site 3 – 9.3 Acre Site
Access	Pedestrian	●	●	●
	Bicycle	○	●	●
	Vehicular	○	●	●
Soils	suitable for construction	●	●	●
Hydrology	problem situation	●	○	○
Vegetation (predominant)	mature tree growth	○	●	○
	shrubs/young tree growth	◐	○	●
	open	●	○	◐
Slope	2 - 6 percent (2 acres minimum)	●	○	●
Environmental Impact	adverse	○	●	○
Solar Orientation	predominant southern exposure	●	○	●
Utilities (available on site)	sanitary sewer	○	●	◐
	water	○	○	◐
	power	●	○	◐
	telephone	○	●	○

Summary Site Analysis

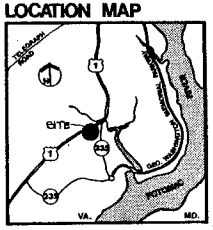
Figure 6 summarizes site conditions on a map and shows potential access points to the proposed recreation center. Site 1, the Walt Whitman Intermediate School/North Corner Park Site, has the potential to house the facility on 4 1/2 acres of land. This is somewhat less than might be desirable but not totally unworkable. The site is in a good position in relation to the schools and there are no serious environmental constraints. The site is isolated from roads which creates an access problem. However, the major issue is the availability of the athletic fields as a legitimate site. The position taken by the Director of School Site Acquisition and Development, Fairfax County Board of Education regarding the availability of the site is that the present athletic field is not considered surplus and would have to be replaced if the Park Authority wishes to use the athletic field as the pool facility site. The replacement parcel would have to be close to the school in order to be usable in the normal routine of the days' classes. There is some question as to where this land may be found and at what costs be made suitable for use.

Site 2, the Park Site, is located in the center of three schools which makes it ideal for program integration with those facilities. Because the eastern neck of the park abuts Old Mt. Vernon Road (Rt. 623), the road could be used for site access, although there are traffic safety problems which require attention. Development of this site would have serious environmental impacts as it is in mature woodlands which cover the hill. The site can be made to accommodate the pool facility although preparation costs would be high and the existing park identity sacrificed in part since the woods would have to be removed and the hill terraced. The trees form the single strongest identifiable element in the park and the alteration of the woods would dramatically affect the park's future environment.

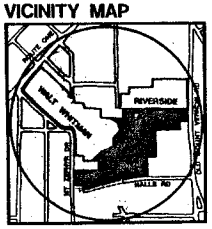
Site 3, the 9.3 acre site, is recommended for purchase as an addition to the existing 17 acres which presently comprise Mt. Vernon Community Park. Vehicular traffic access to this site is potentially the best of the three possible sites. An entry to the site could occur at Nalls Road and at Mt. Zephyr Drive through two 1/2 acre lots bordering the 8.3 acres next to the park proposed for purchase. It is located relatively close to the neighborhood schools and could be linked to them with pedestrian and bicycle trails. There are no serious adverse environmental impacts regarding development within the designated building site. Through the purchase of this property and its use as a park, the only area of undetermined land use around the park will be taken off the market and the risk of encroachment on park property by subdivision development will be eliminated. An area of concern for this site is the feasibility of the purchase of the property. The sites will be evaluated in terms of construction dollars in the Cost Analysis section.



LOCATION MAP



VICINITY MAP



Legend

- SITE IDENTIFICATION BOUNDARY FOR 2 ACRE SITE - WOULD ACCOMMODATE POOL BUILDING, PARKING FOR 120 CARS, AND INTERNAL ROADWAYS.
- VEHICULAR ACCESS (22' WIDE BITUMINOUS ROADWAY) - DASHED LINES INDICATE OPTIONAL ROUTES
- ENTRY POINT

Walt Whitman / Northern Corner Site

THE WALT WHITMAN/NORTHERN CORNER SITE IS GENTLY SLOPING, CLEAR OF VEGETATION ON THE ATHLETIC FIELD, AND COVERED WITH A DENSE, TALL (TO 25 FEET), SOMEWHAT SCRAGGLY CONIFEROUS WOODS ON PARK PROPERTY. SURFACE SOILS ARE GOOD SILT LOAMS WHICH POSE NO OBSTACLE FOR CONSTRUCTION. AT TWELVE FEET CLAY AND WATER ARE ENCOUNTERED WHICH WOULD REQUIRE SPECIAL ENGINEERING CONSIDERATIONS. ACCESS TO THE SANITARY SEWER LINE IS AVAILABLE ON THE EASTERN BORDER OF THE SITE AND THE OTHER UTILITIES ARE AVAILABLE FROM THE RESIDENTIAL LINES ALONG MT. ZEPHYR DRIVE.

Park Site

THE MT. VERNON COMMUNITY PARK SITE CAN BEST BE DESCRIBED AS HILLY AND WOODED. THE SLOPES WITHIN THE SITE RANGE FROM ZERO TO FOURTEEN PERCENT AND ARE GENERALLY AROUND TEN PERCENT. THE MATURE WOODLANDS CONSIST PRIMARILY OF OAKS AND MAPLES WITH A SPRINKLING OF CONIFERS NEAR THE CREST OF THE SLOPE. SOILS ARE METAMORPHIC SILT LOAMS SUITABLE FOR CONSTRUCTION. AT EIGHT FEET DRY SAND IS ENCOUNTERED WHICH CONTINUES TO THE TWENTY FOOT LIMIT OF TESTING. UTILITIES, EXCLUDING THE SANITARY SEWER LINE TO THE EAST OF THE SITE, WOULD HAVE TO BE BROUGHT IN FROM OLD MOUNT VERNON ROAD.

8.3 Acre Site

THE BUILDING AREA INDICATED ON THE MAP COMPRISES ONE OF THE TWO TOPOGRAPHIC CONDITIONS INHERENT TO THE SITE. THIS CONDITION IS A GENTLE SLOPE OF ONE-HALF TO FOUR PERCENT. THE OTHER CONDITION IS A WESTERLY SLOPE OF UP TO SIXTEEN PERCENT. MUCH OF THE SITE IS COVERED WITH YOUNG CONIFEROUS TREES WHICH VARY FROM SIX TO TWENTY-FIVE FEET IN HEIGHT. SOIL CONDITIONS ARE ESSENTIALLY THE SAME AS THOSE IN THE PARK. IN THE CENTER OF THE SITE IS AN ABANDONED HOUSE WHICH APPARENTLY BURNED. THE SANITARY SEWER COULD BE BROUGHT IN FROM THE PARK PROPERTY, OTHER UTILITIES WOULD HAVE TO BE BROUGHT IN FROM NALLS ROAD.

Comparative Site Analysis

Mt. Vernon Community Park

Fairfax County Park Authority

FCPA Project No. 00000-1178-0628
Approximate Park Acreage : 25.8
Tax Map No. 101-4

0 50 100 200 FEET

Prepared by :
EDAWinc

figure 6

COMMUNITY ANALYSIS

The Community analysis section is concerned with identifying the basic characteristics of the community within the Primary Service Area. This is the area determined in the Pool Feasibility Study in which there would be the greatest market penetration by the pool facility. General trends in demographics and land use are taken from the data generated from Area IV of the Fairfax County Plan. A 3/4 mile arc is circumscribed around the park property to indicate the extent of the probable range for walking or bicycling to the site. This 3/4 mile radius is also the county standard for determining the primary use area for community parks. The location of the park and the analysis boundaries are provided in Figure 7.

Area Land Use Patterns

The predominate land use surrounding the park property is low density, detached single family residential development. Along the Route One Corridor the land use pattern is altered with the introduction of commercial properties and high density rental units.

Population Trends

The general trends in population growth is one of stability of numbers. The population growth rate in 1975 was approximately 1%, less than one-third the rate for the country.

Population Density

The 1978 population estimate for the primary service area is 53,482. The population density of this area is 3,600 persons per square miles, a level 2.3 times greater than the county average of 1557 persons per square miles. Woodlawn and Fort Hunt are the most densely populated regions in the service area.

Household Size

Household size for the area follows the norm for the rest of the county. The average size of a household in 1970 was 3.5 persons. This number declined to 3.1 persons per household in 1974. An average size of 3.0 is estimated for 1980.

Racial Composition

As of 1970, the area had a black population which comprised approximately 4 percent of the total population, one-half percent more than the county average. The black population was increasing at a rate of 2 percent per year between 1960 and 1970 indicating a slow steady growth in population, although the rate of growth experienced was only one-half the county average for the same period.

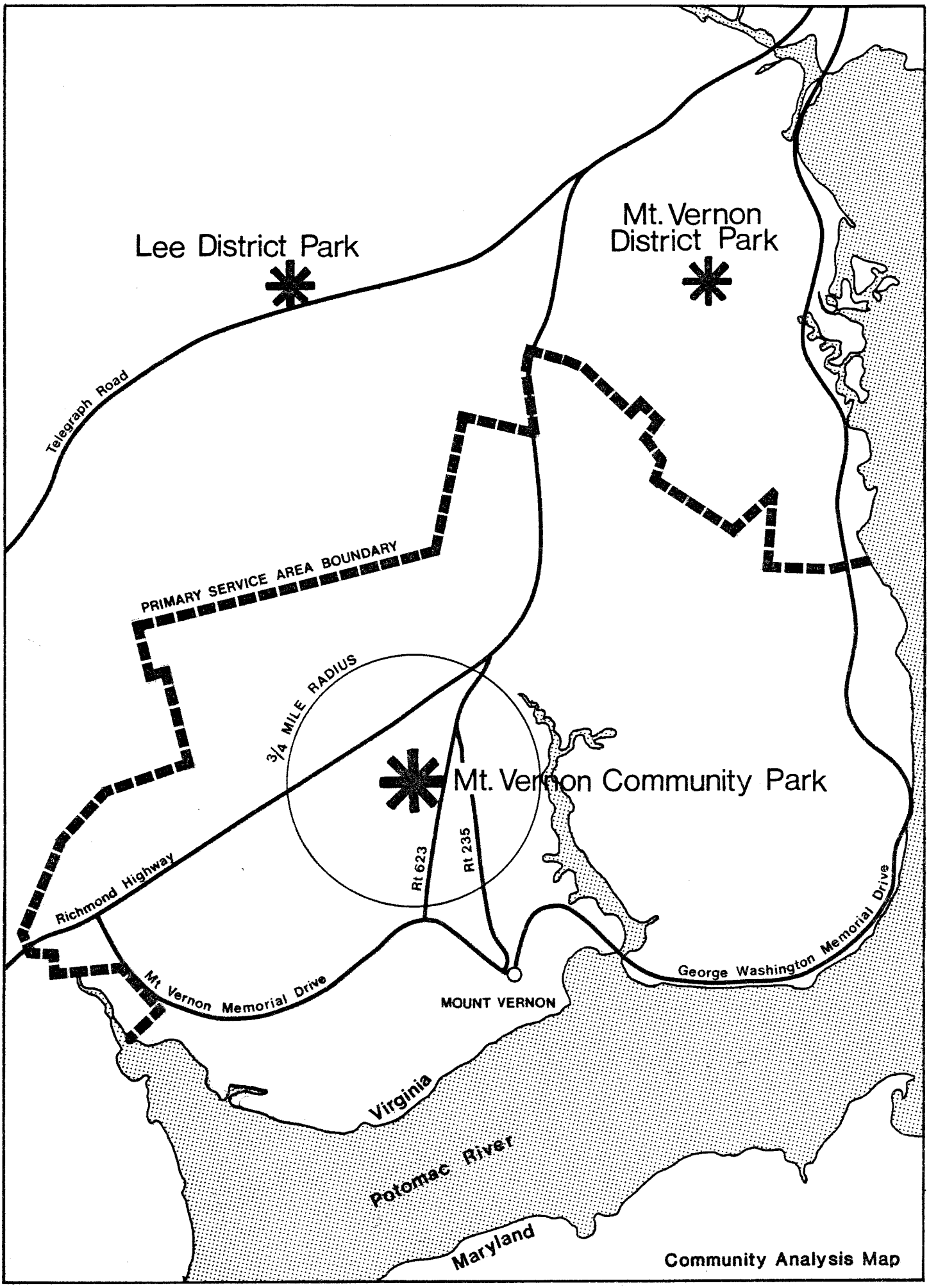

Lee District Park
Mt. Vernon District Park
Telegraph Road
PRIMARY SERVICE AREA BOUNDARY
3/4 MILE RADIUS
Mt. Vernon Community Park
Rt 623
Rt 235
Richmond Highway
Mt Vernon Memorial Drive
George Washington Memorial Drive
MOUNT VERNON
Virginia
Potomac River
Maryland
Community Analysis Map

figure 7

Age/Sex Distribution

As a result of the stagnation in population growth, the median age increased slightly from 24.0 to 24.4. years between 1960 and 1970. It is safe to assume that the median age also increased between 1970 and 1980 given the continuation of the growth patterns. The median age for women was slightly over one year more than that for men.

Marital Status

The marital distribution of adults in the area follows the pattern set by the rest of the county. In 1970 approximately 22.85 percent of the population was single, 71.9 percent of the population was married, and 5.25 percent was either widowed or divorced.

Socioeconomic Characteristics

The median family income in 1969 was $14,400, significantly below the county median of $15,707. There is a distinct relationship between educational level and income level. Those with the most schooling had the greatest income, and conversely, the less educated received a lower income.

Recreational Activities

The service area boundary is an estimate of the extent to which the proposed recreation center will dominate the market of potential users. As a result, no recreational opportunities within this boundary compete with those proposed. Opportunities which already exist within the 3/4 mile radius include two private pools, one private recreation facility, and three school athletic facilities. The schools provide the only recreation activities which can be considered complimentary to the planned facility. The principal activities on school grounds include tennis, baseball/softball, football, soccer, and basketball in the gymnasium.

County Comprehensive Plan

The recommendations for action listed below are taken from page 328 of the County Comprehensive Plan for Planning Area IV. They are not all the recommendations but only those which directly apply to the development of the park and pool facility.

1. Complete development of Mt. Vernon Community Park.

2. Consideration should be given to construction of a swimming pool in one of the existing high schools of the Mt. Vernon District.

It is the goal of the County to work with the Virginia Department of Highways and Transportation, the Northern Virginia Transportation Commission, the Washington Metropolitan Area Transit Authority, and other agencies to provide a multimode transportation network. One of the goals of this effort is to permit non-automotive access to local-serving facilities such as shopping, schools, and parks. It would only require a slight modification of the county plan to tie this new facility into their system. Presently, there are plans to have a bike trail along Old Mt. Vernon Road. Pedestrian circulation across the proposed expansion of Route One will be facilitated by an overpass, approximately at Central Avenue.

Transportation

According to the Fairfax County Department of Transportation, the only major changes in the infrastructural carrying capacity of the roads in the immediate vicinity of the park involve Old Mt. Vernon Road and Route One. Old Mt. Vernon Road is scheduled to be improved with additional subsurface support and shoulders. Route One is scheduled to have a major transformation into a six lane highway. Money for this work has been approved and set aside. The work has been tentatively scheduled to be done in the next four to five years.

Traffic volumes (1977) at Old Mt. Vernon Road at Mt. Vernon Community Park equals 4,496 vehicles with 10 percent being trucks or buses. Old Mt. Vernon Road, at the park site, has 10 foot lanes with no shoulder on one side and a 25 foot shoulder in front of Mt. Vernon High School. The portion of the road having little or no shoulder also has physical obstructions within six feet of the traffic lane. These existing conditions, which could be rectified, currently act to restrict practical traffic capacity. Yet, in spite of these restrictions, current volume does not approach the route's capacity. In either case, the addition of approximately 600 vehicle trips per day attracted by the proposed recreation center can be accommodated within the roads' existing capacity. As peak hour volumes on these roads do not correspond to the center's peak use periods, these potential conflicts should not occur.

Programmatic Elements

COST ANALYSIS

The purpose of this section is to examine fiscal considerations regarding the recreation center. First is a comparative cost estimate for construction of the recreation center on each of the three proposed sites. Secondly, a determination of the cost to benefit ratio for the user group is provided. This is followed by a breakdown of the estimated operating and maintenance costs for the facility per year. Finally, possible future expansion of facilities in the park are discussed briefly.

Comparative Cost Estimate

Calculation of costs can be divided into building-related and site-related costs. For the purpose of this report, the Providence Recreation Center will be used as a model. Construction costs for the building itself would be the same for each of the sites thereby becoming a constant in the costing estimate. Any variation in costs will be a product of the site specific conditions in which the facility is placed. As graphically presented in the site analysis maps in Section III, there are a variety of conditions inherent in the three sites. Those conditions which are excessive or extreme become obstacles for construction and create unusually higher construction costs. The degree to which these conditions affect construction costs can be seen in the following Comparative Cost Analysis Table. Data used in the computation of the dollar figures in Table 3 are provided in the notes immediately following it.

Table 3: Comparative Cost Estimates

Facility Construction Cost Estimates for Site Related Costs, April, 1980.

Cost Category	Site 1: Walt Whitman Int. Sch./ North Corner Park Site		Site 2: Park Site		Site 3: 9.3 Acre Site	
	West	East	West	East	West	South
1 Access Road	83,780	142,780	108,560	93,220	125,080	15,340
2 Culvert with Fill	0	5,900	5,900	0	0	0
3 Clearing/Grubbing	2,360		88,500		4,720	
4 Utilities	40,120		47,200		33,040	
5 Landscape Treatment	165,200		165,200		165,200	
6 Property Acquisition	425,000		0		103,770 to 300,000 - 8.3 acre parcel 13,400 - 2 half acre parcels	
7 Parking	141,600		141,600		141,600	
8 Cut and Fill	0		311,520		0	
9 Special	155,760		0		0	
Subtotal	1,162,500		955,800		602,150 - 902,150	

Notes to the Cost Estimate Table (numbers below relate to each cost category listed in the table):

1. Road 22 feet wide, 2 inches of bituminous paving on 8 inches of crushed stone, no curbing, $130. per linear foot. In each instance the costs for both eastern and western access roads were calculated into the total. Western entrances include additional cut and fill costs, $135. per linear foot.

2. Thirty feet of 30 inch culvert including fill.

3. Removal of trees and underbrush as required for construction (140/tree) of roads, parking, utilities, and building.

4. Utility connections, fees, trenching materials and installation.

5. Includes finish grading, plantings, walks, lighting, and signage.

6. For Site 3, the current tax assessed value of the three parcels proposed for purchase is $117,170 and it is conceivable that acquisition could reach as much as $300,000. The 8.3 acre parcel is assessed at $103,770 and the two half acre lots are assessed at $6,700 each.

   There does not seem to be any vacant land adjacent to Walt Whitman Intermediate School; therefore, if an athletic field is to be provided it must be created from the existing land use. The building lots adjacent to the school property are primarily one-half acre in size. Making up the 2.6 acres used for the recreation center would require approximately five such lots. As these have been built on, the purchase price would be according to the current housing market price. Older homes are selling from $50,000 to $85,000 and newer homes are selling for $90,000 to $120,000. For the purpose of this cost estimate, we will assign a value of $75,000 for each lot. This gives us a purchase price of $375,000 to acquire the land. Costs for demolition, clean-up, finished grading and seeding would add to this and the final replacement costs could be $425,000 or more.

   Another another aspect which has been addressed so far is the possibility of an outright sale of the athletic field property from the school system to the Park Authority or a trade for park land near another school. There was an exchange of land between the school system and the park system in order to create part of the field originally. Whether or not any such future arrangement can be made would depend on the outcome of discussions between members of the School Board and members of the Park Authority.

7. 300 spaces @ $472/space. Inclusive of circulation roads.

8. 48,000 CY @ $6.50 in place and compacted.

9. Site 1: Special foundation work and dewatering required because of the clay soils and the 12' depth to the water table. Dewatering is the creation and maintenance of an artificial water table to relieve hydrological pressures under the pool.

Summary Cost Estimate

The Providence Recreation Center was used as a model to determine construction costs for the building (projected to a bid date of August, 1980). Based on this model the recreation center building and pool is estimated to cost $2,684,495. Total estimates for each of the sites, including all the site-related factors listed in Table 3 plus the construction costs for the building, are as follows:

Site 1, Walt Whitman Intermediate School/ North Corner Park Site:	$3,846,995
Site 2, Park Site:	$3,640,295
Site 3, 9.3 Acre Site:	$3,286,645 to 3,586,645

In developing the cost analysis for each of the sites there were a few factors that greatly affected the outcome. For Site 1, these include the distance from the site to the roadway, replacement costs for the school property land, and the artificial water table which would have to be created through a dewatering process in order to counteract hydrological uplift on the pool form and have a stable pool. For Site 2, the limiting factors are the slopes and mature woods which dominate the site. Site 3 has good access and building conditions. The purchase price price becomes the most important factor here.

It becomes evident through the evaluation of the total construction costs for each site, that despite the acquisition cost for the property, Site 3 holds the favorable position in relation to the other two sites.

Development Cost Estimate

The approximate costs for the implementation of the development items are as follows:

A.	PARKING LOT AND ENTRANCE ROADS	
	Parking lot for 300 spaces	$141,600.00
	Entrance Roads	140,420.00
	Subtotal	$282,020.00
B.	SITE WORK/LANDSCAPE TREATMENT	
	Walks & Trails	$ 30,000.00
	Clearing & Grubbing	4,720.00
	Site Grading	5,000.00
	Landscape Planting	120,200.00
	Outdoor Classroom	10,000.00
	Subtotal	$169,920.00
C.	UTILITIES	$ 33,040
D.	PROPERTY ACQUISITION	$103,770 - 300,000 (8.3 acre parcel) 13,400 (2 half acre parcels)
	Subtotals	$117,170 - 313,400
	GRAND TOTAL	$602,150 - 902,150

Cost/Benefit

The cost estimate for construction of the recreation center on Site 3 is $3,286,645. Dividing this by the projected market penetration of the facility as defined by the primary service area (53,482 persons) yields a per person cost of $61.45. Benefits include the direct acquisition of approximately 9.3 acres of land (8.3 acre parcel plus two half acre lots), the construction of the new recreation facility, and related to this are the contributions to the community in terms of increased cohesiveness and recreational opportunities. The latter benefits are where the real value of the pool facility lies although these kinds of benefits are generally not quantifiable in economic terms.

Operating and Maintenance Costs

From the studies of the Arlington and Gaithersburg pools, the operating costs for the recreation center were estimated to be $131,300 per year. These were pool-only facilities; however, the addition of the four handball courts, exercise room, and a general activities room would not add substantially to this estimate becuase these added amenities would not require continual supervision. This cost is broken down in Table 4. It should be noted that the estimates are most sensitive to staffing patterns and salary structure. These are in turn integrally tied to the program scope of the facility. In this case, the budget is designed to offer a full range of recreational, competitive, and instructional programs.

Table 4:

Estimated Building Operating Costs per year (FY 1979 Dollars)

Salaries		$ 81,000
Facility Manager	$ 25,000	
Assistant Manager	10,500	
Pool Attendants (2)	16,000	
Life Guards (5454 hrs @ $3.20)	17,450	
Assistant Life Guards (summer, 600 hrs @ $2.90)	1,750	
Instructors (part-time)	10,400	
General Supplies		$ 10,000
Utilities		$ 22,500
Electric	$10,000	
Fuel	8,000	
Telephone	1,500	
Water	3,000	
Miscellaneous Equipment		$ 3,500
Maintenance and Repairs		$ 7,500
Contingencies		$ 6,700
Total		$131,300

ESTIMATED PARK MAINTENANCE AND OPERATING COSTS PER YEAR (FY1980 DOLLARS)

The following figures are based on FY1978 information prepared by the staff of the Fairfax County Park Authority and the Office of Research and Statistics. The figures have been updated to May 1980 by an inflation factor.

A. PARKING LOT AND ENTRANCE ROADS	$ 2,940.00
Subtotal	$ 2,940.00
B. SITE WORK	
o Walks & Trails (Nature Walk & Outdoor Classroom)	$ 4,800.00
o Landscape Treatment (Lawn & Planting Areas)	2,400.00
Subtotal	$ 7,200.00
TOTAL	$ 10,140.00
20% Contingency	$ 2,028.00
GRAND TOTAL	$ 12,168.00

TOTAL ESTIMATED OPERATING AND MAINTENANCE COST

A. ESTIMATED BUILDING COSTS	$131,300.00
B. ESTIMATED PARK COSTS	$ 12,168.00
TOTAL	$143,468.00

Operating Costs/Revenue Comparison

While actual revenues for either a pool-only or full-program facility will be affected by numerous factors which make projection difficult, a comparison of revenues and costs in the current period is possible. For the pool-only facility, estimated operating costs were shown to be $131,300. Revenues for such a facility, reflecting an aggressive marketing program, attractive design, and school use, are estimated to be $138,400 at the current fee structure and with adult use comprising 50 percent of total attendance. With increased group use of the facility this revenue total would be greater.

A full program facility, similar in scope to Wakefield Recreation Center, would have operating costs of approximately $500,000. Revenues will be a function of both increased market penetration and expansion. As the primary market is significantly restricted due to the location of competing alternative recreation facilities, thus preventing market expansion, it is questionable whether an attendance ratio of 4.5 can be generated locally. Such a ratio would be sufficient to generate a positive cash flow for the full-program facility. Lower attendance ratios would result in a negative cash flow. It is our conclusion that it is not likely that such a high attendance ratio (4.5) could be achieved from within the primary service area and therefore, a full-program facility would be unable to generate sufficient revenues to cover its operating costs if located on any of the proposed sites.

Facility Development Phasing

Over time, the wants and needs of the community around Mt. Vernon Community Park may change as demographic, social and economic conditions change. These changes may require an alteration of the Master Plan for the park and its facilities. A second phase of the design process could incorporate these kind of changes. The proposed recreation center, in fact, has been scheduled in two phases, the first of which includes the various components listed in the previous programmatic section of the report. The second phase would accommodate the needs and desires of the recreation center users and could include similar facilities as programmed for the 2nd phase of the Providence Recreation Center. These include a gymnasium, weight room, dance floor, club rooms, and other recreation facilities in demand by the community.

Fairfax County Park Authority

M E M O R A N D U M

To: Park Authority Members **Date:** 5-20-80

From: Ed Nenstiel

Subject: Mt. Vernon Community Park Preliminary Revised Master Plan

As part of our normal master planning process, we request input and comment from departments within the Park Authority, (History and Conservation), and from other County offices, (Recreation, Office of Comprehensive Planning and the Police).

While I have received a written response to my request from the History and Conservation Divisions of the Park Authority (see attached), I have not as yet received the same from the other County offices. I have, however, talked with representatives from these other offices and have received verbal concurrence with the preliminary revised master plan presented tonight. A written concurrence will follow and will be added to the report as an appendix as soon as it is received.

EWN/mlb

cc: Lederer

Fairfax County Park Authority

M E M O R A N D U M

To: ED NENSTIEL
DESIGN DIVISION

Date: 5/16/80

From: GARY ROISUM, DISTRICT NATURALIST
CONSERVATION DIVISION

Subject: MT. VERNON COMMUNITY PARK (TAX MAP 101-4-(1)-47A and 58)

By this memo, I am forwarding input on behalf of the Conservation Division to assist you on your efforts in re-masterplanning Mt. Vernon Community Park.

Seventy percent of the site (including Parcel 58) is forested in mixed pine and hardwood, with Tulip Poplar, Sweet Gum, Virginia Pine and several oak varieties being dominant species. The understory is rather dense, offering good cover for wildlife. Several species of Warblers and Sparrows in addition to Cardinals, Catbirds, and Robins were observed on the site May 15, 1980.

The drainage ditch located just west of the existing tennis courts fosters a small "marsh" community with Cattails.

The site (including Parcel 58) offers excellent opportunity for a delightful interpretive trail system and supportive outdoor classroom, despite obvious misuse (litter, campfires, etc.) from contiguous residential communities.

If it is in the best interests of the County to include a large-scale recreation center in the revised master plan, the inclusion of such a facility will have considerable impact on the quality of the passive recreational experience in the remainder of the site's natural area. However, should the facility be included in the revised master plan, the following is recommended:

1. Relocate the picnic area to the wooded area immediately adjacent to the recreation center in order to provide easy accessibility for maintenance and to reduce the incompatibility of picnicking with the interpretive trail.

2. Re-align the interpretive trail and outdoor classroom further north from the recreation center in such a way that the configuration takes the shape of a loop with the entrance/exit point located near the parking lot of the elementary school. Its recommended that a spur trail from the recreation center connect with the interpretive loop trail.

3. Install appropriate signage at access points to the trail system.

These recommendations are based on the assumption that the recreation center would be located in the most southern part of the park.

GR/ds

Analysis Conclusions

ANALYSIS CONCLUSIONS

This section presents the conclusions reached through the Site Analysis and the Cost Analysis and makes a recommendation for action.

The Site Analysis results indicate that through evaluation of the three possible sites according to the Site Evaluation Criteria, Site 3, the 9.3 acre site, is in a superior position relative to the other two sites. The Costing Analysis also indicated a favorable position for the Site 3 relative to the other sites. Therefore, the results indicate that the Site 3 is indeed the preferred and logical choice for the pool facility. Not only can a good site be acquired by the purchase of this property but the size of the park can be increased by about 50%. The park land will be protected from encroachment of housing developments, and the costs are substantially lower than any other present alternative even when including the cost of purchasing the new property. It is our recommendations, therefore, that the Park Authority acquire the 3 land parcels and that the pool facility be built there. The Citizens Committee also recommended, at a meeting in December of 1979, that this course of action for Site 3 be pursued.

Having selected the Site 3 for the pool facility, the two half acre lots between the 8.3 acre parcel and Mt. Zephyr Drive should be discussed. A western access road built through school property will cost $183,600 for the 1360 linear feet of roadway required to circle the holding pond and go up to the site. Having a more direct route to Mt. Zephyr Drive through the two lots would reduce the linear footage of required roadway by 440 feet at a savings of $59,400. This money could be used to purchase the two lots which currently have a combined market value of approximately $13,400. The most direct route for a western entry could then be provided at a savings to the county with minimal complications due to the use of the Walt Whitman School and/or County properties. Therefore, we recommend that a western access road should be built and that the two lots be acquired in addition to the 8.3 acre parcel in order to facilitate entry and access to the site.

One aspect of the purchase of this property which should be considered is the active development pressure exerted on available property for development. This pressure has increased the purchase costs of property steadily and an early purchase may be more advantageous than a delayed one.

The Master Plan

THE MASTER PLAN

The purpose of this section is to establish a set of considerations for the evolution of the physical form of the design. Following this section is the Master Plan which has been developed in response to the goals for the Master Plan listed in Section 1 and the listing of design considerations.

DESIGN CONSIDERATIONS

The design goal of this project is to create an atmosphere which will be warm, inviting and such that all of the separate elements of the design can work together as a whole effectively. Those aspects of the park which have been identified as strengths or site amenities should be preserved and enhanced in the design. This would necessitate an integration of facilities into the site in a manner which would be sensitive to the existing natural conditions.

The Pool Structure:

In keeping with the design goals, the plan for the building which will house the pool should be such that there will be minimal impact and interference with existing conditions, values, and character of the park. It would be desirable that alternative and innovative building designs be developed which can accommodate the recreation activities with a minimum of space required. As a part of this design, provisions should be made for year round use of the pool as an indoor outdoor facility; therefore, solar exposure will be important both for the swimmers and for use as a heat source in the building. One means of lessening overall impact on the site would be to work with the topography and build the courts into the side of the hill.

Points of Access:

In order to allow people onto the site with a minimum of inconvenience or imposition, there should be multi-directional points of access for both vehicular and pedestrian traffic. Vehicular traffic could enter from both Nalls Road on the southern border and from Mt. Zephyr Drive on the western border. Pedestrian traffic should have access to the park from all the public facilities and from the points where the park property meets the roadways.

Entry Area:

The entry area acts as an introduction to the site and gives the persons arriving the first sense of the identity of the place. The entry should be clearly defined and visibly distinct as an entry. It should be an open invitation for all to proceed into the site.

Approach:

The approach to the facility should be such that the person entering is led into the site by the spatial ordering of the landscape. Facility layout should be apparent either through direct visual contact or by signage.

On-Site Traffic Systems:

Through a separation of traffic systems for vehicles and pedestrians, the approach to the facility by automobile and the entry to the building on foot can be accomplished in an orderly and safe manner. The separation of systems would also allow for signage and lighting which would be appropriate for the different scales of travel.

Building Entry:

This design will to a large extent be dependent on the form and materials used in the construction of the structure. The design should, however, form an orderly transition from the outdoor spaces to the indoor spaces.

Drop-off Zone:

This area would be adjacent to the building entry. For people being brought to the pool by automobile, this area is the entry of the facility. The treatment accorded the building entry should be extended to include this area. Seating should be provided to accommodate those waiting to be picked up.

Service Entry:

A service entrance should be provided for delivery and maintenance vehicles in an area which will be unobtrusive.

Signage and Lighting:

Different lighting and signage fixtures should be used for both pedestrian and vehicular circulation systems. Wherever possible, the fixtures chosen should encourage pedestrian circulation on the site.

Vegetation:

Plant materials used should be native to the Mt. Vernon area and should be used to effectively blend the facility into its surrounding. In areas where special attention is needed, additional materials may be used for special effect or interest. As a general policy the existing mature healthy vegetation should be retained. Some selective cutting and replacing may be done where vegetation is overcrowded, misshapen, diseased, or in situations where conflict with proposed construction is unavoidable.

Trails:

The trail system is the connector for the pool facility to the rest of the properties and facilities in the immediate neighborhood of the park. While created primarily for circulation, the trails through the woods can be enhanced with signage identifying wildlife and vegetation. The trails would then be an interpretive tool in studying the biological community. They should be approximately eight feet wide and either asphalt or gravel covered. The specific course for the trails would be determined in the field.

Buffer:

A minimum of fifty feet should separate any part of the site which borders on residential property from the area where the facility will be constructed. This buffer would serve to lessen the impact of the parking and the building through vegetative screening. No built features would intrude into the buffer zone. Where little or no vegetative cover presently exists, plantings would be introduced.

Special Features:

In response to the proximity of the schools to the site, an outdoor classroom could be placed on the northern slope in the wooded area. The classroom would consist of treated rough-cut timbers placed in a semi-circular arrangement. The flooring would be wood chips or a similar durable material. It could also be used for scouting, club meetings, and community groups.

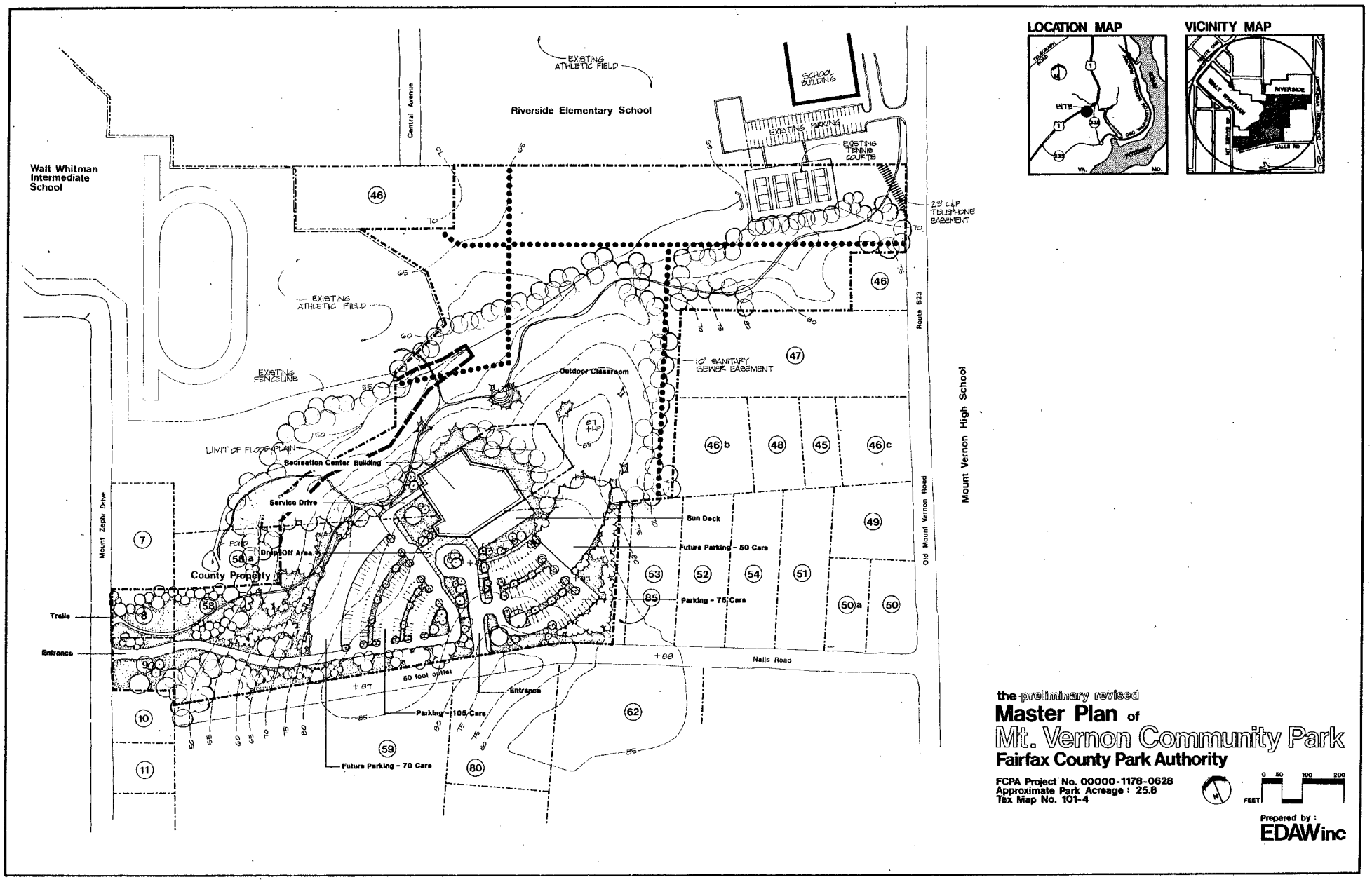

LOCATION MAP
VICINITY MAP
Riverside Elementary School
Walt Whitman Intermediate School
Mount Vernon High School
Central Avenue
Route 623
Old Mount Vernon Road
Mount Zephr Drive
Nalls Road
EXISTING ATHLETIC FIELD
SCHOOL BUILDING
EXISTING PARKING
EXISTING TENNIS COURTS
2.5' C&P TELEPHONE EASEMENT
10' SANITARY SEWER EASEMENT
EXISTING FENCELINE
LIMIT OF FLOOD PLAIN
Outdoor Classroom
Recreation Center Building
Service Drive
Drop-Off Area
Sun Deck
Future Parking - 50 Cars
Parking - 75 Cars
Parking - 105 Cars
Future Parking - 70 Cars
50 foot outlet
Entrance
Trails
Entrance
County Property
the preliminary revised
Master Plan of
Mt. Vernon Community Park
Fairfax County Park Authority
FCPA Project No. 00000-1178-0628
Approximate Park Acreage : 25.8
Tax Map No. 101-4
Prepared by :
EDAWinc

figure 10

PRELIMINARY REVISED MASTER PLAN

The Revised Master Plan for Mt. Vernon Community Park is shown in Figure 10. The Plan shows recommended locations for the recreation center building, parking, entrance roads, walkways, trails, and an outdoor classroom. The Plan also shows expansion capabilities for both the building and parking lot to allow for potential implementation of Phase II of the Master Plan. A 180 space parking facility is provided for the first phase of development.

The recreation center is sited to minimize disruption of existing site conditions. Access roads are as short as possible to minimize costs while providing adequate access from points east and west of the site. The center is oriented to the south to allow for the greatest degree of solar exposure during all seasons, especially during the winter when days are short and the solar angle low. The entrance to the center is well defined by the road layout with a drop-off area provided in front of the building entrance lobby. Appropriate signage will further identify entrances, parking, and facility functions. The existing vegetation on the site is retained as much as possible while allowing for all the proposed program elements. New trees and shrubs can be planted in the 50 foot buffer zone surrounding the facility to help screen it from nearby residences in the surrounding neighborhood. A trail system meandering through the park links up with trails leading to the two schools on either side of the park. The trail system, therefore, will provide access to the facility for school children and residents in the immediate neighborhood of the park.